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Air Circuit Breakers and Molded Case Circuit Breakers with UL Certification

Catalog
LV 18

Edition
04/2019

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Air Circuit Breakers and Molded Case Circuit Breakers with UL Certification

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Preface

1 Air Circuit Breakers

2 Molded Case Circuit Breakers

3 Appendix



Catalog LV 18 · 04/2019

You can find the updated catalog valid from October 2019 in the Siemens Industry Online Support under:
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Supersedes:
Catalog LV 18 · 10/2018

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I201_19185



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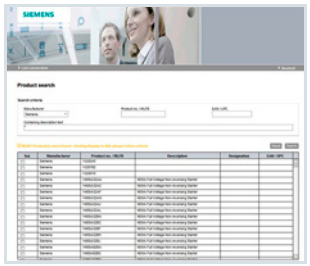


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SENTRON Protection, Switching, Measuring and Monitoring Devices

LV-CBMAIN
Maintenance and operation of SENTRON 3WL circuit breakers: 3 days

LV-CBPROJ
Basic principles of configuring and selecting SENTRON circuit breakers: 2 days

→

LV-CBSW
Circuit breaker communication with powerconfig: 1 day

Energy management

LV-EMSENTB
Energy management (Basic): 2 days

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Notes

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3WL5 air circuit breakers/ non-automatic air circuit breakers

1/2 Introduction
1/7 General data

Up to 5000 A (AC), acc. to UL 489/IEC 60947-2
1/14 3-pole, fixed-mounted versions
1/15 3-pole, withdrawable versions
1/16 4-pole, fixed-mounted versions
1/17 4-pole, withdrawable versions

Up to 3200 A (DC) acc. to UL 489B/IEC 60947-2
1/18 Fixed-mounted versions

1/19 Options
1/26 Accessories and spare parts
1/42 Configuration aids for 3WL5 air circuit breakers/non-automatic air circuit breakers up to 5000 A (AC)

LV 10 Chap. 8 **3KC ATC6300 and ATC3100 transfer control devices**

For further technical product information:

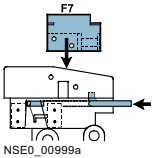
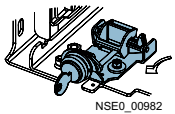
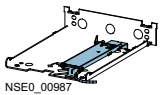
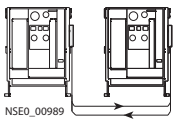
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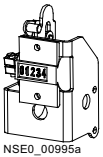
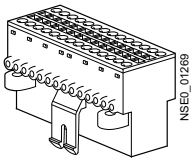
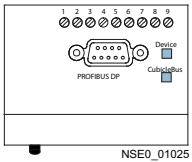
1

Overview

Devices		Page 3WL5	Application/ individual components	Standards	Used in Non-residential buildings	Residential buildings	Industry
	**3WL5 air circuit breakers up to 5000 A (AC), UL 489/IEC 60947-2**	1/14 ... 1/17	As incoming-feeder, distribution, tie, and outgoing-feeder circuit breakers in electrical installations. For switching and protecting motors, capacitors, generators, transformers, busbars and cables.	UL 489, UL 489B, IEC 60947-2 IEC 60947-2 Appendix F/CISPR 11/22 Class B DIN VDE 0660 Part 101 climate-proof acc. to IEC 60068-2-30 CCC	✓	--	✓
	**3WL5 air circuit breakers up to 3200 A (DC), UL 489B/IEC 60947-2**	1/18	As incoming-feeder, distribution, tie, and outgoing-feeder circuit breakers in electrical installations. For switching and protecting busbars and cables.	UL 489, UL 489B, IEC 60947-2 IEC 60947-2 Appendix F/CISPR 11/22 Class B DIN VDE 0660 Part 101 climate-proof acc. to IEC 60068-2-30 CCC	✓	--	✓
	Protective device with device holder and optional metering function (ETU)	1/29	Electronic Trip Units with protection functions LI, LSI, LSING, LSIN(G) with and without metering function *Plus*	As for circuit breakers	✓	--	✓
 NSE0_00992b	**Rating plugs**	1/29	For rated current I_n from 250 A to 6300 A. The maximum rated current of the circuit breaker must not be exceeded.	As for circuit breakers	✓	--	✓
 NSE0_01027a	**Ground-fault modules**	1/29	With alarm and tripping	As for circuit breakers	✓	--	✓
 NSE0_01609	**Display**	1/29	4-line displays for ETU45B	As for circuit breakers	✓	--	✓
 NSE0_00990a	**Current transformers for N conductor protection**	1/29	External transformers for N conductor	As for circuit breakers	✓	--	✓
	EMC filters	1/29	Common-mode interference suppressor filters	As for circuit breakers	✓	--	✓
 NSE0_00999a	**More accessories for Electronic Trip Units**	1/30	Sealable and lockable covers, automatic reset of the reclosing lockout, remote reset solenoid, retrofittable internal **Cubicle**BUS wiring, retrofittable internal wiring for connection of the external N and G transformers	As for circuit breakers	✓	--	✓
 NSE0_00982	**Locking devices**	1/30	Interlocking set for mechanical ON/OFF, locking devices against unauthorized closing in operator panels/for withdrawable circuit breakers, locking devices for operating mechanism handle with padlock, locking devices to prevent movement of the withdrawable circuit breakers, interlocking systems	As for circuit breakers	✓	--	✓
 NSE0_00987	**Locking mechanisms**	1/31	To prevent movement of the withdrawable circuit breakers into disconnected position, to prevent opening of the cabinet door in ON position, to prevent opening of the cabinet door, to prevent movement with the cabinet door open	As for circuit breakers	✓	--	✓
 NSE0_00989	**Interlocks**	1/32	Mechanical interlocking, couplings on the circuit breaker (with ring) for mutual interlocking, Bowden cable	As for circuit breakers	✓	--	✓

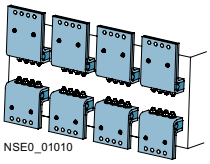
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Devices		Page 3WL5	Application/ individual components	Standards	Used in		
					Non-residential buildings	Residential buildings	Industry
 	**3KC ATC6300 and ATC3100 transfer control devices**	Chap. 8 in LV 10	The 3KC ATC6300 and ATC3100 transfer control devices, equipped with two circuit breakers with motorized operating mechanism, serve as a transfer system that automatically or manually switches between two power supply systems in low-voltage power distribution applications.	IEC 60947-6-1 DIN VDE 0660-114 UL 508 CSA 22.2 No. 14	✓	✓	✓
	Test devices	1/32	Manual testers Release 2 for Electronic Trip Units, function testers	As for circuit breakers	✓	--	✓
	Capacitor storage devices	1/32	For shunt releases	As for circuit breakers	✓	--	✓
 NSE0_00995a	**Indicators, control elements**	1/33	Ready-to-close signaling switches, signaling switches, tripped signaling switches, operating cycles counters, stored energy status signaling switches, position signaling switches for guide frames, electric ON buttons, motor shutdown switches, EMERGENCY-STOP buttons	As for circuit breakers	✓	--	✓
 NSE0_01269	**Auxiliary conductor terminals**	1/34	Male connectors for circuit breakers, extension for 1000 V male connector versions, male connectors and extension for 1000 V, auxiliary supply connectors for circuit breakers or guide frames, coding kits, sliding contacts for guide frames, blanking blocks for circuit breakers	As for circuit breakers	✓	--	✓
	Auxiliary releases	1/35	Closing coils/shunt releases, undervoltage releases	As for circuit breakers	✓	--	✓
	Operating mechanisms	1/35	Motorized operating mechanism	As for circuit breakers	✓	--	✓
	Auxiliary contacts	1/35	Auxiliary switch blocks	As for circuit breakers	✓	--	✓
	Door sealing frames, hoods, shutters	1/36	Door sealing frames, IP55 protective covers, shutters	As for circuit breakers	✓	--	✓
	Coding for withdrawable version	1/36	By customer, for 36 coding variants	As for circuit breakers	✓	--	✓
	Support brackets	1/37	For mounting fixed-mounted circuit breakers on vertical plane	As for circuit breakers	✓	--	✓
	CubicleBUS modules	1/37	Digital and analog input and output modules, Zone Selective Interlocking modules	As for circuit breakers	✓	--	✓
	Parameterization systems	1/37	Breaker Data Adapter (BDA), BDA *Plus*, connection cables for BDA *Plus*, powerconfig commissioning and service software	As for circuit breakers	✓	--	✓
	Accessories for communications	1/38	Factory-fitted cables for CubicleBUS modules, SENTRON manuals for communication solutions, voltage transformers	As for circuit breakers	✓	--	✓
 NSE0_01025	**Retrofitting and spare parts**	1/38	PROFIBUS retrofit kits, COM15 PROFIBUS modules, COM16 MODBUS modules, MODBUS IEC retrofit kits, Breaker Status Sensor (BSS), metering function *Plus*	As for circuit breakers	✓	--	✓

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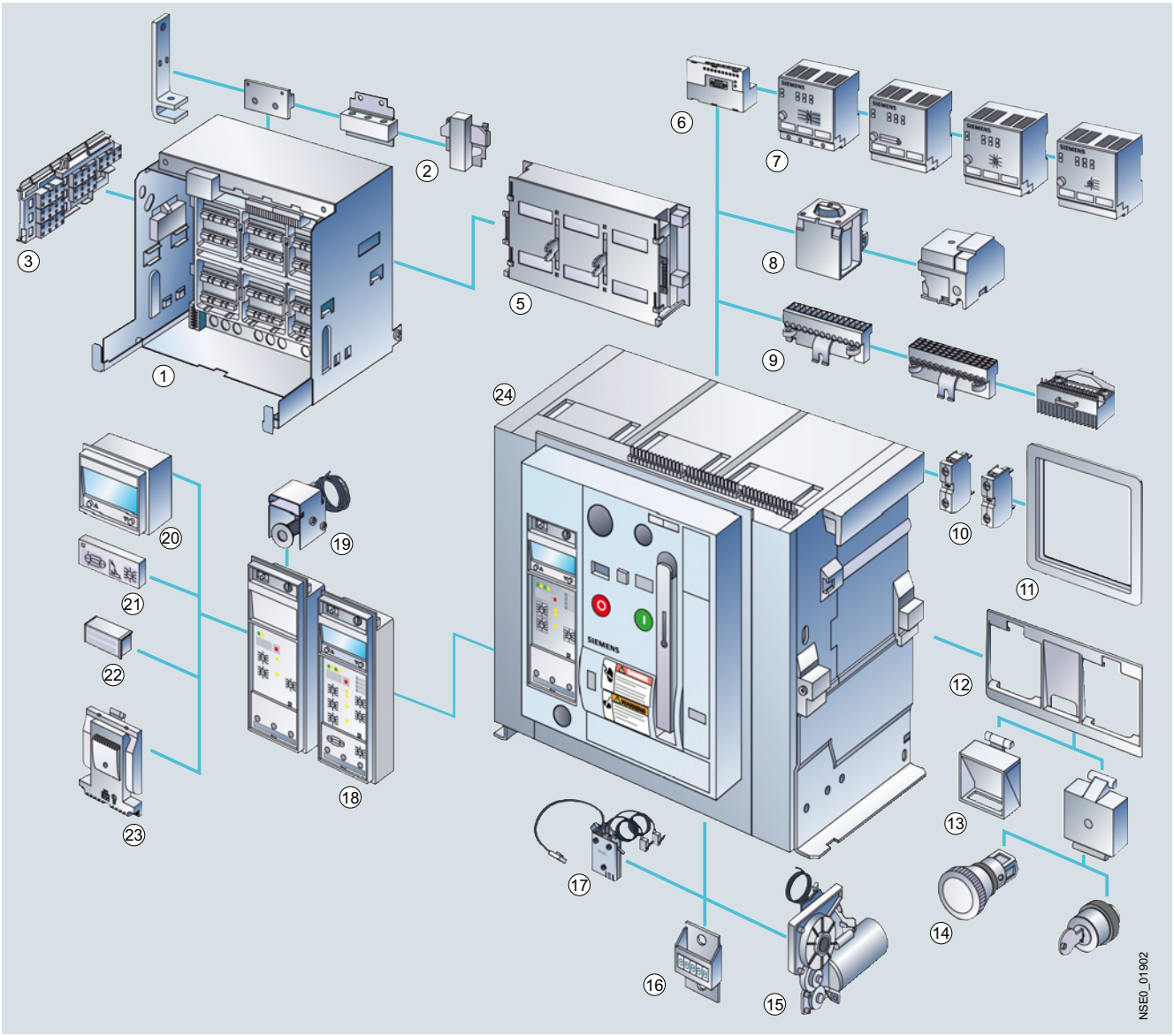
Introduction

Devices		Page 3WL5	Application/ individual components	Standards	Used in Non-residential buildings	Residential buildings	Industry
 NSE0_01010	**Main conductor connections, fixed-mounted, main conductor connections, withdrawable**	1/39, 1/40	Front-accessible main connections with double or single hole, rear vertical main connections, rear horizontal main connections, circuit connecting flanges, supports for front and DIN connecting bars	As for circuit breakers	✓	--	✓
	Conversion sets	1/40	Conversion set for converting fixed-mounted circuit breakers into withdrawable circuit breakers	As for circuit breakers	✓	--	✓

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3WL5:
Superior individual products integrated into uniform power distribution systems – up to and including industry-specific industrial and infrastructure solutions

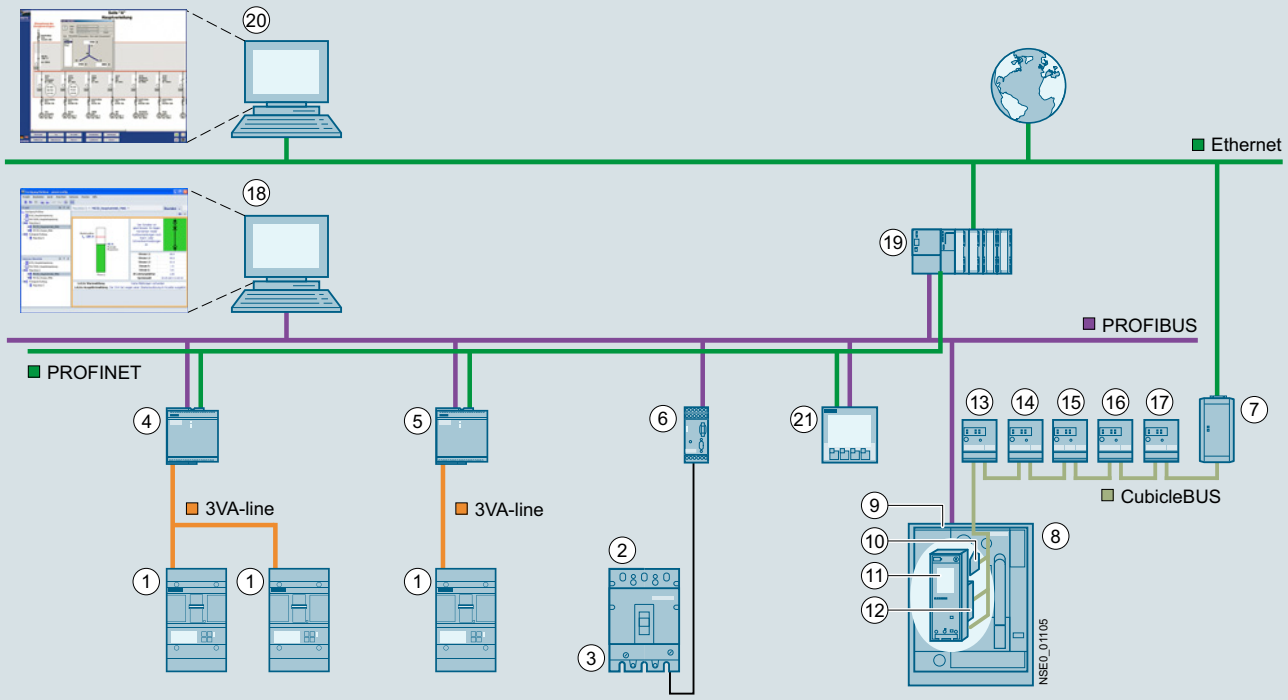


① Guide frame, see page 1/27
② Main circuit connection front, flange, horizontal, vertical, see page 1/14 and page 1/39
③ Position signaling switch, see page 1/21 and page 1/33
⑤ Shutters, see page 1/21
⑥ COM15 PROFIBUS module or COM16 MODBUS module, see page 1/38
⑦ External **Cubicle**BUS modules, see page 1/37
⑧ Closing coil, auxiliary release, see page 1/19
⑨ Auxiliary conductor plug-in system, see page 1/34
⑩ Auxiliary switch block, see page 1/19
⑪ Door sealing frame, see page 1/20
⑫ Interlocking set for mechanical ON/OFF, see page 1/30
⑬ Transparent panel, function insert, see page 1/30
⑭ EMERGENCY-STOP pushbutton, key operated, see page 1/33
⑮ Motorized operating mechanism, see page 1/21
⑯ Operating cycles counter, see page 1/20
⑰ Breaker Status Sensor (BSS), see page 1/22
⑱ Protective device with device holder, Electronic Trip Unit (ETU), see page 1/29
⑲ Remote reset solenoid, see page 1/20
㉑ Four-line display, see page 1/29
㉒ Ground-fault protection module, see page 1/29
㉓ Rating plug, see page 1/20
㉔ Metering function module, see page 1/22
㉕ Air circuit breaker, see page 1/14 to page 1/18

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Introduction

Communication-capable circuit breakers (with ETU45B Electronic Trip Unit)



1 3VA molded case circuit breakers
2 3VL molded case circuit breaker
3 Electronic Trip Unit ETU / LCD ETU
4 COM800 breaker data server
5 COM100 breaker data server
6 COM20 Release 2 PROFIBUS module including Zone Selective Interlocking
7 BDA *Plus* with Ethernet interface
8 3WL air circuit breaker
9 COM15 PROFIBUS module
10 Breaker Status Sensor (BSS)
11 Electronic Trip Unit (ETU)
12 Metering function *Plus*
13 Zone Selective Interlocking module
14 Digital output module with relay contacts
15 Digital output module with relay contacts, configurable
16 Analog output module
17 Digital input module
18 Powerconfig commissioning and service software V2.3 and higher
19 PLC, e.g. SIMATIC S7
20 E.g. SIMATIC powerrate
21 7KM PAC measuring devices

Characteristics

- Coordinated communication concept using the PROFIBUS DP or MODBUS, ranging from 16 A to 5000 A with 3VL molded case circuit breakers and 3WL5 air circuit breakers
- The high level of modularity of circuit breakers and accessories allows easy retrofitting of all communication components
- Significant additional benefits for the switchboard due to the possibility of linking up external input and output modules to the circuit breaker-internal **Cubicle**BUS of the 3WL5 air circuit breaker
- Innovative software products for parameterization, operation, monitoring, and diagnostics of circuit breakers, both locally or via PROFIBUS DP, MODBUS or Ethernet/Intranet/Internet
- Complete integration of the circuit breakers into the Totally Integrated Power and Totally Integrated Automation solutions

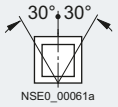
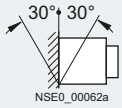
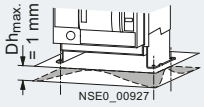
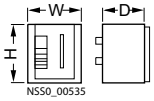
Communication:

- Air circuit breakers with optional metering function (ETU45B Electronic Trip Units), see page 1/29.
- Accessories, see page 1/37 to page 1/38.
- More information, see LV 10, chapter "Measuring Devices and Power Monitoring".

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Technical specifications

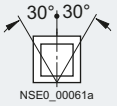
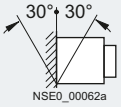
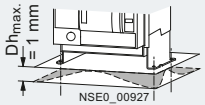
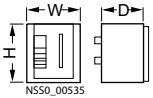
Size			I		II
Type			**3WL5110**	**3WL5116**	**3WL5220**
Number of poles			3-pole, 4-pole		
Rated current I_n at 50/60 Hz Main conductor	At 40 °C	A	Up to 1000	1600	2000
	At 55 °C	A	1000	1600	2000
	At 60 °C	A	1000	1600	2000
Rated voltage U_e at 50/60 Hz		V AC	600 Y/347	600 Y/347	600
Rated ultimate short-circuit breaking capacity at 500 V AC		kA	65 (480 V)		100 (480 V)
Ambient temperature of the system		°C	–25/+40	–25/+40	–25/+40
Power loss at rated current With 3-phase symmetrical load					
• Fixed-mounted circuit breakers		W	100	150	180
• Withdrawable circuit breakers		W	195	350	320
Switching times					
• Make time		ms	35	35	35
• Opening time		ms	38	38	34
• Electrical make time (through activation solenoid)[1]		ms	80	80	100
• Electrical opening time (through shunt release)		ms	73	73	73
• Electrical opening time (instantaneous undervoltage release)		ms	73	73	73
• Opening time due to ETU, instantaneous short-circuit release		ms	50	50	50
Service life					
• Mechanical (without maintenance)	Operating cycles		10000	10000	10000
• Electrical (without maintenance)	Operating cycles		4000	4000	4000
Switching frequency		1/h	60	60	60
Minimum interval between tripping operation by Electronic Trip Unit and next making operation of the circuit breaker (only with automatic mechanical resetting of the lockout device).		ms	80	80	80
Minimum dimensions of circuit breaker compartment					
Width × Height × Depth	3-pole	mm	400 × 460 × 380	400 × 460 × 380	500 × 460 × 380
	4-pole	mm	500 × 460 × 380	500 × 460 × 380	600 × 460 × 380
Degree of protection					
• With cover			IP55		
• Without cover (with door sealing frame)			IP41		
Mounting position			 NSE0_00061a and/or  NSE0_00062a		 NSE0_00927
Main conductor minimum cross-sections		Unit(s) mm^2 inches	2 6.4 × 76.2 1/4 × 3	2 6.4 × 76.2 1/4 × 3	2 6.4 × 102 1/4 × 4
Auxiliary conductors (Cu)	Standard connection = strain-relief clamp				
Max. number Auxiliary conductors × cross-section (solid/stranded)	• Without end sleeve • With end sleeve acc. to DIN 46228 Part 2[2] • With twin end sleeve		2 × 0.5 mm^2 (AWG 20) ... 2 × 1.5 mm^2 (AWG 16); 1 × 2.5 mm^2 (AWG 14) 1 × 0.5 mm^2 (AWG 20) ... 1 × 1.5 mm^2 (AWG 16) 2 × 0.5 mm^2 (AWG 20) ... 2 × 1.5 mm^2 (AWG 16)		
	Optional connection = tension spring • Without end sleeve • With end sleeve acc. to DIN 46228 Part 2		2 × 0.5 mm^2 (AWG 20) ... 2 × 2.5 mm^2 (AWG 14) 2 × 0.5 mm^2 (AWG 20) ... 2 × 1.5 mm^2 (AWG 16)		
Weights					
3-pole	• Fixed-mounted circuit breakers	kg	43	43	56
	• Withdrawable circuit breakers	kg	45	45	60
	• Guide frames	kg	25	25	31
4-pole	• Fixed-mounted circuit breakers	kg	50	50	67
	• Withdrawable circuit breakers	kg	54	54	72
	• Guide frames	kg	30	30	37
Dimensions 3/4-pole					
 NSS0_00535		W mm	320/410		460/590
	Fixed-mounted	H mm	434		434
		D mm	291		291
	Withdrawable	H mm	465.5		465.5
		D mm	471		471

[1] Make time through activation solenoid for synchronization purposes (short-time excited): 50 ms.

[2] Notice: Approval of end sleeves.

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General data

Size			II			III	
Type			**3WL5225**	**3WL5230**	**3WL5232**	**3WL5340**	**3WL5350**
Number of poles			3-pole, 4-pole				
Rated current I_n at 50/60 Hz Main conductor	At 40 °C	A	2500	3000	3200	4000	5000
	At 55 °C	A	2500	3000	3200	4000	5000
	At 60 °C	A	2500	3000	3200	4000	5000
Rated voltage U_e at 50/60 Hz		V AC	600	600	600	Up to 600 Y/347	Up to 600 Y/347
Rated ultimate short-circuit breaking capacity at 500 V AC		kA	100 (480 V)			100 (480 V)	
Ambient temperature of the system		°C	–25/+40	–25/+40	–25/+40	–25/+40	–25/+40
Power loss at rated current With 3-phase symmetrical load							
• Fixed-mounted circuit breakers		W	270	410	410	520	630
• Withdrawable circuit breakers		W	520	710	710	810	1050
Switching times							
• Make time		ms	35	35	35	35	35
• Opening time		ms	34	34	34	34	34
• Electrical make time (through activation solenoid)[1]		ms	100	100	100	100	100
• Electrical opening time (through shunt release)		ms	73	73	73	73	73
• Electrical opening time (instantaneous undervoltage release)		ms	73	73	73	73	73
• Opening time due to ETU, instantaneous short-circuit release		ms	50	50	50	50	50
Service life							
• Mechanical (without maintenance)	Operating cycles		10000	10000	10000	10000	10000
• Electrical (without maintenance)	Operating cycles		4000	4000	4000	1000	1000
Switching frequency		1/h	60	60	60	60	60
Minimum interval between tripping operation by Electronic Trip Unit and next making operation of the circuit breaker (only with automatic mechanical resetting of the lockout device).		ms	80	80	80	80	80
Minimum dimensions Circuit breaker compartment Width × Height × Depth	3-pole without A17	mm	500 × 460 × 380	500 × 460 × 380	500 × 460 × 380	800 × 460 × 380	800 × 460 × 380
	3-pole with A17	mm	560 × 570 × 500	--	560 × 570 × 500	810 × 570 × 500	--
	4-pole	mm	600 × 460 × 380	--	560 × 570 × 500	1000 × 460 × 380	1000 × 460 × 380
Degree of protection							
• With cover			IP55				
• Without cover (with door sealing frame)			IP41				
Mounting position			 and/or 				
Main conductor minimum cross-sections		Unit(s)	2 or 4	4	4	4	4
		mm^2	6.4 × 127 6.4 × 63.5	6.4 × 102	6.4 × 102	10 × 120	10 × 120
		inches	1/4 × 5 1/4 × 2-1/2	1/4 × 4	1/4 × 4	1/4 × 5[2]	1/4 × 5[2]
Auxiliary conductors (Cu) Max. number of auxiliary conductors × cross-section (solid/stranded)	Standard connection = strain-relief clamp						
	• Without end sleeve		$2 \times 0.5\ mm^2$ (AWG 20) ... $2 \times 1.5\ mm^2$ (AWG 16); $1 \times 2.5\ mm^2$ (AWG 14)				
	• With end sleeve acc. to DIN 46228 Part 2		$1 \times 0.5\ mm^2$ (AWG 20) ... $1 \times 1.5\ mm^2$ (AWG 16)				
	• With twin end sleeve		$2 \times 0.5\ mm^2$ (AWG 20) ... $2 \times 1.5\ mm^2$ (AWG 16)				
	Optional connection = tension spring						
	• Without end sleeve		$2 \times 0.5\ mm^2$ (AWG 20) ... $2 \times 2.5\ mm^2$ (AWG 14)				
	• With end sleeve acc. to DIN 46228 Part 2		$2 \times 0.5\ mm^2$ (AWG 20) ... $2 \times 1.5\ mm^2$ (AWG 16)				
Weights							
3-pole	• Fixed-mounted circuit breakers	kg	59	64	64	82	82
	• Withdrawable circuit breakers	kg	63	68	--	88	88
	• Guide frames	kg	39	45	--	60	60
4-pole	• Fixed-mounted circuit breakers	kg	71	77	77	99	99
	• Withdrawable circuit breakers	kg	76	82	--	106	106
	• Guide frames	kg	47	54	--	84	84
Dimensions 3/4-pole							
		W mm	460/590			704/914	
	Fixed-mounted	H mm	434			434	
		D mm	291			291	
	Withdrawable	H mm	465.5			465.5	
		D mm	471			471	

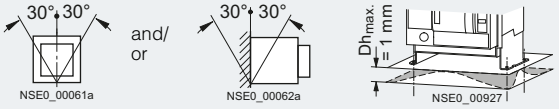
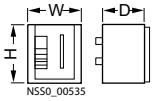
[1] Make time through activation solenoid for synchronization purposes (short-time excited) 50 ms.

[2] 1/4 × 5 for fixed-mounted circuit breakers on request.

Minimum order quantity (PS) or a multiple thereof can be ordered.

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1

Size				**I**	**II**
Type				**3WL5120-8AA...**	**3WL5232-8AA...**
No. of poles				4-pole	3-pole
Rated current I_n at DC acc. to IEC 60947-2 Main conductor	At 40 °C At 55 °C At 60 °C		A A A	2000 2000 2000	3200 3200 3200
Rated current I_n at DC acc. to UL 489B Main conductor	At 40 °C At 55 °C At 60 °C		A A A	1600 1600 1600	3200 3200 3200
Rated voltage U_e			V DC	1000	690
Rated conditional short-circuit current I_{cc} of the non-automatic air circuit breakers			kA at 690 V	20	25
			kA at 1000 V	20	--
Ambient temperature of the system			°C	–25/+40	–25/+40
Power loss at rated current With 3-phase symmetrical load • Fixed-mounted circuit breakers • Withdrawable circuit breakers			 W W	 100 --	 410 --
Switching times • Make time • Opening time • Electrical make time (through activation solenoid)[1] • Electrical opening time (through shunt release) • Electrical opening time (instantaneous undervoltage release) • Opening time due to ETU, instantaneous short-circuit release			 ms ms ms ms ms ms	 35 38 80 73 73 50	 35 34 100 73 73 50
Service life • Mechanical (without maintenance) • Electrical (without maintenance)		Operating cycles Operating cycles		10000 1000	10000 1000
Switching frequency			1/h	60	60
Minimum interval between tripping operation by Electronic Trip Unit and next making operation of the circuit breaker (only with automatic mechanical resetting of the lockout device).			ms	80	80
Minimum dimensions Circuit breaker compartment Width × Height × Depth			 mm	 560 × 570 × 500	 560 × 570 × 500
Degree of protection • With cover • Without cover (with door sealing frame)				 IP55 IP41	
Mounting position					
Main conductor minimum cross-sections			Unit(s) mm² inches	2 6.4 × 76.2 1/4 × 3	4 6.4 × 102 1/4 × 4
Auxiliary conductors (Cu) Max. number of auxiliary conductors × cross-section (solid/stranded)	Standard connection = strain-relief clamp • Without end sleeve • With end sleeve acc. to DIN 46228 Part 2 • With twin end sleeve Optional connection = tension spring • Without end sleeve • With end sleeve acc. to DIN 46228 Part 2			 2 × 0.5 mm² (AWG 20) ... 2 × 1.5 mm² (AWG 16); 1 × 2.5 mm² (AWG 14) 1 × 0.5 mm² (AWG 20) ... 1 × 1.5 mm² (AWG 16) 2 × 0.5 mm² (AWG 20) ... 2 × 1.5 mm² (AWG 16) 2 × 0.5 mm² (AWG 20) ... 2 × 2.5 mm² (AWG 14) 2 × 0.5 mm² (AWG 20) ... 2 × 1.5 mm² (AWG 16)	
Weights 3-pole	• Fixed-mounted circuit breakers		kg	50	64
Dimensions 3/4-pole 			W mm	320/410	460/590
	Fixed-mounted		H mm	434	434
			D mm	291	291
	Withdrawable		H mm	465.5	465.5
			D mm	471	471

[1] Make time through activation solenoid for synchronization purposes (short-time excited) 50 ms.

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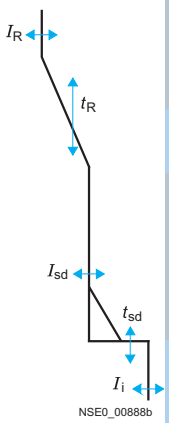
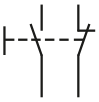
General data

Size		I	II	III
Type		**3WL51**	**3WL52**	**3WL53**
Breaking capacity class		**S** (S)	**H** (H)	**H** (H)
Short-circuit breaking capacity $I_{cu} = I_{cs}$ acc. to UL 489				
Up to 480 V AC	kA	65	100	100
Up to 600 V AC Y/347 V	kA	50	85[1)]	85
Up to 600 V AC	kA	--	85	--
Rated short-time withstand current acc. to UL 489				
At max. delay time t_{sd} = 0.4 s	kA	65	85	85
Short-circuit breaking capacity $I_{cu} = I_{cs}$ acc. to IEC 60947-2				
Up to 500 V AC	kA	65	100	100
I_{cm} at 500 V AC	kA	143	220	220
Up to 690 V AC	kA	50	85	85
I_{cm} at 690 V AC	kA	105	187	187
Rated short-time withstand current I_{cw} acc. to IEC 60947-2				
0.5 s	kA	65	85	85
1 s	kA	50	80	80

1) 600 V AC (delta) covered by test.

(S)	Circuit breakers with standard breaking capacity S ($I_{cu} = I_{cs}$ up to 65 kA at 480 V)
(H)	Circuit breakers with high switching capacity H ($I_{cu} = I_{cs}$ up to 100 kA at 480 V)
	These circuit breakers are shown in the technical specifications on orange backgrounds.

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Protection functions Parameterization by			ETU25B D	ETU45B D & S
Function overview of the electronic trip system				
 NSE0_00888b	L	**Overload protection**	✓	✓
		Setting range $I_R = I_n \times$ ...	0.4-0.45-0.5-0.55-0.6-0.65-0.7-0.8-0.9-1	0.4-0.45-0.5-0.55-0.6-0.65-0.7-0.8-0.9-1
		Switchable overload protection (I^2t- or I^4t-dependent function)	--	✓
		Setting range for time-lag class t_R at I^2t	10 s fixed	2-3-5-5.5-8-10-14-17-21-25-30 s
		Setting range for time-lag class t_R at I^4t	--	1-2-3-4-5 s
		Thermal image can be switched on/off	--	✓
		Phase failure sensitivity	At t_{sd} = 20 ms (M)	At t_{sd} = 20 ms (M)
	N	**N conductor protection**	--	✓
		Function can be switched on/off	--	✓
		N conductor setting range $I_N = I_n \times$ ...	--	0.5 ... 1
	S	**Short-time delayed short-circuit protection**	✓	✓
		Function can be switched on/off	--	✓
		Setting range $I_{sd} = I_n \times$ ...	1.25-1.5-2-2.5-3-4-6-8-10-12	1.25-1.5-2-2.5-3-4-6-8-10-12
		Setting range of delay time t_{sd}	0-M-100-200-300-400 ms	M-100-200-300-400 ms
		Switchable short-time delayed short-circuit protection (I^2t-dependent function)	--	✓
		Setting range of delay time t_{sd} at I^2t	--	100-200-300-400 ms
		ZSI function	--	By **Cubicle**BUS module
	I	**Instantaneous short-circuit protection**	✓	✓
		Function can be switched on/off	--	✓
		Setting range $I_i = I_n \times$ ...	Fixed for $I_i \geq 20 \times I_n$, max. 50 kA	1.5-2.2-3-4-6-8-10-12-0.8 × I_{cs}
	G	**Ground-fault protection**	--	❑ Module can be retrofitted
		Tripping and alarm functions	--	✓
		Tripping function can be switched on/off	--	✓
		Detection of ground-fault current through summation current formation with internal or external N conductor transformer	--	✓
		Detection of the ground-fault current via external transformer	--	✓
		Setting range of the operating current I_g for tripping	--	A-B-C-D-E
		Setting range of the operating current I_g for alarm	--	A-B-C-D-E
		Setting range of the delay time t_g	--	100-200-300-400-500 ms
		Switchable ground-fault characteristic (I^2t-dependent function)	--	✓
		Setting range of delay time t_g at I^2t	--	100-200-300-400-500 ms
		ZSI-G function	--	By **Cubicle**BUS module
LCD				
		Alphanumeric LCD (4-line)	--	❑
Communication				
		CubicleBUS integrated	--	✓
		Communications capability via PROFIBUS DP	--	✓
		Communications capability via MODBUS	--	✓
Metering function				
		Metering function *Plus*	--	❑
LED display				
		Electronic Trip Unit active	✓	✓
		Alarm	✓	✓
		ETU fault	✓	✓
 NSE0_00890		L tripping operation	✓	✓
		S tripping operation	✓	✓
		I tripping operation	✓	✓
		N tripping operation	--	✓
		G tripping operation	--	✓ (only with ground-fault protection module)
		G alarm	--	✓ (only with ground-fault protection module)
		Tripping operation as a result of extended protection function	--	✓
		Communication	--	✓
Signals from signaling switches with external CubicleBUS **modules (relays)**				
 NSE0_00891		Overload warning	--	✓
		Load shedding, load absorbing	--	✓
		Leading signal overload trip 200 ms	--	✓
		Temperature alarm	--	✓
		Phase unbalance	--	✓
		Instantaneous short-circuit trip	--	✓
		Short-time delayed short-circuit trip	--	✓
		Overload trip	--	✓
		Neutral conductor trip	--	✓
		Ground-fault protection trip	--	✓ (only with ground-fault protection module)
		Ground-fault alarm	--	✓ (only with ground-fault protection module)
		Auxiliary relay	--	✓
		ETU fault	--	✓

Delay time figures given in ms.
M = Motor protection, corresponds to 20 ms.
D = Rotary coding switch
D & S = Rotary coding and slide switch
✓ Available.
-- Not available.
❑ optional.

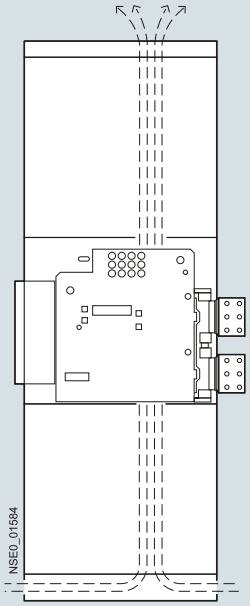
Setting range of the operating current I_g		
	Size I and size II	Size III
A	100 A	400 A
B	300 A	600 A
C	600 A	800 A
D	900 A	1000 A
E	1200 A	1200 A

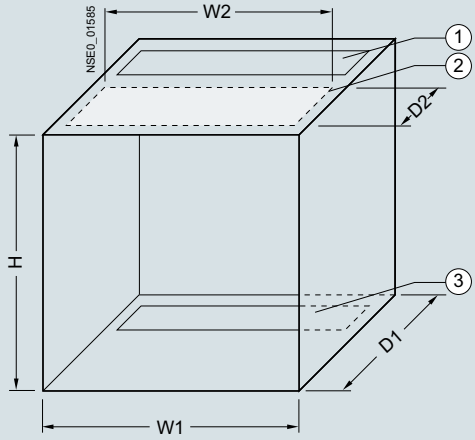
Minimum order quantity (PS) or a multiple thereof can be ordered.

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General data

Installation conditions for UL circuit breakers





(1) Ventilation opening on top
(2) Insulating plate, e.g. NEMA GPO-3 material, min. 2.3 mm thick
(3) Ventilation opening on bottom

Size	$I_{n\,max}$	Minimum dimensions of the installation space			Dimensions of the insulating plate		Ventilation
		Width W1 3/4-pole	Height H	Depth D1	Width W2 3/4-pole	Depth D2	
	A						
I	800, 1000	400/500	460[1)]	380	350/450	300	Not
I	1250, 1600	400/500	460[1)]	380	350/450	300	required
II	800, 1600, 2000	500/600	460[1)]	380	450/550	300	Not
II	2000	500/600	460[1)]	380	450/550	300	required
II	3000/3200	500/600	460[1)]	380	450/550	300	
III	4000	800/1000	460[1)]	380	750/900	300	Not
III	5000	800/1000	460[1)]	380	750/900	300	required

[1)] Height of installation compartment applies in case of roof insulation or for guide frame with arcing space cover.

UL certificate

3WL5 circuit breakers are not listed by Underwriters Laboratories (UL) under the Article No. but as individual components with their corresponding Article Nos.

The UL designation of the basic circuit breaker (without Electronic Trip Unit, auxiliary release, auxiliary switch, etc.) is visible on the operator panel.

Designation of basic circuit breaker:

3WL5106-3 F 3 2
① ②③④

Digit	Meaning		
①	Article No.	1st to 8th digit	
②	Version	F: Fixed-mounted	D: Withdrawable versions
③	Number of poles		
④	12th digit	1, 2, 3, 4: Fixed-mounted connection types	5, 6, 7, 8: Withdrawable version connection types

The file numbers are:

E231263 for circuit breakers
E236088 for accessories
E236299 for guide frames

The file number can be called up at the following Internet site:

http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/gfilenbr.html

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Benefits

Low space requirements

The 3WL5 air circuit breakers require very little space.
Size I devices (up to 1600 A) fit into a 400 mm wide switchboard panel. Size III devices (up to 5000 A) are the smallest of their kind and with their construction width of 704 mm fit into an 800 mm wide switchboard panel.

Modular design

Components such as auxiliary releases, motorized operating mechanisms, Electronic Trip Units, current sensors, auxiliary circuit signaling switches, automatic reset devices, interlocks and engagement operating mechanisms can all be exchanged or retrofitted at a later stage, thus allowing the circuit breaker to be adapted to new, changing requirements.

Retrofittable modules for Electronic Trip Units

Modularity is one of the main features of the 3WL5 circuit breakers.
Special LCDs, ground-fault modules, rating plugs and communication modules for the Electronic Trip Units are available for fast and easy retrofitting and adaptation to changing requirements.

Communication

The use of modern communication-capable circuit breakers opens up completely new possibilities in terms of start-up, parameterization, diagnostics, maintenance and operation. This allows many different ways of reducing costs and improving productivity in industrial plants, buildings and infrastructure projects to be achieved.

- Timely information and response can prevent plant stoppages
- Effective diagnostics management
- Measured values are the basis for efficient load management, for drawing up power demand profiles and for allocating energy to cost centers
- Preventive maintenance reduces the risk of expensive plant downtimes

Application

- As incoming-feeder, distribution, tie, and outgoing-feeder circuit breakers in electrical installations.
- For switching and protecting motors, capacitors, generators, transformers, busbars and cables.

When connected to an electronic I&C system, the 3WL5 air circuit breakers offer a wide range of options for monitoring network events.

The extensive, coordinated SENTRON range of devices covers applications between 16 A and 5000 A with molded case and air circuit breakers.

Standards

3WL5 circuit breakers comply with:

- UL 489, UL 489B
- IEC 60947-2
- IEC 60947-2 Appendix F/CISPR 11/22 Class B
- DIN VDE 0660, Part 101
- Climate-proof according to IEC 60068-2-30.
- CCC requirements

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3-pole, fixed-mounted versions

Selection and ordering data

Size	Max. rated circuit breaker current $I_{n\,max}$	Rated current[1] I_n	Breaking capacity 480 V		Article No. www.siemens.com/product?Article No. For Article No. supplements, see page 1/19	Price per PU	PU (UNIT, SET, M)	PS	PG
	A	A	kA	SD d					
Horizontal main circuit connection									
I	1000	1000	65		**3WL5110-3□□32-□□□□**		1	1 unit	1CA
I	1600	1600	65		**3WL5116-3□□32-□□□□**		1	1 unit	1CA
II	2000	2000	100		**3WL5220-4□□32-□□□□**		1	1 unit	1CA
II	2500	2500	100		**3WL5225-4□□32-□□□□**		1	1 unit	1CA
II	3000	3000	100		**3WL5230-4□□32-□□□□**		1	1 unit	1CA
III	4000	4000	100		**3WL5340-4□□32-□□□□**		1	1 unit	1CA
III	5000	5000	100		**3WL5350-4□□32-□□□□**		1	1 unit	1CA
Vertical main circuit connection									
I	1000	1000	65		**3WL5110-3□□31-□□□□**		1	1 unit	1CA
I	1600	1600	65		**3WL5116-3□□31-□□□□**		1	1 unit	1CA
II	2000	2000	100		**3WL5220-4□□31-□□□□**		1	1 unit	1CA
II	2500	2500	100		**3WL5225-4□□31-□□□□**		1	1 unit	1CA
II	3000	3000	100		**3WL5230-4□□31-□□□□**		1	1 unit	1CA
II[2]	3200	3200	100		**3WL5232-4□□31-□□□□**		1	1 unit	1CA
III	4000	4000	100		**3WL5340-4□□31-□□□□**		1	1 unit	1CA
III	5000	5000	100		**3WL5350-4□□31-□□□□**		1	1 unit	1CA
Front main circuit connection, single hole									
I	1000	1000	65		**3WL5110-3□□33-□□□□**		1	1 unit	1CA
I	1600	1600	65		**3WL5116-3□□33-□□□□**		1	1 unit	1CA
II	2000	2000	100		**3WL5220-4□□33-□□□□**		1	1 unit	1CA
II	2500	2500	100		**3WL5225-4□□33-□□□□**		1	1 unit	1CA
II	3000	3000	100		**3WL5230-4□□33-□□□□**		1	1 unit	1CA
III	4000	4000	100		**3WL5340-4□□33-□□□□**		1	1 unit	1CA
Front main circuit connection, double hole									
I	1000	1000	65		**3WL5110-3□□34-□□□□**		1	1 unit	1CA
I	1600	1600	65		**3WL5116-3□□34-□□□□**		1	1 unit	1CA
II	2000	2000	100		**3WL5220-4□□34-□□□□**		1	1 unit	1CA
II	2500	2500	100		**3WL5225-4□□34-□□□□**		1	1 unit	1CA
II	3000	3000	100		**3WL5230-4□□34-□□□□**		1	1 unit	1CA
III	4000	4000	100		**3WL5340-4□□34-□□□□**		1	1 unit	1CA

Options				Additional price
Non-automatic air circuit breakers[3]	Without Electronic Trip Units	**AA**		**None**
Electronic Trip Units	**Versions without ground-fault protection**			
	ETU25B: Protection functions LSI	**CB**		✓
	ETU45B: Protection functions LSIN[4]	**EB**		✓
	ETU45B: Protection functions LSIN[4] with 4-line display	**FB**		✓
	ETU45B: Protection functions LSING[4][5]	**EG**		✓
	ETU45B: Protection functions LSING[4][5] with 4-line display	**FG**		✓
Operating mechanism, auxiliary release, auxiliary switch	Manual operating mechanism with mechanical closing, without 1st and 2nd auxiliary releases; auxiliary switch 2 NC + 2 NO		**1AA2**	**None**
	For further Article No. supplements, see page 1/19			

Note: max. voltage for auxiliary circuits 240 V.

1) The rated current is determined by the rating plug. For the standard version, the supplied module is equal to the rated current. If a lower rated current is required, see adaptation by rating plug on page 1/20.

2) Z option A17 must usually be ordered in addition.

3) For permissible rated short-time current I_{cc} and rated short-circuit making capacity I_{cm} for non-automatic air circuit breakers, see Technical Specifications, page 1/7.

4) Current transformers for protection of the N conductor and current transformers for detection of the ground-fault current in the grounded neutral point of the transformer are to be ordered separately, see page 1/29.

5) For ETU45B with ground-fault protection module GFM AT (alarm and tripping), see page 1/29.

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Selection and ordering data

Size	Max. rated circuit breaker current $I_{n\,max}$	Rated current[1] I_n	Breaking capacity 480 V		Article No. www.siemens.com/product?Article No. For Article No. supplements, see page 1/19	Price per PU	PU (UNIT, SET, M)	PS	PG
	A	A	kA	d					
Without guide frames (for guide frames, see page 1/27)									
I	1000	1000	65		**3WL5110-3□□35-□□□□**		1	1 unit	1CA
I	1600	1600	65		**3WL5116-3□□35-□□□□**		1	1 unit	1CA
II	2000	2000	100		**3WL5220-4□□35-□□□□**		1	1 unit	1CA
II	2500	2500	100		**3WL5225-4□□35-□□□□**		1	1 unit	1CA
II	3000	3000	100		**3WL5230-4□□35-□□□□**		1	1 unit	1CA
III	4000	4000	100		**3WL5340-4□□35-□□□□**		1	1 unit	1CA
III	5000	5000	100		**3WL5350-4□□35-□□□□**		1	1 unit	1CA
With guide frames, horizontal main circuit connection									
I	1000	1000	65		**3WL5110-3□□36-□□□□**		1	1 unit	1CA
I	1600	1600	65		**3WL5116-3□□36-□□□□**		1	1 unit	1CA
II	2000	2000	100		**3WL5220-4□□36-□□□□**		1	1 unit	1CA
II	2500	2500	100		**3WL5225-4□□36-□□□□**		1	1 unit	1CA
II	3000	3000	100		**3WL5230-4□□36-□□□□**		1	1 unit	1CA
III	4000	4000	100		**3WL5340-4□□36-□□□□**		1	1 unit	1CA
III	5000	5000	100		**3WL5350-4□□36-□□□□**		1	1 unit	1CA
With guide frames, vertical main circuit connection									
I	1000	1000	65		**3WL5110-3□□37-□□□□**		1	1 unit	1CA
I	1600	1600	65		**3WL5116-3□□37-□□□□**		1	1 unit	1CA
II	2000	2000	100		**3WL5220-4□□37-□□□□**		1	1 unit	1CA
II	2500	2500	100		**3WL5225-4□□37-□□□□**		1	1 unit	1CA
II	3000	3000	100		**3WL5230-4□□37-□□□□**		1	1 unit	1CA
III	4000	4000	100		**3WL5340-4□□37-□□□□**		1	1 unit	1CA
III	5000	5000	100		**3WL5350-4□□37-□□□□**		1	1 unit	1CA
With guide frames, connecting flanges									
I	1000	1000	65		**3WL5110-3□□38-□□□□**		1	1 unit	1CA
I	1600	1600	65		**3WL5116-3□□38-□□□□**		1	1 unit	1CA
II	2000	2000	100		**3WL5220-4□□38-□□□□**		1	1 unit	1CA
II	2500	2500	100		**3WL5225-4□□38-□□□□**		1	1 unit	1CA
II	3000	3000	100		**3WL5230-4□□38-□□□□**		1	1 unit	1CA
III	4000	4000	100		**3WL5340-4□□38-□□□□**		1	1 unit	1CA

Options				Additional price
Non-automatic air circuit breakers[2]	Without Electronic Trip Units	**AA**		**None**
Electronic Trip Units	**Versions without ground-fault protection**			
	ETU25B: Protection functions LSI	**CB**		✓
	ETU45B: Protection functions LSIN[3]	**EB**		✓
	ETU45B: Protection functions LSIN[3] with 4-line display	**FB**		✓
	ETU45B: Protection functions LSING[3][4]	**EG**		✓
	ETU45B: Protection functions LSING[3][4] with 4-line display	**FG**		✓
Operating mechanism, auxiliary release, auxiliary switch	Manual operating mechanism with mechanical closing, without 1st and 2nd auxiliary releases; auxiliary switch 2 NC + 2 NO		**1AA2**	**None**
	For further Article No. supplements, see page 1/19			

Note: max. voltage for auxiliary circuits 240 V.

1) The rated current is determined by the rating plug. For the standard version, the supplied module is equal to the maximum rated current. If a lower rated current is required, see adaptation by rating plug on page 1/20.

2) For permissible rated short-time current I_{cc} and rated short-circuit making capacity I_{cm} for non-automatic air circuit breakers, see Technical Specifications, page 1/7.

3) Current transformers for protection of the N conductor and current transformers for detection of the ground-fault current in the grounded neutral point of the transformer are to be ordered separately, see page 1/29.

4) For ETU45B with ground-fault protection module GFM AT (alarm and tripping), see page 1/29.

Minimum order quantity (PS) or a multiple thereof can be ordered.

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4-pole, fixed-mounted versions

Selection and ordering data

Size	Max. rated circuit breaker current $I_{n\,max}$	Rated current[1] I_n	Breaking capacity 480 V		Article No. www.siemens.com/product?Article No. For Article No. supplements, see page 1/19	Price per PU	PU (UNIT, SET, M)	PS	PG
	A	A	kA	SD d					
Horizontal main circuit connection									
I	1000	1000	65		**3WL5110-3□□42-□□□□**		1	1 unit	1CA
I	1600	1600	65		**3WL5116-3□□42-□□□□**		1	1 unit	1CA
II	2000	2000	100		**3WL5220-4□□42-□□□□**		1	1 unit	1CA
II	2500	2500	100		**3WL5225-4□□42-□□□□**		1	1 unit	1CA
II	3000	3000	100		**3WL5230-4□□42-□□□□**		1	1 unit	1CA
III	4000	4000	100		**3WL5340-4□□42-□□□□**		1	1 unit	1CA
III	5000	5000	100		**3WL5350-4□□42-□□□□**		1	1 unit	1CA
Vertical main circuit connection									
I	1000	1000	65		**3WL5110-3□□41-□□□□**		1	1 unit	1CA
I	1600	1600	65		**3WL5116-3□□41-□□□□**		1	1 unit	1CA
II	2000	2000	100		**3WL5220-4□□41-□□□□**		1	1 unit	1CA
II	2500	2500	100		**3WL5225-4□□41-□□□□**		1	1 unit	1CA
II	3000	3000	100		**3WL5230-4□□41-□□□□**		1	1 unit	1CA
III	4000	4000	100		**3WL5340-4□□41-□□□□**		1	1 unit	1CA
III	5000	5000	100		**3WL5350-4□□41-□□□□**		1	1 unit	1CA
Front main circuit connection, single hole									
I	1000	1000	65		**3WL5110-3□□43-□□□□**		1	1 unit	1CA
I	1600	1600	65		**3WL5116-3□□43-□□□□**		1	1 unit	1CA
II	2000	2000	100		**3WL5220-4□□43-□□□□**		1	1 unit	1CA
II	2500	2500	100		**3WL5225-4□□43-□□□□**		1	1 unit	1CA
II	3000	3000	100		**3WL5230-4□□43-□□□□**		1	1 unit	1CA
III	4000	4000	100		**3WL5340-4□□43-□□□□**		1	1 unit	1CA
Front main circuit connection, double hole									
I	1000	1000	65		**3WL5110-3□□44-□□□□**		1	1 unit	1CA
I	1600	1600	65		**3WL5116-3□□44-□□□□**		1	1 unit	1CA
II	2000	2000	100		**3WL5220-4□□44-□□□□**		1	1 unit	1CA
II	2500	2500	100		**3WL5225-4□□44-□□□□**		1	1 unit	1CA
II	3000	3000	100		**3WL5230-4□□44-□□□□**		1	1 unit	1CA
III	4000	4000	100		**3WL5340-4□□44-□□□□**		1	1 unit	1CA

Options				Additional price
Non-automatic air circuit breakers[2]	Without Electronic Trip Units	**AA**		**None**
Electronic Trip Units	**Versions without ground-fault protection**			
	ETU25B: Protection functions LSI	**CB**		✓
	ETU45B: Protection functions LSIN[3]	**EB**		✓
	ETU45B: Protection functions LSIN[3] with 4-line display	**FB**		✓
	ETU45B: Protection functions LSING[3][4]	**EG**		✓
	ETU45B: Protection functions LSING[3][4] with 4-line display	**FG**		✓
Operating mechanism, auxiliary release, auxiliary switch	Manual operating mechanism with mechanical closing, without 1st and 2nd auxiliary releases; auxiliary switch 2 NC + 2 NO		**1AA2**	**None**
	For further Article No. supplements, see page 1/19			

Note: max. voltage for auxiliary circuits 240 V.

1) The rated current is determined by the rating plug. For the standard version, the supplied module is equal to the rated current. If a lower rated current is required, see adaptation by rating plug on page 1/20.

2) For permissible rated short-time current I_{cc} and rated short-circuit making capacity I_{cm} for non-automatic air circuit breakers, see Technical Specifications, page 1/7.

3) Current transformers for protection of the N conductor and current transformers for detection of the ground-fault current in the grounded neutral point of the transformer are to be ordered separately, see page 1/29. The internal current transformer for N conductors can be ordered by adding the supplement "-Z" and order code "F23", see page 1/22.

4) For ETU45B with ground-fault protection module GFM AT (alarm and tripping), see page 1/29.

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Selection and ordering data

Size	Max. rated circuit breaker current $I_{n\,max}$	Rated current[1] I_n	Breaking capacity 480 V	SD	Article No. www.siemens.com/product?Article No. For Article No. supplements, see page 1/19	Price per PU	PU (UNIT, SET, M)	PS	PG
	A	A	kA	d					
Without guide frames (for guide frames, see page 1/27)									
I	1000	1000	65		**3WL5110-3□□45-□□□□**		1	1 unit	1CA
I	1600	1600	65		**3WL5116-3□□45-□□□□**		1	1 unit	1CA
II	2000	2000	100		**3WL5220-4□□45-□□□□**		1	1 unit	1CA
II	2500	2500	100		**3WL5225-4□□45-□□□□**		1	1 unit	1CA
II	3000	3000	100		**3WL5230-4□□45-□□□□**		1	1 unit	1CA
III	4000	4000	100		**3WL5340-4□□45-□□□□**		1	1 unit	1CA
III	5000	5000	100		**3WL5350-4□□45-□□□□**		1	1 unit	1CA
With guide frames, horizontal main circuit connection									
I	1000	1000	65		**3WL5110-3□□46-□□□□**		1	1 unit	1CA
I	1600	1600	65		**3WL5116-3□□46-□□□□**		1	1 unit	1CA
II	2000	2000	100		**3WL5220-4□□46-□□□□**		1	1 unit	1CA
II	2500	2500	100		**3WL5225-4□□46-□□□□**		1	1 unit	1CA
II	3000	3000	100		**3WL5230-4□□46-□□□□**		1	1 unit	1CA
III	4000	4000	100		**3WL5340-4□□46-□□□□**		1	1 unit	1CA
III	5000	5000	100		**3WL5350-4□□46-□□□□**		1	1 unit	1CA
With guide frames, vertical main circuit connection									
I	1000	1000	65		**3WL5110-3□□47-□□□□**		1	1 unit	1CA
I	1600	1600	65		**3WL5116-3□□47-□□□□**		1	1 unit	1CA
II	2000	2000	100		**3WL5220-4□□47-□□□□**		1	1 unit	1CA
II	2500	2500	100		**3WL5225-4□□47-□□□□**		1	1 unit	1CA
II	3000	3000	100		**3WL5230-4□□47-□□□□**		1	1 unit	1CA
III	4000	4000	100		**3WL5340-4□□47-□□□□**		1	1 unit	1CA
III	5000	5000	100		**3WL5350-4□□47-□□□□**		1	1 unit	1CA
With guide frames, connecting flanges									
I	1000	1000	65		**3WL5110-3□□48-□□□□**		1	1 unit	1CA
I	1600	1600	65		**3WL5116-3□□48-□□□□**		1	1 unit	1CA
II	2000	2000	100		**3WL5220-4□□48-□□□□**		1	1 unit	1CA
II	2500	2500	100		**3WL5225-4□□48-□□□□**		1	1 unit	1CA
II	3000	3000	100		**3WL5230-4□□48-□□□□**		1	1 unit	1CA
III	4000	4000	100		**3WL5340-4□□48-□□□□**		1	1 unit	1CA

Options				Additional price
Non-automatic air circuit breakers[2]	Without Electronic Trip Units	**AA**		**None**
Electronic Trip Units	**Versions without ground-fault protection**			
	ETU25B: Protection functions LSI	**CB**		✓
	ETU45B: Protection functions LSIN[3]	**EB**		✓
	ETU45B: Protection functions LSIN[3] with 4-line display	**FB**		✓
	ETU45B: Protection functions LSING[3][4]	**EG**		✓
	ETU45B: Protection functions LSING[3][4] with 4-line display	**FG**		✓
Operating mechanism, auxiliary release, auxiliary switch	Manual operating mechanism with mechanical closing, without 1st and 2nd auxiliary releases; auxiliary switch 2 NC + 2 NO		**1AA2**	**None**
	For further Article No. supplements, see page 1/19			

Note: max. voltage for auxiliary circuits 240 V.

1) The rated current is determined by the rating plug. For the standard version, the supplied module is equal to the maximum rated current. If a lower rated current is required, see adaptation by rating plug on page 1/20.

2) For permissible rated short-time current I_{cc} and rated short-circuit making capacity I_{cm} for non-automatic air circuit breakers, see Technical Specifications, page 1/7.

3) Current transformers for protection of the N conductor and current transformers for detection of the ground-fault current in the grounded neutral point of the transformer are to be ordered separately, see page 1/29. The internal current transformer for N conductors can be ordered by adding the supplement "-Z" and order code "F23", see page 1/22.

4) For ETU45B with ground-fault protection module GFM AT (alarm and tripping), see page 1/29.

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Fixed-mounted versions

1

Selection and ordering data[1)]

Size	Max. rated circuit breaker current $I_{n\,max}$	No. of poles	Rated current I_n	Breaking capacity 690 V	SD	Article No. www.siemens.com/product?Article No. For Article No. supplements, see page 1/19	Price per PU	PU (UNIT, SET, M)	PS	PG
	A		A	kA	d					
Horizontal main circuit connection										
I	1600[2)]	4p	1600[2)]	20[3)]		**3WL5120-8AA42-□□□□**		1	1 unit	1CA
II[4)5)]	3200	3p	3200	22		**3WL5232-8AA32-□□□□**		1	1 unit	1CA
Vertical main circuit connection										
I	1600[2)]	4p	1600[2)]	20[3)]		**3WL5120-8AA41-□□□□**		1	1 unit	1CA
II[4)5)]	3200	3p	3200	25		**3WL5232-8AA31-□□□□**		1	1 unit	1CA

For further Article No. supplements, see page 1/19.

1) For permissible rated breaking capacity for non-automatic air circuit breakers, see Technical Specifications, page 1/7.
2) According to IEC 60947-2 the rated current is 2000 A.
3) I_{cc} = 20 kA to U_e = 1000 V DC + 10%.
4) Can also be used at variable frequencies of 0 ... 30 Hz.
5) Z option A17 must usually be ordered in addition.

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Selection and ordering data

				Article No. supplement 3WL5…-…..- □□□□	Additional price
Operating mechanisms					
Manual operating mechanism with mechanical closing				**1**	**None**
Manual operating mechanism with mechanical and electrical closing, closing coil suitable for uninterrupted duty, 100% OP					
50/60 Hz V AC	V DC				
110	110 ... 125			**2**	✓
240	220			**3**	✓
Manual/motorized operating mechanism with mechanical and electrical closing, closing coil suitable for uninterrupted duty, 100% OP					
Motor		Closing coil			
50/60 Hz V AC	V DC	50/60 Hz V AC	V DC		
208 ... 240	220 ... 250	230	220	**4**	✓
110 ... 127	110 ... 125	110	110 ... 125	**5**	✓
--	24	--	24	**6**	✓
Note					
To order different voltages for motorized operating mechanism and closing coil or closing coil for synchronization purposes: "1" at the 13th digit of the Article No. and order codes, see page 1/21.					
1st auxiliary release					
Type	Condition	U_s 50/60 Hz V AC	U_s V DC		
Without 1st auxiliary releases	--	--	--	**A**	**None**
Shunt release suitable for uninterrupted duty, 100% OP	Operating range 0.85 ... 1.1 × U_s	--	24	**B**	✓
		--	30	**C**	✓
		--	48	**D**	✓
		--	60	**E**	✓
		110 ... 127	110 ... 125	**F**	✓
		208 ... 240	220 ... 250	**G**	✓
2nd auxiliary release					
Type	Condition	U_s 50/60 Hz V AC	U_s V DC		
Without 2nd auxiliary releases	--	--	--	**A**	**None**
Shunt release suitable for uninterrupted duty, 100% OP	Operating range 0.85 ... 1.1 × U_s	--	24	**B**	✓
		--	30	**C**	✓
		--	48	**D**	✓
		--	60	**E**	✓
		110 ... 127	110 ... 125	**F**	✓
		208 ... 240	220 ... 250	**G**	✓
Undervoltage release, instantaneous (≤ 80 ms), short-delay (≤ 200 ms)	Operating range 0.85 ... 1.1 × U_s	--	24	**J**	✓
		--	30	**K**	✓
		--	48	**L**	✓
		--	60	**U**	✓
		110 ... 127	110 ... 125	**M**	✓
		208 ... 240	220 ... 250	**N**	✓
		380 ... 415	--	**P**	✓
Undervoltage release, can be delayed between 0.2 s and 3.2 s	Operating range 0.85 ... 1.1 × U_s	--	48	**Q**	✓
		110 ... 127	110 ... 125	**R**	✓
		208 ... 240	220 ... 250	**S**	✓
		380 ... 415	--	**T**	✓
Auxiliary switches					
1st auxiliary switch block					
2 NO + 2 NC				**2**	**None**
1st + 2nd auxiliary switch block					
4 NO + 4 NC				**4**	✓
6 NO + 2 NC				**7**	✓
5 NO + 3 NC				**8**	✓

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Options

1

			3WL....-.....-....-Z □□□ +...+...	Additional price
Add "**-Z**" to the complete Article No. and indicate the appropriate order code(s).				
IT network capability at 690 V AC + 10% acc. to IEC 60947-2 Annex H				
Conditions	Size	Rated voltage V		
3WL5225-4□□31-...	II	AC	**A 1 7**	✓
3WL5225-4□□32-...			**A 1 7**	✓
3WL5232-4□□31-...			**A 1 7**	✓
3WL5232-8AA31-...		DC	**A 1 7**	✓
3WL5232-8AA32-...			**A 1 7**	✓
3WL5340-4□□31-...	III	AC	**A 1 7**	✓
3WL5340-4□□32-...			**A 1 7**	✓
3WL5350-4□□31-...[6]	III	AC	**A 1 7**	✓
3WL5350-4□□32-...[6]			**A 1 7**	✓
Special packaging (moisture protection)				
Special packaging for extended technical requirements				
Cardboard packaging with water-repellent coating on corrugated cardboard (moisture protection)			**A 6 1**	✓
Rating plugs				
Conditions	Size	Rated current I_n A		
Only one module is possible per circuit breaker. As standard, the Electronic Trip Units are equipped with a rating plug which is equal to the maximum rated circuit breaker current ($I_{n\,max}$). The rated current of the selected rating plug must be smaller than $I_{n\,max}$.	I, II	250	**B 0 2**	**None**
		315	**B 0 3**	**None**
		400	**B 0 4**	**None**
		500	**B 0 5**	**None**
		630	**B 0 6**	**None**
		800	**B 0 8**	**None**
		1000	**B 1 0**	**None**
	I, II, III	1250	**B 1 2**	**None**
		1600	**B 1 6**	**None**
	II, III	2000	**B 2 0**	**None**
		2500	**B 2 5**	**None**
		3000	**B 3 0**	**None**
		3200	**B 3 2**	**None**
	III	4000	**B 4 0**	**None**
		5000	**B 5 0**	**None**
Indication/operator control elements, door sealing frames				
5-digit mechanical operating cycles counter[1]			**C 0 1**	✓
Electrical ON button S10 in the operator panel[2] Possible only for circuit breakers with closing coil.	Button with sealing cap		**C 1 1**	✓
	Key operation with CES lock		**C 1 2**	✓
Storage status signaling switches [2] (S21)	1 NO contact		**C 2 0**	✓
Ready-to-close signaling switches (S20)	1 NO contact		**C 2 2**	✓
Signaling switches[2]	For the first auxiliary release (S22)		**C 2 6**	✓
	For the second auxiliary release (S23)		**C 2 7**	✓
Motor shutdown switch in the operator panel[3] (S12)			**S 2 5**	✓
EMERGENCY-STOP pushbuttons	Mushroom pushbutton instead of the mechanical OFF pushbutton		**S 2 4**	✓
Door sealing frames			**T 4 0**	✓
Reclosing lockout and remote resets				
Automatic reset of the reclosing lockout			**K 0 1**	✓
1st tripped signaling switch[2][4] (S24)	1 CO contact		**K 0 7**	✓
2nd tripped signaling switch[2][4][5] (S25)	1 NO contact		**K 0 6**	✓
Type	50/60 Hz V AC	V DC		
Remote reset solenoid for displays and reset buttons including automatic reset of the reclosing lockout	--	24	**K 1 0**	✓
	--	48	**K 1 1**	✓
	120	125	**K 1 2**	✓
	208 ... 250	208 ... 250	**K 1 3**	✓

1) Only possible with motorized operating mechanism.
2) Not possible with "communications interface" option, order code "F02" or "F12".
3) Only for breakers with motorized operating mechanism, not possible with order codes "C11", "C12".
4) Not available for non-automatic air circuit breakers.
5) Only possible with option "K07".
6) 3WL5350-... available with A17 as from 01/2016.

Minimum order quantity (PS) or a multiple thereof can be ordered.

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				3WL....-.....-....-Z ☐☐☐ +...+...	Additional price
Add **"-Z"** to the complete Article No. and indicate the appropriate order code(s).					
Motorized operating mechanisms and closing/opening coils					
Type	Conditions	Motor			
		50/60 Hz V AC	V DC		
Motorized operating mechanism	Only possible if the 13th digit of the Article No. = "1"	--	24 ... 30	**M 0 1**	✓
		--	48 ... 60	**M 0 3**	✓
		110 ... 127	110 ... 125	**M 0 5**	✓
		208 ... 240	220 ... 250	**M 0 6**	✓
Type	Conditions	Activation solenoids			
		50/60 Hz V AC	V DC		
Closing coil suitable for uninterrupted duty, 100% OP	Only possible if the 13th digit of the Article No. = "1"	--	24	**M 2 1**	✓
		--	30	**M 2 2**	✓
		--	48	**M 2 3**	✓
		--	60	**M 2 4**	✓
		110 ... 127	110 ... 125	**M 2 5**	✓
		208 ... 240	220 ... 250	**M 2 6**	✓
Type	Conditions	Activation solenoids			
		50/60 Hz V AC	V DC		
Closing coil[1] not suitable for uninterrupted duty, 5% OP, synchronizable	Only possible if the 13th digit of the Article No. = "1"	--	24	**M 3 1**	✓
		--	48	**M 3 3**	✓
		110 ... 127	110 ... 125	**M 3 5**	✓
		208 ... 240	220 ... 250	**M 3 6**	✓
Type	Conditions	Activation solenoids			
		50/60 Hz V AC	V DC		
Opening coil (shunt release)[2][3]	Not suitable for uninterrupted duty, 5% OP, synchronizable	--	24	**M 4 1**	✓
		--	48	**M 4 3**	✓
		110 ... 127	110 ... 125	**M 4 5**	✓
		208 ... 240	220 ... 250	**M 4 6**	✓
Interlocks, covers, position signaling switches (for fixed-mounted version)					
Mechanical interlocking (interlocking module with Bowden cable 2 m)	Fixed-mounted circuit breakers			**S 5 5**	✓
Interlocks, covers, position signaling switches (for withdrawable version)					
Mechanical interlocking (interlocking module with Bowden cable 2 m)	Variant				
	For withdrawable circuit breakers with guide frame			**R 5 5**	✓
	For guide frames			**R 5 6**	✓
	For withdrawable circuit breakers			**R 5 7**	✓
Shutters 2-part lockable with padlocks[4]	Number of poles	Size			
	3-pole	I		**R 2 1**	✓
		II		**R 2 1**	✓
		III		**R 2 1**	✓
	4-pole	I		**R 2 1**	✓
		II		**R 2 1**	✓
		III		**R 2 1**	✓
Position signaling switches for guide frames	Connected position	Test position	Disconnected position		
	1 CO	1 CO	1 CO	**R 1 5**	✓
	3 CO	2 CO	1 CO	**R 1 6**	✓

1) Overexcited, i.e. switching time 50 ms (standard > 80 ms).
2) Only possible if the 14th digit of the Article No. for the circuit breaker is "A", i.e. "without 1st auxiliary release".
3) Overexcited, i.e. opening time 50 ms (standard > 80 ms).
4) Padlocks not included in scope of supply.

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Options

		Add "-Z" to the complete Article No. and indicate the appropriate order code(s).	3WL....-.....-....-Z □□□ +...+...	Additional price
Communication and metering functions				
Breaker Status Sensor (BSS)		F 0 1		✓
PROFIBUS DP communications interface[1]	Including COM15 and Breaker Status Sensor (BSS)	F 0 2		✓
MODBUS RTU communications interface[1]	Including COM16 and Breaker Status Sensor (BSS)	F 1 2		✓
Metering function *Plus* (without PROFIBUS/ MODBUS communications interface)[2]		F 0 5		✓
Overload and short-circuit protection for neutral conductors				
Internal current transformer for N conductor Only possible with 4-pole circuit breaker with ETU45B	Size			
	I	F 2 3		✓
	II	F 2 3		✓
	III	F 2 3		✓
EMC filters				
EMC filters • Common-mode interference suppressor filters (e.g. in IT networks, caused by frequency converters) • Insertion loss (asymmetric) in the range 40 kHz to 10 MHz > 40 dB		F 3 1		✓
Locking devices (for fixed-mounted versions and withdrawable versions)				
Locking devices against unauthorized closing, in the operator panel The disconnector unit fulfills the requirements for main circuit breakers according to EN 60204-1	Variant			
	Made by CES	S 0 1		✓
	Made by IKON	S 0 3		✓
	Assembly kit FORTRESS or Castell[3]	S 0 5		✓
	Assembly kit for padlocks[4]	S 0 7		✓
	Made by Ronis	S 0 8		✓
	Made by Profalux	S 0 9		✓
EMERGENCY-STOP pushbuttons	Mushroom pushbutton instead of the mechanical OFF pushbutton	S 2 4		✓
Locking devices for operating mechanism handles with padlock[4]		S 3 3		✓
Locking devices (for withdrawable version)				
Locking devices against unauthorized closing, for withdrawable circuit breakers The disconnector unit fulfills the requirements for main circuit breakers acc. to EN 60204-1, consisting of a lock in the cabinet door, active in the connected position, function is retained when circuit breaker is replaced. Not possible in combination with order codes "R81", "R85" or "R86".	Variant			
	Made by CES	R 6 1		✓
	Made by Ronis	R 6 8		✓
	Made by Profalux	R 6 0		✓
Locking devices to prevent movement of the withdrawable circuit breakers Safety lock for mounting on the circuit breaker	Variant			
	Made by CES	S 7 1		✓
	Made by Profalux	S 7 5		✓
	Made by Ronis	S 7 6		✓

1) When ordering withdrawable circuit breaker and guide frame separately, specify order code "F02" or "F12" for withdrawable circuit breaker only.

2) Additional voltage transformers are required for connection of the metering function *Plus*, see 1/38.

3) Locks must be ordered from the manufacturer.

4) Padlock not included in the scope of supply.

Minimum order quantity (PS) or a multiple thereof can be ordered.

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		Add **"-Z"** to the complete Article No. and indicate the appropriate order code(s).	**3WL....-.....-....-Z** ☐☐☐ **+...+...**	Additional price
Locking mechanisms (for fixed-mounted versions)				
Locking mechanism Not possible in combination with order codes "R81", "R85" or "R86".	To prevent opening of the cabinet door in ON position	**S 3 0**		✓
Locking mechanisms (for withdrawable versions)				
Locking mechanism Not possible in combination with order codes "R81", "R85" or "R86".	Variant			
	To prevent opening of the cabinet door in connected position	**R 3 0**		✓
	To prevent movement with the cabinet door open	**R 5 0**		✓
Locking mechanism to prevent movement of the withdrawable circuit breakers in disconnected position, consisting of Bowden cable and lock in the cabinet door. Not possible in combination with order codes "R30", "R50", "R61", "R68" or "R60".	Variant			
	Made by CES	**R 8 1**		✓
	Made by Profalux	**R 8 5**		✓
	Made by Ronis	**R 8 6**		✓
Connection methods for auxiliary conductors (for fixed-mounted and withdrawable versions)				
Connections for screwless terminals (tension spring)	Variant			
	Fixed-mounted	**N 6 1**		✓
	Withdrawable	**P 6 1**		✓

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Options

1

			3WL....-.....-....-Z □□□ +...+...	Additional price	
Add "**-Z**" to the complete Article No. and indicate the appropriate order code(s).					
For "withdrawable circuit breakers with guide frames" or for "guide frames"				Additional price 3-pole	Additional price 4-pole
Note					
To select this connection method, the 12th digit of the Article No. for the circuit breaker must be a "6".					
Connection methods for main connections	Size	Rated current I_n			
Top and bottom: accessible from front, single hole	I	Up to 1600 A	**P 0 0**	✓	✓
	II	Up to 2000 A	**P 0 0**	✓	✓
		Up to 2500 A	**P 0 0**	✓	✓
		Up to 3200 A	**P 0 0**	✓	✓
	III	Up to 4000 A	**P 0 0**	✓	✓
Connection methods for main connections	Size	Rated current I_n			
Top and bottom: accessible from front, double hole	I	Up to 1600 A	**P 0 1**	✓	✓
	II	Up to 2000 A	**P 0 1**	✓	✓
		Up to 2500 A	**P 0 1**	✓	✓
		Up to 3200 A	**P 0 1**	✓	✓
	III	Up to 4000 A	**P 0 1**	✓	✓
Connection methods for main connections	Size	Rated current I_n			
Top: horizontal Bottom: accessible from front, single hole	I	Up to 1600 A	**P 0 7**	✓	✓
	II	Up to 2000 A	**P 0 7**	✓	✓
		Up to 2500 A	**P 0 7**	✓	✓
		Up to 3200 A	**P 0 7**	✓	✓
	III	Up to 4000 A	**P 0 7**	✓	✓
Connection methods for main connections	Size	Rated current I_n			
Top: vertical Bottom: horizontal	I	Up to 1600 A	**P 1 8**	✓	✓
	II	Up to 2000 A	**P 1 8**	✓	✓
		Up to 2500 A	**P 1 8**	✓	✓
		Up to 3200 A	**P 1 8**	✓	✓
	III	Up to 4000 A	**P 1 8**	✓	✓
		Up to 5000 A	**P 1 8**	✓	✓
Connection methods for main connections	Size	Rated current I_n			
Top: connecting flange Bottom: horizontal	I	Up to 1600 A	**P 1 9**	✓	✓
	II	Up to 2000 A	**P 1 9**	✓	✓
		Up to 2500 A	**P 1 9**	✓	✓
		Up to 3200 A	**P 1 9**	✓	✓
	III	Up to 4000 A	**P 1 9**	✓	✓
Connection methods for main connections	Size	Rated current I_n			
Top: horizontal Bottom: vertical	I	Up to 1600 A	**P 2 3**	✓	✓
	II	Up to 2000 A	**P 2 3**	✓	✓
		Up to 2500 A	**P 2 3**	✓	✓
		Up to 3200 A	**P 2 3**	✓	✓
	III	Up to 4000 A	**P 2 3**	✓	✓
		Up to 5000 A	**P 2 3**	✓	✓
Connection methods for main connections	Size	Rated current I_n			
Top: horizontal Bottom: connecting flange	I	Up to 1600 A	**P 2 8**	✓	✓
	II	Up to 2000 A	**P 2 8**	✓	✓
		Up to 2500 A	**P 2 8**	✓	✓
		Up to 3200 A	**P 2 8**	✓	✓
	III	Up to 4000 A	**P 2 8**	✓	✓

Minimum order quantity (PS) or a multiple thereof can be ordered.

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			Add "**-Z**" to the complete Article No. and indicate the appropriate order code(s).	**3WL....-.....-....-Z** □□□ **+...+...**	Additional price	
For fixed-mounted circuit breakers					Additional price 3-pole	Additional price 4-pole
Note						
To select this connection method, the 12th digit of the Article No. for the circuit breaker must be a "2".						
Connection methods for main connections[1]	Size	Rated current I_n				
Top: horizontal Bottom: accessible from front, single hole	I	Up to 1600 A	**N 1 1**		✓	✓
	II	Up to 2000 A	**N 1 1**		✓	✓
		Up to 2500 A	**N 1 1**		✓	✓
		Up to 3200 A	**N 1 1**		✓	✓
	III	Up to 4000 A	**N 1 1**		✓	✓
Connection methods for main connections	Size	Rated current I_n				
Top: vertical Bottom: horizontal	I	Up to 1600 A	**N 2 0**		✓	✓
		Up to 2000 A	**N 2 0**		✓	✓
	II	Up to 2000 A	**N 2 0**		✓	✓
		Up to 2500 A	**N 2 0**		✓	✓
		Up to 3200 A	**N 2 0**		✓	✓
	III	Up to 4000 A	**N 2 0**		✓	✓
		Up to 5000 A	**N 2 0**		✓	✓
Connection methods for main connections	Size	Rated current I_n				
Top: horizontal Bottom: vertical	I	Up to 1600 A	**N 2 4**		✓	✓
		Up to 2000 A	**N 2 4**		✓	✓
	II	Up to 2000 A	**N 2 4**		✓	✓
		Up to 2500 A	**N 2 4**		✓	✓
		Up to 3200 A	**N 2 4**		✓	✓
	III	Up to 4000 A	**N 2 4**		✓	✓
		Up to 5000 A	**N 2 4**		✓	✓

[1] A17 cannot be used for DC non-automatic air circuit breakers and circuit breakers with the Z option.

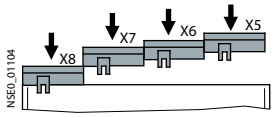
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1

Overview

Determination of the number of auxiliary supply connectors required

This selection is only required if the guide frame is ordered under a separate Article No.



The required number of auxiliary supply connectors depends on the:
- Operating mechanism type
- Electronic Trip Unit with/without current transformer
- Type and number of auxiliary releases
- Number of auxiliary switches
- COM15/COM16 communications interface

		Number of auxiliary supply connectors	Terminal
a	**The first auxiliary supply connector X6 is always required.**	**1**	X6
b	**Operating mechanisms**		
b1	Manual operating mechanism with stored-energy feature with mechanical closing	**0**	
b2	Manual operating mechanism with stored-energy feature with mechanical and electrical closing	**0**	X6
b3	Manual/motorized operating mechanism with stored-energy feature with mechanical and electrical closing	**+1**	X5
c	**Electronic Trip Units**		
c1	Electronic Trip Unit ETU25B	**0**	
c2	Electronic Trip Unit ETU45B (internal **Cubicle**BUS)	**+1**	X8
	Connections for external current transformers for overload protection in the N conductor and ground-fault protection		
c3	Current transformer installed in the N conductor (required with 3-pole circuit breakers if c2 is not selected)	**+1**	X8
c4	Current transformer in the neutral point of the transformer (required if c2 or c3 is not selected)	**+1**	X8
d	**Auxiliary releases**		
d1	With/without 1st auxiliary release (shunt release F1)	**0**	X6
d2	2nd auxiliary release (shunt release F2, undervoltage release F3, delayable undervoltage release F4)	**+1**	X5
e	**Auxiliary switch blocks**		
e1	1st auxiliary switch block 2 NO + 2 NC	**0**	X6
e2	1st and 2nd auxiliary switch block 4 NO + 4 NC or 6 NO + 2 NC or 5 NO + 3 NC (required if b3 or d2 is not selected)	**+1**	X5
f	**Communication modules**		
f1	Without communication module COM15/COM16	**0**	
f2	With communication module COM15/COM16 - occupies the entire terminal strip X7, making the following options no longer possible: • 1st tripped signaling switch S24 • 2nd tripped signaling switch S25 • Stored-energy status indicator S21 • Electrical ON button S10 • Signaling switch on first and second auxiliary release S22 + S23	**+1**	X7
g	**Optional signals/accessories**		
g1	Tripped signaling switch S24 (only when f2 not selected)	**+1**	X7
g2	Stored-energy status indicator S21 (only when f2 not selected, required if g1 not selected)	**+1**	X7
g3	Electric ON button S10 (only when f2 not selected, required if g1 or g2 not selected)	**+1**	X7
g4	Signaling switch at first auxiliary release S22 (only when f2 not selected, required if g1, g2 or g3 not selected)	**+1**	X7
g5	Signaling switch at second auxiliary release S23 (only when f2 not selected, required if g1, g2, g3 or g4 not selected)	**+1**	X7
g6	Switch on ready-to-close signaling switch S20	**0**	X6
g7	Motor shutdown switch S12 (only if motorized operating mechanism selected)	**0**	X5
g8	Remote reset solenoid F7 (required if c2 not selected)	**+1**	X8
h	**Total number of auxiliary supply connectors**	**(max. 4)**	

For ordering the auxiliary supply connectors, see under "Accessories and spare parts, Guide frames for AC circuit breakers/non-atomatic air circuit breakers", page 1/27 onwards and under "Accessories and spare parts, Auxiliary conductor connections, Auxiliary supply connectors", page 1/34.

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Selection and ordering data

Guide frames for circuit breakers/non-automatic air circuit breakers approved acc. to UL 489

Size	Max. rated circuit breaker current $I_{n\,max}$	Breaking capacity $I_{cu} = I_{cs}$	SD	**Guide frames for 3-pole circuit breakers/ non-automatic air circuit breakers** Article No. www.siemens.com/product?Article No.	Basic price per PU	PU (UNIT, SET, M)	PS	PG
	A	kA	d					
Front main circuit connection, single hole								
I	1000	... 66		**3WL9251-1AA□□-□□A1**		1	1 unit	1CA
	1600	... 66		**3WL9251-2AA□□-□□A1**		1	1 unit	1CA
II	2000	... 100		**3WL9252-3AA□□-□□A1**		1	1 unit	1CA
	2500	... 100		**3WL9252-4AA□□-□□A1**		1	1 unit	1CA
	3000	... 100		**3WL9252-5AA□□-□□A1**		1	1 unit	1CA
III	4000	... 100		**3WL9253-6AA□□-□□A1**		1	1 unit	1CA
Front main circuit connection, double hole								
I	1000	... 66		**3WL9251-1AB□□-□□A1**		1	1 unit	1CA
	1600	... 66		**3WL9251-2AB□□-□□A1**		1	1 unit	1CA
II	2000	... 100		**3WL9252-3AB□□-□□A1**		1	1 unit	1CA
	2500	... 100		**3WL9252-4AB□□-□□A1**		1	1 unit	1CA
	3000	... 100		**3WL9252-5AB□□-□□A1**		1	1 unit	1CA
III	4000	... 100		**3WL9253-6AB□□-□□A1**		1	1 unit	1CA
Horizontal main circuit connection								
I	1000	... 66		**3WL9251-1AC□□-□□A1**		1	1 unit	1CA
	1600	... 66		**3WL9251-2AC□□-□□A1**		1	1 unit	1CA
II	2000	... 100		**3WL9252-3AC□□-□□A1**		1	1 unit	1CA
	2500	... 100		**3WL9252-4AC□□-□□A1**		1	1 unit	1CA
	3000	... 100		**3WL9252-5AC□□-□□A1**		1	1 unit	1CA
III	4000	... 100		**3WL9253-6AC□□-□□A1**		1	1 unit	1CA
	5000	... 100		**3WL9253-7AC□□-□□A1**		1	1 unit	1CA
Vertical main circuit connection								
I	1000	... 66		**3WL9251-1AD□□-□□A1**		1	1 unit	1CA
	1600	... 66		**3WL9251-2AD□□-□□A1**		1	1 unit	1CA
II	2000	... 100		**3WL9252-3AD□□-□□A1**		1	1 unit	1CA
	2500	... 100		**3WL9252-4AD□□-□□A1**		1	1 unit	1CA
	3000	... 100		**3WL9252-5AD□□-□□A1**		1	1 unit	1CA
III	4000	... 100		**3WL9253-6AD□□-□□A1**		1	1 unit	1CA
	5000	... 100		**3WL9253-7AD□□-□□A1**		1	1 unit	1CA
Main circuit connection connecting flanges								
I	1000	... 66		**3WL9251-1AE□□-□□A1**		1	1 unit	1CA
	1600	... 66		**3WL9251-2AE□□-□□A1**		1	1 unit	1CA
II	2000	... 100		**3WL9252-3AE□□-□□A1**		1	1 unit	1CA
	2500	... 100		**3WL9252-4AE□□-□□A1**		1	1 unit	1CA
	3000	... 100		**3WL9252-5AE□□-□□A1**		1	1 unit	1CA
III	4000	... 100		**3WL9253-6AE□□-□□A1**		1	1 unit	1CA

Options								Additional price
Number of auxiliary supply connectors	None					**0**		**None**
	1 connector					**1**		✓
	2 connectors					**2**		✓
	3 connectors					**3**		✓
	4 connectors					**4**		✓
Note								
For required number of auxiliary supply connectors, see table page 1/26.								
Type of auxiliary circuit connections	None[1)]						**0**	**None**
	With screw connection (SIGUT, standard)						**1**	✓
	With screwless connection method (tension spring)						**2**	✓
Position signaling switches	None						**0**	**None**
	Option 1: Connected position 1 CO, test position 1 CO, disconnected position 1 CO						**1**	✓
	Option 2: Connected position 3 CO, test position 2 CO, disconnected position 1 CO						**2**	✓
Shutters	None						**A**	**None**
	With shutter, 2-part, lockable	Size I					**B**	✓
		Size II					**B**	✓
		Size III					**B**	✓

[1)] Can only be selected if the number of auxiliary supply connectors = 0.

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Accessories and spare parts

1

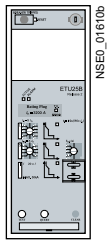
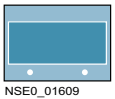
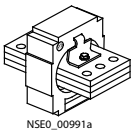
Size	Max. rated circuit breaker current $I_{n\,max}$	Breaking capacity $I_{cu} = I_{cs}$	SD	Guide frames for 4-pole circuit breakers/ non-automatic air circuit breakers Article No. www.siemens.com/product?Article No.	Basic price per PU	PU (UNIT, SET, M)	PS	PG
	A	kA	d					
Front main circuit connection, single hole								
I	1000	... 66		**3WL9251-1BA□□-□□A1**		1	1 unit	1CA
	1600	... 66		**3WL9251-2BA□□-□□A1**		1	1 unit	1CA
II	2000	... 100		**3WL9252-3BA□□-□□A1**		1	1 unit	1CA
	2500	... 100		**3WL9252-4BA□□-□□A1**		1	1 unit	1CA
	3000	... 100		**3WL9252-5BA□□-□□A1**		1	1 unit	1CA
III	4000	... 100		**3WL9253-6BA□□-□□A1**		1	1 unit	1CA
Front main circuit connection, double hole								
I	1000	... 66		**3WL9251-1BB□□-□□A1**		1	1 unit	1CA
	1600	... 66		**3WL9251-2BB□□-□□A1**		1	1 unit	1CA
II	2000	... 100		**3WL9252-3BB□□-□□A1**		1	1 unit	1CA
	2500	... 100		**3WL9252-4BB□□-□□A1**		1	1 unit	1CA
	3000	... 100		**3WL9252-5BB□□-□□A1**		1	1 unit	1CA
III	4000	... 100		**3WL9253-6BB□□-□□A1**		1	1 unit	1CA
Horizontal main circuit connection								
I	1000	... 66		**3WL9251-1BC□□-□□A1**		1	1 unit	1CA
	1600	... 66		**3WL9251-2BC□□-□□A1**		1	1 unit	1CA
II	2000	... 100		**3WL9252-3BC□□-□□A1**		1	1 unit	1CA
	2500	... 100		**3WL9252-4BC□□-□□A1**		1	1 unit	1CA
	3000	... 100		**3WL9252-5BC□□-□□A1**		1	1 unit	1CA
III	4000	... 100		**3WL9253-6BC□□-□□A1**		1	1 unit	1CA
	5000	... 100		**3WL9253-7BC□□-□□A1**		1	1 unit	1CA
Vertical main circuit connection								
I	1000	... 66		**3WL9251-1BD□□-□□A1**		1	1 unit	1CA
	1600	... 66		**3WL9251-2BD□□-□□A1**		1	1 unit	1CA
II	2000	... 100		**3WL9252-3BD□□-□□A1**		1	1 unit	1CA
	2500	... 100		**3WL9252-4BD□□-□□A1**		1	1 unit	1CA
	3000	... 100		**3WL9252-5BD□□-□□A1**		1	1 unit	1CA
III	4000	... 100		**3WL9253-6BD□□-□□A1**		1	1 unit	1CA
	5000	... 100		**3WL9253-7BD□□-□□A1**		1	1 unit	1CA
Main circuit connection connecting flanges								
I	1000	... 66		**3WL9251-1BE□□-□□A1**		1	1 unit	1CA
	1600	... 66		**3WL9251-2BE□□-□□A1**		1	1 unit	1CA
II	2000	... 100		**3WL9252-3BE□□-□□A1**		1	1 unit	1CA
	2500	... 100		**3WL9252-4BE□□-□□A1**		1	1 unit	1CA
	3000	... 100		**3WL9252-5BE□□-□□A1**		1	1 unit	1CA
III	4000	... 100		**3WL9253-6BE□□-□□A1**		1	1 unit	1CA

Options						Additional price
Number of auxiliary supply connectors	None		**0**			**None**
	1 connector		**1**			✓
	2 connectors		**2**			✓
	3 connectors		**3**			✓
	4 connectors		**4**			✓
Note						
For required number of auxiliary supply connectors, see table on page 1/26.						
Type of auxiliary circuit connections	None[1]			**0**		**None**
	With screw connection (SIGUT, standard)			**1**		✓
	With screwless connection method (tension spring)			**2**		✓
Position signaling switches	None				**0**	**None**
	Option 1: Connected position 1 CO, test position 1 CO, disconnected position 1 CO				**1**	✓
	Option 2: Connected position 3 CO, test position 2 CO, disconnected position 1 CO				**2**	✓
Shutters	None				**A**	**None**
	With shutter, 2-part, lockable	Size I			**B**	✓
		Size II			**B**	✓
		Size III			**B**	✓

[1] Can only be selected if the number of auxiliary supply connectors = 0.

Minimum order quantity (PS) or a multiple thereof can be ordered.

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	Designation			SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
 NSE0_01610b 3WL935.-.AA.0-0AA1	**Protective device with device holder and optional metering function[1]**								
	Type	With protection function	Metering function						
	ETU25B	LSI	None		**3WL9352-5AA00-0AA1**		1	1 unit	1CA
	ETU45B (without display)	LSIN(G)	None		**3WL9354-5AA00-0AA1**		1	1 unit	1CA
			With metering function *Plus*		**3WL9354-5AA20-0AA1**		1	1 unit	1CA
 NSE0_00992b 3WL9111-2AA64-0AA0	**Rating plugs[2]**								
	Size		Rated current I_n A						
	I, II		250		**3WL9111-2AA51-0AA0**		1	1 unit	1CA
			315		**3WL9111-2AA52-0AA0**		1	1 unit	1CA
			400		**3WL9111-2AA53-0AA0**		1	1 unit	1CA
			500		**3WL9111-2AA54-0AA0**		1	1 unit	1CA
			630		**3WL9111-2AA55-0AA0**		1	1 unit	1CA
			800		**3WL9111-2AA56-0AA0**		1	1 unit	1CA
			1000		**3WL9111-2AA57-0AA0**		1	1 unit	1CA
	I, II, III		1250		**3WL9111-2AA58-0AA0**		1	1 unit	1CA
			1600		**3WL9111-2AA61-0AA0**		1	1 unit	1CA
	II, III		2000		**3WL9111-2AA62-0AA0**		1	1 unit	1CA
			2500		**3WL9111-2AA63-0AA0**		1	1 unit	1CA
			3000		**3WL9111-2AA77-0AA0**		1	1 unit	1CA
			3200		**3WL9111-2AA64-0AA0**		1	1 unit	1CA
	III		4000		**3WL9111-2AA65-0AA0**		1	1 unit	1CA
			5000		**3WL9111-2AA66-0AA0**		1	1 unit	1CA
 NSE0_01027a 3WL9111-2AT53-0AA0	**Ground-fault modules[3]**								
	Versions								
	• GFM AT 45B (only for ETU45B) alarm and tripping				**3WL9111-2AT53-0AA0**		1	1 unit	1CA
 NSE0_01609 3WL9111-1AT81-0AA0	**Displays** • For ETU45B • 4-line				**3WL9111-1AT81-0AA0**		1	1 unit	1EA
 NSE0_00991a 3WL9111-0AA3.-0AA0	**External current transformer for N conductor** For T5, "Measurement Method" function, see Technical Information at www.siemens.com/lowvoltage/product-support.								
	Copper connection pieces		Size						
	--		I		**3WL9111-0AA21-0AA0**		1	1 unit	1CA
			II		**3WL9111-0AA22-0AA0**		1	1 unit	1CA
			III		**3WL9111-0AA23-0AA0**		1	1 unit	1CA
	✓		I		**3WL9111-0AA31-0AA0**		1	1 unit	1CA
			II		**3WL9111-0AA32-0AA0**		1	1 unit	1CA
			III		**3WL9111-0AA33-0AA0**		1	1 unit	1CA
	EMC filters • Common-mode interference suppressor filters (e.g. in IT networks, caused by frequency converters) • Insertion loss (asymmetric) in the range 40 kHz to 10 MHz > 40 dB				**3WL9111-0AK32-0AA0**		1	1 unit	1CA

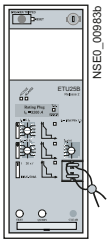
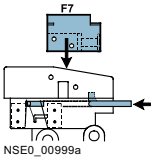
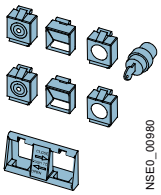
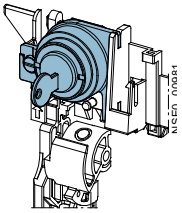
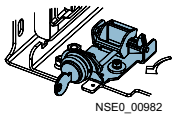
1) For replacement in existing circuit breakers, please specify the circuit breaker ID No. when ordering.

2) With the rating plug selected, the maximum rated current $I_{n\,max}$ of the circuit breaker must not be exceeded. The following applies: $I_n \leq I_{n\,max}$

3) For direct measurement of the ground-fault current, e.g. in the neutral point of the transformer, a 1200 A/1 A current transformer, class 1, is required. The internal load of the 3WL is 0.11 **Ω**. If the ground-fault current is to be determined using the vectorial sum of the phases, a transformer must be installed in the neutral conductor.

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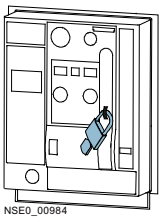
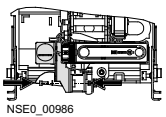
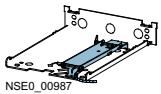
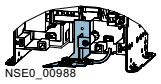
Accessories and spare parts

	Designation	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
More accessories for Electronic Trip Units							
 3WL9111-0AT45-0AA0	**Sealable and lockable covers**						
	Variant						
	• For ETU25B and ETU45B		**3WL9111-0AT45-0AA0**		1	1 unit	1CA
	Automatic reset of the reclosing lockout Spare part for option **K01,** see "-Z" + order code, page 1/20.		**3WL9111-0AK21-0AA0**		1	1 unit	1CA
 3WL9111-0AK0.-0AA0	**Remote reset solenoids**[1] • For mechanical tripped indicator • Spare part for options **K10** to **K13,** see "-Z" + order code, page 1/20.						
	Note						
	Automatic reset of the reclosing lockout 3WL9111-0AK21-0AA0 also needed.						
	Versions						
	• 24 V DC		**3WL9111-0AK03-0AA0**		1	1 unit	1CA
	• 48 V DC		**3WL9111-0AK04-0AA0**		1	1 unit	1CA
	• 120 V AC/125 V DC		**3WL9111-0AK05-0AA0**		1	1 unit	1CA
	• 208-250 V AC/208-250 V DC		**3WL9111-0AK06-0AA0**		1	1 unit	1CA
	Retrofittable internal CubicleBUS wiring for connection to terminal X8 • For ETU45B • Without male connector[2]		**3WL9111-0AK30-0AA0**		1	1 unit	1CA
	Retrofittable internal wiring for connection of the external N and G transformers to terminal X8 • Not for ETU Release 2 • With male connector		**3WL9111-0AK31-0AA0**		1	1 unit	1CA
Locking devices							
 3WL9111-0BA22-0AA0	**Interlocking set for mechanical ON/OFF** • Each consisting of 2 transparent covers for sealing or for attaching padlocks[4] • Cover with 6.35 mm hole (for tool actuation) • Lock mount for safety lock for key operation						
	Versions						
	• Without safety lock		**3WL9111-0BA21-0AA0**		1	1 unit	1CA
	• Made by CES		**3WL9111-0BA22-0AA0**		1	1 unit	1CA
	• Made by IKON		**3WL9111-0BA24-0AA0**		1	1 unit	1CA
 3WL9111-0BA31-0AA0	**Locking devices against unauthorized closing, in the operator panel** • The disconnector unit fulfills the requirements for main circuit breakers acc. to EN 60204-1 • Spare part for options **S01** to **S09,** see "-Z" + order code, page 1/22.						
	Versions						
	• Assembly kit FORTRESS or Castell[3]		**3WL9111-0BA31-0AA0**		1	1 unit	1CA
	• Made by Ronis		**3WL9111-0BA33-0AA0**		1	1 unit	1CA
	• Made by KIRK-Key[3]		**3WL9111-0BA34-0AA0**		1	1 unit	1CA
	• Made by Profalux		**3WL9111-0BA35-0AA0**		1	1 unit	1CA
	• Made by CES		**3WL9111-0BA36-0AA0**		1	1 unit	1CA
	• Made by IKON		**3WL9111-0BA38-0AA0**		1	1 unit	1CA
	• Assembly kit for padlocks[4]		**3WL9111-0BA41-0AA0**		1	1 unit	1CA
 3WL9111-0BA53-0AA0	**Locking devices against unauthorized closing, for withdrawable circuit breakers** • The disconnector unit fulfills the requirements for main circuit breakers acc. to EN 60204-1 • Consisting of lock in the cabinet door, active in connected position; function is retained when circuit breaker is replaced • Spare part for option **R60, R61, R68**, see "-Z" + order code, page 1/22.						
	Versions						
	• Made by CES		**3WL9111-0BA51-0AA0**		1	1 unit	1CA
	• Made by IKON		**3WL9111-0BA53-0AA0**		1	1 unit	1CA
	• Made by KIRK-Key[3]		**3WL9111-0BA57-0AA0**		1	1 unit	1CA
	• Made by Ronis		**3WL9111-0BA58-0AA0**		1	1 unit	1CA
	• Made by Profalux		**3WL9111-0BA50-0AA0**		1	1 unit	1CA

1) Can only be used in conjunction with "automatic reset of reclosing lockout", e.g. "–Z" + "K01", 3WL9111-0AK21-0AA0.
2) Required if communication is retrofitted.
3) Locks, cylinders and keys must be ordered from the manufacturer.
4) Padlock not included in the scope of supply.

Minimum order quantity (PS) or a multiple thereof can be ordered.

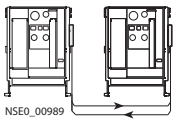
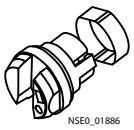
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	Designation	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
 NSE0_00984 3WL9111-0BA71-0AA0	**Locking devices for operating mechanism handle with padlock**[1] Spare part for option **S33,** see "-Z" + order code, page 1/22.		**3WL9111-0BA71-0AA0**		1	1 unit	1CA
 NSE0_00986 3WL9111-0BA76-0AA0	**Locking devices to prevent movement of the withdrawable circuit breakers** • Safety lock for mounting on the circuit breaker • Spare part for option **S71, S75, S76**, see "-Z" + order code, page 1/22.						
	Versions						
	• Made by CES		**3WL9111-0BA73-0AA0**		1	1 unit	1CA
	• Made by IKON		**3WL9111-0BA75-0AA0**		1	1 unit	1CA
	• Made by Profalux		**3WL9111-0BA76-0AA0**		1	1 unit	1CA
	• Made by Ronis		**3WL9111-0BA77-0AA0**		1	1 unit	1CA
	• Made by KIRK-Key[2]		**3WL9111-0BA80-0AA0**		1	1 unit	1CA
	Interlocking systems • Made by CES • 2 of the same keys for 3 circuit breakers • Locking device in OFF position • Lock in the operator panel • A maximum of 2 circuit breakers can be switched on		**3WL9111-0BA43-0AA0**		1	1 unit	1CA
Locking mechanisms							
 NSE0_00987 3WL9111-0BA83-0AA0	**Locking mechanisms to prevent movement of the withdrawable circuit breakers in disconnected position** • Consisting of Bowden cable and lock in the cabinet door on the circuit breaker • Spare part for option **R81**, **R85**, **R86,** see "-Z" + order code, page 1/23.						
	Versions						
	• Made by CES		**3WL9111-0BA81-0AA0**		1	1 unit	1CA
	• Made by IKON		**3WL9111-0BA83-0AA0**		1	1 unit	1CA
	• Made by Profalux		**3WL9111-0BA85-0AA0**		1	1 unit	1CA
	• Made by Ronis		**3WL9111-0BA86-0AA0**		1	1 unit	1CA
	Note						
	Not possible in combination with "Locking mechanism to prevent opening of the cabinet door" (order code "R30") or "Locking mechanism to prevent movement with the cabinet door open (order code "R50").						
 NSE0_00988 3WL9111-0BB12-0AA0	**Locking mechanisms to prevent opening of the cabinet door in ON position** • Fixed-mounted • Can be defeated • Spare part for option **S30,** see "-Z" + order code, page 1/23.		**3WL9111-0BB12-0AA0**		1	1 unit	1CA
	Locking mechanisms to prevent opening of the cabinet door • Guide frames • Can be defeated • Spare part for option **R30,** see "-Z" + order code, page 1/23.		**3WL9111-0BB13-0AA0**		1	1 unit	1CA
	Note						
	Not possible in combination with "Locking device to prevent movement of the withdrawable circuit breakers in disconnected position" (order codes "R81", "R85" or "R86").						
	Locking mechanisms to prevent movement with the cabinet door open • Guide frames • Spare part for option **R50,** see "-Z" + order code, page 1/23.		**3WL9111-0BB15-0AA0**		1	1 unit	1CA
	Note						
	Not possible in combination with "Locking device to prevent movement of the withdrawable circuit breakers in disconnected position" (order codes "R81", "R85" or "R86").						

1) Padlock not included in the scope of supply.
2) Locks, cylinders and keys must be ordered from the manufacturer.

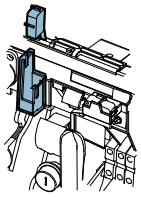
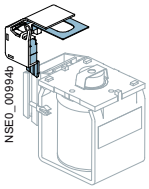
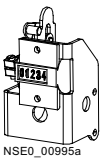
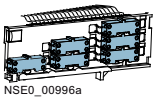
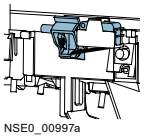
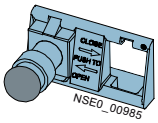
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Accessories and spare parts

	Designation	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
Interlocks							
 NSE0_00989 3WL9111-0BB21-0AA0	**Mechanical interlocking** With Bowden cable 2000 mm (one required for each circuit breaker)						
	Type / When ordered separately / Spare part for						
	Fixed-mounted circuit breakers / -- / Option **S55,** see "-Z" + order code, page 1/21.		**3WL9111-0BB21-0AA0**		1	1 unit	1CA
	Module for withdrawable circuit breakers with guide frame / -- / Option **R55,** see "-Z" + order code, page 1/21.		**3WL9111-0BB24-0AA0**		1	1 unit	1CA
	Module for guide frame / ✓ / Option **R56,** see "-Z" + order code, page 1/21.		**3WL9111-0BB22-0AA0**		1	1 unit	1CA
	Module for withdrawable circuit breaker / ✓ / Option **R57,** see "-Z" + order code, page 1/21.		**3WL9111-0BB23-0AA0**		1	1 unit	1CA
	Adapter for size III withdrawable circuit breaker / ✓ / --		**3WL9111-0BB30-0AA0**		1	1 unit	1CA
 NSE0_01886 3WL9112-8HA47-0AA0	**Couplings on the circuit breaker (with ring) for mutual interlocking** Can be used in all circuit breakers		**3WL9112-8AH47-0AA0**		1	1 unit	1CA
	Bowden cables						
	Versions						
	2000 mm		**3WL9111-0BB45-0AA0**		1	1 unit	1CA
	3000 mm		**3WL9111-0BB46-0AA0**		1	1 unit	1CA
	4500 mm		**3WL9111-0BB47-0AA0**		1	1 unit	1CA
Transfer control devices							
 3KC9000-8TL40 3KC9000-8EL10	**3KC ATC6300 and ATC3100 transfer control devices** For combination with two air circuit breakers/molded case circuit breakers for changeover according to IEC 60947-6-1. For more information, see LV 10, chapter "Transfer Switching Equipment and Load Transfer Switches".						
Test devices							
	Manual test device for Electronic Trip Units ETU25B and ETU45B For testing the Electronic Trip Unit functions of all 3WL ETUs		**3WL9111-0AT32-0AA0**		1	1 unit	1CA
	Function testers For testing the tripping characteristics of Electronic Trip Units ETU25B and ETU45B		**3WL9111-0AT44-0AA0**		1	1 unit	1CA
Capacitor storage devices							
	Capacitor storage devices • For shunt releases • Storage time 5 min		**3WL9111-0BA14-0AA0**		1	1 unit	1CA
	Rated control supply voltage/ rated operational voltage: 50/60 Hz V AC: 220 ... 240; V DC: 220 ... 250						
	Note: • Rated control supply voltage must match the rated control supply voltage of the shunt release • Suitable also for 3VL circuit breakers						

Minimum order quantity (PS) or a multiple thereof can be ordered.

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	Designation	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
Indicators, control elements							
 NSE0_00993a 3WL9111-0AH01-0AA0	**Ready-to-close signaling switches (S20)** • 1 NO contact • Spare part for option **C22,** see "-Z" + order code, page 1/20.		**3WL9111-0AH01-0AA0**		1	1 unit	1CA
 NSE0_00994b 3WL9111-0AH02-0AA0	**Signaling switches[1)2)] (S22 or S23)** • 1st or 2nd auxiliary release • Spare part for option **C26** and **C27,** see "Z" + order code, page 1/20.		**3WL9111-0AH02-0AA0**		1	1 unit	1CA
	1st tripped signaling switch[1)2)7)] (S24) • 1 CO contact • Spare part for option **K07,** see "-Z" + order code, page 1/20.		**3WL9111-0AH14-0AA0**		1	1 unit	1CA
	2nd tripped signaling switch[1)2)3)7)] (S25) • 1 NO contact • Spare part for option **K06,** see "-Z" + order code, page 1/20.		**3WL9111-0AH17-0AA0**		1	1 unit	1CA
 NSE0_00995a 3WL9111-0AH07-0AA0	**Operating cycles counter** • Mechanical[4)] • Spare part for option **C01,** see "-Z" + order code, page 1/20.		**3WL9111-0AH07-0AA0**		1	1 unit	1CA
	Stored-energy status signaling switches[1)2)] • 1 NO contact • Spare part for option **C20,** see "-Z" + order code, page 1/20.		**3WL9111-0AH08-0AA0**		1	1 unit	1CA
 NSE0_00996a 3WL9111-0AH12-0AA0	**Position signaling switches for guide frames** Spare part for option **R15** and **R16,** see "Z" + order code, page 1/21.						
	Versions						
	• 1st block (3 CO contacts) • 2nd block (6 CO contacts)		**3WL9111-0AH11-0AA0** **3WL9111-0AH12-0AA0**		1 1	1 unit 1 unit	1CA 1CA
 NSE0_00997a 3WL9111-0AJ0.-0AA0	**Electrical ON buttons[1)5)] (S10)** • Button + wiring[2)] • For operator panel • Spare part for option **C11** and **C12**, see "Z" + order code, page 1/20.						
	Versions						
	• With sealing cap **C11** • With CES assembly kit **C12** • With IKON assembly kit		**3WL9111-0AJ02-0AA0** **3WL9111-0AJ03-0AA0** **3WL9111-0AJ05-0AA0**		1 1 1	1 unit 1 unit 1 unit	1CA 1CA 1CA
	Note						
	Possible only for circuit breakers with closing coil.						
	Motor shutdown switches[6)] (S12) • Mounting on operator panel • Spare part for option **S25,** see "-Z" + order code, page 1/20.		**3WL9111-0AJ06-0AA0**		1	1 unit	1CA
 NSE0_00985 3WL9111-0BA72-0AA0	**EMERGENCY-STOP pushbuttons** • Mushroom pushbutton instead of the mechanical OFF pushbutton • Spare part for option **S24,** see "-Z" + order code, page 1/20.		**3WL9111-0BA72-0AA0**		1	1 unit	1CA

1) Not possible with "communications interface" option, order code "F02" or "F12".

2) X7 auxiliary supply connector required for circuit breakers or guide frames. If this is not already available, please order additionally (see page 1/26 and page 1/34).

3) Can only be used in combination with 1st. tripped signaling switch.

4) Only in conjunction with motorized operating mechanism.

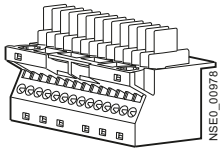
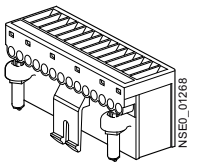
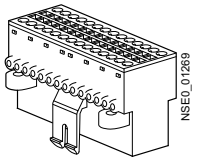
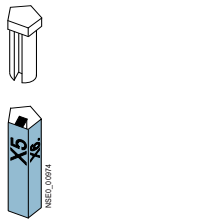
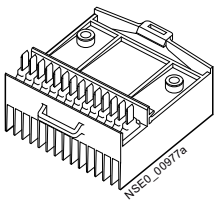
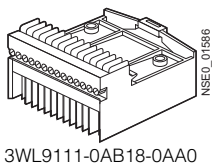
5) Not possible with motor shutdown switch.

6) Not possible with electrical ON button.

7) Not available for non-automatic air circuit breakers.

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Accessories and spare parts

	Designation	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
Auxiliary conductor connections							
 3WL9111-0AB01-0AA0	**Male connectors for circuit breakers** ①		**3WL9111-0AB01-0AA0**		1	1 unit	1CA
	Extension for the 1000 V male connector versions Male connector must be ordered separately.		**3WL9111-0AB02-0AA0**		1	1 unit	1CA
	Male connectors and extension for 1000 V		**3WL9111-0AB10-0AA0**		1	1 unit	1EA
 3WL9111-0AB03-0AA0  3WL9111-0AB04-0AA0	**Auxiliary supply connectors for circuit breakers or guide frames** ② Versions • Screw connection (SIGUT) • Screwless connection method (tension spring)		**3WL9111-0AB03-0AA0** **3WL9111-0AB04-0AA0**		1 1	1 unit 1 unit	1CA 1CA
 3WL9111-0AB07-0AA0	**Coding kits** For fixed-mounted versions (X5 to X8) ③		**3WL9111-0AB07-0AA0**		1	1 unit	1CA
 3WL9111-0AB08-0AA0	**Sliding contact modules for guide frames** ④		**3WL9111-0AB08-0AA0**		1	1 unit	1CA
 3WL9111-0AB18-0AA0	**One-part sliding contact modules for guide frames** Screw connection (SIGUT) ⑤		**3WL9111-0AB18-0AA0**		1	1 unit	1CA
	Blanking blocks for circuit breakers		**3WL9111-0AB12-0AA0**		1	1 unit	1CA

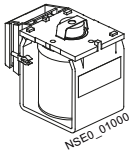
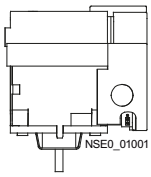
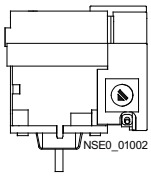
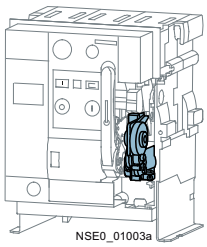
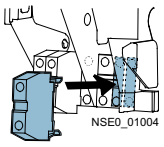
For a complete auxiliary current connection you must order:

Fixed-mounted version: ① + ② + ③

Withdrawable version: ① + ④ + ② or ① + ⑤

Minimum order quantity (PS) or a multiple thereof can be ordered.

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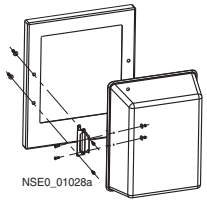
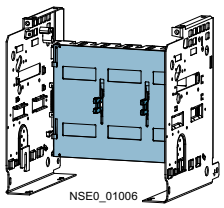
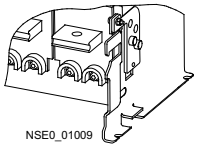
	Designation		SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
Auxiliary releases								
 3WL9111-0AD06-0AA0	**Closing coils/shunt releases**							
	Versions	Voltage						
	100% OP	24 V DC		**3WL9111-0AD01-0AA0**		1	1 unit	1CA
		30 V DC		**3WL9111-0AD02-0AA0**		1	1 unit	1CA
		48 V DC		**3WL9111-0AD03-0AA0**		1	1 unit	1CA
		60 V DC		**3WL9111-0AD04-0AA0**		1	1 unit	1CA
		110 ... 125 V DC/110 ... 127 V AC		**3WL9111-0AD05-0AA0**		1	1 unit	1CA
		220 ... 250 V DC/208 ... 240 V AC		**3WL9111-0AD06-0AA0**		1	1 unit	1CA
	5% OP[1]	24 V DC		**3WL9111-0AD11-0AA0**		1	1 unit	1CA
		48 V DC		**3WL9111-0AD12-0AA0**		1	1 unit	1CA
		110 ... 125 V DC/110 ... 127 V AC		**3WL9111-0AD13-0AA0**		1	1 unit	1CA
		220 ... 250 V DC/208 ... 240 V AC		**3WL9111-0AD14-0AA0**		1	1 unit	1CA
 3WL9111-0AE0.-0AA0	**Undervoltage releases**							
	Versions	Voltage						
	Instantaneous	24 V DC		**3WL9111-0AE01-0AA0**		1	1 unit	1CA
		30 V DC		**3WL9111-0AE02-0AA0**		1	1 unit	1CA
		48 V DC		**3WL9111-0AE03-0AA0**		1	1 unit	1CA
		60 V DC		**3WL9111-0AE07-0AA0**		1	1 unit	1CA
		110 ... 125 V DC/110 ... 127 V AC		**3WL9111-0AE04-0AA0**		1	1 unit	1CA
		220 ... 250 V DC/208 ... 240 V AC		**3WL9111-0AE05-0AA0**		1	1 unit	1CA
	Delayed	48 V DC		**3WL9111-0AE11-0AA0**		1	1 unit	1CA
		110 ... 125 V DC/110 ... 127 V AC		**3WL9111-0AE12-0AA0**		1	1 unit	1CA
		220 ... 250 V DC/208 ... 240 V AC		**3WL9111-0AE13-0AA0**		1	1 unit	1CA
 3WL9111-0AE1.-0AA0								
Operating mechanisms								
 3WL9111-0AF0.-0AA0	**Motorized operating mechanisms[2]**							
	Versions							
	• 24 ... 30 V DC			**3WL9111-0AF01-0AA0**		1	1 unit	1CA
	• 48 ... 60 V DC			**3WL9111-0AF02-0AA0**		1	1 unit	1CA
	• 110 ... 125 V DC/110 ... 127 V AC			**3WL9111-0AF03-0AA0**		1	1 unit	1CA
	• 220 ... 250 V DC/208 ... 240 V AC			**3WL9111-0AF04-0AA0**		1	1 unit	1CA
Auxiliary contacts								
 3WL9111-0AG03-0AA0	**Auxiliary switch blocks**							
	Versions							
	• 2 NO contacts + 2 NC contacts			**3WL9111-0AG01-0AA0**		1	1 unit	1CA
	• 2 NO contacts			**3WL9111-0AG02-0AA0**		1	1 unit	1CA
	• 1 NO contact + 1 NC contact			**3WL9111-0AG03-0AA0**		1	1 unit	1CA

1) Overexcited, i.e. switching time 50 ms (standard > 80 ms).

2) X5 auxiliary supply connector required for circuit breakers or guide frames. If this is not already available, please order additionally (see page 1/26 and page 1/34).

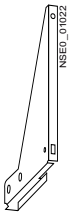
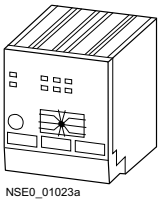
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Accessories and spare parts

	Designation	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
Door sealing frames, hoods, shutters							
	Door sealing frames Spare part for option **T40,** see "-Z" + order code, page 1/20.		**3WL9111-0AP01-0AA0**		1	1 unit	1CA
 3WL9111-0AP03-0AA0	**Protective covers** IP55 Notes • Cannot be used in conjunction with door sealing frames • Hood removable and can be opened on both sides		**3WL9111-0AP03-0AA0**		1	1 unit	1CA
 3WL9111-0AP..-0AA0	**Shutters** Spare part for option **R21,** see "-Z" + order code, page 1/21.						
	Number of poles: 3-pole; Size: I		**3WL9111-0AP04-0AA0**		1	1 unit	1CA
	Number of poles: 3-pole; Size: II		**3WL9111-0AP06-0AA0**		1	1 unit	1CA
	Number of poles: 3-pole; Size: III		**3WL9111-0AP07-0AA0**		1	1 unit	1CA
	Number of poles: 4-pole; Size: I		**3WL9111-0AP08-0AA0**		1	1 unit	1CA
	Number of poles: 4-pole; Size: II		**3WL9111-0AP11-0AA0**		1	1 unit	1CA
	Number of poles: 4-pole; Size: III		**3WL9111-0AP12-0AA0**		1	1 unit	1CA
Coding for withdrawable version							
 3WL9111-0AR12-0AA0 3WL9111-0AR13-0AA0	**Coding for withdrawable version** By customer, for 36 coding variants						
	Versions: • Sizes I and II		**3WL9111-0AR12-0AA0**		1	1 unit	1CA
	Versions: • Size III		**3WL9111-0AR13-0AA0**		1	1 unit	1CA

Minimum order quantity (PS) or a multiple thereof can be ordered.

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	Designation	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
Support brackets							
 3WL9111-0BB50-0AA0	**Support brackets** • For mounting fixed-mounted circuit breakers on vertical plane • Only for sizes I and II (1 set = 2 units)		**3WL9111-0BB50-0AA0**		1	1 unit	1CA
CubicleBUS modules[1)4)]							
 3WL9111-1AT23-0AA0	**Digital output modules with rotary coding switch, relay outputs**		**3WL9111-1AT26-0AA0**		1	1 unit	1EA
	Digital output modules, configurable, relay outputs		**3WL9111-1AT20-0AA0**		1	1 unit	1EA
	Digital input modules		**3WL9111-1AT27-0AA0**		1	1 unit	1EA
	Analog output modules		**3WL9111-1AT23-0AA0**		1	1 unit	1EA
	Zone Selective Interlocking modules		**3WL9111-1AT21-0AA0**		1	1 unit	1EA
Parameterization systems[2)]							
	powerconfig commissioning and service software • Parameterization, operation, monitoring and diagnostics of 3WL air circuit breakers using powerconfig software, see LV 10, chapter "Measuring Devices and Power Monitoring". • powerconfig is available free of charge at http://support.automation.siemens.com/WW/view/en/63452759						

1) Each **Cubicle**BUS module is supplied with a 0.2 m pre-assembled cable to connect the modules with each other. A longer pre-assembled cable is required for connection to the circuit breaker.

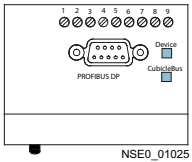
2) A 24 V DC power supply unit is required.

3) Operation under Windows Vista and Windows 7 possible with restrictions.

4) All communication components, **Cubicle**BUS modules and metering functions are available for the ETU45B Electronic Trip Units.

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Accessories and spare parts

	Designation	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
Accessories for communication[3]							
	Pre-assembled cables for CubicleBUS **modules**						
	Versions						
	• 0.2 m long, for connection to 3WL with COM15/COM16		**3WL9111-0BC04-0AA0**		1	1 unit	1CA
	• 1 m long, for connection to 3WL with COM15/COM16		**3WL9111-0BC02-0AA0**		1	1 unit	1CA
	• 2 m long, for connection to 3WL with COM15/COM16		**3WL9111-0BC03-0AA0**		1	1 unit	1CA
	• 2 m long, for connection to 3WL without COM15/COM16		**3WL9111-0BC05-0AA0**		1	1 unit	1CA
	SENTRON manual for communication solutions • Detailed description of the communication functions for circuit breakers. Installation, connection, commissioning, data transmission to the PLC. • Free download from: www.siemens.com/lowvoltage/manuals						
	Voltage transformers • 3-pole, for 3WL circuit breakers with metering function *Plus*[1] • 380 ... 690 V/100 V, class 0.5		**3WL9111-0BB68-0AA0**		1	1 unit	1CA
Retrofitting and spare parts[3]							
 3WL9111-1AT65-0AA0	**COM15 PROFIBUS modules** For ETU45B Electronic Trip Unit		**3WL9111-1AT65-0AA0**		1	1 unit	1EA
	COM16 MODBUS modules For ETU45B Electronic Trip Unit		**3WL9111-1AT15-0AA0**		1	1 unit	1CA
	Breaker Status Sensor (BSS) For ETU45B Electronic Trip Unit		**3WL9111-1AT16-0AA0**		1	1 unit	1EA
	Metering function *Plus*[2] Voltage transformer required		**3WL9111-1AT03-0AA0**		1	1 unit	1EA

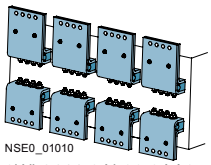
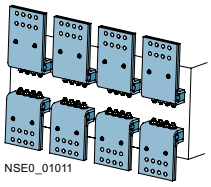
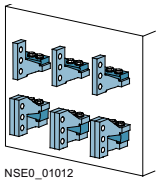
1) Is required for operation of the metering function *Plus*.

2) A measuring accuracy of 3% is reached if retrofitted.

3) All communication components, **Cubicle**BUS modules and metering functions are available for the ETU45B Electronic Trip Units.

Minimum order quantity (PS) or a multiple thereof can be ordered.

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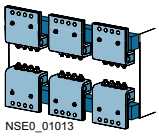
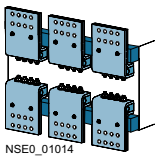
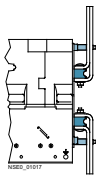
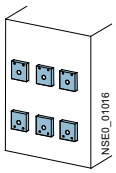
	Designation		SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
Main conductor connections, fixed-mounted versions (essential accessory)								
	Specified for each connection							
 NSE0_01010 3WL9111-0AL06-0AA0 + 3WL9111-0AL56-0AA0	**Front-accessible main connections, single hole at top**							
	Size	Rated current I_n						
	I	Up to 1000 A		**3WL9111-0AL01-0AA0**		1	1 unit	1CA
		1250 A to 1600 A		**3WL9111-0AL02-0AA0**		1	1 unit	1CA
	II	Up to 2000 A		**3WL9111-0AL03-0AA0**		1	1 unit	1CA
		Up to 2500 A		**3WL9111-0AL04-0AA0**		1	1 unit	1CA
		Up to 3200 A		**3WL9111-0AL05-0AA0**		1	1 unit	1CA
	III	Up to 4000 A		**3WL9111-0AL06-0AA0**		1	1 unit	1CA
	Front-accessible main connections, single hole at bottom							
	Size	Rated current I_n						
	I	Up to 1000 A		**3WL9111-0AL51-0AA0**		1	1 unit	1CA
		1250 A to 1600 A		**3WL9111-0AL52-0AA0**		1	1 unit	1CA
	II	Up to 2000 A		**3WL9111-0AL53-0AA0**		1	1 unit	1CA
		Up to 2500 A		**3WL9111-0AL54-0AA0**		1	1 unit	1CA
		Up to 3200 A		**3WL9111-0AL55-0AA0**		1	1 unit	1CA
	III	Up to 4000 A		**3WL9111-0AL56-0AA0**		1	1 unit	1CA
 NSE0_01011 3WL9111-0AL14-0AA0 + 3WL9111-0AL64-0AA0	**Front-accessible main connections according to DIN 43673, double hole at top**							
	Size	Rated current I_n						
	I	Up to 1000 A		**3WL9111-0AL07-0AA0**		1	1 unit	1CA
		1250 A to 1600 A		**3WL9111-0AL08-0AA0**		1	1 unit	1CA
	II	Up to 2000 A		**3WL9111-0AL11-0AA0**		1	1 unit	1CA
		Up to 2500 A		**3WL9111-0AL12-0AA0**		1	1 unit	1CA
		Up to 3200 A		**3WL9111-0AL13-0AA0**		1	1 unit	1CA
	III	Up to 4000 A		**3WL9111-0AL14-0AA0**		1	1 unit	1CA
	Front-accessible main connections according to DIN 43673, double hole at bottom							
	Size	Rated current I_n						
	I	Up to 1000 A		**3WL9111-0AL57-0AA0**		1	1 unit	1CA
		1250 A to 1600 A		**3WL9111-0AL58-0AA0**		1	1 unit	1CA
	II	Up to 2000 A		**3WL9111-0AL61-0AA0**		1	1 unit	1CA
		Up to 2500 A		**3WL9111-0AL62-0AA0**		1	1 unit	1CA
		Up to 3200 A		**3WL9111-0AL63-0AA0**		1	1 unit	1CA
	III	Up to 4000 A		**3WL9111-0AL64-0AA0**		1	1 unit	1CA
 NSE0_01012 3WL9111-0AM03-0AA0	**Rear vertical main connections**							
	Size	Rated current I_n						
	I[1)]	Up to 1600 A		**3WL9111-0AM01-0AA0**		1	1 unit	1CA
	II[2)]	Up to 3200 A		**3WL9111-0AM02-0AA0**		1	1 unit	1CA
	III	Up to 6300 A		**3WL9111-0AM03-0AA0**		1	1 unit	1CA

1) In the case of vertical connection size I with breaking capacity N and S, up to 1000 A one 3WL9111-0AM01-0AA0 vertical connection is required, up to 1600 A two 3WL9111-0AM01-0AA0 vertical connections are required.

2) In the case of vertical connection size II, up to 2500 A one 3WL9111-0AM02-0AA0 vertical connection is required, up to 3200 A two 3WL9111-0AM02-0AA0 vertical connections are required.

