

FP250 SERIES

250 Watt Switched Mode Power Supply

Features:

- High reliability
- Low profile - High density format
- Optional thermally controlled fan operation with choice of top or side cooling
- Thermal protection as standard
- Up to five outputs available
- 500Vdc maximum output voltage
- Conforms to International safety regulations
- Power trading between outputs
- Front panel for 19" rack mount



Low profile: 212.5 x 116 x 43mm

Description:

The FP250 series offers 250W of power with active PFC to meet the requirements of IEC/EN61000-3-2 D. Available with up to 5 outputs. Features include universal mains input for international use, low profile (<1U) and choice of either Molex or screw terminal connection. Options include mains powerfail, output remote sense, inhibit / enable control and ORing diode for N+1. Constant current version optional with external control to suit.

Specification:

Input

Input voltage : 90-264Vac
Frequency range : 47-63Hz
Earth leakage : 2.5mA typical @ 264Vac
Inrush current : <30A@ peak input volts
Power Factor : 0.98 typical @ 230Vac / EN61000-3-2 Class D
Input current: 3.5A @ 90Vac
Hold up time : 20ms from 240V @ full load
Input fuse: F5AHRC

Output

Output voltage : Factory configured (up to 500Vdc max)
Output current : Factory configured (40A max)
Voltage adjustment : +/- 5% (V1)+/- 2% (V3)
Initial setting : 0.5%
Load /cross regulation : <1% single o/p;(2.5% V1,3,4) (8% V5).
Line regulation : <0.5%, 90-264Vac
Ripple and noise: 0.2%RMS, 1% peak DC - 30MHz
Transient deviation : 5% for 50% load variation
Transient time : 2mS
Over voltage protection : 115 - 125% of V1
Over current protection : All outputs
Output power : 250 Watts fan cooled
Derating : 2.5% /°C above 50°C
Temperature coefficient : 0.02%/°C (V1)0.05%(V2-V5)
Shock and vibration : Meets MIL-STD-810F

Options

Molex or 5mm screw terminal connections
Mains powerfail signal
Output OK signal
Inhibit / Enable signal
ORing diode for N+1
Isolated outputs available
Current share for parallel use
400W peak power for high surge applications

Output ratings

Up to five outputs available
Output voltages up to 500Vdc
Max 40A current

General

Efficiency: 80% typical
MTBF: >100,000 hrs to MIL-STD-217F @ 25°C
Dielectric strength:
4.25Kvdc input to Output
2.25Kvdc input to Earth
500Vdc output to Earth
Connections: 0.375" Beau screw terminals,
5mm screw or Molex 0.156" as required.
(Custom loom optional)

Environmental

Operating Temperature:
0°C to +70°C De-rate at 2.5% /°C above 50°C
(Low temp. versions available)
Storage Temperature:
-25°C to + 85°C
(Low temp. versions available)
Operating humidity:
0 to 95% RH non-condensing

