

TRONIX

25W RF NFC Enabled LED Driver(Constant Current)



Article code: 214-171

Important: Read All Instructions Prior to Installation



Product Data

Output	LED Channel	2
	DC Voltage	6-54V, Max.60V
	Current	250-700mA via NFC tool; Min.current gear lower to 0.1mA, default 650mA
	Current Accuracy	±3%(±1%@Certain full load) @ full load
	Rated Power	Max. 25W
Input	Voltage Range	220-240VAC/220-240VDC
	Absolute Voltage Range	196-264VAC/196-264VDC
	Frequency Range	0/50/60Hz
	Power Factor (Typ.)	> 0.96 @ 230VAC Full load*
	Total Harmonic Distortion	THD ≤ 13% (@ full load / 230VAC)*
	Efficiency (Typ.)	> 83% @ 230VAC full load*
	AC Current (Typ.)	0.2A Max.
	Inrush Current (Typ.)	Max. 5.64A at 230VAC; 72μs duration
	Leakage Current	< 5mA /230VAC
Control	Anti Surge	L-N:2KV
	Dimming Interface	RF(Sub-G)
	Dimming Range	0.01%-100%@ Max current
	Dimming Method	Amplitude/CCR dimming
	Dimming Curve	Linear/ Logarithmic optional

Protection	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.
Environment	Working Temp.	-25°C ~ +45°C
	Max. Case Temp.	Tc=85°C
	Working Humidity	10% ~ 95% RH non-condensing
	Storage Temp. & Humidity	-40°C ~ +80°C, 10% ~ 95% RH
Safety & EMC	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
	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
Others	MTBF	191350H, MIL-HDBK-217F @ 230VAC full load and 25°C ambient temperature
	Dimension	120x41x28mm (L*W*H)
	Warranty	5 Years

*: PF/THD/Eff shall be different per different testing setup and equipment.

- Dimmable LED driver. Max. output power 25W
- 250-700mA current selectable via NFC program tool. Min.current gear lower to 0.1mA
- Dimming curves/Target current/Power-on behavior settings via NFC program tool.
- Class II power supply, full isolated plastic case
- High power factor and efficiency
- Radio Frequency : **Default 869.5/916.5(1009 Version)** ,Available 868/434mhz(2504 Version)
- To switch and dim Tunable White LED lighting fixtures
- Amplitude/CCR dimming, smooth and deep dimming
- Compatible with a variety of RF remotes
- 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.

Pairing devices with RF remote

- 1.Do wiring according to connection diagram.
- 2.Pair RF Driver with RF remote: please refer to the instruction of the remote that you would like to pair with.

With NFC Programming devices

Note

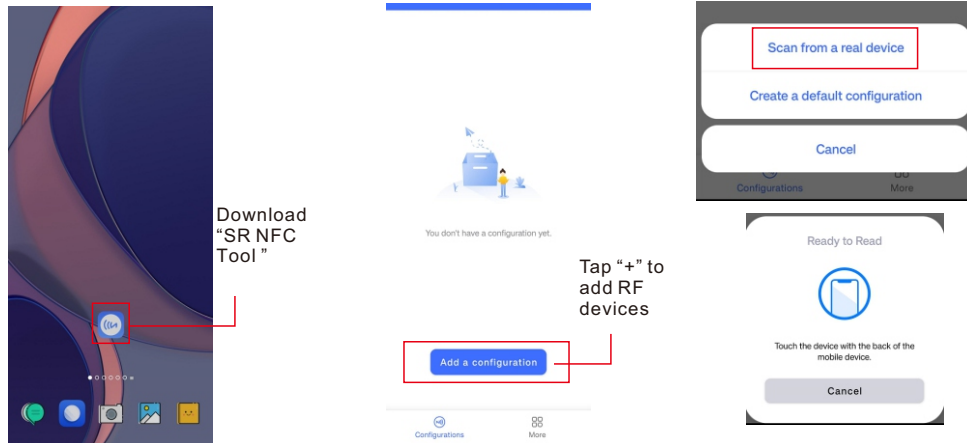
1) Do wiring according to the wiring diagram.

2) Recommend setting parameters without power-on the RF devices .