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Accessories and spare parts

	Designation		SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
Main conductor connections, withdrawable versions (essential accessories)								
	Specified for each connection							
 NSE0_01013 3WL9111-0AN06-0AA0	**Front-accessible main connections, single hole at top or at bottom**[1]							
	Size	Rated current I_n						
	I	Up to 1000 A		**3WL9111-0AN01-0AA0**		1	1 unit	1CA
		1250 A to 1600 A		**3WL9111-0AN02-0AA0**		1	1 unit	1CA
	II	Up to 2000 A		**3WL9111-0AN03-0AA0**		1	1 unit	1CA
		Up to 2500 A		**3WL9111-0AN04-0AA0**		1	1 unit	1CA
		Up to 3200 A		**3WL9111-0AN05-0AA0**		1	1 unit	1CA
	III	Up to 4000 A		**3WL9111-0AN06-0AA0**		1	1 unit	1CA
 NSE0_01014 3WL9111-0AN14-0AA0	**Main connections accessible from front according to DIN 43673, double hole at top or at bottom**[1]							
	Size	Rated current I_n						
	I	Up to 1000 A		**3WL9111-0AN07-0AA0**		1	1 unit	1CA
		1250 A to 1600 A		**3WL9111-0AN08-0AA0**		1	1 unit	1CA
	II	Up to 2000 A		**3WL9111-0AN11-0AA0**		1	1 unit	1CA
		Up to 2500 A		**3WL9111-0AN12-0AA0**		1	1 unit	1CA
		Up to 3200 A		**3WL9111-0AN13-0AA0**		1	1 unit	1CA
	III	Up to 4000 A		**3WL9111-0AN14-0AA0**		1	1 unit	1CA
 3WL9111-0AN41-0AA0	**Supports for front and DIN connecting bars**							
	Number of poles	Size						
	3-pole for 3 bars	I		**3WL9111-0AN41-0AA0**		1	1 unit	1CA
		II		**3WL9111-0AN42-0AA0**		1	1 unit	1CA
		III		**3WL9111-0AN43-0AA0**		1	1 unit	1CA
	4-pole for 4 bars	I		**3WL9111-0AN44-0AA0**		1	1 unit	1CA
		II		**3WL9111-0AN45-0AA0**		1	1 unit	1CA
		III		**3WL9111-0AN46-0AA0**		1	1 unit	1CA
 NSE0_01015 3WL9111-0AN22-0AA0	**Rear vertical main connections**							
	Size	Rated current I_n						
	I	Up to 1000 A		**3WL9111-0AN15-0AA0**		1	1 unit	1CA
		1250 A to 1600 A		**3WL9111-0AN16-0AA0**		1	1 unit	1CA
	II	Up to 2000 A		**3WL9111-0AN17-0AA0**		1	1 unit	1CA
		Up to 2500 A		**3WL9111-0AN18-0AA0**		1	1 unit	1CA
		Up to 3200 A		**3WL9111-0AN21-0AA0**		1	1 unit	1CA
	III	Up to 5000 A		**3WL9111-0AN22-0AA0**		1	1 unit	1CA
	Rear horizontal main connections							
	Size	Rated current I_n						
	I	Up to 1000 A		**3WL9111-0AN32-0AA0**		1	1 unit	1CA
		1250 A to 1600 A		**3WL9111-0AN33-0AA0**		1	1 unit	1CA
	II	Up to 2000 A		**3WL9111-0AN34-0AA0**		1	1 unit	1CA
		Up to 2500 A		**3WL9111-0AN35-0AA0**		1	1 unit	1CA
		Up to 3200 A		**3WL9111-0AN36-0AA0**		1	1 unit	1CA
	III	Up to 5000 A		**3WL9111-0AN37-0AA0**		1	1 unit	1CA
 NSE0_01016 3WL9111-0AN24-0AA0	**Connecting flange**							
	Size	Rated current I_n						
	I	Up to 1000 A		**3WL9111-0AN24-0AA0**		1	1 unit	1CA
		1250 A to 1600 A		**3WL9111-0AN25-0AA0**		1	1 unit	1CA
	II	Up to 2000 A		**3WL9111-0AN26-0AA0**		1	1 unit	1CA
		Up to 2500 A		**3WL9111-0AN27-0AA0**		1	1 unit	1CA
		Up to 3200 A		**3WL9111-0AN28-0AA0**		1	1 unit	1CA
	III	Up to 4000 A		**3WL9111-0AN31-0AA0**		1	1 unit	1CA
Conversion sets								
	Conversion set for converting fixed-mounted circuit breakers into withdrawable circuit breakers • Only for AC circuit breakers/non-automatic air circuit breakers • Guide frames and sliding contact modules must be ordered separately							
	Number of poles	Size						
	3-pole	I		**3WL9111-0BC11-0AA0**		1	1 unit	1CA
		II		**3WL9111-0BC12-0AA0**		1	1 unit	1CA
		III		**3WL9111-0BC13-0AA0**		1	1 unit	1CA
	4-pole	I		**3WL9111-0BC14-0AA0**		1	1 unit	1CA
		II		**3WL9111-0BC15-0AA0**		1	1 unit	1CA
		III		**3WL9111-0BC16-0AA0**		1	1 unit	1CA

[1] When using front-accessible main connections (withdrawable circuit breakers) supports are required.

Minimum order quantity (PS) or a multiple thereof can be ordered.

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1

Options

Structure of the article number

3WL5 2 2 0 – 4 F G 3 1 – 1 F A 2

Example

5th digit:	Size	Size II
6th and 7th digits:	Max. rated circuit breaker current $I_{n\,max}$	$I_{n\,max}$ = 2000 A
8th digit:	Breaking capacity class	High breaking capacity "H": 100 kA
9th digit:	Electronic Trip Units	ETU45B with 4-line display ...
10th digit:	Electronic Trip Unit supplement	... with ground-fault protection
11th digit:	Number of poles	Three-pole
12th digit:	Installation type	Fixed-mounted, main connections on rear, vertical
13th digit:	Operating mechanisms	Manual operating mechanism with mechanical closing
14th digit:	1st auxiliary release	Shunt release 50/60 Hz 110 V AC
15th digit:	2nd auxiliary release	Without 2nd auxiliary release
16th digit:	Auxiliary switches	2 NO contacts + 2 NC contacts

An important prerequisite for computer-based order processing is that article numbers must be structured according to standardized criteria.

They are used as an unambiguous means of communication for various purposes:

- Offer processing
  Selection and configuration
- Order processing
  Orders
  Order confirmation
  Processing of products for storage
  Order processing in supply locations
  Supply and dispatch
- Reporting and planning
- Service and warranty

The standardized structure ensures that only one article number has to be administered for one device.

This saves time and effort during planning, configuring, ordering and in stock keeping, and consequently above all it saves costs.

The example opposite explains the various digits within an article number.

Accessories: With first order (components are already mounted)

Example

3WL5 2 1 6 – 4 J G 3 1 – 1 F A 3 – Z F 0 2

"–Z" with order code	Communications interface "Standard" + Breaker Status Sensor (BSS) + COM15 communication module for connection to PROFIBUS DP

Additional accessory components can be ordered ready-mounted.

These supplements are identified by **"–Z"**.

Even with additional components, one article number is sufficient.

Accessories: For retrofitting (components for subsequent fitting)

Example

3WL9 1 1 1 – 0 B A 2 1 – 0 A A 0

Interlocking set for mechanical ON/OFF without lock

Additional accessories which are not intended to be ready-mounted in the factory, such as spare parts for storage, can also be ordered separately from the circuit breaker.

Accessories for retrofitting are identified by the article number stem 3WL9.

Documentation

PROFIBUS manual	German	Article No.	**A5E01051347**
Communication	English	Article No.	**A5E01051353**
MODBUS manual	German	Article No.	**3ZX1012-0WL10-1AB1**
Communication	English	Article No.	**3ZX1012-0WL10-1AC1**

Free download of documentation from
www.siemens.com/lowvoltage/manuals

More information

Up-to-date information on the Internet at:
www.siemens.com/sentron

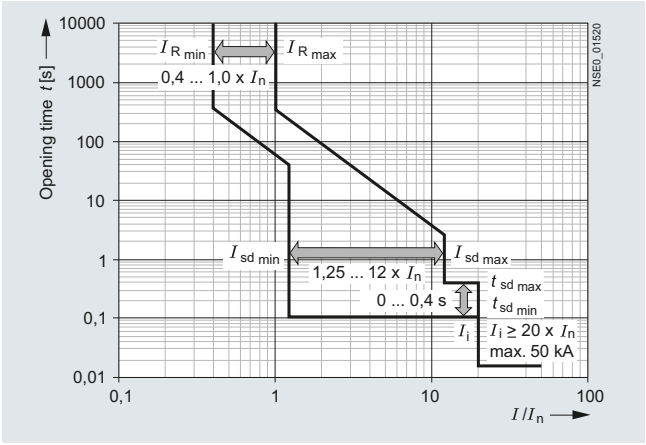
Minimum order quantity (PS) or a multiple thereof can be ordered.

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1

Characteristic curves[2)]

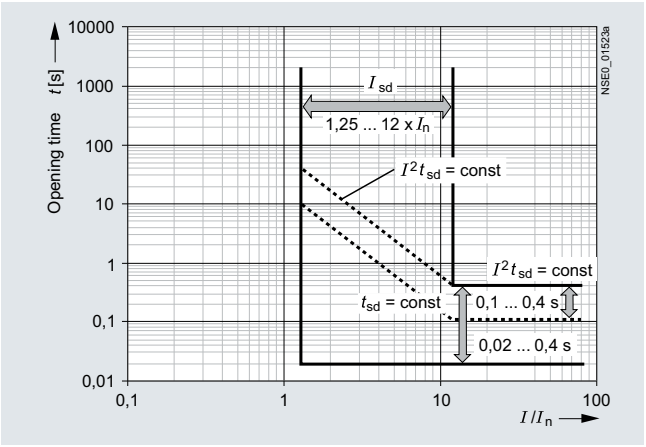
Every Electronic Trip Unit type and every setting has its own characteristic curve. Only a selection is shown in the following. The characteristic curves each show the largest and smallest setting range of 3WL circuit breakers with 1000 A rated current at 480 V rated voltage with various trip units. In order to obtain a complete tripping characteristic curve, the relevant parts of the characteristic curves have to be combined. The characteristic curves show the behavior of the Electronic Trip Unit when it is activated by a current that is already flowing before the tripping operation. If the overcurrent tripping occurs immediately after closing and the Electronic Trip Unit is therefore not yet activated, the opening time is extended, depending on the level of the overcurrent by up to 15 ms. To determine the break-times of the circuit breakers, approximately 15 ms must be added to the opening times shown for the arcing time.
For tolerances, see legend below.
The characteristic curves shown apply to ambient temperatures at the circuit breaker between -5 and +55 °C. The trip unit can be operated at ambient temperatures of -20 to +70 °C. An extended tolerance band can apply at these temperatures.



3WL5 circuit breaker with ETU25B Electronic Trip Unit,
LSI characteristic curve

Tolerances for the current settings
L: Tripping operations between 1.05 and 1.2 x I_R
S: -0%, +20%
I: -0%, +20%
G: -0%, +20%

Tolerances for the tripping times
L: -20%, +0% for I^2t characteristic curve
S: -0%, +60 ms or -0%, 10% for tripping times greater than 600 ms
I: <50 ms
G: -0%, +60 ms or -0%, 10% for tripping times greater than 600 ms



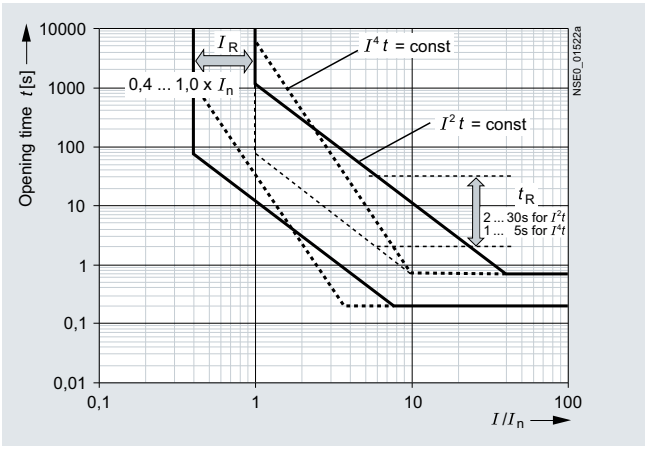
3WL5 circuit breaker with ETU45B Electronic Trip Unit,
S characteristic curve

1) Sizes I and II: 100 ... 1200 A
Size III: 400 ... 1200 A.

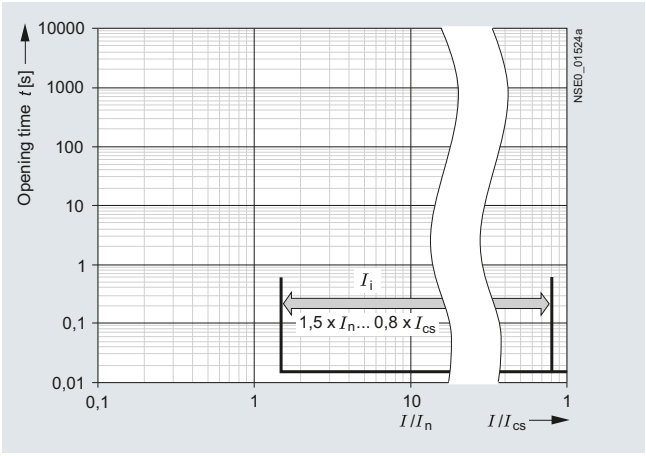
2) With a single-pole load in the lowest rated current range, the response times of the short-circuit trip can increase by approx. 10% and the tripping times by approx. 15% with respect to the characteristic curve.

Minimum order quantity (PS) or a multiple thereof can be ordered.

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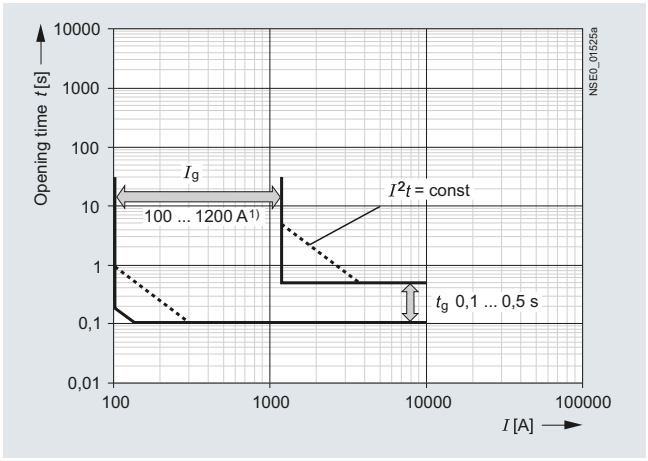


3WL5 circuit breaker with ETU45B Electronic Trip Unit,
L characteristic curve



3WL5 circuit breaker with ETU45B Electronic Trip Unit,
I characteristic curve

[1] Sizes I and II: 100 ... 1200 A
Size III: 400 ... 1200 A.



3WL5 circuit breaker with ETU45B Electronic Trip Unit,
G characteristic curve

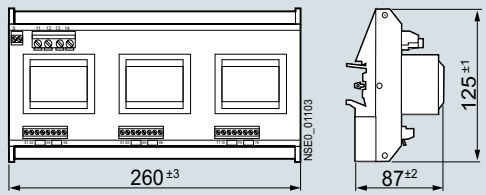
Further characteristic curves are shown in the manual and the planning and configuring tool SIMARIS design, or ask your Siemens contact person.

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1

Dimensional drawings

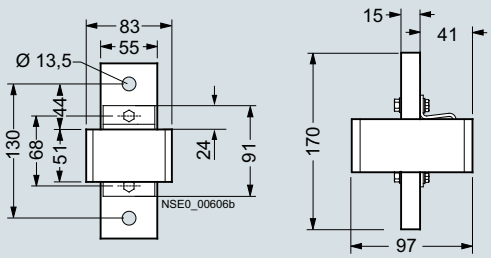
Voltage transformers for 3WL air circuit breakers



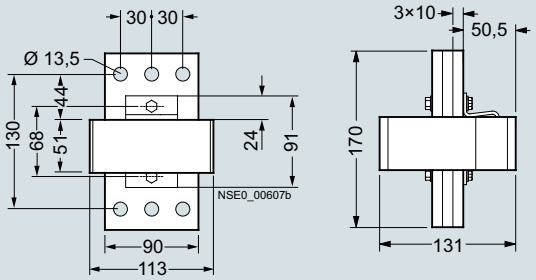
Current transformers for overload protection in the N conductor

External current transformers for N conductor with copper connection pieces

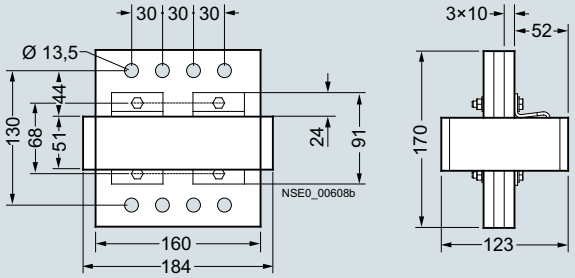
Size I, 3WL9111-0AA31-0AA0



Size II, 3WL9111-0AA32-0AA0



Size III, 3WL9111-0AA33-0AA0

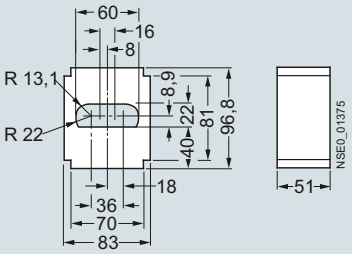


Dimensions for option with door interlocking

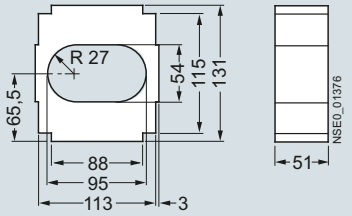
1) Mounting surface
2) Center 3WL circuit breaker operator panel
3) 8 mounting holes for door sealing frame
4) 3 mounting holes for door sealing frame

External current transformers for N conductor without copper connection pieces

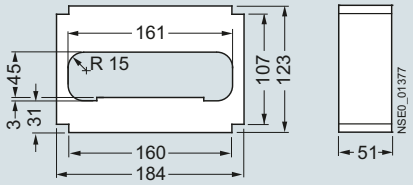
Size I, 3WL9111-0AA21-0AA0



Size II, 3WL9111-0AA22-0AA0

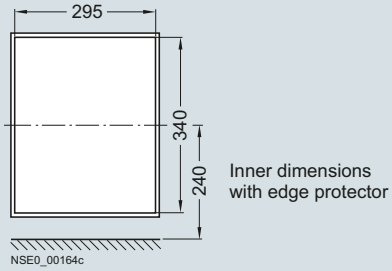


Size III, 3WL9111-0AA23-0AA0



Door cutout for operator panel

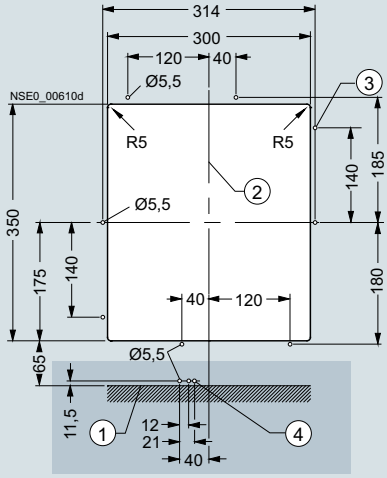
Door cutout with edge protector



Inner dimensions with edge protector

Door cutout for operator panel using the door sealing frame

Option with/without door interlocking



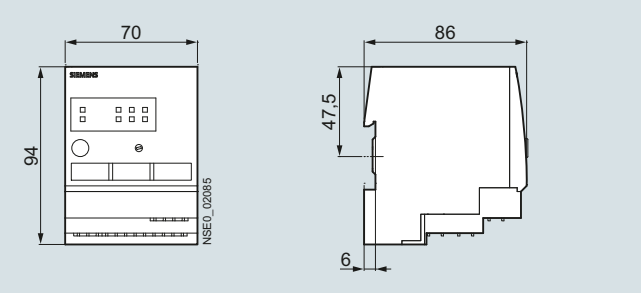
Dimensions for option with door interlocking

Minimum order quantity (PS) or a multiple thereof can be ordered.

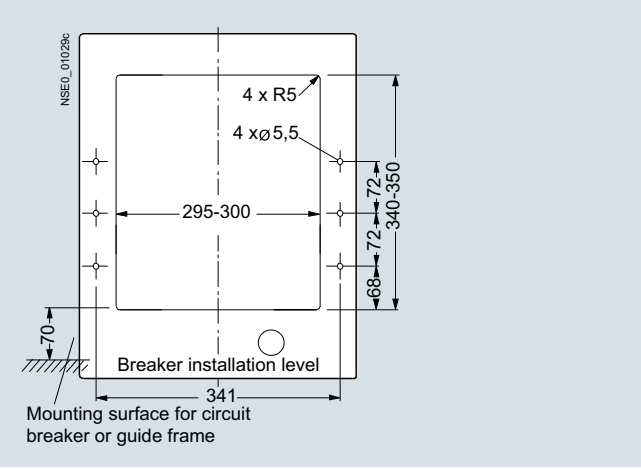
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CubicleBUS modules

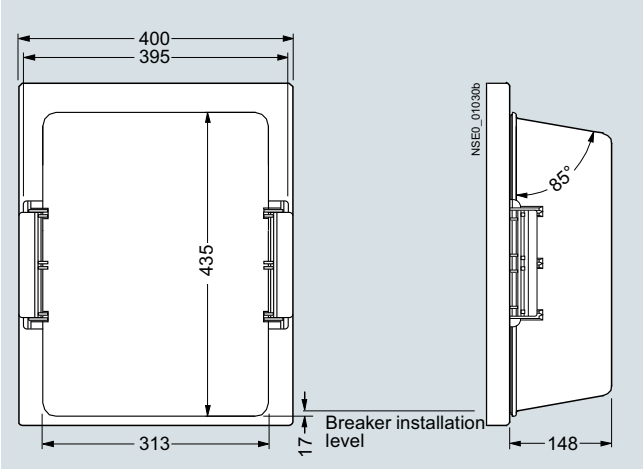
3WL9111-0AT2.-0AA0



Door cutout for operator panel using IP55 protective cover



Protective cover, IP55

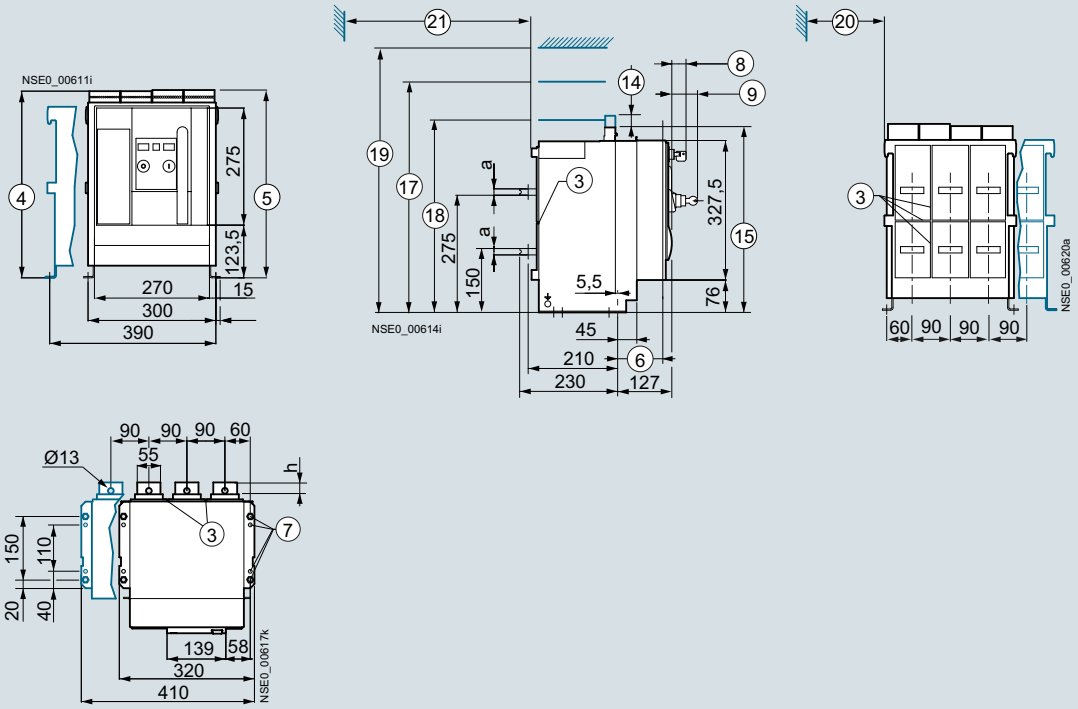


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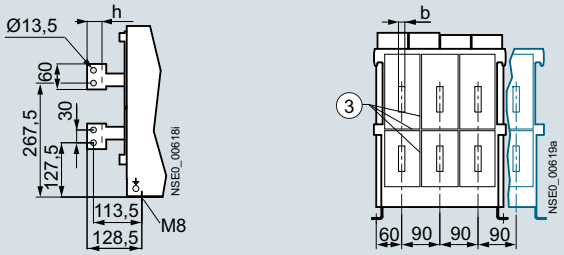
Configuration aids

Size I, up to 1600 A, fixed-mounted version, 3 and 4-pole

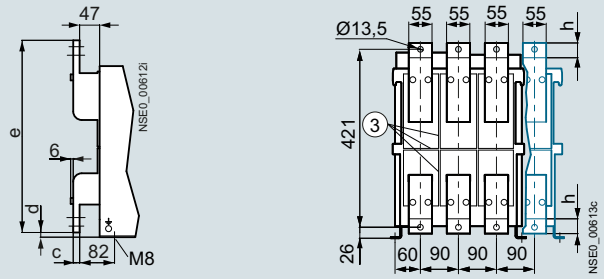
Standard version, horizontal connection



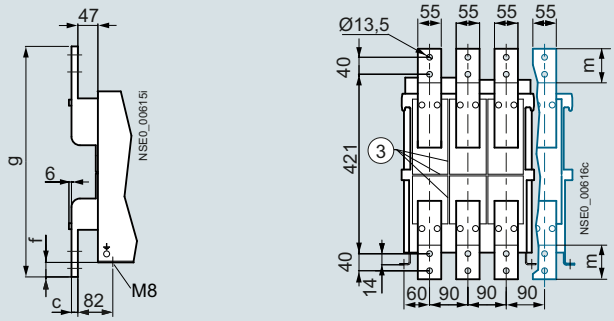
Vertical connection



Front connection (single)



Front connection (double hole)



Minimum order quantity (PS) or a multiple thereof can be ordered.

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Dimensions in mm

Item number		Dimensions
③	Grooves (4 mm wide, 5 mm deep) for supporting phase partitions in the system	
	Auxiliary connector with:	
④	• SIGUT screw terminals	437
⑤	• Screwless connections	440
	• COM15/COM16	462
⑥	Dimension to inside surface of the closed cabinet door	106
⑦	Fixing points for mounting the circuit breaker in the system (grid dimensions in mm) 4 x M8 screw nut (150) and 4 x Ø 9 (110)	
⑧	"Safe OFF" locking device	33.5
⑨	Key operation	60.5
⑭	Space for cable harness to electrical auxiliary circuit connections	20
⑮	Maximum device height	462
⑰	Mounting space for removal of the arc chutes	541
⑱	Top edge of arc chutes	401
⑲⑳㉑	Safety clearances	See below

Connection dimensions in mm

	Max. rated circuit breaker current • ≤ AC 1000 A	• 1250 - 1600 A AC	
a	10	15	Busbar thickness
b	10	15	
c	10	15	
d	11	6	Clearance
e	451	461	Clearance
f	34	39	Overhang
g	541	551	Clearance
h	35		Terminal face length
l	80		

Safety clearances in mm

SZ I, fixed-mounted version	... from grounded or non-conductive parts			... from live parts			IT system
	Above ⑲ [1]	At side	At rear	Above ⑲	At side ⑳	At rear ㉑	Above ⑲
Operational voltage, breaking capacity	**Standard arc chutes – 401 mm**						
480 V AC	460	0	0	615	20	20	550
600 V AC	460	0	0	765	50	125	--

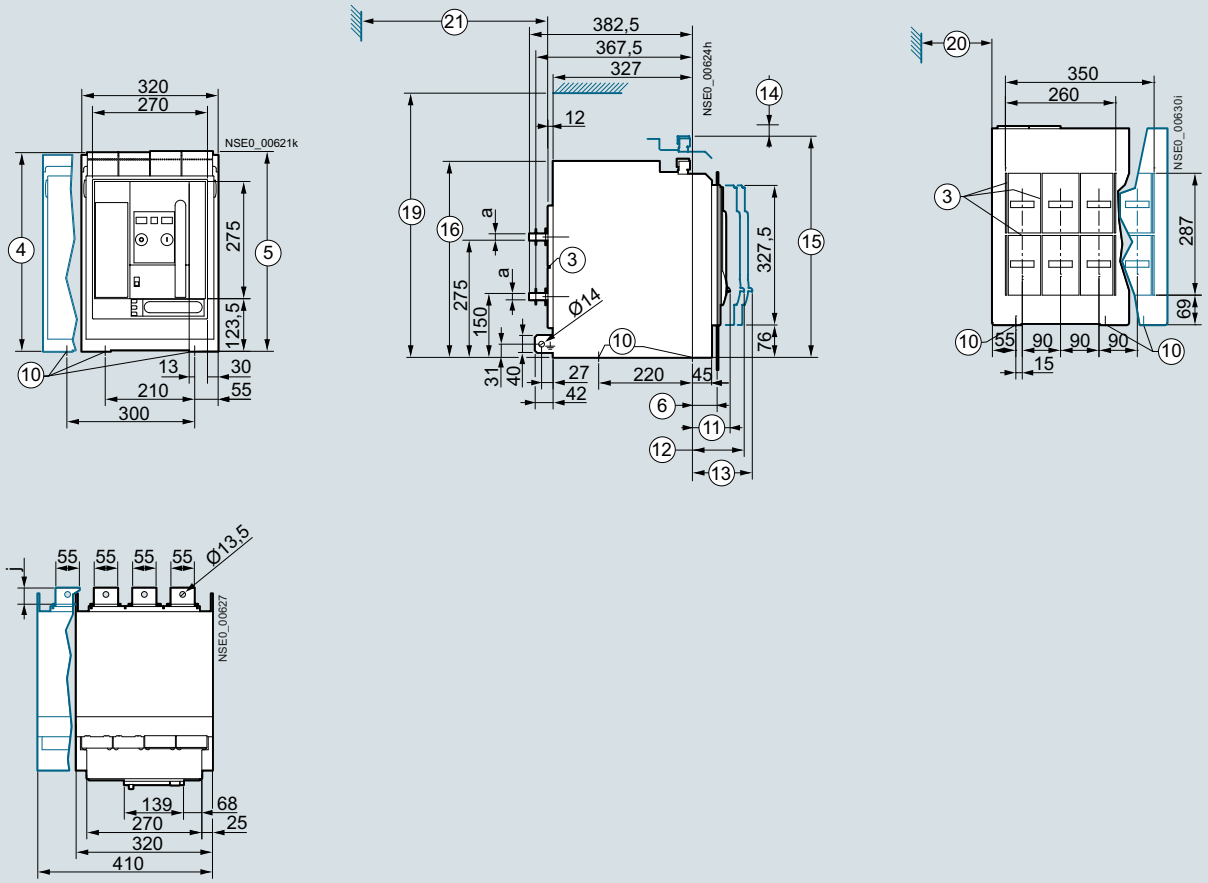
[1] Values for struts, grids and perforated sheets. When using plates with conductive surfaces: values on request.

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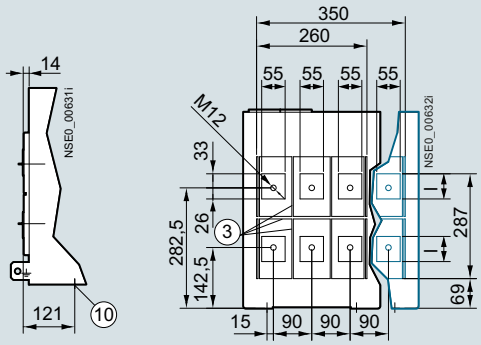
Configuration aids

Size I, up to 1600 A, withdrawable version, 3 and 4-pole

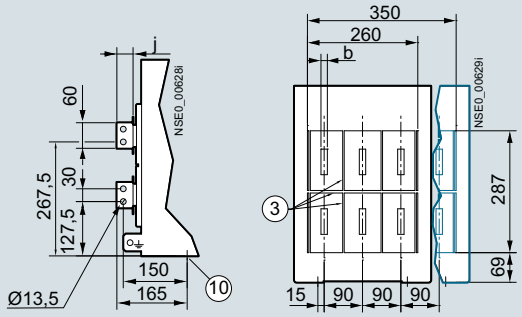
Standard version, horizontal connection



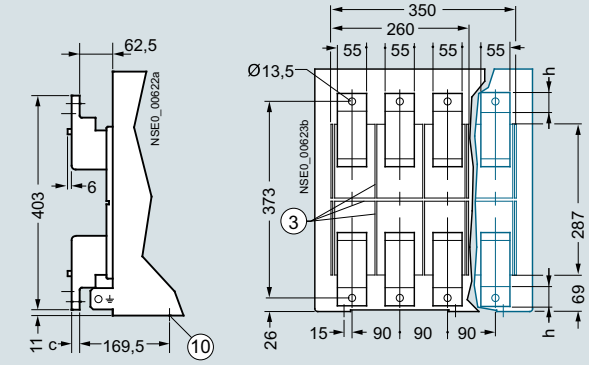
Flat terminals



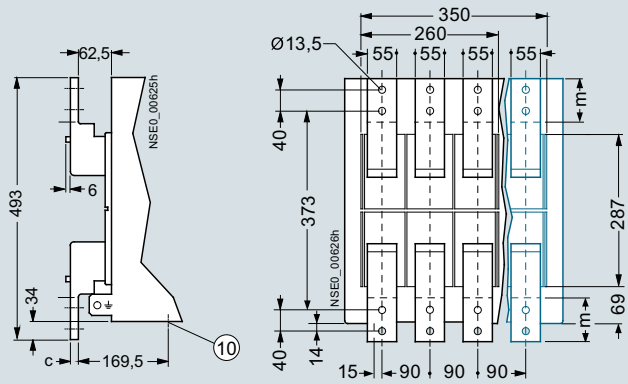
Vertical connection



Front connection (single)



Front connection (double hole)



Minimum order quantity (PS) or a multiple thereof can be ordered.

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Dimensions in mm

Item number		Dimensions	
③	Grooves (4 mm wide, 5 mm deep) for supporting phase partitions in the system		
	Auxiliary connector with:		
④	• SIGUT screw terminals (one-part)	465 (446)	515 (496)
⑤	• Screwless connections	468	518
⑥	Dimension to inside surface of the closed cabinet door	58.0	
⑩	Fixing holes	Ø 9	
⑪	Circuit breaker in connected position	88.5	
⑫	Circuit breaker in test position	121.5	
⑬	Circuit breaker in disconnected position	140.5	
⑭	Space for cable harness to electrical auxiliary circuit connections	20	
⑮	Maximum device height	468	518
⑯	Guide frame upper edge	460	510
⑲⑳㉑	Safety clearances	See below	

Connection dimensions in mm

	Max. rated circuit breaker current • Up to 1000 A AC	• 1250 - 1600 A AC	
a	10	15	Busbar thickness
b	10	15	
c	10	15	
d	11	6	Clearance
e	403	413	Clearance
f	34	39	Overhang
g	493	503	Clearance
h	35		Terminal face length
j	38		
l	59		
m	80		

Safety clearances in mm

SZ I, withdrawable versions	... from grounded or non-conductive parts			... from live parts			IT system
	Above ⑲	At side	At rear	Above ⑲	At side ⑳	At rear ㉑	Above ⑲
Arc chute covers	Without[1]/with	Without/with	Without/with	Without/with	Without/with	Without/with	Without
Operational voltage, breaking capacity	**Standard arc chutes – ⑯ = 460 mm**						
480 V AC	460 / 460	0 / 40[2]	0 / 0	615 / 480	20 / 100	20 / 14	550
600 V AC	460 / 460	0 / 40[2]	0 / 0	765 / 480	50 / 100	125 / 14	--

[1] Values for struts, grids and perforated sheets. When using plates with conductive surfaces: values on request.

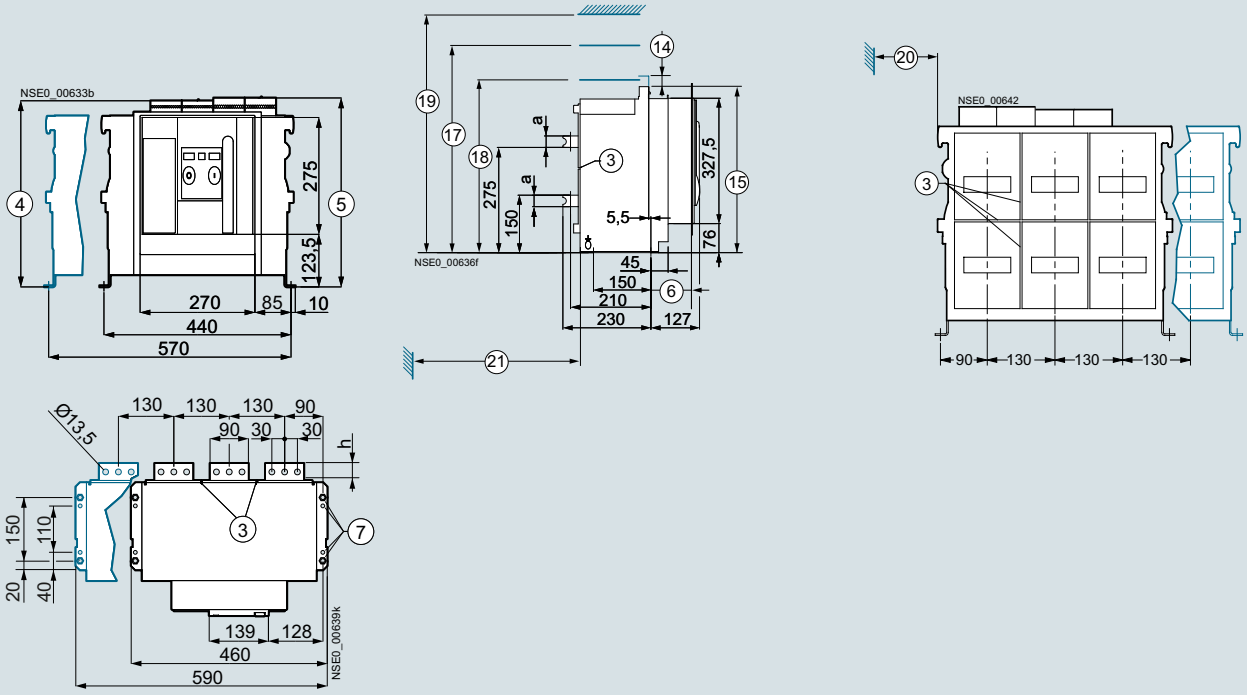
[2] Value for plates that cover the lateral openings in the guide frame, 0 mm for struts and grids

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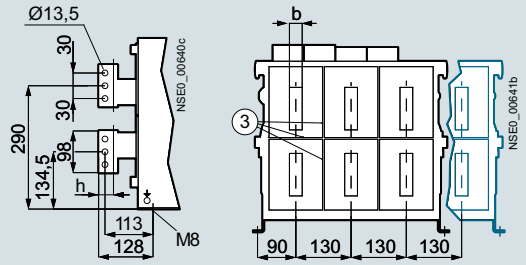
Configuration aids

Size II, up to 3200 A, fixed-mounted version, 3 and 4-pole

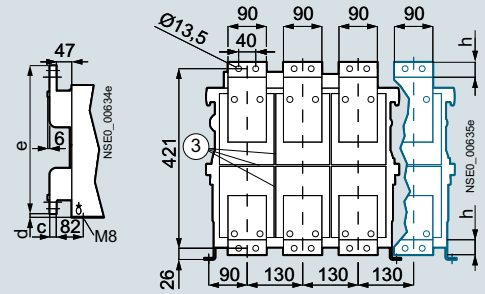
Standard version, horizontal connection



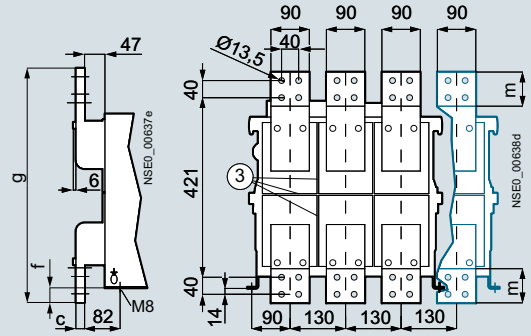
Vertical connection 3000 A AC and 3200 A DC



Front connection (single)



Front connection (double hole)



Minimum order quantity (PS) or a multiple thereof can be ordered.

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Dimensions in mm

Item number		Dimensions	
③	Grooves (4 mm wide, 5 mm deep) for supporting phase partitions in the system		
	Auxiliary connector with:		
④	• SIGUT screw terminals	437	
⑤	• Screwless connections	440	
	• COM15/COM16	462	
⑥	Dimension to inside surface of the closed cabinet door	106	
⑦	Fixing points for mounting the circuit breaker in the system (grid dimensions in mm) 4 x M8 screw nut (150) and 4 x ∅ 9 (110)		
⑭	Space for cable harness to electrical auxiliary circuit connections	20	
		DC: ≤ 600 V and AC	**DC: > 600 V**
⑮	Maximum device height	462	462
⑰	Mounting space for removal of the arc chutes	541	591
⑱	Top edge of arc chutes	401	451
⑲⑳㉑	Safety clearances	See below	

Connection dimensions in mm

	Max. rated circuit breaker current • Up to 2000 A AC	• 3000 A AC/3200 A DC	
a	10	30	Busbar thickness
b	15	30	
c	10	20	
d	11	6	Clearance
e	451	461	Clearance
f	34	39	Overhang
g	541	551	Clearance
h	35		Terminal face length
m	80	--	

Safety clearances in mm

SZ II, fixed-mounted version	... from grounded or non-conductive parts			... from live parts			IT system
	Above[1] ⑲	At side	At rear	Above ⑲	At side ⑳	At rear ㉑	Above ⑲
Operational voltage	**Standard arc chutes – 401 mm**						
480 V AC	460	0	0	715	50	20	550
600 V AC	460	0	0	1065	100	140	--
3WL52	**Double high arc chutes – 501 mm (A17)**						
600 V	551	0	0	[2]	[2]	[2]	--

[1] Values for struts, grids and perforated sheets. When using plates with conductive surfaces: values on request.

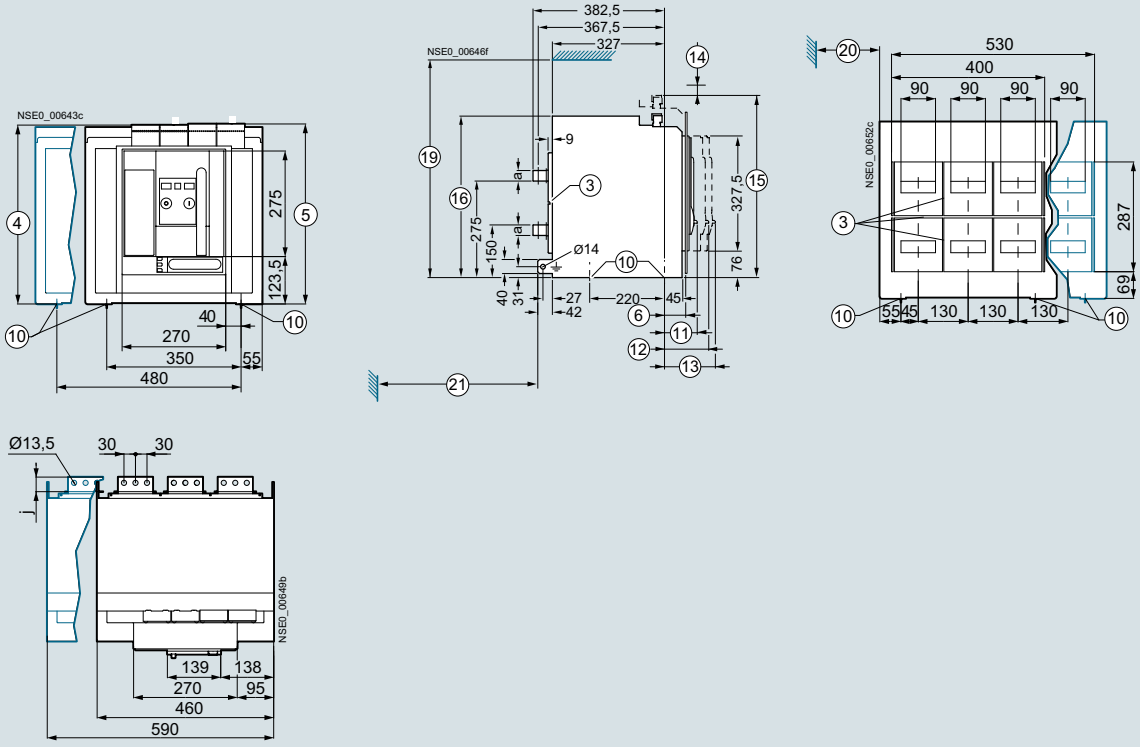
[2] With insulating shield; for clearance, see "non-conductive parts"

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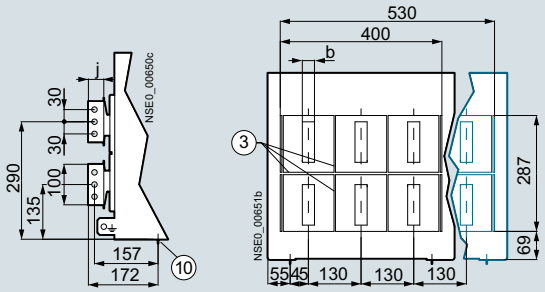
Configuration aids

Size II, up to 3000 A, withdrawable version, 3 and 4-pole

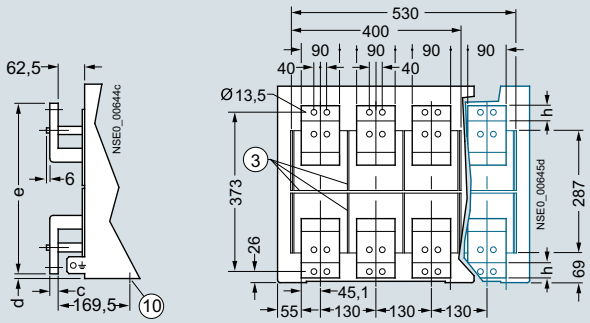
Standard version, horizontal connection



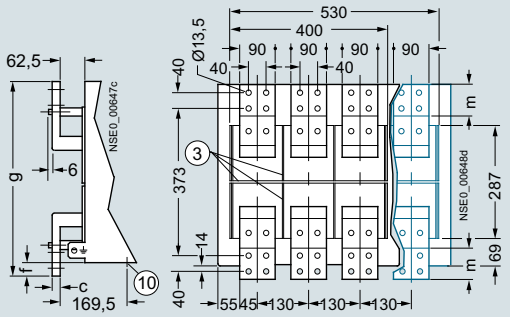
Vertical connection



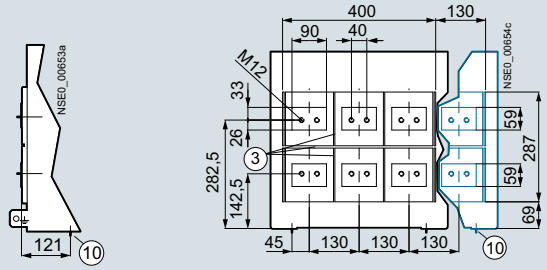
Front connection (single)



Front connection (double hole)



Flat terminals



Minimum order quantity (PS) or a multiple thereof can be ordered.

© Siemens 2019

Dimensions in mm

Item number		Dimensions
③	Grooves (4 mm wide, 5 mm deep) for supporting phase partitions in the system	
	Auxiliary connector with:	
④	• SIGUT screw terminals (one-part)	465 (446)
⑤	• Screwless connections	468
⑥	Dimension to inside surface of the closed cabinet door	58.0
⑩	Fixing holes	Ø 9
⑪	Circuit breaker in connected position	88.5
⑫	Circuit breaker in test position	121.5
⑬	Circuit breaker in disconnected position	140.5
⑭	Space for cable harness to electrical auxiliary circuit connections	20
⑮	Maximum device height	468
⑯	Guide frame upper edge	460
⑲⑳㉑	Safety clearances	See below

Connection dimensions in mm

	Max. rated circuit breaker current • Up to 2000 A AC	• 2500 A AC	• 3200 A AC	
a	10	15	30	Busbar thickness
b	10	15	30	
c	10	20	20	
d	11	6	6	Clearance
e	403	413	413	Clearance
f	34	39	39	Overhang
g	493	503	503	Clearance
h	35			Terminal face length
j	38		--	
m	80		--	

Safety clearances in mm

SZ II, withdrawable version	... from grounded or non-conductive parts			... from live parts			IT system
	Above ⑲	At side	At rear	Above ⑲	At side ⑳	At rear ㉑	Above ⑲
Arc chute covers	**Without[1]/with**	**Without/with**	**Without/with**	**Without/with**	**Without/with**	**Without/with**	**Without**
Operational voltage	**Standard arc chutes – ⑯ = 460 mm**						
480 V AC	460 / 460	0 / 70[2]	0 / 0	715 / 480	50 / 50	14 / 14	550
600 V AC	460 / 460	0 / 70[2]	0 / 0	1065 / 480	100 / 225	30 / 14	--

[1] Values for struts, grids and perforated sheets. When using plates with conductive surfaces: values on request.

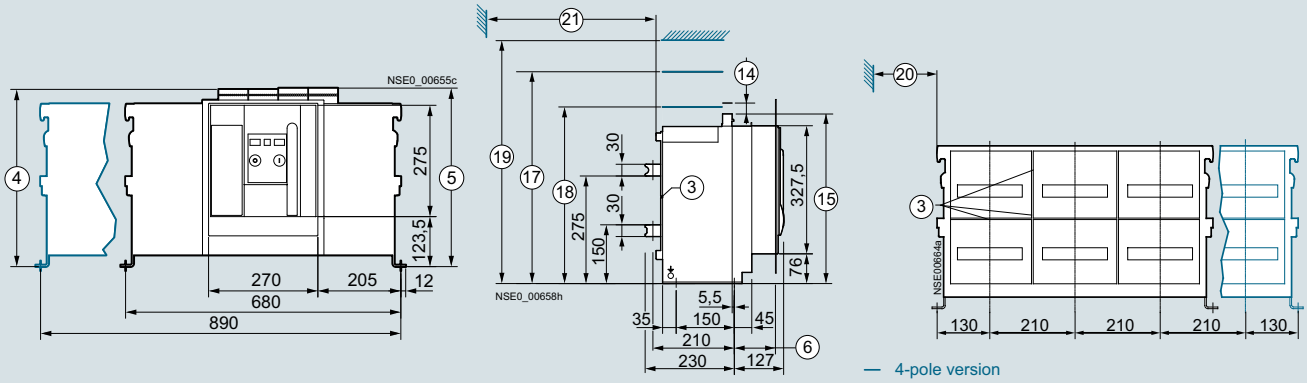
[2] Value for plates that cover the lateral openings in the guide frame, 0 mm for struts and grids

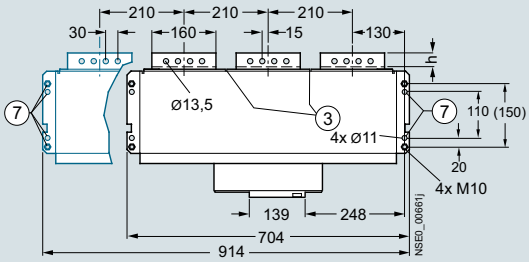
© Siemens 2019

Configuration aids

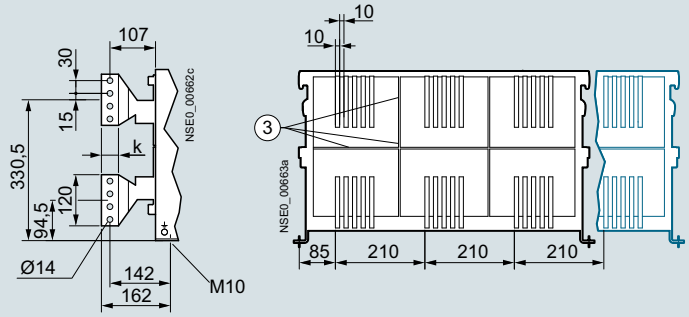
Size III, up to 5000 A, fixed-mounted version, 3 and 4-pole

Standard version, horizontal connection

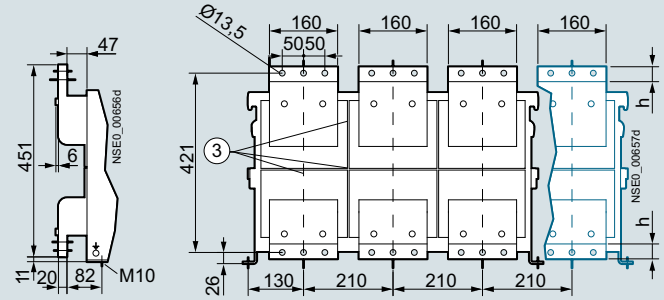




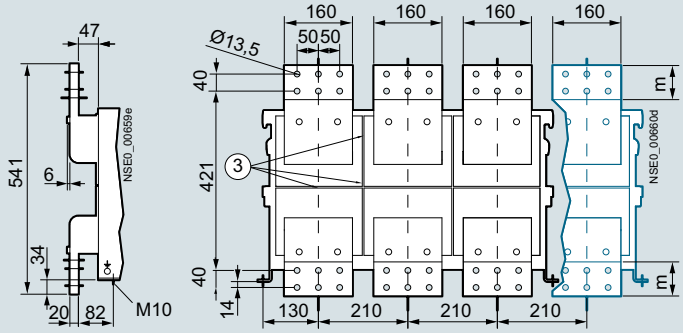
Vertical connection (terminal face length k = 40 mm)



Front connection (single)



Front connection (double hole)



Minimum order quantity (PS) or a multiple thereof can be ordered.

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Dimensions in mm

Item number		Dimensions
③	Grooves (4 mm wide, 5 mm deep) for supporting phase partitions in the system	
	Auxiliary connector with:	
④	• SIGUT screw terminals	437
⑤	• Screwless connections	440
	• COM15/COM16	462
⑥	Dimension to inside surface of the closed cabinet door	106
⑦	Fixing points for mounting the circuit breaker in the system (grid dimensions in mm) 4 x M10 screw nut (150) and 4 x ∅ 11 (110)	
⑭	Space for cable harness to electrical auxiliary circuit connections	20
U_e		**≤ AC 600 V**
⑮	Maximum device height	462
⑰	Mounting space for removal of the arc chutes	541
⑱	Top edge of arc chutes	401
⑲⑳㉑	Safety clearances	See below

Connection dimensions in mm

h	35	Terminal face length
k	40	
m	80	

Safety clearances in mm

SZ III, fixed-mounted version	... from grounded or non-conductive parts			... from live parts			IT system
	Above[1] ⑲	At side	At rear	Above ⑲	At side ⑳	At rear ㉑	Above ⑲
Operational voltage	**Standard arc chutes – 401 mm**						
480 V AC	460	0	0	515	20	20	450
600 V AC	460	0	0	965	100	125	--

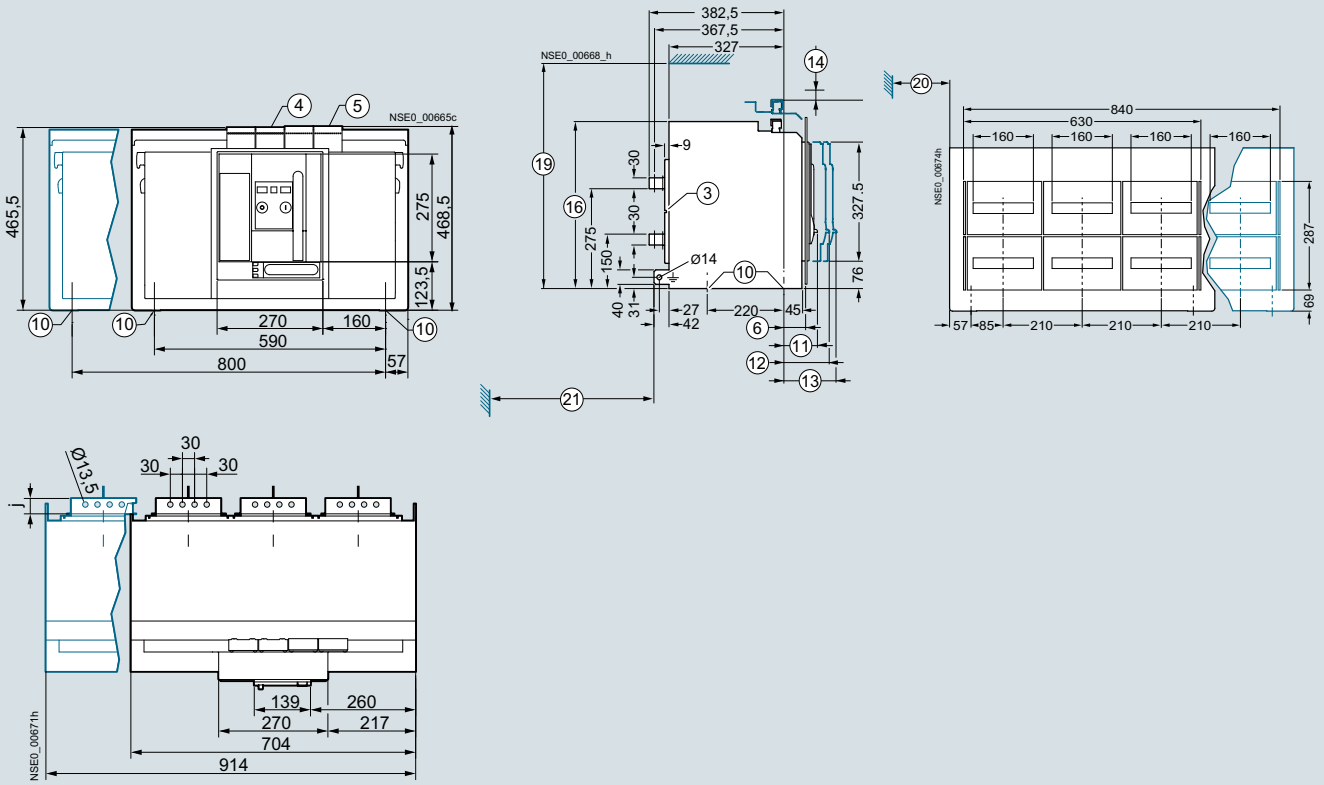
[1] Values for struts, grids and perforated sheets. When using plates with conductive surfaces: values on request.

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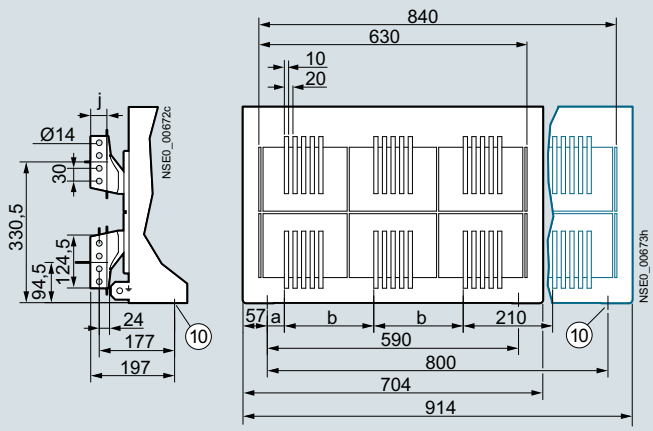
Configuration aids

Size III, up to 5000 A, withdrawable version, 3 and 4-pole

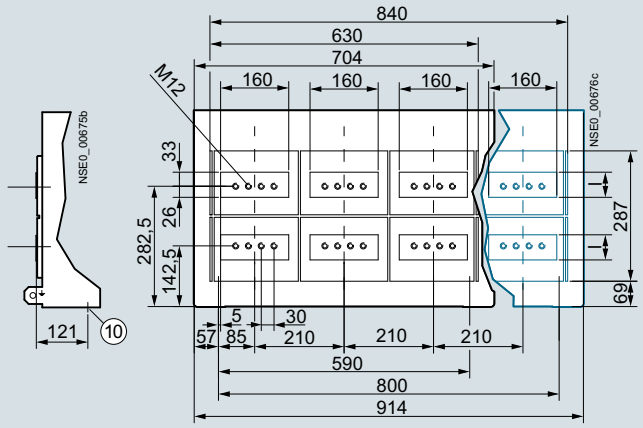
Standard version, horizontal connection



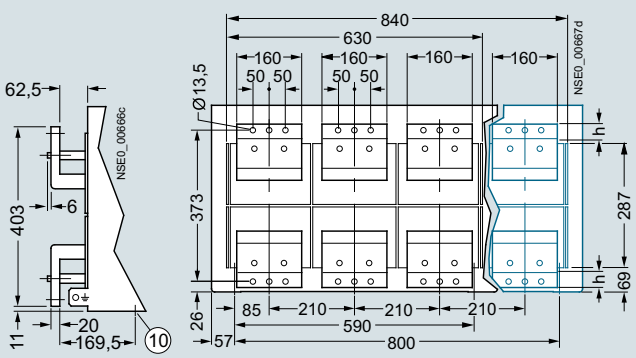
Vertical connection up to 5000 A



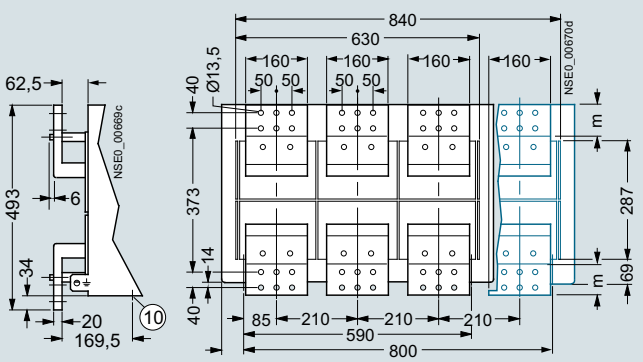
Flange connection up to 4000 A



Front connection (single)



Front connection (double hole)



Minimum order quantity (PS) or a multiple thereof can be ordered.

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Dimensions in mm

Item number		Dimensions
U_e		≤ AC 690 V
③	Grooves (4 mm wide, 5 mm deep) for supporting phase partitions in the system	
	Auxiliary connector with:	
④	• SIGUT screw terminals (one-part)	465 (446)
⑤	• Screwless connections	468
⑥	Dimension to inside surface of the closed cabinet door	58.0
⑩	Fixing holes	∅ 9
⑪	Circuit breaker in connected position	88.5
⑫	Circuit breaker in test position	121.5
⑬	Circuit breaker in disconnected position	140.5
⑭	Space for cable harness to electrical auxiliary circuit connections	20
⑮	Maximum device height	468
⑯	Guide frame upper edge	460
⑲⑳㉑	Safety clearances	See below

Connection dimensions in mm

	Max. rated circuit breaker current • Up to 4000 A AC	• 5000 A AC	
a	40	40	Clearances
b	210	210	
h	35	--	Terminal face length
j	38		
l	59	--	
m	80	--	

Safety clearances in mm

SZ III, withdrawable version	... from grounded or non-conductive parts			... from live parts			IT system
	Above ⑲	At side	At rear	Above ⑲	At side ⑳	At rear ㉑	Above ⑲
Arc chute covers	Without[1]/with	Without/with	Without/with	Without/with	Without/with	Without/with	Without
Operational voltage	**Standard arc chutes – ⑯ = 460 mm**						
480 V AC	460 / 460	0 / 40[2]	0 / 0	510 / 480	20 / 50	14 / 14	460
600 V AC	460 / 460	0 / 40[2]	0 / 0	965 / 480	100 / 200	14 / 14	--

[1] Values for struts, grids and perforated sheets. When using plates with conductive surfaces: values on request.

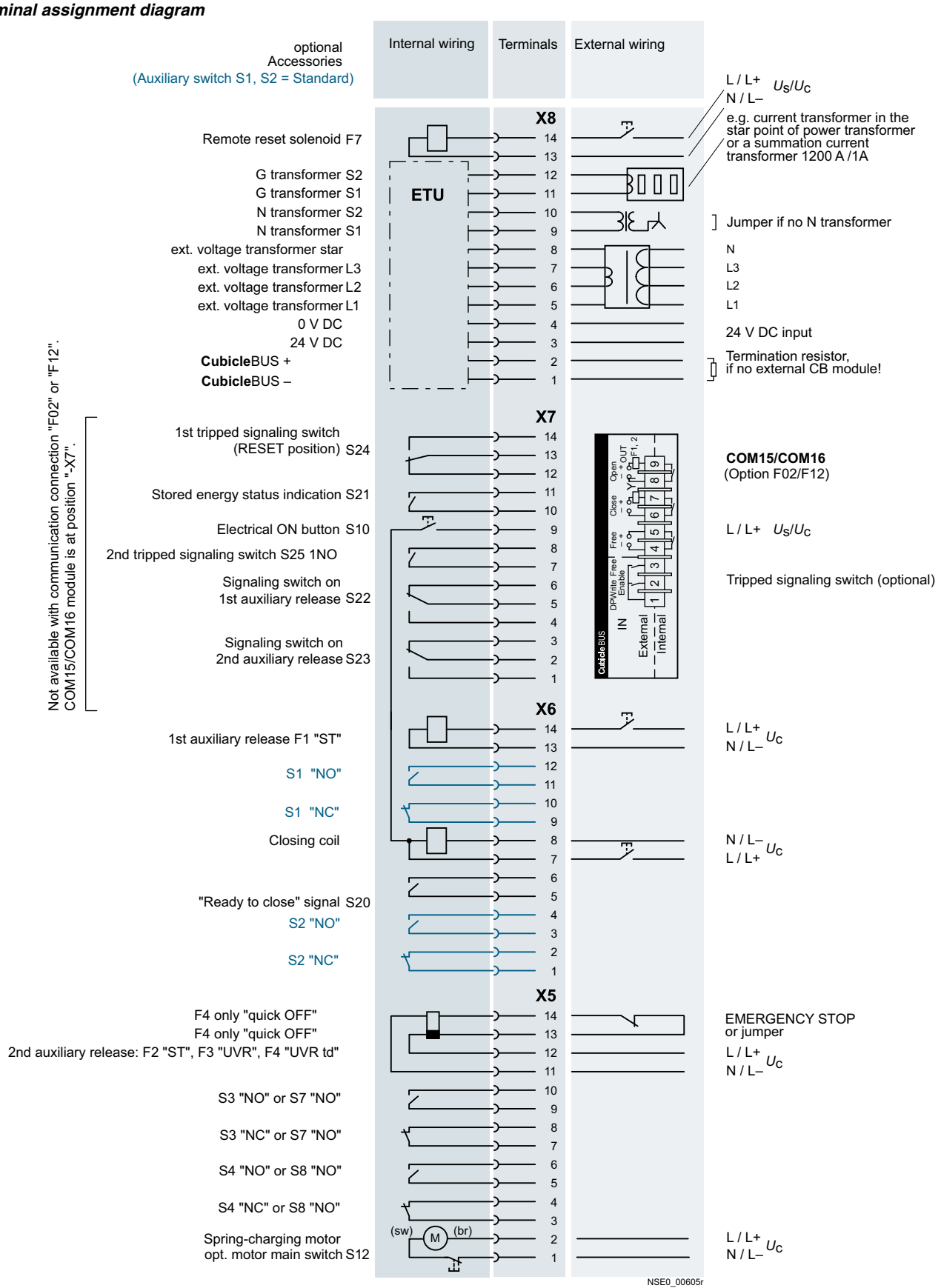
[2] Value for plates that cover the lateral openings in the guide frame, 0 mm for struts and grids

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1

Circuit diagrams

Terminal assignment diagram



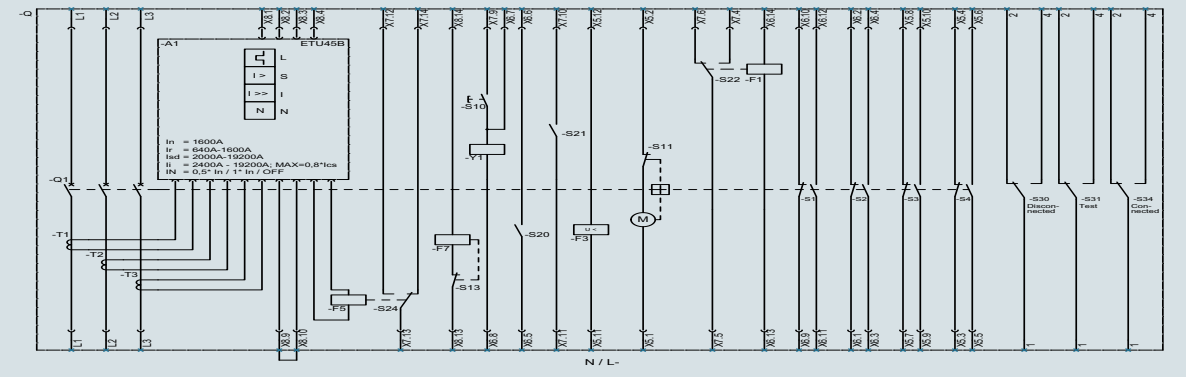
Minimum order quantity (PS) or a multiple thereof can be ordered.

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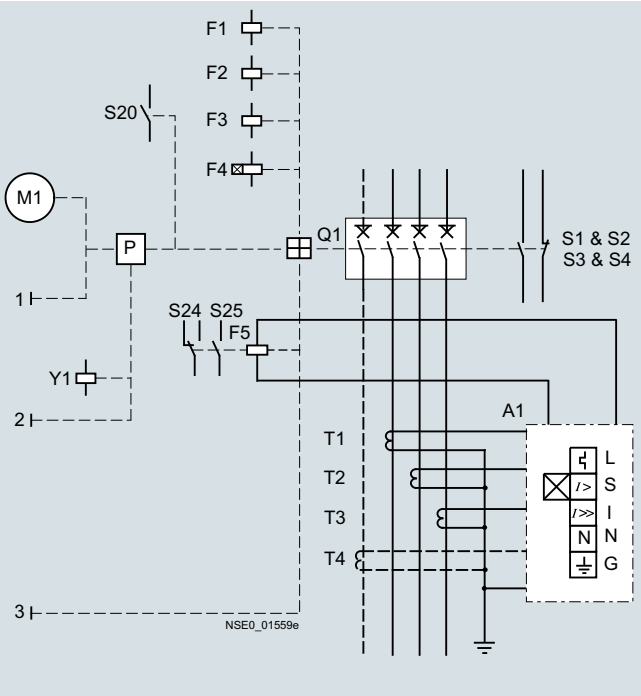
1

Example of an overall circuit diagram for 3WL circuit breakers

(3WL51..–.EB3.-4GN4-Z C11+C20+C22+C26+K01+K07+K13+R15)



Function diagram of 3WL air circuit breaker

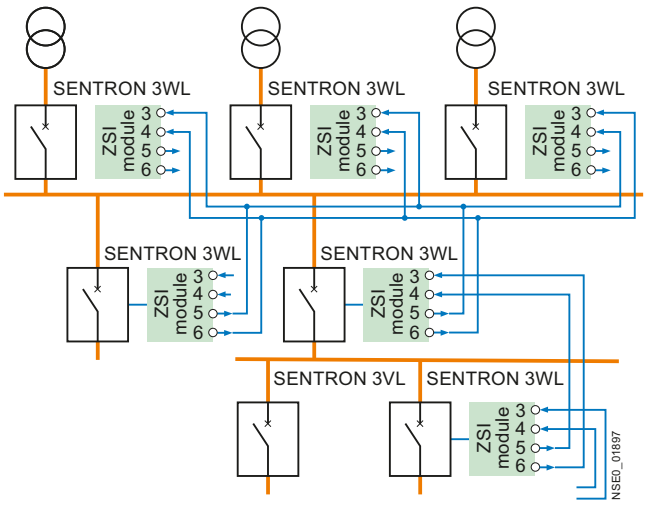


-A1	ETU Electronic Trip Unit
-S1/-S2	1st auxiliary switch block (2 NO + 2 NC)
-S3/-S4	2nd auxiliary switch block (2 NO + 2 NC)
-S7 (optional)	2nd auxiliary switch block, S7 (2 NO) can be used if there is no S3; S3 and S7 have the same terminal assignment/mounting location
-S8 (optional)	2nd auxiliary switch block, S8 (2 NO) can be used if there is no S4; S4 and S8 have the same terminal assignment/mounting location
	3WL5. ..-.....-...2 (2 NO + 2 NC) S1+S2
	3WL5. ..-.....-...4 (4 NO + 4 NC) S1+S2+S3+S4
	3WL5. ..-.....-...7 (6 NO + 2 NC) S1+S2+S7+S8
	3WL5. ..-.....-...8 (5 NO + 3 NC) S1+S2+S3+S8
-S10	Electrical ON button
-S11	Internal motor shutdown switch (if spring is tensioned)
-S12	Motor shutdown switch (no automatic tensioning of spring)
-S20	Ready-to-close signaling switch
-S24	Tripped signaling switch
-F1	1st auxiliary release, shunt release
-F3	2nd auxiliary release, undervoltage release
-F5	Tripping solenoid
-M	Motor for "charging energy store"
-P	Spring energy store
-QS	Actuator lever for "charging energy store"
-Q1	Main contacts
-T1/-T2/-T3	Current transformers
-X5/-X6/-X7/-X8	Terminals
-Y1	Closing coil
-R	Display and reset button for Electronic Trip Unit
-X8.9/-X8.10	Connection option: external N transformer

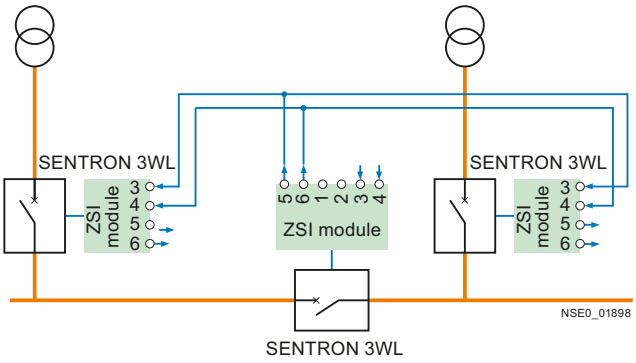
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Configuration aids

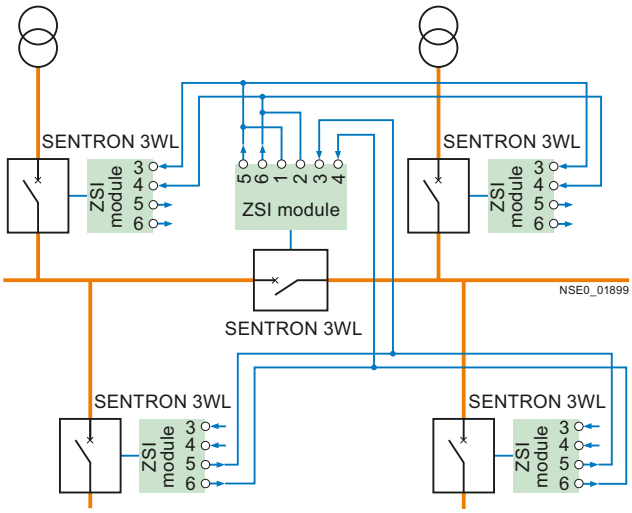
Example of the mode of operation of Zone Selective Interlocking function in power distribution



3VL and 3WL circuit breakers used in various staggered levels



Circuit diagram for a Zone Selective Interlocking function with multiple infeed and several outgoing units with 3WL circuit breakers



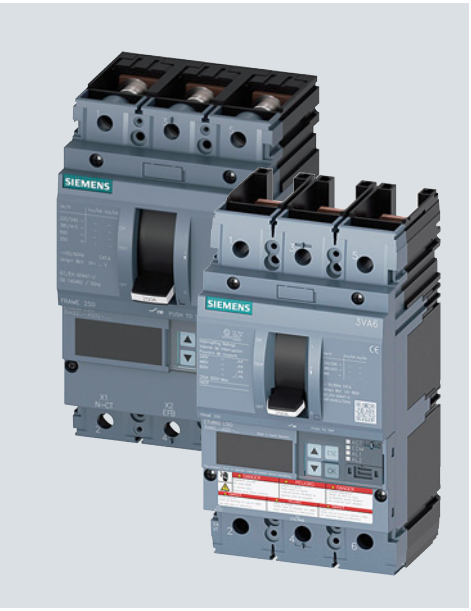
ZSI function: Connection using a tie-breaker, use of 3WL circuit breakers

More information

Up-to-date information on the Internet at:
http://www.siemens.com/sentron

Minimum order quantity (PS) or a multiple thereof can be ordered.

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3VA molded case circuit breakers up to 600 A, according to UL 489

2/2 Introduction to 3VA UL

3VA5 molded case circuit breakers up to 600 A, TM, 600 V, up to 100 kA

2/16 Line protection
2/38 Motor circuit protectors
2/39 Molded case switches

3VA6 molded case circuit breakers up to 600 A, ETU, 600 V, up to 150 kA

2/40 Line protection
2/56 Line protection, 100% rated breakers
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2/72 Molded case switches

Accessories and spare parts for 3VA5/6 molded case circuit breakers

2/73 Internal accessories
2/83 Manual operators
2/92 Motor operators
2/95 Connection technology
2/108 Plug-in and draw-out technology
2/113 Communication and testing/ commissioning devices
2/123 Accessories for locking, blocking and interlocking
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3VL molded case circuit breakers up to 1600 A, according to UL 489

Product discontinuation

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LV 10 **Busbar device adapters and device holders from 630 A to 1600 A**

For further technical product information:

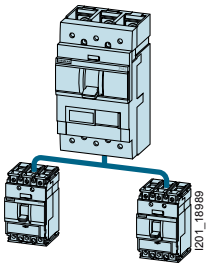
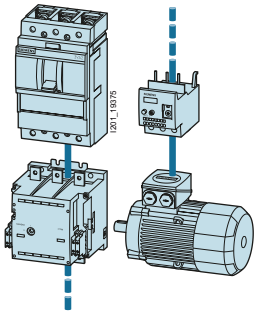
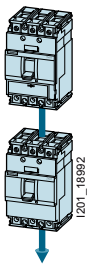
Siemens Industry Online Support:
www.siemens.com/lowvoltage/product-support

→ Entry type:
Application example
Certificate
Characteristic
Download
FAQ
Manual
Product note
Software archive
Technical data

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General data

Overview

Application	3VA5	3VA6	Description	Standards
Line protection				
	✓	✓	The trip units for line protection are designed to provide overload and short-circuit protection in AC and DC systems (DC only 3VA5): • Cables and conductors • Non-motor loads	UL 489 IEC/EN 60947-1, IEC/EN 60947-2
Motor Circuit Protectors				
	✓	✓	Starter combinations consist of: Molded case circuit breaker + contactor + overload relay. The molded case circuit breaker handles short-circuit protection and the isolating function. The task of the contactor is the operational switching of the feeder. The overload relay handles overload protection that can be specially matched to the motor. The molded case circuit breaker for the starter combination is therefore equipped with an adjustable and instantaneous short-circuit release.	UL 489 IEC/EN 60947-1, IEC/EN 60947-2, Appendix O ICB
Molded Case Switches				
	✓	✓	3VA Molded Case Switches in accordance with UL 489 possess an integrated instantaneous short-circuit release. They are used: • As main disconnecting means • For on/off switching • For disconnection of loads	UL 489 IEC/EN 60947-1, IEC/EN 60947-2, Appendix L CBI-X

Minimum order quantity (PS) or a multiple thereof can be ordered.

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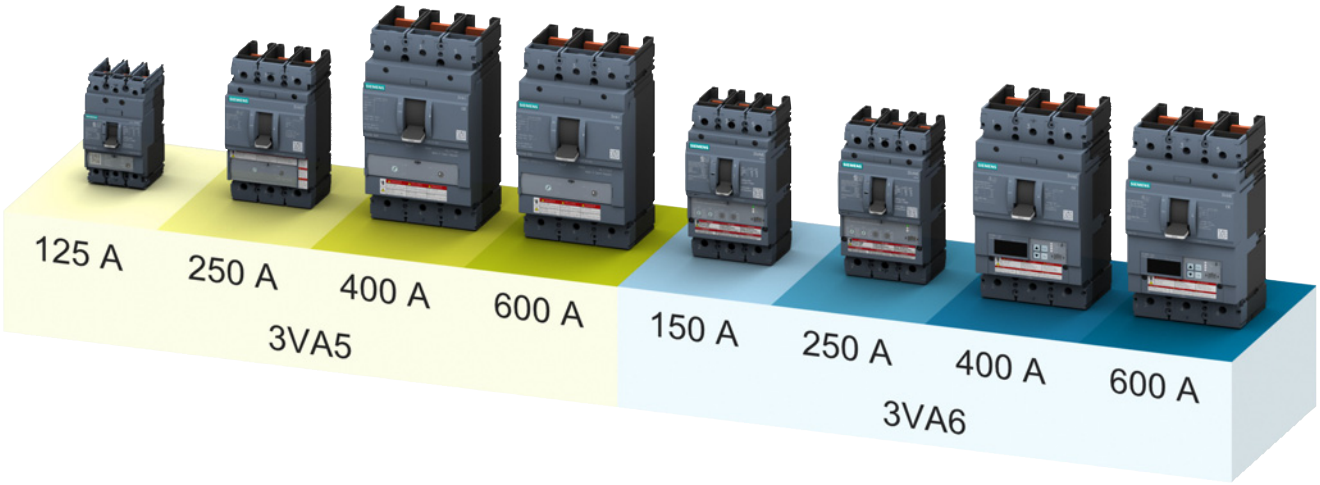
Sizes

The integrated 3VA UL portfolio consists of two different series of molded case circuit breakers in eight different rated operational current versions (sizes).

The new 3VA UL molded case circuit breakers set new standards in flexibility and the variety of modular accessories available. Standardized accessories suitable for use with several sizes of circuit breaker from all the 3VA UL ranges help to cut costs and save time.

The 3VA5 molded case circuit breakers are available in 1 and 4-pole versions. The 3VA6 molded case circuit breakers are available in 3 and 4-pole versions.

The circuit breakers are available with rated operational currents ranging from 15 A to 600 A and rated voltages up to 600 V AC, depending on the range and frame size.



Integrated system

When it comes to operation, functionality and installation, the new 3VA UL range of molded case circuit breakers is a fully integrated system. This principle is embodied in the basic units and in all internal and external accessories.

The benefits offered by the internal and external accessories are:

- Standardized methods of operation
- Standardized scope of functions
- Standardized installation procedures
- Uniform accessories from 15 A ... 600 A (e.g. auxiliary switches, auxiliary releases, etc.)

Versions

The new 3VA molded case circuit breakers are available in the following ranges:

- With thermal-magnetic release
  - 3VA51 125A, 1, 2, 3, 4-pole
  - 3VA52 250A, 2-pole version in 3-pole enclosure, 3 and 4-pole versions
  - 3VA53 400A, 3, 4-pole
  - 3VA54 600A, 3, 4-pole
- With electronic trip unit
  - 3VA61 150A, 3, 4-pole
  - 3VA63 250A, 3, 4-pole
  - 3VA63 400A, 3, 4-pole
  - 3VA64 600A, 3, 4-pole

3VA5 molded case circuit breakers

The new 3VA5 molded case circuit breakers reliably perform all the tasks required for line protection.

Features

The key features of the 3VA5 range are:

- Compact design
- Depending on size: 1, 2(3),3 /4-pole versions
- Depending on size:
  - Breaking capacity of 25 kA to 100 kA at 480 V and 18 kA to 35 kA at 600 V, 2(3), 3 and 4-pole breakers
  - Breaking capacity of 25 kA to 50 kA at 277 V and 14 kA at 347 V, 1-pole breakers
  - Breaking capacity of 65 kA to 100 kA at 240 V and 65 kA at 480 V, 2-pole breakers
- Thermal-magnetic trip units
- AC/DC applications
- Modular and easy-to-fit internal accessories with diverse functions
- Uniform accessories platform across all 3VA5/3VA6 molded case circuit breakers

Note:

All basic circuit breakers are supplied without connection technology.

Compact dimensions

Thanks to their compact dimensions, the 3VA5 molded case circuit breakers are predestined for protecting cables and lines in plants.

Thermal-magnetic trip unit

A thermal-magnetic principle trip unit is the basic trip unit for providing overload and short-circuit protection. This has been developed for implementing economical, cost-efficient installations up to 600 A. It is suitable for use in three-phase networks, AC networks, 400 Hz applications, and with DC currents.

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General data

3VA6 molded case circuit breakers

The new 3VA6 molded case circuit breakers reliably perform all the tasks required for line protection and protection of starter combinations.

This range is designed for applications with increased requirements:

- Increased breaking capacity
- Integrated metering function
- Connection to a communication system

Features

The most important features of the 3VA6 range are:

- Compact dimensions
- 3 and 4-pole versions
- Four breaking capacity classes of 35 kA … 150 kA at 480 V and 18 kA … 50 kA at 600 V
- Fixed-mounting, plug-in technology, draw-out technology
- Electronic Trip Units
- Retrofittable communication for ETU 5-series and 8-series
- Depending on the ETU: Integrated metering function
- AC applications
- No derating up to +50 °C
- Modular and easy-to-fit internal accessories with diverse functions
- Uniform accessories platform across all 3VA5/3VA6 molded case circuit breakers

Note:

All basic circuit breakers are supplied without connection technology.

Compact dimensions with function expansions

In addition to its expanded functionality, the 3VA6 molded case circuit breaker also comes with compact dimensions for fixed mounting, as a plug-in version and a draw-out version.

A cover size of 70 mm (up to 600 A) for the door cut-out and a complete selection of breaking capacity classes from 35 kA to 150 kA at 480 V provide the necessary flexibility for planning.

Despite its compact size, the circuit breaker offers the following benefits:

- Very high short-circuit breaking capacity
- Electronic Trip Unit, versions with and without integrated metering function and optional communication interface

Electronic Trip Units (ETUs)

The current sensors of the 3VA6 comprise iron-cored transformers for the internal power supply and Rogowski coils for precise current measurement. Each transformer can be optimized accordingly for its specific task. Thanks to the high accuracy of current measurement, the 3VA6 molded case circuit breaker is suitable for power/energy measurement. In addition, finer adjustment of ground fault current monitoring is possible.

The Electronic Trip Units (ETUs) provide the following protection functions:

- Overload protection L ("L" = Long-time delay)
- Short-time delayed short-circuit protection S ("S" = Short-time delay) for time-selective response in case of a short circuit
- Instantaneous short-circuit protection I ("I" = Instantaneous)
- Protection of the neutral conductor N against overload and short circuit ("N" = Neutral)
- Protection against residual currents to ground G ("G" = Ground fault)
- Ground fault detection (G alarm = ground fault alarm) does not trip the circuit breaker, but an indication is shown on the display and/or is communicated to higher-level systems via the communication path or EFB/MMB.

Energy management and communication

The Electronic Trip Units (ETUs) provide the following energy management and communication functions:

- Metering function for current, voltage, power rating and energy
- Transfer of measurements and breaker status information
- Remote parameter assignment of tripping thresholds and miscellaneous parameters
- Flexible use of digital inputs and outputs of the optionally available EFB300 external function box
- Commissioning/setting the plant topology and also individual breaker parameters with the "powerconfig" software package
- Testing and archiving with the TD300 and TD500 test devices (with powerconfig)

Minimum order quantity (PS) or a multiple thereof can be ordered.

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SIMATIC Energy Suite



Energy transparency – simple and integrated!

As an integrated option for the TIA Portal, SIMATIC Energy Suite efficiently links energy management with automation, thus introducing energy transparency to production.

Moreover, configuration effort is clearly reduced thanks to simplified configuration of energy-measuring components such as 7KM PAC or 3VA.

Thanks to consistent interfacing to higher-level energy management systems or to cloud-based services, recorded energy data can be expanded seamlessly into a cross-location energy management system.

The advantages at a glance:

- Automatic generation of energy management data
- Integration into TIA Portal and the automation system
- Easy configuration

For more information on SIMATIC Energy Suite:
www.siemens.com/energysuite

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General data







Type		3VA51	3VA51 NEW	3VA51	3VA52	3VA53 and 3VA54 NEW
Number of poles		1	2	3.4	2 in 3-pole, 3, 4	2 in 3-pole, 3, 4
3VA5 molded case circuit breakers for line protection						
Size		125 A	125 A	125 A	250 A	400 A or 600 A
Rated current I_n	A	15 … 125	15 … 125	15 … 125	100 … 250	3VA53: 200 ... 400 3VA54: 450, 500, 600
Frequency	Hz	0 … 400	0 … 400	0 … 400	0 … 400	0 … 400
Electrical characteristics according to UL 489						
Rated operational voltage U_e 50/60 Hz AC	V	347	600 Y/347	600 Y/347	600	600
Electrical characteristics according to IEC 60947-2						
Rated operational voltage U_e 50/60 Hz AC	V	415	415	690	690	690
Rated insulation voltage U_i	V	500	600	800	800	800
Rated impulse withstand voltage U_{imp}	kV	8	8	8	8	8

UL Breaker Type		SEAS	MEAS	HEAS	SEAS	MEAS	HEAS	SEAS	MEAS	HEAS	MFAS	HFAS	CFAS	3VA53: MJAS 3VA54: MLAS	3VA53: HJAS 3VA54: HLAS	3VA53: CJAS 3VA54: CLAS
Short-circuit breaking capacity according to UL 489		(S)	(M)	(H)	(S)	(M)	(H)	(S)	(M)	(H)	(M)	(H)	(C)	(M)	(H)	(C)
120 V AC / 50/60 Hz	kA	65	85	100	--	--	--	--	--	--	--	--	--	--	--	--
240 V AC / 50/60 Hz	kA	--	--	--	65	85	150	65	85	100	85	100	200	85	100	200
277 V AC / 50/60 Hz	kA	25	35	50	--	--	--	--	--	--	--	--	--	--	--	--
347 V AC / 50/60 Hz	kA	14	18	18	--	--	--	--	--	--	--	--	--	--	--	--
480 Y/277 V AC / 50/60 Hz	kA	--	--	--	25	35	65	25	35	65	35	65	100	35	65	100
480 V AC / 50/60 Hz	kA	--	--	--	25	35	65	25	35	65	35	65	100	35	65	100
600 Y/347 V AC / 50/60 Hz	kA	--	--	--	14	18	25	14	18	25	18	25	35	20	25	35
600 V AC / 50/60 Hz	kA	--	--	--	--	--	--	--	--	--	18	25	35	20	25	35
125 V DC	kA	14	25	30	50	85	100	--	--	--	--	--	--	--	--	--
250 V DC	kA	--	--	--	50	85	100	50	85	100	50	85	100	50	85	100
500 V DC	kA	--	--	--	--	--	--	50	85	100	50	85	100	50	85	100
600 V DC	kA	--	--	--	--	--	--	50	85	100	50	85	100	50	85	100
750 V DC (4-pole)	kA	--	--	--	--	--	--	--	--	--	--	--	--	50	85	100
1000 V DC (4-pole)	kA	--	--	--	--	--	--	--	--	--	--	--	--	6	6	10
Short-circuit breaking capacity according to IEC 60947-2		(S)	(M)	(H)	(S)	(M)	(H)	(S)	(M)	(H)	(M)	(H)	(C)	(M)	(H)	(C)
I_{cu} / I_{cs} [1]																
240 V AC / 50/60 Hz	kA	25/25	36/36	55/55	55/55	85/85	150/150	55/55	85/85	150/150	85/85	100/100	200/200	85/85	100/100	200/200
415 V AC / 50/60 Hz	kA	5/5	5/5	5/5	36/36	55/55	70/70	36/36	55/55	70/70	55/55	70/70	110/110[2]	55/55	70/70	110/110
690 V AC / 50/60 Hz	kA	--	--	--	--	--	--	5/5	7/5	10/5	7/7	10/10	10/10	3VA53: 7/5 3VA54: 7/6	3VA53: 10/6 3VA54: 10/6	3VA53: 10/6 3VA54: 10/6
125 V DC	kA	14	25	30	14	25	30	--	--	--	--	--	--	8	16	25
250 V DC	kA	--	--	--	50	85	100	50	85	100	50	85	100	8	16	25
500 V DC	kA	--	--	--	--	--	--	50	85	100	50	85	100	8	16	25
600 V DC	kA	--	--	--	--	--	--	50	85	100	50	85	100	8	16	25
750 V DC	kA	--	--	--	--	--	--	--	--	--	50	85	100	--	--	--

-- Not available

1) I_{cu} = rated ultimate short-circuit breaking capacity, RMS value acc. to IEC 60947-2
I_{cs} = rated ultimate short-circuit breaking capacity, RMS value acc. to IEC 60947-2

2) 4-pole: 85/85 kA

Minimum order quantity (PS) or a multiple thereof can be ordered.

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3VA61	3VA62	3VA63	3VA64
3, 4	3, 4	3, 4	3, 4
3VA6 molded case circuit breakers for line protection			
150 A	250 A	400 A	600 A
40 … 150	100, 250	250, 400	400, 600
50 … 60	50 … 60	50 … 60	50 … 60
600	600 Y/347	600	600
690	690	690	690
800	800	800	800
8	8	8	8

MDAE	HDAE	CDAE	LDAE	MFAE	HFAE	CFAE	LFAE	MJAE	HJAE	CJAE	LJAE	MLAE	HLAE	CLAE	LLAE
(M)	(H)	(C)	(L)	(M)	(H)	(C)	(L)	(M)	(H)	(C)	(L)	(M)	(H)	(C)	(L)
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
100	100	200	200	100	100	200	200	100	100	200	200	100	100	200	200
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35	65	100	150	35	65	100	150	35	65	100	150	35	65	100	150
35	65	100	150	35	65	100	150	35	65	100	150	35	65	100	150
18	22	35	50	18	22	35	50	18	22	35	50	18	22	35	50
18	22	35	50	--	--	--	--	18	22	35	50	18	22	35	50
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(M)	(H)	(C)	(L)	(M)	(H)	(C)	(L)	(M)	(H)	(C)	(L)	(M)	(H)	(C)	(L)
85/85	110/110	150/150	200/200	85/85	110/110	150/150	200/200	85/85	110/110	150/150	200/200	85/85	110/110	150/150	200/200
55/55	85/85	110/110	150/150	55/55	85/85	110/110	150/150	55/55	85/85	110/110	150/150	55/55	85/85	110/110	150/150
2.5/2.5	2.5/2.5	2.5/2.5	2.5/2.5	3/3	3/3	3/3	3/3	5/5	5/5	5/5	5/5	6/6	6/6	6/6	6/6
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Minimum order quantity (PS) or a multiple thereof can be ordered.

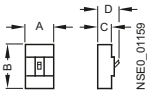
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General data







Type				3VA51	3VA51 NEW	3VA51	3VA52	3VA53, 3VA54 NEW
Number of poles				1	2	3.4	2 in 3-pole, 3, 4	2 in 3-pole, 3, 4
3VA5 molded case circuit breakers for line protection								
Rated current I_n			A	15 … 125	15 … 125	15 … 125	100 … 250	3VA53: 200 ... 400 3VA54: 450, 500, 600
Service life (make-break operations)								
Mechanical				15000	15000	15000	15000	15000
Electrical at U_e UL 489 480 V / IEC 60947 415 V				8000	8000	8000	8000	3000
Trip units	FTFM	TM210		✓	✓	✓	✓	--
	FTAM	TM230		--	--	✓	✓	✓
	ATAM	TM240		--	--	✓	✓	✓
	LI	ETU320/ETU820		--	--	--	--	--
	LIG	ETU330/ETU830		--	--	--	--	--
	LSI	ETU350		--	--	--	--	--
	LSI	ETU550/ETU850		--	--	--	--	--
	LSI (G alarm)[3]	ETU556/ETU856		--	--	--	--	--
	LSIG	ETU560/ETU860		--	--	--	--	--
3VA5 Motor Circuit Protectors								
Rated operational current I_n			A	--	--	15 … 125	150 … 200	
Breaking capacity according to UL 489 without contactor at 480 V[4]			kA	--	--	65	65/100	
Approval in accordance with IEC 60947-2 Appendix O ICB				--	--	✓	✓	--
Trip units[1]	AM	TM120M		--	--	✓	✓	--
	I	ETU310M		--	--	--	--	--
3VA5 Molded Case Switches								
Electrical characteristics according to UL 489								
Short circuit current rating (SCCR) up to 65 kA at 480 V[2]								
Rated uninterrupted current I_n at 40 °C ambient temperature			A	--	100	100	150, 250	--
Short circuit current rating (SCCR) up to 100 kA at 480 V[2]								
Rated uninterrupted current I_n at 40 °C ambient temperature			A	--	--	--	100, 150, 250	--
Approval in accordance with IEC 60947-2 Appendix L CBI-X				--	✓	✓	✓	--
Trip units[1]	FM	MCS110		--	✓	✓	✓	--
Dimensions								
	A		mm	25.4	50.8	76.2	105	138
	B		mm	140	140	140	185	210
	C		mm	76.5	76.5	76.5	83	110
	D		mm	93.4	93.4	93.4	107	137
General information								
Standards and specifications				UL 489/CSA22.2/ IEC 60947-2	UL 489/CSA22.2/ IEC 60947-2	UL 489/CSA22.2/ IEC 60947-2	UL 489/CSA22.2/ IEC 60947-2	UL 489/CSA22.2/ IEC 60947-2
Power and infeed direction				Top and bottom	Top and bottom	Top and bottom	Top and bottom	Top and bottom
Standard connection technology				Without connection technology	Without connection technology	Without connection technology	Without connection technology	Without connection technology

✓ Available -- Not available

1) Integrated instantaneous short-circuit release for self-protection

2) Switching capacity (SCCR rating) is the maximum permissible short-circuit current at the installation location of the MCS in combination with an appropriate overload protection element

3) G alarm, no G protection

4) Breaking capacities in combination with contactors (SCCR ratings) may differ

Minimum order quantity (PS) or a multiple thereof can be ordered.

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3VA61	3VA62	3VA63	3VA64
3, 4	3, 4	3, 4	3, 4
3VA6 molded case circuit breakers for line protection, standard applications			
40 ... 150	100, 250	250, 400	400, 600
20000	20000	15000	15000
9000	6000	6000	4000
--	--	--	--
--	--	--	--
--	--	--	--
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
3VA6 Motor Circuit Protectors			
25 ... 100	110 ... 200	200, 250	400, 500
100	100	100	100
✓	✓	✓	✓
--	--	--	--
✓	✓	✓	✓
3VA6 Molded Case Switches			
--	--	--	--
--	--	400	600
--	--	✓	✓
--	--	✓	✓
Dimensions			
105 (3p)/140 (4p) 198 86 107	105 (3p)/140 (4p) 198 86 107	138 (3p)/184 (4p) 248 110 137	138 (3p)/184 (4p) 248 110 137
General information			
UL 489/CSA22.2/ IEC 60947-2	UL 489/CSA22.2/ IEC 60947-2	UL 489/CSA22.2/ IEC 60947-2	UL 489/CSA22.2/ IEC 60947-2
Top and bottom	Top and bottom	Top and bottom	Top and bottom
Without connection technology	Without connection technology	Without connection technology	Without connection technology

Minimum order quantity (PS) or a multiple thereof can be ordered.

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General data

Molded case circuit breakers and accessories in the system

The new 3VA UL molded case circuit breakers come with a large portfolio of internal and external accessories that can be installed flexibly in any size of circuit breaker (depending on the type of accessory).

The table below shows the molded case circuit breakers in or on which the accessories can be installed, and the sizes covered by the same accessory component:

Accessories	3VA UL up to 600 A							
	3VA5				3VA6			
	125	250	400	600	150	250	400	600
Auxiliary switches and alarm switches	■	■	■	■	■	■	■	■
Auxiliary releases	■	■	■	■	■	■	■	■
Connection technology	■	■	■	■	■	■	■	■
Plug-in technology					■	■	■	■
Draw-out technology					■	■	■	■
Front mounted rotary operator	■	■	■	■	■	■	■	■
Door mounted rotary operator	■	■	■	■	■	■	■	■
Side wall mounted rotary operator	■	■			■	■		
Operating unit with Bowden cable/rod	■	■	■	■	■	■	■	■
Motor operator MO320 (mounted on the front)	■	■	■	■	■	■	■	■
Accessories for locking, blocking and interlocking	■	■	■	■	■	■	■	■
Communications interface					■	■	■	■
EFB300					■	■	■	■
MMB300					■	■	■	■
TD300 and TD500					■	■	■	■
Cover frame	■	■	■	■	■	■	■	■

Front terminals

The portfolio of connection components for the molded case circuit breakers includes a large selection of front cable and busbar terminals.

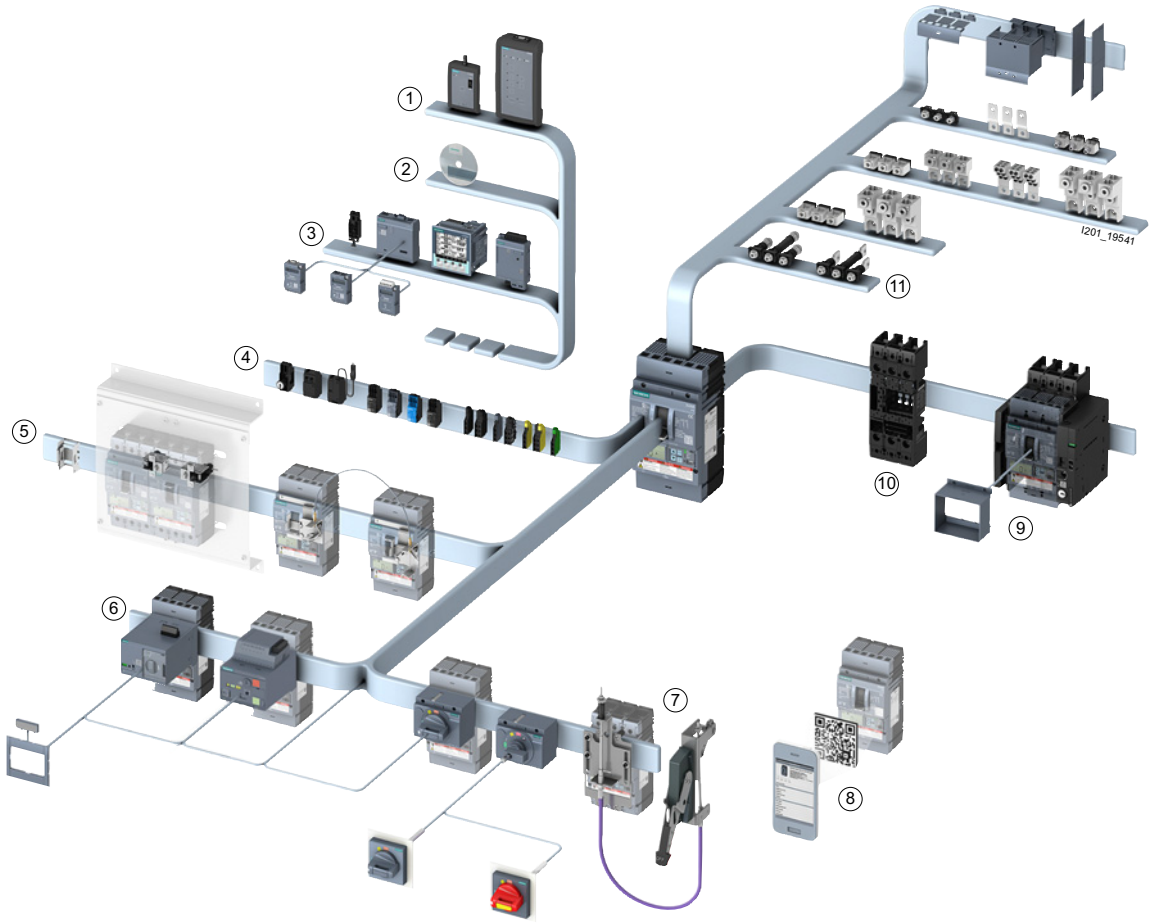
Connection technology available from/installed at the factory

As standard, all 3VA UL molded case circuit breakers are supplied without connection technology.

The implementation of insulation measures (phase barriers or terminal covers) is recommended. With some accessory components, insulation measures are essential (and these are included in the scope of supply of the relevant component).

Minimum order quantity (PS) or a multiple thereof can be ordered.

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① Test devices (page 2/120)
② powerconfig software (page 2/122)
③ Communication (pages 2/113 to 2/120)
④ Internal accessories (pages 2/73 to 2/82)
⑤ Accessories for locking, blocking and interlocking (pages 2/123 to 2/126)
⑥ Motor operators (page 2/92)
⑦ Manual operators (pages 2/83 to 2/91)
⑧ Knowledge Manager (page 2/12)
⑨ Draw-out technology (pages 2/108 to 2/112)
⑩ Plug-in technology (pages 2/108 to 2/112)
⑪ Connection technology (pages 2/95 to 2/108)

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General data

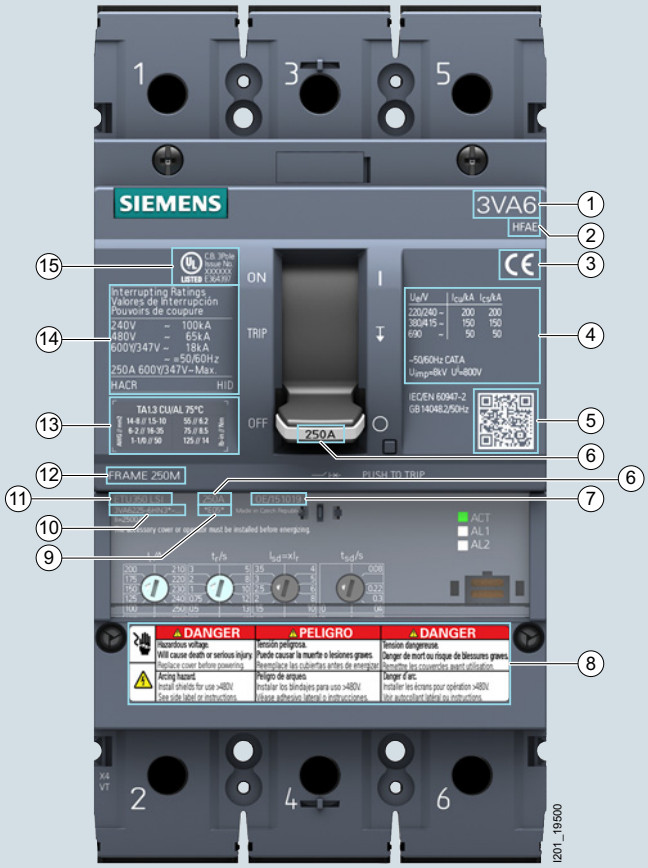
Knowledge Manager

By reading out the QR code using a smartphone and the "Siemens Industry Online Support" app, it is possible to view key product information via the Internet at any time.

Siemens provides the app free of charge.

Technical information about installation, parameterization or maintenance can be called up directly from the system by QR code on a smartphone.





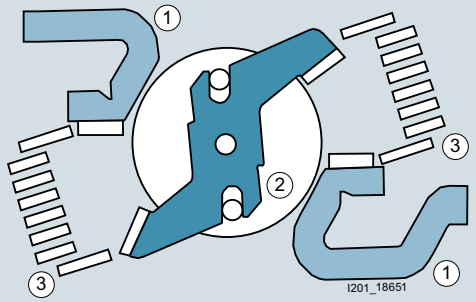
1. Circuit breaker designation (3VA5, 3VA6)
2. UL type of switching device
3. CE approval mark
4. IEC electrical characteristic data
5. Knowledge Manager
6. Rated current
7. Date and place of manufacture
8. Warning notice
9. Product version
10. Article number (MLFB) of circuit breaker
11. Designation of trip unit
12. Frame size and breaking capacity class
13. Labeling field for installed connection technology
14. NEMA electrical characteristic data
15. UL approval mark

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Current limiting

To achieve excellent current limiting, the 3VA molded case circuit breakers are equipped with a rotary double-contact system that opens dynamically on its own above the specified disengaging currents on the principle of magnetic repulsion before the expected peak value of the short-circuit current is reached. These limits have been coordinated and optimized to suit the overall device characteristics. This substantially reduces the thermal and mechanical loading on the molded case circuit breaker.



1 Fixed contacts
2 Rotating contact system
3 Arc splitter chamber

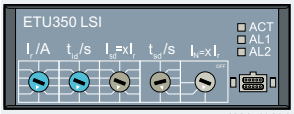
The switching pole cassettes of the 3VA molded case circuit breakers are optimized for high breaking capacity, and their rotary double-contact system design enables extremely good current limiting thanks to the very fast build-up of peak arc voltage generated at both contacts in the event of a short-circuit. This results in significant limitation of the let-through energy I^2t and the expected let-through current I_{sc} .

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General data

Protection functions

Description of functions

	Thermal-magnetic TM 2-series	Electronic ETU 3-series	Electronic with display ETU 5-series	Electronic with display and metering function – ETU 8-series
Protection				
Trip units	 I201_19496	 I201_19634	 I201_18480	 I201_18482
	Line protection: TM210, TM230, TM240 Motor Circuit Protector: TM120M	Line protection: ETU320, ETU330, ETU350 Motor Circuit Protector: ETU310M	Line protection: ETU550, ETU556, ETU560	Line protection: ETU820, ETU830, ETU850, ETU856, ETU860
Integrated functions				
Parameterizing				
	Setting and reading the parameters in A	Setting and reading the parameters in A and s	• Setting and reading the parameters via display and communication • Fine setting of the parameters • Reading the measured values	• Setting and reading the parameters via display and communication • Fine setting of the parameters • Reading the measured values
Status display	--			
		Indicating the ETU status via LEDs	Indicating the ETU status via LEDs	Indicating the ETU status via LEDs
Interface	--			
		Interface for test devices	Interface for test devices	Interface for test devices
Metering function	--	--	--	Metering function integrated
Optional expansions				
	--	--		
			24 V module for continuous power supply (also without primary current through the molded case circuit breaker)	24 V module for continuous power supply (also without primary current through the molded case circuit breaker)
	--			
		EFB300 external function box for connecting to the ETU	EFB300 external function box for connecting to the ETU	EFB300 external function box for connecting to the ETU
				
		MMB300 maintenance mode box for connection to the ETU	MMB300 maintenance mode box for connection to the ETU	MMB300 maintenance mode box for connection to the ETU
	--	--		
			COM060 communication module	COM060 communication module
	--	--		
			COM800/COM100 breaker data server Interface to • PROFIBUS • PROFINET • Modbus RTU • Ethernet (Modbus TCP)	COM800/COM100 breaker data server Interface to • PROFIBUS • PROFINET • Modbus RTU • Ethernet (Modbus TCP)
	--	--		
			DSP800 external display for installing in the panel door	DSP800 external display for installing in the panel door
	--			
		TD300/TD500 test device	TD300/TD500 test device	TD300/TD500 test device

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Application cases and trip unit types

The table below illustrates the broad range of applications for which different types of thermal-magnetic trip units can be used:

	TM120M AM	TM210 FTFM	TM230 FTAM	TM240 ATAM
Protection				
Motor circuit protector	✓	--	--	--
Line protection	--	✓	✓	✓
Version available with				
1-pole breaker	--	✓	--	--
2-pole breaker in 3-pole enclosure	--	✓	✓	--
3-pole breaker	✓	✓	✓	✓
4-pole breaker	--	✓	✓	✓
Available protection parameters				
I_r adjustable	--	--	--	✓
I_i adjustable	✓	--	✓	✓
I_r fixed	--	✓	✓	--
I_i fixed	--	✓	--	--

Protection functions

	ETU310M I	ETU320 LI	ETU330 LIG	ETU350 LSI	ETU550 LSI	ETU556 LSI (G alarm)	ETU560 LSIG	ETU820 LI	ETU830 LIG	ETU850 LSI	ETU856 LSI (G alarm)	ETU860 LSIG
Protection												
Motor circuit protector	✓	--	--	--	--	--	--	--	--	--	--	--
Line protection	--	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Version available with												
3-pole without external neutral conductor transformer	✓	✓	✓	✓	--	--	--	--	--	--	--	--
3-pole with external neutral current transformer	--	--	--	--	✓	✓	✓	✓	✓	✓	✓	✓
4-pole with protected neutral conductor transformer	--	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Available protection parameters												
Characteristic in L range	I^2t	I^2t	I^2t	I^2t	I^2t	I^2t	I^2t	I^2t	I^2t	I^2t	I^2t	I^2t
I_r	--	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
t_{ld} at 6 x I_r	--	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Thermal image	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Thermal memory can be switched on/ off	--	--	--	--	✓	✓	✓	--	--	✓	✓	✓
I_{sd}	--	--	--	✓	✓	✓	✓	--	--	✓	✓	✓
t_{sd} at 8 x I_r	--	--	--	✓	✓	✓	✓	--	--	✓	✓	✓
Characteristic in S range: I^2t_{sd}	--	--	--	✓	✓	✓	✓	--	--	✓	✓	✓
Characteristic in S range: selectable I^2t_{sd} / t_{sd}	--	--	--	--	✓	✓	✓	--	--	✓	✓	✓
I_i	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
$I_{N1)}$	--	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
I_g	--	--	✓	--	--	--	✓	--	✓	--	--	✓
t_g at 2 x I_g	--	--	✓	--	--	--	✓	--	✓	--	--	✓
Characteristic in G range: I^2t_g	--	--	✓	--	--	--	✓	--	✓	--	--	✓
Characteristic in G range: selectable I^2t_g / t_g	--	--	✓	--	--	--	✓	--	✓	--	--	✓
Ground-fault alarm function	--	--	--	--	--	✓	--	--	--	--	✓	--
ZSI	--	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Arc fault mitigation mode	--	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Features and options												
Setting by rotary switch	✓	✓	✓	✓	--	--	--	--	--	--	--	--
Setting by ETU display	--	--	--	--	✓	✓	✓	✓	✓	✓	✓	✓
Data shown on ETU display	--	--	--	--	✓	✓	✓	✓	✓	✓	✓	✓
Metering function	--	--	--	--	--	--	--	✓	✓	✓	✓	✓
Communication option	--	--	--	--	✓	✓	✓	✓	✓	✓	✓	✓
Front interface	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

1) Available for circuit breakers with external current transformer for the N conductor as well as for 4-pole circuit breakers

✓ Available -- Not available

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2

Selection and ordering data

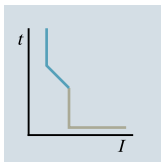
PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB



Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Operating current of the instantaneous short-circuit protection "I" I_i	SD	**Standard breaking capacity S, up to 25 kA at 277 V** (S) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU
	A	A	A	d		
1-pole, fixed-mounted, suitable for DIN rail mounting, 3VA51, up to 125 A Thermal-magnetic trip unit						
Line protection, 1-pole, TM210 FTFM With fixed overload protection I_r and fixed short-circuit protection I_i						
3VA51	15	15	300		**3VA5195-4ED11-0AA0**	
	20	20	300		**3VA5120-4ED11-0AA0**	
	25	25	300		**3VA5125-4ED11-0AA0**	
	30	30	300		**3VA5130-4ED11-0AA0**	
	35	35	350		**3VA5135-4ED11-0AA0**	
	40	40	400		**3VA5140-4ED11-0AA0**	
	45	45	450		**3VA5145-4ED11-0AA0**	
	50	50	500		**3VA5150-4ED11-0AA0**	
	60	60	600		**3VA5160-4ED11-0AA0**	
	70	70	700		**3VA5170-4ED11-0AA0**	
	80	80	800		**3VA5180-4ED11-0AA0**	
	90	90	900		**3VA5190-4ED11-0AA0**	
	100	100	1000		**3VA5110-4ED11-0AA0**	
	110	110	1100		**3VA5111-4ED11-0AA0**	
	125	125	1250		**3VA5112-4ED11-0AA0**	



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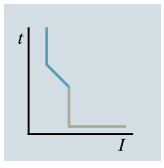




Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Operating current of the instantaneous short-circuit protection "I" I_i	SD	**Standard breaking capacity S, up to 25 kA at 480 V** (S) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU
	A	A	A	d		
2-pole, fixed-mounted, suitable for DIN rail mounting, 3VA51, up to 125 A Thermal-magnetic trip unit NEW						
Line protection, 2-pole, TM210 FTFM With fixed overload protection I_r and fixed short-circuit protection I_i						
3VA51	15	15	300		**3VA5195-4ED21-0AA0**	
	20	20	300		**3VA5120-4ED21-0AA0**	
	25	25	300		**3VA5125-4ED21-0AA0**	
	30	30	300		**3VA5130-4ED21-0AA0**	
	35	35	350		**3VA5135-4ED21-0AA0**	
	40	40	400		**3VA5140-4ED21-0AA0**	
	45	45	450		**3VA5145-4ED21-0AA0**	
	50	50	500		**3VA5150-4ED21-0AA0**	
	60	60	600		**3VA5160-4ED21-0AA0**	
	70	70	700		**3VA5170-4ED21-0AA0**	
	80	80	800		**3VA5180-4ED21-0AA0**	
	90	90	900		**3VA5190-4ED21-0AA0**	
	100	100	1000		**3VA5110-4ED21-0AA0**	
	110	110	1100		**3VA5111-4ED21-0AA0**	
	125	125	1250		**3VA5112-4ED21-0AA0**	



I201_19027



Minimum order quantity (PS) or a multiple thereof can be ordered.

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PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

Rated current I_n	SD	**Medium breaking capacity M, up to 35 kA at 277 V** (M) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU	SD	**High breaking capacity H, up to 50 kA at 277 V** (H) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU
A	d					

Line protection, 1-pole, TM210 FTFM
With fixed overload protection I_r and fixed short-circuit protection I_i

15		**3VA5195-5ED11-0AA0**			**3VA5195-6ED11-0AA0**	
20		**3VA5120-5ED11-0AA0**			**3VA5120-6ED11-0AA0**	
25		**3VA5125-5ED11-0AA0**			**3VA5125-6ED11-0AA0**	
30		**3VA5130-5ED11-0AA0**			**3VA5130-6ED11-0AA0**	
35		**3VA5135-5ED11-0AA0**			**3VA5135-6ED11-0AA0**	
40		**3VA5140-5ED11-0AA0**			**3VA5140-6ED11-0AA0**	
45		**3VA5145-5ED11-0AA0**			**3VA5145-6ED11-0AA0**	
50		**3VA5150-5ED11-0AA0**			**3VA5150-6ED11-0AA0**	
60		**3VA5160-5ED11-0AA0**			**3VA5160-6ED11-0AA0**	
70		**3VA5170-5ED11-0AA0**			**3VA5170-6ED11-0AA0**	
80		**3VA5180-5ED11-0AA0**			**3VA5180-6ED11-0AA0**	
90		**3VA5190-5ED11-0AA0**			**3VA5190-6ED11-0AA0**	
100		**3VA5110-5ED11-0AA0**			**3VA5110-6ED11-0AA0**	
110		**3VA5111-5ED11-0AA0**			**3VA5111-6ED11-0AA0**	
125		**3VA5112-5ED11-0AA0**			**3VA5112-6ED11-0AA0**	

Rated current I_n	SD	**Medium breaking capacity M, up to 35 kA at 480 V** (M) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU	SD	**High breaking capacity H, up to 65 kA at 480 V** (H) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU
A	d					

Line protection, 2-pole, TM210 FTFM NEW
With fixed overload protection I_r and fixed short-circuit protection I_i

15		**3VA5195-5ED21-0AA0**			**3VA5195-6ED21-0AA0**	
20		**3VA5120-5ED21-0AA0**			**3VA5120-6ED21-0AA0**	
25		**3VA5125-5ED21-0AA0**			**3VA5125-6ED21-0AA0**	
30		**3VA5130-5ED21-0AA0**			**3VA5130-6ED21-0AA0**	
35		**3VA5135-5ED21-0AA0**			**3VA5135-6ED21-0AA0**	
40		**3VA5140-5ED21-0AA0**			**3VA5140-6ED21-0AA0**	
45		**3VA5145-5ED21-0AA0**			**3VA5145-6ED21-0AA0**	
50		**3VA5150-5ED21-0AA0**			**3VA5150-6ED21-0AA0**	
60		**3VA5160-5ED21-0AA0**			**3VA5160-6ED21-0AA0**	
70		**3VA5170-5ED21-0AA0**			**3VA5170-6ED21-0AA0**	
80		**3VA5180-5ED21-0AA0**			**3VA5180-6ED21-0AA0**	
90		**3VA5190-5ED21-0AA0**			**3VA5190-6ED21-0AA0**	
100		**3VA5110-5ED21-0AA0**			**3VA5110-6ED21-0AA0**	
110		**3VA5111-5ED21-0AA0**			**3VA5111-6ED21-0AA0**	
125		**3VA5112-5ED21-0AA0**			**3VA5112-6ED21-0AA0**	

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Line protection

PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

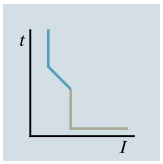


Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Operating current of the instant-aneous short-circuit protection "I" I_i	SD	**Standard breaking capacity S, up to 25 kA at 480 V** See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU
	A	A	A	d		

3-pole, fixed-mounted, suitable for DIN rail mounting, 3VA51/52/53/54, up to 600 A Thermal-magnetic trip unit



I201_19027



Line protection, TM210 FTFM
With fixed overload protection I_r and fixed short-circuit protection I_i

3VA51	15	15	300		**3VA5195-4ED31-0AA0**
	20	20	300		**3VA5120-4ED31-0AA0**
	25	25	300		**3VA5125-4ED31-0AA0**
	30	30	300		**3VA5130-4ED31-0AA0**
	35	35	350		**3VA5135-4ED31-0AA0**
	40	40	400		**3VA5140-4ED31-0AA0**
	45	45	450		**3VA5145-4ED31-0AA0**
	50	50	500		**3VA5150-4ED31-0AA0**
	60	60	600		**3VA5160-4ED31-0AA0**
	70	70	700		**3VA5170-4ED31-0AA0**
	80	80	800		**3VA5180-4ED31-0AA0**
	90	90	900		**3VA5190-4ED31-0AA0**
	100	100	1000		**3VA5110-4ED31-0AA0**
	110	110	1100		**3VA5111-4ED31-0AA0**
	125	125	1250		**3VA5112-4ED31-0AA0**
3VA52 NEW	40	40	400		--
	45	45	450		--
	50	50	500		--
	60	60	600		--
	70	70	700		--
	80	80	800		--
	90	90	900		--
3VA52	100	100	1000		--
	110	110	1100		--
	125	125	1250		--
	150	150	1500		--
	175	175	1750		--
	200	200	2000		--
	225	225	2250		--
	250	250	2500		--

Minimum order quantity (PS) or a multiple thereof can be ordered.

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PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

	Rated current I_n	SD	**Medium breaking capacity M, up to 35 kA at 480 V** See "Overview", p. 2/6 and 2/7		SD	**High breaking capacity H, up to 65 kA at 480 V** See "Overview", p. 2/6 and 2/7		SD	**Very high breaking capacity C, up to 100 kA at 480 V** See "Overview", p. 2/6 and 2/7	
			Article No. www.siemens.com/product?Article No.	Basic price per PU		Article No. www.siemens.com/product?Article No.	Basic price per PU		Article No. www.siemens.com/product?Article No.	Basic price per PU
	A	d			d			d		
	Line protection, TM210 FTFM With fixed overload protection I_r and fixed short-circuit protection I_i									
	15		**3VA5195-5ED31-0AA0**			**3VA5195-6ED31-0AA0**			**--**	
	20		**3VA5120-5ED31-0AA0**			**3VA5120-6ED31-0AA0**			**--**	
	25		**3VA5125-5ED31-0AA0**			**3VA5125-6ED31-0AA0**			**--**	
	30		**3VA5130-5ED31-0AA0**			**3VA5130-6ED31-0AA0**			**--**	
	35		**3VA5135-5ED31-0AA0**			**3VA5135-6ED31-0AA0**			**--**	
	40		**3VA5140-5ED31-0AA0**			**3VA5140-6ED31-0AA0**			**--**	
	45		**3VA5145-5ED31-0AA0**			**3VA5145-6ED31-0AA0**			**--**	
	50		**3VA5150-5ED31-0AA0**			**3VA5150-6ED31-0AA0**			**--**	
	60		**3VA5160-5ED31-0AA0**			**3VA5160-6ED31-0AA0**			**--**	
	70		**3VA5170-5ED31-0AA0**			**3VA5170-6ED31-0AA0**			**--**	
	80		**3VA5180-5ED31-0AA0**			**3VA5180-6ED31-0AA0**			**--**	
	90		**3VA5190-5ED31-0AA0**			**3VA5190-6ED31-0AA0**			**--**	
	100		**3VA5110-5ED31-0AA0**			**3VA5110-6ED31-0AA0**			**--**	
	110		**3VA5111-5ED31-0AA0**			**3VA5111-6ED31-0AA0**			**--**	
	125		**3VA5112-5ED31-0AA0**			**3VA5112-6ED31-0AA0**			**--**	
NEW	40[1]		**3VA5240-5ED31-0AA0**			**3VA5240-6ED31-0AA0**			**3VA5240-7ED31-0AA0**	
	45[1]		**3VA5245-5ED31-0AA0**			**3VA5245-6ED31-0AA0**			**3VA5245-7ED31-0AA0**	
	50[1]		**3VA5250-5ED31-0AA0**			**3VA5250-6ED31-0AA0**			**3VA5250-7ED31-0AA0**	
	60[1]		**3VA5260-5ED31-0AA0**			**3VA5260-6ED31-0AA0**			**3VA5260-7ED31-0AA0**	
	70[1]		**3VA5270-5ED31-0AA0**			**3VA5270-6ED31-0AA0**			**3VA5270-7ED31-0AA0**	
	80[1]		**3VA5280-5ED31-0AA0**			**3VA5280-6ED31-0AA0**			**3VA5280-7ED31-0AA0**	
	90[1]		**3VA5290-5ED31-0AA0**			**3VA5290-6ED31-0AA0**			**3VA5290-7ED31-0AA0**	
	100		**3VA5210-5ED31-0AA0**			**3VA5210-6ED31-0AA0**			**3VA5210-7ED31-0AA0**	
	110		**3VA5211-5ED31-0AA0**			**3VA5211-6ED31-0AA0**			**3VA5211-7ED31-0AA0**	
	125		**3VA5212-5ED31-0AA0**			**3VA5212-6ED31-0AA0**			**3VA5212-7ED31-0AA0**	
	150		**3VA5215-5ED31-0AA0**			**3VA5215-6ED31-0AA0**			**3VA5215-7ED31-0AA0**	
	175		**3VA5217-5ED31-0AA0**			**3VA5217-6ED31-0AA0**			**3VA5217-7ED31-0AA0**	
	200		**3VA5220-5ED31-0AA0**			**3VA5220-6ED31-0AA0**			**3VA5220-7ED31-0AA0**	
	225		**3VA5222-5ED31-0AA0**			**3VA5222-6ED31-0AA0**			**3VA5222-7ED31-0AA0**	
	250		**3VA5225-5ED31-0AA0**			**3VA5225-6ED31-0AA0**			**3VA5225-7ED31-0AA0**	

[1] Start of delivery scheduled for 3rd quarter 2019

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Line protection

PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

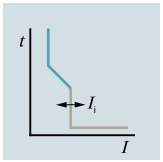


Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Operating current of the instantaneous short-circuit protection "I" I_i	SD	**Standard breaking capacity S, up to 25 kA at 480 V** (S) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU
	A	A	A	d		

3-pole, fixed-mounted, suitable for DIN rail mounting, 3VA51/52/53/54, up to 600 A Thermal-magnetic trip unit



I201_19496



Line protection, TM230 FTAM
With fixed overload protection I_r and adjustable short-circuit protection I_i

3VA51	15	15	150 ... 300		**3VA5195-4EC31-0AA0**
	20	20	150 ... 300		**3VA5120-4EC31-0AA0**
	25	25	150 ... 300		**3VA5125-4EC31-0AA0**
	30	30	150 ... 300		**3VA5130-4EC31-0AA0**
	35	35	175 ... 350		**3VA5135-4EC31-0AA0**
	40	40	200 ... 400		**3VA5140-4EC31-0AA0**
	45	45	225 ... 450		**3VA5145-4EC31-0AA0**
	50	50	250 ... 500		**3VA5150-4EC31-0AA0**
	60	60	300 ... 600		**3VA5160-4EC31-0AA0**
	70	70	350 ... 700		**3VA5170-4EC31-0AA0**
	80	80	400 ... 800		**3VA5180-4EC31-0AA0**
	90	90	450 ... 900		**3VA5190-4EC31-0AA0**
	100	100	500 ... 1000		**3VA5110-4EC31-0AA0**
	110	110	550 ... 1100		**3VA5111-4EC31-0AA0**
	125	125	625 ... 1250		**3VA5112-4EC31-0AA0**
3VA52 NEW	70	70	350…700		--
	80	80	400…800		--
	90	90	450…900		--
3VA52	100	100	500 ... 1000		--
	110	110	550 ... 1100		--
	125	125	625 ... 1250		--
	150	150	750 ... 1500		--
	175	175	875 ... 1750		--
	200	200	1000 ... 2000		--
	225	225	1125 ... 2250		--
	250	250	1250 ... 2500		--
3VA53 NEW	200	200	1000…2000		--
	225	225	1125…2250		--
	250	250	1250…2500		--
	300	300	1500…3000		--
	350	350	1750…3500		--
	400	400	2000…4000		--
3VA54 NEW	450	450	2250…4500		--
	500	500	2500…5000		--
	600	600	2400…4800		--

Minimum order quantity (PS) or a multiple thereof can be ordered.

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PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

	Rated current I_n	SD	Medium breaking capacity M, up to 35 kA at 480 V See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU	SD	High breaking capacity H, up to 65 kA at 480 V See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU	SD	Very high breaking capacity C, up to 100 kA at 480 V See "Overview", p. 2/6 and 2/7
	A	d			d				
	Line protection, TM230 FTAM								
	With fixed overload protection I_r and adjustable short-circuit protection I_i								
	15		**3VA5195-5EC31-0AA0**			**3VA5195-6EC31-0AA0**			**--**
	20		**3VA5120-5EC31-0AA0**			**3VA5120-6EC31-0AA0**			**--**
	25		**3VA5125-5EC31-0AA0**			**3VA5125-6EC31-0AA0**			**--**
	30		**3VA5130-5EC31-0AA0**			**3VA5130-6EC31-0AA0**			**--**
	35		**3VA5135-5EC31-0AA0**			**3VA5135-6EC31-0AA0**			**--**
	40		**3VA5140-5EC31-0AA0**			**3VA5140-6EC31-0AA0**			**--**
	45		**3VA5145-5EC31-0AA0**			**3VA5145-6EC31-0AA0**			**--**
	50		**3VA5150-5EC31-0AA0**			**3VA5150-6EC31-0AA0**			**--**
	60		**3VA5160-5EC31-0AA0**			**3VA5160-6EC31-0AA0**			**--**
	70		**3VA5170-5EC31-0AA0**			**3VA5170-6EC31-0AA0**			**--**
	80		**3VA5180-5EC31-0AA0**			**3VA5180-6EC31-0AA0**			**--**
	90		**3VA5190-5EC31-0AA0**			**3VA5190-6EC31-0AA0**			**--**
	100		**3VA5110-5EC31-0AA0**			**3VA5110-6EC31-0AA0**			**--**
	110		**3VA5111-5EC31-0AA0**			**3VA5111-6EC31-0AA0**			**--**
	125		**3VA5112-5EC31-0AA0**			**3VA5112-6EC31-0AA0**			**--**
NEW	70[1]		**3VA5270-5EC31-0AA0**			**3VA5270-6EC31-0AA0**			**3VA5270-7EC31-0AA0**
	80[1]		**3VA5280-5EC31-0AA0**			**3VA5280-6EC31-0AA0**			**3VA5280-7EC31-0AA0**
	90[1]		**3VA5290-5EC31-0AA0**			**3VA5290-6EC31-0AA0**			**3VA5290-7EC31-0AA0**
	100		**3VA5210-5EC31-0AA0**			**3VA5210-6EC31-0AA0**			**3VA5210-7EC31-0AA0**
	110		**3VA5211-5EC31-0AA0**			**3VA5211-6EC31-0AA0**			**3VA5211-7EC31-0AA0**
	125		**3VA5212-5EC31-0AA0**			**3VA5212-6EC31-0AA0**			**3VA5212-7EC31-0AA0**
	150		**3VA5215-5EC31-0AA0**			**3VA5215-6EC31-0AA0**			**3VA5215-7EC31-0AA0**
	175		**3VA5217-5EC31-0AA0**			**3VA5217-6EC31-0AA0**			**3VA5217-7EC31-0AA0**
	200		**3VA5220-5EC31-0AA0**			**3VA5220-6EC31-0AA0**			**3VA5220-7EC31-0AA0**
	225		**3VA5222-5EC31-0AA0**			**3VA5222-6EC31-0AA0**			**3VA5222-7EC31-0AA0**
	250		**3VA5225-5EC31-0AA0**			**3VA5225-6EC31-0AA0**			**3VA5225-7EC31-0AA0**
NEW	200		**3VA5320-5EC31-0AA0**			**3VA5320-6EC31-0AA0**			**3VA5320-7EC31-0AA0**
	225		**3VA5322-5EC31-0AA0**			**3VA5322-6EC31-0AA0**			**3VA5322-7EC31-0AA0**
	250		**3VA5325-5EC31-0AA0**			**3VA5325-6EC31-0AA0**			**3VA5325-7EC31-0AA0**
	300		**3VA5330-5EC31-0AA0**			**3VA5330-6EC31-0AA0**			**3VA5330-7EC31-0AA0**
	350		**3VA5335-5EC31-0AA0**			**3VA5335-6EC31-0AA0**			**3VA5335-7EC31-0AA0**
	400		**3VA5340-5EC31-0AA0**			**3VA5340-6EC31-0AA0**			**3VA5340-7EC31-0AA0**
NEW	450		**3VA5445-5EC31-0AA0**			**3VA5445-6EC31-0AA0**			**3VA5445-7EC31-0AA0**
	500		**3VA5450-5EC31-0AA0**			**3VA5450-6EC31-0AA0**			**3VA5450-7EC31-0AA0**
	600		**3VA5460-5EC31-0AA0**			**3VA5460-6EC31-0AA0**			**3VA5460-7EC31-0AA0**

[1] Start of delivery scheduled for 3rd quarter 2019

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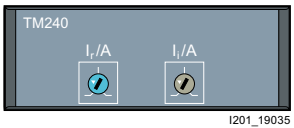
Line protection

PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

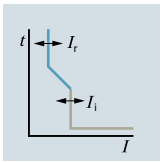


Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Operating current of the instant-aneous short-circuit protection "I" I_i	SD	**Standard breaking capacity S, up to 25 kA at 480 V** See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU
	A	A	A	d		

3-pole, fixed-mounted, suitable for DIN rail mounting, 3VA51/52/53/54, up to 600 A Thermal-magnetic trip unit



I201_19035



Line protection, TM240 ATAM NEW
With fixed overload protection I_r and fixed short-circuit protection I_i

3VA51	15	12…15	150…300		**3VA5195-4EF31-0AA0**
	20	16…20	150…300		**3VA5120-4EF31-0AA0**
	30	24…30	150…300		**3VA5130-4EF31-0AA0**
	40	32…40	200…400		**3VA5140-4EF31-0AA0**
	50	40…50	250…500		**3VA5150-4EF31-0AA0**
	60	48…60	300…600		**3VA5160-4EF31-0AA0**
	70	56…70	350…700		**3VA5170-4EF31-0AA0**
	80	64…80	400…800		**3VA5180-4EF31-0AA0**
	100	80…100	500…1000		**3VA5110-4EF31-0AA0**
3VA52	70	56…70	350…700		--
	80	64…80	400…800		--
	100	80…100	500…1000		--
	125	100…125	625…1250		--
	150	120…150	750…1500		--
	175	140…175	875…1750		--
	200	160…200	1000…2000		--
	250	200…250	1250…2500		--
3VA53	200	160…200	1000…2000		--
	225	180…225	1125…2250		--
	250	200…250	1250…2500		--
	300	240…300	1500…3000		--
	350	280…350	1750…3500		--
3VA54	400	320…400	2000…4000		--
	450	360…450	2250…4500		--
	500	400…500	2500…5000		--
	600	480…600	2400…4800		--

Minimum order quantity (PS) or a multiple thereof can be ordered.

