© Siemens 2019

SIEMENS



SENTRON • SIVACON • ALPHA

Low-Voltage Power Distribution and Electrical Installation Technology

Monitoring Devices

Catalog Extract LV 10

Edition 04/2019

siemens.com/lowvoltage

© Siemens 2019

Related catalogs

Low-Voltage Power Distribution and Electrical Installation Technology LV 10
SENTRON • SIVACON • ALPHA
Protection, Switching, Measuring and Monitoring Devices, Switchboards and Distribution Systems

PDF (E86060-K8280-A101-A9-7600)
Print (E86060-K8280-A101-A6-7600)



Air Circuit Breakers and Molded Case Circuit Breakers with UL Certification LV 18
SENTRON

PDF (E86060-K8280-E347-A2-7600)



Industrial Controls IC 10
SIRIUS

PDF (E86060-K1010-A101-A9-7600)



Industrial Communication IK PI
SIMATIC NET

E86060-K6710-A101-B8-7600



DELTA ET D1
Switches and Socket Outlets

PDF



SITRAIN
Training for Industry

www.siemens.com/sitrain



Catalog PDF / Contact

Catalog PDF
Digital versions of the catalogs are available in the Siemens Industry Online Support.

www.siemens.com/lowvoltage/catalogs



Contact
Your personal contact can be found in our Contacts Database at:

www.siemens.com/automation-contact



Industry Mall / TIA ST / CA 01

Industry Mall
Information and Ordering Platform on the Internet:

www.siemens.com/industrymall



Siemens TIA Selection Tool
for the selection, configuration and ordering of TIA products and devices

www.siemens.com/tst

Products for Automation and Drives CA 01
Interactive Catalog
Download

www.siemens.com/ca01download



Trademarks

All product designations may be registered trademarks or product names of Siemens AG or other supplying companies. Third parties using these trademarks or product names for their own purposes may infringe upon the rights of the trademark owners. Further information about low-voltage power distribution and electrical installation technology is available on the Internet at:

www.siemens.com/lowvoltage

Technical Support



Expert advice on technical questions with a wide range of demand-optimized services for all our products and systems.

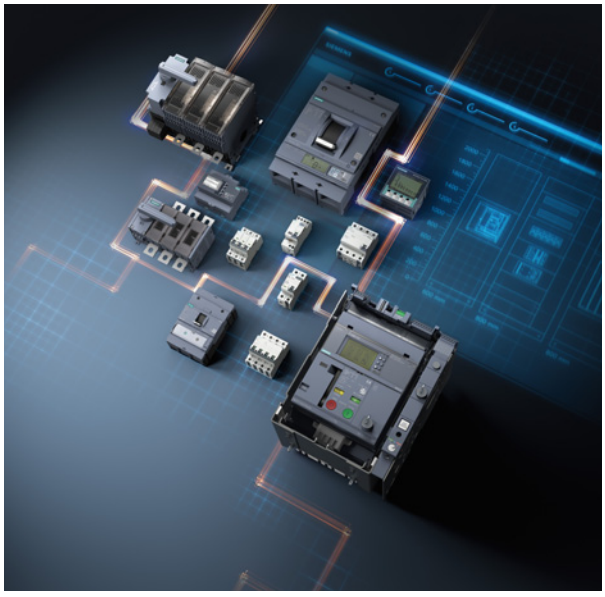
www.siemens.com/lowvoltage/support-request

© Siemens 2019

Low-Voltage Power Distribution and Electrical Installation Technology

Protection, Switching, Measuring and Monitoring Devices, Switchboards and Distribution Systems

SENTRON · SIVACON · ALPHA



Catalog LV 10 · 04/2019

You can find the updated catalog valid from October 2019 in the Siemens Industry Online Support under www.siemens.com/lowvoltage/catalogs

Supersedes:
Catalog LV 10 · 10/2018

Refer to the Industry Mall for current prices:
www.siemens.com/industrymall

The products in this catalog can also be found in the Interactive Catalog CA 01:
www.siemens.com/ca01download

Please contact your local Siemens branch.

© Siemens AG 2019

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.

Protection, Switching, Measuring and Monitoring Devices

- Air Circuit Breakers 1
- Molded Case Circuit Breakers 2
- Miniature Circuit Breakers 3
- Residual Current Protective Devices / Arc-Fault Detection Devices (AFDDs) 4
- Fuse Systems 5
- Overvoltage Protection Devices 6
- Switch Disconnectors 7
- Transfer Switching Equipment and Load Transfer Switches 8
- Switching Devices 9
- Transformers, Power Supply Units and Socket Outlets 10
- Busbar Systems 11
- Measuring Devices and Power Monitoring 12
- **Monitoring Devices** 13
- Terminal Blocks 14
- Software 15

Switchboards and Distribution Systems

- Switchboards 16
- Busbar Trunking Systems 17
- System Cubicles, System Lighting and System Air-Conditioning 18
- Power Distribution Boards / Distribution Boards 19

- Appendix 20

© Siemens 2019

Opening Information

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.

© Siemens 2019



13/2 **Introduction**

Monitoring devices for electrical values
5SV8 residual current monitors
13/4 - General data
13/5 - Type A
13/10 - Type B
13/14 5TT3 voltage relays
13/17 5TT6 current relays
13/19 5TT3 fuse monitors
13/20 5TT3 phase and phase sequence monitors
13/21 5TT3 insulation monitors for industrial applications

Monitoring devices for plants and equipment
13/22 5TT3 fault signaling units
13/23 5TT5 EMERGENCY STOP modules
13/24 5TT3 level relays
13/26 5TT3 line circuit relays

Charging infrastructure for electric vehicles
5TT3 charging units
13/27 - VersiCharge IEC NEW

For further technical product information:

Configuration Manual

Monitoring Devices
Article No.: 3ZW1012-5SV80-0AC1

Siemens Industry Online Support:

www.siemens.com/lowvoltage/product-support

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

© Siemens 2019

Overview

Devices		Page	Application	Standards	Used in		
					Non-residential buildings	Residential buildings	Industry
Monitoring devices for electrical values							
	**5SV8 residual current monitors**	13/4	To increase system availability and operating safety through continuous monitoring of residual current in electrical systems and signaling if a defined threshold is exceeded.	IEC 62020; EN 62020	✓	--	✓
	**Modular residual current devices (MRCD), type A, type B**	13/5	The MRCDs are modular residual current devices for personnel and fire protection.	EN 60947-2 (Annex M); IEC 60947-2 (Annex M)	✓	--	✓
	**5TT3 voltage relays**	13/14	Monitoring the voltage of emergency lighting in public buildings, short-time failures of 20 ms, for ensuring operational parameters for devices or system components or monitoring the neutral conductor for breaks.	IEC 60255; DIN VDE 0435-303; DIN VDE 0108; DIN VDE 0435; DIN VDE 0633	✓	--	✓
	**5TT6 current relays**	13/17	Monitoring of emergency and signal lighting and motors. All current relays can be short-time overloaded and connected either with direct measurement or through transformers.	IEC 60255; DIN VDE 0435-303	✓	--	✓
	**5TT3 fuse monitors**	13/19	Monitoring of all types of low-voltage fuses. Can be used in asymmetric systems afflicted with harmonics and regenerative feedback motors.	IEC 60255; DIN VDE 0435	✓	--	✓
	**5TT3 phase and phase sequence monitors**	13/20	For the visual signaling of phase failures or phase sequences in three-phase systems. The phase sequence is arbitrary. The device is also suitable for 1, 2 or 3-phase operation.	IEC 60255; DIN VDE 0435	--	--	✓

13

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

© Siemens 2019

Devices		Page	Application	Standards	Used in		
					Non-residential buildings	Residential buildings	Industry
	**5TT3 insulation monitors for industrial applications**	13/21	To increase system availability and operating safety through continuous monitoring of the isolation resistance in non-grounded direct voltage or AC voltage systems.	IEC 60255; IEC 61557	--	--	✓
Monitoring devices for plants and equipment							
	**5TT3 fault signaling units**	13/22	Evaluation and display of fault alarms and alarm signals for monitoring industrial plants and control systems. With 4 inputs and connections for 39 expansion fault signaling units.	IEC 60255, DIN VDE 0435-303	✓	--	✓
	**5TT5 EMERGENCY STOP modules**	13/23	For EMERGENCY-OFF switching in accordance with the Directive 98/37/EC on Safety of Machines. Safe types of circuits for machines, plants or test stations in industrial, commercial and private enterprise applications.	According to the Machinery Directive 98/37/EC; EN 954-1	✓	--	✓
	**5TT3 level relays**	13/24	Control of liquid levels in containers with 3 electrode connections for 1-step and 2-step level control. High immunity to interference of the measuring circuit isolated from the system.	IEC 60255, DIN VDE 0435	✓	--	✓
	**5TT3 line circuit relays**	13/26	For disconnecting the voltage of unused lines when loads are disabled.	IEC 60255, DIN VDE 0435	--	✓	--
Charging infrastructure for electric vehicles							
	**VersiCharge IEC charging unit** NEW	13/27	The VersiCharge IEC charging unit can be used to charge electric vehicles in charging mode 3 acc. to IEC 61851. The charging cable type 2 is fixed to the charging unit and is equipped with residual current and line protection. Remote access is ensured through the optional connection of external key-operated switches or RFID readers. In conjunction with 7KM PAC measuring devices and the powermanager power monitoring software a local and transparent e-Car charging system is created. The VersiCharge IEC charging unit has IP56 degree of protection and an extended temperature range.	IEC/EN 61851; IEC/EN 62196-2; IEC 60364-1; IEC 60947	✓	✓	✓

13

© Siemens 2019

Overview

Plant safety and operating safety are becoming increasingly important alongside the protection of personnel. Shutdowns due to the unexpected tripping of protective devices cause high costs. However, it is possible to detect residual currents in the electrical installation before the protective device responds.

Residual current monitors (RCM)

Residual current monitors (RCM) monitor residual current in electrical installations and issue a signal when the residual current exceeds a set value.

