

35 Watt - LD35W Series

CONSTANT VOLTAGE OR CONSTANT CURRENT LED DRIVER WITH DIMMING



DIMMING
LD35W Series
35W

Model: LD35W Series

- Drive Mode: Constant Current or Constant Voltage
- Technology: PFC Off-Line Switch Mode
- Output Power: 35W
- Input Voltage: 100 to 277VAC, 50/60Hz
- Number of Outputs: One
- Output Voltages: 14VDC - 100VDC
- Output Currents: 350mA - 1250mA
- Optional 0-10V & PWM Dimming 10% - 100%

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: 482,000 hours @ Full Load per MIL-217F Notice 2.

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 transient protection.

Electrical Specifications at 25°C

- Input voltage range: 100 to 277VAC
- Frequency: 47- 63HZ
- Power Factor: ≥ 0.90 at $> 70\%$ Load, 120Vac/230Vac/277Vac 50/60Hz
- THD%: $\leq 20\%$ at $> 70\%$ Load, 120Vac/230Vac/277Vac 50/60Hz
- Inrush current: $<10A$ at 25C, 230V, cold start, Max. Load
- Input current: 0.37A at 120Vac, 60Hz, Maximum Load
- Efficiency: 85% typical at 230Vac , full load
- Start-up time <1.0 Second full output.
- Constant Current regulation: $\pm 3\%$ Over Input Line Variation
- Load regulation accuracy: $\pm 4\%$
- Leakage current: 400uA typical; Hold up time: half cycle



IP65



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⁾
LD35W-100-C0350	NO	NO	34 - 100 VDC	350 mA	$\pm 4\%$	35W	85%
LD35W-54-C0700	YES	YES	18 - 54 VDC	700 mA	$\pm 4\%$	37.8W	85%
LD35W-36-C1050	YES	YES	18 - 36 VDC	1050 mA	$\pm 4\%$	37.8W	84%
LD35W-28-C1250	YES	YES	14 - 28 VDC	1250 mA	$\pm 4\%$	35W	84%

Constant Voltage Versions

Part Number	US Class 2	CN Class 2	Output Voltage	Output Current Range	Voltage Accuracy	Output Power Maximum	Typical Efficiency ⁽¹⁾
LD35W-100	NO	NO	100 VDC	88 - 350 mA	$\pm 5\%$	35W	85%
LD35W-54	YES	YES	54 VDC	175 - 700 mA	$\pm 5\%$	37.8W	85%
LD35W-36	YES	YES	36 VDC	263 - 1050 mA	$\pm 5\%$	37.8W	84%
LD35W-28	YES	YES	28 VDC	313 - 1250 mA	$\pm 5\%$	35W	84%

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: LD35W-36-C1050-RD is 0-10V or resistance dimmable version, LD35W-36-C1050-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.

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LED Optimized Drivers

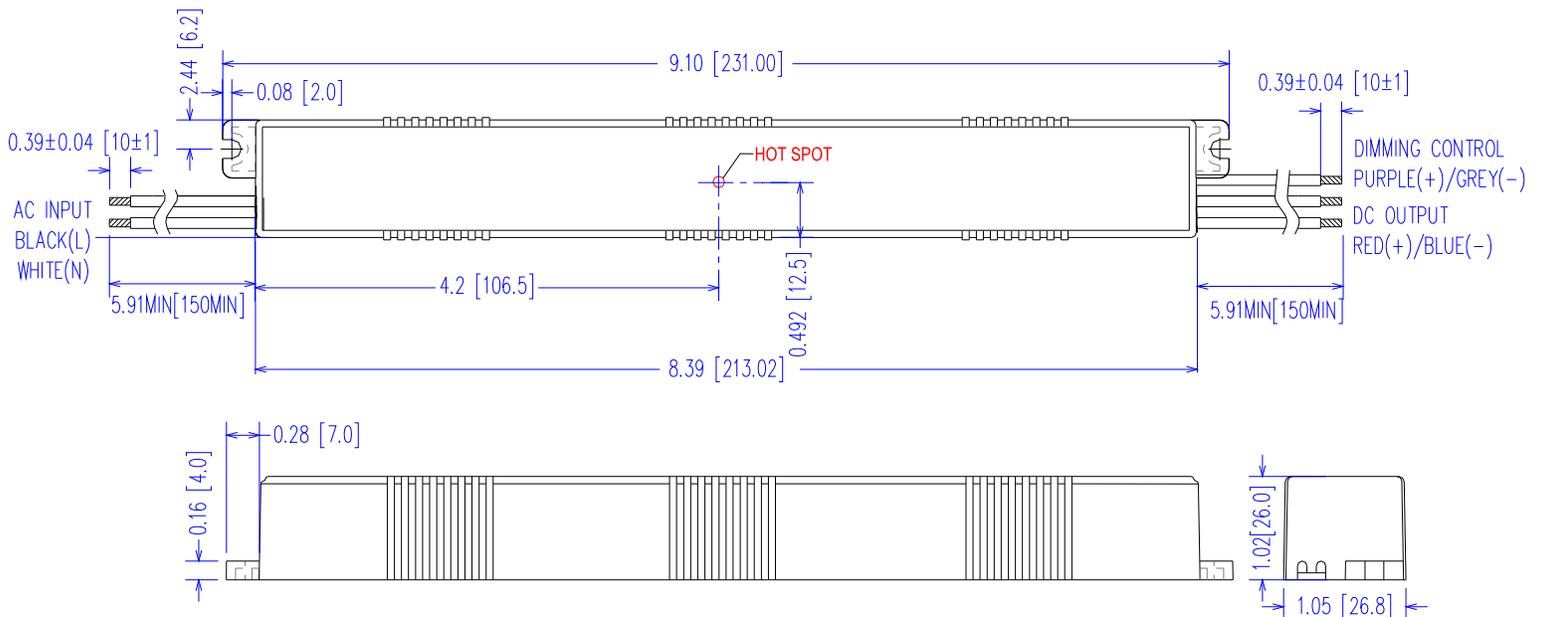
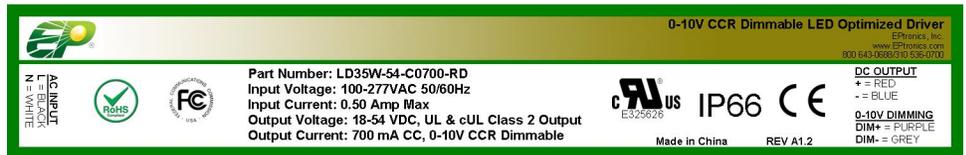
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Mechanical Dimensions: Inches [mm]