2) Please make sure your mobile phone has NFC function and enable it .

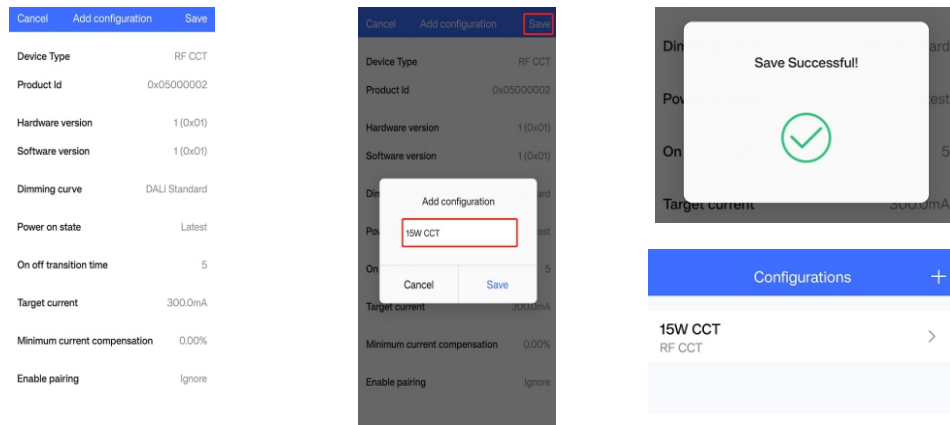
Working with “SR NFC Tool” APP

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

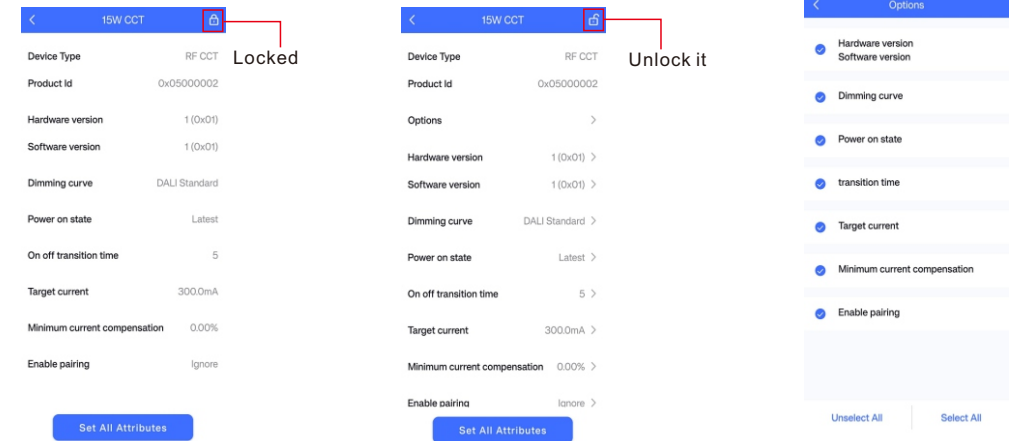


Note: 1. Please Make sure that you have enabled NFC function with your mobile phone/ tablet .
2. Please Make sure that the “NFC position” is matched.
3. Please do not power on the device before setting.
4. If you can't download “SR NFC Tool”. Please contact with us.

