

High Performance Filters

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



The High Performance MTAG 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 MTAG Filter series is a two-stage design available with or without an earth line choke in a 2 line and 3 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 reduce harmonic distortion.

The filter components are housed in compact chassis mounted, aluminum 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. This filter is also available with a 400Hz capability.

TYPICAL APPLICATIONS

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

Technical Specifications

Filter	Current (A)	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 Temp Deg C	Temp Rise @ Full Load / Half Load
MTAG	3	2	230V	<1V/Line	3-5	5.6 + 3 (x2)	75J Optional	-25 ~ +85°C	-20 - +50°C	<40°C/ 20°C
	6					4 + 1.5 (x2)				
	10					3 + 1.0 (x2)				
	16					3 + 1 (x2)				
	20					2 + 0.6 (x2)				

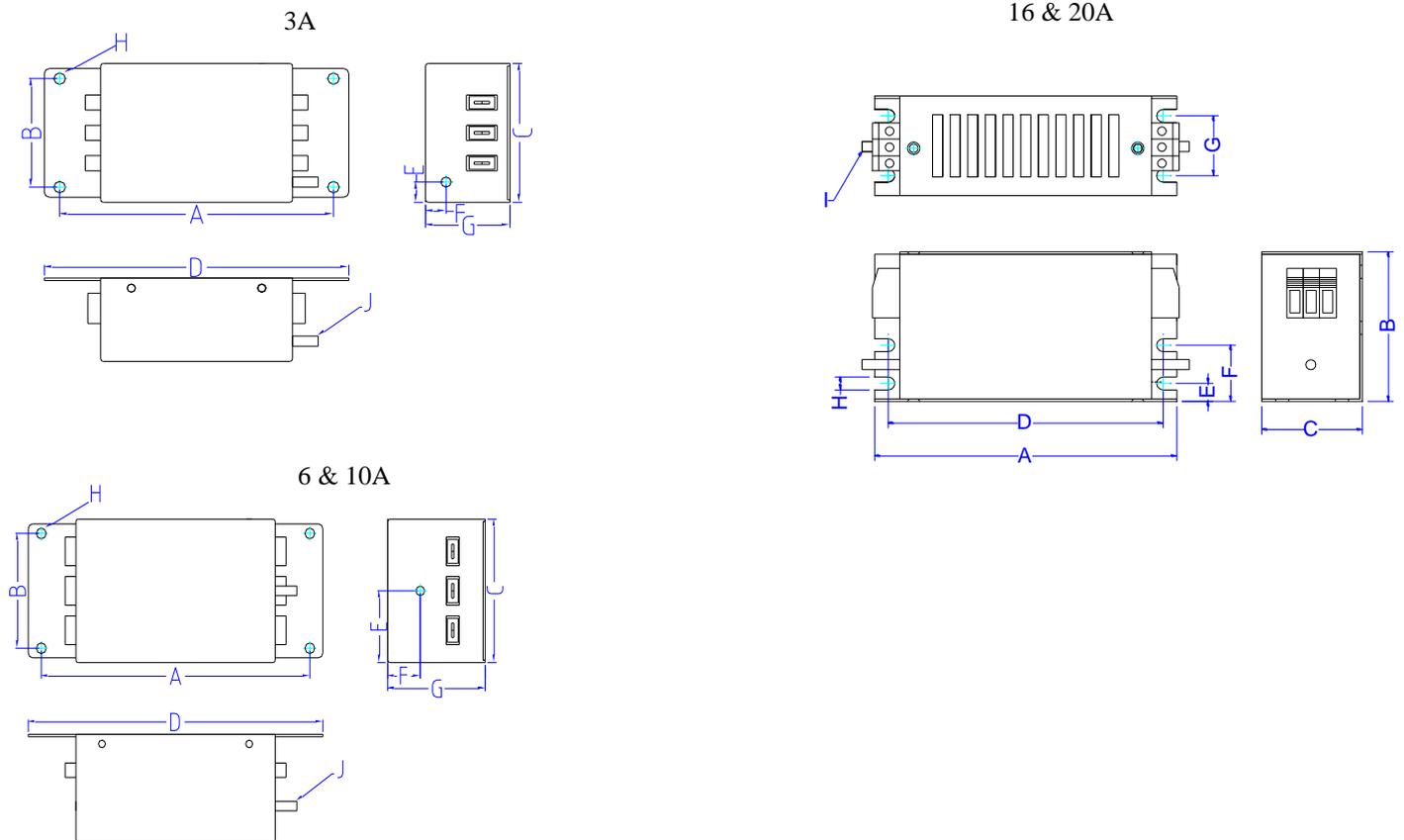
STANDARDS

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

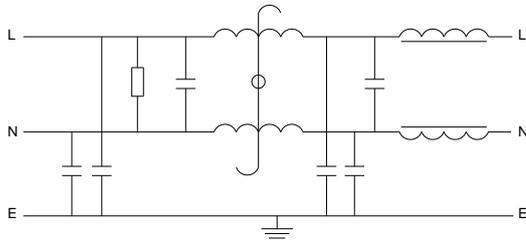
From the 15th of December 2004 all electrical/electronic apparatus - with few exceptions - sold or taken into service within the European Community must comply with the essential requirements of the EMC directive 2014/30/EU.
