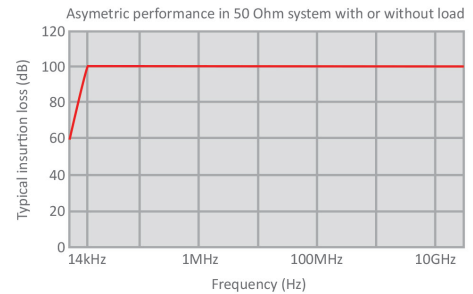
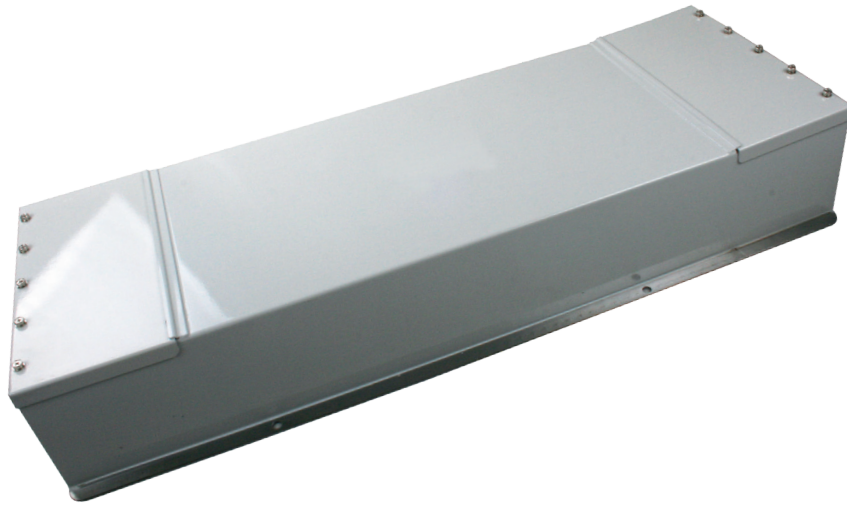


# ULTRA HIGH-PERFORMANCE FILTER 8010

For the anechoic chamber, shielded room, cabinet, and shelter, where the effective suppression of radiated and conducted emission is required



The Ultra high-performance filter is a superior filter housed in a three-compartment casing with bolted covers and accessible terminals that achieves 100 dB insertion transmission loss at 14 kHz and above.

This series is offered as a two-line filter (single-phase and neutral) or as a four-line filter (three phases and neutral). The two-line filter can withstand up to 230 Volt, 1-150 amp and 46 kW. If you are looking for a filter that can withstand more power we have the four-line filter. This filter delivers up to 400 Volt, 1-150 amp and 138 kW. The neutral line is always attenuated and all conductors are decoupled from each other. This allows the conductors to operate independently without attenuation loss.

The filter is made to withstand the harshest environment and is very economical. Because of the custom design for your filter, the assembly is very simple and always with very low leakage. This filter is also a stock item and therefore always available quickly.

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 features even after voltage transients. A seamless fixing of the filter casing to the shielded room is very important to ensure the 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.

Please note: EMP protection is available on request.

## Mounting

These protections are designed for mounting on the penetration panel or directly on the non-painted wall of the Faraday cage. Mounting terminals dependent on the amount of power. Please see connection in the product range table.

**Please note:** all 8010 filters can NOT be protected by a standard 30mA residual circuit breaker (RCCB). However, a RCCB protection device can be placed down line / load side of filter.

## General characteristics

For a clean main supply into a shielded room, high-performance filters are indispensable. Usually, these filters are directly mounted on the shielding wall. It is recommended to route filtered lines into the shielded room (Faraday cage) through the wall with an optional flexible metal conduit.

- Mains filter for single and three phase systems
- Insertion transmission loss 100 dB @ 14 kHz
- Double-  $\pi$  circuit
- Rod cores allow asymmetrical load
- Self-healing effect of foil capacitors

## APPLICATIONS

- EMC test laboratories
- Anechoic chambers
- Tempest rooms
- MRI screened facilities

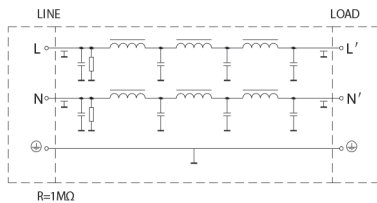
Rated current available from 6 amps to 3000 amps in both single and three phase versions. Filters are ideally suitable for applications where the very highest performance is demanded.

## TECHNICAL DATA

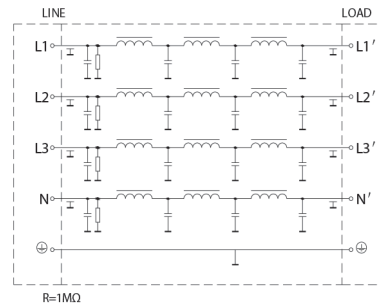
Rate voltage VR for two-line filters	277 VAC / 500 VDC	Line-line or line-case
Rate voltage VR for four-line filters	up to 480 VAC	Line-line
	up to 277 VAC	Line-case
Rated Frequency fR	DC-60 Hz	
Rate Current IR	See characteristics	Referred to +40°C ambient temperature
Number of lines	2 or 4	
Insertion Loss, Per MIL-STD-220C	>100dB	14 kHz – 40 GHz
DC Resistance	See characteristics	Each Line
Power Dissipation	See characteristics	At Rated Current
Test Voltage	1200Vdc/2s	Line-line or line-case
Voltage Drop /Phase $\Delta V$	<1%	Of VR at 50Hz and IR
Leakage Current ILeakage	See characteristics	at 250 VAC and 50 Hz
Reactive Current IReactive	See characteristics	at 250 VAC and 50 Hz
Discharge Time to Below 34V	30s	
Climatic category	25/085/21	

