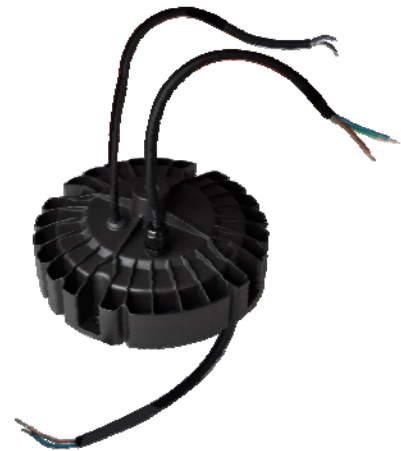


Features

- Inventronics patented metal case (Patent NO.: 201530552645.1)
- High Efficiency (Up to 92.5%)
- Full Power at Wide Output Current Range (Constant Power)
- Adjustable Output Current (AOC) with Potentiometer (SV models)
Adjustable Output Current (AOC) with Programmability (DV models)
- Isolated 0-10V/10V PWM Dimmable (Only DV models)
- Input Surge Protection: 4kV line-line, 4kV line-earth
- All-Around Protection: OVP, SCP, OTP
- Waterproof (IP65)
- SELV Output
- Suitable for Independent Use
- 5 Years Warranty



Description

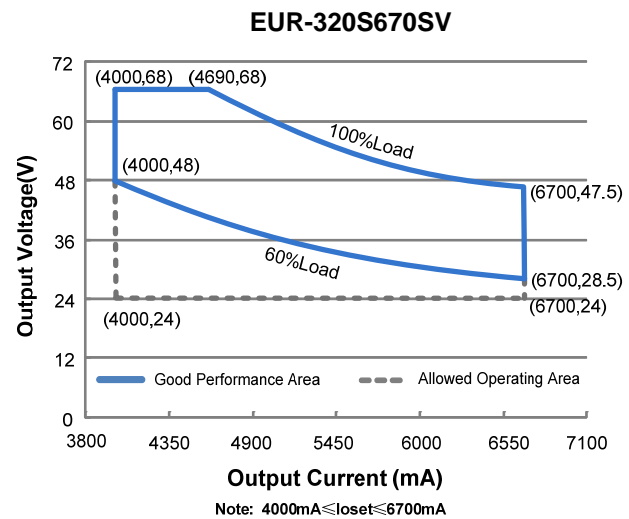
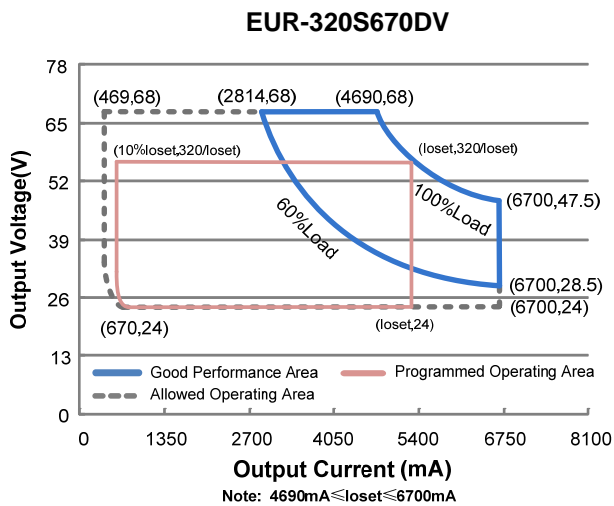
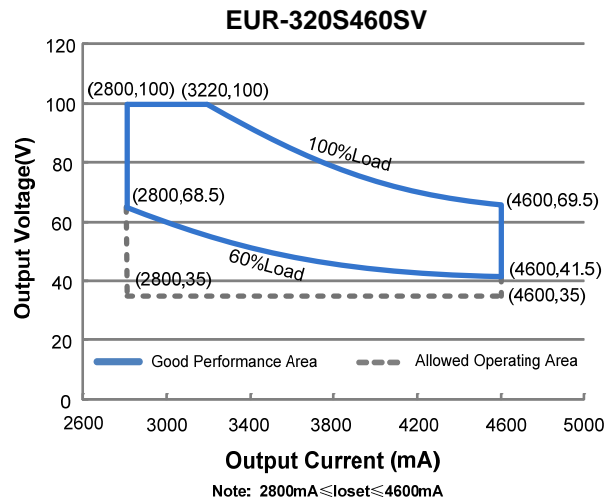
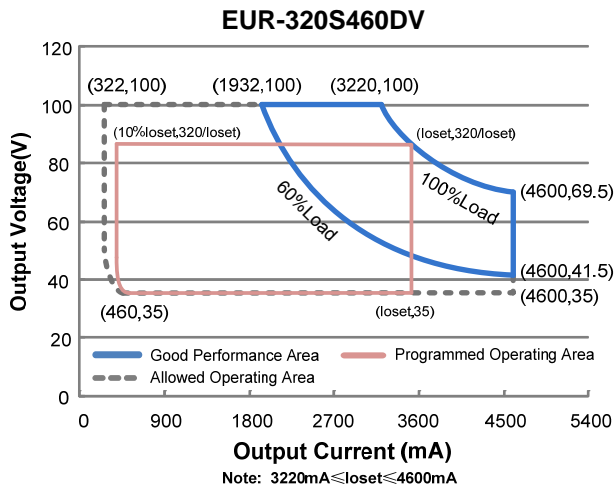
The EUR-320SxxxDV(SV) series is a 320W, constant-current, AOC LED driver that operates from 90-305 Vac input with excellent power factor. It is designed in round shape and specially created for bay lighting. The high efficiency of these drivers and compact metal case enables them to run cooler, significantly improving reliability and extending product life. To ensure trouble-free operation, protection is provided against input surge, output over voltage, short circuit, and over temperature.

