

Protective Devices for SINAMICS G210X

Product Information	Edition 10/2026
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1 IEC applications

1.1 General Notes

Protection for safety must be provided in accordance with

- IEC 60364 standard series
- Any additional local standards and regulations for electrical installations.

The tables below provide information for each converter type and article number on the following items:

- The complete article number of the converter is described in the operating instructions or catalogue. The headings in the document define which converters are described in the tables.

Article number	Degree of protection	Repair Switch	Environmental condition
6SL4343-.C...-....	IP20 /UL open type	false	Class 3C2 acc. to IEC 60721-3-3: 2002
6SL4343-.D...-....	IP20 /UL open type	false	Class 3C3 acc. to IEC 60721-3-3: 2002
6SL4343-.J...-....	IP55 /UL type 12	false	Class 3C2 acc. to IEC 60721-3-3: 2002
6SL4343-.K...-....	IP55 /UL type 12	false	Class 3C3 acc. to IEC 60721-3-3: 2002
6SL4343-.L...-....	IP55 /UL type 12	true	Class 3C2 acc. to IEC 60721-3-3: 2002
6SL4343-.M...-....	IP55 /UL type 12	true	Class 3C3 acc. to IEC 60721-3-3: 2002

- Suitable protective devices: The specification includes the type or article number of the overcurrent protective devices (OCPD). In many cases, two values of rated current are shown for the same converter. The higher one represents the maximum permissible nominal current of the OCPD that provides protection, the lower one is a typical nominal current that better fits to the converter. Current ratings between these two values are suitable as well.
- Maximum ICC (conditional short circuit current): This is the maximum RMS value of a prospective short circuit current, available from a supply source.
- Minimum enclosure volume: In the end application, the converter shall be installed in an outer enclosure or control cabinet which shall meet the minimum enclosure volume requirement.
- Minimum $I_{cp,mr}$ (prospective short-circuit current): RMS value of a minimum prospective short-circuit current, which shall be available from the source to ensure operation of the specific type of short-circuit protective device.

Notes on the selection of protective devices

- Protective devices of the same type as specified in the tables with a lower ampere rating may be used, if suitable for the application.
- Protective devices of the same type as specified in the tables with a lower interrupting rating may be used, if suitable for the application. In such case, this lower interrupting current rating of a protective device shall be specified as the ICC of a converter and protective device combination.
- The voltage rating of the protective device must be at least the voltage rating of the supply circuit.

The converter provides:

- Integral Motor Overload Protection which reduces the output current flow under overload conditions. Refer to manual for adjustments.
- Integral Output Short-Circuit Protection.

1.2 Protection class IP20

1.2.1 IEC standard fuses

Converter			Protective Device				Min. enclosure volume	
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. ¹⁾	I _{cp,mf} / kA	I _{cc} / kA @ 500 V	Metric	Imperial
FSA	1.1 kW	6SL4343-...08-...0	4	3NA3804	0.2	100	0.192 m ³	6.78 ft ³
			16	3NA3805	0.4	100		
	1.5 kW	6SL4343-...10-...0	6	3NA3801	0.23	100		
			16	3NA3805	0.4	100		
	2.2 kW	6SL4343-...11-...0	10	3NA3803	0.3	100		
			16	3NA3805	0.4	100		
	3 kW	6SL4343-...12-...0	16	3NA3805	0.4	100		
FSB	7.5 kW	6SL4343-...16-...0	20	3NA3807	0.5	100	0.24 m ³	8.48 ft ³
			32	3NA3812	0.76	100		
	11 kW	6SL4343-...17-...0	25	3NA3810	0.61	100		
			32	3NA3812	0.76	100		
FSC	15 kW	6SL4343-...18-...0	40	3NA3817	1.13	100	0.12 m ³	4.24 ft ³
			50	3NA3820	1.3	100		
	18.5 kW	6SL4343-...20-...0	50	3NA3820	1.3	100		
FSD1	22 kW	6SL4343-...21-...0	63	3NA3822	1.8	100	0.16 m ³	5.65 ft ³
			80	3NA3824	2.1	100		
	30 kW	6SL4343-...23-...0	80	3NA3824	2.1	100		
FSD2	37 kW	6SL4343-...24-...0	80	3NA3824	2.4	100	0.36 m ³	12.71 ft ³
			125	3NA3832	3.6	100		
	45 kW	6SL4343-...26-...0	125	3NA3832	3.6	100		
FSE	55 kW	6SL4343-...27-...0	125	3NA3832	3.6	100	0.384 m ³	13.56 ft ³
			160	3NA3836	4.5	100		
			200	3NA3140	5.2	100		
	75 kW	6SL4343-...30-...0	160	3NA3836	4.5	100		
			200	3NA3140	5.2	100		

¹⁾ Siemens 3NA low-voltage fuses are recommended

1.2.2 IEC semiconductor fuses

Converter			Protective Device				Min. enclosure volume	
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no.	I _{cp,mf} / kA	I _{cc} / kA	Metric	Imperial
FSA	1.1 kW	6SL4343-...08-...0	16	3NE1813-0	0.26	100 @ 500 V	0.192 m³	6.78 ft³
	1.5 kW	6SL4343-...10-...0	16	3NE1813-0	0.26	100 @ 500 V		
	2.2 kW	6SL4343-...11-...0	16	3NE1813-0	0.26	100 @ 500 V		
	3 kW	6SL4343-...12-...0	16	3NE1813-0	0.26	100 @ 500 V		
	4 kW	6SL4343-...13-...0	16	3NE1813-0	0.26	100 @ 500 V		
	5.5 kW	6SL4343-...15-...0	16	3NE1813-0	0.26	100 @ 500 V		
FSB	7.5 kW	6SL4343-...16-...0	20	3NE1814-0	0.4	100 @ 500 V	0.24 m³	8.48 ft³
			35	3NE1803-0	0.5	100 @ 500 V		
	11 kW	6SL4343-...17-...0	25	3NE1815-0	0.35	100 @ 500 V		
			35	3NE1803-0	0.5	100 @ 500 V		
FSC	15 kW	6SL4343-...18-...0	40	3NE1802-0	0.72	100 @ 500 V	0.12 m³	4.24 ft³
			50	3NE1817-0	0.8	100 @ 500 V		
	18.5 kW	6SL4343-...20-...0	50	3NE1817-0	0.8	100 @ 500 V		
FSD1	22 kW	6SL4343-...21-...0	63	3NE1818-0	1.0	100 @ 500 V	0.16 m³	5.65 ft³
			80	3NE1820-0	1.3	100 @ 500 V		
	30 kW	6SL4343-...23-...0	80	3NE1820-0	1.3	100 @ 500 V		
FSD2	37 kW	6SL4343-...24-...0	100	3NE1021-0	2.0	100 @ 500 V	0.36 m³	12.71 ft³
			125	3NE1022-0	2.4	100 @ 500 V		
	45 kW	6SL4343-...26-...0	125	3NE1022-0	2.4	100 @ 500 V		
FSE	55 kW	6SL4343-...27-...0	125	3NE1022-0	2.3	100 @ 500 V	0.384 m³	13.56 ft³
			160	3NE1224-0	2.8	100 @ 500 V		
			200	3NE1225-0	3.3	100 @ 500 V		
	75 kW	6SL4343-...30-...0	160	3NE1224-0	2.8	100 @ 500 V		
			200	3NE1225-0	3.3	100 @ 500 V		
			200	3NE1225-0	3.3	100 @ 500 V		

1.2.3 IEC motor starter protectors

Converter			Protective Device				Min. enclosure volume	
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. ¹⁾	I _{cp,mr} / kA	I _{cc} / kA @ 415 V ²⁾	Metric	Imperial
FSA	1.1 kW	6SL4343-...08-...0	5	3RV2011-1FA..	0.23	65	0.192 m ³	6.78 ft ³
				3RV2021-1FA..	0.23	65		
			14	3RV2031-4SA..	0.4	65		
				3RV2032-4SA..	0.4	65		
			16	3RV2011-4AA..	0.4	55		
				3RV2021-4AA..	0.4	55		
			17	3RV2031-4TA..	0.46	65		
				3RV2032-4TA..	0.46	65		
	1.5 kW	6SL4343-...10-...0	6	3RV2011-1GA..	0.25	65		
				3RV2021-1GA..	0.25	65		
			14	3RV2031-4SA..	0.4	65		
				3RV2032-4SA..	0.4	65		
			16	3RV2011-4AA..	0.4	55		
				3RV2021-4AA..	0.4	55		
			17	3RV2031-4TA..	0.46	65		
				3RV2032-4TA..	0.46	65		
	2.2 kW	6SL4343-...11-...0	10	3RV2011-1JA..	0.3	65		
				3RV2021-1JA..	0.3	65		
			14	3RV2031-4SA..	0.4	65		
				3RV2032-4SA..	0.4	65		
			16	3RV2011-4AA..	0.4	55		
				3RV2021-4AA..	0.4	55		
			17	3RV2031-4TA..	0.46	65		
				3RV2032-4TA..	0.46	65		
	3 kW	6SL4343-...12-...0	12	3RV2011-1KA..	0.35	65		
				3RV2021-1KA..	0.35	65		
			14	3RV2031-4SA..	0.4	65		
				3RV2032-4SA..	0.4	65		
			16	3RV2011-4AA..	0.4	55		
				3RV2011-4AA..	0.4	55		

Converter			Protective Device				Min. enclosure volume	
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. ¹⁾	I _{cp,mf} / kA	I _{cc} / kA @ 415 V ²⁾	Metric	Imperial
			17	3RV2021-4AA..	0.4	55	0.24 m ³	8.48 ft ³
				3RV2031-4TA..	0.46	65		
				3RV2032-4TA..	0.46	65		
	4 kW	6SL4343-...13-...0	16	3RV2011-4AA..	0.4	55		
				3RV2021-4AA..	0.4	55		
			17	3RV2031-4TA..	0.46	65		
				3RV2032-4TA..	0.46	65		
	5.5 kW	6SL4343-...15-...0	16	3RV2011-4AA..	0.4	55		
				3RV2021-4AA..	0.4	55		
			17	3RV2031-4TA..	0.46	65		
				3RV2032-4TA..	0.46	65		
FSB	7.5 kW	6SL4343-...16-...0	20	3RV2021-4BA..	0.51	55	0.24 m ³	8.48 ft ³
				3RV2031-4BA..	0.51	65		
				3RV2032-4BA..	0.51	65		
			32	3RV2021-4EA..	0.68	55		
				3RV2031-4EA..	0.7	65		
				3RV2032-4EA..	0.7	65		
	11 kW	6SL4343-...17-...0	25	3RV2021-4DA..	0.6	55		
				3RV2031-4DA..	0.6	65		
				3RV2032-4DA..	0.6	65		
			32	3RV2021-4EA..	0.68	55		
				3RV2031-4EA..	0.7	65		
				3RV2032-4EA..	0.7	65		
FSC	15 kW	6SL4343-...18-...0	40	3RV2031-4UA..	1.05	5	0.12 m ³	4.24 ft ³
					1.05	65	0.32 m ³	11.30 ft ³
				3RV2032-4UA..	1.05	5	0.12 m ³	4.24 ft ³
					1.05	65	0.32 m ³	11.30 ft ³
				3RV2041-4FA..	0.98	5	0.12 m ³	4.24 ft ³
				3RV2042-4FA..	0.98	5		
			50	3RV2041-4HA..	1.14	5		

Converter			Protective Device				Min. enclosure volume	
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. ¹⁾	I _{cp,mf} / kA	I _{cc} / kA @ 415 V ²⁾	Metric	Imperial
			52	3RV2042-4HA..	1.14	5	0.32 m ³	11.30 ft ³
				3RV2031-4WA..	1.25	5		
					1.25	65		
				3RV2032-4WA..	1.25	5		
					1.25	65		
			50	3RV2041-4HA..	1.14	5	0.12 m ³	4.24 ft ³
				3RV2042-4HA..	1.14	5		
				3RV2031-4WA..	1.25	5		
					1.25	65		
	18.5 kW	6SL4343-...20-...0	52	3RV2032-4WA..	1.25	65	0.32 m ³	11.30 ft ³
					1.25	5		
				3RV2042-4HA..	1.14	5	0.12 m ³	4.24 ft ³
					1.14	5		
FSD1	22 kW	6SL4343-...21-...0	59	3RV2031-4XA..	1.47	65	0.16 m ³	5.65 ft ³
				3RV2032-4XA..	1.47	100		
			63	3RV2041-4JA..	1.44	65		
				3RV2042-4JA..	1.44	100		
			73	3RV2031-4KA..	1.6	65		
				3RV2032-4KA..	1.6	100		
			75	3RV2041-4KA..	1.62	65		
				3RV2042-4KA..	1.62	100		
	30 kW	6SL4343-...23-...0	73	3RV2031-4KA..	1.6	65		
				3RV2032-4KA..	1.6	100		
			75	3RV2041-4KA..	1.62	65		
				3RV2042-4KA..	1.62	100		
FSD2	37 kW	6SL4343-...24-...0	93	3RV2041-4YA..	2.3	65	0.36 m ³	12.71 ft ³
				3RV2042-4YA..	2.3	100		
			100	3RV2041-4MA..	2.3	65		
				3RV2042-4MA..	2.3	100		
	45 kW	6SL4343-...26-...0	100	3RV2041-4MA..	2.3	65		
				3RV2042-4MA..	2.3	100		

Converter			Protective Device				Min. enclosure volume	
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. ¹⁾	I _{cp,mf} / kA	I _{cc} / kA @ 415 V ²⁾	Metric	Imperial
FSE	55 kW	6SL4343-...27-...0	Use a circuit breaker instead.				-	-
	75 kW	6SL4343-...30-...0	Use a circuit breaker instead.					

¹⁾ The symbol ".." refers to the type of electrical connection. It can be replaced by 10 (screw terminal), 15 (screw terminal with transverse auxiliary switches) or 20 (spring type terminal).

²⁾ Icc values are only valid for supply grids with grounded star point (solidly grounded wye TN or TT systems)

1.2.4 IEC circuit breakers

Converter			Protective Device				Min. enclosure volume	
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. 1) 2) 3)	I _{cp,mr} / kA	I _{cc} / kA	Metric	Imperial
FSA	1.1 kW	6SL4343-...08-...0	4	5SY7304-7	0.2	15 @ 400 V	0.192 m ³	6.78 ft ³
			16	3VA1096-2ED3x-0AA0	0.53	5 @ 500 V		
					0.53	16 @ 415 V		
				3VA1096-3ED3x-0AA0	0.53	5 @ 500 V		
					0.53	25 @ 415 V		
				3VA1096-4ED3x-0AA0	0.53	5 @ 500 V		
					0.53	36 @ 415 V		
				3VA1196-3E#3x-0AA0	0.53	5 @ 500 V		
					0.53	25 @ 415 V		
				3VA1196-4E#3x-0AA0	0.53	5 @ 500 V		
					0.53	36 @ 415 V		
				3VA1196-5E#3x-0AA0	0.53	5 @ 500 V		
					0.53	55 @ 415 V		
				3VA1196-6E#3x-0AA0	0.53	5 @ 500 V		
					0.53	65 @ 415 V		
				5SY7316-7	0.3	15 @ 400 V		
	1.5 kW	6SL4343-...10-...0	8	5SY7308-7	0.23	15 @ 400 V		
			16	3VA1096-2ED3x-0AA0	0.53	5 @ 500 V		
					0.53	16 @ 415 V		
				3VA1096-3ED3x-0AA0	0.53	5 @ 500 V		
					0.53	25 @ 415 V		
				3VA1096-4ED3x-0AA0	0.53	5 @ 500 V		
					0.53	36 @ 415 V		
				3VA1196-3E#3x-0AA0	0.53	5 @ 500 V		
					0.53	25 @ 415 V		
				3VA1196-4E#3x-0AA0	0.53	5 @ 500 V		
					0.53	36 @ 415 V		
				3VA1196-5E#3x-0AA0	0.53	5 @ 500 V		
					0.53	55 @ 415 V		
				3VA1196-6E#3x-0AA0	0.53	5 @ 500 V		

Converter			Protective Device				Min. enclosure volume	
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. 1) 2) 3)	I _{cp,mf} / kA	I _{cc} / kA	Metric	Imperial
	2.2 kW	6SL4343-...11-...0			0.53	65 @ 415 V		
				5SY7316-7	0.3	15 @ 400 V		
			10	5SY7310-7	0.25	15 @ 400 V		
			16	3VA1096-2ED3x-0AA0	0.53	5 @ 500 V		
					0.53	16 @ 415 V		
				3VA1096-3ED3x-0AA0	0.53	5 @ 500 V		
					0.53	25 @ 415 V		
				3VA1096-4ED3x-0AA0	0.53	5 @ 500 V		
					0.53	36 @ 415 V		
				3VA1196-3E#3x-0AA0	0.53	5 @ 500 V		
					0.53	25 @ 415 V		
				3VA1196-4E#3x-0AA0	0.53	5 @ 500 V		
					0.53	36 @ 415 V		
				3VA1196-5E#3x-0AA0	0.53	5 @ 500 V		
					0.53	55 @ 415 V		
				3VA1196-6E#3x-0AA0	0.53	5 @ 500 V		
					0.53	65 @ 415 V		
				5SY7316-7	0.3	15 @ 400 V		
	3 kW	6SL4343-...12-...0	13	5SY7313-7	0.28	15 @ 400 V		
			16	3VA1096-2ED3x-0AA0	0.53	5 @ 500 V		
					0.53	16 @ 415 V		
				3VA1096-3ED3x-0AA0	0.53	5 @ 500 V		
					0.53	25 @ 415 V		
				3VA1096-4ED3x-0AA0	0.53	5 @ 500 V		
					0.53	36 @ 415 V		
				3VA1196-3E#3x-0AA0	0.53	5 @ 500 V		
					0.53	25 @ 415 V		
				3VA1196-4E#3x-0AA0	0.53	5 @ 500 V		
					0.53	36 @ 415 V		
				3VA1196-5E#3x-0AA0	0.53	5 @ 500 V		
					0.53	55 @ 415 V		

Converter			Protective Device				Min. enclosure volume	
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. 1) 2) 3)	I _{cp,mf} / kA	I _{cc} / kA	Metric	Imperial
				3VA1196-6E#3x-0AA0	0.53	5 @ 500 V		
					0.53	65 @ 415 V		
				5SY7316-7	0.3	15 @ 400 V		
	4 kW	6SL4343-...13-...0	16	3VA1096-2ED3x-0AA0	0.53	5 @ 500 V		
					0.53	16 @ 415 V		
				3VA1096-3ED3x-0AA0	0.53	5 @ 500 V		
					0.53	25 @ 415 V		
				3VA1096-4ED3x-0AA0	0.53	5 @ 500 V		
					0.53	36 @ 415 V		
				3VA1196-3E#3x-0AA0	0.53	5 @ 500 V		
					0.53	25 @ 415 V		
				3VA1196-4E#3x-0AA0	0.53	5 @ 500 V		
					0.53	36 @ 415 V		
				3VA1196-5E#3x-0AA0	0.53	5 @ 500 V		
					0.53	55 @ 415 V		
				3VA1196-6E#3x-0AA0	0.53	5 @ 500 V		
					0.53	65 @ 415 V		
				5SY7316-7	0.3	15 @ 400 V		
	5.5 kW	6SL4343-...15-...0	16	3VA1096-2ED3x-0AA0	0.53	5 @ 500 V		
					0.53	16 @ 415 V		
				3VA1096-3ED3x-0AA0	0.53	5 @ 500 V		
					0.53	25 @ 415 V		
				3VA1096-4ED3x-0AA0	0.53	5 @ 500 V		
					0.53	36 @ 415 V		
				3VA1196-3E#3x-0AA0	0.53	5 @ 500 V		
					0.53	25 @ 415 V		
				3VA1196-4E#3x-0AA0	0.53	5 @ 500 V		
					0.53	36 @ 415 V		
				3VA1196-5E#3x-0AA0	0.53	5 @ 500 V		
					0.53	55 @ 415 V		
				3VA1196-6E#3x-0AA0	0.53	5 @ 500 V		

