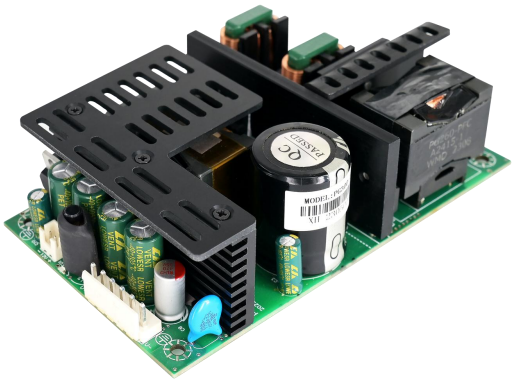
# TECHNICAL SPECIFICATION

| PRODUCT | Medical Power Supplies | SERIES | XH-PG300 |
|---|---|---|---|

Picture



Dimension 127*76*36mm

Features

- 300W power supply
- Meet **IEC/EN60601-1** medical safety certification
- Protection EMC **IEC/EN60601-1-2** Class II power
- Wide operating voltage range
- Perfect Protections: Short circuit/Overload/Over voltage/Over current
- Highest Efficiency ≥92%
- 3 years product warranty
- **Customization: Open frame, Cooling option , Enclosure option**

*** Application：** Standard active medical equipment

## ■ Model Selector

| Models | Output Voltage | Output Current AC100-240V | Ripple & Noise (MAX) | MAX Total Regulation |
|---|---|---|---|---|
| **PG300-12** | 12V | 20.0A-25.0A | 50mV | ±2% |
| **PG300-15** | 15V | 16.0A-20.0A | 50mV | ±2% |
| **PG300-19** | 19V | 12.6A-15.8A | 100mV | ±2% |
| **PG300-24** | 24V | 10.0A-12.5A | 100mV | ±2% |
| **PG300-27** | 27V | 8.89A-11.1A | 120mV | ±2% |
| **PG300-36** | 36V | 6.89A-8.6A | 150mV | ±2% |
| **PG300-48** | 48V | 5.16A-6.46A | 200mV | ±2% |
| **PG300-60** | 60 | 4.13A-5.17A | 200mV | ±2% |

## ■ Description

PG300 series is 300w highly reliable green medical power supply which complies with latest medical safety standards IEC/EN60601-1 and 2 x MOPP. The series has ultra-low leakage current, suitable for BF rated patient contact medical equipment. The efficiency of PG300 series is up to 95%, lower than the ultra-low no-load power consumption of 0.5W.

It offers ultra-wide input voltage range and operating temperature rang, include different output voltages between 12V and 48V. The perfect protection management ensure the safety and high reliability of the products. With addition of compact structure, small size, natural heat dissipation, easy to carry and so on, which makes the product an ideal solution for a wide range of medical devices.

## ■ Safety Approvals

| | | | |
|---|---|---|---|
| CB | CB certification | Medical | Medical grade, Safety Approvals |
| ROHS | RoHS Compliant | 2×MOPP | 2 x MOPP Input to Output Isolation |
| ECO | Eco-Design | BF rated | Type BF Rated Power Supplies |

- Safety approval: IEC/EN60601-1. 3.1 version
  GB9706.1-2016
- EMC：IEC/EN60601-1-2 4.0 version
  YY0505-2012

## ■ Input Specifications

| | | |
|---|---|---|
| Input Voltage Range | 100 ~ 240 Vac | |
| Start-up Voltage Range | 90 ~ 264 Vac | |
| Input Frequency Range | 50~ 60 Hz | |
| Efficiency | ≥95% | |
| AC Current | AC100-240V: 3. 2A-1.5A | Rated load |
| Inrush Current | 35 A | Rated load |
| Power Factor | 0.98 | Rated load |