## » ULTRA HIGH-PERFORMANCE FILTER 8010

### CIRCUIT DIAGRAMS



2 line filters



4 line filters

### AVAILABLE DIMENSIONS

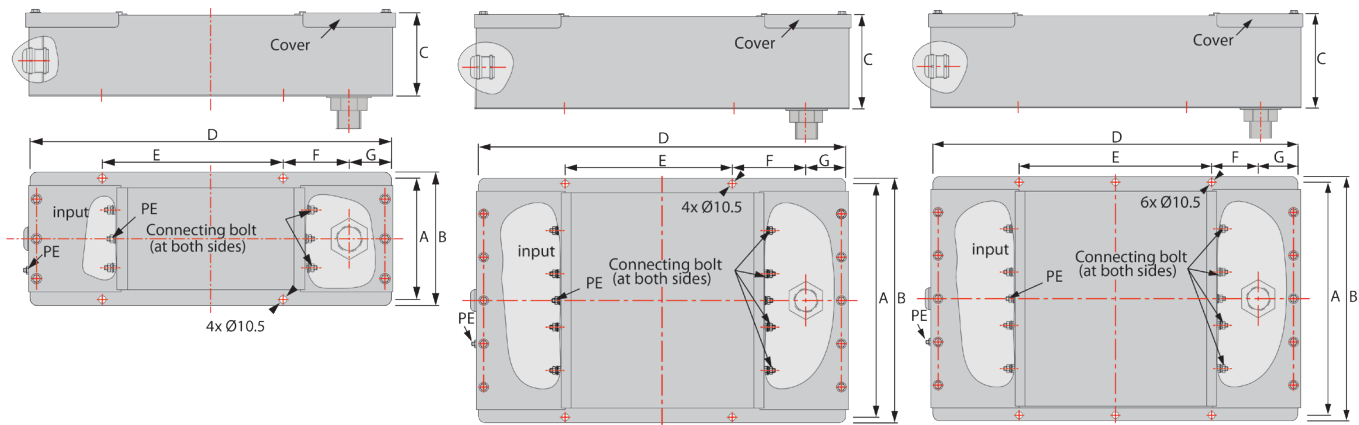


Diagram 2

Diagram 2

Diagram 3

### SINGLE PHASE AND NEUTRAL FILTER TYPES: 230 VOLT | 1-150 AMP | 34 KVA

Part number	A	B	C	D	E	F	G	Installation instructions	Outline drawing	IR (A)	I Leakage (A)*	I Reactive (A)	DC Resistance (Ω)	Power dissipation (w)	Connection
8010-2-16	188	205	120	750	450	110	80	M24 conduit screw	1	16	3.5	3.5	<70	<40	M6 Screw
8010-2-32	188	205	120	750	450	110	80	M24 conduit screw	1	32	5	5	<20	<40	M6 Screw
8010-2-63	188	205	140	920	620	110	80	M33 conduit screw	1	63	5	5	<15	<90	M6 Screw
8010-2-100	288	305	180	1180	800	110	80	M60 conduit screw	1	100	9	9	<5	<120	M12 Screw
8010-2-150	288	305	180	1180	800	110	80	M60 conduit screw	1	150	9	9	<3	<140	M12 Screw

### THREE PHASES AND NEUTRAL FILTER TYPES: 400 VOLT | 1-150 AMP | 103 KVA

Part number	A	B	C	D	E	F	G	Installation instructions	Outline drawing	IR (A)	I Leakage (A)*	I Reactive (A)	DC Resistance (Ω)	Power dissipation (w)	Connection
8010-4-16	288	305	120	750	450	110	80	M33 conduit screw	2	16	0.7	3.5	<70	<70	M6 Screw
8010-4-32	288	305	120	750	450	110	80	M33 conduit screw	2	32	0.9	5	<20	v80	M6 Screw
8010-4-63	348	365	140	920	620	110	80	M33 conduit screw	2	63	0.9	5	<15	<170	M6 Screw
8010-4-100	348	365	180	1480	1000	160	80	M60 conduit screw	3	100	1.7	9	<5	<220	M12 Screw
8010-4-150	348	365	180	1480	1000	160	80	M60 conduit screw	3	150	1.7	9	<3	<270	M12 Screw

\* If voltage between neutral and earth is 0V Actual size may differ from the above. Please contact us for the correct size

#### \*Notice

Information supplied in these data sheets is based on independent and laboratory tests which Holland Shielding Systems BV, hereafter referred to as HSS believes to be reliable. HSS has no control over the design of customer's product which incorporates products, therefore it is the responsibility of the user to determine the suitability for his particular application and we recommend that the user make his own test to determine suitability.

The product described in this data sheet shall be of standard quality, however the products are sold without warranty of fitness for a particular purpose, either expressed or implied, except to the extent expressly stated on HSS invoice, quotation or order acknowledgment. HSS does not warrant that products described in this data sheet will be free of conflict with existing or future patents of third parties. All risks of lack of fitness, patent infringement and the like are assumed by the user.