

RIR Series IEC Inlet Filters

Single Fused - Screw Fix

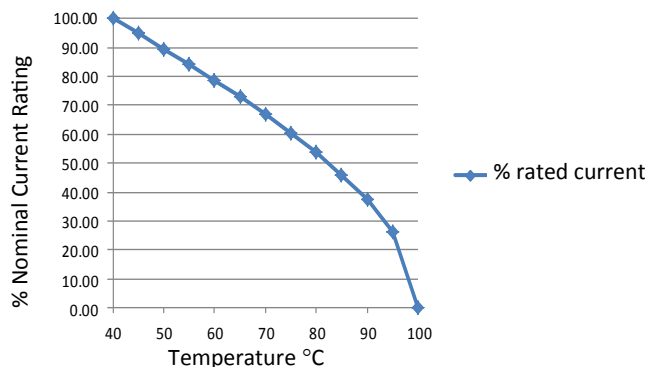
The RIR series of general purpose IEC inlet filters offers good performance for both common mode and differential mode interface, in a standard compact size.

A standard IEC inlet filter available from Roxburgh EMC with quick and easy mounting.

- Current ratings, 2A, 4A and 6A.
- Rated at 250V.
- Also available with increased x and y caps for optimum performance.
- Customisation services available
- Available from UK stock



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



Meets overvoltage category II of IEC60664
Complies with BS EN 60950
UL Standard: UL1283
IEC Standard: IEC 60939-2:2005
CSA Standard: C22.2
CSA File No. 207414

Features:

- UL Approved
- General Purpose
- 2 to 6 Amp Current Ratings
- IEC Inlet with fast-on termination

Application Examples:

- Digital Equipment
- Point-of-sale equipment
- Printers
- Inverters
- Vending and Gaming machines

Benefits:

- Quick and easy mounting
- Safety approvals held
- UK stock

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A. General Specifications

Model	Rated Voltage AC,DC[V]	Rated Current [A]	Leakage Current Max. [mA]	Temperature Rise Max. [°C]
RIR-02*2-*	250	2	0.35	40
RIR-02*3-*	250	2	0.50	40
RIR-04*D-*	250	4	0.10	45
RIR-04*2-*	250	4	0.35	45
RIR-04*3-*	250	4	0.50	45
RIR-06*2-*	250	6	0.35	45
RIR-06*3-*	250	6	0.50	45

*Leakage current measuring method

UL 1283(3rd Edition): -26 and Fig 26.1

*Temperature rise measuring method

VDE 0565-3 : - 2.3.3 and - 4.5

B. Operating Temperature Range

-25°C to +85°C including temperature rise.

C. Withstand Voltage

1500V AC for 1 minute between line and ground.

1800V DC for 1 minute between line and line (without bleeder resistor.)

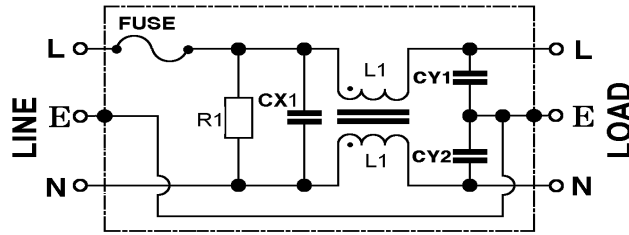
D. Insulation Resistance

300M Ω minimum at 500V DC between line and ground.

E. Voltage Drop

1 volt maximum at rated current.

