TPM150 Series
150 Watts Medical Power Adapters

FEATURES
- IEC 320/C6, C8, C14, C18 Inlets
- IP54 Environmental Rating
- IEC/EN 60601-1 Ed. 3.1 Safety Approvals
- IEC/EN 60601-1-2 Ed. 4 Medical EMC
- Class II Version Meets IEC 60601-1-11
- CEC Level VI & EU CoC EPS V5 Tier 2 Compliant

INPUT SPECIFICATIONS
- Input Voltage Range .......... 90-264 VAC
- Input Frequency ............... 47-63 Hz
- Input Current .................. 2A rms @ 115 VAC
- Inrush Current ................. 90A @ 115 VAC or 180A @ 230 VAC, at 25°C cold start
- No Load Power Cons. .......... <0.15W
- Earth Leakage Current ........ 150 µA max. @ 264 VAC, 63 Hz
- Enclosure Leakage Current . 100 µA max. @ 264 VAC, 63 Hz

OUTPUT SPECIFICATIONS
- Output Power Ratings ........ See models list
- Tolerance ........................ ±5%
- Ripple and Noise* ............... 1% Vp-p max. at full load
- Overvoltage Protection ........ Set at 112-140% of its nominal output voltage
- Overcurrent Protection ........ Protected to short-circuit conditions, auto-recovery
- Over Temp. Protection ........... Latch off, recycle input to reset
- Temperature Coefficient ...... ±0.04%/°C max.
- Transient Response .......... Max. excursion of 4% or better on all models, recovering to 1% of final value within 500 µs after a 25% step load change

GENERAL SPECIFICATIONS
- Power Factor ..................... 0.98 typ. @ 115 VAC
- Efficiency ....................... 88% min. @ full load
- Hold-up Time .................... 20 ms @ 100 VAC
- Line Regulation .................. ±0.5% max. @ full load
- Switching Frequency .......... 50-130 KHz
- Operating Temperature ........ -20°C to +60°C
- Derate from 100% at +40°C linearly to 50% at +60°C
- Storage Temperature .......... -40°C to +85°C
- Relative Humidity ............... 5% to 95% non-condensing
- Ingress Protection .............. IP54
- Withstand Voltage .............. 4,000 VDC input-output (2MOPP)
- 1,500 VDC input-ground (1MOPP)
- 500 VDC output-ground
- Operating Altitude .......... 5,000 meters max.
- MTBF ............................. 100K hours minimum at full load, 25°C ambient, calculated per MIL-HDBK-217F

MODELS LIST

<table>
<thead>
<tr>
<th>*Product No.</th>
<th>Output Voltage</th>
<th>Maximum Current</th>
<th>Maximum Output Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPM150-12</td>
<td>12V</td>
<td>11.00A</td>
<td>132W</td>
</tr>
<tr>
<td>TPM150-15</td>
<td>15V</td>
<td>9.00A</td>
<td>135W</td>
</tr>
<tr>
<td>TPM150-18</td>
<td>18V</td>
<td>8.34A</td>
<td>150W</td>
</tr>
<tr>
<td>TPM150-19</td>
<td>19V</td>
<td>7.90A</td>
<td>150W</td>
</tr>
<tr>
<td>TPM150-20</td>
<td>20V</td>
<td>7.50A</td>
<td>150W</td>
</tr>
<tr>
<td>TPM150-24</td>
<td>24V</td>
<td>6.25A</td>
<td>150W</td>
</tr>
<tr>
<td>TPM150-27</td>
<td>27V</td>
<td>5.56A</td>
<td>150W</td>
</tr>
<tr>
<td>TPM150-30</td>
<td>30V</td>
<td>5.00A</td>
<td>150W</td>
</tr>
<tr>
<td>TPM150-36</td>
<td>36V</td>
<td>4.17A</td>
<td>150W</td>
</tr>
<tr>
<td>TPM150-48</td>
<td>48V</td>
<td>3.13A</td>
<td>150W</td>
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</tbody>
</table>

Note: Add suffix "-4" to the P/N for model with C14 inlet, "-6" for C6, "-8" for C8, "-F" for C18 inlet, e.g. TPM150-24-4, TPM150-24-6, TPM150-24-8, TPM150-24-F.

STANDARDS & COMPLIANCE
- IEC/EN 60601-1-2 Ed. 4...... EMC & Immunity Performance
- EN 65011, FCC, VCCI .......... Class B, conducted & radiated
- EN 61000-3-2 .................. Harmonic distortion, Class A & D
- EN 61000-3-3 .................. Line fluctuations & flicker
- EN 61000-4-2 .................. ESD, ±15 KV air and ±8 KV contact
- EN 61000-4-3 .................. Radiated immunity, 10 V/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, 10 Vrms
- EN 61000-4-8 .................. Magnetic field immunity, 30A/m
- EN 61000-4-11 ................. Voltage dip immunity, 30% reduction for 500 ms, 60% reduction for 100 ms, >95% reduction for 20 ms

Safety Standards ............... IEC/EN 60601-1 Edition 3.1,
- ANSI/AAMI ES 60601-1:2012,
- CSA C22.2 No. 60601-1:14

Agency Approvals ............... UL, cUL, TUV, CE, CB

Other Compliance ............... RoHS, CEC & Energy Star Level VI,
- EU CoC EPS V5 Tier 2, IP54,
- IEC 60601-1-11 (Class II version)
TPM150 Series

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MECHANICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>DC OUTPUT CONNECTOR</th>
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<tbody>
<tr>
<td>PIN</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>SHELL/SHIELD</td>
</tr>
</tbody>
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Notes:
1. Unit: inch [mm]
2. Tolerance: 0.02 [0.5] maximum, unless otherwise stated
3. Weight: 1.326 lbs. (600 grams) approx.
4. Standard output connector: Kycon P/N KPPX-4P 4-pin circular DIN plug with lock or equivalent, except TPM150-12 and TPM150-13 without lock
5. Mating connector: Kycon P/N KPJX-4S-S socket or equivalent
6. Cable length: 1,219mm, except TPM150-12 and TPM150-13 (910 mm)
7. Standard Class I model comes with AC and DC Grounds separated. Connected grounds available upon request.
8. Contact TRUMPower for output connector options.