

CoolLED

LED DRIVERS

CLX40/CLX50 DALI Programmable Driver

Up to 50W

200-700mA & 700-1400mA

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

The power factor corrected, class II SELV driver delivers up to 40W 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) with the option of adding cable clamps (C).

The CLX range has a low output ripple for flicker free light. Suitable for use in Camera's, CCTV and other applications.

Full Dimming Capabilities - Full dimming support from 100% to 1% output current and the ability to turn completely off.

CoolLED Drivers are open and short-circuit protected and have a over temperature fold back.

CoolLED drivers have the following insulation barriers:

Primary - Secondary (Reinforced)

Primary - Dim (Basic insulation)

Secondary - Dim (Reinforced)

Supports corridor function (10% dim mode) and touch (push) dimming on DALI version.



Product Description

- Universal Input voltage
- Fully-isolated, SELV output delivering up to 50W of power
- Power factor corrected (0.95)
- Constant current output
- Self resetting thermal trip
- 89% efficiency (CLX40) & 88% efficiency (CLX50)
- Low 'off' power <0.5W
- LED string fault reporting
- Surge protection up to 4kV
- SELV Isolation (3kV)
- Double insulated (Class II)



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Technical Specification

| | |
|----------------------------------------------|--------------------------------------------------------------------------------------------------------|
| Mains input voltage | 120 - 250 VAC, 120 - 277 VAC (USA) |
| Mains frequency | 50 - 60Hz |
| Power factor at full load | 120V = 0.98 / 240V = 0.95 / 277V = 0.92 |
| Efficiency | 89% (CLX40) / 88% (CLX50) |
| Mains surge protection | 4kV common-mode 2kV differential Class 4 |
| Input-output isolation | 3kV ac rms |
| Ambient temperature range | -25°C to 50°C |
| Maximum Tc temperature | 80°C (CLX40) / 85°C (CLX50) |
| 100/120Hz ripple | <1% |
| Humidity | 95% max non-condensing |
| Dimming range (output) | 100 - 1% |
| Driver Power in standby mode | <0.5W |
| Maximum off load voltage (Open circuit only) | 59V |
| Lifetime | >50K hrs at 50°C ambient or TC max |
| Enclosure | White polycarbonate UL94-V0 rated |
| Terminal blocks | Push Wire Terminals |
| Wire size | 0.5mm to 1.5mm ² Solid / fine strand |
| Cable clamping specification | Oval only = minimum Ø 5.3mm Oval and round - minimum oval = Ø 3.3mm x 5.4mm / minimum round = Ø 6mm |
| Weight | 175g (CLX40) / 235g (CLX50) |

Variants

| Part number | Current | LED String Voltage | Max. Output power |
|---------------------|-----------------------|--------------------|-------------------|
| CLX40-700D-UNI-B/C | 200 - 700mA (±5%) | 24V to 58V | 40W |
| CLX50-1400D-UNI-B/C | 700 - 1400mA (±5%) | 16V to 58V | 50W |

Compliance

Standards

EN 61347-2-13:2014, EN61347-1:2008+A1:2011+A2:2013, EN 62384:2006+A1:2009
EN 61000-3-2, EN61000-3-3, EN61547:2009, IEC/EN 61347-1:2015



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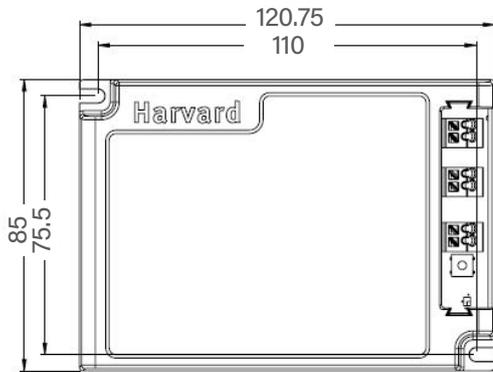
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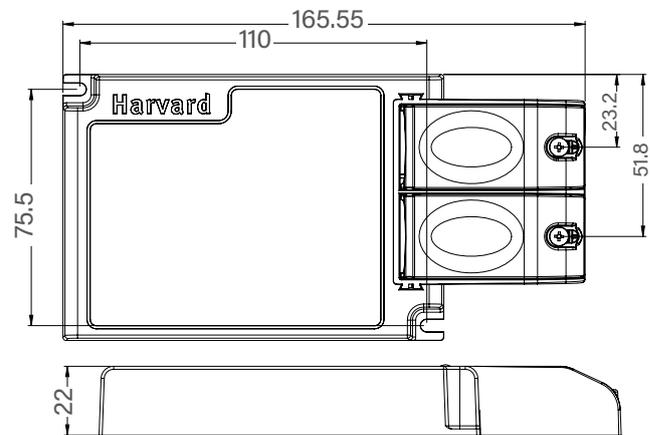


Dimensions

Integral 'B' type



Remote 'C' type



Programmable Driver Set-up

The programmable CLX utilises 2 pieces of hardware. A **windows based PC** is required to run the programming software, which gives options of either auto or manual programming.

This is connected via USB to USB Type B to a **programming jig** that is used to rapidly program drivers or check driver settings. The driver can be inserted into the enclosure which will automatically program it when detected.



CLX Programming Jig

RFID enabled LED drivers are the latest range of Harvard's programmable drivers. These drivers can be reprogrammed and verified wirelessly without being powered up. The programmable Driver Interface is currently compatible with ThingMagic and Kathrein RRU4 RFID Reader/Writer.

Kathrein devices can be connected to the interface through a network while ThingMagic devices can be connected through USB COM Port. Both of these products have been tested and verified with the CLX Harvard Technology programmable drivers.

For more information about the RFID readers/writers please visit the websites below:

<http://www.thingmagic.com>

<https://www.kathrein-rfid.de/en/rru4-series.html>



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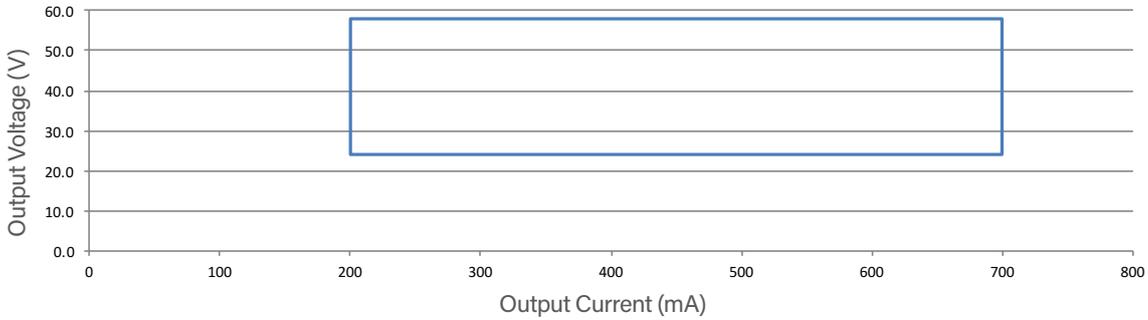
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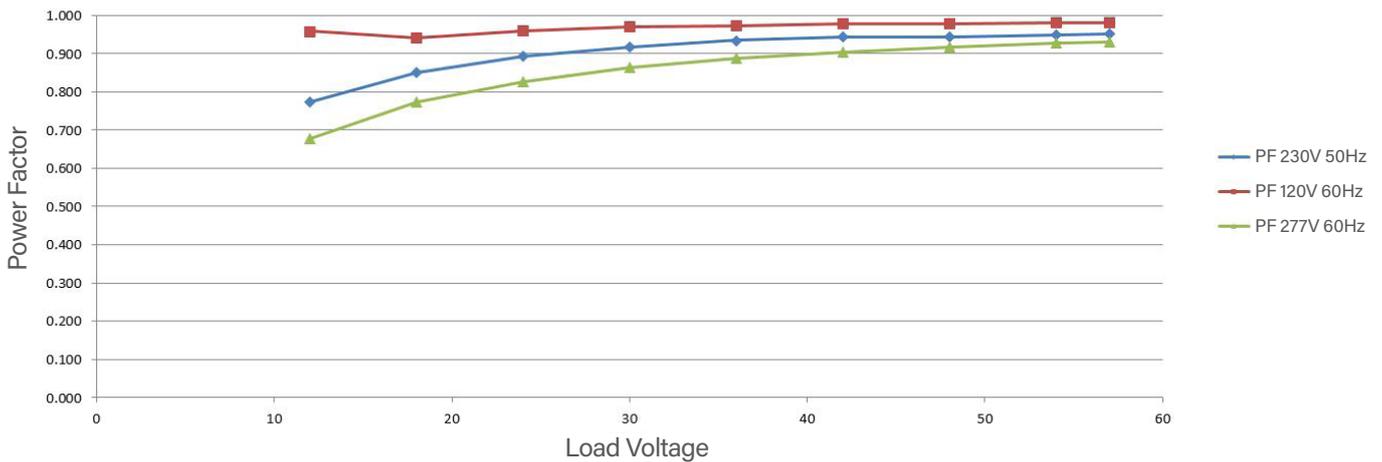