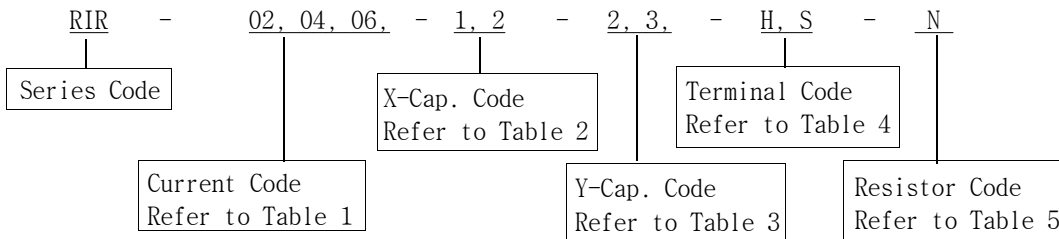
F. Circuit Diagram and Component Value



Model No.	Fuse-Rated Current [A]	Inductance L1[mH], +50, -30%	X-Capacitor CX1[μ F] \pm 20%	Y-Capacitor CY1,2[pF] \pm 20%	Resistor R1[Ω] \pm 10%
RIR-0212-H,S	2	6.5	0.1	2200	1M, 1/2W
RIR-0213-H,S				3300	
RIR-0222-H,S			0.22	2200	
RIR-0223-H,S				3300	
RIR-041D-H,S	4	2.4	0.1	470	
RIR-0412-H,S				2200	
RIR-0413-H,S				3300	
RIR-0422-H,S			0.22	2200	
RIR-0423-H,S				3300	
RIR-0612-H,S	6.3	1.1	0.1	2200	
RIR-0613-H,S				3300	
RIR-0622-H,S			0.22	2200	
RIR-0623-H,S				3300	
RIR-**1**-*N	*	*	0.1	*	None

※ " * " in the suffix of model number means 'Regardless'.

Construction of Model No.