Converter			Protective Device				Min. enclosure volume	
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. 1) 2) 3)	I _{cp,mf} / kA	I _{cc} / kA	Metric	Imperial
FSB	7.5 kW	6SL4343-...16-...0			0.53	65 @ 415 V	0.24 m ³	8.48 ft ³
				5SY7316-7	0.3	15 @ 400 V		
			20	3VA1020-2ED3x-0AA0	0.58	5 @ 500 V		
					0.58	16 @ 415 V		
				3VA1020-3ED3x-0AA0	0.58	5 @ 500 V		
					0.58	25 @ 415 V		
				3VA1020-4ED3x-0AA0	0.58	5 @ 500 V		
					0.58	36 @ 415 V		
				3VA1120-3E#3x-0AA0	0.58	5 @ 500 V		
					0.58	25 @ 415 V		
				3VA1120-4E#3x-0AA0	0.58	5 @ 500 V		
					0.58	36 @ 415 V		
				3VA1120-5E#3x-0AA0	0.58	5 @ 500 V		
					0.58	55 @ 415 V		
				3VA1120-6E#3x-0AA0	0.58	5 @ 500 V		
					0.58	65 @ 415 V		
				5SY7320-7	0.4	15 @ 400 V		
			32	3VA1032-2ED3x-0AA0	0.58	5 @ 500 V		
					0.58	16 @ 415 V		
				3VA1032-3ED3x-0AA0	0.58	5 @ 500 V		
					0.58	25 @ 415 V		
				3VA1032-4ED3x-0AA0	0.58	5 @ 500 V		
					0.58	36 @ 415 V		
				3VA1132-3E#3x-0AA0	0.58	5 @ 500 V		
					0.58	25 @ 415 V		
				3VA1132-4E#3x-0AA0	0.58	5 @ 500 V		
					0.58	36 @ 415 V		
				3VA1132-5E#3x-0AA0	0.58	5 @ 500 V		
					0.58	55 @ 415 V		
				3VA1132-6E#3x-0AA0	0.58	5 @ 500 V		
					0.58	65 @ 415 V		

Converter			Protective Device				Min. enclosure volume	
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. ^{1) 2) 3)}	I _{cp,mf} / kA	I _{cc} / kA	Metric	Imperial
	11 kW	6SL4343-...17-...0	20	5SY7332-7	0.52	15 @ 400 V		
				5SY7320-7	0.45	15 @ 400 V		
			32	3VA1032-2ED3x-0AA0	0.58	5 @ 500 V		
					0.58	16 @ 415 V		
				3VA1032-3ED3x-0AA0	0.58	5 @ 500 V		
					0.58	25 @ 415 V		
				3VA1032-4ED3x-0AA0	0.58	5 @ 500 V		
					0.58	36 @ 415 V		
				3VA1132-3E#3x-0AA0	0.58	5 @ 500 V		
					0.58	25 @ 415 V		
				3VA1132-4E#3x-0AA0	0.58	5 @ 500 V		
					0.58	36 @ 415 V		
				3VA1132-5E#3x-0AA0	0.58	5 @ 500 V		
					0.58	55 @ 415 V		
				3VA1132-6E#3x-0AA0	0.58	5 @ 500 V		
					0.58	65 @ 415 V		
				5SY7332-7	0.52	15 @ 400 V		
FSC	15 kW	6SL4343-...18-...0	40	3VA1040-2ED3x-0AA0	0.83	5 @ 415 V	0.12 m ³	4.24 ft ³
					0.83	5 @ 500 V		
				3VA1040-3ED3x-0AA0	0.83	5 @ 415 V		
					0.83	5 @ 500 V		
				3VA1040-4ED3x-0AA0	0.83	5 @ 415 V		
					0.83	5 @ 500 V		
				3VA1140-3E#3x-0AA0	0.83	5 @ 415 V		
					0.83	5 @ 500 V		
				3VA1140-4E#3x-0AA0	0.83	5 @ 415 V		
					0.83	5 @ 500 V		
				3VA1140-5E#3x-0AA0	0.83	5 @ 415 V		
					0.83	5 @ 500 V		
				3VA1140-6E#3x-0AA0	0.83	5 @ 415 V		
					0.83	5 @ 500 V		

Converter			Protective Device				Min. enclosure volume	
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. ^{1) 2) 3)}	I _{cp,mf} / kA	I _{cc} / kA	Metric	Imperial
			50	5SY7340-7	0.72	5 @ 400 V		
				3VA1050-2ED3x-0AA0	0.95	5 @ 415 V		
					0.95	5 @ 500 V		
				3VA1050-3ED3x-0AA0	0.95	5 @ 415 V		
					0.95	5 @ 500 V		
				3VA1050-4ED3x-0AA0	0.95	5 @ 415 V		
					0.95	5 @ 500 V		
				3VA1150-3E#3x-0AA0	0.95	5 @ 415 V		
					0.95	5 @ 500 V		
				3VA1150-4E#3x-0AA0	0.95	5 @ 415 V		
					0.95	5 @ 500 V		
				3VA1150-5E#3x-0AA0	0.95	5 @ 415 V		
					0.95	5 @ 500 V		
				3VA1150-6E#3x-0AA0	0.95	5 @ 415 V		
					0.95	5 @ 500 V		
				5SY7350-7	0.8	5 @ 400 V		
	18.5 kW	6SL4343-...20-...0	50	3VA1050-2ED3x-0AA0	0.95	5 @ 415 V		
					0.95	5 @ 500 V		
				3VA1050-3ED3x-0AA0	0.95	5 @ 415 V		
					0.95	5 @ 500 V		
				3VA1050-4ED3x-0AA0	0.95	5 @ 415 V		
					0.95	5 @ 500 V		
				3VA1150-3E#3x-0AA0	0.95	5 @ 415 V		
					0.95	5 @ 500 V		
				3VA1150-4E#3x-0AA0	0.95	5 @ 415 V		
					0.95	5 @ 500 V		
				3VA1150-5E#3x-0AA0	0.95	5 @ 415 V		
					0.95	5 @ 500 V		
				3VA1150-6E#3x-0AA0	0.95	5 @ 415 V		
					0.95	5 @ 500 V		
				5SY7350-7	0.8	5 @ 400 V		

Converter			Protective Device				Min. enclosure volume	
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. 1) 2) 3)	I _{cp,mf} / kA	I _{cc} / kA	Metric	Imperial
FSD1	22 kW	6SL4343-...21-...0	63	3VA1063-2ED3x-0AA0	1.2	5 @ 500 V	0.16 m ³	5.65 ft ³
					1.2	16 @ 415 V		
				3VA1063-3ED3x-0AA0	1.2	5 @ 500 V		
					1.2	25 @ 415 V		
				3VA1063-4ED3x-0AA0	1.2	5 @ 500 V		
					1.2	36 @ 415 V		
				3VA1163-3E#3x-0AA0	1.2	5 @ 500 V		
					1.2	25 @ 415 V		
				3VA1163-4E#3x-0AA0	1.2	5 @ 500 V		
					1.2	36 @ 415 V		
				3VA1163-5E#3x-0AA0	1.2	5 @ 500 V		
					1.2	55 @ 415 V		
				3VA1163-6E#3x-0AA0	1.2	5 @ 500 V		
					1.2	70 @ 415 V		
				3VA2063-5##3x-0AA0	1.3	5 @ 500 V		
					1.3	55 @ 415 V		
				3VA2063-6##3x-0AA0	1.3	5 @ 500 V		
					1.3	85 @ 415 V		
				3VA2063-7##3x-0AA0	1.3	5 @ 500 V		
					1.3	100 @ 415 V		
				3VA2063-8##3x-0AA0	1.3	5 @ 500 V		
					1.3	100 @ 415 V		
				3VA2163-5##3x-0AA0	1.3	5 @ 500 V		
					1.3	55 @ 415 V		
				3VA2163-6##3x-0AA0	1.3	5 @ 500 V		
					1.3	85 @ 415 V		
				3VA2163-7##3x-0AA0	1.3	5 @ 500 V		
					1.3	100 @ 415 V		
				3VA2163-8##3x-0AA0	1.3	5 @ 500 V		
					1.3	100 @ 415 V		
			80	3VA1080-2ED3x-0AA0	1.4	5 @ 500 V		

Converter			Protective Device				Min. enclosure volume	
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. 1) 2) 3)	I _{cp,mf} / kA	I _{cc} / kA	Metric	Imperial
					1.4	16 @ 415 V		
					1.4	5 @ 500 V		
					1.4	25 @ 415 V		
					1.4	5 @ 500 V		
					1.4	36 @ 415 V		
					1.4	5 @ 500 V		
					1.4	25 @ 415 V		
					1.4	5 @ 500 V		
					1.4	36 @ 415 V		
					1.4	5 @ 500 V		
					1.4	55 @ 415 V		
					1.4	5 @ 500 V		
					1.4	70 @ 415 V		
			100	3VA2010-5##3x-0AA0	1.8	5 @ 500 V		
					1.8	55 @ 415 V		
				3VA2010-6##3x-0AA0	1.8	5 @ 500 V		
					1.8	85 @ 415 V		
				3VA2010-7##3x-0AA0	1.8	5 @ 500 V		
					1.8	100 @ 415 V		
				3VA2010-8##3x-0AA0	1.8	5 @ 500 V		
					1.8	100 @ 415 V		
				3VA2110-5##3x-0AA0	1.8	5 @ 500 V		
					1.8	55 @ 415 V		
				3VA2110-6##3x-0AA0	1.8	5 @ 500 V		
					1.8	85 @ 415 V		
				3VA2110-7##3x-0AA0	1.8	5 @ 500 V		
					1.8	100 @ 415 V		
				3VA2110-8##3x-0AA0	1.8	5 @ 500 V		
					1.8	100 @ 415 V		
	30 kW	6SL4343-...23-...0	80	3VA1080-2ED3x-0AA0	1.4	5 @ 500 V		
					1.4	16 @ 415 V		

Converter			Protective Device				Min. enclosure volume	
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. 1) 2) 3)	I _{cp.mf} / kA	I _{cc} / kA	Metric	Imperial
				3VA1080-3ED3x-0AA0	1.4	5 @ 500 V		
					1.4	25 @ 415 V		
				3VA1080-4ED3x-0AA0	1.4	5 @ 500 V		
					1.4	36 @ 415 V		
				3VA1180-3E#3x-0AA0	1.4	5 @ 500 V		
					1.4	25 @ 415 V		
				3VA1180-4E#3x-0AA0	1.4	5 @ 500 V		
					1.4	36 @ 415 V		
				3VA1180-5E#3x-0AA0	1.4	5 @ 500 V		
					1.4	55 @ 415 V		
				3VA1180-6E#3x-0AA0	1.4	5 @ 500 V		
					1.4	70 @ 415 V		
			100	3VA2010-5##3x-0AA0	1.8	5 @ 500 V		
					1.8	55 @ 415 V		
				3VA2010-6##3x-0AA0	1.8	5 @ 500 V		
					1.8	85 @ 415 V		
				3VA2010-7##3x-0AA0	1.8	5 @ 500 V		
					1.8	100 @ 415 V		
				3VA2010-8##3x-0AA0	1.8	5 @ 500 V		
					1.8	100 @ 415 V		
				3VA2110-5##3x-0AA0	1.8	5 @ 500 V		
					1.8	55 @ 415 V		
				3VA2110-6##3x-0AA0	1.8	5 @ 500 V		
					1.8	85 @ 415 V		
				3VA2110-7##3x-0AA0	1.8	5 @ 500 V		
					1.8	100 @ 415 V		
				3VA2110-8##3x-0AA0	1.8	5 @ 500 V		
					1.8	100 @ 415 V		
FSD2	37 kW	6SL4343-...24-...0	80	3VA1080-2ED3x-0AA0	1.7	5 @ 500 V	0.36 m³	12.71 ft³
					1.7	16 @ 415 V		
				3VA1080-3ED3x-0AA0	1.7	5 @ 500 V		

Converter			Protective Device				Min. enclosure volume	
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. 1) 2) 3)	I _{cp,mf} / kA	I _{cc} / kA	Metric	Imperial
					1.7	25 @ 415 V		
					1.7	5 @ 500 V		
				3VA1080-4ED3x-0AA0	1.7	36 @ 415 V		
					1.7	5 @ 500 V		
				3VA1180-3E#3x-0AA0	1.7	25 @ 415 V		
					1.7	5 @ 500 V		
				3VA1180-4E#3x-0AA0	1.7	36 @ 415 V		
					1.7	5 @ 500 V		
				3VA1180-5E#3x-0AA0	1.7	55 @ 415 V		
					1.7	5 @ 500 V		
				3VA1180-6E#3x-0AA0	1.7	70 @ 415 V		
					1.7	5 @ 500 V		
			100	3VA1010-2ED3x-0AA0	1.9	5 @ 500 V		
					1.9	16 @ 415 V		
				3VA1010-3ED3x-0AA0	1.9	5 @ 500 V		
					1.9	25 @ 415 V		
				3VA1010-4ED3x-0AA0	1.9	5 @ 500 V		
					1.9	36 @ 415 V		
				3VA1110-3E#3x-0AA0	1.9	5 @ 500 V		
					1.9	25 @ 415 V		
				3VA1110-4E#3x-0AA0	1.9	5 @ 500 V		
					1.9	36 @ 415 V		
				3VA1110-5E#3x-0AA0	1.9	5 @ 500 V		
					1.9	55 @ 415 V		
				3VA1110-6E#3x-0AA0	1.9	5 @ 500 V		
					1.9	70 @ 415 V		
				3VA2010-5##3x-0AA0	2.05	5 @ 500 V		
					2.05	55 @ 415 V		
				3VA2010-6##3x-0AA0	2.05	5 @ 500 V		
					2.05	85 @ 415 V		
				3VA2010-7##3x-0AA0	2.05	5 @ 500 V		
					2.05	100 @ 415 V		

Converter			Protective Device				Min. enclosure volume	
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. 1) 2) 3)	I _{cp,mf} / kA	I _{cc} / kA	Metric	Imperial
				3VA2010-8##3x-0AA0	2.05	5 @ 500 V		
					2.05	100 @ 415 V		
				3VA2110-5##3x-0AA0	2.05	5 @ 500 V		
					2.05	55 @ 415 V		
				3VA2110-6##3x-0AA0	2.05	5 @ 500 V		
					2.05	85 @ 415 V		
				3VA2110-7##3x-0AA0	2.05	5 @ 500 V		
					2.05	100 @ 415 V		
				3VA2110-8##3x-0AA0	2.05	5 @ 500 V		
					2.05	100 @ 415 V		
	45 kW	6SL4343-...26-...0	100	3VA1010-2ED3x-0AA0	1.9	5 @ 500 V		
					1.9	16 @ 415 V		
				3VA1010-3ED3x-0AA0	1.9	5 @ 500 V		
					1.9	25 @ 415 V		
				3VA1010-4ED3x-0AA0	1.9	5 @ 500 V		
					1.9	36 @ 415 V		
				3VA1110-3E#3x-0AA0	1.9	5 @ 500 V		
					1.9	25 @ 415 V		
				3VA1110-4E#3x-0AA0	1.9	5 @ 500 V		
					1.9	36 @ 415 V		
				3VA1110-5E#3x-0AA0	1.9	5 @ 500 V		
					1.9	55 @ 415 V		
				3VA1110-6E#3x-0AA0	1.9	5 @ 500 V		
					1.9	70 @ 415 V		
				3VA2010-5##3x-0AA0	2.05	5 @ 500 V		
					2.05	55 @ 415 V		
				3VA2010-6##3x-0AA0	2.05	5 @ 500 V		
					2.05	85 @ 415 V		
				3VA2010-7##3x-0AA0	2.05	5 @ 500 V		
					2.05	100 @ 415 V		
				3VA2010-8##3x-0AA0	2.05	5 @ 500 V		

Converter			Protective Device				Min. enclosure volume	
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. 1) 2) 3)	I _{cp,mf} / kA	I _{cc} / kA	Metric	Imperial
				3VA2110-5##3x-0AA0	2.05	100 @ 415 V		
					2.05	5 @ 500 V		
				3VA2110-6##3x-0AA0	2.05	55 @ 415 V		
					2.05	5 @ 500 V		
				3VA2110-7##3x-0AA0	2.05	5 @ 500 V		
					2.05	100 @ 415 V		
			125	3VA1112-3E#3x-0AA0	2.05	5 @ 500 V		
					2.05	100 @ 415 V		
				3VA1112-4E#3x-0AA0	2.05	5 @ 500 V		
					2.05	100 @ 415 V		
				3VA1112-5E#3x-0AA0	2.05	5 @ 500 V		
					2.05	100 @ 415 V		
				3VA1112-6E#3x-0AA0	2.05	5 @ 500 V		
					2.05	100 @ 415 V		
FSE	55 kW	6SL4343-...27-...0	125	3VA1112-3E#3x-0AA0	2.2	5 @ 500 V	0.384 m ³	13.56 ft ³
					2.2	25 @ 415 V		
				3VA1112-4E#3x-0AA0	2.2	5 @ 500 V		
					2.2	36 @ 415 V		
				3VA1112-5E#3x-0AA0	2.2	5 @ 500 V		
					2.2	55 @ 415 V		
			160	3VA1112-6E#3x-0AA0	2.2	5 @ 500 V		
					2.2	70 @ 415 V		
				3VA2116-5##3x-0AA0	2.25	7 @ 500 V		
					2.25	25 @ 415 V		
				3VA1112-4E#3x-0AA0	2.25	7 @ 500 V		
					2.25	36 @ 415 V		
				3VA1112-5E#3x-0AA0	2.25	10 @ 500 V		
					2.25	55 @ 415 V		
				3VA1112-6E#3x-0AA0	2.25	10 @ 500 V		
					2.25	70 @ 415 V		
			160	3VA2116-5##3x-0AA0	2.5	10 @ 500 V		
					2.5	55 @ 415 V		
				3VA2116-6##3x-0AA0	2.5	10 @ 500 V		
					2.5	85 @ 415 V		
			160	3VA2116-7##3x-0AA0	2.5	10 @ 500 V		
					2.5	100 @ 415 V		

Converter			Protective Device				Min. enclosure volume	
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. ^{1) 2) 3)}	I _{cp.mf} / kA	I _{cc} / kA	Metric	Imperial
				3VA2116-8##3x-0AA0	2.5	10 @ 500 V		
					2.5	100 @ 415 V		
	75 kW	6SL4343-...30-...0	160	3VA2116-5##3x-0AA0	2.5	10 @ 500 V		
					2.5	55 @ 415 V		
				3VA2116-6##3x-0AA0	2.5	10 @ 500 V		
					2.5	85 @ 415 V		
				3VA2116-7##3x-0AA0	2.5	10 @ 500 V		
					2.5	100 @ 415 V		
				3VA2116-8##3x-0AA0	2.5	10 @ 500 V		
					2.5	100 @ 415 V		

¹⁾ The symbol “#” refers to the type of release. It can be replaced by D (fixed thermal fixed magnetic trip unit), E (adjustable thermal fixed magnetic trip Unit) or F (adjustable thermal adjustable magnetic Trip unit).

²⁾ The symbol “x” refers to the type of electrical connection. It can be replaced by 2 (nut keeper kit) or 6 (box terminal)

³⁾ The symbol “##” represents the type of release. It can be replaced by: LL (line protection LI), LM (line protection LIG), LN (line and generator protection LSI), LQ (line and generator protection LSIG), SP (line and generator protection LSI with measurement/metering function), SQ (line and generator protection LSIG with measurement/metering function), TP (line and generator protection LSI, with display, with measurement/metering function), TQ (line and generator protection LSIG, with display, with measurement/metering function). The former variants HL, HM, HN, JP, JQ, KP, and KQ are still permitted for use.

