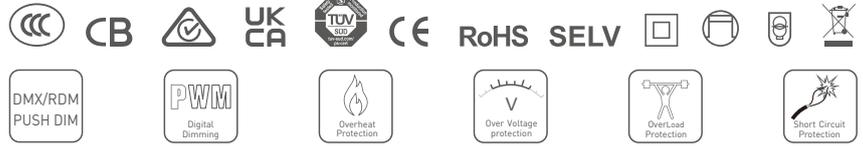# Intelligent LED Driver (Constant Voltage)

- Small size and light weight. The housing is made from V0 flame retardant PC materials from SAMSUNG/COVESTRO.
- The clamshell design and screwless type for strain-relief. The design of dismountable end cap allows you to adjust the length of housing depending on your needs.
- With soft-on and fade-in dimming function, enhancing your visual comfort.
- Dimming from 0~100%, down to 0.1%.
- High frequency exemption level.
- Support RDM protocol.
- Comply with the EU's ErP Directive, standby power consumption < 0.5W.
- Innovative thermal management technology intelligently protects the life of the LED driver.
- Overheat, over voltage , overload, short circuit protection and automatic recovery.
- Suitable for Class Ⅰ/Ⅱ/Ⅲ indoor light fixtures.
- 5-year warranty (Rubycon capacitor).

RDM ← DMX →

Flicker-Free
IEEE 1789
Achieve the exemption level.

Dimmable:
1:1000

CCC   CB   RCM   UKCA   TUV   CE   RoHS   SELV

DMX/RDM PUSH DIM | PWM Digital Dimming | Overheat Protection | Over Voltage protection | OverLoad Protection | Short Circuit Protection

Specification

Model		LM-75-12-G1M2	LM-75-24-G1M2	LM-100-24-G1M2
OUTPUT	Output Voltage	12Vdc	24Vdc	
	Output Voltage Range	12Vdc ±0.5Vdc	24Vdc ±0.5Vdc	
	Output Current	Max. 6.25A	Max. 3.125A	Max. 4.17A
	Output Power	Max. 75W		Max. 100W
	Output Power Range	0~75W		0~100W
	Strobe Level	High frequency exemption level.		
	Dimming Range	0~100%, dimming depth: Max. 0.1%		
	Overload Power Limitation	≥102%		
	Ripple & Noise	≤200mV	≤300mV	
	PWM Frequency	3600Hz		
INPUT	Dimming Interface	DMX/RDM, Push DIM		
	Input Voltage	220-240Vac		
	Frequency	50/60Hz		
	Input Current	Max. 0.4A/230Vac		Max. 0.5A/230Vac
	Power Factor	PF>0.97/230Vac, at full load		PF>0.98/230Vac, at full load
	THD	≤14% at 230Vac, at full load		≤12% at 230Vac, at full load
	Efficiency (typ.)	91%	92%	93%
	Inrush Current(typ.)	Cold start 30A at 230Vac		Cold start 45A at 230Vac
	Control surge capability	L-N:2KV		
	Leakage Current	Max. 0.5mA		
ENVIRONMENT	Working Temperature	ta: -20°C ~ 50°C tc: 80°C		
	Working Humidity	20 ~ 95%RH, non-condensing		
	Storage Temp., Humidity	-40°C ~ 80°C, 10~95%RH		
	Temp. Coefficient	±0.03%/°C (0-50°C)		
	Vibration	10~500Hz, 2G 12min./1cycle, period for 72min. each along X, Y, Z axes		
PROTECTION	Over-heat Protection	Intelligently adjusting or turning off the output current if the PCB temperature ≥110°C, auto recovers		
	Over Voltage Protection	Shut down the output when non-load voltage ≥13V, re-power on to recover after fault condition is removed	Shut down the output when non-load voltage≥26V, re-power on to recover after fault condition is removed	
	Over Load Protection	Shut down the output when current load≥102%, auto recovers.		
	Short Circuit Protection	Shut down automatically if short circuit occurs, auto recovers.		
SAFETY & EMC	Withstand Voltage	I/P-O/P: 3750Vac		
	Isolation Resistance	I/P-O/P: 100MΩ/500VDC/25°C/70%RH		
	Safety Standards	CCC	China	GB19510.1, GB19510.14
		CB	CB member states	IEC61347-1, IEC61347-2-13
		RCM	Australia	AS 61347-1, AS 61347-2-13
		UKCA	Britain	BS EN 61347-2-13:2014+A1:2017, BS EN 61347-1:2015+A1:2021
		TUV	Germany	EN61347-1, EN61347-2-13, EN62493
		CE	European Union	EN61347-1, EN61347-2-13, EN62384
	EMC Emission	CCC	China	GB/T17743, GB17625.1
		RCM	Australia	EN55015, EN61000-3-2, EN61000-3-3, EN61547
		UKCA	Britain	BS EN IEC 55015:2019/A11:2020, BS EN 61547:2009, BS EN IEC 61000-3-2:2019, BS EN 61000-3-3:2013/A1:2019
		CE	European Union	EN55015, EN61000-3-2, EN61000-3-3, EN61547
	EMC Immunity	EN61000-4-2,3,4,5,6,8,11 EN61547		
	Strobe Test Standard	IEEE 1789		
OTHERS	Dimension	293×43×30mm(L×W×H)		
	Packing	296×44×33mm(L×W×H)		
	Weight(G.W.)	300g±10g		

✳ The driver is suitable for connecting resistor current-limiting LED fixture (e.g. LED strip). The inrush current will be dozens of times increased if connecting built-in constant current IC current-limiting LED fixtures, the driver will activate the overloaded protection (hiccups flickering). When you order, please remark controlling the constant current LED fixture (e.g. MR16 lamp, underground light, LED wall washer, constant current LED strip, etc.), then we can prepare the special programs.
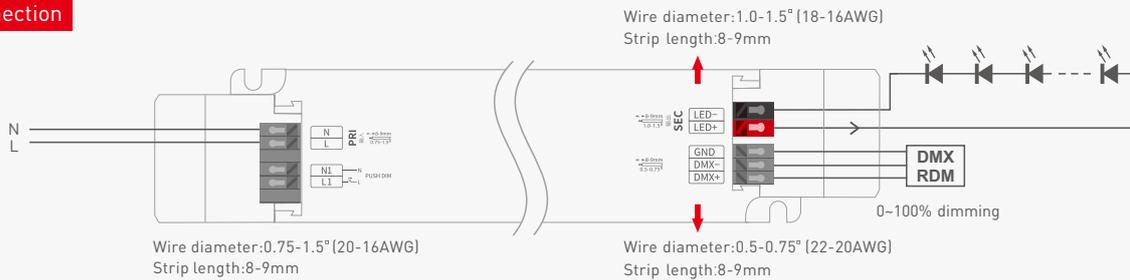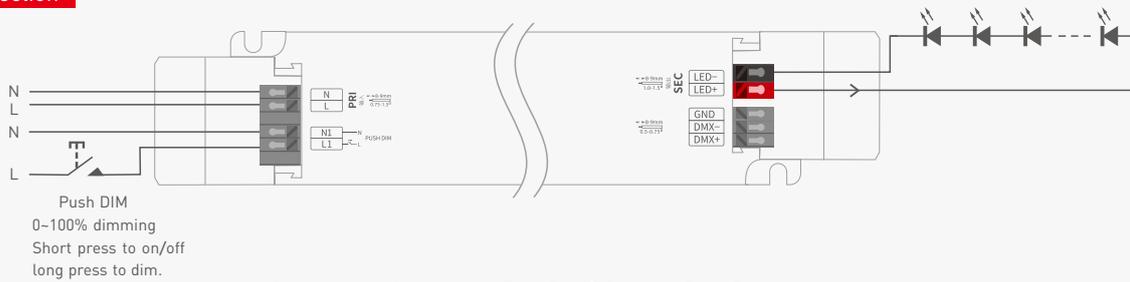
Dimensions

