SIEMENS

SINAMICS S210

Product Information **A5E43670285A AL** **Edition 03/2023**

Protective Devices for SINAMICS S210 (6SL3...)

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General Notes

- The voltage rating of any protective device must be at least the voltage rating of the supply circuit.
- The tables on the following pages show the maximum current rating of the protective device that is suitable to protect the drive. Protective devices of the same type with lower current ratings may be used.
- Protective devices of the same type with a lower SCCR / Icc rating may be used.
- The converters must be mounted in a suitable enclosure, while ensuring the minimum enclosure sizes are observed.
- When Line Filters are installed in combination with the Power Converter, the same protective devices as specified for the converter shall be used and the SCCR as specified for the converter is achieved

Overview of the approved protective devices according to UL standards

- JDDZ: Fuses of any manufacturer.
- DIVQ: SIEMENS circuit breaker
- NKJH: SIEMENS Type E combination motor controllers

ICC conditional short circuit current Icc

The maximum RMS value of a prospective short circuit current, available from a supply source.

Short-Circuit Current Rating (SCCR)

The Short-Circuit Current Rating (SCCR) is the prospective symmetrical fault current at a nominal voltage to which an apparatus or system is able to be connected without sustaining damage exceeding defined acceptance criteria.

UL Certificates

FSA … FSC, 1 AC	UL-File E355661, Vol. 3 Sec. 8
FSA … FSC, 3 AC	UL-File E192450, Vol 13 Sec 5

Group Installation

SINAMICS S210 drives have been evaluated for group installation according to UL61800-5-1. In this case, one single overcurrent protective device is acting as branch circuit protective for multiple drives. This is also applicable in the IEC world.

Design considerations for converters with line input 1 AC or 3AC

Select a protective device suitable for group installation from the following tables. The sum of the rated input currents of the connected inverters shall not be higher than 80 % of the rated current of the common protective device. Where appropriate, a simultaneity factor may be taken into account. Observe the local installation standards regarding the ampacity of the mains supply conductors.

1 Protective devices for Converters with line input 1 AC

1.1 Protective devices for IEC applications

1.1.1 IEC Fuses

Power Module			Fuse			Min. enclosure volume	
Frame size	Rated Power	Article no.	Max. rated current [2]	Article no.	ICC	Metric	Imperial (USA)
FSA	0.1 kW	6SL3210-5HB10-1UF0	6 A	3NA3801	65 kA	0.03 m³	1.06 ft³
	0.2 kW	6SL3210-5HB10-2UF0	6 A	3NA3801	65 kA		
FSB	0.4 kW	6SL3210-5HB10-4UF0	10 A	3NA3803	65 kA		
FSC	0.75 kW	6SL3210-5HB10-8UF0	16 A	3NA3805	65 kA		
any	group installation [1]		32 A	3NA3812	65 kA	0.03 m³	1.06 ft³

1) For details on group installation see section general notes
2) Protective devices with lower current ratings may be used, if suitable for the application

Note: SIEMENS 3NA low-voltage fuses are recommended.

1.1.2 IEC Motor Starter Protectors

Power Module			MSP			Min. enclosure volume	
Frame Size	Rated Power	Article no.	Max. rated current [2]	Article no. [3]	ICC @ 240 V	Metric	Imperial (USA)
FSA	0.1 kW	6SL3210-5HB10-1UF0	4 A	3RV2011-1EA..	65 kA	0.03 m³	1.06 ft³
			4 A	3RV6011-1EA..	65 kA		
	0.2 kW	6SL3210-5HB10-2UF0	4 A	3RV2011-1EA..	65 kA		
			4 A	3RV6011-1EA..	65 kA		
FSB	0.4 kW	6SL3210-5HB10-4UF0	8 A	3RV2011-1HA..	65 kA		
			8 A	3RV6011-1HA..	65 kA		
FSC	0.75 kW	6SL3210-5HB10-8UF0	12.5 A	3RV2011-1KA..	65 kA		
			12.5 A	3RV6011-1KA..	65 kA		
any	group installation [1]		32 A	3RV2021-4EA..	65 kA	0.03 m³	1.06 ft³
				3RV6021-4EA..	55 kA		