1.3 Protection class IP55

1.3.1 IEC standard fuses

1.3.1.1 IEC standard fuses for IP55, with maintenance switch

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. ¹⁾	I _{cp,mf} / kA	I _{cc} / kA @ 500 V
FSB	1.1 kW	6SL4343-...08-...0	4	3NA3804	0.2	100
			16	3NA3805	0.4	100
	1.5 kW	6SL4343-...10-...0	6	3NA3801	0.23	100
			16	3NA3805	0.4	100
	2.2 kW	6SL4343-...11-...0	10	3NA3803	0.3	100
			16	3NA3805	0.4	100
	3 kW	6SL4343-...12-...0	16	3NA3805	0.4	100
	4 kW	6SL4343-...13-...0	16	3NA3805	0.4	100
	5.5 kW	6SL4343-...15-...0	16	3NA3805	0.4	100
	7.5 kW	6SL4343-...16-...0	20	3NA3807	0.5	100
			32	3NA3812	0.76	5
				3NA3812	0.76	10
	11 kW	6SL4343-...17-...0	25	3NA3810	0.61	100
			32	3NA3812	0.76	5
				3NA3812	0.76	10
FSC	15 kW	6SL4343-...18-...0	40	3NA3817	1.13	5
				3NA3817	1.13	10
			50	3NA3820	1.3	5
	18.5 kW	6SL4343-...20-...0	50	3NA3820	1.3	5
FSD1	22 kW	6SL4343-...21-...0	50	3NA3820	1.4	100
			63	3NA3822	1.8	50
			80	3NA3824	2.1	5
	30 kW	6SL4343-...23-...0	63	3NA3822	1.8	50
			80	3NA3824	2.1	5

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. ¹⁾	I _{cp,mf} / kA	I _{cc} / kA @ 500 V
FSD2	37 kW	6SL4343-...24-...0	80	3NA3824	2.4	50
			100	3NA3830	3.0	50
			125	3NA3832	3.6	5
	45 kW	6SL4343-...26-...0	100	3NA3830	3.0	50
			125	3NA3832	3.6	5
FSE	55 kW	6SL4343-...27-...0	125	3NA3832	3.6	100
			160	3NA3836	4.5	50
			200	3NA3140	5.2	10
	75 kW	6SL4343-...30-...0	160	3NA3836	4.5	50
			200	3NA3140	5.2	10

¹⁾ Siemens 3NA low-voltage fuses are recommended

1.3.1.2 IEC standard fuses for IP55, without maintenance switch

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. ¹⁾	I _{cp,mf} / kA	I _{cc} / kA @ 500 V
FSB	1.1 kW	6SL4343-...08-...0	4	3NA3804	0.2	100
			16	3NA3805	0.4	100
	1.5 kW	6SL4343-...10-...0	6	3NA3801	0.23	100
			16	3NA3805	0.4	100
	2.2 kW	6SL4343-...11-...0	10	3NA3803	0.3	100
			16	3NA3805	0.4	100
	3 kW	6SL4343-...12-...0	16	3NA3805	0.4	100
	4 kW	6SL4343-...13-...0	16	3NA3805	0.4	100
	5.5 kW	6SL4343-...15-...0	16	3NA3805	0.4	100
	7.5 kW	6SL4343-...16-...0	20	3NA3807	0.5	100
			32	3NA3812	0.76	100
	11 kW	6SL4343-...17-...0	25	3NA3810	0.61	100
			32	3NA3812	0.76	100

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. ¹⁾	I _{cp,mf} / kA	I _{cc} / kA @ 500 V
FSC	15 kW	6SL4343-...18-...0	40	3NA3817	1.13	100
			50	3NA3820	1.3	100
	18.5 kW	6SL4343-...20-...0	50	3NA3820	1.3	100
FSD1	22 kW	6SL4343-...21-...0	63	3NA3822	1.8	100
			80	3NA3824	2.1	100
	30 kW	6SL4343-...23-...0	63	3NA3822	1.8	100
			80	3NA3824	2.1	100
FSD2	37 kW	6SL4343-...24-...0	80	3NA3824	2.4	100
			125	3NA3832	3.6	100
	45 kW	6SL4343-...26-...0	125	3NA3832	3.6	100
FSE	55 kW	6SL4343-...27-...0	125	3NA3832	3.6	100
			160	3NA3836	4.5	100
			200	3NA3140	5.2	100
	75 kW	6SL4343-...30-...0	160	3NA3836	4.5	100
			200	3NA3140	5.2	100

¹⁾ Siemens 3NA low-voltage fuses are recommended

1.3.2 IEC semiconductor fuses

1.3.2.1 IEC semiconductor fuses for IP55, with maintenance switch

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no.	I _{cp,mf} / kA	I _{cc} / kA
FSB	1.1 kW	6SL4343-...08-...0	16	3NE1813-0	0.26	100 @ 500 V
	1.5 kW	6SL4343-...10-...0	16	3NE1813-0	0.26	100 @ 500 V
	2.2 kW	6SL4343-...11-...0	16	3NE1813-0	0.26	100 @ 500 V
	3 kW	6SL4343-...12-...0	16	3NE1813-0	0.26	100 @ 500 V
	4 kW	6SL4343-...13-...0	16	3NE1813-0	0.26	100 @ 500 V
	5.5 kW	6SL4343-...15-...0	16	3NE1813-0	0.26	100 @ 500 V
	7.5 kW	6SL4343-...16-...0	20	3NE1814-0	0.4	100 @ 500 V

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no.	I _{cp,mf} / kA	I _{cc} / kA
	11 kW	6SL4343-...17-...0	35	3NE1803-0	0.5	100 @ 500 V
			25	3NE1815-0	0.35	100 @ 500 V
			35	3NE1803-0	0.5	100 @ 500 V
FSC	15 kW	6SL4343-...18-...0	35	3NE1803-0	0.5	100 @ 500 V
			40	3NE1802-0	0.72	5 @ 500 V
					0.72	10 @ 415 V
			50	3NE1817-0	0.8	5 @ 500 V
	18.5 kW	6SL4343-...20-...0	50	3NE1817-0	0.8	5 @ 500 V
FSD1	22 kW	6SL4343-...21-...0	63	3NE1818-0	1.0	100 @ 500 V
			80	3NE1820-0	1.3	100 @ 500 V
	30 kW	6SL4343-...23-...0	80	3NE1820-0	1.3	100 @ 500 V
FSD2	37 kW	6SL4343-...24-...0	80	3NE1820-0	1.6	100 @ 500 V
			100	3NE1021-0	2.0	80 @ 500 V
			125	3NE1022-0	2.4	5 @ 500 V
	45 kW	6SL4343-...26-...0	100	3NE1021-0	2.0	80 @ 500 V
			125	3NE1022-0	2.4	5 @ 500 V
FSE	55 kW	6SL4343-...27-...0	125	3NE1022-0	2.3	100 @ 500 V
			160	3NE1224-0	2.8	100 @ 500 V
			200	3NE1225-0	3.3	100 @ 500 V
	75 kW	6SL4343-...30-...0	160	3NE1224-0	2.8	100 @ 500 V
			200	3NE1225-0	3.3	100 @ 500 V

1.3.2.2 IEC semiconductor fuses for IP55, without maintenance switch

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no.	I _{cp,mf} / kA	I _{cc} / kA
FSB	1.1 kW	6SL4343-...08-...0	16	3NE1813-0	0.26	100 @ 500 V
	1.5 kW	6SL4343-...10-...0	16	3NE1813-0	0.26	100 @ 500 V
	2.2 kW	6SL4343-...11-...0	16	3NE1813-0	0.26	100 @ 500 V
	3 kW	6SL4343-...12-...0	16	3NE1813-0	0.26	100 @ 500 V
	4 kW	6SL4343-...13-...0	16	3NE1813-0	0.26	100 @ 500 V

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no.	I _{cp,mf} / kA	I _{cc} / kA
	5.5 kW	6SL4343-...15-...0	16	3NE1813-0	0.26	100 @ 500 V
	7.5 kW	6SL4343-...16-...0	20	3NE1814-0	0.4	100 @ 500 V
			35	3NE1803-0	0.5	100 @ 500 V
	11 kW	6SL4343-...17-...0	25	3NE1815-0	0.35	100 @ 500 V
			35	3NE1803-0	0.5	100 @ 500 V
FSC	15 kW	6SL4343-...18-...0	40	3NE1802-0	0.72	100 @ 500 V
			50	3NE1817-0	0.8	100 @ 500 V
	18.5 kW	6SL4343-...20-...0	50	3NE1817-0	0.8	100 @ 500 V
FSD1	22 kW	6SL4343-...21-...0	63	3NE1818-0	1.0	100 @ 500 V
			80	3NE1820-0	1.3	100 @ 500 V
	30 kW	6SL4343-...23-...0	80	3NE1820-0	1.3	100 @ 500 V
FSD2	37 kW	6SL4343-...24-...0	100	3NE1021-0	2.0	100 @ 500 V
			125	3NE1022-0	2.4	100 @ 500 V
	45 kW	6SL4343-...26-...0	125	3NE1022-0	2.4	100 @ 500 V
FSE	55 kW	6SL4343-...27-...0	125	3NE1022-0	2.3	100 @ 500 V
			160	3NE1224-0	2.8	100 @ 500 V
			200	3NE1225-0	3.3	100 @ 500 V
	75 kW	6SL4343-...30-...0	160	3NE1224-0	2.8	100 @ 500 V
			200	3NE1225-0	3.3	100 @ 500 V

1.3.3 IEC motor starter protectors

1.3.3.1 IEC motor starter protectors for IP55, with maintenance switch

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. ¹⁾	I _{cp,mr} / kA	I _{cc} / kA @ 415 V ²⁾
FSB	1.1 kW	6SL4343-...08-...0	5	3RV2011-1FA..	0.23	5
				3RV2021-1FA..	0.23	5
			14	3RV2031-4SA..	0.4	5
				3RV2032-4SA..	0.4	5
			16	3RV2011-4AA..	0.4	5
				3RV2021-4AA..	0.4	5
			17	3RV2031-4TA..	0.46	5
				3RV2032-4TA..	0.46	5
	1.5 kW	6SL4343-...10-...0	6	3RV2011-1GA..	0.25	5
				3RV2021-1GA..	0.25	5
			14	3RV2031-4SA..	0.4	5
				3RV2032-4SA..	0.4	5
			16	3RV2011-4AA..	0.4	5
				3RV2021-4AA..	0.4	5
			17	3RV2031-4TA..	0.46	5
				3RV2032-4TA..	0.46	5
	2.2 kW	6SL4343-...11-...0	10	3RV2011-1JA..	0.3	5
				3RV2021-1JA..	0.3	5
			14	3RV2031-4SA..	0.4	5
				3RV2032-4SA..	0.4	5
			16	3RV2011-4AA..	0.4	5
				3RV2021-4AA..	0.4	5
			17	3RV2031-4TA..	0.46	5
				3RV2032-4TA..	0.46	5
	3 kW	6SL4343-...12-...0	12	3RV2011-1KA..	0.35	5
				3RV2021-1KA..	0.35	5
			14	3RV2031-4SA..	0.4	5
				3RV2032-4SA..	0.4	5

Protective Devices for SINAMICS G210X

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Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. ¹⁾	I _{cp,mr} / kA	I _{cc} / kA @ 415 V ²⁾
			16	3RV2011-4AA..	0.4	5
				3RV2021-4AA..	0.4	5
			17	3RV2031-4TA..	0.46	5
				3RV2032-4TA..	0.46	5
	4 kW	6SL4343-...13-...0	16	3RV2011-4AA..	0.4	5
				3RV2021-4AA..	0.4	5
			17	3RV2031-4TA..	0.46	5
				3RV2032-4TA..	0.46	5
	5.5 kW	6SL4343-...15-...0	16	3RV2011-4AA..	0.4	5
				3RV2021-4AA..	0.4	5
			17	3RV2031-4TA..	0.46	5
				3RV2032-4TA..	0.46	5
	7.5 kW	6SL4343-...16-...0	20	3RV2021-4BA..	0.51	5
				3RV2031-4BA..	0.51	5
				3RV2032-4BA..	0.51	5
			32	3RV2021-4EA..	0.68	5
				3RV2031-4EA..	0.7	5
				3RV2032-4EA..	0.7	5
	11 kW	6SL4343-...17-...0	25	3RV2021-4DA..	0.6	5
				3RV2031-4DA..	0.6	5
				3RV2032-4DA..	0.6	5
			32	3RV2021-4EA..	0.68	5
				3RV2031-4EA..	0.7	5
				3RV2032-4EA..	0.7	5
FSC	15 kW	6SL4343-...18-...0	40	3RV2031-4UA..	1.05	5
				3RV2032-4UA..	1.05	5
			52	3RV2031-4WA..	1.25	5
				3RV2032-4WA..	1.25	5
	18.5 kW	6SL4343-...20-...0	52	3RV2031-4WA..	1.25	5
				3RV2032-4WA..	1.25	5

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. ¹⁾	I _{cp,mr} / kA	I _{cc} / kA @ 415 V ²⁾
FSD1	22 kW	6SL4343-...21-...0	59	3RV2031-4XA..	1.47	5
				3RV2032-4XA..	1.47	5
			63	3RV2041-4JA..	1.44	5
				3RV2042-4JA..	1.44	5
			73	3RV2031-4KA..	1.6	5
				3RV2032-4KA..	1.6	5
			75	3RV2041-4KA..	1.62	5
				3RV2042-4KA..	1.62	5
	30 kW	6SL4343-...23-...0	73	3RV2031-4KA..	1.6	5
				3RV2032-4KA..	1.6	5
			75	3RV2041-4KA..	1.62	5
				3RV2042-4KA..	1.62	5
FSD2	37 kW	6SL4343-...24-...0	93	3RV2041-4YA..	2.3	5
				3RV2042-4YA..	2.3	5
			100	3RV2041-4MA..	2.3	5
				3RV2042-4MA..	2.3	5
	45 kW	6SL4343-...26-...0	100	3RV2041-4MA..	2.3	5
				3RV2042-4MA..	2.3	5
FSE	55 kW	6SL4343-...27-...0	Use a circuit breaker instead.			
	75 kW	6SL4343-...30-...0	Use a circuit breaker instead.			

¹⁾ The symbol ".." refers to the type of electrical connection. It can be replaced by 10 (screw terminal), 15 (screw terminal with transverse auxiliary switches) or 20 (spring type terminal).

²⁾ I_{cc} values are only valid for supply grids with grounded star point (solidly grounded wye TN or TT systems)

1.3.3.2 IEC motor starter protectors for IP55, without maintenance switch

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. ¹⁾	I _{cp,mr} / kA	I _{cc} / kA @ 415 V ²⁾
FSB	1.1 kW	6SL4343-...08-...0	5	3RV2011-1FA..	0.23	65
				3RV2021-1FA..	0.23	65

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. ¹⁾	I _{cp,mr} / kA	I _{cc} / kA @ 415 V ²⁾
			14	3RV2031-4SA..	0.4	65
				3RV2032-4SA..	0.4	65
			16	3RV2011-4AA..	0.4	55
				3RV2021-4AA..	0.4	55
			17	3RV2031-4TA..	0.46	65
				3RV2032-4TA..	0.46	65
	1.5 kW	6SL4343-...10-...0	6	3RV2011-1GA..	0.25	65
				3RV2021-1GA..	0.25	65
			14	3RV2031-4SA..	0.4	65
				3RV2032-4SA..	0.4	65
			16	3RV2011-4AA..	0.4	55
				3RV2021-4AA..	0.4	55
			17	3RV2031-4TA..	0.46	65
				3RV2032-4TA..	0.46	65
	2.2 kW	6SL4343-...11-...0	10	3RV2011-1JA..	0.3	65
				3RV2021-1JA..	0.3	65
			14	3RV2031-4SA..	0.4	65
				3RV2032-4SA..	0.4	65
			16	3RV2011-4AA..	0.4	55
				3RV2021-4AA..	0.4	55
			17	3RV2031-4TA..	0.46	65
				3RV2032-4TA..	0.46	65
	3 kW	6SL4343-...12-...0	12	3RV2011-1KA..	0.35	65
				3RV2021-1KA..	0.35	65
			14	3RV2031-4SA..	0.4	65
				3RV2032-4SA..	0.4	65
			16	3RV2011-4AA..	0.4	55
				3RV2021-4AA..	0.4	55
			17	3RV2031-4TA..	0.46	65
				3RV2032-4TA..	0.46	65

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. ¹⁾	I _{cp,mr} / kA	I _{cc} / kA @ 415 V ²⁾
	4 kW	6SL4343-...13-...0	16	3RV2011-4AA..	0.4	55
				3RV2021-4AA..	0.4	55
			17	3RV2031-4TA..	0.46	65
				3RV2032-4TA..	0.46	65
	5.5 kW	6SL4343-...15-...0	16	3RV2011-4AA..	0.4	55
				3RV2021-4AA..	0.4	55
			17	3RV2031-4TA..	0.46	65
				3RV2032-4TA..	0.46	65
	7.5 kW	6SL4343-...16-...0	20	3RV2021-4BA..	0.51	55
				3RV2031-4BA..	0.51	65
				3RV2032-4BA..	0.51	65
			32	3RV2021-4EA..	0.68	55
				3RV2031-4EA..	0.7	65
				3RV2032-4EA..	0.7	65
	11 kW	6SL4343-...17-...0	25	3RV2021-4DA..	0.6	55
				3RV2031-4DA..	0.6	65
				3RV2032-4DA..	0.6	65
			32	3RV2021-4EA..	0.68	55
				3RV2031-4EA..	0.7	65
				3RV2032-4EA..	0.7	65
FSC	15 kW	6SL4343-...18-...0	40	3RV2031-4UA..	1.05	65
				3RV2032-4UA..	1.05	65
			52	3RV2031-4WA..	1.25	65
				3RV2032-4WA..	1.25	65
	18.5 kW	6SL4343-...20-...0	52	3RV2031-4WA..	1.25	65
				3RV2032-4WA..	1.25	65
FSD1	22 kW	6SL4343-...21-...0	59	3RV2031-4XA..	1.47	65
				3RV2032-4XA..	1.47	100
			63	3RV2041-4JA..	1.44	65
				3RV2042-4JA..	1.44	100

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. ¹⁾	I _{cp,mr} / kA	I _{cc} / kA @ 415 V ²⁾
			73	3RV2031-4KA..	1.6	65
				3RV2032-4KA..	1.6	100
			75	3RV2041-4KA..	1.62	65
				3RV2042-4KA..	1.62	100
	30 kW	6SL4343-...23-...0	73	3RV2031-4KA..	1.6	65
				3RV2032-4KA..	1.6	100
			75	3RV2041-4KA..	1.62	65
				3RV2042-4KA..	1.62	100
FSD2	37 kW	6SL4343-...24-...0	93	3RV2041-4YA..	2.3	65
				3RV2042-4YA..	2.3	100
			100	3RV2041-4MA..	2.3	65
				3RV2042-4MA..	2.3	100
	45 kW	6SL4343-...26-...0	100	3RV2041-4MA..	2.3	65
				3RV2042-4MA..	2.3	100
FSE	55 kW	6SL4343-...27-...0	Use a circuit breaker instead.			
	75 kW	6SL4343-...30-...0	Use a circuit breaker instead.			

¹⁾ The symbol ".." refers to the type of electrical connection. It can be replaced by 10 (screw terminal), 15 (screw terminal with transverse auxiliary switches) or 20 (spring type terminal).

²⁾ I_{cc} values are only valid for supply grids with grounded star point (solidly grounded wye TN or TT systems)

1.3.4 IEC circuit breakers

1.3.4.1 IEC circuit breakers for IP55, with maintenance switch

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. ^{1) 2) 3)}	I _{cp,mr} / kA	I _{cc} / kA
FSB	1.1 kW	6SL4343-...08-...0	4	5SY7304-7	0.2	5 @ 400 V
			16	3VA1096-2ED3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				3VA1096-3ED3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. 1) 2) 3)	I _{cp,mr} / kA	I _{cc} / kA
				3VA1096-4ED3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				3VA1196-3E#3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				3VA1196-4E#3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				3VA1196-5E#3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				3VA1196-6E#3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				5SY7316-7	0.3	5 @ 400 V
	1.5 kW	6SL4343-...10-...0	8	5SY7308-7	0.23	5 @ 400 V
			16	3VA1096-2ED3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				3VA1096-3ED3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				3VA1096-4ED3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				3VA1196-3E#3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				3VA1196-4E#3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				3VA1196-5E#3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				3VA1196-6E#3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				5SY7316-7	0.3	5 @ 400 V
	2.2 kW	6SL4343-...11-...0	10	5SY7310-7	0.25	5 @ 400 V
			16	3VA1096-2ED3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				3VA1096-3ED3x-0AA0	0.53	5 @ 415 V

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. 1) 2) 3)	I _{cp,mr} / kA	I _{cc} / kA
					0.53	5 @ 500 V
				3VA1096-4ED3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				3VA1196-3E#3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				3VA1196-4E#3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				3VA1196-5E#3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				3VA1196-6E#3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				5SY7316-7	0.3	5 @ 400 V
	3 kW	6SL4343-...12-...0	13	5SY7313-7	0.28	5 @ 400 V
			16	3VA1096-2ED3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				3VA1096-3ED3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				3VA1096-4ED3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				3VA1196-3E#3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				3VA1196-4E#3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				3VA1196-5E#3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				3VA1196-6E#3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				5SY7316-7	0.3	5 @ 400 V
	4 kW	6SL4343-...13-...0	16	3VA1096-2ED3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				3VA1096-3ED3x-0AA0	0.53	5 @ 415 V

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. 1) 2) 3)	I _{cp,mr} / kA	I _{cc} / kA
					0.53	5 @ 500 V
					0.53	5 @ 415 V
				3VA1096-4ED3x-0AA0	0.53	5 @ 500 V
					0.53	5 @ 415 V
				3VA1196-3E#3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				3VA1196-4E#3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				3VA1196-5E#3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				3VA1196-6E#3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				5SY7316-7	0.3	5 @ 400 V
	5.5 kW	6SL4343-...15-...0	16	3VA1096-2ED3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				3VA1096-3ED3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				3VA1096-4ED3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				3VA1196-3E#3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				3VA1196-4E#3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				3VA1196-5E#3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				3VA1196-6E#3x-0AA0	0.53	5 @ 415 V
					0.53	5 @ 500 V
				5SY7316-7	0.3	5 @ 400 V
	7.5 kW	6SL4343-...16-...0	20	3VA1020-2ED3x-0AA0	0.58	5 @ 415 V
					0.58	5 @ 500 V
				3VA1020-3ED3x-0AA0	0.58	5 @ 415 V
					0.58	5 @ 500 V

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. 1) 2) 3)	I _{cp.mr} / kA	I _{cc} / kA
				3VA1020-4ED3x-0AA0	0.58	5 @ 415 V
					0.58	5 @ 500 V
				3VA1120-3E#3x-0AA0	0.58	5 @ 415 V
					0.58	5 @ 500 V
				3VA1120-4E#3x-0AA0	0.58	5 @ 415 V
					0.58	5 @ 500 V
				3VA1120-5E#3x-0AA0	0.58	5 @ 415 V
					0.58	5 @ 500 V
				3VA1120-6E#3x-0AA0	0.58	5 @ 415 V
					0.58	5 @ 500 V
				5SY7320-7	0.4	5 @ 400 V
			32	3VA1032-2ED3x-0AA0	0.58	5 @ 415 V
					0.58	5 @ 500 V
				3VA1032-3ED3x-0AA0	0.58	5 @ 415 V
					0.58	5 @ 500 V
				3VA1032-4ED3x-0AA0	0.58	5 @ 415 V
					0.58	5 @ 500 V
				3VA1132-3E#3x-0AA0	0.58	5 @ 415 V
					0.58	5 @ 500 V
				3VA1132-4E#3x-0AA0	0.58	5 @ 415 V
					0.58	5 @ 500 V
				3VA1132-5E#3x-0AA0	0.58	5 @ 415 V
					0.58	5 @ 500 V
				3VA1132-6E#3x-0AA0	0.58	5 @ 415 V
					0.58	5 @ 500 V
				5SY7332-7	0.52	5 @ 400 V
	11 kW	6SL4343-...17-...0	20	5SY7320-7	0.45	5 @ 400 V
			32	3VA1032-2ED3x-0AA0	0.58	5 @ 415 V
					0.58	5 @ 500 V
				3VA1032-3ED3x-0AA0	0.58	5 @ 415 V
					0.58	5 @ 500 V

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. 1) 2) 3)	I _{cp,mr} / kA	I _{cc} / kA
				3VA1032-4ED3x-0AA0	0.58	5 @ 415 V
					0.58	5 @ 500 V
				3VA1132-3E#3x-0AA0	0.58	5 @ 415 V
					0.58	5 @ 500 V
				3VA1132-4E#3x-0AA0	0.58	5 @ 415 V
					0.58	5 @ 500 V
				3VA1132-5E#3x-0AA0	0.58	5 @ 415 V
					0.58	5 @ 500 V
				3VA1132-6E#3x-0AA0	0.58	5 @ 415 V
					0.58	5 @ 500 V
				5SY7332-7	0.52	5 @ 400 V
FSC	15 kW	6SL4343-...18-...0	Use MSP or fuse instead.			
	18.5 kW	6SL4343-...20-...0	Use MSP or fuse instead.			
FSD1	22 kW	6SL4343-...21-...0	63	3VA1063-2ED3x-0AA0	1.2	5 @ 415 V
					1.2	5 @ 500 V
				3VA1063-3ED3x-0AA0	1.2	5 @ 415 V
					1.2	5 @ 500 V
				3VA1063-4ED3x-0AA0	1.2	5 @ 415 V
					1.2	5 @ 500 V
				3VA1163-3E#3x-0AA0	1.2	5 @ 415 V
					1.2	5 @ 500 V
				3VA1163-4E#3x-0AA0	1.2	5 @ 415 V
					1.2	5 @ 500 V
				3VA1163-5E#3x-0AA0	1.2	5 @ 415 V
					1.2	5 @ 500 V
				3VA1163-6E#3x-0AA0	1.2	5 @ 415 V
					1.2	5 @ 500 V
				3VA2063-5##3x-0AA0	1.3	5 @ 415 V
					1.3	5 @ 500 V
				3VA2063-6##3x-0AA0	1.3	5 @ 415 V
					1.3	5 @ 500 V

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. 1) 2) 3)	I _{cp,mr} / kA	I _{cc} / kA
				3VA2063-7##3x-0AA0	1.3	5 @ 415 V
					1.3	5 @ 500 V
				3VA2063-8##3x-0AA0	1.3	5 @ 415 V
					1.3	5 @ 500 V
				3VA2163-5##3x-0AA0	1.3	5 @ 415 V
					1.3	5 @ 500 V
				3VA2163-6##3x-0AA0	1.3	5 @ 415 V
					1.3	5 @ 500 V
				3VA2163-7##3x-0AA0	1.3	5 @ 415 V
					1.3	5 @ 500 V
				3VA2163-8##3x-0AA0	1.3	5 @ 415 V
					1.3	5 @ 500 V
			80	3VA1080-2ED3x-0AA0	1.4	5 @ 415 V
					1.4	5 @ 500 V
				3VA1080-3ED3x-0AA0	1.4	5 @ 415 V
					1.4	5 @ 500 V
				3VA1080-4ED3x-0AA0	1.4	5 @ 415 V
					1.4	5 @ 500 V
				3VA1180-3E#3x-0AA0	1.4	5 @ 415 V
					1.4	5 @ 500 V
				3VA1180-4E#3x-0AA0	1.4	5 @ 415 V
					1.4	5 @ 500 V
				3VA1180-5E#3x-0AA0	1.4	5 @ 415 V
					1.4	5 @ 500 V
				3VA1180-6E#3x-0AA0	1.4	5 @ 415 V
					1.4	5 @ 500 V
			100	3VA2010-5##3x-0AA0	1.8	5 @ 415 V
					1.8	5 @ 500 V
				3VA2010-6##3x-0AA0	1.8	5 @ 415 V
					1.8	5 @ 500 V
				3VA2010-7##3x-0AA0	1.8	5 @ 415 V

Converter			Protective Device						
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. 1) 2) 3)	I _{cp,mf} / kA	I _{cc} / kA			
					1.8	5 @ 500 V			
				3VA2010-8##3x-0AA0	1.8	5 @ 415 V			
						1.8	5 @ 500 V		
				3VA2110-5##3x-0AA0	1.8	5 @ 415 V			
						1.8	5 @ 500 V		
				3VA2110-6##3x-0AA0	1.8	5 @ 415 V			
						1.8	5 @ 500 V		
				3VA2110-7##3x-0AA0	1.8	5 @ 415 V			
						1.8	5 @ 500 V		
				3VA2110-8##3x-0AA0	1.8	5 @ 415 V			
						1.8	5 @ 500 V		
				30 kW	6SL4343-...23-...0	80	3VA1080-2ED3x-0AA0	1.4	5 @ 415 V
									1.4
							3VA1080-3ED3x-0AA0	1.4	5 @ 415 V
		1.4	5 @ 500 V						
	3VA1080-4ED3x-0AA0	1.4	5 @ 415 V						
			1.4				5 @ 500 V		
	3VA1180-3E#3x-0AA0	1.4	5 @ 415 V						
			1.4				5 @ 500 V		
	3VA1180-4E#3x-0AA0	1.4	5 @ 415 V						
			1.4				5 @ 500 V		
	3VA1180-5E#3x-0AA0	1.4	5 @ 415 V						
			1.4				5 @ 500 V		
	3VA1180-6E#3x-0AA0	1.4	5 @ 415 V						
			1.4				5 @ 500 V		
	100			3VA2010-5##3x-0AA0	1.8	5 @ 415 V			
						1.8	5 @ 500 V		
				3VA2010-6##3x-0AA0	1.8	5 @ 415 V			
					1.8	5 @ 500 V			
3VA2010-7##3x-0AA0				1.8	5 @ 415 V				
					1.8	5 @ 500 V			

Protective Devices for SINAMICS G210X

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Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. 1) 2) 3)	I _{cp,mr} / kA	I _{cc} / kA
				3VA2010-8##3x-0AA0	1.8	5 @ 415 V
					1.8	5 @ 500 V
				3VA2110-5##3x-0AA0	1.8	5 @ 415 V
					1.8	5 @ 500 V
				3VA2110-6##3x-0AA0	1.8	5 @ 415 V
					1.8	5 @ 500 V
				3VA2110-7##3x-0AA0	1.8	5 @ 415 V
					1.8	5 @ 500 V
				3VA2110-8##3x-0AA0	1.8	5 @ 415 V
					1.8	5 @ 500 V
				3VA1080-2ED3x-0AA0	1.7	5 @ 415 V
					1.7	5 @ 500 V
FSD2	37 kW	6SL4343-...24-...0	80	3VA1080-3ED3x-0AA0	1.7	5 @ 415 V
					1.7	5 @ 500 V
				3VA1080-4ED3x-0AA0	1.7	5 @ 415 V
					1.7	5 @ 500 V
				3VA1180-3E#3x-0AA0	1.7	5 @ 415 V
					1.7	5 @ 500 V
				3VA1180-4E#3x-0AA0	1.7	5 @ 415 V
					1.7	5 @ 500 V
				3VA1180-5E#3x-0AA0	1.7	5 @ 415 V
					1.7	5 @ 500 V
				3VA1180-6E#3x-0AA0	1.7	5 @ 415 V
					1.7	5 @ 500 V
			100	3VA1010-2ED3x-0AA0	1.9	5 @ 415 V
					1.9	5 @ 500 V
				3VA1010-3ED3x-0AA0	1.9	5 @ 415 V
					1.9	5 @ 500 V
				3VA1010-4ED3x-0AA0	1.9	5 @ 415 V
					1.9	5 @ 500 V
				3VA1110-3E#3x-0AA0	1.9	5 @ 415 V

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. 1) 2) 3)	I _{cp,mr} / kA	I _{cc} / kA
					1.9	5 @ 500 V
					1.9	5 @ 415 V
				3VA1110-4E#3x-0AA0	1.9	5 @ 500 V
					1.9	5 @ 415 V
				3VA1110-5E#3x-0AA0	1.9	5 @ 415 V
					1.9	5 @ 500 V
				3VA1110-6E#3x-0AA0	1.9	5 @ 415 V
					1.9	5 @ 500 V
				3VA2010-5##3x-0AA0	2.05	5 @ 415 V
					2.05	5 @ 500 V
				3VA2010-6##3x-0AA0	2.05	5 @ 415 V
					2.05	5 @ 500 V
				3VA2010-7##3x-0AA0	2.05	5 @ 415 V
					2.05	5 @ 500 V
				3VA2010-8##3x-0AA0	2.05	5 @ 415 V
					2.05	5 @ 500 V
				3VA2110-5##3x-0AA0	2.05	5 @ 415 V
					2.05	5 @ 500 V
				3VA2110-6##3x-0AA0	2.05	5 @ 415 V
					2.05	5 @ 500 V
				3VA2110-7##3x-0AA0	2.05	5 @ 415 V
					2.05	5 @ 500 V
				3VA2110-8##3x-0AA0	2.05	5 @ 415 V
					2.05	5 @ 500 V
	45 kW	6SL4343-...26-...0	100	3VA1010-2ED3x-0AA0	1.9	5 @ 415 V
					1.9	5 @ 500 V
				3VA1010-3ED3x-0AA0	1.9	5 @ 415 V
					1.9	5 @ 500 V
				3VA1010-4ED3x-0AA0	1.9	5 @ 415 V
					1.9	5 @ 500 V
				3VA1110-3E#3x-0AA0	1.9	5 @ 415 V
					1.9	5 @ 500 V

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. 1) 2) 3)	I _{cp,mr} / kA	I _{cc} / kA
				3VA1110-4E#3x-0AA0	1.9	5 @ 415 V
					1.9	5 @ 500 V
				3VA1110-5E#3x-0AA0	1.9	5 @ 415 V
					1.9	5 @ 500 V
				3VA1110-6E#3x-0AA0	1.9	5 @ 415 V
					1.9	5 @ 500 V
				3VA2010-5##3x-0AA0	2.05	5 @ 415 V
					2.05	5 @ 500 V
				3VA2010-6##3x-0AA0	2.05	5 @ 415 V
					2.05	5 @ 500 V
				3VA2010-7##3x-0AA0	2.05	5 @ 415 V
					2.05	5 @ 500 V
				3VA2010-8##3x-0AA0	2.05	5 @ 415 V
					2.05	5 @ 500 V
				3VA2110-5##3x-0AA0	2.05	5 @ 415 V
					2.05	5 @ 500 V
				3VA2110-6##3x-0AA0	2.05	5 @ 415 V
					2.05	5 @ 500 V
				3VA2110-7##3x-0AA0	2.05	5 @ 415 V
					2.05	5 @ 500 V
				3VA2110-8##3x-0AA0	2.05	5 @ 415 V
					2.05	5 @ 500 V
			125	3VA1112-3E#3x-0AA0	2.2	5 @ 415 V
					2.2	5 @ 500 V
				3VA1112-4E#3x-0AA0	2.2	5 @ 415 V
					2.2	5 @ 500 V
				3VA1112-5E#3x-0AA0	2.2	5 @ 415 V
					2.2	5 @ 500 V
				3VA1112-6E#3x-0AA0	2.2	5 @ 415 V
					2.2	5 @ 500 V

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. ^{1) 2) 3)}	I _{cp.mr} / kA	I _{cc} / kA
FSE	55 kW	6SL4343-...27-...0	125	3VA1112-3E#3x-0AA0	2.25	7 @ 500 V
					2.25	10 @ 415 V
				3VA1112-4E#3x-0AA0	2.25	7 @ 500 V
					2.25	10 @ 415 V
				3VA1112-5E#3x-0AA0	2.25	10 @ 500 V
				3VA1112-6E#3x-0AA0	2.25	10 @ 500 V
	75 kW	6SL4343-...30-...0	160	3VA2116-5##3x-0AA0	2.5	10 @ 500 V
				3VA2116-6##3x-0AA0	2.5	10 @ 500 V
				3VA2116-7##3x-0AA0	2.5	10 @ 500 V
				3VA2116-8##3x-0AA0	2.5	10 @ 500 V
			160	3VA2116-5##3x-0AA0	2.5	10 @ 500 V
				3VA2116-6##3x-0AA0	2.5	10 @ 500 V
				3VA2116-7##3x-0AA0	2.5	10 @ 500 V
				3VA2116-8##3x-0AA0	2.5	10 @ 500 V

¹⁾ The symbol “#” refers to the type of release. It can be replaced by D (fixed thermal fixed magnetic trip unit), E (adjustable thermal fixed magnetic trip Unit) or F (adjustable thermal adjustable magnetic Trip unit).

²⁾ The symbol “x” refers to the type of electrical connection. It can be replaced by 2 (nut keeper kit) or 6 (box terminal)

³⁾ The symbol “##” represents the type of release. It can be replaced by: LL (line protection LI), LM (line protection LIG), LN (line and generator protection LSI), LQ (line and generator protection LSIG), SP (line and generator protection LSI with measurement/metering function), SQ (line and generator protection LSIG with measurement/metering function), TP (line and generator protection LSI, with display, with measurement/metering function), TQ (line and generator protection LSIG, with display, with measurement/metering function). The former variants HL, HM, HN, JP, JQ, KP, and KQ are still permitted for use.

1.3.4.2 IEC circuit breakers for IP55, without maintenance switch

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. ^{1) 2) 3)}	I _{cp.mr} / kA	I _{cc} / kA
FSB	1.1 kW	6SL4343-...08-...0	4	5SY7304-7	0.2	15 @ 400 V
			16	3VA1096-2ED3x-0AA0	0.53	5 @ 500 V
					0.53	16 @ 415 V
				3VA1096-3ED3x-0AA0	0.53	5 @ 500 V
					0.53	25 @ 415 V
				3VA1096-4ED3x-0AA0	0.53	5 @ 500 V

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. 1) 2) 3)	I _{cp,mr} / kA	I _{cc} / kA
					0.53	36 @ 415 V
				3VA1196-3E#3x-0AA0	0.53	5 @ 500 V
					0.53	25 @ 415 V
				3VA1196-4E#3x-0AA0	0.53	5 @ 500 V
					0.53	36 @ 415 V
				3VA1196-5E#3x-0AA0	0.53	5 @ 500 V
					0.53	55 @ 415 V
				3VA1196-6E#3x-0AA0	0.53	5 @ 500 V
					0.53	65 @ 415 V
				5SY7316-7	0.3	15 @ 400 V
	1.5 kW	6SL4343-...10-...0	8	5SY7308-7	0.23	15 @ 400 V
			16	3VA1096-2ED3x-0AA0	0.53	5 @ 500 V
					0.53	16 @ 415 V
				3VA1096-3ED3x-0AA0	0.53	5 @ 500 V
					0.53	25 @ 415 V
				3VA1096-4ED3x-0AA0	0.53	5 @ 500 V
					0.53	36 @ 415 V
				3VA1196-3E#3x-0AA0	0.53	5 @ 500 V
					0.53	25 @ 415 V
				3VA1196-4E#3x-0AA0	0.53	5 @ 500 V
					0.53	36 @ 415 V
				3VA1196-5E#3x-0AA0	0.53	5 @ 500 V
					0.53	55 @ 415 V
				3VA1196-6E#3x-0AA0	0.53	5 @ 500 V
					0.53	65 @ 415 V
				5SY7316-7	0.3	15 @ 400 V
	2.2 kW	6SL4343-...11-...0	10	5SY7310-7	0.25	15 @ 400 V
			16	3VA1096-2ED3x-0AA0	0.53	5 @ 500 V
					0.53	16 @ 415 V
				3VA1096-3ED3x-0AA0	0.53	5 @ 500 V
					0.53	25 @ 415 V

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. 1) 2) 3)	I _{cp,mr} / kA	I _{cc} / kA
				3VA1096-4ED3x-0AA0	0.53	5 @ 500 V
					0.53	36 @ 415 V
				3VA1196-3E#3x-0AA0	0.53	5 @ 500 V
					0.53	25 @ 415 V
				3VA1196-4E#3x-0AA0	0.53	5 @ 500 V
					0.53	36 @ 415 V
				3VA1196-5E#3x-0AA0	0.53	5 @ 500 V
					0.53	55 @ 415 V
				3VA1196-6E#3x-0AA0	0.53	5 @ 500 V
					0.53	65 @ 415 V
				5SY7316-7	0.3	15 @ 400 V
	3 kW	6SL4343-...12-...0	13	5SY7313-7	0.28	15 @ 400 V
			16	3VA1096-2ED3x-0AA0	0.53	5 @ 500 V
					0.53	16 @ 415 V
				3VA1096-3ED3x-0AA0	0.53	5 @ 500 V
					0.53	25 @ 415 V
				3VA1096-4ED3x-0AA0	0.53	5 @ 500 V
					0.53	36 @ 415 V
				3VA1196-3E#3x-0AA0	0.53	5 @ 500 V
					0.53	25 @ 415 V
				3VA1196-4E#3x-0AA0	0.53	5 @ 500 V
					0.53	36 @ 415 V
				3VA1196-5E#3x-0AA0	0.53	5 @ 500 V
					0.53	55 @ 415 V
				3VA1196-6E#3x-0AA0	0.53	5 @ 500 V
					0.53	65 @ 415 V
				5SY7316-7	0.3	15 @ 400 V
	4 kW	6SL4343-...13-...0	16	3VA1096-2ED3x-0AA0	0.53	5 @ 500 V
					0.53	16 @ 415 V
				3VA1096-3ED3x-0AA0	0.53	5 @ 500 V
					0.53	25 @ 415 V

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. 1) 2) 3)	I _{cp,mr} / kA	I _{cc} / kA
				3VA1096-4ED3x-0AA0	0.53	5 @ 500 V
					0.53	36 @ 415 V
				3VA1196-3E#3x-0AA0	0.53	5 @ 500 V
					0.53	25 @ 415 V
				3VA1196-4E#3x-0AA0	0.53	5 @ 500 V
					0.53	36 @ 415 V
				3VA1196-5E#3x-0AA0	0.53	5 @ 500 V
					0.53	55 @ 415 V
				3VA1196-6E#3x-0AA0	0.53	5 @ 500 V
					0.53	65 @ 415 V
				5SY7316-7	0.3	15 @ 400 V
	5.5 kW	6SL4343-...15-...0	16	3VA1096-2ED3x-0AA0	0.53	5 @ 500 V
					0.53	16 @ 415 V
				3VA1096-3ED3x-0AA0	0.53	5 @ 500 V
					0.53	25 @ 415 V
				3VA1096-4ED3x-0AA0	0.53	5 @ 500 V
					0.53	36 @ 415 V
				3VA1196-3E#3x-0AA0	0.53	5 @ 500 V
					0.53	25 @ 415 V
				3VA1196-4E#3x-0AA0	0.53	5 @ 500 V
					0.53	36 @ 415 V
				3VA1196-5E#3x-0AA0	0.53	5 @ 500 V
					0.53	55 @ 415 V
				3VA1196-6E#3x-0AA0	0.53	5 @ 500 V
					0.53	65 @ 415 V
				5SY7316-7	0.3	15 @ 400 V
	7.5 kW	6SL4343-...16-...0	20	3VA1020-2ED3x-0AA0	0.58	5 @ 500 V
					0.58	16 @ 415 V
				3VA1020-3ED3x-0AA0	0.58	5 @ 500 V
					0.58	25 @ 415 V
				3VA1020-4ED3x-0AA0	0.58	5 @ 500 V
					0.58	5 @ 500 V

