

Type UHP1 power line filters for shielded rooms and anechoic chambers. (Frequency range of 14KHz till 40 GHz, attenuation of 100dB)

The Ultra high performance filter is a superior filter housed in a three compartment casing that achieves 100 dB insertion transmission loss at 14 kHz till 40 GHz. The leakage current is as low as at mA level and the voltage drop is less than 1V.

The circuit is designed as a symmetrical double-circuit with high quality rod cores providing inductance. These cores do not saturate due to their large air gap and they are insensitive to asymmetrical load.

Foil capacitors ensure a long operating life by their self healing feature even after voltage transients. A seamless fixing of the filter casing to the shielded room is very important to ensure correct operation. The filter is housed in a casing that has a base flange which provides stable mounting and excellent earthing when bolted to the shielded room via the mounting bolts.

This series is offered as a two line filter (phase and neutral) or as a four line filter (three phases and neutral). The neutral line is always attenuated and all conductors are decoupled from each other. This allows the conductors to operate independently without attenuation loss.

Advantages

- High attenuation level for lower frequencies
- Suitable for use under extreme conditions (military applications)
- Wear resistant
- Insensitive for corrosion

Applications

- Shielded rooms
- Shielded chambers
- Anechoic chambers
- Military applications

Partnumbers UHP1 serie

Type	Rated current (A)	Leakage current per line (mA)	Dim. diagram
UHP1-2003	2x3	5	1
UHP1-2006	2x6	5	
UHP1-2016	2x16	20	2
UHP1-2032	2x32	20	
UHP1-2064	2x64	20	
UHP1-2100	2x100	20	3
UHP1-2200	2x200	20	
UHP1-4016	4x16	5	4
UHP1-4032	4x32	5	
UHP1-4050	4x50	5	
UHP1-4063	4x63	5	
UHP1-4100	4x100	5	5
UHP1-4200	4x200	10	
UHP1-4300	4x300	10	
UHP1-4400	4x400	10	

Rated line voltage

Rated line voltage		
Rate Line Voltage Vr for two-line filters	250V	line-line / line-case
	440V	line-line
Rate voltage Vr for four-line filters	250V	line-case
Rated current IR	See characteristics	Referred to +40°C ambient temperature
Rated frequency fR	50-60Hz	
Test voltage	1000Vdc/2s	line-line
	1000Vdc/2s	line-case
Voltage drop/phase ΔV	<1V	of VR at 50Hz and IR
Leakage current	See characteristics	at 440V/250V and 50Hz
Climatic category	25/070/21	

Ultra high performance type 1 (UHP1)

Technical datasheet

Shielding performance UHP1 filters per MIL-STD-220A

Frequency	Field	Typical insertion loss (dB)
10 KHz	H	100
100 KHz	H	100
1 MHz	H	100
1 MHz	E	100
10 MHz	E	100
100 MHz	E	100
400 MHz	P	100
1 GHz	P	100
10 GHz	P	100
40 GHz	P	100

Available dimensions (mm)

Type	A	B	C	D	E	F	G	H	Dimensional diagram
UHP1-2016-A	770	160	120	805	755	100	35		2
UHP1-2032-A									
UHP1-2063-A									
UHP1-2016	550	120	80	585		60	45		2
UHP1-2032									
UHP1-2063									
UHP1-2100	850	200	150	885	808	100	60	100	3
UHP1-2200									
UHP1-4016	880	320	120	915	865	180	35		4
UHP1-4032									
UHP1-4050									
UHP1-4063									
UHP1-4100	940	320	150	970	895	160	60	210	5
UHP1-4200									
UHP1-4300									

