

# Laser Range filters

Current Ratings: 8, 16, 25, 36, 50, 80 AMPS.

Operating Voltage: Single Phase 230V A.C. Two Phase & Three Phase 520VA.C.

Laser range as its name implies has been specially designed to overcome the inherent conducted EMC signatures given by laser power supplies. Laser power supplies demand high current pulses, which tend to saturate standard filter units. This range has high attenuation factors at the lower frequency range where the power supplies require effective filtering. This is combined with a high saturation level so that this effective filtering is still given when the high current pulses occur. Medical versions are also available, offering similar performance with only 200mA Earth leakage.

This series have multiple stages housed in a compact chassis mounting enclosure with the internal components either encapsulated or mechanically fixed to give a shock and vibration proof unit.

D versions have extended performance for high frequency damping to ensure compliance when Earth loops and ringing is present.



## TYPICAL APPLICATIONS

- Laser power supplies
- High current power supplies
- IGBT driven power supplies
- Uninterruptible power supplies

## TECHNICAL ADVANTAGES

- Compact Dimensions
- High attenuation characteristics
- Low earth leakage available
- Damped high frequency
- High saturation levels

## 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 mA	Medical Earth Leakage uA	Inductance Per Line (Typical) mH	Transient Energy Absorption (Typical)	Storage Temp Range	Temp Rise @ Full Load	Termination Type	Dimensions								
											A	B	C	D	E	F	G	H	J
8	2/3/4	Single Phase 230V Two Phase & Three Phase 230V - 520V	<1V/Line	3	200	8	75J Optional	-25 ~ +85°C	<40°C	Insulated Screw Terminal (Phoenix Contact)	170	80	50	150	160	36	50	70	M6 x 20mm
16				3		5					230	130	70	200	215	50	60	105	
25				5		2					300	200	100	260	276	80	20	180	
36																			
50																			
80																			

## STANDARDS

The Laser range of filters are built in accordance with the relevant BS, VDE, UL, CE & CSA safety standards.

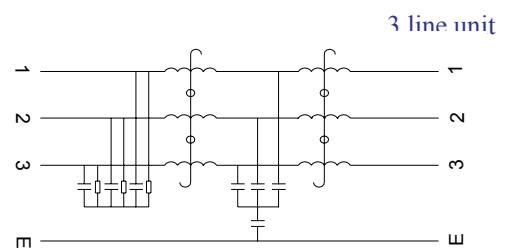
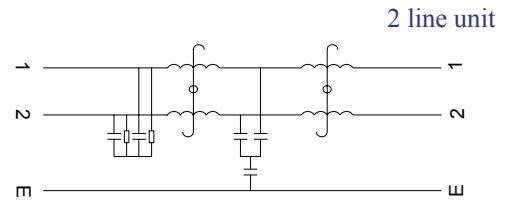
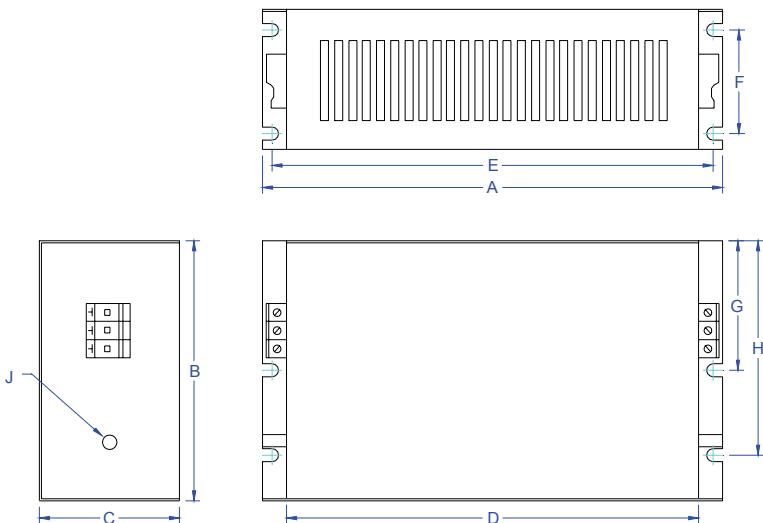
All Total EMC Products Ltd filters & power supplies are designed to meet the latest requirements for Health and Safety, Particularly EN 60939-2-2005

The Laser range is was specifically designed to assist laser power supplies to European Emission standards and medical standards. e.g. EN55011, EN55014, EN55022, EN50081-2 and EN50081-1.

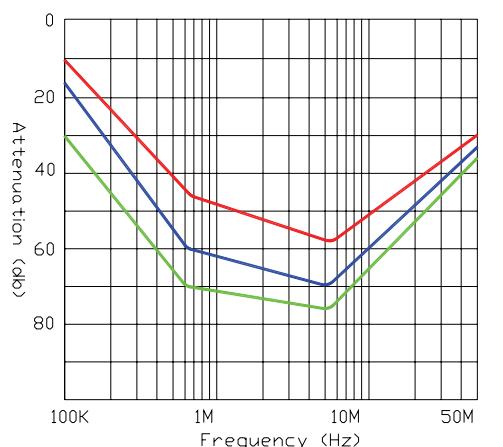
## REGULATIONS

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 & Schematics



## Performance characteristics insertion loss curves



8A-16A  
25A-36A  
50A-80A

## Part number / Ordering information

**LASR/0\*\*/\*/2/\***

**LASR** = Range of filter

**\*** = No of Lines on filter (2,3,4)

**\*** = Options (listed below)

Options: T = Transient, M = Medical, - = neither (no options)

**\*\*\*** = Amp Rating of filter

**2** = No of Stages on filter

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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