

# Medical Switching Power Supply

**XPiQ inc.**

Intelligent Design Quality Product



**30 Watts**  
**IMP30 Series**



- 4000 VAC Isolation
- Low Safety Leakage Current
- 100% Burn-in
- Meets Medical EMI Requirements
- Optional On/Off Switch
- Input Surge Current Protection
- Both Line and Neutral Fused for European Requirements

## Specification

### Input

- *Input Voltage* • 85-264 VAC
- *Input Frequency* • 47 to 63 Hz
- *Inrush Current* • 30 A @ 230 VAC cold start maximum
- *Efficiency* • 65% min on 5V and 7V models  
70% min on all others

### Output

- *Output Voltage* • See Tables
- *Hold Up Time* • 20 msec at 115 VAC
- *Line Regulation* •  $\pm 0.5\%$  max at full load
- *Ripple & Noise* • 1% pk-pk max
- *Transient Response* • 4% max recovering to within 1% of nominal in 500  $\mu$ s for a 25% load step

### General

- *Overvoltage Protection* • Output voltage 112-132% of nominal
- *Overcurrent Protection* • Protected to short circuit conditions
- *Isolation* • Input to Output 4000 VAC  
Input to Ground 1500 VAC  
Output to Ground 500 VAC
- *MTBF* • 100,000 hrs (MIL-HDBK-217D)  
300,000 hrs - 30 Watt model only (MIL-HDBK-217F)

### Environmental

- *Operating Temperature* • 0°C to +70°C  
(derate linearly from full load to half load from 50°C to 70°C)
- *Storage Temperature* • -40°C to +85°C
- *Humidity* • 5-95% non condensing
- *Switching Frequency* • 60-75 KHz

### Safety and EMC

- *Safety Approvals* • UL2601-1, CSA 22.2 No. 601.1 per cUL as cUL, IEC 601-1, EN60601-1 non-patient connected
- *EMC* • EN55011 (CISPR11) class B  
FCC class B

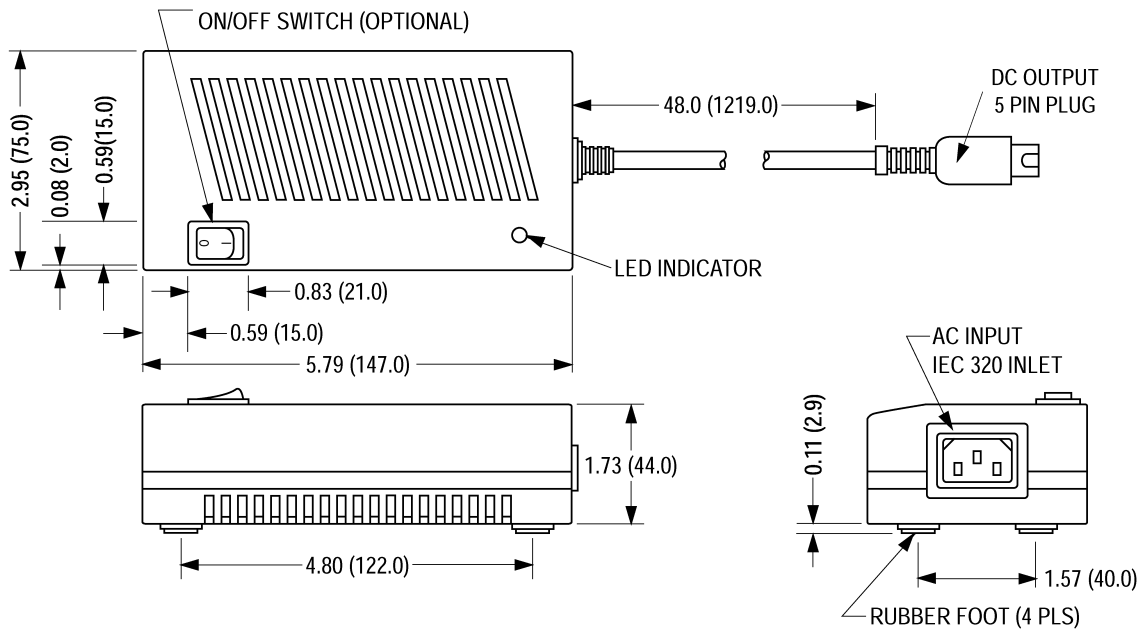


## OUTPUT VOLTAGE & CURRENT RATINGS

IMP 30

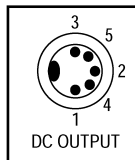
Output Power	Output Voltage Nominal	Output Current		Output Tolerance	Model Number
		Minimum	Maximum		
25 W	5 V	0.00 A	5.00 A	5%	IMP30-10
27 W	7 V	0.00 A	3.80 A	5%	IMP30-10-1
30 W	10 V	0.00 A	3.00 A	2%	IMP30-11
30 W	12 V	0.00 A	2.50 A	2%	IMP30-12
30 W	15 V	0.00 A	2.00 A	2%	IMP30-13
30 W	18 V	0.00 A	1.70 A	2%	IMP30-13-1
30 W	24 V	0.00 A	1.30 A	2%	IMP30-14
30 W	30 V	0.00 A	1.00 A	2%	IMP30-16
30 W	36 V	0.00 A	0.83 A	2%	IMP30-17
30 W	48 V	0.00 A	0.63 A	2%	IMP30-18

## Mechanical Details



### PIN CONNECTIONS

Pin	Function
1	Return
2	Return
3	Output
4	Return
5	Output



### NOTES:

1. For optional switch add suffix 'S' to model number.
2. Dimensions shown in inches (mm).  
Tolerance 0.02 (0.5) max.
3. Optional output connectors available, consult factory
4. Weight 1.3 lbs (0.6kgs) approx