

24VDC CONSTANT VOLTAGE DRIVER

SPECIFICATION SHEET



OVERVIEW

24VDC Constant Voltage LED Drivers are the driver of choice to pair with 120V switches, low voltage REIGN[®] Dimmers, and RGB(W)/DMX Controls. These hard-wired drivers are available in multiple form factors and voltage/wattage combinations to meet your low-voltage LED lighting needs. Note: only specific models may be paired with REIGN[®] Dimmers and RGB(W)/DMX controls.

FEATURES

- Available in wattages from 35W to 330W
- Short circuit, over current, over voltage, over temperature protections
- Class 2 power unit models available
- Fanless design models available
- UL Recognized Component (driver only)
- UL Listed models available (LO-PRO[®] Junction Box & Driver Combo)

RECEIVE A UL LISTED DRIVER WHEN ORDERING THE LO-PRO[®] JUNCTION BOX & DRIVER COMBO ON PAGE 2.



Item #	
Project	

SPECIFICATIONS - 24VDC Output Models

LO-PRO® JUNCTION BOX & DRIVER COMBO

UL LISTED DRIVER OPTION






SKUs highlighted in blue qualify for the Lo-Pro Junction Box & Driver Combo. An additional UL Listed E469769 Sticker will be placed on the outside of the Lo-Pro J-Box certifying the combo as a UL Listed Low Voltage Power unit. Conforms to Article 725.121(A)(2) of the National Electrical Code®.

	DI-0970	DI-0970-LPS	DI-0954	DI-0954-LPL
Input Voltage / Frequency¹	90 ~ 264VAC / 47 ~ 63Hz (Refer to 'Static Characteristics Curve')		90 ~ 295VAC / 47 ~ 63Hz (Refer to 'Static Characteristics Curve')	
Max Load	35W / 1.46A (See Derating Curve)		96W / 4A (See Derating Curve)	
Class 2 Certified	Yes		Yes	
Output Voltage	24VDC		24VDC	
Compatible Junction Boxes	LO-PRO® J-Box (Small) DI-JBOX-LPS	UL Listed Combo includes J-Box	LO-PRO® J-Box (Large) DI-JBOX-LPL	UL Listed Combo includes J-Box
Ambient Temperature²	-22 ~ 158°F (-30 ~ +70°C)		-22 ~ 122°F (-30 ~ +50°C)	
Operating Temperature³	-22 ~ 158°F (-30 ~ +70°C)		-22 ~ 122°F (-30 ~ +50°C)	
Minimum Load	None		None	
Dimmability⁴	Yes. PWM & RGB(W) dimmers/controls & DMX controls			
Input Current Full Load	1.1A@115VAC, 0.7A@230VAC		1.1A@115VAC, 0.55A@230VAC, 0.45A/277VAC	
Primary Leads	UL 1015 18/2AWG, AC/L (Brown), AC/N (Blue), No FG connection (Class II)		UL SVT 18/3AWG, AC/L (Brown), AC/N (Blue), GND (Green)	
Secondary Leads	UL 1007 16/2AWG, V+(Red), V-(Black)		UL SVT 18/2AWG, V+(Red), V-(Black)	
Voltage Boost	No		No	
Circuit Breakers	Auto Reset Hiccup		Auto Reset Hiccup	
Efficiency / Power Factor Full Load	85%		88.5% / PF>0.95	
Environment⁵	IP 67 (Driver Only) Outdoor / Wet	Indoor / Dry	IP 64 (Driver Only) Outdoor / Wet	Indoor / Dry
Working Humidity	20 ~ 90% RH non-condensing		20 ~ 90% RH non-condensing	
Housing / Cooling	Plastic Class II power unit, no FG connection / free air convection	Powder-coated Steel / free air convection	Plastic / free air convection	Powder-coated Steel / free air convection
Dimensions	5.83 x 1.57 x 1.18 in. (L x W x H)	11.25 x 3.75 x 1.90 in. (L x W x H)	7.87 x 2.78 x 1.38 in. (L x W x H)	11.25 x 3.75 x 1.90 in. (L x W x H)
Weight	0.75 lbs (12 oz.)	2.65 lbs (42.4 oz.)	1.14 lbs (18.3 oz.)	3.84 lbs (61.4 oz.)
Warranty	2 Years	Driver: 2 Years J-Box: 5 Years	2 Years	Driver: 2 Years J-Box: 5 Years
Certifications	cULus R/C 1310, CSA C22.2 No. 223-M91. CE Certified.	cULus Listed 1598 E469769. UL 1310, CSA C22.2 No. 223- M91. CE Certified.	cULus R/C 1310, CSA C22.2 No. 223-M91. CE Certified.	cULus Listed 1598 E469769. UL 1310, CSA C22.2 No. 223- M91. CE Certified.

See Page 5 for Important Notes.


SPECIFICATIONS CONT. - 24VDC Output Models

	DI-DV-24V60W-277	DI-CV-24V150W	DI-CV-24V200W
			
Input Voltage / Frequency¹	100 ~ 277VAC, 50/60Hz	90 ~ 132VAC / 47 ~ 63Hz (Refer to 'Static Characteristics Curve')	88 ~ 264VAC, 47 ~ 60Hz (Refer to 'Static Characteristics Curve')
Max Load	60W / 2.5A	150W / 6.25A	200W / 8.4A
Class 2 Certified	Yes	No	No
Output Voltage	24VDC	24VDC	24VDC
Compatible Junction Boxes	*LO-PRO® Junction Box (Large) DI-JBOX-LPL	*LO-PRO® Junction Box (Large) DI-JBOX-LPL	No compatible J-Box. Mounting Brackets (for driver only): DI-1733
Ambient Temperature²	-40 ~ +122°F (-40 ~ +50°C)	-13 ~ +149°F (-25 ~ +65°C)	+14 ~ +185°F (-10 ~ +85°C)
Operating Temperature³	-40 ~ +194°F (-40 ~ +90°C)	-13 ~ +149°F (-25 ~ +65°C)	-22 ~ +158°F (-30 ~ +70°C)
Minimum Load	None	None	None
Dimmability⁴	Yes. PWM & RGB(W) dimmers/controls & DMX controls	Yes. PWM & RGB(W) dimmers/controls & DMX controls	On/Off Switching Only
Input Current Full Load	6A@120VAC 2.6A@277VAC	3.0A@115VAC	20A@115VAC 40A@230VAC
Primary Leads	UL STJW 18/3AWG, AC/L (Black), AC/N (White), GND (Green)	SJTW 18/2AWG, AC/L (Brown), AC/N (Blue)	Terminal block w/ framed ground connection
Secondary Leads	UL STJW 18/2AWG, V+(Red), V-(Black)	SJTW 14/2AWG, V+(Red), V-(Black)	Terminal Block
Voltage Boost	No	No	Yes. Voltage Adjustment Dial: 26 ~ 31.5V
Circuit Breakers	Auto Reset Hiccup	Auto Reset Hiccup	Auto Reset Hiccup
Efficiency / Power Factor Full Load	87% / PF>0.95	89%	89.5% / PF>0.98@115VAC / PF>0.95@240VAC
Environment	IP 67 (driver only) Outdoor / Wet	IP67 (driver only) Outdoor / Wet	Indoor / Dry Location. Install in a dust-free environment.
Working Humidity	20 ~ 90% RH non-condensing	20 ~ 90% RH non-condensing	20 ~ 90% RH non-condensing
Housing / Cooling	Aluminum / free air convection	Plastic Class II power unit, no FG connection / free air convection	Aluminum
Dimensions	9.50 x 1.70 x 1.14 in. (L x W x H)	7.52 x 2.5 x 1.48 in. (L x W x H)	8.46 x 4.53 x 1.18 in (L x W x H)
Weight	1.32 lbs. (21.12 oz.)	1.88 lbs. (30 oz.)	1.87 lbs. (29.92 oz.)
Warranty	5 Years	2 Years	3 Years
Certifications	cULus Recognized Component 1310. UL # E332747. FCC Compliant. RoHS Compliant.	cULus Recognized Component 8750, CSA C22.2 No. 250.0-08. Listed in UL Sign Component Manual (SAM). FCC Compliant.	cULus Recognized Component 60950-1.

* LO-PRO® Junction Box Note: Driver will fit in LO-PRO Junction Box indicated in the field **Compatible Junction Boxes** but is not available as a UL Listed LO-PRO Junction Box & Driver Combo.

See Page 5 for Important Notes.

SPECIFICATIONS CONT. - 24VDC Output Models

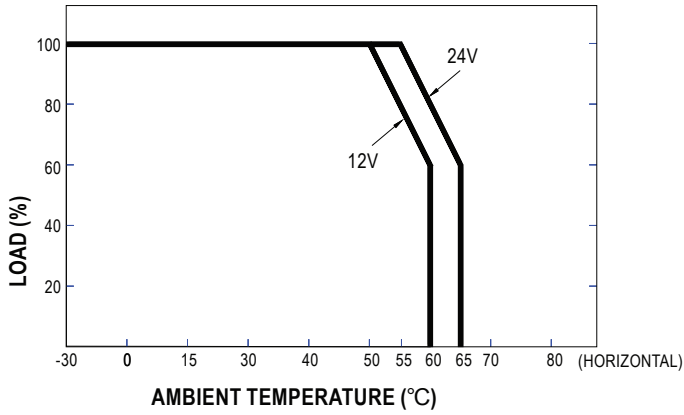
	DI-CV-24V330W
	
Input Voltage / Frequency¹	85 ~ 264VAC / 47 ~ 63Hz (Refer to 'Static Characteristics Curve')
Max Load	330W / 13.75A
Class 2 Certified	No
Output Voltage	24VDC
Compatible Junction Boxes	No compatible J-Box. Mounting Brackets (for driver only): DI-1733
Ambient Temperature²	-40 ~ +158°F (-40 ~ +70°C)
Operating Temperature³	-40 ~ +158°F (-40 ~ +70°C)
Minimum Load	None
Dimmability⁴	Yes. PWM & RGB(W) dimmers/controls & DMX controls
Input Current Full Load	3.5A@115VAC 1.8A@230VAC
Primary Leads	Terminal block w/ framed ground connection
Secondary Leads	Terminal Block
Voltage Boost	Yes. Voltage Adjustment Dial: 21.6 ~ 28.8V
Circuit Breakers	Auto Reset Hiccup
Efficiency / Power Factor Full Load	87% / PF>0.99@115VAC / PF>0.95@230VAC
Environment	Indoor / Dry Location. Install in a dust-free environment.
Working Humidity	20 ~ 90% RH non-condensing
Housing / Cooling	Aluminum / built-in cooling fan
Dimensions	8.5 x 4.13 x 1.61 in. (L x W x H)
Weight	2.09 lbs. (33.44 oz.)
Warranty	5 Years
Certifications	cULus Recognized Component 60950-1. CE Certified.

Notes

1. Refer to the 'Static Characteristics Curve' if installing under low input voltage conditions to properly derate the power supply load
2. Refer to the 'Derating Curve' if nearing max. ambient temperature to properly derate the power supply load. Do not install product in an environment outside the listed ambient temperature.
3. Operating temperature is measured according to the minimum and maximum ambient temperature environment. Operating temperature is measured according to the minimum and maximum ambient temperature environment.
4. Not compatible with 120VAC dimming controls. PWM dimmer/control spec sheet will indicate if multiple controls can be paired to a single driver.
5. Varies per model. Some models (driver only) are suitable for wet location but must be installed in a wet location J-Box. Lo-Pro J-Box & Driver Combo is suitable for indoor / dry locations but also suitable for wet location when the full combo is installed in a wet location J-Box.

