

Source Control Document:

Model: PPF 250-U/110P59XWT-T6700

COSD: XXXX

**Summary description: 250W Industrial Quality Power Supply,
Conduction Cooled; Universal AC to 110Vdc/2.2A**

Customer Name: Onrion LLC/New Jersey

Customer Part Number: Same as above



Product description:

This unit is a compact, fully encapsulated AC/DC converter with power factor corrected input. Potting with a thermally-conductive MIL-spec silicon rubber compound provides resistance to humidity, moisture, shock and vibration. Cooling is via base plate by conduction. The unit was designed for continuous operation at full power with installation on appropriate size cooling surface. The unit has full electronic protection. By using components with many years of established reliability and generous headroom results in high MTBF.

Special Features: Encapsulated

SPECIFICATIONS

Input Voltage/Current

95 - 264Vac, universal, 47 - 63Hz
Input current 3.1Arms max., at 95V input
Power Factor is min 0.97 at full load
for the entire input range. Meets EN6100-3-2

Input Protection

Inrush current limiting
Varistor across the line
Internal safety fuse
Lower voltage than the specified minimum
input will not damage the unit

Isolation

2250Vdc input to chassis
4300Vdc input to output
8mm spacing
500Vdc output to chassis

Standards

Designed to meet EN60950-1
and corresponding standards
(24V version is formally approved)

EMI

EN55032 Class A with margins

Hold Up Time

Min. 5ms any input for 5% drop of
the output voltage

Switching Frequency

80kHz \pm 8kHz Input section
55kHz \pm 3kHz Output section

Output Voltage/Current

110Vdc \pm 0.5V/2.2A continuous
Output is floating, either terminal
can be grounded

Redundancy Diode

Not installed

Line/Load Regulation

\pm 1% combined from zero load to
full load

Dynamic Response

Max 5% voltage deviation for 10% to
50% load step, with better than 1msec
recovery time

Output Ripple / Noise

Better than 60mVrms or 300mVpp
(20MHz BW)

Output Overload Protection

Rectangular current limiting with
short-circuit protection (no hiccup)
Thermal shutdown in case of
insufficient cooling (self resetting)
Current Limit: 2.5A \pm 0.25A

Output Overvoltage Protection

Second regulator loop
OVP setting: 125V \pm 5V

Efficiency

80% at full load

Operating Temperature Range

-40°C to +70°C cold plate temperature
for full specification

Temperature Drift

0.03% per °C over operating
temperature range

Cooling

Conduction via base plate

Environmental Protection

Full encapsulation with thermally conductive
silicon potting compound
With UL94V-0 flammability rating.

Shock/Vibration

IEC 61373 Cat1 A&B

Humidity

5-95% non-condensing

MTBF

130,000 hours @ 45°C
Demonstrated MTBF is significantly
higher

Indicators

None

Control Input

None

Alarm Output

Not installed

Package/Dimensions (WxHxL)

P59XW: 146 x 64 x 191 mm
5.8" x 2.5" x 7.5"
Mounting holes are clear

Weight

2 kg (4.5 lbs)

Connections

7-pole barrier type terminal block with
3/8" spacing

RoHS Compliance

Not required, but accepted

Warranty

Two years subject to application
within good engineering practice

Terminal Block Pin-out

DC OUTPUT				AC INPUT		
-	+	NOT USED	NOT USED	PH ~	N ~	GND ⏏
1	2	3	4	5	6	7

Originated by TS/kv	Date Jan 28, 2020
Updated by TS	Drawing No./ Rev. SCD T6700A
Approved by TS	

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