30W DALI D4i DT6 NFC LED Driver(Constant Current)

Important: *Read All Instructions Prior to Installation*

Function introduction

DALI signal input
AC Push input

SR-Data⁺ 250/251/252/253   SVM <0.01   PstLM <0.02

AC/DC power input

LED Output

Product Data

Output	LED Channel	1
	DC Voltage	10-54V, Max.60V
	Current	250-850mA via NFC setting; Min.current gear lower to 0.1mA,Default 700mA
	Current Accuracy	±3%(±1%@Certain full load) @ full load
	Rated Power	Max. 30W
Input	Voltage Range	220-240VAC/ 176-280VDC
	Frequency Range	0/50/60Hz
	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.)	0.16A 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 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°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, 207, 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
• Built-in DALI-2 interface, DALI DT6 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
• Amplitude/CCR dimming, smooth and deep dimming
• Compatible with universal DALI masters that support DT6 commands
• DALI-250/251/252/253 Enabled，DALI data inside.
• Integrated Max.56mA DALI BUS supplu,enabled to powered DALI-2 sensors.
• IP20 rating, suitable for indoor LED lighting applications
• 5 years warranty

Operation

With DALI master

1. DALI Address
1 DALI address for 1 channel output is assigned by DALI Master controller automatically, please refer to user manuals of compatible DALI Masters for specific operations.
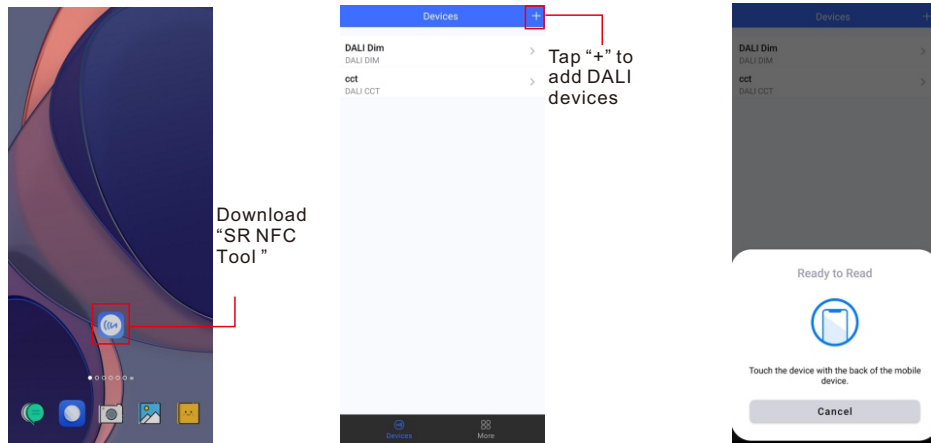
With NFC Programming devices

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 .

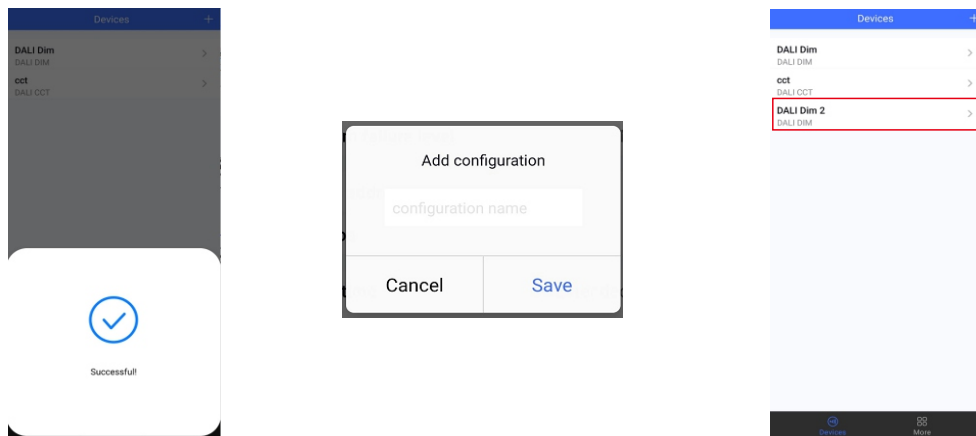**2) Please make sure your mobile phone has NFC function and enable it .**

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 "