Dimensional diagrams

Diagram 1

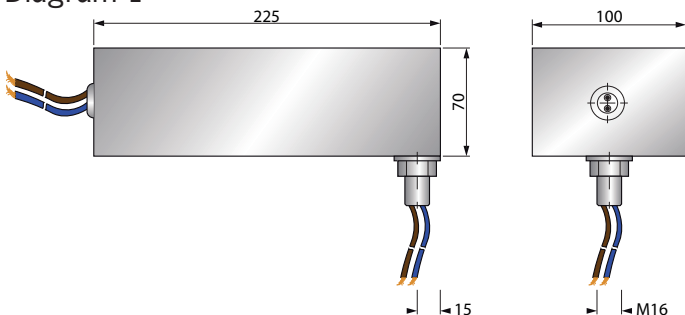


Diagram 2

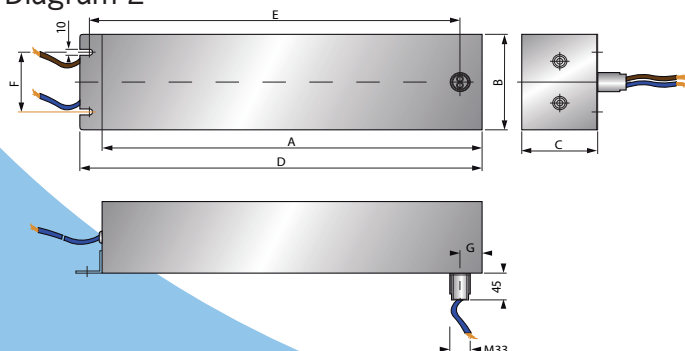


Diagram 3

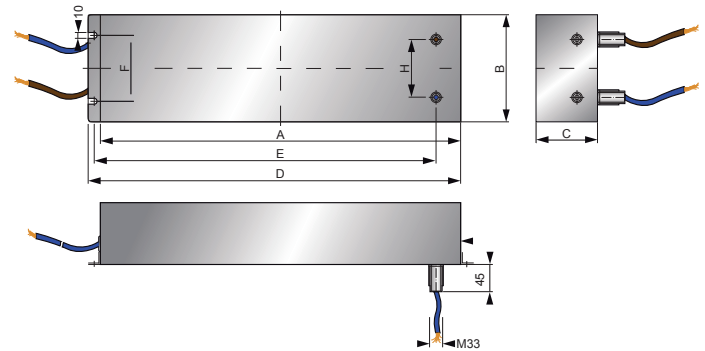


Diagram 4

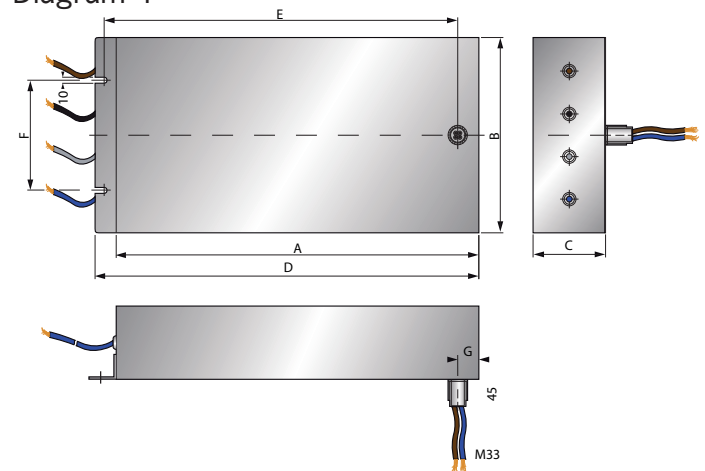
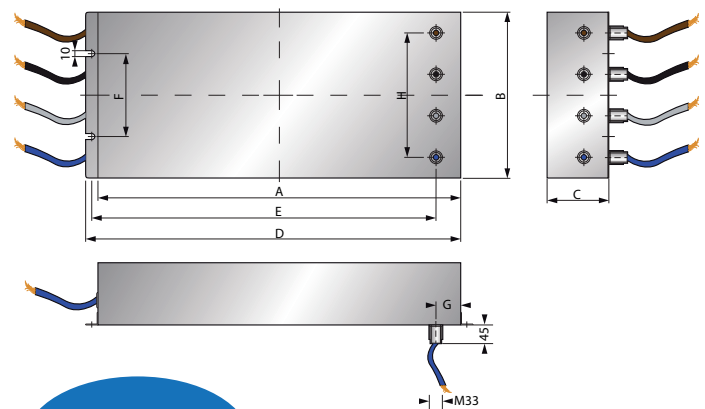


Diagram 5



Ordering information

When you want to order a UHP1 (Ultra High Performance type 1) power line filter please specify the following:

