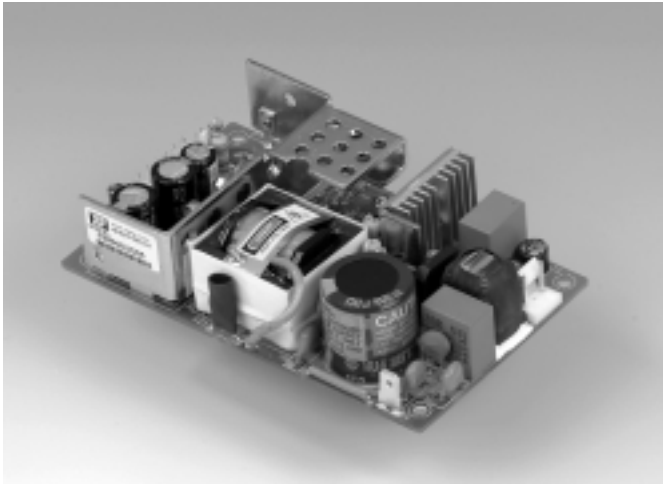


# Medical Open Frame

## 65 Watts PBM65 Series



## THE **XP**ERTS IN POWER

- 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 • 85-264 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 max at 115 VAC  
40 A max at 230 VAC
- Earth 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 •  $\pm 0.04\%/^{\circ}\text{C}$
- Hold Up Time • 10 ms minimum at 110 VAC
- Overvoltage Protection • 112-132% with auto recovery
- Overcurrent Protection • 125-200% with auto recovery
- Short Circuit Protection • Trip & restart with auto recovery
- Remote Sense • Compensates for up to 0.5 V drop

#### General

- Efficiency • 66% minimum for 5 V models  
75% minimum for all others
- MTBF • 400,000 hrs min MIL-HDBK-217F
- Switching Frequency • 42 kHz  $\pm 5$  kHz
- Isolation Voltage • 4000 VAC Input to Output  
1500 VAC Input to Output  
500 VAC Output to Ground
- Size • 5.0 x 3.0 x 1.2"  
127.00 x 76.20 x 30.48 mm
- Weight • 330 g approx (PCB format)

#### 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  $^{\circ}\text{C}$
- Cooling • Convection cooled
- Relative Humidity • 5-95% non-condensing
- Storage Temperature • -40  $^{\circ}\text{C}$  to +85  $^{\circ}\text{C}$

#### EMC & Safety

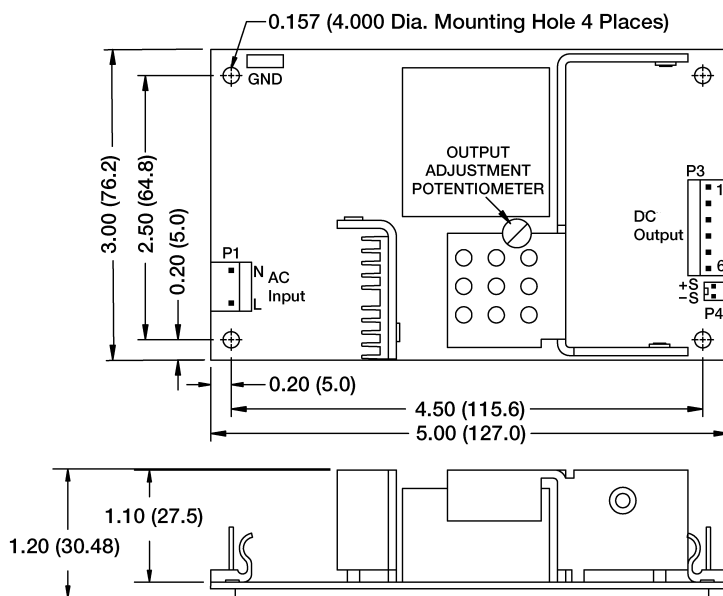
- Safety Approvals • UL2601-1, CSA C22.2 No 601.1, EN60601-1 CE Mark (LVD)
- EMI/EMC • EN55011 (CISPR11) Class B and FCC Part 18 Level B radiated & conducted
- ESD • EN61000-4-2, Level 3 air, Level 2 contact, Perf Criteria A
- Radiated Immunity • EN61000-4-3, 3 V/m, Perf Criteria A
- EFT/Burst • EN61000-4-4, Level 3, Perf Criteria A
- Surge • EN61000-4-5, Level 3, Perf Criteria A

**OUTPUT VOLTAGE & CURRENT RATINGS****PBM 65**

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

**Notes**

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

**Mechanical Details**

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

**NOTES:**

1. Dimensions shown in inches (mm).
2. Tolerance 0.02 (0.5) maximum.
3. Input connector mates with molex housing 09-50-3031 and Molex 2878 series crimp terminal.
4. Output connector mates with molex housing 09-50-3061 and Molex 2878 series crimp terminal.
5. P4 is for sense connector mates with molex housing 22-01-1023 and molex 40445 series crimp terminal.
6. Loom kits with 300 mm wire available, order part number PBM65 LOOM.
7. For mating connectors only, order part number PBM65 CONKT.
8. Covers available, order part number PBM65 COVER.
9. Weight: 330 g (PCB format).