

**TALEXconverter LC 35W 350/500/800/1050mA fixC SR SNC**  
ESSENCE series

## Product description

- Independent fixed output LED control gear
- Constant current LED control gear
- Output current 350, 500, 800 or 1,050 mA
- Max. output power 35 W
- Nominal life-time up to 30,000 h
- For luminaires of protection class I and protection class II
- For luminaires with M and MM as per EN 60598, VDE 0710 and VDE 0711
- Temperature protection as per EN 61347-2-13 C5e
- 3-year guarantee



## Properties

- Casing: polycarbonat, white
- Type of protection IP20

## Functions

- Overtemperature protection
- Overload protection
- Short-circuit protection
- No-load protection



**Standards**, page 3

**Wiring diagrams and installation examples**, page 4

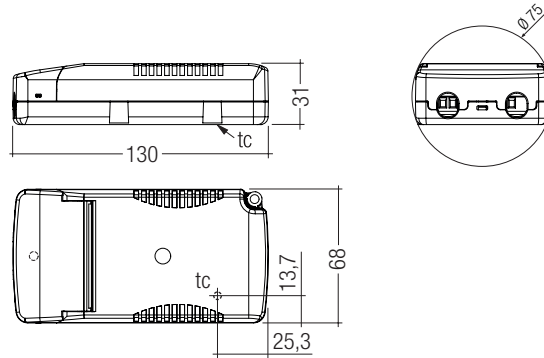


IP20 SELV        
RoHS

## TALEXconverter LC 35W 350/500/800/1050mA fixC SR SNC ESSENCE series

### Technical data

Rated supply voltage	220 – 240 V
Input voltage, AC	198 – 264 V
Input current (at 230 V, 50 Hz, full load)	0.175 A
Mains frequency	50 / 60 Hz
Input power (at 230 V, 50 Hz, full load)	38.5 W
Max. input power	41 W
Output power range	24 – 35 W
THD (at 230 V, 50 Hz, full load)	< 20 %
Output current tolerance	± 7.5 %
Typ. current ripple (at 230 V, 50 Hz, full load)	± 30 %
Turn on time (at 230 V, 50 Hz, full load)	≤ 0.5 s
Turn off time (at 230 V, 50 Hz, full load)	≤ 0.5 s
Hold on time at power failure (output)	0 s
Ambient temperature ta	-20 ... +50 °C
Ambient temperature ta (at life-time 30,000 h)	40 °C
Max. casing temperature tc	85 °C
Storage temperature ts	-40 ... +80 °C
Dimensions L x W x H	130 x 68 x 31 mm



### Ordering data

Type*	Article number	Packaging, carton	Packaging, low volume	Packaging, high volume	Weight per pc.
LC 35W 350mA fixC SR SNC	87500371	30 pc(s).	390 pc(s).	1,950 pc(s).	0.153 kg
LC 35W 500mA fixC SR SNC	87500372	30 pc(s).	390 pc(s).	1,950 pc(s).	0.153 kg
LC 35W 800mA fixC SR SNC	87500366	30 pc(s).	390 pc(s).	1,950 pc(s).	0.153 kg
LC 35W 1050mA fixC SR SNC	87500373	30 pc(s).	390 pc(s).	1,950 pc(s).	0.153 kg

### Specific technical data

Type	Output current	Power factor at full load <sup>1)</sup>	Efficiency at full load <sup>2)</sup>	Power factor at min. load <sup>3)</sup>	Efficiency at min. load <sup>3)</sup>	Min. forward voltage	Max. forward voltage	Max. output voltage	Max. repetitive output peak current at full load <sup>2)</sup>	Max. repetitive output peak current at min. load <sup>2)</sup>	Max. non-repetitive output peak current at full load <sup>2)</sup>	Max. non-repetitive output peak current at min. load <sup>2)</sup>
LC 35W 350mA fixC SR SNC	350 mA	0.95	91 %	0.90C	89 %	70 V	100 V	120 V	480 mA	530 mA	480 mA	530 mA
LC 35W 500mA fixC SR SNC	500 mA	0.95	90 %	0.90C	88 %	49 V	70 V	90 V	700 mA	760 mA	700 mA	760 mA
LC 35W 800mA fixC SR SNC	800 mA	0.95	91 %	0.91C	90 %	30 V	43 V	54 V	1,120 mA	1,280 mA	1,120 mA	1,280 mA
LC 35W 1050mA fixC SR SNC	1,050 mA	0.95	89 %	0.90C	87 %	23 V	33 V	45 V	1,470 mA	1,580 mA	1,470 mA	1,580 mA

<sup>1)</sup> Test result at 230 V, 50 Hz.

<sup>2)</sup> The trend between min. and full load is linear.

<sup>3)</sup> The article numbers 87500371, 87500372 and 87500373 are available from March 2015.

### Standards

EN 55015  
EN 60598-1  
EN 61000-3-2  
EN 61000-3-3  
EN 61347-1  
EN 61347-2-13  
EN 61547

### Overload protection

If the output voltage range is exceeded the LED control gear will protect itself and LED may flicker. After elimination of the overload, the nominal operation is restored automatically.

### Overtemperature protection

The LED control gear is protected against temporary thermal overheating. If the temperature limit is exceeded, the output current is reduced to limit  $t_c$  at a certain level.

The temperature protection is activated typically at 10 °C above  $t_c$  max.

### Short-circuit behaviour

In case of a short circuit on the secondary side (LED) the LED control gear switches into hic-cup mode. After elimination of the short-circuit fault the LED control gear will recover automatically.

### No-load operation

The LED control gear works in burst working mode to provide a constant output voltage regulation which allows the application to be able to work safely when LED string opens due to a failure.

### Installation instructions

The LED module and all contact points within the wiring must be sufficiently insulated against 3 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	$t_a$	40 °C	50 °C	60 °C
LCI 35W xxxmA SR SNC	$t_c$	75 °C	85 °C	x
	Life-time	30,000h	15,000h	x

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

### Maximum loading of automatic circuit breakers

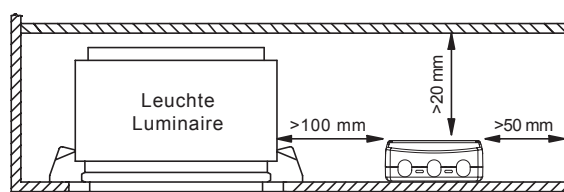
Automatic circuit breaker type	C10	C13	C16	C20	B10	B13	B16	B20	Inrush current
Installation Ø	1.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>	$I_{max}$ Time
LCI 35W 350mA fixC SR SNC	40	55	70	85	30	45	55	70	10 A 100 µs
LCI 35W 500mA fixC SR SNC	40	55	70	85	30	45	55	70	10 A 100 µs
LCI 35W 800mA fixC SR SNC	40	55	70	85	30	45	55	70	10 A 100 µs
LCI 35W 1050mA fixC SR SNC	40	55	70	85	30	45	55	70	10 A 100 µs

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

	THD	3.	5.	7.	9.	11.
LCI 35W 350mA fixC SR SNC	20	11	3	2	2	2
LCI 35W 500mA fixC SR SNC	20	9	3	3	2	2
LCI 35W 800mA fixC SR SNC	20	11	2	2	2	2
LCI 35W 1050mA fixC SR SNC	20	14	4	2	2	2

### Fixing conditions

Dry, acidfree, oilfree, fatfree. It is not allowed to exceed the maximum ambient temperature ( $t_a$ ) stated on the device. Minimum distances stated below are recommendations and depend on the actual luminaire. Is not suitable for fixing in corner.



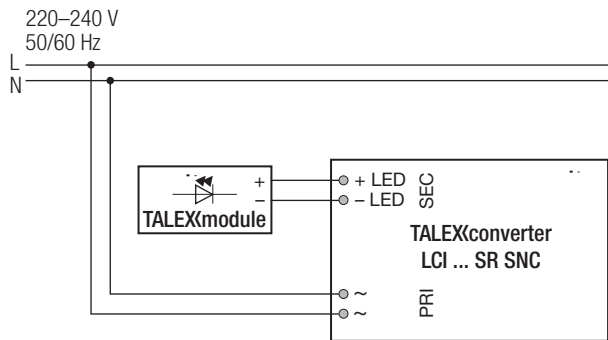
### Storage conditions

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 ( $t_a$ ) before they can be operated.

