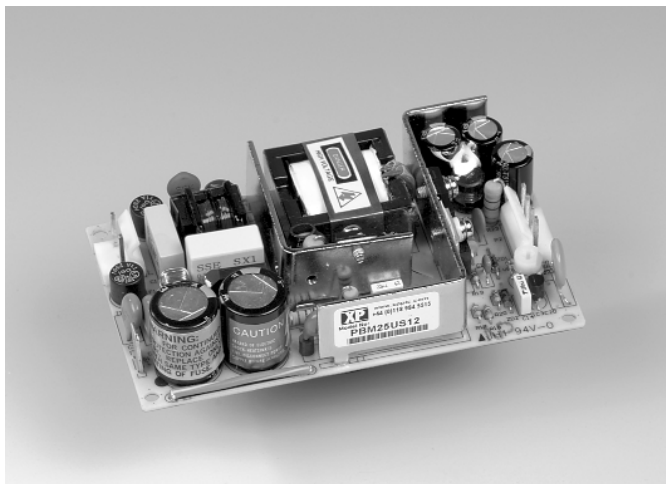


# Medical Power Supply

## 25 Watts PBM25 Series



## THE XPERTS IN POWER

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 Leakage Current	• 90 $\mu$ A max at 115 VAC 60 Hz 150 $\mu$ 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 $\mu$ s recovery time for a 25% load change
Temperature Coefficient	• $\pm 0.04\%/^{\circ}$ C
Hold up Time	• 10 ms minimum at 110 VAC
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 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 $\pm 5$ 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 $^{\circ}$ C to +70 $^{\circ}$ C, derate linearly from 100% load at +50 $^{\circ}$ C to 50% load at +70 $^{\circ}$ C
Storage Temperature	• -40 $^{\circ}$ C to +85 $^{\circ}$ 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 <sub>max</sub>	I <sub>min</sub>	Reg. <sup>(3)</sup>	Vnom.	I <sub>max</sub>	I <sub>min</sub>	Reg. <sup>(3)</sup>	Vnom	I <sub>max</sub>	I <sub>min</sub>	Reg. <sup>(3)</sup>	
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**

0.144 (3.66 Dia. Mounting Hole (4 Places))

P1 AC Input (N, L)

GND

P2 DC Output (1, 2, 3, 4)

Dimensions: 0.13 (3.18), 4.00 (101.60), 4.25 (107.95), 0.13 (3.18), 2.55 (57.15), 2.50 (63.5), 0.86 (21.84), 0.96 (24.38)

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. Loom kits with 300 mm wire available, order part number PBM25 LOOM-S.
7. For mating connectors only, order part number PBM25 CONKT-S.
8. Covers available, order part number PBM25 COVER, or add suffix '-C' to have cover fitted.

**Mechanical Details - Multi Output Models**

0.144 (3.66 Dia. Mounting Hole (4 Places))

P1 AC Input (N, L)

GND

P2 DC Output (1, 2, 3, 4, 5, 6)

Dimensions: 0.13 (3.18), 4.00 (101.60), 4.25 (107.95), 0.13 (3.18), 2.55 (57.15), 2.50 (63.5), 0.86 (21.84), 0.96 (24.38)

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. Loom kits with 300 mm wire available, order part number PBM25 LOOM-D/T.
7. For mating connectors only, order part number PBM25 CONKT-D/T.
8. Covers available, order part number PBM25 COVER, or add suffix '-C' to have cover fitted.