# 50W DALI DT6 NFC Enabled LED Driver(Constant Current)

DALI 2 | CE | RoHS COMPLIANT | RIPPLE FREE | SELV □ ⌂ ⌧

**Important:** *Read All Instructions Prior to Installation*

## Function introduction

DALI signal input
AC Push input



GND
DA
DA
ACN/DC-
ACL/DC+

PUSH DIM
NO—•—◯DA
L◯—◯DA

DALI DIMMABLE DRIVER

0.5-1.5mm²
6-7mm

NFC

− +

AC/DC power input

LED Output

## Product Data

| | | |
|---|---|---|
| **Output** | LED Channel | 1 |
| | DC Voltage | 10-54V |
| | Current | 650-1300mA via NFC setting; Min.current gear lower to 0.1mA,Default 1300mA |
| | Current Accuracy | ±3%( ±1%@Certain full load) @ full load |
| | Rated Power | Max. 50W |
| **Input** | Voltage Range | 220-240VAC/ 176-280VDC |
| | Frequency Range | 0/50/60Hz |
| | Power Factor (Typ.) | > 0.97 @ 230VAC Full load |
| | Total Harmonic Distortion | THD ≤ 6% (@ full load / 230VAC) |
| | Efficiency (Typ.) | > 88% @ 230VAC full load |
| | AC Current (Typ.) | 0.3A @ 230VAC |
| | Inrush Current (Typ.) | Max. 26.6A at 230VAC; 144μs duration |
| | Leakage Current | < 5mA /230VAC |
| | Standby Power Consumption | < 0.5W |
| | Anti Surge | L-N:2KV |
| **Control** | Dimming Interface | DALI Device Type 6 (DALI consumption < 2mA)/ AC Push |
| | Dimming Range | 0.01%-100%@ Max current |
| | Dimming Method | Amplitude/CCR dimming |
| | Dimming Curve | Linear/ Logarithmic optional |

| | | |
|---|---|---|
| **Protection** | Short Circuit | Yes, recovers automatically after fault condition is removed |
| | Over Current | Yes, recovers automatically after fault condition is removed |
| | Over Temperature | Yes, recovers automatically after temperature drop |
| **Environment** | Working Temp. | -25℃ ~ +60℃ |
| | Max. Case Temp. | TC=90℃ |
| | Working Humidity | 10% ~ 95% RH non-condensing |
| | Storage Temp. & Humidity | -40℃ ~ +80℃, 10% ~ 95% RH |
| **Safety & EMC** | Safety Standards | EN61347-1, EN61347-2-13 |
| | Withstand Voltage | I/P-O/P: 3.75KVAC |
| | Isolation Resistance | I/P-O/P: 100M Ohms / 500VDC / 25℃ / 70% RH |
| | EMC Emission | En55015, EN61000-3-2, EN61000-3-3 |
| | EMC Immunity | En61547, EN61000-4-2,3,4,5,6,8,11 |
| **Others** | MTBF | 191350H, MIL-HDBK-217F @ 230VAC full load and 25℃ ambient temperature |
| | Dimension | 285x30x21mm (L*W*H) |
| | Warranty | 5 Years |

- In compliance with IEC 62386-101:2014, IEC 62386-102:2014, IEC 62386-207 Ed2
- Built-in DALI-2 interface, DALI DT6 device
- Dimmable LED driver with linear metal housing. Max. output power 50W
- 650-1300mA 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, isolated design
- High power factor and efficiency
- To switch and dim LED lighting luminaries
- Amplitude/CCR dimming, smooth and deep dimming
- Compatible with universal DALI masters that support DT6 commands
- DALI-251/252/253 Enabled，DALI data inside
- 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 1 channel 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 .**



Download "SR NFC Tool "

