

Intelligent LED Driver(ConstantCurrent)

- The housing is made from V0 flame retardant PC materials that SAMSUNG/COVESTRO uses.
- Supports full-command ultra-fast NFC programming. You can use mobile APP to adjust dimming type, output current, light decay compensation, EL emergency light and parameters of DALI, 0-10V, PUSH and other types via NFC, realizing data interaction of drivers.
- NFC settings feature current step values as low as 1mA, delivering enhanced compatibility and finer control.
- Supports L-Data, DALI Part 251, 252 and 253 (luminaire data, energy reports, diagnosis and maintenance).
- T-PWM ultra-deep dimming technology achieving 0.01% dimming depth.
- 0-100% full-range dimming with zero visible flicker, meeting high-frequency exemption standards.
- Features soft-start gradual brightening for enhanced visual comfort.
- Supports CLO light decay compensation to ensure consistent illumination brightness.
- Supports EL emergency lights; in DC emergency mode, the current defaults to 15%.
- Supports wired firmware upgrades for devices.
- EU ERP no-load power consumption and network standby power consumption < 0.5W.
- 0V output at no load to prevent LED fixture damage from poor contact.
- Over-temperature, over-voltage, overload, and short-circuit protection with automatic recovery.
- Suitable for indoor Class I, II, and III luminaires
- Lifespan up to 100,000 hours under normal use.
- 5-year warranty.



6 in 1 DIM/CCT
• 0-10V • RX • PUSH
• 1-10V • PWM • DALI-2

T-PWM
Dimming Technology

Flicker Free
IEEE 1789

Dimmable:
1:10000



RoHS



The certification icon represents undergoing certification applications only, and final certification qualification subject to actual product.



Technical Specs

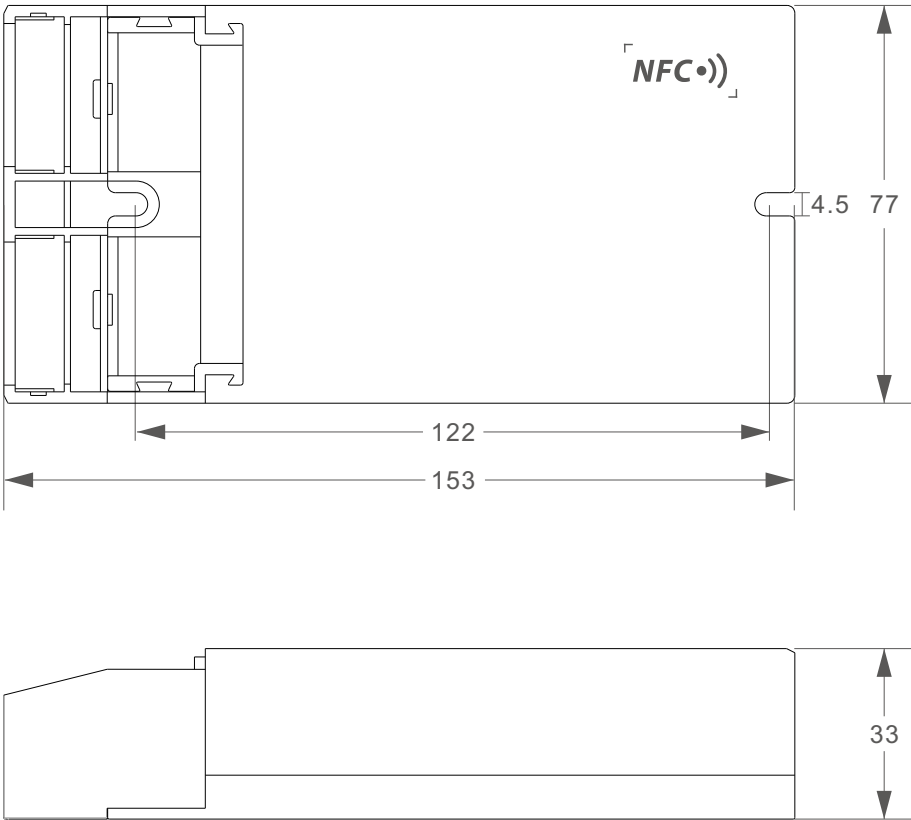
Model	SE-65-500-1800-W2X2			
FEATURES	Output Type	Constant current		
	Dimming Interface	DALI-2 DT6/DT8, 0-10V(1-10V/PWM/RX), PUSH DIM/CCT		
	Output Feature	Isolation		
	IP Rating	IP20		
	Insulation Class	Class II (Suitable for class I/II/III light fixtures)		
OUTPUT	Output Voltage	9-54Vdc		
	Max. Output Voltage	≤58Vdc		
	Rated Current Range	500-1800mA(Set higher current via mobile APP NFC; step value down to 1mA; Default: 500mA)		
	Load Power Range	4.5W-65W		
	Dimming Range	0~100%, Dimming depth: Max. 0.01%		
	LF Current Ripple	< 5% (Maximum current for non dimming state)		
	Current Accuracy	±5%		
	PWM Frequency	≤3600Hz		
INPUT	DC Voltage Range	120-240Vdc		
	AC Voltage Range	100-240Vac		
	Rated Voltage	115Vac/230Vac		
	Frequency	0/50/60Hz		
	Input Current	Max.0.75A/115Vac(Fully loaded) , Max.0.35A/230Vac(Fully loaded)		
	Power Factor	PF≥0.95/100Vac(Fully loaded) , PF≥0.9C/230Vac(Fully loaded)		
	THD	100Vac@THD≤10%(Fully loaded) , 230Vac@THD≤10%(Fully loaded)		
	Efficiency(Typ.)	87%(Fully loaded)/100Vac, 88%(Fully loaded)/230Vac		
	Inrush Current	Cold start15A(Test twidth=198us tested under 50% Ipeak)/230Vac		
	Anti Surge	L-N:2KV		
Leakage Current	Max.0.5mA			
ENVIRONMENT	Operating Temperature	ta: -20°C - 45°C tc: 90°C		
	Working Humidity	20-95%RH, non-condensing		
	Storage Temperature/Humidity	-40 - 80°C/10~95%RH		
	Temperature Coefficient	±0.03%/°C(-20°C-45°C)		
	Vibration	10-500Hz, 2G 12min/1cycle, 72 min for X, Y and Z axes respectively		
PROTECTION	Overload Protection	Automatically protect the device when the load exceeds 102% of the rated power. Automatically recover once load is reduced		
	Overheat Protection	Intelligently adjust or turn off the current output if the PCB temperature ≥110°C. When the PCB temperature <90°C, automatically recover normal output		
	Overvoltage Protection	Automatically protect the device when voltage exceeds the no-load voltage. It can be recovered automatically		
	Short Circuit Protection	Enter hiccup mode if short circuit occurs, and recover automatically		
SAFETY & EMC	Withstand Voltage	I/P-O/P: 3750Vac		
	Insulation Resistance	I/P-O/P: 500VDC/1min/25°C/70%RH≥10MΩ		
	Safety Certifications	CE	European Union	EN61347-1, EN61347-2-13, EN62384
	EMC Emission	CE	European Union	EN55015, EN61000-3-2, EN61000-3-3, EN61547
	EMC Immunity	EN61000-4-2,3,4,5,6,8,11,EN61547		
ErP	Power Consumption	Networked standby	< 0.5W(After shutdown by command)	
		No-load power consumption	< 0.5W (When the lamp is not connected)	
	Flicker/Stroboscopic Effect	IEEE1789	Meet IEEE 1789 standard/High frequency exemption level	
		CIESVM	PstLM≤1.0, SVM≤0.4	
	DF	Phase factor	DF≥0.9	
OTHERS	Weight(N.W.)	335g±10g		
	Dimensions	153×77×33mm(L×W×H)		
	Packaging size	156×80×35mm (L×W×H)		

Typical Current Corresponding Parameter Table

Model	The following 27 groups of typical current data are provided for model selection reference. More currents can be set via the mobile phone APP NFC. The setttable range is 500-1800mA, and the current step value can be as low as 1mA.									
SE-65-500-1800-W2X2	Output Current	500mA	550mA	600mA	650mA	700mA	750mA	800mA	850mA	900mA
	Output Voltage	9-54Vdc	9-54Vdc	9-54Vdc	9-54Vdc	9-54Vdc	9-54Vdc	9-54Vdc	9-54Vdc	9-54Vdc
	Output Power	4.5-27W	4.95-29.7W	5.4-32.4W	5.85-35.1W	6.3-37.8W	6.75-40.5W	7.2-43.2W	7.65-45.9W	8.1-48.6W
	Output Current	950mA	1000mA	1050mA	1100mA	1150mA	1200mA	1250mA	1300mA	1350mA
	Output Voltage	9-54Vdc	9-54Vdc	9-54Vdc	9-54Vdc	9-54Vdc	9-54Vdc	9-52Vdc	9-50Vdc	9-48Vdc
	Output Power	8.55-51.3W	9-54W	9.45-56.7W	9.9-59.4W	10.35-62.1W	10.8-64.8W	11.25-65W	11.7-65W	12.15-65W
	Output Current	1400mA	1450mA	1500mA	1550mA	1600mA	1650mA	1700mA	1750mA	1800mA
	Output Voltage	9-46Vdc	9-45Vdc	9-43Vdc	9-42Vdc	9-41Vdc	9-39Vdc	9-38Vdc	9-37Vdc	9-36Vdc
	Output Power	12.6-65W	13.05-65W	13.5-65W	13.95-65W	14.4-65W	14.85-65W	15.3-65W	15.75-65W	16.2-65W

