

30W DALI D4i DT8 NFC LED Driver(Constant Current)



Important: Read All Instructions Prior to Installation

Function introduction



Product Data

| | | |
|---------|---------------------------|--|
| Output | LED Channel | 2 |
| | DC Voltage | 10-54V, Max.60V |
| | Current | 250-850mA via NFC setting; Min.current gear lower to 0.1mA |
| | Current Accuracy | ±3%@ full load |
| | Rated Power | Max. 30W |
| Input | Voltage Range | 120-277VAC |
| | Frequency Range | 50/60Hz |
| | Power Factor (Typ.) | > 0.96 @ 230VAC Full load* |
| | Total Harmonic Distortion | THD ≤ 12% (@ full load / 230VAC)* |
| | Efficiency (Typ.) | > 83% @ 230VAC full load* |
| | AC Current (Typ.) | 0.3A Max. |
| | Inrush Current (Typ.) | Max. 6.04A at 230VAC; 72μs duration |
| | Leakage Current | < 5mA /230VAC |
| | Standby Power Consumption | < 0.5W |
| | Anti Surge | L-N:2KV |
| Control | Dimming Interface | DALI Device Type 8 (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°C ~ +60°C |
| | Max. Case Temp. | TC=90°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 | 245x30x21mm (L*W*H) |
| | Warranty | 5 Years |

DALI Infos

| Parameter | Min. | Typ. | Max. |
|--------------------------|--|-----------------------|-------|
| DALI Interface Standard | IEC62386-101, 102, 209, 250, 251, 252, 253 | | |
| Dimming Range | 0.1% | Logarithmic (default) | 100% |
| DA1, DA2 High Level | 9.5V | 16V | 22.5V |
| DA1, DA2 Low Level | -6.5V | 0 | 6.5V |
| DA1, DA2 Current | 0 | | 2mA |
| Bus Power Supply Voltage | 12Vdc | 16Vdc | 22Vdc |
| Bus Power Supply Current | / | 55mA | 60mA |

- *: PF/THD/Eff shall be different per different testing setup and equipment.
- In compliance with IEC 62386-101:2014, IEC 62386-102:2014, IEC 62386-207 Ed2, IEC 62386-209
 - Built-in DALI-2 interface, DALI DT8 device
 - Dimmable LED driver with linear metal housing. Max. output power 30W
 - 250-850mA 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, enable tunable white control
 - Amplitude/CCR dimming, smooth and deep dimming
 - Compatible with universal DALI masters that support DT8 commands
 - DALI-250/251/252/253 Enabled, DALI data inside.
 - IP20 rating, suitable for indoor LED lighting applications
 - 5 years warranty

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.

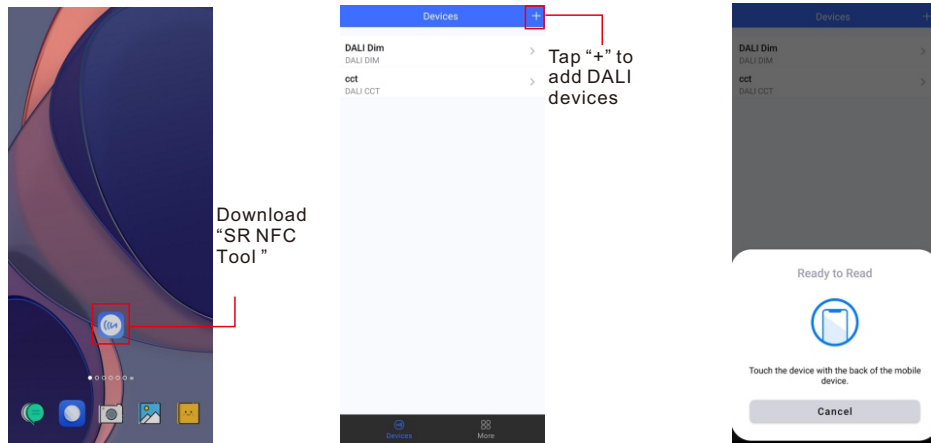
With NFC Programming devices

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 .

