Radio interference suppression filter, three-phase with energy recovery
HFD 503

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General Data

Rated voltage 3 x 520 Vac
Voltage range 0 - 3 x 520 Vac
Rated current 3 x 250 - 3 x 2200 A
Leakage current 23.00 - 370.00 mA
Ambient temperature max. 50 °C
Degree of protection IP 00

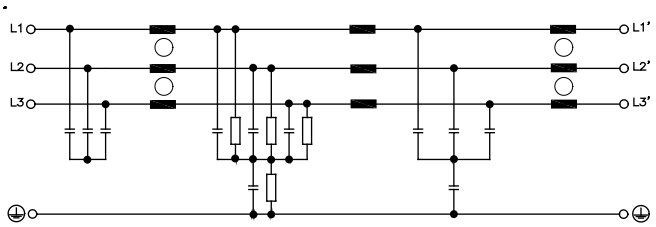
Advantages

- For high current applications in automation technology
- Multi 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

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Electrical data

Typ	HFD 503-500/250	HFD 503-500/300	HFD 503-500/400	HFD 503-500/500	HFD 503-500/600	HFD 503-500/900
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 250 A	3 x 300 A	3 x 400 A	3 x 500 A	3 x 600 A	3 x 900 A
Leakage current (50 Hz)*	23.00 mA	20.00 mA	20.00 mA	20.00 mA	20.00 mA	170.00 mA
Leakage current (50 Hz)**	220.00 mA	200.00 mA	200.00 mA	200.00 mA	200.00 mA	1700.00 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 00	IP 00	IP 00	IP 00	IP 00	IP 00
Safety class (prepared)	I	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	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 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 503-500/250**	**HFD 503-500/300**	**HFD 503-500/400**	**HFD 503-500/500**	**HFD 503-500/600**	**HFD 503-500/900**

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Electrical data

Typ	HFD 503-500/1200	HFD 503-500/1600	HFD 503-500/2200
Operating data			
Rated voltage	3 x 520 Vac	3 x 520 Vac	3 x 520 Vac
Voltage range	0 - 520 Vac	0 - 520 Vac	0 - 520 Vac
Rated current	3 x 1200 A	3 x 1600 A	3 x 2200 A
Leakage current (50 Hz)*	20.20 mA	250.00 mA	370.00 mA
Leakage current (50 Hz)**	195.00 mA	2180.00 mA	3600.00 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 00	IP 00	IP 00
Safety class (prepared)	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
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 503-500/1200**	**HFD 503-500/1600**	**HFD 503-500/2200**

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Mechanical data 30

Typ	Connections phase	Connections PE	Fixing method	Weight	Dimension picture (in mm)	A	B	C	D	E	F	G	I	J	K	L
HFD 503-500/250	Flat copper, 47 x 25 x 8 mm	Bolt, M12	Mounting lugs	36.50 kg	1	510	300	160	564	275	210	78.5	80	27	9	610
HFD 503-500/300	Flat copper, 47 x 25 x 8 mm	Bolt, M12	Mounting lugs	38.00 kg	1	516	300	160	564	275	210	78.5	80	34	9	610
HFD 503-500/400	Flat copper, 47 x 25 x 8 mm	Bolt, M12	Mounting lugs	39.00 kg	1	516	300	160	564	275	210	78.5	80	34	9	610
HFD 503-500/500	Flat copper, 47 x 25 x 8 mm	Bolt, M12	Mounting lugs	39.00 kg	1	516	300	160	564	275	210	78.5	80	34	9	610
HFD 503-500/600	Flat copper, 100 x 30 x 8 mm	Bolt, M12	Mounting lugs	39.00 kg	1	516	300	160	564	275	210	60	74.5	24	9	716
HFD 503-500/900	Flat copper, 100 x 50 x 10 mm	Bolt, M12	Mounting lugs	49.00 kg	2	516	300	160	564	275	210	60	74.5	24	9	716
HFD 503-500/1200	Flat copper, 100 x 50 x 12 mm	Bolt, M12	Mounting lugs	49.00 kg	2	516	300	160	564	275	210	60	74.5	24	9	716
HFD 503-500/1600	Flat copper, 100 x 50 x 12 mm	Bolt, M12	Mounting lugs	38.00 kg	3	516	300	160	564	275	210	60	74.5	24	9	716
HFD 503-500/2200	Flat copper, 100 x 70 x 12 mm	Bolt, M12	Mounting lugs	60.00 kg	3	666	360	160	714	335	280	90	74.5	38	9	866

Dimension pictures