Features

- 0-10V/PWM/Rx dimming; CCT change
- 0.1% dimming depth
- Flicker free
- Suitable for Class II light fixtures
- 5-year warranty (please refer to the warranty condition)

Applications

· Indoor office lighting · decorative lighting · commercial lighting · residential lighting

Descriptions

LF-GAA150-6250-24 is a 150W constant voltage 3-in-1 (0-10V/PWM/Rx) CCT change LED driver featuring 24Vdc constant voltage output. Its input voltage ranges from 220 to 240Vac and max. load current: 6250mA. Besides, it has all-round protections, including over voltage protection and short circuit protection.

Product Model

LF - GAA 150 - 6250 - 24

- 24: output voltage: 24V
- 6250: max. output current: 6250mA
- 150: output power: 150W
- GAA: indoor 3-in-1 CCT change LED driver

Lifud Technology Co., Ltd.
Production Base I (HQ): Building B, Kutto Industrial Park, NO.26 Xinhe Road, Bao'an District, Shenzhen, China.
Production Base II: No.4, Block 2, Tengfei Road, Shigao Economic Development Zone, Tianfu New Area, Sichuan, China.
Website: www.lifud.com Telephone: +86(0)755 8373 9299 Email: sales@lifud.com

■ Electrical Characteristics

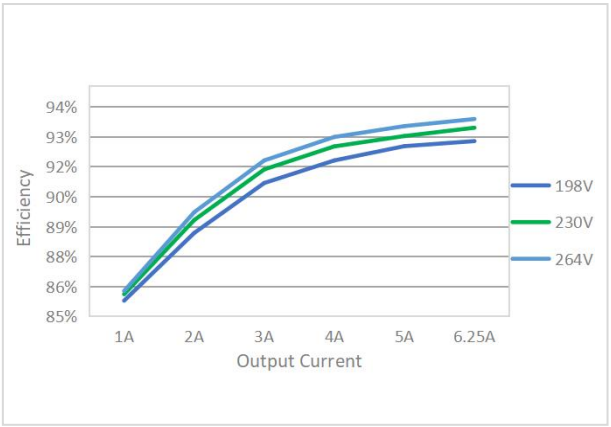
Model		LF-GAA150-6250-24				
Output	Output Voltage	24Vdc				
	Output Current	6250mA max.				
	Flicker Index	IEC-Pst ≤1, CIE SVM ≤0.9, modulation depth ≤1% Complies with flicker-free standard (IEEE Std 1789-2015)				
	Voltage Ripple	<5%				
	Voltage Tolerance	±3%				
	Temperature Drift	±10%				
	Start-up Time	≤2S@230Vac				
Input	Input Voltage	220-240Vac (voltage limit: 198-264Vac)				
	DC Input Voltage	180-264Vdc				
	Input Frequency	0/50/60Hz				
	Input Current	1A max.				
	PF	≥0.9				
	THD	≤10%				
	Efficiency	≥91%				
	Inrush Current	<75A/300uS @230Vac				
	Loading Quantities of Circuit Breaker	Model	B10	C10	B16	C16
		Quantity (pcs)	6	6	11	11
	Leakage Current	<0.7mA				
	Standby Power Consumption	≤0.5W (dim to off)				
Protection Characteristics	Over Voltage	<33V				
	Over Current	110-130% of the max. output current				
	Short Circuit	Hiccup mode (auto-recovery)				
Environment Descriptions	Operating Temperature	-20℃~+50℃				
	Operating Humidity	20-90%RH (no condensation)				
	Storage Temperature/ Humidity	-30℃~+80℃ (6 months in Class I environment); 20-90%RH (no condensation)				
	Atmospheric Pressure	86-106kPa				

