

### Electrical Specifications

#### Input

- Voltage: 120-250V AC 50-60Hz  
120-250V DC
- UL approved: 120-277V AC, 50-60Hz
- Current, max: 0.7A
- 0-10V current draw: max 2mA



ECOdrive 561/M

#### Output

- Power: 50W max
- Voltage: 55V max
- Current range: 200 - 1,050 mA (configurable in 25mA steps)
- Current: +/- 5% accuracy



ECOdrive 561/S

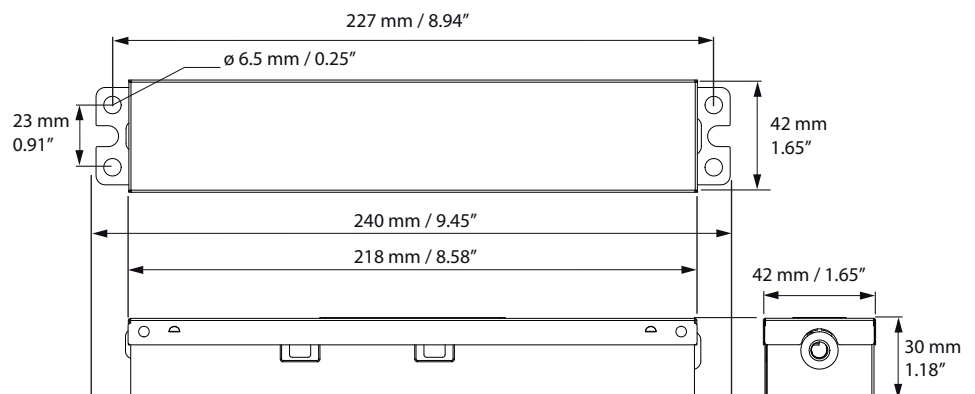
#### General

- Standby power: < 0.5W
- Inrush current: negligible, 30mA<sup>2</sup>s @ 277V
- Surge protection: 1kV differential mode surge, 2kV common mode surge
- Efficiency: 89% at full load, ≥ 85% above 67% load
- Power factor: > 0.9 at full load
- THD: <20% between 67% and 100% load

### Dimensions and weight

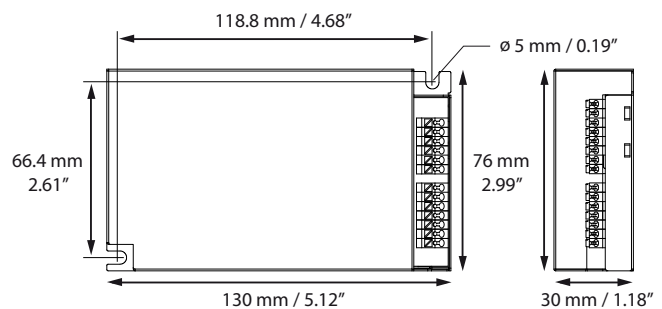
#### ECOdrive 561/M

Weight: 400 g, 14.1 oz  
Packaging: 28 pcs/carton



#### ECOdrive 561/S, 560/S

Weight: 350 g, 12.35 oz  
Packaging: 6, 10 or 45 pcs/carton



**Wiring data**

**Wire type**

- ECOdrive 560/S, 561/S: solid or stranded copper, AWG 20-16
- ECOdrive 561/M: stranded AWG 22 (LEDcode/NTC wire)  
solid AWG 18 (all other wires)

**Maximum LED wiring length ECOdrive 560/S, 561/S**

AWG value	20	19	18	17	16
Distance (m)	14	18	22	28	36
Distance (ft)	46	59	72	92	118

**Wire strip length**

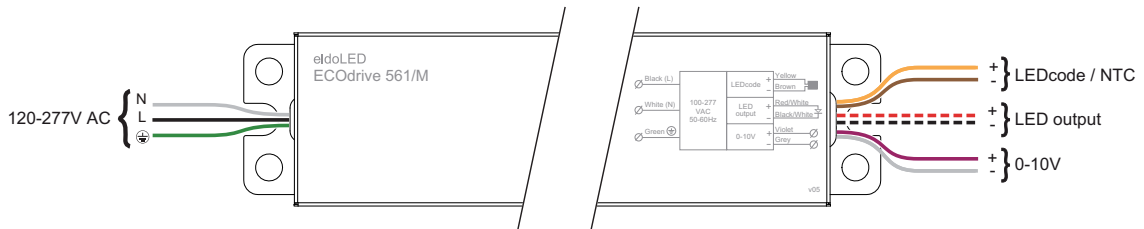
- ECOdrive 560/S, 561/S: 9mm, 0.35 in.
- ECOdrive 561/M: 12.7mm, 1/2" (Line voltage in, 0-10V, LED output)  
Strip length not applicable for LEDcode/NTC wire

- ⚠ Please observe voltage drop over long cable lengths
- ⚠ Longer cable lengths increase EMI susceptibility.