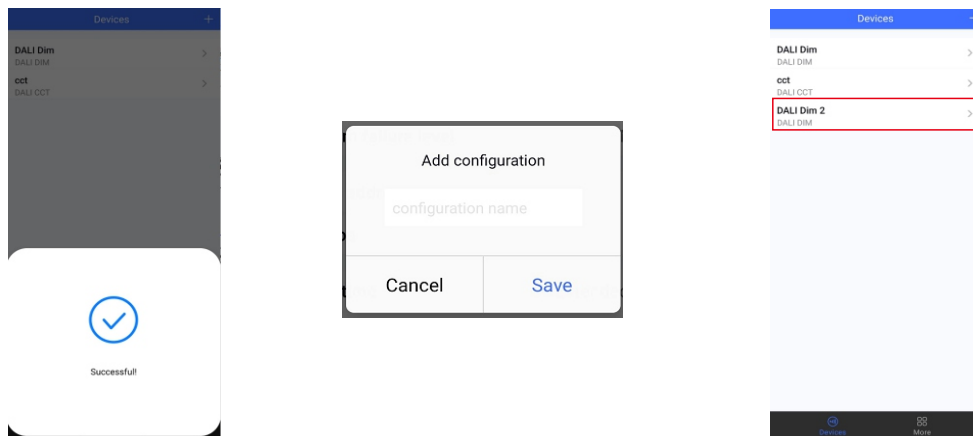
Working with “SR NFC Tool” APP

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

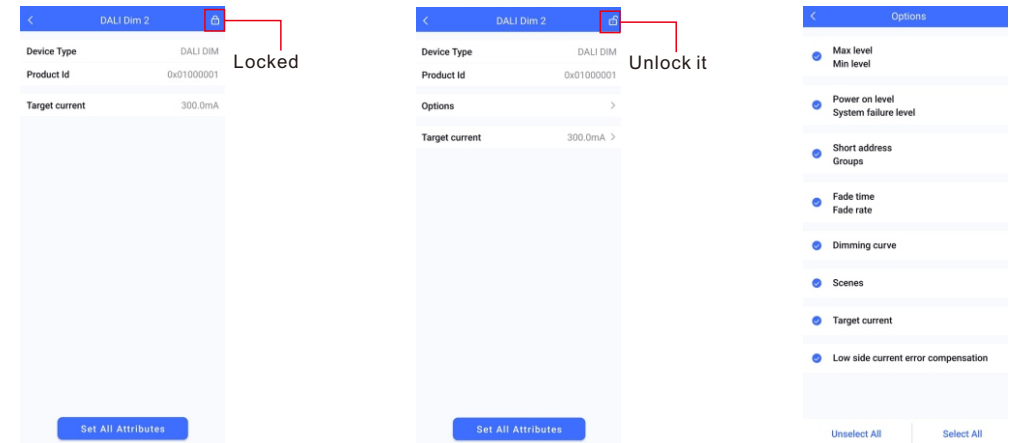


- Note:**
1. Please Make sure that you have enabled NFC function with your mobile phone/ tablet .
 2. Please Make sure that the “NFC position” is matched.
 3. Please do not power on the device before setting.
 4. If you can't download “SR NFC Tool”. Please contact with us.

