

IP20 SELV          
RoHS

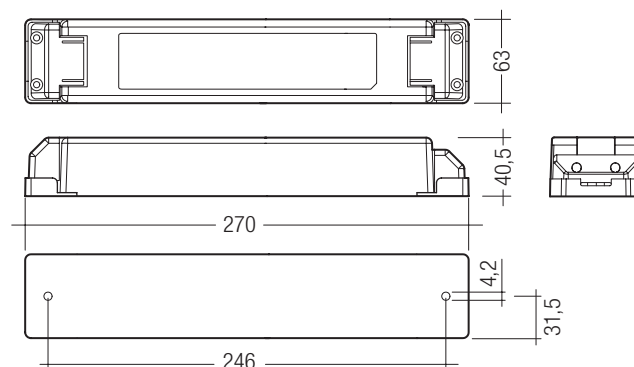
TALEXconverter LCU 100 W 12/24 V indoor IP20 LCU indoor IP20

Product description

- Constant voltage LED control gear
- Universal input voltage range
- Constant output voltage
- Nominal life-time up to 50,000 h (at ta 40 °C with a failure rate max. 0.2 % per 1,000 h)
- 5-year guarantee
- 24 V LED control gear: suitable for emergency installations according to EN 50172
- Complies with CLASS C from minimum to maximum load range according to EN 61000-3-2

Properties

- High efficiency
- Low power loss
- Overtemperature and overload protection
- Short-circuit shutdown feature with automatic restart
- Protection class II, SELV
- Type of protection IP20
- Plastic casing white



Technical data

Rated supply voltage	120 – 240 V
Input voltage, AC	108 – 264 V
Input voltage, DC ^①	120 – 288 V
Rated current (at 230 V 50 Hz)	0.54 A
Mains frequency ^②	0 / 50 / 60 Hz
Efficiency	> 85 %
λ (at 230 V 50 Hz)	0.95
Output voltage tolerance	+ 10 %
Output power	100 W
Output power range	10 – 100 W
Turn on time (output)	≤ 0.5 s
Turn off time (output)	≤ 1 s
Hold on time at power failure (Output)	10 ms
ta operating (at life-time 50,000 h)	-25 ... +40 °C
Ambient temperature ta	-25 ... +50 °C
Ambient temperature ta (at life-time 50,000 h)	-25 ... +40 °C
Storage temperature ts	-30 ... +85 °C
Dimensions LxWxH	270 x 63 x 40.5 mm
Hole spacing D	246 mm

Ordering data

Type	Article number	Packaging carton	Packaging pallet	Weight per pc.
LCU 100/12 E020	24166327	20 pc(s).	640 pc(s).	0.65 kg
LCU 100/24 E020	24166328	20 pc(s).	640 pc(s).	0.66 kg

Specific technical data

Type	Max. casing temperature tc	Output voltage	Max. input power	Output current range	Max. output voltage ^②
LCU 100/12 E020	80 °C	12 V	118 W	0.8 – 8 A	13.2 V
LCU 100/24 E020	80 °C	24 V	120 W	0.4 – 4 A	26.4 V

^① DC operation only with 24 V LED control gear.

^② At failure mode (230 V, 50 Hz).

Standards

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

Acc. to 50172: 24 V LED control gear suitable for central battery systems

Overload protection

Automatic shutdown of the LED control gear if the maximum output current is exceeded. Automatic restart if the output current is below the limit.

No-load operation

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

Over temperature protection

12 V:

Automatic shutdown of the LED control gear if the temperature limit is exceeded. Automatic restart if the temperature falls below the limit.

24 V:

Automatic power reduction of the LED control gear if the temperature limit is exceeded. Automatic restart to nominal mode if the temperature falls below the limit.

Glow wire test according to EN 60695-2-11

850 °C passed.

