

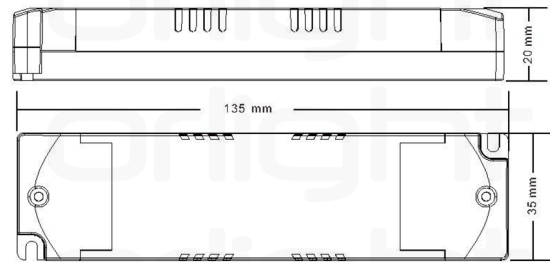
# ORL-DALI-NFC-15CC-100-700-DT8

ITEM NO. DRIVER - 40346

15W DALI DT8 NFC Enabled LED Driver(Constant Current)



## Dimension



## Function introduction



## Technical Specification

|        |                           |                                                            |
|--------|---------------------------|------------------------------------------------------------|
| Output | LED Channel               | 2                                                          |
|        | DC Voltage                | 6-42V                                                      |
|        | Current                   | 100-700mA via NFC setting; Min.current gear lower to 0.1mA |
|        | Current Accuracy          | ±3%( ±1%@Certain full load) @ full load                    |
|        | Rated Power               | Max. 15W                                                   |
|        | Output PstLM              | <0.02                                                      |
|        | Output SVM                | <0.01                                                      |
| Input  | Voltage Range             | 200-240VAC/176-280VDC                                      |
|        | Frequency Range           | 0/50/60Hz                                                  |
|        | Power Factor (Typ.)       | > 0.97 @ 230VAC Full load                                  |
|        | Total Harmonic Distortion | THD ≤ 10% (@ full load / 230VAC)                           |
|        | Efficiency (Typ.)         | >82% @ 230VAC full load                                    |
|        | AC Current (Typ.)         | 0.1A @ 230VAC                                              |
|        | Inrush Current (Typ.)     | Max. 3.96A at 230VAC; 90μs duration                        |
|        | Leakage Current           | < 5mA /230VAC                                              |

# ORL-DALI-NFC-15CC-100-700-DT8

## Technical Specification Continued

|                         |                           |                                                                        |
|-------------------------|---------------------------|------------------------------------------------------------------------|
| <b>Input</b>            | Standby Power Consumption | <0.5W                                                                  |
|                         | Anti Surge                | L-N:2KV                                                                |
| <b>Control</b>          | Dimming Interface         | DALI Device Type 8 (DALI consumption < 2mA)/ AC Push                   |
|                         | Dimming Range             | 0.01%-100%@ Max current                                                |
|                         | Dimming Method            | Amplitude/CCR dimming                                                  |
|                         | Dimming Curve             | Linear/ Logarithmic optional                                           |
| <b>Protection</b>       | Short Circuit             | Yes, remove the fault conditions and re-power the device.              |
|                         | Over Current              | Yes, remove the fault conditions and re-power the device.              |
|                         | Over Temperature          | Yes, remove the fault conditions and re-power the device.              |
| <b>Environment</b>      | Working Temp.             | -25°C ~ + 45°C                                                         |
|                         | Max. Case Temp.           | TC=85°C (Ta="45°C")                                                    |
|                         | Working Humidity          | 10% ~ 95% RH non-condensing                                            |
|                         | Storage Temp. Humidity    | -40°C ~ +80°C, 10% ~ 95% RH                                            |
| <b>Safety &amp; EMC</b> | Safety Standards          | EN61347-1, EN61347-2-13                                                |
|                         | Withstand Voltage         | I/P-O/P: 3.75KVAC                                                      |
|                         | Isolation Resistance      | I/P-O/P: 100M Ohms / 500VDC / 25°C / 70% RH                            |
|                         | EMC Emission              | En55015, EN61000-3-2, EN61000-3-3                                      |
|                         | EMC Immunity              | En61547, EN61000-4-2,3,4,5,6,8,11                                      |
| <b>Others</b>           | MTBF                      | 191350H, MIL-HDBK-217F @ 230VAC full load and 25°C ambient temperature |
|                         | Dimension                 | 135x35x20mm (L*W*H)                                                    |

- In compliance with IEC 62386-101:2014, IEC 62386-102:2014, IEC 62386-207 Ed2 IEC 62386-209:2011
- Built-in DALI-2 interface, DALI DT8 device
- Dimmable LED driver. Max. output power 15W
- 100-700mA 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, full isolated plastic case
- High power factor and efficiency
- To switch and dim Tunable White LED lighting fixtures
- Amplitude/CCR dimming, smooth and deep dimming
- Compatible with universal DALI masters that support DT8 commands
- Error report function
- IP20 rating, suitable for indoor LED lighting applications

## 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 channels output are assigned by DALI Master controller automatically, please refer to user manuals of compatible DALI Masters for specific operations.

With NFC Programming devices

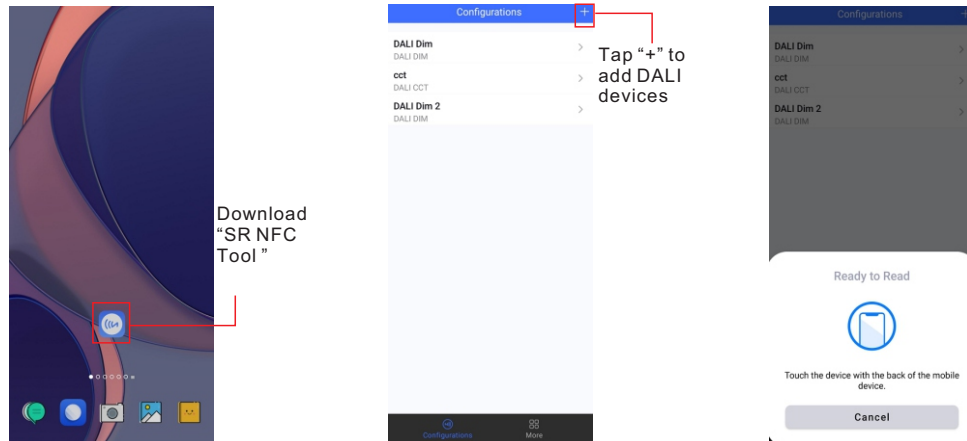
Note

1. Do wiring according to the wiring diagram and power on the DALI system.
2. Recommend setting parameters without power-on the DALI devices.
3. Please make sure your mobile phone has NFC function and enable it.

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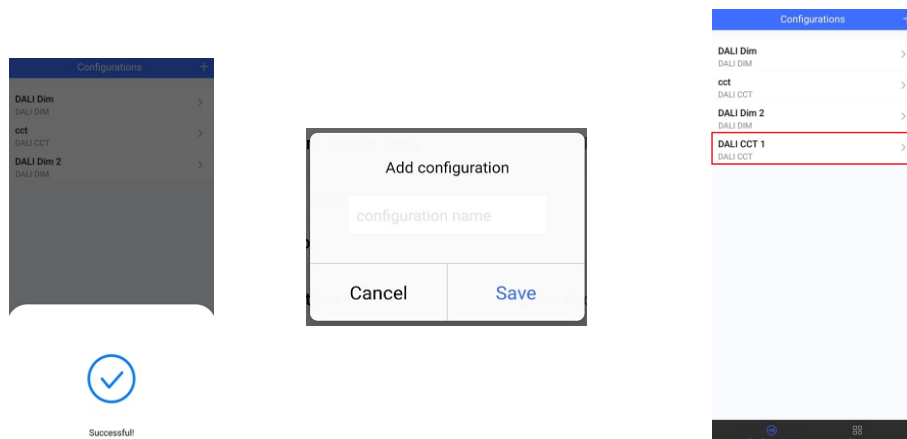
## Working with "SR NFC Tool" APP

**Step 1: Download the APP (searching "SR NFC Tool" from App Store and Google Play) .  
Then open the APP .**

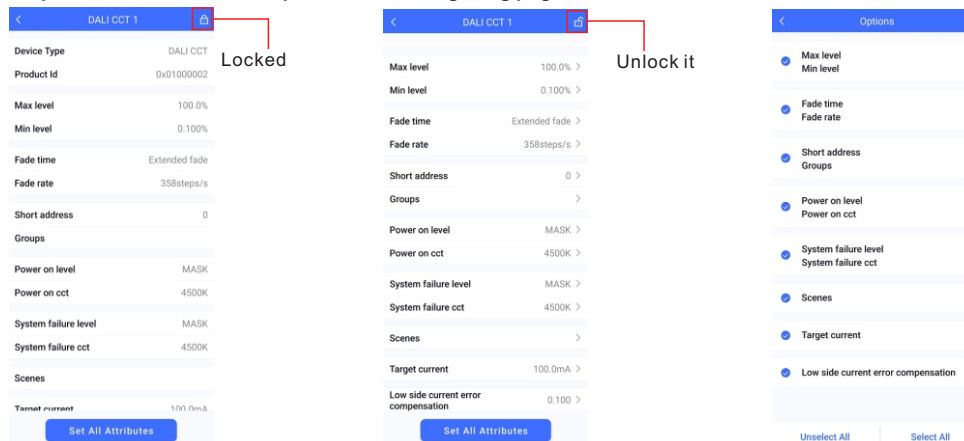


- Note:**
1. Please Make sure that you have enabled NFC function with your mobile phone/ tablet .
  2. Please Make sure that the "NFC position" is matched.
  3. Please do not power on the device before setting.
  4. If you can't download "SR NFC Tool". Please contact with us.

