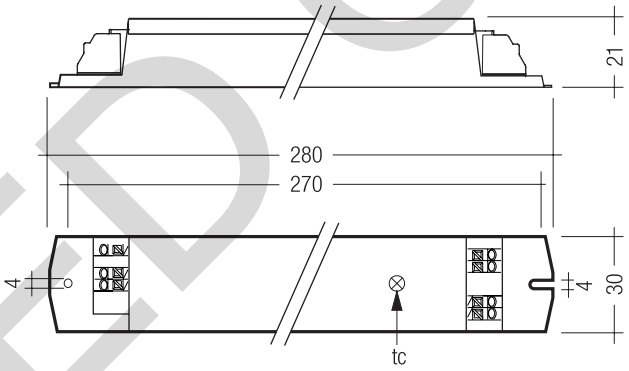
IP20 RoHS

TALEXconverter LCI 40 W 300 mA I010 220-240 V

TOP series



Product description

- Built-in LED control gear for LED
- Constant current LED control gear with 300 mA output current
- Output power 40 W
- Nominal life-time of 50,000 h (at ta 50 °C with a failure rate max. 0.2 % per 1,000 h)
- 5-year guarantee

Properties

- Low-profile metal casing with white cover
- Type of protection IP20

Functions

- Overload protection
- Short circuit proof
- Suitable for emergency lighting units acc. to EN 50172

Technical data

Rated supply voltage	220 – 240 V
AC Voltage range	198 – 264 V
DC Voltage range	176 – 280 V
Mains frequency	0 / 50 / 60 Hz
Typ. rated current (at 230 V / 50 Hz / full load)	0.19 A
Mains current (at 220 V / 0 Hz / full load)	0.2 A
Leakage current (PE)	< 0.2 mA
Max. input power	45 W
Typ. efficiency (at 230 V / 50 Hz / full load)	> 92.5 %
Typ. λ (at 230 V / 50 Hz / full load)	0.95
Output current ripple	± 30 %
Max. repetitive output peak current	410 mA
Max. non-repetitive output peak current	500 mA
Switch-on time	0.4 s
Turn off time (at 230 V / 50 Hz / full load)	0.1 s
Hold time①	10 ms
Operating temperature range ta	-25 ... +50 °C
Max. casing temperature tc	65 °C
Dimensions LxWxH	280 x 30 x 21 mm
Hole spacing D	270 mm

Ordering data

Type	Article number	Packaging carton	Packaging pallet	Weight per pc.
LCI 040/0300 I010 220-240 V	**28000161**	10 pc(s).	960 pc(s).	0.198 kg

Specific technical data

Type	Output current	Output current tolerance	Output voltage range	Max. output voltage②	Typ. output power
LCI 040/0300 I010 220-240 V	300 mA	± 5 %	50 – 135 V	250 V	40 W

① At power failure

② In no-load operation

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

According to the EN 50172 suitable for central battery systems
According to the EN 60598 suitable for emergency lighting installations

Overload protection / underload protection
If the output voltage range is exceeded the LED control gear turns off the LED output and tries a restart every 6 seconds.

Short-circuit behaviour
In case of a short circuit on the secondary side (LED) the LED ouput is switched off. Every 6 seconds the LED control gear tries to restart.

No-load operation
The LED control gear is not damaged in the no-load operation. Every 6 seconds the LED control gear tries to restart. The max. output voltage (see page 1) can be obtained for a short time (50 ms) during no-load operation.

Operation on DC voltage
The LED control gear is designed for operation with DC voltage and pulsed DC voltage.

Light output level in DC operation: 100 %

Expected life-time

Type	ta	40 °C	50 °C	60 °C
LCI 040/0300 I010 220-240 V	tc	56 °C	65 °C	x
	Life-time	> 100,000 h	80,000 h	x

Storage conditions
Humidity: 5 % up to max. 85 %, not condensed (max. 56 days/year at 85 %)

Storage temperature: -40 °C up to max. +80 °C

The devices have to be within the specified temperature range (ta) before they can be operated.

