LTSYS

LM-36-24-G1A2
LM-36-12-G1A2

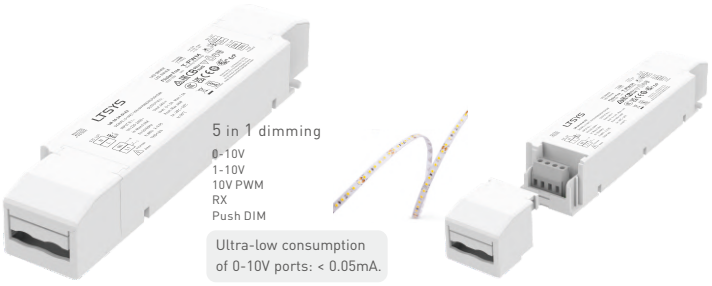
0-10V Push DIM

LED Intelligent Driver (Constant Voltage)

- Small size and light weight. Adopt SAMSUNG/COVESTRO V0 flame resistant polycarbonate protective housings.
- The design of dismountable end cap allows you to adjust the length of housing depending on your needs.
- Dimming interfaces: 0-10V(1-10V/10V PWM/RX), Push DIM.
- Automatically recognize 0-10V and 1-10V input signals.
- Ultra-low consumption of 0-10V ports < 0.05mA.
- Dimming range: 0~100%, dimming dowm to 0.1%.
- Flicker-free with high frequency exemption level in 0~100% dimming process.
- With soft-on and fade-in function, bringing more comfortable visual experiences.
- High-performance drivers: Effeciency 88%, PF>0.95, THD<8%.
- Dimming interfaces have photoelectric isolation that are compliant with the latest safety standards and more secure and reliable.
- Comply with the EU's ErP Directive, stand-by power consumption<0.5W.
- The secure and reliable design for signal isolation.
- Innovative thermal management technology intelligently protects the lifetime the driver.
- Over-heat / Over voltage / Over load / Short circuit protection, recover automatically.
- Suitable for lamp applications of indoor Ⅰ/Ⅱ/Ⅲ types.
- Up to 50000-hour life time.
- 5 year warranty (Rubycon Capacitor).

Flicker-free
IEEE 1789
Achieve high frequency exemption level.

Dimmable:
1:1000



SELV Class 2
RoHS

(The certification icons represent on-going certification applications only, and final certification qualification is subject to actual products.)

0-10V Push DIM | 0.1% Depth Dimming | Over voltage protection | Short circuit protection | Overload protection | Overheat protection