### Wiring diagram



### Glow wire test

according to EN 60598-1 with increased temperature of 960 °C passed.

### 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<sub>DC</sub> 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<sub>AC</sub> (or 1.414 x 1500 V<sub>DC</sub>). To avoid damage to the electronic devices this test must not be conducted.

### Additional information

Additional technical information at  
[www.tridonic.com](http://www.tridonic.com) → Technical Data

Guarantee conditions at  
[www.tridonic.com](http://www.tridonic.com) → Services

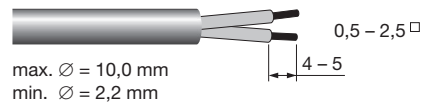
No warranty if device was opened.

### Wiring type and cross section

The wiring can be in stranded wires with ferrules or solid. For perfect function of the cage clamp terminals the strip length should be 4 – 5 mm for the input terminal.

The max. torque at the clamping screw (M3) is 0.2 Nm.

### Input / Output terminal

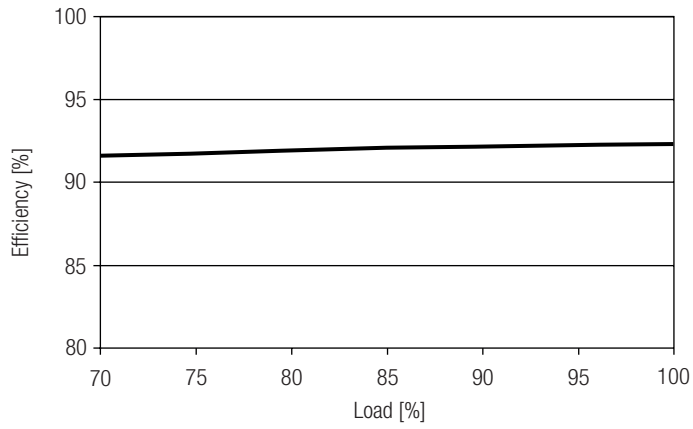


### Wiring instructions

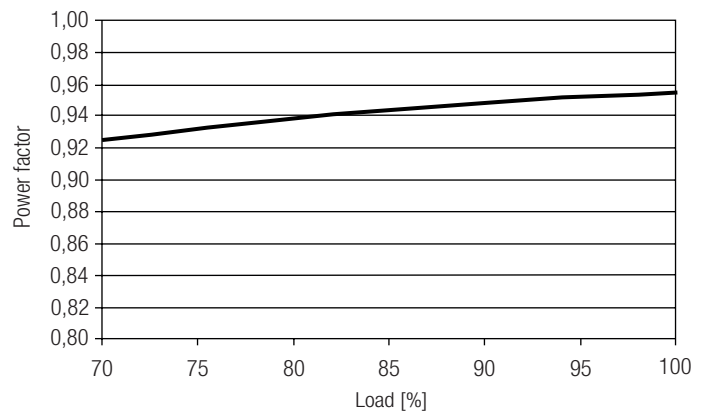
- All connections must be kept as short as possible to ensure good EMI behaviour
- Mains leads should be kept apart from LED control gear and other leads (ideally 5 – 10 cm distance)
- The maximum length of output wires is 2 m.
- Secondary switching is not permitted.
- Incorrect wiring can damage LED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

