



PROTEK POWER



Electronics

POWER PARTNERS

PMP30M Medical Power Supplies (20-30W)

Features:

- Operation altitude up to 5000 meters
- BF class insulation
- Interchangeable AC plugs for PMP30M models
- Meet IP22(except PMP30M models)
- Overvoltage protection
- Over-temperature protection
- Short-circuit protection
- 100% burn-in at full rated load
- Compliant with DoE efficiency level VI requirements
- Compliant with RoHS requirements



RoHS

VI



Description:

The PMP30 series of AC/DC wall mount switching power supplies are for 20-30 watts of continuous output power. They are enclosed in a 94V-0 rated polycarbonate case. The PMP30M models are shipped with a selected interchangeable AC plug, and additional types of AC plug can be purchased from the factory. All models meet EN55011 and FCC class B emission limits, and are designed for medical applications.

Model ¹			Output						Average Active Efficiency (typical) @ 115/230VAC
			V1	Min. Current	Max. Current	Tol.	Ripple & Noise ²	Max. Output Power	
PMP30M-10	PMP30NP-10	PMP30E-10	5V	0A	4A	±5%	100mV	20W	83.5/83.5%
PMP30M-10-2-A	PMP30NP-10-2	PMP30E-10-2	7.5V	0A	3A	±5%	100mV	22.5W	86/86%
PMP30M-11	PMP30NP-11	PMP30E-11	9V	0A	3A	±5%	100mV	27W	87/87%
PMP30M-11-1	PMP30NP-11-1	PMP30E-11-1	10V	0A	2.7A	±5%	100mV	27W	87/87%
PMP30M-12	PMP30NP-12	PMP30E-12	12V	0A	2.5A	±5%	120mV	30W	87.5/87.5%
PMP30M-13	PMP30NP-13	PMP30E-13	15V	0A	2A	±5%	150mV	30W	87.5/87.5%
PMP30M-13-1	PMP30NP-13-1	PMP30E-13-1	18V	0A	1.67A	±5%	180mV	30W	87.5/87.5%
PMP30M-14	PMP30NP-14	PMP30E-14	24V	0A	1.25A	±5%	240mV	30W	87.5/87.5%
PMP30M-16	PMP30NP-16	PMP30E-16	30V	0A	1A	±5%	300mV	30W	87.5/87.5%
PMP30M-18	PMP30NP-18	PMP30E-18	48V	0A	0.63A	±5%	480mV	30W	87.5/87.5%

NOTES:

1. PMP30M models are equipped with an interchangeable AC plug, one of the 4 available types shown in note #5 in Mechanical Specifications below. PMP30M-1X-A models are shipped with North American plug, PMP30M-1X-C models with European plug, and so on, while PMP30M-1X-P designated models are shipped with 4 available plugs, one attached and the rest enclosed. PMP30NP models are with fixed North American AC plug, and PMP30E models with European plug.
2. Ripple and noise is maximum peak to peak voltage value measured at output within 20 MHz bandwidth, at rated line voltage and output load ranges, and with a 47 µF tantalum capacitor in parallel with a 0.1 µF ceramic capacitor across the output.



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Specifications	
Safety Standards & EMC Specifications	
Safety Standard Approvals	UL ES 60601-1, CSA C22.2 No. 60601-1 File No. E211696 TÜV EN 60601-1
EMI Standard	EN55011, FCC, and VCCI Class B (radiated and conducted)
EMC Performance	EN61000-3-2: Harmonic distortion, Class A and D EN61000-3-3: Line flicker EN61000-4-2: ESD, ± 15 KV air and ± 8 KV contact EN61000-4-3: Radiated immunity, 10V/m EN61000-4-4: Fast transient/burst, ± 2 KV EN61000-4-5: Surge, ± 1 KV diff. EN61000-4-6: Conducted immunity, 10Vrms EN61000-4-8: Magnetic field immunity, 30 A/m EN61000-4-11: Voltage dip immunity, 30% reduction for 500ms, and >95% reduction for 10ms
*Consult with TT Electronics for information on additional country safety approvals	
Input Specifications	
Input Voltage Range	80 to 264 VAC
Input Frequency Range	47 to 63Hz
Input Current	1A (rms) @ 115VAC, 60 Hz 0.6A(rms) @ 230VAC, 50 Hz
Touch Current	100 μ A max. @ 264 VAC, 63Hz
Output Specifications	
Overvoltage Protection	Set at 112% to 140% of its nominal output voltage
Short circuit protection	Automatic recovery
Over temperature protection	Latching by recycle input to reset
Temperature Coefficient	$\pm 0.04\%/\text{°C}$ maximum
Transient Response	Maximum excursion of 4% or better on all models, recovering to 1% of final value within 500 us after a 25% step load change
Environmental Specifications	
Operating Temperature	-20°C to +60°C
Storage Temperature	-40°C to +85°C
Relative Humidity	10% to 90% non-condensing
Temperature Derating	Derate from 100% at 40°C linearly to 50% at 60°C
General Specifications	
Hold-up Time	8ms minimum at 115 VAC
Turn on Delay Time	3s maximum at 115 VAC
Efficiency	Compliant with DoE efficiency level VI requirements
Line Regulation	$\pm 1\%$ maximum at full load
Inrush Current	60A @ 115VAC or 120A @ 230VAC at 25°C cold start
Withstand Voltage	4000 VAC from input to output (2 MOPP)
MTBF	300,000 hours at full load at 25°C ambient, calculated per MIL-HDBK-217F