1) For details on group installation see section general notes
2) Protective devices with lower current ratings may be used, if suitable for the application
3) 3RV6 Motor Starter Protectors are orderable and available only in Asia with reduced approvals and certificates

1.1.3 IEC Circuit Breakers

Power Module			Circuit Breaker			Min. enclosure volume	
Frame Size	**Rated Power**	**Article no.**	**Max. rated current** [2]	**Type**	**ICC @ 240 V**	**Metric**	**Imperial (USA)**
FSA	0.1 kW	6SL3210-5HB10-1UF0	4 A	5SJ4104-8HG41	14 kA	0.03 m³	1.06 ft³
			16 A	3VA1196-4ED1…	36 kA		
			16 A	3VA1096-4ED3…	55 kA		
			16 A	3VA1196-6E…	65 kA		
	0.2 kW	6SL3210-5HB10-2UF0	4 A	5SJ4104-8HG41	14 kA		
			16 A	3VA1196-4ED1…	36 kA		
			16 A	3VA1096-4ED3…	55 kA		
			16 A	3VA1196-6E…	65 kA		
FSB	0.4 kW	6SL3210-5HB10-4UF0	8 A	5SJ4108-8HG41	14 kA		
			16 A	3VA1196-4ED1…	36 kA		
			16 A	3VA1096-4ED3…	55 kA		
			16 A	3VA1196-6E…	65 kA		
FSC	0.75 kW	6SL3210-5HB10-8UF0	13 A	5SJ4113-8HG41	14 kA		
			16 A	3VA1196-4ED1…	36 kA		
			16 A	3VA1096-4ED3…	55 kA		
			16 A	3VA1196-6E…	65 kA		
any	group installation [1]		30 A	5SJ4130-8HG41	14 kA	0.03 m³	1.06 ft³
			32 A	5SY7432-7 [3]	15 kA		
			32 A	3VA1132-4ED1…	36 kA		
			32 A	3VA1032-4ED3…	55 kA		
			32 A	3VA1132-6E…	65 kA		

1) For details on group installation see section general notes
2) Protective devices with lower current ratings may be used, if suitable for the application
3) Provides overload protection for the neutral conductor

1.2 Protective devices for UL/CSA applications

1.2.1 UL/CSA non-semiconductor fuses

Power Module			Fuse		Min. enclosure volume	
Frame Size	**Rated Power**	**Article no.**	**Max. rated current** [2]	**SCCR @ 240 V**	**Metric**	**Imperial (USA)**
FSA	0.1 kW	6SL3210-5HB10-1UF0	6 A	65 kA	0.03 m³	1.06 ft³
	0.2 kW	6SL3210-5HB10-2UF0	6 A	65 kA		
FSB	0.4 kW	6SL3210-5HB10-4UF0	10 A	65 kA		
FSC	0.75 kW	6SL3210-5HB10-8UF0	20 A	65 kA		
any	group installation [1]		30 A	65 kA	0.03 m³	1.06 ft³

1) For details on group installation see section general notes
2) Protective devices with lower current ratings may be used, if suitable for the application

Note:
Any non-semiconductor fuse equal or better than Class RK5, e.g. Class J, CC, T, G or CF (JDDZ/7) from any manufacturer may be used

1.2.2 UL/CSA Type E Combination Motor Controllers

Power Module			CMC				Min. enclosure volume	
Frame Size	Rated Power	Article no.	Max. rated current [1]	Rated power @ 3 AC 460 V	Article no. [2]	SCCR @ 240 V	Metric	Imperial (USA)
FSA	0.1 kW	6SL3210-5HB10-1UF0	4 A	1/3 HP	3RV2011-1EA..	65 kA	0.03 m³	1.06 ft³
			4 A	1/3 HP	3RV6011-1EA..	65 kA		
	0.2 kW	6SL3210-5HB10-2UF0	4 A	1/3 HP	3RV2011-1EA..	65 kA		
			4 A	1/3 HP	3RV6011-1EA..	65 kA		
FSB	0.4 kW	6SL3210-5HB10-4UF0	8 A	1 HP	3RV2011-1HA..	65 kA		
			8 A	1 HP	3RV6011-1HA..	65 kA		
FSC	0.75 kW	6SL3210-5HB10-8UF0	12.5 A	2 HP	3RV2011-1KA..	65 kA		
			12.5 A	2 HP	3RV6011-1KA..	65 kA		

1) Protective devices with lower current ratings may be used, if suitable for the application
2) 3RV6 CMCs are orderable and available only in Asia with reduced approvals and certificates

3RV20 motor starter protectors are approved in accordance with UL 508/UL60947-4-1 in combination with the terminal block 3RV2928-1H
Not necessary for CSA

1.2.3 UL/CSA Circuit Breakers

Power Module			Circuit Breaker				Min. enclosure volume	
Frame Size	Rated Power	Article no.	Max. rated current [2]	UL/CSA Type	Article no. Example	SCCR @ 240 V	Metric	Imperial (USA)
FSA	0.1 kW	6SL3210-5HB10-1UF0	4 A	5SJ4	5SJ4104-8HG41	14 kA	0.03 m³	1.06 ft³
			4 A	3RV2711	3RV2711-1ED..	66 kA		
			15 A	NGG	1ph	25 kA		
			15 A	HGG	1ph	35 kA		
			15 A	LGG	1ph	65 kA		
			15 A	CED6	2 or 3ph	65 kA		
			15 A	3VA51	3VA5195-4ED1..	25 kA		
			15 A	3VA51	3VA5195-5ED1..	35 kA		
			15 A	3VA51	3VA5195-6ED1..	50 kA		
			15 A	3VA51	3VA5195-4E#3..	65 kA		
	0.2 kW	6SL3210-5HB10-2UF0	4 A	5SJ4	5SJ4104-8HG41	14 kA		
			4 A	3RV2711	3RV2711-1ED..	65 kA		
			15 A	NGG	1ph	25 kA		
			15 A	HGG	1ph	35 kA		
			15 A	LGG	1ph	65 kA		
			15 A	CED6	2 or 3ph	65 kA		
			15 A	3VA51	3VA5195-4ED1..	25 kA		
			15 A	3VA51	3VA5195-5ED1..	35 kA		
			15 A	3VA51	3VA5195-6ED1..	50 kA		
			15 A	3VA51	3VA5195-4E#3..	65 kA		
FSB	0.4 kW	6SL3210-5HB10-4UF0	8 A	5SJ4	5SJ4108-8HG41	14 kA	0.03 m³	1.06 ft³
			8 A	3RV2711	3RV2711-1HD..	65 kA		
			15 A	NGG	1ph	25 kA		
			15 A	HGG	1ph	35 kA		
			15 A	LGG	1ph	65 kA		
			15 A	CED6	2 or 3ph	65 kA		
			15 A	3VA51	3VA5195-4ED1..	25 kA		
			15 A	3VA51	3VA5195-5ED1..	35 kA		
			15 A	3VA51	3VA5195-6ED1..	50 kA		
			15 A	3VA51	3VA5195-4E#3..	65 kA		
FSC	0.75 kW	6SL3210-5HB10-8UF0	13 A	5SJ4	5SJ4113-8HG41	14 kA	0.03 m³	1.06 ft³
			13 A	3RV2711	3RV2711-1KD..	65 kA		
			15 A	NGG	1ph	25 kA		
			15 A	HGG	1ph	35 kA		
			15 A	LGG	1ph	65 kA		
			15 A	CED6	2 or 3ph	65 kA		
			15 A	3VA51	3VA5195-4ED1..	25 kA		
			15 A	3VA51	3VA5195-5ED1..	35 kA		
			15 A	3VA51	3VA5195-6ED1..	50 kA		
			15 A	3VA51	3VA5195-4E#3..	65 kA		
any	group installation [1]		30 A	5SJ4	5SJ4130-8HG41	14 kA	0.03 m³	1.06 ft³
			30 A	3RV2742	3RV2742-5ED..	65 kA		
			30 A	NGG	1ph	25 kA		
			30 A	HGG	1ph	35 kA		
			30 A	LGG	1ph	65 kA		
			30 A	CED6	2 or 3ph	65 kA		
			30 A	3VA51	3VA5130-4ED1..	25 kA		
			30 A	3VA51	3VA5130-5ED1..	35 kA		
			30 A	3VA51	3VA5130-6ED1..	50 kA		
			30 A	3VA51	3VA5130-4E#3..	65 kA		