Protective Devices for SINAMICS G210X

Product Information, 10/2026, A5E56233222A AB, Copyright © Siemens 2026

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. 1) 2) 3)	I _{cp,mr} / kA	I _{cc} / kA
					0.58	36 @ 415 V
				3VA1120-3E#3x-0AA0	0.58	5 @ 500 V
					0.58	25 @ 415 V
				3VA1120-4E#3x-0AA0	0.58	5 @ 500 V
					0.58	36 @ 415 V
				3VA1120-5E#3x-0AA0	0.58	5 @ 500 V
					0.58	55 @ 415 V
				3VA1120-6E#3x-0AA0	0.58	5 @ 500 V
					0.58	65 @ 415 V
				5SY7320-7	0.4	15 @ 400 V
			32	3VA1032-2ED3x-0AA0	0.58	5 @ 500 V
					0.58	16 @ 415 V
				3VA1032-3ED3x-0AA0	0.58	5 @ 500 V
					0.58	25 @ 415 V
				3VA1032-4ED3x-0AA0	0.58	5 @ 500 V
					0.58	36 @ 415 V
				3VA1132-3E#3x-0AA0	0.58	5 @ 500 V
					0.58	25 @ 415 V
				3VA1132-4E#3x-0AA0	0.58	5 @ 500 V
					0.58	36 @ 415 V
				3VA1132-5E#3x-0AA0	0.58	5 @ 500 V
					0.58	55 @ 415 V
				3VA1132-6E#3x-0AA0	0.58	5 @ 500 V
					0.58	65 @ 415 V
				5SY7332-7	0.52	15 @ 400 V
	11 kW	6SL4343-...17-...0	20	5SY7320-7	0.45	15 @ 400 V
			32	3VA1032-2ED3x-0AA0	0.58	5 @ 500 V
					0.58	16 @ 415 V
				3VA1032-3ED3x-0AA0	0.58	5 @ 500 V
					0.58	25 @ 415 V
				3VA1032-4ED3x-0AA0	0.58	5 @ 500 V

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. 1) 2) 3)	I _{cp,mr} / kA	I _{cc} / kA
					0.58	36 @ 415 V
				3VA1132-3E#3x-0AA0	0.58	5 @ 500 V
					0.58	25 @ 415 V
				3VA1132-4E#3x-0AA0	0.58	5 @ 500 V
					0.58	36 @ 415 V
				3VA1132-5E#3x-0AA0	0.58	5 @ 500 V
					0.58	55 @ 415 V
				3VA1132-6E#3x-0AA0	0.58	5 @ 500 V
					0.58	65 @ 415 V
				5SY7332-7	0.52	15 @ 400 V
FSC	15 kW	6SL4343-...18-...0	Use MSP or fuse instead.			
	18.5 kW	6SL4343-...20-...0	Use MSP or fuse instead.			
FSD1	22 kW	6SL4343-...21-...0	63	3VA1063-2ED3x-0AA0	1.2	5 @ 500 V
					1.2	16 @ 415 V
				3VA1063-3ED3x-0AA0	1.2	5 @ 500 V
					1.2	25 @ 415 V
				3VA1063-4ED3x-0AA0	1.2	5 @ 500 V
					1.2	36 @ 415 V
				3VA1163-3E#3x-0AA0	1.2	5 @ 500 V
					1.2	25 @ 415 V
				3VA1163-4E#3x-0AA0	1.2	5 @ 500 V
					1.2	36 @ 415 V
				3VA1163-5E#3x-0AA0	1.2	5 @ 500 V
					1.2	55 @ 415 V
				3VA1163-6E#3x-0AA0	1.2	5 @ 500 V
					1.2	70 @ 415 V
				3VA2063-5##3x-0AA0	1.3	5 @ 500 V
					1.3	55 @ 415 V
				3VA2063-6##3x-0AA0	1.3	5 @ 500 V
					1.3	85 @ 415 V
				3VA2063-7##3x-0AA0	1.3	5 @ 500 V

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. 1) 2) 3)	I _{cp,mr} / kA	I _{cc} / kA
					1.3	100 @ 415 V
					1.3	5 @ 500 V
				3VA2063-8##3x-0AA0	1.3	100 @ 415 V
					1.3	5 @ 500 V
				3VA2163-5##3x-0AA0	1.3	55 @ 415 V
					1.3	5 @ 500 V
				3VA2163-6##3x-0AA0	1.3	85 @ 415 V
					1.3	5 @ 500 V
				3VA2163-7##3x-0AA0	1.3	100 @ 415 V
					1.3	5 @ 500 V
				3VA2163-8##3x-0AA0	1.3	100 @ 415 V
					1.3	5 @ 500 V
			80	3VA1080-2ED3x-0AA0	1.4	16 @ 415 V
					1.4	5 @ 500 V
				3VA1080-3ED3x-0AA0	1.4	25 @ 415 V
					1.4	5 @ 500 V
				3VA1080-4ED3x-0AA0	1.4	36 @ 415 V
					1.4	5 @ 500 V
				3VA1180-3E#3x-0AA0	1.4	25 @ 415 V
					1.4	5 @ 500 V
				3VA1180-4E#3x-0AA0	1.4	36 @ 415 V
					1.4	5 @ 500 V
				3VA1180-5E#3x-0AA0	1.4	55 @ 415 V
					1.4	5 @ 500 V
				3VA1180-6E#3x-0AA0	1.4	70 @ 415 V
					1.4	5 @ 500 V
			100	3VA2010-5##3x-0AA0	1.8	55 @ 415 V
					1.8	5 @ 500 V
				3VA2010-6##3x-0AA0	1.8	85 @ 415 V
					1.8	5 @ 500 V
				3VA2010-7##3x-0AA0	1.8	100 @ 415 V
					1.8	5 @ 500 V

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. 1) 2) 3)	I _{cp,mr} / kA	I _{cc} / kA
				3VA2010-8##3x-0AA0	1.8	5 @ 500 V
					1.8	100 @ 415 V
				3VA2110-5##3x-0AA0	1.8	5 @ 500 V
					1.8	55 @ 415 V
				3VA2110-6##3x-0AA0	1.8	5 @ 500 V
					1.8	85 @ 415 V
				3VA2110-7##3x-0AA0	1.8	5 @ 500 V
					1.8	100 @ 415 V
				3VA2110-8##3x-0AA0	1.8	5 @ 500 V
					1.8	100 @ 415 V
	30 kW	6SL4343-...23-...0	80	3VA1080-2ED3x-0AA0	1.4	5 @ 500 V
					1.4	16 @ 415 V
				3VA1080-3ED3x-0AA0	1.4	5 @ 500 V
					1.4	25 @ 415 V
				3VA1080-4ED3x-0AA0	1.4	5 @ 500 V
					1.4	36 @ 415 V
				3VA1180-3E#3x-0AA0	1.4	5 @ 500 V
					1.4	25 @ 415 V
				3VA1180-4E#3x-0AA0	1.4	5 @ 500 V
					1.4	36 @ 415 V
				3VA1180-5E#3x-0AA0	1.4	5 @ 500 V
					1.4	55 @ 415 V
				3VA1180-6E#3x-0AA0	1.4	5 @ 500 V
					1.4	70 @ 415 V
			100	3VA2010-5##3x-0AA0	1.8	5 @ 500 V
					1.8	55 @ 415 V
				3VA2010-6##3x-0AA0	1.8	5 @ 500 V
					1.8	85 @ 415 V
				3VA2010-7##3x-0AA0	1.8	5 @ 500 V
					1.8	100 @ 415 V
				3VA2010-8##3x-0AA0	1.8	5 @ 500 V
					1.8	5 @ 500 V

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. 1) 2) 3)	I _{cp,mr} / kA	I _{cc} / kA
					1.8	100 @ 415 V
					1.8	5 @ 500 V
					1.8	55 @ 415 V
					1.8	5 @ 500 V
					1.8	85 @ 415 V
					1.8	5 @ 500 V
					1.8	100 @ 415 V
					1.8	5 @ 500 V
					1.8	100 @ 415 V
					1.7	5 @ 500 V
					1.7	16 @ 415 V
					1.7	5 @ 500 V
					1.7	25 @ 415 V
FSD2	37 kW	6SL4343-...24-...0	80	3VA1080-2ED3x-0AA0	1.7	5 @ 500 V
					1.7	16 @ 415 V
				3VA1080-3ED3x-0AA0	1.7	5 @ 500 V
					1.7	25 @ 415 V
				3VA1080-4ED3x-0AA0	1.7	5 @ 500 V
					1.7	36 @ 415 V
				3VA1180-3E#3x-0AA0	1.7	5 @ 500 V
					1.7	25 @ 415 V
				3VA1180-4E#3x-0AA0	1.7	5 @ 500 V
					1.7	36 @ 415 V
				3VA1180-5E#3x-0AA0	1.7	5 @ 500 V
					1.7	55 @ 415 V
				3VA1180-6E#3x-0AA0	1.7	5 @ 500 V
					1.7	70 @ 415 V
			100	3VA1010-2ED3x-0AA0	1.9	5 @ 500 V
					1.9	16 @ 415 V
				3VA1010-3ED3x-0AA0	1.9	5 @ 500 V
					1.9	25 @ 415 V
				3VA1010-4ED3x-0AA0	1.9	5 @ 500 V
					1.9	36 @ 415 V
				3VA1110-3E#3x-0AA0	1.9	5 @ 500 V
					1.9	25 @ 415 V

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. 1) 2) 3)	I _{cp,mr} / kA	I _{cc} / kA
				3VA1110-4E#3x-0AA0	1.9	5 @ 500 V
					1.9	36 @ 415 V
				3VA1110-5E#3x-0AA0	1.9	5 @ 500 V
					1.9	55 @ 415 V
				3VA1110-6E#3x-0AA0	1.9	5 @ 500 V
					1.9	70 @ 415 V
				3VA2010-5##3x-0AA0	2.05	5 @ 500 V
					2.05	55 @ 415 V
				3VA2010-6##3x-0AA0	2.05	5 @ 500 V
					2.05	85 @ 415 V
				3VA2010-7##3x-0AA0	2.05	5 @ 500 V
					2.05	100 @ 415 V
				3VA2010-8##3x-0AA0	2.05	5 @ 500 V
					2.05	100 @ 415 V
				3VA2110-5##3x-0AA0	2.05	5 @ 500 V
					2.05	55 @ 415 V
				3VA2110-6##3x-0AA0	2.05	5 @ 500 V
					2.05	85 @ 415 V
				3VA2110-7##3x-0AA0	2.05	5 @ 500 V
					2.05	100 @ 415 V
				3VA2110-8##3x-0AA0	2.05	5 @ 500 V
					2.05	100 @ 415 V
	45 kW	6SL4343-...26-...0	100	3VA1010-2ED3x-0AA0	1.9	5 @ 500 V
					1.9	16 @ 415 V
				3VA1010-3ED3x-0AA0	1.9	5 @ 500 V
					1.9	25 @ 415 V
				3VA1010-4ED3x-0AA0	1.9	5 @ 500 V
					1.9	36 @ 415 V
				3VA1110-3E#3x-0AA0	1.9	5 @ 500 V
					1.9	25 @ 415 V
				3VA1110-4E#3x-0AA0	1.9	5 @ 500 V
					1.9	5 @ 500 V

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. 1) 2) 3)	I _{cp,mr} / kA	I _{cc} / kA
					1.9	36 @ 415 V
				3VA1110-5E#3x-0AA0	1.9	5 @ 500 V
					1.9	55 @ 415 V
				3VA1110-6E#3x-0AA0	1.9	5 @ 500 V
					1.9	70 @ 415 V
				3VA2010-5##3x-0AA0	2.05	5 @ 500 V
					2.05	55 @ 415 V
				3VA2010-6##3x-0AA0	2.05	5 @ 500 V
					2.05	85 @ 415 V
				3VA2010-7##3x-0AA0	2.05	5 @ 500 V
					2.05	100 @ 415 V
				3VA2010-8##3x-0AA0	2.05	5 @ 500 V
					2.05	100 @ 415 V
				3VA2110-5##3x-0AA0	2.05	5 @ 500 V
					2.05	55 @ 415 V
				3VA2110-6##3x-0AA0	2.05	5 @ 500 V
					2.05	85 @ 415 V
				3VA2110-7##3x-0AA0	2.05	5 @ 500 V
					2.05	100 @ 415 V
				3VA2110-8##3x-0AA0	2.05	5 @ 500 V
					2.05	100 @ 415 V
			125	3VA1112-3E#3x-0AA0	2.2	5 @ 500 V
					2.2	25 @ 415 V
				3VA1112-4E#3x-0AA0	2.2	5 @ 500 V
					2.2	36 @ 415 V
				3VA1112-5E#3x-0AA0	2.2	5 @ 500 V
					2.2	55 @ 415 V
				3VA1112-6E#3x-0AA0	2.2	5 @ 500 V
					2.2	70 @ 415 V
FSE	55 kW	6SL4343-...27-...0	125	3VA1112-3E#3x-0AA0	2.25	7 @ 500 V
					2.25	25 @ 415 V

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. ^{1) 2) 3)}	I _{cp,mr} / kA	I _{cc} / kA
				3VA1112-4E#3x-0AA0	2.25	7 @ 500 V
					2.25	36 @ 415 V
				3VA1112-5E#3x-0AA0	2.25	10 @ 500 V
					2.25	55 @ 415 V
				3VA1112-6E#3x-0AA0	2.25	10 @ 500 V
					2.25	70 @ 415 V
			160	3VA2116-5##3x-0AA0	2.5	10 @ 500 V
					2.5	55 @ 415 V
				3VA2116-6##3x-0AA0	2.5	10 @ 500 V
					2.5	85 @ 415 V
				3VA2116-7##3x-0AA0	2.5	10 @ 500 V
					2.5	100 @ 415 V
				3VA2116-8##3x-0AA0	2.5	10 @ 500 V
					2.5	100 @ 415 V
	75 kW	6SL4343-...30-...0	160	3VA2116-5##3x-0AA0	2.5	10 @ 500 V
					2.5	55 @ 415 V
				3VA2116-6##3x-0AA0	2.5	10 @ 500 V
					2.5	85 @ 415 V
				3VA2116-7##3x-0AA0	2.5	10 @ 500 V
					2.5	100 @ 415 V
				3VA2116-8##3x-0AA0	2.5	10 @ 500 V
					2.5	100 @ 415 V

¹⁾ The symbol “#” refers to the type of release. It can be replaced by D (fixed thermal fixed magnetic trip unit), E (adjustable thermal fixed magnetic trip Unit) or F (adjustable thermal adjustable magnetic Trip unit).

²⁾ The symbol “x” refers to the type of electrical connection. It can be replaced by 2 (nut keeper kit) or 6 (box terminal)

³⁾ The symbol “##” represents the type of release. It can be replaced by: LL (line protection LI), LM (line protection LIG), LN (line and generator protection LSI), LQ (line and generator protection LSIG), SP (line and generator protection LSI with measurement/metering function), SQ (line and generator protection LSIG with measurement/metering function), TP (line and generator protection LSI, with display, with measurement/metering function), TQ (line and generator protection LSIG, with display, with measurement/metering function). The former variants HL, HM, HN, JP, JQ, KP, and KQ are still permitted for use.

2 UL/CSA applications

2.1 General Notes

Branch circuit protection must be provided in accordance with

The National Electrical Code (NEC) for USA

The Canadian Electrical Code (CEC) Part I for Canada

Any additional local codes and regulations.

The tables below provide information for each converter type and article number on the following items:

The complete article number of the converter is described in the operating instructions or catalogue. The headings in the document define which converters are described in the tables.

Suitable protective devices: The specification includes the type or article number of the overcurrent protective devices (OCPD). In many cases, two values of rated current are shown for the same converter. The higher one represents the maximum permissible nominal current of the OCPD that provides protection, the lower one is a typical nominal current that better fits to the converter. Current ratings between these two values are suitable as well.

Maximum SCCR (Short-Circuit Current Rating): This is the maximum prospective symmetrical fault current at the specified voltage to which the converter system can be connected without sustaining damage exceeding defined acceptance criteria. The specified SCCR applies to the complete converter including built-in EMI filters and pluggable terminals (where applicable).

Minimum enclosure volume: In the end application, the converter shall be installed in an outer enclosure or control cabinet which shall meet the minimum enclosure volume requirement.

Notes on the selection of protective devices (in accordance with NEC and CEC)

Suitable Protective devices of the same type as specified in the tables with a lower ampere rating may be used, if suitable for the application.

Protective devices of the same type as specified in the tables with a lower interrupting rating than the specified SCCR may be used, if suitable for the application. In such case, this lower interrupting current rating of a protective device shall be specified as the SCCR of a converter and protective device combination.

The voltage rating of the protective device must be at least the voltage rating of the supply circuit.

Protective devices with a straight voltage rating, such as 480V, are permitted on any supply circuits. The specified SCCR is valid for corner grounded delta and solidly grounded wye systems.

Protective devices with a slash voltage rating, such as 480Y/277V, are permitted only on solidly grounded wye circuits where the nominal voltage of any conductor to ground does not exceed the lower of the two values.

The converter modules provide:

Integral Motor Overload Protection which reduces the output current flow under overload conditions. Refer to manual for adjustments.

Integral Output Short-Circuit Protection. Components on the load side of the converter module are not required to have a short-circuit current rating (UL 508A).

UL File-Number: E192450 Vol. 27

FSA- Sec. 3

FSB- Sec. 4

FSC- Sec. 5

FSD1- Sec. 6

FSD2- Sec. 7

FSE- Sec. 8

2.2 UL open type

2.2.1 UL/CSA non-semiconductor fuses

Converter			Protective Device		Min. enclosure volume	
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A ¹⁾	SCCR / kA @ 480 V	Metric	Imperial
FSA	1.5 hp	6SL4343-...08-...0	4	100	0.192 m ³	6.78 ft ³
			15	100		
	2 hp	6SL4343-...10-...0	6	100		
			15	100		
	3 hp	6SL4343-...11-...0	10	100		
			15	100		
	4 hp	6SL4343-...12-...0	12	100		
			15	100		
	5 hp	6SL4343-...13-...0	12	100		
			15	100		
	7.5 hp	6SL4343-...15-...0	15	100		
FSB	10 hp	6SL4343-...16-...0	20	100	0.24 m ³	8.48 ft ³
			35	100		
	15 hp	6SL4343-...17-...0	25	100		
			35	100		
FSC	20 hp	6SL4343-...18-...0	40	100	0.12 m ³	4.24 ft ³
			50	100		
	25 hp	6SL4343-...20-...0	50	100		
FSD1	30 hp	6SL4343-...21-...0	60	100	0.16 m ³	5.65 ft ³
			70	100		
	40 hp	6SL4343-...23-...0	70	100		
FSD2	50 hp	6SL4343-...24-...0	90	100	0.36 m ³	12.71 ft ³
			110	100		
	60 hp	6SL4343-...26-...0	110	100		
FSE	75 hp	6SL4343-...27-...0	125	100	0.384 m ³	13.56 ft ³
			150	100		

Converter			Protective Device		Min. enclosure volume	
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A ¹⁾	SCCR / kA @ 480 V	Metric	Imperial
	100 hp	6SL4343-...30-...0	150	100		

¹⁾ Any non-semiconductor fuse Class J, CF, T, or L (JDDZ) from any manufacturer may be used for all Frame Sizes. Additionally, Class CC and G fuses may be used for Frame Size A to Frame Size C

2.2.2 UL/CSA semiconductor fuses

Converter			Protective Device			Min. enclosure volume	
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Article no. ^{1) 2)}	SCCR / kA @ 480 V	Metric	Imperial
FSA	1.5 hp	6SL4343-...08-...0	16	3NE1813-0	100	0.192 m ³	6.78 ft ³
	2 hp	6SL4343-...10-...0	16	3NE1813-0	100		
	3 hp	6SL4343-...11-...0	16	3NE1813-0	100		
	4 hp	6SL4343-...12-...0	16	3NE1813-0	100		
	5 hp	6SL4343-...13-...0	16	3NE1813-0	100		
	7.5 hp	6SL4343-...15-...0	16	3NE1813-0	100		
FSB	10 hp	6SL4343-...16-...0	20	3NE1814-0	100	0.24 m ³	8.48 ft ³
			35	3NE1803-0	100		
	15 hp	6SL4343-...17-...0	25	3NE1815-0	100		
			35	3NE1803-0	100		
FSC	20 hp	6SL4343-...18-...0	40	3NE1802-0	100	0.12 m ³	4.24 ft ³
			50	3NE1817-0	100		
	25 hp	6SL4343-...20-...0	50	3NE1817-0	100		
FSD1	30 hp	6SL4343-...21-...0	63	3NE1818-0	100	0.16 m ³	5.65 ft ³
			80	3NE1820-0	100		
	40 hp	6SL4343-...23-...0	80	3NE1820-0	100		
FSD2	50 hp	6SL4343-...24-...0	100	3NE1021-0	100	0.36 m ³	12.71 ft ³
			125	3NE1022-0	100		
	60 hp	6SL4343-...26-...0	125	3NE1022-0	100		
FSE	75 hp	6SL4343-...27-...0	125	3NE1022-0	100	0.384 m ³	13.56 ft ³
			160	3NE1224-0	100		
			200	3NE1225-0	100		
	100 hp	6SL4343-...30-...0	160	3NE1224-0	100		
			200	3NE1225-0	100		

¹⁾ Recognized semiconductor fuses (JFHR2/8) made by SIEMENS

²⁾ Semiconductor fuses must be installed in the same overall assembly as the converter.

