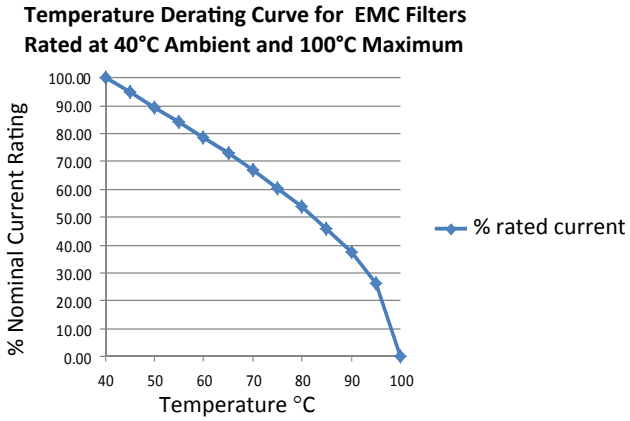
RES90 Chassis Mounted Filter
Very High Differential and Common Mode

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.



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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 specification on page 2

Performance curves on page 3

Other options in this range on page 4

DEM Manufacturing
Deltron Emcon House
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Sawcliffe Industrial Park
Scunthorpe, North Lincolnshire.
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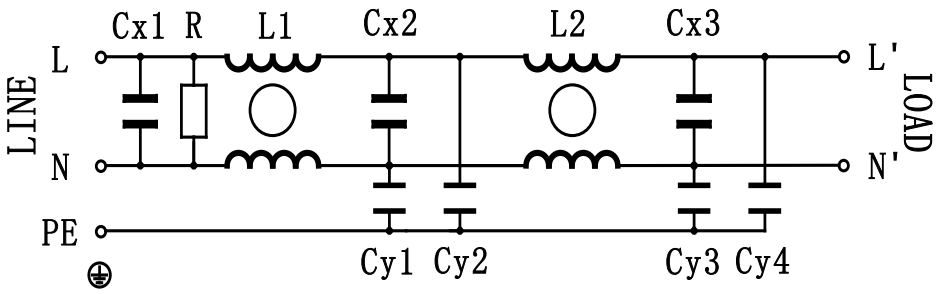
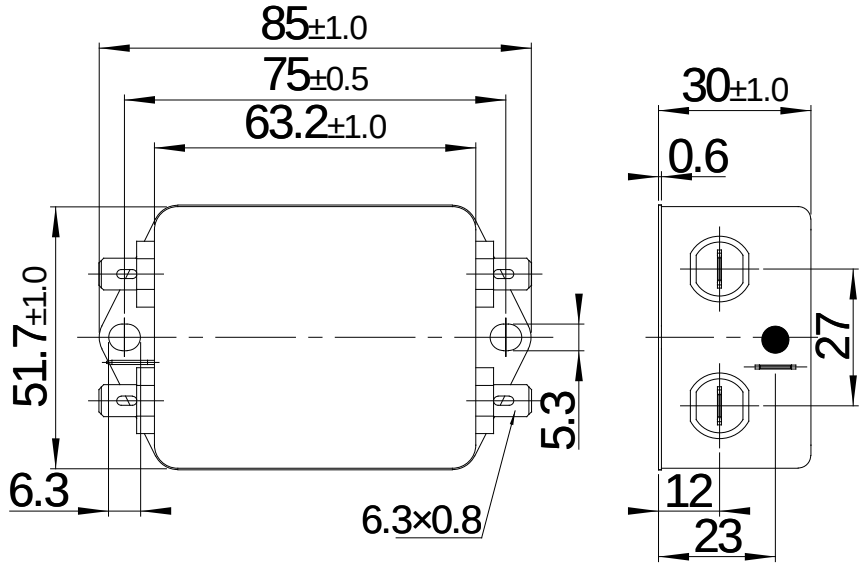
Circuit diagram:



Dimensions(mm):



Electrical parameters:

Rated Voltage:	120/250VAC
Rated Current at an ambient temp:	3A@40℃
Operating Frequency:	50/60Hz
Climatic Class(IEC60068-1):	25/100/21
Operational Leakage current: (at 250VAC/50Hz and Total C +/-20%)	0.55mA max (RES90F03-M 0mA)
Operational Leakage current: (at 120VAC/60Hz and Total C +/-20%)	0.32mA max (RES90F03-M 0mA)
Test Voltage(100%)for 2 sec:	
L-N:	1100VDC/20mA
L/N-PE:	2250VDC/20mA

Filter parameters:

Total Inductance(L-L'/N-N'):	28mH +50%,-35%
Total Capacitance(L-N/L'-N'):	0.99uF +/-20%
Total Capacitance(L/N-PE) (RES90F03-M):	6.4nF +/-20% (0nF)
Total Resistance(L-N/L'-N'):	470KΩ +/-10%
Weight(Approximate):	185g

Safety certification

UL	☑	CSA	☑
ENEC	☑	CQC	☐
CE	☑	VDE	☐

Technical Specification

compiled by	Jay Zhang	2020-8-5
reviewed by	Pallas Wang	2020-8-5
approved by	Henry Huang	2020-8-5

ROXBURGH EMC
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Part Number (Alternate RES90F03-M - no Y caps) **RES90F03**

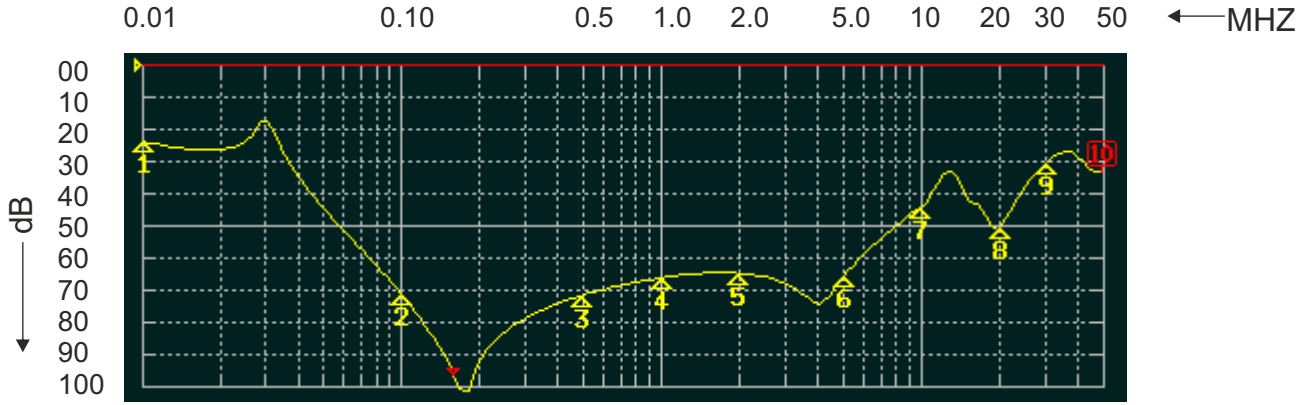
single-phase emc filter

stage marker V1.03

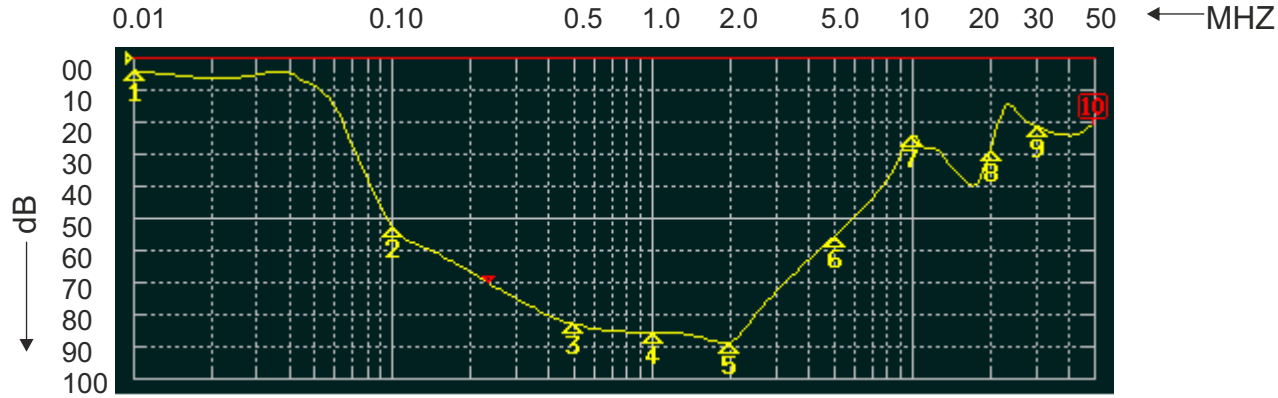
ROXBURGH EMC

FILTER INSERTION LOSS CHARACTERISTICS
CISPR 17 - 50 OHM METHOD

RES90F03



COMMON MODE



DIFFERENTIAL MODE

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Options Available:

Part Number	Rated Current @40°C A	Leakage Current @ 230V/50Hz mA	Inductance ∑L mH	Capacitance ∑Cx uF	Capacitance ∑Cy nF	Resistance ∑R KΩ	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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