## Thomas

Research Products

## Electrical Specifications

| Input Voltage Range: | 120V model: 108-132V Min/Max <br> 230V model: 208-300V Min/Max |
| :--- | :--- |
| Frequency: | $50 / 60 \mathrm{~Hz}$ Nom. (47-63 Hz Min/Max) |
| Power Factor: | $>0.90$ @ full load, 120Vac (no dimmer) |
| Inrush Current: | $<10.0$ Amps @ 120Vac, cold start 25 <br> max load |
| Input Current (Max): | 0.11 Amps @ 120Vac, 60Hz, max load <br> $0.06 ~ A m p s ~ @ ~ 230 V a c, ~ 60 H z, ~ m a x ~ l o a d ~$ |
| Maximum Power: | 6 W |
| Line Regulation: | $\pm 3 \%$ |
| Load Regulation: | $\pm 5 \%$ |
| THD: | $\leq 20 \%$ @ full load (no dimmer) |
| Output Protection: | Over-Voltage, Over-Current, and <br> Short Circuit Protection with Auto <br> Recovery |
| Start-up Time: | 0.7 seconds |

Environmental Specifications

| Maximum Case Temp. | $90^{\circ} \mathrm{C}$ |
| :--- | :--- |
| Minimum Starting Temp: | $-30^{\circ} \mathrm{C}$ |
| Storage Temperature: | $-40^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$ |
| Humidity: | $5 \%$ to $95 \%$ |
| Cooling: | Convection |
| Vibration Frequency: | 5 to $55 \mathrm{~Hz} / 2 \mathrm{~g}, 30$ minutes |
| Sound Rating: | Class A |
| Impact Resistance: | $1 \mathrm{~g} / \mathrm{s}$ |
| Lifetime: | 50,000 hrs @ Tc=71 ${ }^{\circ} \mathrm{C}$ (see graph for details) |
| MTBF: | 402,000 Hours @ full load, $40^{\circ} \mathrm{C}$ ambient <br> conditions <br> per MIL-217F Notice 2 |
| EMC: | FCC 47 CFR Part 15 Class B compliant |
| Weight: | 4.5 oz. (128 g) |


| Safety Certification | Standard |
| :--- | :--- |
| UL/CUL | UL8750, UL1310 for UL Class 2 \& CAN/CSA <br> C22.2 No. 250.13, UL Type HL |
| CE | EN 61347-1, EN61347-2-13 |
| EMC Standard | Notes |
| EN 55015 | Conducted emission |
| EN 61000-3-2 | RFE Field Susceptibility test |
| EN 61000-3-3 | Electrical Fast Transient |
| EN 61000-4-5 | Surge Immunity Test, 2 kV; L-N |
| Energy Star | ANSI/IEEE C62.41.1-2002 and <br> C62.41.2-2002 |
| FCC, 47SI/IEEE CFR Part 15 | Class B |




## Constant Current LED Drivers

CCR Dimming: <10\%-100\%, ELV \& Triac dimmable drivers Black Magic Thermal Advantage ${ }^{T M}$ Plastic Housing

## 120Vac Input - ELV \& Triac Dimming Models

| Model | Output Current <br> $(m A \pm 5 \%)$ | Output Voltage <br> Range (Vdc) | Max. Output <br> Power $(W)$ | Typical <br> Efficiency |
| :---: | :---: | :---: | :---: | :---: |
| LED06W120-036-C0170-LT | 170 | $22-36$ | 6 | $82 \%$ |
| LED06W120-030-C0200-LT | 200 | $18-30$ | 6 | $82 \%$ |
| LED06W120-028-C0220-LT | 220 | $17-28$ | 6 | $81 \%$ |
| LED06W120-020-C0350-LT | 350 | $12-20$ | 6 | $81 \%$ |
| LED06W120-014-C0450-LT | 450 | $8-14$ | 6 | $80 \%$ |
| LED06W120-012-C0500-LT | 500 | $7-12$ | 6 | $80 \%$ |

230-277Vac Input - ELV \& Triac Dimming Models

| Model Number | Output Current <br> $(m A \pm 5 \%)$ | Output Voltage <br> Range (Vdc) $)$ | Max. Output <br> Power (W) | Typical <br> Efficiency |
| :--- | :---: | :---: | :---: | :---: | :---: |
| LED06W230-036-C0170-LT | 170 | $22-36$ | 6 | $82 \%$ |
| LED06W230-030-C0200-LT | 200 | $18-30$ | 6 | $82 \%$ |
| LED06W230-028-C0220-LT | 220 | $17-28$ | 6 | $81 \%$ |
| LED06W230-020-C0350-LT | 350 | $12-20$ | 6 | $81 \%$ |
| LED06W230-014-C0450-LT | 450 | $8-14$ | 6 | $80 \%$ |
| LED06W230-012-C0500-LT | 500 | $7-12$ | 6 | $80 \%$ |
|  |  |  | Class 2: | US/Canada |

-Total Power: 6 Watts

- Input Voltage: 120Vac or 230-277Vac Phase Dimming Ranges
- UL Dry \& Damp Location Rated
- UL Type HL Rated for Hazardous Locations
- IP66 \& NEMA4
- Compatible with Triac (leading edge) and ELV (electronic low voltage; trailing edge) dimmer controls
- Use a dimmer that closely matches the load, just slightly larger. (EX: For best performance, use a 150 W rated dimmer for 100 W total LED load instead of 600 W dimmer.)

LED06W-LT Series
Line Voltage Dimmable

## Dimensions



Output Leads: 18 AWG , rated $300 \mathrm{~V}, 105 \mathrm{C}$, min.
All wires are stranded with solder dipped ends.

## Power Characteristics



Note: The area under the life-temperature curve represents where the driver has highly reliable operation within specification. Driver performance may drift out of published specifications
 factors affect driver lifetime but are not represented in this calculation.

