

CL

CoolLED LED Drivers



CoolLED

CLK Analogue 1-10V

Up to 33W

350mA, 500mA, 700mA & 1050mA

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

Analogue Dimming Control

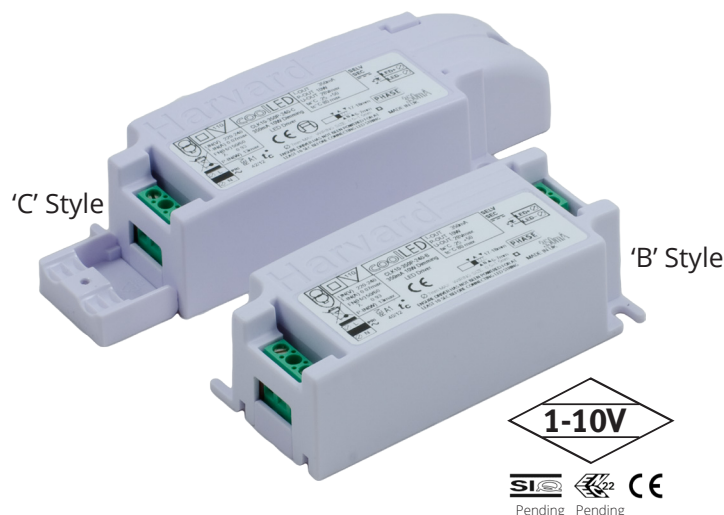
Linear dimming from conventional 1-10V dimmer. Can also be programmed with a fixed or variable resistor.

Ability to dim to 5% of maximum output current

The power factor corrected, class II driver has fully isolated, SELV output delivering up to 33W of power.

All CoolLED Drivers have a high efficiency design, which ensures cool operation and long life. The compact enclosure is available in Integral (B) and Remote Mount (C) versions. Remote types feature screwless cable clamps.

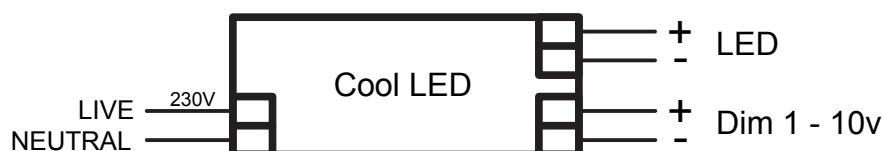
CoolLED Drivers are open and short-circuit protected and have self resetting over temperature trip.



Key Facts

- 220-240 Input Voltage
- Power factor corrected (0.98)
- Constant current output
- Self resetting thermal trip
- Double insulated (Class II)
- Surge protection up to 4kV
- Up to 86% efficient
- SELV isolation
- Plug protection

Wiring diagram



*All information is subject to change at our discretion

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CLK: CLKA: P1/4 V1 LT

Technical specification

Mains input voltage	220 to 240V ac rms Nominal
DC input voltage	190V - 245V
Mains frequency	0 - 50 - 60Hz*
Mains surge protection	4kV common-mode 2kV differential
Input-output isolation	3kV 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
Terminal blocks	Rising clamp 5mm Pitch
Enclosure	White polycarbonate UL94-V0 rated
Wire size	0.5mm to 1.5mm ²

Variants

Part number	Current	LED String Voltage	Output power range	Power factor at full load	Efficiency at full load
CLK350A-240-B/C	350mA (±5%)	10.8V to 48V	4W - 17W	>0.95	86% typical
CLK500A-240-B/C	500mA (±5%)	10.8V to 48V	5.4W - 24W	>0.95	86% typical
CLK700A-240-B/C	700mA (±5%)	10.8V to 48V	7.5W - 33W	>0.95	83% typical
CLK1050A-240-B/C	1050mA (±5%)	10.8V to 31V	11.5W - 33W	>0.95	83% typical

Operations

* Drivers are suitable for DC & AC operation at 0/50/60 Hz and compliant to EN50172 and EN 60598-2-22. However, the luminaire manufacturer needs to check if the luminaire would be compliant with the 'high risk task lighting' requirements based on the LED load used in the luminaire and the battery backup system.