Devices

DALI Dim
DALI DIM

cct
DALI CCT

Tap "+" to add DALI devices

Ready to Read

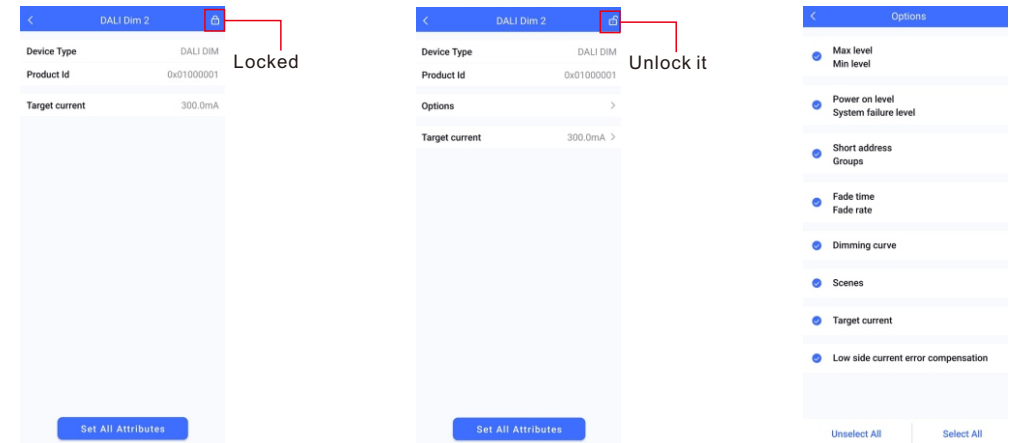Touch the device with the back of the mobile device.

Cancel

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.

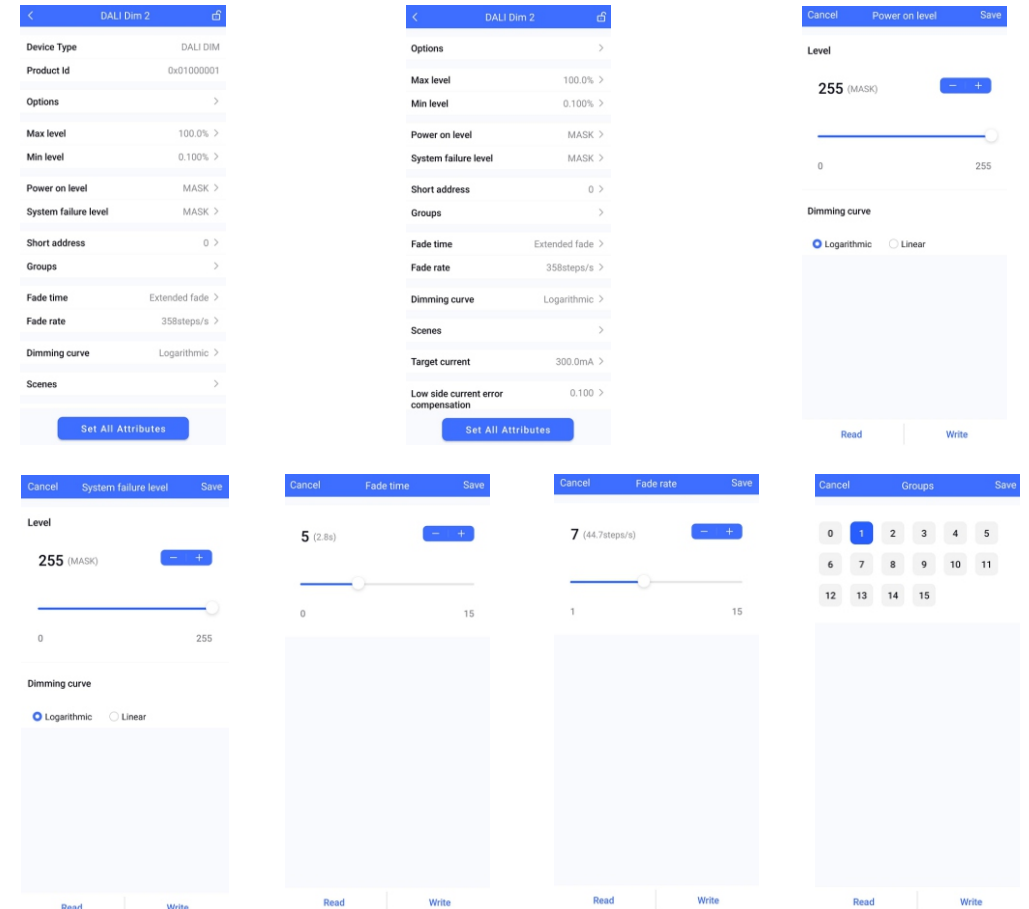**Step 2: Add device, and name it as you wish.**

Devices

DALI Dim
DALI DIM

cct
DALI CCT

Add configuration

configuration name

Cancel | Save

Devices

DALI Dim
DALI DIM

cct
DALI CCT

DALI Dim 2
DALI DIM

Successful!

