

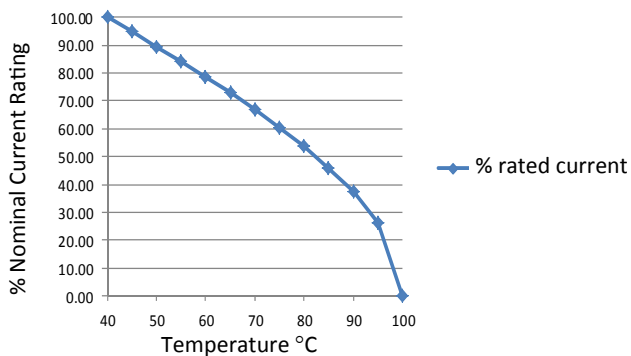
# RES90 Chassis Mounted Filter

## 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	Leakage Current @	Inductance	Capacitance	Capacitance	Resistance	Connection Type		
	@40°C	230V/50Hz	$\Sigma L$	$\Sigma Cx$	$\Sigma Cy$	$\Sigma R$			
	A	mA	mH	uF	nF	K $\Omega$			
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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RES90F01

Rev. 0

**CHARACTERISTICS:**

Rated Voltage:	250VAC max
Rated Current at Ambient:	1A @ 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%)	0.5 mA max
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Worst case Leakage current : ( N interrupted and Total C +/-20%)	<1.0 mA max
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DCR @ 25°C (+/-25%) :	750 mΩ
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Test Volatge (100%) for 2 sec:-	P-P:	1100VDC
	P-GND:	3000VDC

Ingress Protection:	IP 20
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Weight (approximate):	75 gr
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**FILTER PARAMETERS:**

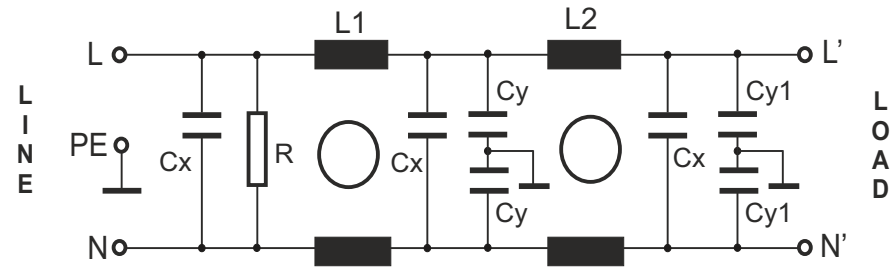
Total Inductance (P-P'+N-N') @10KHz:	40mH +50%,-30%
Total Capacitance (P-P/P-N) @1KHz:	0.66µF +/- -20%
Total Capacitance (P/N-GND) @1KHz:	6.4nF +/- -20%
Total Resistance (P-P/P-N):	680K Ω +/- -10%
Total Resistance (P/N-GND):	

