



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

GENERAL SPECIFICATIONS

Switching Frequency ..... 100KHz typical
Power Factor ..... 0.98 typical, with active PFC
Efficiency ..... 87% min. on all models
Hold-up Time ..... 10ms at 110 VAC
Line Regulation ..... ±0.5% max. at full load
Operating Temperature ..... 0°C to +70°C
Derating ..... Derate from 100% @ +50°C
linearly to 50% @ +70°C
Storage Temperature ..... -40°C to +85°C
Relative Humidity ..... 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

Table with 6 columns: Product No., Voltage, @ Convection (Max. Current, Max. Power), @ 5.3 CFM Forced Air (Max. Current, Max. Power). Rows include models TMC200-S12 through TMC200-S48.

NOTES:

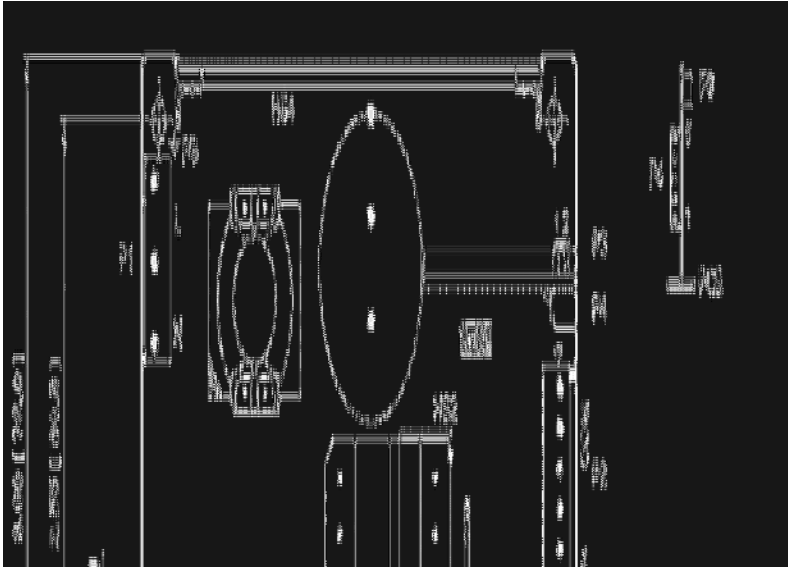
- 1. U-bracket format is standard. Add suffix "C" for enclosed format with cooling fan, e.g. TMC200-S12C.
2. 150W without moving air or 200W with 5.3 CFM forced air provided by user for U-bracket format, 200W for "C" version with cover-and-fan assembly. The adequacy of cooling air is judged by the measured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

STANDARDS & COMPLIANCES

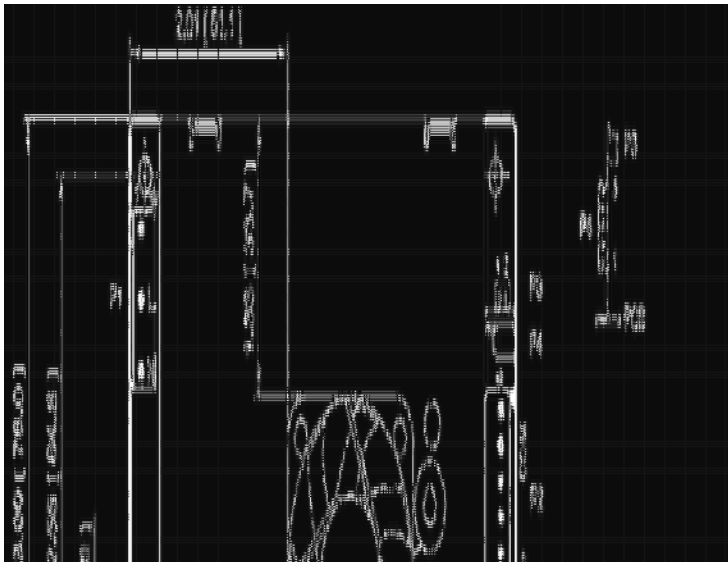
EN55011, EN55022 ..... Class B conducted and radiated
FCC ..... Class B conducted and radiated
VCCI ..... Class B conducted and radiated
EN61000-3-2 ..... Harmonic distortion, Class A & D
EN61000-3-3 ..... Line flicker
EN61000-4-2 ..... ESD, ±8 KV air and ±6 KV contact
EN61000-4-3 ..... Radiated immunity, 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 Approvals ..... UL, cUL, TUV, CB, CE
Other Compliance ..... RoHS

### MECHANICAL SPECIFICATIONS

#### U-Bracket Format



#### Enclosed Format



#### 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. Output 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, mating 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] x 0.032 [0.8] fast-on connector.

### CONNECTORS & SIGNALS

CONNECTOR	PIN	FUNCTION
P1	1	AC GROUND
	2	VOID
	3	LIVE
	4	VOID
	5	NEUTRAL
P2	1	OUTPUT +V
	2	
	3	
	4	COMMON RETURN
	5	
	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