

# FR100 SERIES

## 100 Watt Switched Mode Power Supply

### Features:

- High reliability
- Universal Input
- Thermal protection as standard
- Power on LED indication
- H15 DIN Connection
- Single or dual outputs
- Output voltages up to 600Vdc



160 x 100 x 38mm

### Description:

The FR100 series offers exceptional value and is available in either single or dual output configurations. Features include universal input, powerfail signal, LED power indication along with anodised front panel and connection via H15 DIN. Also available in Eurocassette format. Further options include internal ORing diode for N+1 applications.

### Specification:

#### Input

Input range : 90-264Vac  
Frequency range : 47-63Hz  
Earth leakage : 1.5mA 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 HRC F 20mm

#### Output

Output voltages / currents : 600Vdc max / 15A Current  
Voltage adjustment : +/- 5%V1  
Initial setting : 0.5%  
Load/cross regulation : <1% single o/p, 2.5% V2  
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

Screw terminal connections  
Powerfail signal  
Thermal protection  
Front panel to specification  
200W peak power for high surge applications

#### Output ratings

Up to two outputs available  
Output voltages up to 600Vdc  
Max 15A 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 : H15 DIN41612 ( screw terminal 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 )

# FR100

## Mechanical Details and Connections