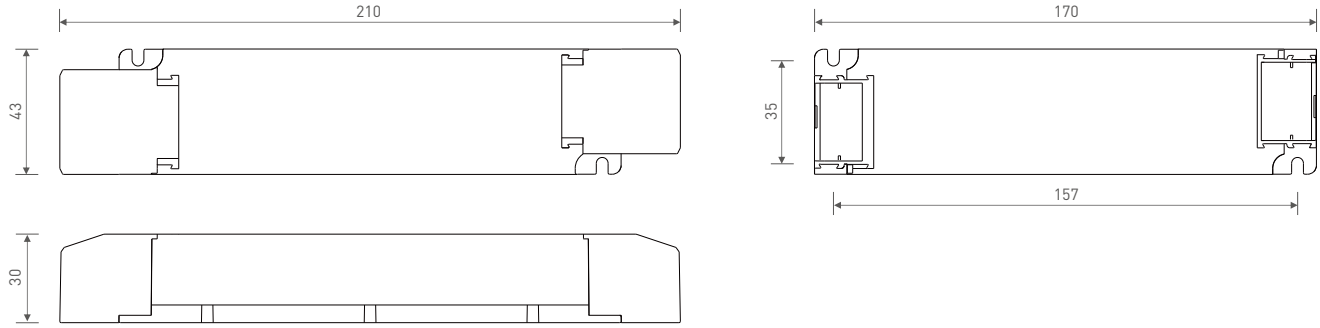
Technical Specs

Model		LM-36-24-G1A2	LM-36-12-G1A2
OUTPUT	Output Voltage	24Vdc	12Vdc
	Output Voltage Range	24Vdc ± 0.5Vdc	12Vdc ± 0.5Vdc
	Output Current	Max. 1.5A	Max. 3A
	Output Power	Max. 36W	
	Output Power Range	0~36W	
	Strobe Level	High frequency exemption level.	
	PWM Frequency	3600Hz	
	Dimming Range	0~100%, dimming down to 0.1%	
	Overload Power Limitation	⩾102%	
	Ripple & Noise	Switch ripple⩽200mV, noise⩽500mV	Switch ripple⩽200mV, noise⩽800mV
INPUT	Dimming Interface	0-10V(1-10V/10V PWM/RX), Push DIM	
	Interface Consumption	<0.05mA @ 0-10V	
	Input Voltage	200-240Vac / 200-280Vdc	
	Frequency	50/60Hz	
	Input Current	Max. 0.26A/230Vac	Max. 0.28A/230Vac
	Power Factor	PF>0.95/230Vac, at full load	
	THD	<8% at 230Vac, at full load	
	Efficiency (typ.)	88%	87%
	Standby Power Loss	<0.5W	
	Inrush Current(typ.)	Cold start 25A at 230Vac	
	Control Surge Capability	L-N:2KV	
	Leakage Current	Max. 0.5mA	
ENVIRONMENT	Working Temperature	ta: -20°C ~ 50°C tc: 90°C	
	Working Humidity	20 ~ 95%RH, non-condensing	
	Storage Temperature Humidity	-40°C ~ 80°C, 10~95%RH	
	Temperature Coefficient	±0.03%/°C (-20-50°C)	
	Vibration	10~500Hz, 2G 12min./1cycle, 72 min for X, Y and Z axes respectively.	
PROTECTION	Over-heat Protection	Intelligently adjust or turn off the output current if the PCB temperature ≥110°C, and recover automatically.	
	Over Voltage Protection	Shut down the output when non-load voltage⩾28V, re-power on to recover after fault condition is removed.	Shut down the output when non-load voltage⩾16V, re-power on to recover after fault condition is removed.
	Over Load Protection	Shut down the output when current load⩾102%, and recover automatically.	
	Short Circuit Protection	Enter hiccup mode if short circuit occurs, and recover automatically.	
SAFETY & EMC	Withstand Voltage	I/P-O/P:3750Vac	
	Insulation Resistance	I/P-O/P:500VdC/25°C/70%RH⩾100MΩ	
	Safety Standards	CCC / China / GB19510.1, GB19510.14	
		TUV / Germany / EN61347-1, EN61347-2-13, EN62493	
		CE / European Union / EN61347-1, EN61347-2-13, EN62384	
		KC / Korea / KC61347-1, KC61347-2-13	
		RCM / Australia / AS61347-1, AS61347-2-13	
		ENEC / Europe / EN61347-1, EN61347-2-13, EN62384	
		CB / CB member states / IEC61347-1, IEC61347-2-13	
		EAC / Russia / IEC61347-1, IEC61347-2-13	
	EMC Emission	CCC / China / GB/T17743, GB17625.1	
		CE / European Union / EN55015, EN61000-3-2, EN61000-3-3, EN61547	
		KC / Korea / KN15, KN61547	
		RCM / Australia / EN55015, EN61000-3-2, EN61000-3-3, EN61547	
		EAC / Russia / IEC62493, IEC61547, EH55015	
	EMC Immunity	EN61000-4-2,3,4,5,6,8,11, EN61547	
	Strobe Test Standard	IEEE 1789	
OTHERS	Weight(G.W.)	210g±10g	
	Dimensions	210×43×30mm(L×W×H)	
	Package Size	213×44×33mm(L×W×H)	
	Carton Size	440×218×235mm(L×W×H) 40pcs/ctn 8.4kg±5%/ctn	

✻ 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.

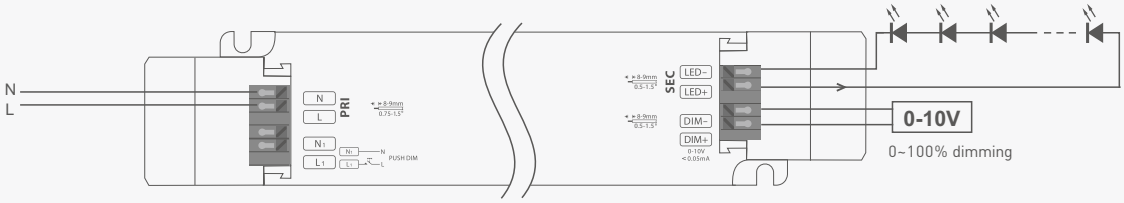
Product Size

Unit: mm



Wiring Diagram

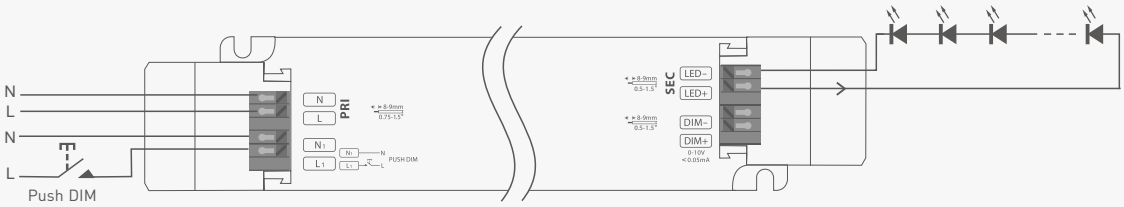
0-10V Connection Mode



Wire diameter:0.75-1.5㎟ (20-16AWG)
Strip length:8mm-9mm

Wire diameter:0.5-1.5㎟ (20-16AWG)
Strip length:8mm-9mm

Push DIM Connection Mode



0-100% dimmer
Short press to on/off,
long press to dim.

