

LED Intelligent Driver

- Dimming interface: DALI, Push DIM.
- Dimming range from 0-100%, LED start at 0.1% possible.
- DALI protocol: DALI 1, DALI 2.
- DALI dimming curve: Linear curve or logarithmic curve.
- 0-100% flicker-free, High Frequency Exemption
- Over-heat / Over voltage / Over load / Short circuit protection, recover automatically.
- Standby Power Loss < 0.5W
- Full protective plastic housing.
- DALI bus standard: IEC62386-101,102, 207.
- Compliant with Safety Extra Low Voltage standard.
- Suitable for indoor I/II/III type lamps application.
- 5 years warranty (Rubycon capacitor).



Flicker-free
IEEE 1789
Achieve the exemption level.

Dimmable:
0.1%-100%



SELV



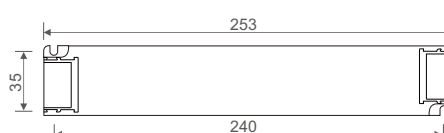
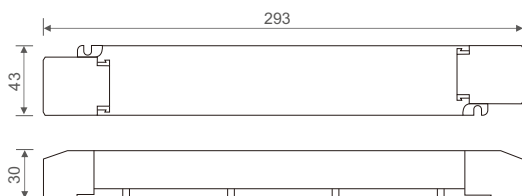
Specification

Model	LM-75-12-G1D2	LM-75-24-G1D2	LM-100-24-G1D2
OUTPUT	Output Voltage	12Vdc	24Vdc
	Output Voltage Range	12Vdc ±0.5Vdc	24Vdc ± 0.5Vdc
	Output Current	Max. 6.25A	Max. 3.125A
	Output Power	Max. 75W	Max. 4.17A
	Output Power Range	0-75W	Max. 100W
	Strobe Level	High frequency exemption level.	0-100W
	Dimming Range	0-100%, dimming depth: Max. 0.1%	0-100W
	Overload Power Limitation	≥ 102%	
	Ripple & Noise	≤ 200mV	≤ 300mV
	PWM Frequency	3600Hz	
INPUT	Dimming Interface	DALI (IEC62386), 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	230Vac@THD≤12%, at full load
	Efficiency (typ.)	91%	92%
	Standby Power Loss	<0.5W	
	Inrush Current(typ.)	Cold start 40A at 230Vac	Cold start 45.2A 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, auto recovers.	Shut down the output when non-load voltage ≥ 26V, auto recovers.
	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	IEC/EN61347-1, IEC/EN61347-2-13	
	EMC Emission	EN55015, EN61000-3-2 Class C, IEC61000-3-3	
	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 instantaneous surge current will be several 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.

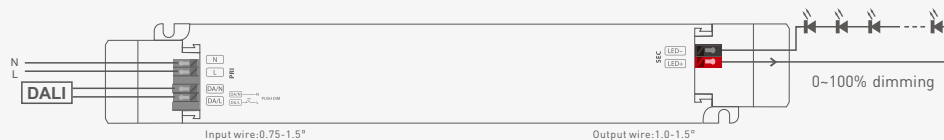
Dimensions

Unit: mm

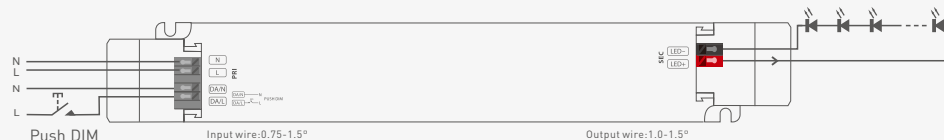


Wiring Diagram

DALI Connection



Push DIM Connection

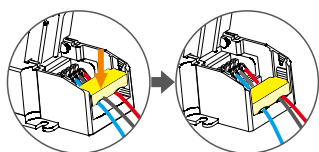


Short press to on/off, long press to DIM.

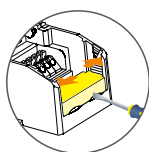
Dimming interface priority: First DALI, next Push DIM.

Application of Protective Cover

Wire pressing board:

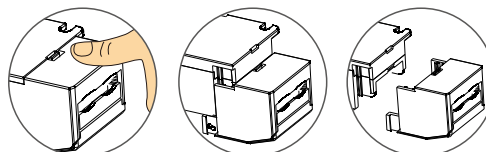


Push the wire pressing board to fix the wire.



Push outward the side plate, meanwhile use the tool to uninstall the wire pressing board.

Uninstall protective cover:



Break off the bottom left and right to remove the protective cover.