Unit: mm

293

43

30

253

35

240
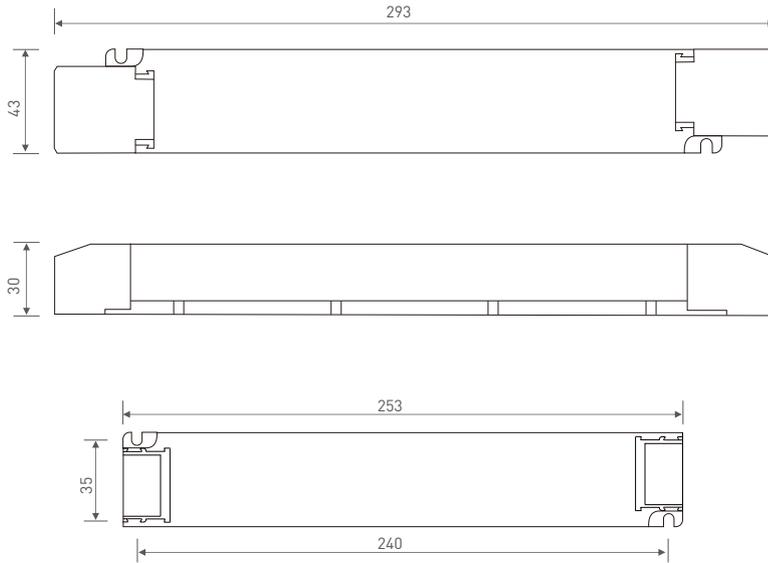
Wiring Diagram

DMX/RDM connection

Wire diameter:1.0-1.5² (18-16AWG)
Strip length:8-9mm

N
L

N
L   PRI   ±0.8mm
0.75-1.5²

N1
L1   N   PUSH DIM
L

SEC   LED−
LED+   ±0.8mm
1.0-1.5²

GND
DMX−
DMX+   ±0.8mm
0.5-0.75²

DMX
RDM

0~100% dimming

Wire diameter:0.75-1.5² (20-16AWG)
Strip length:8-9mm

Wire diameter:0.5-0.75² (22-20AWG)
Strip length:8-9mm

Push DIM connection

N
L
N

L

N
L   PRI   ±0.8mm
0.75-1.5²

N1
L1   N   PUSH DIM
L

SEC   LED−
LED+   ±0.8mm
1.0-1.5²

GND
DMX−
DMX+   ±0.8mm
0.5-0.75²

Push DIM
0~100% dimming
Short press to on/off
long press to dim.

∗ Dimming interface priority: First DMX/RDM, next Push DIM.

Wire Terminal Connection (used in signal port only)

LED−
LED+

GND
DMX−
DMX+

DMX/RDM

Wire Terminal
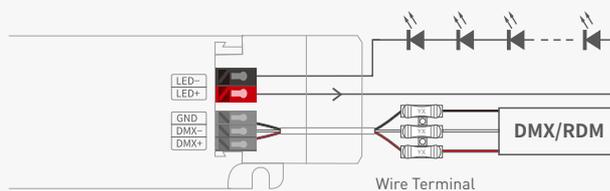
Push DIM

Reset switch

- On/off control: Short press.
- Stepless dimming: Long press.
- With every other long press, the brightness goes to the opposite direction.
- Dimming memory: Brightness will be the same as previously adjusted when turning on again.

Protective Housing Application Diagram

Tension plate

1. Pry up the protecting housing in the side plate position with a tool.
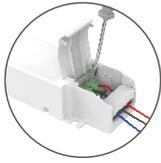
2. Connect to electrical wires with a screwdriver as wiring diagram shows.

3. Press down the tension plate to fix the the electrical wires, then close the protective housing.

Remove the protective housing

Pull the housing left and right from the bottom to remove it.
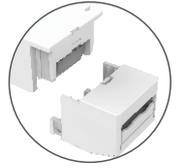
Installation Precautions
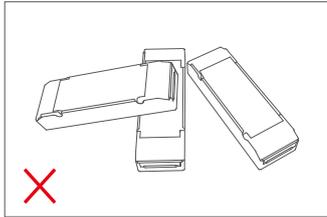
Please do not stack the products. The distance between two products should be ≥15cm so as not to affect heat dissipation and the lifespan of the products.
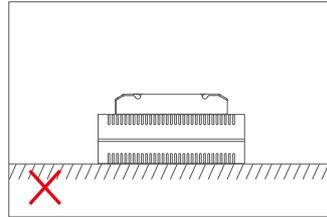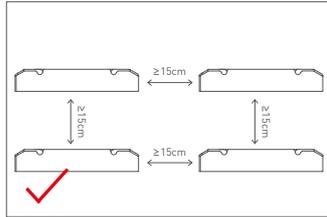
Please not place the products on LED drivers. The distance between the product and the driver should be ≥15cm so as not to affect heat dissipation and shorten the lifespan of the products.
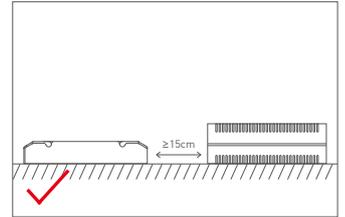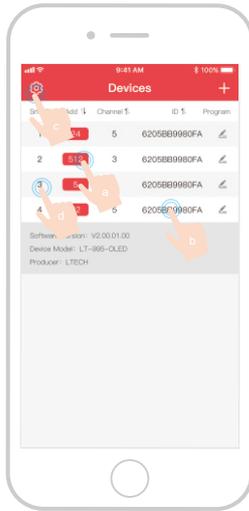
DMX Address Setting

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:

5-24Vdc input voltage Power bank supply is available

WiFi-RDM01

DMX signal

LEDs

L N

Intelligent LED Driver

LEDs

Intelligent LED Driver
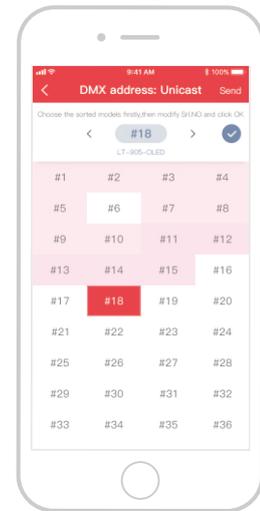
✳ the defaulted DMX address of the driver is 1.
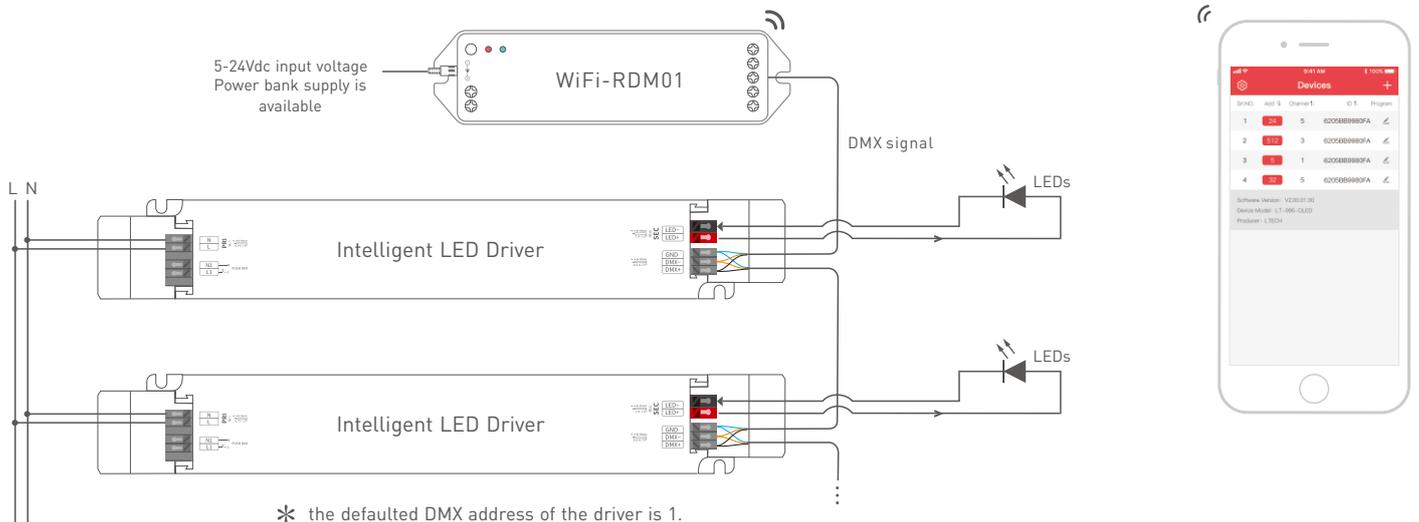
LTECH RDM editor App interface instruction

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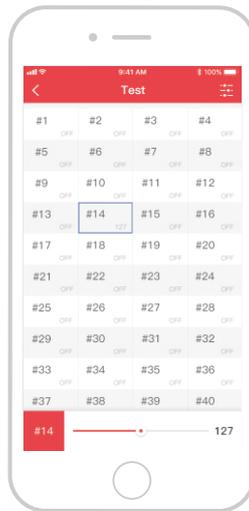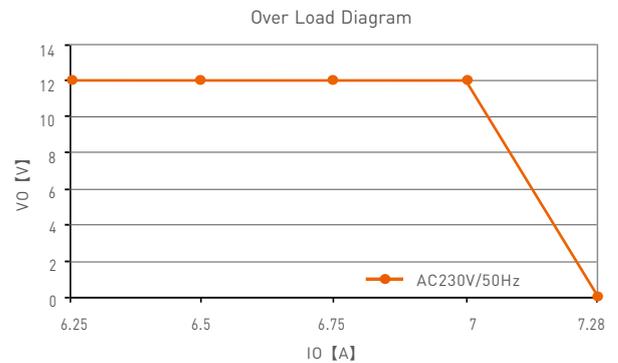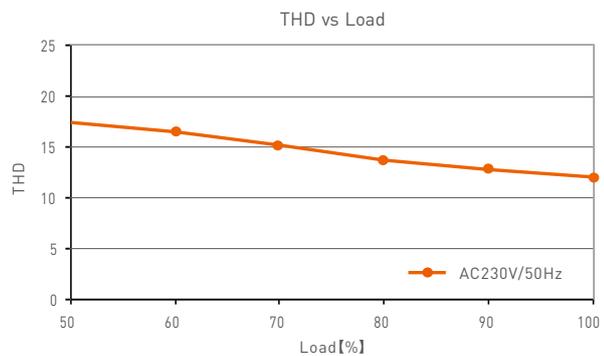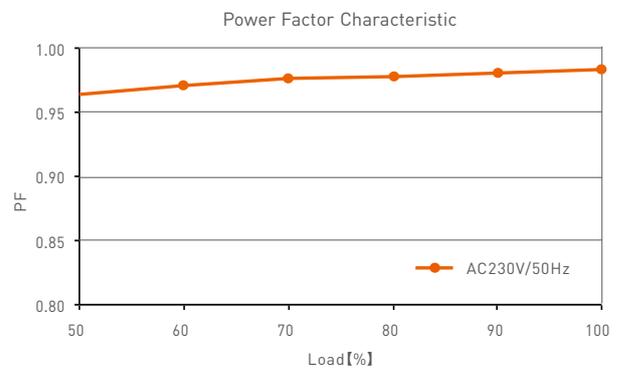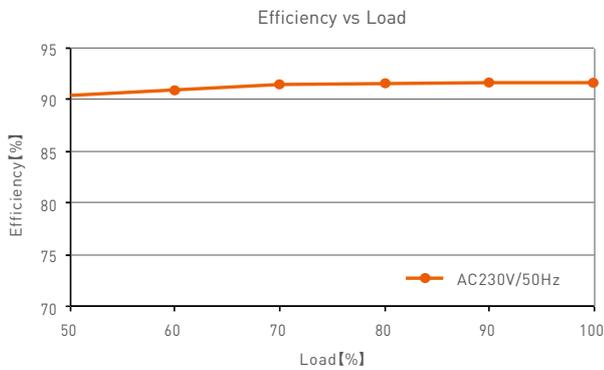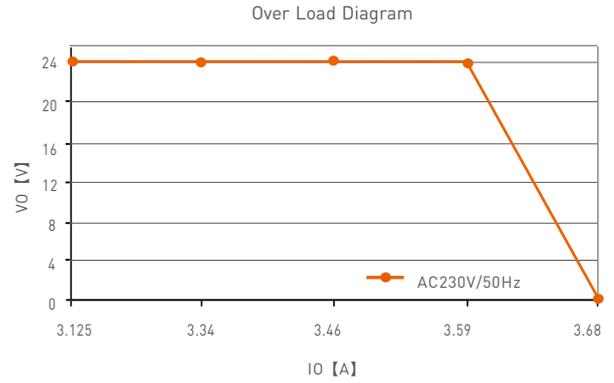
Test
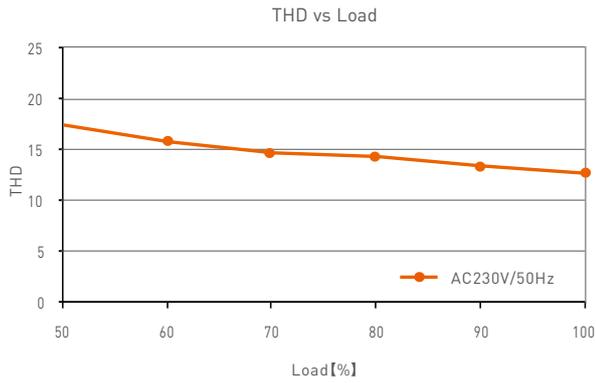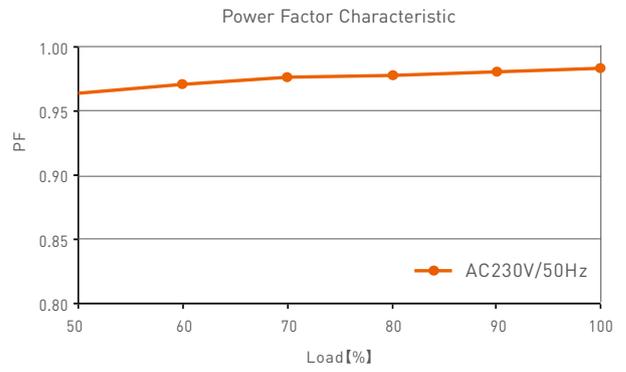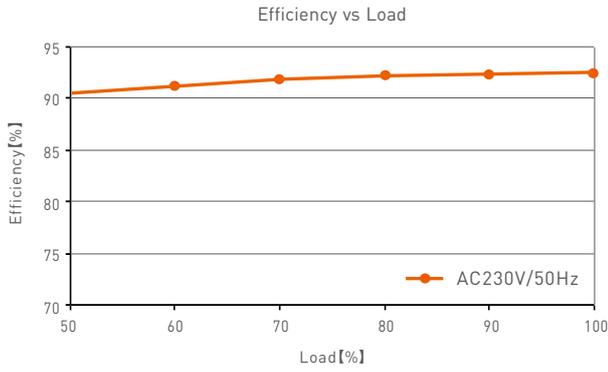
DMX address setting