RCMs are used in plants where a fault should result in a signal, but not in disconnection. This enables plant operators to detect faults and eliminate their causes before the protective devices disconnect the installation, which increases plant and operating safety and cuts costs.

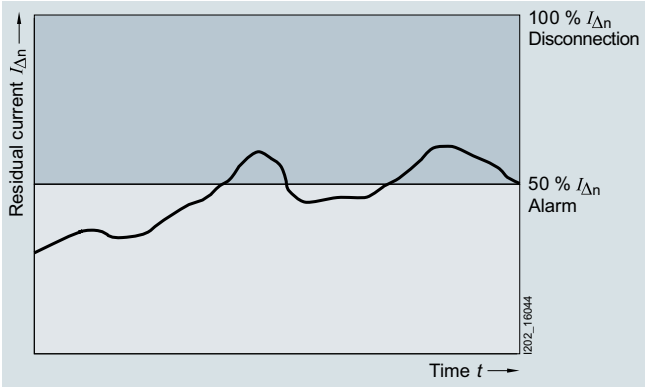
Modular residual current devices (MRCD)

Modular residual current devices (MRCD) monitor residual currents in electrical systems and trip the molded case circuit breaker via a shunt trip or an undervoltage release after an adjustable advance warning if the residual current exceeds a defined value.

This makes it possible for you to offer molded case circuit breakers (MCCBs) with personnel and fire protection in compliance with EN 60947-2 (Annex M) (also as a retrofit).

Summation current transformer

The summation current transformer detects all conductors required to conduct the current, i.e. including the neutral conductor. In a fault-free system, the magnetizing effects of the conductors through which current is flowing cancel each other out for the summation current transformer, i.e. the sum of all currents is zero. If a residual current is flowing due to an insulation fault, a residual magnetic field is left in the core of the transformer and produces a voltage. This voltage is evaluated using the electronics of the RCM/MRCD. The switched contact can be used to operate an acoustic/optical signaling device, a higher-level control system or a circuit breaker for example.



Time characteristic of the rated residual current $I_{\Delta n}$

Benefits

- Higher plant availability and operating safety through permanent monitoring of residual currents
- Adjustable limit values for residual current and response time enable timely detection and signaling – plant shutdowns are often avoidable
- Devices for every application:
  The summation current transformers are available in various sizes
- Additional fire protection can be implemented using the monitoring system

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

© Siemens 2019

Overview

The residual current monitors and modular residual current devices with residual current characteristic A detect sinusoidal AC and pulsating DC residual currents.

Technical specifications

		5SV8000-6KK	5SV8001-6KK	5SV8200-6KK	5SV8101-6KK
Standards		EN 62020, IEC 62020			EN 60947-2 (Annex M), IEC 60947-2 (Annex M)
Approvals		--	UL		--
Rated operational voltage U_e	V AC	230			230 from a 1-phase auxiliary voltage source (also externally)
• Frequency	Hz	50/60			
Rated residual current $I_{\Delta n}$					
• Type A	A	0.03 ... 3	0.03 ... 3	0.03 ... 3	0.03 ... 3 (default setting: 30 mA)
• Type AC	A	> 3	5 ... 30	5 ... 30	--
Response time Δt	s	0.02 ... 5	0.02 ... 10, INS, SEL[1]	0.02 ... 10, INS, SEL[1]	$I_{\Delta n}$ = 30 mA: INS instantaneous $I_{\Delta n}$ > 30 mA: INS – SEL – 0.06 ... 10[1] (default INS)
Relay contacts		1 × alarm	1 × pre-alarm, 1 × alarm	1 × pre-alarm, 4 × alarm	1 × alarm, 1 × tripping operation
• Rated voltage	V AC	230	230	230	230
• Rated current	A	6	6	6	6
Summation current transformer	mm ∅	20 ... 210			35 ... 210
Maximum cable length RCM/CT (shielded cable)	m	10			
Conductor cross-section	mm^2	1.5			0.125 ... 2.08
Test/reset		Yes/Yes			
External tripping operation/external reset		--/Yes	Yes/Yes	Yes/Yes	Yes/Yes
Mounting width	MW	2	3	3	3
Degree of protection					
• Contacts		IP20			
• Front		IP41			
Operating temperature	°C	-10 ... +50			

[1] INS: Instantaneous, SEL: Selective.

13

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

© Siemens 2019

Selection and ordering data

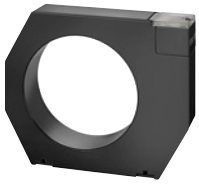
	Rated operational voltage	Rated residual current	Response time	Mounting width	SD	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
	U_e	$I_{\Delta n}$	Δt							
	V AC	A	s	MW	d					
Residual current monitors										
	**RCM analog**									
	230, 50/60 Hz	0.03 ... 5 (Type A) > 3 (Type AC)	0.02 ... 5	2		**5SV8000-6KK**		1	1 unit	1BE
	**RCM digital**									
	230, 50/60 Hz	0.03 ... 3 (Type A) 5 ... 30 (Type AC)	0.02 ... 10, INS, SEL[1]	3		**5SV8001-6KK**		1	1 unit	1BE
	**RCM digital, 4 channels**									
	230, 50/60 Hz	0.03 ... 3 (Type A) 5 ... 30 (Type AC)	0.02 ... 10, INS, SEL[1]	3		**5SV8200-6KK**		1	1 unit	1BE
Modular residual current devices										
	**MRCD**									
	230, 50/60 Hz	0.03 ... 3 (type A) s	0.02 ... 10 INS, SEL[1]	3		**5SV8101-6KK**		1	1 unit	1BE

[1] INS: Instantaneous, SEL: Selective.

13

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

© Siemens 2019

		Internal diameter	SD	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		mm	d					
Summation current transformers								
	Summation current transformers							
	Including holder for standard mounting rail[1] UL	20		**5SV8700-0KK**		1	1 unit	1BE
		30		**5SV8701-0KK**		1	1 unit	1BE
	Including holder for wall mounting[2] UL	35		**5SV8702-0KK**		1	1 unit	1BE
		70		**5SV8703-0KK**		1	1 unit	1BE
		105		**5SV8704-0KK**		1	1 unit	1BE
	Including holder for wall mounting UL	140		**5SV8705-0KK**		1	1 unit	1BE
		210		**5SV8706-0KK**		1	1 unit	1BE
	**Holders for standard mounting rail** [3]			**5SV8900-1KK**		1	2 units	1BE
	Suitable for summation current transformer with internal diameter of 20 mm, 30 mm, 35 mm, 70 mm							
Accessories for summation current transformers								
	Magnetic field centering sleeves							
	35 mm			**5SV8902-1KK**		1	1 unit	1BE
	70 mm			**5SV8903-1KK**		1	1 unit	1BE
	105 mm			**5SV8904-1KK**		1	1 unit	1BE
	140 mm			**5SV8905-1KK**		1	1 unit	1BE
	210 mm			**5SV8906-1KK**		1	1 unit	1BE

1) Not for MRCD.

2) Mounting on standard mounting rail with optional holder for standard mounting rail also possible.

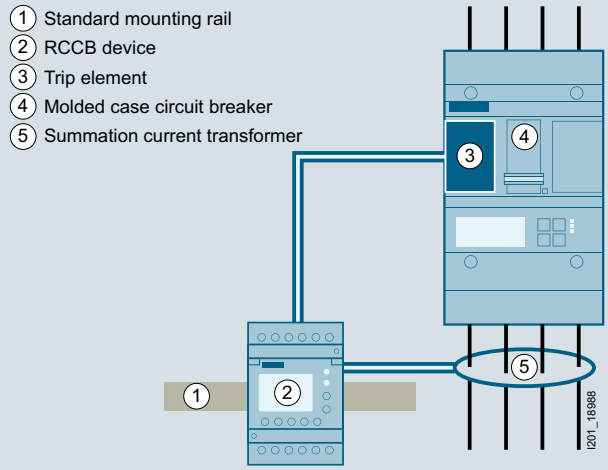
3) Cannot be used together with magnetic field centering sleeves.

13

© Siemens 2019

More information

Combination options for residual current protective device



5SV8101-6KK (tested combinations)

The following combinations meet the requirements of standard EN 60947-2/Annex M according to certificate no. 7282

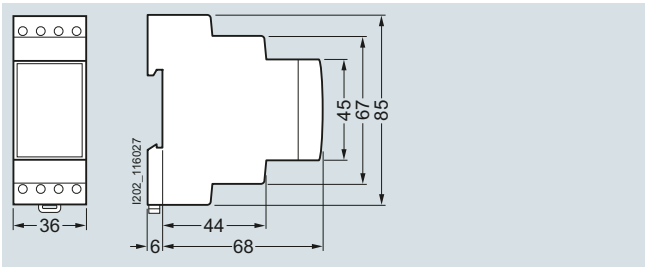
②	5SV8101-6KK			
①	EN 60715 - TH35 - 7.5 35 - 15			
⑤	Summation current transformers		Magnetic field centering sleeves	
	5SV8702-0KK	35 mm		5SV8902-1KK
	5SV8703-0KK	70 mm		5SV8903-1KK
	5SV8704-0KK	105 mm		5SV8904-1KK
	5SV8705-0KK	140 mm		5SV8905-1KK
	5SV8706-0KK	210 mm		5SV8906-1KK
④			③	③
3VL17...			3VL9400-1ST00	3VL9400-1UP00
3VL27...			3VL9400-1ST00	3VL9400-1UP00
3VL37...			3VL9400-1ST00	3VL9400-1UP00
3VL47...			3VL9400-1ST00	3VL9400-1UP00
3VA20...			3VA9988-0BL30	3VA9908-0BB11
3VA21...			3VA9988-0BL32	3VA9908-0BB20
3VA22...			3VA9988-0BL33	3VA9908-0BB24
				3VA9908-0BB25
3VA10...			3VA9988-0BL30	3VA9908-0BB11
3VA11...			3VA9988-0BL32	3VA9908-0BB20
			3VA9988-0BL33	3VA9908-0BB24
				3VA9908-0BB25

