

AC/DC MEDICAL SWITCHING POWER SUPPLY SERIES

12 - 48VDC 120W



PROTEK POWER: PMP122

Features:

- Operating altitude up to 5000m
- PFC circuit
- Wide input range 80 - 264VAC
- Optional output connectors
- Over-voltage/over-temperature/over-current protection
- Meets EU CoC EPS V5 Tier 2
- No Load power consumption $\leq 0.15W$



*Safety approvals may be model dependent. Consult TT Electronics for specifics or for additional safety approvals required.

Description:

The PMP122 series of AC/DC switching power supplies provide 96 - 120 watts of continuous power. They are available as Class I or Class II input devices with IEC320 C14, C6, C8, or C18 inlets enclosed in a 94V-0 rated polycarbonate case which mates with an interchangeable cord for world-wide use. All models meet FCC PART 15 and EN55011 Class B emissions limits, EN61000, and comply with IEC60601 standards. These power supplies are designed for medical applications.

Model	Voltage	Current	Total Power	Load Regulation	Line Regulation	Ripple & Noise (P-P)
PMP122-12	12V	8.00A	96W	±5%	±0.5%	120mV
PMP122-13	15V	7.00A	105W	±5%	±0.5%	150mV
PMP122-13-1	18V	6.67A	120W	±5%	±0.5%	180mV
PMP122-13-2	19V	6.32A	120W	±5%	±0.5%	190mV
PMP122-13-3	20V	6.00A	120W	±5%	±0.5%	200mV
PMP122-14	24V	5.00A	120W	±5%	±0.5%	240mV
PMP122-16	30V	4.00A	120W	±5%	±0.5%	300mV
PMP122-17	36V	3.34A	120W	±5%	±0.5%	360mV
PMP122-18	48V	2.5A	120W	±5%	±0.5%	480mV

Notes:

1. Ripple & Noise is measured by using a 20MHz bandwidth limited oscilloscope and terminated with a 0.1 μ F ceramic capacitor in parallel with a 47 μ F aluminum electrolytic capacitor at full load and nominal line.
2. Line regulation is defined by changing input voltage $\pm 10\%$ from nominal line at rated load.
3. Standard for this series is the Class I model with a IEC320 C14 inlet.
 To order a Class I model with a C6 inlet, add "S" to the prefix. e.g. PMP122S-12.
 To order a Class II model with C18 inlet, add "F" in the prefix. eg. PMP122F-12.
 To order a Class II model with C8 inlet, add "SF" to the prefix. e.g. PMP122SF-12.

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Specifications:

Input	
Input Voltage	90 - 264VAC
Input Frequency	47 - 63Hz
Input Current	≤1.60A at 115VAC ≤0.80A at 230VAC
Inrush Current (Typical)	≤90A at 115VAC, cold start ≤180A at 230VAC, cold start
No Load Power Consumption	Meets DOE Level VI requirements
Output	
Total Output Power	See Table
Output Voltage	See Table
Hold Up Time (Typical)	≥20mS at 100VAC, full load
Turn on Delay	≤3S
Protection Features	
Over-voltage	112-140%. Latching mode. Cycle power to reset.
Over-current	Auto-recovery.
Over-temperature	Latching mode. Cycle power to reset.
Short Circuit	Auto-recovery.
Environmental	
Operating Temperature	0° - +60°C (See Derating Curve)
Storage Temperature	-20° - +85°C
Operating Humidity	10 - 90% non-condensing
Altitude	<5000m operational and storage

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Specifications (continued):

