



# 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

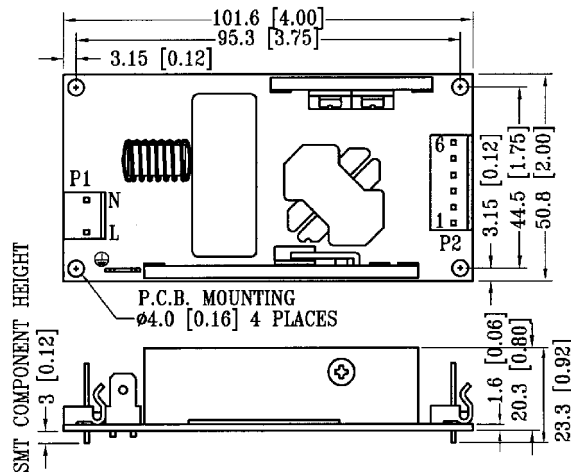
### TRIPLE OUTPUT

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

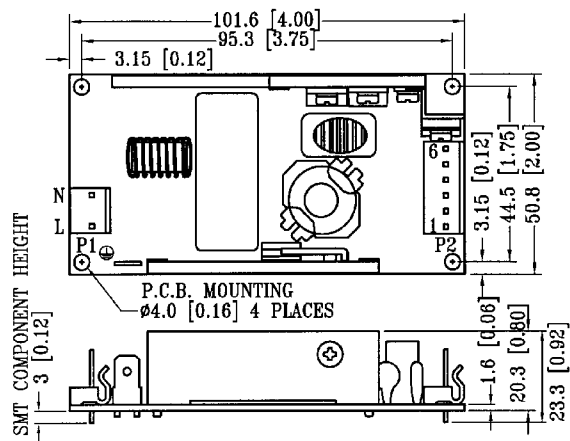
Symbol: "★" OVP built-in. "■" Couple common choke.

### MECHANICAL DIMENSIONS: MM [INCHES]

WEIGHT: 121g (4.27 Oz.)



SINGLE OUTPUT



TRIPLE OUTPUT

### INPUT & OUTPUT CONNECTORS PIN ASSIGNMENT

ASSIGNMENT CNTR/PIN#	AC INPUT			SINGLE OUTPUT		TRIPLE OUTPUT			DC COM
	AC-L	AC-N	AC-G	VO1	DC COM	VO1	VO2	VO3	
	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.