



FEATURES

- IEC 320/C14 AC Inlet
- Class I with 2 MOPP
- Optional On/Off Switch
- Active Power Factor Correction
- Low Safety Ground Leakage Current
- IEC/EN 60601-1 (3rd) & ES 60601-1 Approvals



INPUT SPECIFICATIONS

Input Voltage Range	90~260 VAC
Input Frequency	47~63Hz
Input Current	1.25A rms @ 100 VAC, 0.5A rms @ 240 VAC
Inrush Current	50A @ 100 VAC or 120A @ 240 VAC, at 25°C cold start
Earth Leakage Current	100µA max. @ 240 VAC, 60 Hz
No Load Power Consumption...	3W typical, 4W max.

OUTPUT SPECIFICATIONS

Output Power Ratings	See models list
Minimum Load	Single output - Not required Dual & Triple - See models list
Total Regulation	See models list
Ripple and Noise*	See models list
Overvoltage Protection	Set at 112-132% of its nominal output voltage; Latch off
Overload Protection	Set at 110-150% of its nominal output voltage; Auto recovery
Short Circuit Protection	Auto recovery
Temperature Coefficient	±0.04%/°C max.
Transient Response	4 ms @ 110 VAC, full load
Hold-up Time	16 ms min. @ 100 VAC, full load

* Ripple & Noise is measured with 20MHz bandwidth at nominal line and rated output load ranges, with a 0.47µF capacitor across each output.

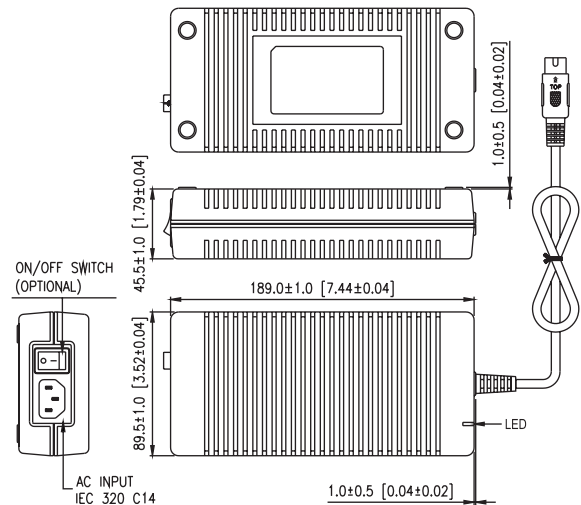
GENERAL SPECIFICATIONS

Power Factor	0.95
Efficiency	See models list
Hold-up Time	16 ms @ 100 VAC
Switching Frequency	100KHz
Line Regulation	±1% max. at 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	5,656 VDC from input to output 2,121 VDC 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 60601-1 (3rd Ed.), ANSI/AAMI ES 60601-1 (1st Ed.), CSA C22.2 No. 60601-1 (2nd Ed.)
Agency Approvals	UL, cUL, TUV, CE, CB
Other Compliance	RoHS2

MECHANICAL SPECIFICATIONS



Unit: inch [mm]
Tolerance: 0.02 [0.5] max.
Weight: 800g (1.77 lb) approx.

Notes:

1. Standard output connector: 4 pins power DIN plug for single output; 5 pins or 8 pins DIN plug for multiple outputs.
2. Contact TRUMPower for other output connector options.

TSM100 Series

Medical Grade 55-100W Single/Dual/Triple Output Power Adapters

MODELS LIST

Single Output

Product No.	Output Voltage	Max. Output Current	Max. Output Power	Ripple & Noise (Vp-p)	Total Regulation	Typical Efficiency
TSM100-S05	5V	14A	70W	50mV	±5%	76%
TSM100-S07	7V	11.42A	80W	60mV	±5%	77%
TSM100-S09	9V	10A	90W	80mV	±4%	82%
TSM100-S12	12V	8.33A	100W	100mV	±3%	83%
TSM100-S15	15V	6.66A	100W	100mV	±3%	85%
TSM100-S19	19V	5.26A	100W	100mV	±3%	86%
TSM100-S24	24V	4.17A	100W	100mV	±2%	86%
TSM100-S30	30V	3.33A	100W	100mV	±2%	86%
TSM100-S36	36V	2.78A	100W	100mV	±2%	86%

Notes:

1. Specify output voltage, within 5-40V, when ordering non-standard single output models, e.g. TSM100-S16 for 16V.
2. Add suffix "S" to order the on/off switch option, e.g. TSM100-S12-S.

