LTECH

SE-40-300-1050-W2B
SE-30-200-800-W2B

Bluetooth 5.0 SIG Mesh

Intelligent Tunable White LED Driver (Constant Current)

- Housing made from SAMSUNG/COVESTRO's V0 flame retardant PC materials.
- Ultra small, thin and lightweight, screwless end cap.
- Change the output current, fade time and other parameters on the NFC programmer or via the App, and sync the parameters to the driver.
- Set the output current down to 1mA.
- Bluetooth 5.0 SIG Mesh with high networking capability is reliable and stable.
- Gain control on iOS or Android devices through Bluetooth connection.
- Soft-on and fade-in dimming function enhances your visual comfort.
- T-PWM™ dimming technology allows quality and high-end lighting.
- The whole dimming process is flicker-free with high frequency exemption level.
- Dimming from 0~100%, down to 0.0001%.
- Comply with the EU's ErP Directive, networked standby<0.5W.
- Multiple current levels, wide voltage range, suitable for LEDs with different power
- When there is no load, the output will be 0V to prevent damage to LEDs due to poor contact.
- Overheat, over voltage, overload, short circuit protection and automatic recovery.
- Suitable for Class Ⅰ / Ⅱ / Ⅲ indoor light fixtures.
- Normal service life can reach 100,000 hours.
- 5-year warranty (Rubycon capacitor).

Bluetooth®

DIM / CT

T-PWM™
Dimming Technology

Flicker Free
IEEE 1789

Dimmable:
1000000:1

Class 2 ErP

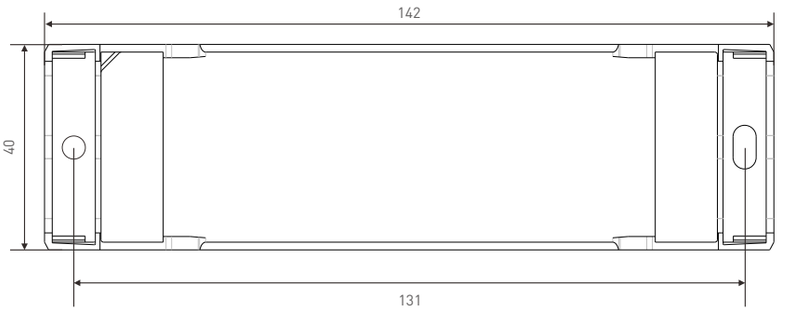
The certification icon represents undergoing certification applications only, and final certification qualification subject to actual product.

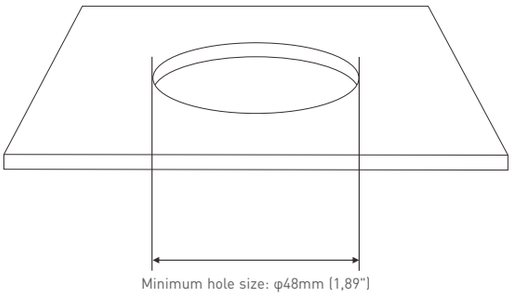
NFC Multi current setting | Overheat Protection | Over voltage protection | Over Load protection | Short circuit protection