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

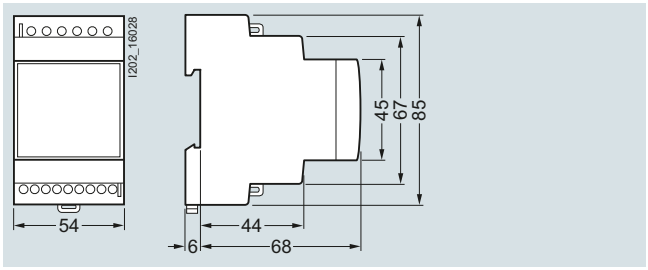
© Siemens 2019

Dimensional drawings

RCM/MRCD

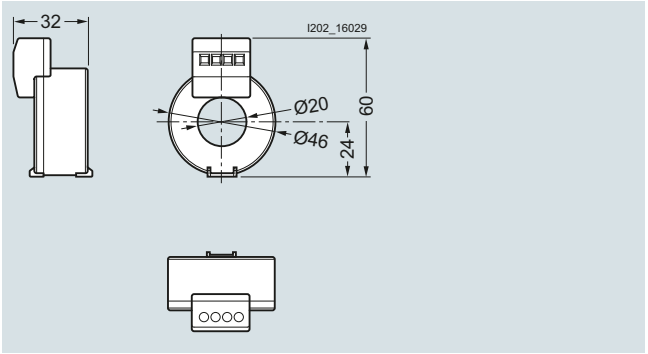


RCM analog, 5SV8000-6KK

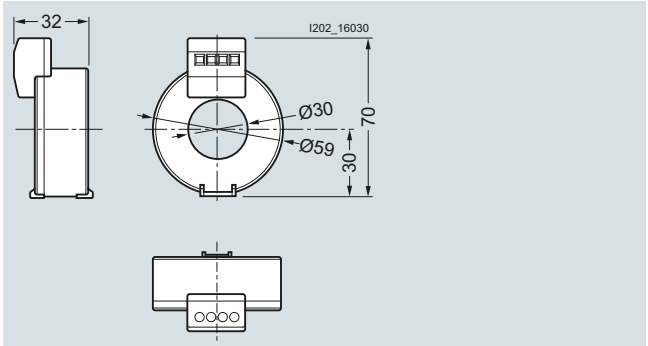


RCM digital, 5SV8001-6KK, 5SV8200-6KK,
MRCD, 5SV8101-6KK

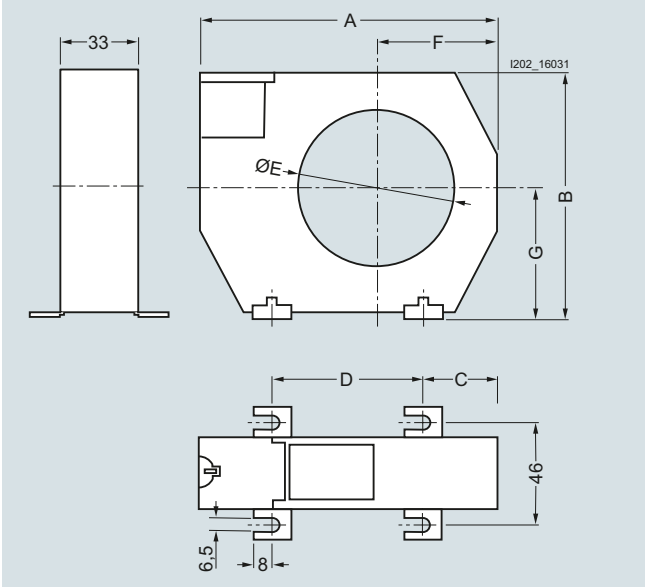
Summation current transformers



Summation current transformer, 5SV8700-0KK



Summation current transformer, 5SV8701-0KK



Summation current transformer, 5SV8702-0KK, 5SV8703-0KK, 5SV8704-0KK,
5SV8705-0KK, 5SV8706-0KK

Type Dimensions	A	B	C	D	E	F	G
5SV8702-0KK	100	79	26	49	35	35	43
5SV8703-0KK	130	110	32	66	70	52	57
5SV8704-0KK	170	146	38	94	105	72	73
5SV8705-0KK	230	196	49	123	140	97	98
5SV8706-0KK	299	284	69	161	210	141	142

Type	Rated current	$I_{\Delta n\ min}$	Maximum current[1)]
5SV8700-0KK	≤ 40 A	30 mA	240 A
5SV8701-0KK	≤ 63 A	30 mA	380 A
5SV8702-0KK	≤ 80 A	30 mA	480 A
5SV8703-0KK	≤ 200 A	30 mA	1200 A
5SV8704-0KK	≤ 250 A	100 mA	1500 A
5SV8705-0KK	≤ 500 A	300 mA	3000 A
5SV8706-0KK	≤ 600 A	300 mA	3600 A

1) Short-time starting current, up to 2 s

© Siemens 2019

Overview

The modular residual current protective devices with residual current characteristic B measure pulsating and smooth DC and AC residual currents up to 2 kHz.

Technical specifications

		5SV8101-4KK	5SV8111-4KK
Standards		EN 60947-2 (Annex M), IEC 60947-2 (Annex M)	
Mechanical data			
Width	mm	36 (2MW)	
Depth	mm	64	
Height	mm	85	
Weight	g	150	
Mounting		Standard mounting rail	
Enclosure material		Polycarbonate	
Overvoltage category		III	
Pollution degree		3	
Degree of protection			
• Components (IEC 60529)		IP30	
• Terminals (IEC 60529)		IP20	
Electrical connections		Screw terminals	
• Rigid	mm^2	0.2 ... 4	
• Flexible	mm^2	0.2 … 2.5 (AWG 24 … 12)	
Stripped length	mm	8 ... 9	
Tightening torque	Nm	0.5 ... 0.6	
Electrical data			
Supply voltage U_S		230 V AC (70 ... 300 V AC)	24 V DC (9.6 ... 94 V DC)
• Frequency		50/60 Hz	--
Power consumption	VA	< 6.5	
Relay contacts		1 x alarm, 1 x tripping operation	
• Rated voltage	V	250 AC	
• Rated current	A	5	
External summation current transformer		Internal diameter 35 ... 210 mm (5SV8701-2KK, 5SV8701-2KP, 5SV8702-2KK, 5SV8702-2KP, 5SV8703-2KK, 5SV8704-2KK)	
Rated voltage (summation current transformer)	V	690	
Response characteristic according to IEC 60947-2 (M)		Type B	
Rated frequency	kHz	0 ... 2	
Response residual current			
• $I_{\Delta n}1$ (alarm AL1)		50 ... 100 % of $I_{\Delta n}2$ (factory setting: 50 %)	
• $I_{\Delta n}2$ (tripping TP2)		30 mA ... 1 A (factory setting: 30 mA)	
Response delay			
• $t_{on}1$ (alarm)	s	0 ... 10 (factory setting: 1 s)	
• $t_{on}2$ (tripping operation)	s	0 ... 10 (factory setting: 0 s)	
Password		off / 0 … 999 (factory setting: 0)	
Max. cable length MRCD/CT	m	10 (6 x 0.75 mm^2)	
EMC		IEC 60947-2 (M)	
Operating temperature	°C	-25 ... +55	

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

© Siemens 2019

Selection and ordering data

	Rated operational voltage	Rated residual current	Response time	Mounting width	SD	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
	U_e	$I_{\Delta n}$	Δt							
	V	A	s	MW	d					
Residual current monitors										
	**MRCD digital**									
	230 AC, 50/60 Hz	0.03 ... 1	0 ... 10	2		**5SV8101-4KK**		1	1 unit	1BE
	24 DC	0.03 ... 1	0 ... 10	2		**5SV8111-4KK**		1	1 unit	1BE

Accessories

	Internal diameter	SD	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
	mm	d					
Summation current transformer							
	**Minimum residual current $I_{\Delta n\ min}$ 10 mA** **Rated current $I_n \leq 80$ A**						
	• Without shield	35	**5SV8701-2KK**		1	1 unit	1BE
	• With shield	35	**5SV8701-2KP**		1	1 unit	1BE
	Holders for standard mounting rail • Suitable for summation current transformers 5SV8701-2KK, 5SV8701-2KP		**5SV8900-2KK**		1	1 unit	1BE
	**Minimum residual current $I_{\Delta n\ min}$ 10 mA** **Rated current $I_n \leq 160$ A**						
	• Without shield	60	**5SV8702-2KK**		1	1 unit	1BE
	• With shield	60	**5SV8702-2KP**		1	1 unit	1BE
	Holders for standard mounting rail • Suitable for summation current transformers 5SV8702-2KK, 5SV8702-2KP		**5SV8900-3KK**		1	1 unit	1BE
	**Minimum residual current $I_{\Delta n\ min}$ 100 mA** **Rated current $I_n \leq 330$ A**						
	• Without shield	120	**5SV8703-2KK**		1	1 unit	1BE
	**Minimum residual current $I_{\Delta n\ min}$ 300 mA** **Rated current $I_n \leq 630$ A**						
	• Without shield	210	**5SV8704-2KK**		1	1 unit	1BE

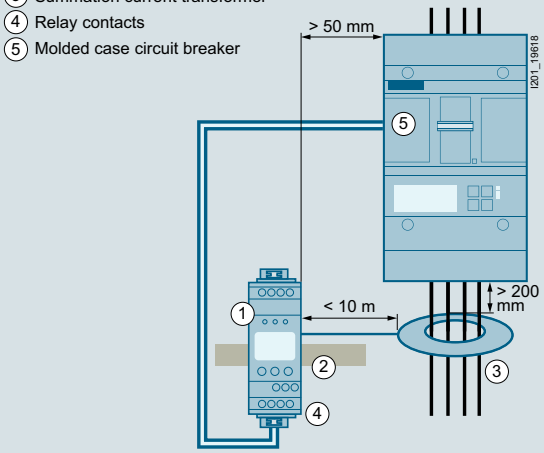
13

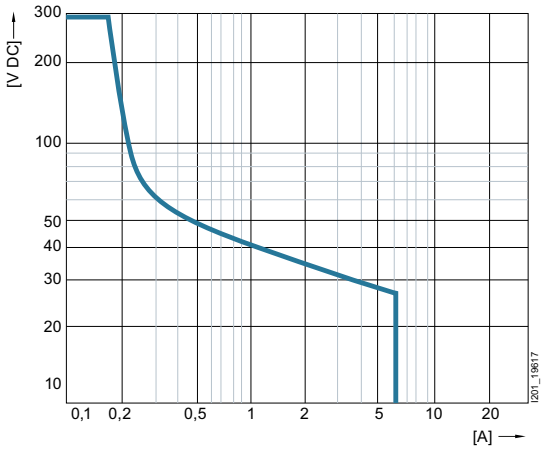
Minimum order quantity (PS) or a multiple thereof can be ordered.

