

**Driver LCBI 15 W 350/500/700 mA BASIC phase-cut Ip**  
BASIC series

## Product description

- Dimmable via leading edge and trailing edge phase dimmers
- Nominal life-time 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
- Push-in terminals
- Connecting cable, cable cross-section 0.5 – 1.5 mm<sup>2</sup>
- Output power 15/16 W
- SELV
- Type of protection IP20
- Output dimmed analogue (current amplitude)
- Dimming range typ. 5 to 100 % (depending on dimmer)



## Properties

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



**Standards**, page 3

**Wiring diagrams and installation examples**, page 4

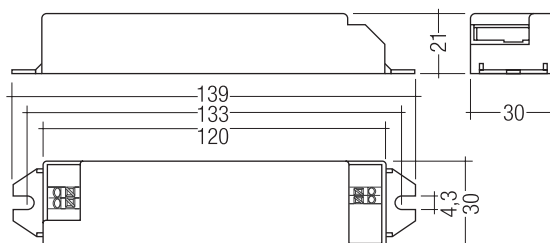
IP20 SELV    RoHS

### Driver LCBI 15 W 350/500/700 mA BASIC phase-cut Ip

BASIC series

#### 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)	0.1 A
$\lambda$ at full load <sup>①</sup>	0.99
$\lambda$ at min. load <sup>①</sup>	0.97C
Output current tolerance at full load <sup>②③④</sup>	± 7.5 %
Typ. current ripple (at 230 V, 50 Hz, 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 $t_a$	-25 ... +50 °C
Storage temperature $t_s$	-40 ... +85 °C
Dimensions L x W x H	139 x 30 x 21 mm



#### Ordering data

Type	Article number	Packaging, carton	Packaging, pallet	Weight per pc.
<b>LCBI 15W 350mA BASIC Ip</b>	<b>89800255</b>	25 pc(s).	1,200 pc(s).	0.053 kg
<b>LCBI 15W 500mA BASIC Ip</b>	<b>89800256</b>	25 pc(s).	600 pc(s).	0.053 kg
<b>LCBI 15W 700mA BASIC Ip</b>	<b>89800257</b>	25 pc(s).	600 pc(s).	0.053 kg

#### Specific technical data

Type	Efficiency at full load <sup>①</sup>	Efficiency at min. load <sup>①</sup>	Output current <sup>⑤</sup>	Max. repetitive output peak current at full load <sup>①②</sup>	Max. repetitive output peak current at min. load <sup>①②</sup>	Max. non-repetitive output peak current at full load <sup>①②</sup>	Max. non-repetitive output peak current at min. load <sup>①②</sup>	Max. forward voltage <sup>①</sup>	Min. forward voltage <sup>①</sup>	Max. output voltage <sup>⑥</sup>	Max. input power	Max. output power
<b>LCBI 15W 350mA BASIC Ip</b>	78 %	76 %	350 mA	540 mA	720 mA	540 mA	720 mA	46.0 V	21.0 V	51 V	21 W	16 W
<b>LCBI 15W 500mA BASIC Ip</b>	77 %	75 %	500 mA	840 mA	1,040 mA	840 mA	1,040 mA	30.0 V	13.5 V	34 V	20 W	15 W
<b>LCBI 15W 700mA BASIC Ip</b>	76 %	74 %	700 mA	1,280 mA	1,640 mA	1,280 mA	1,640 mA	21.5 V	10.0 V	24 V	20 W	15 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

### 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>).

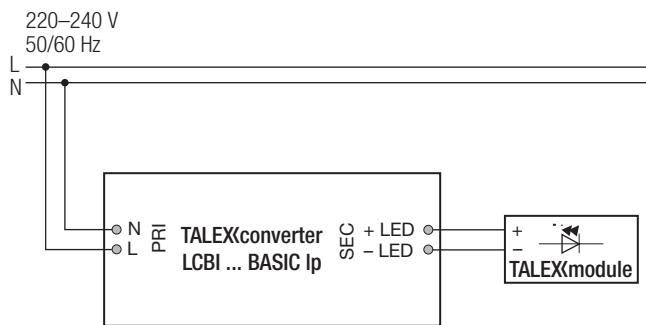
Hot plug-in or secondary switching of LEDs is not permitted and may cause a very high current to the LEDs.

### Expected life-time

Type	ta	40 °C	45 °C	50 °C	60 °C
<b>LCBI 15W 350mA BASIC Ip</b>	tc	75 °C	80 °C	85 °C	x
	Life-time	100,000 h	70,000 h	50,000 h	x
<b>LCBI 15W 500mA BASIC Ip</b>	tc	75 °C	80 °C	85 °C	x
	Life-time	100,000 h	70,000 h	50,000 h	x
<b>LCBI 15W 700mA BASIC Ip</b>	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>	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 <sub>max</sub>	Time
<b>LCBI 15W 350mA BASIC Ip</b>	50	65	80	100	50	65	80	100	1.7 A	40 µs
<b>LCBI 15W 500mA BASIC Ip</b>	50	65	80	100	50	65	80	100	1.7 A	40 µs
<b>LCBI 15W 700mA BASIC Ip</b>	50	65	80	100	50	65	80	100	1.7 A	40 µs

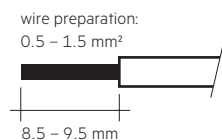
**Wiring diagram****Glow wire test according to IEC 60695-2-11**

850 °C passed.

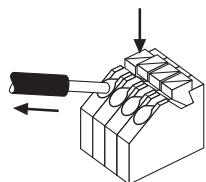
**Wiring type and cross section**

The wiring can be stranded wires with ferrules or rigid wires with a cross section of 0.5 – 1.5 mm<sup>2</sup>.

Strip 7.5 – 8.5 mm of insulation from the cables to ensure perfect operation of the push-wire terminals (WAGO 250).

**Release of the wiring**

Press down the “push button” and remove the cable from front.

**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 0.6 m. For a good EMC performance keep the the LED wiring as short as 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.).

**Mounting of device**

Max. torque for fixing: 0.5 Nm/M4

**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 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

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