



# LED Optimized Drivers

## 200 Watt - LDAD200W Series

CONSTANT VOLTAGE OR CONSTANT CURRENT LED DRIVER WITH DIMMING



**200W**  
 LDAD200W Series  
 DIMMING

### Model: LDAD200W Series

- Drive Mode: Constant Current or Constant Voltage
- Technology: PFC Corrected 2-Stage Switch Mode
- Output Power: 200W Max.
- Input Voltage: 90 to 305VAC, 50/60Hz, 108-250VDC
- Number of Outputs: One
- Output Voltages: 8VDC - 445VDC
- Output Currents: 450mA - 8330mA
- Optional 0-10V or PWM Positive Dimming 10% ~ 100%

### Environmental

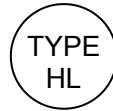
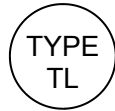
1. Operating temperature: Tc 90C Maximum. Reference -30 to +60°C ambient
2. UL Type TL (Tref Max/Meas. Tref): 90/82°C
3. Storage temperature range: -40 to +85°C
4. Humidity (non-condensing): 5% - 95%RH
5. Cooling: Convection
6. Vibration Frequency: 5-55Hz/2g, 30 minutes
7. Impact resistance: 1g/s
8. MTBF@ 40°C: 280,000 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:  $\geq 0.90$  at  $> 70\%$  Load, 120Vac/230Vac/277Vac 50/60Hz
- THD%:  $\leq 20\%$  at  $> 70\%$  Load, 120Vac/230Vac/277Vac 50/60Hz
- Inrush current:  $< 60A$  at 25C, 277Vac, cold start, Full Load
- Input current: 0.96A Max @ 230Vac, 1.82A Max @ 120Vac, Full Load
- Efficiency: Up to 92% typical at 230Vac Full Load
- Line regulation accuracy:  $\pm 3\%$
- Load regulation accuracy:  $\pm 4\%$
- Leakage current: 600uA typical; Hold up time: half cycle



IP66



### Constant Current Versions

Part Number <sup>(2)</sup>	UL Types	Output Voltage Range	Output Constant Current	Current Accuracy	Output Power Maximum	Typical Efficiency <sup>(1)</sup>
LDAD200W-445-C0450	TL & HL	149 - 445 VDC	450 mA	$\pm 5\%$	200W	92%
LDAD200W-285-C0700	TL & HL	95 - 285 VDC	700 mA	$\pm 5\%$	200W	92%
LDAD200W-190-C1050	TL & HL	64 - 190 VDC	1050 mA	$\pm 5\%$	200W	91%
LDAD200W-142-C1400	TL & HL	48 - 142 VDC	1400 mA	$\pm 5\%$	200W	91%
LDAD200W-114-C1750	TL & HL	38 - 114 VDC	1750 mA	$\pm 5\%$	200W	91%
LDAD200W-95-C2100	TL & HL	32 - 95 VDC	2100 mA	$\pm 5\%$	200W	91%
LDAD200W-81-C2450	TL & HL	27 - 81 VDC	2450 mA	$\pm 5\%$	200W	90%
LDAD200W-71-C2800	TL & HL	24 - 71 VDC	2800 mA	$\pm 5\%$	200W	90%
LDAD200W-63-C3150	TL & HL	21 - 63 VDC	3150 mA	$\pm 5\%$	200W	90%
LDAD200W-57-C3500	TL & HL	19 - 57 VDC	3500 mA	$\pm 5\%$	200W	90%
LDAD200W-47-C4200	TL & HL	16 - 47 VDC	4200 mA	$\pm 5\%$	200W	89%
LDAD200W-40-C4900	TL & HL	14 - 40 VDC	4900 mA	$\pm 5\%$	200W	89%
LDAD200W-35-C5600	TL & HL	12 - 35 VDC	5600 mA	$\pm 5\%$	200W	89%
LDAD200W-32-C6300	TL & HL	11 - 32 VDC	6300 mA	$\pm 5\%$	200W	88%
LDAD200W-24-C8330 <sup>(5)</sup>	TL & HL	8 - 24 VDC	8330 mA	$\pm 5\%$	200W	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: LDAD200W-24-C8330-RD is 0-10V or resistance dimmable version, LDAD200W-24-C8330-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, 500Hz to 1.5kHz, 0-10V Pulse. See page 4 for details.
5. SAM Recognized.

Custom designs available. Please consult with the factory.

