TTG250 Series
250W GaN-Based AC/DC Power Adapters

FEATURES
- GaN FET Based Compact Design
- 11 W/in³ High Power Density
- IEC 320/C14 or C18 AC Inlet
- 91-93% Average Efficiency
- 5,000m Operating Altitude
- Energy Efficiency Level VI & CoC Tier 2
- IEC/EN/UL 62368-1 Approved

INPUT SPECIFICATIONS
- Input Voltage Range ............ 100-240 VAC
- Input Frequency ................... 50-60 Hz
- Input Current ........................3.3A max. @ 100 VAC/240 VAC
- Inrush Current ......................120A max. @ full load, at 25°C cold start
- Touch Current ......................250 µA max. @ 264 VAC (C18 inlet)
- Leakage Current ..................350 µA max. @ 264 VAC (C14 inlet)

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* .............1% Vp-p max. of output @ full load
- Over Voltage Protection Set @ 150%; Latch off
- Over Current Protection Set @ 170%; Auto-recovery
- Short Circuit Protection Shut down; Auto-recovery
- Thermal Shutdown ..........Protected to over-temp. conditions
- Temperature Coefficient ......±0.04%/°C max.
- Transient Response ............0.5 ms for 50% load change typical

GENERAL SPECIFICATIONS
- Power Factor ..................>0.9 typical @ 115 VAC
- Efficiency ......................88% min. @ full load
- Switching Frequency ..........250 KHz.
- Hold-Up Time .................10 ms min. @ full load
- Operating Altitude ..........5,000 meters max.
- Operating Temperature ......-20°C to +40°C
- Derating .....................Derate from 100% at +40°C linearly to 50% at +60°C
- Storage Temperature ..........-20°C to +80°C
- Operating Humidity ............20% to 80%, non-condensing
- Storage Humidity ..............10% to 90%, non-condensing
- Withstand Voltage ..........4,242 VDC, input to output
- Storage Temperature ..........2,500 VDC, input to ground
- MTBF .......................300,000 hours minimum at full load, 25°C ambient, calculated per Telcordia SR-332

MODELS LIST

<table>
<thead>
<tr>
<th>Product No. (1)</th>
<th>Output Voltage</th>
<th>Maximum Output Current</th>
<th>Maximum Output Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>TTG250-12</td>
<td>12V</td>
<td>19A</td>
<td>228W</td>
</tr>
<tr>
<td>TTG250-19</td>
<td>19V</td>
<td>13.2A</td>
<td>250W</td>
</tr>
<tr>
<td>TTG250-24</td>
<td>24V</td>
<td>10.4A</td>
<td>250W</td>
</tr>
<tr>
<td>TTG250-48</td>
<td>48V</td>
<td>5.2A</td>
<td>250W</td>
</tr>
<tr>
<td>TTG250-56</td>
<td>56V</td>
<td>4.48A</td>
<td>250W</td>
</tr>
</tbody>
</table>

Note:
1) Add suffix "-4" to the P/N for models furnished with IEC 320/C14 AC inlet, "-F" for C18 inlet, e.g. TTG250-12-4, TTG250-12-F, etc.

STANDARDS & COMPLIANCE
- EN 55032, CISPR 32 ......Class B, conducted & radiated
- FCC, VCCI ..................Class B, conducted & radiated
- EN 61000-3-2 ..............Harmonic distortion, Class D
- EN 61000-3-3 ..............Line flicker
- EN 55024 ...................Immunity Standard
- EN 61000-4-2 ..............ESD, ±8 KV air and ±4 KV contact
- EN 61000-4-3 ..............Radiated immunity, 3 V/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, 1 A/m
- EN 61000-4-11 ..............Voltage dips, 30% reduction for 500ms, >95% reduction for 10ms

Safety Standards ...............IEC/EN/UL 62368-1
Agency Approvals ..............UL, cUL, TUV/GS, PSE, CE, CB
Other Compliance ..............RoHS, Energy Star 2.0, ErP Stage 2, DoE Level VI, CoC Tier 2, NRCan, GEMS Level VI
MECHANICAL SPECIFICATIONS

Notes:
1. Unit: mm
2. Weight: 855 grams approx.
4. Mating connector: Molex P/N: 39-01-2066 with male terminal #5558, #5566, #5569 or equivalent.