Tap "+" to add DALI devices
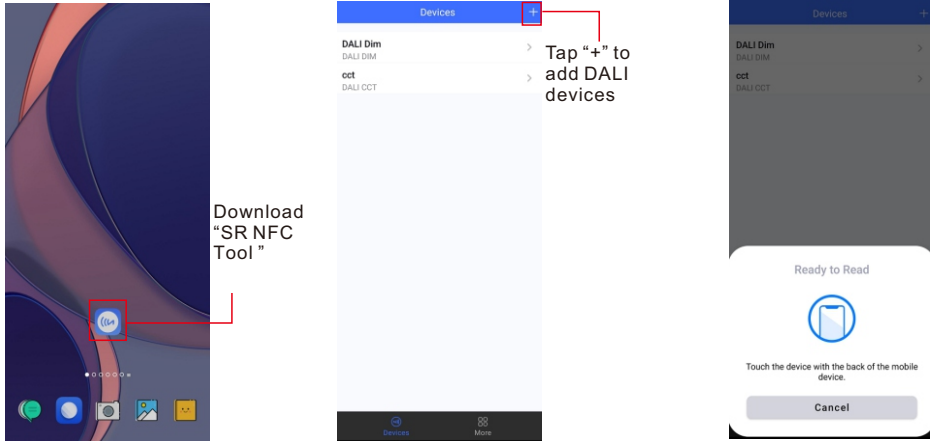
**Note**: 1. Please Make sure that you have enabled NFC function with your mobile phone/ tablet .

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.**



Add configuration

configuration name

Cancel    Save
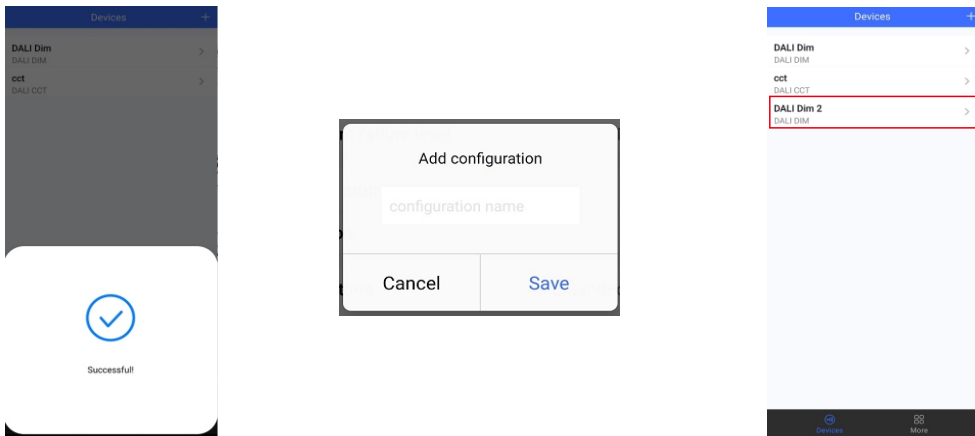
**Step 3: Unlock device, enter parameters configuring page.**



Locked
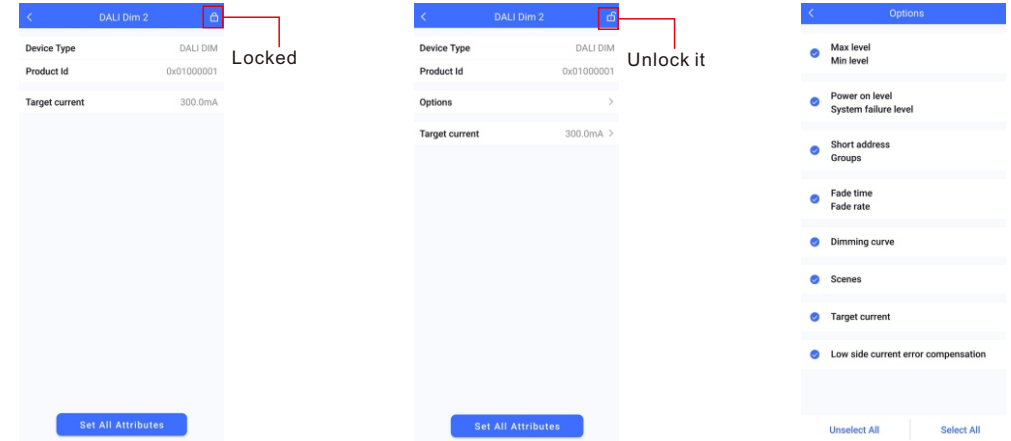
Unlock it

**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.

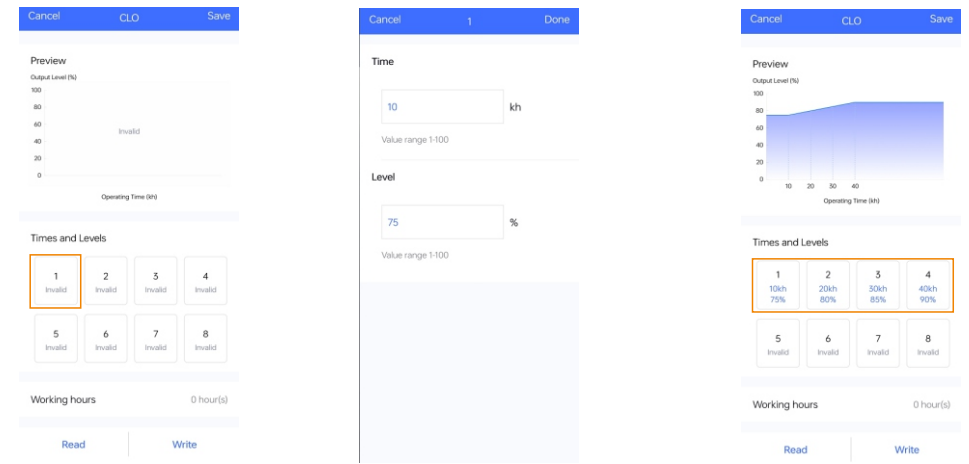**Step 4: Few parameter interface, you can choose the setting based on your requirements.**
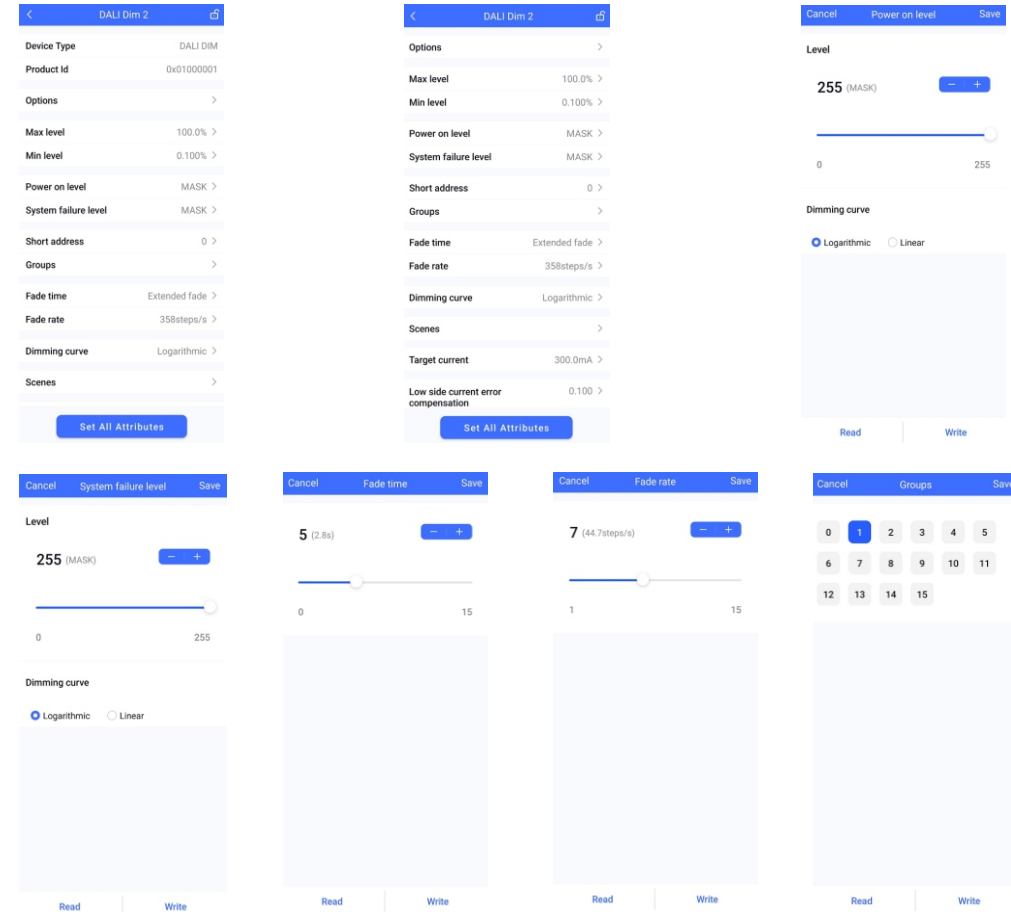
**Step 5: After setting, please save the selected configuration via NFC and power on the device.**
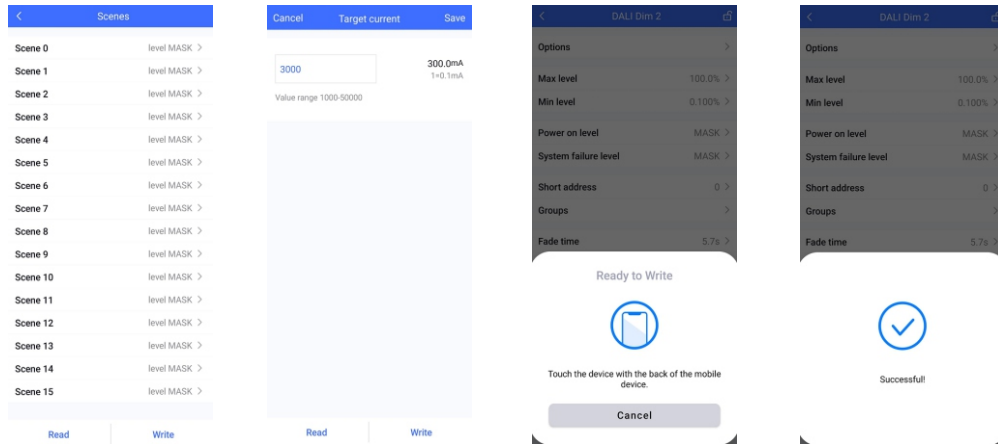


## Tips

**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/ gateway.**

## CLO AND CORRIDOR DIM(CD) FUNCTION INSTRUCTION

### 1.Open APP, and Find the CLO/CD functions



Read From the NFC Driver    Unlock it,and Click here to enter CLO settings

Enable or Disable CLO function

### 2.Enter CLO Setting homepage



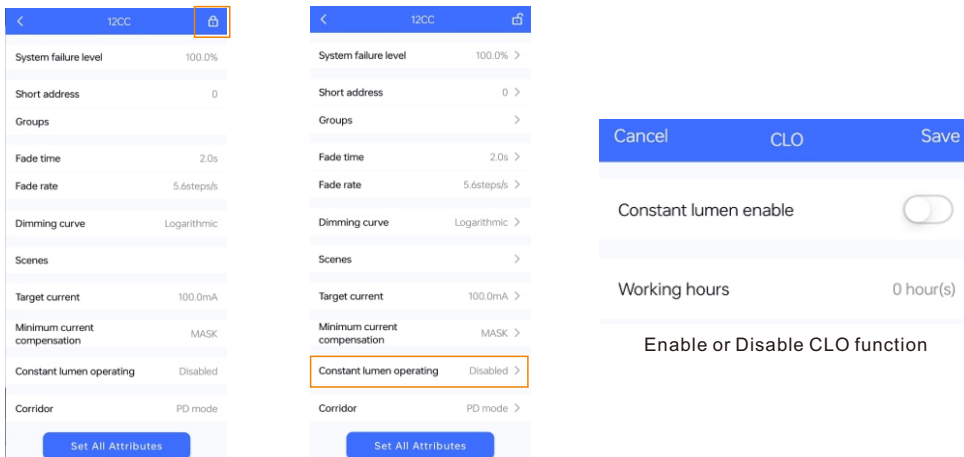Enable CLO function    Click "1",and set its time and level    Set your desired time and levels. Graphic display

**Tips:**

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

### 3.Corridor dim(CD) function
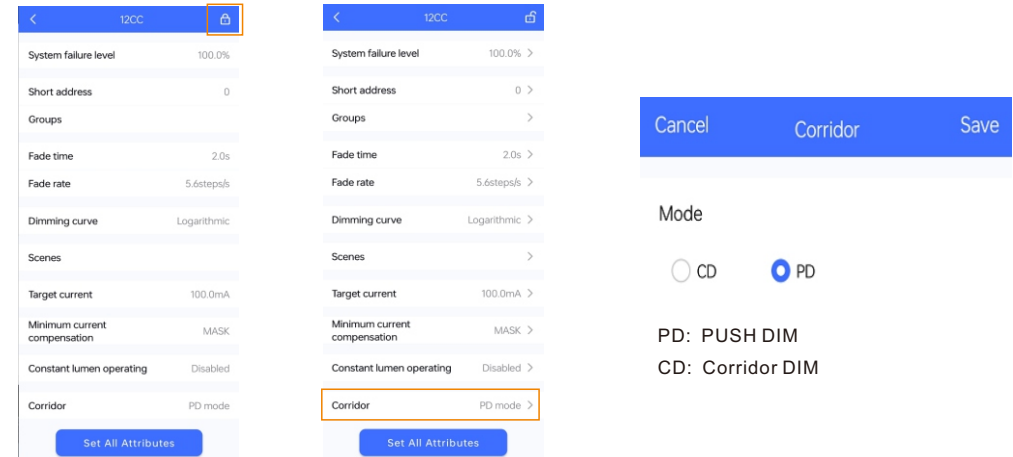


Read From the NFC Driver    Unlock it,and Click here to enter Corridor mode

PD: PUSH DIM
CD: Corridor DIM

## 4.Enter CD Setting homepage



Enter CD mode

Set your desired time and levels.
Graphic display

**Tips:**

**1. You should select either CD mode or PD mode, but not both.**

**2. Under CD mode, you can realize it with normal (3rd party) AC sensor.**

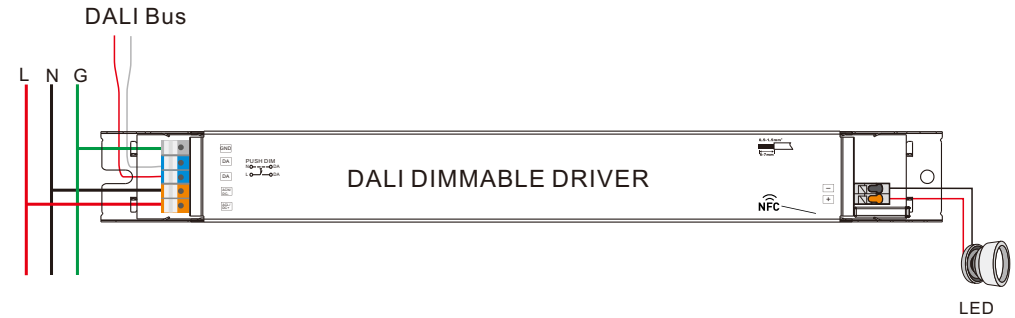**3. Default mode: PD mode.**

## Additional Remarks



**1. Please make sure your APP version is 1.0.10 or higher.**

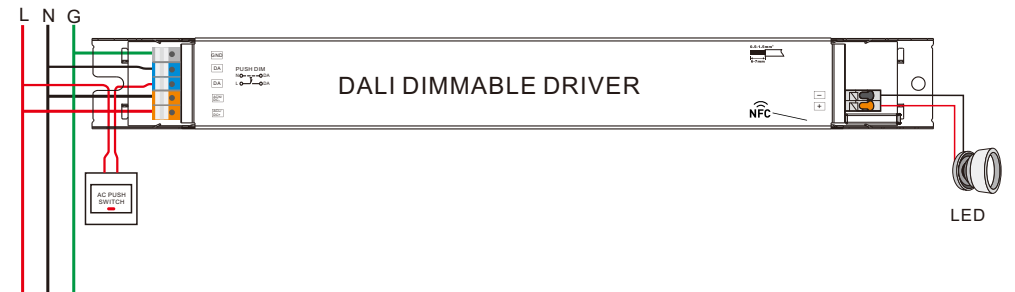**2. Please make sure NFC driver's firmware is available with CLO / CD functions.**
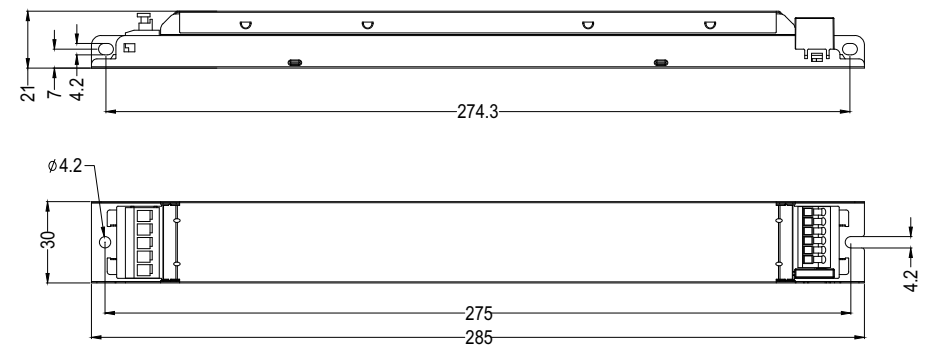
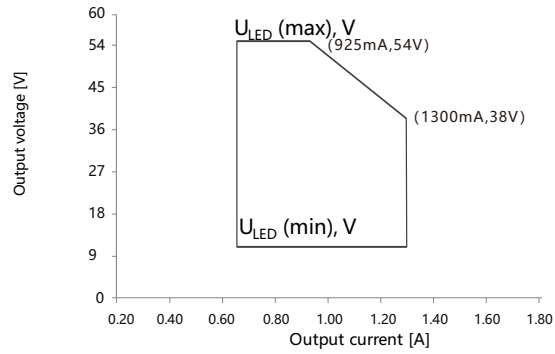## Wiring Diagram

1. With DALI bus



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%.
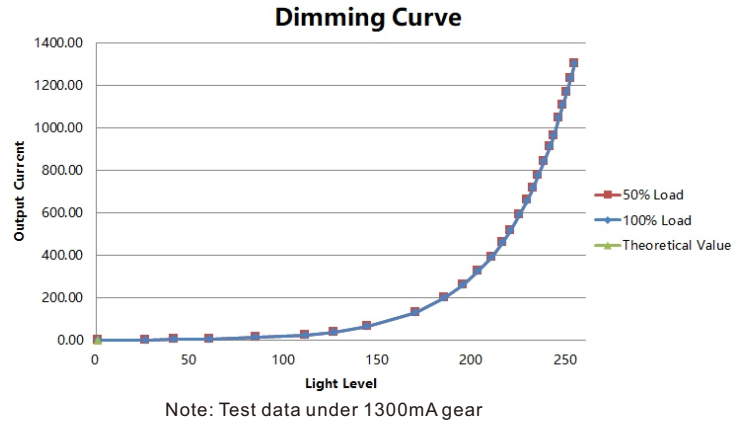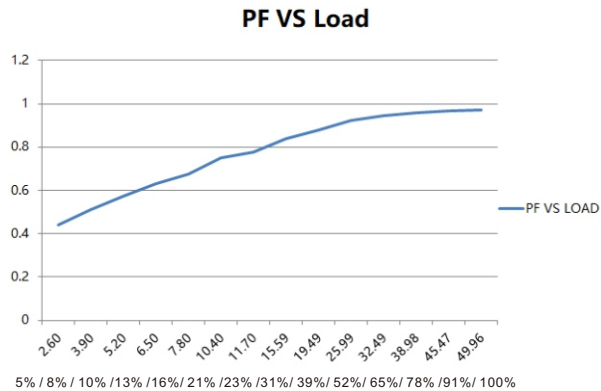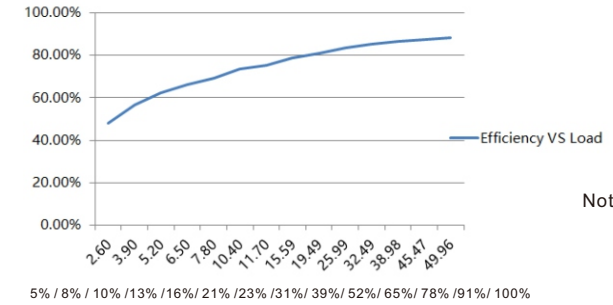
## Product Dimension

## Operating window



U_LED (max), V
(925mA,54V)
(1300mA,38V)
U_LED (min), V

Output voltage [V]

Output current [A]

## Driver Performance

### Efficiency VS Load



Efficiency VS Load

Note: Test data under 1300mA gear

5% / 8% / 10% /13% /16% / 21% /23% /31%/ 39%/ 52%/ 65%/ 78% /91%/ 100%

## Dimming Curve

### Dimming Curve



Output Current

Light Level

- 50% Load
- 100% Load
- Theoretical Value

Note: Test data under 1300mA gear

## Driver Performance

### THD VS Load



THD VS Load

Note: Test data under 1300mA gear

5% / 8% / 10% /13% /16% / 21% /23% /31%/ 39%/ 52%/ 65%/ 78% /91%/ 100%

## Driver Performance

### PF VS Load



PF VS LOAD

Note: Test data under 1300mA gear

5% / 8% / 10% /13% /16% / 21% /23% /31%/ 39%/ 52%/ 65%/ 78% /91%/ 100%
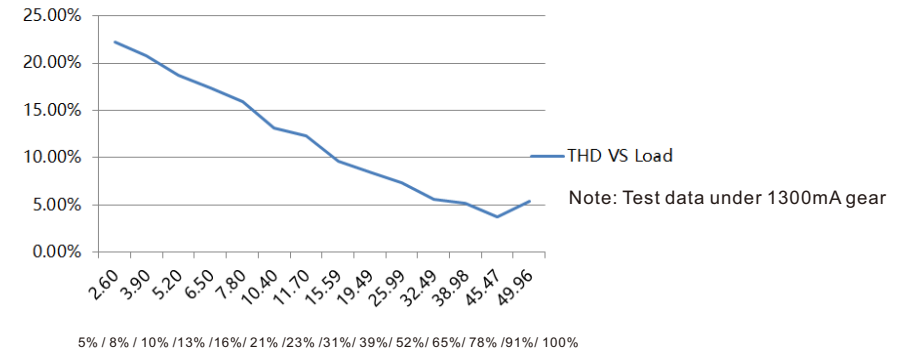
## Expected Lifetime

| Module Number | Output current | Ta | 30 °C | 40 °C | 45 °C | ••• | 60 °C |
|---|---|---|---|---|---|---|---|
| SRPL-2305N-50CC650-1300 | 650 – 1300 mA | Tc | 48 °C | 58 °C | 64 °C | ••• | 90 °C(max) |
| SRPL-2309N-50CCT650-1300 | 650 – 1300 mA | Lifetime | > 100,000 h | > 100,000 h | > 80,000 h | | > 25,000 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 |
| SRPL-2305N-50CC650-1300 | 26.6A | 144μs | 17 | 22 | 27 | 34 | 42 | 23 | 30 | 37 | 47 | 58 | 27 | 35 | 43 | 53 | 67 |
| SRPL-2309N-50CCT650-1300 | 26.6A | 144μs | 17 | 22 | 27 | 34 | 42 | 23 | 30 | 37 | 47 | 58 | 27 | 35 | 43 | 53 | 67 |
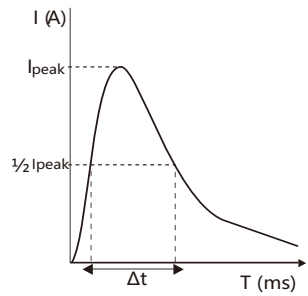


Note:

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

## Update log

| Date | Version | Update content | Update by |
|---|---|---|---|
| 2023-9-1 | V1.5 | Parameter Update | Romeo |

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