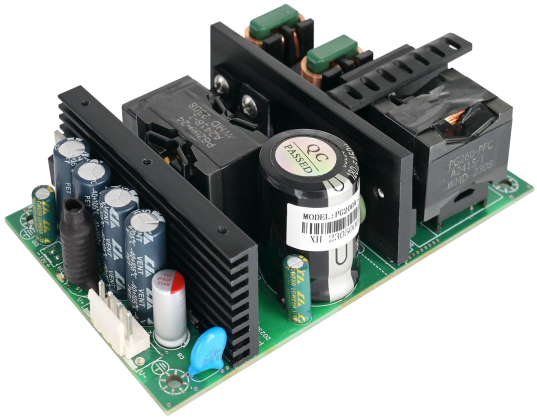
TECHNICAL SPECIFICATION

PRODUCT	Medical Power Supplies	SERIES	XH-PG200A

Picture



Dimension 127.5*76.2*36mm

Features

- 200W 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 ≥91%
- 3 years product warranty

*** Application：** Standard active medical equipment

■ Model Selector

Models	Output Voltage	Output Current	Ripple & Noise (MAX)	MAX Total Regulation
PG200A-12	12V	16.7A	120mV	±2%
PG200A-15	15V	13.3A	150mV	±2%
PG200A-19	19V	11.0A	190mV	±2%
PG200A-24	24V	8.7A	240mV	±2%
PG200A-27	27V	7.8A	270mV	±2%
PG200A-36	**36V**	5.8A	370mV	±2%
PG200A-48	48V	4.4A	480mV	±2%

■ Description

PG200A series is 200w 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 PG200A series is up to 94%, lower than the ultra-low no-load power consumption of 1W.

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	
AC Current	1.1A~2.2A(MAX)	Rated load
Inrush Current	35 A	Rated load
Power Factor	0.98	Rated load

■ Output Specifications

Model	PG200A-12	PG200A-15	PG200A-19	PG200A-24	PG200A-27	PG200A-36	PG200A-48
Output Voltage	12V	15V	19V	24V	27V	36V	48V
Voltage Range	11.5-12.5 V	14.5-15.5 V	18.5-19.5 V	23.5-24.5V	26.5-27.5V	35.1-36.9 V	47.8-48.2 V
Output Current	16.7A	13.3A	11.0A	8.7A	7.8A	5.8A	4.4A
Output Power	200W	200W	210W	210W	210W	210W	210W
Output Ripple	⩽ 120mV	⩽ 150mV	⩽ 190mV	⩽ 240mV	⩽ 270mV	⩽ 360mV	⩽480mV
Efficiency	⩾94%	⩾94%	⩾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						
Hold Up Time	50ms/230VAC 16ms/115VAC at full load						

■ Other Specifications

Standby Power Consumption	1 W 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
Product Service Life	The environment temp. is 25 ° C and the rated load is ⩾5 years

■ 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
Short circuit	Auto-recovery after the fault is removed

■ 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 2500m (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 IEC 60601-1-6:2010 + A1:2013 approved		
EMC Emission	Project	Test Level / Note	Standard
	Conducted Emission (CE)	CLASS B	EN60601-1-2 IEC60601-1-2
	Radiated Emission (RE)	CLASS B	EN60601-1-2 IEC60601-1-2
	Harmonic Current	CLASS A	EN61000-3-2 IEC61000-3-2
	Voltage Flicker	Pst≤1.0, P1t≤0.65, Steady state voltage change dc<3.3%, Maximum relative voltage change /d max<3.3%, Relative voltage change /d(t)>500mS≤4%	EN61000-3-3 IEC61000-3-3
EMC Immunity	ESD	15KV Air discharge 8KV Contact discharge	EN61000-4-2 IEC61000-4-2
	RF	10V/m (80MHz~2.7GHz) 9~28V/m(385MHz~5.78GHz)	EN61000-4-3
	EFT	±2KV	EN61000-4-4 IEC61000-4-4
	SURGE	±1KV/Line-Line ±2KV/Line-Ground	EN61000-4-5 IEC61000-4-5
	CS	10V	EN61000-4-6 IEC61000-4-6
	MFI	30A/m	IEC6000-4-8
	Voltage DIP & interruption	Dip 100%U,5000ms,250 periods	EN61000-4-11 IEC61000-4-11 (Note：240Vac/50Hz test)
		Dip 70%Ut,500ms，25 periods	
		Dip 40%Ut,100ms,5 periods	
		Dip 0%Ut，10ms,half period	

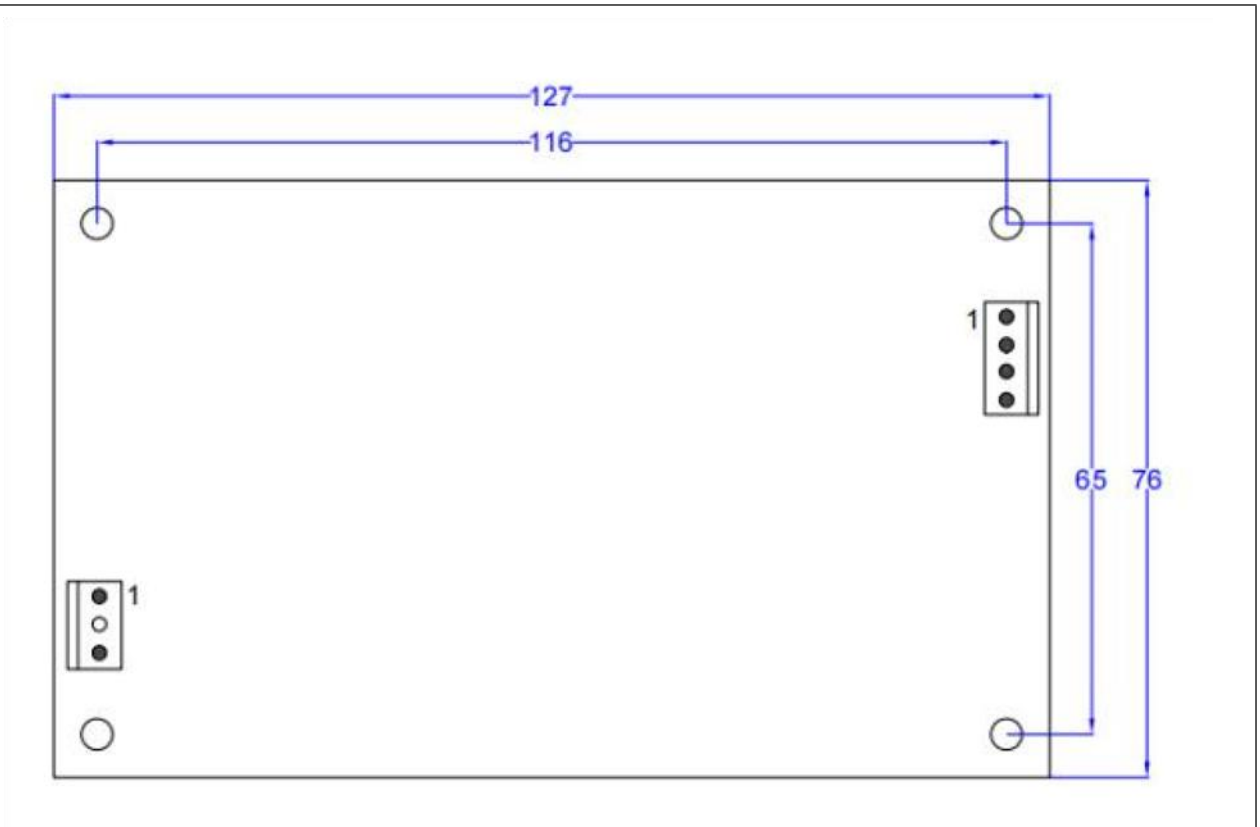
■ Isolation Level

TEST ITEM	Grade	Standard
Input to Output	4000VAC	50Hz, 4000V 1 min, Leakage Current≤5mA, No breakdown and flaring.
Input to Ground	1500VAC	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	720K hrs min. MIL-HDBK-217F (25℃)
External Dimension (mm)	127×76×36mm（L×W×H）
Installation Dimension (mm)	116×65×36mm（L×W×H）
Weight (g)	≤400g

■ Mechanical Specification



Pin NO.	Connectors	Note
J1	Ac input socket adopts VH3.96-3P-2 pins socket input	1：AC L； 2：NC; 3: AC N
J2	DC output socket adopts VH3.96-4P socket output	1、2：V-； 3、4：V+