

AC/DC switching power transfer device

Constant Voltage | max. 5A | max.60W | 12Vdc

AC plug: C14 | DC plug: Barrel Type 2,1x5,5x11mm, Inside +



Input Electrical Specification

AC Input Voltage

Maximum Voltage	264 VAC
Normal Voltage	100 ~ 240 VAC
Minimum Voltage	90 VAC

AC Input Frequency

Maximum Frequency	63 Hz
Normal Frequency	50 ~ 60 Hz
Minimum Frequency	47 Hz

Input Current

2A (Max.) @ 100Vac/60Hz-240Vac/50Hz will Max. load.

Designed to meet the following standard

CoC Tier II

Efficiency

≥ 89.0% (avg.) at 115Vac/60Hz & 230Vac/50Hz input voltage and 25%, 50%, 75% & 100% of max output current.
≥ 79% at 115Vac/60Hz & 230Vac/50Hz input voltage and 10% of max output

No Load Power Consumption

No Load Watt < 0.15W at normal line input.

Configuration

3-wire AC input (Line ,Neutral ,FG)

Input Fuse

The hot line side of the input shall have a fuse, rating (3.15A/250V)

Inrush Current

≤ 60A at 110 Vac	
≤ 120A at 220 Vac	At cold start, maximum load

Line Regulation

This line regulation is less than ± 1%, of rated output voltage @ full load

Hold Up Time

≥ 8.3 mSec., @ Normal line, with full load.

Rise Time

≤ 50mSec., @ 115V AC input, with full load. From 10% to 90% of output voltage.

Turn-ON Time

The output voltage should rise to 90% of rated output voltage in less than 3 SEC. from AC apply to 110Vac start up.

Output Requirements**Output Voltage and Current**

Output Voltage (VDC)	Current Min. (A)	Current Max (A)
+12V	0	5.0A

Combine Regulation

Voltage (VDC)	Tolerance (%)	Regulation (V)
+12V	+5/-5	11.4V ~ 12.6V

Dynamic Load Regulation

±5% excursion for 50% - 100% or 100% - 50% load change of DC output at any frequency up to 1KHz(duty 50%)

Ripple & Noise

The power supply shall not exceed the following limits on the indicated voltage for 60Hz or 50Hz ripple, Switching frequency ripple and noise and dynamic load variations measured with a 20MHz bandwidth

Output	Ripple/Noise
+12V	240mV

Input condition : for rated voltage , Output condition : for max load

Ripple / Noise: 60Hz ripple + switching ripple and noise

Ripple & Noise are measured at the end of output cable which are added a 0.1uF ceramic capacitor and a 47uF electrolytic capacitor

Over Voltage Protection

175% Max. of the rated output voltage. The output voltage shall be shutdown and auto-recover mode when OVP occurred.

Over Current Protection

110 ~ 180% output current. At 100-240Vac input, The adapter can withstand continuous short at DC output and no damage. It will enter into normal condition if the fault condition is removed.

Stability

2% Max. at constant load with constant input (after 30 minutes of operation).

Temperature Rise (Optional)

Less than 45°C on top/bottom case at normal AC input & 80% load of DC output at environment temperature 25°C.

Drop-out

Output voltage shall remain within the specified regulation range, through the absence of a line input during 1/2 cycle, at full load and normal AC line input

Voltage Isolation

The DC ground will be isolated from the AC neutral and AC line.

Reliability

MTBF (MIL-HDBK-217F)

The power supply shall be designed and produced to have a mean time between failure (MTBF) of 100,000 hours at 25° C

Environment

Temperature

Operating	0° C to +40° C
Storage	-20° C to +85° C

Humidity

Operating	10 to 90%
Storage	5 to 90%

Altitude

From sea level to 5,000Meter (operation) and 5,000Meter (non operation)

Safety

Hi-Pot Test

3000Vac/4242VDC, 3mA 2Sec. between primary and secondary circuit
L,N to FG 1800Vac 3mA 2Sec.

Insulation Test

500Vdc 3sec. between primary and secondary circuit. IR should $\geq 50M\Omega$

Leakage Current

$\leq 500\mu A$, at 240 Vac/50 Hz

Safety

UL, CUL, TUV, CB, CE, FCC, BIS, EK, BSMI, PSE, CCC, RCM

EMS

Items	Specification	Reference
ESD	Contact: $\pm 4KV$	IEC 61000-4-2
	Air: $\pm 8KV$	
RS	Frequency: 1KHz Field Strength: 3V/M	IEC 61000-4-3
EFT	1.0 KV on input AC power ports.	IEC 61000-4-4
Surge	Line to Line: $\pm 1KV$ (peak)	IEC 61000-4-5
	Line to FG: $\pm 2KV$ (peak)	

EMI

Comply with Standards
CISPR32, EN55032 Class B FCC PART 15 Class B

Mechanical Characteristics

Physical Size

105.5mm (L) * 46mm (W) * 28mm (H)

Enclosure material

94V-0 minimum

Output Cable (Reference)

UL2468 #18*2C

Vibration Test

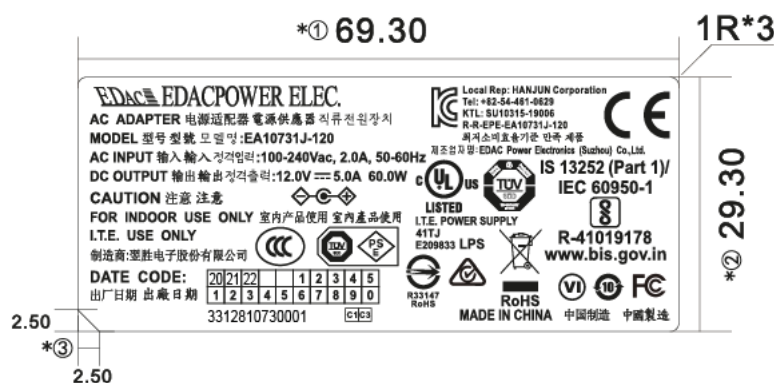
The vibration frequencies are set at 20Hz, with total amplitude of 1.5mm Along the 3 directions namely X-Y-Z. The each direction should be vibrated for 60 minutes, after testing no abnormal electrical or mechanical should occur.

Drop Test (Referencing to CSA C22.2 No.950/UL1950/UL1310/ EN62368)

Products shall be dropped from a height of 1000 mm onto a horizontal surface consists of hardwood at 13mm thick , mounted on two layers of plywood each 19mm to 20mm thick , all supported on a concrete or equivalent non-resilient floor. Upon conclusion of test , the equipment cannot into hazardous moving parts and hazardous voltage circuits need be operational , and need meet Hi-Pot specification requirement..

Net Weight (Reference)

300g



Mechanical Specification