Step 3: Unlock device, enter parameters configuring page.

DALI Dim 2

Device Type | DALI DIM
Product Id | 0x01000001
Target current | 300.0mA

Locked

DALI Dim 2

Device Type | DALI DIM
Product Id | 0x01000001
Options
Target current | 300.0mA >

Unlock it

Set All Attributes

Options

Max level
Min level

Power on level
System failure level

Short address
Groups

Fade time
Fade rate

Dimming curve

Scenes

Target current

Low side current error compensation

Unselect All | Select All

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.

DALI Dim 2

Device Type | DALI DIM
Product Id | 0x01000001
Options >
Max level | 100.0% >
Min level | 0.100% >
Power on level | MASK >
System failure level | MASK >
Short address | 0 >
Groups >
Fade time | Extended fade >
Fade rate | 358steps/s >
Dimming curve | Logarithmic >
Scenes >

Set All Attributes

DALI Dim 2

Options >
Max level | 100.0% >
Min level | 0.100% >
Power on level | MASK >
System failure level | MASK >
Short address | 0 >
Groups >
Fade time | Extended fade >
Fade rate | 358steps/s >
Dimming curve | Logarithmic >
Scenes >
Target current | 300.0mA >
Low side current error compensation | 0.100 >

Set All Attributes

Cancel | Power on level | Save

Level

255 (MASK) | − +

0 | 255

Dimming curve

○ Logarithmic ○ Linear

Read | Write

Cancel | System failure level | Save

Level

255 (MASK) | − +

0 | 255

Dimming curve

○ Logarithmic ○ Linear

Read | Write

Cancel | Fade time | Save

5 (2.8s) | − +

0 | 15

Read | Write

Cancel | Fade rate | Save

7 (44.7steps/s) | − +

1 | 15

Read | Write

Cancel | Groups | Save

0 1 2 3 4 5
6 7 8 9 10 11
12 13 14 15

Read | Write

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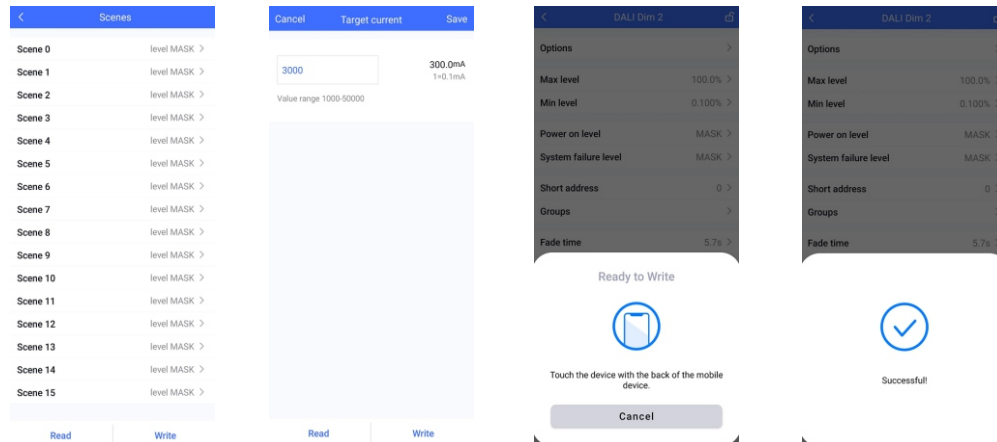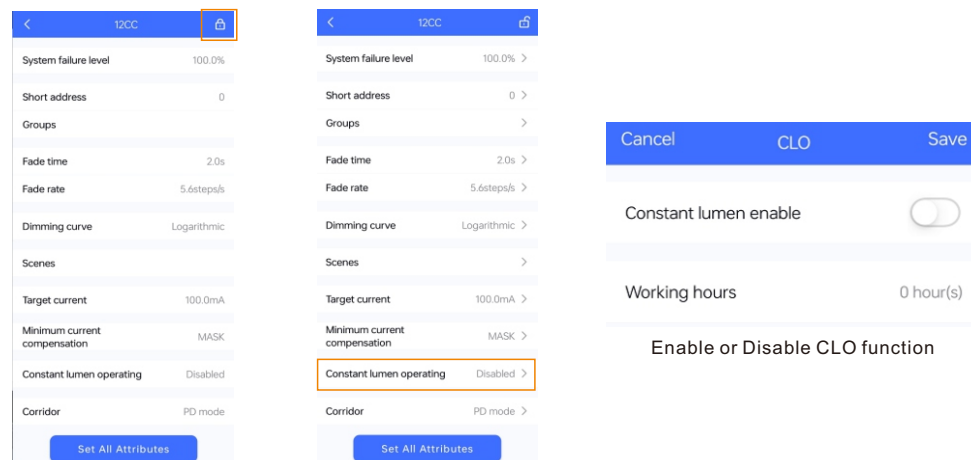