© Siemens 2019

More information

Combination options for modular residual current device



5SV8101-4KK / 5SV8111-4KK (tested combinations)			
1	5SV8101-4KK / 5SV8111-4KK		
2	EN 60715 - TH35 - 7.5 35 - 15		
3	5SV8701-2KK / 5SV8701-2KP 5SV8702-2KK / 5SV8702-2KP 5SV8703-2KK 5SV8704-2KK	35 mm 60 mm 120 mm 210 mm	
4	Relay contacts		
	DC		AC
			Max. 230 V AC 5 A
5	3VA1... 3VA20... 3VA21... 3VA22...	3VA9988-0BL30 3VA9988-0BL32 3VA9988-0BL33	3VA9908-0BB11 3VA9908-0BB24 3VA9908-0BB25
	3VA23... 3VA24...	3VA9988-0BL30 3VA9988-0BL32 3VA9988-0BL33	3VA9908-0BB11 3VA9908-0BB25

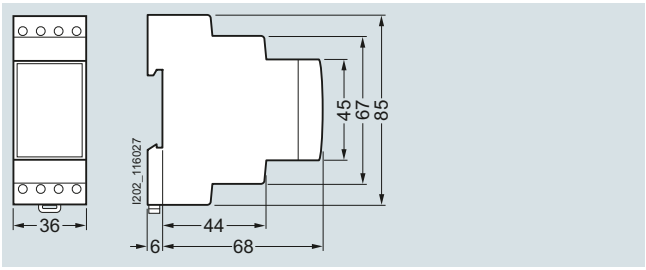
13

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

© Siemens 2019

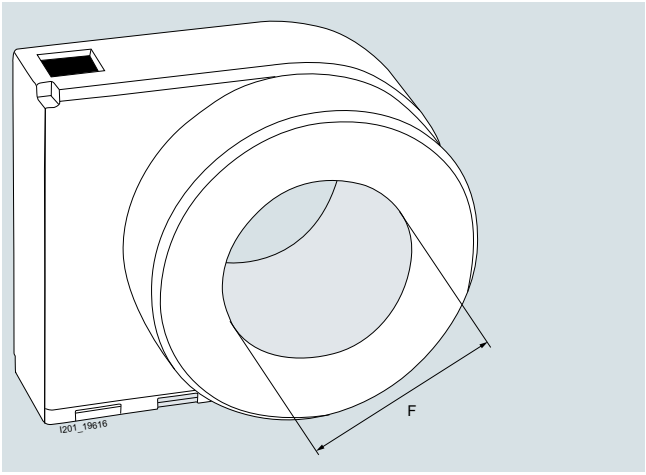
Dimensional drawings

Residual current monitor



MRCD, digital, type B
5SV8101-4KK, 5SV8111-4KK

Summation current transformer



Summation current transformer, 5SV8701-2KK, 5SV8701-2KP, 5SV8702-2KK, 5SV8702-2KP, 5SV8703-2KK, 5SV8704-2KK

Type	Internal diameter F	$I_{\Delta n\ min}$	Rated current I_n	Maximum current[1] I_{max}
5SV8701-2KK/2KP	35 mm	10 mA	≤ 80 A	500 A
5SV8702-2KK/2KP	60 mm	10 mA	≤ 160 A	1000 A
5SV8703-2KK	120 mm	100 mA	≤ 330 A	2000 A
5SV8704-2KK	210 mm	300 mA	≤ 630 A	3800 A

[1] Short-time starting current, up to 2 s

13

© Siemens 2019

5TT3 voltage relays

Overview

Voltage relays are used for device and plant protection, supplying safety light devices and the detection of N-conductor breaks and short-time voltage interruptions.

They are available as undervoltage, overvoltage and under/overvoltage relays. The devices are equipped with different functions, depending on their intended use, and comply with the pertinent regulations.

Benefits

- Complete voltage protection in a compact design for overvoltage and undervoltage monitoring in a single device
- Plants and devices are reliably and easily protected by phase-failure relays
- Overvoltages and consequential damage due to high voltages are prevented through N-conductor monitoring
- Asymmetry monitoring in the voltage relay also protects three-phase AC motors against operation with voltage skew

Technical specifications

			5TT3400 5TT3401 5TT3402 5TT3403	5TT3404 5TT3405	5TT3406	5TT3195
Standards			IEC 60255; DIN VDE 0435-110, -303			
Rated control circuit voltage U_c		V AC	230/400			400
Primary operating range (overload capability)		× U_c	1.1			1.35
Rated frequency		Hz	50/60			
Response values	ON-switching OFF-switching	× U_c	0.9/0.95 0.7/0.85		4 % hysteresis 0.7 ... 0.95	 0.9 ... 1.3
Minimum contact load		V; mA	10; 100			
Phase asymmetry	Setting accuracy Repeat accuracy	% %	-- --	Approx. 5 ... 10 1		Approx. 5 ... 10 1
Phase failure detection	At L1 or L2 or L3	ms	100			--
N-conductor monitoring			--	Yes		--
Rated insulation voltage U_i	Between coil/contact	kV	4			
Contacts	μ contact (AC-11)	A	4			
Electrical isolation	Creepage distances and clearances Actuator/contact	 mm	 3	 5.5		
Rated impulse withstand voltage U_{imp}	Actuator/contact	kV	> 2.5	> 4		
Terminals	± screw (Pozidriv)		1			
Conductor cross-sections • Rigid, max. • Flexible, with end sleeve, min.		 mm^2 mm^2	 2 × 2.5 0.5			
Permissible ambient temperature		°C	-20 ... +60			
Resistance to climate	Acc. to EN 60068-1		20/060/04			

13

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

© Siemens 2019

			5TT3407	5TT3408
Standards			IEC 60255; DIN VDE 0435-303	
Rated control circuit voltage U_c		V AC	230/400	
Primary operating range (overload capability)		× U_c	1.1	1.35
Rated frequency		Hz	50/60	
Back-up fuse	Terminals L1/L2/L3	A	2	
Response values	Overvoltage: OFF-switching ON-switching	 × U_c	 -- --	 0.9 ... 1.3 4 % hysteresis
	Undervoltage: OFF-switching ON-switching	 × U_c	 0.8 0.85	 0.7 ... 1.1 4 % hysteresis
Minimum contact load		V; mA	10; 100	
Phase asymmetry	Setting accuracy	%	Approx. 5 ... 10	
	Repeat accuracy	%	1	
Phase failure detection	At L1, L2 or L3	ms	≥ 20	100
OFF-delay		s	--	0.1 ... 20
Automatic reclosing delay		s	0.2 ... 2	--
Rated insulation voltage U_i	Between coil/contact	kV	4	
Contacts	μ contact (AC-11)	A	3	1
Electrical isolation	Creepage distances and clearances Contact/contact Actuator/contact	 mm mm	 -- 4	 4
Rated impulse withstand voltage U_{imp}	Actuator/contact	kV	> 4	
Rated operational power P_s	AC operation: 230 V and p.f. = 1 230 V and p.f. = 0.4	 VA VA	 2000 1250	 -- --
	DC operation: U_e = 24 V and I_e = 6 A U_e = 60 V and I_e = 1 A U_e = 110 V and I_e = 0.6 A U_e = 220 V and I_e = 0.5 A	 W W W W	 max. 100 max. 100 max. 100 max. 100	 -- -- -- --
Terminals	± screw (Pozidriv)		1	
Conductor cross-sections • Rigid, max. • Flexible, with end sleeve, min.		 mm^2 mm^2	 2 × 2.5 0.5	
Permissible ambient temperature		°C	-20 ... +60	
Humidity class	Acc. to IEC 60068-2-30		F	

			5TT3414	5TT3415
Rated control circuit voltage U_c		V AC	230/400	
Overload capability		× U_c	1.15	1.15
Rated frequency		Hz	50/60	50/60
Response values	ON-switching		5 %	
	OFF-switching	× U_c	0.85	
Minimum contact load		V/mA	10/100	10/100
Phase failure detection	At L1, L2 or L3	ms	500	
N-conductor monitoring			--	--
Rated insulation voltage U_i	Between coil/contact	kV	--	
Contacts	AC-15 NO contacts		--	
	AC-15 NC contacts		--	
	AC-15 CO contacts		1	2
Electrical service life in switching cycles	AC-15, 1 A, 230 V AC		1 × 10^5	
Rated impulse withstand voltage	Acc. to IEC 60664-1	kV	6	
Pollution degree			2	2
Terminals	± screw (Pozidriv) – screw (slot)		-- 3.5	
Conductor cross-sections • Rigid • Flexible, with end sleeve		 mm^2 mm^2	 1 x 4 1 x 2.5	
Permissible ambient temperature		°C	-25 … +60	
Resistance to climate	Acc. to EN 60068-1		20/060/04	20/060/04

