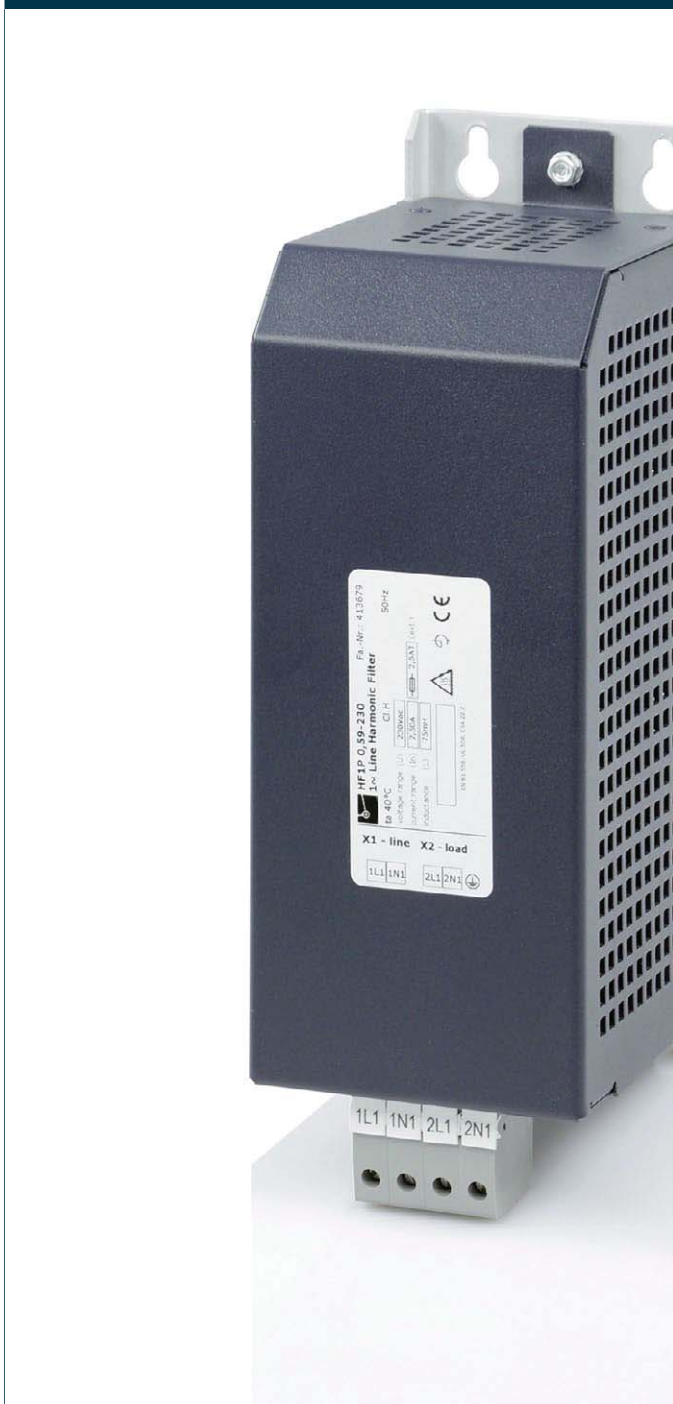


Harmonic filter HF1P 230



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, IEC 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





Harmonic filter HF1P 230

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	
Electrical data	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
	Oversrating 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

Typ		HF1P 5,70-230
Electrical data	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
	Overtating 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

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 mm ²	Bolt, M6	Mounting lugs	1.8 kg	230	85	107	47	201
	HF1P 0,59-230	Screw clamp, 16 mm ²	Bolt, M6	Mounting lugs	3.9 kg	280	95.2	135	56	252
	HF1P 1,01-230	Screw clamp, 16 mm ²	Bolt, M6	Mounting lugs	5.6 kg	301	109	138	57	273
	HF1P 2,73-230	Screw clamp, 16 mm ²	Bolt, M6	Mounting lugs	11.2 kg	385	132	182	72	357
	HF1P 3,68-230	Screw clamp, 16 mm ²	Bolt, M6	Mounting lugs	21.4 kg	414	158.2	239	108	385
	HF1P 4,60-230	Screw clamp, 16 mm ²	Bolt, M6	Mounting lugs	22.2 kg	456	143.2	210	93	428
	HF1P 5,70-230	Screw clamp, 16 mm ²	Bolt, M6	Mounting lugs	33.7 kg	543	158.2	242	113	515

Dimension pictures

