# 40W DALI DT8 NFC Enabled LED Driver(Constant Current)

Important: Read All Instructions Prior to Installation

## **Function introduction**



## **Product Data**

	LED Channel	2
	DC Voltage	10-54V
	Current	500-1050mA via NFC setting; Min.current gear lower to 0.1mA,Default 1050mA
Output	Current Accuracy	±3%( ±1%@Certain full load) @ full load
	Rated Power	Max. 40W
	Voltage Range	220-240VAC/ 176-280VDC
	Frequency Range	0/50/60Hz
	Power Factor (Typ.)	> 0.98 @ 230VAC Full load
	Total Harmonic Distortion	THD ≤ 3% (@ full load / 230VAC)
	Efficiency (Typ.)	> 87% @ 230VAC full load
Input	AC Current (Typ.)	0.3A @ 230VAC
	Inrush Current (Typ.)	Max. 5.62A at 230VAC; 60µs duration
	Leakage Current	< 5mA /230VAC
	Standby Power Consumption	< 0.5W
	Anti Surge	L-N:2KV
	Dimming Interface	DALI Device Type 8 (DALI consumption < 2mA)/ AC Push
Oratasi	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=90°C
Environment	Working Humidity	10% ~ 95% RH non-condensing
	Storage Temp. & Humidity	-40℃ ~ +80℃, 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℃ / 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	245x30x21mm (L*W*H)
	Warranty	5 Years

• 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

 $\bullet$  Dimmable LED driver with linear metal housing. Max. output power 40W

• 500-1050mA 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-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 2 channel output are assigned by DALI Master controller automatically, please refer to user manuals of compatible DALI Masters for specific operations.

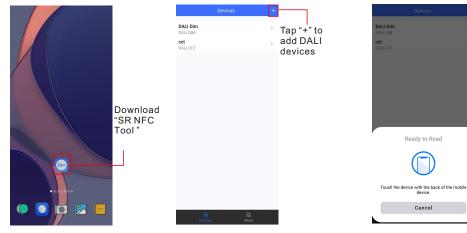
With NFC Programming devices

#### 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	quration
configuration	
Cancel	Save

	Devices		+
DALI Dim DALI DIM			>
CCT DALI CCT			>
DALI Dim 2 DALI DIM			>
(1)		88	

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

<	DALI Dim 2 🙆		<		đ		<	Opt	ions
Device Type	DALI DIM	Locked	Device Type		DALI DIM	Unlock it	0	Max level Min level	
Product Id Target current	0x01000001 300.0mA		Product Id Options		0x01000001		0	Power on level	
			Target current		300.0mA >			System failure lev Short address	el
							0	Groups	
							0	Fade time Fade rate	
							0	Dimming curve	
							0	Scenes	
							0	Target current	
							0	Low side current e	error compensation
s	et All Attributes		Se	et All Attributes				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.

	im 2 🖻
Туре	DALI DIM
	0x01000001
	>
	100.0% >
x level	0.100% >
er on level	MASK >
tem failure level	MASK >
rt address	0 >
ps	>
e time	Extended fade >
de rate	358steps/s >
nming curve	Logarithmic >
enes	>
Set All At	ributes
Cancel System fai	lure level Save
0.55	- +
255 (mask)	
	0
	255
	255
ming 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 යි	< DALI Dim	2
ene O	level MASK >				Options	>	Options	
ene 1	level MASK >	3000		300.0mA 1=0.1mA	Max level	100.0% >	Max level	
ne 2	level MASK >	Value range	1000-50000		Min level	0.100% >	Min level	
ie 3	level MASK >							
ie 4	level MASK >				Power on level	MASK >	Power on level	
ne 5	level MASK >				System failure level	MASK >	System failure level	
ne 6	level MASK >				Short address	0 >	Short address	
1e 7	level MASK >				Groups	>	Groups	
ne 8	level MASK >				Fade time	5.7s >	Fade time	
ie 9	level MASK >				Tade une	5.757	Pade unie	0.7
ie 10	level MASK >				Ready to V	/rite		
ne 11	level MASK >				$\sim$		$\sim$	
ne 12	level MASK >					)		)
ie 13	level MASK >						Ċ	
ie 14	level MASK >				Touch the device with the b	ack of the mobile	Successfu	0
ne 15	level MASK >				device.		00000000	
					Cancel			
Read	Write	Rea	id 1	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/ gateway.

