

IP20 SELV 

### Driver LCBI 8 W 350 mA basic PHASE-CUT SR ADV basic series

#### Product description

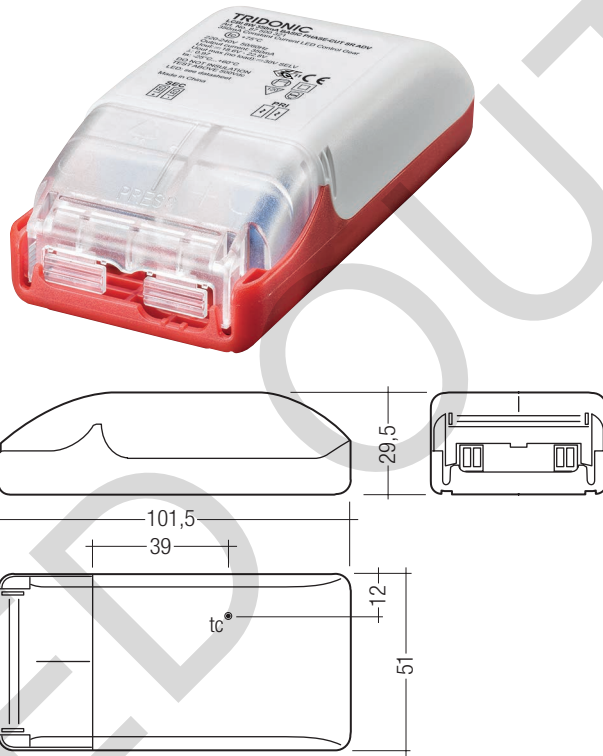
- Dimmable via leading-edge and trailing-edge phase dimmer
- Nominal life of 60,000 h (at ta max. 55 °C with a failure rate of max. 0.2 % per 1,000 h)
- 350 mA output current
- Screw terminals
- Connecting cable, wire cross-section 0.5 – 2.5 mm<sup>2</sup>
- Output power 8 W
- SELV
- Type of protection IP20
- Dimming range typ. 5 to 100 % (depending on dimmer)

#### Properties

- Casing: polycarbonat, white
- Compact dimensions
- Overload protection
- Short-circuit protection

#### Technical data

Rated supply voltage	220 – 240 V
AC voltage range	198 – 264 V
Mains frequency	50 / 60 Hz
Typ. rated current (at 230 V, 50 Hz, full load)	0.05 A
$\lambda$ at full load <sup>①</sup>	0.97
$\lambda$ at min. load <sup>②</sup>	0.96
Output current tolerance at full load <sup>③④</sup>	± 7.5 %
Typ. current ripple (at 230 V, 50 Hz, full load)	± 25 %
Starting 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 ... +60 °C
Ambient temperature ta (at life-time 60,000 h)	55 °C
Max. casing temperature tc	75 °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, low volume	Packaging, high volume	Weight per pc.
LCBI 8W 350mA basic PHASE-CUT SR ADV	87500321	20 pc(s).	440 pc(s).	2,200 pc(s).	0.17 kg

**Standards**, page 2

**Wiring diagrams and installation examples**, page 2

#### Specific technical data

Type	Efficiency at full load <sup>①</sup>	Efficiency at min. load <sup>②</sup>	Output current <sup>③</sup>	Max. repetitive output peak current at full load <sup>④⑤</sup>	Max. repetitive output peak current at min. load <sup>⑥⑦</sup>	Max. non-repetitive output peak current at full load <sup>⑧</sup>	Max. non-repetitive output peak current at min. load <sup>⑨</sup>	Max. forward voltage <sup>⑩</sup>	Min. forward voltage <sup>⑪</sup>	Max. output voltage <sup>⑫</sup>	Max. input power	Max. output power
LCBI 8W 350mA basic PHASE-CUT SR ADV	75 %	75 %	350 mA	520 mA	540 mA	520 mA	540 mA	22.8 V	18.6 V	30 V	11 W	8 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.

<sup>⑤</sup> Output current is mean value.

**Standards**

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

**Glow wire test**

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

**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.

**Short-circuit behaviour**

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

**No-load operation**

The LED Driver works in constant current mode. In no-load operation there is the max. output voltage at the output (see page 1).

**Installation instructions**

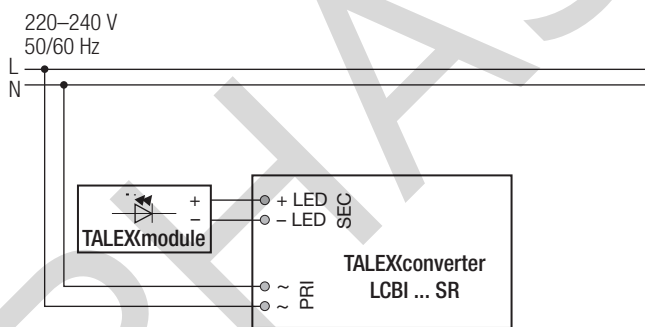
Note the requirements set out in the document LED\_driver\_installation\_advise.pdf (<http://www.tridonic.com/com/en/technical-docs.asp>).

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

**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>
<b>LCBI 8W 350mA basic PHASE-CUT SR ADV</b>	50	65	80	100	50	65	80	100	17 A	40 µs

**Wiring diagram**

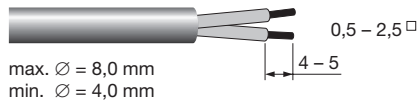


**Wiring type and cross section**

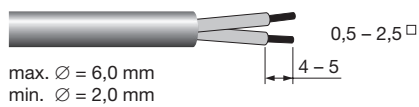
The wiring can be in stranded wires with ferrules or solid. For perfect function of the cage clamp terminals the strip length should be 4 – 5 mm for the input terminal.

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

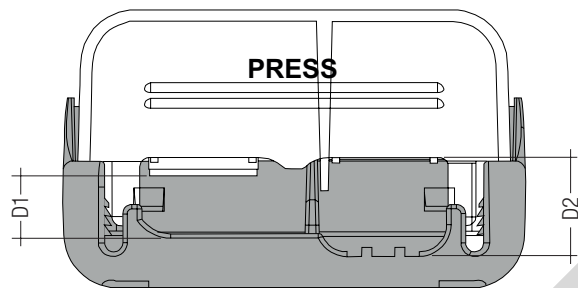
**Input terminal (D2)**



**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.

The secondary wires (LED module) should be routed in parallel to ensure good EMC performance.

Through wiring is not possible.

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.).

**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 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.