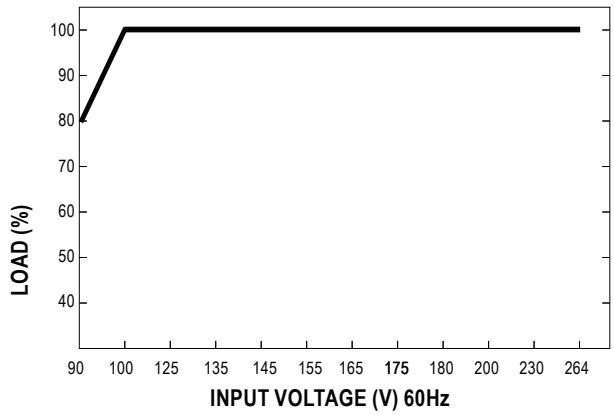
DERATING CURVE

24V 35W - DI-0970 / DI-0970-LPS

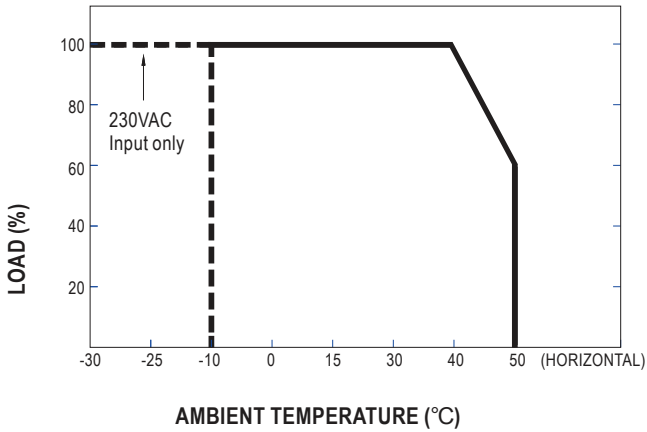


STATIC CHARACTERISTICS CURVE

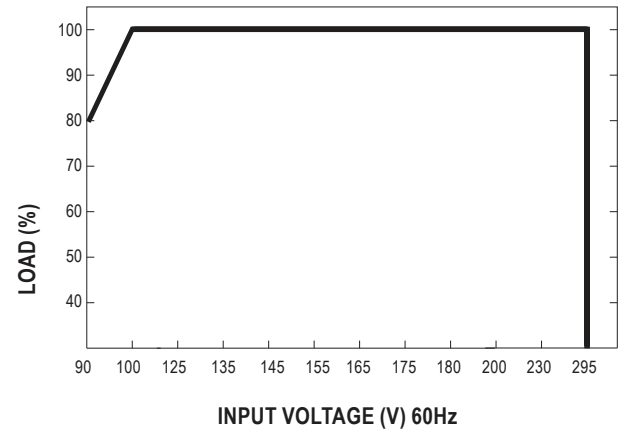
24V 35W - DI-0970 / DI-0970-LPS



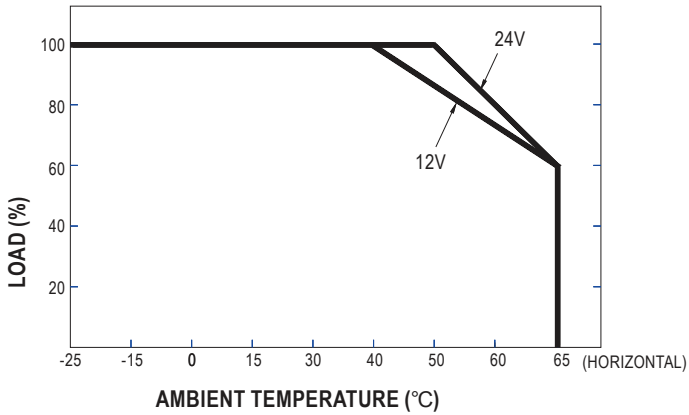
24V 96W - DI-0954 / DI-0954-LPL



