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

Important: Read All Instructions Prior to Installation

Function introduction



Product Data

	LED Channel	1
	DC Voltage	10-54V, Max.60V
	Current	250-850mA via NFC setting; Min.current gear lower to 0.1mA
Output	Current Accuracy	±3%@ full load
	Rated Power	Max. 30W
	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*
Input	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
	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=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, GB/T 19510.1-2023, GB/T 19510.213-2023
	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, GB 17625.1-2022, GB/T 17743-2021
	EMC Immunity	EN61547, EN61000-4-2,3,4,5,6,8,11
Otherse	MTBF	191350H, MIL-HDBK-217F @ 230VAC full load and 25°C ambient temperature
Others	Dimension	245x30x21mm (L*W*H)
	Warranty	5 Years

DALI Infos

Min.	Тур.	Max.		
IEC62386-101, 102, 207, 250, 251, 252, 253				
0.1%	Logarithmic (default)	100%		
9.5V	16V	22.5V		
-6.5V	0	6.5V		
0		2mA		
12Vdc	16Vdc	22Vdc		
1	55mA	60mA		
	IEC62 0.1% 9.5V -6.5V 0	IEC62386-101, 102, 207, 250, 251, 253 0.1% Logarithmic (default) 9.5V 16V -6.5V 0 0 12Vdc		

*: 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

 \bullet 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.

 \bullet Class ${\rm I\!I}$ power supply, isolated design

• High power factor and efficiency

• To switch and dim LED lighting luminaries

Amplitude/CCR dimming, smooth and deep dimming

 $\, \bullet \,$ Compatible with universal DALI masters that support DT6 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 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

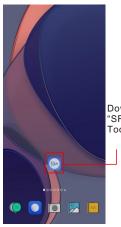
Note

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 .

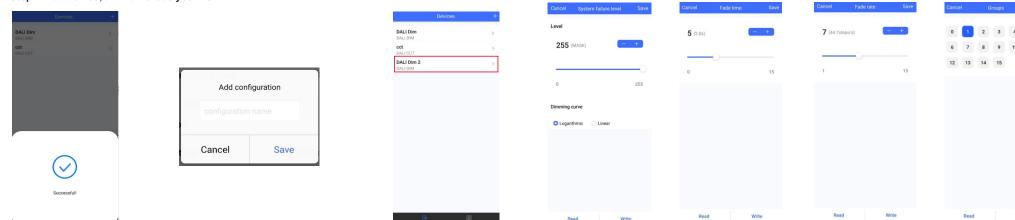


		Devices	+	<u> </u>		
	DALI DIM DALI DIM CCL DALI CCT		>	Tap "+" to add DALI	DALI Dim DALI DIM CCL DALI CCT	
				devices		
Download SR NFC Tool "						
					R	eady to Read
-					Touch the devi	ce with the back of the m
	() Devices	88 More				Cancel
				1		

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.

<	DALI Dim 2		<	DALI Dim 2	6		<	Options
Device Type	DALI DIM	Locked	Device Type		DALI DIM	Unlock it	•	Max level Min level
Product Id Target current	0x01000001 300.0mA		Product Id Options		0x01000001		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
							•	Low side current error compensation
Set	All Attributes		s	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.

						Cancel Power	
уре	DALI DIM		Options	>		Level	
	0x01000001		Max level	100.0% >		255 (MASK)	
	>		Min level	0.100% >		233 (MASK)	
	100.0% >		Power on level	MASK >			
	0.100% >		System failure level	mask >		0	2
	mask >		Short address	0 >			
	MASK >		Groups	>		Dimming curve	
	0 >		Fade time	Extended fade >		O Logarithmic	Linear
	>		Fade rate	358steps/s >			
	Extended fade >		Dimming curve	Logarithmic >			
	358steps/s >		Scenes	>			
	Logarithmic >		Target current	300.0mA >			
	>		Low side current error	0.100 >			
fa	ilure level Save	Cancel Fa	ade time Save	Cancel Fade	e rate Save	Cancel	Groups
i	ure level Save	Cancel F:	ade time Save	Cancel Fade	e rate Save	Cancel 0 1 2	Groups 3 4
i	lure level Save						
ill						0 1 2	3 4
ilure						0 1 2 6 7 8	3 4 9 10
fa		5 (2.8s)	- +	7 (44.7steps/s)	- +	0 1 2 6 7 8	3 4 9 10
em fa	- +	5 (2.8s)	- +	7 (44.7steps/s)	- +	0 1 2 6 7 8	3 4 9 10
	- +	5 (2.8s)	- +	7 (44.7steps/s)	- +	0 1 2 6 7 8	3 4 9 10
	- +	5 (2.8s)	- +	7 (44.7steps/s)	- +	0 1 2 6 7 8	3 4 9 10
	- +	5 (2.8s)	- +	7 (44.7steps/s)	- +	0 1 2 6 7 8	3 4 9 10
	- +	5 (2.8s)	- +	7 (44.7steps/s)	- +	0 1 2 6 7 8	3 4 9 10
)	- +	5 (2.8s)	- +	7 (44.7steps/s)	- +	0 1 2 6 7 8	3 4 9 10
	- +	5 (2.8s)	- +	7 (44.7steps/s)	- +	0 1 2 6 7 8	3 4 9 10
MASK) SURVE	- +	5 (2.8s)	- +	7 (44.7steps/s)	- +	0 1 2 6 7 8	3 4 9 10

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

	Scenes	Cancel Target curre	ent Save	< DALI Dim	12 tî	< DALI Dim 3	2
cene 0	level MASK >			Options	>	Options	
me 1	level MASK >	3000	300.0mA 1=0.1mA	Max level	100.0% >	Max level	
me 2	level MASK >	Value range 1000-50000		Min level	0.100% >	Min level	
3	level MASK >						
4	level MASK >			Power on level	MASK >	Power on level	
5	level MASK >			System failure level	MASK >	System failure level	
e 6	level MASK >			Short address	0 >	Short address	
e 7	level MASK >			Groups	>	Groups	
8	level MASK >			Fade time	5.7s >	Fade time	
9	level MASK >			r due unite	5.767	rade unie	5.7
10	level MASK >			Ready to V	Vrite		
11	level MASK >			\sim		\sim	
12	level MASK >)	(\checkmark))
13	level MASK >					\odot	
14	level MASK >			Touch the device with the I	back of the mobile	Successful	
15	level MASK >			device.		Succession	
				Cancel			
Read	Write	Read	Write			•	

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

ncel CLO	Save
view # Lovel (%)	
Invaid	
Operating Time	; (ih)
1 2 Invalid	3 Invalid
5 6 Invalid	7 8 Invalid Invalid
king hours	0 hour(s)
Read	Write

Graphic display

Tips:

4

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

CLO AND CORRIDOR DIM(CD) FUNCTION INSTRUCTION

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

۲ ۱	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
Read From	the NFC Drive

3.Corridor dim(CD) function

<	12CC 🔒	<	12CC
System failure level	100.0%	System failure lev	vel 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	t MASK
Constant lumen oper	erating Disabled	Constant lumen o	operating Disabled
Corridor	PD mode	Corridor	PD mode
Set All	Attributes	Set	All Attributes
			and Click hor

Read From the NFC Driver

Unlock it, and Click here to enter Corridor mode

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 Prolonge	d Dim to off
Fade in time		
5 Value range 0-	S	
Occupied tir	me	
Read	ı v	Vrite



Set your desired time and levels. Graphic display

Tips:

Enter CD mode

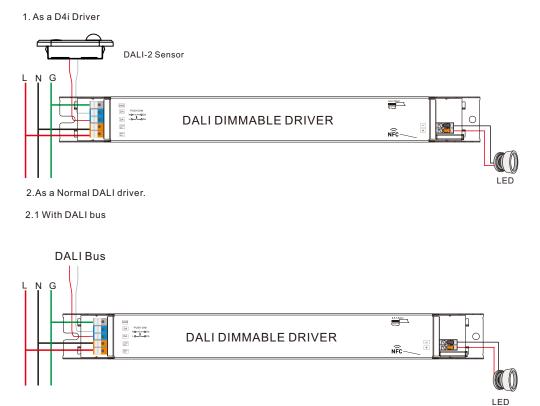
- 1. You should select either CD mode or PD mode, but not both.
- 2. Under CD mode, you can realize it with normal (3rd party) AC sensor.
- 3. Default mode: PD mode.

Additional Remarks

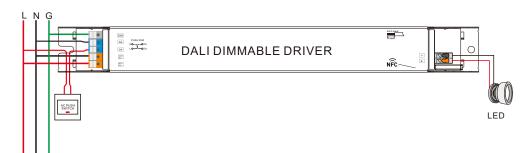


 Please make sure your APP version is 1.0.10 or higher.
Please make sure NFC driver's firmware is available with CLO / CD functions.

Wiring Diagram



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%.

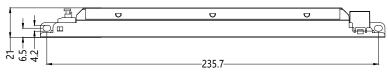
Safety & Warnings

• DO NOT install with power applied to the device.

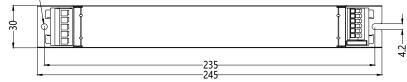
• DO NOT expose the device to moisture.

Product Dimension

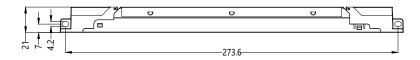
Without End Cap

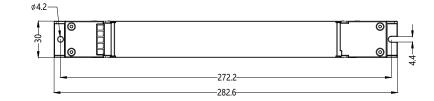


¢4.2

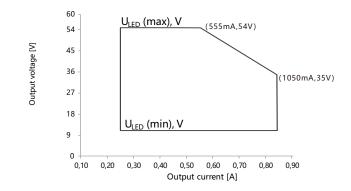


With End Cap

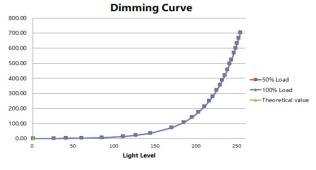




Operating window



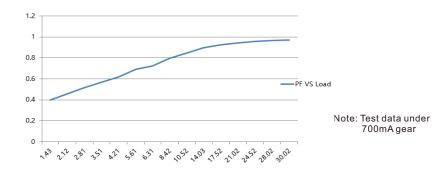
Dimming Curve



Note: Test data under 700mA gear

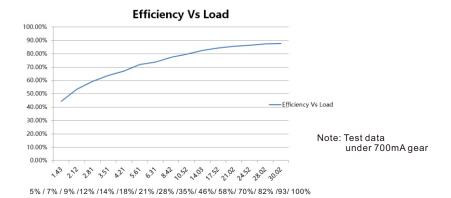
Driver Performance



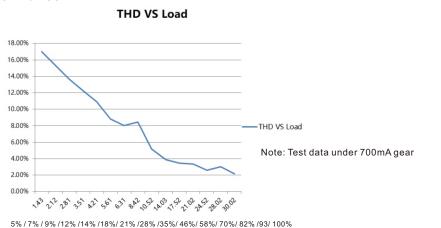


5% / 7% / 9% /12% /14% /18%/ 21% /28% /35%/ 46%/ 58%/ 70%/ 82% /93/ 100%

Driver Performance



Driver Performance



I (A) Ipeak

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	Та	30 °C	40 °C	45 °C	•••	60 °C
SRPL-2305iN-30CC250-850U	J 250 – 850 mA	Тс	46 °C	55 °C	61 °C	•••	90 °C(max)
SRPL-2309iN-30CCT250-8500	J 250 – 850 mA	Lifetime	> 100,000 h >	- 100,000 h	> 80,000 h	I	> 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-30CC250-850U	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

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.