# TOTAL POWER INT'L

PCB-MOUNT UNIVERSAL INPUT AC-DC POWER SUPPLIES
ENCAPSULATED MODULES 16-WATTS TRIPLE OUTPUT
TPAM16-T SERIES



#### **FEATURES:**

- ON-BOARD AC/DC MODULAR
  POWER SUPPLIES
- UNIVERSAL INPUT RANGE
- 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: 0.33A @115Vac./0.16A @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: 20mS @115Vac, 100mS @230Vac. Earth Leakage: Less than 3.5mA @230Vac.

#### **OUTPUT SPECIFICATION**

Output Voltage: See Ratings Chart.
Output Current: See Rating Chart.
Output Wattage: Typ.15 to 16.5Watts.

Output Indicator: LED Line Regulation: ±0.5% typ.

**Load Regulation:** VO1 & VO3  $\pm 2.0\%$ , VO2  $\pm 5.0\%$  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.73%.

Switching Frequency: 83KHz.

**Circuit Topology:** Fixed Frequency Flyback circuit. **Transient Response:** Output voltage returns in

less than 3mS following a 50% load change.

5070 foud change.

Case: Impact resistant thermo-plastic enclosure.

**Weight:** 145.0g (5.11Oz)

**Power Density:** 3.12 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.

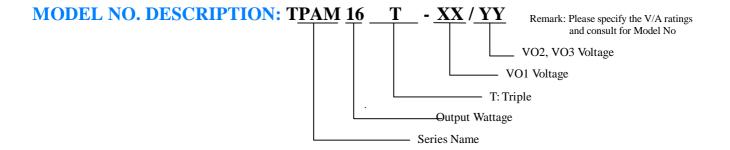
(2) Load Regulation measured from Full-Load (F-L) to Half-Load (H-L) at nominal input and others loaded at half load.











## **OUTPUT VOLTAGE/ CURRENT RATINGS CHART**

#### TRIPLE OUTPUT

THE EL COTTO									
MODEL NO.	+VO1 @ ★			+VO2 †			-VO3 ¶		
	TYP.	VOLT.	MAX	TYP.	VOLT.	MAX.	TYP.	VOLT.	MAX.
TPAM16T-5/09	1.8A	+5.0V	2.0A	0.40A	+9.0V	0.46	0.40A	-9.0V	0.46
TPAM16T-5/12	1.8A	+5.0V	2.0A	0.30A	+12.0V	0.34	0.30A	-12.0V	0.34
TPAM16T-5/15	1.8A	+5.0V	2.0A	0.24A	+15.0V	0.27	0.24A	-15.0V	0.27
TPAM16T-5/24	1.8A	+5.0V	2.0A	0.16A	+24.0V	0.18	0.16A	-24.0V	0.18
TPAM16T-3/05	1.8A	+3.3V	2.0A	0.75A	+5.0V	0.86	0.75A	-5.0V	0.86
TPAM16T-3/12	1.8A	+3.3V	2.0A	0.30A	+12.0V	0.35	0.30A	-12.0V	0.35
TPAM16T-3/15	1.8A	+3.3V	2.0A	0.25A	+15.0V	0.28	0.25A	-15.0V	0.28
TPAM16T-3/5,12	1.8A	+3.3V	2.0A	0.75A	+5.0V	0.86	0.30A	-12.0V	0.34
TPAM16T-3/24	1.8A	+3.3V	2.0A	0.16A	+24.0V	0.18	0.16A	-24.0V	0.18

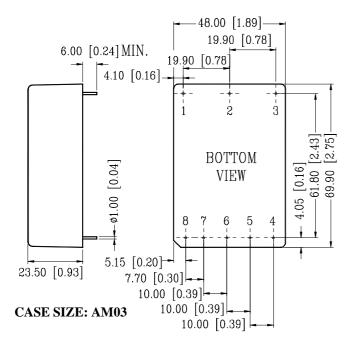
Symbols: "★" OVP built-in. "@" Adjustable. "¶" Double Feedback.

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]**



## **PIN ASSIGNMENT**

PIN NO.	TRIPLE OUTPUT
PIN #1.	AC-GROUND
PIN #2.	AC-NEUTRAL
PIN #3.	AC-LINE
PIN #4.	-VO3
PIN #5.	+VO1
PIN #6.	DC-COM
PIN #7.	+VO2
PIN #8.	Remote ON/ OFF

**Weight:** 145.0g(5.11Oz)

## **DERATING CHART**

