Harmonic filter
HF1P 230

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General Data

- Rated voltage 230 Vac
- Rated current 0,84 - 25 A
- THD-I 10 % at 50 Hz, 18 % at 60 Hz in rated operation
- Load rated capacity 0.19 - 5.7 kW
- Insulation class H
- Ambient temperature -10 °C to +40 °C
- Degree of protection IP 20

Advantages

- Sinusoidal current consumption from the main in devices with uncontrolled B2U diode rectifiers
- Compliance with EN 61000-3-2, EN 61000-3-12
- Support in the compliance with IEEE 519, D-A-CH-CZ
- Power factor >0,95 at rated current
- Operation at 50 - 60 Hz possible
- Use of the HF1P as a central sum filter for multiple converters possible

Applications

Harmonic filter module to ensure sinusoidal main currents, reduction of main harmonic currents, increase in system service life and system reliability and compliance with power quality standards such as IEEE 519, TEC 61000-3-2, IEC 61000-3-12.

Standards

Harmonic filter in accordance with
EN 61558 Part 1, EN 61558 Part 20, UL 508 17th Ed., CSA 22.2 No. 14-10

Approvals

EAC

Harmonic filter
HF1P 230

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Electrical data

Typ	HF1P 0,19-230	HF1P 0,59-230	HF1P 1,01-230	HF1P 2,73-230	HF1P 3,68-230	HF1P 4,60-230
Operating data						
Rated voltage	230 Vac	230 Vac	230 Vac	230 Vac	230 Vac	230 Vac
Voltage range	207-253 Vac	207-253 Vac	207-253 Vac	207-253 Vac	207-253 Vac	207-253 Vac
Rated current	0.84 A	2.50 A	4.44 A	11.90 A	16.00 A	20.00 A
THD-I	10 % at 50 Hz, 18 % at 60 Hz (nominal load)	10 % at 50 Hz, 18 % at 60 Hz (nominal load)	10 % at 50 Hz, 18 % at 60 Hz (nominal load)	10 % at 50 Hz, 18 % at 60 Hz (nominal load)	10 % at 50 Hz, 18 % at 60 Hz (nominal load)	10 % at 50 Hz, 18 % at 60 Hz (nominal load)
Rated load power*	0.19 kW	0.59 kW	1.01 kW	2.73 kW	3.68 kW	4.6 kW
Description of the load	Symmetrical loading by converters with B2U input rectifiers	Symmetrical loading by converters with B2U input rectifiers	Symmetrical loading by converters with B2U input rectifiers	Symmetrical loading by converters with B2U input rectifiers	Symmetrical loading by converters with B2U input rectifiers	Symmetrical loading by converters with B2U input rectifiers
Overrating Capacity	150 % for 60 sec. every 10 min.	150 % for 60 sec. every 10 min.	150 % for 60 sec. every 10 min.	150 % for 60 sec. every 10 min.	150 % for 60 sec. every 10 min.	150 % for 60 sec. every 10 min.
Power loss	27.0 W	27.0 W	55.0 W	50.0 W	80.0 W	80.0 W
Efficiency	85.0 %	95.5 %	95.0 %	98.0 %	97.8 %	98.2 %
Capacitive idle power	0.1 kVAr	0.3 kVAr	0.7 kVAr	1.8 kVAr	2.6 kVAr	3.3 kVAr
Input						
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Environment						
Ambient temperature	-10 °C to +40 °C, without condensation	-10 °C to +40 °C, without condensation	-10 °C to +40 °C, without condensation	-10 °C to +40 °C, without condensation	-10 °C to +40 °C, without condensation	-10 °C to +40 °C, without condensation
Type of cooling	AN	AN	AN	AN	AN	AN
MTBF @ 50 °C/500 V (Mil-HB-217F)	>500,000 h @ 40°C/400Vac	>500,000 h @ 40°C/400Vac	>500,000 h @ 40°C/400Vac	>500,000 h @ 40°C/400Vac	>500,000 h @ 40°C/400Vac	>500,000 h @ 40°C/400Vac
Safety and protection						
Type	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure
Insulation class	H	H	H	H	H	H
Protection index	IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
Safety class	I	I	I	I	I	I
Notes						
*	IE2 efficiencies of the motors and an efficiency >96 % assumed	IE2 efficiencies of the motors and an efficiency >96 % assumed	IE2 efficiencies of the motors and an efficiency >96 % assumed	IE2 efficiencies of the motors and an efficiency >96 % assumed	IE2 efficiencies of the motors and an efficiency >96 % assumed	IE2 efficiencies of the motors and an efficiency >96 % assumed
Order numbers						
Order Number	**HF1P 0,19-230**	**HF1P 0,59-230**	**HF1P 1,01-230**	**HF1P 2,73-230**	**HF1P 3,68-230**	**HF1P 4,60-230**

Harmonic filter
HF1P 230

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Electrical data

Typ	HF1P 5,70-230
Operating data	
Rated voltage	230 Vac
Voltage range	207-253 Vac
Rated current	25.00 A
THD-I	10 % at 50 Hz, 18 % at 60 Hz (nominal load)
Rated load power*	5.50 kW
Description of the load	Symmetrical loading by converters with B2U input rectifiers
Overrating Capacity	150 % for 60 sec. every 10 min.
Power loss	70.0 W
Efficiency	98.7 %
Capacitive idle power	4.5 kVAr
Input	
Rated frequency	50 - 60 Hz
Environment	
Ambient temperature	-10 °C to +40 °C, without condensation
Type of cooling	AN
MTBF @ 50 °C/500 V (Mil-HB-217F)	>500.000 h @ 40°C/400Vac
Safety and protection	
Type	Metal enclosure
Insulation class	H
Protection index	IP 20
Safety class	I
Notes	
*	IE2 efficiencies of the motors and an efficiency >96 % assumed
Order numbers	
Order Number	**HF1P 5,70-230**

Harmonic filter
HF1P 230

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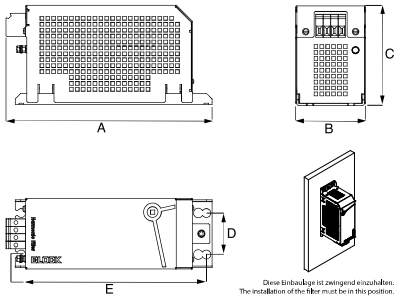
Mechanical data

Typ	Terminals phase	Terminals PE	Fixing method	Weight	Dimension picture (in mm)	A	B	C	D	E
HF1P 0,19-230	Screw clamp, 16 mm²	Bolt, M6	Mounting lugs	1.8 kg	2	230	85	107	47	201
HF1P 0,59-230	Screw clamp, 16 mm²	Bolt, M6	Mounting lugs	3.9 kg	2	280	95.2	135	56	252
HF1P 1,01-230	Screw clamp, 16 mm²	Bolt, M6	Mounting lugs	5.6 kg	2	301	109	138	57	273
HF1P 2,73-230	Screw clamp, 16 mm²	Bolt, M6	Mounting lugs	11.2 kg	2	385	132	182	72	357
HF1P 3,68-230	Screw clamp, 16 mm²	Bolt, M6	Mounting lugs	21.4 kg	2	414	158.2	239	108	385
HF1P 4,60-230	Screw clamp, 16 mm²	Bolt, M6	Mounting lugs	22.2 kg	2	456	143.2	210	93	428
HF1P 5,70-230	Screw clamp, 16 mm²	Bolt, M6	Mounting lugs	33.7 kg	2	543	158.2	242	113	515

Dimension pictures

2



Harmonic filter
HF1K 400

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General Data

- Rated voltage 3 x 400 Vac
- Rated current 3 x 10 - 3 x 144 A
- THD-I <8 % in rated operation
- Load rated capacity 5.5 - 90 kW
- Insulation class H
- Ambient temperature -10 °C to +45 °C
- Degree of protection IP 00

Advantages

- Sinusoidal current consumption from the main in devices with uncontrolled B6U diode rectifiers
- Compliance with EN 61000-3-2, EN 61000-3-12
- Support in the compliance with IEEE 519, D-A-CH-CZ
- Cos(phi)>0,95 at rated current
- Hardly any intermediate circuit voltage dip by comparison with a 4 % uK line reactor
- Harmonic filter with minimum capacitive idle reactive power
- Very good corrosion protection and low noise thanks to vacuum impregnation
- Operation at 50 - 60 Hz possible
- Use of the HF1K as a central sum filter for multiple converters possible

Applications

Harmonic filter module to ensure sinusoidal main currents, reduction of main harmonic currents, increase in system service life and system reliability and compliance with power quality standards such as IEEE 519, TEC 61000-3-2, IEC 61000-3-12.

Standards

Harmonic filter in accordance with
EN 61558 Part 1, EN 61558 Part 20, UL 508 17th Ed., CSA 22.2 No. 14-10

Approvals

UL 506, CSA 22.2

Harmonic filter
HF1K 400

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Electrical data

Typ	HF1K 7-400	HF1K 13-400	HF1K 18-400	HF1K 24-400	HF1K 30-400	HF1K 50-400
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	360-440 Vac	360-440 Vac	360-440 Vac	360-440 Vac	360-440 Vac	360-440 Vac
Rated current	3 x 10 A	3 x 19 A	3 x 26 A	3 x 35 A	3 x 43 A	3 x 72 A
THD-I	8 % (nominal load)	8 % (nominal load)	8 % (nominal load)	8 % (nominal load)	8 % (nominal load)	8 % (nominal load)
Rated load power*	5.5 kW	11 kW	15 kW	20 kW	26 kW	45 kW
Description of the load	Symmetrical loading by converters with B6U input rectifiers	Symmetrical loading by converters with B6U input rectifiers	Symmetrical loading by converters with B6U input rectifiers	Symmetrical loading by converters with B6U input rectifiers	Symmetrical loading by converters with B6U input rectifiers	Symmetrical loading by converters with B6U input rectifiers
Overrating Capacity	150 % for 60 sec. every 10 min.	150 % for 60 sec. every 10 min.	150 % for 60 sec. every 10 min.	150 % for 60 sec. every 10 min.	150 % for 60 sec. every 10 min.	150 % for 60 sec. every 10 min.
Power loss	90.0 W	160.0 W	180.0 W	230.0 W	290.0 W	412.0 W
Efficiency	99.0 %	99.0 %	99.0 %	99.0 %	99.0 %	99.0 %
Capacitive idle power	1.7 kVAr	1.8 kVAr	2.9 kVAr	3.8 kVAr	4.9 kVAr	10.0 kVAr
Input						
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Approvals						
Approvals	cURus	cURus	cURus	cURus	cURus	cURus
Environment						
Ambient temperature	-10 °C to +45 °C, without condensation	-10 °C to +45 °C, without condensation	-10 °C to +45 °C, without condensation	-10 °C to +45 °C, without condensation	-10 °C to +45 °C, without condensation	-10 °C to +45 °C, without condensation
Type of cooling	AN	AN	AN	AN	AN	AN
MTBF @ 50 °C/500 V (Mil-HB-217F)	>500.000 h @ 40°C/400Vac	>500.000 h @ 40°C/400Vac	>500.000 h @ 40°C/400Vac	>500.000 h @ 40°C/400Vac	>500.000 h @ 40°C/400Vac	>500.000 h @ 40°C/400Vac
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	I	I	I	I	I	I
Notes						
*	IE2 efficiencies of the motors and an efficiency >96 % assumed	IE2 efficiencies of the motors and an efficiency >96 % assumed	IE2 efficiencies of the motors and an efficiency >96 % assumed	IE2 efficiencies of the motors and an efficiency >96 % assumed	IE2 efficiencies of the motors and an efficiency >96 % assumed	IE2 efficiencies of the motors and an efficiency >96 % assumed
Order numbers						
Order Number	**HF1K 7-400**	**HF1K 13-400**	**HF1K 18-400**	**HF1K 24-400**	**HF1K 30-400**	**HF1K 50-400**

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Harmonic filter
HF1K 400

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Electrical data

Typ	HF1K 70-400	HF1K 100-400
Operating data		
Rated voltage	3 x 400 Vac	3 x 400 Vac
Voltage range	360-440 Vac	360-440 Vac
Rated current	3 x 101 A	3 x 144 A
THD-I	8 % (nominal load)	8 % (nominal load)
Rated load power*	63 kW	90 kW
Description of the load	Symmetrical loading by converters with B6U input rectifiers	Symmetrical loading by converters with B6U input rectifiers
Overrating Capacity	150 % for 60 sec. every 10 min.	150 % for 60 sec. every 10 min.
Power loss	550.0 W	750.0 W
Efficiency	99.0 %	99.0 %
Capacitive idle power	13.5 kVAr	19.0 kVAr
Input		
Rated frequency	50 - 60 Hz	50 - 60 Hz
Approvals		
Approvals	cURus	cURus
Environment		
Ambient temperature	-10 °C to +45 °C, without condensation	-10 °C to +45 °C, without condensation
Type of cooling	AN	AN
MTBF @ 50 °C/500 V (Mil-HB-217F)	>500.000 h @ 40°C/400Vac	>500.000 h @ 40°C/400Vac
Safety and protection		
Type	Open type	Open type
Insulation class	H	H
Protection index	IP 00	IP 00
Safety class	I	I
Notes		
*	IE2 efficiencies of the motors and an efficiency >96 % assumed	IE2 efficiencies of the motors and an efficiency >96 % assumed
Order numbers		
Order Number	**HF1K 70-400**	**HF1K 100-400**

Harmonic filter
HF1K 400

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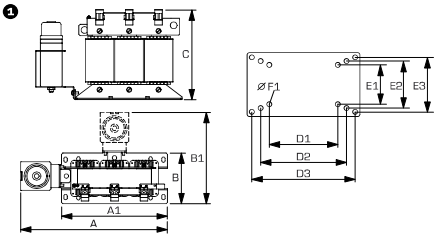
Mechanical data

Typ	Terminals phase	Terminals PE	Fixing method	Weight	Dimension picture (in mm)	A	A1	B	B1	C	D1	D2	D3	E1	E2	E3	F1
HF1K 7-400	Screw clamp, 10 mm²	Bolt, M6	Mounting lugs	14.0 kg	1	375	260	121	236	235	175	225	-	85	84	-	7
HF1K 13-400	Screw clamp, 10 mm²	Bolt, M6	Mounting lugs	28.0 kg	1	440	325	160	275	275	200	215	292	90	114	112	10
HF1K 18-400	Screw clamp, 10 mm²	Bolt, M6	Mounting lugs	31.0 kg	1	440	325	170	285	275	200	215	292	102	126	124	10
HF1K 24-400	Screw clamp, 10 mm²	Bolt, M6	Mounting lugs	36.2 kg	1	485	360	165	290	315	224	240	328	107	133	117	10
HF1K 30-400	Screw clamp, 10 mm²	Bolt, M6	Mounting lugs	59.1 kg	1	545	420	165	290	355	264	310	388	125	125	115	10
HF1K 50-400	Copper tab, M10 bolt	Bolt, M6	Mounting lugs	75.5 kg	2	545	420	195	320	315	264	310	388	155	155	145	10
HF1K 70-400	Copper tab, M12 bolt	Bolt, M8	Mounting lugs	125.0 kg	2	685	560	223	348	420	356	430	516	156	182	154	14.5
HF1K 100-400	Copper tab, M12 bolt	Bolt, M8	Mounting lugs	163.0 kg	2	685	560	250	375	430	356	430	516	184	210	182	14.5

Dimension pictures

1



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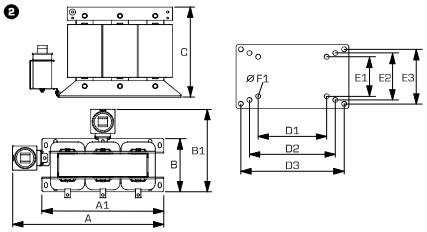

Harmonic filter
HFM-FB 400

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General Data

Rated voltage 3 x 400 - 3 x 480 Vac
Rated current 3 x 10.00 - 3 x 433.00 A
7 % typ. at nominal load
Load rated capacity 5 - 250 kW
Insulation class F
Ambient temperature -10 °C to +40 °C
Degree of protection IP 00
SCCR 100 kA (without preliminary fuse)

Advantages

Sinusoidal current consumption from the main in devices with uncontrolled B6U diode rectifiers or controlled B6C thyristor bridges
Compliance with EN 61000-3-2, EN 61000-3-12
Support in the compliance with IEEE 519, D-A-CH-CZ
Cos(phi)>0.95 at rated current
Hardly any intermediate circuit voltage dip by comparison with a 4 % uK line reactor
Use of the HFM as a central sum filter for multiple converters possible

Applications

Harmonic filter module to ensure sinusoidal main currents, reduction of main harmonic currents, increase in system service life and system reliability and compliance with power quality standards such as IEEE 519, TEC 61000-3-2, IEC 61000-3-12.

Standards

Harmonic filter in accordance with
EN 61558 Part 1, EN 61558 Part 20, UL 508 17th Ed., CSA 22.2 No. 14-10

Approvals

UL 506, CSA 22.2

Harmonic filter
HFM-FB 400

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Electrical data

Typ	HFM-FB 7-400	HFM-FB 13-400	HFM-FB 18-400	HFM-FB 24-400	HFM-FB 30-400	HFM-FB 50-400
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
Rated current	3 x 10.00 A	3 x 19.00 A	3 x 26.00 A	3 x 35.00 A	3 x 43.00 A	3 x 72.00 A
Voltage range	380 - 440 Vac	380 - 440 Vac	380 - 440 Vac	380 - 440 Vac	380 - 440 Vac	380 - 440 Vac
Rated frequency	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz
THD-I	7 % typ at nominal load	7 % typ at nominal load	7 % typ at nominal load	7 % typ at nominal load	7 % typ at nominal load	7 % typ at nominal load
Rated load power*	5.0 kW	7.5 kW	11.0 kW	15.0 and 18.5 kW	22.0 kW	30.0 and 37.0 kW
Description of the load	Balanced load by inverter	Balanced load by inverter	Balanced load by inverter	Balanced load by inverter	Balanced load by inverter	Balanced load by inverter
Overrating Capacity	150 % for 60 sec. every 10 min.	150 % for 60 sec. every 10 min.	150 % for 60 sec. every 10 min.	150 % for 60 sec. every 10 min.	150 % for 60 sec. every 10 min.	150 % for 60 sec. every 10 min.
Efficiency	99.0 %	99.0 %	99.0 %	99.0 %	99.0 %	99.0 %
Approvals						
Approvals	cURus	cURus	cURus	cURus	cURus	cURus
Environment						
Ambient temperature	-10 °C to +40 °C, without condensation	-10 °C to +40 °C, without condensation	-10 °C to +40 °C, without condensation	-10 °C to +40 °C, without condensation	-10 °C to +40 °C, without condensation	-10 °C to +40 °C, without condensation
MTBF @ 50 °C/500 V (Mil-HB-217F)	>200.000 h	>200.000 h	>200.000 h	>200.000 h	>200.000 h	>200.000 h
Safety and protection						
Type	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure
Insulation class	IEC=F, UL=class 155	IEC=F, UL=class 155	IEC=F, UL=class 155	IEC=F, UL=class 155	IEC=F, UL=class 155	IEC=F, UL=class 155
Protection index	IP 00	IP 00	IP 00	IP 00	IP 00	IP 00
Safety class	I	I	I	I	I	I
SCCR	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA
Notes						
*	IE2 efficiencies of the motors and an efficiency >96 % assumed	IE2 efficiencies of the motors and an efficiency >96 % assumed	IE2 efficiencies of the motors and an efficiency >96 % assumed	IE2 efficiencies of the motors and an efficiency >96 % assumed	IE2 efficiencies of the motors and an efficiency >96 % assumed	IE2 efficiencies of the motors and an efficiency >96 % assumed
Order numbers						
Order Number	**HFM-FB 7-400**	**HFM-FB 13-400**	**HFM-FB 18-400**	**HFM-FB 24-400**	**HFM-FB 30-400**	**HFM-FB 50-400**

Harmonic filter
HFM-FB 400

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Electrical data

Typ	HFM-FB 70-400	HFM-FB 100-400	HFM-FB 125-400	HFM-FB 150-400	HFM-FB 200-400	HFM-FB 225-400
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
Rated current	3 x 101.00 A	3 x 144.00 A	3 x 180.00 A	3 x 217.00 A	3 x 289.00 A	3 x 325.00 A
Voltage range	380 - 440 Vac	380 - 440 Vac	380 - 440 Vac	380 - 440 Vac	380 - 440 Vac	380 - 440 Vac
Rated frequency	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz
THD-I	7 % typ at nominal load	7 % typ at nominal load	7 % typ at nominal load	7 % typ at nominal load	7 % typ at nominal load	7 % typ at nominal load
Rated load power*	55.0 kW	75.0 kW	90.0 kW	110.0 kW	160.0 kW	180.0 kW
Description of the load	Balanced load by inverter	Balanced load by inverter	Balanced load by inverter	Balanced load by inverter	Balanced load by inverter	Balanced load by inverter
Overrating Capacity	150 % for 60 sec. every 10 min.	150 % for 60 sec. every 10 min.	150 % for 60 sec. every 10 min.	150 % for 60 sec. every 10 min.	150 % for 60 sec. every 10 min.	150 % for 60 sec. every 10 min.
Efficiency	99.0 %	99.0 %	99.0 %	99.0 %	99.0 %	99.0 %
Approvals						
Approvals	cURus	cURus	cURus	cURus	cURus	cURus
Environment						
Ambient temperature	-10 °C to +40 °C, without condensation	-10 °C to +40 °C, without condensation	-10 °C to +40 °C, without condensation	-10 °C to +40 °C, without condensation	-10 °C to +40 °C, without condensation	-10 °C to +40 °C, without condensation
MTBF @ 50 °C/500 V (Mil-HB-217F)	>200.000 h	>200.000 h	>200.000 h	>200.000 h	>200.000 h	>200.000 h
Safety and protection						
Type	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure
Insulation class	IEC=F, UL=class 155	IEC=F, UL=class 155	IEC=F, UL=class 155	IEC=F, UL=class 155	IEC=F, UL=class 155	IEC=F, UL=class 155
Protection index	IP 00	IP 00	IP 00	IP 00	IP 00	IP 00
Safety class	I	I	I	I	I	I
SCCR	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA
Notes						
*	IE2 efficiencies of the motors and an efficiency >96 % assumed	IE2 efficiencies of the motors and an efficiency >96 % assumed	IE2 efficiencies of the motors and an efficiency >96 % assumed	IE2 efficiencies of the motors and an efficiency >96 % assumed	IE2 efficiencies of the motors and an efficiency >96 % assumed	IE2 efficiencies of the motors and an efficiency >96 % assumed
Order numbers						
Order Number	**HFM-FB 70-400**	**HFM-FB 100-400**	**HFM-FB 125-400**	**HFM-FB 150-400**	**HFM-FB 200-400**	**HFM-FB 225-400**

