European EMC Products Ltd

POWER FILTERS

Supplier of high performance and high power EMP Filters, Tempest Filters and Signal & Control Line Filters to the medical, defence, banking, telecommunications and datacentre sectors

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EMP POWER FILTERS

The purpose of EMP Protection is to prevent the electromagnetic pulses from high level nuclear weapons disrupting and destroying electronic equipment.

To ensure compliance with the high international performance standards required to protect key infrastructure installations, our comprehensive range of EMP Filters have been designed in accordance with IEC 61000-4-24, severity levels 1 & 2, and can be readily upgraded to meet the design requirements of Mil-Std-188-125.

Our standard EMP Power Filters are issued with a general electrical safety certificate per unit/batch which includes an Insertion Loss Test Certificate to 4GHz.

MIL-STD EMP Power Filters come with an EU Declaration of Conformity and an Asymmetrical Insertion Loss (at 50 Ohm) Test Certificate can be issued upon request.

All filters are produced in RAL 9016 traffic white, full gloss. We manufacture our filters in Configuration 'C' In Line Input/rear output, other configurations available upon request. Low Leakage filter options also available.

STANDARD EMP POWER FILTER RANGE

EEP Part No	Current (A)	Lines	Voltage	Hertz (HZ)	Hemp Performance	Insertion Loss Performance
EEPF-16-2-PL	16A	2	240V	50/60Hz	Designed in accordance with IEC 61000-4-24, severity levels 1 & 2	(50 Ohm asymmetric, IEC CISPR17:2011) 80dB from 10MHz to 1GHz
EEPF-32-2-PL	32 A	2	240V	50/60Hz	Designed in accordance with IEC 61000-4-24, severity levels 1 & 2	(50 Ohm asymmetric, IEC CISPR17:2011) 80dB from 10MHz to 1GHz
EEPF-32-4-PL	32 A	4	415V	50/60Hz	Designed in accordance with IEC 61000-4-24, severity levels 1 & 2	(50 Ohm asymmetric, IEC CISPR17:2011) 80dB from 10MHz to 1GHz
EEPF-63-4-PL	63 A	4	415V	50/60Hz	Designed in accordance with IEC 61000-4-24, severity levels 1 & 2	(50 Ohm asymmetric, IEC CISPR17:2011) 80dB from 10MHz to 1GHz
EEPF-125-4-PL	125 A	4	415V	50/60Hz	Designed in accordance with IEC 61000-4-24, severity levels 1 & 2	(50 Ohm asymmetric, IEC CISPR17:2011) 80dB from 10MHz to 1GHz
EEPF-200-4-PL	200 A	4	415V	50/60Hz	Designed in accordance with IEC 61000-4-24, severity levels 1 & 2	(50 Ohm asymmetric, IEC CISPR17:2011) 80dB from 10MHz to 1GHz
EEPF-400-4-PL	400 A	4	415V	50/60Hz	Designed in accordance with IEC 61000-4-24, severity levels 1 & 2	(50 Ohm asymmetric, IEC CISPR17:2011) 80dB from 10MHz to 1GHz