Tips

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.
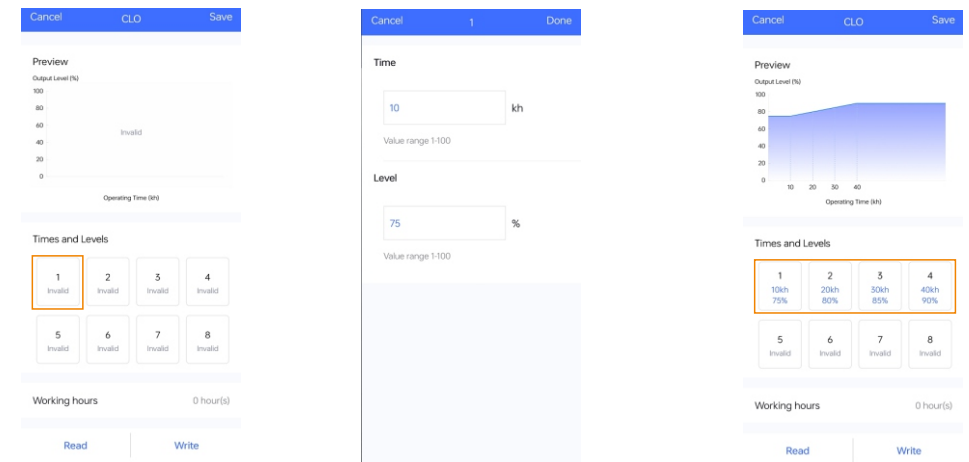
CLO AND CORRIDOR DIM(CD) FUNCTION INSTRUCTION

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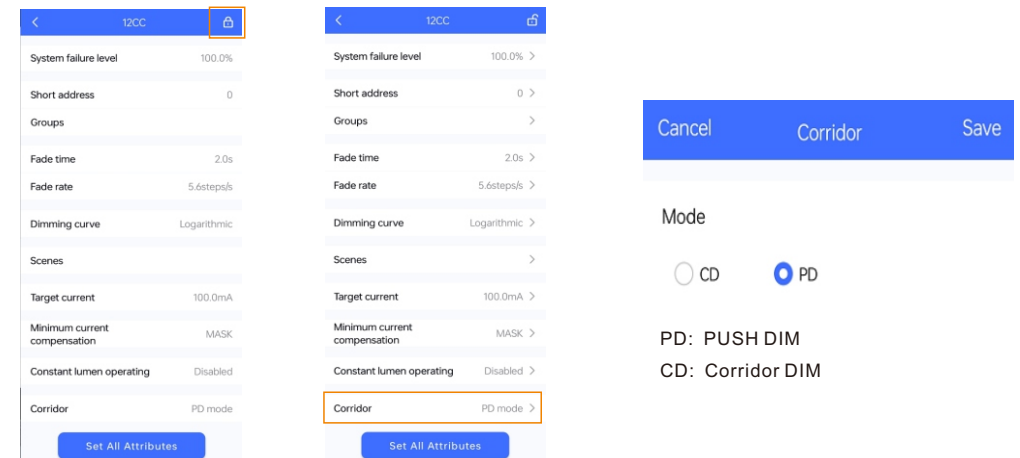
Read From the NFC Driver   Unlock it,and Click here to enter Corridor mode

Mode
○ CD   ● PD

PD: PUSH DIM

CD: Corridor DIM

4.Enter CD Setting homepage

Enter CD mode

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.

Set your desired time and levels.

