

## CL Analogue

### Up to 33W

270mA, 350mA, 450mA, 500mA, 600mA  
700mA, 900mA, 1000mA, 1200mA & 1400mA

CoolLED drivers provide a high performance solution for powering high-brightness LEDs from a mains supply.

#### Analogue Dimming Control

Linear dimming from conventional 1-10V dimmer. Can also be programmed with a fixed or variable resistor, refer to graph below to calculate required resistor for desired current.

#### Regulated Output Current

LED series string is supplied with electronically regulated constant current.

#### High Efficiency and Long Life

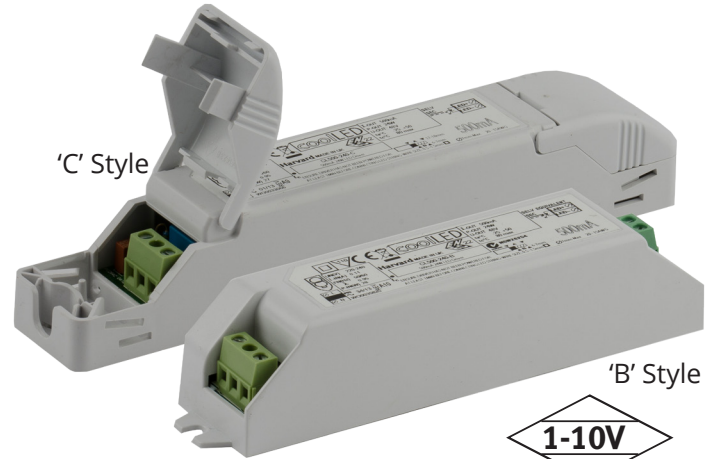
High efficiency design ensures cool operation and long life.

#### Active Power Factor Correction

Reduces mains current and lowers electricity cost.

#### Self Protected

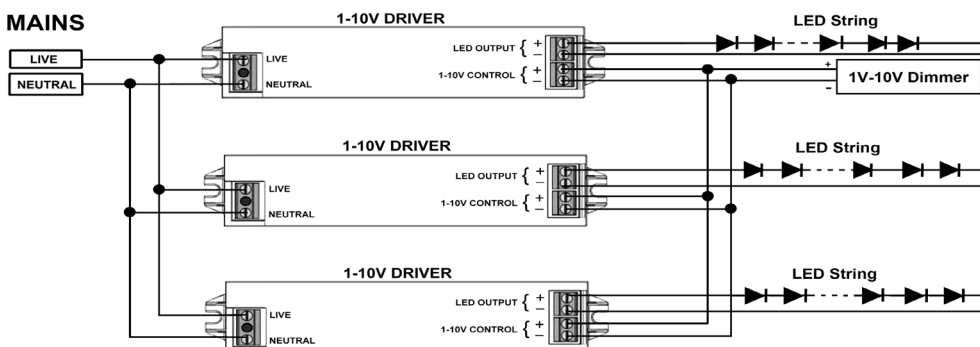
Open and short-circuit protected, self-resetting over temperature trip



## Key Facts

- 220 - 240V
- Fully-isolated, SELV output delivering up to 33W of power
- High power factor (0.98)
- Constant current output
- Self resetting thermal trip
- 86% efficiency
- Surge protection up to 4kV
- Linear dimming from 5% to 100%
- Double insulated (Class II)
- Integral and remote versions
- Hot Plug Protected
- Cable clamps for fast assembly ('C' type only)
- A/B Style conformally coated

## Wiring diagram



**IMPORTANT**  
Disconnect the mains supply for at least one minute before connecting or disconnecting the LED string.

\*All information is subject to change at our discretion

\*\* For custom variants please consult a sales representative

### Technical specification

Mains input voltage	220 to 240V ac rms
Mains frequency	47 - 63Hz
Mains surge protection	4kV common-mode 2kV differential
Input-output isolation	3.75kV ac rms
Humidity	95% max non-condensing
Thermal trip	110°C - internal self-resetting
Ambient temperature range	-25 °C to 50 °C
Maximum Tc temperature	80 °C
Humidity	95% max non-condensing
Input power when output is off	<0.4W
Off load voltage	245V
Dimming range	5% - 100%
Terminal blocks	Rising clamp 10mm input pitch, 5mm output pitch
Enclosure	White polycarbonate UL94-V0 rated

