Intelligent 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, DMX address and other parameters via the APP.
- Adjustable output current with 1mA step.
- Support RDM protocol.
- Soft-on and fade-in dimming function enhances your visual comfort.
- T-PWM™ super deep dimming technol ogy, 0.01% dimming depth.
- The whole dimming process is flicker-free with high frequency exemption level.
- Comply with the EU's ErP Directive, networked standby<0.5W.
- 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).

RDM
DMX

DIM

T-PWM
Dimming Technology

Flicker Free
IEEE 1789

Dimmable:
1:10000

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

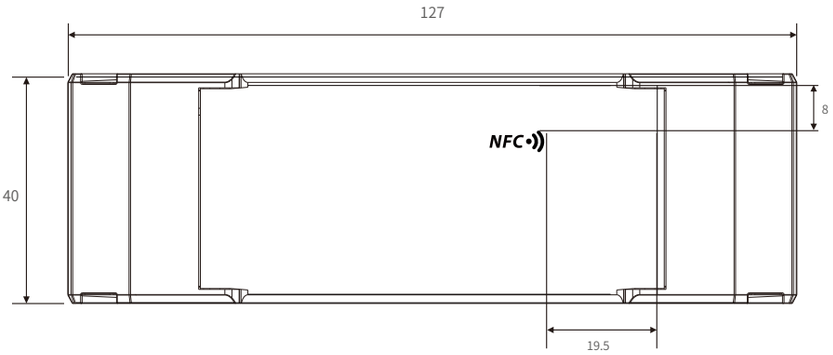
Multi current setting | Overheat Protection | Over voltage protection | Over Load protection | Short circuit protection

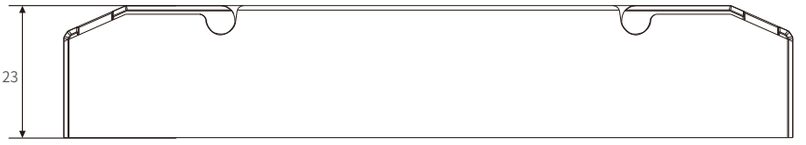
Technical Specs

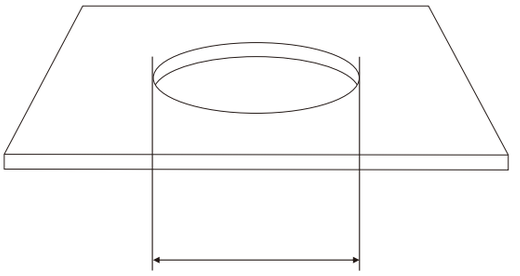
Model		SE-20-100-700-W1M		
Features	Output Type	Constant current		
	Dimming Interface	DMX512/RDM		
	Output Feature	Isolation		
	Protection Grade	IP20		
	Insulation Grade	Class II (Suitable for class I/ II /III light fixtures)		
OUTPUT	Output Voltage	9-42Vdc		
	Maximum output voltage	≤48Vdc		
	Output Current Range	100-700mA		
	Output Power Range	0.9W-20W		
	Dimming Range	0~100%, down to 0.01%		
	LF Current Ripple	<3%(Maximum current for non dimming state)		
	Current Accuracy	±5%		
	PWM Frequency	≤3600Hz		
INPUT	DC Voltage Range	100-240Vdc		
	AC Voltage Range	100-240Vac		
	DC Current Range	0.09-0.25A		
	Input Voltage	115Vac/230Vac		
	Frequency	50/60Hz		
	Input Current	≤0.25A/115Vac, ≤0.13A/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.)	84%@700mA (at full load),87%@500mA (at full load)		
	Inrush Current	Cold start 15A(Test twidth=102us tested under 50% Ipeak)/230Vac		
	Anti Surge	L-N: 2KV		
	Leakage Current	Max. 0.24mA		
ENVIRONMENT	Working Temperature	ta: -20 ~ 50°C tc: 80°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
		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.)	105g±10g		
	Dimensions	127×40×23mm(L×W×H)		

Product Size

Unit：mm



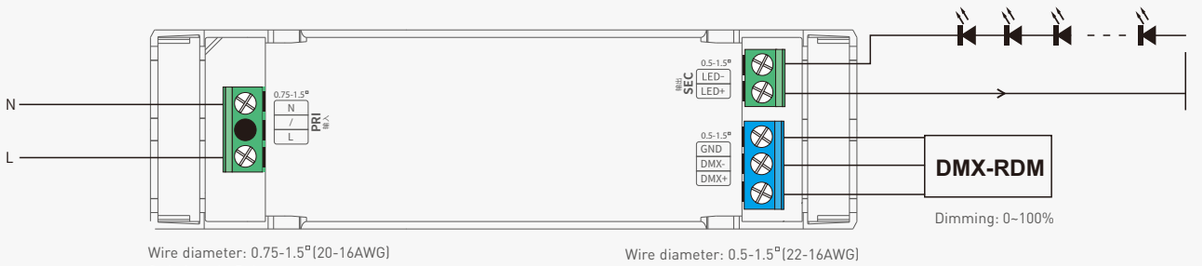




Minimum hole size: φ48mm (1,89")

