



FEATURES

- 90~264 VAC Input with Active PFC
- 3" x 5" x 1.5" Compact Size
- 0.98 Power Factor
- · Low Leakage Current
- Efficiency up to 92%

INPUT SPECIFICATIONS

Input Voltage Range	90~264 VAC
Input Frequency	47~63Hz
Input Current	2.5A rms @ 115 VAC
	1.25A rms @ 230 VAC
Inrush Current	20A @ 115 VAC or 40A @ 230 VAC,
	at 25°C cold start
Earth Leakage Current	220µA max. @ 264 VAC, 63Hz
Touch Current	100µA max. @ 264 VAC, 63Hz

OUTPUT SPECIFICATIONS

Output Power Ratings	See table
Output Voltage	See table
Tolerance	±2%
Ripple and Noise*	1% peak to peak max.
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 500µs after a
	25% step load change
Fan Power	12V at 250mA max.

Peak to peak with 20MHz bandwidth and $10\mu F$ tantalum capacitor in parallel with a $0.1\mu F$ ceramic capacitor at rated line voltage and load ranges

GENERAL SPECIFICATIONS

Switching Frequency	100KHz typical
	. 0.98 typical, with active PFC
Efficiency	
Hold-up Time	
Line Regulation	
Operating Temperature	
	Derate from 100% @ +50°C
G	linearly to 50% @ +70°C
Storage Temperature	40°C to +85°C
	.5% to 95% non-condensing
Withstand Voltage	. 4000 VAC from input to output
	1500 VAC from input to ground
	500 VAC from output to ground
MTBF	.350K hours minimum at full load,
	25°C ambient, calculated per
	MIL-HDBK-217F



MODELS LIST

	Output				
Product No. [1]		@ Convection		@ 5.3 CFM Forced Air	
Vo	Voltage	Max. Current	Max. Power [2]	Max. Current	Max. Power [2]
TMC200-S12	12V	12.50A	150W	16.67A	200W
TMC200-S15	15V	10.00A	150W	13.34A	200W
TMC200-S18	18V	8.34A	150W	11.12A	200W
TMC200-S24	24V	6.25A	150W	8.34A	200W
TMC200-S28	28V	5.36A	150W	7.15A	200W
TMC200-S36	36V	4.17A	150W	5.56A	200W
TMC200-S48	48V	3.13A	150W	4.17A	200W

NOTES:

- U-bracket format is standard. Add suffix "C" for enclosed format with cooling fan, e.g. TMC200-S12C.
- 2. 150W without moving air or 200W with 5.3 CFM forced air provided by user for U-bracket format, 200W for "C" version with cover-and-fan assembly. The adequacy of cooling air is judged by the measured core temperature of transformer T1 below 75°C at 25°C ambient, or below 100°C at 50°C ambient.

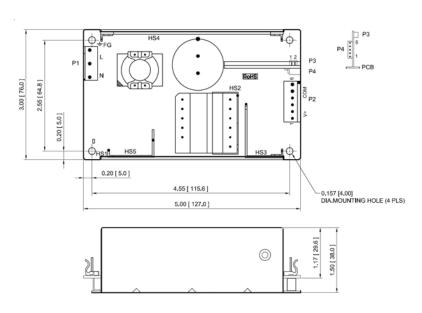
STANDARDS & COMPLIANCES

EN55011, EN55022 Class B conducted and radiated	
FCC Class B conducted and radiated	
VCCI Class B conducted and 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	t
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 UL 60601-1, EN 60601-1,	
CSA C22.2 No. 601.1,	
UL 60950-1, EN 60950-1,	
CSA C22.2 No. 60950-1	
Agency ApprovalsUL, cUL, TUV, CB, CE	
Other Compliance RoHS	

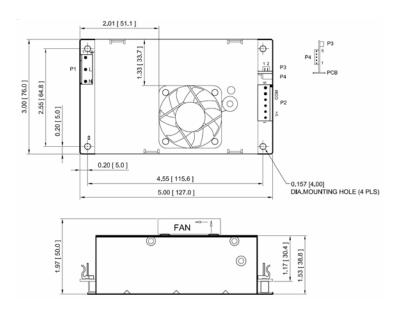
200 Watts AC/DC Medical & ITE Power Supplies

MECHANICAL SPECIFICATIONS

U-Bracket Format



Enclosed Format



CONNECTORS & SIGNALS

CONNECTOR	PIN	FUNCTION	
P1	1	AC GROUND	
	2	VOID	
	3	LIVE	
	4	VOID	
	5	NEUTRAL	
	1		
P2	2	OUTPUT +V	
	3		
	4		
	5	COMMON RETURN	
	6		
P3	1	FAN +12V	
	2	COMMON RETURN	
P4	1	-SENSE	
	2	+SENSE	
	3	PFD	
	4	INHIBIT	
	5	COMMON RETURN	

CONTROL SIGNALS	
PFD	TTL high for normal operation, low upon loss of input power, turn-on delay time 100-1000ms, turn-off delay time 1ms minimum
INHIBIT	TTL high to turn off output

NOTES:

- 1. Dimensions: inches [mm]
- 2. Tolerance: 0.02 [0.5] maximum
- 3. Input connector P1: Molex header 09-65-2058 or equivalent, mating with Molex housing 09-50-1051 or equivalent.
- 4. Outpur connector P2: Molex header 09-65-2068 or equivalent, mating with Molex housing 09-50-1061 or equivalent.
- 5. Fan connectors P3: Molex header 53048-0210 or equivalent, mating with Molex housing 51021-0200 or equivalent.
- 6. Connector P4: Molex header 22-05-7055 or equivalent, matiing with Molex housing 50-37-5053 or equivalent. 7. Weight: 390g (0.86 lbs.) approx. for U-bracket form, 440g (0.97 lbs.) approx. for enclosed form.
- 8. Fixing of units to end equipment is through standoffs and the four mounting holes in PCB.
- 9. Ground tab is 0.25 [6.35] × 0.032 [0.8] fast-on connector.

#TMC200-2011-0727