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PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

Rated current I_n	SD	**Medium breaking capacity M, up to 35 kA at 480 V** See "Overview", p. 2/6 and 2/7		SD	**High breaking capacity H, up to 65 kA at 480 V** See "Overview", p. 2/6 and 2/7		SD	**Very high breaking capacity C, up to 100 kA at 480 V** See "Overview", p. 2/6 and 2/7	
		Article No. www.siemens.com/product?Article No.	Basic price per PU		Article No. www.siemens.com/product?Article No.	Basic price per PU		Article No. www.siemens.com/product?Article No.	Basic price per PU
A	d			d			d		
Line protection, TM240 ATAM NEW With fixed overload protection I_r and fixed short-circuit protection I_i									
15		**3VA5195-5EF31-0AA0**			**3VA5195-6EF31-0AA0**			**--**	
20		**3VA5120-5EF31-0AA0**			**3VA5120-6EF31-0AA0**			**--**	
30		**3VA5130-5EF31-0AA0**			**3VA5130-6EF31-0AA0**			**--**	
40		**3VA5140-5EF31-0AA0**			**3VA5140-6EF31-0AA0**			**--**	
50		**3VA5150-5EF31-0AA0**			**3VA5150-6EF31-0AA0**			**--**	
60		**3VA5160-5EF31-0AA0**			**3VA5160-6EF31-0AA0**			**--**	
70		**3VA5170-5EF31-0AA0**			**3VA5170-6EF31-0AA0**			**--**	
80		**3VA5180-5EF31-0AA0**			**3VA5180-6EF31-0AA0**			**--**	
100		**3VA5110-5EF31-0AA0**			**3VA5110-6EF31-0AA0**			**--**	
		3VA5270-5EF31-0AA0			**3VA5270-6EF31-0AA0**			**3VA5270-7EF31-0AA0**	
80[1]		**3VA5280-5EF31-0AA0**			**3VA5280-6EF31-0AA0**			**3VA5280-7EF31-0AA0**	
100[1]		**3VA5210-5EF31-0AA0**			**3VA5210-6EF31-0AA0**			**3VA5210-7EF31-0AA0**	
125[1]		**3VA5212-5EF31-0AA0**			**3VA5212-6EF31-0AA0**			**3VA5212-7EF31-0AA0**	
150[1]		**3VA5215-5EF31-0AA0**			**3VA5215-6EF31-0AA0**			**3VA5215-7EF31-0AA0**	
175[1]		**3VA5217-5EF31-0AA0**			**3VA5217-6EF31-0AA0**			**3VA5217-7EF31-0AA0**	
200[1]		**3VA5220-5EF31-0AA0**			**3VA5220-6EF31-0AA0**			**3VA5220-7EF31-0AA0**	
250[1]		**3VA5225-5EF31-0AA0**			**3VA5225-6EF31-0AA0**			**3VA5225-7EF31-0AA0**	
200		**3VA5320-5EF31-0AA0**			**3VA5320-6EF31-0AA0**			**3VA5320-7EF31-0AA0**	
225		**3VA5322-5EF31-0AA0**			**3VA5322-6EF31-0AA0**			**3VA5322-7EF31-0AA0**	
250		**3VA5325-5EF31-0AA0**			**3VA5325-6EF31-0AA0**			**3VA5325-7EF31-0AA0**	
300		**3VA5330-5EF31-0AA0**			**3VA5330-6EF31-0AA0**			**3VA5330-7EF31-0AA0**	
350		**3VA5335-5EF31-0AA0**			**3VA5335-6EF31-0AA0**			**3VA5335-7EF31-0AA0**	
400		**3VA5340-5EF31-0AA0**			**3VA5340-6EF31-0AA0**			**3VA5340-7EF31-0AA0**	
450		**3VA5445-5EF31-0AA0**			**3VA5445-6EF31-0AA0**			**3VA5445-7EF31-0AA0**	
500		**3VA5450-5EF31-0AA0**			**3VA5450-6EF31-0AA0**			**3VA5450-7EF31-0AA0**	
600		**3VA5460-5EF31-0AA0**			**3VA5460-6EF31-0AA0**			**3VA5460-7EF31-0AA0**	

[1] Start of delivery scheduled for 3rd quarter 2019

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Line protection

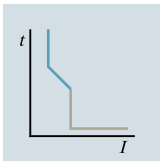
PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB



Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Operating current of the instantaneous short-circuit protection "I" I_i	SD	**Standard breaking capacity S, up to 25 kA at 480 V** See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU
	A	A	A	d		
4-pole, fixed-mounted, suitable for DIN rail mounting, 3VA51/52/53/54, up to 600 A Thermal-magnetic trip unit						
Line protection, TM210 FTFM, without neutral conductor protection NEW With fixed overload protection I_r and fixed short-circuit protection I_i						
3VA51	15	15	300		**3VA5195-4ED41-0AA0**	
	20	20	300		**3VA5120-4ED41-0AA0**	
	25	25	300		**3VA5125-4ED41-0AA0**	
	30	30	300		**3VA5130-4ED41-0AA0**	
	35	35	350		**3VA5135-4ED41-0AA0**	
	40	40	400		**3VA5140-4ED41-0AA0**	
	45	45	450		**3VA5145-4ED41-0AA0**	
	50	50	500		**3VA5150-4ED41-0AA0**	
	60	60	600		**3VA5160-4ED41-0AA0**	
	70	70	700		**3VA5170-4ED41-0AA0**	
	80	80	800		**3VA5180-4ED41-0AA0**	
	90	90	900		**3VA5190-4ED41-0AA0**	
	100	100	1000		**3VA5110-4ED41-0AA0**	
	110	110	1100		**3VA5111-4ED41-0AA0**	
	125	125	1250		**3VA5112-4ED41-0AA0**	
3VA52	40	40	400		--	
	45	45	450		--	
	50	50	500		--	
	60	60	600		--	
	70	70	700		--	
	80	80	800		--	
	90	90	900		--	
	100	100	1000		--	
	110	110	1100		--	
	125	125	1250		--	
	150	150	1500		--	
	175	175	1750		--	
	200	200	2000		--	
	225	225	2250		--	
	250	250	2500		--	



I201_19027



Minimum order quantity (PS) or a multiple thereof can be ordered.

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PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

Rated current I_n	SD	**Medium breaking capacity M, up to 35 kA at 480 V** See "Overview", p. 2/6 and 2/7		SD	**High breaking capacity H, up to 65 kA at 480 V** See "Overview", p. 2/6 and 2/7		SD	**Very high breaking capacity C, up to 100 kA at 480 V** See "Overview", p. 2/6 and 2/7	
		Article No. www.siemens.com/product?Article No.	Basic price per PU		Article No. www.siemens.com/product?Article No.	Basic price per PU		Article No. www.siemens.com/product?Article No.	Basic price per PU
A	d			d			d		
Line protection, TM210 FTFM, without neutral conductor protection NEW With fixed overload protection I_r and fixed short-circuit protection I_i									
15		**3VA5195-5ED41-0AA0**			**3VA5195-6ED41-0AA0**			**--**	
20		**3VA5120-5ED41-0AA0**			**3VA5120-6ED41-0AA0**			**--**	
25		**3VA5125-5ED41-0AA0**			**3VA5125-6ED41-0AA0**			**--**	
30		**3VA5130-5ED41-0AA0**			**3VA5130-6ED41-0AA0**			**--**	
35		**3VA5135-5ED41-0AA0**			**3VA5135-6ED41-0AA0**			**--**	
40		**3VA5140-5ED41-0AA0**			**3VA5140-6ED41-0AA0**			**--**	
45		**3VA5145-5ED41-0AA0**			**3VA5145-6ED41-0AA0**			**--**	
50		**3VA5150-5ED41-0AA0**			**3VA5150-6ED41-0AA0**			**--**	
60		**3VA5160-5ED41-0AA0**			**3VA5160-6ED41-0AA0**			**--**	
70		**3VA5170-5ED41-0AA0**			**3VA5170-6ED41-0AA0**			**--**	
80		**3VA5180-5ED41-0AA0**			**3VA5180-6ED41-0AA0**			**--**	
90		**3VA5190-5ED41-0AA0**			**3VA5190-6ED41-0AA0**			**--**	
100		**3VA5110-5ED41-0AA0**			**3VA5110-6ED41-0AA0**			**--**	
110		**3VA5111-5ED41-0AA0**			**3VA5111-6ED41-0AA0**			**--**	
125		**3VA5112-5ED41-0AA0**			**3VA5112-6ED41-0AA0**			**--**	
40[1)]		**3VA5240-5ED41-0AA0**			**3VA5240-6ED41-0AA0**			**3VA5240-7ED41-0AA0**	
45[1)]		**3VA5245-5ED41-0AA0**			**3VA5245-6ED41-0AA0**			**3VA5245-7ED41-0AA0**	
50[1)]		**3VA5250-5ED41-0AA0**			**3VA5250-6ED41-0AA0**			**3VA5250-7ED41-0AA0**	
60[1)]		**3VA5260-5ED41-0AA0**			**3VA5260-6ED41-0AA0**			**3VA5260-7ED41-0AA0**	
70[1)]		**3VA5270-5ED41-0AA0**			**3VA5270-6ED41-0AA0**			**3VA5270-7ED41-0AA0**	
80[1)]		**3VA5280-5ED41-0AA0**			**3VA5280-6ED41-0AA0**			**3VA5280-7ED41-0AA0**	
90[1)]		**3VA5290-5ED41-0AA0**			**3VA5290-6ED41-0AA0**			**3VA5290-7ED41-0AA0**	
100[1)]		**3VA5210-5ED41-0AA0**			**3VA5210-6ED41-0AA0**			**3VA5210-7ED41-0AA0**	
110[1)]		**3VA5211-5ED41-0AA0**			**3VA5211-6ED41-0AA0**			**3VA5211-7ED41-0AA0**	
125[1)]		**3VA5212-5ED41-0AA0**			**3VA5212-6ED41-0AA0**			**3VA5212-7ED41-0AA0**	
150[1)]		**3VA5215-5ED41-0AA0**			**3VA5215-6ED41-0AA0**			**3VA5215-7ED41-0AA0**	
175[1)]		**3VA5217-5ED41-0AA0**			**3VA5217-6ED41-0AA0**			**3VA5217-7ED41-0AA0**	
200[1)]		**3VA5220-5ED41-0AA0**			**3VA5220-6ED41-0AA0**			**3VA5220-7ED41-0AA0**	
225[1)]		**3VA5222-5ED41-0AA0**			**3VA5222-6ED41-0AA0**			**3VA5222-7ED41-0AA0**	
250[1)]		**3VA5225-5ED41-0AA0**			**3VA5225-6ED41-0AA0**			**3VA5225-7ED41-0AA0**	

[1)] Start of delivery scheduled for 3rd quarter 2019

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Line protection

PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

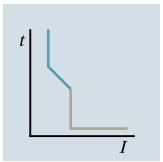


Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Operating current of the instantaneous short-circuit protection "I" I_i	SD	**Standard breaking capacity S, up to 25 kA at 480 V** See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU
	A	A	A	d		

4-pole, fixed-mounted, suitable for DIN rail mounting, 3VA51/52/53/54, up to 600 A Thermal-magnetic trip unit



I201_19027



Line protection, TM210 FTFM, with 100% neutral conductor protection NEW
With fixed overload protection I_r and fixed short-circuit protection I_i

3VA51	90	90	900	**3VA5190-4GD41-0AA0**
	100	100	1000	**3VA5110-4GD41-0AA0**
	110	110	1100	**3VA5111-4GD41-0AA0**
	125	125	1250	**3VA5112-4GD41-0AA0**
3VA52	90	90	900	--
	100	100	1000	--
	110	110	1100	--
	125	125	1250	--
	150	150	1500	--
	175	175	1750	--
	200	200	2000	--
	225	225	2250	--
	250	250	2500	--

Minimum order quantity (PS) or a multiple thereof can be ordered.

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PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

Rated current I_n	SD	**Medium breaking capacity M, up to 35 kA at 480 V** See "Overview", p. 2/6 and 2/7		SD	**High breaking capacity H, up to 65 kA at 480 V** See "Overview", p. 2/6 and 2/7		SD	**Very high breaking capacity C, up to 100 kA at 480 V** See "Overview", p. 2/6 and 2/7	
		Article No. www.siemens.com/product?Article No.	Basic price per PU		Article No. www.siemens.com/product?Article No.	Basic price per PU		Article No. www.siemens.com/product?Article No.	Basic price per PU
A	d			d			d		
Line protection, TM210 FTFM, with 100% neutral conductor protection NEW With fixed overload protection I_r and fixed short-circuit protection I_i									
90		**3VA5190-5GD41-0AA0**			**3VA5190-6GD41-0AA0**			**--**	
100		**3VA5110-5GD41-0AA0**			**3VA5110-6GD41-0AA0**			**--**	
110		**3VA5111-5GD41-0AA0**			**3VA5111-6GD41-0AA0**			**--**	
125		**3VA5112-5GD41-0AA0**			**3VA5112-6GD41-0AA0**			**--**	
90[1)]		**3VA5290-5GD41-0AA0**			**3VA5290-6GD41-0AA0**			**3VA5290-7GD41-0AA0**	
100[1)]		**3VA5210-5GD41-0AA0**			**3VA5210-6GD41-0AA0**			**3VA5210-7GD41-0AA0**	
110[1)]		**3VA5211-5GD41-0AA0**			**3VA5211-6GD41-0AA0**			**3VA5211-7GD41-0AA0**	
125[1)]		**3VA5212-5GD41-0AA0**			**3VA5212-6GD41-0AA0**			**3VA5212-7GD41-0AA0**	
150[1)]		**3VA5215-5GD41-0AA0**			**3VA5215-6GD41-0AA0**			**3VA5215-7GD41-0AA0**	
175[1)]		**3VA5217-5GD41-0AA0**			**3VA5217-6GD41-0AA0**			**3VA5217-7GD41-0AA0**	
200[1)]		**3VA5220-5GD41-0AA0**			**3VA5220-6GD41-0AA0**			**3VA5220-7GD41-0AA0**	
225[1)]		**3VA5222-5GD41-0AA0**			**3VA5222-6GD41-0AA0**			**3VA5222-7GD41-0AA0**	
250[1)]		**3VA5225-5GD41-0AA0**			**3VA5225-6GD41-0AA0**			**3VA5225-7GD41-0AA0**	

[1)] Start of delivery scheduled for 3rd quarter 2019

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Line protection

PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

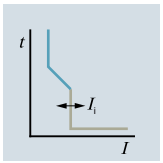


Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Operating current of the instantaneous short-circuit protection "I" I_i	SD	**Standard breaking capacity S, up to 25 kA at 480 V** See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU
	A	A	A	d		

4-pole, fixed-mounted, suitable for DIN rail mounting, 3VA51/52/53/54, up to 600 A Thermal-magnetic trip unit



I201_19496



Line protection, TM230 FTAM, without neutral conductor protection NEW
With fixed overload protection I_r and fixed short-circuit protection I_i

3VA51	15	15	150…300		**3VA5195-4EC41-0AA0**
	20	20	150…300		**3VA5120-4EC41-0AA0**
	25	25	150…300		**3VA5125-4EC41-0AA0**
	30	30	150…300		**3VA5130-4EC41-0AA0**
	35	35	175…350		**3VA5135-4EC41-0AA0**
	40	40	200…400		**3VA5140-4EC41-0AA0**
	45	45	225…450		**3VA5145-4EC41-0AA0**
	50	50	250…500		**3VA5150-4EC41-0AA0**
	60	60	300…600		**3VA5160-4EC41-0AA0**
	70	70	350…700		**3VA5170-4EC41-0AA0**
	80	80	400…800		**3VA5180-4EC41-0AA0**
	90	90	450…900		**3VA5190-4EC41-0AA0**
	100	100	500…1000		**3VA5110-4EC41-0AA0**
	110	110	550…1100		**3VA5111-4EC41-0AA0**
	125	125	625…1250		**3VA5112-4EC41-0AA0**
3VA52	70	70	350…700		--
	80	80	400…800		--
	90	90	450…900		--
	100	100	500…1000		--
	110	110	550…1100		--
	125	125	625…1250		--
	150	150	750…1500		--
	175	175	875…1750		--
	200	200	1000…2000		--
	225	225	1125…2250		--
	250	250	1250…2500		--
3VA53	200	200	1000…2000		--
	225	225	1125…2250		--
	250	250	1250…2500		--
	300	300	1500…3000		--
	350	350	1750…3500		--
	400	400	2000…4000		--
3VA54	450	450	2250…4500		--
	500	500	2500…5000		--
	600	600	2400…4800		--

Minimum order quantity (PS) or a multiple thereof can be ordered.

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PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

Rated current I_n	SD	**Medium breaking capacity M, up to 35 kA at 480 V** See "Overview", p. 2/6 and 2/7		SD	**High breaking capacity H, up to 65 kA at 480 V** See "Overview", p. 2/6 and 2/7		SD	**Very high breaking capacity C, up to 100 kA at 480 V** See "Overview", p. 2/6 and 2/7	
		Article No. www.siemens.com/product?Article No.	Basic price per PU		Article No. www.siemens.com/product?Article No.	Basic price per PU		Article No. www.siemens.com/product?Article No.	Basic price per PU
A	d			d			d		
Line protection, TM230 FTAM, without neutral conductor protection NEW With fixed overload protection I_r and fixed short-circuit protection I_i									
15		**3VA5195-5EC41-0AA0**			**3VA5195-6EC41-0AA0**			**--**	
20		**3VA5120-5EC41-0AA0**			**3VA5120-6EC41-0AA0**			**--**	
25		**3VA5125-5EC41-0AA0**			**3VA5125-6EC41-0AA0**			**--**	
30		**3VA5130-5EC41-0AA0**			**3VA5130-6EC41-0AA0**			**--**	
35		**3VA5135-5EC41-0AA0**			**3VA5135-6EC41-0AA0**			**--**	
40		**3VA5140-5EC41-0AA0**			**3VA5140-6EC41-0AA0**			**--**	
45		**3VA5145-5EC41-0AA0**			**3VA5145-6EC41-0AA0**			**--**	
50		**3VA5150-5EC41-0AA0**			**3VA5150-6EC41-0AA0**			**--**	
60		**3VA5160-5EC41-0AA0**			**3VA5160-6EC41-0AA0**			**--**	
70		**3VA5170-5EC41-0AA0**			**3VA5170-6EC41-0AA0**			**--**	
80		**3VA5180-5EC41-0AA0**			**3VA5180-6EC41-0AA0**			**--**	
90		**3VA5190-5EC41-0AA0**			**3VA5190-6EC41-0AA0**			**--**	
100		**3VA5110-5EC41-0AA0**			**3VA5110-6EC41-0AA0**			**--**	
110		**3VA5111-5EC41-0AA0**			**3VA5111-6EC41-0AA0**			**--**	
125		**3VA5112-5EC41-0AA0**			**3VA5112-6EC41-0AA0**			**--**	
70[1]		**3VA5270-5EC41-0AA0**			**3VA5270-6EC41-0AA0**			**3VA5270-7EC41-0AA0**	
80[1]		**3VA5280-5EC41-0AA0**			**3VA5280-6EC41-0AA0**			**3VA5280-7EC41-0AA0**	
90[1]		**3VA5290-5EC41-0AA0**			**3VA5290-6EC41-0AA0**			**3VA5290-7EC41-0AA0**	
100[1]		**3VA5210-5EC41-0AA0**			**3VA5210-6EC41-0AA0**			**3VA5210-7EC41-0AA0**	
110[1]		**3VA5211-5EC41-0AA0**			**3VA5211-6EC41-0AA0**			**3VA5211-7EC41-0AA0**	
125[1]		**3VA5212-5EC41-0AA0**			**3VA5212-6EC41-0AA0**			**3VA5212-7EC41-0AA0**	
150[1]		**3VA5215-5EC41-0AA0**			**3VA5215-6EC41-0AA0**			**3VA5215-7EC41-0AA0**	
175[1]		**3VA5217-5EC41-0AA0**			**3VA5217-6EC41-0AA0**			**3VA5217-7EC41-0AA0**	
200[1]		**3VA5220-5EC41-0AA0**			**3VA5220-6EC41-0AA0**			**3VA5220-7EC41-0AA0**	
225[1]		**3VA5222-5EC41-0AA0**			**3VA5222-6EC41-0AA0**			**3VA5222-7EC41-0AA0**	
250[1]		**3VA5225-5EC41-0AA0**			**3VA5225-6EC41-0AA0**			**3VA5225-7EC41-0AA0**	
200		**3VA5320-5EC41-0AA0**			**3VA5320-6EC41-0AA0**			**3VA5320-7EC41-0AA0**	
225		**3VA5322-5EC41-0AA0**			**3VA5322-6EC41-0AA0**			**3VA5322-7EC41-0AA0**	
250		**3VA5325-5EC41-0AA0**			**3VA5325-6EC41-0AA0**			**3VA5325-7EC41-0AA0**	
300		**3VA5330-5EC41-0AA0**			**3VA5330-6EC41-0AA0**			**3VA5330-7EC41-0AA0**	
350		**3VA5335-5EC41-0AA0**			**3VA5335-6EC41-0AA0**			**3VA5335-7EC41-0AA0**	
400		**3VA5340-5EC41-0AA0**			**3VA5340-6EC41-0AA0**			**3VA5340-7EC41-0AA0**	
450		**3VA5445-5EC41-0AA0**			**3VA5445-6EC41-0AA0**			**3VA5445-7EC41-0AA0**	
500		**3VA5450-5EC41-0AA0**			**3VA5450-6EC41-0AA0**			**3VA5450-7EC41-0AA0**	
600		**3VA5460-5EC41-0AA0**			**3VA5460-6EC41-0AA0**			**3VA5460-7EC41-0AA0**	

[1] Start of delivery scheduled for 3rd quarter 2019

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Line protection

PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

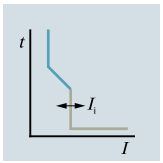


Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Operating current of the instant-aneous short-circuit protection "I" I_i	SD	**Standard breaking capacity S, up to 25 kA at 480 V** See "Overview", p. 2/6 and 2/7
	A	A	A	d	Article No. www.siemens.com/product?Article No. / Basic price per PU

4-pole, fixed-mounted, suitable for DIN rail mounting, 3VA51/52/53/54, up to 600 A Thermal-magnetic trip unit



I201_19496



Line protection, TM230 FTAM, with 100% neutral conductor protection NEW
With fixed overload protection I_r and fixed short-circuit protection I_i

3VA51	90	90	450 ... 900	**3VA5190-4GC41-0AA0**
	100	100	500 ...1000	**3VA5110-4GC41-0AA0**
	110	110	550 ... 1100	**3VA5111-4GC41-0AA0**
	125	125	625 ... 1250	**3VA5112-4GC41-0AA0**
3VA52	90	90	450…900	--
	100	100	500…1000	--
	110	110	550…1100	--
	125	125	625…1250	--
	150	150	750…1500	--
	175	175	875…1750	--
	200	200	1000…2000	--
	225	225	1125…2250	--
	250	250	1250…2500	--
3VA53	200	200	1000…2000	--
	225	225	1125…2250	--
	250	250	1250…2500	--
	300	300	1500…3000	--
	350	350	1750…3500	--
	400	400	2000…4000	--
3VA54	450	450	2250…4500	--
	500	500	2500…5000	--
	600	600	2400…4800	--

Minimum order quantity (PS) or a multiple thereof can be ordered.

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PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

Rated current I_n	SD	**Medium breaking capacity M, up to 35 kA at 480 V** See "Overview", p. 2/6 and 2/7		SD	**High breaking capacity H, up to 65 kA at 480 V** See "Overview", p. 2/6 and 2/7		SD	**Very high breaking capacity C, up to 100 kA at 480 V** See "Overview", p. 2/6 and 2/7	
		Article No. www.siemens.com/product?Article No.	Basic price per PU		Article No. www.siemens.com/product?Article No.	Basic price per PU		Article No. www.siemens.com/product?Article No.	Basic price per PU
A	d			d			d		
Line protection, TM230 FTAM, with 100% neutral conductor protection NEW With fixed overload protection I_r and fixed short-circuit protection I_i									
90		**3VA5190-5GC41-0AA0**			**3VA5190-6GC41-0AA0**			**--**	
100		**3VA5110-5GC41-0AA0**			**3VA5110-6GC41-0AA0**			**--**	
110		**3VA5111-5GC41-0AA0**			**3VA5111-6GC41-0AA0**			**--**	
125		**3VA5112-5GC41-0AA0**			**3VA5112-6GC41-0AA0**			**--**	
90[1]		**3VA5290-5GC41-0AA0**			**3VA5290-6GC41-0AA0**			**3VA5290-7GC41-0AA0**	
100[1]		**3VA5210-5GC41-0AA0**			**3VA5210-6GC41-0AA0**			**3VA5210-7GC41-0AA0**	
110[1]		**3VA5211-5GC41-0AA0**			**3VA5211-6GC41-0AA0**			**3VA5211-7GC41-0AA0**	
125[1]		**3VA5212-5GC41-0AA0**			**3VA5212-6GC41-0AA0**			**3VA5212-7GC41-0AA0**	
150[1]		**3VA5215-5GC41-0AA0**			**3VA5215-6GC41-0AA0**			**3VA5215-7GC41-0AA0**	
175[1]		**3VA5217-5GC41-0AA0**			**3VA5217-6GC41-0AA0**			**3VA5217-7GC41-0AA0**	
200[1]		**3VA5220-5GC41-0AA0**			**3VA5220-6GC41-0AA0**			**3VA5220-7GC41-0AA0**	
225[1]		**3VA5222-5GC41-0AA0**			**3VA5222-6GC41-0AA0**			**3VA5222-7GC41-0AA0**	
250[1]		**3VA5225-5GC41-0AA0**			**3VA5225-6GC41-0AA0**			**3VA5225-7GC41-0AA0**	
200		**3VA5320-5GC41-0AA0**			**3VA5320-6GC41-0AA0**			**3VA5320-7GC41-0AA0**	
225		**3VA5322-5GC41-0AA0**			**3VA5322-6GC41-0AA0**			**3VA5322-7GC41-0AA0**	
250		**3VA5325-5GC41-0AA0**			**3VA5325-6GC41-0AA0**			**3VA5325-7GC41-0AA0**	
300		**3VA5330-5GC41-0AA0**			**3VA5330-6GC41-0AA0**			**3VA5330-7GC41-0AA0**	
350		**3VA5335-5GC41-0AA0**			**3VA5335-6GC41-0AA0**			**3VA5335-7GC41-0AA0**	
400		**3VA5340-5GC41-0AA0**			**3VA5340-6GC41-0AA0**			**3VA5340-7GC41-0AA0**	
450		**3VA5445-5GC41-0AA0**			**3VA5445-6GC41-0AA0**			**3VA5445-7GC41-0AA0**	
500		**3VA5450-5GC41-0AA0**			**3VA5450-6GC41-0AA0**			**3VA5450-7GC41-0AA0**	
600		**3VA5460-5GC41-0AA0**			**3VA5460-6GC41-0AA0**			**3VA5460-7GC41-0AA0**	

[1] Start of delivery scheduled for 3rd quarter 2019

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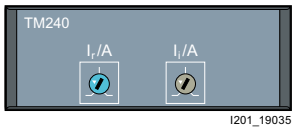
Line protection

PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

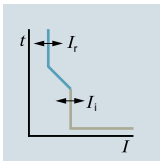


Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Operating current of the instant-aneous short-circuit protection "I" I_i	SD	**Standard breaking capacity S, up to 25 kA at 480 V** See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU
	A	A	A	d		

4-pole, fixed-mounted, suitable for DIN rail mounting, 3VA51/52/53/54, up to 600 A Thermal-magnetic trip unit



I201_19035



Line protection, TM240 ATAM, without neutral conductor protection NEW
With fixed overload protection I_r and fixed short-circuit protection I_i

3VA51	15	12…15	150…300	**3VA5195-4EF41-0AA0**
	20	16…20	150…300	**3VA5120-4EF41-0AA0**
	30	24…30	150…300	**3VA5130-4EF41-0AA0**
	40	32…40	200…400	**3VA5140-4EF41-0AA0**
	50	40…50	250…500	**3VA5150-4EF41-0AA0**
	60	48…60	300…600	**3VA5160-4EF41-0AA0**
	70	56…70	350…700	**3VA5170-4EF41-0AA0**
	80	64…80	400…800	**3VA5180-4EF41-0AA0**
	100	80…100	500…1000	**3VA5110-4EF41-0AA0**
3VA52	70	56…70	350…700	--
	80	64…80	400…800	--
	100	80…100	500…1000	--
	125	100…125	625…1250	--
	150	120…150	750…1500	--
	175	140…175	875…1750	--
	200	160…200	1000…2000	--
	250	200…250	1250…2500	--
3VA53	200	160…200	1000…2000	--
	225	180…225	1125…2250	--
	250	200…250	1250…2500	--
	300	240…300	1500…3000	--
	350	280…350	1750…3500	--
	400	320…400	2000…4000	--
3VA54	450	360…450	2250…4500	--
	500	400…500	2500…5000	--
	600	480…600	2400…4800	--

Minimum order quantity (PS) or a multiple thereof can be ordered.

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PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

Rated current I_n	SD	**Medium breaking capacity M, up to 35 kA at 480 V** See "Overview", p. 2/6 and 2/7		SD	**High breaking capacity H, up to 65 kA at 480 V** See "Overview", p. 2/6 and 2/7		SD	**Very high breaking capacity C, up to 100 kA at 480 V** See "Overview", p. 2/6 and 2/7	
		Article No. www.siemens.com/product?Article No.	Basic price per PU		Article No. www.siemens.com/product?Article No.	Basic price per PU		Article No. www.siemens.com/product?Article No.	Basic price per PU
A	d			d			d		
Line protection, TM240 ATAM, without neutral conductor protection NEW With fixed overload protection I_r and fixed short-circuit protection I_i									
15		**3VA5195-5EF41-0AA0**			**3VA5195-6EF41-0AA0**			**--**	
20		**3VA5120-5EF41-0AA0**			**3VA5120-6EF41-0AA0**			**--**	
30		**3VA5130-5EF41-0AA0**			**3VA5130-6EF41-0AA0**			**--**	
40		**3VA5140-5EF41-0AA0**			**3VA5140-6EF41-0AA0**			**--**	
50		**3VA5150-5EF41-0AA0**			**3VA5150-6EF41-0AA0**			**--**	
60		**3VA5160-5EF41-0AA0**			**3VA5160-6EF41-0AA0**			**--**	
70		**3VA5170-5EF41-0AA0**			**3VA5170-6EF41-0AA0**			**--**	
80		**3VA5180-5EF41-0AA0**			**3VA5180-6EF41-0AA0**			**--**	
100		**3VA5110-5EF41-0AA0**			**3VA5110-6EF41-0AA0**			**--**	
70[1]		**3VA5270-5EF41-0AA0**			**3VA5270-6EF41-0AA0**			**3VA5270-7EF41-0AA0**	
80[1]		**3VA5280-5EF41-0AA0**			**3VA5280-6EF41-0AA0**			**3VA5280-7EF41-0AA0**	
100[1]		**3VA5210-5EF41-0AA0**			**3VA5210-6EF41-0AA0**			**3VA5210-7EF41-0AA0**	
125[1]		**3VA5212-5EF41-0AA0**			**3VA5212-6EF41-0AA0**			**3VA5212-7EF41-0AA0**	
150[1]		**3VA5215-5EF41-0AA0**			**3VA5215-6EF41-0AA0**			**3VA5215-7EF41-0AA0**	
175[1]		**3VA5217-5EF41-0AA0**			**3VA5217-6EF41-0AA0**			**3VA5217-7EF41-0AA0**	
200[1]		**3VA5220-5EF41-0AA0**			**3VA5220-6EF41-0AA0**			**3VA5220-7EF41-0AA0**	
250[1]		**3VA5225-5EF41-0AA0**			**3VA5225-6EF41-0AA0**			**3VA5225-7EF41-0AA0**	
200		**3VA5320-5EF41-0AA0**			**3VA5320-6EF41-0AA0**			**3VA5320-7EF41-0AA0**	
225		**3VA5322-5EF41-0AA0**			**3VA5322-6EF41-0AA0**			**3VA5322-7EF41-0AA0**	
250		**3VA5325-5EF41-0AA0**			**3VA5325-6EF41-0AA0**			**3VA5325-7EF41-0AA0**	
300		**3VA5330-5EF41-0AA0**			**3VA5330-6EF41-0AA0**			**3VA5330-7EF41-0AA0**	
350		**3VA5335-5EF41-0AA0**			**3VA5335-6EF41-0AA0**			**3VA5335-7EF41-0AA0**	
400		**3VA5340-5EF41-0AA0**			**3VA5340-6EF41-0AA0**			**3VA5340-7EF41-0AA0**	
450		**3VA5445-5EF41-0AA0**			**3VA5445-6EF41-0AA0**			**3VA5445-7EF41-0AA0**	
500		**3VA5450-5EF41-0AA0**			**3VA5450-6EF41-0AA0**			**3VA5450-7EF41-0AA0**	
600		**3VA5460-5EF41-0AA0**			**3VA5460-6EF41-0AA0**			**3VA5460-7EF41-0AA0**	

[1] Start of delivery scheduled for 3rd quarter 2019

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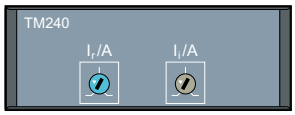
Line protection

PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

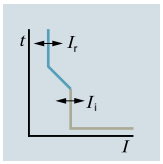


Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Operating current of the instant-aneous short-circuit protection "I" I_i	SD	**Standard breaking capacity S, up to 25 kA at 480 V** See "Overview", p. 2/6 and 2/7
					Article No. www.siemens.com/product?Article No. / Basic price per PU
	A	A	A	d	

4-pole, fixed-mounted, suitable for DIN rail mounting, 3VA51/52/53/54, up to 600 A
Thermal-magnetic trip unit



I201_19035



Line protection, TM240 ATAM, with 100% neutral conductor protection NEW
With fixed overload protection I_r and fixed short-circuit protection I_i

3VA51	100	80…100	500…1000	**3VA5110-4GF41-0AA0**
3VA52	100	80…100	500…1000	--
	125	100…125	625…1250	--
	150	120…150	750…1500	--
	175	140…175	875…1750	--
	200	160…200	1000…2000	--
	250	200…250	1250…2500	--
3VA53	200	160…200	1000…2000	--
	225	180…225	1125…2250	--
	250	200…250	1250…2500	--
	300	240…300	1500…3000	--
	350	280…350	1750…3500	--
	400	320…400	2000…4000	--
3VA54	450	360…450	2250…4500	--
	500	400…500	2500…5000	--
	600	480…600	2400…4800	--

Minimum order quantity (PS) or a multiple thereof can be ordered.

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PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

Rated current I_n	SD	**Medium breaking capacity M, up to 35 kA at 480 V** See "Overview", p. 2/6 and 2/7		SD	**High breaking capacity H, up to 65 kA at 480 V** See "Overview", p. 2/6 and 2/7		SD	**Very high breaking capacity C, up to 100 kA at 480 V** See "Overview", p. 2/6 and 2/7	
		Article No. www.siemens.com/product?Article No.	Basic price per PU		Article No. www.siemens.com/product?Article No.	Basic price per PU		Article No. www.siemens.com/product?Article No.	Basic price per PU
A	d			d			d		
Line protection, TM240 ATAM, with 100% neutral conductor protection NEW With fixed overload protection I_r and fixed short-circuit protection I_i									
100		**3VA5110-5GF41-0AA0**			**3VA5110-6GF41-0AA0**			**--**	
100[1]		**3VA5210-5GF41-0AA0**			**3VA5210-6GF41-0AA0**			**3VA5210-7GF41-0AA0**	
125[1]		**3VA5212-5GF41-0AA0**			**3VA5212-6GF41-0AA0**			**3VA5212-7GF41-0AA0**	
150[1]		**3VA5215-5GF41-0AA0**			**3VA5215-6GF41-0AA0**			**3VA5215-7GF41-0AA0**	
175[1]		**3VA5217-5GF41-0AA0**			**3VA5217-6GF41-0AA0**			**3VA5217-7GF41-0AA0**	
200[1]		**3VA5220-5GF41-0AA0**			**3VA5220-6GF41-0AA0**			**3VA5220-7GF41-0AA0**	
250[1]		**3VA5225-5GF41-0AA0**			**3VA5225-6GF41-0AA0**			**3VA5225-7GF41-0AA0**	
200		**3VA5320-5GF41-0AA0**			**3VA5320-6GF41-0AA0**			**3VA5320-7GF41-0AA0**	
225		**3VA5322-5GF41-0AA0**			**3VA5322-6GF41-0AA0**			**3VA5322-7GF41-0AA0**	
250		**3VA5325-5GF41-0AA0**			**3VA5325-6GF41-0AA0**			**3VA5325-7GF41-0AA0**	
300		**3VA5330-5GF41-0AA0**			**3VA5330-6GF41-0AA0**			**3VA5330-7GF41-0AA0**	
350		**3VA5335-5GF41-0AA0**			**3VA5335-6GF41-0AA0**			**3VA5335-7GF41-0AA0**	
400		**3VA5340-5GF41-0AA0**			**3VA5340-6GF41-0AA0**			**3VA5340-7GF41-0AA0**	
450		**3VA5445-5GF41-0AA0**			**3VA5445-6GF41-0AA0**			**3VA5445-7GF41-0AA0**	
500		**3VA5450-5GF41-0AA0**			**3VA5450-6GF41-0AA0**			**3VA5450-7GF41-0AA0**	
600		**3VA5460-5GF41-0AA0**			**3VA5460-6GF41-0AA0**			**3VA5460-7GF41-0AA0**	

[1] Start of delivery scheduled for 3rd quarter 2019

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Line protection

PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB



Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Operating current of the instantaneous short-circuit protection "I" I_i	SD	**Medium breaking capacity M, up to 35 kA at 480 V** See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU
	A	A	A	d		

2-pole breaker in 3-pole enclosure, fixed-mounted, 3VA52, up to 250 A Thermal-magnetic trip unit



I201_19027



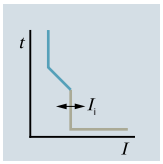
Line protection, TM210 FTFM
With fixed overload protection I_r and fixed short-circuit protection I_i

3VA52 NEW	40[1]	40	400	**3VA5240-5ED61-0AA0**
	45[1]	45	450	**3VA5245-5ED61-0AA0**
	50[1]	50	500	**3VA5250-5ED61-0AA0**
	60[1]	60	600	**3VA5260-5ED61-0AA0**
	70[1]	70	700	**3VA5270-5ED61-0AA0**
	80[1]	80	800	**3VA5280-5ED61-0AA0**
	90[1]	90	900	**3VA5290-5ED61-0AA0**
3VA52	100	100	1000	**3VA5210-5ED61-0AA0**
	110	110	1100	**3VA5211-5ED61-0AA0**
	125	125	1250	**3VA5212-5ED61-0AA0**
	150	150	1500	**3VA5215-5ED61-0AA0**
	175	175	1750	**3VA5217-5ED61-0AA0**
	200	200	2000	**3VA5220-5ED61-0AA0**
	225	225	2250	**3VA5222-5ED61-0AA0**
	250	250	2500	**3VA5225-5ED61-0AA0**

2-pole breaker in 3-pole enclosure, fixed-mounted, 3VA52/53/54, up to 600 A Thermal-magnetic trip unit



I201_19496



Line protection, TM230 FTAM
With fixed overload protection I_r and adjustable short-circuit protection I_i

3VA52 NEW	70[1]	70	350…700	**3VA5270-5EC61-0AA0**
	80[1]	80	400…800	**3VA5280-5EC61-0AA0**
	90[1]	90	450…900	**3VA5290-5EC61-0AA0**
3VA52	100	100	500 ... 1000	**3VA5210-5EC61-0AA0**
	110	110	550 ... 1100	**3VA5211-5EC61-0AA0**
	125	125	625 ... 1250	**3VA5212-5EC61-0AA0**
	150	150	750 ... 1500	**3VA5215-5EC61-0AA0**
	175	175	875 ... 1750	**3VA5217-5EC61-0AA0**
	200	200	1000 ... 2000	**3VA5220-5EC61-0AA0**
	225	225	1125 ... 2250	**3VA5222-5EC61-0AA0**
	250	250	1250 ... 2500	**3VA5225-5EC61-0AA0**
3VA53 NEW	200	200	1000…2000	**3VA5320-5EC61-0AA0**
	225	225	1125…2250	**3VA5322-5EC61-0AA0**
	250	250	1250…2500	**3VA5325-5EC61-0AA0**
	300	300	1500…3000	**3VA5330-5EC61-0AA0**
	350	350	1750…3500	**3VA5335-5EC61-0AA0**
	400	400	2000…4000	**3VA5340-5EC61-0AA0**
3VA54 NEW	450	450	2250…4500	**3VA5445-5EC61-0AA0**
	500	500	2500…5000	**3VA5450-5EC61-0AA0**
	600	600	2400…4800	**3VA5460-5EC61-0AA0**

[1] Start of delivery scheduled for 3rd quarter 2019

Minimum order quantity (PS) or a multiple thereof can be ordered.

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PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

	Rated current I_n	SD	**High breaking capacity H, up to 65 kA at 480 V** See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU	SD	**Very high breaking capacity C, up to 100 kA at 480 V** See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU
	A	d			d		
	Line protection, TM210 FTFM With fixed overload protection I_r and fixed short-circuit protection I_i						
NEW	40[1]		**3VA5240-6ED61-0AA0**			**3VA5240-7ED61-0AA0**	
	45[1]		**3VA5245-6ED61-0AA0**			**3VA5245-7ED61-0AA0**	
	50[1]		**3VA5250-6ED61-0AA0**			**3VA5250-7ED61-0AA0**	
	60[1]		**3VA5260-6ED61-0AA0**			**3VA5260-7ED61-0AA0**	
	70[1]		**3VA5270-6ED61-0AA0**			**3VA5270-7ED61-0AA0**	
	80[1]		**3VA5280-6ED61-0AA0**			**3VA5280-7ED61-0AA0**	
	90[1]		**3VA5290-6ED61-0AA0**			**3VA5290-7ED61-0AA0**	
	100		**3VA5210-6ED61-0AA0**			**3VA5210-7ED61-0AA0**	
	110		**3VA5211-6ED61-0AA0**			**3VA5211-7ED61-0AA0**	
	125		**3VA5212-6ED61-0AA0**			**3VA5212-7ED61-0AA0**	
	150		**3VA5215-6ED61-0AA0**			**3VA5215-7ED61-0AA0**	
	175		**3VA5217-6ED61-0AA0**			**3VA5217-7ED61-0AA0**	
	200		**3VA5220-6ED61-0AA0**			**3VA5220-7ED61-0AA0**	
	225		**3VA5222-6ED61-0AA0**			**3VA5222-7ED61-0AA0**	
	250		**3VA5225-6ED61-0AA0**			**3VA5225-7ED61-0AA0**	
	Line protection, TM230 FTAM With fixed overload protection I_r and adjustable short-circuit protection I_i						
NEW	70[1]		**3VA5270-6EC61-0AA0**			**3VA5270-7EC61-0AA0**	
	80[1]		**3VA5280-6EC61-0AA0**			**3VA5280-7EC61-0AA0**	
	90[1]		**3VA5290-6EC61-0AA0**			**3VA5290-7EC61-0AA0**	
	100		**3VA5210-6EC61-0AA0**			**3VA5210-7EC61-0AA0**	
	110		**3VA5211-6EC61-0AA0**			**3VA5211-7EC61-0AA0**	
	125		**3VA5212-6EC61-0AA0**			**3VA5212-7EC61-0AA0**	
	150		**3VA5215-6EC61-0AA0**			**3VA5215-7EC61-0AA0**	
	175		**3VA5217-6EC61-0AA0**			**3VA5217-7EC61-0AA0**	
	200		**3VA5220-6EC61-0AA0**			**3VA5220-7EC61-0AA0**	
	225		**3VA5222-6EC61-0AA0**			**3VA5222-7EC61-0AA0**	
	250		**3VA5225-6EC61-0AA0**			**3VA5225-7EC61-0AA0**	
NEW	200		**3VA5320-6EC61-0AA0**			**3VA5320-7EC61-0AA0**	
	225		**3VA5322-6EC61-0AA0**			**3VA5322-7EC61-0AA0**	
	250		**3VA5325-6EC61-0AA0**			**3VA5325-7EC61-0AA0**	
	300		**3VA5330-6EC61-0AA0**			**3VA5330-7EC61-0AA0**	
	350		**3VA5335-6EC61-0AA0**			**3VA5335-7EC61-0AA0**	
	400		**3VA5340-6EC61-0AA0**			**3VA5340-7EC61-0AA0**	
NEW	450		**3VA5445-6EC61-0AA0**			**3VA5445-7EC61-0AA0**	
	500		**3VA5450-6EC61-0AA0**			**3VA5450-7EC61-0AA0**	
	600		**3VA5460-6EC61-0AA0**			**3VA5460-7EC61-0AA0**	

[1] Start of delivery scheduled for 3rd quarter 2019

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Motor circuit protectors

PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

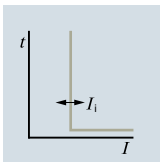


Type	Rated current I_n	Operating current of the instantaneous short-circuit protection "I" I_i	SD	SCCR without contactor, 65 kA[1] at 480 V See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU	SD	SCCR without contactor, 100 kA[1] at 480 V See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU
	A	A	d			d		

3-pole, fixed-mounted, 3VA51/3VA52, up to 250 A Magnetic trip unit



I201_19240



Motor circuit protector, TM120M AM
With adjustable short-circuit protection I_i

3VA51 NEW Fixed-mounted, attachment to DIN rail	1	3…7 5…12		**3VA5181-1MU31-0AA0** **3VA5181-1MH31-0AA0**			-- --	
	2	6…14 10…24		**3VA5102-1MU31-0AA0** **3VA5102-1MH31-0AA0**			-- --	
	3	9…21 15…36		**3VA5103-1MU31-0AA0** **3VA5103-1MH31-0AA0**			-- --	
	5	15…35 25…60		**3VA5105-1MU31-0AA0** **3VA5105-1MH31-0AA0**			-- --	
	7	21…49 35…84		**3VA5107-1MU31-0AA0** **3VA5107-1MH31-0AA0**			-- --	
	10	30…70 50…120		**3VA5191-1MU31-0AA0** **3VA5191-1MH31-0AA0**			-- --	
3VA51 Fixed-mounted, attachment to DIN rail	15	45 ... 105 75 ... 180		**3VA5195-1MU31-0AA0** **3VA5195-1MH31-0AA0**			-- --	
	25	75 ... 175 125 ... 300		**3VA5125-1MU31-0AA0** **3VA5125-1MH31-0AA0**			-- --	
	30	90 ... 210 150 ... 360		**3VA5130-1MU31-0AA0** **3VA5130-1MH31-0AA0**			-- --	
	40	120 ... 280 200 ... 480		**3VA5140-1MU31-0AA0** **3VA5140-1MH31-0AA0**			-- --	
	50	150 ... 350 250 ... 600		**3VA5150-1MU31-0AA0** **3VA5150-1MH31-0AA0**			-- --	
	70	210 ... 490 350 ... 840		**3VA5170-1MU31-0AA0** **3VA5170-1MH31-0AA0**			-- --	
	80	240 ... 560 400 ... 960		**3VA5180-1MU31-0AA0** **3VA5180-1MH31-0AA0**			-- --	
	90	270 ... 630 450 ... 1080		**3VA5190-1MU31-0AA0** **3VA5190-1MH31-0AA0**			-- --	
	100	300 ... 700 500 ... 1200		**3VA5110-1MU31-0AA0** **3VA5110-1MH31-0AA0**			-- --	
	110	330 ... 770 550 ... 1320		**3VA5111-1MU31-0AA0** **3VA5111-1MH31-0AA0**			-- --	
	125	375 ... 875 625 ... 1500		**3VA5112-1MU31-0AA0** **3VA5112-1MH31-0AA0**			-- --	
3VA52 Fixed-mounted	150	450 ... 900 900 ... 1800		**3VA5215-0MU31-0AA0** **3VA5215-0MH31-0AA0**			**3VA5215-1MU31-0AA0** **3VA5215-1MH31-0AA0**	
	200	600 ... 1200 1200 ... 2400		**3VA5220-0MU31-0AA0** **3VA5220-0MH31-0AA0**			**3VA5220-1MU31-0AA0** **3VA5220-1MH31-0AA0**	
3VA52 NEW	250[2]	750…1500 1250…2500		**3VA5225-0MU31-0AA0** **3VA5225-0MH31-0AA0**			**3VA5225-1MU31-0AA0** **3VA5225-1MH31-0AA0**	

[1] Breaking capacities in combination with contactors (SCCR ratings) may differ

[2] Start of delivery scheduled for 3rd quarter 2019

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Selection and ordering data

PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB



Type	Rated uninterrupted current I_u	Operating current of the instantaneous short-circuit protection "I" I_i	SD	**SCCR 65 kA[1] at 480 V** See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU	SD	**SCCR 100 kA[1] at 480 V** See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU
	A	A	d			d		
3-pole, fixed-mounted, 3VA51/3VA52, up to 250 A Without trip units								
Molded case switch With fixed short-circuit protection I_i, for self-protection								
3VA51 Fixed-mounted, attachment to DIN rail	100	1600		**3VA5110-1BB31-0AA0**			**--**	
3VA52 Fixed-mounted	100	2500		**--**			**3VA5210-1BB31-0AA0**	
	150	2400		**3VA5215-0BB31-0AA0**			**3VA5215-1BB31-0AA0**	
	250	2500		**3VA5225-0BB31-0AA0**			**3VA5225-1BB31-0AA0**	
2-pole breaker in 3-pole enclosure, fixed-mounted, 3VA52, up to 250 A								
Molded case switch With fixed short-circuit protection I_i, for self-protection								
3VA52	100	2500		**--**			**3VA5210-1BB61-0AA0**	
	150	2400		**3VA5215-0BB61-0AA0**			**3VA5215-1BB61-0AA0**	
	250	2500		**3VA5225-0BB61-0AA0**			**3VA5225-1BB61-0AA0**	
2-pole breaker, fixed-mounted, 3VA51, up to 100 A Without trip units								
Molded case switches With fixed short-circuit protection I_i, for self-protection								
3VA51 NEW	100	1600		**3VA5110-1BB21-0AA0**			**--**	

[1] Breaking capacity (the SCCR rating) is the maximum permissible short-circuit current at the installation location of the MCS in combination with an appropriate overload protection device.

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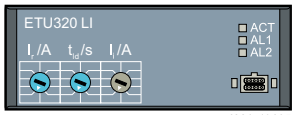
Selection and ordering data

PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

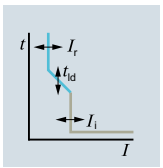


Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Operating current of the instantaneous short-circuit release "I" I_i	Ground-fault protection G I_g	SD	**Medium breaking capacity M, up to 35 kA at 480 V** See "Overview", p. 2/6 and 2/7 (M)
	A	A	A	A	d	Article No. www.siemens.com/product?Article No. — Basic price per PU

3-pole, fixed-mounted, 3VA61 to 3VA64, up to 600 A Electronic Trip Unit



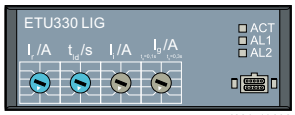
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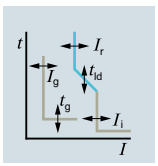
Line protection, ETU320 LI

With adjustable overload release I_r and adjustable instantaneous short-circuit release I_i

3VA61	40 100 150	15 ... 40 40 ... 100 60 ... 150	60 ... 480 150 ... 1200 225 ... 1500	-- -- --	**3VA6140-5HL31-0AA0** **3VA6110-5HL31-0AA0** **3VA6115-5HL31-0AA0**
3VA62	100 250	40 ... 100 100 ... 250	150 ... 1200 375 ... 2500	-- --	**3VA6210-5HL31-0AA0** **3VA6225-5HL31-0AA0**
3VA63	250 400	100 ... 250 160 ... 400	375 ... 3000 600 ... 4000	-- --	**3VA6325-5HL31-0AA0** **3VA6340-5HL31-0AA0**
3VA64	400 600	160 ... 400 240 ... 600	600 ... 4800 900 ... 5400	-- --	**3VA6440-5HL31-0AA0** **3VA6460-5HL31-0AA0**



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Line protection, ETU330 LIG

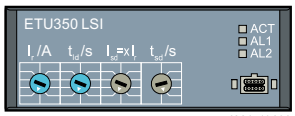
With adjustable overload release I_r, adjustable instantaneous short-circuit release I_i and adjustable ground-fault protection I_g

3VA61	40 100 150	15 ... 40 40 ... 100 60 ... 150	60 ... 480 150 ... 1200 225 ... 1500	8 ... 40 20 ... 100 30 ... 150	**3VA6140-5HM31-0AA0** **3VA6110-5HM31-0AA0** **3VA6115-5HM31-0AA0**
3VA62	100 250	40 ... 100 100 ... 250	150 ... 1200 375 ... 2500	20 ... 100 50 ... 250	**3VA6210-5HM31-0AA0** **3VA6225-5HM31-0AA0**
3VA63	250 400	100 ... 250 160 ... 400	375 ... 3000 600 ... 4000	50 ... 250 80 ... 400	**3VA6325-5HM31-0AA0** **3VA6340-5HM31-0AA0**
3VA64	400 600	160 ... 400 240 ... 600	600 ... 4800 900 ... 5400	80 ... 400 120 ... 600	**3VA6440-5HM31-0AA0** **3VA6460-5HM31-0AA0**

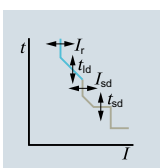


Type	Rated current I_n	Current setting of the inverse-time delayed overload release "L" I_r	S function (short-time delayed short-circuit protection "S") I_{sd}	Operating current of the instantaneous short-circuit release "I" I_i	SD	**Medium breaking capacity M, up to 35 kA at 480 V** See "Overview", p. 2/6 and 2/7 (M)
	A	A	A	A	d	Article No. www.siemens.com/product?Article No. — Basic price per PU

3-pole, fixed-mounted, 3VA61 to 3VA64, up to 600 A Electronic Trip Unit



I201_19633



Line protection, ETU350 LSI

With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd} and fixed instantaneous short-circuit release I_i

			I_r x ...		
3VA61	40 100 150	15 ... 40 40 ... 100 60 ... 150	1.5 ... 10 1.5 ... 10 1.5 ... 10	480 1200 1500	**3VA6140-5HN31-0AA0** **3VA6110-5HN31-0AA0** **3VA6115-5HN31-0AA0**
3VA62	100 250	40 ... 100 100 ... 250	1.5 ... 10 1.5 ... 10	1200 2500	**3VA6210-5HN31-0AA0** **3VA6225-5HN31-0AA0**
3VA63	250 400	100 ... 250 160 ... 400	1.5 ... 10 1.5 ... 10	3000 4000	**3VA6325-5HN31-0AA0** **3VA6340-5HN31-0AA0**
3VA64	400 600	160 ... 400 240 ... 600	1.5 ... 10 1.5 ... 9	4800 5400	**3VA6440-5HN31-0AA0** **3VA6460-5HN31-0AA0**

Minimum order quantity (PS) or a multiple thereof can be ordered.

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PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

Rated current I_n	SD	**High breaking capacity H, up to 65 kA at 480 V** (H) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU	SD	**Very high breaking capacity C, up to 100 kA at 480 V** (C) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU	SD	**Extremely high breaking capacity L, up to 150 kA at 480 V** (L) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU
A	d			d			d		

Line protection, ETU320 LI

With adjustable overload release I_r and adjustable instantaneous short-circuit release I_i

40 100 150		**3VA6140-6HL31-0AA0** **3VA6110-6HL31-0AA0** **3VA6115-6HL31-0AA0**			**3VA6140-7HL31-0AA0** **3VA6110-7HL31-0AA0** **3VA6115-7HL31-0AA0**			**3VA6140-8HL31-0AA0** **3VA6110-8HL31-0AA0** **3VA6115-8HL31-0AA0**	
100 250		**3VA6210-6HL31-0AA0** **3VA6225-6HL31-0AA0**			**3VA6210-7HL31-0AA0** **3VA6225-7HL31-0AA0**			**3VA6210-8HL31-0AA0** **3VA6225-8HL31-0AA0**	
250 400		**3VA6325-6HL31-0AA0** **3VA6340-6HL31-0AA0**			**3VA6325-7HL31-0AA0** **3VA6340-7HL31-0AA0**			**3VA6325-8HL31-0AA0** **3VA6340-8HL31-0AA0**	
400 600		**3VA6440-6HL31-0AA0** **3VA6460-6HL31-0AA0**			**3VA6440-7HL31-0AA0** **3VA6460-7HL31-0AA0**			**3VA6440-8HL31-0AA0** **3VA6460-8HL31-0AA0**	

Line protection, ETU330 LIG

With adjustable overload release I_r, adjustable instantaneous short-circuit release I_i and adjustable ground-fault protection I_g

40 100 150		**3VA6140-6HM31-0AA0** **3VA6110-6HM31-0AA0** **3VA6115-6HM31-0AA0**			**3VA6140-7HM31-0AA0** **3VA6110-7HM31-0AA0** **3VA6115-7HM31-0AA0**			**3VA6140-8HM31-0AA0** **3VA6110-8HM31-0AA0** **3VA6115-8HM31-0AA0**	
100 250		**3VA6210-6HM31-0AA0** **3VA6225-6HM31-0AA0**			**3VA6210-7HM31-0AA0** **3VA6225-7HM31-0AA0**			**3VA6210-8HM31-0AA0** **3VA6225-8HM31-0AA0**	
250 400		**3VA6325-6HM31-0AA0** **3VA6340-6HM31-0AA0**			**3VA6325-7HM31-0AA0** **3VA6340-7HM31-0AA0**			**3VA6325-8HM31-0AA0** **3VA6340-8HM31-0AA0**	
400 600		**3VA6440-6HM31-0AA0** **3VA6460-6HM31-0AA0**			**3VA6440-7HM31-0AA0** **3VA6460-7HM31-0AA0**			**3VA6440-8HM31-0AA0** **3VA6460-8HM31-0AA0**	

Rated current I_n	SD	**High breaking capacity H, up to 65 kA at 480 V** (H) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU	SD	**Very high breaking capacity C, up to 100 kA at 480 V** (C) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU	SD	**Extremely high breaking capacity L, up to 150 kA at 480 V** (L) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU
A	d			d			d		

Line protection, ETU350 LSI

With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd} and fixed instantaneous short-circuit release I_i

40 100 150		**3VA6140-6HN31-0AA0** **3VA6110-6HN31-0AA0** **3VA6115-6HN31-0AA0**			**3VA6140-7HN31-0AA0** **3VA6110-7HN31-0AA0** **3VA6115-7HN31-0AA0**			**3VA6140-8HN31-0AA0** **3VA6110-8HN31-0AA0** **3VA6115-8HN31-0AA0**	
100 250		**3VA6210-6HN31-0AA0** **3VA6225-6HN31-0AA0**			**3VA6210-7HN31-0AA0** **3VA6225-7HN31-0AA0**			**3VA6210-8HN31-0AA0** **3VA6225-8HN31-0AA0**	
250 400		**3VA6325-6HN31-0AA0** **3VA6340-6HN31-0AA0**			**3VA6325-7HN31-0AA0** **3VA6340-7HN31-0AA0**			**3VA6325-8HN31-0AA0** **3VA6340-8HN31-0AA0**	
400 600		**3VA6440-6HN31-0AA0** **3VA6460-6HN31-0AA0**			**3VA6440-7HN31-0AA0** **3VA6460-7HN31-0AA0**			**3VA6440-8HN31-0AA0** **3VA6460-8HN31-0AA0**	

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Line protection

PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

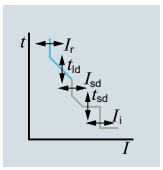


Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	S function (short-time delayed short-circuit protection "S") I_{sd}	Operating current of the instantaneous short-circuit release "I" I_i	SD	**Medium breaking capacity M, up to 35 kA at 480 V** (M) See "Overview", p. 2/6 and 2/7	
						Article No. www.siemens.com/product?Article No.	Basic price per PU
	A	A	A	A	d		

3-pole, fixed-mounted, 3VA61 to 3VA64, up to 600 A
Electronic Trip Unit



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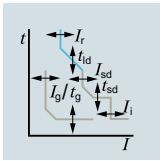


Line protection, with display, ETU550 LSI
With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd} and adjustable instantaneous short-circuit release I_i

3VA61	40	15 ... 40	24 ... 400	60 ... 480	**3VA6140-5JP31-0AA0**
	100	40 ... 100	60 ... 1000	150 ... 1200	**3VA6110-5JP31-0AA0**
	150	60 ... 150	90 ... 1500	225 ... 1500	**3VA6115-5JP31-0AA0**
3VA62	100	40 ... 100	60 ... 1000	150 ... 1200	**3VA6210-5JP31-0AA0**
	250	100 ... 250	150 ... 2500	375 ... 2500	**3VA6225-5JP31-0AA0**
3VA63	250	100 ... 250	150 ... 2500	375 ... 3000	**3VA6325-5JP31-0AA0**
	400	160 ... 400	240 ... 4000	600 ... 4000	**3VA6340-5JP31-0AA0**
3VA64	400	160 ... 400	240 ... 4000	600 ... 4800	**3VA6440-5JP31-0AA0**
	600	240 ... 600	360 ... 5400	900 ... 5400	**3VA6460-5JP31-0AA0**



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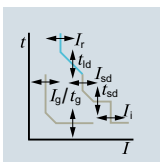


Line protection, with display, ETU556 LSI(G)
With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd}, adjustable instantaneous short-circuit release I_i and adjustable ground-fault alarm I_g

3VA61	40	15 ... 40	24 ... 400	60 ... 480	**3VA6140-5JT31-0AA0**
	100	40 ... 100	60 ... 1000	150 ... 1200	**3VA6110-5JT31-0AA0**
	150	60 ... 150	90 ... 1500	225 ... 1500	**3VA6115-5JT31-0AA0**
3VA62	100	40 ... 100	60 ... 1000	150 ... 1200	**3VA6210-5JT31-0AA0**
	250	100 ... 250	150 ... 2500	375 ... 2500	**3VA6225-5JT31-0AA0**
3VA63	250	100 ... 250	150 ... 2500	375 ... 3000	**3VA6325-5JT31-0AA0**
	400	160 ... 400	240 ... 4000	600 ... 4000	**3VA6340-5JT31-0AA0**
3VA64	400	160 ... 400	240 ... 4000	600 ... 4800	**3VA6440-5JT31-0AA0**
	600	240 ... 600	360 ... 5400	900 ... 5400	**3VA6460-5JT31-0AA0**



I201_18481



Line protection, with display, ETU560 LSIG
With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd}, adjustable instantaneous short-circuit release I_i and adjustable ground-fault protection I_g

3VA61	40	15 ... 40	24 ... 400	60 ... 480	**3VA6140-5JQ31-0AA0**
	100	40 ... 100	60 ... 1000	150 ... 1200	**3VA6110-5JQ31-0AA0**
	150	60 ... 150	90 ... 1500	225 ... 1500	**3VA6115-5JQ31-0AA0**
3VA62	100	40 ... 100	60 ... 1000	150 ... 1200	**3VA6210-5JQ31-0AA0**
	250	100 ... 250	150 ... 2500	375 ... 2500	**3VA6225-5JQ31-0AA0**
3VA63	250	100 ... 250	150 ... 2500	375 ... 3000	**3VA6325-5JQ31-0AA0**
	400	160 ... 400	240 ... 4000	600 ... 4000	**3VA6340-5JQ31-0AA0**
3VA64	400	160 ... 400	240 ... 4000	600 ... 4800	**3VA6440-5JQ31-0AA0**
	600	240 ... 600	360 ... 5400	900 ... 5400	**3VA6460-5JQ31-0AA0**

Minimum order quantity (PS) or a multiple thereof can be ordered.

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PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

Rated current I_n	SD	High breaking capacity H, up to 65 kA at 480 V (H) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU	SD	Very high breaking capacity C, up to 100 kA at 480 V (C) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU	SD	Extremely high breaking capacity L, up to 150 kA at 480 V (L) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU
A	d			d			d		
Line protection, with display, ETU550 LSI With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd} and adjustable instantaneous short-circuit release I_i									
40		**3VA6140-6JP31-0AA0**			**3VA6140-7JP31-0AA0**			**3VA6140-8JP31-0AA0**	
100		**3VA6110-6JP31-0AA0**			**3VA6110-7JP31-0AA0**			**3VA6110-8JP31-0AA0**	
150		**3VA6115-6JP31-0AA0**			**3VA6115-7JP31-0AA0**			**3VA6115-8JP31-0AA0**	
100		**3VA6210-6JP31-0AA0**			**3VA6210-7JP31-0AA0**			**3VA6210-8JP31-0AA0**	
250		**3VA6225-6JP31-0AA0**			**3VA6225-7JP31-0AA0**			**3VA6225-8JP31-0AA0**	
250		**3VA6325-6JP31-0AA0**			**3VA6325-7JP31-0AA0**			**3VA6325-8JP31-0AA0**	
400		**3VA6340-6JP31-0AA0**			**3VA6340-7JP31-0AA0**			**3VA6340-8JP31-0AA0**	
400		**3VA6440-6JP31-0AA0**			**3VA6440-7JP31-0AA0**			**3VA6440-8JP31-0AA0**	
600		**3VA6460-6JP31-0AA0**			**3VA6460-7JP31-0AA0**			**3VA6460-8JP31-0AA0**	
Line protection, with display, ETU556 LSI(G) With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd}, adjustable instantaneous short-circuit release I_i and adjustable ground-fault alarm I_g									
40		**3VA6140-6JT31-0AA0**			**3VA6140-7JT31-0AA0**			**3VA6140-8JT31-0AA0**	
100		**3VA6110-6JT31-0AA0**			**3VA6110-7JT31-0AA0**			**3VA6110-8JT31-0AA0**	
150		**3VA6115-6JT31-0AA0**			**3VA6115-7JT31-0AA0**			**3VA6115-8JT31-0AA0**	
100		**3VA6210-6JT31-0AA0**			**3VA6210-7JT31-0AA0**			**3VA6210-8JT31-0AA0**	
250		**3VA6225-6JT31-0AA0**			**3VA6225-7JT31-0AA0**			**3VA6225-8JT31-0AA0**	
250		**3VA6325-6JT31-0AA0**			**3VA6325-7JT31-0AA0**			**3VA6325-8JT31-0AA0**	
400		**3VA6340-6JT31-0AA0**			**3VA6340-7JT31-0AA0**			**3VA6340-8JT31-0AA0**	
400		**3VA6440-6JT31-0AA0**			**3VA6440-7JT31-0AA0**			**3VA6440-8JT31-0AA0**	
600		**3VA6460-6JT31-0AA0**			**3VA6460-7JT31-0AA0**			**3VA6460-8JT31-0AA0**	
Line protection, with display, ETU560 LSIG With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd}, adjustable instantaneous short-circuit release I_i and adjustable ground-fault protection I_g									
40		**3VA6140-6JQ31-0AA0**			**3VA6140-7JQ31-0AA0**			**3VA6140-8JQ31-0AA0**	
100		**3VA6110-6JQ31-0AA0**			**3VA6110-7JQ31-0AA0**			**3VA6110-8JQ31-0AA0**	
150		**3VA6115-6JQ31-0AA0**			**3VA6115-7JQ31-0AA0**			**3VA6115-8JQ31-0AA0**	
100		**3VA6210-6JQ31-0AA0**			**3VA6210-7JQ31-0AA0**			**3VA6210-8JQ31-0AA0**	
250		**3VA6225-6JQ31-0AA0**			**3VA6225-7JQ31-0AA0**			**3VA6225-8JQ31-0AA0**	
250		**3VA6325-6JQ31-0AA0**			**3VA6325-7JQ31-0AA0**			**3VA6325-8JQ31-0AA0**	
400		**3VA6340-6JQ31-0AA0**			**3VA6340-7JQ31-0AA0**			**3VA6340-8JQ31-0AA0**	
400		**3VA6440-6JQ31-0AA0**			**3VA6440-7JQ31-0AA0**			**3VA6440-8JQ31-0AA0**	
600		**3VA6460-6JQ31-0AA0**			**3VA6460-7JQ31-0AA0**			**3VA6460-8JQ31-0AA0**	

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Line protection

PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

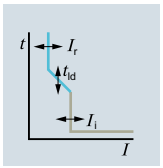


Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Operating current of the instantaneous short-circuit release "I" I_i	Ground-fault protection G I_g	SD	**Medium breaking capacity M, up to 35 kA at 480 V** (M) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU
	A	A	A	A	d		

3-pole, fixed-mounted, 3VA61 to 3VA64, up to 600 A
Electronic Trip Unit



I201_19561

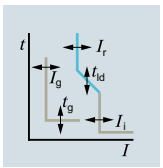


Line protection, with display, with metering function, ETU820 LI
With adjustable overload release I_r and adjustable instantaneous short-circuit release I_i

3VA61	40	15 ... 40	60 ... 480	--	**3VA6140-5KL31-0AA0**
	100	40 ... 100	150 ... 1200	--	**3VA6110-5KL31-0AA0**
	150	60 ... 150	225 ... 1500	--	**3VA6115-5KL31-0AA0**
3VA62	100	40 ... 100	150 ... 1200	--	**3VA6210-5KL31-0AA0**
	250	100 ... 250	375 ... 2500	--	**3VA6225-5KL31-0AA0**
3VA63	250	100 ... 250	375 ... 3000	--	**3VA6325-5KL31-0AA0**
	400	160 ... 400	600 ... 4000	--	**3VA6340-5KL31-0AA0**
3VA64	400	160 ... 400	600 ... 4800	--	**3VA6440-5KL31-0AA0**
	600	240 ... 600	900 ... 5400	--	**3VA6460-5KL31-0AA0**



I201_19562



Line protection, with display, with metering function, ETU830 LIG
With adjustable overload release I_r, adjustable instantaneous short-circuit release I_i and adjustable ground-fault protection I_g

3VA61	40	15 ... 40	60 ... 480	15 ... 40	**3VA6140-5KM31-0AA0**
	100	40 ... 100	150 ... 1200	20 ... 100	**3VA6110-5KM31-0AA0**
	150	60 ... 150	225 ... 1500	30 ... 150	**3VA6115-5KM31-0AA0**
3VA62	100	40 ... 100	150 ... 1200	20 ... 100	**3VA6210-5KM31-0AA0**
	250	100 ... 250	375 ... 2500	50 ... 250	**3VA6225-5KM31-0AA0**
3VA63	250	100 ... 250	375 ... 3000	50 ... 250	**3VA6325-5KM31-0AA0**
	400	160 ... 400	600 ... 4000	80 ... 400	**3VA6340-5KM31-0AA0**
3VA64	400	160 ... 400	600 ... 4800	80 ... 400	**3VA6440-5KM31-0AA0**
	600	240 ... 600	900 ... 5400	120 ... 600	**3VA6460-5KM31-0AA0**

Minimum order quantity (PS) or a multiple thereof can be ordered.

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PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

Rated current I_n	SD	**High breaking capacity H, up to 65 kA at 480 V** (H) See "Overview", p. 2/6 and 2/7	SD	**Very high breaking capacity C, up to 100 kA at 480 V** (C) See "Overview", p. 2/6 and 2/7	SD	**Extremely high breaking capacity L, up to 150 kA at 480 V** (L) See "Overview", p. 2/6 and 2/7
		Article No. www.siemens.com/product?Article No. Basic price per PU		Article No. www.siemens.com/product?Article No. Basic price per PU		Article No. www.siemens.com/product?Article No. Basic price per PU
A	d		d		d	
Line protection, with display, with metering function, ETU820 LI With adjustable overload release I_r and adjustable instantaneous short-circuit release I_i						
40		**3VA6140-6KL31-0AA0**		**3VA6140-7KL31-0AA0**		**3VA6140-8KL31-0AA0**
100		**3VA6110-6KL31-0AA0**		**3VA6110-7KL31-0AA0**		**3VA6110-8KL31-0AA0**
150		**3VA6115-6KL31-0AA0**		**3VA6115-7KL31-0AA0**		**3VA6115-8KL31-0AA0**
100		**3VA6210-6KL31-0AA0**		**3VA6210-7KL31-0AA0**		**3VA6210-8KL31-0AA0**
250		**3VA6225-6KL31-0AA0**		**3VA6225-7KL31-0AA0**		**3VA6225-8KL31-0AA0**
250		**3VA6325-6KL31-0AA0**		**3VA6325-7KL31-0AA0**		**3VA6325-8KL31-0AA0**
400		**3VA6340-6KL31-0AA0**		**3VA6340-7KL31-0AA0**		**3VA6340-8KL31-0AA0**
400		**3VA6440-6KL31-0AA0**		**3VA6440-7KL31-0AA0**		**3VA6440-8KL31-0AA0**
600		**3VA6460-6KL31-0AA0**		**3VA6460-7KL31-0AA0**		**3VA6460-8KL31-0AA0**
Line protection, with display, with metering function, ETU830 LIG With adjustable overload release I_r, adjustable instantaneous short-circuit release I_i and adjustable ground-fault protection I_g						
40		**3VA6140-6KM31-0AA0**		**3VA6140-7KM31-0AA0**		**3VA6140-8KM31-0AA0**
100		**3VA6110-6KM31-0AA0**		**3VA6110-7KM31-0AA0**		**3VA6110-8KM31-0AA0**
150		**3VA6115-6KM31-0AA0**		**3VA6115-7KM31-0AA0**		**3VA6115-8KM31-0AA0**
100		**3VA6210-6KM31-0AA0**		**3VA6210-7KM31-0AA0**		**3VA6210-8KM31-0AA0**
250		**3VA6225-6KM31-0AA0**		**3VA6225-7KM31-0AA0**		**3VA6225-8KM31-0AA0**
250		**3VA6325-6KM31-0AA0**		**3VA6325-7KM31-0AA0**		**3VA6325-8KM31-0AA0**
400		**3VA6340-6KM31-0AA0**		**3VA6340-7KM31-0AA0**		**3VA6340-8KM31-0AA0**
400		**3VA6440-6KM31-0AA0**		**3VA6440-7KM31-0AA0**		**3VA6440-8KM31-0AA0**
600		**3VA6460-6KM31-0AA0**		**3VA6460-7KM31-0AA0**		**3VA6460-8KM31-0AA0**

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Line protection

PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

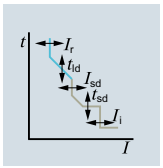


Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	S function (short-time delayed short-circuit protection "S") I_{sd}	Operating current of the instantaneous short-circuit release "I" I_i	SD	**Medium breaking capacity M, up to 35 kA at 480 V** (M) See "Overview", p. 2/6 and 2/7
	A	A	A	A	d	Article No. www.siemens.com/product?Article No. / Basic price per PU

3-pole, fixed-mounted, 3VA61 to 3VA64, up to 600 A
Electronic Trip Unit



I201_18482

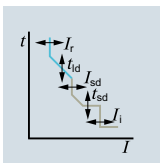


Line protection, with display, with metering function, ETU850 LSI
With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd} and adjustable instantaneous short-circuit release I_i

3VA61	40 100 150	15 ... 40 40 ... 100 60 ... 150	24 ... 400 60 ... 1000 90 ... 1500	60 ... 480 150 ... 1200 225 ... 1500	**3VA6140-5KP31-0AA0** **3VA6110-5KP31-0AA0** **3VA6115-5KP31-0AA0**
3VA62	100 250	40 ... 100 100 ... 250	60 ... 1000 150 ... 2500	150 ... 1200 375 ... 2500	**3VA6210-5KP31-0AA0** **3VA6225-5KP31-0AA0**
3VA63	250 400	100 ... 250 160 ... 400	150 ... 2500 240 ... 4000	375 ... 3000 600 ... 4000	**3VA6325-5KP31-0AA0** **3VA6340-5KP31-0AA0**
3VA64	400 600	160 ... 400 240 ... 600	240 ... 4000 360 ... 5400	600 ... 4800 900 ... 5400	**3VA6440-5KP31-0AA0** **3VA6460-5KP31-0AA0**



I201_19549

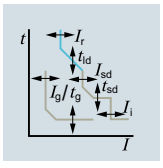


Line protection, with display, with metering function, ETU856 LSI(G)
With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd}, adjustable instantaneous short-circuit release I_i and adjustable ground-fault alarm I_g

3VA61	40 100 150	15 ... 40 40 ... 100 60 ... 150	24 ... 400 60 ... 1000 90 ... 1500	60 ... 480 150 ... 1200 225 ... 1500	**3VA6140-5KT31-0AA0** **3VA6110-5KT31-0AA0** **3VA6115-5KT31-0AA0**
3VA62	100 250	40 ... 100 100 ... 250	60 ... 1000 150 ... 2500	150 ... 1200 375 ... 2500	**3VA6210-5KT31-0AA0** **3VA6225-5KT31-0AA0**
3VA63	250 400	100 ... 250 160 ... 400	150 ... 2500 240 ... 4000	375 ... 3000 600 ... 4000	**3VA6325-5KT31-0AA0** **3VA6340-5KT31-0AA0**
3VA64	400 600	160 ... 400 240 ... 600	240 ... 4000 360 ... 5400	600 ... 4800 900 ... 5400	**3VA6440-5KT31-0AA0** **3VA6460-5KT31-0AA0**



I201_18483



Line protection, with display, with metering function, ETU860 LSIG
With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd}, adjustable instantaneous short-circuit release I_i and adjustable ground-fault protection I_g

3VA61	40 100 150	15 ... 40 40 ... 100 60 ... 150	24 ... 400 60 ... 1000 90 ... 1500	60 ... 480 150 ... 1200 225 ... 1500	**3VA6140-5KQ31-0AA0** **3VA6110-5KQ31-0AA0** **3VA6115-5KQ31-0AA0**
3VA62	100 250	40 ... 100 100 ... 250	60 ... 1000 150 ... 2500	150 ... 1200 375 ... 2500	**3VA6210-5KQ31-0AA0** **3VA6225-5KQ31-0AA0**
3VA63	250 400	100 ... 250 160 ... 400	150 ... 2500 240 ... 4000	375 ... 3000 600 ... 4000	**3VA6325-5KQ31-0AA0** **3VA6340-5KQ31-0AA0**
3VA64	400 600	160 ... 400 240 ... 600	240 ... 4000 360 ... 5400	600 ... 4800 900 ... 5400	**3VA6440-5KQ31-0AA0** **3VA6460-5KQ31-0AA0**

Minimum order quantity (PS) or a multiple thereof can be ordered.

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PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

Rated current I_n	SD	**High breaking capacity H, up to 65 kA at 480 V** (H) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU	SD	**Very high breaking capacity C, up to 100 kA at 480 V** (C) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU	SD	**Extremely high breaking capacity L, up to 150 kA at 480 V** (L) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU
A	d			d			d		
Line protection, with display, with metering function, ETU850 LSI With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd} and adjustable instantaneous short-circuit release I_i									
40		**3VA6140-6KP31-0AA0**			**3VA6140-7KP31-0AA0**			**3VA6140-8KP31-0AA0**	
100		**3VA6110-6KP31-0AA0**			**3VA6110-7KP31-0AA0**			**3VA6110-8KP31-0AA0**	
150		**3VA6115-6KP31-0AA0**			**3VA6115-7KP31-0AA0**			**3VA6115-8KP31-0AA0**	
100		**3VA6210-6KP31-0AA0**			**3VA6210-7KP31-0AA0**			**3VA6210-8KP31-0AA0**	
250		**3VA6225-6KP31-0AA0**			**3VA6225-7KP31-0AA0**			**3VA6225-8KP31-0AA0**	
250		**3VA6325-6KP31-0AA0**			**3VA6325-7KP31-0AA0**			**3VA6325-8KP31-0AA0**	
400		**3VA6340-6KP31-0AA0**			**3VA6340-7KP31-0AA0**			**3VA6340-8KP31-0AA0**	
400		**3VA6440-6KP31-0AA0**			**3VA6440-7KP31-0AA0**			**3VA6440-8KP31-0AA0**	
600		**3VA6460-6KP31-0AA0**			**3VA6460-7KP31-0AA0**			**3VA6460-8KP31-0AA0**	
Line protection, with display, with metering function, ETU856 LSI(G) With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd}, adjustable instantaneous short-circuit release I_i and adjustable ground-fault alarm I_g									
40		**3VA6140-6KT31-0AA0**			**3VA6140-7KT31-0AA0**			**3VA6140-8KT31-0AA0**	
100		**3VA6110-6KT31-0AA0**			**3VA6110-7KT31-0AA0**			**3VA6110-8KT31-0AA0**	
150		**3VA6115-6KT31-0AA0**			**3VA6115-7KT31-0AA0**			**3VA6115-8KT31-0AA0**	
100		**3VA6210-6KT31-0AA0**			**3VA6210-7KT31-0AA0**			**3VA6210-8KT31-0AA0**	
250		**3VA6225-6KT31-0AA0**			**3VA6225-7KT31-0AA0**			**3VA6225-8KT31-0AA0**	
250		**3VA6325-6KT31-0AA0**			**3VA6325-7KT31-0AA0**			**3VA6325-8KT31-0AA0**	
400		**3VA6340-6KT31-0AA0**			**3VA6340-7KT31-0AA0**			**3VA6340-8KT31-0AA0**	
400		**3VA6440-6KT31-0AA0**			**3VA6440-7KT31-0AA0**			**3VA6440-8KT31-0AA0**	
600		**3VA6460-6KT31-0AA0**			**3VA6460-7KT31-0AA0**			**3VA6460-8KT31-0AA0**	
Line protection, with display, with metering function, ETU860 LSIG With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd}, adjustable instantaneous short-circuit release I_i and adjustable ground-fault protection I_g									
40		**3VA6140-6KQ31-0AA0**			**3VA6140-7KQ31-0AA0**			**3VA6140-8KQ31-0AA0**	
100		**3VA6110-6KQ31-0AA0**			**3VA6110-7KQ31-0AA0**			**3VA6110-8KQ31-0AA0**	
150		**3VA6115-6KQ31-0AA0**			**3VA6115-7KQ31-0AA0**			**3VA6115-8KQ31-0AA0**	
100		**3VA6210-6KQ31-0AA0**			**3VA6210-7KQ31-0AA0**			**3VA6210-8KQ31-0AA0**	
250		**3VA6225-6KQ31-0AA0**			**3VA6225-7KQ31-0AA0**			**3VA6225-8KQ31-0AA0**	
250		**3VA6325-6KQ31-0AA0**			**3VA6325-7KQ31-0AA0**			**3VA6325-8KQ31-0AA0**	
400		**3VA6340-6KQ31-0AA0**			**3VA6340-7KQ31-0AA0**			**3VA6340-8KQ31-0AA0**	
400		**3VA6440-6KQ31-0AA0**			**3VA6440-7KQ31-0AA0**			**3VA6440-8KQ31-0AA0**	
600		**3VA6460-6KQ31-0AA0**			**3VA6460-7KQ31-0AA0**			**3VA6460-8KQ31-0AA0**	

Minimum order quantity (PS) or a multiple thereof can be ordered.

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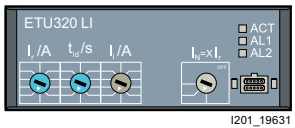
Line protection

PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

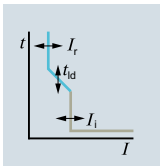


Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Operating current of the instantaneous short-circuit release "I" I_i	Ground-fault protection G I_g	SD	**Medium breaking capacity M, up to 35 kA at 480 V** (M) See "Overview", p. 2/6 and 2/7 — Article No. www.siemens.com/product?Article No.	Basic price per PU
	A	A	A	A	d		

4-pole, fixed-mounted, 3VA61 to 3VA64, up to 600 A Electronic Trip Unit



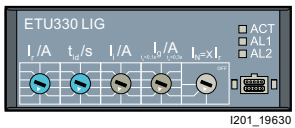
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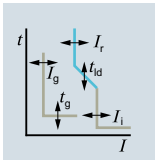
Line protection, ETU320 LI

With adjustable overload release I_r and adjustable instantaneous short-circuit release I_i, with neutral protection against overload and short circuit 0%, 50% or 100%

3VA61	40	15 ... 40	60 ... 480	--	**3VA6140-5HL41-0AA0**
	100	40 ... 100	150 ... 1200	--	**3VA6110-5HL41-0AA0**
	150	60 ... 150	225 ... 1500	--	**3VA6115-5HL41-0AA0**
3VA62	100	40 ... 100	150 ... 1200	--	**3VA6210-5HL41-0AA0**
	250	100 ... 250	375 ... 2500	--	**3VA6225-5HL41-0AA0**
3VA63	250	100 ... 250	375 ... 3000	--	**3VA6325-5HL41-0AA0**
	400	160 ... 400	600 ... 4000	--	**3VA6340-5HL41-0AA0**
3VA64	400	160 ... 400	600 ... 4800	--	**3VA6440-5HL41-0AA0**
	600	240 ... 600	900 ... 5400	--	**3VA6460-5HL41-0AA0**



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Line protection, ETU330 LIG

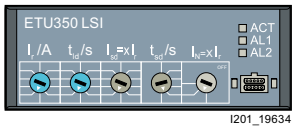
With adjustable overload release I_r, adjustable instantaneous short-circuit release I_i, with neutral protection against overload and short circuit 0%, 50% or 100% and adjustable ground-fault protection I_g

3VA61	40	15 ... 40	60 ... 480	8 ... 40	**3VA6140-5HM41-0AA0**
	100	40 ... 100	150 ... 1200	20 ... 100	**3VA6110-5HM41-0AA0**
	150	60 ... 150	225 ... 1500	30 ... 150	**3VA6115-5HM41-0AA0**
3VA62	100	40 ... 100	150 ... 1200	20 ... 100	**3VA6210-5HM41-0AA0**
	250	100 ... 250	375 ... 2500	50 ... 250	**3VA6225-5HM41-0AA0**
3VA63	250	100 ... 250	375 ... 3000	50 ... 250	**3VA6325-5HM41-0AA0**
	400	160 ... 400	600 ... 4000	80 ... 400	**3VA6340-5HM41-0AA0**
3VA64	400	160 ... 400	600 ... 4800	80 ... 400	**3VA6440-5HM41-0AA0**
	600	240 ... 600	900 ... 5400	120 ... 600	**3VA6460-5HM41-0AA0**

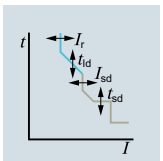


Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	S function (short-time delayed short-circuit protection "S") I_{sd}	Operating current of the instantaneous short-circuit release "I" I_i	SD	**Medium breaking capacity M, up to 35 kA at 480 V** (M) See "Overview", p. 2/6 and 2/7 — Article No. www.siemens.com/product?Article No.	Basic price per PU
	A	A	A	A	d		

4-pole, fixed-mounted, 3VA61 to 3VA64, up to 600 A Electronic Trip Unit



I201_19634



Line protection, ETU350 LSI

With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd} and fixed instantaneous short-circuit release I_i, with neutral protection against overload and short circuit 0%, 50% or 100%

			I_r x ...		
3VA61	40	15 ... 40	1.5 ... 10	480	**3VA6140-5HN41-0AA0**
	100	40 ... 100	1.5 ... 10	1200	**3VA6110-5HN41-0AA0**
	150	60 ... 150	1.5 ... 10	1500	**3VA6115-5HN41-0AA0**
3VA62	100	40 ... 100	1.5 ... 10	1200	**3VA6210-5HN41-0AA0**
	250	100 ... 250	1.5 ... 10	2500	**3VA6225-5HN41-0AA0**
3VA63	250	100 ... 250	1.5 ... 10	3000	**3VA6325-5HN41-0AA0**
	400	160 ... 400	1.5 ... 10	4000	**3VA6340-5HN41-0AA0**
3VA64	400	160 ... 400	1.5 ... 10	4800	**3VA6440-5HN41-0AA0**
	600	240 ... 600	1.5 ... 9	5400	**3VA6460-5HN41-0AA0**

Minimum order quantity (PS) or a multiple thereof can be ordered.

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PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

Rated current I_n	SD	High breaking capacity H, up to 65 kA at 480 V (H) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU	SD	Very high breaking capacity C, up to 100 kA at 480 V (C) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU	SD	Extremely high breaking capacity L, up to 150 kA at 480 V (L) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU
A	d			d			d		

Line protection, ETU320 LI

With adjustable overload release I_r and adjustable instantaneous short-circuit release I_i, with neutral protection against overload and short circuit 0%, 50% or 100%

40 100 150	**3VA6140-6HL41-0AA0** **3VA6110-6HL41-0AA0** **3VA6115-6HL41-0AA0**		**3VA6140-7HL41-0AA0** **3VA6110-7HL41-0AA0** **3VA6115-7HL41-0AA0**		**3VA6140-8HL41-0AA0** **3VA6110-8HL41-0AA0** **3VA6115-8HL41-0AA0**
100 250	**3VA6210-6HL41-0AA0** **3VA6225-6HL41-0AA0**		**3VA6210-7HL41-0AA0** **3VA6225-7HL41-0AA0**		**3VA6210-8HL41-0AA0** **3VA6225-8HL41-0AA0**
250 400	**3VA6325-6HL41-0AA0** **3VA6340-6HL41-0AA0**		**3VA6325-7HL41-0AA0** **3VA6340-7HL41-0AA0**		**3VA6325-8HL41-0AA0** **3VA6340-8HL41-0AA0**
400 600	**3VA6440-6HL41-0AA0** **3VA6460-6HL41-0AA0**		**3VA6440-7HL41-0AA0** **3VA6460-7HL41-0AA0**		**3VA6440-8HL41-0AA0** **3VA6460-8HL41-0AA0**

Line protection, ETU330 LIG

With adjustable overload release I_r, adjustable instantaneous short-circuit release I_i, with neutral protection against overload and short circuit 0%, 50% or 100% and adjustable ground-fault protection I_g

40 100 150	**3VA6140-6HM41-0AA0** **3VA6110-6HM41-0AA0** **3VA6115-6HM41-0AA0**		**3VA6140-7HM41-0AA0** **3VA6110-7HM41-0AA0** **3VA6115-7HM41-0AA0**		**3VA6140-8HM41-0AA0** **3VA6110-8HM41-0AA0** **3VA6115-8HM41-0AA0**
100 250	**3VA6210-6HM41-0AA0** **3VA6225-6HM41-0AA0**		**3VA6210-7HM41-0AA0** **3VA6225-7HM41-0AA0**		**3VA6210-8HM41-0AA0** **3VA6225-8HM41-0AA0**
250 400	**3VA6325-6HM41-0AA0** **3VA6340-6HM41-0AA0**		**3VA6325-7HM41-0AA0** **3VA6340-7HM41-0AA0**		**3VA6325-8HM41-0AA0** **3VA6340-8HM41-0AA0**
400 600	**3VA6440-6HM41-0AA0** **3VA6460-6HM41-0AA0**		**3VA6440-7HM41-0AA0** **3VA6460-7HM41-0AA0**		**3VA6440-8HM41-0AA0** **3VA6460-8HM41-0AA0**

Rated current I_n	SD	High breaking capacity H, up to 65 kA at 480 V (H) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU	SD	Very high breaking capacity C, up to 100 kA at 480 V (C) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU	SD	Extremely high breaking capacity L, up to 150 kA at 480 V (L) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU
A	d			d			d		

Line protection, ETU350 LSI

With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd} and fixed instantaneous short-circuit release I_i, with neutral protection against overload and short circuit 0%, 50% or 100%

40 100 150	**3VA6140-6HN41-0AA0** **3VA6110-6HN41-0AA0** **3VA6115-6HN41-0AA0**		**3VA6140-7HN41-0AA0** **3VA6110-7HN41-0AA0** **3VA6115-7HN41-0AA0**		**3VA6140-8HN41-0AA0** **3VA6110-8HN41-0AA0** **3VA6115-8HN41-0AA0**
100 250	**3VA6210-6HN41-0AA0** **3VA6225-6HN41-0AA0**		**3VA6210-7HN41-0AA0** **3VA6225-7HN41-0AA0**		**3VA6210-8HN41-0AA0** **3VA6225-8HN41-0AA0**
250 400	**3VA6325-6HN41-0AA0** **3VA6340-6HN41-0AA0**		**3VA6325-7HN41-0AA0** **3VA6340-7HN41-0AA0**		**3VA6325-8HN41-0AA0** **3VA6340-8HN41-0AA0**
400 600	**3VA6440-6HN41-0AA0** **3VA6460-6HN41-0AA0**		**3VA6440-7HN41-0AA0** **3VA6460-7HN41-0AA0**		**3VA6440-8HN41-0AA0** **3VA6460-8HN41-0AA0**

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Line protection

PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

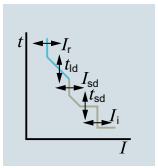


Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	S function (short-time delayed short-circuit protection "S") I_{sd}	Operating current of the instantaneous short-circuit release "I" I_i	SD	**Medium breaking capacity M, up to 35 kA at 480 V** (M) See "Overview", p. 2/6 and 2/7
	A	A	A	A	d	Article No. www.siemens.com/product?Article No. / Basic price per PU

4-pole, fixed-mounted, 3VA61 to 3VA64, up to 600 A Electronic Trip Unit



I201_18480



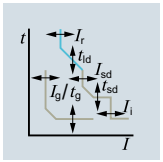
Line protection, with display, ETU550 LSI

With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd} and adjustable instantaneous short-circuit release I_i, with neutral protection against overload and short circuit from 20%/40% to 100%/160%

3VA61	40	15 ... 40	24 ... 400	60 ... 480	**3VA6140-5JP41-0AA0**
	100	40 ... 100	60 ... 1000	150 ... 1200	**3VA6110-5JP41-0AA0**
	150	60 ... 150	90 ... 1500	225 ... 1500	**3VA6115-5JP41-0AA0**
3VA62	100	40 ... 100	60 ... 1000	150 ... 1200	**3VA6210-5JP41-0AA0**
	250	100 ... 250	150 ... 2500	375 ... 2500	**3VA6225-5JP41-0AA0**
3VA63	250	100 ... 250	150 ... 2500	375 ... 3000	**3VA6325-5JP41-0AA0**
	400	160 ... 400	240 ... 4000	600 ... 4000	**3VA6340-5JP41-0AA0**
3VA64	400	160 ... 400	240 ... 4000	600 ... 4800	**3VA6440-5JP41-0AA0**
	600	240 ... 600	360 ... 5400	900 ... 5400	**3VA6460-5JP41-0AA0**



I201_19550



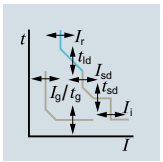
Line protection, with display, ETU556 LSI(G)

With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd}, adjustable instantaneous short-circuit release I_i and adjustable ground-fault alarm I_g

3VA61	40	15 ... 40	24 ... 400	60 ... 480	**3VA6140-5JT41-0AA0**
	100	40 ... 100	60 ... 1000	150 ... 1200	**3VA6110-5JT41-0AA0**
	150	60 ... 150	90 ... 1500	225 ... 1500	**3VA6115-5JT41-0AA0**
3VA62	100	40 ... 100	60 ... 1000	150 ... 1200	**3VA6210-5JT41-0AA0**
	250	100 ... 250	150 ... 2500	375 ... 2500	**3VA6225-5JT41-0AA0**
3VA63	250	100 ... 250	150 ... 2500	375 ... 3000	**3VA6325-5JT41-0AA0**
	400	160 ... 400	240 ... 4000	600 ... 4000	**3VA6340-5JT41-0AA0**
3VA64	400	160 ... 400	240 ... 4000	600 ... 4800	**3VA6440-5JT41-0AA0**
	600	240 ... 600	360 ... 5400	900 ... 5400	**3VA6460-5JT41-0AA0**



I201_18481



Line protection, with display, ETU560 LSIG

With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd} and adjustable instantaneous short-circuit release I_i, with neutral protection against overload and short circuit from 20%/40% to 100%/160% and adjustable ground-fault protection I_g

3VA61	40	15 ... 40	24 ... 400	60 ... 480	**3VA6140-5JQ41-0AA0**
	100	40 ... 100	60 ... 1000	150 ... 1200	**3VA6110-5JQ41-0AA0**
	150	60 ... 150	90 ... 1500	225 ... 1500	**3VA6115-5JQ41-0AA0**
3VA62	100	40 ... 100	60 ... 1000	150 ... 1200	**3VA6210-5JQ41-0AA0**
	250	100 ... 250	150 ... 2500	375 ... 2500	**3VA6225-5JQ41-0AA0**
3VA63	250	100 ... 250	150 ... 2500	375 ... 3000	**3VA6325-5JQ41-0AA0**
	400	160 ... 400	240 ... 4000	600 ... 4000	**3VA6340-5JQ41-0AA0**
3VA64	400	160 ... 400	240 ... 4000	600 ... 4800	**3VA6440-5JQ41-0AA0**
	600	240 ... 600	360 ... 5400	900 ... 5400	**3VA6460-5JQ41-0AA0**

Minimum order quantity (PS) or a multiple thereof can be ordered.

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PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

Rated current I_n	SD	High breaking capacity H, up to 65 kA at 480 V (H) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU	SD	Very high breaking capacity C, up to 100 kA at 480 V (C) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU	SD	Extremely high breaking capacity L, up to 150 kA at 480 V (L) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU
A	d			d			d		

Line protection, with display, ETU550 LSI
With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd} and adjustable instantaneous short-circuit release I_i, with neutral protection against overload and short circuit from 20%/40% to 100%/160%

40	**3VA6140-6JP41-0AA0**	**3VA6140-7JP41-0AA0**	**3VA6140-8JP41-0AA0**
100	**3VA6110-6JP41-0AA0**	**3VA6110-7JP41-0AA0**	**3VA6110-8JP41-0AA0**
150	**3VA6115-6JP41-0AA0**	**3VA6115-7JP41-0AA0**	**3VA6115-8JP41-0AA0**
100	**3VA6210-6JP41-0AA0**	**3VA6210-7JP41-0AA0**	**3VA6210-8JP41-0AA0**
250	**3VA6225-6JP41-0AA0**	**3VA6225-7JP41-0AA0**	**3VA6225-8JP41-0AA0**
250	**3VA6325-6JP41-0AA0**	**3VA6325-7JP41-0AA0**	**3VA6325-8JP41-0AA0**
400	**3VA6340-6JP41-0AA0**	**3VA6340-7JP41-0AA0**	**3VA6340-8JP41-0AA0**
400	**3VA6440-6JP41-0AA0**	**3VA6440-7JP41-0AA0**	**3VA6440-8JP41-0AA0**
600	**3VA6460-6JP41-0AA0**	**3VA6460-7JP41-0AA0**	**3VA6460-8JP41-0AA0**

Line protection, with display, ETU556 LSI(G)
With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd}, adjustable instantaneous short-circuit release I_i and adjustable ground-fault alarm I_g

40	**3VA6140-6JT41-0AA0**	**3VA6140-7JT41-0AA0**	**3VA6140-8JT41-0AA0**
100	**3VA6110-6JT41-0AA0**	**3VA6110-7JT41-0AA0**	**3VA6110-8JT41-0AA0**
150	**3VA6115-6JT41-0AA0**	**3VA6115-7JT41-0AA0**	**3VA6115-8JT41-0AA0**
100	**3VA6210-6JT41-0AA0**	**3VA6210-7JT41-0AA0**	**3VA6210-8JT41-0AA0**
250	**3VA6225-6JT41-0AA0**	**3VA6225-7JT41-0AA0**	**3VA6225-8JT41-0AA0**
250	**3VA6325-6JT41-0AA0**	**3VA6325-7JT41-0AA0**	**3VA6325-8JT41-0AA0**
400	**3VA6340-6JT41-0AA0**	**3VA6340-7JT41-0AA0**	**3VA6340-8JT41-0AA0**
400	**3VA6440-6JT41-0AA0**	**3VA6440-7JT41-0AA0**	**3VA6440-8JT41-0AA0**
600	**3VA6460-6JT41-0AA0**	**3VA6460-7JT41-0AA0**	**3VA6460-8JT41-0AA0**

Line protection, with display, ETU560 LSIG
With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd} and adjustable instantaneous short-circuit release I_i, with neutral protection against overload and short circuit from 20%/40% to 100%/160% and adjustable ground-fault protection I_g

40	**3VA6140-6JQ41-0AA0**	**3VA6140-7JQ41-0AA0**	**3VA6140-8JQ41-0AA0**
100	**3VA6110-6JQ41-0AA0**	**3VA6110-7JQ41-0AA0**	**3VA6110-8JQ41-0AA0**
150	**3VA6115-6JQ41-0AA0**	**3VA6115-7JQ41-0AA0**	**3VA6115-8JQ41-0AA0**
100	**3VA6210-6JQ41-0AA0**	**3VA6210-7JQ41-0AA0**	**3VA6210-8JQ41-0AA0**
250	**3VA6225-6JQ41-0AA0**	**3VA6225-7JQ41-0AA0**	**3VA6225-8JQ41-0AA0**
250	**3VA6325-6JQ41-0AA0**	**3VA6325-7JQ41-0AA0**	**3VA6325-8JQ41-0AA0**
400	**3VA6340-6JQ41-0AA0**	**3VA6340-7JQ41-0AA0**	**3VA6340-8JQ41-0AA0**
400	**3VA6440-6JQ41-0AA0**	**3VA6440-7JQ41-0AA0**	**3VA6440-8JQ41-0AA0**
600	**3VA6460-6JQ41-0AA0**	**3VA6460-7JQ41-0AA0**	**3VA6460-8JQ41-0AA0**

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Line protection

PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

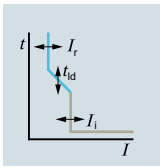


Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Operating current of the instantaneous short-circuit release "I" I_i	Ground-fault protection G I_g	SD	**Medium breaking capacity M, up to 35 kA at 480 V** (M) See "Overview", p. 2/6 and 2/7	
	A	A	A	A	d	Article No. www.siemens.com/product?Article No.	Basic price per PU

4-pole, fixed-mounted, 3VA61 to 3VA64, up to 600 A
Electronic Trip Unit



I201_19561

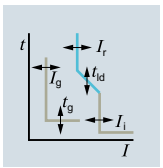


Line protection, with display, with metering function, ETU820 LI
With adjustable overload release I_r and adjustable instantaneous short-circuit release I_i

3VA61	40	15 ... 40	60 ... 480	--	**3VA6140-5KL41-0AA0**
	100	40 ... 100	150 ... 1200	--	**3VA6110-5KL41-0AA0**
	150	60 ... 150	225 ... 1500	--	**3VA6115-5KL41-0AA0**
3VA62	100	40 ... 100	150 ... 1200	--	**3VA6210-5KL41-0AA0**
	250	100 ... 250	375 ... 2500	--	**3VA6225-5KL41-0AA0**
3VA63	250	100 ... 250	375 ... 3000	--	**3VA6325-5KL41-0AA0**
	400	160 ... 400	600 ... 4000	--	**3VA6340-5KL41-0AA0**
3VA64	400	160 ... 400	600 ... 4800	--	**3VA6440-5KL41-0AA0**
	600	240 ... 600	900 ... 5400	--	**3VA6460-5KL41-0AA0**



I201_19562



Line protection, with display, with metering function, ETU830 LIG
With adjustable overload release I_r, adjustable instantaneous short-circuit release I_i and adjustable ground-fault protection I_g

3VA61	40	15 ... 40	60 ... 480	15 ... 40	**3VA6140-5KM41-0AA0**
	100	40 ... 100	150 ... 1200	20 ... 100	**3VA6110-5KM41-0AA0**
	150	60 ... 150	225 ... 1500	30 ... 150	**3VA6115-5KM41-0AA0**
3VA62	100	40 ... 100	150 ... 1200	20 ... 100	**3VA6210-5KM41-0AA0**
	250	100 ... 250	375 ... 2500	50 ... 250	**3VA6225-5KM41-0AA0**
3VA63	250	100 ... 250	375 ... 3000	50 ... 250	**3VA6325-5KM41-0AA0**
	400	160 ... 400	600 ... 4000	80 ... 400	**3VA6340-5KM41-0AA0**
3VA64	400	160 ... 400	600 ... 4800	80 ... 400	**3VA6440-5KM41-0AA0**
	600	240 ... 600	900 ... 5400	120 ... 600	**3VA6460-5KM41-0AA0**

Minimum order quantity (PS) or a multiple thereof can be ordered.

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PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

Rated current I_n	SD	**High breaking capacity H, up to 65 kA at 480 V** (H) See "Overview", p. 2/6 and 2/7	SD	**Very high breaking capacity C, up to 100 kA at 480 V** (C) See "Overview", p. 2/6 and 2/7	SD	**Extremely high breaking capacity L, up to 150 kA at 480 V** (L) See "Overview", p. 2/6 and 2/7
		Article No. www.siemens.com/product?Article No. Basic price per PU		Article No. www.siemens.com/product?Article No. Basic price per PU		Article No. www.siemens.com/product?Article No. Basic price per PU
A	d		d		d	
Line protection, with display, with metering function, ETU820 LI With adjustable overload release I_r and adjustable instantaneous short-circuit release I_i						
40		**3VA6140-6KL41-0AA0**		**3VA6140-7KL41-0AA0**		**3VA6140-8KL41-0AA0**
100		**3VA6110-6KL41-0AA0**		**3VA6110-7KL41-0AA0**		**3VA6110-8KL41-0AA0**
150		**3VA6115-6KL41-0AA0**		**3VA6115-7KL41-0AA0**		**3VA6115-8KL41-0AA0**
100		**3VA6210-6KL41-0AA0**		**3VA6210-7KL41-0AA0**		**3VA6210-8KL41-0AA0**
250		**3VA6225-6KL41-0AA0**		**3VA6225-7KL41-0AA0**		**3VA6225-8KL41-0AA0**
250		**3VA6325-6KL41-0AA0**		**3VA6325-7KL41-0AA0**		**3VA6325-8KL41-0AA0**
400		**3VA6340-6KL41-0AA0**		**3VA6340-7KL41-0AA0**		**3VA6340-8KL41-0AA0**
400		**3VA6440-6KL41-0AA0**		**3VA6440-7KL41-0AA0**		**3VA6440-8KL41-0AA0**
600		**3VA6460-6KL41-0AA0**		**3VA6460-7KL41-0AA0**		**3VA6460-8KL41-0AA0**
Line protection, with display, with metering function, ETU830 LIG With adjustable overload release I_r, adjustable instantaneous short-circuit release I_i and adjustable ground-fault protection I_g						
40		**3VA6140-6KM41-0AA0**		**3VA6140-7KM41-0AA0**		**3VA6140-8KM41-0AA0**
100		**3VA6110-6KM41-0AA0**		**3VA6110-7KM41-0AA0**		**3VA6110-8KM41-0AA0**
150		**3VA6115-6KM41-0AA0**		**3VA6115-7KM41-0AA0**		**3VA6115-8KM41-0AA0**
100		**3VA6210-6KM41-0AA0**		**3VA6210-7KM41-0AA0**		**3VA6210-8KM41-0AA0**
250		**3VA6225-6KM41-0AA0**		**3VA6225-7KM41-0AA0**		**3VA6225-8KM41-0AA0**
250		**3VA6325-6KM41-0AA0**		**3VA6325-7KM41-0AA0**		**3VA6325-8KM41-0AA0**
400		**3VA6340-6KM41-0AA0**		**3VA6340-7KM41-0AA0**		**3VA6340-8KM41-0AA0**
400		**3VA6440-6KM41-0AA0**		**3VA6440-7KM41-0AA0**		**3VA6440-8KM41-0AA0**
600		**3VA6460-6KM41-0AA0**		**3VA6460-7KM41-0AA0**		**3VA6460-8KM41-0AA0**

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Line protection

PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

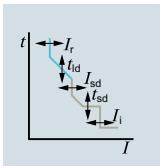


Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	S function (short-time delayed short-circuit protection "S") I_{sd}	Operating current of the instantaneous short-circuit release "I" I_i	SD	**Medium breaking capacity M, up to 35 kA at 480 V** (M) See "Overview", p. 2/6 and 2/7	
						Article No. www.siemens.com/product?Article No.	Basic price per PU
	A	A	A	A	d		

4-pole, fixed-mounted, 3VA61 to 3VA64, up to 600 A Electronic Trip Unit



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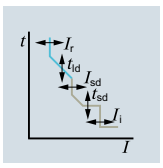


Line protection, with display, with metering function, ETU850 LSI
With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd} and adjustable instantaneous short-circuit release I_i, with neutral protection against overload and short circuit from 20%/40% to 100%/160%

3VA61	40	15 ... 40	24 ... 400	60 ... 480	**3VA6140-5KP41-0AA0**
	100	40 ... 100	60 ... 1000	150 ... 1200	**3VA6110-5KP41-0AA0**
	150	60 ... 150	90 ... 1500	225 ... 1500	**3VA6115-5KP41-0AA0**
3VA62	100	40 ... 100	60 ... 1000	150 ... 1200	**3VA6210-5KP41-0AA0**
	250	100 ... 250	150 ... 2500	375 ... 2500	**3VA6225-5KP41-0AA0**
3VA63	250	100 ... 250	150 ... 2500	375 ... 3000	**3VA6325-5KP41-0AA0**
	400	160 ... 400	240 ... 4000	600 ... 4000	**3VA6340-5KP41-0AA0**
3VA64	400	160 ... 400	240 ... 4000	600 ... 4800	**3VA6440-5KP41-0AA0**
	600	240 ... 600	360 ... 5400	900 ... 5400	**3VA6460-5KP41-0AA0**



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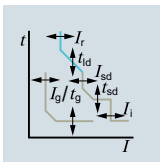


Line protection, with display, with metering function, ETU856 LSI(G)
With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd}, adjustable instantaneous short-circuit release I_i, and adjustable ground-fault alarm I_g, with neutral protection against overload and short circuit from 20%/40% to 100%/160%

3VA61	40	15 ... 40	24 ... 400	60 ... 480	**3VA6140-5KT41-0AA0**
	100	40 ... 100	60 ... 1000	150 ... 1200	**3VA6110-5KT41-0AA0**
	150	60 ... 150	90 ... 1500	225 ... 1500	**3VA6115-5KT41-0AA0**
3VA62	100	40 ... 100	60 ... 1000	150 ... 1200	**3VA6210-5KT41-0AA0**
	250	100 ... 250	150 ... 2500	375 ... 2500	**3VA6225-5KT41-0AA0**
3VA63	250	100 ... 250	150 ... 2500	375 ... 3000	**3VA6325-5KT41-0AA0**
	400	160 ... 400	240 ... 4000	600 ... 4000	**3VA6340-5KT41-0AA0**
3VA64	400	160 ... 400	240 ... 4000	600 ... 4800	**3VA6440-5KT41-0AA0**
	600	240 ... 600	360 ... 5400	900 ... 5400	**3VA6460-5KT41-0AA0**



I201_18483



Line protection, with display, with metering function, ETU860 LSIG
With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd} and adjustable instantaneous short-circuit release I_i, with neutral protection against overload and short circuit from 20%/40% to 100%/160% and adjustable ground-fault protection I_g

3VA61	40	15 ... 40	24 ... 400	60 ... 480	**3VA6140-5KQ41-0AA0**
	100	40 ... 100	60 ... 1000	150 ... 1200	**3VA6110-5KQ41-0AA0**
	150	60 ... 150	90 ... 1500	225 ... 1500	**3VA6115-5KQ41-0AA0**
3VA62	100	40 ... 100	60 ... 1000	150 ... 1200	**3VA6210-5KQ41-0AA0**
	250	100 ... 250	150 ... 2500	375 ... 2500	**3VA6225-5KQ41-0AA0**
3VA63	250	100 ... 250	150 ... 2500	375 ... 3000	**3VA6325-5KQ41-0AA0**
	400	160 ... 400	240 ... 4000	600 ... 4000	**3VA6340-5KQ41-0AA0**
3VA64	400	160 ... 400	240 ... 4000	600 ... 4800	**3VA6440-5KQ41-0AA0**
	600	240 ... 600	360 ... 5400	900 ... 5400	**3VA6460-5KQ41-0AA0**

Minimum order quantity (PS) or a multiple thereof can be ordered.

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PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

Rated current I_n	SD	**High breaking capacity H, up to 65 kA at 480 V** (H) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU	SD	**Very high breaking capacity C, up to 100 kA at 480 V** (C) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU	SD	**Extremely high breaking capacity L, up to 150 kA at 480 V** (L) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU
A	d			d			d		
Line protection, with display, with metering function, ETU850 LSI With adjustable overload release I_n, adjustable delayed short-circuit release I_{sd} and adjustable instantaneous short-circuit release I_i, with neutral protection against overload and short circuit from 20%/40% to 100%/160%									
40		**3VA6140-6KP41-0AA0**			**3VA6140-7KP41-0AA0**			**3VA6140-8KP41-0AA0**	
100		**3VA6110-6KP41-0AA0**			**3VA6110-7KP41-0AA0**			**3VA6110-8KP41-0AA0**	
150		**3VA6115-6KP41-0AA0**			**3VA6115-7KP41-0AA0**			**3VA6115-8KP41-0AA0**	
100		**3VA6210-6KP41-0AA0**			**3VA6210-7KP41-0AA0**			**3VA6210-8KP41-0AA0**	
250		**3VA6225-6KP41-0AA0**			**3VA6225-7KP41-0AA0**			**3VA6225-8KP41-0AA0**	
250		**3VA6325-6KP41-0AA0**			**3VA6325-7KP41-0AA0**			**3VA6325-8KP41-0AA0**	
400		**3VA6340-6KP41-0AA0**			**3VA6340-7KP41-0AA0**			**3VA6340-8KP41-0AA0**	
400		**3VA6440-6KP41-0AA0**			**3VA6440-7KP41-0AA0**			**3VA6440-8KP41-0AA0**	
600		**3VA6460-6KP41-0AA0**			**3VA6460-7KP41-0AA0**			**3VA6460-8KP41-0AA0**	
Line protection, with display, with metering function, ETU856 LSI(G) With adjustable overload release I_n, adjustable delayed short-circuit release I_{sd}, adjustable instantaneous short-circuit release I_i, and adjustable ground-fault alarm I_g, with neutral protection against overload and short circuit from 20%/40% to 100%/160%									
40		**3VA6140-6KT41-0AA0**			**3VA6140-7KT41-0AA0**			**3VA6140-8KT41-0AA0**	
100		**3VA6110-6KT41-0AA0**			**3VA6110-7KT41-0AA0**			**3VA6110-8KT41-0AA0**	
150		**3VA6115-6KT41-0AA0**			**3VA6115-7KT41-0AA0**			**3VA6115-8KT41-0AA0**	
100		**3VA6210-6KT41-0AA0**			**3VA6210-7KT41-0AA0**			**3VA6210-8KT41-0AA0**	
250		**3VA6225-6KT41-0AA0**			**3VA6225-7KT41-0AA0**			**3VA6225-8KT41-0AA0**	
250		**3VA6325-6KT41-0AA0**			**3VA6325-7KT41-0AA0**			**3VA6325-8KT41-0AA0**	
400		**3VA6340-6KT41-0AA0**			**3VA6340-7KT41-0AA0**			**3VA6340-8KT41-0AA0**	
400		**3VA6440-6KT41-0AA0**			**3VA6440-7KT41-0AA0**			**3VA6440-8KT41-0AA0**	
600		**3VA6460-6KT41-0AA0**			**3VA6460-7KT41-0AA0**			**3VA6460-8KT41-0AA0**	
Line protection, with display, with metering function, ETU860 LSIG With adjustable overload release I_n, adjustable delayed short-circuit release I_{sd} and adjustable instantaneous short-circuit release I_i, with neutral protection against overload and short circuit from 20%/40% to 100%/160% and adjustable ground-fault protection I_g									
40		**3VA6140-6KQ41-0AA0**			**3VA6140-7KQ41-0AA0**			**3VA6140-8KQ41-0AA0**	
100		**3VA6110-6KQ41-0AA0**			**3VA6110-7KQ41-0AA0**			**3VA6110-8KQ41-0AA0**	
150		**3VA6115-6KQ41-0AA0**			**3VA6115-7KQ41-0AA0**			**3VA6115-8KQ41-0AA0**	
100		**3VA6210-6KQ41-0AA0**			**3VA6210-7KQ41-0AA0**			**3VA6210-8KQ41-0AA0**	
250		**3VA6225-6KQ41-0AA0**			**3VA6225-7KQ41-0AA0**			**3VA6225-8KQ41-0AA0**	
250		**3VA6325-6KQ41-0AA0**			**3VA6325-7KQ41-0AA0**			**3VA6325-8KQ41-0AA0**	
400		**3VA6340-6KQ41-0AA0**			**3VA6340-7KQ41-0AA0**			**3VA6340-8KQ41-0AA0**	
400		**3VA6440-6KQ41-0AA0**			**3VA6440-7KQ41-0AA0**			**3VA6440-8KQ41-0AA0**	
600		**3VA6460-6KQ41-0AA0**			**3VA6460-7KQ41-0AA0**			**3VA6460-8KQ41-0AA0**	

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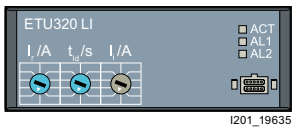
Line protection, 100% rated breakers

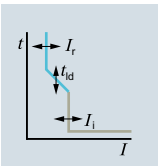
PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB



Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Operating current of the instantaneous short-circuit release "I" I_i	Ground-fault protection G I_g	SD	**Medium breaking capacity M, up to 35 kA at 480 V** (M) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU
	A	A	A	A	d		

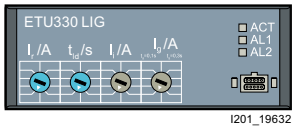
3-pole, fixed-mounted, 100% rated, 3VA61 to 3VA64, up to 400 A[1] Electronic Trip Unit

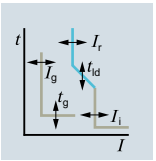




Line protection, ETU320 LI
With adjustable overload release I_r and adjustable instantaneous short-circuit release I_i

3VA61	40	15 ... 40	60 ... 480	--	**3VA6140-5HL31-2AA0**
	100	40 ... 100	150 ... 1200	--	**3VA6110-5HL31-2AA0**
	150	60 ... 150	225 ... 1500	--	**3VA6115-5HL31-2AA0**
3VA62	100	40 ... 100	150 ... 1200	--	**3VA6210-5HL31-2AA0**
	250	100 ... 250	375 ... 2500	--	**3VA6225-5HL31-2AA0**
3VA63	250	100 ... 250	375 ... 3000	--	**3VA6325-5HL31-2AA0**
3VA64	400	160 ... 400	600 ... 4800	--	**3VA6440-5HL31-2AA0**





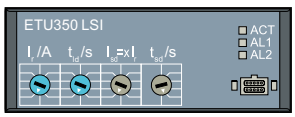
Line protection, ETU330 LIG
With adjustable overload release I_r, adjustable instantaneous short-circuit release I_i and adjustable ground-fault protection I_g

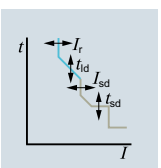
3VA61	40	15 ... 40	60 ... 480	8 ... 40	**3VA6140-5HM31-2AA0**
	100	40 ... 100	150 ... 1200	20 ... 100	**3VA6110-5HM31-2AA0**
	150	60 ... 150	225 ... 1500	30 ... 150	**3VA6115-5HM31-2AA0**
3VA62	100	40 ... 100	150 ... 1200	20 ... 100	**3VA6210-5HM31-2AA0**
	250	100 ... 250	375 ... 2500	50 ... 250	**3VA6225-5HM31-2AA0**
3VA63	250	100 ... 250	375 ... 3000	50 ... 250	**3VA6325-5HM31-2AA0**
3VA64	400	160 ... 400	600 ... 4800	80 ... 400	**3VA6440-5HM31-2AA0**



Type	Rated current I_n	Current setting of the inverse-time delayed overload release "L" I_r	S function (short-time delayed short-circuit protection "S") I_{sd}	Operating current of the instantaneous short-circuit release "I" I_i	SD	**Medium breaking capacity M, up to 35 kA at 480 V** (M) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU
	A	A	A	A	d		

3-pole, fixed-mounted, 100% rated, 3VA61 to 3VA64, up to 400 A[1] Electronic Trip Unit





Line protection, ETU350 LSI
With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd} and fixed instantaneous short-circuit release I_i

			I_r x ...		
3VA61	40	15 ... 40	1.5 ... 10	480	**3VA6140-5HN31-2AA0**
	100	40 ... 100	1.5 ... 10	1200	**3VA6110-5HN31-2AA0**
	150	60 ... 150	1.5 ... 10	1500	**3VA6115-5HN31-2AA0**
3VA62	100	40 ... 100	1.5 ... 10	1200	**3VA6210-5HN31-2AA0**
	250	100 ... 250	1.5 ... 10	2500	**3VA6225-5HN31-2AA0**
3VA63	250	100 ... 250	1.5 ... 10	3000	**3VA6325-5HN31-2AA0**
3VA64	400	160 ... 400	1.5 ... 10	4800	**3VA6440-5HN31-2AA0**

[1] 3VA6 molded case circuit breakers are supplied without connection technology. Pay attention to page 2/95 when selecting suitable connection technology.

Minimum order quantity (PS) or a multiple thereof can be ordered.

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PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

Rated current I_n	SD	**High breaking capacity H, up to 65 kA at 480 V** (H) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU	SD	**Very high breaking capacity C, up to 100 kA at 480 V** (C) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU	SD	**Extremely high breaking capacity L, up to 150 kA at 480 V** (L) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU
A	d			d			d		

Line protection, ETU320 LI

With adjustable overload release I_r and adjustable instantaneous short-circuit release I_i

40 100 150		**3VA6140-6HL31-2AA0** **3VA6110-6HL31-2AA0** **3VA6115-6HL31-2AA0**			**3VA6140-7HL31-2AA0** **3VA6110-7HL31-2AA0** **3VA6115-7HL31-2AA0**			**3VA6140-8HL31-2AA0** **3VA6110-8HL31-2AA0** **3VA6115-8HL31-2AA0**	
100 250		**3VA6210-6HL31-2AA0** **3VA6225-6HL31-2AA0**			**3VA6210-7HL31-2AA0** **3VA6225-7HL31-2AA0**			**3VA6210-8HL31-2AA0** **3VA6225-8HL31-2AA0**	
250		**3VA6325-6HL31-2AA0**			**3VA6325-7HL31-2AA0**			**3VA6325-8HL31-2AA0**	
400		**3VA6440-6HL31-2AA0**			**3VA6440-7HL31-2AA0**			**3VA6440-8HL31-2AA0**	

Line protection, ETU330 LIG

With adjustable overload release I_r, adjustable instantaneous short-circuit release I_i and adjustable ground-fault protection I_g

40 100 150		**3VA6140-6HM31-2AA0** **3VA6110-6HM31-2AA0** **3VA6115-6HM31-2AA0**			**3VA6140-7HM31-2AA0** **3VA6110-7HM31-2AA0** **3VA6115-7HM31-2AA0**			**3VA6140-8HM31-2AA0** **3VA6110-8HM31-2AA0** **3VA6115-8HM31-2AA0**	
100 250		**3VA6210-6HM31-2AA0** **3VA6225-6HM31-2AA0**			**3VA6210-7HM31-2AA0** **3VA6225-7HM31-2AA0**			**3VA6210-8HM31-2AA0** **3VA6225-8HM31-2AA0**	
250		**3VA6325-6HM31-2AA0**			**3VA6325-7HM31-2AA0**			**3VA6325-8HM31-2AA0**	
400		**3VA6440-6HM31-2AA0**			**3VA6440-7HM31-2AA0**			**3VA6440-8HM31-2AA0**	

Rated current I_n	SD	**High breaking capacity H, up to 65 kA at 480 V** (H) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU	SD	**Very high breaking capacity C, up to 100 kA at 480 V** (C) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU	SD	**Extremely high breaking capacity L, up to 150 kA at 480 V** (L) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU
A	d			d			d		

Line protection, ETU350 LSI

With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd} and fixed instantaneous short-circuit release I_i

40 100 150		**3VA6140-6HN31-2AA0** **3VA6110-6HN31-2AA0** **3VA6115-6HN31-2AA0**			**3VA6140-7HN31-2AA0** **3VA6110-7HN31-2AA0** **3VA6115-7HN31-2AA0**			**3VA6140-8HN31-2AA0** **3VA6110-8HN31-2AA0** **3VA6115-8HN31-2AA0**	
100 250		**3VA6210-6HN31-2AA0** **3VA6225-6HN31-2AA0**			**3VA6210-7HN31-2AA0** **3VA6225-7HN31-2AA0**			**3VA6210-8HN31-2AA0** **3VA6225-8HN31-2AA0**	
250		**3VA6325-6HN31-2AA0**			**3VA6325-7HN31-2AA0**			**3VA6325-8HN31-2AA0**	
400		**3VA6440-6HN31-2AA0**			**3VA6440-7HN31-2AA0**			**3VA6440-8HN31-2AA0**	

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Line protection, 100% rated breakers

PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

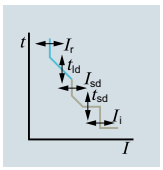


Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	S function (short-time delayed short-circuit protection "S") I_{sd}	Operating current of the instantaneous short-circuit release "I" I_i	SD	**Medium breaking capacity M, up to 35 kA at 480 V** (M) See "Overview", p. 2/6 and 2/7
	A	A	A	A	d	Article No. www.siemens.com/product?Article No. / Basic price per PU

3-pole, fixed-mounted, 100% rated, 3VA61 to 3VA64, up to 400 A[1] Electronic Trip Unit



I201_18480



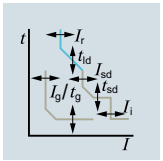
Line protection, with display, ETU550 LSI

With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd} and adjustable instantaneous short-circuit release I_i

3VA61	40	15 ... 40	24 ... 400	60 ... 480	**3VA6140-5JP31-2AA0**
	100	40 ... 100	60 ... 1000	150 ... 1200	**3VA6110-5JP31-2AA0**
	150	60 ... 150	90 ... 1500	225 ... 1500	**3VA6115-5JP31-2AA0**
3VA62	100	40 ... 100	60 ... 1000	150 ... 1200	**3VA6210-5JP31-2AA0**
	250	100 ... 250	150 ... 2500	375 ... 2500	**3VA6225-5JP31-2AA0**
3VA63	250	100 ... 250	150 ... 2500	375 ... 3000	**3VA6325-5JP31-2AA0**
3VA64	400	160 ... 400	240 ... 4000	600 ... 4800	**3VA6440-5JP31-2AA0**



I201_19550



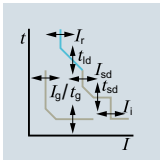
Line protection, with display, ETU556 LSI(G)

With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd}, adjustable instantaneous short-circuit release I_i and adjustable ground-fault alarm I_g

3VA61	40	15 ... 40	24 ... 400	60 ... 480	**3VA6140-5JT31-2AA0**
	100	40 ... 100	60 ... 1000	150 ... 1200	**3VA6110-5JT31-2AA0**
	150	60 ... 150	90 ... 1500	225 ... 1500	**3VA6115-5JT31-2AA0**
3VA62	100	40 ... 100	60 ... 1000	150 ... 1200	**3VA6210-5JT31-2AA0**
	250	100 ... 250	150 ... 2500	375 ... 2500	**3VA6225-5JT31-2AA0**
3VA63	250	100 ... 250	150 ... 2500	375 ... 3000	**3VA6325-5JT31-2AA0**
3VA64	400	160 ... 400	240 ... 4000	600 ... 4800	**3VA6440-5JT31-2AA0**



I201_18481



Line protection, with display, ETU560 LSIG

With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd}, adjustable instantaneous short-circuit release I_i and adjustable ground-fault protection I_g

3VA61	40	15 ... 40	24 ... 400	60 ... 480	**3VA6140-5JQ31-2AA0**
	100	40 ... 100	60 ... 1000	150 ... 1200	**3VA6110-5JQ31-2AA0**
	150	60 ... 150	90 ... 1500	225 ... 1500	**3VA6115-5JQ31-2AA0**
3VA62	100	40 ... 100	60 ... 1000	150 ... 1200	**3VA6210-5JQ31-2AA0**
	250	100 ... 250	150 ... 2500	375 ... 2500	**3VA6225-5JQ31-2AA0**
3VA63	250	100 ... 250	150 ... 2500	375 ... 3000	**3VA6325-5JQ31-2AA0**
3VA64	400	160 ... 400	240 ... 4000	600 ... 4800	**3VA6440-5JQ31-2AA0**

[1] 3VA6 molded case circuit breakers are supplied without connection technology. Pay attention to page 2/95 when selecting suitable connection technology.

Minimum order quantity (PS) or a multiple thereof can be ordered.