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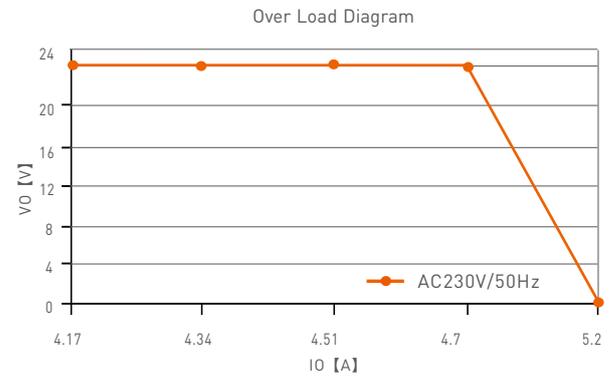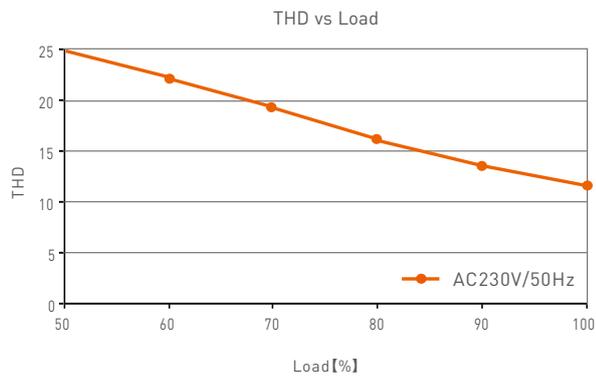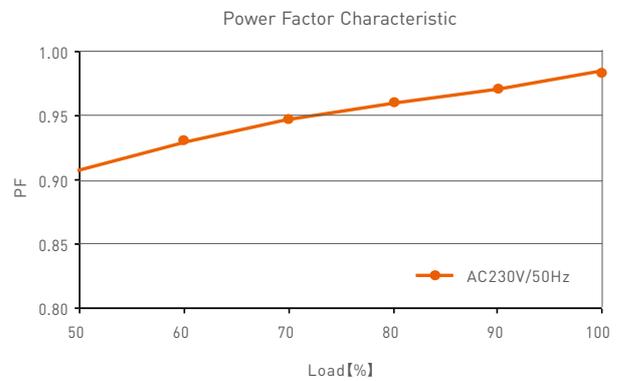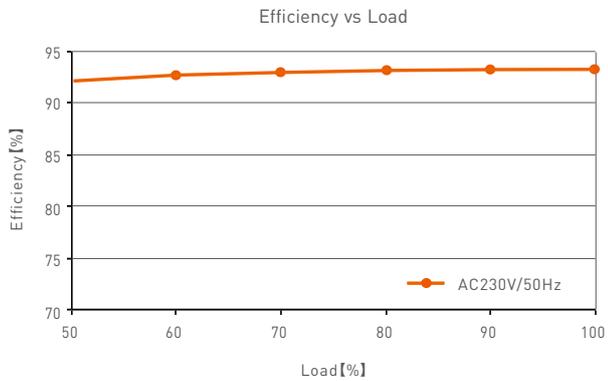d: Click"No.", issue the recognizing command.

Relationship Diagrams

Efficiency vs Load

AC230V/50Hz

Power Factor Characteristic

AC230V/50Hz

THD vs Load

AC230V/50Hz

Over Load Diagram

AC230V/50Hz

LM-75-12-G1M2

Efficiency vs Load

Efficiency[%] vs Load[%]

AC230V/50Hz

Power Factor Characteristic

PF vs Load[%]

AC230V/50Hz

THD vs Load

THD vs Load[%]

AC230V/50Hz

Over Load Diagram

VO [V] vs IO [A]

AC230V/50Hz

LM-75-24-G1M2

Efficiency vs Load

Efficiency[%] vs Load[%]

AC230V/50Hz

Power Factor Characteristic

PF vs Load[%]

AC230V/50Hz

THD vs Load

THD vs Load[%]

AC230V/50Hz

Over Load Diagram

VO [V] vs IO [A]

AC230V/50Hz

LM-100-24-G1M2

Flicker Test Form

IEEE 1789

Limit of Modulation in low risk area	
Waveform frequency of Optical output	limit (%)
$f \leqslant 8Hz$	0.2
$8Hz < f \leqslant 90Hz$	$0.025 \times f$
$90Hz < f \leqslant 1250Hz$	$0.08 \times f$
$f > 1250Hz$	Exemption assessment

Limit of Modulation in no effect area	
Waveform frequency of Optical output	limit (%)
$f \leqslant 10Hz$	0.1
$10Hz < f \leqslant 90Hz$	$0.01 \times f$
$90Hz < f \leqslant 3125Hz$	$(0.08/2.5) \times f$
$f > 3125Hz$	Exemption assessment (High frequency exemption)

Brightness

▲ 0.1 %
✦ 1%
▲ 5%
◆ 10%
● 20%
▲ 30%
● 40%
★ 50%
⬟ 60%
■ 70%
⬟ 80%
✶ 90%
◆ 100%

Exemption assessment
(High frequency exemption)