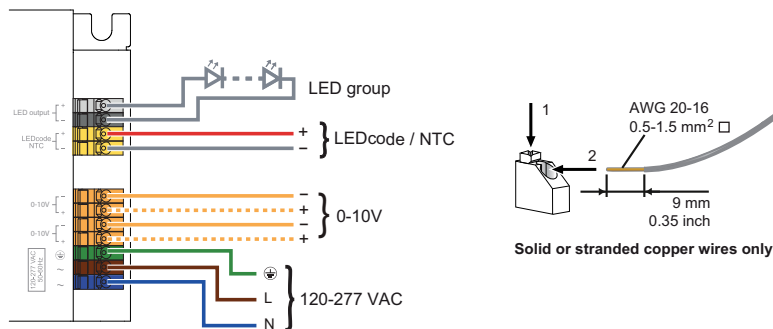
**Wire length ECOdrive 561/M**

- Line voltage in: 453mm, 17.8"
- 0-10V: 662mm, 26.1"
- LED output, LEDcode/NTC: 150mm, 5.9"

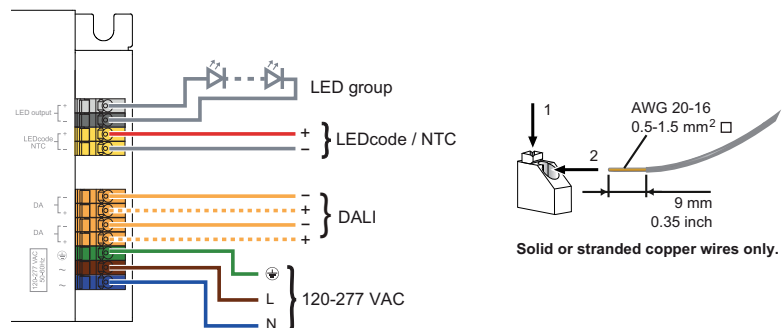
**ECOdrive 561/M**



**ECOdrive 561/S**



**ECOdrive 560/S**



- ⚠ **WARNING:** Risk of electrical shock. May result in serious injury or death. Disconnect power before servicing or installing.
- ⚠ **CAUTION:** The device may only be connected and installed by a qualified electrician. All applicable regulations, legislation and building codes must be observed. Incorrect installation of the device can cause irreparable damage to the device and the connected LEDs.
- ⚠ **CAUTION:** Pay attention when connecting the LED groups: polarity reversal results in no light output and often damages the LEDs.

Other information

Thermal

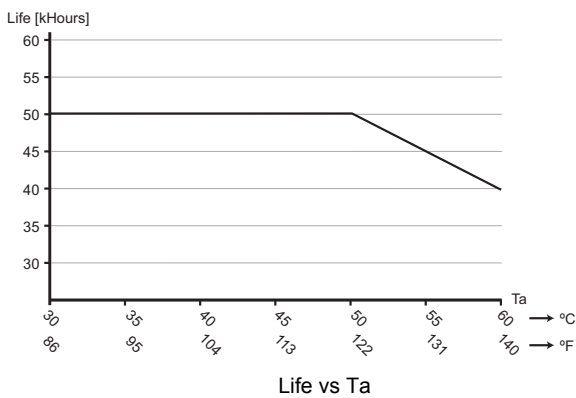
- Ta range: -20 °C ... +50 °C / -4 °F ... +122 °F
- Tc max: 85 °C / 185 °F (ECOdrive 561/S and 560/S)  
75 °C / 167 °F (ECOdrive 561/M)
- Tc lifetime: 78 °C / 172 °F (ECOdrive 561/S and 560/S)  
75 °C / 167 °F (ECOdrive 561/M)
- LED temperature feedback using 47kΩ NTC thermistor.  
Recommended thermistors by Vishay:
  - NTCS0805E4473JXT (SMD version)
  - 238164063473 (leaded version)
  - NTCASCWE3473J (screw version)

Certifications

- EN 61347-1 / -2-7 / -2-13, EN 62384, EN 55015, EN 55022, EN 61000-3-2, EN 61547, EN 60929 Annex E
- CE
- ENEC by DEKRA (ECOdrive 561/S and 560/S)
- EL: EN 61347-2-7 (ECOdrive 561/S and 560/S)
- UL: Recognized Component (file no E333135), according to UL1310, UL8750. US: Class 2 output. Canada: Non-Class 2 output.
- FCC: Title 47CFR Part 15 Class B



Lifetime data



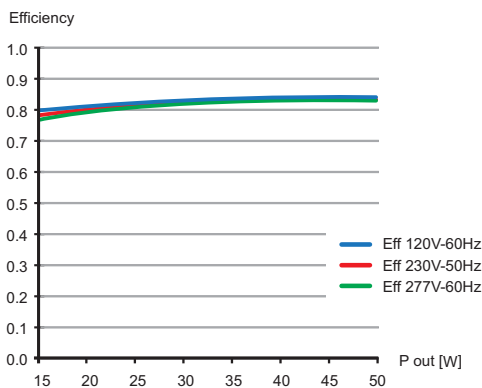
- Life expectancy of 50K hours at Ta of lower or equal to 50 °C / 122 °F
- MTBF: 480,000 hours

All measurements have been carried out at maximum load in free air without heat sink.