2.2.3 UL/CSA type E combination motor controllers

Converter			Protective Device				Min. enclosure volume		
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Rated Power @ 480 V	Article no. 1) 2) 3)	SCCR / kA @ 480Y/277V AC	Metric	Imperial	
FSA	1.5 hp	6SL4343-...08-...0	5	3 hp	3RV2011-1FA..	65	0.192 m³	6.78 ft³	
					3RV2021-1FA..	65			
			14	10 hp	3RV2031-4SA..	65			
					3RV2032-4SA..	65			
					3RV2011-4AA..	65			
					3RV2021-4AA..	65			
			17		15 hp	3RV2031-4TA..			65
						3RV2032-4TA..			65
	2 hp	6SL4343-...10-...0	6	5 hp	3RV2011-1GA..	65			
					3RV2021-1GA..	65			
			14	10 hp	3RV2031-4SA..	65			
					3RV2032-4SA..	65			
					3RV2011-4AA..	65			
					3RV2021-4AA..	65			
			17	15 hp	3RV2031-4TA..	65			
					3RV2032-4TA..	65			
	3 hp	6SL4343-...11-...0	10	7.5 hp	3RV2011-1JA..	65			
					3RV2021-1JA..	65			
			14	10 hp	3RV2031-4SA..	65			
					3RV2032-4SA..	65			
					3RV2011-4AA..	65			
					3RV2021-4AA..	65			
			17	15 hp	3RV2031-4TA..	65			
					3RV2032-4TA..	65			
	4 hp	6SL4343-...12-...0	12	7.5 hp	3RV2011-1KA..	65			
					3RV2021-1KA..	65			
			14	10 hp	3RV2031-4SA..	65			
					3RV2032-4SA..	65			

Converter			Protective Device				Min. enclosure volume	
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Rated Power @ 480 V	Article no. 1) 2) 3)	SCCR / kA @ 480Y/277V AC	Metric	Imperial
			16		3RV2011-4AA..	65	0.24 m ³	8.48 ft ³
					3RV2021-4AA..	65		
			17	15 hp	3RV2031-4TA..	65		
					3RV2032-4TA..	65		
	5 hp	6SL4343-...13-...0	16	10 hp	3RV2011-4AA..	65		
					3RV2021-4AA..	65		
			17	15 hp	3RV2031-4TA..	65		
					3RV2032-4TA..	65		
	7.5 hp	6SL4343-...15-...0	16	10 hp	3RV2011-4AA..	65		
					3RV2021-4AA..	65		
			17	15 hp	3RV2031-4TA..	65		
					3RV2032-4TA..	65		
FSB	10 hp	6SL4343-...16-...0	20	15 hp	3RV2021-4BA..	65	0.24 m ³	8.48 ft ³
					3RV2031-4BA..	65		
					3RV2032-4BA..	65		
			32	20 hp	3RV2021-4EA..	50		
				25 hp	3RV2031-4EA..	65		
					3RV2032-4EA..	65		
	15 hp	6SL4343-...17-...0	25	20 hp	3RV2021-4DA..	65		
					3RV2031-4DA..	65		
					3RV2032-4DA..	65		
			32	25 hp	3RV2021-4EA..	50		
					3RV2031-4EA..	65		
					3RV2032-4EA..	65		
FSC	20 hp	6SL4343-...18-...0	40	30 hp	3RV2031-4UA..	5	0.12 m ³	4.24 ft ³
						65	0.32 m ³	11.30 ft ³
					3RV2032-4UA..	5	0.12 m ³	4.24 ft ³
						65	0.32 m ³	11.30 ft ³
					3RV2041-4FA..	5	0.12 m ³	4.24 ft ³

Converter			Protective Device				Min. enclosure volume							
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Rated Power @ 480 V	Article no. 1) 2) 3)	SCCR / kA @ 480Y/277V AC	Metric	Imperial						
				40 hp	3RV2042-4FA..	5								
			50		3RV2041-4HA..	5								
					3RV2042-4HA..	5								
			52		3RV2031-4WA..	5			0.32 m³	11.30 ft³				
						65								
					3RV2032-4WA..	5			0.12 m³	4.24 ft³				
						65			0.32 m³	11.30 ft³				
			25 hp		6SL4343-...20-...0	50			40 hp	3RV2041-4HA..	5	0.12 m³	4.24 ft³	
	3RV2042-4HA..	5												
	52	3RV2031-4WA..		5		0.32 m³	11.30 ft³							
				65										
		3RV2032-4WA..		5		0.12 m³	4.24 ft³							
				65		0.32 m³	11.30 ft³							
	FSD1	30 hp		6SL4343-...21-...0		59	50 hp	3RV2031-4XA..		20	0.16 m³			5.65 ft³
								3RV2032-4XA..		30				
			63		3RV2041-4JA..			65						
3RV2042-4JA..					65									
73			60 hp		3RV2031-4KA..	20								
					3RV2032-4KA..	30								
					75	3RV2041-4KA..		65						
						3RV2042-4KA..		65						
40 hp		6SL4343-...23-...0		73	60 hp	3RV2031-4KA..	20							
						3RV2032-4KA..	30							
				75		3RV2041-4KA..	65							
						3RV2042-4KA..	65							
FSD2	50 hp	6SL4343-...24-...0	93	75 hp		3RV2041-4YA..	65	0.36 m³	12.71 ft³					
						3RV2042-4YA..	65							
			100			3RV2041-4MA..	65							
						3RV2042-4MA..	65							

Converter			Protective Device				Min. enclosure volume	
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Rated Power @ 480 V	Article no. ^{1) 2) 3)}	SCCR / kA @ 480Y/277V AC	Metric	Imperial
	60 hp	6SL4343-...26-...0	100	75 hp	3RV2041-4MA..	65		
					3RV2042-4MA..	65		
FSE	75 hp	6SL4343-...27-...0			Use a circuit breaker instead.	-	no restrictions	no restrictions
	100 hp	6SL4343-...30-...0			Use a circuit breaker instead.	-		

¹⁾ 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; 3RV203. with 3RV2938-1; 3RV204. with 3RT2946-4GA07; not necessary for CSA.

²⁾ The symbol ".." refers to the type of electrical connection. It can be replaced by 10 (screw terminal), 15 (screw terminal with transverse auxiliary switches) or 20 (spring type terminal).

³⁾ SIEMENS Type E combination motor controllers (NKJH/7)

2.2.4 UL/CSA circuit breaker

Converter			Protective Device					Min. enclosure volume	
Frame size	P _{rated} (LO)	Article no.	I _{rated} /A	UL/CSA type	Article no. Example (European) ^{1) 2) 3) 4)}	SCCR / kA @ 480.0	SCCR / kA @ 480Y/277V AC	Metric	Imperial
FSA	1.5 hp	6SL4343-...08-...0	5	3RV	3RV2711-1FD..	-	65	0.192 m³	6.78 ft³
			15		3RV2711-4AD..	-	65		
				HEAB	3VA4195-6ED34-0AA0	65	65		
				HEAS	3VA5195-6E#31-0AA0	65	65		
				MEAB	3VA4195-5ED34-0AA0	35	35		
				MEAS	3VA5195-5E#31-0AA0	35	35		
				SEAB	3VA4195-4ED34-0AA0	25	25		
			SEAS	3VA5195-4E#31-0AA0	25	25			
	2 hp	6SL4343-...10-...0	8	3RV	3RV2711-1HD..	-	65		
			15		3RV2711-4AD..	-	65		
				HEAB	3VA4195-6ED34-0AA0	65	65		
				HEAS	3VA5195-6E#31-0AA0	65	65		
				MEAB	3VA4195-5ED34-0AA0	35	35		
				MEAS	3VA5195-5E#31-0AA0	35	35		
				SEAB	3VA4195-4ED34-0AA0	25	25		
			SEAS	3VA5195-4E#31-0AA0	25	25			
	3 hp	6SL4343-...11-...0	10	3RV	3RV2711-1JD..	-	65		
			15		3RV2711-4AD..	-	65		
				HEAB	3VA4195-6ED34-0AA0	65	65		
				HEAS	3VA5195-6E#31-0AA0	65	65		
				MEAB	3VA4195-5ED34-0AA0	35	35		
				MEAS	3VA5195-5E#31-0AA0	35	35		
				SEAB	3VA4195-4ED34-0AA0	25	25		
			SEAS	3VA5195-4E#31-0AA0	25	25			
	4 hp	6SL4343-...12-...0	12	3RV	3RV2711-1KD..	-	65		
			15		3RV2711-4AD..	-	65		
				HEAB	3VA4195-6ED34-0AA0	65	65		
			HEAS	3VA5195-6E#31-0AA0	65	65			

Converter			Protective Device					Min. enclosure volume	
Frame size	P _{rated} (LO)	Article no.	I _{rated} /A	UL/CSA type	Article no. Example (European) ^{1) 2) 3) 4)}	SCCR / kA @ 480.0	SCCR / kA @ 480Y/277V AC	Metric	Imperial
				MEAB	3VA4195-5ED34-0AA0	35	35	0.24 m ³	8.48 ft ³
				MEAS	3VA5195-5E#31-0AA0	35	35		
				SEAB	3VA4195-4ED34-0AA0	25	25		
				SEAS	3VA5195-4E#31-0AA0	25	25		
	5 hp	6SL4343-...13-...0	15	3RV	3RV2711-4AD..	-	65		
				HEAB	3VA4195-6ED34-0AA0	65	65		
				HEAS	3VA5195-6E#31-0AA0	65	65		
				MEAB	3VA4195-5ED34-0AA0	35	35		
				MEAS	3VA5195-5E#31-0AA0	35	35		
				SEAB	3VA4195-4ED34-0AA0	25	25		
				SEAS	3VA5195-4E#31-0AA0	25	25		
	7.5 hp	6SL4343-...15-...0	15	3RV	3RV2711-4AD..	-	65		
				HEAB	3VA4195-6ED34-0AA0	65	65		
				HEAS	3VA5195-6E#31-0AA0	65	65		
				MEAB	3VA4195-5ED34-0AA0	35	35		
				MEAS	3VA5195-5E#31-0AA0	35	35		
				SEAB	3VA4195-4ED34-0AA0	25	25		
				SEAS	3VA5195-4E#31-0AA0	25	25		
FSB	10 hp	6SL4343-...16-...0	20	HEAB	3VA4120-6ED34-0AA0	65	65		
				HEAS	3VA5120-6E#31-0AA0	65	65		
				MEAB	3VA4120-5ED34-0AA0	35	35		
				MEAS	3VA5120-5E#31-0AA0	35	35		
				SEAB	3VA4120-4ED34-0AA0	25	25		
				SEAS	3VA5120-4E#31-0AA0	25	25		
			35	HEAB	3VA4135-6ED34-0AA0	65	65		
				HEAS	3VA5135-6E#31-0AA0	65	65		
				MEAB	3VA4135-5ED34-0AA0	35	35		
				MEAS	3VA5135-5E#31-0AA0	35	35		
				SEAB	3VA4135-4ED34-0AA0	25	25		

Converter			Protective Device					Min. enclosure volume	
Frame size	P _{rated} (LO)	Article no.	I _{rated} /A	UL/CSA type	Article no. Example (European) ^{1) 2) 3) 4)}	SCCR / kA @ 480.0	SCCR / kA @ 480Y/277V AC	Metric	Imperial
	15 hp	6SL4343-...17-...0	35	SEAS	3VA5135-4E#31-0AA0	25	25		
				HEAB	3VA4135-6ED34-0AA0	65	65		
				HEAS	3VA5135-6E#31-0AA0	65	65		
				MEAB	3VA4135-5ED34-0AA0	35	35		
				MEAS	3VA5135-5E#31-0AA0	35	35		
				SEAB	3VA4135-4ED34-0AA0	25	25		
				SEAS	3VA5135-4E#31-0AA0	25	25		
FSC	20 hp	6SL4343-...18-...0	35	HEAB	3VA4135-6ED34-0AA0	5	5	0.12 m ³	4.24 ft ³
				HEAS	3VA5135-6E#31-0AA0	5	5		
				MEAB	3VA4135-5ED34-0AA0	5	5		
				MEAS	3VA5135-5E#31-0AA0	5	5		
				SEAB	3VA4135-4ED34-0AA0	5	5		
				SEAS	3VA5135-4E#31-0AA0	5	5		
			50	HEAB	3VA4150-6ED34-0AA0	5	5		
				HEAS	3VA5150-6E#31-0AA0	5	5		
				MEAB	3VA4150-5ED34-0AA0	5	5		
				MEAS	3VA5150-5E#31-0AA0	5	5		
				SEAB	3VA4150-4ED34-0AA0	5	5		
				SEAS	3VA5150-4E#31-0AA0	5	5		
	25 hp	6SL4343-...20-...0	50	HEAB	3VA4150-6ED34-0AA0	5	5		
				HEAS	3VA5150-6E#31-0AA0	5	5		
				MEAB	3VA4150-5ED34-0AA0	5	5		
				MEAS	3VA5150-5E#31-0AA0	5	5		
				SEAB	3VA4150-4ED34-0AA0	5	5		
				SEAS	3VA5150-4E#31-0AA0	5	5		
FSD 1	30 hp	6SL4343-...21-...0	60	3RV	3RV2742-5LD..	-	65	0.16 m ³	5.65 ft ³
				CFAS	3VA5260-7E#31-0AA0	100	100		
				HEAB	3VA4160-6ED34-0AA0	65	65		
				HEAS	3VA5160-6E#31-0AA0	65	65		

Converter			Protective Device					Min. enclosure volume	
Frame size	P _{rated} (LO)	Article no.	I _{rated} /A	UL/CSA type	Article no. Example (European) ^{1) 2) 3) 4)}	SCCR / kA @ 480.0	SCCR / kA @ 480Y/277V AC	Metric	Imperial
				HFAS	3VA5260-6E#31-0AA0	65	65		
				MEAB	3VA4160-5ED34-0AA0	35	35		
				MEAS	3VA5160-5E#31-0AA0	35	35		
				MFAS	3VA5260-5E#31-0AA0	35	35		
				SEAB	3VA4160-4ED34-0AA0	25	25		
				SEAS	3VA5160-4E#31-0AA0	25	25		
			70	3RV	3RV2742-5QD..	-	65		
				CFAS	3VA5270-7E#31-0AA0	100	100		
				HEAB	3VA4170-6ED34-0AA0	65	65		
				HEAS	3VA5170-6E#31-0AA0	65	65		
				HFAS	3VA5270-6E#31-0AA0	65	65		
				MEAB	3VA4170-5ED34-0AA0	35	35		
				MEAS	3VA5170-5E#31-0AA0	35	35		
				MFAS	3VA5270-5E#31-0AA0	35	35		
				SEAB	3VA4170-4ED34-0AA0	25	25		
				SEAS	3VA5170-4E#31-0AA0	25	25		
	40 hp	6SL4343-...23-...0	70	3RV	3RV2742-5QD..	-	65		
				CFAS	3VA5270-7E#31-0AA0	100	100		
				HEAB	3VA4170-6ED34-0AA0	65	65		
				HEAS	3VA5170-6E#31-0AA0	65	65		
				HFAS	3VA5270-6E#31-0AA0	65	65		
				MEAB	3VA4170-5ED34-0AA0	35	35		
				MEAS	3VA5170-5E#31-0AA0	35	35		
				MFAS	3VA5270-5E#31-0AA0	35	35		
				SEAB	3VA4170-4ED34-0AA0	25	25		
				SEAS	3VA5170-4E#31-0AA0	25	25		
FSD 2	50 hp	6SL4343-...24-...0	80	CFAS	3VA5280-7E#31-0AA0	100	100	0.36 m ³	12.71 ft ³
				HEAB	3VA4180-6ED34-0AA0	65	65		
				HEAS	3VA5180-6E#31-0AA0	65	65		

Converter			Protective Device					Min. enclosure volume	
Frame size	P _{rated} (LO)	Article no.	I _{rated} /A	UL/CSA type	Article no. Example (European) ^{1) 2) 3) 4)}	SCCR / kA @ 480.0	SCCR / kA @ 480Y/277V AC	Metric	Imperial
				HFAS	3VA5280-6E#31-0AA0	65	65		
				MEAB	3VA4180-5ED34-0AA0	35	35		
				MEAS	3VA5180-5E#31-0AA0	35	35		
				MFAS	3VA5280-5E#31-0AA0	35	35		
				SEAB	3VA4180-4ED34-0AA0	25	25		
				SEAS	3VA5180-4E#31-0AA0	25	25		
			100	CDAE	3VA6110-7##31-0AA0	100	100		
				CFAE	3VA6210-7##31-0AA0	100	100		
				EDAE	3VA6110-0##31-0AA0	100	100		
				HDAE	3VA6110-6##31-0AA0	65	65		
				HFAE	3VA6210-6##31-0AA0	65	65		
				LDAE	3VA6110-8##31-0AA0	100	100		
				LFAE	3VA6210-8##31-0AA0	100	100		
				MDAE	3VA6110-5##31-0AA0	35	35		
				MFAE	3VA6210-5##31-0AA0	35	35		
			110	CFAS	3VA5211-7E#31-0AA0	100	100		
				HEAB	3VA4111-6ED34-0AA0	65	65		
				HEAS	3VA5111-6E#31-0AA0	65	65		
				HFAS	3VA5211-6E#31-0AA0	65	65		
				MEAB	3VA4111-5ED34-0AA0	35	35		
				MEAS	3VA5111-5E#31-0AA0	35	35		
				MFAS	3VA5211-5E#31-0AA0	35	35		
				SEAB	3VA4111-4ED34-0AA0	25	25		
				SEAS	3VA5111-4E#31-0AA0	25	25		
	60 hp	6SL4343-...26-...0	100	CDAE	3VA6110-7##31-0AA0	100	100		
				CFAE	3VA6210-7##31-0AA0	100	100		
				EDAE	3VA6110-0##31-0AA0	100	100		
				HDAE	3VA6110-6##31-0AA0	65	65		
				HFAE	3VA6210-6##31-0AA0	65	65		

Converter			Protective Device					Min. enclosure volume	
Frame size	P _{rated} (LO)	Article no.	I _{rated} /A	UL/CSA type	Article no. Example (European) ^{1) 2) 3) 4)}	SCCR / kA @ 480.0	SCCR / kA @ 480Y/277V AC	Metric	Imperial
				LDAE	3VA6110-8##31-0AA0	100	100		
				LFAE	3VA6210-8##31-0AA0	100	100		
				MDAE	3VA6110-5##31-0AA0	35	35		
				MFAE	3VA6210-5##31-0AA0	35	35		
			110	CFAS	3VA5211-7E#31-0AA0	100	100		
				HEAB	3VA4111-6ED34-0AA0	65	65		
				HEAS	3VA5111-6E#31-0AA0	65	65		
				HFAS	3VA5211-6E#31-0AA0	65	65		
				MEAB	3VA4111-5ED34-0AA0	35	35		
				MEAS	3VA5111-5E#31-0AA0	35	35		
				MFAS	3VA5211-5E#31-0AA0	35	35		
				SEAB	3VA4111-4ED34-0AA0	25	25		
				SEAS	3VA5111-4E#31-0AA0	25	25		
FSE	75 hp	6SL4343-...27-...0	125	HEAB	3VA4112-6ED34-0AA0	65	65	0.384 m ³	13.56 ft ³
				HEAS	3VA5112-6E#31-0AA0	65	65		
				MEAB	3VA4112-5ED34-0AA0	35	35		
				MEAS	3VA5112-5E#31-0AA0	35	35		
				SEAB	3VA4112-4ED34-0AA0	25	25		
				SEAS	3VA5112-4E#31-0AA0	25	25		
			150	CDAE	3VA6115-7##31-0AA0	100	100		
				CFAS	3VA5215-7E#31-0AA0	100	100		
				EDAE	3VA6115-0##31-0AA0	100	100		
				HDAE	3VA6115-6##31-0AA0	65	65		
				HFAS	3VA5215-6E#31-0AA0	65	65		
				LDAE	3VA6115-8##31-0AA0	100	100		
				MDAE	3VA6115-5##31-0AA0	35	35		
				MFAS	3VA5215-5E#31-0AA0	35	35		
	100 hp	6SL4343-...30-...0	150	CDAE	3VA6115-7##31-0AA0	100	100		
				CFAS	3VA5215-7E#31-0AA0	100	100		

Converter			Protective Device					Min. enclosure volume	
Frame size	P _{rated} (LO)	Article no.	I _{rated} /A	UL/CSA type	Article no. Example (European) ^{1) 2) 3) 4)}	SCCR / kA @ 480.0	SCCR / kA @ 480Y/277V AC	Metric	Imperial
				EDAE	3VA6115-0##31-0AA0	100	100		
				HDAE	3VA6115-6##31-0AA0	65	65		
				HFAS	3VA5215-6E#31-0AA0	65	65		
				LDAE	3VA6115-8##31-0AA0	100	100		
				MDAE	3VA6115-5##31-0AA0	35	35		
				MFAS	3VA5215-5E#31-0AA0	35	35		

¹⁾ The symbol "." refers to the type of electrical connection. It can be replaced by 10 (screw terminal) or 20 (spring type terminal).

