

# High Performance IEC Filters

Current Ratings: 1, 2, 3, 4, 6 & 10 AMPS.  
Operating Voltage: Single Phase - 115 - 230V A.C



Our standard Range of IEC Filters is an innovative development and has been designed to ensure EMC compliance for various equipment applications in particular for IT equipment. It's physical compactness along with its outstanding performance in attenuation of unwanted interference makes this range unique. The In-line design allows ease of application and installation including retro fitting.

The IEC filter series is a multiple stage device with effective attenuation characteristics at very low frequencies which is not normally a requirement in commercial products. Transient protection is built-in to these products to assist with susceptibility. The housing is plated mild steel and the filter is encapsulated within this surround. This allows the unit to be securely mounted on its base and the input connection clip ensures that disconnection is not made via vibration or shock.

This filter is available in two different case sizes and various current ratings from 1A through to 10A. This makes it a very compact multi-application unit providing the ultimate attenuation package.

## GENERAL OVERVIEW

### TYPICAL APPLICATIONS

- IT equipment
- Power supplies
- Laptop computers
- Uninterruptible power supplies

### TECHNICAL ADVANTAGES

- Compact dimensions
- High attenuation characteristics
- Transient protection
- In line device

### COMMERCIAL ADVANTAGES

- Reduced volume
- Reduced weight
- Cost effective

### 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 IEC 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



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# TECHNICAL DATA

## TECHNICAL SPECIFICATIONS

### Filters with Flying leads

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	Temperature Rise @ Full Load	Termination Type	Dimensions A	Dimensions B	Dimensions C	Dimensions D	Dimensions E	Dimensions F	Dimensions G	Dimensions H
1	2	Upto 240V	<1.2W/Line	2	10	75J Optional	-25 to +85°C	<40°C	IEC / Flying Lead	107	55	43	75	600	31	119	M6 x 10mm
2					107					55	43	75	600	31	119	M6 x 10mm	
3					107					55	43	75	600	31	119	M6 x 10mm	
4					103					60	40	92	600	45	113	M5 x 15mm	
6					103					60	40	92	600	45	113	M5 x 15mm	
10					103					60	40	92	600	45	113	M5 x 15mm	

Fasteners supplied with earth stud

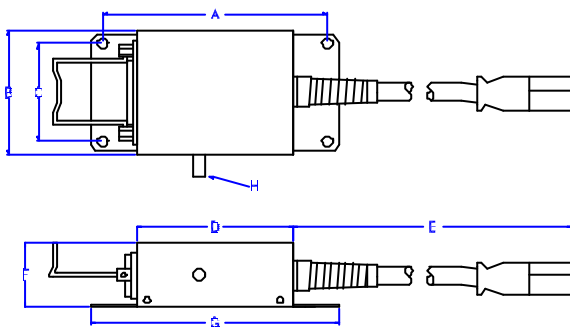
### Filters without Flying leads

Item	Rated Voltage	Rated Current	Leakage Current	Test Voltage		Insulation Resistance	Direct Current Resistance	Temperature Rise	Operating Temperature	Attenuation		Dimensions			Connections
				Line to Line	Line to Ground					Normal Mode 25db MIN	Common Mode 25db MIN	A	B	C	
EM1511	250V AC	15A	2.3mA MAX 250V, 50Hz	1450V DC	2250V DC	100MΩ MIN 250V DC	0.5Ω MAX	30°C MAX	-25 ~ +85°C	0.60 - 45MHz	0.10 - 40MHz	107.5	34 MAX	56 MAX	Load 250 Fast on

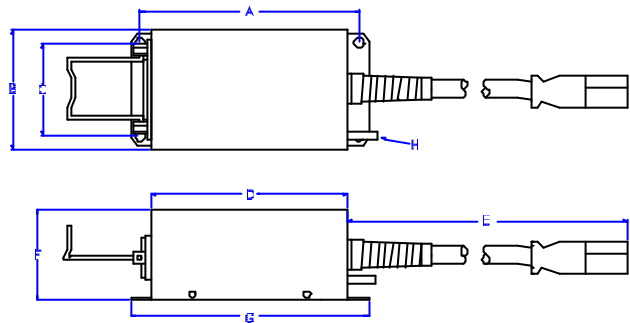
## DIMENSIONS & ELECTRICAL SCHEMATIC

All dimensions in mm

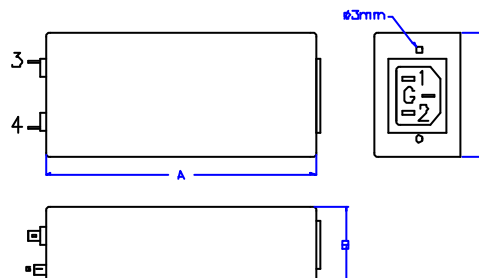
### 1, 2 & 3A FILTER WITH FLYING LEADS



### 4, 6 & 10A FILTER WITH FLYING LEADS



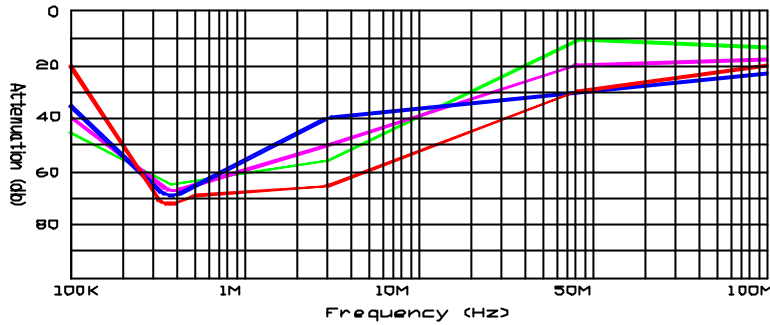
### 15A FILTER WITHOUT FLYING LEADS



# TECHNICAL DATA

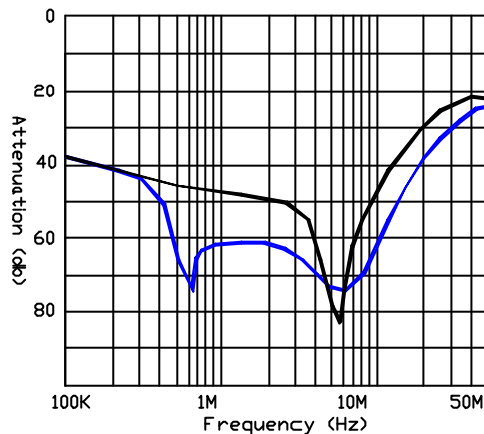
## PERFORMANCE CHARACTERISTICS INSERTION LOSS CURVES

### Filters with Flying leads



1-2A 3A 4-6A 10A

### Filters without Flying leads



Common mode, Normal mode

## ORDERING INFORMATION

	IEC/***/2/3/*
AMP RATING	_____
NO OF LINES	_____
NO OF STAGES	_____
OPTIONS	_____
Options: F = Flying leads, N = No flying leads, A = Transient with flying leads, B = Transient with no flying leads	
e.g. IEC/006/2/3/N (This is a 6A 2 Line, Three stage unit with no flying leads, with transient protection).	

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 amend any information contained within this datasheet without prior notice.

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