

# 10W Mini DALI DT8 NFC LED Driver(Constant Current)



Important: Read All Instructions Prior to Installation

## Function introduction



## Product Data

<b>Output</b>	<b>LED Channel</b>	2
	<b>DC Voltage</b>	12-42V, 3-12V still valid but performance shall be pending on site
	<b>Current</b>	100-450mA via NFC tool; Min.current gear lower to 0.1mA, default 350mA
	<b>Current Accuracy</b>	±3% (±1%@Certain full load) @ full load
	<b>Rated Power</b>	Max. 10W
	<b>Voltage Range</b>	220-240VAC/220-240VDC
<b>Input</b>	<b>Absolute Voltage Range</b>	196-264VAC/196-264VDC
	<b>Frequency Range</b>	0/50/60Hz
	<b>Power Factor (Typ.)</b>	> 0.93 @ 230VAC Full load
	<b>Total Harmonic Distortion (Typ.)</b>	THD ≤ 15% (@ full load / 230VAC)
	<b>Efficiency (Typ.)</b>	> 75% @ 230VAC full load
	<b>AC Current (Typ.)</b>	0.1A Max.
	<b>Inrush Current (Typ.)</b>	Max. 3.18A at 230VAC; 22μs duration
	<b>Leakage Current</b>	< 5mA / 230VAC
	<b>Standby Power Consumption</b>	< 0.5W
<b>Control</b>	<b>Anti Surge</b>	L-N:1KV
	<b>Dimming Interface</b>	DALI Device Type 8 (DALI consumption < 2mA)/ AC Push
	<b>Dimming Range</b>	0.01%-100%@ Max current
	<b>Dimming Method</b>	Amplitude/CCR dimming
	<b>Dimming Curve</b>	Linear/ Logarithmic optional

<b>Protection</b>	<b>Short Circuit</b>	Yes, remove the fault conditions and re-power the device.
	<b>Over Current</b>	Yes, remove the fault conditions and re-power the device.
	<b>Over Temperature</b>	Yes, remove the fault conditions and re-power the device.
<b>Environment</b>	<b>Working Temp.</b>	-25°C ~ +45°C
	<b>Max. Case Temp.</b>	Tc=85°C
	<b>Working Humidity</b>	10% ~ 95% RH non-condensing
	<b>Storage Temp. &amp; Humidity</b>	-40°C ~ +80°C, 10% ~ 95% RH
<b>Safety &amp; EMC</b>	<b>Safety Standards</b>	EN61347-1, EN61347-2-13, GB/T 19510.1-2023, GB/T 19510.213-2023
	<b>Withstand Voltage</b>	I/P-O/P: 3.75KVAC
	<b>Isolation Resistance</b>	I/P-O/P: 100M Ohms / 500VDC / 25°C / 70% RH
	<b>EMC Emission</b>	EN55015, EN61000-3-2, EN61000-3-3, GB 17625.1-2022, GB/T 17743-2021
	<b>EMC Immunity</b>	EN61547, EN61000-4-2,3,4,5,6,8,11
<b>Others</b>	<b>MTBF</b>	191350H, MIL-HDBK-217F @ 230VAC full load and 25°C ambient temperature
	<b>Dimension</b>	122x23x21mm (L*W*H)
	<b>Warranty</b>	5 Years

- In compliance with IEC 62386-101:2014, IEC 62386-102:2014, IEC 62386-207 Ed2, IEC 62386-209:2011
- Built-in DALI-2 interface, DALI DT8 device
- Dimmable LED driver. Max. output power 10W
- 100-450mA current selectable via NFC program tool. Min.current gear lower to 0.1mA
- DALI Address/Group/Scene setting via NFC program tool.
- Class II power supply, full isolated plastic case
- High power factor and efficiency
- To switch and dim CCT LED lighting luminaries
- Amplitude/CCR dimming, smooth and deep dimming
- Compatible with universal DALI masters that support DT8 commands
- DALI-251/252/253 Enabled, DALI data inside
- Error report function
- LED Driver has Class A sound ratings per Energy-star regulated
- 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

### With DALI master

1. DALI Address

1 DALI address for 2 channels output are assigned by DALI Master controller automatically, please refer to user manuals of compatible DALI Masters for specific operations.

