TRUMPower

TMC150 Series

150 Watts AC/DC Medical & ITE Grade Power Supplies

FEATURES

- 2" x 4" x 1.2" Open Frame
- Low Leakage Current
- BF Rated Outputs
- Remote Sense & Optional PFD
- 0.5W No Load Power Consumption

MODELS LIST

Product No.[1]	Output Voltage	Maximum Output Power [2]			
		@ Convection		@ 7.5 CFM	
		Current	Wattage	Current	Wattage
TMC150-S12	12V	8.35A	100W	12.5A	150W
TMC150-S15	15V	6.7A	100W	10A	150W
TMC150-S18	18V	5.56A	100W	8.34A	150W
TMC150-S24	24V	4.2A	100W	6.25A	150W
TMC150-S30	30V	3.34A	100W	5A	150W
TMC150-S36	36V	2.78A	100W	4.17A	150W
TMC150-S48	48V	2.1A	100W	3.13A	150W

Notes:
1. Add suffix F to the P/N to order units with PFD, e.g. TMC150-S24F.
2. 168W peak power with 10% duty cycle maximum for less than 15 seconds with the average output not to exceed the maximum power rating.

INPUT SPECIFICATIONS

Input Voltage Range ..... 90-264 VAC
Input Frequency ..... 47-63 Hz
Input Current ..... 1.7A rms @ 115 VAC, 0.85A rms @ 230 VAC
Inrush Current ..... 80A @ 115 VAC or 160A @ 230 VAC, at 25˚C cold start
Earth Leakage Current ..... 105 µA max. @ 264 VAC, 63 Hz

OUTPUT SPECIFICATIONS

Output Power Ratings ..... See table
Minimum Load ..... Not required
Tolerance ..... ±2%
Ripple and Noise* ..... 1% Vp-p, 20 MHz bandwidth
Remote Sense ..... Compensates cable losses up to 0.5V
Overvoltage Protection ..... Set at 112-140% of its nominal output voltage
Overcurrent Protection ..... Protected to short-circuit conditions
Temperature Coefficient ..... ±0.04%/˚C max.
Transient Response ..... Max. excursion of 4% or better on all models, recovering to 1% of final value within 500 µs after a 25% step load change
No Load Power Cons. ..... <0.5W w/o PFD, <1W with PFD

* Measured with a 10µF tantalum capacitor in parallel with a 0.1µF ceramic capacitor at rated line voltage and load ranges.

GENERAL SPECIFICATIONS

Switching Frequency ..... 133 kHz typical
Power Factor ..... 0.98 typical, with active PFC
Efficiency ..... 87% typical @ 115 VAC, 89% typical @ 230 VAC
Hold-up Time ..... 10 ms min. @ 120 VAC
Operating Altitude ..... 5,000 meters max.
Line Regulation ..... ±0.5% max. @ full load
Operating Temperature ..... 0˚C to +70˚C
Derating ..... Derate from 100% @ +50˚C linearly to 50% @ +70˚C, applicable to convection and forced-air cooling conditions
Storage Temperature ..... -40˚C to +85˚C
Relative Humidity ..... 5% to 95% non-condensing
Withstand Voltage ..... 4,000 VAC, input-output (2 MOPP)
1,500 VAC, input-ground (1 MOPP)
1,500 VAC, output-ground
MTBF ..... 250 kHrs minimum at full load, 25˚C ambient, calculated per MIL-HDBK-217F

