



# Total Power International, Inc.

## AC/DC EXTERNAL DESKTOP ADAPTER UNIVERSAL INPUT SINGLE OUTPUT 45-51 WATTS SWITCHING POWER SUPPLIES TPES51 SERIES



### FEATURES:

- ACCOMMODATE UNIVERSAL AC SOURCE
- LOW PROFILE & HIGH POWER DENSITY
- DESKTOP IEC320-2P AC RECEPTACLE
- MEET UNIVERSAL SAFETY STANDARDS
- EMI EN55022 / FCC CLASS B
- CE MARKING COMPLIANCE

### SPECIFICATION

#### INPUT SPECIFICATION

**Input Voltage:** 90-264Vac typical.  
**Input Connector:** IEC320-2P DT8 AC inlet receptacle.  
**Input Frequency:** 47-63Hz.  
**Inrush Current:** 30A @240Vac typical.  
**Input Current:** 1.0A @115Vac & 0.5A @230Vac typical.  
**Dielectric Withstand:** Meet IEC60950-1.  
**EMI:** Meet EN55022 / FCC Class B.  
**Hold-up Time:** 8mS @115Vac typical.  
 50mS @230Vac typical.  
**Over Temp. Protection:** By NTC.

#### OUTPUT SPECIFICATION

**Output Voltage:** See Ratings Chart.  
**Output Current:** See Ratings Chart.  
**Output Wattage:** 45-51Watt typical.  
**Output Connector & Cord:** Optional.  
**Output LED Indicator:** Installed.  
**Line Regulation:** 0.1% typical.  
**Load Regulation:** ±1.5-3.0% typical.  
**Noise & Ripple:** 1.0% typical peak to peak.  
**OVP:** Built-in Zener diode clamping.  
**Over Current Protection (OCP):** Installed.  
 Current limiting can be set precisely as per request.  
**Overload Protection (OLP):**  
 Fully protected against output overload or short circuit.  
 Typical set at 130% max. load.  
 Consult the factory for special OLP setting.

#### GENERAL SPECIFICATION

**Efficiency:** 85% typical.  
**Switching Frequency:** Approximate 90K Hz.  
**Circuit Topology:** Fixed Frequency Flyback circuit.  
**Transient Response:** Output voltage returns in less than 3mS following a 25% load change.  
**Safety Standard:** Meet UL60950-1/ EN60950-1 Class II.  
**Power Density:** 4.67Watts / Cubic Inch.  
**Operating Temperature:** 0 to +25/35/40°C without derating. (various with output voltage)  
**Storage Temperature:** -20 to +85°C.  
**Temperature Coefficient:** 0.04% /°C.  
**Cooling:** Free air convection.  
**Construction:** Impact resistant thermo- plastic case.  
**Desktop Format.**

NOTE: (1) All measurements are at nominal input, full load, and +25°C unless otherwise specified.  
 (2) Load regulation is measured at 115Vac or 230Vac in percentage to indicate the change in output voltage as the load is varied from half load to full load (±%).  
 (3) The exact obtainable load regulation depends upon the output load current & cord selected. Upper data are for 6 ft.(2 m)cord AWG#18 wires.  
 (4) Due to requests in market and advances in technology, specifications subject to change without notice.

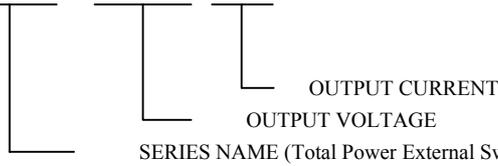


For the details of safety approval, please consult the factory.



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**MODEL NO. DESCRIPTION:** TPES51 - XXX YY



## OUTPUT VOLTAGE/CURRENT RATINGS CHART

| DEFINED OUTPUT VOLTAGE(Vdc)     | OUTPUT VOLTAGE(Vdc) / CURRENT (A)   |
|---------------------------------|---|
| 9.0Vdc ≤ Any Voltage ≤ 15.0Vdc  | 9.0-9.5V/5.0-4.7A, 9.6-10.0V/4.6-4.5A, 10.1-10.4V/4.4-4.3A, 10.5-11.0V/4.2A, 11.1-11.9V/4.1A, 12.0-12.5V/4.0A, 12.6-13.4V/3.9-3.7A, 13.5-14.1V/3.7-3.6A, 14.2-15.0V/3.5-3.4A.   |
| 15.0Vdc < Any Voltage ≤ 30.0Vdc | 15.1-15.9V/3.3-3.2A, 16.0-17.0V/3.1A-3.0A, 17.1-18.2V/2.9-2.8A, 18.3-19.6V/2.7-2.6A, 19.7-21.2V/2.5-2.4A, 21.3-23.1V/2.3-2.2A, 23.2-24.2V/2.2-2.1A, 24.3-25.5V/2.0A, 25.6-26.8V/1.9A, 26.9-28.3V/1.8A, 28.4-30.0V/1.7A, 19.6V/3.0A. |

Note: Refer to the upper Chart or specify the V/A ratings and consult factory for the exact Model No.

### SINGLE OUTPUT (Model No. for example)

| MODEL NO.    | O/P VOLTAGE | O/P CURRENT |
|--------------|-------------|-------------|
| TPES51-05080 | 5.0Vdc      | 8.0A        |
| TPES51-09050 | 9.0Vdc      | 5.0A        |
| TPES51-12040 | 12.0Vdc     | 4.0A        |
| TPES51-15034 | 15.0Vdc     | 3.4A        |
| TPES51-16031 | 16.0Vdc     | 3.1A        |
| TPES51-18028 | 18.0Vdc     | 2.8A        |
| TPES51-19630 | 19.6Vdc     | 3.0A        |
| TPES51-24021 | 24.0Vdc     | 2.1A        |
| TPES51-30017 | 30.0Vdc     | 1.7A        |
| TPES51-48010 | 48.0Vdc     | 1.0A        |
| TPES51-58007 | 58.0Vdc     | 0.7A        |

**MECHANICAL DIMENSIONS: MM [INCHES]**

**WEIGHT: 185.0g (6.53 Oz.)**

