

SINAMICS S200 servo converters
Line-side components

Line filters

Overview



Example: Line filter for SINAMICS S200

It is recommended to use a line filter to protect the system from high frequency noise.

With one of the recommended line filters, IEC 61800-3 category C2 can be reached in combination with SINAMICS S200 for motor cable lengths up to 30 m (98.5 ft).

Selection and ordering data

SINAMICS S200 Basic servo converters		Rated current	Recommended line filter
Frame size		A	Category C2 in EN 61800-3 is attainable for motor cable lengths up to 30 m (98.5 ft).
			Article No.
SINAMICS S200 Basic servo converters			
Line voltage 200 ... 240 V 1 AC			
FSA	18		6SL5550-0XB21-8CA0
FSB			
FSC			
Line voltage 200 ... 240 V 3 AC			
FSA	5		6SL3203-0BE15-0VA0
FSB			
FSC			
SINAMICS S200 servo converters			
Line voltage 200 ... 240 V 1 AC			
FSA	18		6SL5550-0XB21-8CA0
FSB			
FSC			
Line voltage 200 ... 240 V 3 AC			
FSA	5		6SL3203-0BE15-0VA0
FSB			
FSC			
Line voltage 380 ... 480 V 3 AC			
FSA	5		6SL5550-0XE20-5CA0
FSB			
FSC	12		6SL5550-0XE21-2CA0
FSD	20		6SL5550-0XE22-0CA0

Technical specifications

Line voltage 200 ... 240 V 1 AC		Line filter	
		6SL5550-0XB21-8CA0	
Rated current	A	18	
Power loss	W	4.7	
Line/load connection		Screw terminals	
• Conductor cross-section	mm ²	0.25 ... 6	
- For single-conductor connection		AWG 24 ... 10	
- For flexible cables	mm ²	0.25 ... 4	
		AWG 24 ... 12	
PE connection		M5 screw stud	
Degree of protection		IP20	
Dimensions			
• Width	mm (in)	58 (2.28)	
• Height	mm (in)	155 (6.10)	
• Depth	mm (in)	53 (2.09)	
Weight, approx.	kg (lb)	0.75 (1.65)	
Leakage current	mA	11.84	
Suitable for SINAMICS S200 Basic servo converters	Type	Pulse Train Input version (PTI)	PROFINET version
		200 ... 240 V 1 AC	200 ... 240 V 1 AC
		6SL5610-1BB10-1AA0 (1.2 A)	6SL5610-1BB10-1AF0 (1.2 A)
		6SL5610-1BB10-2AA0 (2.0 A)	6SL5610-1BB10-2AF0 (2.0 A)
		6SL5610-1BB10-4AA0 (3.0 A)	6SL5610-1BB10-4AF0 (3.0 A)
		6SL5610-1BB10-8AA0 (8.0 A)	6SL5610-1BB10-8AF0 (8.0 A)
		6SL5610-1BB11-0AA0 (8.0 A)	6SL5610-1BB11-0AF0 (8.0 A)
Suitable for SINAMICS S200 servo converters	Type	Pulse Train Input version (PTI)	PROFINET version
		200 ... 240 V 1 AC	200 ... 240 V 1 AC
		6SL5510-1BB10-1AA0 (1.2 A)	6SL5510-1BB10-1AF0 (1.2 A)
		6SL5510-1BB10-2AA0 (2.0 A)	6SL5510-1BB10-2AF0 (2.0 A)
		6SL5510-1BB10-4AA0 (3.0 A)	6SL5510-1BB10-4AF0 (3.0 A)
		6SL5510-1BB10-8AA0 (8.0 A)	6SL5510-1BB10-8AF0 (8.0 A)
		6SL5510-1BB11-0AA0 (8.0 A)	6SL5510-1BB11-0AF0 (8.0 A)