CLX40 Technical Data

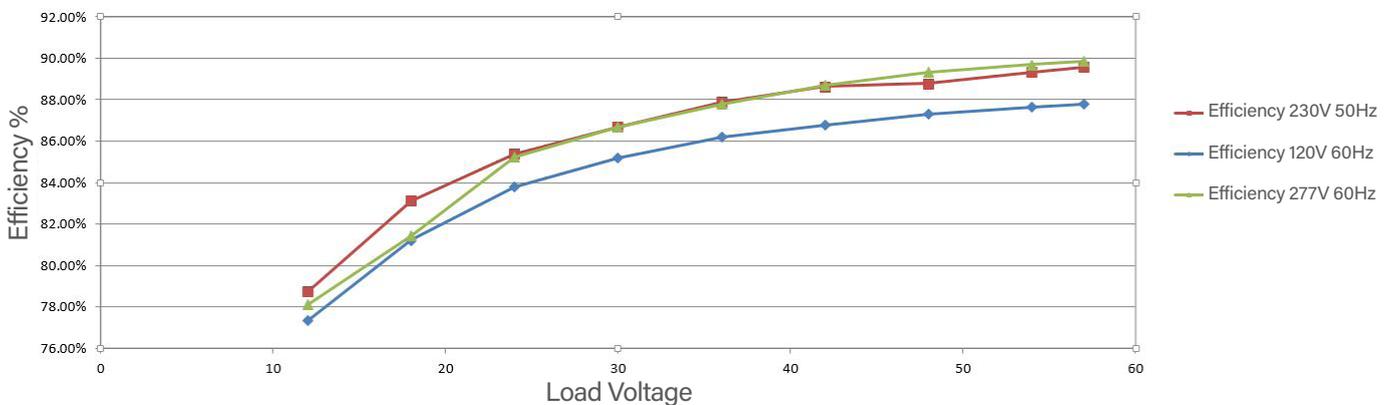
Operating range graph



Power Factor Vs Load



Efficiency Vs Load



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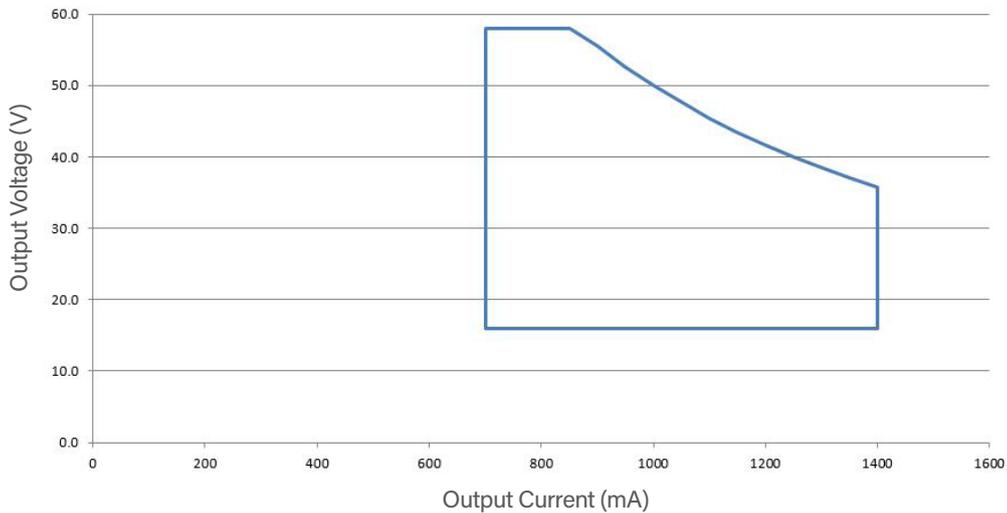