## With NFC Programming devices

### Note

1) Do wiring according to the wiring diagram and power on the DALI system .

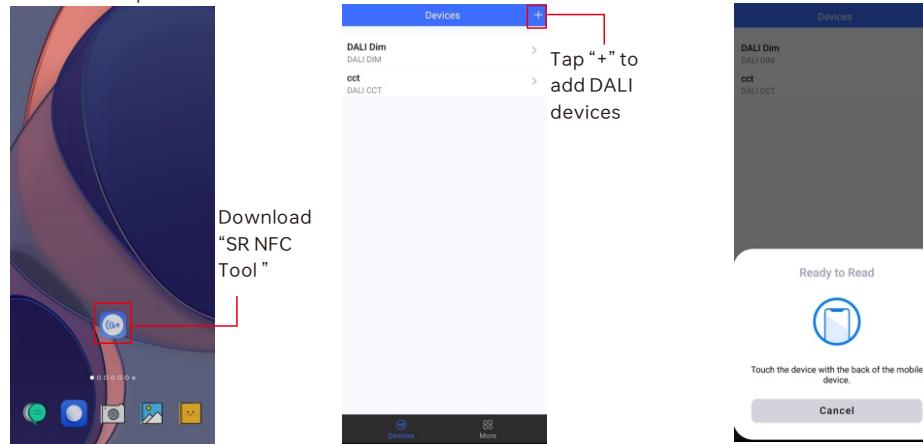
2) Recommend setting parameters without power-on the DALI devices .

2) Please make sure your mobile phone has NFC function and enable it .

### Working with “SR NFC Tool” APP

Step 1: Download the APP (searching “SR NFC Tool” from App Store and Google Play) .

Then open the APP .



Note: 1. Please Make sure that you have enabled NFC function with your mobile phone/ tablet .

2. Please Make sure that the “NFC position” is matched .

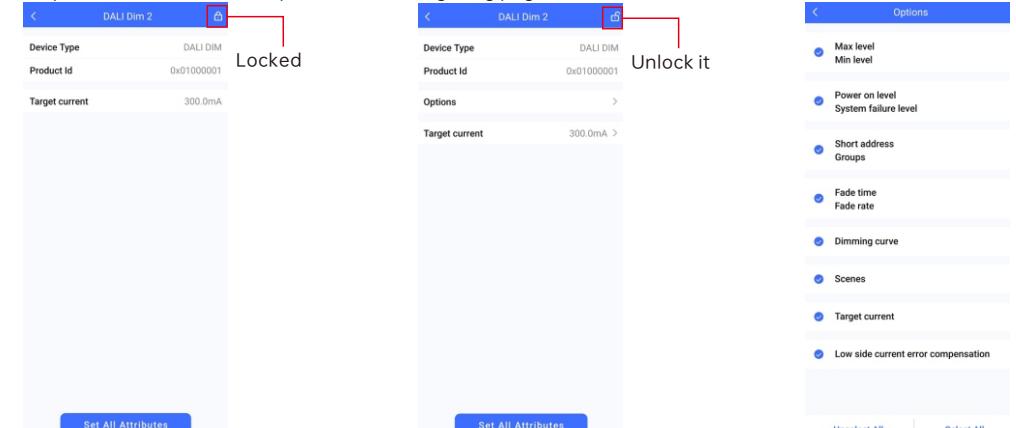
3. Please do not power on the device before setting .

4. If you can't download “SR NFC Tool” . Please contact with us .

Step 2: Add device, and name it as you wish.