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Line voltage 275 ... 480 V 3 AC		Line filter				
		6SL3203-0BE15-0VA0	6SL5550-0XE20-5CA0	6SL5550-0XE21-2CA0	6SL5550-0XE22-0CA0	
Rated current	A	5	5	12	20	
Power loss	W	2	2.7	3.9	10.1	
Line/load connection		Screw terminals	Screw terminals	Screw terminals	Screw terminals	
• Conductor cross-section	mm ²	0.25 ... 6	0.25 ... 6	0.25 ... 6	0.25 ... 6	
- For single-conductor connection		AWG 24 ... 10	AWG 24 ... 10	AWG 24 ... 10	AWG 24 ... 10	
- For flexible cables	mm ²	0.25 ... 4	0.25 ... 4	0.25 ... 4	0.25 ... 4	
		AWG 24 ... 12	AWG 24 ... 12	AWG 24 ... 12	AWG 24 ... 12	
PE connection		M6 screw stud	M6 screw stud	M6 screw stud	M6 screw stud	
Degree of protection		IP20	IP20	IP20	IP20	
Dimensions						
• Width	mm (in)	55 (2.17)	55 (2.17)	75 (2.95)	60 (2.36)	
• Height	mm (in)	170 (6.69)	170 (6.69)	195 (7.68)	250 (9.84)	
• Depth	mm (in)	130 (5.12)	130 (5.12)	140 (5.51)	130 (5.12)	
Weight, approx.	kg (lb)	0.67 (1.48)	0.72 (1.59)	1.34 (2.95)	1.5 (3.31)	
Leakage current	mA	4.31	4.37	7.05	8.88	
Suitable for SINAMICS S200 Basic servo converters	Type	Pulse Train Input version (PTI)				
		3 AC 200 ... 240 V		–	–	
		6SL5610-1BB10-1AA0 (0.6 A)			–	
		6SL5610-1BB10-2AA0 (1.1 A)				
		6SL5610-1BB10-4AA0 (1.8 A)				
		6SL5610-1BB10-8AA0 (4.0 A)				
		6SL5610-1BB11-0AA0 (4.0 A)				
	Type	PROFINET version				
		3 AC 200 ... 240 V		–	–	
		6SL5610-1BB10-1AF0 (0.6 A)				
		6SL5610-1BB10-2AF0 (1.1 A)				
		6SL5610-1BB10-4AF0 (1.8 A)				
		6SL5610-1BB10-8AF0 (4.0 A)				
		6SL5610-1BB11-0AF0 (4.0 A)				
Suitable for SINAMICS S200 servo converters	Type	Pulse Train Input version (PTI)				
		3 AC 200 ... 240 V		3 AC 380 ... 480 V	3 AC 380 ... 480 V	3 AC 380 ... 480 V
		6SL5510-1BB10-1AA0 (0.6 A)		6SL5510-1BE10-2AA0 (1.3 A)	6SL5510-1BE11-5AA0 (5.5 A)	6SL5510-1BE13-5AA0 (11.0 A)
		6SL5510-1BB10-2AA0 (1.1 A)		6SL5510-1BE10-4AA0 (1.3 A)	6SL5510-1BE12-5AA0 (8.0 A)	6SL5510-1BE15-0AA0 (13.0 A)
		6SL5510-1BB10-4AA0 (1.8 A)		6SL5510-1BE10-8AA0 (2.5 A)		6SL5510-1BE17-0AA0 (14.2 A)
		6SL5510-1BB10-8AA0 (4.0 A)		6SL5510-1BE11-0AA0 (3.0 A)		
			6SL5510-1BB11-0AA0 (4.0 A)			
	Type	PROFINET version				
		3 AC 200 ... 240 V		3 AC 380 ... 480 V	3 AC 380 ... 480 V	3 AC 380 ... 480 V
		6SL5510-1BB10-1AF0 (0.6 A)		6SL5510-1BE10-2AF0 (1.3 A)	6SL5510-1BE11-5AF0 (5.5 A)	6SL5510-1BE13-5AF0 (11.0 A)
		6SL5510-1BB10-2AF0 (1.1 A)		6SL5510-1BE10-4AF0 (1.3 A)	6SL5510-1BE12-5AF0 (8.0 A)	6SL5510-1BE15-0AF0 (13.0 A)
		6SL5510-1BB10-4AF0 (1.8 A)		6SL5510-1BE10-8AF0 (2.5 A)		6SL5510-1BE17-0AF0 (14.2 A)
6SL5510-1BB10-8AF0 (4.0 A)		6SL5510-1BE11-0AF0 (3.0 A)				
		6SL5510-1BB11-0AF0 (4.0 A)				

More information

Detailed information on the SINAMICS S200 drive system, including the latest technical documentation (brochures, tutorials, dimensional drawings, certificates, manuals and operating instructions), is available on the internet at:

www.siemens.com/sinamics-s200

and is also available via the Siemens Product Configurator on the internet.

The Siemens Product Configurator can be found in SiePortal at the following address:

www.siemens.com/sinamics-s200/configuration