Models

| Adjustable Output Current Range | Full-Power Current Range (1) | Default Output Current | Input Voltage Range (2) | Output Voltage Range | Max. Output Power | Typical Efficiency (3) | Power Factor | | Model Number (4) |
|---------------------------------|------------------------------|------------------------|----------------------------|----------------------|-------------------|------------------------|--------------|--------|------------------|
| | | | | | | | 120Vac | 220Vac | |
| 322-4600mA | 3220-4600mA | 4200 mA | 90~305 Vac/ 127~250 Vdc | 35~100Vdc | 320 W | 92.5% | 0.99 | 0.96 | EUR-320S460DV |
| 2800-4600mA | 3220-4600mA | 4200 mA | 90~305 Vac/ 127~250 Vdc | 35~100Vdc | 320 W | 92.5% | 0.99 | 0.96 | EUR-320S460SV |
| 469-6700mA | 4690-6700mA | 6700 mA | 90~305 Vac/ 127~250 Vdc | 24 ~ 68Vdc | 320 W | 92.5% | 0.99 | 0.96 | EUR-320S670DV |
| 4000-6700mA | 4690-6700mA | 6700 mA | 90~305 Vac/ 127~250 Vdc | 24 ~ 68Vdc | 320 W | 92.5% | 0.99 | 0.96 | EUR-320S670SV |

- Notes:** (1) Output current range with constant power at 320W
 (2) Certified input voltage range: 100-240Vac or 127-250Vdc (except CCC, PSE)
 (3) Measured at 100% load and 220Vac input (see below "General Specifications" for details).
 (4) SELV Output.

I-V Operation Area



Input Specifications

| Parameter | Min. | Typ. | Max. | Notes |
|--------------------------|--------|------|-----------------------|---|
| Input Voltage | 90 Vac | - | 305 Vac | 127~250 Vdc |
| Input Frequency | 47 Hz | - | 63 Hz | |
| Leakage Current | - | - | 0.70 mA | IEC60598-1; 240Vac/ 60Hz |
| Input AC Current | - | - | 3.20 A | Measured at 100% load and 120 Vac input. |
| | - | - | 1.70 A | Measured at 100% load and 220 Vac input. |
| Inrush Current(I^2t) | - | - | 1.30 A ² s | At 220Vac input, 25°C cold start, duration=3.92 ms, 10%Ipk-10%Ipk. See Inrush Current Waveform for the details. |

Input Specifications (Continued)

| Parameter | Min. | Typ. | Max. | Notes |
|-----------|------|------|------|--|
| PF | 0.90 | - | - | At 100-240Vac, 50-60Hz, 60%-100% Load (192-320W) |
| THD | - | - | 20% | |
| THD | - | - | 10% | At 220-240Vac, 50-60Hz, 75%-100% Load (240-320W) |

Output Specifications

| Parameter | Min. | Typ. | Max. | Notes |
|--|----------|----------|----------|---|
| Output Current Tolerance | -5%loset | - | 5%loset | At 100% load condition |
| Output Current Setting(loset) Range | | | | |
| EUR-320S460DV | 322 mA | - | 4600 mA | |
| EUR-320S460SV | 2800 mA | - | 4600 mA | |
| EUR-320S670DV | 469 mA | - | 6700 mA | |
| EUR-320S670SV | 4000 mA | - | 6700 mA | |
| Output Current Setting Range with Constant Power | | | | |
| EUR-320S460DV | 3220 mA | - | 4600 mA | |
| EUR-320S460SV | 3220 mA | - | 4600 mA | |
| EUR-320S670DV | 4690 mA | - | 6700 mA | |
| EUR-320S670SV | 4690 mA | - | 6700 mA | |
| Total Output Current Ripple (pk-pk) | - | 5%lomax | 10%lomax | At 100% load condition. 20 MHz BW |
| Output Current Ripple at < 200 Hz (pk-pk) | - | 2%lomax | - | At 100% load condition. Only this component of ripple is associated with visible flicker. |
| Startup Overshoot Current | - | - | 10%lomax | At 100% load condition |
| No Load Output Voltage | | | | |
| EUR-320S460DV/SV | - | - | 120 V | |
| EUR-320S670DV/SV | - | - | 85 V | |
| Line Regulation | - | - | ±0.5% | Measured at 100% load |
| Load Regulation | - | - | ±1.5% | |
| Turn-on Delay Time | - | - | 1.0 s | Measured at 120Vac input, 60%-100% Load |
| | - | - | 0.5 s | Measured at 220Vac input, 60%-100% Load |
| Temperature Coefficient of loset | - | 0.03%/°C | - | Case temperature = 0°C ~Tc max |
| 12V Auxiliary Output Voltage | 10.8 V | 12 V | 13.2 V | |
| 12V Auxiliary Output Source Current | 0 mA | - | 20 mA | Return terminal is "Dim" |

Note: All specifications are typical at 25°C unless otherwise stated.