Harmonic filter
HFM-FB 400

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Electrical data

Typ	HFM-FB 255-400	HFM-FB 300-400
Operating data		
Rated voltage	3 x 400 Vac	3 x 400 Vac
Rated current	3 x 370,00 A	3 x 433,00 A
Voltage range	380 - 420 Vac	380 - 420 Vac
Rated frequency	50 Hz	50 Hz
THD-I	7 % typ at nominal load	7 % typ at nominal load
Rated load power*	200.0 kW	250.0 kW
Description of the load	Balanced load by inverter	Balanced load by inverter
Overrating Capacity	150 % for 60 sec. every 10 min.	150 % for 60 sec. every 10 min.
Efficiency	99.0 %	99.0 %
Approvals		
Approvals	cURus	cURus
Environment		
Ambient temperature	-10 °C to +40 °C, without condensation	-10 °C to +40 °C, without condensation
MTBF @ 50 °C/500 V (Mil-HB-217F)	>200.000 h	>200.000 h
Safety and protection		
Type	Metal enclosure	Metal enclosure
Insulation class	IEC=F, UL=class 155	IEC=F, UL=class 155
Protection index	IP 00	IP 00
Safety class	I	I
SCCR	100 kA	100 kA
Notes		
*	IE2 efficiencies of the motors and an efficiency >96 % assumed	IE2 efficiencies of the motors and an efficiency >96 % assumed
Order numbers		
Order Number	**HFM-FB 255-400**	**HFM-FB 300-400**

Harmonic filter
HFM-FB 400

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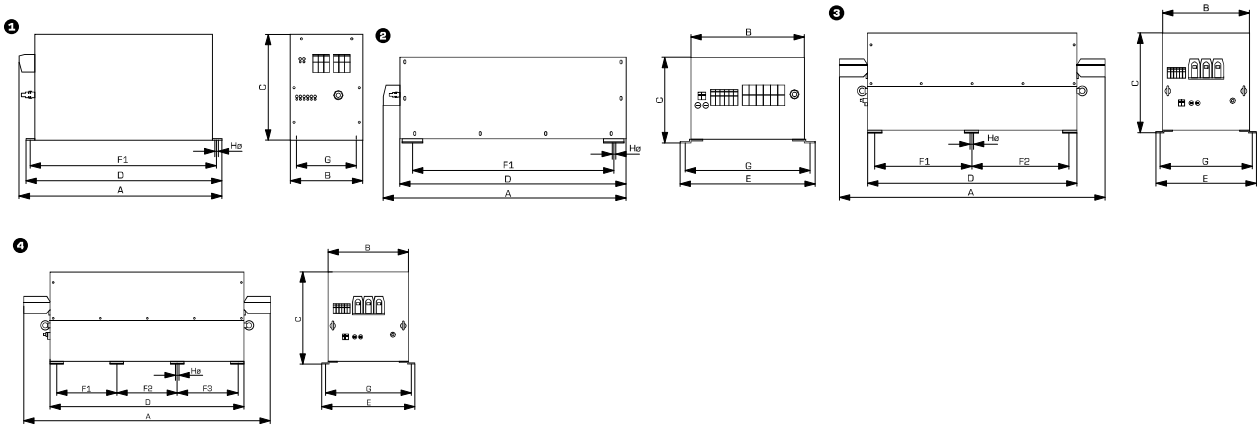
30 Mechanical data

Typ	Terminals phase	Terminals PE	Connection cross section [mm²]	Fixing method	Weight	Dimension picture (in mm)	A	B	C	D	E	F1	F2	F3	G	H
HFM-FB 7-400	Screw clamp, 16 mm²	Bolt, M8		Mounting lugs	27.0 kg	1	455	165	242	440	-	416	-	-	135	6.5
HFM-FB 13-400	Screw clamp, 16 mm²	Bolt, M8		Mounting lugs	28.0 kg	1	455	165	242	440	-	416	-	-	135	6.5
HFM-FB 18-400	Screw clamp, 50 mm²	for M8	PRI 50, SEC 16	Mounting lugs	40.0 kg	2	645	302	225	600	365.5	532.5	-	-	333.5	11
HFM-FB 24-400	Screw clamp, 50 mm²	for M8	PRI 50, SEC 16	Mounting lugs	49.0 kg	2	645	302	225	600	356.5	532.5	-	-	333.5	11
HFM-FB 30-400	Screw clamp, 50 mm²	for M8	PRI 50, SEC 16	Mounting lugs	52.0 kg	2	885	302	225	840	356.5	772.5	-	-	333.5	11
HFM-FB 50-400	Screw clamp, 50 mm²	for M8	PRI 50, SEC 16	Mounting lugs	88.0 kg	2	885	302	225	840	356.5	772.5	-	-	333.5	11
HFM-FB 70-400	Bolt terminal, M10, 150 mm²	for M8	min. 50	Mounting lugs	150.0 kg	3	1060	345	400	830	393	377	395	-	370	11
HFM-FB 100-400	Bolt terminal, M10, 150 mm²	for M8	min. 35	Mounting lugs	152.0 kg	3	1060	345	400	830	393	377	395	-	370	11
HFM-FB 125-400	Bolt terminal, M16, 240 mm²	for M8	min. 95	Mounting lugs	178.0 kg	3	1160	406	420	900	454	430	412	-	430	11
HFM-FB 150-400	Bolt terminal, M16, 240 mm²	for M8	min. 95	Mounting lugs	224.0 kg	3	1160	406	420	900	454	430	412	-	430	11
HFM-FB 200-400	Bolt terminal, M16, 240 mm²	for M8	min. 95	Mounting lugs	271.0 kg	3	1330	406	420	1070	454	515	497	-	430	11
HFM-FB 225-400	Bolt terminal, M16, 240 mm²	for M8	min. 95	Mounting lugs	284.0 kg	3	1330	406	420	1070	454	515	497	-	430	11
HFM-FB 255-400	Bolt terminal, M16, 240 mm²	for M8	6-300	Mounting lugs	310.0 kg	4	1350	470	420	1100	530	355	355	355	505	11
HFM-FB 300-400	Bolt terminal, M16, 300 mm²	for M8	6-300	Mounting lugs	387.0 kg	4	1450	470	420	1200	530	380	380	380	505	11

Dimension pictures



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OVERVIEW
RADIO INTERFERENCE SUPPRESSION FILTERS

	Type	Voltage range	Low leakage current	Reduced leakage current	IT mains	Electronic apperatures	General EMI suppression	Systems engineering, weak interferences	Systems engineering, complex structure	Frequency inverter, long motor cable	Frequency inverter, short motor cable	Frequency inverter, short motor cable	Several frequency inverters	Unknown requiremens, high suppression	Low frequency disturbance (=LF) or high frequency (=HF)	Page
AC 1-phase	HFE 156	0 – 250 Vac		■		■	■	■		■	■	■			HF	494
	HFE 356	0 – 250 Vac	■			■	■	■			■	■			HF	496
	HFE 104	0 – 250 Vac	■			■	■	■							HF	498
	HFE 200	0 – 250 Vac	■			■	■	■							HF	500
	HLE 110	0 – 250 Vac		■		■	■	■	■	■	■	■	■	■	HF	502
	HLE 310	0 – 250 Vac	■			■	■	■			■		■		HF	506
AC 3-phase	HFD 156	0 – 480 Vac		■		■	■	■			■	■			HF	510
	HFD 356	0 – 480 Vac	■			■	■	■			■	■			HF	513
	HLD 103	0 – 3 x 520 Vac				■	■	■	■	■	■	■	■	■	HF	516
	HLD 110	0 – 3 x 520 Vac				■	■	■	■	■	■	■	■	■	HF	519
	HLD 310	0 – 3 x 520 Vac	■	■	■	■	■	■	■		■	■			HF	523
	HLD 710	0 – 3 x 520 Vac		■		■	■	■	■	■	■	■	■	■	HF	527
	HLD 810	0 – 3 x 520 Vac	■		■	■	■	■			■		■		HF	531
	HFD 500	0 – 3 x 520 Vac				■	■	■			■	■			HF	535
	HFD 210	0 – 3 x 480 - 520 Vac				■	■	■	■	■	■	■		■	HF	539
	HFD 510	0 – 3 x 480 - 520 Vac				■	■	■	■	■	■	■		■	HF	543
AC 3-phase + N	HLV 110	0 – 3 x 520 Vac				■	■	■	■	■	■	■	■	■	HF	546
	HLV 310	0 – 3 x 520 Vac	■			■	■	■			■		■		HF	550
	HLV 710	0 – 3 x 520 Vac		■		■	■	■	■	■	■	■	■	■	HF	554
	HLV 810	0 – 3 x 520 Vac	■		■	■	■	■			■		■		HF	558
	HFV 510	0 – 3 x 480 Vac				■	■	■	■	■	■	■	■	■	HF	562

Radio interference suppression filter, single-phase
HFE 156

BLOCK Website

General Data

Rated voltage 250 Vac
Voltage range 0 - 250 Vac
Rated current 1.00 - 16.00 A
Leakage current 8.00 mA
Ambient temperature max. 45 °C
Degree of protection IP 20

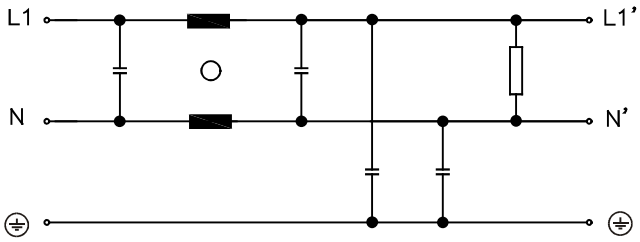
Advantages

For general requirements
Single-stage filter concept
Efficient filter effect against line-bound interference emissions
Increase in the interference immunity of the connected consumer
DIN rail mounting

Applications

Radio interference suppression filter for mains-side interference suppression of power supplies and electronic devices.

Sample application



Standards

Radio interference suppression filter to DIN EN 60939-2

Approvals

EAC

Radio interference suppression filter, single-phase
HFE 156

BLOCK Website

Typ	HFE 156-230/1	HFE 156-230/3	HFE 156-230/6	HFE 156-230/10	HFE 156-230/12	HFE 156-230/16
Electrical data						
Operating data						
Rated voltage	250 Vac	250 Vac	250 Vac	250 Vac	250 Vac	250 Vac
Voltage range	0 - 250 Vac	0 - 250 Vac	0 - 250 Vac	0 - 250 Vac	0 - 250 Vac	0 - 250 Vac
Rated current	1 A	3 A	6 A	10 A	12 A	16 A
Leakage current (50 Hz)	8 mA	8 mA	8 mA	8 mA	8 mA	8 mA
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Power loss	0.9 W	1.8 W	2.6 W	4.0 W	6.2 W	8.9 W
Overrating Capacity	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly
Environment						
Climatic category	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)
Ambient temperature max.	45 °C	45 °C	45 °C	45 °C	45 °C	45 °C
Safety and protection						
Type	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure
Protection index	IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
Safety class (prepared)	I	I	I	I	I	I
Test voltage	1700 Vdc Phase/N, 2700 Vdc Phase/PE	1700 Vdc Phase/N, 2700 Vdc Phase/PE	1700 Vdc Phase/N, 2700 Vdc Phase/PE	1700 Vdc Phase/N, 2700 Vdc Phase/PE	1700 Vdc Phase/N, 2700 Vdc Phase/PE	1700 Vdc Phase/N, 2700 Vdc Phase/PE
Order numbers						
Order Number	**HFE 156-230/1**	**HFE 156-230/3**	**HFE 156-230/6**	**HFE 156-230/10**	**HFE 156-230/12**	**HFE 156-230/16**
Mechanical data						
Terminal and mounting						
Terminals phase	2.5 mm² spring terminal	2.5 mm² spring terminal	2.5 mm² spring terminal	2.5 mm² spring terminal	2.5 mm² spring terminal	2.5 mm² spring terminal
Terminals PE	Tab connector, 6.3 x 0.8 mm	Tab connector, 6.3 x 0.8 mm	Tab connector, 6.3 x 0.8 mm	Tab connector, 6.3 x 0.8 mm	Tab connector, 6.3 x 0.8 mm	Tab connector, 6.3 x 0.8 mm
Fixing method	Panel installation on mounting rails	Panel installation on mounting rails	Panel installation on mounting rails	Panel installation on mounting rails	Panel installation on mounting rails	Panel installation on mounting rails
Measures and weights						
Weight	0.32 kg	0.33 kg	0.33 kg	0.34 kg	0.56 kg	0.55 kg
Dimension picture (in mm)	1	1	1	1	1	1
A	107	107	107	107	127	127
B	40	40	40	40	45	45
C	85	85	85	85	110	110
D	22	22	22	22	52	52
E	33	33	33	33	33	33
F	100	100	100	100	120	120

Dimension pictures

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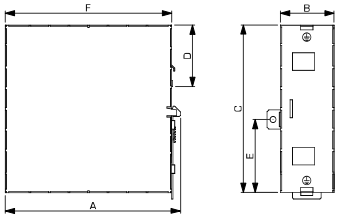

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Radio interference suppression filter, single-phase, low leakage current
HFE 356

BLOCK Website

General Data

Rated voltage 250 Vac
Voltage range 0 - 250 Vac
Rated current 1.00 - 16.00 A
Leakage current 2 mA
Degree of protection IP 20
DIN Rail mounting

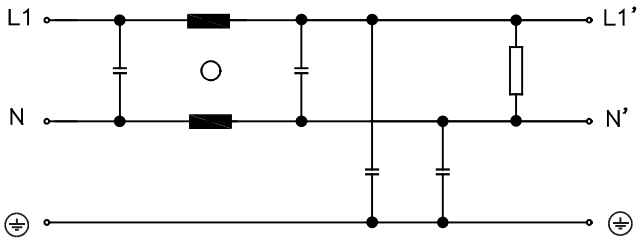
Advantages

For general requirements
Low leakage current
Single-stage filter concept
Efficient filter effect against line-bound interference emissions
Increase in the interference immunity of the connected consumer

Applications

Radio interference suppression filter for mains-side interference suppression of power supplies and electronic devices.

Sample application



Standards

Radio interference suppression filter to DIN EN 60939-2

Approvals

EAC

Radio interference suppression filter, single-phase, low leakage current
HFE 356

BLOCK Website

Typ	HFE 356-230/1	HFE 356-230/3	HFE 356-230/6	HFE 356-230/10	HFE 356-230/12	HFE 356-230/16
Electrical data						
Special features						
Characteristics	Suitable for the medical field	Suitable for the medical field	Suitable for the medical field	Suitable for the medical field	Suitable for the medical field	Suitable for the medical field
Operating data						
Rated voltage	250 Vac	250 Vac	250 Vac	250 Vac	250 Vac	250 Vac
Voltage range	0 - 250 Vac	0 - 250 Vac	0 - 250 Vac	0 - 250 Vac	0 - 250 Vac	0 - 250 Vac
Rated current	1 A	3 A	6 A	10 A	12 A	16 A
Leakage current (50 Hz)	2 mA	2 mA	2 mA	2 mA	2 mA	2 mA
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Power loss	0.9 W	1.8 W	2.6 W	4.0 W	6.2 W	8.9 W
Overrating Capacity	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly
Standards						
Classification	EMI filter	EMI filter	EMI filter	EMI filter	EMI filter	EMI filter
Environment						
Climatic category	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)
Ambient temperature max.	45 °C	45 °C	45 °C	45 °C	45 °C	45 °C
Safety and protection						
Type	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure
Protection index	IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
Safety class (prepared)	I	I	I	I	I	I
Test voltage	1700 Vdc Phase/N, 2700 Vdc Phase/PE	1700 Vdc Phase/N, 2700 Vdc Phase/PE	1700 Vdc Phase/N, 2700 Vdc Phase/PE	1700 Vdc Phase/N, 2700 Vdc Phase/PE	1700 Vdc Phase/N, 2700 Vdc Phase/PE	1700 Vdc Phase/N, 2700 Vdc Phase/PE
Order numbers						
Order Number	**HFE 356-230/1**	**HFE 356-230/3**	**HFE 356-230/6**	**HFE 356-230/10**	**HFE 356-230/12**	**HFE 356-230/16**
Mechanical data						
Terminal and mounting						
Terminals phase	2.5 mm² spring terminal	2.5 mm² spring terminal	2.5 mm² spring terminal	2.5 mm² spring terminal	2.5 mm² spring terminal	2.5 mm² spring terminal
Terminals PE	Tab connector, 6.3 x 0.8 mm	Tab connector, 6.3 x 0.8 mm	Tab connector, 6.3 x 0.8 mm	Tab connector, 6.3 x 0.8 mm	Tab connector, 6.3 x 0.8 mm	Tab connector, 6.3 x 0.8 mm
Fixing method	Panel installation on mounting rails	Panel installation on mounting rails	Panel installation on mounting rails	Panel installation on mounting rails	Panel installation on mounting rails	Panel installation on mounting rails
Measures and weights						
Weight	0.32 kg	0.33 kg	0.33 kg	0.34 kg	0.56 kg	0.55 kg
Dimension picture (in mm)	1	1	1	1	1	1
A	107	107	107	107	127	127
B	40	40	40	40	45	45
C	85	85	85	85	110	110
D	22	22	22	22	52	52
E	33	33	33	33	33	33
F	100	100	100	100	120	120

Dimension pictures

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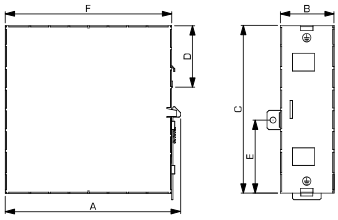

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Radio interference filter, single-phase, low leakage current
HFE 104

BLOCK Website

General Data

Rated voltage 250 Vac
Voltage range 0 - 250 Vac
Rated current 1.00 - 65.00 A
Leakage current 0.37 mA
Degree of protection IP 00
Flat-pin terminals 6.3 x 0.8 mm

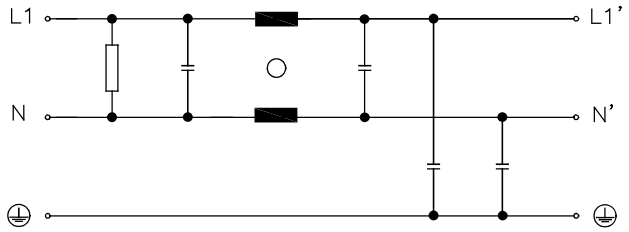
Advantages

For general requirements
Low leakage current
Single-stage filter concept
Efficient filter effect against line-bound interference emissions
Increase in the interference immunity of the connected consumer

Applications

Radio interference suppression filter for mains-side interference suppression of power supplies and electronic devices.

Sample application



Standards

Radio interference suppression filter to DIN EN 60939-2

Approvals

EAC

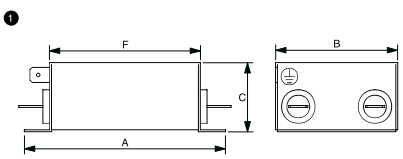
Radio interference filter, single-phase, low leakage current
HFE 104

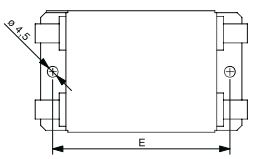
BLOCK Website

Typ	HFE 104-230/1	HFE 104-230/2	HFE 104-230/3	HFE 104-230/6	HFE 104-230/10	HFE 104-230/20
Electrical data						
Special features						
Characteristics	Suitable for the medical field	Suitable for the medical field	Suitable for the medical field	Suitable for the medical field	Suitable for the medical field	Suitable for the medical field
Operating data						
Rated voltage	250 Vac	250 Vac	250 Vac	250 Vac	250 Vac	250 Vac
Voltage range	0 - 250 Vac	0 - 250 Vac	0 - 250 Vac	0 - 250 Vac	0 - 250 Vac	0 - 250 Vac
Rated current	1 A	2 A	3 A	6 A	10 A	20 A
Leakage current (50 Hz)	0.37 mA	0.37 mA	0.37 mA	0.37 mA	0.37 mA	0.37 mA
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Overrating Capacity	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly
Environment						
Climatic category	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)
Ambient temperature max.	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C
Safety and protection						
Type	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure
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	1700 Vdc Phase/N, 2700 Vdc Phase/PE	1700 Vdc Phase/N, 2700 Vdc Phase/PE	1700 Vdc Phase/N, 2700 Vdc Phase/PE	1700 Vdc Phase/N, 2700 Vdc Phase/PE	1700 Vdc Phase/N, 2700 Vdc Phase/PE	1700 Vdc Phase/N, 2700 Vdc Phase/PE
Order numbers						
Order Number	**HFE 104-230/1**	**HFE 104-230/2**	**HFE 104-230/3**	**HFE 104-230/6**	**HFE 104-230/10**	**HFE 104-230/20**
Mechanical data						
Terminal and mounting						
Terminals phase	Tab connector, 6.3 x 0.8 mm	Tab connector, 6.3 x 0.8 mm	Tab connector, 6.3 x 0.8 mm	Tab connector, 6.3 x 0.8 mm	Tab connector, 6.3 x 0.8 mm	Tab connector, 6.3 x 0.8 mm
Terminals PE	Tab connector, 6.3 x 0.8 mm	Tab connector, 6.3 x 0.8 mm	Tab connector, 6.3 x 0.8 mm	Tab connector, 6.3 x 0.8 mm	Tab connector, 6.3 x 0.8 mm	Tab connector, 6.3 x 0.8 mm
Fixing method	Mounting lugs	Mounting lugs	Mounting lugs	Mounting lugs	Mounting lugs	Mounting lugs
Measures and weights						
Weight	0.16 kg	0.16 kg	0.23 kg	0.23 kg	0.29 kg	0.71 kg
Dimension picture (in mm)	1	1	1	1	1	2
A	70	70	84	84	84	118
B	45	45	51	51	51	84
C	29	29	29	29	39	38
D	-	-	-	-	-	51
E	60	60	74	74	74	108
F	50	50	63	63	63	99

Dimension pictures

1





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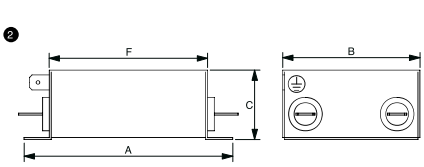
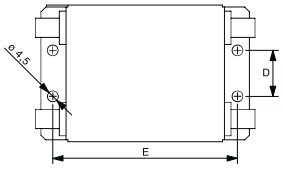




Radio interference suppression filter, single-phase, low leakage current
HFE 200

BLOCK Website

General Data

Rated voltage 250 Vac
Voltage range 0 - 250 Vac
Rated current 1.00 - 16.00 A
Leakage current 0.40 mA
Degree of protection IP 20

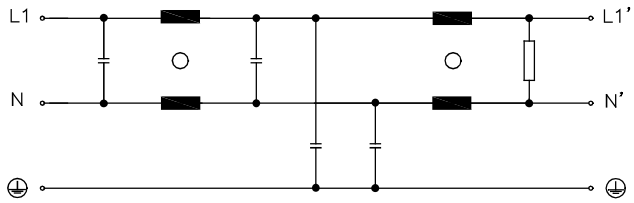
Advantages

For enhanced requirements
Low leakage current
Two stage filter concept
Efficient filter effect against line-bound interference emissions
Increase in the interference immunity of the connected consumer

Applications

Radio interference suppression filter for mains-side interference suppression of power supplies and electronic devices.

