SPECIFICATION

High Quality
Switching Desktop Adapter

40W 5VDC 8.0A Output
Universal AC Input

P/N: A050080ED1

** Specification Approval**

This specification (total 8 pages including cover page) is approved in it's entirety by:

Company Name	Print Name	Signature	Date

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1.0 General Description

The purpose of the document is to specify a Single phase AC input , single output switching power supply. Top Micro P/N: A050080ED1. This product is an AC to DC switching power transfer device, it can provide for a5V, 8.0Amax & 40W max DC output with constant voltage source. This Specification defines the input, output, performance characteristics, environment, noise and safety requirement for the specified power supply.

2.0 Input Requirements

2.1 Input Voltage

Rated Voltage 100-240 Vac +/- 10% full range. Normal line input 110Vac/220Vac.

2.2 Input Frequency

47~63 Hz

2.3 Input Current

a. 1.8A (Max.) @ Rated AC input with full load.

b. 0.9A (Max.) @ Rated AC input with full load.

2.4 Efficiency

75% typical at normal line input and full load output

2.5 Configuration

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

2.6 Input Fuse

The hot line side of the input shall have a fuse, rating (T3.15A/250V)

2.7 Inrush Current

≦ 30A at 110 Vac

≦ 60A at 220 Vac At cold start, maximum load.

2.8 Line Regulation

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

2.9 Hold Up Time

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

2.10 Rise Time

≦50 mSec, @ Rated AC input, with full load.
From 10% to 90% of output voltage.

2.11 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.

3.0 Output Requirements

3.1 Output Voltage and Current

Output Voltage (Vdc)	Current Min.(A)	Current Max.(A)
+5V	0	8A

3.2 Load Regulation

Voltage (Vdc)	Tolerance (%)	Regulation (Vdc)
+5V	+5/, -5	4.75~5.25V

3.3 Dynamic Load Regulation

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

3.4 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
+5V	2.0% max. of rated output voltage

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

3.5 Short Circuit Protection

The adapter can withstand continuous short at DC output and no damage.
It will enter into normal c ondition if the fault condition is removed.

3.6 Stability

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

3.7 Temperature Rise

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

3.8 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

3.9 Voltage Isolation

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

4.0 Environment

4.1 Temperature

a. Operating : 0℃ to 40℃
b. Storage : -20℃ to 85℃

4.2 Humidity

a. Operating : 10 to 90 %
b. Storage: 5 to 90 %

4.3 Altitude

From sea level to 10,000Ft (operational), and 10,000Ft to 40,000Ft (non-operational).

5.0 Safety

5.1 Hi-Pot Test

4242 Vdc 5mA 3 Sec. between primary and secondary circuit

5.2 Insulation Test

500Vdc, 3 Sec. between primary and secondary circuit
IR should ≧50 MΩ.

5.3 Leakage Current

≦750 uA at 240Vac/50 Hz

5.5 EMS

Items	Specification	Reference
ESD	Contact: 4KV	IEC 61000-4-2
	Air: 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: 1KV (peak)	IEC 61000-4-5
	Line to F.G : 2KV (peak)	

