

## LF-ACB013B-0450-42-CSB

Compact Casambi Wireless Dimmable Constant Current LED Driver



### Product family features

- Casambi dimmable
- Dimming range: 0.1-100%
- Output current tolerance: 3%
- Up to 84.5% efficiency
- Output voltage range: 2.5-42V
- Low THD<10%
- Suitable for Class I/II light fixtures
- 5 years guarantee



### Product family benefits

- Support EL function, can be applied to emergency lighting system
- Support Casambi BT wireless connection, can be applied to Casambi system
- Output current adjustable via DIP switch in 8-shifts from 100mA to 450mA
- Support output power data reporting function

### Typical applications

- For spot light and panel light
- For office, commercial and residential lighting

### Product parameters

- Output current 100-450mA
- Output power 4.2-12.9W
- Input voltage 198-264Vac
- Output voltage 2.5-42Vdc
- Efficiency 84.5%

## Electrical data

### Input data

Rated supply voltage	220 ... 240V
AC input voltage range	198 ... 264V
Mains frequency	0/50/60Hz
DC input voltage	198...264V
Power factor	≥0.95
Efficiency in max. power	≥84.5% <sup>1)</sup>
THD	<10%
Input current	0.1A Max
Inrush current	10A <sup>2)</sup>
Loading no. on circuit breaker 10 A (B)	66
Loading no. on circuit breaker 10 A (C)	66
Loading no. on circuit breaker 16 A (B)	106
Loading no. on circuit breaker 16 A (C)	106
Protective conductor current	≤0.7mA
Power input on stand-by	<0.5W

### Output data

Nominal output voltage	2.5...42V
Nominal output current	100...450mA
Default output current	300mA
Current set	DIP switch
Maximum output power	12.9W
Nominal output power	4.2 ... 12.9W
Output ripple current (100 Hz)	±3.3 %
Flicker	Comply with IEEE Std 1789-2015
CIE SVM	≤0.4
IEC-Pst	≤1
Output current tolerance	Up to ±3% <sup>3)</sup>
Temperature tolerance	±10%
Starting time	4S (start time: 1S; fade time: 3S)

### Safety

Withstanding voltage	I/P-O/P: 3.75kV&5mA&60S;
Surge capability (L-N)	1kV
Insulation resistance	I/P-O/P>100MΩ@500VDC
Guarantee	5year <sup>2)</sup>

1) Efficiency 84.5% (@42V&300mA)

