

Approval sheet

Customer : -----

HGPOWER MODEL: -----ADPV1809-----

Part No. : -----

Date : -----

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| Conclusion | Approval | Signature |
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| HGPOWER | | |
| Preparing | Design | Approval |
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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:

| No. | MODEL | OUTPUT |
|-----|-----------|---------------|
| 1 | ADPV1806C | 12VDC 11A |
| 2 | ADPV1806E | 13.8VDC 10.4A |
| 3 | ADPV1806F | 15VDC 9.6A |
| 4 | ADPV1806I | 19VDC 7.55A |
| 5 | ADPV1809D | 24VDC 6A |

2 Standard

GB8898, UL60065, IEC60065。

3 Electrical function

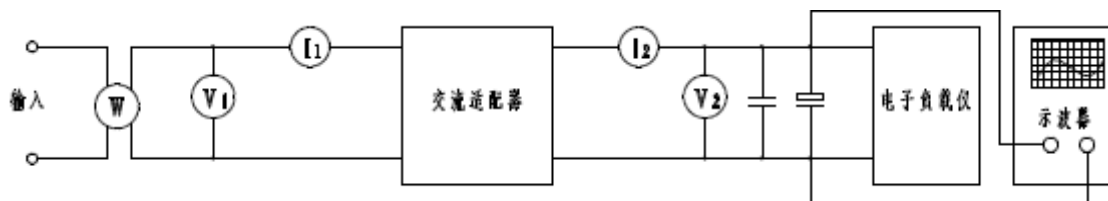


图 1

4 Input

4.1 Rated Input voltage

AC100~240V

4.2 Input voltage range

AC90~264V

4.3 Input frequency

50/60Hz

4.4 Input frequency range

47 Hz~63 Hz

4.5 Input current

<1.9A at 90Vac input , full loading

4.6 Peak input current
<80A for cool start

4.7 Efficiency
>85% , at 100V~240VAC input and full loading.

4.8 No load consumption
<0.5W at 100V~240VAC input .

4.9 Power factor
≥92% at AC250V, rated power 90W

5 Output

5.1 Rated output voltage

| No. | MODEL | Rated output voltage |
|-----|-----------|----------------------|
| 1 | ADPV1809C | 12V ±0.6V |
| 2 | ADPV1809E | 13.8V ±0.69V |
| 3 | ADPV1809F | 15V ±0.75V |
| 4 | ADPV1809I | 19V ±0.95V |
| 5 | ADPV1809D | 24V ±0.96V |

5.2 Output voltage

| No. | MODEL | Output voltage |
|-----|-----------|----------------|
| 1 | ADPV1809C | 11.4~12.0.6V |
| 2 | ADPV1809E | 13.11~14.49V |
| 3 | ADPV1809F | 14.25~15.75V |
| 4 | ADPV1809I | 118.05~19.95V |
| 5 | ADPV1809D | 23.04~24.96V |

5.3 Rated output current

| No. | MODEL | Rated output current |
|-----|-----------|----------------------|
| 1 | ADPV1809C | 12VDC 7A |
| 2 | ADPV1809E | 13.8VDC 6.5A |
| 3 | ADPV1809F | 15VDC 6A |
| 4 | ADPV1809I | 19VDC 4.74A |
| 5 | ADPV1809D | 24VDC 3.76A |

5.4 Rated output power

| No. | MODEL | Rated output power |
|-----|-----------|--------------------|
| 1 | ADPV1809C | 84W |
| 2 | ADPV1809E | 89.7W |
| 3 | ADPV1809F | 90W |
| 4 | ADPV1809I | 90.06 |
| 5 | ADPV1809D | 90.24 |

5.5 Ripple and Noise

<250mVp-p

5.6 Output setup, rise time

<1s .

5.7 Output hold up time

<1s .

5.8 Over charging current :

5.9 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 .

6 Safety & Reliability

6.1 ESD testing

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

6.2 Withstand voltage testing (High voltage testing)

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

6.3 INSULATION RESISTANCE

Between input to output add DC 500V.

Minimum insulation resistor from primary to secondary shall be 100M Ω .

6.4 LEAKAGE CURRENT

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

6.5 Temperature rising

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

6.6 Continue working time

More than 96 hours , at 25℃ 100~240VAC input, Rated output current.

6.8 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 |

6.9 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 |

6.10 MTBF

MTBF@ 25°C shall be 50,000 hours min.

7 Environmental requirement

7.1 Working temperature

-10°C~40°C

7.2 Storage temperature

-40°C~70°C

7.3 Working Humidity

35%~85%

7.4 Storage Humidity

5%~95%

8 Mechanical function

8.1 Weight

8.2 Housing material

PC+ABS , black , UL94V-0

9. EMI


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


10. Outside picture & Label & packing


11. Certificate

12. Safety instruction

Instruction for safety usage

Caution! :  This sign warning there are risk of Electric Shock.

Warning:  This sign warning there are important safety parts and Hi-Voltage together with the product.

Indoor:  This sign warning that the products can only be used indoor.

Usage

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.

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.