²⁾ SIEMENS circuit breaker (DIVQ/7)

³⁾ The symbol "#" refers to the type of release. It can be replaced by C (fixed thermal adjustable magnetic trip unit), D (fixed thermal fixed magnetic trip unit) or F (adjustable thermal adjustable magnetic trip unit).

⁴⁾ The symbol "##" represents the type of release. It can be replaced by: LL (line protection LI), LM (line protection LIG), LN (line and generator protection LSI), LQ (line and generator protection LSIG), SP (line and generator protection LSI with measurement/metering function), SQ (line and generator protection LSIG with measurement/metering function), TP (line and generator protection LSI, with display, with measurement/metering function), TQ (line and generator protection LSIG, with display, with measurement/metering function). The former variants HL, HM, HN, JP, JQ, KP, and KQ are still permitted for use.

2.3 UL type 12

2.3.1 UL/CSA non-semiconductor fuses

2.3.1.1 UL/CSA non-semiconductor fuses for UL type 12, with maintenance switch

Converter			Protective Device	
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A ¹⁾	SCCR / kA @ 480 V
FSB	1.5 hp	6SL4343-...08-...0	4	5
			15	5
	2 hp	6SL4343-...10-...0	6	5
			15	5
	3 hp	6SL4343-...11-...0	10	5
			15	5
	4 hp	6SL4343-...12-...0	12	5
			15	5
	5 hp	6SL4343-...13-...0	12	5
			15	5
	7.5 hp	6SL4343-...15-...0	15	5
	10 hp	6SL4343-...16-...0	20	5
			35	5
FSC	20 hp	6SL4343-...18-...0	25	5
			35	5
	25 hp	6SL4343-...20-...0	50	5
FSD1	30 hp	6SL4343-...21-...0	60	5
			70	5
	40 hp	6SL4343-...23-...0	70	5
FSD2	50 hp	6SL4343-...24-...0	90	10
			110	10
	60 hp	6SL4343-...26-...0	110	10

Converter			Protective Device	
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A ¹⁾	SCCR / kA @ 480 V
FSE	75 hp	6SL4343-...27-...0	125	10
			150	10
	100 hp	6SL4343-...30-...0	150	10

¹⁾ Any non-semiconductor fuse Class J, CF, T, or L (JDDZ) from any manufacturer may be used for all Frame Sizes. Additionally, Class CC and G fuses may be used for Frame Size A to Frame Size C

UL/CSA non-semiconductor fuses for UL type 12, 3AC 380 ... 415/ 440 ... 500V without maintenance switch

Converter			Protective Device	
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A ¹⁾	SCCR / kA @ 480 V
FSB	1.5 hp	6SL4343-...08-...0	4	100
			15	100
	2 hp	6SL4343-...10-...0	6	100
			15	100
	3 hp	6SL4343-...11-...0	10	100
			15	100
	4 hp	6SL4343-...12-...0	12	100
			15	100
	5 hp	6SL4343-...13-...0	12	100
			15	100
	7.5 hp	6SL4343-...15-...0	15	100
	10 hp	6SL4343-...16-...0	20	100
			35	100
	15 hp	6SL4343-...17-...0	25	100
			35	100
FSC	20 hp	6SL4343-...18-...0	40	100
			50	100
	25 hp	6SL4343-...20-...0	50	100
FSD1	30 hp	6SL4343-...21-...0	60	100
			70	100
	40 hp	6SL4343-...23-...0	70	100

Converter			Protective Device	
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A ¹⁾	SCCR / kA @ 480 V
FSD2	50 hp	6SL4343-...24-...0	90	100
			110	100
	60 hp	6SL4343-...26-...0	110	100
FSE	75 hp	6SL4343-...27-...0	125	100
			150	100
	100 hp	6SL4343-...30-...0	150	100

¹⁾ Any non-semiconductor fuse Class J, CF, T, or L (JDDZ) from any manufacturer may be used for all Frame Sizes. Additionally, Class CC and G fuses may be used for Frame Size A to Frame Size C

2.3.2 UL/CSA type E combination motor controllers

2.3.2.1 UL/CSA type E combination motor controllers for UL type 12, with maintenance switch

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Rated Power @ 480 V	Article no. ^{1) 2) 3)}	SCCR / kA @ 480Y/277V AC
FSB	1.5 hp	6SL4343-...08-...0	5	3 hp	3RV2011-1FA..	5
					3RV2021-1FA..	5
			14	10 hp	3RV2031-4SA..	5
					3RV2032-4SA..	5
			16		3RV2011-4AA..	5
					3RV2021-4AA..	5
			17	15 hp	3RV2031-4TA..	5
					3RV2032-4TA..	5
	2 hp	6SL4343-...10-...0	6	5 hp	3RV2011-1GA..	5
					3RV2021-1GA..	5
			14	10 hp	3RV2031-4SA..	5
					3RV2032-4SA..	5
			16		3RV2011-4AA..	5
					3RV2021-4AA..	5
			17	15 hp	3RV2031-4TA..	5
					3RV2032-4TA..	5
	3 hp	6SL4343-...11-...0	10	7.5 hp	3RV2011-1JA..	5
					3RV2021-1JA..	5
			14	10 hp	3RV2031-4SA..	5
					3RV2032-4SA..	5
			16		3RV2011-4AA..	5
					3RV2021-4AA..	5
			17	15 hp	3RV2031-4TA..	5
					3RV2032-4TA..	5
	4 hp	6SL4343-...12-...0	12	7.5 hp	3RV2011-1KA..	5
					3RV2021-1KA..	5
			14	10 hp	3RV2031-4SA..	5

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Rated Power @ 480 V	Article no. ^{1) 2) 3)}	SCCR / kA @ 480V/277V AC
			16		3RV2032-4SA..	5
					3RV2011-4AA..	5
					3RV2021-4AA..	5
			17	15 hp	3RV2031-4TA..	5
					3RV2032-4TA..	5
	5 hp	6SL4343-...13-...0	16	10 hp	3RV2011-4AA..	5
					3RV2021-4AA..	5
			17	15 hp	3RV2031-4TA..	5
					3RV2032-4TA..	5
	7.5 hp	6SL4343-...15-...0	16	10 hp	3RV2011-4AA..	5
					3RV2021-4AA..	5
			17	15 hp	3RV2031-4TA..	5
					3RV2032-4TA..	5
	10 hp	6SL4343-...16-...0	20	15 hp	3RV2021-4BA..	5
					3RV2031-4BA..	5
					3RV2032-4BA..	5
			32	20 hp	3RV2021-4EA..	5
				25 hp	3RV2031-4EA..	5
					3RV2032-4EA..	5
	15 hp	6SL4343-...17-...0	25	20 hp	3RV2021-4DA..	5
					3RV2031-4DA..	5
					3RV2032-4DA..	5
			32	25 hp	3RV2021-4EA..	5
					3RV2031-4EA..	5
					3RV2032-4EA..	5
FSC	20 hp	6SL4343-...18-...0	40	30 hp	3RV2031-4UA..	5
					3RV2032-4UA..	5
			52	40 hp	3RV2031-4WA..	5
					3RV2032-4WA..	5
	25 hp	6SL4343-...20-...0	52	40 hp	3RV2031-4WA..	5

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Rated Power @ 480 V	Article no. 1) 2) 3)	SCCR / kA @ 480Y/277V AC
					3RV2032-4WA..	5
FSD1	30 hp	6SL4343-...21-...0	59	50 hp	3RV2031-4XA..	5
					3RV2032-4XA..	5
			63		3RV2041-4JA..	5
					3RV2042-4JA..	5
			73	60 hp	3RV2031-4KA..	5
					3RV2032-4KA..	5
					3RV2041-4KA..	5
					3RV2042-4KA..	5
	40 hp	6SL4343-...23-...0	73	60 hp	3RV2031-4KA..	5
					3RV2032-4KA..	5
			75		3RV2041-4KA..	5
					3RV2042-4KA..	5
FSD2	50 hp	6SL4343-...24-...0	93	75 hp	3RV2041-4YA..	5
					3RV2042-4YA..	5
			100		3RV2041-4MA..	5
					3RV2042-4MA..	5
	60 hp	6SL4343-...26-...0	100	75 hp	3RV2041-4MA..	5
					3RV2042-4MA..	5
FSE	75 hp	6SL4343-...27-...0			Use a circuit breaker instead.	-
	100 hp	6SL4343-...30-...0			Use a circuit breaker instead.	-

¹⁾ 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; 3RV203. with 3RV2938-1; 3RV204. with 3RT2946-4GA07; not necessary for CSA.

²⁾ The symbol ".." refers to the type of electrical connection. It can be replaced by 10 (screw terminal), 15 (screw terminal with transverse auxiliary switches) or 20 (spring type terminal).

³⁾ SIEMENS Type E combination motor controllers (NKJH/7)

2.3.2.2 UL/CSA type E combination motor controllers for UL type 12, without maintenance switch

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Rated Power @ 480 V	Article no. ^{1) 2) 3)}	SCCR / kA @ 480Y/277V AC
FSB	1.5 hp	6SL4343-...08-...0	5	3 hp	3RV2011-1FA..	65
					3RV2021-1FA..	65
			14	10 hp	3RV2031-4SA..	65
					3RV2032-4SA..	65
			16		3RV2011-4AA..	65
					3RV2021-4AA..	65
			17	15 hp	3RV2031-4TA..	65
					3RV2032-4TA..	65
	2 hp	6SL4343-...10-...0	6	5 hp	3RV2011-1GA..	65
					3RV2021-1GA..	65
			14	10 hp	3RV2031-4SA..	65
					3RV2032-4SA..	65
			16		3RV2011-4AA..	65
					3RV2021-4AA..	65
			17	15 hp	3RV2031-4TA..	65
					3RV2032-4TA..	65
	3 hp	6SL4343-...11-...0	10	7.5 hp	3RV2011-1JA..	65
					3RV2021-1JA..	65
			14	10 hp	3RV2031-4SA..	65
					3RV2032-4SA..	65
			16		3RV2011-4AA..	65
					3RV2021-4AA..	65
			17	15 hp	3RV2031-4TA..	65
					3RV2032-4TA..	65
	4 hp	6SL4343-...12-...0	12	7.5 hp	3RV2011-1KA..	65
					3RV2021-1KA..	65
			14	10 hp	3RV2031-4SA..	65
					3RV2032-4SA..	65
			16		3RV2011-4AA..	65

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Rated Power @ 480 V	Article no. ^{1) 2) 3)}	SCCR / kA @ 480Y/277V AC
	5 hp	6SL4343-...13-...0	17	15 hp	3RV2021-4AA..	65
					3RV2031-4TA..	65
					3RV2032-4TA..	65
			16	10 hp	3RV2011-4AA..	65
					3RV2021-4AA..	65
			17	15 hp	3RV2031-4TA..	65
					3RV2032-4TA..	65
	7.5 hp	6SL4343-...15-...0	16	10 hp	3RV2011-4AA..	65
					3RV2021-4AA..	65
			17	15 hp	3RV2031-4TA..	65
					3RV2032-4TA..	65
	10 hp	6SL4343-...16-...0	20	15 hp	3RV2021-4BA..	65
					3RV2031-4BA..	65
					3RV2032-4BA..	65
			32	20 hp	3RV2021-4EA..	50
				25 hp	3RV2031-4EA..	65
					3RV2032-4EA..	65
	15 hp	6SL4343-...17-...0	25	20 hp	3RV2021-4DA..	50
					3RV2031-4DA..	65
					3RV2032-4DA..	65
			32	25 hp	3RV2021-4EA..	50
					3RV2031-4EA..	65
					3RV2032-4EA..	65
FSC	20 hp	6SL4343-...18-...0	40	30 hp	3RV2031-4UA..	65
					3RV2032-4UA..	65
			52	40 hp	3RV2031-4WA..	65
					3RV2032-4WA..	65
	25 hp	6SL4343-...20-...0	52	40 hp	3RV2031-4WA..	65
					3RV2032-4WA..	65

Converter			Protective Device			
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	Rated Power @ 480 V	Article no. 1) 2) 3)	SCCR / kA @ 480Y/277V AC
FSD1	30 hp	6SL4343-...21-...0	59	50 hp	3RV2031-4XA..	20
					3RV2032-4XA..	30
			63		3RV2041-4JA..	65
					3RV2042-4JA..	65
			73	60 hp	3RV2031-4KA..	20
					3RV2032-4KA..	30
					3RV2041-4KA..	65
					3RV2042-4KA..	65
	40 hp	6SL4343-...23-...0	73	60 hp	3RV2031-4KA..	20
					3RV2032-4KA..	30
			75		3RV2041-4KA..	65
					3RV2042-4KA..	65
FSD2	50 hp	6SL4343-...24-...0	93	75 hp	3RV2041-4YA..	65
					3RV2042-4YA..	65
			100		3RV2041-4MA..	65
					3RV2042-4MA..	65
	60 hp	6SL4343-...26-...0	100	75 hp	3RV2041-4MA..	65
					3RV2042-4MA..	65
FSE	75 hp	6SL4343-...27-...0	Use a circuit breaker instead.			
	100 hp	6SL4343-...30-...0	Use a circuit breaker instead.			

¹⁾ 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; 3RV203. with 3RV2938-1; 3RV204. with 3RT2946-4GA07; not necessary for CSA.

²⁾ The symbol ".." refers to the type of electrical connection. It can be replaced by 10 (screw terminal), 15 (screw terminal with transverse auxiliary switches) or 20 (spring type terminal).

³⁾ SIEMENS Type E combination motor controllers (NKJH/7)

2.3.3 UL/CSA circuit breaker

2.3.3.1 UL/CSA circuit breaker for UL type 12, with maintenance switch

Converter			Protective Device				
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	UL/CSA type	Article no. Example (European) ^{1) 2) 3) 4)}	SCCR / kA @ 480.0	SCCR / kA @ 480Y/277V AC
FSB	1.5 hp	6SL4343-...08-...0	5	3RV	3RV2711-1FD..	-	5
			15		3RV2711-4AD..	-	5
				HEAB	3VA4195-6ED34-0AA0	65	5
				HEAS	3VA5195-6E#31-0AA0	65	5
				MEAB	3VA4195-5ED34-0AA0	35	5
				MEAS	3VA5195-5E#31-0AA0	35	5
				SEAB	3VA4195-4ED34-0AA0	25	5
			SEAS	3VA5195-4E#31-0AA0	25	5	
	2 hp	6SL4343-...10-...0	8	3RV	3RV2711-1HD..	-	5
			15		3RV2711-4AD..	-	5
				HEAB	3VA4195-6ED34-0AA0	5	5
				HEAS	3VA5195-6E#31-0AA0	5	5
				MEAB	3VA4195-5ED34-0AA0	5	5
				MEAS	3VA5195-5E#31-0AA0	5	5
				SEAB	3VA4195-4ED34-0AA0	5	5
			SEAS	3VA5195-4E#31-0AA0	5	5	
	3 hp	6SL4343-...11-...0	10	3RV	3RV2711-1JD..	-	5
			15		3RV2711-4AD..	-	5
				HEAB	3VA4195-6ED34-0AA0	5	5
				HEAS	3VA5195-6E#31-0AA0	5	5
				MEAB	3VA4195-5ED34-0AA0	5	5
				MEAS	3VA5195-5E#31-0AA0	5	5
				SEAB	3VA4195-4ED34-0AA0	5	5
			SEAS	3VA5195-4E#31-0AA0	5	5	
	4 hp	6SL4343-...12-...0	12	3RV	3RV2711-1KD..	-	5
			15		3RV2711-4AD..	-	5
				HEAB	3VA4195-6ED34-0AA0	5	5

Converter			Protective Device				
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	UL/CSA type	Article no. Example (European) ^{1) 2) 3) 4)}	SCCR / kA @ 480.0	SCCR / kA @ 480Y/277V AC
				HEAS	3VA5195-6E#31-0AA0	5	5
				MEAB	3VA4195-5ED34-0AA0	5	5
				MEAS	3VA5195-5E#31-0AA0	5	5
				SEAB	3VA4195-4ED34-0AA0	5	5
				SEAS	3VA5195-4E#31-0AA0	5	5
	5 hp	6SL4343-...13-...0	15	3RV	3RV2711-4AD..	-	5
				HEAB	3VA4195-6ED34-0AA0	5	5
				HEAS	3VA5195-6E#31-0AA0	5	5
				MEAB	3VA4195-5ED34-0AA0	5	5
				MEAS	3VA5195-5E#31-0AA0	5	5
				SEAB	3VA4195-4ED34-0AA0	5	5
				SEAS	3VA5195-4E#31-0AA0	5	5
	7.5 hp	6SL4343-...15-...0	15	3RV	3RV2711-4AD..	-	5
				HEAB	3VA4195-6ED34-0AA0	5	5
				HEAS	3VA5195-6E#31-0AA0	5	5
				MEAB	3VA4195-5ED34-0AA0	5	5
				MEAS	3VA5195-5E#31-0AA0	5	5
				SEAB	3VA4195-4ED34-0AA0	5	5
				SEAS	3VA5195-4E#31-0AA0	5	5
	10 hp	6SL4343-...16-...0	20	HEAB	3VA4120-6ED34-0AA0	5	5
				HEAS	3VA5120-6E#31-0AA0	5	5
				MEAB	3VA4120-5ED34-0AA0	5	5
				MEAS	3VA5120-5E#31-0AA0	5	5
				SEAB	3VA4120-4ED34-0AA0	5	5
				SEAS	3VA5120-4E#31-0AA0	5	5
			35	HEAB	3VA4135-6ED34-0AA0	5	5
				HEAS	3VA5135-6E#31-0AA0	5	5
				MEAB	3VA4135-5ED34-0AA0	5	5
				MEAS	3VA5135-5E#31-0AA0	5	5
				SEAB	3VA4135-4ED34-0AA0	5	5

Converter			Protective Device				
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	UL/CSA type	Article no. Example (European) ^{1) 2) 3) 4)}	SCCR / kA @ 480.0	SCCR / kA @ 480Y/277V AC
	15 hp	6SL4343-...17-...0	35	SEAS	3VA5135-4E#31-0AA0	5	5
				HEAB	3VA4135-6ED34-0AA0	5	5
				HEAS	3VA5135-6E#31-0AA0	5	5
				MEAB	3VA4135-5ED34-0AA0	5	5
				MEAS	3VA5135-5E#31-0AA0	5	5
				SEAB	3VA4135-4ED34-0AA0	5	5
				SEAS	3VA5135-4E#31-0AA0	5	5
FSC	20 hp	6SL4343-...18-...0	Use CMC or fuse instead.				
	25 hp	6SL4343-...20-...0	Use CMC or fuse instead.				
FSD1	30 hp	6SL4343-...21-...0	60	3RV	3RV2742-5LD..	-	5
				CFAS	3VA5260-7E#31-0AA0	5	5
				HEAB	3VA4160-6ED34-0AA0	5	5
				HEAS	3VA5160-6E#31-0AA0	5	5
				HFAS	3VA5260-6E#31-0AA0	5	5
				MEAB	3VA4160-5ED34-0AA0	5	5
				MEAS	3VA5160-5E#31-0AA0	5	5
				MFAS	3VA5260-5E#31-0AA0	5	5
				SEAB	3VA4160-4ED34-0AA0	5	5
				SEAS	3VA5160-4E#31-0AA0	5	5
			70	3RV	3RV2742-5QD..	-	5
				CFAS	3VA5270-7E#31-0AA0	5	5
				HEAB	3VA4170-6ED34-0AA0	5	5
				HEAS	3VA5170-6E#31-0AA0	5	5
				HFAS	3VA5270-6E#31-0AA0	5	5
				MEAB	3VA4170-5ED34-0AA0	5	5
				MEAS	3VA5170-5E#31-0AA0	5	5
				MFAS	3VA5270-5E#31-0AA0	5	5
				SEAB	3VA4170-4ED34-0AA0	5	5
				SEAS	3VA5170-4E#31-0AA0	5	5
	40 hp	6SL4343-...23-...0	70	3RV	3RV2742-5QD..	-	5

