

FP300 SERIES

300 Watt Switched Mode Power Supply

Features:

- High reliability
- U Channel construction
- Host of signalling options (contact sales)
- Optional convection or fan cooled for high peak power applications to 600W
- 300W Power continuous
- Up to 500Vdc output
- Available with filtered IEC Inlet



310 x 127 x 70mm

Description:

The FP300 single output supply offers high performance coupled with active power factor correction and universal mains input as standard. The product offers convection cooling as standard with optional fan cooling for applications which may require high peak power. U channel design makes this product highly versatile for applications with height restrictions. Features include optional screw terminal or filtered IEC inlet, output connection via M6 studs or screw terminals and external voltage/current control via potentiometer. For battery charging applications see our FXP300 range.

Specification:

Input

Input range : 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
Hold up time : 20ms from 90-240V @ full load
Input fuse: F8AHRC

Output

Output voltage : As required within 5 – 500Vdc range
Output current : 60A maximum available
Voltage adjustment : +/- 5%
Initial setting : 0.5%
Load regulation : <1%
Line regulation : <0.1% over input range
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 limiting
Output power : 300W convection cooled – 600W pk fan cooled
Temperature coefficient :0.02%/°C
Shock and vibration : Meets MIL STD810E

Options

Remote sense	Inhibit / Enable control
Mains powerfail signal	Output OK signal
Current share for parallel use	ORing diode for N+1
Output over-volts / under-volts detect	
Output connections via 9mm screw or M6 studs	
Input connection via 9mm screw terminals or IEC	
External voltage / current control via potentiometer	
60 way D-type connection also available for output	
Peak power limit available for high surge applications	

Output ratings

One output available
Output voltage up to 500Vdc
Max 60A 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 or M6 studs
(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)

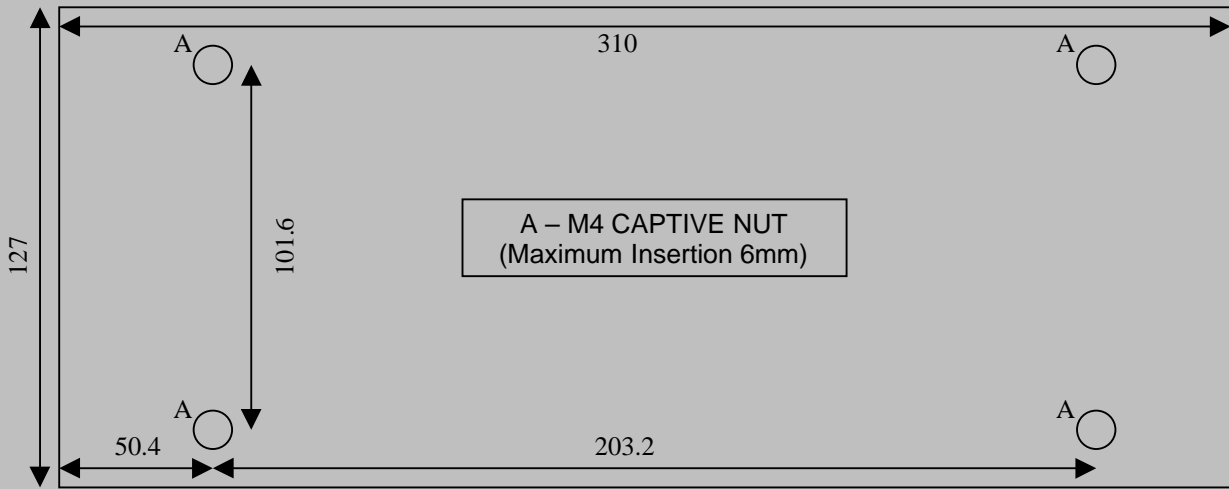
Immunity designed to meet:

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)

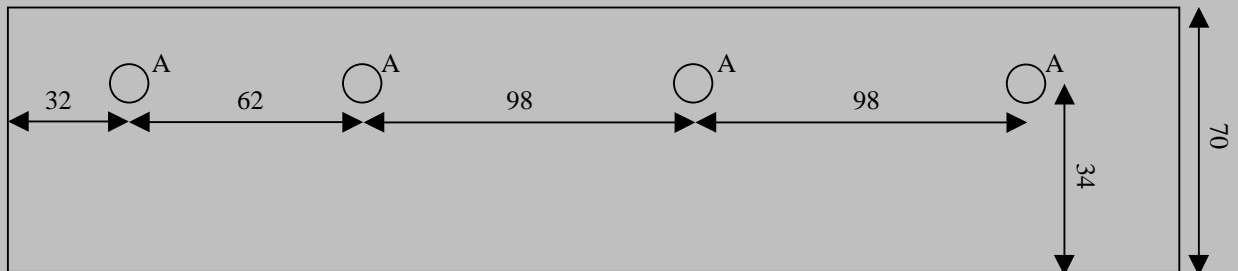
FP300 Series

Mechanical Details and Connections

BOTTOM VIEW



SIDE VIEW



TOP VIEW

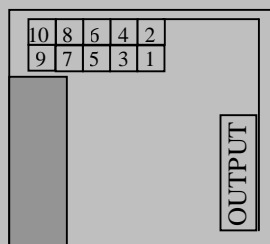
INPUT CONNECTOR:
0.375" SCREW TERMINALS

L	1
N	2
E	3

OUTPUT CONNECTOR:
0.375" SCREW TERMINALS
OR
2 x 6mm STUDS

1	-S
2	COM
3	○
4	○
5	V1
6	○
7	○
8	+S

CONNECTOR DETAIL



1. INHIBIT
2. O/P I LEVEL DETECT
3. 0V DETECT
4. SIGNAL 0V
5. SIGNAL 0V
6. SIGNAL 0V
7. POWER OK
8. PF
9. OVP
10. TEMP. COMPENSATION

Custom options available – contact sales