

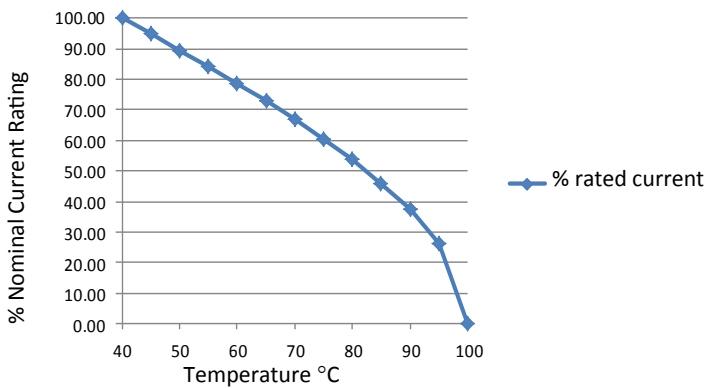
# RES70-M Multi-Stage Performance Filter

## Medical Applications

Roxburgh EMC's RES70-M range are two-phase filters, designed specifically for the medical industry. They offer a high differential and high common mode attenuation with high frequency. There are eight variations to select from with rated current between 1amp and 36amp.



Temperature Derating Curve for EMC Filters Rated at 40°C Ambient and 100°C Maximum



**Call us on:**  
**Tel: +44 (0) 1724 273228**

### Features:

- Two-Phase Filter
- High Differential Mode Performance
- UL Approved E191581
- For use from DC to 400Hz

### Benefits:

- Compact size for rated current
- Fast-on, screw or wire terminations
- Quick and Easy Mounting

### Applications:

These filters are designed for applications within the **medical industry**.

**Full technical specification on page 2**

**Performance curves on page 3**

**Other options in this range on page 4**

**DEM Manufacturing**  
Deltron Emcon House  
Hargreaves Way  
Sawcliffe Industrial Park  
Scunthorpe, North Lincolnshire.  
DN15 8RF



Tel: 44 (0) 1724 273200  
Fax: 44 (0) 1724 280353  
Email: [sales@dem-uk.com](mailto:sales@dem-uk.com)  
Web: [www.dem-uk.com/roxburgh](http://www.dem-uk.com/roxburgh)

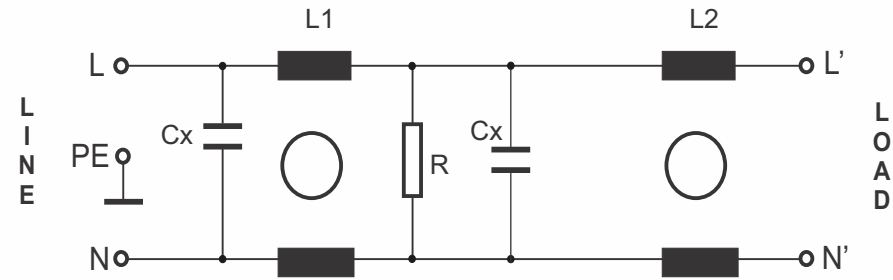
RES70F12-M

Rev. 0

CIRCUIT DIAGRAM:

CHARACTERISTICS:

Rated Voltage:	250VAC max
Rated Current at Ambient:	12A @ 40°C
Operating Frequency:	DC-400HZ
Climatic Class (IEC60068-1):	25/100/21
Temperature Range:	-25°C to +100°C
Over load Current:	1.5 x Rated Ct. for 1 Min



Operational Leakage current : (at 230VAC/50Hz and Total C +/-20%)	0.002 mA max
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Worst case Leakage current : ( N interrupted and Total C +/-20%)	<1.101 mA max
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DCR @ 25°C (+/-25%) :	50 mΩ
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Test Voltage (100%) for 2 sec:-	L-N:	1100VDC
	L-GND:	3500VDC

Ingress Protection:	IP 20
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Weight (Approximate):	670 gr
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FILTER PARAMETERS:

Total Inductance (L-L'+N-N') @10KHz:	6.5mH +50%,-30%
Total Capacitance (L-L/L-N) @1KHz:	2μF +/- 20%

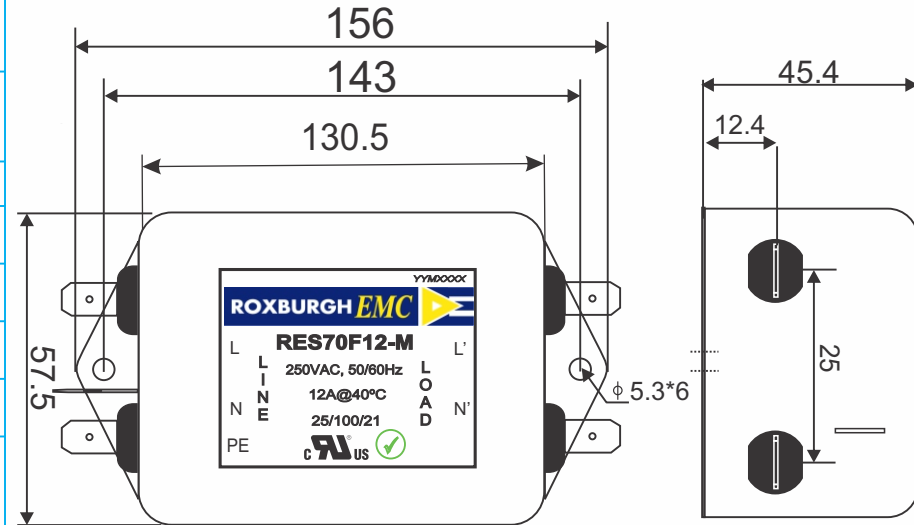
Total Resistance (L-L/L-N):	0.22MΩ +/- 10%
Total Resistance (L/N-GND):	