 Failure to do so is a criminal offence in the U.K.

Dimensional Data

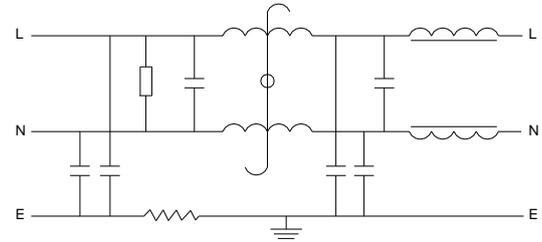


Filter	Current (Amps)	Dimensions								
		A	B	C	D	E	F	G	H	J
MTAG	3	107	43	55	119	8	8	33	4.5	M4x10mm
	6	124	48	60	136	30	15	45	4.5	M4x10mm
	10									
	16	170	80	50	160	10	30	36	5.2	M6x20mm
	20									

Schematics

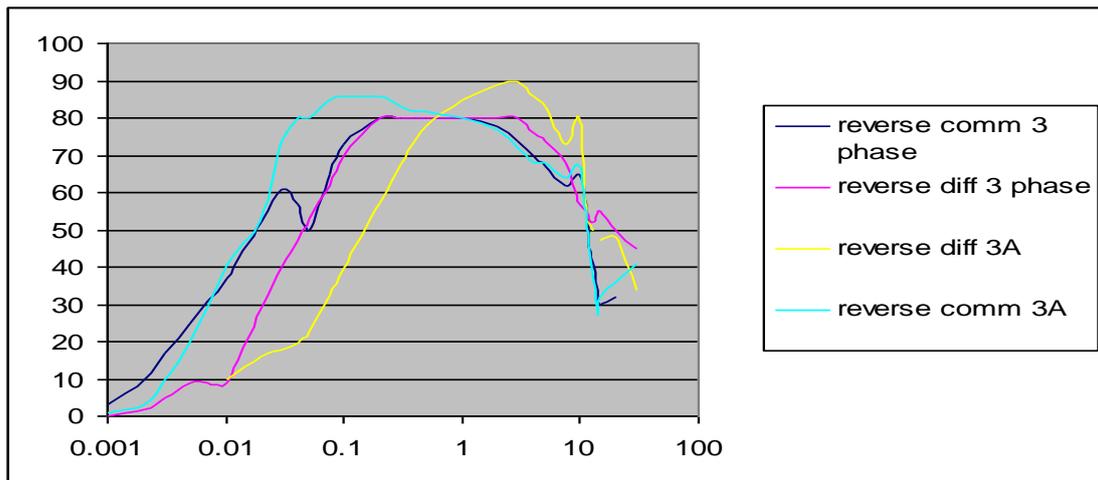


Standard unit



Earth line choke

Performance characteristics insertion loss curves



Part number / Ordering information

MT/003/2/2/-

- M** = 'MTAG' Series
- T** = Tag Termination
- S** = Stud Termination
- B** = Block Termination
- 2** = 2 Stages
- 3** = 2 Stages & Earth Line Choke
- = No Added Protection
- T** = Additional Transient Protection Added
- H** = Additional High Transient Protection Added
- F** = Feed Through – Bulk Head Mounting
- 003** = Current Rating
- 2** = 2 Lines
- 3** = 3 Lines
- 4** = 4 Lines (3ph + N)

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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Example: MT/003/2/2/- (This is a Mtag 3A 2 line two stage unit with no options)