MIL-STD EMP POWER FILTER RANGE

EEP Part No	Current (A)	Lines	Voltage	Hertz (HZ)	Hemp Performance	Insertion Loss Performance
EEPF-16-2-PL-MS	16A	2	240V	50/60Hz	PCI requirements designed in accordance with MIL-STD 188-125-1	(50 Ohm asymmetric, IEC CISPR17:2011) 80dB from 10MHz to 1GHz
EEPF-16-4-PL-MS	16A	4	415V	50/60Hz	PCI requirements designed in accordance with MIL-STD 188-125-1	(50 Ohm asymmetric, IEC CISPR17:2011) 80dB from 10MHz to 1GHz
EEPF-32-2-PL-MS	32 A	2	240V	50/60Hz	PCI requirements designed in accordance with MIL-STD 188-125-1	(50 Ohm asymmetric, IEC CISPR17:2011) 80dB from 10MHz to 1GHz
EEPF-32-4-PL-MS	32 A	4	415V	50/60Hz	PCI requirements designed in accordance with MIL-STD 188-125-1	(50 Ohm asymmetric, IEC CISPR17:2011) 80dB from 10MHz to 1GHz
EEPF-63-4-PL-MS	63 A	4	415V	50/60Hz	PCI requirements designed in accordance with MIL-STD 188-125-1	(50 Ohm asymmetric, IEC CISPR17:2011) 80dB from 10MHz to 1GHz
EEPF-125-4-PL-MS	125 A	4	415V	50/60Hz	PCI requirements designed in accordance with MIL-STD 188-125-1	(50 Ohm asymmetric, IEC CISPR17:2011) 80dB from 10MHz to 1GHz
EEPF-200-4-PL-MS	200 A	4	415V	50/60Hz	PCI requirements designed in accordance with MIL-STD 188-125-1	(50 Ohm asymmetric, IEC CISPR17:2011) 80dB from 10MHz to 1GHz
EEPF-400-4-PL-MS	400 A	4	415V	50/60Hz	PCI requirements designed in accordance with MIL-STD 188-125-1	(50 Ohm asymmetric, IEC CISPR17:2011) 80dB from 10MHz to 1GHz

TEMPEST POWER FILTERS

The purpose of Tempest power filter is to prevent eavesdropping of confidential information.

Also with the increasing need to protect equipment housed within a shielded area from the damaging and disrupting effects of electromagnetic pulses and signals, as well as providing protection against surges produced from solar flares, nuclear weapons and lightning strikes, our uniquely designed range of modular filters ensure equipment is suitably protected at all times.

European EMC Products Ltd supply a complete range of 2-Line/SP&N and 4-Line/TP&N TEMPEST power line filters. The standard range is 16A, 32A, 63A, 125A, 200A and 400A supporting facility compliance with the requirements of NATO standard SDIP-29, and equipment compliance with SDIP-27.

Our standard Tempest Power Filters are issued with a general electrical safety certificate per unit/batch which includes an Insertion Loss Test Certificate to 4GHz.

MIL-STD Tempest Power Filters come with an EU Declaration of Conformity and an Asymmetrical Insertion Loss (at 50 Ohm) Test Certificate can be issued upon request.

All filters are produced in RAL 9016 traffic white, full gloss. We manufacture our filters in Configuration 'C' In Line Input/rear output, other configurations available upon request. Low Leakage filter options also available.

STANDARD TEMPEST POWER FILTER RANGE

EEP Part No	Current (A)	Lines	Voltage	Hertz (HZ)	TEMPEST Performance
EEPF-16-2-PL-TP	16A	2	240V	50/60HZ	Shielding effectiveness performance designed in accordance with requirements of 60 and 100dB from 100kHz - 1GHz available as standard offerings*
EEPF-32-2-PL-TP	32A	2	240V	50/60Hz	Shielding effectiveness performance designed in accordance with requirements of 60 and 100dB from 100kHz - 1GHz available as standard offerings*
EEPF-32-4-PL-TP	32A	4	415V	50/60Hz	Shielding effectiveness performance designed in accordance with requirements of 60 and 100dB from 100kHz - 1GHz available as standard offerings*
EEPF-63-4-PL-TP	63A	4	415V	50/60Hz	Shielding effectiveness performance designed in accordance with requirements of 60 and 100dB from 100kHz - 1GHz available as standard offerings*
EEPF-125-4-PL-TP	125A	4	415V	50/60Hz	Shielding effectiveness performance designed in accordance with requirements of 60 and 100dB from 100kHz - 1GHz available as standard offerings*
EEPF-200-4-PL-TP	200A	4	415V	50/60Hz	Shielding effectiveness performance designed in accordance with requirements of 60 and 100dB from 100kHz - 1GHz available as standard offerings*
EEPF-400-4-PL-TP	400A	4	415V	50/60Hz	Shielding effectiveness performance designed in accordance with requirements of 60 and 100dB from 100kHz - 1GHz available as standard offerings*

* Tailored performance requirements to 40GHz available on request.

