

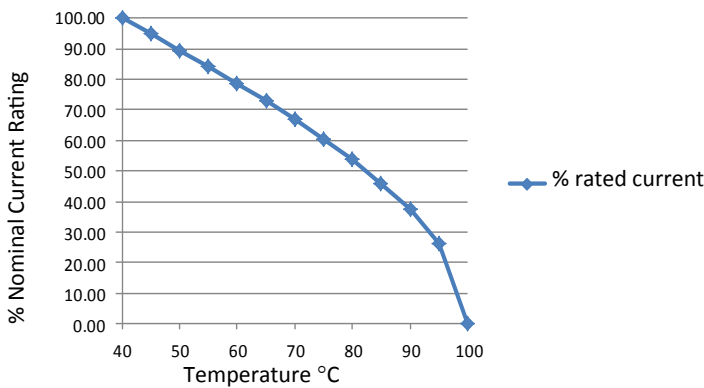
# RES30-M High Performance EMI Filter

## Medical Applications

Roxburgh EMC's RES30-M range are single phase filters, designed specifically for the medical industry. They offer a high attenuation performance and are well suited for particularly noisy applications. There are ten variations to select from with an operating frequency from dc to 400Hz.



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



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

### Features:

- Single Phase
- High Attenuation Performance
- 1 Amp to 30 Amp Options
- UL Approved E191581

### 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**

**Other options in this range on page 3**

**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)

RES30F20

Rev. 0

**CHARACTERISTICS:**

Rated Voltage:	250VAC max
Rated Current at Ambient:	20A @ 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
Worst case Leakage current : ( N interrupted and Total C +/-20%)	<1.18 mA max
DCR @ 25°C (+/-25%) :	25 mΩ
Test Voltage (100%) for 2 sec:-	L-N: 1100VDC
	L-GND: 3000VDC
Ingress Protection:	IP 20
Weight (Approximate):	250 gr

**FILTER PARAMETERS:**

Total Inductance (L-L'+N-N') @10KHz:	4mH +50%,-30%
Total Capacitance (L-L/L-N) @1KHz:	2.0μF +/- -20%
Total Capacitance (L/N-GND) @1KHz:	20nF +/- -20%
Total Resistance (L-L/L-N):	0.330MΩ +/- -10%
Total Resistance (L/N-GND):	

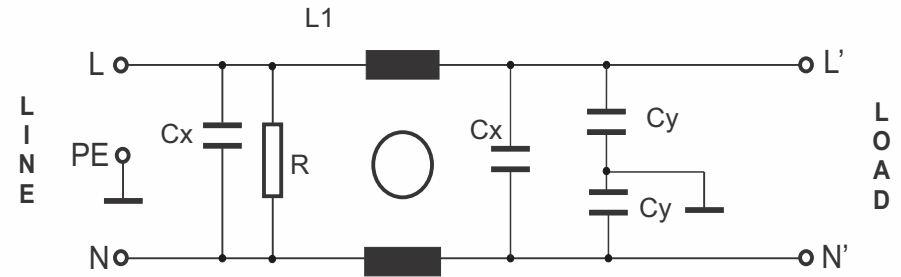
**APPROVALS:**

REACH  
RoHS  
UL



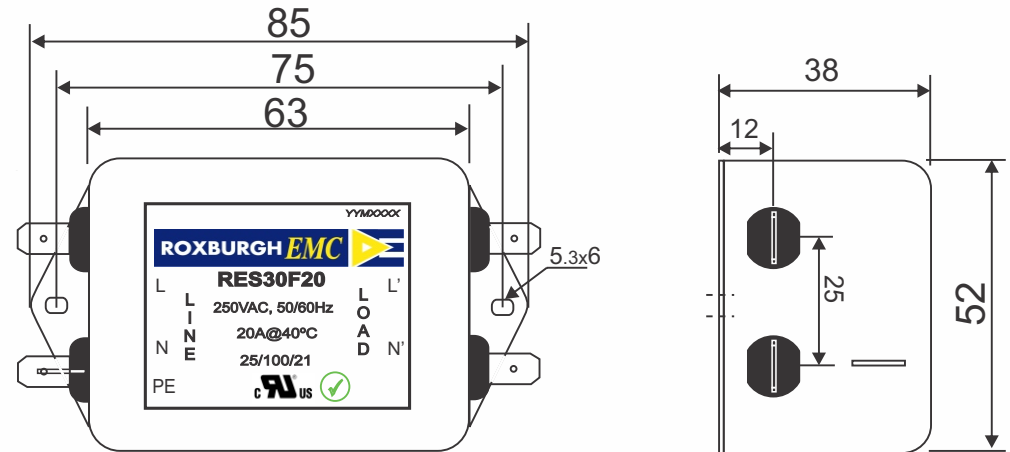
APPROVED BY  
AJAY  
DATE : 18/03/2014

**CIRCUIT DIAGRAM:**



Y-capacitors not included in -M versions designed for medical applications.

**MECHANICAL DIMENSION (mm):(1000-008)**



**Note:**

Housing matl. Fe with Ni Plated  
Fast-On Terminal ( 6.3 x 0.8mm)  
OPTIONAL (SCREW M4) Connections



TOLERANCE: +/-1.0 mm






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# RES30-M High Performance EMI 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		
								
RES30F01-M	1	0.002	20	0.44	1000	F	W	
RES30F03-M	3	0.002	14	0.66	1000	F	W	
RES30F04-M	4	0.002	14	0.66	1000	F	W	
RES30F06-M	6	0.002	8	0.94	680	F	W	
RES30F08-M	8	0.002	8	0.94	680	F	W	
RES30F10-M	10	0.002	8	0.94	680	F	W	
RES30F12-M	12	0.002	4	2.00	330	F	W	
RES30F16-M	16	0.002	4	2.00	330	F	W	
RES30F20-M	20	0.002	4	2.00	330	F		S
RES30S30-M	30	0.002	2	2.00	330			S

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