



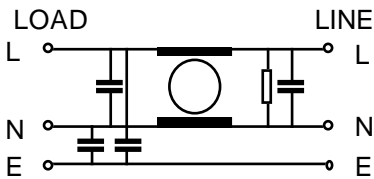
FP - 100 Series RFI Filters for L100 and SJ100 Series Inverters

The FP-100 range of filters are designed especially for the Hitachi L100 and SJ100 Series inverter drives and help to ensure EMC compliance to EN 61800-3 of machinery and installations using the drives.

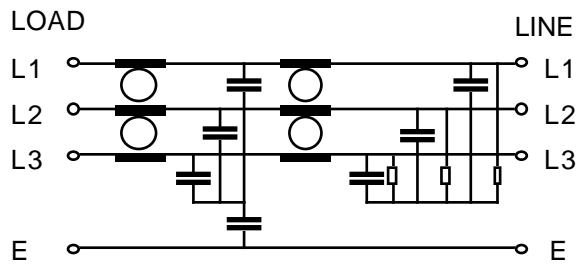
The drive is mounted on top of the filter using the integral fixing positions, the intention being that valuable space inside wiring cabinets may be saved.

CIRCUIT DIAGRAMS

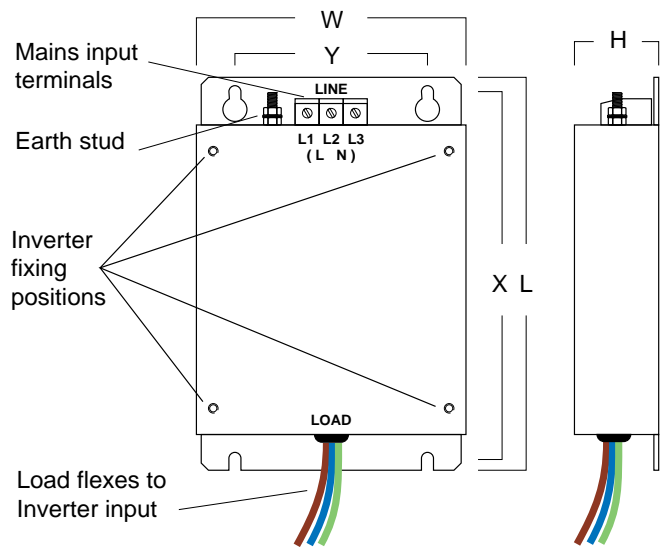
Single Phase Filters



Three Phase Filters



DIMENSIONS



Applied L100 Inverter	Applied SJ100 Inverter	Filter Part No	Rated Current	Max Rated Voltage	Leakage current Nom / Max	external L x W x H (mm)	mount X x Y (mm)	Inverter Fixings
L100 002 NFE L100 004 NFE	SJ100 002 NFE SJ100 004 NFE SJ100 005 NFE	FP 1007 100	7A	1ph, 250vac	3.5mA -	156 x 83 x 30	146 x 60	2 x M4
L100 005 NFE L100 007 NFE	SJ100 007 NFE SJ100 011 NFE	FP 1012 100	12A		3.5mA -	166 x 114 x 30	156 x 80	4 x M4
L100 011 NFE L100 015 NFE L100 022 NFE	SJ100 015 NFE SJ100 022 NFE	FP 1024 100	24A		3.5mA -	220 x 146 x 35	210 x 100	4 x M5
L100 004 HFE L100 007 HFE L100 015 HFE	SJ100 004 HFE SJ100 007 HFE SJ100 015 HFE SJ100 022 HFE	FP 3007 100	7A	3ph, 480vac	0.5mA 14mA	166 x 114 x 35	156 x 80	4 x M4
L100 022 HFE L100 030 HFE L100 040 HFE	SJ100 030 HFE SJ100 040 HFE	FP 3012 100	12A		0.5mA 14mA	220 x 146 x 35	210 x 100	4 x M5
L100 055 HFE L100 075 HFE	SJ100 055 HFE SJ100 075 HFE	FP 3022 100	22A		0.5mA 38mA	305 x 186 x 50	289 x 140	4 x M6

Earth Leakage Measurements

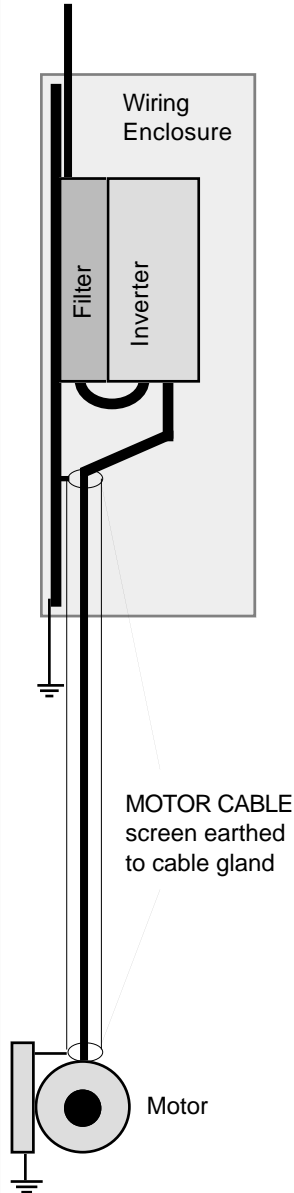
Under normal conditions, with the three phases balanced, earth leakage currents are extremely small - the max values stated are worst possible values such as would occur momentarily during switch on or failure of one or two phases.

Recommended Installation Instructions For EMC Compliance to EN61800-3

IN ORDER TO CONFORM TO THE EMC DIRECTIVE, THESE INSTRUCTIONS SHOULD BE FOLLOWED AS CLOSELY AS POSSIBLE.

FOLLOW THE USUAL SAFETY PROCEDURES WHEN WORKING WITH ELECTRICAL EQUIPMENT.

ALL ELECTRICAL CONNECTIONS TO THE FILTER, INVERTER & MOTOR MUST BE MADE BY A QUALIFIED ELECTRICAL TECHNICIAN.



The footprint filter is intended for applications where the motor cable is no more than 10m long. For longer motor cables a separate block filter is recommended.

- 1) Check the filter rating label to ensure that the current, voltage rating and part number are correct.
- 2) The back panel of the wiring cabinet or board should be prepared for the mounting dimensions of the filter. Care should be taken to remove any paint etc. from the mounting holes and face area of the panel. This will ensure the best possible earthing of the filter.

The filter should be securely mounted in position, and the inverter mounted to the front of the filter with the screws provided.

- 3) Connect the incoming mains supply to the filter terminals marked "LINE". Connect any earth cables to the earth stud provided. Connect the filter output flexes to the mains input of the inverter.
- 4) Connect the motor to the inverter output terminals. Armoured or screened cable should be used.

The earth conductor and screen should be securely earthed at both inverter and motor ends.

The motor cable is a significant source of RF noise and should not be routed with other cables. Screening should be continuous and brought as close to the inverter as possible.

- 5) Connect any control cables as instructed in the inverter instruction manual.

IT IS IMPORTANT THAT ALL LEAD LENGTHS ARE KEPT AS SHORT AS POSSIBLE AND THAT INCOMING MAINS AND OUTGOING MOTOR CABLES ARE KEPT WELL SEPARATED

Rev. 1.0



HID Limited, Shuttleworth Close, Gapton Hall Industrial Estate,
Great Yarmouth, Norfolk, NR31 0NQ

Tel: 01493 442525

Fax: 01493 442323

e-mail sales@hid.co.uk

website: www.hid.co.uk