✻ Push Dim is invalid under DC voltage input.
Dimming interface priority: 0-10V first , Push DIM next.

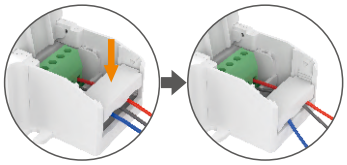
Push DIM

Reset switch

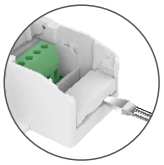
- On/off control: Short press.
- Stepless dimming: Long press.
- With every other long press, the brightness level goes to the opposite direction.
- Dimming memory: Go to the brightness level adjusted previously when lights are turned on.

Protective Housing Application Diagram

Tension plate

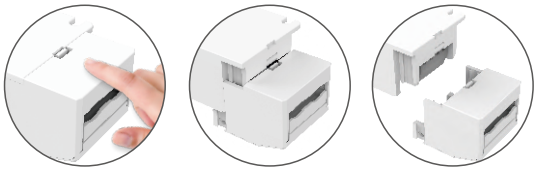


Push the tension plate down to fix the electric wires.



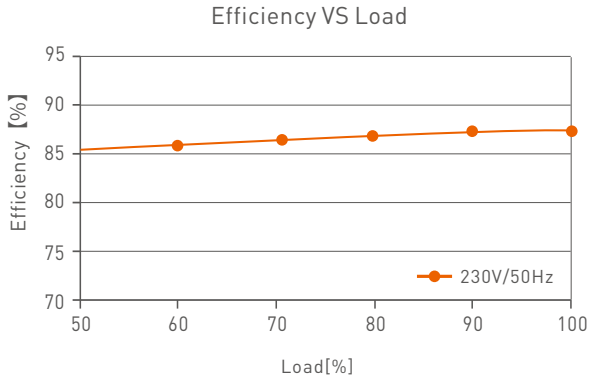
Push the side plate outwards and remove the tension plate by prying it up with a tool at the same time.

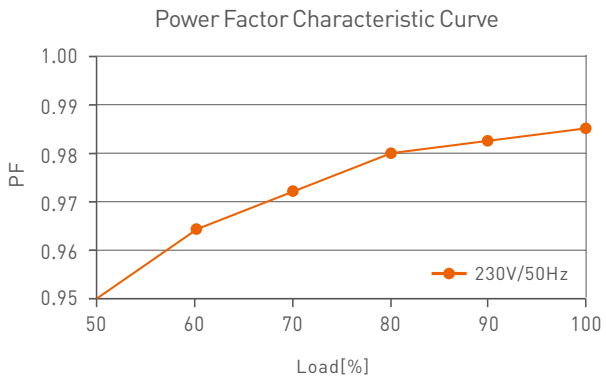
Remove the protective housing

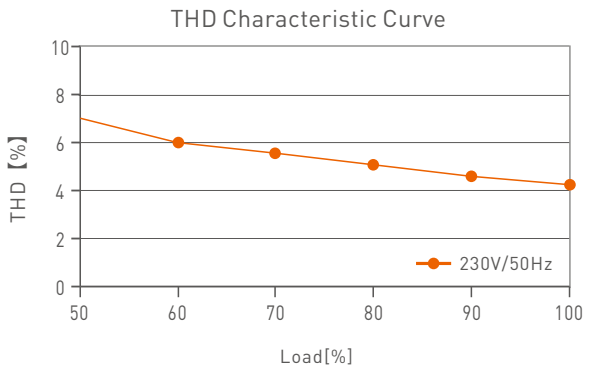


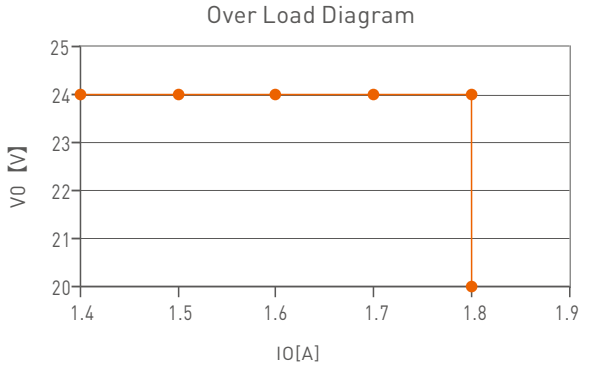
Pull the bottom left and right from the bottom to remove it.

