

# 150W ITE Power Supplies

## Open Frame Series

### Single Output 150W PFC Data Sheet



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#### Description

This is an AC to DC switching power supply in a package of 2 x 4 inches is a class-I PSU. This PSU capable of delivering 150 watts continuous power with 7CFM forced air cooling or 125 watts continuous power at convection cooling at 50°C operation temperature. It complies with worldwide safety and EMC regulations (refer to details below). This PSU is suitable for audio & video, display, information, networking & PoE application.

#### Features

- \* Full AC input voltage design.
- \* Withstand 300Vac surge voltage for 5 seconds
- \* Full Protections: Short-circuit/ Over-voltage/  
Over-current/ Over temperature
- \* IEC/EN 62368-1 design compliance
- \* Up to 5000 meters operating altitude
- \* High efficiency and high reliability



#### Electrical Specification

Model Name	PA-1151-12F1
<b>Output</b>	
Rated power	150W
Rated voltage	12V
Rated current	12.5A
Ripple & Noise(max.) (note #1)	120mV
Line & load regulation	±3%
Hold-up time(typ.)	10ms @115Vac
Timing: AC ON delay / rising (max.)	2 sec / 30ms
<b>Input</b>	
Rated voltage range	100~240Vac
Operated voltage range (note #4)	90~264Vac
Current range (max.)	1.7A/115Vac; 0.8A/230Vac (full load)
Inrush current (typ.)	80A/115Vac; 160A/230Vac (@25°C, cold start)
Frequency range	50-60Hz
Leakage current (max.)	0.5mA at 240Vac

Efficiency (typ.)	89% @125W, 91% @150W
<b>Protection Function</b>	
Over voltage (max.)	< 16V, latch-off protection
Over current (max.)	< 18A, auto recovery
Short circuit at O/P	No damage, auto recovery
Over temperature	No damage, latch-off protection
<b>Others</b>	
MTBF (min.) (note#2)	400,000 hours rated load with forced air cooling @25°C
<b>Environment</b>	
Temperature (note#4)	(operating) -20~+50°C / (storage) -40~+85°C
Humidity	5~95% RH non-condensing
Altitude (max.)	5000 meters
<b>Mechanical</b>	
Dimension	101.6mm(L)* 50.8mm(W)*35.6mm(H)
Vibration	5~200 Hz, 0.5G 90min./1cycle per axis for all axes (X, Y, Z)
Weight (typ.)	191g
<b>Safety</b>	
Standard	IEC/EN 60950-1, K60950-1, IEC/EN 62368-1, CNS14336-1
Withstand voltage	Input-Output: 3000VAC / Input-FG: 1500VAC / Output-FG: 1500VAC
Isolation resistance(min.)	Input-Output: 100M ohm @ 500VDC, 25°C, 70%RH
<b>EMC</b>	
EN55032 (CISPR32)	Conducted EMI: class B / Radiated EMI: class B
FCC	Conducted EMI: class B / Radiated EMI: class B
EN61000-3-2	Harmonic distortion: class D
EN61000-4-2 (note #3)	ESD: ±4KV contact discharge / ±8KV contact discharge
EN61000-4-3	Radiated RF immunity: 3 V/m
EN61000-4-4	EFT: ±1KV (AC port)
EN61000-4-5	Surge: ±1KV DM / ±2KV CM
EN61000-4-6	Conducted RF immunity: 3Vrms
EN61000-4-8	Magnetic field immunity: 1A/m
EN61000-4-11	Voltage dip immunity