Wiring Diagram

DMX/RDM Connection



Wire diameter: 0.75-1.5²(20-16AWG)
Strip length: 5-6mm

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

Dimming: 0~100%

Table of Typical Corresponding Parameters for Current

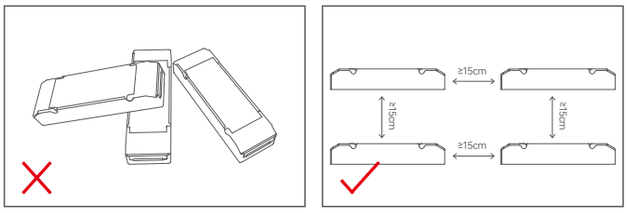
The typical 13 current data sets below are for reference when selecting LED fixture models. More current levels can be set by NFC using mobile APP with 100-700mA adjustable in 1mA step							
Output Current	**100mA**	**150mA**	**200mA**	**250mA**	**300mA**	**350mA**	**400mA**
Output Voltage	9-42Vdc	9-42Vdc	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
Output Current	**450mA**	**500mA**	**550mA**	**600mA**	**650mA**	**700mA**	/
Output Voltage	9-42Vdc	9-40Vdc	9-37Vdc	9-34Vdc	9-31Vdc	9-28.5Vdc	/
Output Power	4.05-18.9W	4.5-20W	4.95-20.35W	5.4-20.4W	5.85-20.15W	6.3-19.95W	/

Application Diagram of Protective Cover

1. Put the head of a screwdriver on the side of the housing to pry up both the protective cover and wire fixing board. Then remove the wire fixing board and connect to the wires as wiring diagram shows.

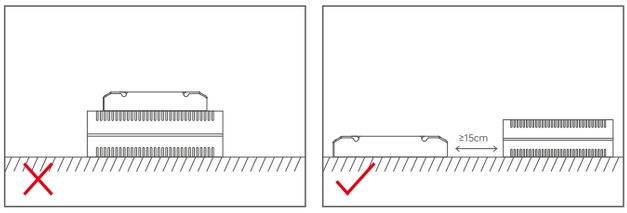
2. Install the wire fixing board and press it down. Then snap on the protective cover while pressing the wire fixing board with a small flat-head screwdriver

Installation Precautions

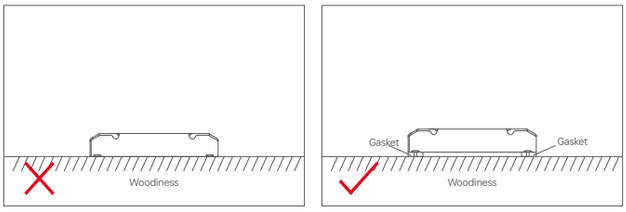


Please do not stack the products. The distance between two products should be ≥15cm so as not to affect heat dissipation and the lifespan of the products.

Note: The installation should be in line with the environmental operating temperature of the product. Do not install it inside the lamp to avoid exceeding the environmental operating temperature of the product, which may affect the product's lifespan.



Please not place the products on LED drivers. The distance between the product and the driver should be ≥15cm so as not to affect heat dissipation and shorten the lifespan of the products.



Do not fix the product screws tightly against the wooden board. Instead, add a washer with a thickness of ≥ 7mm under the fixing screws. Leaving some gaps can effectively dissipate heat, preventing any impact on the product's heat dissipation performance and service life.

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).

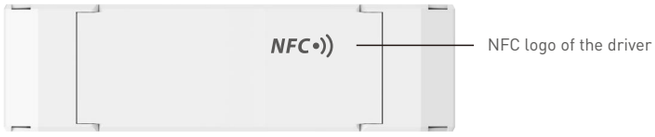
∗ Before you begin setting the parameters of the driver, please make sure the driver is powered off.

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 logo of the driver to read the driver parameters.

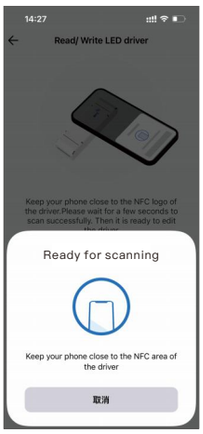


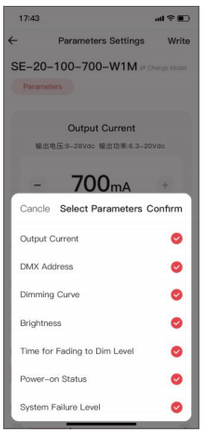
2. Edit the parameters

Click【Parameter settings】to edit the advanced parameters, like output current, DMX address, brightness range, power-on fading time, etc.

3. Write to the driver

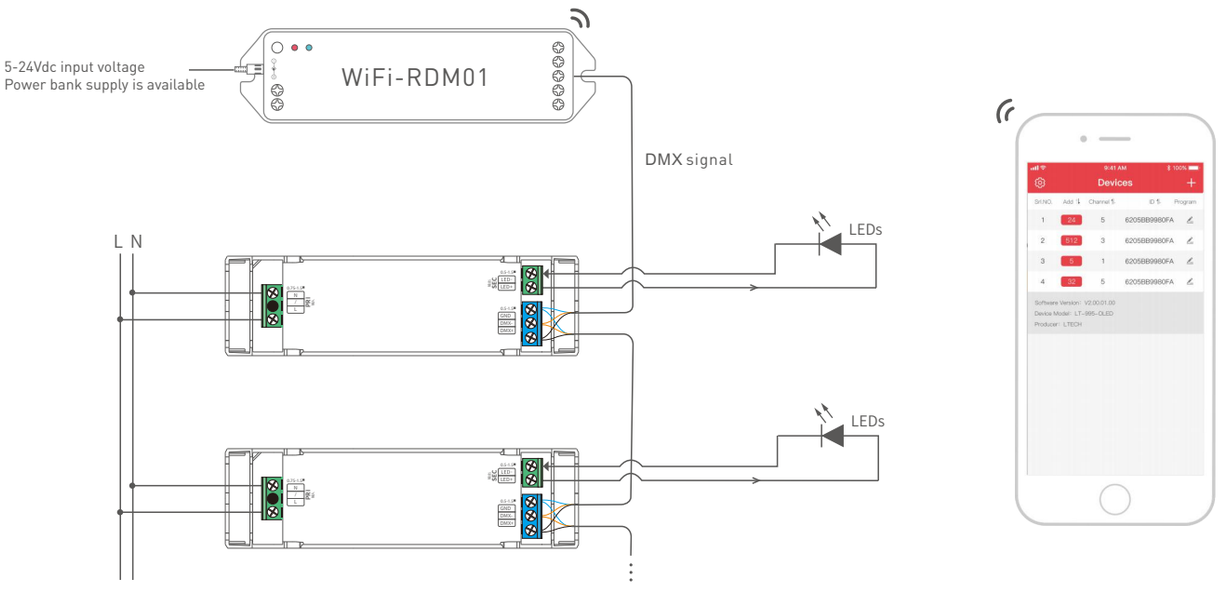
After completing the parameter settings, click 【Write】 in the upper right corner, and keep the programmer's sensing area close to the NFC logo of the driver, so the parameters can be written to the driver.





Use with RDM Editor

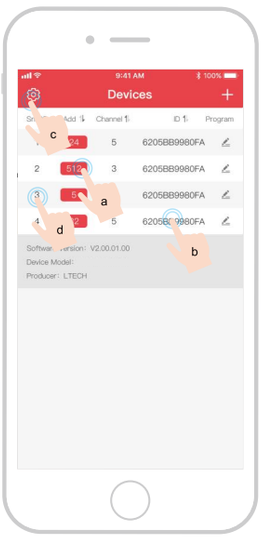
The DMX driver can work with the address editor that complies with standard RDM protocol.
It is recommended to use LTECH's RDM editor (model WiFi-RDM01), which can achieve more functions such as remote browsing and parameter setting. Wiring diagram as below:

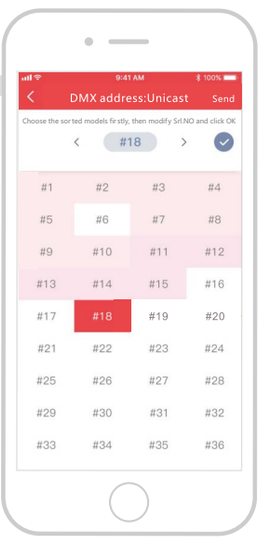


✻ the defaulted DMX address of the driver is 1.

RDM editor App interface instruction

Download the App, setting the parameters after well connecting the RDM editor, please check the manual of WiFi-RDM01 for more details.



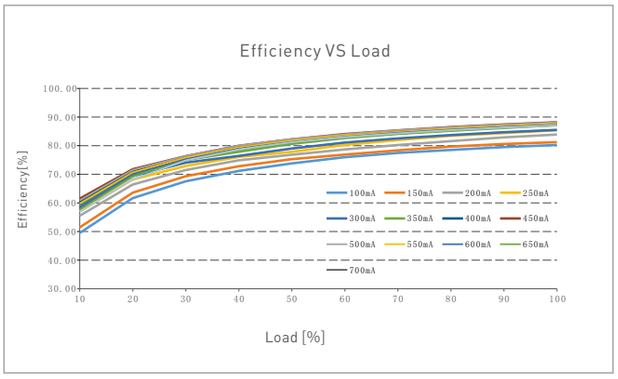


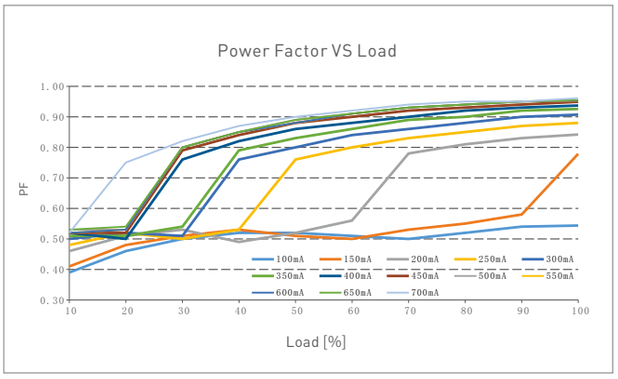
a: Click "Add", edited the address in corresponding box.
b: Click "ID", get more product details.
c: Click " ⚙ ", enter setting interface.
d: Click "No.", issue the recognizing command.

