80W DALI D4i DT6 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	1
	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 6 (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 action 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
Othere	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, 207, 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 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

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

High power factor and efficiency

 \bullet To switch and dim LED lighting luminaries

 \bullet 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

• 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

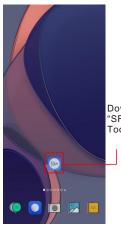
1) Do wiring according to the wiring diagram and power on the DALI system .

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 .



		Devices	+	<u> </u>		
	DALI DIM DALI DIM CCL DALI CCT		>	Tap "+" to add DALI	DALI Dim DALI DIM cct DALI CCT	
				devices		
Download SR NFC Tool "						to David
					Ready	to Read
					Touch the device with de	the back of the r vice.
	() Devices	88 More			Ca	ncel

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.

Devices +		Devices +	Cancel System failure level Save	Cancel Fade time Save	Cancel Fade rate Save	Cancel Groups Save
DALI Dim > 1 DALI Dim > 1 DALI Dim		DALI Dim > DALI Dim >	Level 255 (MASK) - +	5 (2.89)	7 (44.7steps/s) - +	0 1 2 3 4 5 6 7 8 9 10 11
DALLOCT		DALI OCT DALI DIM DALI DIM	O	0 15	1 15	12 13 14 15
	Add configuration		0 255			
	configuration name		Dimming curve O Logarithmic C Linear			
Successfull	Cancel Save					
		eg 88	Read Write	Read Write	Read Write	Read Write

Step 3: Unlock device, enter parameters configuring page.

	DALI Dim 2 🔂		<		ස්			<	Options
Device Type	DALI DIM	Locked	Device Type		DALI DIM	Unloc	•k it	0	Max level Min level
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arget current	300.0mA		Options		>			0	System failure level
			Target current		300.0mA >			0	Short address Groups
								0	Fade time Fade rate
								0	Dimming curve
								0	Scenes
								0	Target current
								۲	Low side current error compens
Se	t All Attributes		Set	t All Attributes					Unselect All Select

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 Po		
		Options	>		Level		
0×01000001		Max level	100.0% >		255 MASK		- +
>		Min level	0.100% >		200 (11/101)		
100.0% >		Power on level	MASK >				
0.100% >		System failure level	mask >		0		25
MASK >		Short address	0 >				
MASK >		Groups	>		Dimming curve		
0 >		Fade time	Extended fade >		O Logarithmic	OLinear	
>		Fade rate	358steps/s >				
Extended fade >		Dimming curve	Logarithmic >				
358steps/s >		Scenes	>				
Logarithmic >		Target current	300.0mA >				
>			0.100 \				
							_
	5 (2.8s)	- + +	7 (44.7steps/s)	- +	0 1	2 3	4
- +					6 7	8 9	10 1
0					12 13	14 15	
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(C) Devices

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

	Scenes	Cancel	Target current	Save	< DALI Dir	n 2 🗗	< DALI Dim	12
ene 0	level MASK >				Options	>	Options	
ene 1	level MASK >	3000		300.0mA 1=0.1mA	Max level	100.0% >	Max level	
cene 2	level MASK >	Value range 100	00-50000		Min level	0.100% >	Min level	
cene 3	level MASK >				-			
cene 4	level MASK >				Power on level	MASK >	Power on level	
cene 5	level MASK >				System failure level	MASK >	System failure level	
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	
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cene 10	level MASK >				Ready to 1	Write		
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Scene 15	level MASK >				device.		Successio	
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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.



	,	Cancel	1	Done		Cancel	CI	_0	Sav
freview		Time				Preview			
put Level (%) I	1	10		kh		Output Level (%) 100 80 60			
		Value range 1	100			40 20 0	20 30	40	
Operating To	me (kh)	75		%		Times and	Operating	Time (kh)	
1 2 nvalid Invalid	3 4 Invalid	Value range 1	-100			1 10kh 75%	2 20kh 80%	3 30kh 85%	4 40kh 90%
5 6 Invalid	7 8 Invalid					5 Invalid	6 Invalid	7 Invalid	8 Invalid
ing hours	0 hour(s)					Working ho	ours		0 hour(s
Read	Write					Rea	d	v	Vrite

Graphic display

Tips:

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

3.Corridor dim(CD) function

System failure level	100.0%	System failure level	100.0% >			
System failure level	100.0%	System failure level	100.0% 2			
Short address	0	Short address	0 >			
Groups		Groups	>	Cancel	Corridor	
Fade time	2.0s	Fade time	2.0s >		Connaon	
Fade rate	5.6steps/s	Fade rate	5.6steps/s >			
Dimming curve	Logarithmic	Dimming curve	Logarithmic >	Mode		
Scenes		Scenes	>	⊖ cd	O PD	
Target current	100.0mA	Target current	100.0mA >			
Minimum current compensation	MASK	Minimum current compensation	MASK >	PD: PUSI	H DIM	
Constant lumen operating	Disabled	Constant lumen operating	Disabled >	CD: Corri	dor DIM	
Corridor	PD mode	Corridor	PD mode >			
Set All Attribut	tos	Set All Attrib	utes			

CLO AND CORRIDOR DIM(CD) FUNCTION INSTRUCTION

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

< 12CC	۵	< 12CC	e e
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	Disabled	Constant lumen operating	g Disabled >
Corridor	PD mode	Corridor	PD mode >
Set All Attribut	es	Set All Attr	ibutes
Read From the I	NFC Driver	Unlock it,and	Click here to

4.Enter CD Setting homepage

cel	Corridor	Save
ie		
D	⊖ PD	
,		
/		
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time		
	S	
ange 0-1	00	
ipied tim	ne	
Read	v	



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.

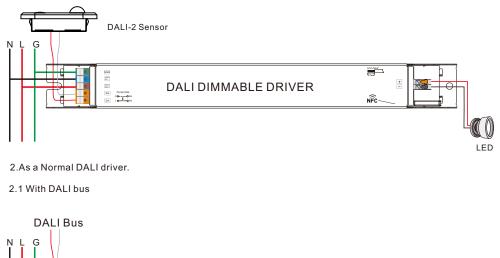
Additional Remarks



 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.

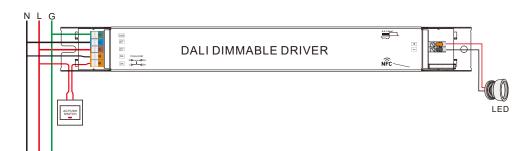
Wiring Diagram

1. As a D4i Driver



DALI DIMMABLE DRIVER

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%.

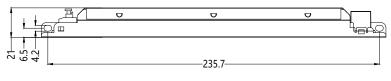
Safety & Warnings

• DO NOT install with power applied to the device.

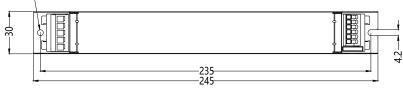
• DO NOT expose the device to moisture.

Product Dimension

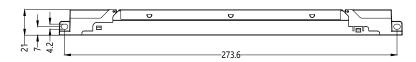
Without End Cap

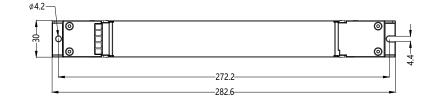




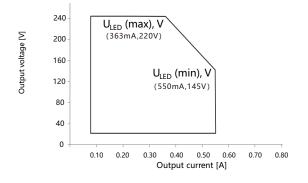


With End Cap

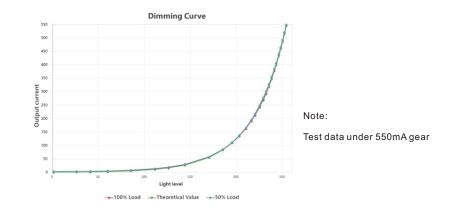




Operating window



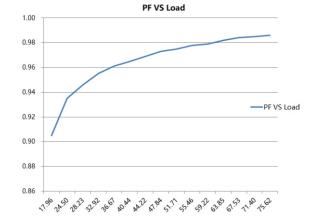
Dimming Curve



Note: Test data under

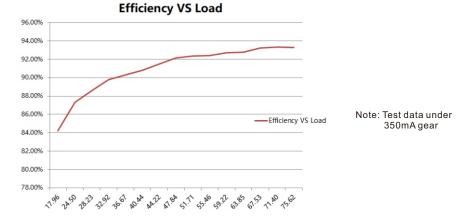
350mA gear

Driver Performance



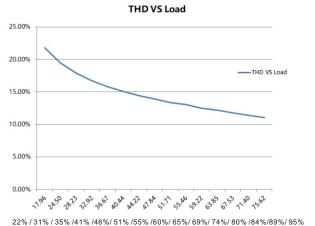
22% / 31% / 35% /41% /46%/ 51% /55% /60%/ 65%/ 69%/ 74%/ 80% /84%/89%/ 95%

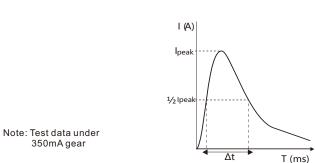
Driver Performance



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

Driver Performance





350mA gear

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 $30^\circ \mathcal{C}$ 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 ℃	40 °C	45 °C	•••	60 °C
SRPL-2305iN-80CC100-5	50H 100 – 550 mA	Тс	44 °C	56 °C	62 °C	•••	90 °C(max)
SRPL-2309iN-80CCT100-5	550H 100 – 550 mA	Lifetime	> 100,000 h	> 100,000 h	> 80,000 ł	ı	> 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.