

# 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. Output voltage is factory configurable within the range 3V3 to 500Vdc.

### 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 : Factory configured (500Vdc max)  
 Output current : Factory configured (15A max)  
 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-STD-810F

#### 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 MIL-STD-217F @ 25°C  
 Dielectric strength:  
 4.25Kvdc input to Output  
 2.25Kvdc input to Earth  
 500Vdc output to Earth  
 Connections: 0.375" Bezu screw terminal, 5mm screw terminal or Molex 0.156" (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 )

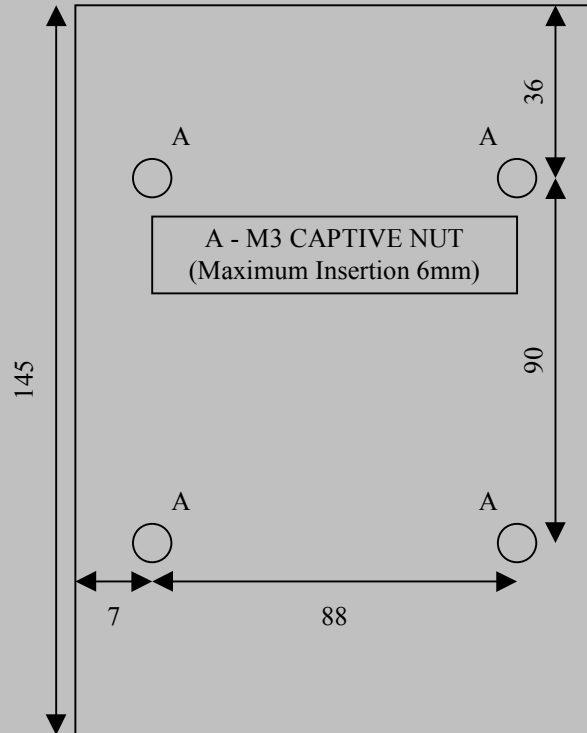
# FS100 Series

## Mechanical Details and Connections

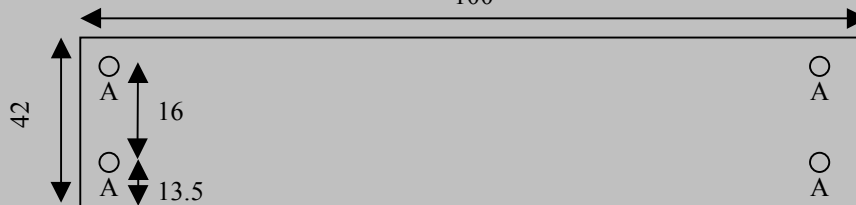
### Top View – 0.375" Screw Terminals



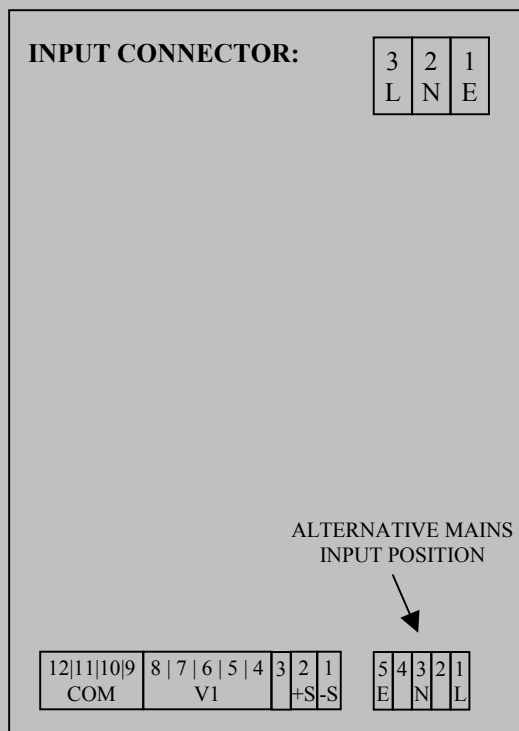
### Bottom View



### Side View



### Top View – 0.156" Molex Square Pin



### Top View – 5mm Screw Terminals

