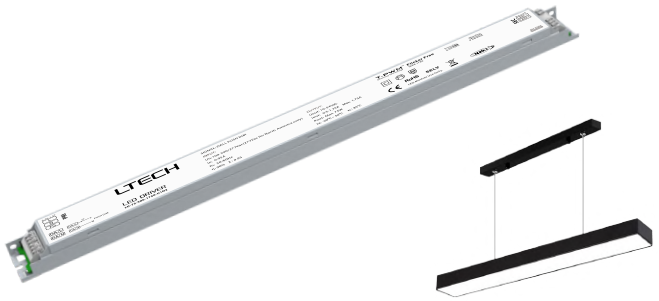
Intelligent LED Driver(Constant Current & Programmable)

- 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).



T-PWM™
Super depth dimming technology

Flicker-free
IEEE 1789
Achieve high frequency exemption level.

Dimmable:
0.1%-100%

RoHS SELV

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

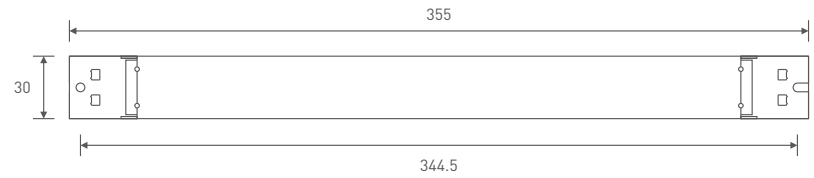
DALI Push DIM | T-PWM Super depth dimming technology | Overheat protection | Over voltage protection | Overload protection | Short circuit protection

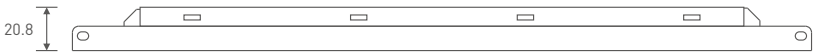
Technical Specs

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

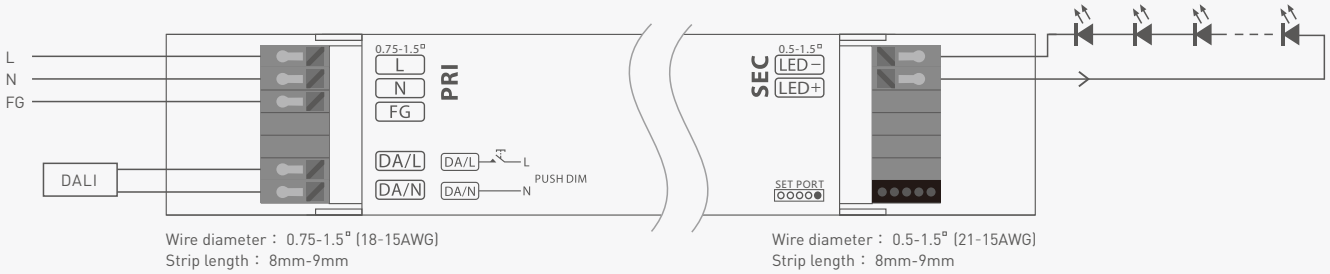
Unit: mm





Wiring Diagram

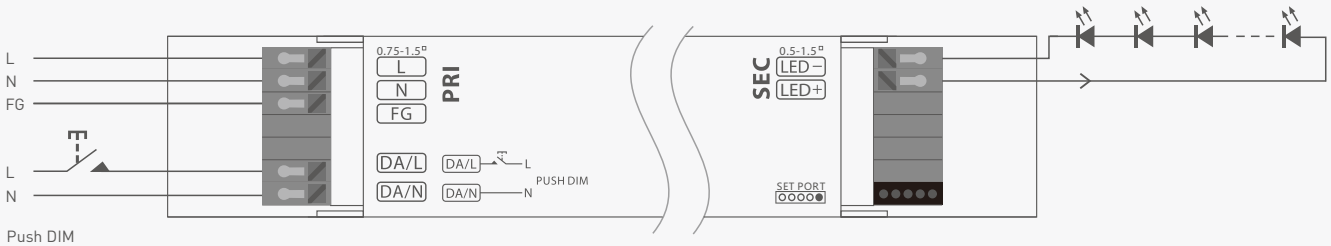
DALI Connection



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.

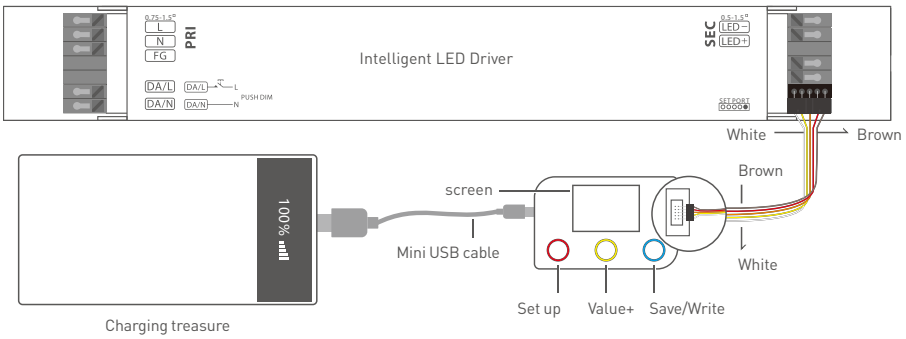
Parameter Range

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.)

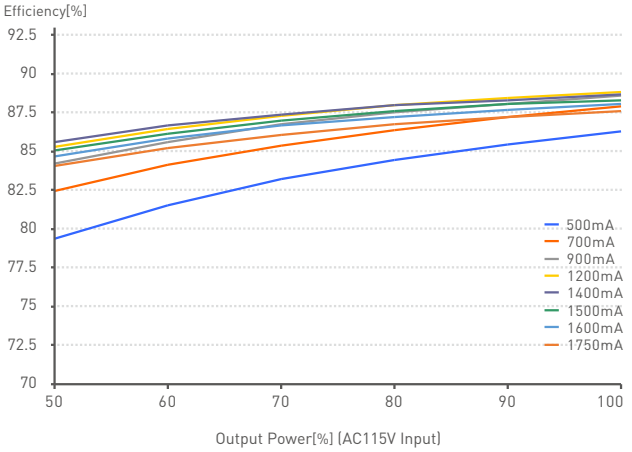


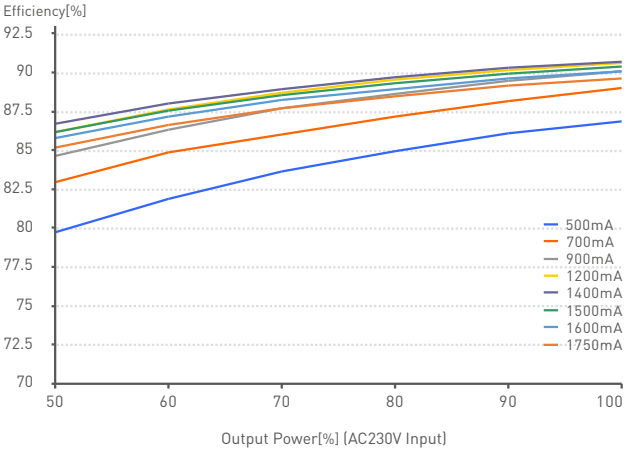
Operating Instructions for the LT-ISET editor

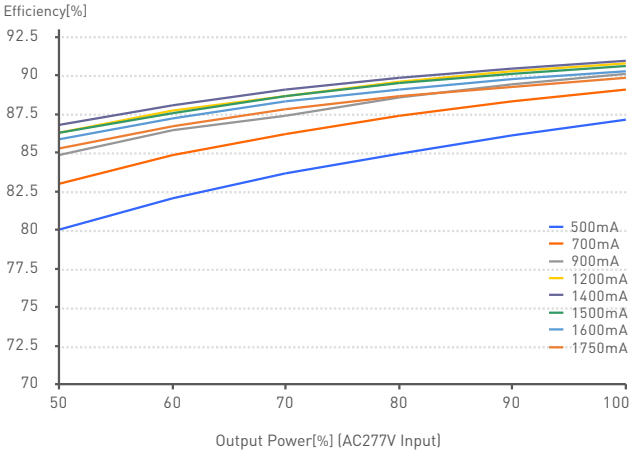
1. Insert the wires of the ISET editor into the driver whose current needs to changed in the correct direction (as shown above). After connecting the driver successfully, use the Mini USB cable to connect the editor and power it on.
2. Press the red "Setting" button on the left , the first digit of the 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

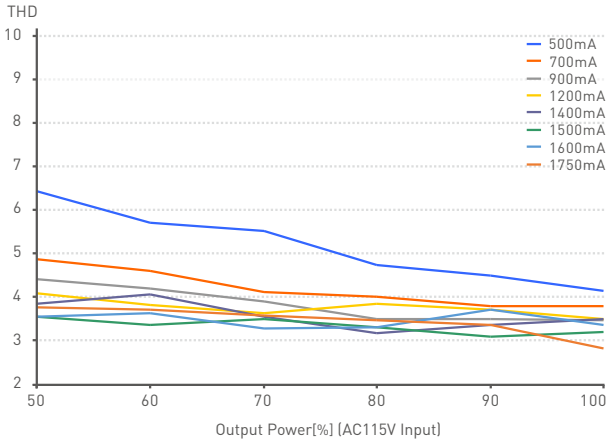
Characteristic diagram of efficiency curve

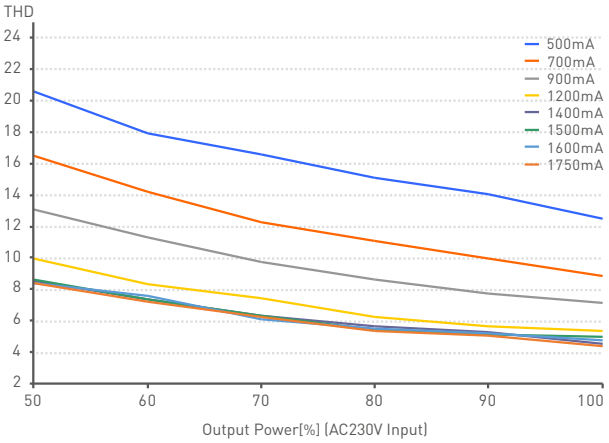


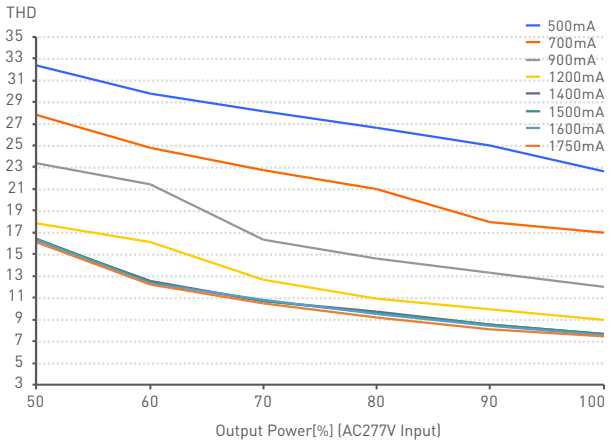




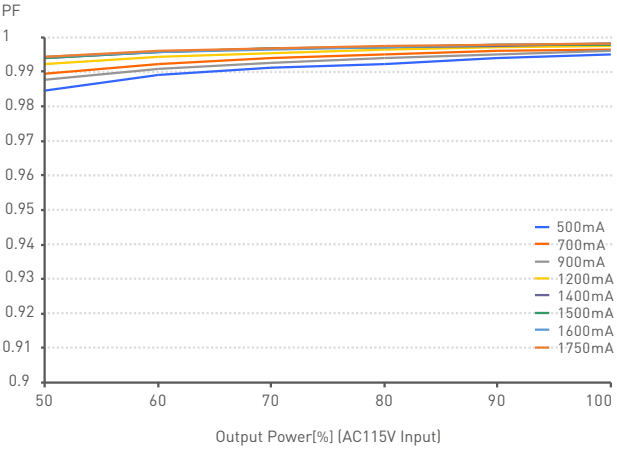
THD Characteristic Curve

