

AC/DC Medical Open Frame

25 Watts PBM25 Series

XPiQ inc.

Intelligent Design Quality Product



Small Size 2.50" x 4.25" x 0.96"

Low Leakage Current

Medical Safety Agency Approvals

Both Line and Neutral Fused

Meets Class B, EN55011 Conducted

Fixed Switching Frequency

Specification

Input

- Input Voltage • 85-264 VAC
- Input Frequency • 47-63 Hz
- Earth • 90 μ A max at 115 VAC 60 Hz
- Leakage Current • 150 μ A max at 230 VAC 50 Hz
- Inrush Current • 10 A max at 115 VAC, 25 A max at 230 VAC
- Input Current • 0.7 A (rms) at 115 VAC, 0.4 A (rms) at 230 VAC

Output

- Output Voltage • 5.1 to 28 VDC, See Table
- Output Power • 25/28 Watts, See Table
- Minimum Load • No minimum for single outputs models See Table for multi outputs models
- Line Regulation • $\pm 0.5\%$ max at full load
- Total Regulation • See Table
- Ripple & Noise • $\pm 1\%$ max pk-pk (See Note 2)
- Transient Response • 4% max deviation, 500 μ s recovery time for a 25% load change
- Temperature Coefficient • $\pm 0.04\%/^{\circ}\text{C}$
- Hold up Time • 10 ms minimum at 110 VAC
- Oversvoltage Protection • Provided on output 1 only; set at 112-132% of its nominal output voltage
- Overcurrent Protection • All outputs protected to short circuit conditions Auto restart

General

- Efficiency • 70% minimum $V_o \geq 12$ V, 68% minimum all others
- Isolation Voltage • 4000 VAC Input to Output 1500 VAC Input to Ground 500 VAC Output to Ground
- MTBF • 500,000 hrs per min MIL-HDBK-217F
- Switching Frequency • 42 KHz ± 5 KHz
- Size • 2.50" x 4.25" x 0.96"
- Weight • Single output models 163 g, Multi output models: 175 g

Environmental

- Operating Temperature • 0 $^{\circ}\text{C}$ to +70 $^{\circ}\text{C}$, derate linearly from 100% load at +50 $^{\circ}\text{C}$ to 50% load at +70 $^{\circ}\text{C}$
- Storage Temperature • -40 $^{\circ}\text{C}$ to +85 $^{\circ}\text{C}$
- Cooling • Convection cooled
- Relative Humidity • 5-95%, non-condensing

EMC & Safety

- Safety Approvals • UL2601-1, CSA C22.2 No 601.1, EN60601-1, IEC 601-1
- EMI/EMC • EN55011 (CISPR11) Class B & FCC Class B conducted

