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

CALLO (C PROHS COMPLIANT REPERTIES SR-Data 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	80-400mA via NFC setting; Min.current gear lower to 0.1mA
Output	Current Accuracy	±3%@ full load
	Rated Power	Max. 40W
	Voltage Range	220-240VAC/VDC
	Frequency Range	0/50/60Hz
	Power Factor (Typ.)	> 0.98 @ 230VAC Full load
	Total Harmonic Distortion	THD ≤ 10% (@ full load / 230VAC)
	Efficiency (Typ.)	> 90% @ 230VAC full load
Input	AC Current (Typ.)	0.22A @ 230VAC
	Inrush Current (Typ.)	Max. 23.7A at 230VAC; 220µs 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	0.01%-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°C ~ +60°C					
Environment	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					

• 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

• Dimmable LED driver with linear metal housing. Max. output power 40W

• 80-400mA current selectable via NFC program tool. Min.current gear lower to 0.1mA

DALI Address/Group/Scene setting via NFC program tool

• For luminaires of protection class I and protection class II

• High power factor and efficiency. Non-SELV rated driver

• To switch and dim LED lighting luminaries, 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	guration
Add configuration configuration name Cancel Save	
Cancel	Save

	Devices	
DALI Dim DALI DIM		
OCT		
DALI Dim 2 DALI DIM		

Step 3: Unlock device, enter parameters configuring page.

DALI Dim 2	â		×	DALI Dim 2	i	×	Op
туре	DALI DIM	Locked	Device Type	DALI DIM	Unlock it	•	Max level Min level
	0x01000001	Lookou	Product Id	0x01000001	OTHOCK IL		
nt	300.0mA		Options	>		٢	Power on level System failure le
			Target current	300.0mA >		٥	Short address Groups
						٥	Fade time Fade rate
						٥	Dimming curve
						•	Scenes
						•	Target current
						•	Low side current
Set All Attribut	tes		Set	All Attributes			Unselect 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.

DALI	Dim 2 🖬		< DALI D	m 2 🗗		Cancel P	ower on leve	el	S
ice Type	DALI DIM		Options	>		Level			
uct Id	0x01000001		Max level	100.0% >				_	+
ns	>		Min level	0.100% >		255 (MASK)			
evel	100.0% >		Power on level	MASK >					_
evel	0.100% >		System failure level	MASK >		0			25
r on level	MASK >		Short address	0 >					
n failure level	MASK >		Groups	>		Dimming curve			
ddress	0 >		Fade time	Extended fade >		O Logarithmic	CLinear		
1	>		Fade rate	358steps/s >					
me	Extended fade >		Dimming curve	Logarithmic >					
ite	358steps/s >		Scenes	>					
ng curve	Logarithmic >		Target current	300.0mA >					
	>		Low side current error	0.100 >					
			compensation						
Set All A	ttributes ailure level Save	Cancel Fa	Set All Att	ributes Cancel Fade r	ate Save	Read	Groups	Write	
el System fa				Cancel Fade r	ate Save	Cancel			
el System fa		Cancel Fa 5 (2.8s)	ide time Save			Cancel 0 1	2 3	4	
el System fa	aiture level Säve		ide time Save	Cancel Fade r		Cancel 0 1 6 7	2 3 8 9		
System fa	aiture level Säve		ide time Save	Cancel Fade r		Cancel 0 1	2 3	4	
N System fa	aiture level Säve	5 (2.8s)	ide time Save	Cancel Fade r 7 (44.7steps/s)	+	Cancel 0 1 6 7	2 3 8 9	4	
el System fa	alure level Save	5 (2.8s)	ide time Save	Cancel Fade r 7 (44.7steps/s)	+	Cancel 0 1 6 7	2 3 8 9	4	
el System fo 55 (MASK) ing curve	- + 255	5 (2.8s)	ide time Save	Cancel Fade r 7 (44.7steps/s)	+	Cancel 0 1 6 7	2 3 8 9	4	0
el System fo 55 (MASK)	alure level Save	5 (2.8s)	ide time Save	Cancel Fade r 7 (44.7steps/s)	+	Cancel 0 1 6 7	2 3 8 9	4	
el System fo 55 (MASK)	- + 255	5 (2.8s)	ide time Save	Cancel Fade r 7 (44.7steps/s)	+	Cancel 0 1 6 7	2 3 8 9	4	
el System fo 55 (MASK) ing curve	- + 255	5 (2.8s)	ide time Save	Cancel Fade r 7 (44.7steps/s)	+	Cancel 0 1 6 7	2 3 8 9	4	
el System fo 55 (MASK)	- + 255	5 (2.8s)	ide time Save	Cancel Fade r 7 (44.7steps/s)	+	Cancel 0 1 6 7	2 3 8 9	4	
el System fo 55 (MASK) ing curve	- + 255	5 (2.8s)	ide time Save	Cancel Fade r 7 (44.7steps/s)	+	Cancel 0 1 6 7	2 3 8 9	4	5
el System fo 55 (MASK)	- + 255	5 (2.8s)	ide time Save	Cancel Fade r 7 (44.7steps/s)	+	Cancel 0 1 6 7	2 3 8 9	4	5

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

<	Scenes	Cancel	Target current	Save	< DALI Dim	2 ජ	< DALI Dim 2	2 0
Scene 0	level MASK >				Options	>	Options	
Scene 1	level MASK >	3000		300.0mA 1=0.1mA	Max level	100.0% >	Max level	
icene 2	level MASK >	Value range 10	00-50000		Min level	0.100% >	Min level	
cene 3	level MASK >							
ene 4	level MASK >				Power on level	MASK >	Power on level	MASK
cene 5	level MASK >				System failure level	MASK >	System failure level	MASK
cene 6	level MASK >				Short address	0 >	Short address	
ene 7	level MASK >				Groups	>	Groups	
ene 8	level MASK >				Fade time	5.7s >	Fade time	
cene 9	level MASK >				rade unie	5.787	Fade time	0.78
ene 10	level MASK >				Ready to V	/rite		
ene 11	level MASK >				\sim		\sim	
ene 12	level MASK >)	(\checkmark)	
ene 13	level MASK >						\odot	
ene 14	level MASK >				Touch the device with the b	ack of the mobile	Successful!	
cene 15	level MASK >				device.		Succession	
					Cancel			
Read	Write	Read	N N	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

Cancel (CLO	Save	Cancel					Cancel	CL	0_0	Save
heview			Time					Preview Output Level (%)			
0 0 10	walid		10 Value	range 1-100	1	h		100 80 60 40			
Operati	ng Time (kh)		Level					20 0 10	20 30 Operating	40 Time (kh)	
imes and Levels			75		4	6		Times and	Levels		
1 2 Invalid Invalid	3 Irwalid	4 Invalid	Value	range 1-100				1 10kh 75%	2 20kh 80%	3 30kh 85%	4 40kh 90%
5 6 Invalid	7 Invalid	8 Invalid						5 Invalid	6 Invalid	7 Invalid	8 Invalid
orking hours		0 hour(s)						Working ho	ours		0 hour(s)
Read	w	/rite						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

< 12CC	۵	< 120	റെ ലി
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 operati	ting Disabled >
Corridor	PD mode	Corridor	PD mode >
Set All Attribu	ites	Set All At	ttributes
Read From the	NFC Drive	r Unlock it, and	d Click here t



Additional Remarks

1. Pleas	e make sure your APP version is 1.0.10 or higher.
2. Pleas	e make sure NFC driver's firmware is available with
CLO f	unction.

Graphic display

Wiring Diagram

1. With DALI bus



DALI Bus

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.

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-40CC80-400H	80 – 400 mA	Тс	42 °C	53 °C	60 °C	•••	90 °C(max)
SRPL-2309N-40CCT80-400H	80 – 400 mA	Lifetime	> 100,000 h	> 100,000 h	> 100,000	h	> 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

Module 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-40CC80-400H	23.7A	220µs	12	16	19	24	30	20	26	32	41	51	36	47	58	73	91
SRPL-2309N-40CCT80-400H	23.7A	220µs	12	16	19	24	30	20	26	32	41	51	36	47	58	73	91

I (A)

Δt

T (ms)

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 $30^\circ C$ 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

300mA gear

Ipeak

1/2 Ipeak

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.

Driver Performance



Driver Performance

THD VS Load