Model		SE-40-300-1050-W2B			SE-30-200-800-W2B
Features	Output Type	Constant current			
	Dimming Interface	Bluetooth 5.0 SIG Mesh			
	Output Feature	Isolation			
	Protection Grade	IP20			
	Insulation Grade	Class II (Suitable for class I/ II /III light fixtures)			
OUTPUT	Output Voltage	9-42Vdc			
	Maximum output voltage	≤55Vdc			
	Output Current Range	300-1050mA			200-800mA
	Output Power Range	2.7W-40W			1.8W-30W
	Dimming Range	0~100%, down to 0.0001%			
	LF Current Ripple	<3%(Maximum current for non dimming state)			
	Current Accuracy	±5%			
	PWM Frequency	≤3600Hz			
INPUT	DC Voltage Range	120-300Vdc			
	AC Voltage Range	100-240Vac			
	Input Voltage	115Vac/230Vac			
	Frequency	50/60Hz			
	Input Current	≤0.45A/115Vac, ≤0.22A/230Vac			≤0.34A/115Vac, ≤0.17A/230Vac
	Power Factor	PF>0.95/115Vac (at full load), PF>0.9C/230Vac (at full load)			
	THD	THD≤10%/230Vac, at full load			
	Efficiency (Typ.)	88%			87%
	Inrush Current	Cold start 25A(Test twidth=130us tested under 50% Ipeak)/230Vac			
	Anti Surge	L-N: 2KV			
	Leakage Current	Max. 0.5mA			
ENVIRONMENT	Working Temperature	ta: -20 ~ 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(0-50°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: 100MΩ/500VDC/25°C/70%RH			
	Safety Standards	CCC	China	GB19510.1, GB19510.14	
		TUV	Germany	EN61347-1, EN61347-2-13, EN62493	
		CB	CB Member States	IEC61347-1, IEC61347-2-13	
		CE	European Union	EN61347-1, EN61347-2-13, EN62384	
		KC	Korea	KC61347-1, KC61347-2-13	
		EAC	Russia	IEC61347-1, IEC61347-2-13	
		RCM	Australia	AS 61347-1, AS 61347-2-13	
		ENEC	Europe	EN61347-1, EN61347-2-13, EN62384	
		UKCA	Britain	BS EN 61347-1, BS EN 61347-2-13, BS EN 62493	
		BIS	India	IS 15885 (PART 2/SEC 13)	
		CUL	Canada	CSA C22.2 NO.250.13	
		UL	America	UL 8750	
	EMC Emission	CCC	China	GB/T17743, GB17625.1	
		CE	European Union	EN55015, EN61000-3-2, EN61000-3-3, EN61547	
		KC	Korea	KSC 9815, KSC 9547	
		EAC	Russia	IEC62493, IEC61547, EH55015	
		RCM	Australia	EN55015, EN61000-3-2, EN61000-3-3, EN61547	
		UKCA	Britain	BS EN IEC 55015, BS EN IEC 61000-3-2, BS EN 61000-3-3, BS EN 61547	
		CUL	Canada	ICES-005	
		UL	America	FCC PART 15B	
	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	IEEE 1789		Meet IEEE 1789 standard/High frequency exemption level	
		CIE SVM		Pst LM≤1.0，SVM≤0.4	
	DF	Phase factor		DF≥0.9	
OTHERS	Weight(N.W.)	170g±10g			150g±10g
	Dimensions	142×40×23mm(L×W×H)			

Product Size

Unit：mm

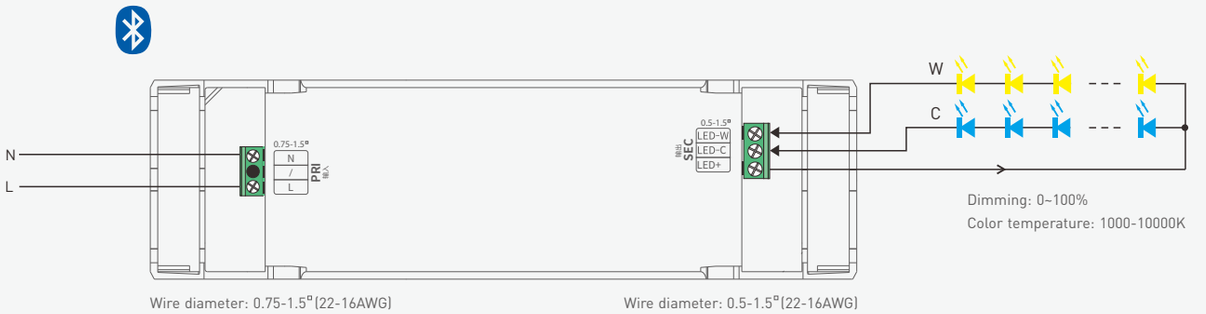




Minimum hole size: φ48mm (1,89")

Wiring Diagram

Wireless connection mode



Dimming: 0~100%
Color temperature: 1000-10000K

Wire diameter: 0.75-1.5²(22-16AWG)
Strip length: 5-6mm

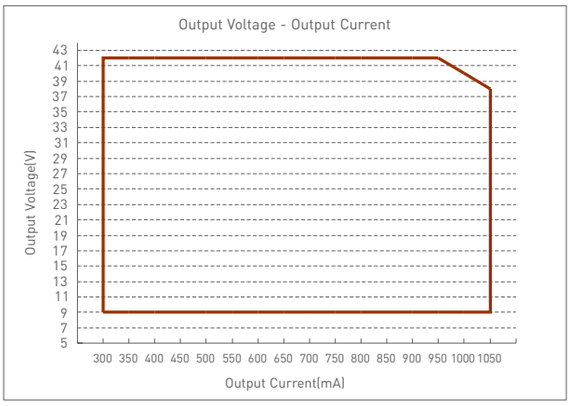
Wire diameter: 0.5-1.5²(22-16AWG)
Strip length: 5-6mm