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

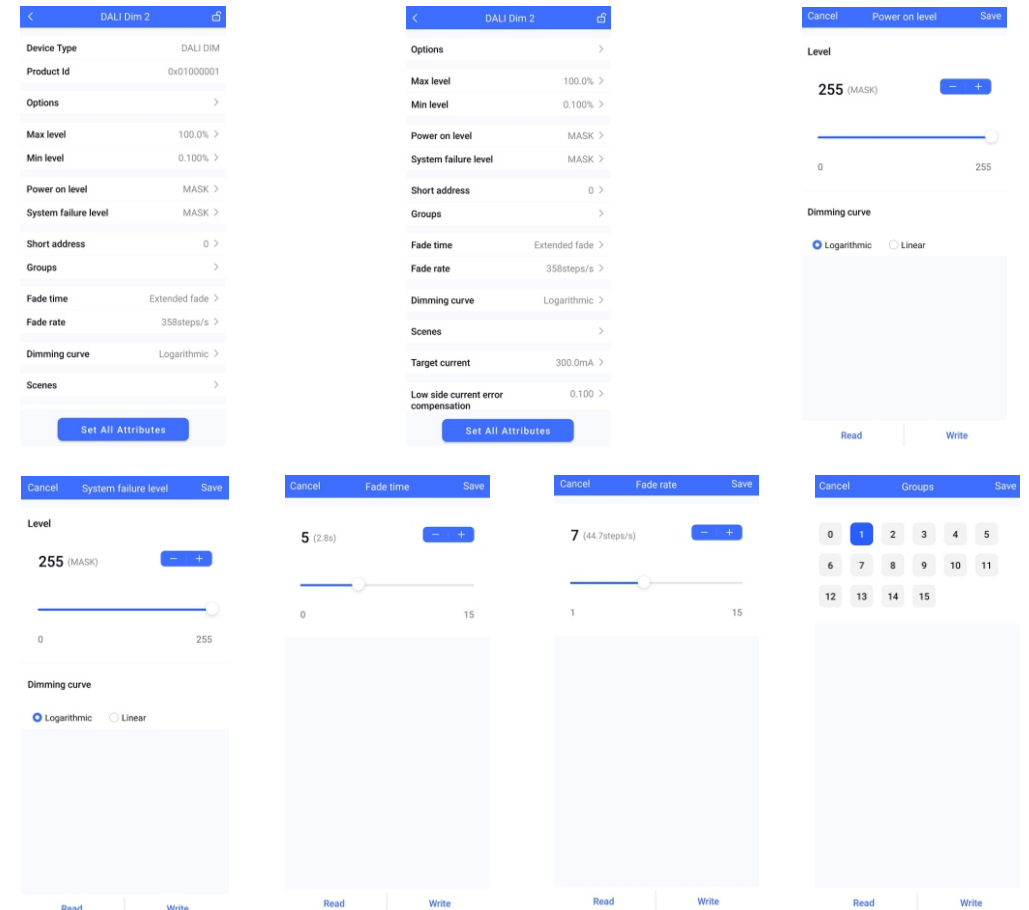


Step 3: Unlock device, enter parameters configuring page.

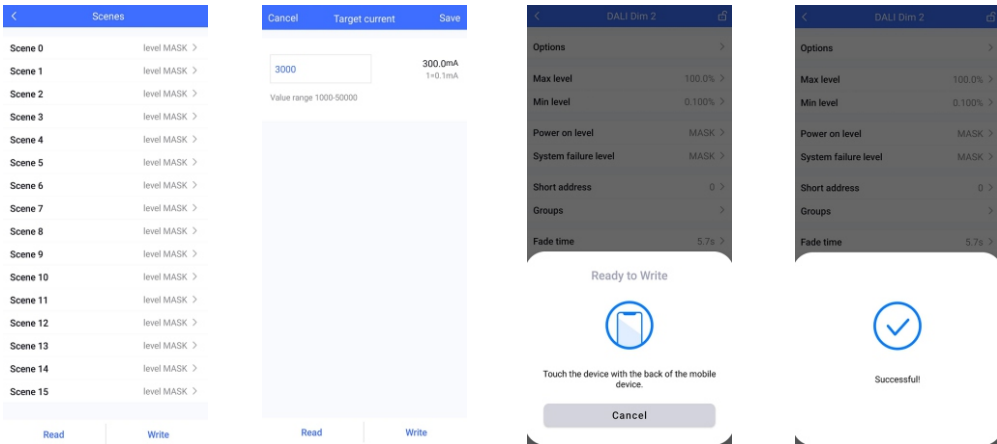


- Note:**
1. You have to unlock the device then do some settings
 2. Only when the corresponding function is selected, the function interface will be displayed.

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



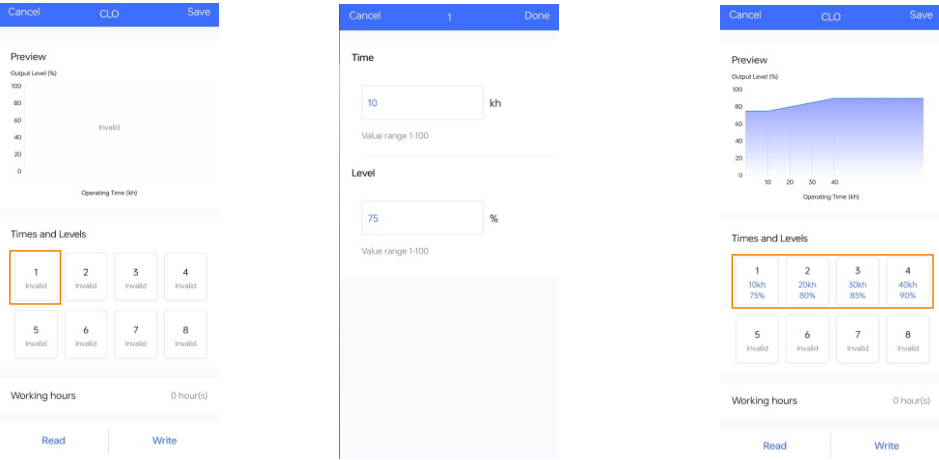
Step 5: After setting, please save the selected configuration via NFC and power on the device.



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/ gateway.

2.Enter CLO Setting homepage



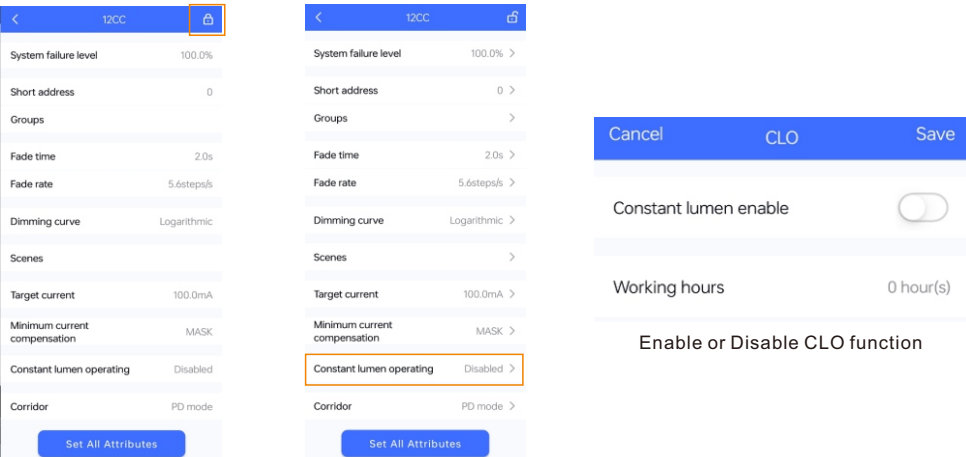
- Enable CLO function
- Click “1”,and set its time and level
- Set your desired time and levels. Graphic display

Tips:

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

CLO FUNCTION INSTRUCTION

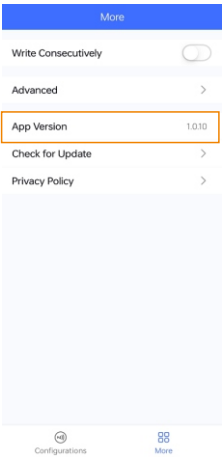
1.Open APP, and Find the CLO function



Read From the NFC Driver

Unlock it,and Click here to enter CLO settings

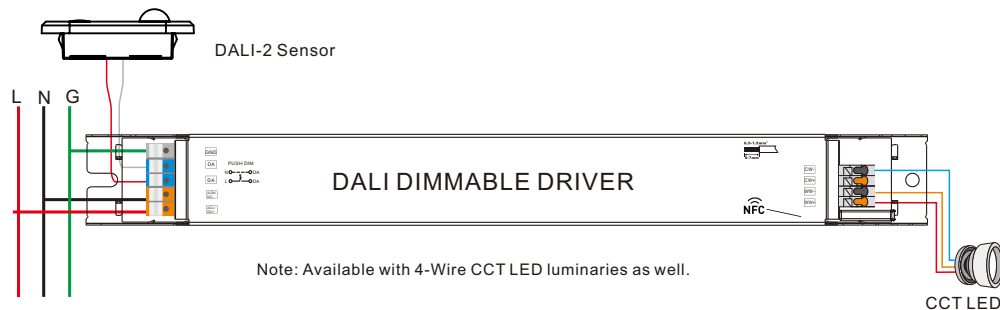
Additional Remarks



- 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 function.