STANDARDS & COMPLIANCES

EN55011, EN55022 ..... Class B conducted, Class A radiated
FCC ..... Class B conducted, Class A radiated
VCCI ..... Class B conducted, Class A radiated
EN61000-3-2 ..... Harmonic distortion, Class A & D
EN61000-3-3 ..... Line flicker
EN61000-4-2 ..... ESD, ±8 KV air and ±6 KV contact
EN61000-4-3 ..... Radiated immunity, 3V/m
EN61000-4-4 ..... Fast transient/burst, ±2 KV
EN61000-4-5 ..... Surge, ±1 KV diff., ±2 KV com.
EN61000-4-6 ..... Conducted immunity, 3 Vrms
EN61000-4-8 ..... Magnetic field immunity, 3A/m
EN61000-4-11 ..... Voltage dips immunity, 30% reduction for 500ms, 60% reduction for 100ms, >95% reduction for 10ms
Safety Standards ..... IEC/EN 60601-1 (3rd Edition), ANSI/AAMI ES 60601-1:2005, CSA C22.2 No. 60601-1:08; UL/IEC/EN 60950-1 (2nd Edition), CSA C22.2 No. 60950-1 (2nd Edition)
Agency Approvals ..... UL, cUL, TUV, CB, CE
Other Compliance ..... RoHS

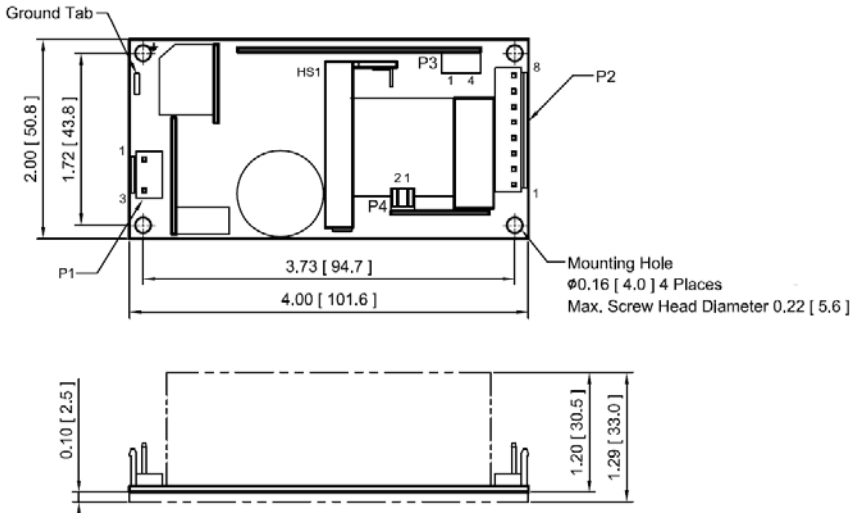
Tumbler Technologies + TRUMPower

3350 Scott Blvd., Building 13 • Santa Clara, California 95054, USA • 408-988-6616 • sales@trumpower.com • www.TRUMPower.com

TMC150 Series

150 Watts AC/DC Medical & ITE Grade Power Supplies

MECHANICAL SPECIFICATIONS



Notes:

1. Dimensions: inches [mm]
2. Tolerance: 0.02 [0.5] maximum
3. Connector P1: JST header P/N B3P-VH, mating with JST housing P/N VHR-3N or equivalent.
4. Connector P2: JST header P/N: B8P-VH, mating with JST housing P/N VHR-8N or equivalent.
5. Connector P3: JST header B4B-PH-K-S (LF) (SN), mating with JST housing PHR-4 or equivalent.
6. Connector P4: JST header B2B-PH-K-S (LF) (SN), mating with JST housing PHR-2 or equivalent.
7. Ground Tab: 0.25 [6.35] x 0.032 [0.8] faston connector.
8. Weight: 200 grams (0.44 lb.) approx.

INPUT & OUTPUT CONNECTORS

CONNECTOR	PIN	FUNCTION
P1	1	AC Neutral
	2	Void
	3	AC Live
P2	1	Common Return
	2	
	3	
	4	
	5	+Vout
	6	
	7	
	8	
P3	1	Comnon Return
	2	PFD (Optional)
	3	-V Sense
	4	+V Sense
P4	1	Fan Return (Isolated)
	2	+12V DC Fan 0.5A Max.

Tumbler Technologies + TRUMPower

3350 Scott Blvd., Building 13 • Santa Clara, California 95054, USA • 408-988-6616 • sales@trumpower.com • www.TRUMPower.com