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

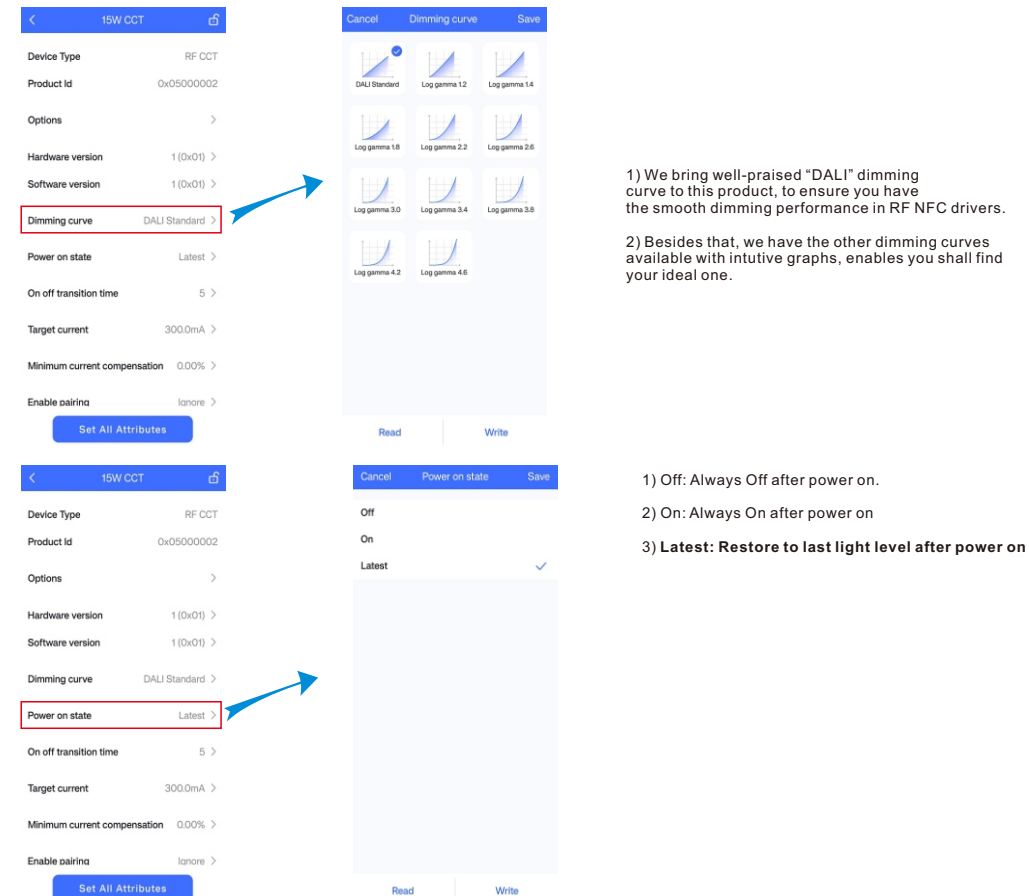


Step 3: Unlock device, enter parameters configuring page.



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.

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



15W CCT

Device Type RF CCT

Product Id 0x05000002

Options >

Hardware version 1 (0x01) >

Software version 1 (0x01) >

Dimming curve DALI Standard >

Power on state Latest >

On off transition time 5 >

Target current 300.0mA >

Minimum current compensation 0.00% >

Enable pairing ignore >

Set All Attributes



Cancel transition time Save

3

No fade 15

Default

Read Write

- 1) 0 (No fade): Fastest transition
- 2) 15: Longest transition
- 3) 3 (Default): Soft transition

15W CCT

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Software version 1 (0x01) >

Dimming curve DALI Standard >

Power on state Latest >

On off transition time 5 >

Target current 300.0mA >

Minimum current compensation 0.00% >

Enable pairing ignore >

Set All Attributes



Cancel Target current Save

3000 300.0mA

Value range 1000-50000

Read Write

Input the working current of the LED.

Min. 0.1mA per gear as a option.

Which massively free the options among different luminaries specification

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Software version 1 (0x01) >

Dimming curve DALI Standard >

Power on state Latest >

On off transition time 5 >

Target current 300.0mA >

Minimum current compensation 0.00% >

Enable pairing ignore >

Set All Attributes



Cancel Minimum current compensation Save

10000 0.00%

Value range 5000-20000

Read Write

Current compensation setting:

Enables you achieve the best dimming performance per different current gear.

But still we gave the options to customers which enable customized setting.

15W CCT

Device Type RF CCT

Product Id 0x05000002

Options >

Hardware version 1 (0x01) >

Software version 1 (0x01) >

Dimming curve DALI Standard >

Power on state Latest >

On off transition time 5 >

Target current 300.0mA >

Minimum current compensation 0.00% >

Enable pairing ignore >

Set All Attributes

Cancel Enable pairing Save

Enable pairing

Clear all paired devices

Ignore

1) Enable Pairing: The driver will enter the pairing mode and work with RF remote

2) Clear all paired devices: Cleaning paired devices (Seldom use)

3) Ignore: When you about to set other parameter please select this, otherwise the devices statues shall be re-write which is not your willing.

