

LED Optimized Drivers Triac & ELV Dimmable

20 WATT LD20W -LE & -TE Series

CONSTANT CURRENT TRIAC & ELV DIMMABLE LED DRIVERS

Model: LD20W -TE/-LE Series

- Designed for use with Triac (-LE) or ELV (-TE) Dimmers 120VAC/230VAC.
- Drive Mode: Constant Current with CCR Dimming
- Output Power: 20W Max.
- Input Voltage: 100-277VAC, 50/60Hz, No Dimmer
- Number of Outputs: One
- Output Voltages: 7VDC 40VDC
- Output Currents: 350mA 1660mA

Safety and Compliance

- 1. UL8750, EN61347, CSA 22.2 safety compliant
- 2. FCC, 47CFR Part 15 Class B compliant
- 3. Water resistant and Dust Proof Design: IP66. NEMA4, for Dry, Damp, Wet Locations.
- 4. Compact, Lightweight Design.
- 5. Safety Isolation between Primary and Secondary
- 6. Meets EN61000-3-2 & EN61000-3-3 Class C
- 7. Protection: output over-voltage, output over-current, output short circuit, auto-recovery
- 8. EN61000-4-5: 2kV L-N, 8/20 µsec surge protection

Environmental





- 1. Operating temperature: Tc 90C Maximum. Reference -30 to +60°C ambient
- 2. Storage temperature range: -40 to +85°C
- 3. Humidity (non-condensing): 5% 95%RH
- 4. Cooling: Convection
- 5. Vibration Frequency: 5-55Hz/2g, 30 minutes
- 6. Impact resistance: 1g/s
- 7. MTBF@ 40°C: 412,000 hours @ Full Load per MIL-217F Notice 2.

Electrical Specifications at 25°C

- Input Voltage: 120VAC/230VAC with dimmer, 100-277VAC Without dimmer.
- Frequency: 50/60HZ
- Power Factor: > 0.90 at full load 120Vac, Full input (No dimmer)
- Inrush current: <10A at 25C, 120V, cold start, Max. Load
- Input current: 0.22A at 120Vac, 60Hz, Maximum Load
- Efficiency: 83% typical at 120Vac 60Hz
- Maximum output power: 20W
- Constant Current regulation: +/-5% Over Input Line Variation
- Load regulation accuracy: +/-8%
- Dimming Range: CCR Mode See Graph page 2.







Constant Current Versions

| Part Number | US Class 2 | CN Class 2 | Output Voltage Range | Output Constant Current | Current Accuracy | Output Power Maximum | Typical Efficiency ⁽¹⁾ | DIMMER ⁽²⁾⁽³⁾ |
|-------------------|---------------|---------------|-------------------------|-------------------------------|---------------------|----------------------------|---|--------------------------|
| LD20W-40-C0500-LE | YES | YES | 20 - 40 VDC | 500mA | <u>+</u> 4% | 20W | 85% | Incandescent |
| LD20W-40-C0500-TE | YES | YES | 20 - 40 VDC | 500mA | <u>+</u> 4% | 20W | 84% | ELV |
| LD20W-36-C0550-LE | YES | YES | 18 - 36 VDC | 550 mA | <u>+</u> 4% | 20W | 83% | Incandescent |
| LD20W-36-C0550-TE | YES | YES | 18 - 36 VDC | 550 mA | <u>+</u> 4% | 20W | 83% | ELV |
| LD20W-28-C0700-LE | YES | YES | 14 - 28 VDC | 700 mA | <u>+</u> 4% | 20W | 82% | Incandescent |
| LD20W-28-C0700-TE | YES | YES | 14 - 28 VDC | 700 mA | <u>+</u> 4% | 20W | 82% | ELV |
| LD20W-17-C1200-LE | YES | YES | 8 - 17 VDC | 1200 mA | <u>+</u> 4% | 20W | 81% | Incandescent |
| LD20W-17-C1200-TE | YES | YES | 8 - 17 VDC | 1200 mA | <u>+</u> 4% | 20W | 81% | ELV |
| LD20W-12-C1660-LE | YES | YES | 7 - 12 VDC | 1660 mA | <u>+</u> 4% | 20W | 80% | Incandescent |
| LD20W-12-C1660-TE | YES | YES | 7 - 12 VDC | 1660 mA | <u>+</u> 4% | 20W | 80% | ELV |

Notes

- 1. Typical efficiency measured at 120VAC input, full load
- 2. -TE Versions are ~10% to 100% CCR Dimmable with any good quality 120VAC ELV (Electronic Low Voltage) dimmer. Refer to page 2.
- -LE Versions are ~10% to 100% CCR Dimmable with any good quality 120VAC or 230VAC Incandescent (Triac) dimmer. Refer to page 2.

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Typical Dimming Curves:



