

Driver LCU 150 W 12 V indoor IP20

excite indoor IP20 series

Product description

- Constant voltage LED Driver
- Universal input voltage range
- Constant output voltage
- Nominal life-time up to 50,000 h (at t_a 40 °C / 104 °F with a failure rate max. 0.2 % per 1,000 h)
- 5-year guarantee
- Complies with CLASS C from minimum to maximum load range according to EN 61000-3-2

Properties

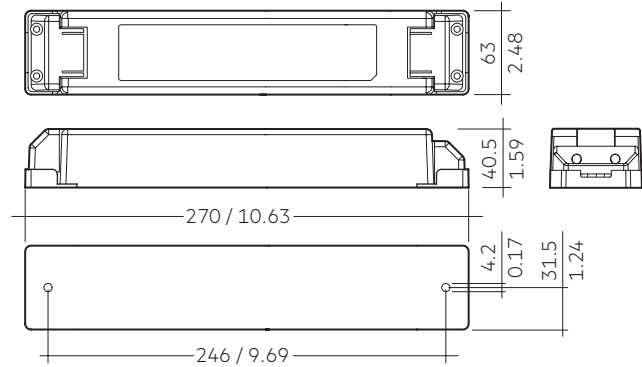
- High efficiency
- Low power loss
- Overtemperature and overload protection
- Short-circuit shutdown feature with automatic restart
- Protection class II, SELV
- Type of protection IP20
- Plastic casing white



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Technical data

Rated supply voltage	120 – 240 V
AC voltage range	108 – 264 V
Rated current (at 230 V 50 Hz)	1.75 A
Mains frequency	0 / 50 / 60 Hz
Efficiency	> 88 %
λ (at 230 V 50 Hz)	0.95
Output voltage tolerance	+ 10 %
Output power	150 W
Output power range	20 – 150 W
Turn on time (output)	≤ 0.5 s
Turn off time (output)	≤ 1 s
Hold on time at power failure (Output)	10 ms
Ambient temperature ta	-25 ... +50 °C / -13 ... +122 °F
Ambient temperature ta (at life-time 50,000 h)	-25 ... +40 °C / -13 ... +104 °F
Storage temperature ts	-30 ... +85 °C / -22 ... +185 °F
Life-time	up to 50,000 h
Dimensions LxWxH	270 x 63 x 40.5 mm / 10.63 x 2.48 x 1.59 inch
Hole spacing D	246 mm / 9.69 inch



Dimensions in mm / inch

Ordering data

Type	Article number	Packaging carton	Packaging pallet	Weight per pc.
LCU 150/12 E020	24166332	20 pc(s).	640 pc(s).	0.8 kg / 1.76 lbs

Specific technical data

Type	Max. casing temperature tc	Output voltage	Max. input power	Output current range
LCU 150/12 E020	80 °C / 176 °F	12 V	176 W	1,250 – 12,500 mA

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 Driver suitable for central battery systems

Overload protection

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

No-load operation

The LED Driver is not damaged in the no-load operation. The max. output voltage (see page1) can be obtained during no-load operation.

Over temperature protection

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

Glow wire test according to EN 60695-2-11

850 °C / 1,562 °F passed.

Maximum loading of automatic circuit breakers

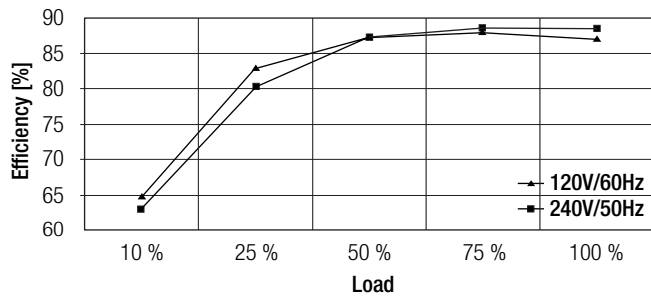
230 V, 50 Hz:

Automatic circuit breaker type	C10	C13	C16	C20	B10	B13	B16	B20	Inrush current	
	1.5 mm ² /	1.5 mm ² /	2.5 mm ² /	2.5 mm ² /	1.5 mm ² /	1.5 mm ² /	2.5 mm ² /	2.5 mm ² /	I_{max}	time
	AWG16	AWG16	AWG14	AWG14	AWG16	AWG16	AWG14	AWG14		
LCU 150/0012 E020	4	4	7	8	2	2	3	4	94.1A	0.325 ms

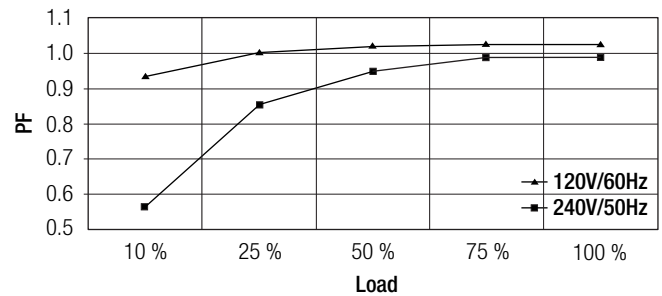
Harmonic distortion in the mains supply (at 230 V / 50 Hz and full load) in %

Type	THD	3	5	7	9	11
LCU 150/0012 E020	14	13	2	2	2	1

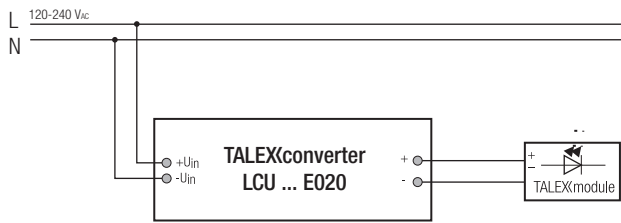
LCU 150/0012 E020 – Efficiency versus load



LCU 150/0012 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 150 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>).

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.).

Insulation 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 UL 8750 (informative only!) each luminaire should be submitted to an insulation test with 500 V DC. The dielectric withstand test equipment shall employ a transformer of 500-VA or larger capacity and have a variable output voltage that is essentially sinusoidal or continuous direct current. The applied potential is to be increased from zero at a substantially uniform rate until the required test level is reached, and is to be held at that level for 1 minute.

As an alternative, UL8750 (informative only!) describes a test of the electrical strength with 2V AC + 1000V (or 1414 x 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.

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 / 0.30– 0.33 inch for the terminal.

Max. torque at the clamping screw: 0.5 Nm

The maximum secondary cable length at the terminals is 2 m / 6.56 ft.
The LED wiring should be kept as short as possible to ensure good EMC.

Input / Output terminal

PRI and SEC:

