eldoLED
your product | *our drive*

Tech sheet LINEARdrive 100 AC Series

Electrical Specifications

Input

- Voltage: 220 - 250 VAC, 50-60Hz
  UL approved: 120 - 277 VAC, 50-60Hz
- Current, max: 1.05A at 120V/60Hz, 0.5A at 230V/50Hz, 0.45A at 277V/60Hz

LINEARdrive 100/A

Output

- Load per output:
  RGBW @ 12V: 2.08A per output / RGBW @ 24V: 1A per output
  RGB @ 12V: 2.76A per output / RGB @ 24V: 1.33A per output
  ⚠ For UL Class 2: RGBW @ 12V: 1.25A per output
  RGB @12V: 1.66A per output
  Absolute max for US: 5A common anode
- Power, max: 100W

LINEARdrive 100/S

General

- Standby power: < 0.5W
- Inrush current: 35A 240µs at 120V/60Hz,
  67A 240µs at 230V/50Hz, 75A 240µs at 277V/60Hz
- Surge protection: 3kV (L to N), 4kV (L/N to GND)
- Power factor: > 0.94
- THD at 100% load, max: <10%
- DMX / RDM: USITT DMX512A and ANSI E1.20 (explore & address)
- DALI: IEC 62386-207

LINEARdrive 100/M

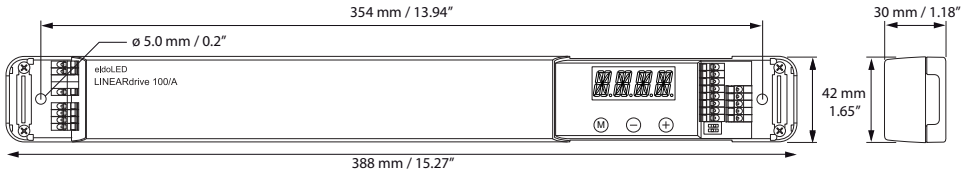
Use cases for 12V and 24V LED strips

	12V RGB strip 3 LED outputs, per output:	24V RGB strip 3 LED outputs, per output:	12V RGB + white strip 4 LED outputs per output:	24V RGB + white strip 4 LED outputs, per output:	2 12V cool white + 2 warm white strips 4 LED outputs per output:
Power, max: 100W	33W	33W	25W	25W	25W
Voltage, 12V or 24V	12V	24V	12V	24V	12V
Current, max	2.77A	1.33A	2A	1A	2A

Dimensions and weight

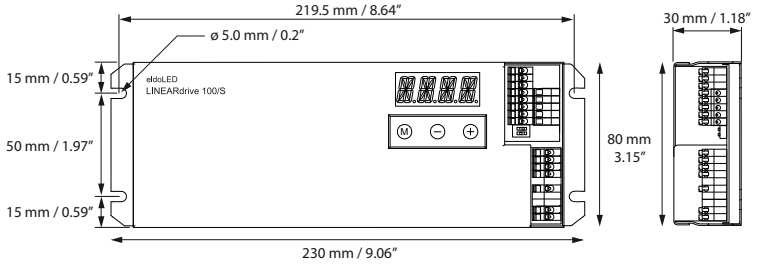
LINEARdrive 100/A

Weight: 890 g, 31.4 oz



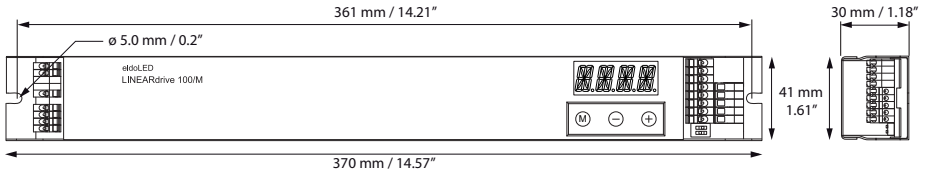
LINEARdrive 100/S

Weight: 895 g, 31.6 oz



LINEARdrive 100/M

Weight: 770 g, 27.2 oz



© 2012 eldoLED. All rights reserved. V1.5

Wiring data

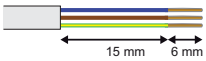
- Wire type: solid or stranded copper
- Wire strip length: 9mm, 0.35 in.
- Wire core cross section:
  0.5 - 1.5 mm², AWG 20 - 16

