



FEATURES

- Fanless, Convection Cooled
- Suitable for BF Rated Applications
- GaN FET Based Compact Design
- Efficiency Up to 95%
- Touch Current Less Than 100 μ A
- Latest ITE 62368-1 and Medical 60601-1 Approvals



INPUT SPECIFICATIONS

Input Voltage Range	100 ~ 264 VAC
Input Frequency	50 ~ 60 Hz
Input Current	5.3A rms max. @ 115 VAC 2.2A rms max. @ 230 VAC
Inrush Current	150A @ 240 VAC, at 25°C cold start
Touch Current	<100 μ A max. @ 264 VAC
Earth Leakage Current	<380 μ A max

OUTPUT SPECIFICATIONS

Output Power Ratings	See table
No Load Power Cons.	0.5W max.
Line Regulation	\pm 1% max.
Load Regulation	\pm 5% max.
Ripple and Noise*	1% Vp-p max. of the output voltage
Over Voltage Protection	Set at 150% of its nominal output voltage; Latch off
Over Temp. Protection	Shut down
Short Circuit Protection	Auto-recovery
Over Current Protection	Set at 150% of its nominal output current; Auto-recovery
Temperature Coefficient	\pm 0.04%/°C max.
Transient Response	0.5 ms @ 50% load change

* Peak-to-peak value measured with 20MHz bandwidth with a 10 μ F tantalum capacitor in parallel with a 0.1 μ F ceramic capacitor.

GENERAL SPECIFICATIONS

Power Factor	0.90 typical @ full load
Efficiency	95% typical @ full load
Switching Frequency	100 kHz
Hold-up Time	10 ms @ full load
Operating Altitude	5,000m max.
Operating Temperature	-20°C to +60°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-output (2 MOPP) 1,500 VAC, input-ground (1 MOPP) 1,500 VAC, output-ground
MTBF	300 KHrs minimum at full load, 25°C ambient, calculated per Telecordia SR-332

MODELS LIST

Product No.	Output Voltage	Output Current	Max. Output Power
TGM450-12	12V	33.34A	400W
TGM450-24	24V	18.75A	450W
TGM450-48	48V	9.38A	450W
TGM450-56	56V	8.05A	450W

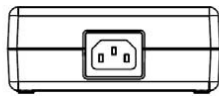
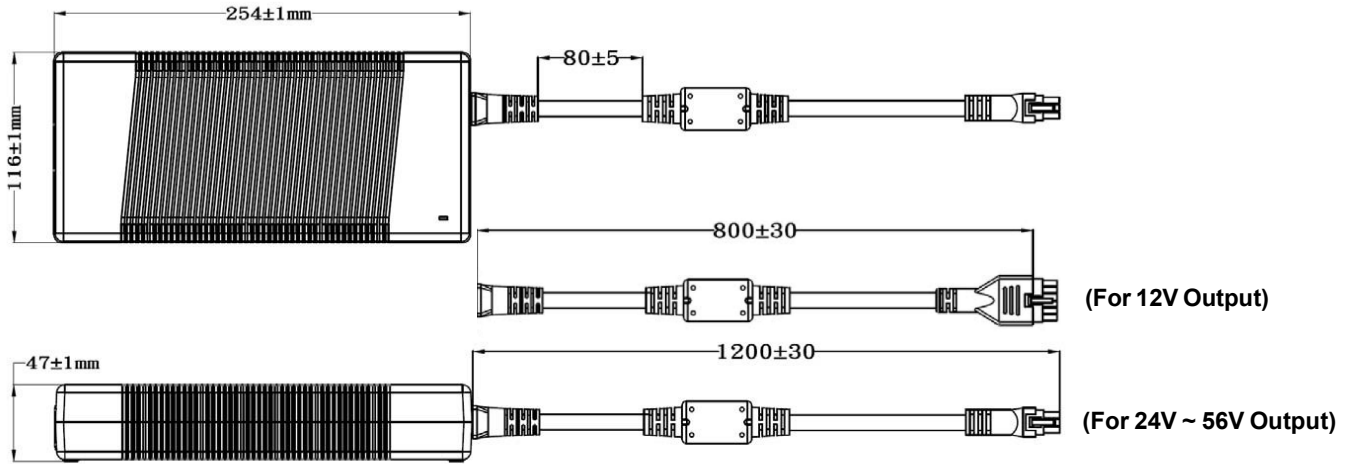
STANDARDS & COMPLIANCE

IEC 60601-1-2:2014	EMC & Immunity Performance
EN 55011	Class B, conducted & radiated
FCC, CISPR 11	Class B, conducted & radiated
EN 61000-3-2	Harmonic distortion, Class A & D
EN 61000-3-3	Line flicker
EN 61000-4-2	ESD, \pm 15 KV air and \pm 8 KV contact
EN 61000-4-3	Radiated immunity, 10V/m
EN 61000-4-4	Fast transient/burst, \pm 2 KV
EN 61000-4-5	Surge, \pm 1 KV diff., \pm 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 dips, 30% reduction for 500ms, 100% reduction for 10 ms
Safety Standards	UL/IEC/EN 60601-1 (3.1 Edition), ANSI/AAMI ES 60601-1:2012, CSA C22.2 No. 60601-1:2014; UL/IEC/EN 62368-1 (3rd Edition)
Agency Approvals	UL, cUL, TUV, CE, CB, PSE, GS, BSMI
Other Compliance	RoHS, CEC & Energy Star Level VI, ErP Stage 2

TGM450 Series

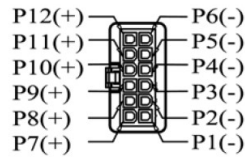
450 Watts Medical & ITE Grade Power Adapters

MECHANICAL SPECIFICATIONS



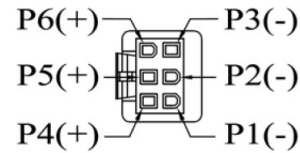
FRONT-VIEW

(12V Output)



PIN	FUNCTION
1 ~ 6	RETURN
7 ~ 12	+V

(24V ~ 56V Output)



PIN	FUNCTION
1 ~ 3	RETURN
4 ~ 6	+V

Notes:

1. Unit: mm
2. Tolerance: 0.5mm maximum, unless otherwise stated.
3. Weight: 1.6kg (3.53lbs) approx.
4. Cable length is 800mm for 12V output in order to meet CEC Level VI.
5. Standard output connector: For 12V model, Molex Mini-Fit receptacle P/N: 39-01-2125 with Molex terminal P/N: 45750-3111. For all other models, Molex Mini-Fit receptacle P/N: 39-01-2065 with Molex terminal P/N: 45750-3111.
6. Contact TRUMPower for output connector and cable options.
7. Standard is AC Ground & DC Return separated. Connected available upon request.