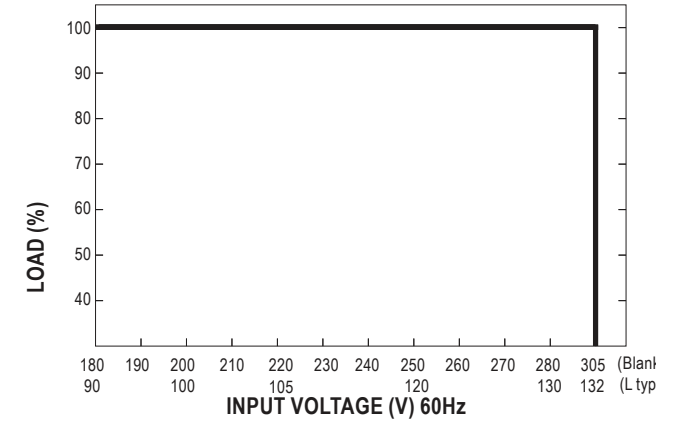
24V 96W - DI-0954 / DI-0954-LPL



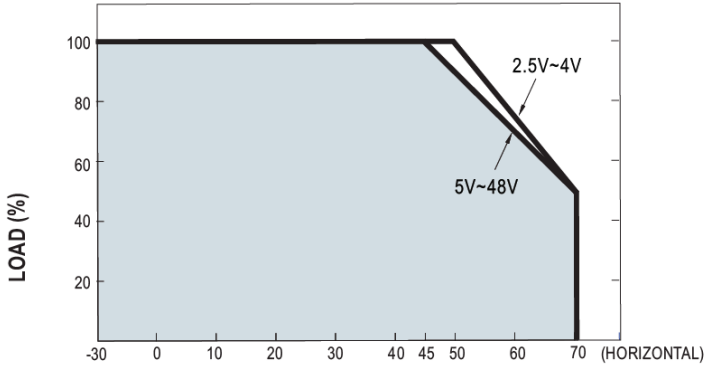
24V 150W - DI-CV-24V150W



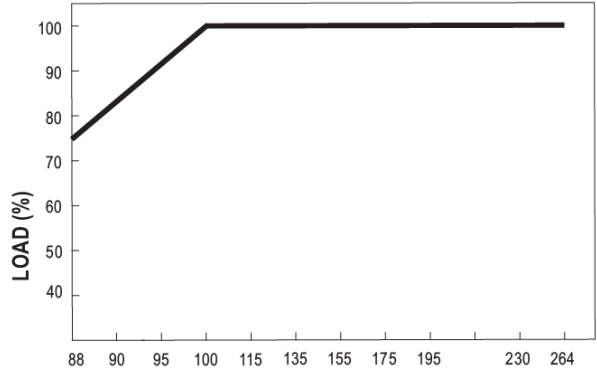
24V 150W - DI-CV-24V150W



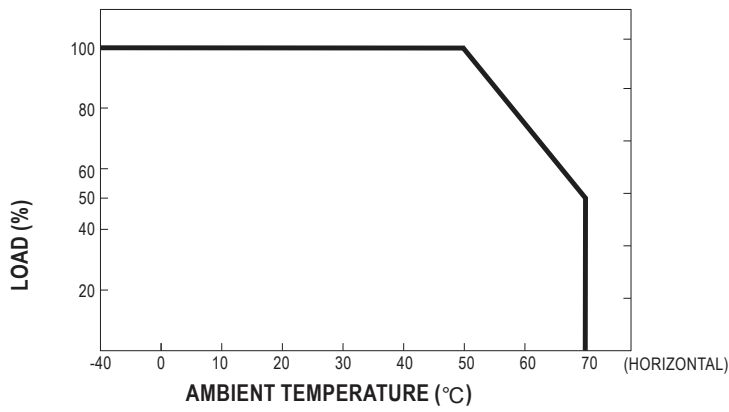
DERATING CURVE CONT.
24V 200W - DI-CV-24V200W



