

Industrial Automation Panel Mount Series

LITEON

Single Output 100W PFC Model Data Sheet

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Description

This is a high-power factor (PF), AC to DC switching mode power supply unit which can output 100 watts continuous with convection cooling. It complies with worldwide safety and EMC regulations (refer to details below). And also, it is suitable for various industrial applications.

Features

- * Full AC input voltage range design.
- * High power factor and less fictitious power.
- * Withstand 300Vac surge voltage for 5 seconds.
- * Full Protections: Short-circuit/ Over-voltage/ Over-current/ Over temperature.
- * LED indicator for normal output voltage operating.
- * 1U low profile
- * IEC/EN 62368-1 design compliance
- * High efficiency and high reliability



Electrical Specification

Model Name	HA-1101-24LF		HA-1101-12LF
Output			
Rated power	100W		
Rated voltage	24V	12V	
Rated current	4.2A	8.5A	
Ripple & Noise(max.) (note #2)	150mV	100mV	
Line & load regulation	±1%		
Hold-up time(typ.)	16ms		
Timing: AC ON delay / rising (max.)	1.5 sec / 50ms		
Input			
Rated voltage range	100~240Vac		
Operated voltage range (note #4)	85~264Vac, 300Vac for 5 sec		
Current range (max.)	1.2A/100Vac; 0.65A/200Vac		
Power factor (typ.)	>0.99/115Vac; >0.95/230Vac		
Inrush current (typ.)	30A/230Vac (cold start)		
Frequency range	50-60Hz		

Leakage current (max.)	2mA at 240Vac	
Efficiency (typ.)	87%	86%
Protection Function		
Over voltage (max.)	140% of rated voltage, latch-off protection	
Over current (max.)	135% of rated current, 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)	700K hours @ rated load	
Environment		
Temperature (note#4)	(operating) -30~70℃ / (storage) -40~85℃	
Humidity	(operating) 10~90% RH non-condensing / (storage) 5~95% RH	
Altitude (max.)	2000 meters	
Mechanical		
Dimension	179(L)*99(W)*30mm(H)	
Vibration	10~500 Hz, 5G 20min./1cycle per axis for all axes (X, Y, Z)	
Weight (typ.)	375g	
Safety		
Standard	IEC/EN 60950-1, K60950-1, 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	ESD: ±4KV contact discharge / ±8KV contact discharge	
EN61000-4-3	Radiated RF immunity: 10V/m	
EN61000-4-4	EFT: ±1KV (AC port)	
EN61000-4-5	Surge: ±1KV DM / ±2KV CM	
EN61000-4-6	Conducted RF immunity: 10V/m	
EN61000-4-8	Magnetic field immunity: 10A/m	
EN61000-4-11	Voltage dip immunity	

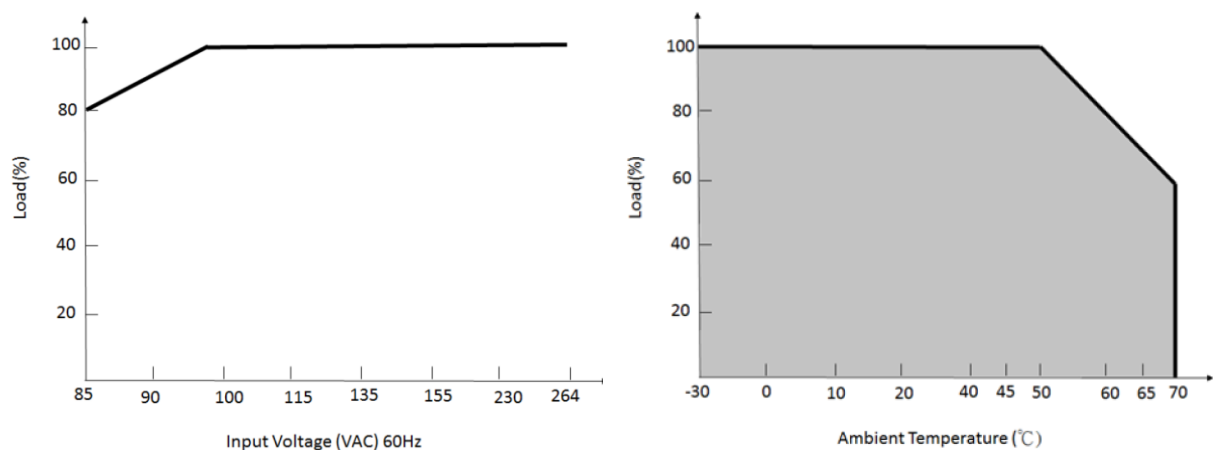
Notes

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

#2: Ripple noise is measured by a 30cm length, twisted wires with 0.47uF MLCC & 47uF low ESR capacitor.

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

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



Mechanical Specification

