

LineDRIVE Power Supply

12VDC Electronic Dimmable Driver Single & Multi-Output Specification Sheet



| | |
|--------------|------|
| Project Name | Type |
| Catalog # | Date |

PRODUCT OVERVIEW

Multi-Dim LineDRIVE power supplies offer stable operation with standard line voltage and low voltage dimmer controls to make installation easy. Compatible with Triac, ELV, MLV and 0-10V dimmers for a wide array of applications. Dimming down to 1%.

FEATURES

- Output: Class 2, 12VDC, constant voltage
- Multi-output driver has 3 output channels for powering several Class 2 loads from one unit
- Input: 120V / 277V
- Dimmable: Triac, ELV, MLV, 0-10V, PWM dimming
- Minimum dimming: 1%
- Stable operation, flicker-free dimming
- Compatible with typical phase dimmers and 0-10V controls
- Integrated wiring compartments with separate line voltage and low voltage sections
- Line voltage compartment meets NEC code, up to (3) 12 AWG conductors
- Over-current, over-voltage and over-temperature protection



LD-XD-UNV20-12
LD-XD-UNV40-12



LD-XD-UNV60-12



LD-XD-UNV180-12

ORDERING INFORMATION

Example: LD-XD-UNV20-12

| Catalog No. | Series | Type | Watts | Voltage |
|-------------|--------|------|-------|---------|
| LD | XD | UNV | 20 | 12 |
| | | | 40 | |
| | | | 60 | |
| | | | 180 | |

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LD-XD-UNV40-12



LD-XD-UNV60-12



LD-XD-UNV180-12

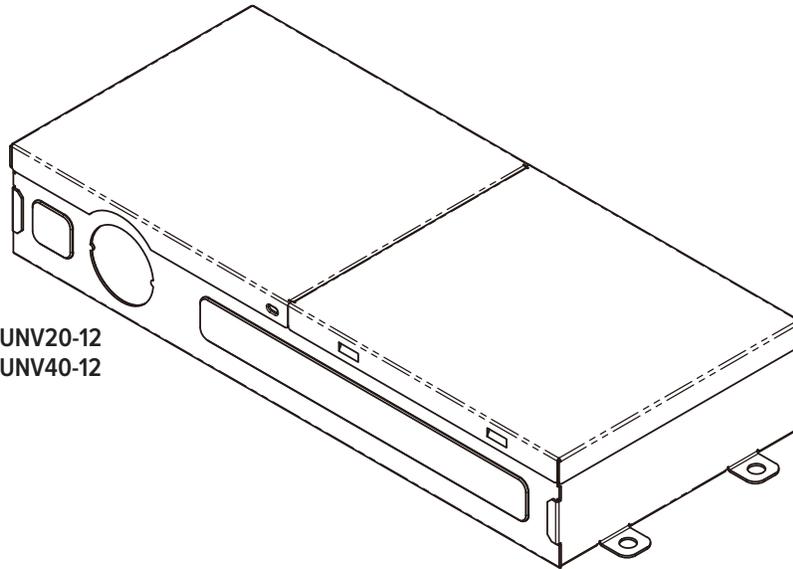
| SPECIFICATIONS | | | | |
|-----------------------------|---|---|---|---|
| Model | LD-XD-UNV20-12 | LD-XD-UNV40-12 | LD-XD-UNV60-12 | LD-XD-UNV180-12 |
| Dimensions | 7.93"L x 3.36"W x 1.33"H | 7.93"L x 3.36"W x 1.33"H | 8.29"L x 4.10"W x 1.59"H | 9.51"L x 6.35"W x 1.59"H |
| Max output power | 20W | 40W | 60W | (3 channels x 60W) 180W Total |
| Outputs | 1 Output Channel | 1 Output Channel | 1 Output Channel | 3 Output Channels |
| Output voltage | 12V | 12V | 12V | 12V |
| Output current | Max 1.67A | Max 3.33A | Max 5A | 3 channels x 5A Max |
| Open circuit voltage | 13V | 13V | 13V | 13V |
| Input voltage range | 120/277VAC ± 10%, 50/60Hz | 120/277VAC ± 10%, 50/60Hz | 120/277VAC ± 10%, 50/60Hz | 120/277VAC ± 10%, 50/60Hz |
| Max input current | 0.21A @120V, 0.13A@277V | 0.43A @120V, 0.20A@277V | 0.75A @120V, 0.33A@277V | 1.90A @120V, 0.78A@277V |
| Power factor (80~100% load) | > 0.94 | > 0.94 | > 0.94 | > 0.90 |
| Efficiency at 120V / 277V | 78% / 76% | 79% / 79% | 83% / 85% | 87% / 88% |
| Life rating | 85,000 hours at 120Vac input, 100% load and 60°C case temperature | 85,000 hours at 120Vac input, 100% load and 60°C case temperature | 85,000 hours at 120Vac input, 100% load and 60°C case temperature | 90,000 hours at 120Vac input, 100% load and 60°C case temperature |
| Loading | Recommended minimum: for best dimming performance: 10% for ELV, Triac, 0-10V, PWM dimming, 40% for MLV dimming. Maximum: 100% | | | |
| Dimming | Minimum dimming: 1% Phase dimming only at 120VAC (Triac, ELV, MLV) Low voltage dimming at 120VAC or 277VAC (0-10V, 10V PWM dimming) | | | |
| THD (80~100% load) | < 20% | | | |
| Load regulation | ± 5% | | | |
| Line regulation | ± 5% | | | |
| Turn-on delay time | < 0.5s | | | |
| Surge rating | 2.5KV for Combination Wave / Ring Wave | | | |
| Protection | Over voltage protection: Hiccup mode. Protection will trigger when load voltage exceed specified output voltage and will auto recover after the fault mode is removed. Over current protection: Hiccup mode. Protection will trigger when load current exceed specified output current and will auto recover after the fault mode is removed. Short circuit protection: Hiccup mode. Protection will trigger when short circuit and will auto recover after the fault mode is removed. Over temperature protection: Protection will trigger when driver overheat and auto-recovery when cooled down. | | | |
| Certifications / Compliance | UL listed for US and Canada (Complies with UL 8750, CSA C22.2 No 250) UL Class 2 (low voltage output) UL type HL (hazardous location, Class I, Division 2) FCC, 47CFR Part 15, Class B (consumer limit) Title 24 (JA8) certified | | | |
| Maximum case temperature | 90°C | | | |
| Operating temperature | -40°F to 140°F (-40°C to 60°C) | | | |
| Humidity | 5% to 95% | | | |
| Application | IP20, indoor dry and damp locations | | | |
| Cooling | Free air convection | | | |
| Input leads | 12", UL 1316/1015 #18AWG (Black, White and Green) | | | |
| Output leads | 12", UL 1316 #18AWG (Red and Blue) | | | |
| Dimming leads | 12", UL 1316/1430 #22AWG (Purple and Pink) | | | |
| Case | Black powder coated steel | | | |