★ Access the network to control through App and Bluetooth

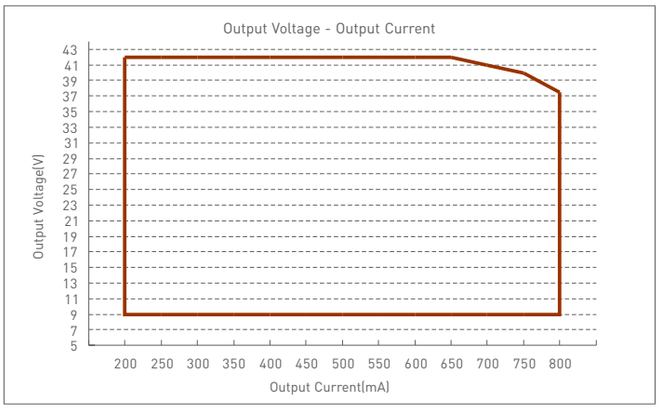
Current and Parameters Sheet

Set output current on the NFC programmer or via the App			
SE-40-300-1050-W2B	Output Current (I) Range	300-952mA	953-1050mA
	Output Voltage (U) Range	9-42Vdc	See the curve below for details
	Output Power (P) Range	2.7-40W	8.577-40W

Set output current on the NFC programmer or via the App			
SE-30-200-800-W2B	Output Current (I) Range	200-714mA	715-800mA
	Output Voltage (U) Range	9-42Vdc	See the curve below for details
	Output Power (P) Range	1.8-30W	6.435-30W

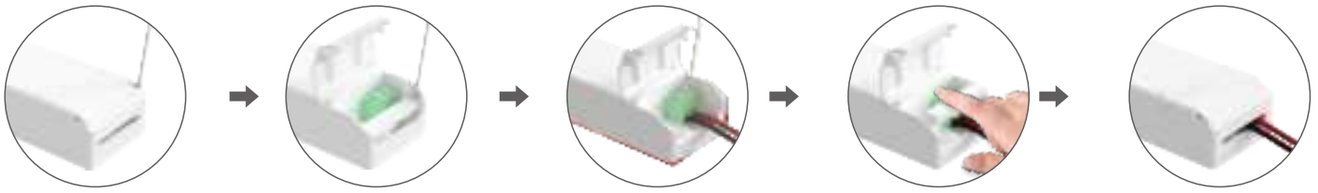


SE-40-300-1050-W2B



SE-30-200-800-W2B

Protective Housing Application Diagram



1. Use a tool to pry up the protective housing on the side panel.

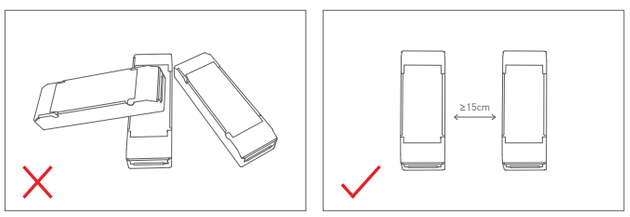
2. Pry up the protective housing in the side plate position with a tool.

3. Connect to electrical wires with a screwdriver as wiring diagram shows.

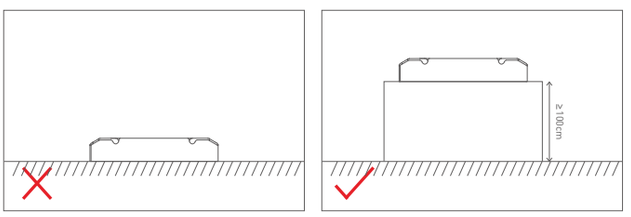
4. Press down the tension plate to fix the the electrical wires.

5. Close the protective housing.

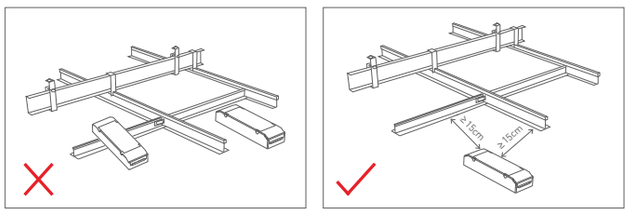
Installation Precautions



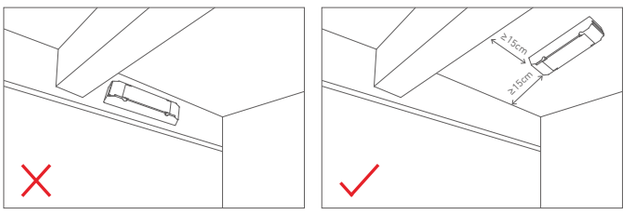
Please do not stack the products. The distance between two products should be ≥15cm so as not to affect heat dissipation and the lifespan of the products.



Please do not place the products on the floor. The distance between the product and the floor should be ≥100cm so as to avoid signal interference.



Please do not place the products near a large area of metal objects (such as metal stud ceilings). The distance between the product and the metal object should be ≥15cm so as to avoid signal interference.

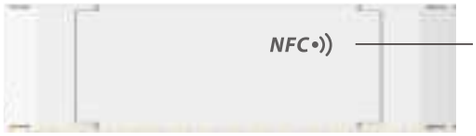


Please do not install the products on beams or near the corners. The distance between the product and the beam or the corner should be ≥15cm so as to avoid signal interference.

Work with a NFC programmer (LT-NFC)

Change the output current, power-on fading time and other parameters on the NFC programmer. After modification, batch parameters can be written to the driver.

✻ Before you begin setting the parameters of the driver on the NFC programmer, please make sure the driver is powered off.



1. Read the LED driver

Power the programmer by using the USB cable, then select "NFC Driver Settings" and press "OK" button. Next, keep the programmer's sensing area close to the NFC logo of the driver to read the driver parameters.

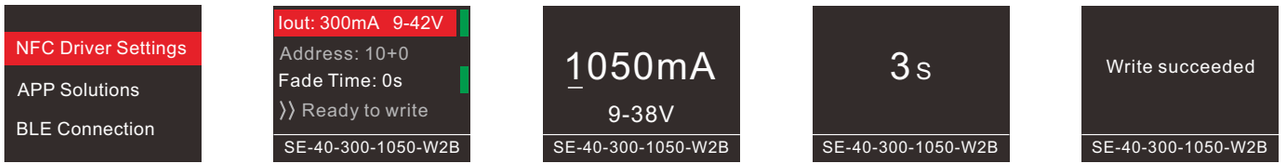
2. Change the driver parameters (Output current/Power-on fading time)

On the home page of the programmer, press " ▲▼ " button to select the parameters you want to change and press the "OK" button to edit them. Then, press " ▲▼ " button to adjust the parameter values and press " ◄► " to select the next needed value. After the parameter values are modified, save them by pressing the "OK" button.

Note: (1) If the current value you set is out of range, The programmer will report an error; (2) Power-on fading time range: 0-9s.

3. Write to the driver

On the home page of the programmer, press the " ▲▼ " button to select 【 ≫Ready to Write】, then press the "OK" button. After the screen displays "Ready to write...", please keep the programmer's sensing area close to the NFC logo of the driver. When the screen displays "Write succeeded", it means the parameters have been successfully changed.



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 on the NFC programmer or via the APP, please make sure the driver is powered off.

Read/Write the LED driver

Use your NFC-capable phone to read the driver parameters, then set the output current, fade time, power-on status, other parameters. Save your settings and hold your phone close to the driver again, so the parameters can be easily 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 logo of the driver to read the driver parameters.

2. Edit the parameters

Click【Parameter settings】to edit the advanced parameters, like output current, time for fading on/off, power-on fading time, power-on status, etc.

3. Write to the driver

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

Write/Read on the NFC programmer

Connect the NFC programmer to your phone and read the driver parameters with your phone. After editing the solution in the mobile App, you can sync it to the NFC programmer and write advanced parameters to mass LED drivers.

1. Connect to the NFC programmer

Enable Bluetooth on your phone and power the NFC programmer first. Then press the button on the programmer to switch to "BLE Connection" and press "OK" button to wait for Bluetooth connection. On the APP home page, click【Write/Read on NFC programmer】—【Next】to search for the programmer and connect to it.

2. Read the LED driver

On the "Programmer information" page, choose any solution for editing. Then keep the programmer's sensing area close to the NFC logo of the driver, to read the driver parameters.

3. Edit the parameters

Click【Parameter settings】 to edit the advanced parameters, like output current, time for fading on/off, power-on fading time, power-on status, etc. Then click 【Save】in the top right.

4. Write to the LED driver

When the programmer screen shows "Sync ... succeeded", click "BACK" button to return to the home page and switch to the "APP Solutions", then press the "OK" button to access the optional solutions. Select the corresponding solution by pressing the " ◂▸ " button, then keep the programmer's sensing area close to the NFC logo of the driver. After this, the advanced solution can be written to a large number of the same model drivers.