### Variants

Part number	Current	LED String Voltage	Output power range	Power factor at full load	Efficiency at full load
CL270A-240-B/C	270mA	12V to 58V (9.2V fully dimmed)	3.24 - 15w	0.98	83%
CL350A-240-A/B/C	350mA	10.8V to 48V (8V fully dimmed)	3.78 - 17w	0.98	86%
CL450A-240-B/C	450mA	10.8V to 48V (8V fully dimmed)	4.86 - 22w	0.98	86%
CL500A-240-A/B/C/AB	500mA	10.8V to 48V (8V fully dimmed)	5.4 - 24w	0.98	86%
CL600A-240-A/B/C	600mA	10.8V to 48V (8V fully dimmed)	6.48 - 29w	0.98	86%
CL700A-240-A/B/C/AB	700mA	10.8V to 48V (8V fully dimmed)	7.56 - 33w	0.98	86%
CL900A-240-B/C	900mA	10.8V to 36.7V (8V fully dimmed)	9.72 - 33w	0.98	86%
CL1000A-240-A/B/C/AB	1000mA	10.8V to 33V (8V fully dimmed)	10.8 - 33w	0.98	86%
CL1200A-240-A/B/C	1200mA	10.8V to 23.5V (8.5V fully dimmed)	12.96 - 28w	0.98	84%
CL1400A-240-A/B/C	1400mA	10.8V to 18.5V (8.5V fully dimmed)	15.12 - 26w	0.98	83%

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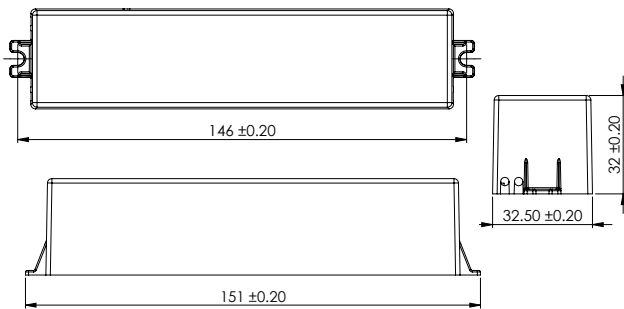
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## CL CoolLED LED Drivers