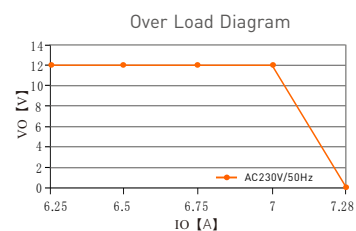
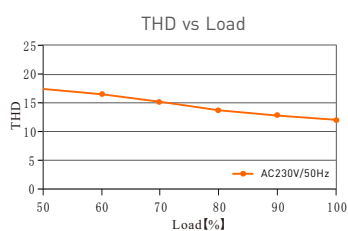
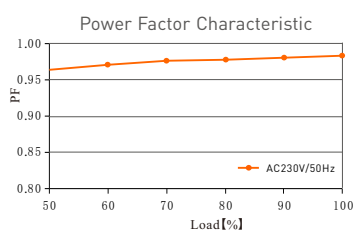
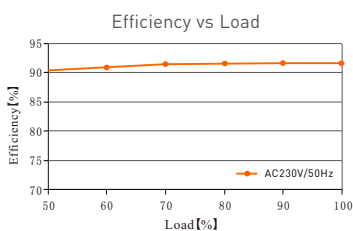
Push Dimming



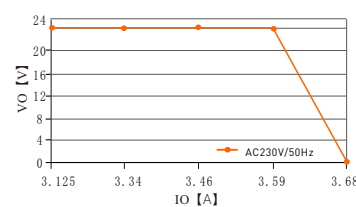
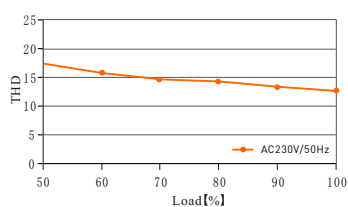
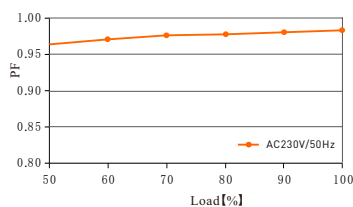
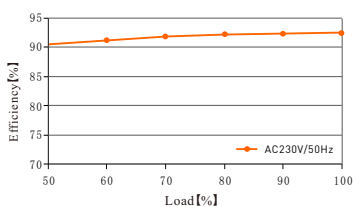
Reset switch

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

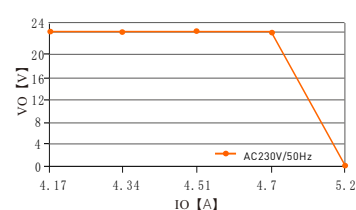
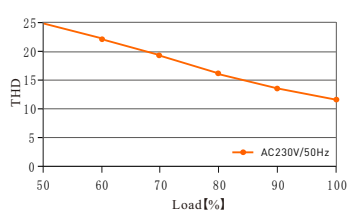
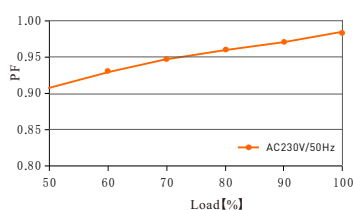
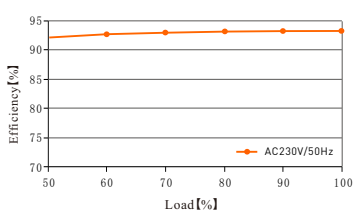
Relationship Diagrams



LM-75-12-G1D2



LM-75-24-G1D2



LM-100-24-G1D2

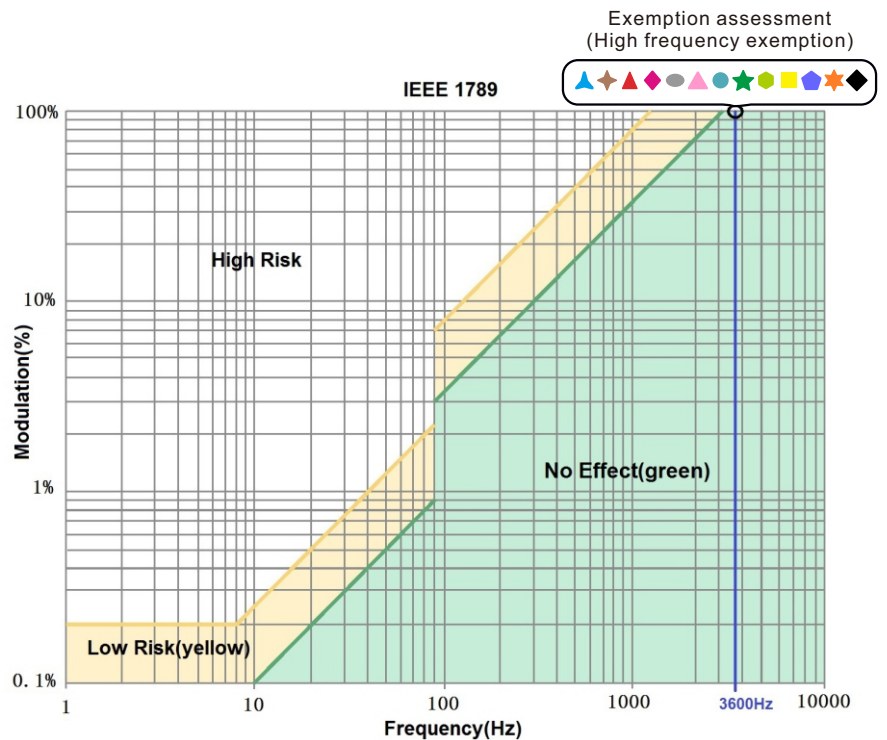
Flicker test form

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%



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.

