IP20 SELV ⌁ ▽ ⊟ 𝗘𝗛𝗖 ⓒⓒ △ CE ⧉ RoHS

TALEXCdriver LCI 10 W 350 mA TEC lp
TEC series

Product description

- Fixed output built-in LED control gear
- Constant current LED control gear
- Output current 350 mA
- Max. output power 10 W
- Nominal life-time up to 50,000 h
- For luminaires of protection class I and protection class II
- Temperature protection as per EN 61347-2-13 C5e
- 5-year guarantee

Properties

- Casing: polycarbonat, white
- Type of protection IP20

Functions

- Overtemperature protection
- Overload protection
- Short-circuit protection
- No-load protection

Technical data

Rated supply voltage	220 – 240 V
AC voltage range	198 – 264 V
Typ. rated current (at 230 V, 50 Hz, full load)	0.07 A
Mains frequency	50 / 60 Hz
Overvoltage protection	300 V AC, 1 h
Typ. power consumption (at 230 V, 50 Hz, full load)	12 W
Max. input power	12.5 W
Output power	10 W
Output current tolerance	± 7.5 %
Typ. current ripple (at 230 V, 50 Hz, full load)	± 20 %
Turn on time (at 230 V, 50 Hz, full load)	≤ 0.7 s
Turn off time (at 230 V, 50 Hz, full load)	≤ 0.7 s
Hold on time at power failure	0 s
Ambient temperature ta	-20 ... +50 °C
Ambient temperature ta (at life-time 50,000 h)	40 °C
Max. casing temperature tc	80 °C
Storage temperature ts	-40 ... +80 °C
Dimensions L x W x H	145 x 22 x 21 mm

→

Standards, page 2

Wiring diagrams and installation examples, page 3

21
145
136
4.2
22
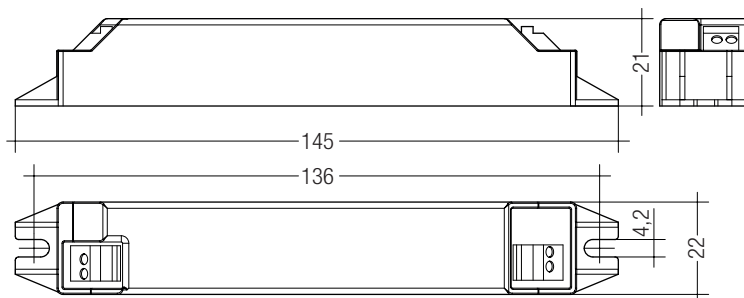
Ordering data

Type	Article number	Packaging, carton	Packaging, low volume	Packaging, high volume	Weight per pc.
LCI 10W 350mA TEC lp	87500219	25 pc(s).	1,150 pc(s).	8,050 pc(s).	0.047 kg

Specific technical data

Type	Output current	Power factor at full load[1]	Efficiency at full load[1]	Power factor at min. load[1]	Efficiency at min. load[1]	Min. forward voltage[1]	Max. forward voltage[1]	Max. output voltage	Max. peak output current[1]
LCI 10W 350mA TEC lp	350 mA	0.75C	83 %	0.70C	79 %	13 V	29 V	33 V	460 mA

[1] Test result at 230 V, 50 Hz.

Standards
EN 55015
EN 61000-3-2
EN 61000-3-3
EN 61347-1
EN 61347-2-13
EN 61547
EN 62384

Overload protection
If the output voltage range is exceeded the LED control gear reduces the LED output current. After elimination of the overload the nominal operation is restored automatically.

Overtemperature protection
The LED control gear is protected against temporary thermal overheating. If the temperature limit is exceeded the the output current is reduced to limit tc at a certain level. The temperature protection is activated typically at 10 °C above tc max.

Short-circuit behaviour
In case of a short circuit on the secondary side (LED) the LED control gear switches into hic-cup mode. After the removal of the short-circuit fault the LED control gear will recover automatically.

No-load operation
The LED control gear works in constant voltage mode. In no-load operation the output voltage will not exceed the specified max. output voltage (see page 1).

Storage conditions

Humidity:	5 % up to max. 85 %, not condensed (max. 56 days/year at 85 %)

Storage temperature: -40 °C up to max. +80 °C

The devices have to be within the specified temperature range (ta) before they can be operated.

Mounting of device
Max. torque for fixing: 0.5 Nm/M4

Expected life-time

Type	ta	40 °C	50 °C	60 °C
LCI 10W 350mA TEC lp	tc	70 °C	80 °C	x
	Life-time	50,000 h	30,000 h	x

The LED Driver is designed for a life-time stated above under reference conditions and with a failure probability of less than 10 %.