Product Size

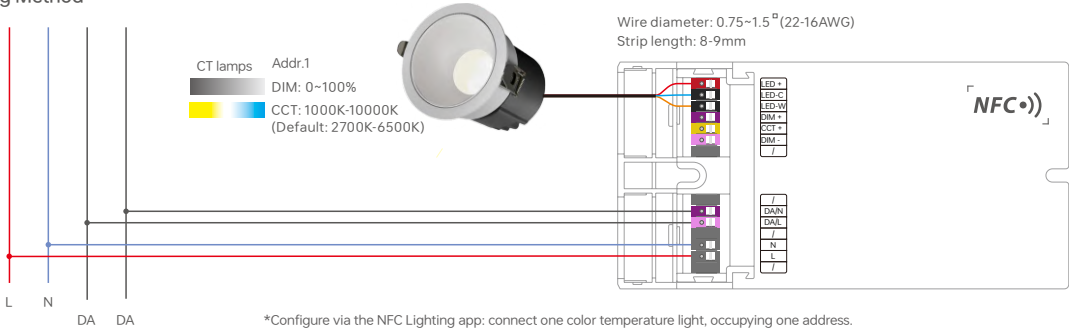
Unit: mm



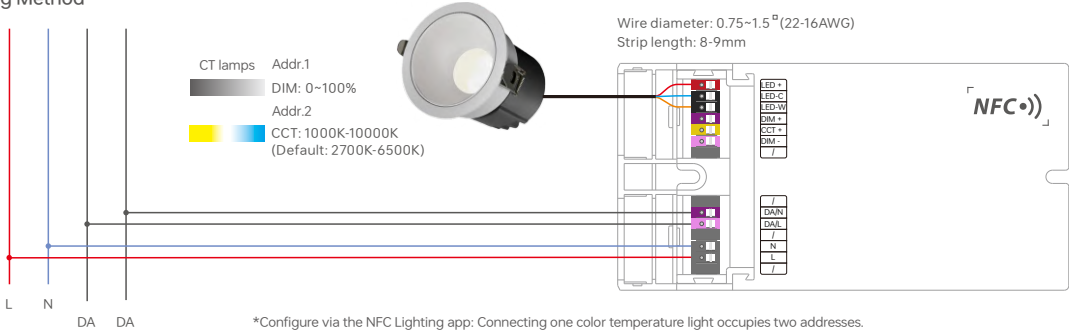
Connectivity Diagram

DALI Connection Method

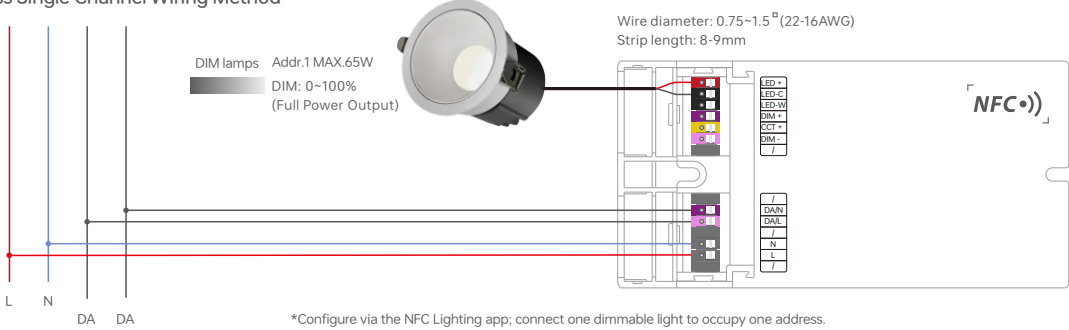
1. DT8 Color Temperature Wiring Method



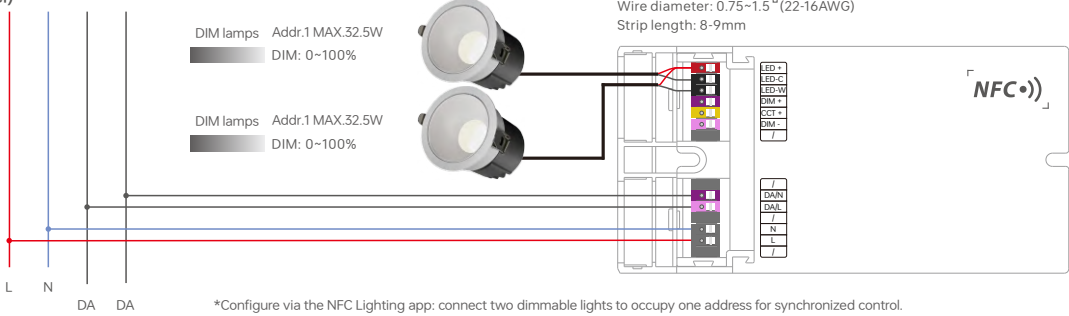
2. DT6 Color Temperature Wiring Method



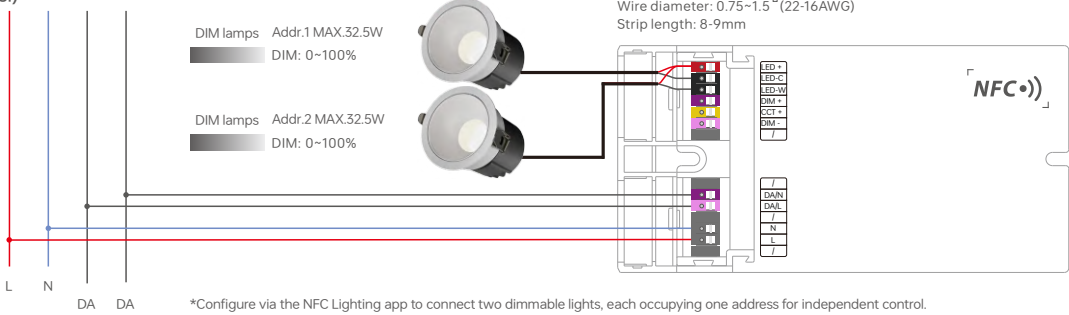
3. DT6 Dimming - Single Address Single Channel Wiring Method



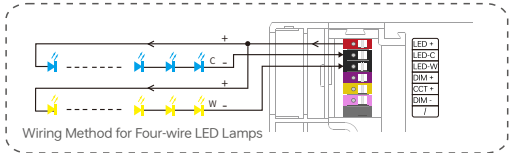
4. DT6 Dimming - Single-Address Dual-Channel Wiring Configuration
(Max. 32.5W power per channel)



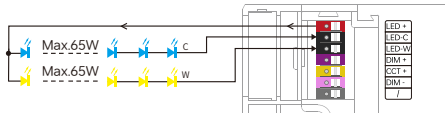
5. DT6 Dimming - Dual-Address Dual-Channel Wiring Method
(Max. 32.5W power per channel)



* When DC voltage is applied, button dimming is disabled.
* The dimming interface priority is as follows: DALI first, followed by PUSH DIM/CCT.



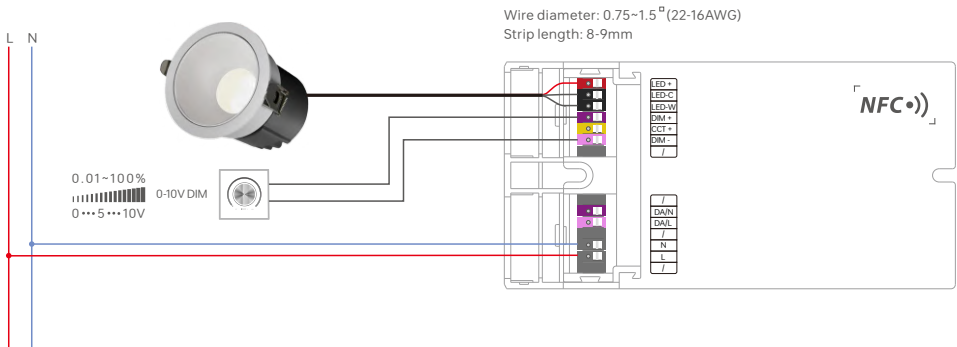
* Adopting constant power program design, it keeps the same brightness in color temperature dimming,
twice the rated power load can be connected.
65W driver, 65W X 2CH load can be connected, the total power of the 2 channels will be kept in 65W.



