

## Intelligent LED Driver(Constant Current)

- Metal housing for fast and efficient heat dissipation;
- Compact size for easy installation and concealment;
- Ultra-wide voltage input: 100-277V~;
- Matter over Thread certified device, to be used with a Matter hub with Thread border router functionality;
- Supports control via mainstream smart home platforms, including Apple Home, Google Home, Amazon Alexa, SmartThings, etc.;
- Supports voice control via voice assistants including Apple Siri, Google Assistant, Amazon Alexa, Samsung Bixby, etc.;
- Easy pairing via QR code scanning;
- Supports standard Matter OTA updates;
- Supports NFC fast programming; parameters such as dimming fade time, power-on fade time and brightness range can be modified via mobile APP through NFC;
- Dimming range: 0-100%, LED dimmable starting from 0.0001%;
- Equipped with soft start and gradual brightening function for comfortable human eye vision;
- Innovative thermal management technology for intelligent protection of power supply lifespan;
- Over-temperature, over-voltage, over-load and short-circuit protection with automatic recovery;
- IP20 rated, suitable for indoor LED luminaires;
- 100,000-hour lifespan under normal operation;
- UL Class 2 and Class P certified;
- Compliant with IEEE 1789 and UL 8750 standards;
- 5-year warranty period.

\* Not for sale or use in China.



T-PWM  
Dimming Technology

Flicker Free  
IEEE 1789

Dimmable: (NFC) 1:1000000



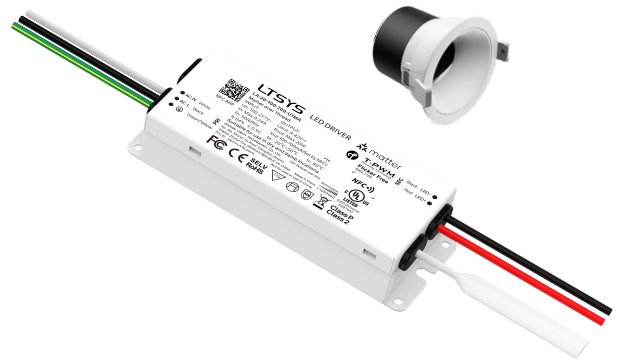
Class 2

Class P

SELV  
RoHS



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



## Technical Specs

Model	LA-10-100-450-U1MA		LA-20-100-700-U1MA	
Features	Output Type	Constant current		
	Dimming Interface	Matter over Thread, Matter 1.4		
	Output Feature	Isolation		
	Protection Grade	IP20		
	Insulation Grade	Class II (Suitable for class I / II / III light fixtures)		
OUTPUT	Output Voltage	9-42V $\overline{=}$		
	Maximum Output Voltage	$\leq 50V \overline{=}$		
	Output Current Range	100-450mA (Set higher current via mobile APP NFC; step value down to 1mA; Default: 100mA)	100-700mA (Set higher current via mobile APP NFC; step value down to 1mA; Default: 100mA)	
	Output Power Range	0.9-10W	0.9-20W	
	Dimming Range	0-100%, down to 0.0001% (Set More levels can be set via mobile APP NFC; Default: 0.01%)		
	LF Current Ripple	< 5% ((Maximum current for non dimming state)		
	Current Accuracy	$\pm 5\%$		
PWM Frequency	$\leq 3600\text{Hz}$			
INPUT	AC Voltage Range	100-277V~		
	Rated Voltage	115V~/230V~/277V~		
	Frequency	50/60Hz		
	Input Current	Max. 0.11A/115V~, Max.0.06A/230V~, Max. 0.055A/277V~(at full load)	Max. 0.21A/115V~, Max.0.11A/230V~, Max. 0.1A/277V~(at full load)	
	Power Factor	PF $\geq 0.95/115V\sim$ , PF $\geq 0.9/230V\sim$ , PF $\geq 0.9/277V\sim$ (at full load)		
	THD	115V~@THD $\leq 10\%$ , 230V~@THD $\leq 15\%$ , 277V~@THD $\leq 20\%$ (at full load)		
	Efficiency (Typ.)	80%(at full load)	84%(at full load)	
	Inrush Current	Cold start 15A (Test twidth=152us tested under 50% Ipeak)/230V~		
	Anti Surge	L-N: 2KV L,N-FG: 4KV		
Leakage Current	Max.0.5mA			
ENVIRONMENT	Working Temperature	ta: -20°C ~ 50°C tc: 75°C	ta: -20°C ~ 50°C tc: 80°C	
	Working Humidity	20~95%RH, non-condensing		
	Storage Temperature/Humidity	-40~80°C/10~95%RH		
	Temperature Coefficient	$\pm 0.03\%/^{\circ}\text{C}(-20^{\circ}\text{C}\sim 50^{\circ}\text{C})$		
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 $\geq 110^{\circ}\text{C}$ . When the PCB temperature $< 90^{\circ}\text{C}$ , 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:3750V~/1min/ < 5mA, I/P-FG:1750V~/1min/ < 5mA,O/P-FG:500V~/1min/ < 5mA, Signal-FG: 500V~/1min/ < 5mA. ①		
	Insulation Resistance	I/P-O/P: 100M $\Omega$ /500V~/1min/25°C/70%RH		
	Safety Standards	CE	European Union	EN61347-1, EN61347-2-13, EN62384
		UL	America	UL8750, UL1310, Class P
		CUL	Canada	CSAC22.2 No.250.13
	EMC Emission	FCC	America	FCC part15B
CE		European Union	EN55015, ENIEC61000-3-2, EN61000-3-3, EN61547	
EMC Immunity	EN61000-4-2,3,4,5,6,8,11,EN61547			
	ErP	Flicker/Stroboscopic Effect	IEEE1789	Meet IEEE 1789 standard/High frequency exemption level
DF		CIESVM	PstLM $\leq 1.0$ , SVM $\leq 0.4$	
OTHERS	Weight(N.W.)	275g $\pm 10\text{g}$		
	Dimensions	118 $\times$ 43 $\times$ 25mm(L $\times$ W $\times$ H)		

①Note: During the I/P-FG withstand voltage test, the gas discharge tube located on the input terminal cover of the driver must be temporarily removed to prevent the functional activation of the gas discharge tube inside the driver (see IEC 60598-1-10.2). After the test is completed, the gas discharge tube must be reinstalled to restore the surge protection function of the power line to ground and ensure reliable contact.

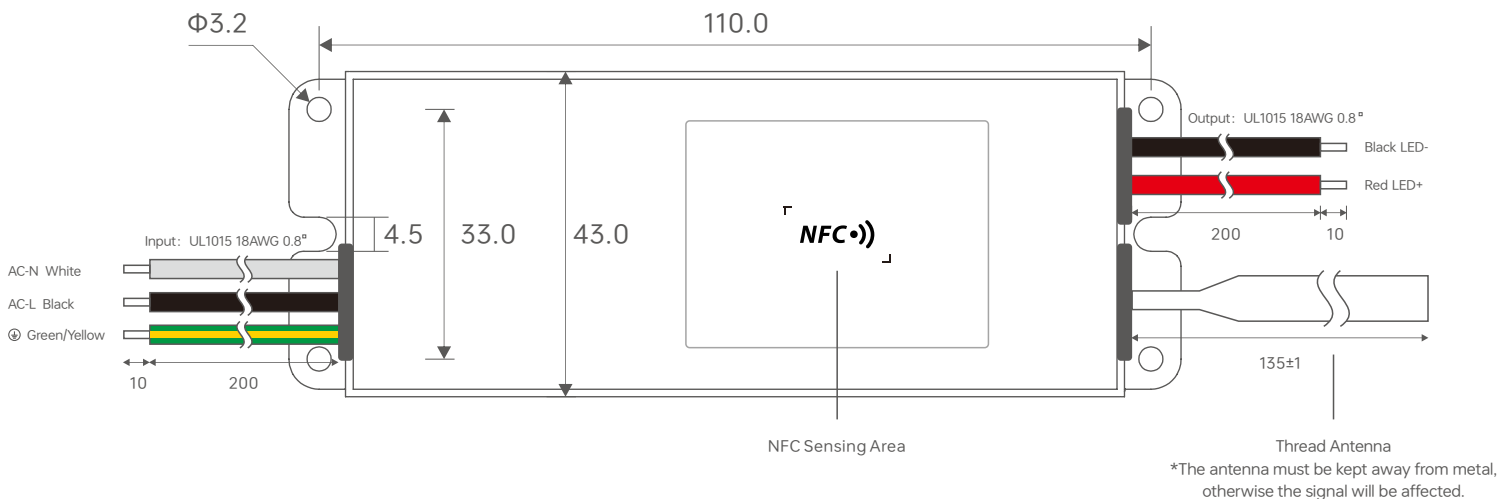
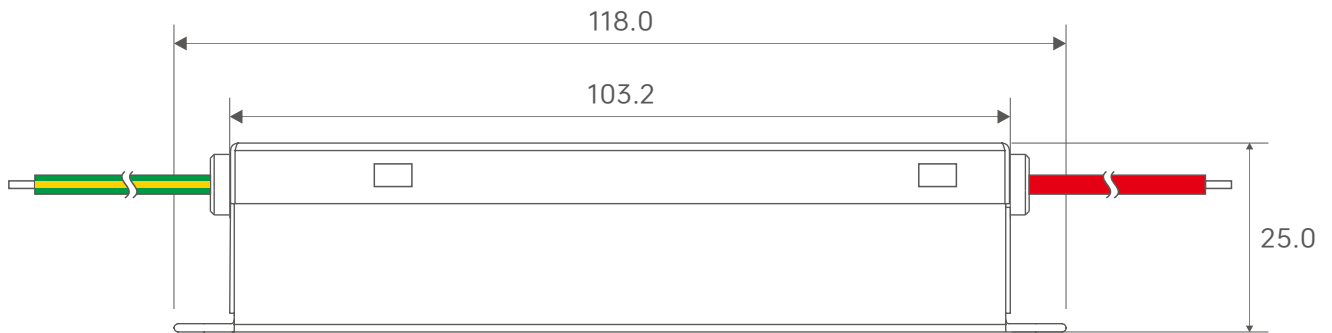
Typical Current Corresponding Parameter Table

