

Roxburgh RES90 Series EMI Filters

Single-phase Drive Rated EMI Filters

The Roxburgh RES90 Series filters feature excellent attenuation performance suitable for noisy applications where increased filter performance is required. They are specifically designed as line filters for single-phase 120/240V AC and DC drives.

RES90 Series are a multi-stage EMC filter with very high differential and common mode attenuation rated up to 250V. The filters can be integrally mounted in cabinet or chassis hardware. Available in 1/4" quick disconnect type (RES90F) and screw terminal type (RES90S).

Features

- 0-240VAC/DC, 0-400 Hz, single-phase
 - 1A - 30A models
 - Very high performance type in a metal case
 - 1/4" quick connect or screw terminals
 - Panel mount
- *Filter performance curves are available on item page at:

Applications

- Ideally suited for products that must conform to part 15, FCC regulations
- Single-phase AC and DC drives
- Digital electronics
- Personal computers and peripherals
- Office automation
- Building automation
- Monitors and display units
- Household and consumer devices
- Machinery design

Standards and Certifications



RES90 EMI Filters		
Part Number	Price	Description
RES90F01		EMI Input filter, 1-phase 120/240VAC, multi-stage drive grade, 1A
RES90F03		EMI Input filter, 1-phase 120/240VAC, multi-stage drive grade, 3A
RES90F06		EMI Input filter, 1-phase 120/240VAC, multi-stage drive grade, 6A
RES90F10		EMI Input filter, 1-phase 120/240VAC, multi-stage drive grade, 10A
RES90F16		EMI Input filter, 1-phase 120/240VAC, multi-stage drive grade, 16A
RES90S20		EMI Input filter, 1-phase 120/240VAC, multi-stage drive grade, 20A
RES90S30		EMI Input filter, 1-phase 120/240VAC, multi-stage drive grade, 30A

General Specifications	
Voltage Rating	0-240V AC/DC, 0-400 Hz
Voltage Max.	250V
Voltage Withstand	3000VDC/2 sec
Phase	1
UL/IEC Pollution Class	Degree II
Humidity	93% RH (non-condensing)
Overload Current	135% 2Hrs, 150% 60s
Insulation Resistance	500VDC >3.5 MΩ
Climate Class (IEC 60068-1)	25/100/21
Temperature Rise	60°C
Temperature Rating	-13 to 212°F (-25 to 100°C)
Flammability (UL94)	V-2
Case Material	Nickel Plated Steel
Altitude*	1000m (3000m with derating)
Mounting Clearance	>50mm Gap
Agency Approval**	cURus: File# E191581 (Standard: UL1283 & C22.2 No.8)

* Derate 1% per 100m after 1000m; Max 3000m.

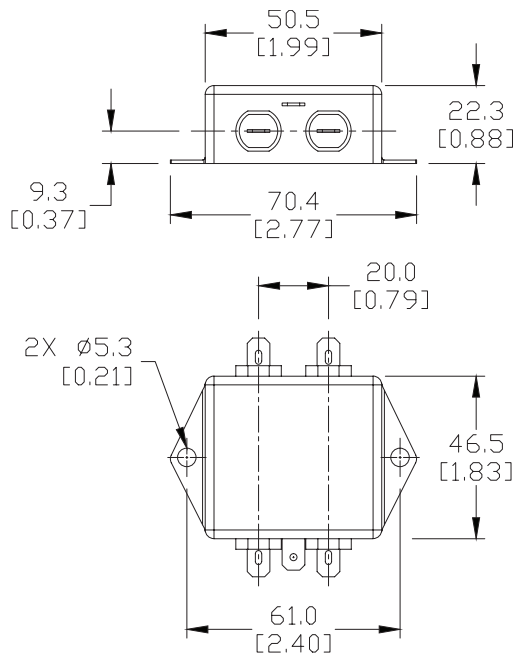
**To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific component part number web page.

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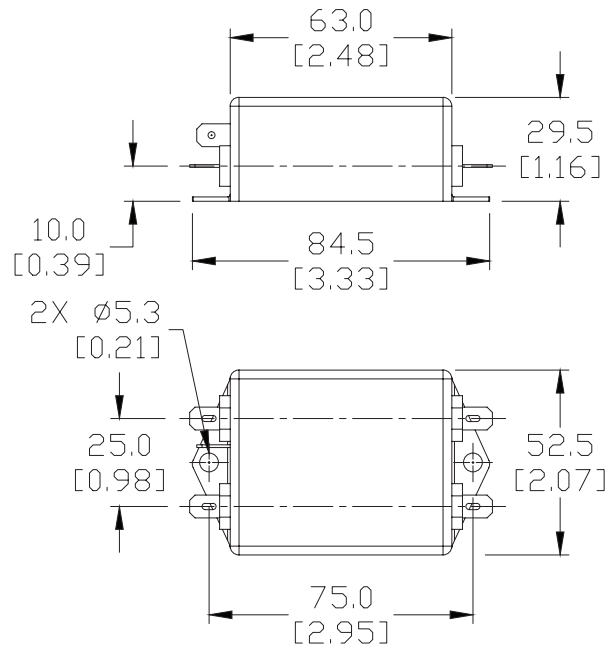
Specifications							
Parameter	RES90F01	RES90F03	RES90F06	RES90F10	RES90F16	RES90S20	RES90S30
Max. Power (kW)	0.25	0.75	1.5	2.5	4	5	7.5
Current Rating (A)	1	3	6	10	16	20	30
SCCR Rating (kA)	5						
Ingress Protection	IP20						
Terminal Style	1/4" Quick Disconnect					M4 Stud	
Torque lb-in (N-m)	N/A					11.5 (1.3)	
Operational Leakage Current (mA)	0.5		0.67		1.02		
Total Resistance (Line to Load) (mΩ)	750	250	100	500	15	50	300
Residual Voltage (V@5s)	1V@5s						
Heat Dissipation (W)	0.75	2.25	3.6	5	12.8	20	7.2
Weight lbs (kg)	0.18 (0.08)	0.44 (0.20)		1.0 (0.45)	0.92 (0.42)		1.2 (0.55)

Dimensions mm [inches]

RES90F01



RES90F03
RES90F06

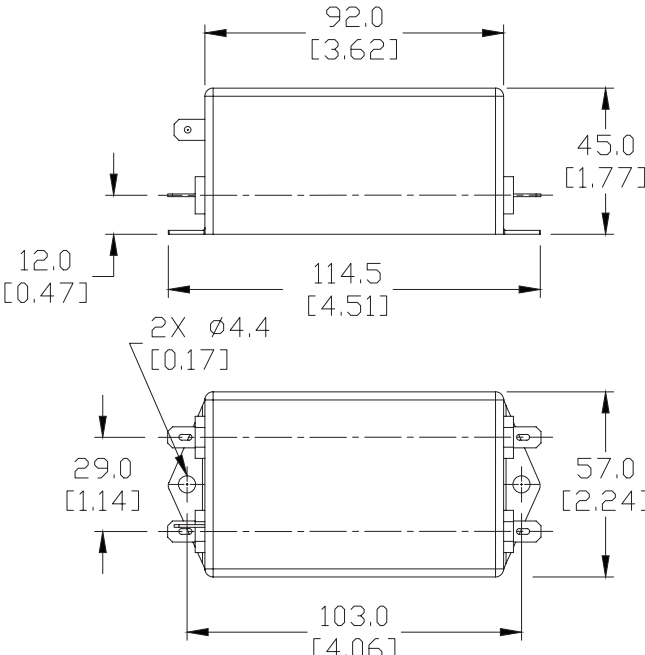


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Dimensions

mm [inches]

RES90F10
RES90F16



RES90S20
RES90S30