Diagrams LC 35W 350mA fixC SR SNC

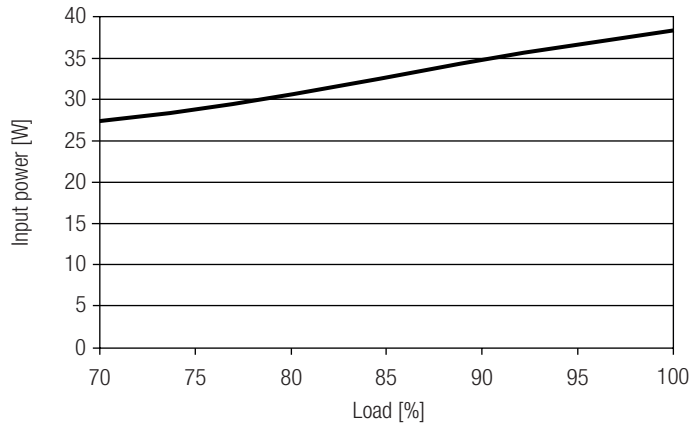
Efficiency vs load



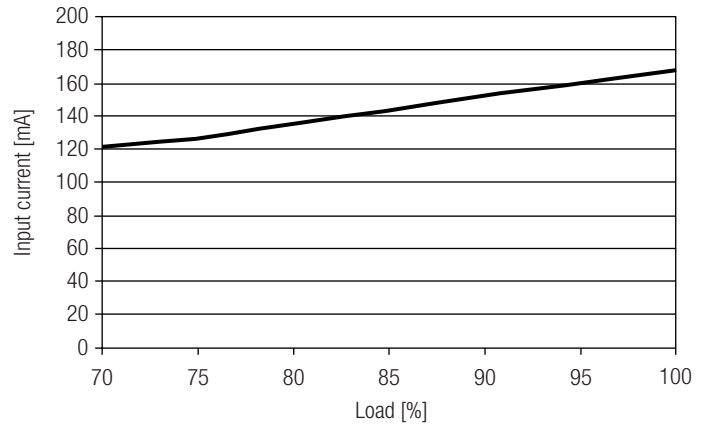
Power factor vs load



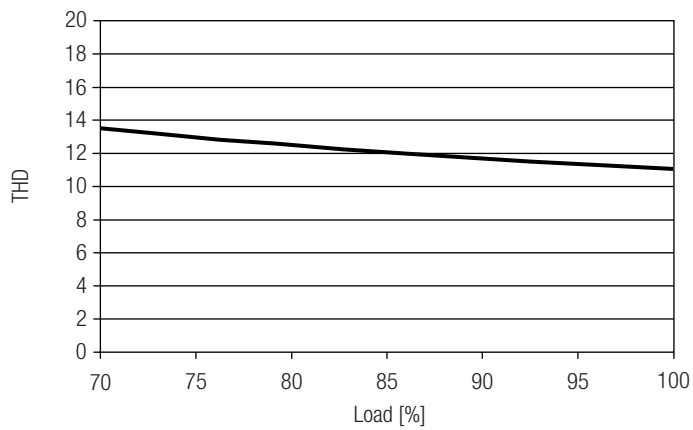
Input power vs load



Input current vs load

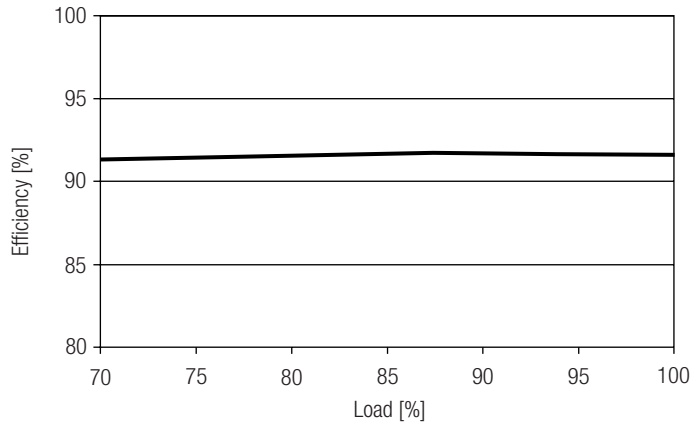


THD vs load

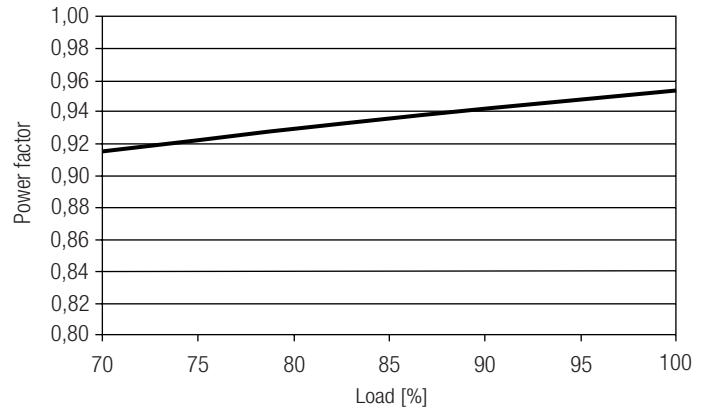


Diagrams LC 35W 500mA fixC SR SNC

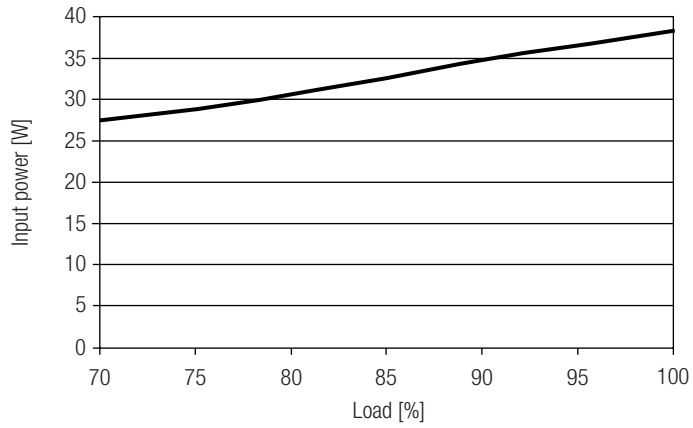
Efficiency vs load



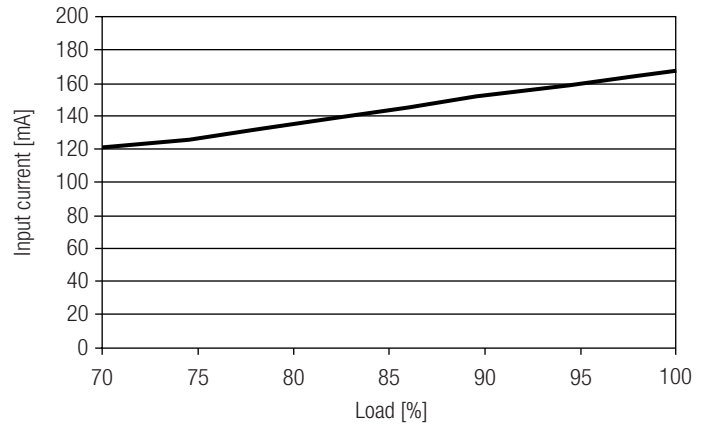
Power factor vs load



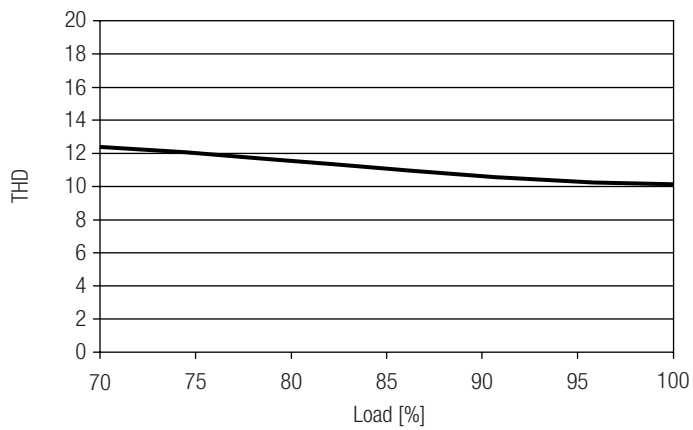
Input power vs load



Input current vs load

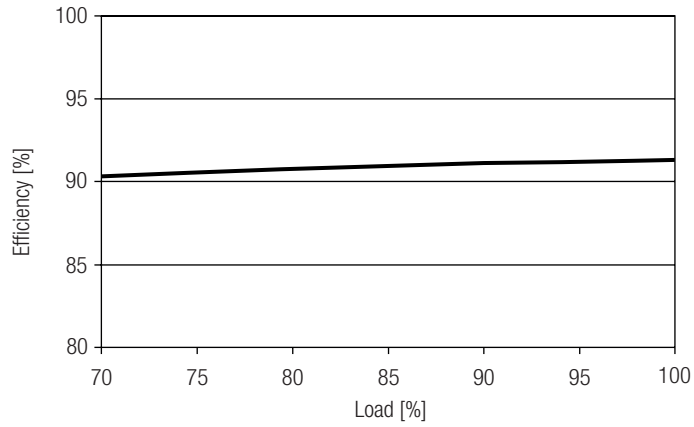