Relationship Diagrams

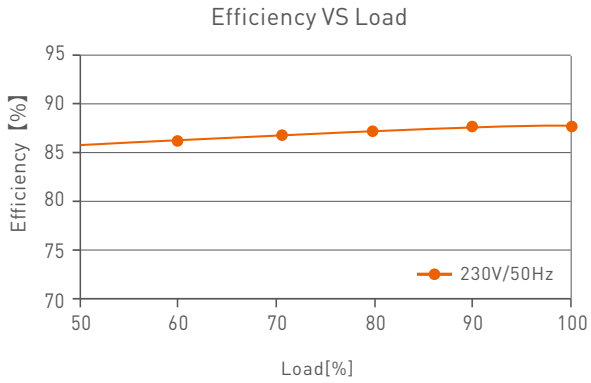


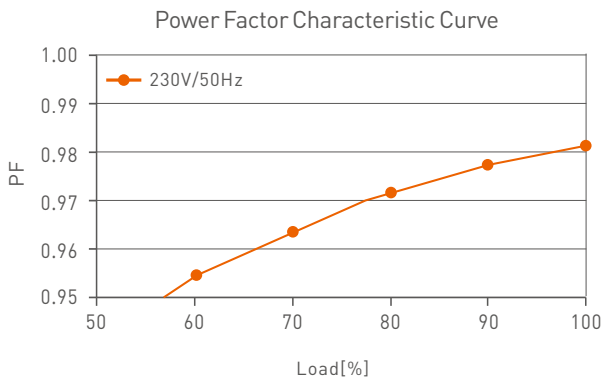


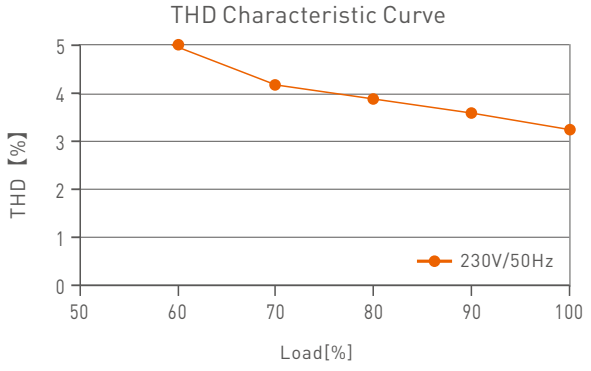


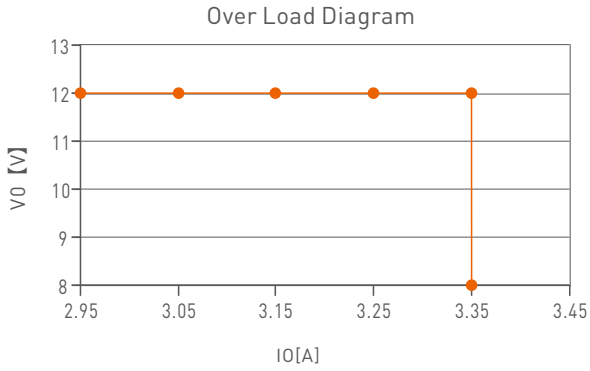


LM-36-24-G1A2







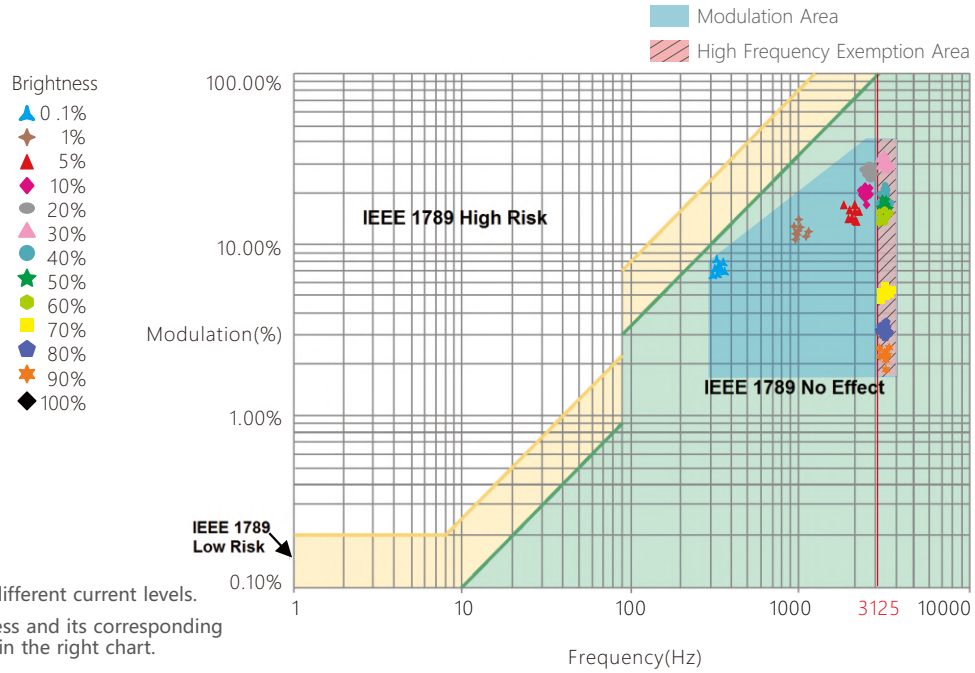


LM-36-12-G1A2

Flicker Test Table

IEEE 1789

Limit Value of Modulation in Low Risk Areas	
Waveform frequency of Optical output	Limit value (%)
$f \leq 8Hz$	0.2
$8Hz < f \leq 90Hz$	$0.025 \times f$
$90Hz < f \leq 1250Hz$	$0.08 \times f$
$f > 1250Hz$	Exemption assessment
Limit Value of Modulation in No Effect Areas	
Waveform frequency of Optical output	Limit value (%)
$f \leq 10Hz$	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)



