80W DALI D4i DT6 NFC LED Driver(Constant Current)

DALI2 CE RoHS COMPLIANT RIPPLE FREE **SR-Data+** 250/251/252/253

Important: *Read All Instructions Prior to Installation*

Function introduction

AC/DC power input

SVM <0.01   PstLM <0.02

GND
ACN/
DC-
ACL/
DC+
DA   PUSH DIM
DA   NO—○——○DA
            L ○—↗—○DA

0.5-1.5mm²
6-7mm

DALI DIMMABLE DRIVER

NFC

+
−

LED Output

DALI signal input
AC Push input

Product Data

Output	LED Channel	1
	DC Voltage	50-220V
	Current	100-550mA via NFC setting; Min.current gear lower to 0.1mA
	Current Accuracy	±3%@ full load
	Rated Power	Max. 80W
Input	Voltage Range	220-240VAC/VDC
	Frequency Range	0/50/60Hz
	Power Factor (Typ.)	> 0.98 @ 230VAC Full load
	Total Harmonic Distortion	THD ≤ 12% (@ full load / 230VAC)
	Efficiency (Typ.)	> 92% @ 230VAC full load
	AC Current (Typ.)	0.43A @ 230VAC
	Inrush Current (Typ.)	Max. 23.5A at 230VAC; 350µs duration
	Leakage Current	< 5mA /230VAC
	Standby Power Consumption	< 0.5W
	Anti Surge	L-N:1KV/ L-N-G: 2KV
Control	Dimming Interface	DALI Device Type 6 (DALI consumption < 2mA)/ AC Push
	Dimming Range	0.1%-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, GB/T 19510.1-2023, GB/T 19510.213-2023
	Withstand Voltage	I/P-FG: 1500VAC, I/P-DA: 1500VAC, O/P-DA: 1500VAC
	Isolation Resistance	I/P-FG: 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℃ 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

- 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 80W
- 100-550mA 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 supply, enable to power 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.
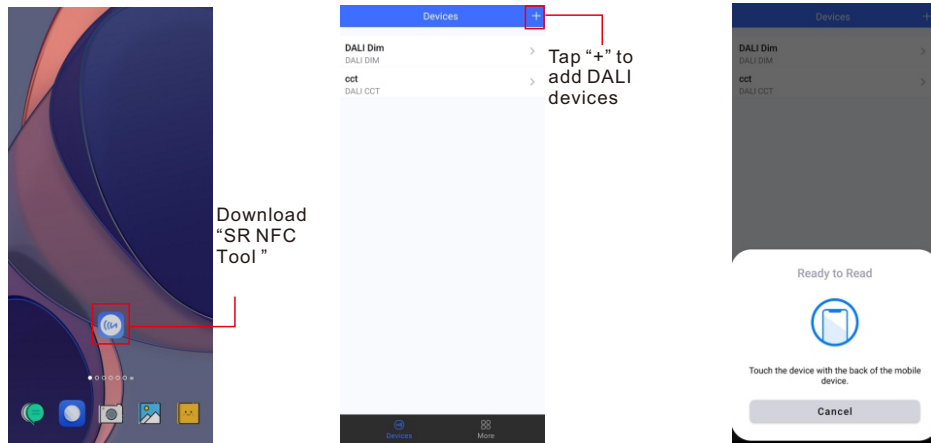
With NFC Programming devices