Model	The typical 8 current data sets below are for reference when selecting LED fixture models. More current levels can be set by NFC using mobile APP with 100-450mA adjustable in 1mA step								
LA-10-100-450-U1MA	Output Current	100mA	150mA	200mA	250mA	300mA	350mA	400mA	450mA
	Output Voltage	9-42Vdc	9-42Vdc	9-42Vdc	9-40Vdc	9-33Vdc	9-28.5Vdc	9-25Vdc	9-22Vdc
	Output Power	0.9-4.2W	1.35-6.3W	1.8-8.4W	2.25-10W	2.7-9.9W	3.15-9.975W	3.6-10W	4.05-9.9W

Model	The typical 13 current data sets below are for reference when selecting LED fixture models. More current levels can be set by NFC using mobile APP with 100-700mA adjustable in 1mA step								
LA-20-100-700-U1MA	Output Current	100mA	150mA	200mA	250mA	300mA	350mA	400mA	450mA
	Output Voltage	9-42Vdc	9-42Vdc	9-42Vdc	9-42Vdc	9-42Vdc	9-42Vdc	9-42Vdc	9-42Vdc
	Output Power	0.9-4.2W	1.35-6.3W	1.8-8.4W	2.25-10.5W	2.7-12.6W	3.15-14.7W	3.6-16.8W	4.05-18.9W
	Output Current	500mA	550mA	600mA	650mA	700mA	/		
	Output Voltage	9-40Vdc	9-37Vdc	9-34Vdc	9-31Vdc	9-29Vdc			
	Output Power	4.5-20W	4.5-20.35W	4.5-20.4W	4.5-20.15W	4.5-19.95W			

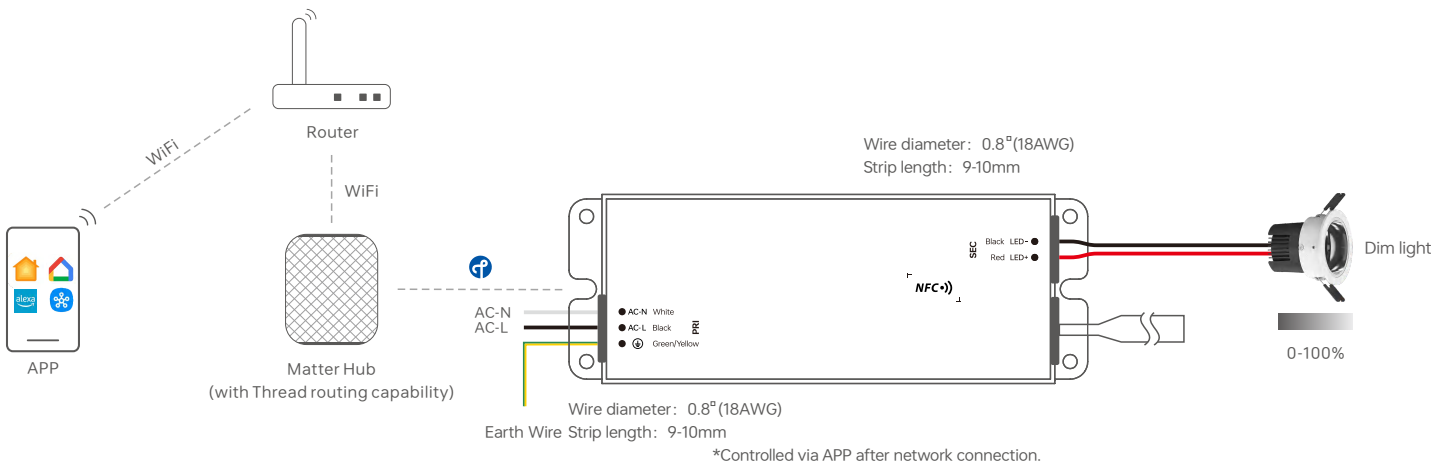
Product Size

Unit:mm

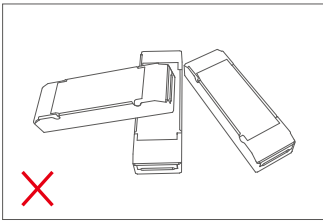


\*The antenna must be kept away from metal, otherwise the signal will be affected.

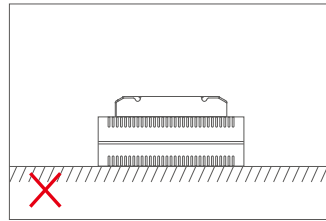
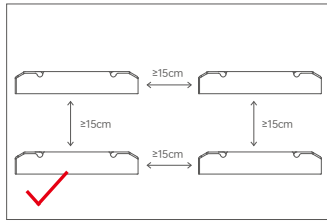
Connectivity Diagram



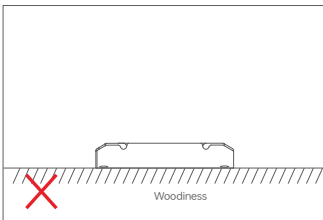
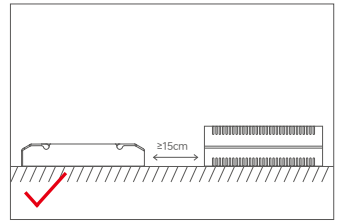
Installation Precautions



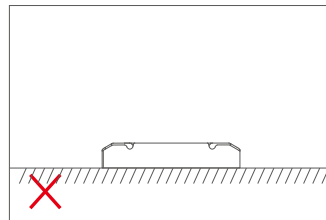
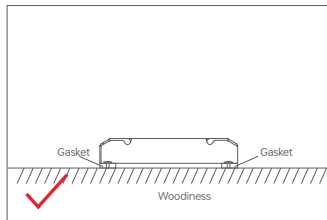
Please do not stack the products. The distance between two products should be  $\geq 15\text{cm}$  so as not to affect heat dissipation and the lifespan of the products.



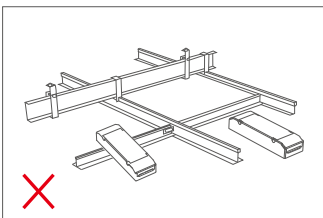
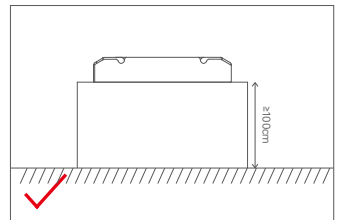
Please do not place the products on the floor. The distance between the product and the floor should be  $\geq 100\text{cm}$  so as to avoid signal interference.



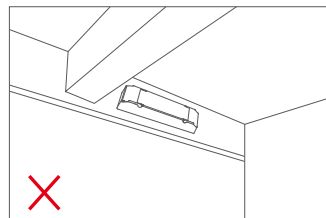
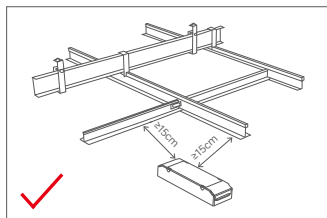
Do not fix the product tightly against the wooden board with screws. Please add a washer  $\geq 7\text{mm}$  thick under the mounting screws to leave a gap for effective heat dissipation, so as to avoid affecting the heat dissipation and service life of the product.



