

High Performance Filters

Current Ratings: 3,6,10,16,20 AMPS.
Operating Voltage: Single Phase - 230V A.C.



The High Performance 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 new range of micro size filters have 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 Filter series is a two stage design with 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 will also effectively reduce harmonic distortion.

The filter components are housed in compact chassis mounted, aluminium enclosures that allows side or 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 20 filter applications.

GENERAL OVERVIEW

TYPICAL APPLICATIONS

- Switched mode power supplies
- High current switch mode power supplies
- Thyristor driven equipment
- Air conditioners/Fan controllers
- Uninterruptable power supplies
- Pulse width modulation circuits

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

REGULATIONS

From the 1st of January 1996 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 89/336/EEC. Failure to do so is a criminal offence in the U.K.

STANDARDS

The High Performance Filter Range of filters are built in accordance with the relevant BS, VDE, UL, CE & CSA safety standards. All EMC Solutions filters & power supplies are designed to meet the latest requirements for Health and Safety, Particularly EN 133200

The High Performance Filter Range is specifically designed to assist AC input - DC Output switched mode power supplies to meet European Emission standards. eg. EN55011, EN55014, EN55022, EN50081-2 and EN50081-1. Military Def Stan. 59/41.



DWG: 105A0155

Unit 6, Century Park, Starley Way, Bickenhill, Solihull, West Midlands B37 7HF (UK)

Tel (Main): +44 (0)121 782 2705

Tel (Sales): +44 (0)121 782 3122

Fax: +44 (0)121 782 2706

Email: Enquiry@emcsolutionsltd.com

WWW.EMCSOLUTIONSLTD.COM

TECHNICAL DATA

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	Storage Temp Range	Temperature Rise @ Full Load	Termination Type	Dimensions A	Dimensions B	Dimensions C	Dimensions D	Dimensions E	Dimensions F	Dimensions G	Dimensions H	Dimensions I
3	2	230V	<1V/line	3.5	5.6 + 3 (x2)	-25 to +85°C	<40°C	Fast-On	120	60	40	109	30	52	24	5.2	M4 x 15mm
6					120				60	40	109	30	52	24	5.2	M4 x 15mm	
10					120				60	40	109	30	52	24	5.2	M4 x 10mm	
16					170				80	50	160	10	30	36	5.2	M6 x 20mm	
20					170				80	50	160	10	30	36	5.2	M6 x 20mm	

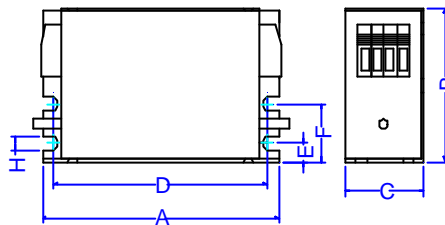
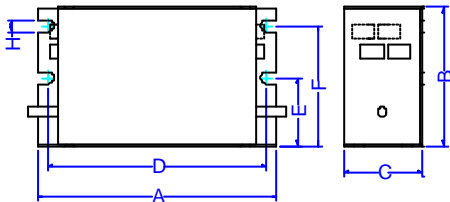
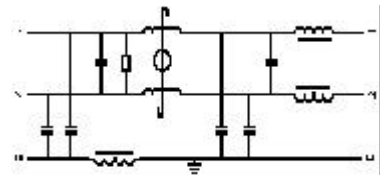
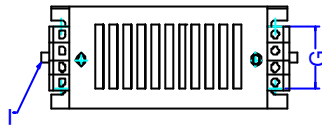
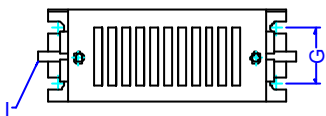
Fasteners supplied with earth stud

DIMENSIONS & ELECTRICAL SCHEMATIC

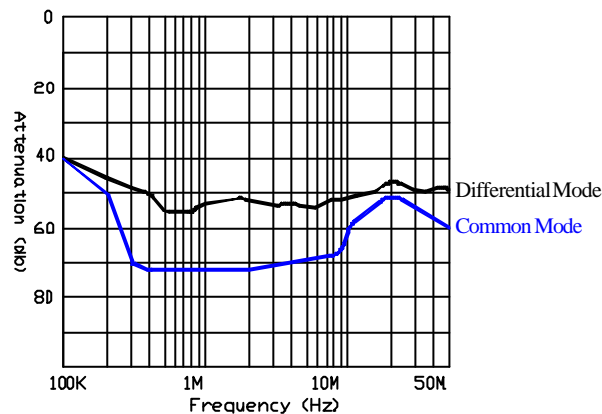
All dimensions in mm

3, 6 & 10A 2 Line

16 & 20A 2 Line



PERFORMANCE CHARACTERISTICS INSERTION LOSS CURVES



ORDERING INFORMATION

MTAG/*/2/2/***

AMP RATING _____

NO OF LINES (2,3,4) _____

NO OF STAGES _____

OPTIONS (Listed below) _____

OPTIONS: T = Transient, E = Earth Line Choke, H = High Performance,
M = Medical, - = No Options Required

e.g. MTAG/010/2/2/- (This is a 10A 2 Line Two stage unit with no options).

In addition to the standard range of filters & power supplies, EMC Solutions Ltd specialise in the design and manufacture of filters to suit your specific requirements.

Due to continuous development EMC Solutions Ltd reserve the right to ammend any information contained within this datasheet without prior notice.

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