General Specifications	
Dimensions	6.90"(175.2mm)L x 3.55"(90.2mm)W x 1.11"(28.2mm)H
Weight	1.21lb (550g)
MTBF	>100,000 hours per MIL-HDBK-217F at full load and 25°C ambient
AC Input Connector	IEC320: C6, C8, C14, C18
DC Output Connector	4 pin plug without lock, mating with Kycon P/N KPJX-4S-S socket or equivalent.
Safety	
Approvals*	IEC60601-1 UL, cUL, EN, CB, CE, TUV, UKCA
*Safety approvals may be model dependent. Consult TT Electronics for specifics or for additional safety approvals required.	
EMC	
Conducted Emission	EN55011 Class B
Radiated Emission	EN55011 Class B
Harmonic Currents	EN61000-3-2, Class A and D
Voltage Flicker	EN61000-3-3:2013
Electrostatic Discharge	IEC61000-4-2:2008 (±15kV air, ±8kV contact)
Radiated Immunity	IEC61000-4-3:2006+A1:2007+A2:2010 (9 - 28V/m)
EFT/Burst	IEC61000-4-4:2012 (±2kV)
Surge Immunity	IEC61000-4-5:2014/AMD1:2017 (±1kV diff, ±2kV com)
Conducted Immunity	IEC61000-4-6:2013 (10Vrms)
Power Frequency Magnetic Field Immunity	IEC61000-4-8:2009 (3A/m)
Dips/Interruptions	IEC61000-4-11:2004 (30% reduction for 500ms (criteria A at 230VAC, criteria B at 100VAC), 60% reduction for 100ms (criteria A at 230VAC, criteria B at 100VAC) and >95% reduction for 20ms)

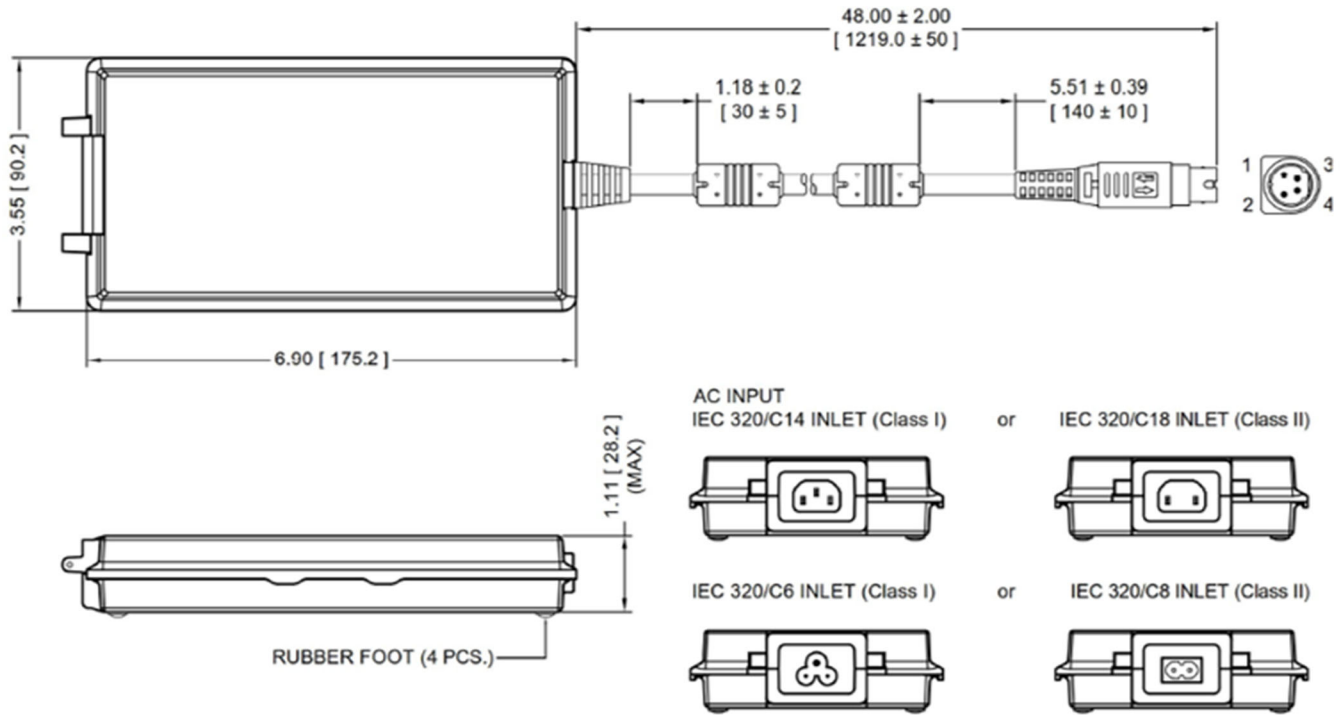
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Mechanical Outline:



Notes:
 1. Dimensions shown in inches [mm]
 2. Tolerance 0.02 [0.5] maximum

Pin Chart:

PIN NO.	1	2	3	4
Polarity	V1 Return	+V1	V1 Return	+V1

Derating Curves:

