# LED Driver DALI 500-1750mA 75W - LU-75-500-1750-U1D2

# 2826100



General	
Product Type	Constant Current Driver
Length (mm)	355
Width (mm)	31
Height (mm)	21
Housing Color	White
Housing Material	Aluminum
Mounting	Surface mounted
Weight (g)	330
Electronics	
Input Domain	AC
Input Voltage	100 ~ 240V AC
Input Current max (A)	0.1A @ 230V AC
Output Voltage	10 ~ 54V DC
Output Current (mA) max/output	
Output Power Range (W)	5~75
Power Factor at Full Load	+0.95 @ 230VAC
Power Supply	Internal
LED Outputs	1
Anti Surge	L-N: 2kV
Efficiency	89%
Leakage current max. (mA)	0.7
Standby Power Loss Max. (W)	0.5
Input Frequency	50 ~ 60Hz
Inrush Current	0.45A @ 230VAC
Lighting	
Color Range	Single Color
Control	
Output Signal	PWM-CC
Control	DALI
Dimming Range	0~100%
Number of Channels	1
Protection	
Protection Class	II
Environmental	
Storage Temperature	-40 ~ +80 °C
Operating Temperature	-30 ~ +50 °C
Ingress Protection	IP20

# **€** IP20

#### Disclaimer

Due to the technical evolution and improvement of our products, the data provided in this document may be updated on a regular basis, and as such, confirmation of this information is strongly recommended prior to the order process. OneEightyOne is not responsible for any discrepancies in this document following changes in our products. We reserve the right to make technical changes to our products and to change information, at its sole discretion, without notice.

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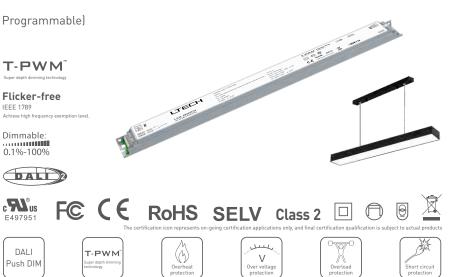


#### DALI Push DIM

#### 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<sup>™</sup> 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%.
- Dimming from 0~100%, down to 0.1%.
   Energy-efficient driver: Effeciency 89%, PF>0.9, THD<10%.</li>
- Comply with the EU's ErP Directive, stand-by power consumption a.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).

## **Technical Specs**



Model		LU-75-500-1750-U1D2				
	Output Voltage	58Vdc (I	Max)			
	Output Voltage Range	10-54Vdc				
	Output Current	500-1750mA				
	Output Power	Max. 75W				
	Output Power Range	5-75W				
OUTPUT	Strobe Level	High frequency exemption level				
	PWM Frequency	≼3600H	Z			
	Dimming Range	0~100%	0~100%, down to 0.1%			
	Overload Power Limitation	≥102%	≥102%			
	Ripple & Noise	Switch	Switch ripple<200mV, noise<800mV			
	Dimming Interface	DALI-2,	DALI-2, Push DIM			
	Input Voltage	100-240	100-240/277Vac (277Vac for North America only)			
	Frequency	50/60Hz	50/60Hz			
	Input Current	Max. 0.9	Max. 0.9A/115Vac; Max. 0.45A/230Vac; Max. 0.35A/277Vac			
	Power Factor	PF>0.97	7/115Vac; PF>0.95/23	0Vac; PF>0.9/277Vac		
INPUT	THD	115Vací	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: 2K	V			
	Leakage Current	Max. 0.7	Max. 0.7mA			
	Working Temperature	ta: -20~	ta: -20~50°C tc: 85°C			
	Working Humidity	20 ~ 95%RH, non-condensing				
ENVIRONMENT	Storage Temperature, Humidity	-40~80°C, 10-95%RH				
	Temperature Coefficient	±0.03%/°C(-20~50°C)				
	Vibration	10~500	10-500Hz, 2G 12min/1cycle, 72 min for X, Y and Z axes respectively			
	Overheat Protection	Intelligently adjust or turn off the output current if the PCB temperature ≥110°C, and recover automatically				
PROTECTION	Overvoltage protection	Shut down the output when non-load voltage>58V, and recover automatically				
FROILCHON	Overload protection	Shut down the output when current load≥102%, and recover automatically				
	Short circuit protection	Enter h	Enter hiccup mode if short circuit occurs, and recover automatically			
	Withstand Voltage	I/P-0/F	I/P-0/P: 3750Vac			
	Isolation Resistance	I/P-0/F	P:100MΩ/500Vdc/25	5°C/70%RH		
		UL	America	UL8750		
SAFETY	Safety Standards	CUL	Canada	CSA C22.2 No. 250. 13		
&		CE	European Union	EN61347-1, EN61347-2-13		
EMC	EMC Emission	FCC	America	FCC part 15		
		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 17	IEEE 1789			
	Dimensions	355×31×21mm(L×W×H)				
OTHERS	Package size	406×33×23mm(L×W×H)				
	Gross weight(G.W)	330g±10g				



