

IP67 SELV 

TALEXdriver LCU 100W 12V IP67 EXC  
EXCITE series

## Product description

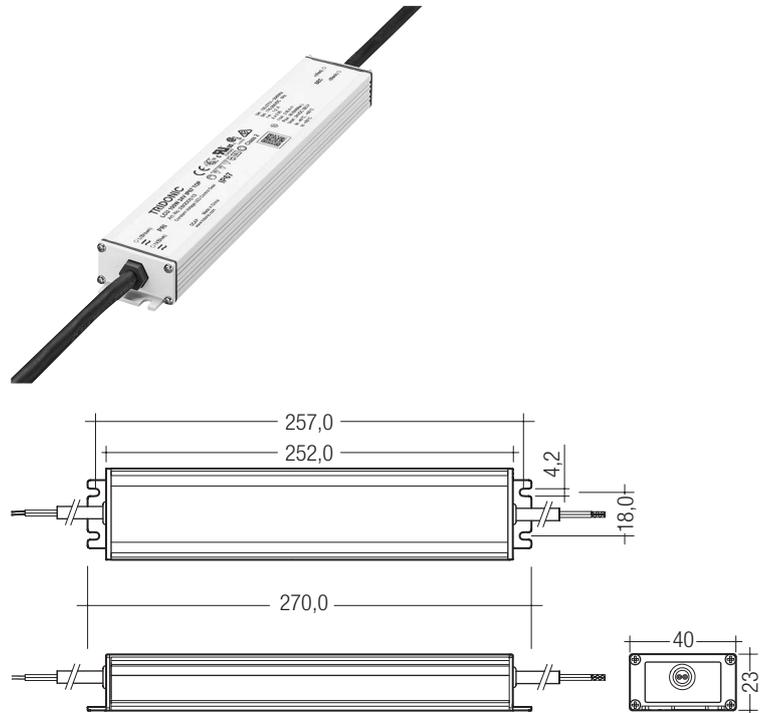
- Constant voltage LED Driver
- Universal input voltage range
- Constant output voltage
- Connection: Cable with end sleeves (length approx. 500 mm)
- Polarity identifiers, secondary + red / – black
- Metal casing, encapsulated
- Nominal life-time up to 50,000 h (at ta 50 °C with a failure rate max. 0.2 % per 1,000 h)
- 5-year guarantee
- Suitable for emergency installations according to EN 50172
- Complies with CLASS C from minimum to maximum load range according to EN 61000-3-2

## Properties

- Small design
- High efficiency
- Low power loss
- Overtemperature protection with automatic restart
- Overload protection
- Short-circuit protection with automatic restart
- SELV
- Type of protection IP67
- Metal casing

## Technical data

Rated supply voltage	120 – 277 V
Input voltage, AC	108 – 305 V
Input voltage, DC	176 – 288 V
Rated current 12 V (at 230 V, 50 Hz, full load)	0.51 A
Mains frequency	0 / 50 / 60 Hz
Efficiency (at 230 V, 50 Hz, full load)	> 90 %
$\lambda$ (at 230 V, 50 Hz, full load)	0.95
Output voltage tolerance 12 V	-0 / +10 %
Output power 12 V (ta ≤ 60 °C)	100 W
Output power 12 V (ta > 60 °C)	80 W
Output power range 12 V	10 – 100 W
Turn on time (output)	≤ 0.5 s
Turn off time (output)	≤ 1 s
Hold on time at power failure (Output)	10 ms
Ambient temperature ta	-40 ... +70 °C
Ambient temperature ta (at life-time 50,000 h)	-40 ... +50 °C
Storage temperature ts	-40 ... +85 °C
Dimensions LxWxH for 12 V	270 x 40 x 23 mm
Hole spacing D	257 mm



LCU 100W 12V IP67 TOP

## Ordering data

Type	Article number	Packaging carton	Packaging pallet	Weight per pc.
LCU 100W 12V IP67 TOP	28000510	10 pc(s).	360 pc(s).	0.56 kg

**Specific technical data**

Type	Max. casing temperature $t_c$	Output voltage	Max. input power	Output current range	Max. output voltage <sup>①</sup>
LCU 100W 12V IP67 TOP	95 °C	12 V	117 W	0.83 – 8.33 A	13.2 V

<sup>①</sup> At failure mode (230 V, 50 Hz).

**Standards**

EN 55015  
 EN 60598-1  
 EN 60598-2-22  
 EN 61000-3-2  
 EN 61000-3-3  
 EN 61347-1  
 EN 61347-2-13  
 EN 61547  
 EN 62384  
 EN 62493  
 Acc. to EN 50172: suitabel for central battery systems

**Overload protection**

Automatic shutdown of the LED Driver if the maximum output current is exceeded.  
 Automatic restart if the output current is below the limit.

**No-load operation**

The LED Driver is not damaged in no-load operation. The max. output voltage (see page1) can be obtained during no-load operation.

**Over temperature protection**

Automatic shutdown of the LED Driver if the temperature limit is exceeded.  
 Automatic restart if the temperature falls below the limit.

**Short-circuit behaviour**

In case of a short circuit on the secondary side (LED) the LED Driver switches into hiccup mode. After removal of the short-circuit fault the LED Driver will recover automatically.

**Expected life-time**

Type	Output voltage	ta	40 °C	50 °C	60 °C
LCU 100W 12V IP67 TOP	12 V	tc	60 °C	70 °C	80 °C
		Life-time	> 100,000 h	> 50,000 h	> 25,000 h

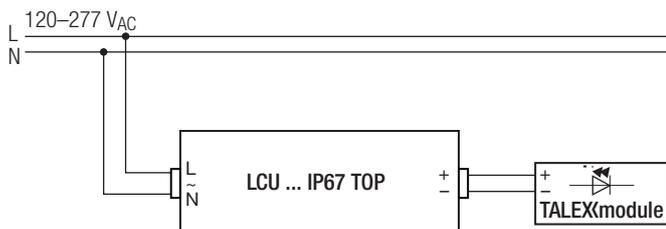
**Maximum loading of automatic circuit breakers**

Automatic circuit breaker type	C10	C13	C16	C20	B10	B13	B16	B20	Inrush current
Installation Ø	1.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>	I <sub>max</sub> time
LCU 100W 12V IP67 TOP	6	7	9	12	9	12	15	19	51.5A 99 µs

**Harmonic distortion in the mains supply (at 230V/50 Hz and full load) in %**

Type	THD	3	5	7	9	11
LCU 100W 12V IP67 TOP	10	3	2	2	2	1

**Wiring diagram**

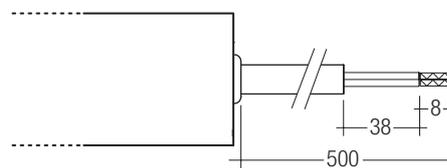


**Installation instructions**

The switching of LEDs on secondary side is not permitted.  
 A proper functioning of the LCU in combination with third party dimming devices (e.g. PWM) cannot be guaranteed.

**Connection**

Primary cable		Secondary cable	
L	N	+	-
brown	blue	red	black



**PRI:**  
 Ø 7.7 ±0.2 mm; 2 x 1.04 mm<sup>2</sup> (17 AWG)

**SEC:**  
 LCU 100W 12V IP67 TOP:  
 Ø 8.7 ±0.2 mm; 2 x 2.08 mm<sup>2</sup> (14 AWG)

**Isolation and electric strength testing of luminaires**

Electronic devices can be damaged by high voltage. This has to be considered during the routine testing of the luminaires in production.

According to IEC 60598-1 Annex Q (informative only!) or ENEC 303-Annex A, each luminaire should be submitted to an isolation test with 500V<sub>DC</sub> for 1 second. This test voltage should be connected between the interconnected phase and neutral terminals and the earth terminal.

The isolation resistance must be at least 2 MΩ.

As an alternative, IEC 60598-1 Annex Q describes a test of the electrical strength with 1500V<sub>AC</sub> (or 1.414 x 1500V<sub>DC</sub>). To avoid damage to the electronic devices this test must not be conducted.

**Additional information**

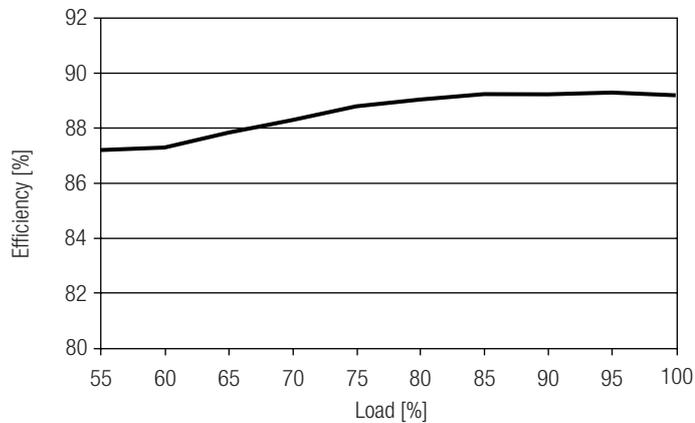
Additional technical information at [www.tridonic.com](http://www.tridonic.com) → Technical Data

Guarantee conditions at [www.tridonic.com](http://www.tridonic.com) → Services

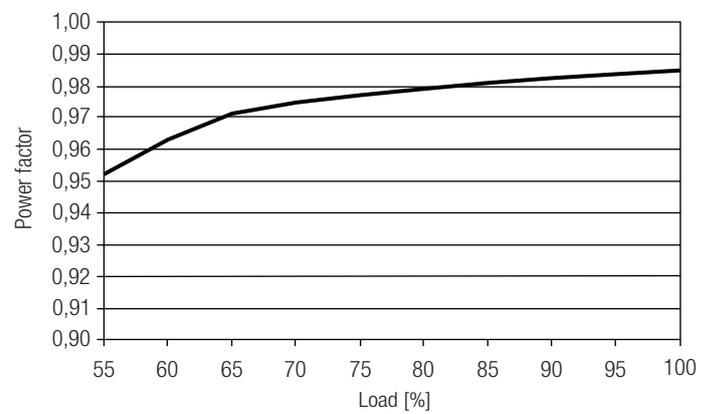
No warranty if device was opened.

**Diagrams for 12 V**

Efficiency vs load



Power factor vs load



THD vs load

