

S.M.P.S. Filter Range

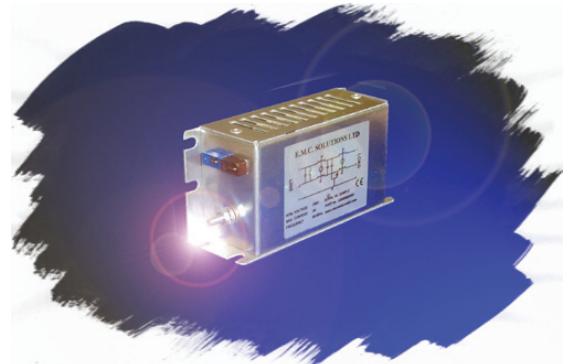
Current Ratings: 3, 6, 10, 13, 20, 32 AMPS.
Operating Voltage: Single Phase 230V.

The u201 filter Range has been specifically designed to overcome EMC problems inherently caused by switched mode power supplies, in applications especially where size constraints and low earth leakage are an issue.

This new range of micro size 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 u201 series is a two stage design 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. They also have very low earth leakage, which give the added benefit of being able to be used in medical devices and applications.

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.



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
- Medical devices and applications

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
- Compact 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 uA	Inductance Per Line (Typical) mH	Storage Temp Range	Temp Rise @ Full Load	Termination Type	Dimensions									
									A	B	C	D	E	F	G	H	I	
3	2	230V	<1V/Line	5	9.8 = 400uH	-25 ~ +85°C	<40°C	Fast-On Terminals	120	60	40	109	30	52	24	5.2	M4 x 150mm	
6					8.2 + 200uH				Phoenix Contact	170	80	50	160	10	30	36	5.2	M6 x 20mm
10					5.56 + 100uH													
13					2.52 + 50uH													
20					1.84 + 50uH													
32					450													

STANDARDS

The u201 range of filters are 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 u201 range is specifically designed to assist

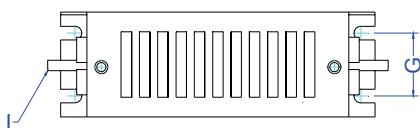
AC input - DC Output switched mode power supplies to meet European Emission standards. eg. EN55011, EN55014, EN55022, EN50081-2 and EN50081-1.

REGULATIONS

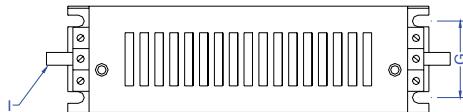
From the 15th of December 2004 all electrical/electronic apparatus - with few exceptions - sold or taken into service within the European Community must comply with the essential requirements of the EMC directive 2004/108/EC.

Failure to do so is a criminal offence in the U.K.

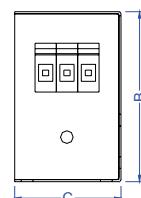
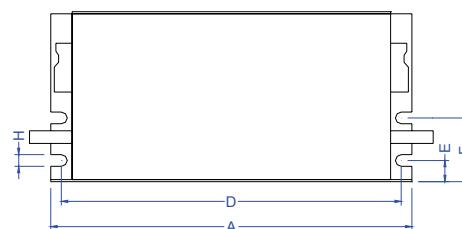
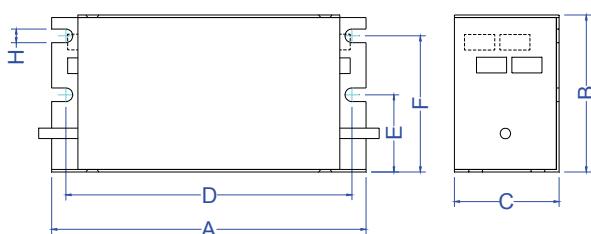
Dimensional Data



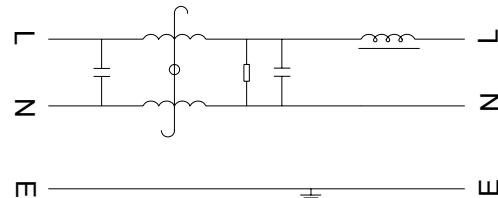
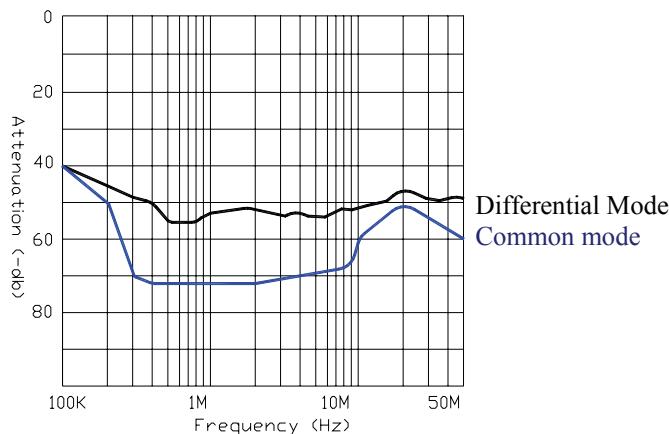
3 - 20A 2 Line



32A 2 Line



Performance characteristics insertion loss curves & Schematic



Part number / ordering information

U201/0/2/2/***
U201 = Range of filter

***** = No of Lines on filter (2)

***** = Options (listed below)

****** = Amp Rating of filter

2 = No of Stages on filter

 Options: T = Transient, E = Earth line Choke, H = High Performance,
 M = Medical, - = neither (no options)

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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