

# RES70 Chassis Mounted Filter

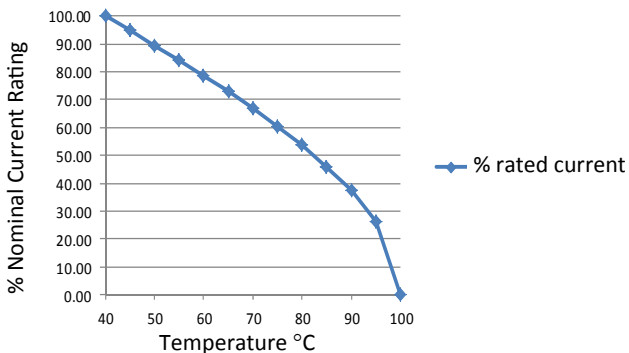
## Multi-Stage, High Differential, High Common Mode and High Frequency

Roxburgh's RES70 series is a multi-stage EMC filter offering high differential mode, high common mode and high frequency attenuation.

Designed for quick and easy chassis mounting, these general purpose filters are suitable for a broad range of applications including noisy environments where increased filter performance is required.



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



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Tel: +44 (0) 1724 273200

### Features:

- Multi-stage
- High differential and high common mode attenuation
- High frequency attenuation
- UL approved E191581
- For use from DC to 400Hz
- 1 Amp to 36 Amp

### Benefits:

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

### Application Examples:

- Lighting
- Drives
- Electrical and electronic equipment
- Consumer goods
- Household equipment
- Building automation
- Machinery
- Electronic data/communication processing equipment
- Office automation

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

**ROXBURGH EMC**



Tel: 44 (0) 1724 273200  
Fax: 44 (0) 1724 280353  
Email: sales@dem-uk.com

Web: www.dem-uk.com/roxburgh

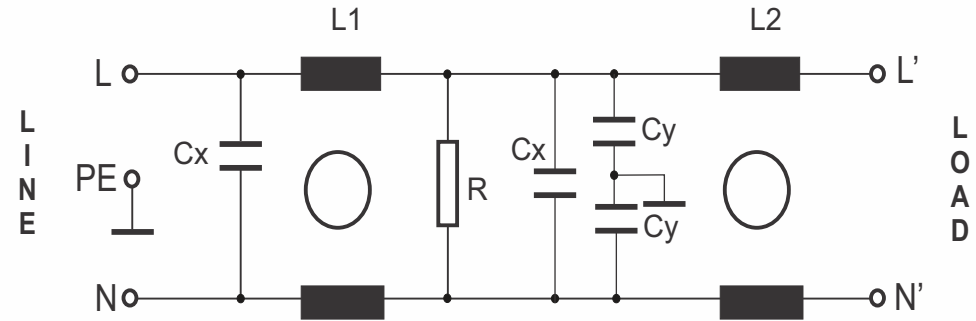
RES70F12

Rev. 0

CIRCUIT DIAGRAM:

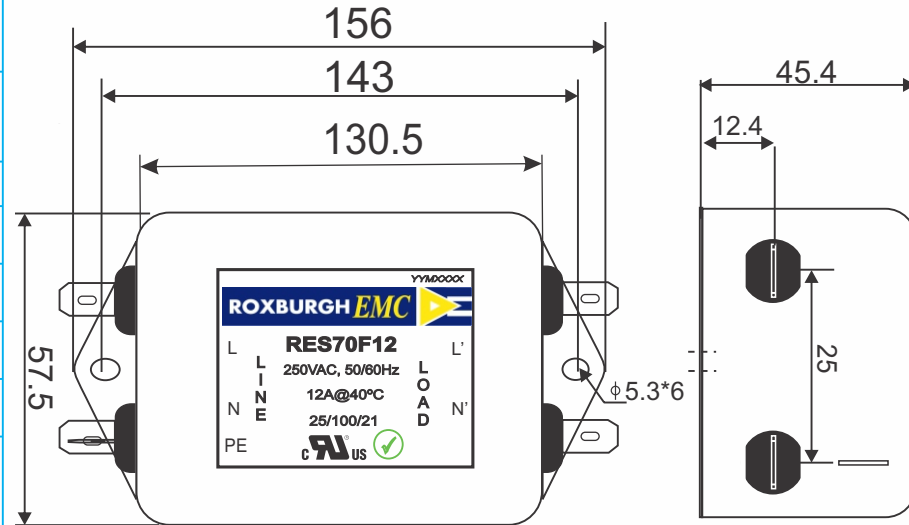
**CHARACTERISTICS:**

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%)	0.734 mA max
Worst case Leakage current : ( N interrupted and Total C +/-20%)	<1.101 mA max
DCR @ 25°C (+/-25%) :	50 mΩ
Test Voltage (100%) for 2 sec:-	L-N: 1100VDC
	L-GND: 3000VDC
Ingress Protection:	IP 20
Weight (Approximate):	670 gr

**MECHANICAL DIMENSION (mm):**



**FILTER PARAMETERS:**

Total Inductance (L-L'+N-N') @10KHz:	6.5mH +50%,-30%
Total Capacitance (L-L/L-N) @1KHz:	2μF +/- 20%
Total Capacitance (L-G/N-G) @1KHz:	9.4nF +/- 20%
Total Resistance (L-L/L-N):	0.22MΩ +/- 10%
Total Resistance (L/N-GND):	

