Casambi 25W 1CH NFC Enabled LED Driver(Constant Current)



Important: Read All Instructions Prior to Installation

Function introduction



Product Data

	LED Channel	1									
	DC Voltage	6-54V, Max. 60V									
	Current	250-700mA via NFC tool; Min.current gear lower to 0.1mA, default 500mA									
Output	Current Accuracy	±3%(±1%@Certain full load) @ full load									
	Rated Power	Max. 25W									
	Voltage Range	220-240VAC/220-240VDC									
	Absolute Voltage Range	196-264VAC/196-264VDC									
	Frequency Range	0/50/60Hz									
	Power Factor (Typ.)	> 0.96 @ 230VAC Full load*									
	Total Harmonic Distortion	THD ≤ 13% (@ full load / 230VAC)*									
Input	Efficiency (Typ.)	> 83% @ 230VAC full load*									
	AC Current (Typ.)	0.2A Max.									
	Inrush Current (Typ.)	Max. 5.64A at 230VAC; 72µs duration									
	Leakage Current	< 5mA/230VAC									
	Standby Power Consumption	< 0.5W									
	Anti Surge	L-N:2KV									
	Dimming Interface	Casambi									
Control	Dimming Range	0.01%-100%@ Max current									
	Dimming Method	Amplitude/CCR dimming									
	Dimming Curve	Linear/ Logarithmic optional									

Protection	Short Circuit	Yes, remove the fault conditions and re-power the device.								
	Over Current	Yes, remove the fault conditions and re-power the device.								
	Over Temperature	Yes, remove the fault conditions and re-power the device.								
Environment	Working Temp.	-25℃ ~ +45℃								
	Max. Case Temp.	Tc=85°C								
	Working Humidity	10% ~ 95% RH non-condensing								
	Storage Temp. & Humidity	-40°C ~ +80°C, 10% ~ 95% RH								
Safety & EMC	Safety Standards	EN61347-1, EN61347-2-13, GB/T 19510.1-2023, GB/T 19510.213-2023								
	Withstand Voltage	I/P-O/P: 3.75KVAC								
	Isolation Resistance	I/P-O/P: 100M Ohms / 500VDC / 25°C / 70% RH								
	EMC Emission	EN55015, EN61000-3-2, EN61000-3-3, GB 17625.1-2022, GB/T 17743-2021								
	EMC Immunity	EN61547, EN61000-4-2,3,4,5,6,8,11								
Others	MTBF	191350H, MIL-HDBK-217F @ 230VAC full load and 25°C ambient temperature								
	Dimension	120x41x28mm (L*W*H)								
	Warranty	5 Years								

^{*:} PF/THD/Eff shall be different per different testing setup and equipment.

- Casambi dimmable LED driver, works with Casambi network
- 1 channel dimmable LED driver. Max. output power 25W
- 250-700mA current selectable via NFC program tool. Min.current gear lower to 0.1mA
- Class II power supply, full isolated plastic case
- High power factor and efficiency
- To switch and dim LED lighting luminaries
- Amplitude/CCR dimming, smooth and deep dimming
- IP20 rating, suitable for indoor LED lighting applications
- 5 years warranty

Safety & Warnings

- DO NOT install with power applied to the device.
- DO NOT expose the device to moisture.

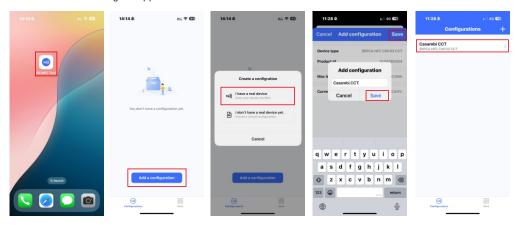
Operation

Configuration via NFC tool

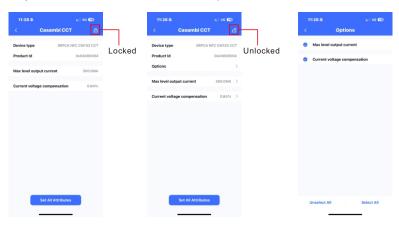
Note

- 1) Please do not power on the device during the whole programming process.
- 2) Please make sure your phone has NFC function and enable it.
- 3) If you can't download the app, please contact us.

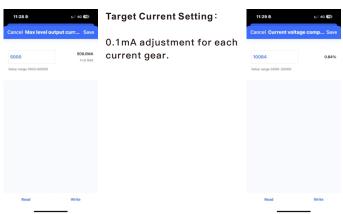
Step 1: Install SR NFC Tool app on your phone(search SR NFC Tool from Apple Store or Google Play), and add the device following the app instructions.



Step 2: Unlock the device and set the wanted parameters.



Parameters explained:

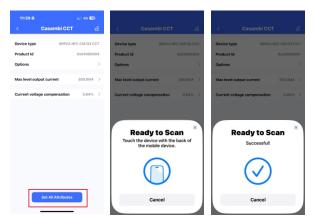


Current Compensation:

It is realized by setting different levels of current compensation for NFC drivers in different power segments and different currents of the driver.

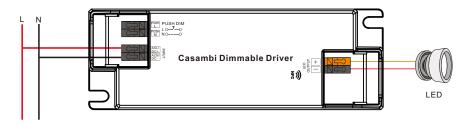
It is a method to realize fine lighting control for most constant-current luminaries in the market (such as downlight, spotlight, panel light, etc).

Step 3: After setting, write all configurations to the device.

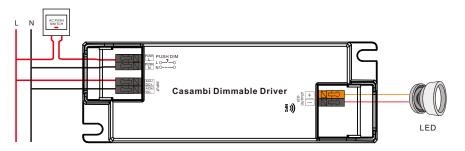


Wiring Diagram

Application 1 (Without PUSH)



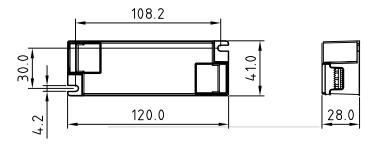
Application 2 (With PUSH)



Push Dim

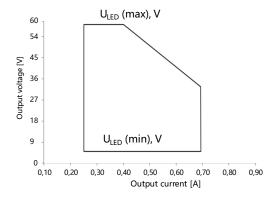
- 1) Short press to switch on or off.
- 2) Long press to dim up or dim down.

Product Dimension

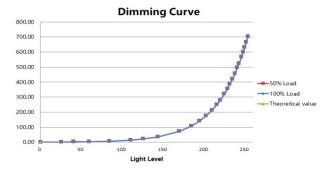




Operating window

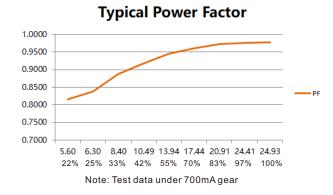


Dimming Curve

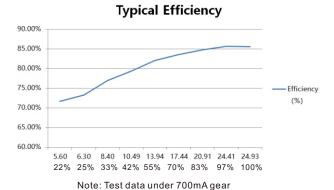


Note: Test data under 700mA gear

Driver Performance

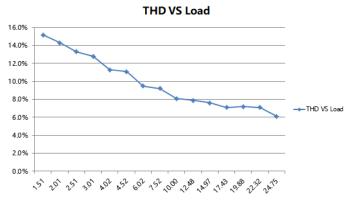


Driver Performance



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Driver Performance



6% / 8% / 10% / 12% / 16% / 18% / 24% / 30% / 40% / 50% / 60% / 70% / 80% / 90% / 100%

Note: Test data under 700mA gear

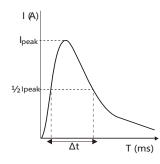
Expected Lifetime

Module Number	Output current	Та	30 °C	40 °C	45 °C	•••	
SRP-CA9105N-25CC250-700	250 – 700 mA	Tc	50 °C	60 °C	70 °C	•••	85 °C
SRP-CA9105N-25CCT250-700	250 – 700 mA	Lifetime	> 100,000 h >	· 100,000 h	> 100,000	h	> 40,000 h

The LED driver is designed for a lifetime stated above under reference conditions. The relation of tc to ta temperature depends also on the luminaire design.

MCB Load Quantity

Module Number	Ipeak	Twidth	B10 B13 B16			Max B20	Max.quantity of LED Driver per MCB B20 B25 C10 C13 C16 C20 C25 D10 D13 D16 D20 D25										
SRP-CA9105N-25CC250-700	5.64A	72µs	26	34	42	53	66	35	45	56	70	87	40	52	64	80	100
SRP-CA9105N-25CCT250-700	5.64A	72µs	26	34	42	53	66	35	45	56	70	87	40	52	64	80	100



Note:

- 1. Those MCB parameters are based on ABB S200 series circuit breakers.
- 2.For different brands and models of miniature circuit breakers, the quantity of drivers will have difference.
- Please do not exceed the above-mentioned quantity during on-site installation, and the specific load quantity shall be subject to on-site installation.
- 4.When the installation environment temperature of MCBs exceeds $30^{\circ}\mathcal{C}$ or when multiple MCBs are installed side by side, the number of mounted drives will be reduced, which requires recalculation.
- $5. \\ Type\ C\ MCB's\ are\ strongly\ recommended\ to\ use\ with\ LED\ lighting$

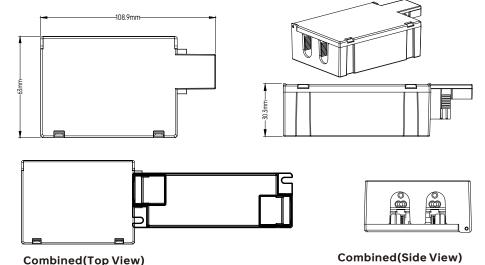
Quick Connector Box (Optional for Order)

SRP-Loopbox-01

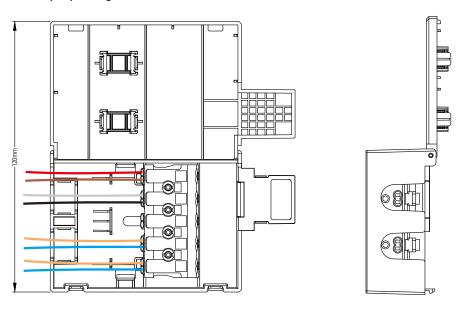
Loop in & Loop Out design

1x DALI Loop in 1x AC Loop in 1x DALI Loop out 1x AC Loop out

Wiring capability: 0.5-2.5mm²(AWG 14-20)



Note: Because the height of the 25W enclosure is slightly lower than that of the Loop box (Due to its own compact design), it may be necessary to add a gasket on the plane (to maintain balance), not necessarily depending on site conditions.

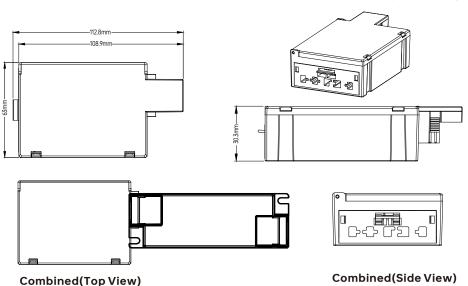


Quick Connector Box (Optional for Order)

SRP-Loopbox-02

Plug & Play design (Wago Terminal)

Wiring capability: 0.5-2.5mm²(AWG 14-20)



Note: Because the height of the 25W enclosure is slightly lower than that of the Loop box (Due to its own compact design), it may be necessary to add a gasket on the plane (to maintain balance), not necessarily depending on site conditions.