**APPROVALS:** REACH  
RoHS  
UL

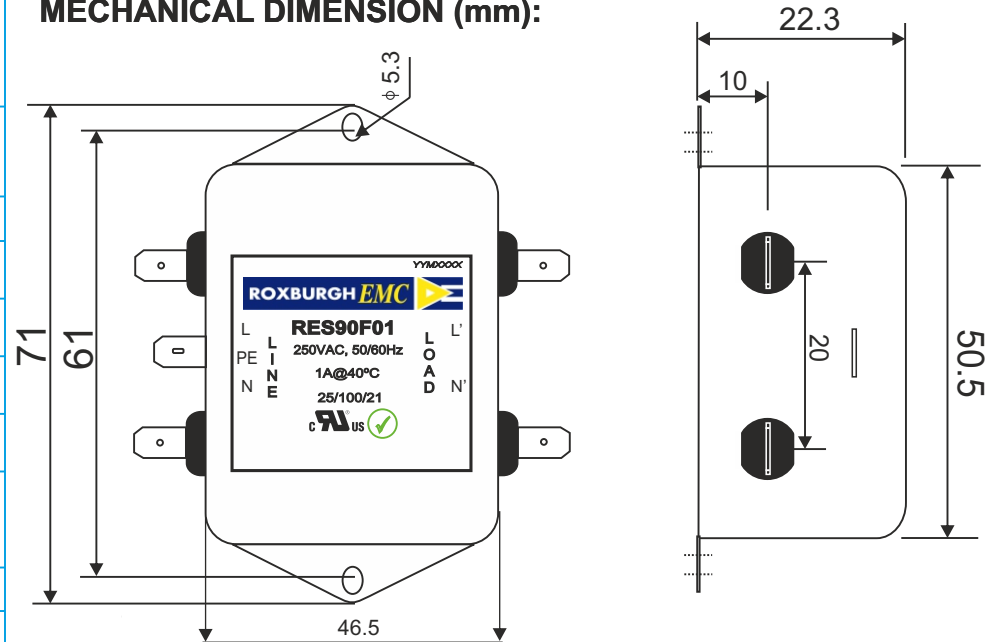


APPROVED BY AJAY  
Date:25-04-2014

**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

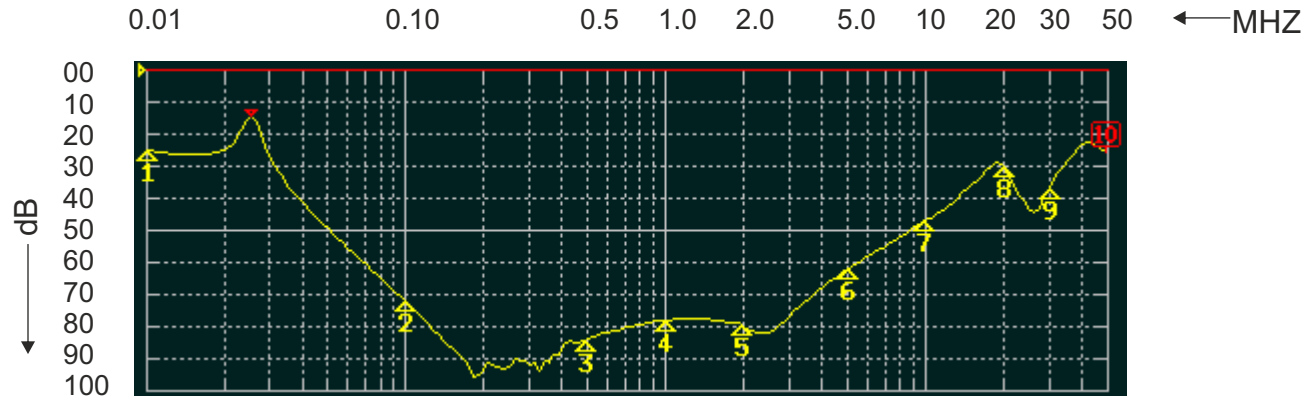


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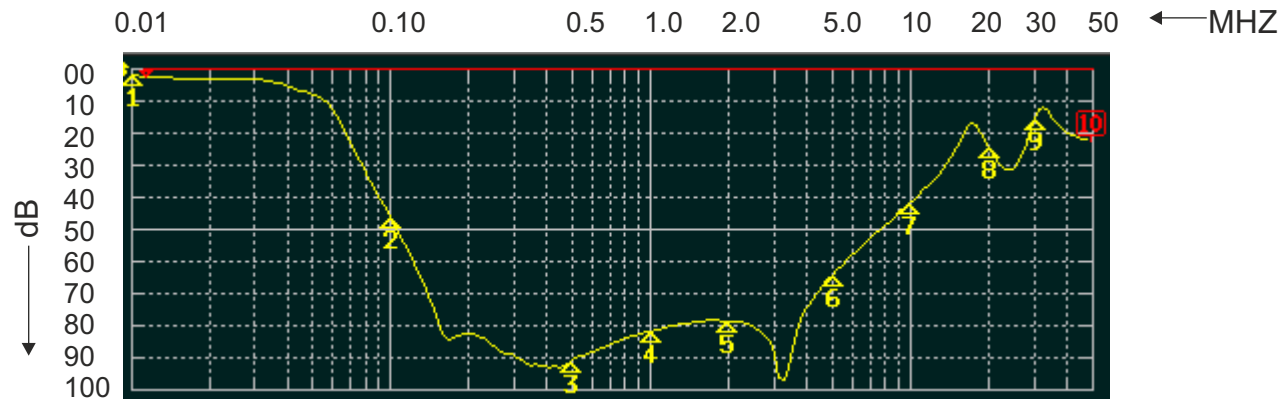
# ROXBURGH EMC

## FILTER INSERTION LOSS CHARACTERISTICS CISPR 17 - 50 OHM METHOD

### RES90F01



COMMON MODE



DIFFERENTIAL MODE

