

IP67 SELV      

Driver LCI 30 W 700 mA M120
TOP series

Product description

- Independent LED Driver for LED modules
- Constant current LED Driver for outdoor use^①
- Output power 30 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

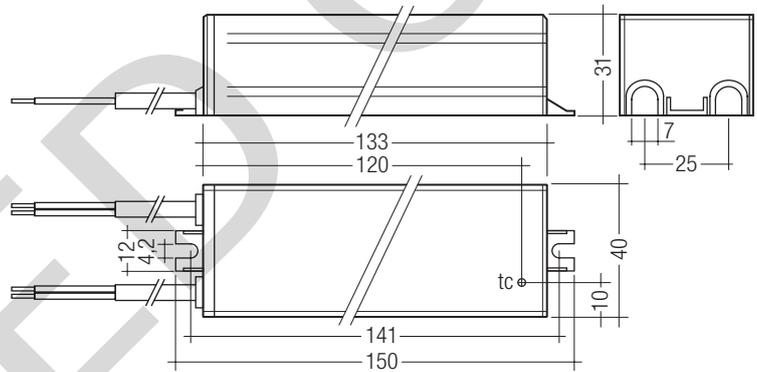
- Strain-relieved connection cable 0.5 m
- Type of protection IP67
- Casing: polycarbonate, white (UV resistant)

Functions

- Overtemperature protection

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)	0.155 A
Max. input power	37.5 W
Typ. input power in no-load operation	1.5 W
Typ. λ (at 230 V / 50 Hz / full load)	0.95
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 ^③	40 ms
Operating temperature range t_a (at life-time 50,000 h)	-25 ... +55 °C
Max. casing temperature t_c	85 °C
Dimensions LxWxH	150 x 40 x 31 mm
Hole spacing D	141 mm



Ordering data

Type	Article number	Packaging carton	Packaging pallet	Weight per pcs.
LCI 030/0700 M120	28000794	10 pc(s).	600 pc(s).	0.309 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 ^②	Typ. output power
LCI 030/0700 M120	700 mA	± 5 %	± 20 %	885 mA	885 mA	9 – 46 V	58 V	30 W

^① LED Driver mains cable not suitable as luminaire mains cable for ground installation lights according to EN 60598-2-13.

^② In no-load operation. No shutdown in no-load operation.

^③ 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

Overtemperature protection / overload 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 17 °C above t_c max (see page 1).

Short-circuit behaviour

A short-circuit on the secondary side will not damage the device. The output current is adjusted to its typical value in the event of a short-circuit.

No-load operation

A no-load operation will not damage the device. In no-load operation there is the max. output voltage at the output (see page 1).

Glow wire test according to IEC 60695-2-11

650 °C and 850 °C passed.

Expected life-time

Type	t_c	$t_a = 40\text{ °C}$	$t_a = 50\text{ °C}$	$t_a = 55\text{ °C}$
LCI 030/0700 M120	Life-time	> 100,000	75,000	50,000

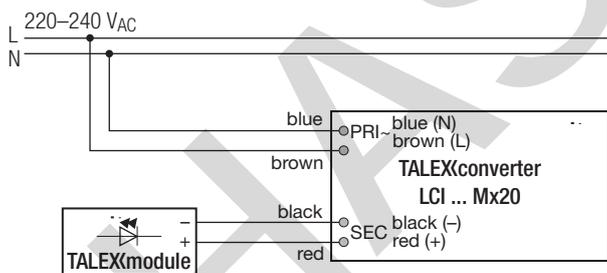
Maximum loading of automatic circuit breakers

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 030/0700 M120	60	90	120	140	30	45	60	70	8 A 50 µs

Harmonic distortion in the mains supply (at 230 V / 50 Hz and full load) in %

Type	THD	3	5	7	9	11
LCI 030/0700 M120	17	15	7	5	4	2

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.

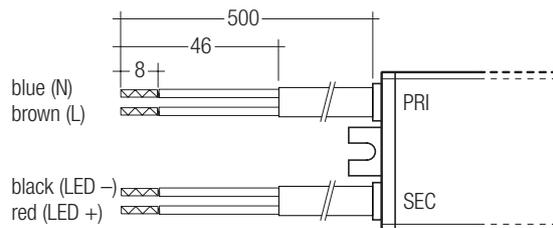
Storage conditions

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.

Wiring

Cable: H05RN-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. The max. secondary cable length is 2 m (4 m circuit).

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.).

Installation instructions

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

Please note that LCI 030/0700 M120 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>).

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

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