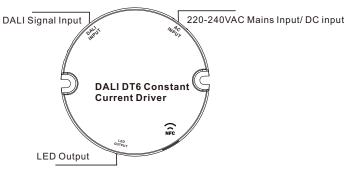
# 15W DALI DT6 NFC Round LED Driver(Constant Current)

CE PROHS RELV F TO B X SR-Data 251/252/253

Important: Read All Instructions Prior to Installation

## **Function introduction**



## **Product Data**

	LED Channel	1
	DC Voltage	3-42V
	Current	200-700mA via NFC tool; Min.current gear lower to 0.1mA, default 350mA
Output	Current Accuracy	±3%( ±1%@Certain full load) @ full load
	Rated Power	Max. 15W
	Voltage Range	220-240VAC/220-240VDC
	Absolute Voltage Range	198-264VAC/198-264VDC
	Frequency Range	0/50/60Hz
	Power Factor (Typ.)	> 0.95 @ 230VAC Full load
	Total Harmonic Distortion	THD $\leq 8\%$ (@ full load / 230VAC)
Input	Efficiency (Typ.)	> 83% @ 230VAC full load
	AC Current (Typ.)	0.1A @ 230VAC
	Inrush Current (Typ.)	Max. 4.66A at 230VAC; 72µs duration
	Leakage Current	< 5mA /230VAC
	Standby Power Consumption	< 0.5W
	Anti Surge	L-N:2KV
	Dimming Interface	DALI Device Type 6 (DALI consumption < 2mA)/ AC Push
Control	Dimming Range	0.01%-100%@ Max current
Control	Dimming Method	Amplitude/CCR dimming
	Dimming Curve	Linear/ Logarithmic optional

	Short Circuit	Yes, recovers automatically after fault condition is removed
Protection	Over Current	Yes, recovers automatically after fault condition is removed
	Over Temperature	Yes, recovers automatically after temperature drop
	Working Temp.	-25℃ ~+60℃
	Max. Case Temp.	Tc=85°C
Environment	Working Humidity	10% ~ 95% RH non-condensing
	Storage Temp. & Humidity	-40°C ~ +80°C, 10% ~ 95% RH
	Safety Standards	EN61347-1, EN61347-2-13
	Withstand Voltage	I/P-O/P: 3.75KVAC
Safety & EMC	Isolation Resistance	I/P-O/P: 100M Ohms / 500VDC / 25°C / 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°C ambient temperature
Others	Dimension	φ57x24mm (D*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. Max. output power 15W
- 200-700mA current selectable via NFC program tool. Min.current gear lower to 0.1mA
- DALI Address/Group/Scene setting via NFC program tool.
- $\bullet$  Class  ${\rm I\!I}$  power supply, full isolated plastic case
- $\ensuremath{\boldsymbol{\cdot}}$  High power factor and efficiency
- ON/OFF and Dimming control
- Amplitude/CCR dimming, smooth and deep dimming
- Compatible with universal DALI masters that support DT6 commands
- CLO function for a further upgraded experience
- CD(Corridor Mode): auto light on when someone enters
- 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.

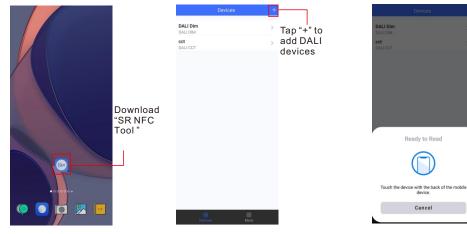
With NFC Programming devices

### 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 .



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 confi	guration
Cancel	Save

DALI DIM DALI DIM cct DALI CCT	Devices	
DALI Dim 2 DALI DIM	DALI Dim 2 DALI DIM	

#### Step 3: Unlock device, enter parameters configuring page.

< D	ALI Dim 2 🔒		<	DALI Dim 2	ර			<	Options	ŝ
Device Type	DALI DIM	Locked	Device Type		DALI DIM	Unlock i	ŧ	•	Max level Min level	
Product Id	0x01000001	Looked	Product Id		0x01000001	UNIOCKI	L		Will level	
Target current	300.0mA		Options		>			0	Power on level System failure level	
			Target current		300.0mA >			0	Short address Groups	
								0	Fade time Fade rate	
								0	Dimming curve	
								0	Scenes	
								0	Target current	
								0	Low side current error	r compensati
Set A	ll Attributes		Se	et All Attributes					Unselect All	Select Al

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.

	Dim 2 🖬
vice Type	DALI DIM
duct Id	0x01000001
ins	>
H	100.0% >
vel	0.100% >
r on level	MASK >
em failure level	MASK >
lress	0 >
	>
e	Extended fade >
	358steps/s >
irve	Logarithmic >
	>
Set All A System fa	
el	
5 (MASK)	- +
	0
	255
ing curve	255

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

<	Scenes	Cancel	Target current	Save	< DALI	Dim 2 ස්	< DALI Dim	2 ග්
Scene 0	level MASK >				Options	>	Options	
Scene 1	level MASK >	3000		300.0mA 1=0.1mA	Max level	100.0% >	Max level	
Scene 2	level MASK >	Value range 10	000-50000		Min level	0.100% >	Min level	
Scene 3	level MASK >				Power on level	MASK >	Power on level	
cene 4	level MASK >							
ene 5	level MASK >				System failure level	MASK >	System failure level	MASK >
cene 6	level MASK >				Short address	0 >	Short address	
cene 7	level MASK >				Groups	>	Groups	
cene 8	level MASK >				Fade time	5.7s >	Fade time	
cene 9	level MASK >							0.00
cene 10	level MASK >				Ready t	o Write		
cene 11	level MASK >				G		$\frown$	
cene 12	level MASK >				(	])	(~)	)
cene 13	level MASK >						$\bigcirc$	
ene 14	level MASK >				Touch the device with		Successful	
cene 15	level MASK >				devi	ce.		
					Can	cel		
Read	Write	Read	L [	Write	•		<b>N</b>	

## 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.
- Note: Within Our NFC tech design, you shall probably have one of the largest NFC sensing area. The More sensitive you're able to touch, the more convenient you can have.

## **CLO AND CORRIDOR DIM(CD) FUNCTION INSTRUCTION**

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

۲ ۲	12CC 🔒
System failure level	100.0%
Short address	0
Groups	
Fade time	2.0s
Fade rate	5.6steps/s
Dimming curve	Logarithmic
Scenes	
Target current	100.0mA
Minimum current compensation	MASK
Constant lumen oper	rating Disabled
Corridor	PD mode
Set All A	Attributes
	the NEC Driv

#### 2.Enter CLO Setting homepage

Cancel	CLO	Save		Cancel				Cancel	Cl	LO	
Preview Output Level (%)				Time				Preview Output Level (%)			
100 80 60	Invalid			10 Value ra	ange 1-100	kh		100 80 60 40			
20 0 Ope	ating Time (kh)			Level				20	20 30 Operating	40 Time (kh)	
Times and Levels				75 Value ra	ange 1-100	%		Times and L	evels		
1 2 Invalid Invalid	3 Invalid	4 Invalid						1 10kh 75%	2 20kh 80%	<b>3</b> 30kh 85%	40 90
5 6 Invalid	7 Irwalid	8 Invalid						5 Invalid	6 Invalid	7 Invalid	linv
Working hours		0 hour(s)						Working ho	urs		0 h
Read	v	/rite						Read	1	v	Vrite

Graphic display

Tips:

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

### 3.Corridor dim(CD) function

K 12C	c 🔒	< 1	12CC 🗗
System failure level	100.0%	System failure level	100.0% >
Short address	0	Short address	0 >
Groups		Groups	>
Fade time	2.0s	Fade time	2.0s >
Fade rate	5.6steps/s	Fade rate	5.6steps/s >
Dimming curve	Logarithmic	Dimming curve	Logarithmic >
Scenes		Scenes	>
Target current	100.0mA	Target current	100.0mA >
Minimum current compensation	MASK	Minimum current compensation	MASK >
Constant lumen operati	ng Disabled	Constant lumen oper	rating Disabled >
Corridor	PD mode	Corridor	PD mode >
Set All Att	tributes	Set All	Attributes
Read From th	ne NFC Drive	er Unlock it, an	nd Click here f

1

Read From the NFC Driver

Unlock it, and Click here to enter CLO settings

## 4.Enter CD Setting homepage

Cancel	Corridor	Save
Mode		
O CD	O PD	
Preview		
100 80		
60 - 40 -		
20 0 Fade in	Occupied Fade out Prolong	ed Dim to off
Fade in time	e	
5	S	
Value range 0		
Occupied ti	ime	
Read	d V	Write

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

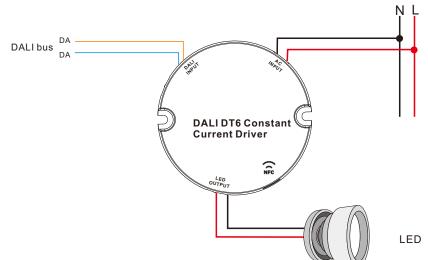
2. Under CD mode, you can realize it with normal (3rd party) AC sensor.

Prolonged time		
60	s	
Value range 0-60,01	00	
) Infinite		
Prolonged level		
20	%	
Value range 0-100		
Dim to off time		
5	s	
Value range 0-100		
Read	Wr	ite

Graphic display

# Wiring Diagram

1. With DALI bus



2. With PUSH dimmer

Additional Remarks

3. Default mode: PD mode.

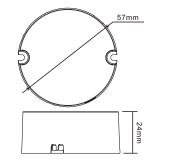
Enter CD mode

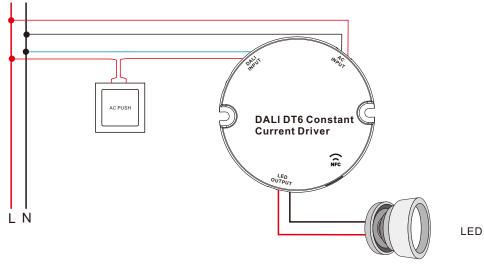
Tips:



 Please make sure your APP version is 1.0.10 or higher.
Please make sure NFC driver's firmware is available with CLO / CD functions.

Product Dimension





# AC Push Function

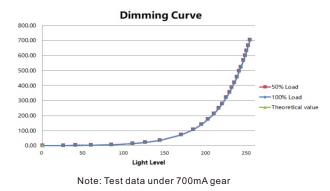
1) Click the button to switch ON/OFF

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%.

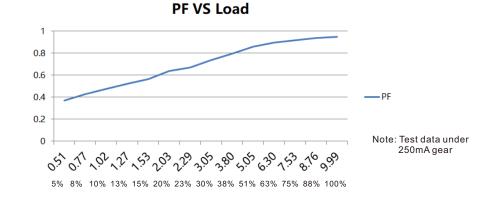
## **Operating window**

#### U<sub>LED</sub> (max), V 42 36 Output voltage [V] 30 24 18 12 U<sub>LED</sub> (min), V 6 3 0 0,10 0,50 0,60 0,70 0,80 0,90 0,20 0,30 0,40 Output current [A]



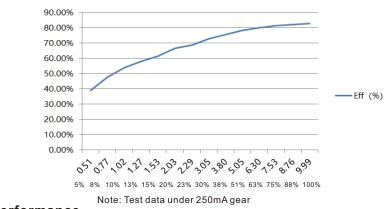


## **Driver Performance**



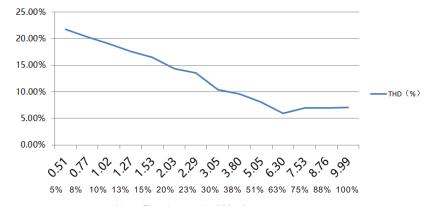
# **Driver Performance**

Eff VS Load (%)



Driver Performance

THD VS Load (%)



Note: Test data under 250mA gear

## **Expected Lifetime**

Module Number	Output current	Та	30 °C	40 °C	45 °C	•••	60 °C
SRPY-2305N-15CC200-700	200 – 700 mA	Тс	50 °C	60 °C	70 °C	•••	85 °C
SRPY-2309N-15CCT200-700	) 200 – 700 mA	Lifetime	> 100,000 h	> 80,000 h	> 60,000 h	l	> 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**

I (A)

Ipeak

1/2 Ipeak

Δt

T (ms)

Module Number	lpeak	Twidth															
			B10	B13	B16	B20	B25	C10	C13	C16	C20	C25	D10	D13	D16	D20	D25
SRPY-2305N-15CC200-700	4.66A	72µs	60	78	96	120	150	70	91	112	140	175	80	104	128	160	200
SRPY-2309N-15CCT200-700	4.66A	72µs	60	78	96	120	150	70	91	112	140	175	80	104	128	160	200

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		
2023-7-24	V1.2	Update PF/THD/Eff/MCB Load/ Lifetime	Romeo		

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