TRIDONIC

LED Driver
Constant voltage

TALEXdriver LC 100W 12/24V IP66 slim SNC
ESSENCE series

Product description
- Fixed output constant voltage built-in control gear for LED in 12/24 V
- Input voltage range 220 – 240 VAC
- Max. output power 100 W
- Connection cable with stripped cable end (300 mm ±10 mm)
- Polarity identifiers, secondary + red / – black
- IP66 metal casing
- Nominal life-time up to 30,000 h (at ta 50 °C with a failure rate max. 0.2 % per 1,000 h)
- 3-year guarantee
- Complies with CLASS C from 70 to 100 % load according to EN 61000-3-2

Properties
- Type of protection IP66
- Metal casing
- SELV
- Low power loss
- Over temperature, over load and short-circuit protection

IP66 SELV RoHS

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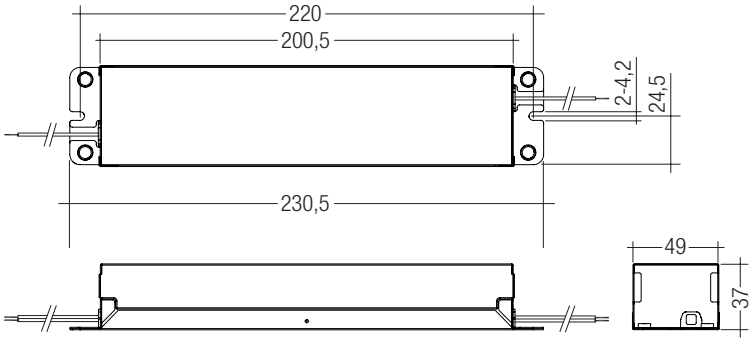
Technical data

Rated supply voltage	220 – 240 V
Input voltage, AC	198 – 264 V
Rated current (at 230 V 50 Hz)	0.33 A
Mains frequency	50 / 60 Hz
Efficiency 12 V (at 230 V, 50 Hz, full load)	> 85 %
Efficiency 24 V (at 230 V, 50 Hz, full load)	> 86 %
λ (at 230 V, 50 Hz, full load)	> 0.93
Output voltage tolerance 12 V	0 /+10 %
Output voltage tolerance 24 V	-5 /+5 %
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
Ambient temperature ta	-25 ... +50 °C
Ambient temperature ta (at life-time 30,000 h)	-25 ... +50 °C
Storage temperature ts	-25 ... +85 °C
Dimensions LxWxH	230.5 x 49 x 37 mm
Hole spacing D	220 mm



Ordering data

Type	Article number	Packaging carton	Packaging pallet	Weight per pc.
LC 100W 12V IP66 slim SNC	**28001027**	10 pc(s).	560 pc(s).	0.85 kg
LC 100W 24V IP66 slim SNC	**28001029**	10 pc(s).	560 pc(s).	0.85 kg

Specific technical data

Type	Max. casing temperature tc	Output voltage	Max. input power	Output current range	Max. output voltage①
LC 100W 12V IP66 slim SNC	80 °C	12 V	130 W	0.83 – 8.33 A	13.2 V
LC 100W 24V IP66 slim SNC	80 °C	24 V	123 W	0.41 – 4.17 A	25.2 V

① 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

Expected life-time

Typw	ta	40 °C	50 °C
LC 100W 12V IP66 slim SNC	tc	70 °C	80 °C
	Life-time	>100,000 h	>30,000 h
LC 100W 24V IP66 slim SNC	tc	70 °C	80 °C
	Life-time	>100,000 h	>30,000 h

Overload protection
In case of overload the driver switches into hiccup mode.
When overload condition is removed, the power supply will automatically recover.

No-load operation
The LED control gear 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 shut down if temperature limit is exceeded. Temperature limit is roughly set at ta 70 °C. Manual AC reset required for restart when temperature is below limit.