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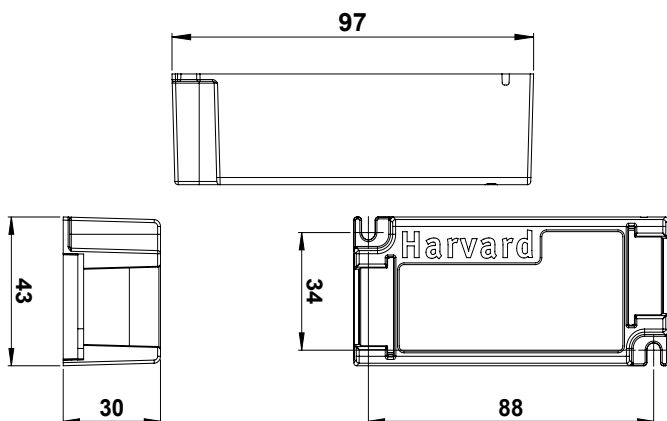
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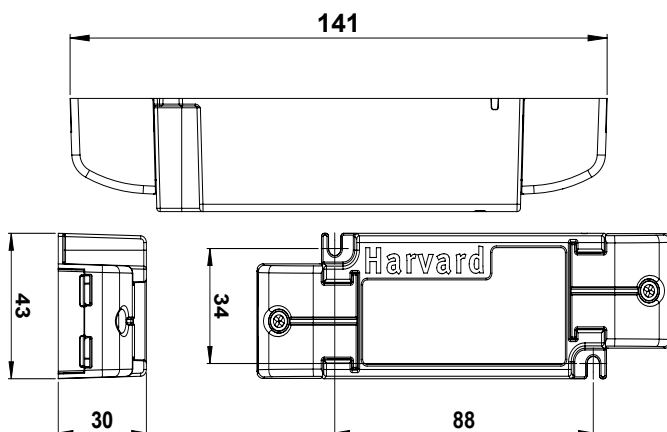
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Dimensions

B Style



C Style



Case Style	Dimensions	Weight	Box Quantity
B - Integral	97mm x 43mm x 30mm	75g	55
C - Remote	141mm x 43mm x 30mm	95g	55

Tolerance: + or - 0.3mm

Compliance

Approval	Standards
ENEC	EN 61347-2-13, EN 6100-3-2, EN 6100-3-3, EN 61547, EN 55015 & EN 62384

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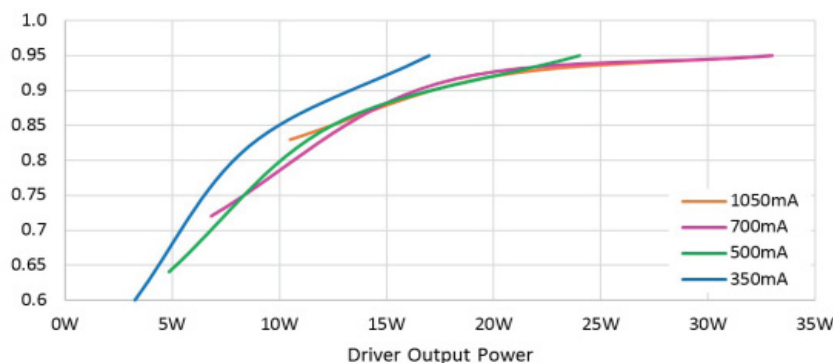
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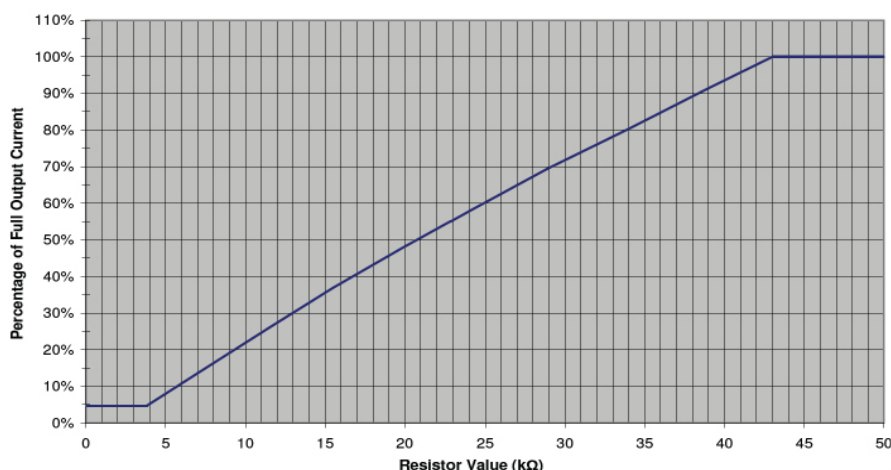
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Driver Power Factor Characteristics at 230V



Current Setting by Resistor

CLxxxxA-240 1-10V Dimming Drivers - Current Setting by Resistor
(resistor fitted across 1-10V control terminals)



Resistive Programming - Variable or Fixed Resistor

Example:

1 Unit = 50k Variable Resistor

10 Units = 5k Variable Resistor

Dimming Info

1-10V Dimming control output

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

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.

The 1-10V dimming method is described in EN60929

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.

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