



Total Power International, Inc.

UNIVERSAL INPUT AC-DC MEDICAL APPLICATION OPEN FRAME SINGLE OUTPUT 43 WATTS INTERNAL SWITCHING POWER SUPPLIES TPMI43 SERIES



FEATURES:

- ACCOMMODATE UNIVERSAL AC SOURCES
- COMPACT 4"x2"x1" PCB FORMAT
- MEET MEDICAL STANDARD EN 60601-1/
UL 2601-1
- EMI MEET EN 55011 & FCC CLASS B
- CE MARKING COMPLIANCE

SPECIFICATION

INPUT SPECIFICATION

Input Voltage: Range typ. 90-264Vac.

Rating 100 to 240Vac.

Input Connector: V-M connector.

Input Frequency: 47-63Hz.

Inrush Current: $\leq 12A$ rms cold start @230Vac.

Input Current: Typ. 0.7A@115Vac, 0.35A @230Vac.

Dielectric Withstand: Meet IEC 60601-1.

EMI: Meet EN55011 & FCC Class B.

Hold-up Time: Typ. 20mS @115Vac, 100mS @ 230Vac.

Earth Leakage: Less than 0.1mA @230Vac.

OUTPUT SPECIFICATION

Output Voltage: See Ratings Chart.

Output Current: See Ratings Chart.

Output Connector: V-M connector.

Output Wattage: Typ. 42 watts.

Line Regulation: Typ. 0.2%.

Load Regulation: Typ. $\pm 2-3\%$.

Noise & Ripple: Typ. 1.0% peak to peak.

OVP: Built-in at main output (Latch).

Adjustability: Factory set.

Overload Protection (OLP):

Fully protected against outputs overload and short circuit.

Typ. OLP set at 105-120% of rating output power.

Consult the factory for OLP setting.

GENERAL SPECIFICATION

Efficiency: Typ. 85-90%(Various with output voltage).

Switching Frequency: 85 KHz.

Circuit Topology: Fixed frequency flyback circuit.

Transient Response: Output voltage returns in less than
0.5mS following a 50% load change.

Safety Standard: Meet Medical standards UL 2601-1/
EN 60601-1 Class I.

Power Density: 5.5Watts / Cubic Inch.

Operating Temperature: 0 to +50 °C under forced air flow
for full load. Derate by 1.3W/ °C
from 40°C to 50 °C.

Storage Temperature: -20 to +85°C.

Temperature Coefficient: Typ. 0.04%/°C.

Cooling: At least 5 cfm(100LFM) direct forward air flow is
required to achieve full rating power.

Construction: 4"x2"x1" PCB format.

Note: Due to requests in market and advances in technology, specifications subject to change without notification.



For the details of safety approval, please consult the factory.



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OUTPUT VOLTAGE/CURRENT RATINGS CHART

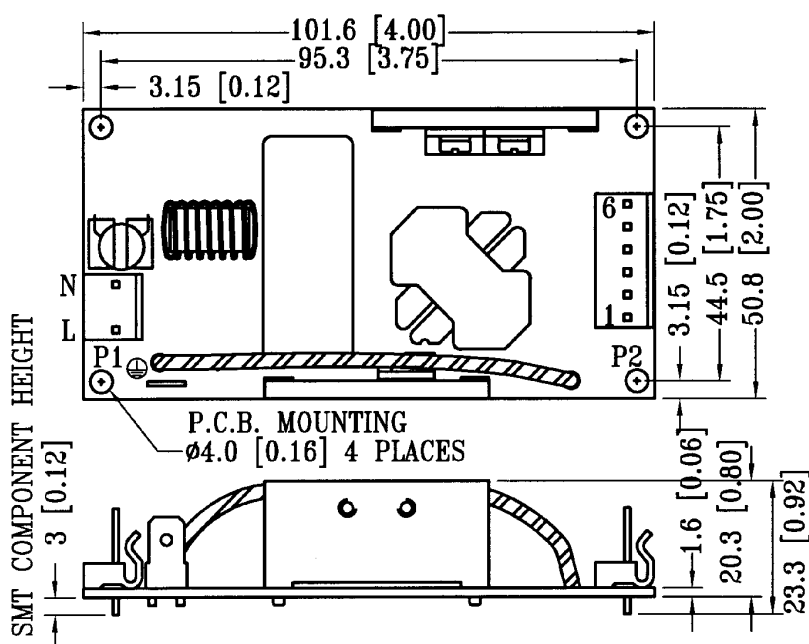
SINGLE OUTPUT

MODEL NO.	MAIN OUTPUT	
	Typ.	Volt.
TPMI43-S120350	3.50A	12.0V
TPMI43-S150270	2.70A	15.0V
TPMI43-S240170	1.70A	24.0V
TPMI43-S480085	0.85A	48.0V

Symbol: “★” OVP built-in.

MECHANICAL DIMENSIONS: MM [INCHES]

WEIGHT: 145g (5.12 Oz.)



INPUT & OUTPUT CONNECTORS PIN ASSIGNMENT

ASSIGNMENT	AC INPUT			SINGLE OUTPUT	
	AC-L	AC-N	AC-G	VO1	DC COM
CNTR/PIN#	P1-L	P1-N	G	P2-1,2	P2-3,4

Mating connector: P1,2 Molex # 5195 or 5239 series.