Total Power International, Inc.

UNIVERSAL INPUT AC-DC MEDICAL APPLICATION OPEN FRAME SINGLE OUTPUT 40 WATTS INTERNAL SWITCHING POWER SUPPLIES TPMI40 SERIES



FEATURES:

- **ACCOMMODATE UNIVERSAL AC SOURCES**
- **COMPACT 5”x 3” 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: Typ. 2.36Arms @230Vac.

Input Current: Typ. 0.66A@115Vac, 0.37A @230Vac.

Dielectric Withstand: Meet IEC 60601-1.

EMI: Meet EN55011 & FCC Class B.

Hold-up Time: Typ. 14mS @115Vac, 78.4mS @ 230Vac.

Earth Leakage: Less than 0.12mA @230Vac.

OUTPUT SPECIFICATION

Output Voltage: See Ratings Chart.
Output Current: See Ratings Chart.
Output Connector: V-M connector.
Output Wattage: Typ. 40 watts.
Line Regulation: Typ. 0.2-0.8%.
Load Regulation: Main VO1 typ ±3%.
Aux. VO2 typ. ±3.8%.
Aux. VO3 typ. ±0.3%.
Noise & Ripple: Typ. 1.0% peak to peak.
OVP: Built-in at main output (Latch).
Adjustability: Available at Main output.
Overload Protection (OLP):
Fully protected against outputs overload and short circuit.
Typ. OLP set at 125-150% of rating output power.
Consult the factory for OLP setting.

GENERAL SPECIFICATION

Efficiency: Typ. 71%(Various with output voltage).
Switching Frequency: 45 KHz.
Circuit Topology: Fixed frequency flyback circuit.
Transient Response: Output voltage returns in less than 2mS following a 25% load change.
Safety Standard: Meet Medical standards UL 2601-1/ EN 60601-1 Class I.

Operating Temperature: -20 to +50 °C.
(Various with output voltage).
Storage Temperature: -20 to +85°C.
Temperature Coefficient: Typ. 0.04%/°C.
Cooling: Free air convection.
Power Density: 2.18Watts / Cubic Inch.
Construction: 5”x3“ PCB format.

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

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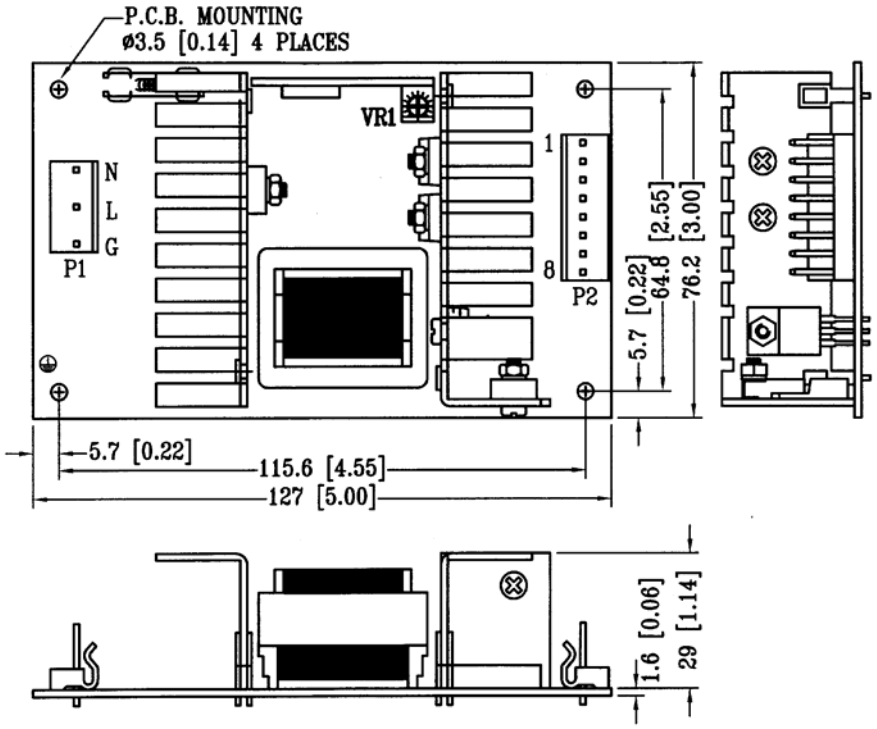
OUTPUT VOLTAGE/CURRENT RATINGS CHART

TRIPLE OUTPUT

MODEL NO.	MAIN +VO1 ★				AUX. +VO2				AUX. VO3 ◇			
	Min.	Typ.	**Volt.**	Max.	Min.	Typ.	**Volt.**	Max.	Min.	Typ.	**Volt.**	Max.
TPMI40-T033EI	0A	6.0A	**+3.3V**	6.9A	0A	1.5A	**+ 5V**	1.7A	0A	1.0A	**12V**	1.1A
TPMI40-T050II	0A	4.0A	**+5.0V**	6.0A	0A	1.5A	**+12V**	2.0A	0A	0.5A	**12V**	0.5A
TPMI40-T050KK	0A	4.0A	**+5.0V**	6.0A	0A	1.0A	**+15V**	1.5A	0A	0.5A	**15V**	0.5A
TPMI40-T050MI	0A	4.0A	**+5.0V**	6.0A	0A	0.7A	**+24V**	1.0A	0A	0.5A	**12V**	0.5A

Symbol: "★" OVP built-in "◇"floating.

MECHANICAL DIMENSIONS: MM [INCHES] **WEIGHT:** 145g (5.12 Oz.)



INPUT & OUTPUT CONNECTORS PIN ASSIGNMENT

	AC INPUT			SINGLE OUTPUT				
ASSIGNMENT	**AC-L**	**AC-N**	**AC-G**	**VO1**	**VO2**	**+VO3**	**-VO3**	**DC COM**
CNTR/PIN#	P1-L	P1-N	G	P2-2,3	P2-1	P2-7	P2-8	P2-4,5

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