TUC60 Series

47.5-64 Watts ITE Grade AC/DC Power Supplies

FEATURES

- Single, Dual and Triple Outputs
- 2" x 4" x 1.18" Compact Size
- 90-264 VAC Universal Input
- Level B Emissions
- Approved to IEC/EN/UL/CSA 60950-1, 2nd Edition

MODELS LIST

<table>
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<td>5V</td>
<td>0A</td>
<td>11A</td>
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<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
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<td>–</td>
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<td>–</td>
<td>–</td>
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<td>–</td>
<td>–</td>
<td>–</td>
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<td>–</td>
<td>–</td>
<td>64W</td>
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<td>–</td>
<td>–</td>
<td>–</td>
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<td>–</td>
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<td>–</td>
<td>–</td>
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<td>–</td>
<td>–</td>
<td>–</td>
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<td>–</td>
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<td>–</td>
<td>–</td>
<td>64W</td>
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<td>6A</td>
<td>8A</td>
<td>±3%</td>
<td>+12V</td>
<td>0.1A</td>
<td>3A</td>
<td>±5%</td>
<td>–</td>
<td>–</td>
<td>–</td>
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<td>+5.2V</td>
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<td>3A</td>
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<td>0A</td>
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<td>+3.3V</td>
<td>0A</td>
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<td>±5%</td>
<td>+12V</td>
<td>0A</td>
<td>0.5A</td>
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<td>2.4A</td>
<td>±5%</td>
<td>-15V</td>
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<td>±4%</td>
<td>55W</td>
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<td>1.5A</td>
<td>±5%</td>
<td>-12V</td>
<td>0A</td>
<td>0.5A</td>
<td>±4%</td>
<td>55W</td>
</tr>
</tbody>
</table>

NOTES:

1) Safety approvals are for PCB form only. To order unit with cover fitted, add suffix "C", e.g. TUC60-S24C.
2) Maximum current of output #1 for multi-output models can be 8A at 5 CFM forced air provided by user.
3) 47.5 W with 5 CFM forced air provided by user
4) The out voltages of a multiple output model may go outside of the stated tolerance when an output load current is out of stated limits. All models may be operated at no load without damage.

INPUT & OUTPUT SPECIFICATIONS

- Input Voltage Range ................. 90-264 VAC
- Input Frequency ....................... 47-63 Hz
- Input Current .......................... 1.3A (rms) @ 100 VAC
- Inrush Current ......................... 30A @ 115 VAC or 60A @ 230 VAC, at 25°C cold start
- Earth Leakage Current ............... 150 µA max. @ 264 VAC, 63Hz
- Output Power Ratings .............. See rating table
- Ripple and Noise* ...................... 100 mVp-p on 3.3V & 5V models; 1% peak to peak on other models

Overvoltage Protection ............ Provided on output #1 only; set at 112-132% of its nominal output voltage
Overcurrent Protection .......... All outputs 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

* 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.
TUC60 Series

GENERAL SPECIFICATIONS
Switching Frequency ........... 62±5 KHz
Efficiency ......................... 80-88% typical except 75% on TUC60-T31-3 and TUC60-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 .............. 3,000 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

MECHANICAL SPECIFICATIONS

STANDARDS & COMPLIANCES
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 ±4 KV contact
EN 61000-4-3 ....................... Radiated immunity, 3V/m
EN 61000-4-4 ....................... Fast transient/burst, ±1 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 and
...................................... >95% reduction for 10 ms

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] fast-on connector.
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.