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PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

Rated current I_n	SD	**High breaking capacity H, up to 65 kA at 480 V** (H) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU	SD	**Very high breaking capacity C, up to 100 kA at 480 V** (C) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU	SD	**Extremely high breaking capacity L, up to 150 kA at 480 V** (L) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU
A	d			d			d		
Line protection, with display, ETU550 LSI With adjustable overload release I_n, adjustable delayed short-circuit release I_{sd} and adjustable instantaneous short-circuit release I_i									
40		**3VA6140-6JP31-2AA0**			**3VA6140-7JP31-2AA0**			**3VA6140-8JP31-2AA0**	
100		**3VA6110-6JP31-2AA0**			**3VA6110-7JP31-2AA0**			**3VA6110-8JP31-2AA0**	
150		**3VA6115-6JP31-2AA0**			**3VA6115-7JP31-2AA0**			**3VA6115-8JP31-2AA0**	
100		**3VA6210-6JP31-2AA0**			**3VA6210-7JP31-2AA0**			**3VA6210-8JP31-2AA0**	
250		**3VA6225-6JP31-2AA0**			**3VA6225-7JP31-2AA0**			**3VA6225-8JP31-2AA0**	
250		**3VA6325-6JP31-2AA0**			**3VA6325-7JP31-2AA0**			**3VA6325-8JP31-2AA0**	
400		**3VA6440-6JP31-2AA0**			**3VA6440-7JP31-2AA0**			**3VA6440-8JP31-2AA0**	
Line protection, with display, ETU556 LSI(G) With adjustable overload release I_n, adjustable delayed short-circuit release I_{sd}, adjustable instantaneous short-circuit release I_i and adjustable ground-fault alarm I_g									
40		**3VA6140-6JT31-2AA0**			**3VA6140-7JT31-2AA0**			**3VA6140-8JT31-2AA0**	
100		**3VA6110-6JT31-2AA0**			**3VA6110-7JT31-2AA0**			**3VA6110-8JT31-2AA0**	
150		**3VA6115-6JT31-2AA0**			**3VA6115-7JT31-2AA0**			**3VA6115-8JT31-2AA0**	
100		**3VA6210-6JT31-2AA0**			**3VA6210-7JT31-2AA0**			**3VA6210-8JT31-2AA0**	
250		**3VA6225-6JT31-2AA0**			**3VA6225-7JT31-2AA0**			**3VA6225-8JT31-2AA0**	
250		**3VA6325-6JT31-2AA0**			**3VA6325-7JT31-2AA0**			**3VA6325-8JT31-2AA0**	
400		**3VA6440-6JT31-2AA0**			**3VA6440-7JT31-2AA0**			**3VA6440-8JT31-2AA0**	
Line protection, with display, ETU560 LSIG With adjustable overload release I_n, adjustable delayed short-circuit release I_{sd}, adjustable instantaneous short-circuit release I_i and adjustable ground-fault protection I_g									
40		**3VA6140-6JQ31-2AA0**			**3VA6140-7JQ31-2AA0**			**3VA6140-8JQ31-2AA0**	
100		**3VA6110-6JQ31-2AA0**			**3VA6110-7JQ31-2AA0**			**3VA6110-8JQ31-2AA0**	
150		**3VA6115-6JQ31-2AA0**			**3VA6115-7JQ31-2AA0**			**3VA6115-8JQ31-2AA0**	
100		**3VA6210-6JQ31-2AA0**			**3VA6210-7JQ31-2AA0**			**3VA6210-8JQ31-2AA0**	
250		**3VA6225-6JQ31-2AA0**			**3VA6225-7JQ31-2AA0**			**3VA6225-8JQ31-2AA0**	
250		**3VA6325-6JQ31-2AA0**			**3VA6325-7JQ31-2AA0**			**3VA6325-8JQ31-2AA0**	
400		**3VA6440-6JQ31-2AA0**			**3VA6440-7JQ31-2AA0**			**3VA6440-8JQ31-2AA0**	

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Line protection, 100% rated breakers

PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

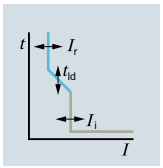


Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Operating current of the instantaneous short-circuit release "I" I_i	Ground-fault protection G I_g	SD	**Medium breaking capacity M, up to 35 kA at 480 V** (M) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU
	A	A	A	A	d		

3-pole, fixed-mounted, 100% rated, 3VA61 to 3VA64, up to 400 A[1] Electronic Trip Unit



I201_19561

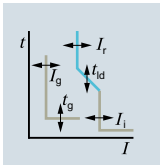


Line protection, with display, with metering function, ETU820 LI
With adjustable overload release I_r and adjustable instantaneous short-circuit release I_i

3VA61	40	15 ... 40	60 ... 480	--	**3VA6140-5KL31-2AA0**
	100	40 ... 100	150 ... 1200	--	**3VA6110-5KL31-2AA0**
	150	60 ... 150	225 ... 1500	--	**3VA6115-5KL31-2AA0**
3VA62	100	40 ... 100	150 ... 1200	--	**3VA6210-5KL31-2AA0**
	250	100 ... 250	375 ... 2500	--	**3VA6225-5KL31-2AA0**
3VA63	250	100 ... 250	375 ... 3000	--	**3VA6325-5KL31-2AA0**
3VA64	400	160 ... 400	600 ... 4800	--	**3VA6440-5KL31-2AA0**



I201_19562



Line protection, with display, with metering function, ETU830 LIG
With adjustable overload release I_r, adjustable instantaneous short-circuit release I_i and adjustable ground-fault protection I_g

3VA61	40	15 ... 40	60 ... 480	15 ... 40	**3VA6140-5KM31-2AA0**
	100	40 ... 100	150 ... 1200	20 ... 100	**3VA6110-5KM31-2AA0**
	150	60 ... 150	225 ... 1500	30 ... 150	**3VA6115-5KM31-2AA0**
3VA62	100	40 ... 100	150 ... 1200	20 ... 100	**3VA6210-5KM31-2AA0**
	250	100 ... 250	375 ... 2500	50 ... 250	**3VA6225-5KM31-2AA0**
3VA63	250	100 ... 250	375 ... 3000	50 ... 250	**3VA6325-5KM31-2AA0**
3VA64	400	160 ... 400	600 ... 4800	80 ... 400	**3VA6440-5KM31-2AA0**

[1] 3VA6 molded case circuit breakers are supplied without connection technology. Pay attention to page 2/95 when selecting suitable connection technology.

Minimum order quantity (PS) or a multiple thereof can be ordered.

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PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

Rated current I_n	SD	**High breaking capacity H, up to 65 kA at 480 V** (H) See "Overview", p. 2/6 and 2/7	SD	**Very high breaking capacity C, up to 100 kA at 480 V** (C) See "Overview", p. 2/6 and 2/7	SD	**Extremely high breaking capacity L, up to 150 kA at 480 V** (L) See "Overview", p. 2/6 and 2/7
		Article No. www.siemens.com/product?Article No. Basic price per PU		Article No. www.siemens.com/product?Article No. Basic price per PU		Article No. www.siemens.com/product?Article No. Basic price per PU
A	d		d		d	
Line protection, with display, with metering function, ETU820 LI With adjustable overload release I_r and adjustable instantaneous short-circuit release I_i						
40		**3VA6140-6KL31-2AA0**		**3VA6140-7KL31-2AA0**		**3VA6140-8KL31-2AA0**
100		**3VA6110-6KL31-2AA0**		**3VA6110-7KL31-2AA0**		**3VA6110-8KL31-2AA0**
150		**3VA6115-6KL31-2AA0**		**3VA6115-7KL31-2AA0**		**3VA6115-8KL31-2AA0**
100		**3VA6210-6KL31-2AA0**		**3VA6210-7KL31-2AA0**		**3VA6210-8KL31-2AA0**
250		**3VA6225-6KL31-2AA0**		**3VA6225-7KL31-2AA0**		**3VA6225-8KL31-2AA0**
250		**3VA6325-6KL31-2AA0**		**3VA6325-7KL31-2AA0**		**3VA6325-8KL31-2AA0**
400		**3VA6440-6KL31-2AA0**		**3VA6440-7KL31-2AA0**		**3VA6440-8KL31-2AA0**
Line protection, with display, with metering function, ETU830 LIG With adjustable overload release I_r, adjustable instantaneous short-circuit release I_i and adjustable ground-fault protection I_g						
40		**3VA6140-6KM31-2AA0**		**3VA6140-7KM31-2AA0**		**3VA6140-8KM31-2AA0**
100		**3VA6110-6KM31-2AA0**		**3VA6110-7KM31-2AA0**		**3VA6110-8KM31-2AA0**
150		**3VA6115-6KM31-2AA0**		**3VA6115-7KM31-2AA0**		**3VA6115-8KM31-2AA0**
100		**3VA6210-6KM31-2AA0**		**3VA6210-7KM31-2AA0**		**3VA6210-8KM31-2AA0**
250		**3VA6225-6KM31-2AA0**		**3VA6225-7KM31-2AA0**		**3VA6225-8KM31-2AA0**
250		**3VA6325-6KM31-2AA0**		**3VA6325-7KM31-2AA0**		**3VA6325-8KM31-2AA0**
400		**3VA6440-6KM31-2AA0**		**3VA6440-7KM31-2AA0**		**3VA6440-8KM31-2AA0**

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Line protection, 100% rated breakers

PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

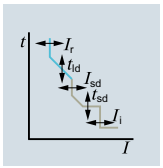


Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	S function (short-time delayed short-circuit protection "S") I_{sd}	Operating current of the instantaneous short-circuit release "I" I_i	SD	**Medium breaking capacity M, up to 35 kA at 480 V** (M) See "Overview", p. 2/6 and 2/7 — Article No. www.siemens.com/product?Article No.	Basic price per PU
	A	A	A	A	d		

3-pole, fixed-mounted, 100% rated, 3VA61 to 3VA64, up to 400 A[1)]
Electronic Trip Unit



I201_18482

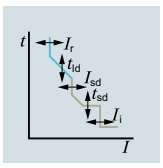


Line protection, with display, with metering function, ETU850 LSI
With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd} and adjustable instantaneous short-circuit release I_i

3VA61	40 100 150	15 ... 40 40 ... 100 60 ... 150	24 ... 400 60 ... 1000 90 ... 1500	60 ... 480 150 ... 1200 225 ... 1500	**3VA6140-5KP31-2AA0** **3VA6110-5KP31-2AA0** **3VA6115-5KP31-2AA0**
3VA62	100 250	40 ... 100 100 ... 250	60 ... 1000 150 ... 2500	150 ... 1200 375 ... 2500	**3VA6210-5KP31-2AA0** **3VA6225-5KP31-2AA0**
3VA63	250	100 ... 250	150 ... 2500	375 ... 3000	**3VA6325-5KP31-2AA0**
3VA64	400	160 ... 400	240 ... 4000	600 ... 4800	**3VA6440-5KP31-2AA0**



I201_19549

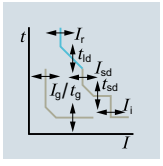


Line protection, with display, with metering function, ETU856 LSI(G)
With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd}, adjustable instantaneous short-circuit release I_i and adjustable ground-fault alarm I_g

3VA61	40 100 150	15 ... 40 40 ... 100 60 ... 150	24 ... 400 60 ... 1000 90 ... 1500	60 ... 480 150 ... 1200 225 ... 1500	**3VA6140-5KT31-2AA0** **3VA6110-5KT31-2AA0** **3VA6115-5KT31-2AA0**
3VA62	100 250	40 ... 100 100 ... 250	60 ... 1000 150 ... 2500	150 ... 1200 375 ... 2500	**3VA6210-5KT31-2AA0** **3VA6225-5KT31-2AA0**
3VA63	250	100 ... 250	150 ... 2500	375 ... 3000	**3VA6325-5KT31-2AA0**
3VA64	400	160 ... 400	240 ... 4000	600 ... 4800	**3VA6440-5KT31-2AA0**



I201_18483



Line protection, with display, with metering function, ETU860 LSIG
With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd}, adjustable instantaneous short-circuit release I_i and adjustable ground-fault protection I_g

3VA61	40 100 150	15 ... 40 40 ... 100 60 ... 150	24 ... 400 60 ... 1000 90 ... 1500	60 ... 480 150 ... 1200 225 ... 1500	**3VA6140-5KQ31-2AA0** **3VA6110-5KQ31-2AA0** **3VA6115-5KQ31-2AA0**
3VA62	100 250	40 ... 100 100 ... 250	60 ... 1000 150 ... 2500	150 ... 1200 375 ... 2500	**3VA6210-5KQ31-2AA0** **3VA6225-5KQ31-2AA0**
3VA63	250	100 ... 250	150 ... 2500	375 ... 3000	**3VA6325-5KQ31-2AA0**
3VA64	400	160 ... 400	240 ... 4000	600 ... 4800	**3VA6440-5KQ31-2AA0**

1) 3VA6 molded case circuit breakers are supplied without connection technology. Pay attention to page 2/95 when selecting suitable connection technology.

Minimum order quantity (PS) or a multiple thereof can be ordered.

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PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

Rated current I_n	SD	**High breaking capacity H, up to 65 kA at 480 V** (H) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU	SD	**Very high breaking capacity C, up to 100 kA at 480 V** (C) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU	SD	**Extremely high breaking capacity L, up to 150 kA at 480 V** (L) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU
A	d			d			d		
Line protection, with display, with metering function, ETU850 LSI With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd} and adjustable instantaneous short-circuit release I_i									
40		**3VA6140-6KP31-2AA0**			**3VA6140-7KP31-2AA0**			**3VA6140-8KP31-2AA0**	
100		**3VA6110-6KP31-2AA0**			**3VA6110-7KP31-2AA0**			**3VA6110-8KP31-2AA0**	
150		**3VA6115-6KP31-2AA0**			**3VA6115-7KP31-2AA0**			**3VA6115-8KP31-2AA0**	
100		**3VA6210-6KP31-2AA0**			**3VA6210-7KP31-2AA0**			**3VA6210-8KP31-2AA0**	
250		**3VA6225-6KP31-2AA0**			**3VA6225-7KP31-2AA0**			**3VA6225-8KP31-2AA0**	
250		**3VA6325-6KP31-2AA0**			**3VA6325-7KP31-2AA0**			**3VA6325-8KP31-2AA0**	
400		**3VA6440-6KP31-2AA0**			**3VA6440-7KP31-2AA0**			**3VA6440-8KP31-2AA0**	
Line protection, with display, with metering function, ETU856 LSI(G) With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd}, adjustable instantaneous short-circuit release I_i and adjustable ground-fault alarm I_g									
40		**3VA6140-6KT31-2AA0**			**3VA6140-7KT31-2AA0**			**3VA6140-8KT31-2AA0**	
100		**3VA6110-6KT31-2AA0**			**3VA6110-7KT31-2AA0**			**3VA6110-8KT31-2AA0**	
150		**3VA6115-6KT31-2AA0**			**3VA6115-7KT31-2AA0**			**3VA6115-8KT31-2AA0**	
100		**3VA6210-6KT31-2AA0**			**3VA6210-7KT31-2AA0**			**3VA6210-8KT31-2AA0**	
250		**3VA6225-6KT31-2AA0**			**3VA6225-7KT31-2AA0**			**3VA6225-8KT31-2AA0**	
250		**3VA6325-6KT31-2AA0**			**3VA6325-7KT31-2AA0**			**3VA6325-8KT31-2AA0**	
400		**3VA6440-6KT31-2AA0**			**3VA6440-7KT31-2AA0**			**3VA6440-8KT31-2AA0**	
Line protection, with display, with metering function, ETU860 LSIG With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd}, adjustable instantaneous short-circuit release I_i and adjustable ground-fault protection I_g									
40		**3VA6140-6KQ31-2AA0**			**3VA6140-7KQ31-2AA0**			**3VA6140-8KQ31-2AA0**	
100		**3VA6110-6KQ31-2AA0**			**3VA6110-7KQ31-2AA0**			**3VA6110-8KQ31-2AA0**	
150		**3VA6115-6KQ31-2AA0**			**3VA6115-7KQ31-2AA0**			**3VA6115-8KQ31-2AA0**	
100		**3VA6210-6KQ31-2AA0**			**3VA6210-7KQ31-2AA0**			**3VA6210-8KQ31-2AA0**	
250		**3VA6225-6KQ31-2AA0**			**3VA6225-7KQ31-2AA0**			**3VA6225-8KQ31-2AA0**	
250		**3VA6325-6KQ31-2AA0**			**3VA6325-7KQ31-2AA0**			**3VA6325-8KQ31-2AA0**	
400		**3VA6440-6KQ31-2AA0**			**3VA6440-7KQ31-2AA0**			**3VA6440-8KQ31-2AA0**	

Minimum order quantity (PS) or a multiple thereof can be ordered.

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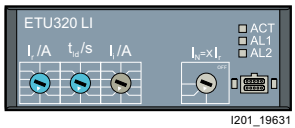
Line protection, 100% rated breakers

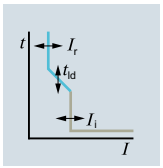
PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB



Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Operating current of the instantaneous short-circuit release "I" I_i	Ground-fault protection G I_g	SD	**Medium breaking capacity M, up to 35 kA at 480 V** (M) See "Overview", p. 2/6 and 2/7	
						Article No. www.siemens.com/product?Article No.	Basic price per PU
	A	A	A	A	d		

4-pole, fixed-mounted, 100% rated, 3VA61 to 3VA64, up to 400 A[1] Electronic Trip Unit

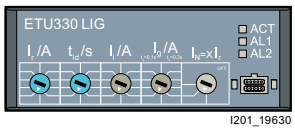


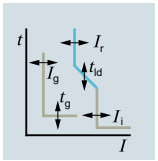


Line protection, ETU320 LI

With adjustable overload release I_r and adjustable instantaneous short-circuit release I_i, with neutral protection against overload and short circuit 0%, 50% or 100%

3VA61	40	15 ... 40	60 ... 480	--	**3VA6140-5HL41-2AA0**
	100	40 ... 100	150 ... 1200	--	**3VA6110-5HL41-2AA0**
	150	60 ... 150	225 ... 1500	--	**3VA6115-5HL41-2AA0**
3VA62	100	40 ... 100	150 ... 1200	--	**3VA6210-5HL41-2AA0**
	250	100 ... 250	375 ... 2500	--	**3VA6225-5HL41-2AA0**
3VA63	250	100 ... 250	375 ... 3000	--	**3VA6325-5HL41-2AA0**
3VA64	400	160 ... 400	600 ... 4800	--	**3VA6440-5HL41-2AA0**





Line protection, ETU330 LIG

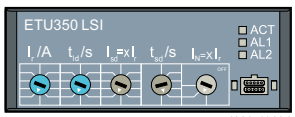
With adjustable overload release I_r, adjustable instantaneous short-circuit release I_i, with neutral protection against overload and short circuit 0%, 50% or 100% and adjustable ground-fault protection I_g

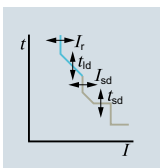
3VA61	40	15 ... 40	60 ... 480	8 ... 40	**3VA6140-5HM41-2AA0**
	100	40 ... 100	150 ... 1200	20 ... 100	**3VA6110-5HM41-2AA0**
	150	60 ... 150	225 ... 1500	30 ... 150	**3VA6115-5HM41-2AA0**
3VA62	100	40 ... 100	150 ... 1200	20 ... 100	**3VA6210-5HM41-2AA0**
	250	100 ... 250	375 ... 2500	50 ... 250	**3VA6225-5HM41-2AA0**
3VA63	250	100 ... 250	375 ... 3000	50 ... 250	**3VA6325-5HM41-2AA0**
3VA64	400	160 ... 400	600 ... 4800	80 ... 400	**3VA6440-5HM41-2AA0**



Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	S function (short-time delayed short-circuit protection "S") I_{sd}	Operating current of the instantaneous short-circuit release "I" I_i	SD	**Medium breaking capacity M, up to 35 kA at 480 V** (M) See "Overview", p. 2/6 and 2/7	
						Article No. www.siemens.com/product?Article No.	Basic price per PU
	A	A	A	A	d		

4-pole, fixed-mounted, 100% rated, 3VA61 to 3VA64, up to 400 A[1] Electronic Trip Unit





Line protection, ETU350 LSI

With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd} and fixed instantaneous short-circuit release I_i, with neutral protection against overload and short circuit 0%, 50% or 100%

			I_r x ...		
3VA61	40	15 ... 40	1.5 ... 10	480	**3VA6140-5HN41-2AA0**
	100	40 ... 100	1.5 ... 10	1200	**3VA6110-5HN41-2AA0**
	150	60 ... 150	1.5 ... 10	1500	**3VA6115-5HN41-2AA0**
3VA62	100	40 ... 100	1.5 ... 10	1200	**3VA6210-5HN41-2AA0**
	250	100 ... 250	1.5 ... 10	2500	**3VA6225-5HN41-2AA0**
3VA63	250	100 ... 250	1.5 ... 10	3000	**3VA6325-5HN41-2AA0**
3VA64	400	160 ... 400	1.5 ... 10	4800	**3VA6440-5HN41-2AA0**

[1] 3VA6 molded case circuit breakers are supplied without connection technology. Pay attention to page 2/95 when selecting suitable connection technology.

Minimum order quantity (PS) or a multiple thereof can be ordered.

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PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

Rated current I_n	SD	**High breaking capacity H, up to 65 kA at 480 V** (H) See "Overview", p. 2/6 and 2/7	SD	**Very high breaking capacity C, up to 100 kA at 480 V** (C) See "Overview", p. 2/6 and 2/7	SD	**Extremely high breaking capacity L, up to 150 kA at 480 V** (L) See "Overview", p. 2/6 and 2/7
		Article No. www.siemens.com/product?Article No. Basic price per PU		Article No. www.siemens.com/product?Article No. Basic price per PU		Article No. www.siemens.com/product?Article No. Basic price per PU
A	d		d		d	

Line protection, ETU320 LI
With adjustable overload release I_r and adjustable instantaneous short-circuit release I_i, with neutral protection against overload and short circuit 0%, 50% or 100%

40 100 150	**3VA6140-6HL41-2AA0** **3VA6110-6HL41-2AA0** **3VA6115-6HL41-2AA0**	**3VA6140-7HL41-2AA0** **3VA6110-7HL41-2AA0** **3VA6115-7HL41-2AA0**	**3VA6140-8HL41-2AA0** **3VA6110-8HL41-2AA0** **3VA6115-8HL41-2AA0**
100 250	**3VA6210-6HL41-2AA0** **3VA6225-6HL41-2AA0**	**3VA6210-7HL41-2AA0** **3VA6225-7HL41-2AA0**	**3VA6210-8HL41-2AA0** **3VA6225-8HL41-2AA0**
250	**3VA6325-6HL41-2AA0**	**3VA6325-7HL41-2AA0**	**3VA6325-8HL41-2AA0**
400	**3VA6440-6HL41-2AA0**	**3VA6440-7HL41-2AA0**	**3VA6440-8HL41-2AA0**

Line protection, ETU330 LIG
With adjustable overload release I_r, adjustable instantaneous short-circuit release I_i, with neutral protection against overload and short circuit 0%, 50% or 100% and adjustable ground-fault protection I_g

40 100 150	**3VA6140-6HM41-2AA0** **3VA6110-6HM41-2AA0** **3VA6115-6HM41-2AA0**	**3VA6140-7HM41-2AA0** **3VA6110-7HM41-2AA0** **3VA6115-7HM41-2AA0**	**3VA6140-8HM41-2AA0** **3VA6110-8HM41-2AA0** **3VA6115-8HM41-2AA0**
100 250	**3VA6210-6HM41-2AA0** **3VA6225-6HM41-2AA0**	**3VA6210-7HM41-2AA0** **3VA6225-7HM41-2AA0**	**3VA6210-8HM41-2AA0** **3VA6225-8HM41-2AA0**
250	**3VA6325-6HM41-2AA0**	**3VA6325-7HM41-2AA0**	**3VA6325-8HM41-2AA0**
400	**3VA6440-6HM41-2AA0**	**3VA6440-7HM41-2AA0**	**3VA6440-8HM41-2AA0**

Rated current I_n	SD	**High breaking capacity H, up to 65 kA at 480 V** (H) See "Overview", p. 2/6 and 2/7	SD	**Very high breaking capacity C, up to 100 kA at 480 V** (C) See "Overview", p. 2/6 and 2/7	SD	**Extremely high breaking capacity L, up to 150 kA at 480 V** (L) See "Overview", p. 2/6 and 2/7
		Article No. www.siemens.com/product?Article No. Basic price per PU		Article No. www.siemens.com/product?Article No. Basic price per PU		Article No. www.siemens.com/product?Article No. Basic price per PU
A	d		d		d	

Line protection, ETU350 LSI
With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd} and fixed instantaneous short-circuit release I_i, with neutral protection against overload and short circuit 0%, 50% or 100%

40 100 150	**3VA6140-6HN41-2AA0** **3VA6110-6HN41-2AA0** **3VA6115-6HN41-2AA0**	**3VA6140-7HN41-2AA0** **3VA6110-7HN41-2AA0** **3VA6115-7HN41-2AA0**	**3VA6140-8HN41-2AA0** **3VA6110-8HN41-2AA0** **3VA6115-8HN41-2AA0**
100 250	**3VA6210-6HN41-2AA0** **3VA6225-6HN41-2AA0**	**3VA6210-7HN41-2AA0** **3VA6225-7HN41-2AA0**	**3VA6210-8HN41-2AA0** **3VA6225-8HN41-2AA0**
250	**3VA6325-6HN41-2AA0**	**3VA6325-7HN41-2AA0**	**3VA6325-8HN41-2AA0**
400	**3VA6440-6HN41-2AA0**	**3VA6440-7HN41-2AA0**	**3VA6440-8HN41-2AA0**

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Line protection, 100% rated breakers

PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

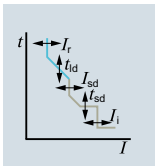


Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	S function (short-time delayed short-circuit protection "S") I_{sd}	Operating current of the instantaneous short-circuit release "I" I_i	SD	**Medium breaking capacity M, up to 35 kA at 480 V** (M) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU
	A	A	A	A	d		

4-pole, fixed-mounted, 100% rated, 3VA61 to 3VA64, up to 400 A[1] Electronic Trip Unit



I201_18480

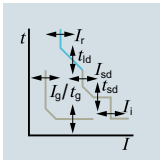


Line protection, with display, ETU550 LSI
With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd} and adjustable instantaneous short-circuit release I_i, with neutral protection against overload and short circuit from 20%/40% to 100%/160%

3VA61	40	15 ... 40	24 ... 400	60 ... 480	**3VA6140-5JP41-2AA0**
	100	40 ... 100	60 ... 1000	150 ... 1200	**3VA6110-5JP41-2AA0**
	150	60 ... 150	90 ... 1500	225 ... 1500	**3VA6115-5JP41-2AA0**
3VA62	100	40 ... 100	60 ... 1000	150 ... 1200	**3VA6210-5JP41-2AA0**
	250	100 ... 250	150 ... 2500	375 ... 2500	**3VA6225-5JP41-2AA0**
3VA63	250	100 ... 250	150 ... 2500	375 ... 3000	**3VA6325-5JP41-2AA0**
3VA64	400	160 ... 400	240 ... 4000	600 ... 4800	**3VA6440-5JP41-2AA0**



I201_19550

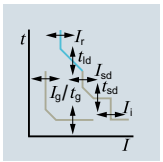


Line protection, with display, ETU556 LSI(G)
With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd}, adjustable instantaneous short-circuit release I_i and adjustable ground-fault alarm I_g

3VA61	40	15 ... 40	24 ... 400	60 ... 480	**3VA6140-5JT41-2AA0**
	100	40 ... 100	60 ... 1000	150 ... 1200	**3VA6110-5JT41-2AA0**
	150	60 ... 150	90 ... 1500	225 ... 1500	**3VA6115-5JT41-2AA0**
3VA62	100	40 ... 100	60 ... 1000	150 ... 1200	**3VA6210-5JT41-2AA0**
	250	100 ... 250	150 ... 2500	375 ... 2500	**3VA6225-5JT41-2AA0**
3VA63	250	100 ... 250	150 ... 2500	375 ... 3000	**3VA6325-5JT41-2AA0**
3VA64	400	160 ... 400	240 ... 4000	600 ... 4800	**3VA6440-5JT41-2AA0**



I201_18481



Line protection, with display, ETU560 LSIG
With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd} and adjustable instantaneous short-circuit release I_i, with neutral protection against overload and short circuit from 20%/40% to 100%/160% and adjustable ground-fault protection I_g

3VA61	40	15 ... 40	24 ... 400	60 ... 480	**3VA6140-5JQ41-2AA0**
	100	40 ... 100	60 ... 1000	150 ... 1200	**3VA6110-5JQ41-2AA0**
	150	60 ... 150	90 ... 1500	225 ... 1500	**3VA6115-5JQ41-2AA0**
3VA62	100	40 ... 100	60 ... 1000	150 ... 1200	**3VA6210-5JQ41-2AA0**
	250	100 ... 250	150 ... 2500	375 ... 2500	**3VA6225-5JQ41-2AA0**
3VA63	250	100 ... 250	150 ... 2500	375 ... 3000	**3VA6325-5JQ41-2AA0**
3VA64	400	160 ... 400	240 ... 4000	600 ... 4800	**3VA6440-5JQ41-2AA0**

[1] 3VA6 molded case circuit breakers are supplied without connection technology. Pay attention to page 2/95 when selecting suitable connection technology.

Minimum order quantity (PS) or a multiple thereof can be ordered.

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PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

Rated current I_n	SD	**High breaking capacity H, up to 65 kA at 480 V** (H) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU	SD	**Very high breaking capacity C, up to 100 kA at 480 V** (C) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU	SD	**Extremely high breaking capacity L, up to 150 kA at 480 V** (L) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU
A	d			d			d		

Line protection, with display, ETU550 LSI
With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd} and adjustable instantaneous short-circuit release I_i, with neutral protection against overload and short circuit from 20%/40% to 100%/160%

40 100 150	**3VA6140-6JP41-2AA0** **3VA6110-6JP41-2AA0** **3VA6115-6JP41-2AA0**	**3VA6140-7JP41-2AA0** **3VA6110-7JP41-2AA0** **3VA6115-7JP41-2AA0**	**3VA6140-8JP41-2AA0** **3VA6110-8JP41-2AA0** **3VA6115-8JP41-2AA0**
100 250	**3VA6210-6JP41-2AA0** **3VA6225-6JP41-2AA0**	**3VA6210-7JP41-2AA0** **3VA6225-7JP41-2AA0**	**3VA6210-8JP41-2AA0** **3VA6225-8JP41-2AA0**
250	**3VA6325-6JP41-2AA0**	**3VA6325-7JP41-2AA0**	**3VA6325-8JP41-2AA0**
400	**3VA6440-6JP41-2AA0**	**3VA6440-7JP41-2AA0**	**3VA6440-8JP41-2AA0**

Line protection, with display, ETU556 LSI(G)
With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd}, adjustable instantaneous short-circuit release I_i and adjustable ground-fault alarm I_g

40 100 150	**3VA6140-6JT41-2AA0** **3VA6110-6JT41-2AA0** **3VA6115-6JT41-2AA0**	**3VA6140-7JT41-2AA0** **3VA6110-7JT41-2AA0** **3VA6115-7JT41-2AA0**	**3VA6140-8JT41-2AA0** **3VA6110-8JT41-2AA0** **3VA6115-8JT41-2AA0**
100 250	**3VA6210-6JT41-2AA0** **3VA6225-6JT41-2AA0**	**3VA6210-7JT41-2AA0** **3VA6225-7JT41-2AA0**	**3VA6210-8JT41-2AA0** **3VA6225-8JT41-2AA0**
250	**3VA6325-6JT41-2AA0**	**3VA6325-7JT41-2AA0**	**3VA6325-8JT41-2AA0**
400	**3VA6440-6JT41-2AA0**	**3VA6440-7JT41-2AA0**	**3VA6440-8JT41-2AA0**

Line protection, with display, ETU560 LSIG
With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd} and adjustable instantaneous short-circuit release I_i, with neutral protection against overload and short circuit from 20%/40% to 100%/160% and adjustable ground-fault protection I_g

40 100 150	**3VA6140-6JQ41-2AA0** **3VA6110-6JQ41-2AA0** **3VA6115-6JQ41-2AA0**	**3VA6140-7JQ41-2AA0** **3VA6110-7JQ41-2AA0** **3VA6115-7JQ41-2AA0**	**3VA6140-8JQ41-2AA0** **3VA6110-8JQ41-2AA0** **3VA6115-8JQ41-2AA0**
100 250	**3VA6210-6JQ41-2AA0** **3VA6225-6JQ41-2AA0**	**3VA6210-7JQ41-2AA0** **3VA6225-7JQ41-2AA0**	**3VA6210-8JQ41-2AA0** **3VA6225-8JQ41-2AA0**
250	**3VA6325-6JQ41-2AA0**	**3VA6325-7JQ41-2AA0**	**3VA6325-8JQ41-2AA0**
400	**3VA6440-6JQ41-2AA0**	**3VA6440-7JQ41-2AA0**	**3VA6440-8JQ41-2AA0**

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Line protection, 100% rated breakers

PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

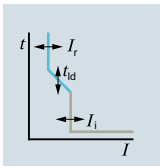


Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Operating current of the instantaneous short-circuit release "I" I_i	Ground-fault protection G I_g	SD	**Medium breaking capacity M, up to 35 kA at 480 V** (M) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU
	A	A	A	A	d		

4-pole, fixed-mounted, 100% rated, 3VA61 to 3VA64, up to 400 A[1] Electronic Trip Unit



I201_19561

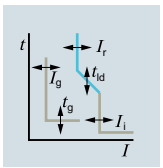


Line protection, with display, with metering function, ETU820 LI
With adjustable overload release I_r and adjustable instantaneous short-circuit release I_i

3VA61	40	15 ... 40	60 ... 480	--	**3VA6140-5KL41-2AA0**
	100	40 ... 100	150 ... 1200	--	**3VA6110-5KL41-2AA0**
	150	60 ... 150	225 ... 1500	--	**3VA6115-5KL41-2AA0**
3VA62	100	40 ... 100	150 ... 1200	--	**3VA6210-5KL41-2AA0**
	250	100 ... 250	375 ... 2500	--	**3VA6225-5KL41-2AA0**
3VA63	250	100 ... 250	375 ... 3000	--	**3VA6325-5KL41-2AA0**
3VA64	400	160 ... 400	600 ... 4800	--	**3VA6440-5KL41-2AA0**



I201_19562



Line protection, with display, with metering function, ETU830 LIG
With adjustable overload release I_r, adjustable instantaneous short-circuit release I_i and adjustable ground-fault protection I_g

3VA61	40	15 ... 40	60 ... 480	15 ... 40	**3VA6140-5KM41-2AA0**
	100	40 ... 100	150 ... 1200	20 ... 100	**3VA6110-5KM41-2AA0**
	150	60 ... 150	225 ... 1500	30 ... 150	**3VA6115-5KM41-2AA0**
3VA62	100	40 ... 100	150 ... 1200	20 ... 100	**3VA6210-5KM41-2AA0**
	250	100 ... 250	375 ... 2500	50 ... 250	**3VA6225-5KM41-2AA0**
3VA63	250	100 ... 250	375 ... 3000	50 ... 250	**3VA6325-5KM41-2AA0**
3VA64	400	160 ... 400	600 ... 4800	80 ... 400	**3VA6440-5KM41-2AA0**

[1] 3VA6 molded case circuit breakers are supplied without connection technology. Pay attention to page 2/95 when selecting suitable connection technology.

Minimum order quantity (PS) or a multiple thereof can be ordered.

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PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

Rated current I_n	SD	**High breaking capacity H, up to 65 kA at 480 V** (H) See "Overview", p. 2/6 and 2/7		SD	**Very high breaking capacity C, up to 100 kA at 480 V** (C) See "Overview", p. 2/6 and 2/7		SD	**Extremely high breaking capacity L, up to 150 kA at 480 V** (L) See "Overview", p. 2/6 and 2/7	
		Article No. www.siemens.com/product?Article No.	Basic price per PU		Article No. www.siemens.com/product?Article No.	Basic price per PU		Article No. www.siemens.com/product?Article No.	Basic price per PU
A	d			d			d		
Line protection, with display, with metering function, ETU820 LI With adjustable overload release I_r and adjustable instantaneous short-circuit release I_i									
40		**3VA6140-6KL41-2AA0**			**3VA6140-7KL41-2AA0**			**3VA6140-8KL41-2AA0**	
100		**3VA6110-6KL41-2AA0**			**3VA6110-7KL41-2AA0**			**3VA6110-8KL41-2AA0**	
150		**3VA6115-6KL41-2AA0**			**3VA6115-7KL41-2AA0**			**3VA6115-8KL41-2AA0**	
100		**3VA6210-6KL41-2AA0**			**3VA6210-7KL41-2AA0**			**3VA6210-8KL41-2AA0**	
250		**3VA6225-6KL41-2AA0**			**3VA6225-7KL41-2AA0**			**3VA6225-8KL41-2AA0**	
250		**3VA6325-6KL41-2AA0**			**3VA6325-7KL41-2AA0**			**3VA6325-8KL41-2AA0**	
400		**3VA6440-6KL41-2AA0**			**3VA6440-7KL41-2AA0**			**3VA6440-8KL41-2AA0**	
Line protection, with display, with metering function, ETU830 LIG With adjustable overload release I_n, adjustable instantaneous short-circuit release I_i and adjustable ground-fault protection I_g									
40		**3VA6140-6KM41-2AA0**			**3VA6140-7KM41-2AA0**			**3VA6140-8KM41-2AA0**	
100		**3VA6110-6KM41-2AA0**			**3VA6110-7KM41-2AA0**			**3VA6110-8KM41-2AA0**	
150		**3VA6115-6KM41-2AA0**			**3VA6115-7KM41-2AA0**			**3VA6115-8KM41-2AA0**	
100		**3VA6210-6KM41-2AA0**			**3VA6210-7KM41-2AA0**			**3VA6210-8KM41-2AA0**	
250		**3VA6225-6KM41-2AA0**			**3VA6225-7KM41-2AA0**			**3VA6225-8KM41-2AA0**	
250		**3VA6325-6KM41-2AA0**			**3VA6325-7KM41-2AA0**			**3VA6325-8KM41-2AA0**	
400		**3VA6440-6KM41-2AA0**			**3VA6440-7KM41-2AA0**			**3VA6440-8KM41-2AA0**	

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Line protection, 100% rated breakers

PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

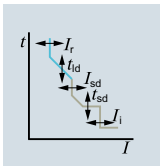


Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	S function (short-time delayed short-circuit protection "S") I_{sd}	Operating current of the instantaneous short-circuit release "I" I_i	SD	**Medium breaking capacity M, up to 35 kA at 480 V** (M) See "Overview", p. 2/6 and 2/7	
	A	A	A	A	d	Article No. www.siemens.com/product?Article No.	Basic price per PU

4-pole, fixed-mounted, 100% rated, 3VA61 to 3VA64, up to 400 A[1] Electronic Trip Unit



I201_18482



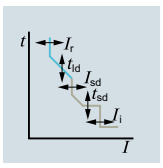
Line protection, with display, with metering function, ETU850 LSI

With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd} and adjustable instantaneous short-circuit release I_i, with neutral protection against overload and short circuit from 20%/40% to 100%/160%

3VA61	40 100 150	15 ... 40 40 ... 100 60 ... 150	24 ... 400 60 ... 1000 90 ... 1500	60 ... 480 150 ... 1200 225 ... 1500	**3VA6140-5KP41-2AA0** **3VA6110-5KP41-2AA0** **3VA6115-5KP41-2AA0**
3VA62	100 250	40 ... 100 100 ... 250	60 ... 1000 150 ... 2500	150 ... 1200 375 ... 2500	**3VA6210-5KP41-2AA0** **3VA6225-5KP41-2AA0**
3VA63	250	100 ... 250	150 ... 2500	375 ... 3000	**3VA6325-5KP41-2AA0**
3VA64	400	160 ... 400	240 ... 4000	600 ... 4800	**3VA6440-5KP41-2AA0**



I201_19549



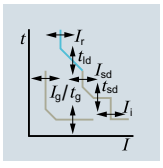
Line protection, with display, with metering function, ETU856 LSI(G)

With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd}, adjustable instantaneous short-circuit release I_i, and adjustable ground-fault alarm I_g, with neutral protection against overload and short circuit from 20%/40% to 100%/160%

3VA61	40 100 150	15 ... 40 40 ... 100 60 ... 150	24 ... 400 60 ... 1000 90 ... 1500	60 ... 480 150 ... 1200 225 ... 1500	**3VA6140-5KT41-2AA0** **3VA6110-5KT41-2AA0** **3VA6115-5KT41-2AA0**
3VA62	100 250	40 ... 100 100 ... 250	60 ... 1000 150 ... 2500	150 ... 1200 375 ... 2500	**3VA6210-5KT41-2AA0** **3VA6225-5KT41-2AA0**
3VA63	250	100 ... 250	150 ... 2500	375 ... 3000	**3VA6325-5KT41-2AA0**
3VA64	400	160 ... 400	240 ... 4000	600 ... 4800	**3VA6440-5KT41-2AA0**



I201_18483



Line protection, with display, with metering function, ETU860 LSIG

With adjustable overload release I_r, adjustable delayed short-circuit release I_{sd} and adjustable instantaneous short-circuit release I_i, with neutral protection against overload and short circuit from 20%/40% to 100%/160% and adjustable ground-fault protection I_g

3VA61	40 100 150	15 ... 40 40 ... 100 60 ... 150	24 ... 400 60 ... 1000 90 ... 1500	60 ... 480 150 ... 1200 225 ... 1500	**3VA6140-5KQ41-2AA0** **3VA6110-5KQ41-2AA0** **3VA6115-5KQ41-2AA0**
3VA62	100 250	40 ... 100 100 ... 250	60 ... 1000 150 ... 2500	150 ... 1200 375 ... 2500	**3VA6210-5KQ41-2AA0** **3VA6225-5KQ41-2AA0**
3VA63	250	100 ... 250	150 ... 2500	375 ... 3000	**3VA6325-5KQ41-2AA0**
3VA64	400	160 ... 400	240 ... 4000	600 ... 4800	**3VA6440-5KQ41-2AA0**

[1] 3VA6 molded case circuit breakers are supplied without connection technology. Pay attention to page 2/95 when selecting suitable connection technology.

Minimum order quantity (PS) or a multiple thereof can be ordered.

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PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB

Rated current I_n	SD	**High breaking capacity H, up to 65 kA at 480 V** (H) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU	SD	**Very high breaking capacity C, up to 100 kA at 480 V** (C) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU	SD	**Extremely high breaking capacity L, up to 150 kA at 480 V** (L) See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No.	Basic price per PU
A	d			d			d		
Line protection, with display, with metering function, ETU850 LSI With adjustable overload release I_n, adjustable delayed short-circuit release I_{sd} and adjustable instantaneous short-circuit release I_i, with neutral protection against overload and short circuit from 20%/40% to 100%/160%									
40		**3VA6140-6KP41-2AA0**			**3VA6140-7KP41-2AA0**			**3VA6140-8KP41-2AA0**	
100		**3VA6110-6KP41-2AA0**			**3VA6110-7KP41-2AA0**			**3VA6110-8KP41-2AA0**	
150		**3VA6115-6KP41-2AA0**			**3VA6115-7KP41-2AA0**			**3VA6115-8KP41-2AA0**	
100		**3VA6210-6KP41-2AA0**			**3VA6210-7KP41-2AA0**			**3VA6210-8KP41-2AA0**	
250		**3VA6225-6KP41-2AA0**			**3VA6225-7KP41-2AA0**			**3VA6225-8KP41-2AA0**	
250		**3VA6325-6KP41-2AA0**			**3VA6325-7KP41-2AA0**			**3VA6325-8KP41-2AA0**	
400		**3VA6440-6KP41-2AA0**			**3VA6440-7KP41-2AA0**			**3VA6440-8KP41-2AA0**	
Line protection, with display, with metering function, ETU856 LSI(G) With adjustable overload release I_n, adjustable delayed short-circuit release I_{sd}, adjustable instantaneous short-circuit release I_i, and adjustable ground-fault alarm I_g, with neutral protection against overload and short circuit from 20%/40% to 100%/160%									
40		**3VA6140-6KT41-2AA0**			**3VA6140-7KT41-2AA0**			**3VA6140-8KT41-2AA0**	
100		**3VA6110-6KT41-2AA0**			**3VA6110-7KT41-2AA0**			**3VA6110-8KT41-2AA0**	
150		**3VA6115-6KT41-2AA0**			**3VA6115-7KT41-2AA0**			**3VA6115-8KT41-2AA0**	
100		**3VA6210-6KT41-2AA0**			**3VA6210-7KT41-2AA0**			**3VA6210-8KT41-2AA0**	
250		**3VA6225-6KT41-2AA0**			**3VA6225-7KT41-2AA0**			**3VA6225-8KT41-2AA0**	
250		**3VA6325-6KT41-2AA0**			**3VA6325-7KT41-2AA0**			**3VA6325-8KT41-2AA0**	
400		**3VA6440-6KT41-2AA0**			**3VA6440-7KT41-2AA0**			**3VA6440-8KT41-2AA0**	
Line protection, with display, with metering function, ETU860 LSIG With adjustable overload release I_n, adjustable delayed short-circuit release I_{sd} and adjustable instantaneous short-circuit release I_i, with neutral protection against overload and short circuit from 20%/40% to 100%/160% and adjustable ground-fault protection I_g									
40		**3VA6140-6KQ41-2AA0**			**3VA6140-7KQ41-2AA0**			**3VA6140-8KQ41-2AA0**	
100		**3VA6110-6KQ41-2AA0**			**3VA6110-7KQ41-2AA0**			**3VA6110-8KQ41-2AA0**	
150		**3VA6115-6KQ41-2AA0**			**3VA6115-7KQ41-2AA0**			**3VA6115-8KQ41-2AA0**	
100		**3VA6210-6KQ41-2AA0**			**3VA6210-7KQ41-2AA0**			**3VA6210-8KQ41-2AA0**	
250		**3VA6225-6KQ41-2AA0**			**3VA6225-7KQ41-2AA0**			**3VA6225-8KQ41-2AA0**	
250		**3VA6325-6KQ41-2AA0**			**3VA6325-7KQ41-2AA0**			**3VA6325-8KQ41-2AA0**	
400		**3VA6440-6KQ41-2AA0**			**3VA6440-7KQ41-2AA0**			**3VA6440-8KQ41-2AA0**	

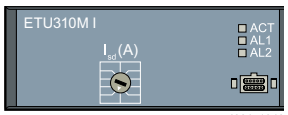
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Motor circuit protectors and molded case switches

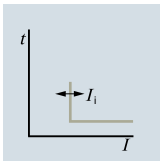
PU (UNIT, SET, M) = 1 PS = 1 UNIT PG = 1CB



3-pole, fixed-mounted, 3VA61 to 3VA64, up to 600 A
Electronic Trip Unit



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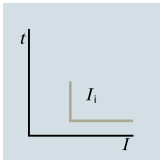


Motor circuit protector, ETU310M
With adjustable short-circuit release I_i

Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	S function (short-time delayed short-circuit protection "S") I_{sd}	Operating current of the instantaneous short-circuit release "I" I_i	SD	SCCR without contactor, 100 kA[1] at 480 V See "Overview", p. 2/6 and 2/7 Article No. www.siemens.com/product?Article No. / Basic price per PU
	A	A	A	A	d	
3VA61	25	--	--	75 ... 375		**3VA6125-1MS31-0AA0**
	30	--	--	90 ... 450		**3VA6130-1MS31-0AA0**
	40	--	--	120 ... 600		**3VA6140-1MS31-0AA0**
	50	--	--	150 ... 750		**3VA6150-1MS31-0AA0**
	70	--	--	210 ... 1050		**3VA6170-1MS31-0AA0**
	80	--	--	240 ... 1200		**3VA6180-1MS31-0AA0**
	90	--	--	270 ... 1350		**3VA6190-1MS31-0AA0**
	100	--	--	300 ... 1500		**3VA6110-1MS31-0AA0**
3VA62	110	--	--	330 ... 1650		**3VA6211-1MS31-0AA0**
	125	--	--	375 ... 1875		**3VA6212-1MS31-0AA0**
	150	--	--	450 ... 2250		**3VA6215-1MS31-0AA0**
	200	--	--	600 ... 2400		**3VA6220-1MS31-0AA0**
3VA63	200	--	--	600 ... 3000		**3VA6320-1MS31-0AA0**
	250	--	--	750 ... 3750		**3VA6325-1MS31-0AA0**
3VA64	400	--	--	1200 ... 5200		**3VA6440-1MS31-0AA0**
	500	--	--	1500 ... 6000		**3VA6450-1MS31-0AA0**

[1] Breaking capacity (the SCCR rating) is the maximum permissible short-circuit current at the installation location of the MCS in combination with an appropriate overload protection device.

3-pole, fixed-mounted, 3VA63/3VA64, up to 600 A



Molded case switch
With fixed short-circuit release I_i, for self-protection

Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	S function (short-time delayed short-circuit protection "S") I_{sd}	Operating current of the instantaneous short-circuit release "I" I_i	SD	SCCR 100 kA[1] at 480 V Article No. www.siemens.com/product?Article No. / Basic price per PU
	A	A	A	A	d	
3VA63	400	--	--	5600		**3VA6340-1BB31-0AA0**
3VA64	600	--	--	5400		**3VA6460-1BB31-0AA0**

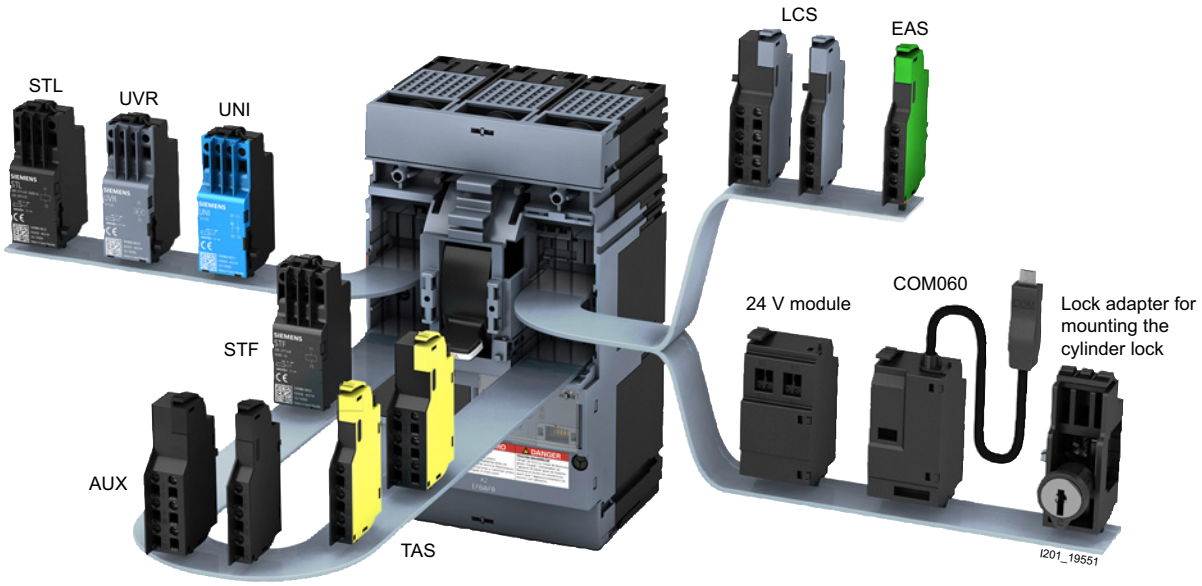
[1] Breaking capacity (the SCCR rating) is the maximum permissible short-circuit current at the installation location of the MCS in combination with an appropriate overload protection device.

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Overview

Color coding of accessories



A color coding system has been used to clearly identify the specific functions of individual accessories:

Color	Auxiliary switches and alarm switches	Auxiliary releases
Black	Auxiliary switch AUX	• Shunt trip left STL • Shunt trip flexible STF
Gray	Leading changeover switch LCS	• Undervoltage release UVR
Yellow	Trip alarm switches TAS	--
Green	Electrical alarm switch EAS	--
Blue	--	Universal release UNI

Auxiliary switches

All auxiliary and alarm switches for the 3VA UL molded case circuit breakers belong to an integrated range of accessories. The auxiliary switches can be simply snapped into place and connected up in the accessory compartment provided on the front face of the unit to the left and right of the handle.

The purpose of the auxiliary switches AUX is to signal the position of the main contacts of the molded case circuit breaker. The contacts of the auxiliary switches open and close simultaneously with the main contacts of the molded case circuit breaker.

Leading changeover switches LCS signal the opening of the main contacts with a lead time of 20 ms in advance of the circuit breaker trips and can, for example, be used to set a frequency converter to a safe state.

Trip alarm switches TAS signal every circuit breaker tripping operation, regardless of the cause of the trip. The trip alarm switches are actuated whenever the molded case circuit breaker switches to the TRIP position.

Electrical alarm switches EAS are actuated as soon as the main contacts of the molded case circuit breaker open in the event that the breaker is tripped by the ETU.

Special electronic-compatible variants are available for applications which require the auxiliary switch signals to be linked to automation systems.

Auxiliary releases

Auxiliary releases allow remote electrical tripping of the circuit breaker. They can be used to monitor control or main circuits in order to implement a protective system against accidental restart following a power failure, for example.

Undervoltage releases trip the 3VA UL molded case circuit breaker in the event that the rated voltage of a monitored circuit drops below a minimum permissible limit or fails altogether.

Shunt trips can be used to trip the 3VA UL molded case circuit breaker remotely. The STF variant can be mounted in either the left-hand or the right-hand accessory compartment. The STL type is specifically designed for mounting in the left-hand compartment and is a very low-consumption device.

A universal release is a single, 21-mm-wide component in which a shunt trip and an undervoltage release are combined. These are subject to the same tripping conditions as the individual devices.

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Internal accessories

Benefits

- The internal accessories are extremely easy to install. No tools are required because they are simply snapped into place in the accessory compartments to the left and right of the handle.
- The accessories are connected by screw terminals for auxiliary conductors with a cross-section of up to 2.5 mm^2. The terminals are mounted on the front of the unit for easy access.
- All auxiliary and alarm switches are designed as changeover contacts and therefore provide a high degree of flexibility for planning and installation purposes.
- Slimline auxiliary and alarm switches HQ and double-width auxiliary and alarm switches HP are suitable for use in applications involving diverse types of signaling contact and with high continuous currents.
- With two conductors per contact point for the auxiliary and alarm switches HP, looping through is extremely easy.
- Symbols engraved in the lid of the accessory compartment indicate the possible mounting positions of the internal accessories.

3VA UL with internal accessories pre-assembled at the factory

The basic circuit breakers with -☐AA0 at the end of the article number are supplied without installed internal accessories.

Due to the high number of different internal accessory components available and the associated flexibility of use, it is not possible to represent all options with an article number for circuit breakers and installed internal accessories.

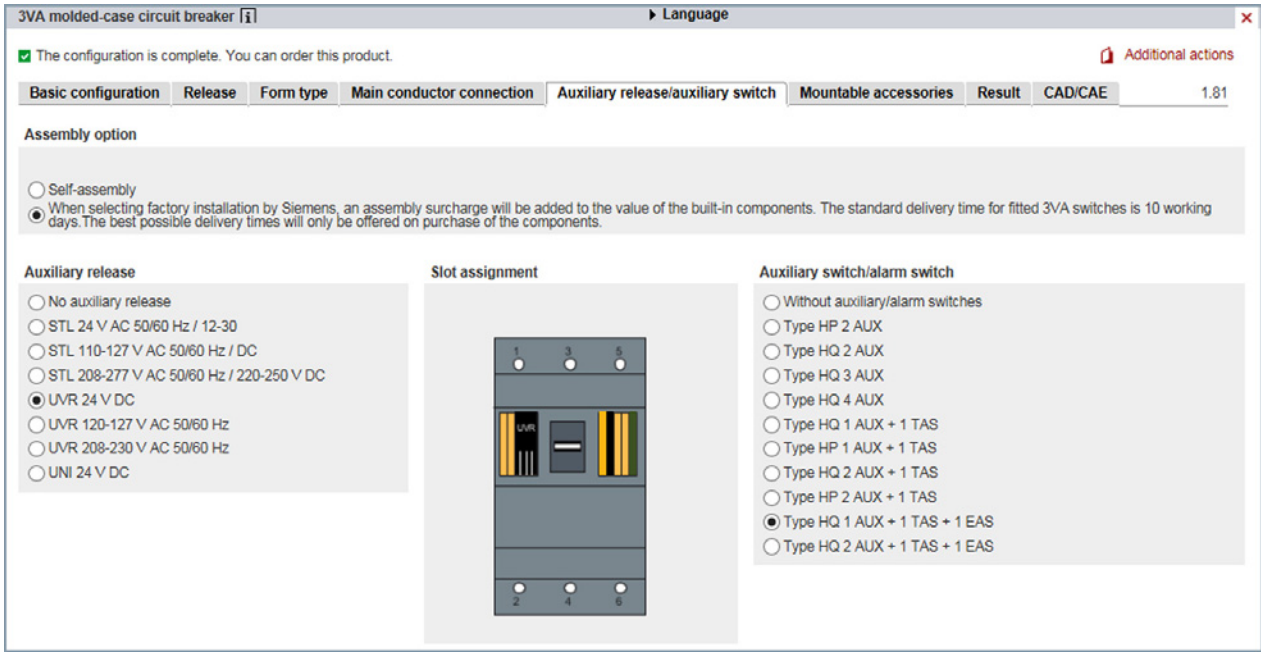
However, it is possible to order a basic circuit breaker with pre-defined combinations of internal accessories that are installed at the factory. This concerns a selection of different auxiliary releases and auxiliary/alarm switch combinations especially for each basic circuit breaker type.

In the case of factory installation, an installation surcharge is levied for the installed internal accessories.

The standard delivery time for equipped 3VA UL breakers is 10 working days. The best possible delivery times are only achieved when the individual components are ordered.

Basic circuit breakers with pre-installed internal accessories can only be ordered by registered customers using the 3VA Configurator:

www.siemens.com/lowvoltage/configurator-3VA



Minimum order quantity (PS) or a multiple thereof can be ordered.

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Design

Internal accessories Optional equipment		3VA51 2 pole	3VA51 3 and 4-pole	3VA52 2(3)-pole & 3 & 4-pole	3VA53/54 2(3)-pole & 3 & 4-pole
	Slot No.:	23 22 21 125 A	23 22 21 125 A 11 12 13	24 23 22 21 250 A 11 12 13 14	25 24 23 22 21 600 A 11 12 13 14 15
Auxiliary switch	**Type**				
Auxiliary switch	AUX_HQ	x x x	x x x x x x	x x x x x x x x	x x x x x x x x x x
	AUX_HQ_el	x x x	x x x x x x	x x x x x x x x	x x x x x x x x x x
	AUX_HP	x x	x x	x x x x	x x x x
		x	x	x	x x x x
Leading changeover switch	LCS_HQ		x	x	x
	LCS_HQ_el		x	x	x
	LCS_HP		x	x	x
Alarm switch	**Type**				
Trip alarm switch	TAS_HQ	x x	x x x x	x x x x	x x x x
	TAS_HQ_el	x x	x x x x	x x x x	x x x x
	TAS_HP	x	x x	x x	x x
Auxiliary release	**Type**				
Shunt trip flexible	STF	x	x	x	x
Shunt trip left	STL	x	x	x	x
Undervoltage release	UVR	x	x	x	x
Universal release	UNI	x	x	x	x
Other					
Cylinder lock (type Ronis)			x	x	x

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Internal accessories

Internal accessories
Optional equipment

Slot No.:	3VA61/3VA62 3-pole	3VA61/3VA62 4-pole
	24 23 22 21 250 A 11 12 13 14	34 33 32 31 24 23 22 21 250 A 11 12 13 14
Auxiliary switch	**Type**	
Auxiliary switch	AUX_HQ	x x x x x x x x
	AUX_HQ_el	x x x x x x x x
	AUX_HP	x x x x
		x x
Leading changeover switch	LCS_HQ	x
	LCS_HQ_el	x
	LCS_HP	x
Alarm switch	**Type**	
Trip alarm switch	TAS_HQ	x x x x
	TAS_HQ_el	x x x x
	TAS_HP	x x
Electrical alarm switch	EAS_HQ	x
	EAS_HQ_el	x
Auxiliary release	**Type**	
Shunt trip flexible	STF	x x
Shunt trip left	STL	x
Undervoltage release	UVR	x
Universal release	UNI	x
ETU/communication	**Type**	
Communication module Breaker data server	COM060	x
24 V module		x
Other		
Cylinder lock (type Ronis)		x

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Minimum order quantity (PS) or a multiple thereof can be ordered.

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Internal accessories

Optional equipment

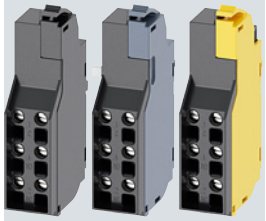
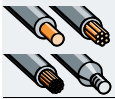
	Slot No.:	3VA63/3VA64 3-pole										3VA63/3VA64 4-pole									
		25	24	23	22	21	600 A	11	12	13	14	15	35	34	33	32	31	25	24	23	22	21	600 A	11	12	13	14	15
Auxiliary switch	**Type**																											
Auxiliary switch	AUX_HQ	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x
	AUX_HQ_el	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x
	AUX_HP		x		x				x		x			x		x			x		x				x		x
		x		x				x		x			x		x			x		x			x		x		
Leading changeover switch	LCS_HQ							x																x				
	LCS_HQ_el							x																x				
	LCS_HP							x																x				
Alarm switch	**Type**																											
Trip alarm switch	TAS_HQ				x	x		x	x												x	x		x	x			
	TAS_HQ_el				x	x		x	x												x	x		x	x			
	TAS_HP				x			x													x			x				
Electrical alarm switch	EAS_HQ											x																x
	EAS_HQ_el											x																x
Auxiliary release	**Type**																											
Shunt trip flexible	STF			x				x												x				x				
Shunt trip left	STL			x																x								
Undervoltage release	UVR			x																x								
Universal release	UNI			x																x								
ETU/communication	**Type**																											
Communication module Breaker data server	COM060							x																x				
24 V module								x																x				
Other																												
Cylinder lock (type Ronis)								x																x				

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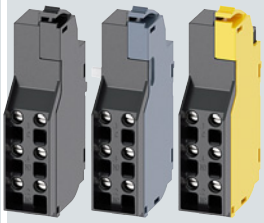
Internal accessories

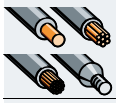
Technical specifications

				Auxiliary switches and alarm switches HQ  AUX LCS TAS EAS	Auxiliary switches and alarm switches HQ_electronic  AUX LCS TAS EAS	Auxiliary switches and alarm switches HP  AUX LCS TAS
Mounting width			mm	7	7	14
Conductor cross-sections	Solid/stranded/ finely stranded with end sleeve 	Screw connection (per contact)		1 x (0.5 - 1.5) 1 x (AWG20 - AWG16)	1 x (0.5 - 1.5) 1 x (AWG20 - AWG16)	2 x (0.75 - 2.5) 2 x (AWG18 - AWG14)
	Finely stranded with insulated end sleeve 	Screw connection (per contact)		1 x (0.5 - 1.0) 1 x (AWG20 - AWG16)	1 x (0.5 - 1.0) 1 x (AWG20 - AWG16)	2 x (0.75 - 1.0) 2 x (AWG18 - AWG16)
	Tightening torque (connecting cables)		Nm	0.4 $^{+0.1}$	0.4 $^{+0.1}$	0.4 $^{+0.1}$
	Stripped length 		mm	15	15	15
Rated operational voltage		U_e	V AC 50 Hz	240	24	600
			V DC	250	24	250
Conventional free-air thermal current		$I_{th} = I_e$	A	6	0.3	10
Rated operational current	AC-12	12 V	A	6	0.3	10
		24 V	A	6	0.3	10
		48 V	A	6	--	10
		125 V	A	6	--	10
		220/240 V	A	6	--	10
		380/440 V	A	--	--	6
		600 V	A	--	--	2
	AC-15	12 V	A	3	0.3	6
		24 V	A	3	0.3	6
		48 V	A	3	--	6
		125 V	A	3	--	6
		220/240 V	A	3	--	6
		380/440 V	A	--	--	2
		600 V	A	--	--	0.6
	DC-12	12 V	A	6	0.1	6
		24 V	A	4	0.1	6
		48 V	A	2	--	2
		110 V	A	0.5	--	0.6
		250 V	A	0.25	--	0.3
	DC-13	12 V	A	1	0.07	3
		24 V	A	0.8	0.07	3
		48 V	A	0.4	--	0.8
		110 V	A	0.2	--	0.2
		250 V	A	0.1	--	0.1

Minimum order quantity (PS) or a multiple thereof can be ordered.

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					Auxiliary switches and alarm switches HQ				Auxiliary switches and alarm switches HQ_electronic				Auxiliary switches and alarm switches HP		
															
					AUX	LCS	TAS	EAS	AUX	LCS	TAS	EAS	AUX	LCS	TAS
Max. rated current (UL/CSA)	Inductive load (0.75 - 0.8 AC)	24 V 300 V 600 V	A A A		3 3 --				0.3 -- --				6 6 6		
	Max. rated current (AC)	24 V 127 V 240 V 480 V 600 V	A A A A A		3 3 3 -- --				-- -- -- -- --				6 6 3 1.5 1.2		
	Ohmic load (DC)	24 V 250 V	A A		0.25 0.25				0.1 --				0.3 0.3		
	Ohmic load - max. rated current (DC)	125 V 250 V	A A		0.6 0.3				-- --				0.9 0.55		
Minimum load		At 24 V DC	mA		70				0.5				70		
		At 5 V DC	mA		--				1				--		

					Shunt trip left STL	Shunt trip flexible STF	Undervoltage release UVR	Universal release UNI
								
Mounting width			mm		21			
Conductor cross-sections	Solid/stranded/finely stranded with end sleeve 	Screw connection (per contact)	Number x mm^2		1 x (0.5 - 1.5)			
			Number x AWG		1 x (AWG20 - AWG16)			
	Finely stranded with insulated end sleeve 	Screw connection (per contact)	Number x mm^2		1 x (0.5 - 1.0)			
			Number x AWG		1 x (AWG20 - AWG16)			
	Tightening torque (connecting cables)		Nm		0.4 $^{+0.1}$			
	Stripped length 		mm		10			
Power consumption U_e	12	V DC	W		30	--	--	--
	24	V AC 50/60 Hz	VA		30	--	--	--
	24 ... 30	V DC	W		25 ... 50	--	--	--
	48 ... 60	V AC 50/60 Hz	VA		15 ... 30	--	--	--
	48 ... 60	V DC	W		20 ... 30	--	--	--
	110 ... 127	V AC 50/60 Hz	VA		30 ... 40	--	--	--
	110 ... 127	V DC	W		30 ... 40	--	--	--
	208 ... 277	V AC 50/60 Hz	VA		20 ... 40	--	--	--
	220 ... 250	V DC	W		23 ... 35	--	--	--
	380 ... 600	V AC 50/60 Hz	VA		15 ... 40	--	--	--

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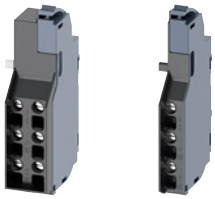
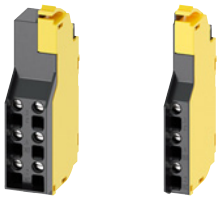
Internal accessories

				Shunt trip left STL	Shunt trip flexible STF	Undervoltage release UVR	Universal release UNI
							
Power consumption U_e	24	V AC 50/60 Hz	VA	--	340	--	--
	48 ... 60	V AC 50/60 Hz	VA	--	400 ... 720	--	--
	110 ... 127	V AC 50/60 Hz	VA	--	550 ... 810	--	--
	208 ... 277	V AC 50/60 Hz	VA	--	380 ... 720	--	--
	380 ... 500	V AC 50/60 Hz	VA	--	350 ... 650	--	--
	600	V AC 50/60 Hz	VA	--	300	--	--
	12	V DC	W	--	--	< 2.5	--
	24	V DC	W	--	--	< 2.5	--
	48	V DC	W	--	--	< 2.5	--
	60	V DC	W	--	--	< 2.5	--
	125 ... 127	V DC	W	--	--	< 2.5	--
	220 ... 230	V DC	W	--	--	< 2.5	--
	250	V DC	W	--	--	< 2.5	--
	24	V AC 50/60 Hz	VA	--	--	< 2	--
	48	V AC 50/60 Hz	VA	--	--	< 2	--
	60	V AC 50/60 Hz	VA	--	--	< 2	--
	110	V AC 50/60 Hz	VA	--	--	< 2	--
	120 ... 127	V AC 50/60 Hz	VA	--	--	< 2	--
	208 ... 230	V AC 50/60 Hz	VA	--	--	< 2	--
	380 ... 400	V AC 50/60 Hz	VA	--	--	< 2.5	--
	440 ... 480	V AC 50/60 Hz	VA	--	--	< 2.5	--
	12	V DC (Cat II; PELV/SELV)	W	--	--	--	UVR: < 2.5 SHT: 20
	24	V DC (Cat II; PELV/SELV)	W	--	--	--	UVR: < 2.5 SHT: 20
	48	V DC (Cat II; PELV/SELV)	W	--	--	--	UVR: < 2.5 SHT: 20
Rated impulse withstand voltage		U_{imp}	kV	6		4	0.5
Making current		I_{max}	at V	1.5 A/24 V AC	18 A/24 V AC	5 mA/480 V	1.5 A/24 V
Maximum tripping time (switch + auxiliary release)							
• < 20 m			ms	40	40	--	40
• < 200 m			ms	80	80	--	80
Endurance	Electrical trips			8500			
	Mechanical switching cycles of the circuit breaker			25000			
Priority over other control signals				Given			
Degree of protection	Cover of the accessory compartment closed			IP40			
	Cover of the accessory compartment open			IP20			
Minimum signal duration							
• < 20 m			ms	40	40	--	40
• < 200 m			ms	80	80	--	80
Response voltage shunt trip	Pick-up (circuit breaker trips)	Us/V	%	70 ... 110		--	70 ... 110
Response voltage undervoltage release	Pick-up (circuit breaker can be switched on)	Us/V	%	--	--	85 ... 110	
	Pick-up (circuit breaker trips)	Us/V	%	--	--	35 ... 70	
Tripping frequency	Trips per hour			240	120	Unlimited	
Can be used for electrical interlocking of molded case circuit breakers				No	No	Yes	

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Selection and ordering data

	Version		SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
Auxiliary switches and alarm switches								
 3VA9978-0AA11 3VA9978-0AA12	**Auxiliary switch AUX**							
	Type/switching capacity/size	Electronic-compatible						
	HP/high switching capacity/2 slots	--		**3VA9978-0AA11**		1	1 unit	1CB
	HQ/compact size/1 slot	--		**3VA9978-0AA12**		1	1 unit	1CB
	HQ_el/compact size/1 slot	✓		**3VA9978-0AA13**		1	1 unit	1CB
 3VA9978-0AA21 3VA9978-0AA22	**Leading changeover switch LCS**							
	Type/switching capacity/size	Electronic-compatible						
	HP/high switching capacity/2 slots	--		**3VA9978-0AA21**		1	1 unit	1CB
	HQ/compact size/1 slot	--		**3VA9978-0AA22**		1	1 unit	1CB
	HQ_el/compact size/1 slot	✓		**3VA9978-0AA23**		1	1 unit	1CB
 3VA9978-0AB11 3VA9978-0AB12	**Trip alarm switch TAS**							
	Type/switching capacity/size	Electronic-compatible						
	HP/high switching capacity/2 slots	--		**3VA9978-0AB11**		1	1 unit	1CB
	HQ/compact size/1 slot	--		**3VA9978-0AB12**		1	1 unit	1CB
	HQ_el/compact size/1 slot	✓		**3VA9978-0AB13**		1	1 unit	1CB
 3VA9978-0AB22	**Electrical alarm switch EAS (3VA6 only)**							
	Type/switching capacity/size	Electronic-compatible						
	HQ/compact size/1 slot	--		**3VA9978-0AB22**		1	1 unit	1CB
	HQ_el/compact size/1 slot	✓		**3VA9978-0AB23**		1	1 unit	1CB
Undervoltage releases								
 3VA9978-0BB16	**Undervoltage release UVR**							
	50/60 Hz V AC	V DC						
	--	12		**3VA9978-0BB10**		1	1 unit	1CB
	--	24		**3VA9978-0BB11**		1	1 unit	1CB
	--	48		**3VA9978-0BB12**		1	1 unit	1CB
	--	125 ... 127		**3VA9978-0BB14**		1	1 unit	1CB
	--	250		**3VA9978-0BB16**		1	1 unit	1CB
	24	--		**3VA9978-0BB20**		1	1 unit	1CB
	120 ... 127	--		**3VA9978-0BB24**		1	1 unit	1CB
	208 ... 230	--		**3VA9978-0BB25**		1	1 unit	1CB
	440 ... 480	--		**3VA9978-0BB27**		1	1 unit	1CB

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Internal accessories

Shunt trip left



3VA9978-0BL33

Shunt trip left STL

50/60 Hz V AC	V DC	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
380 ... 600	--		**3VA9978-0BL20**		1	1 unit	1CB
--	12		**3VA9978-0BL10**		1	1 unit	1CB
24	24 ... 30		**3VA9978-0BL30**		1	1 unit	1CB
48 ... 60	48 ... 60		**3VA9978-0BL31**		1	1 unit	1CB
110 ... 127	110 ... 127		**3VA9978-0BL32**		1	1 unit	1CB
208 ... 277	220 ... 250		**3VA9978-0BL33**		1	1 unit	1CB

Shunt trip flexible STF



3VA9978-0BA23

Shunt trip flexible

50/60 Hz V AC	V DC	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
24	--		**3VA9978-0BA20**		1	1 unit	1CB
48 ... 60	--		**3VA9978-0BA21**		1	1 unit	1CB
110 ... 127	--		**3VA9978-0BA22**		1	1 unit	1CB
208 ... 277	--		**3VA9978-0BA23**		1	1 unit	1CB
380 ... 500	--		**3VA9978-0BA24**		1	1 unit	1CB
600	--		**3VA9978-0BA25**		1	1 unit	1CB

Universal release UNI



3VA9978-0BD13

Universal release

50/60 Hz V AC	V DC	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
--	12		**3VA9978-0BD11**		1	1 unit	1CB
--	24		**3VA9978-0BD12**		1	1 unit	1CB
--	48		**3VA9978-0BD13**		1	1 unit	1CB

Time-delay device for undervoltage releases


3VA9978-0BF22

Time-delay device

V AC	V DC	Delay time	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
230	230	Fixed		**3VA9978-0BF22**		1	1 unit	1CB
--	24	Fixed		**3VA9978-0BF23**		1	1 unit	1CB

Minimum order quantity (PS) or a multiple thereof can be ordered.

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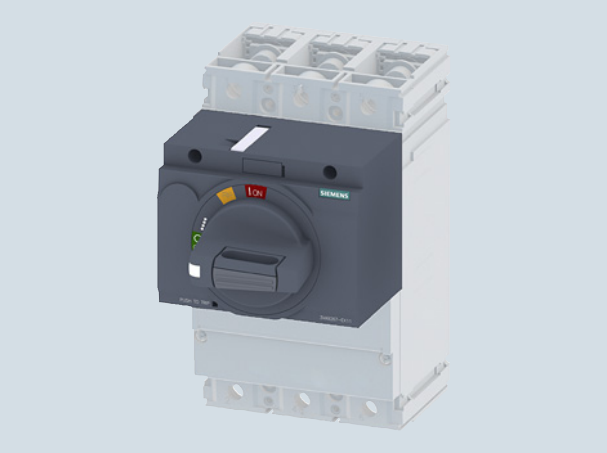
Overview

Manual operators are provided to facilitate manual operation of the 3VA UL molded case circuit breakers, either directly at the circuit breaker or through the panel door.

Front mounted rotary operator

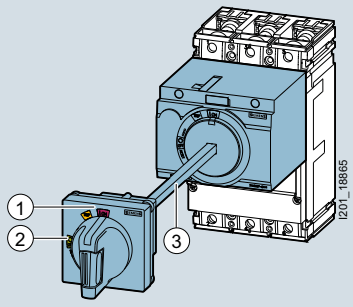
The front mounted rotary operator is mounted directly on the molded case circuit breaker and is available with or without a door interlocking system. It meets the requirements for degree of protection IP30. The optional door interlock locks the panel door when the molded case circuit breaker is closed, but can be deliberately overridden if necessary.

In the variant with door interlock, a door opening function is available for the 3VA UL molded cased circuit breaker in which an additional button has to be deliberately pressed to open the door in the OFF breaker position.



Door mounted rotary operator

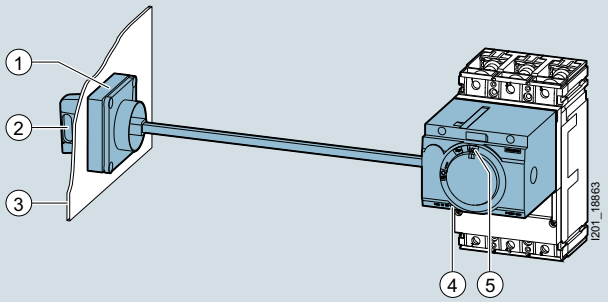
The door mounted rotary operator enables operation of the molded case circuit breaker from the panel door. The door element meets the requirements for degree of protection IP65 and features a door interlocking system and tolerance compensation. Door mounted rotary operators for the 3VA UL molded case circuit breaker are available in a variant with door opening function. In this case, to open the panel door, the handle must be deliberately turned beyond the OFF breaker position. In this variant, the door interlocking system cannot be deactivated. A variable depth adapter can be deployed to allow use of the door mounted rotary operator in conjunction with draw-out units. A supplementary handle can be attached directly to the shaft shoulder to allow convenient operation of the molded case circuit breaker when the panel door is open (i.e. when the control element is decoupled).



1 Door element
2 Switching position indicator ON, TRIP, OFF, RESET
3 Shaft

Side wall mounted rotary operator

The side wall mounted rotary operator is designed for installation in the panel side wall. It is available optionally with short shaft and mounting plate for mounting directly adjacent to the panel wall. The wall element meets the requirements for degree of protection IP65.



1 Side wall mounted rotary operator
2 Padlock device
3 Side wall of cubicle
4 PUSH-to-TRIP button
5 Switching position indicator ON, TRIP, OFF, RESET

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Manual operators

Interlocking methods

All manual operators are designed to allow locking of the operator at the handle and at the rotary operator with up to three padlocks in each case. It is also possible to fit a cylinder lock which can be used either to lock or to interlock molded case circuit breakers depending on the application.

If the cylinder lock is applied as a lock, it can be used to prevent the molded case circuit breaker from closing. The key can be removed at any time. If the lock is used to create an interlock, the key can be removed only when it is in the OFF position, allowing the creation of an interlock by the use of a single key for several breakers.

UL 508A interlocking module

The 3VA door mounted rotary operators are equipped with a handle with masking plate, which remains inside the door when the panel door is opened. If the handle is to remain on the switch when the door is open, the UL 508A interlocking module can be used.

Active illumination

The manual rotary operators are also available in illuminated variants in which the handle is illuminated red, yellow or green via LEDs (24 V DC) depending on the position of the breaker. This means that the status of the breaker (on, off, trip) can be immediately identified, even when lighting conditions are poor. This option can also be retrofitted.

Operating unit with Bowden cable (Max Flex operator)

The operating unit with Bowden cable (Max Flex) is a hand lever operator for operating the breaker from the outside of the panel. The handle is connected to the switching mechanism via a Bowden cable.

The Max Flex operator can be ordered as a complete set, but is also available as single parts and offers considerable variety in terms of handles and lengths of Bowden cables. It can also be equipped with auxiliary switches.

Note:

The Max Flex operator is approved for the UL market only.

Operating unit with rod

Contrary to the Max Flex operator, this operating mechanism links the handle and the switching mechanism by means of a rigid switching shaft of variable length.

Note:

The operating unit with rod/Bowden cable is approved for the UL market only.

Benefits

- Convenient circuit breaker operation inside and outside the panel
- Locking, blocking and interlocking for all manual operators prevents unauthorized breaker operation
- Conspicuously colored variant for EMERGENCY-OFF circuits
- Illumination for clear indication of the breaker status even when light conditions are poor
- All manual operators meet the standards for isolating characteristics defined by IEC/EN 60947-1

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Selection and ordering data

	Version		For molded case circuit breakers/ Article No. stem				SD	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
			3VA51	3VA52	3VA61 3VA62	3VA53 3VA54 3VA63 3VA64	d					
Front mounted rotary operators												
 3VA9277-0EK11	**Front mounted rotary operators** • Rotary operator • Handle • Degree of protection IP30 • For 3-pole and 4-pole breakers											
	Type	Color										
	• Standard, without illumination kit	Gray	✓	--	--	--		**3VA9137-0EK11**		1	1 unit	1CB
			--	✓	✓	--		**3VA9277-0EK11**		1	1 unit	1CB
			--	--	--	✓		**3VA9447-0EK11**		1	1 unit	1CB
	• Standard, with illumination kit	Gray	✓	--	--	--		**3VA9137-0EK13**		1	1 unit	1CB
			--	✓	✓	--		**3VA9277-0EK13**		1	1 unit	1CB
			--	--	--	✓		**3VA9447-0EK13**		1	1 unit	1CB
	• EMERGENCY-OFF, without illumination kit	Yellow-red	✓	--	--	--		**3VA9137-0EK15**		1	1 unit	1CB
			--	✓	✓	--		**3VA9277-0EK15**		1	1 unit	1CB
			--	--	--	✓		**3VA9447-0EK15**		1	1 unit	1CB
	• EMERGENCY-OFF, with illumination kit	Yellow-red	✓	--	--	--		**3VA9137-0EK17**		1	1 unit	1CB
			--	✓	✓	--		**3VA9277-0EK17**		1	1 unit	1CB
			--	--	--	✓		**3VA9447-0EK17**		1	1 unit	1CB
	• Standard, with door interlock	Gray	✓	--	--	--		**3VA9137-0EK21**		1	1 unit	1CB
			--	✓	✓	--		**3VA9277-0EK21**		1	1 unit	1CB
			--	--	--	✓		**3VA9447-0EK21**		1	1 unit	1CB
	• Standard, with door interlock, with illumination kit	Gray	✓	--	--	--		**3VA9137-0EK23**		1	1 unit	1CB
			--	✓	✓	--		**3VA9277-0EK23**		1	1 unit	1CB
			--	--	--	✓		**3VA9447-0EK23**		1	1 unit	1CB
	• EMERGENCY-OFF, with door interlock	Yellow-red	✓	--	--	--		**3VA9137-0EK25**		1	1 unit	1CB
			--	✓	✓	--		**3VA9277-0EK25**		1	1 unit	1CB
			--	--	--	✓		**3VA9447-0EK25**		1	1 unit	1CB
	• EMERGENCY-OFF, with door interlock, with illumination kit	Yellow-red	✓	--	--	--		**3VA9137-0EK27**		1	1 unit	1CB
			--	✓	✓	--		**3VA9277-0EK27**		1	1 unit	1CB
			--	--	--	✓		**3VA9447-0EK27**		1	1 unit	1CB
 3VA9277-0EK31	• Standard, with door interlock, with door open function	Gray	✓	--	--	--		**3VA9137-0EK31**		1	1 unit	1CB
			--	✓	✓	--		**3VA9277-0EK31**		1	1 unit	1CB
			--	--	--	✓		**3VA9447-0EK31**		1	1 unit	1CB
	• Standard, with door interlock, with door open function, with illumination kit	Gray	✓	--	--	--		**3VA9137-0EK33**		1	1 unit	1CB
			--	✓	✓	--		**3VA9277-0EK33**		1	1 unit	1CB
			--	--	--	✓		**3VA9447-0EK33**		1	1 unit	1CB
	• EMERGENCY-OFF, with door interlock, with door open function	Yellow-red	✓	--	--	--		**3VA9137-0EK35**		1	1 unit	1CB
			--	✓	✓	--		**3VA9277-0EK35**		1	1 unit	1CB
			--	--	--	✓		**3VA9447-0EK35**		1	1 unit	1CB
	• EMERGENCY-OFF, with door interlock, with door open function, with illumination kit	Yellow-red	✓	--	--	--		**3VA9137-0EK37**		1	1 unit	1CB
			--	✓	✓	--		**3VA9277-0EK37**		1	1 unit	1CB
			--	--	--	✓		**3VA9447-0EK37**		1	1 unit	1CB
 3VA9277-0GK00	• Without handle, with shaft stub, without door interlock • For retrofitting with 3VL handle	Gray	✓	--	--	--		**3VA9137-0GK00**		1	1 unit	1CB
			--	✓	✓	--		**3VA9277-0GK00**		1	1 unit	1CB
			--	--	--	✓		**3VA9447-0GK00**		1	1 unit	1CB

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Manual operators

Door mounted rotary operators

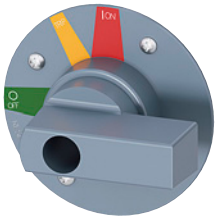


3VA9277-0FK21

Door mounted rotary operator

- Rotary operator with door interlock
- Shaft 300 mm
- Mounting tolerance compensation
- Handle with masking plate 75 × 75 mm
- Degree of protection IP65
- For 3-pole and 4-pole breakers
- NEMA Types 1, 3R, 12, 4/4X

Version	Color	For molded case circuit breakers/ Article No. stem 3VA51	3VA52	3VA61 3VA62	3VA53 3VA54 3VA63 3VA64	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
• Standard	Gray	✓	--	--	--		**3VA9137-0FK21**		1	1 unit	1CB
		--	✓	✓	--		**3VA9277-0FK21**		1	1 unit	1CB
		--	--	--	✓		**3VA9447-0FK21**		1	1 unit	1CB
• Standard, with illumination kit	Gray	✓	--	--	--		**3VA9137-0FK23**		1	1 unit	1CB
		--	✓	✓	--		**3VA9277-0FK23**		1	1 unit	1CB
		--	--	--	✓		**3VA9447-0FK23**		1	1 unit	1CB
• EMERGENCY-OFF	Yellow-red	✓	--	--	--		**3VA9137-0FK25**		1	1 unit	1CB
		--	✓	✓	--		**3VA9277-0FK25**		1	1 unit	1CB
		--	--	--	✓		**3VA9447-0FK25**		1	1 unit	1CB
• EMERGENCY-OFF, with illumination kit	Yellow-red	✓	--	--	--		**3VA9137-0FK27**		1	1 unit	1CB
		--	✓	✓	--		**3VA9277-0FK27**		1	1 unit	1CB
		--	--	--	✓		**3VA9447-0FK27**		1	1 unit	1CB
• Standard, with door open function	Gray	✓	--	--	--		**3VA9137-0FK31**		1	1 unit	1CB
		--	✓	✓	--		**3VA9277-0FK31**		1	1 unit	1CB
		--	--	--	✓		**3VA9447-0FK31**		1	1 unit	1CB
• Standard N, with door open function, with illumination kit	Gray	✓	--	--	--		**3VA9137-0FK33**		1	1 unit	1CB
		--	✓	✓	--		**3VA9277-0FK33**		1	1 unit	1CB
		--	--	--	✓		**3VA9447-0FK33**		1	1 unit	1CB
• EMERGENCY-OFF, with door open function	Yellow-red	✓	--	--	--		**3VA9137-0FK35**		1	1 unit	1CB
		--	✓	✓	--		**3VA9277-0FK35**		1	1 unit	1CB
		--	--	--	✓		**3VA9447-0FK35**		1	1 unit	1CB
• EMERGENCY-OFF, with door open function, with illumination kit	Yellow-red	✓	--	--	--		**3VA9137-0FK37**		1	1 unit	1CB
		--	✓	✓	--		**3VA9277-0FK37**		1	1 unit	1CB
		--	--	--	✓		**3VA9447-0FK37**		1	1 unit	1CB



3VA9477-0GC01

Supplementary handle for door mounted rotary operator (NFPA79)

Mandatory in compliance with NFPA79

Type	Color						Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
• Standard	Gray	✓	--	--	--		**3VA9137-0GC01**		1	1 unit	1CB
		--	✓	✓	--		**3VA9477-0GC01**		1	1 unit	1CB
		--	--	--	✓		**3VA9477-0GC11**		1	1 unit	1CB
• EMERGENCY-OFF	Yellow-red	✓	--	--	--		**3VA9137-0GC05**		1	1 unit	1CB
		--	✓	✓	--		**3VA9477-0GC05**		1	1 unit	1CB
		--	--	--	✓		**3VA9477-0GC15**		1	1 unit	1CB

Minimum order quantity (PS) or a multiple thereof can be ordered.

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	Version	For molded case circuit breakers/ Article No. stem				SD	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		3VA51	3VA52	3VA61 3VA62	3VA53 3VA54 3VA63 3VA64	d					
 8UD1900-2WB00	**Shaft** 8 mm										
	Versions										
	• 300 mm long						**8UD1900-2WA00**		1	1 unit	1CB
	• 600 mm long						**8UD1900-2WB00**		1	1 unit	1CB
 8UD1900-2DA00	**Adapter for shaft 8 mm x 8 mm** For door mounted rotary operator						**8UD1900-2DA00**		1	1 unit	1CB
 8UD1900-2HA00	**Door coupling** 8 × 8 mm						**8UD1900-2HA00**		1	1 unit	1CB
 3VA9477-0GA80	**Fixing bracket for shaft**	✓	--	--	--		**3VA9137-0GA80**		1	1 unit	1CB
		--	✓	✓	✓		**3VA9477-0GA80**		1	1 unit	1CB
 3VA9487-0GB10	**Variable depth adapter** 8 × 8 mm						**3VA9487-0GB10**		1	1 unit	1CB
 8UD1900-2GA00	**Mounting tolerance compensation** 8 × 8 mm						**8UD1900-2GA00**		1	1 unit	1CB
 8UC9400	**UL 508A interlocking module** Implemented if the handle is to remain on the switch when the door is open.						**8UC9400**		1	1 unit	1CL

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Manual operators

Side wall mounted rotary operators

	Version		For molded case circuit breakers/Article No. stem 3VA51	3VA52	3VA61 3VA62	3VA53 3VA54 3VA63 3VA64	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
 3VA9277-0PK11	**Side wall mounted rotary operators** • Without mounting plate - Rotary operator with shaft 300 mm - Handle with masking plate 75 x 75 mm - Degree of protection IP65 - For 3-pole and 4-pole breakers - NEMA Types 1, 3R, 12, 4/4X											
	Type	Color										
	• Standard	Gray	✓	--	--	--		**3VA9137-0PK11**		1	1 unit	1CB
			--	✓	✓	--		**3VA9277-0PK11**		1	1 unit	1CB
	• Standard, with illumination kit	Gray	✓	--	--	--		**3VA9137-0PK13**		1	1 unit	1CB
			--	✓	✓	--		**3VA9277-0PK13**		1	1 unit	1CB
	• EMERGENCY-OFF	Yellow-red	✓	--	--	--		**3VA9137-0PK15**		1	1 unit	1CB
			--	✓	✓	--		**3VA9277-0PK15**		1	1 unit	1CB
	• EMERGENCY-OFF, with illumination kit	Yellow-red	✓	--	--	--		**3VA9137-0PK17**		1	1 unit	1CB
			--	✓	✓	--		**3VA9277-0PK17**		1	1 unit	1CB
 3VA9277-0PK51	**Side wall mounted rotary operators** • With mounting plate - Rotary operator with short shaft - Handle with masking plate 75 x 75 mm - For 3-pole and 4-pole breakers - Degree of protection IP65											
	Type	Color										
	• Standard	Gray	✓	--	--	--		**3VA9137-0PK51**		1	1 unit	1CB
			--	✓	✓	--		**3VA9277-0PK51**		1	1 unit	1CB
	• Standard, with illumination kit	Gray	✓	--	--	--		**3VA9137-0PK53**		1	1 unit	1CB
			--	✓	✓	--		**3VA9277-0PK53**		1	1 unit	1CB
	• EMERGENCY-OFF	Yellow-red	✓	--	--	--		**3VA9137-0PK55**		1	1 unit	1CB
			--	✓	✓	--		**3VA9277-0PK55**		1	1 unit	1CB
	• EMERGENCY-OFF, with illumination kit	Yellow-red	✓	--	--	--		**3VA9137-0PK57**		1	1 unit	1CB
			--	✓	✓	--		**3VA9277-0PK57**		1	1 unit	1CB
	Door interlock for side wall mounted rotary operator		✓	--	--	--		**3VA9177-0VF40**		1	1 unit	1CB
			--	✓	✓	--		**3VA9277-0VF40**		1	1 unit	1CB
 3VA9987-0GL30	**Extended DIN rail for N/PE terminal** • For mounting plate • Up to 250 A							**3VA9987-0GL30**		1	1 unit	1CB

Handles

	Handles • With masking plate • NEMA Types 1, 3R, 12, 4/4X												
 8UD1731-0AB11	Type	Color	Tolerance compensation	Door open function									
	• Standard	Gray	Without	Without	✓	✓	✓	--		**8UD1721-0AB11**	1	1 unit	1CB
			With	Without	✓	✓	✓	--		**8UD1721-0AB21**	1	1 unit	1CB
			Without	Without	--	--	--	✓		**8UD1731-0AB11**	1	1 unit	1CB
			With	Without	--	--	--	✓		**8UD1731-0AB21**	1	1 unit	1CB
			Without	With	✓	✓	✓	--		**8UD1721-0AC11**	1	1 unit	1CB
			With	With	✓	✓	✓	--		**8UD1721-0AC21**	1	1 unit	1CB
			Without	With	--	--	--	✓		**8UD1731-0AC11**	1	1 unit	1CB
			With	With	--	--	--	✓		**8UD1731-0AC21**	1	1 unit	1CB
	• EMERGENCY-OFF	Yellow-red	Without	Without	✓	✓	✓	--		**8UD1721-0AB15**	1	1 unit	1CB
			With	Without	✓	✓	✓	--		**8UD1721-0AB25**	1	1 unit	1CB
			Without	Without	--	--	--	✓		**8UD1731-0AB15**	1	1 unit	1CB
			With	Without	--	--	--	✓		**8UD1731-0AB25**	1	1 unit	1CB
			Without	With	✓	✓	✓	--		**8UD1721-0AC15**	1	1 unit	1CB
			With	With	✓	✓	✓	--		**8UD1721-0AC25**	1	1 unit	1CB
			Without	With	--	--	--	✓		**8UD1731-0AC15**	1	1 unit	1CB
			With	With	--	--	--	✓		**8UD1731-0AC25**	1	1 unit	1CB

Minimum order quantity (PS) or a multiple thereof can be ordered.

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	Version			SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
General accessories for manual operators									
 3VA9087-0SX10	**Labeling plate for manual operators**				**3VA9087-0SX10**		1	10 units	1CB
 8UD1900-0KA20	**Illumination kit for manual operators** 24 V DC voltage	For molded case circuit breakers							
		3VA5, 125 ... 250 A	Front mounted rotary operators		**8UD1900-0KA10**		1	1 unit	1CB
		3VA6, 150 ... 600 A	Front mounted rotary operators		**8UD1900-0KA20**		1	1 unit	1CB
		3VA5, 3VA6, 125 … 600 A	Door mounted rotary operator		**8UD1900-0KA20**		1	1 unit	1CB
 8UD1900-0MB01	**Cylinder lock (type Kaba)**								
	• For door mounted rotary operator (in the masking plate) • Standard masking plate	Key 1			**8UD1900-0MB01**		1	1 unit	1CB
		Key 2			**8UD1900-0NB01**		1	1 unit	1CB
		Key 3			**8UD1900-0PB01**		1	1 unit	1CB
		Key 4			**8UD1900-0QB01**		1	1 unit	1CB
	• For door mounted rotary operator (in the masking plate) • With door open function • Standard masking plate	Key 1			**8UD1900-0MC01**		1	1 unit	1CB
		Key 2			**8UD1900-0NC01**		1	1 unit	1CB
		Key 3			**8UD1900-0PC01**		1	1 unit	1CB
		Key 4			**8UD1900-0QC01**		1	1 unit	1CB
 8UD1900-0MB05	**Cylinder lock (type Kaba)**								
	• For door mounted rotary operator (in the masking plate) • EMERGENCY-OFF masking plate	Key 1			**8UD1900-0MB05**		1	1 unit	1CB
		Key 2			**8UD1900-0NB05**		1	1 unit	1CB
		Key 3			**8UD1900-0PB05**		1	1 unit	1CB
		Key 4			**8UD1900-0QB05**		1	1 unit	1CB
	• For door mounted rotary operator (in the masking plate) • With door open function • EMERGENCY-OFF masking plate	Key 1			**8UD1900-0MC05**		1	1 unit	1CB
		Key 2			**8UD1900-0NC05**		1	1 unit	1CB
		Key 3			**8UD1900-0PC05**		1	1 unit	1CB
		Key 4			**8UD1900-0QC05**		1	1 unit	1CB
 3VA9980-0VL10	**Cylinder lock (type Ronis)** • Includes a lock with 2 keys • For locking or interlocking • For installation in all rotary operators with shaft stub • For mounting in the adapter kit for the accessory compartment								
		Key 1			**3VA9980-0VL10**		1	1 unit	1CB
		Key 3			**3VA9980-0VL30**		1	1 unit	1CB
		Key 4			**3VA9980-0VL40**		1	1 unit	1CB
	Note The cylinder lock adapter for rotary operators is also needed for locking or interlocking circuit breakers in rotary operators.								
 3VA9980-0LF20	**Cylinder lock adapter for rotary operators** To mount the cylinder lock in the rotary operator (also possible with door mounted rotary operator)				**3VA9980-0LF20**		1	1 unit	1CB

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Manual operators

	Version	For molded case circuit breakers/ Article No. stem 3VA51	3VA52	3VA61 3VA62	3VA53 3VA54 3VA63 3VA64	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
Operating unit with Bowden cable											
 3VA9138-0CK12	**Operating unit with Bowden cable (Max Flex operator)** Complete kit comprising: • Switching mechanism • Handle steel, epoxy coated NEMA Types 1, 3R, 12, black = OFF, red = ON • Bowden cable, 36 inches (0.9 m) long	✓	--	--	--		**3VA9138-0CK12**		1	1 unit	1CB
		--	✓	✓	--		**3VA9278-0CK12**		1	1 unit	1CB
		--	--	--	✓		**3VA9448-0CK12**		1	1 unit	1CB
Individual parts or spare parts for operating unit with Bowden cable											
 3VA9278-0CB10	**Switching mechanism**	✓	--	--	--		**3VA9138-0CB10**		1	1 unit	1CB
		--	✓	✓	--		**3VA9278-0CB10**		1	1 unit	1CB
		--	--	--	✓		**3VA9448-0CB10**		1	1 unit	1CB
 3VA9978-0CH82	**Handle**										
	Versions										
	• Steel, epoxy coated NEMA Types 1, 3R, 12, black = OFF, red = ON						**3VA9978-0CH72**		1	1 unit	1CB
	• Steel, black-epoxy coated NEMA Types 1, 3R, 12, black = OFF, red = ON						**3VA9978-0CH74**		1	1 unit	1CB
	• Stainless steel, chrome-plated NEMA Types 4 /4X, black = OFF, red = ON						**3VA9978-0CH82**		1	1 unit	1CB
 3VA9578-0CC10	**Bowden cable**										
	Versions										
	• Bowden cable, 36 inches (0.9 m)	✓	✓	✓	--		**3VA9278-0CC10**		1	1 unit	1CB
	• Bowden cable, 48 inches (1.2 m)	✓	✓	✓	--		**3VA9278-0CC20**		1	1 unit	1CB
	• Bowden cable, 60 inches (1.5 m)	✓	✓	✓	--		**3VA9278-0CC30**		1	1 unit	1CB
	• Bowden cable, 72 inches (1.8 m)	✓	✓	✓	--		**3VA9278-0CC40**		1	1 unit	1CB
	• Bowden cable, 84 inches (2.1 m)	✓	✓	✓	--		**3VA9278-0CC50**		1	1 unit	1CB
	• Bowden cable, 96 inches (2.4 m)	✓	✓	✓	--		**3VA9278-0CC60**		1	1 unit	1CB
	• Bowden cable, 120 inches (3.0 m)	✓	✓	✓	--		**3VA9278-0CC70**		1	1 unit	1CB
	• Bowden cable, 144 inches (3.6 m)	✓	✓	✓	--		**3VA9278-0CC80**		1	1 unit	1CB
	• Bowden cable, 36 inches (0.9 m)	--	--	--	✓		**3VA9578-0CC10**		1	1 unit	1CB
	• Bowden cable, 48 inches (1.2 m)	--	--	--	✓		**3VA9578-0CC20**		1	1 unit	1CB
	• Bowden cable, 60 inches (1.5 m)	--	--	--	✓		**3VA9578-0CC30**		1	1 unit	1CB
	• Bowden cable, 72 inches (1.8 m)	--	--	--	✓		**3VA9578-0CC40**		1	1 unit	1CB
	• Bowden cable, 84 inches (2.1 m)	--	--	--	✓		**3VA9578-0CC50**		1	1 unit	1CB
	• Bowden cable, 96 inches (2.4 m)	--	--	--	✓		**3VA9578-0CC60**		1	1 unit	1CB
	• Bowden cable, 120 inches (3.0 m)	--	--	--	✓		**3VA9578-0CC70**		1	1 unit	1CB
	• Bowden cable, 144 inches (3.6 m)	--	--	--	✓		**3VA9578-0CC80**		1	1 unit	1CB

Minimum order quantity (PS) or a multiple thereof can be ordered.

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	Version	For molded case circuit breakers/ Article No. stem				SD	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		3VA51	3VA52	3VA61 3VA62	3VA53 3VA54 3VA63 3VA64	d					
 3VA9478-0CX10	**Auxiliary switches** Leading from On to Off										
	Versions										
	• 1 CO	✓	✓	✓	✓		**3VA9478-0CX10**		1	1 unit	1CB
	• 2 CO	✓	✓	✓	✓		**3VA9478-0CX20**		1	1 unit	1CB
Operating unit with rod NEW											
 3VA9138-0DK72	**Operating unit with rod** Complete kit comprising: • Steel handle, epoxy coated, NEMA Types 1, 12, 3R • Switching mechanism • for depths 200 to 400 mm • black = OFF, red = ON	✓	--	--	--		**3VA9138-0DK72**		1	1 unit	1CB
		--	✓	✓	--		**3VA9278-0DK72**		1	1 unit	1CB
		--	--	--	✓		**3VA9478-0DK72**		1	1 unit	1CB
 3VA9138-0DK82	**Operating unit with rod** Complete kit comprising: • Handle stainless steel, chrome-plated, NEMA Types 4/4X • Switching mechanism • for depths 200 to 400 mm										
	Versions										
	• black = OFF, red = ON	✓	--	--	--		**3VA9138-0DK82**		1	1 unit	1CB
		--	✓	✓	--		**3VA9278-0DK82**		1	1 unit	1CB
		--	--	--	✓		**3VA9478-0DK82**		1	1 unit	1CB
	• black = OFF, black = ON	✓	--	--	--		**3VA9138-0DK84**		1	1 unit	1CB
		--	✓	✓	--		**3VA9278-0DK84**		1	1 unit	1CB
		--	--	--	✓		**3VA9478-0DK84**		1	1 unit	1CB

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Overview

MO320 front mounted motor operator

The MO320 motor operator is mounted on the front of the 3VA UL molded case circuit breaker and opens and closes the molded case circuit breaker by means of control cable commands (e.g. from pushbuttons or a PLC). It can also be operated manually, however, and a handle is provided on the unit for this purpose.

The motor operator also features a clear switching position indicator which indicates ON and OFF and, via LED, whether the circuit breaker has tripped (TRIP). It is thus possible to identify the switching position of the molded case circuit breaker at any time.

Two different reset modes can be selected, i.e. in one mode, the operator resets the molded case circuit breaker automatically and in the other, it waits for confirmation by an OFF signal before it resets the breaker.

Furthermore, the motor operator can be locked in the OFF position by means of several padlocks.



Benefits

- Remote operation of the molded case circuit breaker by means of control cable commands
- Clear switching position indication including TRIP provides a quick visual overview and prevents operating errors
- Locking capability prevents unauthorized operations
- Meets the standards for isolating characteristics defined by IEC/EN 60947-1

Design

- The MO320 motor operator is simply snapped into position on a mounting frame which is installed instead of the accessories lid of the molded case circuit breaker.

Technical specifications

MO320 motor operator		**3VA5**			**3VA6**	
		125 A	250 A	400 A/ 600 A	150 A/ 250 A	400 A/ 600 A
Degree of protection		IP20, with cover frame IP30				
Rated control supply voltage (operating range of control supply voltage)	V	24 ... 60 DC (0.85 ... 1.26) 110 ... 240 AC/ 110 ... 250 DC (0.85 ... 1.1)				
Rating	W	250, max. 500 (60 ms)				
Make time, typically	ms	< 800	< 1000	< 1700	< 1000	< 1700
Break time, typically	ms	< 800	< 1000	< 1400	< 1000	< 1400

Selection and ordering data

	Version	For molded case circuit breakers/ Article No. stem				SD	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		3VA51	3VA52	3VA61 3VA62	3VA53 3VA54 3VA63 3VA64	d					
Motor operators											
 3VA9277-0HA10	**Motor operator without stored-energy feature (MO320)**										
	Versions										
	• 24 ... 60 V DC	✓	--	--	--		**3VA9137-0HA10**		1	1 unit	1CB
		--	✓	✓	--		**3VA9277-0HA10**		1	1 unit	1CB
		--	--	--	✓		**3VA9447-0HA10**		1	1 unit	1CB
	• 110 ... 240 V AC, 110 ... 250 V DC	✓	--	--	--		**3VA9137-0HA20**		1	1 unit	1CB
		--	✓	✓	--		**3VA9277-0HA20**		1	1 unit	1CB
		--	--	--	✓		**3VA9447-0HA20**		1	1 unit	1CB

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Overview

Motor operator with stored energy operator (SEO520) NEW

The motor operator with stored energy operator (SEO520) supplements the portfolio of 3VA motor operators with a synchronizable remote operator with optional communication link.

The motor operator with stored energy operator has two spring assemblies that are used to switch the 3VA52, 3VA61 or 3VA62 molded case circuit breakers on and off quickly. This new principle in the MCCB area ensures fast, reliable and easily controllable switching sequences, especially in load transfer switching applications.

The spring assemblies can also be charged manually using a supplied tool to enable them to also be operated without supply voltage.

The SEO520 is equipped with an external voltage module in the control supply voltages 24 V DC, 42-60 V AC/DC and 110-230 V AC / 110-250 V DC that can be plugged in and out quickly, thus ensuring quick access to the main terminals of the 3VA molded case circuit breaker.

In addition to the front-accessible MO320 motor operator, another reset mode is also available. Further to automatic reset and reset via an OFF signal, the SEO520 has the option of being able to be reset after confirmation by an acknowledge signal.

Note:
On account of the fast switching times, the SEO520 cannot be used with a leading changeover switch LCS.

Communication option

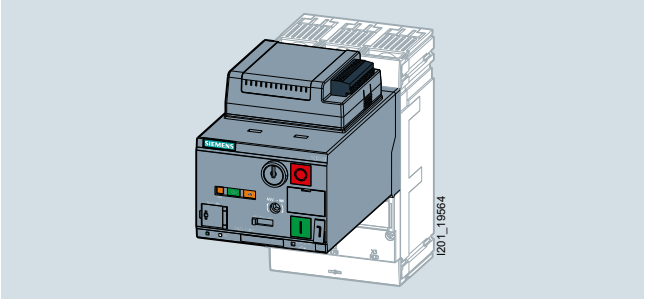
The SEO520 is also optionally available with communication functionality. A connection with the COM060 communication module integrates it into the communication environment of the 3VA molded case circuit breakers and ensures that the molded case circuit breaker can also be switched via the supported communication networks and the powerconfig and powermanager software packages.

Additional functions

Furthermore, the motor operator with stored energy operator can be locked in the OFF position by up to three padlocks. An optionally mountable cylinder lock (type Ronis) can be used to interlock the operating mode (manual/automatic).

The motor operator with stored energy operator features a clear indication of the breaker status which can mechanically indicate ON and OFF and, via LED, whether the circuit breaker has tripped (TRIP). The SEO520 therefore meets the standards for isolating characteristics defined by IEC/EN 60947-1.

A mechanical operating cycles counter can be optionally mounted that counts the operating cycles of the SEO520.



Benefits

- Synchronization capability with fast switching on and off by means of two spring assemblies
- Remote operation of the molded case circuit breaker by means of control cable commands or communication
- Locking capability prevents unauthorized operations
- Meets the standards for isolating characteristics defined by IEC/EN 60947-1

Technical specifications

SEO520 motor operator	**3VA52, 3VA61 and 3VA62** 100/160/250 A
Degree of protection	IP20, with cover frame IP30
Rated control supply voltage (operating range of control supply voltage)	24 V DC (0.85 … 1.26) 42 V ... 60 V AC/ 42 V ... 60 V DC (0.85 ... 1.26) 110 V ... 230 V AC/ 110 V ... 250 V DC (0.85 ... 1.1)
Rating	300, max. 500 (60 ms)
Make time	< 80 ms
Break time	< 80 ms

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Selection and ordering data

	Version for molded case circuit breakers/frame size 3VA52, 3VA61 and 3VA62 100 A, 160 A, 250 A		SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
Motor operators								
 3VA9267-0HC10  3VA9267-0HC30	**Motor operator with stored energy operator (SEO520)**[1] NEW							
	Versions							
	Without a communication link	• 24 V DC		**3VA9277-0HC10**				
		• 42 ... 60 V AC/DC		**3VA9277-0HC20**				
		• 110 ... 230 V AC, 110 ... 250 V DC		**3VA9277-0HC30**				
	With a communication link	• 24 V DC		**3VA9277-0HC15**				
		• 110 ... 230 V AC, 110 ... 250 V DC		**3VA9277-0HC35**				
 3VA9987-0HX10	**Mechanical operating cycles counter** For installation in the SEO520			**3VA9987-0HX10**		1	1 unit	1CB
 3VA9980-0LF30	**Cylinder lock adapter for SEO520** [1] NEW For installing cylinder locks in the SEO520			**3VA9970-0LF30**				
 3VA9980-0VL10	**Cylinder lock (type Ronis)** • Includes a lock with 2 keys • For locking the operating mode (manual/auto/lock)							
		Key 1		**3VA9980-0VL10**		1	1 unit	1CB
		Key 3		**3VA9980-0VL30**		1	1 unit	1CB
		Key 4		**3VA9980-0VL40**		1	1 unit	1CB

[1] Start of delivery scheduled for 2nd quarter 2019

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Overview

The proper functioning and in particular the safety of electrical installations does not just depend on the quality and design of the components, but also on the method of installation.

The following aspects of electrical installations are of crucial importance for the implementation of a safe, properly functioning connection to the 3VA UL molded case circuit breakers:

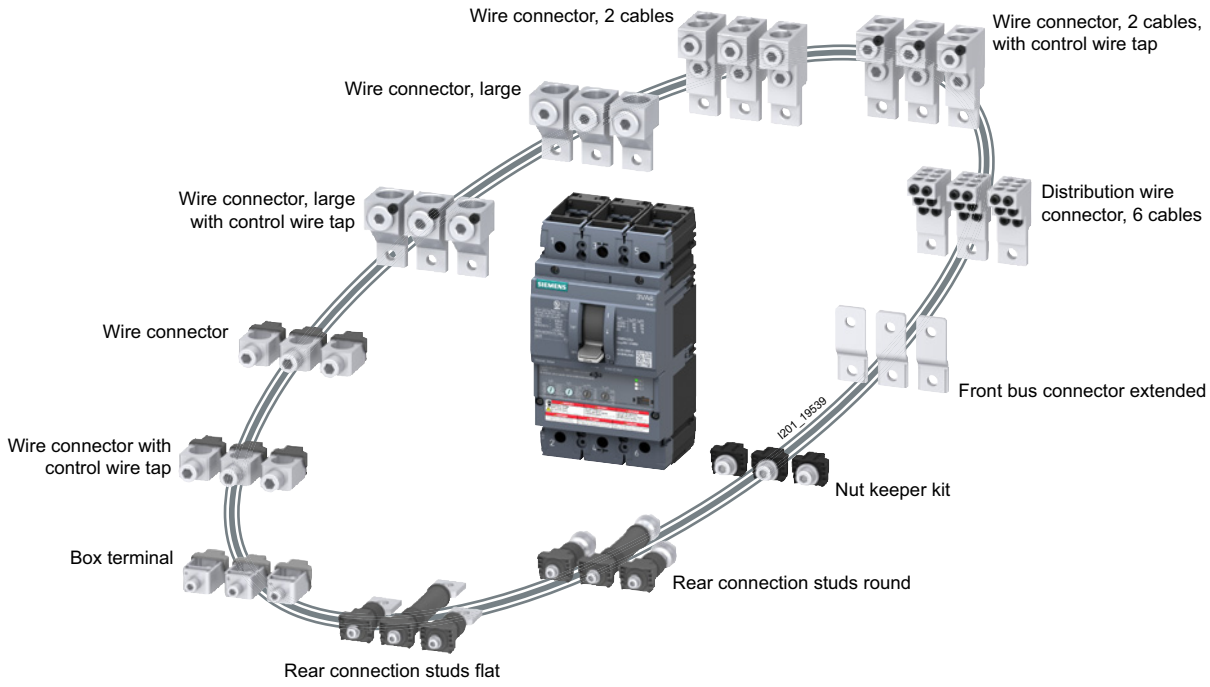
- Installation, e.g. connection to cables or busbars
- Dimensioning of the cables and busbars
- Installation medium, e.g. rigid or flexible

The following catalog pages provide all the information needed to ensure that a 3VA UL molded case circuit breaker is safely connected.

Connection technology for the 3VA UL molded case circuit breaker

The connection technology of the 3VA UL molded case circuit breakers is designed to support uncomplicated and convenient commissioning of the 3VA UL molded case circuit breakers and to meet all installation requirements.

To meet this objective, an extensive portfolio of connection components is available.



Note:

The following connection technologies are permissible for single-pole 3VA51 devices:

- Nut keeper kit
- Box terminal
- Aluminum/copper wire connector
- Bus connector extended

Optionally, the versions with 3 or 4 single terminals/bus connectors extended can be ordered.

Note on 3VA6 100% rated breakers:

For designs and applications for 100% rated line protection, copper wire connectors without control wire tap must be used.

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Connection technology

UL conductor cross-sections

Connection technology	Cable medium	Cables and busbars	3VA51 125 A	3VA52 250 A 3VA62 250 A	3VA53 400 A 3VA54 600 A 3VA63 400 A 3VA64 600 A
Box terminals 	Solid	Cu cable	AWG 14 - AWG 10	AWG 10	-
	Stranded class B		AWG 14 - 3/0	AWG 14 - 3/0 AWG 4 - 350 kcmil	1/0 - 500 kcmil
	Stranded class C		AWG 14 - 3/0	AWG 14 - 3/0 AWG 4 - 350 kcmil	1/0 - 500 kcmil
Aluminum wire connector 	Solid	Al and Cu cable	AWG 14 - AWG 10	AWG 14 - AWG 10	--
	Stranded class B		AWG 14 - 3/0	AWG 14 - 1/0 AWG 6 - 350 kcmil	AWG 1 - 600 kcmil
	Stranded class C		AWG 14 - 3/0	AWG 14 - 1/0 AWG 6 - 350 kcmil	AWG 1 - 600 kcmil
Aluminum wire connector, large 	Solid	Al and Cu cable	--	--	--
	Stranded class B		AWG 4 - 300 kcmil	AWG 2 - 350 kcmil	--
	Stranded class C		AWG 4 - 300 kcmil	AWG 2 - 350 kcmil	--
Aluminum wire connector for 2 cables 	Solid	Al and Cu cable	--	--	--
	Stranded class B		--	AWG 4 - 300 kcmil	2/0 - 600 kcmil
	Stranded class C		--	AWG 4 - 300 kcmil	2/0 - 600 kcmil
Aluminum wire connector for 6 cables 	Solid	Al and Cu cable	AWG 14 - AWG 10	AWG 14 - AWG 10	AWG 14 - AWG 10
	Stranded class B		AWG 14 - AWG 2	AWG 14 - AWG 2	AWG 14 - AWG 2
	Stranded class C		AWG 14 - AWG 2	AWG 14 - AWG 2	AWG 14 - AWG 2
Copper wire connector 	Solid	Cu cable	AWG 14 - AWG 10	AWG 14 - AWG 10	--
	Stranded class B		AWG 14 - AWG 8 AWG 14 - 2/0	AWG 14 - 1/0 AWG 6 - 350 kcmil	AWG 1 - 600 kcmil
	Stranded class C		AWG 14 - AWG 8 AWG 14 - 2/0	AWG 14 - 1/0 AWG 6 - 350 kcmil	AWG 1 - 600 kcmil
Copper wire connector for 2 cables 	Solid	Cu cable	--	--	--
	Stranded class B				2/0 - 600 kcmil
	Stranded class C				2/0 - 600 kcmil
Front busbar connector	Direct (width x height)	Busbar	0.7 x 0.25 inch	1 x 0.3 inch	1.4 x 0.4 inch
	Front bus connectors extended		0.9 x 0.3 inch	1.3 x 0.4 inch	1.6 x 0.5 inch
	Front bus connectors offset		--	--	2.4 x 0.5 inch

Minimum order quantity (PS) or a multiple thereof can be ordered.

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IEC conductor cross-sections

Connection technology	Cable medium	Cables and busbars		3VA51 125 A	3VA52 250 A 3VA62 250 A	3VA53 400 A 3VA54 600 A 3VA63 400 A 3VA64 600 A
Box terminals 	Solid	Cu cable	mm^2	1.5 ... 16	6 ... 16	--
	Stranded	Cu cable	mm^2	1.5 ... 70 25 ... 185	6 ... 120 25 ... 185	35 ... 300
	Finely stranded	Cu cable	mm^2	1.5 ... 50 35 ... 150	10 ... 95 35 ... 150	35 ... 240
	Finely stranded with end sleeve	Cu cable	mm^2	1.5 ... 50	6 ... 95 25 ... 150	35 ... 240
	Flexible copper busbar	Busbar	mm x mm	2x ... 6x [13 x 0.5] ... 2x ... 9x [9 x 0.8]	2x ..6x [13 x 0.5] ... 2x ..6x [15.5 x 0.8] ... 2x ..6x [20 x 1] ... 2x ..6x [20 x 1]	2x ... 10x [20 x 1] ... 2x ... 10x [24 x 1]
Aluminum wire connector 	Solid	Al and Cu cable	mm^2	1.5 ... 10 10 ... 16	1.5 ... 16	--
	Stranded	Al and Cu cable	mm^2	1.5 ... 10 10 ... 95	1.5 ... 50 16 ... 185	50 ... 300
	Finely stranded	Cu cable	mm^2	1.5 ... 10 10 ... 35	1.5 ... 35 25 ... 150	50 ... 240
	Finely stranded with end sleeve	Cu cable	mm^2	1.5 ... 10 10 ... 35	1.5 ... 35 16 ... 120	50 ... 240
Aluminum wire connector, large 	Solid		mm^2	--	--	--
	Stranded	Al and Cu cable	mm^2	25 ... 150	50 ... 240	--
	Finely stranded	Cu cable	mm^2	25 ... 120	50 ... 185	--
	Finely stranded with end sleeve	Cu cable	mm^2	25 ... 95	50 ... 185	--
Aluminum wire connector for 2 cables 	Solid		mm^2	--	--	--
	Stranded	Al and Cu cable	mm^2	--	25 ... 150	70 ... 300
	Finely stranded	Cu cable	mm^2	--	25 ... 150	70 ... 240
	Finely stranded with end sleeve	Cu cable	mm^2	--	25 ... 70	70 ... 185
Aluminum wire connector for 6 cables 	Solid	Al and Cu cable	mm^2	1.5/4 ... 16	1.5/4 ... 16	1.5/4 ... 16
	Stranded	Al and Cu cable	mm^2	1.5/4 ... 35	1.5/4 ... 35	1.5/4 ... 35
	Finely stranded	Cu cable	mm^2	1.5 ... 25	1.5 ... 25	1.5 ... 25
	Finely stranded with end sleeve	Cu cable	mm^2	1.5 ... 25	1.5 ... 25	1.5 ... 25
Front busbar connector	Direct (width x height)	Busbar	mm x mm	17 x 6.5	25 x 8	35 x 10
	Front bus connectors extended	Busbar	mm x mm	22 x 8	32 x 10	40 x 12.5
	Front bus connectors offset	Busbar	mm x mm	30 x 8	35 x 10	60 x 12.5

Minimum order quantity (PS) or a multiple thereof can be ordered.

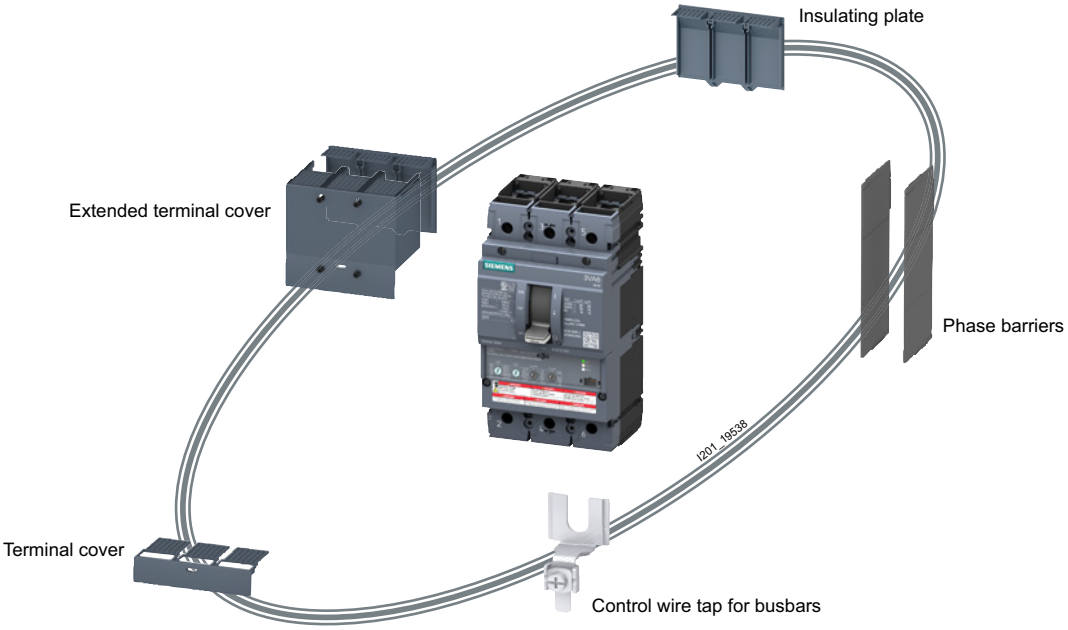
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Connection technology

Further connection accessories

Insulation / auxiliary conductor connections

The connection accessories portfolio includes an extensive selection of insulating components (phase barriers, terminal covers, etc.). Auxiliary conductor connections for box terminals and busbars are also available.



Terminal covers

Terminal covers are insulating and sealable insulation accessories which protect against accidental contact with main current paths. When mounted on the circuit breaker, terminal covers at the front provide degree of protection IP4x and when correctly installed at the infeed and load ends of the breaker, degree of protection IP2x. All terminal covers have a recess on the inside face which can be drilled out if necessary so that safe isolation can be afforded by commercially available voltage detectors.

- Short terminal covers are normally installed for all types of front termination which do not exceed the geometric dimensions of the molded case circuit breaker (the termination area) (e.g. box terminal, nut keeper kit, etc.).
- Terminal covers extended are required when bar extensions or external terminals (i.e. terminals which exceed the dimensions of the termination area of the molded case circuit breaker) are installed. The terminal cover extended consists of two parts, an insulating plate and the top half of the terminal cover. Both parts are attached by screws and thus afford the degrees of protection specified above.
- Broad terminal covers are required when front bus connectors offset are installed. The terminal cover extended consists of two parts, a rear insulating plate offset and the top half of the terminal cover. Both parts are attached by screws and thus afford the degrees of protection specified above.

Insulating plates

The purpose of insulating plates is to insulate the main terminals of the molded case circuit breaker from the mounting plate (panel).

- Insulating plate: in combination with bus connector extended, for example
- Rear insulating plate offset: in combination with front bus connectors offset, for example

Control wire taps

All wire connectors can be ordered with or without control wire taps (see page 2/10, Front terminals). The following accessories are available to allow the implementation of a control wire tap in combination with busbar or box terminal connection:

- Control wire taps for busbars: This terminal is attached by screws directly to the busbar.

All control wire taps are rated for a maximum load of 15 A. Cables of up to 2.5 mm² / AWG 14 can be connected.