Sample application



Standards

Radio interference suppression filter to DIN EN 60939-2

Approvals

EAC

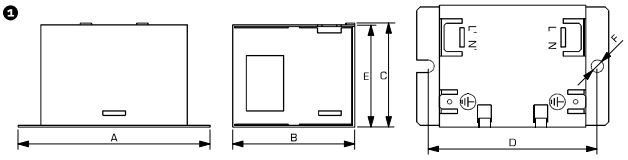
Radio interference suppression filter, single-phase, low leakage current
HFE 200

BLOCK Website

Typ	HFE 200-230/1	HFE 200-230/3	HFE 200-230/6	HFE 200-230/10	HFE 200-230/12	HFE 200-230/16
Electrical data						
Operating data						
Rated voltage	250 Vac	250 Vac	250 Vac	250 Vac	250 Vac	250 Vac
Voltage range	0 - 250 Vac	0 - 250 Vac	0 - 250 Vac	0 - 250 Vac	0 - 250 Vac	0 - 250 Vac
Rated current	1 A	3 A	6 A	10 A	12 A	16 A
Leakage current (50 Hz)	0.4 mA	0.4 mA	0.4 mA	0.4 mA	0.4 mA	0.4 mA
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Overrating Capacity	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly
Environment						
Climatic category	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)
Ambient temperature max.	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C
Safety and protection						
Type	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure
Protection index	IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
Safety class (prepared)	I	I	I	I	I	I
Test voltage	1700 Vdc Phase/N, 2700 Vdc Phase/PE	1700 Vdc Phase/N, 2700 Vdc Phase/PE	1700 Vdc Phase/N, 2700 Vdc Phase/PE	1700 Vdc Phase/N, 2700 Vdc Phase/PE	1700 Vdc Phase/N, 2700 Vdc Phase/PE	1700 Vdc Phase/N, 2700 Vdc Phase/PE
Order numbers						
Order Number	**HFE 200-230/1**	**HFE 200-230/3**	**HFE 200-230/6**	**HFE 200-230/10**	**HFE 200-230/12**	**HFE 200-230/16**
Mechanical data						
Terminal and mounting						
Terminals phase	Screw clamp, 4 mm²	Screw clamp, 4 mm²	Screw clamp, 4 mm²	Screw clamp, 4 mm²	Screw clamp, 4 mm²	Screw clamp, 4 mm²
Terminals PE	Tab connector, 6.3 x 0.8 mm	Tab connector, 6.3 x 0.8 mm	Tab connector, 6.3 x 0.8 mm	Tab connector, 6.3 x 0.8 mm	Tab connector, 6.3 x 0.8 mm	Tab connector, 6.3 x 0.8 mm
Fixing method	Mounting lugs	Mounting lugs	Mounting lugs	Mounting lugs	Mounting lugs	Mounting lugs
Measures and weights						
Weight	0.14 kg	0.19 kg	0.37 kg	0.53 kg	0.53 kg	0.58 kg
Dimension picture (in mm)	❶	❶	❶	❶	❶	❶
A	85	85	114	156	156	119
B	54	54	57	58	58	86
C	35	47	55	67	67	69
D	75	75	103	143	143	109
E	34	46	54	66	66	68
F	5.5	5.5	5.5	5.5	5.5	5.5

Dimension pictures

❶



1.1
1.2
1.3
2.1
2.2
3.1
3.2
3.3
4.0
5.1
5.2

Radio interference suppression filter, single-phase
HLE 110

BLOCK Website

General Data

- Rated voltage 250 Vac
- Voltage range 0 - 250 Vac
- Rated current 4 - 55 A
- Leakage current 8.50 mA
- Degree of protection IP 20

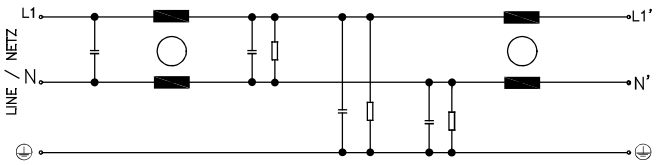
Advantages

- For enhanced requirements
- Single-stage filter concept
- Efficient filter effect against line-bound interference emissions
- Increase in the interference immunity of the connected consumer

Applications

Radio interference suppression filter for line-side interference suppression of single devices, frequency converters or as group interference suppression.

Sample application



Standards

Radio interference suppression filter to DIN EN 60939-2

Approvals

EAC

Radio interference suppression filter, single-phase
HLE 110

BLOCK Website

Electrical data

Typ	HLE 110-230/4	HLE 110-230/8	HLE 110-230/12	HLE 110-230/16	HLE 110-230/20	HLE 110-230/25
Operating data						
Rated voltage	250 Vac	250 Vac	250 Vac	250 Vac	250 Vac	250 Vac
Voltage range	0 - 250 Vac	0 - 250 Vac	0 - 250 Vac	0 - 250 Vac	0 - 250 Vac	0 - 250 Vac
Rated current	4 A	8 A	12 A	16 A	20 A	25 A
Leakage current (50 Hz)*	8.50 mA	8.50 mA	8.50 mA	8.50 mA	8.50 mA	8.50 mA
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Overrating Capacity	150 %, short-time	150 %, short-time	150 %, short-time	150 %, short-time	150 %, short-time	150 %, short-time
Environment						
Climatic category	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)
Ambient temperature max.	50 °C	50 °C	50 °C	50 °C	50 °C	50 °C
Safety and protection						
Type	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure
Protection index	IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
Safety class (prepared)	I	I	I	I	I	I
Test voltage	1700 Vdc Phase/Phase, 2700 Vdc Phase/PE	1700 Vdc Phase/Phase, 2700 Vdc Phase/PE	1700 Vdc Phase/Phase, 2700 Vdc Phase/PE	1700 Vdc Phase/Phase, 2700 Vdc Phase/PE	1700 Vdc Phase/Phase, 2700 Vdc Phase/PE	1700 Vdc Phase/Phase, 2700 Vdc Phase/PE
Notes						
*	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %
Order numbers						
Order Number	**HLE 110-230/4**	**HLE 110-230/8**	**HLE 110-230/12**	**HLE 110-230/16**	**HLE 110-230/20**	**HLE 110-230/25**

Radio interference suppression filter, single-phase
HLE 110

BLOCK Website

Electrical data

Typ	HLE 110-230/30	HLE 110-230/42	HLE 110-230/55
Operating data			
Rated voltage	250 Vac	250 Vac	250 Vac
Voltage range	0 - 250 Vac	0 - 250 Vac	0 - 250 Vac
Rated current	30 A	42 A	55 A
Leakage current (50 Hz)*	8.50 mA	8.50 mA	8.50 mA
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Overrating Capacity	150 %, short-time	150 %, short-time	150 %, short-time
Environment			
Climatic category	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)
Ambient temperature max.	50 °C	50 °C	50 °C
Safety and protection			
Type	Metal enclosure	Metal enclosure	Metal enclosure
Protection index	IP 20	IP 20	IP 20
Safety class (prepared)	I	I	I
Test voltage	1700 Vdc Phase/Phase, 2700 Vdc Phase/PE	1700 Vdc Phase/Phase, 2700 Vdc Phase/PE	1700 Vdc Phase/Phase, 2700 Vdc Phase/PE
Notes			
*	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %
Order numbers			
Order Number	**HLE 110-230/30**	**HLE 110-230/42**	**HLE 110-230/55**

Radio interference suppression filter, single-phase
HLE 110

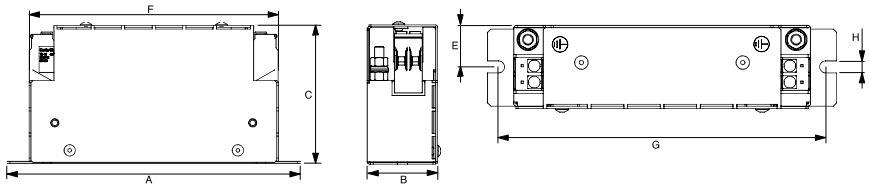
BLOCK Website

Mechanical data

Typ	Terminals phase	Terminals PE	Fixing method	Fixing screws	Weight	Dimension picture (in mm)	A	B	C	D	E	F	G	H
HLE 110-230/4	Screw clamp, 4 mm²	Bolt, M5	Mounting lugs	M5	0.52 kg	1	160	38	75	-	19	136	150	5.5
HLE 110-230/8	Screw clamp, 4 mm²	Bolt, M5	Mounting lugs	M5	0.58 kg	1	160	38	75	-	19	136	150	5.5
HLE 110-230/12	Screw clamp, 4 mm²	Bolt, M5	Mounting lugs	M5	0.78 kg	1	190	38	75	-	19	166	180	5.5
HLE 110-230/16	Screw clamp, 4 mm²	Bolt, M5	Mounting lugs	M5	0.78 kg	1	190	38	75	-	19	166	180	5.5
HLE 110-230/20	Screw clamp, 4 mm²	Bolt, M5	Mounting lugs	M5	0.80 kg	1	190	38	75	-	19	166	180	5.5
HLE 110-230/25	Screw clamp, 10 mm²	Bolt, M6	Mounting lugs	M6	1.30 kg	2	230	50	95	25	12.5	200	215	5.5
HLE 110-230/30	Screw clamp, 10 mm²	Bolt, M6	Mounting lugs	M6	1.35 kg	2	230	50	95	25	12.5	200	215	5.5
HLE 110-230/42	Screw clamp, 10 mm²	Bolt, M6	Mounting lugs	M6	1.45 kg	2	230	50	95	25	12.5	200	215	5.5
HLE 110-230/55	Screw clamp, 16 mm²	Bolt, M6	Mounting lugs	M6	2.00 kg	5	225	85	95	60	12.5	230	210	5.5

Dimension pictures

1



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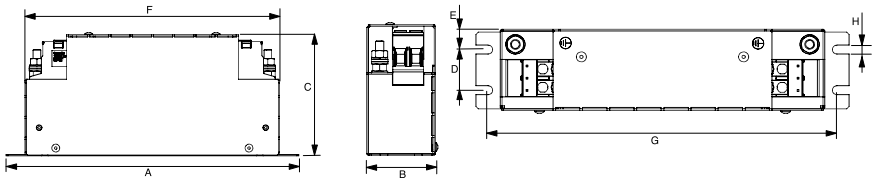

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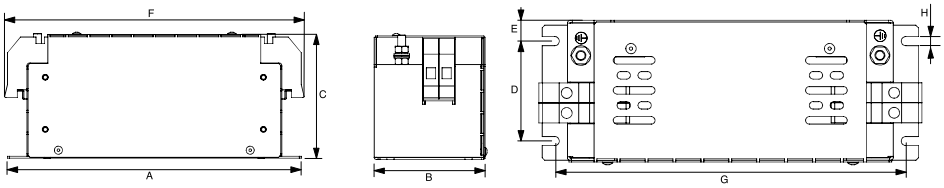


Radio interference filter, single-phase, low leakage current
HLE 310

BLOCK Website

General Data

Rated voltage 250 Vac
Voltage range 0 - 250 Vac
Rated current 4 - 55 A
Leakage current <3.00 mA
Degree of protection IP 20

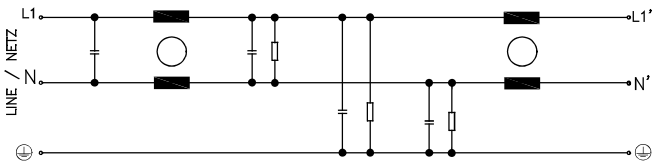
Advantages

For enhanced requirements
Low leakage current
Single-stage filter concept
Efficient filter effect against line-bound interference emissions
Increase in the interference immunity of the connected consumer

Applications

Radio interference suppression filter for line-side interference suppression of single devices, frequency converters or as group interference suppression.

Sample application



Standards

Radio interference suppression filter to DIN EN 60939-2

Approvals

EAC

Radio interference filter, single-phase, low leakage current
HLE 310

BLOCK Website

Electrical data

Typ	HLE 310-230/4	HLE 310-230/8	HLE 310-230/12	HLE 310-230/16	HLE 310-230/20	HLE 310-230/25
Special features						
Characteristics	Suitable for the medical field	Suitable for the medical field	Suitable for the medical field	Suitable for the medical field	Suitable for the medical field	Suitable for the medical field
Operating data						
Rated voltage	250 Vac	250 Vac	250 Vac	250 Vac	250 Vac	250 Vac
Voltage range	0 - 250 Vac	0 - 250 Vac	0 - 250 Vac	0 - 250 Vac	0 - 250 Vac	0 - 250 Vac
Rated current	4 A	8 A	12 A	16 A	20 A	25 A
Leakage current (50 Hz)*	<3.00 mA	<3.00 mA	<3.00 mA	<3.00 mA	<3.00 mA	<3.00 mA
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Overrating Capacity	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly
Environment						
Climatic category	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)
Ambient temperature max.	50 °C	50 °C	50 °C	50 °C	50 °C	50 °C
Safety and protection						
Type	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure
Protection index	IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
Safety class (prepared)	I	I	I	I	I	I
Test voltage	1700 Vdc Phase/Phase, 2700 Vdc Phase/PE	1700 Vdc Phase/Phase, 2700 Vdc Phase/PE	1700 Vdc Phase/Phase, 2700 Vdc Phase/PE	1700 Vdc Phase/Phase, 2700 Vdc Phase/PE	1700 Vdc Phase/Phase, 2700 Vdc Phase/PE	1700 Vdc Phase/Phase, 2700 Vdc Phase/PE
Notes						
*	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %
Order numbers						
Order Number	**HLE 310-230/4**	**HLE 310-230/8**	**HLE 310-230/12**	**HLE 310-230/16**	**HLE 310-230/20**	**HLE 310-230/25**

Radio interference filter, single-phase, low leakage current
HLE 310

BLOCK Website

Electrical data

Typ	HLE 310-230/30	HLE 310-230/42	HLE 310-230/55
Special features			
Characteristics	Suitable for the medical field	Suitable for the medical field	Suitable for the medical field
Operating data			
Rated voltage	250 Vac	250 Vac	250 Vac
Voltage range	0 - 250 Vac	0 - 250 Vac	0 - 250 Vac
Rated current	30 A	42 A	55 A
Leakage current (50 Hz)*	<3.00 mA	<3.00 mA	<3.00 mA
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Overrating Capacity	150 %, shortly	150 %, shortly	150 %, shortly
Environment			
Climatic category	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)
Ambient temperature max.	50 °C	50 °C	50 °C
Safety and protection			
Type	Metal enclosure	Metal enclosure	Metal enclosure
Protection index	IP 20	IP 20	IP 20
Safety class (prepared)	I	I	I
Test voltage	1700 Vdc Phase/Phase, 2700 Vdc Phase/PE	1700 Vdc Phase/Phase, 2700 Vdc Phase/PE	1700 Vdc Phase/Phase, 2700 Vdc Phase/PE
Notes			
*	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %
Order numbers			
Order Number	**HLE 310-230/30**	**HLE 310-230/42**	**HLE 310-230/55**

Radio interference filter, single-phase, low leakage current
HLE 310

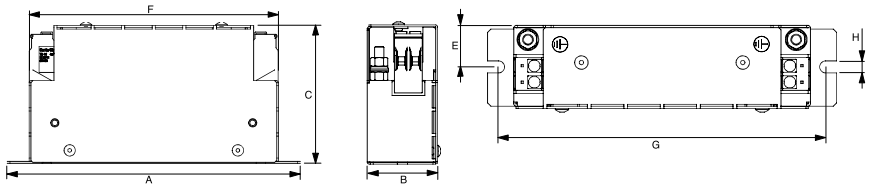
BLOCK Website

30 Mechanical data

Typ	Terminals phase	Terminals PE	Fixing method	Fixing screws	Weight	Dimension picture (in mm)	A	B	C	D	E	F	G	H
HLE 310-230/4	Screw clamp, 4 mm²	Bolt, M5	Mounting lugs	M5	0.52 kg	1	160	38	75	-	19	136	150	5.5
HLE 310-230/8	Screw clamp, 4 mm²	Bolt, M5	Mounting lugs	M5	0.58 kg	1	160	38	75	-	19	136	150	5.5
HLE 310-230/12	Screw clamp, 4 mm²	Bolt, M5	Mounting lugs	M5	0.78 kg	1	190	38	75	-	19	166	180	5.5
HLE 310-230/16	Screw clamp, 4 mm²	Bolt, M5	Mounting lugs	M5	0.78 kg	1	190	38	75	-	19	166	180	5.5
HLE 310-230/20	Screw clamp, 4 mm²	Bolt, M5	Mounting lugs	M5	0.80 kg	1	190	38	75	-	19	166	180	5.5
HLE 310-230/25	Screw clamp, 10 mm²	Bolt, M6	Mounting lugs	M6	1.30 kg	2	230	50	95	25	12.5	200	215	5.5
HLE 310-230/30	Screw clamp, 10 mm²	Bolt, M6	Mounting lugs	M6	1.35 kg	2	230	50	95	25	12.5	200	215	5.5
HLE 310-230/42	Screw clamp, 10 mm²	Bolt, M6	Mounting lugs	M6	1.45 kg	2	230	50	95	25	12.5	200	215	5.5
HLE 310-230/55	Screw clamp, 16 mm²	Bolt, M6	Mounting lugs	M6	2.00 kg	5	225	85	95	60	12.5	230	210	5.5

Dimension pictures

1



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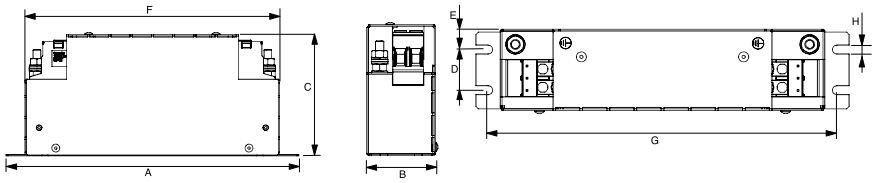

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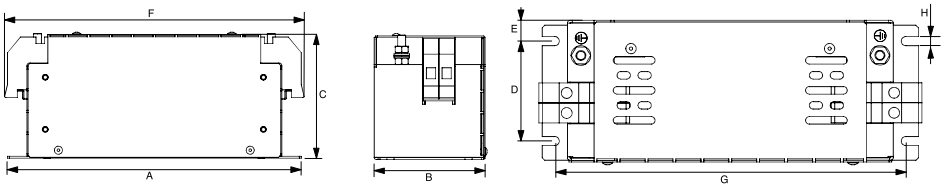


Radio interference suppression filter, three-phase
HFD 156

BLOCK Website

General Data

- Rated voltage 3 x 480 Vac
- Voltage range 3 x 0 - 480 Vac
- Rated current 3 x 3 - 3 x 16 A
- Leakage current 1.00 mA
- Ambient temperature max. 45 °C
- Degree of protection IP 20

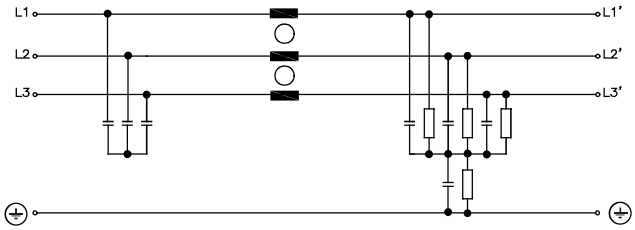
Advantages

- For general requirements
- Single-stage filter concept
- Efficient filter effect against line-bound interference emissions
- Increase in the interference immunity of the connected consumer
- DIN rail mounting

Applications

Radio interference suppression filter for mains-side interference suppression of power supplies and electronic devices.

Sample application



Standards

Radio interference suppression filter to DIN EN 60939-2

Approvals

EAC

Radio interference suppression filter, three-phase
HFD 156

BLOCK Website

Electrical data

Typ	HFD 156-400/3	HFD 156-400/6	HFD 156-400/10	HFD 156-400/12	HFD 156-400/16
Operating data					
Rated voltage	3 x 480 Vac	3 x 480 Vac	3 x 480 Vac	3 x 480 Vac	3 x 480 Vac
Voltage range	3 x 0 - 480 Vac	3 x 0 - 480 Vac	3 x 0 - 480 Vac	3 x 0 - 480 Vac	3 x 0 - 480 Vac
Rated current	3 x 3 A	3 x 6 A	3 x 10 A	3 x 12 A	3 x 16 A
Leakage current (50 Hz)**	9.00 mA	9.00 mA	9.00 mA	9.00 mA	9.00 mA
Leakage current (50 Hz)*	1.00 mA	1.00 mA	1.00 mA	1.00 mA	1.00 mA
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Power loss	2.2 W	2.7 W	4.7 W	6.1 W	7.9 W
Overrating Capacity	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly
Environment					
Climatic category	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)
Ambient temperature max.	45 °C	45 °C	45 °C	45 °C	45 °C
Safety and protection					
Type	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure
Protection index	IP 20	IP 20	IP 20	IP 20	IP 20
Safety class (prepared)	I	I	I	I	I
Test voltage	2100 Vdc Phase/Phase, 2700 Vdc Phase/PE	2100 Vdc Phase/Phase, 2700 Vdc Phase/PE	2100 Vdc Phase/Phase, 2700 Vdc Phase/PE	2100 Vdc Phase/Phase, 2700 Vdc Phase/PE	2100 Vdc Phase/Phase, 2700 Vdc Phase/PE
Notes					
*	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %
**	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases
Order numbers					
Order Number	**HFD 156-400/3**	**HFD 156-400/6**	**HFD 156-400/10**	**HFD 156-400/12**	**HFD 156-400/16**

Radio interference suppression filter, three-phase
HFD 156

BLOCK Website

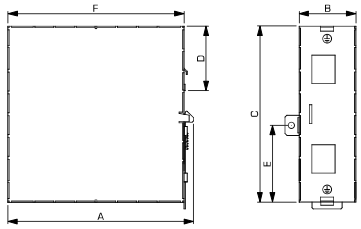
30

Mechanical data

Typ	Terminals phase	Terminals PE	Fixing method	Weight	Dimension picture (in mm)	A	B	C	D	E	F
HFD 156-400/3	2.5 mm² spring terminal	Tab connector, 6.3 x 0.8 mm	DIN Rail mounting	0.48 kg	1	127	45	110	52	33	120
HFD 156-400/6	2.5 mm² spring terminal	Tab connector, 6.3 x 0.8 mm	DIN Rail mounting	0.49 kg	1	127	45	110	52	33	120
HFD 156-400/10	2.5 mm² spring terminal	Tab connector, 6.3 x 0.8 mm	DIN Rail mounting	0.49 kg	1	127	45	110	52	33	120
HFD 156-400/12	2.5 mm² spring terminal	Tab connector, 6.3 x 0.8 mm	DIN Rail mounting	0.72 kg	1	147	45	140	52	66	140
HFD 156-400/16	2.5 mm² spring terminal	Tab connector, 6.3 x 0.8 mm	DIN Rail mounting	0.73 kg	1	147	45	140	52	66	140

Dimension pictures

1



Radio interference suppression filter, three-phase, low leakage current
HFD 356

BLOCK Website

General Data

- Rated voltage 3 x 480 Vac
- Voltage range 0 - 480 Vac
- Rated current 3 x 3 - 3 x 16 A
- Leakage current 0.50 mA
- Degree of protection IP 20
- DIN Rail mounting

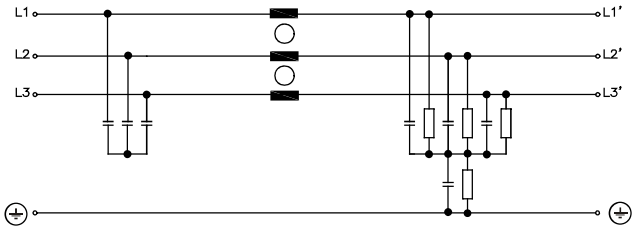
Advantages

- For general requirements
- Low leakage current
- Single-stage filter concept
- Efficient filter effect against line-bound interference emissions
- Increase in the interference immunity of the connected consumer

Applications

Radio interference suppression filter for mains-side interference suppression of power supplies and electronic devices.

Sample application



Standards

Radio interference suppression filter to DIN EN 60939-2

Approvals

EAC

Radio interference suppression filter, three-phase, low leakage current
HFD 356

BLOCK Website

Electrical data

Typ	HFD 356-400/3	HFD 356-400/6	HFD 356-400/10	HFD 356-400/12	HFD 356-400/16
Special features					
Characteristics	Suitable for the medical field	Suitable for the medical field	Suitable for the medical field	Suitable for the medical field	Suitable for the medical field
Operating data					
Rated voltage	3 x 480 Vac	3 x 480 Vac	3 x 480 Vac	3 x 480 Vac	3 x 480 Vac
Voltage range	0 - 480 Vac	0 - 480 Vac	0 - 480 Vac	0 - 480 Vac	0 - 480 Vac
Rated current	3 x 3 A	3 x 6 A	3 x 10 A	3 x 12 A	3 x 16 A
Leakage current (50 Hz)**	4.00 mA	4.00 mA	5.00 mA	5.00 mA	5.00 mA
Leakage current (50 Hz)*	0.50 mA	0.50 mA	0.50 mA	0.50 mA	0.50 mA
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Power loss	2.2 W	2.7 W	4.7 W	6.1 W	7.9 W
Overrating Capacity	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly
Environment					
Climatic category	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)
Ambient temperature max.	45 °C	45 °C	45 °C	45 °C	45 °C
Safety and protection					
Type	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure
Protection index	IP 20	IP 20	IP 20	IP 20	IP 20
Safety class (prepared)	I	I	I	I	I
Test voltage	2100 Vdc Phase/Phase, 2700 Vdc Phase/PE	2100 Vdc Phase/Phase, 2700 Vdc Phase/PE	2100 Vdc Phase/Phase, 2700 Vdc Phase/PE	2100 Vdc Phase/Phase, 2700 Vdc Phase/PE	2100 Vdc Phase/Phase, 2700 Vdc Phase/PE
Notes					
*	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %
**	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases
Order numbers					
Order Number	**HFD 356-400/3**	**HFD 356-400/6**	**HFD 356-400/10**	**HFD 356-400/12**	**HFD 356-400/16**

Radio interference suppression filter, three-phase, low leakage current
HFD 356

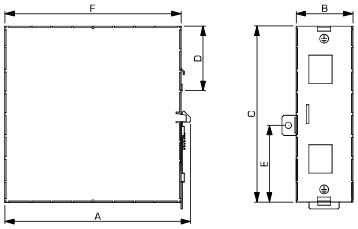
BLOCK Website

Mechanical data

Typ	Terminals phase	Terminals PE	Fixing method	Weight	Dimension picture (in mm)	A	B	C	D	E	F
HFD 356-400/3	2.5 mm² spring terminal	Tab connector, 6.3 x 0.8 mm	DIN Rail mounting	0.48 kg	1	127	45	110	52	33	120
HFD 356-400/6	2.5 mm² spring terminal	Tab connector, 6.3 x 0.8 mm	DIN Rail mounting	0.49 kg	1	127	45	110	52	33	120
HFD 356-400/10	2.5 mm² spring terminal	Tab connector, 6.3 x 0.8 mm	DIN Rail mounting	0.49 kg	1	127	45	110	52	33	120
HFD 356-400/12	2.5 mm² spring terminal	Tab connector, 6.3 x 0.8 mm	DIN Rail mounting	0.72 kg	1	147	45	140	52	66	140
HFD 356-400/16	2.5 mm² spring terminal	Tab connector, 6.3 x 0.8 mm	DIN Rail mounting	0.73 kg	1	147	45	140	52	66	140

Dimension pictures

1



1.1
1.2
1.3
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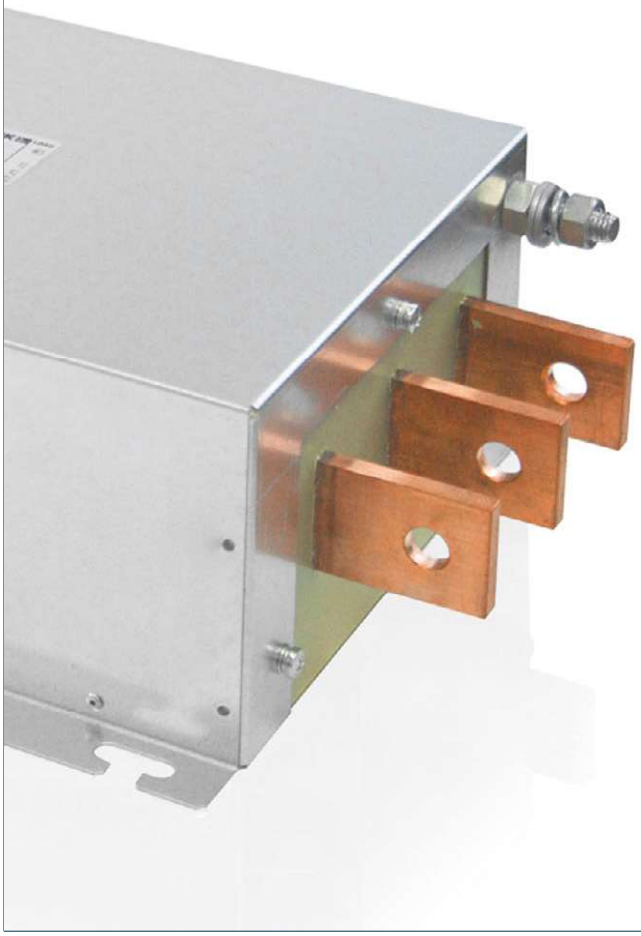
Radio interference suppression filter, three-phase
HLD 103

BLOCK Website



General Data

Rated voltage 3 x 520 Vac
Voltage range 3 x 0 - 520 Vac
Rated current 3 x 270 - 3 x 1800 A
Leakage current 60.00 mA
Ambient temperature max. 50 °C
Degree of protection IP 00

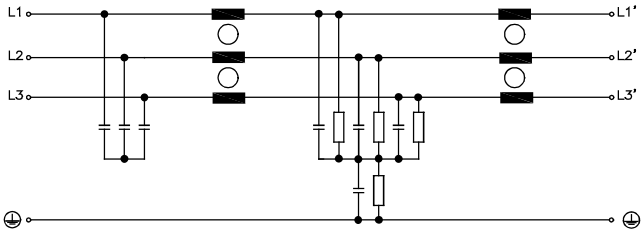
Advantages

For enhanced requirements
Single-stage filter concept
Efficient filter effect against line-bound interference emissions
Increase in the interference immunity of the connected consumer

Applications

Radio interference suppression filter for line-side interference suppression of single devices, frequency inverters or as group interference suppression.

Sample application



Standards

Radio interference suppression filter to DIN EN 60939-2

Approvals

EAC

Radio interference suppression filter, three-phase
HLD 103

BLOCK Website

Electrical data

Typ	HLD 103-500/270	HLD 103-500/400	HLD 103-500/750	HLD 103-500/1000	HLD 103-500/1800
Operating data					
Rated voltage	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac
Voltage range	3 x 0 - 520 Vac	3 x 0 - 520 Vac	3 x 0 - 520 Vac	3 x 0 - 520 Vac	3 x 0 - 520 Vac
Rated current	3 x 270 A	3 x 400 A	3 x 750 A	3 x 1000 A	3 x 1800 A
Leakage current (50 Hz)*	570.00 mA	570.00 mA	570.00 mA	570.00 mA	570.00 mA
Leakage current (50 Hz)**	60.00 mA	60.00 mA	60.00 mA	60.00 mA	60.00 mA
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Overrating Capacity	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly
Environment					
Climatic category	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)
Ambient temperature max.	50 °C	50 °C	50 °C	50 °C	50 °C
Safety and protection					
Type	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure
Protection index	IP 00	IP 00	IP 00	IP 00	IP 00
Safety class (prepared)	I	I	I	I	I
Test voltage	2121 Vdc Phase/Phase, 2700 Vdc Phase/PE	2121 Vdc Phase/Phase, 2700 Vdc Phase/PE	2121 Vdc Phase/Phase, 2700 Vdc Phase/PE	2121 Vdc Phase/Phase, 2700 Vdc Phase/PE	2121 Vdc Phase/Phase, 2700 Vdc Phase/PE
Notes					
*	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %
**	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases
Order numbers					
Order Number	**HLD 103-500/270**	**HLD 103-500/400**	**HLD 103-500/750**	**HLD 103-500/1000**	**HLD 103-500/1800**

Radio interference suppression filter, three-phase
HLD 103

BLOCK Website

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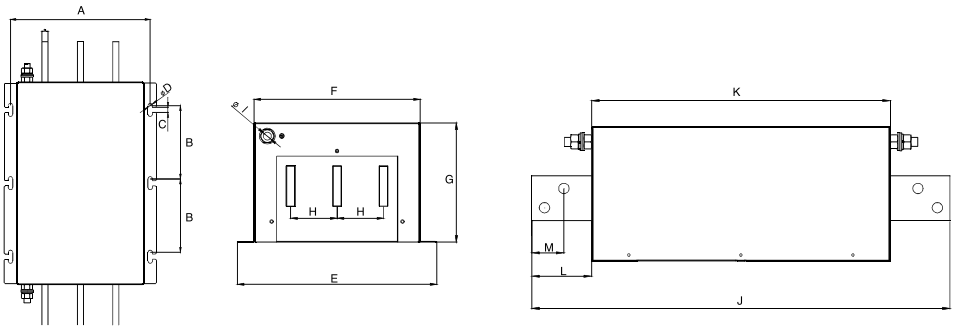
Mechanical data

Typ	Terminals phase	Terminals PE	Fixing method	Fixing screws	Weight	Dimension picture (in mm)	A	B	C	D	E	F	G	H	I	J	K	L	M
HLD 103-500/270	Flat copper, 20 x 5 mm	Bolt, M12	Mounting lugs	M8	12.60 kg	1	235	120	10	9	260	210	100	60	12	380	300	40	10
HLD 103-500/400	Flat copper, 25 x 6 mm	Bolt, M12	Mounting lugs	M8	12.90 kg	1	235	120	10	9	260	210	100	60	12	380	300	40	12.5
HLD 103-500/750	Flat copper, 30 x 10 mm	Bolt, M12	Mounting lugs	M8	15.80 kg	1	235	120	10	9	260	210	110	60	12	390	300	45	15
HLD 103-500/1000	Flat copper, 40 x 8 mm	Bolt, M12	Mounting lugs	M8	0.00 kg	1	255	145	10	9	280	230	130	60	12	460	350	55	20
HLD 103-500/1800	Flat copper, 60 x 12 mm	Bolt, M12	Mounting lugs	M8	0.00 kg	1	275	145	10	9	300	250	180	70	12	560	400	80	43

Dimension pictures

1



Radio interference suppression filter, three-phase
HLD 110

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General Data

Rated voltage 3 x 520 Vac
Voltage range 3 x 0 - 520 Vac
Rated current 3 x 8 - 3 x 250 A
Leakage current 20.00 - 37.00 mA
Ambient temperature max. 50 °C
Degree of protection IP 20

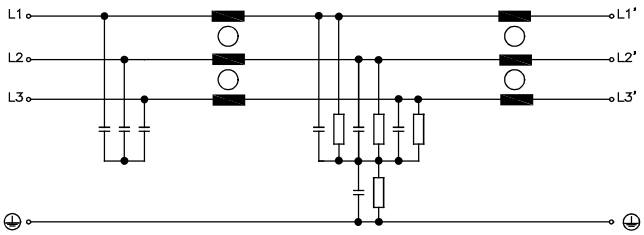
Advantages

For enhanced requirements
Single-stage filter concept
Efficient filter effect against line-bound interference emissions
Increase in the interference immunity of the connected consumer

Applications

Radio interference suppression filter for line-side interference suppression of single devices, frequency inverters or as group interference suppression.

Sample application



Standards

Radio interference suppression filter complying with DIN EN 60939-2, UL 1283, CSA C22.2 No.8

Approvals

UL 1283 5th edition, CSA 22.2 No 8

Radio interference suppression filter, three-phase
HLD 110

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Electrical data

Typ	HLD 110-500/8	HLD 110-500/12	HLD 110-500/16	HLD 110-500/30	HLD 110-500/42	HLD 110-500/55
Operating data						
Rated voltage	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac
Voltage range	3 x 0 - 520 Vac	3 x 0 - 520 Vac	3 x 0 - 520 Vac	3 x 0 - 520 Vac	3 x 0 - 520 Vac	3 x 0 - 520 Vac
Rated current	3 x 8 A	3 x 12 A	3 x 16 A	3 x 30 A	3 x 42 A	3 x 55 A
Leakage current (50 Hz)*	20.00 mA	20.00 mA	21.00 mA	29.00 mA	20.00 mA	30.00 mA
Leakage current (50 Hz)**	190.00 mA	190.00 mA	205.00 mA	280.00 mA	290.00 mA	290.00 mA
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Power loss	6.0 W	9.0 W	12.0 W	15.0 W	22.0 W	30.0 W
Overrating Capacity	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly
Approvals						
Approvals	cURus, UL 1283 5th edition, CSA 22.2 No.8	cURus, UL 1283 5th edition, CSA 22.2 No.8	cURus, UL 1283 5th edition, CSA 22.2 No.8	cURus, UL 1283 5th edition, CSA 22.2 No.8	cURus, UL 1283 5th edition, CSA 22.2 No.8	cURus, UL 1283 5th edition, CSA 22.2 No.8
Environment						
Climatic category	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)
Ambient temperature max.	50 °C	50 °C	50 °C	50 °C	50 °C	50 °C
Safety and protection						
SCCR***	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA
Type	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure
Protection index	IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
Safety class (prepared)	I	I	I	I	I	I
Test voltage	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE
Notes						
*	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %
**	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases
***	with corresponding preliminary fuse	with corresponding preliminary fuse	with corresponding preliminary fuse	with corresponding preliminary fuse	with corresponding preliminary fuse	with corresponding preliminary fuse
Order numbers						
Order Number	**HLD 110-500/8**	**HLD 110-500/12**	**HLD 110-500/16**	**HLD 110-500/30**	**HLD 110-500/42**	**HLD 110-500/55**

Radio interference suppression filter, three-phase
HLD 110

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Electrical data

Typ	HLD 110-500/75	HLD 110-500/100	HLD 110-500/130	HLD 110-500/180	HLD 110-500/250
Operating data					
Rated voltage	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac
Voltage range	3 x 0 - 520 Vac	3 x 0 - 520 Vac	3 x 0 - 520 Vac	3 x 0 - 520 Vac	3 x 0 - 520 Vac
Rated current	3 x 75 A	3 x 100 A	3 x 130 A	3 x 180 A	3 x 250 A
Leakage current (50 Hz)*	22.00 mA	30.00 mA	22.00 mA	31.00 mA	37.00 mA
Leakage current (50 Hz)**	210.00 mA	290.00 mA	210.00 mA	300.00 mA	355.00 mA
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Power loss	35.0 W	60.0 W	90.0 W	150.0 W	180.0 W
Overrating Capacity	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly
Approvals					
Approvals	cURus, UL 1283 5th edition, CSA 22.2 No.8	cURus, UL 1283 5th edition, CSA 22.2 No.8	cURus, UL 1283 5th edition, CSA 22.2 No.8	cURus, UL 1283 5th edition, CSA 22.2 No.8	cURus, UL 1283 5th edition, CSA 22.2 No.8
Environment					
Climatic category	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)
Ambient temperature max.	50 °C	50 °C	50 °C	50 °C	50 °C
Safety and protection					
SCCR***	100 kA	100 kA	100 kA	100 kA	100 kA
Type	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure
Protection index	IP 20	IP 20	IP 20	IP 20	IP 20
Safety class (prepared)	I	I	I	I	I
Test voltage	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE
Notes					
*	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %
**	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases
***	with corresponding preliminary fuse	with corresponding preliminary fuse	with corresponding preliminary fuse	with corresponding preliminary fuse	with corresponding preliminary fuse
Order numbers					
Order Number	**HLD 110-500/75**	**HLD 110-500/100**	**HLD 110-500/130**	**HLD 110-500/180**	**HLD 110-500/250**

Radio interference suppression filter, three-phase
HLD 110

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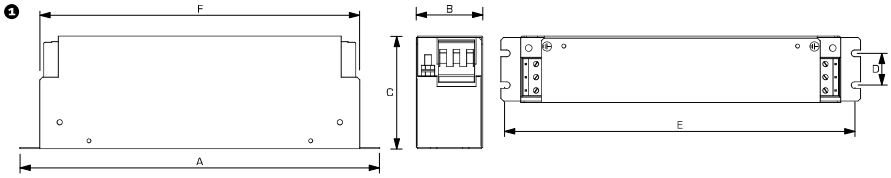
Mechanical data

Typ	Terminals phase	Terminals PE	Fixing method	Fixing screws	Weight	Dimension picture (in mm)	A	B	C	D	E	F
HLD 110-500/8	Screw clamp, 4 mm²	Bolt, M5	Mounting lugs	M5	0.8 kg	1	190	45	75	20	180	166
HLD 110-500/12	Screw clamp, 4 mm²	Bolt, M5	Mounting lugs	M5	1.0 kg	1	220	45	75	20	210	190
HLD 110-500/16	Screw clamp, 4 mm²	Bolt, M5	Mounting lugs	M5	1.2 kg	1	250	45	75	20	240	220
HLD 110-500/30	Screw clamp, 10 mm²	Bolt, M5	Mounting lugs	M5	1.8 kg	1	270	55	95	30	255	240
HLD 110-500/42	Screw clamp, 10 mm²	Bolt, M5	Mounting lugs	M5	2.1 kg	1	310	55	95	30	295	280
HLD 110-500/55	Screw clamp, 16 mm²	Bolt, M6	Mounting lugs	M5	2.5 kg	2	250	85	95	60	235	255
HLD 110-500/75	Screw clamp, 35 mm²	Bolt, M8	Mounting lugs	M6	4.5 kg	2	270	85	135	60	255	310
HLD 110-500/100	Screw clamp, 50 mm²	Bolt, M10	Mounting lugs	M6	5.2 kg	2	270	95	150	65	255	325
HLD 110-500/130	Screw clamp, 50 mm²	Bolt, M10	Mounting lugs	M6	5.6 kg	2	270	95	150	65	255	325
HLD 110-500/180	Screw clamp, 95 mm²	Bolt, M10	Mounting lugs	M6	9.2 kg	2	380	130	181	102	365	440
HLD 110-500/250	Screw clamp, 150 mm²	Bolt, M12	Mounting lugs	M6	12.2 kg	2	450	155	220	125	435	525

Dimension pictures

1



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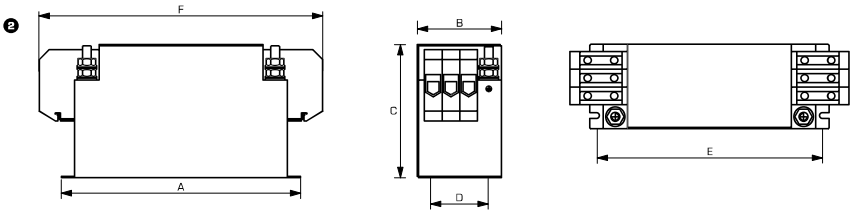

Radio interference suppression filter, three-phase, low leakage current
HLD 310

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General Data

Rated voltage 3 x 520 Vac
Voltage range 0 - 3 x 520 Vac
Rated current 3 x 8 - 3 x 250 A
Leakage current <0.4 mA
Degree of protection IP 20

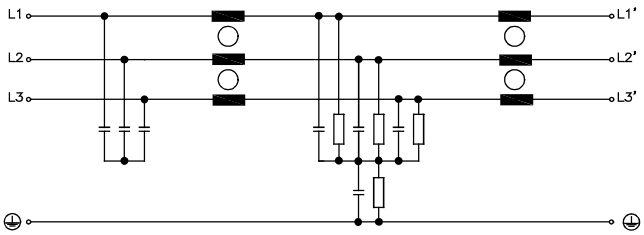
Advantages

For enhanced requirements
Low leakage current
Single-stage filter concept
Efficient filter effect against line-bound interference emissions
Increase in the interference immunity of the connected consumer

Applications

Radio interference suppression filter for line-side interference suppression of single devices, frequency converters or as group interference suppression.

