



**FEATURES**

- IEC 320/C14 AC Inlet
- Active Power Factor Correction
- Single 3-55V Output & Dual Outputs Available
- 50ms Minimum Hold-up Time
- Built-in Cooling Fan
- Optional Mounting Tab
- UL/IEC/EN 60950-1 2nd Edition Approvals

**INPUT SPECIFICATIONS**

Input Voltage Range ..... 90~260 VAC  
 Input Frequency ..... 47~63Hz  
 Input Current ..... 3.2A rms @ 100 VAC, 240 VAC  
 Inrush Current ..... 30A @ 115 VAC or 60A @ 230 VAC,  
 at 25°C cold start  
 Earth Leakage Current ..... 0.75mA max. @ 240 VAC, 60Hz

**OUTPUT SPECIFICATIONS**

Output Power Ratings ..... See models list  
 Minimum Load ..... See models list  
 Line Regulation ..... ±1% max. @ full load  
 Load Regulation ..... ±10% max. @ full load  
 Total Regulation ..... See models list  
 Ripple and Noise ..... 1% p-p max. (except 2% for 3.3V)  
 at full load  
 Overvoltage Protection ..... Set at 112-132% of its nominal  
 output voltage  
 Overcurrent Protection ..... Set at 110-150% of its nominal  
 output voltage  
 Temperature Coefficient ..... ±0.04%/°C max.  
 Transient Response ..... 4ms @ full load, 100 VAC input

**GENERAL SPECIFICATIONS**

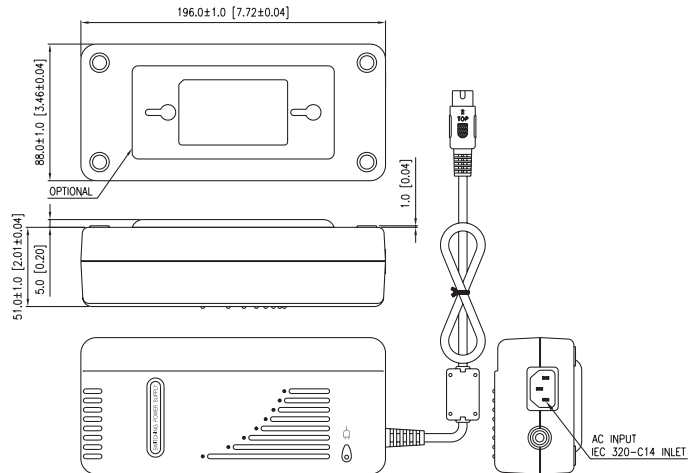
Power Factor ..... 0.95-1.0  
 Efficiency ..... 80%-85% @ FL, 230 VAC input  
 Switching Frequency ..... 50~65KHz  
 Start Up Time ..... 3 sec. max @ FL, 100 VAC input  
 Hold-Up Time ..... 50ms min. @ FL, 110VAC input  
 Operating Temperature ..... 0°C to +70°C  
 Derating ..... Derate from 100% at +25°C linearly  
 to 50% at +70°C  
 Storage Temperature ..... -40°C to +85°C  
 Relative Humidity ..... 0°C to +95°C non-condensing  
 Withstand Voltage ..... 4,242 VDC from input to output,  
 2,121 VDC from input to ground  
 MTBF ..... 100K hours minimum at full load,  
 25°C ambient, calculated per  
 MIL-HDBK-217F



**STANDARDS & COMPLIANCES**

EN 55011, EN 55022 ..... Class B, conducted & radiated  
 FCC, VCCI ..... Class B, conducted & radiated  
 EN 61000-3-2 ..... Harmonic distortion, Class A & D  
 EN 61000-3-3 ..... Line flicker  
 EN 61000-4-2 ..... ESD, ±8 KV air and ±6 KV contact  
 EN 61000-4-3 ..... Radiated immunity, 3V/m  
 EN 61000-4-4 ..... Fast transient/burst, ±2 KV  
 EN 61000-4-5 ..... Surge, ±1 KV diff., ±2 KV com.  
 EN 61000-4-6 ..... Conducted immunity, 3 Vrms  
 EN 61000-4-8 ..... Magnetic field immunity, 3A/m  
 EN 61000-4-11 ..... Voltage dip immunity,  
 30% reduction for 500ms,  
 60% reduction for 100ms,  
 >95% reduction for 10ms  
 Safety Standards ..... UL/IEC/EN 60950-1 (2<sup>nd</sup> Edition)  
 Agency Approvals ..... UL, cUL, GS, PSE, CCC, IRAM, CE, CB  
 Other Compliances ..... RoHS2, CEC

**MECHANICAL SPECIFICATIONS**



Unit: inch [mm]  
 Tolerance: 0.02 [0.5] maximum  
 Weight: 670g (1.48 lbs) approx.

**Notes:**

1. Standard output connector: 4 pins power DIN for single output models (except 3.3V and 5V); 8 pins DIN for dual outputs models.
2. Contact TRUMPower for other output connector options.

# TSA130 Series

## 65-130W Single & Dual Outputs Power Adapters

### MODELS LIST

#### SINGLE OUTPUT

| Product No. * | Output Voltage* | Max. Output Current | Total Regulation | Max. Output Power |
|---------------|-----------------|---------------------|------------------|-------------------|
| TSA130-S3.3   | 3.3V            | 27.27A              | 7%               | 90W               |
| TSA130-S05    | 5V              | 23A                 | 7%               | 115W              |
| TSA130-S12    | 12V             | 10.83A              | 5%               | 130W              |
| TSA130-S15    | 15V             | 8.66A               | 5%               | 130W              |
| TSA130-S19    | 19V             | 6.84A               | 5%               | 130W              |
| TSA130-S24    | 24V             | 5.41A               | 5%               | 130W              |
| TSA130-S30    | 30V             | 4.33A               | 5%               | 130W              |
| TSA130-S36    | 36V             | 3.61A               | 3%               | 130W              |
| TSA130-S48    | 48V             | 2.7A                | 3%               | 130W              |
| TSA130-S54    | 54V             | 2.4A                | 3%               | 130W              |

\*Specify output voltage within 3-55V when ordering non-standard models, e.g. TSA130-S28 for 28V.

#### DUAL OUTPUTS

| Product No. | Output Voltage | Output Current |      | Total Regulation | Max. Output Power |
|-------------|----------------|----------------|------|------------------|-------------------|
|             |                | Min.           | Max. |                  |                   |
| TSA130-D1   | +3.3V          | 4A             | 20A  | 7%               | 90W               |
|             | +12V           | 0A             | 2A   | 5%               |                   |
| TSA130-D2   | +5V            | 4A             | 20A  | 7%               | 120W              |
|             | +12V           | 0A             | 2A   | 5%               |                   |
| TSA130-D21  | +5V            | 2A             | 10A  | 5%               | 110W              |
|             | +12V           | 1A             | 5A   | 10%              |                   |
| TSA130-D3   | +5V            | 4A             | 20A  | 7%               | 120W              |
|             | +15V           | 0A             | 2A   | 5%               |                   |
| TSA130-D4   | +5V            | 4A             | 20A  | 7%               | 120W              |
|             | +24V           | 0.2A           | 2A   | 5%               |                   |
| TSA130-D5   | +5.5V          | 2A             | 10A  | 5%               | 117.5W            |
|             | +12.5V         | 1A             | 5A   | 10%              |                   |
| TSA130-D6   | +3.5V          | 0.8A           | 8A   | 5%               | 64.6W             |
|             | +12.2V         | 0A             | 3A   | 5%               |                   |

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