

IP67 SELV     

**Driver LCI 15 W 350/500/700 mA M020**  
TOP series

### Product description

- Independent LED Driver for LED modules
- Constant current LED Driver for outdoor use
- Output power 15 W
- Nominal life-time of 50,000 h (at  $t_a$  55°C with a failure rate of max. 0.2 % per 1,000 h)
- 5-year guarantee

### Properties

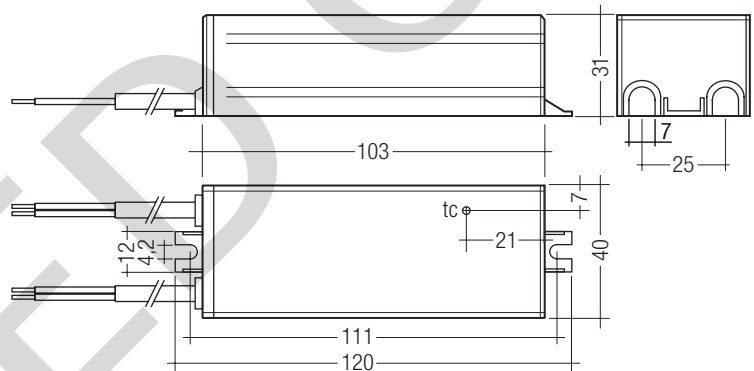
- Strain-relieved connection cable 0.5 m
- Type of protection IP67
- Casing: polycarbonate, white (UV resistant)

### Functions

- Overload protection by reduction of performance
- Overtemperature protection
- Short-circuit shutdown

### Technical data

Rated supply voltage	220 – 240 V
AC voltage range	198 – 264 V
Mains frequency	50 / 60 Hz
Typ. current (at 230 V / 50 Hz / full load)	0.15 A
Max. input power	18 W
Typ. input power in no-load operation	0,5 W
Typ. $\lambda$ (at 230 V / 50 Hz / full load)	> 0,5 C
Typ. efficiency (at 230 V / 50 Hz / full load)	> 85 %
Turn on time (at 230 V / 50 Hz / full load)	0,5 s
Turn off time (at 230 V / 50 Hz / full load)	1 s
Hold on time <sup>②</sup>	20 ms
Operating temperature range $t_a$ (at life-time 50,000 h)	-25 ... +55 °C
Max. casing temperature $t_c$	75 °C
Max. cable length <sup>③</sup>	15 m
Dimensions LxWxH	120 x 40 x 31 mm
Hole spacing	111 mm



### Ordering data

Type	Article number	Packaging carton	Packaging pallet	Weight per pcs.
<b>LCI 015/0350 M020</b>	<b>28000795</b>	10 pc(s).	600 pc(s).	0.248 kg
<b>LCI 015/0500 M020</b>	<b>28000796</b>	10 pc(s).	600 pc(s).	0.248 kg
<b>LCI 015/0700 M020</b>	<b>28000797</b>	10 pc(s).	600 pc(s).	0.248 kg

### Specific technical data

Type	Typ. output current	Output current tolerance	Output current ripple	Max. repetitive output peak current	Max. non-repetitive output peak current	Output voltage range	Max. output voltage <sup>①</sup>	Typ. output power
<b>LCI 015/0350 M020</b>	350 mA	± 5 %	± 15 %	425 mA	425 mA	3 – 43 V	52 V	15 W
<b>LCI 015/0500 M020</b>	500 mA	± 5 %	± 10 %	580 mA	580 mA	3 – 35 V	36 V	15 W
<b>LCI 015/0700 M020</b>	700 mA	± 5 %	± 10 %	810 mA	810 mA	3 – 25 V	26 V	15 W

<sup>①</sup> In no-load operation. No shutdown in no-load operation.

<sup>②</sup> At power failure.

<sup>③</sup> If same cable type diameter is used.

**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.

**Overtemperature protection**

The LED Driver is protected against temporary thermal overheating. If the temperature limit is exceeded the output current is reduced. The temperature protection is activated between 7 °C and 13 °C above  $t_c$  max (see page 1).