IEEE 1789
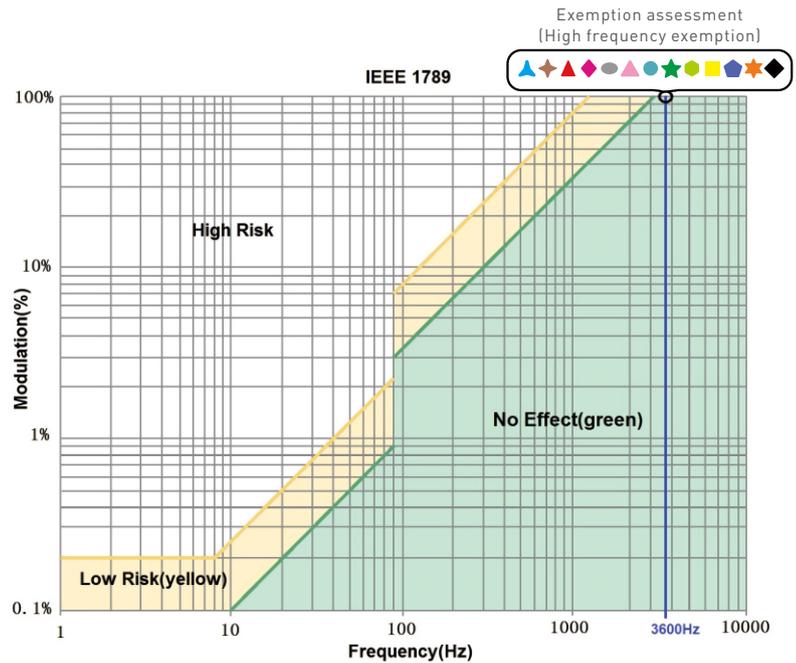
Attentions

- 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 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.

www.ltech-led.com

Update Log

Version	Updated Time	Update Content	Updated by
A0	2019.06.20	Original version	Huang Yunting
A1	2020.03.05	Add flicker test form	Huang Yunting
A2	2020.04.09	Update APP interface introduction	Huang Yunting
A3	2021.06.04	Change TUV certification icon	Liu Weili
A4	2021.12.10	Update product silk screen	Liu Weili
A5	2022.06.08	Add wire terminal connection	Liu Weili
A6	2025.11.15	Update company logo and silkscreen printing	Haipeng Li

LED智能调光驱动器 (恒压型)

- 体积小、重量轻; 外壳采用科思创/三星PC阻燃V0级原料
- 免螺丝压线翻盖设计，可拆卸端盖，按需调节壳体长度
- 带软启动渐亮功能，让人眼视觉更舒服
- 调光范围0~100%，LED从0.1%开始调光
- 高频豁免考核级别
- 支持RDM远程设备管理协议
- 符合欧盟能效ERP指令，待机功耗＜0.5W
- 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
- 适合室内Ⅰ、Ⅱ、Ⅲ类灯具应用
- 5年保修期（采用红宝石电容）

RDM ⇄ DMX

无频闪
IEEE 1789
高频豁免级别

Dimmable:
1：1000

CCC　CB　RCM　UKCA　TUV SUD　CE　RoHS　SELV

DMX/RDM PUSH DIM　｜　PWM 数字调光　｜　过温保护　｜　过压保护　｜　过载保护　｜　短路保护
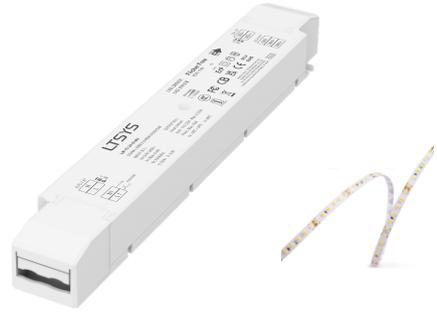
技术参数

型号		LM-75-12-G1M2	LM-75-24-G1M2	LM-100-24-G1M2
输出	输出电压	12Vdc	24Vdc	
	输出电压范围	12Vdc ± 0.5Vdc	24Vdc ± 0.5Vdc	
	输出电流	Max. 6.25A	Max. 3.125A	Max. 4.17A
	输出功率	Max. 75W		Max. 100W
	输出功率范围	0~75W		0~100W
	频闪级别	高频豁免考核级别		
	调光范围	0~100%，调光深度: 0.1%		
	过功率限制	≥102%		
	纹波与噪声	≤200mV	≤300mV	
	PWM频率	3600Hz		
输入	调光接口	DMX/RDM, Push DIM		
	输入电压	220-240Vac		
	频率范围	50/60Hz		
	输入电流	Max. 0.4A/230Vac		Max. 0.5A/230Vac
	功率因素	PF>0.97/230Vac（满载）		PF>0.98/230Vac（满载）
	谐波THD	230Vac@THD≤14%（满载）		230Vac@THD≤12%(满载)
	效率(Typ.)	91%	92%	93%
	浪涌电流	冷启动30A/230Vac		冷启动45.2A/230Vac
	抗浪涌	L-N: 2KV		
	漏电流	Max. 0.5mA		
环境	工作温度	ta: -20 ~ 50℃　tc: 80℃		
	工作湿度	20 ~ 95%RH，无冷凝		
	储存温度 湿度	-40 ~ 80℃, 10~95%RH		
	温度系数	±0.03%/℃(0-50℃)		
	耐振动	10-500HZ, 2G 12分钟/周期，X,Y,Z轴各72分钟		
保护	过温保护	根据PCB温度超标情况(≥110℃)，智能调节电流输出或关闭，可自动恢复		
	过压保护	空载电压≥13V，关闭输出，异常排除后上电恢复	空载电压≥26V，关闭输出，异常排除后上电恢复	
	过载保护	负载电流≥102%,关闭输出，异常排除自动恢复		
	短路保护	输出线路短路自动关闭，检测正常后自动恢复		
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℃/70%RH		
	安全规范	CCC　中国　GB19510.1, GB19510.14		
		CB　CB成员国　IEC61347-1，IEC61347-2-13		
		RCM　澳洲　AS 61347-1, AS 61347-2-13		
		UKCA　英国　BS EN 61347-2-13:2014+A1:2017, BS EN 61347-1:2015+A1:2021		
		TUV　德国　EN61347-1, EN61347-2-13, EN62493		
		CE　欧盟　EN61347-1, EN61347-2-13, EN62384		
	电磁兼容发射	CCC　中国　GB/T17743, GB17625.1		
		RCM　澳洲　EN55015, EN61000-3-2, EN61000-3-3, EN61547		
		UKCA　英国　BS EN IEC 55015:2019/A11:2020，BS EN 61547:2009，BS EN IEC 61000-3-2:2019，BS EN 61000-3-3:2013/A1:2019		
		CE　欧盟　EN55015, EN61000-3-2, EN61000-3-3, EN61547		
	电磁兼容抗扰度	EN61000-4-2,3,4,5,6,8,11, EN61547		
	频闪测试标准	IEEE 1789		
其他	产品尺寸	293×43×30mm(L×W×H)		
	包装尺寸	296×44×33mm(L×W×H)		
	产品重量(G.W)	300g±10g		