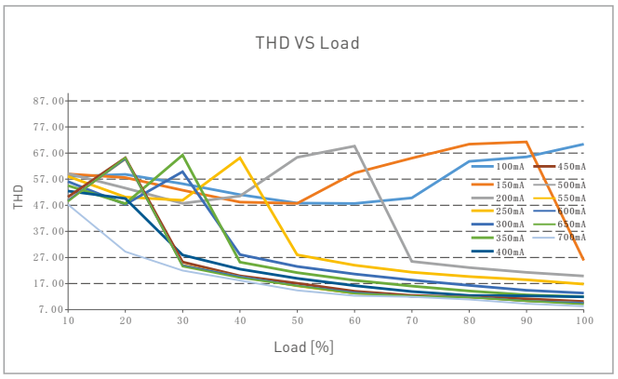
Test

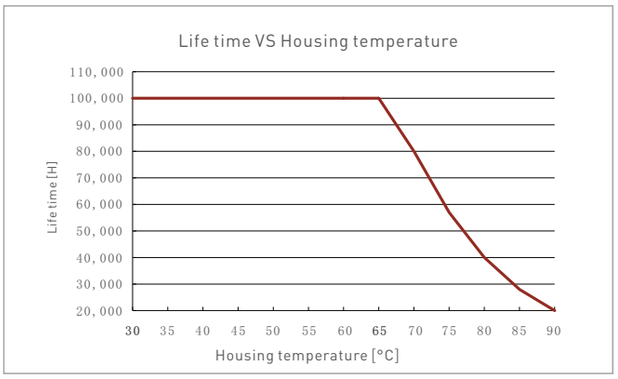
DMX address setting

Relationship Diagrams









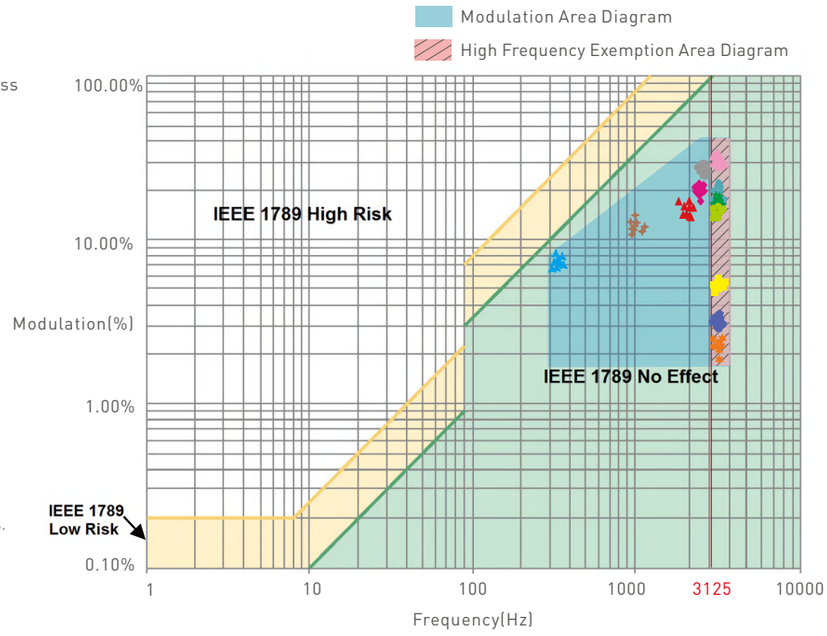
SE-20-100-700-W1M

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.

Packaging Specifications

Model	SE-20-100-700-W1M
Carton Dimensions	372×355×105mm(L×W×H)
Quantity	32 PCS/Layer; 2 Layers/Carton; 64 PCS/Carton
Weight	0.11 kg/PC; 7.4 kg±5%/Carton

Packaging Image

Inner Packaging Box

Carton Packaging

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.

Update Log

Version	Updated Time	Update Content	Updated by
A0	11/09/2023	Original version	Yang Weiling
A1	08/07/2025	Replace the logo; update the laser engraving and company address	Shaoyun He

LED智能调光驱动器(恒流型)

- 外壳采用科思创/三星PC阻燃V0级原料
- 超小体积、轻薄、免螺丝端盖设计
- 通过手机APP可更改输出电流、DMX地址等参数，实现驱动器数据交互功能
- 电流步进值低至1mA，兼容性更高更精细
- 支持RDM远程设备管理协议
- 带软启动渐亮功能，让人眼视觉更舒服
- T-PWM™ 超深度调光技术，调光深度达到0.01%
- 0-100%全程调光无可视频闪, 高频豁免考核级别
- 欧盟ERP空载功耗、网络待机功耗＜0.5W
- 空载保护，防止接触不良损坏LED灯具
- 过温、过载、短路保护，可自动恢复
- 适合室内Ⅰ、Ⅱ、Ⅲ类灯具应用
- 常规使用下寿命可达10万小时
- 5年保修期（采用红宝石电容）

RDM
DMX

调光

T-PWM
超深度调光技术

无频闪
IEEE1789
高频豁免考核级别

Dimmable:
1:10000

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。

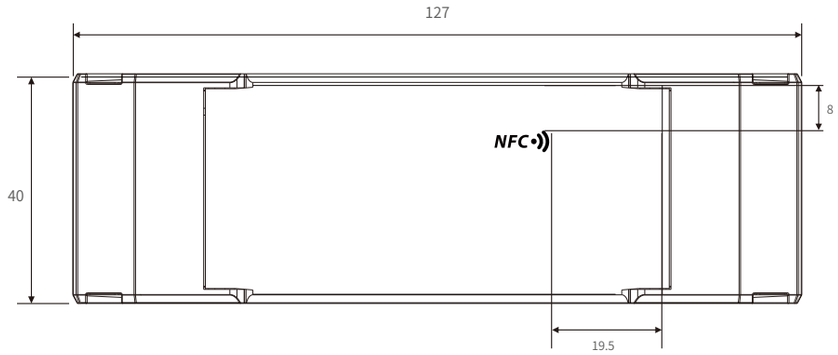
多电流设置　过温保护　过压保护　过载保护　短路保护

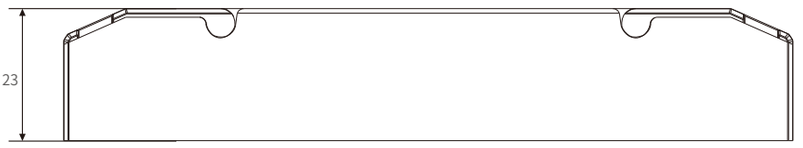
技术参数

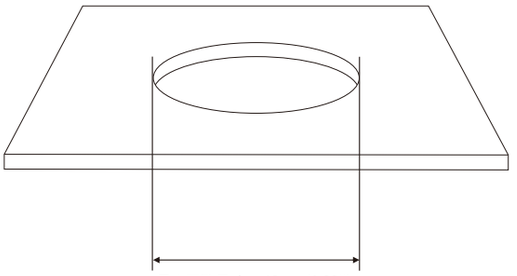
型号		SE-20-100-700-W1M		
特征	输出类型	恒流		
	调光接口	DMX512/RDM		
	输出特征	隔离		
	防护等级	IP20		
	绝缘等级	II类(适用于室内Ⅰ、Ⅱ、Ⅲ类灯具)		
输出	输出电压	9-42Vdc		
	最大输出电压	≤48Vdc		
	工作电流范围	100-700mA		
	负载功率范围	0.9W~20W		
	调光范围	0~100%，调光深度:0.01%		
	电流纹波	<3%(输出最大电流非调光状态)		
	电流精度	±5%		
	PWM频率	≤3600Hz		
输入	直流电压范围	100-240Vdc		
	交流电压范围	100-240Vac		
	直流电流范围	0.09-0.25A		
	额定电压	115Vac/230Vac		
	频率范围	50/60Hz		
	输入电流	≤0.25A/115Vac, ≤0.13A/230Vac		
	功率因数	PF>0.95/115Vac(满载) PF>0.9C/230Vac(满载)		
	谐波THD	THD≤10%/230Vac(满载)		
	效率(Typ.)	84%@700mA(满载) , 87%@500mA(满载)		
	浪涌电流	冷启动,15A(在50%Ipeak下测twidth=102us)@230Vac		
	抗浪涌	L-N:2KV		
	漏电流	Max.0.24mA		
环境	工作温度	ta:-20~50°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	±0.03%/°C(0-50°C)		
	耐振动	10-500HZ,2G12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≥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(≥110°C)，智能调节电流输出或关闭，可自动恢复		
	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：3750Vac		
	绝缘阻抗	输入对输出：100MΩ/500VDC/25°C/70%RH		
	安全规范	CCC	中国	GB19510.1, GB19510.14
		TUV	德国	EN61347-1, EN61347-2-13, EN62493
		CB	CB成员国	IEC61347-1, IEC61347-2-13
		CE	欧盟	EN61347-1, EN61347-2-13, EN62384
		KC	韩国	KC61347-1, KC61347-2-13
		EAC	俄罗斯	IEC61347-1, IEC61347-2-13
		RCM	澳洲	AS 61347-1, AS 61347-2-13
		ENEC	欧洲	EN61347-1, EN61347-2-13, EN62384
		UKCA	英国	BS EN 61347-1，BS EN 61347-2-13，BS EN 62493
		CUL	加拿大	CSA C22.2 No.250.13
		UL	美国	UL 8750
	电磁兼容发射	CCC	中国	GB/T17743, GB17625.1
		CE	欧盟	EN55015, EN61000-3-2, EN61000-3-3, EN61547
		KC	韩国	KSC 9815, KSC 9547
		EAC	俄罗斯	IEC62493, IEC61547, EH55015
		RCM	澳洲	EN55015, EN61000-3-2, EN61000-3-3, EN61547
		UKCA	英国	BS EN IEC 55015，BS EN IEC 61000-3-2，BS EN 61000-3-3，BS EN 61547
		CUL	加拿大	ICES-005
		UL	美国	FCC part 15B
	电磁兼容抗扰度	EN61000-4-2,3,4,5,6,8,11,EN61547		
ErP	功耗	网络待机功耗	＜0.5W（通过指令关机后）	
		空载功耗	＜0.5W（不接灯具时）	
	频闪/频闪效应	IEEE1789	满足无影响/高频豁免考核级别	
		CIESVM	PstLM≤1.0, SVM≤0.4	
	DF	相位因素	DF≥0.9	
其他	产品重量	105g±10g		
	产品尺寸	127×40×23mm(L×W×H)		