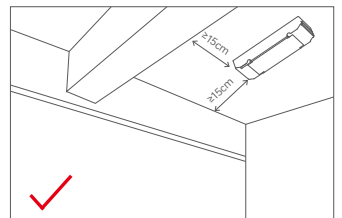
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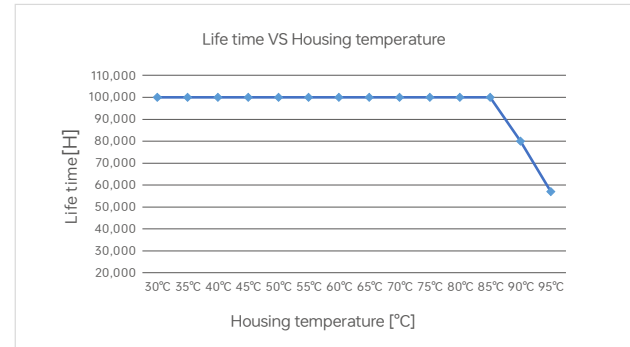
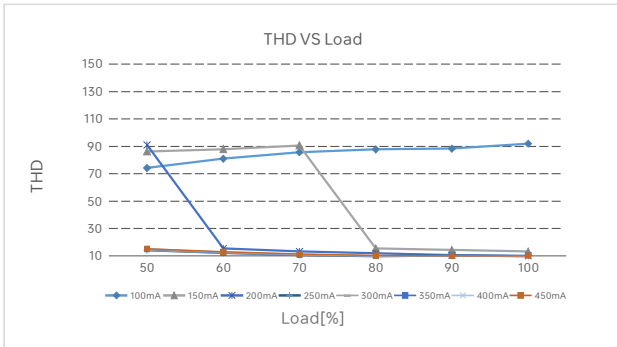
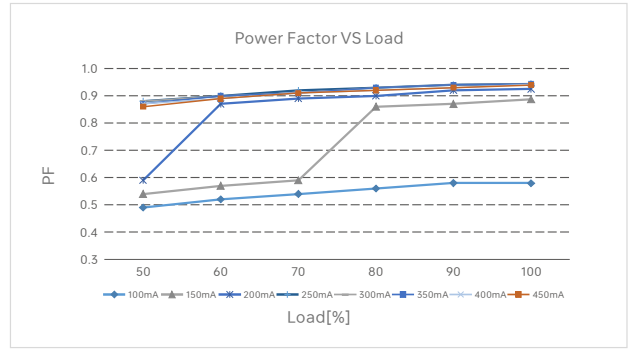
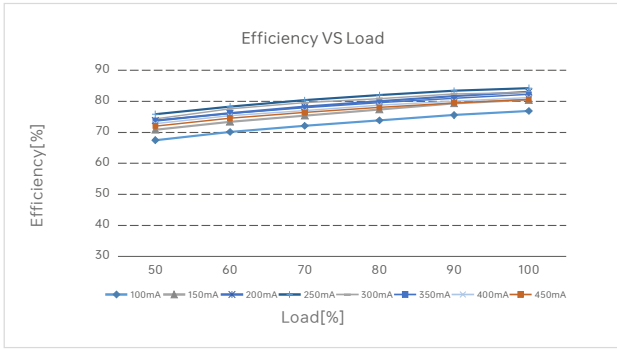
Do not allow the product to come into large-area contact with metal objects (e.g. keel frames). The separation distance shall be  $\geq 15\text{cm}$  to avoid signal interference affecting operation.



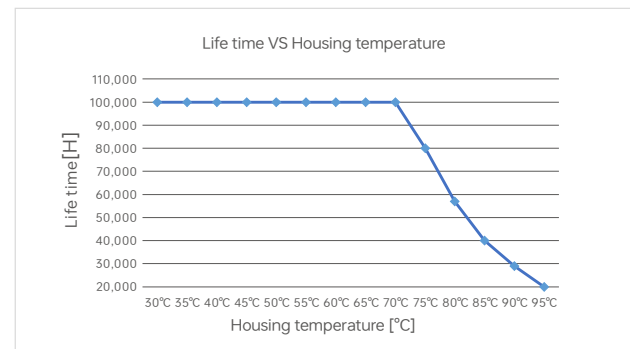
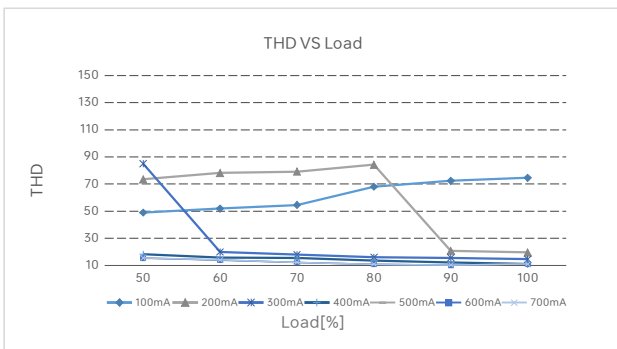
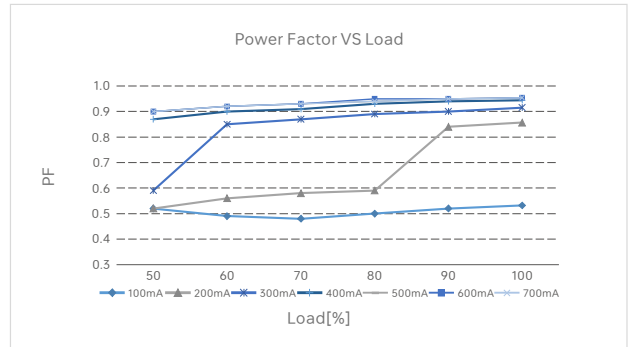
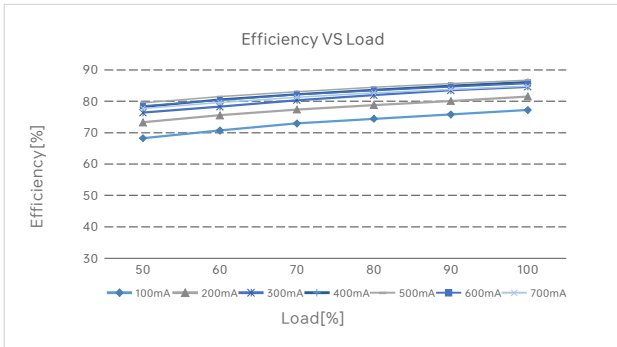
Please do not install the products on beams or near the corners. The distance between the product and the beam or the corner should be  $\geq 15\text{cm}$  so as to avoid signal interference.



Relationship Diagrams



LA-10-100-450-U1MA



LA-20-100-700-U1MA

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:

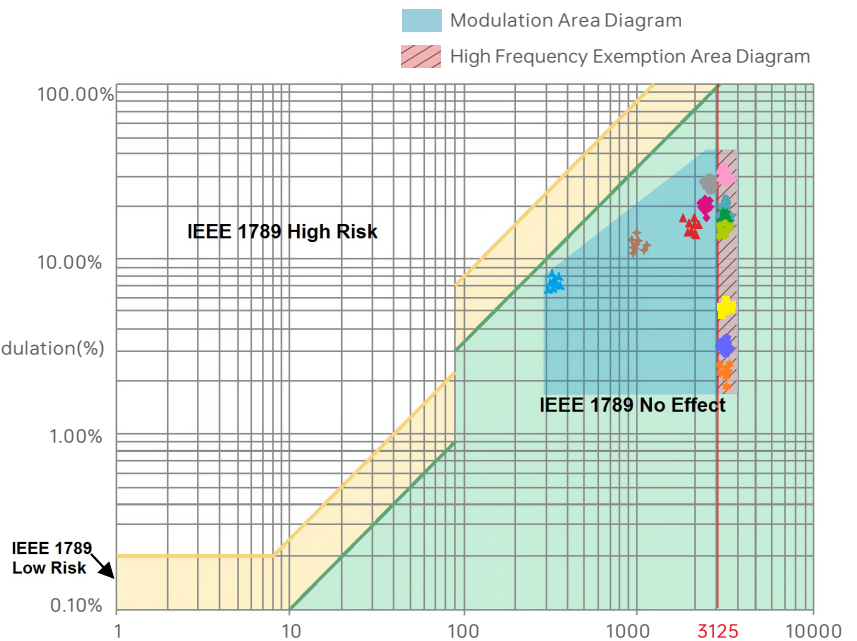
1. Test Conditions: Cold start 15A(Test twidth=152us tested under 50% Ipeak)/230V~.
2. The number of supported drivers may vary depending on the brand and model of the MCB.
3. It is recommended not to exceed the specified load capacity during on-site installation. The actual load should be determined 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.

Add to Matter Platform Instructions

1. This device supports control via major smart home platforms, including Apple Home, Amazon Alexa, Google Home, SmartThings, and others.
2. To connect Matter over Thread devices, you need a Matter hub supporting Thread border router functionality from major platforms. Refer to the image below for compatible models.

Apple HomePod (second-gen)	Aeotec SmartThings Smart Home Hub	Google Nest Hub (2nd Gen)	Amazon Echo (4th-gen)
Apple HomePod Mini	Samsung SmartThings Station	Google Nest Hub Max	Amazon Echo Hub
Apple TV 4K (2nd gen)	Samsung SmartThings Hub Dongle	Google Nest Wifi Pro	Amazon Echo Show 8 (3rd-gen)
Apple TV 4K (3rd gen, 128 GB)	Samsung SmartThings Hub v3	Google TV Streamer (4K)	Amazon Eero 6, Pro 6, 6 Plus, Max 7 etc.

3. This guide uses Apple Home as an example. First, prepare an iPhone (iOS 16.2 or later) or iPad (iPadOS 16.2 or later) with the latest firmware, along with an Apple HomePod mini also running the latest firmware. Then connect your iPhone or iPad to your home Wi-Fi network, launch the Apple Home app, and follow Apple's instructions to set up the HomePod mini.

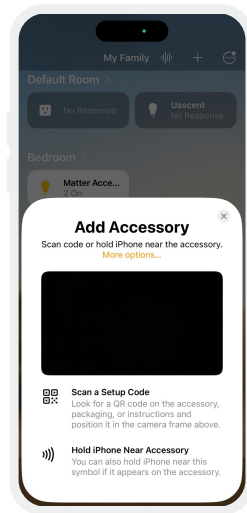
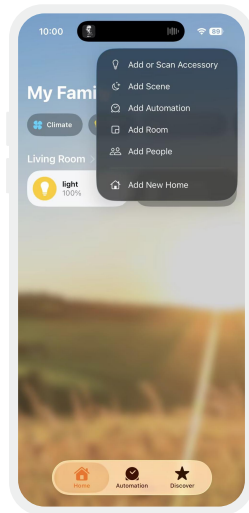
\*For iPhone models 16 and above, no Matter hub is required; devices can be added directly.