OUTPUT VOLTAGE & CURRENT RATINGS

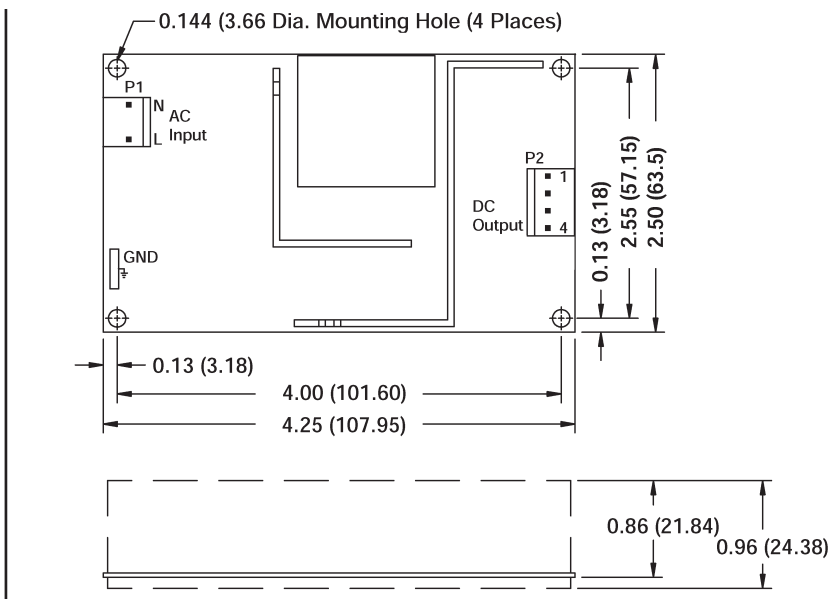
PBM25

Output Power Maximum	Output 1				Output 2				Output 3				Model Number
	Vnom	I _{max}	I _{min}	Reg. ⁽³⁾	Vnom.	I _{max}	I _{min}	Reg. ⁽³⁾	Vnom	I _{max}	I _{min}	Reg. ⁽³⁾	
28 W	5.1 V	5.5 A	0.0 A	2%									PBM25US05
28 W	12.0 V	2.3 A	0.0 A	1%									PBM25US12
28 W	15.0 V	1.9 A	0.0 A	1%									PBM25US15
28 W	24.0 V	1.2 A	0.0 A	1%									PBM25US24
28 W	28.0 V	1.0 A	0.0 A	1%									PBM25US28
25 W	5.1 V	2.5 A	0.4 A	3%	+12 V	1.5 A	0.2 A	5%					PBM25UD01
25 W	5.1 V	2.5 A	0.4 A	3%	+24 V	0.8 A	0.1 A	5%					PBM25UD02
25 W	5.1 V	2.5 A	0.4 A	3%	+12 V	1.5 A	0.2 A	5%	-12 V	0.2 A	0.05 A	4%	PBM25UT01
25 W	5.1 V	2.5 A	0.4 A	3%	+15 V	1.0 A	0.1 A	5%	-15 V	0.2 A	0.05 A	4%	PBM25UT02
25 W	5.1 V	2.5 A	0.4 A	3%	+24 V	0.8 A	0.1 A	5%	-12 V	0.2 A	0.05 A	4%	PBM25UT03

Notes

1. All multiple output models may be operated at no-load, but output regulation will increase to 10%.
2. Ripple and noise measured with 20 MHz bandwidth with 10 µF electrolytic in parallel with 0.1 µF ceramic.
3. Regulation includes line and load regulation and set point accuracy.

Mechanical Details - Single Output Models

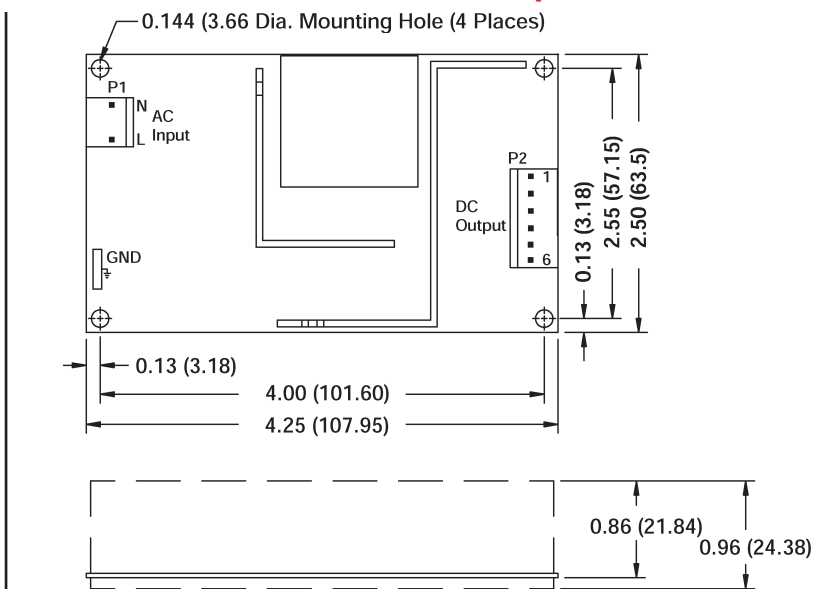


PIN CONNECTIONS	
Pin	Function
1	Return
2	Return
3	Output 1
4	Output 1

Notes:

1. Dimensions shown in inches (mm).
2. Tolerance 0.03 (0.76) maximum.
3. Input connector P1 mates with Molex housing 09-50-3031 and Molex 2878 series crimp terminal.
4. Output connector P2 mates with Molex housing 09-50-3041 and Molex 2878 series crimp terminal.
5. Weight 163 g.
6. Covers available, order part number PBM25 COVER, or add suffix '-C' to have cover fitted.

Mechanical Details - Multi Output Models



PIN CONNECTIONS		
Pin	Dual Output	Triple Output
1	Output 2	Output 2
2	Output 1	Output 1
3	Output 1	Output 1
4	Common Return	Common Return
5	Common Return	Common Return
6	No Connection	Output 3

Notes:

1. Dimensions shown in inches (mm).
2. Tolerance 0.03 (0.76) maximum.
3. Input connector P1 mates with Molex housing 09-50-3031 and Molex 2878 series crimp terminal.
4. Output connector P2 mates with Molex housing 09-50-3061 and Molex 2878 series crimp terminal.
5. Weight 175 g.
6. Covers available, order part number PBM25 COVER, or add suffix '-C' to have cover fitted.