* No further notice if any changes in the manual. Product function depends on the goods. Please feel free to contact your supplier if any question.

LED 智能调光驱动器

- 调光接口：DALI, Push DIM
- 调光范围：0~100%，LED从0.1%开始调光
- DALI协议：DALI 1, DALI 2
- DALI调光曲线可选线性或对数曲线
- 0~100%全程无频闪，高频豁免考核
- 过温、过压、过载、短路保护，可自动恢复
- 待机功耗<0.5W
- 全防护塑料外壳电源
- DALI总线标准 IEC62386-101,102,207
- 符合SELV安全特低电压标准
- 适合室内 I、II、III类灯具应用
- 5年保修期

无频闪
IEEE 1789
高频豁免级别

Dimmable:
0.1%-100%



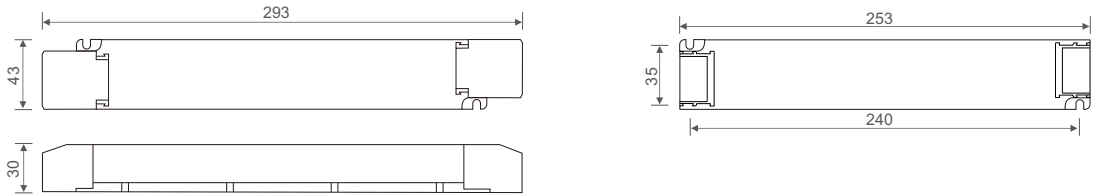
技术参数

型号		LM-75-12-G1D2	LM-75-24-G1D2	LM-100-24-G1D2
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		
	输出功率范围	0~75W		
	频闪级别	高频豁免级别		
	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	DALI (IEC62386), 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%
	待机功耗	< 0.5W		
	浪涌电流	冷启动40A/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°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, 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, 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, 可自动恢复。		
	短路保护	输出线路短路自动关闭, 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	IEC/EN61347-1, IEC/EN61347-2-13		
	电磁兼容发射	EN55015, EN61000-3-2 Class C, IEC61000-3-3		
	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	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、地理灯、洗墙灯、恒流硬灯条等），以便烧写特殊程序。

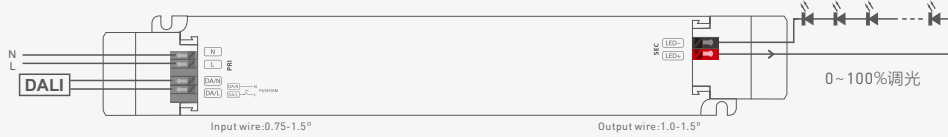
尺寸图

单位: mm



连接应用图

DALI 连接方式

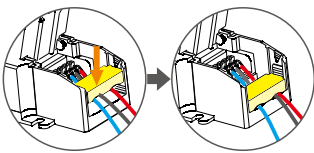


Push DIM 连接方式

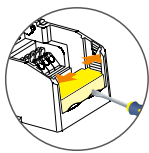


保护盖应用图

压线板

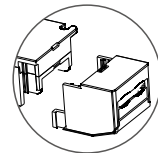
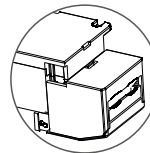
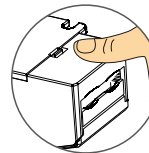


向下推压线板, 可固定住线。



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



在底部左右拨动, 即可将保护盖拆下。

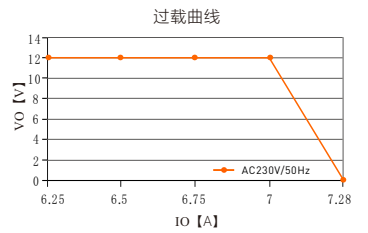
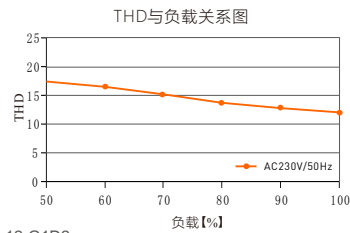
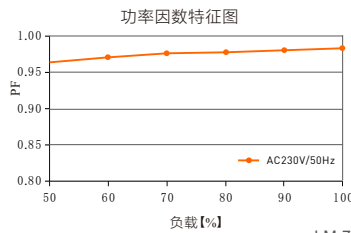
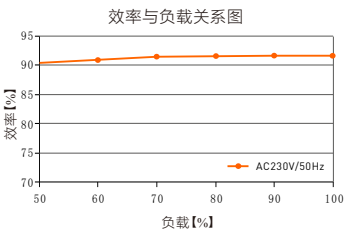
Push Dimming



