

DATASHEET

Single Phase Ultra Low Leakage Power Line Filter – SMF911UL

These ultra-low leakage powerline filters are designed for secure and safety-critical systems that demand stringent control of earth leakage current while maintaining very high EMI attenuation over a broad frequency range. Using a low-leakage, current-compensated inductor topology with carefully controlled line-to-earth capacitance, the SMF911UL series support compliance with TEMPEST and other high-security EMC requirements without compromising operator safety or protection devices.

Technical Specifications:

Rated Voltage	: 250VAC
Current Rating	: 10A to 100A @50°C
Number of Lines	: 2 Lines
Frequency	: 50/60 Hz
Discharge Resistors	: Line to Ground - 10MΩ Line to Line - 1MΩ
High Potential Test Voltage	: Line to Ground - 2250VDC Line to Line - 1500VDC

Features:

- Ultra-low earth leakage current
- Built-in discharge resistors for safe de-energization.

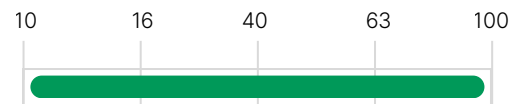
Applications:

- Shielded Rooms
- Radar Power Supplies
- EMC Test Chambers
- Command and Control Centers
- Data Centers
- Combat/Tracked Vehicles
- MIL Grade Panels

Performance Indicator:

Standard	High	Very High

Rated Current (A):



Maximum Voltage drop per line	: 600mV
Current Overload Capability	: 140 % of rated current for 15 minutes
Operating Temperature	: -45°C to +50°C
Storage Temperature	: -45°C to +85°C
Maximum capacitance between L to G	: 60nF
Discharge Time to below 34V	: <30s
Insertion Loss Performance	: 80dB from 300kHz to 1GHz
Finish	: Paint/Powder Coated

Ordering Information:

Model Number	Part Number	Rated Current @50°C (A)	DC Resistance (mΩ)	Maximum Leakage Current (mA) at first failure condition	Min. Weight (Kgs)
SMF911UL-2-10	E116867-1	10	30	8	8
SMF911UL-2-16	E116868-1	16	30	8	8
SMF911UL-2-40	E116869-1	40	10	8	20
SMF911UL-2-63	E116870-1	63	10	8	20
SMF911UL-2-100	E116871-1	100	10	8	30

Note: EXXXXXX - Y

Y - Indicates Enclosure Paint Color

1 - Olive Green RAL 6003

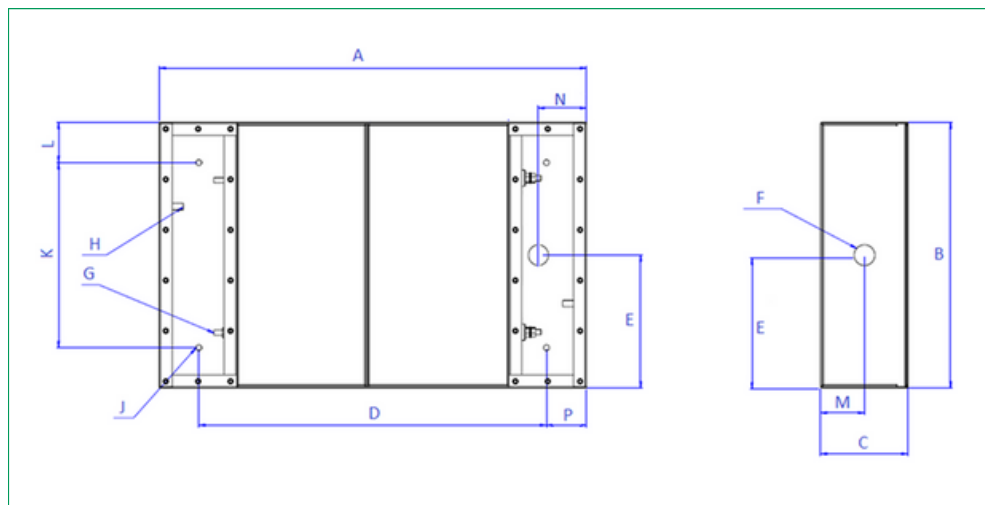
2 - Light Grey RAL 7035

3 - Dark Grey RAL 7046

Note:

1. Different Enclosure Paint Colors are provided on request
2. Use a permanent earth connection before powering the EMI filter

Mechanical Drawing :