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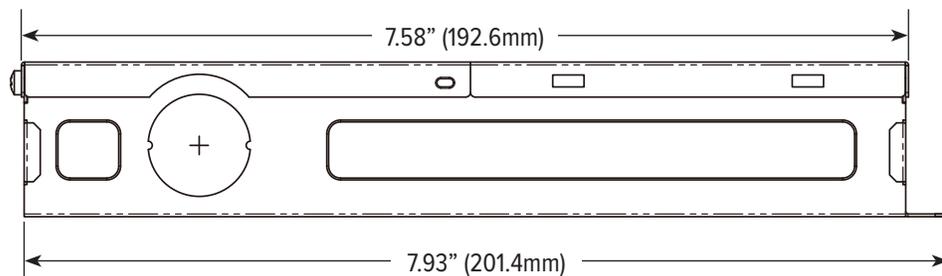
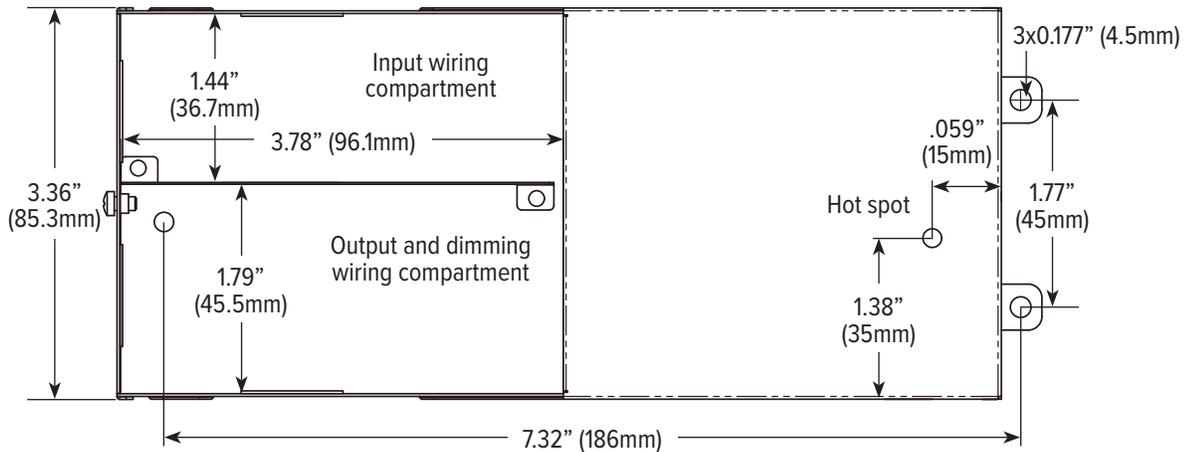
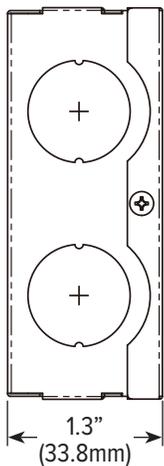


