



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 life support equipment. 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
- Compliant with RoHS requirements

INPUT SPECIFICATIONS

Input voltage : 90 to 132VAC or 180 to 264VAC (auto-ranging)

Input frequency : 47 to 63Hz

Input current : 3.0A (rms) for 115 VAC
1.7A (rms) for 230VAC

Earth 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 $\pm 0.04\%$ / $^{\circ}\text{C}$ 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 $^{\circ}\text{C}$ to +70 $^{\circ}\text{C}$

Storage temperature : -40 $^{\circ}\text{C}$ to +85 $^{\circ}\text{C}$

Relative humidity : 5% to 95% non-condensing

Derating : Derate from 100% at +50 $^{\circ}\text{C}$ linearly to 50% at +70 $^{\circ}\text{C}$

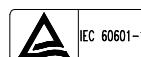
PMP130 SERIES



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 $\pm 8\text{KHz}$

Efficiency : 70% minimum on $V_o \geq 12\text{V}$
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 $^{\circ}\text{C}$ 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 $^{\circ}\text{C}$ 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, $\pm 8\text{KV}$ air and $\pm 6\text{KV}$ contact

EN61000-4-3: Radiated immunity, 3V/m for 80~2500MHz

EN61000-4-4: Fast transient/burst, $\pm 2\text{KV}$

EN61000-4-5: Surge, $\pm 1\text{KV}$ diff., $\pm 2\text{KV}$ 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

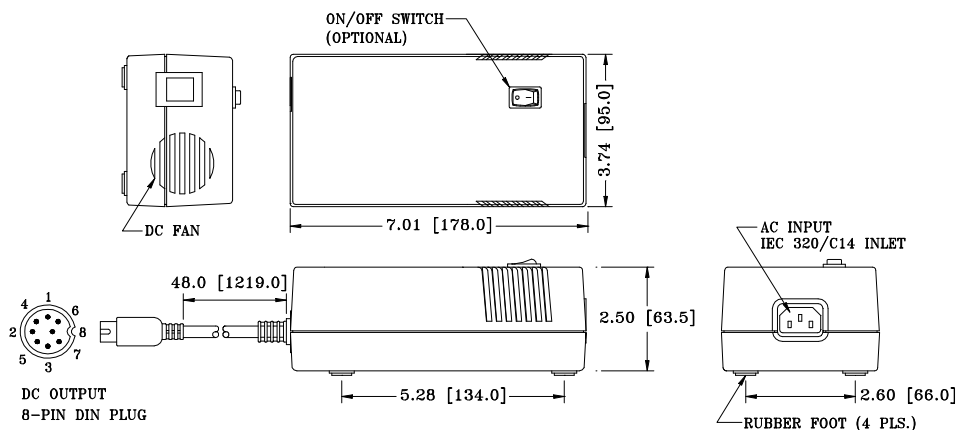
AUTORANGING INPUT PMP130 MEDICAL SERIES

OUTPUT VOLTAGE/CURRENT RATING CHART

| (1) (2) MODEL | Vnom. | Imin. | Output Imax. | Tol. | Maximum Output Power |
|------------------|-------|-------|-----------------|------|-------------------------|
| PMP130-10 | 5V | 0A | 20A | 5% | 100W |
| PMP130-10-1 | 7V | 0A | 14.3A | 5% | 100W |
| PMP130-11 | 10V | 0A | 10A | 5% | 100W |
| PMP130-12 | 12V | 0A | 11A | 5% | 130W |
| PMP130-13 | 15V | 0A | 8.7A | 4% | 130W |
| PMP130-13-1 | 18V | 0A | 7.25A | 4% | 130W |
| PMP130-14 | 24V | 0A | 5.5A | 3% | 130W |
| PMP130-16 | 30V | 0A | 4.4A | 3% | 130W |
| PMP130-17 | 36V | 0A | 3.52A | 2% | 130W |
| PMP130-18 | 48V | 0A | 2.75A | 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:

- Dimensions shown in inch [mm]
- Tolerance 0.02 [0.5] maximum
- Weight: 0.80 kgs. (1.76 lbs.) approx.
- 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.
- 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 PMP130-11 | RETURN | -SENSE | OUTPUT +V | RETURN | OUTPUT +V | RETURN | OUTPUT +V | +SENSE |
| PMP130-12 PMP130-13 PMP130-13-1 PMP130-14 PMP130-16 PMP130-17 PMP130-18 | RETURN | RETURN | OUTPUT +V | RETURN | OUTPUT +V | RETURN | OUTPUT +V | OUTPUT +V |