











































IP20 SELV                                             

#### Specific technical data

Type	Output current <sup>①</sup>	$\lambda$ at full load <sup>②</sup>	Efficiency at full load <sup>③</sup>	$\lambda$ at min. load <sup>②</sup>	Efficiency at min. load <sup>③</sup>	Min. forward voltage <sup>①</sup>	Max. forward voltage <sup>①</sup>	Max. output voltage	Max. peak output current at full load <sup>③④</sup>	Max. peak output current at min. load <sup>③④</sup>	Max. casing temperature $t_c$
<b>LCI 42W 900mA TEC SR</b>	900 mA	0.98	90.0 %	0.95	86 %	23 V	47 V	60 V	1,360 mA	1,690 mA	75 °C
<b>LCI 42W 1050mA TEC SR</b>	1,050 mA	0.98	90.0 %	0.95	85 %	20 V	40 V	50 V	1,610 mA	1,890 mA	80 °C

<sup>①</sup> Test result at 230 V, 50 Hz.

<sup>②</sup> The trend between min. and full load is linear.

<sup>③</sup> Output current is mean value.

## Standards

EN 55015  
EN 60598-1  
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 Driver reduces the LED output current. After elimination of the overload, the nominal operation is restored automatically.

## Overtemperature protection

The LED Driver is protected against temporary thermal overheating. If the temperature limit is exceeded the output current is reduced to limit  $t_c$  at a certain level. It restarts automatically. The temperature protection is activated typically at 10 °C above  $t_c$  max.

## Short-circuit behaviour

In case of a short circuit on the secondary side (LED) the LED Driver switches into hic-cup mode. After elimination of the short circuit the nominal operation is restored automatically.

## No-load operation

The LED Driver works in constant voltage mode. In no-load operation the output voltage will not exceed the specified max. output voltage (see page 2).

## 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 60 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.

## Expected life-time

Type	$t_a$	40 °C	50 °C	60 °C
<b>LCI 42W 900mA TEC SR</b>	$t_c$	65 °C	75 °C	x
	Life-time	50,000 h	30,000 h	x
<b>LCI 42W 1050mA TEC SR</b>	$t_c$	70 °C	80 °C	x
	Life-time	50,000 h	30,000 h	x

The LED Drivers are 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

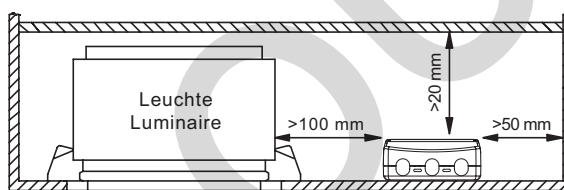
Automatic circuit breaker type	C10	C13	C16	C20	B10	B13	B16	B20	Inrush current	
Installation Ø	1.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>	$I_{max}$	Time
<b>LCI 42W 900mA TEC SR</b>	33	50	66	83	25	38	50	58	10 A	100 µs
<b>LCI 42W 1050mA TEC SR</b>	33	50	66	83	25	38	50	58	10 A	100 µs

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

	THD	3.	5.	7.	9.	11.
<b>LCI 42W 900mA TEC SR</b>	20	8	2	2	2	1
<b>LCI 42W 1050mA TEC SR</b>	20	8	2	2	2	2

## Fixing conditions

Dry, acidfree, oilfree, fatfree. It is not allowed to exceed the maximum ambient temperature ( $t_a$ ) stated on the device. Minimum distances stated below are recommendations and depend on the actual luminaire. Is not suitable for fixing in corner.

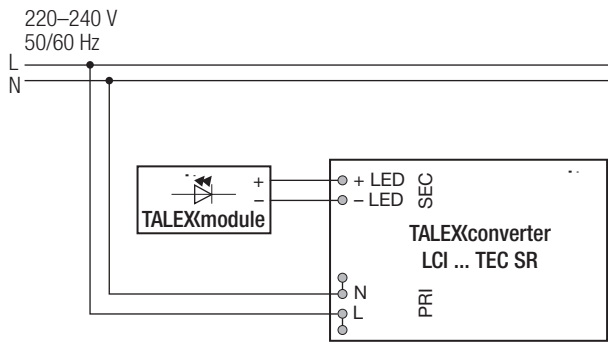


## Conditions of use and storage

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 ( $t_a$ ) before they can be operated.

**Wiring diagram****Glow-wire test**

according to EN 60598-1 with increased temperature of 850 °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<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 1500 V<sub>AC</sub> (or 1414 x 1000 V<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

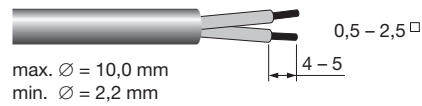
Guarantee conditions at [www.tridonic.com](http://www.tridonic.com) → Services

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

**Wiring type and cross section**

The wiring can be in stranded wires with ferrules or solid. For perfect function of the cage clamp terminals the strip length should be 4 – 5 mm for the input terminal.

The max. torque at the clamping screw (M3) is 0.2 Nm.