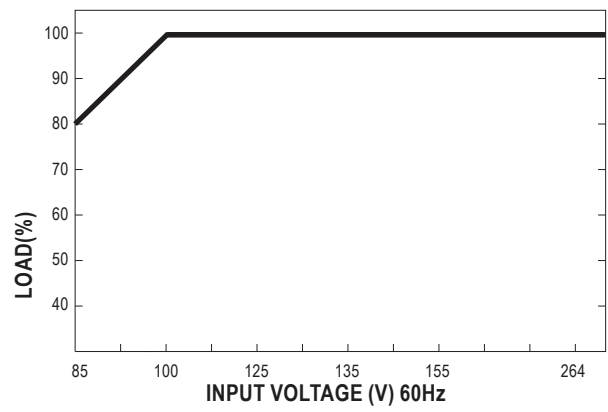
STATIC CHARACTERISTICS CURVE CONT.
24V 200W - DI-CV-24V200W



24V 330W - DI-CV-24V330W



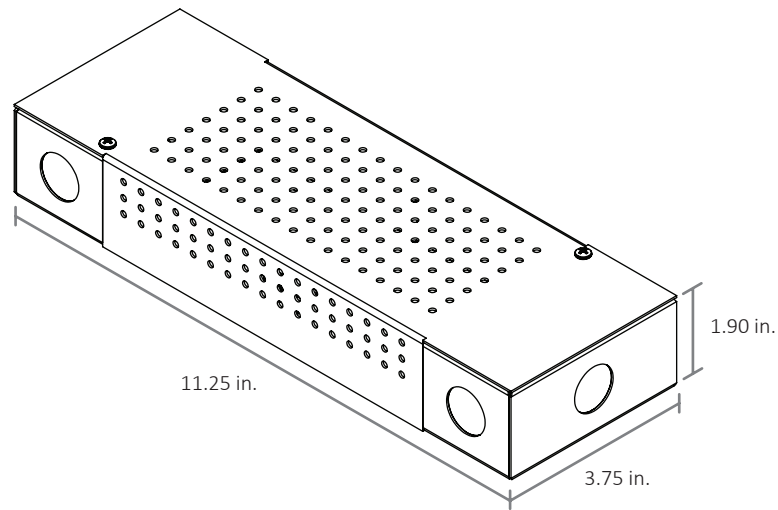
24V 330W - DI-CV-24V330W



MECHANICAL DIAGRAMS *(Images are not to scale)*

LO-PRO® JUNCTION BOX & DRIVER COMBO

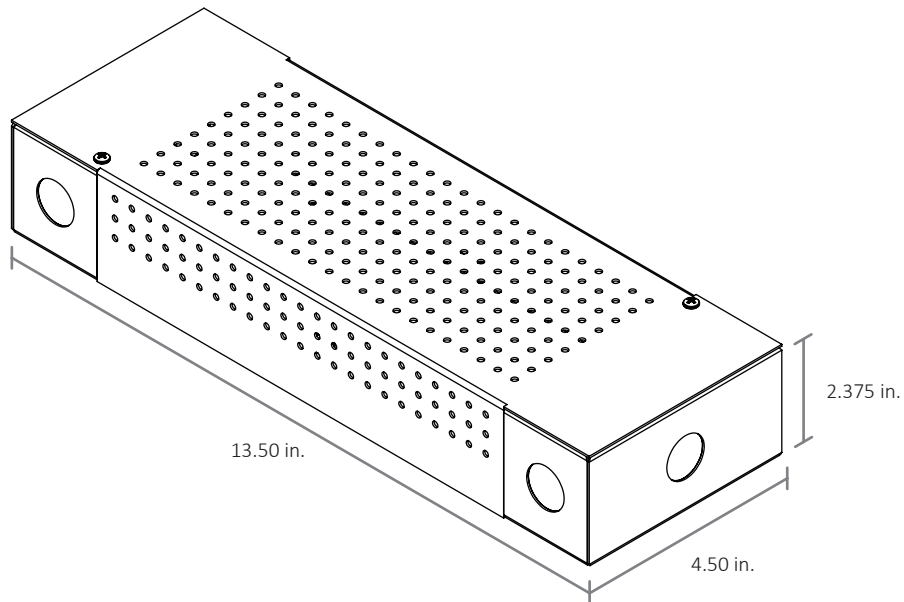
24V 35W - DI-0970-LPS



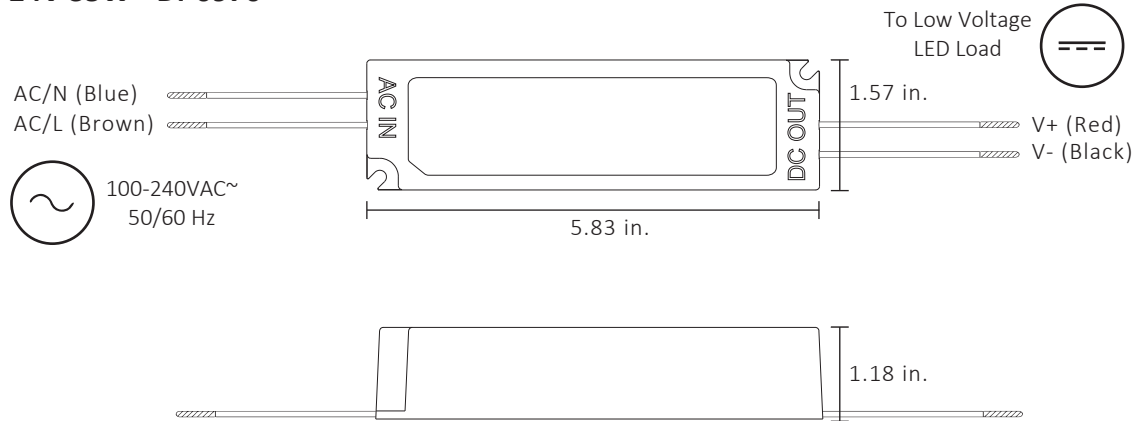
MECHANICAL DIAGRAMS *(Images are not to scale)*