Converter			Protective Device				
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	UL/CSA type	Article no. Example (European) ^{1) 2) 3) 4)}	SCCR / kA @ 480.0	SCCR / kA @ 480Y/277V AC
				CFAS	3VA5270-7E#31-0AA0	5	5
				HEAB	3VA4170-6ED34-0AA0	5	5
				HEAS	3VA5170-6E#31-0AA0	5	5
				HFAS	3VA5270-6E#31-0AA0	5	5
				MEAB	3VA4170-5ED34-0AA0	5	5
				MEAS	3VA5170-5E#31-0AA0	5	5
				MFAS	3VA5270-5E#31-0AA0	5	5
				SEAB	3VA4170-4ED34-0AA0	5	5
				SEAS	3VA5170-4E#31-0AA0	5	5
FSD2	50 hp	6SL4343-...24-...0	80	CFAS	3VA5280-7E#31-0AA0	5	5
				HEAB	3VA4180-6ED34-0AA0	5	5
				HEAS	3VA5180-6E#31-0AA0	5	5
				HFAS	3VA5280-6E#31-0AA0	5	5
				MEAB	3VA4180-5ED34-0AA0	5	5
				MEAS	3VA5180-5E#31-0AA0	5	5
				MFAS	3VA5280-5E#31-0AA0	5	5
				SEAB	3VA4180-4ED34-0AA0	5	5
				SEAS	3VA5180-4E#31-0AA0	5	5
			100	CDAE	3VA6110-7##31-0AA0	5	5
				CFAE	3VA6210-7##31-0AA0	5	5
				EDAE	3VA6110-0##31-0AA0	5	5
				HDAE	3VA6110-6##31-0AA0	5	5
				HFAE	3VA6210-6##31-0AA0	5	5
				LDAE	3VA6110-8##31-0AA0	5	5
				LFAE	3VA6210-8##31-0AA0	5	5
				MDAE	3VA6110-5##31-0AA0	5	5
				MFAE	3VA6210-5##31-0AA0	5	5
			110	CFAS	3VA5211-7E#31-0AA0	5	5
				HEAB	3VA4111-6ED34-0AA0	5	5
				HEAS	3VA5111-6E#31-0AA0	5	5

Converter			Protective Device				
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	UL/CSA type	Article no. Example (European) ^{1) 2) 3) 4)}	SCCR / kA @ 480.0	SCCR / kA @ 480Y/277V AC
				HFAS	3VA5211-6E#31-0AA0	5	5
				MEAB	3VA4111-5ED34-0AA0	5	5
				MEAS	3VA5111-5E#31-0AA0	5	5
				MFAS	3VA5211-5E#31-0AA0	5	5
				SEAB	3VA4111-4ED34-0AA0	5	5
				SEAS	3VA5111-4E#31-0AA0	5	5
	60 hp	6SL4343-...26-...0	100	CDAE	3VA6110-7##31-0AA0	5	5
				CFAE	3VA6210-7##31-0AA0	5	5
				EDAE	3VA6110-0##31-0AA0	5	5
				HDAE	3VA6110-6##31-0AA0	5	5
				HFAE	3VA6210-6##31-0AA0	5	5
				LDAE	3VA6110-8##31-0AA0	5	5
				LFAE	3VA6210-8##31-0AA0	5	5
				MDAE	3VA6110-5##31-0AA0	5	5
				MFAE	3VA6210-5##31-0AA0	5	5
			110	CFAS	3VA5211-7E#31-0AA0	5	5
				HEAB	3VA4111-6ED34-0AA0	5	5
				HEAS	3VA5111-6E#31-0AA0	5	5
				HFAS	3VA5211-6E#31-0AA0	5	5
				MEAB	3VA4111-5ED34-0AA0	5	5
				MEAS	3VA5111-5E#31-0AA0	5	5
				MFAS	3VA5211-5E#31-0AA0	5	5
				SEAB	3VA4111-4ED34-0AA0	5	5
				SEAS	3VA5111-4E#31-0AA0	5	5
FSE	75 hp	6SL4343-...27-...0	125	HEAB	3VA4112-6ED34-0AA0	10	10
				HEAS	3VA5112-6E#31-0AA0	10	10
				MEAB	3VA4112-5ED34-0AA0	10	10
				MEAS	3VA5112-5E#31-0AA0	10	10
				SEAB	3VA4112-4ED34-0AA0	10	10
				SEAS	3VA5112-4E#31-0AA0	10	10

Converter			Protective Device				
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	UL/CSA type	Article no. Example (European) ^{1) 2) 3) 4)}	SCCR / kA @ 480.0	SCCR / kA @ 480Y/277V AC
			150	CDAE	3VA6115-7###31-0AA0	10	10
				CFAS	3VA5215-7E#31-0AA0	10	10
				EDAE	3VA6115-0##31-0AA0	10	10
				HDAE	3VA6115-6##31-0AA0	10	10
				HFAS	3VA5215-6E#31-0AA0	10	10
				LDAE	3VA6115-8##31-0AA0	10	10
				MDAE	3VA6115-5##31-0AA0	10	10
				MFAS	3VA5215-5E#31-0AA0	10	10
	100 hp	6SL4343-...30-...0	150	CDAE	3VA6115-7###31-0AA0	10	10
				CFAS	3VA5215-7E#31-0AA0	10	10
				EDAE	3VA6115-0##31-0AA0	10	10
				HDAE	3VA6115-6##31-0AA0	10	10
				HFAS	3VA5215-6E#31-0AA0	10	10
				LDAE	3VA6115-8##31-0AA0	10	10
				MDAE	3VA6115-5##31-0AA0	10	10
				MFAS	3VA5215-5E#31-0AA0	10	10

¹⁾ The symbol ".." refers to the type of electrical connection. It can be replaced by 10 (screw terminal) or 20 (spring type terminal).

²⁾ SIEMENS circuit breaker (DIVQ/7)

³⁾ The symbol "#" refers to the type of release. It can be replaced by C (fixed thermal adjustable magnetic trip unit), D (fixed thermal fixed magnetic trip unit) or F (adjustable thermal adjustable magnetic trip unit).

⁴⁾ The symbol "###" represents the type of release. It can be replaced by: LL (line protection LI), LM (line protection LIG), LN (line and generator protection LSI), LQ (line and generator protection LSI), SP (line and generator protection LSI with measurement/metering function), SQ (line and generator protection LSI with measurement/metering function), TP (line and generator protection LSI, with display, with measurement/metering function), TQ (line and generator protection LSI, with display, with measurement/metering function). The former variants HL, HM, HN, JP, JQ, KP, and KQ are still permitted for use.

2.3.3.2 UL/CSA circuit breaker for UL type 12, without maintenance switch

Converter			Protective Device				
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	UL/CSA type	Article no. Example (European) ^{1) 2) 3) 4)}	SCCR / kA @ 480.0	SCCR / kA @ 480Y/277V AC
FSB	1.5 hp	6SL4343-...08-...0	5	3RV	3RV2711-1FD..	-	65
			15		3RV2711-4AD..	-	65

Converter			Protective Device				
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	UL/CSA type	Article no. Example (European) ^{1) 2) 3) 4)}	SCCR / kA @ 480.0	SCCR / kA @ 480Y/277V AC
				HEAB	3VA4195-6ED34-0AA0	65	65
				HEAS	3VA5195-6E#31-0AA0	65	65
				MEAB	3VA4195-5ED34-0AA0	35	35
				MEAS	3VA5195-5E#31-0AA0	35	35
				SEAB	3VA4195-4ED34-0AA0	25	25
				SEAS	3VA5195-4E#31-0AA0	25	25
	2 hp	6SL4343-...10-...0	8	3RV	3RV2711-1HD..	-	65
			15		3RV2711-4AD..	-	65
				HEAB	3VA4195-6ED34-0AA0	65	65
				HEAS	3VA5195-6E#31-0AA0	65	65
				MEAB	3VA4195-5ED34-0AA0	35	35
				MEAS	3VA5195-5E#31-0AA0	35	35
				SEAB	3VA4195-4ED34-0AA0	25	25
			SEAS	3VA5195-4E#31-0AA0	25	25	
	3 hp	6SL4343-...11-...0	10	3RV	3RV2711-1JD..	-	65
			15		3RV2711-4AD..	-	65
				HEAB	3VA4195-6ED34-0AA0	65	65
				HEAS	3VA5195-6E#31-0AA0	65	65
				MEAB	3VA4195-5ED34-0AA0	35	35
				MEAS	3VA5195-5E#31-0AA0	35	35
				SEAB	3VA4195-4ED34-0AA0	25	25
			SEAS	3VA5195-4E#31-0AA0	25	25	
	4 hp	6SL4343-...12-...0	12	3RV	3RV2711-1KD..	-	65
			15		3RV2711-4AD..	-	65
				HEAB	3VA4195-6ED34-0AA0	65	65
				HEAS	3VA5195-6E#31-0AA0	65	65
				MEAB	3VA4195-5ED34-0AA0	35	35
				MEAS	3VA5195-5E#31-0AA0	35	35
				SEAB	3VA4195-4ED34-0AA0	25	25
			SEAS	3VA5195-4E#31-0AA0	25	25	

Converter			Protective Device				
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	UL/CSA type	Article no. Example (European) ^{1) 2) 3) 4)}	SCCR / kA @ 480.0	SCCR / kA @ 480Y/277V AC
	5 hp	6SL4343-...13-...0	15	3RV	3RV2711-4AD..	-	65
				HEAB	3VA4195-6ED34-0AA0	65	65
				HEAS	3VA5195-6E#31-0AA0	65	65
				MEAB	3VA4195-5ED34-0AA0	35	35
				MEAS	3VA5195-5E#31-0AA0	35	35
				SEAB	3VA4195-4ED34-0AA0	25	25
				SEAS	3VA5195-4E#31-0AA0	25	25
	7.5 hp	6SL4343-...15-...0	15	3RV	3RV2711-4AD..	-	65
				HEAB	3VA4195-6ED34-0AA0	65	65
				HEAS	3VA5195-6E#31-0AA0	65	65
				MEAB	3VA4195-5ED34-0AA0	35	35
				MEAS	3VA5195-5E#31-0AA0	35	35
				SEAB	3VA4195-4ED34-0AA0	25	25
				SEAS	3VA5195-4E#31-0AA0	25	25
	10 hp	6SL4343-...16-...0	20	HEAB	3VA4120-6ED34-0AA0	65	65
				HEAS	3VA5120-6E#31-0AA0	65	65
				MEAB	3VA4120-5ED34-0AA0	35	35
				MEAS	3VA5120-5E#31-0AA0	35	35
				SEAB	3VA4120-4ED34-0AA0	25	25
				SEAS	3VA5120-4E#31-0AA0	25	25
			35	HEAB	3VA4135-6ED34-0AA0	65	65
				HEAS	3VA5135-6E#31-0AA0	65	65
				MEAB	3VA4135-5ED34-0AA0	35	35
				MEAS	3VA5135-5E#31-0AA0	35	35
				SEAB	3VA4135-4ED34-0AA0	25	25
				SEAS	3VA5135-4E#31-0AA0	25	25
	15 hp	6SL4343-...17-...0	35	HEAB	3VA4135-6ED34-0AA0	65	65
				HEAS	3VA5135-6E#31-0AA0	65	65
				MEAB	3VA4135-5ED34-0AA0	35	35
				MEAS	3VA5135-5E#31-0AA0	35	35

Converter			Protective Device				
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	UL/CSA type	Article no. Example (European) ^{1) 2) 3) 4)}	SCCR / kA @ 480.0	SCCR / kA @ 480Y/277V AC
				SEAB	3VA4135-4ED34-0AA0	25	25
				SEAS	3VA5135-4E#31-0AA0	25	25
FSC	20 hp	6SL4343-...18-...0	Use CMC or fuse instead.				
	25 hp	6SL4343-...20-...0	Use CMC or fuse instead.				
FSD1	30 hp	6SL4343-...21-...0	60	3RV	3RV2742-5LD..	-	65
				CFAS	3VA5260-7E#31-0AA0	100	100
				HEAB	3VA4160-6ED34-0AA0	65	65
				HEAS	3VA5160-6E#31-0AA0	65	65
				HFAS	3VA5260-6E#31-0AA0	65	65
				MEAB	3VA4160-5ED34-0AA0	35	35
				MEAS	3VA5160-5E#31-0AA0	35	35
				MFAS	3VA5260-5E#31-0AA0	35	35
				SEAB	3VA4160-4ED34-0AA0	25	25
				SEAS	3VA5160-4E#31-0AA0	25	25
	40 hp	6SL4343-...23-...0	70	3RV	3RV2742-5QD..	-	65
				CFAS	3VA5270-7E#31-0AA0	100	100
				HEAB	3VA4170-6ED34-0AA0	65	65
				HEAS	3VA5170-6E#31-0AA0	65	65
				HFAS	3VA5270-6E#31-0AA0	65	65
				MEAB	3VA4170-5ED34-0AA0	35	35
				MEAS	3VA5170-5E#31-0AA0	35	35
				MFAS	3VA5270-5E#31-0AA0	35	35
				SEAB	3VA4170-4ED34-0AA0	25	25
				SEAS	3VA5170-4E#31-0AA0	25	25

Converter			Protective Device				
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	UL/CSA type	Article no. Example (European) ^{1) 2) 3) 4)}	SCCR / kA @ 480.0	SCCR / kA @ 480Y/277V AC
				MEAS	3VA5170-5E#31-0AA0	35	35
				MFAS	3VA5270-5E#31-0AA0	35	35
				SEAB	3VA4170-4ED34-0AA0	25	25
				SEAS	3VA5170-4E#31-0AA0	25	25
FSD2	50 hp	6SL4343-...24-...0	80	CFAS	3VA5280-7E#31-0AA0	100	100
				HEAB	3VA4180-6ED34-0AA0	65	65
				HEAS	3VA5180-6E#31-0AA0	65	65
				HFAS	3VA5280-6E#31-0AA0	65	65
				MEAB	3VA4180-5ED34-0AA0	35	35
				MEAS	3VA5180-5E#31-0AA0	35	35
				MFAS	3VA5280-5E#31-0AA0	35	35
				SEAB	3VA4180-4ED34-0AA0	25	25
				SEAS	3VA5180-4E#31-0AA0	25	25
			100	CDAE	3VA6110-7##31-0AA0	100	100
				CFAE	3VA6210-7##31-0AA0	100	100
				EDAE	3VA6110-0##31-0AA0	100	100
				HDAE	3VA6110-6##31-0AA0	65	65
				HFAE	3VA6210-6##31-0AA0	65	65
				LDAE	3VA6110-8##31-0AA0	100	100
				LFAE	3VA6210-8##31-0AA0	100	100
				MDAE	3VA6110-5##31-0AA0	35	35
				MFAE	3VA6210-5##31-0AA0	35	35
			110	CFAS	3VA5211-7E#31-0AA0	100	100
				HEAB	3VA4111-6ED34-0AA0	65	65
				HEAS	3VA5111-6E#31-0AA0	65	65
				HFAS	3VA5211-6E#31-0AA0	65	65
				MEAB	3VA4111-5ED34-0AA0	35	35
				MEAS	3VA5111-5E#31-0AA0	35	35
				MFAS	3VA5211-5E#31-0AA0	35	35
				SEAB	3VA4111-4ED34-0AA0	25	25

Converter			Protective Device				
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	UL/CSA type	Article no. Example (European) ^{1) 2) 3) 4)}	SCCR / kA @ 480.0	SCCR / kA @ 480Y/277V AC
	60 hp	6SL4343-...26-...0	100	SEAS	3VA5111-4E#31-0AA0	25	25
				CDAE	3VA6110-7##31-0AA0	100	100
				CFAE	3VA6210-7##31-0AA0	100	100
				EDAE	3VA6110-0##31-0AA0	100	100
				HDAE	3VA6110-6##31-0AA0	65	65
				HFAE	3VA6210-6##31-0AA0	65	65
				LDAE	3VA6110-8##31-0AA0	100	100
				LF AE	3VA6210-8##31-0AA0	100	100
				MDAE	3VA6110-5##31-0AA0	35	35
				MFAE	3VA6210-5##31-0AA0	35	35
			110	CFAS	3VA5211-7E#31-0AA0	100	100
				HEAB	3VA4111-6ED34-0AA0	65	65
				HEAS	3VA5111-6E#31-0AA0	65	65
				HFAS	3VA5211-6E#31-0AA0	65	65
				MEAB	3VA4111-5ED34-0AA0	35	35
				MEAS	3VA5111-5E#31-0AA0	35	35
				MFAS	3VA5211-5E#31-0AA0	35	35
				SEAB	3VA4111-4ED34-0AA0	25	25
				SEAS	3VA5111-4E#31-0AA0	25	25
FSE	75 hp	6SL4343-...27-...0	125	HEAB	3VA4112-6ED34-0AA0	65	65
				HEAS	3VA5112-6E#31-0AA0	65	65
				MEAB	3VA4112-5ED34-0AA0	35	35
				MEAS	3VA5112-5E#31-0AA0	35	35
				SEAB	3VA4112-4ED34-0AA0	25	25
				SEAS	3VA5112-4E#31-0AA0	25	25
			150	CDAE	3VA6115-7##31-0AA0	100	100
				CFAS	3VA5215-7E#31-0AA0	100	100
				EDAE	3VA6115-0##31-0AA0	100	100
				HDAE	3VA6115-6##31-0AA0	65	65
				HFAS	3VA5215-6E#31-0AA0	65	65

Converter			Protective Device				
Frame size	P _{rated} (LO)	Article no.	I _{rated} / A	UL/CSA type	Article no. Example (European) ^{1) 2) 3) 4)}	SCCR / kA @ 480.0	SCCR / kA @ 480Y/277V AC
				LDAE	3VA6115-8##31-0AA0	100	100
				MDAE	3VA6115-5##31-0AA0	35	35
				MFAS	3VA5215-5E#31-0AA0	35	35
	100 hp	6SL4343-...30-...0	150	CDAE	3VA6115-7##31-0AA0	100	100
				CFAS	3VA5215-7E#31-0AA0	100	100
				EDAE	3VA6115-0##31-0AA0	100	100
				HDAE	3VA6115-6##31-0AA0	65	65
				HFAS	3VA5215-6E#31-0AA0	65	65
				LDAE	3VA6115-8##31-0AA0	100	100
				MDAE	3VA6115-5##31-0AA0	35	35
				MFAS	3VA5215-5E#31-0AA0	35	35

¹⁾ The symbol ".." refers to the type of electrical connection. It can be replaced by 10 (screw terminal) or 20 (spring type terminal).

²⁾ SIEMENS circuit breaker (DIVQ/7)

³⁾ The symbol "#" refers to the type of release. It can be replaced by C (fixed thermal adjustable magnetic trip unit), D (fixed thermal fixed magnetic trip unit) or F (adjustable thermal adjustable magnetic trip unit).

⁴⁾ The symbol "##" represents the type of release. It can be replaced by: LL (line protection LI), LM (line protection LIG), LN (line and generator protection LSI), LQ (line and generator protection LSIG), SP (line and generator protection LSI with measurement/metering function), SQ (line and generator protection LSIG with measurement/metering function), TP (line and generator protection LSI, with display, with measurement/metering function), TQ (line and generator protection LSIG, with display, with measurement/metering function). The former variants HL, HM, HN, JP, JQ, KP, and KQ are still permitted for use.

3 Further Information

Further information is available on the internet:

SENTRON Fuse Systems, configuration manual

<https://support.industry.siemens.com/cs/ww/en/view/45314810>

Low-Voltage Power Distribution and Electrical Installation Technology

<https://support.industry.siemens.com/cs/ww/en/view/109482234>

SIRIUS Industrial Controls

<https://support.industry.siemens.com/cs/ww/en/view/109747945>

SIRIUS 3RV Motor Starter Protectors

<https://support.industry.siemens.com/cs/ww/en/view/60279172>

3VA molded case circuit breakers with IEC certificate

<https://support.industry.siemens.com/cs/us/en/view/90318775>

3VA UL / IEC molded case circuit breakers

<https://support.industry.siemens.com/cs/us/en/view/109758561>

UL Molded Case Circuit Breakers, SENTRON & VL series, see Siemens SPEEDFAX Product Catalog, Section 7

<https://digitalcontentcenter.compas.siemens-info.com/SF-17-Sect-07-ALL-web.pdf>