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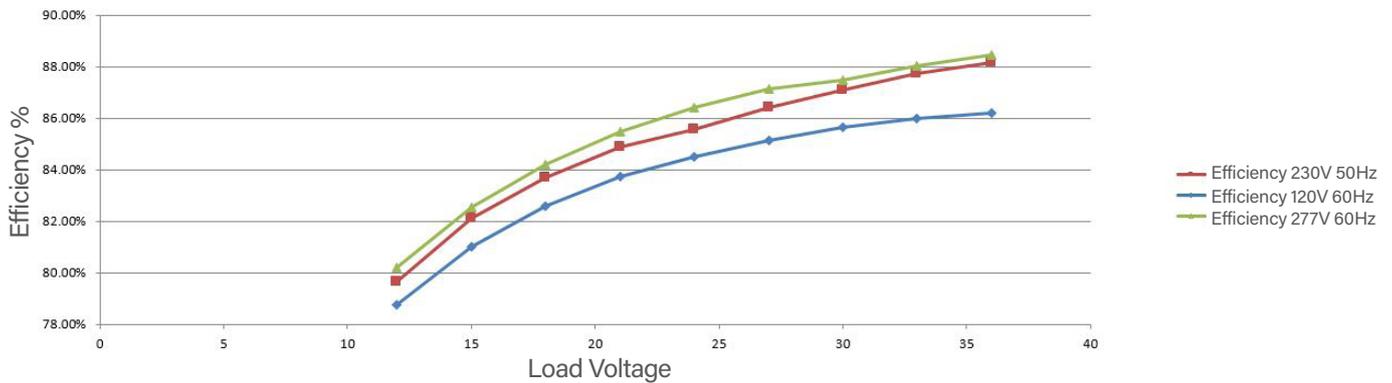


CLX50 Technical Data

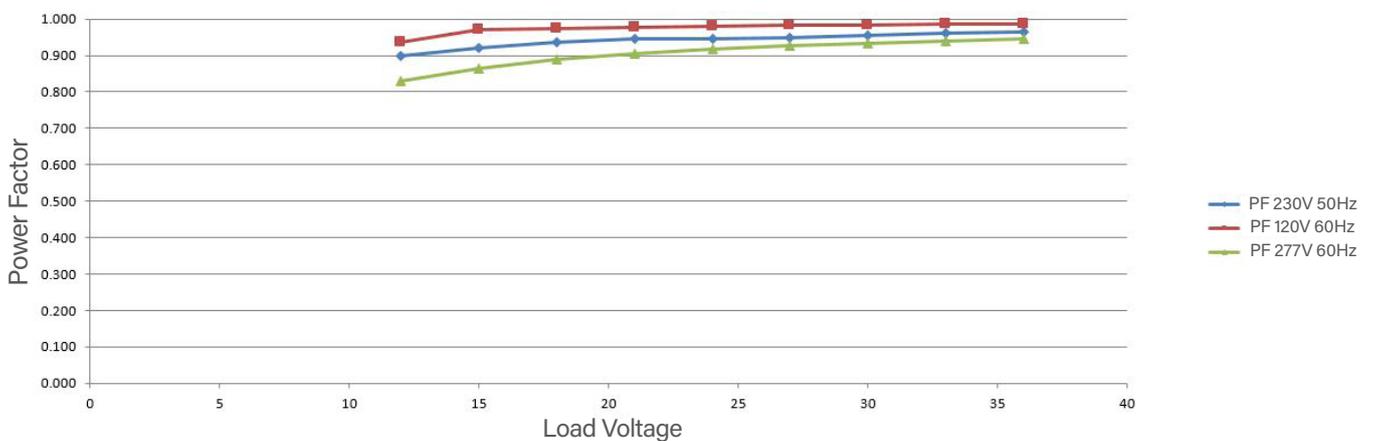
Operating frequency graph



Efficiency Vs Load



Power Factor Vs Load



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