

150 Watt - LDAD150W Series

CONSTANT VOLTAGE OR CONSTANT CURRENT LED DRIVER WITH DIMMING



150W
 LDAD150W Series
 DIMMING

Model: LDAD150W Series

- Drive Mode: Constant Current or Constant Voltage
- Technology: PFC Corrected 2-Stage Switch Mode
- Output Power: 150W Max.
- Input Voltage: 90 to 305VAC, 50/60Hz, 108-250VDC
- Number of Outputs: One
- Output Voltages: 8VDC - 428VDC
- Output Currents: 350mA - 6250mA
- Optional 0-10V or PWM Positive Dimming 10% ~ 100%

Environmental

1. Operating temperature: Tc 90C Maximum. Reference -30 to +60°C ambient
2. UL Type TL (Tref Max/Meas. Tref): 90/82°C
3. Storage temperature range: -40 to +85°C
4. Humidity (non-condensing): 5% - 95%RH
5. Cooling: Convection
6. Vibration Frequency: 5-55Hz/2g, 30 minutes
7. Impact resistance: 1g/s
8. MTBF@ 40°C: 260,000 hours @ Full Load per MIL-217F Notice 2.

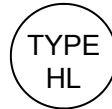
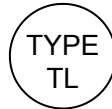
Safety and Compliance

1. UL8750, EN61347, CSA 22.2, UL Type TL & HL recognized.
2. FCC, 47CFR Part 15 Class B certified
3. Water resistant and Dust Proof Design: IP66, NEMA6, for Dry, Damp, Wet Locations.
4. Compact Miniature, 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/4kV 8/20 µsec surge protection.

Electrical Specifications at 25°C

- Input voltage range: 90 to 305VAC or 108-250VDC
- Frequency: 47 - 63Hz or 0Hz (DC)
- Power Factor: ≥ 0.90 at > 70% Load, 120Vac/230Vac/277Vac 50/60Hz
- THD%: ≤ 20% at > 70% Load, 120Vac/230Vac/277Vac 50/60Hz
- Inrush current: <30A at 25C, 277Vac, cold start, Full Load
- Input current: 0.76A Max @ 230Vac, 1.44A Max @ 120Vac, Full load
- Efficiency: Up to 92% typical at 230Vac Full Load
- Line regulation accuracy: ± 3%
- Load regulation accuracy: ± 4%
- Leakage current: 600µA typical; Hold up time: half cycle

Constant Current Versions



IP66



Part Number ⁽²⁾	UL Types	Output Voltage Range	Output Constant Current	Current Accuracy	Output Power Maximum	Typical Efficiency ⁽¹⁾
LDAD150W-428-C0350	TL & HL	142 - 428 VDC	350 mA	± 5%	150W	92%
LDAD150W-333-C0450	TL & HL	111 - 333 VDC	450 mA	± 5%	150W	92%
LDAD150W-283-C0530	TL & HL	95 - 283 VDC	530 mA	± 5%	150W	91%
LDAD150W-214-C0700	TL & HL	72 - 214 VDC	700 mA	± 5%	150W	91%
LDAD150W-142-C1050	TL & HL	48 - 142 VDC	1050 mA	± 5%	150W	91%
LDAD150W-107-C1400	TL & HL	36 - 107 VDC	1400 mA	± 5%	150W	91%
LDAD150W-85-C1750	TL & HL	29 - 85 VDC	1750 mA	± 5%	150W	90%
LDAD150W-71-C2100	TL & HL	24 - 71 VDC	2100 mA	± 5%	150W	90%
LDAD150W-61-C2450	TL & HL	21 - 61 VDC	2450 mA	± 5%	150W	90%
LDAD150W-53-C2800	TL & HL	18 - 53 VDC	2800 mA	± 5%	150W	90%
LDAD150W-48-C3150	TL & HL	16 - 48 VDC	3150 mA	± 5%	150W	89%
LDAD150W-42-C3500	TL & HL	14 - 42 VDC	3500 mA	± 5%	150W	89%
LDAD150W-35-C4200	TL & HL	12 - 35 VDC	4200 mA	± 5%	150W	89%
LDAD150W-30-C4900	TL & HL	10 - 30 VDC	4900 mA	± 5%	150W	88%
LDAD150W-24-C6250 ⁽⁵⁾	TL & HL	8 - 24 VDC	6250 mA	± 5%	150W	88%

