

# **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.

Constant Current Versions

- 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





- 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<sup>o</sup>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.

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Part Number	US Class 2	CN Class 2	Output Voltage Range	Output Constant Current	Current Accuracy	Output Power Maximum	Typical Efficiency <sup>(1)</sup>	DIMMER <sup>(2)(3)</sup>
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. 3.



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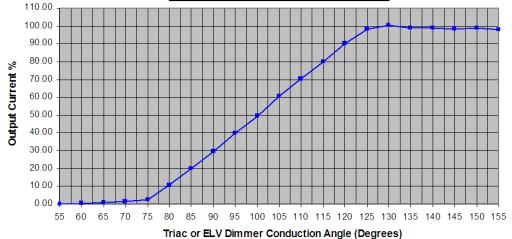


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## **Typical Dimming Curves:**

#### Output Current vs. Dimmer Conduction Angle



Mechanical Dimensions: Inches [mm] Labeling Example Material: Black PC ABS Plastic Case AC INPUT L = BLACH N = WHITE Dimmable LED Optimized Drive Fully Encapsulated Pronics Weight: 128 grams (4.5 oz) Typical Part Number: LD20W-36-C0550-LE Input Voltage: 100-277VAC 50/60Hz Input Current: 0.30 Amp Max Output Voltage: 18-38 VDC Output Voltage: 18-38 VDC Output Current: 550 mA CCR Dimmable Maximum Output Power: 20 Watts UL & cUL Class 2 Output Incandescent Dimmable CE 2 DC OUTPU 0.55[14] 5.91MIN [150MIN] **IP66** 0.20 REV A in China 3.74 [95] Ŷ n n n n nn - n - n - n - nđ 0.39±0.04 [10±1] SPOT HOT AC INPUT BLACK(L) DC OUTPUT WHITE(N) RED(+)/BLUE(-)2 0.39±0.04 [10±1] ╜╜╹╹╹╹ 1 -0.20[5] 5.91MIN [150MIN] 0.55 47.5 4 25] 0.16 0.98 1 -0.39 [10.0] 1.61[41] Specifications subject to change without notice Custom designs available. Please consult the factory.