Maximum loading of automatic circuit breakers

| Automatic circuit breaker type	C10	C13	C16	C20	B10	B13	B16	B20	Inrush current	
Installation Ø	1.5 mm²	1.5 mm²	1.5 mm²	2.5 mm²	1.5 mm²	1.5 mm²	1.5 mm²	2.5 mm²	Imax	Time
LCI 10W 350mA TEC lp	120	160	200	240	60	80	100	120	10 A	100 µs

Installation instructions

The LED module and all contact points within the wiring must be sufficiently insulated against 2.5 kV surge voltage.
Air and creepage distance must be maintained.

Replace LED module

1. Mains off
2. Remove LED module
3. Wait for 20 seconds
4. Connect LED module again

Hot plug-in or secondary switching of LEDs is not permitted and may cause a very high current to the LEDs.

Wiring diagram
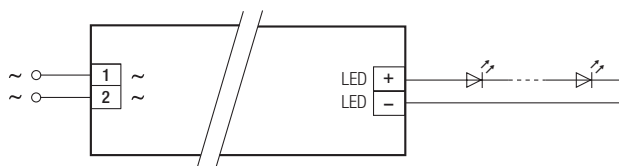
Glow wire test according to IEC 60695-2-11

960 °C passed.

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.
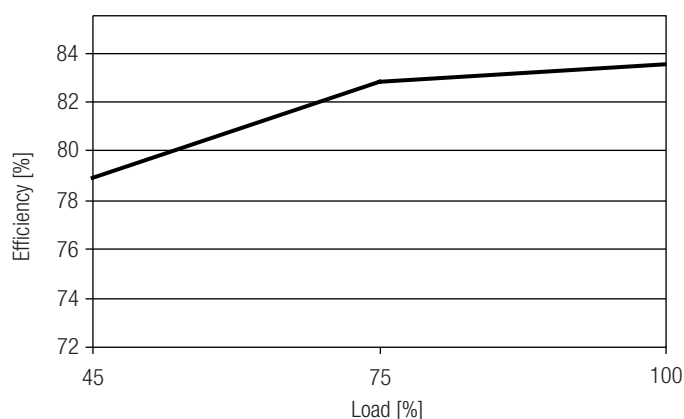
According to IEC 60598-1 Annex Q (informative only!) or ENEC 303-Annex A, each luminaire should be submitted to an isolation test with 500 V DC for 1 second. This test voltage should be connected between the interconnected phase and neutral terminals and the earth terminal.
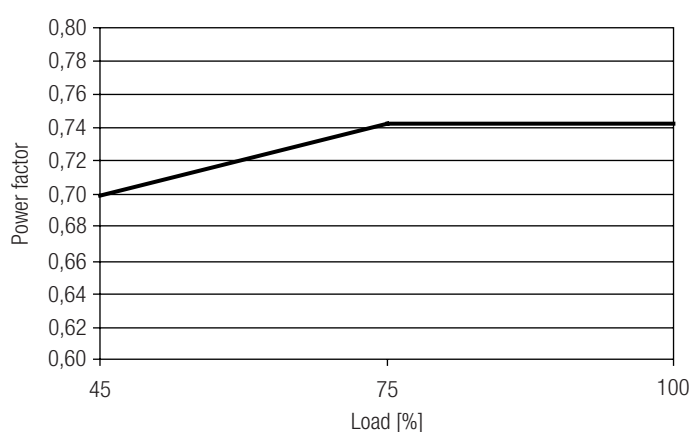The isolation resistance must be at least 2 MΩ.

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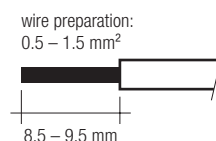
Wiring type and cross section

The wiring can be in stranded wires with ferrules or solid with a cross section of 0.5 – 1.5 mm².
Strip 9.5 mm of insulation from the cables to ensure perfect operation of push-wire terminals.

wire preparation:
0.5 – 1.5 mm²

8.5 – 9.5 mm

Wiring guidelines

• All connections must be kept as short as possible to ensure good EMI behaviour.
• Mains leads should be kept apart from LED control gear and other leads (ideally 5 – 10 cm distance)
• Max. lenght of output wires is 2 m.
• Secondary switching is not permitted.
• Incorrect wiring can demage LED modules.
• Through wiring of mains is connecting additional LED Driver only. Max. permanent current of 7 A may not be exceeded.
• The wiring must be protected against short circuits to earth (sharp edged metal parts, metal cable clips, louver, etc.).

Release of the wiring

Press down the "push button" and remove the cable from front.
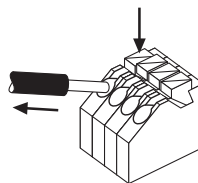
Additional information

Additional technical information at www.tridonic.com → Technical Data

Guarantee conditions at www.tridonic.com → Services

Life-time declarations are informative and represent no warranty claim.
No warranty if device was opened.

Diagrams LCI 10W 350mA TEC lp

Efficiency vs load

Power factor vs load