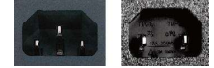




**FEATURES**

- GaN FET Based Compact Design
- 50% Size Reduction with 11 W/in<sup>3</sup> Power Density
- 91-93% Average Efficiency
- Compliant with DoE Level VI
- C14 (Class I) & C18 (Class II), 2 X MOPP
- IEC/UL/CSA 60601-1, 60601-1-11 & 62368-1 Approved
- Class II Certified for Use in Home Healthcare Environment



**INPUT SPECIFICATIONS**

Input Voltage Range ..... 100-240 VAC  
 Input Frequency ..... 50-60 Hz  
 Input Current ..... 3.5A max. @ 100 VAC/240 VAC  
 Inrush Current ..... 120A max. @ full load,  
 at 25°C cold start  
 Touch Current ..... 100 µA max. @ 264 VAC  
 Leakage Current ..... 250 µA max. @ 264 VAC

**OUTPUT SPECIFICATIONS**

Output Power Ratings ..... See models list  
 No Load Power Cons. .... 0.21W typical  
 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

\* Measured with 20MHz bandwidth at nominal line voltage and full load, with a 47µF low ESR electrolytic capacitor in parallel with a 0.1µF multilayer capacitor in parallel across the output.

**GENERAL SPECIFICATIONS**

Power Factor ..... >0.90 typical @ full load  
 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 ..... 0°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 ..... 4,000 VAC, input to output (2 MOPP)  
 1,500 VAC, input to ground (1 MOPP)  
 MTBF ..... 300,000 hours minimum at full load,  
 25°C ambient, calculated per  
 Telcordia SR-332

**MODELS LIST**

Product No. <sup>(1)</sup>	Output Voltage	Maximum Output Current	Maximum Output Power
TGM250-12	12V	19A	228W
TGM250-19	19V	13.2A	250W
TGM250-24	24V	10.4A	250W
TGM250-48	48V	5.2A	250W
TGM250-56	56V	4.48A	250W

**Note:**

1) Add suffix "-4" to the P/N for models come with IEC 320/C14 AC inlet, "-F" for IEC 320/C18 inlet, e.g. TGM250-12-4, TGM250-12-F, etc.

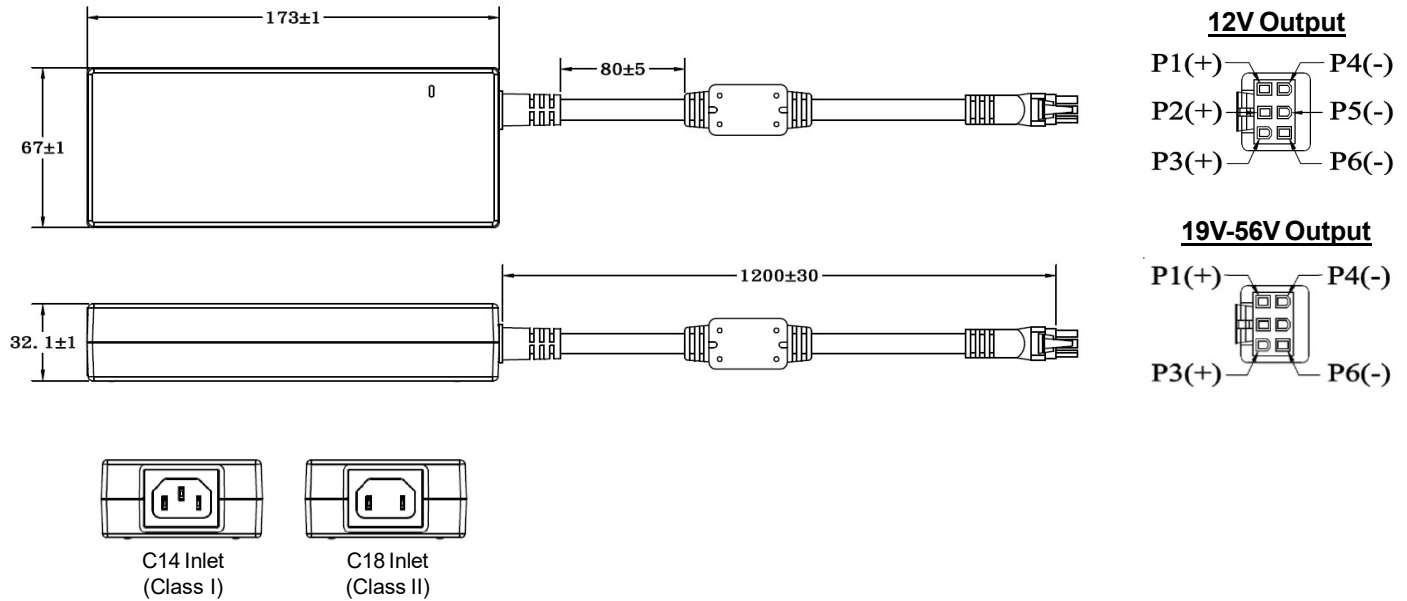
**STANDARDS & COMPLIANCE**

IEC/EN 60601-1-2 Ed. 4.0. EMC & Immunity Performance  
 EN 55011, 55024, 55032 .. 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, 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, 30 A/m  
 EN 61000-4-11 ..... Voltage dips,  
 30% reduction for 500ms,  
 60% reduction for 100ms,  
 >95% reduction for 10ms  
 Safety Standards ..... IEC 60601-1 (Ed. 3.1),  
 ANSI/AAMI ES 60601-1:2012,  
 CAN/CSA-C22.2 No. 60601-1:14,  
 IEC/EN/UL 62368-1 (2nd. Ed.);  
*For Class II only:*  
 IEC/EN 60601-1-6:2015,  
 CAN/CSA-C22.2 60601-1-6:11,  
 IEC 60601-1-11:2015,  
 ANSI/AAMI/HA60601-1-11:2015,  
 CAN/CSA-C22.2 60601-1-11:2015  
 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

# TGM250 Series

## Medical & ITE Grade 250 Watts GaN Power Adapters

### MECHANICAL SPECIFICATIONS



#### Notes:

1. Unit: mm
2. Weight: 855 grams approx.
3. Standard output connector: Molex Mini-Fit receptacle P/N: 39-01-2060 with Molex terminal P/N: 45750-3111.
4. Mating connector: Molex P/N: 39-01-2066 with male terminal #5558, #5566, #5569 or equivalent.
5. Length of output cable: 1200mm