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

© Siemens 2019

Selection and ordering data

	Contacts	U_e	I_e	U_c	Mounting width	SD	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		V AC	A	V	MW	d					
	Overvoltage relays										
	For the monitoring of 3 phases against N, with N-conductor monitoring, switching thresholds: 0.9 ... 1.3 × U_c, 4 % hysteresis, adjustable										
	2 CO	230	4	230/400 AC	2		**5TT3195**		1	1 unit	1BK
	Undervoltage relays										
 5TT3400	For the monitoring of 1, 2 or 3 phases against N, with phase failure detection,										
	• Switching thresholds: 0.7 and 0.9 x U_c, not adjustable										
	1 CO	230	4	230/400 AC	1	▶	**5TT3400**		1	1 unit	1BK
	2 CO	230	4	230/400 AC	2	▶	**5TT3402**		1	1 unit	1BK
	• Switching thresholds: 0.9 ... 0.95 × U_s										
	2 CO	230	4	230/400 AC	2		**5TT3403**		1	1 unit	1BK
 5TT3402	For the monitoring of 1, 2 or 3 phases against N, with phase failure detection, switching thresholds: 0.85 and 0.95 x U_c, not adjustable										
	1 CO	230	4	230/400 AC	1	▶	**5TT3401**		1	1 unit	1BK
	For the monitoring of 3 phases against N, with asymmetry, reverse voltage and phase failure detection, with N-conductor monitoring										
	• Switching thresholds: 0.7 and 0.9 x U_c, not adjustable										
	2 CO	230	4	230/400 AC	2		**5TT3404**		1	1 unit	1BK
	• Switching thresholds: 0.7 ... 0.95 × U_c, 5 % hysteresis, adjustable										
	2 CO	230	4	230/400 AC	2		**5TT3406**		1	1 unit	1BK
 5TT3404	For the monitoring of 3 phases against N, with asymmetry, reverse voltage and phase failure detection, with N-conductor monitoring, switching thresholds: 0.85 and 0.95 x U_c, not adjustable										
	2 CO	230	4	230/400 AC	2		**5TT3405**		1	1 unit	1BK
	For the monitoring of 1, 2 or 3 phases against N, switching threshold: 0.85 x U_c, not adjustable, response delay 0.5 s, off-delay 60 s										
	1 CO	230	4	230/400 AC	1		**5TT3414**		1	1 unit	1BK
 5TT3415	• With TEST pushbutton										
	2 CO	230	4	230/400 AC	1		**5TT3415**		1	1 unit	1BK
	Short-time relays										
	For the monitoring of short-time failure detection ≥ 20 ms of 1, 2 or 3 phases against N, with phase failure detection and N-conductor monitoring, switching thresholds: 0.8 ... 0.85 × U_c, not adjustable										
	2 CO	230	4	230/400	2		**5TT3407**		1	1 unit	1BK
	Undervoltage and overvoltage relays										
	For the monitoring of 3 phases against N, with asymmetry, reverse voltage and phase failure detection, with N-conductor monitoring and adjustable time delay of 0.1 ... 20 s, switching thresholds: Undervoltage: 0.7 ... 1.1 × U_c, 4 % hysteresis, adjustable Overvoltage 0.9 ... 1.3 × U_c, 4 % hysteresis, adjustable										
	2 CO	230	4	230/400	2		**5TT3408**		1	1 unit	1BK

13

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

© Siemens 2019

Overview

Current relays monitor single and three-phase systems for the flow of current, e.g. in emergency lighting installations, and the loading of motors. They are available as undercurrent, overcurrent and under/overcurrent relays.

Benefits

- Devices with an extremely broad range of applications of minimum 0.1 A to maximum 15 A without transformer
- Permanent overload capability up to 20 A or 30 A max. for up to 3 seconds, protect the function against uncontrolled plant states and increase plant availability
- Range changing enables the precise setting of current values through a high resolution
- Ultra compact current relays require only the smallest of space and save costs

Technical specifications

			5TT6111	5TT6112
Standards			IEC 60255	
Rated control current I_c		A	1 ... 10	
Rated control circuit voltage U_c		V AC	230	
Primary operating range **Overload capability, continuous** **Overload capability, short-time**	 At 50 °C ambient temperature max. 3 s	× U_c A A	0.9 ... 1.1 15 20	
Rated frequency		Hz	50/60	
Response values	ON-switching OFF-switching		Infinitely variable Permanent, 4 % hysteresis	
Switching delay t_v	Infinitely adjustable	s	0.1 ... 20	
Response time	Non-adjustable	ms	Current corresponds to the rated operational power of the continuous-flow heater	
Minimum contact load		V; mA	10; 100	
Rated insulation voltage U_i	Between coil/contact	kV	2.5	
Contacts µ contact (AC-15)	 NO contacts NC contacts	 A A	 3 1	
Electrical isolation	Creepage distances and clearances Actuator/contact	mm	3	
Rated impulse withstand voltage U_{imp}	Actuator/contact	kV	> 4	
Terminals	± screw (Pozidriv)		1	
Conductor cross-sections	Rigid Flexible, with end sleeve	max. mm^2 min. mm^2	2 × 2.5 1 × 0.5	
Permissible ambient temperature		°C	-20 ... +60	
Resistance to climate	Acc. to EN 60068-1		20/060/04	

			5TT6113	5TT6114	5TT6115
Standards			IEC 60255; DIN VDE 0435-303		
Rated control current I_c		 A A A A	4 ranges 0.1 ... 1 0.5 ... 5 1 ... 10 1.5 ... 15		
Rated control circuit voltage U_c		V AC	230		
Primary operating range **Overload capability, continuous** **Overload capability independent of measuring range**	 Max. 3 s	× U_c A A	0.9 ... 1.1 20 30		
Rated frequency		Hz	50/60		
Response values	ON-switching OFF-switching		Infinitely variable Permanent, 4 % hysteresis		
Switching delay t_v	Infinitely adjustable	s	0.1 ... 20		
Response time	Non-adjustable	ms	See Siemens Service and Support Portal, search term "Article No.", e.g. "5TT6113"		
Minimum contact load		V; mA	10; 100		
Rated insulation voltage U_i	Between coil/contact	kV	2.5		
Contacts µ contact (AC-15)	 NO contacts NC contacts	 A A	 5 1		
Electrical isolation	Creepage distances and clearances Actuator/contact	mm	3		
Rated impulse withstand voltage U_{imp}	Actuator/contact	kV	> 4		
Terminals	± screw (Pozidriv)		1		
Conductor cross-sections	Rigid Flexible, with end sleeve	max. mm^2 min. mm^2	2 × 2.5 1 × 0.5		
Permissible ambient temperature		°C	-20 ... +60		
Resistance to climate	Acc. to EN 60068-1		20/060/04		

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

© Siemens 2019

Selection and ordering data

	Contacts	U_e	I_e	Measuring range	Mounting width	SD	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		V AC	A	A AC	MW	d					
	**Current relays for single-phase loads up to 230 V AC, auxiliary voltage and measuring circuit not isolated**										
	Undercurrent monitoring, single-phase										
	1 CO	230	5	1 ... 10	1		**5TT6111**		1	1 unit	1BK
	Overcurrent monitoring, single-phase										
	1 CO	230	5	1 ... 10	1		**5TT6112**		1	1 unit	1BK
	**Current relays for single-phase loads up to 230 V AC, auxiliary voltage and measuring circuit electrically isolated**										
	Undercurrent monitoring, single-phase										
	2 CO	230	5	4 ranges 0.1 ... 1 0.5 ... 5 1 ... 10 1.5 ... 15	2		**5TT6113**		1	1 unit	1BK
	Overcurrent monitoring, single-phase										
	2 CO	230	5	4 ranges 0.1 ... 1 0.5 ... 5 1 ... 10 1.5 ... 15	2		**5TT6114**		1	1 unit	1BK
	Over/undercurrent monitoring, single-phase										
	2 CO	230	5	4 ranges 0.1 ... 1 0.5 ... 5 1 ... 10 1.5 ... 15	2		**5TT6115**		1	1 unit	1BK

13

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

© Siemens 2019

Overview

Fuse monitors serve to monitor all types and versions of melting fuses that cannot be equipped with a fault signal contact. This enables integration in fault signaling circuits or a central alarm in order to improve plant availability.

Benefits

- Increase in plant availability, because fuse failures – which could cause considerable damage to the plant – are detected in plenty of time
- A fuse failure is detected even if the load is switched off. This ensures the highest level of plant availability

Technical specifications

			5TT3170
Standards			IEC 60255; DIN VDE 0435-110
Rated control circuit voltage U_c		V	380 ... 415 3 AC
Primary operating range		× U_c	0.8 ... 1.1
Rated frequency		Hz	50 ... 400
Internal resistance of measuring paths		Ω/V	> 1000
Max. permissible regenerative feedback		%	90
Response/release time		ms	< 50
Rated impulse withstand voltage U_{imp} Input/output		kV	> 4
Rated operational voltage U_e		V AC	250
Rated operational current I_e	AC-1	A	4
Electrical service life	AC-11	In switching cycles at 1 A	1.5×10^5
Terminals	± screw (Pozidriv)		1
Conductor cross-sections	Rigid, max. Flexible, with end sleeve, min.	mm^2 mm^2	2 × 2.5 1 × 0.5
Permissible ambient temperature		°C	-20 ... +45
Resistance to climate	Acc. to EN 60068-1		20/45/4

Selection and ordering data

		U_e	I_e	U_c	Mounting width	SD	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		V AC	A	3 V AC	MW	d					
	**Fuse monitors** For all low-voltage fuse systems. Can be used in asymmetric systems afflicted with harmonics and regenerative feedback motors. Signal also for disconnected loads.	230	4	380 ... 415	2	►	**5TT3170**		1	1 unit	1BK

13

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

© Siemens 2019

5TT3 phase and phase sequence monitors

Overview

Phase monitors monitor the voltages in three-phase system and signal the power failure of one or more phases over a floating contact. Phase sequence monitors monitor the phase sequence in three-phase systems and signal any changes in the phase sequence – change of rotating field – over a floating changeover contact.

Benefits

- The three-phase LED display in the phase monitor and the LED display in the phase sequence monitor provide constant information on the switching state of the plant
- The compact design in 1 MW saves space

Technical specifications

			5TT3421	5TT3423
Standards			IEC 60255; DIN VDE 0435	
Rated control circuit voltage U_c		V AC	230/400	400
Primary operating range		× U_c	0.8 ... 1.1	
Rated frequency		Hz	50/60	
Rated power dissipation P_v	Electronics Contacts	VA VA	9 0.2	
Rated operational voltage U_e		V AC	250	
Rated operational current I_e		A	4	
Minimum contact load		V; mA	10; 100	
Rated insulation voltage U_i	Between coil/contact	kV	4	
Contacts	μ contact (AC-11)	A	3	
Electrical isolation	Creepage distances and clearances Actuator/contact	 mm	 4	
Rated impulse withstand voltage U_{imp}	Actuator/contact	kV	> 2.5	
Terminals	± screw (Pozidriv)		1	
Conductor cross-sections	Rigid, max. Flexible, with end sleeve, min.	mm^2 mm^2	2 × 2.5 --	
Degree of protection	Acc. to EN 60529		IP20, with connected conductors	
Safety class	Acc. to EN 61140/VDE 0140-1		II	
Permissible ambient temperature		°C	-20 ... +60	
Resistance to climate	Acc. to EN 60068-1		20/060/04	

Selection and ordering data

	Contacts	U_e	I_e	U_c	Mounting width	SD	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		V AC	A	V AC	MW	d					
	**Phase monitors** With 3 green LEDs for 3 phases										
	1 CO	250	4	230/400	1	►	**5TT3421**		1	1 unit	1BK
	**Phase sequence monitors** With one green LED, which lights up for right-rotating field										
	1 CO	250	4	400	1	►	**5TT3423**		1	1 unit	1BK

13

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

© Siemens 2019

Overview

Insulation monitors are used for protection of persons and against fire in non-grounded systems (IT systems). The insulation resistance of the system being monitored is measured against ground.

These types of measurements are specified according to DIN VDE 0100-410 – Power installations up to 1000 V – Protection against electric shock.

Technical specifications

			5TT3470	5TT3471
Supply voltage U_c		V AC V DC	220 ... 240 --	-- --
Primary operating range	For AC supply For DC supply	× U_c V DC	0.8 ... 1.1 --	-- --
Frequency range for U_c		Hz	45 ... 400	--
Rated power dissipation P_v	 For DC supply	VA W	Approx. 2 --	-- Approx. 1
Rated impulse withstand voltage U_{imp}	Terminals A1 to A2 Terminals L to PE Terminals A1, A2 to L, PE Terminals against contacts	kV kV kV kV	< 4 < 4 < 4 < 6	< 4 < 4 < 3 < 6
Measuring circuit			For three-phase and AC systems	For DC systems
Measurement voltage range U_{meas}		V AC V DC	0 ... 500 --	-- 12 ... 280
Primary operating range		× U_{meas}	0 ... 1.1	0.9 ... 1.1
Frequency range for U_{meas}		Hz	10 ... 10000	--
Alarm values	Measuring shunt R_{AL}	kΩ	5 ... 100	5 ... 200
Setting of alarm value	On absolute scale		Infinitely variable	Infinitely variable
Alternating current internal resistance	Internal testing resistance	kΩ	> 250	--
Direct current internal resistance	Internal testing resistance L+ and L- to PE	kΩ kΩ	> 250 --	-- 75 each
Measurement voltage U_{meas}	Internal	V DC	Approx. 15	--
Max. measurement current I_{meas}	Short circuit	mA	< 0.1	0.2 ... 4 depending on the voltage
Direct interference voltage	Max. permissible	V DC	500	--
Response delay	At R_{AL} 50 kΩ and 1 µF and ∞ to 0.9 × R_{meas} and R_{meas} from ∞ to 0 Ω	 s s	 < 1.3 < 0.7	 0.8 0.4
Switching hysteresis	At R_{meas} 50 kΩ	%	15	10 ... 15
Contacts	µ contact		2 CO	2 CO
Rated operational voltage U_e		V	230 AC	12 ... 280 DC
Rated operational current I_s	Thermal current I_{th} DC-13 at 24 V DC DC-13 at 250 V DC AC-15 AC-15 NO contacts AC-15 NC contacts	A A A A A A	4 -- -- -- 5 2	4 2 0.2 3 -- --
Terminals	± screw (Pozidriv)		2	2
Conductor cross-sections	Rigid, max. Flexible, with end sleeve, min.	mm^2 mm^2	2 × 2.5 1 × 0.50	
Permissible ambient temperature		°C	-20 ... +60	
Degree of protection	Terminals (according to EN 60529) Enclosure (according to EN 60529)		IP20 IP40	
Resistance to climate	Acc. to EN 60068-1		20/060/04	

Selection and ordering data

	Contacts	U_c	U_e	Measuring range	Mounting width	SD	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		V AC	V	kΩ	MW	d					
	**Insulation monitors**										
	For monitoring the insulation resistance in non-grounded three-phase and AC systems from 10 ... 1000 Hz against ground										
	2 CO	230	0 ... 500 V AC	5 ... 100	2		**5TT3470**		1	1 unit	1BK
	For monitoring the insulation resistance in non-grounded DC systems against ground										
	2 CO	--	12 ... 280 V DC	5 ... 200	2		**5TT3471**		1	1 unit	1BK

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

© Siemens 2019

5TT3 fault signaling units

Overview

Fault signaling units are used in small plants where the installation of complex fault signaling systems would be too labor-intensive and too expensive. In the event of a fault, they enable fast fault localization of all monitoring devices and limit monitors installed in a plant from a central location. This increases plant availability. With the correct sensor configuration, they also provide the option of preventative maintenance.

- 4 fault signal inputs with LED
- 1 LED as centralized fault indicator
- One unit each for centralized fault indication and acoustic signaling
- With acknowledgment for acoustic indicators
- Open-/closed-circuit principle to the 4 inputs can be adjusted via jumpers X1 – X2
- A maximum of 39 5TT3461 expansion fault signaling units can be connected to the 5TT3460 centralized fault signaling unit
- The maximum possible cable length between 5TT3460 centralized fault signaling units and 5TT3461 expansion fault signaling units is approx. 100 m with a conductor cross-section of 1.5 mm^2.

Benefits

- Ultra compact device designs that only require the smallest of spaces in distribution boards
- The modular design means that it is easy to add devices as your system expands

Technical specifications

			5TT3460	5TT3461
Standards			IEC 60255; DIN VDE 0435-110, -303	
Rated control circuit voltage U_c		V AC	230	
Primary operating range		× U_c	0.8 ... 1.1	
Rated frequency f_n		Hz	50/60	
Fault signaling inputs S1 ... S4		V AC	230	
Signal voltage		V	7 ... 10	
To terminals S and H				
Noise pulse duration		ms	≥ 100	
Acknowledgment pulse duration		ms	≥ 200	
Contacts				
• Rated operational voltage U_e		V AC	230	--
• Rated operational current I_e		A	5	--
• Minimum contact load		V; mA	10; 100	--
Connections				
• Terminals	± screw (Pozidriv)		PZ 1	
• Conductor cross-sections				
- Rigid, max.		mm^2	2 × 2.5	
- Flexible, with end sleeve, min.		mm^2	1 × 0.5	
Permissible ambient temperature		°C	-20 ... +60	
Humidity class	Acc. to IEC 60068-2-30		F	

Selection and ordering data

	U_e	I_e	U_c	Mounting width	SD	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
	V AC	A AC	V AC	MW	d					
Centralized fault signaling units with transparent cap										
	230	5	230	2		**5TT3460**		1	1 unit	1BK
Expansion fault signaling units with transparent cap										
	230	--	--	2		**5TT3461**		1	1 unit	1BK

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

© Siemens 2019

Overview

EMERGENCY STOP circuits are common safety measures in all laboratory equipment and industrial plants. The EMERGENCY STOP modules used here must meet the most rigorous demands with regard to functional reliability. Benchmark is the degree of self-monitoring.

Benefits

- The electrical isolation between electric circuit and control meets the requirements of the standard
- An LED for the operating and switching state provides constant information on the operating state

Technical specifications

				5TT5200
Standards				IEC 60204-1; EN 60204-1 (VDE 0113-1)
Supply				
• Rated control circuit voltage U_c			V AC	230
- Primary operating range			× U_c	0.8 ... 1.1
• Rated frequency f_n			Hz	50
• Rated power dissipation P_v	Coil/drive			3.5
	Contact per pole		VA	0.8
Control voltage	Terminal Y1		V AC/DC	24
Control current	Terminal Y1		mA DC	45
Recovery time			ms	500
Safety				
• Electrical isolation, creepage distances and clearances, actuator/contact			mm	3
• Rated impulse withstand voltage U_{imp} actuator/contact			kV	> 4
Contacts				
• Contacts	NO contacts	AC-15	A	3
	NC contacts	AC-15	A	2
	NO contact/NC contact	AC-1	A	5
• Contact gap			mm	> 1
• Electrical service life	AC-15, 2 A, 230 V AC		Switching cycles	10^5
• Reliable switching frequency			Switching cycles/h	600
Vibration resistance				
Amplitude	Acc. to EN 60068-2-610	Up to 55 Hz	mm	0.35
Connections				
• Terminals	± screw (Pozidriv)			PZ 1
• Conductor cross-sections of main current paths				
- Rigid	Max.		mm^2	2 × 2.5
- Flexible, with end sleeve	Min.		mm^2	1 × 0.5
Permissible ambient temperature			°C	0 ... +50
Resistance to climate	Acc. to EN 60068-1			0/55/04

Selection and ordering data

		U_e	I_e	U_c	Mounting width	SD	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		V AC	A AC	V AC	MW	d					
	**EMERGENCY STOP modules**										
		400	5	230	4		**5TT5200**		1	1 unit	1BK

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

© Siemens 2019

Overview

Level relays are used for the monitoring and control of conductive, non-combustible liquids and powders. They ensure overflow and dry run protection. Due to their sensor performance, the devices can also be used for general resistance monitoring.

