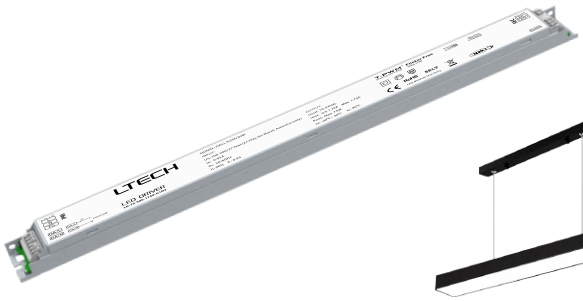
Intelligent LED Driver(Constant Current & Programmable)

- The output programming is adjustable and the output voltage is automatically adapted.
- With soft-on and fade-in dimming function enhancing visual comfort.
- T-PWM™ dimming technology allows continuous and flicker-free images under high-speed shooting.
- 0-100% flicker-free dimming with high frequency exemption level.
- Dimming interface: DALI-2, Push DIM.
- Dimming from 0~100%, down to 0.1%.
- Energy-efficient driver: Effeciency 89%, PF>0.9, THD<10%.
- Comply with the EU's ErP Directive, stand-by power consumption <0.5W.
- Innovative thermal management technology protects the power life intelligently.
- Overheat, over voltage , overload, short circuit protection and automatic recovery.
- DALI bus standard: IEC62386-101,102, 207.
- Suitable for indoor light applications of I / II /III type.
- Up to 50,000-hour life time.
- 5-year warranty (Rubycon capacitor).



DALI 2

T-PWM™
Super depth dimming technology

Flicker-free
IEEE 1789
Achieve high frequency exemption level.

Dimmable:
0.1%-100%

CE RoHS SELV

The certification icon represents on-going certification applications only, and final certification qualification is subject to actual products.

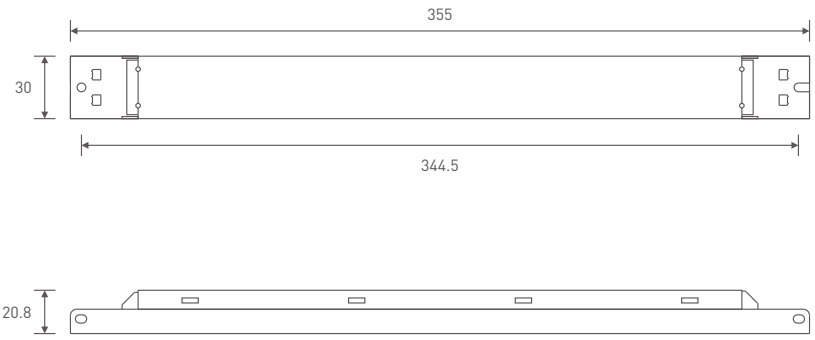
DALI Push DIM | T-PWM Super depth dimming technology | Overheat protection | Over voltage protection | Overload protection | Short circuit protection

Technical Specs

Model		LU-75-500-1750-U1D2		
OUTPUT	Output Voltage	58Vdc (Max)		
	Output Voltage Range	10-54Vdc		
	Output Current	500-1750mA		
	Output Power	Max. 75W		
	Output Power Range	5-75W		
	Strobe Level	High frequency exemption level		
	PWM Frequency	≤3600Hz		
	Dimming Range	0~100%, down to 0.1%		
	Overload Power Limitation	≥102%		
	Ripple & Noise	Switch ripple≤200mV, noise≤800mV		
INPUT	Dimming Interface	DALI-2, Push DIM		
	Input Voltage	100-240/277Vac (277Vac for North America only)		
	Frequency	50/60Hz		
	Input Current	Max. 0.9A/115Vac; Max. 0.45A/230Vac; Max. 0.35A/277Vac		
	Power Factor	PF>0.97/115Vac; PF>0.95/230Vac; PF>0.9/277Vac		
	THD	115Vac@THD<6%; 230Vac@THD<10%; 277Vac@THD<10%		
	Efficiency (typ.)	89%		
	Standby Power Loss	<0.5W		
	Inrush Current	Cold start 50A/230Vac		
	Anti Surge	L-N: 2KV		
	Leakage Current	Max. 0.7mA		
ENVIRONMENT	Working Temperature	ta: -20~50°C tc: 85°C		
	Working Humidity	20 ~ 95%RH, non-condensing		
	Storage Temperature, Humidity	-40~80°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	Overheat Protection	Intelligently adjust or turn off the output current if the PCB temperature ≥110°C, and recover automatically		
	Overvoltage protection	Shut down the output when non-load voltage≥58V, and recover automatically		
	Overload 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		
	Isolation Resistance	I/P-O/P: 100MΩ/500Vdc/25°C/70%RH		
	Safety Standards	CE	European Union	EN61347-1, EN61347-2-13
	EMC Emission	CE	European Union	EN55015, EN61000-3-2, EN61000-3-3
	EMC Immunity	EN61000-4-2,3,4,5,6,8,11, EN61547		
	Strobe Test Standard	IEEE 1789		
OTHERS	Dimensions	355×31×21mm(L×W×H)		
	Package size	406×33×23mm(L×W×H)		
	Gross weight(G.W)	330g±10g		