Material: Black PC ABS Plastic Case
Fully Encapsulated
Weight: 250 grams (8.8 oz) Typical

Labeling Example



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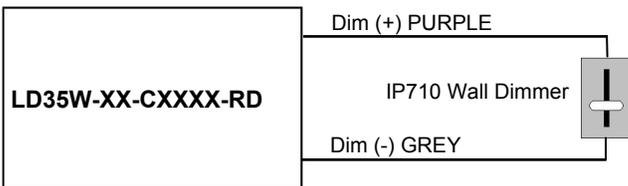
-RD 2-Wire 0-10V CCR Dimming Scheme

Parameters	Minimum	Typical	Maximum
Source Current out of 0-10V Purple Wire	0mA	—	0.5mA
Absolute Voltage Range on 0-10V (+) Purple Wire	-2.0V	—	+15V
Sink Current into 0-10V Purple Wire	0mA	—	1.2mA

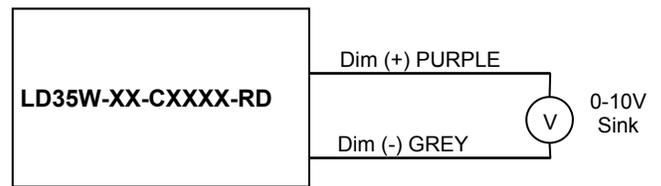
Notes

- 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 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.

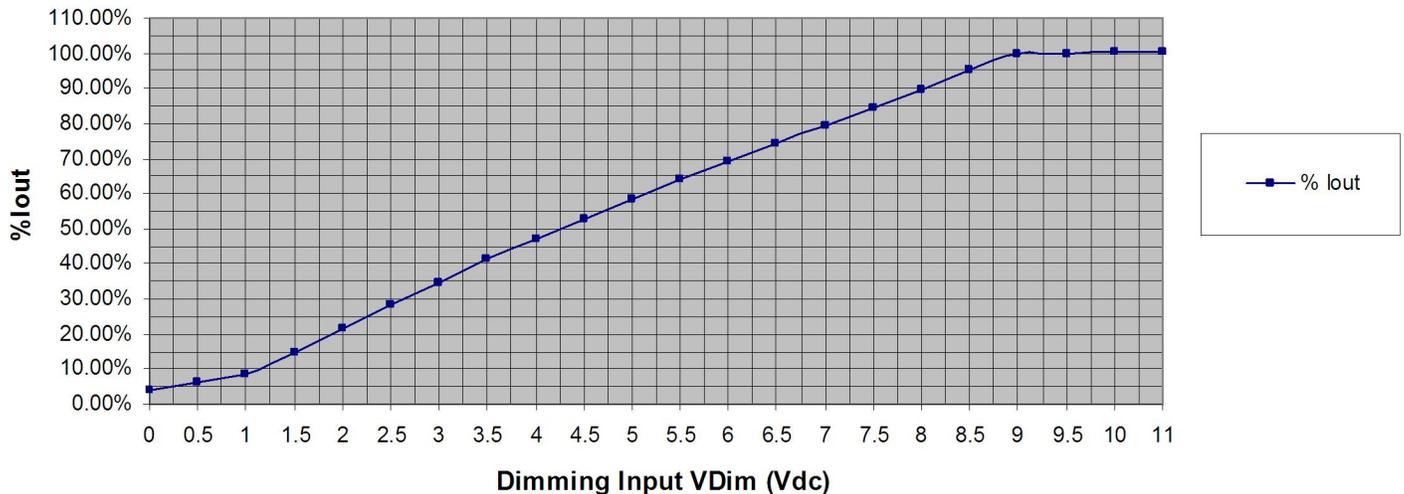
-RD 2-Wire Resistance Dimming Scheme



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



% Output Current vs. 0-10VDC Dimming Input



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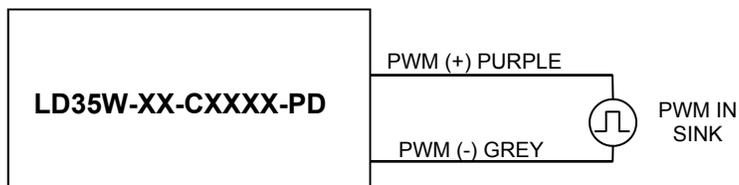
-PD 2-Wire CCR PWM Positive Dimming Scheme

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	—	0.5mA
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