Benefits

- High degree of flexibility
- Cables and busbars can be connected quickly and easily to the 3VA UL molded case circuit breaker
- Extensive selection of connection accessories

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Connection technology – suitable for all installation types (fixed-mounted, plug-in and draw-out versions)

Selection and ordering data

	Version	Minimum cable cross-section (stranded) Class B	Maximum cable cross-section (stranded) Class B	For molded case circuit breakers/ Article No. stem 3VA51	3VA52	3VA61 3VA62	3VA53 3VA54 3VA63 3VA64	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
Box terminals													
 3VA9233-0JA12	**Box terminal** • Connection of Cu cable • Included in scope of supply: 3 single terminals	AWG 14	3/0	✓	--	--	--		**3VA9133-0JA11**		1	1 unit	1CB
		AWG 10	3/0	--	✓	--	--		**3VA9233-0JA11**		1	1 unit	1CB
		AWG 4	350 kcmil	--	✓	--	--		**3VA9233-0JA12**		1	1 unit	1CB
		AWG 10	3/0	--	--	✓	--		**3VA9143-0JA12**		1	1 unit	1CB
		AWG 4	350 kcmil	--	--	✓	--		**3VA9243-0JA12**		1	1 unit	1CB
		1/0	500 kcmil[1]	--	--	--	✓		**3VA9473-0JA13**		1	1 unit	1CB
 3VA9244-0JA12	**Box terminal** • Connection of Cu cable • Included in scope of supply: 4 single terminals	AWG 14	3/0 NEW	✓	--	--	--		**3VA9134-0JA11**		1	1 unit	1CB
		AWG 10	3/0 NEW	--	✓	--	--		**3VA9234-0JA11**		1	1 unit	1CB
		AWG 4 NEW	350 kcmil	--	✓	--	--		**3VA9234-0JA12**		1	1 unit	1CB
		AWG 10	3/0	--	--	✓	--		**3VA9144-0JA12**		1	1 unit	1CB
		AWG 4	350 kcmil	--	--	✓	--		**3VA9244-0JA12**		1	1 unit	1CB
		1/0	500 kcmil[1]	--	--	--	✓		**3VA9474-0JA13**		1	1 unit	1CB
 3VA9243-0JH12	**Box terminal with control wire tap** NEW • Connection of Cu cable • Included in scope of supply: 3 single terminals	AWG 14	3/0	--	✓	--	--		**3VA9233-0JH11**		1	1 unit	1CB
		AWG 10	350 kcmil	--	✓	--	--		**3VA9233-0JH12**		1	1 unit	1CB
		AWG 10	3/0	--	--	✓	--		**3VA9143-0JH12**		1	1 unit	1CB
		AWG 4	350 kcmil	--	--	✓	--		**3VA9243-0JH12**		1	1 unit	1CB
		1/0	500 kcmil	--	--	--	✓		**3VA9473-0JH13**		1	1 unit	1CB
 3VA9144-0JH12	**Box terminal with control wire tap** NEW • Connection of Cu cable • Included in scope of supply: 4 single terminals	AWG 14	3/0	--	✓	--	--		**3VA9234-0JH11**		1	1 unit	1CB
		AWG 10	350 kcmil	--	✓	--	--		**3VA9234-0JH12**		1	1 unit	1CB
		AWG 10	3/0	--	--	✓	--		**3VA9144-0JH12**		1	1 unit	1CB
		AWG 4	350 kcmil	--	--	✓	--		**3VA9244-0JH12**		1	1 unit	1CB
		1/0	500 kcmil	--	--	--	✓		**3VA9474-0JH13**		1	1 unit	1CB
Aluminum wire connectors													
 3VA9243-0JB12	**Wire connector** • Connection of Cu/Al cable • Included in scope of supply: 3 single terminals	AWG14	AWG 8 NEW	✓	--	--	--		**3VA9133-0JB10**		1	1 unit	1CB
		AWG 8	3/0	✓	--	--	--		**3VA9133-0JB11**		1	1 unit	1CB
		AWG 6	350 kcmil	--	✓	--	--		**3VA9233-0JB12**		1	1 unit	1CB
		AWG 14	1/0	--	--	✓	--		**3VA9143-0JB11**		1	1 unit	1CB
		AWG 6	350 kcmil	--	--	✓	--		**3VA9243-0JB12**		1	1 unit	1CB
		AWG 1	600 kcmil[2]	--	--	--	✓		**3VA9373-0JB13**		1	1 unit	1CB
 3VA9244-0JB12	**Wire connector** • Connection of Cu/Al cable • Included in scope of supply: 4 single terminals	AWG 14	AWG 8 NEW	✓	--	--	--		**3VA9134-0JB10**		1	1 unit	1CB
		AWG 8	3/0 NEW	✓	--	--	--		**3VA9134-0JB11**		1	1 unit	1CB
		AWG 6 NEW	350 kcmil	--	✓	--	--		**3VA9234-0JB12**		1	1 unit	1CB
		AWG 14	1/0	--	--	✓	--		**3VA9144-0JB11**		1	1 unit	1CB
		AWG 6	350 kcmil	--	--	✓	--		**3VA9244-0JB12**		1	1 unit	1CB
		AWG 1	600 kcmil[2]	--	--	--	✓		**3VA9374-0JB13**		1	1 unit	1CB
 3VA9243-0JG12	**Wire connector with control wire tap** • Connection of Cu/Al cable • Included in scope of supply: 3 single terminals	AWG 14	AWG 8 NEW	✓	--	--	--		**3VA9133-0JG10**		1	1 unit	1CB
		AWG 8	3/0	✓	--	--	--		**3VA9133-0JG11**		1	1 unit	1CB
		AWG 6	350 kcmil	--	✓	--	--		**3VA9233-0JG12**		1	1 unit	1CB
		AWG 14	1/0	--	--	✓	--		**3VA9143-0JG11**		1	1 unit	1CB
		AWG 6	350 kcmil	--	--	✓	--		**3VA9243-0JG12**		1	1 unit	1CB
		AWG 1	600 kcmil[2]	--	--	--	✓		**3VA9373-0JG13**		1	1 unit	1CB
 3VA9244-0JG12	**Wire connector with control wire tap** • Connection of Cu/Al cable • Included in scope of supply: 4 single terminals	AWG 14	AWG 8 NEW	✓	--	--	--		**3VA9134-0JG10**		1	1 unit	1CB
		AWG 8	3/0 NEW	✓	--	--	--		**3VA9134-0JG11**		1	1 unit	1CB
		AWG 6 NEW	350 kcmil	--	✓	--	--		**3VA9234-0JG12**		1	1 unit	1CB
		AWG 14	1/0	--	--	✓	--		**3VA9144-0JG11**		1	1 unit	1CB
		AWG 6	350 kcmil	--	--	✓	--		**3VA9244-0JG12**		1	1 unit	1CB
		AWG 1	600 kcmil[2]	--	--	--	✓		**3VA9374-0JG13**		1	1 unit	1CB

[1] Cable connection max. 400 A

[2] Copper cable max. 380 A; aluminum cable max. 310 A

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Connection technology – suitable for all installation types (fixed-mounted, plug-in and draw-out versions)

	Version	Minimum cable cross-section (stranded) Class B	Maximum cable cross-section (stranded) Class B	For molded case circuit breakers/ Article No. stem 3VA51	3VA52	3VA61 3VA62	3VA53 3VA54 3VA63 3VA64	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
 3VA9132-0JJ12	**Wire connector, large** NEW • Connection of Cu/Al cable • Included in scope of supply: 2 single terminals and 1 extended terminal cover	AWG 4	300 kcmil	✓	--	--	--		**3VA9132-0JJ12**		1	1 unit	1CB
 3VA9243-0JJ13	**Wire connector, large** • Connection of Cu/Al cable • Included in scope of supply: 3 single terminals and 1 terminal cover extended	AWG 4	300 kcmil	✓	--	--	--		**3VA9133-0JJ12**		1	1 unit	1CB
		AWG 2	350 kcmil	--	✓	--	--		**3VA9233-0JJ13**		1	1 unit	1CB
		AWG 2	350 kcmil	--	--	✓	--		**3VA9243-0JJ13**		1	1 unit	1CB
 3VA9244-0JJ13	**Wire connector, large** • Connection of Cu/Al cable • Included in scope of supply: 4 single terminals and 1 terminal cover extended	AWG 4 NEW	350 kcmil	✓		--	--		**3VA9134-0JJ12**		1	1 unit	1CB
		AWG 2 NEW	350 kcmil	--	✓	--	--		**3VA9234-0JJ13**		1	1 unit	1CB
		AWG 2	350 kcmil	--	--	✓	--		**3VA9244-0JJ13**		1	1 unit	1CB
 3VA9132-0JC12	**Wire connector, large, with control wire tap** NEW • Connection of Cu/Al cable • Included in scope of supply: 2 single terminals and 1 extended terminal cover	AWG 4	300 kcmil	✓	--	--	--		**3VA9132-0JC12**		1	1 unit	1CB
 3VA9243-0JC13	**Wire connector, large, with control wire tap** • Connection of Cu/Al cable • Included in scope of supply: 3 single terminals and 1 terminal cover extended	AWG 4	300 kcmil	✓	--	--	--		**3VA9133-0JC12**		1	1 unit	1CB
		AWG 2	350 kcmil	--	✓	--	--		**3VA9233-0JC13**		1	1 unit	1CB
		AWG 2	350 kcmil	--	--	✓	--		**3VA9243-0JC13**		1	1 unit	1CB
 3VA9244-0JC13	**Wire connector, large, with control wire tap** • Connection of Cu/Al cable • Included in scope of supply: 3 single terminals and 1 terminal cover extended	AWG 4 NEW	300 kcmil	✓	--	--	--		**3VA9134-0JC12**		1	1 unit	1CB
		AWG 2 NEW	350 kcmil	--	✓	--	--		**3VA9234-0JC13**		1	1 unit	1CB
		AWG 2	350 kcmil	--	--	✓	--		**3VA9244-0JC13**		1	1 unit	1CB

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Connection technology – suitable for all installation types (fixed-mounted, plug-in and draw-out versions)

	Version	Minimum cable cross-section (stranded) Class B	Maximum cable cross-section (stranded) Class B	For molded case circuit breakers/ Article No. stem 3VA51	3VA52	3VA61 3VA62	3VA53 3VA54 3VA63 3VA64	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
 3VA9243-0JJ22	**Wire connector, 2 cables** • Connection of Cu/Al cable • Included in scope of supply: 3 single terminals and 1 terminal cover extended	AWG 4	300 kcmil	--	✓	--	--		**3VA9233-0JJ22**		1	1 unit	1CB
		AWG 4	300 kcmil	--	--	✓	--		**3VA9243-0JJ22**		1	1 unit	1CB
		2/0	600 kcmil	--	--	--	✓		**3VA9473-0JJ23**		1	1 unit	1CB
 3VA9244-0JJ22	**Wire connector, 2 cables** • Connection of Cu/Al cable • Included in scope of supply: 4 single terminals and 1 terminal cover extended	AWG 4 NEW	300 kcmil	--	✓	--	--		**3VA9234-0JJ22**		1	1 unit	1CB
		AWG 4	300 kcmil	--	--	✓	--		**3VA9244-0JJ22**		1	1 unit	1CB
		2/0	600 kcmil	--	--	--	✓		**3VA9474-0JJ23**		1	1 unit	1CB
 3VA9243-0JC22	**Wire connector, 2 cables, with control wire tap** • Connection of Cu/Al cable • Included in scope of supply: 3 single terminals and 1 terminal cover extended	AWG 4	300 kcmil	--	✓	--	--		**3VA9233-0JC22**		1	1 unit	1CB
		AWG 4	300 kcmil	--	--	✓	--		**3VA9243-0JC22**		1	1 unit	1CB
		2/0	600 kcmil	--	--	--	✓		**3VA9473-0JC23**		1	1 unit	1CB
 3VA9244-0JC22	**Wire connector, 2 cables, with control wire tap** • Connection of Cu/Al cable • Included in scope of supply: 4 single terminals and 1 terminal cover extended	AWG 4 NEW	300 kcmil	--	✓	--	--		**3VA9234-0JC22**		1	1 unit	1CB
		AWG 4	300 kcmil	--	--	✓	--		**3VA9244-0JC22**		1	1 unit	1CB
		2/0	600 kcmil	--	--	--	✓		**3VA9474-0JC23**		1	1 unit	1CB

	Version	Minimum cable cross-section (stranded) Class B	Maximum cable cross-section (stranded) Class B	For molded case circuit breakers/ Article No. stem 3VA51	3VA52	3VA53 3VA54 3VA61 3VA62	3VA63 3VA64	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
 3VA9132-0JF60	**Distribution wire connector, 6 cables** NEW • Connection of Cu/Al cable • Included in scope of supply: 2 single terminals and 1 extended terminal cover	AWG 14	AWG 2	✓	--	--	--		**3VA9132-0JF60**		1	1 unit	1CB

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Connection technology – suitable for all installation types (fixed-mounted, plug-in and draw-out versions)

	Version	Minimum cable cross-section (stranded) Class B	Maximum cable cross-section (stranded) Class B	For molded case circuit breakers/ Article No. stem 3VA51	3VA52	3VA53 3VA54 3VA61 3VA62	3VA63 3VA64	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
 3VA9243-0JF60	**Distribution wire connector, 6 cables** • Connection of Cu/Al cable • Included in scope of supply: 3 single terminals and 1 terminal cover extended	AWG 14	AWG 2	✓	--	--	--		**3VA9133-0JF60**		1	1 unit	1CB
			AWG 2	--	✓	--	--		**3VA9233-0JF60**		1	1 unit	1CB
			AWG 2	--	--	✓	--		**3VA9243-0JF60**		1	1 unit	1CB
			AWG 2	--	--	--	✓		**3VA9373-0JF60**		1	1 unit	1CB
 3VA9244-0JF60	**Distribution wire connector, 6 cables** • Connection of Cu/Al cable • Included in scope of supply: 4 single terminals and 1 terminal cover extended	AWG 14	AWG 2 NEW	✓	--	--	--		**3VA9134-0JF60**		1	1 unit	1CB
		AWG 14	AWG 2 NEW	--	✓	--	--		**3VA9234-0JF60**		1	1 unit	1CB
		AWG 14	AWG 2	--	--	✓	--		**3VA9244-0JF60**		1	1 unit	1CB
			AWG 2	--	--	--	✓		**3VA9374-0JF60**		1	1 unit	1CB
Copper wire connectors													
 3VA9243-0JD12	**Copper wire connector** • Connection of Cu cable • Included in scope of supply: 3 single terminals	AWG 14	AWG 8 NEW	✓	--	--	--		**3VA9133-0JD10**		1	1 unit	1CB
		AWG 14	2/0	✓	--	--	--		**3VA9133-0JD11**		1	1 unit	1CB
		AWG 6	350 kcmil	--	✓	--	--		**3VA9233-0JD12**		1	1 unit	1CB
		AWG 14	1/0	--	--	✓	--		**3VA9143-0JD11**		1	1 unit	1CB
		AWG 6	350 kcmil	--	--	✓	--		**3VA9243-0JD12**		1	1 unit	1CB
		AWG 1	600 kcmil	--	--	--	✓		**3VA9373-0JD13**		1	1 unit	1CB
 3VA9244-0JD12	**Copper wire connector** • Connection of Cu cable • Included in scope of supply: 4 single terminals	AWG 14	AWG 8 NEW	✓	--	--	--		**3VA9134-0JD10**		1	1 unit	1CB
		AWG 14	2/0 NEW	✓	--	--	--		**3VA9134-0JD11**		1	1 unit	1CB
		AWG 6 NEW	350 kcmil	--	✓	--	--		**3VA9234-0JD12**		1	1 unit	1CB
		AWG 14	1/0	--	--	✓	--		**3VA9144-0JD11**		1	1 unit	1CB
		AWG 6	350 kcmil	--	--	✓	--		**3VA9244-0JD12**		1	1 unit	1CB
		AWG 1	600 kcmil	--	--	--	✓		**3VA9374-0JD13**		1	1 unit	1CB
 3VA9243-0JK12	**Copper wire connector, with control wire tap** • Connection of Cu cable • Included in scope of supply: 3 single terminals	AWG 14	AWG 8 NEW	✓	--	--	--		**3VA9133-0JK10**		1	1 unit	1CB
		AWG 14	2/0	✓	--	--	--		**3VA9133-0JK11**		1	1 unit	1CB
		AWG 6	350 kcmil	--	✓	--	--		**3VA9233-0JK12**		1	1 unit	1CB
		AWG 14	1/0	--	--	✓	--		**3VA9143-0JK11**		1	1 unit	1CB
		AWG 6	350 kcmil	--	--	✓	--		**3VA9243-0JK12**		1	1 unit	1CB
		AWG 1	600 kcmil	--	--	--	✓		**3VA9373-0JK13**		1	1 unit	1CB
 3VA9244-0JK12	**Copper wire connector, with control wire tap** • Connection of Cu cable • Included in scope of supply: 4 single terminals	AWG 14	AWG 8 NEW	✓	--	--	--		**3VA9134-0JK10**		1	1 unit	1CB
		AWG 8 NEW	2/0	✓	--	--	--		**3VA9134-0JK11**		1	1 unit	1CB
		AWG 6 NEW	350 kcmil	--	✓	--	--		**3VA9234-0JK12**		1	1 unit	1CB
		AWG 14	1/0	--	--	✓	--		**3VA9144-0JK11**		1	1 unit	1CB
		AWG 6	350 kcmil	--	--	✓	--		**3VA9244-0JK12**		1	1 unit	1CB
		AWG 1	600 kcmil	--	--	--	✓		**3VA9374-0JK13**		1	1 unit	1CB
 3VA9473-0JE23	**Copper wire connector, 2 cables** • Connection of Cu cable • Included in scope of supply: 3 single terminals and 1 terminal cover extended	2/0	600 kcmil	--	--	--	✓		**3VA9473-0JE23**		1	1 unit	1CB

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Connection technology – suitable for all installation types (fixed-mounted, plug-in and draw-out versions)

	Version	Minimum cable cross-section (stranded) Class B	Maximum cable cross-section (stranded) Class B	For molded case circuit breakers/ Article No. stem 3VA51	3VA52	3VA53 3VA54 3VA61 3VA62	3VA63 3VA64	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
 3VA9474-0JE23	**Copper wire connector, 2 cables** • Connection of Cu cable • Included in scope of supply: 4 single terminals and 1 terminal cover extended	2/0	600 kcmil	--	--	--	✓		**3VA9474-0JE23**		1	1 unit	1CB
 3VA9473-0JL23	**Copper wire connector, 2 cables, with control wire tap** • Connection of Cu cable • Included in scope of supply: 3 single terminals and 1 terminal cover extended	2/0	600 kcmil	--	--	--	✓		**3VA9473-0JL23**		1	1 unit	1CB
 3VA9474-0JL23	**Copper wire connector, 2 cables, with control wire tap** • Connection of Cu cable • Included in scope of supply: 4 single terminals and 1 terminal cover extended	2/0	600 kcmil	--	--	--	✓		**3VA9474-0JL23**		1	1 unit	1CB

	Version	Maximum terminal width	Maximum terminal thickness	For molded case circuit breakers/ Article No. stem 3VA51	3VA52	3VA61 3VA62	3VA53 3VA54 3VA63 3VA64	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
Nut keeper kits													
 3VA9243-0QA00	**Nut keeper kit** Included in scope of supply: • 3 single terminals	17 mm / 0.66 inch	6.5 mm / 0.25 inch	✓	--	--	--		**3VA9133-0QA00**		1	1 unit	1CB
		25 mm / 0.98 inch	8 mm / 0.31 inch	--	✓	--	--		**3VA9233-0QA00**		1	1 unit	1CB
		25 mm / 0.98 inch	8 mm / 0.31 inch	--	--	✓	--		**3VA9243-0QA00**		1	1 unit	1CB
		35 mm / 1.37 inch	10 mm / 0.39 inch	--	--	--	✓		**3VA9473-0QA00**		1	1 unit	1CB
 3VA9244-0QA00	**Nut keeper kit** Included in scope of supply: • 4 single terminals	17 mm / 0.66 inch	6.5 mm / 0.25 inch	✓ NEW	--	--	--		**3VA9134-0QA00**		1	1 unit	1CB
		25 mm / 0.98 inch	8 mm / 0.31 inch	--	✓ NEW	--	--		**3VA9234-0QA00**		1	1 unit	1CB
		25 mm / 0.98 inch	8 mm / 0.31 inch	--	--	✓	--		**3VA9244-0QA00**		1	1 unit	1CB
		35 mm / 1.37 inch	10 mm / 0.39 inch	--	--	--	✓		**3VA9474-0QA00**		1	1 unit	1CB

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Connection technology – suitable for all installation types (fixed-mounted, plug-in and draw-out versions)

	Version	Maximum terminal width	Maximum terminal thickness	For molded case circuit breakers/ Article No. stem 3VA51	3VA52	3VA61 3VA62	3VA53 3VA54 3VA63 3VA64	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
Bus connectors extended													
 3VA9131-0QB00	**Front bus connectors extended** Included in scope of supply: • 1 single connection	22 mm / 0.9 inch	8 mm / 0.3 inch	✓	--	--	--		**3VA9131-0QB00**		1	1 unit	1CB
 3VA9133-0QB00	**Front bus connectors extended** Included in scope of supply: • 3 single terminals • 2 phase barriers • 1 insulating plate	22 mm / 0.9 inch	8 mm / 0.3 inch	✓	--	--	--		**3VA9133-0QB00**		1	1 unit	1CB
 3VA9273-0QB00	**Front bus connectors extended** Included in scope of supply: • 3 single terminals • 1 insulating plate	32 mm / 1.3 inch	10 mm / 0.4 inch	--	✓	✓	--		**3VA9273-0QB00**		1	1 unit	1CB
		40 mm / 1.6 inch	12.5 mm / 0.5 inch	--	--	--	✓		**3VA9473-0QB00**		1	1 unit	1CB
	Note: Only permitted in conjunction with phase barriers! Phase barriers are included in the circuit breaker scope of supply or can be ordered as a spare part (3VA9...-.WA00).												
 3VA9134-0QB00	**Front bus connectors extended** Included in scope of supply: • 4 single terminals • 3 phase barriers • 1 insulating plate	22 mm / 0.9 inch	8 mm / 0.3 inch	✓ NEW	--	--	--		**3VA9134-0QB00**		1	1 unit	1CB
 3VA9274-0QB00	**Front bus connectors extended** Included in scope of supply: • 4 single terminals • 1 insulating plate	32 mm / 1.3 inch	10 mm / 0.4 inch	--	--	✓	--		**3VA9274-0QB00**		1	1 unit	1CB
		40 mm / 1.6 inch	12.5 mm / 0.5 inch	--	--	--	✓		**3VA9474-0QB00**		1	1 unit	1CB
	Note: Only permitted in conjunction with phase barriers! Phase barriers are included in the circuit breaker scope of supply or can be ordered as a spare part (3VA9...-.WA00).												
 3VA9473-0QC00	**Front bus connectors offset** Included in scope of supply: • 3 single terminals • 1 insulating plate Distance between pole centers: 400/600 A = 70 mm / 2.76 inches	60 mm / 2.4 inches	12.5 mm / 0.5 inch	--	--	--	✓		**3VA9473-0QC00**		1	1 unit	1CB
	Note: Only permitted in conjunction with phase barriers! Phase barriers are included in the circuit breaker scope of supply or can be ordered as a spare part (3VA9...-.WA00).												
 3VA9474-0QC00	**Front bus connectors offset** Included in scope of supply: • 4 single terminals • 1 insulating plate Distance between pole centers: 400/600 A = 70 mm / 2.76 inches	60 mm / 2.4 inches	12.5 mm / 0.5 inch	--	--	--	✓		**3VA9474-0QC00**		1	1 unit	1CB
	Note: Only permitted in conjunction with phase barriers! Phase barriers are included in the circuit breaker scope of supply or can be ordered as a spare part (3VA9...-.WA00).												

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Connection technology – suitable for all installation types (fixed-mounted, plug-in and draw-out versions)

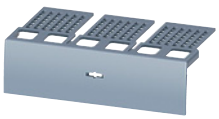
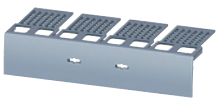
	Version	For molded case circuit breakers/ Article No. stem				SD	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		3VA51	3VA52	3VA61 3VA62	3VA53 3VA54 3VA63 3VA64	d					
Rear connection studs flat											
 3VA9243-0QE00	**Rear connection studs flat** Included in scope of supply: • 2 short connection studs flat • 1 long connection stud flat	✓	--	--	--		**3VA9133-0QE00**		1	1 unit	1CB
		--	✓	--	--		**3VA9233-0QE00**		1	1 unit	1CB
		--	--	✓	--		**3VA9243-0QE00**		1	1 unit	1CB
		--	--	--	✓		**3VA9473-0QE00**		1	1 unit	1CB
 3VA9244-0QE00	**Rear connection studs flat** Included in scope of supply: • 2 short connection studs flat • 2 long connection studs flat	✓	--	--	--		**3VA9134-0QE00**		1	1 unit	1CB
		--	✓	--	--		**3VA9234-0QE00**		1	1 unit	1CB
		--	--	✓	--		**3VA9244-0QE00**		1	1 unit	1CB
		--	--	--	✓		**3VA9474-0QE00**		1	1 unit	1CB
 3VA9241-0QE10	**Rear connection studs flat** Included in scope of supply: • 1 short connection stud flat	✓	--	--	--		**3VA9131-0QE10**		1	1 unit	1CB
		--	✓	--	--		**3VA9231-0QE10**		1	1 unit	1CB
		--	--	✓	--		**3VA9241-0QE10**		1	1 unit	1CB
		--	--	--	✓		**3VA9471-0QE10**		1	1 unit	1CB
 3VA9241-0QE20	**Rear connection studs flat** Included in scope of supply: • 1 long connection stud flat	✓	--	--	--		**3VA9131-0QE20**		1	1 unit	1CB
		--	✓	--	--		**3VA9231-0QE20**		1	1 unit	1CB
		--	--	✓	--		**3VA9241-0QE20**		1	1 unit	1CB
		--	--	--	✓		**3VA9471-0QE20**		1	1 unit	1CB
Rear connection studs round											
 3VA9243-0QF00	**Rear connection studs round** Included in scope of supply: • 1 long connection stud round • 2 short connection studs round	✓	--	--	--		**3VA9133-0QF00**		1	1 unit	1CB
			✓	--	--		**3VA9233-0QF00**		1	1 unit	1CB
		--	--	✓	--		**3VA9243-0QF00**		1	1 unit	1CB
		--	--	--	✓		**3VA9473-0QF00**		1	1 unit	1CB
 3VA9244-0QF00	**Rear connection studs round** Included in scope of supply: • 2 long connection studs round • 2 short connection studs round	✓	--	--	--		**3VA9134-0QF00**		1	1 unit	1CB
			✓	--	--		**3VA9234-0QF00**		1	1 unit	1CB
		--	--	✓	--		**3VA9244-0QF00**		1	1 unit	1CB
		--	--	--	✓		**3VA9474-0QF00**		1	1 unit	1CB
 3VA9241-0QF10	**Rear connection studs round** Included in scope of supply: • 1 short connection stud round	✓	--	--	--		**3VA9131-0QF10**		1	1 unit	1CB
		--	✓	--	--		**3VA9231-0QF10**		1	1 unit	1CB
		--	--	✓	--		**3VA9241-0QF10**		1	1 unit	1CB
		--	--	--	✓		**3VA9471-0QF10**		1	1 unit	1CB
 3VA9241-0QF20	**Rear connection studs round** Included in scope of supply: • 1 long connection stud round	✓	--	--	--		**3VA9131-0QF20**		1	1 unit	1CB
		--	✓	--	--		**3VA9231-0QF20**		1	1 unit	1CB
		--	--	✓	--		**3VA9241-0QF20**		1	1 unit	1CB
		--	--	--	✓		**3VA9471-0QF20**		1	1 unit	1CB
Phase barriers											
 3VA9272-0WA00	**Phase barriers** Included in scope of supply: • 2 phase barriers	✓	--	--	--		**3VA9132-0WA00**		1	1 unit	1CB
		--	✓	✓	--		**3VA9272-0WA00**		1	1 unit	1CB
		--	--	--	✓		**3VA9472-0WA00**		1	1 unit	1CB

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Minimum order quantity (PS) or a multiple thereof can be ordered.

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Connection technology – suitable for all installation types (fixed-mounted, plug-in and draw-out versions)

	Version	For molded case circuit breakers/ Article No. stem				SD	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		3VA51	3VA52	3VA61 3VA62	3VA53 3VA54 3VA63 3VA64	d					
Terminal covers											
 3VA9131-0WD10	**Terminal cover for 1-pole breakers**	✓	--	--	--		**3VA9131-0WD10**		1	1 unit	1CB
	Terminal cover for circuit breakers, 2-pole NEW	✓	--	--	--		**3VA9131-0WD20**		1	1 unit	1CB
 3VA9271-0WD30	**Terminal cover for 3-pole breakers**	✓	--	--	--		**3VA9131-0WD30**		1	1 unit	1CB
		--	✓	✓	--		**3VA9271-0WD30**		1	1 unit	1CB
		--	--	--	✓		**3VA9471-0WD30**		1	1 unit	1CB
 3VA9271-0WD40	**Terminal cover for 4-pole breakers**	✓ NEW	--	--	--		**3VA9131-0WD20**		1	1 unit	1CB
		--	✓	✓	--		**3VA9271-0WD40**		1	1 unit	1CB
		--	--	--	✓		**3VA9471-0WD40**		1	1 unit	1CB
 3VA9131-0WF20	**Terminal cover extended for circuit breakers, 2-pole** NEW	✓	--	--	--		**3VA9131-0WF20**		1	1 unit	1CB
 3VA9271-0WF30	**Terminal cover extended for 3-pole breakers**	✓	--	--	--		**3VA9131-0WF30**		1	1 unit	1CB
		--	✓	✓	--		**3VA9271-0WF30**		1	1 unit	1CB
		--	--	--	✓		**3VA9471-0WF30**		1	1 unit	1CB
 3VA9271-0WF40	**Terminal cover for 4-pole breakers**	✓ NEW	--	--	--		**3VA9131-0WF40**		1	1 unit	1CB
		--	✓	✓	--		**3VA9271-0WF40**		1	1 unit	1CB
		--	--	--	✓		**3VA9471-0WF40**		1	1 unit	1CB
 3VA9471-0WG30	**Terminal cover offset for 3-pole breakers**	--	--	--	✓		**3VA9471-0WG30**		1	1 unit	1CB

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Connection technology – suitable for all installation types (fixed-mounted, plug-in and draw-out versions)

	Version	For molded case circuit breakers/ Article No. stem				SD	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		3VA51	3VA52	3VA61 3VA62	3VA53 3VA54 3VA63 3VA64	d					
 3VA9471-0WG40	**Terminal cover offset for 4-pole breakers**	--	--	--	✓		**3VA9471-0WG40**		1	1 unit	1CB
Insulating plates specially for fixed mounting											
 3VA9131-0WJ20	**Insulating plate, 2-pole** NEW	✓	--	--	--		**3VA9131-0WJ20**		1	1 unit	1CB
 3VA9271-0WJ30	**Insulating plate, 3-pole**	✓	--	--	--		**3VA9131-0WJ30**		1	1 unit	1CB
		--	✓	✓	--		**3VA9271-0WJ30**		1	1 unit	1CB
		--	--	--	✓		**3VA9471-0WJ30**		1	1 unit	1CB
 3VA9271-0WJ40	**Insulating plate, 4-pole**	✓ NEW	--	--	--		**3VA9131-0WJ40**		1	1 unit	1CB
		--	✓	✓	--		**3VA9271-0WJ40**		1	1 unit	1CB
		--	--	--	✓		**3VA9471-0WJ40**		1	1 unit	1CB
 3VA9471-0WK30	**Rear insulating plate offset, 3-pole**	--	--	--	✓		**3VA9471-0WK30**		1	1 unit	1CB
 3VA9471-0WK40	**Rear insulating plate offset, 4-pole**	--	--	--	✓		**3VA9471-0WK40**		1	1 unit	1CB
Control wire taps specially for fixed mounting											
 3VA9270-0WC00	**Control wire tap for busbar**	--	✓	✓	--		**3VA9270-0WC00**		1	10 units	1CB
		--	--	--	✓		**3VA9470-0WC00**		1	10 units	1CB

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Plug-in and draw-out technology

Overview

Using plug-in and draw-out technology the 3VA UL molded case circuit breakers can be installed/removed or replaced quickly and safely. In this case, the cables or busbars of the main current paths are connected to the taps of the plug-in socket or the draw-out socket.

The incoming and outgoing feeder ends of the socket unit termination area are designed to match the relevant 3VA UL molded case circuit breaker. The major benefit of this design feature is that all terminal and connection variants of the molded case circuit breaker are fully compatible with the corresponding plug-in or draw-out unit.

A 3VA UL molded case circuit breaker in the plug-in or draw-out version has plug-in contacts on the input and load side of the main terminals. When the circuit breaker is plugged or moved into the socket, the plug-in contacts slide into the socket-side tulip contacts and connect the main current paths with the circuit breaker. In addition, auxiliary circuit connectors can be used to connect the auxiliary and control signals from the internal accessories of the molded case circuit breaker to the outside.

The main differences between plug-in units and draw-out units are convenience of operation and the potential for functional expansion.

Plug-in technology

Plug-in technology is the less expensive and more space-saving of the two solutions. The plug-in version of the molded case circuit breaker is equipped with plug-in contacts on the back of the 3VA UL breaker that make a friction-locked and keyed connection with the corresponding mating connectors in the plug-in socket. The plug-in unit can be supplied as a complete kit or as a conversion kit for breakers including screw-fastened terminal covers.

Draw-out technology

Draw-out versions of the molded case circuit breaker are also equipped with plug-in contacts at the main current paths.
In addition, side walls including guide and support bolts are bolted to the sides of the molded case circuit breaker. With this version, the mating component is the draw-out socket. It is also equipped with a guide mechanism via which the molded case circuit breaker is moved into the draw-out socket by means of a handle in order to connect the breaker to the main circuits.
The operator can clearly read from a position indicator whether the breaker is properly connected to the main circuits or safely isolated from them (so that it can be withdrawn).
Position signaling switches which transmit the position information CONNECT, TEST, and DISCONNECT can be integrated in the right-hand side wall of the draw-out unit.
A special set of position signaling switches transfers the position data to the COM060 communication module via a preassembled wire.
The draw-out complete kit as well as the draw-out conversion kit for one breaker are available. Both kits include screw-fastened terminal covers for the breaker. The crank handle for the draw-out unit must be ordered separately.

Note:
Plug-in and draw-out technologies are only available for the 3VA6 molded case circuit breakers with Electronic Trip Units.
The plug-in or draw-out sockets of the breaker sizes 250 A to 400 A (3VA61, 3VA62 and 3VA63) can be equipped with all available connecting terminals.
Special plug-in and draw-out sockets are available for the breaker size 600 A (3VA64). Offset bus connectors are also supplied in this case. For temperature reasons, only this connection technology is possible with this breaker size.
For temperature reasons, 100% rated breakers cannot be used with plug-in or draw-out technology.

Benefits

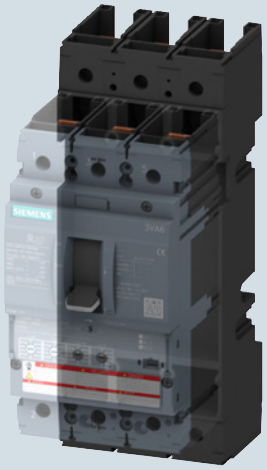
- Molded case circuit breakers can be replaced quickly and easily for the purpose of overhaul or servicing
- Electrical isolation and clearly visible isolating distance
- Socket can be interlocked to prevent the 3VA UL molded case circuit breaker from being plugged in or moved in
- Identical connection technology for all molded case circuit breakers, whether they are plug-in, draw-out or fixed-mounted units
- Test of the auxiliary and control circuit connections in the test position of the draw-out unit possible without contacted main current paths

Installation variants

3VA6 molded case circuit breakers are available in the following installation variants:



① Fixed-mounted



② Plug-in technology



③ Draw-out technology

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Selection and ordering data

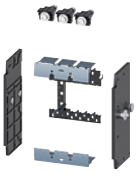
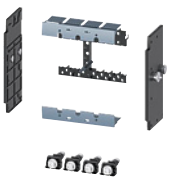
	Version	For molded case circuit breakers/Article No. stem 3VA61 3VA62	3VA63	3VA64	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
Plug-in socket										
	Plug-in unit, complete kit Comprising: • Plug-in socket • Plug-in unit, conversion kit • Mounting screw kit									
	Versions									
 3VA9143-0KP00	• 3-pole	✓	--	--		**3VA9143-0KP00**		1	1 unit	1CB
		--	✓	--		**3VA9343-0KP00**		1	1 unit	1CB
		--	--	✓		**3VA9443-0KP00**		1	1 unit	1CB
 3VA9144-0KP00	• 4-pole	✓	--	--		**3VA9144-0KP00**		1	1 unit	1CB
		--	✓	--		**3VA9344-0KP00**		1	1 unit	1CB
		--	--	✓		**3VA9444-0KP00**		1	1 unit	1CB
	Plug-in unit, conversion kit Comprising: • Screw-fastened terminal covers for molded case circuit breakers • Plug-in contacts • Cable cages • Autotrip plunger									
	Versions									
 3VA9143-0KP10	• 3-pole	✓	--	--		**3VA9143-0KP10**		1	1 unit	1CB
		--	✓	✓		**3VA9343-0KP10**		1	1 unit	1CB
 3VA9144-0KP10	• 4-pole	✓	--	--		**3VA9144-0KP10**		1	1 unit	1CB
		--	✓	✓		**3VA9344-0KP10**		1	1 unit	1CB

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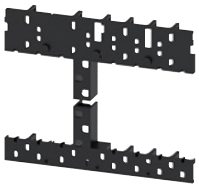
Plug-in and draw-out technology

Draw-out units

Version	For molded case circuit breakers/Article No. stem 3VA61 3VA62	3VA63	3VA64	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
Draw-out unit, complete kit Comprising: • Draw-out socket • Draw-out unit, conversion kit • Mounting screw kit									
Versions									
 3VA9143-0KD00 • 3-pole	✓	--	--		**3VA9143-0KD00**		1	1 unit	1CB
	--	✓	--		**3VA9343-0KD00**		1	1 unit	1CB
	--	--	✓		**3VA9443-0KD00**		1	1 unit	1CB
 3VA9144-0KD00 • 4-pole	✓	--	--		**3VA9144-0KD00**		1	1 unit	1CB
	--	✓	--		**3VA9344-0KD00**		1	1 unit	1CB
	--	--	✓		**3VA9444-0KD00**		1	1 unit	1CB
Note									
The crank handle for the draw-out unit must be ordered separately.									
Draw-out unit, conversion kit Conversion kit comprising: • Screw-fastened terminal covers for molded case circuit breakers • Side walls • Plug-in contacts • Cable cages • Autotrip plungers									
Versions									
 3VA9143-0KD10 • 3-pole	✓	--	--		**3VA9143-0KD10**		1	1 unit	1CB
	--	✓	✓		**3VA9343-0KD10**		1	1 unit	1CB
 3VA9144-0KD10 • 4-pole	✓	--	--		**3VA9144-0KD10**		1	1 unit	1CB
	--	✓	✓		**3VA9344-0KD10**		1	1 unit	1CB

Minimum order quantity (PS) or a multiple thereof can be ordered.

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	Version	For molded case circuit breakers/ Article No. stem 3VA61 3VA62	3VA63 3VA64	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
Cable cage									
 3VA9167-0KB02	**Cable cage for plug-in/draw-out unit 3/4-pole (spare part)** Cable duct for routing of the required cables from the internal accessories on the back of the circuit breaker	✓	--		**3VA9167-0KB02**		1	1 unit	1CB
Door feedthrough									
 3VA9147-0KT00	**Door feedthrough** • Accessory for circuit breaker, 3-/4-pole 3VA6 150/250	✓	--		**3VA9147-0KT00**		1	1 unit	1CB
	• Accessory for circuit breaker, 3-/4-pole 3VA6 400/600	--	✓		**3VA9347-0KT00**		1	1 unit	1CB
Spare part: Autotrip plunger									
 3VA9267-0KP81	**Autotrip plunger** • Accessories for plug-in unit	✓	--		**3VA9267-0KP81**		1	1 unit	1CB
	• Accessories for draw-out unit	✓	--		**3VA9267-0KD81**		1	1 unit	1CB

	Version	For molded case circuit breakers/ Article No. stem 3VA61 3VA62	3VA63 3VA64	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
Terminal covers									
	Terminal cover for plug-in/draw-out unit (spare part) • To provide circuit breaker touch protection • For mounting on the molded case circuit breaker								
	Versions								
  3VA9143-0KB01	• 3-pole	✓	--		**3VA9143-0KB01**		1	1 unit	1CB
		--	✓		**3VA9343-0KB01**		1	1 unit	1CB
  3VA9144-0KB01	• 4-pole	✓	--		**3VA9144-0KB01**		1	1 unit	1CB
		--	✓		**3VA9344-0KB01**		1	1 unit	1CB

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Plug-in and draw-out technology

	Version	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
Other accessories							
 3VA9977-0KC00	**Communication link for draw-out unit** Comprising: • Cable kit with 3 special position signaling switches • Connecting cable 3VA9987-0KC10		**3VA9977-0KC00**		1	1 unit	1CB
 3VA9977-0KB00	**Position signaling switches** • For draw-out unit • For plug-in unit		**3VA9977-0KB00**		1	1 unit	1CB
 3VA9987-0KC10	**Spare connecting cable** To connect the position signaling switches for communication with the COM060		**3VA9987-0KC10**		1	1 unit	1CB
 3VA9987-0KD81	**Crank handle for draw-out unit** Insulated, incl. crank holder		**3VA9987-0KD81**		1	1 unit	1CB
 3VA9977-0KD80	**Auxiliary circuit connector**						
	Versions						
	• For all draw-out units		**3VA9977-0KD80**		1	1 unit	1CB
	• For all plug-in units		**3VA9977-0KP80**		1	1 unit	1CB

	Version	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
 3VA9980-0VL10	**Cylinder lock (type Ronis)**						
	• Includes a lock with 2 keys		**3VA9980-0VL10**		1	1 unit	1CB
	• For locking		**3VA9980-0VL20**				
	• For installation in all rotary operators with shaft stub		**3VA9980-0VL30**		1	1 unit	1CB
	• For mounting in the adapter kit for the accessory compartment		**3VA9980-0VL40**		1	1 unit	1CB
 3VA9970-0LF40	**Cylinder lock adapter for draw-out unit** • For fitting a cylinder lock in the right-hand side wall of the draw-out unit • To prevent unauthorized withdrawal or insertion of the circuit breaker into the draw-out unit • Circuit breaker can be locked in the CONNECT, TEST and DISCONNECT positions		**3VA9970-0LF40**		1	1 unit	1CB

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Overview

Metering function

The Rogowski coils integrated in the 3VA6 molded case circuit breakers are capable of delivering particularly accurate current measurements. An additional voltage tap is integrated in molded case circuit breakers equipped with an 8-series ETU, which means that energy data can also be measured – the 3VA6 molded case circuit breaker therefore offers a range of metering functions similar to those available with the tried-and-tested 7KM PAC measuring device!

An external current transformer for N conductors is available to allow direct measurement of the neutral conductor current with 3-pole molded case circuit breakers. When the 3-pole circuit breaker is installed in the 4-pole network, it is advisable to deploy the voltage tap at the neutral conductor so that the neutral point of the voltage network can be fixed.

Communication via the COM800/COM100 breaker data server

The 3VA6 molded case circuit breaker utilizes an innovative, modern communication concept. This concept is based on the COM800 breaker data server which can link up to eight molded case circuit breakers to different bus systems. For applications involving only one 3VA6 molded case circuit breaker, the COM100 is an ideal alternative to the COM800 breaker data server.

The COM060 communication module in the molded case circuit breaker is wired via a T-Connector to the COM800/COM100 breaker data server. Integrated as standard in the COM800/COM100 breaker data server is an Ethernet interface with the Modbus TCP protocol to allow communication with powerconfig and the powermanager. Optional communication modules can be installed to provide different communication protocols. An additional benefit of this structure is that the communication costs per molded case circuit breaker decrease with every further circuit breaker that is connected to the COM800 breaker data server.

The communication equipment for the molded case circuit breakers can be installed and connected extremely easily, reliably and efficiently thanks to the connector system used. The 24 V DC supply to the Electronic Trip Units is also reliably provided by these connections. The breaker data server utilizes independent supplementary functions to deliver valuable information about the connected molded case circuit breakers and the power distribution system.

Flexible communication thanks to optional expansion modules

With COM800/COM100, the 3VA6 molded case circuit breakers can be integrated into the relevant communication networks via the following optional expansion modules:

- Switched Ethernet PROFINET IO
- PROFIBUS DPV1
- RS 485 / Modbus RTU

3VA UL molded case circuit breakers are integrated in STEP 7 (TIA Portal), Version 14 or higher, and an additional engineering tool is not required. GSD and GSDML files are available for integration in third-party systems.

DSP800 display

The DSP800 display can be used to show breaker information (status, measured values, parameters) on the panel door. It communicates via the integral Ethernet interface with the COM800/COM100 and is thus able to display the data of up to 8 3VA6 molded case circuit breakers simultaneously.

EFB300 external function box

The EFB300 external function box is linked directly to the ETU of the 3VA6 molded case circuit breaker by a cable. It provides four digital outputs and one digital input. The powerconfig software can be used to set which information is to be output from the ETU via the four digital outputs:

- All reasons for tripping, categorized according to LSING
- Overload alarms AL1 and AL2
- Pre-trip alarm from overload protection system
- Load shedding and load pick-up
- Temperature alarm
- Output of an energy pulse (S0 signal), in combination with an 8-series ETU only

A zone selective interlocking functionality (ZSI) can also be implemented via the module.

Note:

A TD500 or the COM060 and COM800/COM100 combination is needed to program a change in the output assignments with powerconfig.

TD300 and TD500 test devices

The TD300 activation and trip box is a mobile, battery-operated local test device. One of its functions is to provide a temporary power supply to the Electronic Trip Units (ETUs) so that they can be operated and parameterized. It is also used to test the tripping function of the molded case circuit breaker.

The TD500 mobile test device allows the proper functioning and connections of all connected system components to be tested at the breaker commissioning stage because it is capable of simulating every conceivable cause of breaker tripping. The molded case circuit breaker responds as if the emergency were real – it trips in accordance with the set parameters and transmits all alarm and trip signals to the connected components.

The TD500 test device can be used as a hand-held tester or in conjunction with a PC. In the latter case, the TD500 test device is connected to the PC via a supplied USB cable and acts as a gateway to the 3VA6 molded case circuit breaker. Using the powerconfig software, it is possible to read out or modify the setting parameters of the molded case circuit breaker and monitor the measured values.

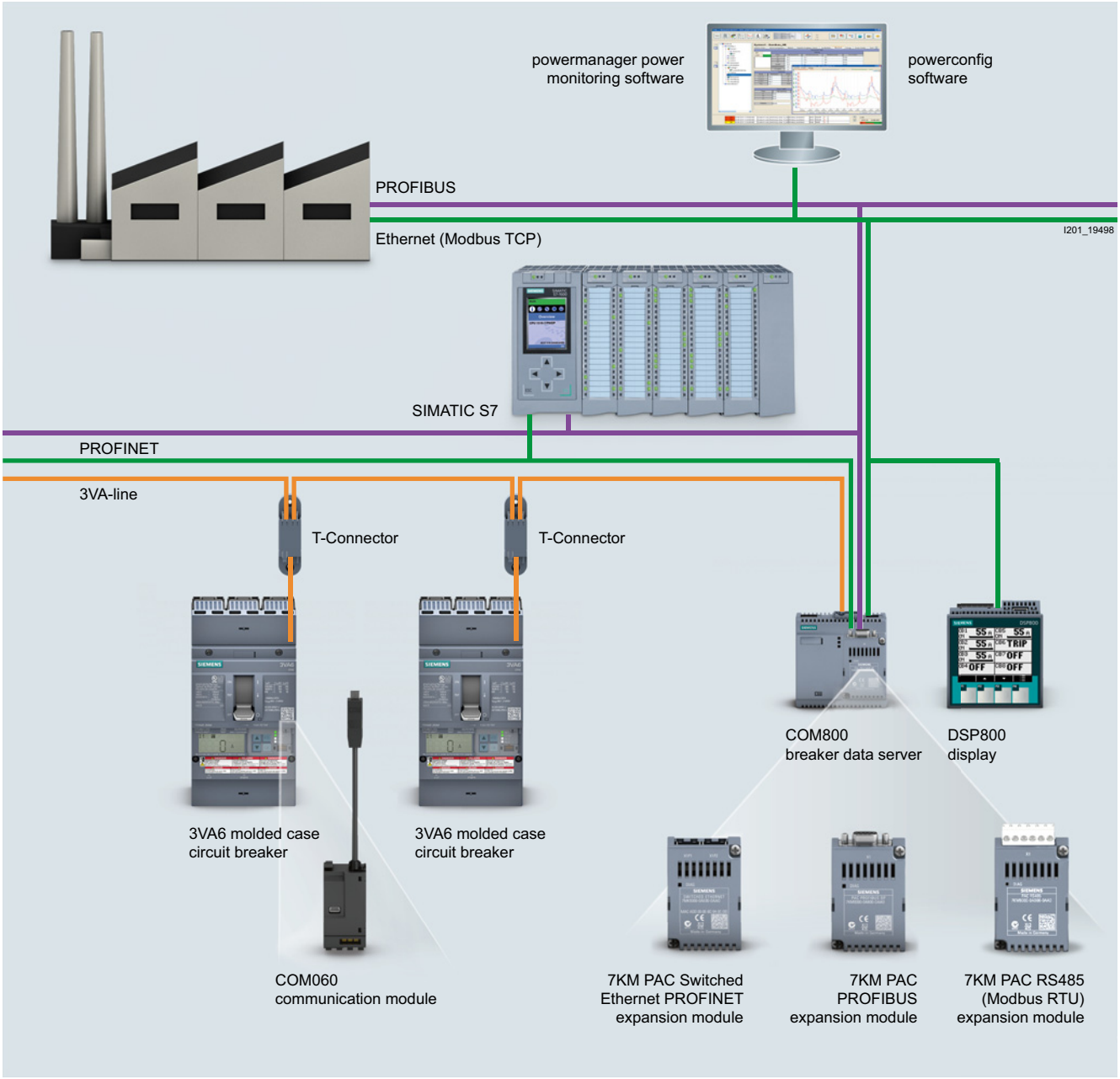
Benefits

- The metering function integrated in 8-series ETUs can acquire energy data without requiring additional external transformers
- The COM800 breaker data server provides a cost-efficient communication interface for up to 8 3VA6 molded case circuit breakers
- Universal bus interfaces are available for the COM800/COM100 breaker data server
- Standardized engineering thanks to integration in STEP 7 (TIA Portal)
- Universal S0 interface for the output of energy pulses
- 100 test results can be stored with the TD500 test device
- Status and measured values of up to 8 molded case circuit breakers are displayed in the panel door using the DSP800

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Design



Minimum order quantity (PS) or a multiple thereof can be ordered.

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Overview of the metering functions

Metering function[1)]			ETUs of the 5-series	ETUs of the 8-series	Display Display in ETU	Display DSP800	Communication COM800/COM100
Current							
Phase and neutral conductor currents	I_1, I_2, I_3, I_N	A	✓	✓	👁	👁	👁
Residual current to ground	I_g	A	✓	✓	👁	👁	👁
Phase with highest load		A	✓	✓	👁	👁	👁
Mean value over the three phase currents	$I_{LAVG} = (I_1+I_2+I_3)/3$	A	--	✓	--	👁	👁
Asymmetry of the phase currents	I_{nba}	%	--	✓	--	👁	👁
THD of the 3 phases	$THDI_1$, $THDI_2$, $THDI_3$	%	--	✓	--	👁	👁
Voltage							
Phase voltages incl. mean value	U_{12}, U_{23}, U_{31}, U_{phavg}	V	--	✓	👁	👁	👁
Voltages to N conductor incl. mean value	U_{1N}, U_{2N}, U_{3N}, U_{Navg}	V	--	✓	--	👁	👁
Voltage unbalance		%	--	✓	--	👁	👁
THD phase/phase and phase/N	$THDI_1$, $THDI_2$, $THDI_3$	%	--	✓	--	👁	👁
Power							
Active power, total and per phase	P_1, P_2, P_3, P_{tot}	kW	--	✓	👁 (P_{tot})	👁	👁
Apparent power, total and per phase	S_1, S_2, S_3, S_{tot}	kVA	--	✓	--	👁	👁
Reactive power, total and per phase	Q_1, Q_2, Q_3, Q_{tot}	kVAr	--	✓	👁	👁	👁
Power factor of the fundamental	PF_1, PF_2, PF_3, PF_{avg}		--	✓	👁 (PF_{avg})	👁	👁
Energy							
Active energy, infeed and feedback	E_p	kWh	--	✓	👁	👁	👁
Reactive energy, infeed and feedback	E_q	kVArh	--	✓	--	👁	👁
Apparent energy	E_s	kVAh	--	✓	--	👁	👁
Frequency							
Present frequency	f	Hz	--	✓	👁	👁	👁
Maximum pointer function							
Min/max current, voltage, power	with time stamp		--	--	--	--	👁

1) Depending on ETU version

✓ Available -- Not available

👁 Displayable

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Accuracy specifications

Accuracy levels of the specified measured values of the 8-series ETU, including the integrated current sensors:

Measured value	Additional condition	Accuracy in % of the read-off measured value
Current	0.08 x I_b ... 2 x I_b	±1%
Voltage (L-N)	80 V < U < 480 V	±1%
THD current	Up to the 19th harmonic 0.08 x I_b ... 2 x I_b	±5%
THD voltage	Up to the 19th harmonic 80 V < U < 480 V	±5%
Power factor PF	0.08 x I_b ... 2 x I_b	± 0.05% absolute
Active power	I_b and U_n as described below the table	Class 2 according to IEC 61557-12
Active energy	I_b and U_n as described below the table	Class 2 according to IEC 61557-12
Reactive power	0.08 x I_b ... 2 x I_b	±2%
Apparent power	PF ≥ 0.6 inductive PF ≥ 0.8 capacitive	
Reactive energy	0.08 x I_b ... 2 x I_b	±2%
Apparent energy	PF ≥ 0.6 inductive PF ≥ 0.8 capacitive	
Frequency	80 V < U < 480 V	±0.1%

Legend:

I_b is the maximum current in the relevant size.

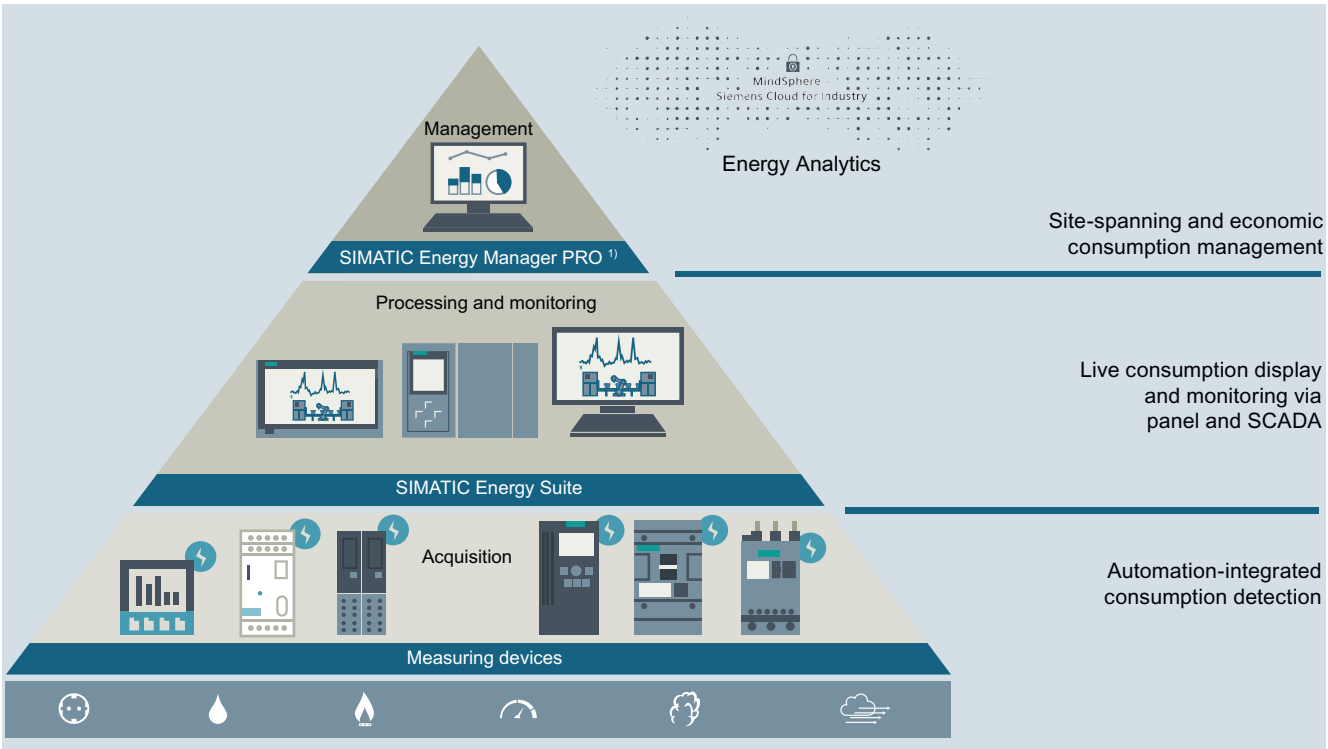
Example: 3VA21 → I_b = 160 A

U_n refers to the nominal voltage of the metering function; between phase and neutral

All specified accuracies refer to an ambient temperature of 23 °C ± 2 °C.

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Integrated energy management



SIMATIC Energy Suite

A high energy consumption and automated production are typical for many industries.

If you want to keep your energy costs under control in the long term and you are already focusing on the digital future, you will equip your plant with integrated energy measuring technology, thus anchoring your energy management in the automation of your production processes – which is where most energy is consumed. SIMATIC Energy Suite as an integrated option for the TIA Portal efficiently links energy management with automation, thus creating energy transparency in production.
The significantly simplified configuration of power-measuring components from the SIMATIC, SENTRON, SINAMICS, SIRIUS and SIMOCODE product families[2] substantially reduces configuration effort. Thanks to consistent interfacing to SIMATIC Energy Manager PRO[1] or to the cloud-based Energy Analytics service, recorded energy data can be expanded seamlessly into a cross-location energy management system.

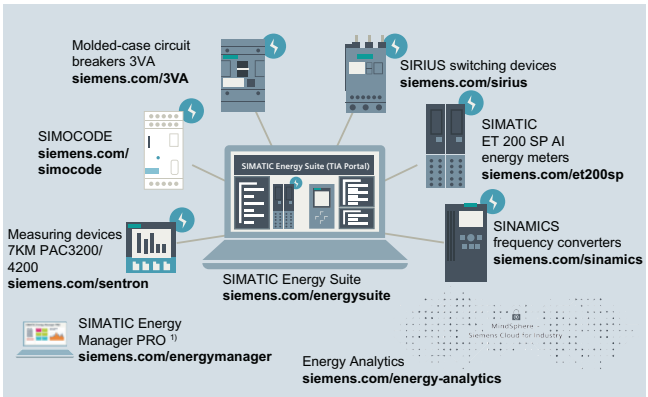
This way, businesses can also do justice to all other required economic and management energy aspects, from purchasing energy through planning to energy controlling.

The advantages at a glance:

- Automatic generation of energy management data
- Integration into TIA Portal and the automation system
- Easy configuration

Highlights

- Simple and intuitive configuration instead of programming
- Automatic generation of the PLC energy program
- Convenient integration of measuring components from the Siemens portfolio and from other manufacturers
- Integrated into TIA Portal and the automation system
- Archiving in WinCC Professional or PLC
- Seamless interfacing to Energy Manager PRO and Energy Analytics



Ready for SIMATIC Energy Suite

For more information on SIMATIC Energy Suite:
www.siemens.com/energysuite

1) SIMATIC Energy Manager PRO is the innovative successor of SIMATIC B.Data
2) Products from the SIMATIC, SENTRON, SINAMICS, SIRIUS and SIMOCODE product families. You will find details of currently supported devices here: www.siemens.com/energysuite-hardware

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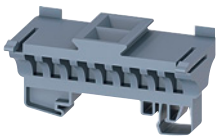
Communication and testing/commissioning devices

Selection and ordering data

	Version	For molded case circuit breakers/ Article No. stem 3VA61 3VA62	3VA63 3VA64	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
24 V module									
 3VA9177-0TB50	**24 V module** • 24 V DC • For mounting in the right-hand accessory compartment of the 3VA6 • Optional energy supply for the ETU, also includes continuous operation of the ETU display and the metering function of the ETU 8-series	✓	--		**3VA9177-0TB50**		1	1 unit	1CB
		--	✓		**3VA9377-0TB50**		1	1 unit	1CB
Communication accessories in the molded case circuit breaker									
 3VA9177-0TB10	**COM060 communication module** • For mounting in the right-hand accessory compartment of the 3VA6 molded case circuit breaker (including ETU power supply) • Communication with the COM800/COM100 breaker data server via the 3VA-line • Including a T-Connector	✓	--		**3VA9177-0TB10**		1	1 unit	1CB
		--	✓		**3VA9377-0TB10**		1	1 unit	1CB
Breaker data server									
 3VA9977-0TA10	**COM800 breaker data server** • 2 terminating resistors • Central communication module for connecting up to eight 3VA6 molded case circuit breakers via the 3VA-line • Ethernet 10/100 Mps interface • Module slot for plugging on an optional PROFIBUS DP, PROFINET or RS 485 module				**3VA9977-0TA10**		1	1 unit	1CB
 3VA9977-0TA20	**COM100 breaker data server** • 2 terminating resistors • Optimized, central communication module for connecting a 3VA6 molded case circuit breaker via the 3VA-line • Ethernet 10/100 Mps interface • Module slot for plugging on an optional PROFIBUS DP, PROFINET or RS 485 module				**3VA9977-0TA20**		1	1 unit	1CB
 7KM9300-0AB01-0AA0	**7KM PAC PROFIBUS DP expansion module** • The 7KM PAC PROFIBUS DP expansion module is used for connecting the COM800/COM100 breaker data server, and the 3VA molded case circuit breakers connected to it, to PROFIBUS DPV1. • The 7KM PAC PROFIBUS DP expansion module provides the status and measured quantities of the 3VA molded case circuit breaker for the PROFIBUS DP master. It receives information (e.g. commands) from the PROFIBUS DP master, and forwards this information to the 3VA molded case circuit breaker.				**7KM9300-0AB01-0AA0**		1	1 unit	1DD
 7KM9300-0AE01-0AA0	**7KM PAC Switched Ethernet PROFINET expansion module** • The 7KM PAC Switched Ethernet PROFINET expansion module is used to connect the COM800/COM100 breaker data server, and the 3VA molded case circuit breakers connected to it, to PROFINET via two Ethernet interfaces. • The 7KM PAC Switched Ethernet PROFINET expansion module provides the status and measured quantities of the 3VA molded case circuit breakers to PROFINET via the PROFINET IO, PROFIenergy and Modbus TCP protocols.				**7KM9300-0AE01-0AA0**		1	1 unit	1DD
 7KM9300-0AM00-0AA0	**7KM PAC RS 485 Modbus RTU expansion module** • The 7KM PAC RS 485 Modbus expansion module is used to connect the COM800/COM100 breaker data server, and the 3VA molded case circuit breakers connected to it, to Modbus RTU. • The 7KM PAC RS 485 Modbus expansion module provides the status and measured quantities of the 3VA molded case circuit breaker for the Modbus RTU master. It receives information (e.g. commands) from the Modbus RTU master, and forwards this information to the 3VA molded case circuit breaker.				**7KM9300-0AM00-0AA0**		1	1 unit	1DD

Minimum order quantity (PS) or a multiple thereof can be ordered.

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	Version	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
Accessories for communication							
 3VA9987-0TG10	**T-Connector** • Spare part • Provides spur line feeder to COM060 and loops through to the next circuit breaker. • Includes a connection adapter for mounting on the 3VA6 breaker enclosure		**3VA9987-0TG10**		1	1 unit	1CB
 3VA9987-0TG11	**DIN rail adapter** For snapping the T-Connector onto a DIN rail.		**3VA9987-0TG11**		1	1 unit	1CB
 3VA9987-0TC10	**Preassembled T-Connector-to-T-Connector or T-Connector-to-COM800/COM100 connecting cable**						
	• 0.4 m long		**3VA9987-0TC10**		1	1 unit	1CB
	• 1 m long		**3VA9987-0TC20**		1	1 unit	1CB
	• 2 m long		**3VA9987-0TC30**		1	1 unit	1CB
	• 4 m long		**3VA9987-0TC40**		1	1 unit	1CB
 3VA9987-0TF20	**Preassembled connecting cable for extending the COM060-to-T-Connector spur line connection**						
	• 0.4 m long		**3VA9987-0TF20**		1	1 unit	1CB
	• 0.8 m long		**3VA9987-0TF10**		1	1 unit	1CB
 3VA9987-0TE10	**Additional bus terminating resistors**		**3VA9987-0TE10**		1	5 units	1CB
 3VA9987-0UC10	**Voltage tap to external N conductor** Cable for connecting the neutral point for the metering function of the 8-series ETU, length 1.5 m		**3VA9987-0UC10**		1	1 unit	1CB
 3VA9077-0NA10	**External current transformer as straight-through transformer** Connection of an external current transformer for the N conductor for 3-pole 3VA6 molded case circuit breakers for 5-series and 8-series ETUs (ETU850, ETU856, ETU860), including connecting cable						
	• I_n = 25 ... 150 A		**3VA9077-0NA10**		1	1 unit	1CB
	• I_n = 160 ... 350 A		**3VA9177-0NA10**		1	1 unit	1CB
	• I_n = 400 ... 600 A		**3VA9377-0NA10**		1	1 unit	1CB
Display							
 3VA9977-0TD10	**DSP800 display** • For displaying the status, measured values and parameters of up to 8 3VA6 molded case circuit breakers • Connection to the COM800/COM100 via Ethernet for displaying information of the COM800/COM100 and the connected 3VA6 molded case circuit breaker		**3VA9977-0TD10**		1	1 unit	1CB

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Communication and testing/commissioning devices

	Version	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
External function box							
 3VA9977-0UA10	**EFB300** • External function box for connection to the ETU of the 3VA6 molded case circuit breaker • 4 digital outputs for information output • 1 digital input • ZSI functionality • S0 interface • Including cable 1.5 m in length		**3VA9977-0UA10**		1	1 unit	1CB
	Connecting cable for EFB300 Spare part • Length 1.5 m • Length 3.0 m		**3VA9987-0UB10** **3VA9987-0UB20**		1 1	1 unit 1 unit	1CB 1CB
Test devices							
 3VA9977-0MA10	**TD300** • Connection to the front interface of the ETU • Test device for activating the ETU and triggering a test trip		**3VA9977-0MA10**		1	1 unit	1CB
 3VA9977-0MB10	**TD500** • Connection to the front interface of the ETU • Initiation of various test trips (LSING) • USB interface for connection of a PC using powerconfig • ETU parameterization • Including external power supply unit with adapter, 3VA6 molded case circuit breaker		**3VA9977-0MB10**		1	1 unit	1CB
 3VA9987-0MX10	**Spare part: external power supply for TD500** Spare part 110 ... 240 V AC		**3VA9987-0MX10**		1	1 unit	1CB
 3VA9977-0MY10	**Spare part: Cable for connecting the TD500 to the 3VA6 molded case circuit breaker**		**3VA9977-0MY10**		1	1 unit	1CB

Minimum order quantity (PS) or a multiple thereof can be ordered.

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	Version	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG

MMB300 maintenance mode box



The U.S. "National Electric Code (NFPA 70) Chapter 240.87" requires special protection measures for circuit breakers with a rated current higher than 1200 A. These must always be in effect when a fitter is working upstream of the circuit breaker or at the switchboard.

The purpose of these protections functions is to reduce the let-through energy under fault conditions (e.g. short-circuit) to the smallest possible amount in order to best protect the fitter.

All 3VA6 molded case circuit breakers with electronic trip unit and a rated current of 40 A to 600 A meet the requirements specified above. They are equipped with the Dynamic Arc Sentry mode (DAS mode) for this.

With the MMB300 maintenance mode box, the Dynamic Arc Sentry mode of the molded case circuit breaker is activated and the setting parameters for the instantaneous short circuit current I_i and the ground-fault current I_g are set to the lowest setting values of the circuit breaker.

Benefits:

- A series connection of up to eight 3VA6 molded case circuit breakers with the associated MMB300 maintenance mode box is possible.
- In addition, there is also a freely programmable output for reading out ETU messages.
- DAS mode for the 5-series and 8-series ETUs can be activated directly at the molded case circuit breaker via the keys on the LC display.

Design:

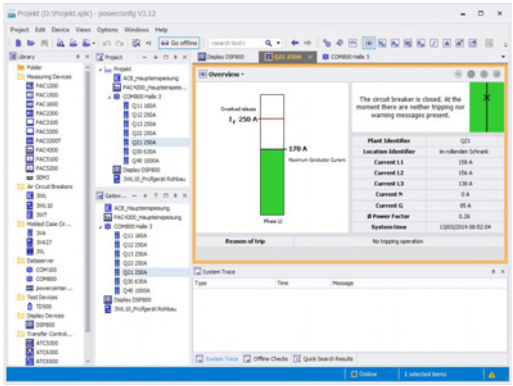
The MMB300 uses the same interface as the EFB300.

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Communication and testing/commissioning devices

	Version	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG

Commissioning and service software: powerconfig



- Commissioning and service software for 3VA6 molded case circuit breakers and further SENTRON components
- for Windows 7 and Windows 8
- Connection via TD500 or COM800/COM100
- Languages: English, German, Chinese, Spanish, Portuguese and Italian
- Enables complete use of the electronic components of the 3VA6 such as ETU, EFB300, DSP800, TD500
- Communication via PROFINET, PROFIBUS, Ethernet Modbus TCP and RS 485 with Modbus RTU
- See Catalog LV 10, "Software" "Configuring, visualizing and controlling with SENTRON".
- powerconfig can be downloaded free of charge from Siemens Industry Online Support at http://support.automation.siemens.com/WW/view/en/63452759
- More information can be found on the Internet at: www.siemens.com/sentron

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Overview

With all types of 3VA molded case circuit breakers, a basic distinction is made between:

- Locking of molded case circuit breakers
- Interlocking of molded case circuit breakers

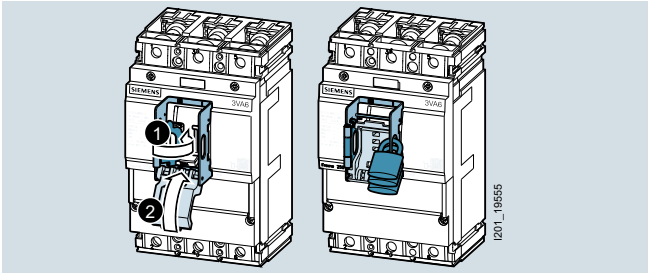
The padlock devices make it possible to lock the 3VA molded case circuit breaker in either the OFF or the ON operating position.

Using the interlocking technology, it is possible to mutually interlock two or more molded case circuit breakers. The interlock system is designed to ensure that no more than one molded case circuit breaker can be operated at a time. The following methods of interlocking can be used on 3VA molded case circuit breakers:

- Front interlock
- Rear interlock

Blocking device for the handle

A blocking device mounted and latched on the handle allows the handle to be blocked and the molded case circuit breaker to be locked in the OFF or the ON position.



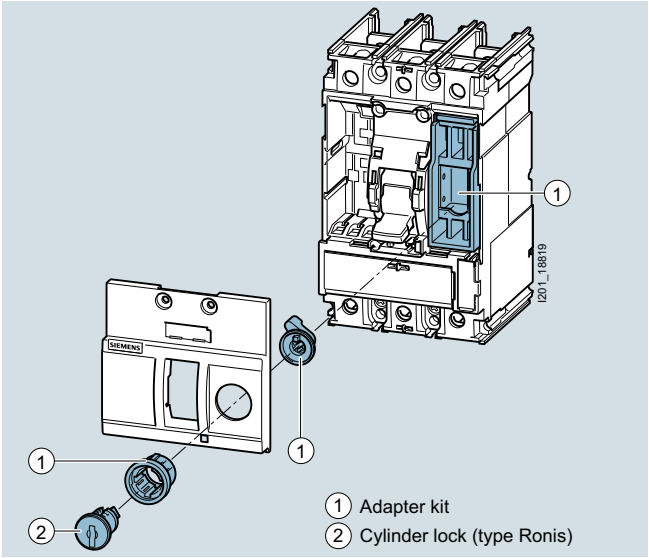
Locking technology

Locking with cylinder lock

The 3VA molded case circuit breaker can also be locked in the OFF (O) or ON (I) position by means of a cylinder lock supplied by Ronis. This prevents further operation of the circuit breaker.

In order to lock a molded case circuit breaker in a specific operating state, the following two components need to be ordered.

- Cylinder lock (type Ronis)
- Lock adapter kit for mounting the cylinder lock in the accessory compartment

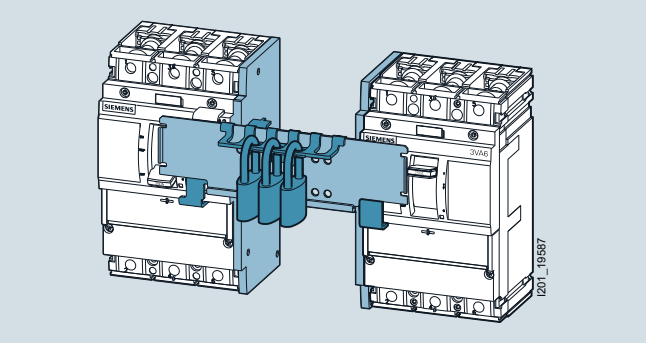


Interlocking technology

Interlocking by means of a sliding bar

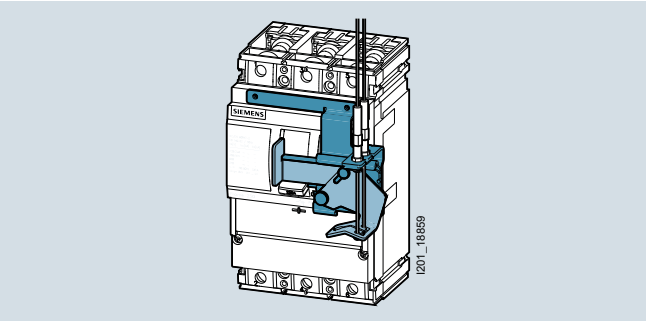
The front sliding bar allows between two and three 3VA molded case circuit breakers of the same size to be mutually interlocked by means of a sliding bar.

With this device, the sliding bar is moved to block the handle of the interlocked molded case circuit breaker. For this reason, a molded case circuit breaker is always locked in the safe OFF position, while the released circuit breaker can still be operated.



Handle interlock using a Bowden cable

With the front Bowden cable interlock, it is possible to implement a mutual interlock between two or three molded case circuit breakers of different sizes. The front Bowden cable interlock operates according to the blocking principle. In order to implement this system, modules for the Bowden cable interlock must be mounted on the molded case circuit breakers to be included in the interlock arrangement. Each of these modules is equipped with a slide which blocks or releases operation of the handle.



Interlocking with cylinder locks

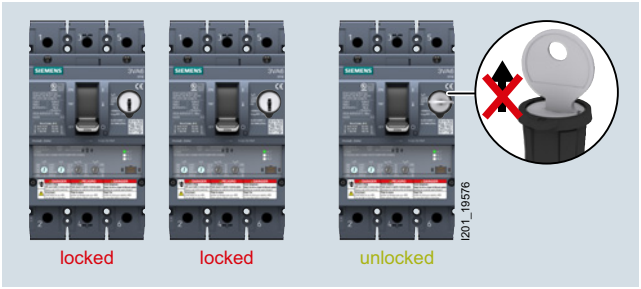
Using the cylinder lock (type Ronis), it is not only possible to lock a molded case circuit breaker, but also to create an interlock between an optional number of molded case circuit breakers of different sizes. To implement an interlocking application using cylinder locks, the adapter kit with the cylinder lock (type Ronis) must be fitted in the right-hand accessory compartment of each molded case circuit breaker to be included in the interlock arrangement and all breakers must be locked in the OFF position. In order to ensure reliable functioning of the interlock, only one key may be used for the entire interlock application! All other keys must be kept or locked away in a safe place. This one key must be used as the release instrument for only one molded case circuit breaker at a time! To release or operate a molded case circuit breaker, the cylinder lock must be turned to the "Unlocked" position with this one particular key. Only then can the handle of the circuit breaker be moved to the ON position. When the cylinder lock is in the "Unlocked" position, the key cannot be removed and must be left in the lock.

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Accessories for locking, blocking and interlocking

To implement an interlocking application involving multiple molded case circuit breakers, the following two components must be ordered for each circuit breaker:

- Cylinder lock (type Ronis) with identical key number
- Interlock adapter kit for mounting the cylinder lock in the accessory compartment



Rear interlock

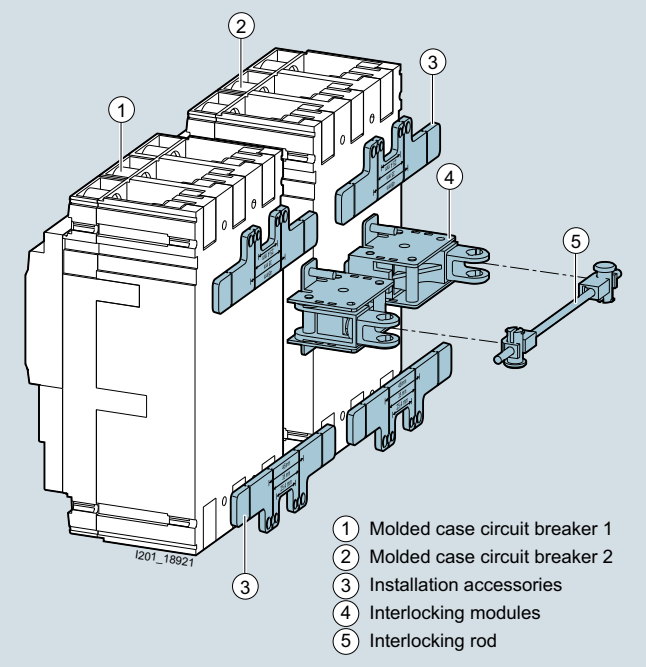
The rear interlock system allows implementation of an interlock without restricting the number of accessories which can be installed at the front of the 3VA molded case circuit breaker. Using the rear interlock, it is possible to create an interlock between two molded case circuit breakers of different sizes based on the blocking principle. When one molded case circuit breaker closes, the other circuit breaker is prevented from closing by a plunger which engages in the breaker mechanism directly from the rear panel of the molded case circuit breaker.

This system requires the installation of two interlocking modules which are mounted behind the molded case circuit breakers and behind the mounting frame of the panel. The two interlocking modules are interconnected by means of the interlocking rod.

A mounting frame comprising a plate and two profile rails is available as an accessory to assist installation.

Rear interlock for plug-in or draw-out units

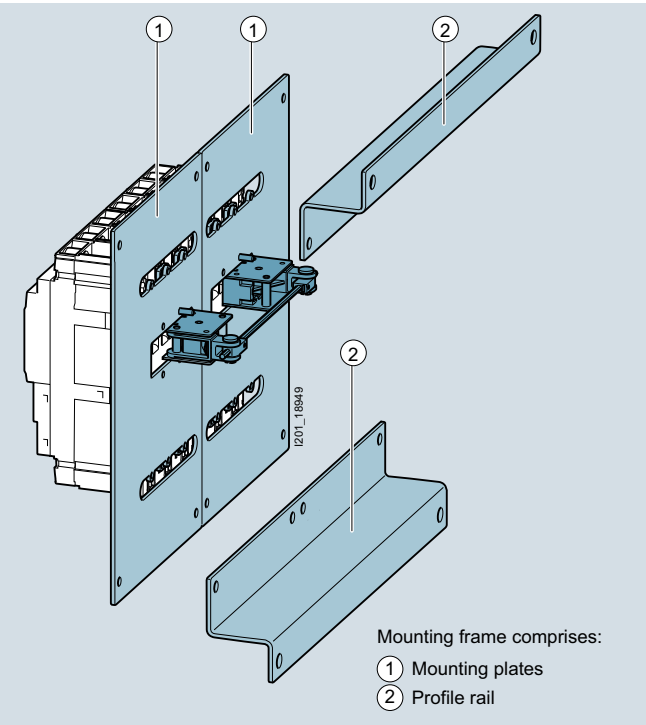
In order to install a rear interlock for plug-in or draw-out versions of the molded case circuit breakers, the plunger needs to be lengthened. The rear interlock for plug-in or draw-out versions is offered as a complete kit.



Rear interlock without mounting frame

Benefits

- Broad range of applications thanks to flexibility of interlocking technology
- Locking technology ensures safe locking of molded case circuit breakers, e.g. for maintenance purposes
- No restriction to use of internal accessories or to scope of accessories installed at the front of the molded case circuit breaker (when a rear interlock is deployed)
- Molded case circuit breakers of different sizes can be mutually interlocked.

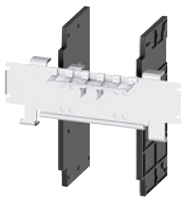
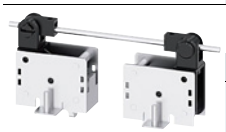


Rear interlock with mounting frame

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Selection and ordering data

	Version	For molded case circuit breakers/ Article No. stem 3VA51	3VA52	3VA61 3VA62	3VA53 3VA54 3VA63 3VA64	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
Accessories for locking, blocking and interlocking											
 3VA9378-0LB10	**Blocking device for the handle**	✓	--	--	--		**3VA9038-0LB10**		1	1 unit	1CB
		--	✓	✓	✓		**3VA9378-0LB10**		1	1 unit	1CB
 3VA9147-0LF10	**Adapter kit for mounting the cylinder lock (type Ronis) in the accessory compartment of the molded case circuit breaker** Comprising 2 cylinder lock casings (one for locking and one for interlocking) and the appropriate mounting module										
	Notes	✓	--	--	--		**3VA9137-0LF10**		1	1 unit	1CB
	• To implement an interlock or a lock: select suitable cylinder lock(s) • For an interlock: select the same cylinder lock number	--	✓	--	--		**3VA9237-0LF10**		1	1 unit	1CB
		--	--	✓	--		**3VA9147-0LF10**		1	1 unit	1CB
		--	--	--	✓		**3VA9347-0LF10**		1	1 unit	1CB
 3VA9980-0VL10	**Cylinder lock (type Ronis)** • Includes a lock with 2 keys • For locking or interlocking • For installation in all rotary operators with shaft stub • For mounting in the adapter kit for the accessory compartment										
	Versions										
	• Key 1 (lock number 1)	✓	✓	✓	✓		**3VA9980-0VL10**		1	1 unit	1CB
	• Key 3 (lock number 3)	✓	✓	✓	✓		**3VA9980-0VL30**		1	1 unit	1CB
	• Key 4 (lock number 4)	✓	✓	✓	✓		**3VA9980-0VL40**		1	1 unit	1CB
 3VA9148-0VF30	**Sliding bar** Complete kit for interlocking 2 circuit breakers										
	Note	✓	--	--	--		**3VA9138-0VF30**		1	1 unit	1CB
	The article number must be ordered 2 x to implement an interlock between 3 breakers of the same size.	--	✓	--	--		**3VA9238-0VF30**		1	1 unit	1CB
		--	--	✓	--		**3VA9148-0VF30**		1	1 unit	1CB
		--	--	--	✓		**3VA9348-0VF30**		1	1 unit	1CB
 3VA9147-0VF10	**Module for handle interlock using a Bowden cable**										
	Notes	✓	--	--	--		**3VA9137-0VF10**		1	1 unit	1CB
	• A separate sliding bar is required for each switching device. • A Bowden cable must be ordered separately.	--	✓	--	--		**3VA9237-0VF10**		1	1 unit	1CB
		--	--	✓	--		**3VA9147-0VF10**		1	1 unit	1CB
		--	--	--	✓		**3VA9347-0VF10**		1	1 unit	1CB
 3VA9078-0VM10	**Rear interlock with rod** Complete kit for fixed mounting	✓	✓	✓	✓		**3VA9078-0VM10**		1	1 unit	1CB
	Note Mounting frames are not included in scope of supply.										
 3VA9078-0VM30	**Rear interlock with rod** Complete kit for plug-in/draw-out unit	✓	✓	✓	✓		**3VA9078-0VM30**		1	1 unit	1CB
	Note If plug-in or draw-out technology is used together with the rear interlock with rod, the mounting plates and profile rails cannot be used.										

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Accessories for locking, blocking and interlocking

	Version	For molded case circuit breakers/ Article No. stem				SD	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		3VA51	3VA52	3VA61 3VA62	3VA53 3VA54 3VA63 3VA64	d					
3VA9980-0VC10	**Bowden cable**										
	Versions										
	• Length 0.6 m	✓	✓	✓	✓		**3VA9980-0VC10**		1	1 unit	1CB
	• Length 1.0 m	✓	✓	✓	✓		**3VA9980-0VC20**		1	1 unit	1CB
	• Length 1.5 m	✓	✓	✓	✓		**3VA9980-0VC30**		1	1 unit	1CB
 3VA9248-0VK20	**Mounting frame for rear interlock with rod** For fixed mounting only The following are required for the complete mounting frame kit:										
	Versions										
	• Profile rails Contents: 2 units	✓	✓	✓	✓		**3VA9078-0VK10**		1	1 unit	1CB
	• Mounting plate One plate per breaker, depending on size	✓	--	--	--		**3VA9138-0VK20**		1	1 unit	1CB
		--	✓	--	--		**3VA9238-0VK20**		1	1 unit	1CB
		--	--	✓	--		**3VA9248-0VK20**		1	1 unit	1CB
		--	--	--	✓		**3VA9448-0VK20**		1	1 unit	1CB
	Notes										
	• 2 mounting plates must be ordered. They are screwed onto the profile rail that can be ordered above. Different breakers can be mutually interlocked.										
	• Breakers with draw-out unit can be installed on the mounting plate, however, the profile rails can then not be used.										

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Selection and ordering data

Version	For molded case circuit breakers/ Article No. stem 3VA51	3VA52	3VA53 3VA54	3VA61 3VA62	3VA63 3VA64	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
Cover frame for door cut-out											
 3VA9143-0SB10 **Cover frame for door cut-out for molded case circuit breaker**											
Versions											
• 3-pole, door cut-out without trip unit	✓	--	--	--	--		**3VA9033-0SB10**		1	1 unit	1CB
	--	✓	--	✓	--		**3VA9143-0SB10**		1	1 unit	1CB
	--	--	✓	--	✓		**3VA9373-0SB10**		1	1 unit	1CB
• 3-pole, door cut-out with trip unit	✓	--	--	--	--		**3VA9033-0SB20**		1	1 unit	1CB
	--	✓	--	--	--		**3VA9233-0SB20**		1	1 unit	1CB
	--	--	✓ NEW	--	--		**3VA9333-0SB20**		1	1 unit	1CB
	--	--	--	✓	--		**3VA9143-0SB20**		1	1 unit	1CB
	--	--	--	--	✓		**3VA9343-0SB20**		1	1 unit	1CB
• 4-pole, door cut-out without trip unit	✓	--	--	--	--		**3VA9034-0SB10**		1	1 unit	1CB
	--	✓	--	✓	--		**3VA9144-0SB10**		1	1 unit	1CB
	--	--	✓	--	✓		**3VA9374-0SB10**		1	1 unit	1CB
• 4-pole, door cut-out with trip unit	✓	--	--	--	--		**3VA9034-0SB20**		1	1 unit	1CB
	--	✓	--	--	--		**3VA9234-0SB20**		1	1 unit	1CB
	--	--	--	✓	--		**3VA9144-0SB20**		1	1 unit	1CB
	--	--	--	--	✓		**3VA9344-0SB20**		1	1 unit	1CB
Cover frame for MO320 motor operators	✓	--	--	--	--		**3VA9033-0SB10**		1	1 unit	1CB
	--	✓	--	✓	--		**3VA9237-0SB30**		1	1 unit	1CB
	--	--	✓	--	✓		**3VA9377-0SB30**		1	1 unit	1CB
Cover frame for motor operators with SEO520 stored energy operator NEW	--	✓	--	✓	--		**3VA9147-0SB30**		1	1 unit	1CB
Cover frame for front mounted rotary operator	✓	--	--	--	--		**3VA9033-0SB10**		1	1 unit	1CB
	--	✓	--	✓	--		**3VA9143-0SB10**		1	1 unit	1CB
	--	--	✓	--	✓		**3VA9373-0SB10**		1	1 unit	1CB
Cover frame for front mounted rotary operator with door interlock	--	--	--	--	✓		**3VA9377-0SB30**		1	1 unit	1CB
Cover frame for door feedthrough	--	✓	--	✓	--		**3VA9233-0SB20**		1	1 unit	1CB
	--	--	✓	--	✓		**3VA9333-0SB20**		1	1 unit	1CB
 3VA9087-0SX10 **Labeling plate for cover frame**							**3VA9087-0SX10**		1	10 units	1CB

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Other

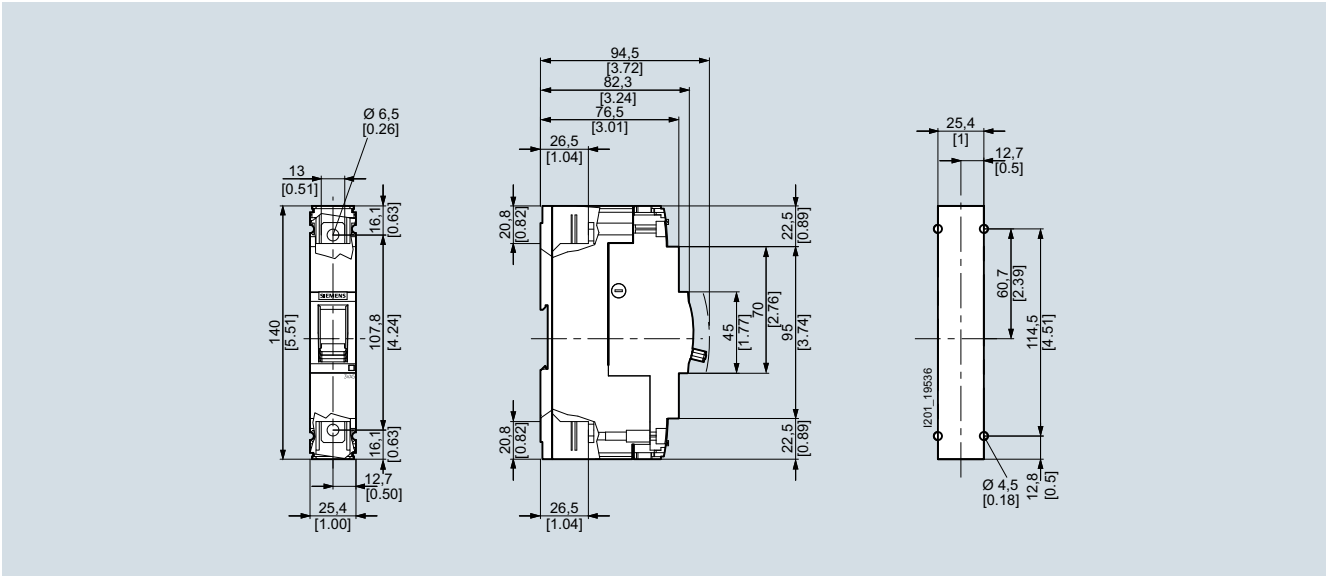
	Version	For molded case circuit breakers/ Article No. stem				SD	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		3VA51	3VA52	3VA61 3VA62	3VA53 3VA54 3VA63 3VA64	d					
Adapter for 60 mm busbar system (8US)											
 8US1213-4AP03	Busbar adapter system with 60 mm busbar center-to-center spacing. For further information, see Catalog LV 10, Busbar systems, 60 mm busbar system (8US) up to 1600 A, device adapters and device holders.										
	Note										
	Box terminals for the infeed side must be ordered separately for mounting on the busbar adapter. The connection technology for the outgoing side is freely selectable.										
	Versions										
	• 3-pole	✓	--	--	--		**8US1211-4SS00**		1	1 unit	1CU
		--	✓	✓	--		**8US1213-4AP03**		1	1 unit	1CU
		--	--	--	✓		**8US1213-4AH04**		1	1 unit	1CU
Mounting screw kit											
 3VA9151-0SS10	**Mounting screw kit**										
	Versions										
	• For fixed-mounted molded case circuit breakers										
	- 1-pole	✓	--	--	--		**3VA9151-0SS10**		1	1 unit	1CB
	- 2 and 3-pole (apart from 125 A/160 A with 55 kA and 70 kA)	✓	--	--	--		**3VA9116-0SS10**		1	1 unit	1CB
	- 3-pole (125 A/160 A with 55 kA and 70 kA) and 4-pole	✓	--	--	--		**3VA9114-0SS10**		1	1 unit	1CB
	- 3-pole	--	✓	✓	--		**3VA9126-0SS10**		1	1 unit	1CB
	- 4-pole	--	✓	✓	--		**3VA9124-0SS10**		1	1 unit	1CB
	- 3 and 4-pole	--	--	--	✓		**3VA9328-0SS10**		1	1 unit	1CB
	• For plug-in and draw-out units										
	- 3 and 4-pole	--	--	✓	--		**3VA9124-0SS10**		1	1 unit	1CB
	- 3 and 4-pole	--	--	--	✓		**3VA9328-0SS10**		1	1 unit	1CB

Minimum order quantity (PS) or a multiple thereof can be ordered.

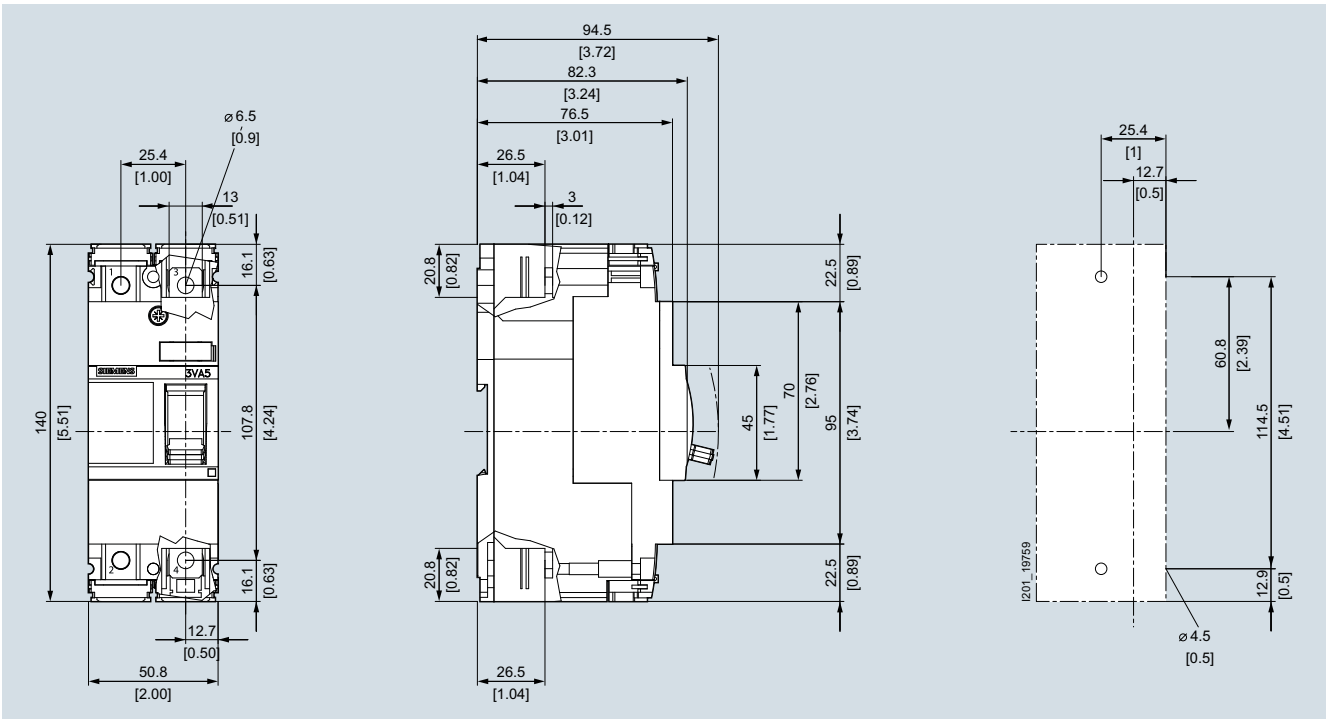
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Dimensional drawings

3VA51



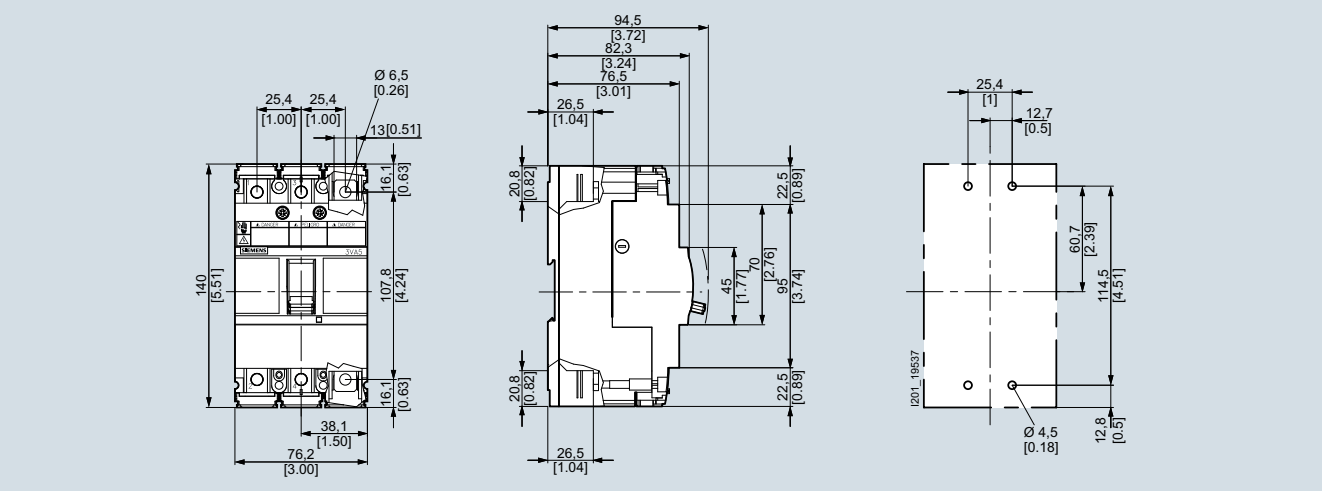
3VA51, 1-pole



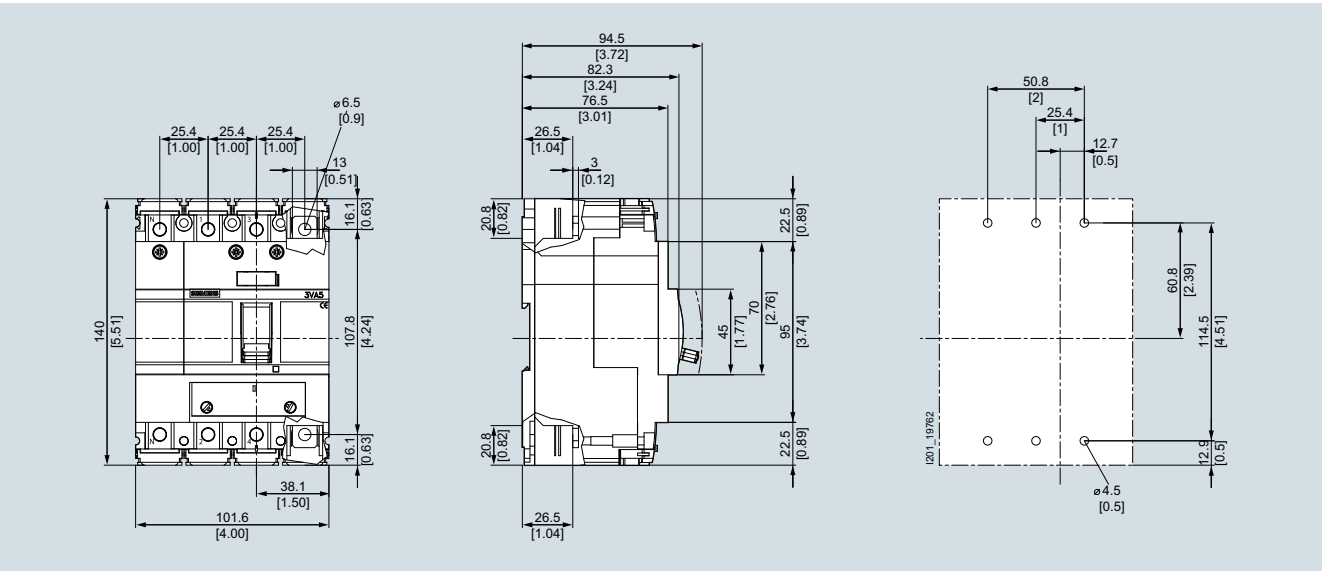
3VA51, 2-pole

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3VA5/6 configuration aids

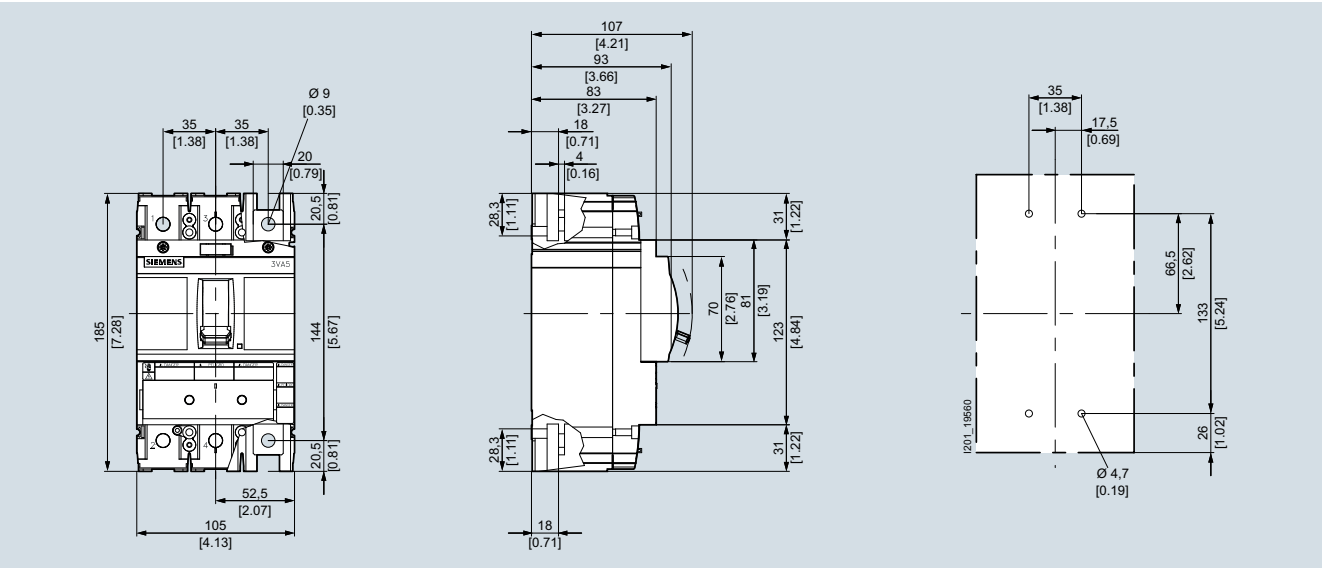


3VA51, 3-pole



3VA51, 4-pole

3VA52

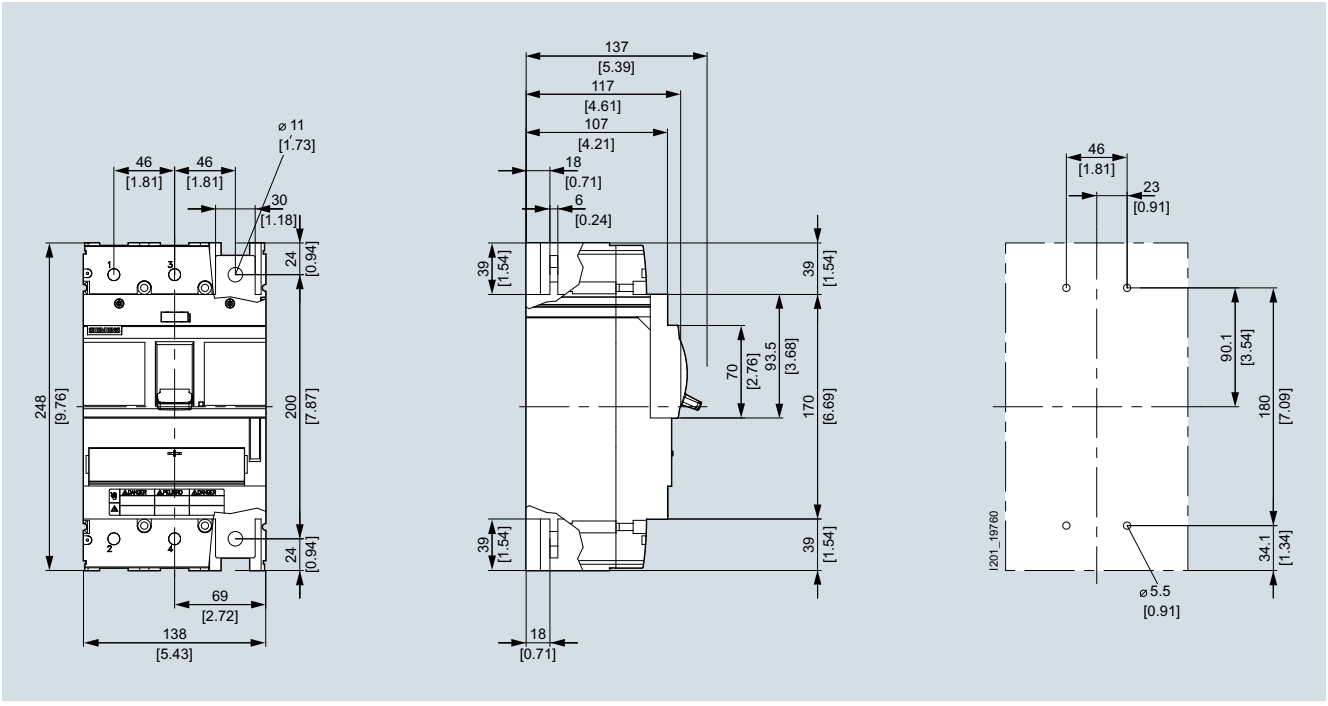


3VA52, 3-pole

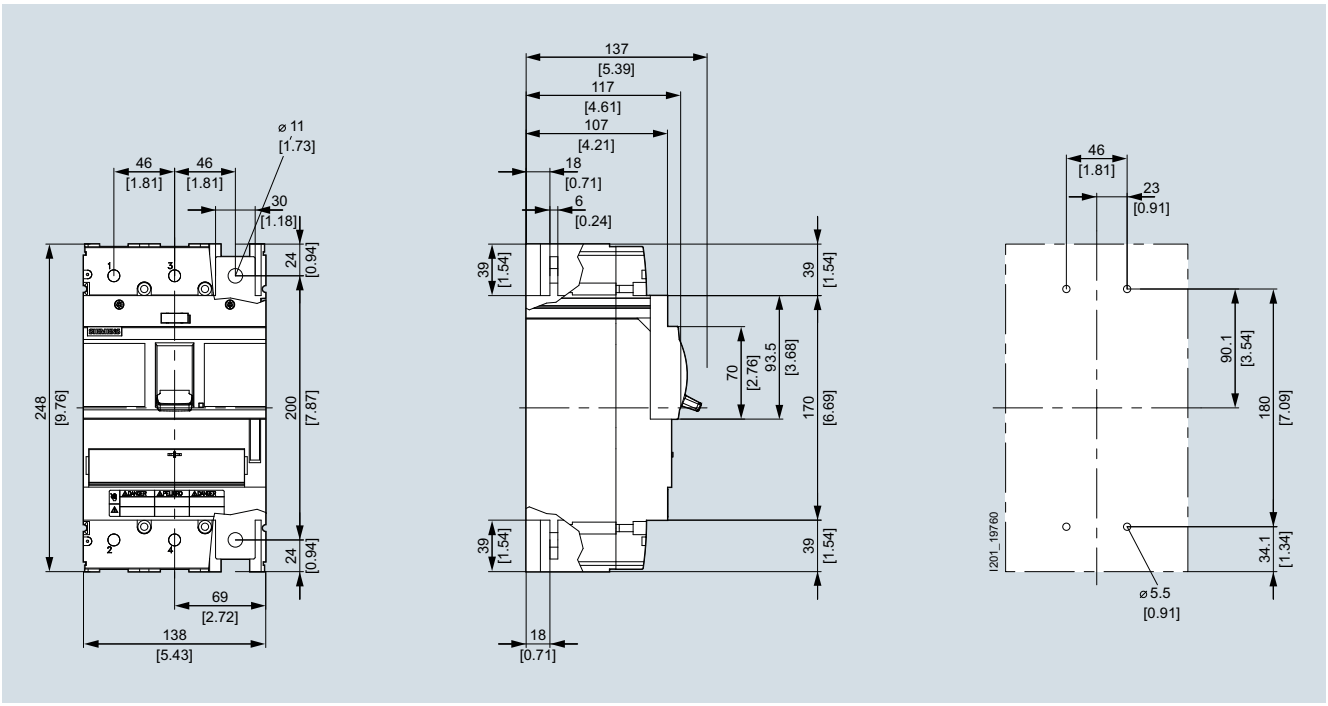
Minimum order quantity (PS) or a multiple thereof can be ordered.

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3VA53



3VA53, 3-pole

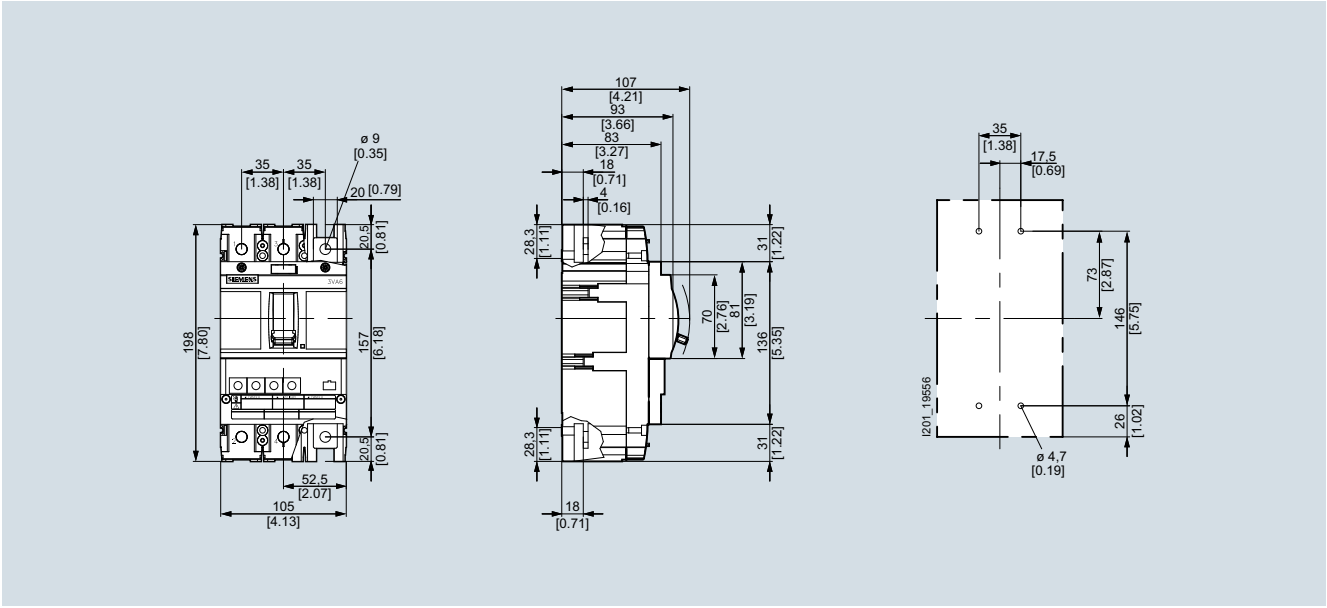


3VA53, 4-pole

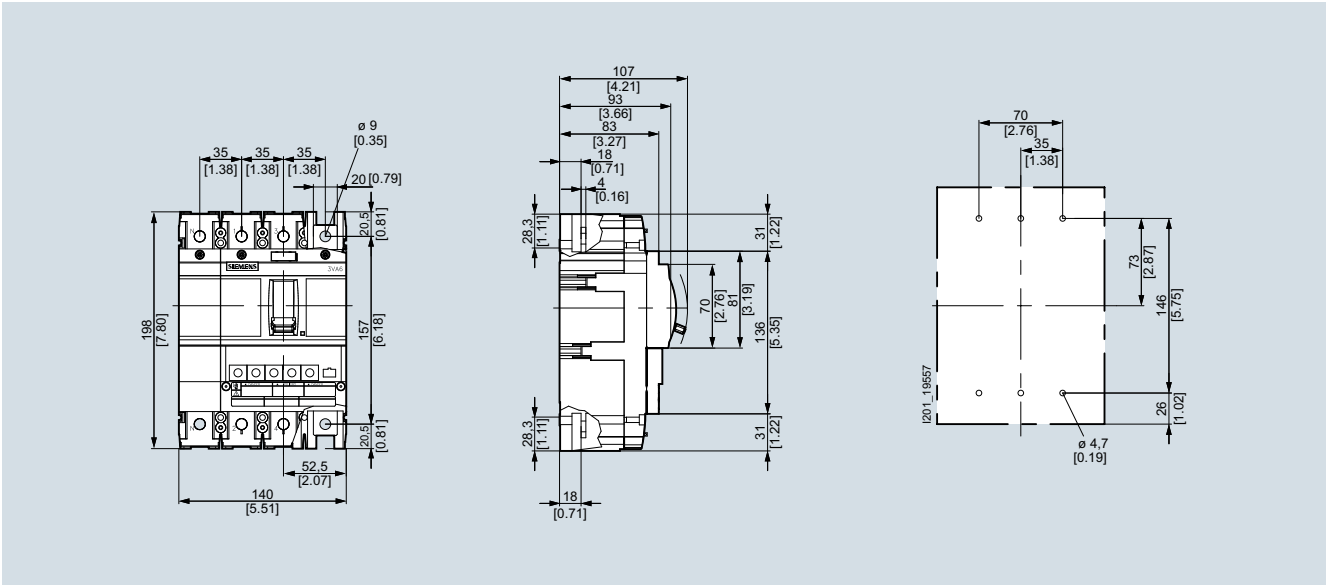
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3VA5/6 configuration aids

3VA61, 3VA62, 3VA63, 3VA64

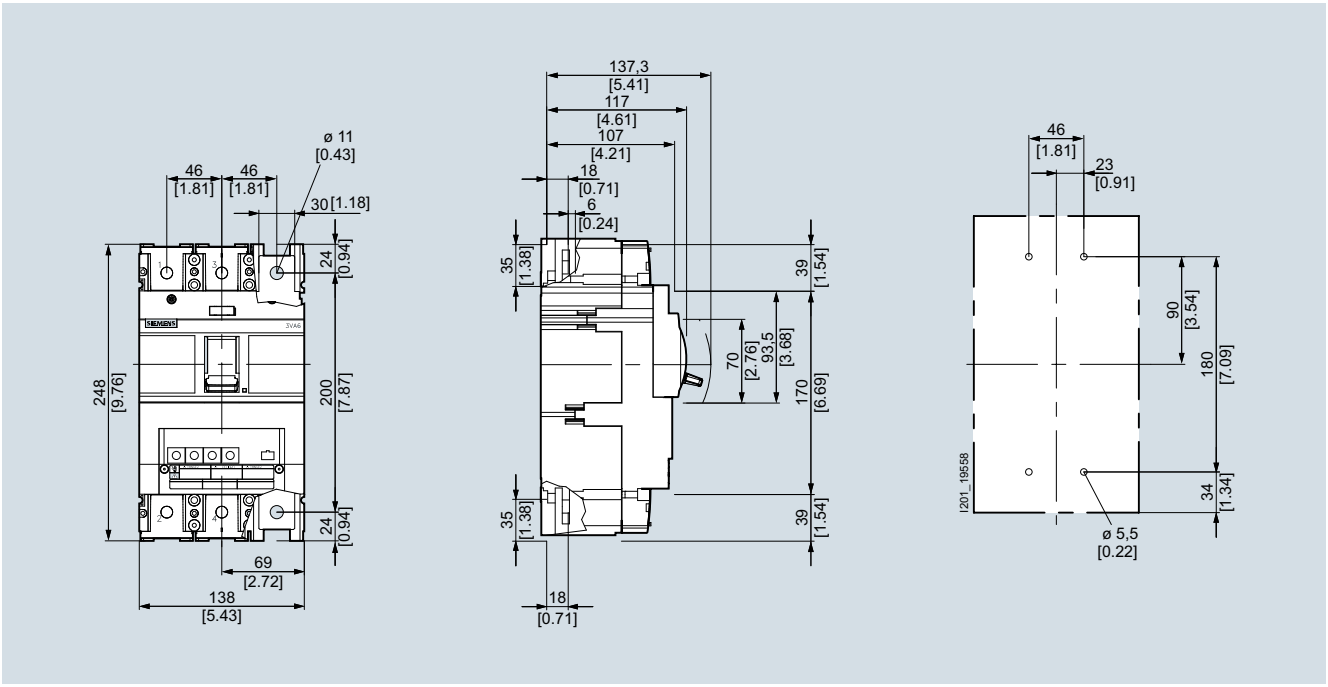


3VA61 and 3VA62, 3-pole

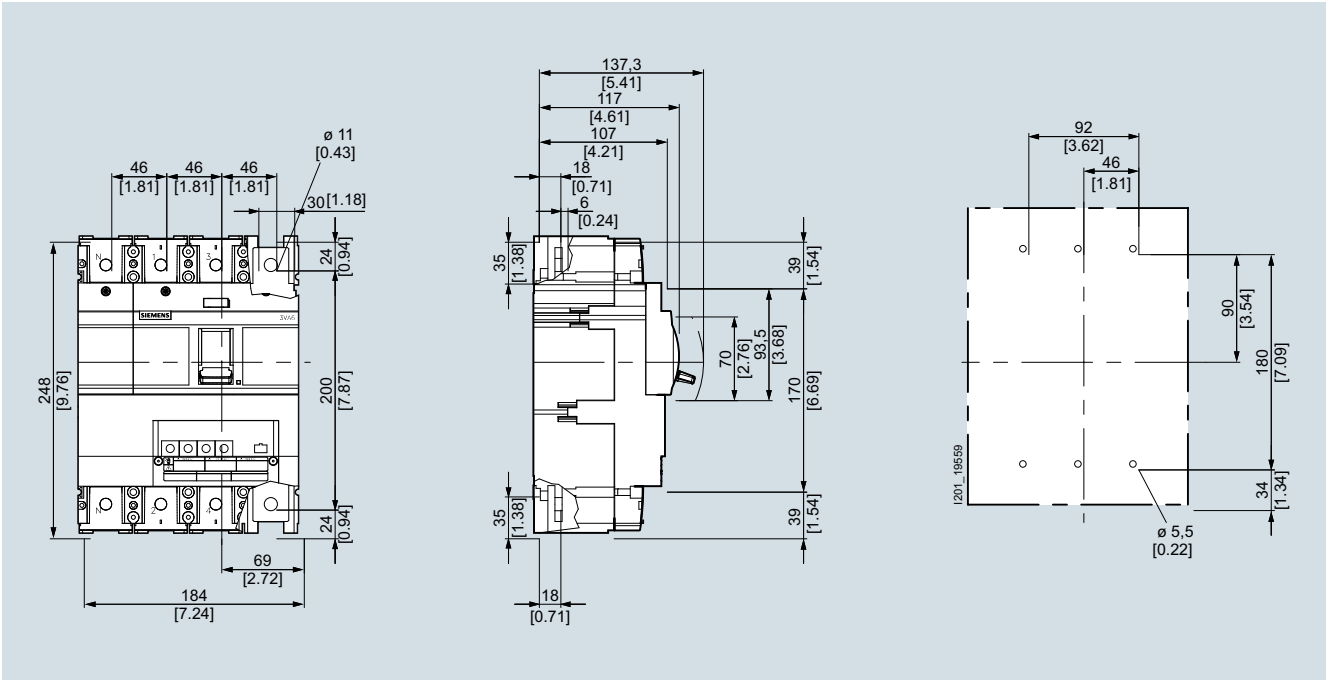


3VA61 and 3VA62, 4-pole

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3VA63 and 3VA64, 3-pole



3VA63 and 3VA64, 4-pole

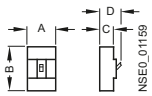
Further dimensional drawings can be found in the image database at: www.siemens.com/lowvoltage/picturedb

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Overview






Type			VL150X UL, CG frame	VL150 UL, DG frame	VL250 UL, FG frame	VL400 UL, JG frame
Molded case circuit breakers						
3VL molded case circuit breakers up to 1600 A, according to UL 489						
Rated current I_n [1] at 40 °C ambient temperature	A		20 to 150	50 to 150	100 to 250	250 to 400
Number of poles			3	3	3	3
Rated operational voltage U_e (UL)						
50/60 Hz AC	V		480, 600/347	480, 600/347	400, 600/347	600
DC [2]	V		250	500	500	500
Trip units						
Thermal-magnetic			✓	✓	✓	✓
Electronic, ETU with setting knobs			--	✓	✓	✓
Electronic LCD ETU			--	✓	✓	✓
Dimensions						
	A	mm	105	105	105	139
	B	mm	157	175	175	279
	C	mm	81	81	81	102
	D	mm	107	107	107	138
Breaking capacity						
Standard breaking capacity N (N)						
Up to 240 V AC	kA		65	65	65	65
Up to 480 V AC	kA		35	35	35	35
Up to 600 V AC	kA		--	--	--	25
Up to 600/347 V AC	kA		10	18	18	--
Up to 250 V DC [3]	kA		30	30	30	30
Up to 500 V DC [3] [4]	kA		--	18	18	25
Breaking capacity I_{cu}/I_{cs} RMS value acc. to IEC 60947-2						
Up to 240 V AC	kA		65/65	65/65	65/65	65/65
Up to 415 V AC	kA		40/40	40/40	40/40	45/45
Up to 690 V AC	kA		8/4 [5]	12/6	12/6	12/6
Up to 250 V DC [3]	kA		30/30	30/30	30/30	30/30
High breaking capacity H (H)						
Up to 240 V AC	kA		100	100	100	100
Up to 480 V AC	kA		65	65	65	65
Up to 600 V AC	kA		--	--	--	25
Up to 600/347 V AC	kA		10	18	18	--
Up to 250 V DC [3]	kA		30	30	30	30
Up to 500 V DC [3] [4]	kA		--	18	25	35
Breaking capacity I_{cu}/I_{cs} RMS value acc. to IEC 60947-2						
Up to 240 V AC	kA		100/75	100/75	100/75	100/75
Up to 415 V AC	kA		70/70	70/70	70/70	70/70
Up to 690 V AC	kA		10/5 [5]	12/6	12/6	15/8
Up to 250 V DC [3]	kA		30/30	30/30	30/30	30/30
Very high breaking capacity L (L)						
Up to 240 V AC	kA		--	200	200	200
Up to 480 V AC	kA		--	100	100	100
Up to 600 V AC	kA		--	--	--	25
Up to 600/347 V AC	kA		--	18	18	--
Up to 250 V DC [3]	kA		--	30	30	30
Up to 500 V DC [3] [4]	kA		--	18	30	35
Breaking capacity I_{cu}/I_{cs} RMS value acc. to IEC 60947-2						
Up to 240 V AC	kA		--	200/150	200/150	200/150
Up to 415 V AC	kA		--	100/75	100/75	100/75
Up to 690 V AC	kA		--	12/6	12/6	15/8
Up to 250 V DC [3]	kA		--	30/30	30/30	30/30

✓ Available -- Not available

1) 80% rated current applications according to UL 489, 100% rated current applications according to IEC 60947-2.

2) Rated DC voltage applies only for molded case circuit breakers with thermal-magnetic release.

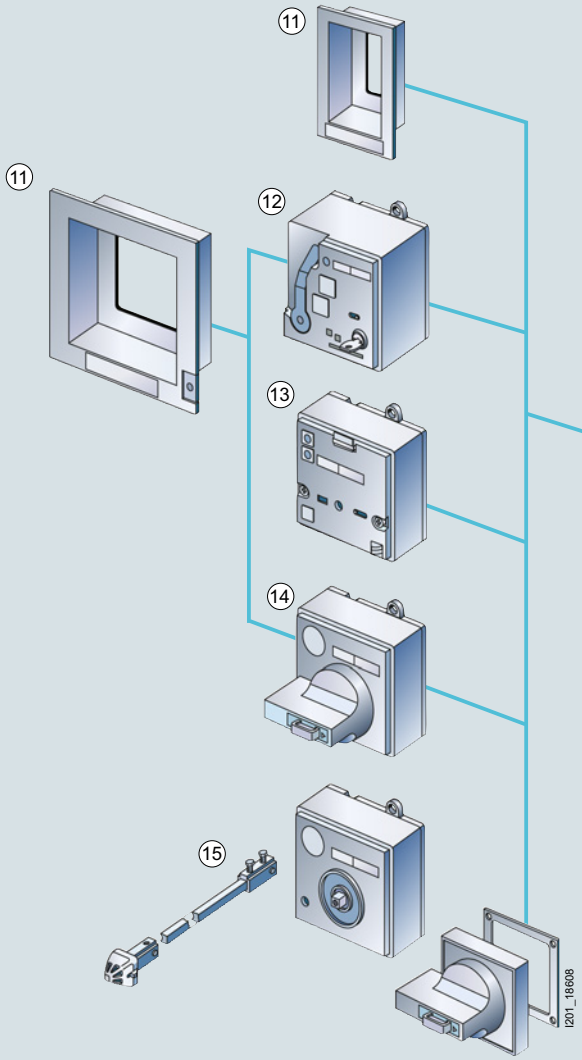
Minimum order quantity (PS) or a multiple thereof can be ordered.

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	VL400X UL, LG frame	VL800 UL, MG frame	VL1200 UL, NG frame	VL1600 UL, PG frame
3VL molded case circuit breakers up to 1600 A, according to UL 489				
400 to 600	600 to 800	800 to 1200	1200 to 1600	
3	3	3	3	
600 500	600 500	600 500	600 500	
✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓	
139 279 102 138	190 406 118 151	229 406 157 209	229 406 157 209	
65 35 18 -- 30 25	65 35 25 -- 22 35	65 35 25 -- 22 35	65 35 25 -- 22 35	
65/65 45/45 12/6 30/30	65/65 50/50 20/10 30/30	65/35 50/25 20/10 30/30	65/35 50/25 20/10 30/30	
100 65 18 -- 30 35	100 65 35 -- 25 50	100 65 35 -- 25 50	100 65 35 -- 25 50	
100/75 70/70 15/8 30/30	100/75 70/70 20/10 30/30	100/50 70/35 30/15 30/30	100/50 70/35 30/15 30/30	
200 100 18 -- 30 35	200 100 50 -- 42 65	200 100 65 -- 42 65	200 100 65 -- 42 65	
200/150 100/75 15/8 30/30	200/150 100/75 20/10 30/30	200/100 100/50 35/17 30/30	200/100 100/50 35/17 30/30	

3) The maximum permitted DC voltage for each conducting path needs to be taken into account for DC switching applications.
4) 500 V DC rated / 600 V DC max. for use in ungrounded UPS DC applications (according to UL 489, Supplement SC)
5) Rated current $I_n \geq 25$ A.

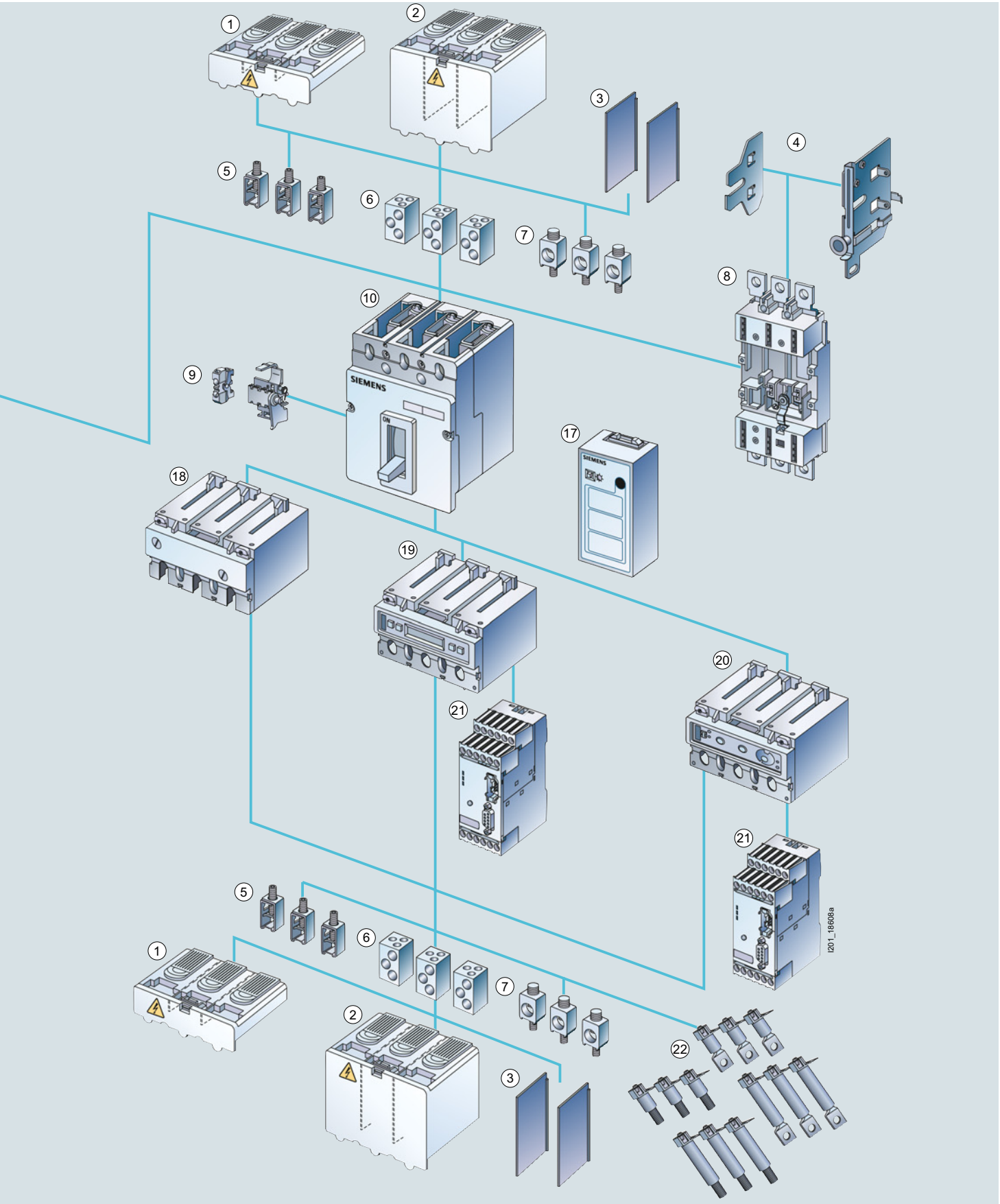
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1 Standard terminal cover
2 Extended terminal cover
3 Phase barriers
4 Side walls of the withdrawable unit
5 Box terminal for Cu
6 Multiple feed-in terminal for Al/Cu (dependent on frame size)
7 Circular conductor terminals for Al/Cu
8 Withdrawable/plug-in base
9 Internal accessories
10 3VL molded case circuit breaker
11 Cover frame for door cut-out
12 Motorized operating mechanisms with stored energy feature (SEO), CG to MG frame only
13 Motorized operating mechanisms (MO), NG and PG frame only
14 Front-operated rotary operating mechanisms
15 Door-coupling rotary operating mechanisms
16 Operating unit with Bowden cable (Max Flex operator)
17 Battery power supply with test function for Electronic Trip Units
18 Thermal-magnetic release
19 Electronic Trip Unit with LCD (LCD ETU)
20 Electronic Trip Unit with setting knobs (ETU)
21 Communication module COM20/21 (Release 2)
22 Rear terminals – flat and round

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Benefits



- 3VL molded case circuit breakers according to UL 489 optimally fulfill the high demands prevalent in modern power distribution.
- The molded case circuit breakers have a compact design and at the same time a high breaking capacity of up to 100 kA at 480 V.
- They are available both in thermal-magnetic (20 A to 1600 A) and in electronic versions (60 A to 1600 A).
- Via PROFIBUS DP and Modbus RTU, the molded case circuit breakers with Electronic Trip Units (ETUs) are consistently communication-capable.

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Application

The different versions of 3VL molded case circuit breakers according to UL are suitable for the following applications:

- Incoming circuit breakers (feeders) and outgoing circuit breakers (branches) in distribution systems
- Switching and protection devices for motors (motor protection in combination with a contactor and motor protection relay), transformers and capacitors
- Disconnecting means with features for stopping and switching off in an emergency (main disconnecting means and EMERGENCY-STOP switches) in conjunction with lockable rotary operating mechanisms.

The 3VL molded case circuit breakers according to UL are available in the following versions:

1. For line protection
   The overload and short-circuit releases are designed for the protection of cables, leads and non-motor loads.
2. For starter combinations
   These molded case circuit breakers are used both for short-circuit protection as well as for isolating functions, which may be required in starter combinations consisting of molded case circuit breakers, overload relays and motor contactors. These molded case circuit breakers exclusively feature adjustable, instantaneous short-circuit releases.
3. As non-automatic circuit breakers
   These molded case circuit breakers can be used as feeder circuit breakers, main control switches or non-automatic circuit breakers without overload protection. They incorporate an integrated short-circuit self-protection system.

Breaking capacity

(N)	Molded case circuit breakers with standard breaking capacity N (up to 35 kA at 480 V)
(H)	Molded case circuit breakers with high breaking capacity H (up to 65 kA at 480 V)
(L)	Molded case circuit breakers with very high breaking capacity L (up to 100 kA at 480 V)

Standards and specifications

3VL molded case circuit breakers according to UL comply with:

UL 489,
CSA (CSA C22.2 No. 5),
IEC/EN 60947-2,
For isolating features acc. to IEC 60947-2, EN 60947-2,
NOM (NMX-J-266-ANCE) please inquire.
CCC (only VL2 UL/DG, VL3 UL/FG, VL4 UL/JG and VL4X UL/LG)
GOST and FireSafety (Russia)

The 3VL UL molded case circuit breakers comply in addition with requirements for "disconnecting means with features for stopping and switching off in an emergency" (EMERGENCY-STOP switches) in conjunction with lockable rotary operating mechanisms (red-yellow).

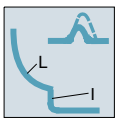
Please contact Siemens for details of other standards.

Operating conditions

The 3VL molded case circuit breakers according to UL are designed for operation in enclosed areas.

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Selection and ordering data

Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Operating current of the instantaneous short-circuit protection "I" I_i	SD	Standard breaking capacity N, up to 35 kA at 480 V (N) See "Overview". Article No. www.siemens.com/product?Article No. Article No. supplement required, see page 2/156	Price per PU	PU (UNIT, SET, M)	PS	PG
	A	A	A	d					
Fixed-mounted molded case circuit breakers, VL150X UL (CG frame) up to VL1600 UL (PG frame), thermal-magnetic releases (UL file: E10848, CCN[1]): DIVQ									
 I201_19069					***Line protection, TM, LI function*** With fixed thermal overcurrent releases, adjustable short-circuit releases, VL150X UL: fixed short-circuit releases Connection type: Molded case circuit breakers without preassembled connections, connections must be ordered under "Accessories", "Plug-in versions/withdrawable versions", pages 2/171 to 2/178 or under "Accessories", "Connection parts for fixed-mounted molded case circuit breakers", pages 2/171 to 2/178.				
VL150X UL, CG frame	20	20	300		**3VL1102-1KM30-□□□□**		1	1 unit	1CC
	25	25	300		**3VL1125-1KM30-□□□□**		1	1 unit	1CC
	30	30	300		**3VL1103-1KM30-□□□□**		1	1 unit	1CC
	35	35	600		**3VL1135-1KM30-□□□□**		1	1 unit	1CC
	40	40	600		**3VL1104-1KM30-□□□□**		1	1 unit	1CC
	50	50	600		**3VL1105-1KM30-□□□□**		1	1 unit	1CC
	60	60	600		**3VL1106-1KM30-□□□□**		1	1 unit	1CC
	70	70	1000		**3VL1107-1KM30-□□□□**		1	1 unit	1CC
	80	80	1000		**3VL1108-1KM30-□□□□**		1	1 unit	1CC
	90	90	1000		**3VL1191-1KM30-□□□□**		1	1 unit	1CC
	100	100	1000		**3VL1110-1KM30-□□□□**		1	1 unit	1CC
	125	125	1000		**3VL1112-1KM30-□□□□**		1	1 unit	1CC
	150	150	1500		**3VL1115-1KM30-□□□□**		1	1 unit	1CC
VL150 UL, DG frame	50	50	450 ... 700		**3VL2505-1KN30-□□□□**		1	1 unit	1CC
	60	60	450 ... 700		**3VL2506-1KN30-□□□□**		1	1 unit	1CC
	70	70	450 ... 700		**3VL2507-1KN30-□□□□**		1	1 unit	1CC
	80	80	450 ... 800		**3VL2508-1KN30-□□□□**		1	1 unit	1CC
	90	90	500 ... 1000		**3VL2591-1KN30-□□□□**		1	1 unit	1CC
	100	100	500 ... 1000		**3VL2510-1KN30-□□□□**		1	1 unit	1CC
	110	110	550 ... 1100		**3VL2511-1KN30-□□□□**		1	1 unit	1CC
	125	125	625 ... 1250		**3VL2512-1KN30-□□□□**		1	1 unit	1CC
	150	150	800 ... 1600		**3VL2515-1KN30-□□□□**		1	1 unit	1CC
VL250 UL, FG frame	100	100	625 ... 1250		**3VL3510-1KN30-□□□□**		1	1 unit	1CC
	110	110	800 ... 1600		**3VL3511-1KN30-□□□□**		1	1 unit	1CC
	125	125	800 ... 1600		**3VL3512-1KN30-□□□□**		1	1 unit	1CC
	150	150	800 ... 1600		**3VL3515-1KN30-□□□□**		1	1 unit	1CC
	175	175	1000 ... 2000		**3VL3517-1KN30-□□□□**		1	1 unit	1CC
	200	200	1000 ... 2000		**3VL3520-1KN30-□□□□**		1	1 unit	1CC
	225	225	1250 ... 2500		**3VL3522-1KN30-□□□□**		1	1 unit	1CC
	250	250	1250 ... 2500		**3VL3525-1KN30-□□□□**		1	1 unit	1CC
VL400 UL, JG frame	250	250	1250 ... 2500		**3VL4125-1KN30-□□□□**		1	1 unit	1CC
	300	300	1500 ... 3000		**3VL4130-1KN30-□□□□**		1	1 unit	1CC
	350	350	1750 ... 3500		**3VL4135-1KN30-□□□□**		1	1 unit	1CC
	400	400	2000 ... 4000		**3VL4140-1KN30-□□□□**		1	1 unit	1CC
VL400X UL, LG frame	400	400	2000 ... 4000		**3VL4840-1KN30-□□□□**		1	1 unit	1CC
	500	500	2500 ... 5000		**3VL4850-1KN30-□□□□**		1	1 unit	1CC
	600	600	2750 ... 5500		**3VL4860-1KN30-□□□□**		1	1 unit	1CC
VL800 UL, MG frame	600	600	3000 ... 6000		**3VL6160-1KN30-□□□□**		1	1 unit	1CC
	700	700	3250 ... 6500		**3VL6170-1KN30-□□□□**		1	1 unit	1CC
	800	800	3250 ... 6500		**3VL6180-1KN30-□□□□**		1	1 unit	1CC
VL1200 UL, NG frame	800	800	4000 ... 8000		**3VL7180-1KN30-□□□□**		1	1 unit	1CC
	900	900	5000 ... 10000		**3VL7190-1KN30-□□□□**		1	1 unit	1CC
	1000	1000	5000 ... 10000		**3VL7110-1KN30-□□□□**		1	1 unit	1CC
	1200	1200	7000 ... 12000		**3VL7112-1KN30-□□□□**		1	1 unit	1CC
VL1600 UL, PG frame[2]	1200	1200	7000 ... 12000		**3VL8112-1KN30-□□□□**		1	1 unit	1CC
	1400	1400	7000 ... 12000		**3VL8114-1KN30-□□□□**		1	1 unit	1CC
	1600	1600	7000 ... 12000		**3VL8116-1KN30-□□□□**		1	1 unit	1CC

[1] UL Category Code Number.

