Total Power International, Inc.

CHASSIS-MOUNT UNIVERSAL INPUT AC-DC ENCAPSULATED MODULAR POWER SUPPLIES 50 WATTS DUAL & TRIPLE OUTPUT TPAS50-D & TPAS50-T SERIES



FEATURES:

- **CHASSIS-MOUNT AC/DC MODULAR POWER SUPPLIES**
- **UNIVERSAL AC INPUT RANGE**
- **MEET UNIVERSAL SAFETY STANDARDS**
- **EMI MEETS CISPR PUB.22/FCC CLASS B**
- **CE MARKING COMPLIANCE**

SPECIFICATION

INPUT SPECIFICATION

Input Voltage: 90-264Vac typical.
Nominal: 115/230Vac.
Input Frequency: 47-63 Hz. (Nominal 50/60Hz.).
Input Current: 0.76A @115Vac./0.39A @230Vac typical.
Inrush Current: 4.8A(rms) or 34A(peak)@230Vac typical.
Input Fuse: Use internal fuse.
Dielectric Withstand: Meet IEC60950.
3,000Vac-Output/Input.
1,500Vac-Input/GND.
500Vac-Output/GND.
EMI: Meet CISPR PUB. 22/FCC Class B.
Hold-up time: 18 mS @115Vac, 82mS @230Vac typical.
Earth Leakage: Less than 0.46mA @230Vac.
Remote ON/OFF:
ON(Enable)=Open.
OFF(Disable)=Short.

OUTPUT SPECIFICATION

Output Voltage: See Ratings Chart.
Output Current: See Ratings Chart.
Output Wattage: 50 Watts typical.
Line Regulation: Various with output voltage.
±0.1-0.5% typical.
Load Regulation: Various with output voltage.
Main VO1 ± 1-2% typical.
Aux.VO2 ± 3-5% typical. (stacked on)
Aux.VO3 ± 2-3% typical. (P.R.)
Noise & ripple: 1.0% typical peak to peak.
OVP: Built-in on main output VO1.
Adjustability: Available at main output VO1.
Overload Protection (OLP):
Fully protected against output overload and short circuit.
Typical 125-150% of rating output load.
Con2sult the factory for special OLP setting.

GENERAL SPECIFICATION

Efficiency: 78-83% typical various with output voltage.
Switching Frequency: 68K Hz.
Circuit Topology: Fixed Frequency Flyback circuit.
Transient Response: Peak deviation on 200-220mV,
Recovery time <3mSec.@ 25%step load change.
Case: Impact resistant thermo-plastic enclosure.
Safety Standard: EN60950/ UL1950 Class I or Class II.
Power Density: 3.6 Watts. / Cubic inch.
MTBF: 110,000Hrs. Mil Std 217, 25°C.

Operating Temperature: -10°C to +75°C range.
–10°C to +50°C @ full load without derating.
From+50°C derating linearly to half load @+75°C
(Refer to the Derating Chart).
Storage Temperature: -20°C to +85°C.
Temperature Coefficient: ±0.03% /°C.
Cooling: Convection cooling for +50°C @ full load.
At least 100LFM moving air is recommended
for full load >+50°C in a confined area.
Commercial Grade only.

NOTE: (1) All measurements are at nominal input, full load, and +25°C unless otherwise specified.
(2) Load Regulation measured from Full-Load (F-L) to Half-Load (H-L) at nominal input and others loaded at half load.

Due to requests in market and advances in technology, specifications subject to change without notice.

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OUTPUT VOLTAGE/ CURRENT RATINGS CHART

DUAL OUTPUT

MODEL NO.	VO1 ★@		VO2●	
	TYP.	VOLT.	TYP	VOLT.
TPAS50-D050E	3.0A	**+5V**	3.0A	**-5V**
TPAS50-D050I	3.5A	**+5V**	2.0A	**+12V**
TPAS50-D120I	2.0A	**+12V**	2.0A	**-12V**
TPAS50-D150K	1.7A	**+15V**	1.7A	**-15V**
TPAS50-D033E	3.5A	**+3.3V**	3.0A	**-5V**

TRIPLE OUTPUT

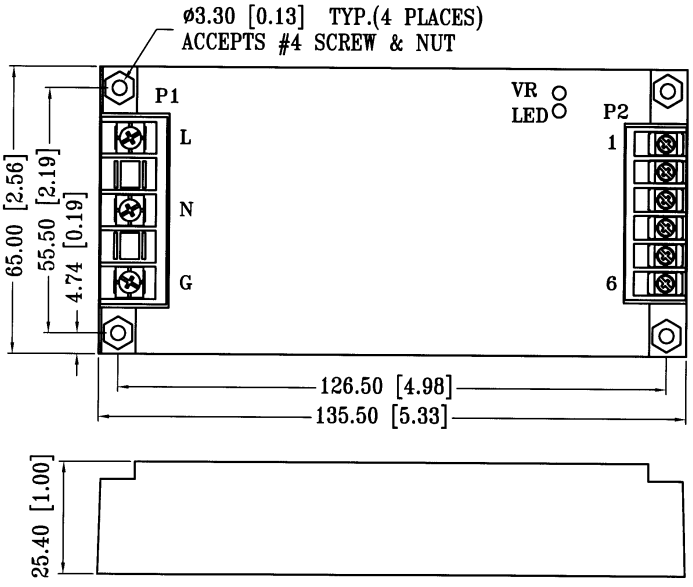
MODEL NO.	VO1 @ ★		VO2 †		VO3 ●	
	TYP.	VOLT.	TYP.	VOLT.	TYP.	VOLT.
TPAS50-T033EE	4.0A	**+3.3V**	2.0A	**+5V**	0.5A	**-5V**
TPAS50-T033II	4.0A	**+3.3V**	1.0A	**+12V**	0.5A	**-12V**
TPAS50-T033KK	4.0A	**+3.3V**	0.8A	**+15V**	0.5A	**-15V**
TPAS50-T050II	3.5A	**+5.0V**	1.0A	**+12V**	0.5A	**-12V**
TPAS50-T050KK	3.5A	**+5.0V**	0.8A	**+15V**	0.5A	**-15V**
TPAS50-T050IE	3.5A	**+5.0V**	1.0A	**+12V**	0.5A	**-5V**
TPAS50-T050MI	3.5A	**+5.0V**	0.5A	**+24V**	0.5A	**-12V**

Symbols: "★" OVP built-in. "@" Adjustable. "†" Stacked on main O/P. "●" Installed with Post Regulator (P.R.).

Note: (1) Max. (maximum load) is the continuous operating load of each rail, but the max. load of each rail can not be drawn from all outputs at the same time.
(2) Peak output, less than 60 Sec. with duty cycle <10%.

MECHANICAL DIMENSIONS: MM [INCHES]

WEIGHT: 378.0g (13.3 Oz.)



PIN ASSIGNMENT

PIN NO.	DUAL O/P(+VO2)	DUAL O/P(-VO2)	TRIPLE O/P
P1-L	L	L	L
P1-N	N	N	N
P1-G	G	G	G
P2-1	REMOTE ON/OFF	REMOTE ON/OFF	REMOTE ON/OFF
P2-2	NC	-VO2	-VO3
P2-3	+VO2	NC	+VO2
P2-4	VO1	VO1	+VO1
P2-5	DC COM	DC COM	DC COM
P2-6	DC COM	DC COM	DC COM

DERATING CHART