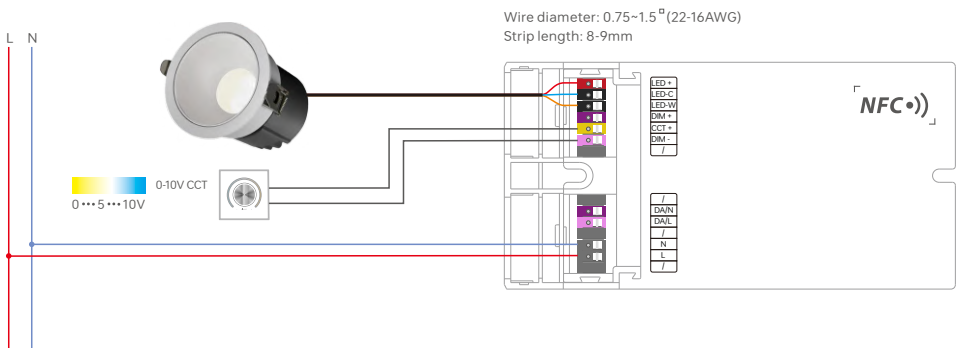
PUSH DIM/CCT Dimming Application

0-10V Wiring Connection Method

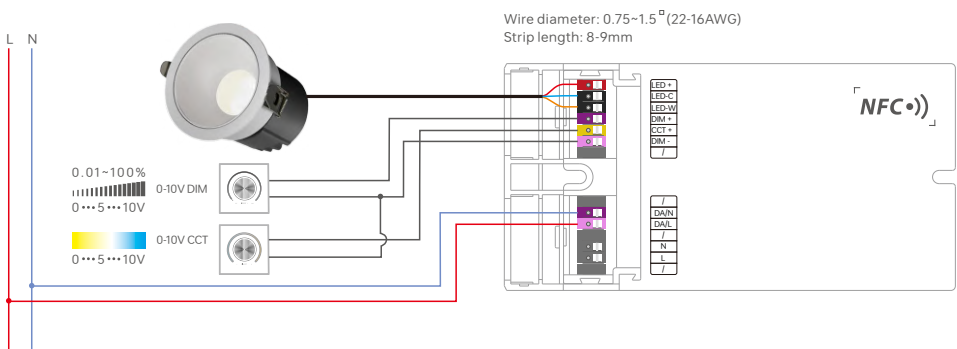
1. Brightness adjustment



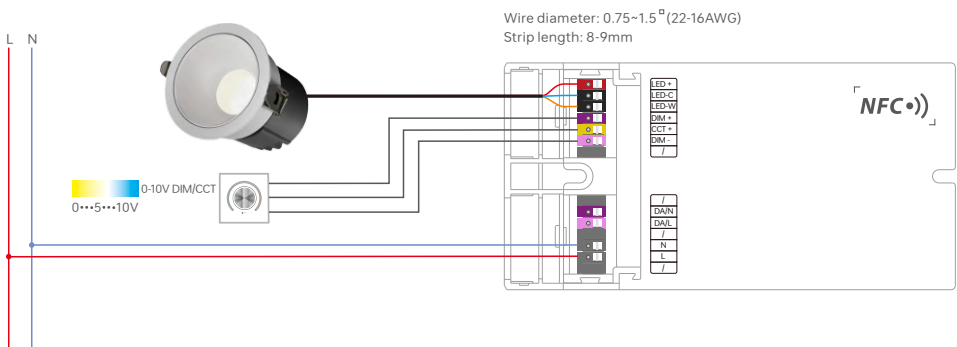
2. Color temperature adjustment



3. Separate adjustment of brightness and color temperature



4. Simultaneous adjustment of brightness and color temperature

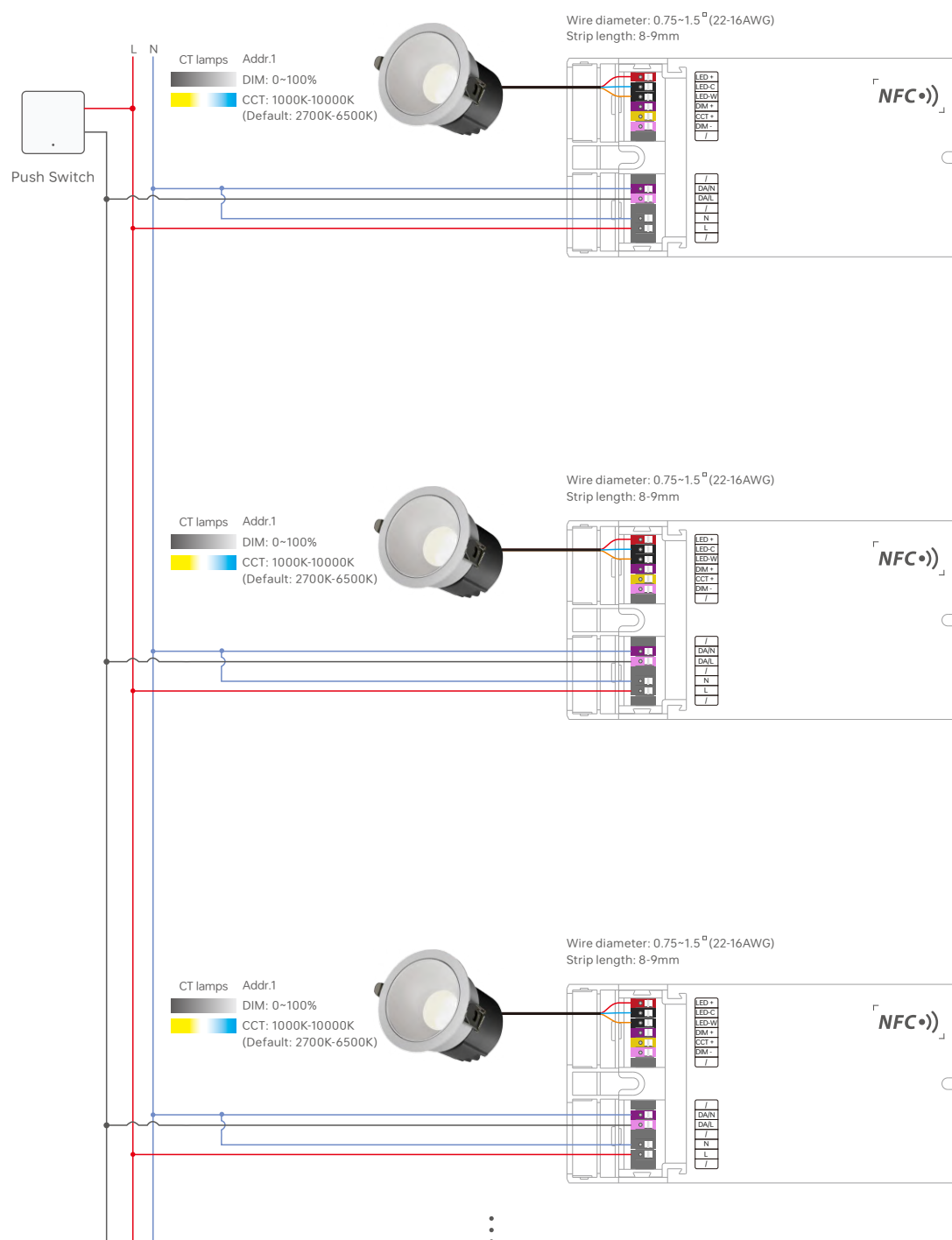


PUSH DIM/CCT Wiring Connection Method

Switch to PUSH DIM/CCT Mode:

Method 1: If it has been switched to the corridor light mode, you can connect the circuit according to the PUSH DIM/CCT wiring diagram. Short press the push switch 5 times within 3 seconds, then long press it for 6 seconds and short press it 5 times within 3 seconds. The driver will automatically switch to the PUSH DIM/CCT mode.

Method 2: If it has been switched to the corridor light mode, you can switch it to the PUSH DIM/CCT mode via the NFC Lighting app.



Operation Instructions

Short press : on/off control.

Double press: Switch brightness/color temperature mode.

Long press : Adjust the current mode.

Dimming memory : Upon being switched on again, the light resumes the previously set brightness level.

Multiple lights synchronize control operation

Long press the dimming push button for more than 15 seconds, all drivers will output 100% brightness and the color temperature is natural white.

Corridor Light Wiring Method

Switch to the corridor light mode

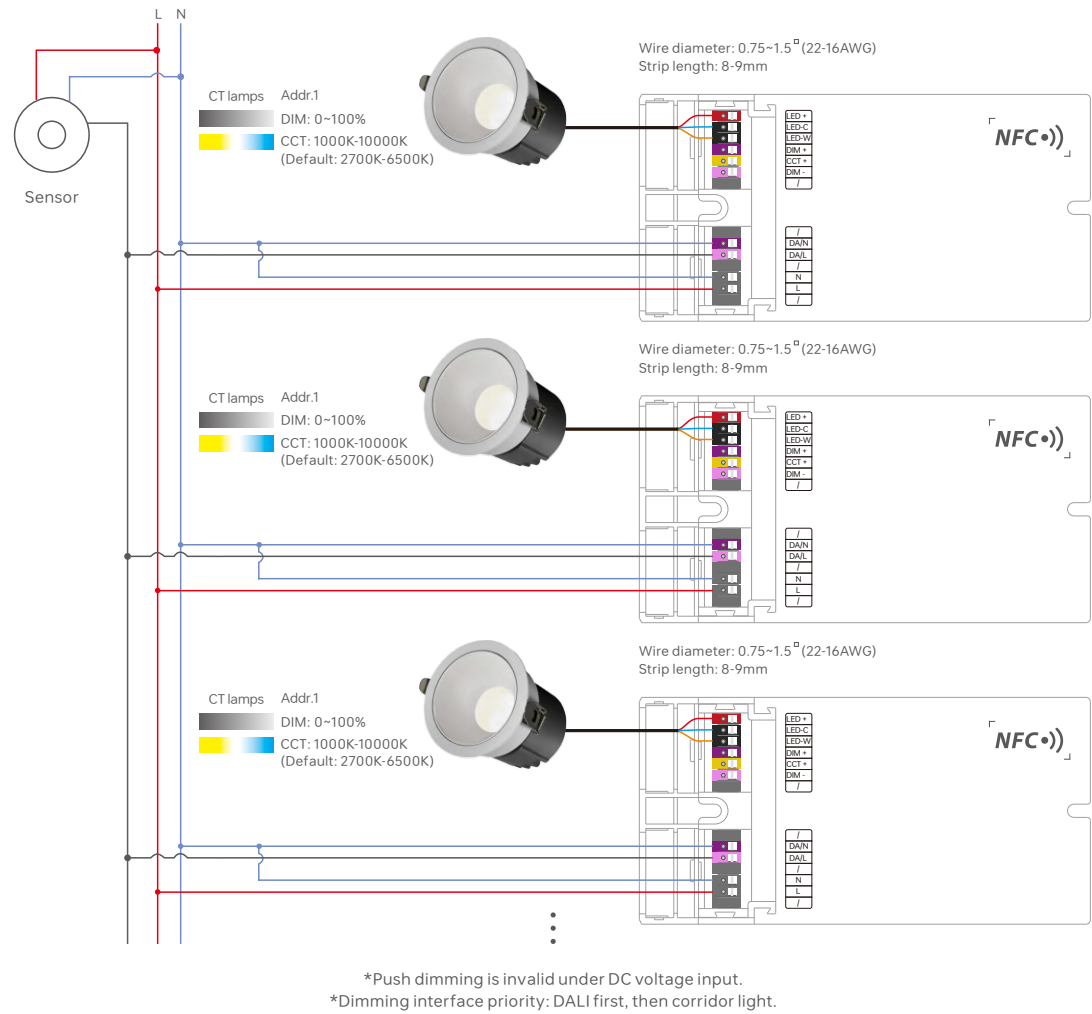
Method 1: Switch the driver to the corridor light mode via the NFC Lighting app, and the Push DIM/CCT mode will be turned off.

Method 2: After connecting the wires according to the corridor dimming wiring diagram, keep moving within the effective sensing area for more than 2 minutes, and it will automatically switch to the corridor dimming mode with all lights on at full brightness.

Method 3: After connecting the wires according to the corridor dimming wiring diagram, first replace the sensor with a common switch, then turn on the common switch and keep it conducting for 2 minutes. The driver will automatically switch to the corridor dimming mode. After that, remove the common switch and replace it with the sensor again.

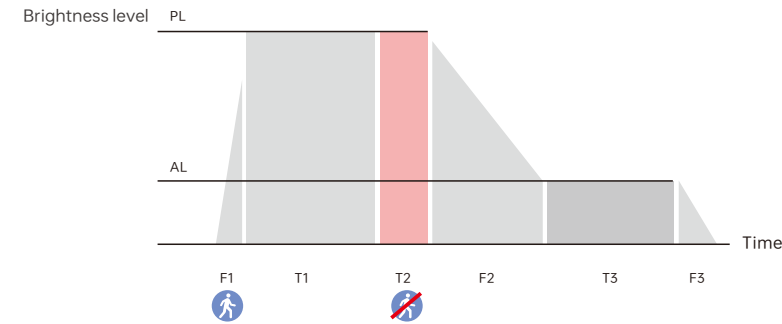
Note:: During normal operation, it is recommended to set the hold-time of the motion sensor to the minimum.

It is necessary to select a motion sensor with an AC switch.

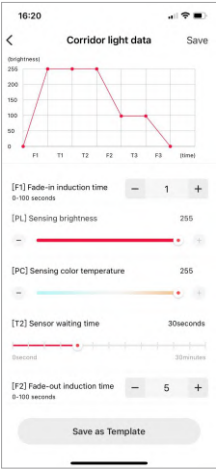


*Push dimming is invalid under DC voltage input.
*Dimming interface priority: DALI first, then corridor light.

Process of Corridor Dimming

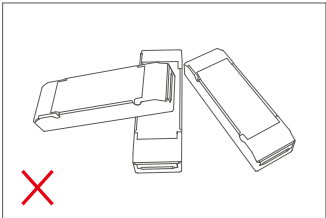


Name	Default	Setting Range
(F1) Fade-in Detection Time	1 s	0-100 s
(PL) Detection Brightness	255	0-255
(PC) Detection Color Temperature	0	0-255
(T1) Detection Hold Time	Set via the sensor	
(T2) Delay Time	30 s	0 s, 5 s, 10 s, 20 s, 30 s, 45 s, 1 min, 2 min, 3 min, 5 min, 10 min, 20 min, 30 min
(F2) Gradual Exit Sensing Time	1 s	0-100 s
(AL) Hold Brightness Level	100	0-255
(AC) Hold Color Temperature	0	0-255
(T3) Detection Hold Time	30 s	0 s, 5 s, 10 s, 20 s, 30 s, 45 s, 1 min, 2 mins, 3 mins, 5 mins, 10 mins, 20 mins, 30 mins, Permanent
(F3) Fade-out Time to Off	1 s	0-100 s

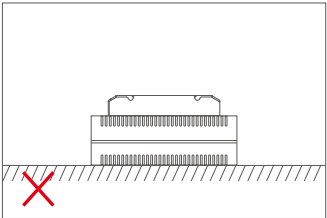
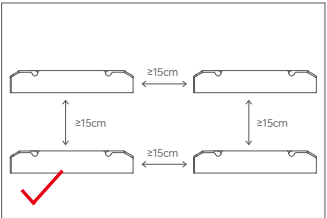


Note: *If the light needs to maintain a low brightness hold, please set the [T3] Detection Hold Time to Permanent.
*The above parameters are set through the NFC lighting APP.

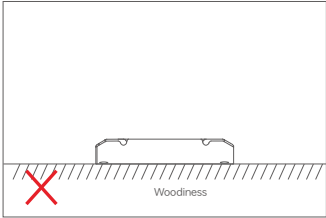
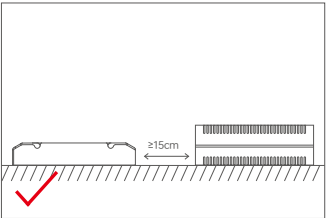
Installation Precautions



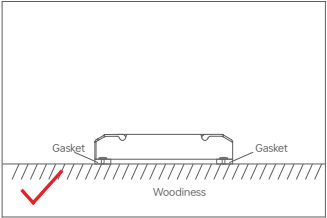
Please do not stack the products. The distance between two products should be $\geq 15\text{cm}$ so as not to affect heat dissipation and the lifespan of the products.



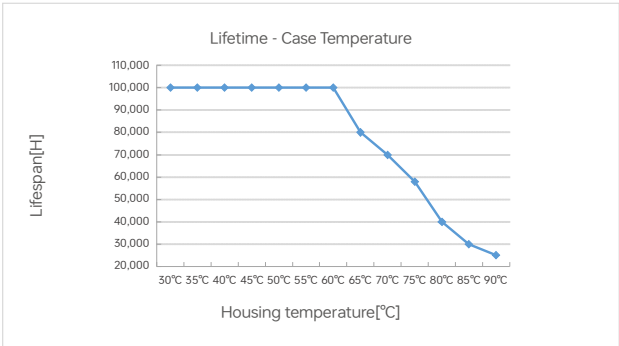
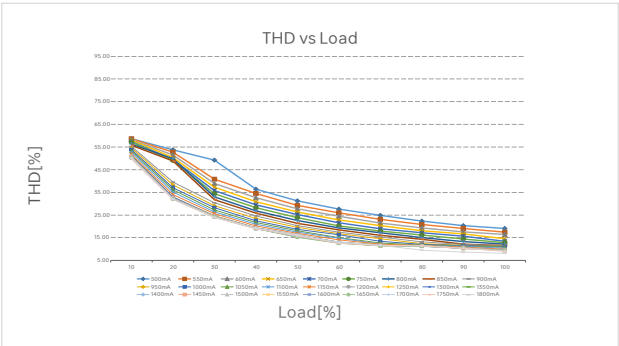
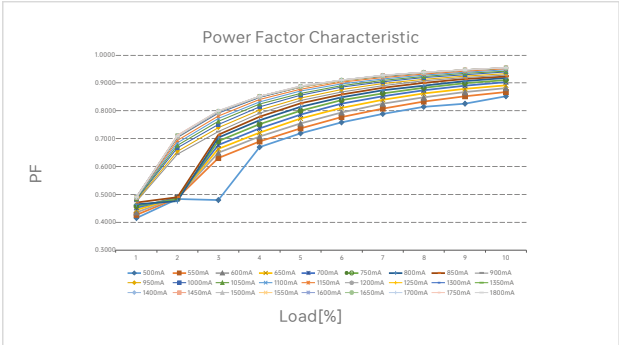
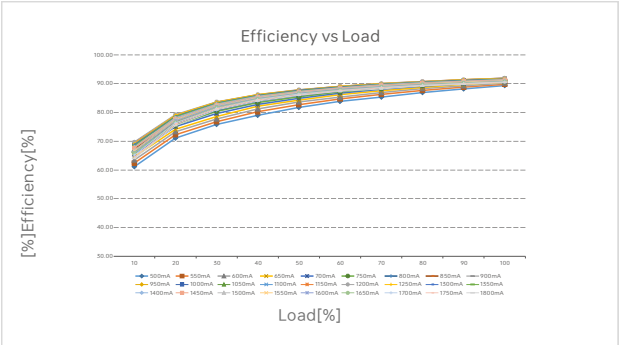
Do not place the product on top of a power supply. The distance between the product and the power supply should be $\geq 15\text{ cm}$ so as not to affect heat dissipation and the lifespan of the product.



Do not fix the product tightly against the wooden board with screws. Please add a washer $\geq 7\text{ mm}$ thick under the mounting screws to leave a gap for effective heat dissipation, so as to avoid affecting the heat dissipation and service life of the product.



Relationship Diagrams



SE-65-500-1800-W2X2

Surge Current & Corresponding Miniature Circuit Breaker (MCB) Load Capacity Table

MCB Model	B10	B13	B16	B20	B25	C10	C13	C16	C20	C25	D10	D13	D16	D20	D25
Maximum Load Capacity	20	26	32	40	50	23	30	37	47	58	27	34	42	53	66

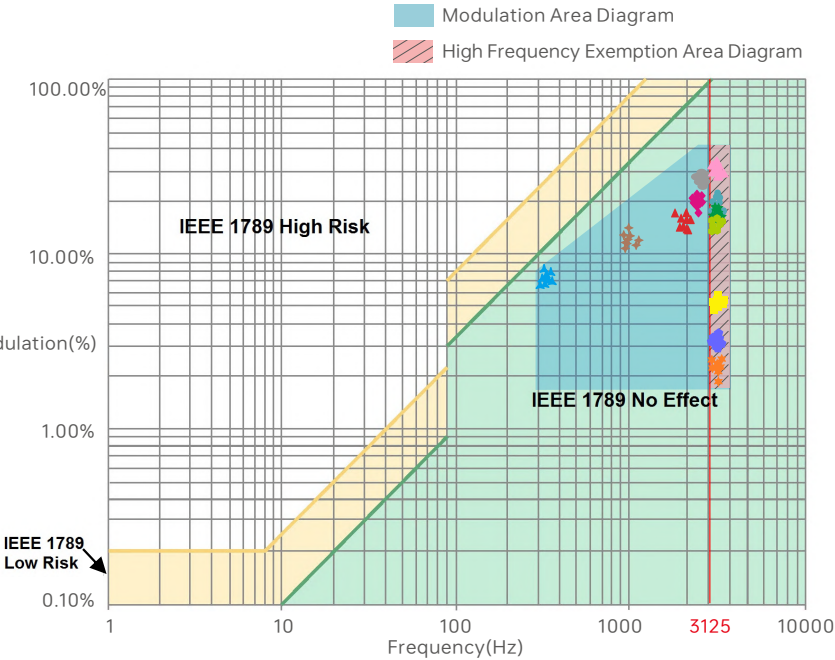
- Remarks:
1. Test Conditions: Cold start 15A(Test twidth=198us tested under 50% lpeak)@230Vac.
 2. The number of supported drivers may vary depending on the brand and model of the MCB.
 - 3.It is recommended not to exceed the specified load capacity during on-site installation. The actual load should be determined based on field conditions.
 - 4.If the ambient temperature exceeds 30°C or multiple MCBs are installed side by side, the number of installed drivers must be reduced and recalculated accordingly.
 - 5.Electricians typically use Type B MCBs for residential lighting and Type C MCBs for commercial lighting applications.
 - 6.Different testing equipment may yield variations in measured current peaks and pulse widths. Always use professional-grade instruments for accurate testing.

Flicker Test Sheet

IEEE 1789	
Limit of modulation in low risk area	
Waveform frequency of optical output	limit (%)
$f \leq 8\text{Hz}$	0.2
$8\text{Hz} < f \leq 90\text{Hz}$	$0.025 \times f$
$90\text{Hz} < f \leq 1250\text{Hz}$	$0.08 \times f$
$f > 1250\text{Hz}$	Exemption assessment
Limit of modulation in no effect area	
Waveform frequency of optical output	limit (%)
$f \leq 10\text{Hz}$	0.1
$10\text{Hz} < f \leq 90\text{Hz}$	$0.01 \times f$
$90\text{Hz} < f \leq 3125\text{Hz}$	$(0.08/2.5) \times f$
$f > 3125\text{Hz}$	Exemption assessment (High frequency exemption)

- Brightness
- 0.1%
 - 1%
 - 5%
 - 10%
 - 20%
 - 30%
 - 40%
 - 50%
 - 60%
 - 70%
 - 80%
 - 90%
 - 100%

Marks in the right chart were tested results of different current ranges. The output frequency is 0Hz in 100% brightness and its corresponding modulation is 0%, which could not be shown in the right chart.



Use the NFC Lighting APP

Scan the QR code below with your mobile phone and follow the prompts to complete the APP installation (According to performance requirements, you need to use a NFC-capable Android phone, or an iphone 8 and later that are compatible with iOS 13 or higher).



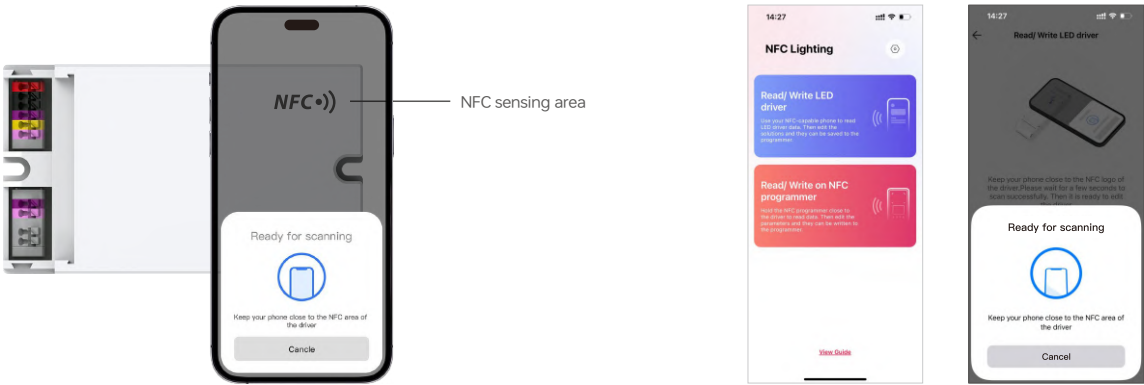
✱ Before you begin setting the parameters of the driver, please make sure the driver is powered off .

Read/Write the LED driver

Use your NFC-capable phone to read LED driver data, then edit the parameters and they can be directly written to the driver.

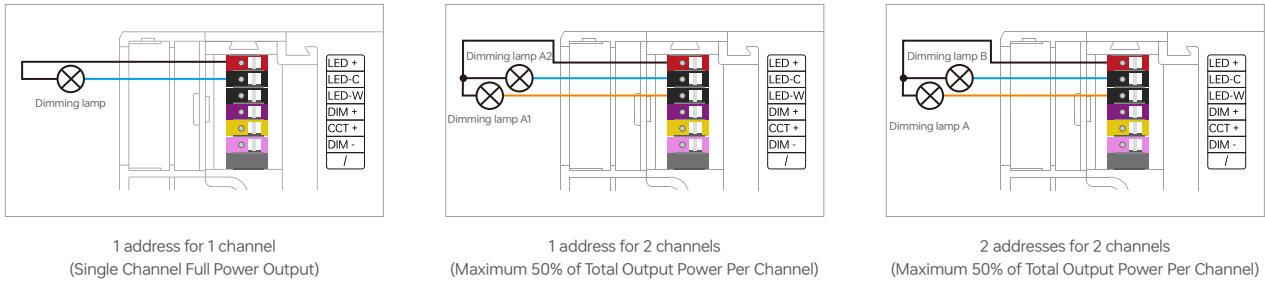
1.Read the LED driver

On the APP home page, click 【Read/Write LED driver】 , then keep the programmer’s sensing area close to the NFC sensing area of the driver to read the driver parameters.



2. Switch the dimming interface

On the page of “Edit parameters”, click 【Dimming interfaces】 to switch to the needed dimming interface: DT8 CT (DT8 Single Address), DT6 CT (DT6 2 Addresses), DT6 DIM (1 address for 1 channel / 1 address for 2 channels / 2 addresses for 2 channels).

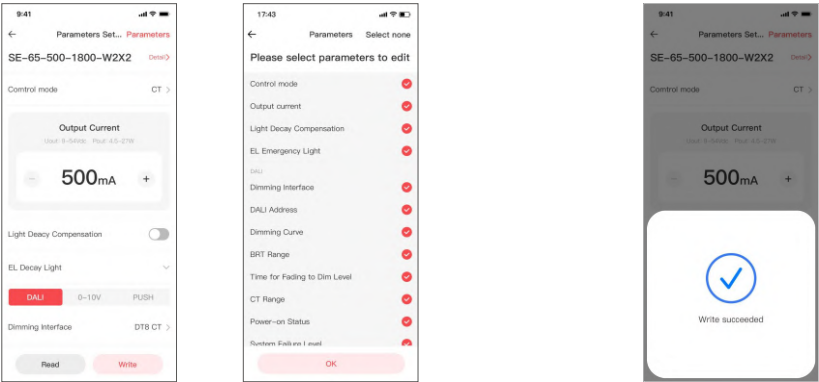


3. Edit parameters

Click on [Parameter Management] to edit more advanced parameters such as Control mode , Output current , Light Decay Compensation, EL Emergency Light, DALI: Dimming Interface, DALI Address, Dimming Curve, BRT Range, Time for Fading to Dim Level, CT Range, Power-on Status, System Failure Level, DALI Template Settings. 0-10V; Select Brand, Power-on Fading Time, Dimming Curve, BRT Range; Push: Corridor lights, and PUSH Settings.

4. Write to the drive

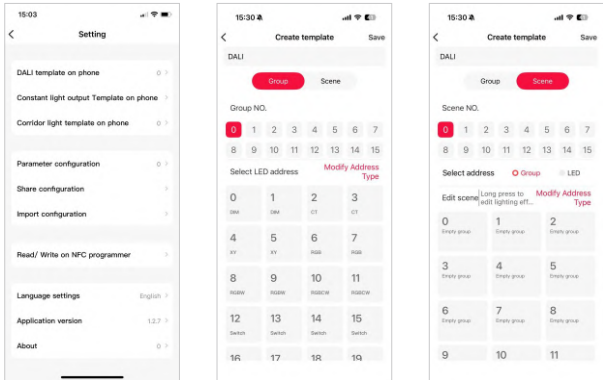
After completing the parameter settings, click 【Write】 in the upper right corner, and keep the programmer’s sensing area close to the NFC sensing area of the driver, so the parameters can be written to the driver



Advanced DALI template

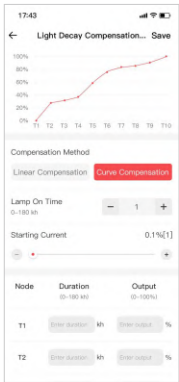
Integrate the functions of the DALI lighting system, edit the DALI group and lighting effects for scenes, then save them in the advanced template to achieve lighting programming.

Setup page (for Read/Write LED driver) : Go to App home page — 【🔗】 icon in the top right — 【DALI template on phone】 .



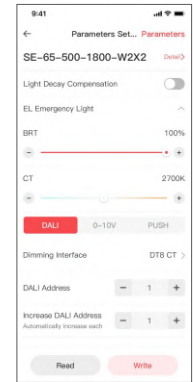
Light Decay Compensation

Lumen Maintenance Compensation primarily serves to sustain constant luminous flux output from LEDs. Throughout the LED's entire lifespan, it gradually increases the drive current to counteract lumen depreciation caused by prolonged operation, thereby ensuring consistent light output.



EL Emergency Light

- The power supply operates normally with DC input.
- When using DC input, connect the positive terminal of the DC cable to the L terminal and the negative terminal to the N terminal.
- The output current can be configured via the NFC lighting app.



Packaging specification

Model	SE-65-500-1800-W2X2
Packaging size	156×80×35mm (L×W×H)

Packaging style drawing



Inner packaging box

Transportation and Storage

1. Transportation

Products can be shipped via vehicles, boats and planes.

During transportation, products should be protected from rain and sun. Please avoid severe shock and vibration during the loading and unloading process.

2. Storage

The storage conditions should comply with the Class I Environmental Standards. The products that have been stored for more than six months are recommended to be re-inspected and can be used only after they have been qualified.

Attentions

- Product installation and commissioning should be done by a qualified professional.
- LTECH products are and not lightningproof non-waterproof (special models excepted). Please avoid the sun and rain. When installed outdoors, please ensure they are mounted in a water proof enclosure or in an area equipped with lightning protection devices.
- Good heat dissipation will prolong the working life of products. Please ensure good ventilation.
- Please check if the working voltage used complies with the parameter requirements of products.
- The diameter of wire used must be able to load the light fixtures you connect and ensure the firm wiring.
- Before you power on products, please make sure all the wiring is correct in case of incorrect connection that causes damage to light fixtures.
- If a fault occurs, please do not attempt to fix products by yourself. If you have any question, please contact your suppliers.

* This manual is subject to changes without further notice. Product functions depend on the goods. Please feel free to contact our official distributors if you have any question.

Warranty Agreement

- Warranty periods from the date of delivery: 5 years.
- Free repair or replacement services for quality problems are provided within warranty periods.

Warranty exclusions below:

- Beyond warranty periods.
- Any artificial damage caused by high voltage, overload, or improper operations.
- Products with severe physical damage.
- Damage caused by natural disasters and force majeure.
- Warranty labels and barcodes have been damaged.
- No any contract signed by LTECH.

1. Repair or replacement provided is the only remedy for customers. LTECH is not liable for any incidental or consequential damage unless it is within the law.
2. LTECH has the right to amend or adjust the terms of this warranty, and release in written form shall prevail.