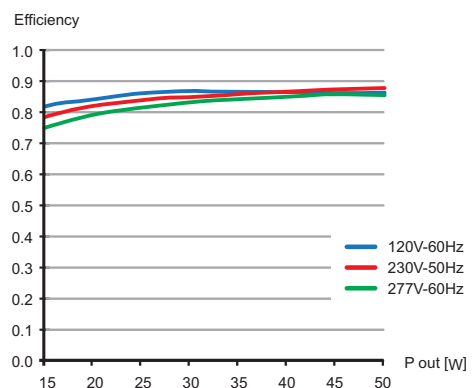
All lifetime-related figures are the result of simulations. Actual lifetime tests are ongoing.

The following efficiency, power factor and THD diagrams are the result of measurements of a worst case scenario: the LED outputs were stressed at full load (23.8V and 1,050mA).

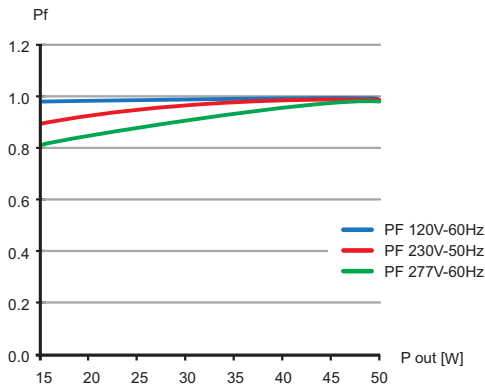
Efficiency data for ECOdrive 561/M



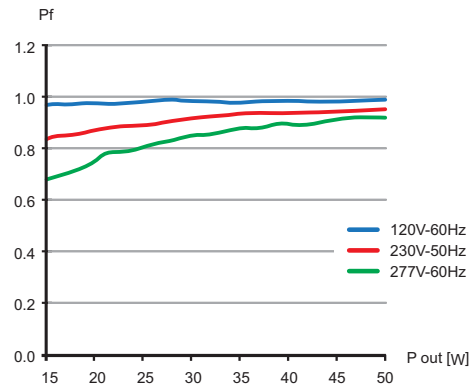
Efficiency data for ECOdrive 561/S and 560/S



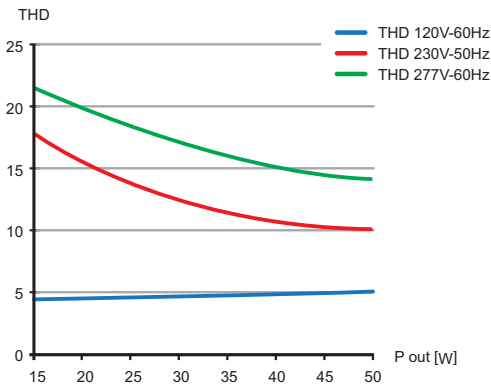
**Power factor data for ECOdrive 561/M**



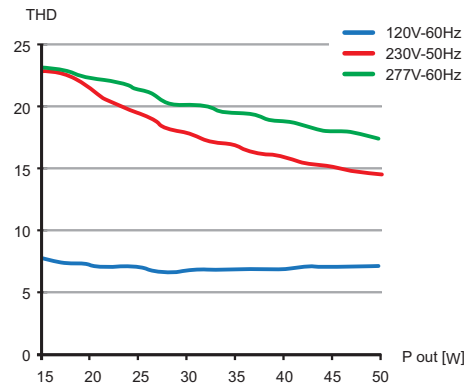
**Power factor data for ECOdrive 561/S and 560/S**



**THD data for ECOdrive 561/M**



**THD data for ECOdrive 561/S and 560/S**



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**Other documentation and support**

Visit [www.eldoled.com/ACsupport](http://www.eldoled.com/ACsupport) for further documentation such as quick start guide, wiring diagram, tech sheet and 3D IGES files.

**Warranty**

eldoLED represents and warrants that for a period of 3 (three) years, as of the date of invoice, Products materially meet the specifications and specifically agreed upon quality, both as stated in the applicable data-sheet and/or written design-in specifications, or as stated in writing otherwise by eldoLED, provided that these specifications are explicitly designated by eldoLED as "warranted specifications".  
 For the complete warranty text, visit [www.eldoled.com/terms](http://www.eldoled.com/terms).

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