Sample application



Standards

Radio interference suppression filter complying with DIN EN 60939-2, UL 1283, CSA C22.2 No.8

Approvals

UL 1283 5th edition, CSA 22.2 No 8

Radio interference suppression filter, three-phase, low leakage current
HLD 310

BLOCK Website

Electrical data

Typ	HLD 310-500/8	HLD 310-500/12	HLD 310-500/16	HLD 310-500/30	HLD 310-500/42	HLD 310-500/55
Special features						
Characteristics	Suitable for the medical field	Suitable for the medical field	Suitable for the medical field	Suitable for the medical field	Suitable for the medical field	Suitable for the medical field
Operating data						
Rated voltage	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac
Voltage range	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac
Rated current	3 x 8 A	3 x 12 A	3 x 16 A	3 x 30 A	3 x 42 A	3 x 55 A
Leakage current (50 Hz)*	<0.40 mA	<0.40 mA	<0.40 mA	<0.40 mA	<0.40 mA	<0.40 mA
Leakage current (50 Hz)**	<3.50 mA	<3.50 mA	<3.50 mA	<3.50 mA	<3.50 mA	<3.50 mA
Power loss	6.0 W	9.0 W	12.0 W	15.0 W	22.0 W	30.0 W
Overrating Capacity	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly
Input						
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Approvals						
Approvals	cURus, UL 1283 5th edition, CSA 22.2 No.8	cURus, UL 1283 5th edition, CSA 22.2 No.8	cURus, UL 1283 5th edition, CSA 22.2 No.8	cURus, UL 1283 5th edition, CSA 22.2 No.8	cURus, UL 1283 5th edition, CSA 22.2 No.8	cURus, UL 1283 5th edition, CSA 22.2 No.8
Environment						
Climatic category	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)
Ambient temperature max.	50 °C	50 °C	50 °C	50 °C	50 °C	50 °C
Safety and protection						
SCCR***	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA
Type	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure
Protection index	IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
Safety class (prepared)	I	I	I	I	I	I
Test voltage	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE
Notes						
*	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %
**	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases
***	with corresponding preliminary fuse	with corresponding preliminary fuse	with corresponding preliminary fuse	with corresponding preliminary fuse	with corresponding preliminary fuse	with corresponding preliminary fuse
Order numbers						
Order Number	**HLD 310-500/8**	**HLD 310-500/12**	**HLD 310-500/16**	**HLD 310-500/30**	**HLD 310-500/42**	**HLD 310-500/55**

Radio interference suppression filter, three-phase, low leakage current
HLD 310

BLOCK Website

Electrical data

Typ	HLD 310-500/75	HLD 310-500/100	HLD 310-500/130	HLD 310-500/180	HLD 310-500/250
Special features					
Characteristics	Suitable for the medical field	Suitable for the medical field	Suitable for the medical field	Suitable for the medical field	Suitable for the medical field
Operating data					
Rated voltage	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac
Voltage range	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac
Rated current	3 x 75 A	3 x 100 A	3 x 130 A	3 x 180 A	3 x 250 A
Leakage current (50 Hz)*	<0.40 mA	<0.40 mA	<0.40 mA	<0.40 mA	<0.40 mA
Leakage current (50 Hz)**	<3.50 mA	<3.50 mA	<3.50 mA	<3.50 mA	<3.50 mA
Power loss	35.0 W	60.0 W	90.0 W	150.0 W	180.0 W
Overrating Capacity	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly
Input					
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Approvals					
Approvals	cURus, UL 1283 5th edition, CSA 22.2 No.8	cURus, UL 1283 5th edition, CSA 22.2 No.8	cURus, UL 1283 5th edition, CSA 22.2 No.8	cURus, UL 1283 5th edition, CSA 22.2 No.8	cURus, UL 1283 5th edition, CSA 22.2 No.8
Environment					
Climatic category	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)
Ambient temperature max.	50 °C	50 °C	50 °C	50 °C	50 °C
Safety and protection					
SCCR***	100 kA	100 kA	100 kA	100 kA	100 kA
Type	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure
Protection index	IP 20	IP 20	IP 20	IP 20	IP 20
Safety class (prepared)	I	I	I	I	I
Test voltage	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE
Notes					
*	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %
**	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases
***	with corresponding preliminary fuse	with corresponding preliminary fuse	with corresponding preliminary fuse	with corresponding preliminary fuse	with corresponding preliminary fuse
Order numbers					
Order Number	**HLD 310-500/75**	**HLD 310-500/100**	**HLD 310-500/130**	**HLD 310-500/180**	**HLD 310-500/250**

Radio interference suppression filter, three-phase, low leakage current
HLD 310

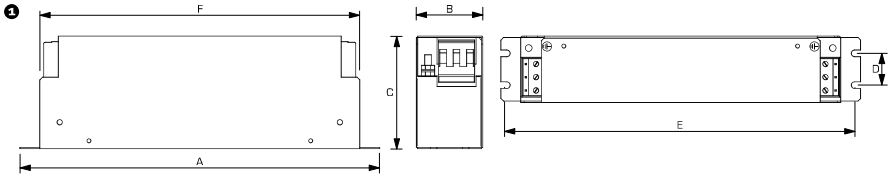
BLOCK Website

Mechanical data

Typ	Terminals phase	Terminals PE	Fixing method	Fixing screws	Weight	Dimension picture (in mm)	A	B	C	D	E	F
HLD 310-500/8	Screw clamp, 4 mm²	Bolt, M5	Mounting lugs	M5	0.78 kg	1	190	45	75	20	180	166
HLD 310-500/12	Screw clamp, 4 mm²	Bolt, M5	Mounting lugs	M5	1.20 kg	1	220	45	75	20	210	190
HLD 310-500/16	Screw clamp, 4 mm²	Bolt, M5	Mounting lugs	M5	1.20 kg	1	250	45	75	20	240	220
HLD 310-500/30	Screw clamp, 10 mm²	Bolt, M5	Mounting lugs	M5	1.80 kg	1	270	55	95	30	255	240
HLD 310-500/42	Screw clamp, 10 mm²	Bolt, M6	Mounting lugs	M5	2.10 kg	1	310	55	95	30	295	280
HLD 310-500/55	Screw clamp, 16 mm²	Bolt, M6	Mounting lugs	M5	2.50 kg	2	250	85	95	60	235	255
HLD 310-500/75	Screw clamp, 35 mm²	Bolt, M8	Mounting lugs	M6	4.50 kg	2	270	85	135	60	255	310
HLD 310-500/100	Screw clamp, 50 mm²	Bolt, M10	Mounting lugs	M6	5.20 kg	2	270	95	150	65	255	325
HLD 310-500/130	Screw clamp, 50 mm²	Bolt, M10	Mounting lugs	M6	5.60 kg	1	270	95	150	65	255	325
HLD 310-500/180	Screw clamp, 95 mm²	Bolt, M10	Mounting lugs	M6	9.20 kg	2	380	130	181	102	365	440
HLD 310-500/250	Screw clamp, 150 mm²	Bolt, M10	Mounting lugs	M6	12.20 kg	2	450	155	220	125	435	525

Dimension pictures

1



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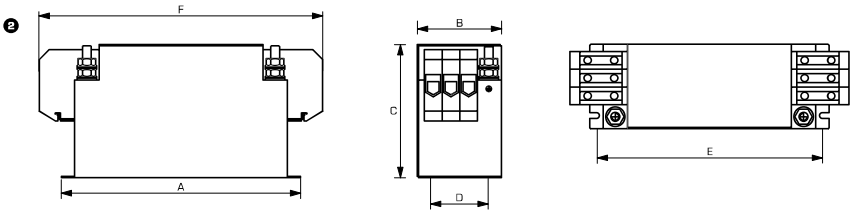


Radio interference suppression filter, three-phase, low leakage current
HLD 710

BLOCK Website

General Data

Rated voltage 3 x 520 Vac
Voltage range 0 - 3 x 520 Vac
Rated current 3 x 8 - 3 x 250 A
Leakage current 6.00 - 7.00 mA
Ambient temperature max. 50 °C
Degree of protection IP 20

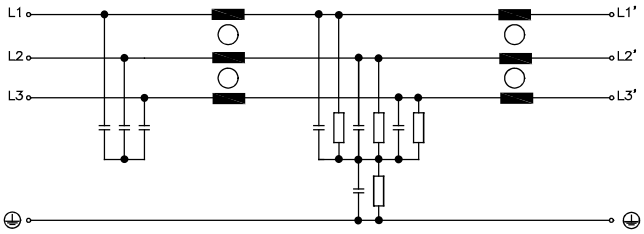
Advantages

For enhanced requirements
Reduced leakage current
Single-stage filter concept
Efficient filter effect against line-bound interference emissions
Increase in the interference immunity of the connected consumer

Applications

Radio interference suppression filter for line-side interference suppression of single devices, frequency converters or as group interference suppression.

Sample application



Standards

Radio interference suppression filter complying with DIN EN 60939-2, UL 1283, CSA C22.2 No.8

Approvals

UL 1283 5th edition, CSA 22.2 No 8

Radio interference suppression filter, three-phase, low leakage current
HLD 710

BLOCK Website

Electrical data

Typ	HLD 710-500/8	HLD 710-500/12	HLD 710-500/16	HLD 710-500/30	HLD 710-500/42	HLD 710-500/55
Operating data						
Rated voltage	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac
Voltage range	0 - 520 Vac	0 - 520 Vac	0 - 520 Vac	0 - 520 Vac	0 - 520 Vac	0 - 520 Vac
Rated current	3 x 8 A	3 x 12 A	3 x 16 A	3 x 30 A	3 x 42 A	3 x 55 A
Leakage current (50 Hz)*	6.00 mA	6.00 mA	6.00 mA	6.50 mA	6.50 mA	6.50 mA
Leakage current (50 Hz)**	60.00 mA	60.00 mA	60.00 mA	63.00 mA	63.00 mA	63.00 mA
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Power loss	6.0 W	9.0 W	12.0 W	15.0 W	22.0 W	30.0 W
Overrating Capacity	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly
Approvals						
Approvals	cURus, UL 1283 5th edition, CSA 22.2 No.8	cURus, UL 1283 5th edition, CSA 22.2 No.8	cURus, UL 1283 5th edition, CSA 22.2 No.8	cURus, UL 1283 5th edition, CSA 22.2 No.8	cURus, UL 1283 5th edition, CSA 22.2 No.8	cURus, UL 1283 5th edition, CSA 22.2 No.8
Environment						
Climatic category	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)
Ambient temperature max.	50 °C	50 °C	50 °C	50 °C	50 °C	50 °C
Safety and protection						
SCCR***	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA
Type	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure
Protection index	IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
Safety class (prepared)	I	I	I	I	I	I
Test voltage	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE
Notes						
*	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %
**	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases
***	with corresponding preliminary fuse	with corresponding preliminary fuse	with corresponding preliminary fuse	with corresponding preliminary fuse	with corresponding preliminary fuse	with corresponding preliminary fuse
Order numbers						
Order Number	**HLD 710-500/8**	**HLD 710-500/12**	**HLD 710-500/16**	**HLD 710-500/30**	**HLD 710-500/42**	**HLD 710-500/55**

Radio interference suppression filter, three-phase, low leakage current
HLD 710

BLOCK Website

Electrical data

Typ	HLD 710-500/75	HLD 710-500/100	HLD 710-500/130	HLD 710-500/180	HLD 710-500/250
Operating data					
Rated voltage	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac
Voltage range	0 - 520 Vac	0 - 520 Vac	0 - 520 Vac	0 - 520 Vac	0 - 520 Vac
Rated current	3 x 75 A	3 x 100 A	3 x 130 A	3 x 180 A	3 x 250 A
Leakage current (50 Hz)*	6.50 mA	6.50 mA	6.50 mA	7.00 mA	7.00 mA
Leakage current (50 Hz)**	63.00 mA	63.00 mA	63.00 mA	65.00 mA	65.00 mA
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Power loss	35.0 W	60.0 W	90.0 W	150.0 W	180.0 W
Overrating Capacity	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly
Approvals					
Approvals	cURus, UL 1283 5th edition, CSA 22.2 No.8	cURus, UL 1283 5th edition, CSA 22.2 No.8	cURus, UL 1283 5th edition, CSA 22.2 No.8	cURus, UL 1283 5th edition, CSA 22.2 No.8	cURus, UL 1283 5th edition, CSA 22.2 No.8
Environment					
Climatic category	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)
Ambient temperature max.	50 °C	50 °C	50 °C	50 °C	50 °C
Safety and protection					
SCCR***	100 kA	100 kA	100 kA	100 kA	100 kA
Type	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure
Protection index	IP 20	IP 20	IP 20	IP 20	IP 20
Safety class (prepared)	I	I	I	I	I
Test voltage	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE
Notes					
*	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %
**	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases
***	with corresponding preliminary fuse	with corresponding preliminary fuse	with corresponding preliminary fuse	with corresponding preliminary fuse	with corresponding preliminary fuse
Order numbers					
Order Number	**HLD 710-500/75**	**HLD 710-500/100**	**HLD 710-500/130**	**HLD 710-500/180**	**HLD 710-500/250**

Radio interference suppression filter, three-phase, low leakage current
HLD 710

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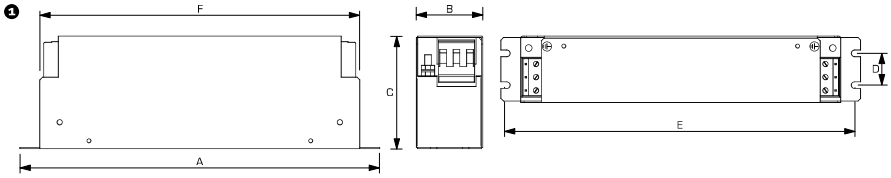
Mechanical data

Typ	Terminals phase	Terminals PE	Fixing method	Fixing screws	Weight	Dimension picture (in mm)	A	B	C	D	E	F
HLD 710-500/8	Screw clamp, 4 mm²	Bolt, M5	Mounting lugs	M5	0.78 kg	1	190	45	75	20	180	166
HLD 710-500/12	Screw clamp, 4 mm²	Bolt, M5	Mounting lugs	M5	1.00 kg	1	220	45	75	20	210	190
HLD 710-500/16	Screw clamp, 4 mm²	Bolt, M5	Mounting lugs	M5	1.20 kg	1	250	45	75	20	240	220
HLD 710-500/30	Screw clamp, 10 mm²	Bolt, M5	Mounting lugs	M5	1.80 kg	1	270	55	95	30	255	240
HLD 710-500/42	Screw clamp, 10 mm²	Bolt, M6	Mounting lugs	M5	2.10 kg	1	310	55	95	30	295	280
HLD 710-500/55	Screw clamp, 16 mm²	Bolt, M6	Mounting lugs	M5	2.50 kg	2	250	85	95	60	235	255
HLD 710-500/75	Screw clamp, 35 mm²	Bolt, M8	Mounting lugs	M6	4.50 kg	2	270	85	135	60	255	310
HLD 710-500/100	Screw clamp, 50 mm²	Bolt, M10	Mounting lugs	M6	5.20 kg	2	270	95	150	65	255	325
HLD 710-500/130	Screw clamp, 50 mm²	Bolt, M10	Mounting lugs	M6	5.60 kg	2	270	95	150	65	255	325
HLD 710-500/180	Screw clamp, 95 mm²	Bolt, M10	Mounting lugs	M6	9.20 kg	2	380	130	181	102	365	440
HLD 710-500/250	Screw clamp, 150 mm²	Bolt, M12	Mounting lugs	M6	12.20 kg	2	450	155	220	125	435	525

Dimension pictures

1



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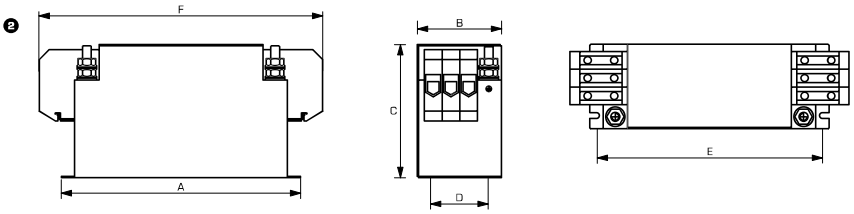


Radio interference suppression filter, three-phase, for IT Network
HLD 810

BLOCK Website

General Data

Rated voltage 3 x 520 Vac
Voltage range 0 - 3 x 520 Vac
Rated current 3 x 8 - 3 x 250 A
Ambient temperature max. 50 °C
Degree of protection IP 20
Leakage current 0 mA

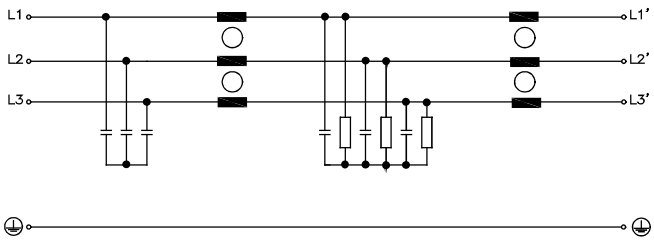
Advantages

For enhanced requirements
Single-stage filter concept
Efficient filter effect against line-bound interference emissions
Increase in the interference immunity of the connected consumer

Applications

Radio interference suppression filter for line-side interference suppression of single devices, frequency converters or as group interference suppression.

Sample application



Standards

Radio interference suppression filter complying with DIN EN 60939-2, UL 1283, CSA C22.2 No.8

Approvals

UL 1283 5th edition, CSA 22.2 No 8

Radio interference suppression filter, three-phase, for IT Network
HLD 810

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Electrical data

Typ	HLD 810-500/8	HLD 810-500/12	HLD 810-500/16	HLD 810-500/30	HLD 810-500/42	HLD 810-500/55
Operating data						
Voltage range	0 - 520 Vac	0 - 520 Vac	0 - 520 Vac	0 - 520 Vac	0 - 520 Vac	0 - 520 Vac
Rated voltage	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac
Rated current	3 x 8 A	3 x 12 A	3 x 16 A	3 x 30 A	3 x 42 A	3 x 55 A
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Power loss	6.0 W	9.0 W	12.0 W	15.0 W	22.0 W	30.0 W
Overrating Capacity	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly
Leakage current (50 Hz)	0 mA	0 mA	0 mA	0 mA	0 mA	0 mA
Approvals						
Approvals	cURus, UL 1283 5th edition, CSA C22.2 No.8	cURus, UL 1283 5th edition, CSA C22.2 No.8	cURus, UL 1283 5th edition, CSA C22.2 No.8	cURus, UL 1283 5th edition, CSA C22.2 No.8	cURus, UL 1283 5th edition, CSA C22.2 No.8	cURus, UL 1283 5th edition, CSA C22.2 No.8
Environment						
Climatic category	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)
Ambient temperature max.	50 °C	50 °C	50 °C	50 °C	50 °C	50 °C
Safety and protection						
SCCR*	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA
Type	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure
Protection index	IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
Safety class (prepared)	I	I	I	I	I	I
Test voltage	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE
Notes						
*	with corresponding preliminary fuse	with corresponding preliminary fuse	with corresponding preliminary fuse	with corresponding preliminary fuse	with corresponding preliminary fuse	with corresponding preliminary fuse
Order numbers						
Order Number	**HLD 810-500/8**	**HLD 810-500/12**	**HLD 810-500/16**	**HLD 810-500/30**	**HLD 810-500/42**	**HLD 810-500/55**

Radio interference suppression filter, three-phase, for IT Network
HLD 810

BLOCK Website

Electrical data

Typ	HLD 810-500/75	HLD 810-500/100	HLD 810-500/130	HLD 810-500/180	HLD 810-500/250
Operating data					
Voltage range	0 - 520 Vac	0 - 520 Vac	0 - 520 Vac	0 - 520 Vac	0 - 520 Vac
Rated voltage	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac
Rated current	3 x 75 A	3 x 100 A	3 x 130 A	3 x 180 A	3 x 250 A
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Power loss	35.0 W	60.0 W	90.0 W	150.0 W	180.0 W
Overrating Capacity	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly
Leakage current (50 Hz)	0 mA	0 mA	0 mA	0 mA	0 mA
Approvals					
Approvals	cURus, UL 1283 5th edition, CSA C22.2 No.8	cURus, UL 1283 5th edition, CSA C22.2 No.8	cURus, UL 1283 5th edition, CSA C22.2 No.8	cURus, UL 1283 5th edition, CSA C22.2 No.8	cURus, UL 1283 5th edition, CSA C22.2 No.8
Environment					
Climatic category	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)
Ambient temperature max.	50 °C	50 °C	50 °C	50 °C	50 °C
Safety and protection					
SCCR*	100 kA	100 kA	100 kA	100 kA	100 kA
Type	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure
Protection index	IP 20	IP 20	IP 20	IP 20	IP 20
Safety class (prepared)	I	I	I	I	I
Test voltage	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE
Notes					
*	with corresponding preliminary fuse	with corresponding preliminary fuse	with corresponding preliminary fuse	with corresponding preliminary fuse	with corresponding preliminary fuse
Order numbers					
Order Number	**HLD 810-500/75**	**HLD 810-500/100**	**HLD 810-500/130**	**HLD 810-500/180**	**HLD 810-500/250**

Radio interference suppression filter, three-phase, for IT Network
HLD 810

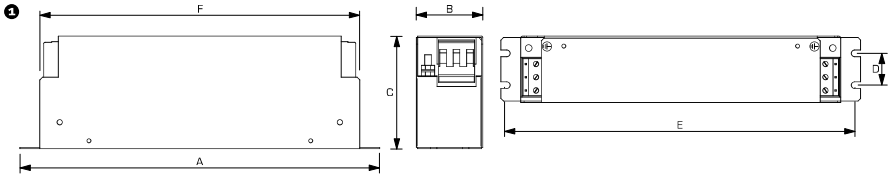
BLOCK Website

30 Mechanical data

Typ	Terminals phase	Terminals PE	Fixing method	Fixing screws	Weight	Dimension picture (in mm)	A	B	C	D	E	F
HLD 810-500/8	Screw clamp, 4 mm²	Bolt, M5	Mounting lugs	M5	0.78 kg	1	190	45	75	20	180	166
HLD 810-500/12	Screw clamp, 4 mm²	Bolt, M5	Mounting lugs	M5	1.00 kg	1	220	45	75	20	210	190
HLD 810-500/16	Screw clamp, 4 mm²	Bolt, M5	Mounting lugs	M5	1.20 kg	1	250	45	75	20	240	220
HLD 810-500/30	Screw clamp, 10 mm²	Bolt, M5	Mounting lugs	M5	1.80 kg	1	270	55	95	30	255	240
HLD 810-500/42	Screw clamp, 10 mm²	Bolt, M6	Mounting lugs	M5	2.10 kg	1	310	55	95	30	295	280
HLD 810-500/55	Screw clamp, 16 mm²	Bolt, M6	Mounting lugs	M5	2.50 kg	2	250	85	95	60	235	255
HLD 810-500/75	Screw clamp, 35 mm²	Bolt, M8	Mounting lugs	M6	4.50 kg	2	270	85	135	60	255	310
HLD 810-500/100	Screw clamp, 50 mm²	Bolt, M10	Mounting lugs	M6	5.20 kg	2	270	95	150	65	255	325
HLD 810-500/130	Screw clamp, 50 mm²	Bolt, M10	Mounting lugs	M6	5.60 kg	2	270	95	150	65	255	325
HLD 810-500/180	Screw clamp, 95 mm²	Bolt, M10	Mounting lugs	M6	9.20 kg	2	380	130	181	102	365	440
HLD 810-500/250	Screw clamp, 150 mm²	Bolt, M12	Mounting lugs	M6	12.20 kg	2	450	155	220	125	435	525

Dimension pictures

1



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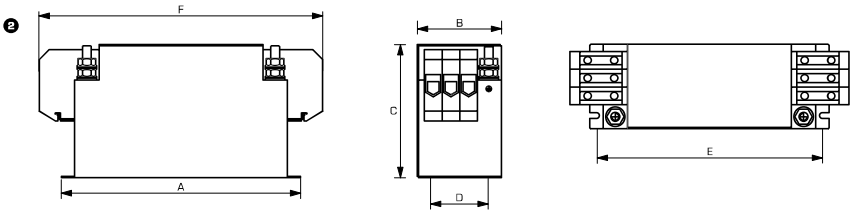


Radio interference suppression filter, three-phase
HFD 500

BLOCK Website

General Data

Rated voltage 3 x 520 Vac
Voltage range 0 - 3 x 520 Vac
Rated current 3 x 8 - 3 x 110 A
Leakage current 18.00 - 66.00 mA
Degree of protection IP 20
DIN Rail mounting

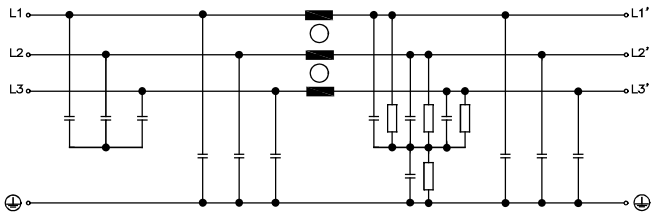
Advantages

For general requirements
Single-stage filter concept
Efficient filter effect against line-bound interference emissions
Increase in the interference immunity of the connected consumer

Applications

Radio interference suppression filter for mains-side interference suppression of power supplies and electronic devices.