### 2.Enter CLO Setting homepage

Cancel Cl	-0 9	ave	Cancel	1	Done		Cancel	CL	.0	
Preview Output Level (%)			Time				Preview Output Level (%)			
100 80 60 - Inv 40	aīd		10 Value range 1-10	kh			100 80 60 40			
0 Operating	Time (kh)		Level				20 0 10	20 30 Operating	40 Time (kh)	
Times and Levels			75 Value range 1-10	%			Times and	Levels		
1 Invalid Invalid	3 Invalid Inval		value range 1-10	U			1 10kh 75%	2 20kh 80%	3 30kh 85%	4 40kh 90%
5 6 Invalid Invalid	7 8 Invalid						5 Invalid	6 Invalid	7 Invalid	8 Invalie
/orking hours	0 ho	(s)					Working h	ours		0 hou
Read	Write						Rea	d	V	Vrite

Tips:

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

### **CLO FUNCTION INSTRUCTION**

#### 1.Open APP, and Find the CLO function

۲ 12	2CC 🔂
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 opera	ating Disabled
Corridor	PD mode
Set All A	Attributes
Read From t	the NFC Driv

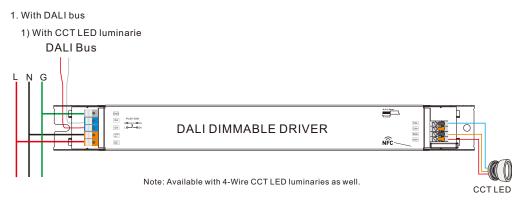


**Additional Remarks** 

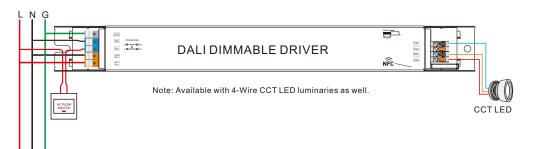
1. Please make sure your APP version is 1.0.10 or higher. 2. Please make sure NFC driver's firmware is available with **CLO function.** 

Graphic display

## Wiring Diagram



#### 2. With PUSH dimmer



4.2

### **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

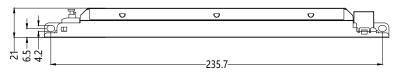
operation to adjust light intensity to opposite direction. The dimming range is from 1% to 100%.

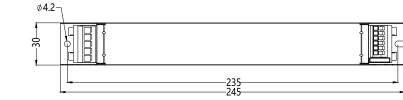
3) Double click the button to switch between brightness mode and color temperature mode.

4) Press and hold down the button to change color temperature under color temperature mode.

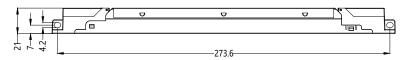
## **Product Dimension**

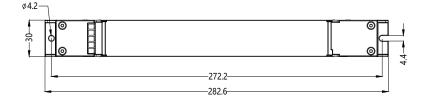
### Without End Cap



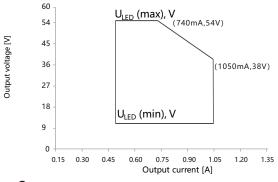


#### With End Cap

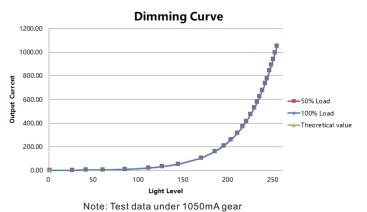




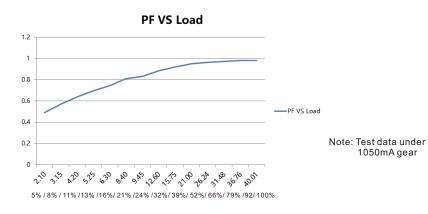
Operating window



## **Dimming Curve**



### **Driver Performance**



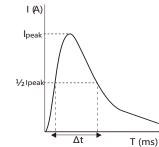
# Expected Lifetime

Module Number	Output current	Та	30 °C	40 °C	45 °C	•••	60 °C
SRPL-2305N-40CC500-1050	500 – 1050 mA	Тс	46 °C	55 °C	61 °C	•••	90 °C(max)
SRPL-2309N-40CCT500-1050	500 – 1050 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**

м	lodule Number	lpeak	Twidth				Max	.qua	ntity	of L	ED D	river	per	мсв				
				B10	B13	B16	B20	B25	C10	C13	C16	C20	C25	D10	D13	D16	D20	D25
SRPL	2305N-40CC500-1050	5.62A	60µs	30	39	48	60	75	35	45	56	70	87	40	52	64	80	100
SRPI	L-2309N-40CCT500-1050	5.62A	60µs	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.

 $\ensuremath{\text{2.For}}$  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.

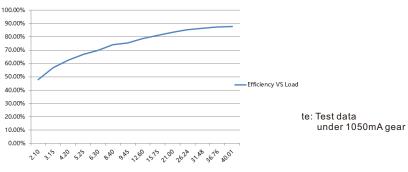
5. Type C MCB's are strongly recommended to use with LED lighting

### 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.

### Driver Performance Efficiency VS Load



5% / 8% / 11% /13% /16% / 21% /24% /32% / 39% / 52% / 66% / 79% /92 / 100%

### **Driver Performance**

### **THD VS Load**

