

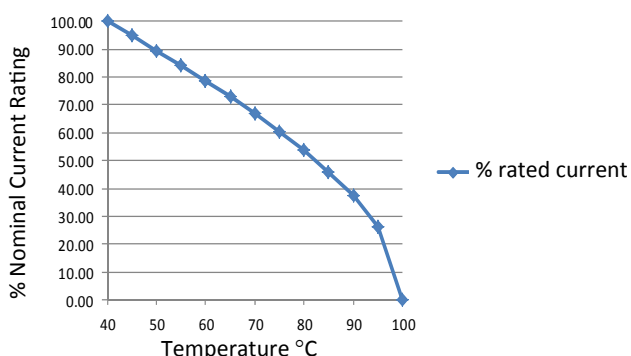
# RES90 Chassis Mounted Filter

## Very High Differential and Common Mode

Roxburgh's RES90 series is a multi-stage EMC filter with very high differential and common mode attenuation. Featuring excellent attenuation performance this series is suitable for noisy applications where increased filter performance is required.



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



**Call us on:**  
**Tel: +44 (0) 1724 273200**

### Features:

- Multi-stage
- Very high differential and common mode attenuation
- Excellent attenuation performance
- UL approved E191581
- For use from DC to 400Hz
- 1 Amp to 30 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 specifications enclosed**

**Performance Curves enclosed**

**Other options in this range on page 2**

### DEM Manufacturing

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

**ROXBURGH EMC**



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# RES90 Chassis Mounted Filter

## Very High Differential and Common Mode

### Options Available:

Part Number	Rated Current @40°C A	Leakage Current @ 230V/50Hz mA	Inductance $\Sigma L$ mH	Capacitance $\Sigma Cx$ uF	Capacitance $\Sigma Cy$ nF	Resistance $\Sigma R$ K $\Omega$	Connection Type		
									
RES90F01	1	0.5	40	0.66	6.4	680	F	W	
RES90F03	3	0.5	28	0.99	6.4	470	F	W	
RES90F06	6	0.67	16	1.41	8.6	330	F	W	
RES90F10	10	0.67	16	1.41	8.6	330	F	W	
RES90F16	16	1.02	08	3.00	22	220	F	W	
RES90F20	20	1.02	5.4	3.00	22	220	F		
RES90S20	20	1.02	5.4	3.00	22	220			S
RES90S30	30	1.02	3.0	3.00	22	220			S

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**RES90F16****Rev. 0****CHARACTERISTICS:**

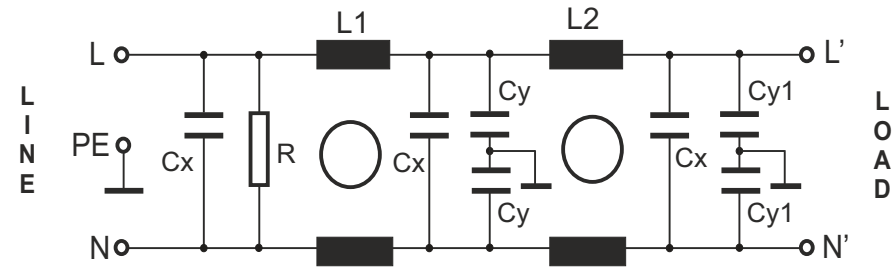
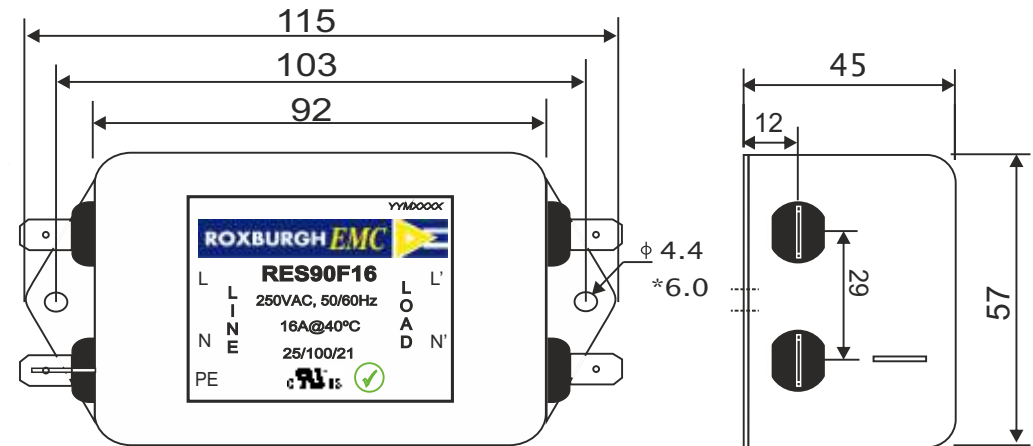
Rated Voltage:	250VAC max
Rated Current at Ambient:	16A @ 40°C
Operating Frequency:	DC-400HZ
Climatic Class (IEC60068-1):	25/100/21
Temperature Range:	-25°C to +100°C
Over load Current:	1.5 x Rated Ct. for 1 Min
Operational Leakage current : ( at 230VAC and Total C +/-20%)	1.02 mA max
Worst case Leakage current : ( N interrupted and Total C +/-20%)	<3.46 mA max
DCR @ 25°C (+/-25%) :	15 mΩ
Test Voltage (100%) for 2 sec:-	P-P: 1100VDC
	P-GND: 3000VDC
Ingress Protection:	IP 20
Weight (approximate):	420 gr