Sample application



Standards

Radio interference suppression filter to DIN EN 60939-2

Approvals

EAC

Radio interference suppression filter, three-phase
HFD 500

BLOCK Website

Electrical data

Typ	HFD 500/8	HFD 500/16	HFD 500/25	HFD 500/36	HFD 500/50	HFD 500/80
Operating data						
Rated voltage	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac
Voltage range	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac
Rated current	3 x 8 A	3 x 16 A	3 x 25 A	3 x 36 A	3 x 50 A	3 x 80 A
Leakage current (50 Hz)*	18.00 mA	18.00 mA	34.00 mA	34.00 mA	34.00 mA	66.00 mA
Leakage current (50 Hz)**	6.00 mA	6.00 mA	175.00 mA	175.00 mA	175.00 mA	220.00 mA
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Overrating Capacity	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly
Environment						
Ambient temperature max.	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C
Climatic category	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)
Safety and protection						
Type	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure
Protection index	IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
Safety class (prepared)	I	I	I	I	I	I
Test voltage	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE
Notes						
*	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %
**	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases
Order numbers						
Order Number	**HFD 500/8**	**HFD 500/16**	**HFD 500/25**	**HFD 500/36**	**HFD 500/50**	**HFD 500/80**

Radio interference suppression filter, three-phase
HFD 500

BLOCK Website

Electrical data

Typ	HFD 500/110
Operating data	
Rated voltage	3 x 520 Vac
Voltage range	0 - 3 x 520 Vac
Rated current	3 x 110 A
Leakage current (50 Hz)*	66.00 mA
Leakage current (50 Hz)**	220.00 mA
Rated frequency	50 - 60 Hz
Overrating Capacity	150 %, shortly
Environment	
Ambient temperature max.	40 °C
Climatic category	25/085/21 (in accordance with EN 60068-1)
Safety and protection	
Type	Metal enclosure
Protection index	IP 20
Safety class (prepared)	I
Test voltage	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE
Notes	
*	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %
**	Leakage current by loss of two phases
Order numbers	
Order Number	**HFD 500/110**

Radio interference suppression filter, three-phase
HFD 500

BLOCK Website

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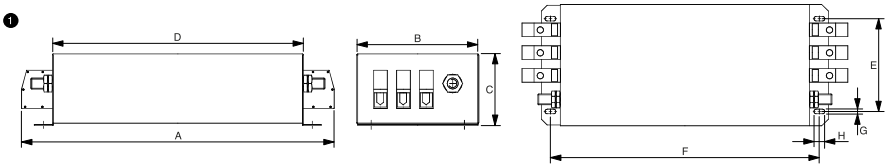
Mechanical data

Typ	Terminals phase	Terminals PE	Fixing method	Weight	Dimension picture (in mm)	A	B	C	D	E	F	G	H
HFD 500/8	Screw clamp, 4 mm²	Bolt, M6	Mounting lugs	1.85 kg	2	219	115	60	85	180	100	115	6.5
HFD 500/16	Screw clamp, 4 mm²	Bolt, M6	Mounting lugs	3.10 kg	2	239	150	65	120	200	135	115	6.5
HFD 500/25	Screw clamp, 10 mm²	Bolt, M6	Mounting lugs	3.15 kg	2	250	150	65	120	200	135	115	6.5
HFD 500/36	Screw clamp, 10 mm²	Bolt, M6	Mounting lugs	3.22 kg	2	250	150	65	120	200	135	115	6.5
HFD 500/50	Screw clamp, 10 mm²	Bolt, M6	Mounting lugs	3.30 kg	2	250	150	65	120	200	135	115	6.5
HFD 500/80	Screw clamp, 25 mm²	Bolt, M6	Mounting lugs	9.50 kg	1	427	170	90	350	130	375	6.5	15
HFD 500/110	Screw clamp, 50 mm²	Bolt, M6	Mounting lugs	10.20 kg	1	436	170	100	350	130	375	6.5	15

Dimension pictures

1



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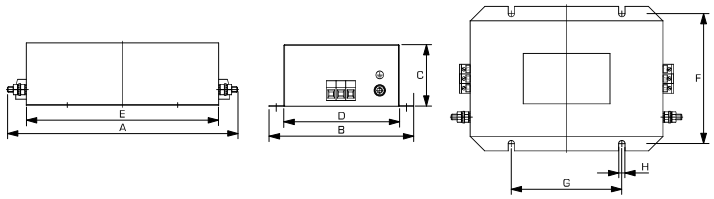


Radio interference suppression filter, three-phase
HFD 210

BLOCK Website

General Data

Rated voltage 3 x 480 - 3 x 520 Vac
Voltage range 0 - 3 x 480 - 520 Vac
Rated current 3 x 7 - 3 x 180 A
Leakage current 12.00 - 18.00 mA
Protection index IP 20

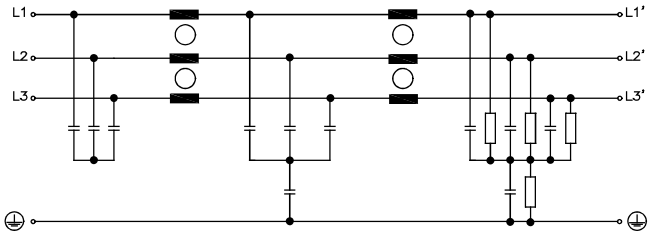
Advantages

For enhanced requirements
Two-stage filter concept
Efficient filter effect against line-bound interference emissions
Increase in the interference immunity of the connected consumer

Applications

Radio interference suppression filter for line-side interference suppression of single devices, frequency converters or as group interference suppression.

Sample application



Standards

Radio interference suppression filter to DIN EN 60939-2

Approvals

UL 1283 5th edition, CSA 22.2 No 8

Radio interference suppression filter, three-phase
HFD 210

BLOCK Website

Electrical data

Typ	HFD 210-500/7	HFD 210-500/16	HFD 210-500/30	HFD 210-500/42	HFD 210-500/55	HFD 210-500/75
Operating data						
Rated voltage	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac
Voltage range	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac
Rated current	3 x 7 A	3 x 16 A	3 x 30 A	3 x 42 A	3 x 55 A	3 x 75 A
Leakage current (50 Hz)*	13.00 mA	14.00 mA	16.00 mA	16.00 mA	16.00 mA	16.00 mA
Leakage current (50 Hz)**	130.00 mA	133.00 mA	154.00 mA	154.00 mA	154.00 mA	154.00 mA
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Overrating Capacity	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly
Approvals						
Approvals	cURus, UL 1283 5th edition, CSA 22.2 No.8	cURus, UL 1283 5th edition, CSA 22.2 No.8	cURus, UL 1283 5th edition, CSA 22.2 No.8	cURus, UL 1283 5th edition, CSA 22.2 No.8	cURus, UL 1283 5th edition, CSA 22.2 No.8	cURus, UL 1283 5th edition, CSA 22.2 No.8
Environment						
Climatic category	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)
Ambient temperature max.	50 °C	50 °C	50 °C	50 °C	50 °C	50 °C
Safety and protection						
Type	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure
Protection index	IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
Safety class (prepared)	I	I	I	I	I	I
Test voltage	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE
Notes						
*	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %
**	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases
Order numbers						
Order Number	**HFD 210-500/7**	**HFD 210-500/16**	**HFD 210-500/30**	**HFD 210-500/42**	**HFD 210-500/55**	**HFD 210-500/75**

Radio interference suppression filter, three-phase
HFD 210

BLOCK Website

Electrical data

Typ	HFD 210-500/100	HFD 210-500/130	HFD 210-500/180
Operating data			
Rated voltage	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac
Voltage range	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac
Rated current	3 x 100 A	3 x 130 A	3 x 180 A
Leakage current (50 Hz)*	16.00 mA	18.00 mA	18.00 mA
Leakage current (50 Hz)**	154.00 mA	173.00 mA	173.00 mA
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Overrating Capacity	150 %, shortly	150 %, shortly	150 %, shortly
Approvals			
Approvals	cURus, UL 1283 5th edition, CSA 22.2 No.8	cURus, UL 1283 5th edition, CSA 22.2 No.8	cURus, UL 1283 5th edition, CSA 22.2 No.8
Environment			
Climatic category	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)
Ambient temperature max.	50 °C	50 °C	50 °C
Safety and protection			
Type	Metal enclosure	Metal enclosure	Metal enclosure
Protection index	IP 20	IP 20	IP 20
Safety class (prepared)	I	I	I
Test voltage	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE
Notes			
*	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %
**	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases
Order numbers			
Order Number	**HFD 210-500/100**	**HFD 210-500/130**	**HFD 210-500/180**

Radio interference suppression filter, three-phase
HFD 210

BLOCK Website

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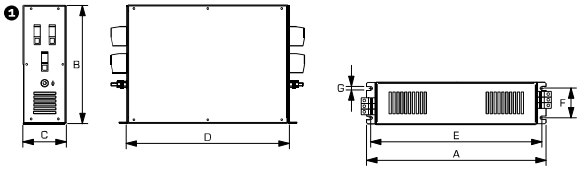
Mechanical data

Typ	Terminals phase	Terminals PE	Fixing method	Weight	Dimension picture (in mm)	A	B	C	D	E	F	G
HFD 210-500/7	Screw clamp, 4 mm²	Bolt, M5	Mounting lugs	1.10 kg	1	255	126	50	225	240	25	6.5
HFD 210-500/16	Screw clamp, 4 mm²	Bolt, M5	Mounting lugs	1.70 kg	1	305	142	55	275	289	30	6.5
HFD 210-500/30	Screw clamp, 10 mm²	Bolt, M5	Mounting lugs	1.80 kg	1	335	150	60	305	320	35	6.5
HFD 210-500/42	Screw clamp, 10 mm²	Bolt, M5	Mounting lugs	2.70 kg	1	329	185	70	300	314	45	6.5
HFD 210-500/55	Screw clamp, 16 mm²	Bolt, M6	Mounting lugs	3.50 kg	1	329	185	80	300	314	55	6.5
HFD 210-500/75	Screw clamp, 25 mm²	Bolt, M6	Mounting lugs	4.40 kg	1	329	220	80	300	314	55	6.5
HFD 210-500/100	Screw clamp, 50 mm²	Bolt, M10	Mounting lugs	5.60 kg	1	379	220	90	350	364	65	6.5
HFD 210-500/130	Screw clamp, 50 mm²	Bolt, M10	Mounting lugs	6.80 kg	1	429	240	110	400	414	80	6.5
HFD 210-500/180	Screw clamp, 95 mm²	Bolt, M10	Mounting lugs	10.00 kg	1	438	240	110	400	414	80	6.5

Dimension pictures



Radio interference filter, three-phase
HFD 510

BLOCK Website

General Data

- Rated voltage 3 x 480 - 3 x 520 Vac
- Voltage range 0 - 3 x 480 - 520 Vac
- Rated current 3 x 8 - 3 x 180 A
- Leakage current 4.00 - 43.00 mA
- Degree of protection IP 20

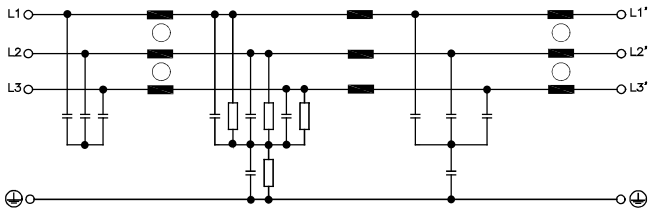
Advantages

- For the highest requirements
- Two-stage filter concept
- Efficient filter effect against line-bound interference emissions
- Increase in the interference immunity of the connected consumer

Applications

Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %.

Sample application



Standards

Radio interference suppression filter to DIN EN 60939-2

Approvals

EAC

Radio interference filter, three-phase
HFD 510

BLOCK Website

Electrical data

Typ	HFD 510-500/8	HFD 510-500/16	HFD 510-500/25	HFD 510-500/50	HFD 510-500/80	HFD 510-500/130
Operating data						
Rated voltage	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac
Voltage range	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac
Rated current	3 x 8 A	3 x 16 A	3 x 25 A	3 x 50 A	3 x 80 A	3 x 130 A
Leakage current (50 Hz)*	4.00 mA	20.00 mA	18.00 mA	20.00 mA	33.00 mA	42.00 mA
Leakage current (50 Hz)**	40.00 mA	193.00 mA	175.00 mA	188.00 mA	320.00 mA	402.00 mA
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Overrating Capacity	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly
Environment						
Climatic category	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)
Ambient temperature max.	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C
Safety and protection						
Type	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure
Protection index	IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
Safety class (prepared)	I	I	I	I	I	I
Test voltage	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE
Notes						
*	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %
**	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases
Order numbers						
Order Number	**HFD 510-500/8**	**HFD 510-500/16**	**HFD 510-500/25**	**HFD 510-500/50**	**HFD 510-500/80**	**HFD 510-500/130**

Radio interference filter, three-phase
HFD 510

BLOCK Website

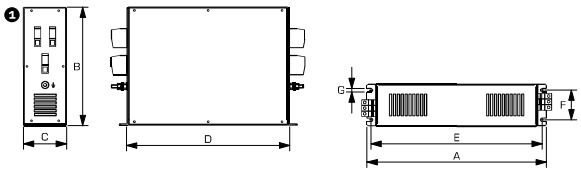
Electrical data

Typ	HFD 510-500/180
Operating data	
Rated voltage	3 x 520 Vac
Voltage range	0 - 3 x 520 Vac
Rated current	3 x 180 A
Leakage current (50 Hz)*	43.00 mA
Leakage current (50 Hz)**	417.00 mA
Rated frequency	50 - 60 Hz
Overrating Capacity	150 %, shortly
Environment	
Climatic category	25/085/21 (in accordance with EN 60068-1)
Ambient temperature max.	40 °C
Safety and protection	
Type	Metal enclosure
Protection index	IP 20
Safety class (prepared)	I
Test voltage	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE
Notes	
*	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %
**	Leakage current by loss of two phases
Order numbers	
Order Number	**HFD 510-500/180**

Mechanical data

Typ	Terminals phase	Terminals PE	Fixing method	Weight	Dimension picture (in mm)	A	B	C	D	E	F	G
HFD 510-500/8	Screw clamp, 4 mm²	Bolt, M5	Mounting lugs	1.10 kg	1	255	125	50	225	240	25	6.5
HFD 510-500/16	Screw clamp, 4 mm²	Bolt, M5	Mounting lugs	1.90 kg	1	305	142	55	275	290	27	6.5
HFD 510-500/25	Screw clamp, 10 mm²	Bolt, M5	Mounting lugs	1.90 kg	1	329	185	70	300	314	45	6.5
HFD 510-500/50	Screw clamp, 16 mm²	Bolt, M8	Mounting lugs	3.10 kg	1	429	240	110	400	414	80	6.5
HFD 510-500/80	Screw clamp, 50 mm²	Bolt, M10	Mounting lugs	4.00 kg	1	429	240	110	400	414	80	6.5
HFD 510-500/130	Screw clamp, 95 mm²	Bolt, M10	Mounting lugs	6.80 kg	1	438	240	110	400	414	80	6.5
HFD 510-500/180	Screw clamp, 95 mm²	Bolt, M10	Mounting lugs	7.00 kg	1	536	300	116	500	512	90	8.5

Dimension pictures



1.1
1.2
1.3
2.1
2.2
3.1
3.2
3.3
4.0
5.1
5.2

Radio interference suppression filter, three-phase with neutral conductor
HLV 110

BLOCK Website

General Data

Rated voltage 3 x 520 Vac
Voltage range 0 - 3 x 520 Vac
Rated current 3 x 8 - 3 x 250 A+N
Leakage current 19.00 - 37.00 mA
Ambient temperature max. 50 °C
Degree of protection IP 20

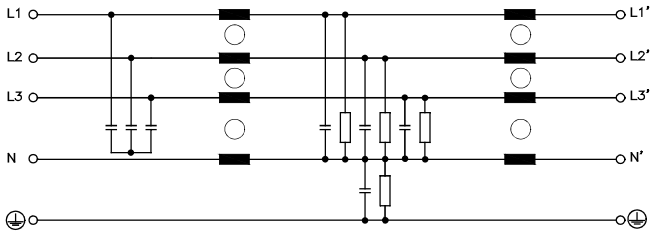
Advantages

For enhanced requirements
Single-stage filter concept
Efficient filter effect against line-bound interference emissions
Increase in the interference immunity of the connected consumer

Applications

Radio interference suppression filter for line-side interference suppression of single devices, frequency inverters or as group interference suppression.

Sample application



Standards

Radio interference suppression filter complying with DIN EN 60939-2, UL 1283, CSA C22.2 No.8

Approvals

UL 1283 5th edition, CSA 22.2 No 8

Radio interference suppression filter, three-phase with neutral conductor
HLV 110

BLOCK Website

Electrical data

Typ	HLV 110-500/8	HLV 110-500/12	HLV 110-500/16	HLV 110-500/30	HLV 110-500/42	HLV 110-500/55
Operating data						
Rated voltage	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac
Voltage range	0 - 520 Vac	0 - 520 Vac	0 - 520 Vac	0 - 520 Vac	0 - 520 Vac	0 - 520 Vac
Rated current	3 x 8 A+N	3 x 12 A+N	3 x 16 A+N	3 x 30 A+N	3 x 42 A+N	3 x 55 A+N
Leakage current (50 Hz)*	19.00 mA	19.00 mA	21.00 mA	21.00 mA	30.00 mA	22.00 mA
Leakage current (50 Hz)**	187.00 mA	187.00 mA	200.00 mA	200.00 mA	285.00 mA	208.00 mA
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Overrating Capacity	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly
Approvals						
Approvals	-	-	cURus,UL 1283 5th edition, CSA 22.2 No.8	-	-	-
Environment						
Climatic category	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)
Ambient temperature max.	50 °C	50 °C	50 °C	50 °C	50 °C	50 °C
Safety and protection						
Type	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure
Protection index	IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
Safety class (prepared)	I	I	I	I	I	I
Test voltage	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE
Notes						
*	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %
**	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases
Order numbers						
Order Number	**HLV 110-500/8**	**HLV 110-500/12**	**HLV 110-500/16**	**HLV 110-500/30**	**HLV 110-500/42**	**HLV 110-500/55**

Radio interference suppression filter, three-phase with neutral conductor
HLV 110

BLOCK Website

Electrical data

Typ	HLV 110-500/75	HLV 110-500/100	HLV 110-500/130	HLV 110-500/180	HLV 110-500/250
Operating data					
Rated voltage	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac
Voltage range	0 - 520 Vac	0 - 520 Vac	0 - 520 Vac	0 - 520 Vac	0 - 520 Vac
Rated current	3 x 75 A+N	3 x 100 A+N	3 x 130 A+N	3 x 180 A+N	3 x 250 A+N
Leakage current (50 Hz)*	30.00 mA	22.00 mA	22.00 mA	31.00 mA	37.00 mA
Leakage current (50 Hz)**	285.00 mA	207.00 mA	207.00 mA	296.00 mA	351.00 mA
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Overrating Capacity	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly
Approvals					
Approvals	-	-	-	-	-
Environment					
Climatic category	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)
Ambient temperature max.	50 °C	50 °C	50 °C	50 °C	50 °C
Safety and protection					
Type	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure
Protection index	IP 20	IP 20	IP 20	IP 20	IP 20
Safety class (prepared)	I	I	I	I	I
Test voltage	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE
Notes					
*	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %
**	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases
Order numbers					
Order Number	**HLV 110-500/75**	**HLV 110-500/100**	**HLV 110-500/130**	**HLV 110-500/180**	**HLV 110-500/250**

Radio interference suppression filter, three-phase with neutral conductor
HLV 110

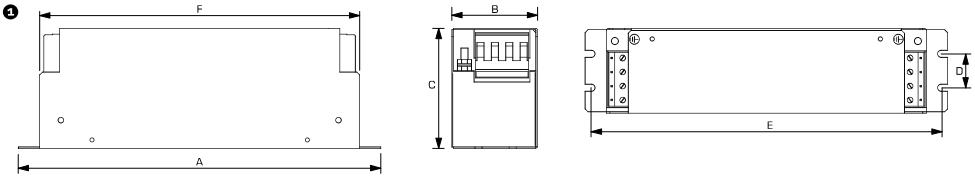
BLOCK Website

Mechanical data

Typ	Terminals phase	Terminals phase/N	Fixing method	Fixing screws	Weight	Dimension picture (in mm)	A	B	C	D	E	F
HLV 110-500/8	Screw clamp, 4 mm²	Screw clamp, 4 mm²	Mounting lugs	M5	0.83 kg	1	190	55	75	30	178	165
HLV 110-500/12	Screw clamp, 4 mm²	Screw clamp, 4 mm²	Mounting lugs	M5	0.97 kg	1	220	55	75	30	208	190
HLV 110-500/16	Screw clamp, 4 mm²	Screw clamp, 4 mm²	Mounting lugs	M5	1.20 kg	1	250	55	75	30	240	220
HLV 110-500/30	Screw clamp, 10 mm²	Screw clamp, 10 mm²	Mounting lugs	M5	1.80 kg	1	270	70	95	45	255	240
HLV 110-500/42	Screw clamp, 10 mm²	Screw clamp, 10 mm²	Mounting lugs	M6	2.20 kg	1	310	70	95	40	295	280
HLV 110-500/55	Screw clamp, 16 mm²	Screw clamp, 16 mm²	Mounting lugs	M6	2.90 kg	2	250	100	95	70	233	255
HLV 110-500/75	Screw clamp, 35 mm²	Screw clamp, 35 mm²	Mounting lugs	M6	4.80 kg	2	270	100	150	70	255	298
HLV 110-500/100	Screw clamp, 50 mm²	Screw clamp, 50 mm²	Mounting lugs	M6	6.20 kg	2	320	115	150	85	307	370
HLV 110-500/130	Screw clamp, 50 mm²	Screw clamp, 50 mm²	Mounting lugs	M6	6.90 kg	2	320	115	150	85	307	370
HLV 110-500/180	Screw clamp, 95 mm²	Screw clamp, 95 mm²	Mounting lugs	M6	11.10 kg	2	380	150	180	125	365	445
HLV 110-500/250	Screw clamp, 150 mm²	Screw clamp, 150 mm²	Mounting lugs	M6	15.10 kg	2	450	186	220	155	435	420

Dimension pictures

1



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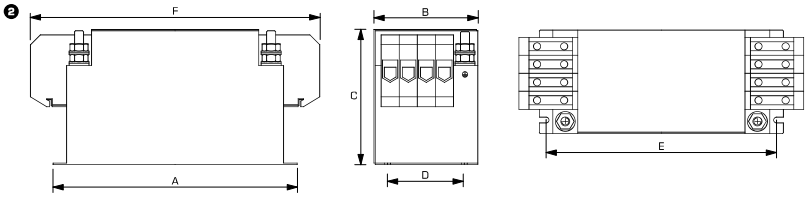

1.1
1.2
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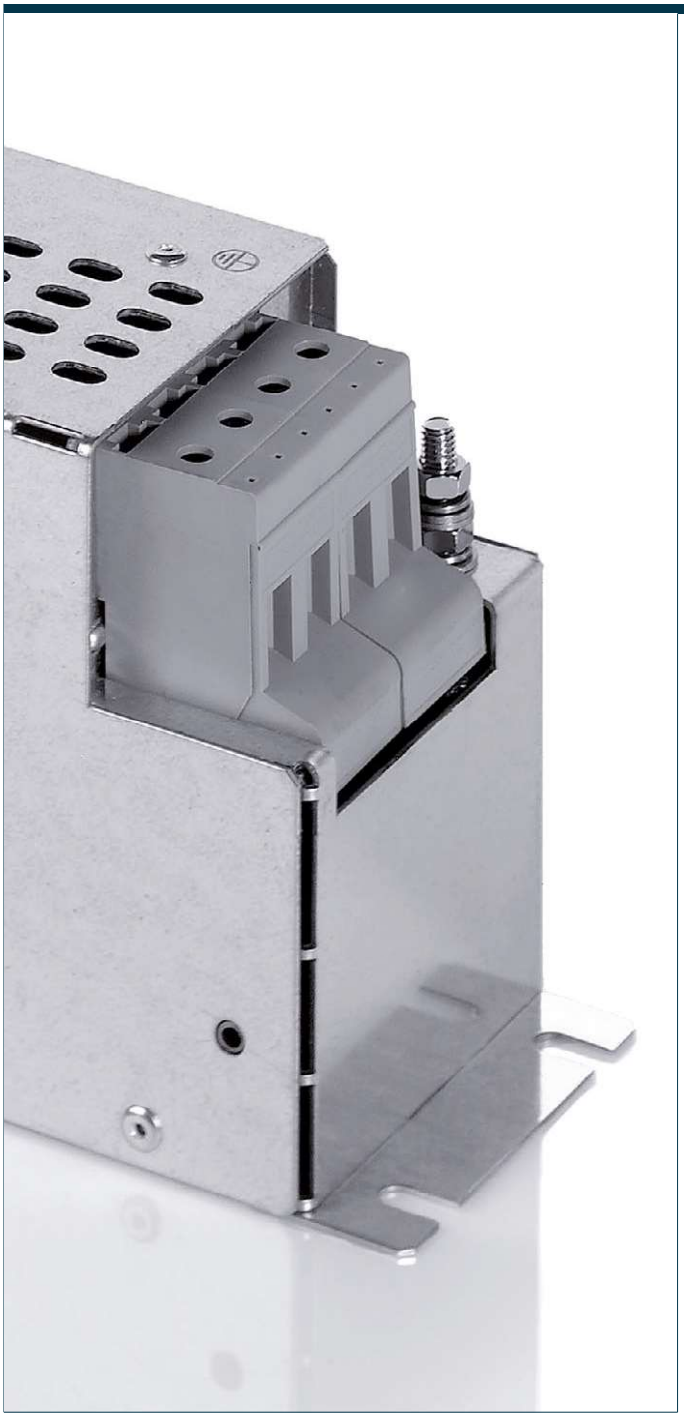
Radio interference suppression filter, three-phase with neutral conductor, low leakage current
HLV 310

BLOCK Website



General Data

- Rated voltage 3 x 520 Vac
- Voltage range 0 - 3 x 520 Vac
- Rated current 3 x 8 - 3 x 250 A+N
- Leakage current <1.0 mA
- Degree of protection IP 20

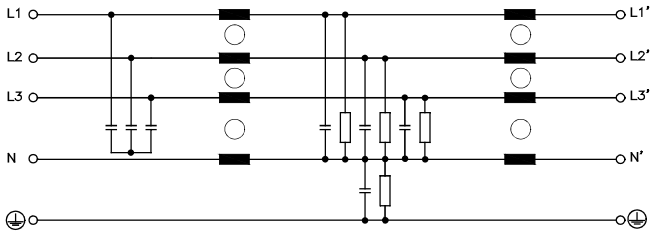
Advantages

- For enhanced requirements
- Low leakage current
- Single-stage filter concept
- Efficient filter effect against line-bound interference emissions
- Increase in the interference immunity of the connected consumer

Applications

Radio interference suppression filter for line-side interference suppression of single devices, frequency converters or as group interference suppression.

Sample application



Standards

Radio interference suppression filter to DIN EN 60939-2

Approvals

EAC

Radio interference suppression filter, three-phase with neutral conductor, low leakage current
HLV 310

BLOCK Website

Electrical data

Typ	HLV 310-500/8	HLV 310-500/12	HLV 310-500/16	HLV 310-500/30	HLV 310-500/42	HLV 310-500/55
Special features						
Characteristics	Suitable for the medical field	Suitable for the medical field	Suitable for the medical field	Suitable for the medical field	Suitable for the medical field	Suitable for the medical field
Operating data						
Rated voltage	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac
Voltage range	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac
Rated current	3 x 8 A+N	3 x 12 A+N	3 x 12 A+N	3 x 30 A+N	3 x 42 A+N	3 x 55 A+N
Leakage current (50 Hz)*	<1.0 mA	<1.0 mA	<1.0 mA	<1.0 mA	<1.0 mA	<1.0 mA
Leakage current (50 Hz)**	<3.5 mA	<3.5 mA	<3.5 mA	<3.5 mA	<3.5 mA	<3.5 mA
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Overrating Capacity	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly
Environment						
Climatic category	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)
Ambient temperature max.	50 °C	50 °C	50 °C	50 °C	50 °C	50 °C
Safety and protection						
Type	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure
Protection index	IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
Safety class (prepared)	I	I	I	I	I	I
Test voltage	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE
Notes						
*	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %
**	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases
Order numbers						
Order Number	**HLV 310-500/8**	**HLV 310-500/12**	**HLV 310-500/16**	**HLV 310-500/30**	**HLV 310-500/42**	**HLV 310-500/55**

Radio interference suppression filter, three-phase with neutral conductor, low leakage current
HLV 310

BLOCK Website

Electrical data

Typ	HLV 310-500/75	HLV 310-500/100	HLV 310-500/130	HLV 310-500/180	HLV 310-500/250
Special features					
Characteristics	Suitable for the medical field	Suitable for the medical field	Suitable for the medical field	Suitable for the medical field	Suitable for the medical field
Operating data					
Rated voltage	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac
Voltage range	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac
Rated current	3 x 75 A+N	3 x 100 A+N	3 x 130 A+N	3 x 180 A+N	3 x 250 A+N
Leakage current (50 Hz)*	<1.0 mA	<1.0 mA	<1.0 mA	<1.0 mA	<1.0 mA
Leakage current (50 Hz)**	<3.5 mA	<3.5 mA	<3.5 mA	<3.5 mA	<3.5 mA
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Overrating Capacity	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly
Environment					
Climatic category	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)
Ambient temperature max.	50 °C	50 °C	50 °C	50 °C	50 °C
Safety and protection					
Type	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure
Protection index	IP 20	IP 20	IP 20	IP 20	IP 20
Safety class (prepared)	I	I	I	I	I
Test voltage	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE
Notes					
*	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %
**	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases
Order numbers					
Order Number	**HLV 310-500/75**	**HLV 310-500/100**	**HLV 310-500/130**	**HLV 310-500/180**	**HLV 310-500/250**

Radio interference suppression filter, three-phase with neutral conductor, low leakage current
HLV 310

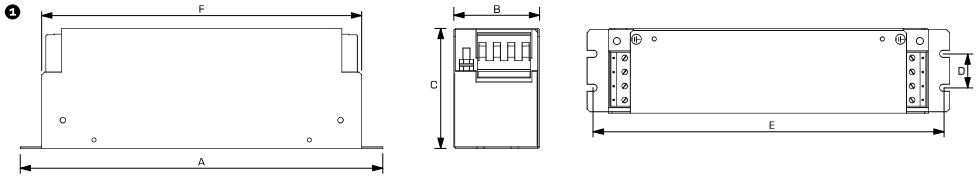
BLOCK Website

Mechanical data

Typ	Terminals phase/N	Terminals PE	Fixing method	Fixing screws	Weight	Dimension picture (in mm)	A	B	C	D	E	F
HLV 310-500/8	Screw clamp, 4 mm²	Bolt, M5	Mounting lugs	M5	0.83 kg	1	190	55	75	30	178	165
HLV 310-500/12	Screw clamp, 4 mm²	Bolt, M5	Mounting lugs	M5	0.97 kg	1	220	55	75	30	208	190
HLV 310-500/16	Screw clamp, 4 mm²	Bolt, M5	Mounting lugs	M5	1.20 kg	1	250	55	75	30	240	220
HLV 310-500/30	Screw clamp, 10 mm²	Bolt, M5	Mounting lugs	M5	1.80 kg	1	270	70	95	45	255	240
HLV 310-500/42	Screw clamp, 10 mm²	Bolt, M6	Mounting lugs	M6	2.20 kg	1	310	70	95	40	295	280
HLV 310-500/55	Screw clamp, 16 mm²	Bolt, M6	Mounting lugs	M6	2.90 kg	2	250	100	95	70	233	255
HLV 310-500/75	Screw clamp, 35 mm²	Bolt, M10	Mounting lugs	M6	4.80 kg	2	270	100	150	70	255	298
HLV 310-500/100	Screw clamp, 50 mm²	Bolt, M10	Mounting lugs	M6	6.20 kg	2	320	115	150	85	307	370
HLV 310-500/130	Screw clamp, 50 mm²	Bolt, M10	Mounting lugs	M6	6.90 kg	2	320	115	150	85	307	370
HLV 310-500/180	Screw clamp, 95 mm²	Bolt, M10	Mounting lugs	M6	11.10 kg	2	380	150	180	125	365	445
HLV 310-500/250	Screw clamp, 150 mm²	Bolt, M12	Mounting lugs	M6	15.10 kg	2	450	186	220	155	435	420

Dimension pictures

1



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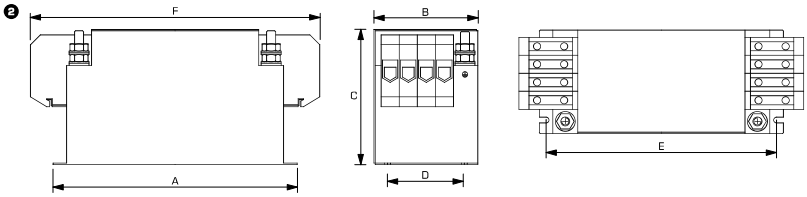

Radio interference suppression filter, three-phase with neutral conductor, low leakage current
HLV 710

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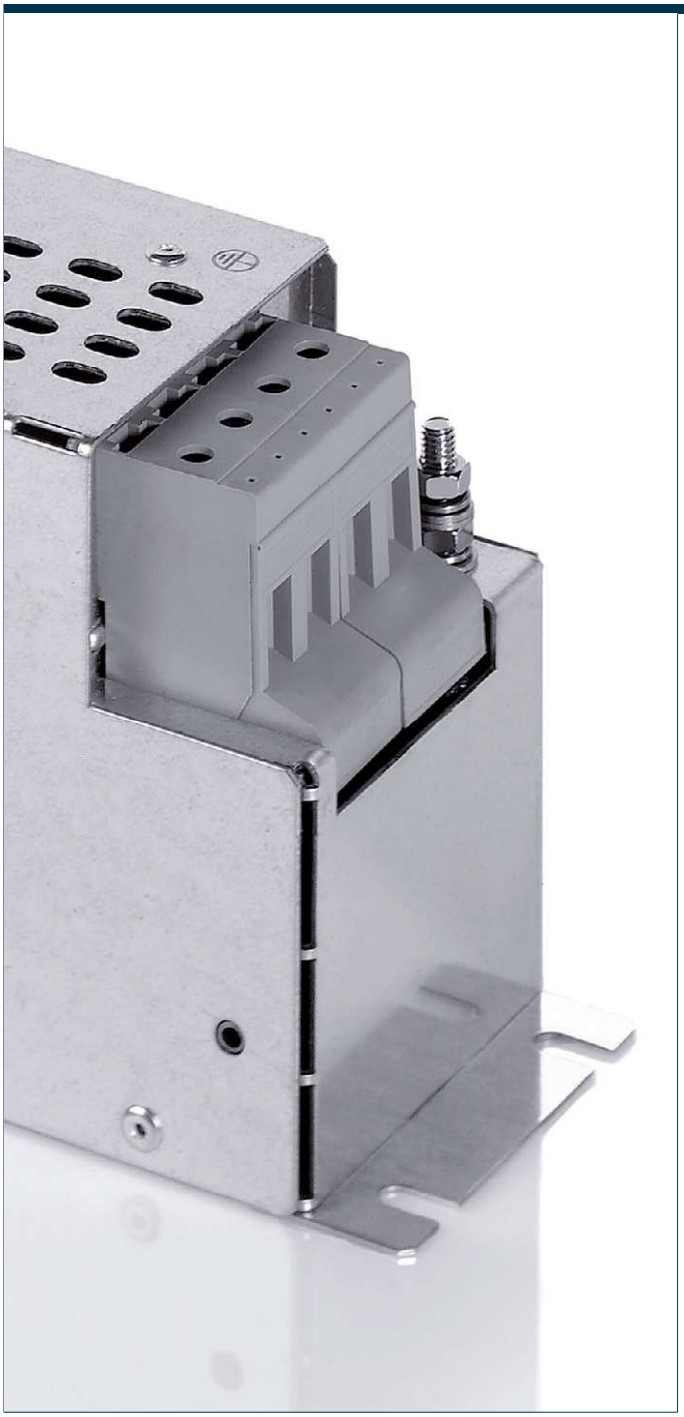


General Data

Rated voltage 3 x 520 Vac
Voltage range 0 - 3 x 520 Vac
Rated current 3 x 8 - 3 x 250 A+N
Leakage current 6.00 - 7.00 mA
Degree of protection IP 20

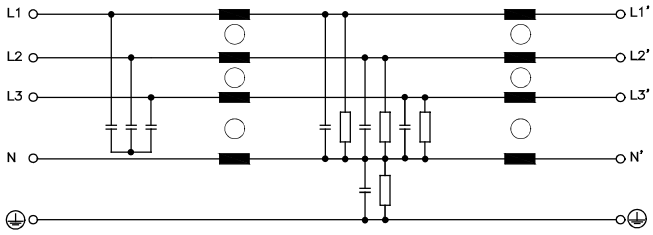
Advantages

For enhanced requirements
Reduced leakage current
Single-stage filter concept
Efficient filter effect against line-bound interference emissions

Applications

Radio interference suppression filter for line-side interference suppression of single devices, frequency converters or as group interference suppression.

Sample application



Standards

Radio interference suppression filter to DIN EN 60939-2

Approvals

EAC

Radio interference suppression filter, three-phase with neutral conductor, low leakage current
HLV 710

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Electrical data

Typ	HLV 710-500/8	HLV 710-500/12	HLV 710-500/16	HLV 710-500/30	HLV 710-500/42	HLV 710-500/55
Operating data						
Rated voltage	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac
Voltage range	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac
Rated current	3 x 8 A+N	3 x 12 A+N	3 x 16 A+N	3 x 30 A+N	3 x 42 A+N	3 x 55 A+N
Leakage current (50 Hz)*	6.00 mA	6.00 mA	6.00 mA	6.50 mA	6.50 mA	6.50 mA
Leakage current (50 Hz)**	60.00 mA	60.00 mA	60.00 mA	63.00 mA	63.00 mA	63.00 mA
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Overrating Capacity	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly
Environment						
Climatic category	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)
Ambient temperature max.	50 °C	50 °C	50 °C	50 °C	50 °C	50 °C
Safety and protection						
Type	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure
Protection index	IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
Safety class (prepared)	I	I	I	I	I	I
Test voltage	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE
Notes						
*	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %
**	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases
Order numbers						
Order Number	**HLV 710-500/8**	**HLV 710-500/12**	**HLV 710-500/16**	**HLV 710-500/30**	**HLV 710-500/42**	**HLV 710-500/55**

Radio interference suppression filter, three-phase with neutral conductor, low leakage current
HLV 710

BLOCK Website

Electrical data

Typ	HLV 710-500/75	HLV 710-500/100	HLV 710-500/130	HLV 710-500/180	HLV 710-500/250
Operating data					
Rated voltage	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac
Voltage range	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac
Rated current	3 x 75 A+N	3 x 100 A+N	3 x 130 A+N	3 x 180 A+N	3 x 250 A+N
Leakage current (50 Hz)*	6.50 mA	6.50 mA	6.50 mA	7.00 mA	7.00 mA
Leakage current (50 Hz)**	63.00 mA	63.00 mA	65.00 mA	65.00 mA	65.00 mA
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Overrating Capacity	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly
Environment					
Climatic category	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)
Ambient temperature max.	50 °C	50 °C	50 °C	50 °C	50 °C
Safety and protection					
Type	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure
Protection index	IP 20	IP 20	IP 20	IP 20	IP 20
Safety class (prepared)	I	I	I	I	I
Test voltage	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE
Notes					
*	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %
**	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases
Order numbers					
Order Number	**HLV 710-500/75**	**HLV 710-500/100**	**HLV 710-500/130**	**HLV 710-500/180**	**HLV 710-500/250**

Radio interference suppression filter, three-phase with neutral conductor, low leakage current
HLV 710

BLOCK Website

Mechanical data

Typ	Terminals phase/N	Terminals PE	Fixing method	Fixing screws	Weight	Dimension picture (in mm)	A	B	C	D	E	F
HLV 710-500/8	Screw clamp, 4 mm²	Bolt, M5	Mounting lugs	M5	0.83 kg	1	190	55	75	30	178	165
HLV 710-500/12	Screw clamp, 4 mm²	Bolt, M5	Mounting lugs	M5	0.97 kg	1	220	55	75	30	208	190
HLV 710-500/16	Screw clamp, 4 mm²	Bolt, M5	Mounting lugs	M5	1.20 kg	1	250	55	75	30	240	220
HLV 710-500/30	Screw clamp, 10 mm²	Bolt, M5	Mounting lugs	M5	1.80 kg	1	270	70	95	45	255	240
HLV 710-500/42	Screw clamp, 10 mm²	Bolt, M6	Mounting lugs	M6	2.20 kg	1	310	70	95	40	295	255
HLV 710-500/55	Screw clamp, 16 mm²	Bolt, M6	Mounting lugs	M6	2.90 kg	2	250	100	95	70	233	255
HLV 710-500/75	Screw clamp, 35 mm²	Bolt, M10	Mounting lugs	M6	2.90 kg	2	270	100	150	70	255	298
HLV 710-500/100	Screw clamp, 50 mm²	Bolt, M10	Mounting lugs	M6	6.20 kg	2	320	115	150	85	307	370
HLV 710-500/130	Screw clamp, 50 mm²	Bolt, M10	Mounting lugs	M6	6.90 kg	2	320	115	150	85	307	370
HLV 710-500/180	Screw clamp, 95 mm²	Bolt, M10	Mounting lugs	M6	11.10 kg	2	380	150	180	125	365	445
HLV 710-500/250	Screw clamp, 150 mm²	Bolt, M12	Mounting lugs	M6	15.10 kg	2	450	186	220	155	435	420

Dimension pictures

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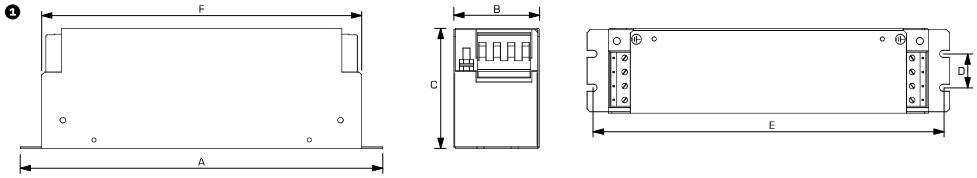

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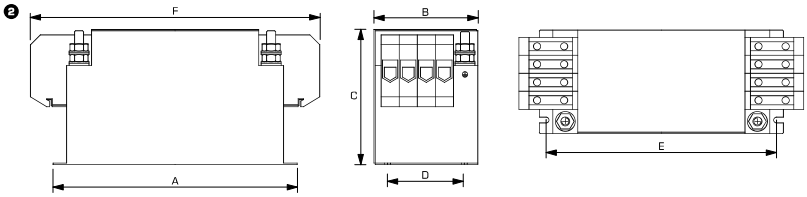

