TALEXdriver LC 15/20W 350/500mA fixC SC ADV

ADVANCED series

Product description

- Fixed output LED Driver
- Can be either used build-in or independent with clip-on strain-relief (see accessory)
- Constant current LED Driver
- Output current 350 or 500 mA
- Max. output power 15.4 or 22 W
- For luminaires of protection class I and protection class II
- Temperature protection as per EN 61347-2-13 C5e
- Independent LED Driver with cable clamps
- Nominal life-time up to 50,000 h
- 5-year guarantee

Properties

- Casing: polycarbonat, white
- Type of protection IP20

Functions

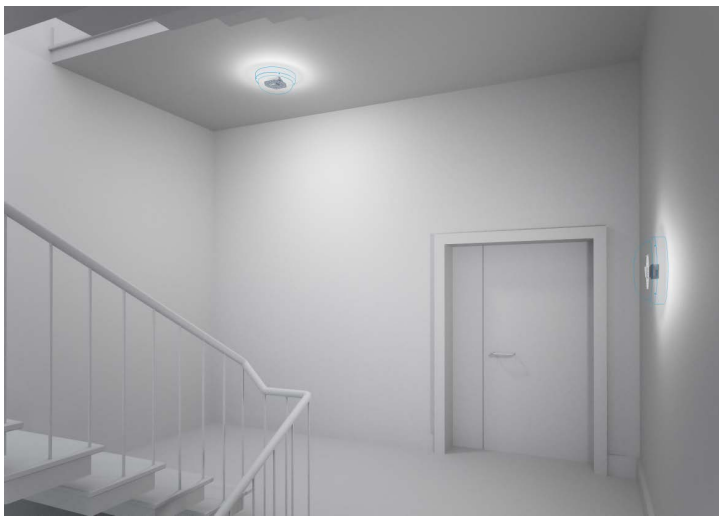
- Overtemperature protection
- Overload protection
- Short-circuit protection
- No-load protection
- Burst protection voltage 1 kV
- Surge protection voltage 1 kV (L to N)
- Surge protection voltage 2 kV (L/N to earth)

→

Standards, page 4

Wiring diagrams and installation examples, page 5

With strain-relief

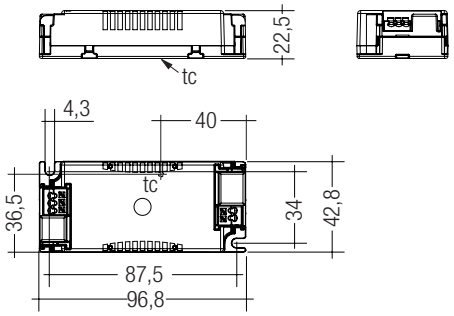


IP20 SELV

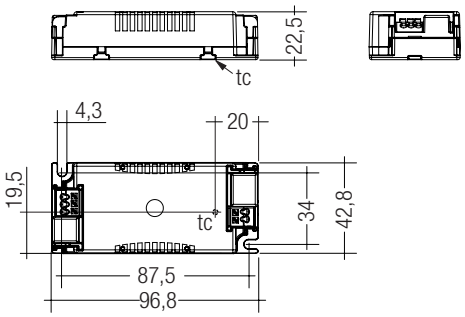
TALEXdriver LC 15/20W 350/500mA fixC SC ADV
ADVANCED series

Technical data

Rated supply voltage	220 – 240 V
AC voltage range	198 – 264 V
Mains frequency	50 / 60 Hz
Overvoltage protection	320 V AC, 1 h
THD (at 230 V, 50 Hz, full load)	< 15 %
Output current tolerance[3]	± 7.5 %
Typ. current ripple (at 230 V, 50 Hz, full load)	± 15 %
Max. output voltage	60 V
Turn on time (at 230 V, 50 Hz, full load)	≤ 0.5 s
Turn off time (at 230 V, 50 Hz, full load)	≤ 0.2 s
Hold on time at power failure (output)	0 s
Ambient temperature ta	-20 ... +50 °C
Ambient temperature ta (at life-time 50,000 h)	40 °C
Storage temperature ts	-40 ... +80 °C
Dimensions L x W x H	97 x 43 x 22.5 mm
Dimensions with strain-relief L x W x H	146 x 43 x 22.5 mm