1) For details on group installation see section general notes
2) Protective devices with lower current ratings may be used, if suitable for the application

might be C or D

2 Protective devices for Converters with line input 3 AC

2.1 Protective devices for IEC applications

2.1.1 IEC Fuses

Power Module			Fuse			Min. enclosure volume	
Frame size	Rated Power	Article no.	Max. rated current [2]	Article no.	ICC	Metric	Imperial (USA)
FSA	0.4 kW	6SL3210-5HE10-4UF0	16 A	3NA3805	65 kA	0.08 m³	2.65 ft³
			16 A	3NW6105-1	65 kA		
			16 A	3NW6005-1	65 kA		
	0.75 kW	6SL3210-5HE10-8UF0	16 A	3NA3805	65 kA		
			16 A	3NW6105-1	65 kA		
			16 A	3NW6005-1	65 kA		
	1.0 kW	6SL3210-5HE11-0UF0	16 A	3NA3805	65 kA		
			16 A	3NW6105-1	65 kA		
			16 A	3NW6005-1	65 kA		
FSB	1.5 kW	6SL3210-5HE11-5UF0	32 A	3NA3812	65 kA		
			32 A	3NW6112-1	65 kA		
			32 A	3NW6012-1	20 kA		
	2.0 kW	6SL3210-5HE12-0UF0	32 A	3NA3813	65 kA		
			32 A	3NW6112-1	65 kA		
			32 A	3NW6012-1	20 kA		
FSC	3.5 kW	6SL3210-5HE13-5UF0	63 A	3NA3822	65 kA		
			50 A	3NW6120-1	65 kA		
	5.0 kW	6SL3210-5HE15-0UF0	63 A	3NA3822	65 kA		
			50 A	3NW6120-1	65 kA		
	7.0 kW	6SL3210-5HE17-0UF0	63 A	3NA3822	65 kA		
			50 A	3NW6120-1	65 kA		
any	group installation [1]		100 A	3NA3830	65 kA	0.08 m³	2.65 ft³
			80 A	3NW6224-1	65 kA		

1) For details on group installation see section general notes
2) Protective devices with lower current ratings may be used, if suitable for the application

Note: SIEMENS 3NA low-voltage fuse series is recommended.

2.1.2 IEC Motor Starter Protectors

Power Module			MSP			Min. enclosure volume	
Frame Size	Rated Power	Article no.	Max. rated current [2]	Article no. [3]	ICC @ 400 V	Metric	Imperial (USA)
FSA	0.4 kW	6SL3210-5HE10-4UF0	6.3 A	3RV2011-1GA..	65 kA	0.08 m³	2.65 ft³
			6.3 A	3RV6011-1GA..	65 kA		
	0.75 kW	6SL3210-5HE10-8UF0	6.3 A	3RV2011-1GA..	65 kA		
			6.3 A	3RV6011-1GA..	65 kA		
	1.0 kW	6SL3210-5HE11-0UF0	6.3 A	3RV2011-1GA..	65 kA		
			6.3 A	3RV6011-1GA..	65 kA		
FSB	1.5 kW	6SL3210-5HE11-5UF0	16 A	3RV2011-4AA..	55 kA	0.08 m³	2.65 ft³
			16 A	3RV6011-4AA..	55 kA		
	2.0 kW	6SL3210-5HE12-0UF0	16 A	3RV2011-4AA..	55 kA		
			16 A	3RV6011-4AA..	55 kA		
FSC	3.5 kW	6SL3210-5HE13-5UF0	32 A	3RV2021-4EA..	55 kA	0.13 m³	4.31 ft³
			32 A	3RV6021-4EA..	55 kA		
	5.0 kW	6SL3210-5HE15-0UF0	32 A	3RV2021-4EA..	55 kA		
			32 A	3RV6021-4EA..	55 kA		
	7.0 kW	6SL3210-5HE17-0UF0	32 A	3RV2021-4EA..	55 kA		
			32 A	3RV6021-4EA..	55 kA		
any	group installation [1]		40 A	3RV2021-4FA..	20 kA	0.13 m³	4.31 ft³
			40 A	3RV2031-4UA..	65 kA		
			80 A	3RV2031-4RA..	65 kA	0.23 m³	7.62 ft³