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 RF NFC drivers are in the best performance within OUR Remotes.

4. This is a 2-channel output product, so we recommend ensuring that both loads are connected and have the same loads for each channel at the same time during testing.

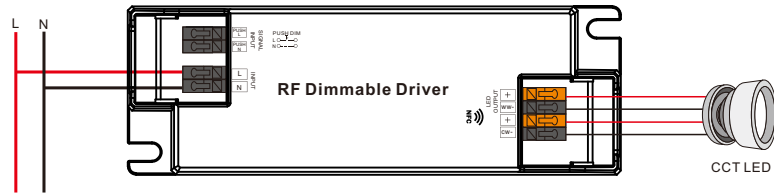
5. For 1 channel fixtures, please make sure you have our 1 channel drivers connected.

6: Read before you Move.

Wiring Diagram

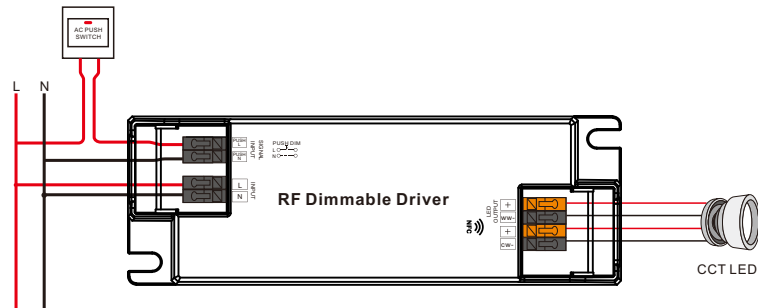
1. Work as Pure RF driver

1.1 With 4-wire CCT LED luminarie



Note: Available with 3-wire CCT luminaries as well

2. Work with Pure RF driver and AC PUSH function

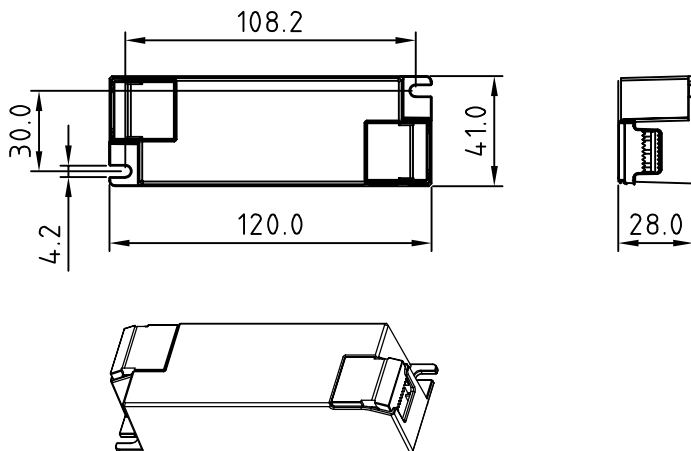


Note: Available with 3-wire CCT luminaries as well

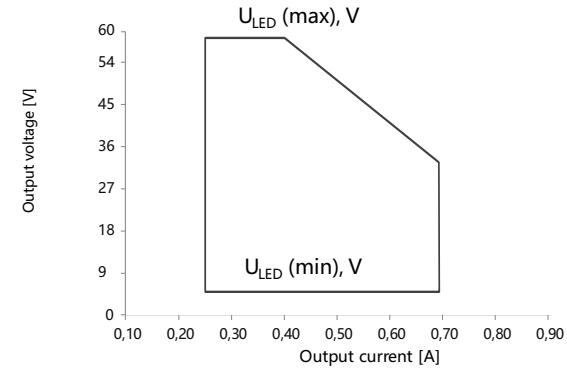
AC Push Function

- 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.

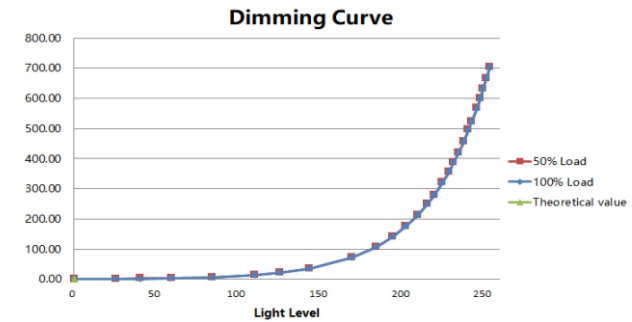
Product Dimension



Operating window



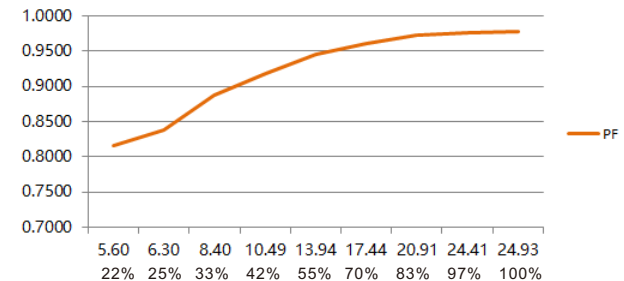
Dimming Curve



Note: Test data under 700mA gear

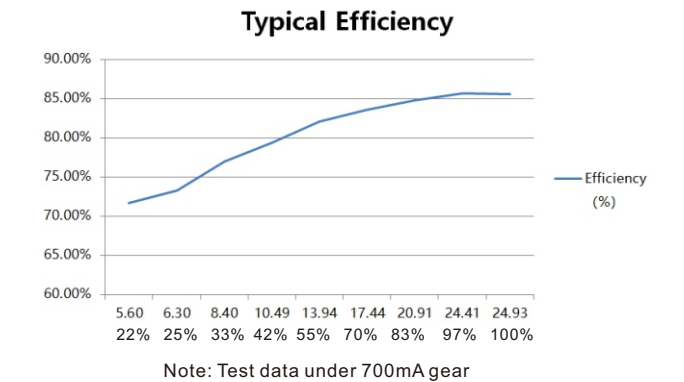
Driver Performance

Typical Power Factor

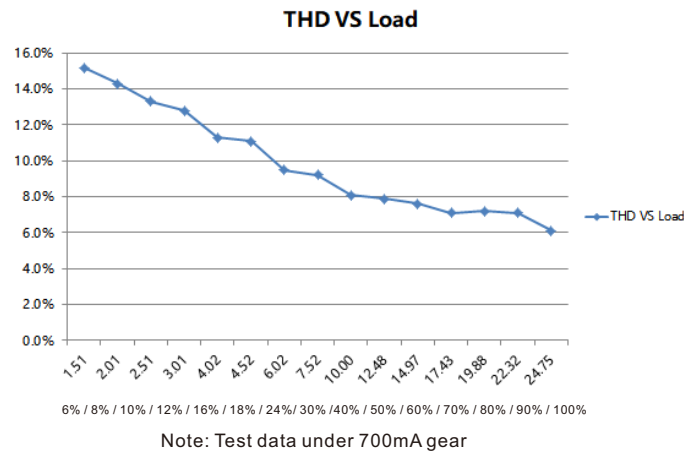


Note: Test data under 700mA gear

Driver Performance



Driver Performance



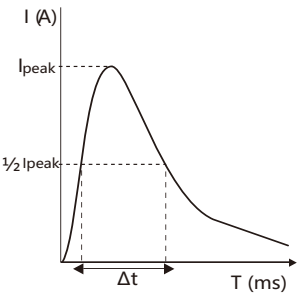
Expected Lifetime

Module Number	Output current	Ta	30 °C	40 °C	45 °C	•••
		Tc	50 °C	60 °C	70 °C	••• 85 °C
214-171	250 – 700 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	Ipeak	Twidth	Max.quantity of LED Driver per MCB														
			B10	B13	B16	B20	B25	C10	C13	C16	C20	C25	D10	D13	D16	D20	D25
214-171	5.64A	72μs	26	34	42	53	66	35	45	56	70	87	40	52	64	80	100



- 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
2024-7-26	V1.0	Initial Version	Maarten

Note： Subject to change without notice. Please contact us if you have any questions.