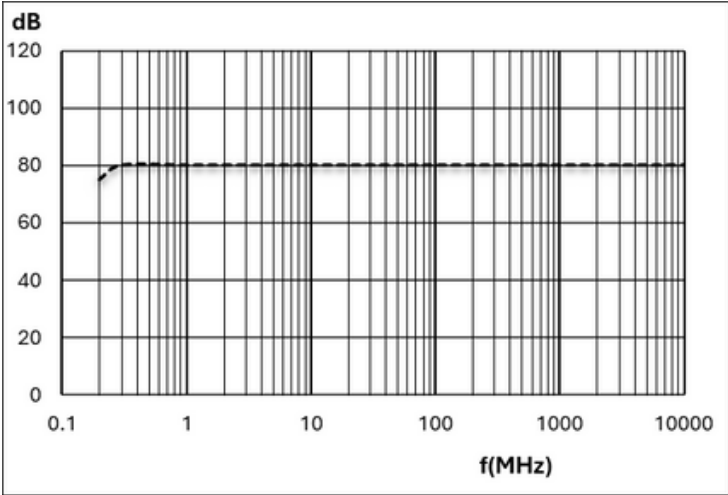
Mechanical Dimensions :

Rated Current (A)	A	B	C	D	E	ØF	G	H	ØJ	K	L	M	N	P
10	310	175	90	212	88	20	M5	M6	9	127	24	45	35	49
16	310	175	90	212	88	20	M5	M6	9	127	24	45	35	49
40	550	205	105	487	103	32	M8	M10	9	83	61	48	45	31
63	550	205	105	487	103	32	M8	M10	9	83	61	48	45	31
100	650	210	115	537	103	32	M8	M10	9	83	61	48	65	52

All dimensions are in mm;

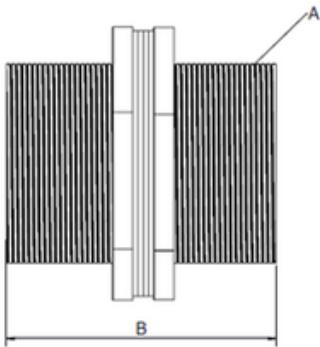
Note: The output threaded tube or Bulk-head Penetration Pipe along with accessories shall be supplied on request

Insertion Loss Graph (50Ω) :



Accessories Details :

Bulk Head Penetration Kit

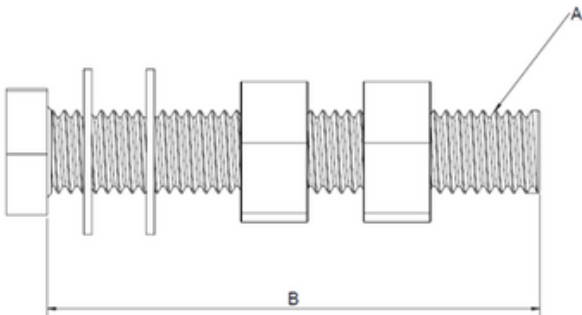


Accessories :

- 1. Threaded Pipe - 1 No
- 2. Plain Washer - 2 No's
- 3. Hex Nut - 2 No's
- 4. Gasket - 2 No's

SL No.	Part Number	Description	Thread(A) X Length(B)
1	E111914-1	BULKHEAD PENETRATION KIT FOR M20	M20X100
2	E111915-1	BULKHEAD PENETRATION KIT FOR M25	M25X100
3	E111916-1	BULKHEAD PENETRATION KIT FOR M32	M32X100
4	E111917-1	BULKHEAD PENETRATION KIT FOR M40	M40X100
5	E111918-1	BULKHEAD PENETRATION KIT FOR M50	M50X100
6	E111919-1	BULKHEAD PENETRATION KIT FOR M63	M63X100
7	E111920-1	BULKHEAD PENETRATION KIT FOR M75	M75X100

Fixing Screw Kit



Accessories :

- 1. Bolt - 1 No
- 2. Plain Washer - 2 No's
- 3. Hex Nut - 2 No's

SL No.	Part Number	Description	Thread(A) X Length(B)
1	E111921-1	FIXING SCREW KIT FOR M5	M5X40
2	E111922-1	FIXING SCREW KIT FOR M6	M6X40
3	E111923-1	FIXING SCREW KIT FOR M8	M8X50
4	E111924-1	FIXING SCREW KIT FOR M10	M10X50
5	E111925-1	FIXING SCREW KIT FOR M12	M12X60
6	E111926-1	FIXING SCREW KIT FOR M16	M16X60
7	E111927-1	FIXING SCREW KIT FOR M20	M20X70

Note: The suggested Fasteners can be used with a mounting surface thickness up to 20mm