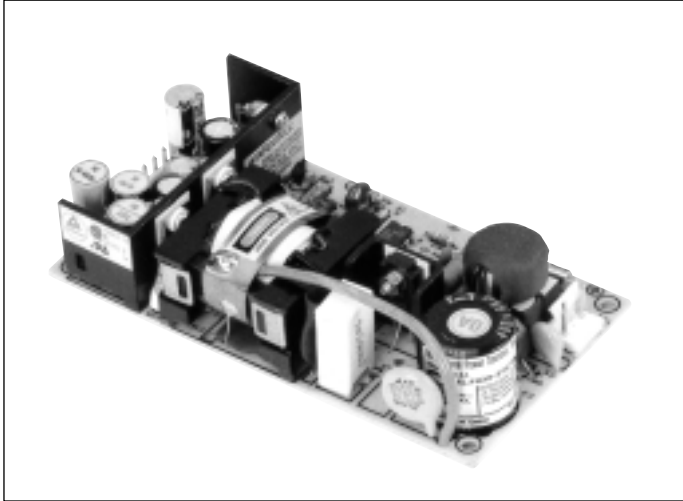


Medical Switching Power Supply

40 Watts PM40 Series



- 4000 VAC Isolation
- 100% Burn-in
- Low Safety Leakage Current
- Wide Input Voltage 85 to 264 VAC
- 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* 85 to 264 VAC
- *Input Frequency* 47 to 440 Hz
- *Input Current* 1.20A (rms for 115 VAC)
0.70A (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:* 0 to 40 watts
- *Ripple and noise:* 1% 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 ±0.04%/°C maximum
- *Transient response:* Maximum excursion of 4% or better on all models, recovering to 1% of final value 500µs after a 25% step load change
- *Line Regulation* ±0.5% max. at full load

General

- *Efficiency* 65% minimum at 40 watt output
- *Hold-up time* 10 msec minimum at nominal input
- *Inrush Current* 15 amps at 115 VAC or 30 amps at 240 VAC 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
- *Insulation Resistance* 10 Mohm minimum 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* 100,000 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

PM40

| Model | Output #1 | | | | Output #2 | | | | Output #3 | | | | Maximum Output Power |
|-----------|-----------|-------|-------|------|-----------|-------|------|------|-----------|--------|-------|------|----------------------|
| | Vnom | Imin | Imax | Tol. | Vnom | Imin | Imax | Tol. | Vnom | Imin | Imax | Tol. | |
| PM40-10AL | 5 V | 0.0 A | 8.0 A | 2% | | | | | | | | | 40 W |
| PM40-12AL | 12 V | 0.0 A | 3.5 A | 1% | | | | | | | | | 40 W |
| PM40-13AL | 15 V | 0.0 A | 3.0 A | 1% | | | | | | | | | 40 W |
| PM40-14AL | 24 V | 0.0 A | 2.0 A | 1% | | | | | | | | | 40 W |
| PM40-23AL | +5 V | 0.5 A | 3.0 A | 3% | +12 V | 0.2 A | 2 A | 5% | | | | | 40 W |
| PM40-25AL | +5 V | 0.5 A | 3.0 A | 3% | +24 V | 0.1 A | 1 A | 5% | | | | | 40 W |
| PM40-30AL | +5 V | 0.5 A | 3.0 A | 3% | +12 V | 0.2 A | 2 A | 5% | -5 V | 0.05 A | 0.3 A | 10% | 40 W |
| PM40-31AL | +5 V | 0.5 A | 3.0 A | 3% | +12 V | 0.2 A | 2 A | 5% | -12 V | 0.05 A | 0.3 A | 10% | 40 W |
| PM40-32AL | +5 V | 0.5 A | 3.0 A | 3% | +15 V | 0.2 A | 2 A | 5% | -15 V | 0.05 A | 0.3 A | 10% | 40 W |

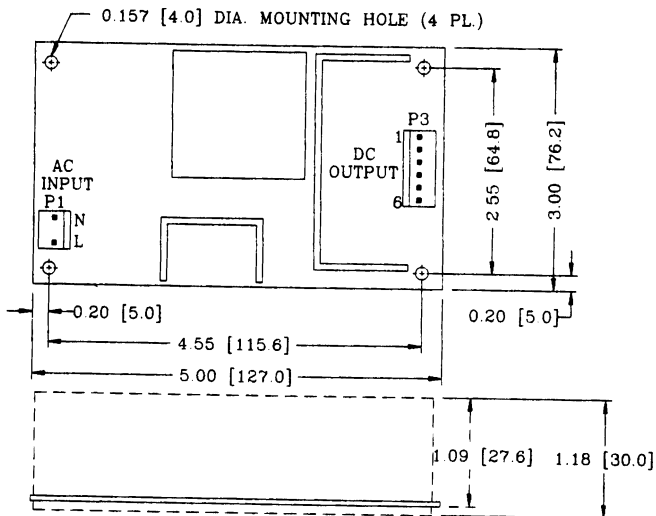
Notes

All multi-output units may be operated at no-load without damage. At no-load, output tolerance increases to 10%.

Pin Chart

| Model | 1 | 2 | 3 | 4 | 5 | 6 |
|-----------|-----------|--------|--------|--------|--------|-----------|
| PM40-10AL | PM40-12AL | OUTPUT | OUTPUT | OUTPUT | RETURN | RETURN |
| PM40-13AL | PM40-14AL | #1 | #1 | #1 | | |
| PM40-23AL | | OUTPUT | OUTPUT | OUTPUT | COMMON | COMMON |
| PM40-25AL | | #2 | #1 | #1 | RETURN | RETURN |
| PM40-30AL | PM40-31AL | OUTPUT | OUTPUT | OUTPUT | COMMON | COMMON |
| PM40-32AL | | #2 | #1 | #1 | RETURN | RETURN |
| | | | | | | OUTPUT #3 |

Mechanical Details



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. Weight: 300 grams approx.