General Note

All data sheets are subject to change without notice.



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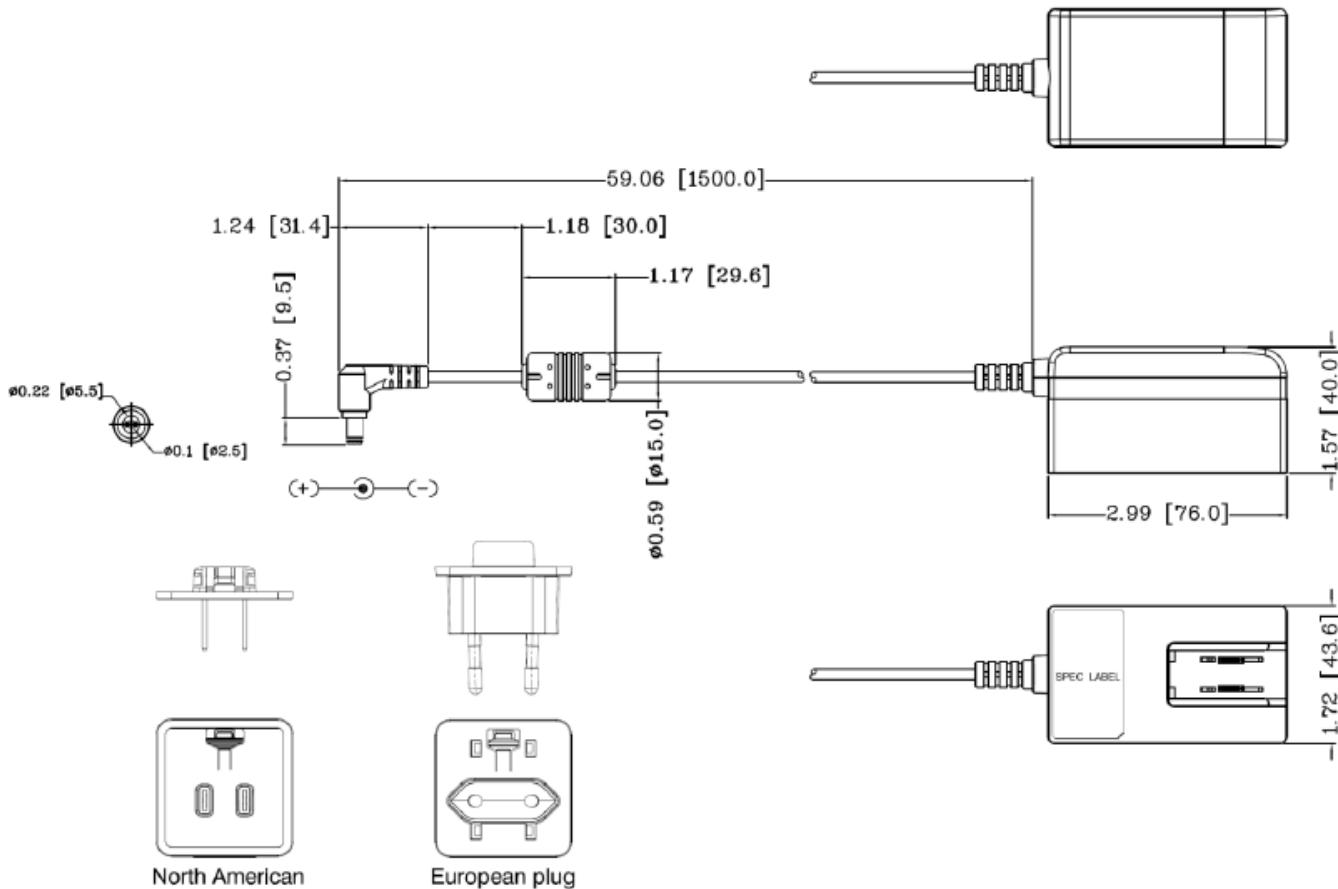
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Diagrams