General Specifications

| Parameter | Min. | Typ. | Max. | Notes |
|--|------------------|-----------------------------|--------|--|
| Efficiency at 120 Vac input: EUR-320S460DV/SV I _o =3220 mA I _o =4600 mA EUR-320S670DV/SV I _o =4690 mA I _o =6700 mA | 88.00% 87.00% | 90.00% 89.00% | - - | Measured at 100% load and steady-state temperature in 25°C ambient; (Efficiency will be about 2.0% lower if measured immediately after startup.) |
| Efficiency at 220 Vac input: EUR-320S460DV/SV I _o =3220 mA I _o =4600 mA EUR-320S670DV/SV I _o =4690 mA I _o =6700 mA | 90.50% 90.00% | 92.50% 92.00% | - - | Measured at 100% load and steady-state temperature in 25°C ambient; (Efficiency will be about 2.0% lower if measured immediately after startup.) |
| Efficiency at 277 Vac input: EUR-320S460DV/SV I _o =3220 mA I _o =4600 mA EUR-320S670DV/SV I _o =4690 mA I _o =6700 mA | 90.00% 90.00% | 92.00% 92.00% | - - | Measured at 100% load and steady-state temperature in 25°C ambient; (Efficiency will be about 2.0% lower if measured immediately after startup.) |
| MTBF | - | 294,000 Hours | - | Measured at 220Vac input, 80%Load and 25°C ambient temperature (MIL-HDBK-217F) |
| Lifetime | - | 75,000 Hours | - | Measured at 220Vac input, 80%Load and 70°C case temperature; See lifetime vs. Tc curve for the details |
| Operating Case Temperature for Safety T _{c_s} | -40°C | - | +85°C | |
| Operating Case Temperature for Warranty T _{c_w} | -40°C | - | +75°C | Case temperature for 5 years warranty |
| Storage Temperature | -40°C | - | +85°C | Humidity: 5%RH to 100%RH |
| Dimensions Inches (∅× H) Millimeters (∅× H) | | ∅7.48 x 3.13 ∅190 x 79.6 | | |
| Net Weight | - | 2280 g | - | |

Note: All specifications are typical at 25°C unless otherwise stated.

Dimming Specifications

| Parameter | Min. | Typ. | Max. | Notes | |
|--|--------------------------------|------------------|--------|-----------------------------|--|
| Absolute Maximum Voltage on the V _{dim} (+) Pin | -20 V | - | 20 V | | |
| Source Current on V _{dim} (+)Pin | 200 uA | 300 uA | 450 uA | V _{dim} (+) = 0 V | |
| Dimming Output Range | EUR-320S460DV EUR-320S670DV | 10%loset | - | loset | 3220 mA ≤ I _o ≤ 4600 mA 4690 mA ≤ I _o ≤ 6700 mA |
| | EUR-320S460DV EUR-320S670DV | 322 mA 469 mA | - | loset | 322 mA ≤ I _o < 3220 mA 469 mA ≤ I _o < 4690 mA |
| Recommended Dimming Input Range | 0 V | - | 10 V | Default 0-10V dimming mode. | |

Dimming Specifications (Continued)

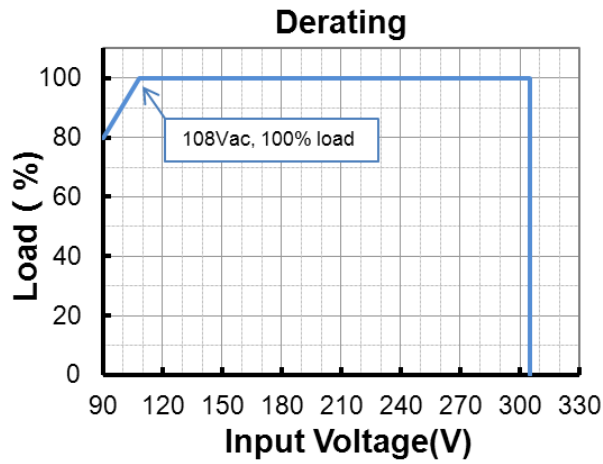
| Parameter | Min. | Typ. | Max. | Notes |
|------------------------|--------|------|-------|--|
| PWM_in High Level | - | 10V | - | Dimming mode set to PWM in PC interface. |
| PWM_in Low Level | - | 0V | - | |
| PWM_in Frequency Range | 200 Hz | - | 2 KHz | |
| PWM_in Duty Cycle | 0% | - | 100% | |

Safety & EMC Compliance

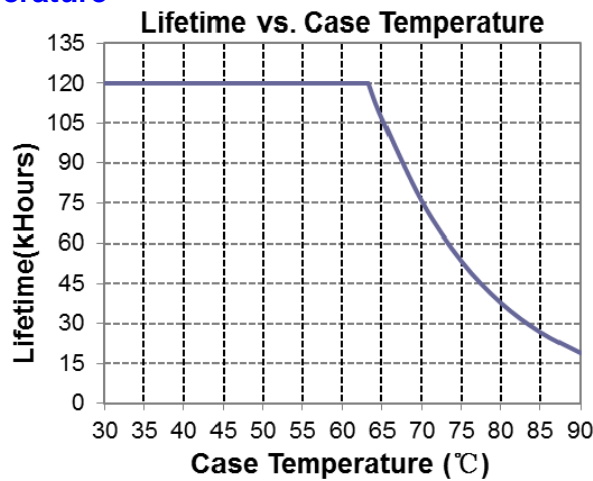
| Safety Category | Standard |
|----------------------------------|---|
| CE | EN 61347-1, EN61347-2-13 |
| CCC | GB 19510.1, GB 19510.14 |
| EMI Standards | Notes |
| EN 55015/GB 17743 ⁽¹⁾ | Conducted emission Test & Radiated emission Test |
| EN 61000-3-2/GB 17625.1 | Harmonic current emissions |
| EN 61000-3-3 | Voltage fluctuations & flicker |
| EMS Standards | Notes |
| EN 61000-4-2 | Electrostatic Discharge (ESD): 8 kV air discharge, 4 kV contact discharge |
| EN 61000-4-3 | Radio-Frequency Electromagnetic Field Susceptibility Test-RS |
| EN 61000-4-4 | Electrical Fast Transient / Burst-EFT |
| EN 61000-4-5 | Surge Immunity Test: AC Power Line: line to line 4 kV, line to earth 4 kV |
| EN 61000-4-6 | Conducted Radio Frequency Disturbances Test-CS |
| EN 61000-4-8 | Power Frequency Magnetic Field Test |
| EN 61000-4-11 | Voltage Dips |
| EN 61547 | Electromagnetic Immunity Requirements Applies To Lighting Equipment |

