

規格書  
Electrical Specification

Model No : PA-1081-01LT-LF

Description : 12V 80W AC Adaptor

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## 1. Description

This product is a AC to DC power transfer device, it can provide for a **80W** single dc output with constant voltage source.

## 2. Electrical

### 2.1 Input Voltage

- a. 100 - 240Vac Nominal.
- b. 90 - 264Vac Universal.

### 2.2 Input Frequency

47- 63Hz.

### 2.3 Input Current

**1.5A** max. at 90Vac input & dc output full-loading.

### 2.4 Inrush Current

Inrush peak current and Joule integral will be measured at different line voltage at high ambient temperature.

Peak current is within specified limit and Joule integral well below fuse and bridge spec.

### 2.5 Hold-Up time

**10msec** min. at dc output full-loading and 115Vac input.

### 2.6 Input wattage

Less than **0.3W** at 230 Vac input & no load condition.

### 2.7 Efficiency

Average efficiency **87%** minimum min. at 25%, 50%, 75% & 100% of full-loading and 115/230Vac input (After warm up 20 minutes).

### 2.8 Safety Test

- a. Leakage current less than **0.25mA** at 254Vac, 50Hz.
- b. Hi-Pot test : **2200 Vac**, 10mA, 1 – 3 Sec. between Primary to Secondary ground.
- c. Insulation resistance: at dc 500Vdc, 1 Sec. between Primary to Secondary circuit, IR shall  $\geq 20M\Omega$ .
- d. Grounding test : AC 30A , 2 Sec. between input safety ground and SELV output GND, GR  $\leq 0.1\Omega$ .

### 2.9 Power line Harmonic

Input current harmonic shall comply with IEC 61000-3-2 class D requirement, PF value shall  $\geq 0.9$  at 240Vac input &  $\geq 0.95$  at 90Vac input & at dc output Full-loading

## 2.10 Output Voltage and Current

Vout (V)	Range (V)	Iout (min., A)	Iout (max., A)	Peak (10S, A)
<b>12V</b>	<b>11.4 – 12.6</b>	<b>0</b>	<b>6.67</b>	<b>-</b>

## 2.11 Ripple and Noise

Low frequency ripple ( < 100KHz )  $\leq$  **300mVpp**, and Total composite Ripple and Noise. Less than **300mVp-p**, tested by dc loading side parallel with a 10uF/EC. and 0.1uF/Ceramic. Capacitors and Measured Band Width 20MHz.

## 2.12 Over-Shoot and under-shoot

Less than 10% of nominal Voltage value.

## 2.13 Protection

- SCP : Short circuit protection with auto. recovery function.
- OVP : Over voltage protection with shut down & latch off function.  
Tripped voltage will be less than **18Vdc**.
- OCP : Over current protection with auto. recovery function,  
current limit : **10A**(max.).

## 2.14 LED Indication

Green light for Nominal operation.                      Blank or Flash for SCP mode.

## 2.15 Rise time

Rise time shall be less than **50msec.**, it should be measured from 10% to 90% of the output voltage.

## 2.16 Turn on delay time

The output voltage should turn on from AC on to settle within regulation in less than **3.0sec.**

## 2.17 Temperature Coefficient

Less than 0.2%/C

## 2.18 Transient Response

Dynamic loading condition.

DC output (V)	I1 ( A )	I2 ( A )	dVmax.(V)	Time-max.	dl/dT
<b>12.0</b>	<b>0.0</b>	<b>2.2</b>	<b>+/- 1.0</b>	<b>10 msec.</b>	<b><math>\geq</math>50mA/usec.</b>
<b>12.0</b>	<b>2.2</b>	<b>4.4</b>	<b>+/- 1.0</b>	<b>10 msec.</b>	<b><math>\geq</math>50mA/usec.</b>
<b>12.0</b>	<b>4.4</b>	<b>6.7</b>	<b>+/- 1.0</b>	<b>10 msec.</b>	<b><math>\geq</math>50mA/usec.</b>

50% of duty cycle.

## 3. Environment

### 3.1 Temperature

- a. Operation : **0 to 40 °C**
- b. Storage : -40 to 70 °C

### 3.2 Humidity

- a. Operation : 20 to 80%
- b. Storage : 10 to 90%

### 3.3 Altitude

From sea level to **2000m** (operation) and **2000m above** (Non operation).

## 4. EMC

### 4.1 EMS

Test Item	Test Specification	IEC Standards
ESD	Contact <b>+/- 8KV</b>	61000-4-2
ESD	Air <b>+/- 15KV</b>	61000-4-2
RS	FR: 26MHz-1.0GHz, Field Strength: 3V/M	61000-4-3
EFT	<b>+/- 1KV (DM) &amp; +/- 2KV (CM)</b>	61000-4-4
SURGE	<b>+/- 1KV (DM) &amp; +/- 2KV (CM)</b>	61000-4-5
CS	3V/M	61000-4-6
DIPS	0% 250Cy, 40% 5 Cy, 70% 5Cy	61000-4-11

### 4.2 EMI

Standards	Specification
FCC	<b>Part 15,class B</b>
VCCI	<b>Class B</b>
CISPR	<b>Part 22,class B</b>

## 5. Reliability

### 5.1 Life (E-cap.)

**12,000 hours** (8 hours/day x 300 days/year x 5 years)

At DC output full-loading, AC 115/230 Vac input & ambient temperature 25°C.

### 5.2 M.T.B.F.

**50,000 Power On Hours** at 25°C.

### 5.3 Temperature Rise.

Less than **45°C** at nominal AC input / DC output full-loading and environment temperature 25+/-1°C on Top/Bottom of plastic case.

### 5.4 Burn-in

100% Burn-In with 80~100% full-loading & 35~45°C Environment temperature.

### 5.5 Vibration Test

a. Non operation vibration with shipping container shall be 2G'S peak/7-50Hz, 4G'S /50-500Hz, after test no abnormally to be found.

b. Operation vibration shall be 0.5G'S peak/10-60Hz, 3 AXES, after test no abnormally to be noted.

### 5.6 Drop-Test

Test height is 100cm, after drop test no function abnormally to be noted.

## 6. Mechanical

6.1 Plastic enclosure : **PC** material.

6.2 Physical Size : **150 mm ( L ) \* 60 mm ( W ) \* 35 mm ( H )**.

6.3 DC cord: **1500 mm, 14 AWG** wires.

6.4 Weight : **500g**.