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DIAGRAM



LD-XD-UNV20-12
LD-XD-UNV40-12

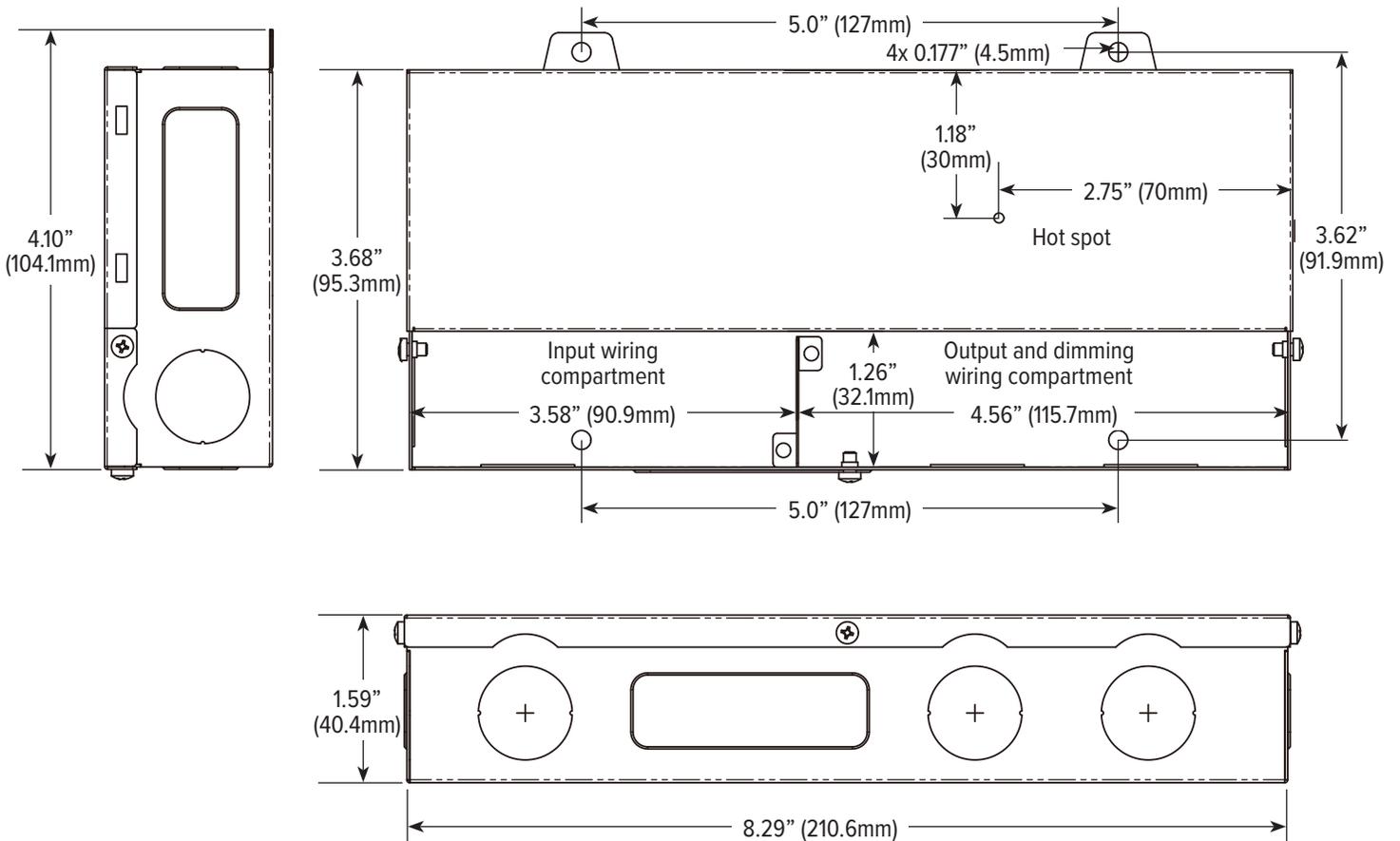
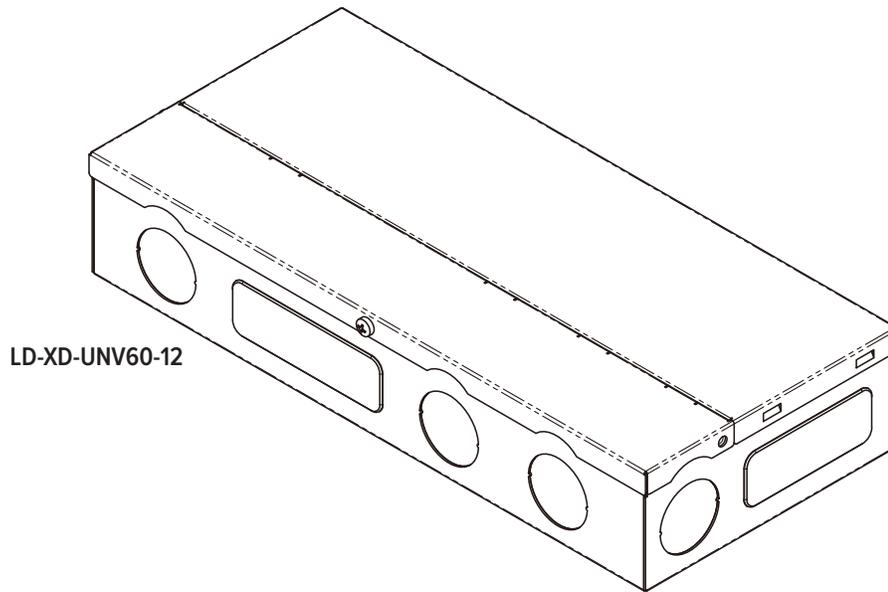


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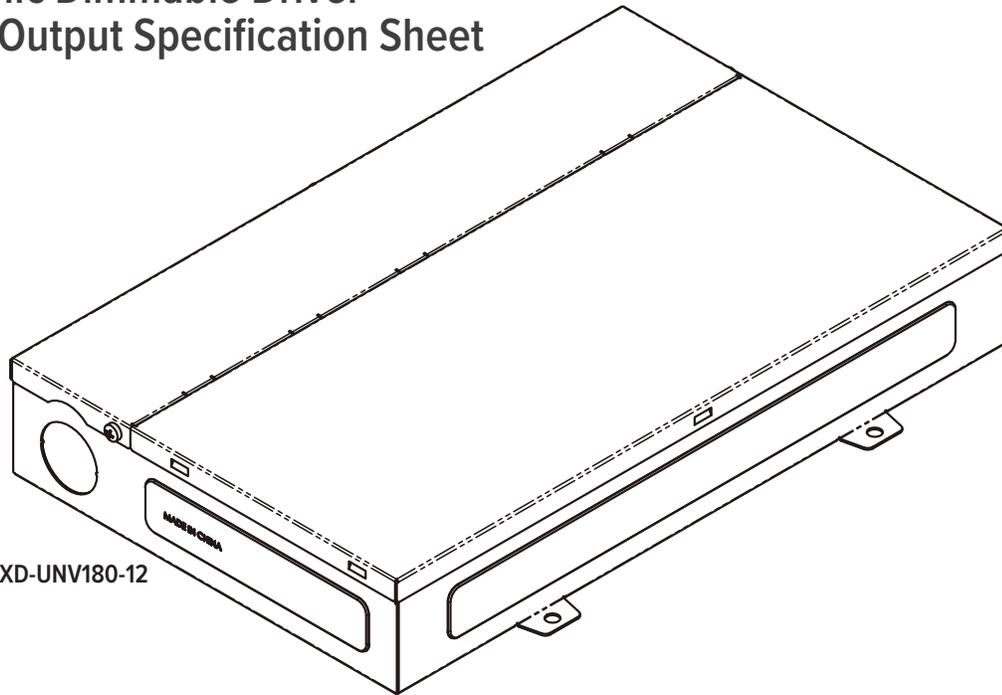


