TFA180 Series
180W ITE Grade AC/DC Power Adapters

FEATURES
• 1" Height Slim Design
• IEC 320/C6, C14 AC Inlets
• 19V, 19.5V, 24V, 48V or 54V Output
• 88% Minimum Efficiency
• DOE Level VI Compliance
• IEC/EN/UL 62368-1 Approved

INPUT SPECIFICATIONS
Input Voltage Range .................. 90-264 VAC
Input Frequency ....................... 47-63 Hz
Input Current ....................... 2.3A max. @ 100 VAC/240 VAC
Inrush Current ...................... 140A max. @ Full Load, at 25°C cold start
Touch Current ..................... 250 µA max. @ 264 VAC, 60Hz

OUTPUT SPECIFICATIONS
Output Power Ratings ........... See models list
No Load Power Cons. ........... 0.21W max.
Line Regulation ................. ±0.5% max.
Load Regulation ................. ±5% max.
Ripple and Noise* ............... 350 mVp-p max. @ full load
Over Voltage Protection ...... Set @110-150%; Latch off
Over Current Protection ...... Protected to short circuit conditions; Auto-recovery
Short Circuit Protection .... Auto recovery
Temperature Coefficient ...... ±0.04%/°C max.
Transient Response ........ Maximum excursion of 4% or better on all models, recovering to 1% of final value within 500 us after a 25% step load change

GENERAL SPECIFICATIONS
Power Factor ....................... 0.9 min. @ full load
Efficiency .......................... 88% min. @ full load
Hold-Up Time ..................... 10ms min. @ full load
Operating Altitude ............... 5,000 meters max.
Operating Temperature .......... 0°C to +40°C
Storage Temperature .......... -20°C to +80°C
Operating Humidity ............ 20 to 80% non-condensing
Storage Humidity ............... 10 to 90% non-condensing
Withstand Voltage ........... 1,500 VAC input - output
..................................... 1,500 VAC input - ground
Safety Standards .............. IEC/EN/UL 62368-1
Agency Approvals ............ UL, cUL, TUV, CE, CB
Other Compliance ............. RoHS, Energy Star 2.0, ErP Stage II, DoE 2013 Level VI

STANDARDS & COMPLIANCE
EN 55032, CISPR 32 .......... 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, ±15 KV air and ±8 KV contact
EN 61000-4-3 ............... Radiated immunity, 3V/m
EN 61000-4-4 ............... Fast transient/burst, ±1 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, 1A/m
EN 61000-4-11 ................. Voltage dip immunity,
..................................... 30% reduction for 500ms,
..................................... >95% reduction for 10ms

* Measured with 20MHz bandwidth at rated line voltage and output load ranges, with a 47µF aluminum capacitor in parallel with a 0.1µF ceramic capacitor in parallel across the output.

MODELS LIST

<table>
<thead>
<tr>
<th>Product No.</th>
<th>AC Inlet</th>
<th>Output Voltage</th>
<th>Maximum Output Current</th>
<th>Maximum Output Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>TFA180-19</td>
<td>C14</td>
<td>19V</td>
<td>9.5A</td>
<td>180W</td>
</tr>
<tr>
<td>TFA180-19.5</td>
<td>C14</td>
<td>19.5V</td>
<td>9.23A</td>
<td>180W</td>
</tr>
<tr>
<td>TFA180-24</td>
<td>C14</td>
<td>24V</td>
<td>7.5A</td>
<td>180W</td>
</tr>
<tr>
<td>TFA180-48</td>
<td>C14</td>
<td>48V</td>
<td>3.75A</td>
<td>180W</td>
</tr>
<tr>
<td>TFA180-54</td>
<td>C14</td>
<td>54V</td>
<td>3.33A</td>
<td>180W</td>
</tr>
<tr>
<td>TFA180-19-6</td>
<td>C6</td>
<td>19V</td>
<td>9.5A</td>
<td>180W</td>
</tr>
<tr>
<td>TFA180-19.5-6</td>
<td>C6</td>
<td>19.5V</td>
<td>9.23A</td>
<td>180W</td>
</tr>
<tr>
<td>TFA180-24-6</td>
<td>C6</td>
<td>24V</td>
<td>7.5A</td>
<td>180W</td>
</tr>
<tr>
<td>TFA180-48-6</td>
<td>C6</td>
<td>48V</td>
<td>3.75A</td>
<td>180W</td>
</tr>
</tbody>
</table>

Tumbler Technologies + TRUMPower
3350 Scott Blvd., Building 13 • Santa Clara, California 95054, USA • 408-988-6616 • sales@trumpower.com • www.TRUMPower.com
## MECHANICAL SPECIFICATIONS

**OUTPUT CONNECTOR**

<table>
<thead>
<tr>
<th>PIN</th>
<th>CONNECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>+V</td>
</tr>
<tr>
<td>2</td>
<td>+V</td>
</tr>
<tr>
<td>3</td>
<td>DC RTN &amp; AC GND</td>
</tr>
<tr>
<td>4</td>
<td>DC RTN &amp; AC GND</td>
</tr>
<tr>
<td>SHELL</td>
<td>DC RTN &amp; AC GND</td>
</tr>
</tbody>
</table>

**Notes:**

1. Unit: mm
2. Weight: 485 grams approx.
3. Standard output connector: 4-pin power DIN plug
4. Contact TRUMPower for output connector options.