

IP67 SELV      RoHS

TALEXconverter LCI 15 W 350/500/700 mA M020 TOP series

Product description

- Independent LED control gear for LED modules
- Constant current LED control gear 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

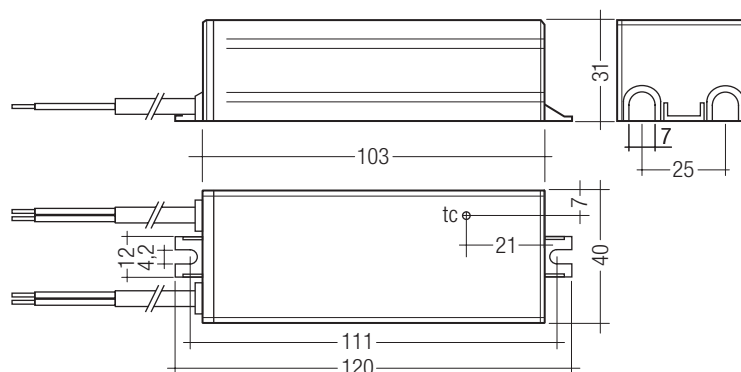
- Strain-relieved connection cable 0.5 m
- Type of protection IP67
- Casing: polycarbonate, white (UV resistant)

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 AC
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. λ (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 ^②	20 ms
Operating temperature range t_a (at life-time 50,000 h)	-25 ... +55 °C
Max. casing temperature t_c	75 °C
Dimensions LxWxH	120 x 40 x 31 mm
Hole spacing	111 mm



Ordering data

Type	Article number	Packaging carton	Packaging pallet	Weight per pcs.
LCI 015/0350 M020	28000795	10 pc(s).	600 pc(s).	0.248 kg
LCI 015/0500 M020	28000796	10 pc(s).	600 pc(s).	0.248 kg
LCI 015/0700 M020	28000797	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 ^①	Typ. output power
LCI 015/0350 M020	350 mA	± 5 %	± 15 %	425 mA	425 mA	3 – 43 V	52 V	15 W
LCI 015/0500 M020	500 mA	± 5 %	± 10 %	580 mA	580 mA	3 – 35 V	36 V	15 W
LCI 015/0700 M020	700 mA	± 5 %	± 10 %	810 mA	810 mA	3 – 25 V	26 V	15 W

^① In no-load operation. No shutdown in no-load operation.

^② At power failure

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 controlgear reduces the LED output current. After elimination of the overload the nominal operation is restored automatically.

Overtemperature protection

The controlgear 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).

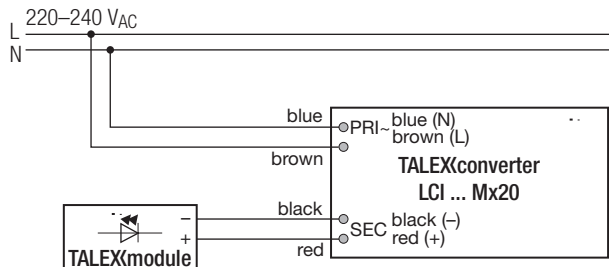
Short-circuit behaviour

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 Ø	1.5 mm ²	1.5 mm ²	1.5 mm ²	2.5 mm ²	1.5 mm ²	1.5 mm ²	1.5 mm ²	2.5 mm ²	I_{max}	time
LCI 015/0350 M020	30	40	50	60	15	20	25	30	20 A	150 µs
LCI 015/0500 M020	30	40	50	60	15	20	25	30	20 A	150 µs
LCI 015/0700 M020	30	40	50	60	15	20	25	30	20 A	150 µs

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 015/0xxx 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 controlgear 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

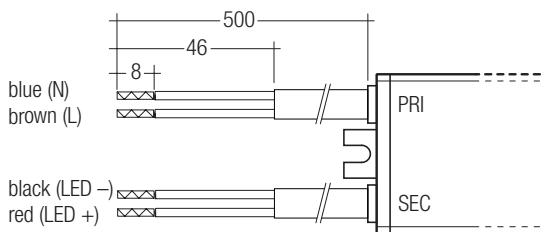
650 °C, 850 °C and 960 °C passed.

Expected life-time

Type		$t_a = 40\text{ °C}$	$t_a = 50\text{ °C}$	$t_a = 55\text{ °C}$
LCI 015/0350 M020	t_c	60 °C	70 °C	75 °C
	Life-time	> 100,000 h	75,000 h	50,000 h
LCI 015/0500 M020	t_c	60 °C	70 °C	75 °C
	Life-time	> 100,000 h	75,000 h	50,000 h
LCI 015/0700 M020	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 mm², black, cable end with ferrules



Remark

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

Harmonic distortion in the mains supply

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

All LED control gears comply with the standard EN 61000-3-2 to operate lighting equipment with an active input power ≤ 25 W where distortion limits for current drawn from the supply are 86 % for 3rd harmonic and 61 % for 5th 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_{DC} 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_{AC} (or 1.414 x 1500 V_{DC}). To avoid damage to the electronic devices this test must not be conducted.

Additional information

Additional technical information at
www.tridonic.com → Technical Data

Guarantee conditions at
www.tridonic.com → Services

No warranty if device was opened.