



FEATURES

- Fanless, Convection Cooled
- Suitable for BF Rated Applications
- 480W/520W Peak Power Capability for 3 Seconds
- Operation Altitude Up to 5,000 Meters
- Touch Current Less than 100 μ A
- ITE 62368-1 and Medical 60601-1 Approvals



MODELS LIST

Product No.	Output Voltage	Output Current	Peak Power (3 Seconds)		Ripple & Noise (Vp-p)	Output Regulation	Max. Output Power
			115 VAC	230 VAC			
TMA400-12	12V	31.66A	480W	520W	120mV	\pm 5%	380W
TMA400-19	19V	21.05A			190mV	\pm 5%	400W
TMA400-24	24V	16.66A			240mV	\pm 5%	400W
TMA400-28	28V	14.28A			300mV	\pm 5%	400W
TMA400-48	48V	8.33A			300mV	\pm 5%	400W

INPUT SPECIFICATIONS

Input Voltage Range 90~264 VAC
 Input Frequency 47~63 Hz
 Input Current 4.2A rms @ 115 VAC,
 2.1A rms @ 230 VAC
 Inrush Current 35A max. @ 115 VAC or 70A max.
 @ 230 VAC, at 25°C cold start
 Earth Leakage Current 200 μ A max. @ 264 VAC
 Touch Current 100 μ A max. @ 264 VAC

OUTPUT SPECIFICATIONS

Output Power Ratings See table
 No Load Input Power <0.5W max.
 Output Regulation \pm 5%
 Ripple and Noise* 1% peak to peak max. at full load
 Short Circuit Protection Auto-recovery
 Over Voltage Protection Auto-recovery
 Over Load Protection Auto-recovery
 Over Temperature Protection ... Auto-recovery
 Temperature Coefficient \pm 0.04%/°C max.
 Maximum Output Power (Po): .. 380/400W convection cooling

* Measured with 20MHz bandwidth at rated line voltage and output load ranges, with a 10 μ F tantalum capacitor in parallel with a 0.1 μ F ceramic capacitor in parallel across the output.

GENERAL SPECIFICATIONS

Power Factor >0.95 @ 115 VAC,
 >0.90 @ 230 VAC, full load
 Efficiency 87.5% min. @ 115 VAC/230 VAC,
 92% min. @ 80% full load, 230 VAC
 Hold-up Time >10ms typ. @ full load, 115 VAC
 Switching Frequency 54~75 kHz @ full load
 Line Regulation \pm 0.5% max. @ full load
 Operating Temperature -20°C to +60°C
 Operating Humidity 10% to 95% non-condensing
 Storage Temperature -20°C to +85°C
 Storage Humidity 0% to 95% non-condensing
 Derating Derate from 100% at +40°C
 linearly to 50% at +60°C
 Withstand Voltage 4,000 VAC from input to output
 (2MOPP),
 1,500 VAC from input to ground,
 (1MOPP),
 1,500 VAC from output to ground,
 (1MOPP)
 Operating Altitude 5,000 meters max.
 MTBF 230K hours minimum at full load,
 25°C ambient, calculated per
 Bellcore TR-332

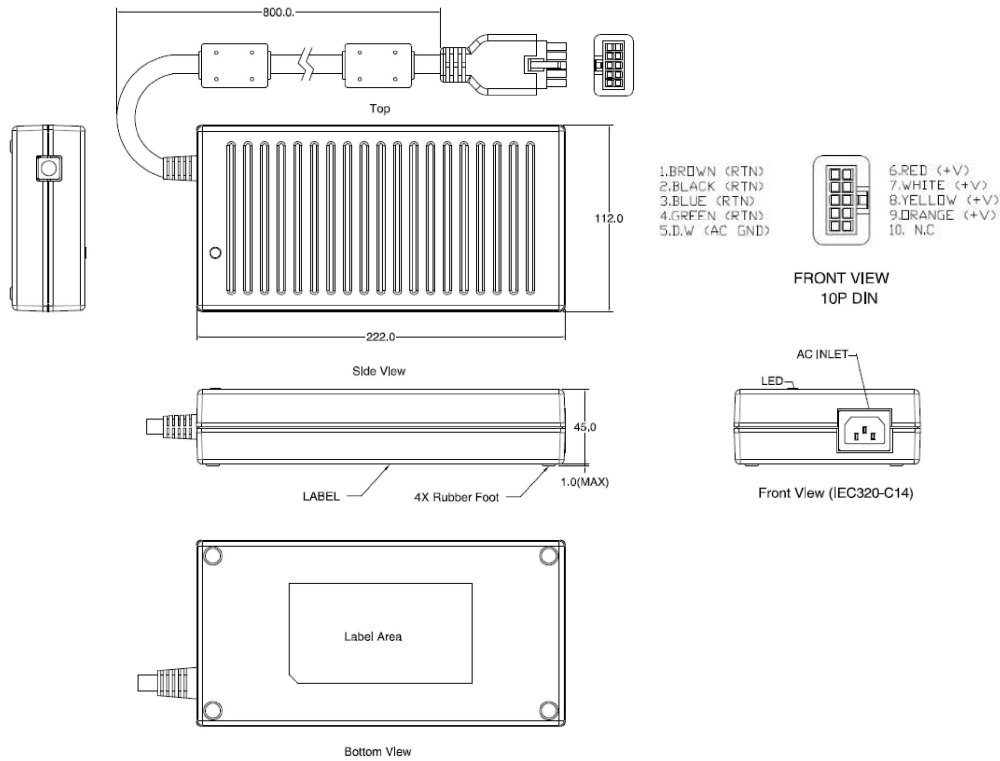
STANDARDS & COMPLIANCES

IEC/EN 60601-1-2 Ed. 4 EMC & Immunity Performance
 EN 55011, 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, \pm 15 KV air and \pm 8 KV contact
 EN 61000-4-3 Radiated immunity, 10 V/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, 30 A/m
 EN 61000-4-11 Voltage dip immunity,
 30% reduction for 500ms,
 60% reduction for 100ms,
 >95% reduction for 10ms
 Safety Standards UL/IEC/EN 60601-1 (Ed. 3.1),
 ANSI/AAMI ES 60601-1 (Ed. 3.1),
 CSA C22.2 No. 60601-1 (Ed. 3.1),
 UL/IEC/EN 62368-1 (3rd Ed.),
 CSA C22.2 No. 62368-1 (3rd Ed.)
 Agency Approvals UL, cUL, TUV, CE, CB, FCC
 Other Compliances RoHS, DOE Level VI

TMA400 Series

400 Watts Medical & ITE Power Adapters

MECHANICAL SPECIFICATIONS



DC OUTPUT CONNECTOR	
PIN	FUNCTION
1	RETURN
2	
3	
4	
5	AC GND
6	+V
7	
8	
9	
10	N.C.

Notes:

1. Unit: mm
2. Tolerance: ± 1.5 mm
3. Standard output connector: Molex Mini-Fit 10 PIN connector, 4.2mm pitch or equivalent.
4. Mating connector: Molex P/N 39-28-1123 or equivalent.
5. Standard Output Cable: 8C+1, UL2464, 16AWG, VW-1, 80°C, 300V.
6. Weight: 2.85 kgs (6.28 lbs) approx.
7. Standard models come with AC Ground and DC Return separated. Connected grounds available upon request.
8. Contact TRUMPower for output connector options.