MIL-STD TEMPEST POWER FILTERS

EEP Part No	Current (A)	Lines	Voltage	Hertz (HZ)	TEMPEST Performance	HEMP Performance
EEPF-16-2-PL-TP-MS	16A	2	240V	50/60HZ	Shielding effectiveness performance designed in accordance with requirements of 100dB from 100kHz to 1GHz, and 60dB from 10GHz to 40GHz*	PCI requirements designed in accordance with MIL-STD 188-125-1 & DEF Stan 59-188
EEPF-32-2-PL-TP-MS	32A	2	240V	50/60HZ	Shielding effectiveness performance designed in accordance with requirements of 100dB from 100kHz to 1GHz, and 60dB from 10GHz to 40GHz*	PCI requirements designed in accordance with MIL-STD 188-125-1 & DEF Stan 59-188
EEPF-32-4-PL-TP-MS	32A	4	415V	50/60HZ	Shielding effectiveness performance designed in accordance with requirements of 100dB from 100kHz to 1GHz, and 60dB from 10GHz to 40GHz*	PCI requirements designed in accordance with MIL-STD 188-125-1 & DEF Stan 59-188
EEPF-63-4-PL-TP-MS	63A	4	415V	50/60HZ	Shielding effectiveness performance designed in accordance with requirements of 100dB from 100kHz to 1GHz, and 60dB from 10GHz to 40GHz*	PCI requirements designed in accordance with MIL-STD 188-125-1 & DEF Stan 59-188
EEPF-125-4-PL-TP-MS	125A	4	415V	50/60HZ	Shielding effectiveness performance designed in accordance with requirements of 100dB from 100kHz to 1GHz, and 60dB from 10GHz to 40GHz*	PCI requirements designed in accordance with MIL-STD 188-125-1 & DEF Stan 59-188
EEPF-200-4-PL-TP-MS	200A	4	415V	50/60HZ	Shielding effectiveness performance designed in accordance with requirements of 100dB from 100kHz to 1GHz, and 60dB from 10GHz to 40GHz*	PCI requirements designed in accordance with MIL-STD 188-125-1 & DEF Stan 59-188
EEPF-400-4-PL-TP-MS	400A	4	415V	50/60HZ	Shielding effectiveness performance designed in accordance with requirements of 100dB from 100kHz to 1GHz, and 60dB from 10GHz to 40GHz*	PCI requirements designed in accordance with MIL-STD 188-125-1 & DEF Stan 59-188

*Specific performance requirements can be accommodated upon request.

CONTROL SIGNAL LINE TEMPEST POWER FILTERS

EEP Filters Control Signal Line Tempest Filter product range have been designed for maximum performance for Shielded Room applications.

The filters come in 2, 4, 8 & 12-line formats, or as requested, and have a current rating of 20mA – 10 Amps. They are housed in painted stainless-steel enclosures for protection and can be used in AC applications and DC 6-250Vac/dc.