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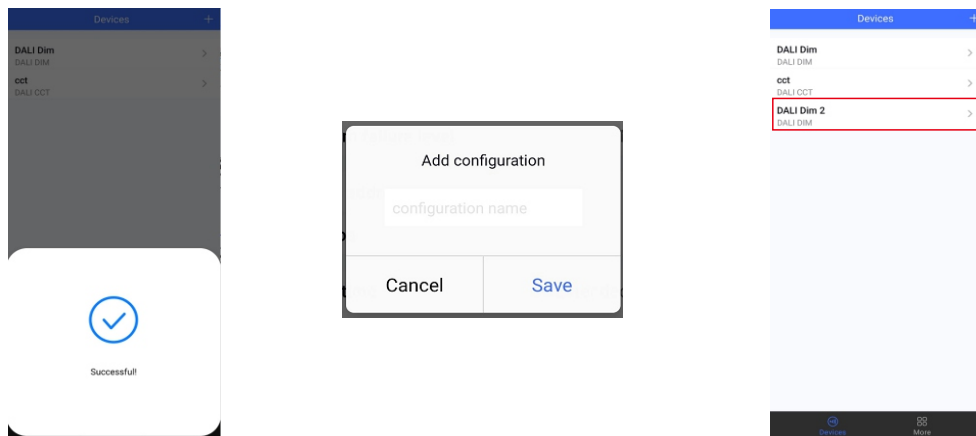
2) Please make sure your mobile phone has NFC function and enable it .

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.

Add configuration

configuration name

Cancel   Save

Successful!

DALI Dim 2
DALI DIM

Step 3: Unlock device, enter parameters configuring page.

Locked

Unlock it

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

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

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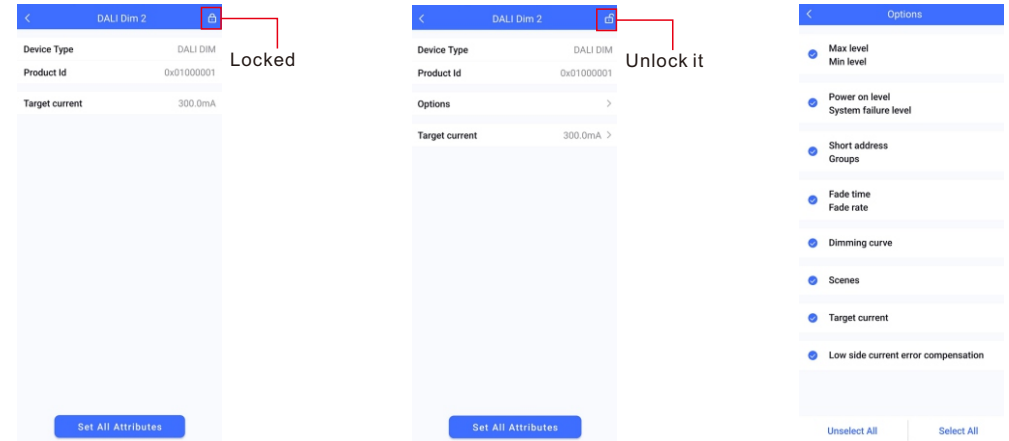
Note: 1. You have to unlock the device then do some settings

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.

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	

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

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.
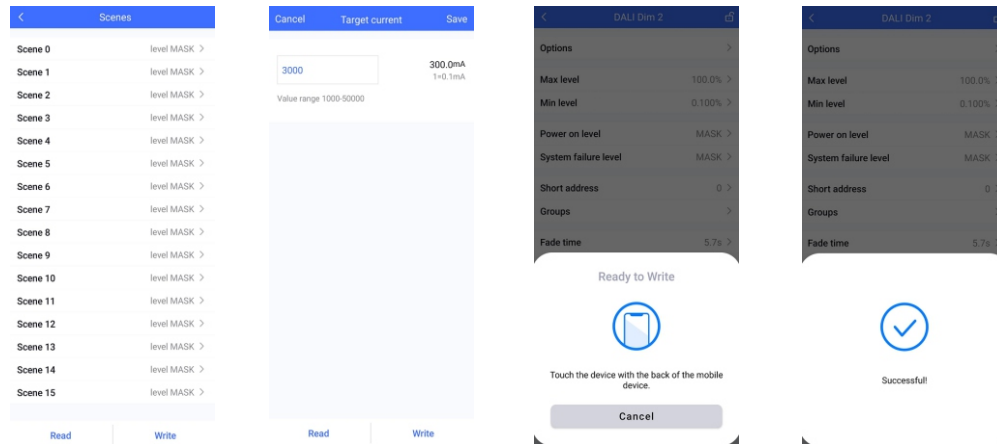
Tips