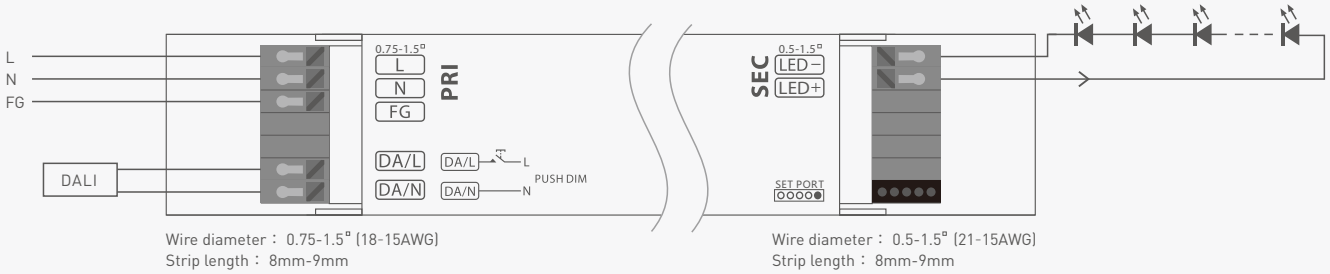
Product Size

Unit: mm



Wiring Diagram

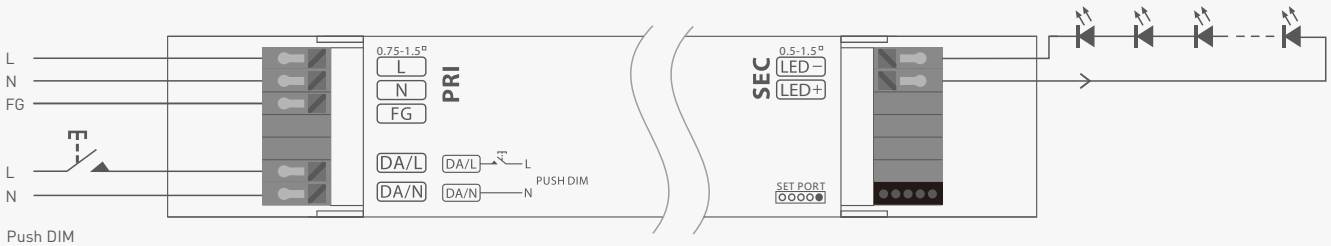
DALI Connection



Wire diameter： 0.75-1.5² (18-15AWG)
Strip length： 8mm-9mm

Wire diameter： 0.5-1.5² (21-15AWG)
Strip length： 8mm-9mm

Push DIM Connection



Push DIM
0-100% dimming range
Short press to turn on/off
Long press to dim

Dimming interface priority: DALI 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.

＊ Switch on and off within 10 seconds, it will not have the same gradual effect as normal boot, but directly to the most bright level.

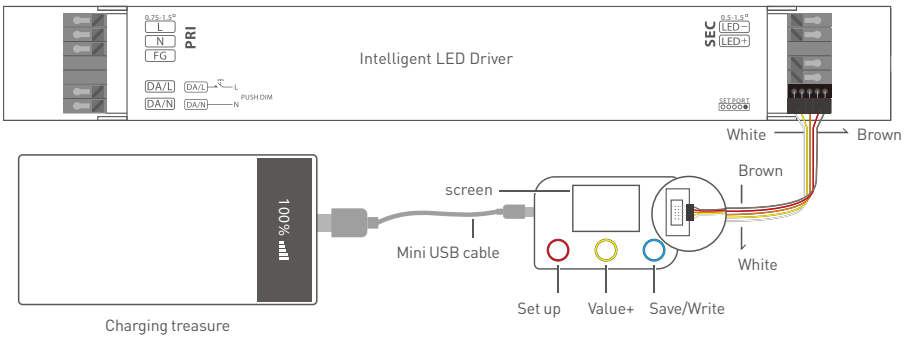
Parameter Range

Model	Power(W)	Output Voltage Range(V)	Adjustable range of output current(mA)	Adjustable range of full power output(mA)	Factory Settings
LU-75-500-1750-U1D2	75W	10-54Vac	500-1750mA	1380-1750mA	500mA

Work with the ISET Programmer (Model LT-ISET)

LT-ISET is an editor for changing current.Through simple and fast settings, the current can be changed easily to meet the current demand of the adapted lamp.

* The LT-ISET editor can modify the current when the driver is not powered on. It is recommended to modify the current value successfully before installing.(The current value you modify can be burned to the dimmable LED driver when it's offline. No need to power it on.)

