80W DALI D4i DT8 NFC LED Driver(Constant Current)

CE BROHS (RPPLE SR-Data* 250/251/252/253)

Important: Read All Instructions Prior to Installation

Function introduction



DALI signal input AC Push input

Product Data

	LED Channel	2
	DC Voltage	50-220V
	Current	100-550mA via NFC setting; Min.current gear lower to 0.1mA
Output	Current Accuracy	±3%@ full load
	Rated Power	Max. 80W
	Voltage Range	220-240VAC/VDC
	Frequency Range	0/50/60Hz
	Power Factor (Typ.)	> 0.98 @ 230VAC Full load
	Total Harmonic Distortion	THD \leq 12% (@ full load / 230VAC)
	Efficiency (Typ.)	> 92% @ 230VAC full load
Input	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
	Dimming Interface	DALI Device Type 8 (DALI consumption < 2mA)/ AC Push
Control	Dimming Range	0.1%-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℃
F acility and the	Max. Case Temp.	Tc=90°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, GB/T 19510.1-2023, GB/T 19510.213-2023
	Withstand Voltage	I/P-FG: 1500VAC, I/P-DA: 1500VAC, O/P-DA: 1500VAC
Safety & EMC	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°C ambient temperature
Others	Dimension	245x30x21mm (L*W*H)
	Warranty	5 Years

DALI Infos

Parameter	Min.	Тур.	Max.
DALI Interface Standard	IEC62	386-101, 102, 209, 250, 251, 25	2, 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	1	55mA	60mA

• In compliance with IEC 62386-101:2014, IEC 62386-102:2014, IEC 62386-207 Ed2

• Built-in DALI-2 interface, DALI DT8 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

 \bullet Class Π power supply, isolated design

• High power factor and efficiency

• On/off, Dimming, Tunable White control

Amplitude/CCR dimming, smooth and deep dimming

Compatible with universal DALI masters that support DT8 commands

 \bullet DALI-250/251/252/253 Enabled , DALI data inside

• Integrated Max.56mA DALI BUS supply, enable to power DALI-2 sensors

 \bullet IP20 rating, suitable for indoor LED lighting applications

5 years warranty

Operation

With DALI master

1. DALI Address

1 DALI address for 2 channels 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 .

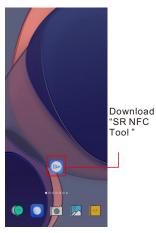
DALI Dim

cct

- 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 .

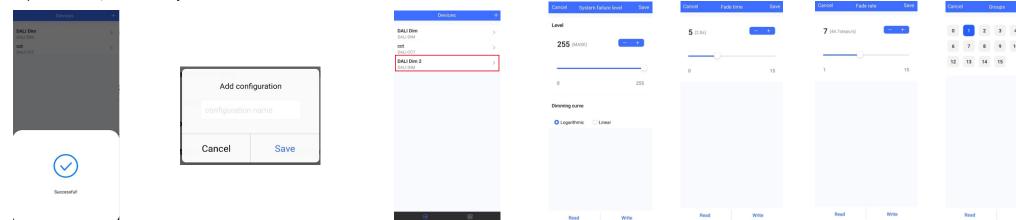


Devices +		Devices
>	Tap "+" to add DALI	DALI Dim DALI DIM cct DALI CCT
	devices	
		Ready to Read
		Touch the device with the back of the m device.
88 More		Cancel
	-	

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.



Step 3: Unlock device, enter parameters configuring page.

< D	DALI Dim 2	<u> </u>	<	DALI Dim 2	ස්		<	Options
Device Type	DALI DIM	Locked	Device Type	1	DALI DIM	Unlock it	0	Max level Min level
Product Id	0x01000001		Product Id	0x0	1000001			
arget current	300.0mA		Options		>		0	Power on level System failure level
			Target current	30	0.0mA >		•	Short address Groups
							0	Fade time Fade rate
							0	Dimming curve
							0	Scenes
							0	Target current
							•	Low side current error compensation
Set A	All Attributes		Se	t 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.

UALI	Dim 2 🖬		< DALI Di	m 2 பி		Cancel Pow	ver on level
Туре	DALI DIM		Options	>		Level	
Id	0x01000001		Max level	100.0% >		055	
	>		Min level	0.100% >		255 (MASK)	
	100.0% >		Power on level	MASK >			
	0.100% >		System failure level	MASK >		0	
level	MASK >		Short address	0 >			
ilure level	MASK >		Groups	>		Dimming curve	
ress	0 >		Fade time	Extended fade >		 Logarithmic 	C Linear
	>		Fade rate	358steps/s >			
	Extended fade >		Dimming curve	Logarithmic >			
	358steps/s >		Scenes	>			
curve	Logarithmic >		Target current	300.0mA >			
	>		Low side current error compensation	0.100 >			
Set All A	ttributes		Set All Att	lbutes		Read	Writ
	ttributes silure level Save	Cancel F	Set All Att		e rate Save	Read	Writ
		Cance! F 5 (2.8a)			erate Save	Cancel	
System fa			iade time Save	Cancel Fade		Cancel	Groups
System fa	siture level Save		iade time Save	Cancel Fade		Cancel 0 1 6 7	Groups 2 3 4
System fa	Ilure level Save		iade time Save	Cancel Fade		Cancel 0 1 6 7	Groups 2 3 4 8 9 10
System fa	siture level Save	5 (2.86)	ade time Save	Cancel Fade 7 (44.7steps/s)		Cancel 0 1 6 7	Groups 2 3 4 8 9 10
System fa (MASK)	Ilure level Save	5 (2.86)	ade time Save	Cancel Fade 7 (44.7steps/s)		Cancel 0 1 6 7	Groups 2 3 4 8 9 10
System fr (MASK) curve	- + 255	5 (2.86)	ade time Save	Cancel Fade 7 (44.7steps/s)		Cancel 0 1 6 7	Groups 2 3 4 8 9 10
System fr (MASK) surve	Ilure level Save	5 (2.86)	ade time Save	Cancel Fade 7 (44.7steps/s)		Cancel 0 1 6 7	Groups 2 3 4 8 9 10
System fr (MASK) surve	- + 255	5 (2.86)	ade time Save	Cancel Fade 7 (44.7steps/s)		Cancel 0 1 6 7	Groups 2 3 4 8 9 10
System fr (MASK) curve	- + 255	5 (2.86)	ade time Save	Cancel Fade 7 (44.7steps/s)		Cancel 0 1 6 7	Groups 2 3 4 8 9 10
System fr (MASK) curve	- + 255	5 (2.86)	ade time Save	Cancel Fade 7 (44.7steps/s)		Cancel 0 1 6 7	Groups 2 3 4 8 9 10
System fa 5 (MASK) ng curve	- + 255	5 (2.86)	ade time Save	Cancel Fade 7 (44.7steps/s)		Cancel 0 1 6 7	Groups 2 3 4 8 9 10

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

(Scenes	Cancel Target cu	rrent Save	< DALI Dim	i2 ট	< DALI Dim	2 d
Scene 0	level MASK >			Options	>	Options	
cene 1	level MASK >	3000	300.0mA 1=0.1mA	Max level	100.0% >	Max level	
ene 2	level MASK >	Value range 1000-50000		Min level	0.100% >	Min level	
ne 3	level MASK >						
ie 4	level MASK >			Power on level	MASK >	Power on level	MASK
ne 5	level MASK >			System failure level	MASK >	System failure level	MASK
ene 6	level MASK >			Short address	0 >	Short address	
ene 7	level MASK >			Groups	>	Groups	
ne 8	level MASK >			Fade time	5.7s >	Fade time	
ie 9	level MASK >			rade unie	5.707	rade time	0.757
ne 10	level MASK >			Ready to V	Vrite		
ne 11	level MASK >			\sim		\sim	
ne 12	level MASK >)	(\checkmark))
ne 13	level MASK >					Ċ	·
ne 14	level MASK >			Touch the device with the b	back of the mobile	Successful	
ene 15	level MASK >			device.		Guccessia	
				Cancel			
Read	Write	Read	Write		4	L .	

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.