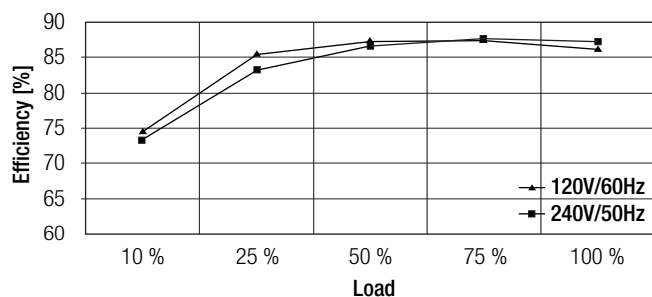
Maximum loading of automatic circuit breakers

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
LCU 100/12 E020	6	8	12	14	3	5	6	7	81 A	0.18 ms
LCU 100/24 E020	6	8	10	12	3	5	5	6	98 A	0.14 ms

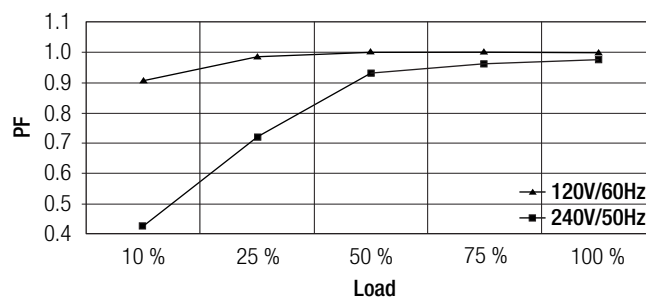
Harmonic distortion in the mains supply (at 230V/50Hz and full load) in %

Type	THD	3	5	7	9	11
LCU 100/12 E020	11	11	2	2	2	1
LCU 100/24 E020	6	4	1	1	1	1

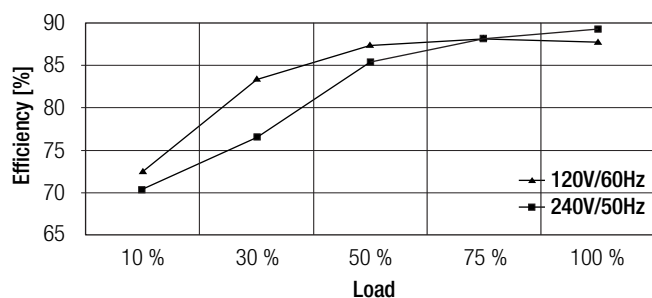
LCU 100/12 E020 – Efficiency versus load



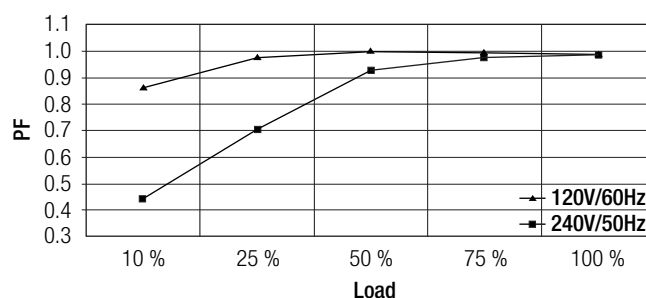
LCU 100/12 E020 – PF value versus load



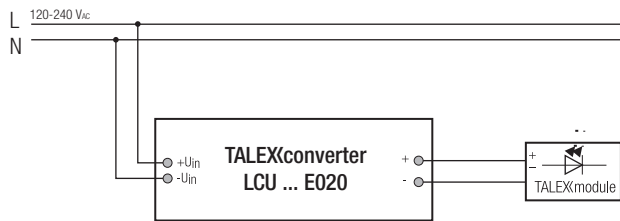
LCU 100/24 E020 – Efficiency versus load



LCU 100/24 E020 – PF value versus load



Wiring diagram



Installation instructions

The switching of LEDs on secondary side is not permitted.
A proper functioning of the LCU in combination with third party dimming devices (e.g. PWM) cannot be guaranteed.

Please note that LCU 100 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

No warranty if device was opened.

Wiring type and cross section

The wiring can be in stranded wires with ferrules or solid. For perfect function of the screw terminals the strip length should be 7.5–8.5 mm for the terminal.

Max. torque at the clamping screw: 0.5 Nm

The maximum secondary cable length at the terminals is 2 m. The LED wiring should be kept as short as possible to ensure good EMC.

Input / Output terminal

PRI and SEC:

