

IP20 SELV 

## TALEXconverter LCBI 15 W 350/500/700 mA BASIC phase-cut SR BASIC series

### Product description

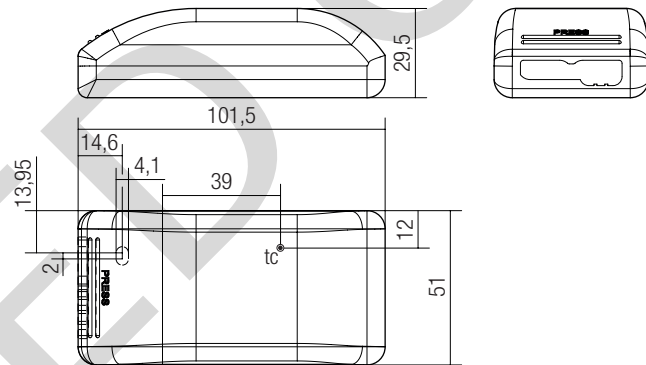
- Dimmable via leading-edge and trailing-edge phase dimmer
- Nominal life of 50,000 h (at ta max. 50 °C with a failure rate of max. 0.2 % per 1,000 h)
- 350, 500 or 700 mA output current
- Screw terminals
- Connecting cable, wire cross-section 0.5 – 2.5 mm<sup>2</sup>
- Output power 14/15 W
- SELV
- Type of protection IP20
- Output dimmed analogue (current amplitude)
- Dimming range typ. 5 to 100 % (depending on dimmer)

### 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
Mains frequency	50 / 60 Hz
Typ. rated current (at 230 V, 50 Hz, full load)	0.09 A
Power factor at full load <sup>①</sup>	0.99
Power factor at min. load <sup>②</sup>	0.97
Output current tolerance at full load <sup>③</sup>	± 7.5 %
Typical ripple current at full load	± 30 %
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
Ambient temperature ta	-25 ... +50 °C
Storage temperature ts	-40 ... +85 °C
Dimensions L x W x H	102 x 51 x 30 mm



### Ordering data

Type	Article number	Packaging, carton	Packaging, pallet	Weight per pc.
LCBI 15W 350mA BASIC phase-cut SR	89800266	20 pc(s).	1,000 pc(s).	0.075 kg
LCBI 15W 500mA BASIC phase-cut SR	89800267	20 pc(s).	1,000 pc(s).	0.075 kg
LCBI 14W 700mA BASIC phase-cut SR	89800268	20 pc(s).	1,000 pc(s).	0.075 kg



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### Specific technical data

Type	Efficiency at full load <sup>①</sup>	Efficiency at min. load <sup>②</sup>	Output current	Max. repetitive output peak current at full load <sup>③</sup>	Max. repetitive output peak current at min. load <sup>④</sup>	Max. non-repetitive output peak current at full load <sup>⑤</sup>	Max. non-repetitive output peak current at min. load <sup>⑥</sup>	Max. forward voltage <sup>⑦</sup>	Min. forward voltage <sup>⑧</sup>	Max. output voltage <sup>⑨</sup>	Max. input power	Max. output power
LCBI 15W 350mA BASIC phase-cut SR	78 %	76 %	350 mA	540 mA	760 mA	540 mA	760 mA	42.0 V	21.0 V	51 V	19 W	15 W
LCBI 15W 500mA BASIC phase-cut SR	77 %	75 %	500 mA	780 mA	1,030 mA	780 mA	1,030 mA	30.0 V	13.5 V	34 V	20 W	15 W
LCBI 14W 700mA BASIC phase-cut SR	76 %	74 %	700 mA	1,240 mA	1,580 mA	1,240 mA	1,580 mA	20.0 V	10.0 V	24 V	19 W	14 W

<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 tolerance at min. load max. 22 %.

<sup>④</sup> At failure mode.

### 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-docs.asp>).

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

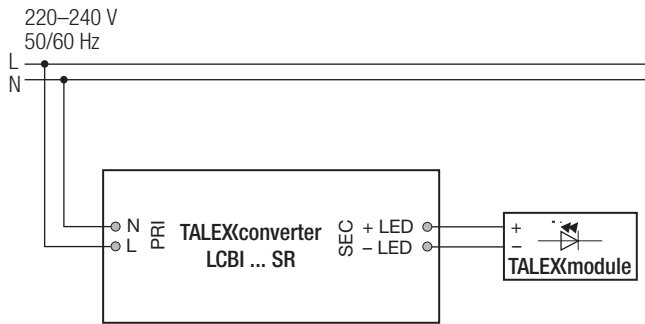
### Expected life-time

Type	ta	40 °C	45 °C	50 °C	60 °C
LCBI 15W 350mA BASIC phase-cut SR	tc	75 °C	80 °C	85 °C	x
	Life-time	100,000 h	70,000 h	50,000 h	x
LCBI 15W 500mA BASIC phase-cut SR	tc	75 °C	80 °C	85 °C	x
	Life-time	100,000 h	70,000 h	50,000 h	x
LCBI 14W 700mA BASIC phase-cut SR	tc	75 °C	80 °C	85 °C	x
	Life-time	100,000 h	70,000 h	50,000 h	x

### 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>
LCBI 15W 350mA BASIC phase-cut SR	50	65	80	100	50	65	80	100	1.7 A	40 µs
LCBI 15W 500mA BASIC phase-cut SR	50	65	80	100	50	65	80	100	1.7 A	40 µs
LCBI 14W 700mA BASIC phase-cut SR	50	65	80	100	50	65	80	100	1.7 A	40 µs

### Wiring diagram



### Glow wire test

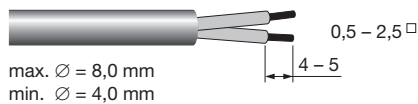
according to EN 60598-1 with increased temperature of 850 °C passed.

### Wiring type and cross section

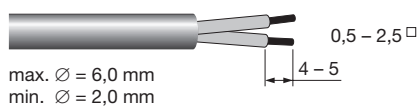
The wiring can be in stranded wires with ferrules or solid. For perfect function of the cage clamp terminals the strip length should be 4 – 5 mm for the input terminal.

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

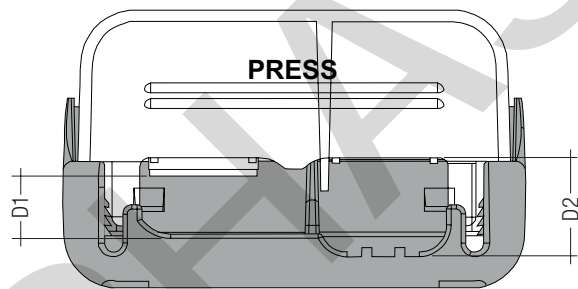
### Input terminal (D2)



### Output terminal (D1)



To get a proper working strain relief it is recommended that the cable jacket diameter of the side D2 is compared to the side D1 terminal according to the value table. (This can vary if the used cable jacket material varies from side D2 to D1 in pinching property).



Depending on the used flaps of the terminal following cable jacket diameter difference between the side D2 and D1 terminals is recommended:

Side D1		Side D2		Difference D2 - D1
With flap	Without flap	With flap	Without flap	
x	–	–	x	4 mm
–	x	–	x	2 mm
x	–	x	–	2 mm
–	x	x	–	0 mm

### Wiring instructions

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

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

### 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 M $\Omega$ .

As an alternative, IEC 60598-1 Annex Q describes a test of the electrical strength with 1500 V<sub>AC</sub> (or 1.414 x 1500 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

No warranty if device was opened.