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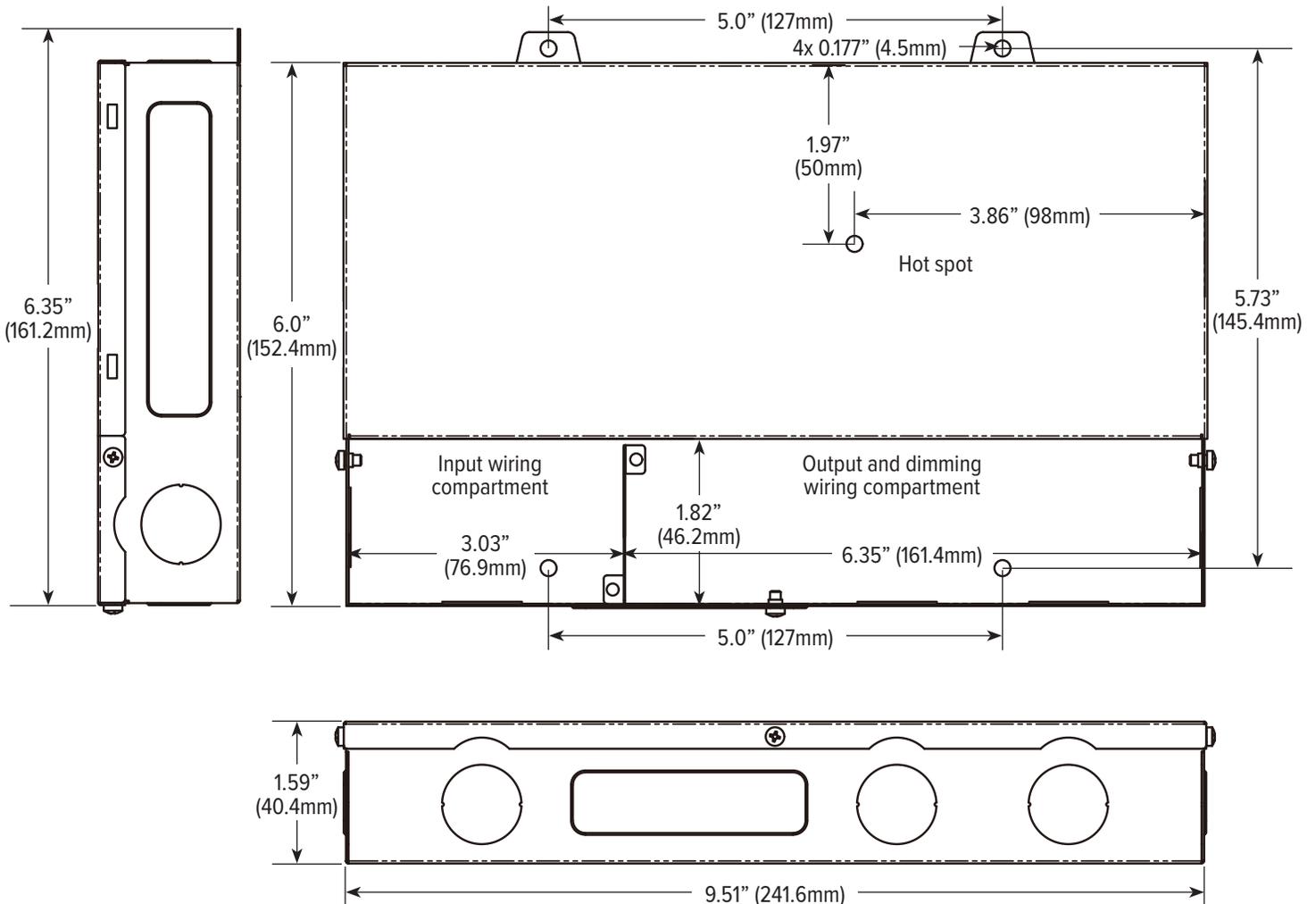