APPROVALS: REACH  
RoHS  
UL



APPROVED BY AJAY  
Date: 28-03-2014

MECHANICAL DIMENSION (mm):



Note:

Housing matl. Fe with Ni Plated  
Fast-On Terminal ( 6.3 x 0.8mm)  
Connections

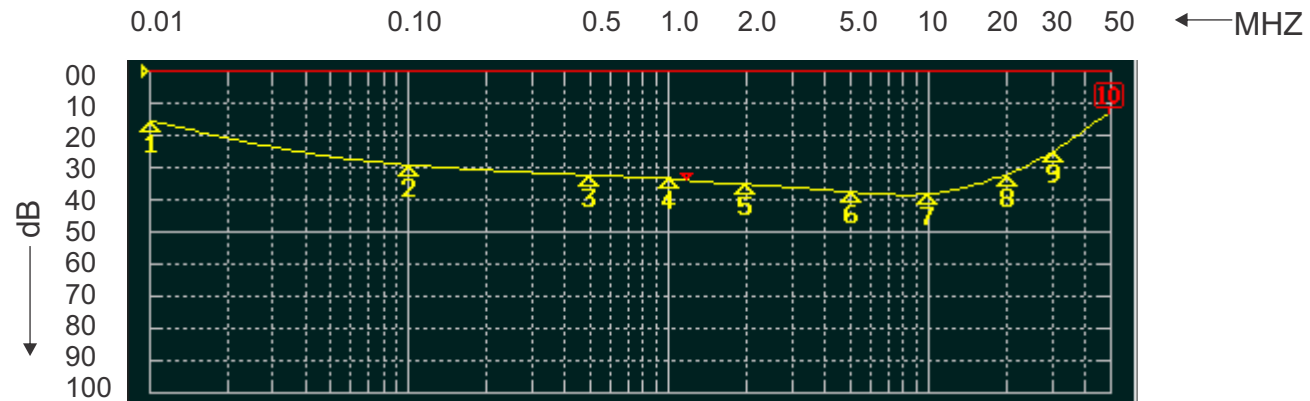
TOLERANCE: +/-1.0 mm



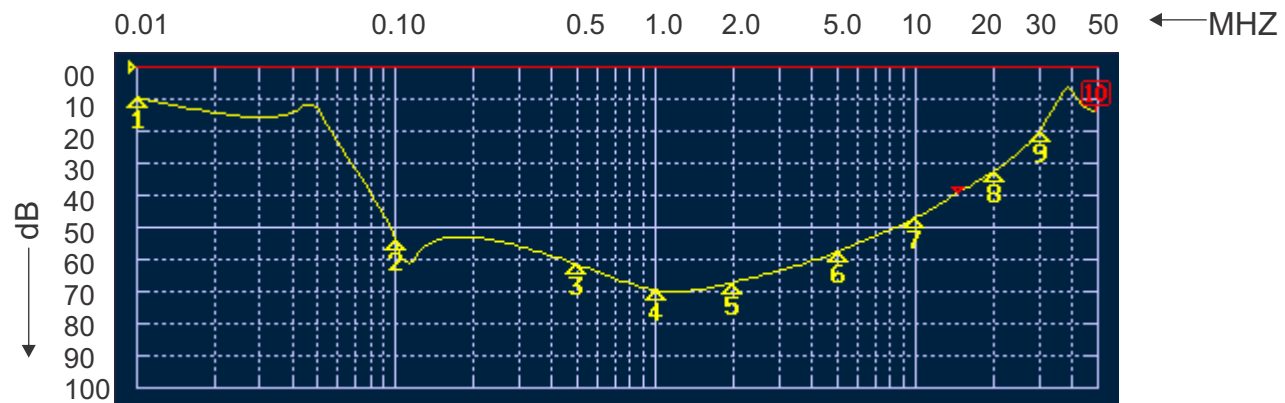
Tel:- +44(0) 1724 273200  
email:- sales@dem-uk.com  
web :- www.dem-uk.com/roxburgh

**ROXBURGH EMC**  
FILTER INSERTION LOSS CHARACTERISTICS  
CISPR 17 - 50 OHM METHOD

**RES70F12-M**



COMMON MODE






DIFFERENTIAL MODE



# RES70-M Multi-Stage Performance Filter

## Medical Applications

### Options Available:

Part Number	Rated Current @40°C A	Leakage Current @ 230V/50Hz mA	Inductance $\Sigma L$ mH	Capacitance $\Sigma Cx$ uF	Resistance $\Sigma R$ K $\Omega$	Connection Type		
								
RES70F01-M	1	0.002	22	0.33	1000	F	W	
RES70F03-M	3	0.002	9.8	0.47	470	F	W	
RES70F06-M	6	0.002	7.8	1	220	F	W	
RES70F10-M	10	0.002	4.5	1	220	F	W	
RES70F12-M	12	0.002	3.25	1	220	F	W	
RES70F16-M	16	0.002	2.8	1	220	F	W	S
RES70S25-M	25	0.002	2	2.2	220			S
RES70S36-M	36	0.002	1.23	2.2	220			S

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