Total Power International, Inc.

UNIVERSAL INPUT AC-DC OPEN FRAME SINGLE & TRIPLE OUTPUT 63 WATTS INTERNAL SWITCHING POWER SUPPLIES TPVI63 SERIES



FEATURES:

- **ACCOMMODATE UNIVERSAL AC SOURCES**
- **COMPACT 4”x2”x1”PCB FORMAT**
- **MEET UNIVERSAL SAFETY STANDARDS**
- **EMI MEET CISPR PUB. 22 & 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: ≤12.0A rms @ cold start @230Vac.

Input Current: Typ. 0.9A@115Vac, 0.435A@230Vac.

Dielectric Withstand: Meet IEC 60950-1.

EMI: Meet CISPR PUB. 22 & FCC Class B.

Hold-up Time: Typ. 11.2mS @115Vac, 72.mS @ 230Vac.

Earth Leakage: Less than 0.42mA @230Vac.

OUTPUT SPECIFICATION

Output Voltage: See Ratings Chart.
Output Current: See Ratings Chart.
Output Connector: V-M connector.
Output Wattage: Typ. 62 watts.
Line Regulation: Typ. 0.1%.
Load Regulation: Main VO1 typ. ±1.0%.
Aux. VO2 typ. ±3-8.0%.
Aux. VO3 typ. ±3.0%.
Noise & Ripple: Typ. 1.0% peak to peak.
OVP: Built-in at main output VO1(Latch).
Adjustability: Not available.
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. 80-89.5 %. (Various with output voltage).
Switching Frequency: 130KHz or 70K Hz.
Circuit Topology: Fixed frequency forward circuit for triple output and 5V/3.3V of single output.
Fixed frequency flyback circuit for high voltage of single output.
Transient Response: Output voltage returns in less than 0.5mS following a 50% load change.
Safety Standard: IEC 60950-1 Class I.
Power Density: 7.7Watts / 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 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.

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OUTPUT VOLTAGE / CURRENT RATINGS CHART

SINGLE OUTPUT

MODEL NO.	MAIN VO1 ★				
	Min.	Typ.	**Volt.**	Max.	Peak
TPVI63-S033100	0.2A	10.00A	**3.3V**	10.00A	12.0A
TPVI63-S050100	0.2A	10.00A	**5.0V**	10.00A	12.0A
TPVI63-S120050	0.0A	5.00A	**12.0V**	5.00A	6.0A
TPVI63-S150040	0.0A	4.00A	**15.0V**	4.00A	5.0A
TPVI63-S240025	0.0A	2.50A	**24.0V**	2.50A	3.0A
TPVI63-S480125	0.0A	1.25A	**48.0V**	1.25A	1.3A

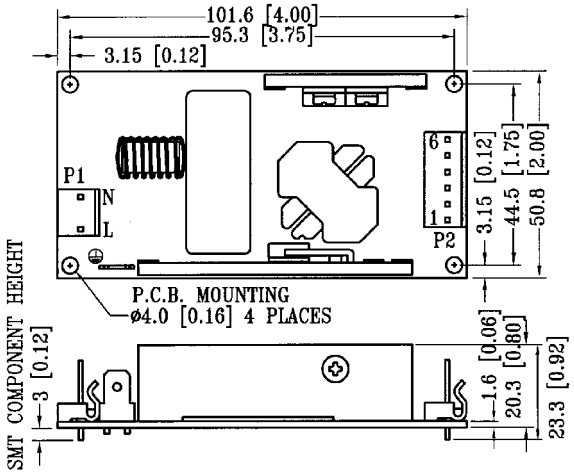
TRIPLE OUTPUT

MODEL NO.	MAIN +VO1 ★					AUX. +VO2 ■					AUX. -VO3 ■				
	Min.	Typ.	**Volt.**	Max.	Peak	Min.	Typ.	**Volt.**	Max.	Peak	Min.	Typ.	**Volt.**	Max.	Peak
TPVI63-T050II	0.5A	6.0A	**+5.0V**	8A	10A	0.1A	2.2A	**+12V**	3.0A	4A	0A	0.5A	**-12V**	0.5A	1A
TPVI63-T050MI	0.5A	6.0A	**+5.0V**	8A	10A	0.1A	1.1A	**+24V**	1.5A	2A	0A	0.5A	**-12V**	0.5A	1A
TPVI63-T050KK	0.5A	6.0A	**+5.0V**	8A	10A	0.1A	1.8A	**+15V**	2.5A	3A	0A	0.5A	**-15V**	0.5A	1A
TPVI63-T033EI	0.5A	8.0A	**+3.3V**	8A	10A	0.1A	3.0A	**+ 5V**	3.0A	4A	0A	0.5A	**-12V**	0.5A	1A

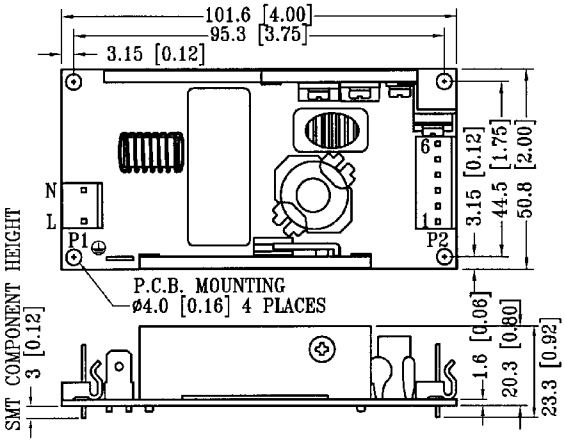
Symbol: "★" OVP built-in. "■" Couple common choke.

MECHANICAL DIMENSIONS: MM [INCHES]

WEIGHT: 121g (4.27 Oz.)



SINGLE OUTPUT



TRIPLE OUTPUT

INPUT & OUTPUT CONNECTORS PIN ASSIGNMENT

	AC INPUT			SINGLE OUTPUT		TRIPLE OUTPUT			
ASSIGNMENT	**AC-L**	**AC-N**	**AC-G**	**VO1**	**DC COM**	**VO1**	**VO2**	**VO3**	**DC COM**
CNTR/PIN#	P1-L	P1-N	G	P2-1,2	P2-3,4	P2-1,2	P2-6	P2-5	P2-3,4

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