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DIAGRAM



LD-XD-UNV180-12



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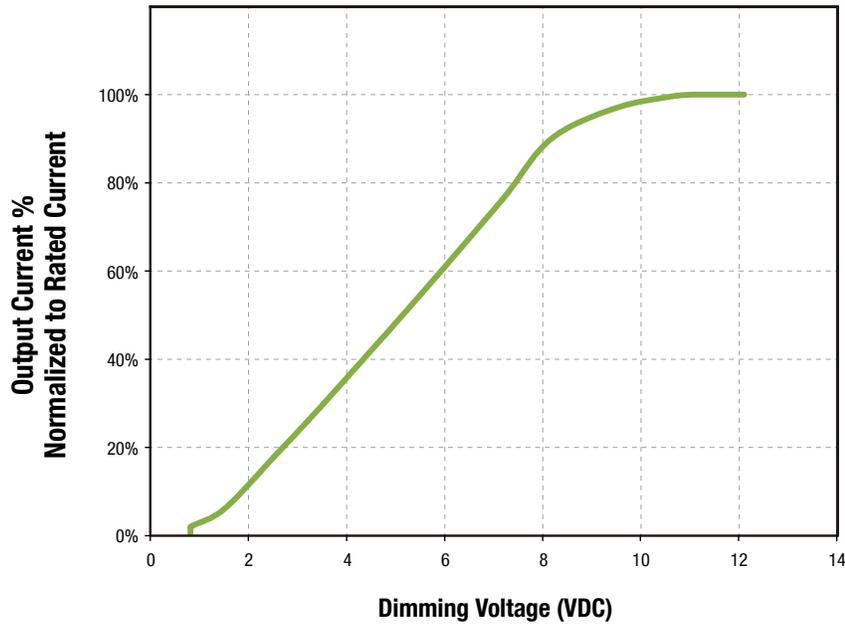


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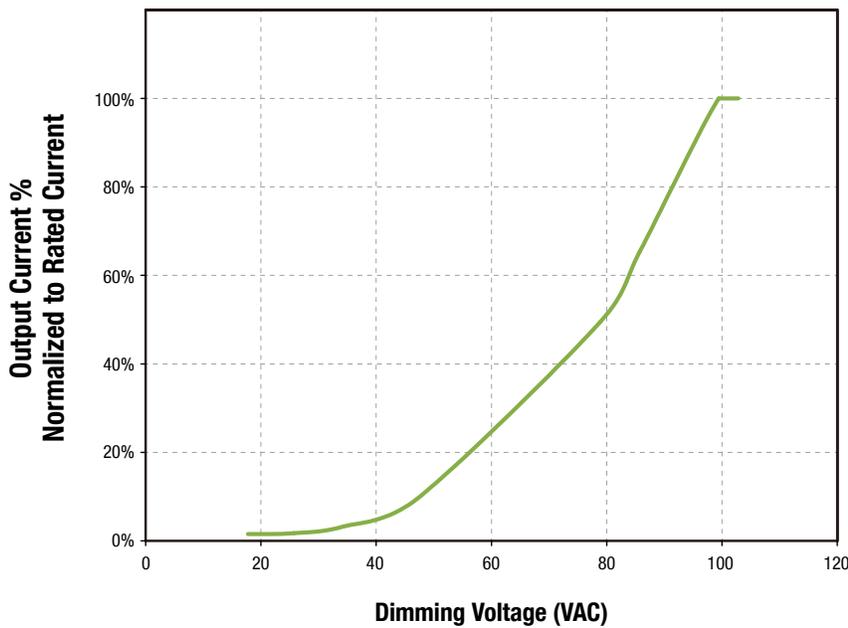
DIMMING CURVES FOR:

- LD-XD-UNV20-12
- LD-XD-UNV40-12
- LD-XD-UNV60-12

0-10V Dimming Curve (Full load)



Triac Dimming Curve (Full load)



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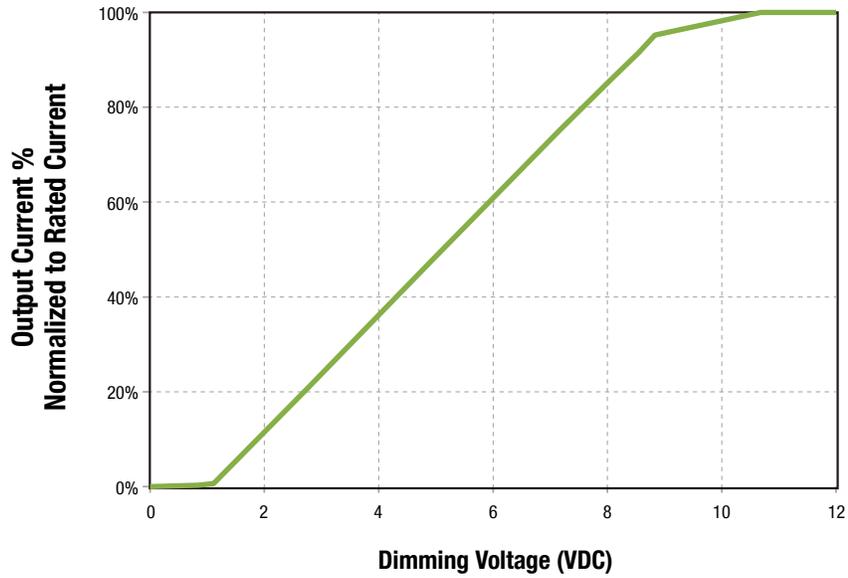


