

# TOTAL POWER INT.

## PCB-MOUNT UNIVERSAL INPUT AC-DC POWER SUPPLIES ENCAPSULATED MODULES 10-WATTS SINGLE & DUAL OUTPUT TPAM10S & TPAM10D SERIES



### FEATURES:

- ON-BOARD AC/DC MODULAR POWER SUPPLIES.
- WIDE INPUT VOLTAGE FOR THE WORLD WIDE USE.
- COMPACT IN SIZE.
- DESIGNED TO MEET UNIVERSAL SAFETY STANDARDS.
- EMI MEET CISPR PUB.22 / FCC CLASS B.
- CE MARKING COMPLIANCE.

### SPECIFICATION

#### INPUT SPECIFICATION

**Input Voltage:** 90-264Vac. (Or 110-340Vdc).  
**Input Frequency:** 47-63 Hz. or DC.  
**Input Current:** 0.3A @115Vac./ 0.13A @ 230Vac.  
**Inrush Current:** 32.5A peak @230Vac.  
**Input Fuse:** Use external fuse. 1.0A/250Vac for 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:** 20mS @115Vac, 80mS @230Vac.  
**Earth Leakage:** Less than 3.5mA @230Vac.

#### OUTPUT SPECIFICATION

**Output Voltage:** See Ratings Chart.  
**Output Current:** See Ratings Chart.  
**Output Wattage:** Typ.10 Watts.  
**Output Indicator:** LED  
**Line Regulation:** 10S  $\pm 0.1\%$  typ.  
10D  $\pm 0.2\%$  typ.  
**Load Regulation:** 10S  $\pm 1.0\%$  typ.  
10D  $\pm 2.0\%$  typ.  
**Noise & ripple:** Typ. 1.0% peak to peak.  
**OVP:** Built-in on main output.  
**Adjustability:** From -10% of main output till OVP  
**Short Circuit Protection:** Power fold back, self-recovering.  
**Overload Protection:** About 130% of overrange foldback type.

#### GENERAL SPECIFICATION

**Efficiency:** Typ.70% .  
**Switching Frequency:** 75K Hz.  
**Circuit Topology:** Fixed Frequency Flyback circuit.  
**Transient Response:** Output voltage returns in less than 3mS following a 50% load change.  
**Case:** Impact resistant thermo-plastic enclosure.  
**Weight:** 120g (4.23 Oz).  
**Power Density:** 2.51 Watts./ Cubic inch.  
**Safety Standard:** EN60950/ UL1950 Class I.

**Operating Temperature:** -25 to +71°C range.  
-10°C to +50°C without derating. Derating linearly 2.5%/°C from +50°C @F-L to +71°C @ H-L.  
(Refer to Derating Chart.)  
**Storage Temperature:** -40°C to +85°C.  
**Temperature Coefficient:** 0.02% /°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.



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**MODEL NO. DESCRIPTION: TPAM 10 S / D - XXX YYY** Remark: Please specify the V/A ratings and consult for Model No

Output Current  
Output Voltage  
S: Single/ D: Dual  
Output Wattage  
Series Name

OUTPUT VOLTAGE/ CURRENT RATINGS CHART

SINGLE OUTPUT

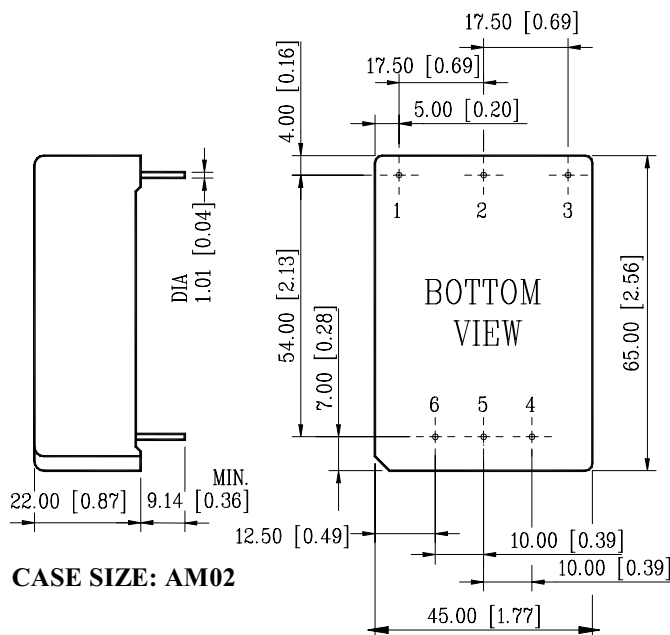
MODEL NO.	VO1 @ ★		
	TYP.	VOLT.	PEAK
TPAM10S-033243	2.43A	3.3V	2.88A
TPAM10S-050200	2.00A	5.0V	2.44A
TPAM10S-090112	1.12A	9.0V	1.34A
TPAM10S-120090	0.90A	12.0V	1.00A
TPAM10S-150072	0.72A	15.0V	0.84A
TPAM10S-240045	0.45A	24.0V	0.54A
TPAM10S-480022	0.22A	48.0V	0.30A

DUAL OUTPUT

MODEL NO.	+VO1 @ ★			-VO2 ¶		
	TYP.	VOLT.	MAX.	TYP.	VOLT.	MAX.
TPAM10D-033120	1.20A	+3.3V	1.38A	1.20A	-3.3V	1.38A
TPAM10D-050100	1.00A	+5.0V	1.15A	1.00A	-5.0V	1.15A
TPAM10D-120045	0.45A	+12.0V	0.51A	0.45A	-12.0V	0.51A
TPAM10D-150035	0.35A	+15.0V	0.40A	0.35A	-15.0V	0.40A

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:120.0g (4.23 Oz.)



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.	NC	DC-COM
PIN #6.	DC-COM	-VO2

DERATING CHART