Notes

1. Typical efficiency measured at 230VAC input, full load
2. For dimmable versions add appropriate designator to the end of the part number: For Example: LDAD150W-24-C6250-RD is 0-10V or resistance dimmable version, LDAD150W-24-C6250-PD is PWM dimmable version.
-RD 0-10V & Resistance dimmable version comes with an extra two wires +Purple/-Grey on the output side.
-PD PWM Dimmable version comes with an extra two wires +Purple/-Grey on the output side.
3. -RD 0-10V Dimming is compatible with most quality 0-10V wall dimmers and direct 0-10V analog signal. See page 3 for details.
4. -PD PWM version is PWM Dimmable via a positive 10% to 100% Duty Cycle, 200Hz to 1KHz, 0-10V Pulse. See page 4 for details.
5. SAM Recognized.

150 Watt - LDAD150W Series

CONSTANT VOLTAGE OR CONSTANT CURRENT LED DRIVER WITH DIMMING

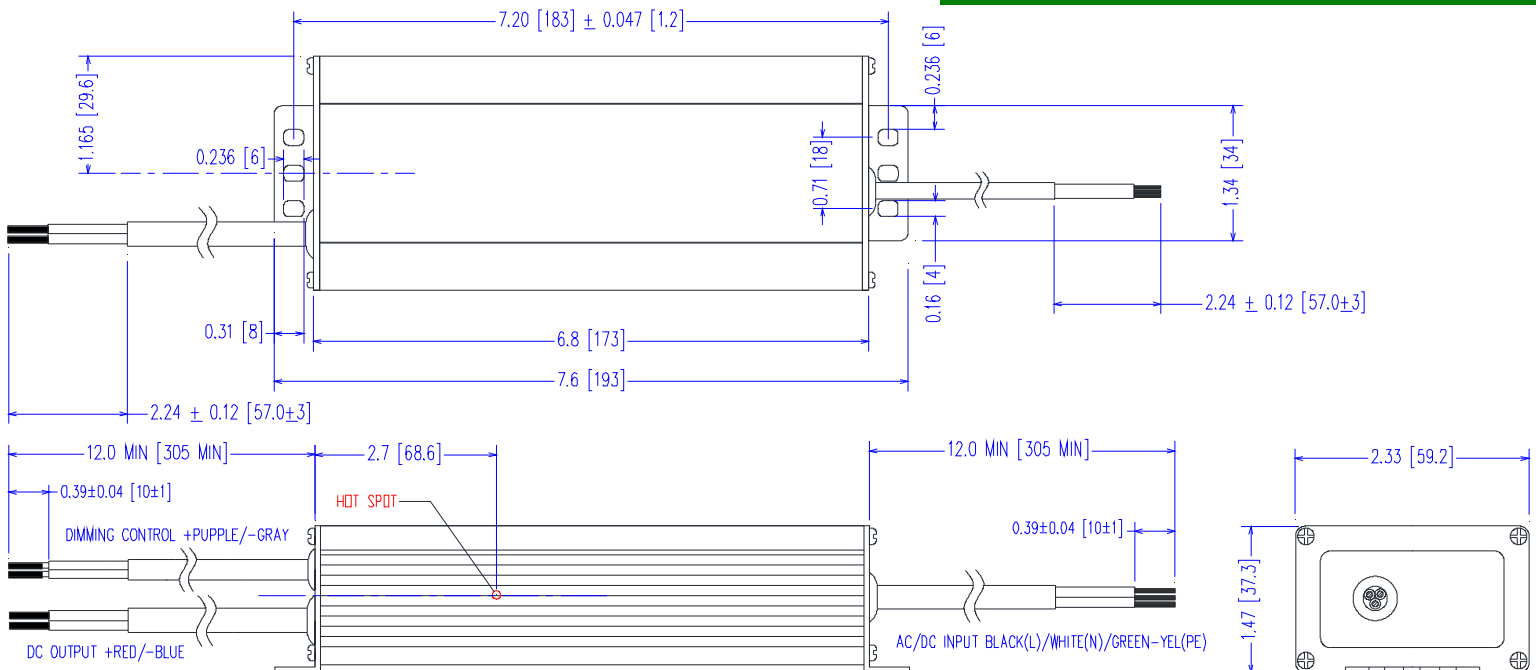
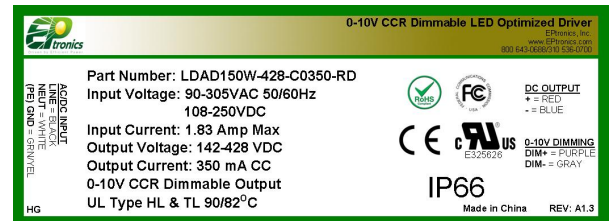
Constant Voltage Versions

