

◆ Features

- * Selected AC input voltage by a switch.
- * Withstand 300Vac surge voltage for 5 second.
- * Full Protections: Short-circuit/ Over-voltage / Over-current/ Over temperature.
- * LED indicator for normal output voltage operating
- * 30mm ultra low profile.
- * IEC/EN 62368-1 design compliance
- * Up to 5000 meters operating altitude
- * High efficiency and high reliability



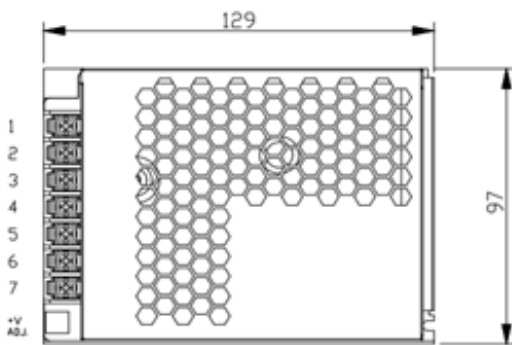
◆ Safety Certification



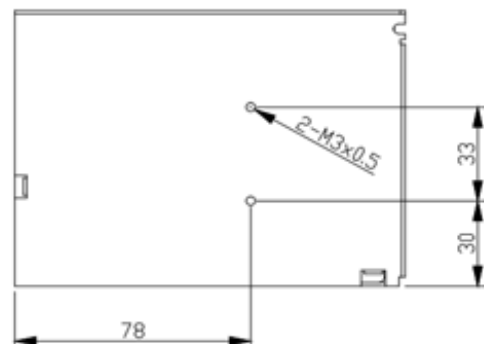
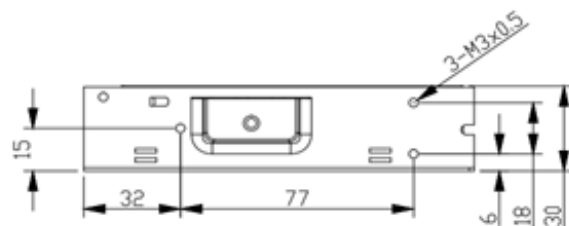
◆ Description

This is an AC to DC switching mode power supply which can provide 200 watts continuous power with convection cooling. It complies with world-wide Safety and EMC regulations (refer to details below). This PSU is high c/p (capability/price) value for various industrial applications.

◆ Mechanical Specification



端子號碼	端子功能
1	AC/L
2	AC/N
3	FG ↓
4-5	DC output -V
6-7	DC output +V



Model P/N	HA-1101-24NL	HA-1101-12NL
Output Specification		
● Rated power	----- 100W -----	
● Rated voltage	24V	12V
● Rated current	4.5A	8.5A
● Ripple & Noise (max.) (note#2)	150mV	120mV
● Load & AC line regulation	----- ±1% -----	
● Hold-up time(typ.)	----- 16ms -----	
● Timing: AC ON delay / rising (max.)	----- 0.5 sec / 30ms -----	
Input Specification		
● Rated voltage range	----- 100V~120VAC(L) / 200~240VAC(H), by select switch -----	
● Operated voltage range (note#5)	----- 90V~132VAC(L) / 180~264VAC(H), 300Vac for 5 sec -----	
● Current range (max.)	----- 2.1A/100Vac; 1.2A/200Vac -----	
● Inrush current (typ.)	----- 50A (cold start) -----	
● Frequency range	----- 50-60Hz -----	
● Leakage current (max.)	----- 0.75mA -----	
● Efficiency (typ.)	90.0%	88.0%
Protection Function		
● Over voltage (max.)	--- 140% of rated voltage, latch off protection ---	
● Over current (max.)	--- 150% 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, O/P shut down until temperature is back to normal -----	
Others		
● MTBF (min.) (note#3)	----- 700K hours @ rated load -----	
Environment		
● Temperature (note#5)	----- (operating) -20~70°C /(storage) -40~85°C -----	
● Humidity	(operating) 10~90% RH non-condensing / (storage) 5~95% RH	
● Altitude (max.) (note#4)	----- 5000 meters -----	
Mechanical		
● Dimension	-----129*97*30mm -----	
● Vibration	----- 10~500 Hz, 5G 20min./1cycle, 60min per axis in all axes (X, Y, Z) -----	
● Weight (typ.)	310 g	

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°C, 70%RH -----
EMC	
● EN55032	----- Conducted EMI: class A / Radiated EMI: class A -----
● FCC	----- Conducted EMI: class A / Radiated EMI: class A -----
● EN61000-3-2	----- Harmonic distortion: class A -----
● EN61000-4-2	----- ESD: ±8KV contact discharge / ±15KV contact discharge -----
● EN61000-4-3	----- Radiated RF immunity: 3V/m -----
● EN61000-4-4	----- EFT: ±1KV (AC port) -----
● EN61000-4-5	----- Surge: ±1KV DM / ±2KV CM -----
● EN61000-4-6	----- Conducted RF immunity: 3V/m -----
● EN61000-4-8	----- Magnetic field immunity: 1A/m -----
● EN61000-4-11	----- Voltage dip immunity ----- 30%, 0.5 periods 60%, 50 periods >95%, 250periods

Note

#1: All specification defined at 230Vac/50Hz, rated power and 25°C ambient temperature if no mentioned specially.

#2: Ripple noise is measured by a 30cm length, twisted wires with 0.47uF MLCC+22uF low ESR capacitor.

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

#4: When operating altitude is higher than 2000m, the environment temperature derating factor is 0.5°C/100m.

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