Marks in the right chart are tested results of different current levels.

The output frequency is 0Hz in 100% brightness and its corresponding modulation is 0%, which could not be shown in the right chart.

Attentions

- Products shall be installed by qualified professionals.
- LTECH products are 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 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	2021.03.22	Original version	Xu Shujun
A1	2022.06.01	Added"Max. 0.28A/230Vac"to P1	Xu Shujun
A2	2023.08.07	Update the p1 Carton Size to 440×218×235mm(L×W×H) 40pcs/ctn 8.4kg±5%/ctn	Yang Weiling
A3	2025.11.15	Update company logo and silkscreen printing	Haipeng Li

LTSYS

LM-36-24-G1A2
LM-36-12-G1A2

0-10V Push DIM

LED 智能调光驱动器（恒压型）

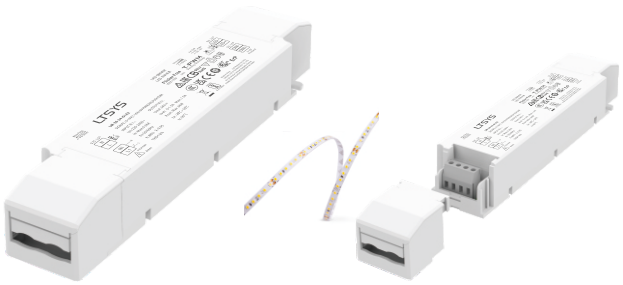
- 体积小、重量轻；采用SAMSUNG/COVESTRO PC V0阻燃保护壳
- 免螺丝压线翻盖设计，可拆卸端盖，按需调节壳体长度
- 调光接口：0-10V(1-10V/10V PWM/RX), Push DIM
- 自动识别0-10V、1-10V输入
- 0-10V 端口超低消耗<0.05mA
- 调光范围: 0~100%, LED从0.1%开始调光
- 0-100%全程调光无可视频闪，高频豁免级别
- 带软启动渐亮功能，让人眼视觉更舒适
- 高效能电源：效率88%、PF>0.95、THD<8%
- 调光接口具备光电隔离，符合最新的安规标准，更安全可靠
- 符合欧盟能效ERP指令，待机功耗0.5W
- 安全可靠的信号隔离设计
- 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
- 高达50,000小时的额定寿命
- 5年保修期（采用红宝石电容）