Maximum loading of automatic circuit breakers

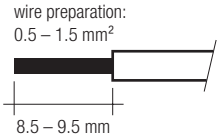
Automatic circuit breaker type	C10	C13	C16	C20	B10	B13	B16	B20	Inrush current	
Installation Ø	1.5 mm²	1.5 mm²	2.5 mm²	4 mm²	1.5 mm²	1.5 mm²	2.5 mm²	4 mm²	I_{max}	Time
LCI 040/0300 I010 220-240 V	20	28	42	50	10	14	21	25	25 A	260 µs

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

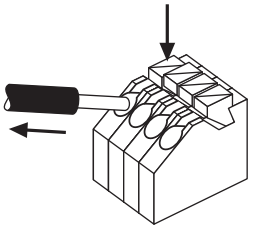
	THD	3.	5.	7.	9.	11.
LCI 040/0300 I010 220-240 V	< 10	< 8	< 4	< 3	< 3	< 1

Wiring guidelines
- The secondary cables should be run separately from the mains connections and mains cables to ensure good EMC conditions
- The LED wiring should be kept as short as possible to ensure good EMC. The recommended secondary cable length is max. 2 m.
- The LED control gear does not have polarity reversal protection on the secondary side. LED modules that do not have polarity reversal protection may be damaged if polarity is reversed.

Wiring type and cross section
The wiring can be in stranded wires with ferrules or solid from 0.5 – 1.5 mm². For perfect function of the push-wire terminals (WAGO 250) the strip length should be 8.5 – 9.5 mm.

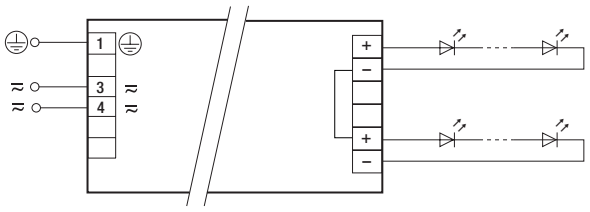


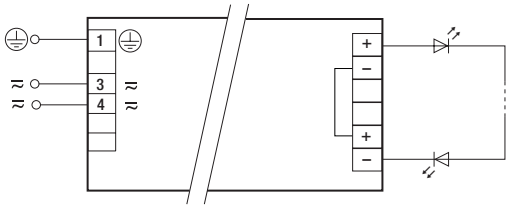
Release of the wiring
Press down the “push button” and remove the cable from front.



LED control gear is not SELV (output voltage up to 250 V).

Circuit diagrams





LED's have to be connected as shown above to work properly. It is possible to connect a different number of LED's on two circuits (like on top picture). The minimum power load has to be connected. Otherwise the LED control gear will switch off.

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.

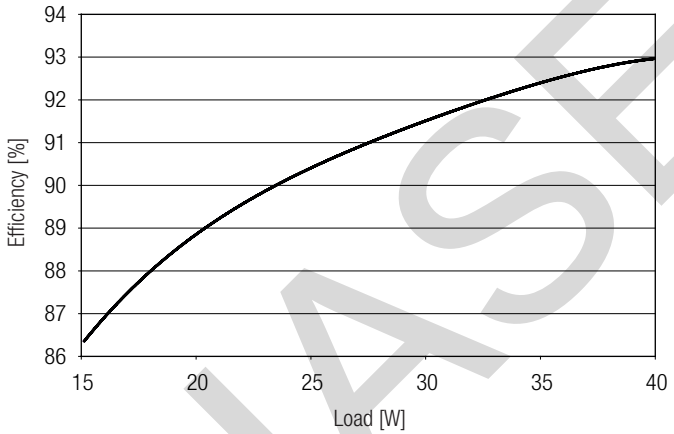
Additional information

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

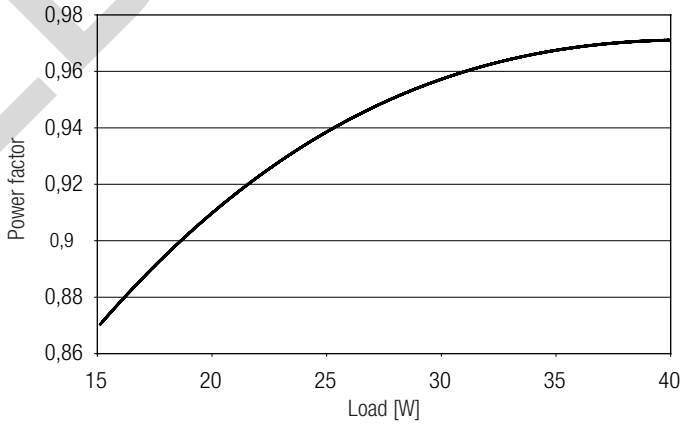
Guarantee conditions at www.tridonic.com → Services
No warranty if device was opened.

Diagrams LCI 40W 300mA I010

Efficiency vs load



Power factor vs load



Input power vs load