* Table 1 : Current Code

Suffix	02	04	06
Current	2 A	4 A	6 A

* Table 2 : X-Capacitor Code

Suffix	1	2
X-Capacitor	0.1 μ F	0.22 μ F

* Table 3 : Y-Capacitor Code

Suffix	2	3
Y-Capacitor	2200pF	3300pF

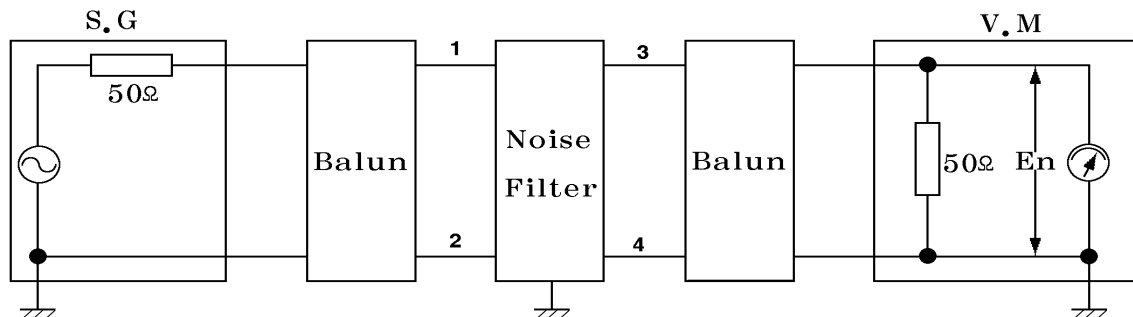
* Table 4 : Terminal Code

Suffix	H	S
Terminal	Faston Tab #250	Soldering Lug

* Table 5 : Resistor Code

Suffix	" "	N
Resistor	1M Ω	No Resistor

G. Attenuation Measuring Method



OSC Level : 0dB

$$\text{Insertion loss} = -20\log(E1/E2)[\text{dB}]$$

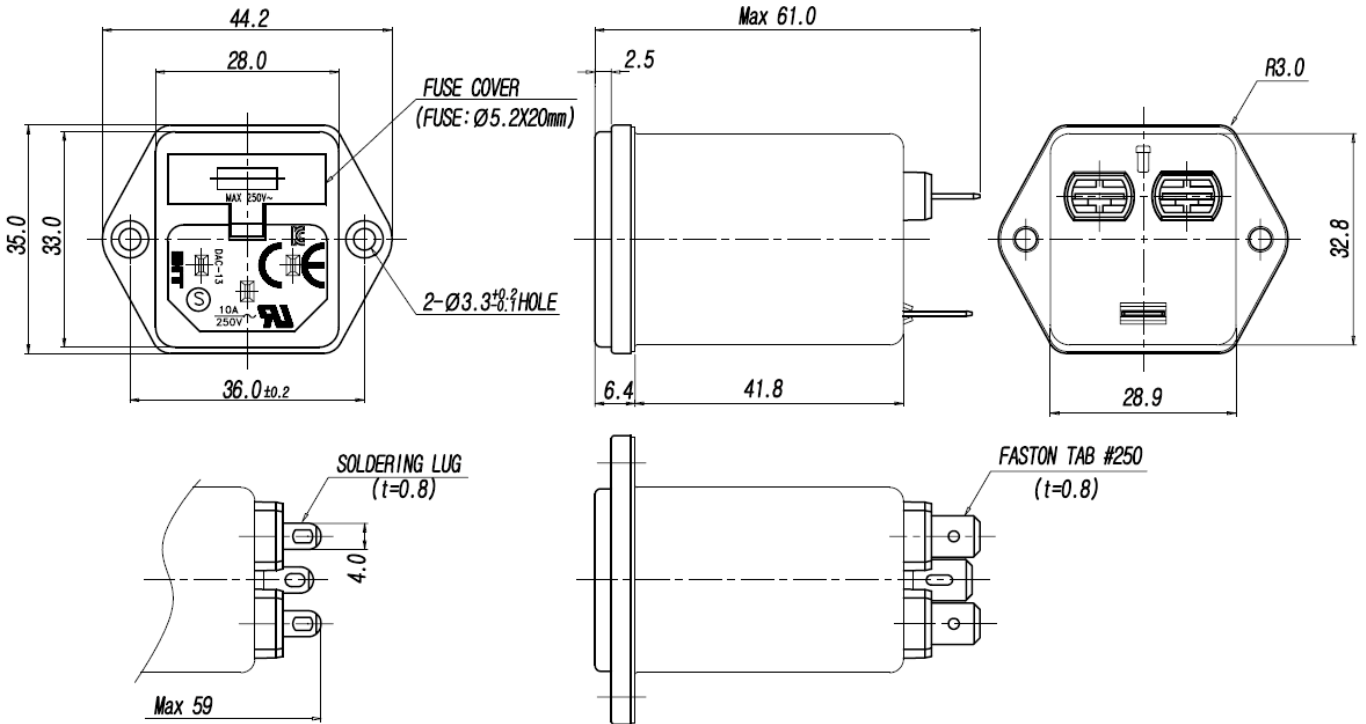
E1 : Level with the Noise Filter in the circuit.

E2 : Level without the Noise Filter in the circuit

H. Guaranteed Minimum Attenuation In [dB]

Model	Common mode [MHz]							Normal mode [MHz]						
	0.15	0.45	1	2	5	10	30	0.15	0.45	1	2	5	10	30
RIR-0212-*	31	45	48	44	43	44	44	15	27	38	45	50	60	50
RIR-0213-*	31	48	49	46	45	46	45	15	25	38	50	55	60	50
RIR-0222-*	31	46	43	42	41	42	45	22	35	40	40	46	57	50
RIR-0223-*	31	47	48	45	44	45	45	22	33	44	45	52	62	50
RIR-041D-*	18	27	32	33	28	28	45	10	20	32	33	28	35	50
RIR-0412-*	22	34	41	44	44	45	48	15	25	33	41	43	50	50
RIR-0413-*	22	35	45	48	48	50	48	15	24	30	45	50	58	60
RIR-0422-*	21	34	41	43	43	44	45	21	32	40	35	42	51	55
RIR-0423-*	21	35	45	48	48	49	45	21	32	40	38	45	55	60
RIR-0612-*	16	27	34	40	42	44	50	15	25	31	37	40	48	60
RIR-0613-*	16	28	36	42	47	49	50	15	26	31	39	44	51	60
RIR-0622-*	15	27	33	40	42	43	50	21	33	40	33	39	48	51
RIR-0623-*	15	28	35	44	48	49	45	21	33	40	34	45	54	54

I. Mechanical Dimension Unit : mm



* Alternate Terminal for IR-****S

* Alternate Terminal for IR-****H

※ General Tolerance : ± 0.5 mm

J. Marking

1. Trademark.
2. Model No.
3. Rated voltage and current.
4. Operating temperature range.
5. Circuit diagram and component value.
6. Lot No.
7. UL, CSA mark.

K. Material List

- Refer to attached Appendix page A1.

K. Packing

- Refer to attached Appendix page A2.

※ . Packing Specification

1. Quantity & Weight

Packing Case	Q'ty/ 1 Box	Gross Weight(kg)
CARTON BOX	200	16
INNER BOX	100	8

2. Packing Case

Packing Case	Q'ty	Material	Dimension(W×L×H)mm
CARTON BOX	1/200	SK3SA	425×363×243(outside)
INNER BOX	1/100	SKSA B Type	208×335×215(inside)
PACKING CASE	1/20	P.E.T	325.3×201×0.5
TOP PAD	1/100	STYROFOAM(PS)	193×317×8.0
POLY BAG	1/100	PE SHEET	450×550

3. Marking

- 1) Model No.
- 2) Q'ty of products
- 3) Lot No.