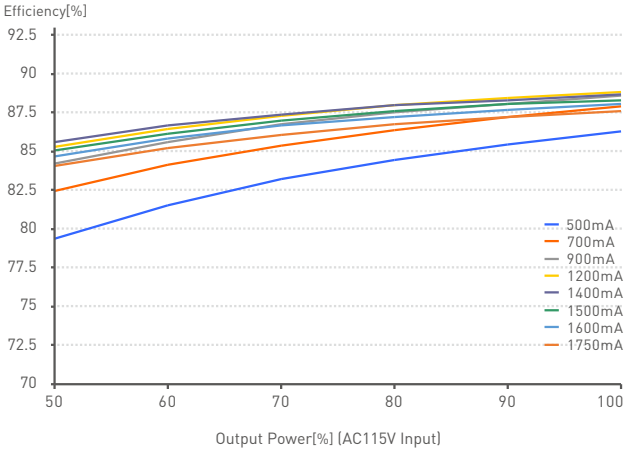


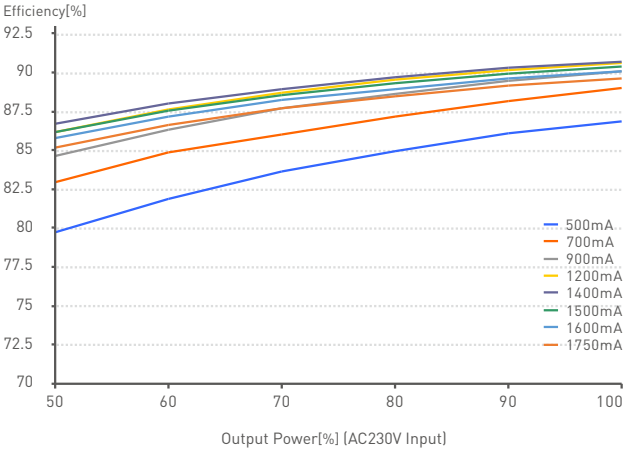
Operating Instructions for the LT-ISET editor

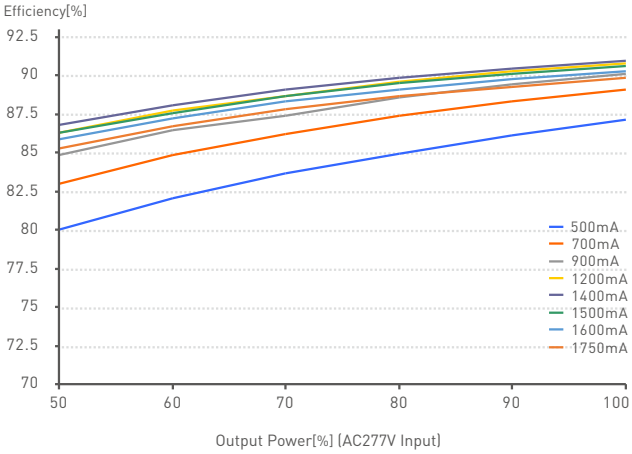
1. Insert the wires of the ISET editor into the driver whose current needs to changed in the correct direction (as shown above). After connecting the driver successfully, use the Mini USB cable to connect the editor and power it on.
2. Press the red "Setting" button on the left , the first digit of the current value on the screen is selected. The digit flashes to indicate that it has been selected. After selecting the digit, press the yellow "+" button in the middle to select and modify the value. (The range of the first digit is from 0 to 2 and the range of other digits is from 0 to 9). When the numeric value reaches the preset one, press the red "Setting" button again to select the next digit to modify its value, and so on.
3. When the current value reaches the preset value, press the blue button on the right to save the current value. Press the blue button again to write. When you hear a short beep of the editor , the current value will be set up successfully. If you hear a long beep of the editor, it means that the current value exceeds the current range of the driver and the setting fails.

Relationship Diagrams

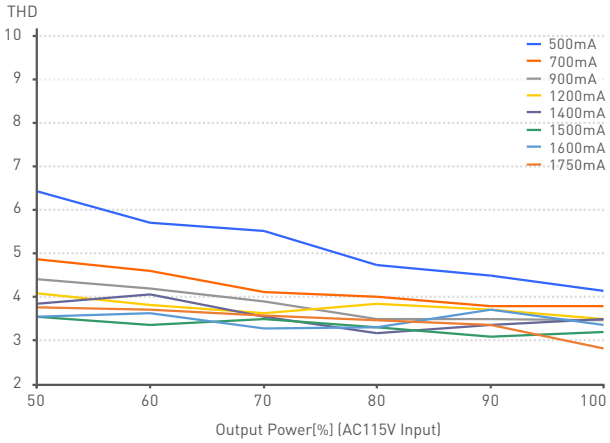
Characteristic diagram of efficiency curve