＊ 本款驱动器适合连接电阻限流的LED灯具（如LED灯条）。如果连接内置恒流IC限流的灯具，会产生几十倍的瞬间浪涌电流，导致驱动器会执行过载保护（打嗝频闪）。下单时这类内置恒流IC限流的灯具需要注明（如MR16灯杯、地埋灯、洗墙灯、恒流硬灯条等），以便烧写特殊程序。
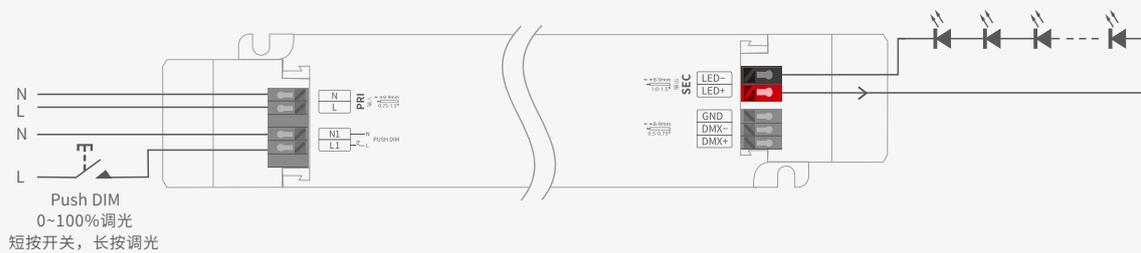
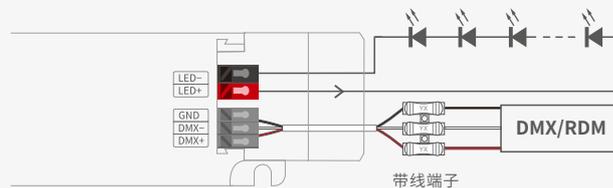# 尺寸图

单位：mm

连接应用图

DMX/RDM 连接方式

线径: 1.0-1.5°(18-16AWG)
剥线长度: 8-9mm

线径: 0.75-1.5°(20-16AWG)
剥线长度: 8-9mm

线径: 0.5-0.75°(22-20AWG)
剥线长度: 8-9mm

0~100%调光
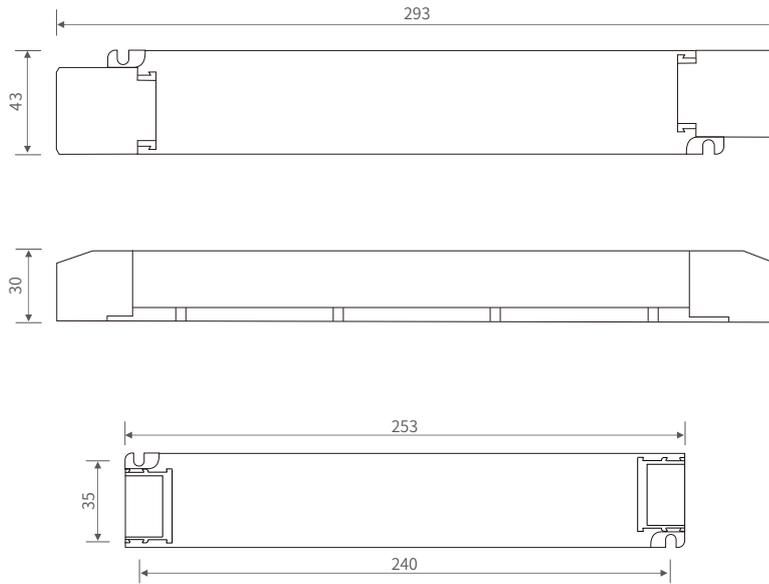
Push DIM 连接方式

Push DIM
0~100%调光
短按开关，长按调光

调光接口优先级为：首先DMX/RDM，然后Push DIM

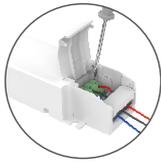**带线端子连接示意图（仅用于信号端）**

DMX/RDM

带线端子

Push DIM

- 开关控制: 短按.
- 无级调光: 长按.
- 每隔一次长按，明暗度会向相反方向调整.
- 调光记忆: 当再次开关时，灯光会回到先前调整的亮度水平.

复位开关

保护盖应用图
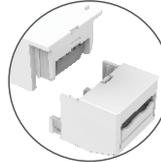
压线板
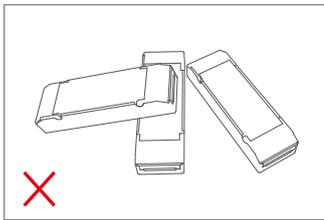
保护盖的拆装
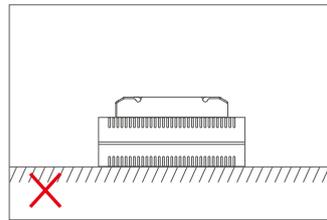
1. 使用工具撬起压线板侧边即可拆下。

2. 使用螺丝批按照接线图接线。

3. 向下按压压线板固定住线合上保护盖即可。

在底部左右掰动，即可将保护盖拆下。

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。
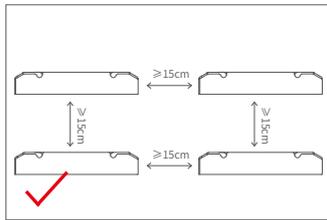
请勿将产品置于电源上方，与电源间隔距离应≥15cm，避免影响产品散热而减少使用寿命。
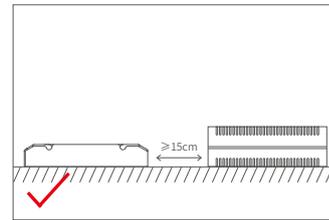
DMX地址设置

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：

5-24Vdc
输入电压
(可用移动电源供电)

