



FEATURES

- Universal 80 to 264 VAC Input
• BF Rated Class II Insulation
• Designed for Home Health Care Applications
• Low Leakage Current
• 5V/2A Standby Power
• PFD, Remote On/Off & Remote Sense

INPUT SPECIFICATIONS

Input Voltage Range 80-264 VAC
Input Frequency 47-63 Hz
Power Derating Derate linearly from 100% @ 90V to 90% @ 85V and 85% @ 80V
Input Current 5.2A rms @ 115 VAC, 60 Hz
Inrush Current 30A @ 115 VAC, or 60A @ 230 VAC, at 25°C cold start
Touch Current 100 µA max. @ 264 VAC, 63Hz

OUTPUT SPECIFICATIONS

Output Power Ratings See table
Ripple and Noise* 1% peak to peak max.
Line Regulation ±0.5% max. @ full load
Output Tolerance ±2%
Over Voltage Protection Set at 112-140% of its nominal output voltage
Over Current Protection Protected to short-circuit conditions
Thermal Shutdown Protected to over temperature conditions
Temperature Coefficient ±0.04%/°C max.
Remote Sense Compensation for cable losses up to 0.5V
Transient Response Max. excursion of 4% or better on all models, recovering to 1% of final value within 500 us after a 25% step load change
Standby Power 5V@2A max.
Fan Power/Aux. Output 12V @300mA max.

GENERAL SPECIFICATIONS

Switching Frequency 85 KHz typical
Efficiency 92% typical
Operating Altitude 5,000 meters max.
Hold-up Time 20 ms min. @ 110 VAC
Operating Temperature -10°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 (2MOPP)
4,000 VAC, input-case (2MOPP)
1,500 VAC, output-case (1MOPP)
MTBF 100 kHrs minimum at full load, 25°C ambient, calculated per MIL-HDBK-217F



MODELS LIST

Table with columns: Product No., Voltage, @ Convection (Max. Current, Max. Power), @ 30 CFM Forced Air (Max. Current, Max. Power), Ripple & Noise. Lists models TMC500F-12 through TMC500F-57.

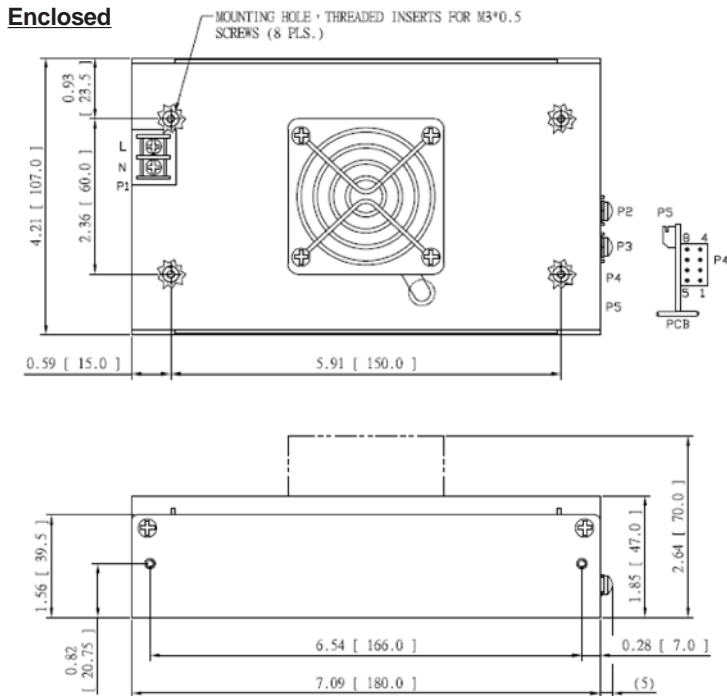
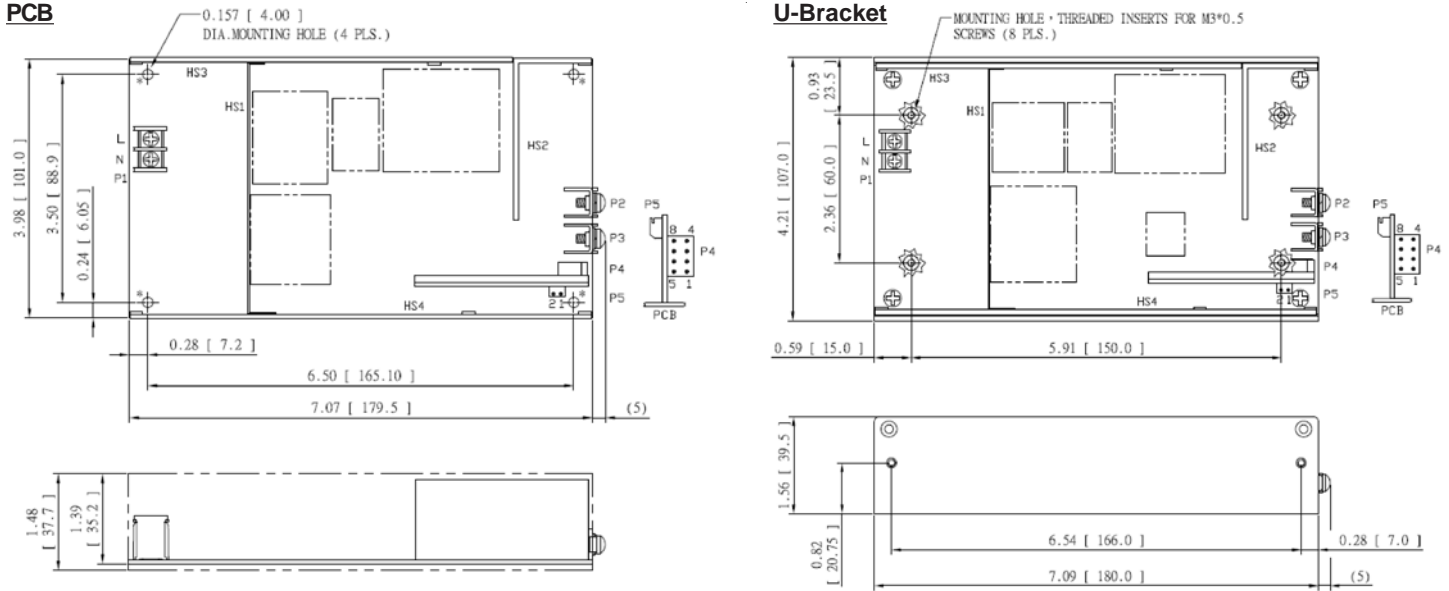
NOTES:

- 1. Standard form factor is PCB. Add suffix "B" for U-bracket and change suffix to "C" for enclosed frame with cooling fan, e.g. TMC500F-24C.
2. R&N is maximum peak-to-peak voltage value measured at output within 20 MHz bandwidth, at rated linevoltage and output load ranges, and with a 10µF tantalum capacitor in parallel with a 0.1µF ceramic capacitor across the output.

STANDARDS & COMPLIANCE

IEC/EN 60601-1-2, Ed. 4 .. EMC & Immunity Performance
EN55011 Class B conducted, Class B radiated
FCC Class B conducted, Class B radiated
VCCI Class B conducted, Class B radiated
EN61000-3-2 Harmonic distortion, Class A & D
EN61000-3-3 Line flicker
EN61000-4-2 ESD, ±15 KV air and ±8 KV contact
EN61000-4-3 Radiated immunity, 10V/m
EN61000-4-4 Fast transient/burst, ±2 KV
EN61000-4-5 Surge, ±1 KV diff., ±2 KV com.
EN61000-4-6 Conducted immunity, 10 Vrms
EN61000-4-8 Magnetic field immunity, 30A/m
EN61000-4-11 Voltage dip immunity, 30% reduction for 500 ms, 100% reduction for 10 ms
Safety Standards UL/IEC/EN 60601-1 (Edition 3.1)
ANSI/AAMI ES 60601-1:2012
CSA C22.2 No. 60601-1:2014
Agency Approvals UL, cUL, TUV, CB, CE
Other Compliance RoHS

MECHANICAL SPECIFICATIONS



CONNECTOR	PIN	FUNCTION
P1	1	LIVE
	2	NEUTRAL
P2		+V
P3		COMMON RETURN
P4	1	COMMON RETURN
	2	+V SENSE
	3	-V SENSE
	4	PFD
	5	INHIBIT
	6	+5V STANDBY
	7	+5V STANDBY
	8	COMMON RETURN
P5	1	COMMON RETURN
	2	+12V FAN

CONTROL SIGNALS	
PFD	TTL high for normal operation, low upon loss of input power, turn-on delay time 100-1000ms, turn-off delay time 1 ms minimum
INHIBIT	Requires an external TTL high level signal to inhibit outputs for standard models.

NOTES:

1. Dimensions: inches [mm]
2. Tolerance: 0.02 [0.5] maximum
3. Input connector P1: Dinkle terminal P/N DT-35C-B01W-02 with M3, nickel plated screws.
4. Output connectors P2 & P3: M4 x 0.7 screw connectors
5. Output connector P4: Molex header 87833-08 or equivalent, mating with Molex housing 51110-0850 or equivalent.
6. Fan connector P5: JST header S2B-ZR-3.4 or equivalent, mating with JST housing ZHR-2 or equivalent.
7. Weight: 1 KG approx. (2.23 lbs) for U-bracket form factor, 1.14 KGS approx. (2.52 lbs) for enclosed form factor.
8. Maximum penetration depth of fixing screws is 4mm from the outer chassis surface.