Note: (1) This LED driver meets the EMI specifications above, but EMI performance of a luminaire that contains it depends also on the other devices connected to the driver and on the fixture itself.

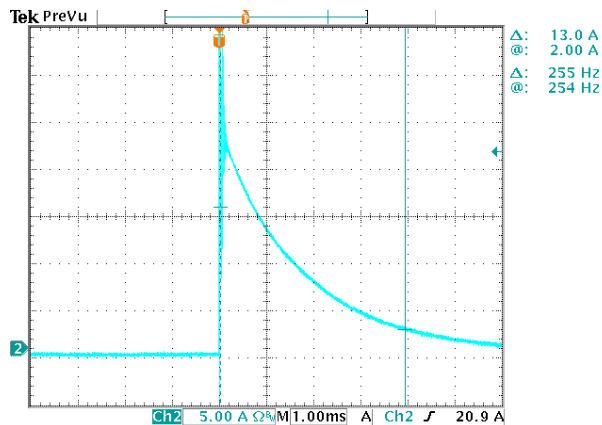
Derating



Lifetime vs. Case Temperature

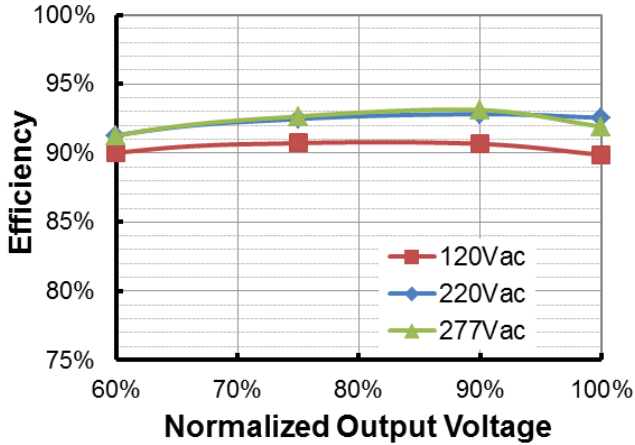


Inrush Current Waveform

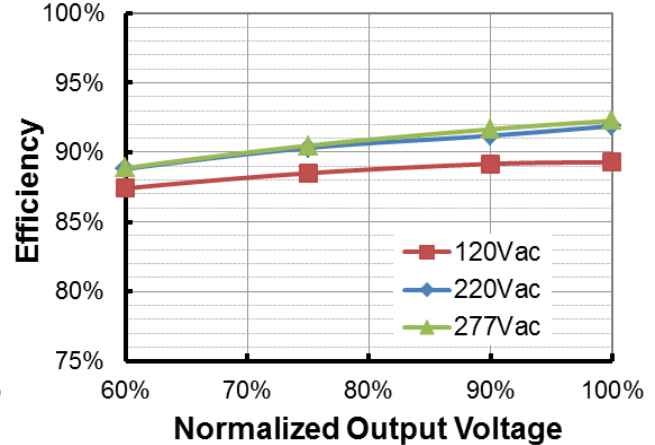


Efficiency vs. Load

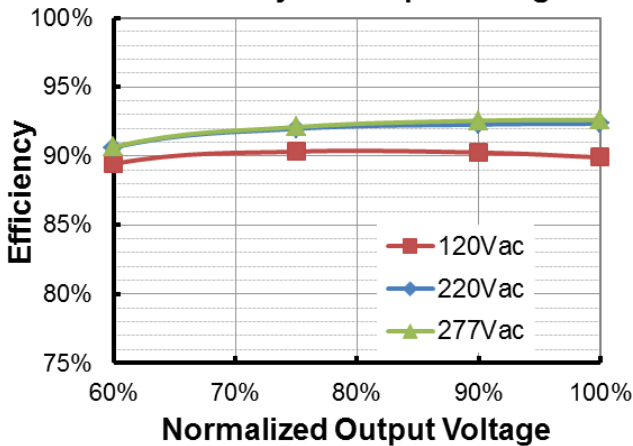
EUR-320S460DV/SV($I_o=3220mA$)
Efficiency vs. Output Voltage



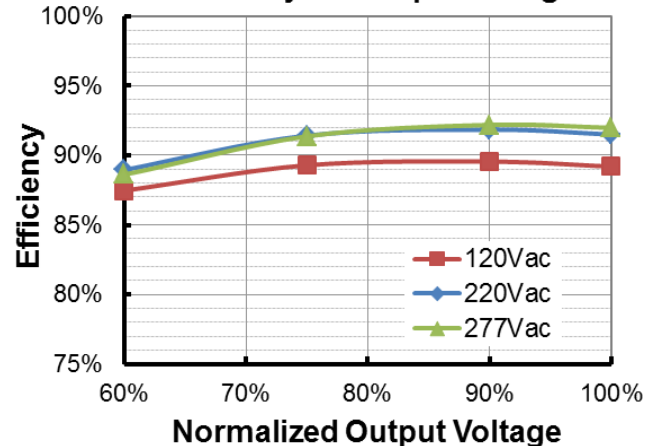
EUR-320S460DV/SV($I_o=4600mA$)
Efficiency vs. Output Voltage



EUR-320S670DV/SV($I_o=4690mA$)
Efficiency vs. Output Voltage

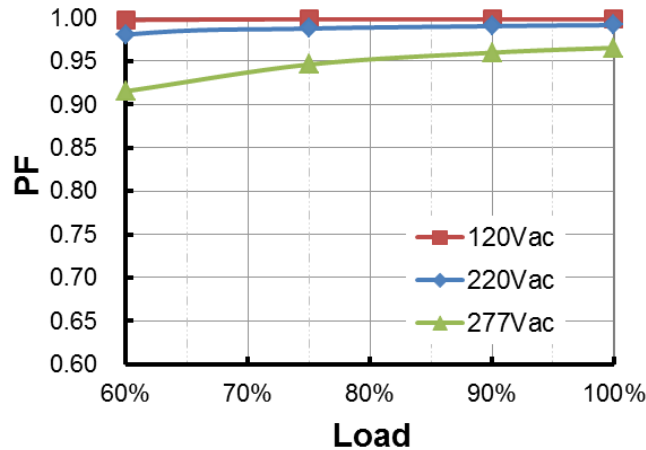


EUR-320S670DV/SV($I_o=6700mA$)
Efficiency vs. Output Voltage

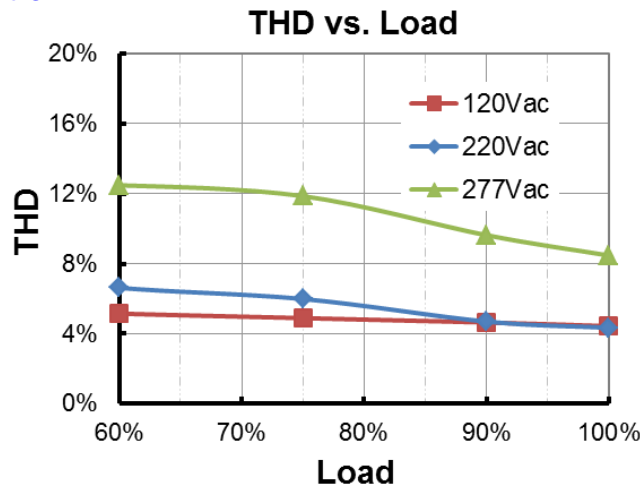


Power Factor

PF vs. Load



Total Harmonic Distortion



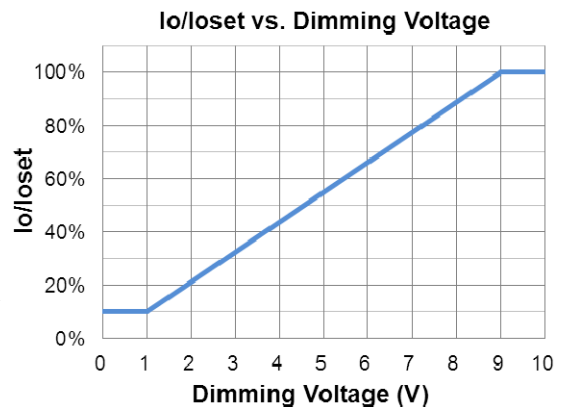
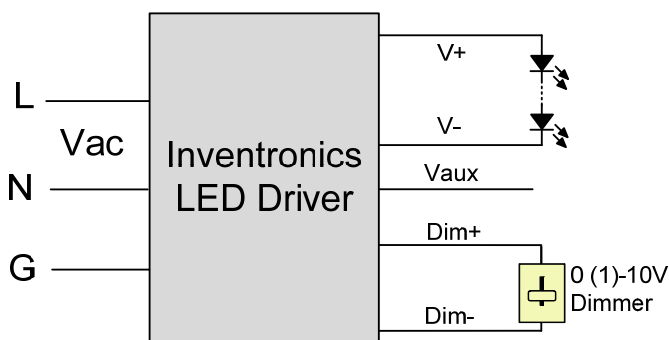
Protection Functions

| Parameter | Notes |
|-----------------------------|--|
| Over Temperature Protection | Decreases output current, returning to normal after over temperature is removed. |
| Short Circuit Protection | Auto Recovery. No damage will occur when any output is short circuited. The output shall return to normal when the fault condition is removed. |
| Over Voltage Protection | Limits output voltage at no load and in case the normal voltage limit fails. |

Dimming

● 0-10V Dimming (Only DV models)

The recommended implementation of the dimming control is provided below.



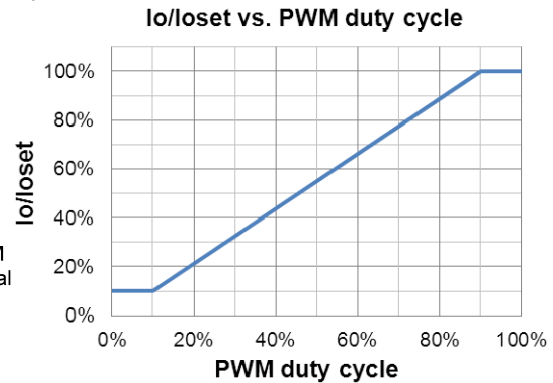
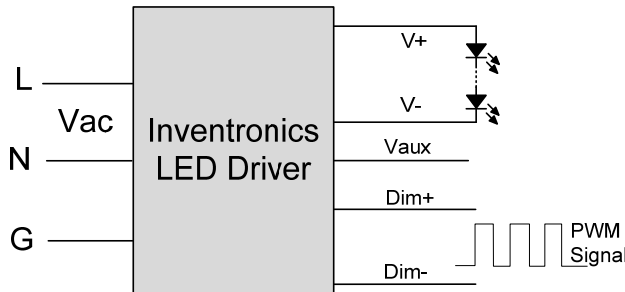
Implementation 1: Positive logic

Notes:

1. The dimmer can also be replaced by an active 0-10V voltage source signal or passive components like resistors and zener.
2. If 0-10V dimming is not used, Dim + should be open.

● **10V PWM Dimming (Only DV models)**

The recommended implementation of the dimming control is provided below.

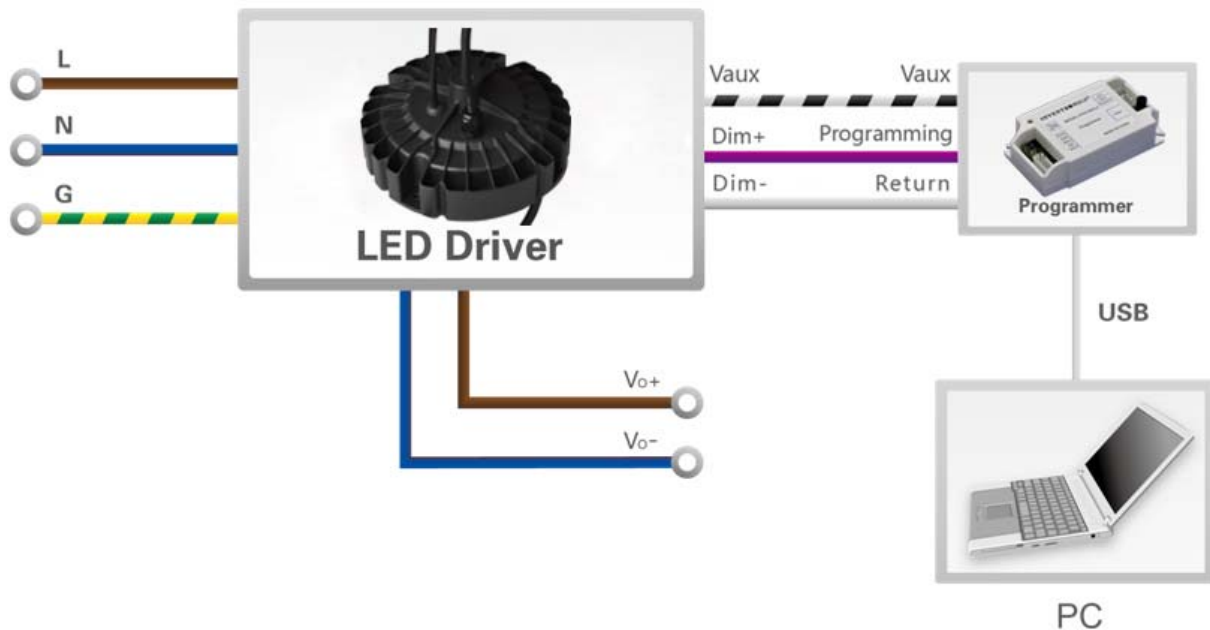


Implementation 2: Positive logic

Notes:

1. If PWM dimming is not used, Dim + should be open.

Programming Connection Diagram (Only DV models)



Note: The driver does not need to be powered on during the programming process.

- Please refer to [PRG-MUL2](#) Multi-Programmer datasheet for details.

Installations

| | | |
|--------------------|------------------|-------------------|
| Part Number Suffix | -0000 | -0001 |
| Product Type | Center Wire Feed | Outside Wire Feed |

Installations (Continued)

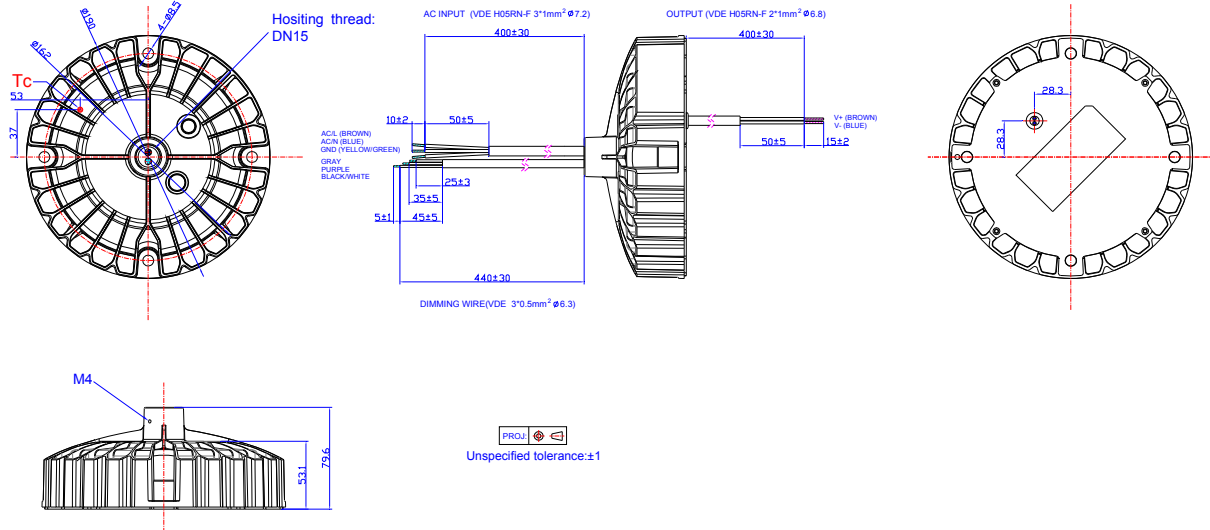
| | | |
|---------------------------|---|--|
| <p>Product Appearance</p> |  |  |
| <p>Installation Type</p> |  |  |

Caution:

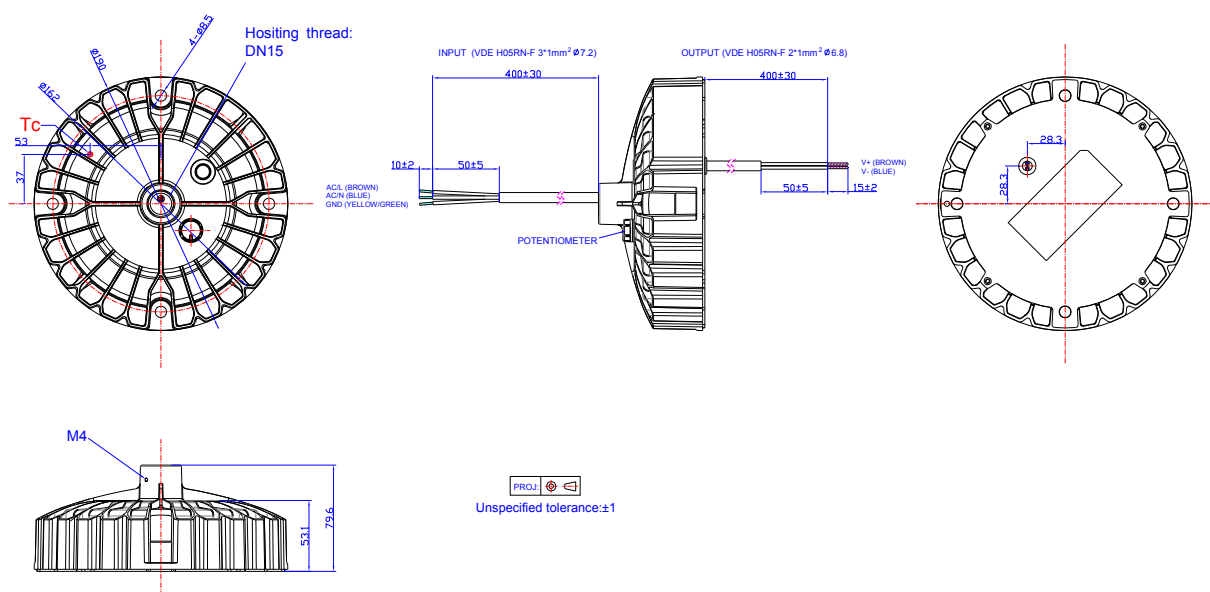
1. Complete visual inspection prior to assembly to insure driver is received in proper condition.
2. Thread length for mounting accessory (hook, ring, etc.) should be 16-22mm. After mounting accessory (hook, ring, etc.) is installed an M4 set screw should be secured in the open location on the driver collar.
3. Maximum weight of combined luminaire/driver assembly should not exceed 16.5Kg.