5.6 EMI

Comply with Standards
CISPR 22, EN 55022 Class B

6.0 Mechanical Characteristics

6.1 Physical Size :120 mm (L) * 60 mm (W) * 35 mm (H)

6.2 Enclosure material :94V-1 minimum

6.3 Output Cable:UL1185 #16

6.4 Vibration Test

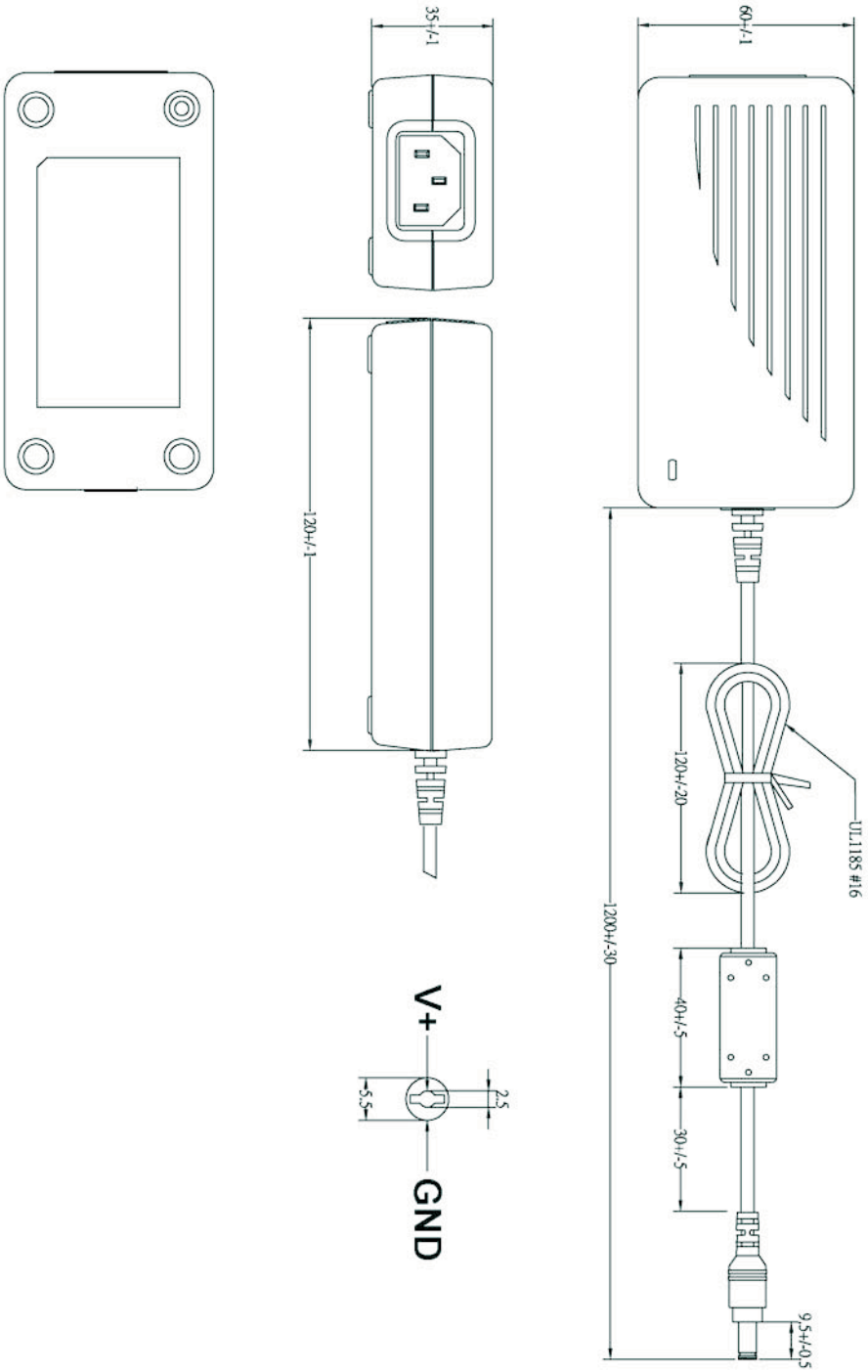
The vibration frequencies are set at 20Hz, with total amplitude of 1.5mm Along the 3 directions namely X-Y-Z. The each direction should be vibrated for 60 minutes, after testing no abnormal electrical or mechanical should occur.

6.5 Drop Test(Referencing to CSA C22.2 No.950/UL1950/UL1310/EN60950)

Products shall be dropped from a height of 900 mm onto a horizontal surface consisting of 13mm thick hardwood, mounted on two layers of plywood each 19mm to 20mm thick, all supported on a concrete or equivalent non-resilient floor.

6.6 Net Weight : 310 +/- 20g

7.0 Mechanical Drawing



8.0 Label Drawing