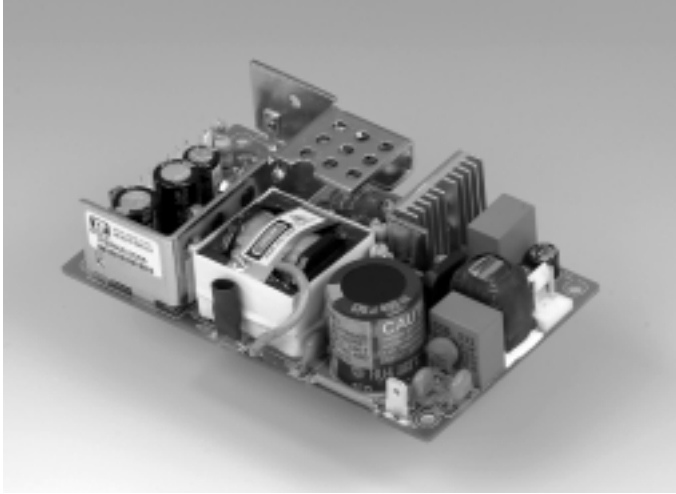


# AC/DC Medical Open Frame

## 65 Watts PBM65 Series

**XPiQ inc.**

Intelligent Design Quality Product



4000 VAC Isolation

•  
Low Leakage Current

•  
Meets Class B, EN55011 Conducted

•  
Medical Safety Agency Approvals

•  
Both Line and Neutral Fused

•  
Fixed Switching Frequency

## Specification

### Input

Input Voltage	• 90-264 VAC
Input Frequency	• 47-63 Hz
Input Current	• 1.6 A max at 115 VAC 1.0 A max at 230 VAC
Inrush Current	• 17 A at 115 VAC 40 A at 230 VAC
Safety Ground Leakage Current	• 90 $\mu$ A max at 115 VAC, 60 Hz 150 $\mu$ A max at 230 VAC, 50 Hz

### Output

Output Voltage	• 5.1 to 28 VDC
Output Voltage Adjustment	• $\pm$ 5%
Output Power	• 65 Watts
Minimum Load	• No minimum load required
Line Regulation	• $\pm$ 0.5% max at full load
Load Regulation	• $\pm$ 2% typical
Ripple and Noise	• $\pm$ 1% pk-pk max (See Note 2)
Transient Response	• 4% maximum deviation, 500 $\mu$ s recovery time to within 1% for a 25% load change
Temperature Coefficient	• $\pm$ 0.04%/°C
Hold Up Time	• 10ms minimum at 110 VAC
Overvoltage Protection	• 112-132% with auto recovery
Overcurrent Protection	• 125-200% with auto recovery
Short Circuit Protection	• Protected to short circuit conditions with auto-recovery
Remote Sense	• Compensates for up to 0.5 V drop

### General

Efficiency	• 75% min for $V_o \geq 12V$ , 66% min for others
MTBF	• 400,000 hrs min MIL-HDBK-217F
Switching Frequency	• 3w2 kHz $\pm$ 5 kHz
Isolation Voltage	• 4000 VAC Input to Output 1500 VAC Input to Ground 500 VAC Output to Ground
Size	• 5.0" x 3.0" x 1.2"
Weight	• 330 g approx

### Environmental

Operating Temperature	• 0 °C to +70 °C Derate linearly from 100% load at +50 °C to 50% load at +70 °C
Cooling	• Convection cooled
Relative Humidity	• 5-95% non-condensing
Storage Temperature	• -40 °C to +85 °C

### EMC & Safety

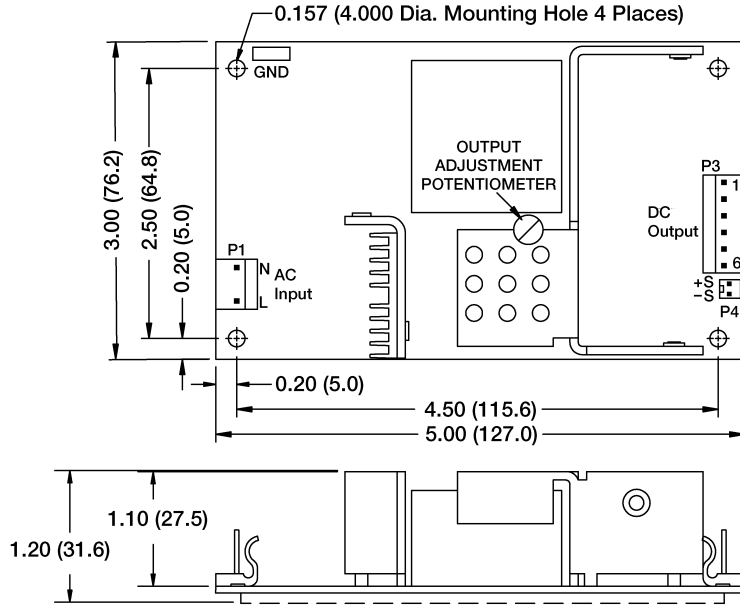
Safety Approvals	• UL2601-1, CSA C22.2 No 601.1, EN60601-1 CE Mark (LVD)
EMI/EMC	• EN55011 (CISPR11) Class B & FCC Part 18 Level B radiated & conducted

OUTPUT VOLTAGE & CURRENT RATINGS				PBM65
Maximum Output Power	Output Voltage	Output Current	Total Regulation <sup>(1)</sup>	Model Number
51 W	5.1 VDC	10.0 A	3%	PBM65US05
65 W	12.0 VDC	5.5 A	2%	PBM65US12
65 W	15.0 VDC	4.4 A	2%	PBM65US15
65 W	18.0 VDC	3.7 A	2%	PBM65US18
65 W	24.0 VDC	2.8 A	2%	PBM65US24
65 W	28.0 VDC	2.4 A	2%	PBM65US28

**Notes**

1. Total regulation includes line and load regulation and set point accuracy.
2. Ripple and noise measured with 20 MHz bandwidth with 10 µF tantalum in parallel with a 0.1 µF ceramic.

**Mechanical Details**



P3 PIN CONNECTIONS	
Pin	Function
1	Output 1
2	Output 1
3	Output 1
4	Return
5	Return
6	Return

**MECHANICAL NOTES:**

1. Dimensions shown in inches (mm).
2. Tolerance 0.02 (0.5) maximum.
3. Input connector P1 mates with Molex housing 09-50-3031 and Molex 2878 series crimp terminal, or equivalent.
4. Output connector P3 mates with Molex housing 09-50-3061 and Molex 2878 series crimp terminal, or equivalent.
5. P4 is for sense connector mates with Molex housing 22-01-1023 and Molex 40445 series crimp terminal, or equivalent.
6. Covers available, order part number PBM65 COVER.
7. Weight: 330g (PCB format).