Specifications subject to change without notice

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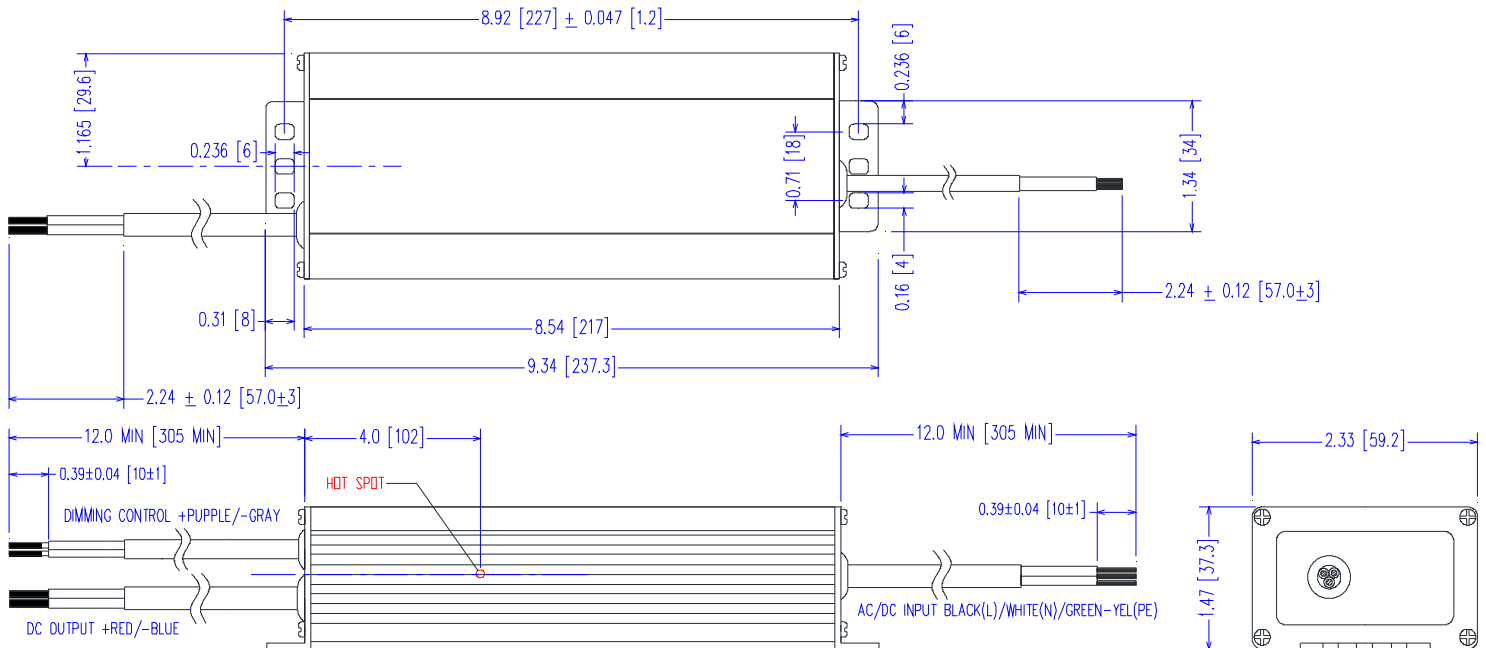
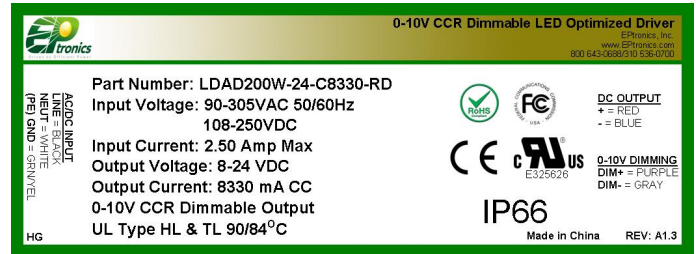
## Constant Voltage Versions

Part Number	UL Types	Output Constant Voltage	Output Current Range	Voltage Accuracy	Output Power Maximum	Typical Efficiency <sup>(1)</sup>
LDAD200W-445	TL & HL	445 VDC	113 - 450 mA	± 5%	200W	92%
LDAD200W-285	TL & HL	285 VDC	175 - 700 mA	± 5%	200W	92%
LDAD200W-190	TL & HL	190 VDC	263 - 1050 mA	± 5%	200W	91%
LDAD200W-142	TL & HL	142 VDC	350 - 1400 mA	± 5%	200W	91%
LDAD200W-114	TL & HL	114 VDC	438 - 1750 mA	± 5%	200W	91%
LDAD200W-95	TL & HL	95 VDC	525 - 2100 mA	± 5%	200W	91%
LDAD200W-81	TL & HL	81 VDC	613 - 2450 mA	± 5%	200W	90%
LDAD200W-71	TL & HL	71 VDC	700 - 2800 mA	± 5%	200W	90%
LDAD200W-63	TL & HL	63 VDC	788 - 3150 mA	± 5%	200W	90%
LDAD200W-57	TL & HL	57 VDC	875 - 3500 mA	± 5%	200W	90%
LDAD200W-47	TL & HL	47 VDC	1050 - 4200 mA	± 5%	200W	89%
LDAD200W-40	TL & HL	40 VDC	1225 - 4900 mA	± 5%	200W	89%
LDAD200W-35	TL & HL	35 VDC	1400 - 5600 mA	± 5%	200W	89%
LDAD200W-32	TL & HL	32 VDC	1575 - 6300 mA	± 5%	200W	88%
LDAD200W-24 <sup>(5)</sup>	TL & HL	24 VDC	2083 - 8330 mA	± 5%	200W	88%

## Mechanical Dimensions: Inches [mm]

Material: Black Aluminum Housing  
Fully Encapsulated  
Weight: 940 grams (33.2 oz) Typical

## Labeling Example



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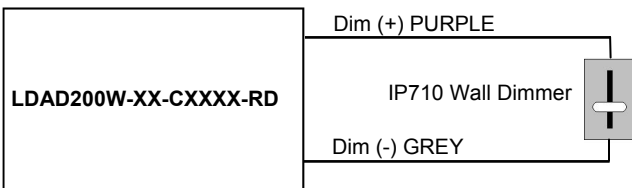
### -RD 2-Wire 0-10V CCR Dimming Scheme

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

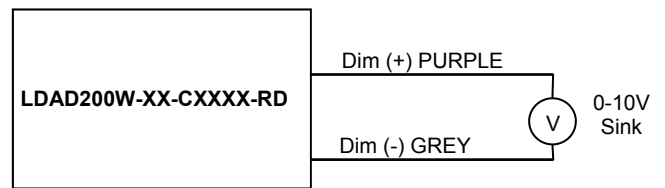
### Notes

- 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.

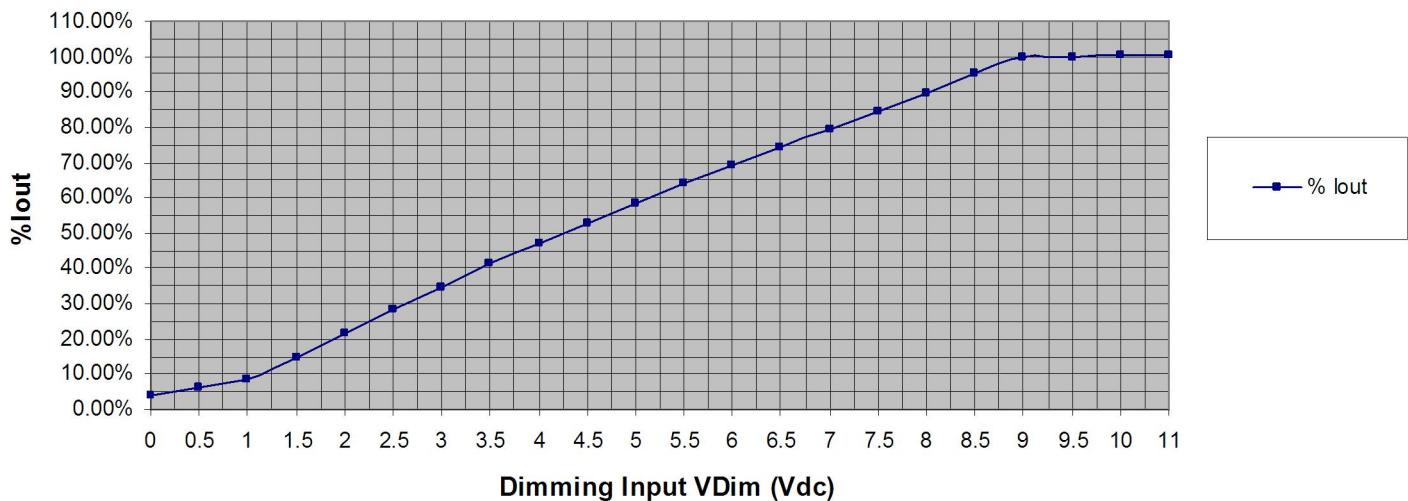
### -RD 2-Wire Resistance Dimming Scheme



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



**% Output Current vs. 0-10VDC Dimming Input**



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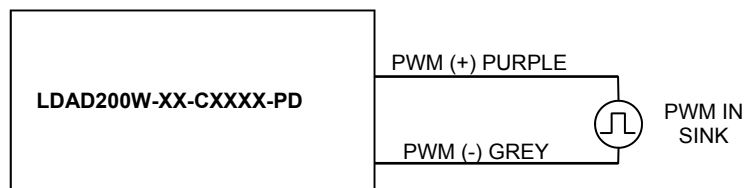
## -PD 2-Wire CCR PWM Positive Dimming Scheme

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