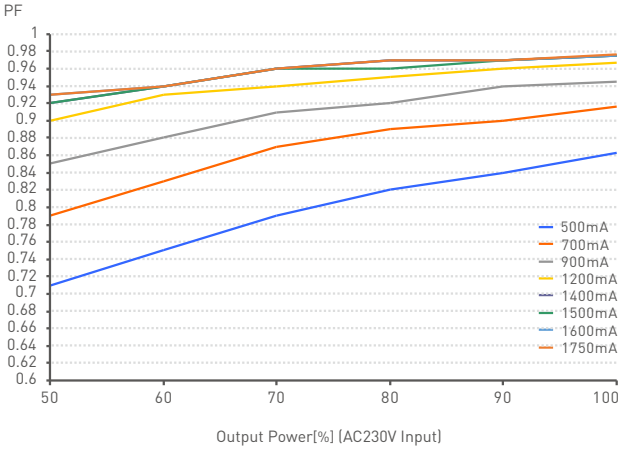


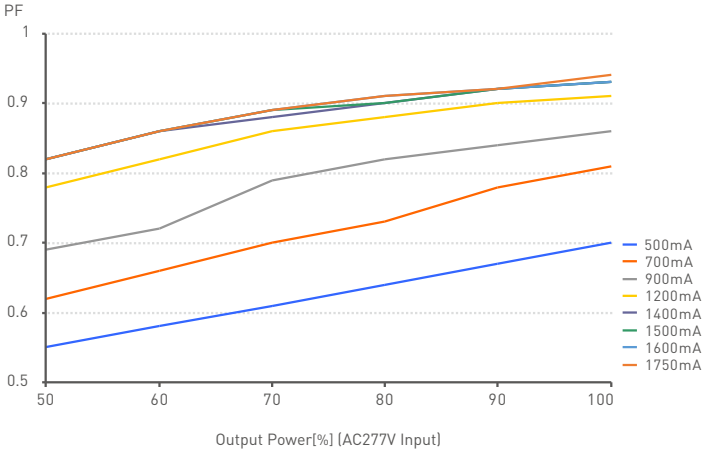




PF Characteristic Curve







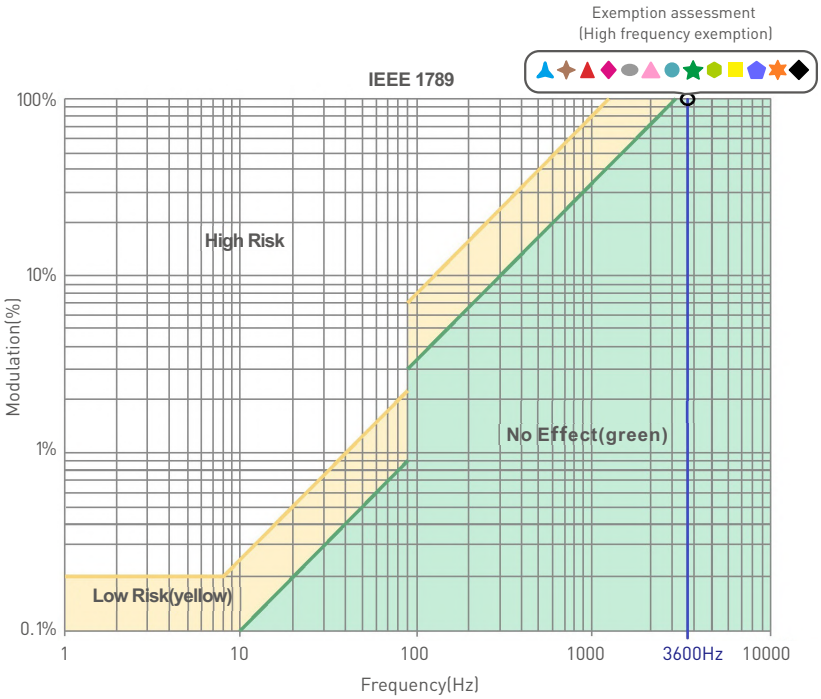
Flicker Test Table

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