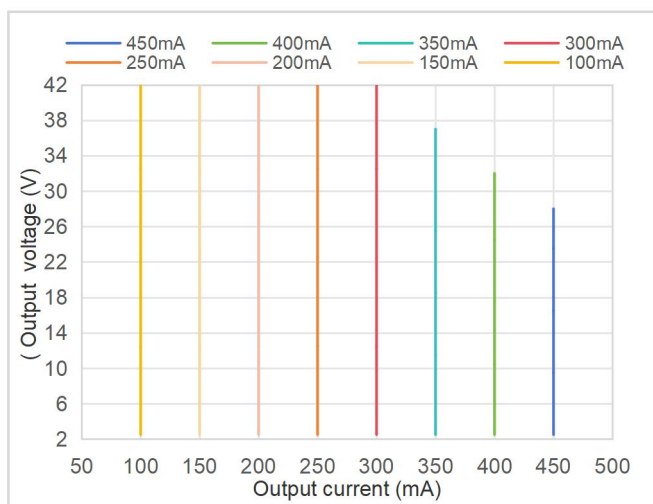
2) T=30μs

3) ±7%@100-150mA; ±5%@200-300mA; ±3%@350-450mA

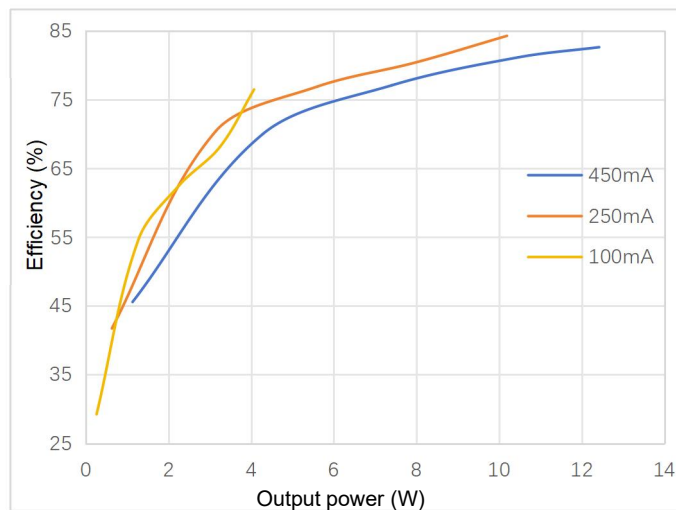
4) 5 years @Tc≤78°C

## Characteristic diagram

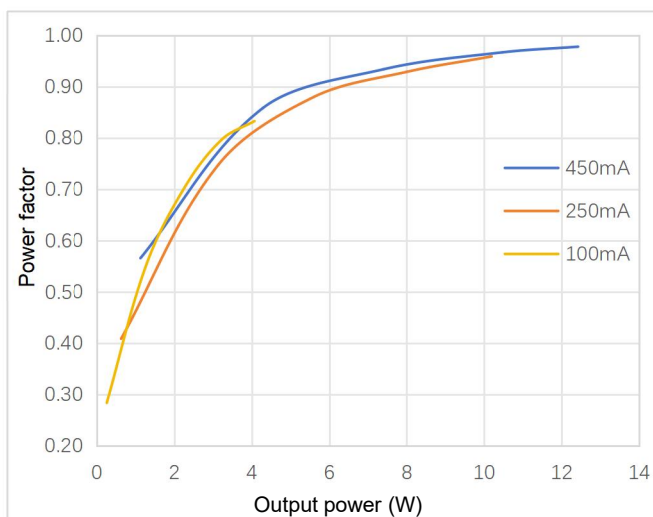
Operating Window



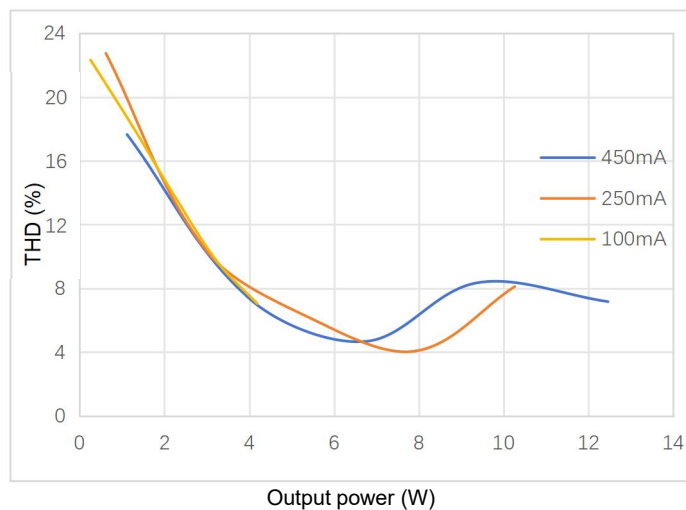
Typical Efficiency vs Load



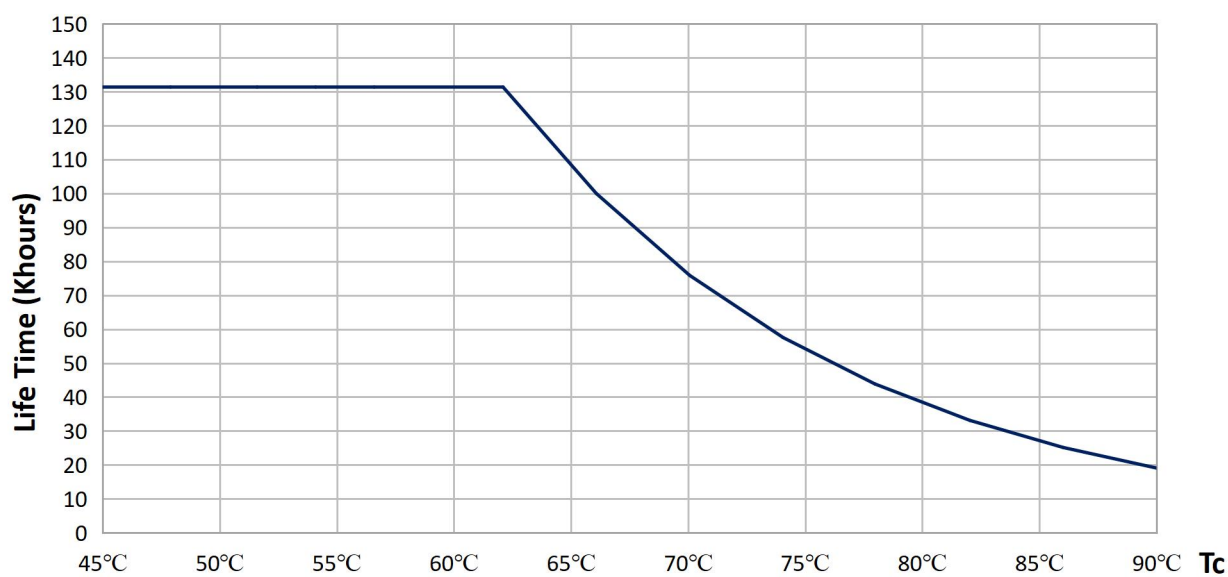
Typical Power Factor vs Load



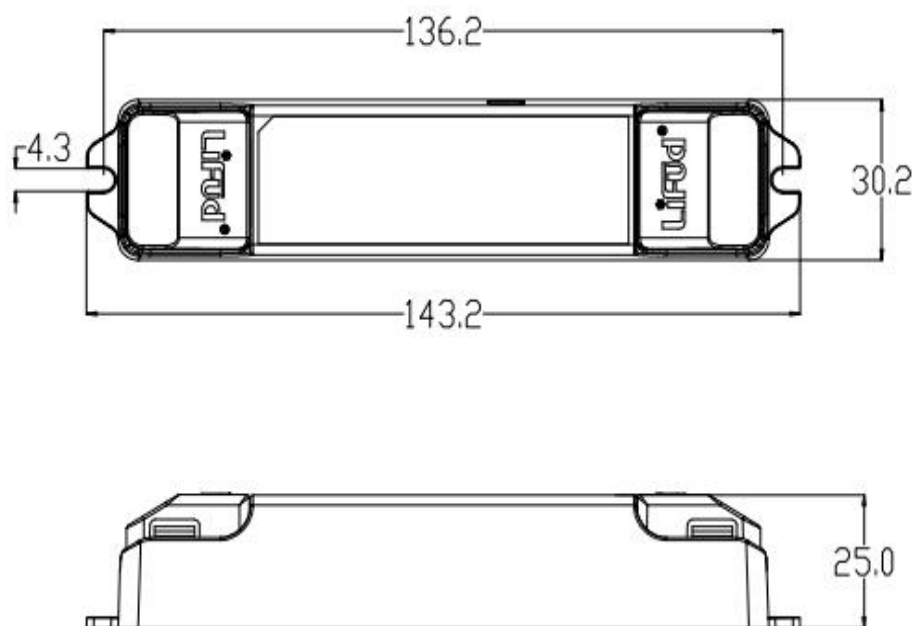
Typical THD vs Load



## Lifespan



## Dimensions



Mounting hole spacing, length	136.2mm
Product weight	63.5g
Cable cross-section, input side	0.75...1.5 mm²
Cable cross-section, output side	0.5...1.5 mm²
Cable outside diameter, input side	3...6mm