WiFi-RDM01

DMX信号

L N

LEDs

LED 调光驱动器

LEDs

LED 调光驱动器

＊ 电源出厂DMX地址默认为1
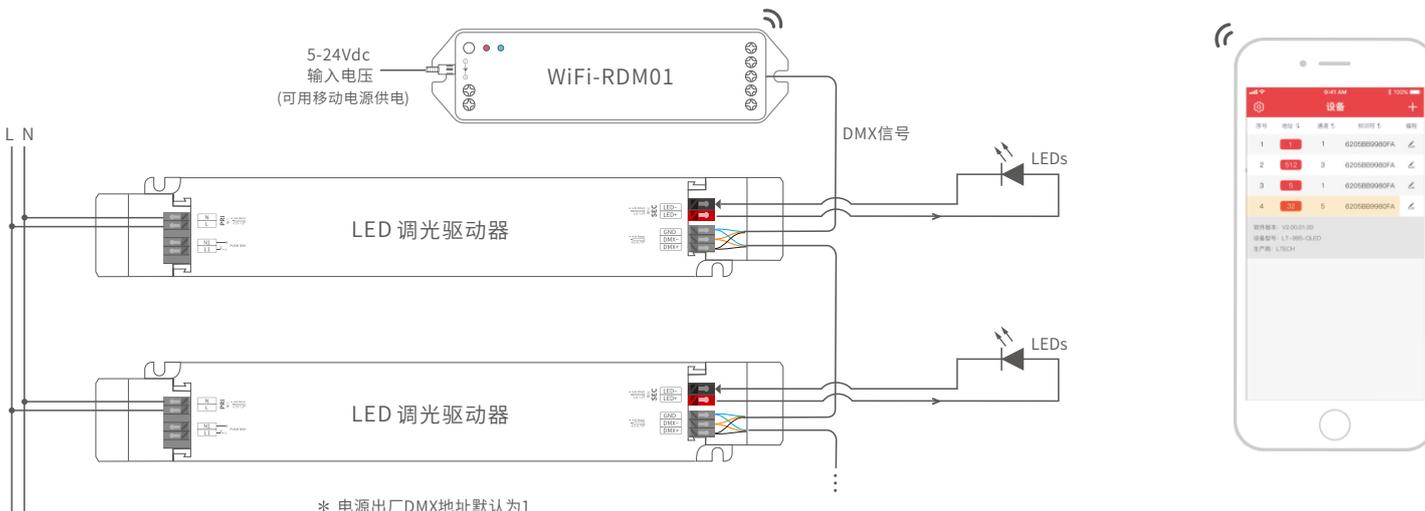
LTECH RDM编程器APP界面介绍

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。
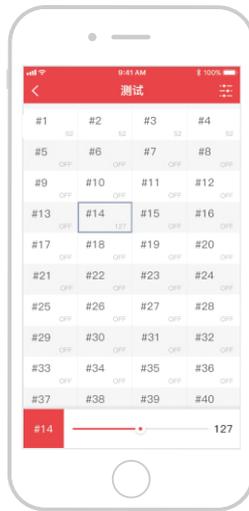
测试

DMX地址设置

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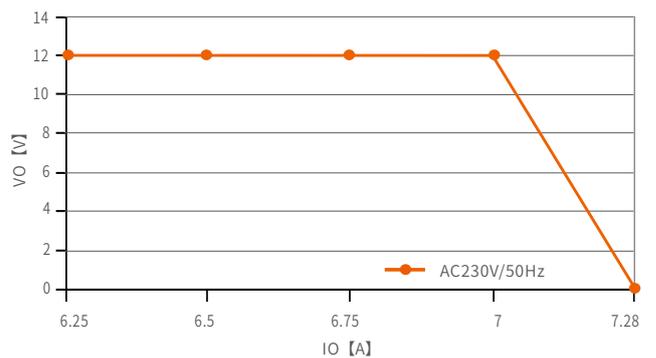b：点击"标识符"出现产品详细信息；
c：点击 ⚙ 按钮，进入设置界面
d：点击序号发出识别命令。

关系图表

效率与负载关系图
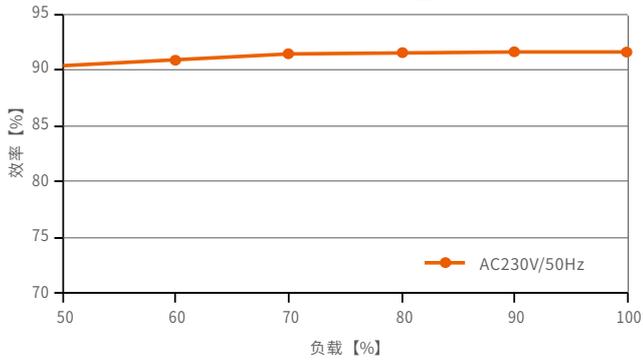
功率因数特征图
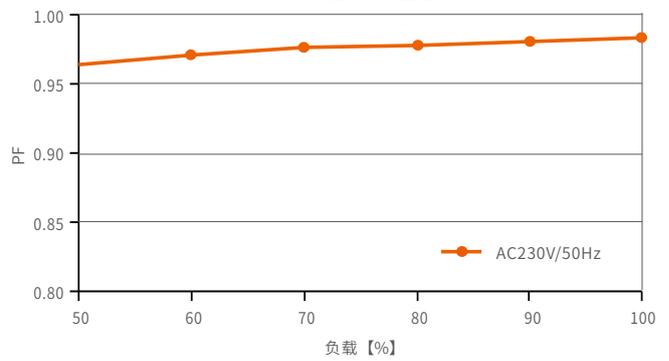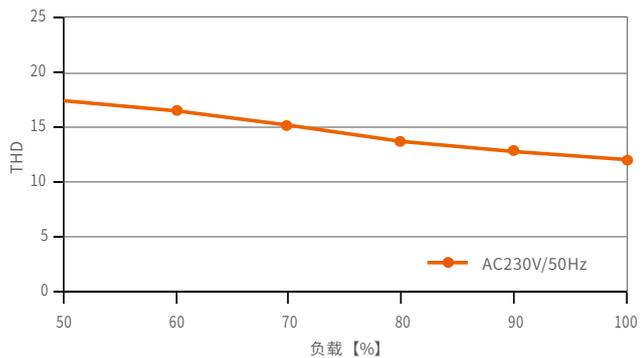
THD与负载关系图
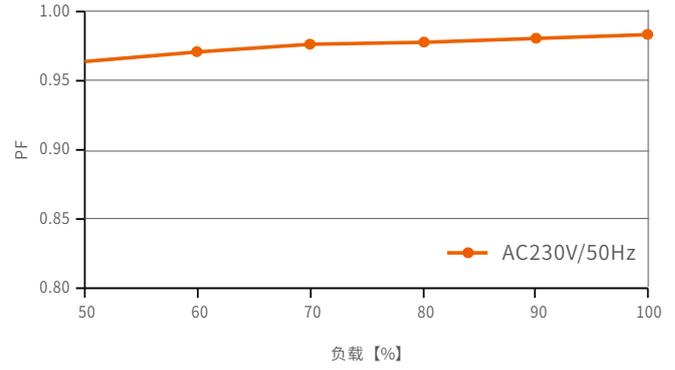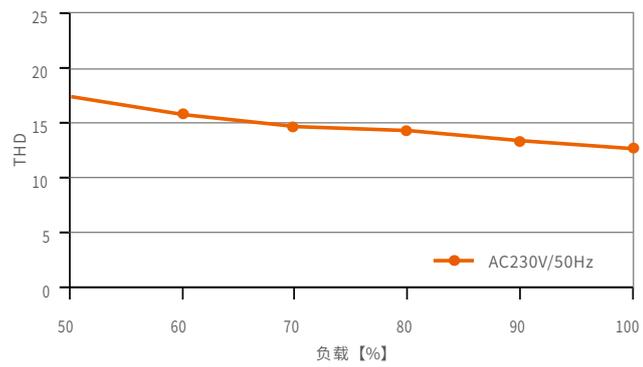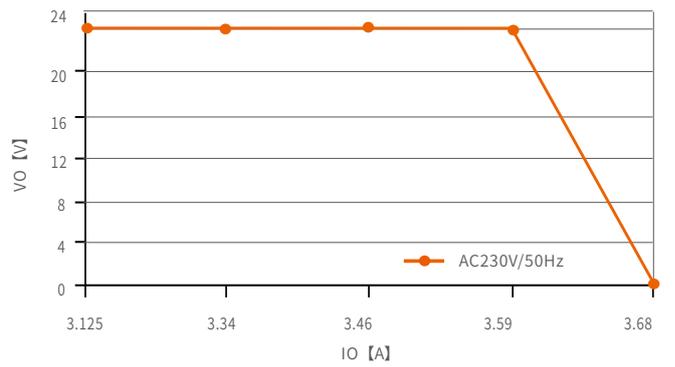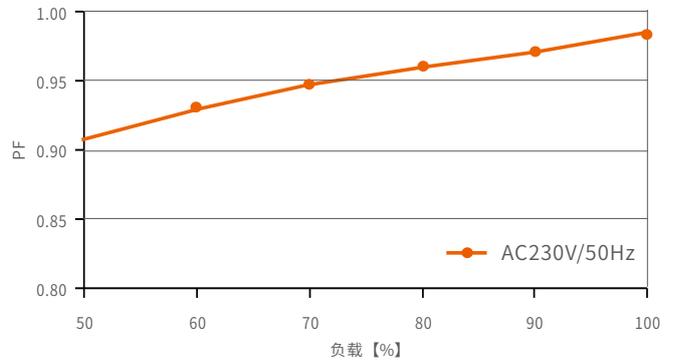

过载曲线

LM-75-12-G1M2

效率与负载关系图
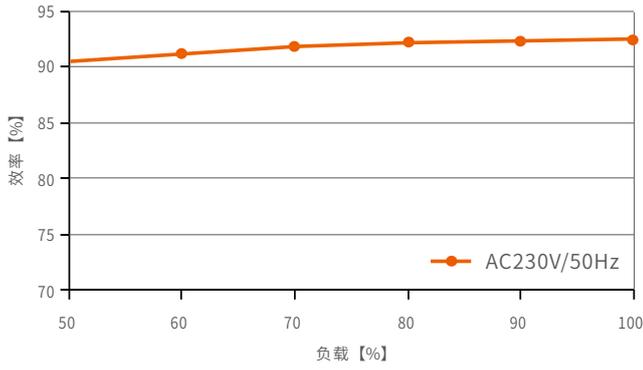
功率因数特征图

THD与负载关系图

过载曲线

LM-75-24-G1M2

效率与负载关系图
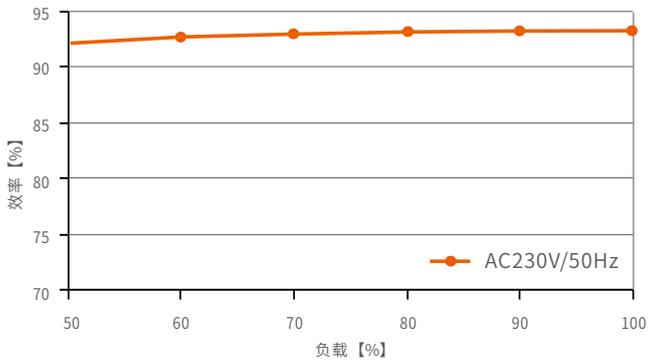
功率因数特征图

THD与负载关系图

过载曲线

LM-100-24-G1M2

www.ltech.cn
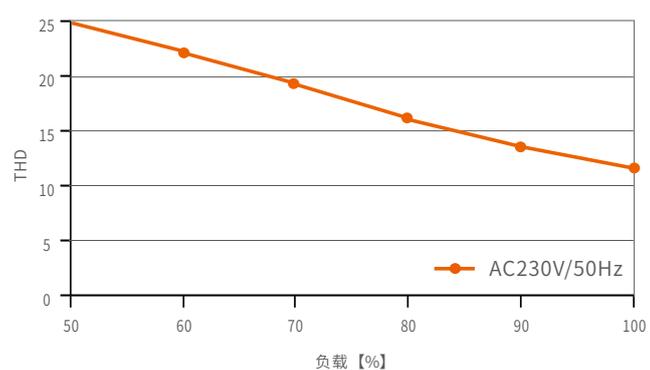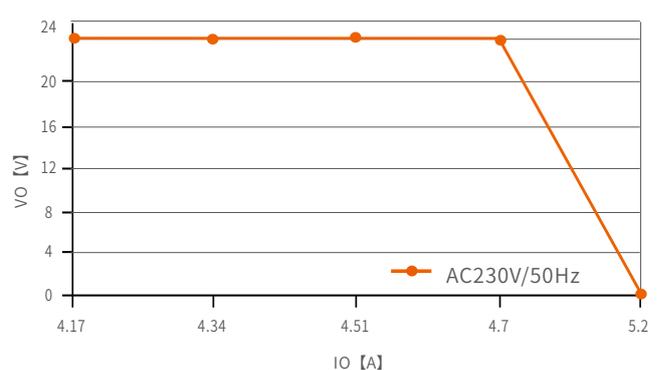
频闪测试表

IEEE 1789

低风险区域（Low Risk）的波动深度（Modulation）限值	
光输出波形频率 f	限值（%）
$f \leqslant 8Hz$	0.2
$8Hz < f \leqslant 90Hz$	$0.025 \times f$
$90Hz < f \leqslant 1250Hz$	$0.08 \times f$
$f > 1250Hz$	免除考核

无风险区域（No Effect）的波动深度（Modulation）限值	
光输出波形频率 f	限值（%）
$f \leqslant 10Hz$	0.1
$10Hz < f \leqslant 90Hz$	$0.01 \times f$
$90Hz < f \leqslant 3125Hz$	$(0.08/2.5) \times f$
$f > 3125Hz$	免除考核（高频豁免）

亮度

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

IEEE 1789

High Risk

No Effect(green)

Low Risk(yellow)

Modulation(%)

Frequency(Hz) 3600Hz
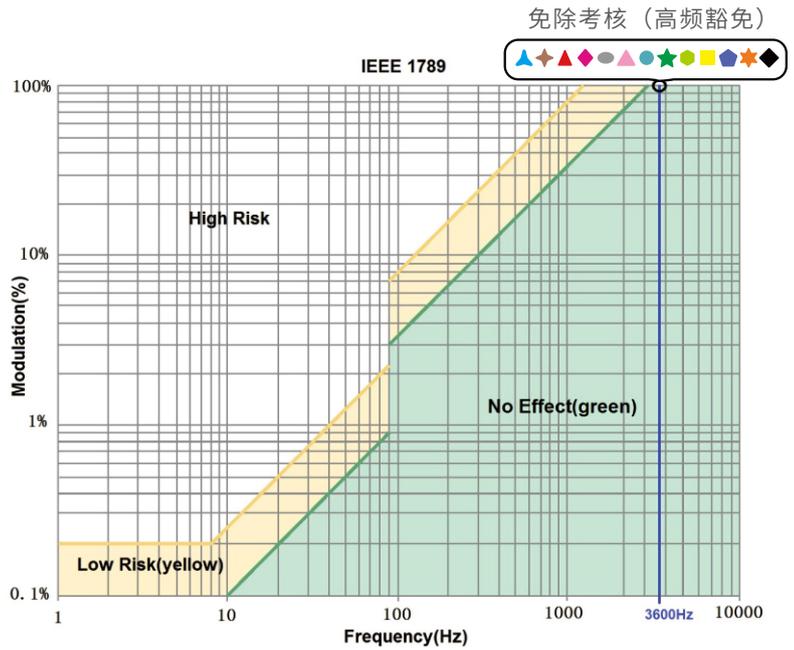
注意事项

- 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	2019.06.20	正稿	黄韵婷
A1	2020.03.05	增加无频闪测试表	黄韵婷
A2	2020.04.09	更新APP界面介绍	黄韵婷
A3	2021.06.04	更改TUV认证图标	刘伟丽
A4	2021.12.10	更新产品丝印	刘伟丽
A5	2022.06.08	增加带线端子连接示意图	刘伟丽
A6	2025.11.15	更新公司logo和丝印	黎海鹏