

M7 High Performance Filters

Current Ratings: **8, 16, 20, 25, 32, 36, 50** AMPS.
 Operating Voltage: Two phase 440VA.C.

The High Performance M7 Filter Range has been specifically designed to overcome EMC problems inherently caused by switched mode power supplies, in applications especially where size constraints are an issue.

This range of filters has high attenuation factors and high current capabilities without having a large profile. Switched mode power supplies electronically switch high voltages and currents to improve efficiency and reduce losses in power conversion. This switching generates high levels of Radio Frequency Interference (RFI) and high energy surges which can disturb or damage other electronics circuits. The High Performance M7 Filter series is a two-stage design available with or without an earth line choke in a 2-line format, with excellent suppression characteristics particularly at 10K - 200KHz where power supplies tend not to perform and require effective attenuation.

The filter components are housed in compact chassis mounted, aluminum enclosures that allows base mounting, it is then encapsulated in a polyurethane potting compound to give excellent protection against shock and Vibration. These combinations give a total range of over 6 filter applications.



TYPICAL APPLICATIONS

- DC Drives
- Switched mode power supplies
- High current switch mode power supplies
- Thyristor driven equipment
- Air conditioners/Fan controllers
- Uninterruptible power supplies

TECHNICAL ADVANTAGES

- High current capability
- Micro size
- High common & differential mode insertion loss
- Improved mid frequency performance
- Side or base mounting
- Optional input transient suppression to suit application

COMMERCIAL ADVANTAGES

- Assists compliance with the EMC directive
- State of the art technology ensures superior performance
- Competitively priced
- Micro size - Reduced weight - Cost effective component

Technical Specifications

Current (Amps)	No of Lines	Operating Voltage @ 50-60Hz	Max AC Volt Drop @ Full Load	Earth Leakage mA	Inductance Per Line (Typical) mH	Transient Energy Absorption (Typical)	Storage Temp Range	Operating Temperature Deg C	Temp Rise @ Full Load	Termination Type	Dimensions						
											A	B	C	D	E	F	G
8	2	440	<1V/Line	3	8 + 0.8 (x2)	75J Optional	-25 ~ +85°C	-10 - +50°C	<40°C	Phoenix Contact IP20	160	120	60	110	6.5	113.5	M6 X 15mm
16					5 + 0.8 (x2)												
25					4 + 0.4 (x2)												
32				10	4 + 0.5 (x2)												
36				19	7 + 0.2 (x2)												
50				19	4 + 0.5 (x2)												

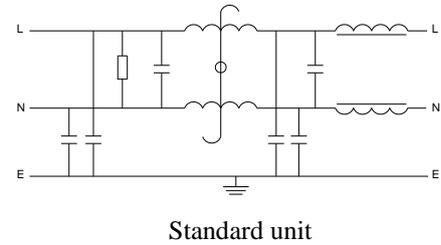
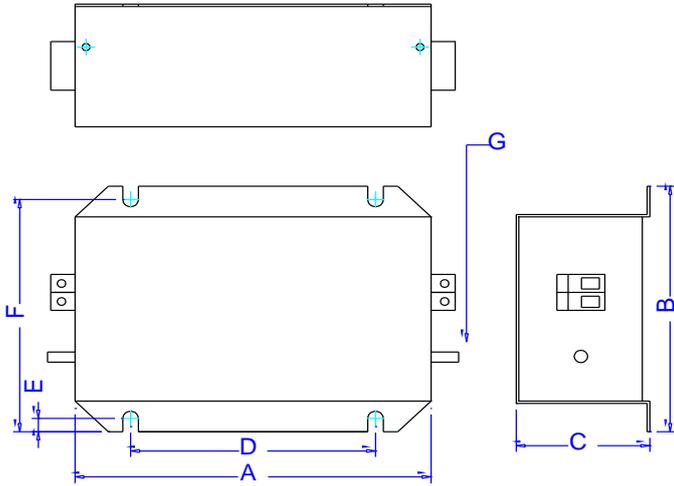
STANDARDS

The High-Performance Filter Range of filters is built in accordance with the relevant BS, VDE, UL, CE & CSA safety standards. All Total EMC Products Ltd filters & power supplies are designed to meet the latest requirements for Health and Safety, Particularly EN 60939-2-2005. The High-Performance Filter Range is specifically designed to assist AC input - DC Output switched mode power supplies to meet European and International Emission standards. eg. EN55011, EN55014, EN55022 and EN61000. Military Def Stans 59/41, 59/411. Mil Standards 461/462.

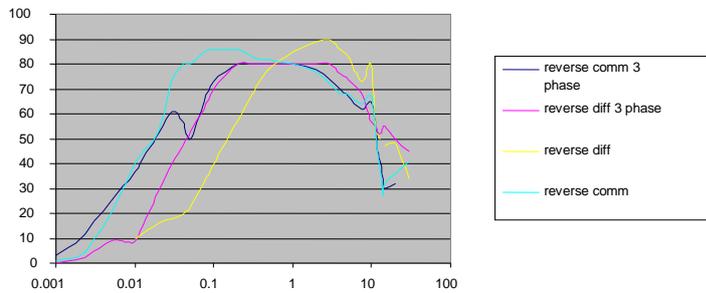
REGULATIONS

From the 15th of December 2004 all electrical/electronic apparatus - with few exceptions - sold or taken into service within the European Community must comply with the essential requirements of the EMC directive 2014/30/EU. Failure to do so is a criminal offence in the U.K.

Dimensional Data & Schematics



Performance characteristics insertion loss curves



Part number / Ordering information

016/2/M7/-

M7 = 'M7' Series
2 = 2 Lines

008,016,020,025,032,036,050 = Current Rating

In addition to the standard range of filters & power supplies, Total EMC Products specialize in the design and manufacture of filters to suit your specific requirements. Due to continuous development Total EMC Products Ltd reserve the right to amend any information contained within this datasheet without prior notice.

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