



FEATURES

- 2" x 4" x 1.18" Compact Size
- Open PCB, L-Bracket & Cover Available
- 90~264 VAC Universal Input
- Single, Dual, or Triple Outputs
- Low Earth Leakage Current
- Level B Emissions



MODELS LIST

| Product No. | OUTPUT #1 | | | | OUTPUT #2 | | | | OUTPUT #3 | | | | Max. Output Power |
|-------------|-----------|--------------|--------------|------|-----------|--------------|--------------|------|-----------|--------------|--------------|------|-------------------|
| | Voltage | Min. Current | Max. Current | Tol. | Voltage | Min. Current | Max. Current | Tol. | Voltage | Min. Current | Max. Current | Tol. | |
| TMC40-S05 | 5V | 0A | 8.0A | ±2% | - | - | - | - | - | - | - | - | 40W |
| TMC40-S12 | 12V | 0A | 3.5A | ±2% | - | - | - | - | - | - | - | - | 42W |
| TMC40-S15 | 15V | 0A | 3A | ±2% | - | - | - | - | - | - | - | - | 45W |
| TMC40-S24 | 24V | 0A | 2A | ±2% | - | - | - | - | - | - | - | - | 48W |
| TMC40-S48 | 48V | 0A | 1A | ±2% | - | - | - | - | - | - | - | - | 48W |
| TMC40-D23 | +5V | 0.5A | 6A | ±3% | +12V | 0.1A | 2A | ±5% | - | - | - | - | 40W |
| TMC40-D25 | +5V | 0.5A | 6A | ±3% | +24V | 0.1A | 1A | ±5% | - | - | - | - | 40W |
| TMC40-T31 | +5V | 0.5A | 6A | ±3% | +12V | 0.1A | 2A | ±5% | -12V | 0A | 0.3A | ±4% | 40W |
| TMC40-T31-3 | +3.3V | 0.8A | 6A | ±3% | +5V | 0.1A | 2A | ±5% | +12V | 0A | 0.3A | ±4% | 30W |
| TMC40-T31-5 | +5V | 0.5A | 6A | ±3% | +3.3V | 0A | 1.5A | ±5% | +12V | 0A | 0.3A | ±4% | 30W |
| TMC40-T32 | +5V | 0.5A | 6A | ±3% | +15V | 0.1A | 1.5A | ±5% | -15V | 0A | 0.3A | ±4% | 40W |
| TMC40-T39 | +5V | 0.5A | 6A | ±3% | +24V | 0.1A | 1A | ±5% | -12V | 0A | 0.3A | ±4% | 40W |

NOTES:

- 1) Safety approvals are for PCB form only. To order L-bracket version, add suffix "B", e.g. TMC40-S12B. To order enclosed version, add suffix "C", e.g. TMC40-T32C.
- 2) The output voltages of a multiple output model may go outside of the listed tolerance when an output load current is beyond its limits.

INPUT & OUTPUT SPECIFICATIONS

| | | | |
|-----------------------------|---|-------------------------------|--|
| Input Voltage Range | 90~264 VAC | Overvoltage Protection | Provided on output #1 only; set at 112-132% of its nominal output voltage |
| Input Frequency | 47~63 Hz | Overcurrent Protection | All outputs are protected to short-circuit conditions |
| Input Current | 0.9A rms @ 100 VAC 0.5A rms @ 240 VAC | Temperature Coefficient | ±0.04%/°C max. |
| Inrush Current | 25A @ 115 VAC or 50A @ 230 VAC, at 25°C cold start | 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 |
| Earth Leakage Current | 150 µA max. @ 264 VAC, 63Hz | | |
| Output Power Ratings | See rating table | | |
| Tolerance | See rating table | | |
| Ripple and Noise* | 100 mVp-p on 3.3V & 5V models; 1% peak-to-peak on other models | | |

* Measured with 20 MHz BW at rated line voltage and output load ranges, with a 10µF tantalum capacitor in parallel with a 0.1µF ceramic capacitor across the output.

TMC40 Series

30-48 Watts Medical & ITE AC/DC Power Supplies

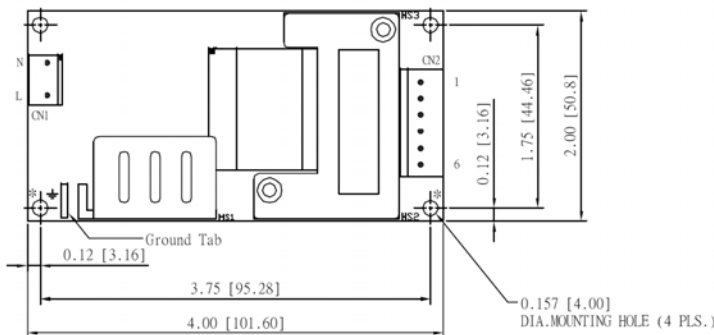
GENERAL SPECIFICATIONS

| | |
|-----------------------------|---|
| Switching Frequency | 62±5 KHz |
| Efficiency | 80~88% typical, except 75% on TMC40-T31-3 and TMC40-T31-5 |
| Hold-up Time | 12 ms minimum at 110 VAC |
| Line Regulation | ±0.5% max. at full load |
| Operating Temperature | -10°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 | 4,000 VAC from input to output 1,500 VAC from input to ground 500 VAC from output to ground |
| MTBF | 400K hours minimum at full load, 25°C ambient, calculated per MIL-HDBK-217F |

STANDARDS & COMPLIANCES

| | |
|--------------------------|---|
| IEC 60601-1-2 | EMC & Immunity performance |
| EN 55011, EN 55022 | Class B conducted and radiated |
| FCC, VCCI | Class B conducted and radiated |
| EN 61000-3-2 | Harmonic distortion, Class A & 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 dip immunity, 30% reduction for 500 ms, 60% reduction for 100 ms, >95% reduction for 10 ms |
| 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 (LVD) |
| Other Compliance | RoHS |

MECHANICAL SPECIFICATIONS



| DC OUTPUT CONNECTOR (CN2) | | | |
|---------------------------|--------|---------------|---------------|
| PIN | SINGLE | DUAL | TRIPLE |
| 1 | OUTPUT | OUTPUT #1 | OUTPUT #1 |
| 2 | OUTPUT | OUTPUT #1 | OUTPUT #1 |
| 3 | RETURN | COMMON RETURN | COMMON RETURN |
| 4 | RETURN | COMMON RETURN | COMMON RETURN |
| 5 | N.C. | N.C. | OUTPUT #3 |
| 6 | N.C. | OUTPUT #2 | OUTPUT #2 |

NOTES:

1. Dimensions: inches [mm]
2. Tolerance: 0.02 [0.5] maximum
3. Connector CN1: Molex header 09-65-2038 or equivalent, mating with Molex housing 09-50-1031 or equivalent.
4. Connector CN2: Molex header 09-65-2068 or equivalent, mating with Molex housing 09-50-1061 or equivalent.
5. Ground tab is 0.25 [6.35] x 0.032 [0.8]
6. To ensure compliance with level B emissions, connect the two * marked mounting holes with metallic standoffs to chassis.
7. Weight: 205 grams (0.45 lb.) approx.