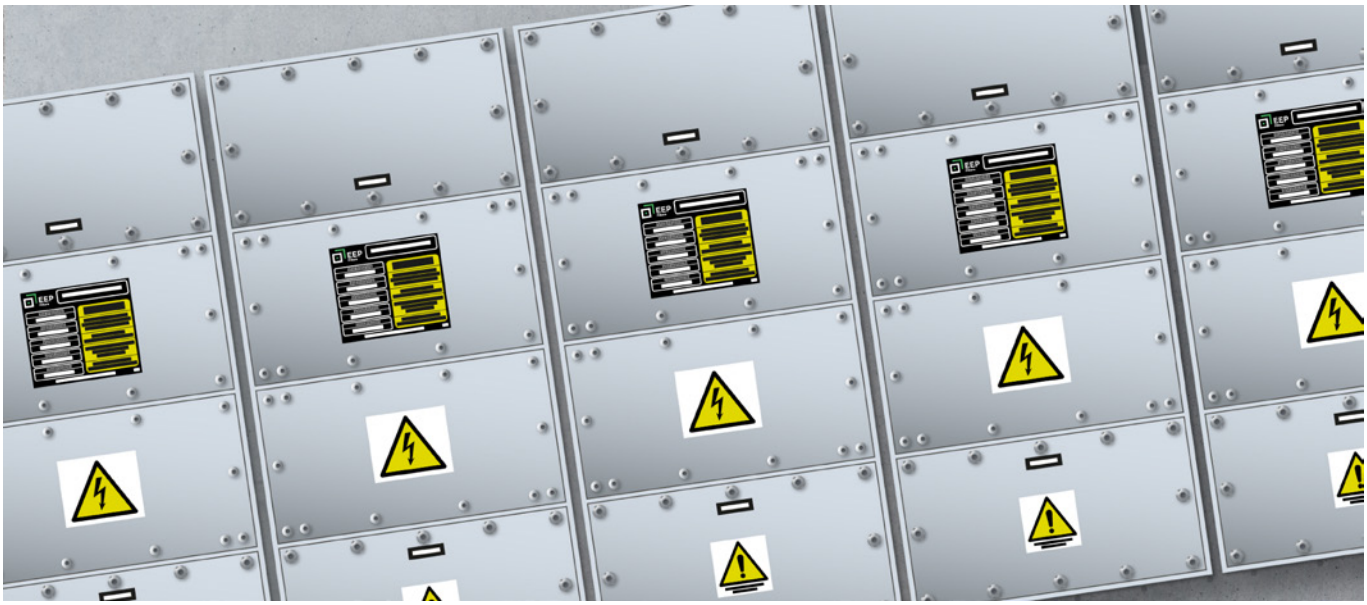
All filters are designed in accordance with requirements of 60dB from 100kHz to 1GHz.*

*Tailored performance requirements and MIL-STD 188-125-1 versions are available upon request.

General Specifications

Spindel Sizes:	M3 to M6
Maximum Temperature Rise on Full Load:	25°C
Operating Temperature:	– 20°C - + 50°C
Storage Temperature:	– 25°C + 85°C
Insulation Resistance:	>100MΩ
Discharge Resistors:	Internally fitted from line to case
Discharge Time to Below 34V:	<10 seconds
Maximum Leakage Current Per Line	0.05A
Termination Types:	Din Rail/Spindle

Number of Lines	Part Number	Current Rating (A)	Rated Voltage (Max V)	L mm	W mm	H mm	Weight
2	EEPF-10-2-CSLF-TP	20mA – 10A	6-250Vac/dc	350	120	65	3 kg
4	EEPF-10-4-CSLF-TP	20mA – 10A	6-250Vac/dc	410	217	119	3 kg
8	EEPF-10-8-CSLF- TP	20mA – 10A	6-250Vac/dc	410	217	119	7 kg
12	EEPF-10-12-CSLF-TP	20mA – 10A	6-250Vac/dc	410	217	119	7 kg



TEMPEST PLUGGABLE FILTERS

European EMC Products Ltd offer a range of Tempest pluggable power filters.

Our selection of Tempest Pluggable Power Filters is made to both shield noise and assure compliance with the international performance standards necessary to safeguard critical infrastructure installations.

The Tempest pluggable power filters are portable, versatile and are typically used in an IT environment protecting devices such as: Computers, Servers, Printers, Photocopiers etc. These filters are typically installed as a retrofit option where standard high performance TEMPEST filters cannot be installed in the existing infrastructure.

Tempest pluggable filters are designed to meet IT equipment safety standard EN 60950-1. They have a fully 360^0 screened input cable to maintain red/black separation to filter, Low Smoke Zero Halogen (LSZH) rated cabling for use in sensitive areas, High Common & Differential Mode Insertion Loss, Self-Healing Metallised Plastic Film Capacitors, Powder Coated Aluminium Enclosure. 13A designs of filter are downline tolerable to a personnel protection RCCD.

