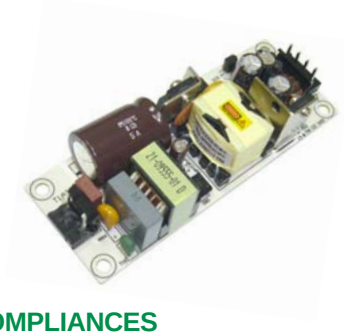
TRUMPower

# THM30 Series

## *Medical Grade* 30W Open Frame Power Supplies

### FEATURES

- 1.5" x 4" Footprint
- Class II with 2 MOPP
- 5V to 40V Output Voltages
- 3,000 Meters Operating Altitude
- 0.5W No Load Power Consumption
- UL, cUL, TUV, FCC, CB & CE Approvals



### INPUT SPECIFICATIONS

| | |
|---|---|
| Input Voltage Range | 80-275 VAC |
| Input Frequency | 47-63 Hz |
| Input Current | 0.8A rms max. @ 100 VAC,<br>0.4A rms max. @ 240 VAC |
| Inrush Current | 25A @ 100 VAC or 50A<br>@ 240 VAC, at 25˚C cold start |
| No Load Power Consumption | 0.5W max. |

### OUTPUT SPECIFICATIONS

| | |
|---|---|
| Output Power Ratings | See models list |
| Minimum Load | Not required |
| Line Regulation | ±1% max. @ full load |
| Total Regulation | See models list |
| Ripple & Noise | See models list |
| Overload Protection | Set at 110-150% of its nominal<br>output voltage; Auto recovery |
| Short Circuit Protection | Auto recovery |
| Temperature Coefficient | ±0.04%/˚C max. |
| Transient Response | 4ms @ 110 VAC, full load |

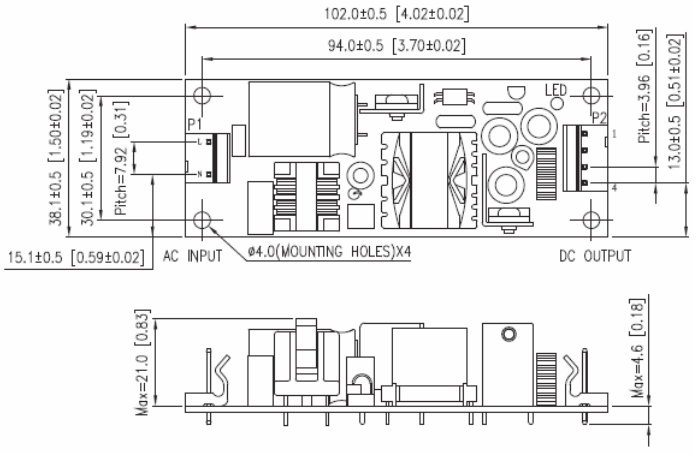
### GENERAL SPECIFICATIONS

| | |
|---|---|
| Efficiency | See models list |
| Switching Frequency | 65 kHz typ. |
| Power Factor | 0.65 typ. |
| Hold-up Time | 12ms max. @ 100 VAC, full load |
| Start-up Time | 0.5 secs. max. @ full load |
| Operating Temperature | -10˚C to +70˚C |
| Storage Temperature | -40˚C to +85˚C |
| Operating Humidity | 0% to 95% non-condensing |
| Storage Humidity | 0% to 95% non-condensing |
| Derating | Derate from 100% at +40˚C<br>linearly to 50% at +70˚C |
| Withstand Voltage | 4,000 VAC input-output |
| Operating Altitude | 3,000 meters max. |
| MTBF | 100 kHrs minimum at full load,<br>25˚C ambient, calculated per<br>MIL-HDBK-217F |

### STANDARDS & COMPLIANCES

| | |
|---|---|
| IEC/EN 60601-1-2 | EMC & Immunity Performance |
| EN 55011, CISPR11, FCC | Class B, conducted & radiated |
| EN 61000-3-2 | Harmonic distortion, Class B & D |
| EN 61000-3-3 | Line flicker |
| EN 61000-4-2 | ESD, ±15 KV air and ±8 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 dips,<br>30% reduction for 500ms,<br>60% reduction for 100ms,<br>>95% reduction for 10ms |
| Safety Standards | IEC/EN 60601-1 3rd Edition,<br>ANSI/AAMI ES 60601-1:2005,<br>CSA C22.2 No. 60601-1:14 |
| Agency Approvals | UL, cUL, TUV, FCC, CE, CB |
| Other Compliances | RoHS2 |

### MECHANICAL SPECIFICATIONS




| OUTPUT CONNECTOR (P2) | |
|---|---|
| PIN | FUNCTION |
| 1 | +V |
| 2 | +V |
| 3 | RETURN |
| 4 | RETURN |

Notes:
1. Unit: inch [mm]
2. Tolerance: 0.02 [0.5] max.
3. Weight: 85g (0.19 lbs) approx.
4. Input Connector: Mates with Molex housing 09-50-3031 and Molex 2478 series crimp terminal.
5. Output Connector: Mates with Molex housing 09-50-3041 and Molex 2478 series crimp terminal.


**Tumbler Technologies + TRUMPower**

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# THM30 Series

## *Medical Grade* 30W Open Frame Power Supplies

### MODELS LIST

| Product No. (1) | Output Voltage(1) | Max. Output Current | Max. Output Power | Ripple & Noise (2) (Vp-p Max.) | Total Regulation | Efficiency (Typ.) |
|---|---|---|---|---|---|---|
| **THM30-5** | 5V | 4A | 20W | 50mV | ±5% | 74% |
| **THM30-7** | 7V | 3.29A | 23W | 70mV | ±5% | 75% |
| **THM30-9** | 9V | 3A | 27W | 90mV | ±5% | 79% |
| **THM30-12** | 12V | 2.5A | 30W | 100mV | ±5% | 83% |
| **THM30-15** | 15V | 2A | 30W | 100mV | ±5% | 84% |
| **THM30-18** | 18V | 1.67A | 30W | 100mV | ±5% | 85% |
| **THM30-24** | 24V | 1.25A | 30W | 100mV | ±3% | 86% |
| **THM30-30** | 30V | 1A | 30W | 100mV | ±3% | 86% |
| **THM30-36** | 36V | 0.83A | 30W | 100mV | ±3% | 86% |

Notes:
1. Specify the output voltage, within 5V to 40V, when ordering non-standard output models, e.g. THM30-16 for 16V output.
2. Ripple & Noise are measured with 20MHz bandwidth at nominal line and rated output load ranges, with a 0.47µF capacitor connected across the output.



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