

ARPV-1822-12060 (12V, 5A, 60W)

1 Scope

This is the engineering specification of OUR CUSTOMER Watt power wall plug-in AC/DC adapter, with wide voltage 100~240V AC input, single DC output, packed into a molded plastic case . Models covered: Output: 12V/5A.



2 Standard

GB8898, UL60065, IEC60065

3 Input

- 3.1 RATED INPUT VOLTAGE
AC100~240V
- 3.2 INPUT VOLTAGE RANGE
AC90~264V
- 3.3 INPUT FREQUENCY
50/60Hz
- 3.4 INPUT FREQUENCY RANGE
47 Hz ~ 63 Hz
- 3.5 INPUT CURRENT
<1.25A at 90Vac input , full loading
- 3.6 PEAK INPUT CURRENT
<80A for cool start
- 3.7 EFFICIENCY
>85% , at 100V~240VAC input and full loading.
- 3.8 NO LOAD CONSUMPTION
<0.5W at 100V~240VAC input .

4 Output

- 4.1 RATED OUTPUT VOLTAGE
12V±0.60V
- 4.2 OUTPUT VOLTAGE
Empty loading: 12V: 11.40V~12.60V
Full loading: 12V: 11.40V~12.60V
- 4.3 RATED OUTPUT CURRENT
12V: 5A
- 4.4 RATED OUTPUT POWER
12V: 60W
- 4.5 RIPPLE AND NOISE
<250mVp-p
- 4.5 OUTPUT SETUP, RISE TIME
<1s.
- 4.6 OUTPUT HOLD UP TIME
<1s.
- 4.7 PROTECTION
A: Over voltage protection
B: Over current protection
C: Short circuit protection
Shut off, AC recycle to re-start, after fault condition is removed.

5 Safety & Reliability

5.1 ESD TESTING

±4kV for touch, ±8kV in air, 10 times, working well.

5.2 WITHSTAND VOLTAGE TESTING (HIGH VOLTAGE TESTING)

Between input to output: 3000VAC/1 minute. Leakage current shall be 5mA maximum.

5.3 INSULATION RESISTANCE

Between input to output add DC 500V.

Minimum insulation resistor from primary to secondary shall be 100MΩ.

5.4 LEAKAGE CURRENT

Maximum leakage current form primary to secondary : ≤0.25mA. at 264VAC input .

5.5 TEMPERATURE RISING

Temperature in the housing surface <50°C , at 25°C 100VAC~240VAC input, Rated output current.

5.6 CONTINUE WORKING TIME

More than 96 hour, at 25°C 100VAC~240VAC input, Rated output current.

5.7 VIBRATION TESTING

The power supply shall meet operating, non-operating and package vibration:

| Vibration | frequency | acceleration | tow time | cycle |
|-------------|-----------|--------------|---------------------|-------|
| Working | 5-500Hz | 0.5G | 15min,xyz all 15min | 2 |
| Not working | 5-500Hz | 1G | 15min,xyz all 15min | 2 |
| Package | 5-500Hz | 1.5G | 15min,xyz all 30min | 2 |

5.7 DROP TESTING

The power supply shall meet operating and non operating shock. On floorboards thick for 10mm wood block.

| Drop | height | direction | cycles |
|-------------|--------|-----------------|--------|
| Working | 0.3m | xyz all 3 times | 6 |
| Not working | 1.0m | xyz all 3 times | 6 |

5.8 MTBF

MTBF@ 25°C shall be 50,000 hours min.

6 Environmental requirement

6.1 WORKING TEMPERATURE

-10°C~+40°C

6.2 STORAGE TEMPERATURE

-40°C~+70°C

6.3 WORKING HUMIDITY

35%~85%

6.4 STORAGE HUMIDITY

5%~95%

7 Mechanical function

7.1 HOUSING MATERIAL

PC+ABS, black, UL94V-0

8 EMI

EMI STANDARD: EN55022 CLASS B, EN6100-3-2.3, FCC CLASS B

9 Safety instruction

NOTE:

- For avoiding static shock or high-voltage arc, please use wide-notch socket & insert the plug into the socket completely.
- For Power Supply working reliable, please be sure the socket must be suitable for the output plug and insert them tightly.
- Please always keep the Power Supply at ventilating place, otherwise it will enter into protecting situation.
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WARNING:

- Do not install this power supply in a confined space such as a book case or similar unit.
- There is no switch in the product. The mains plug or appliance coupler is used as disconnect device, it shall be easily accessible.

- No naked flame sources, such as lighted candles. Should be placed on the apparatus.
- Do not exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.
- The product is suitable to be used in moderate climate, do not use it in tropics.

CAUTION:

- Please don't use AC voltage which not in the range of 85-264V, otherwise the Power Supply may be damaged.
- When pull the plug out from the socket, please hold its base but never pull it by draw its wire, as the wire may be broken or damaged to course short circuit & fire.

10 Outside picture & Label & packing

