

Radio interference filter, three-phase  
**HFD 510**



**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

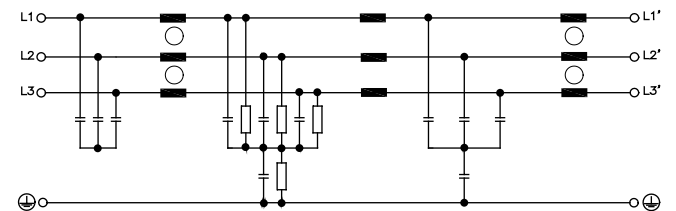
**Advantages**

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** **ERC**

1.1  
1.2  
1.3  
2.1  
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3.1  
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4.0  
5.1  
5.2

### 3 Reactors / EMI filters

#### Three-phase radio interference suppression filters



## Radio interference filter, three-phase HFD 510



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
<b>Electrical data</b>						
<b>Operating data</b>						
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
Oversrating Capacity	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly	150 %, shortly
<b>Environment</b>						
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
<b>Safety and protection</b>						
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
<b>Notes</b>						
*	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
<b>Order numbers</b>						
<b>Order Number</b>	<b>HFD 510-500/8</b>	<b>HFD 510-500/16</b>	<b>HFD 510-500/25</b>	<b>HFD 510-500/50</b>	<b>HFD 510-500/80</b>	<b>HFD 510-500/130</b>



## Radio interference filter, three-phase HFD 510



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
	Oversizing 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	<b>HFD 510-500/180</b>	

Mechanical data	Typ	Connections phase	Connections PE	Fixing method	Weight	Dimension picture (in mm)						
						A	B	C	D	E	F	G
	HFD 510-500/8	Screw clamp, 4 mm <sup>2</sup>	Bolt, M5	Mounting lugs	1.10 kg	255	125	50	225	240	25	6.5
	HFD 510-500/16	Screw clamp, 4 mm <sup>2</sup>	Bolt, M5	Mounting lugs	1.90 kg	305	142	55	275	290	27	6.5
	HFD 510-500/25	Screw clamp, 10 mm <sup>2</sup>	Bolt, M5	Mounting lugs	1.90 kg	329	185	70	300	314	45	6.5
	HFD 510-500/50	Screw clamp, 16 mm <sup>2</sup>	Bolt, M8	Mounting lugs	3.10 kg	429	240	110	400	414	80	6.5
	HFD 510-500/80	Screw clamp, 50 mm <sup>2</sup>	Bolt, M10	Mounting lugs	4.00 kg	429	240	110	400	414	80	6.5
	HFD 510-500/130	Screw clamp, 95 mm <sup>2</sup>	Bolt, M10	Mounting lugs	6.80 kg	438	240	110	400	414	80	6.5
	HFD 510-500/180	Screw clamp, 95 mm <sup>2</sup>	Bolt, M10	Mounting lugs	7.00 kg	536	300	116	500	512	90	8.5

### Dimension pictures

