



Total Power International, Inc.

UNIVERSAL INPUT HARMONIC CORRECTION AC-DC MEDICAL AND IEC APPLICATION OPEN FRAME SINGLE & MULTI-OUTPUT 150 WATTS INTERNAL SWITCHING POWER SUPPLIES TPIMP151 SERIES



FEATURES:

- 5" X 3" X 1.38" COMPACT SIZE
- ACCOMMODATE UNIVERSAL AC SOURCES
- MEET IEC 61000-3-2 HARMONIC CORRECTION
- MEET UNIVERSAL SAFETY STANDARDS
- EMI MEET CISPR EN 55022/EN 55011 & FCC CLASS B CONDUCTED
- CE MARKING COMPLIANCE

SPECIFICATION

INPUT SPECIFICATION

Input Voltage: Typ. 90-264Vac with PFC.
Input Connector: V-M connector.
Input Frequency: 47-63Hz.
Inrush Current: 9.3-11.3Arms @230Vac.
Input Current: Typ. 2.2A @115Vac, 0.9A @230Vac.
Dielectric Withstand: Meet IEC 60950-1.
EMI: Meet CISPR EN 55022 & FCC Class B conducted.
 Meet CISPR EN 55011 & FCC Class B conducted.
Hold-up Time: Typ. 90mS @115Vac & 230Vac.
Power Factor & Harmonic Correction:
 Meet IEC 61000-3-2, PF typ. 0.99 @ full load.
Over Temperature Protection: Installed.
Leakage Current: 0.40-0.50mA @230Vac touch current.

OUTPUT SPECIFICATION

Output Voltage: See Ratings Chart.
Output Current: See Ratings Chart.
Output Connector: V-M connector.
Output Wattage: Max. 150 watts.
Line Regulation: Typ. 1.0%.
Load Regulation: Single O/P VO1 $\pm 3.0\%$.
 Dual O/P VO1 $\pm 3.0\%$ VO2 $\pm 1.0\%$
 Triple O/P VO1 $\pm 3.0\%$ ($\pm 8\%$ for 3.3V), VO2/VO3 $\pm 3.0\%$.
 Quad O/P VO1/VO2/VO3/VO4 $\pm 3.0\%$
Noise & Ripple: Typ. 1.0-2.0% peak to peak.
OVP: Built-in at VO1 and VO2.
Adjustability: Available at VO1 and VO2.
Overload Protection (OLP):
 Fully protected against output overload and short circuit.
 OLP set at about 125-150% rating output wattage.
 Consult the factory for OLP setting.

GENERAL SPECIFICATION

Efficiency: Typ. 76-80% various with output.
Switching Frequency: 68K Hz.
Circuit Topology: Single Fixed frequency forward circuit.
 Dual/Triple/Quad: Fixed freq. flyback circuit.
Transient Response: Output voltage returns in less than
 14.8-25.2mS following a 25% load change.
Safety Standard: IEC 60950-1 Class I for IEC use.
 IEC 60601-1 Class I for Medical use.
Operating Temperature: 0 to +50°C under 30 CFM
 forced air cooling for full load.
Storage Temperature: -20 to +85°C.
Temperature Coefficient: Typ. 0.04% /°C.
Cooling: Requested 30 CFM forced air flow for full load.
Construction: U-bracket format.
Power Density: 6.52-7.24 Watts / Cubic Inch .

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 (Under air cooling)

MODEL NO.	MAIN VO1 ★@		
	Typ.	Volt.	Max.
TPIMP151-S050270	27A	5V	30A
TPIMP151-S120125	12.5A	12V	12.5A
TPIMP151-S150100	10.0A	15V	10.0A
TPIMP151-S240063	6.3A	24V	6.3A

DUAL OUTPUT (Under forced air cooling)

MODEL NO.	MAIN VO1 ★@			AUX. VO2 ★@		
	Typ.	Volt.	Max.	Typ.	Volt.	Max.
TPIMP151-D050I	15.00A	+5V	15.00A	6.00A	+12V	6.00A
TPIMP151-D050M	15.0A	+5V	15.0A	3.00A	+24V	3.00A
TPIMP151-D120I	6.25A	+12V	6.25A	6.25A	+12V	6.25A
TPIMP151-D150K	5.0A	+15V	5.00A	5.00A	+15V	5.00A

TRIPLE OUTPUT (Under forced air cooling)

MODEL NO.	MAIN VO1 ★@			AUX. VO2 ★@			AUX. VO3 ●		
	Typ.	Volt.	Max.	Typ.	Volt.	Max.	Typ.	Volt.	Max.
TPIMP151-T033EI	18A	+3.3V	20A	13.5A	+5V	15A	0.8A	+12V	0.8A
TPIMP151-T050II	15A	+5.0V	15A	5.5A	+12V	5.5A	0.8A	+12V	0.8A
TPIMP151-T050KK	15A	+5.0V	15A	4.5A	+15V	4.5A	0.5A	+15V	0.5A

QUAD OUTPUT (Under forced air cooling)

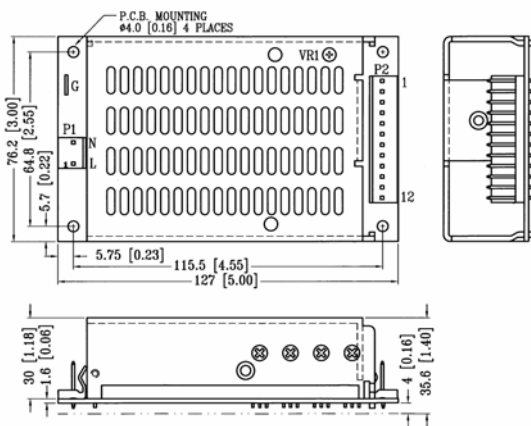
MODEL NO.	MAIN VO1 ★@			AUX. VO2 ★@			AUX. VO3 ●			AUX. VO4 ●		
	Typ.	Volt.	Max.	Typ.	Volt.	Max.	Typ.	Volt.	Max.	Typ.	Volt.	Max.
TPIMP151-Q050KKE	15A	+5V	15A	4A	+15V	4A	0.8A	-15V	0.8A	0.5A	-5V	0.5A

Symbol: "★" OVP built-in. "@" Adjustable. "●" Post-Regulated

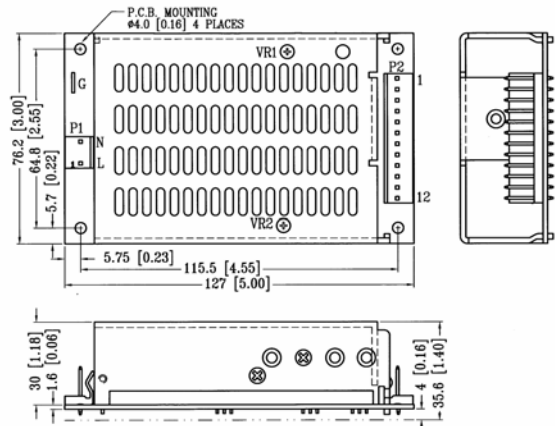
Remark: Please refer to the derating chart depending on ambient temperature and fan cooling.

MECHANICAL DIMENSIONS: MM [INCHES]

WEIGHT: 385.0g (13.4 Oz.)



SINGLE



DUAL/TRIPLE/QUAD

INPUT & OUTPUT CONNECTORS PIN ASSIGNMENT

ASSIGNMENT	AC INPUT			SINGLE O/P			DUAL O/P			TRIPLE O/P				QUAD O/P			
	AC-L	AC-N	AC-G	VO1	DC-COM	VO1	VO2	DC-COM	VO1	VO2	VO3	DC-COM	VO1	VO2	VO3	+VO4	DC COM
CNTR & PIN #	P1-L	P1-N	P1-G	P2-1,2,3,4,5,6	P2-7,8,9,10,11,12	P2-1,2,3,4	P2-9,10	P2-5,6,7,8	P2-1,2,3,4	P2-9,10	P2-11	P2-5,6,7,8	P2-1,2,3,4	P2-9,10	P2-11	P2-12	P2-5,6,7,8

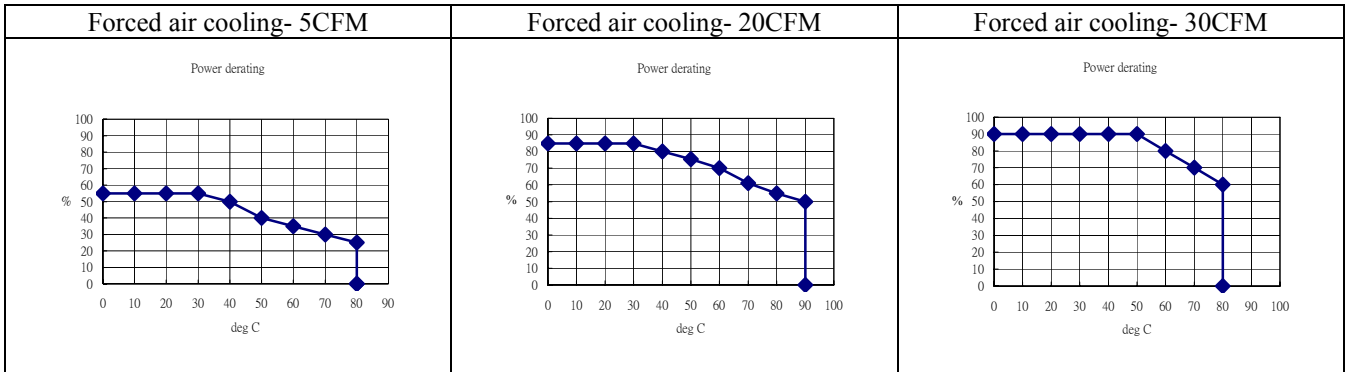
Mating connector: Moles 5195 or 5239 series.



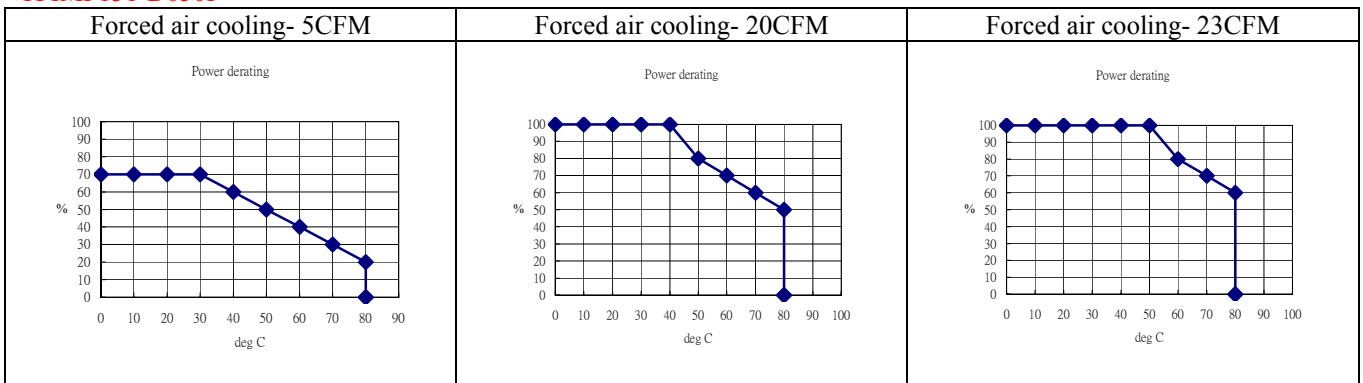
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DERATING CHART

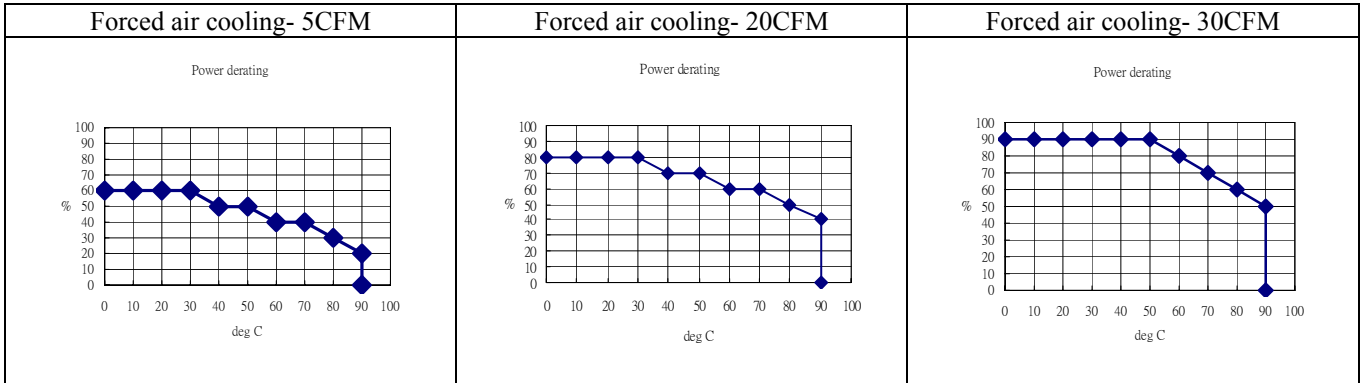
TPIMP151-S050270



TPIMP151-D050I



TPIMP151-T033EI



TPIMP151-Q050KKE