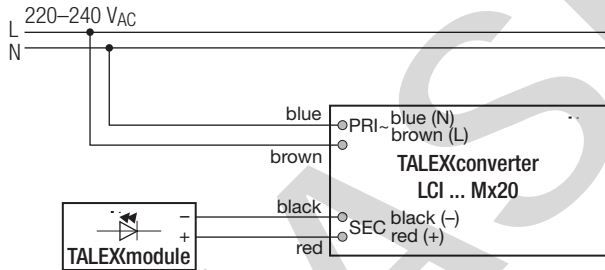
**Short-circuit behaviour**

In case of a short circuit on the secondary side (LED) the LED output is switched off. After elimination of the short circuit the nominal operation is restored automatically.

**Maximum loading of automatic circuit breakers**

Automatic circuit breaker type	C10	C13	C16	C20	B10	B13	B16	B20	Inrush current
Installation $\varnothing$	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 015/0350 M020</b>	30	40	50	60	15	20	25	30	20 A 150 $\mu$ s
<b>LCI 015/0500 M020</b>	30	40	50	60	15	20	25	30	20 A 150 $\mu$ s
<b>LCI 015/0700 M020</b>	30	40	50	60	15	20	25	30	20 A 150 $\mu$ s

**Wiring diagram**



Secondary switching of LEDs is not allowed and may cause damage to the LEDs. The hot plug-in of LEDs during normal operation may result in current peaks of up to 50% above the typical output current.

**Storage conditions**

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.

**Installation instructions**

Fastening the device: Max. torque 1 Nm / M4 or 1 Nm / ST3.9.

Please note that LCI 015/Oxxx M020 complies with protection class II so special measures are needed if it is to be installed in protection class I applications / luminaires.

Please note the requirements set out in the document LED\_Betriebsgeraete\_installationshinweis.pdf (<http://www.tridonic.com/com/de/technische-doku.asp>).

**No-load operation**

The LED Driver is not damaged in the no-load operation. The max. output voltage (see page 1) can be obtained during no-load operation.

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

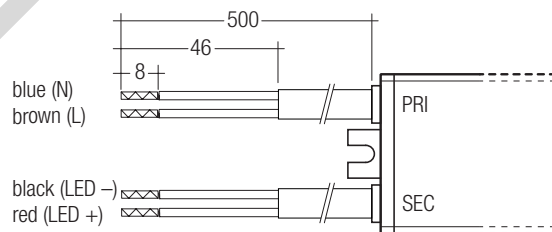
650 °C, 850 °C and 960 °C passed.

**Expected life-time**

Type		$t_a = 40\text{ °C}$	$t_a = 50\text{ °C}$	$t_a = 55\text{ °C}$
<b>LCI 015/0350 M020</b>	$t_c$	60 °C	70 °C	75 °C
	Life-time	> 100,000 h	75,000 h	50,000 h
<b>LCI 015/0500 M020</b>	$t_c$	60 °C	70 °C	75 °C
	Life-time	> 100,000 h	75,000 h	50,000 h
<b>LCI 015/0700 M020</b>	$t_c$	60 °C	70 °C	75 °C
	Life-time	> 100,000 h	75,000 h	50,000 h

**Wiring**

Cable: H07RN-F, 2 x 1,0 mm<sup>2</sup>, black, cable end with ferrules



**Remark**

The LED wiring should be kept as short as possible to ensure good EMC behaviour.

**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.
- Incorrect wiring can damage LED modules.
- 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.).

**Harmonic distortion in the mains supply**

EMC standard EN 61000-3-2 for lighting equipment with active input power  $\leq 25$  W.

All LED Driver comply with the standard EN 61000-3-2 to operate lighting equipment with an active input power  $\leq 25$  W where distortion limits for current drawn from the supply are 86 % for 3<sup>rd</sup> harmonic and 61% for 5<sup>th</sup> harmonic only.

**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

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