**Step 2: Add device, and name it as you wish.**



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



- 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.

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## Working with "SR NFC Tool" APP

**Step 4: Few parameter interface, you can choose the setting based on your requirements.**

The screenshot displays the SR NFC Tool app interface for configuring DALI CCT 1. The main screen shows a list of parameters with their current values and a 'Set All Attributes' button. The parameters include Device Type (DALI CCT), Product Id (0x01000002), Options, Max level (100.0%), Min level (0.100%), Fade time (Extended fade), Fade rate (358steps/s), Short address (0), Groups, Power on level (MASK), Power on cct (4500K), System failure level (MASK), System failure cct (4500K), Scenes, Target current (100.0mA), and Low side current error compensation (0.100). Below the main screen are four smaller screens showing specific settings: Level (229, 50.53%), Dimming curve (Logarithmic), System failure level (229, 50.53%), System failure cct (6000), Fade time (5, 2.8s), Fade rate (7, 44.7steps/s), and Dimming curve (Logarithmic).

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

The screenshot displays the SR NFC Tool app interface for saving the configuration. The 'Scenes' screen lists 16 scenes (Scene 0 to Scene 15) with their respective settings. The 'Ready to Write' screen shows the 'Level' setting (255, MASK) and the 'Cct' setting (4500K). The 'Ready to Write' screen also includes a 'Touch the device with the back of the mobile device' instruction and a 'Cancel' button. The 'Successfull' screen shows a checkmark and the text 'Successfull'.

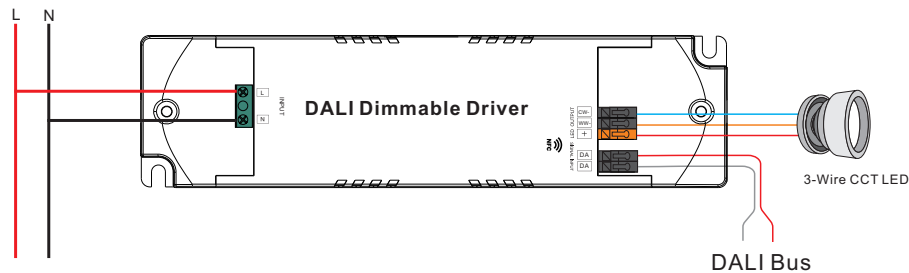
### Tips

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/ DALI IoT gateway.

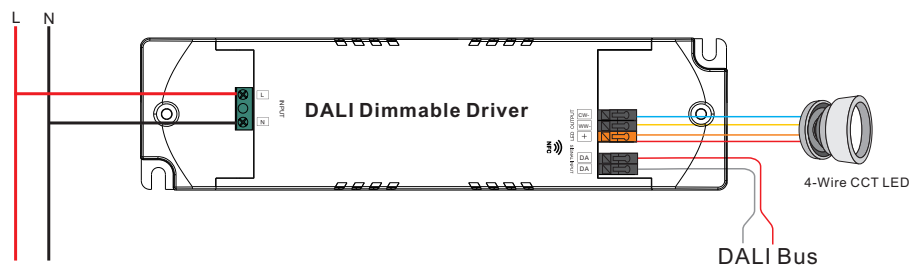
# ORL-DALI-NFC-15CC-100-700-DT8

## Wiring Diagram

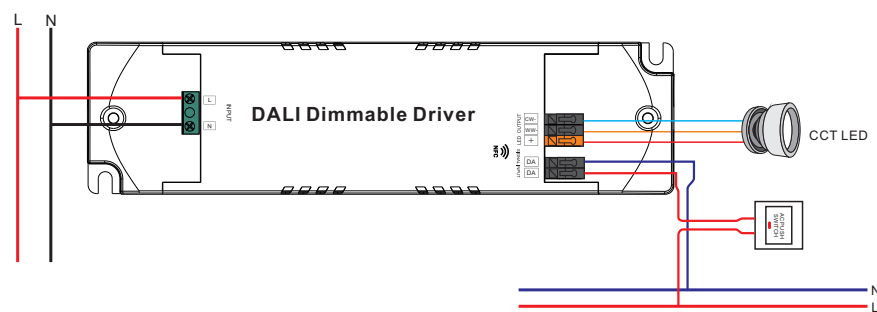
1. With DALI bus
  1. With 3-wire CCT LED luminaire



2. With 4-wire CCT LED luminaire



2. With AC PUSH dimmer

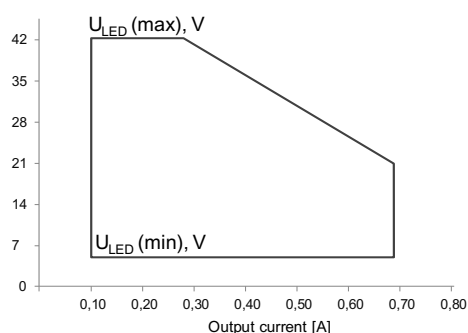


## AC Push Function

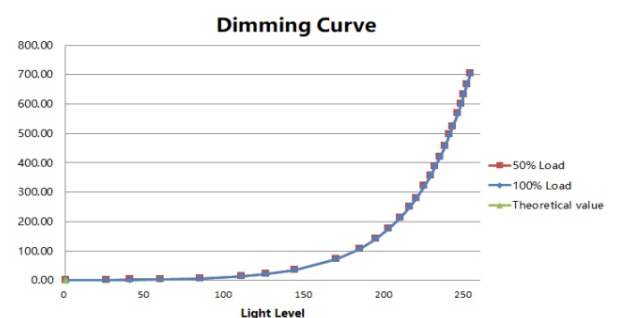
1. Click the button to switch ON/OFF
2. Press and hold down the button to increase or decrease light intensity to desired level and release it, then repeat the operation to adjust light intensity to opposite direction. The dimming range is from 1% to 100%.
3. Double click the button to switch between brightness mode and color temperature mode.
4. Press and hold down the button to change color temperature under color temperature mode.

## Performance

### Operating Window



### Dimming Curve

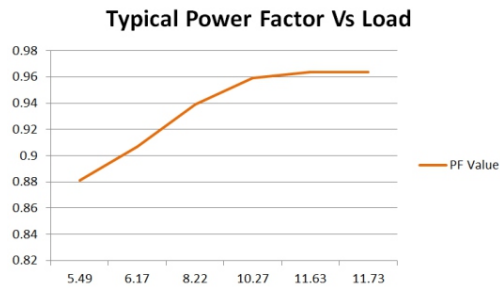


Note: Test data under 700mA gear

# ORL-DALI-NFC-15CC-100-700-DT8

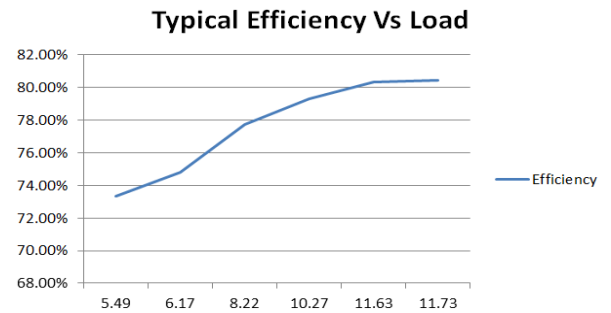
## Performance

### Driver Performance



Note: Test data under 700mA gear

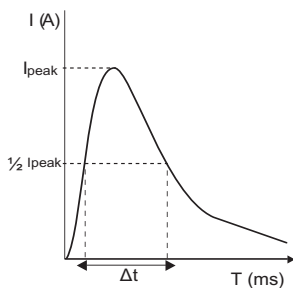
### Driver Performance



Note: Test data under 700mA gear

## MCB Load Quantity

| Module                               | I <sub>peak</sub> | T <sub>width</sub> | Max.quantity of LED Driver per MCB |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|--------------------------------------|-------------------|--------------------|------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                                      |                   |                    | B10                                | B13 | B16 | B20 | B25 | C10 | C13 | C16 | C20 | C25 | D10 | D13 | D16 | D20 | D25 |
| <b>ORL-DALI-NFC-15CC-100-700-DT8</b> | <b>3.96A</b>      | <b>90μs</b>        | 37                                 | 49  | 60  | 75  | 94  | 63  | 81  | 100 | 125 | 156 | 80  | 104 | 128 | 160 | 200 |



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