## Adding Steps (Using Apple Home as an Example)

### 1.Add Accessory

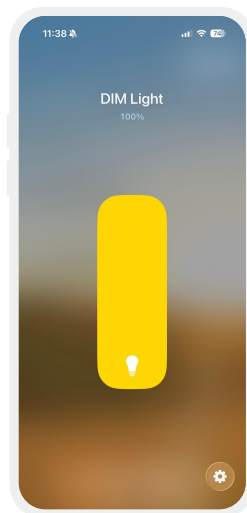
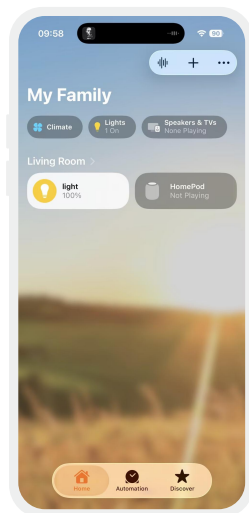
Open the Apple Home app, tap Add or Scan Accessory, and add the device to the Home app by scanning the QR code label on the device, as shown below.

\*Alternatively, add via NFC: Open the Home app, bring it close to the device’s NFC sensing area for recognition and network connection.



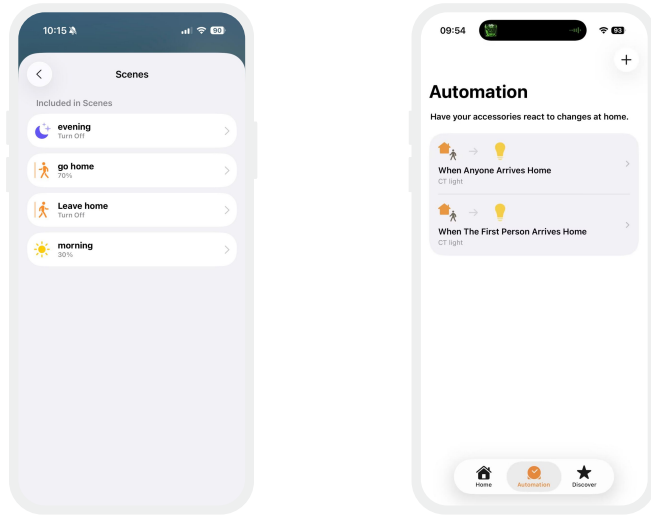
### 2.Control the Device

After the device has been successfully added, tap the device icon to turn it ON/OFF; tap the device card to enter the brightness control interface.



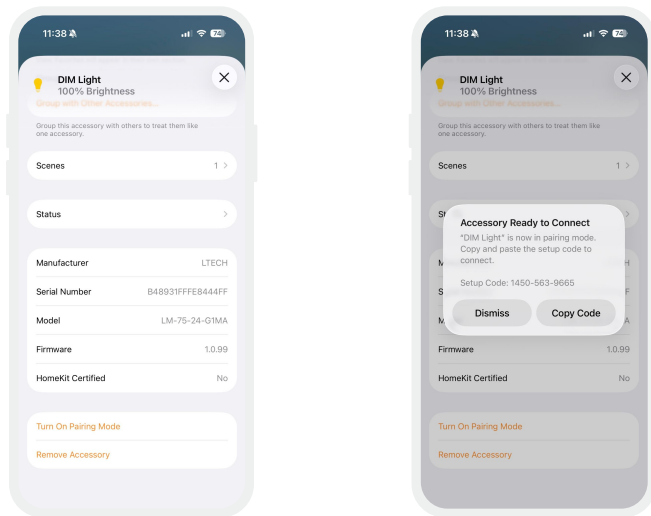
### 3. Advanced Functions

Supports creating groups, scenes, automation, remote control and timer control. The device can also be controlled via Siri voice commands.



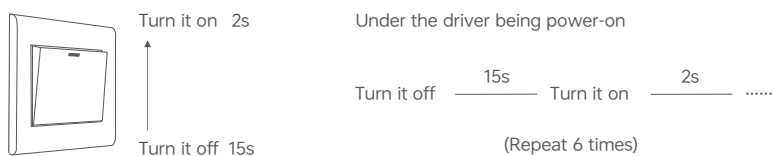
### 4. Multi-Ecosystem Network Configuration

If the product needs to be added to two or more ecosystems, you may go to the device settings page, tap Enable Pairing Mode, obtain the pairing code, and add it to third-party platforms.



### Reset to the defaults

Ensure the device is connected to the light and the light stays on steadily. Turn the power off and on 6 times in a row using the switch: (Turn off for 15 seconds, Turn on for 2 seconds) After the 6th time you turn it on (leave it on for 2 seconds), the light will flash 5 times. This means the device has been successfully restored to factory settings.



## 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).



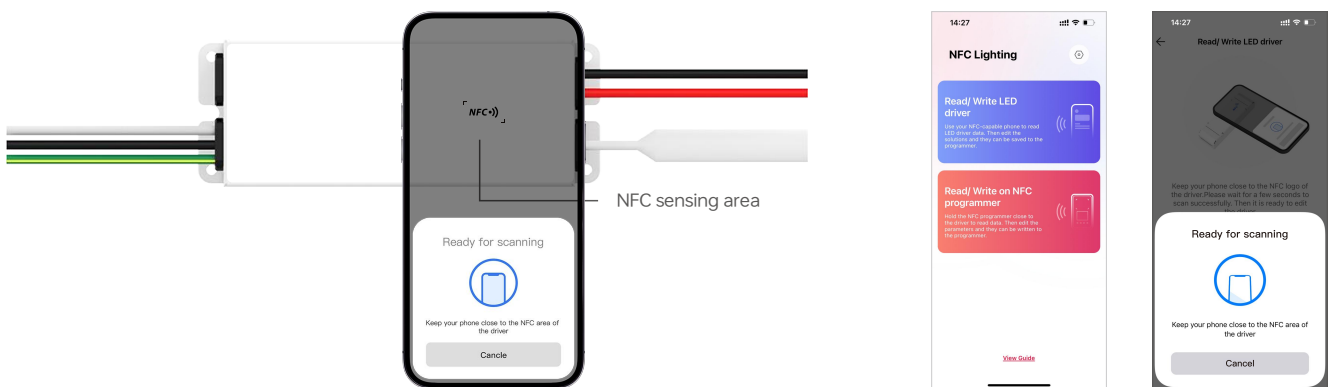
\* Before you begin setting the parameters of the driver, please make sure the driver is powered off .

## 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.

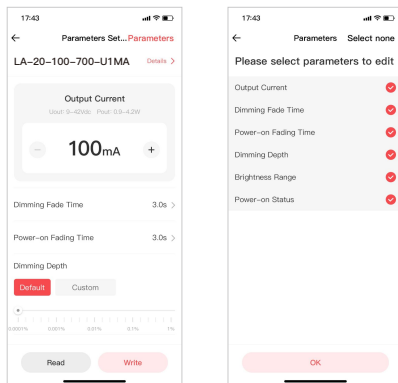
### 1. Read the LED driver

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.



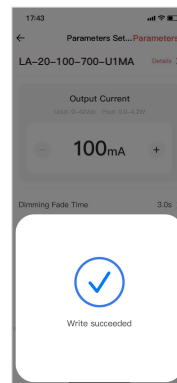
### 2. Edit the parameters

Click **[Parameter settings]** to edit more advanced parameters such as output current, dimming fade time, power-on fade time, Dimming Depth, brightness range, power-on state.



### 3. Write to the driver

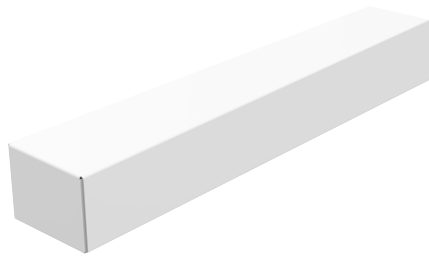
After completing the parameter settings, click **[Write]** in the upper right corner, and keep the programmer's sensing area close to the NFC sensing area of the driver, so the parameters can be written to the driver.



## Packaging Specifications

Model	LA-10-100-450-U1MA、LA-20-100-700-U1MA
Packaging Box Dimensions	152×60×35mm (L×W×H)

## Packaging Image



Inner Packaging Box

## FAQ

This product is designed in compliance with the Matter protocol standard. As the protocol is still in the early stage of industry development and limited by the current version, some functions, performance and network connection stability may be subject to further optimization. Product performance is subject to the current version of the Matter protocol. Our company will continuously upgrade and optimize product functions and performance in line with official updates. Please kindly note.

1. What should I do if the large number of Matter devices managed by the Matter hub gateway causes unstable connections and control?
  - 1.1 It is recommended that each hub gateway add no more than 40 Matter devices.
  - 1.2 It is recommended that the hub gateway remain powered on at all times; otherwise, the device reconnection time will be long.
  - 1.3 Routers of different brands and performances have a certain impact on the number of devices managed by the Matter hub. It is recommended to choose a high-performance router.
2. What should I do if packet loss occurs during group control switching or dimming, and the app status flips back and forth?
 

It is recommended to keep the number of devices in a group within 10 units.
3. What should I do if the device goes offline and cannot recover after a long period of inactivity?
 

It is recommended to power the device off and on again to reconnect.
4. What should I do if adding the device still fails after restoring it to factory settings?
 

Please try powering the device off and on again before adding it.
5. Common reasons for failed device addition caused by router issues.
  - 5.1 The router must have the IPv6 option enabled.
  - 5.2 The router must have the "Brute-force network attack prevention" option disabled.
  - 5.3 Do not connect to the guest Wi-Fi; connect to the main Wi-Fi network instead.