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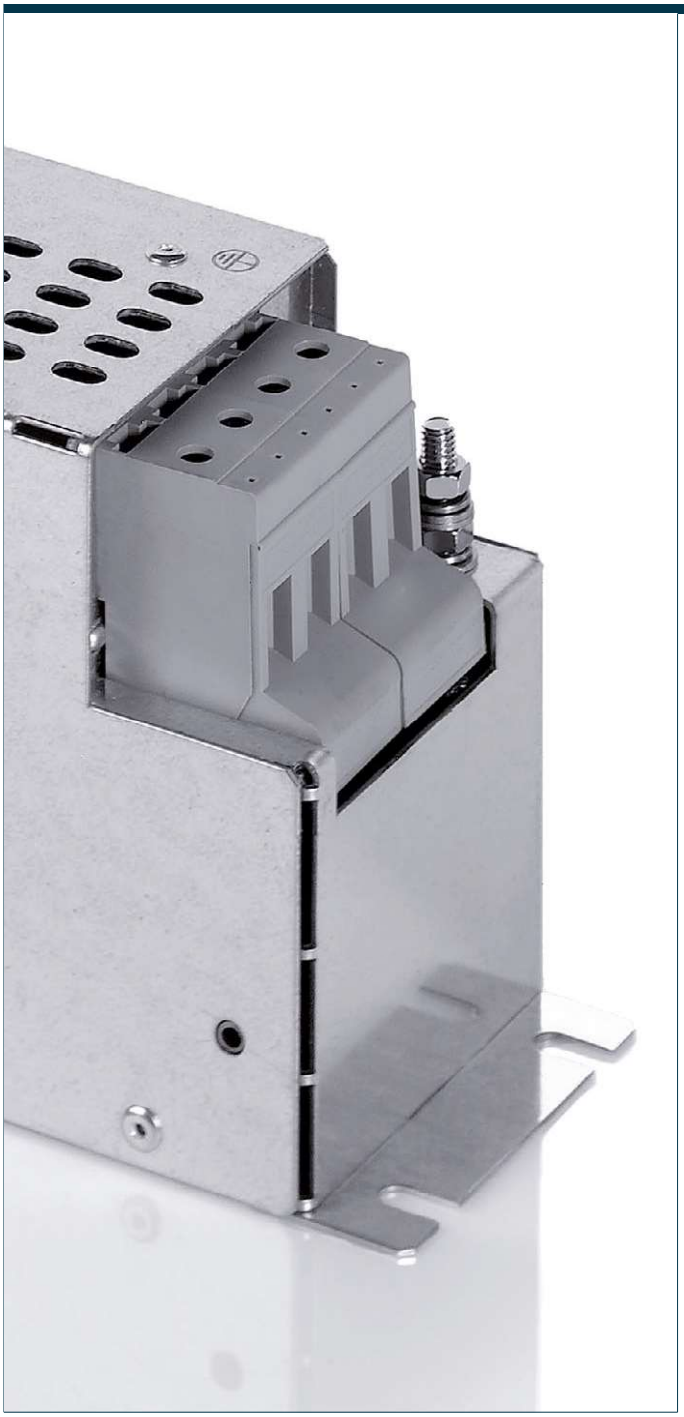
Radio interference suppression filter, three-phase with neutral conductor, no leakage current
HLV 810

BLOCK Website



General Data

Rated voltage 3 x 520 Vac
Voltage range 0 - 3 x 520 Vac
Rated current 3 x 8 - 3 x 250 A+N
Degree of protection IP 20
Leakage current 0 mA

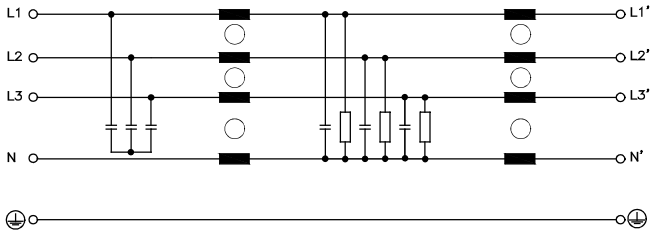
Advantages

For enhanced requirements
Single-stage filter concept
Efficient filter effect against line-bound interference emissions
Increase in the interference immunity of the connected consumer

Applications

Radio interference suppression filter for line-side interference suppression of single devices or frequency converters.

Sample application



Standards

Radio interference suppression filter to DIN EN 60939-2

Approvals

EAC

Radio interference suppression filter, three-phase with neutral conductor, no leakage current
HLV 810

BLOCK Website

Electrical data

Typ	HLV 810-500/8	HLV 810-500/12	HLV 810-500/16	HLV 810-500/30	HLV 810-500/42	HLV 810-500/55
Operating data						
Rated voltage	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac
Voltage range	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac
Rated current	3 x 8 A+N	3 x 12 A+N	3 x 16 A+N	3 x 30 A+N	3 x 42 A NBN	3 x 55 A+N
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Overrating Capacity	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly
Leakage current (50 Hz)	0 mA	0 mA	0 mA	0 mA	0 mA	0 mA
Environment						
Climatic category	25/085/21 [in accordance with EN 60068-1]	25/085/21 [in accordance with EN 60068-1]	25/085/21 [in accordance with EN 60068-1]	25/085/21 [in accordance with EN 60068-1]	25/085/21 [in accordance with EN 60068-1]	25/085/21 [in accordance with EN 60068-1]
Ambient temperature max.	50 °C	50 °C	50 °C	50 °C	50 °C	50 °C
Safety and protection						
Type	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure
Protection index	IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
Safety class (prepared)	I	I	I	I	I	I
Test voltage	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE
Order numbers						
Order Number	**HLV 810-500/8**	**HLV 810-500/12**	**HLV 810-500/16**	**HLV 810-500/30**	**HLV 810-500/42**	**HLV 810-500/55**

Radio interference suppression filter, three-phase with neutral conductor, no leakage current
HLV 810

BLOCK Website

Electrical data

Typ	HLV 810-500/75	HLV 810-500/100	HLV 810-500/130	HLV 810-500/180	HLV 810-500/250
Operating data					
Rated voltage	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac
Voltage range	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac	0 - 3 x 520 Vac
Rated current	3 x 75 A+N	3 x 100 A+N	3 x 130 A+N	3 x 180 A+N	3 x 250 A+N
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Overrating Capacity	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly
Leakage current (50 Hz)	0 mA	0 mA	0 mA	0 mA	0 mA
Environment					
Climatic category	25/085/21 [in accordance with EN 60068-1]	25/085/21 [in accordance with EN 60068-1]	25/085/21 [in accordance with EN 60068-1]	25/085/21 [in accordance with EN 60068-1]	25/085/21 [in accordance with EN 60068-1]
Ambient temperature max.	50 °C	50 °C	50 °C	50 °C	50 °C
Safety and protection					
Type	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure
Protection index	IP 20	IP 20	IP 20	IP 20	IP 20
Safety class (prepared)	I	I	I	I	I
Test voltage	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE
Order numbers					
Order Number	**HLV 810-500/75**	**HLV 810-500/100**	**HLV 810-500/130**	**HLV 810-500/180**	**HLV 810-500/250**

Radio interference suppression filter, three-phase with neutral conductor, no leakage current
HLV 810

BLOCK Website

Mechanical data

Typ	Terminals phase/N	Terminals PE	Fixing method	Fixing screws	Weight	Dimension picture (in mm)	A	B	C	D	E	F
HLV 810-500/8	Screw clamp, 4 mm²	Bolt, M5	Mounting lugs	M5	0.83 kg	1	190	55	75	30	178	165
HLV 810-500/12	Screw clamp, 4 mm²	Bolt, M5	Mounting lugs	M5	0.97 kg	1	220	55	75	30	208	190
HLV 810-500/16	Screw clamp, 4 mm²	Bolt, M5	Mounting lugs	M5	1.20 kg	1	250	55	75	30	240	220
HLV 810-500/30	Screw clamp, 10 mm²	Bolt, M5	Mounting lugs	M5	1.80 kg	1	270	70	95	45	255	240
HLV 810-500/42	Screw clamp, 10 mm²	Bolt, M6	Mounting lugs	M6	2.20 kg	1	310	70	95	40	295	255
HLV 810-500/55	Screw clamp, 16 mm²	Bolt, M6	Mounting lugs	M6	2.90 kg	2	250	100	95	70	233	255
HLV 810-500/75	Screw clamp, 35 mm²	Bolt, M10	Mounting lugs	M6	4.80 kg	2	270	100	150	70	255	298
HLV 810-500/100	Screw clamp, 50 mm²	Bolt, M10	Mounting lugs	M5	6.20 kg	2	320	115	150	85	307	370
HLV 810-500/130	Screw clamp, 50 mm²	Bolt, M10	Mounting lugs	M6	6.90 kg	2	320	115	150	85	307	370
HLV 810-500/180	Screw clamp, 95 mm²	Bolt, M10	Mounting lugs	M6	11.10 kg	2	380	150	180	125	365	445
HLV 810-500/250	Screw clamp, 150 mm²	Bolt, M12	Mounting lugs	M6	15.10 kg	2	450	186	220	155	435	420

Dimension pictures

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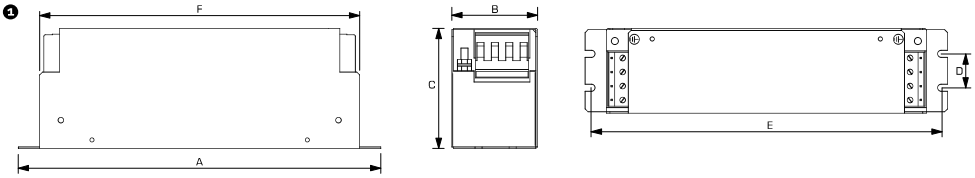

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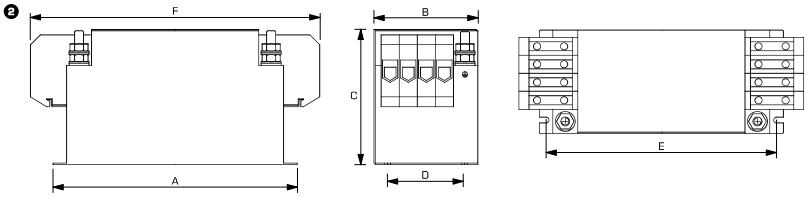


Radio interference suppression filter, three-phase with neutral conductor
HFV 510

BLOCK Website

General Data

Rated voltage 3 x 480 Vac
Voltage range 0 - 3 x 480 Vac
Rated current 3 x 16 - 3 x 80 A+N
Leakage current 15.00 - 22.00 mA
Degree of protection IP 20

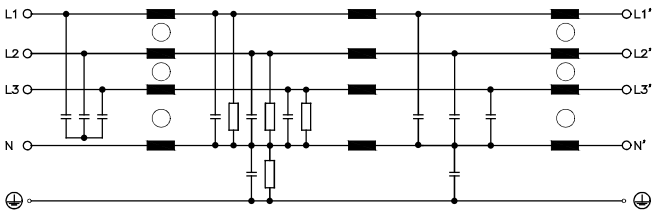
Advantages

For the highest requirements
Two stage filter concept
Efficient filter effect against line-bound interference emissions
Increase in the interference immunity of the connected consumer

Applications

Radio interference suppression filter for line-side interference suppression of single devices, frequency converters or as group interference suppression.

Sample application



Standards

Radio interference suppression filter to DIN EN 60939-2

Approvals

EAC

Radio interference suppression filter, three-phase with neutral conductor
HFV 510

BLOCK Website

Electrical data

Typ	HFV 510-400/16	HFV 510-400/25	HFV 510-400/35	HFV 510-400/50	HFV 510-400/80
Operating data					
Rated voltage	3 x 480 Vac	3 x 480 Vac	3 x 480 Vac	3 x 480 Vac	3 x 480 Vac
Voltage range	0 - 3 x 480 Vac	0 - 3 x 480 Vac	0 - 3 x 480 Vac	0 - 3 x 480 Vac	0 - 3 x 480 Vac
Rated current	3 x 16 A+N	3 x 25 A+N	3 x 35 A+N	3 x 50 A+N	3 x 80 A+N
Leakage current (50 Hz)*	15.00 mA	17.00 mA	22.00 mA	17.00 mA	19.00 mA
Leakage current (50 Hz)**	145.00 mA	161.00 mA	215.00 mA	161.00 mA	178.00 mA
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Overrating Capacity	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly
Environment					
Climatic category	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)	25/085/21 (in accordance with EN 60068-1)
Ambient temperature max.	40 °C	40 °C	40 °C	40 °C	40 °C
Safety and protection					
Type	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure	Metal enclosure
Protection index	IP 20	IP 20	IP 20	IP 20	IP 20
Safety class (prepared)	I	I	I	I	I
Test voltage	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE	2150 Vdc Phase/Phase, 2700 Vdc Phase/PE
Notes					
*	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %	Leakage current measured against the maximum permissible input voltage fluctuation in accordance with IEC 38 ±10 %
**	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases	Leakage current by loss of two phases
Order numbers					
Order Number	**HFV 510-400/16**	**HFV 510-400/25**	**HFV 510-400/35**	**HFV 510-400/50**	**HFV 510-400/80**

Radio interference suppression filter, three-phase with neutral conductor
HFV 510

BLOCK Website

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Mechanical data

Typ	Terminals phase/N	Terminals PE	Fixing method	Weight	Dimension picture (in mm)	A	B	C	D	E	F	G
HFV 510-400/16	Screw clamp, 4 mm²	Bolt, M5	Mounting lugs with fixing holes	1.70 kg	1	305	55	142	290	30	295	6.5
HFV 510-400/25	Screw clamp, 10 mm²	Bolt, M5	Mounting lugs with fixing holes	1.80 kg	1	329	70	185	314	45	300	6.5
HFV 510-400/35	Screw clamp, 10 mm²	Bolt, M5	Mounting lugs with fixing holes	2.80 kg	1	329	70	185	314	45	300	6.5
HFV 510-400/50	Screw clamp, 16 mm²	Bolt, M8	Mounting lugs with fixing holes	3.10 kg	1	429	110	240	414	80	400	6.5
HFV 510-400/80	Screw clamp, 25 mm²	Bolt, M10	Mounting lugs with fixing holes	4.00 kg	1	633	110	240	618	80	600	6.5

Dimension pictures

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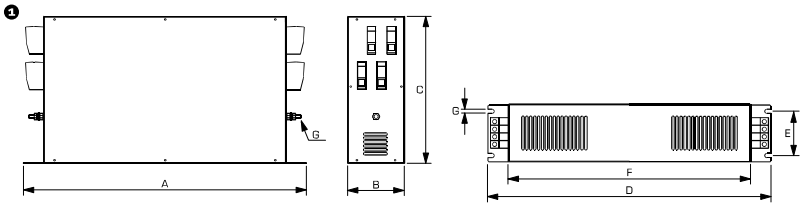

Magnetic voltage stabilizer
KH 250

BLOCK Website

General Data

Rated input voltage 230 Vac
Rated output voltage 230 Vac
Rated power 250 VA
Ambient temperature +40 °C
Degree of protection IP 40

Advantages

Compensation for mains voltage fluctuations
Attenuation of asymmetric interference voltage peaks
Bridging voltage dips
Galvanic isolation from the mains
Short-circuit proof
No-load proof
RF interference-free
Service-free

Applications

Magnetic voltage stabiliser securing the supply voltage in the event of mains overvoltage, mains undervoltage, voltage dips and voltage surges and in the case of brief voltage interruptions.

Standards

Magnetic voltage stabiliser acting as mains transformer in accordance with VDE 0570 part 2-12, EN 61558-2-12; IEC 61558-2-12

Approvals

EAC

Magnetic voltage stabilizer
KH 250

BLOCK Website

Typ	KH 250
Electrical data	
Operating data	
Rated input voltage	230 Vac
Permissible tolerance (Input voltage)	+10 % to -20 %
Rated output voltage	230 Vac
Rated current	1.1 A
Rated frequency	50 Hz
Permissible tolerance (Frequency)	±1 Hz
Response time	typ. 3 line periods (60 ms)
Output	
Rated Power	250 VA
Environment	
Ambient temperature max.	40 °C
Safety and protection	
Type	Resin encapsulated transformer
Insulation class	A
Protection index	IP 40
Safety class (prepared)	II
Short circuit strength	short-circuit proof
Test voltage	3750 Vac, 50 Hz
Order numbers	
Order Number	**KH 250**
Mechanical data	
Terminal and mounting	
Terminals Input	Mains lead, 2 m long with moulded plug
Terminals Output	Socket
Measures and weights	
Weight	11.70 kg
Dimension (W x H x D)	145 x 200 x 245 mm
Dimension picture (in mm)	1
A	245
B	145
C	200

Dimension pictures

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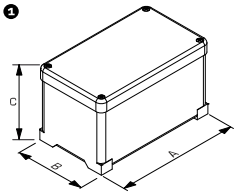

Magnetic voltage stabilizer
BSD

BLOCK Website

General Data

Rated input voltage 230 Vac
Rated output voltage 230 Vac
Rated power 60 - 3000 VA
Degree of protection IP 00
Ambient temperature +40 °C

Advantages

Compensation for mains voltage fluctuations
Attenuation of asymmetric parasitic voltage peaks
Bridging momentary voltage dips
May be switched between high control precision and elevated parasitic voltage attenuation
Galvanic isolation from the mains
Short-circuit proof
No-load proof
RF interference free

Applications

Magnetic voltage stabilizer securing the supply voltage in the event of mains overvoltage, mains undervoltage, voltage dips and voltage surges and in the case of brief voltage interruptions.

Standards

Magnetic voltage stabiliser acting as mains transformer in accordance with VDE 0570 part 2;2-12, EN 61558-1; 2-12, IEC 61558-1;2-12

Magnetic voltage stabilizer
BSD

BLOCK Website

Typ	BSD 60	BSD 120	BSD 250	BSD 500	BSD 800	BSD 1000
Electrical data						
Operating data						
Rated input voltage	230 Vac	230 Vac	230 Vac	230 Vac	230 Vac	230 Vac
Permissible tolerance (Input voltage)	+10 % to -30 %	+10 % to -30 %	+10 % to -30 %	+10 % to -30 %	+10 % to -30 %	+10 % to -30 %
Rated output voltage	230 Vac	230 Vac	230 Vac	230 Vac	230 Vac	230 Vac
Rated current	0.26 A	0.52 A	1.01 A	2.17 A	3.48 A	4.34 A
Rated frequency	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz
Harmonic content	<4 % at ohmic load	<4 % at ohmic load	<5 % at ohmic load	<5 % at ohmic load	<5 % at ohmic load	<5 % at ohmic load
Stored energy time at rated load	10 ms	10 ms	10 ms	10 ms	10 ms	10 ms
Correction time	20 - 60 ms	20 - 60 ms	20 - 60 ms	20 - 60 ms	20 - 60 ms	20 - 60 ms
Output						
Rated Power	60 VA	120 VA	250 VA	500 VA	800 VA	1000 VA
Environment						
Ambient temperature max.	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C
Safety and protection						
Type	Enclosed	Enclosed	Enclosed	Enclosed	Enclosed	Enclosed
Insulation class	E	E	E	E	E	E
Protection index	IP 00	IP 00	IP 00	IP 00	IP 00	IP 00
Safety class (prepared)	I	I	I	I	I	I
Short circuit strength	short-circuit proof	short-circuit proof	short-circuit proof	short-circuit proof	short-circuit proof	short-circuit proof
Test voltage	3550 Vac, 50 Hz	3550 Vac, 50 Hz	3550 Vac, 50 Hz	3550 Vac, 50 Hz	3550 Vac, 50 Hz	3550 Vac, 50 Hz
Order numbers						
Order Number	**BSD 60**	**BSD 120**	**BSD 250**	**BSD 500**	**BSD 800**	**BSD 1000**
Mechanical data						
Terminal and mounting						
Fixing method	Fixing rail	Fixing rail	Fixing rail	Fixing rail	Fixing rail	Fixing rail
Terminals	Screw-type terminals	Screw-type terminals	Screw-type terminals	Screw-type terminals	Screw-type terminals	Screw-type terminals
Measures and weights						
Weight	3.60 kg	6.40 kg	11.00 kg	15.50 kg	22.00 kg	31.00 kg
Dimension picture (in mm)	1	1	1	1	1	1
A	212	232	266	288	318	287
B	75	100	147	147	147	210
C	138	181	216	216	216	302
D	92	120	165	165	165	235
E	58	59	66	88	118	82
F	190	210	242	264	294	261
G	66	66	140	140	140	162
H	-	-	-	-	-	340

Dimension pictures

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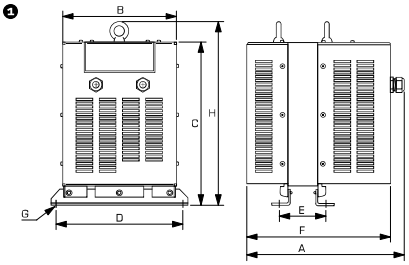

Magnetic voltage stabilizer
BSD

BLOCK Website

Typ	BSD 1500	BSD 2000	BSD 3000
Electrical data			
Operating data			
Rated input voltage	230 Vac	230 Vac	230 Vac
Permissible tolerance (Input voltage)	+10 % to -30 %	+10 % to -30 %	+10 % to -30 %
Rated output voltage	230 Vac	230 Vac	230 Vac
Rated current	6.52 A	8.7 A	13 A
Rated frequency	50 Hz	50 Hz	50 Hz
Harmonic content	<5 % at ohmic load	<5 % at ohmic load	<5 % at ohmic load
Stored energy time at rated load	10 ms	10 ms	10 ms
Correction time	20 - 60 ms	20 - 60 ms	20 - 60 ms
Output			
Rated Power	1500 VA	2000 VA	3000 VA
Environment			
Ambient temperature max.	40 °C	40 °C	40 °C
Safety and protection			
Type	Enclosed	Enclosed	Enclosed
Insulation class	E	E	E
Protection index	IP 00	IP 00	IP 00
Safety class (prepared)	I	I	I
Short circuit strength	short-circuit proof	short-circuit proof	short-circuit proof
Test voltage	3550 Vac, 50 Hz	3550 Vac, 50 Hz	3550 Vac, 50 Hz
Order numbers			
Order Number	**BSD 1500**	**BSD 2000**	**BSD 3000**
Mechanical data			
Terminal and mounting			
Fixing method	Fixing rail	Fixing rail	Fixing rail
Terminals	Screw-type terminals	Screw-type terminals	Screw-type terminals
Measures and weights			
Weight	43.00 kg	56.00 kg	82.00 kg
Dimension picture (in mm)	❶	❶	❶
A	325	418	485
B	210	210	210
C	302	302	302
D	235	235	235
E	120	153	220
F	299	392	459
G	162	162	162
H	340	340	340

Dimension pictures

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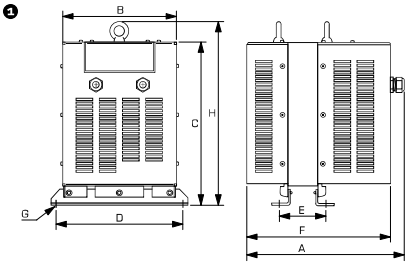

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