LED Optimized Drivers

100 Watt - LD100W Series

CONSTANT VOLTAGE OR CONSTANT CURRENT LED DRIVER WITH DIMMING

100W LD100W Series DIMMING

Model: LD100W Series

- Drive Mode: Constant Current or Constant Voltage
- Technology: PFC Off-Line Switch Mode
- Output Power: 100W Max.
- Input Voltage: 90 to 305Vac, 47- 63Hz
- Number of Outputs: One
- Output Voltages: 6VDC - 286VDC
- Output Currents: 350mA - 5550mA
- Optional 0-10V or PWM Positive Dimming 10% - 100%

Environmental

1. Operating temperature: Tc 90C Maximum. Reference -30 to +65°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: 418,000 hours @ Full Load per MIL-217F Notice 2.

Safety and Compliance

1. UL8750, EN61347, CSA C22.2 No. 250.13 safety compliant
2. FCC, 47CFR Part 15 Class B compliant
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
- Frequency: 47- 63HZ
- Power Factor: ≥ 0.90 at > 85% Load, 120Vac/230Vac/277Vac 50/60Hz
- THD%: ≤ 20% at > 85% Load, 120Vac/230Vac/277Vac 50/60Hz
- Inrush current: <30A at 25C, 230Vac, cold start, Max. Load
- Input current: 1.3A Max.
- Efficiency: 90% typical at 230Vac Full Load
- Constant Current regulation: +/-2% Over Input Line Variation
- Load regulation accuracy: +/-4%
- Leakage current: 400uA typical; Hold up time: half cycle

c UL us E325626 CE FC IP66 RoHS

Constant Current Versions

Part Number [2][5]	Output Voltage Range	Output Constant Current	Current Accuracy	Output Power Maximum	Typical Efficiency [1]
LD100W-286-C0350	95 - 286 VDC	350 mA	± 3%	100W	92%
LD100W-222-C0450	74 - 222 VDC	450 mA	± 3%	100W	92%
LD100W-143-C0700	47 - 143 VDC	700 mA	± 3%	100W	91%
LD100W-95-C1050	31 - 95 VDC	1050 mA	± 3%	100W	91%
LD100W-71-C1400	23 - 71 VDC	1400 mA	± 3%	100W	91%
LD100W-57-C1750[6]	19 - 57 VDC	1750 mA	± 3%	100W	90%
LD100W-48-C2100[6]	16 - 48 VDC	2100 mA	± 3%	100W	90%
LD100W-41-C2450[6]	13 - 41 VDC	2450 mA	± 3%	100W	90%
LD100W-36-C2800[6]	12 - 36 VDC	2800 mA	± 3%	100W	90%
LD100W-32-C3150[6]	10 - 32 VDC	3150 mA	± 3%	100W	90%
LD100W-28-C3570[6]	9 - 28 VDC	3570 mA	± 3%	100W	89%
LD100W-24-C4200[6]	8 - 24 VDC	4200 mA	± 3%	100W	89%
LD100W-20-C5000[6]	7 - 20 VDC	5000 mA	± 3%	100W	88%
LD100W-18-C5550[6]	6 - 18 VDC	5550 mA	± 3%	100W	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: LD100W-18-C5550-RD is 0-10V or resistance dimmable version, LD100W-18-C5550-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. All models of LD100W are UL & cUL Non-Class 2 Output
6. SELV Equivalent.

Custom designs available. Please consult with the factory.

Specifications subject to change without notice

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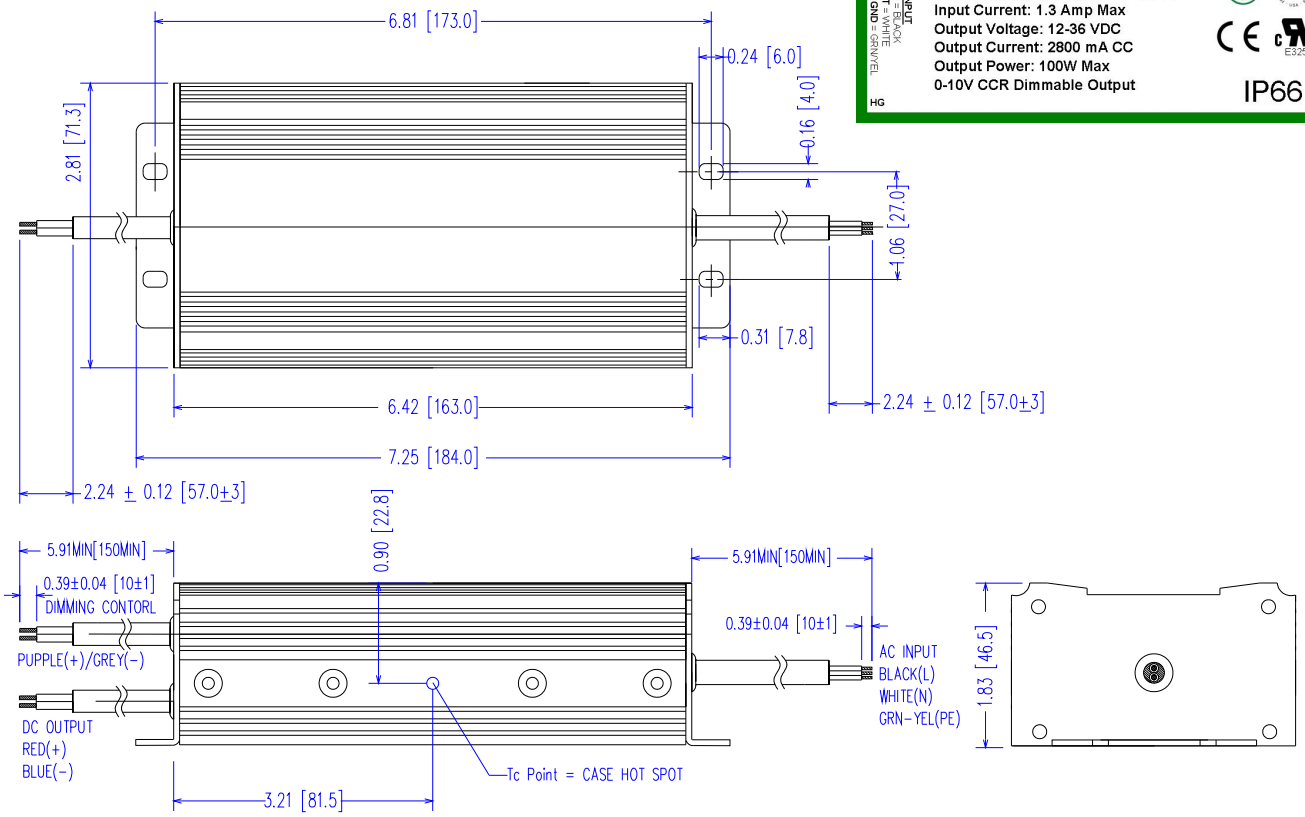
Constant Voltage Versions

Part Number [5]	Output Constant Voltage	Output Current Maximum	Voltage Accuracy	Output Power Maximum	Typical Efficiency [1]
LD100W-286	286 VDC	350 mA	± 5%	100W	92%
LD100W-222	222 VDC	450 mA	± 5%	100W	92%
LD100W-143	143 VDC	700 mA	± 5%	100W	91%
LD100W-95	95 VDC	1050 mA	± 5%	100W	91%
LD100W-71	71 VDC	1400 mA	± 5%	100W	91%
LD100W-57[6]	57 VDC	1750 mA	± 5%	100W	90%
LD100W-48[6]	48 VDC	2100 mA	± 5%	100W	90%
LD100W-41[6]	41 VDC	2450 mA	± 5%	100W	90%
LD100W-36[6]	36 VDC	2800 mA	± 5%	100W	90%
LD100W-32[6]	32 VDC	3150 mA	± 5%	100W	90%
LD100W-28[6]	28 VDC	3570 mA	± 5%	100W	89%
LD100W-24[6]	24 VDC	4200 mA	± 5%	100W	89%
LD100W-20[6]	20 VDC	5000 mA	± 5%	100W	88%
LD100W-18[6]	18 VDC	5550 mA	± 5%	100W	88%