1) For details on group installation see section general notes
2) Protective devices with lower current ratings may be used, if suitable for the application
3) 3RV6 Motor Starter Protectors are orderable and available only in Asia with reduced approvals and certificates

Note: The Icc values are valid for TN and TT grids with grounded star point

2.1.3 IEC Circuit Breakers

Power Module			Circuit Breaker			Min. enclosure volume	
Frame Size	Rated Power	Article no.	Max. rated current [2]	Type	ICC @ 400 V	Metric	Imperial (USA)
FSA	0.4 kW	6SL3210-5HE10-4UF0	8 A	5SY7308-7	15 kA	0.08 m³	2.65 ft³
			16 A	3VA1096-4ED3…	36 kA	0.13 m³	4.31 ft³
			16 A	3VA1196-6E#3…	65 kA	0.13 m³	4.31 ft³
	0.75 kW	6SL3210-5HE10-8UF0	8 A	5SY7308-7	15 kA	0.08 m³	2.65 ft³
			16 A	3VA1096-4ED3…	36 kA	0.13 m³	4.31 ft³
			16 A	3VA1196-6E#3…	65 kA	0.13 m³	4.31 ft³
	1.0 kW	6SL3210-5HE11-0UF0	8 A	5SY7308-7	15 kA	0.08 m³	2.65 ft³
			16 A	3VA1096-4ED3…	36 kA	0.13 m³	4.31 ft³
			16 A	3VA1196-6E#3…	65 kA	0.13 m³	4.31 ft³
FSB	1.5 kW	6SL3210-5HE11-5UF0	16 A	5SY7316-7	15 kA	0.08 m³	2.65 ft³
			16 A	3VA1096-4ED3…	36 kA	0.13 m³	4.31 ft³
			16 A	3VA1196-6E#3..	65 kA	0.13 m³	4.31 ft³
	2.0 kW	6SL3210-5HE12-0UF0	16 A	5SY7316-7	15 kA	0.08 m³	2.65 ft³
			16 A	3VA1096-4ED3…	36 kA	0.13 m³	4.31 ft³
			16 A	3VA1196-6E#3..	65 kA	0.13 m³	4.31 ft³
FSC	3.5 kW	6SL3210-5HE13-5UF0	30 A	5SY7332-7	15 kA	0.08 m³	2.65 ft³
			32 A	3VA1032-4ED3…	36 kA	0.13 m³	4.31 ft³
			32 A	3VA1132-6E#3…	65 kA	0.13 m³	4.31 ft³
	5.0 kW	6SL3210-5HE15-0UF0	30 A	5SY7332-7	15 kA	0.08 m³	2.65 ft³
			32 A	3VA1032-4ED3…	36 kA	0.13 m³	4.31 ft³
			32 A	3VA1132-6E#3…	65 kA	0.13 m³	4.31 ft³
	7.0 kW	6SL3210-5HE17-0UF0	30 A	5SY7332-7	15 kA	0.08 m³	2.65 ft³
			32 A	3VA1032-4ED3…	36 kA	0.13 m³	4.31 ft³
			32 A	3VA1132-6E#3…	65 kA	0.13 m³	4.31 ft³
all	group installation [1]		63 A	5SY7363-7	15 kA	0.13 m³	4.31 ft³
			32 A	3VA1032-4ED3…	36 kA	0.13 m³	4.31 ft³
			80 A	3VA1180-6#3…	65 kA	0.23 m³	7.62 ft³

1) For details on group installation see section general notes
2) Protective devices with lower current ratings may be used, if suitable for the application

Note: 5SY73..-7 Circuit Breaker is in characteristic C. Characteristic B is also possible if it is suitable for the overload condition of the application

2.2 Protective devices for UL/CSA applications

2.2.1 UL/CSA non-semiconductor fuses

Power Module			Fuse		Min. enclosure volume	
Frame Size	Rated Power	Article no.	Max. rated current [2]	SCCR @ 480 V	Metric	Imperial (USA)
FSA	0.4 kW	6SL3210-5HE10-4UF0	15 A	65 kA	0.08 m³	2.65 ft³
	0.75 kW	6SL3210-5HE10-8UF0	15 A	65 kA		
	1.0 kW	6SL3210-5HE11-0UF0	15 A	65 kA		
FSB	1.5 kW	6SL3210-5HE11-5UF0	30 A	65 kA		
	2.0 kW	6SL3210-5HE12-0UF0	30 A	65 kA		
FSC	3.5 kW	6SL3210-5HE13-5UF0	70 A	65 kA		
	5.0 kW	6SL3210-5HE15-0UF0	70 A	65 kA		
	7.0 kW	6SL3210-5HE17-0UF0	70 A	65 kA		
all	group installation [1]		100 A	65 kA	0.08 m³	2.65 ft³

