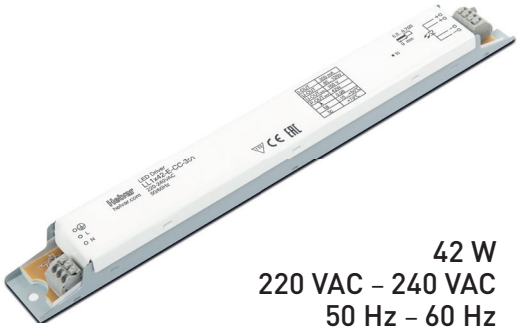
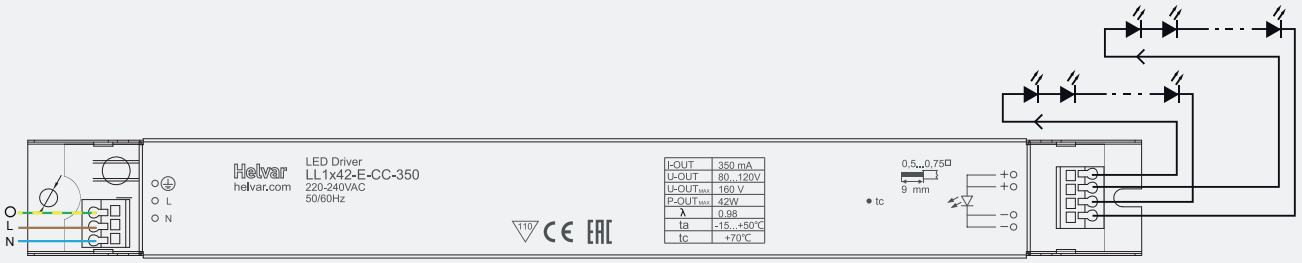
1x42 W Constant current LED driver (5590)

- Load output is double insulated from the mains
- Parallel output connection
- Fixed low ripple constant current output



42 W
220 VAC – 240 VAC
50 Hz – 60 Hz

Connections



Note:

• Not suitable for load side switching operation.

Mains Characteristics

Voltage range	198 VAC – 264 VAC
Max mains current at full load	0.18 A – 0.24 A
Frequency	50 Hz – 60 Hz

Load Output (double isolated)

Output current (I_{out})	350 mA
- Accuracy	± 5 %
- Ripple	< ± 3 % 100 Hz
U_{out} (max) (abnormal)	160 V

I_{out}	350 mA
P_{out} (max)	42 W
U_{out}	80 V – 120 V
λ	0.98
Efficiency (η), max load	0.88

Operating Conditions and Characteristics

Max. temperature at t_c point	70 °C
Ambient temperature range	–15 °C ... +50 °C
Storage temperature range	–40 °C ... +80 °C
Maximum relative humidity	no condensation
Life time	30 000 h, at t_c (max) (90 % survival rate)

Connections and Mechanical Data

Wire size	0.5 mm^2 – 0.75 mm^2
Wire type	solid core and fine-stranded
Maximum driver to LED wire length	1 m
Weight	200 g
IP rating	IP20

Functional Description

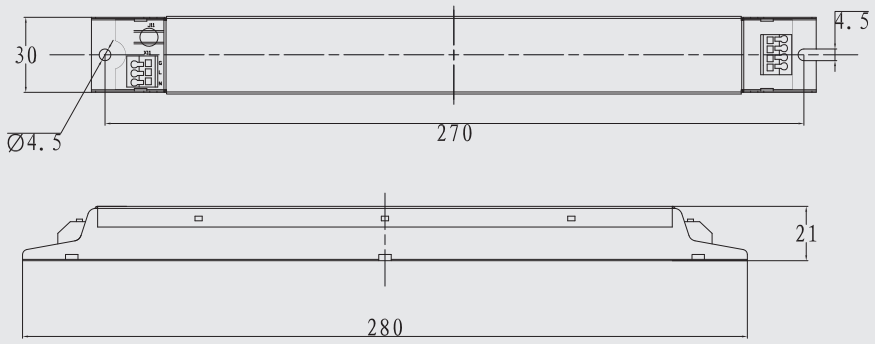
- Open & short circuit protection
- No load power consumption 0.5 W

With Stand Voltage

- Input – output 3 750 V
- Input – protective earth 1 500 V

Note: See page 2 - 3 for dimensions and additional information

Dimensions



Quantity of drivers per miniature circuit breaker 16 A Type C

Based on I_{cont}	Based on I_{peak}	Typ.inrush current	1/2 value time, Δt	Calculated energy, $I_{peak}^2 \Delta t$
53 pcs.	75 pcs.	18 A	180 µs	0,0412 A^2s

LL1x42-E-CC-350 LED driver is suited for in-built 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

Wire type and cross section

Refer to datasheet's connections & mechanical data

Wiring insulation

According to recommendations in EN 60598

Maximum wire lengths

Refer to datasheet's connections & mechanical data

Wire connections

Refer to datasheet's connections diagram

Miniature Circuit Breakers (MCB)

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

LED driver earthing

- LED drivers are designed to support different luminaire classifications, such as Class I or Class II fittings (no earth required). Check the LED driver type from the page1.
- For Helvar LED drivers to have a reliable operation and EMC performance, the luminaires are expected to have an earth connection.

Installation & operation

Maximum t_c temperature

Reliable operation and lifetime is only guaranteed if the maximum t_c 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 for independent use is to have the top cover facing upwards.

Conformity & standards

General and safety requirements	EN 61347-1
Particular safety requirements for DC or AC supplied electronic control gear for LED modules	EN 61347-2-13
Thermal protection class	EN61347, C5e
Mains current harmonics	EN 61000-3-2
Limits for voltage fluctuations and flicker	EN 61000-3-3
Radio frequency interference	EN 55015
Immunity standard	EN 61547
Compliant with relevant EU directives, CE marked	