LO-PRO® JUNCTION BOX & DRIVER COMBO

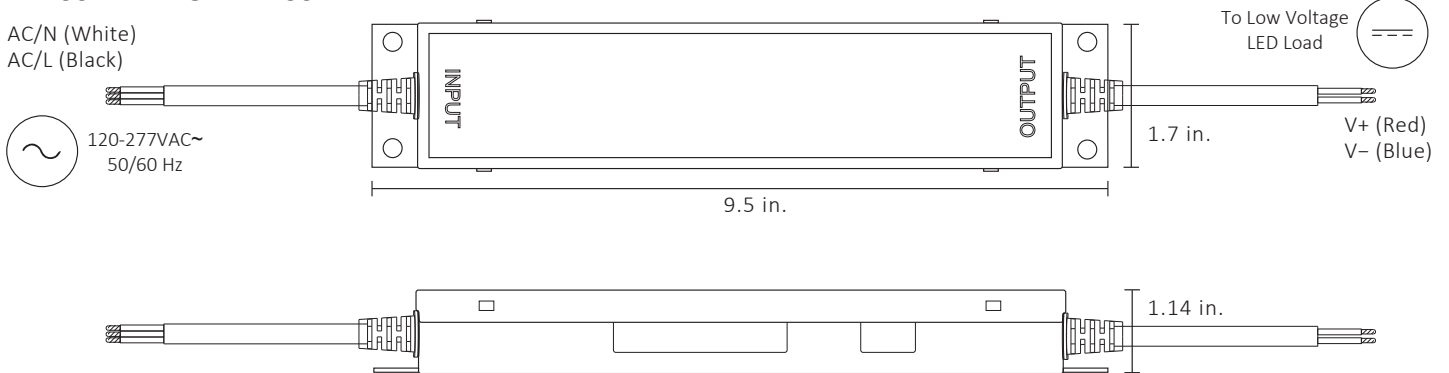
24V 96W - DI-0954-LPL



24V 35W - DI-0970

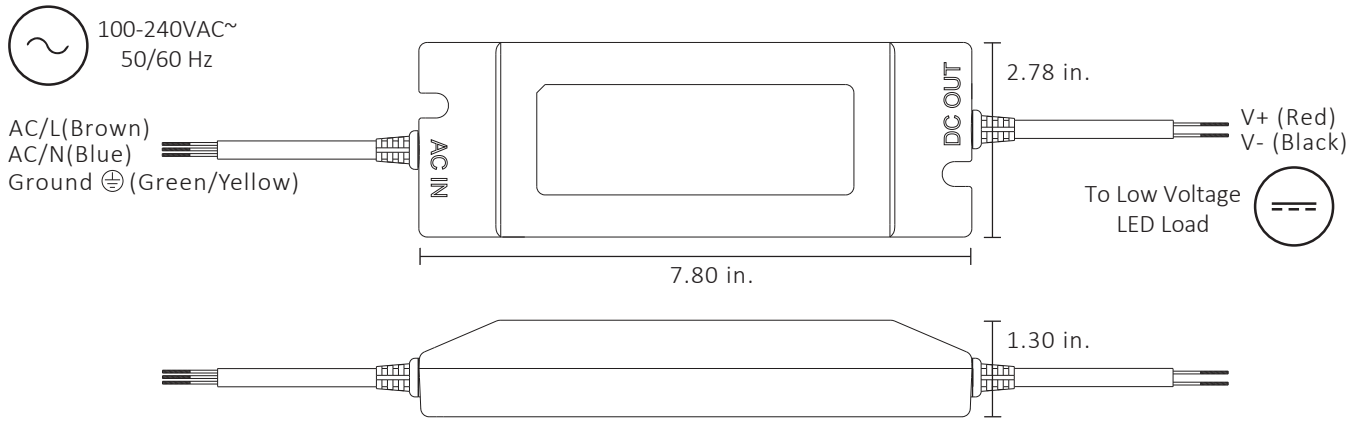


24V 60W - DI-CV-24V60W-277

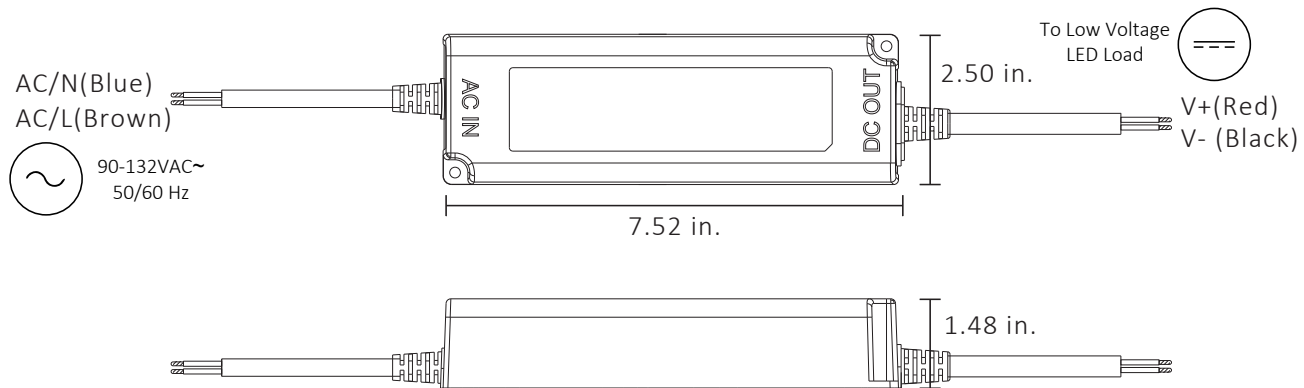


MECHANICAL DIAGRAMS *(Images are not to scale)*

24V 96W - DI-0954

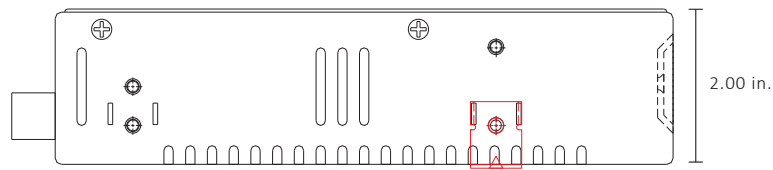
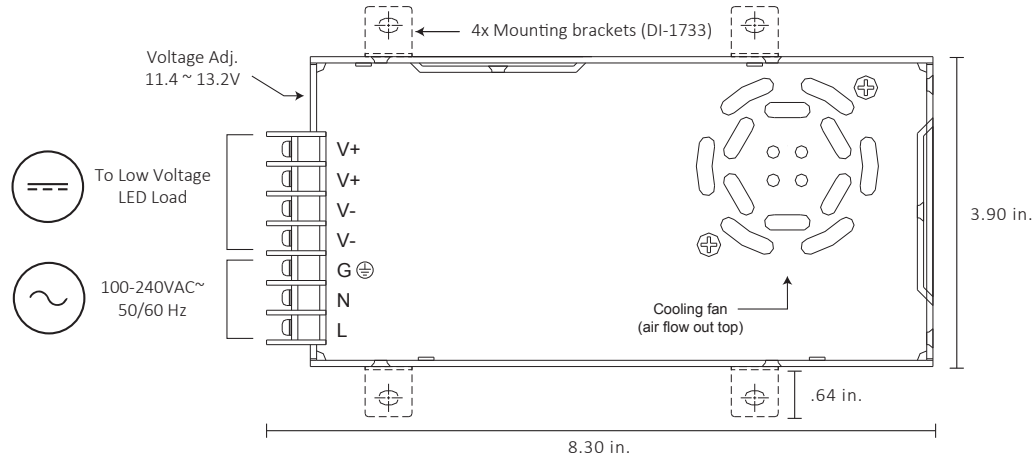