LED displays:

- Green LED: Lights up when operational voltage is applied
- Yellow LED: Lights up if MIN output relay is activated
- Red LED: Lights up if MAX output relay is activated

Benefits

The measuring range up to 450 kΩ enables a differentiation between foam and liquid. It also increases the universal application for resistance measurements.

Due to its low-frequency, electrically isolated measuring circuit, the device has a high immunity to interference against system coupling, which enables cable lengths of up to 1500 m and suppresses the effects of electrolysis in the liquid.

- The two outputs for minimum and maximum control can also be used for the advance warning and tripping of limit values
- 3 electrode connections for 1-step and 2-step level control
- All standard products can be used as electrodes
- High immunity to interference of the measuring circuit isolated from the system
- Programmable for open-circuit principle (with bridge X2 COM) or closed-circuit principle (without jumper)
- Separately adjustable delay times for $t_{v\,min}$ and $t_{v\,max}$, 0.2 s to 2 s

Technical specifications

			5TT3435
Standards			IEC 60255; DIN VDE 0435-110
Supply			
• Rated control circuit voltage U_c		V AC	230
- Primary operating range		× U_c	0.8 ... 1.1
• Rated frequency f_n		Hz	50/60
Setting range of the liquid level		kΩ	2 ... 450
Switching point hysteresis of set value			
• At 450 kΩ		%	3
• At 2 kΩ		%	6
Voltage temperature influence	From set value	%	< 2
Max. cable length to the electrodes at 100 µF/km	Setting kΩ		
	450	m	50
	100	m	200
	35	m	500
	10	m	1500
	5	m	3000
Electrode voltage	Max.	V AC	Approx. 10
Electrode current	Max.	mA AC	Approx. 1.5
Response delay	Adjustable	s	0.2 ... 20
OFF-delay	Adjustable	s	0.2 ... 20
Rated operational voltage U_e		V	250
Rated operational current I_e		A	5
Test voltage			
	Input/auxiliary circuit	kV	4
	Input/output circuit	kV	4
	Auxiliary/output circuit	kV	4
Connections			
• Terminals	± screw (Pozidriv)		PZ 2
• Conductor cross-sections			
- Rigid	Max.	mm^2	2 × 2.5
- Flexible, with end sleeve	Min.	mm^2	1 × 0.5
Permissible ambient temperature		°C	-20 ... +60
Resistance to climate	Acc. to EN 60068-1		20/060/04

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

© Siemens 2019

Selection and ordering data

		U_e	I_e	U_c	Mounting width	SD	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		V AC	A AC	V AC	MW	d					
	**Level relays**	230	4	230	2		**5TT3435**		1	1 unit	1BK
	**Immersion electrodes** • Made of stainless steel, with PG13 sealing cap • Temperature range 0 ... 60 °C • Suitable for pure water in open containers With terminal connection						**5TG8223**		1	1 unit	1BK

13

© Siemens 2019

5TT3 line circuit relays

Overview

Line circuit relays are used to interrupt circuits and prevent electromagnetic fields in circuits where there are currently no active loads.
If the loads are disconnected, and the line circuit relay measures a usage of only 2 to 20 VA – adjustable – it disconnects the cable to the supply voltage and switches over to extra-low voltage.
As soon as loads are reconnected, the line circuit relay detects the increase in usage and switches back to the supply voltage.
While the line circuit relay switches off any unnecessary system components, it is not a device for ensuring isolation in the sense of safe disconnection.

The line circuit relay is unable to detect consumers with electronic power supply units, e.g. electronically controlled vacuum cleaners. It is expedient to connect such devices to a base load resistor (PTC resistor) so that the line circuit relay is reset to supply voltage.

Benefits

- High availability to a wide range of loads, as all resistive, capacitive and inductive loads are detected
- Adjustable from 2 to 20 VA
- With status display for contact adjustment
- With switch continuously ON
- With safety information on stickers for socket outlets and distribution boards

Technical specifications

			5TT3171
Standards			IEC 60255; DIN VDE 0435-110
Rated control circuit voltage U_c		V AC	230
Primary operating range		× U_c	0.85 ... 1.15
Rated frequency		Hz	50/60
Rated power dissipation P_v	Electronics Contacts	VA VA	5 2.6
Monitoring voltage		V	3
Response value	Adjustable	VA	2 ... 20
Release value	% of the response value		70
Rated impulse withstand voltage U_{imp}	Input/output	kV	> 4
Rated operational voltage U_e		V AC	250
Rated operational current I_e	AC-1 AC-11	A A	16 3
Contacts			μ contact
Electrical service life	In switching cycles at 3 A	AC-11	5×10^5
Terminals	± screw (Pozidriv)		PZ 1
Conductor cross-sections			
• Rigid • Flexible, with end sleeve	Max. Min.	mm^2 mm^2	2 × 2.5 1 × 0.5
Permissible ambient temperature		°C	-20 ... +45
Degree of protection	Acc. to IEC/EN 60529		IP20, with connected conductors
Safety class	Acc. to EN 61140/VDE 0140-1		II
Humidity class	Acc. to IEC 60068-2-30		F

Selection and ordering data

	Contacts	U_e	I_e	U_c	Mounting width	SD	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
		V AC	A AC	V AC	MW	d					
	**Line circuit relays** For disconnecting the voltage of electrical systems even when loads are disabled										
	1 NC	250	16	230	1		**5TT3171**		1	1 unit	1BK
	Base load resistors for electronic devices With 15 cm connection wires, end sleeves and shrink sleeving						**5TG8222**		1	1 unit	1BK

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

© Siemens 2019

Overview



VersiCharge IEC charging unit

Safety requirements

IEC/EN 61851 defines the safety requirements that must be met by conductive charging systems for electric vehicles. Standard-compliant AC charging in mode 3 requires a charging station with safety-relevant functions.

Solutions for wall mounting

For the charging infrastructure of electric vehicles, the following units that meet the requirements specified here are available:

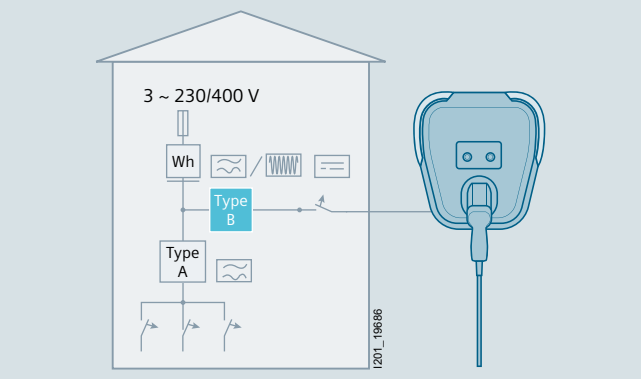
- VersiCharge IEC charging unit for wall mounting

Benefits

- Dirt-resistant, IP56 industrial design
- Integrated residual current detection (type B) for 6 mA DC (5TT3201-1VR03)
- Compact dimensions
- Optional access control via external RFID readers

Application

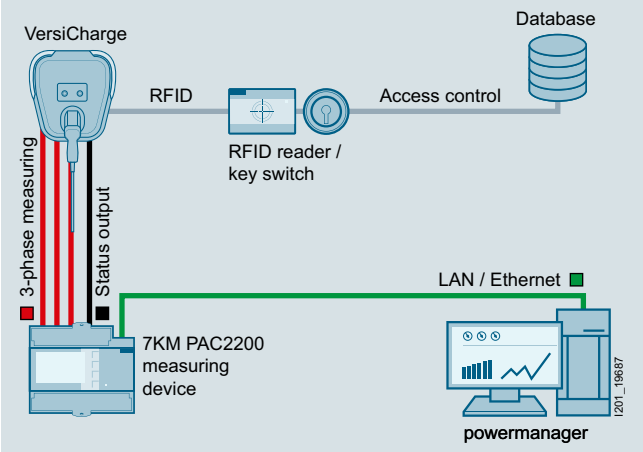
Our charging units are system-tested, CE-compliant charging stations for charging electric vehicles in mode 3 according to IEC/EN 61851 and IEC/EN 62196 for indoor and outdoor use, such as carports, garages, workshops, underground parking garages or multistory parking garages.



Charging of electric vehicles in mode 3 acc. to IEC/EN 61851

The charging process can be started and stopped by authorized persons via external RFID readers or key-operated switches.

In conjunction with a 7KM PAC2200 MID-capable measuring device and the powermanager power monitoring software, you can obtain information about charging consumption at your parking space at any time.



Application example, VersiCharge IEC with 7KM PAC measuring device and powermanager

Design

The functional and robust design of the VersiCharge IEC combines with their ease of handling to provide an optimal solution. It comes with the charging coupler Type 2. This ensures compatibility with future generations of electric vehicles.

Large HaloLED displays at the top right and top left in the enclosure indicate the current operational status even from a distance. The following states are displayed: "Ready-to-charge" / "Charging" / "Fault".

For the 5TT3201-1VR03 version, no type-B RCCB is required as 6 mA DC residual current detection is already integrated.

Function

Our charging units are also suitable for installing in older buildings. With the VersiCharge IEC charging unit, the maximum value for the charging current can be adjusted by an electrical expert to match facility capability.

The minimum charging current can be adjusted to the existing distribution board system during installation. The charging current can be set to 100 %, 75 %, 50 %, 25 % or minimum (6 A) using a rotary coding switch.

The charging unit cable can be connected optionally from the rear or from below.

The delay function supports setting a charging delay in two-hour increments (2/4/6/8 hours) up to a max. of 8 hours. This allows charging with PV current or utilizing off-peak tariffs. The charging process starts automatically after the time delay has elapsed.

The following states are displayed: "Ready-to-charge" / "Charging" / "Fault".

© Siemens 2019

VersiCharge IEC charging unit

Technical specifications

		VersiCharge IEC 5TT3201-1VR00 NEW	VersiCharge IEC 5TT3201-1VR01	VersiCharge IEC 5TT3201-1VR02	VersiCharge IEC 5TT3201-1VR03
Standards		IEC/EN 61851; IEC/EN 62196-2; IEC 60364-1; IEC 60947			
Operational voltage	V AC	230	230	230/400	230
Rated frequency	Hz	50/60	50/60	50/60	50/60
Rated current	A	1 x 20	1 x 20	3 x 32	1 x 32
Charging current	A	1 x20	1 x 20	3 x 32	1 x 32
Degree of protection		IP56			
Safety class		I			
Touch protection according to EN 50274		Finger and back-of-hand safe			
Ambient conditions					
• Ambient temperature	°C	-35 ... +50			
• Storage temperature	°C	-40 ... +60			
• Relative humidity	%	≤ 98			
• Installation location		Suitable for interior and exterior use			
Mains connection		Bottom/rear			
Conductor cross-sections	mm^2	2.5 10			
Enclosure					
• Material		Plastic			
• Color		RAL 7035 (light gray)			
• Dimensions (H x W x D)	mm	407 x 369 x 140			
• Weight	kg	5.7			
• Door/hinged lid		Plastic			
Charging outlet					
• Charging mode according to IEC 61851-1		3			
• Connection type according to IEC 62192		C, charging cable with charging coupler Type 2			
Operator controls		PAUSE (STOP/START charging process), DELAY 2, 4, 6, 8 hours (charging process delay)			
Displays		HaloLED, green, orange, red, blue			
Charging cables					
• Length of charging cable	m	4	7	7	7
• Cross-section of the charging cable	mm^2	2.5	2.5	4	4

Selection and ordering data

13

	Rated current	Charging current, adjustable	Plug type	Rated operational voltage	Charging cable length	SD	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS	PG
	A	A		V AC	m	d					
	**VersiCharge IEC charging unit with charging cable and charging coupler**										
	1 x 20 NEW	6 ... 20	2	230	4		**5TT3201-1VR00**		1	1 unit	1DA
	1 x 20	6 ... 20	2	230	7		**5TT3201-1VR01**		1	1 unit	1DA
	3 x 32	6 ... 32	2	230/400	7		**5TT3201-1VR02**		1	1 unit	1DA
	1 x 32	6 ... 32	2	230 Integrated residual current detection (type B) for 6 mA DC	7		**5TT3201-1VR03**		1	1 unit	1DA

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

© Siemens 2019

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

© Siemens 2019

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.

Unmarked items or items marked "AL:N" / "ECCN:N" or "AL:9X9999" / "ECCN: 9X9999" may require authorization based on their intended use or ultimate destination.

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.

If required to conduct export control checks, you, at our request, shall promptly provide us with all information pertaining to particular end customers, destination and intended use of goods, works and services provided by us, as well as any relevant export control restrictions.

The products listed in this catalog may be subject to European/German and/or US export regulations. Therefore, any export requiring a license is subject to approval by the competent authorities.

Errors excepted and subject to change without prior notice.

© Siemens 2019

Catalogs
Smart Infrastructure and Digital Industries

Further information can be obtained from our branch offices listed at www.siemens.com/lowvoltage/contact

Interactive Catalog	*Catalog*
Products for Automation and Drives	**CA 01**

Building Control	
GAMMA Building Control	ET G1

Drive Systems	
SINAMICS G130 Drive Converter Chassis Units SINAMICS G150 Drive Converter Cabinet Units	D 11
Digital: SINAMICS PERFECT HARMONY GH180 Medium-Voltage Air-Cooled Drives (Germany Edition)	*D 15.1*
SINAMICS G180 Converters – Compact Units, Cabinet Systems, Cabinet Units Air-Cooled and Liquid-Cooled	D 18.1
SINAMICS S120 Chassis Format Converter Units SINAMICS S120 Cabinet Modules SINAMICS S150 Converter Cabinet Units	D 21.3
SINAMICS S120 and SIMOTICS	D 21.4
SINAMICS DCM DC Converter, Control Module	D 23.1
SINAMICS Inverters for Single-Axis Drives · Built-In Units	D 31.1
SINAMICS Inverters for Single-Axis Drives · Distributed Inverters	D 31.2
Digital: SINAMICS Converters for Single-Axis Drives · SINAMICS G120X	*D 31.5*
Digital: SINAMICS S210 Servo Drive System	*D 32*
Digital: SINAMICS V90 Basic Servo Drive System	*D 33*
Digital: SINAMICS G120P and SINAMICS G120P Cabinet pump, fan, compressor converters	*D 35*
LOHER VARIO High Voltage Motors Flameproof, Type Series 1PS4, 1PS5, 1MV4 and 1MV5 Frame Size 355 to 1000, Power Range 80 to 7100 kW	D 83.2
Digital: Three-Phase Induction Motors SIMOTICS HV, SIMOTICS TN	*D 84.1*
Digital: Three-Phase Induction Motors SIMOTICS HV	*D 84.3*
High Voltage Three-phase Induction Motors SIMOTICS HV Series A-compact PLUS	D 84.9
Digital: Modular Industrial Generators SIGENTICS M	*D 85.1*
Synchronous Motors with Permanent-Magnet Technology, HT-direct	D 86.2
DC Motors	DA 12
SIMOVERT PM Modular Converter Systems	DA 45
MICROMASTER 420/430/440 Inverters	DA 51.2
MICROMASTER 411/COMBIMASTER 411	DA 51.3
Low-Voltage Three-Phase-Motors	
SIMOTOCS S-1FG1 Servo geared motors	D 41
SIMOTICS Low-Voltage Motors	D 81.1
SIMOTICS FD Low-Voltage Motors	D 81.8
LOHER Low-Voltage Motors	D 83.1
Digital: MOTOX Geared Motors	*D 87.1*
SIMOGEAR Geared Motors	MD 50.1
SIMOGEAR Electric-monorail geared motors Light-load and heavy-load applications	MD 50.8
SIMOGEAR Gearboxes with adapter	MD 50.11
Mechanical Driving Machines	
FLENDER Standard Couplings	MD 10.1
FLENDER High Performance Couplings	MD 10.2
FLENDER Backlash-free Couplings	MD 10.3
FLENDER SIP Standard industrial planetary gear units	MD 31.1

Motion Control	
SINUMERIK 840 Equipment for Machine Tools	NC 62
SINUMERIK 808 Equipment for Machine Tools	NC 81.1
SINUMERIK 828 Equipment for Machine Tools	NC 82
SIMOTION Equipment for Production Machines	PM 21
Digital: Drive and Control Components for Cranes	*CR 1*

Process Instrumentation and Analytics	*Catalog*
Digital: Field Instruments for Process Automation	*FI 01*
Digital: Display Recorders SIREC D	*MP 20*
Digital: SIPART Controllers and Software	*MP 31*
Products for Weighing Technology	WT 10
Digital: Process Analytical Instruments	*AP 01*
Digital: Process Analytics, Components for Continuous Emission Monitoring	*AP 11*

Low-Voltage Power Distribution and Electrical Installation Technology	
SENTRON · SIVACON · ALPHA Protection, Switching, Measuring and Monitoring Devices, Switchboards and Distribution Systems	LV 10
Electrical Components for the Railway Industry	LV 12
Power Monitoring Made Simple	LV 14
Components for Industrial Control Panels according to UL Standards	LV 16
Digital: Air circuit breakers and molded case circuit breakers with UL certification	*LV 18*
3WT Air Circuit Breakers up to 4000 A	LV 35
3VT Molded Case Circuit Breakers up to 1600 A	LV 36
Digital: SIVACON System Cubicles, System Lighting and System Air-Conditioning	*LV 50*
Digital: ALPHA Distribution Systems	*LV 51*
ALPHA FIX Terminal Blocks	LV 52
SIVACON S4 Power Distribution Boards	LV 56
SIVACON 8PS Busbar Trunking Systems	LV 70
Digital: DELTA Switches and Socket Outlets	*ET D1*
Vacuum Switching Technology and Components for Medium Voltage	HG 11.01

Power Supply	
SITOP Power supply	KT 10.1

Safety Integrated	
Safety Technology for Factory Automation	SI 10

SIMATIC HMI / PC-based Automation	
Human Machine Interface Systems/ PC-based Automation	ST 80/ ST PC

SIMATIC Ident	
Industrial Identification Systems	ID 10

SIMATIC Industrial Automation Systems	
Products for Totally Integrated Automation	ST 70
SIMATIC PCS 7 Process Control System System components	ST PCS 7
SIMATIC PCS 7 Process Control System Technology components	ST PCS 7 T
Add-ons for the SIMATIC PCS 7 Process Control System	ST PCS 7 AO
SIMATIC S7-400 advanced controller	ST 400

SIMATIC NET	
Industrial Communication	IK PI

SIRIUS Industrial Controls	
Digital: SIRIUS Industrial Controls	*IC 10*

Digital: These catalogs are only available as a PDF.

Siemens Industry Online Support

Digital versions of the catalogs are available on the Internet at:
www.siemens.com/lowvoltage/catalogs

© Siemens 2019

Get more information

www.siemens.com/lowvoltage

Siemens AG
Energy Management
Low Voltage & Products
Postfach 10 09 53
93009 Regensburg
Germany

© Siemens AG 2019
Subject to change without prior notice
PDF (Extract from E86060-K8280-A101-A9-7600)
KG 0619 1802 En
Produced in Germany

The information provided in this catalog contains merely general descriptions or characteristics of performance which in case of actual use do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract. Availability and technical specifications are subject to change without notice.

All product designations may be trademarks or product names of Siemens AG or supplier companies whose use by third parties for their own purposes could violate the rights of the owners.

Security information

Siemens provides products and solutions with industrial security functions that support the secure operation of plants, systems, machines and networks.

In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial security concept. Siemens' products and solutions constitute one element of such a concept.

Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place.

For additional information on industrial security measures that may be implemented, please visit **http://www.siemens.com/industrialsecurity**.

Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats.

To stay informed about product updates, subscribe to the Siemens Industrial Security RSS Feed under **http://www.siemens.com/industrialsecurity**.