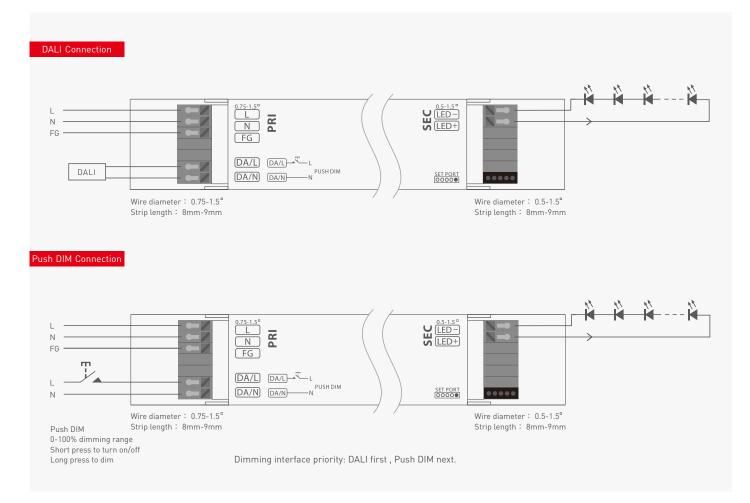


#### Product Size

Unit: mm



## Wiring Diagram



#### Push DIM



- 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.

Reset switch





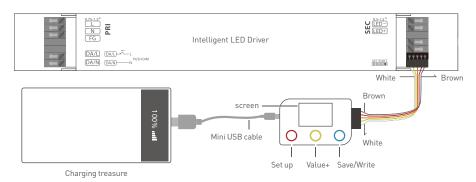
#### Parameter Range

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.

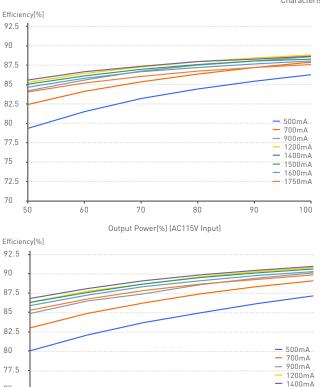
# **Relationship Diagrams**

75

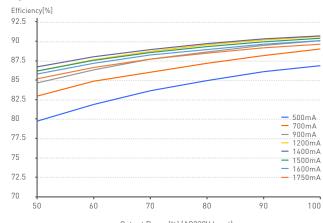
72.5

70 50

60







Output Power[%] (AC230V Input)

80

70

1400mA

1750mA

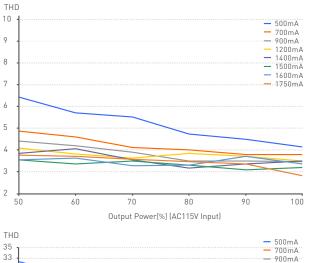
100

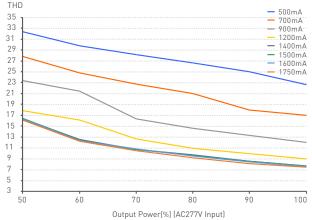
- 1500mA - 1600mA

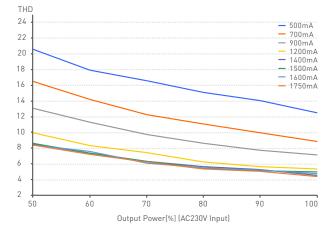
90

#### DALI Push DIM

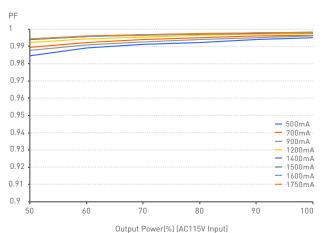
THD Characteristic Curve



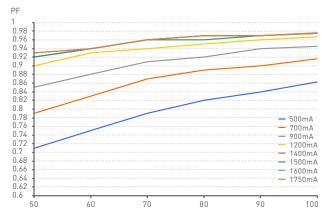




PF Characteristic Curve



PF 0.9 0.8 0.7 500mA 700mA 900mA 1200mA \_ 900mA
 1200mA
 1400mA
 1500mA
 1600mA
 1750mA 0.6 0.5 50 60 70 80 90 100 Output Power[%] (AC277V Input)



Output Power[%] (AC230V Input)



Limit Value of Modulation in Low R

Limit Value of Modulation in No Eff



Exemption assessment (High frequency exemption)

## Flicker Test Table

f < 8Hz 8Hz < f < 90Hz 90Hz < f < 1250Hz f > 1250Hz

f < 10Hz 10Hz < f < 90Hz 90Hz < f < 3125Hz f > 3125Hz

		1000/	IEEE 1789	
IEEE 1789	Brightness	100%		
Risk Areas	▲ 0.1% ◆ 1%			
Limit value (%)	▲ 5%			
0.2	10%			
0.025 × f	20%		High Risk	
0.08 × f	<b>4</b> 30%	10%		
mption assessment	40%	[%		
ffect Areas	<b>*</b> 50% 60%	Modulation(%)		
Limit value (%)	70%	qul		
0.1	80%	Σ		
0.01 × f	₹ 90% ♦ 100%	1%		No Effect(green)
(0.08/2.5) × f	▼ 100 /0			
nption assessment h frequency exemption)		-		
		-		
		0.10/	Low Risk(yellow)	
of different current level.		0.1%	10 100	1000 3600Hz 10000
ness and its corresponding	9	I		1000 3000HZ 10000
n in the right chart.			Frequency(Hz)	

Marks in the right chart are tested results of different current level. The output frequency is 0Hz in 100% brightness and its correspondi modulation is 0%, which could not be shown in the right chart.

Exem

## 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

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