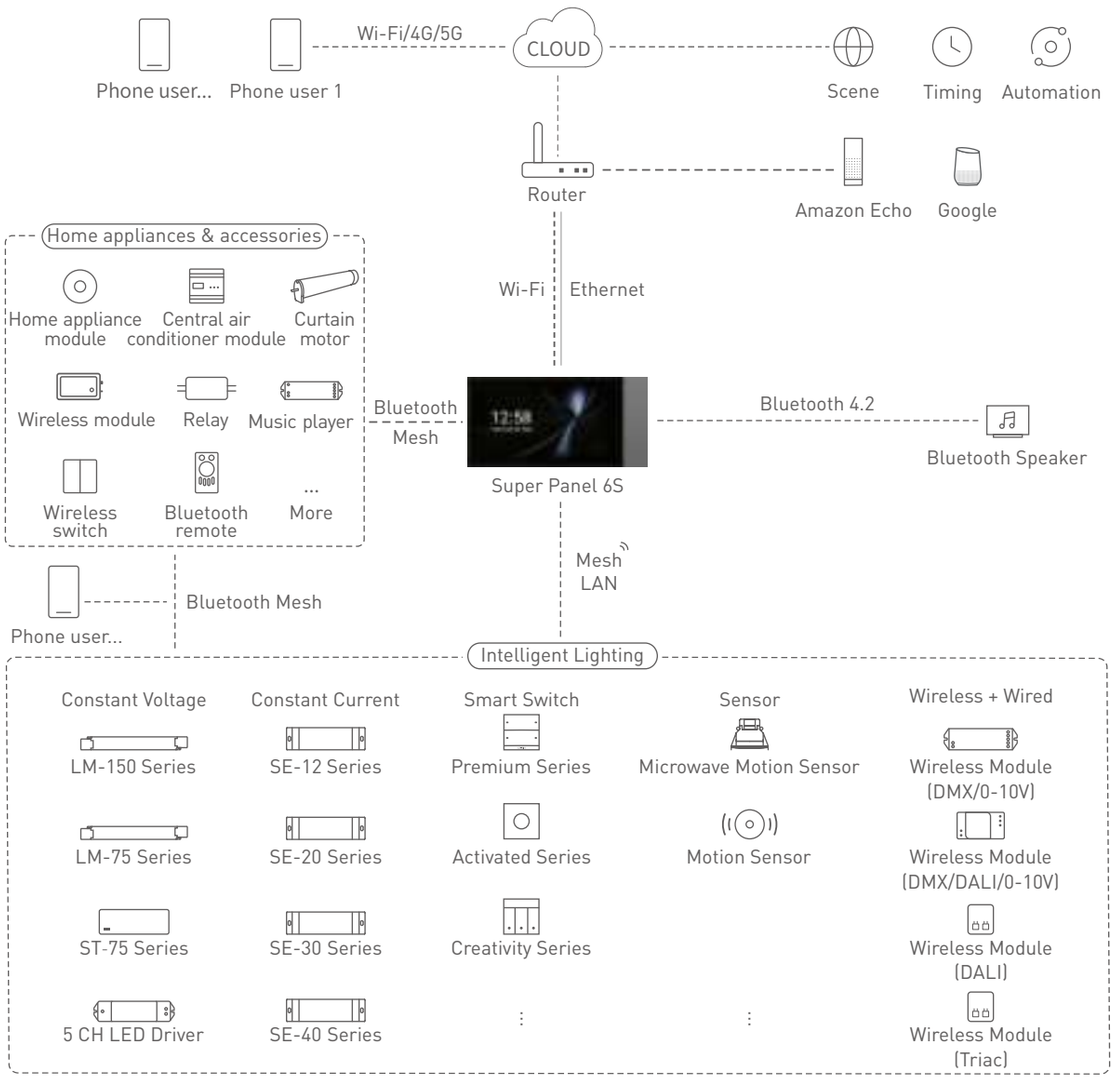
Sync SOL1
succeeded

NFC Driver Settings
APP Solutions
BLE Connection

SOL1 SOL2 SOL3
Iout: 1050mA 9-42V
Fade Time: 3s
⟩⟩ Ready to write
SE-40-300-1050-W2B

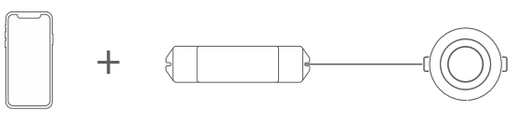
Write succeeded
SE-40-300-1050-W2B

For more advanced solution settings, please scan the QR code below and check out the NFC programmer manual (model: LT-NFC).



Recommend Applications

1. Achieve fast dimming control.



2. Both App and remote can control the driver after connecting the remote to the driver with App.

3. Both App and Super Panel 6S can control the driver simultaneously after connecting the Super Panel 6S to the driver with App. By connecting the Super Panel to network, you are allowed to control the driver, cloud scenes and automation remotely with App.

4. .....More applications of intelligent control are waiting for you to set up.

Use with Bluetooth L-Home APP

1. Register an account

The App is available on iOS or Android devices. Scan the QR code below with you mobile phone and follow the prompts to complete the App installation. Open the App to log in or register an account.

2. Paring instructions

Open the APP and create a home if you are a new user. Click "+" icon in the upper right corner and access the "Add Device" list, then follow the prompts to add the device. Pick "Smart lighting-CT light" from the list and follow the prompts to power on the device firstly. Make sure the device is not connected to the network. Then click "Bluetooth Search" and follow the prompts to add the device.



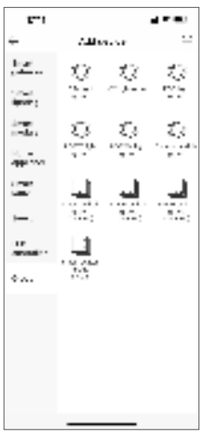
3. Control interface settings

After pairing up your device, go to the control interface. You'll be able to achieve your desired lighting effects by changing brightness and color temperature. Click "Theme" and you'll easily switch to multiple theme lighting effects with one tap. Click "Mode" and the App provides you editable advanced modes. Customize dynamic modes to put you into a more colorful life.



4. Light groups

Users are able to combine the same type of light fixtures into a group to control them simultaneously. Once you create the group, you can set the dim level and adjust the color temperature more easily. Pick "Group-CT light group" from the list . Follow the prompts to rename the group and click "Next" to pick the lights you are going to group together and click "Save".



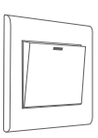
5. Advanced functions

This driver can be linked up with gateway function devices (such as LTECH Super Panel) to achieve the advanced functions from cloud scenes to automation.



Reset The Device (Reset to factory defaults)

Make sure the driver is well-connected to a lamp and the lamp is on, turn it off with the switch and after 15s turn it on. After 2s, turn it off again. Repeat the same operation 6 times. When the lamp flashes 5 times , reset the device to factory defaults successfully.



Turn it on 2s

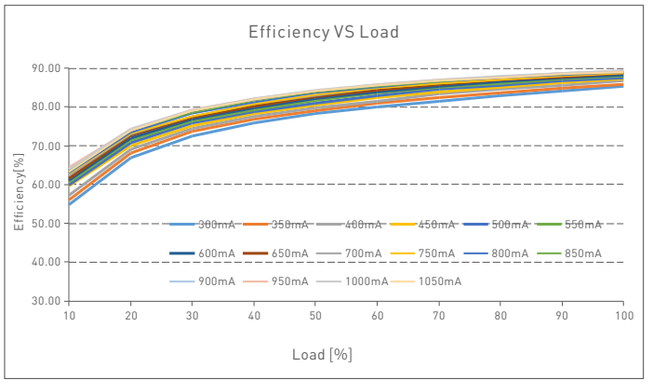
Turn it off 15s

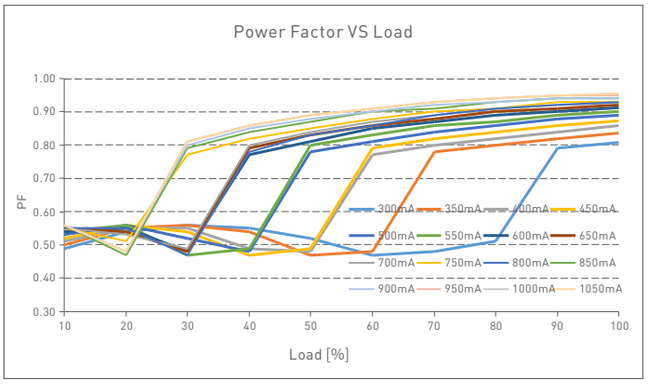
Under the driver being power-on

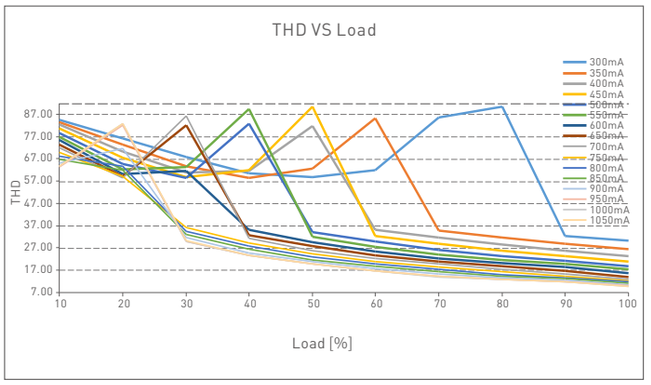
Turn it off —15s— Turn it on —2s— ·····

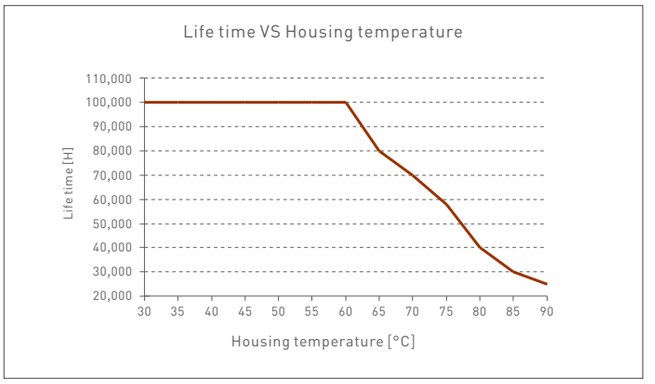
(Repeat 6 times)