尺寸图

单位:mm



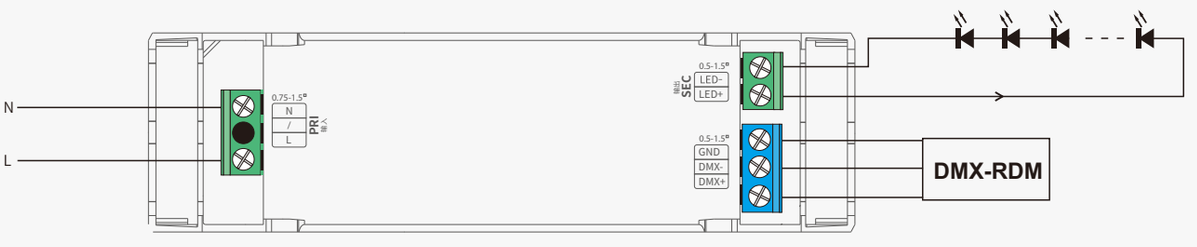




最小开孔尺寸:ϕ48mm(1.89'')

连接应用图

DMX-RDM 连接方式



调光: 0~100%

线径: 0.75-1.5² (20-16AWG)
剥线长度: 5-6mm

线径: 0.5-1.5² (22-16AWG)
剥线长度: 5-6mm

典型电流对应参数表

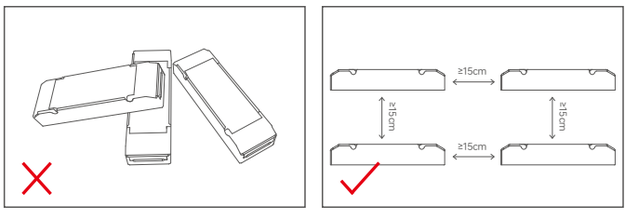
下图典型13组电流数据供选型参考，均可通过手机APP NFC设置更多电流，可设置范围在100-700mA，电流步进值低至1mA							
输出电流	**100mA**	**150mA**	**200mA**	**250mA**	**300mA**	**350mA**	**400mA**
输出电压	9-42Vdc	9-42Vdc	9-42Vdc	9-42Vdc	9-42Vdc	9-42Vdc	9-42Vdc
输出功率	0.9-4.2W	1.35-6.3W	1.8-8.4W	2.25-10.5W	2.7-12.6W	3.15-14.7W	3.6-16.8W
输出电流	**450mA**	**500mA**	**550mA**	**600mA**	**650mA**	**700mA**	/
输出电压	9-42Vdc	9-40Vdc	9-37Vdc	9-34Vdc	9-31Vdc	9-28.5Vdc	/
输出功率	4.05-18.9W	4.5-20W	4.95-20.35W	5.4-20.4W	5.85-20.15W	6.3-19.95W	/

保护盖应用图

1. 在侧板处使用螺丝批撬起保护盖，并撬起压线板将其拆下后，按照接线图进行接线。

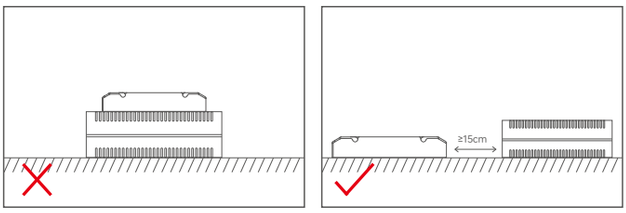
2. 装上压线板并向下按压，使用小一字螺丝批按住压线板的同时，将保护盖向下扣合即可。

安装注意事项

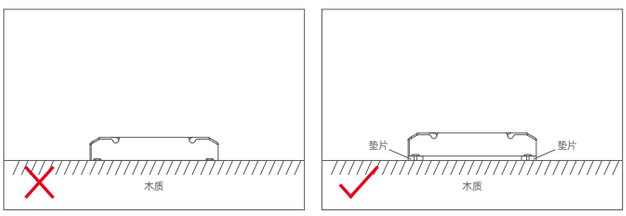


请勿将产品堆叠摆放，产品与产品间隔距离应≥15cm，
避免影响产品散热和使用寿命。

注：安装需符合产品的环境工作温度，切勿安装到灯具内部，
以免超出产品环境工作温度影响产品寿命。



请勿将产品置于电源上方，与电源间隔距离应≥15cm，
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板，应在固定螺丝下增加≥7mm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。

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

＊ 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

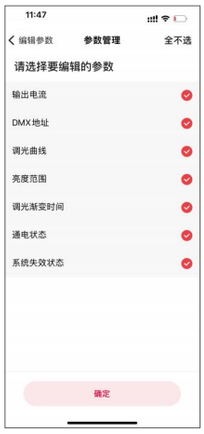
在APP “首页” 点击【读/写智能电源】，将手机感应区域靠近驱动器NFC感应区，读取驱动器参数。