Part Number	UL Types	Output Constant Voltage	Output Current Range	Voltage Accuracy	Output Power Maximum	Typical Efficiency ⁽¹⁾
LDAD150W-428	TL & HL	428 VDC	88 - 350 mA	± 5%	150W	92%
LDAD150W-333	TL & HL	333 VDC	113 - 450 mA	± 5%	150W	92%
LDAD150W-283	TL & HL	283 VDC	133 - 530 mA	± 5%	150W	91%
LDAD150W-214	TL & HL	214 VDC	175 - 700 mA	± 5%	150W	91%
LDAD150W-142	TL & HL	142 VDC	263 - 1050 mA	± 5%	150W	91%
LDAD150W-107	TL & HL	107 VDC	350 - 1400 mA	± 5%	150W	91%
LDAD150W-85	TL & HL	85 VDC	438 - 1750 mA	± 5%	150W	90%
LDAD150W-71	TL & HL	71 VDC	525 - 2100 mA	± 5%	150W	90%
LDAD150W-61	TL & HL	61 VDC	613 - 2450 mA	± 5%	150W	90%
LDAD150W-53	TL & HL	53 VDC	700 - 2800 mA	± 5%	150W	90%
LDAD150W-48	TL & HL	47 VDC	788 - 3150 mA	± 5%	150W	89%
LDAD150W-42	TL & HL	42 VDC	875 - 3500 mA	± 5%	150W	89%
LDAD150W-35	TL & HL	35 VDC	1050 - 4200 mA	± 5%	150W	89%
LDAD150W-30	TL & HL	30 VDC	1225 - 4900 mA	± 5%	150W	88%
LDAD150W-24 ⁽⁵⁾	TL & HL	24 VDC	1563 - 6250 mA	± 5%	150W	88%

Mechanical Dimensions: Inches [mm]

Material: Black Aluminum Housing
Fully Encapsulated
Weight: 690 grams (24.4 oz) Typical

Labeling Example



150 Watt - LDAD150W Series

CONSTANT VOLTAGE OR CONSTANT CURRENT LED DRIVER WITH DIMMING

150W
 LDAD150W Series
 DIMMING

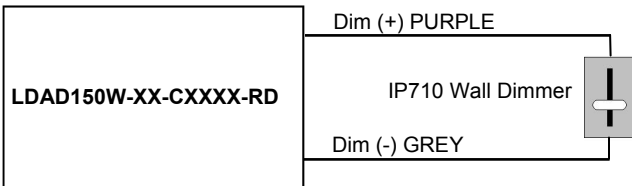
-RD 2-Wire 0-10V CCR Dimming Scheme

Parameters	Minimum	Typical	Maximum
Source Current out of 0-10V Purple Wire	0mA	—	2mA
Absolute Voltage Range on 0-10V (+) Purple Wire	-2.0V	—	+15V
Sink Current into 0-10V Purple Wire	0mA	—	1.2mA

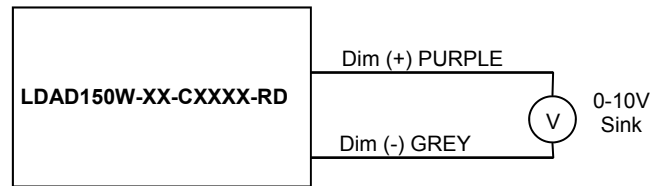
Notes

- RD 0-10V dimmable version comes with an extra two wires +Purple/-Grey on the output side.
- RD version is compatible with most 0-10V Wall Slide dimmers and direct 0-10V analog signal.
Recommended wall slide dimmer is Leviton IP710 or equivalent
- RD 0-10V dimmable version is not intended to dim below about 5% @ 0V or 10% @ 1.0V
- RD 0-10V dimmable version output will be 100% with Purple/Grey open and minimum with Purple/Grey Shorted.

