IP20 SELV RoHS

# TALEXconverter LCI 15 W 350/500/700 mA stepDIM lp

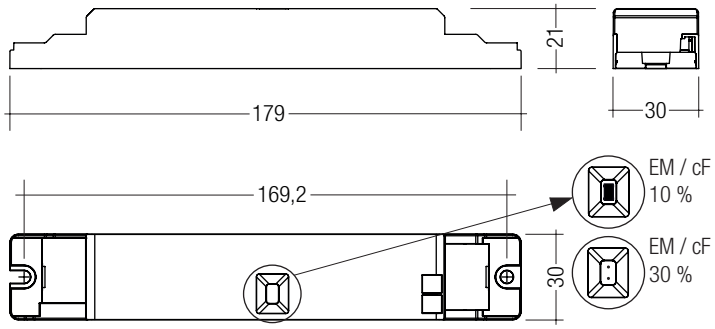
BASIC series

## Product description

- Constant current LED control gear for luminaire installation
- Implemented stepDIM function
- 10 or 30 % dimming level settable
- Can be used with a standard motion detector (Simple CORRIDOR FUNCTION)
- Nominal life of 50,000 h (at ta max. with a failure rate of max. 0.2 % per 1,000 h)
- 350, 500 or 700 mA output current
- Push-in terminals
- Connecting cable, cable cross-section 0.5 – 1.5 mm²
- Output power 15/16/16.5 W
- SELV
- Type of protection IP20
- Output dimmed analogue (current amplitude)

## Properties

- Casing: polycarbonat, white
- Compact dimensions
- Overload protection
- Short-circuit protection
- No-load protection




## Technical data

| | |
|---|---|
| Rated supply voltage | 220 – 240 V |
| Input voltage, AC | 198 – 264 V |
| Input voltage, DC | 176 – 280 V |
| Mains frequency | 0 / 50 / 60 Hz |
| Output current tolerance (normal operation 100 %) | ± 7.5 % |
| Typ. current ripple (at 230 V, 50 Hz, full load) | ± 15 % |
| Max. repetitive output peak current | output current + 24 % |
| Max. non-repetitive output peak current | output current + 24 % |
| Power factor at full load① | 0.99 |
| Power factor at min. load① | 0.97C |
| Turn on time (at 230 V, 50 Hz, full load) | ≤ 0.1 s |
| Turn off time (at 230 V, 50 Hz, full load) | ≤ 0.1 s |
| Hold on time at power failure (output) | 0 s |
| Storage temperature ts | -40 ... +85 °C |
| Max. output voltage | 60 V |
| Dimensions L x W x H | 179 x 30 x 21 mm |

## Ordering data

| Type | Article number | Packaging, carton | Packaging, pallet | Weight per pc. |
|---|---|---|---|---|
| **LCI 15W 350mA stepDIM lp** | **89800277** | 10 pc(s). | 800 pc(s). | 0.064 kg |
| **LCI 15W 500mA stepDIM lp** | **89800278** | 10 pc(s). | 800 pc(s). | 0.066 kg |
| **LCI 15W 700mA stepDIM lp** | **89800279** | 10 pc(s). | 800 pc(s). | 0.065 kg |

→

**Standards**, page 3

**Wiring diagrams and installation examples**, page 3

## Specific technical data

| Type | Typ. output current | Output current tolerance | Min. forward voltage | Max. forward voltage | Typ. output power | Typ. power consumption | Typ. current consumption | tc point | Ambient temperature ta |
|---|---|---|---|---|---|---|---|---|---|
| **Normal operation 100 % (LCI 15W 350mA)** | | | | | | | | | |
| **LCI 15W 350mA stepDIM Ip** | 350 mA | ± 7.5 % | 21.0 V | 46.0 V | 16.0 W | 20.0 W | 89 mA | 90 °C | -25 ... +50 °C |
| **Operation cF / EM 30 % (LCI 15W 350mA)** | | | | | | | | | |
| **LCI 15W 350mA stepDIM Ip** | 105 mA | ± 25 % | 21.0 V | 46.0 V | 4.8 W | 6.2 W | 60 mA | 90 °C | -25 ... +50 °C |
| **Operation cF / EM 10 % (LCI 15W 350mA)** | | | | | | | | | |
| **LCI 15W 350mA stepDIM Ip** | 35 mA | ± 25 % | 21.0 V | 46.0 V | 1.6 W | 2.7 W | 19 mA | 90 °C | -25 ... +50 °C |
| **Normal operation 100 % (LCI 15W 500mA)** | | | | | | | | | |
| **LCI 15W 500mA stepDIM Ip** | 500 mA | ± 7.5 % | 13.5 V | 33.5 V | 16.5 W | 20.5 W | 86 mA | 85 °C | -25 ... +55 °C |
| **Operation cF / EM 30 % (LCI 15W 500mA)** | | | | | | | | | |
| **LCI 15W 500mA stepDIM Ip** | 150 mA | ± 25 % | 13.5 V | 33.5 V | 4.9 W | 6.3 W | 57 mA | 85 °C | -25 ... +55 °C |
| **Operation cF / EM 10 % (LCI 15W 500mA)** | | | | | | | | | |
| **LCI 15W 500mA stepDIM Ip** | 50 mA | ± 25 % | 13.5 V | 33.5 V | 1.7 W | 3.0 W | 20 mA | 85 °C | -25 ... +55 °C |
| **Normal operation 100 % (LCI 15W 700mA)** | | | | | | | | | |
| **LCI 15W 700mA stepDIM Ip** | 700 mA | ± 7.5 % | 10.0 V | 21.5 V | 15.0 W | 19.0 W | 84 mA | 85 °C | -25 ... +55 °C |
| **Operation cF / EM 30 % (LCI 15W 700mA)** | | | | | | | | | |
| **LCI 15W 700mA stepDIM Ip** | 210 mA | ± 25 % | 10.0 V | 21.5 V | 4.5 W | 5.8 W | 51 mA | 85 °C | -25 ... +55 °C |
| **Operation cF / EM 10 % (LCI 15W 700mA)** | | | | | | | | | |
| **LCI 15W 700mA stepDIM Ip** | 70 mA | ± 25 % | 10.0 V | 21.5 V | 1.5 W | 3.0 W | 21 mA | 85 °C | -25 ... +55 °C |

[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.

### 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 current mode. In no-load operation there is the max. output voltage at the output (see page 1).

### Installation instructions
Note the requirements set out in the document
LED_driver_installation_advise.pdf
(http://www.tridonic.com/com/en/technical-data.asp).

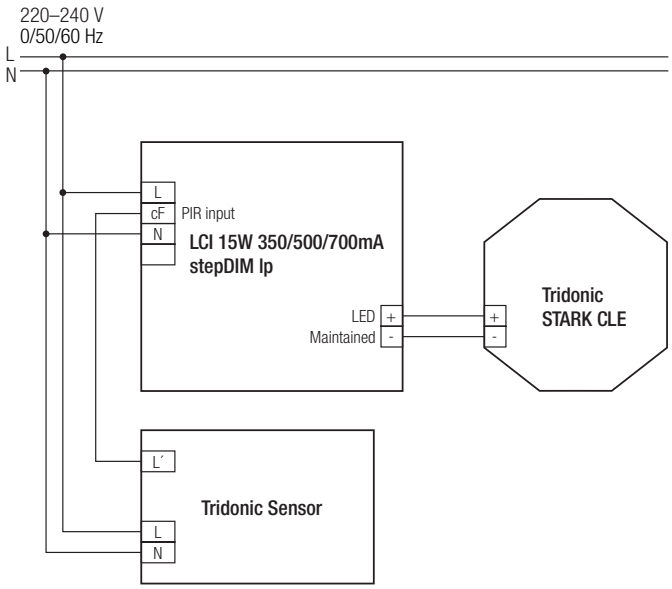
Hot plug-in or secondary switching of LEDs is not permitted and may cause a very high current to the LEDs.

### Glow wire test
according to IEC 60695-2-11 with increased of 960 °C passed.

**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 | $I_{max}$ | Time |
| **LCI 15W 350mA stepDIM lp** | 50 | 65 | 80 | 100 | 50 | 65 | 80 | 100 | 2 A | 70 µs |
| **LCI 15W 500mA stepDIM lp** | 50 | 65 | 80 | 100 | 50 | 65 | 80 | 100 | 2 A | 70 µs |
| **LCI 15W 700mA stepDIM lp** | 50 | 65 | 80 | 100 | 50 | 65 | 80 | 100 | 2 A | 70 µs |

### Wiring diagram with sensor



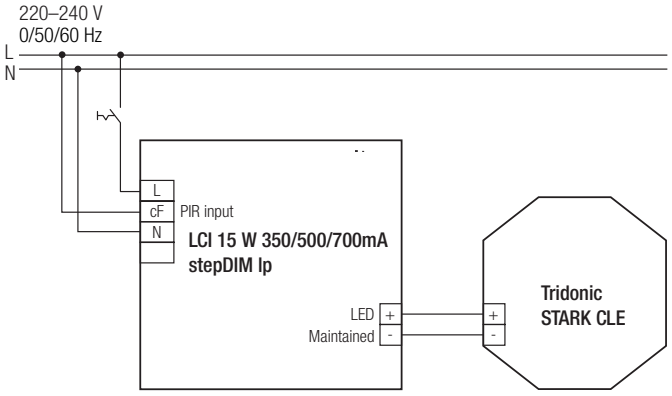

### Switching behaviour:

| L | cF | Jumper | Output LED |
|---|---|---|---|
| off | off | set / not set | off |
| off | on | set / not set | off |
| on | off | set | 10 % |
| on | off | not set | 30 % |
| on | on | set / not set | 100 % |

### DC operation behaviour:
Emergency level at 10 %

The sensor is not activ in DC operation.

### Wiring diagram normal operation with EM mode




PIR input ≙ 230 V

The mains power must be removed before changing the LED load.

Secondary switching of LEDs is not allowed and may cause damage to the LEDs.

### DC operation behaviour:

The emergency level (10 % or 100 %) depends on the polarity of the DC voltage.

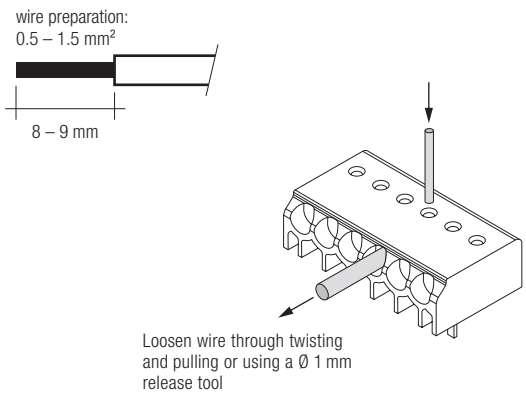
| | | | | |
|---|---|---|---|---|
| **L** | + | – | + | – |
| **N** | – | + | – | + |
| **CF** | + | – | – | + |
| **Emergency level** | 100 % | 10 / 30 %* | 10 / 30 %* | 100 % |

* depending on the jumper setting (set: 10 %, not set: 30 %)

## Electrical connections

### Wiring

LED module/LED control gear/supply




### Wiring type and cross section

Solid wire with a cross section of 0.5 – 1.5 mm². Strip 8 – 9 mm of insulation from the cables to ensure perfect operation of terminals.

### Mounting of device

Max. torque for fixing: 0.5 Nm/M4

### 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. length of output wires is 30 cm.
- Incorrect wiring can demage LED modules.
- The wiring must be protected against short circuits to earth (sharp edged metal parts, metal cable clips, louver, etc.).

### 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.

### 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.