Relationship Diagrams

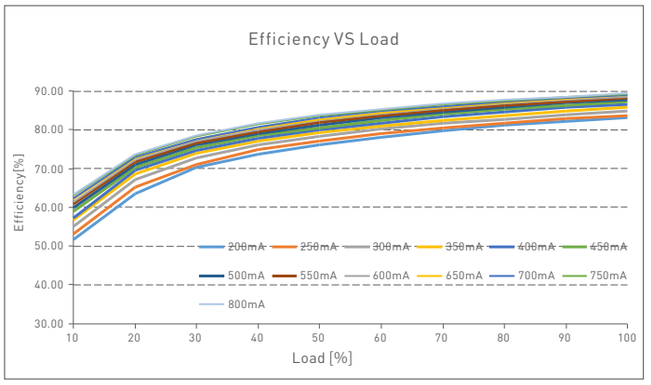


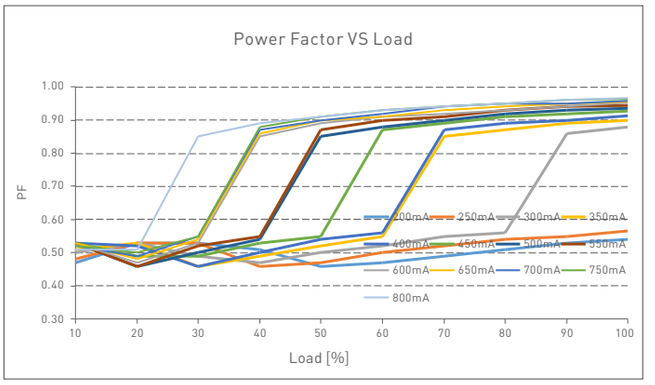


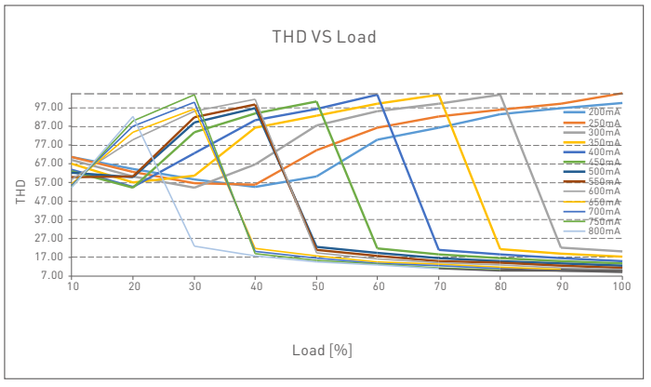


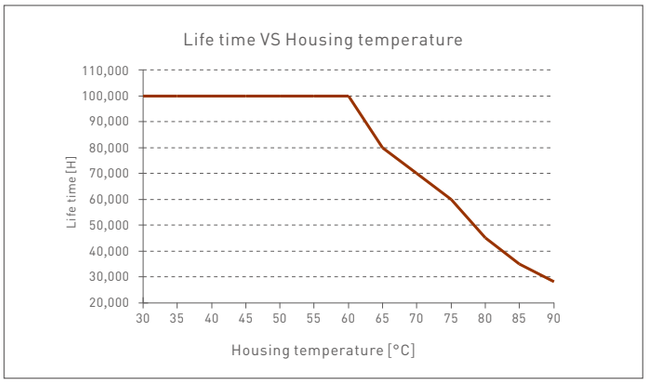


SE-40-300-1050-W2B









SE-30-200-800-W2B

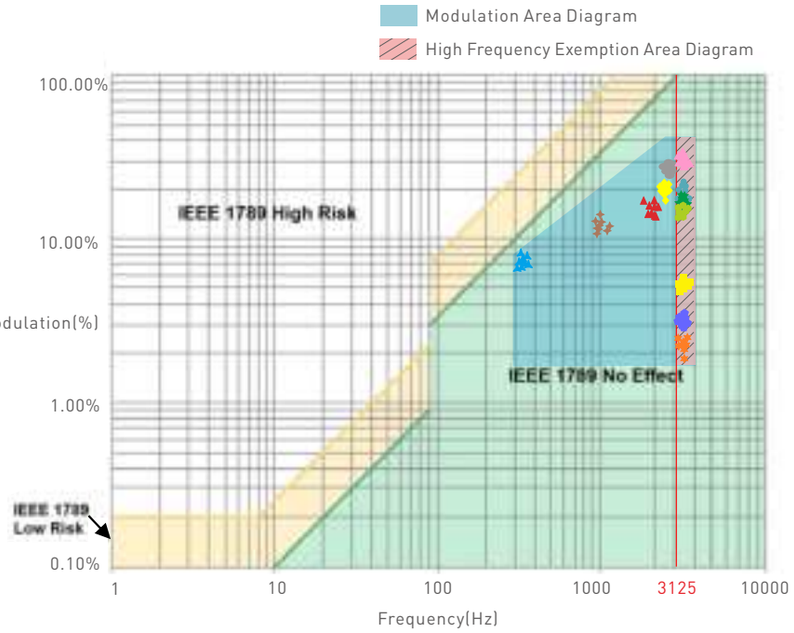
Flicker Test Sheet

IEEE 1789

Limit of modulation in low risk area	
Waveform frequency of optical output	limit [%]
$f \leq 8Hz$	0.2
$8Hz < f \leq 90Hz$	$0.025 \times f$
$90Hz < f \leq 1250Hz$	$0.08 \times f$
$f > 1250Hz$	Exemption assessment
Limit of modulation in no effect area	
Waveform frequency of optical output	limit [%]
$f \leq 10Hz$	0.1
$10Hz < f \leq 90Hz$	$0.01 \times f$
$90Hz < f \leq 3125Hz$	$[0.08/2.5] \times f$
$f > 3125Hz$	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 frequeny is 0Hz in 100% brightness and its corresponding modulation is 0%, which could not be shown in the right chart.

Model	SE-40-300-1050-W2B	SE-30-200-800-W2B
Carton Dimensions	320×275×106mm(L×W×H)	320×275×106mm(L×W×H)
Quantity	20 PCS/Layer; 2 Layers/Carton; 40 PCS/Carton	20 PCS/Layer; 2 Layers/Carton; 40 PCS/Carton
Weight	0.17 kg/PC; 7.6 kg±5%/Carton	0.15 kg/PC; 6.8 kg±5%/Carton

Inner Packaging Box

Carton Packaging

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.

- This product must be installed and adjusted by a qualified professional.
- This product is non-waterproof (special models excepted). Please avoid the sun and rain. When installed outdoors, please ensure it is mounted in a water proof enclosure.
- Good heat dissipation will extend the life the product. Please install the product in a environment with good ventilation.
- When you install this product, please avoid being near a large area of metal objects or stacking them to prevent signal interference.
- Please keep the product away from a intense magnetic field, a high pressure area or a place where lightning is easy to occur.
- Please check whether the working voltage used complies with the parameter requirements of the product.
- Before you power on the product, please make sure all the wiring is correct in case of incorrect connection that may cause a short circuit and damage the components, or trigger a accident.
- If a fault occurs, please do not attempt to fix the product by yourself. If you have any question, please contact the supplier.

* 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 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.

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

FCC Warning

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE 1: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-Consult the dealer or an experienced radio/TV technician for help.

NOTE 2: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Update Log

Version	Updated Time	Update Content	Updated by
A0	2023.02.23	Original version	Liu Weili