**Input / Output terminal****Wiring instructions**

The secondary leads should be separated from the mains connections and wiring for good EMC performance.

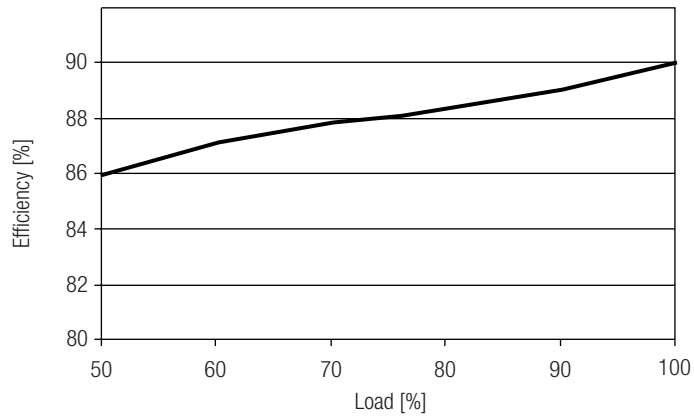
The maximum lead length on secondary side is 2 m. For a good EMC performance keep the LED wiring as short as possible.

**Wiring guidelines**

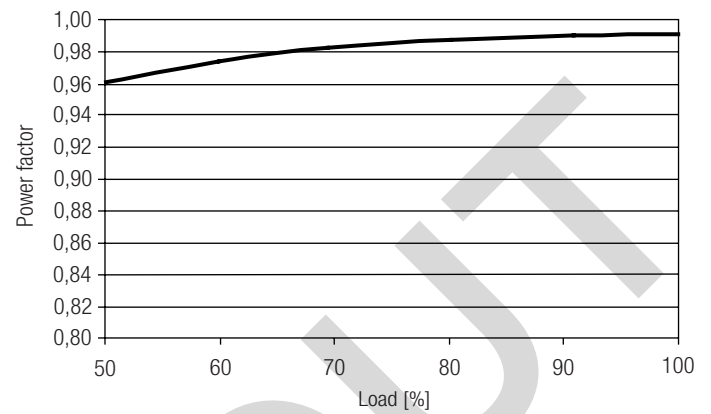
- All connections must be kept as short as possible to ensure good EMI behaviour.
- Mains leads should be kept apart from LED Driver and other leads (ideally 5 – 10 cm distance)
- Max. length of output wires is 2 m.
- Secondary switching is not permitted.
- Incorrect wiring can damage LED modules.
- Through wiring of mains is connecting additional LED Driver only. Max. permanent current of 16 A may not be exceeded.
- To avoid the damage of the Driver, the wiring must be protected against short circuits to earth (sharp edged metal parts, metal cable clips, louver, etc.).

**Diagrams LCI 42W 900mA TEC SR**

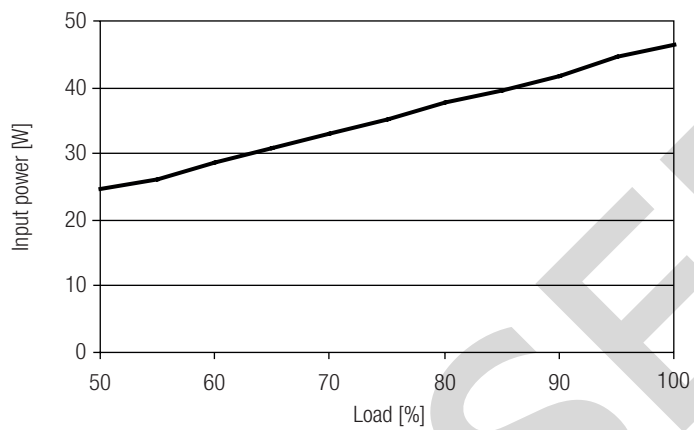
Efficiency vs load



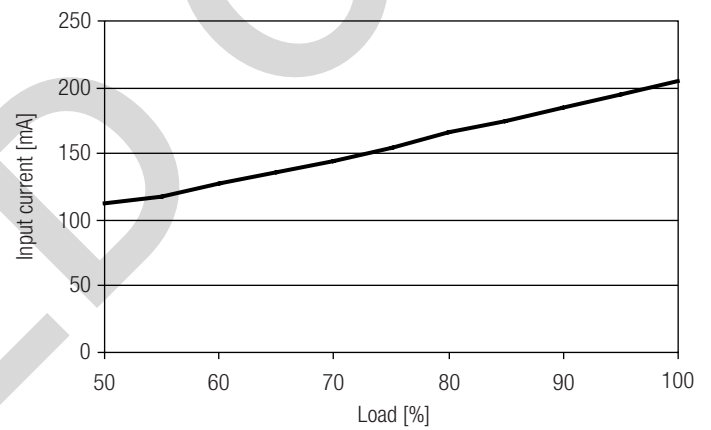
Power factor vs load



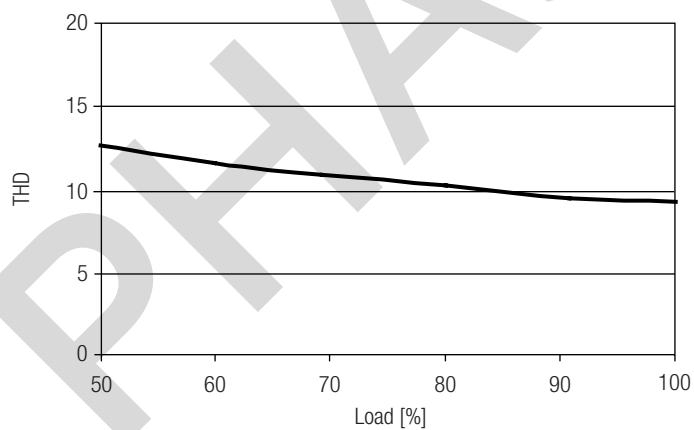
Input power vs load



Input current vs load

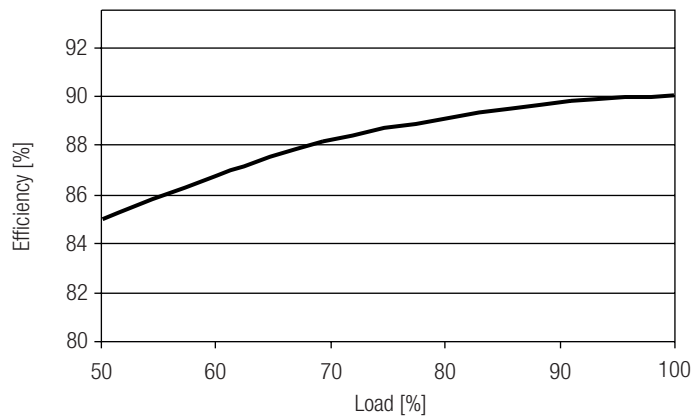


THD vs load

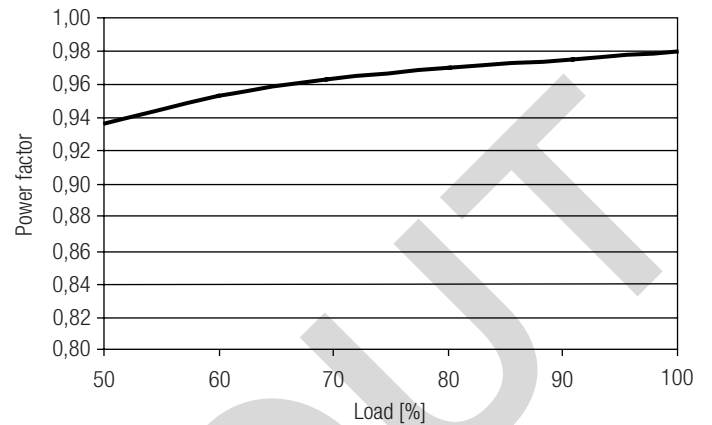


**Diagrams LCI 42W 1,050mA TEC SR**

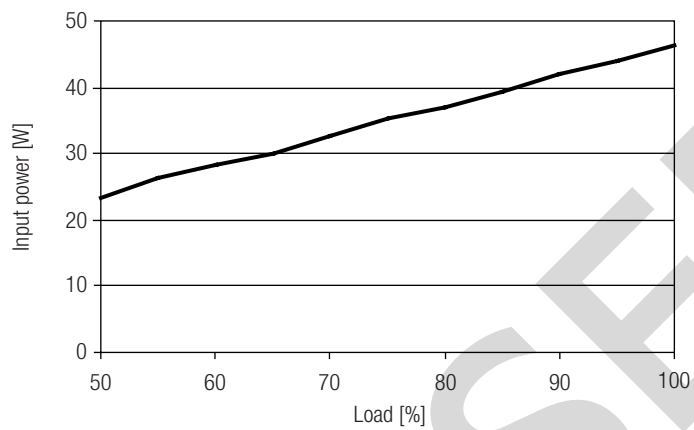
Efficiency vs load



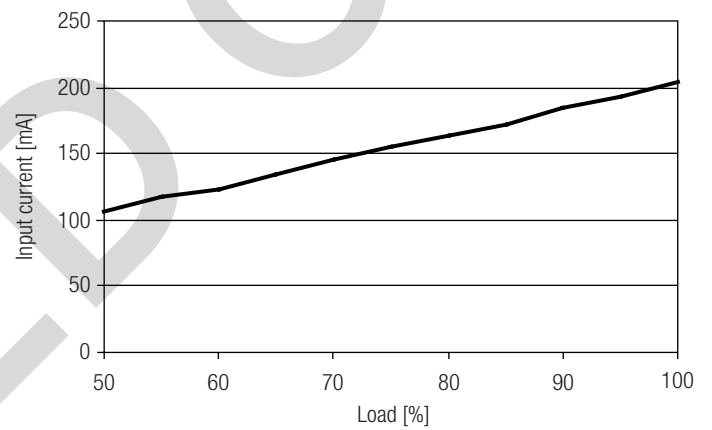
Power factor vs load



Input power vs load



Input current vs load



THD vs load