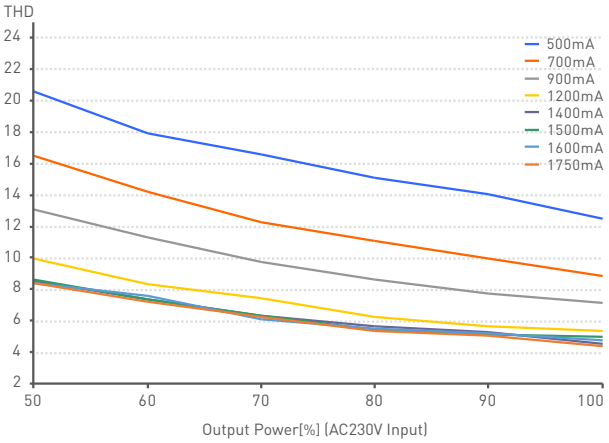


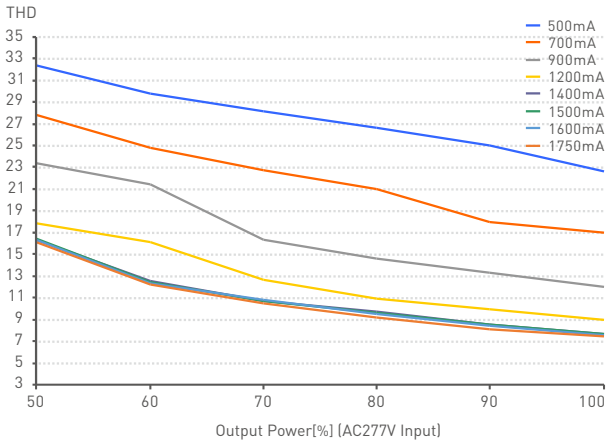




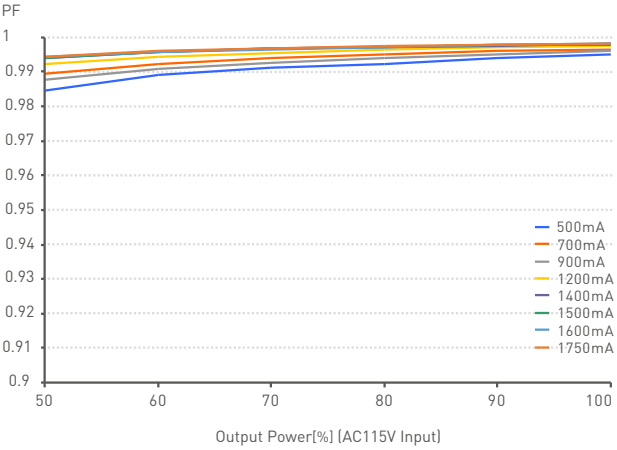
THD Characteristic Curve

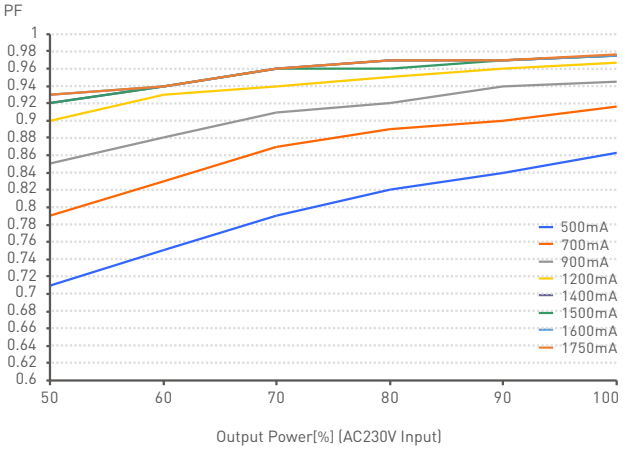


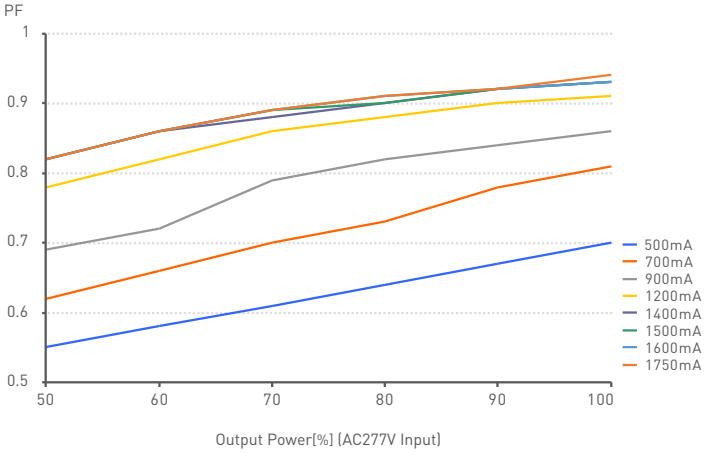




PF Characteristic Curve







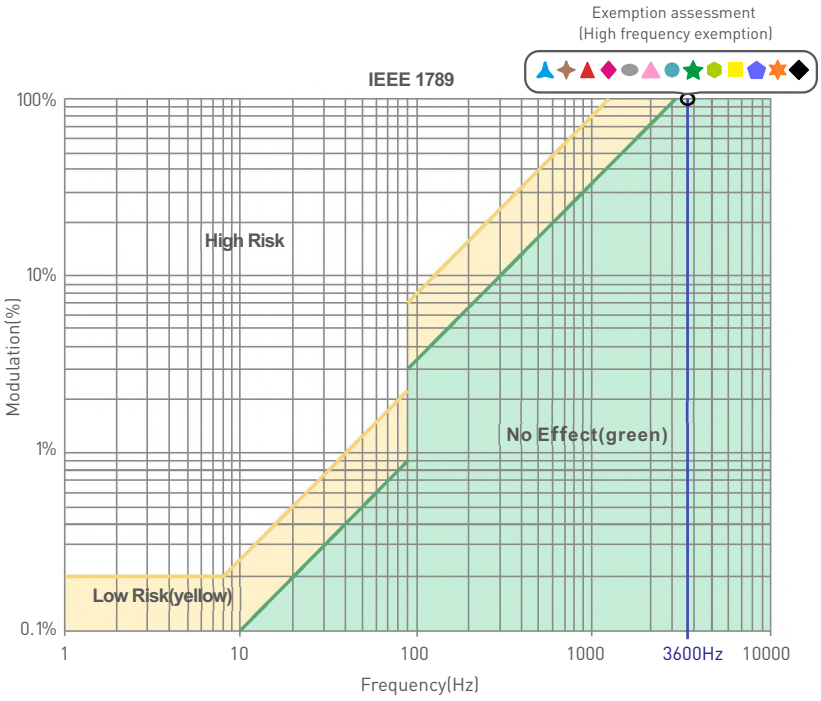
Flicker Test Table

IEEE 1789

Limit Value of Modulation in Low Risk Areas	
Waveform frequency of Optical output (f)	Limit value (%)
f ⩽ 8Hz	0.2
8Hz < f ⩽ 90Hz	0.025 × f
90Hz < f ⩽ 1250Hz	0.08 × f
f > 1250Hz	Exemption assessment
Limit Value of Modulation in No Effect Areas	
Waveform frequency of Optical output (f)	Limit value (%)
f ⩽ 10Hz	0.1
10Hz < f ⩽ 90Hz	0.01 × f
90Hz < f ⩽ 3125Hz	(0.08/2.5) × 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 are tested results of different current level.
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	2021.01.18	Original version	Liu Weili
A1	2022.04.19	Remove UL, FCC certification icons	Liu Weili

LED智能调光驱动器(恒流可编程型)

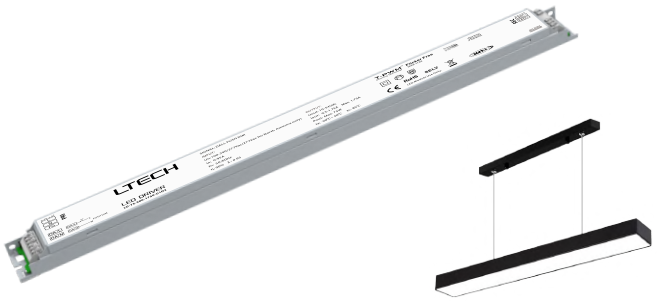
- 输出编程可调, 输出电压自动适应
- 带软启动渐亮功能, 让人眼视觉更舒适
- T-PWM™ 数字调光技术, 高速相机拍摄无条纹闪烁
- 0-100%全程调光无可视频闪, 高频豁免级别
- 调光接口: DALI-2，Push DIM
- 调光范围: 0-100%, LED从0.1%开始调光
- 高效能电源: 效率89%、PF>0.9、THD<10%
- 符合欧盟能效ERP指令, 待机功耗＜0.5W
- DALI总线标准 IEC62386-101,102,207
- 创新的热管理技术, 智能保护电源寿命
- 过温、过压、过载、短路保护, 可自动恢复