**FILTER PARAMETERS:**

Total Inductance (P-P'+N-N') @10KHz:	8mH +50%,-30%
Total Capacitance (P-P/P-N) @1KHz:	3μF +/- 20%
Total Capacitance (P/N-GND) @1KHz:	22nF +/- 20%
Total Resistance (P-P/P-N):	220K Ω +/- 10%
Total Resistance (P/N-GND):	

**APPROVALS:**REACH  
ROHS  
ULAPPROVED  
BY  
AJAY

Date: 15-03-2014

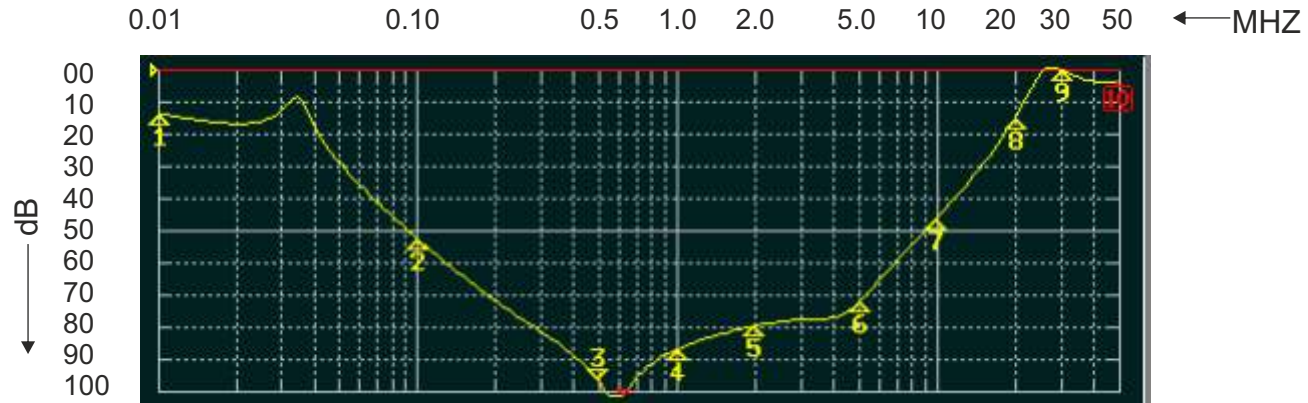
**CIRCUIT DIAGRAM:****MECHANICAL DIMENSION (mm):****Note:**Housing matl. Fe with Ni Plated  
Fast-On Terminal ( 6.38 x 0.8mm)  
Connections

TOLERANCE: +/-1.0 mm

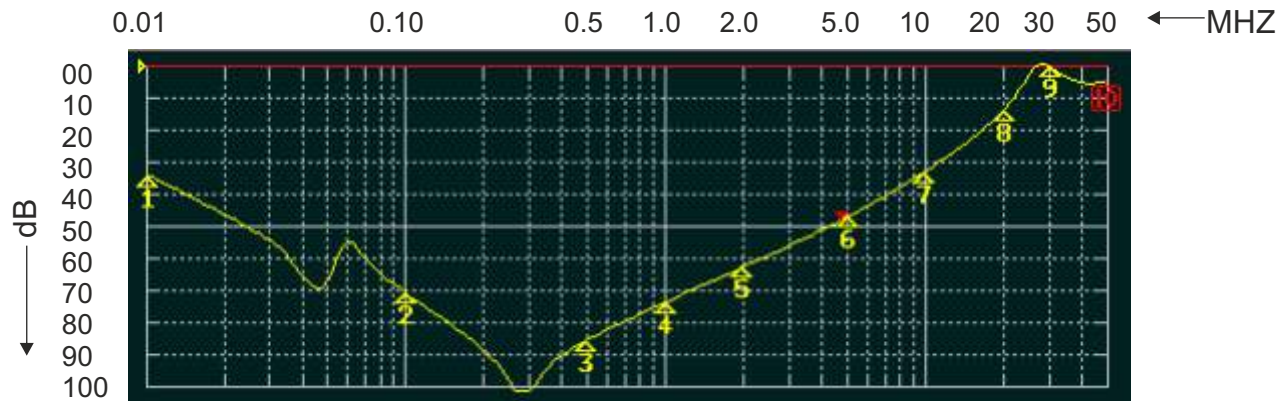


**ROXBURGH EMC**  
FILTER INSERTION LOSS CHARACTERISTICS  
CISPR 17 - 50 OHM METHOD

**RES90F16**



COMMON MODE



DIFFERENTIAL MODE

