100W ITE Power Supplies
Open Frame Series

Single Output 100W PFC Data Sheet

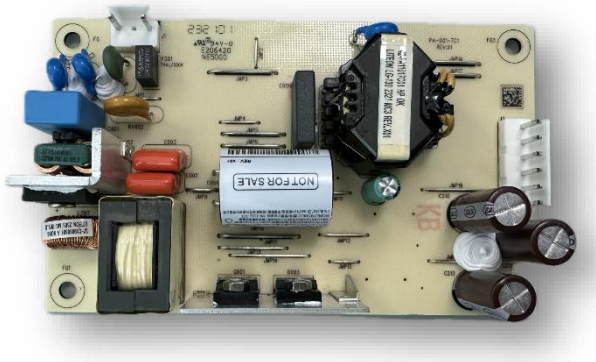
For the latest revision, please visit **power.liteon.com**

Description

This is an AC to DC switching power supply in a package of 3 x 5 inches is a class-I PSU. This PSU capable of delivering 100 watts continuous power with 3CFM forced air cooling at 50℃ operation temperature. It complies with worldwide safety and EMC regulations (refer to details below). This PSU is suitable for information & networking applications.

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 (note #4)
* High efficiency and high reliability



Electrical Specification

Model Name	PA-1101-7
Output	
Rated power	100W
Rated voltage	12V
Rated current	5A
Ripple & Noise(max.) (note #2)	120mV
Line & load regulation	±3%
Hold-up time(typ.)	20ms
Timing: AC ON delay / rising (max.)	2 sec / 30ms
Input	
Rated voltage range	100~240Vac
Operated voltage range (note #5)	85~264Vac, 300Vac for 5 sec
Current range (max.)	1.5A/100Vac; 0.75A/200Vac
Inrush current (typ.)	50A@115Vac, at 25℃; 100A@230Vac, at 25℃ (cold start)
Frequency range	50-60Hz
Leakage current (max.)	0.5mA at 240Vac

Efficiency (typ.)	88%
Protection Function	
Over voltage (max.)	< 16.5V, latch-off protection
Over current (max.)	< 15A, hiccup mode protection until fault is removed
Short circuit at O/P	No damage, hiccup mode protection until fault is removed
Over temperature	No damage, auto recovery until temperature is back to normal
Others	
MTBF (min.) (note#3)	500K hours @ rated load with forced air cooling
Environment	
Temperature (note#6)	(operating) -20~50℃ / (storage) -40~85℃
Humidity	(operating) 10~90% RH non-condensing / (storage) 5~95% RH
Altitude (max.)	5000 meters
Mechanical	
Dimension	127mm(L)* 76.2mm(W)*34mm(H)
Vibration	5~200 Hz, 0.5G 90min./1cycle per axis for all axes (X, Y, Z)
Weight (typ.)	130g
Safety	
Standard	IEC/EN 62368-1, CNS14336-1
Withstand voltage	Input-Output: 4242VDC / Input-FG: 2150VDC / Output-FG: 700VDC
Isolation resistance(min.)	Input-Output: 100Mohm @ 500VDC, 25℃, 70%RH
EMC	
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 #5)	ESD: ±8KV contact discharge / ±15KV contact discharge
EN61000-4-3	Radiated RF immunity: 10V/m
EN61000-4-4	EFT: ±2KV (AC port)
EN61000-4-5	Surge: ±2KV DM / ±4KV CM
EN61000-4-6	Conducted RF immunity: 10V/m
EN61000-4-8	Magnetic field immunity: 10A/m
EN61000-4-11	Voltage dip immunity

Notes

#1: All specification defined at 230Vac/50Hz, rated power and 25℃ ambient temperature if not mentioned specifically.

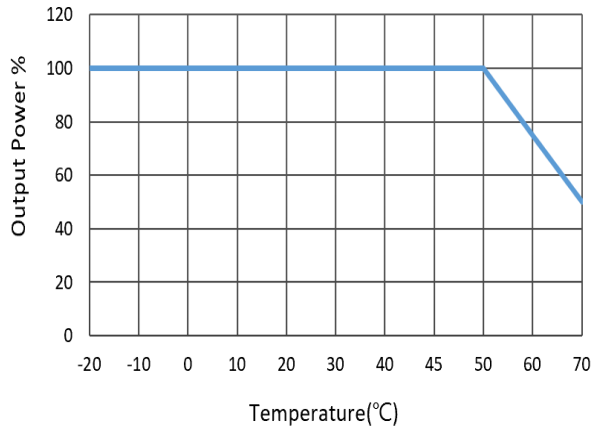
#2: Ripple noise is measured by a 30cm length, twisted wires with 0.1uF MLCC & 47uF low ESR capacitor.

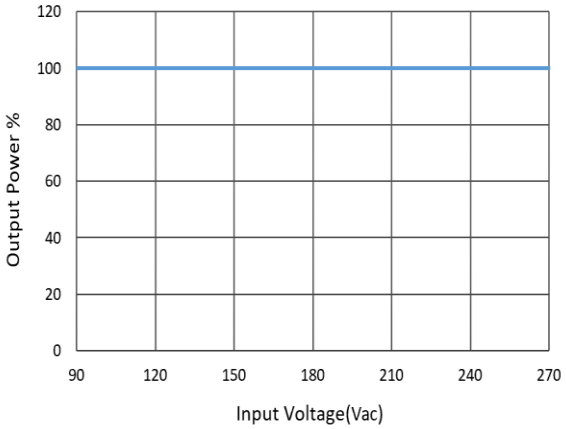
#3: Calculated by Telcordia SR332 at 40℃ ambient temperature.

#4: When operating altitude is higher than 2000m, the environment temperature derating factor is 0.36℃/100m.

#5: ESD was tested with system enclosure.

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





Mechanical Specification