THD vs load

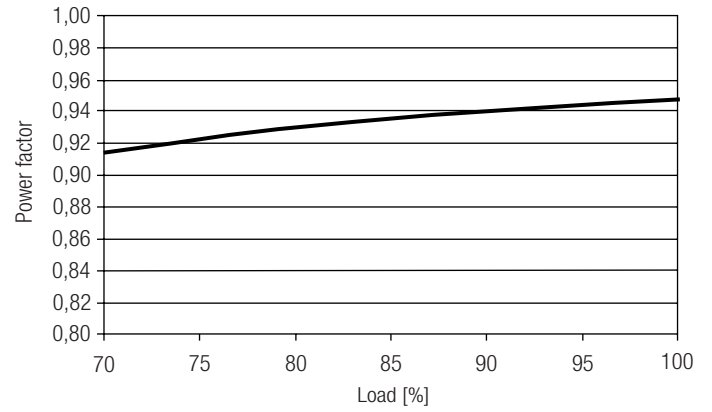


Diagrams LC 35W 800mA fixC SR SNC

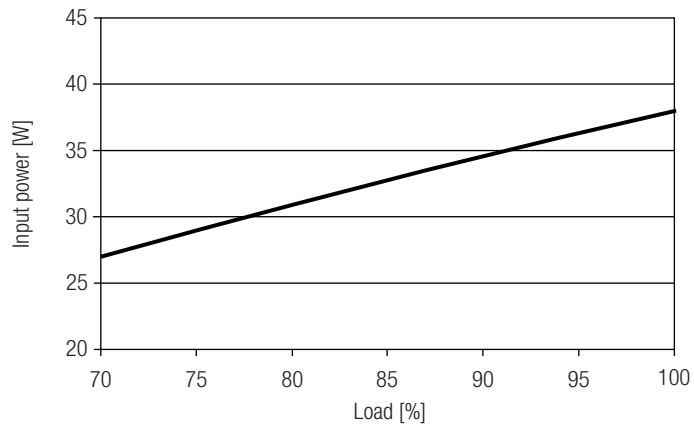
Efficiency vs load



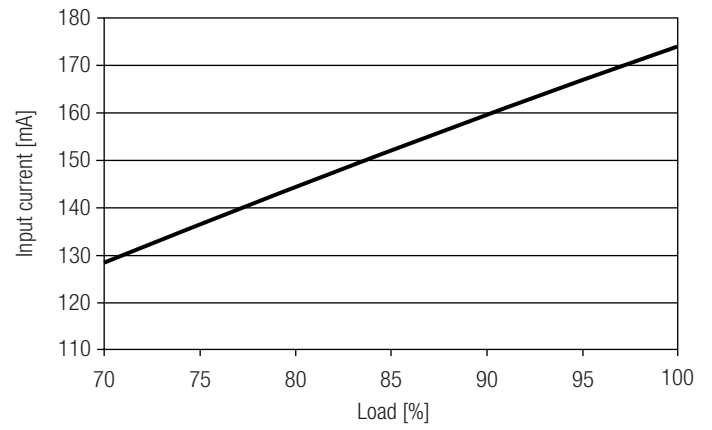
Power factor vs load



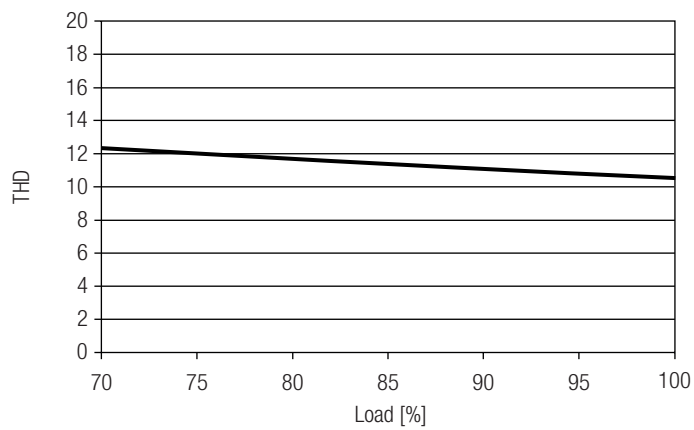
Input power vs load



Input current vs load