- 适合室内Ⅰ、Ⅱ、Ⅲ类灯具应用
- 高达50,000小时的额定寿命
- 5年保修期 (采用红宝石电容)

DALI 2

T-PWM™
超深度调光技术

无频闪
IEEE 1789
高频豁免考核级别

Dimmable:
0.1%-100%



CE RoHS SELV

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。

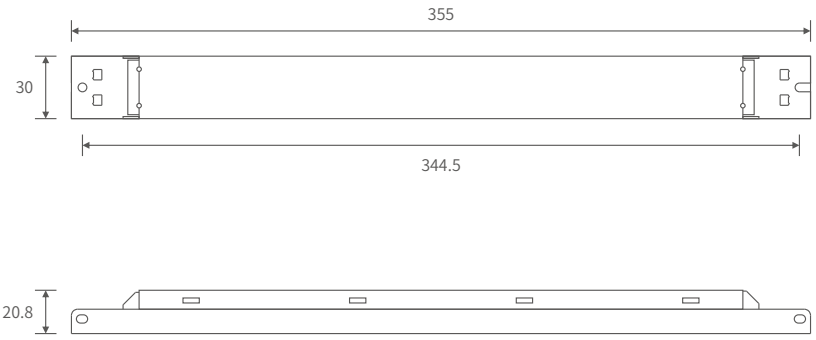
DALI Push DIM | T-PWM 超深度调光技术 | 过温保护 | 过压保护 | 过载保护 | 短路保护

技术参数

型号		LU-75-500-1750-U1D2		
输出	输出电压	58Vdc (Max)		
	输出电压范围	10-54Vdc		
	输出电流	500-1750mA		
	输出功率	Max. 75W		
	输出功率范围	5-75W		
	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%		
	过载功率限制	≥102%		
	纹波与噪声	开关纹波≤200mV, 噪声≤800mV		
输入	调光接口	DALI-2, Push DIM		
	输入电压	100-240/277Vac (277Vac for North America only)		
	频率范围	50/60Hz		
	输入电流	Max. 0.9A/115Vac; Max. 0.45A/230Vac; Max. 0.35A/277Vac		
	功率因数	PF>0.97/115Vac; PF>0.95/230Vac; PF>0.9/277Vac		
	谐波THD	115Vac@THD＜6%; 230Vac@THD＜10%; 277Vac@THD＜10%		
	效率(Typ.)	89%		
	待机功耗	<0.5W		
	浪涌电流	冷启动50A/230Vac		
	抗浪涌	L-N: 2KV		
	漏电流	Max. 0.7mA		
环境	工作温度	ta: -20~50°C tc: 85°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(-20~50°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≥58V, 关闭输出, 可自动恢复		
	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	CE	欧盟	EN61347-1，EN61347-2-13
	电磁兼容发射	CE	欧盟	EN55015，EN61000-3-2，EN61000-3-3
	电磁兼容抗扰度	EN61000-4-2,3,4,5,6,8,11，EN61547		
	频闪测试	IEEE 1789		
其他	产品尺寸	355×31×21mm(L×W×H)		
	包装尺寸	406×33×23mm(L×W×H)		
	产品重量(G.W)	330g±10g		