1. PMP30M models (Interchangeable AC Plug)



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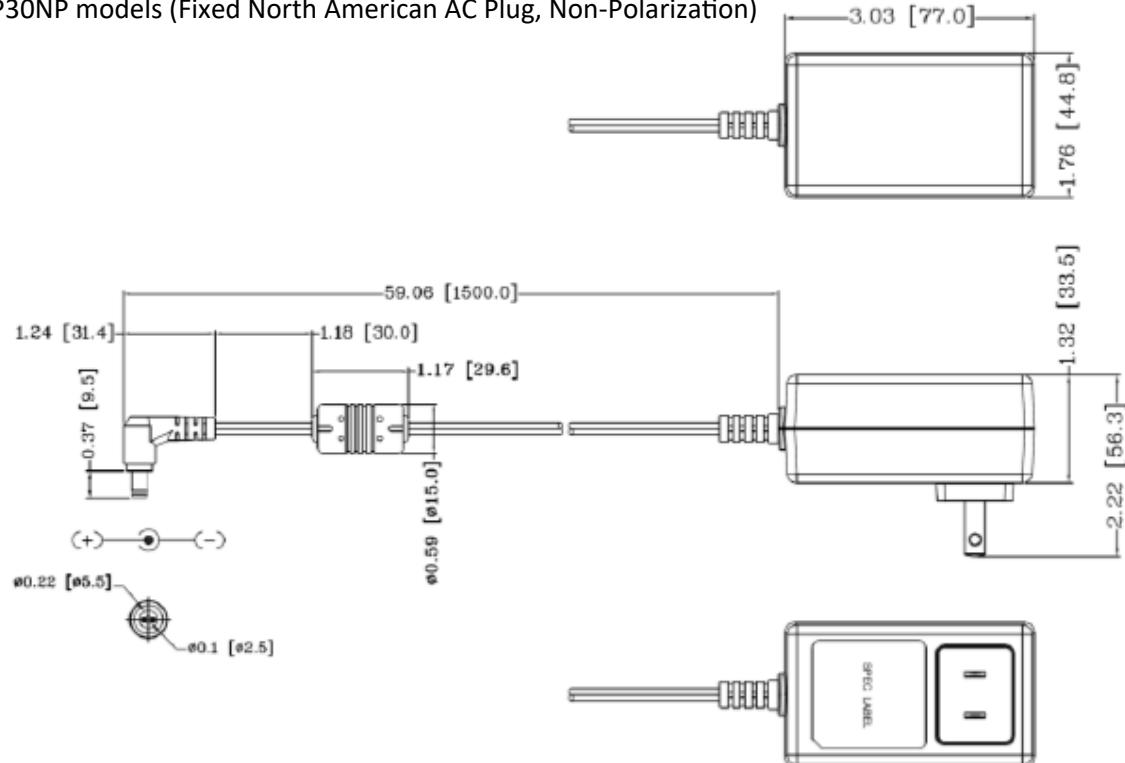


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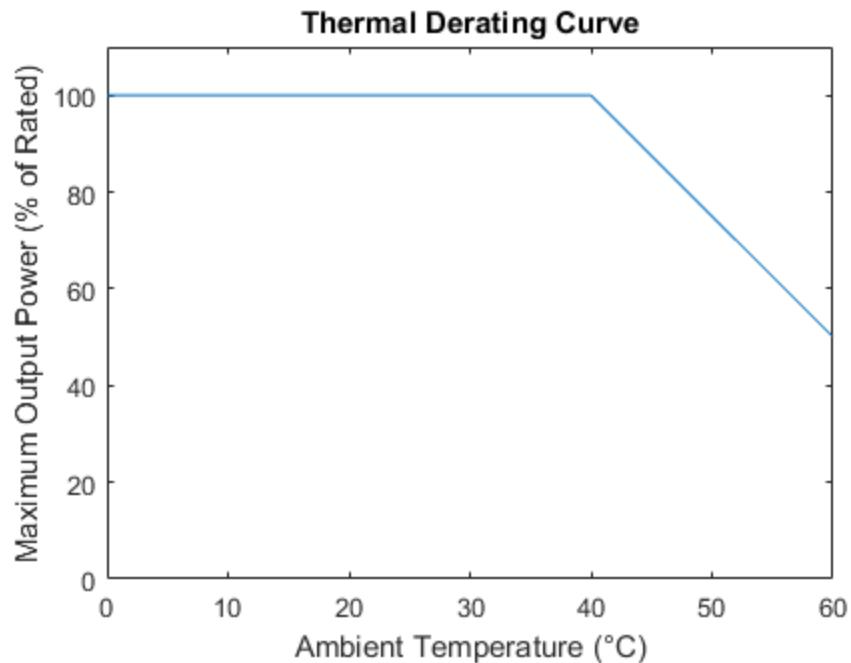
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2. PMP30NP models (Fixed North American AC Plug, Non-Polarization)



2. PMP30E models (Fixed European AC Plug)



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