

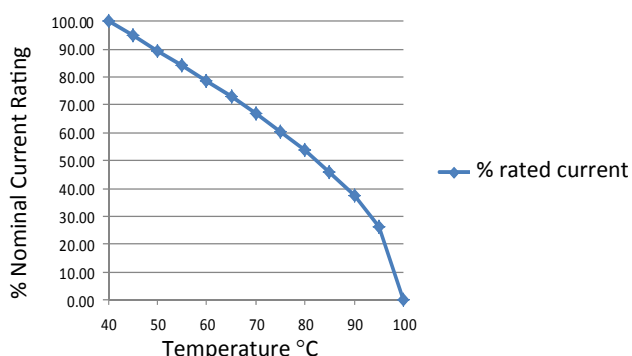
RES90 Chassis Mounted Filter

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



Tel: 44 (0) 1724 273200

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Email: sales@dem-uk.com

Web: www.dem-uk.com/roxburgh

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Very High Differential and Common Mode

Options Available:

| Part Number | Rated Current | Leakage Current @ | Inductance | Capacitance | Capacitance | Resistance | Connection Type | |
|-------------|---------------|-------------------|------------|-------------|-------------|------------|-----------------|---|
| | @40°C | 230V/50Hz | ΣL | ΣCx | ΣCy | ΣR | | |
| | A | mA | mH | uF | nF | K Ω | | |
| 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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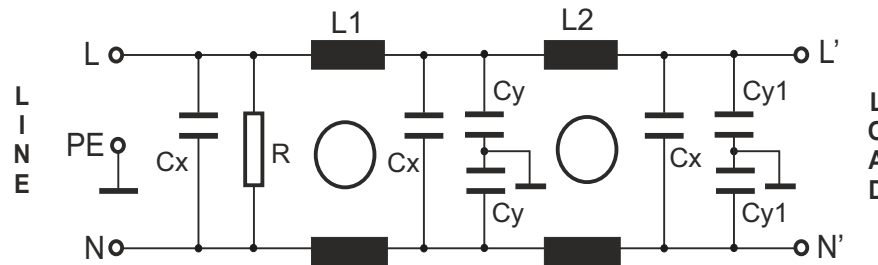


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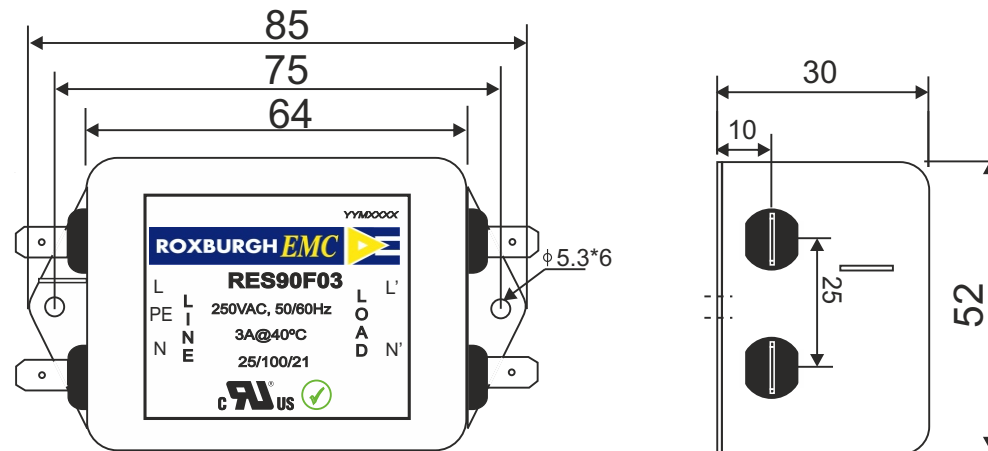
| RES90F03 | Rev. 0 |
|---|---|
| CHARACTERISTICS: | |
| Rated Voltage: | 250VAC max |
| Rated Current at Ambient: | 3A @ 40°C |
| Operating Frequency: | DC-400HZ |
| Climatic Class (IEC60068-1): | 25/100/21 |
| Temperature Range: | -25°C to +100°C |
| Over load Current: | 1.5 x Rated Ct. for 1 Min |
| Operational Leakage current : (at 230VAC and Total C +/-20%) | 0.5 mA max |
| Worst case Leakage current : (N interrupted and Total C +/-20%) | <1.0 mA max |
| DCR @ 25°C (+/-25%) : | 250 mΩ |
| Test Volatge (100%) for 2 sec:- | P-P: 1100VDC |
| | P-GND: 3000VDC |
| Ingress Protection: | IP 20 |
| Weight (approximate): | 200 gr |
| FILTER PARAMETERS: | |
| Total Inductance (P-P'+N-N') @10KHz: | 28mH +50%,-30% |
| Total Capacitance (P-P/P-N) @1KHz: | 0.99μF +/- -20% |
| Total Capacitance (P/N-GND) @1KHz: | 6.4nF +/- -20% |
| Total Resistance (P-P/P-N): | 470K Ω +/- -10% |
| Total Resistance (P/N-GND): | |
| APPROVALS: REACH RoHS UL | APPROVED BY AJAY Date: 25-03-2014 |