LC 15W 350mA fixC SC ADV



LC 20W 500mA fixC SC ADV

Ordering data

Type	Article number	Packaging, carton	Packaging, low volume	Packaging, high volume	Weight per pc.
LC 15W 350mA fixC SC ADV	**87500448**	15 pc(s).	480 pc(s).	4,320 pc(s).	0.076 kg
LC 20W 500mA fixC SC ADV	**87500449**	15 pc(s).	480 pc(s).	4,320 pc(s).	0.079 kg

Specific technical data

Type	Output current[3]	Input current (at 230 V, 50 Hz, full load)	Input power (at 230 V, 50 Hz, full load)	Output power range	Power factor at full load[1]	Efficiency at full load[1]	Power factor at min. load[1]	Efficiency at min. load[1]	Min. forward voltage	Max. forward voltage	Max. output peak current[2]	Max. casing temperature tc
LC 15W 350mA fixC SC ADV	350 mA	0.086 A	18.5 W	7.5 – 15.4 W	0.9C	83 %	0.85C	76 %	21.4 V	44 V	433 mA	80 °C
LC 20W 500mA fixC SC ADV	500 mA	0.120 A	26.0 W	10.7 – 22.0 W	0.9C	83 %	0.85C	77 %	21.4 V	44 V	619 mA	85 °C

[1] Test result at 230 V, 50 Hz.

[2] The trend between min. and full load is linear.

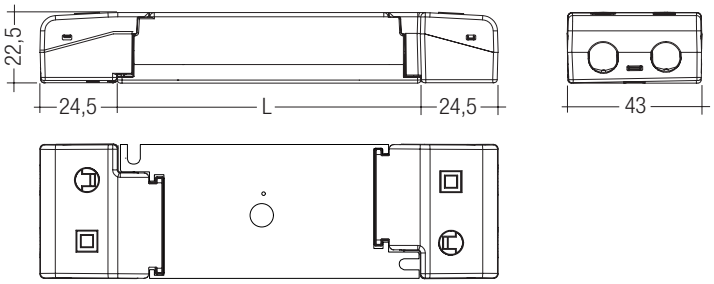
[3] Output current is mean value.

ACCES-SORIES

Strain-relief set 43x22.5mm

Product description

- Optional strain-relief set for independent applications
- Easy and tool-free mounting to the LED driver
- Screwless cable-clamp channels
- Transforms the LED Driver into a fully class II compatible LED Driver (e.g. ceiling installation)
- Overall length = length L (LED Driver) + 2 x 24.5 mm (strain-relief set)



Ordering data

Type	Article number	Packaging carton[1]	Packaging outer box	Weight per pc.
ACU SC 43x22.5mm CLIP-ON SR SET	**28001534**	10 pc(s).	200 pc(s).	0.027 kg

[1] A carton of 10 pcs. is equal to 10 sets, each with 2 strain-reliefs parts.

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

Overload protection
If the output voltage range is exceeded the LED Driver reduces the LED output current. If the output voltage is exceeded by a certain degree the driver will start working in a pulsed light output mode. After elimination of the overload the nominal operation is restored automatically.

Overtemperature protection
The LED Driver will reduce the LED output current or it works in a pulsed light output mode if the temperature reaches a certain degree.

Short-circuit behaviour
In case of a short circuit on the secondary side (LED) the LED Driver switches off. After elimination of the short-circuit fault the LED Driver will recover automatically.

No-load operation
The LED Driver will work in a pulsed light output mode to limit the output voltage lower than 60 V which allows the application to be able to work safely when LED string opens due to a failure.

Output over voltage protection
The LED Driver will work in a pulsed light output mode to limit the output voltage lower than 60 V, even in fault conditions.

Installation instructions
The LED module and all contact points within the wiring must be sufficiently insulated against 1 kV surge voltage.
Air and creepage distance must be maintained.

Replace LED module
1. Mains off
2. Remove LED module
3. Wait for 10 seconds
4. Connect LED module again

Hot plug-in or secondary switching of LEDs is not permitted and may cause a very high current to the LEDs.

Expected life-time

Type	ta	40 °C	50 °C
LC 15W 350mA fixC SC ADV	tc	70 °C[1]	80 °C[1]
	Life-time	50,000 h	30,000 h
LC 20W 500mA fixC SC ADV	tc	75 °C[1]	85 °C[1]
	Life-time	50,000 h	30,000 h

[1] Test result at max. output voltage.

The LED Drivers are designed for a life-time stated above under reference conditions and with a failure probability of less than 10 %.

Glow-wire test
according to EN 61347-1 with increased temperature of 960 °C passed.

Mounting of device
Max. torque for fixing: 0.5 Nm/M4

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.

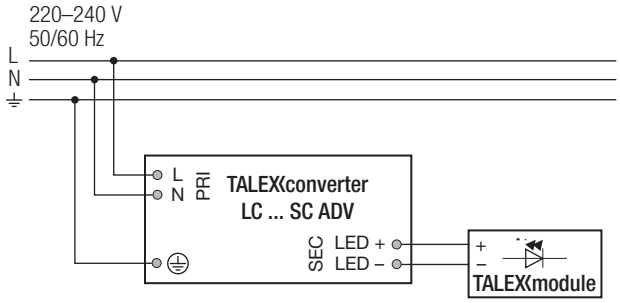
Maximum loading of automatic circuit breakers

Automatic circuit breaker type	C10	C13	C16	C20	B10	B13	B16	B20	Inrush current	
Installation Ø	1.5 mm²	1.5 mm²	1.5 mm²	2.5 mm²	1.5 mm²	1.5 mm²	1.5 mm²	2.5 mm²	I_{max}	Time
LC 15W 350mA fixC SC ADV	80	105	130	160	64	84	104	128	5 A	100 µs
LC 20W 500mA fixC SC ADV	60	80	100	120	48	64	80	96	5 A	100 µs

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

	THD	3.	5.	7.	9.	11.
LC 15W 350mA fixC SC ADV	< 15	< 12	< 5	< 4	< 4	< 3
LC 20W 500mA fixC SC ADV	< 15	< 13	< 4	< 3	< 3	< 3

Wiring diagram



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

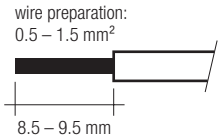
Additional technical information at www.tridonic.com → Technical Data

Guarantee conditions at www.tridonic.com → Services

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

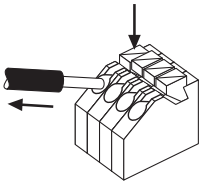
Installation instructions

Wiring type and cross section
The wiring can be in stranded wires with ferrules or solid with a cross section of 0.5–1.5 mm². Strip 8.5–9.5 mm of insulation from the cables to ensure perfect operation of the push-wire terminals.
Use one wire for each terminal connector only.



Release of the wiring

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

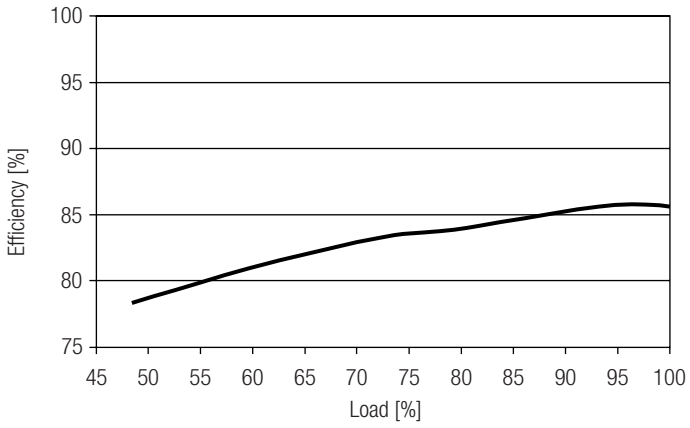


Wiring guidelines

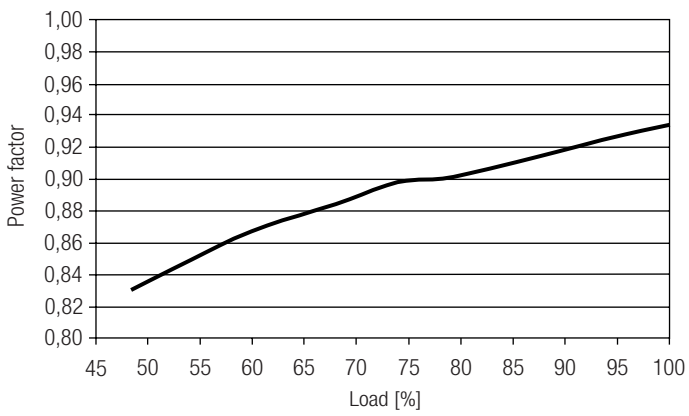
- All connections must be kept as short as possible to ensure good EMI behaviour.
- Mains leads should be kept apart from LED Driver and other leads (ideally 5 – 10 cm distance)
- Max. lenght of output wires is 2 m.
- Secondary switching is not permitted.
- Incorrect wiring can demage LED modules.
- The wiring must be protected against short circuits to earth (sharp edged metal parts, metal cable clips, louver, etc.).

