

LL1x30-E-CV24

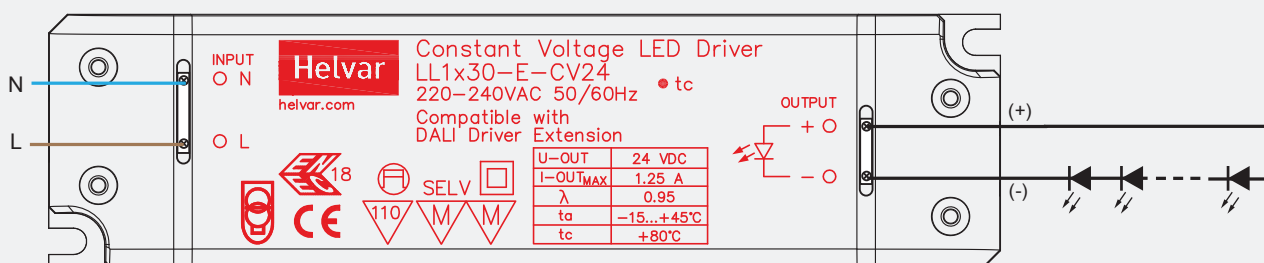
Helvar*freedom in lighting*

1x30 W **Constant Voltage** LED driver

- Open & short circuit protection
- Over voltage protection
- 24 V Constant voltage output
- Maximum 30 W load
- High efficiency 0.88
- Suitable for Class I, Class II and SELV luminaires
- Double insulated enclosure
- Suitable for use with LL1xCV-DA driver extension for DALI dimmable solutions

30 W 220-240 VAC 50-60 Hz

Connections



Mains Characteristics

Voltage range	198-264 VAC,
Max mains current at full load	0.4 A
Frequency	50 - 60 Hz
Power factor	0.95
Input Power at no load	0.5 W

Load Output (SELV < 60)

Output voltage (U-OUT)	24 V
Max output current (I-OUT)	1.25 A
Max output power	30 W
Efficiency, at full load, typical	0.88

Operating Conditions and Characteristics

Max. temperature at tc point	80°C
Ambient temperature range	-15...+45 °C
Storage temperature range	-40...+80 °C
Maximum relative humidity	no condensation
Life time	30 000h, at TC max (90 % survival rate)

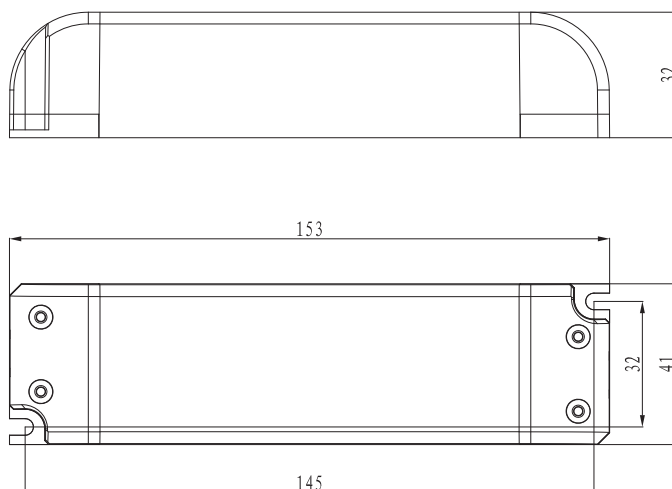
Connections and Mechanical Data

Wire size	0.5 - 1.5 mm ²
Wire type	solid core and fine-stranded
Maximum driver to LED wire length	5m
Weight	150 g
IP rating	IP20

Conformity

Radio Frequency Interference, acc. to	EN 55015
Immunity standard, acc. to	EN 61547
General and safety requirements	EN 61347-1
Particular safety requirements for d.c. or a.c. supplied electronic controlgear for LED modules, acc. to	EN 61347-2-13
Performance requirements, acc to	EN 62384
Mains current harmonics, acc. to	EN 61000-3-2
Limits for Voltage Fluctuations and Flicker, acc to	EN 61000-3-3
ENEC, CE, and SELV marked	

Note: See page 2 for dimensions



Wiring & connectivity

LL1x30-E-CV24 LED driver is suited for either in-built and independent luminaire usage. In order to have safe and reliable LED driver operation, the LED luminaires will need to comply with the relevant standards and regulations (e.g. IEC/EN 60598-1). The LED luminaire shall be designed to adequately protect the LED driver from dust, moisture and pollution. The luminaire manufacturer is responsible for the correct choice and installation of the LED drivers according to the application and product datasheets. Specifications of the LED drivers may never exceed the operating conditions as per the product datasheets.

Wiring considerations

Wire type and cross section

- Please refer to datasheets connections & mechanical data

Wiring insulation

- According to recommendations in EN 60598

Maximum wire lengths

- Please refer to datasheets connections & mechanical data

Wire connections

- Please refer to datasheets connections diagram

Miniature Circuit Breakers (MCB)

- Type-C MCB's with trip characteristics in according to EN 60898 are recommended.

Installation & operational considerations

Maximum tc temperature

- Reliable operation and lifetime is only guaranteed if the maximum tc point temperature is not exceeded under the conditions of use.

Installation site

- Ensure that the LED driver does not exceed temperature higher than specified on the product datasheets.
- The general preferred installation position of LED drivers is to have the top cover facing upwards.

Quantity of drivers per miniature circuit breaker 16 A Type C

Based on I_{Cont} (pcs.)	Based on I_{peak} (pcs.)	Typ.inrush current I_{peak} (A)	1/2 value time Δt (μs)	Calculated energy $I_{peak}^2 \Delta t$ ($A^2 s$)
72	68	16	208.0	0.038600