[2] Operation of the molded case circuit breakers within the applicable range of UL 489/CSA is permitted only in conjunction with the mounting base, (see page 2/178).

Minimum order quantity (PS) or a multiple thereof can be ordered.

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SD	High breaking capacity H, up to 65 kA at 480 V (H)					SD	Very high breaking capacity L, up to 100 kA at 480 V (L)				
	Article No. www.siemens.com/product?Article No. Article No. supplement required, see page 2/156	Price per PU	PU (UNIT, SET, M)	PS	PG		Article No. www.siemens.com/product?Article No. Article No. supplement required, see page 2/156	Price per PU	PU (UNIT, SET, M)	PS	PG
d						d					
	3VL1102-2KM30-□□□□		1	1 unit	1CC		--				
	3VL1125-2KM30-□□□□		1	1 unit	1CC		--				
	3VL1103-2KM30-□□□□		1	1 unit	1CC		--				
	3VL1135-2KM30-□□□□		1	1 unit	1CC		--				
	3VL1104-2KM30-□□□□		1	1 unit	1CC		--				
	3VL1105-2KM30-□□□□		1	1 unit	1CC		--				
	3VL1106-2KM30-□□□□		1	1 unit	1CC		--				
	3VL1107-2KM30-□□□□		1	1 unit	1CC		--				
	3VL1108-2KM30-□□□□		1	1 unit	1CC		--				
	3VL1191-2KM30-□□□□		1	1 unit	1CC		--				
	3VL1110-2KM30-□□□□		1	1 unit	1CC		--				
	3VL1112-2KM30-□□□□		1	1 unit	1CC		--				
	3VL1115-2KM30-□□□□		1	1 unit	1CC		--				
	3VL2505-2KN30-□□□□		1	1 unit	1CC		**3VL2505-3KN30-□□□□**		1	1 unit	1CC
	3VL2506-2KN30-□□□□		1	1 unit	1CC		**3VL2506-3KN30-□□□□**		1	1 unit	1CC
	3VL2507-2KN30-□□□□		1	1 unit	1CC		**3VL2507-3KN30-□□□□**		1	1 unit	1CC
	3VL2508-2KN30-□□□□		1	1 unit	1CC		**3VL2508-3KN30-□□□□**		1	1 unit	1CC
	3VL2591-2KN30-□□□□		1	1 unit	1CC		**3VL2591-3KN30-□□□□**		1	1 unit	1CC
	3VL2510-2KN30-□□□□		1	1 unit	1CC		**3VL2510-3KN30-□□□□**		1	1 unit	1CC
	3VL2511-2KN30-□□□□		1	1 unit	1CC		**3VL2511-3KN30-□□□□**		1	1 unit	1CC
	3VL2512-2KN30-□□□□		1	1 unit	1CC		**3VL2512-3KN30-□□□□**		1	1 unit	1CC
	3VL2515-2KN30-□□□□		1	1 unit	1CC		**3VL2515-3KN30-□□□□**		1	1 unit	1CC
	3VL3510-2KN30-□□□□		1	1 unit	1CC		**3VL3510-3KN30-□□□□**		1	1 unit	1CC
	3VL3511-2KN30-□□□□		1	1 unit	1CC		**3VL3511-3KN30-□□□□**		1	1 unit	1CC
	3VL3512-2KN30-□□□□		1	1 unit	1CC		**3VL3512-3KN30-□□□□**		1	1 unit	1CC
	3VL3515-2KN30-□□□□		1	1 unit	1CC		**3VL3515-3KN30-□□□□**		1	1 unit	1CC
	3VL3517-2KN30-□□□□		1	1 unit	1CC		**3VL3517-3KN30-□□□□**		1	1 unit	1CC
	3VL3520-2KN30-□□□□		1	1 unit	1CC		**3VL3520-3KN30-□□□□**		1	1 unit	1CC
	3VL3522-2KN30-□□□□		1	1 unit	1CC		**3VL3522-3KN30-□□□□**		1	1 unit	1CC
	3VL3525-2KN30-□□□□		1	1 unit	1CC		**3VL3525-3KN30-□□□□**		1	1 unit	1CC
	3VL4125-2KN30-□□□□		1	1 unit	1CC		**3VL4125-3KN30-□□□□**		1	1 unit	1CC
	3VL4130-2KN30-□□□□		1	1 unit	1CC		**3VL4130-3KN30-□□□□**		1	1 unit	1CC
	3VL4135-2KN30-□□□□		1	1 unit	1CC		**3VL4135-3KN30-□□□□**		1	1 unit	1CC
	3VL4140-2KN30-□□□□		1	1 unit	1CC		**3VL4140-3KN30-□□□□**		1	1 unit	1CC
	3VL4840-2KN30-□□□□		1	1 unit	1CC		**3VL4840-3KN30-□□□□**		1	1 unit	1CC
	3VL4850-2KN30-□□□□		1	1 unit	1CC		**3VL4850-3KN30-□□□□**		1	1 unit	1CC
	3VL4860-2KN30-□□□□		1	1 unit	1CC		**3VL4860-3KN30-□□□□**		1	1 unit	1CC
	3VL6160-2KN30-□□□□		1	1 unit	1CC		**3VL6160-3KN30-□□□□**		1	1 unit	1CC
	3VL6170-2KN30-□□□□		1	1 unit	1CC		**3VL6170-3KN30-□□□□**		1	1 unit	1CC
	3VL6180-2KN30-□□□□		1	1 unit	1CC		**3VL6180-3KN30-□□□□**		1	1 unit	1CC
	3VL7180-2KN30-□□□□		1	1 unit	1CC		**3VL7180-3KN30-□□□□**		1	1 unit	1CC
	3VL7190-2KN30-□□□□		1	1 unit	1CC		**3VL7190-3KN30-□□□□**		1	1 unit	1CC
	3VL7110-2KN30-□□□□		1	1 unit	1CC		**3VL7110-3KN30-□□□□**		1	1 unit	1CC
	3VL7112-2KN30-□□□□		1	1 unit	1CC		**3VL7112-3KN30-□□□□**		1	1 unit	1CC
	3VL8112-2KN30-□□□□		1	1 unit	1CC		**3VL8112-3KN30-□□□□**		1	1 unit	1CC
	3VL8114-2KN30-□□□□		1	1 unit	1CC		**3VL8114-3KN30-□□□□**		1	1 unit	1CC
	3VL8116-2KN30-□□□□		1	1 unit	1CC		**3VL8116-3KN30-□□□□**		1	1 unit	1CC

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3-pole

Type	Rated current I_n		Operating current of the instantaneous short-circuit protection "I" I_i	SD	**Standard breaking capacity N, up to 35 kA at 480 V** See "Overview". (N) Article No. www.siemens.com/product?Article No. Article No. supplement required, see page 2/156	Price per PU	PU (UNIT, SET, M)	PS	PG
	A		A	d					
Fixed-mounted molded case circuit breakers, VL150 UL (DG frame) to VL1600 UL (PG frame), magnetic and Electronic Trip Units									
					Molded case circuit breakers for starter combination, I function (motor circuit-protectors; UL file: E10848, CCN[1]: DKPUZ)[2]				
 NSE0_00707					Without overcurrent release, with adjustable short-circuit release Connection type: Molded case circuit breakers without preassembled connections, connections must be ordered under "Accessories", "Plug-in versions/withdrawable versions", pages 2/171 to 2/178 or under "Accessories", "Connection parts for fixed-mounted molded case circuit breakers", pages 2/171 to 2/178.				
VL150 UL, DG frame	150 150 150		450 ... 900 750 ... 1500 1250 ... 2500		-- -- --				
VL250 UL, FG frame	250 250 250		600 ... 1200 1000 ... 2000 1750 ... 3500		-- -- --				
VL400 UL, JG frame	400 400[3]		1250 ... 2500 2000 ... 4000		-- --				
VL400X UL, LG frame	600 600[3]		2000 ... 4000 2750 ... 5500		-- --				
VL800 UL, MG frame	800		3250 ... 6500		--				
VL1200 UL, NG frame	1200		7000 ... 12000		--				
 NSE0_00708					***Non-automatic molded case circuit breakers (molded case switches; UL file: E68312, CCN[1]: WJAZ)*** Without overcurrent release, with fixed short-circuit release (for intrinsic protection only) Connection type: Molded case circuit breakers without preassembled connections, connections must be ordered under "Accessories", "Plug-in versions/withdrawable versions", pages 2/171 to 2/178 or under "Accessories", "Connection parts for fixed-mounted molded case circuit breakers", pages 2/171 to 2/178.				
VL150X UL, CG frame	100 150		1800 1800		**3VL1110-1KE30-□□□□** **3VL1115-1KE30-□□□□**	1 1	1 unit 1 unit	1CC 1CC	
VL150 UL, DG frame	150		2500		--				
VL250 UL, FG frame	250		3500		--				
VL400 UL, JG frame	400		4400		--				
VL400X UL, LG frame	600		5500		--				
VL800 UL, MG frame	800		6500		--				
VL1200 UL, NG frame	1200		12000		--				
VL1600 UL, PG frame[4]	1600		14000		--				

1) UL Category Code Number.

2) UL-recognized.

3) Motor current according to NEC 430-110.

4) Operation of the molded case circuit breakers within the applicable range of UL 489/CSA is permitted only in conjunction with the mounting base, (see page 2/178).

Minimum order quantity (PS) or a multiple thereof can be ordered.

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SD	High breaking capacity H, up to 65 kA at 480 V (H)					SD	Very high breaking capacity L, up to 100 kA at 480 V (L)				
	Article No. www.siemens.com/product?Article No. Article No. supplement required, see page 2/156	Price per PU	PU (UNIT, SET, M)	PS	PG		Article No. www.siemens.com/product?Article No. Article No. supplement required, see page 2/156	Price per PU	PU (UNIT, SET, M)	PS	PG
d						d					
	3VL2515-2KJ30-□□□□		1	1 unit	1CC		--				
	3VL2515-2KK30-□□□□		1	1 unit	1CC		--				
	3VL2515-2KL30-□□□□		1	1 unit	1CC		--				
	3VL3525-2KJ30-□□□□		1	1 unit	1CC		--				
	3VL3525-2KK30-□□□□		1	1 unit	1CC		--				
	3VL3525-2KL30-□□□□		1	1 unit	1CC		--				
	3VL4140-2KJ30-□□□□		1	1 unit	1CC		--				
	3VL4140-2KK30-□□□□		1	1 unit	1CC		--				
	3VL4860-2KJ30-□□□□		1	1 unit	1CC		--				
	3VL4860-2KK30-□□□□		1	1 unit	1CC		--				
	3VL6180-2KK30-□□□□		1	1 unit	1CC		--				
	3VL7112-2KK30-□□□□		1	1 unit	1CC		--				
	3VL1110-2KE30-□□□□		1	1 unit	1CC		--				
	3VL1115-2KE30-□□□□		1	1 unit	1CC		--				
	3VL2515-2KE30-□□□□		1	1 unit	1CC		**3VL2515-3KE30-□□□□**		1	1 unit	1CC
	3VL3525-2KE30-□□□□		1	1 unit	1CC		**3VL3525-3KE30-□□□□**		1	1 unit	1CC
	3VL4140-2KE30-□□□□		1	1 unit	1CC		**3VL4140-3KE30-□□□□**		1	1 unit	1CC
	3VL4860-2KE30-□□□□		1	1 unit	1CC		**3VL4860-3KE30-□□□□**		1	1 unit	1CC
	3VL6180-2KE30-□□□□		1	1 unit	1CC		**3VL6180-3KE30-□□□□**		1	1 unit	1CC
	3VL7112-2KE30-□□□□		1	1 unit	1CC		**3VL7112-3KE30-□□□□**		1	1 unit	1CC
	3VL8116-2KE30-□□□□		1	1 unit	1CC		**3VL8116-3KE30-□□□□**		1	1 unit	1CC

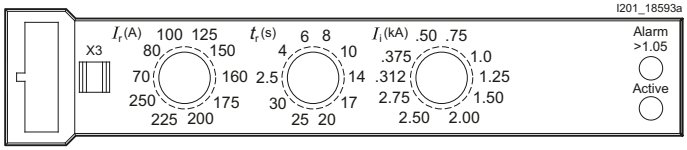
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3-pole

Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Response time of the inverse-time delayed overload protection "L" t_r	Operating current of the instantaneous short-circuit protection "I" I_i	SD	**Standard breaking capacity N, up to 35 kA at 480 V** See "Overview". (N)				
						Article No. www.siemens.com/product?Article No. Article No. supplement required, see page 2/156	Price per PU	PU (UNIT, SET, M)	PS	PG
	A	A	s	A	d					
Fixed-mounted molded case circuit breakers, VL150 UL (DG frame) up to VL1600 UL (PG frame), Electronic Trip Units (UL file: E10848, CCN[1]: DIVQ)										
VL150 UL, DG frame	60	30 ... 60	2.5 ... 30	75 ... 660 (11 x I_n)		**3VL2506-1PB30-□□□□**		1	1 unit	1CC
	100	40 ... 100	2.5 ... 30	125 ... 1100 (11 x I_n)		**3VL2510-1PB30-□□□□**		1	1 unit	1CC
	150	60 ... 150	2.5 ... 30	187 ... 1650 (11 x I_n)		**3VL2515-1PB30-□□□□**		1	1 unit	1CC
VL250 UL, FG frame	100	40 ... 100	2.5 ... 30	125 ... 1100 (11 x I_n)		**3VL3510-1PB30-□□□□**		1	1 unit	1CC
	150	60 ... 150	2.5 ... 30	187 ... 1650 (11 x I_n)		**3VL3515-1PB30-□□□□**		1	1 unit	1CC
	250	70 ... 250	2.5 ... 30	312 ... 2750 (11 x I_n)		**3VL3525-1PB30-□□□□**		1	1 unit	1CC
VL400 UL, JG frame	250	70 ... 250	2.5 ... 30	312 ... 2750 (11 x I_n)		**3VL4125-1PB30-□□□□**		1	1 unit	1CC
	400	150 ... 400	2.5 ... 30	500 ... 4400 (11 x I_n)		**3VL4140-1PB30-□□□□**		1	1 unit	1CC
VL400X UL, LG frame	400	150 ... 400	2.5 ... 30	500 ... 4400 (11 x I_n)		**3VL4840-1PB30-□□□□**		1	1 unit	1CC
	600	200 ... 600	2.5 ... 30	750 ... 6000 (10 x I_n)		**3VL4860-1PB30-□□□□**		1	1 unit	1CC
VL800 UL, MG frame	600	200 ... 600	2.5 ... 30	750 ... 6000 (10 x I_n)		**3VL6160-1PB30-□□□□**		1	1 unit	1CC
	800	300 ... 800	2.5 ... 30	1000 ... 6000 (7.5 x I_n)		**3VL6180-1PB30-□□□□**		1	1 unit	1CC
VL1200 UL, NG frame	800	300 ... 800	2.5 ... 30	1000 ... 8800 (11 x I_n)		**3VL7180-1PB30-□□□□**		1	1 unit	1CC
	1000	400 ... 1000	2.5 ... 30	1250 ... 11000 (11 x I_n)		**3VL7110-1PB30-□□□□**		1	1 unit	1CC
	1200	400 ... 1200	2.5 ... 30	1500 ... 12000 (10 x I_n)		**3VL7112-1PB30-□□□□**		1	1 unit	1CC
VL1600 UL, PG frame[2]	1200	400 ... 1200	2.5 ... 30	1500 ... 12000 (10 x I_n)		**3VL8112-1PB30-□□□□**		1	1 unit	1CC
	1600	700 ... 1600	2.5 ... 30	2000 ... 9600 (6 x I_n)		**3VL8116-1PB30-□□□□**		1	1 unit	1CC



NSE0_00691



Line protection

With Electronic Trip Units ETU (model 555)
LI function

Connection type:
Molded case circuit breakers without preassembled connections,
connections must be ordered under "Accessories", "Plug-in versions/withdrawable versions", pages 2/171 to 2/178 or under "Accessories", "Connection parts for fixed-mounted molded case circuit breakers", pages 2/171 to 2/178.

L = overload

I = short-circuit protection, instantaneous

1) UL Category Code Number.

2) Operation of the molded case circuit breakers within the applicable range of UL 489/CSA is permitted only in conjunction with the mounting base, (see page 2/178).

Minimum order quantity (PS) or a multiple thereof can be ordered.

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SD	High breaking capacity H, up to 65 kA at 480 V (H)					SD	Very high breaking capacity L, up to 100 kA at 480 V (L)				
	Article No. www.siemens.com/product?Article No. Article No. supplement required, see page 2/156	Price per PU	PU (UNIT, SET, M)	PS	PG		Article No. www.siemens.com/product?Article No. Article No. supplement required, see page 2/156	Price per PU	PU (UNIT, SET, M)	PS	PG
d						d					
	3VL2506-2PB30-□□□□		1	1 unit	1CC		**3VL2506-3PB30-□□□□**		1	1 unit	1CC
	3VL2510-2PB30-□□□□		1	1 unit	1CC		**3VL2510-3PB30-□□□□**		1	1 unit	1CC
	3VL2515-2PB30-□□□□		1	1 unit	1CC		**3VL2515-3PB30-□□□□**		1	1 unit	1CC
	3VL3510-2PB30-□□□□		1	1 unit	1CC		**3VL3510-3PB30-□□□□**		1	1 unit	1CC
	3VL3515-2PB30-□□□□		1	1 unit	1CC		**3VL3515-3PB30-□□□□**		1	1 unit	1CC
	3VL3525-2PB30-□□□□		1	1 unit	1CC		**3VL3525-3PB30-□□□□**		1	1 unit	1CC
	3VL4125-2PB30-□□□□		1	1 unit	1CC		**3VL4125-3PB30-□□□□**		1	1 unit	1CC
	3VL4140-2PB30-□□□□		1	1 unit	1CC		**3VL4140-3PB30-□□□□**		1	1 unit	1CC
	3VL4840-2PB30-□□□□		1	1 unit	1CC		**3VL4840-3PB30-□□□□**		1	1 unit	1CC
	3VL4860-2PB30-□□□□		1	1 unit	1CC		**3VL4860-3PB30-□□□□**		1	1 unit	1CC
	3VL6160-2PB30-□□□□		1	1 unit	1CC		**3VL6160-3PB30-□□□□**		1	1 unit	1CC
	3VL6180-2PB30-□□□□		1	1 unit	1CC		**3VL6180-3PB30-□□□□**		1	1 unit	1CC
	3VL7180-2PB30-□□□□		1	1 unit	1CC		**3VL7180-3PB30-□□□□**		1	1 unit	1CC
	3VL7110-2PB30-□□□□		1	1 unit	1CC		**3VL7110-3PB30-□□□□**		1	1 unit	1CC
	3VL7112-2PB30-□□□□		1	1 unit	1CC		**3VL7112-3PB30-□□□□**		1	1 unit	1CC
	3VL8112-2PB30-□□□□		1	1 unit	1CC		**3VL8112-3PB30-□□□□**		1	1 unit	1CC
	3VL8116-2PB30-□□□□		1	1 unit	1CC		**3VL8116-3PB30-□□□□**		1	1 unit	1CC

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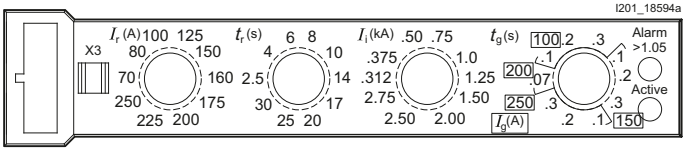
Product discontinuation

3-pole

Fixed-mounted molded case circuit breakers, VL150 UL (DG frame) up to VL1600 UL (PG frame), Electronic Trip Units (UL file: E10848, CCN[1]: DIVQ)



NSE0_00693



Line protection

With Electronic Trip Unit ETU (model 555)
LIG function
for 4-wire three-phase systems (vectorial summation current formation)
Connection type:

Molded case circuit breakers without preassembled connections,
connections must be ordered under "Accessories", "Plug-in versions/withdrawable versions", pages to or under "Accessories",
"Connection parts for fixed-mounted molded case circuit breakers", pages 2/171 to 2/178.
Current transformers must be ordered under "Accessories" page 2/186.

Type	Rated current I_n A	Current setting of the inverse-time delayed overload protection "L" I_r A	Response time of the inverse-time delayed overload protection "L" t_r s	Operating current of the instantaneous short-circuit protection "I" I_i A	Standard setting of I_g/A and t_g/s	t_g/s adjustable to 0.1, 0.2 and 0.3 s for following I_g /A	SD d	Standard breaking capacity N, up to 35 kA at 480 V (N) See "Overview". Article No. www.siemens.com/product?Article No. Article No. supplement required, see page 2/156	Price per PU	PU (UNIT, SET, M)	PS	PG
VL150 UL, DG frame	60	30 ... 60	2.5 ... 30	75 ... 660 (11 x I_n)	48/0.07	24/36/60		**3VL2506-1PD30-□□□□**		1	1 unit	1CC
	100	40 ... 100	2.5 ... 30	125 ... 1100 (11 x I_n)	80/0.07	40/60/100		**3VL2510-1PD30-□□□□**		1	1 unit	1CC
	150	60 ... 150	2.5 ... 30	187 ... 1650 (11 x I_n)	120/0.07	60/90/150		**3VL2515-1PD30-□□□□**		1	1 unit	1CC
VL250 UL, FG frame	100	40 ... 100	2.5 ... 30	125 ... 1100 (11 x I_n)	80/0.07	40/60/100		**3VL3510-1PD30-□□□□**		1	1 unit	1CC
	150	60 ... 150	2.5 ... 30	187 ... 1650 (11 x I_n)	120/0.07	60/90/150		**3VL3515-1PD30-□□□□**		1	1 unit	1CC
	250	70 ... 250	2.5 ... 30	312 ... 2750 (11 x I_n)	200/0.07	100/150/250		**3VL3525-1PD30-□□□□**		1	1 unit	1CC
VL400 UL, JG frame	250	70 ... 250	2.5 ... 30	312 ... 2750 (11 x I_n)	200/0.07	100/150/250		**3VL4125-1PD30-□□□□**		1	1 unit	1CC
	400	150 ... 400	2.5 ... 30	500 ... 4400 (11 x I_n)	320/0.11	160/240/400		**3VL4140-1PD30-□□□□**		1	1 unit	1CC
VL400X UL, LG frame	400	150 ... 400	2.5 ... 30	500 ... 4400 (11 x I_n)	320/0.11	160/240/400		**3VL4840-1PD30-□□□□**		1	1 unit	1CC
	600	200 ... 600	2.5 ... 30	750 ... 6000 (10 x I_n)	360/0.18	240/360/600		**3VL4860-1PD30-□□□□**		1	1 unit	1CC
VL800 UL, MG frame	600	200 ... 600	2.5 ... 30	750 ... 6000 (10 x I_n)	360/0.18	240/360/600		**3VL6160-1PD30-□□□□**		1	1 unit	1CC
	800	300 ... 800	2.5 ... 30	1000 ... 6000 (7.5 x I_n)	480/0.25	320/480/800		**3VL6180-1PD30-□□□□**		1	1 unit	1CC
VL1200 UL, NG frame	800	300 ... 800	2.5 ... 30	1000 ... 8800 (11 x I_n)	480/0.25	320/480/800		**3VL7180-1PD30-□□□□**		1	1 unit	1CC
	1000	400 ... 1000	2.5 ... 30	1250 ... 11000 (11 x I_n)	600/0.32	400/600/1000		**3VL7110-1PD30-□□□□**		1	1 unit	1CC
	1200	400 ... 1200	2.5 ... 30	1500 ... 12000 (10 x I_n)	720/0.32	480/720/1200		**3VL7112-1PD30-□□□□**		1	1 unit	1CC
VL1600 UL, PG frame[2]	1200	400 ... 1200	2.5 ... 30	1500 ... 12000 (10 x I_n)	720/0.32	480/720/1200		**3VL8112-1PD30-□□□□**		1	1 unit	1CC
	1600	700 ... 1600	2.5 ... 30	2000 ... 9600 (6 x I_n)	960/0.4	640/960/1200		**3VL8116-1PD30-□□□□**		1	1 unit	1CC

L = overload

I = short-circuit protection, instantaneous

G = ground-fault protection

1) UL Category Code Number.

2) Operation of the molded case circuit breakers within the applicable range of UL 489/CSA is permitted only in conjunction with the mounting base, (see page 2/178).

Minimum order quantity (PS) or a multiple thereof can be ordered.

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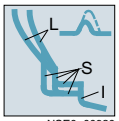
SD	High breaking capacity H, up to 65 kA at 480 V (H)					SD	Very high breaking capacity L, up to 100 kA at 480 V (L)				
	Article No. www.siemens.com/product?Article No. Article No. supplement required, see page 2/156	Price per PU	PU (UNIT, SET, M)	PS	PG		Article No. www.siemens.com/product?Article No. Article No. supplement required, see page 2/156	Price per PU	PU (UNIT, SET, M)	PS	PG
d						d					
	3VL2506-2PD30-□□□□		1	1 unit	1CC		**3VL2506-3PD30-□□□□**		1	1 unit	1CC
	3VL2510-2PD30-□□□□		1	1 unit	1CC		**3VL2510-3PD30-□□□□**		1	1 unit	1CC
	3VL2515-2PD30-□□□□		1	1 unit	1CC		**3VL2515-3PD30-□□□□**		1	1 unit	1CC
	3VL3510-2PD30-□□□□		1	1 unit	1CC		**3VL3510-3PD30-□□□□**		1	1 unit	1CC
	3VL3515-2PD30-□□□□		1	1 unit	1CC		**3VL3515-3PD30-□□□□**		1	1 unit	1CC
	3VL3525-2PD30-□□□□		1	1 unit	1CC		**3VL3525-3PD30-□□□□**		1	1 unit	1CC
	3VL4125-2PD30-□□□□		1	1 unit	1CC		**3VL4125-3PD30-□□□□**		1	1 unit	1CC
	3VL4140-2PD30-□□□□		1	1 unit	1CC		**3VL4140-3PD30-□□□□**		1	1 unit	1CC
	3VL4840-2PD30-□□□□		1	1 unit	1CC		**3VL4840-3PD30-□□□□**		1	1 unit	1CC
	3VL4860-2PD30-□□□□		1	1 unit	1CC		**3VL4860-3PD30-□□□□**		1	1 unit	1CC
	3VL6160-2PD30-□□□□		1	1 unit	1CC		**3VL6160-3PD30-□□□□**		1	1 unit	1CC
	3VL6180-2PD30-□□□□		1	1 unit	1CC		**3VL6180-3PD30-□□□□**		1	1 unit	1CC
	3VL7180-2PD30-□□□□		1	1 unit	1CC		**3VL7180-3PD30-□□□□**		1	1 unit	1CC
	3VL7110-2PD30-□□□□		1	1 unit	1CC		**3VL7110-3PD30-□□□□**		1	1 unit	1CC
	3VL7112-2PD30-□□□□		1	1 unit	1CC		**3VL7112-3PD30-□□□□**		1	1 unit	1CC
	3VL8112-2PD30-□□□□		1	1 unit	1CC		**3VL8112-3PD30-□□□□**		1	1 unit	1CC
	3VL8116-2PD30-□□□□		1	1 unit	1CC		**3VL8116-3PD30-□□□□**		1	1 unit	1CC

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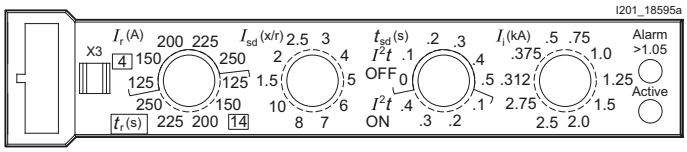
Product discontinuation

3-pole

Fixed-mounted molded case circuit breakers, VL150 UL (DG frame) up to VL1600 UL (PG frame), Electronic Trip Units (UL file: E10848, CCN[1]: DIVQ)



NSE0_00920



Line and generator protection

With Electronic Trip Unit ETU (model 555)
LSI function (t_{sd} = 0 to 0.5 s)
Connection type:

Molded case circuit breakers without preassembled connections,
connections must be ordered under "Accessories", "Plug-in versions/withdrawable versions", pages 2/171 to 2/178 or
under "Accessories", "Connection parts for fixed-mounted molded case circuit breakers", pages 2/171 to 2/178.

Standard breaking capacity N, up to 35 kA at 480 V See "Overview". (N)

Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Response time of the inverse-time delayed overload protection "L" t_r	Operating current of the instantaneous short-circuit protection "I" I_i	Operating current of the short-time delayed short-circuit protection "S" I_{sd}	SD	Article No. www.siemens.com/product?Article No. Article No. supplement required, see page 2/156	Price per PU	PU (UNIT, SET, M)	PS	PG
	A	A	s	A	A	d					
VL150 UL, DG frame	60	30 ... 60	4/14	75 ... 660 (11 x I_n)	1.5 ... 10 x I_r		**3VL2506-1PE30-□□□□**		1	1 unit	1CC
	100	40 ... 100	4/14	125 ... 1100 (11 x I_n)	1.5 ... 10 x I_r		**3VL2510-1PE30-□□□□**		1	1 unit	1CC
	150	60 ... 150	4/14	187 ... 1650 (11 x I_n)	1.5 ... 10 x I_r		**3VL2515-1PE30-□□□□**		1	1 unit	1CC
VL250 UL, FG frame	100	40 ... 100	4/14	125 ... 1100 (11 x I_n)	1.5 ... 10 x I_r		**3VL3510-1PE30-□□□□**		1	1 unit	1CC
	150	60 ... 150	4/14	187 ... 1650 (11 x I_n)	1.5 ... 10 x I_r		**3VL3515-1PE30-□□□□**		1	1 unit	1CC
	250	125 ... 250	4/14	312 ... 2750 (11 x I_n)	1.5 ... 10 x I_r		**3VL3525-1PE30-□□□□**		1	1 unit	1CC
VL400 UL, JG frame	250	125 ... 250	4/14	312 ... 2750 (11 x I_n)	1.5 ... 10 x I_r		**3VL4125-1PE30-□□□□**		1	1 unit	1CC
	400	200 ... 400	10/20	500 ... 4400 (11 x I_n)	1.5 ... 10 x I_r		**3VL4140-1PE30-□□□□**		1	1 unit	1CC
VL400X UL, LG frame	400	200 ... 400	10/20	500 ... 4400 (11 x I_n)	1.5 ... 10 x I_r		**3VL4840-1PE30-□□□□**		1	1 unit	1CC
	600	350 ... 600	10/20	750 ... 6000 (10 x I_n)	1.5 ... 10 x I_r		**3VL4860-1PE30-□□□□**		1	1 unit	1CC
VL800 UL, MG frame	600	350 ... 600	10/20	750 ... 6000 (10 x I_n)	1.5 ... 10 x I_r		**3VL6160-1PE30-□□□□**		1	1 unit	1CC
	800	400 ... 800	10/20	1000 ... 6000 (7.5 x I_n)	1.5 ... 10 x I_r		**3VL6180-1PE30-□□□□**		1	1 unit	1CC
VL1200 UL, NG frame	800	400 ... 800	10/20	1000 ... 8800 (11 x I_n)	1.5 ... 10 x I_r		**3VL7180-1PE30-□□□□**		1	1 unit	1CC
	1000	600 ... 1000	10/20	1250 ... 11000 (11 x I_n)	1.5 ... 10 x I_r		**3VL7110-1PE30-□□□□**		1	1 unit	1CC
	1200	700 ... 1200	10/20	1500 ... 12000 (10 x I_n)	1.5 ... 10 x I_r		**3VL7112-1PE30-□□□□**		1	1 unit	1CC
VL1600 UL, PG frame[2]	1200	700 ... 1200	10/20	1500 ... 12000 (10 x I_n)	1.5 ... 10 x I_r		**3VL8112-1PE30-□□□□**		1	1 unit	1CC
	1600	1000 ... 1600	10/20	2000 ... 9600 (6 x I_n)	1.5 ... 10 x I_r		**3VL8116-1PE30-□□□□**		1	1 unit	1CC

L = overload

S = short-circuit protection, short-time delayed

I = short-circuit protection, instantaneous

1) UL Category Code Number.

2) Operation of the molded case circuit breakers within the applicable range of UL 489/CSA is permitted only in conjunction with the mounting base, (see page 2/178).

Minimum order quantity (PS) or a multiple thereof can be ordered.

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SD	High breaking capacity H, up to 65 kA at 480 V (H)					SD	Very high breaking capacity L, up to 100 kA at 480 V (L)				
	Article No. www.siemens.com/product?Article No. Article No. supplement required, see page 2/156	Price per PU	PU (UNIT, SET, M)	PS	PG		Article No. www.siemens.com/product?Article No. Article No. supplement required, see page 2/156	Price per PU	PU (UNIT, SET, M)	PS	PG
d						d					
	3VL2506-2PE30-□□□□		1	1 unit	1CC		**3VL2506-3PE30-□□□□**		1	1 unit	1CC
	3VL2510-2PE30-□□□□		1	1 unit	1CC		**3VL2510-3PE30-□□□□**		1	1 unit	1CC
	3VL2515-2PE30-□□□□		1	1 unit	1CC		**3VL2515-3PE30-□□□□**		1	1 unit	1CC
	3VL3510-2PE30-□□□□		1	1 unit	1CC		**3VL3510-3PE30-□□□□**		1	1 unit	1CC
	3VL3515-2PE30-□□□□		1	1 unit	1CC		**3VL3515-3PE30-□□□□**		1	1 unit	1CC
	3VL3525-2PE30-□□□□		1	1 unit	1CC		**3VL3525-3PE30-□□□□**		1	1 unit	1CC
	3VL4125-2PE30-□□□□		1	1 unit	1CC		**3VL4125-3PE30-□□□□**		1	1 unit	1CC
	3VL4140-2PE30-□□□□		1	1 unit	1CC		**3VL4140-3PE30-□□□□**		1	1 unit	1CC
	3VL4840-2PE30-□□□□		1	1 unit	1CC		**3VL4840-3PE30-□□□□**		1	1 unit	1CC
	3VL4860-2PE30-□□□□		1	1 unit	1CC		**3VL4860-3PE30-□□□□**		1	1 unit	1CC
	3VL6160-2PE30-□□□□		1	1 unit	1CC		**3VL6160-3PE30-□□□□**		1	1 unit	1CC
	3VL6180-2PE30-□□□□		1	1 unit	1CC		**3VL6180-3PE30-□□□□**		1	1 unit	1CC
	3VL7180-2PE30-□□□□		1	1 unit	1CC		**3VL7180-3PE30-□□□□**		1	1 unit	1CC
	3VL7110-2PE30-□□□□		1	1 unit	1CC		**3VL7110-3PE30-□□□□**		1	1 unit	1CC
	3VL7112-2PE30-□□□□		1	1 unit	1CC		**3VL7112-3PE30-□□□□**		1	1 unit	1CC
	3VL8112-2PE30-□□□□		1	1 unit	1CC		**3VL8112-3PE30-□□□□**		1	1 unit	1CC
	3VL8116-2PE30-□□□□		1	1 unit	1CC		**3VL8116-3PE30-□□□□**		1	1 unit	1CC

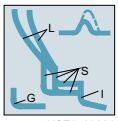
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Product discontinuation

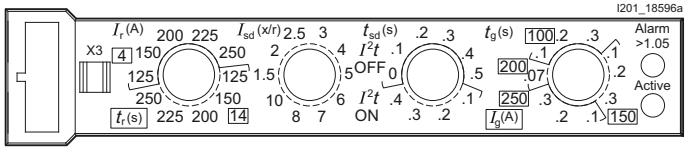
3-pole

Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Response time of the inverse-time delayed overload protection "L" t_r	Operating current of the instantaneous short-circuit protection "I" I_i	Operating current of the short-time delayed short-circuit protection "S" I_{sd}	Standard setting of I_g/A and t_g/s	t_g/s adjustable to 0.1, 0.2 and 0.3 s for following I_g /A	SD	**Standard breaking capacity N, up to 35 kA at 480 V** See "Overview". (N)				
									Article No. www.siemens.com/product?Article No. Article No. supplement required, see page 2/156	Price per PU	PU (UNIT, SET, M)	PS	PG
	A	A	s	A	A			d					

Fixed-mounted molded case circuit breakers, VL150 UL (DG frame) up to VL1600 UL (PG frame), Electronic Trip Units (UL file: E10848, CCN[1]: DIVQ)



NSE0_00921



Line and generator protection

With Electronic Trip Unit ETU (model 555)
LSIG function (t_{sd} = 0 to 0.5 s)
for 4-wire three-phase systems (vectorial summation current formation)
Connection type:

Molded case circuit breakers without preassembled connections,
connections must be ordered under "Accessories", "Plug-in versions/withdrawable versions", pages 2/171 to 2/178 or under "Accessories", "Connection parts for fixed-mounted molded case circuit breakers", pages 2/171 to 2/178.
Current transformers must be ordered under "Accessories" page 2/186.

VL150 UL, DG frame	60	30 ... 60	4/14	300/660 (5/11 x I_n)	1.5 ... 10 x I_r	48/0.07	24/36/60		**3VL2506-1PH30-□□□□**	1	1 unit	1CC
	100	40 ... 100	4/14	500/1100 (5/11 x I_n)	1.5 ... 10 x I_r	80/0.07	40/60/100		**3VL2510-1PH30-□□□□**	1	1 unit	1CC
	150	60 ... 150	4/14	750/1650 (5/11 x I_n)	1.5 ... 10 x I_r	120/0.07	60/90/150		**3VL2515-1PH30-□□□□**	1	1 unit	1CC
VL250 UL, FG frame	100	40 ... 100	4/14	500/1100 (5/11 x I_n)	1.5 ... 10 x I_r	80/0.07	40/60/100		**3VL3510-1PH30-□□□□**	1	1 unit	1CC
	150	60 ... 150	4/14	750/1650 (5/11 x I_n)	1.5 ... 10 x I_r	120/0.07	60/90/150		**3VL3515-1PH30-□□□□**	1	1 unit	1CC
	250	125 ... 250	4/14	1250/2750 (5/11 x I_n)	1.5 ... 10 x I_r	200/0.07	100/150/250		**3VL3525-1PH30-□□□□**	1	1 unit	1CC
VL400 UL, JG frame	250	125 ... 250	4/14	1250/2750 (5/11 x I_n)	1.5 ... 10 x I_r	200/0.07	100/150/250		**3VL4125-1PH30-□□□□**	1	1 unit	1CC
	400	200 ... 400	10/20	2000/4400 (5/11 x I_n)	1.5 ... 10 x I_r	320/0.11	160/240/400		**3VL4140-1PH30-□□□□**	1	1 unit	1CC
VL400X UL , LG frame	400	200 ... 400	10/20	2000/4400 (5/11 x I_n)	1.5 ... 10 x I_r	320/0.11	160/240/400		**3VL4840-1PH30-□□□□**	1	1 unit	1CC
	600	350 ... 600	10/20	3000/6000 (5/10 x I_n)	1.5 ... 10 x I_r	360/0.18	240/360/600		**3VL4860-1PH30-□□□□**	1	1 unit	1CC
VL800 UL, MG frame	600	350 ... 600	10/20	3000/6000 (5/10 x I_n)	1.5 ... 10 x I_r	360/0.18	240/360/600		**3VL6160-1PH30-□□□□**	1	1 unit	1CC
	800	400 ... 800	10/20	4000/6000 (5/7.5 x I_n)	1.5 ... 10 x I_r	480/0.25	320/480/800		**3VL6180-1PH30-□□□□**	1	1 unit	1CC
VL1200 UL, NG frame	800	400 ... 800	10/20	4000/8800 (5/11 x I_n)	1.5 ... 10 x I_r	480/0.25	320/480/800		**3VL7180-1PH30-□□□□**	1	1 unit	1CC
	1000	600 ... 1000	10/20	5000/11000 (5/11 x I_n)	1.5 ... 10 x I_r	600/0.32	400/600/1000		**3VL7110-1PH30-□□□□**	1	1 unit	1CC
	1200	700 ... 1200	10/20	6000/12000 (5/10 x I_n)	1.5 ... 10 x I_r	720/0.32	480/720/1200		**3VL7112-1PH30-□□□□**	1	1 unit	1CC
VL1600 UL, PG frame[2]	1200	700 ... 1200	10/20	6000/12000 (5/10 x I_n)	1.5 ... 10 x I_r	720/0.32	480/720/1200		**3VL8112-1PH30-□□□□**	1	1 unit	1CC
	1600	1000...1600	10/20	8000/9600 (5/6 x I_n)	1.5 ... 10 x I_r	960/0.4	640/960/1200		**3VL8116-1PH30-□□□□**	1	1 unit	1CC

L = overload

S = short-circuit protection, short-time delayed

I = short-circuit protection, instantaneous

G = ground-fault protection

1) UL Category Code Number.

2) Operation of the molded case circuit breakers within the applicable range of UL 489/CSA is permitted only in conjunction with the mounting base, (see page 2/178).

Minimum order quantity (PS) or a multiple thereof can be ordered.

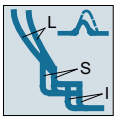
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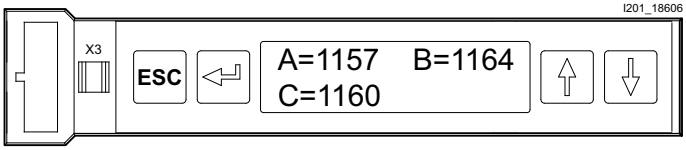
SD	High breaking capacity H, up to 65 kA at 480 V (H)	Price per PU	PU (UNIT, SET, M)	PS	PG	SD	Very high breaking capacity L, up to 100 kA at 480 V (L)	Price per PU	PU (UNIT, SET, M)	PS	PG
	Article No. www.siemens.com/product?Article No. Article No. supplement required, see page 2/156						Article No. www.siemens.com/product?Article No. Article No. supplement required, see page 2/156				
d						d					
	3VL2506-2PH30-□□□□		1	1 unit	1CC		**3VL2506-3PH30-□□□□**		1	1 unit	1CC
	3VL2510-2PH30-□□□□		1	1 unit	1CC		**3VL2510-3PH30-□□□□**		1	1 unit	1CC
	3VL2515-2PH30-□□□□		1	1 unit	1CC		**3VL2515-3PH30-□□□□**		1	1 unit	1CC
	3VL3510-2PH30-□□□□		1	1 unit	1CC		**3VL3510-3PH30-□□□□**		1	1 unit	1CC
	3VL3515-2PH30-□□□□		1	1 unit	1CC		**3VL3515-3PH30-□□□□**		1	1 unit	1CC
	3VL3525-2PH30-□□□□		1	1 unit	1CC		**3VL3525-3PH30-□□□□**		1	1 unit	1CC
	3VL4125-2PH30-□□□□		1	1 unit	1CC		**3VL4125-3PH30-□□□□**		1	1 unit	1CC
	3VL4140-2PH30-□□□□		1	1 unit	1CC		**3VL4140-3PH30-□□□□**		1	1 unit	1CC
	3VL4840-2PH30-□□□□		1	1 unit	1CC		**3VL4840-3PH30-□□□□**		1	1 unit	1CC
	3VL4860-2PH30-□□□□		1	1 unit	1CC		**3VL4860-3PH30-□□□□**		1	1 unit	1CC
	3VL6160-2PH30-□□□□		1	1 unit	1CC		**3VL6160-3PH30-□□□□**		1	1 unit	1CC
	3VL6180-2PH30-□□□□		1	1 unit	1CC		**3VL6180-3PH30-□□□□**		1	1 unit	1CC
	3VL7180-2PH30-□□□□		1	1 unit	1CC		**3VL7180-3PH30-□□□□**		1	1 unit	1CC
	3VL7110-2PH30-□□□□		1	1 unit	1CC		**3VL7110-3PH30-□□□□**		1	1 unit	1CC
	3VL7112-2PH30-□□□□		1	1 unit	1CC		**3VL7112-3PH30-□□□□**		1	1 unit	1CC
	3VL8112-2PH30-□□□□		1	1 unit	1CC		**3VL8112-3PH30-□□□□**		1	1 unit	1CC
	3VL8116-2PH30-□□□□		1	1 unit	1CC		**3VL8116-3PH30-□□□□**		1	1 unit	1CC

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3-pole

Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Operating current of the instantaneous short-circuit protection "I" I_i	SD	Standard breaking capacity N, up to 35 kA at 480 V (N) See "Overview". Article No. www.siemens.com/product?Article No. Article No. supplement required, see page 2/156	Price per PU	PU (UNIT, SET, M)	PS	PG
	A	A	A	d					
Fixed-mounted molded case circuit breakers, VL150 UL (DG frame) up to VL1600 UL (PG frame), up to 1600 A Electronic Trip Units (UL file: E10848, CCN[1]: DIVQ)									
VL150 UL, DG frame	60	30 ... 60	75 ... 660 (11 x I_n)		**3VL2506-1VH30-□□□□**		1	1 unit	1CC
	100	40 ... 100	125 ... 1100 (11 x I_n)		**3VL2510-1VH30-□□□□**		1	1 unit	1CC
	150	60 ... 150	187 ... 1650 (11 x I_n)		**3VL2515-1VH30-□□□□**		1	1 unit	1CC
VL250 UL, FG frame	100	40 ... 100	125 ... 1100 (11 x I_n)		**3VL3510-1VH30-□□□□**		1	1 unit	1CC
	150	60 ... 150	187 ... 1650 (11 x I_n)		**3VL3515-1VH30-□□□□**		1	1 unit	1CC
	250	70 ... 250	312 ... 2750 (11 x I_n)		**3VL3525-1VH30-□□□□**		1	1 unit	1CC
VL400 UL, JG frame	250	70 ... 250	312 ... 2750 (11 x I_n)		**3VL4125-1VH30-□□□□**		1	1 unit	1CC
	400	150 ... 400	500 ... 4400 (11 x I_n)		**3VL4140-1VH30-□□□□**		1	1 unit	1CC
VL400X UL, LG frame	400	150 ... 400	500 ... 4400 (11 x I_n)		**3VL4840-1VH30-□□□□**		1	1 unit	1CC
	600	200 ... 600	750 ... 6000 (10 x I_n)		**3VL4860-1VH30-□□□□**		1	1 unit	1CC
VL800 UL, MG frame	600	200 ... 600	750 ... 6000 (10 x I_n)		**3VL6160-1VH30-□□□□**		1	1 unit	1CC
	800	300 ... 800	1000 ... 6000 (7.5 x I_n)		**3VL6180-1VH30-□□□□**		1	1 unit	1CC
VL1200 UL, NG frame	800	300 ... 800	1000 ... 8800 (11 x I_n)		**3VL7180-1VH30-□□□□**		1	1 unit	1CC
	1000	400 ... 1000	1250 ... 11000 (11 x I_n)		**3VL7110-1VH30-□□□□**		1	1 unit	1CC
	1200	400 ... 1200	1500 ... 12000 (10 x I_n)		**3VL7112-1VH30-□□□□**		1	1 unit	1CC
VL1600 UL, PG frame[3]	1200	400 ... 1200	1500 ... 12000 (10 x I_n)		**3VL8112-1VH30-□□□□**		1	1 unit	1CC
	1600	700 ... 1600	2000 ... 9600 (6 x I_n)		**3VL8116-1VH30-□□□□**		1	1 unit	1CC





Molded case circuit breakers with Electronic Trip Units with LCD, line protection with LI/LS/LSI function

- Connection type:
  Molded case circuit breakers without preassembled connections, connections must be ordered under "Accessories", "Plug-in versions/withdrawable versions", pages 2/171 to 2/178 or under "Accessories", "Connection parts for fixed-mounted molded case circuit breakers", pages 2/171 to 2/178.
- t_{sd} = 0 to 0.5 s
- t_r/s: 2.5, 4, 6, 8,10,14, 17, 20, 25, 30
- I_{sd}/A: 1.25 to 10 x I_r[2]
- Pre-alarm % of I_r: 80 to 100

L = overload
S = short-circuit protection, short-time delayed
I = short-circuit protection, instantaneous

1) UL Category Code Number.
2) Only for sizes for which I_i (max) = 11 x I_n. Here the factor is 11. Otherwise the following applies: I_{sd} (max) = (factor-1) x I_r (max). The factor is the value in brackets in the column I_i.
3) Operation of the molded case circuit breakers within the applicable range of UL 489/CSA is permitted only in conjunction with the mounting base, (see page 2/178).

Minimum order quantity (PS) or a multiple thereof can be ordered.

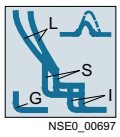
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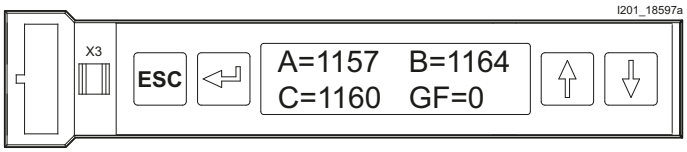
SD	High breaking capacity H, up to 65 kA at 480 V (H)					SD	Very high breaking capacity L, up to 100 kA at 480 V (L)				
	Article No. www.siemens.com/product?Article No. Article No. supplement required, see page 2/156	Price per PU	PU (UNIT, SET, M)	PS	PG		Article No. www.siemens.com/product?Article No. Article No. supplement required, see page 2/156	Price per PU	PU (UNIT, SET, M)	PS	PG
d						d					
	3VL2506-2VH30-□□□□		1	1 unit	1CC		**3VL2506-3VH30-□□□□**		1	1 unit	1CC
	3VL2510-2VH30-□□□□		1	1 unit	1CC		**3VL2510-3VH30-□□□□**		1	1 unit	1CC
	3VL2515-2VH30-□□□□		1	1 unit	1CC		**3VL2515-3VH30-□□□□**		1	1 unit	1CC
	3VL3510-2VH30-□□□□		1	1 unit	1CC		**3VL3510-3VH30-□□□□**		1	1 unit	1CC
	3VL3515-2VH30-□□□□		1	1 unit	1CC		**3VL3515-3VH30-□□□□**		1	1 unit	1CC
	3VL3525-2VH30-□□□□		1	1 unit	1CC		**3VL3525-3VH30-□□□□**		1	1 unit	1CC
	3VL4125-2VH30-□□□□		1	1 unit	1CC		**3VL4125-3VH30-□□□□**		1	1 unit	1CC
	3VL4140-2VH30-□□□□		1	1 unit	1CC		**3VL4140-3VH30-□□□□**		1	1 unit	1CC
	3VL4840-2VH30-□□□□		1	1 unit	1CC		**3VL4840-3VH30-□□□□**		1	1 unit	1CC
	3VL4860-2VH30-□□□□		1	1 unit	1CC		**3VL4860-3VH30-□□□□**		1	1 unit	1CC
	3VL6160-2VH30-□□□□		1	1 unit	1CC		**3VL6160-3VH30-□□□□**		1	1 unit	1CC
	3VL6180-2VH30-□□□□		1	1 unit	1CC		**3VL6180-3VH30-□□□□**		1	1 unit	1CC
	3VL7180-2VH30-□□□□		1	1 unit	1CC		**3VL7180-3VH30-□□□□**		1	1 unit	1CC
	3VL7110-2VH30-□□□□		1	1 unit	1CC		**3VL7110-3VH30-□□□□**		1	1 unit	1CC
	3VL7112-2VH30-□□□□		1	1 unit	1CC		**3VL7112-3VH30-□□□□**		1	1 unit	1CC
	3VL8112-2VH30-□□□□		1	1 unit	1CC		**3VL8112-3VH30-□□□□**		1	1 unit	1CC
	3VL8116-2VH30-□□□□		1	1 unit	1CC		**3VL8116-3VH30-□□□□**		1	1 unit	1CC

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Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Operating current of the instantaneous short-circuit protection "I" I_i	I_g in % of I_n	SD	**Standard breaking capacity N, up to 35 kA at 480 V** See "Overview". (N) Article No. www.siemens.com/product?Article No. Article No. supplement required, see page 2/156	Price per PU	PU (UNIT, SET, M)	PS	PG
	A	A	A		d					

Fixed-mounted molded case circuit breakers, VL150 UL (DG frame) up to VL1600 UL (PG frame), up to 1600 A
Electronic Trip Units (UL file: E10848, CCN[1]: DIVQ)





Molded case circuit breakers with Electronic Trip Unit with LCD, line protection with LSIG function or LSIG (alarm) function

- Connection type:
  Molded case circuit breakers without preassembled connections,
  connections must be ordered under "Accessories", "Plug-in versions/withdrawable versions", pages 2/171 to 2/178
  under "Accessories", "Connection parts for fixed-mounted molded case circuit breakers", pages 2/171 to 2/178.
- t_r/s: 2.5, 4, 6, 8,10,14, 17, 20, 25, 30
- I_{sd}/A: 1.25 to 10 x I_r[2]
- Pre-alarm % of I_r: 80 to 100
- t_g/s: 0.1; 0.2; 0.3; 0.4; 0.5

VL150 UL,	60	30 ... 60	75 ... 660 (11 x I_n)	40 ... 100		**3VL2506-1□□30-□□□□**	1	1 unit	1CC
DG frame	100	40 ... 100	125 ... 1100 (11 x I_n)	40 ... 100		**3VL2510-1□□30-□□□□**	1	1 unit	1CC
	150	60 ... 150	187 ... 1650 (11 x I_n)	40 ... 100		**3VL2515-1□□30-□□□□**	1	1 unit	1CC
VL250 UL,	100	40 ... 100	125 ... 1100 (11 x I_n)	40 ... 100		**3VL3510-1□□30-□□□□**	1	1 unit	1CC
FG frame	150	60 ... 150	187 ... 1650 (11 x I_n)	40 ... 100		**3VL3515-1□□30-□□□□**	1	1 unit	1CC
	250	70 ... 250	312 ... 2750 (11 x I_n)	40 ... 100		**3VL3525-1□□30-□□□□**	1	1 unit	1CC
VL400 UL,	250	70 ... 250	312 ... 2750 (11 x I_n)	40 ... 100		**3VL4125-1□□30-□□□□**	1	1 unit	1CC
JG frame	400	150 ... 400	500 ... 4400 (11 x I_n)	40 ... 100		**3VL4140-1□□30-□□□□**	1	1 unit	1CC
VL400X UL,	400	150 ... 400	500 ... 4400 (11 x I_n)	40 ... 100		**3VL4840-1□□30-□□□□**	1	1 unit	1CC
LG frame	600	200 ... 600	750 ... 6000 (10 x I_n)	40 ... 100		**3VL4860-1□□30-□□□□**	1	1 unit	1CC
VL800 UL,	600	200 ... 600	750 ... 6000 (10 x I_n)	40 ... 100		**3VL6160-1□□30-□□□□**	1	1 unit	1CC
MG frame	800	300 ... 800	1000 ... 6000 (7.5 x I_n)	40 ... 100		**3VL6180-1□□30-□□□□**	1	1 unit	1CC
VL1200 UL,	800	300 ... 800	1000 ... 8800 (11 x I_n)	40 ... 100		**3VL7180-1□□30-□□□□**	1	1 unit	1CC
NG frame	1000	400 ... 1000	1250 ... 11000 (11 x I_n)	40 ... 100		**3VL7110-1□□30-□□□□**	1	1 unit	1CC
	1200	400 ... 1200	1500 ... 12000 (10 x I_n)	40 ... 100		**3VL7112-1□□30-□□□□**	1	1 unit	1CC
VL1600 UL,	1200	400 ... 1200	1500 ... 12000 (10 x I_n)	40 ... 100		**3VL8112-1□□30-□□□□**	1	1 unit	1CC
PG frame[3]	1600	700 ... 1600	2000 ... 9600 (6 x I_n)	40 ... 75		**3VL8116-1□□30-□□□□**	1	1 unit	1CC

Electronic Trip Units with LCD, 3-pole version

Line protection with LSIG function For 4-wire three-phase systems (vectorial summation current formation) t_{sd} = 0 to 0.5 s, t_g = 0 to 0.5 s	**V M**
Line protection with LSIG (alarm) function For 4-wire three-phase systems (vectorial summation current formation) t_{sd} = 0 to 0.5 s, t_g = 0 to 0.5 s	**V J**

L = overload
S = short-circuit protection, short-time delayed
I = short-circuit protection, instantaneous
G = ground-fault protection

1) UL Category Code Number.
2) Only for sizes for which I_i (max) = 11 x I_n. Here the factor is 11. Otherwise the following applies: I_{sd} (max) = (factor-1) x I_r (max). The factor is the value in brackets in the column I_i.
3) Operation of the molded case circuit breakers within the applicable range of UL 489/CSA is permitted only in conjunction with the mounting base, (see page 2/178).

Minimum order quantity (PS) or a multiple thereof can be ordered.

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SD	High breaking capacity H, up to 65 kA at 480 V (H)				
	Article No. www.siemens.com/product?Article No. Article No. supplement required, see page 2/156	Price per PU	PU (UNIT, SET, M)	PS	PG
d	**3VL2506-2□□30-□□□□**		1	1 unit	1CC
	3VL2510-2□□30-□□□□		1	1 unit	1CC
	3VL2515-2□□30-□□□□		1	1 unit	1CC
	3VL3510-2□□30-□□□□		1	1 unit	1CC
	3VL3515-2□□30-□□□□		1	1 unit	1CC
	3VL3525-2□□30-□□□□		1	1 unit	1CC
	3VL4125-2□□30-□□□□		1	1 unit	1CC
	3VL4140-2□□30-□□□□		1	1 unit	1CC
	3VL4840-2□□30-□□□□		1	1 unit	1CC
	3VL4860-2□□30-□□□□		1	1 unit	1CC
	3VL6160-2□□30-□□□□		1	1 unit	1CC
	3VL6180-2□□30-□□□□		1	1 unit	1CC
	3VL7180-2□□30-□□□□		1	1 unit	1CC
	3VL7110-2□□30-□□□□		1	1 unit	1CC
	3VL7112-2□□30-□□□□		1	1 unit	1CC
	3VL8112-2□□30-□□□□		1	1 unit	1CC
	3VL8116-2□□30-□□□□		1	1 unit	1CC
	VM				
	VJ				

SD	Very high breaking capacity L, up to 100 kA at 480 V (L)				
	Article No. www.siemens.com/product?Article No. Article No. supplement required, see page 2/156	Price per PU	PU (UNIT, SET, M)	PS	PG
d	**3VL2506-3□□30-□□□□**		1	1 unit	1CC
	3VL2510-3□□30-□□□□		1	1 unit	1CC
	3VL2515-3□□30-□□□□		1	1 unit	1CC
	3VL3510-3□□30-□□□□		1	1 unit	1CC
	3VL3515-3□□30-□□□□		1	1 unit	1CC
	3VL3525-3□□30-□□□□		1	1 unit	1CC
	3VL4125-3□□30-□□□□		1	1 unit	1CC
	3VL4140-3□□30-□□□□		1	1 unit	1CC
	3VL4840-3□□30-□□□□		1	1 unit	1CC
	3VL4860-3□□30-□□□□		1	1 unit	1CC
	3VL6160-3□□30-□□□□		1	1 unit	1CC
	3VL6180-3□□30-□□□□		1	1 unit	1CC
	3VL7180-3□□30-□□□□		1	1 unit	1CC
	3VL7110-3□□30-□□□□		1	1 unit	1CC
	3VL7112-3□□30-□□□□		1	1 unit	1CC
	3VL8112-3□□30-□□□□		1	1 unit	1CC
	3VL8116-3□□30-□□□□		1	1 unit	1CC
	VM				
	VJ				

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Selection and ordering data

1st Article No. supplement:
Undervoltage and shunt releases, wiring directly to accessories

Rated control supply voltage U_s/frequency		Article No. supplement			Molded case circuit breakers Type	
50/60 Hz AC DC		**3VL . . . . - . . . . . - ☐ ☐ . .**			**VL150X UL (CG frame) to VL400X UL (LG frame)[1]**	**VL800 UL (MG frame) to VL1600 UL (PG frame)**
					Additional price	Additional price
Without auxiliary release			**0**	**A**	None	None
With undervoltage release Right pole only						
V AC	V DC					
--	12		**2**	**N**	✓[1]	✓
--	24		**2**	**P**	✓[1]	✓
--	48		**2**	**U**	✓[1]	✓
--	60		**2**	**V**	✓[1]	✓
--	110-127		**2**	**R**	✓[1]	✓
--	220-250		**2**	**S**	✓[1]	✓
24	--		**2**	**D**[2]	✓[1]	--
110-127	--		**2**	**G**	✓[1]	✓
220-250	--		**2**	**H**	✓[1]	✓
208	--		**2**	**M**	✓[1]	✓
277	--		**2**	**Q**	✓[1]	✓
380-415	--		**2**	**J**	✓[1]	✓
440-480	--		**2**	**K**	✓[1]	✓
500-525	--		**2**	**L**[2]	✓[1]	--
With shunt release Right pole only						
V AC	V DC					
--	24		**8**	**C**	✓[1]	✓
--	48-60		**8**	**J**	✓[1]	✓
--	110-127		**8**	**K**	✓[1]	✓
--	220-250		**8**	**Q**	✓[1]	✓
48-60	--		**8**	**M**	✓[1]	✓
110-127	--		**8**	**R**	✓[1]	✓
208-277	--		**8**	**T**	✓[1]	✓
380-600	--		**8**	**V**	✓[1]	✓

2nd Article No. supplement:
Auxiliary switches (HS) and alarm switches (AS), left/right pole, wiring directly to accessories

Equipment	Article No. supplement			Molded case circuit breakers Type	
HS = 1 NO or 1 NC contact block AS = 1 NO contact block	3VL . . . . - . . . . . - . . ☐ ☐			**VL150X UL (CG frame) to VL400X UL (LG frame)**	**VL800 UL (MG frame) to VL1600 UL (PG frame)**
				Additional price	Additional price
Without auxiliary/alarm switches		**A**	**0**	None	None
2 HS (1 NO/1 NC)[3]		**B**	**1**	✓[4]	--
4 HS (2 NO/2 NC)		**C**	**1**	--	✓
2 HS (1 NO/1 NC) + 1 AS (1 NO)		**D**	**1**	✓[4]	--
2 HS (1 NO/1 NC) + 1 AS (1 NO)[5]		**E**	**1**	--	✓

-- Not available

1) Only an undervoltage release or a shunt release or an auxiliary/alarm switch combination is possible for VL150 UL (DG frame)/VL250 UL (FG frame) molded case circuit breakers with an Electronic Trip Unit.

2) Not for VL800 UL (MG frame), VL1200 UL (NG frame) and VL1600 UL (PG frame) molded case circuit breakers.

3) Up to 3 HS are possible with a mounting adapter.

4) Except for installation in the left accessory compartment of the VL150 UL (DG frame)/VL250 UL (FG frame) molded case circuit breakers with Electronic Trip Unit because this compartment is fitted with the tripping solenoid.
Only an auxiliary release or an auxiliary/alarm switch combination can be installed on the right.

5) Up to 2 HS + 2 AS are possible with a mounting adapter.

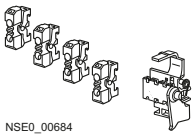
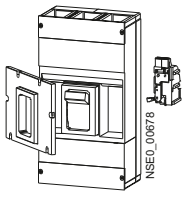
Minimum order quantity (PS) or a multiple thereof can be ordered.

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When ordering, add **"-Z"** to the complete Article No. and add the relevant order code(s).		Article No. with **"-Z"** 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 **3VL . . . . – . . . . . – . . . . –Z** and additional order code(s) □ □ □ + . . . + . . . Code for further versions **–Z**	Additional price
For fixed-mounted molded case circuit breakers (wired in factory)			
Wiring for internal accessories (Auxiliary switches, alarm switches, or auxiliary releases not included in scope of supply) with connecting cables (3 m long) brought out at the rear	VL150X UL (CG frame) to VL1600 UL (PG frame)	**L 0 2**	✓
Wiring for motorized operating mechanisms (Motorized operating mechanism not included in scope of supply, for selection and ordering data see pages 2/162 to 2/170) with connecting cables (3 m long) or brought out at the top in the case of VL150X UL (CG frame) to VL400X UL (LG frame) or brought out at the right in the case of VL800 UL (MG frame) to VL1600 UL (PG frame)	VL150X UL (CG frame) to VL1600 UL (PG frame)	**L 1 2**	✓
Motorized operating mechanisms (24 V DC) Mounted on molded case circuit breaker (motorized operating mechanism included in the scope of supply) **with wiring for internal accessories** of the molded case circuit breaker with connecting cables (3 m long) brought out at the rear (auxiliary switches, alarm switches, or auxiliary releases not included in scope of supply)	VL150X UL (CG frame) to VL250 UL (FG frame)	**M 2 4**	✓
	VL400 UL (JG frame) to VL400X UL (LG frame)		✓
	VL800 UL (MG frame)		✓
	VL1200 UL (NG frame) to VL1600 UL (PG frame)		✓
Motorized operating mechanisms (42-48 V AC/DC) Mounted on molded case circuit breaker (motorized operating mechanism included in the scope of supply) **with wiring for internal accessories** of the molded case circuit breaker with connecting cables (3 m long) brought out at the rear (auxiliary switches, alarm switches, or auxiliary releases not included in scope of supply)	VL150X UL (CG frame) to VL250 UL (FG frame)	**M 4 2**	✓
	VL400 UL (JG frame) to VL400X UL (LG frame)		✓
	VL800 UL (MG frame)		✓
	VL1200 UL (NG frame) to VL1600 UL (PG frame)		✓
Motorized operating mechanisms (60 V AC/DC) Mounted on molded case circuit breaker (motorized operating mechanism included in the scope of supply) **with wiring for internal accessories** of the molded case circuit breaker with connecting cables (3 m long) brought out at the rear (auxiliary switches, alarm switches, or auxiliary releases not included in scope of supply)	VL150X UL (CG frame) to VL250 UL (FG frame)	**M 6 0**	✓
	VL400 UL (JG frame) to VL400X UL (LG frame)		
	VL800 UL (MG frame)		✓
	VL1200 UL (NG frame) to VL1600 UL (PG frame)		✓
Motorized operating mechanisms (110-127 V AC/DC) Mounted on molded case circuit breaker (motorized operating mechanism included in the scope of supply) **with wiring for internal accessories** of the molded case circuit breaker with connecting cables (3 m long) brought out at the rear (auxiliary switches, alarm switches, or auxiliary releases not included in scope of supply)	VL150X UL (CG frame) to VL250 UL (FG frame)	**M 1 1**	✓
	VL400 UL (JG frame) to VL400X UL (LG frame)		✓
	VL800 UL (MG frame)		✓
	VL1200 UL (NG frame) to VL1600 UL (PG frame)		✓
Motorized operating mechanisms (220-250 V AC/DC) Mounted on molded case circuit breaker (motorized operating mechanism included in the scope of supply) **with wiring for internal accessories** of the molded case circuit breaker with connecting cables (3 m long) brought out at the rear (auxiliary switches, alarm switches, or auxiliary releases not included in scope of supply)	VL150X UL (CG frame) to VL250 UL (FG frame)	**M 2 2**	✓
	VL400 UL (JG frame) to VL400X UL (LG frame)		✓
	VL800 UL (MG frame)		✓
	VL1200 UL (NG frame) to VL1600 UL (PG frame)		✓

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Selection and ordering data

	Wiring directly to accessories	SD	For VL150X UL (CG frame) to VL400X UL (LG frame) Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		d					
Auxiliary switches and auxiliary releases (UL file: E69455)							
	3-pole						
 NSE0_00684 3VL9400-2A.01	**Auxiliary switches (HS) and alarm switches (AS)** For retrofitting						
	Assembly kits / Mounting side						
	2 HS (1 NO + 1 NC) / Left[1], right		**3VL9400-2AB01**		1	1 unit	1CC
	4 HS (2 NO + 2 NC) / Left, right		**--**				
	2 HS (1 NC + 1 NO) + 1 AS (1 NO) (assembly kit) / Left, right[2]		**3VL9400-2AD01**		1	1 unit	1CC
	+ 1 AS (1 NO) (assembly kit) / Left		**--**				
	Additional auxiliary switch/alarm switch combinations		See page 2/160.				
 NSE0_00678 3VL9400-1S.01, 3VL9400 1U.01	**Shunt releases** For retrofitting						
	V AC / V DC / Mounting side						
	-- / 24 / Right pole only		**3VL9400-1SC01**		1	1 unit	1CC
	-- / 48 ... 60 / Right pole only		**3VL9400-1SJ01**		1	1 unit	1CC
	-- / 110 ... 127 / Right pole only		**3VL9400-1SK01**		1	1 unit	1CC
	-- / 220 ... 250 / Right pole only		**3VL9400-1SQ01**		1	1 unit	1CC
	48 ... 60 / -- / Right pole only		**3VL9400-1SM01**		1	1 unit	1CC
	110 ... 127 / -- / Right pole only		**3VL9400-1SR01**		1	1 unit	1CC
	208 ... 277 / -- / Right pole only		**3VL9400-1ST01**		1	1 unit	1CC
	380 ... 600 / -- / Right pole only		**3VL9400-1SV01**		1	1 unit	1CC
	Undervoltage releases For retrofitting						
	V AC / V DC / Mounting side						
	-- / 12 / Right pole only		**3VL9400-1UN01**		1	1 unit	1CC
	-- / 24 / Right pole only		**3VL9400-1UP01**		1	1 unit	1CC
	-- / 48 / Right pole only		**3VL9400-1UU01**		1	1 unit	1CC
	-- / 60 / Right pole only		**3VL9400-1UV01**		1	1 unit	1CC
	24 / -- / Right pole only		**3VL9400-1UD01**		1	1 unit	1CC
	110 ... 127 / -- / Right pole only		**3VL9400-1UG01**		1	1 unit	1CC
	-- / 110 ... 127 / Right pole only		**3VL9400-1UR01**		1	1 unit	1CC
	208 / -- / Right pole only		**3VL9400-1UM01**		1	1 unit	1CC
	220 ... 250 / -- / Right pole only		**3VL9400-1UH01**		1	1 unit	1CC
	-- / 220 ... 250 / Right pole only		**3VL9400-1US01**		1	1 unit	1CC
	277 / -- / Right pole only		**3VL9400-1UQ01**		1	1 unit	1CC
	380 ... 415 / -- / Right pole only		**3VL9400-1UJ01**		1	1 unit	1CC
	440 ... 480 / -- / Right pole only		**3VL9400-1UK01**		1	1 unit	1CC
	500 ... 525 / -- / Right pole only		**3VL9400-1UL01**		1	1 unit	1CC

[1] Except for installation in the left accessory compartment of the VL150 UL (DG frame)/VL250 UL (FG frame) molded case circuit breakers with Electronic Trip Unit because this compartment is fitted with the tripping solenoid.

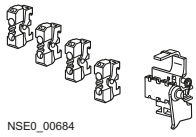
[2] In the case of VL400 UL (JG frame)/VL400X UL (LG frame): Unsuitable for mounting in the right accessory compartment. The 3VL9400-2AB01 assembly kit with auxiliary switches only is recommended.

Minimum order quantity (PS) or a multiple thereof can be ordered.

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			For VL800 UL (MG frame) to VL1600 UL (PG frame) Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
	Wiring directly to accessories	SD d					

Auxiliary switches and auxiliary releases (UL file: E69455)

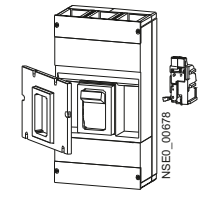


3VL9800-2A.01

3-pole

Auxiliary switches (HS) and alarm switches (AS)
For retrofitting

Assembly kits	Mounting side					
2 HS (1 NO + 1 NC)	Left, right		--			
4 HS (2 NO + 2 NC)	Left, right		**3VL9800-2AC01**	1	1 unit	1CC
2 HS (1 NC + 1 NO)	Left, right		--			
+ 1 AS (1 NO) (assembly kit)	Left		**3VL9800-2AE01**	1	1 unit	1CC
Additional auxiliary switch/alarm switch combinations			See page 2/160.			



3VL9800-1S.01,
3VL9800-1U.01

Shunt releases
For retrofitting

V AC	V DC	Mounting side				
--	24	Right pole only	**3VL9800-1SC01**	1	1 unit	1CC
--	48 ... 60	Right pole only	**3VL9800-1SJ01**	1	1 unit	1CC
--	110 ... 127	Right pole only	**3VL9800-1SK01**	1	1 unit	1CC
--	220 ... 250	Right pole only	**3VL9800-1SQ01**	1	1 unit	1CC
48 ... 60	--	Right pole only	**3VL9800-1SM01**	1	1 unit	1CC
110 ... 127	--	Right pole only	**3VL9800-1SR01**	1	1 unit	1CC
208 ... 277	--	Right pole only	**3VL9800-1ST01**	1	1 unit	1CC
380 ... 600	--	Right pole only	**3VL9800-1SV01**	1	1 unit	1CC

Undervoltage releases
For retrofitting

V AC	V DC	Mounting side				
--	12	Right pole only	**3VL9800-1UN01**	1	1 unit	1CC
--	24	Right pole only	**3VL9800-1UP01**	1	1 unit	1CC
--	48	Right pole only	**3VL9800-1UU01**	1	1 unit	1CC
--	60	Right pole only	**3VL9800-1UV01**	1	1 unit	1CC
110 ... 127	--	Right pole only	**3VL9800-1UG01**	1	1 unit	1CC
--	110 ... 127	Right pole only	**3VL9800-1UR01**	1	1 unit	1CC
208	--	Right pole only	**3VL9800-1UM01**	1	1 unit	1CC
220 ... 250	--	Right pole only	**3VL9800-1UH01**	1	1 unit	1CC
--	220 ... 250	Right pole only	**3VL9800-1US01**	1	1 unit	1CC
277	--	Right pole only	**3VL9800-1UQ01**	1	1 unit	1CC
380 ... 415	--	Right pole only	**3VL9800-1UJ01**	1	1 unit	1CC
440 ... 480	--	Right pole only	**3VL9800-1UK01**	1	1 unit	1CC
500 ... 525	--	Right pole only	--			

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For molded case circuit breakers Type	Maximum combination of auxiliary switches (HS) and alarm switches (AS)	SD d	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
3SB adapters and 3SB contact blocks							
Mounting adapters for auxiliary and alarm switch combinations (UL file: E69455)							
For installation in the left pole of the molded case circuit breaker							
VL150X UL (CG frame), VL150 UL (DG frame), VL250 UL (FG frame),	Up to 3 HS[1]		**3VL9400-2AH01**		1	1 unit	1CC
VL400 UL (JG frame), VL400X UL (LG frame)	2 HS + 1 AS[1][2]		**3VL9400-2AJ11**		1	1 unit	1CC
VL800 UL (MG frame), VL1200 UL (NG frame),	Up to 4 HS		**3VL9816-2AL01**		1	1 unit	1CC
VL1600 UL (PG frame)	2 HS + 2 AS		**3VL9816-2AN11**		1	1 unit	1CC
For installation in the right pole of the molded case circuit breaker							
VL150X UL (CG frame), VL150 UL (DG frame), VL250 UL (FG frame),	Up to 3 HS[1]		**3VL9400-2AH01**		1	1 unit	1CC
VL400 UL (JG frame), VL400X UL (LG frame)[2]	2 HS + 1 AS[1][2]		**3VL9400-2AJ21**		1	1 unit	1CC
VL800 UL (MG frame), VL1200 UL (NG frame),	Up to 4 HS		**3VL9816-2AL01**		1	1 unit	1CC
VL1600 UL (PG frame)	2 HS + 2 AS		**--**				

[1] Except for installation in the left pole of the VL150 UL (DG frame)/VL250 UL (FG frame) molded case circuit breakers with Electronic Trip Unit. Only an auxiliary release or an auxiliary/alarm switch combination can be installed on the right.

[2] In the case of VL400 UL (JG frame)/VL400X UL (LG frame): 3VL9400-2AJ21 unsuitable for mounting in the right-hand accessory compartment.

Minimum order quantity (PS) or a multiple thereof can be ordered.

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For auxiliary switches (HS) and alarm switches (AS)	SD	Molded Case Circuit Breakers Type **VL150X UL (CG frame) to VL1600 UL (PG frame)**		PU (UNIT, SET, M)	PS	PG
	d	Article No. www.siemens.com/product?Article No.	Price per PU			
Contact blocks for auxiliary switch and alarm switch combinations NEW						
1 NO		**3VL9800-2AJ00**		1	1 unit	1CC
1 NC		**3VL9800-2AK00**		1	1 unit	1CC

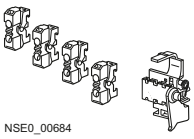
For auxiliary switch or alarm switch combinations not included in the kits provided as standard, the mounting adapters specified can be ordered separately together with the required contact blocks:

1 HS or 1 AS with NO contact 3VL9800-2AJ00
1 HS or 1 AS with NC contact 3VL9800-2AK00

Notes:

A maximum of 6 contact blocks (HS) per molded case circuit breaker (VL150X UL (CG frame) to VL400X UL (LG frame)) and a maximum of 8 contact blocks (HS) per molded case circuit breaker (VL800 UL (MG frame) to VL1600 UL (PG frame)) are possible.

Four 3VL9 auxiliary contact blocks and one mounting adapter (right), suitable for VL800 UL (MG frame) to VL1600 UL (PG frame) molded case circuit breakers.

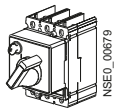
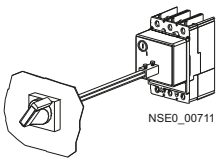
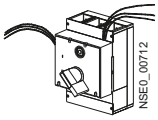


NSE0_00684

For retrofitting/equipment options, see chapter "Design", "Auxiliary releases and auxiliary switches", see page 2/192

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2

	Version	SD	For VL150X UL (CG frame) to VL250 UL (FG frame) Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		d					
Operating mechanisms							
	3-pole						
 3VL9.00-3H.01	**Front-operated rotary operating mechanisms (UL file: E69455)** For direct mounting on the molded case circuit breaker, without leading auxiliary switch, degree of protection IP30[1], black		**3VL9300-3HA01**		1	1 unit	1CC
	EMERGENCY-STOP version Red knob, yellow indicator plate		**3VL9300-3HC01**		1	1 unit	1CC
	For safety locks for installation by the customer, see pages 2/179 to 2/183.						
 3VL9.00-3H.06	**Door-coupling rotary operating mechanisms, complete Installation in doors and covers (UL file: E69455)** NEMA Type 1, 12 Degree of protection IP65, including black knob with masking plate, indicator plate, removable door coupling, extension shaft 300 mm and front-operated rotary operating mechanism for the respective molded case circuit breaker		**3VL9300-3HF06**		1	1 unit	1CC
	EMERGENCY-STOP version Red knob, yellow indicator plate, without leading auxiliary switch		**3VL9300-3HG06**		1	1 unit	1CC
	For safety locks for installation by the customer, see pages 2/179 to 2/183.						
 8UC9400	**Interlocking module UL 508A[2]** For use with 3VL1, 3VL2, 3VL3, 3VL4, 3VL4X and 3RV19.6-2		**8UC9400**		1	1 unit	1CL
 3VL9.00-3A.11	**Leading auxiliary switches for installation in a front-operated rotary operating mechanism or door-coupling rotary operating mechanism (UL file: E69455)** Standard or EMERGENCY-STOP version						
	"OFF after ON" Leading auxiliary switches when switching on		**3VL9300-3AS11**		1	1 unit	1CC
	1 changeover contact with 1.5 m long cables						
	2 changeover contacts with 1.5 m long cables		**3VL9300-3AT11**		1	1 unit	1CC
	"ON after OFF" Leading auxiliary switches when switching off 1 changeover contact with 1.5 m long cables		**3VL9300-3AU11**		1	1 unit	1CC
	2 changeover contacts with 1.5 m long cables		**3VL9300-3AW11**		1	1 unit	1CC
	Rotary operating mechanisms with shaft stub, without handle Without leading auxiliary switch, for auxiliary switches, see above.		**3VL9300-3HE01**		1	1 unit	1CC
	Retaining brackets, suitable for matching door-coupling rotary operating mechanisms, complete with locking device						
	Retaining bracket is mounted on the operating mechanism, recommended for extension shafts > 250 mm		**3VL9300-3HP02**		1	1 unit	1CC
	- For 6 mm shaft		**3VL9300-3HP00**		1	1 unit	1CC

1) IP40 with additional masking frame mounted on the door cut-out.

2) In combination with 3VL1 to VL5, the interlocking module can be used with the complete door-coupling rotary operating mechanisms as follows:

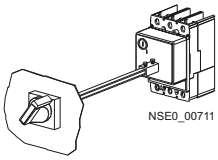
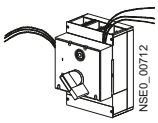
	3VL1/3VL2/3VL3	3VL4/3VL4X
Door-coupling rotary operating mechanisms, complete • Black handle, light-gray indicator plate • Red handle, yellow indicator plate	3VL9300-3HF06 3VL9300-3HG06	3VL9400-3HF06 3VL9400-3HG06

Minimum order quantity (PS) or a multiple thereof can be ordered.

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SD	For VL400 UL (JG frame) to VL400X UL (LG frame) Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG	SD	For VL800 UL (MG frame) Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
d						d					
	3VL9400-3HA01		1	1 unit	1CC		**--**				
	3VL9400-3HC01		1	1 unit	1CC		**--**				
	3VL9400-3HF06		1	1 unit	1CC		**3VL9600-3HF06**		1	1 unit	1CC
	3VL9400-3HG06		1	1 unit	1CC		**3VL9600-3HG06**		1	1 unit	1CC
	8UC9400		1	1 unit	1CL		**--**				
	3VL9400-3AS11		1	1 unit	1CC		**3VL9600-3AS11**		1	1 unit	1CC
	3VL9400-3AT11		1	1 unit	1CC		**3VL9600-3AT11**		1	1 unit	1CC
	3VL9400-3AU11		1	1 unit	1CC		**3VL9600-3AU11**		1	1 unit	1CC
	3VL9400-3AW11		1	1 unit	1CC		**3VL9600-3AW11**		1	1 unit	1CC
	3VL9400-3HE01		1	1 unit	1CC		**--**				
	3VL9400-3HP00		1	1 unit	1CC		**3VL9600-3HP00**		1	1 unit	1CC
	--						**--**				

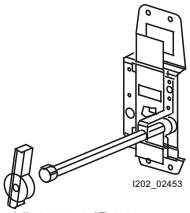
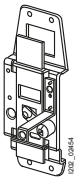
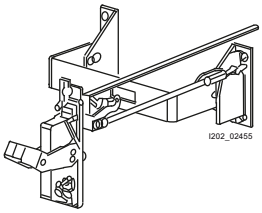
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	Version	SD	For VL1200 UL (NG frame) to VL1600 UL (PG frame) Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		d					
Operating mechanisms							
	3-pole						
 3VL9.00-3H.06	**Door-coupling rotary operating mechanisms, complete Installation in doors and covers (UL file: E69455)** Degree of protection IP65, including black knob with masking plate, indicator plate, removable door coupling, extension shaft 300 mm and front-operated rotary operating mechanism for the respective molded case circuit breaker		**3VL9800-3HF06**		1	1 unit	1CC
	EMERGENCY-STOP version Red knob, yellow indicator plate, without leading auxiliary switch		**3VL9800-3HG06**		1	1 unit	1CC
	For safety locks for installation by the customer, see pages 2/179 to 2/183.						
 3VL9.00-3A.11	**Leading auxiliary switches for installation in a front-operated rotary operating mechanism or door-coupling rotary operating mechanism (UL file: E69455)** Standard or EMERGENCY-STOP version						
	"OFF after ON" Leading auxiliary switches when switching on						
	1 changeover contact with 1.5 m long cables		**3VL9800-3AS21**		1	1 unit	1CC
	2 changeover contacts with 1.5 m long cables		**3VL9800-3AT21**		1	1 unit	1CC
	"ON after OFF" Leading auxiliary switches when switching off		**3VL9800-3AU11**		1	1 unit	1CC
	1 changeover contact with 1.5 m long cables						
	2 changeover contacts with 1.5 m long cables		**3VL9800-3AW11**		1	1 unit	1CC
	Retaining brackets, suitable for matching door-coupling rotary operating mechanisms, complete with locking device						
	Retaining bracket is mounted on the operating mechanism, recommended for extension shafts > 250 mm		**3VL9800-3HP00**		1	1 unit	1CC

1) IP40 with additional masking frame mounted on the door cut-out.

Minimum order quantity (PS) or a multiple thereof can be ordered.

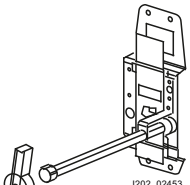
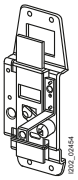
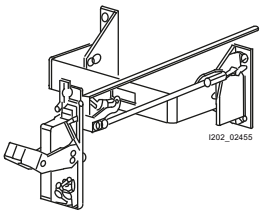
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	Version	SD	For VL150 UL (DG frame) to VL250 UL (FG frame) Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		d					
Operating mechanisms							
	3-pole						
 3VL9.00-3JA01	**Front mounted rotary operators** Fixed depth; handle is fastened directly on molded case circuit breaker, silver handle, black lettering Lockable with up to 3 padlocks		**3VL9300-3JA01**		1	1 unit	1CC
 3VL9.00-3JD01	**Door-coupling rotary operating mechanisms, complete** Variable installation depth, knob for door fitting, including knob with masking plate Black knob Indicator plate, removable door coupling 12-inch extension shaft and front-operated rotary operating mechanism for the respective molded case circuit breaker Lockable knob (up to 3 padlocks) NEMA Type 1, 12		**3VL9300-3JD01**		1	1 unit	1CC
 3VL9.00-3JE01	**Switching mechanism for door-coupling rotary operating mechanisms** Switching mechanism		**3VL9300-3JE01**		1	1 unit	1CC
	Handle for door-coupling rotary operating mechanisms						
	Standard version NEMA Type 1, 12		**3VL9600-3JF11**		1	1 unit	1CC
	NEMA Type 3R		**3VL9600-3JF01**		1	1 unit	1CC
	NEMA Type 4X		**3VL9600-3JF41**		1	1 unit	1CC
	EMERGENCY-STOP version NEMA Type 1, 12 • Red handle • Yellow indicator plate		**3VL9600-3JG01**		1	1 unit	1CC
	Extension shaft for door-coupling rotary operating mechanisms						
	2 inch (50 mm)		**3VL9600-3JJ01**		1	1 unit	1CC
	3 inch (76 mm)		**--**				
	12 inch (0.3 m)		**3VL9600-3JJ11**		1	1 unit	1CC
	16 inch (0.4 m)		**3VL9600-3JJ21**		1	1 unit	1CC
	24 inch (0.6 m) with support bracket		**3VL9600-3JJ41**		1	1 unit	1CC
 3VL9300-3JF81	**NFPA-79 intermediate operating mechanism** For door-coupling rotary operating mechanisms		**3VL9300-3JF81**		1	1 unit	1CC
 3VL9300-3JS01	**Operating mechanism with flange connection for variable installation depth** Adjustable from 8 to 16 inch (approx. 200 to 400 mm) Complete kit, including handle Red/black handle[1]						
	NEMA Type 1, 3R, 12 plastic		**3VL9300-3JS01**		1	1 unit	1CC
	NEMA Type 4, 4X chrome-plated steel		**3VL9300-3JS61**		1	1 unit	1CC
	Black handle[1]						
	NEMA Type 1, 3R, 12 plastic		**3VL9300-3JS11**		1	1 unit	1CC
	NEMA Type 4, 4X chrome-plated steel		**3VL9300-3JS71**		1	1 unit	1CC

[1] The handles in monochrome gray or black are preferably used in IEC markets. Red/black handles (red for ON) are standard in UL markets.

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	Version	SD	For VL400 UL (JG frame) to VL400X UL (LG frame) Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		d					
Operating mechanisms							
	3-pole						
 3VL9.00-3JA01	**Front mounted rotary operators** Fixed depth; handle is fastened directly on molded case circuit breaker, silver handle, black lettering Lockable with up to 3 padlocks		**3VL9400-3JA01**		1	1 unit	1CC
 3VL9.00-3JD01	**Door-coupling rotary operating mechanisms, complete** Variable installation depth, knob for door fitting, including knob with masking plate Black knob Indicator plate, removable door coupling 12-inch extension shaft and front-operated rotary operating mechanism for the respective molded case circuit breaker Lockable knob (up to 3 padlocks) NEMA Type 1, 12		**3VL9400-3JD01**		1	1 unit	1CC
 3VL9.00-3JE01	**Switching mechanism for door-coupling rotary operating mechanisms** Switching mechanism		**3VL9400-3JE01**		1	1 unit	1CC
	Handle for door-coupling rotary operating mechanisms						
	Standard version	NEMA Type 1, 12	**3VL9600-3JF11**		1	1 unit	1CC
		NEMA Type 3R	**3VL9600-3JF01**		1	1 unit	1CC
		NEMA Type 4X	**3VL9600-3JF41**		1	1 unit	1CC
	EMERGENCY-STOP version • Red handle • Yellow indicator plate	NEMA Type 1, 12	**3VL9600-3JG01**		1	1 unit	1CC
	Extension shaft for door-coupling rotary operating mechanisms						
	2 inch (50 mm)		**3VL9600-3JJ01**		1	1 unit	1CC
	3 inch (76 mm)		**--**				
	12 inch (0.3 m)		**3VL9600-3JJ11**		1	1 unit	1CC
	16 inch (0.4 m)		**3VL9600-3JJ21**		1	1 unit	1CC
	24 inch (0.6 m) with support bracket		**3VL9600-3JJ41**		1	1 unit	1CC
 3VL9600-3JF81	**NFPA-79 intermediate operating mechanism** For door-coupling rotary operating mechanisms		**3VL9600-3JF81**		1	1 unit	1CC
 3VL9400-3JS01	**Operating mechanism with flange connection for variable installation depth** Adjustable from 8 to 16 inch (approx. 200 to 400 mm) Complete kit, including handle Red/black handle[1]						
	NEMA Type 1, 3R, 12 plastic		**3VL9400-3JS01**		1	1 unit	1CC
	NEMA Type 4, 4X chrome-plated steel		**3VL9400-3JS61**		1	1 unit	1CC
	Black handle[1]						
	NEMA Type 1, 3R, 12 plastic		**3VL9400-3JS11**		1	1 unit	1CC
	NEMA Type 4, 4X chrome-plated steel		**3VL9400-3JS71**		1	1 unit	1CC

[1] The handles in monochrome gray or black are preferably used in IEC markets. Red/black handles (red for ON) are standard in UL markets.

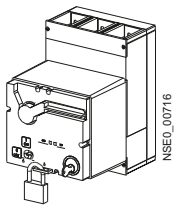
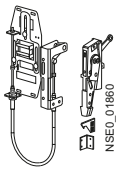
Minimum order quantity (PS) or a multiple thereof can be ordered.

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SD	For VL800 UL (MG frame)	PU (UNIT, SET, M)	PS	PG	SD	For VL1200 UL (NG frame) to VL1600 UL (PG frame)	PU (UNIT, SET, M)	PS	PG
	Article No. www.siemens.com/product?Article No. Price per PU					Article No. www.siemens.com/product?Article No. Price per PU			
d					d				
	--					--			
	3VL9600-3JD01	1	1 unit	1CC		--			
	3VL9600-3JE01	1	1 unit	1CC		**3VL9800-3JE01**	1	1 unit	1CC
	3VL9600-3JF11	1	1 unit	1CC		**3VL9800-3JF01**	1	1 unit	1CC
	3VL9600-3JF01	1	1 unit	1CC		**3VL9800-3JF01**	1	1 unit	1CC
	3VL9600-3JF41	1	1 unit	1CC		**3VL9800-3JF41**	1	1 unit	1CC
	3VL9600-3JG01	1	1 unit	1CC		--			
	3VL9600-3JJ01	1	1 unit	1CC		--			
	--					**3VL9800-3JJ01**	1	1 unit	1CC
	3VL9600-3JJ11	1	1 unit	1CC		**3VL9800-3JJ11**	1	1 unit	1CC
	3VL9600-3JJ21	1	1 unit	1CC		--			
	3VL9600-3JJ41	1	1 unit	1CC		**3VL9800-3JJ21**	1	1 unit	1CC
	3VL9600-3JF81	1	1 unit	1CC		**3VL9800-3JF81**	1	1 unit	1CC
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	--					--			
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Accessories and spare parts

	Version	SD	For VL150X UL (CG frame) to VL250 UL (FG frame) Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		d					
Operating mechanisms							
	3-pole						
 3VL9.00-3M.01	**Motorized operating mechanism with spring energy mechanism[1] (UL file: E69455)** Degree of protection IP30, with locking device for 3 padlocks, synchronizable						
	50/60 Hz V AC / V DC						
	-- / 24		**3VL9300-3MJ01**		1	1 unit	1CC
	42 ... 48 / 42 ... 48		**3VL9300-3ML01**		1	1 unit	1CC
	60 / 60		**3VL9300-3MS01**		1	1 unit	1CC
	110 ... 127 / 110 ... 127		**3VL9300-3MN01**		1	1 unit	1CC
	220 ... 250 / 220 ... 250		**3VL9300-3MQ01**		1	1 unit	1CC
	Toggle lever extension		**--**				
 3VL9.00-3JM01	**Max Flex operating mechanism, complete including switching mechanism, Bowden wire, red/black knob, NEMA Type 1, 3R, 12 plastic**						
	Bowden cable, 36 inch (0.9 m)		**3VL9300-3JM01**		1	1 unit	1CC
	Bowden cable, 48 inch (1.2 m)		**--**				
	Handle for Max-Flex operating mechanism						
	Red/black handle[2]						
	NEMA Type 1, 3R, 12 plastic		**3VL9600-3JP01**		1	1 unit	1CC
	NEMA Type 1, 3R, 12 steel – epoxy sheathed		**3VL9600-3JP21**		1	1 unit	1CC
	NEMA Type 4, 4X chrome-plated steel		**3VL9600-3JP41**		1	1 unit	1CC
	Gray handle[2]						
	NEMA Type 1, 3R, 12 plastic		**3VL9600-3JP11**		1	1 unit	1CC
	Black handle[2]						
	NEMA Type 1, 3R, 12 steel – epoxy sheathed		**3VL9600-3JP61**		1	1 unit	1CC
	Switching mechanism for Max-Flex operating mechanism		**3VL9300-3JN01**		1	1 unit	1CC
	Bowden cable for Max-Flex operating mechanism						
	36 inch (0.9 m)		**3VL9300-3JQ31**		1	1 unit	1CC
	48 inch (1.2 m)		**3VL9300-3JQ41**		1	1 unit	1CC
	60 inch (1.5 m)		**3VL9300-3JQ61**		1	1 unit	1CC
	72 inch (1.8 m)		**3VL9300-3JQ71**		1	1 unit	1CC
	84 inch (2.1 m)		**3VL9300-3JQ81**		1	1 unit	1CC
	96 inch (2.4 m)		**3VL9300-3JQ21**		1	1 unit	1CC
	120 inch (3.0 m)		**3VL9300-3JQ01**		1	1 unit	1CC
	144 inch (3.6 m)		**3VL9300-3JQ11**		1	1 unit	1CC
	Screw set For attaching the Max-Flex operating mechanism incl. circuit breaker to an 8US busbar adapter (60 mm busbar system).						
	• 1 set = 3 screws size M4 x 100 mm[3][4]		**3VL9300-8SE20**		1	1 unit	1CC
	• 1 set = 2 screws size M6 x 100 mm and 2 special screws with threaded head[5]		**--**				
	Leading auxiliary switches for Max-Flex operating mechanism						
	• 1 changeover contact with 1.5 m long cables		**3VL9300-2AP11**		1	1 unit	1CC
	• 2 changeover contacts with 1.5 m long cables		**3VL9300-2AP21**		1	1 unit	1CC

1) For safety lock as an assembly kit for retrofitting, see pages 2/179 to 2/183.

2) The handles in monochrome gray or black are preferably used in IEC markets. Red/black handles (red for ON) are standard in UL markets.

3) The combination of molded case circuit breaker VL150X (CG) incl. Max-Flex operating mechanism on 8US busbar adapter is not possible.

4) For 3VL25/DG and 3VL35/FG, please use the busbar adapter 8US1213-4AQ03.

5) For 3VL41/JG and 3VL48/LG, please use the busbar adapter 8US1213-4AH00.

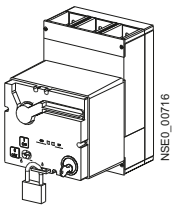
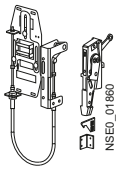
Minimum order quantity (PS) or a multiple thereof can be ordered.

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SD	For VL400 UL (JG frame) to VL400X UL (LG frame) Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG	SD	For VL800 UL (MG frame) Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
d						d					
	3VL9400-3MJ01		1	1 unit	1CC		**3VL9600-3MJ01**		1	1 unit	1CC
	3VL9400-3ML01		1	1 unit	1CC		**3VL9600-3ML01**		1	1 unit	1CC
	3VL9400-3MS01		1	1 unit	1CC		**3VL9600-3MS01**		1	1 unit	1CC
	3VL9400-3MN01		1	1 unit	1CC		**3VL9600-3MN01**		1	1 unit	1CC
	3VL9400-3MQ01		1	1 unit	1CC		**3VL9600-3MQ01**		1	1 unit	1CC
	3VL9400-3HN01		1	1 unit	1CC		**3VL9600-3HN01**		1	1 unit	1CC
	--						**--**				
	3VL9400-3JM01		1	1 unit	1CC		**3VL9600-3JM01**		1	1 unit	1CC
	3VL9600-3JP01		1	1 unit	1CC		**3VL9600-3JP01**		1	1 unit	1CC
	3VL9600-3JP21		1	1 unit	1CC		**3VL9600-3JP21**		1	1 unit	1CC
	3VL9600-3JP41		1	1 unit	1CC		**3VL9600-3JP41**		1	1 unit	1CC
	3VL9600-3JP11		1	1 unit	1CC		**3VL9600-3JP11**		1	1 unit	1CC
	3VL9600-3JP61		1	1 unit	1CC		**3VL9600-3JP61**		1	1 unit	1CC
	3VL9400-3JN01		1	1 unit	1CC		**3VL9600-3JN01**		1	1 unit	1CC
	3VL9600-3JQ31		1	1 unit	1CC		**3VL9600-3JQ31**		1	1 unit	1CC
	3VL9600-3JQ41		1	1 unit	1CC		**3VL9600-3JQ41**		1	1 unit	1CC
	3VL9600-3JQ61		1	1 unit	1CC		**3VL9600-3JQ61**		1	1 unit	1CC
	3VL9600-3JQ71		1	1 unit	1CC		**3VL9600-3JQ71**		1	1 unit	1CC
	3VL9600-3JQ81		1	1 unit	1CC		**3VL9600-3JQ81**		1	1 unit	1CC
	3VL9600-3JQ21		1	1 unit	1CC		**3VL9600-3JQ21**		1	1 unit	1CC
	3VL9600-3JQ01		1	1 unit	1CC		**3VL9600-3JQ01**		1	1 unit	1CC
	3VL9600-3JQ11		1	1 unit	1CC		**3VL9600-3JQ11**		1	1 unit	1CC
	--						**--**				
	3VL9460-8SE20		1	1 unit	1CC		**--**				
	3VL9400-2AP11		1	1 unit	1CC		**3VL9800-2AP11**		1	1 unit	1CC
	3VL9400-2AP21		1	1 unit	1CC		**3VL9800-2AP21**		1	1 unit	1CC

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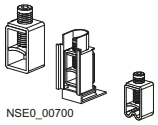
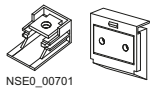
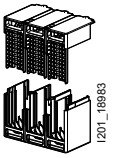
	Version	SD	For VL1200 UL (NG frame) to VL1600 UL (PG frame) Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		d					
Operating mechanisms							
	3-pole						
 3VL9.00-3M.01	**Motorized operating mechanism[1] (UL file: E69455)** Degree of protection IP30, with locking device for 3 padlocks, not synchronizable						
	50/60 Hz V AC / V DC						
	-- / 24		**3VL9800-3MJ01**		1	1 unit	1CC
	42 ... 48 / 42 ... 48		**3VL9800-3ML01**		1	1 unit	1CC
	60 / 60		**3VL9800-3MS01**		1	1 unit	1CC
	110 ... 127 / 110 ... 127		**3VL9800-3MN01**		1	1 unit	1CC
	220 ... 250 / 220 ... 250		**3VL9800-3MQ01**		1	1 unit	1CC
	Toggle lever extension		**3VL9800-3HN01**		1	1 unit	1CC
 3VL9.00-3JM01	**Max Flex operating mechanism, complete including switching mechanism, Bowden wire, red/black knob, NEMA Type 1, 3R, 12 steel – epoxy sheathed**						
	Bowden cable, 36 inch (0.9 m)		--				
	Bowden cable, 48 inch (1.2 m)		**3VL9800-3JM01**		1	1 unit	1CC
	Handle for Max-Flex operating mechanism						
	Red/black handle[2]						
	NEMA Type 1, 3R, 12 plastic		--				
	NEMA Type 1, 3R, 12 steel – epoxy sheathed		**3VL9800-3JP01**		1	1 unit	1CC
	NEMA Type 4, 4X chrome-plated steel		**3VL9800-3JP41**		1	1 unit	1CC
	Gray handle[2]						
	NEMA Type 1, 3R, 12 plastic		--				
	Black handle[2]						
	NEMA Type 1, 3R, 12 steel – epoxy sheathed		**3VL9800-3JP11**		1	1 unit	1CC
	Switching mechanism for Max-Flex operating mechanism		**3VL9800-3JN01**		1	1 unit	1CC
	Bowden cable for Max-Flex operating mechanism						
	36 inch (0.9 m)		--				
	48 inch (1.2 m)		**3VL9800-3JQ41**		1	1 unit	1CC
	60 inch (1.5 m)		**3VL9800-3JQ61**		1	1 unit	1CC
	72 inch (1.8 m)		**3VL9800-3JQ71**		1	1 unit	1CC
	84 inch (2.1 m)		**3VL9800-3JQ81**		1	1 unit	1CC
	96 inch (2.4 m)		**3VL9800-3JQ21**		1	1 unit	1CC
	120 inch (3.0 m)		**3VL9800-3JQ01**		1	1 unit	1CC
	144 inch (3.6 m)		**3VL9800-3JQ11**		1	1 unit	1CC
	Leading auxiliary switches for Max-Flex operating mechanism						
	• 1 changeover contact with 1.5 m long cables		**3VL9800-2AP11**		1	1 unit	1CC
	• 2 changeover contacts with 1.5 m long cables		**3VL9800-2AP21**		1	1 unit	1CC

[1] For safety lock as an assembly kit for retrofitting, see pages 2/179 to 2/183.

[2] The handles in monochrome gray or black are preferably used in IEC markets. Red/black handles (red for ON) are standard in UL markets.

Minimum order quantity (PS) or a multiple thereof can be ordered.

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	Version		SD	For VL150X UL (CG frame) Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
			d					
Connection parts for fixed-mounted molded case circuit breakers								
	Steel box terminal with auxiliary conductor connection							
	Terminal with auxiliary conductor connection up to 0.5 A			**3VL9120-4TN31**		1	1 unit	1CC
 NSE0_00700 3VL9...-4TC.1	**Box terminals** Connection for flexible flat copper busbar or cable							
	1 set = 3 units			**3VL9120-4TC31**		1	1 unit	1CC
 3VL9...-4TD.1	**Circular conductor terminals**[1] Only for cables (Al or Cu) Aluminum terminal (tinned)							
	1 set = 3 units			**3VL9130-4TD31**		1	1 unit	1CC
 NSE0_00701 3VL9.00-4TA.1	**Connection with screw-type terminals** With insulator (for rear) for use with busbars and cable lugs							
	1 set = 3 units	Metric thread		**3VL9100-4TA31**		1	1 unit	1CC
 3VL9.00-8CA.1	**Connection covers (terminal covers) for circuit breakers**[2] Degree of protection IP30 for main connections 1 set = 2 units							
	Extended	3-pole		**3VL9300-8CA31**		1	1 unit	1CC
 NSE0_00730 3VL9.00-8CB.1	Standard	3-pole		**3VL9300-8CB31**		1	1 unit	1CC
 3VL9300-8CD31	**Connection covers (terminal covers) for circuit breakers** Degree of protection IP2X for main connections 1 set = 1 unit (consisting of top part and bottom part) 3-pole			**3VL9300-8CD31**		1	1 unit	1CC
 NSE0_00731 3VL9.00-8CE01	**Phase barriers for molded case circuit breakers, fixed-mounted, plug-in or withdrawable versions** 1 set = 2 units			**3VL9300-8CE01**		1	1 unit	1CC

Note:

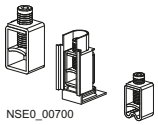
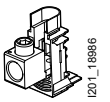
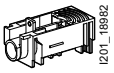
Only rear terminals with different lengths may be fitted next to one another (e.g. short-long-short or long-short-long).

1) Circular conductor terminals for VL150X UL (CG frame) suitable for 60 A to 150 A.

2) UL-listed for use with plug-in and withdrawable versions. A system-specific additional test is required for use with circuit breakers.

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	Version	SD	for VL150 UL (DG frame) Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		d					
Connection parts for fixed-mounted molded case circuit breakers							
	3-pole						
	Front connecting bars Terminal set with cover for mounting the circuit breaker on busbars 1 set = 3 units		**3VL9200-4EC31**		1	1 unit	1CC
 NSE0_00700 3VL9...-4TC.1	**Box terminal** Connection for flexible flat copper busbar or cable 1 set = 3 units		**3VL9220-4TC31**		1	1 unit	1CC
 I201_18986 3VL9215-4TD31	**Circular conductor terminal with terminal covers for cable (only for Al or Cu cables)** Terminal with auxiliary conductor connection up to 0.5 A 1 set = 3 units		**3VL9215-4TD31**		1	1 unit	1CC
 I201_18982 3VL9220-4TN31	**Steel box terminal with auxiliary conductor connection** Terminal with auxiliary conductor connection up to 0.5 A		**3VL9220-4TN31**		1	1 unit	1CC
 3VL9...-4TD.1	**Circular conductor terminals**[1] Only for cables (Al or Cu) Aluminum terminal (tinned) 1 set = 3 units		**3VL9230-4TD31**		1	1 unit	1CC
 NSE0_01542 3VL9...-4TF.1	**Multiple feed-in terminals** Only for cables (Al or Cu) Aluminum terminal (tinned) 1 set = 3 units	Double	--				
	Multiple feed-in terminal with terminal cover Terminal with auxiliary conductor connection up to 0.5 A 1 set = 3 units	Double	--				

Note:

Only rear terminals with different lengths may be fitted next to one another (e.g. short-long-short or long-short-long).

[1] Circular conductor terminals for VL150 UL suitable for 60 to 150 A.

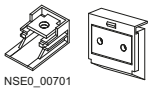
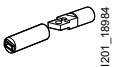
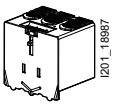
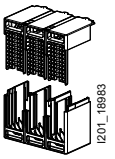
Minimum order quantity (PS) or a multiple thereof can be ordered.

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SD d	For VL250 UL (FG frame) Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG	SD d	For VL400 UL (JG frame) Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
	3VL9300-4EC31		1	1 unit	1CC		**3VL9400-4EC31**		1	1 unit	1CC
	3VL9335-4TC31		1	1 unit	1CC		**3VL9460-4TC31**		1	1 unit	1CC
	--						**--**				
	3VL9335-4TN31		1	1 unit	1CC		**3VL9460-4TN31**		1	1 unit	1CC
	3VL9335-4TD31		1	1 unit	1CC		**3VL9475-4TD31**		1	1 unit	1CC
	--						**3VL9425-4TF31**		1	1 unit	1CC
	--						**3VL9460-4TF31**		1	1 unit	1CC

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2

	Version		SD	for VL150 UL (DG frame) Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
			d					
Connection parts for fixed-mounted molded case circuit breakers								
	3-pole							
 NSE0_00701	**Connection with screw-type terminals**							
	With insulator (for rear) for use with busbars and cable lugs							
3VL9.00-4TA.1	1 set = 3 units	Metric thread		**3VL9200-4TA31**		1	1 unit	1CC
	1 set = 3 units	Inch thread		**3VL9200-4TB31**		1	1 unit	1CC
 I201_18984	**Cable lug connection**							
	1 set = 3 units			**3VL9220-4TM31**		1	1 unit	1CC
3VL9220-4TM31								
	Connection covers (terminal covers) for circuit breakers [1]							
	Degree of protection IP30 for main connections							
	1 set = 2 units							
 I201_18987	Extended	3-pole		**3VL9300-8CA31**		1	1 unit	1CC
3VL9.00-3C..1								
 NSE0_00730	Standard	3-pole		**3VL9300-8CB31**		1	1 unit	1CC
3VL9.00-3C..1								
 I201_18983	**Connection covers (terminal covers) for circuit breakers**							
	Degree of protection IP2X for main connections							
	1 set = 1 unit (consisting of top part and bottom part)							
	3-pole			**3VL9300-8CD31**		1	1 unit	1CC
3VL9300-8CD31								
 NSE0_00731	**Phase barriers for molded case circuit breakers, fixed-mounted, plug-in or withdrawable versions**							
	1 set = 2 units			**3VL9300-8CE01**		1	1 unit	1CC
3VL9.00-8CE01								

[1] UL-listed for use with plug-in and withdrawable versions. A system-specific additional test is required for use with circuit breakers.

Minimum order quantity (PS) or a multiple thereof can be ordered.

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SD	For VL250 UL (FG frame) Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG	SD	For VL400 UL (JG frame) Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
d						d					
	3VL9300-4TA31		1	1 unit	1CC		**3VL9400-4TA31**		1	1 unit	1CC
	3VL9300-4TB31		1	1 unit	1CC		**--**				
	3VL9335-4TM31		1	1 unit	1CC		**3VL9460-4TM31**		1	1 unit	1CC
	3VL9300-8CA31		1	1 unit	1CC		**3VL9400-8CA31**		1	1 unit	1CC
	3VL9300-8CB31		1	1 unit	1CC		**3VL9400-8CB31**		1	1 unit	1CC
	3VL9300-8CD31		1	1 unit	1CC		**3VL9400-8CD31**		1	1 unit	1CC
	3VL9300-8CE01		1	1 unit	1CC		**3VL9600-8CE01**		1	1 unit	1CC

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2

	Version		SD	For VL400X UL (LG frame) Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
			d					
Connection parts for fixed-mounted molded case circuit breakers								
	3-pole							
	Front connecting bars							
	Terminal set with cover for mounting the circuit breaker on busbars 1 set = 3 units			**3VL9460-4EC31**		1	1 unit	1CC
NSE0_00725 3VL9.00-4R..1	Flat connecting bar (1 unit)			**3VL9460-4RG01**		1	1 unit	1CC
	Flat connecting bars 1 set = 3 units, 3-pole			**3VL9460-4RH31**		1	1 unit	1CC
NSE0_00700 3VL9.00-4TC.1	**Box terminal** Connection for flexible flat copper busbar or cable 1 set = 3 units			--				
3VL9475-4TD31	**Circular conductor terminals** Only for cables (Al or Cu) Aluminum terminal (tinned) 1 set = 3 units			**3VL9475-4TD31**		1	1 unit	1CC
NSE0_01542 3VL9...-4T..1	**Multiple feed-in terminals** Only for cables (Al or Cu) Aluminum terminal (tinned) 1 set = 3 units	Double		--				
		• Terminal on feeder side[1]		**3VL9460-4TX31**		1	1 unit	1CC
		• Terminal on outgoing side[1]		**3VL9460-4TY31**		1	1 unit	1CC
		3-fold		--				
		4-fold		--				
NSE0_00701 3VL9460-4T.31	**Connection with screw-type terminals** With insulator (for rear) for use with busbars and cable lugs							
	1 set = 3 units	Metric thread		**3VL9460-4TA31**		1	1 unit	1CC
	1 set = 3 units	Inch thread		**3VL9460-4TB31**		1	1 unit	1CC
I201_18987 3VL9400-8CA31	**Connection covers (terminal covers) for circuit breakers[2]** Degree of protection IP30 for main connections 1 set = 2 units							
	Extended	3-pole		**3VL9400-8CA31**		1	1 unit	1CC
NSE0_00730 3VL9400-8CB31	Standard	3-pole		**3VL9400-8CB31**		1	1 unit	1CC
NSE0_00731 3VL9600-8CE01	**Phase barriers for molded case circuit breakers, fixed-mounted, plug-in or withdrawable versions[3]** 1 set = 2 units			**3VL9600-8CE01**		1	1 unit	1CC

Note:

Only rear terminals with different lengths may be fitted next to one another (e.g. short-long-short or long-short-long).

1) Extended terminal cover included in scope of supply.

2) UL-listed for use with plug-in and withdrawable versions. A system-specific additional test is required for use with circuit breakers.

3) Plug-in versions: not for VL1200 UL (NG frame); withdrawable version: not for VL800 UL (MG frame) and VL1200 UL (NG frame).

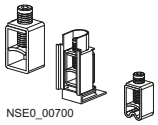
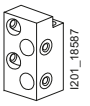
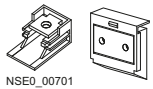
Minimum order quantity (PS) or a multiple thereof can be ordered.

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SD	For VL800 UL (MG frame)	PU (UNIT, SET, M)	PS	PG	SD	For VL1200 UL (NG frame)	PU (UNIT, SET, M)	PS	PG
	Article No. www.siemens.com/product?Article No. Price per PU					Article No. www.siemens.com/product?Article No. Price per PU			
d					d				
	3VL9600-4EC31	1	1 unit	1CC		**3VL9800-4EF01**	1	1 unit	1CC
	3VL9600-4RG01	1	1 unit	1CC		**3VL9700-4RG01**	1	1 unit	1CC
	3VL9600-4RH31	1	1 unit	1CC		**3VL9700-4RH31**	1	1 unit	1CC
	--					**--**			
	--					**--**			
	3VL9675-4TF31	1	1 unit	1CC		**--**			
	--					**--**			
	--					**--**			
	3VL9650-4TG31	1	1 unit	1CC		**3VL9775-4TG31**	1	1 unit	1CC
	--					**3VL9750-4TH31**	1	1 unit	1CC
	3VL9600-4TA31	1	1 unit	1CC		**3VL9800-4TA31**	1	1 unit	1CC
	3VL9600-4TB31	1	1 unit	1CC		**3VL9800-4TB31**	1	1 unit	1CC
	3VL9600-8CA31	1	1 unit	1CC		**3VL9800-8CA31**	1	1 unit	1CC
	3VL9600-8CB31	1	1 unit	1CC		**3VL9800-8CB31**	1	1 unit	1CC
	3VL9600-8CE01	1	1 unit	1CC		**3VL9800-8CE01**	1	1 unit	1CC

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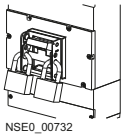
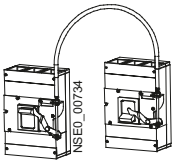
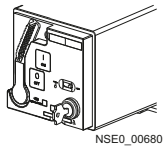
2

	Version	SD	For VL1600 UL (PG frame) Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		d					
Connection parts for fixed-mounted molded case circuit breakers							
	3-pole						
	Front connecting bars						
	Terminal set with cover for mounting the circuit breaker on busbars		**3VL9800-4EF01**		1	1 unit	1CC
	1 set = 3 units						
	• Incoming side, mounting from the top						
	• Incoming side, mounting from the bottom						
 NSE0_00700 3VL9...-4TC.1	**Box terminal** Connection for flexible flat copper busbar or cable						
	1 set = 3 units		--				
 3VL9...-4TD.1	**Circular conductor terminals** Only for cables (Al or Cu) Aluminum terminal (tinned)						
	1 set = 3 units		--				
 3VL9...-4T..1	**Multiple feed-in terminals** Only for cables (Al or Cu) Aluminum terminal (tinned)						
	4-fold (for installation with mounting base)		**3VL9875-4TH01**		1	1 unit	1CC
	1 unit						
 NSE0_00701 3VL9.00-4TA.1	**Terminals with screw connection -** With insulator (for rear) for use with busbars and cable lugs						
	1 set = 3 units	Metric thread	**3VL9800-4TA31**		1	1 unit	1CC
	1 set = 3 units	Inch thread	**3VL9800-4TB31**		1	1 unit	1CC
 NSE0_00681 3VL9800-8CA31	**Connection covers (terminal covers) for circuit breakers[1)]** Degree of protection IP30 for main connections 1 set = 2 units						
	Extended	3-pole	**3VL9800-8CA31**		1	1 unit	1CC
 NSE0_00730 3VL9800-8CB31	Standard	3-pole	**3VL9800-8CB31**		1	1 unit	1CC
 NSE0_00731 3VL9800-8CE01	**Phase barriers for molded case circuit breakers, fixed-mounted**						
	1 set = 2 units		**3VL9800-8CE01**		1	1 unit	1CC
	Mounting base Operation of the molded case circuit breaker within the scope of application of UL 489/CSA is permitted only in conjunction with the mounting base						
	Front connections		**3VL9800-4TU31**		1	1 unit	1CC
	Rear connections		**3VL9800-4TV31**		1	1 unit	1CC

[1)] Not UL-listed.

Minimum order quantity (PS) or a multiple thereof can be ordered.

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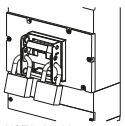
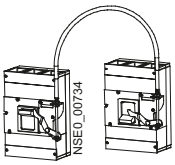
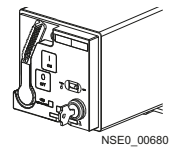
	Version	SD	For VL150X UL (CG frame) and VL150 UL (DG frame) Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		d					
Interlocks							
	3-pole						
 NSE0_00732 3VL9.00-3HL01	**Locking devices for toggle levers** For locking the molded case circuit breaker in the "OFF" position. Up to 3 padlocks with a diameter of 5 – 8 mm can be used. Removable (padlocks not included)		**3VL9300-3HL01**		1	1 unit	1CC
 NSE0_00734 3VL9.00-8LA01	**Interlocking modules for Bowden cable interlocking**[1] For the mechanical interlocking of two molded case circuit breakers.						
	Interlocking module for one molded case circuit breaker		**3VL9300-8LA01**		1	1 unit	1CC
	Note: Combinations with next size up/down possible (see Article No.)						
	Bowden cables for Bowden cable interlocking[1]						
	• Cable length 0.5 m		**3VL9000-8LH11**		1	1 unit	1CC
	• Cable length 1.0 m		**3VL9000-8LH21**		1	1 unit	1CC
	• Cable length 1.5 m		**3VL9000-8LH31**		1	1 unit	1CC
	Sets of fixing screws (metric thread) Including the screws, washers and nuts required to secure a molded case circuit breaker to a prepared surface						
	Set with 4 screws		**3VL9300-8SA40**		1	1 unit	1CC
 NSE0_00680 3VL9...-8HA01	**Safety lock assembly kits** Key can be removed with the molded case circuit breaker in the "OFF" position						
	For front-operated rotary operating mechanisms						
	Ronis lock type		**3VL9715-8HA01**		1	1 unit	1CC
	For motorized operating mechanism with stored energy mechanism						
	Filli Giussani lock type		**3VL9321-8HA01**		1	1 unit	1CC

	Version	SD	For VL150 UL (DG frame) Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		d					
 3VL9000-8AP01	**Battery power supply for activating/parameterizing/tripping the Electronic Trip Units** (two 9 V blocks are required in addition)		**3VL9000-8AP01**		1	1 unit	1CC

[1] Two interlocking modules and one Bowden cable are required. Cannot be used in conjunction with motorized operating mechanism!
[2] Also suitable for VL150X UL (CG frame).

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	Version	SD	For VL250 UL (FG frame) Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		d					
Interlocks							
	3-pole						
 NSE0_00732 3VL9.00-3HL01	**Locking devices for toggle levers** For locking the molded case circuit breaker in the "OFF" position. Up to 3 padlocks with a diameter of 5 – 8 mm can be used. Removable (padlocks not included)		**3VL9300-3HL01**		1	1 unit	1CC
 NSE0_00734 3VL9.00-8LA01	**Interlocking modules for Bowden cable interlocking**[1] For the mechanical interlocking of two molded case circuit breakers.						
	Interlocking module for one molded case circuit breaker		**3VL9300-8LA01**		1	1 unit	1CC
	Note: Combinations with next size up/down possible (see Article No.)						
	Bowden cables for Bowden cable interlocking[1]						
	• Cable length 0.5 m		**3VL9000-8LH11**		1	1 unit	1CC
	• Cable length 1.0 m		**3VL9000-8LH21**		1	1 unit	1CC
	• Cable length 1.5 m		**3VL9000-8LH31**		1	1 unit	1CC
 NSE0_00680 3VL9...-8HA01	**Safety lock assembly kits** Key can be removed with the molded case circuit breaker in the "OFF" position						
	For motorized operating mechanism with stored energy mechanism						
	Lock types						
	• Ronis		--				
	• Filli Giussani		**3VL9321-8HA01**		1	1 unit	1CC
	Sets of fixing screws (metric thread) Including the screws, washers and nuts required to secure a molded case circuit breaker to a prepared surface						
	Set with 4 screws		**3VL9300-8SA40**		1	1 unit	1CC
 3VL9000-8AP01	**Battery power supply for activating/parameterizing/tripping the Electronic Trip Units** (two 9 V blocks are required in addition)		**3VL9000-8AP01**		1	1 unit	1CC

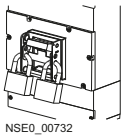
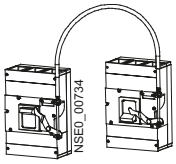
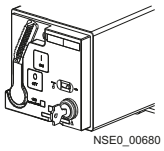
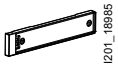
[1] Two interlocking modules and one Bowden cable are required. Cannot be used in conjunction with motorized operating mechanism!

Minimum order quantity (PS) or a multiple thereof can be ordered.

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SD d	For VL400 UL (JG frame) Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG	SD d	For VL400X UL (LG frame) Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
	3VL9400-3HL01		1	1 unit	1CC		**3VL9400-3HL01**		1	1 unit	1CC
	3VL9400-8LA01		1	1 unit	1CC		**3VL9400-8LA01**		1	1 unit	1CC
	--						**--**				
	3VL9000-8LH21		1	1 unit	1CC		**3VL9000-8LH21**		1	1 unit	1CC
	3VL9000-8LH31		1	1 unit	1CC		**3VL9000-8LH31**		1	1 unit	1CC
	3VL9715-8HA01		1	1 unit	1CC		**3VL9715-8HA01**		1	1 unit	1CC
	--						**--**				
	3VL9500-8SA40		1	1 unit	1CC		**3VL9500-8SA40**		1	1 unit	1CC
	3VL9000-8AP01		1	1 unit	1CC		**3VL9000-8AP01**		1	1 unit	1CC

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	Version	SD	For VL800 UL (MG frame) Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		d					
Interlocks							
 NSE0_00732 3VL9.00-3HL01	***3-pole*** **Locking devices for toggle levers** For locking the molded case circuit breaker in the "OFF" position. Up to 3 padlocks with a diameter of 5 – 8 mm can be used. Removable (padlocks not included)		**3VL9600-3HL01**		1	1 unit	1CC
 NSE0_00734 3VL9.00-8LA01	**Interlocking modules for Bowden cable interlocking**[1] For the mechanical interlocking of two molded case circuit breakers.						
	Interlocking module for one molded case circuit breaker		**3VL9600-8LA01**		1	1 unit	1CC
	Note: Combinations with next size up/down possible (see Article No.)						
	Bowden cables for Bowden cable interlocking[1]						
	• Cable length 0.5 m		**--**				
	• Cable length 1.0 m		**3VL9000-8LH21**		1	1 unit	1CC
	• Cable length 1.5 m		**3VL9000-8LH31**		1	1 unit	1CC
 NSE0_00680 3VL9....-8HA01	**Safety lock assembly kits** Key can be removed with the molded case circuit breaker in the "OFF" position						
	For motorized operating mechanism with stored energy mechanism						
	Lock types						
	• Ronis		**3VL9715-8HA01**		1	1 unit	1CC
	• Filli Giussani		**--**				
	Sets of fixing screws (metric thread) Including the screws, washers and nuts required to secure a molded case circuit breaker to a prepared surface						
	Set with 4 screws		**3VL9600-8SA40**		1	1 unit	1CC
 I201_18985 3VL9...-8B.01	**Transparent covers for releases, sealable** To prevent access by unqualified personnel and unauthorized changes to settings (seal not included)						
	• For Electronic Trip Unit		**3VL9700-8BL01**		1	1 unit	1CC
	• For thermal-magnetic release		**--**				
 NSE0_01513a 3VL9000-8AP01	**Battery power supply for activating/parameterizing/tripping the Electronic Trip Units** (two 9 V blocks are required in addition)		**3VL9000-8AP01**		1	1 unit	1CC

[1] Two interlocking modules and one Bowden cable are required.
Cannot be used in conjunction with motorized operating mechanism!

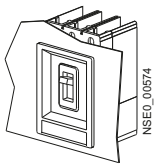
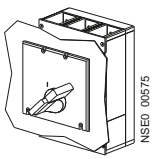
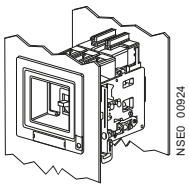
Minimum order quantity (PS) or a multiple thereof can be ordered.

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SD d	For VL1200 UL (NG frame) Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG	SD d	For VL1600 UL (PG frame) Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
	3VL9800-3HL01		1	1 unit	1CC		**3VL9800-3HL01**		1	1 unit	1CC
	3VL9800-8LA01		1	1 unit	1CC		**3VL9800-8LA01**		1	1 unit	1CC
	-- **--** **3VL9000-8LH31**		1	1 unit	1CC		**--** **--** **3VL9000-8LH31**		1	1 unit	1CC
	3VL9715-8HA01 **--**		1	1 unit	1CC		**3VL9715-8HA01** **--**		1	1 unit	1CC
	3VL9800-8SA40		1	1 unit	1CC		**3VL9800-8SA40**		1	1 unit	1CC
	3VL9700-8BL01 **--**		1	1 unit	1CC		**3VL9700-8BL01** **--**		1	1 unit	1CC
	3VL9000-8AP01		1	1 unit	1CC		**3VL9000-8AP01**		1	1 unit	1CC

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Accessories and spare parts

	Version	SD	For VL150X UL (CG frame) Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		d					
Further accessories							
	3-pole						
	Masking frames (cover frames) for door cut-outs						
 Masking frame A	**A** **IP40** Fixed-mounted or plug-in molded case circuit breaker		**3VL9300-8BC01**		1	1 unit	1CC
 Masking frame B	**B**[1] **IP40** Fixed-mounted, plug-in or withdrawable molded case circuit breaker with front-operated rotary operating mechanism or motorized operating mechanism		**3VL9300-8BG01**		1	1 unit	1CC
 Masking frame C	**C** **IP20** Withdrawable molded case circuit breaker with toggle lever actuation. Assembly kit contains cover frame and extended escutcheon (cannot be used together with a motorized/rotary operating mechanism)		--				

	Version	SD	For VL800 UL (MG frame) Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		d					
Further accessories							
	3-pole						
	Masking frames (cover frames) for door cut-outs						
	A **IP40** Fixed-mounted or plug-in molded case circuit breaker		**3VL9600-8BC01**		1	1 unit	1CC
	B **IP40** Fixed-mounted, plug-in or withdrawable molded case circuit breaker with front-operated rotary operating mechanism or motorized operating mechanism		**3VL9600-8BG01**		1	1 unit	1CC

[1] For withdrawable version IP20.

Minimum order quantity (PS) or a multiple thereof can be ordered.

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SD	For VL150 UL (DG frame) and VL250 UL (FG frame)	PU (UNIT, SET, M)	PS	PG	SD	For VL400 UL (JG frame) and VL400X UL (LG frame)	PU (UNIT, SET, M)	PS	PG
	Article No. www.siemens.com/product?Article No. Price per PU					Article No. www.siemens.com/product?Article No. Price per PU			
d					d				
	3VL9300-8BC01	1	1 unit	1CC		**3VL9400-8BC01**	1	1 unit	1CC
	3VL9300-8BG01	1	1 unit	1CC		**3VL9400-8BG01**	1	1 unit	1CC
	3VL9300-8BH01	1	1 unit	1CC		**3VL9400-8BH01**	1	1 unit	1CC

SD	For VL1200 UL (NG frame)	PU (UNIT, SET, M)	PS	PG	SD	For VL1600 UL (PG frame)	PU (UNIT, SET, M)	PS	PG
	Article No. www.siemens.com/product?Article No. Price per PU					Article No. www.siemens.com/product?Article No. Price per PU			
d					d				
	3VL9800-8BC01	1	1 unit	1CC		**3VL9800-8BC01**	1	1 unit	1CC
	3VL9800-8BG01	1	1 unit	1CC		**3VL9800-8BG01**	1	1 unit	1CC

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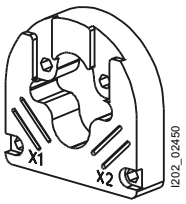
2

Further accessories

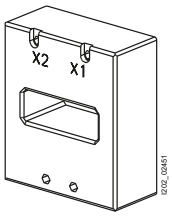
3-pole

Current transformers for N conductor/grounded neutral point of the transformer

for ground-fault protection in 4-wire three-phase systems



3VL9206-8TT01



3VL9660-8TT01

Version		SD	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
I_n/A of the ETU	Purpose	d					
60	for VL150 UL (DG frame)		**3VL9206-8TT01**		1	1 unit	1CC
100	for VL150 UL (DG frame)		**3VL9310-8TT01**		1	1 unit	1CC
	for VL250 UL (FG frame)		**3VL9310-8TT01**		1	1 unit	1CC
150	for VL150 UL (DG frame)		**3VL9315-8TT01**		1	1 unit	1CC
	for VL250 UL (FG frame)		**3VL9315-8TT01**		1	1 unit	1CC
250	for VL250 UL (FG frame)		**3VL9425-8TT01**		1	1 unit	1CC
	for VL400 UL (JG frame)		**3VL9425-8TT01**		1	1 unit	1CC
400	for VL400 UL (JG frame)		**3VL9440-8TT01**		1	1 unit	1CC
	for VL400X UL (LG frame)		**3VL9440-8TT01**		1	1 unit	1CC
600	for VL400X UL (LG frame)		**3VL9660-8TT01**		1	1 unit	1CC
	for VL800 UL (MG frame)		**3VL9660-8TT01**		1	1 unit	1CC
800	for VL800 UL (MG frame)		**3VL9780-8TT01**		1	1 unit	1CC
	for VL1200 UL (NG frame)		**3VL9780-8TT01**		1	1 unit	1CC
1000	for VL1200 UL (NG frame)		**3VL9812-8TT01**		1	1 unit	1CC
1200	for VL1200 UL (NG frame)		**3VL9812-8TT01**		1	1 unit	1CC
	for VL1600 UL (PG frame)		**3VL9812-8TT01**		1	1 unit	1CC
1600	for VL1600 UL (PG frame)		**3VL9816-8TT01**		1	1 unit	1CC

Minimum order quantity (PS) or a multiple thereof can be ordered.

