



# 100-130 WATT MEDICAL SWITCHING POWER SUPPLIES

## DESCRIPTION

The PMP130 series of AC/DC switching power supplies are for 100 to 130 watts of continuous output power, specially designed for medical applications not for patient contact. They are enclosed in a 94V-1 rated polyphenylene-oxide case with an IEC 320 inlet to mate with interchangeable cord for world-wide use. An on/off switch can be added at request. All models meet CISPR 11 and FCC class B emission limits, and comply with UL, CSA, IEC and CE requirements.

## FEATURES

- In compliance with EN61000-3-2, EN61000-3-3 and EN61000-1-1-2
- Optional output connectors
- Optional on/off switch
- Optional Power Fail Detect (PFD) signal
- 100% burn-in at full load
- Auto-ranging input
- Overvoltage protection
- Overcurrent protection
- Thermal protection

## INPUT SPECIFICATIONS

- Input voltage**  90 to 132VAC or 180 to 264VAC (auto-ranging)
- Input frequency**  47 to 63 Hz
- Input current**  3.0A (rms) for 115 VAC  
1.7A (rms) for 230VAC
- Leakage current**  90uA max. @ 115VAC, 60Hz  
150uA max. @ 230VAC, 50Hz

## OUTPUT SPECIFICATIONS

- Output voltage/current**  See rating chart
- Total output power**  130 watts maximum
- Ripple and noise**  1  peak to peak maximum
- Overvoltage protection**  Provided on output: set at 112 -132  of its nominal output voltage
- Overcurrent protection**  All outputs protected to short circuit conditions
- Temperature coefficient**  All outputs  $\pm 0.04$    maximum
- Transient response**  Maximum excursion of 4  or better on all models, recovering to 1  of final value within 500us after a 25  step load change

## ENVIRONMENTAL SPECIFICATIONS

- Operating temperature:** 0  to +70
- Storage temperature**  -40  to +85
- Relative humidity**  5  to 95  non-condensing
- Derating**  Derate from 100  at +50  linearly to 50  at +70

## PMP130 SERIES



## Safety Standard Approvals



UL 2601-1, CSA C22.2 NO. 601.1  
File NO. E178020



TÜV EN60601-1  
Certificate No. T9955423

## GENERAL SPECIFICATIONS

- Switching frequency**  68 Khz  $\pm$  8Khz
- Efficiency**  70% minimum on Vo  12V  
65% minimum on the others
- Hold-up time**  10 msec minimum at 115VAC
- Line regulation**   $\pm 0.5\%$  maximum at full load
- Inrush current**  15amps @115VAC, or 30amps @230VAC, at 25  and cold start
- Withstand voltage**  4000VAC from input to output  
1500VAC from input to ground  
500VAC from output to ground
- MTBF**  400,000 hours minimum at full load at 25  ambient, calculated per MIL-HDBK-217F, excluding DC fan.

## EMC performance (EN60601-1-2: 2001)

- EN55011:** Class B conducted, class B radiated
- FCC:** Class B conducted, class B radiated
- VCCI:** Class B conducted, class B radiated
- EN61000-3-2:** Harmonic distortion, class A
- EN61000-3-3:** Line flicker
- EN61000-4-2:** ESD,  $\pm 8$ KV air and  $\pm 6$ KV contact
- EN61000-4-3:** Radiated immunity, 3V/m for 80~2500MHz
- EN61000-4-4:** Fast transient/burst,  $\pm 2$ KV
- EN61000-4-5:** Surge,  $\pm 1$ KV diff.,  $\pm 2$ KV com.
- EN61000-4-6:** Conducted immunity, 3Vrms
- EN61000-4-8:** Magnetic field immunity, 3A/m
- EN61000-4-11:** Voltage dips, 30% reduction for 500ms, 60% reduction for 100ms and >95% reduction for 10ms

# AUTORANGING INPUT PMP130 MEDICAL SERIES

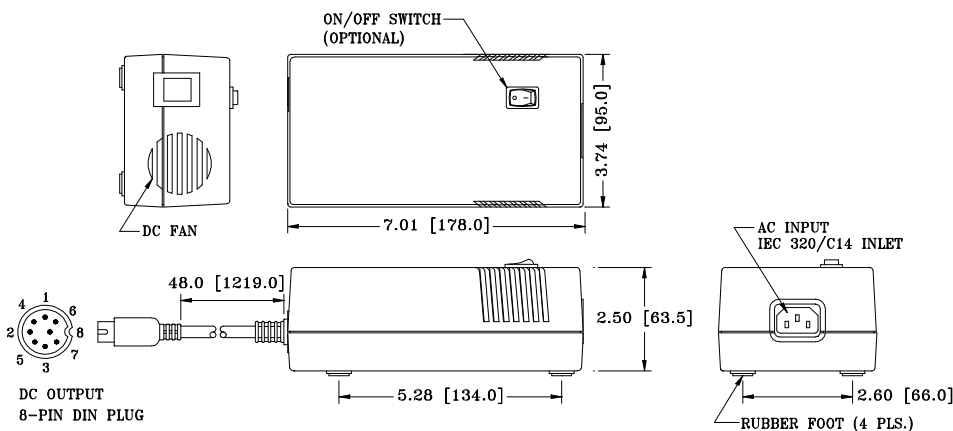
## OUTPUT VOLTAGE/CURRENT RATING CHART

(1)(2) Model	Vnom.	Output Imin.	Imax.	Tol.	Maximum Output Power
PMP130-10	5V	0A	20A	5%	100W
PMP130-10-1	7V	0A	14A	5%	100W
PMP130-11	10V	0A	10A	5%	100W
PM130-12	12V	0A	10.8A	5%	130W
PMP130-13	15V	0A	8.6A	4%	130W
PMP130-13-1	18V	0A	7.2A	4%	130W
PMP130-14	24V	0A	5.4A	3%	130W
PMP130-16	30V	0A	4.3A	3%	130W
PMP130-17	36V	0A	3.6A	2%	130W
PMP130-18	48V	0A	2.7A	2%	130W

Notes: (1) All models are with built-in fan.

(2) Models except PMP130-10, PMP130-10-1 and PMP130-11 are without remote sense. Consult factory for applications requiring remote sense.

## MECHANICAL SPECIFICATIONS



### NOTES:

1. Dimensions shown in inch [mm]
2. Tolerance 0.02 [0.5] maximum
3. Weight: 0.80Kgs (1.76Lbs.) approx.
4. See pages 6-19 to 6-26 for optional output connectors. Add the suffix assigned for a selected connector to a wanted model number, e.g. PMP130-14-HA, for ordering.
5. To order a model with on/off switch, add suffix "S" to the model number, e.g. PMP130-14-HA-S.

## PIN CHART

MODEL		PIN							
		1	2	3	4	5	6	7	8
PMP130-10	PMP130-10-1	RETURN	-SENSE	OUTPUT +V	RETURN	OUTPUT +V	RETURN	OUTPUT +V	+SENSE
PMP130-11									
PMP130-12	PMP130-13	RETURN	RETURN	OUTPUT +V	RETURN	OUTPUT +V	RETURN	OUTPUT +V	OUTPUT +V
PMP130-13-1	PKP130-14								
PMP130-16	PMP130-17								
PMP130-18									