Short-circuit behauviour
In case of a short circuit on the secondary side (LED) the LED control gear switches into hiccup mode. After the removal of the short-circuit fault the LED control gear will recover automatically.

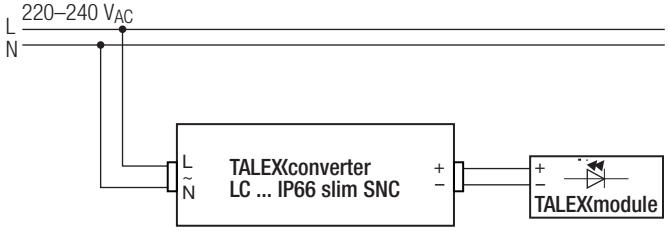
Maximum loading of automatic circuit breakers

Automatic circuit breaker type	C10	C13	C16	C20	B10	B13	B16	B20	Inrush current	
Installation Ø	1.5 mm²	1.5 mm²	1.5 mm²	2.5 mm²	1.5 mm²	1.5 mm²	1.5 mm²	2.5 mm²	I_{max}	time
LC 100W 12V IP66 slim SNC	9	12	15	19	5	7	9	11	36 A	550 µs
LC 100W 24V IP66 slim SNC	9	12	15	19	5	7	9	11	36 A	550 µs

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

Type	THD	3	5	7	9	11
LC 100W 12V IP66 slim SNC	7	6	2	2	2	2
LC 100W 24V IP66 slim SNC	7	6	2	1	2	2

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.

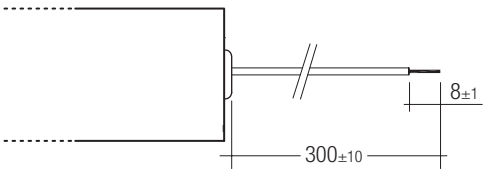
Isolation and electric strength testing of luminaires
Electronic devices can be damaged by high voltage. This has to be considered during the routine testing of the luminaires in production.

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.

Connection

Primary cable		Secondary cable	
L	N	+	–
brown	blue	red	black



PRI:
Ø 2.8 ±0.2 mm; 2 x 0.82 mm² (18 AWG)

SEC:
12 V: Ø 3.5 ±0.2 mm; 2 x 2.08 mm² (14 AWG)
24 V: Ø 2.8 ±0.2 mm; 2 x 0.82 mm² (18 AWG)

Additional information

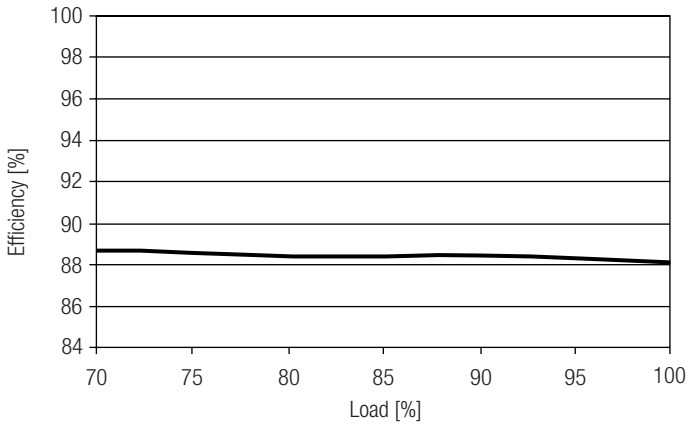
Additional technical information at
www.tridonic.com → Technical Data

Guarantee conditions at
www.tridonic.com → Services

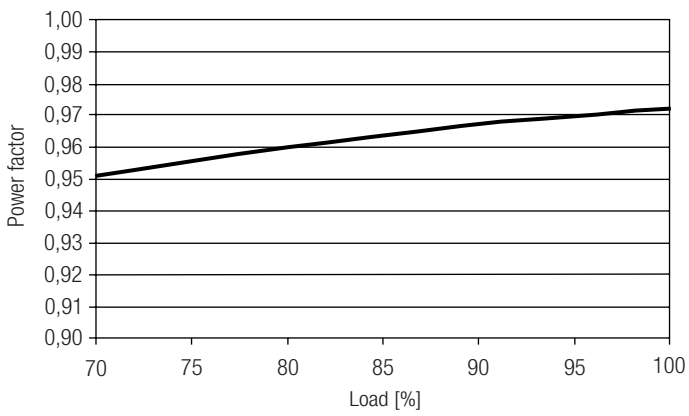
No warranty if device was opened.

