

Sine filter **SFB**



General Data

Rated voltage 3 x 400 Vac
Rated current 4 - 480 A
For motor rated output 1.5 - 260 kW
For switching frequencies of 4 to 8 kHz
Rated frequency from 0 to 150 Hz
Insulation class H
Maximum ambient temperature 40 °C
Degree of protection IP 00

Advantages

Prevention of overvoltages on the motor
Long cable lengths possible
Reduction in motor noise
Reduction in line-borne and field-borne emitted interference
Reduction in motor losses
Very good corrosion protection and low noise thanks to vacuum impregnation

Applications

Sine filter for the suppression of differential mode interference.

Standards

Output filter with capacitor for frequency inverters complying with
DIN EN 61558-2-20, IEC 61558-2-20, UL 508, CSA 22.2 No. 14-9195

Approvals



UL 508, CSA 22.2 No 14-9195



Sine filter SFB

Electrical data	Typ	SFB 400/4	SFB 400/10	SFB 400/16,5	SFB 400/23,5	SFB 400/32	SFB 400/37
	Operating data						
	Rated voltage	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac
	Voltage range	0 - 520 Vac	0 - 520 Vac	0 - 520 Vac	0 - 520 Vac	0 - 520 Vac	0 - 520 Vac
	Voltage drop	7.5 % @ 400 Vac	7 % @ 400 Vac	7.5 % @ 400 Vac	8 % @ 400 Vac	8.7 % @ 400 Vac	8.6 % @ 400 Vac
	Rated current	4 A	10 A	16.5 A	23.5 A	32 A	37 A
	for motor rated output approx.	1.50 kW	4.00 kW	7.50 kW	11.00 kW	15.00 kW	18.50 kW
	Rated frequency	0 - 150 Hz	0 - 150 Hz	0 - 150 Hz	0 - 150 Hz	0 - 150 Hz	0 - 150 Hz
	Switching frequency	4 - 8 kHz	4 - 8 kHz	4 - 8 kHz	4 - 8 kHz	4 - 8 kHz	4 - 8 kHz
	Approvals	cURus	cURus	cURus	cURus	cURus	cURus
Environment							
	Ambient temperature max.	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C
Safety and protection							
	Type	Open type	Open type	Open type	Open type	Open type	Open type
	Insulation class	H	H	H	H	H	H
	Protection index	IP 00	IP 00	IP 00	IP 00	IP 00	IP 00
	Safety class (prepared)	I	I	I	I	I	I
	Test voltage	3000 Vac, 50 Hz	3000 Vac, 50 Hz	3000 Vac, 50 Hz	3000 Vac, 50 Hz	3000 Vac, 50 Hz	3000 Vac, 50 Hz
Order numbers							
	Order Number	SFB 400/4	SFB 400/10	SFB 400/16,5	SFB 400/23,5	SFB 400/32	SFB 400/37



Sine filter

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Electrical data	Typ	SFB 400/48	SFB-N 400/61	SFB-N 400/72	SFB-N 400/90	SFB 400/115	SFB 400/150
	Operating data						
	Rated voltage	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac
	Voltage range	0 - 520 Vac	0 - 520 Vac	0 - 520 Vac	0 - 520 Vac	0 - 520 Vac	0 - 520 Vac
	Voltage drop	7.8 % @ 400 Vac	8.3 % @ 400 Vac	7.5 % @ 400 Vac	10 % @ 400 Vac	11 % @ 400 Vac	10.2 % @ 400 Vac
	Rated current	48 A	61 A	72 A	90 A	115 A	150 A
	for motor rated output approx.	22.00 kW	30.00 kW	37.00 kW	45.00 kW	55.00 kW	75.00 kW
	Rated frequency	0 - 150 Hz	0 - 150 Hz	0 - 150 Hz	0 - 150 Hz	0 - 150 Hz	0 - 150 Hz
	Switching frequency	4 - 8 kHz	4 - 8 kHz	4 - 8 kHz	4 - 8 kHz	4 - 8 kHz	4 - 8 kHz
	Approvals	cURus	cURus	cURus	cURus	cURus	cURus
Environment							
	Ambient temperature max.	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C
Safety and protection							
	Type	Open type	Open type	Open type	Open type	Open type	Open type
	Insulation class	H	H	H	H	H	H
	Protection index	IP 00	IP 00	IP 00	IP 00	IP 00	IP 00
	Safety class (prepared)	I	I	I	I	I	I
	Test voltage	3000 Vac, 50 Hz	3000 Vac, 50 Hz	3000 Vac, 50 Hz	3000 Vac, 50 Hz	3000 Vac, 50 Hz	3000 Vac, 50 Hz
Order numbers							
	Order Number	SFB 400/48	SFB-N 400/61	SFB-N 400/72	SFB-N 400/90	SFB 400/115	SFB 400/150



Sine filter

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Electrical data	Typ	SFB 400/180	SFB 400/250	SFB 400/440	SFB 400/480		
	Operating data						
	Rated voltage	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac	3 x 400 Vac		
	Voltage range	0 - 520 Vac	0 - 520 Vac	0 - 520 Vac	0 - 520 Vac		
	Voltage drop	7.5 % @ 400 Vac	7.5 % @ 400 Vac	7.5 % @ 400 Vac	7 % @ 400 Vac		
	Rated current	180 A	250 A	440 A	480 A		
	for motor rated output approx.	90.00 kW	132.00 kW	250.00 kW	260.00 kW		
	Rated frequency	0 - 60 Hz	0 - 60 Hz	0 - 60 Hz	0 - 60 Hz		
	Switching frequency	4 - 8 kHz	4 - 8 kHz	4 - 8 kHz	4 - 8 kHz		
	Approvals	cURus	-	-	-		
Environment							
	Ambient temperature max.	40 °C	40 °C	40 °C	40 °C		
Safety and protection							
	Type	Open type	Open type	Open type	Open type		
	Insulation class	H	H	H	H		
	Protection index	IP 00	IP 00	IP 00	IP 00		
	Safety class (prepared)	I	I	I	I		
	Test voltage	3000 Vac, 50 Hz	3000 Vac, 50 Hz	3000 Vac, 50 Hz	3000 Vac, 50 Hz		
Order numbers							
	Order Number	SFB 400/180	SFB 400/250	SFB 400/440	SFB 400/480		



Sine filter
SFB

Typ	Terminals phase	Terminals PE	Fixing method	Fixing screws	Mounting position	Weight	Dimension picture (in mm)					
								A	B	C	D	E
SFB 400/4	Screw clamp, 4 mm ²	Bolt, M4	Fixing rail	M5	only for vertical mounting	4.0 kg	1	155	110	160	130	56
SFB 400/10	Screw clamp, 4 mm ²	Bolt, M4	Fixing rail	M5	only for vertical mounting	5.5 kg	1	155	125	160	130	71
SFB 400/16,5	Screw clamp, 10 mm ²	Bolt, M4	Fixing rail	M5	only for vertical mounting	9.5 kg	1	190	160	195	170	67
SFB 400/23,5	Screw clamp, 16 mm ²	Bolt, M6	Fixing rail	M6	only for vertical mounting	14.5 kg	2	240	190	280	190	95
SFB 400/32	Screw clamp, 16 mm ²	Bolt, M6	Fixing rail	M6	only for vertical mounting	19.0 kg	2	240	200	280	190	105
SFB 400/37	Screw clamp, 16 mm ²	Bolt, M6	Fixing rail	M6	only for vertical mounting	21.0 kg	2	240	210	280	190	115
SFB 400/48	Screw clamp, 16 mm ²	Bolt, M6	Fixing rail	M6	only for vertical mounting	25.5 kg	2	240	220	285	190	125
SFB-N 400/61	Screw clamp, 35 mm ²	Bolt, M8	Fixing rail	M8	only for vertical mounting	33.5 kg	2	300	228	335	240	110
SFB-N 400/72	Screw clamp, 35 mm ²	Bolt, M8	Fixing rail	M8	only for vertical mounting	37.0 kg	2	300	240	340	240	133
SFB-N 400/90	Screw clamp, 50 mm ²	Bolt, M8	Fixing rail	M8	only for vertical mounting	53.0 kg	2	300	240	355	240	145
SFB 400/115	Screw clamp, 95 mm ²	Bolt, M8	Fixing rail	M8	only for vertical mounting	66.0 kg	3	360	210	425	264	125
SFB 400/150	Screw clamp, 95 mm ²	Bolt, M8	Fixing rail	M10	only for vertical mounting	69.0 kg	3	360	230	425	264	140
SFB 400/180	Screw clamp, 150 mm ²	Bolt, M8	Fixing rail	M10	only for vertical mounting	75.0 kg	3	365	240	445	264	154
SFB 400/250	Screw clamp, 150 mm ²	Bolt, M12	Fixing rail	M10	only for vertical mounting	120.0 kg	4	400	500	450	326	450
SFB 400/440	Screw clamp, 150 mm ²	Bolt, M12	Fixing rail	M10	only for vertical mounting	200.0 kg	5	630	540	400	550	480
SFB 400/480	Screw clamp, 150 mm ²	Bolt, M14	Fixing rail	M10	only for vertical mounting	220.0 kg	6	750	400	430	450	270

Dimension pictures