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For type	Version	SD	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		d					
Accessories for communication							
3-pole							
Data transmission							
VL150 UL (DG frame) to VL1600 UL (PG frame)	**COM20 Release 2 (PROFIBUS module for 3VL molded case circuit breaker according to UL)** Module for connecting the 3VL molded case circuit breaker according to UL with Electronic Trip Unit to the PROFIBUS DP, including switching function and Zone Selective Interlocking functionality, connecting cable to ETU not included in delivery		**3VL9000-8AU00**		1	1 unit	1CC
VL150 UL (DG frame) to VL1600 UL (PG frame)	**COM21 Release 2 (Modbus module for 3VL molded case circuit breaker according to UL)** Module for connecting the 3VL molded case circuit breaker according to UL with Electronic Trip Unit to a Modbus RTU bus system, including switching function and Zone Selective Interlocking functionality, connecting cable to ETU not included in delivery		**3VL9000-8AV00**		1	1 unit	1CC
	Addressing plugs For assigning the module addresses without using a PC/PG on COM20/COM21 (Release 2) through the system interface	▶	**3UF7910-0AA00-0**		1	1 unit	42J
VL150 UL (DG frame) to VL250 UL (FG frame)	**COMKIT3** Communication interface for connecting a 3VL molded case circuit breaker according to UL to a COM20/COM21 (Release 2) communication module. Comprising: • Connecting cable length 1.5 m • Alarm switches • Protective cover to protect the connecting cable		**3VL9300-8AQ61**		1	1 unit	1CC
VL400 UL (JG frame) to VL400X UL (LG frame)	**COMKIT4** Communication interface for connecting a 3VL molded case circuit breaker according to UL to a COM20/COM21 (Release 2) communication module. Comprising: • Connecting cable length 1.5 m • Auxiliary switches and alarm switches • Protective cover to protect the connecting cable		**3VL9400-8AQ61**		1	1 unit	1CC
VL600 UL (MG frame) to VL1600 UL (PG frame)	**COMKIT5** Communication interface for connecting a 3VL molded case circuit breaker according to UL to a COM20/COM21 (Release 2) communication module. Comprising: • Connecting cable length 1.5 m • Auxiliary switches and alarm switches • Protective cover to protect the connecting cable		**3VL9800-8AQ61**		1	1 unit	1CC
VL150 UL (DG frame) to VL250 UL (FG frame)	**COMKIT6** Communication interface for connecting a 3VL molded case circuit breaker according to UL to a COM20/COM21 (Release 2) communication module. Comprising: • Connecting cable length 3 m • Alarm switches • Protective cover to protect the connecting cable		**3VL9300-8AQ71**		1	1 unit	1CC
VL400 UL (JG frame) to VL400X UL (LG frame)	**COMKIT7** Communication interface for connecting a 3VL molded case circuit breaker according to UL to a COM20/COM21 (Release 2) communication module. Comprising: • Connecting cable length 3 m • Auxiliary switches and alarm switches • Protective cover to protect the connecting cable		**3VL9400-8AQ71**		1	1 unit	1CC
VL600 UL (MG frame) to VL1600 UL (PG frame)	**COMKIT8** Communication interface for connecting a 3VL molded case circuit breaker according to UL to a COM20/COM21 (Release 2) communication module. Comprising: • Connecting cable length 3 m • Auxiliary switches and alarm switches • Protective cover to protect the connecting cable		**3VL9800-8AQ71**		1	1 unit	1CC

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2

Design

- Rated current range from 20 A to 1600 A
- Different making and breaking capacities for each size

N	Standard (35 kA)
H	High (65 kA)
L	Very high (100 kA)

- No power reduction/derating up to 40 °C
- Electronic Trip Unit from size 150 A (VL150 UL, DG frame), especially for time-based discrimination and ground-fault protection
- 2 families of internal accessories
- Complete bandwidth of external accessories, e.g. terminals also for aluminum cables.

All molded case circuit breakers are supplied with integrated overcurrent releases. The VL150X UL (CG frame) to VL1600 UL (PG frame) molded case circuit breakers are available with different connection variants (see "Main connections, basic equipment and options", page 2/192). Auxiliary switches, alarm switches and auxiliary releases can be easily retrofitted in the molded case circuit breakers or, if requested, are already installed when delivered.
The breaking capacity is indicated on the front of every molded case circuit breaker.

- Standard breaking capacity:
  35 kA at 50/60 Hz 480 V AC
- High breaking capacity:
  65 kA at 50/60 Hz 480 V AC
- Very high breaking capacity:
  100 kA at 50/60 Hz 480 V AC

Connection

The following connection types are available for 3VL molded case circuit breakers according to UL 489:

- Box terminal, suitable for stranded conductors,
- Screw terminals for flat connection,
- Circular conductor/multiple feed-in terminal for Al/Cu cables,
- Cable lug connection.

The infeed and outgoing sides can be chosen on the molded case circuit breaker to suit requirements. The electrical data remains unaffected.

Various terminals feature an auxiliary conductor connection. Up to 0.5 A can be tapped here to directly power other devices.

Bare conductors at the top terminals must be insulated in the space that is needed above the arc chute.

All auxiliary releases (shunt releases and undervoltage releases), auxiliary switches and alarm switches are equipped with screw terminals and therefore are easy to connect electrically.

The motorized operating mechanisms with spring energy store always feature terminals. The leading auxiliary switches for the rotary operating mechanisms are always supplied with connecting cables.

Minimum order quantity (PS) or a multiple thereof can be ordered.

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VL150X UL (CG frame) to VL1600 UL (PG frame) molded case circuit breakers

The main components of the 3VL molded case circuit breakers according to UL are the three conducting paths with incoming and outgoing terminals. The fixed and movable contacts are designed in such a way that magnetic repulsion of the contacts takes place under short-circuit conditions. In conjunction with the arc splitter chambers, a dynamic impedance is created that causes a current limitation through the reduction in the harmful effects of I^2t and the $\imath_p$ energy resulting during short circuits.

The 3VL molded case circuit breaker has a trip-free mechanism.

The double-insulated accessory compartments for the auxiliary releases and auxiliary switches are located on the left and right of the circuit breaker's operating mechanism.

The overcurrent releases for the VL150X UL (CG frame) to VL1600 UL (PG frame) molded case circuit breakers have the following characteristics:

- The overcurrent releases are available in a thermal-magnetic version and in an electronic[1)] version.
- The thermal-magnetic releases have fixed overload releases and adjustable[2)] short-circuit releases.

In the case of all versions of the 3VL molded case circuit breakers according to UL with electronic overcurrent release, the current transformers are in the same enclosure as the tripping electronics. They supply a signal proportional to the load current to the electronic overcurrent release system.

All 3VL molded case circuit breakers according to UL with electronic overcurrent release measure the actual rms current. This is the most accurate method of measurement. Currents in present-day electrical distribution systems with very high harmonics are evaluated reliably.

Overcurrent tripping systems

The switching unit (frame) and release unit are assembled and tested at the factory. Accordingly, the release unit can only be replaced at the factory. The infeed and outgoing sides can be chosen on the molded case circuit breakers to suit requirements.

1. Thermal-magnetic releases of the VL150X UL (CG frame) to VL1600 UL (PG frame) molded case circuit breakers

The overcurrent releases and short-circuit releases work with bimetals and magnetic releases. They are available with fixed overload releases and adjustable short-circuit releases.[2)]

The 3VL molded case circuit breakers for starter combination applications are usually combined with a motor contactor and a suitable overload relay.

1) VL150X UL (CG frame) only thermal-magnetic.

2) VL150X UL (CG frame) only with fixed short-circuit release.

The non-automatic air circuit breakers have integrated self-protection against short circuit so that back-up fuses can be omitted. Non-automatic air circuit breakers do not have overload protection.

2. Overcurrent releases of the VL150 UL (DG frame) to VL1600 UL (PG frame) molded case circuit breakers, electronic, ETU

The electronic tripping system consists of:

- 3 current transformers
- Evaluation electronics with microprocessor
- Intrinsic power supply, no external auxiliary power necessary
- Tripping solenoid.

In the case of VL150 UL (DG frame) and VL250 (FG frame) molded case circuit breakers, the left accessory compartment is needed for the tripping solenoid included in the scope of supply. In the case of all other sizes, the tripping solenoid is integrated in the release unit and the left and right accessory compartments can be used for auxiliary switches, alarm switches and additional auxiliary releases.

The protection functions of the Electronic Trip Units are ensured without additional auxiliary voltage. The overcurrent releases are supplied with energy via internal current transformers in the circuit breaker.

3. Overcurrent releases of the VL150 UL (DG frame) to VL1600 UL (PG frame) molded case circuit breakers, electronic, LCD ETU

For parameterizing, the electronic overcurrent release must be activated. A load current amounting to at least 20% of the relevant molded case circuit breaker's rated current $\imath_n$ is needed to do this. If this load current is not available, the necessary auxiliary energy can be supplied via a battery power supply. In the case of molded case circuit breakers that are connected to an active COM20 (PROFIBUS) or COM21 (Modbus) communication module (Release 2) for data transmission, the release is powered via the module.

Abbreviations (functions)		
L	= Long Time Delay	= Overload protection
S	= Short Time Delay	= Short-circuit protection (short-time delayed)
I	= Instantaneous	= Short-circuit protection (instantaneous)
N	= Neutral Protection	= Neutral conductor protection
G	= Ground Fault	= Ground-fault protection

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Product discontinuation

General data

VL150 UL (DG frame) to VL1600 UL (PG frame) overcurrent releases – functional overview

Article No. supplement	Release/model	Line protection	Starter protection	Generator protection	Function	Setting options				
						L[1] Overload protection	S[1] Short-circuit protection (short-time delayed)		I[1] Short-circuit protection (instantaneous)	G[1] Ground-fault protection
						I_r = × I_n	I_{sd} = × I_r	t_{sd} [s]	I_i = × I_n	I_g = × I_n
KJ	M	--	✓	--	I	--	--	--	3 ... 6	--
KK	M	--	✓	--	I	--	--	--	4 ... 10	--
KL	M	--	✓	--	I	--	--	--	7 ... 16	--
KN	TM/525	✓	--	--	LI	1	--	--	5 ... 10	--
PB	ETU/555	✓	--	--	LI	0.4 ... 1	--	--	1.25 ... 11	--
PD	ETU/555	✓	--	--	LIG	0.4 ... 1	--	--	1.25 ... 11	0.4 ... 1[3]
PE	ETU/555	✓	--	✓	LSI	0.4 ... 1	1.5 ... 10	0 ... 0.5	1.25 ... 11	--
PH	ETU/555	✓	--	✓	LSIG	0.4 ... 1	1.5 ... 10	0 ... 0.5	1.25 ... 11	0.4 ... 1[3]
VH	LCD-ETU/586	✓	--	--	LI, LSI	0.4 ... 1	1.25 ... 10	0 ... 0.5	1.25 ... 11	--
VM	LCD-ETU/586	✓	--	--	LSIG	0.4 ... 1	1.25 ... 10	0 ... 0.5	1.25 ... 11	0.4 ... 1[2]
VJ	LCD-ETU/586	✓	--	--	LSI G (alarm)	0.4 ... 1	1.25 ... 10	0 ... 0.5	1.25 ... 11	0.4 ... 1[2]

Article No. supplement	Release/model	Thermal image	Communication-capable	Ground-fault protection	Number of poles	I^2t (ON/OFF)	Time-lag class (t_R)	Thermal-magnetic releases	Magnetic releases	Electronic releases	LCD display
KJ	M	--	--	--	3	--	--	--	✓	--	--
KK	M	--	--	--	3	--	--	--	✓	--	--
KL	M	--	--	--	3	--	--	--	✓	--	--
KN	TM/525	✓	--	--	3	--	--	✓	--	--	--
PB	ETU/555	✓	✓	--	3	--	2.5 ... 30	--	--	✓	--
PD	ETU/555	✓	✓	①	3	--	2.5 ... 30	--	--	✓	--
PE	ETU/555	✓	✓	--	3	✓	--	--	--	✓	--
PH	ETU/555	✓	✓	①	3	✓	--	--	--	✓	--
VH	LCD-ETU/586	✓	✓	--	3	✓	2.5 ... 30	--	--	✓	✓
VM	LCD-ETU/586	✓	✓	① / ②	3	✓	2.5 ... 30	--	--	✓	✓
VJ	LCD-ETU/586	✓	✓	① / ②	3	✓	2.5 ... 30	--	--	✓	✓

Ground-fault protection
① Vectorial summation current formation (4-wire system)
③ Direct detection of ground-fault current in the neutral point of the transformer

1) Size dependent.
2) t_g 0.1 s to 0.5 s.
3) t_g 0.07 s to 0.4 s size-dependent

Internal accessories (auxiliary switches, undervoltage releases, shunt releases)

3VL molded case circuit breakers according to UL can be supplied completely equipped with internal accessories (e.g. auxiliary switches, undervoltage releases or shunt releases). Refer to the tables of Article No. supplements for details of possible versions.

Fixed-mounted, plug-in or withdrawable version

The fixed-mounted molded case circuit breaker is the basic version. Using the appropriate assembly kit, it can be changed to a plug-in or withdrawable version. This assembly kit contains blade contacts, a locking pin and terminal covers for the plug-in version. The assembly kit for the withdrawable version additionally includes side panels and a racking mechanism. Even when the masking frame is fitted, movement using the withdrawable unit's handle is possible while the door is closed.

Operating mechanisms

In the basic version, the 3VL molded case circuit breakers according to UL have a toggle lever as an operating mechanism. This also functions as an indicator of the switch position. The "Tripped" position is also displayed in addition to the "ON" and "OFF" positions.

The toggle lever goes to the "tripped" position when the internal tripping mechanism is activated by overcurrent tripping, e.g. on overload or short-circuit Activation of an undervoltage release or shunt release will also cause the toggle lever to move to the "Tripped" position. The toggle lever must be moved to the "OFF/RESET" position before the molded case circuit breaker can be closed again. This enables reset of the internal tripping mechanism and reactivation of the molded case circuit breaker's main contacts (see figure).

A toggle lever extension is supplied with the VL1200 UL (NG frame) and VL1600 UL (PG frame) molded case circuit breakers. For the VL400 UL (JG frame) to VL800 UL (MG frame) molded case circuit breakers, this accessory must be ordered separately if required.

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Front mounted rotary operators

These operating mechanisms are designed for direct attachment to 3VL molded case circuit breakers according to UL and convert movement of the toggle lever from a linear to a rotary movement.

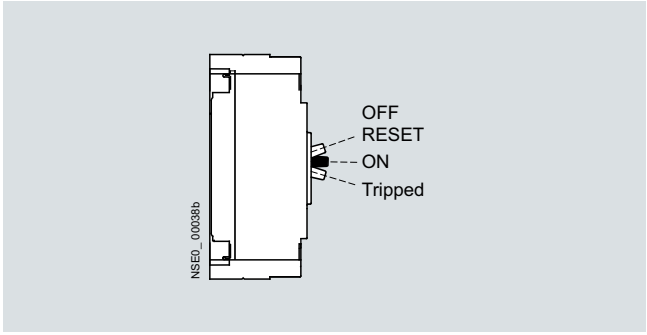
For a molded case circuit breaker with leading auxiliary switches, the undervoltage release can be connected to voltage in a leading fashion, as a result of which the molded case circuit breaker is ready for closing.

Door-coupling rotary operating mechanisms (complete operating mechanisms)

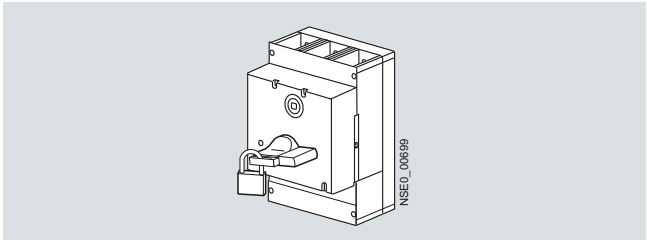
When the molded case circuit breakers are installed in control cabinets and distribution boards, door-coupling rotary operating mechanisms are available for doors and removable covers. These operating mechanisms are supplied as complete assembly kits, including an articulated-shaft mechanism.

With regard to switch positions and the "RESET" position, the same applies to rotary operating mechanisms as to toggle lever operating mechanisms. Indication is by the position of the operator lever (handle).

All 3VL molded case circuit breakers according to UL that feature these rotary operating mechanisms and corresponding terminal covers can be used as main disconnecting means.



Toggle lever operating mechanism positions



Rotary operating mechanism locked with padlock

Motorized operating mechanisms

VL150X UL (CG frame) to VL1600 UL (PG frame) molded case circuit breakers can be equipped with motorized operating mechanisms for operational remote closing and opening.

The motorized operating mechanisms for VL150X UL (CG frame) to VL800 UL (MG frame) molded case circuit breakers have a spring energy store (for synchronization) with a maximum ON period of $t_E \leq 80$ ms.

Motorized operating mechanisms without spring energy store for remotely controlled ON and OFF switching are available for the VL1200 UL (NG frame) and VL1600 UL (PG frame) molded case circuit breakers.

All motorized operating mechanisms are always supplied with a locking device for padlocks. Moreover, optional safety locks for motorized operating mechanisms with stored energy mechanism are also available.

The locking devices can be used for electrical and mechanical blocking of the operating mechanism. All remote operating mechanisms are equipped with a manual operating possibility for maintenance purposes.

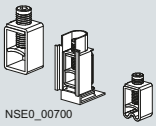
Optionally, the motorized operating mechanisms for VL150X UL (CG frame) to VL800 UL (MG frame) and also the motorized operating mechanisms for VL1200 UL (NG frame) and VL1600 UL (PG frame) are each internally equipped with a floating signaling contact (normally open) for the following functions:

- Querying the AUTO/Manual selector switch for VL150X UL (CG frame) to VL800 UL (MG frame)
- Operating the mechanical OFF/0 button

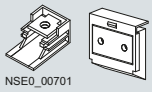
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General data

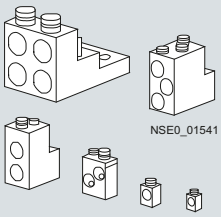
Main connections, basic equipment and options



Box terminal
(for copper cable)



Terminals with screw connection
(metric/inch)



Circular conductor terminals/multiple feed-in terminals
(for Al/Cu cables)

Main connections

Molded case circuit breakers	Connection overview and further options						
	Box terminals	Screw terminals for flat connection		Circular conductor terminal/multiple feed-in terminal	Rear connections	Cable lug connection	Direct connection of bars possible (IEC-approved circuit breakers only)
	Cu only	with metric thread	with inch thread	Cu or Al			
VL150X UL (CG frame)	×	×	--	×	×	--	--
VL150 UL (DG frame)	×	×	×	×	×	×	--
VL250 UL (FG frame)	×	×	×	×	×	×	--
VL400 UL (JG frame)	×	×	--	×[1) 2)]	×	×	--
VL400X UL (LG frame)	--	×	×	×[1) 2)]	×	×	--
VL800 UL (MG frame)	--	×	×	×[1)]	×	×	--
VL1200 UL (NG frame)	--	×	×	×[1)]	×	×	--
VL1600 UL (PG frame)	--	×	×	×[1)]	×	--	--

× Available
-- Not available

[1)] Multiple feed-in terminals
[2)] Circular conductor terminal also available.

Note

For conductor cross-sections, see operating instructions.

Auxiliary releases and auxiliary switches

Undervoltage releases, leading auxiliary switches

If there is no voltage present, closing of the molded case circuit breaker is not possible. When no voltage is applied to the release, operating the circuit breaker leads to no-load switching.

Frequent no-load switching should be avoided to prevent shortening the molded case circuit breaker's useful life.

For a molded case circuit breaker with leading auxiliary switches, the undervoltage release can be connected to voltage in a leading fashion, as a result of which the molded case circuit breaker is ready for closing.

In the case of 3VL molded case circuit breakers according to UL, the leading auxiliary switch can be supplied together with the front-operated rotary operating mechanisms and complete operating mechanisms. For further information, see "Selection and ordering data" for accessories.

Shunt releases

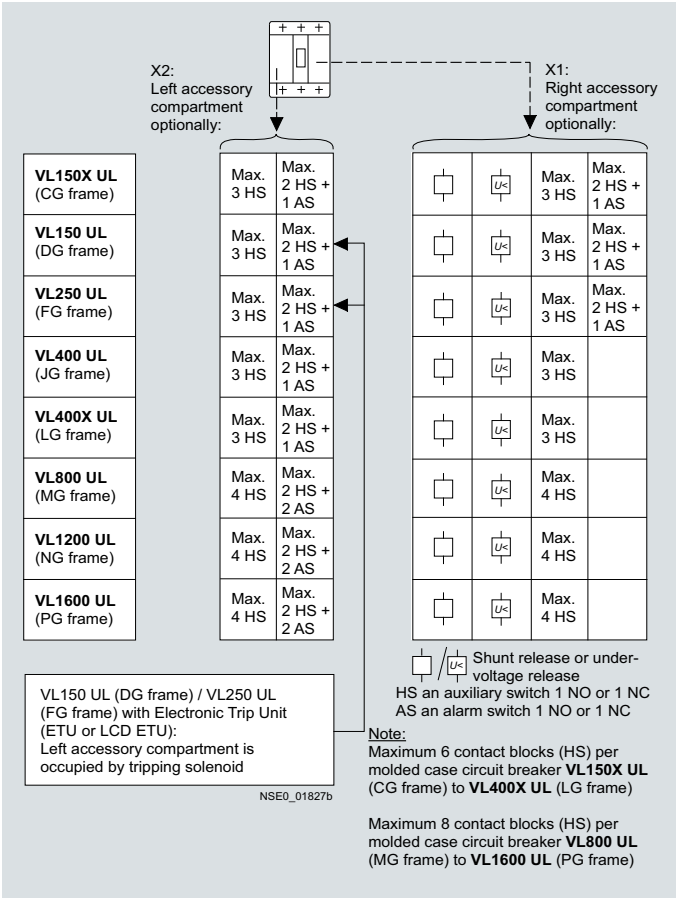
Shunt releases are used to remotely trip the molded case circuit breaker.

The shunt release's coil is designed for short-time operation. Coil deactivation is installed internally.

When a molded case circuit breaker is open, it is not permitted to apply a continuous opening command to the shunt release to prevent closing.
A center tap is available as standard to test the coil for continuity.

Note

Before ordering, use the graphic on the right to check whether the required combination of shunt releases, undervoltage releases and auxiliary/alarm switches is feasible.



Equipment options for the insulated accessory compartments in the 3VL molded case circuit breakers according to UL

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Auxiliary switches

Auxiliary switches (HS) are used for signaling and controlling. The contacts of the auxiliary switch open and close along with the main contacts.

Alarm switches

Alarm switches (AS) operate when the molded case circuit breaker has been tripped due to an overcurrent situation, e.g. an overload or short circuit. However, they are also activated when the molded case circuit breaker has been tripped by a shunt release or an undervoltage release.

Installation of internal accessories

The insulated accessory compartments in the molded case circuit breakers for installation of internal accessories (auxiliary releases and auxiliary/alarm switches) are designated X1, X2 and X4.

Equipment of the molded case circuit breaker with internal accessories and the possibility of combination with auxiliary releases and auxiliary/alarm switches depend on the installation position and frame size of the molded case circuit breaker (see figure entitled "Equipment options for the insulated accessory compartments in the 3VL molded case circuit breakers according to UL").

PLC control

The auxiliary and alarm switches are suitable for PLC control.

Leading auxiliary switches

The leading auxiliary switches from OFF to ON or from ON to OFF are available as retrofit kits and for Max-Flex operating mechanisms.

Function

Current limiting[1)]

3VL molded case circuit breakers according to UL are designed on the principle of magnetic repulsion of the contacts.
The contacts open before the expected peak value of the short-circuit current is reached. The current-limiting effects of the 3VL molded case circuit breakers according to UL protect the system components effectively against thermal and dynamic effects of the short-circuit current in the event of an electrical fault.

Ground-fault protection

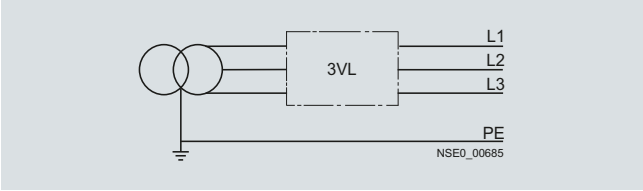
The ground-fault release "G" captures fault currents escaping to ground that can cause fires in the plant. Several molded case circuit breakers connected in series can be assigned graduated discrimination by means of the adjustable delay time.

The following measurement methods can be used to detect neutral conductor and ground-fault currents:

Vectorial summation current formation (measurement method 1)

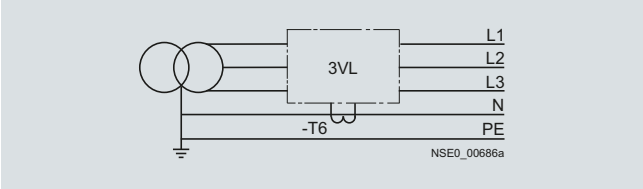
Ground-fault detection in balanced systems

The three phase currents are evaluated using vectorial summation current formation.



Ground-fault detection in unbalanced systems

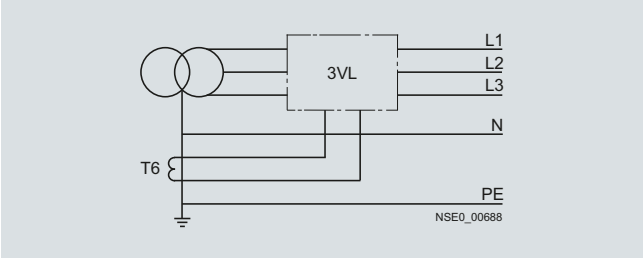
The neutral conductor current is measured directly and, in the case of the 3-pole circuit breakers, is only evaluated for ground-fault protection.
The overcurrent release calculates the ground-fault current using the vectorial summation of the three phase currents and the neutral conductor current.



3-pole molded case circuit breaker, current transformer in neutral conductor

Direct detection of the ground-fault current via a current transformer at the grounded neutral point of the transformer (measurement method 2)

The current transformer is installed directly at the grounded neutral point of the transformer.



3-pole molded case circuit breaker, current transformer at the grounded neutral point of the transformer

Transformer protection

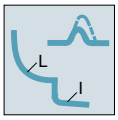
The 3VL molded case circuit breakers according to UL protect power distribution systems in the event of overload and short circuit as from the low-voltage side of the infeed transformer. The resulting requirements for current and/or time-based discrimination are fulfilled reliably by 3VL molded case circuit breakers according to UL for line protection – equipped with thermal-magnetic (TM) or Electronic Trip Units (ETU or LCD ETU).

[1)] Not current-limiting in terms of "Current limiting according to UL 489".

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General data

Thermal-magnetic releases (TM)



NSE0_00689

Application: line protection – TM, LI/LIN function

Overload protection, fixed, short-circuit protection, fixed, see "Selection and ordering data" for VL150X UL (CG frame), integrated releases in the circuit breaker enclosure;

KM version.



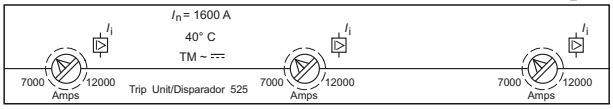
I201_19069

Application: line protection – TM/model 525, LI/LIN function

Overload protection, fixed, short-circuit protection, adjustable I_i = 5 to 10 × I_n [1], for VL150 UL (DG frame) to VL1600 UL (PG frame);

KN version

NSE0_01828



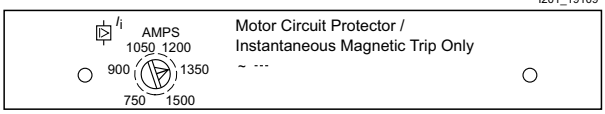

NSE0_00707

Application: Starter protection – M, I function

Short-circuit protection, adjustable I_i = 3 to 16 × I_n [1], for VL150 UL (DG frame) to VL1200 UL (NG frame);

KJ, KK, KL versions.

I201_19109




NSE0_00708

Application: Switch disconnectors in molded case circuit breaker design – M, I function (for intrinsic protection)

Short-circuit protection, fixed

KE version

[1] Size-dependent, see "Selection and ordering data".

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Electronic Trip Units (ETU)

For types VL150 UL (DG frame) to VL1600 UL (PG frame)

General information:

- No auxiliary voltage required for release system
- All ETUs have a thermal image
- A flashing green LED indicates correct operation of the microprocessor
- Overload status ($I > 1.05 \times I_r$) is indicated by a permanently lit yellow LED (alarm)
- Integral self-test function
- Socket for battery power supply
- Communication link to PROFIBUS DP and Modbus RTU possible



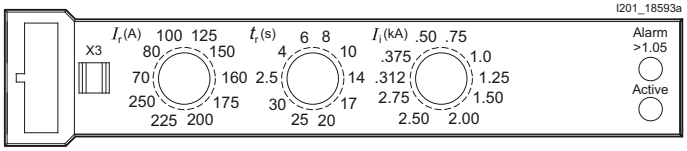
NSE0_00691

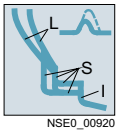
Application: line protection – model 555, LI function

Overload protection I_r = 0.28 to 1 × I_n [1], time-lag class t_r = 2.5 to 30

Short-circuit protection (instantaneous) I_i = 1.25 to 11 × I_n [1];

PB version





NSE0_00920

Application: Line and generator protection – model 555, LSI function

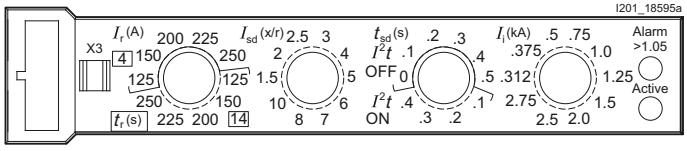
Overload protection I_r = 0.4 to 1 × I_n [1],

Short-circuit protection (short-time delay) I_{sd} = 1.5 to 10 × I_R [1], t_{sd} = 0 to 0.5 s,

I^2t on/off selectable

Short-circuit protection (instantaneous) I_i = 1.25 to 11 × I_n (fixed) [1]

PE version





NSE0_00693

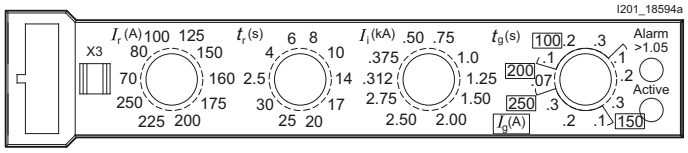
Application: line protection – model 555, LIG function

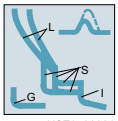
Overload protection I_r = 0.28 to 1 × I_n [1], time-lag class t_r = 2.5 to 30

Short-circuit protection (instantaneous) I_i = 1.25 to 11 × I_n [1]

Ground-fault protection: Measurement method No. 1:
(G_R) vectorial summation current formation of the currents in the three phases and the neutral conductor
(4-wire systems); I_g = 0.4 to 1 × I_n [1]

PD version





NSE0_00921

Application: Line and generator protection – model 555, LSIG function

Overload protection I_r = 0.4 to 1 × I_n [1],

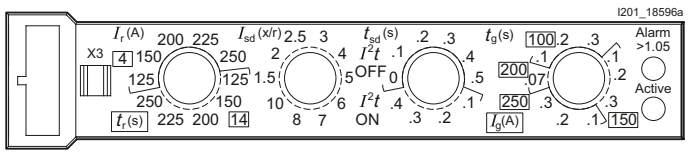
Short-circuit protection (short-time delay) I_{sd} = 1.5 to 10 × I_r [1], t_{sd} = 0 to 0.5 s,

I^2t on/off selectable

Short-circuit protection (instantaneous) I_i = 1.25 to 11 × I_n [1]

Ground-fault protection: Measurement method No. 1:
(G_R) vectorial summation current formation of the currents in the three phases and the neutral conductor
(4-wire systems); I_g = 0.4 to 1 × I_n [1]

PH version



[1] Size-dependent, see "Selection and ordering data".

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General data

Electronic Trip Units with LCD (LCD ETU)

General information:

- No auxiliary voltage required for release system
- Current display
- An illuminated green LCD display indicates correct operation of the microprocessor
- Overload status (I > 105% I_r) is indicated by "Overload" on the LCD display
- Direct, user-friendly, menu-driven setting of the absolute values of the protection parameters in the ampere values via keys
- Integral self-test function
- Socket for battery power supply
- Communication link to PROFIBUS DP and Modbus RTU possible



NSE0_00691

Application:
Line protection – model 586, LI function

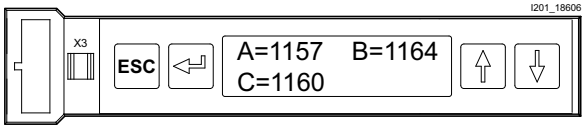
Overload protection I_r = 0.4 to 1 × I_n,
time-lag class t_r = 2.5 to 30

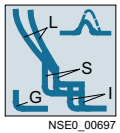
Thermal image selectable on/off

Short-circuit protection (short-time delay)
I_{sd} = 1.25 to 10 × I_R[1], t_{sd} = 0 to 0.5 s,
I^2t on/off selectable

Short-circuit protection (instantaneous)
I_i = 1.25 to 11 × I_n[1]

VH version





NSE0_00697

Application:
line protection – model 586, LSIG function

Overload protection I_r = 0.4 to 1 × I_n,
time-lag class t_r = 2.5 to 30

Thermal image selectable on/off

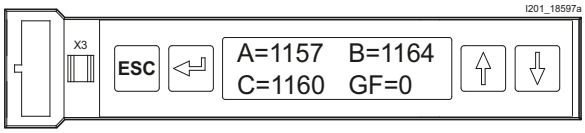
Short-circuit protection (short-time delay)
I_{sd} = 1.25 to 10 × I_R[1], t_{sd} = 0 to 0.5 s,
I^2t on/off selectable

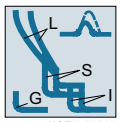
Short-circuit protection (instantaneous)
I_i = 1.25 to 11 × I_n[1]

Ground-fault protection: Measurement method No. 1:
(G_R) vectorial summation current formation of the currents in the three phases and the neutral conductor (4-wire systems);
I_g = 0.4 to 1 × I_n[1].

Measurement method No. 2:
(G_{GND}) direct measurement of the ground-fault current using a current transformer, I_g = 0.4 to 1 × I_n,
t_g = 0.1 to 0.5 s.

VM version





NSE0_00697

Application: line protection – model 586,
LSI G (alarm) function

Overload protection I_r = 0.4 to 1 × I_n,
time-lag class t_r = 2.5 to 30

Thermal image selectable on/off

Short-circuit protection (short-time delay)
I_{sd} = 1.25 to 10 × I_R[1], t_{sd} = 0 to 0.5 s,
I^2t on/off selectable

Short-circuit protection (instantaneous)
I_i = 1.25 to 11 × I_n[1]

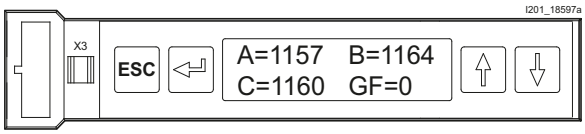
Ground-fault protection:

Measurement method No. 1:
(G_R) vectorial summation current formation of the currents in the three phases and the neutral conductor (4-wire systems);
I_g = 0.4 to 1 × I_n[1].

Measurement method No. 2:
(G_{GND}) direct measurement of the ground-fault current using a current transformer, I_g = 0.4 to 1 × I_n,
t_g = 0.1 to 0.5 s.

If a ground fault is detected, the LCD ETU only issues an alarm, without tripping the circuit breaker. This alarm is displayed direct on the display and/or is communicated to higher-level systems via PROFIBUS DP/Modbus RTU.

VJ version



[1] Size-dependent, see "Selection and ordering data".

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Configuration

Communication

All 3VL molded case circuit breakers according to UL 489 with Electronic Trip Unit (ETU) are communication-capable. To this end, the molded case circuit breaker's ETU is connected to a COM20 or COM21 communication module by means of a cable. The COM20 module (Release 2) supports the PROFIBUS DP protocol, while the COM21 module (Release 2) enables data transfer via Modbus RTU.

A communication kit – COMKIT 3 to 8 – is needed to connect the 3VL molded case circuit breaker (see page 2/187).

The COMKITs consist of a connecting cable including a protective cover and also one alarm and auxiliary switch each for installation in the molded case circuit breaker.[1] These are also connected to the electronic trip unit and signal the ON/OFF/TRIPPED circuit breaker status to the electronic trip unit.

The communication modules enable activation and deactivation of an optional motorized operating mechanism.

	Data transmission through COM20/COM21 (Release 2)
Data transferred	
Commands	
Closing or opening	✓
Deleting alarm and tripping operation buffer and also maintenance information	✓
Operating states[2]	
ON or OFF status trip position	✓
Event messages	
Tripped messages with tripping current	✓
Alarms (e.g. overload, phase unbalance current, etc.)	✓
Threshold violation (e.g. phase currents)	✓
Measured values	
Phase currents and neutral conductor current	✓
Parameter values	
Reading and writing	✓
Maintenance information	
(e.g. number of trips, number of switching operations)	✓
Data for device identification	✓
Clock synchronization	✓

✔ Available

Function	COM20/21 (Release 2) module with overcurrent release version	
	ETU	LCD ETU
Functions of communication components		
Transfer of the operating state (ON, OFF, tripped, warnings, tripped causes, event log, etc.) to the PROFIBUS	✓	✓
Display of measured values (current only) and parameters in the release, modifying parameters via the display	--	✓[3]
Transferring the maximum value of the actual current in %	✓	✓
Transferring the individual actual phase currents	✓	✓
Transferring PROFIBUS identification data	✓	✓
Reading protection parameters via PROFIBUS/Modbus	✓	✓
Reading and setting protection parameters via PROFIBUS/Modbus	--	✓

✓ Function available.

Function can optionally be adopted by several trip units.

-- Function not available

1) Only an alarm switch is included with the COMKITs 3 and 6 because the auxiliary switch in the case of DG and FG frame sizes of the 3VL molded case circuit breakers is already included in the magnetic release (Maglatch).

2) Only in the case of built-in auxiliary switches connected to COM20/21 (Release 2)

3) COM20/21 not required

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General data

Switching direct current

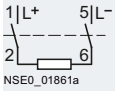
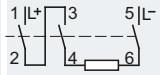
The VL150X UL (CG frame) to VL1600 UL (PG frame) molded case circuit breakers for line protection with thermal-magnetic trip units, for starter combinations, and for non-automatic air circuit breaker versions are also suitable for switching and protecting direct current.

The maximum permitted DC voltage for each conducting path needs to be taken into account for DC switching applications, however.

Series connection of 2 to 3 conducting paths is required for voltages in excess of 250 V in the case of VL150 UL (DG frame) to VL1600 UL (PG frame).

The following circuits are recommended since the current must flow through all conducting paths in order to conform to the thermal tripping characteristic curves.

The threshold values of the instantaneous short-circuit trip units ("I" trip units) increase by 30 to 40%.

Recommended circuit/maximum permitted DC voltage U_e		**Remarks**
Circuit A	Circuit B	
For 3-pole molded case circuit breakers		
250 V DC  NSE0_01861a	500 V DC rated / 600 V DC max. for use in ungrounded UPS DC applications (according to UL 489, Supplement SC)  NSE0_00741a	2-pole switching (ungrounded system)

Technical specifications

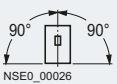
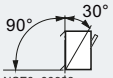
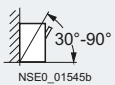
Type				**VL150X UL** CG frame	**VL150 UL** DG frame	**VL250 UL** FG frame	**VL400 UL** JG frame	**VL400X UL** LG frame	**VL800 UL** MG frame	**VL1200 UL** NG frame	**VL1600 UL** PG frame
Max. rated current I_n			A	150	150	250	400	600	800	1200	1600
Rated insulation voltage U_i only in accordance with IEC 60947-2											
Main conducting paths		AC	V	800							
Auxiliary circuits		AC	V	690							
Rated operational voltage U_e											
NEMA	50/60 Hz	AC	V	600							
		DC [1]	V	250	[2]						
IEC	50/60 Hz	AC	V	690							
Utilization category				A							
Permissible ambient temperature											
Operation: 0 °C ... +70 °C for devices with TM release (cf. IEC system manual)			°C	-25 ... +70							
Storage			°C	–40 ... +80							
Permissible load at different ambient temperatures Directly next to the molded case circuit breaker, referred to the molded case circuit breaker's rated current											
• Molded case circuit breaker for line protection	TM/ETU	Up to 40 °C	%	100	100/100				100/100		100/100
	TM/ETU	At 50 °C	%	93	93/100				94/100		92/100
	TM/ETU	At 60 °C	%	86	86/95				88/95		83/95
	TM/ETU	At 70 °C	%	79	79/80				82/80		75/80
• Molded case circuit breaker for starter combinations and non-automatic air circuit breakers		Up to 40 °C	%	100							
		At 50 °C	%	100							
		At 60 °C	%	93							
		At 70 °C	%	86							
Weight data of 3-pole molded case circuit breakers											
Basic circuit breaker											
• With thermal-magnetic release			kg	2.5	2.2	2.3	5.7	9.0	14.0	21.8	32.8
• With electronic trip unit			kg	--	2.4	2.5	5.9	9.3	16.0	25.0	31.3
Rated short-circuit breaking capacity				For rated short-circuit breaking capacity, see under "Overview" in table.							

[1] DC rated data applies to thermal-magnetic releases only.

[2] 500 V DC rated / 600 V DC max. for use in ungrounded UPS DC applications (according to UL 489, Supplement SC)

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Type			VL150X UL CG frame	VL150 UL DG frame	VL250 UL FG frame	VL400 UL JG frame	VL400X UL LG frame	VL800 UL MG frame	VL1200 UL NG frame	VL1600 UL PG frame
Endurance	Switching cycles		20000				10000		3000	
Electrical endurance	Switching cycles		10000				5000	3000	1500	
Max. switching frequency	1/h		120				60		30	
Connection types			See "Main connections, basic equipment and options"							
Connection cross-sections for stranded cables										
Box terminal (Cu)	AWG/kcmil		1 x (14 ... 1/0)	1 x (8 ... 1/0)	1 x (3 ... 250)	1 x (1/0 ... 600)	--			
	mm^2		1 x (2.5 ... 50)	1 x (10 ... 50)	1 x (35 ... 120)	1 x (70 ... 300)	--			
Circular conductor terminal (Cu/Al)	AWG/kcmil		1 x (6 ... 3/0)		1 x (4 ... 350)	1 x Cu: 3/0 ... 600 Al: 250 ... 750		--		
	mm^2		1 x (16 ... 70)		1 x (25 ... 150)	1 x Cu: 95 ... 300 Al: 150 ... 300		--		
Circular conductor terminal with terminal cover (Cu/Al) • Terminal with auxiliary conductor connection up to 0.5 A • Aluminium terminals with control cable connection	AWG/kcmil		--	1 x (6 ... 300)	--					
	mm^2		--	1 x (16 ... 150)	--					
Multiple feed-in terminal (Cu/Al)	AWG/kcmil		--			2 x (3/0 ... 250)	2 x (2 ... 600)	2 x (500 ... 750)	--	
	mm^2		--			2 x (95 ... 120)	2 x (35 ... 300)	2 x 300	--	
	AWG/kcmil		--					3 x (1/0 ... 500)	3 x (500 ... 750)	--
	mm^2		--					3 x (70 ... 240)	3 x 300	--
	AWG/kcmil		--					--	4 x (1/0 ... 500)	--
	mm^2		--					--	4 x (70 ... 240)	--
	AWG/kcmil		--					--		4 x (600 ... 750)
	mm^2		--					--		4 x 300
Multiple feed-in terminal with terminal cover • Terminal with auxiliary conductor connection up to 0.5 A • Aluminium terminals with control cable connection	AWG/kcmil		--			2 x (2 ... 600)	--			
	mm^2		--			2 x (35 ... 300)	--			
Direct connection of busbars (Cu/Al, for IEC only)	mm		17 x 7	22 x 7	24 x 7	32 x 10	32 x 10	2 x 40 x 10	2 x 50 x 10	3 x 60 x 10
Screw for connection with screw terminal, metric			M 6		M 8		M10	M 8		
	inch		--	10-32 UNF	5/16	--	3/8	5/16		
Power losses per molded case circuit breaker at max. rated current										
Line protection	TM	W	17 ... 36	15 ... 48	32 ... 80	60 ... 175	85 ... 230	194 ... 269	150 ... 204	204 ... 329
Line protection	ETU or LCD ETU	W	--	6 ... 40	11 ... 60	38 ... 90	71 ... 160	140 ... 250	93 ... 210	146 ... 260
For starter combinations or non-automatic air circuit breakers		W	36	40	60	90	160	250	210	260
Permissible mounting position[1]			 NSE0_00026	 NSE0_00923	 NSE0_01545b					

[1] For VL800 UL (MG frame) to VL1600 UL (PG frame) molded case circuit breakers with withdrawable unit frame in lateral installation position. Adapter set on request.

[2] Permissible current load factor 0.9; with internal accessories only.

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Product discontinuation

General data

Type			VL150X UL CG frame	VL150 UL DG frame	VL250 UL FG frame	VL400 UL JG frame	VL400X UL LG frame	VL800 UL MG frame	VL1200 UL NG frame	VL1600 UL PG frame
Auxiliary switches and alarm switches										
Conventional free-air thermal current I_{th}		A	10							
Rated making capacity		A	10							
AC										
Rated operational voltage		V	24	48	110	230	400	600	--	
Rated operational current	AC-12	A	10						--	
	AC-15	A	6				3	1	--	
DC										
Rated operational voltage		V	24	48	110	230	--			
Rated operational current	DC-12	A	10	5	2.5	1	--			
	DC-13	A	3	1.5	0.7	0.3	--			
Back-up fuse/miniature circuit breaker		A	10 TDz / 10							
Leading auxiliary switch in rotary mechanism										
Thermal rated current I_{th}		A	2							
Rated making capacity		A	2 (ind. 0.5)							
Rated operational voltage		V AC	230							
Rated operational current		A	2							
Rated breaking capacity, inductive, p.f. = 0.7		A	0.5							
Rated breaking capacity		A	2							
Quick-response short-circuit fuse		A	2							
Position signaling switches										
Thermal rated current I_{th}		A	16		--					
Rated making capacity		A	16	10	--					
Rated operational voltage		V AC	250	400	--					
Rated operational current		A	16	10	--					
Rated breaking capacity, inductive, p.f. = 0.7		A	4		--					
Rated breaking capacity		A	16	10	--					
Quick-response short-circuit fuse		A	16	10	--					

			Family 1: VL150X UL (CG frame) to VL400X UL (LG frame)	**Family 2: VL800 UL (MG frame) to VL1600 UL (PG frame)**
Releases				
Undervoltage releases				
Response voltage:				
• Release (circuit breaker trips)		V	0.35 ... 0.70 × U_s	0.35 ... 0.70 × U_s
• Pick-up (circuit breaker can be switched on)		V	0.85 ... 1.1 × U_s	0.85 ... 1.1 × U_s
Power consumption (continuous operation) at:				
• 24 V AC 50/60 Hz[1]		VA	1.4	--
• 110 ... 127 V AC 50/60 Hz		VA	1.0	1.8
• 220 ... 250 V AC 50/60 Hz		VA	1.0	1.8
• 208 V AC 50/60 Hz		VA	1.0	1.8
• 277 V AC 50/60 Hz		VA	1.0	1.8
• 380 ... 415 V AC 50/60 Hz		VA	1.0	1.8
• 440 ... 480 V AC 50/60 Hz		VA	1.0	1.8
• 500 ... 525 V AC 50/60 Hz		VA	1.0	--
• 12 V DC		W	0.8	1.5
• 24 V DC		W	0.8	1.5
• 48 V DC		W	0.8	1.5
• 60 V DC		W	0.8	1.5
• 110 ... 127 V DC		W	0.8	1.5
• 220 ... 250 V DC		W	0.8	1.5
Max. opening time		ms	50[2]	80
Shunt releases				
Response voltage:			U_s	U_s
Pick-up (circuit breaker trips)		V	0.7 ... 1.1	0.7 ... 1.1
Power consumption **(short-time)** at:				
• 24 V AC 50/60 Hz		VA	310	330
• 48 ... 60 V AC 50/60 Hz		VA	335 ... 465	380 ... 460
• 110 ... 127 V AC 50/60 Hz		VA	470 ... 630	330 ... 430
• 208 ... 277 V AC 50/60 Hz		VA	585 ... 1000	520 ... 800
• 380 ... 600 V AC 50/60 Hz		VA	180 ... 500	228 ... 750
• 24 V DC		W	360	385
• 48 ... 60 V DC		W	380 ... 590	480 ... 720
• 110 ... 127 V DC		W	506 ... 680	362 ... 424
• 220 ... 250 V DC		W	470 ... 580	418 ... 476
Max. opening time		ms	50	50
Max. in-service period		s	interrupts automatically, less than 10 ms	interrupts automatically, less than 10 ms

[1] On request.

[2] 3VL9400-1UP01: 15 ms

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Type		VL150X UL CG frame	VL150 UL DG frame	VL250 UL FG frame	VL400 UL JG frame	VL400X UL LG frame	VL800 UL MG frame	VL1200 UL NG frame	VL1600 UL PG frame
Motorized operating mechanisms		--						x	
Motorized operating mechanism with spring energy store (synchronizable)		x						--	
Motorized operating mechanism									
Power consumption	VA/W	--						< 250	
Rated control supply voltage U_s	50/60 Hz V AC	--						42 ... 48/60	110 ... 127/220 ... 250
	V DC	--						24 / 42 ... 48/60	110 ... 127/220 ... 250
Fusible link (operational class gG, slow-blow characteristic)	A	--						4	2
Miniature circuit breakers	A	--						4	2
Primary operating range	V	--						0.85 ... 1.1 x U_s	
Min. command duration U_s	ms	--						50	
Max. command duration, connection-dependent[1]		Jog/pushbutton or continuous command			--			Jog/pushbutton or continuous command	
Total make time	s	--						< 5	
Break time	s	--						< 5	
Interval between the commands OFF and ON	s	--						> 5	
Interval between the commands ON and OFF	s	--						> 5	
Max. permissible switching frequency	1/h	--						30	
Motorized operating mechanism with spring energy store (synchronizable)									
Power consumption	VA/W	< 100			< 200	< 250		--	
Rated control supply voltage U_s	50/60 Hz V AC	42 ... 48 / 60			110 ... 127 / 220 ... 250			--	
	V DC	24 / 42 ... 48 / 60			110 ... 127 / 220 ... 250			--	
Fusible link (operational class gG, slow-blow characteristic)	A	4			2			--	
Miniature circuit breakers	A	4			2			--	
Primary operating range	V	0.85 ... 1.1 x U_s						--	
Min. command duration U_s	ms	50						--	
Max. command duration, connection-dependent[1]		Jog/pushbutton or continuous command						--	
Total make time	ms	< 100						--	
Break time	s	< 5						--	
Interval between the commands OFF and ON	s	> 5						--	
Interval between the commands ON and OFF	s	> 1						--	
Max. permissible switching frequency	1/h	120				60		--	

x Available

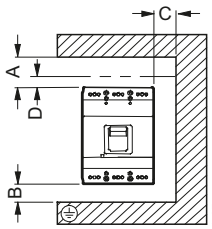
-- Not available

[1] Changeover contact also permissible, but note the interval times between ON and OFF.

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General data

Space requirement above arc chutes, safety clearance (applicable to IEC application)



Arcing spaces
Minimum clearances from adjacent grounded parts and non-insulated live parts.

Inside the arcing space, bare conductors and bars must be insulated with phase barriers.

For bare conductors and bars outside the arcing space, the specific mounting instructions for the different frame sizes must be observed.

For mounting instructions, see www.siemens.com/lowvoltage/product-support

Space requirement above arcing spaces according to IEC 60947-2

Molded case circuit breakers	Breaking capacity	Minimum enclosure volume	A			B	C	D
			≤ 415 V	> 415 ... 690 V	> 415 ... 690 V	≤ 690 V	≤ 690 V	≤ 690 V
Type		m^3	without/with terminal cover	without terminal cover	with terminal cover			
VL150X UL (CG frame)	Standard High Very high	0.011	35	70	35	25	25	35
VL150 UL (DG frame)	Standard High Very high	0.011	50	100	50	25	25	35
VL250 UL (FG frame)	Standard High Very high	0.015	50	100	50	25	25	35
VL400 UL (JG frame)	Standard High Very high	0.036	50	100	50	25	25	35
VL400X UL (LG frame)	Standard High Very high	0.18	50	100	50	25	25	35
VL800 UL (MG frame)	Standard High Very high	0.22	50	100	50	25	25	35
VL1200 UL (NG frame)	Standard High Very high	0.22	70	100	70	30	30	50
VL1600 UL (PG frame)	Standard High Very high	0.264	100	100	100	100	30	100

Definition of permissible safety clearances

Clearance between

A: molded case circuit breaker and busbars (uninsulated and grounded metal); terminal cover required above 600 V AC, 500 V DC

B: molded case circuit breaker terminal and lower panel

C: side of the molded case circuit breaker and side panels (uninsulated and grounded metal)

D: molded case circuit breaker and non-conductive parts with at least 3 mm thick insulation (insulator, insulated bar, painted plate)

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Characteristic curves

Characteristic curves and certificates

- General information:

  The specified tripping values of the inverse-time delayed overcurrent releases (thermal releases, "L" releases) are average values of the scatter bands of all setting ranges out of the cold state and with equal loading of the conducting paths.

  The tripping characteristic curves of the instantaneous (electromagnetic) short-circuit releases ("I" releases) are based on the rated phase current I_n.

- The following applies to thermal-magnetic releases (TM):

  The characteristic curves apply to the cold state; at operating temperature, the tripping times of the thermal releases drop to approximately 25%.

  In normal operation the device must be loaded at 3 poles.

- Releasing characteristics of VL150 UL (DG frame) to VL1600 UL (PG frame) molded case circuit breakers for generator protection with electronic trip units.

  The tripping times of the inverse-time delayed overcurrent releases are only valid for the previously unloaded (cold) state. At operating temperature (after loading with rated current), tripping times drop to about 33%. After tripping due to overcurrent, the tripping times are reduced according to the tripping time response so that a few minutes of cooling time are needed after renewed motor starting.

  Detailed time/current characteristic curves, current-limiting characteristic curves, I^2t characteristic curves and certificates can be requested via "Technical Assistance" (Email: support.automation@siemens.com) or can be downloaded from the following Internet pages:
  At the Service & Support portal
  www.siemens.com/lowvoltage/product-support
  www.siemens.com/lowvoltage/technical-support

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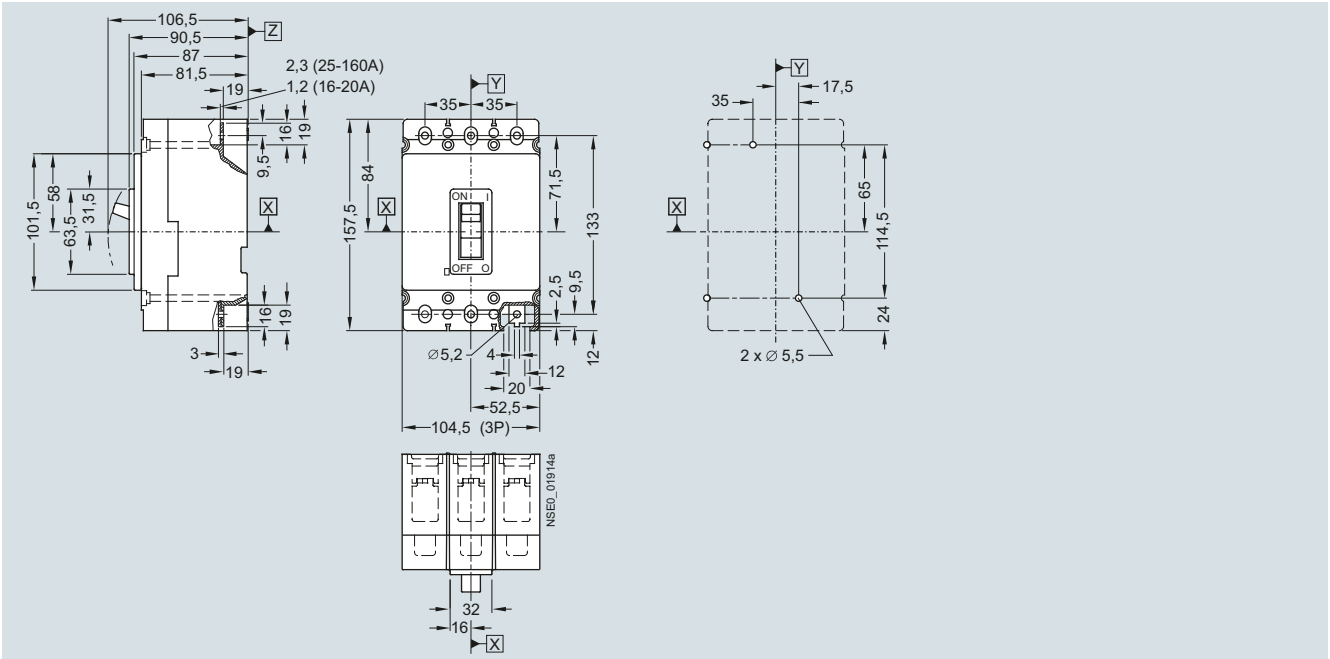
2

Dimensional drawings

VL150X UL (CG frame), 3-pole, up to 150 A

Molded case circuit breakers

VL150X UL (CG frame) molded case circuit breaker Molded case circuit breaker installation note



VL150 UL (DG frame), 3-pole, up to 150 A
VL250 UL (FG frame), 3-pole, up to 250 A

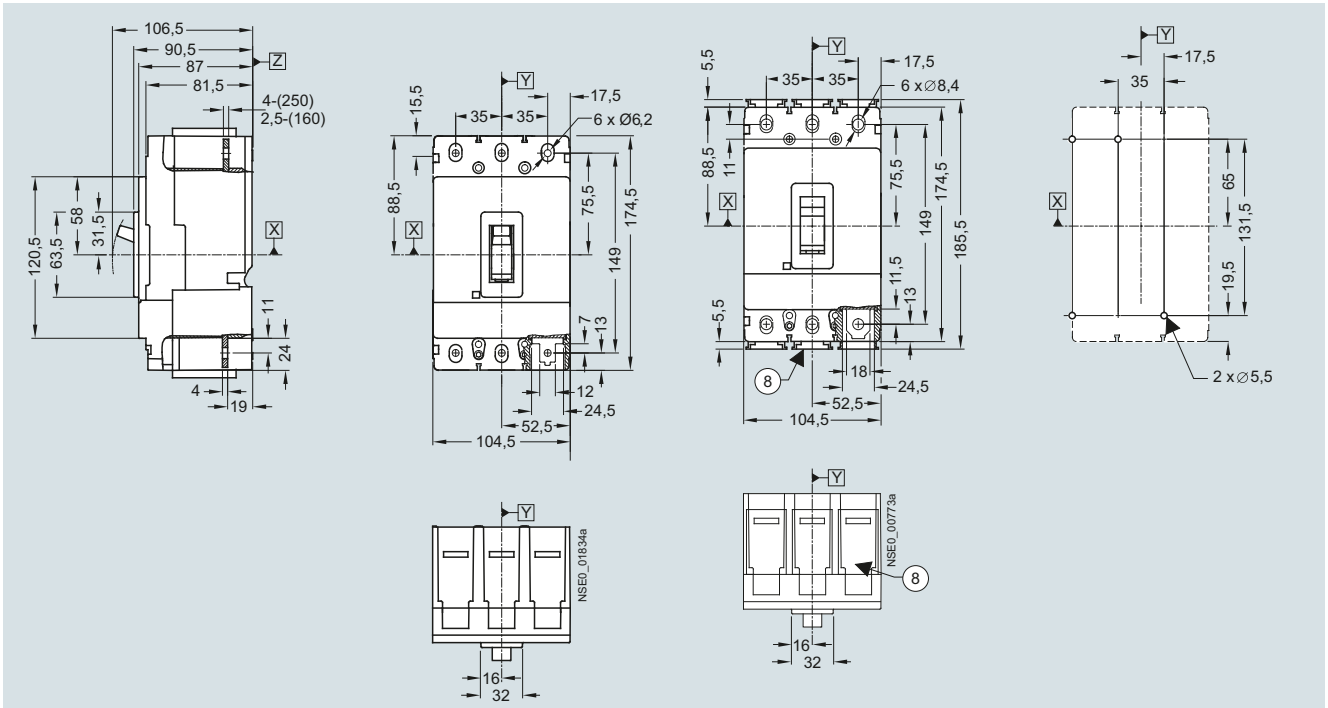
Molded case circuit breakers

Molded case circuit breaker VL150 UL/VL250 UL (DG frame and FG frame)

Molded case circuit breaker VL150 UL (DG frame)

Molded case circuit breaker VL250 UL (FG frame)

Molded case circuit breaker VL150 UL and VL250 UL (DG frame and FG frame) Installation note



Note:

The 5.5 mm extension at each end of the VL250 UL (FG frame) molded case circuit breaker is only to be observed when using box terminals or circular conductor terminals ⑧.

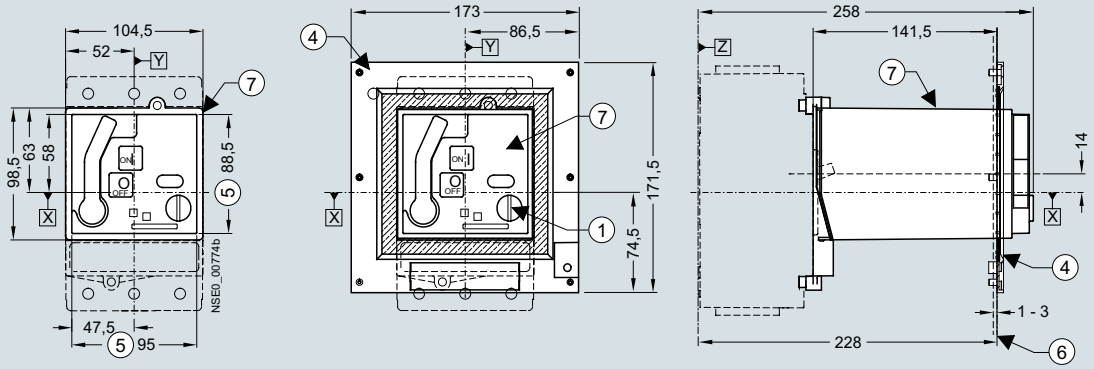
Minimum order quantity (PS) or a multiple thereof can be ordered.

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VL150X UL (CG frame), 3-pole, up to 150 A
VL150 UL (DG frame), 3-pole, up to 150 A
VL250 UL (FG frame), 3-pole, up to 250 A

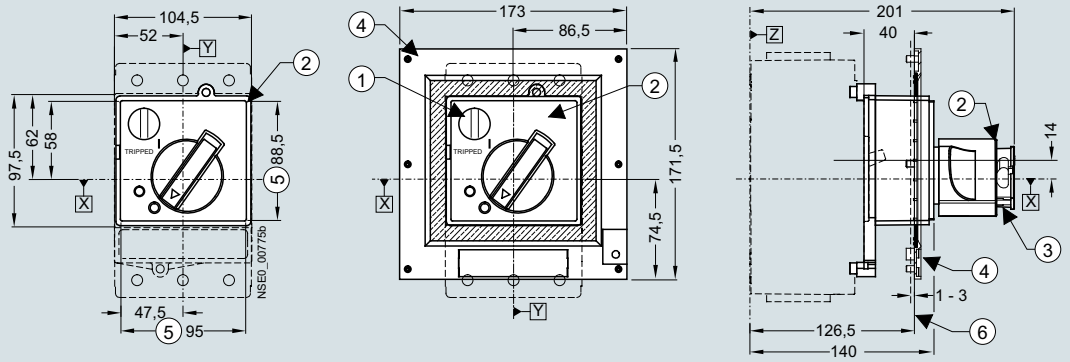
Operating mechanisms

Motorized operating mechanism with spring energy store (3VL9300-3MJ01, 3VL9300-3ML01, 3VL9300-3MS01, 3VL9300-3MN01, 3VL9300-3MQ01)



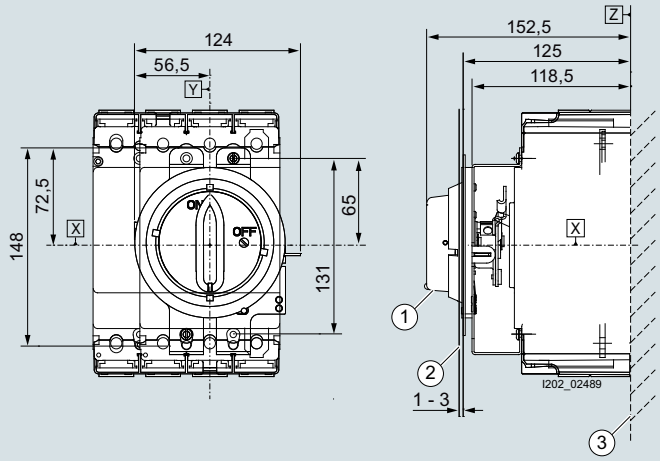
1 Safety locks
4 Masking frame for door cut-out (3VL9300-8BG01)
5 Step for cover
6 Outside surface of cabinet door
7 Motorized operating mechanism with spring energy store

Front-operated rotary operating mechanism (3VL9300-3HA01, 3VL9300-3HC01)



1 Safety locks
2 Front-operated rotary operating mechanism
3 Padlock
4 Masking frame for door cut-out (3VL9300-8BG01)
5 Step for cover
6 Outside surface of cabinet door

Front-operated rotary operating mechanism (3VL9300-3JA01)



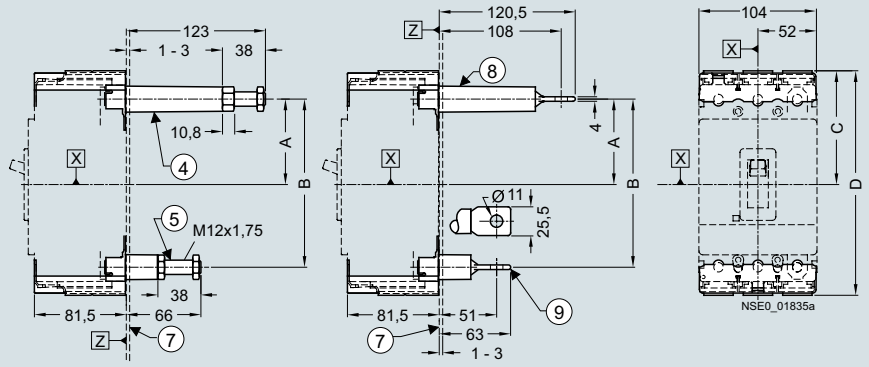
1 Rotary operating mechanism
2 External surface of cabinet door
3 Installation level

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Configuration aids

Connections

Molded case circuit breaker with rear terminals – long and short



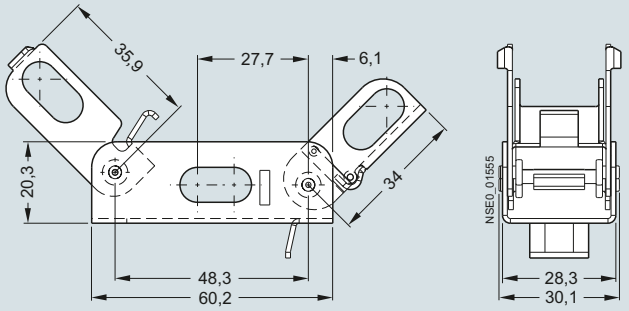
4 Rear connection threaded bolt (long) (3VL9.00-4RB01)
5 Rear connection threaded bolt (short) (3VL9.00-4RA01)
7 Installation level
8 Rear flat terminals (long) (3VL9.00-4RL01)
9 Rear flat terminals (short) (3VL9.00-4RK01)

Type		A	B	C	D
VL150X UL	(CG frame)	71,5	133	96	182
VL150 UL	(DG frame)	75,5	149	101	199
VL250 UL	(FG frame)	75,5	149	101	199

VL150X UL (CG frame), 3-pole, up to 150 A
VL150 UL (DG frame), 3-pole, up to 150 A
VL250 UL (FG frame), 3-pole, up to 250 A

Locking devices

Locking devices for toggle levers (3VL9300-3HL01)



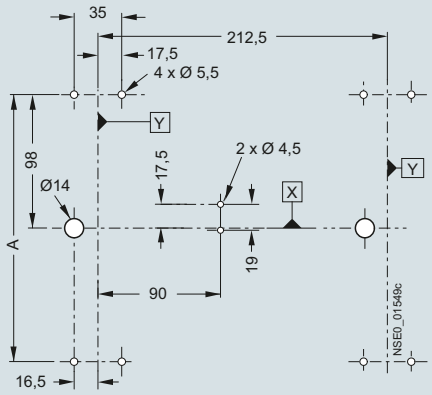
Minimum order quantity (PS) or a multiple thereof can be ordered.

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Rear interlocking modules

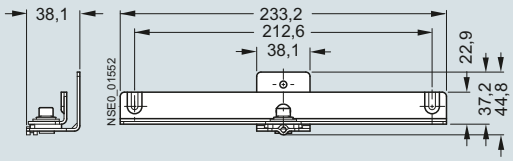
Rear interlocking module for molded case circuit breakers, fixed mounting with front connection (3VL9300-8LC01)

For other detailed dimensional drawings, please refer to the mounting instructions for the rear interlocking module.

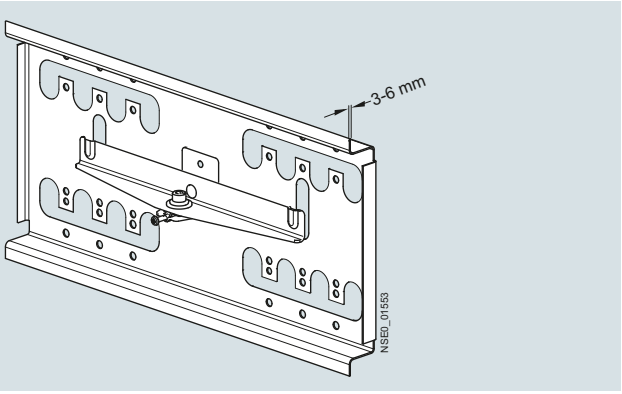


Type	A
VL 150X UL (CG frame) VL 150 UL (DG frame) VL 250 UL (FG frame)	194

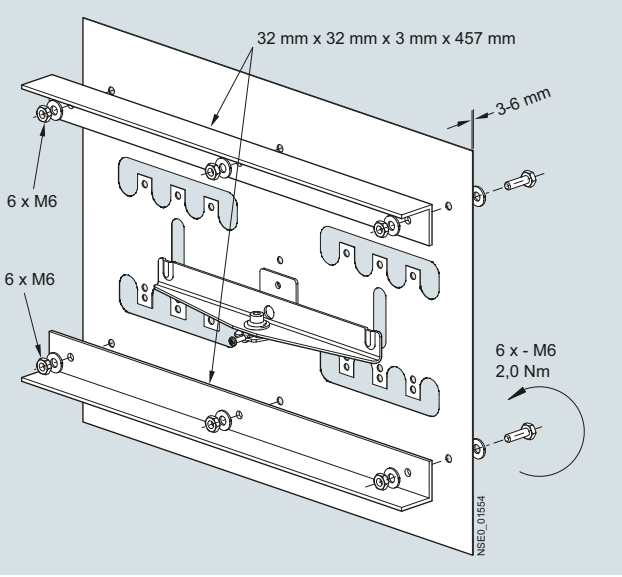
Rear interlocking modules



Mounting plate, example 1, not included in the scope of supply



Mounting plate, example 2, not included in the scope of supply



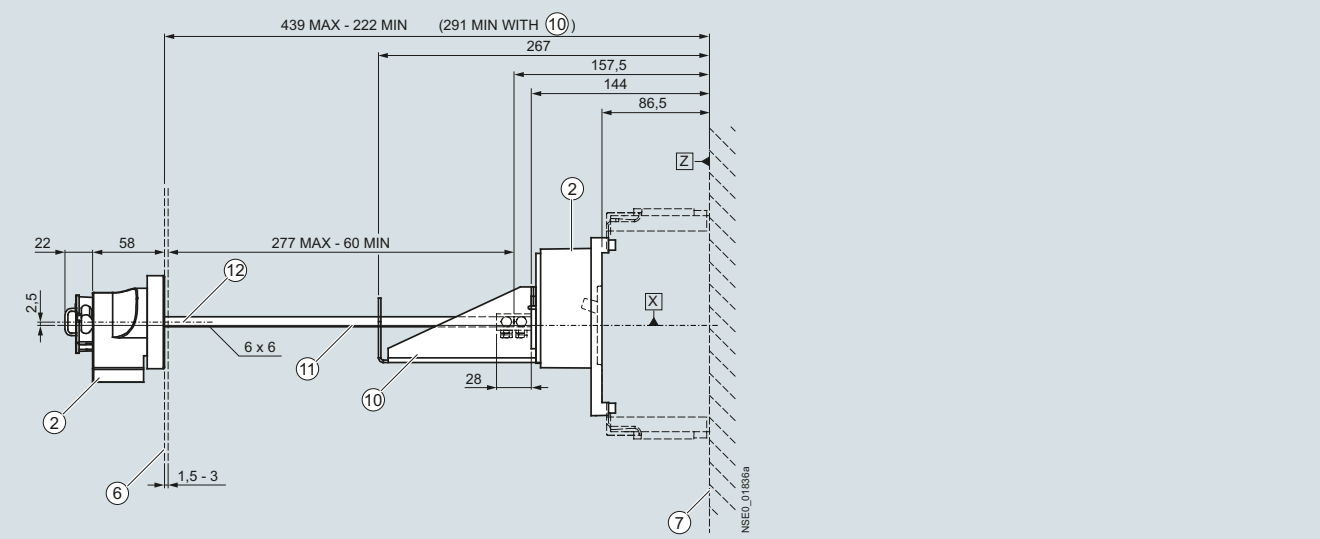
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2

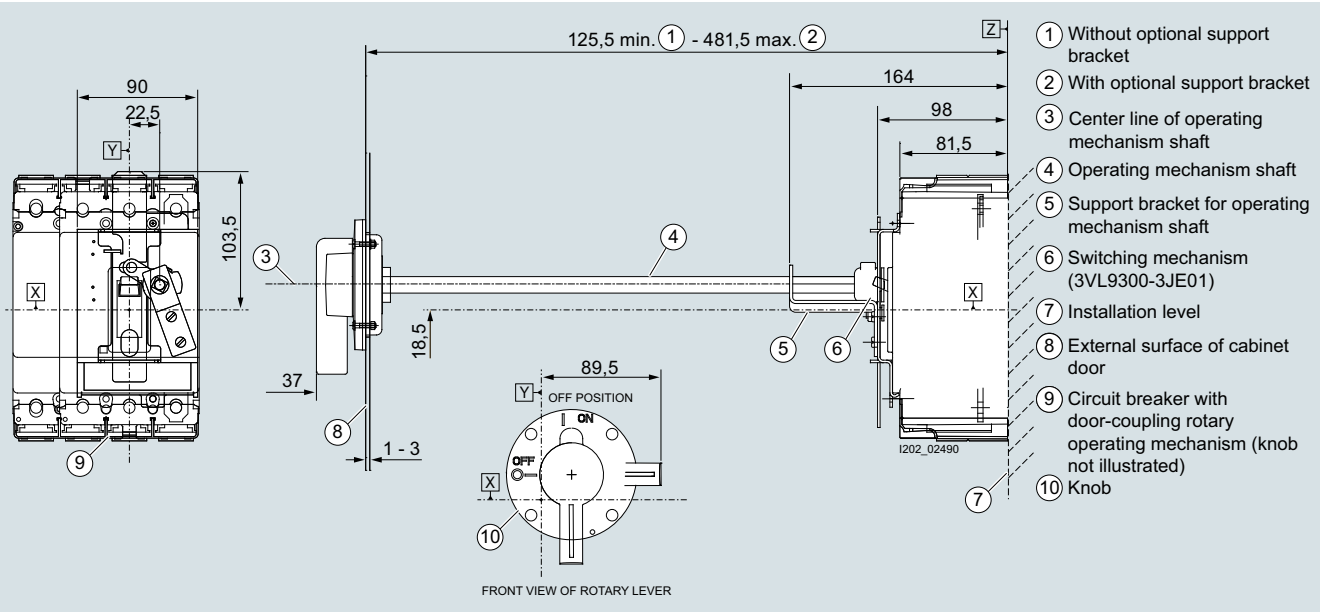
VL150X UL (CG frame), 3-pole, up to 150 A
VL150 UL (DG frame), 3-pole, up to 150 A
VL250 UL (FG frame), 3-pole, up to 250 A

Accessories

Molded case circuit breakers with door-coupling rotary operating mechanism (3VL9300-3HF01, 3VL9300-3HG06)



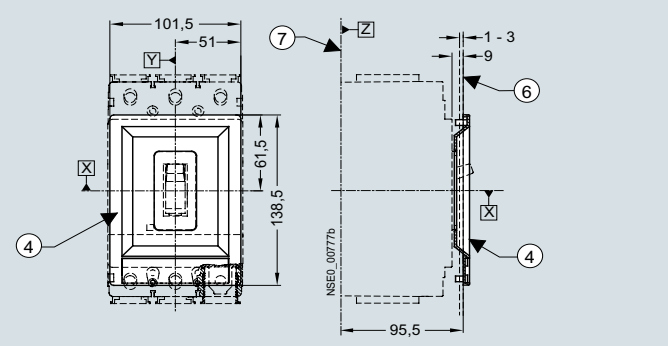
Molded case circuit breakers with door-coupling rotary operating mechanism (3VL9300-3JD01, 3VL9300-3JE01, 3VL9600-3JF11, 3VL9600-3JF01, 3VL9600-3JF41)



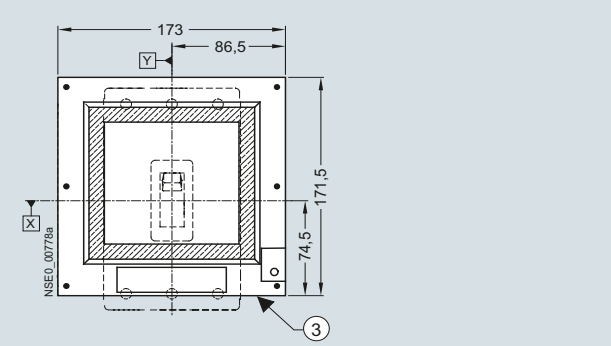
Minimum order quantity (PS) or a multiple thereof can be ordered.

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Masking frame for door cutout for molded case circuit breakers with toggle lever (3VL9300-8BC01)

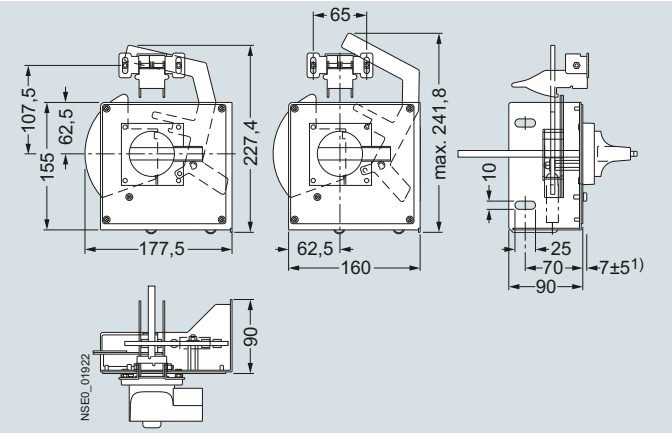


Masking frame for door cutout for molded case circuit breakers with operating mechanism (3VL9300-8BG01)



③ Door-coupling rotary operating mechanism
④ Masking frame for door cutout (for molded case circuit breakers with toggle lever)
⑥ Outer surface of cabinet door
⑦ Installation level

Interlocking module UL 508A, 8UC9400



1) depending on seal

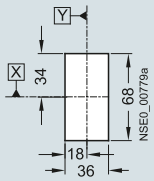
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Configuration aids

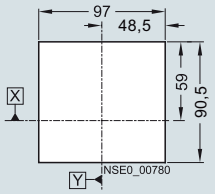
VL150X UL (CG frame), 3-pole, up to 150 A
VL150 UL (DG frame), 3-pole, up to 150 A
VL250 UL (FG frame), 3-pole, up to 250 A

Door cutouts

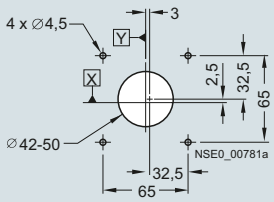
Door cutout toggle lever (without masking frame)



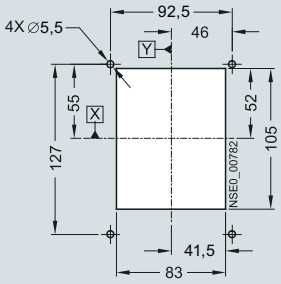
Door cutout front-operated rotary operating mechanism and motorized operating mechanism with spring energy store (without masking frame)



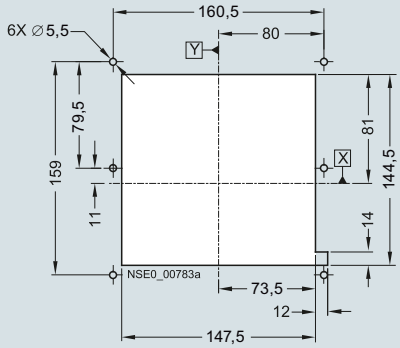
Door cutout Door-coupling rotary operating mechanism



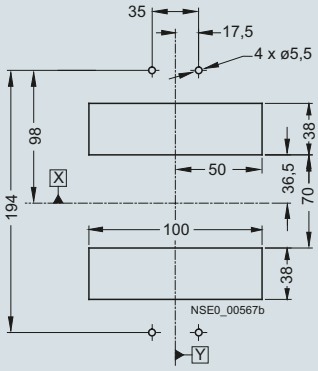
Door cutout toggle lever (with masking frame)



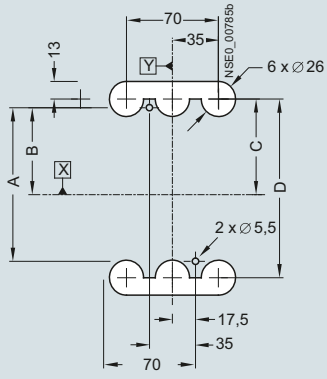
Door cutout front-operated rotary operating mechanism, motorized operating mechanism with spring energy store and extended escutcheon (with masking frame)

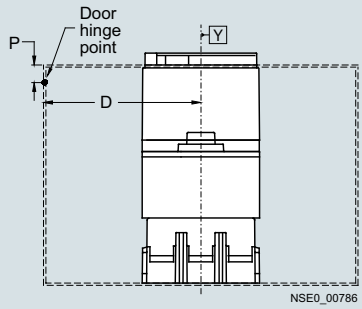


Drilling template and cutout for plug-in base with connecting bars on rear



Drilling template and cutout for rear connection





Note:
A minimum distance between reference point Y and the door hinge is required for the door cut-outs.

D > A from table + (Px5)

Type		A	B	C	D
VL150X UL	(CG frame)	114.5	65	71.5	133
VL150 UL	(DG frame)	131.5	65	75.5	149
VL250 UL	(FG frame)	131.5	65	75.5	149

Combination	A
Molded case circuit breaker only	100
Molded case circuit breaker + plug-in base + motorized operating mechanism with spring energy store	100
Molded case circuit breaker + plug-in base + front-operated rotary operating mechanism	200
Molded case circuit breaker + withdrawable version	200

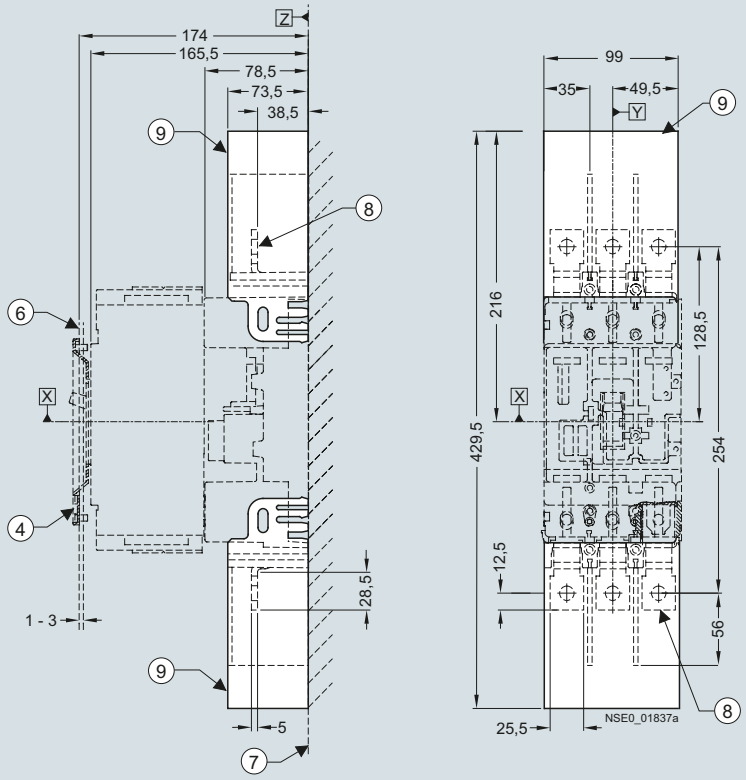
Minimum order quantity (PS) or a multiple thereof can be ordered.

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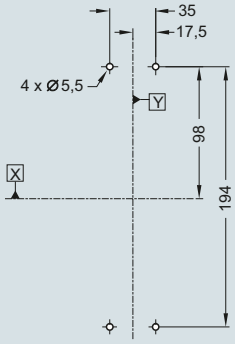
VL150X UL (CG frame), 3-pole, up to 150 A
VL150 UL (DG frame), 3-pole, up to 150 A
VL250 UL (FG frame), 3-pole, up to 250 A

Plug-in base and accessories

Plug-in base with front connecting bars (3VL9100-4PC31, 3VL9200-4PC31, 3VL9300-4PC31)

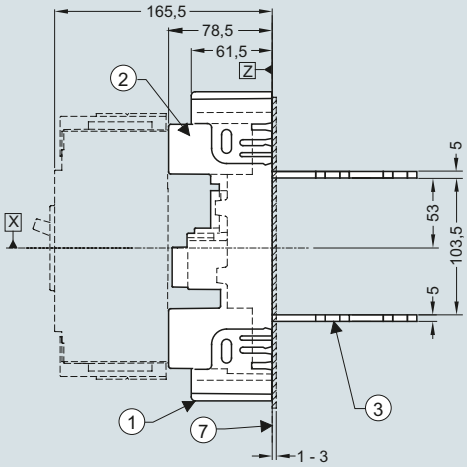


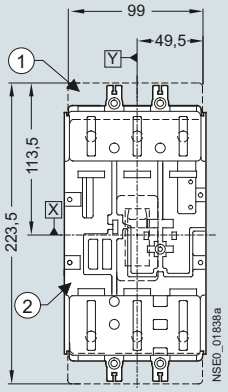
Drilling template for plug-in base with front connecting bars

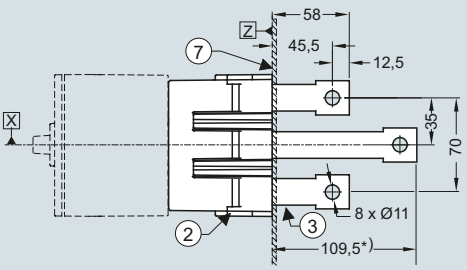


(4) Masking frame for door cutout (for molded case circuit breakers with toggle lever)
(6) Outer surface of cabinet door
(7) Installation level
(8) Plug-in base with front connecting bars
(9) Plug-in base with terminal covers on the front

Plug-in base with rear flat bar connection (3VL9100-4PA31, NEMA Type, 3VL9300-4PA31)







(1) Plug-in base with rear terminal covers
(2) Plug-in base
(3) Plug-in base with rear flat busbar terminals
(7) Installation level
* Extended center phase for 3-pole molded case circuit breakers

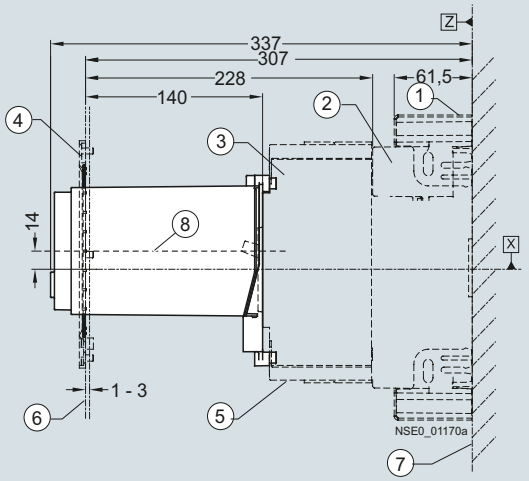
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2

VL150X UL (CG frame), 3-pole, up to 150 A

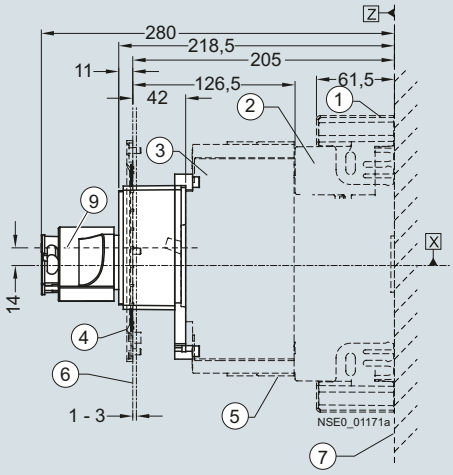
Plug-in base and accessories

VL150X UL (CG frame) molded case circuit breaker with motorized operating mechanism with spring energy store, mounted on plug-in base



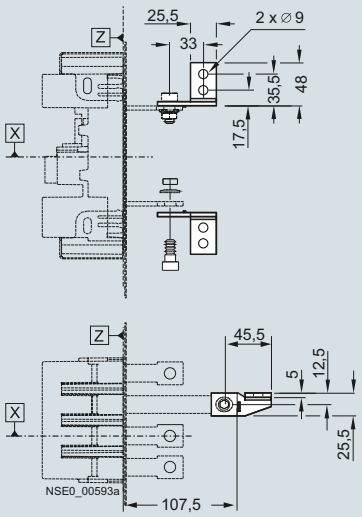
1 Plug-in base with terminal covers
2 Plug-in base
3 Circuit breaker
4 Masking frame for door cut-out (for circuit breaker with toggle lever)
5 Terminal covers (standard)
6 Outside surface of cabinet door
7 Installation level
8 Motorized operating mechanism with spring energy store

VL150X UL (CG frame) molded case circuit breaker with front-operated rotary operating mechanism, mounted on plug-in base



1 Plug-in base with terminal covers
2 Plug-in base
3 Circuit breaker
4 Masking frame for door cut-out (for circuit breaker with toggle lever)
5 Terminal covers (standard)
6 Outside surface of cabinet door
7 Installation level
9 Front-operated rotary operating mechanism

90° angle connecting adapters (3VL9300-4PE31)



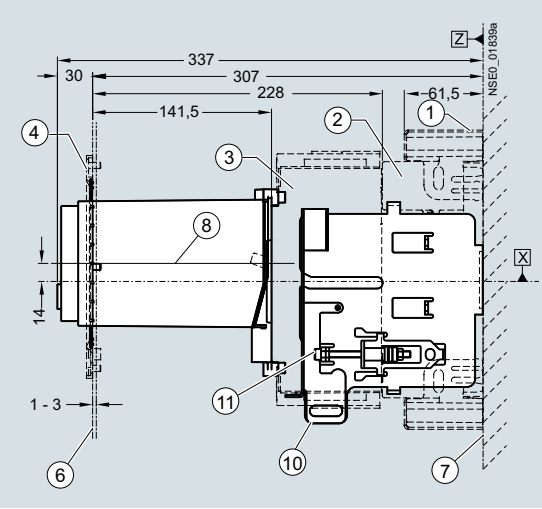
Minimum order quantity (PS) or a multiple thereof can be ordered.

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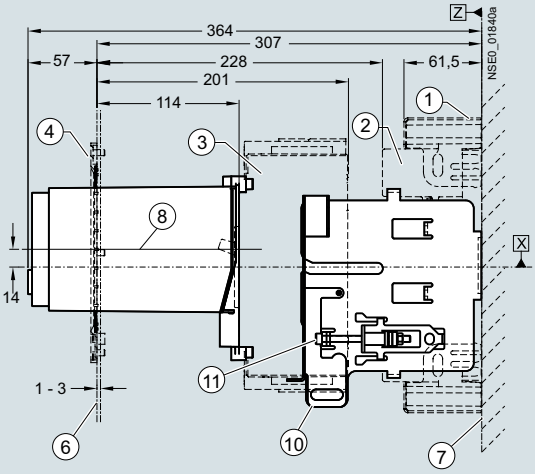
VL150 UL (DG frame), 3-pole, up to 150 A
VL250 UL (FG frame), 3-pole, up to 250 A

Withdrawable version and accessories

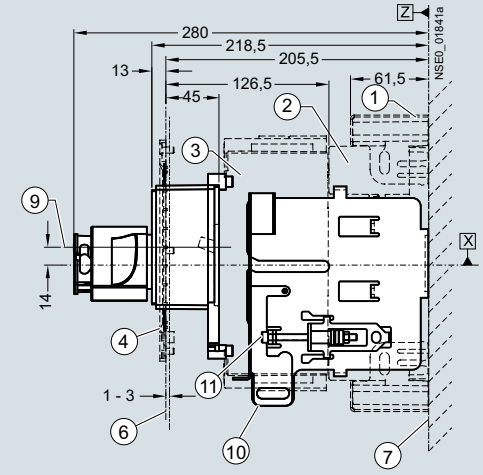
VL150 UL (DG frame) and VL250 UL (FG frame) molded case circuit breaker with motorized operating mechanism with spring energy store (connected position)



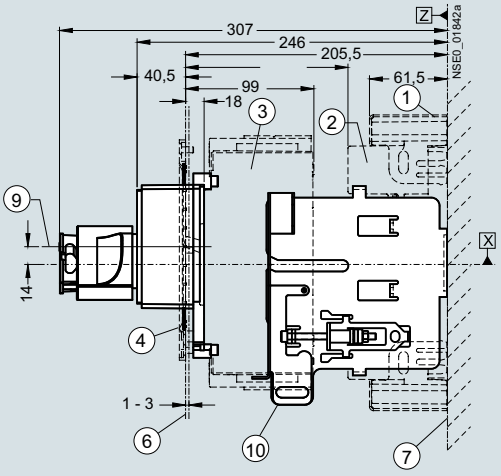
VL150 UL (DG frame) and VL250 UL (FG frame) molded case circuit breaker with motorized operating mechanism with spring energy store (disconnected position)



VL150 UL (DG frame) and VL250 UL (FG frame) molded case circuit breaker with front-operated rotary operating mechanism (connected position)



VL150 UL (DG frame) and VL250 UL (FG frame) molded case circuit breaker with front-operated rotary operating mechanism (disconnected position)



① Withdrawable base with terminal covers
② Withdrawable base
③ Molded case circuit breakers
④ Masking frame for door cutout (for molded case circuit breakers with operating mechanism)
⑥ Outer surface of cabinet door
⑦ Installation level
⑧ Motorized operating mechanism with spring energy store
⑨ Front-operated rotary operating mechanism
⑩ Locking device for racking mechanism
⑪ Racking mechanism

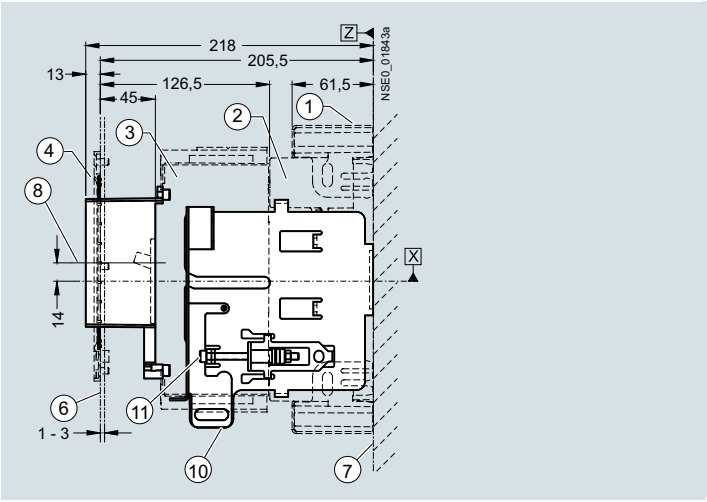
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2

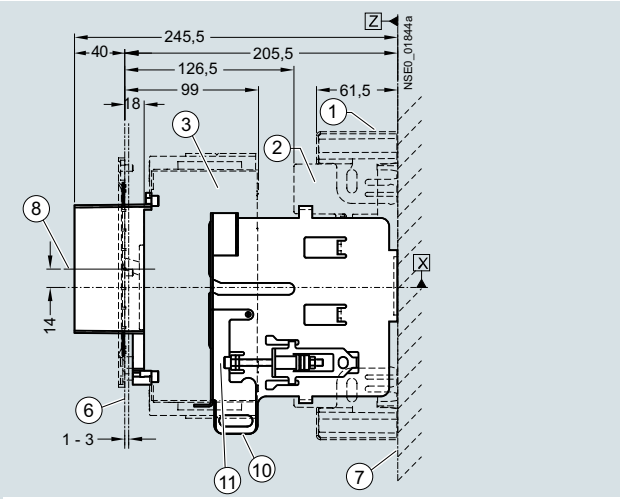
VL150 UL (DG frame), 3-pole, up to 150 A
VL250 UL (FG frame), 3-pole, up to 250 A

Withdrawable version and accessories

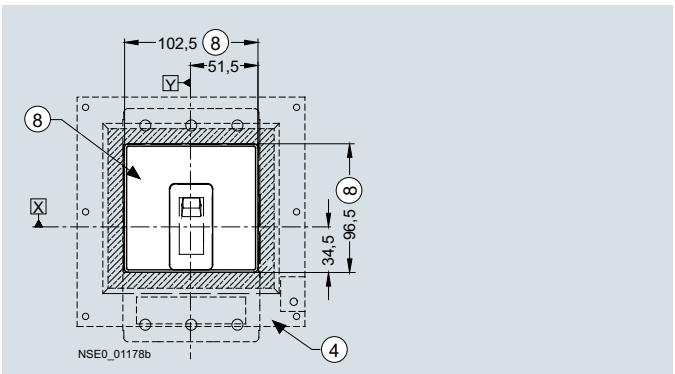
VL150 UL (DG frame) and VL250 UL (FG frame) molded case circuit breakers with extended escutcheon (connected position)



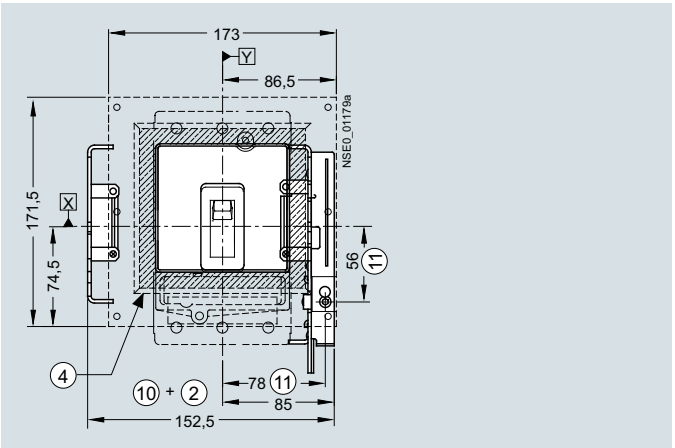
VL150 UL (DG frame) and VL250 UL (FG frame) molded case circuit breaker with extended escutcheon (disconnected position)



Extended escutcheon installation dimensions



Withdrawable version installation dimensions

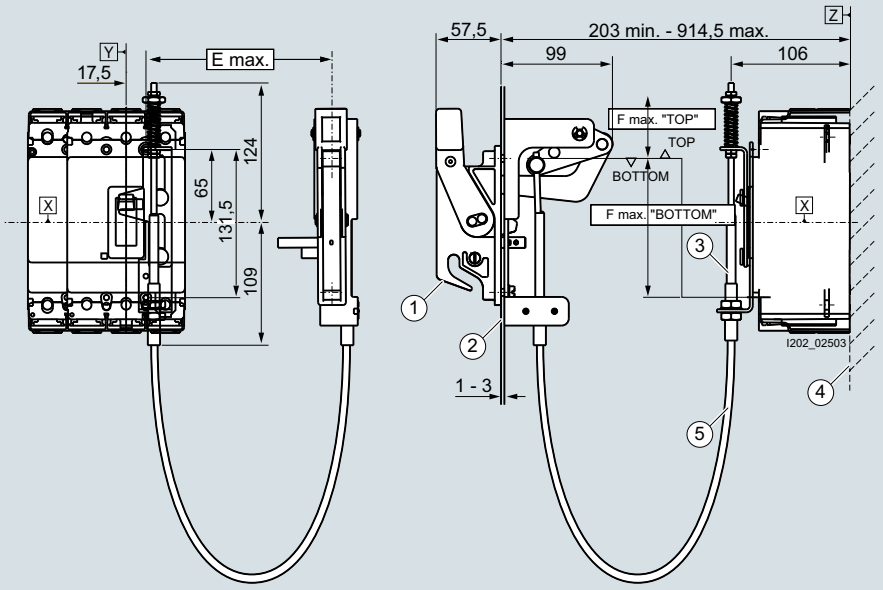


① Withdrawable base with terminal covers
② Withdrawable base
③ Molded case circuit breakers
④ Masking frame for door cutout (3VL9300-8BH01)
⑥ Outer surface of cabinet door
⑦ Installation level
⑧ Extended escutcheon (3VL9300-8BH01)
⑩ Locking device for racking mechanism
⑪ Racking mechanism

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Max Flex operating mechanism (3VL9600-3JP01, 3VL9600-3JP11, 3VL9300-3JN01, 3VL9300-3JM01)



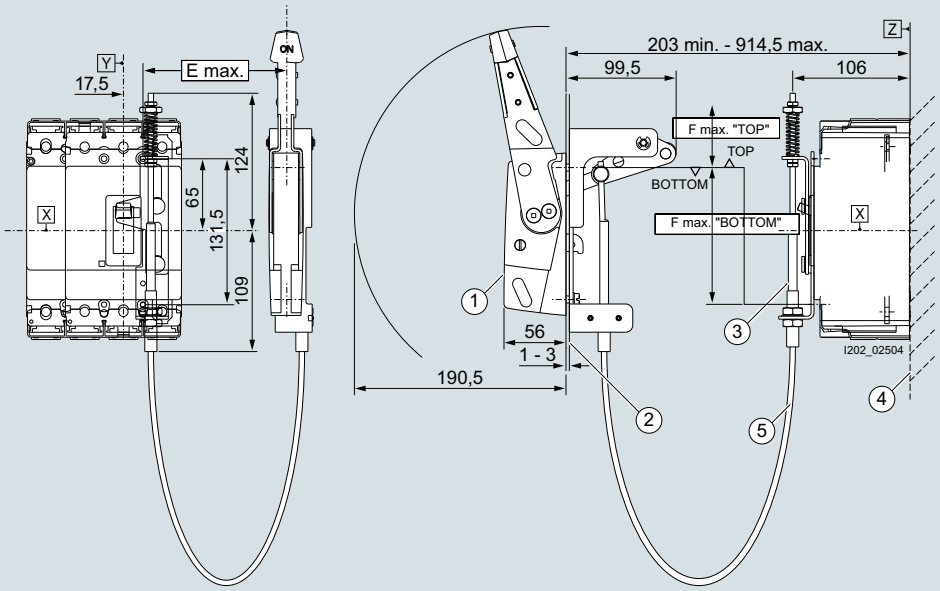
1 Plastic handle (3VL9600-3JP01, 3VL9600-3JP11)
2 Handle mounting surface
3 Max Flex operating mechanism (3VL9300-3JN01)
4 Installation level
5 Bowden wire

E max.			F max.				
Cabinet depth mm	3VL9300-3JQ31 Length 900 mm	3VL9300-3JQ41 Length 1200 mm	Cabinet depth mm	3VL9300-3JQ31 Length 900 mm		3VL9300-3JQ41 Length 1200 mm	
				TOP	BOTTOM	TOP	BOTTOM
203	285	589,5	203	106,5	393,5	406,5	686
254	279,5	584	254	132	381	419	686
305	266,5	579	305	152,5	373,5	432	680
406,5	211	551	406,5	114,5	360,5	419	673
457	165	533,5	457	86,5	325	406,5	647,5
508	89	508	508	15	254	393,5	622,5
609,5	--	439,5	609,5	--	--	355,5	571,5
762	--	259	762	--	--	221	442

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2

Max Flex operating mechanism (3VL9600-3JP21, 3VL9600-3JP41, 3VL9600-3JP61, 3VL9300-3JN01)



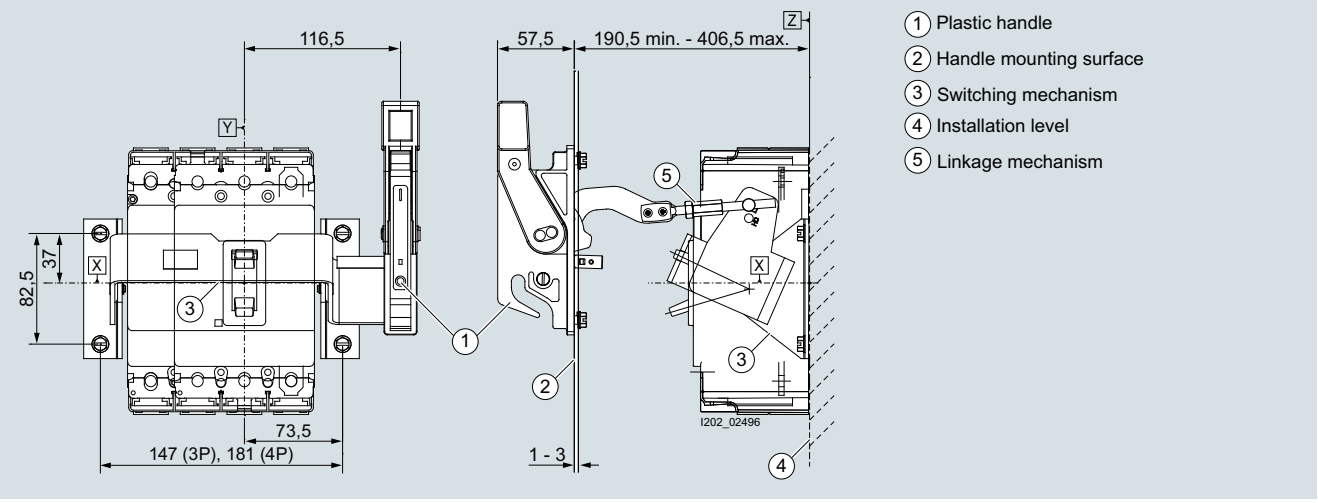
1. Metal handle (3VL9600-3JP21, 3VL9600-3JP41, 3VL9600-3JP61)
2. Handle mounting surface
3. Max Flex operating mechanism (3VL9300-3JN01)
4. Installation level
5. Bowden wire

E max.			F max.				
Cabinet depth mm	3VL9300-3JQ31 Length 900 mm	3VL9300-3JQ41 Length 1200 mm	Cabinet depth mm	3VL9300-3JQ31 Length 900 mm		3VL9300-3JQ41 Length 1200 mm	
				TOP	BOTTOM	TOP	BOTTOM
203	285	589,5	203	106,5	393,5	406,5	686
254	279,5	584	254	132	381	419	686
305	266,5	579	305	152,5	373,5	432	680
406,5	211	551	406,5	114,5	360,5	419	673
457	165	533,5	457	86,5	325	406,5	647,5
508	89	508	508	15	254	393,5	622,5
609,5	--	439,5	609,5	--	--	355,5	571,5
762	--	259	762	--	--	221	442

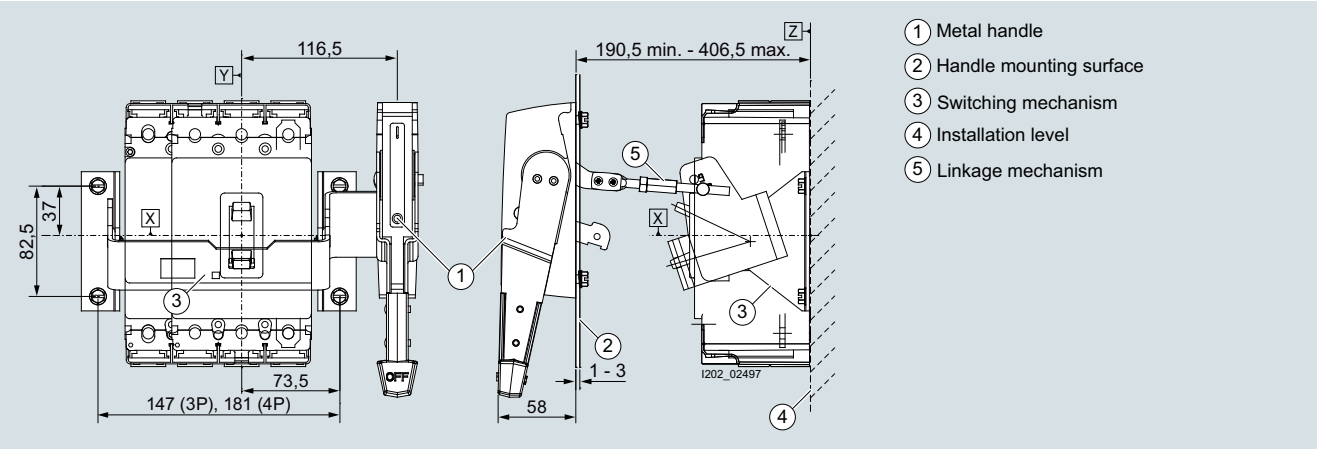
Minimum order quantity (PS) or a multiple thereof can be ordered.

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Plastic handle (3VL9300-3JS01, 3VL9300-3JS11)



Metal handle (3VL9300-3JS71, 3VL9300-3JS61)



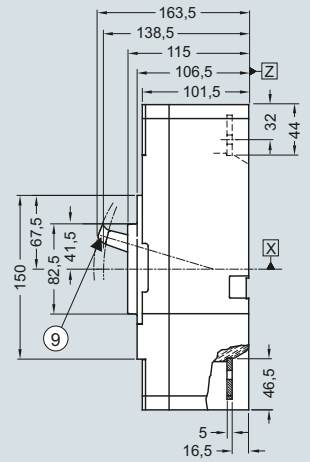
© Siemens 2019

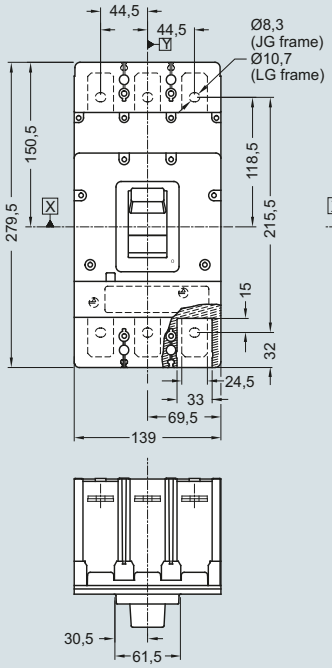
Configuration aids

VL400 UL (JG frame), 3-pole, up to 400 A, VL400X UL (LG frame), 3-pole, up to 600 A

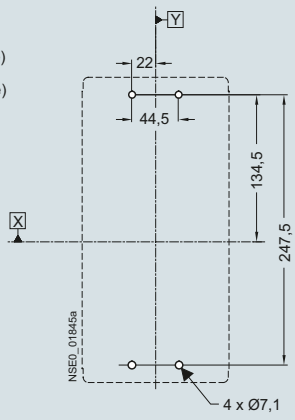
Molded case circuit breakers

VL400 UL (JG frame) and VL400X UL (LG frame) molded case circuit breaker



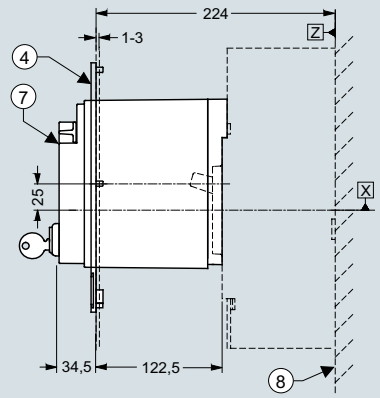


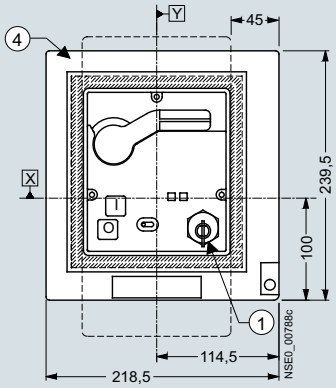
Molded case circuit breaker installation note

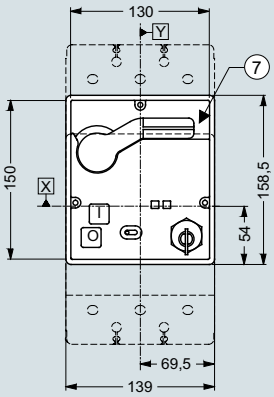


9 Toggle handle extension

Motorized operating mechanism with spring (3VL9400-3MJ01, 3VL9400-3ML01, 3VL9400-3MS01, 3VL9400-3MN01, 3VL9400-3MQ01)

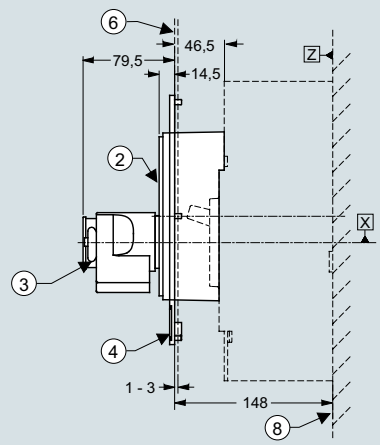


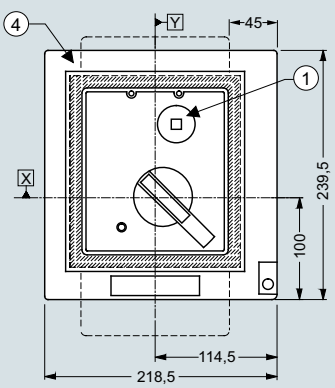


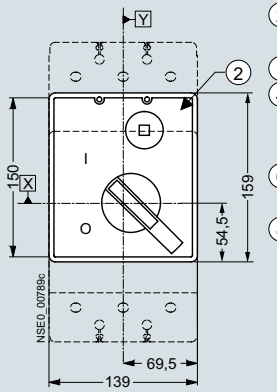


1 Safety lock
4 Masking frame for door cutout (3VL9400-8BG01)
7 Motorized operating mechanism for stored energy mechanism
8 Installation level

Front-operated rotary operating mechanism (3VL9400-3HA01, 3VL9400-3HC01)





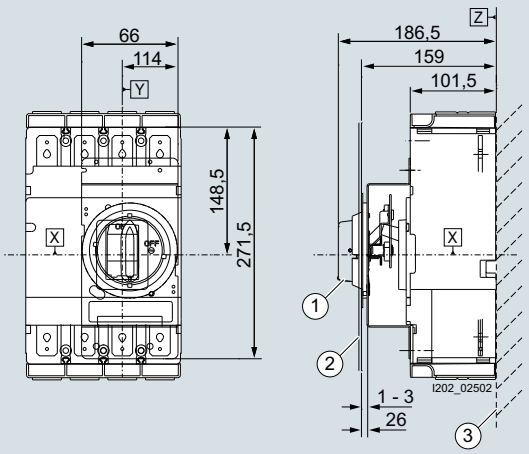


1 Safety lock
2 Front-operated rotary operating mechanism
3 Padlock
4 Masking frame for door cutout (3VL9400-8BG01)
6 Outer surface of cabinet door
8 Installation level

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Front-operated rotary operating mechanism (3VL9400-3JA01)



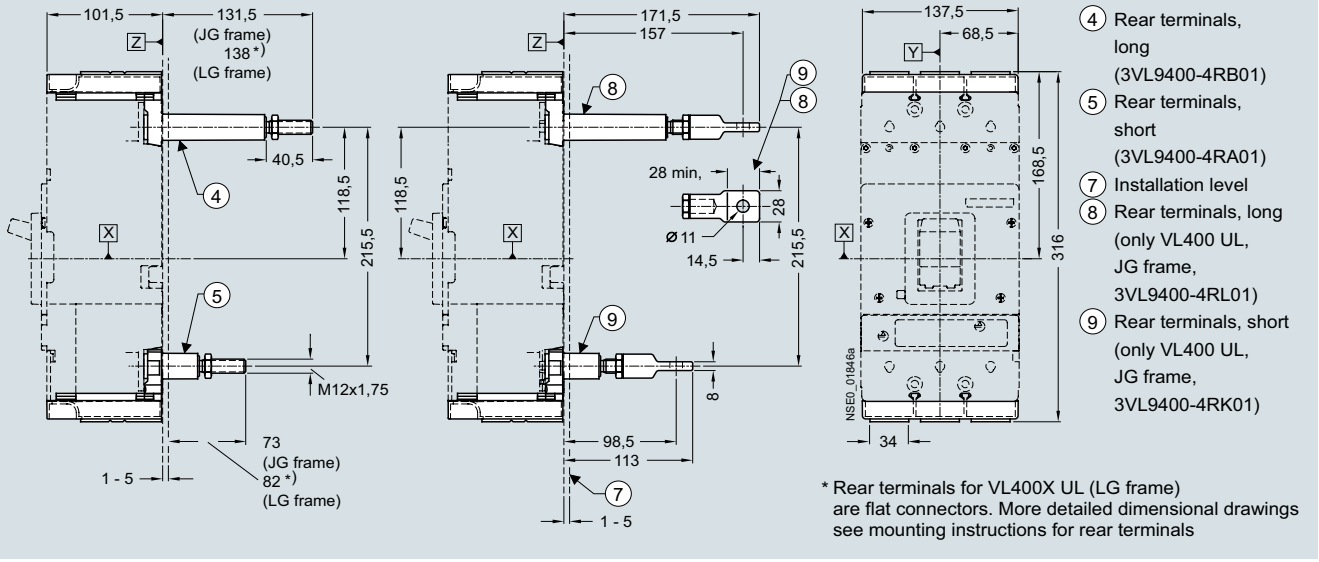
1 Rotary operating mechanism
2 External surface of cabinet door
3 Installation level

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VL400 UL (JG frame), 3-pole, up to 400 A
VL400X UL (LG frame), 3-pole, up to 600 A

Connections

For VL400 UL (JG frame) only

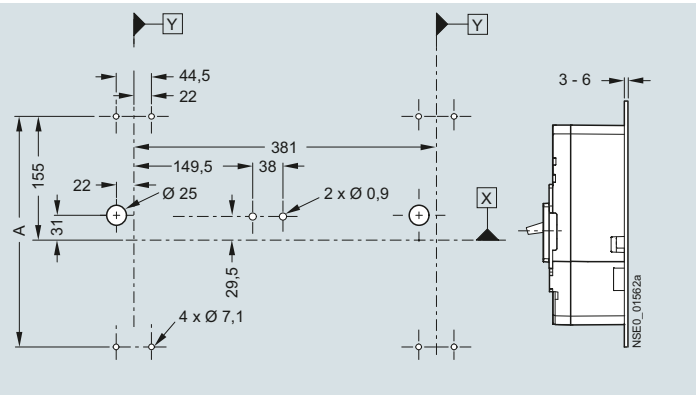


* Rear terminals for VL400X UL (LG frame) are flat connectors. More detailed dimensional drawings see mounting instructions for rear terminals

Rear interlocking modules

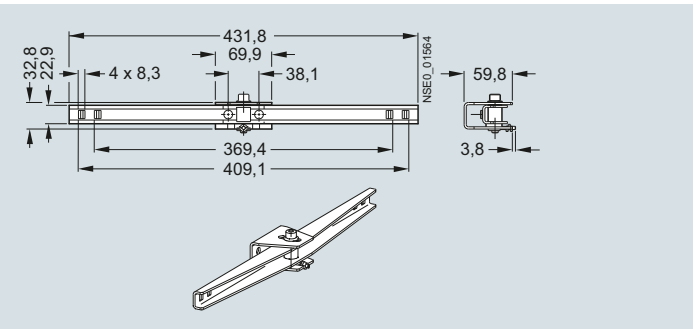
Rear interlocking module for molded case circuit breakers, fixed mounting with front connection (3VL9400-8LC01)

For other detailed dimensional drawings, please refer to the mounting instructions for the rear interlocking module.



Type	A
VL400 UL (JG frame) and VL400X UL (LG frame)	289

Rear interlocking modules



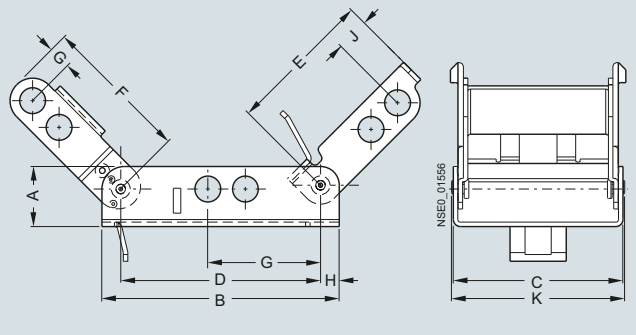
Minimum order quantity (PS) or a multiple thereof can be ordered.

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VL400 UL (JG frame), 3-pole, up to 400 A
VL400X UL (LG frame), 3-pole, up to 600 A

Locking devices

Locking devices for toggle levers (3VL9400-8HL01)



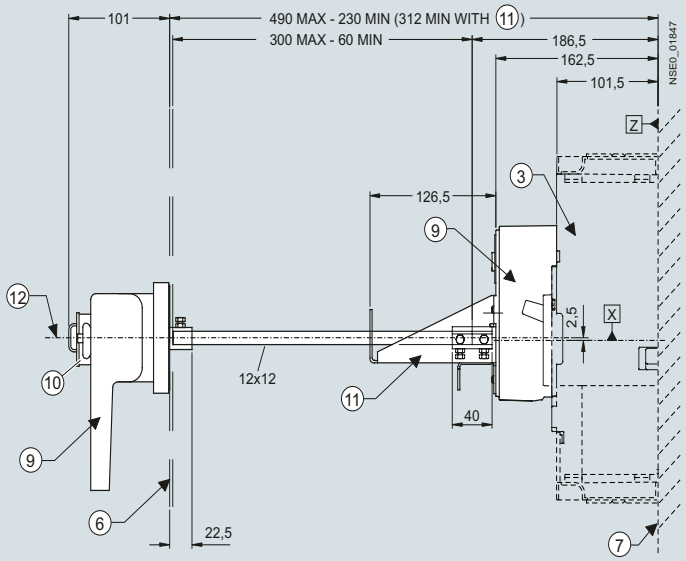
Type	a	b	c	d	e	f	g	h	i	k
3VL94	20.3	80.3	57.4	52.8	49.3	49.8	6.35	6.3	11.2	58.5
3VL96	21.6	79.8	71.1	62.0	50.4	46.5	12.9	8.9	8.6	72.2
3VL98	21.6	110.5	88.9	96.5	77.2	69.1	11.7	5.1	24.8	90.0

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2

Accessories

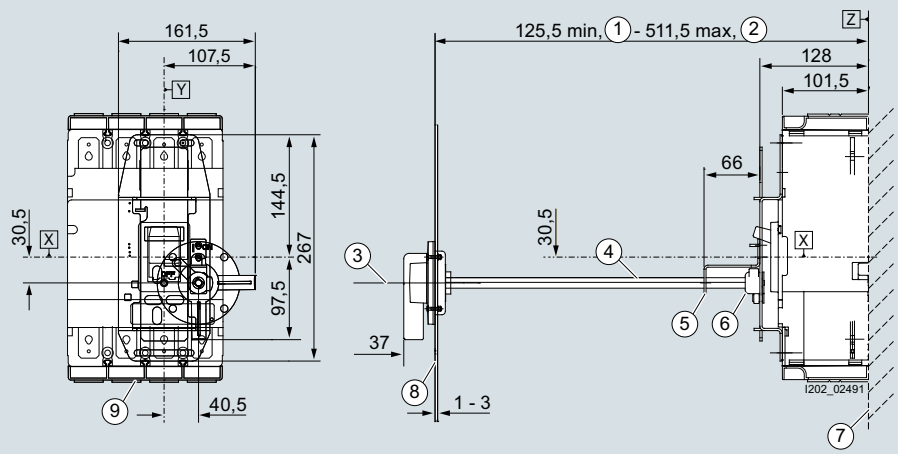
Molded case circuit breakers with door-coupling rotary operating mechanism (3VL9400-3HF01, 3VL9400-3HG06)



3 Molded case circuit breaker
6 Outer surface of cabinet door
7 Installation level
9 Door-coupling rotary operating mechanism
10 Handle
11 Support bracket
12 Center line of operating mechanism shaft

Interlocking module UL 508A, 8UC94 00, see 2/209.

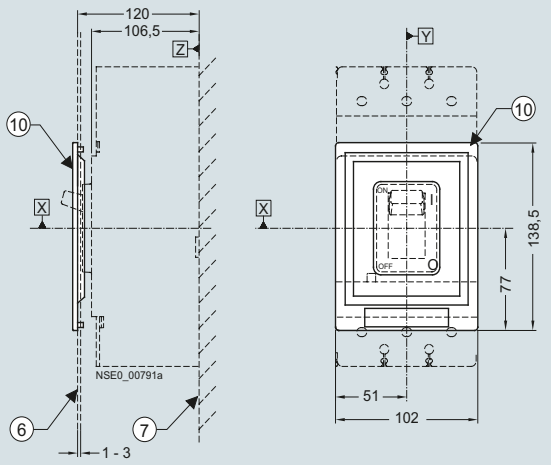
Molded case circuit breakers with door-coupling rotary operating mechanism (3VL9400-3JD01, 3VL9400-3JE01, 3VL9600-3JF11, 3VL9600-3JF01, 3VL9600-3JF41)



1 Without optional support bracket
2 With optional support bracket
3 Center line of operating mechanism shaft
4 Operating mechanism shaft
5 Support bracket for operating mechanism shaft
6 Switching mechanism (3VL9400-3JE01)
7 Installation level
8 External surface of cabinet door
9 Circuit breaker with door-coupling rotary operating mechanism

Interlocking module UL 508A, 8UC94 00, see 2/209.

Masking frame for door cutout for molded case circuit breakers with toggle lever (3VL9400-8BC01)



6 Outer surface of cabinet door
7 Installation level
10 Masking frame for door cutout (for molded case circuit breakers with toggle lever)

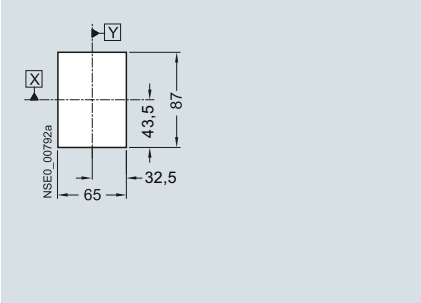
Minimum order quantity (PS) or a multiple thereof can be ordered.