Mechanical Outline

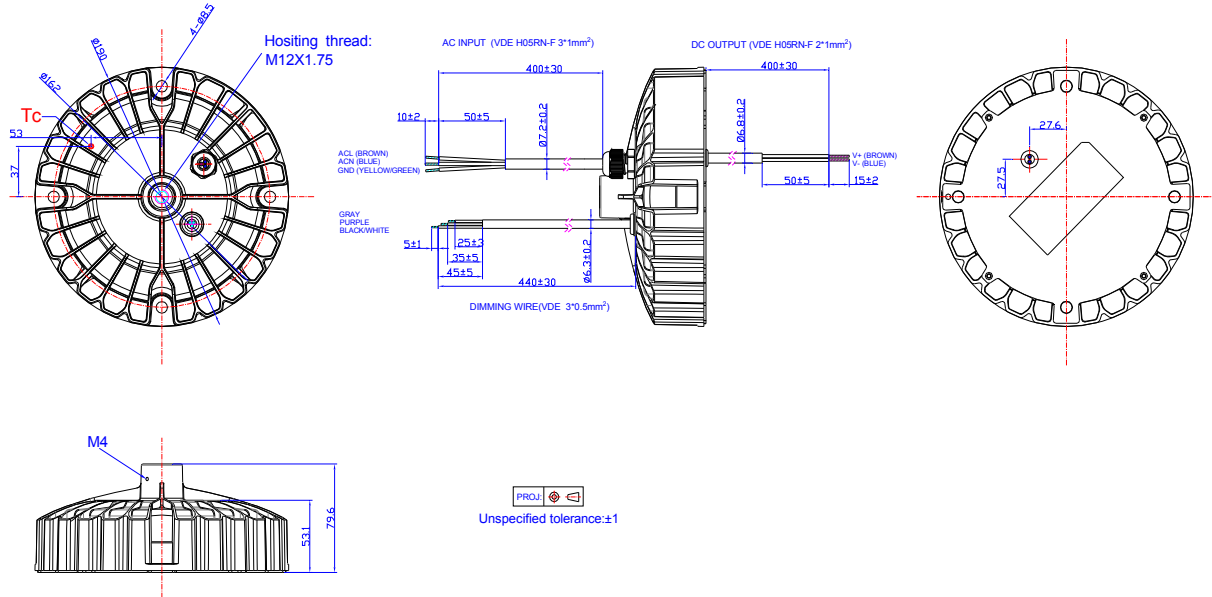
EUR-320SxxxDV-0000



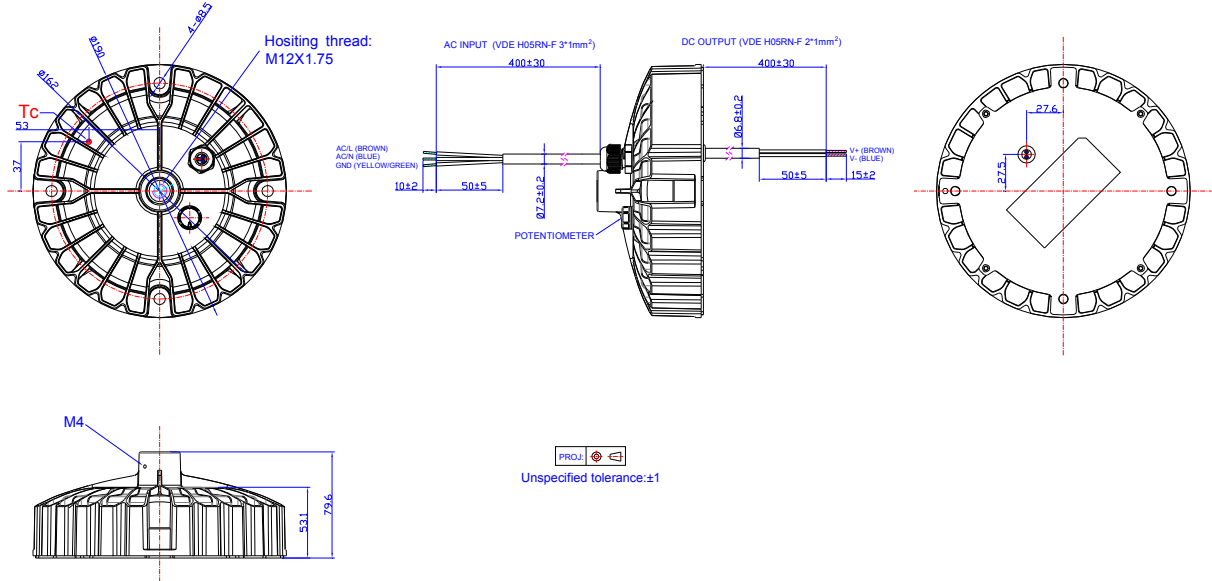
EUR-320SxxxSV-0000



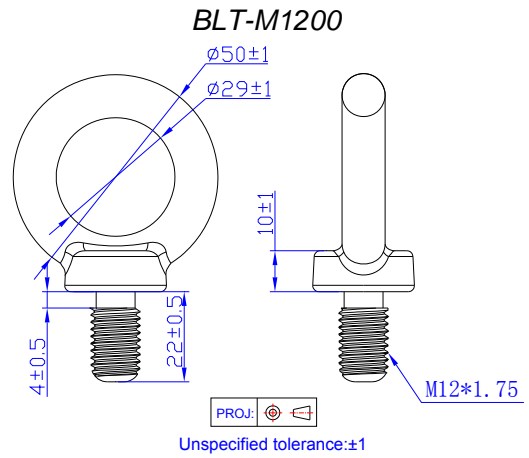
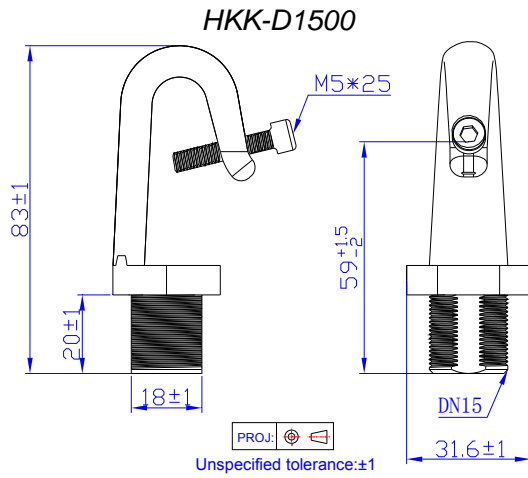
EUR-320SxxxDV-0001



EUR-320SxxxSV-0001



Optional Metal Parts



RoHS Compliance

Our products comply with the European Directive 2011/65/EC, calling for the elimination of lead and other hazardous substances from electronic products.

Revision History

| Change Date | Rev. | Description of Change | | |
|-------------|------|-----------------------|------|----|
| | | Item | From | To |
| 2019-01-09 | A | Datasheets Release | / | / |