



## MU70

# High Performance Filters

Current Ratings: **16, 25, 15** AMPS.

Operating Voltage: Single Phase 230V. **440V**A.C.

The High Performance MU70 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 range of 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 High Performance MU70 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 6 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 (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	Operating Temperature Deg C	Temp Rise @ Full Load	Termination Type	Dimensions (mm)							
												A	B	C	D	E	F	G	WEIGHT Kg
MU70	16	2	230V	<1V/Line	3	5 + 0.8 (x2)	75J Optional	-40 ~ +75°C	-20 - +50°C	35°C	Phoenix Contact IP20	160	120	60	110	6.5	113.5	M6x15mm	1.2
	25					4 + 0.4 (x2)					Mil Circular or Phoenix								
	15	3	440V		<3	3 + 7 (x3)					Phoenix								

### STANDARDS

The High-Performance Filter Range of filters is built in accordance with the relevant BS, VDE, UL, CE & CSA safety standards.

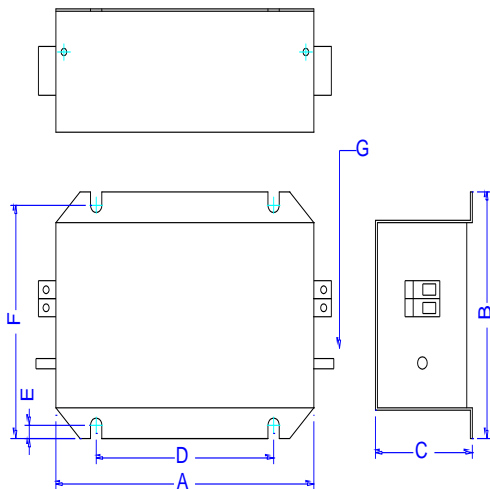
All Total EMC Products Ltd filters & power supplies are designed to meet the latest requirements for Health and Safety, Particularly EN 60939-2-2005

This 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 Stan 59/411. Mil Standard 461.

### REGULATIONS

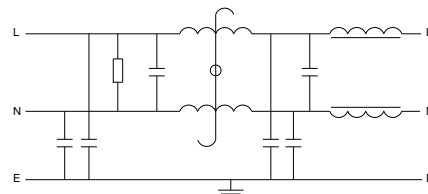
From the 15th of December 2004 all electrical/electronic apparatus - with few exceptions - sold or taken into service within the European Community must comply with the essential requirements of the EMC directive 2014/30/EU. Failure to do so is a criminal offence in the U.K.

## Dimensional Data & Schematics

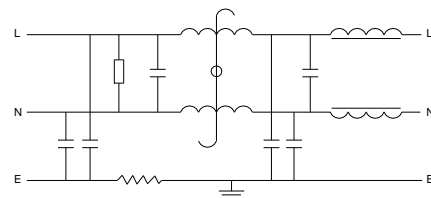


15A 3 Phase

16A & 25A MU70

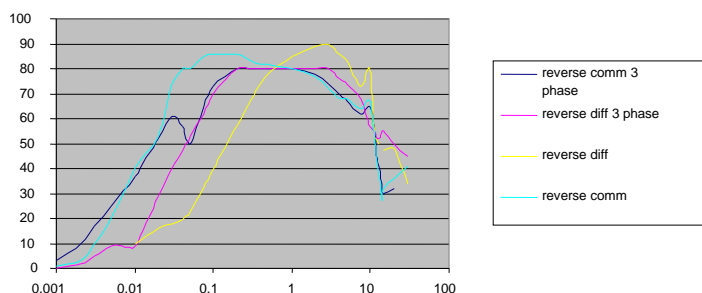


Standard unit



Earth line choke

## Performance characteristics insertion loss curves



## Part number / Ordering information

**MU70/016/2/2/-**

**M** = 'MU70' Series

**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

**016,025,015** = Current Rating

**2** = 2 Lines

**3** = 3 Lines

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:** MU70/016/2/2/- (This is a Mu70 16A 2 line two stage unit with no options)

When considering Total EMC Products for your application(s), it is crucial to adhere to published specifications. The content of this document has been meticulously reviewed, yet Total EMC cannot be held liable for any errors or inaccuracies. It is the customers responsibility to ensure product suitability and operation within specified limits. Changes to specifications may occur without notice.

We urge you to liaise with our product sales or technical team before committing to a solution.