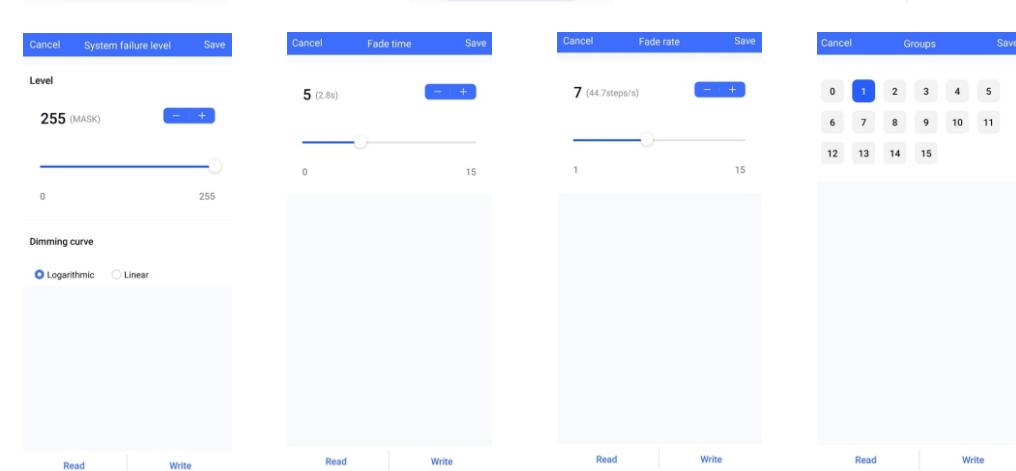
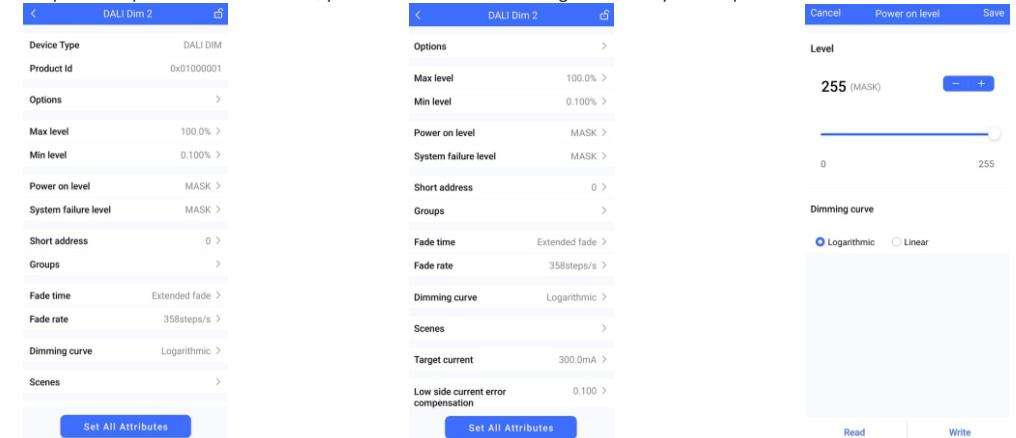
Step 3: Unlock device, enter parameters configuring page.



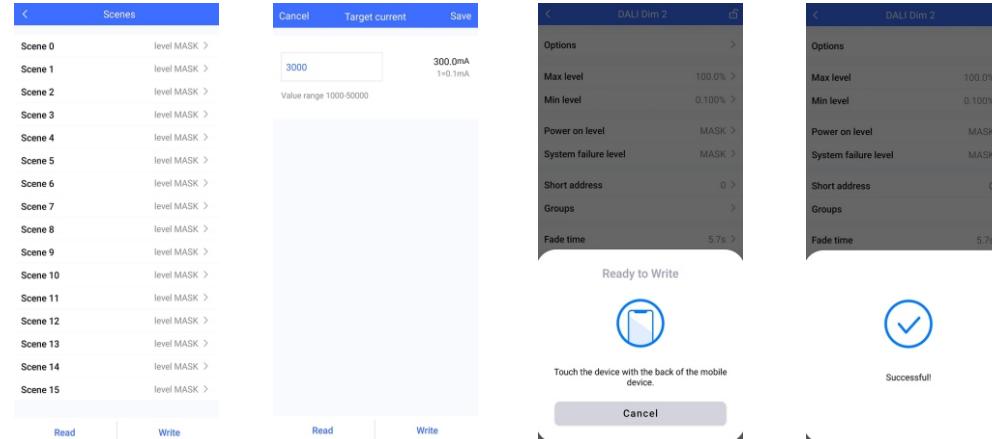
Note: 1. You have to unlock the device then do some settings

2. Only when the corresponding function is selected, the function interface will be displayed.

Step 4: Few parameter interface, you can choose the setting based on your requirements.



Step 5: After setting, please save the selected configuration via NFC and power on the device.



## Tips

1. NFC function doesn't require any power driver.
2. Many functions can be configured by NFC. Kindly check your desired functions.
3. All of our DALI drivers are in the best performance within our DALI master/DALI IoT gateway.
4. This is a 2-channel output product, so we recommend ensuring that both loads are connected and have the same loads for each channel at the same time during testing.

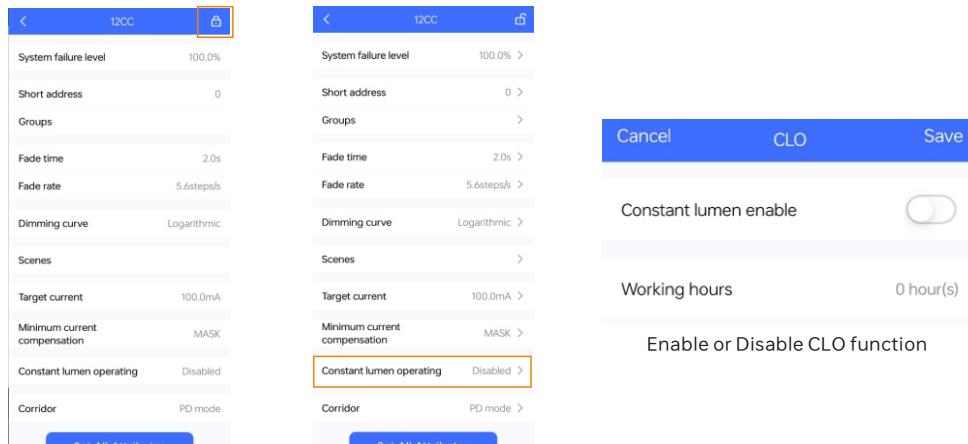
4.1 If you have to connect 1 channel to test, please follow the following moves (**before powering on**).

4.1.1 If you are connected to "+/WW" (signal channel), please make sure to set "**power on CCT**" of NFC Driver to 2700k (DALI default value), and write to the device.

4.1.2 If you are connected to "+/CW" (signal channel), please make sure to set "**power on CCT**" of NFC Driver to 6500k (DALI default value), and write to the device.

## CLO FUNCTION INSTRUCTION

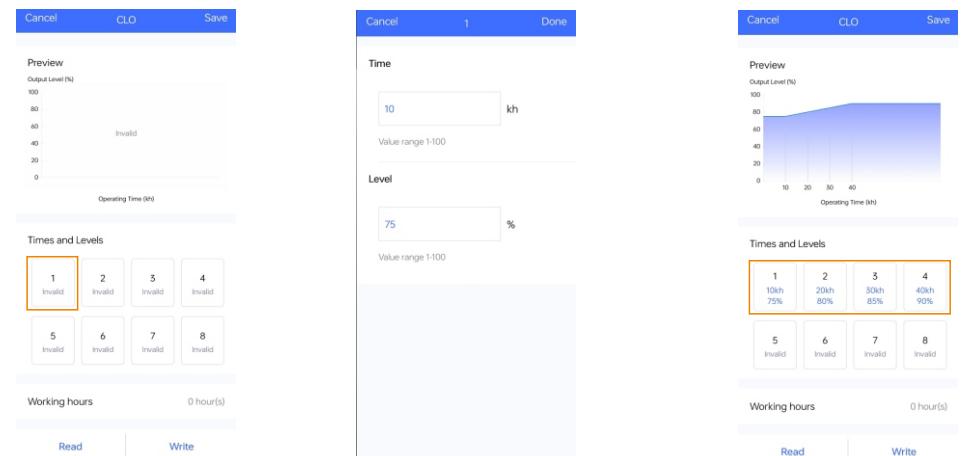
### 1. Open APP, and Find the CLO function



Read From the NFC Driver

Unlock it, and Click here to enter CLO settings

2. Enter CLO Setting homepage



Enable CLO function

Click "1", and set its time and level

Set your desired time and levels.

Graphic display

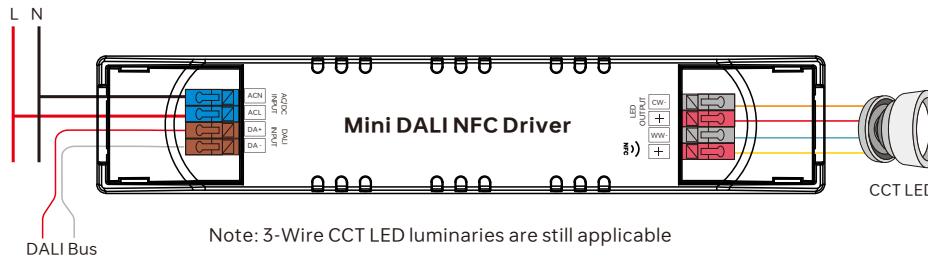
## Tips:

Working hours: Ability to calculate the working hours of a single driver.

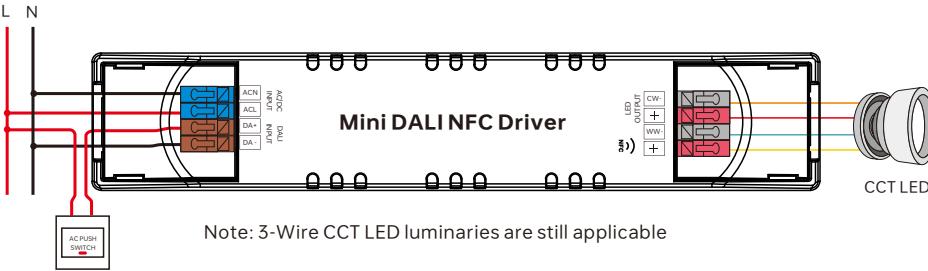
## Wiring Diagram

### 1. With DALI bus

#### 1.1 With CCT LED luminaire



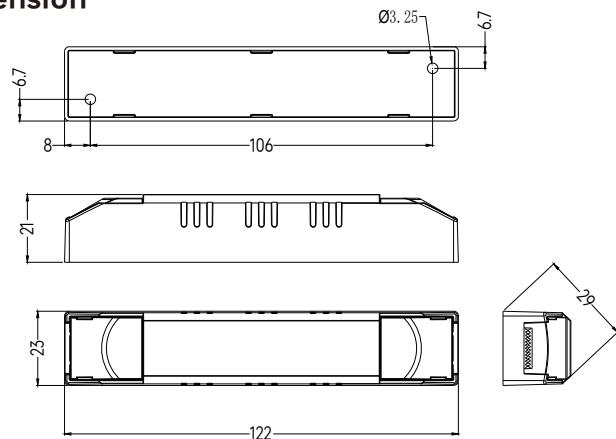
### 2. With PUSH dimmer



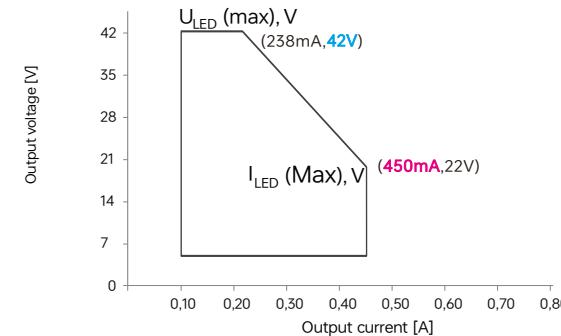
## AC Push Function

- 1) Click the button to switch ON/OFF
- 2) Press and hold down the button to increase or decrease light intensity to desired level and release it, then repeat the operation to adjust light intensity to opposite direction. The dimming range is from 1% to 100%.
- 3) Double click the button to switch between brightness mode and color temperature mode.
- 4) Press and hold down the button to change color temperature under color temperature mode.

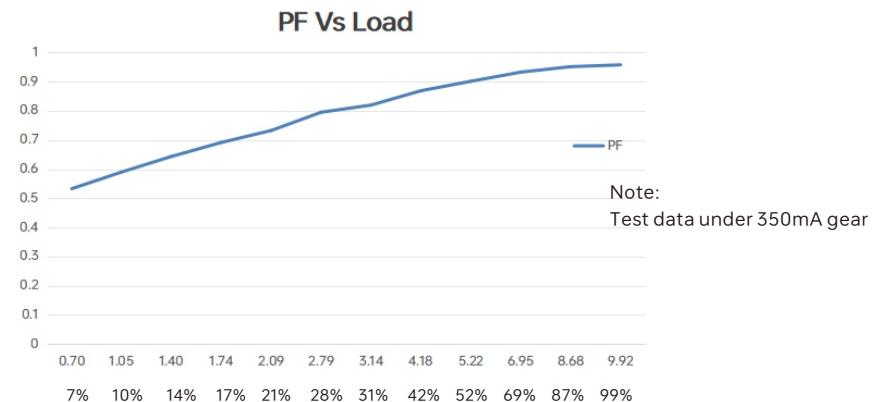
## Product Dimension



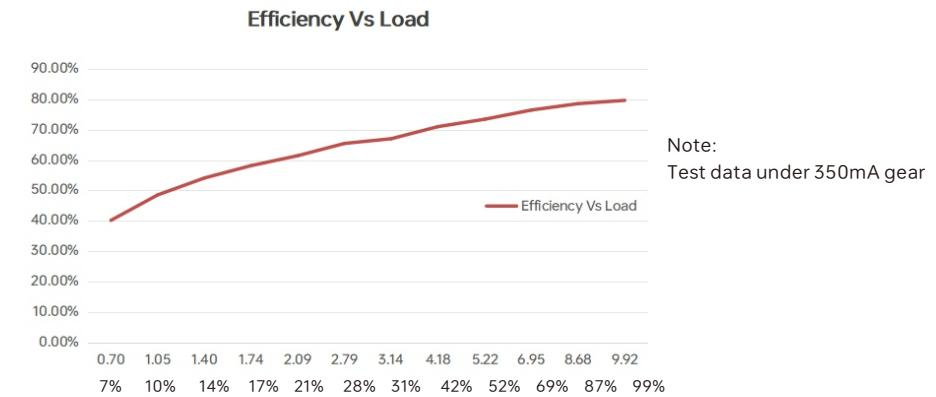
## Operating window



## Driver Performance



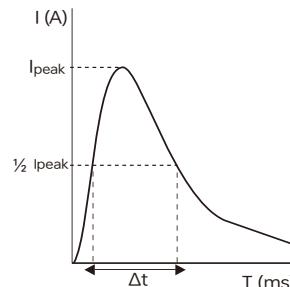
## Driver Performance



## Driver Performance



Note:  
Test data under 350mA gear



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.
- 3.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°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

## Expected Lifetime

Module Number	Output current	Ta	30 °C	40 °C	45 °C
SRPM-2305N-10CC100-450	100 – 450 mA	Tc	65 °C	77 °C	85 °C
SRPM-2309N-10CCT100-450	100 – 450 mA	Lifetime	> 100,000 h	> 80,000 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	Max.quantity of LED Driver per MCB														
			B10	B13	B16	B20	B25	C10	C13	C16	C20	C25	D10	D13	D16	D20	D25
SRPM-2305N-10CC100-450	3.18A	22μs	86	111	137	171	214	100	130	160	200	250	114	149	183	229	286
SRPM-2309N-10CCT100-450	3.18A	22μs	86	111	137	171	214	100	130	160	200	250	114	149	183	229	286

## Update log

Date	Version	Update content	Update by
2024-8-8	V1.0	Initial Version	Romeo

Note: Subject to change without notice. Please contact us if you have any questions.