Cancel	CLO		Save
Preview Output Level (%)			
100 80 60 40	Invalid		
0	Operating Time	r (kh)	
Times and Le	vels		
1 Invalid	2 Invalid	3 Invalid	4 Invalid
5 Invalid	6 Invalid	7 Invalid	8 Invalid
Working hou	rs		0 hour(s)
Read		Wr	rite

vels. Graphic display

Tips:

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

CLO FUNCTION INSTRUCTION

1.Open APP, and Find the CLO function

< 12CC	۵	<	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 operating	g Disabled	Constant lumen ope	erating Disabled >
Corridor	PD mode	Corridor	PD mode >
Set All Attri	ibutes	Set All	Attributes
Read From the			nd Click here

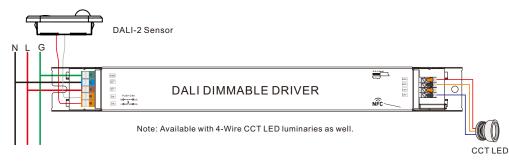
Additional Remarks



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.

Wiring Diagram

1. As a D4i Driver



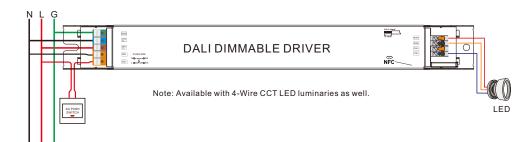
2.As a Normal DALI driver

2.1 With DALI bus





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%.

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.

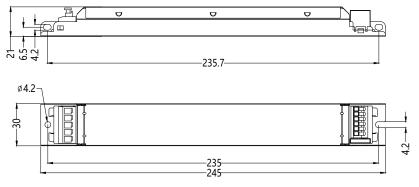
Safety & Warnings

• DO NOT install with power applied to the device.

• DO NOT expose the device to moisture.

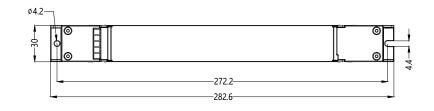
Product Dimension

Without End Cap

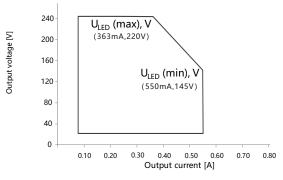


With End Cap

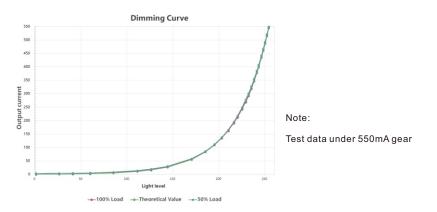




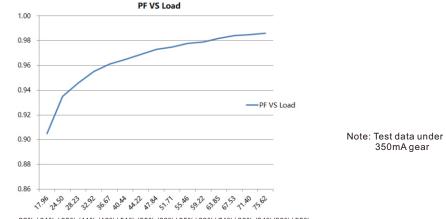
Operating window



Dimming Curve



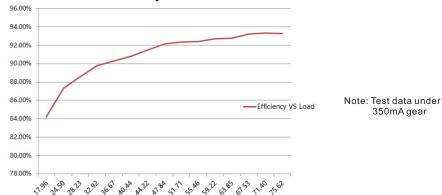
Driver Performance



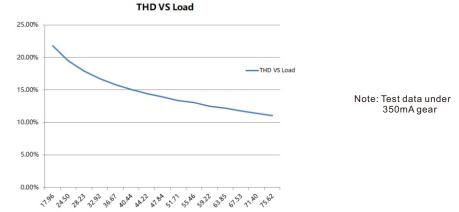
22% / 31% / 35% /41% /46%/ 51% /55% /60%/ 65%/ 69%/ 74%/ 80% /84%/89%/ 95%

Driver Performance

Efficiency VS Load



Driver Performance



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

Expected Lifetime

Module Number	Output current	Та	30 °C	40 °C	45 °C	•••	60 °C
SRPL-2305iN-80CC100	-550H 100 – 550 mA	Тс	44 °C	56 °C	62 °C	•••	90 °C(max)
SRPL-2309iN-80CCT100	0-550H100 – 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	.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-2305iN-80CC100-550H	23.5A	350µs	7	9	11	14	18	12	15	19	24	30	19	24	30	37	47
SRPL-2309iN-80CCT100-550F	23.5A	350µs	7	9	11	14	18	12	15	19	24	30	19	24	30	37	47

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

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

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.