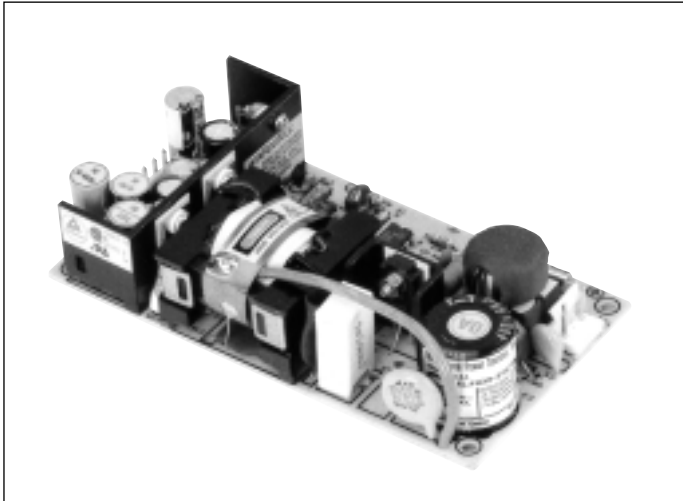


# Medical Switching Power Supply

**XPiQ inc.**  
Intelligent Design Quality Product



**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

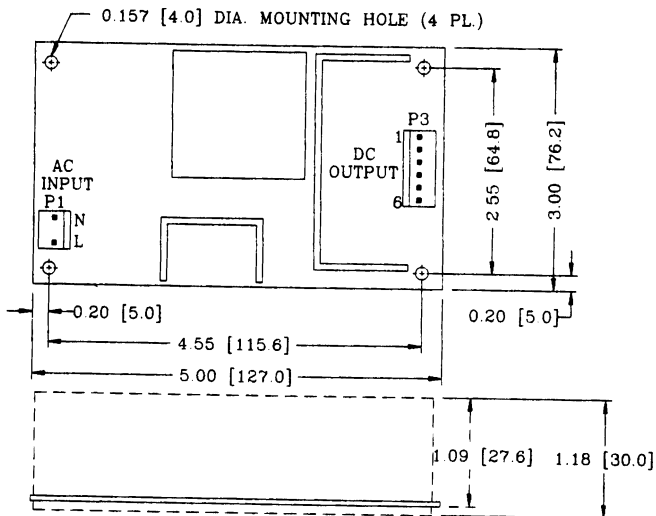
### Notes

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.