## 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

- Products shall be installed by qualified professionals.
  - 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.

## LED智能调光驱动器(恒流型)

- 金属外壳，易于散热快；
- 体积小巧，易于安装隐藏；
- 超宽电压输入100-277V~；
- Matter over Thread 认证设备，需要搭配具备Thread 边界路由功能的Matter中枢使用；
- 支持主流智能家居平台控制，包括AppleHome、Google Home、Amazon Alexa、SmartThings等；
- 支持语音控制，包括Apple Siri、Google Assistant、Amazon Alexa、Samsung Bixby等；
- 通过扫描二维码轻松配对；
- 支持Matter标准OTA升级；
- 支持NFC极速编程，可使用手机APP通过NFC更改开/关调光渐变时间、通电渐变时间、亮度范围等参数；
- 调光范围0-100%，LED从0.0001%开始调光；
- 带软启动渐亮功能，让人眼视觉更舒服；
- 创新的热管理技术，智能保护电源寿命；
- 过温、过压、过载、短路保护，可自动恢复；
- IP20，适用于室内LED灯具；
- 常规使用下寿命可达10万小时；
- 通过了UL Class 2, Class P认证；
- 符合IEEE1789、UL8750标准；
- 5年保修期；

\* 本产品禁止在中国境内销售使用。



**T-PWM**  
超深度调光技术

无频闪  
IEEE1789  
高频豁免考核级别

Dimmable: 「NFC」  
1:1000000



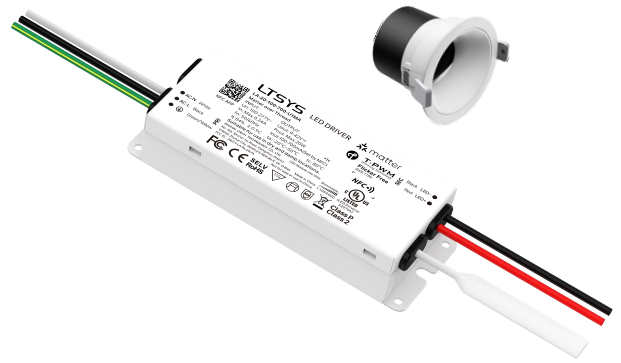
Class 2

Class P

SELV  
RoHS



认证图标仅代表产品正在进行这一系列的认证申请，认证资质以产品实物为准。



## 技术参数

型号	LA-10-100-450-U1MA		LA-20-100-700-U1MA	
特征	输出类型	恒流		
	输入信号	Matter over Thread, Matter 1.4		
	输出特征	隔离		
	防护等级	IP20		
输出	绝缘等级	II类(适用于室内I、II、III类灯具)		
	输出电压	9-42V $\overline{\text{=}}$		
	最大输出电压	$\leq 50\text{V}\overline{\text{=}}$		
	工作电流范围	100-450mA(通过手机APP NFC设置更多电流, 步进值低至1mA; 默认:100mA)	100-700mA(通过手机APP NFC设置更多电流, 步进值低至1mA; 默认:100mA)	
	负载功率范围	0.9W-10W	0.9W-20W	
	调光范围	0-100%, 调光深度: Max. 0.0001%(通过手机APP NFC设置更多档位, 默认:0.01%)		
	电流纹波	$< 5\%$ (非调光状态)		
	电流精度	$\pm 5\%$		
	PWM调光频率	$\leq 3600\text{Hz}$		
输入	交流电压范围	100-277V~		
	额定电压	115V~/230V~/277V~		
	频率范围	50/60Hz		
	输入电流	Max. 0.11A/115V~, Max.0.06A/230V~, Max. 0.055A/277V~(满载)	Max. 0.21A/115V~, Max.0.11A/230V~, Max. 0.1A/277V~(满载)	
	功率因数	PF $\geq 0.95$ /115V~, PF $\geq 0.9$ /230V~, PF $\geq 0.9$ /277V~(满载)		
	谐波THD	115V~@THD $\leq 10\%$ , 230V~@THD $\leq 15\%$ , 277V~@THD $\leq 20\%$ (满载)		
	效率(Typ.)	80%(满载)	84%(满载)	
	浪涌电流	冷启动, 15A(在50%Ipeak下测twidth=152us)@230Vac		
	抗浪涌	L-N: 2KV L,N-FG: 4KV		
漏电流	Max.0.5mA			
环境	工作温度	ta: -20°C~50°C tc: 75°C	ta: -20°C~50°C tc: 80°C	
	工作湿度	20~95%RH, 无冷凝		
	储存温度/湿度	-40~80°C/10~95%RH		
	温度系数	$\pm 0.03\%/^{\circ}\text{C}$ (-20°C~50°C)		
	耐振动	10-500Hz, 2G 12分钟/周期, X, Y, Z轴各72分钟		
保护	过载保护	负载超过额定功率 $\geq 1.02$ 倍时自动保护, 减轻负载自动恢复		
	过温保护	根据PCB温度超标情况( $\geq 110^{\circ}\text{C}$ ), 智能调节电流输出或关闭, 可自动恢复; PCB温度 $< 90^{\circ}\text{C}$ 时, 可自动恢复正常输出		
	过压保护	超过空载电压值进入保护, 可自行恢复		
	短路保护	输出线路短路进入打嗝模式, 可自动恢复		
安规和电磁规格	耐压	输入对输出: 3750V~/1 min / $< 5\text{mA}$ , 输入对地(FG): 1750V~/1 min / $< 5\text{mA}$ , 输出对地(FG): 500V~/1 min / $< 5\text{mA}$ , 信号对地(FG): 500V~/1 min / $< 5\text{mA}$ ①		
	绝缘阻抗	输入对输出: 100M $\Omega$ /500V~/1 min /25°C/70%RH		
	安全规范	CE	欧盟	EN61347-1, EN61347-2-13, EN62384
		UL	美国	UL8750, UL1310, Class P
	电磁兼容发射	FCC	加拿大	CSAC22.2 No.250.13
		FCC	美国	FCC part15
电磁兼容抗扰度	CE	欧盟	EN55015, ENIEC61000-3-2, EN61000-3-3, EN61547	
ErP	频闪/频闪效应	IEEE1789	满足无影响/高频豁免考核级别	
		CIESVM	PstLM $\leq 1.0$ , SVM $\leq 0.4$	
	DF	相位因素	DF $\geq 0.9$	
其他	产品重量	275g $\pm 10\text{g}$		
	产品尺寸	118 $\times$ 43 $\times$ 25mm(L $\times$ W $\times$ H)		

①备注:当输入对地(FG)进行耐压测试时, 位于驱动器输入端的气体放电管需要被临时性地移除, 以防止驱动器内部的气体放电管功能性动作(参见 IEC 60598-1-10.2)。待测试完成后, 必须被重新安装以恢复电力线对地的浪涌保护功能, 并且确保可靠性接触。

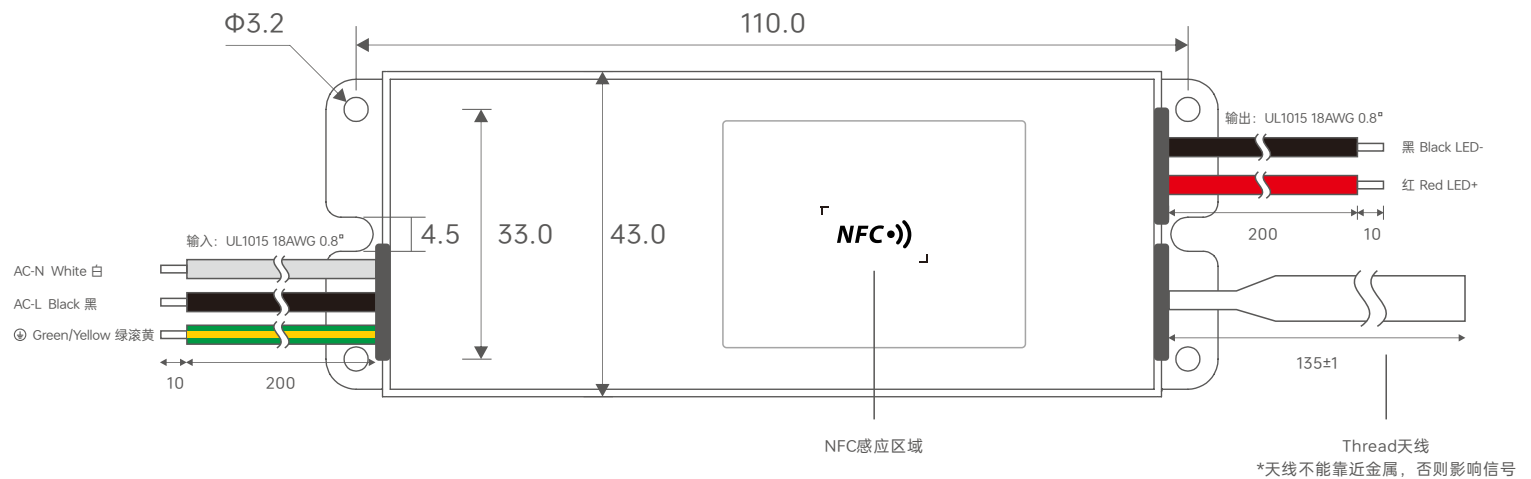
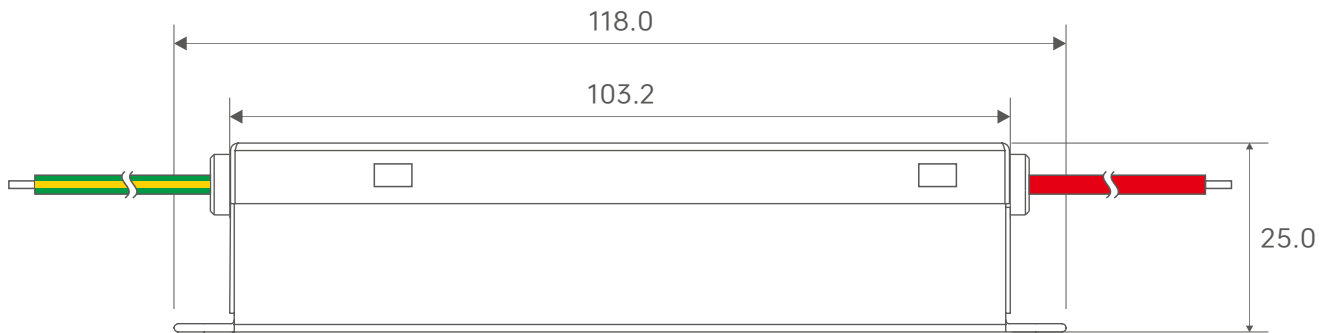
典型电流对应参数表

