

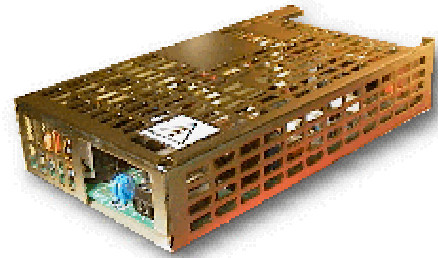
# FP100 SERIES

## 100 Watt Switched Mode Power Supply



### Features:

- High reliability
- Low profile - High density format
- Thermal protection as standard
- Up to five outputs available
- Hot swap capability
- Conforms to International safety regulations
- Power trading between outputs
- Output voltages up to 500Vdc



Low Profile: 212.5 x 116 x 43mm

### Description:

The FP100 series offers a highly compact single or multiple output power supply (up to 5 outputs), with the addition of active PFC. Features include universal mains input for international use, low profile (<1U) and choice of either Molex or screw terminal connections making it an ideal product for a wide range of applications. This range can be configured to customer's specific requirements. Constant current version optional with external control to suit.

### Specification:

#### Input

Input voltage : 90 – 264Vac  
Input frequency : 47 – 63Hz  
Inrush current : < 30A (230Vac)  
Earth Leakage : 1.5mA typical at peak input volts  
Power Factor : 0.98 typical @ 230Vac  
Input current : 1.5A @ 90Vac  
Hold up time : 28ms from 240V @ full load  
Input fuse : F5AHRC 5 x 20mm

#### Output

Output voltage : As required within 5 – 500Vdc range  
Output current : 20A maximum available  
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/ 180-264Vac  
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 : 100 Watts convection cooled  
De-rating: 2.5% /°C above 50°C  
Temperature coefficient: 0.02%/°C (V1) 0.05% (V2-V5)  
Shock and vibration: Meets MIL STD810F

#### Options

Mains powerfail  
Output OK  
Remote sense  
ORing diodes for N+1  
Isolated outputs available  
5mm screw or Molex connection  
External voltage / current control via potentiometer  
Front panel as required for rack mount  
250W peak power for high surge applications  
Current share for parallel use

#### Output ratings

Up to five outputs available  
Output voltages up to 500Vdc  
Max 20A current

#### General

Efficiency: 80% typical  
MTBF: >100,000 hrs to MIL217E @ 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:  
-20c to +60°C De-rate at 2.5% /°C above 50°C  
Storage Temperature:  
-25°C to + 85°C  
Operating humidity:  
0 to 95% RH non-condensing

