

EA11011H1246

AC/DC switching power transfer device

Constant Voltage | max. 10A | max.120W | 12Vdc
AC plug: C14 | DC plug: Power-Mini DIN (male) 4Pin (Assembly/Lock Type)

Input Electrical Specification

Input Voltage

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

Input Frequency

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



Input Current

2.0A(Max.) @ 115Vac input with full load.
 1.0A(Max.) @ 230Vac input with full load.

Energy saving standards

Designed to meet the following standard: CoC Tier II

Efficiency

Efficiency $\geq 89\%$ (avg.) normal input & 25%, 50%, 75% ,100% of max output load
 Efficiency $\geq 79\%$ normal input & 10% of max output load

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

$\leq 60A$ at 110 Vac	At cold start, maximum load
$\leq 120A$ at 220 Vac	At cold start, maximum load

Line Regulation

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

Hold Up Time

≥ 10 mSec., @ Normal line, with full load.

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Rise Time

≤ 50 mSec., @ 100-240VAC 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.

Harmonic Standard and Power Factor

The adapter complied with IEC 61000-3-2 class D harmonic standard while input power over than 75W. The P.F. shall >0.95 @100Vac input and >0.9 @240Vac input.

Output Requirements

Output Voltage and Current

Output Voltage (VDC)	Current Min. (A)	Current Max (A)
+12V	0	10.0A

Combine Regulation

Voltage (VDC)	Tolerance (%)	Voltage Range (VDC)
+12V	+5/,-5	11.4 - 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	2.0% max. of rated output voltage

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

150% Max. of the rated output voltage. The output voltage shall be shutdown and auto-recover mode when OVP occurred.

Over Current Protection

110 ~ 170% of rated output current. The adapter will enter protection at overload mode 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

Less than 55°C on top/bottom case at normal AC input & 80% load of DC output at environment temperature 25°C.

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Drop-out (Power Line Disturbance)

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.

Over shoot

During either Turn-on or Turn-off of the power supply, the output voltage should not exceed 1 10%Vo.No voltage of opposite polarity shall be present on the output during turn-on or turn-off

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

P->S: 3000Vac 2Sec 10mA;
 L,N->FG: 1800Vac 2Sec 10mA

Insulation Test

500Vdc, 3Sec. between primary and secondary circuit
 IR should \geq 50 M Ω .

Leakage Current

\leq 250uA,at 240 Vac/50 Hz

Safety

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

EMS

Items	Specification	Reference
ESD	Contact: \pm 4KV	IEC 61000-4-2
	Air: \pm 8KV	

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RS	Frequency: 80~1000MHz Field Strength: 3V/M, 80% AM(1KHz)	IEC 61000-4-3
EFT	1.0 KV on input AC power ports.	IEC 61000-4-4
Surge	Line to Line: ± 1KV (peak)	IEC 61000-4-5
	Line to F.G.: ± 2KV (peak)	

EMI

Comply with Standards
CISPR 32, EN 55032 Class B FCC PART 15 Class B

Mechanical Characteristics

Physical Size

137mm (L) * 59 mm (W) * 34 mm (H)

Enclosure material

94V-0 minimum

Output Cable (Reference)

UL1866 #12

Vibration Test

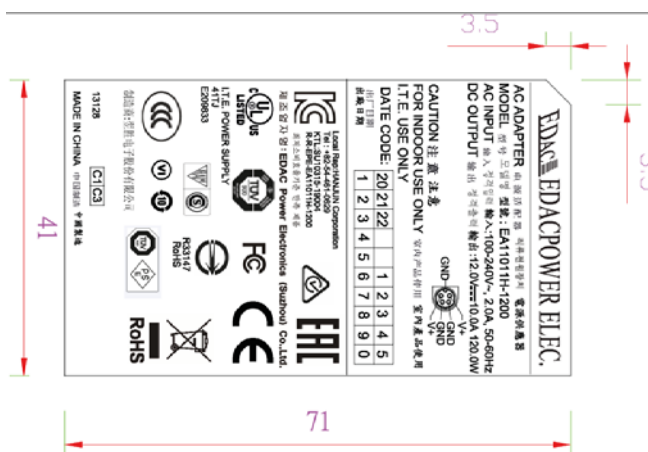
The vibration frequencies are set at 20Hz, with total amplitude of 1.5mm Along the 3 directions namely X-Y-Z. The each direction should be vibrated for 60 minutes, after testing no abnormal electrical or mechanical should occur.

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)

450g ±10g



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Mechanical Specification