型号	典型8组电流数据供选型参考，均可通过手机APP NFC设置更多电流，可设置范围在100-450mA，电流步进值低至1mA								
LA-10-100-450-U1MA	输出电流	100mA	150mA	200mA	250mA	300mA	350mA	400mA	450mA
	输出电压	9-42Vdc	9-42Vdc	9-42Vdc	9-40Vdc	9-33Vdc	9-28.5Vdc	9-25Vdc	9-22Vdc
	输出功率	0.9-4.2W	1.35-6.3W	1.8-8.4W	2.25-10W	2.7-9.9W	3.15-9.975W	3.6-10W	4.05-9.9W

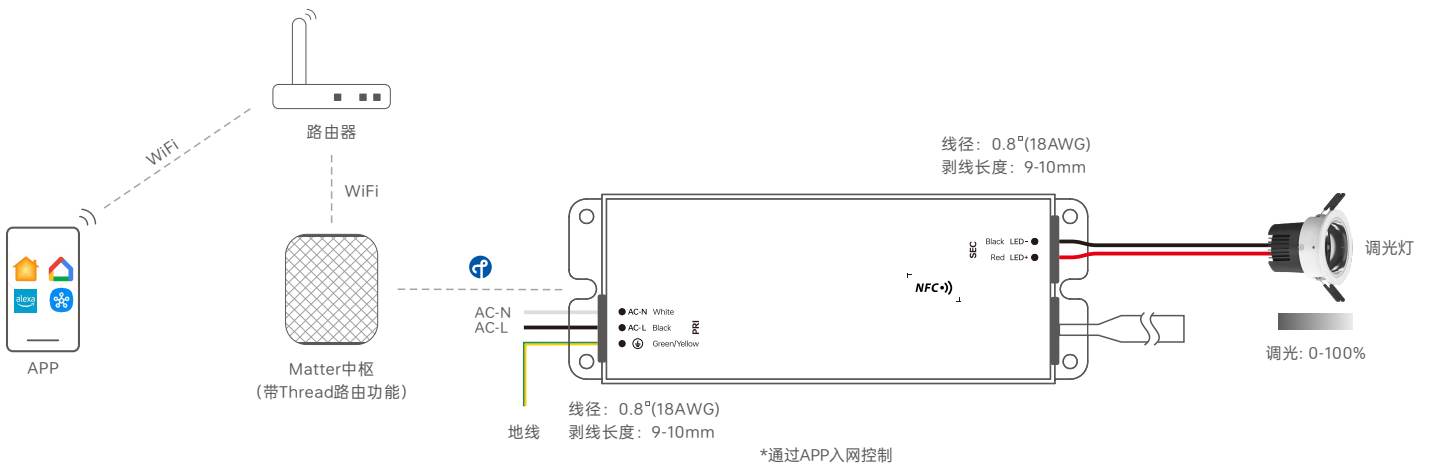
型号	典型13组电流数据供选型参考，均可通过手机APP NFC设置更多电流，可设置范围在100-700mA，电流步进值低至1mA								
LA-20-100-700-U1MA	输出电流	100mA	150mA	200mA	250mA	300mA	350mA	400mA	450mA
	输出电压	9-42Vdc	9-42Vdc	9-42Vdc	9-42Vdc	9-42Vdc	9-42Vdc	9-42Vdc	9-42Vdc
	输出功率	0.9-4.2W	1.35-6.3W	1.8-8.4W	2.25-10.5W	2.7-12.6W	3.15-14.7W	3.6-16.8W	4.05-18.9W
	输出电流	500mA	550mA	600mA	650mA	700mA	/		
	输出电压	9-40Vdc	9-37Vdc	9-34Vdc	9-31Vdc	9-29Vdc			
	输出功率	4.5-20W	4.5-20.35W	4.5-20.4W	4.5-20.15W	4.5-19.95W			

尺寸图

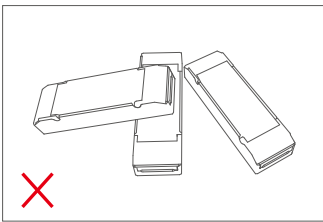
单位：mm



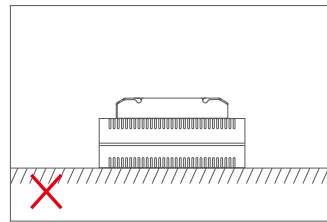
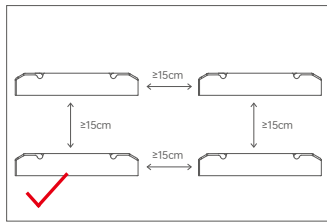
接线应用图



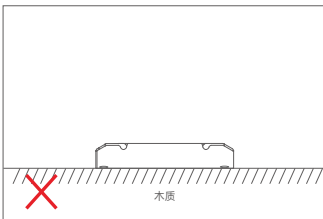
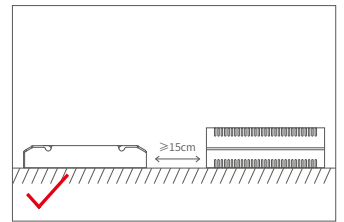
安装注意事项



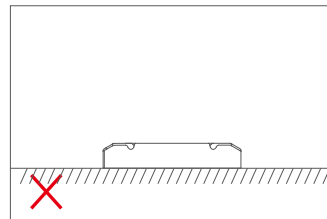
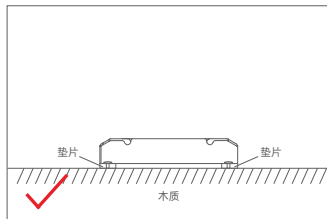
请勿将产品堆叠摆放，产品与产品间隔距离应 $\geq 15\text{cm}$ ，避免影响产品散热和使用寿命。



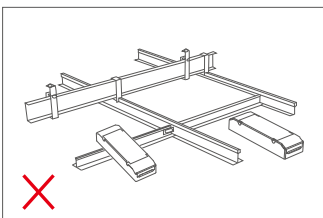
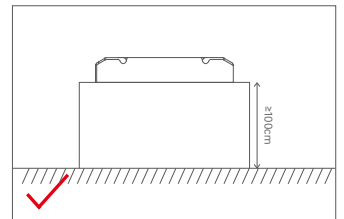
请勿将产品置于电源上方，产品与电源间隔距离应 $\geq 15\text{cm}$ ，避免影响产品散热而减少使用寿命。



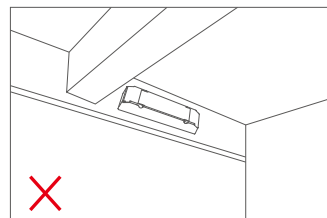
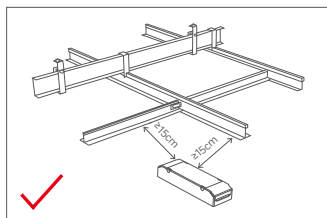
请勿将产品螺丝固定紧贴于木质，应在固定螺丝下增加 $\geq 7\text{mm}$ 的垫片，留点空隙可以有效散热，避免影响产品散热和使用寿命。



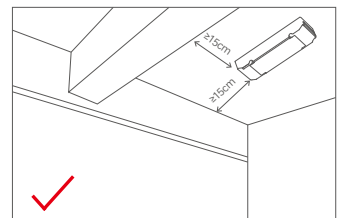
请勿将产品放置在地面上。产品与地面之间的距离应 $\geq 100\text{cm}$ ，以免信号干扰影响使用。



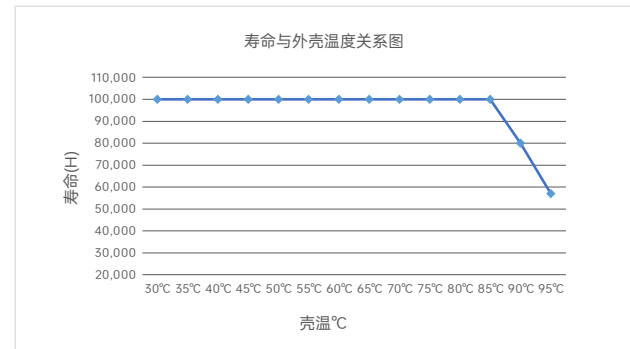
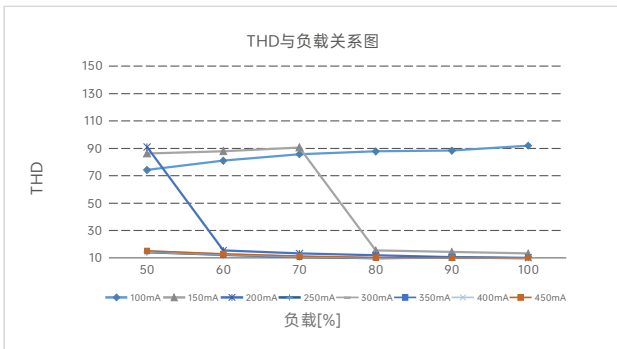
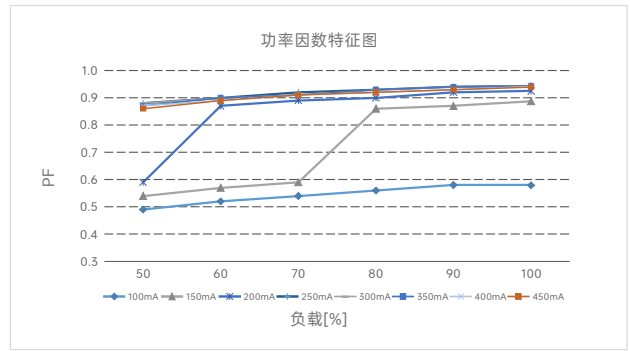
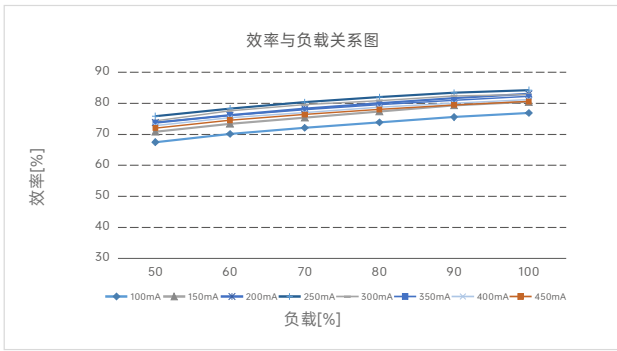
请勿将产品大面积接触金属物体(如: 龙骨架)，间隔距离应 $\geq 15\text{cm}$ ，以免信号干扰影响使用。



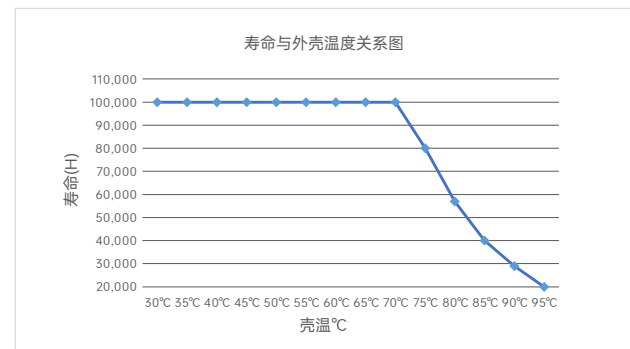
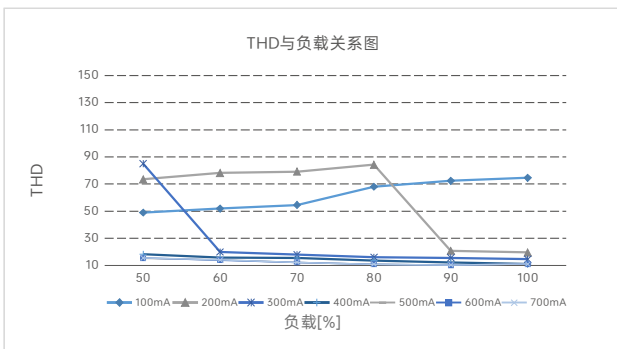
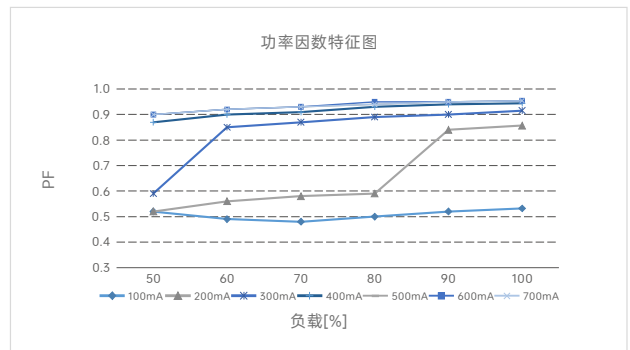
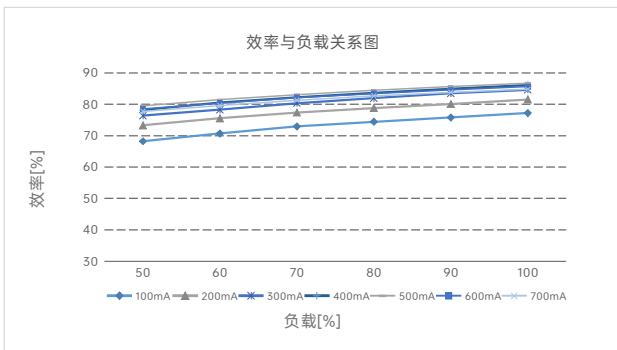
请勿将产品安装在横梁、墙角等位置，间隔距离应 $\geq 15\text{cm}$ ，以免信号干扰影响使用。



关系图表



LA-10-100-450-U1MA



LA-20-100-700-U1MA

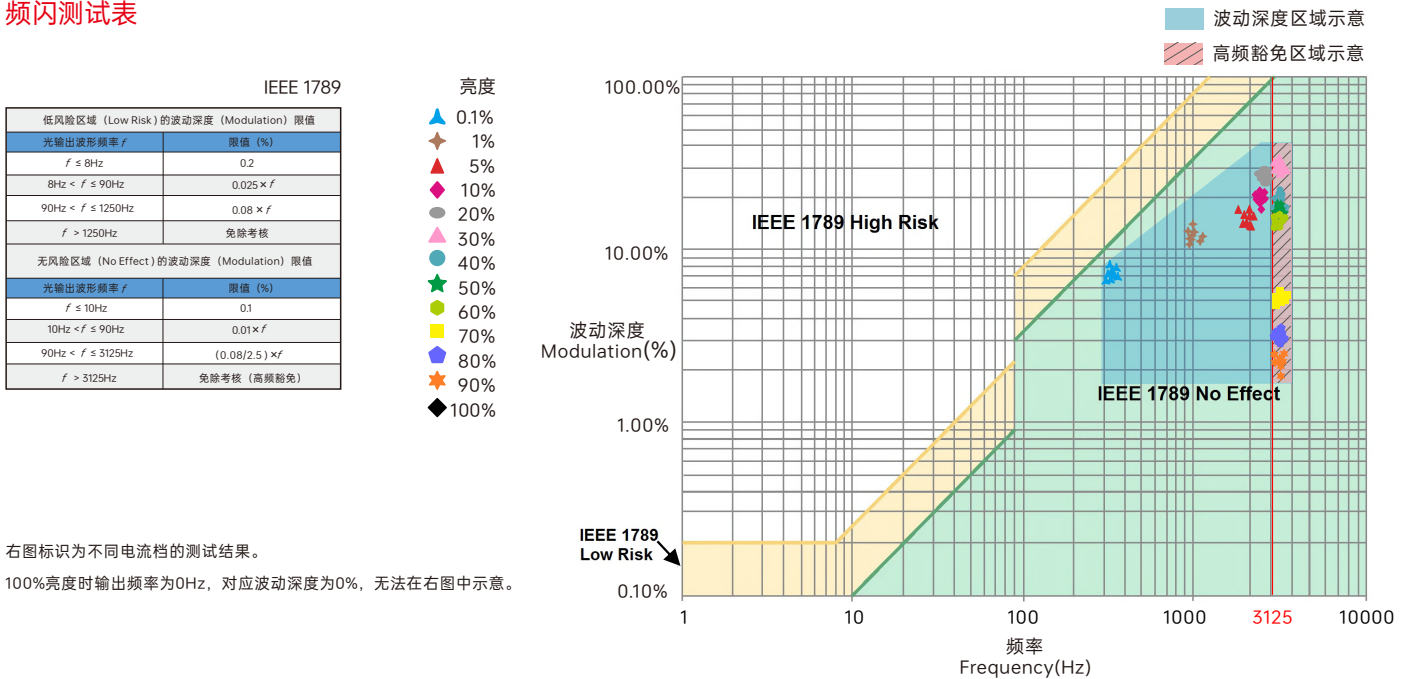
浪涌电流&对应的微型断路器(MCB)下挂载的数量对应表

微型断路器型号	B10	B13	B16	B20	B25	C10	C13	C16	C20	C25	D10	D13	D16	D20	D25
最大带载数量	20	26	32	40	50	23	30	37	47	58	27	34	42	53	66

备注:

1. 本数据测试条件: 冷启动, 15A(在50%peak下测试twidth=152us)/230V~
2. 对于不同品牌和型号的微型断路器, 驱动器的数量会有所不同;
3. 现场安装时建议不要超过上述数量, 具体负载量以现场安装为准;
4. 当微型断路器的安装环境温度超过30°C或多个微型断路器并排安装时, 安装的驱动器数量将减少, 这需要重新计算;
5. 电工通常考虑将B型MCB用于家用照明, 将C型MCB用于商业照明;
6. 不同仪器设备测试出来的电流峰值和脉冲宽度有差异, 请使用专业仪器设备测试;

频闪测试表



右图标识为不同电流档的测试结果。  
100%亮度时输出频率为0Hz, 对应波动深度为0%, 无法在右图中示意。

添加到Matter平台说明

1. 本设备支持各大主流智能家居平台控制, 包括Apple Home、Amazon Alexa、Google Home、SmartThings等。
2. 要连接Matter over Thread设备, 需要准备各大平台支持Thread边界路由功能的Matter中枢, 型号可以查看下图。

Apple HomePod (second-gen)	Aeotec SmartThings Smart Home Hub	Google Nest Hub (2nd Gen)	Amazon Echo (4th-gen)
Apple HomePod Mini	Samsung SmartThings Station	Google Nest Hub Max	Amazon Echo Hub
Apple TV 4K (2nd gen)	Samsung SmartThings Hub Dongle	Google Nest Wifi Pro	Amazon Echo Show 8 (3rd-gen)
Apple TV 4K (3rd gen, 128 GB)	Samsung SmartThings Hub v3	Google TV Streamer (4K)	Amazon Eero 6, Pro 6, 6 Plus, Max 7 etc.

3. 本说明书以Apple Home为例, 请先准备一台装有最新版本固件的 iPhone (iOS 16.2 或更高版本) 或 iPad (iPadOS 16.2 或更高版本), 以及一台装有最新版本固件的 Apple HomePod mini。然后将 iPhone 或 iPad 连接到您的家庭 WLAN 网络, 运行 Apple Home 应用程序并按照 Apple 的指示设置 HomePod mini。

\*如苹果手机型号是iphone 16及以上, 则无需Matter中枢, 可直接添加。

## 添加步骤（以苹果家庭为例）

### 1.添加配件

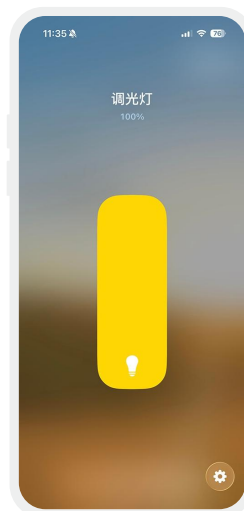
打开苹果“家庭”app，并点击“添加或扫描配件”，通过扫描设备上的二维码贴纸，将设备添加到“家庭”APP，如下图所示。

\*也可以通过NFC入网：打开“家庭”APP靠近设备的NFC感应区域，识别入网。



### 2.控制设备

成功添加设备后，点击设备图标进行开/关；点击设备卡片进入亮度控制界面。



### 3. 高级功能

支持创建组、场景、自动化、进行远程控制和定时控制，也可以通过Siri语音指令控制设备。



### 4. 多生态配网

如果产品需要加入到两个或者多个生态，可以进入设备设置页，点击“打开配对模式”，获取配对码并添加到第三方平台。



### 恢复出厂设置

确保设备已接灯且处于常亮状态下，使用开关让设备连续通断电6次(每次断电时间15秒，通电2秒)，第6次通电2秒后，灯具闪烁5次，即表示设备已恢复出厂设置状态。



## 搭配 NFC Lighting APP 使用

通过手机扫描下方二维码，按提示完成APP安装。

(因性能需求，要求手机型号苹果：iPhone 8及以上、且操作系统iOS13及以上； 安卓：具备NFC功能机型)



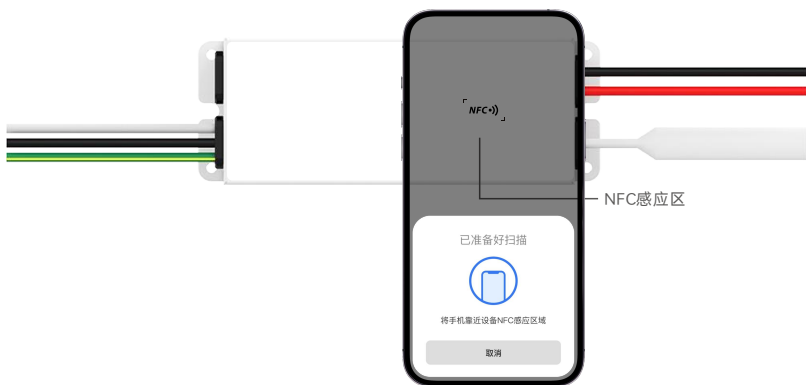
\* 设置驱动器参数时，必须在驱动器断电情况下进行操作。

## 读/写智能电源

使用手机，通过NFC读取驱动器信息，根据需求设置参数后，可直接写入驱动器。

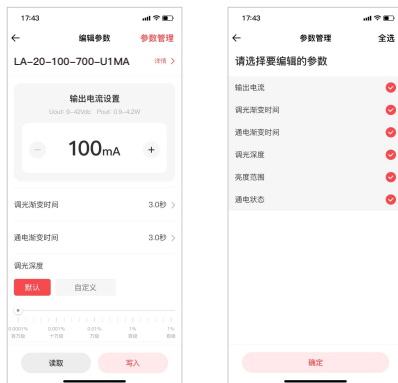
### 1. 读取驱动器

在APP“首页”点击【读/写智能电源】，将手机感应区域靠近驱动器NFC感应区，读取驱动器参数。



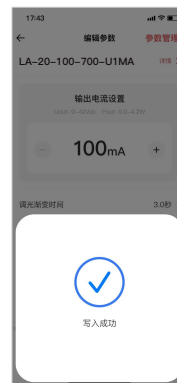
### 2. 编辑参数

点击【参数管理】可编辑输出电流、调光渐变时间、通电渐变时间、亮度范围、通电状态等更多高级参数。



### 3. 写入驱动器

参数设置完成后，点击【写入】，将手机感应区域靠近驱动器NFC感应区，即可写入驱动器成功修改参数。



## 包装规格

型号	LA-10-100-450-U1MA、LA-20-100-700-U1MA
包装盒尺寸	152×60×35mm (L×W×H)

## 包装样式图



内包装盒

## 常见问题

本产品遵循Matter协议标准设计，因该协议尚处行业发展初期，受当前版本限制，部分功能、性能及网络连接稳定性存在优化空间。产品表现以当前Matter协议版本为准，我司将随官方版本持续升级并优化产品功能与性能，敬请知悉。

- 1.Matter中枢网关管理的Matter数量多，导致连接不稳定，控制不稳定怎么办？
  - 1.1 建议每台中枢网关添加Matter设备不要超过40台；
  - 1.2 建议中枢网关保持常通电，否则设备重连时间较长；
  - 1.3 不同品牌，不同性能的路由器对Matter中枢管理的设备数量有一定的影响，建议选择性能强大的路由器。
- 2.群组控制开关，调光出现丢包，app出现状态来回跳动清空怎么办？  
建议群组数量控制在10台以内。
- 3.长时间不控制设备，设备掉线，无法恢复怎么办？  
建议设备断上电重新连接。
- 4.设备恢复出厂设置后，依旧添加设备失败怎么办？  
建议断上电后再添加设备。
- 5.常见的路由器原因导致添加设备失败的原因。
  - 5.1 路由器需要开启IPV6选项；
  - 5.2 路由器需要关闭“防暴力破解网络”选项；
  - 5.3 不要连接“访客模式”下的WiFi，需要连接主WiFi。

## 运输和贮存

### 1.运输

产品适用车、船、飞机交通运输工具运输。

在运输中，应使用遮蓬进行防雨和防晒，并保持文明装卸，不应有剧烈振动、撞击等。

### 2.贮存

贮存符合I类环境的规定。贮存期限超过6个月的产品建议重新检验，合格后方可使用。

## 注意事项

- 请由具有专业资格的人员进行调试安装。
- 雷特产品（专有型号除外）不能防水，需避免日晒雨淋，如安装在户外，请用防水箱和防雷装置。
- 良好的散热条件会延长产品的使用寿命，请把产品安装在通风良好的环境。
- 请检查使用的工作电压是否符合产品的参数要求。
- 使用的电线直径大小必须能够负载连接的LED灯具，并确保接线牢固。
- 通电调试前，应确保所有接线正确，以避免因接线错误而导致灯具损坏。
- 如果发生故障，请勿私自维修；如有疑问，请联系供应商。

\* 本说明书的内容如有变更，恕不另行通知。若内容与您使用的功能有所不同，则以实物为准。如有疑问，请与供应商联系。

## 保修条例

- 自出厂之日起保修服务期为5年。
- 在保修服务期内出现产品质量问题雷特科技将给予免费修理或更换服务。

非保修条例：

属下列情况不在免费保修或更换服务范围之内：

- 已经超出保修服务期；
- 过高电压、超负载、操作不当等人为造成的损坏；
- 产品外形严重损坏或变形；
- 自然灾害以及人力不可抗拒原因造成的损坏；
- 产品保修标签和产品唯一条形码损坏；
- 无雷特科技签订的合同或发票凭证。

1. 修理或更换是雷特科技对客户唯一补救措施。雷特科技不承担任何附带引起的损害赔偿，除非在适用法律范围之内。
2. 雷特科技享有修正或调整本保修条款的权利，并以书面形式发布为准。