Dual Outputs

Product No.	Output Voltage	Output Current		Max. Output Power	Ripple & Noise (Vp-p)	Total Regulation	Typical Efficiency
		Min.	Max.				
TSM100-D20	+3.3V	1A	10A	69W	66mV	±7%	75%
	+12V	0.3A	3A		100mV	±5%	
TSM100-D21	+5V	1A	10A	80W	50mV	±5%	76%
	+12V	0.3A	3A		100mV		
TSM100-D22	+5V	1A	10A	80W	50mV	±5%	76%
	+15V	0.3A	3A		100mV	±6%	
TSM100-D23	+5V	1A	10A	80W	50mV	±5%	76%
	+24V	0.2A	2A		100mV	±7%	
TSM100-D24	+3.3V	1A	10A	55W	66mV	±7%	76%
	+5V	0.5A	5A		50mV	±5%	
TSM100-D25	+12V	0.7A	7A	80W	100mV	±5%	81%
	-12V	0A	1A				
TSM100-D26	+15V	0.6A	6A	80W	100mV	±5%	82%
	-15V	0A	1A				
TSM100-D27	+24V	0.3A	3A	80W	100mV	±5%	82%
	-24V	0A	1A				
TSM100-D28	+5V	1A	10A	74W	50mV	±5%	82%
	-24V	0A	1A		100mV		

TSM100 Series

Medical Grade 55-100W Single/Dual/Triple Output Power Adapters

MODELS LIST (Cont.)

Triple Outputs

Product No.	Output Voltage	Output Current		Max. Output Power	Ripple & Noise (Vp-p)	Total Reg.	Eff.
		Min.	Max.				
TSM100-T30	+3.3V	1A	10A	74W	66mV	±7%	76%
	+12V	0.3A	3A		100mV	±5%	
	-12V	0A	1A		100mV	±5%	
TSM100-T301	+3.3V	1A	10A	74W	66mV	±7%	76%
	+12V	0.3A	3A		100mV	±5%	
	+12V	0A	1A		100mV	±5%	
TSM100-T31	+5V	1A	10A	80W	50mV	±5%	76%
	+12V	0.3A	3A		100mV		
	-5V	0A	1A		100mV		
TSM100-T311	+5V	1A	10A	80W	50mV	±5%	76%
	+12V	0.3A	3A		100mV		
	+5V	0A	1A		100mV		
TSM100-T32	+5V	1A	10A	80W	50mV	±5%	78%
	+12V	0.3A	3A		100mV		
	-12V	0A	1A		100mV		
TSM100-T321	+5V	1A	10A	80W	50mV	±5%	78%
	+12V	0.3A	3A		100mV		
	+12V	0A	1A		100mV		
TSM100-T33	+5V	1A	10A	80W	50mV	±5%	79%
	+15V	0.3A	3A		100mV	±6%	
	-15V	0A	1A		100mV	±5%	
TSM100-T331	+5V	1A	10A	80W	50mV	±5%	79%
	+15V	0.3A	3A		100mV	±6%	
	+15V	0A	1A		100mV	±5%	

Product No.	Output Voltage	Output Current		Max. Output Power	Ripple & Noise (Vp-p)	Total Reg.	Eff.
		Min.	Max.				
TSM100-T34	+5V	1A	10A	80W	50mV	±5%	82%
	+24V	0.3A	3A		100mV		
	-24V	0A	1A		100mV		
TSM100-T341	+5V	1A	10A	80W	50mV	±5%	82%
	+24V	0.3A	3A		100mV		
	+24V	0A	1A		100mV		
TSM100-T35	+5V	1A	10A	80W	50mV	±5%	82%
	+24V	0.3A	3A		100mV		
	-12V	0A	1A		100mV		
TSM100-T351	+5V	1A	10A	80W	50mV	±5%	82%
	+24V	0.3A	3A		100mV		
	+12V	0A	1A		100mV		
TSM100-T36	+3.3V	1A	10A	74W	66mV	±7%	75%
	+12V	0.3A	3A		100mV	±5%	
	-5V	0A	1A		50mV	±5%	
TSM100-T361	+3.3V	1A	10A	74W	66mV	±7%	75%
	+12V	0.3A	3A		100mV	±5%	
	+5V	0A	1A		100mV	±5%	
TSM100-T38	+3.3V	1A	10A	60W	66mV	±7%	60%
	+5V	0.3A	3A		50mV	±5%	
	-12V	0A	1A		100mV	±5%	
TSM100-T381	+3.3V	1A	10A	60W	66mV	±7%	60%
	+5V	0.3A	3A		50mV	±5%	
	+12V	0A	1A		100mV	±5%	