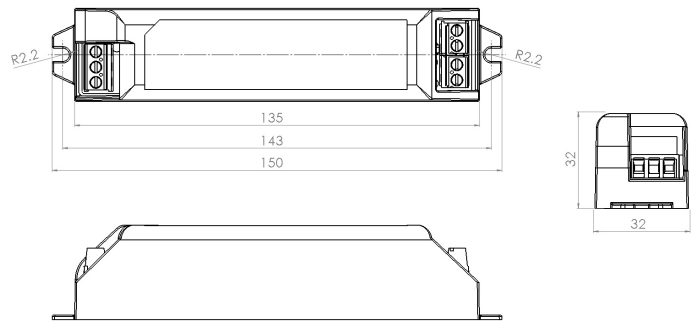
# CoolLED

### Dimensions

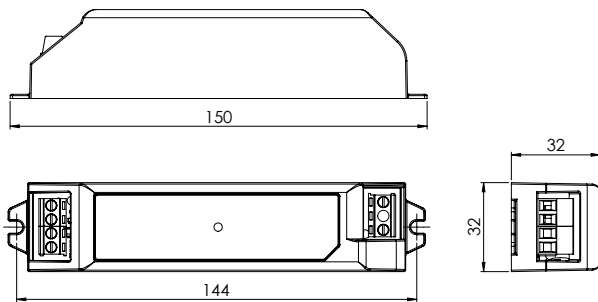
#### A Style



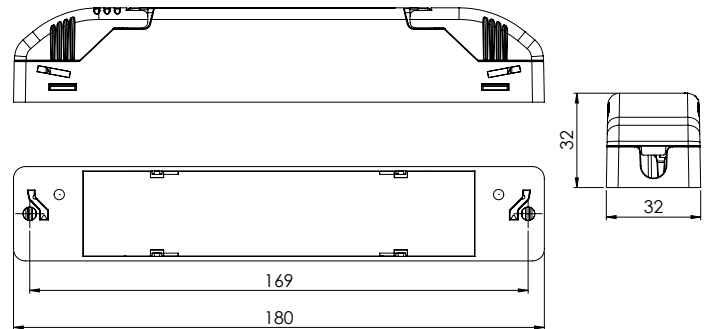
#### A/B Style



#### B Style



#### C Style



Case Style	Dimensions	Weight	Box Quantity
A - Flying leads	151mm x 32.5mm x 32mm	132g or 260g (potted)	50
A/B - Hybrid	150mm x 32mm x 32mm	126g	50
B - Integral	150mm x 32mm x 32mm	115g	50
C - Cable clamps	180mm x 32mm x 32mm	130g	50

Tolerance: + or - 0.3mm

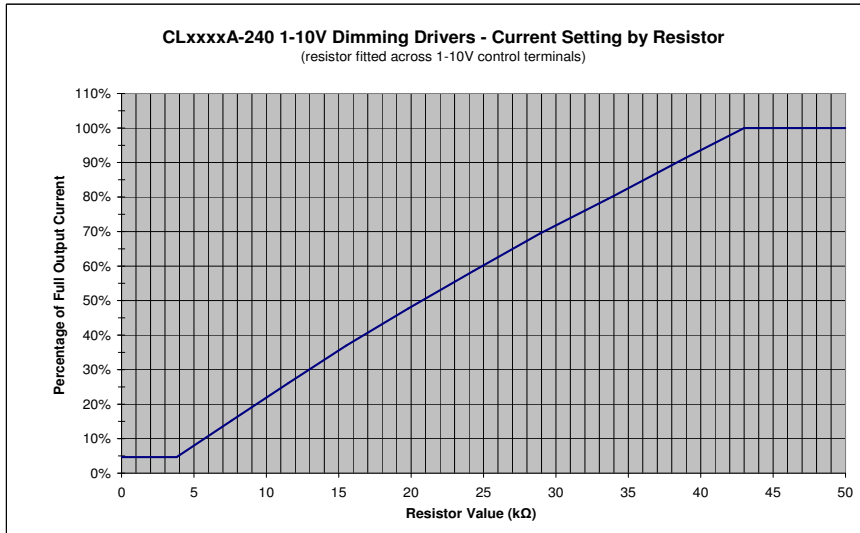
### Compliance

Approval	Standards
ENEC	EN 61347-2-13, EN 61000-3-2, EN 61000-3-3, EN 62384, EN 60929, EN 61547 & EN 55015

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## Resistor programming



## Dimming Information

### Electronic Dimmer Connection

The electronic dimmer must be capable of 'sinking' the total current from all drivers. For example, a dimmer with 30mA sink capability will control 100 drivers.

### 1-10V Dimming Control Output

A voltage between 0V and 1V on this terminal gives minimum light output (5% of maximum current)

A voltage of 10V (or open circuit connection) gives maximum light output. Between 1V and 10V terminal voltage, the light output is infinitely variable.

The negative terminal of the 1-10V and LED negative are not isolated from each other, this means that the insulation class of the external 1-10V controller may affect the ground isolation and SELV rating of the LED output.

To maintain SELV isolation of the driver output the 1-10V dimming controller and network should have reinforced or double insulation from the mains supply.

The 1-10V dimming method is described in EN60929