24V 150W - DI-CV-24V150W

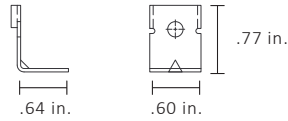


MECHANICAL DIAGRAMS

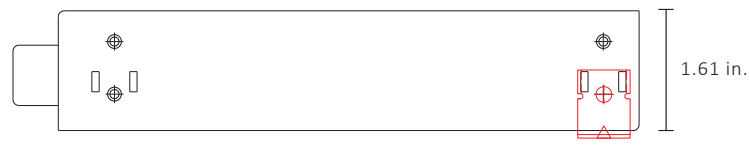
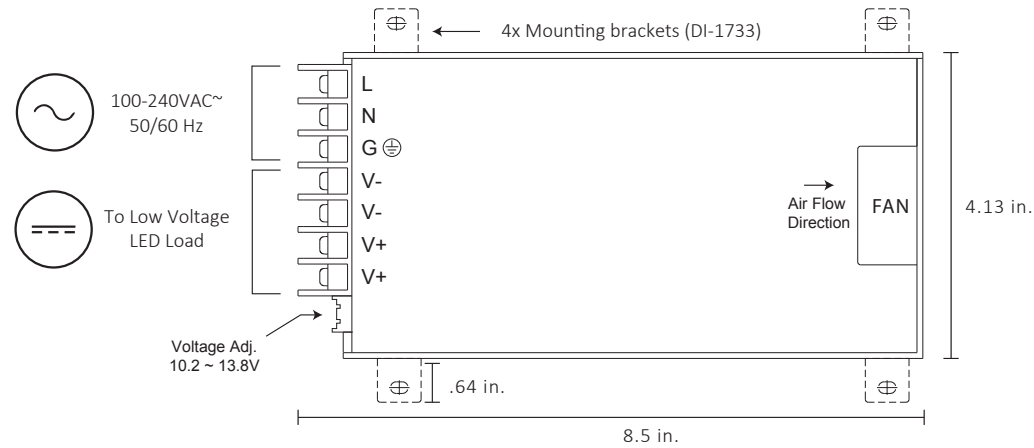
24V 200W - DI-CV-24V200W



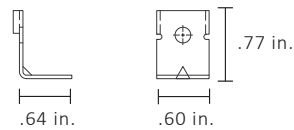
4x Mounting brackets/hardware (sold separately). Hardware Size: M4 L=6.
Use applicable screws to mount driver/brackets to desired surface.



24V 330W - DI-CV-24V330W



4x Mounting brackets/hardware (sold separately). Hardware Size: M4 L=6.
Use applicable screws to mount driver/brackets to desired surface.



ADDITIONAL RESOURCES

12VDC CONSTANT VOLTAGE DRIVER Specification Sheet
12VDC COMMERCIAL GRADE CV DRIVER Specification Sheet
24VDC COMMERCIAL GRADE CV DRIVER Specification Sheet
LO-PRO JUNCTION BOX Specification Sheet
LO-PRO JUNCTION BOX Installation Guide
Voltage Drop Charts

SAFETY / WARNINGS / DISCLOSURES

1. Install in accordance with national and local electrical code regulations.
2. This product is intended to be installed and serviced by a qualified, licensed electrician.
3. DO NOT modify product beyond instructions or warranty will be void.
4. Turn power OFF at main breaker before servicing or installing this product.
5. Proper heat dissipation will prolong the working lifespan of this product. Install in a well-ventilated area free from explosive gases and vapors.
6. Refer to the 'Static Characteristics Curve' if installing under low input voltage conditions to properly derate the power supply load
7. Refer to the 'Derating Curve' if nearing max. ambient temperature to properly derate the power supply load. Do not install product in an environment outside the listed ambient temperature.
8. Ensure a compatible LED fixture with the correct operating voltage is installed with this product.
9. Drivers in this specification sheet are not compatible with 120VAC dimming controls. Some models are compatible with PWM/RGB(W) and DMX Controls. The PWM dimmer/control spec sheet will indicate if multiple controls can be paired to a single driver.
10. To compensate for voltage drop, ensure applicable gauge in-wall rated wire is installed between driver and LED fixture.
11. Some models (driver only) are suitable for wet location but must be installed in a wet location J-Box. Lo-Pro J-Box & Driver Combo is suitable for indoor / dry locations but also suitable for wet location when the full combo is installed in a wet location J-Box.

WARRANTY

Limited Warranty

The limited warranty of this product begins from the date of shipment. The warranty of each item can be found in the 'Specifications' chart under 'Warranty'. This warranty does not include the additional accessories referenced in this specification sheet. Complete warranty details for fixtures and additional accessories are available at www.diodeled.com/limited-warranty/ within the Policies section. For warranty related questions please contact product support.

Consumer's Acknowledgment

Diode LED stands behind its products when they are used properly and according to our specifications. By purchasing our products, the purchaser agrees and acknowledges that lighting design, configuration and installation is a complex process, wherein seemingly minor factors or changes in layout and in-field adjustments can have a significant impact on an entire system. Choosing the correct components is essential. Diode LED is able to work with the original purchaser to make an appropriate product selection to the extent of the limited information that the customer can provide, but it is virtually impossible for Diode LED to design a system that foresees every unknown factor. For this reason, this Warranty does not cover problems caused by improper design, configuration or installation issues. Any statement from a Diode LED employee or agent regarding a customer's bill of goods and/or purchase order is NOT an acknowledgment that the products purchased are designed and configured correctly. The purchase agrees and acknowledges that it is the customer's responsibility to adhere strictly to all information contained in the Product Specification Sheets.

There is often more than one way to design, configure and layout an LED lighting application properly to achieve the same lighting effect. Diode LED strongly recommends that licensed professionals be used in the design and installation of lighting systems that include Diode LED products. The specifications include important information that a designer and installer should carefully review and strictly follow. Qualified designers and certified and/or licensed installers, with access to the final installation environment, customer goals, and Diode LED product specifications can make the requisite decisions appropriate for a successful finished lighting application.



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