Cable outside diameter, output side	3...6mm
Wire preparation length, input side	7...8mm
Wire preparation length, output side	7...8mm
Length	143.2mm
Width	30.2mm
Height	25.0mm

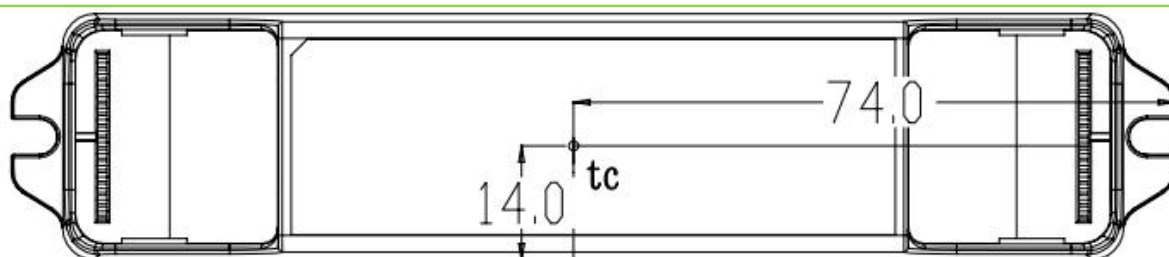
### Colors & materials

Casing material	PC
Casing color	White

## Temperature & operating conditions

Ambient temperature range	-20°C - +45°C <sup>1)</sup>
Maximum temperature at tc test point	80°C
Temperature range at storage	-30°C - +80°C (6 months in Class I environment)
Humidity range at storage	20-75%RH (no condensation)
Humidity during operation	20-95%RH (no condensation)
Atmospheric Pressure	80-106KPa
RoHS	RoHS 2.0 (EU) 2015/863

## Tc test point



**Tc point is at the top of LED driver**

## Product Terminal

Input		Output	
AC-L	AC live wire input	LED+	Positive electrode output of LED driver
AC-N	AC neutral wire input	LED-	Negative electrode output of LED driver

## Product DIP Switch

Vo DC	I rated (CC)	DIP 1	DIP 2	DIP 3
2.5-28V	450mA	OFF	OFF	OFF
2.5-32V	400mA	OFF	OFF	ON
2.5-37V	350mA	OFF	ON	OFF
2.5-42V	300mA	OFF	ON	ON
2.5-42V	250mA	ON	OFF	OFF
2.5-42V	200mA	ON	OFF	ON
2.5-42V	150mA	ON	ON	OFF
2.5-42V	100mA	ON	ON	ON

Note: DIP when power on is NOT allowed. Please disconnect the AC power before DIP.

## Capabilities

Dimmable	Casambi BT dimmable
Dimming range	0.1 ... 100%
Overheat protection	Yes
Overload protection	Yes
Short-circuit protection	Hiccup mode (Automatic reversible)
No-load protection	<59V
Suitable for fixtures with prot. class	I / II
Number of channels	1 channel

## Casambi APP

1. Casambi APP can be used on iOS and Android devices, such as smartphones, tablets and smart watches.
2. Casambi APP can be downloaded for free from Google Play and Apple App Store.



3. Please click the link below to download the Casambi APP operating instructions.

<https://support.casambi.com/support/solutions/articles/12000021610-casambi-app-user-guide-english-pdf>

## Certificates & standards

Approval marks	ENEC, CE, CB, EL, RCM
Standards	EN 61347-2-13; EN 61347-1; EN 62384; EN 62493; IEC61347-1; IEC61347-2-13; EN IEC 61347-2-13 Annex J; AS 61347.2.13 & AS/NZS 61347.1
Type of protection	IP20

## Logistical Data

Product	Packaging unit (Pieces/Unit)	Dimensions (L*W*H)	Volume	Gross weight
LF-ACB013B-0450-42-CSB	84	385 mm*285 mm*210 mm	23.04dm <sup>3</sup>	6.14kg±5%

## Test equipment & condition

#### Test Equipment

AC power source: CHROMA6530, digital power meter: CHROMA66202, oscilloscope: Tektronix DPO3014, DC electronic load: M9712B, LED board, constant temperature and humidity chamber, lightning surge generator: Everfine EMS61000-5B, rapid group pulse generator: Everfine EMS61000-4A, spectroanalyzer: KH3935, hi-pot tester: EEC SE7440, flicker tester (flicker-free coefficient test): Everfine LFA-3000, etc.

If there are no special remarks, the above parameters are tested at the ambient temperature of 25°C, humidity of 50%, maximum output load and input voltage of 230Vac/50Hz.

## Additional information

1. It is recommended that user install the over voltage protection, under voltage protection and surge protection devices in the power supply circuits of light fixtures to ensure electricity safety.
2. The LED driver used in combination with the end device is one of the accessories of the whole light fixture, and the EMC of the whole light fixture is not only susceptible to the driver itself, but to the LED light fixture and the whole light fixture's wiring. Thus, the manufacturer of LED light fixture should re-confirm the EMC of the whole light fixture before the whole light fixture is finished.
3. The test conditions of the circuit breaker configuration quantity are the same as those of the inrush current.
4. The PC cover, casing and end cap for assembling the LED driver in the light fixture must meet the fire rating of UL94-V0 or above.
5. Please disconnect AC input when DIP to different current; and then connect to AC input when DIP is done.
6. DC input is only for emergency.
7. Lifud Technology Co., Ltd. reserves the right to interpret any contents of this specification.

## Transportation & storage

Suitable transportation means: vehicles, boats and aeroplanes.

In transit, it is necessary to prepare awnings for rain or sun protection. Moreover, please keep civilized loading and unloading to prevent the vibration or impact of LED driver as much as possible.

The storage of LED driver shall conform to the standard of Class I environment. When using LED drivers which have been stored for more than 6 months, please re-test them firstly. Do not use them unless they are tested to be qualified.

## Cautions

Please use Lifud LED driver according to its parameters in the specification, otherwise the LED driver may malfunction.

Using any incompatible light fixtures or those that have not been certified may cause fire, explosion or other risks.

Man-made damage is beyond the scope of Lifud warranty service.

## Disclaimer

Subject to change without notice. Errors and omission excepted. Always make sure to use the most recent release.