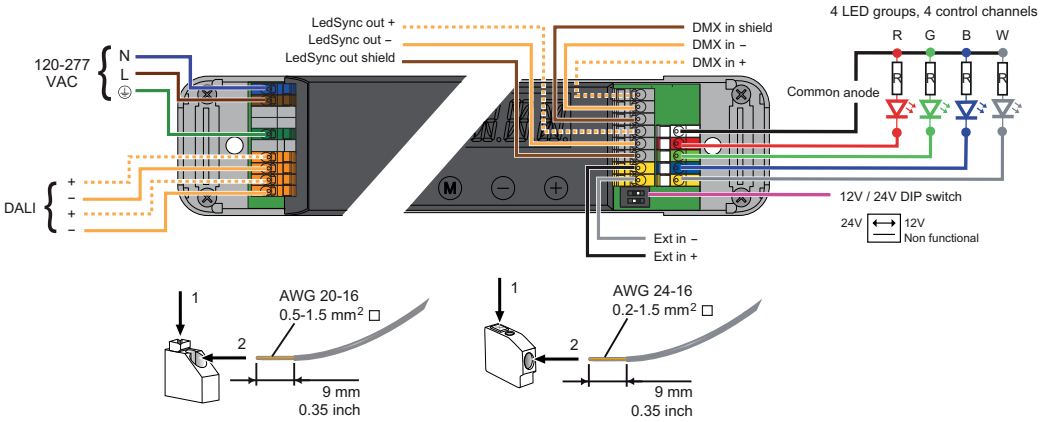
- Maximum LED wiring length:

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

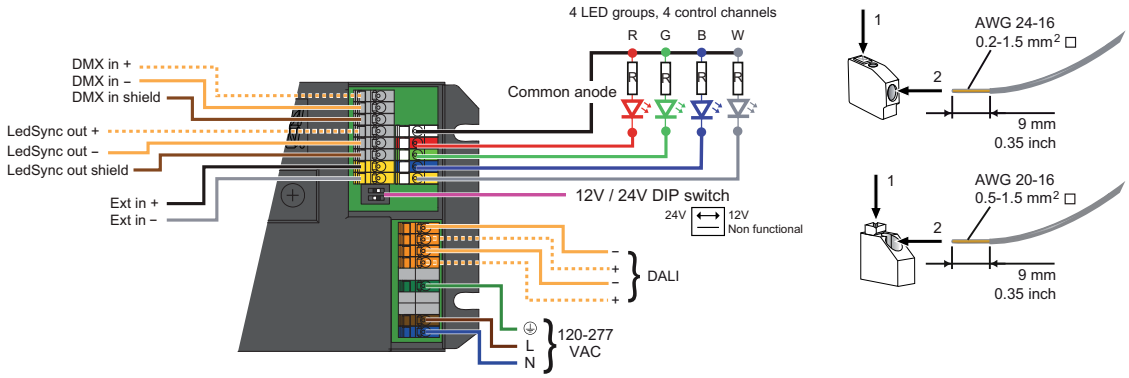
LINEARdrive 100/A

In Europe, use a H03V 0.75mm² power cable for the 100/A and apply following strip lengths:

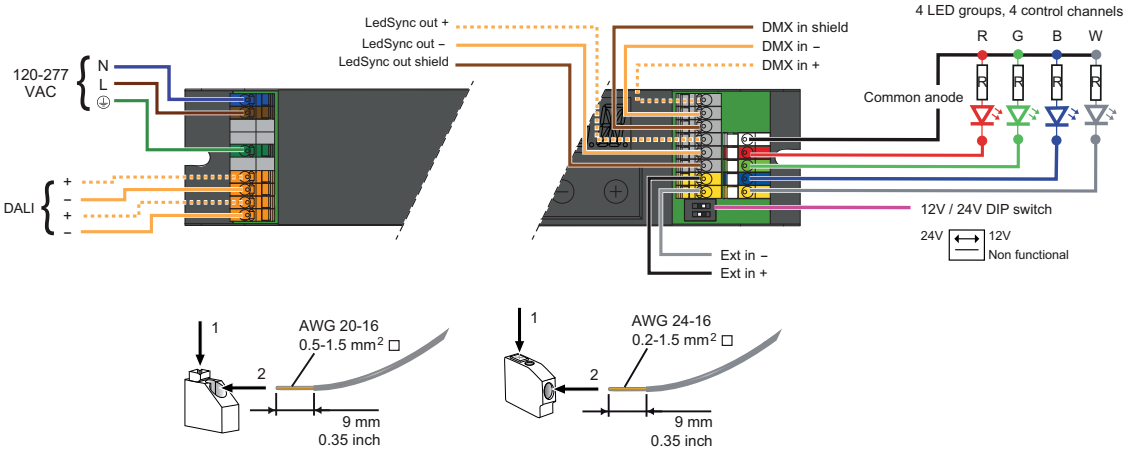




LINEARdrive 100/S



LINEARdrive 100/M



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.

© 2012 eldoLED. All rights reserved. V1.5

Other information

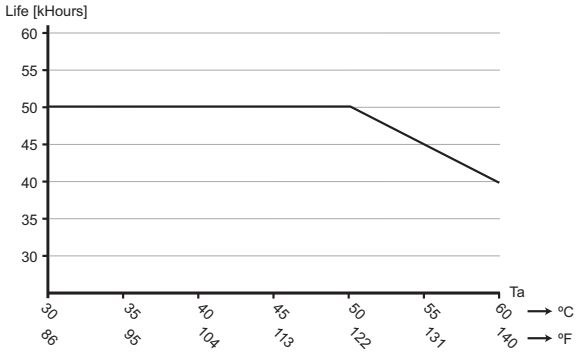
Thermal

- Ta range: -40 ºC ... +50 ºC / -40 ºF ... +122 ºF
- Tc max: LINEARdrive 100/A 90 ºC / 194 ºF
  LINEARdrive 100/M 85 ºC / 185 ºF
  LINEARdrive 100/S 85 ºC / 185 ºF
- Typical self-rise of 30 ºC / 83 ºF at maximum load in free air without heat sink

Certifications

- IEC 61347-1, IEC 61347-2-13, IEC 62384 + A1, EN 55015 + A1, EN 55022 + A1, IEC 61000-3-2, IEC 61547, IEC 62386-207
- CE
- ENEC by VDE
- UL: Recognized Component for US and Canada (file no. E333135), according to UL1310, UL8750. Class 2 output for US and Canada.
- Class A sound rating
- FCC: Title 47CFR Part 15 Class B
- The wiring inside electrical enclosures shall comply with the 600V/105 ºC or higher.

Lifetime data



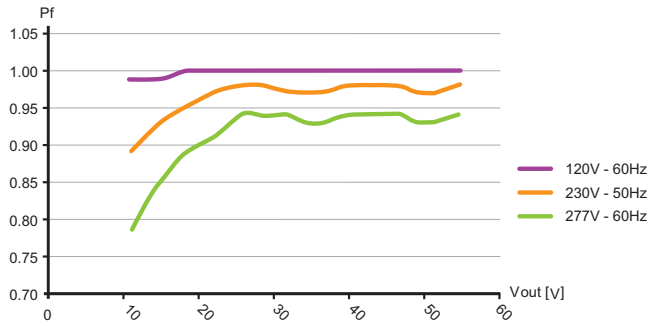
Life vs Ta

- Life expectancy of 50K hours at Ta of lower or equal to 50 ºC / 122 ºF
- 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.

Power factor data



Power factor vs Vout at Ta 25 ºC / 77 ºF

Europe, Rest of World
eldoLED Europe bv
Luchthavenweg 18a
NL-5657 EB Eindhoven
The Netherlands
T: +31 40 2054050
F: +31 40 2054058
E: info@eldoled.com

North America
eldoLED America, Inc.
1762 Technology Drive #226
San Jose, CA 95110
USA
T: +1 408 451-9333
F: +1 408 451-9335

Sales support US/Canada: nasales@eldoled.com
Sales support Rest of the World: sales@eldoled.com

Other documentation and support

Visit 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 datasheet 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.

© 2012 eldoLED. All rights reserved. V1.5

Notes

© 2012 eldoLED. All rights reserved. V1.5