

# FS100 SERIES

## 100 Watt Switched Mode Power Supply

### Features:

- High reliability
- Low profile - High density format
- Universal mains input
- Compact size – 1U Compatibility
- Light Weight
- Din rail mountable
- Hot swap capability



100 x 145 x 42mm

### Description:

The FS100 single output series is ideal for applications in which space is critical offering overall dimensions of only 100 x 145 x 42mm. Features include universal input, screw terminal connections, output voltage sense and optional ORing diode for N+1 applications or DIN rail mounting clips.

### Specification:

#### Input

Input range : 90-264Vac  
Frequency range : 47-63Hz  
Earth leakage : 1mA typical @ 264Vac  
Inrush current : <30A@ peak input volts  
Power Factor : 0.67 typical @ 230Vac  
Input current: 2.2A @ 90Vac  
Hold up time : 90ms from 240V @ full load  
Input fuse: 3.15A time delay TR5

#### Output

Output voltage : As required within 5 – 500Vdc range  
Output current : 15A maximum available  
Voltage adjustment : +/- 5%  
Initial setting : 0.5%  
Load regulation : <1%, 0-100%load  
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 : Constant current @115%  
Output power : 100 Watts max, convection cooled  
Shock and vibration : Meets MIL STD810E

#### Options

9mm or 5mm screw terminal connection  
150W peak power for high surge applications  
External voltage/ current control via potentiometer  
Remote output sense  
ORing diode for N+1  
DIN Rail clips  
Front panel as required  
Thermal protection

#### 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 terminal, 5mm screw terminal or Molex 0.156" (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)

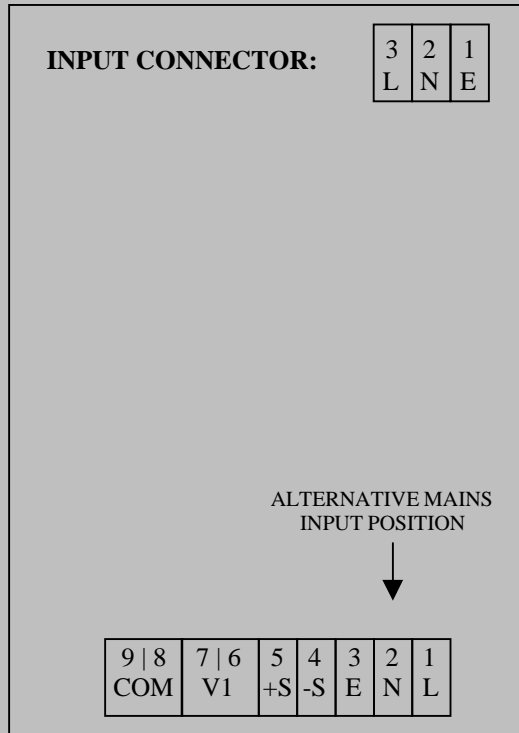
Immunity designed to meet:

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)

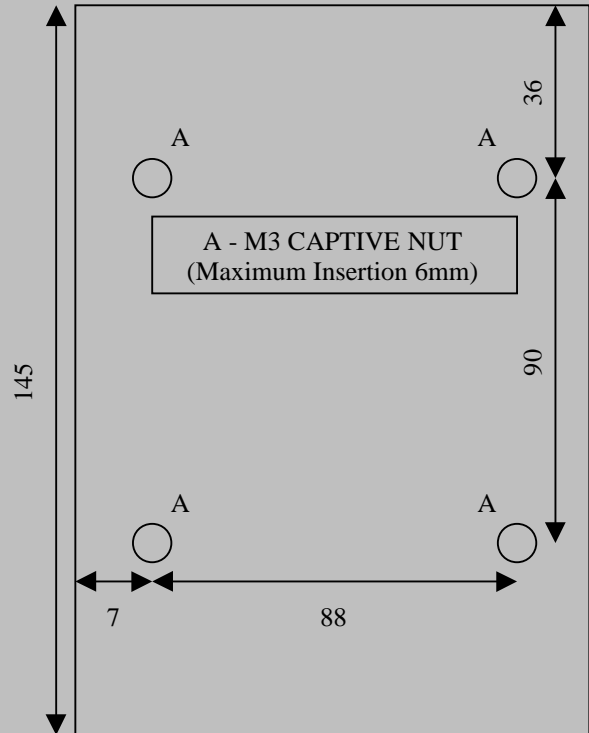
# FS100 Series

## Mechanical Details and Connections

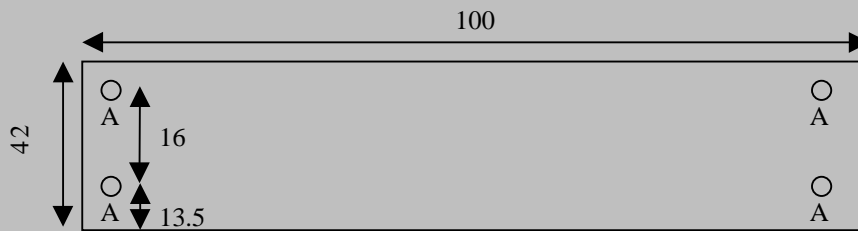
### Top View – 0.375” Screw Terminals



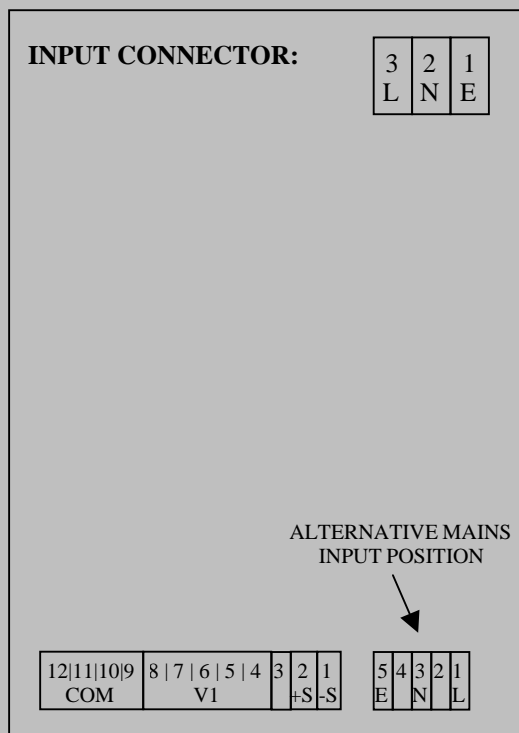
### Bottom View



### Side View



### Top View – 0.156” Molex Square Pin



### Top View – 5mm Screw Terminals