Graphic display

Additional Remarks

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

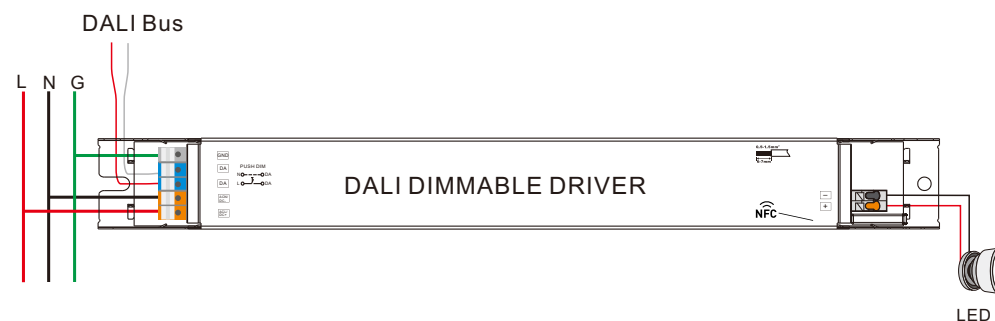**2. Please make sure NFC driver's firmware is available with CLO / CD functions.**
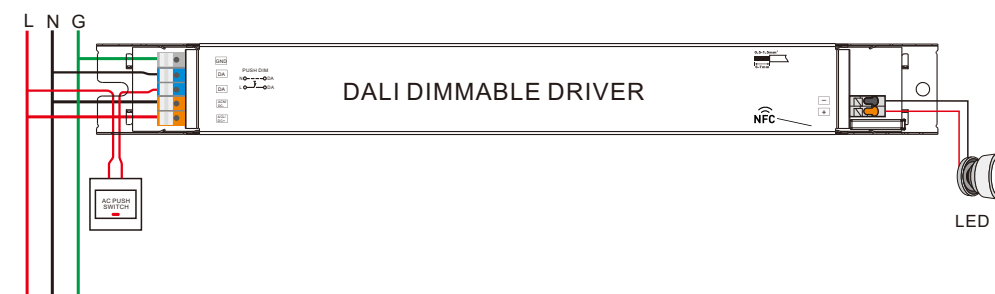
Wiring Diagram

1. As a D4i Driver

DALI-2 Sensor

L N G

DALI DIMMABLE DRIVER

NFC

LED

2.As a Normal DALI driver.

2.1 With DALI bus

DALI Bus

L N G

DALI DIMMABLE DRIVER

NFC

LED

2.2 With PUSH dimmer

L N G

DALI DIMMABLE DRIVER

NFC

AC PUSH SWITCH

LED

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%.
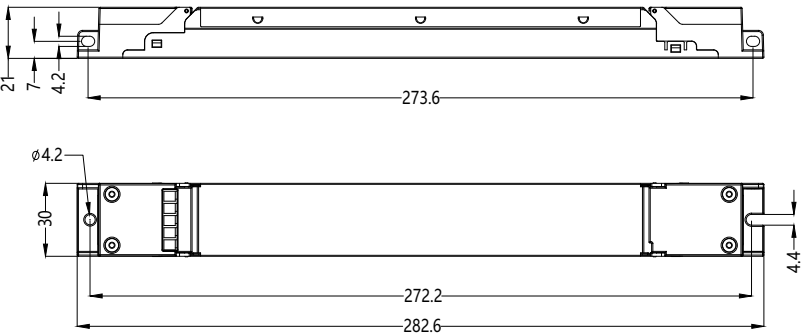
Safety & Warnings

• DO NOT install with power applied to the device.
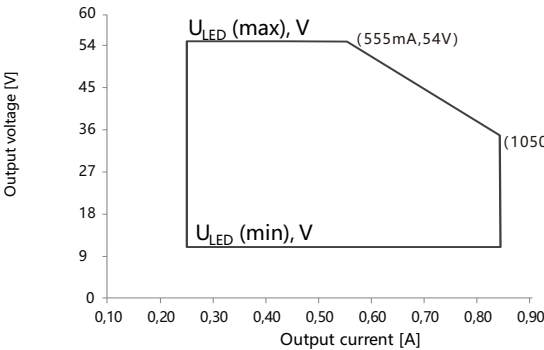• DO NOT expose the device to moisture.
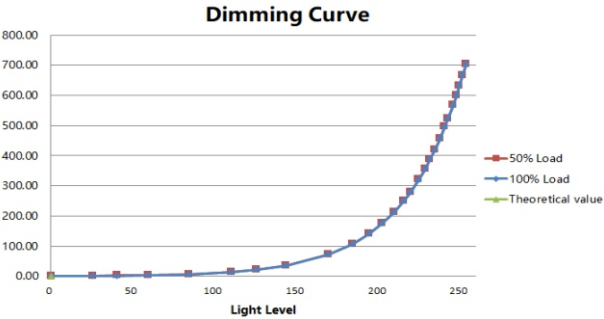
Product Dimension