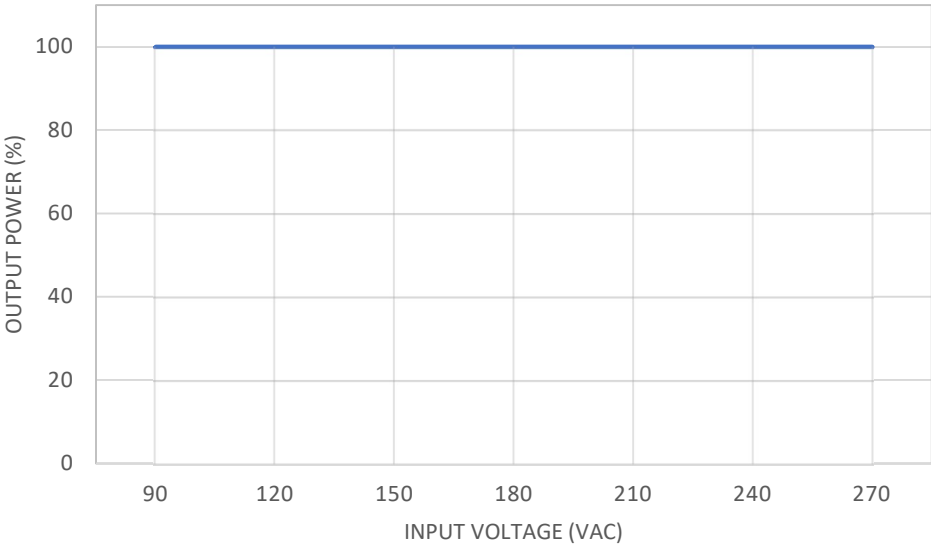
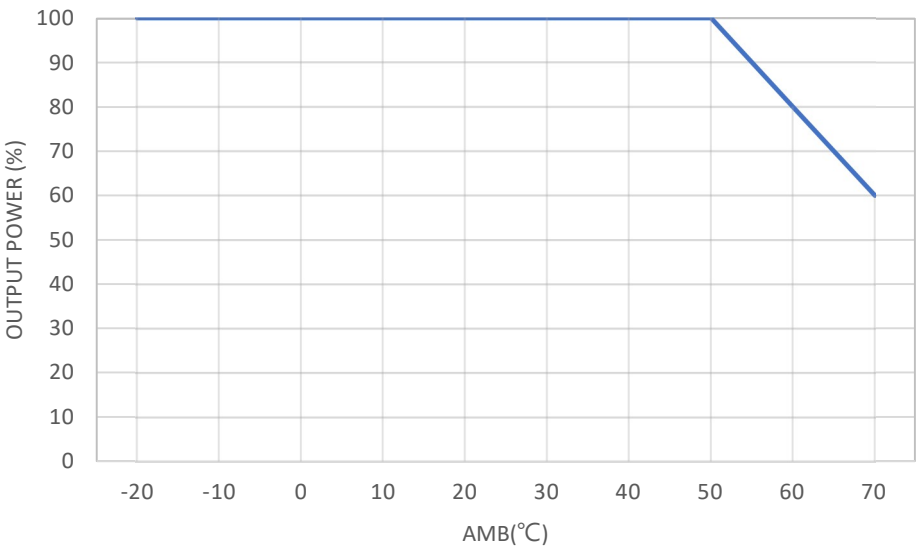
**Notes**

#1: Ripple noise is measured by a 30cm length, twisted wires with 0.1uF MLCC & 47uF low ESR capacitor.

#2: Calculated by Telcordia SR332 at 25°C ambient temperature.