2. 编辑参数

点击【参数管理】可编辑输出电流、DMX地址、亮度范围、通电渐变时间等更多高级参数。

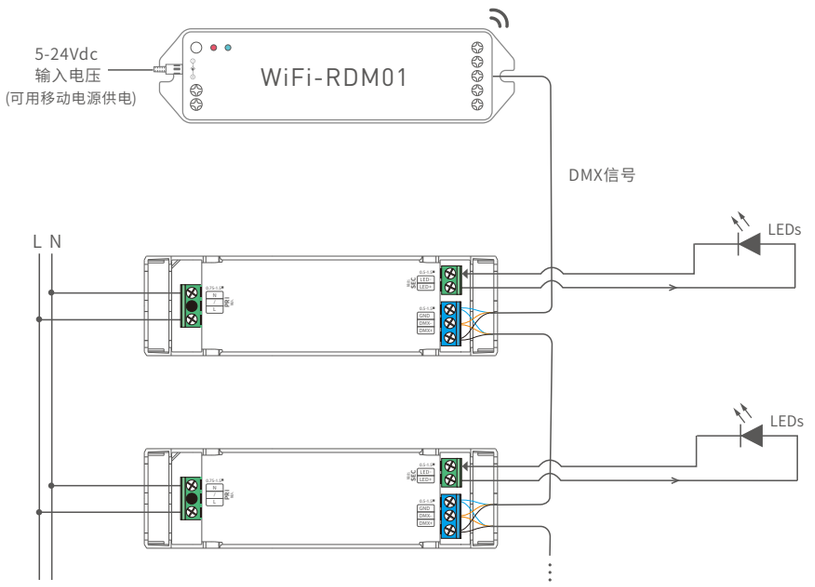
3. 写入驱动器

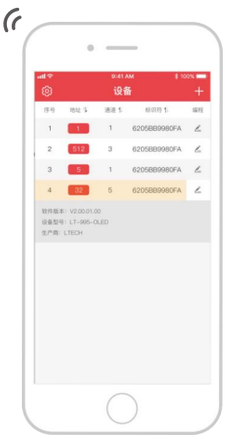
参数设置完成后， 点击右上角【写入】， 将手机感应区域靠近驱动器NFC标识点， 即可写入驱动器成功修改参数。



搭配RDM编辑器使用

DMX电源可以与遵从标准RDM协议的地址编辑器配合使用。
建议使用LTECH的RDM编辑器（型号WiFi-RDM01），可实现手机远程浏览与设置参数等更多功能，连接图如下：

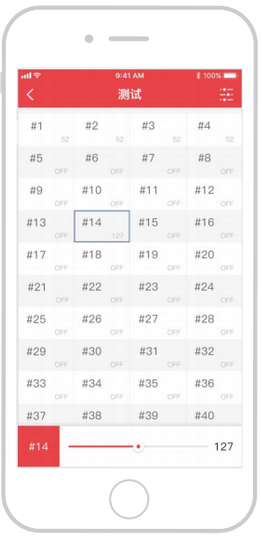


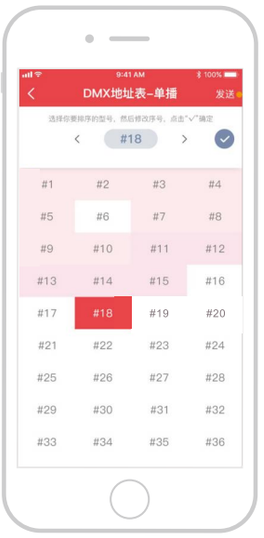


＊ 电源出厂DMX地址默认为1

RDM编程器APP界面介绍

手机下载APP，与RDM编辑器连接成功后，即可通过APP设置参数，具体请参看WiFi-RDM01的使用说明书。



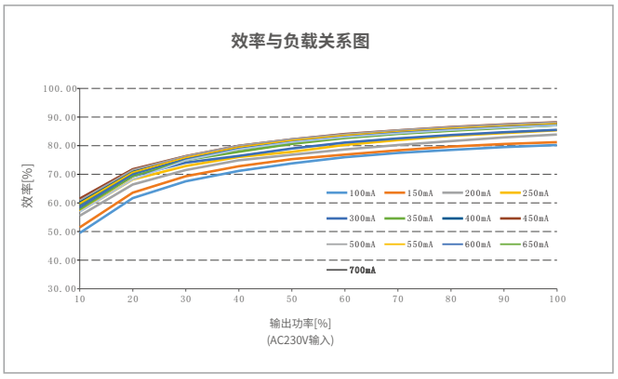


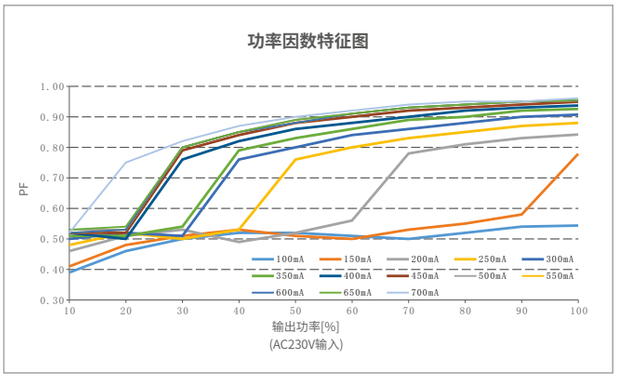
a：点击“地址”对应方框可编辑地址；
b：点击“标识符”出现产品详细信息；
c：点击 ⚙ 按钮，进入设置界面
d：点击序号发出识别命令。

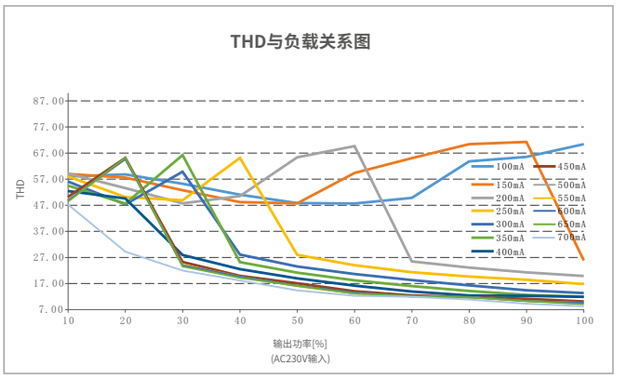
测试

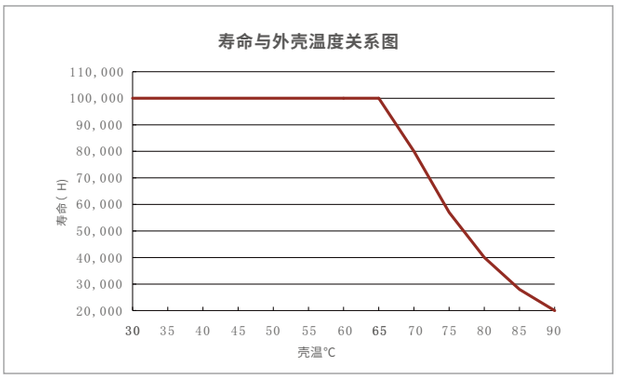
DMX地址设置

关系图表









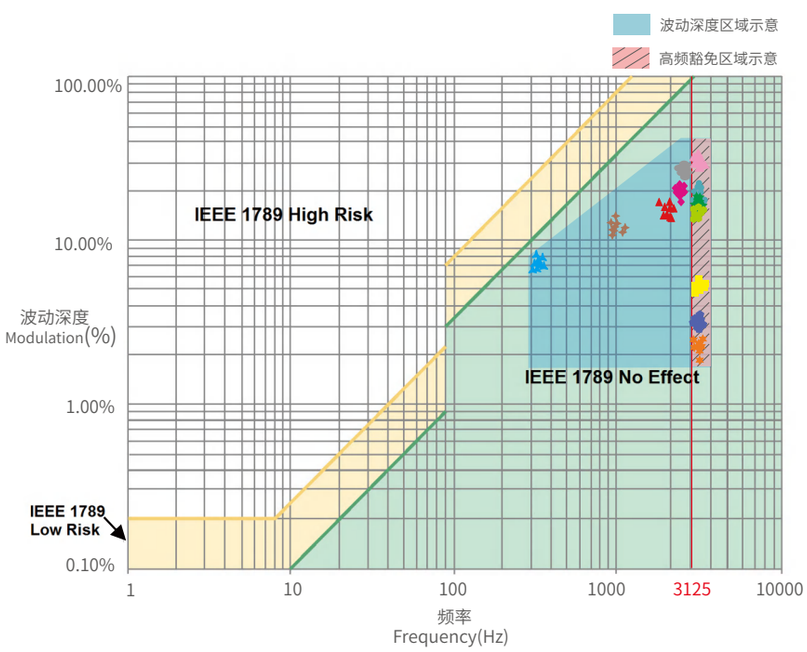
SE-20-100-700-W1M

频闪测试表

IEEE1789

低风险区域(LowRisk)的波动深度(Modulation)限值	
光输出波形频率 f	限值(%)
f ≤8Hz	0.2
8Hz< f ≤90Hz	0.025× f
90Hz< f ≤1250Hz	0.08× f
f >1250Hz	免除考核
无风险区域(NoEffect)的波动深度(Modulation)限值	
光输出波形频率 f	限值(%)
f ≤10Hz	0.1
10Hz< f ≤90Hz	0.01× f
90Hz< f ≤3125Hz	(0.08/2.5)× f
f >3125Hz	免除考核(高频豁免)

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



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。

包装规格

型号	SE-20-100-700-W1M
包装箱尺寸	372×355×105mm(L×W×H)
数量	32PCS/层;2层/箱; 64PCS/箱
重量	0.11kg/PC;7.4kg±5%/箱

包装样式图

内包装盒

整箱包装

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

- 本产品请由具有专业资格的人员进行调试安装；
- 本产品(专有型号除外)不能防水，需避免日晒雨淋。如安装在户外，请使用防水箱；
- 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；
- 安装时，避免靠近大面积金属物体，或堆叠摆放，以免信号干扰影响使用；
- 避免安装在雷区、强磁场和高压区域；
- 请检查使用的工作电压是否符合产品的参数要求；
- 通电调试前，确保所有接线正确且牢固，以免短路损坏部件，触发事故；
- 如果发生故障，请勿私自维修；如果有疑问，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，欢迎向我司授权的经销商咨询。

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;
- 无雷特签订的合同或发票凭证。

1.修理或更换是雷特对客户的唯一补救措施。雷特不承担任何附带引起的损害赔偿责任,除非在适用法律范围之内。

2.雷特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。

更新日志

版本	更改日期	更改内容	更改人
A0	20230815	正稿	杨魏玲
A1	20250807	更换logo；更新镭雕和公司地址	何少云