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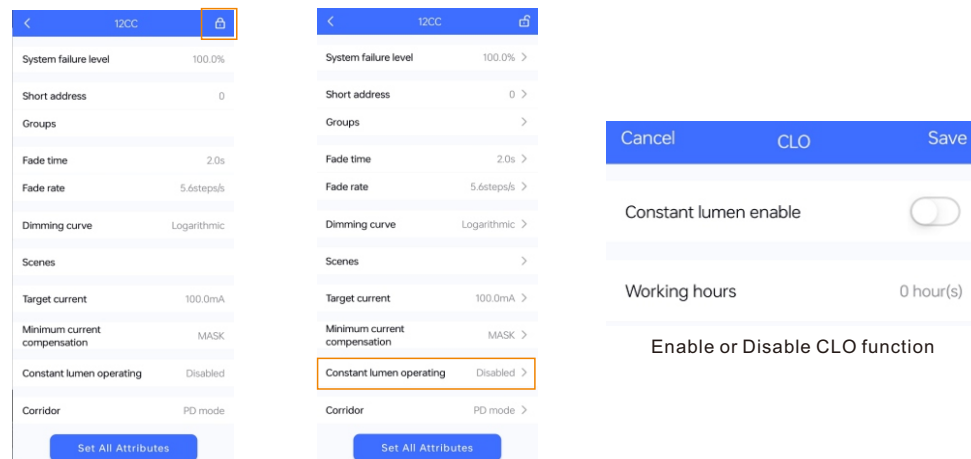
Read From the NFC Driver   Unlock it,and Click here to enter CLO settings

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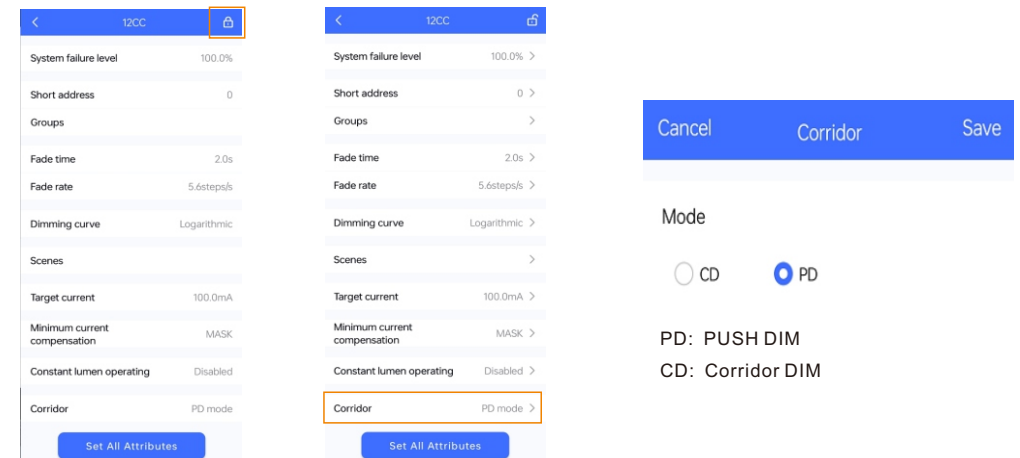
Read From the NFC Driver   Unlock it,and Click here to enter Corridor mode

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

DALI DIMMABLE DRIVER

LED

2.As a Normal DALI driver.

2.1 With DALI bus

DALI Bus

DALI DIMMABLE DRIVER

LED

2.2 With PUSH dimmer

DALI DIMMABLE DRIVER

AC PUSH SWITCH

LED
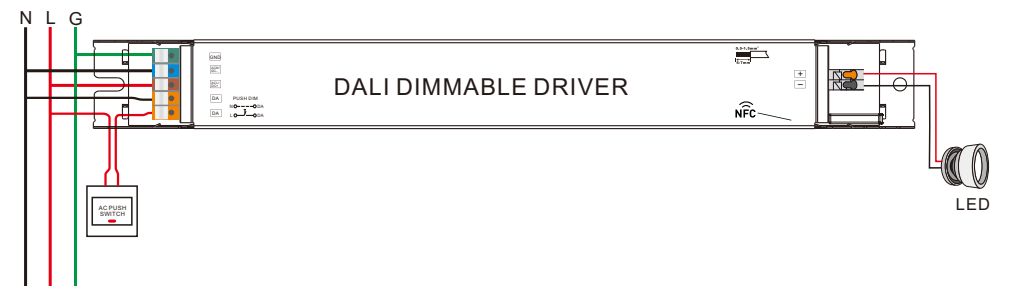
AC Push Function

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.

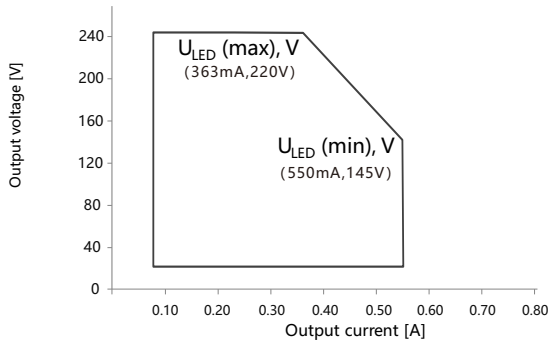• DO NOT expose the device to moisture.

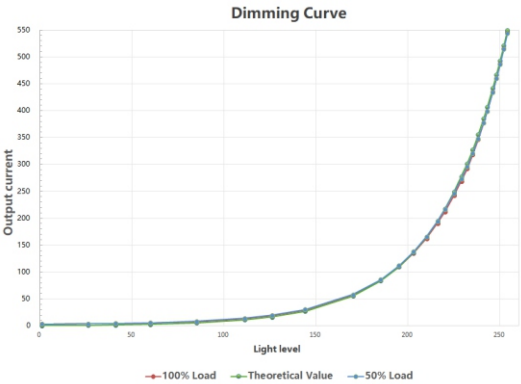## Product Dimension

Without End Cap
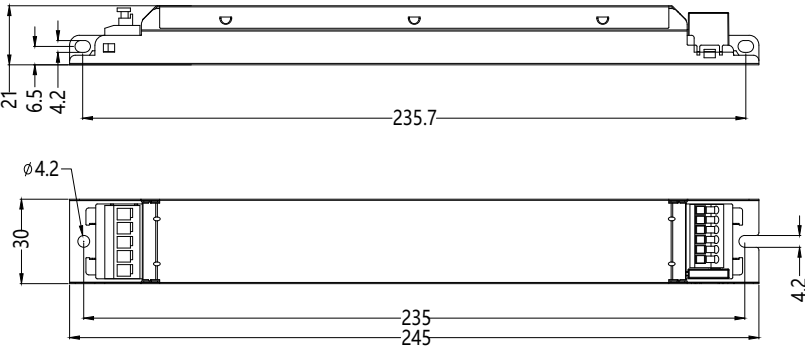
With End Cap
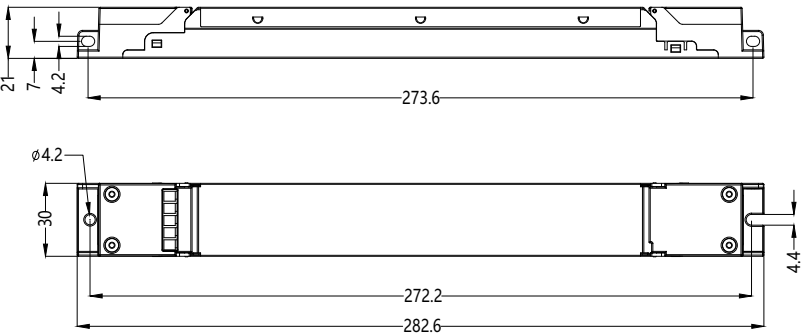
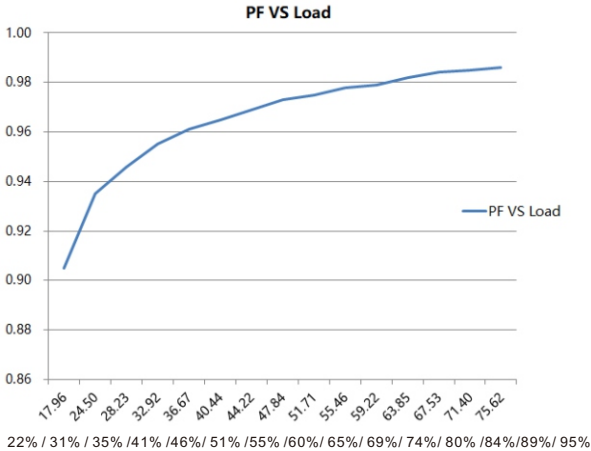## Operating window