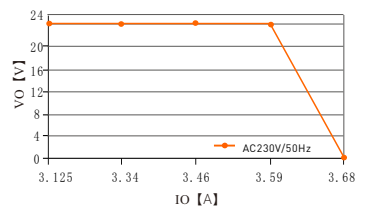
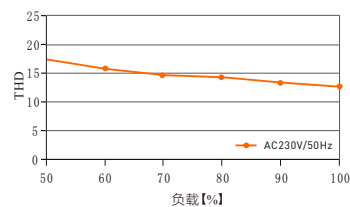
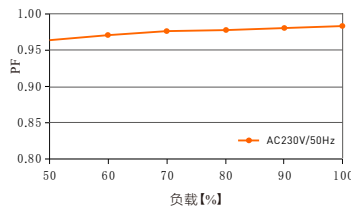
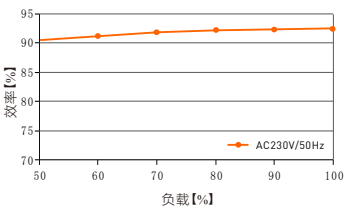
复位开关

- 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。

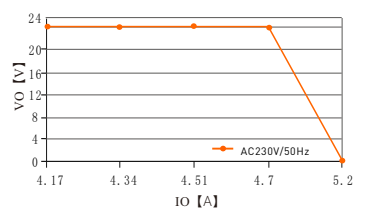
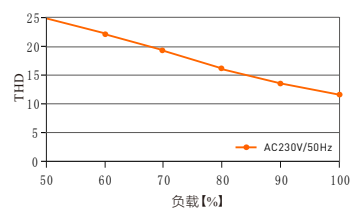
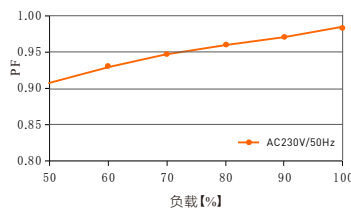
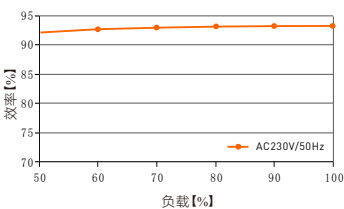
关系图表



LM-75-12-G1D2



LM-75-24-G1D2

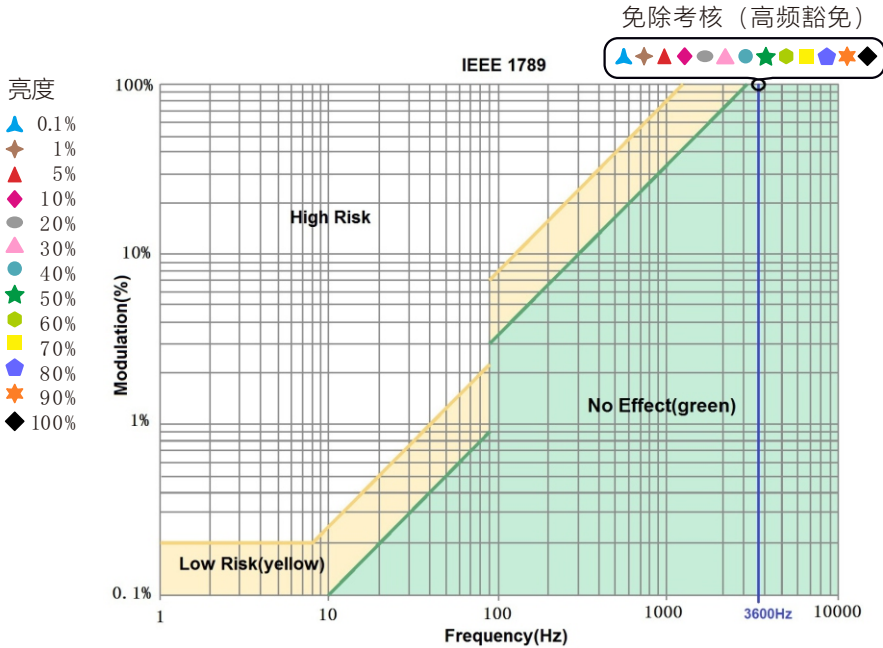


LM-100-24-G1D2

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



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。