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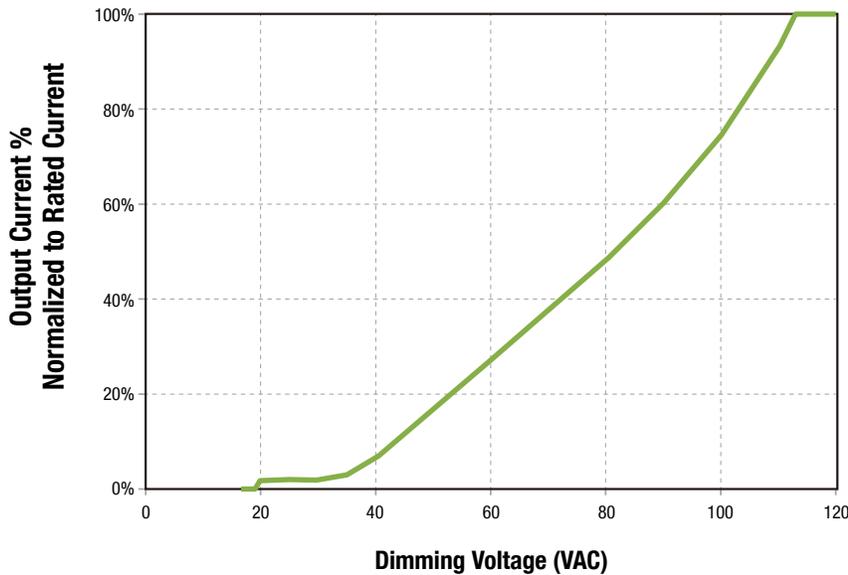
DIMMING CURVES FOR:

LD-XD-UNV180-12

0-10V Dimming Curve (Full load)



Triac Dimming Curve (Full load)



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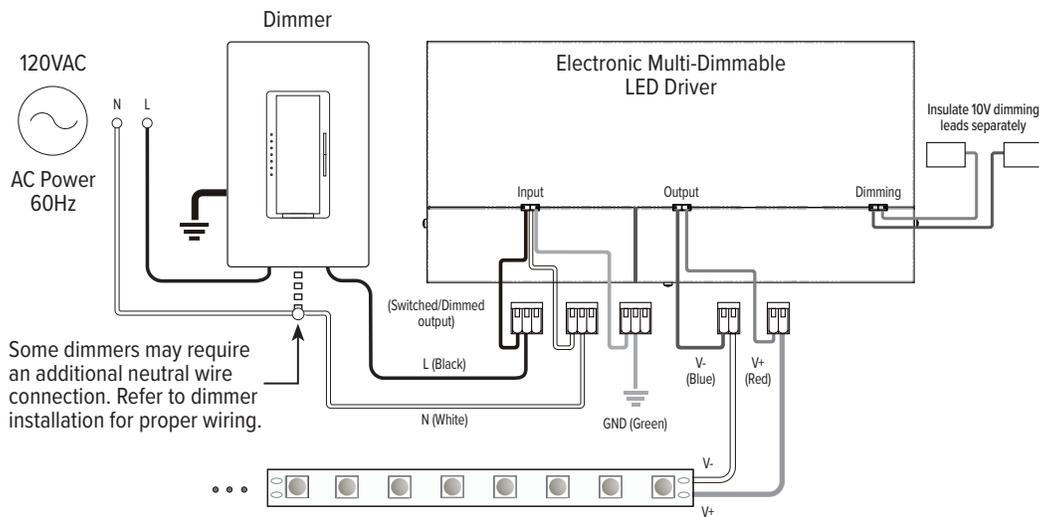
WIRING DIAGRAMS FOR:

- LD-XD-UNV20-12
- LD-XD-UNV40-12
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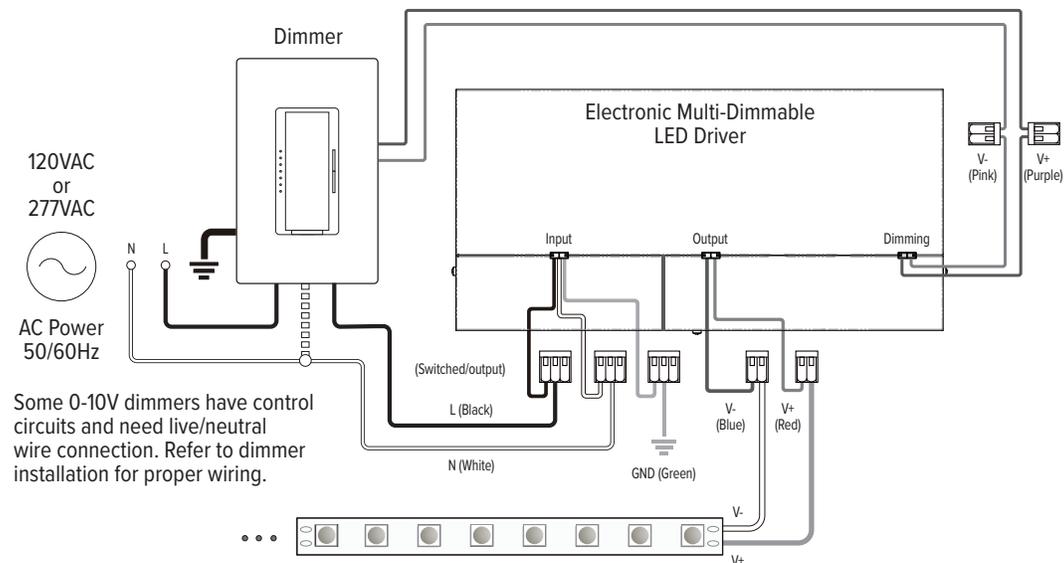
The following diagrams are provided as example system designs. Install in accordance with national and local electrical code regulations.

See LED load specifications for maximum series run limits. Be sure to match driver output voltage to load voltage.

Connect with ELV/MLV/Triac Dimmer (120VAC input only)



Connect with 0-10V, 10V PVM Dimmer (120VAC or 277VAC input)



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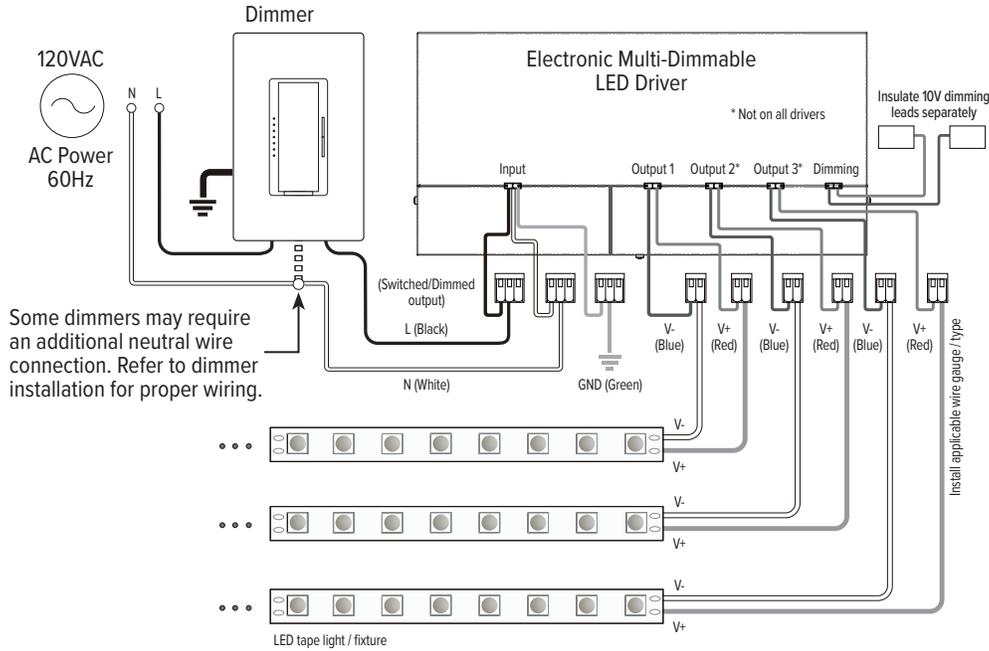
WIRING DIAGRAMS FOR:

LD-XD-UNV180-12

The following diagrams are provided as example system designs. Install in accordance with national and local electrical code regulations.

CAUTION: Do not connect output leads together for drivers with 2 or 3 sets of outputs. Keep each set of output leads separated. See LED load specifications for maximum series run limits. Be sure to match driver output voltage to load voltage.

Connect with ELV/MLV/Triac Dimmer (120VAC input only)



Connect with 0-10V, 10V PVM Dimmer (120VAC or 277VAC input)