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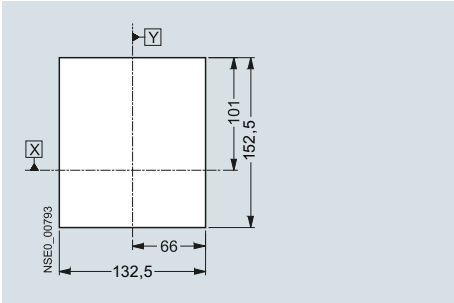
VL400 UL (JG frame), 3-pole, up to 400 A
VL400X UL (LG frame), 3-pole, up to 600 A

Door cutouts

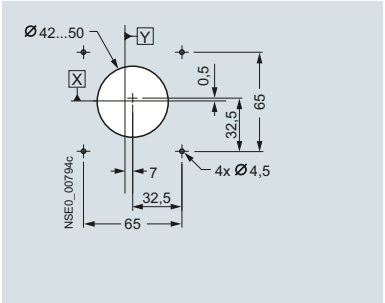
Door cutout toggle lever operating mechanism (without masking frame)



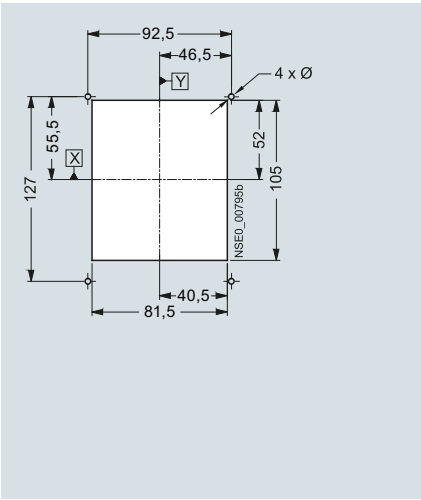
Door cutout front-operated rotary operating mechanism and motorized operating mechanism with spring energy store (without masking frame)



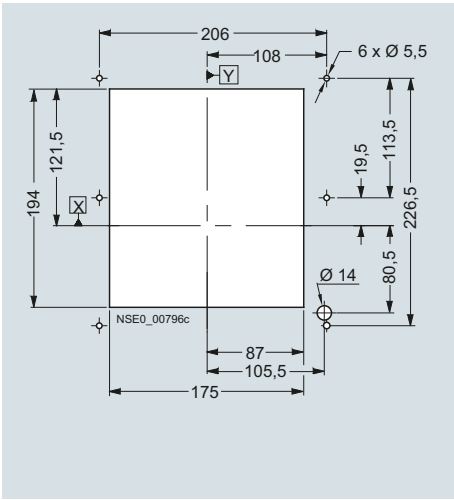
Door cutout
Door-coupling rotary operating mechanism



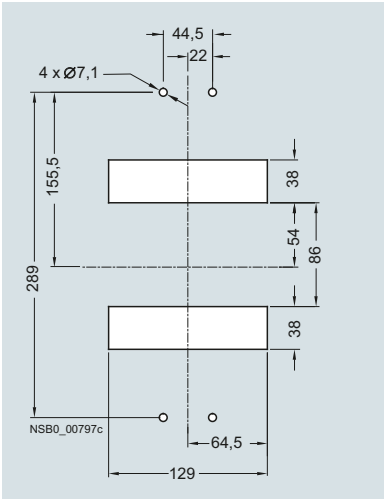
Door cutout toggle lever operating mechanism (with masking frame)



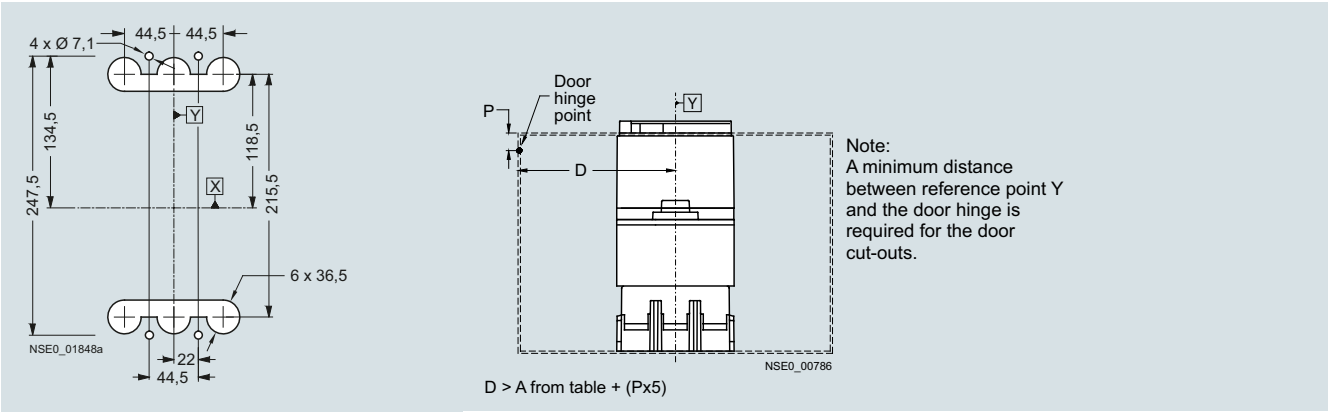
Door cutout front-operated rotary operating mechanism, motorized operating mechanism and extended escutcheon (with masking frame)



Drilling template and cutout for plug-in base with flat connecting bars on rear



Drilling template and cutout for rear connection



Combination	A
Molded case circuit breaker only	150
Molded case circuit breaker + plug-in base + motorized operating mechanism with spring energy store	150
Molded case circuit breaker + plug-in base + front-operated rotary operating mechanism	200
Molded case circuit breaker + withdrawable version	200

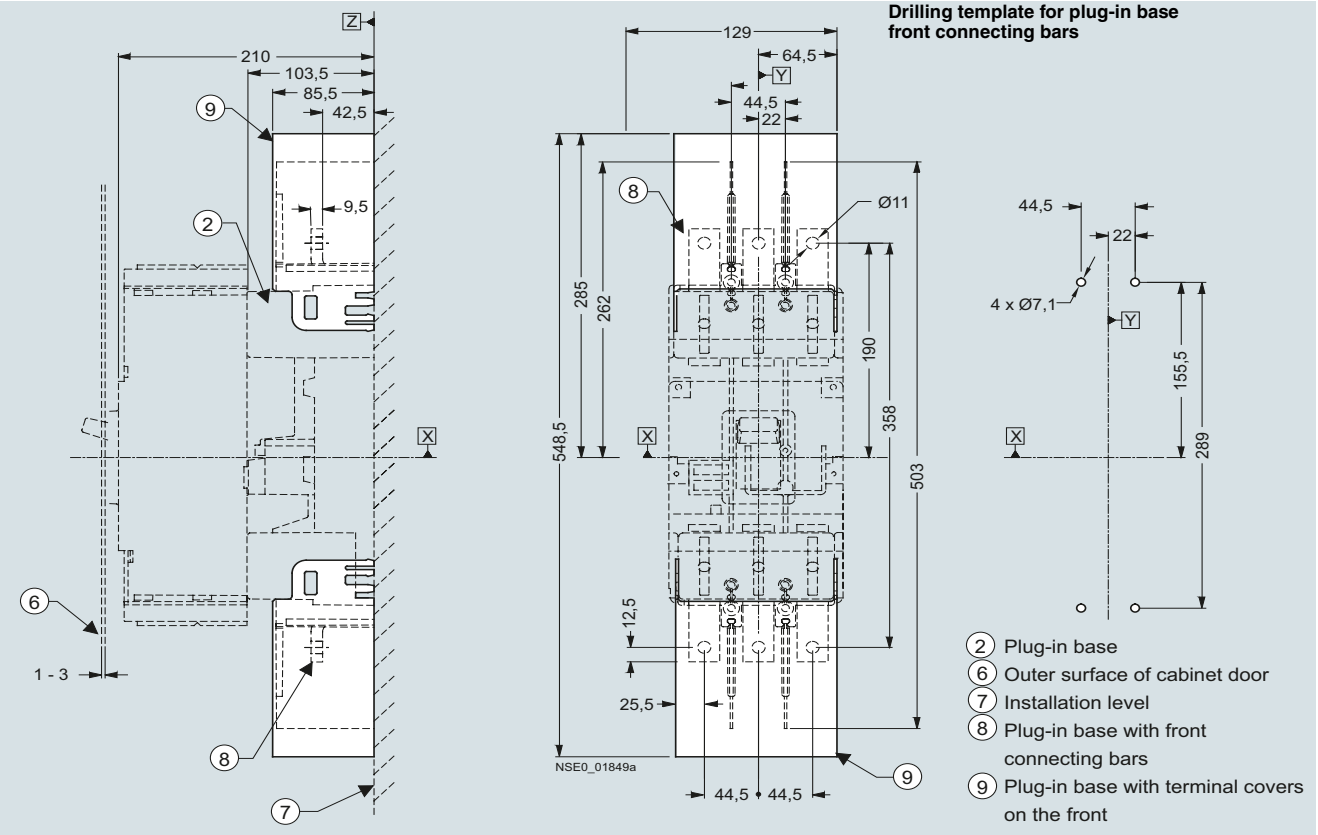
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2

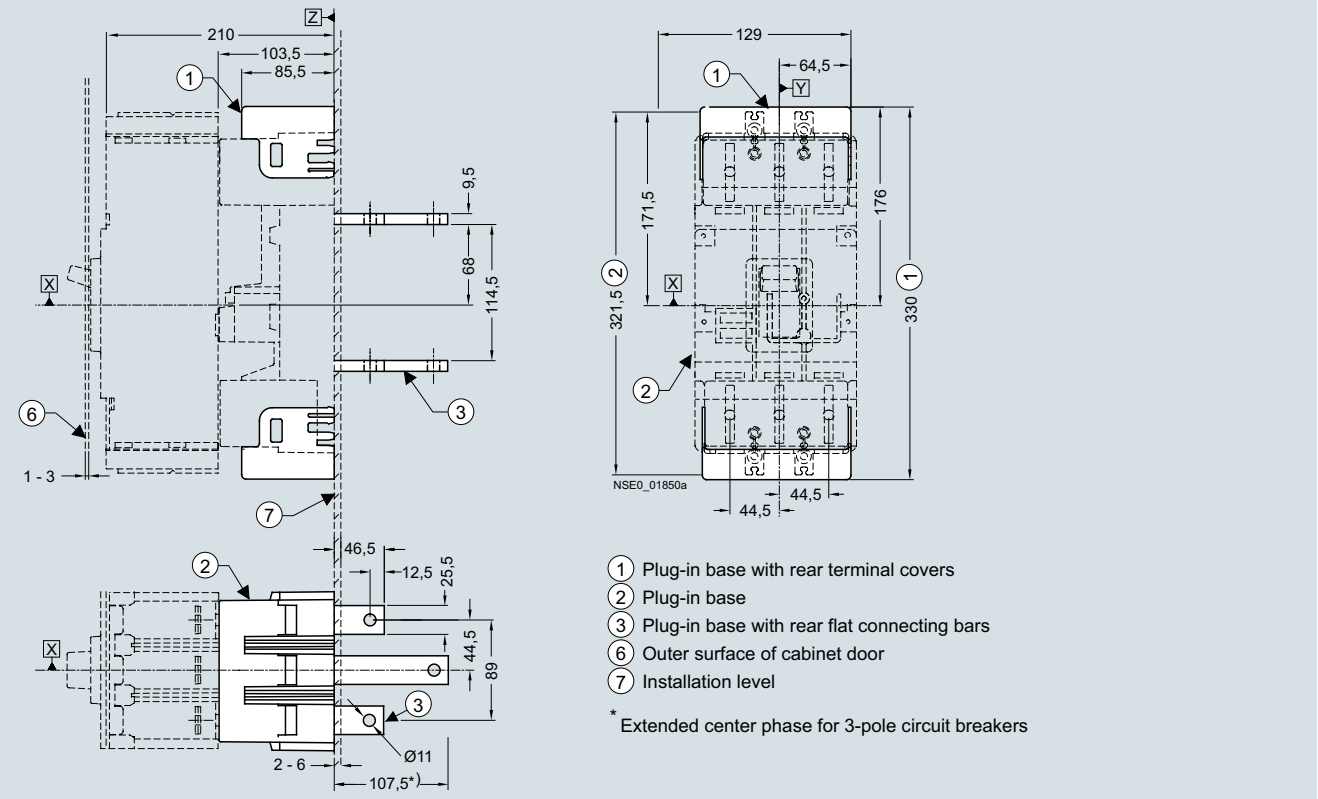
VL400 UL (JG frame), 3-pole, up to 400 A
VL400X UL (LG frame), 3-pole, up to 600 A

Plug-in base and accessories

Plug-in base with front connecting bars (3VL9400-4PC31, 3VL9460-4PC31)



Plug-in base with rear flat terminals (3VL9400-4PA31, 3VL9460-4PA31)



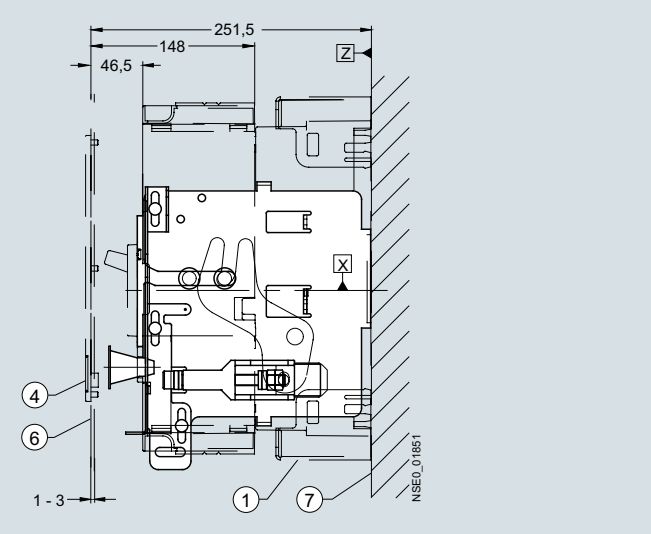
Minimum order quantity (PS) or a multiple thereof can be ordered.

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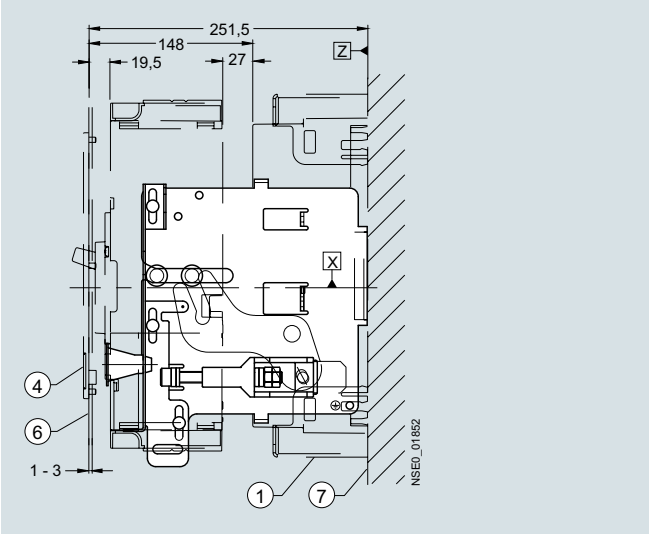
VL400 UL (JG frame), 3-pole, up to 400 A
VL400X UL (LG frame), 3-pole, up to 600 A

Withdrawable version and accessories

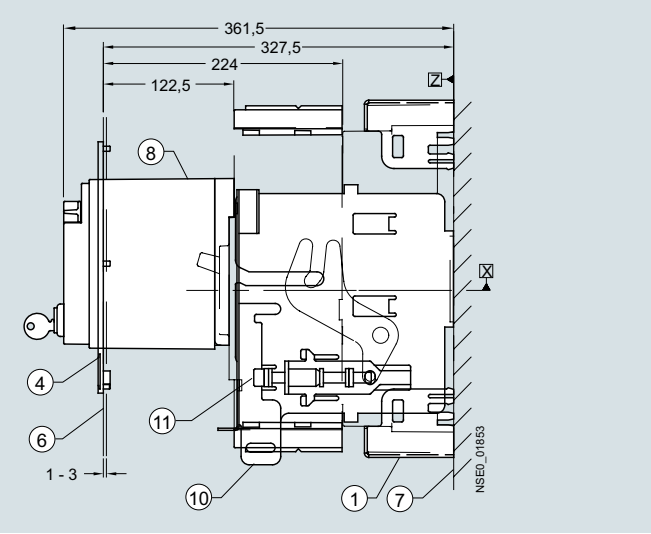
VL400 UL (JG frame) and VL400X UL (LG frame) molded case circuit breaker with front-operated rotary operating mechanism (connected position)



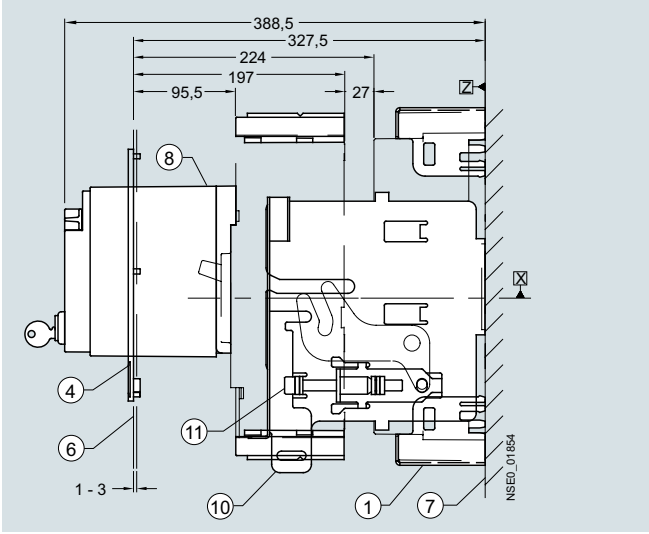
VL400 UL (JG frame) and VL400X UL (LG frame) molded case circuit breaker with front-operated rotary operating mechanism (disconnected position)



VL400 UL (JG frame) and VL400X UL (LG frame) molded case circuit breaker with motorized operating mechanism with spring energy store (connected position)



VL400 UL (JG frame) and VL400X UL (LG frame) molded case circuit breaker with motorized operating mechanism with spring energy store (disconnected position)



① Withdrawable base with terminal covers
④ Masking frame for door cutout
(for molded case circuit breakers with operating mechanism)
⑥ Outer surface of cabinet door
⑦ Installation level
⑧ Motorized operating mechanism with spring energy store
⑨ Front-operated rotary operating mechanism
⑩ Locking device for racking mechanism
⑪ Racking mechanism

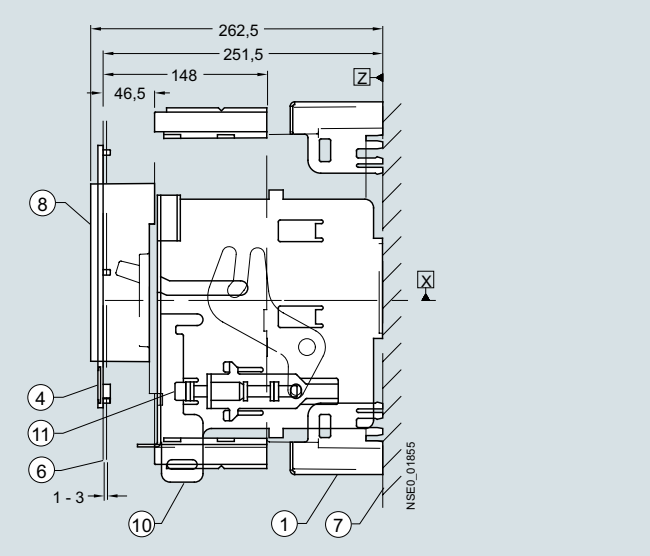
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Configuration aids

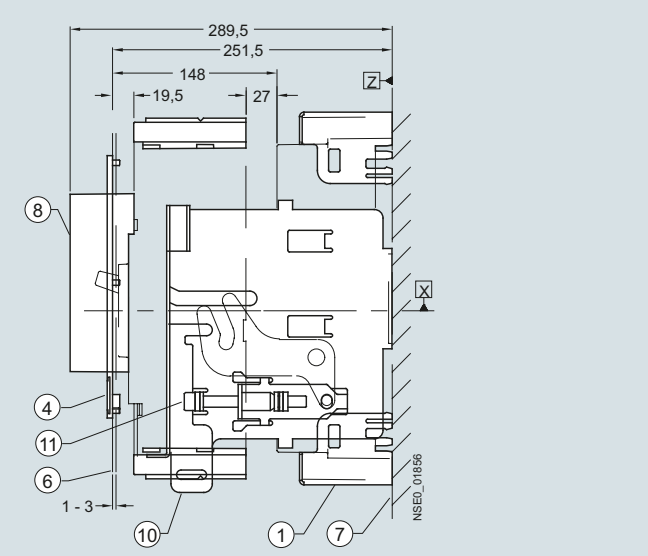
VL400 UL (JG frame), 3-pole, up to 400 A
VL400X UL (LG frame), 3-pole, up to 600 A

Withdrawable bases and accessories

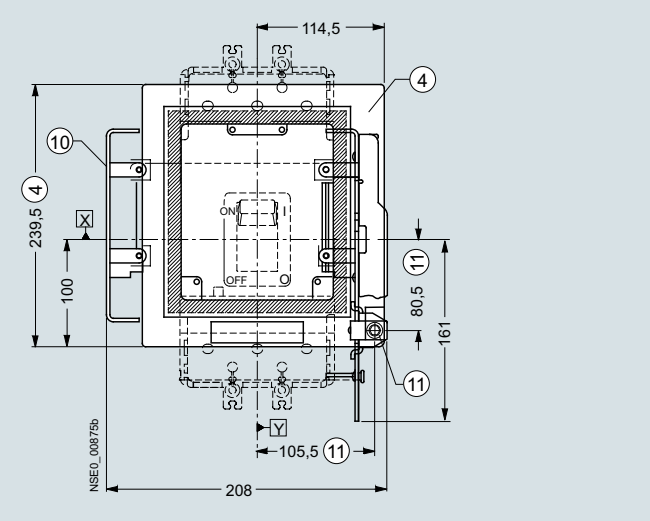
VL400 UL (JG frame) and VL400X UL (LG frame) molded case circuit breaker with extended escutcheon (connected position)



VL400 UL (JG frame) and VL400X UL (LG frame) molded case circuit breaker with extended escutcheon (disconnected position)



Extended escutcheon mounted on withdrawable version

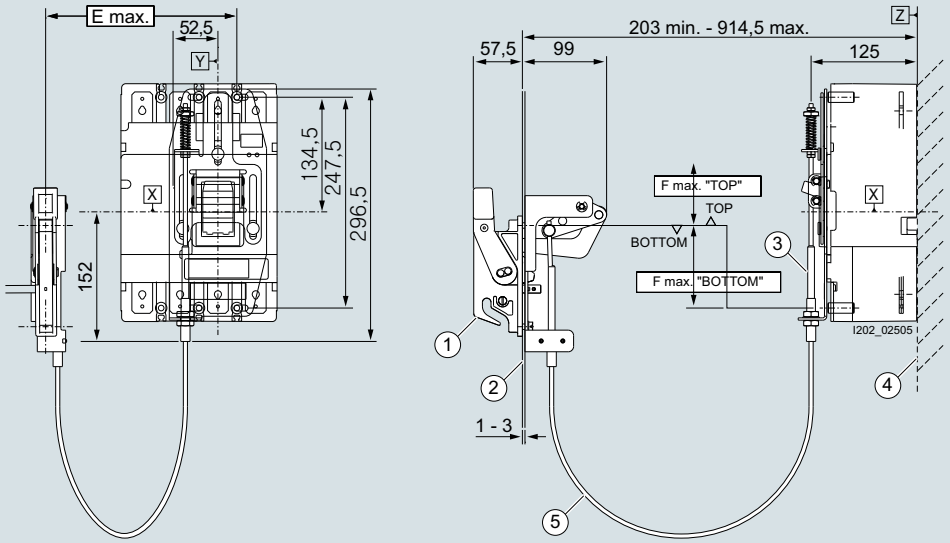


① Plug-in base with terminal covers
④ Masking frame for door cutout (3VL9400-8BH01)
⑥ Outer surface of cabinet door
⑦ Installation level
⑧ Extended escutcheon (3VL9400-8BH01)
⑩ Locking device for racking mechanism
⑪ Racking mechanism

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Max Flex operating mechanism (3VL9600-3JP01, 3VL9600-3JP11, 3VL9400-3JN01, 3VL9400-3JM01)

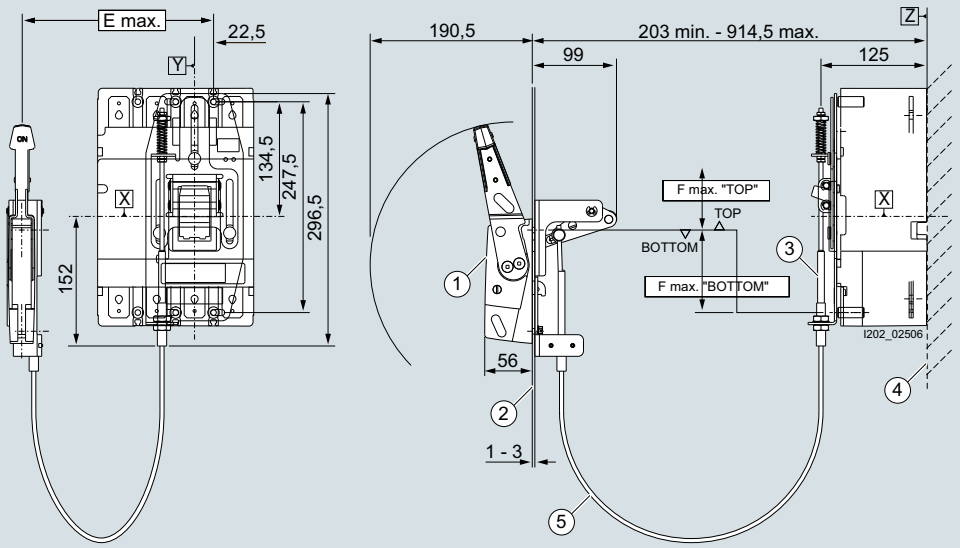


E max.			F max.				
Cabinet depth mm	3VL9600-3JQ31 Length 900 mm	3VL9600-3JQ41 Length 1200 mm	Cabinet depth mm	3VL9600-3JQ31 Length 900 mm		3VL9600-3JQ41 Length 1200 mm	
				TOP	BOTTOM	TOP	BOTTOM
203	10,7	22,7	203	106,5	393,5	406,5	686
254	10,5	22,6	254	132	381	419	686
305	10	22,3	305	152,5	373,5	432	680
406,5	7,9	21,3	406,5	114,5	360,5	419	673
457	6,1	20,5	457	86,5	325	406,5	647,5
508	3,2	19,6	508	15	254	393,5	622,5
609,5	--	16,9	609,5	--	--	355,5	571,5
762	--	9,9	762	--	--	221	442

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2

Max Flex operating mechanism (3VL9600-3JP21, 3VL9600-3JP41, 3VL9600-3JP61, 3VL9400-3JN01)

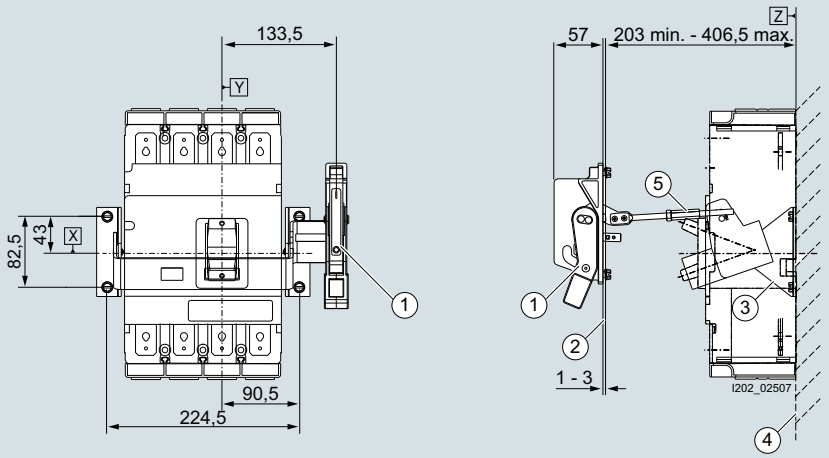


E max.			F max.				
Cabinet depth mm	3VL9600-3JQ31 Length 900 mm	3VL9600-3JQ41 Length 1200 mm	Cabinet depth mm	3VL9600-3JQ31 Length 900 mm		3VL9600-3JQ41 Length 1200 mm	
				TOP	BOTTOM	TOP	BOTTOM
203	10,7	22,7	203	106,5	393,5	406,5	686
254	10,5	22,6	254	132	381	419	686
305	10	22,3	305	152,5	373,5	432	680
406,5	7,9	21,3	406,5	114,5	360,5	419	673
457	6,1	20,5	457	86,5	325	406,5	647,5
508	3,2	19,6	508	15	254	393,5	622,5
609,5	--	16,9	609,5	--	--	355,5	571,5
762	--	9,9	762	--	--	221	442

Minimum order quantity (PS) or a multiple thereof can be ordered.

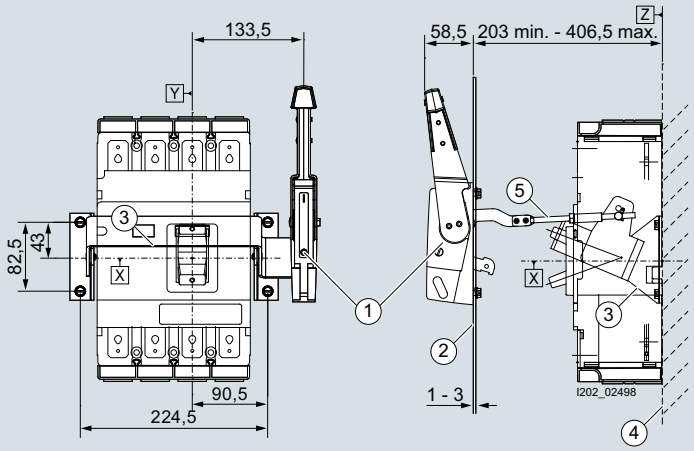
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Plastic handle (3VL9400-3JS01, 3VL9400-3JS11)



1 Plastic handle
2 Handle mounting surface
3 Switching mechanism
4 Installation level
5 Linkage mechanism

Metal handle (3VL9400-3JS71, 3VL9400-3JS61)



1 Metal handle
2 Handle mounting surface
3 Switching mechanism
4 Installation level
5 Linkage mechanism

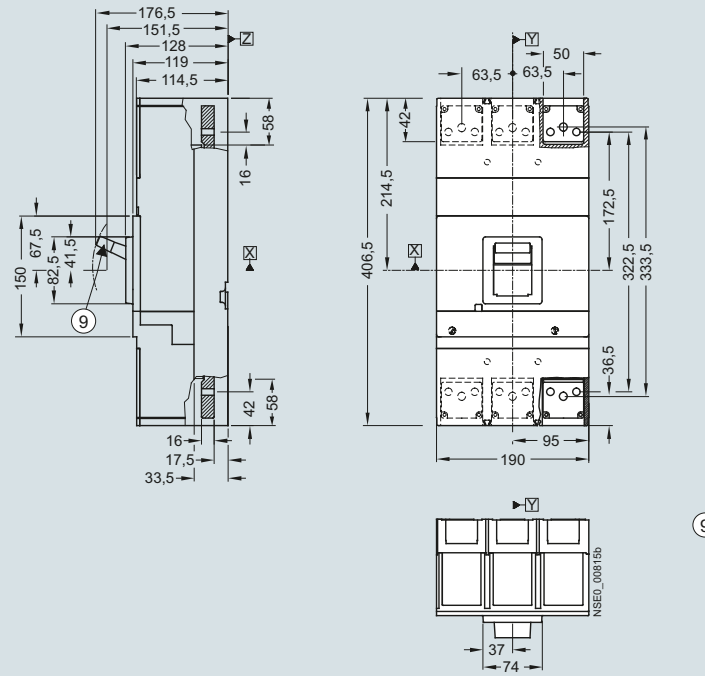
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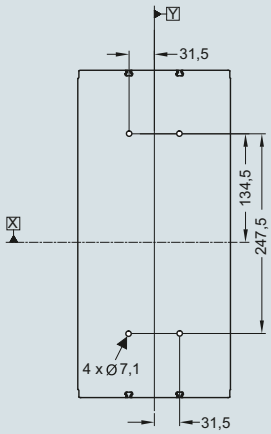
VL800 UL (MG frame), 3-pole, up to 800 A

Molded case circuit breakers

VL800 UL (MG frame) molded case circuit breaker



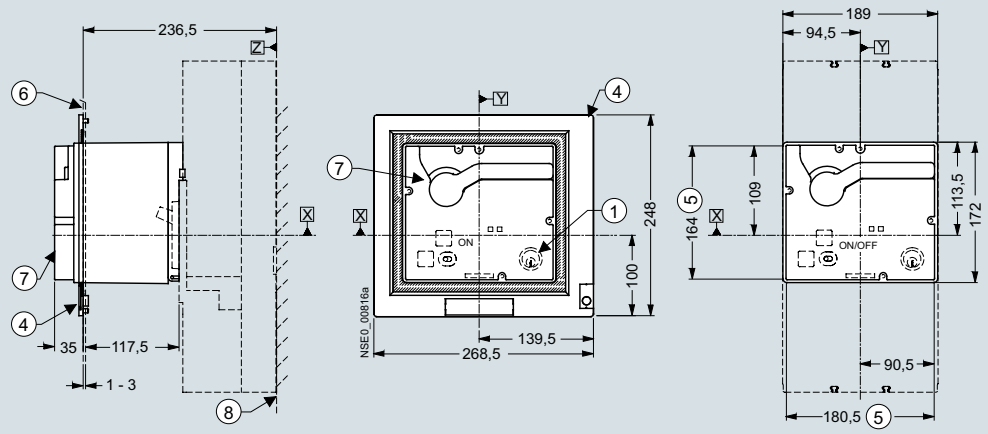
Molded case circuit breaker installation note



(9) Toggle lever extension

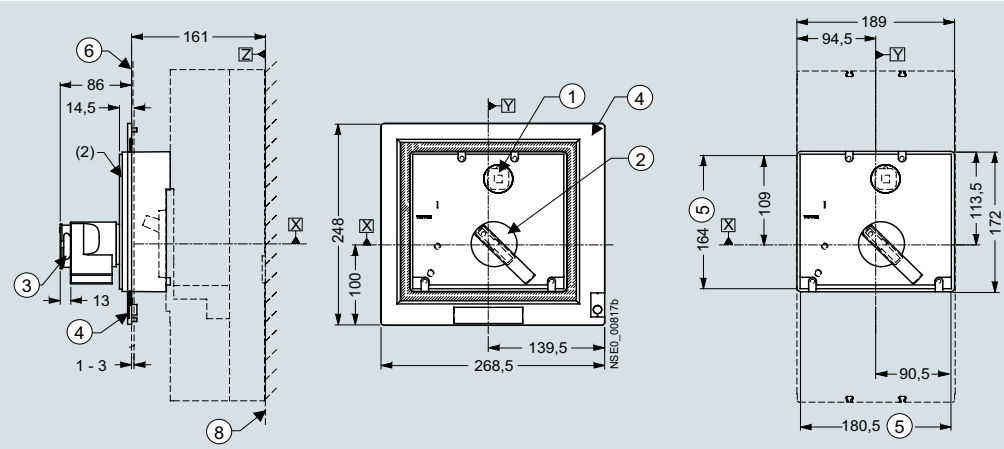
Operating mechanisms

Motorized operating mechanism with spring energy store (3VL9600-3MJ01, 3VL9600-3ML01, 3VL9600-3MS01, 3VL9600-3MN01, 3VL9600-3MQ01)



(1) Safety lock
(4) Masking frame for door cutout (3VL9600-8BG01)
(5) Step for cover
(6) Outer surface of cabinet door
(7) Motorized operating mechanism with stored energy mechanism
(8) Installation level

Front-operated rotary operating mechanism (3VL9600-3HA01, 3VL9600-3HC01)



(1) Safety lock
(2) Front-operated rotary operating mechanism
(3) Padlock
(4) Masking frame for door cutout (3VL9600-8BG01)
(5) Step for cover
(6) Outer surface of cabinet door
(8) Installation level

Minimum order quantity (PS) or a multiple thereof can be ordered.

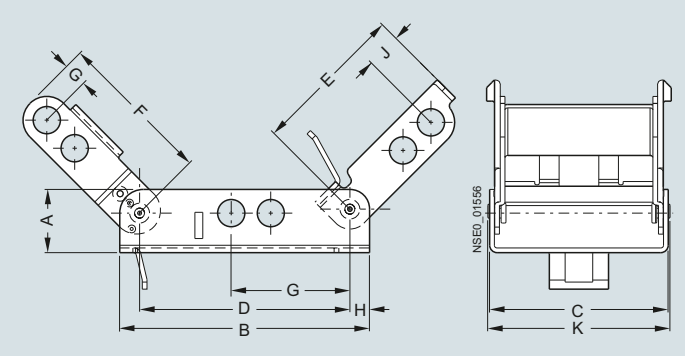
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VL800 UL (MG frame), 3-pole, up to 800 A

Interlocks

Locking devices

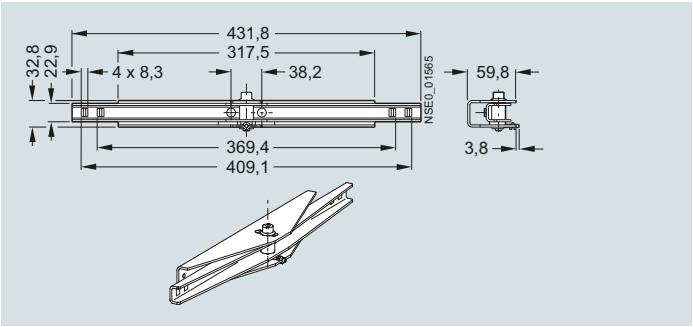
Locking devices for toggle levers 3VL9600-3HL01



Type	a	b	c	d	e	f	g	h	i	k
3VL94	20.3	80.3	57.4	52.8	49.3	49.8	6.35	6.3	11.2	58.5
3VL96	21.6	79.8	71.1	62.0	50.4	46.5	12.9	8.9	8.6	72.2
3VL98	21.6	110.5	88.9	96.5	77.2	69.1	11.7	5.1	24.8	90.0

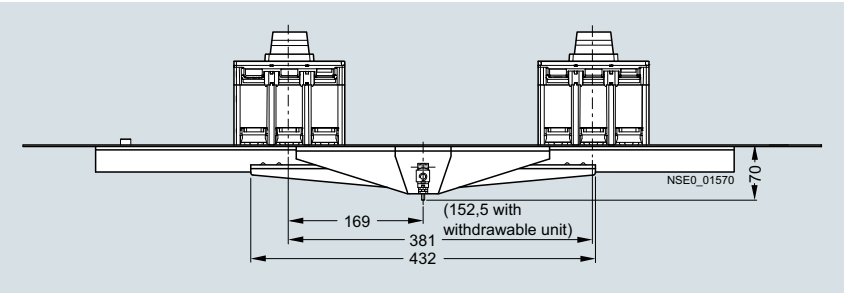
Rear interlocking modules

Rear interlocking module for molded case circuit breakers, fixed mounting with front-accessible connection (3VL9600-8LC01)



For other detailed dimensional drawings, please refer to the mounting instructions for the rear interlocking module.

Rear interlocking modules

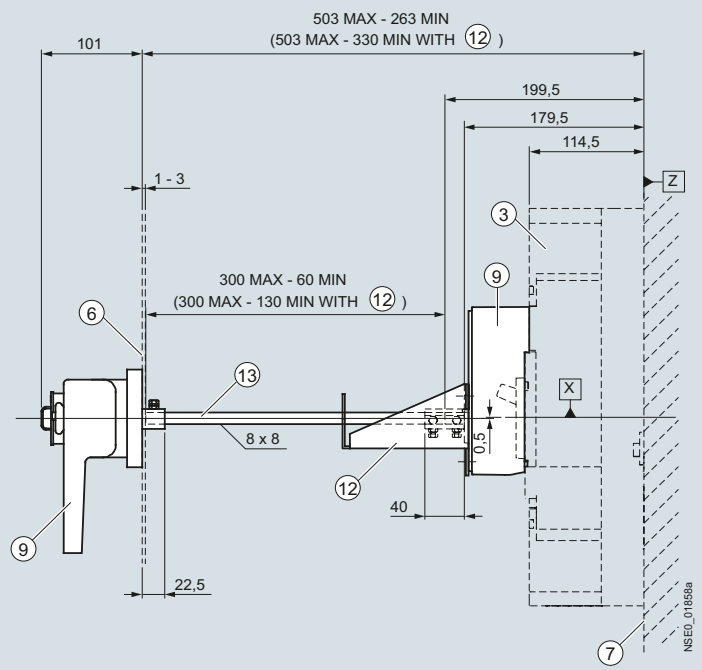


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VL800 UL (MG frame), 3-pole, up to 800 A

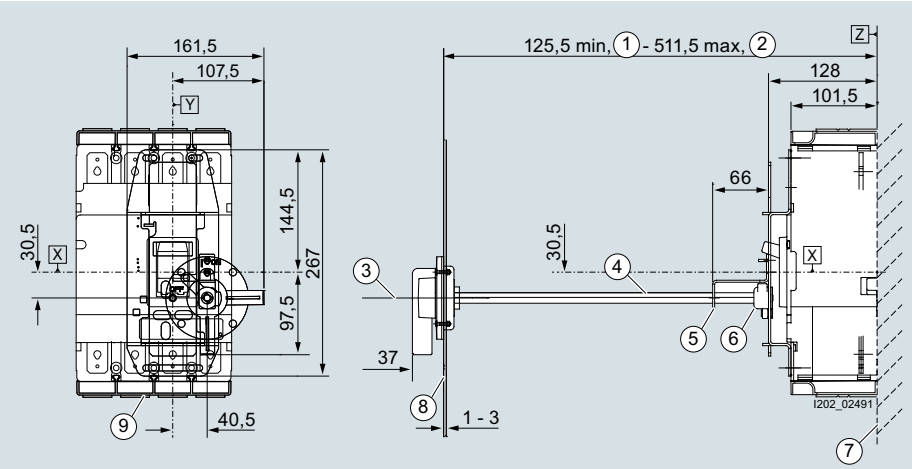
Accessories

Molded case circuit breakers with door-coupling rotary operating mechanism (3VL9600-3HF01, 3VL9600-3HG06)



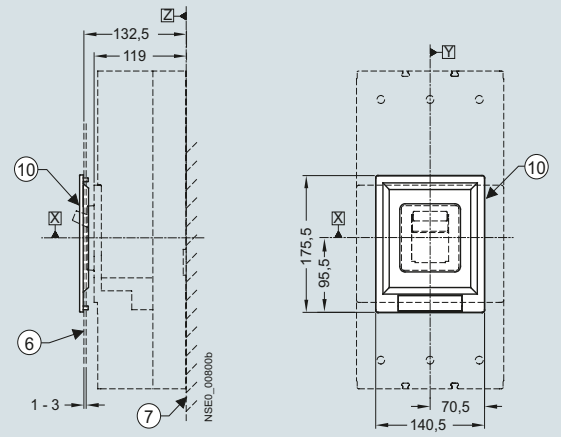
3 Molded case circuit breaker
6 Outer surface of cabinet door
7 Installation level
9 Door-coupling rotary operating mechanism
12 Support bracket
13 Center line of operating mechanism shaft

Molded case circuit breakers with door-coupling rotary operating mechanism (3VL9600-3JD01, 3VL9600-3JE01, 3VL9600-3JF11, 3VL9600-3JF01, 3VL9600-3JF41)



1 Without optional support bracket
2 With optional support bracket
3 Center line of operating mechanism shaft
4 Operating mechanism shaft
5 Support bracket for operating mechanism shaft
6 Switching mechanism (3VL9400-3JE01)
7 Installation level
8 External surface of cabinet door
9 Circuit breaker with door-coupling rotary operating mechanism

Masking frame for door cutout for molded case circuit breakers with toggle lever (3VL9600-8BC01)

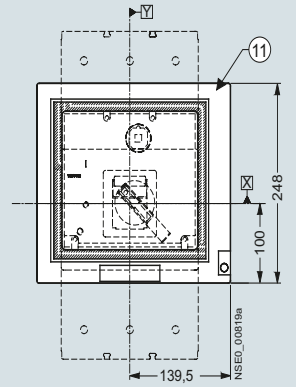


6 Outer surface of cabinet door
7 Installation level
10 Masking frame for door cutout
(for molded case circuit breakers with toggle lever)

Minimum order quantity (PS) or a multiple thereof can be ordered.

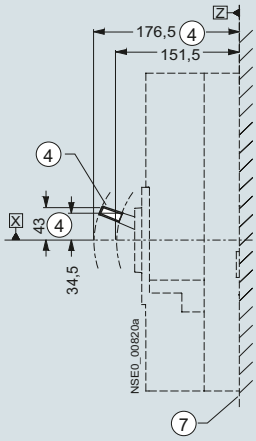
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Masking frame for door cutout for molded case circuit breakers with operating mechanism (3VL9600-8BG01)



11 Masking frame for door cutout (for molded case circuit breakers with operating mechanism)

Toggle lever extension (3VL9600-3HN01)



4 Toggle lever extension
7 Installation level

2

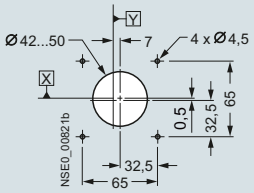
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Configuration aids

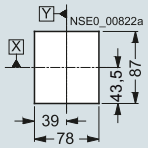
VL800 UL (MG frame), 3-pole, up to 800 A

Door cutouts

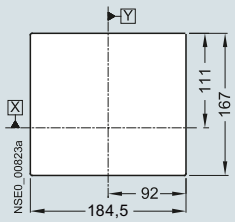
Door cutout
Door-coupling rotary operating mechanism



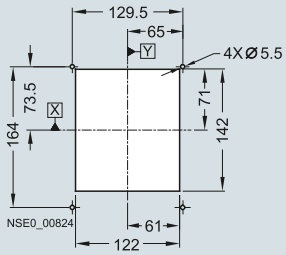
Door cutout toggle lever
(without masking frame)



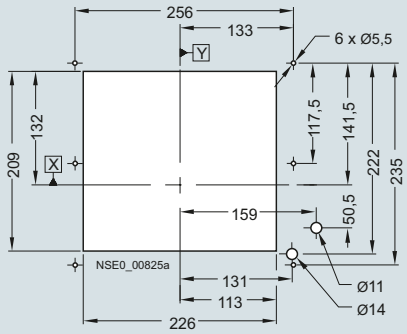
Door cutout front-operated rotary operating mechanism, motorized operating mechanism with spring energy store and extended escutcheon (without masking frame)

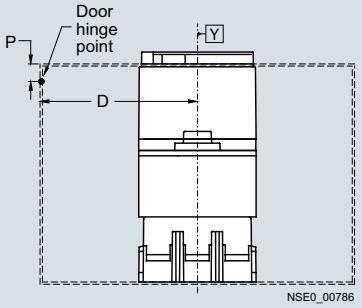


Door cutout toggle lever
(with masking frame)



Door cutout front-operated rotary operating mechanism, motorized operating mechanism with spring energy store and extended escutcheon (with masking frame)





Note:
A minimum distance between reference point Y and the door hinge is required for the door cut-outs.

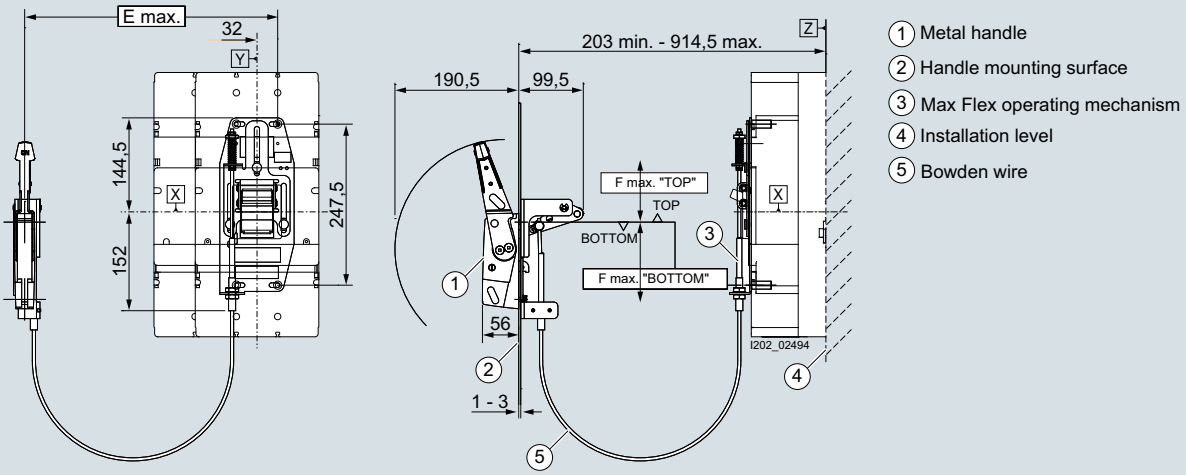
D > A from table + (Px5)

Combination	A
Molded case circuit breaker only	150
Molded case circuit breaker + plug-in base + motorized operating mechanism with spring energy store	150
Molded case circuit breaker + plug-in base + front-operated rotary operating mechanism	200
Molded case circuit breaker + withdrawable version	200

Minimum order quantity (PS) or a multiple thereof can be ordered.

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Handle for Max Flex operating mechanism (3VL9600-3JP21, 3VL9600-3JP41, 3VL9600-3JP61, 3VL9600-3JN01)



E max.			F max.				
Cabinet depth mm	3VL9600-3JQ31 length 900 mm	3VL9600-3JQ41 length 1200 mm	Cabinet depth mm	3VL9600-3JQ31 Length 900 mm		3VL9600-3JQ41 Length 1200 mm	
				TOP	BOTTOM	TOP	BOTTOM
203	10,7	22,7	203	106,5	393,5	406,5	686
254	10,5	22,6	254	132	381	419	686
305	10	22,3	305	152,5	373,5	432	680
406,5	7,9	21,3	406,5	114,5	360,5	419	673
457	6,1	20,5	457	86,5	325	406,5	647,5
508	3,2	19,6	508	15	254	393,5	622,5
609,5	--	16,9	609,5	--	--	355,5	571,5
762	--	9,9	762	--	--	221	442

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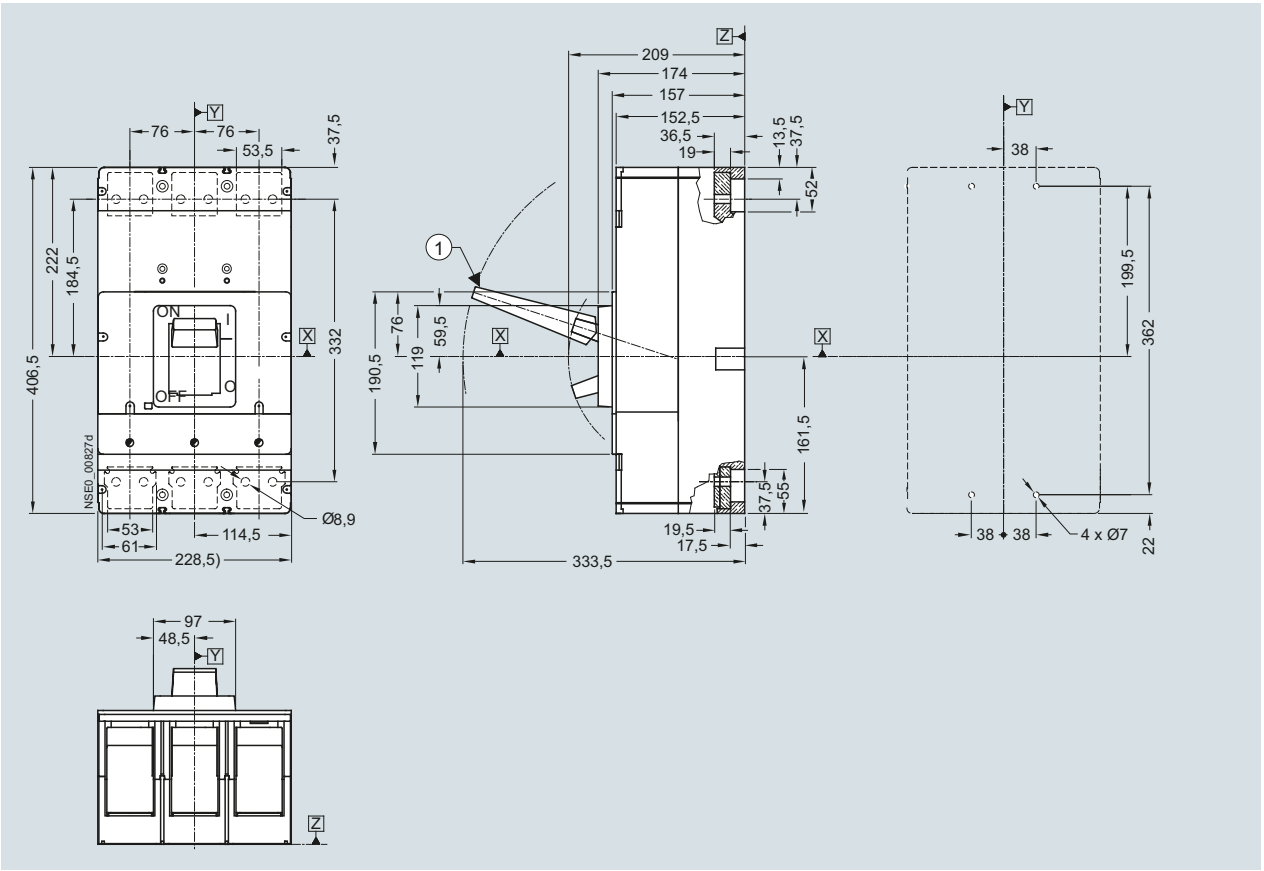
2

VL1200 UL (NG frame), 3-pole, up to 1200 A
VL1600 UL (PG frame), 3-pole, up to 1600 A

Molded case circuit breakers

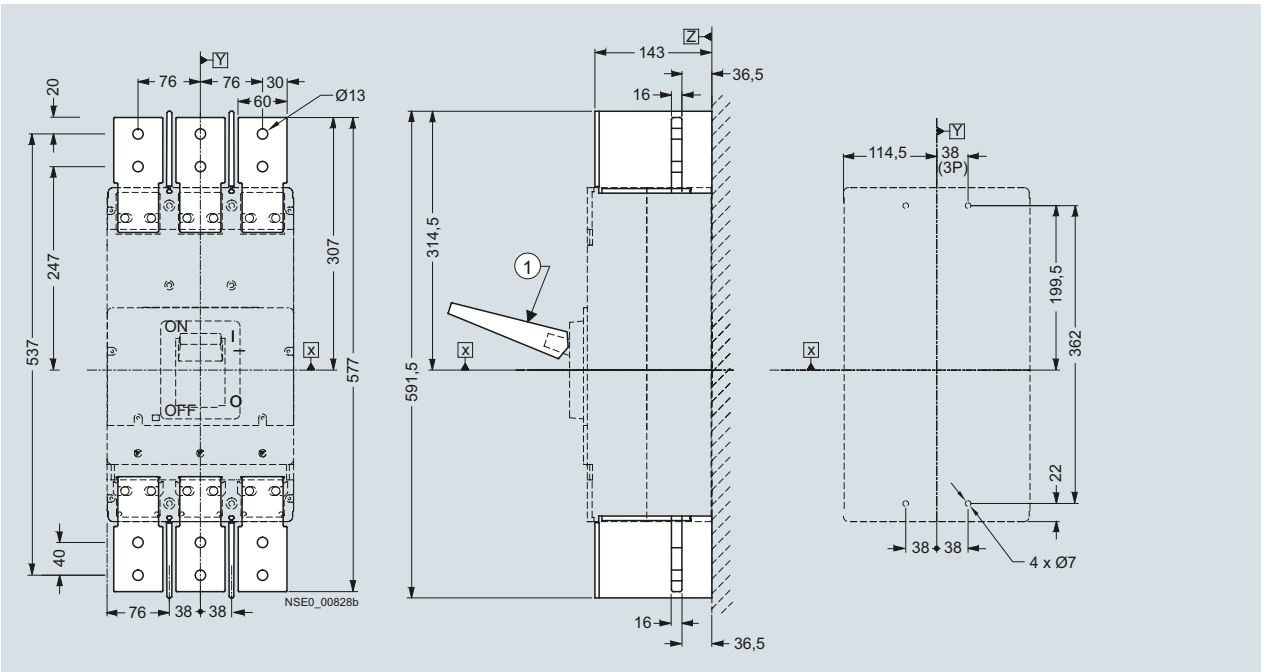
VL1200 UL molded case circuit breaker (NG frame)

Molded case circuit breaker installation note



VL1600 UL molded case circuit breaker (PG frame)

Molded case circuit breaker installation note



① Toggle handle extension (3VL9800-3HN01)

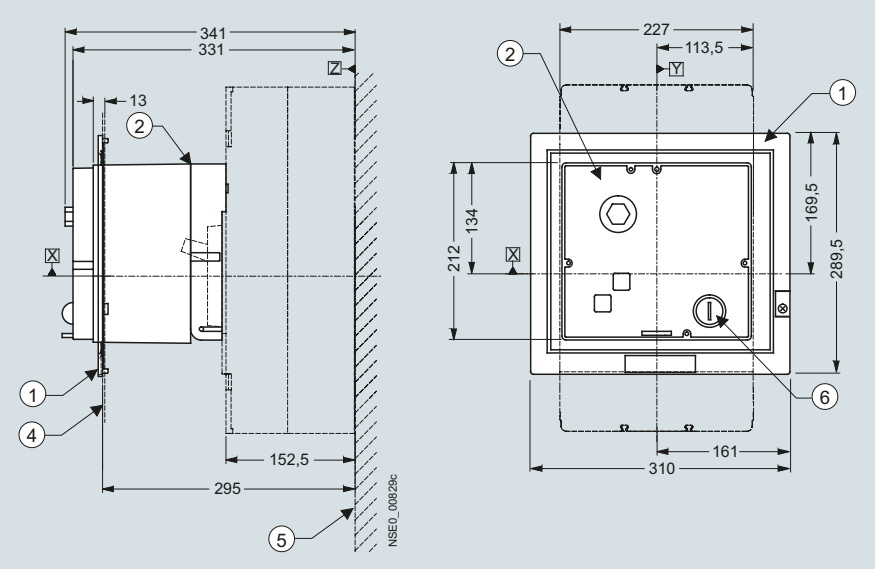
Minimum order quantity (PS) or a multiple thereof can be ordered.

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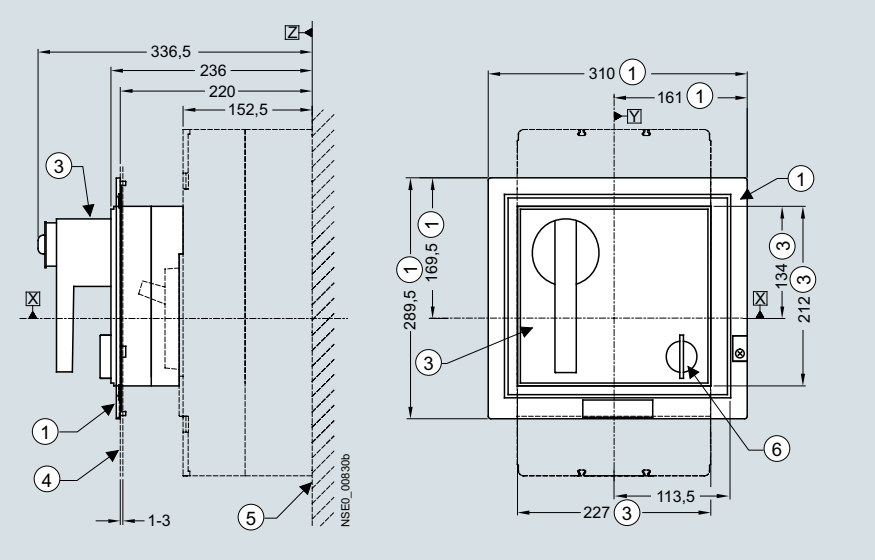
VL1200 UL (NG frame), 3-pole, up to 1200 A
VL1600 UL (PG frame), 3-pole, up to 1600 A

Operating mechanisms

Motorized operating mechanism (3VL9800-3MJ01, 3VL9800-3ML01, 3VL9800-3MS01, 3VL9800-3MN01, 3VL9800-3MQ01)



Front-operated rotary operating mechanism (3VL9800-3HA01, 3VL9800-3HC01)



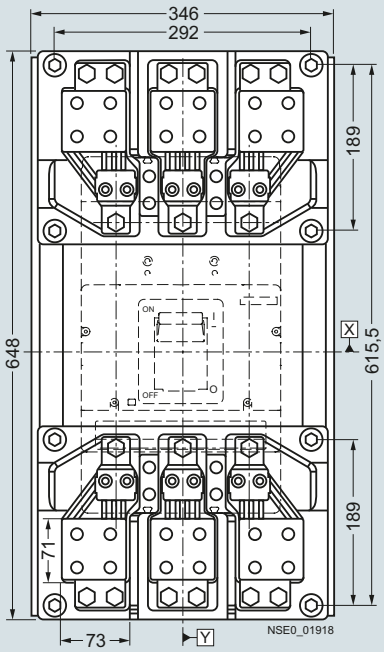
① Masking frame for door cutout (3VL9800-8BG01)
② Motorized operating mechanism
③ Front-operated rotary operating mechanism
④ Outer surface of cabinet door
⑤ Installation level
⑥ Safety lock

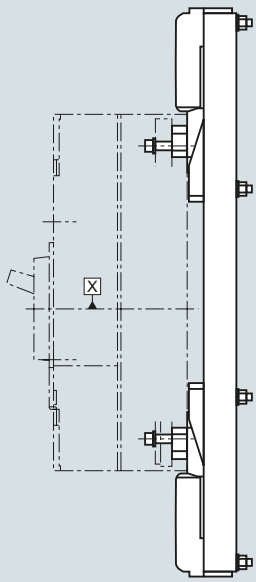
© Siemens 2019

2

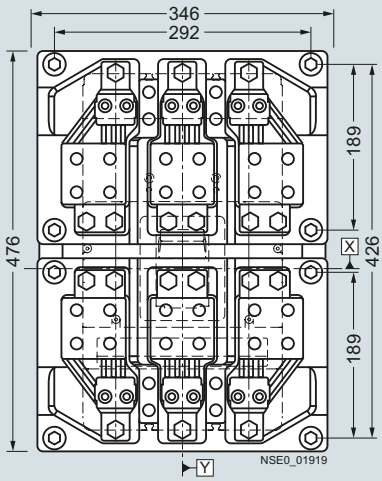
VL1600 UL (PG frame), 3-pole, up to 1600 A

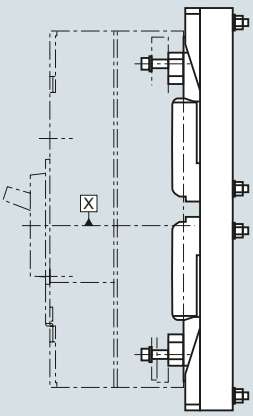
Mounting base, front-accessible connections





Mounting base, rear terminals





Minimum order quantity (PS) or a multiple thereof can be ordered.

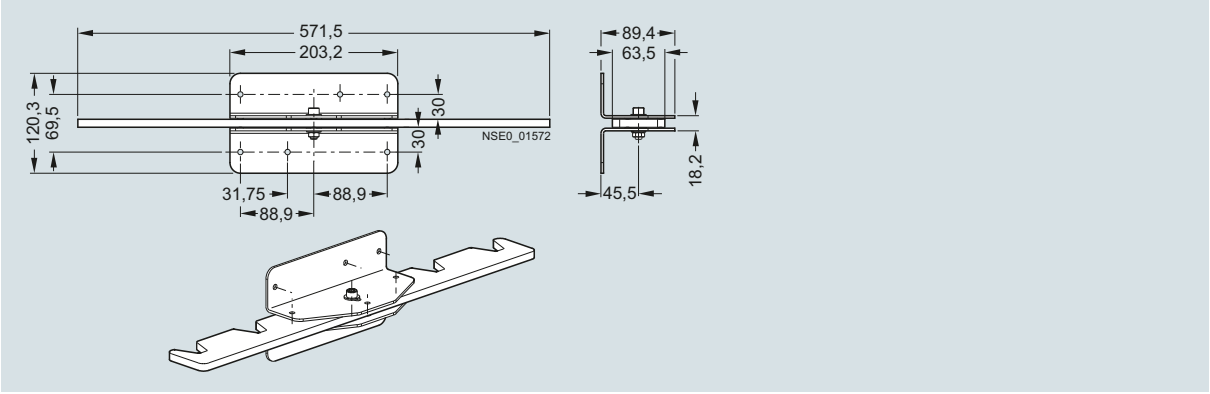
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VL1200 UL (NG frame), 3-pole, up to 1200 A
VL1600 UL (PG frame), 3-pole, up to 1600 A

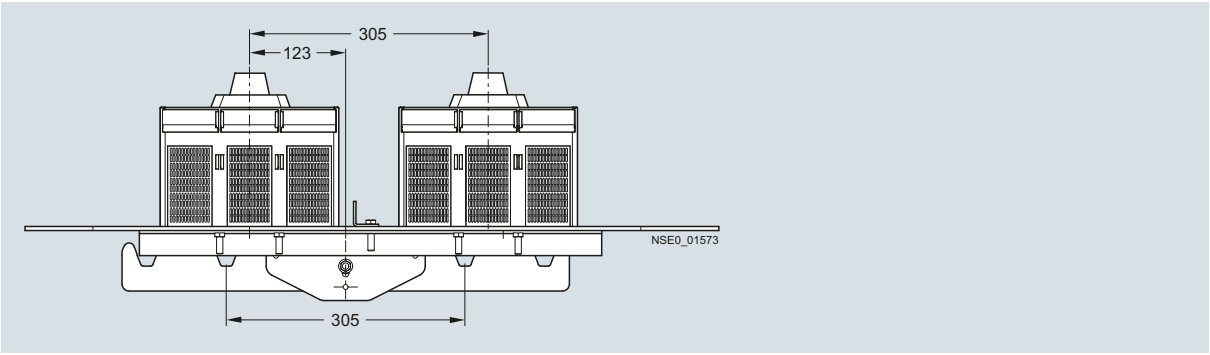
Rear interlocking module (3VL9800-8LC01)

Rear interlocking modules

For other detailed dimensional drawings, please refer to the mounting instructions for the rear interlocking module.



3-pole version



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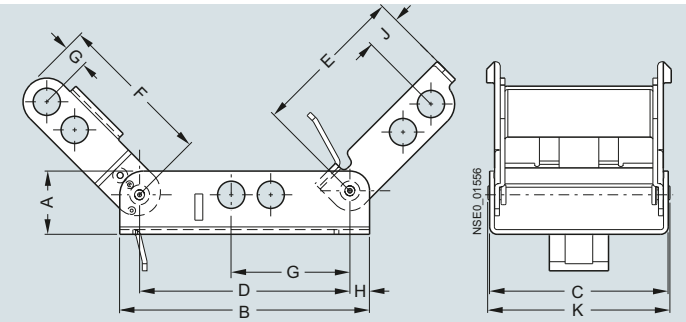
Configuration aids

VL1200 UL (NG frame), 3-pole, up to 1200 A
VL1600 UL (PG frame), 3-pole, up to 1600 A

Interlocks

Locking devices

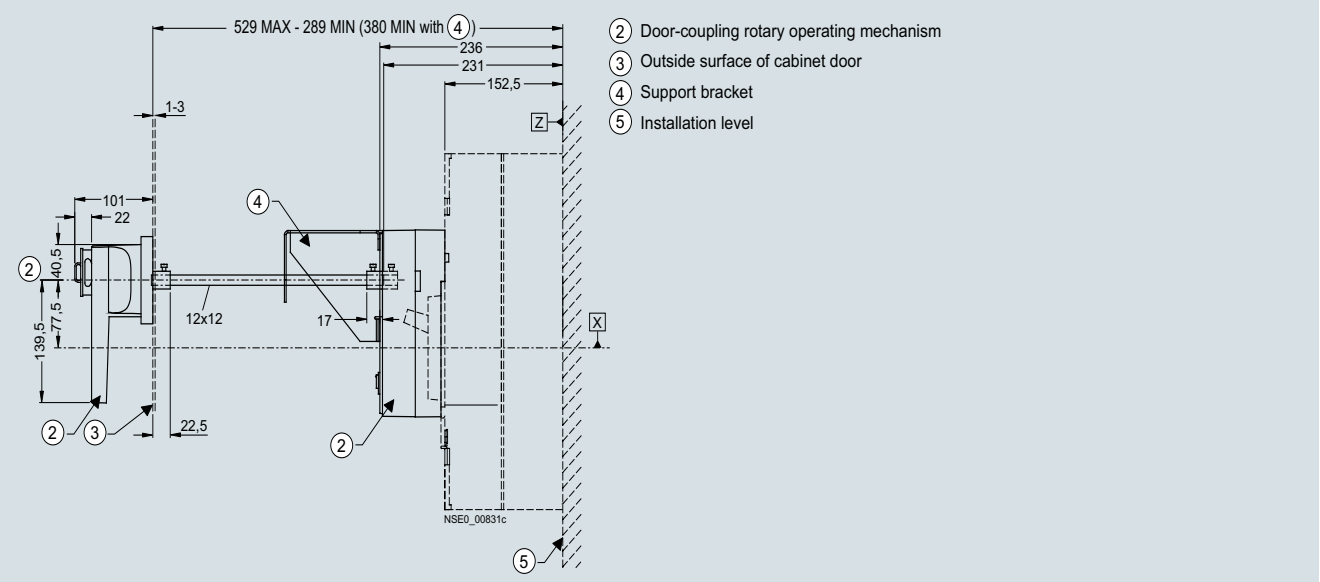
Locking devices for toggle levers (3VL9800-3HL01)



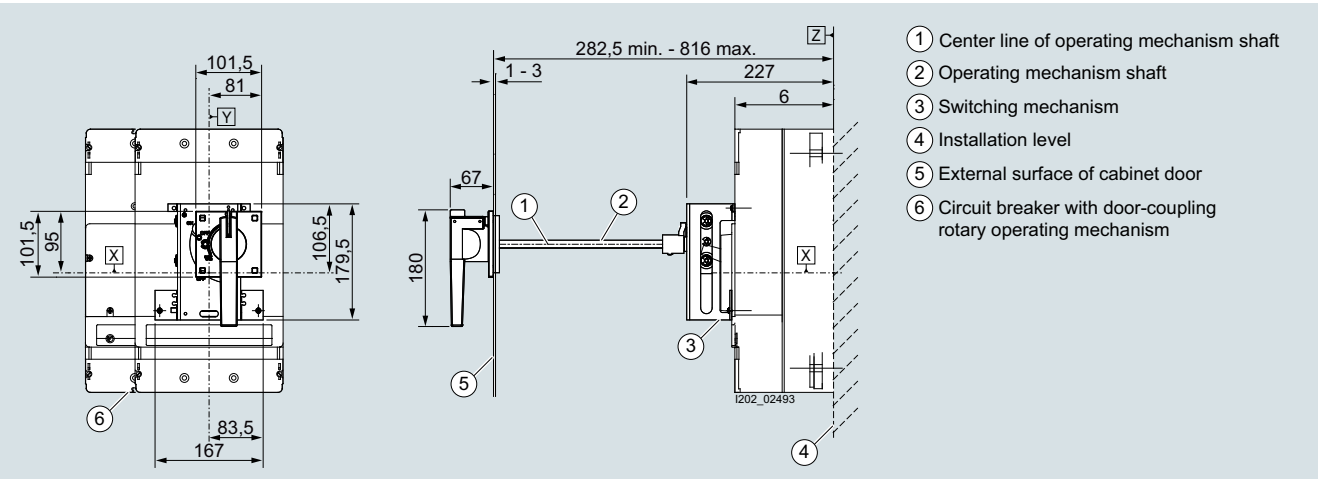
Type	a	b	c	d	e	f	g	h	i	k
3VL94	20.3	80.3	57.4	52.8	49.3	49.8	6.35	6.3	11.2	58.5
3VL96	21.6	79.8	71.1	62.0	50.4	46.5	12.9	8.9	8.6	72.2
3VL98	21.6	110.5	88.9	96.5	77.2	69.1	11.7	5.1	24.8	90.0

Accessories

Molded case circuit breakers with door-coupling rotary operating mechanism (3VL9800-3HF01, 3VL9800-3HG06)



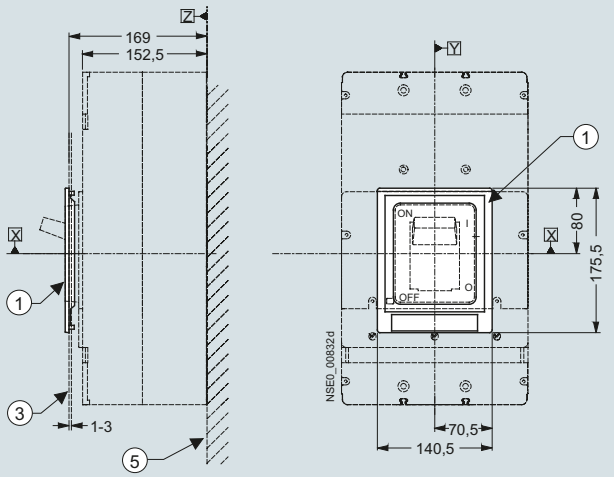
Door-coupling rotary operating mechanism (3VL9800-3JE01, 3VL9800-3JF01, 3VL9800-3JF41)



Minimum order quantity (PS) or a multiple thereof can be ordered.

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Masking frame for door cutout for molded case circuit breakers with toggle lever (3VL9800-8BC01)



1 Masking frame for door cut-out (for circuit breaker with toggle lever)
3 Outside surface of cabinet door
5 Installation level

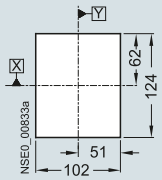
© Siemens 2019

2

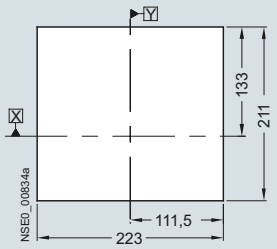
VL1200 UL (NG frame) and VL1600 UL (PG frame), 3-pole, up to 1600 A

Door cutouts

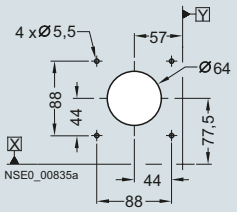
Door cutout toggle lever (without masking frame)



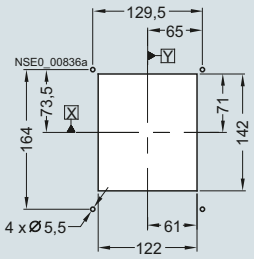
Door cutout front-operated rotary operating mechanism and motorized operating mechanism (without masking frame)



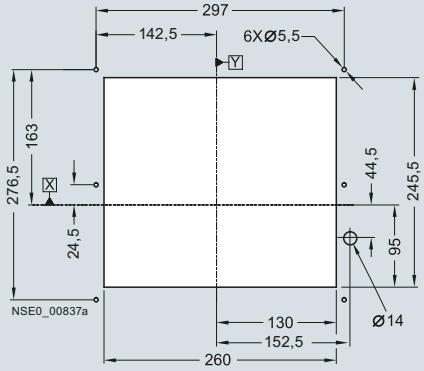
Door cutout Door-coupling rotary operating mechanism



Door cutout toggle lever (with masking frame)



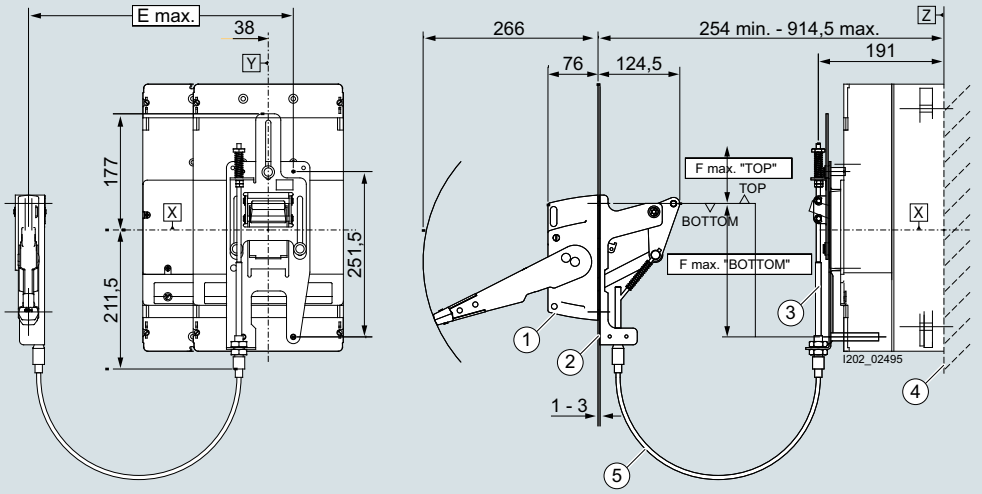
Door cutout front-operated rotary operating mechanism, motorized operating mechanism and extended escutcheon (with masking frame)



Minimum order quantity (PS) or a multiple thereof can be ordered.

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Max Flex operating mechanism (3VL9800-3JM01, 3VL9800-3JP01, 3VL9800-3JP41, 3VL9800-3JP11, 3VL9800-3JN01)



1 Metal handle
2 Handle mounting surface
3 Max Flex operating mechanism
4 Installation level
5 Bowden wire

E max.			F max.				
Cabinet depth mm	3VL9800-3JQ41 length 1200 mm	3VL9800-3JQ61 length 1500 mm	Cabinet depth mm	3VL9800-3JQ41 Length 1200 mm		3VL9800-3JQ61 Length 1500 mm	
				TOP	BOTTOM	TOP	BOTTOM
254	406,5	762	254	203	546	444,5	800
305	393,5	749,5	305	190,5	533,5	457	825,5
406,5	381	749,5	406,5	165	533,5	482,5	813
457	393,5	749,5	457	152,5	520,5	470	813
508	406,5	736,6	508	152,5	508	419	800
609,5	393,5	724	609,5	101,5	482,5	355,5	787,5
762	254	660,5	762	38	393,5	279,5	724
914,5	--	584		--	--	165	597

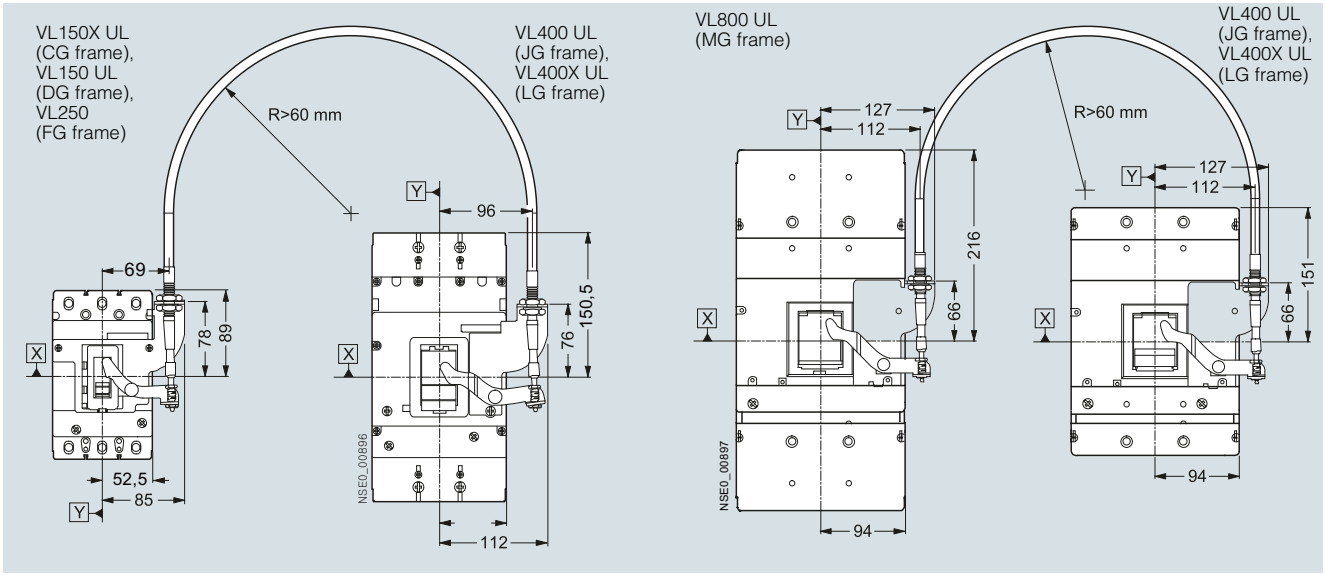
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Product discontinuation

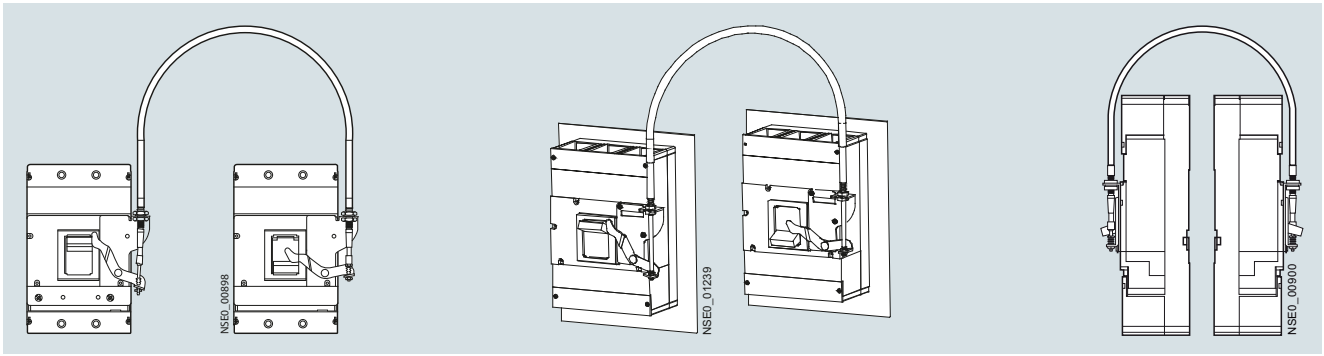
Configuration aids

VL150 UL (DG frame), 3-pole, up to 150 A
VL150X UL (CG frame), 3-pole, up to 150 A
VL250 UL (FG frame), 3-pole, up to 250 A
VL400 UL (JG frame), 3-pole, up to 400 A
VL400X UL (LG frame), 3-pole, up to 600 A
VL800 UL (MG frame), 3-pole, up to 800 A
VL1200 UL (NG frame), 3-pole, up to 1200 A
VL1600 UL (PG frame), 3-pole, up to 1600 A

Locking with Bowden cable



Combination options



	3VL9300-8LA01 for VL150X UL (CG frame), VL150 UL (DG frame) and VL250 UL (FG frame)	**3VL9400-8LA01** for VL400 UL (JG frame) and VL400X UL (LG frame)	**3VL9600-8LA01** for VL800 UL (MG frame)	**3VL9800-8LA01** for VL1200 UL (NG frame) and VL1600 UL (PG frame)
Locking with Bowden cable				
3VL9300-8LA01 for VL150X UL (CG frame), VL150 UL (DG frame) and VL250 UL (FG frame)	✓	✓	✓	--
3VL9400-8LA01 for VL400 UL (JG frame) and VL400X UL (LG frame)	✓	✓	✓	--
3VL9600-8LA01 for VL800 UL (MG frame)	✓	✓	✓	✓
3VL9800-8LA01 for VL1200 UL (NG frame) and VL1600 UL (PG frame)	--	--	✓	✓

✓ Combination possible

Minimum order quantity (PS) or a multiple thereof can be ordered.

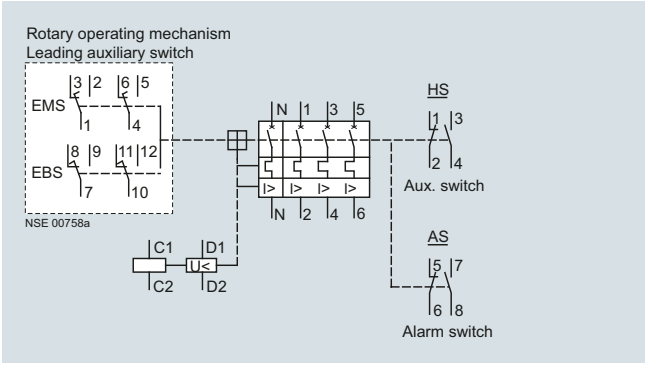
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Circuit diagrams

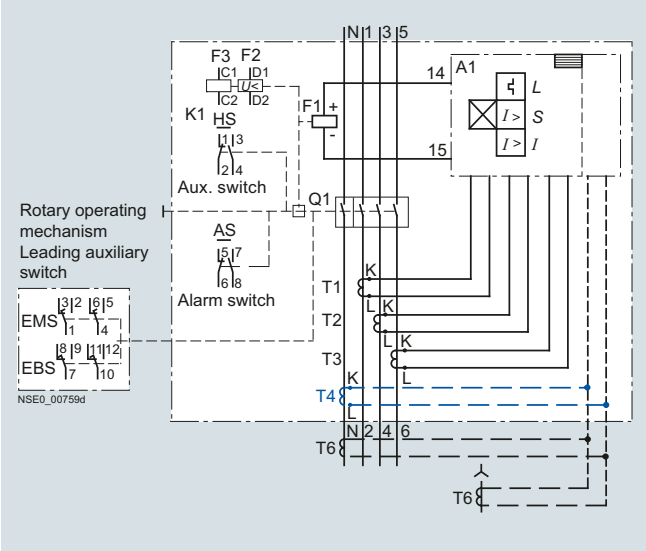
The graphical symbols that the internal circuit diagrams contain only provide information on the type, connection and mode of operation of devices, but not on the design.

It is not possible to show all of the potential combinations here. For versions that differ from those shown, the diagrams must be modified appropriately.

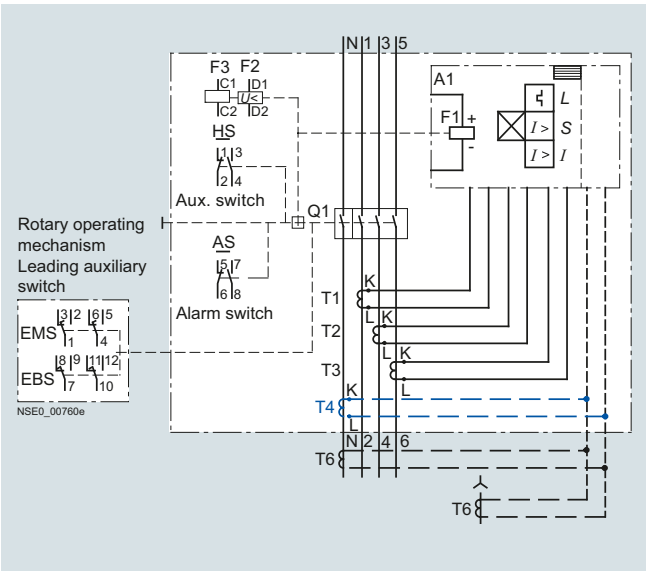
Circuit diagrams are only provided where they are required for improved understanding of the operating of the device.



Connection diagram for VL150X UL (CG frame) to VL1600 UL (PG frame) molded case circuit breakers, for system protection with thermal-magnetic releases



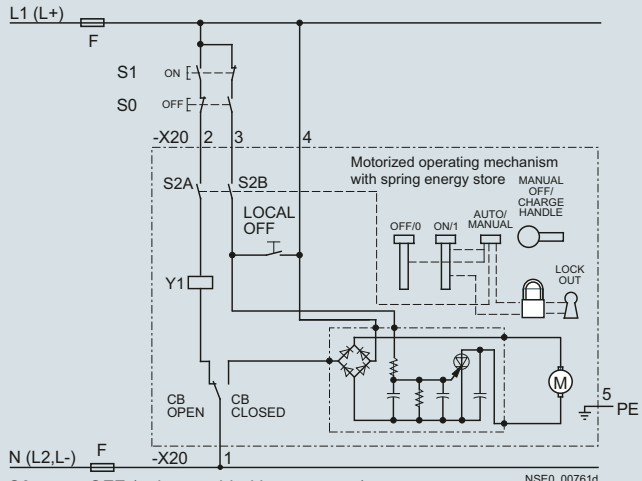
Internal circuit diagram for VL150X UL (CG frame) to VL250 UL (FG frame) molded circuit breakers for system protection with Electronic Trip Units



Internal circuit diagram for VL400 UL (JG frame) to VL1600 UL (PG frame) molded case circuit breakers for system protection with Electronic Trip Units

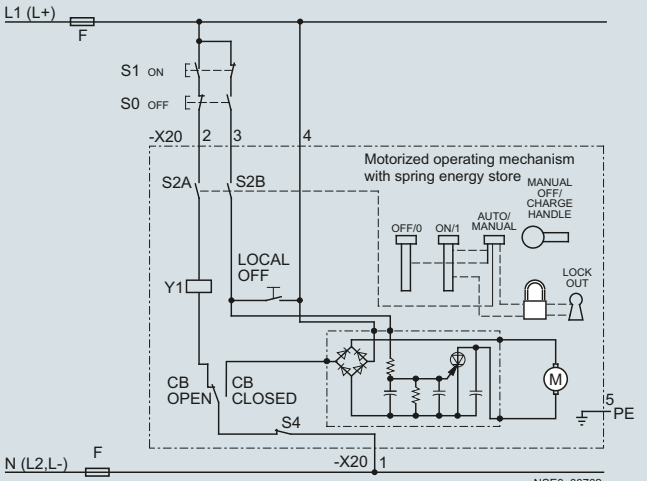
Q1	Main contacts
A1	Electronic Trip Unit
F1	Tripping solenoid for A1
F2	Undervoltage releases
F3	Shunt releases
HS	Auxiliary switches
AS	Alarm switches
EBS	Leading auxiliary switch from ON to OFF (integrated in the rotary operating mechanism)
EMS	Leading auxiliary switch from OFF to ON (integrated in the rotary operating mechanism)
T1 ... T6	Current transformers

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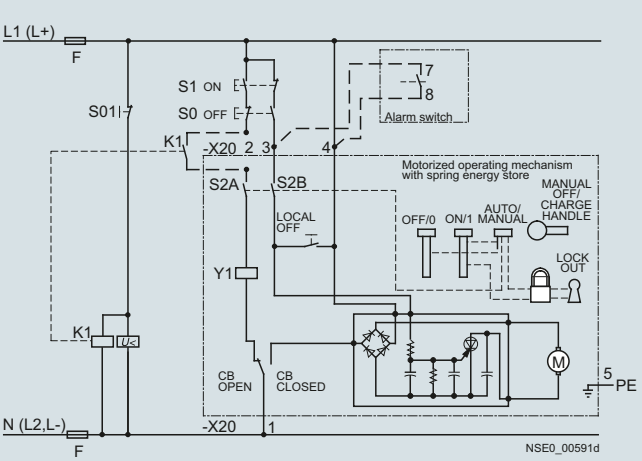
S0	OFF (to be provided by customer)
S1	ON (to be provided by customer)
S2	Selector switch auto/manual
S4	Interlocking switch
Y1	Closing solenoid
F	Fuse in control circuit
S01	Remote control (to be provided by customer)
K1	Contactor relay (to be provided by customer)

Motorized operating mechanism with spring energy store for VL150X UL (CG frame) to VL250 UL (FG frame) molded case circuit breakers without undervoltage release



S0	OFF (to be provided by customer)
S1	ON (to be provided by customer)
S2	Selector switch auto/manual
S4	Interlocking switch
Y1	Closing solenoid
F	Fuse in control circuit
S01	Remote control (to be provided by customer)
K1	Contactor relay (to be provided by customer)

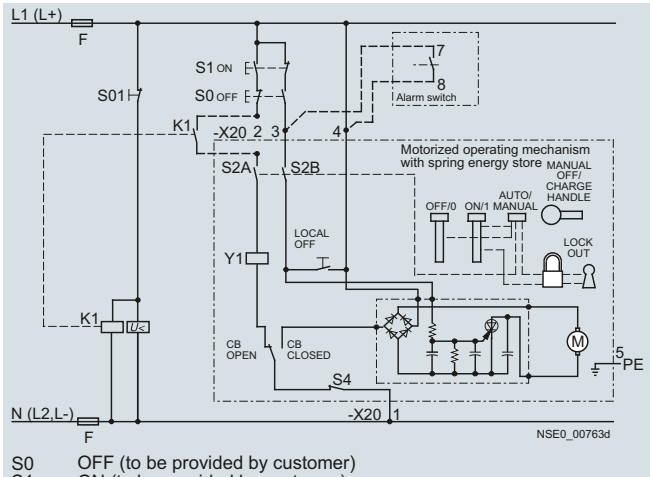
Motorized operating mechanism with spring energy store for VL400 UL (JG frame) to VL800 UL (MG frame) molded case circuit breakers without undervoltage release



S0	OFF (to be provided by customer)
S1	ON (to be provided by customer)
S2	Selector switch auto/manual
Y1	Closing solenoid
F	Fuse in control circuit
S01	Remote control (to be provided by customer)
K1	Contactor relay (to be provided by customer)

Note: A separate alarm switch (7-8) can be provided for automatic charging after tripping.
To prevent a fault occurring in the protected circuit, automatic closing of a tripped molded case circuit breaker is not recommended.

Motorized operating mechanism with spring energy store for VL150X UL (CG frame) to VL250 UL (FG frame) molded case circuit breakers with undervoltage release



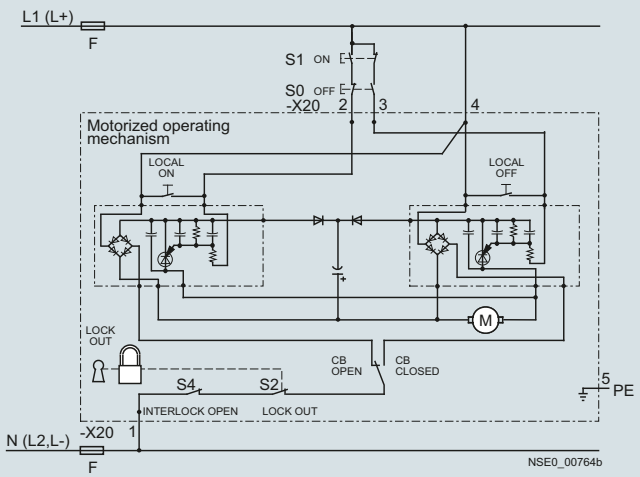
S0	OFF (to be provided by customer)
S1	ON (to be provided by customer)
S2	Selector switch auto/manual
S4	Interlocking switch
Y1	Closing solenoid
F	Fuse in control circuit
S01	Remote control (to be provided by customer)
K1	Contactor relay (to be provided by customer)

Note: A separate alarm switch (7-8) can be provided for automatic charging after tripping.
To prevent a fault occurring in the protected circuit, automatic closing of a tripped molded case circuit breaker is not recommended.

Motorized operating mechanism with spring energy store for VL400 UL (JG frame) to VL800 UL (MG frame) molded case circuit breakers with undervoltage release

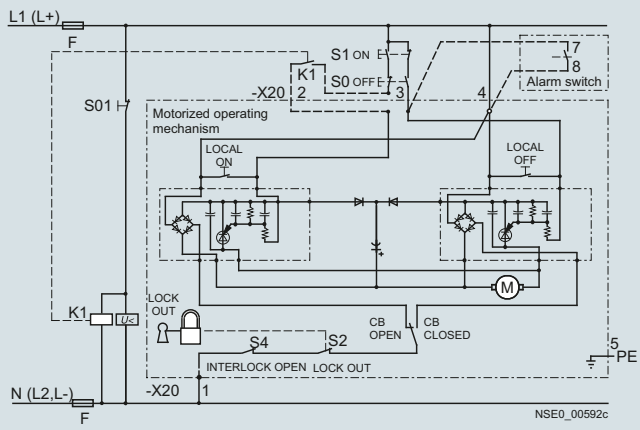
Minimum order quantity (PS) or a multiple thereof can be ordered.

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S0 OFF (to be provided by customer)
S1 ON (to be provided by customer)
S2 Lock out
S4 Interlock open
F Fuse in control circuit
S01 Remote control
K1 Contactor relay

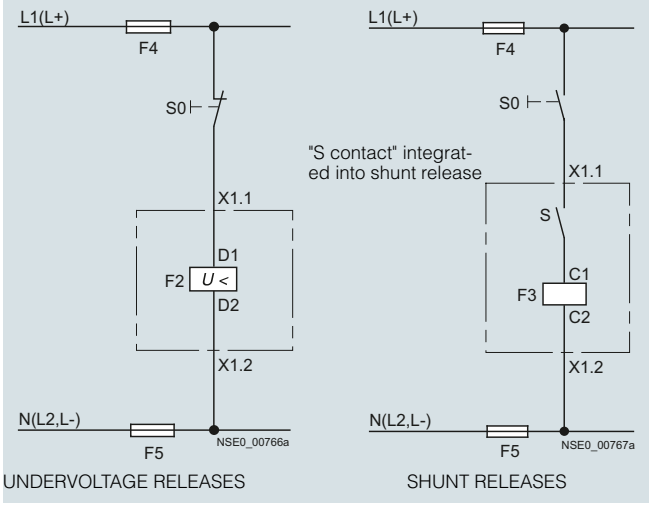
Motorized operating mechanism for VL1200 UL (NG frame) and VL1600 UL (PG frame) molded case circuit breakers without undervoltage release



S0 OFF (to be provided by customer)
S1 ON (to be provided by customer)
S2 Lock out
S4 Interlock open
F Fuse in control circuit
S01 Remote control
K1 Contactor relay

Note: A separate alarm switch (7-8) can be provided for automatic charging after tripping.
To prevent a fault occurring in the protected circuit, automatic closing of a tripped molded case circuit breaker is not recommended.

Motorized operating mechanism for VL1200 UL (NG frame) and VL1600 UL (PG frame) molded case circuit breakers with undervoltage release



Undervoltage and shunt releases for VL150X UL (CG frame) to VL1600 UL (PG frame) molded case circuit breakers

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3/13 Service & Support
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Appendix

Catalog notes

Overview

Trademarks

All product designations may be registered trademarks or product names of Siemens AG or supplier companies whose use by third parties for their own purposes may violate the rights of the owner.

Amendments

Unless stated otherwise on the individual pages of this catalog, we reserve the right to make changes, in particular to the specified values, measurements and weights.

Dimensions

All dimensions are given in mm.

Illustrations

The illustrations are not binding.

Technical specifications

The technical specifications are for general information purposes only. Always heed the operating instructions and notices on individual products during assembly, operation and maintenance.

Further technical information is available at
www.siemens.com/lowvoltage/product-support

- under "Entry type":
  - Application example
  - Certificate
  - Characteristic
  - Download
  - FAQ
  - Manual
  - Product note
  - Software archive
  - Technical data

Configurators can be found at
www.siemens.com/lowvoltage/configurators

Assembly, operation and maintenance

Always heed the operating instructions and notices on individual products during assembly, operation and maintenance.

Symbols

In the table below, you will find all symbols concerning connections that can occur in this catalog. In combination with orange highlighting, these identify special selection criteria.

Connections	
	Screw connection
	Ring cable lug connection
	Spring-loaded terminals

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Logistics

General

With regard to delivery service, communications and environmental protection, our logistics service ensures "quality from the moment of ordering right through to delivery". By designing our infrastructure according to customer requirements and implementing electronic order processing, we have successfully optimized our logistics processes.

We are proud of our personal consulting service, on-time deliveries and one-day transport within Germany.

To this end, we supply preferred types marked with ► ex works.

We regard the ISO 9001 certification and consistent quality checks as an integral part of our services.

Electronic order processing is fast, cost-efficient and error-free. Please contact us if you want to benefit from these advantages.

Packaging, packing units

The packaging in which our equipment is dispatched provides protection against dust and mechanical damage during transport, thus ensuring that all our products arrive in perfect condition.

We select our packaging for maximum environmental compatibility and reusability (e.g. crumpled paper for protection during transport in packages up to 32 kg) and, in particular, with a view to reducing waste.

With our multi-unit and reusable packaging, we offer you specific types of packaging that are both kind to the environment and tailored to your requirements:

Your advantages at a glance:

- Lower ordering costs.
- Cost savings through same-material type packaging: low/no disposal costs.
- Reduced time and cost thanks to short unpacking times.
- "Just-in-time" delivery directly to the production line helps reduce stock: cost savings through reduction of storage areas.
- Fast assembly thanks to supply in sets.
- Standard Euro boxes, corresponding to the Euro pallet modular system, suitable for most conveyor systems.
- Active contribution to environmental protection.

Unless stated otherwise in the "Selection and ordering data" of this catalog, our products are supplied individually packed.

> For small parts/accessories, we offer you cost-effective packaging units as standard packs containing more than one item, e.g. 5, 10, 50 or 100 units. It is essential that whole number multiples of these quantities be ordered to ensure satisfactory quality of the products and problem-free order processing.

The products are delivered in a neutral carton. The label includes warning notices, the CE marking, and device descriptions in English and German.

In addition to the Article No. (MLFB) and the number of items in the packaging, the operating instructions article number (Instr.-Order-No.) is also specified. It can be obtained from your local Siemens representative (for a list of your Siemens contacts, see www.siemens.com/lowvoltage/contact).

Most device Article No.'s can be obtained by means of the EAN barcode to simplify ordering and storage logistics.

The associated master data, too, is available from your local Siemens representative.

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Appendix

Ordering notes

Overview

Ordering special versions

When ordering products that differ from the standard versions listed in the catalog, **"–Z"** must be added to the Article No. indicated and the required features must be specified using alphanumeric order codes or plain text.

Ordering very small quantities

When very small orders are placed, the costs associated with order processing are greater than the order value. We therefore recommend that you combine several small orders. Where this is not possible, we regret that we are obliged to make a small processing charge: for orders with a net goods value of less than € 250 we charge a € 20 supplement to cover our order processing and invoicing costs.

Explanations of Selection and ordering data

Standard delivery time (SD)

► Preferred type — Preferred types are device types that can be delivered immediately ex works, i.e. they are dispatched within 24 hours.

Price units (PU)

The price unit defines the number of units, sets or meters to which the specified price applies.

Packaging size (PS)

The packaging size defines the number of units, sets or meters, for example, for outer packaging.

Only the quantity defined by the packaging size or a multiple thereof can be ordered.

Price group (PG)

Each product is allocated to a price group.

Example

5TT3400

SD: Preferred type
PG: 13C
Ordering quantity 1 unit or a multiple thereof

8US1923-5CA02

PG: 14O
Ordering quantity 10 units or a multiple thereof

8WH9000-1GA00

PG: 12X
Ordering quantity 50 units or a multiple thereof

SD d	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
►	**5TT3400**		1	1 unit	1BK
	8US1923-5CA02		1	10 units	1CU
	8WH9000-1GA00		100	50 units	1BT

Note:

The article numbers shown here and the specifications regarding selection and ordering data are examples only. When ordering, always use the selection and ordering data in the product chapters.

Metal surcharges/export markings

To compensate fluctuating prices of raw materials (for example silver, copper, aluminum, lead, gold, dysprosium and neodymium), surcharges are calculated on a daily basis for products containing these raw materials using the metal factor.
A surcharge for the particular raw material is added to the price of a product if the basic quotations for this raw material are exceeded.

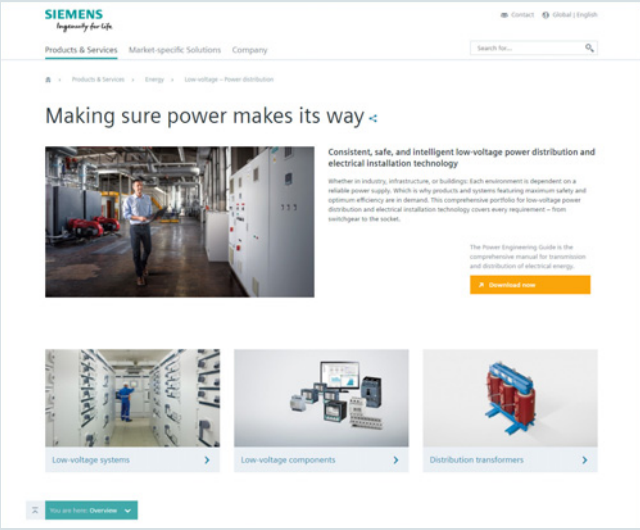
Each product's metal factor dictates for which raw materials the metal surcharges are calculated, from which quotation and with which calculation method (weight or percentage method).

An exact explanation of the metal factor can be found at:
www.siemens.com/automation/salesmaterial-as/catalog/en/terms_of_trade_en.pdf

A product's export markings/metal surcharges are updated daily at www.siemens.com/industrymall.

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Low-Voltage Power Distribution and Electrical Installation Technology on the WWW



On the Internet you will find a host of information all about low-voltage power distribution and electrical installation technology products, such as:

- Overview of our product portfolio
- Background information, news and dates
- Videos, podcasts and newsletters
- Links to blogs and Twitter
- Brochures, catalogs, operating instructions and manuals for direct download

Visit us online and get to know our product range!

www.siemens.com/lowvoltage

Product selection using the interactive catalog CA 01



Detailed information together with user-friendly interactive functions

The interactive catalog CA 01 covers more than 100 000 products, thus providing a comprehensive overview of the product range provided by Siemens.

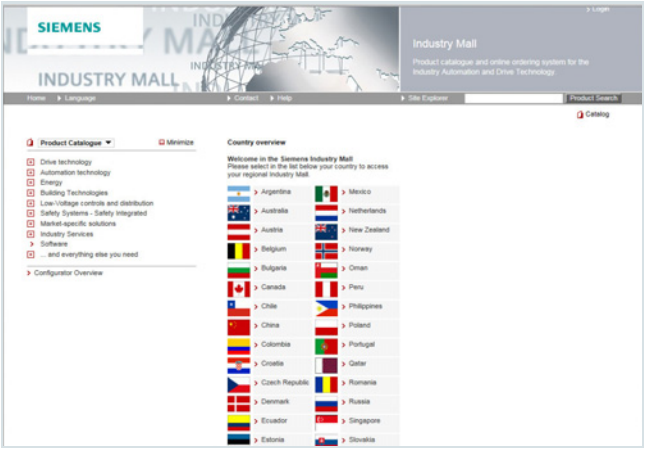
You can find everything you need here for solving automation, switching, installation and drive technology tasks. All information is provided over a user interface that is both user-friendly and intuitive.

Information about the interactive catalog CA 01 can be found on the Internet at:

www.siemens.com/automation/ca01

or on DVD.

Industry Mall



The Industry Mall – for online information, product selection and ordering

- Detailed information including product data, illustrations, certificates and CAx data
- Simple configuring of systems
- Possible to request individualized quotations
- Availability check
- Online ordering facility
- Order tracking/order overview
- Fast access to relevant training offers and services

You can find the Industry Mall on the Internet at

www.siemens.com/industrymall

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Further documentation

Industry Online Support

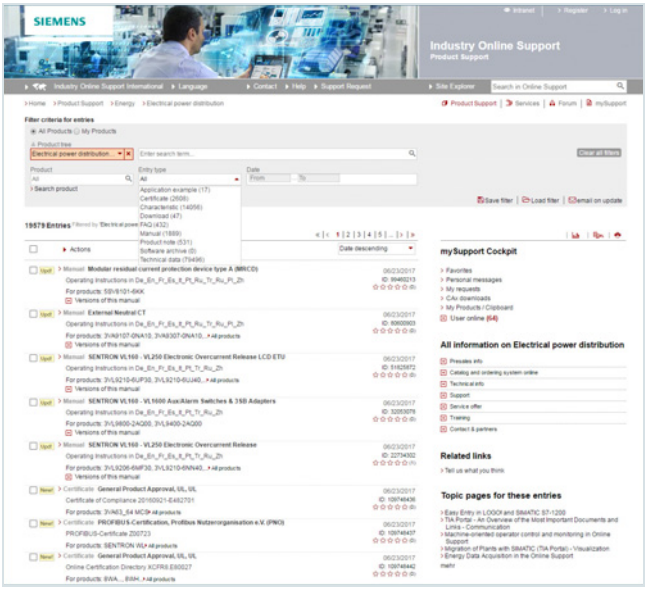


Comprehensive support – at any time, whatever your location

- FAQs, sample applications, information about successor products and product news
- Prompt assistance with technical queries
- Discussions and best practice sharing with other users in the forum
- Provision of high-quality product data for your planning programs
- Faster access to information – with helpful filter and folder functions in mySupport
- Automatic notification service to keep you up to date with the latest information about topics of interest to you

You can find Siemens Industry Online Support on the Internet at:

www.siemens.com/online-support



In the "Entry type" selection box in Product Support, you will find the following:

- Application example
- Certificate
- Characteristic
- Download
- FAQ
- Manual
- Product note
- Software archive
- Technical data

www.siemens.com/lowvoltage/product-support

In addition, the Low-Voltage Power Distribution and Electrical Installation Technology catalogs are also available there.

www.siemens.com/lowvoltage/catalogs

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Industry Online Support App



Main functions at a glance

- Scanning of product codes (EAN/QR and data matrix codes) with direct display of all technical information on the product, including graphic data (CAx data).
- Delivery of product information or entries by email, so that the information can immediately be processed at the workplace.
- Submission of queries to Technical Support (Support Requests). With photo function for transmitting detailed information.
- Contents and interfaces available in 6 languages (German, English, French, Italian, Spanish and Chinese) – including option of temporary switchover to English.
- Offline cache function for all favorites stored in "mySupport". These entries can also be retrieved without network reception.
- Import of PDF documents into a library (e.g. iBooks or similar).

You can find information on the Industry Online Support App on the Internet at

https://new.siemens.com/global/en/products/software/mobile-apps/industry-online-support.html

SIEMENS

Android:

GET IT ON Google Play

Industry Online Support App ANDROID

Apple iOS:

Download on the App Store

Industry Online Support App iOS

Windows:

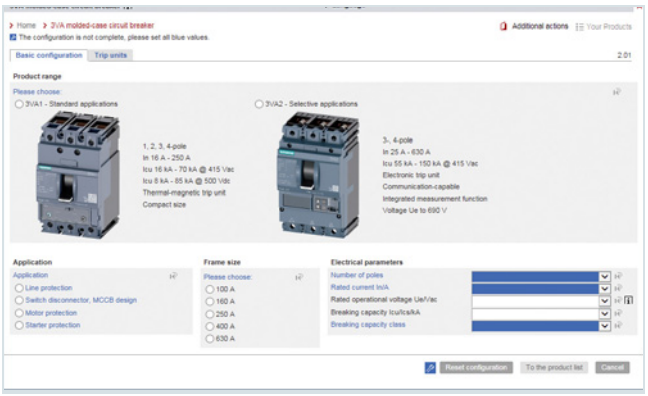
Get it from Microsoft

Industry Online Support App WINDOWS

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Further documentation

Product configurator

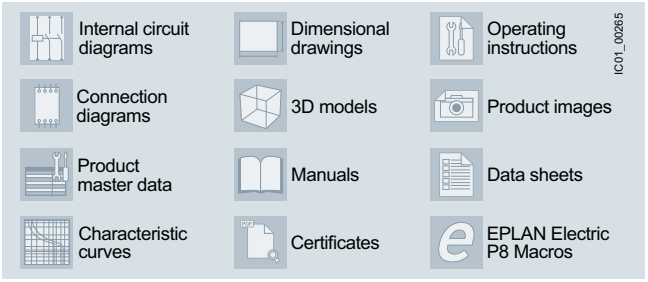


Finding the right product faster

- Complete selection of products and systems based on technical characteristics or application requirements
- Simple, intuitive operation
- Option to save the configuration and order lists in a file format of your choice (txt, pdf, xls, csv)
- Direct transfer of the order list into the shopping cart of the Siemens Industry Mall
- Fast access to product data, diagrams, certificates and CAx data for the selected product and system configuration
- Available in multiple languages for use by customers anywhere in the world

The configurators are available online in the Siemens Industry Mall and offline in Catalog CA 01.
You can find our configurators at the following website:
www.siemens.com/lowvoltage/configurators

CAx Download Manager



You can find the CAx Download Manager on the Internet at

www.siemens.com/lowvoltage/cax

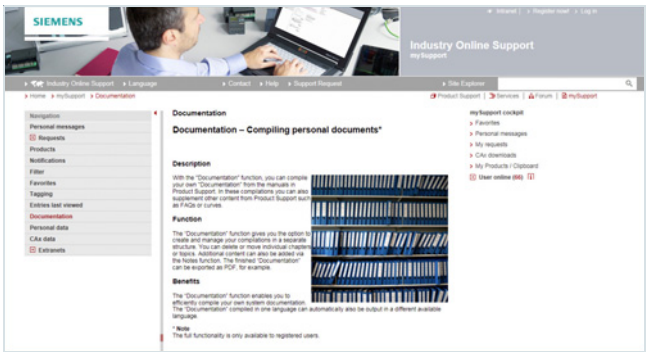
Time savings of up to 80% with universal product data for your CAE and CAD systems

The CAx Download Manager can supply you with all the necessary CAx file types for the products of your choice for use in all common CAE and CAD systems. The data contained in the files is continuously updated. The whole process involves only four selection steps and is free of charge. All your selected files are packed into a zip file which you can download for further use.

Siemens makes available up to 12 file types to support your mechanical (CAD) and electrical (CAE) planning processes for you to download at any time of the day.

- No manual data collection necessary
- Universal manufacturer data for all common CAE and CAD systems
- Standardized documentation is simple to generate
- Choice of different languages for system commissioning anywhere in the world

My Documentation Manager



In "mySupport" you can compile individual documentation for your project by dragging and dropping

* e.g. Low Voltage Directive 2006/95/EC and EC Machinery Directive 2006/42/EC

You can find My Documentation Manager on the Internet at

www.siemens.com/lowvoltage/mdm

User-friendly compilation of project-specific documentation

In accordance with directives*, the documentation is part of the plant and requires certification, thus giving the purchaser the right to full plant documentation.

To support you in this, a manual configurator has been developed with which you can put together individual and standard-compliant documentation – fully in accordance with the relevant project-specific requirements.

You can thus select the chapters relevant to the respective project from the available manuals of the installed Siemens components. FAQs, certificates, data sheets and your own content can also be incorporated.

- Compile and structure manuals, data sheets, FAQs and certificates simply by dragging and dropping
- Insert personalized content via the Notes function
- Further processing possible thanks to selectable export formats (pdf, xml, rtf)
- After generating the documentation, automatic translation into the desired language is possible
- Always up-to-the minute thanks to the Update function

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Overview

The quality management system of our "Low Voltage & Products" Business Unit in the "Energy Management" Division complies with the international EN ISO 9001 standard.

The products and systems listed in this catalog are developed and manufactured using a certified quality management system in accordance with EN ISO 9001:2008.

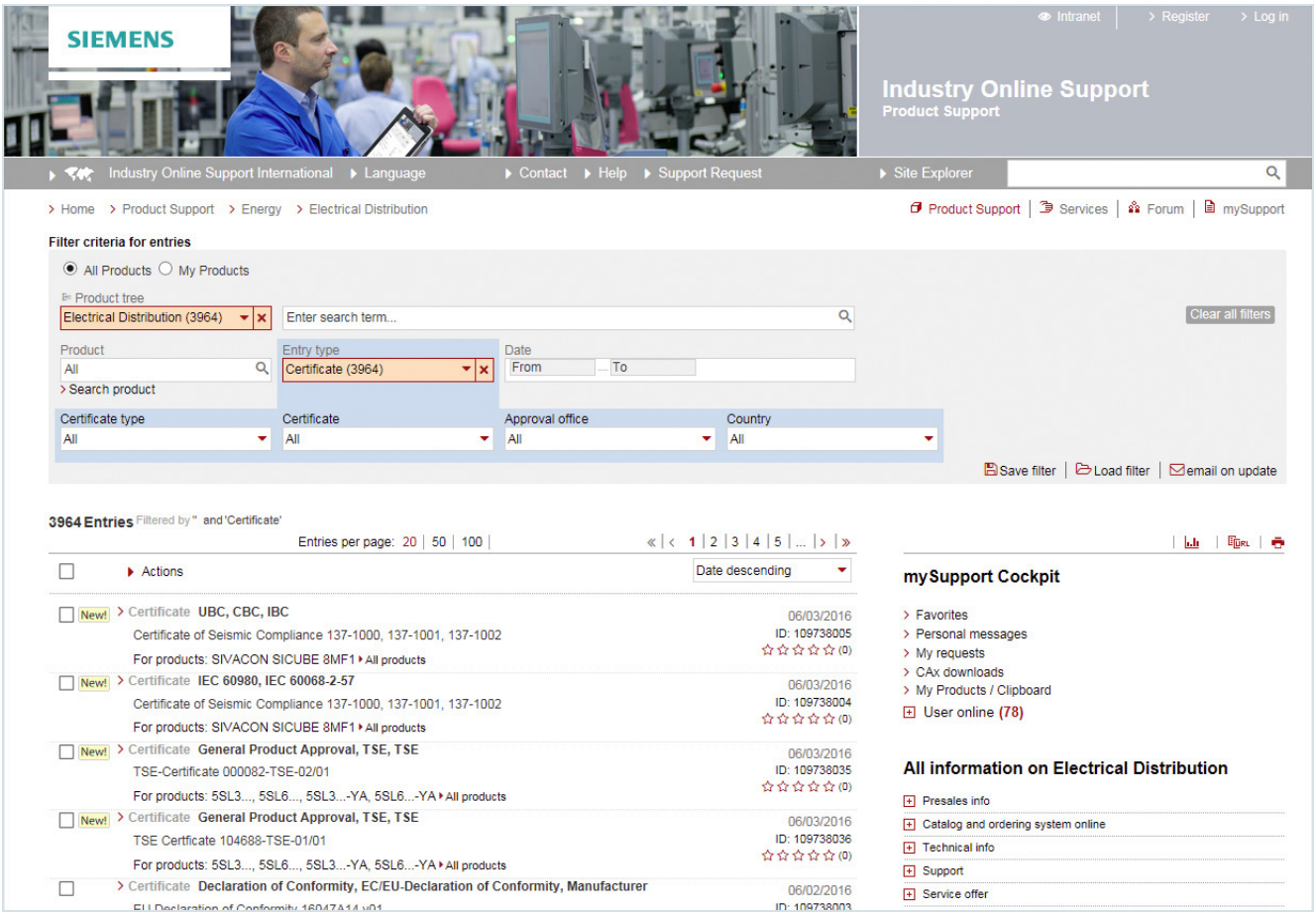
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Overview

Certificates

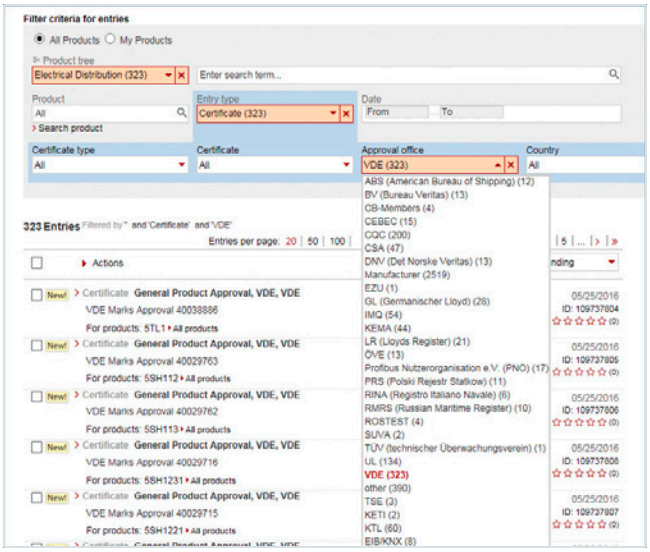
An overview, updated on a daily basis, of our products certified in accordance with CE, UL, CSA, FM, shipping authorizations etc. for low-voltage power distribution and electrical installation products can be found on the Internet at

www.siemens.com/lowvoltage/certificates



In the **Entry list**, you can **filter the view** in order to quickly find comprehensive information on the following subjects:

- Product or search term
- Date
- Type of certificate (general product approval, test certificates, shipping approval, ...)
- Certificate (confirmations, UL, VDE,...)
- Approval office (TÜV, VDE, UL, ...)
- Country



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Approval requirements valid in different countries

Siemens low-voltage switchgear and controlgear are designed, manufactured and tested according to the relevant German standards (DIN and VDE), IEC publications and European standards (EN) as well as CSA and UL standards. You will find the standards assigned to the single devices in the relevant certificates at

www.siemens.com/lowvoltage/certificates

In addition to the pertinent VDE, EN and IEC standards, the requirements of the various regulations valid in other countries have also been taken into account in the design of the equipment in some cases, in order that the devices can be deployed globally as far as possible.

In some countries an approval is required for certain low-voltage switchgear and controlgear components. Depending on the market requirements, these devices have been submitted for approval to the authorized testing institutes.

In some cases, CSA for Canada and UL for the USA only approve special versions. Such special versions are listed separately from the standard versions in the relevant parts of this catalog.

For this equipment, there are sometimes limits with regard to the maximum permissible voltages, currents and rated outputs or special approvals and, in some cases, special identification may be required.

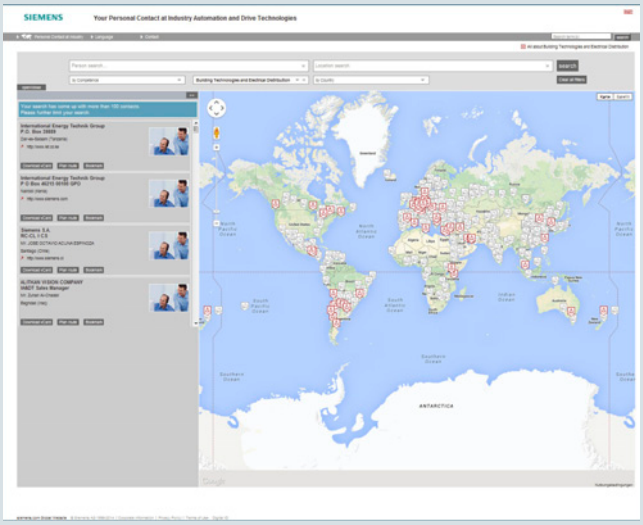
For use on board ship, the specifications of the marine classification societies must be observed. In some cases, they require type tests of the components to be approved.

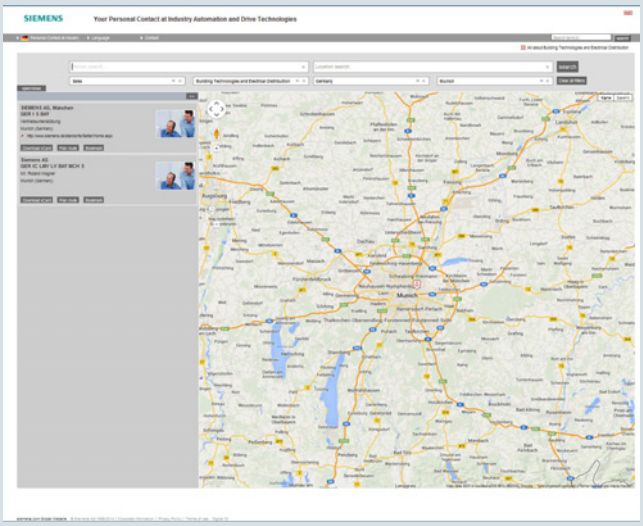
If you have any questions concerning UL/CSA approvals, please contact Technical Support:
www.siemens.com/lowvoltage/contact

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Siemens contacts

Contacts for low-voltage power distribution and electrical installation technology





With low-voltage power distribution and electrical installation technology we consistently pursue one goal:

long-term improvement of your competitive ability.

We are committed to this goal. Thanks to our dedication, we are continually setting new standards. In all industries – worldwide.

At your service, locally, around the globe: partners for consulting, sales, training, service, support, spare parts ... on the entire range of low-voltage power distribution and electrical installation technology.

Your partner can be found in our Personal Contacts Database at:

www.siemens.com/lowvoltage/contact

You start by selecting a

- required competence
- product or sector
- country
- city

or by performing a

- search for a specific location or
- individual.

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Unrivaled complete range of services over the entire life cycle

Online Support



Our comprehensive online information platform covers every aspect of our Service & Support and is available whenever, wherever.

You will find further information at
www.siemens.com/online-support
www.siemens.com/lowvoltage/product-support

Field Service



Siemens Field Service offers support with all aspects of maintenance – so that the availability of your machines and plants is assured whatever the case.

You will find further information at
www.siemens.com/lowvoltage/contact

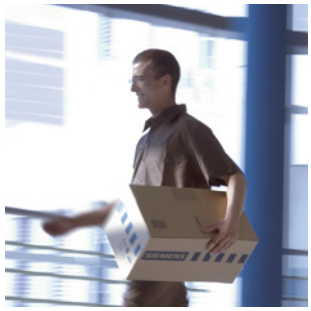
Technical Support



The competent consulting service for technical issues with a broad range of customer-oriented services for all our products and systems.

Assistance with technical queries is provided at
www.siemens.com/lowvoltage/support-request
You can find your local contacts at
www.siemens.com/lowvoltage/contact

Spare Parts



Plants and systems in all industries worldwide are expected to meet ever higher levels of availability.
We can help you rule out unexpected stoppages: with a global network and optimum logistics chains.

You will find further information at
www.siemens.com/lowvoltage/contact

Training



Extend your lead – with practice-related know-how straight from the manufacturer.

You will find further information at
www.siemens.com/lowvoltage/training

Specification texts

You can obtain qualified, free support to help you produce specifications for technically equipping non-residential and industrial buildings at
www.siemens.com/specifications

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Comprehensive support from A to Z

Overview

Product information	
Website	Fast and targeted information on low-voltage power distribution and electrical installation technology: www.siemens.com/lowvoltage
Newsletter	Always up to date about our trend-setting products and systems: www.siemens.com/lowvoltage/newsletter
Product information/product & system selection	
Siemens Industry Online Support	Low-Voltage Power Distribution and Electrical Installation Technology catalogs www.siemens.com/lowvoltage/catalogs
Industry Mall	Comprehensive information and order platform for the Siemens Industry Basket: www.siemens.com/lowvoltage/mall
CA 01	Every product for automation and drive technology, Interactive Catalog, DVD
Product and system engineering	
SIMARIS software tools	Support in planning and configuring the electrical power distribution: www.siemens.com/simaris
SIMARIS configuration software	Support throughout the entire configuration cycle from the configuration of SIVACON S8 switchboards, ALPHA distribution boards, cost calculations and quotation preparation, right through to the creation of plant documentation: www.siemens.com/simarisconfig
Software for power loss calculations - SIMARIS therm	Support in performing power loss calculations for the dimensioning of control cabinets: www.siemens.com/simaristherm
Product documentation	
Siemens Industry Online Support	Comprehensive technical information – from planning to configuration and operation: www.siemens.com/online-support www.siemens.com/lowvoltage/product-support
Product configurator	Complete selection of products and systems based on technical characteristics or application requirements: www.siemens.com/lowvoltage/configurators
CAx Download Manager	Collation of CAx data types for standard CAE and CAD systems: www.siemens.com/lowvoltage/cax
My Documentation Manager	Compilation of project-specific documentation: www.siemens.com/lowvoltage/mdm
Image database	Collection of product photographs and graphics, such as dimensional drawings and internal circuit diagrams: www.siemens.com/lowvoltage/picturedb
Product training	
SITRAIN Portal	Comprehensive training program for our products, systems and engineering tools: www.siemens.com/lowvoltage/training
Product hotline	
Technical Support	Support in all technical queries about our products: www.siemens.com/lowvoltage/support-request

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Overview

Software types

Software requiring a license is categorized into types.
The following software types have been defined:

- Engineering software
- Runtime software

Engineering software

This includes all software products for creating (engineering) user software, e.g. for configuring, programming, parameterizing, testing, commissioning or servicing.

Data generated with engineering software and executable programs can be duplicated for your own use or for use by third-parties free-of-charge.

Runtime software

This includes all software products required for plant/machine operation, e.g. operating system, basic system, system expansions, drivers, etc.

The duplication of the runtime software and executable programs created with the runtime software for your own use or for use by third-parties is subject to a charge.

You can find information about license fees according to use in the ordering data (e.g. in the catalog). Examples of categories of use include per CPU, per installation, per channel, per instance, per axis, per control loop, per variable, etc.

Information about extended rights of use for parameterization/configuration tools supplied as integral components of the scope of delivery can be found in the readme file supplied with the relevant product(s).

License types

Siemens Industry Automation & Drive Technologies offers various types of software license:

- Floating license
- Single license
- Rental license
- Rental floating license
- Trial license
- Demo license
- Demo floating license

Floating license

The software may be installed for internal use on any number of devices by the licensee. Only the concurrent user is licensed. The concurrent user is the person using the program. Use begins when the software is started.
A license is required for each concurrent user.

Single license

Unlike the floating license, a single license permits only one installation of the software per license.

The type of use licensed is specified in the ordering data and in the Certificate of License (CoL). Types of use include for example per instance, per axis, per channel, etc.

One single license is required for each type of use defined.

Rental license

A rental license supports the "sporadic use" of engineering software. Once the license key has been installed, the software can be used for a specific period of time (the operating hours do not have to be consecutive).
One license is required for each installation of the software.

Rental floating license

The rental floating license corresponds to the rental license, except that a license is not required for each installation of the software. Rather, one license is required per object (for example, user or device).

Trial license

A trial license supports "short-term use" of the software in a non-productive context, e.g. for testing and evaluation purposes. It can be transferred to another license.

Demo license

The demo license support the "sporadic use" of engineering software in a non-productive context, for example, use for testing and evaluation purposes. It can be transferred to another license. After the installation of the license key, the software can be operated for a specific period of time, whereby usage can be interrupted as often as required.

One license is required per installation of the software.

Demo floating license

The demo floating license corresponds to the demo license, except that a license is not required for each installation of the software. Rather, one license is required per object (for example, user or device).

Certificate of license (CoL)

The CoL is the licensee's proof that the use of the software has been licensed by Siemens. A CoL is required for every type of use and must be kept in a safe place.

Downgrading

The licensee is permitted to use the software or an earlier version/release of the software, provided that the licensee owns such a version/release and its use is technically feasible.

Delivery versions

Software is constantly being updated.
The following delivery versions

- PowerPack
- Upgrade

can be used to access updates.

Existing bug fixes are supplied with the ServicePack version.

PowerPack

PowerPacks can be used to upgrade to more powerful software. The licensee receives a new license agreement and CoL (Certificate of License) with the PowerPack. This CoL, together with the CoL for the original product, proves that the new software is licensed.
A separate PowerPack must be purchased for each original license of the software to be replaced.

Upgrade

An upgrade permits the use of a new version of the software on the condition that a license for a previous version of the product is already held.
The licensee receives a new license agreement and CoL with the upgrade. This CoL, together with the CoL for the previous product, proves that the new version is licensed.
A separate upgrade must be purchased for each original license of the software to be upgraded.

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Software licenses

Overview

ServicePack

ServicePacks are used to debug existing products. ServicePacks may be duplicated for use as prescribed according to the number of existing original licenses.

License key

Siemens Industry Automation & Drive Technologies supplies software products with and without license keys.

The license key serves as an electronic license stamp and is also the "switch" for activating the software (floating license, rental license, etc.).

The complete installation of software products requiring license keys includes the program to be licensed (the software) and the license key (which represents the license).

Software Update Service (SUS)

As part of the SUS contract, all software updates for the respective product are made available to you free of charge for a period of one year from the invoice date. The contract will automatically be extended for one year if it is not canceled three months before it expires.

The possession of the current version of the respective software is a basic condition for entering into an SUS contract.

You can download explanations concerning license conditions from www.siemens.com/automation/salesmaterial-as/catalog/en/terms_of_trade_en.pdf

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1. General standards

By using this catalog you can acquire hardware and software products described therein from Siemens AG subject to these conditions of sale and delivery (hereinafter: CSD). Please note: the scope, the quality and the conditions for supplies and services, including software products, by any Siemens group or Regional Company having a registered office outside of Germany, shall be subject exclusively to the General Terms and Conditions of the respective Siemens entity. These CSD apply exclusively for orders placed with Siemens AG, Germany.

1.1 For customers with a seat or registered office in Germany

For customers with a seat or registered office in Germany, the following shall be subordinate to these CSD

- for installation, the "Standard Terms and Conditions for Installation –Germany" and
- for Plant Analytics Services the "Standard Terms and Conditions for Plant Analytics Services – for Customers in Germany"[1)] and
- for standalone software products and software products that are part of another product or project, the "General License Conditions for Software Products for Automation and Drives for Customers with a Seat or Registered Office in Germany"[1)] and
- for other supplies and services, the "General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry"[1)].
  In the event that such other supplies and services include open-source software, the conditions of which override the "General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry"[1)], the product will be supplied with a notice detailing the special conditions that apply for the relevant open-source software. This applies accordingly in the case of a reference to other third-party software components.

1.2 For customers with a seat or registered office outside of Germany

For customers with a seat or registered office outside of Germany, the following shall be subordinate to these CSD

- for Plant Analytics Services the "Standard Terms and Conditions for Plant Analytics Services"[1)] (only available in English) and
- for services, the "International Terms & Conditions for Services"[1)] supplemented by the "Software Licensing Conditions"[1)] and
- for the supply of other hardware and software the "International Terms & Conditions for Products"[1)] supplemented by the "Software Licensing Conditions"[1)].

1.3 For customers with framework agreements

To the extent that our products and services are covered by an existing framework agreement, the conditions there apply instead of this CSD.

2. Prices

The prices are in € (euros) ex works, excluding packaging.

The sales tax (value added tax) is not included in the prices. It shall be debited separately at the respective rate according to the applicable legal regulations.

Prices are subject to change without prior notice. We will debit the prices valid at the time of delivery.

To compensate fluctuating prices of raw materials (for example silver, copper, aluminum, lead, gold, dysprosium and neodymium), surcharges are calculated on a daily basis for products containing these raw materials using the metal factor. A surcharge for the particular raw material is added to the price of a product if the basic quotations for this raw material are exceeded.

Each product's metal factor dictates for which raw materials the metal surcharges are calculated, from which quotation and with which calculation method (weight or percentage method).

An exact explanation of the metal factor can be found at: www.siemens.com/automation/salesmaterial-as/catalog/en/terms_of_trade_en.pdf

The surcharge will be calculated (except in the case of dysprosium and neodymium) on the basis of the official price on the day prior to receipt of the order or prior to the release order for calculation of the surcharge.

In the event of placement of an order, the relevant three-month average price from the quarter prior to order receipt or the release order shall be used with a one-month buffer to calculate the dysprosium and neodymium surcharge ("rare earths") (you will find details in the aforementioned explanation of the metal factor).

3. Additional terms and conditions

All dimensions are in mm. In Germany, according to the German law on units in metrology, data in inches only apply to devices for export.

Illustrations are not binding.

Insofar as there are no remarks on the corresponding pages of this catalog - especially with regard to data, dimensions and weights given - these are subject to change without prior notice.

[1)] You can download the text of the Siemens AG terms and conditions of trade at www.siemens.com/automation/salesmaterial-as/catalog/en/terms_of_trade_en.pdf

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4. Export regulations

We shall not be obligated to fulfill this agreement if such fulfillment is prevented by any impediments arising out of national or international foreign trade or customs requirements or any embargoes or other sanctions.

Exporting may be subject to authorization. In delivery information, we label authorization obligations according to German, European and US export lists.

Our products are controlled by the U.S. authorities (goods labeled with "ECCN" not equal to "N") and may only be supplied to the stated country of the end user for sole use by the end user. Without U.S. government approval or other approval under U.S. law, the products may not be sold, transferred or otherwise forwarded to other countries or to other persons other than the specified end user, either in their original form or after further processing into other goods. Goods labeled with an "AL" not equal to "N" are subject European/national export authorization requirements.

Please note that you can also preview the export designations in the respective product description via our "Industry Mall" online catalog system. The deciding factors, however, are the AL or ECCN export designations indicated on order confirmations, delivery notes and invoices.

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If you transfer goods (hardware and/or software and/or technology as well as corresponding documentation, regardless of the mode of provision) delivered by us or works and services (including all kinds of technical support) performed by us to a third party worldwide, you shall comply with all applicable national and international (re-) export control regulations.

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SINAMICS G180 Converters – Compact Units, Cabinet Systems, Cabinet Units Air-Cooled and Liquid-Cooled	D 18.1
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