CIRCUIT DIAGRAM:



MECHANICAL DIMENSION (mm):



Note:

Housing matl. Fe with Ni Plated
Fast-On Terminal (6.38 x 0.8mm)
Connections

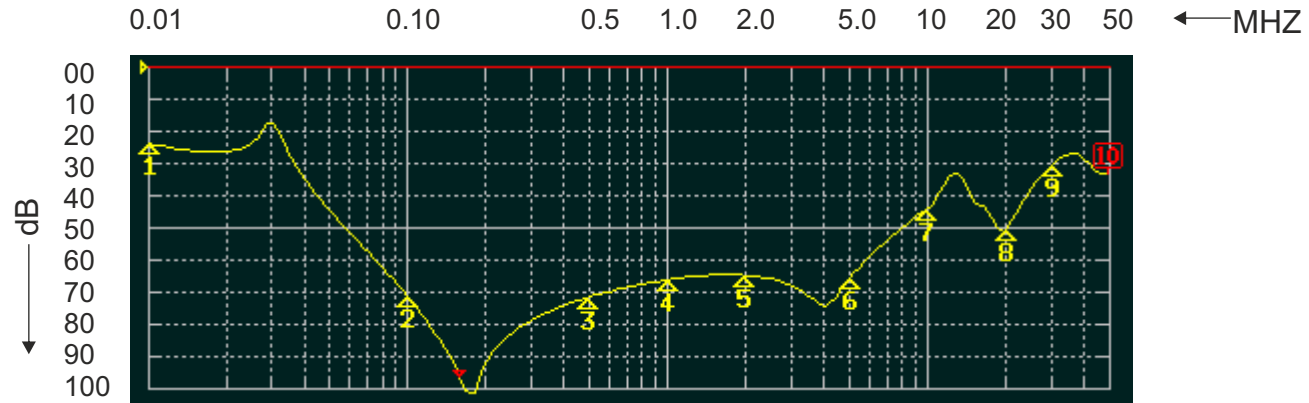


TOLERANCE: +/-1.0 mm

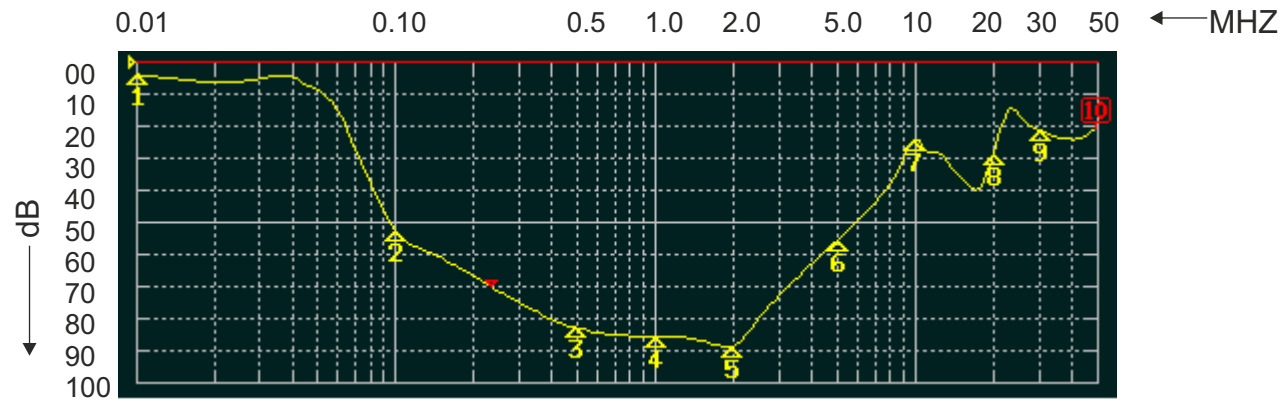
ROXBURGH EMC

FILTER INSERTION LOSS CHARACTERISTICS CISPR 17 - 50 OHM METHOD

RES90F03



COMMON MODE



DIFFERENTIAL MODE