## ■ Output Specifications

| Model | PG300-12 | PG300-15 | PG300-19 | PG300-24 | PG300-27 | PG300-36 | PG300-48 | PG300-60 |
|---|---|---|---|---|---|---|---|---|
| Output Voltage | 12V | 15V | 19V | 24V | 27V | 36V | 48V | 60V |
| **Voltage Range** | **11.5～12.5** | **14.5～15.5** | **18.5～19.5** | **23.5～24.5** | **26.5～27.5** | **35.1～36.9** | **46.8-49.2V** | **58.5-61.5V** |
| Output Current AC100-240V: | **20.0A-25.0A** | **16.0A-20.0A** | **12.6A-15.8A** | **10.0A-12.5A** | **8.89A-11.1A** | **6.89A-8.6A** | **5.16A-6.46A** | **4.13A-5.17A** |
| Output Power AC100-240V: | 240W-300W | | | | | 248W-310W | | |
| Output Ripple | ⩽ 120mV | ⩽ 150mV | ⩽190mV | ⩽240mV | ⩽270mV | ⩽ 360mV | ⩽ 480mV | ⩽ 600mV |
| Efficiency | ⩾92% | ⩾92% | ⩾93% | ⩾94% | ⩾94% | ⩾94% | ⩾94% | ⩾94% |
| Load Regulation | ±2.0% | | | | | | | |
| Line Regulation | ±1.0% | | | | | | | |
| Setup / Rise Time | 2000ms，30ms/230VAC 2000ms，30ms/115VAC at full load | | | | | | | |

## ■ Other Specifications

| | |
|---|---|
| Output Efficiency | 91% at 220Aac input/ full load |
| Standby Power Consumption | 3W at 220Aac input/ full load |
| Power-on Output Delay | 15mS / 30mS(MAX) at 220Aac input/ full load |
| Power On/Off Overshoot | 5% / Rated input voltage, rated load |

## ■ Protection specification

| | |
|---|---|
| Overload Protection | 105% ~ 150% rated output power (CC mode, Auto recovery) |
| Over Voltage Protection | Shut down output voltage, re-power on to recover |

## ■ Environmental indicators

| | | |
|---|---|---|
| Working Temp. | -10℃ ~ +40 ℃ | |
| Working Humidity | 5 ~ 90% RH non-condensing | |
| Storage Temp. | -20 ~ 80 ℃ | |
| Storage Humidity | 5 ~95% RH non-condensing | |
| Temp. Coefficient | ±0.03% (0 ~40℃) | |
| Vibration Resistance | 10 ~ 500Hz，2G 10 mins/1cycle | X、Y、Z axes/60 mins |
| Operating Altitude | 0 ~ 5000 meters | For operation above 3500m (5000ft), the maximum operating temperature decreases by 2 ℃ for every 305m increase |
| Seismic Grade | 4 Zone | |
| Noise | 35 dB | |

## ■ Safety & EMC

| | | | |
|---|---|---|---|
| Safety Standards | IEC 60601-1:2005 + A1:2012 approved<br>IEC 60601-1-6:2010 + A1:2013 approved | | |
| EMC Emission | Project | Test Level / Note | Standard |
| | Conducted Emission (CE) | CLASS B | EN60601-1-2<br>IEC60601-1-2 |
| | Radiated Emission (RE) | CLASS B | EN60601-1-2<br>IEC60601-1-2 |
| | Harmonic Current | CLASS A | EN61000-3-2<br>IEC61000-3-2 |
| | Voltage Flicker | Pst≤1.0,<br>P1t≤0.65,<br>Steady state voltage change dc<3.3%,<br>Maximum relative voltage change /d max<3.3%,<br>Relative voltage change /d(t)>500mS≤4% | EN61000-3-3<br>IEC61000-3-3 |
| EMC Immunity | ESD | 15KV Air discharge<br>8KV Contact discharge | EN61000-4-2<br>IEC61000-4-2 |
| | RF | 10V/m (80MHz~2.7GHz)<br>9~28V/m(385MHz~5.78GHz) | EN61000-4-3 |
| | EFT | ±2KV | EN61000-4-4<br>IEC61000-4-4 |
| | SURGE | ±1KV/Line-Line<br>±2KV/Line-Ground | EN61000-4-5<br>IEC61000-4-5 |
| | CS | 10V | EN61000-4-6<br>IEC61000-4-6 |
| | MFI | 30A/m | IEC6000-4-8 |
| | Voltage DIP & interruption | Dip 100%U,5000ms,250 periods | EN61000-4-11<br>IEC61000-4-11<br>(Note：240Vac/50Hz test) |
| | | Dip 70%Ut,500ms，25 periods | |
| | | Dip 40%Ut,100ms,5 periods | |

| | | | |
|---|---|---|---|
| | | Dip 0%Ut， 10ms,half period | |

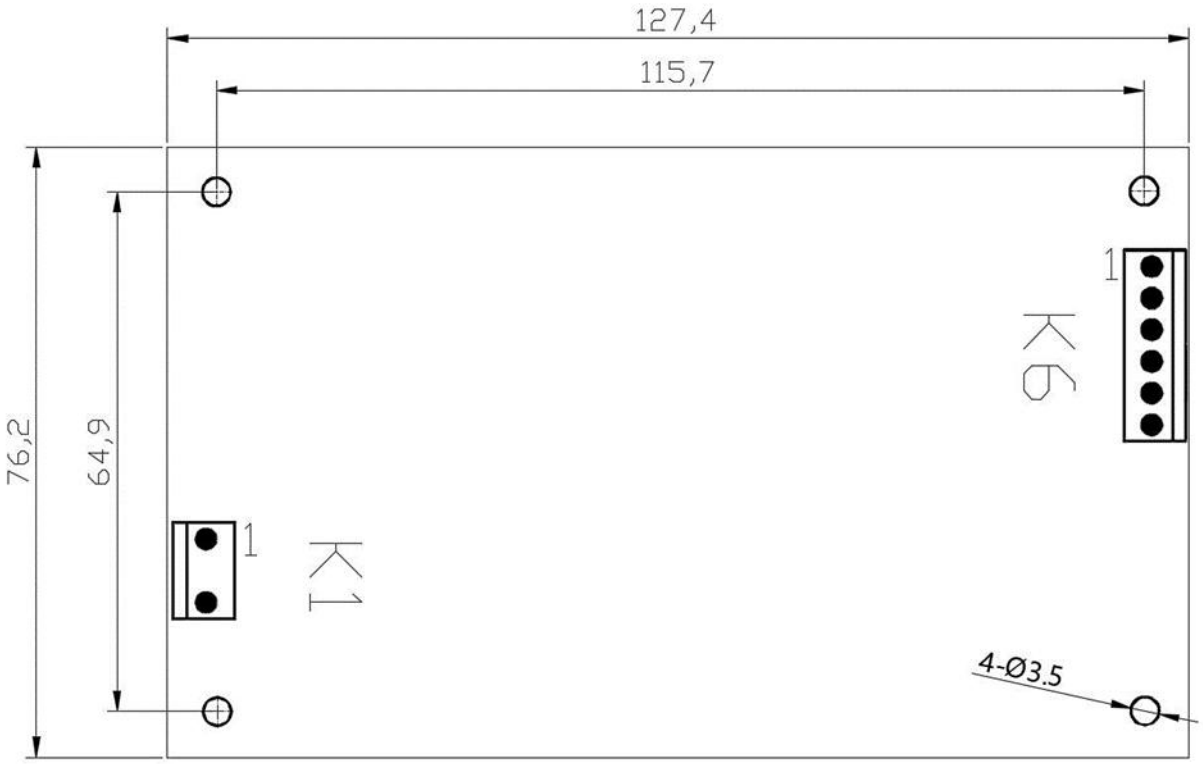
## ■ Isolation Level

| TEST ITEM | Grade | Standard |
|---|---|---|
| Input to Output | 4000VAC (1×MOPP) | 50Hz, 4000V 1 min, Leakage Current≤5mA, No breakdown and flaring. |
| Input to Ground | 1500AC(1×MOPP) | 50Hz, 1500V 1 min, Leakage Current≤5mA, No breakdown and flaring. |
| Output to Ground | 500VDC | 500V, DC 1 min, Leakage Current≤5mA, No breakdown and flaring. |
| Isolation Resistance | 10MΩ | >10 MΩ & 90% RH & 500 VDC |
| Earth Leakage Current | 264VAC | Leakage Current≤0.3mA |
| Isolation Level | Primary - secondary:2×MOPP | |

## ■ Others

| | |
|---|---|
| MTBF | 106K hrs min. MIL-HDBK-217F ( 25℃ ) |
| External Dimension (mm) | 127.4×76.2×36mm（L×W×H） |
| Installation Dimension (mm) | 115.7×64.9×36mm（L×W×H） |
| Weight (g) | ≤400g |

## ■ Mechanical Specification




| NO. | Connectors | Note |
|---|---|---|
| 1 | Ac input socket adopts VH3.96-3P-2 pins socket input | 1: AC L, 2:NC; 3: AC N |
| 2 | DC output adopts VH3.96-6P socket output | 1、2、3:V-、 4、5、6: V+ |