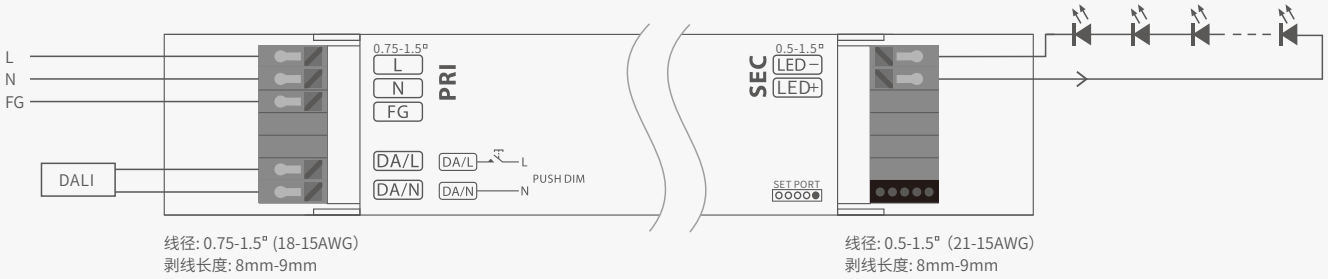
尺寸图

单位: mm



连接应用图

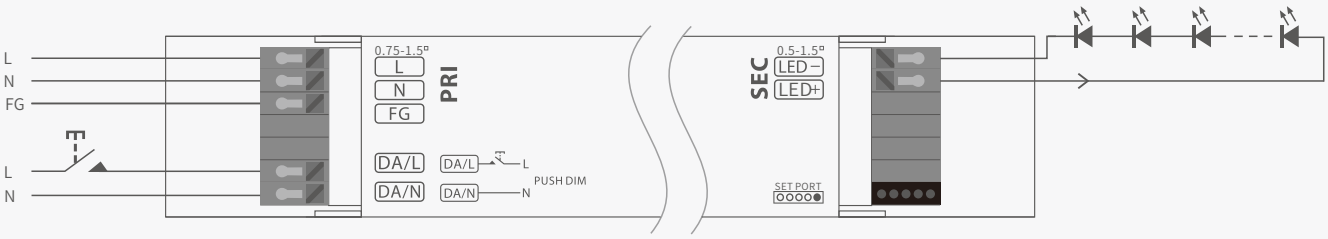
DALI 连接方式



线径: 0.75-1.5² (18-15AWG)
剥线长度: 8mm-9mm

线径: 0.5-1.5² (21-15AWG)
剥线长度: 8mm-9mm

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DALI, 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

＊ 在10秒内开关机, 不会像正常开机一样有渐变效果, 而是直接到最亮点。

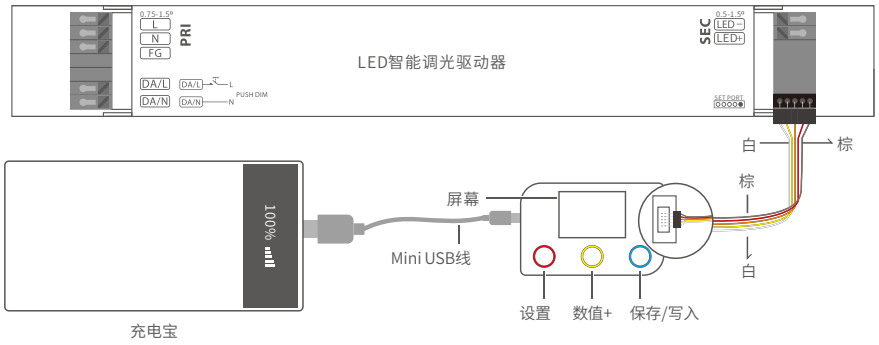
参数范围

型号	功率 (W)	输出电压范围 (V)	输出电流可调范围 (mA)	满功率输出可调范围 (mA)	出厂设置
LU-75-500-1750-U1D2	75W	10-54Vac	500-1750mA	1380-1750mA	500mA