EEP Part No	Current (A)	Hertz (HZ)	Mains Plug Type	Socket Outlet	Socket Outlet Type	Tempest Performance
EEPF-06-1-PL-TP-PLG	6A	50/60Hz	UK	1	(BS1363)	Shielding effectiveness performance designed in accordance with requirements of 60dB from 100kHz to 1GHz
EEPF-13-1-PL-TP-PLG	13A	50/60Hz	UK	1	(BS1363)	Shielding effectiveness performance designed in accordance with requirements of 60dB from 100kHz to 1GHz
EEPF-06-2-PL-TP-PLG	6A	50/60Hz	UK	2	(BS1363)	Shielding effectiveness performance designed in accordance with requirements of 60dB from 100kHz to 1GHz
EEPF-13-2-PL-TP-PLG	13A	50/60Hz	UK	2	(BS1363)	Shielding effectiveness performance designed in accordance with requirements of 60dB from 100kHz to 1GHz
EEPF-32-2-PL-TP-PLG (CP)	32A	50/60Hz	Commando Plug	2	(BS1363)	Shielding effectiveness performance designed in accordance with requirements of 60dB from 100kHz to 1GHz
EEPF-13-4-PL-TP-PLG	13A	50/60Hz	UK	4	(BS1363)	Shielding effectiveness performance designed in accordance with requirements of 60dB from 100kHz to 1GHz
EEPF-32-4-PL-TP-PLG (CP)	32A	50/60Hz	Commando Plug	4	(BS1363)	Shielding effectiveness performance designed in accordance with requirements of 60dB from 100kHz to 1GHz
EEPF-13-6-PL-TP-PLG	13A	50/60Hz	UK	6	(BS1363)	Shielding effectiveness performance designed in accordance with requirements of 60dB from 100kHz to 1GHz
EEPF-16-6-PL-TP-PLG (CP)	16A	50/60Hz	Commando Plug	6	(BS1363)	Shielding effectiveness performance designed in accordance with requirements of 60dB from 100kHz to 1GHz
EEPF-32-6-PL-TP-PLG (CP)	32A	50/60Hz	Commando Plug	6	(BS1363)	Shielding effectiveness performance designed in accordance with requirements of 60dB from 100kHz to 1GHz
EEPF-16-2-PL-TP-PLG (EU)	16A	50/60Hz	EU Plug	2	Schuko	Shielding effectiveness performance designed in accordance with requirements of 60dB from 100kHz to 1GHz
EEPF-16-4-PL-TP-PLG (EU)	16A	50/60Hz	EU Plug	4	Schuko	Shielding effectiveness performance designed in accordance with requirements of 60dB from 100kHz to 1GHz
EEPF-15-2-PL-TP-PLG (US)	15A	50/60Hz	US Plug	2	2 Pin Parallel	Shielding effectiveness performance designed in accordance with requirements of 60dB from 100kHz to 1GHz

About Us

Established in 1996, European EMC Products Ltd (EEP) are an established British company whose experience and understanding of the science of shielding makes it an ideal partner in whom you can place your trust with confidence.

The purpose of installing EEP shielding systems is to protect people and equipment against the threats posed by electromagnetic and radio frequency (RF) interference, radiation, magnetic fields and electromagnetic pulses. Our diverse range of turnkey products and services, including design, installation, project management, testing and consultancy are delivered across multiple sectors to an international client base.

Security Doors

Shielded Rooms

Quench Pipes

EMP Power Filters

European EMC Products Limited are registered to BS EN ISO 9001:2015, Certificate Number FS38901. Registered Scope: The design, assembly, installation, servicing and testing of RF Shielded Structures and equipment including EMI Shielding, Blast Doors, Gas Tight Doors and specialised mobile Electromagnetic Pulse Protection (EMPP) containers. Radio Frequency, Magnetic Shielding and Quench systems for MRI (Magnetic Resonance Imaging) scanners. The design, assembly and installation of Ionising Radiation Protection facilities. The design, manufacture and installation of LED lighting systems for medical applications. European EMC Products Ltd can design, supply & install sound masking and eavesdropping protection systems that comply with all relevant standards. EEP Filters Limited are registered to BS EN ISO 9001:2015, Certificate Number FS38901. Registered Scope: The design, manufacture, management of installation and testing of high performance EMC and EMP Power and Data Line Filters.

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