1) For details on group installation see section general notes
2) Protective devices with lower current ratings may be used, if suitable for the application

Note:
Any non-semiconductor fuse equal or better than Class J, e.g. Class CC, T, G or CF (JDDZ/7) from any manufacturer may be used

2.2.2 UL/CSA Type E Combination Motor Controllers

Power Module			CMC				Min. enclosure volume	
Frame Size	Rated Power	Article no.	Max. rated current [1]	Rated power @ 3 AC 480 V	Article no. [2]	SCCR @ 480 Y / 277 V	Metric	Imperial (USA)
FSA	0.4 kW	6SL3210-5HE10-4UF0	6.3 A	3 HP	3RV2011-1GA..	65 kA	0.08 m³	2.65 ft³
			6.3 A	3 HP	3RV6011-1GA..	65 kA		
	0.75 kW	6SL3210-5HE10-8UF0	6.3 A	3 HP	3RV2011-1GA..	65 kA		
			6.3 A	3 HP	3RV6011-1GA..	65 kA		
	1.0 kW	6SL3210-5HE11-0UF0	6.3 A	3 HP	3RV2011-1GA..	65 kA		
			6.3 A	3 HP	3RV6011-1GA..	65 kA		
FSB	1.5 kW	6SL3210-5HE11-5UF0	16 A	10 HP	3RV2011-4AA..	65 kA		
			16 A	10 HP	3RV6011-4AA..	65 kA		
	2.0 kW	6SL3210-5HE12-0UF0	16 A	10 HP	3RV2011-4AA..	65 kA		
			16 A	10 HP	3RV6011-4AA..	65 kA		
FSC	3.5 kW	6SL3210-5HE13-5UF0	32 A	20 HP	3RV2021-4EA..	65 kA	0.13 m³	4.31 ft³
			32 A	20 HP	3RV6021-4EA..	65 kA		
	5.0 kW	6SL3210-5HE15-0UF0	32 A	20 HP	3RV2021-4EA..	65 kA		
			32 A	20 HP	3RV6021-4EA..	65 kA		
	7.0 kW	6SL3210-5HE17-0UF0	32 A	20 HP	3RV2021-4EA..	65 kA		
			32 A	20 HP	3RV6021-4EA..	65 kA		

1) Protective devices with lower current ratings may be used, if suitable for the application
2) 3RV6 CMCs are orderable and available only in Asia with reduced approvals and certificates

3RV20 motor starter protectors are approved in accordance with UL 508/UL60947-4-1 in combination with the terminal blocks listed below:
- 3RV2011 and 3RV2021 with 3RV2928-1H

For CSA not necessary

2.2.3 UL/CSA Circuit Breakers

Power Module			Circuit Breaker					Min. enclosure volume	
Frame Size	Rated Power	Article no.	Max. rated current [2]	UL/CSA Type	Article no. Example (European) [4]	SCCR @ 480 V	SCCR @ 480 Y / 277 V	Metric	Imperial (USA)
FSA	0.4 kW	6SL3210-5HE10-4UF0	8 A	5SJ4	5SJ4308-8HG42		10 kA	0.08 m³	2.65 ft³
			10 A	3RV27	3RV2742-5AD10	65 kA	[3]	0.08 m³	2.65 ft³
			15 A	3VA5	3VA5195-6ED3..	65 kA	[3]	0.13 m³	4.31 ft³
	0.75 kW	6SL3210-5HE10-8UF0	8 A	5SJ4	5SJ4308-8HG42		10 kA	0.08 m³	2.65 ft³
			10 A	3RV27	3RV2742-5AD10	65 kA	[3]	0.08 m³	2.65 ft³
			15 A	3VA5	3VA5195-6ED3..	65 kA	[3]	0.13 m³	4.31 ft³
	1.0 kW	6SL3210-5HE11-0UF0	8 A	5SJ4	5SJ4308-8HG42		10 kA	0.08 m³	2.65 ft³
			10 A	3RV27	3RV2742-5AD10	65 kA	[3]	0.08 m³	2.65 ft³
			15 A	3VA5	3VA5195-6ED3..	65 kA	[3]	0.13 m³	4.31 ft³
FSB	1.5 kW	6SL3210-5HE11-5UF0	15 A	5SJ4	5SJ4318-8HG42		10 kA	0.08 m³	2.65 ft³
			15 A	3RV27	3RV2742-5BD10	65 kA	[3]	0.13 m³	4.31 ft³
			15 A	3VA5	3VA5195-6ED3..	65 kA	[3]	0.13 m³	4.31 ft³
	2.0 kW	6SL3210-5HE12-0UF0	15 A	5SJ4	5SJ4318-8HG42		10 kA	0.08 m³	2.65 ft³
			15 A	3RV27	3RV2742-5BD10	65 kA	[3]	0.13 m³	4.31 ft³
			15 A	3VA5	3VA5195-6ED3..	65 kA	[3]	0.13 m³	4.31 ft³
FSC	3.5 kW	6SL3210-5HE13-5UF0	30 A	5SJ4	5SJ4330-8HG42		10 kA	0.08 m³	2.65 ft³
			30 A	3RV27	3RV2742-5ED10	65 kA	[3]	0.23 m³	7.62 ft³
			30 A	3VA5	3VA5130-6ED3..	65 kA	[3]	0.13 m³	4.31 ft³
	5.0 kW	6SL3210-5HE15-0UF0	30 A	5SJ4	5SJ4330-8HG42		10 kA	0.08 m³	2.65 ft³
			30 A	3RV27	3RV2742-5ED10	65 kA	[3]	0.23 m³	7.62 ft³
			30 A	3VA5	3VA5130-6ED3..	65 kA	[3]	0.13 m³	4.31 ft³
	7.0 kW	6SL3210-5HE17-0UF0	30 A	5SJ4	5SJ4330-8HG42		10 kA	0.08 m³	2.65 ft³
			30 A	3RV27	3RV2742-5ED10	65 kA	[3]	0.23 m³	7.62 ft³
			30 A	3VA5	3VA5130-6ED3..	65 kA	[3]	0.13 m³	4.31 ft³
all	group installation [1]		35 A	3VA5	3VA5135-6E#3...	65 kA	[3]	0.13 m³	4.31 ft³
			90 A	3VA5	3VA5190-6E#3...	65 kA	[3]	0.23 m³	7.62 ft³

1) For details on group installation see section general notes
2) Protective devices with lower current ratings may be used, if suitable for the application
3) The SCCR shown in the table for 3 phase straight rated 480V AC supply systems can also be applied to a 3 phase center point grounded (slash rated) supply systems of 480Y/277 V AC. However, vice versa or conversely CANNOT be done i.e. the SCCR shown in the table for a 3 phase center point grounded (slash rated) supply systems CANNOT be applied to a straight rated supply systems.
4) For more breaker article numbers, please refer to the documents mentioned on the next page.

Note: 5SJ43..-8 Circuit Breaker is in characteristic D. Characteristic B or C is also possible if it is suitable for the overload condition of the application

More Information

For more information, see the following links: 

- Manuals
  https://support.industry.siemens.com/cs/ww/en/view/109753800
- SIEMENS SENTRON fuses / 3NA fuses
  https://support.industry.siemens.com/cs/ww/en/view/45314810
- 3RV60 Motor Starter Protectors:
  https://support.industry.siemens.com/cs/ww/en/ps/3rv60
- IEC Circuit Breakers, 3VA1 series
  https://support.industry.siemens.com/cs/ww/en/view/109743932
- UL Molded Case Circuit Breakers, 3VA5 series Circuit Breakers
  https://support.industry.siemens.com/cs/ww/en/view/109744301
- UL Molded Case Circuit Breakers, SENTRON & VL series, see SIEMENS SPEEDFAX Product Catalog Section 7
  http://w3.usa.siemens.com/powerdistribution/us/en/speedfax-product-catalog/Documents/2017