搭配ISET编辑器 (型号LT-ISET) 使用

本产品可配合LTECH的ISET编辑器, 通过简单快速的设置, 可随心改变电流, 以达到适配的灯具的电流需求。

＊ LT-ISET编辑器可在驱动器未通电情况下修改电流, 建议先将电流值修改成功后再进行安装(调光驱动器可脱机烧录，无需通电)。

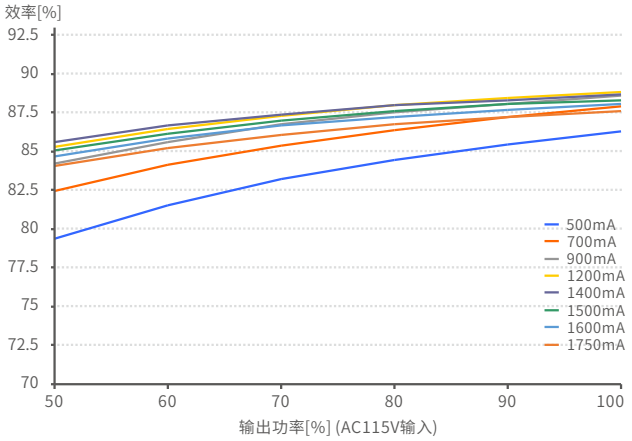


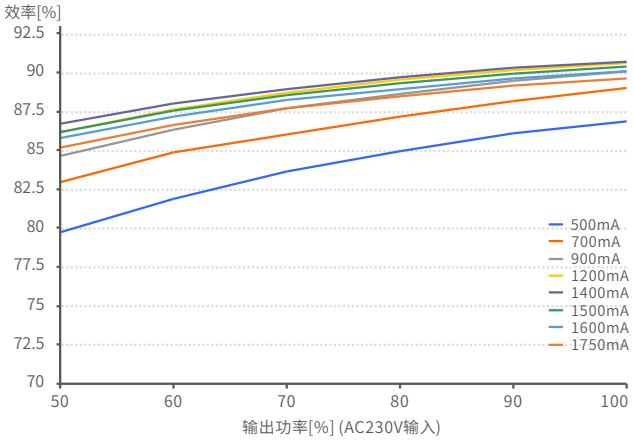
LT-ISET使用说明

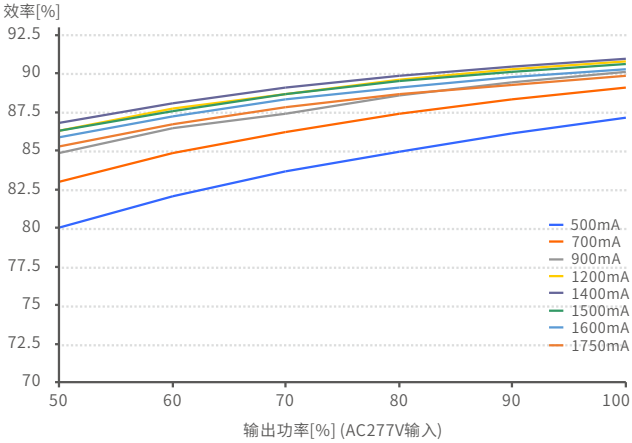
1. 将编辑器的排线按照正确方向(如上图)插入需更改电流的驱动器, 成功连接驱动器, 使用Mini USB线将编辑器接通电源。
2. 按下左侧红色设置按键, 屏幕中电流值的首位即被选中(数字闪烁表示已被选中), 选中数值后, 按下中间黄色按键, 对数值进行选择修改, (首位数值范围: 0-2 其他数值范围: 0-9)。当达到预设的数值后, 再次按下红色按键即可选中下一位数值, 以此类推设置其他数值。
3. 调整到预设的电流值后, 按下右侧蓝色按键, 即可保存设置的电流值, 再次按下蓝色按键写入, 编辑器短 “嘀” 一声表示电流值更改成功。若编辑器长 “嘀” 一声则表示设置电流值超出驱动器电流范围, 设置失败。(本产品电流范围: 500-1750mA)

