Total Power International, Inc.

ON-BOARD UNIVERSAL INPUT AC-DC ENCAPSULATED MODULAR POWER SUPPLIES 5 WATTS SINGLE & DUAL OUTPUT TPAM05S & TPAM05D SERIES

FEATURES:

- **ON-BOARD AC/DC MODULAR POWER SUPPLIES**
- **UNIVERSAL AC INPUT RANGE**
- **COMPACT IN SIZE**
- **MEET UNIVERSAL SAFETY STANDARDS**
- **EMI MEET CISPR PUB.22 / FCC CLASS B**
- **CE MARKING COMPLIANCE**

SPECIFICATION

INPUT SPECIFICATION

Input Voltage: 90-264Vac typical.
Input Frequency: 47-63 Hz. (50/60Hz.Nom.).
Input Current: 0.15A @115Vac./0.07A @230Vac.
Inrush Current: 32.5A peak @ 230Vac.
Input Fuse: Use external fuse. 1.0A/250Vac for the primary fuse is suggested.
Dielectric Withstand: Meet IEC950.
3,000Vac-Output/Input.
1,500Vac-Input/GND.
500Vac-Output/GND.
EMI: Meet CISPR PUB.22 / FCC Class B.
Hold-up time: 20 mS @115Vac, 80mS @230Vac.
Earth Leakage: Less than 3.5mA @230Vac.

OUTPUT SPECIFICATION

Output Voltage: See Ratings Chart.
Output Current: See Ratings Chart
Output Wattage: 5Watts typical.
Output Indicator: LED.
Line Regulation: Various with output voltages.
TPAM05S ±0.1 % typical.
TPAM05D ±0.5% typical.
Load Regulation: Various with output voltage.
TPAM05S ±1.0% typical.
TPAM05D ±2.0% typical.
Noise & ripple: 1.0% typical peak to peak.
OVP: Built-in on main output.
Adjustability: From -10% of main output till OVP.
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: 64%-78% typical. (Various with output voltage).
Switching Frequency: 75K Hz.
Circuit Topology: Fixed Frequency Flyback circuit.
Transient Response: Typical peak deviation 250mV, Recovery time < 3mS for a 25% load change.
Case: Impact resistant thermo-plastic enclosure.
Weight: 107.0g (3.77 Oz).
Power Density: 1.61 Watts. / Cubic inch.
Safety Standard: EN60950/ UL1950 Class I.
MTBF: 110,000 hours. Mil Std 217, 25°C.

Operating Temperature: -10 to +70°C range.
-10°C to +50°C full load without derating.
From +50°C, derating linearly to half load @+70°C.
(Refer to Derating Chart.)
Storage Temperature: -20°C to +85°C.
Temperature Coefficient: ± 0.03% /°C.
Humidity: Up to 95%RH, Non-condensing.
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

SINGLE OUTPUT

MODEL NO.	VO1 @ ★		
	TYP.	**VOLT.**	PEAK
TPAM05S-033130	1.30A	**3.3V**	1.59A
TPAM05S-050100	1.00A	**5.0V**	1.20A
TPAM05S-090060	0.60A	**9.0V**	0.72A
TPAM05S-120045	0.45A	**12.0V**	0.54A
TPAM05S-150036	0.36A	**15.0V**	0.43A
TPAM05S-180030	0.30A	**18.0V**	0.36A
TPAM05S-240022	0.22A	**24.0V**	0.26A

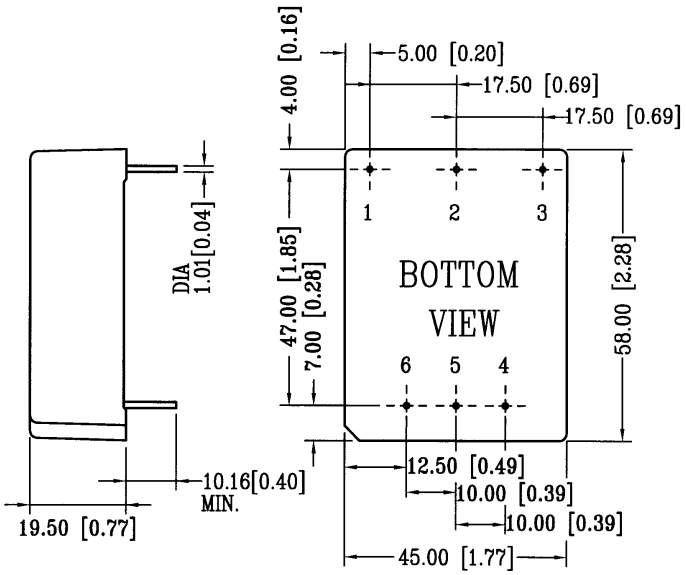
DUAL OUTPUT

MODEL NO.	+VO1 @ ★			-VO2 ‖		
	TYP.	**VOLT.**	MAX.	TYP.	**VOLT.**	MAX.
TPAM05D-033064	0.64A	**+3.3V**	0.73A	0.64A	**-3.3V**	0.73A
TPAM05D-050050	0.50A	**+5.0V**	0.57A	0.50A	**-5.0V**	0.57A
TPAM05D-090030	0.30A	**+9.0V**	0.34A	0.30A	**-9.0V**	0.34A
TPAM05D-120022	0.22A	**+12.0V**	0.25A	0.22A	**-12.0V**	0.25A
TPAM05D-150018	0.18A	**+15.0V**	0.20A	0.18A	**-15.0V**	0.20A

Symbols: "★" OVP built-in. "@" Adjustable. "‖" Double Feedback.
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: 107.0g (3.77 Oz.)



CASE SIZE: AM01

PIN ASSIGNMENT

PIN NO.	SINGLE	DUAL
PIN #1.	AC-GROUND	AC-GROUND
PIN #2.	AC-NEUTRAL	AC-NEUTRAL
PIN #3.	AC-LINE	AC-LINE
PIN #4.	+VO1	+VO1
PIN #5.	NO PIN	DC-COM
PIN #6.	DC-COM	-VO2

DERATING CHART