5合1调光
0-10V
1-10V
10V PWM
RX
Push DIM

0-10V接口消耗电流<0.05mA

无频闪
IEEE 1789
高频豁免考核级别

Dimmable:
1:1000



SELV RoHS Class 2

（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）

0-10V Push DIM | 0.1% 深度调光 | V 过压保护 | 短路保护 | 过载保护 | 过温保护

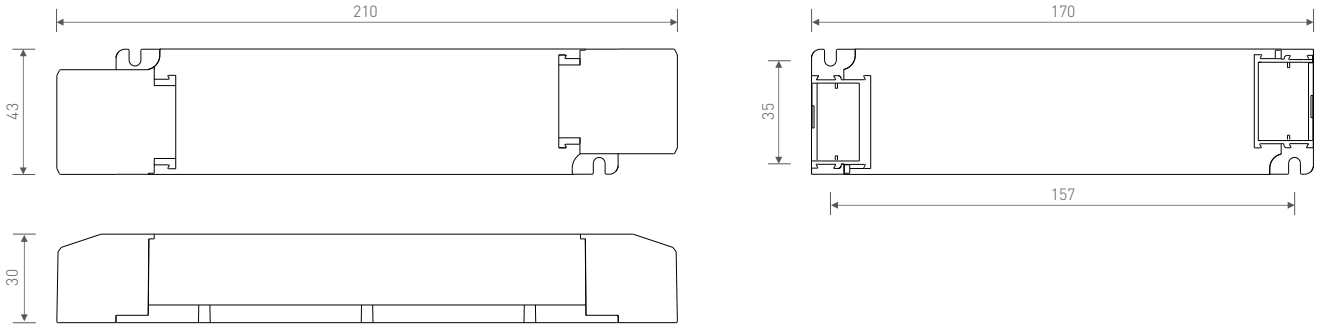
技术参数

型号		LM-36-24-G1A2			LM-36-12-G1A2
输出	输出电压	24Vdc			12Vdc
	输出电压范围	24Vdc ± 0.5Vdc			12Vdc ± 0.5Vdc
	输出电流	Max. 1.5A			Max. 3A
	输出功率	Max. 36W			
	输出功率范围	0-36W			
	频闪级别	高频豁免考核级别			
	PWM频率	3600Hz			
	调光范围	0-100%，调光深度: 0.1%			
	过功率限制	≥102%			
	纹波与噪声	开关纹波≤200mV，噪声≤500mV			开关纹波≤200mV，噪声≤800mV
输入	调光接口	0-10V(1-10V/10V PWM/RX), Push DIM			
	接口消耗电流	<0.05mA @ 0-10V			
	输入电压	220-240Vac / 200-280Vdc			
	频率范围	50/60Hz			
	输入电流	Max. 0.26A/230Vac			Max. 0.28A/230Vac
	功率因数	PF>0.95/230Vac（满载）			
	谐波THD	230Vac@THD<8%（满载）			
	效率(Typ.)	88%			87%
	待机功耗	<0.5W			
	浪涌电流	冷启动25A/(在50%Ipeak下测试twidth= 204 us)/230Vac			
	抗浪涌	L-N: 2KV			
	漏电流	Max. 0.5mA			
环境	工作温度	ta: -20 ~ 50°C tc: 90°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(-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，自动恢复。			
	过压保护	空载电压≥28V, 关闭输出，可自动恢复。			空载电压≥16V, 关闭输出，可自动恢复。
	过载保护	负载功率≥102%保护，异常排除自动恢复。			
	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℃/70%RH			
	安全规范	CCC	中国	GB19510.1，GB19510.14	
		TUV	德国	EN61347-1，EN61347-2-13，EN62493	
		CE	欧盟	EN61347-1，EN61347-2-13，EN62384	
		KC	韩国	KC61347-1，KC61347-2-13	
		RCM	澳洲	AS61347-1，AS61347-2-13	
		ENEC	欧洲	EN61347-1，EN61347-2-13，EN62384	
		CB	CB成员国	IEC61347-1，IEC61347-2-13	
		EAC	俄罗斯	IEC61347-1，IEC61347-2-13	
	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	KN15，KN61547	
		RCM	澳洲	EN55015，EN61000-3-2，EN61000-3-3，EN61547	
		EAC	俄罗斯	IEC62493，IEC61547，EH55015	
	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	产品重量(G.W)	210g±10g			
	产品尺寸	210×43×30mm(L×W×H)			
	包装尺寸	213×44×33mm(L×W×H)			
	外箱规格	440×218×235mm(L×W×H) 40个/箱 8.4 kg±5%/箱			

*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。

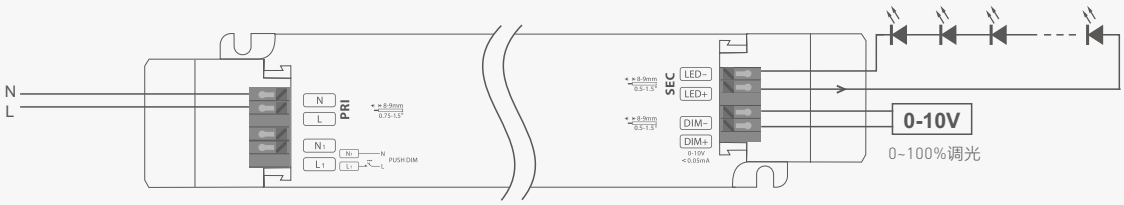
尺寸图

单位: mm



连接应用图

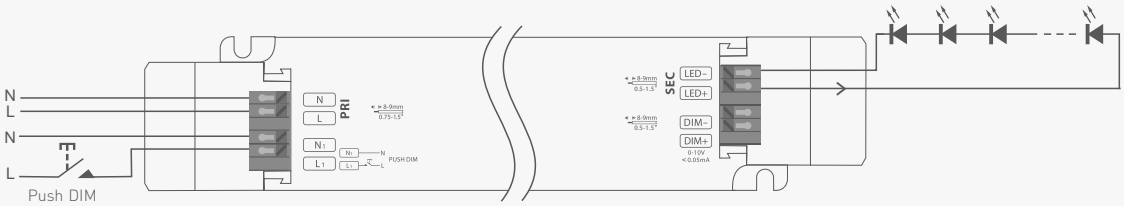
0-10V 连接方式



线径:0.75-1.5 ㎡(20-16AWG)
剥线长度:8-9mm

线径:0.5-1.5 ㎡(20-16AWG)
剥线长度:8-9mm

Push DIM 连接方式



Push DIM
0~100%调光
短按开关，长按调光

✻ 在直流电压输入的情况下，按键调光无效
调光接口优先级为：首先0-10V，然后Push DIM

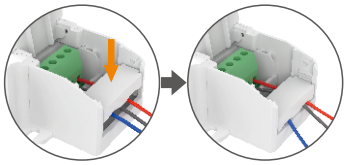
Push DIM

复位开关

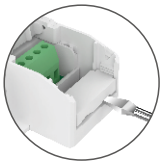
- 开关控制: 短按.
- 无级调光: 长按.
- 每隔一次长按，明暗度会向相反方向调整.
- 调光记忆: 当再次开关时，灯光会回到先前调整的亮度水平.