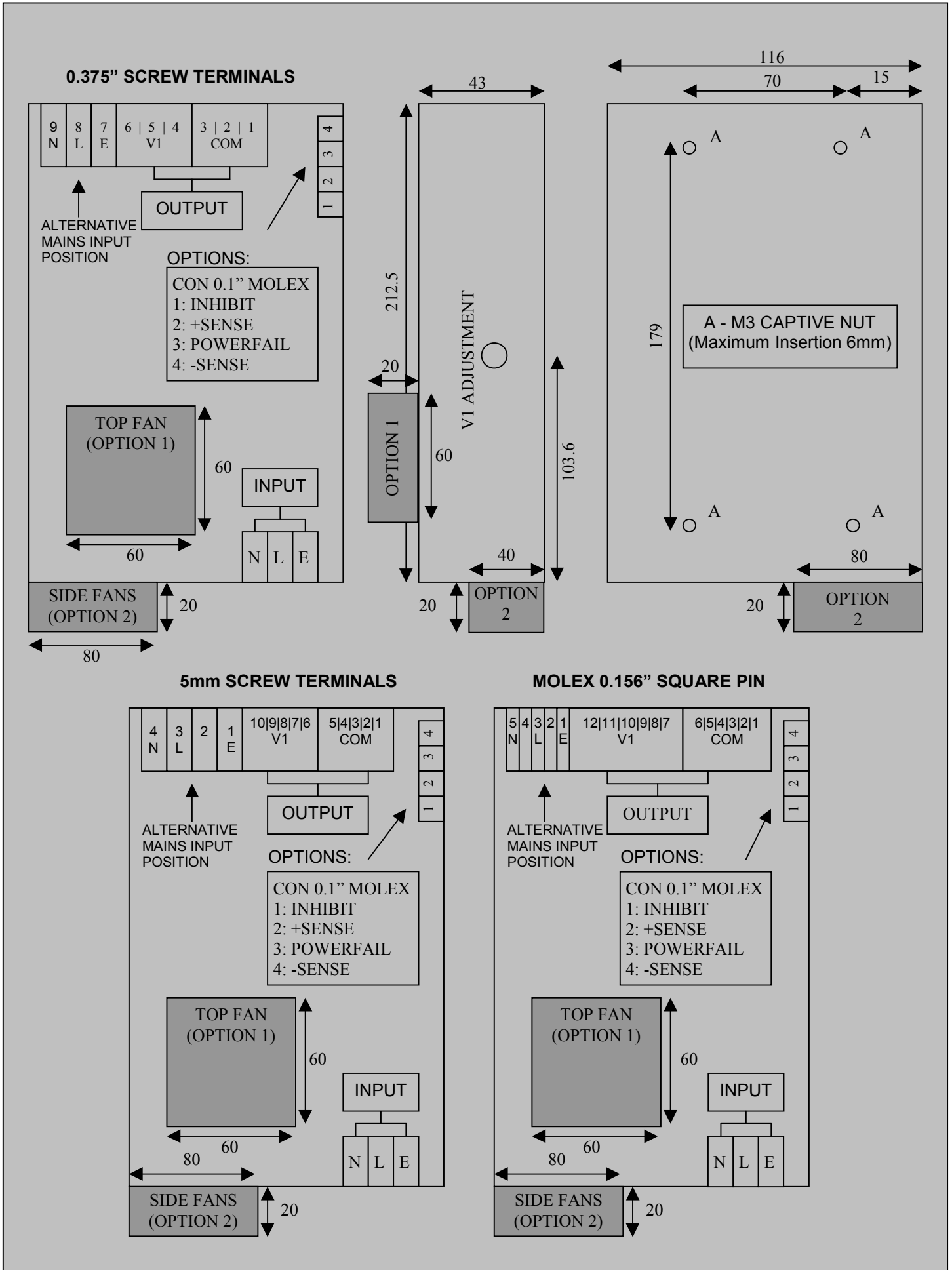
Safety & EMC

Isolation, input to earth : 2.5kVdc, >2.5mm
Isolation, input to output : 4.25KVdc, >6.4mm
Isolation, output to earth : 500Vdc
(unless commoned)
Units designed to meet: EN60950, UL60950,
CSA 22.2 No. 950 & 234
Emissions designed to meet: EN55022-B
(conducted) EN55022-A (radiated)

Immunity designed to meet:

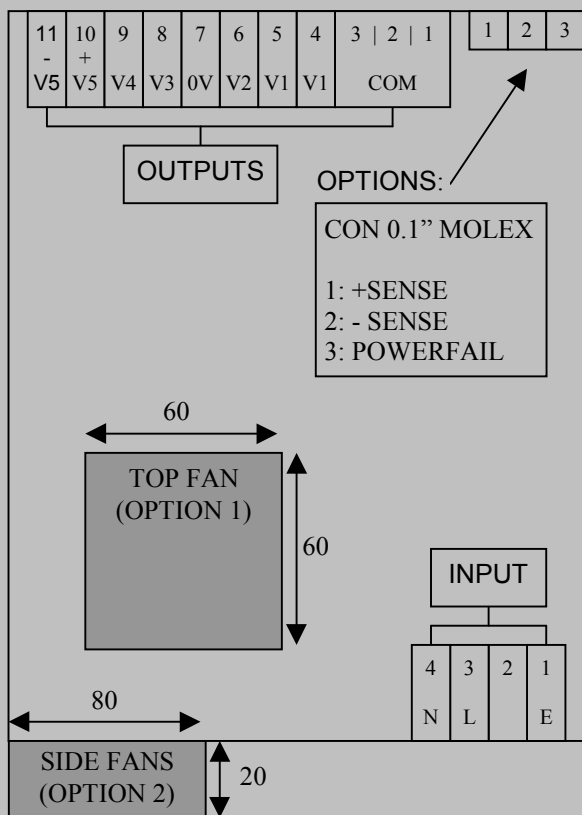
EN61000-4-2 (ESD)
EN61000-4-3 (RAD)
EN61000-4-4 (FAST TRANS)
EN61000-4-5 (SURGE)
EN61000-4-6 (CONDUCTED)
EN61000-4-8 (MAGNETIC)
EN61000-4-11 (VOLTAGE DIPS & FLUCTUATIONS)
EN61000-3-2 (MAINS HARMONICS)
EN61000-3-3 (VOLTAGE FLUCTUATIONS)

FP250 Series Single Output Mechanical Details and Connections



FP250 Series Multiple Output Mechanical Details and Connections

5mm SCREW TERMINALS



MOLEX 0.156" SQUARE PIN