Diagrams LC 100W 12V IP66 slim SNC

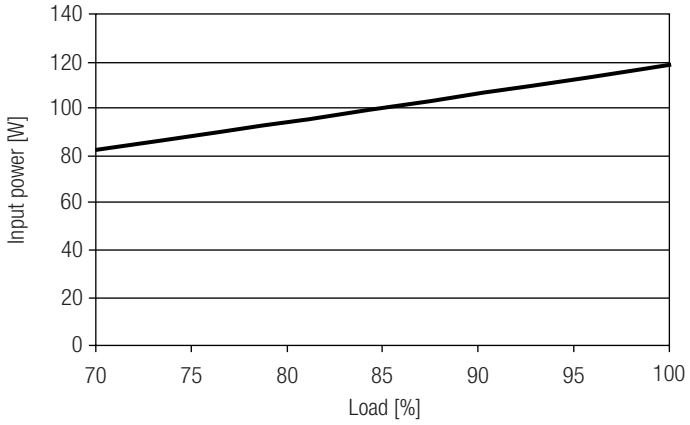
Efficiency vs load



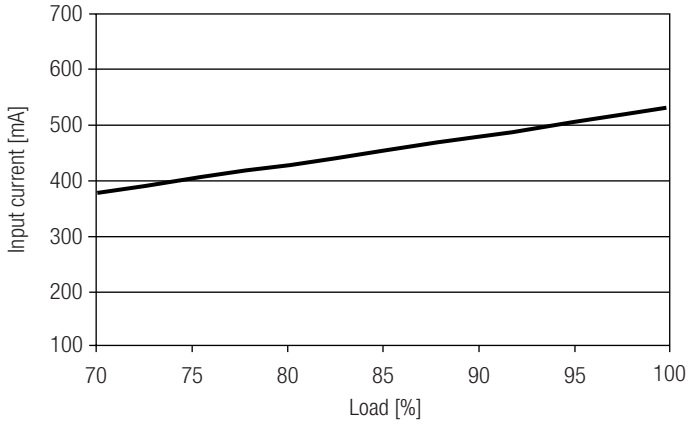
Power factor vs load



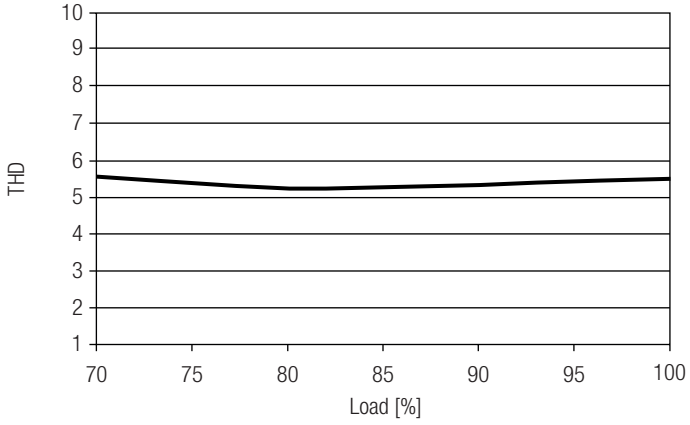
Input power vs load



Input current vs load

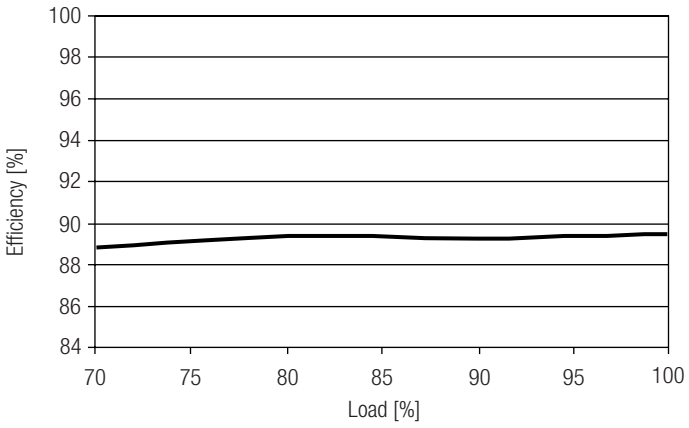


THD vs load

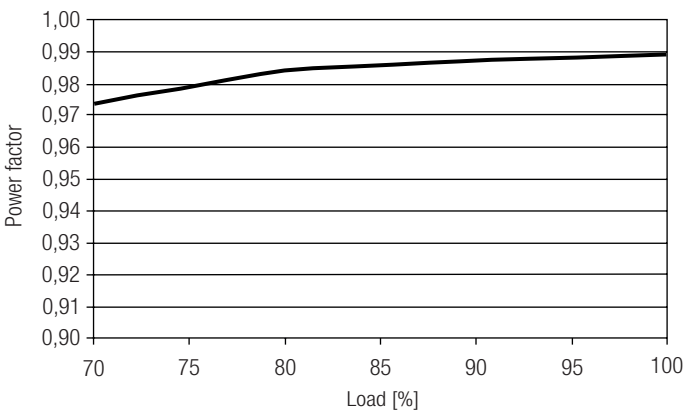


Diagrams LC 100W 24V IP66 slim SNC

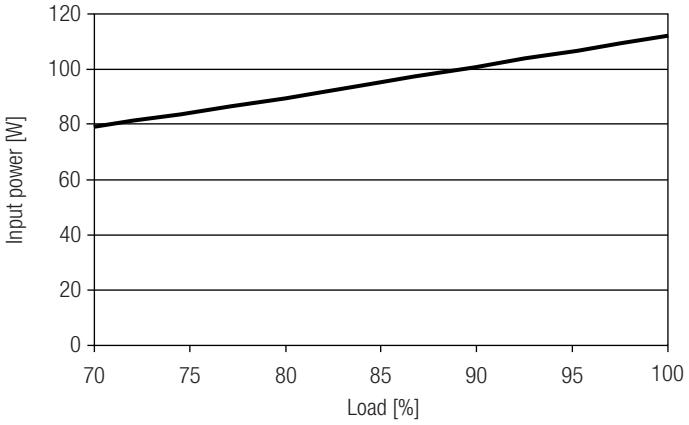
Efficiency vs load



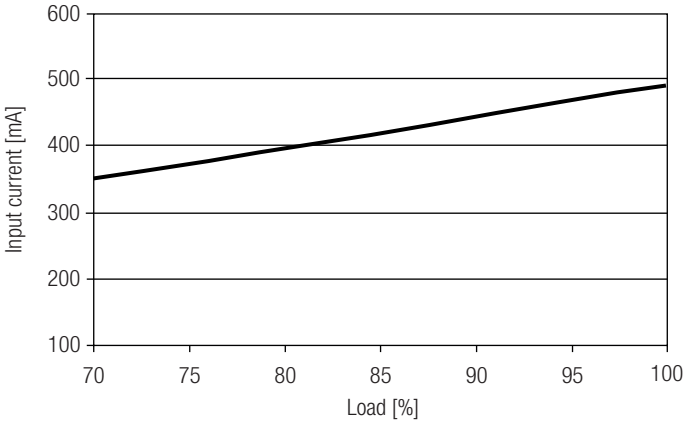
Power factor vs load



Input power vs load



Input current vs load



THD vs load