

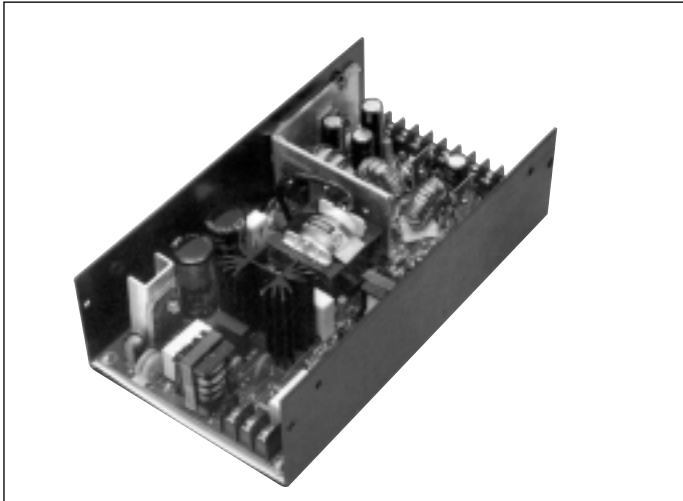
Medical Switching Power Supply

XPiQ inc.

Intelligent Design Quality Product



200 Watts
PM200 Series



- 4000 VAC Isolation
- 100% Burn-in
- Low Safety Leakage Current
- Short Circuit Protection
- Meets EMI Requirements of Medical Equipment
- Both Line and Neutral Fused for European Requirements

Specification

All specifications typical at nominal line, full load and 25°C

Input

- Input Voltage** • 90 to 130 VAC or 180 to 264 VAC autoranging
- Input Frequency** • 47 to 440 Hz
- Input Current** • 4.5A (rms) for 115 VAC
2.6A (rms) for 230 VAC
- Safety Ground Leakage Current** • 50µA max. at 110 VAC 60 Hz
100µA max. at 240 VAC 50 Hz

Output

- Total output power:** • 15 to 200 watts
- Ripple and noise:** • 2% peak to peak maximum
- Overvoltage Protection:** • Provided on output #1 only; set at 112-132% of its nominal output voltage
- Overcurrent Protection:** • All outputs protected to short circuit conditions
- Temperature Coefficient:** • All outputs $\pm 0.04\%/^{\circ}\text{C}$ maximum
- Transient Response:** • Maximum excursion of 4% or better on all models, recovering to 1% of final value 500us after a 25% step load change
- Line Regulation** • $\pm 0.5\%$ max. at full load

General

- Efficiency** • 70% minimum at 200 watt output
- Hold-up time** • 20 msec minimum at nominal input
- Inrush Current** • 60A max at 25°C cold start
- Withstand Voltage** • 4000 VAC from input to output
1500 VAC from input to ground
500 VAC from output to ground

Environmental

- Operating Temperature** • 0°C to +70°C*
- Storage Temperature** • -40°C to +85°C
- Relative Humidity** • 5% to 95% non-condensing
- MTBF** • 85,000 hours minimum at full load at 25°C ambient
- EMI Requirement** • Meets the conducted limits of EN 55011 (CISPR11) Level B
- Safety Requirements** • Approved to: (Not for patient contact)
a) UL2601
b) CSA C22.2 No.601.1-M90 per CUL
c) IEC 601-1/EN60601-1 (per TUV)

* Derate linearly from 100% load at 50°C to 50% load at 70°C



OUTPUT VOLTAGE & CURRENT RATINGS PM200

Model	Output #1				Output #2				Output #3				Output #4				Maximum Output Power ²
	Vnom	Imin	I _{max}	Tol.	Vnom	Imin	I _{max}	Tol.	Vnom	Imin	I _{max}	Tol.	Vnom	Imin	I _{max}	Tol.	
PM200-10	5 V	3.0 A	40.0 A	2%													200 W
PM200-12	12 V	1.2 A	16.7 A	2%													200 W
PM200-13	15 V	1.0 A	13.0 A	2%													200 W
PM200-14	24 V	0.6 A	8.4 A	2%													200 W
PM200-16	30 V	0.5 A	6.7 A	2%													200 W
PM200-18	48 V	0.3 A	4.2 A	2%													200 W
PM200-23	+5 V	3.0 A	30.0 A	2%	+12 V	0 A	8 A	4%									200 W
PM200-24	+5 V	3.0 A	30.0 A	2%	+15 V	0 A	6 A	4%									200 W
PM200-25	+5 V	3.0 A	30.0 A	2%	+24 V	0 A	4 A	4%									200 W
PM200-30	+5 V	3.0 A	30.0 A	2%	+12 V	0 A	8 A	4%	-5 V	0 A	6 A	4%					200 W
PM200-31	+5 V	3.0 A	30.0 A	2%	+12 V	0 A	8 A	4%	-12 V	0 A	4 A	4%					200 W
PM200-32	+5 V	3.0 A	30.0 A	2%	+15 V	0 A	6 A	4%	-15 V	0 A	4 A	4%					200 W
PM200-40	+5 V	3.0 A	30.0 A	2%	+12 V	0 A	8 A	4%	-12 V	0 A	4 A	4%	F 5 V	0 A	6 A	4%	200 W
PM200-41	+5 V	3.0 A	30.0 A	2%	+15 V	0 A	6 A	4%	-15 V	0 A	4 A	4%	F 24 V	0 A	4 A	4%	200 W
PM200-42	+5 V	3.0 A	30.0 A	2%	+12 V	0 A	8 A	4%	-12 V	0 A	4 A	4%	F 12 V	0 A	4 A	4%	200 W
PM200-45	+5 V	3.0 A	30.0 A	2%	+12 V	0 A	8 A	4%	-12 V	0 A	4 A	4%	F 24 V	0 A	4 A	4%	200 W

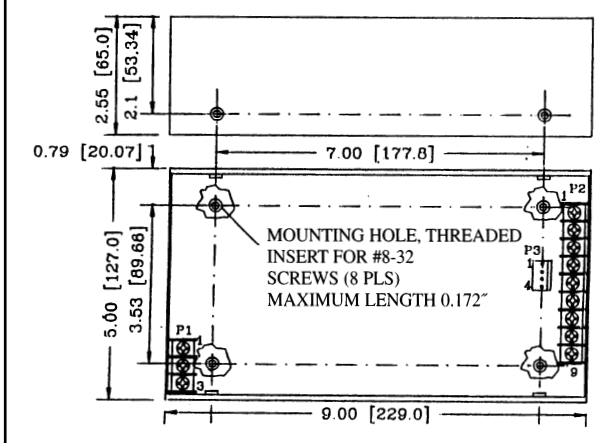
Notes

1. Add suffix "B" for U-bracket or "C" for enclosed form e.g. PM200-45C.
2. Peak current is 12A on +12V, 9A on +15 V, and 6A on +24V.
3. Output #4 is floating. It can be connected externally for positive or negative output.
4. 200 watts for "C" version with a cover-and-fan assembly. 150 watts for "B" version without moving air.
(max current of output #1 & #2 derated to 70%) or 200 watts (no derating) with 25 CFM forced air provided by user.

Pin Chart

Connectors		P1			P2						P3			
Model		1	2	3	1, 2	3, 4, 5	6	7	8	9	1	2	3	4
PM200-10	PM200-12	AC	AC	AC			Output #1	Output #1	Output #1		PFD	Common	Common	
PM200-13	PM200-14	Line	Neutral	Ground	-Sense	Return				+SENSE		RETURN	RETURN	FAN
PM200-16	PM200-18													
PM200-23	PM200-24	AC	AC	AC	Output #1	Common	Output #2	N.C.	N.C.	N.C.	PFD	Common	Common	FAN
PM200-25		Line	Neutral	Ground		Return						Return	Return	
PM200-30	PM200-31	AC	AC	AC	Output #1	Common	Output #2	Output #3	N.C.	N.C.	PFD	Common	Common	FAN
PM200-32		Line	Neutral	Ground		Return						Return	Return	
PM200-40	PM200-41	AC	AC	AC	Output #1	Common	Output #2	Output #3	Output #4	Output #4	PFD	Common	Common	FAN
PM200-42		Line	Neutral	Ground		Return						Return	Return	
PM200-45									Return					

Mechanical Details



- Notes:
1. Dimensions shown in inches (mm)
 2. Tolerance 0.02 (0.5) maximum
 3. Input connector P1 is Beau Inc. P/N 72-5-03C. Output connector P2 is Beau Inc. P/N 72-5-09C. Screws are #6-32 on 0.375 inch centers.
 4. Connector P3 mates with Molex housing 22-01-1043 and Molex 40445 series crimp terminal
 5. Weight: 1.4 Kgs (3.10 lbs) approx. for "B" version
1.75 Kgs (3.90 lbs) approx. for "C" version