Dimming Curve

Note:

Test data under 550mA gear
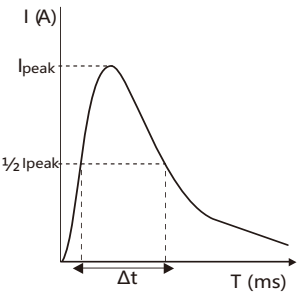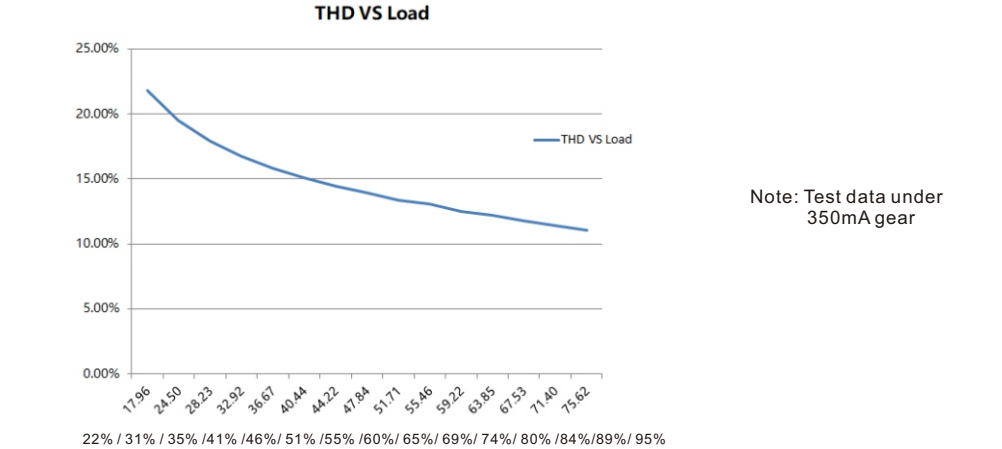
Driver Performance

Note: Test data under 350mA gear

22% / 31% / 35% /41% /46%/ 51% /55% /60%/ 65%/ 69%/ 74%/ 80% /84%/89%/ 95%

Driver Performance

Note: Test data under 350mA gear

22% / 31% / 35% /41% /46%/ 51% /55% /60%/ 65%/ 69%/ 74%/ 80% /84%/89%/ 95%

Driver Performance

THD VS Load

Note: Test data under 350mA gear

22% / 31% / 35% /41% /46%/ 51% /55% /60%/ 65%/ 69%/ 74%/ 80% /84%/89%/ 95%

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-80CC100-550H	100 – 550 mA	Tc	44 °C	56 °C	62 °C	•••	90 °C(max)
SRPL-2309iN-80CCT100-550H	100 – 550 mA	Lifetime	> 100,000 h	> 100,000 h	> 80,000 h		> 26,000 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-80CC100-550H	23.5A	350µs	7	9	11	14	18	12	15	19	24	30	19	24	30	37	47
SRPL-2309iN-80CCT100-550H	23.5A	350µs	7	9	11	14	18	12	15	19	24	30	19	24	30	37	47

Update log

Date	Version	Update content	Update by
2024-3-21	V1.0	Initial Version	Romeo

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