TWM150 Series
150W Medical & ITE Grade AC/DC Power Supplies

FEATURES
- 90~264 VAC Universal Input
- Both ITE & Medical Approvals
- 150W High Power Density in 3” X 2” Footprint
- Operating Altitude: ITE (5,000m), Medical (3,000m)
- Body Floating (BF) Rated, MOPP Type

ELECTRICAL SPECIFICATIONS
Input Voltage ......................... 90~264 VAC
Input Frequency ..................... 47~63 Hz
Input Current ........................ 2A (rms) max. @ 115 VAC,
                                   1A (rms) max. @ 230 VAC
Inrush Current ..................... 50A max. @ 115 VAC, 100A max.
                                   @ 230 VAC at cold start +25°C
Earth Leakage Current .......... 100 μA max. @ 264 VAC
Power Factor ........................ >0.95 @115 VAC, >0.9 @230 VAC
Output Power Ratings ......... See table
Output Voltage Regulation .. ±3% max.

STANDARDS & COMPLIANCES
EMC Standards  ...................... EN 60601-1-2, EN 55011 Class B,
                                   EN 55024, FCC Part 15 Class B, CE
Safety Standards ................. UL/IEC/EN 60601-1 (3.1 Edition),
                                   UL/IEC/EN 62368-1 (2nd Edition)
Agency Approvals .......... UL, CUL, TUV, CE, CB, FCC
Other Compliance ........... RoHS

GENERAL SPECIFICATIONS
Efficiency ......................... >92% @ full load, 230 VAC
Switching Frequency ............ 45~75KHz
Hold-up Time ..................... >10 ms @ full load , 115 VAC
Operating Temperature ......... -20°C to +70°C
Inrush Current ..................... 50A max. @ 115 VAC, 100A max.
                                   @ 230 VAC at cold start +25°C
Earth Leakage Current .......... 100 μA max. @ 264 VAC
Power Factor ........................ >0.95 @115 VAC, >0.9 @230 VAC
Output Power Ratings ......... See table
Output Voltage Regulation .. ±3% max.

MODELS LIST

<table>
<thead>
<tr>
<th>Product No.</th>
<th>Output Voltage</th>
<th>Maximum Load</th>
<th>Ripple &amp; Noise (Vp-p) (3)</th>
<th>Max. Output</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>@ Convection</td>
<td>@ 10 CFM</td>
<td>Regulation</td>
<td></td>
</tr>
<tr>
<td>TWM150-12</td>
<td>12V</td>
<td>8.34A</td>
<td>12.50A</td>
<td>±3%</td>
</tr>
<tr>
<td>TWM150-15</td>
<td>15V</td>
<td>6.67A</td>
<td>10A</td>
<td>±3%</td>
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<tr>
<td>TWM150-18</td>
<td>18V</td>
<td>5.56A</td>
<td>8.34A</td>
<td>±3%</td>
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<td>TWM150-24</td>
<td>24V</td>
<td>4.17A</td>
<td>6.25A</td>
<td>±3%</td>
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<tr>
<td>TWM150-28</td>
<td>28V</td>
<td>3.58A</td>
<td>5.36A</td>
<td>±2%</td>
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<td>TWM150-36</td>
<td>36V</td>
<td>2.78A</td>
<td>4.17A</td>
<td>±2%</td>
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<td>TWM150-48</td>
<td>48V</td>
<td>2.09A</td>
<td>3.13A</td>
<td>±2%</td>
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<tr>
<td>TWM150-54</td>
<td>54V</td>
<td>1.86A</td>
<td>2.78A</td>
<td>±2%</td>
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</table>

Notes:
1. Standard form factor is open frame. For U-Channel format, add suffix “B”. For enclosed format, add suffix “C”.
2. All models have total power 100W max. convection or 150W max. forced air cooling.
3. R&N are measured at 20 MHz bandwidth with a 10μF electrolytic capacitor and with 0.1μF ceramic capacitor in parallel.
4. Add suffix “T” for the optional Eurostyle P.C.B. 3.81mm Terminal Block output connector.
### MECHANICAL SPECIFICATIONS

**Open Frame Format**

**U-Channel Format**

**Enclosed Format**

**Outline Drawing**

**Notes:**
1. Dimensions in mm
2. Tolerance: ±0.5mm
**INPUT & OUTPUT CONNECTORS**

**CN1: Input Connector**
JST B3P-VH-B (3.96mm pitch) or equivalent; mates with JST VHR-3N or equivalent.

<table>
<thead>
<tr>
<th>Pin #</th>
<th>Function</th>
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<tbody>
<tr>
<td>1</td>
<td>AC Line</td>
</tr>
<tr>
<td>2</td>
<td>AC Neutral</td>
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</table>

**CN2: Output Connector**
Standard: JST B4P-VH-B (3.96mm pitch) or equivalent; mates with JST VHR-4N or equivalent.
Optional: Eurostyle P.C.B. terminal block, 3.81mm pitch (add suffix "T", e.g. TWM150-18T, TWM150-18TC, etc.)

<table>
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<tr>
<th>Pin #</th>
<th>Function</th>
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<tbody>
<tr>
<td>1, 2</td>
<td>GND</td>
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<tr>
<td>3, 4</td>
<td>+Vo</td>
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