

Industrial Adapter 24V Series



Single Output 60W Non-PFC Data Sheet

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Description

This series is class 1, single-output AC to DC 60W green adapter with C6 inlet type. It can be operated from AC 90V~264V with good efficiency performance for various ITE, industrial and networking application. It also complies world-wide Safety and EMC regulations.

Features

- * Full AC input voltage design with C6 socket
- * Full Protections: Short-circuit/ Over-voltage/ Over-current/ Over temperature operating.
- * Energy efficiency level VI compliance
- * Slim and compact in size
- * IEC/EN 62368-1 design compliance
- * Up to 5000 meters operating altitude
- * High reliability



Electrical Specification

Model Name	HA-1600-24VN
Output	
Rated power	60W
Rated voltage	24V
Rated current	2.5A
Ripple & Noise(max.) (note #1)	300mV
Line & load regulation	±5%
Hold-up time(typ.)	3ms
Timing: AC ON delay / rising (max.)	3 sec / 50ms
Input	
Rated voltage range	100~240Vac
Operated voltage range	90~264Vac
Current range (max.)	1.7A/100Vac
Inrush current	No component damaged (<I ² *t).
Frequency range	50-60Hz
Leakage current (max.)	0.25mA at 115Vac/60Hz and 240Vac/50Hz
Average efficiency (min.)	88%

Protection Function	
Over voltage (max.)	146% of rated voltage, hiccup mode protection until fault is removed
Over current (max.)	180% 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#2)	300K hours @ rated load and 115Vac/60Hz
Environment	
Temperature	(operating) 0~40°C / (storage) -20~85°C
Humidity	(operating) 10%~95% RH non-condensing / (storage) 5~95% RH
Altitude (max.)	5000 meters
Mechanical	
Dimension	90.0(L)*65.0(W)*21 (H) mm
Vibration	10~500 Hz, 5G 20min./1cycle per axis for all axes (X, Y, Z)
Weight (typ.)	185g
Safety	
Standard	CB/IEC62368-1,TUV62368-1,UL62368-1,EN62368-1, CCC GB4943.1
Withstand voltage	Input-Output: 4242VDC for 1sec / Input-FG: 2150VDC for 1sec
Isolation resistance(min.)	Input-Output: 30Mohm @ 500VDC
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 A (Pin < 75W)
EN61000-4-2	ESD: ±8KV contact discharge / ±15KV contact discharge
EN61000-4-4	EFT: ±1KV (AC port)
EN61000-4-5	Surge: ±2KV DM / ±4KV CM

Notes

#1: Output load adds 0.1uF ceramic capacitor and 47uF tantalum capacitor.

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

Mechanical Specification

HA-1600-24VN