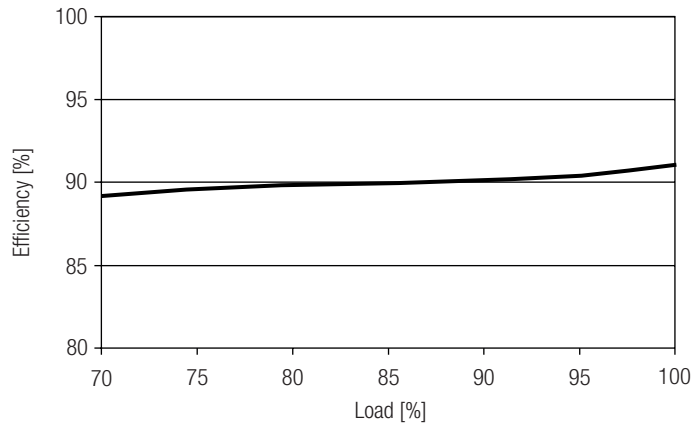


THD vs load

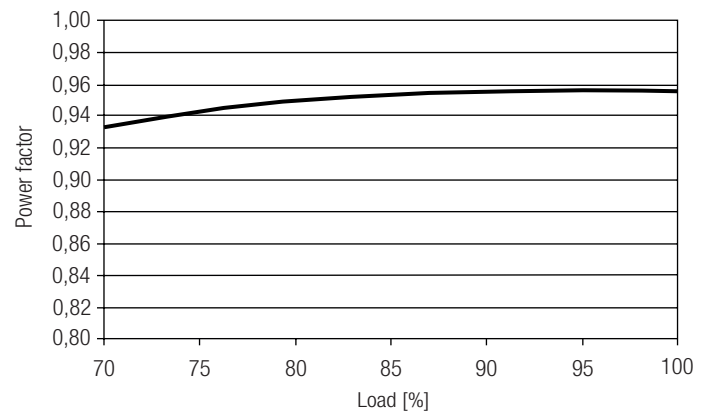


Diagrams LC 35W 1,050mA fixC SR SNC

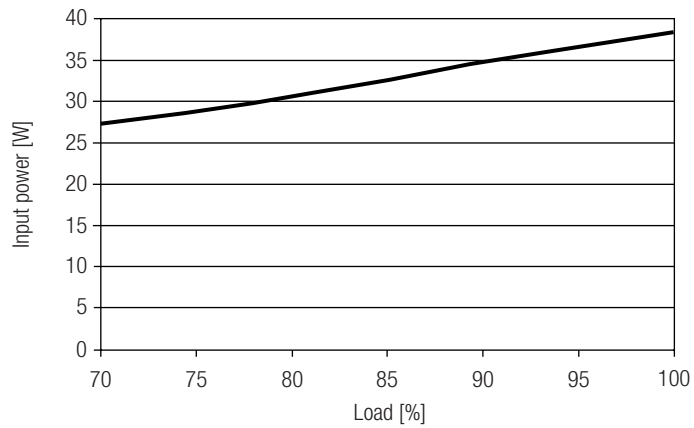
Efficiency vs load



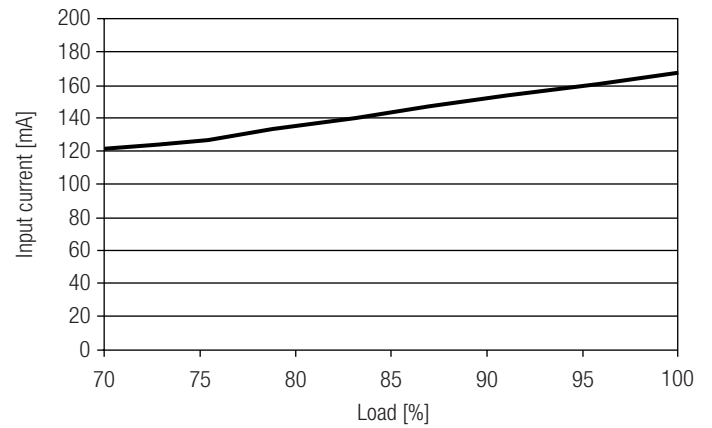
Power factor vs load



Input power vs load



Input current vs load



THD vs load