Without End Cap
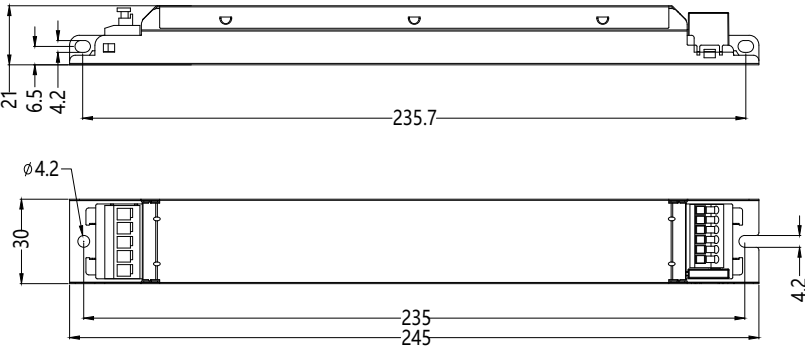
With End Cap
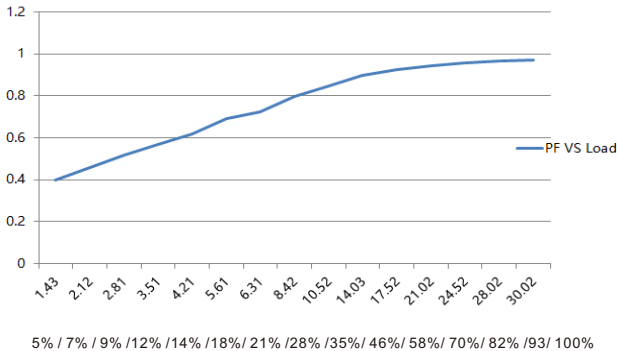

Operating window

Dimming Curve

Note: Test data under 700mA gear

Driver Performance

PF VS Load

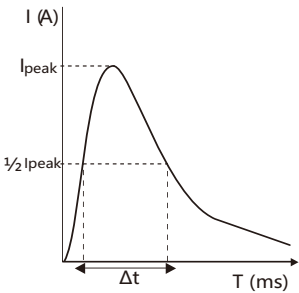Note: Test data under 700mA gear

5% / 7% / 9% /12% /14% /18%/ 21% /28% /35%/ 46%/ 58%/ 70%/ 82% /93/ 100%

Driver Performance

Efficiency Vs Load

Note: Test data under 700mA gear

5% / 7% / 9% /12% /14% /18%/ 21% /28% /35%/ 46%/ 58%/ 70%/ 82% /93/ 100%

Driver Performance

THD VS Load

Note: Test data under 700mA gear

5% / 7% / 9% /12% /14% /18%/ 21% /28% /35%/ 46%/ 58%/ 70%/ 82% /93/ 100%
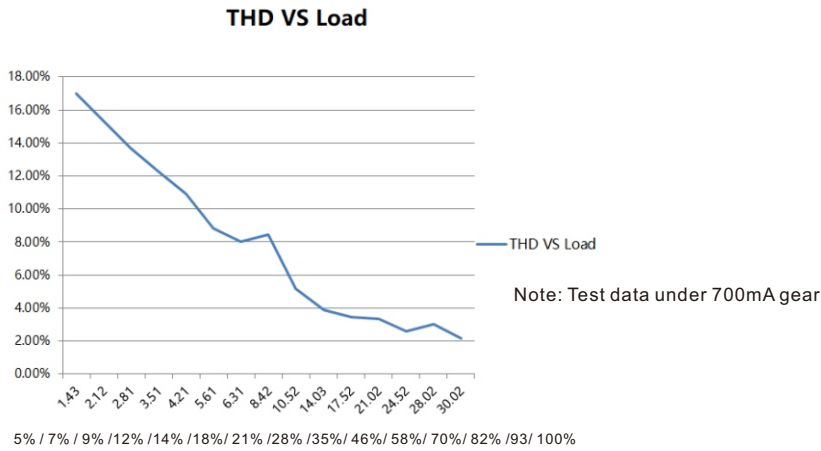
Note:

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

Expected Lifetime

Module Number	Output current	Ta	30 °C	40 °C	45 °C	•••	60 °C
SRPL-2305iN-30CC250-850	250 – 850 mA	Tc	46 °C	55 °C	61 °C	•••	90 °C(max)
SRPL-2309iN-30CCT250-850	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.

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

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.