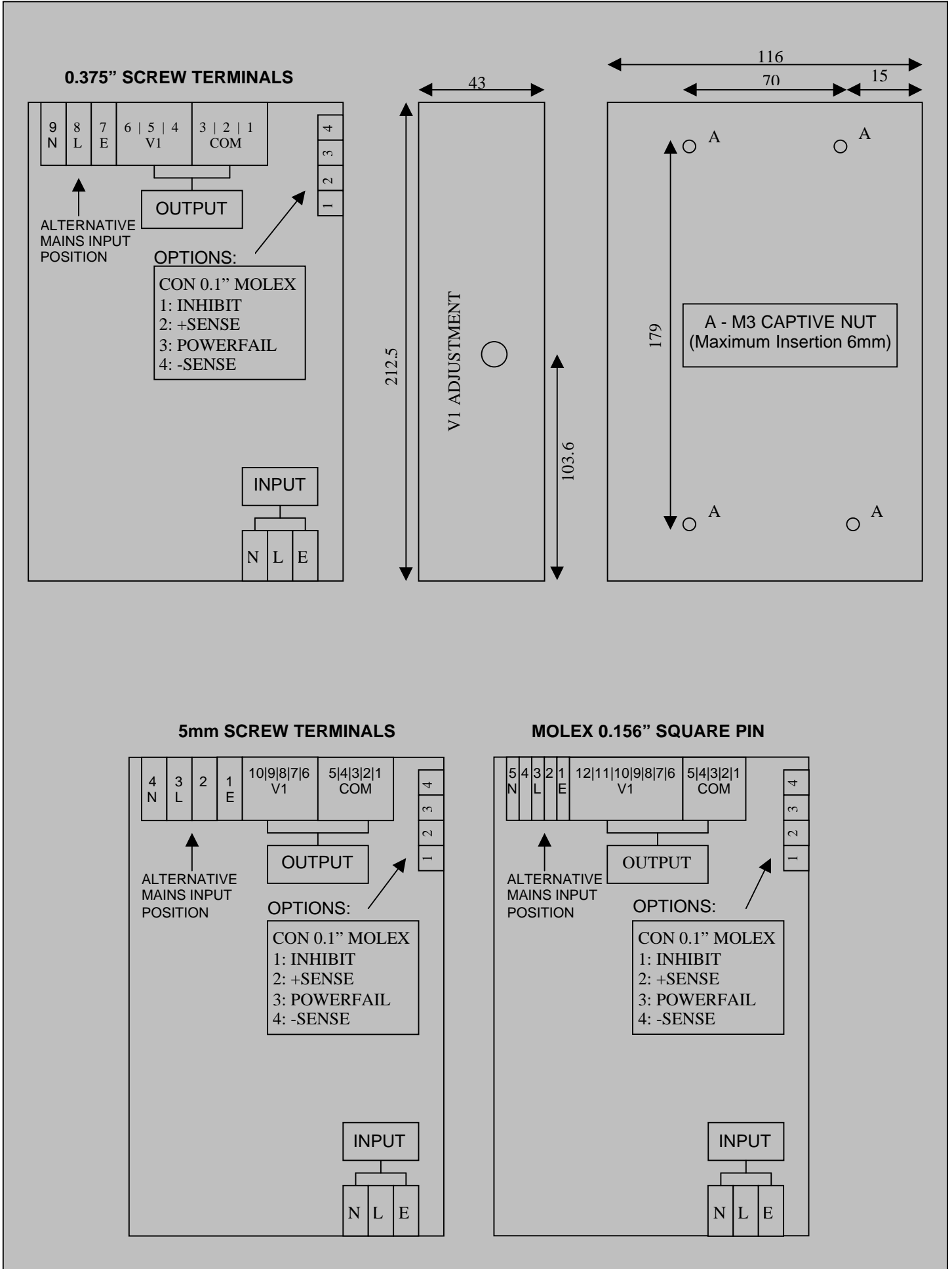
#### Safety & EMC

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:

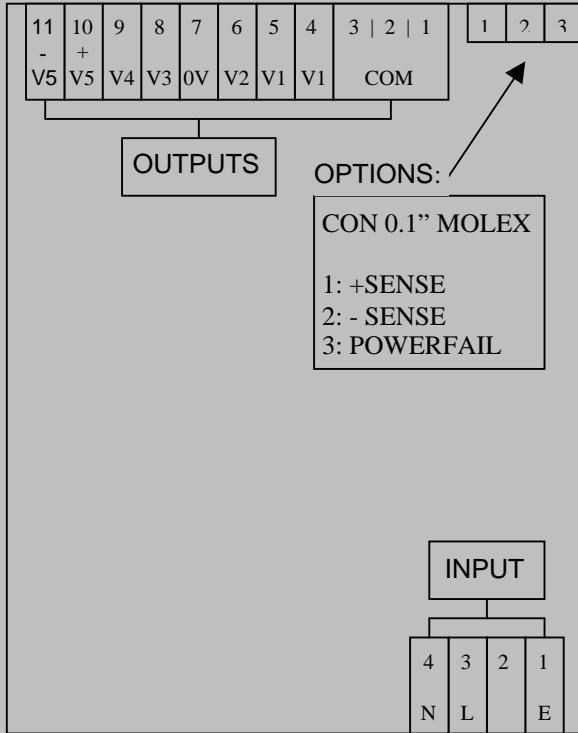
EN61000-4-2 (ESD)  
EN61000-4-3 (RAD)  
EN61000-4-4 (FAST TRANS)  
EN61000-4-5 (SURGE)  
EN61000-4-6 (CONDUCTED)  
EN61000-4-8 (MAGNETIC)  
EN61000-4-11 (VOLTAGE DIPS & FLUCTUATIONS)  
EN61000-3-2 (MAINS HARMONICS )  
EN61000-3-3 ( VOLTAGE FLUCTUATIONS )

# FP100 Series Single Output Mechanical Details and Connections



# FP100 Series Multiple Output Mechanical Details and Connections

## 5mm SCREW TERMINALS



## MOLEX 0.156" SQUARE PIN