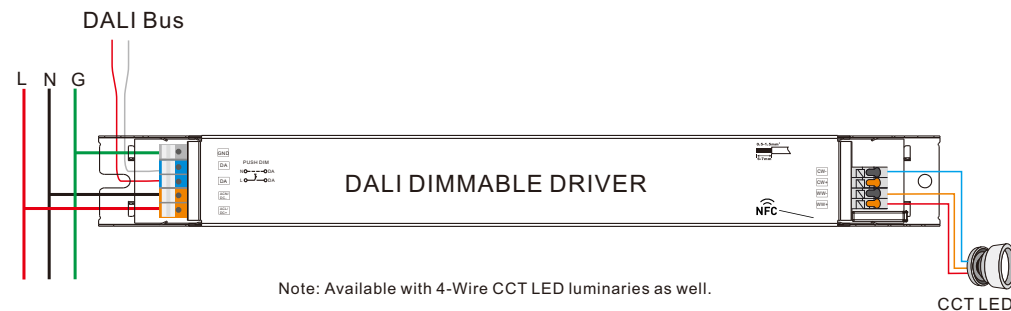
Wiring Diagram

1. As a D4i Driver

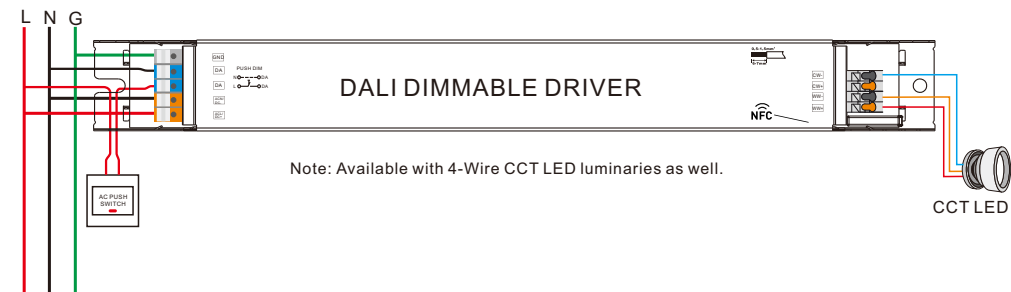


2. As a Normal DALI driver.

2.1 With DALI bus



2.2 With PUSH dimmer



AC Push Function

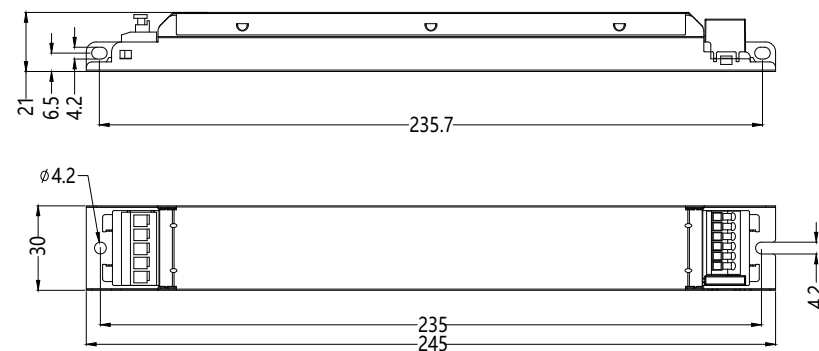
- 1) Click the button to switch ON/OFF
- 2) Press and hold down the button to increase or decrease light intensity to desired level and release it, then repeat the operation to adjust light intensity to opposite direction. The dimming range is from 1% to 100%.
- 3) Double click the button to switch between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

Safety & Warnings

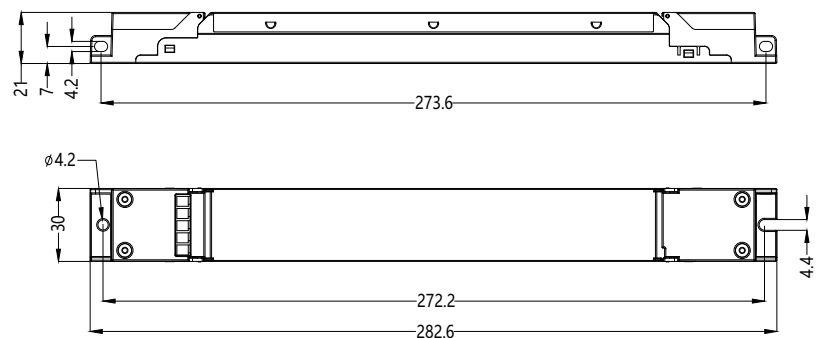
- DO NOT install with power applied to the device.
- DO NOT expose the device to moisture.

Product Dimension

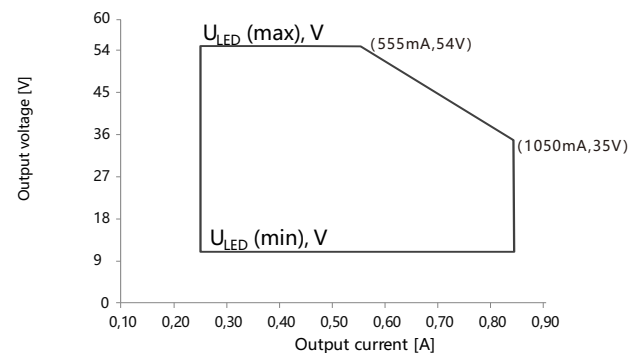
Without End Cap



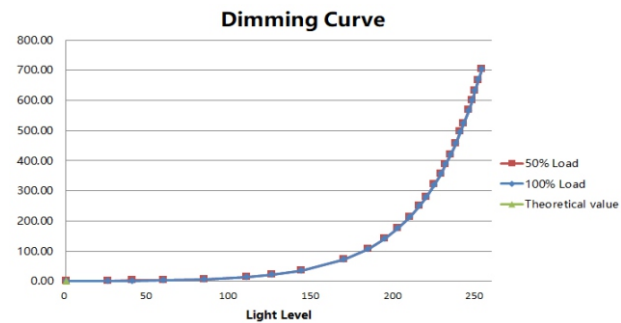
With End Cap



Operating window



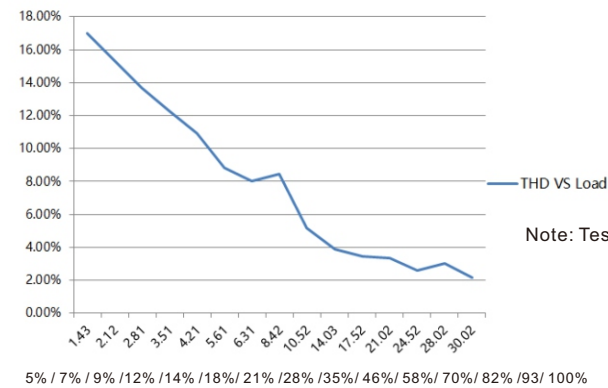
Dimming Curve



Note: Test data under 700mA gear

Driver Performance

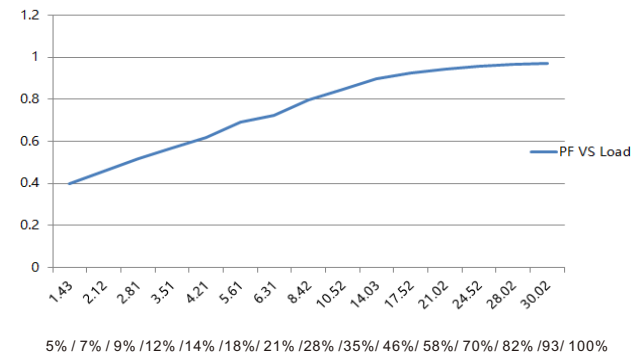
THD VS Load



Note: Test data under 700mA gear

Driver Performance

PF VS Load



Note: Test data under 700mA gear

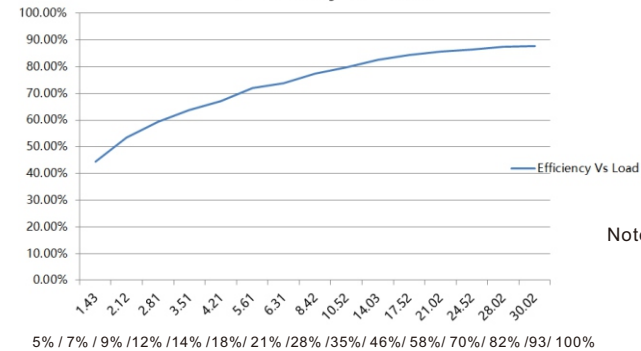
Expected Lifetime

| Module Number | Output current | Ta | 30 °C | 40 °C | 45 °C | ••• | 60 °C |
|---------------------------|----------------|----------|-------------|-------------|------------|-----|------------|
| SRPL-2305iN-30CC250-850U | 250 – 850 mA | Tc | 46 °C | 55 °C | 61 °C | ••• | 90 °C(max) |
| SRPL-2309iN-30CCT250-850U | 250 – 850 mA | Lifetime | > 100,000 h | > 100,000 h | > 80,000 h | | > 30,000 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.

Driver Performance

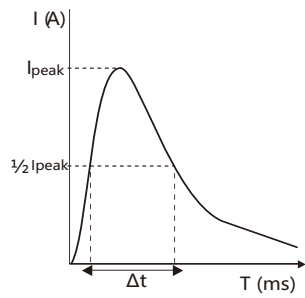
Efficiency Vs Load



Note: Test data under 700mA gear

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-2305iN-30CC250-850U | 6.04A | 72μs | 30 | 39 | 48 | 60 | 75 | 35 | 45 | 56 | 70 | 87 | 40 | 52 | 64 | 80 | 100 |
| SRPL-2309iN-30CCT250-850U | 6.04A | 72μs | 30 | 39 | 48 | 60 | 75 | 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.
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.