Diagrams LC 15W 350mA fixC SC ADV

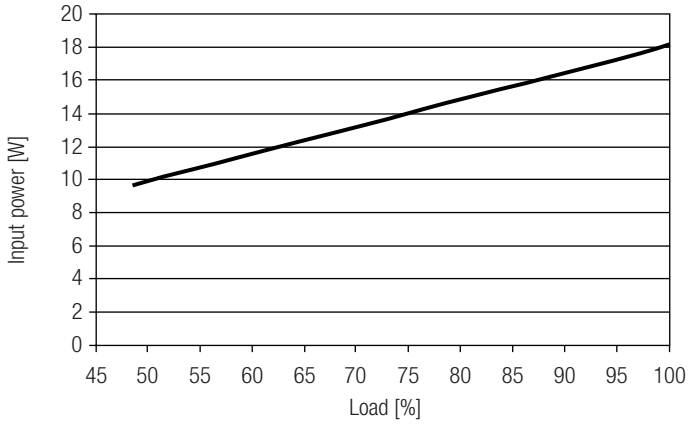
Efficiency vs load



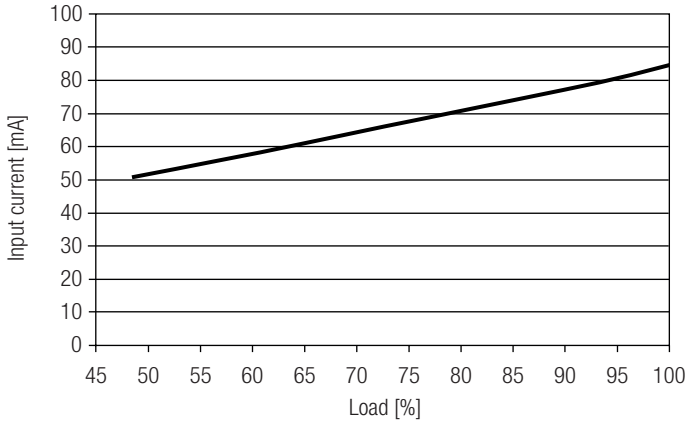
Power factor vs load



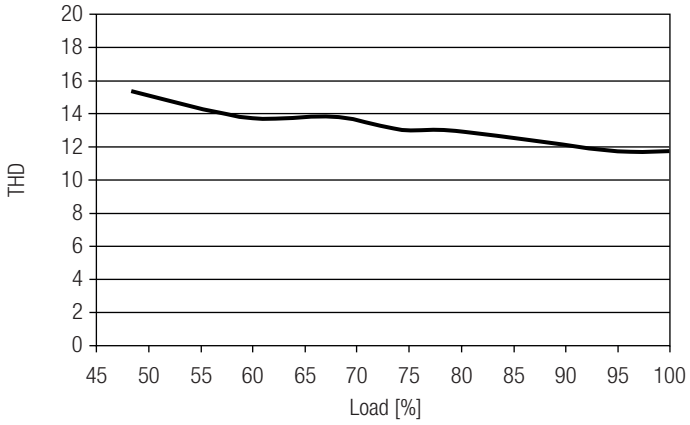
Input power vs load



Input current vs load

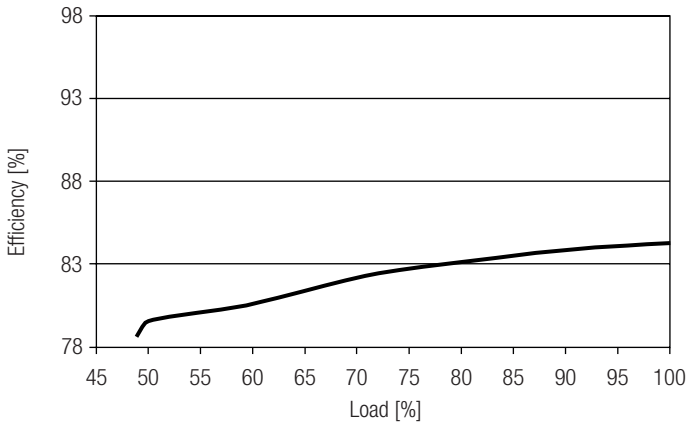


THD vs load

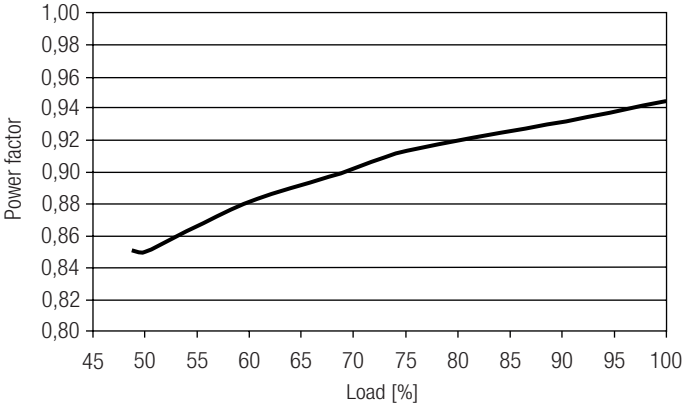


Diagrams LC 20W 500mA fixC SC ADV

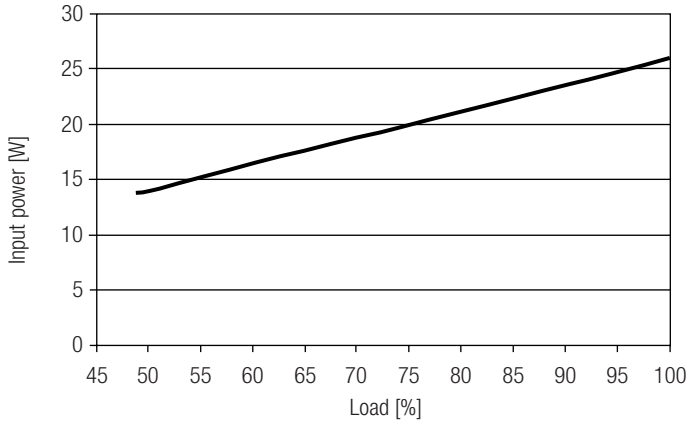
Efficiency vs load



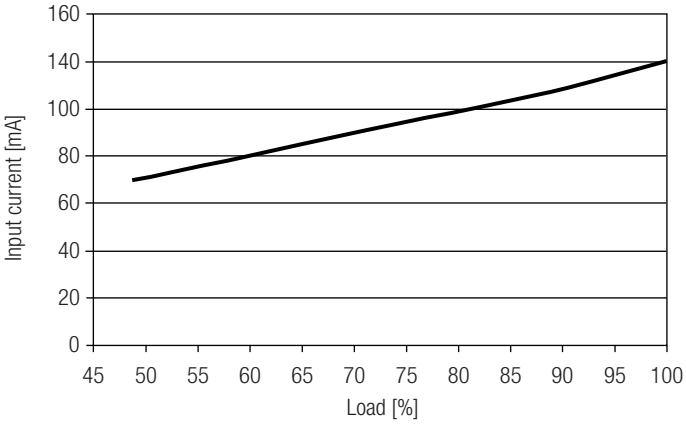
Power factor vs load



Input power vs load



Input current vs load



THD vs load