



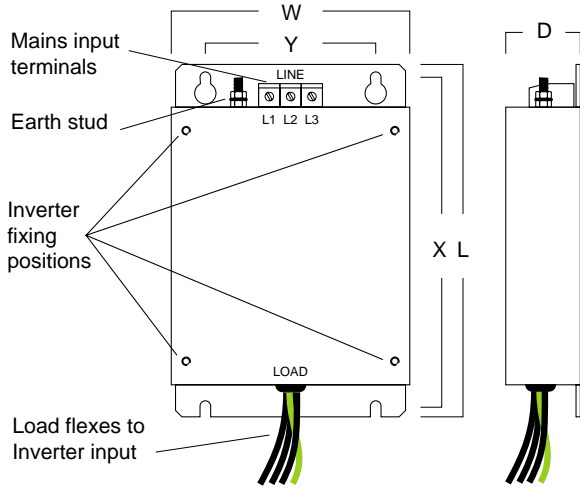
# FP/RF-300 Series RFI Filters for L300P and SJ300 Series Inverters

The FP-300 range of filters are designed especially for the Hitachi L300P and SJ300 Series inverter drives and help to ensure EMC compliance to EN 61800-3 of machinery and installations using the drives.

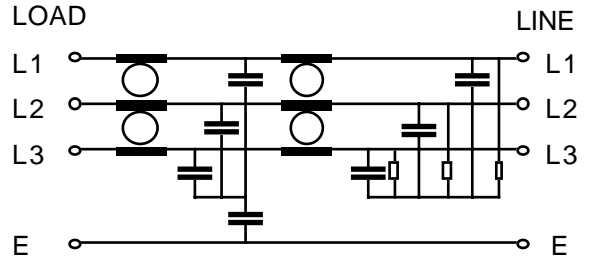
On footprint filters, the drive is mounted on top of the filter using the integral fixing positions, the intention being that valuable space inside wiring cabinets may be saved.

## DIMENSIONS

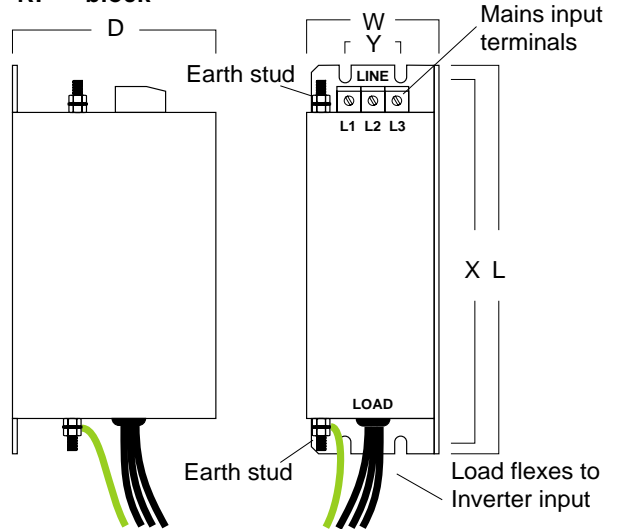
### FP - footprint



## CIRCUIT DIAGRAM



### RF - block



Applied L300P Inverter	Applied SJ300 Inverter	Filter Part No	Rated Current	Max Rated Voltage	Leakage current Nom / Max	external L x W x D (mm)	mount X x Y (mm)	Inverter Fixings
	SJ300-007HFE SJ300-015HFE SJ300-022HFE SJ300-040HFE SJ300-055HFE	FP 3016-300	16A	3ph, 480vac	0.5mA 40mA	305 x 152 x 45	290 x 110	4 x M5
L300P-110HFE L300P-150HFE	SJ300-075HFE SJ300-110HFE	FP 3040-300	40A		0.5mA 40mA	315 x 213 x 53	156 x 80	4 x M6
L300P-185HFE L300P-220HFE L300P-300HFE	SJ300-150HFE SJ300-185HFE SJ300-220HFE	FP 3077-300	77A		0.5mA 42mA	459 x 253 x 60	444 x 210	4 x M6
L300P-370HFE	SJ300-300HFE	RF 3092-300	92A		0.5mA 42mA	400 x 105 x 195	384 x 65	-
L300P-450HFE L300P-550HFE	SJ300-370HFE SJ300-450HFE SJ300-550HFE	RF 3150-300	150A		0.5mA 40mA	479 x 110 x 240	464 x 80	-

### Earth Leakage Measurements

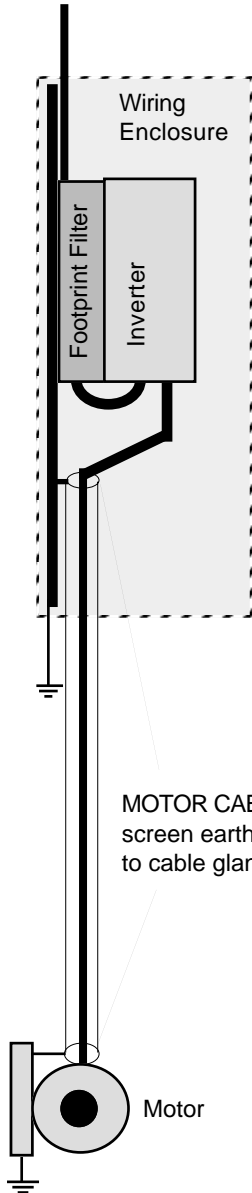
Under normal conditions, with the three phases balanced, earth leakage currents are extremely small - the max values stated are worst possible values such as would occur momentarily during switch on or failure of one or two phases.

# 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.**

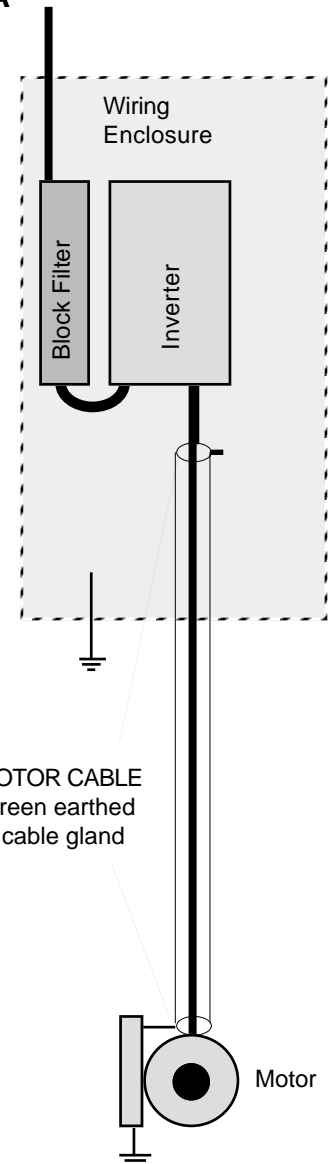


- 1) Check the filter rating label to ensure that the current, voltage rating and part number are correct.
- 2) The back panel of the wiring cabinet or board should be prepared for the mounting dimensions of the filter. Care should be taken to remove any paint etc. from the mounting holes and face area of the panel. This will ensure the best possible earthing of the filter.  
  
The filter should be securely mounted in position. For footprint filters, the inverter is mounted on the front of the filter with the screws provided. Block filters ( $\geq 92A$ ) are mounted beside the drive.
- 3) Connect the incoming mains supply to the filter terminals marked "LINE". Connect any earth cables to the earth stud provided.
- 4) Connect the filter output flexes to the mains input of the inverter.
- 5) 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.

- 6) 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

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