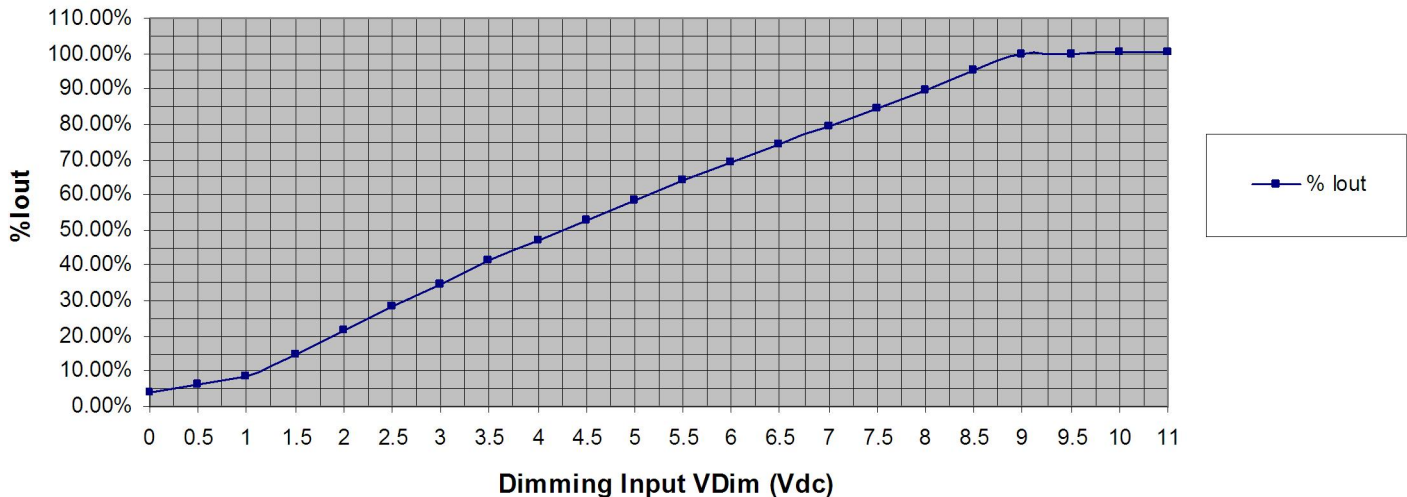
-RD 2-Wire Resistance Dimming Scheme



-RD 2-Wire 0-10V Analog Dimming Scheme



% Output Current vs. 0-10VDC Dimming Input



150 Watt - LDAD150W Series

CONSTANT VOLTAGE OR CONSTANT CURRENT LED DRIVER WITH DIMMING

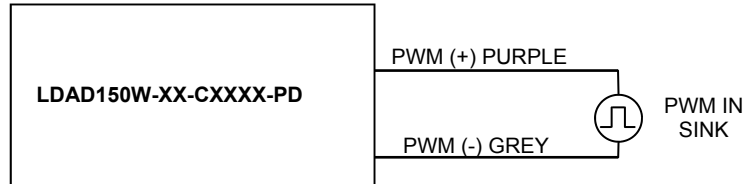
-PD 2-Wire CCR PWM Positive Dimming Scheme

Parameters	Minimum	Typical	Maximum
Absolute Maximum Voltage Range on PWM Input (Purple Wire)	-2.0V	10V	+15V
Input LOW Level Voltage Range (Purple Wire)	-2.0V	0V	+5.5V
Input HIGH Level Voltage Range (Purple Wire)	+9.0V	10V	+15V
Current into PWM Input (Purple Wire)	0mA	—	1.2mA
Source Current out of PWM Input (Purple Wire)	0mA	—	2mA
PWM Input Signal Frequency	500Hz	—	1500Hz
PWM Input Signal Positive Duty Cycle	0%	10-90%	100%

Notes

1. -PD PWM Dimmable version comes with an extra 2 wires +Purple/-Grey on the output side.
2. -PD PWM Dimmable version is not intended to dim below about 5% @ 0% Duty Cycle or 10% @ 10% Duty Cycle
3. -PD PWM dimmable version output will be 100% with Purple/Grey open and minimum with Purple/Grey Shorted.

-PD 2-Wire PWM Positive Dimming Scheme



% Output Current vs. 1.0 kHz, Positive Duty Cycle Dimming Input