保护盖应用图

压线板

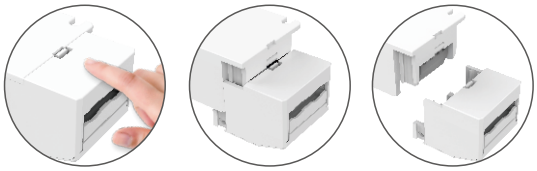


向下推压线板，可固定住线。



向外推侧板的同时，
用工具撬即可拆下压线板。

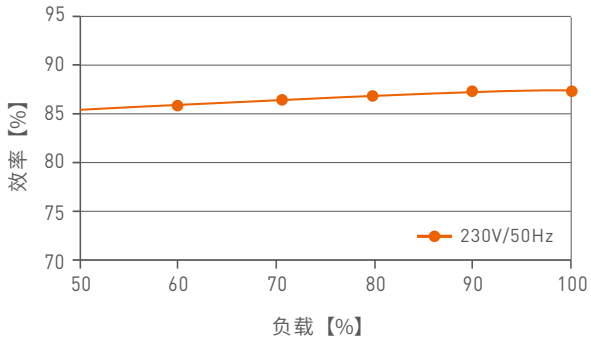
保护盖的拆装



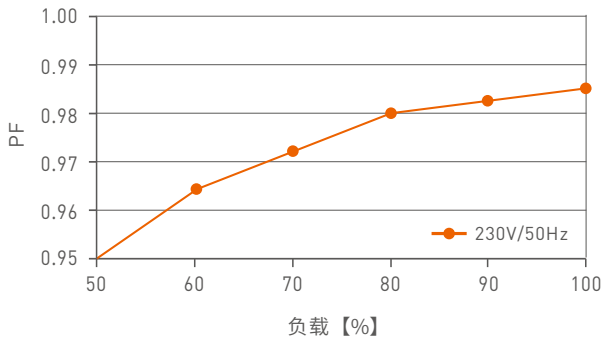
在底部左右掰动，即可将保护盖拆下。

关系图表

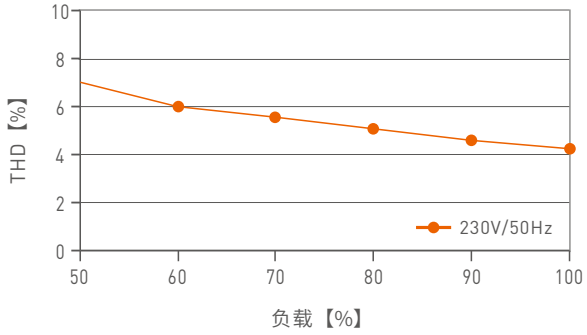
效率与负载关系图



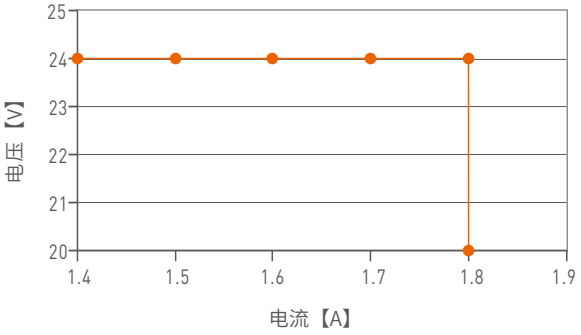
功率因数特征图



THD与负载关系图



过载曲线



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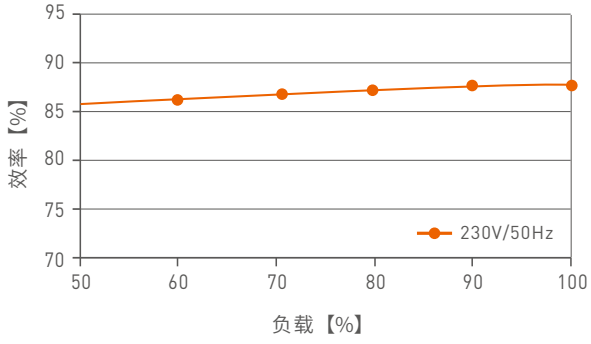
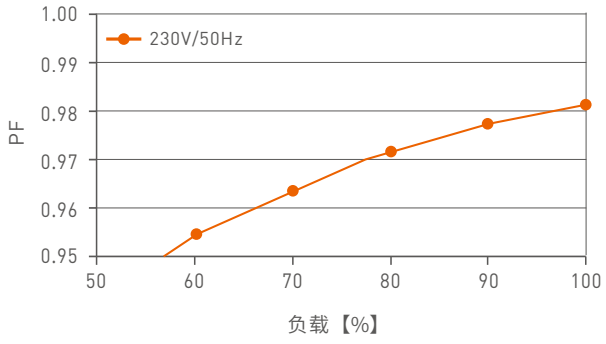
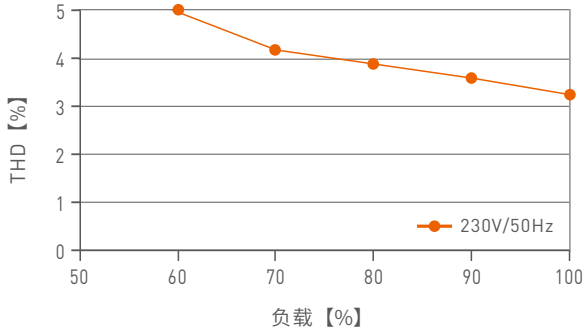
效率与负载关系图



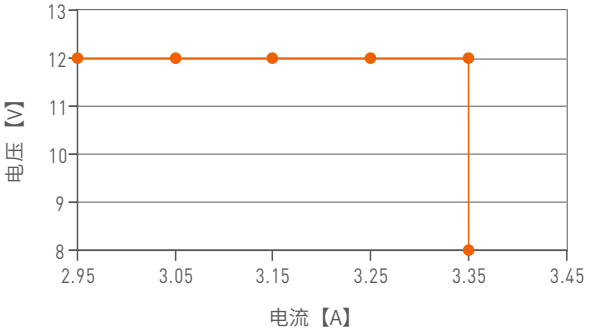
功率因数特征图



THD与负载关系图



过载曲线



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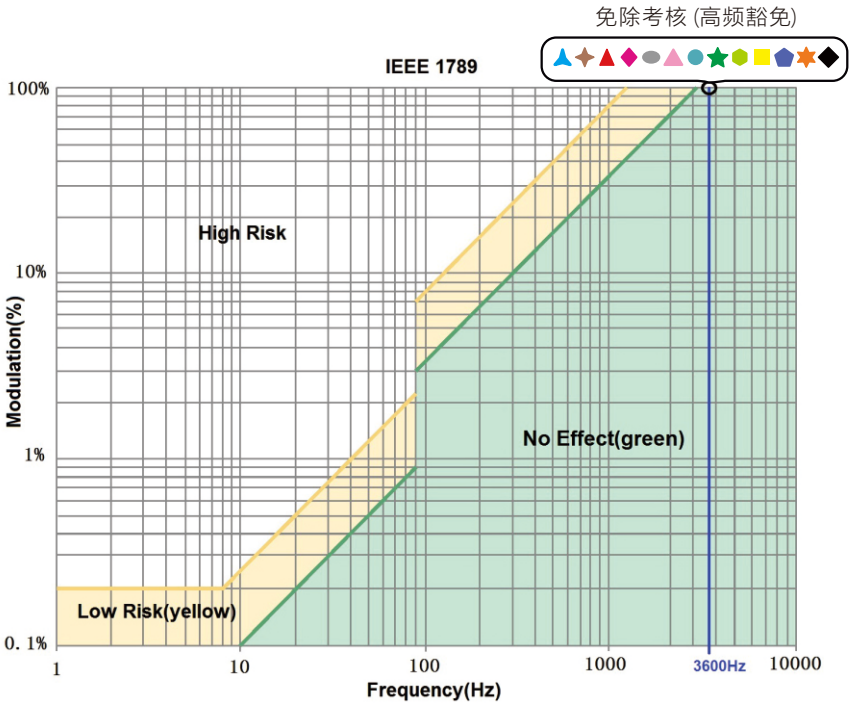
频闪测试表

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(%)
$f \leq 8Hz$	0.2
$8Hz < f \leq 90Hz$	$0.025 \times f$
$90Hz < f \leq 1250Hz$	$0.08 \times f$
$f > 1250Hz$	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(%)
$f \leq 10Hz$	0.1
$10Hz < f \leq 90Hz$	$0.01 \times f$
$90Hz < f \leq 3125Hz$	$(0.08/2.5) \times f$
$f > 3125Hz$	免除考核(高频豁免)

亮度

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



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。

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。
- 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足够负载连接的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，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	2021.03.22	正稿	许淑钧
A1	2022.06.01	在p1处添加输入电流"Max. 0.28A/230Vac"的参数	许淑钧
A2	2023.08.07	更新p1外箱规格为440×218×235mm(L×W×H) 40个/箱 8.4kg±5%/箱	杨魏玲
A3	20251115	更新公司LOGO和镭雕丝印	黎海鹏