



FEATURES

- IEC 320/C14 Inlet
- Class I with 2 MOPP
- LED Power Indicator
- 5V to 36V Output Voltages
- 3,000 Meters Operating Altitude
- 0.3W No Load Power Consumption
- UL, cUL, TUV, PSE, FCC, CB & CE Approvals

INPUT SPECIFICATIONS

Input Voltage Range	90~275 VAC
Input Frequency	47~63Hz
Input Current	0.32A rms max. @ 100 VAC, 0.19A rms max. @ 240 VAC
Inrush Current	23A @ 100 VAC or 55A @ 240 VAC, at 25°C cold start
No Load Power Consumption...	0.3W max.
Earth Leakage Current	100µA max. @ 240 VAC, 60 Hz

OUTPUT SPECIFICATIONS

Output Power Ratings	See models list
Minimum Load	Not required
Line Regulation	±1% max. @ full load
Total Regulation	See models list
Ripple & Noise	See models list
Overload Protection	Set at 110-150% of its nominal output voltage; Auto recovery
Overvoltage Protection	Set at 112-132% of its nominal output voltage
Temperature Coefficient	±0.04%/°C max.
Transient Response	4ms @ 110 VAC, full load

GENERAL SPECIFICATIONS

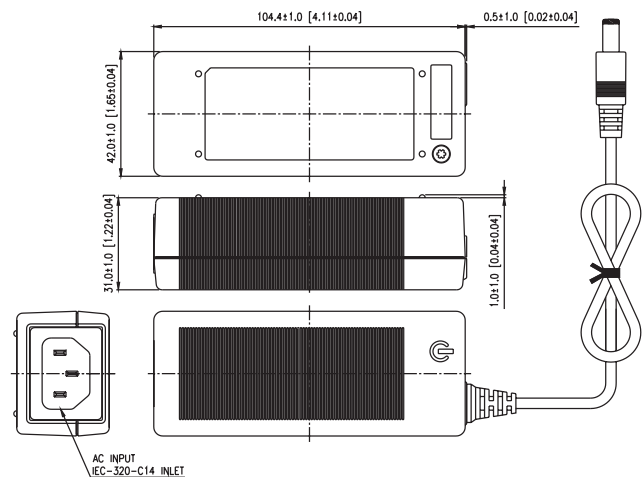
Efficiency	See models list
Hold-up Time	10ms min. @ 100 VAC, full load
Start-up Time	1 second max. @ full load
Operating Temperature	-10°C to +70°C
Derating	Derate from 100% at +50°C linearly to 50% at +70°C
Storage Temperature	-40°C to +85°C
Relative Humidity	0% to 95% non-condensing
Withstand Voltage	4,000 VAC from input to output, 1,500 VAC from input to ground
Operating Altitude	3,000 meters max.
MTBF	100K hours minimum at full load, 25°C ambient, calculated per MIL-HDBK-217F



STANDARDS & COMPLIANCES

IEC/EN 60601-1-2	EMC & Immunity Performance
EN 55011, CISPR11	Class B, conducted & radiated
FCC, VCCI	Class B, conducted & radiated
EN 61000-3-2	Harmonic distortion, Class B & D
EN 61000-3-3	Line flicker
EN 61000-4-2	ESD, ±8 KV air and ±6 KV contact
EN 61000-4-3	Radiated immunity, 3V/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, 3 Vrms
EN 61000-4-8	Magnetic field immunity, 3A/m
EN 61000-4-11	Voltage dips, 30% reduction for 500ms, 60% reduction for 100ms, >95% reduction for 10ms
Safety Standards	IEC/EN/UL 60601-1 (3rd Ed.), ANSI/AAMI ES 60601-1 (1st Ed.), CSA C22.2 No. 60601-1 (2nd Ed.)
Agency Approvals	UL, cUL, TUV, PSE, FCC, CE, CB
Other Compliances	RoHS2, CEC V

MECHANICAL SPECIFICATIONS



Unit: inch. [mm]
Tolerance: 0.02 [0.5] max.
Weight: 170g (0.38 lb) approx.

Notes:

1. Standard output connector: 2.5 x 5.5 mm or 2.1 x 5.5 mm barrel plug
2. Standard output cable: 4ft, AWG#16 for 5-7.99V output models;
4ft, AWG#18 for 8-36V output models.
3. Contact TRUMPower for other output cable and connector options.

MODELS LIST

Product No. ⁽¹⁾	Output Voltage ⁽¹⁾	Max. Output Current	Max. Output Power	Ripple & Noise ⁽²⁾ (Vp-p Max.)	Total Regulation	Efficiency (Typ.)
TSM15-05-4	5V	2.6A	13W	50mV	±5%	75%
TSM15-07-4	7V	1.86A	13W	60mV	±5%	78%
TSM15-09-4	9V	1.67A	15W	80mV	±5%	81%
TSM15-12-4	12V	1.25A	15W	100mV	±5%	81%
TSM15-15-4	15V	1A	15W	100mV	±5%	81%
TSM15-19-4	19V	0.79A	15W	100mV	±5%	81%
TSM15-24-4	24V	0.625A	15W	100mV	±3%	82%
TSM15-30-4	30V	0.5A	15W	100mV	±3%	84%
TSM15-36-4	36V	0.417A	15W	100mV	±3%	85%

Notes:

1. Specify the output voltage, within 5V to 36V, when ordering non-standard output models, e.g. TSM15-7.5-4 for 7.5V output.
2. Ripple & Noise are measured with 20MHz bandwidth at nominal line and rated output load ranges, with a 0.47µF capacitor connected across the output.