Mechanical Dimensions: Inches [mm]

Material: Black Aluminum Housing



Labeling Example

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CONSTANT VOLTAGE OR CONSTANT CURRENT LED DRIVER WITH DIMMING

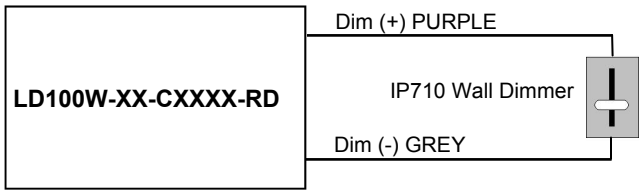
-RD 2-Wire 0-10V CCR Dimming Scheme

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

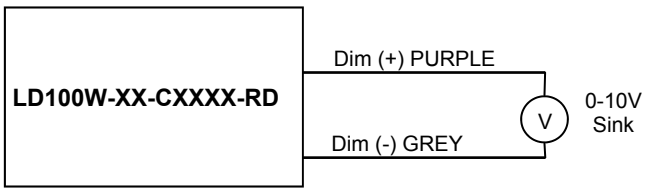
Notes

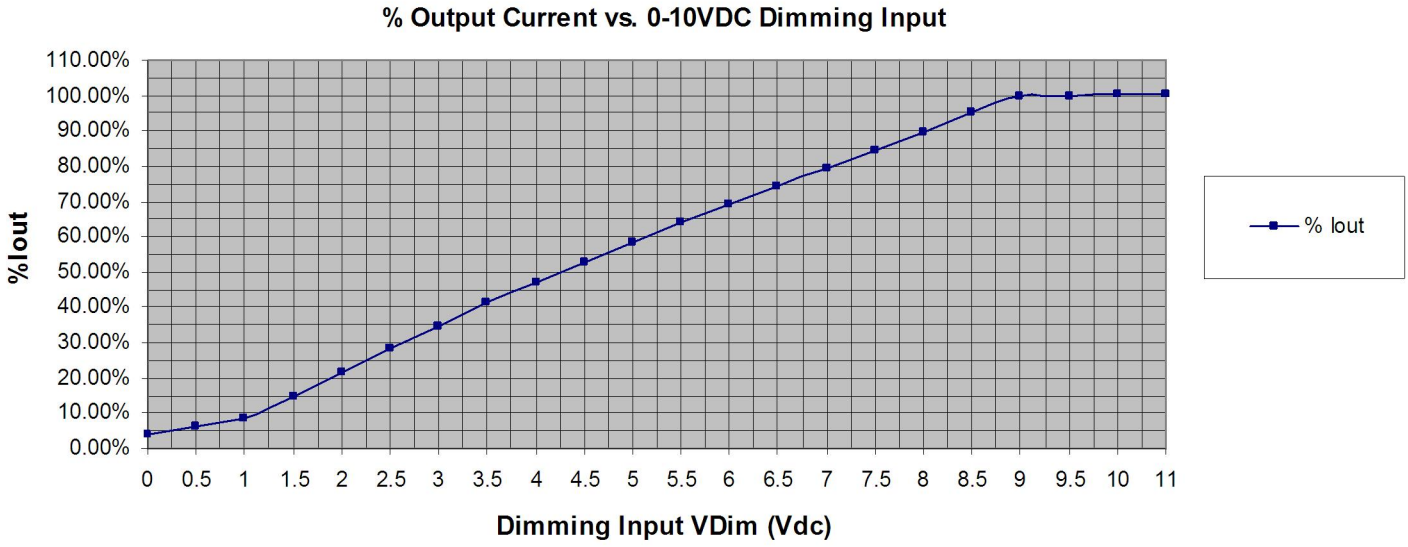
1. -RD 0-10V dimmable version comes with an extra two wires +Purple/-Grey on the output side.
2. -RD version is compatible with most 0-10V Wall Slide dimmers and direct 0-10V analog signal. Recommended wall slide dimmer is Leviton IP710 or equivalent
3. -RD 0-10V dimmable version is not intended to dim below about 5% @ 0V or 10% @ 1.0V
4. -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





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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