关系图表

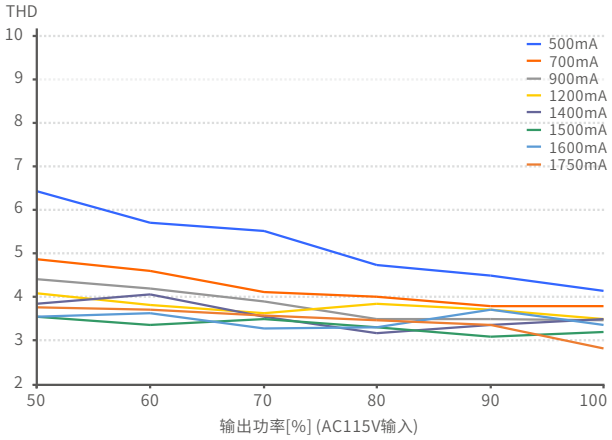
效率曲线特性图

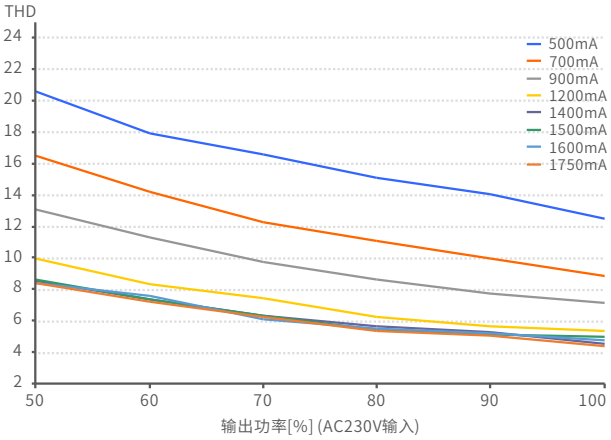


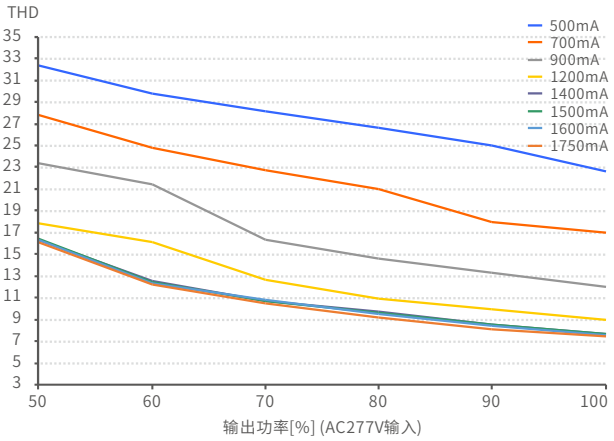




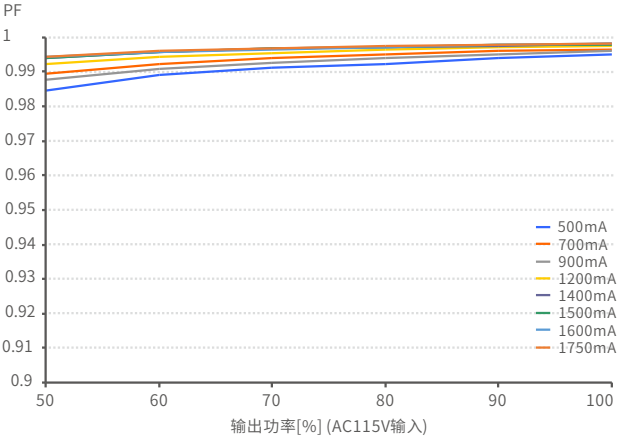
THD曲线特性图

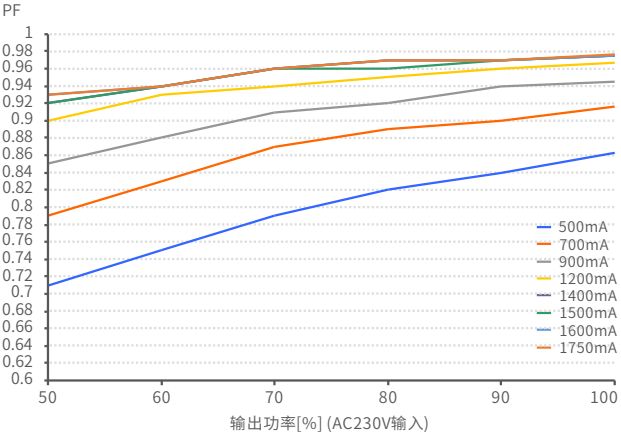


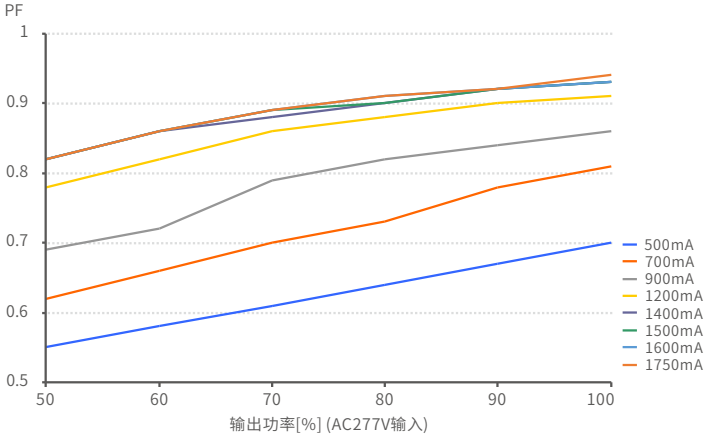




PF曲线特性图







频闪测试表

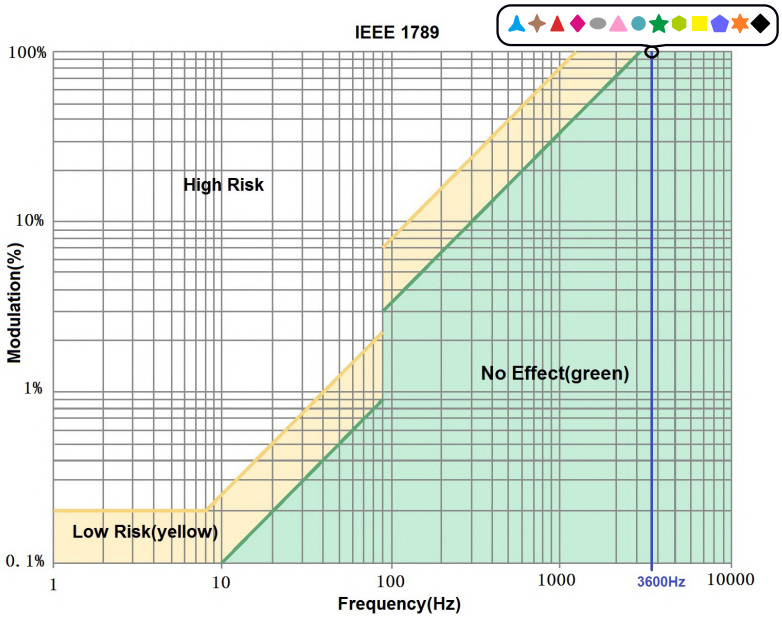
IEEE 1789

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 ≤ 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 (No Effect) 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%

免除考核（高频豁免）



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, 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	2021.01.18	正稿	刘伟丽
A1	2022.04.19	删除UL、FCC认证图标	刘伟丽