**APPROVALS:**

REACH  
RoHS  
UL

APPROVED  
BY  
AJAY



Date: 15-04-2014

**Note:**

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

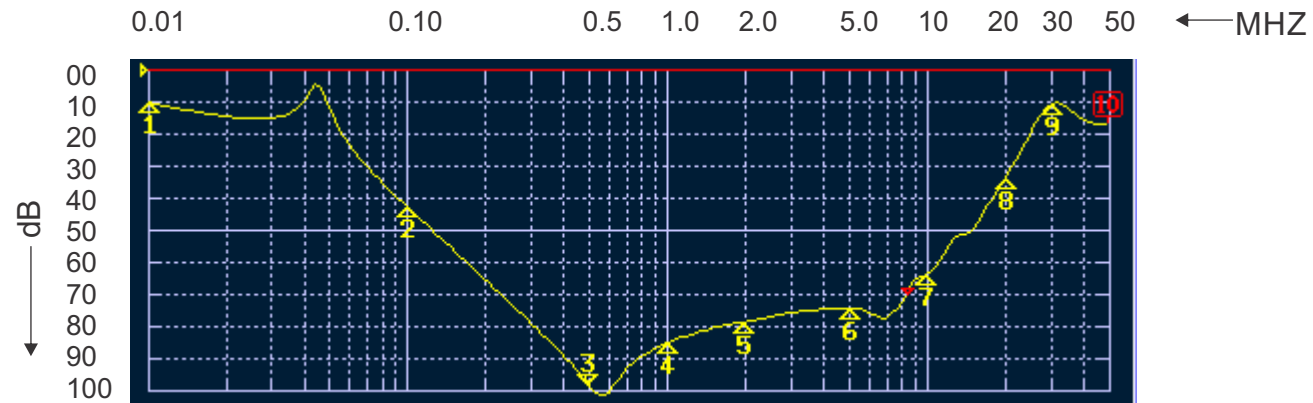
TOLERANCE: +/-1.0 mm



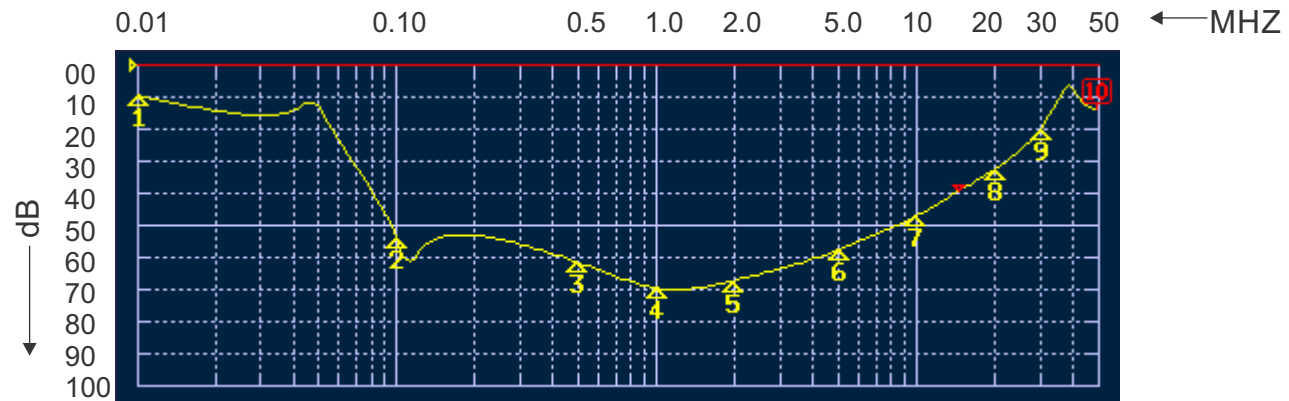
Tel:- +44(0) 1724 273200  
email:- [sales@dem-uk.com](mailto:sales@dem-uk.com)  
web :- [www.dem-uk.com/roxburgh](http://www.dem-uk.com/roxburgh)

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

**RES70F12**



COMMON MODE



DIFFERENTIAL MODE



# RES70 Chassis Mounted Filter

## Multi-Stage, High Differential, High Common Mode and High Frequency

### Options Available:

Part Number	Rated Current	Leakage Current @	Inductance	Capacitance	Capacitance	Resistance	Connection Type		
	@40°C	230V/50Hz	$\Sigma L$	$\Sigma Cx$	$\Sigma Cy$	$\Sigma R$			
	A	mA	mH	$\mu F$	nF	K $\Omega$			
RES70F01	1	0.73	44	0.66	9.4	1000	F	W	
RES70F03	3	0.73	19.6	0.94	9.4	470	F	W	
RES70F06	6	0.73	15.6	2	9.4	220	F	W	
RES70F10	10	0.73	9	2	9.4	220	F	W	
RES70F12	12	0.73	6.5	2	9.4	220	F	W	
RES70F16	16	0.73	3.6	2	9.4	220	F	W	S
RES70S25	25	0.73	4	4.4	9.4	220			S
RES70S36	36	0.86	2.46	4.4	9.4	220			S



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Web: [www.dem-uk.com/roxburgh](http://www.dem-uk.com/roxburgh)