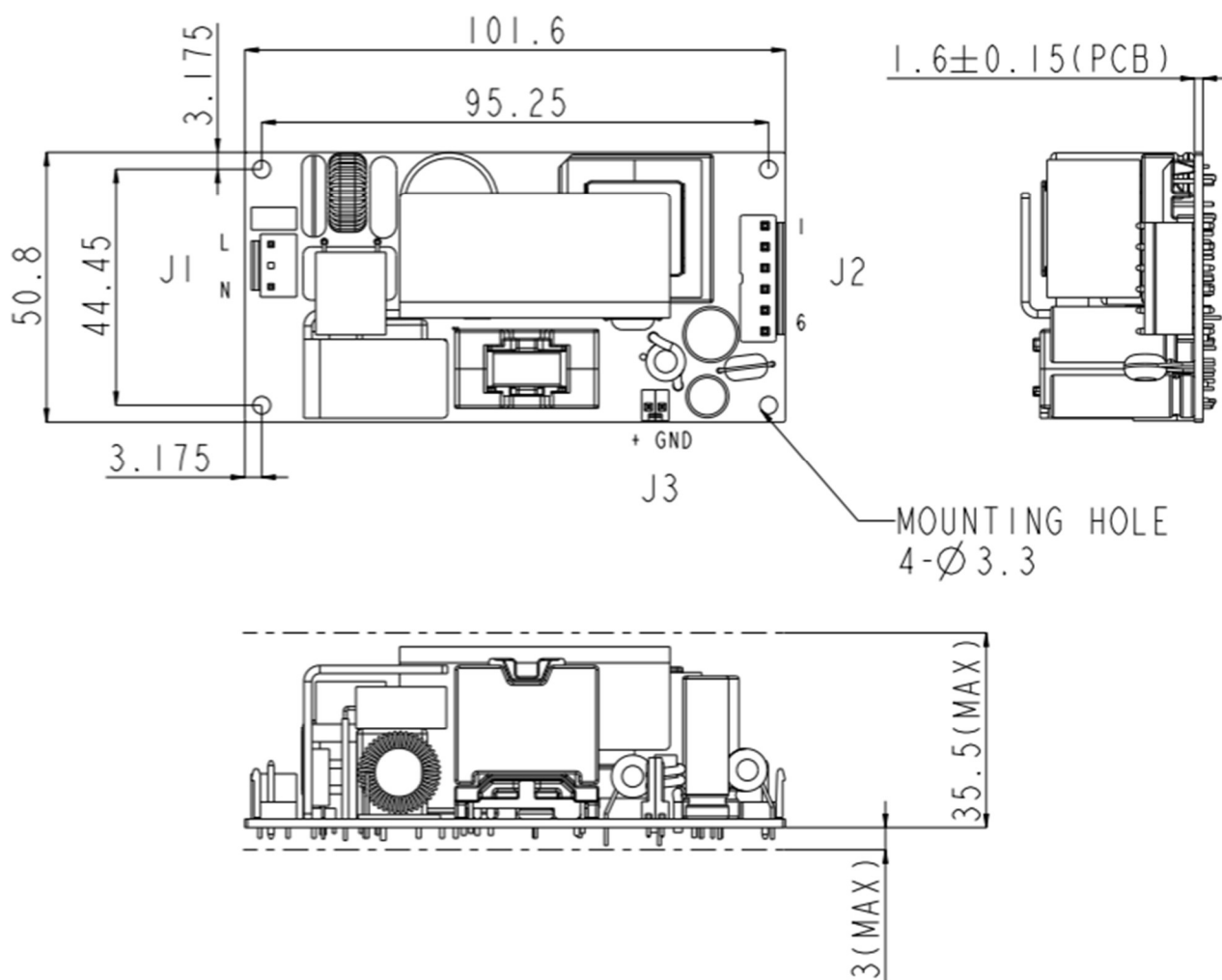
#3: ESD was tested with system enclosure.

#4: De-rating curve of AC input voltage and ambient temperature:



## Mechanical Specification

DIMENSION (L X W X H): 101.6 X 50.8 X 38.5



NOTES: UNLESS OTHERWISE SPECIFIED

1. ALL DIMENSION IN mm.  
TOLERANCES TO BE  $\pm 0.1$  mm.
2. DIMENSION (L X W X H):  
101.6 \* 50.8 \* 38.5 mm.
3. J1: CVILUX CI5203PMVP2 OR EQU.  
J2: JWT A3963WV2 OR EQU.  
J3: CVILUX CI3102PIV00-NH OR EQU.

Pin assignment of J2	
Pin No.	Function
1, 2, 3	+Vout
4, 5, 6	GND