■ Electrical Characteristics

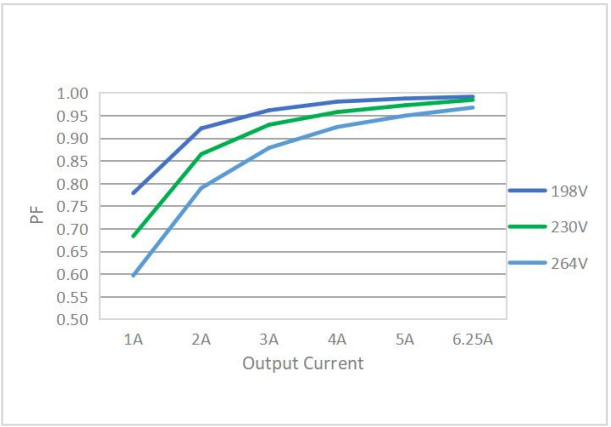
Safety & EMC	Certifications	CE, CCC
	Withstand Voltage	I/P-O/P: 3.75kV 5mA 60S; I/P-DIM: 1.5kV 5mA 60S; O/P-DIM: 0.5kV 5mA 60S
	Insulation Resistance	I/P-O/P: >100MΩ@500Vdc; I/P-DIM: >100MΩ@500Vdc; O/P-DIM: >100MΩ@500Vdc
	Safety Standards	CE-LVD: EN 61347-2-13: 2014/A1: 2017, EN 61347-1: 2015, EN 62493: 2015 CCC: GB19510.1-2009, GB19510.14-2009
	EMI	CE-EMC: EN55015, EN61000-3-2, EN61000-3-3 CCC: GB/T17743, GB17625.1, GB17625.2
	EMS	CE-EMC: EN61000-4-2, 3, 4, 5 (lightning strike 2kV), 6, 11 CCC: GB/T17626.2, 3, 4, 5 (lightning strike 2kV), 6, 11
Other Parameters	IP Rating	IP20
	RoHS	RoHS 2.0 (EU) 2015/863
	Warranty	5 years (Tc≤81℃)
	Noise Level	≤29dB (this data is measured in a soundproof room and the noise collector should be 10CM away from LED driver)
Test Equipment	AC power source: CHROMA6530, digital power meter: CHROMA66202, oscilloscope: Tektronix DPO3014, DC electronic load: M9712B, LED board, constant temperature and humidity chamber, lightning surge generator: Everfine EMS61000-5B, rapid group pulse generator: Everfine EMS61000-4A, spectroanalyzer: KH3935, Hi-pot tester: EEC SE7440, flicker tester (flicker-free coefficient test): Everfine LFA-3000, etc.	
Test Remark	If there are no special remarks, the above parameters are tested at the ambient temperature of 25℃, humidity of 50%, full load and input voltage of 230Vac/50Hz.	
Additional Remarks	1. It is recommended that user install the over voltage protection, under voltage protection and surge protection devices in the power supply circuits of light fixtures to ensure electricity safety. 2. The PC cover, casing and end cap for assembling the LED driver in the light fixture must meet the fire rating of UL94-V0 or above. 3. The LED driver used in combination with the end device is one of the accessories of the whole light fixture, and the EMC of the whole light fixture is not only susceptible to the driver itself, but to the LED light fixture and the whole light fixture's wiring. Thus, the manufacturer of LED light fixture should re-confirm the EMC of the whole light fixture before the whole light fixture is finished. 4. When using the LED driver, please pay attention that the total output power not exceed the maximum rated output power, otherwise the product warranty service would be failed.	

■ Product Characteristic Curves

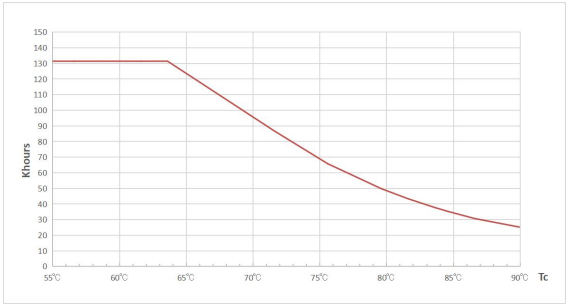
PF Curve



Efficiency Curve



Lifetime Curve



Tc Point Test Diagram

Tc point is on the bottom casing

■ Product Terminals

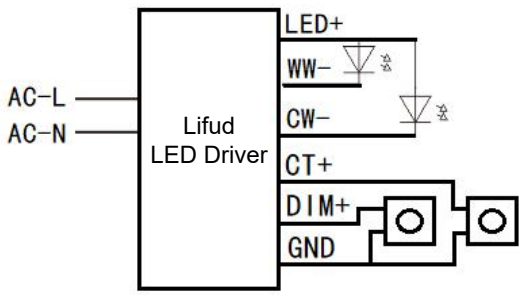
INPUT		OUTPUT	
AC-L	AC live wire input	LED+	Positive electrode output of LED driver
NC	Vacant	WW-	Negative electrode output of warm light
AC-N	AC neutral wire input	CW-	Negative electrode output of cold light
/		CT+	Positive electrode of CCT change
/		DIM+	Positive electrode of dimming
/		GND	Negative electrode of CCT change/dimming

■ Dimming Operation Instructions

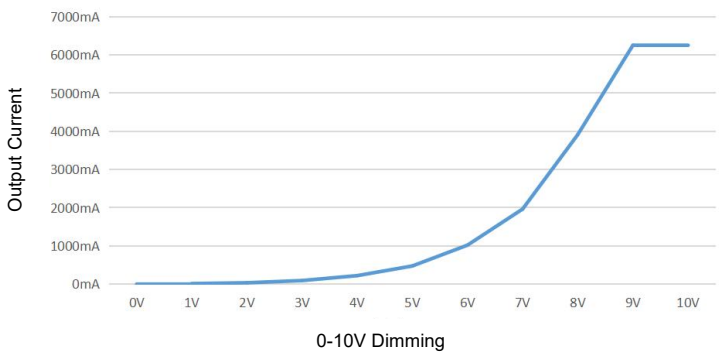
0-10V Dimming Operations

- Connect 0-10V signal to DIM+ terminal.
- In 0-10V dimming mode, when the input voltage is 0.5V±0.1, the light turns on; when it's 0.3V±0.1, the light turns off.
- Dimming depth: 0.1% (typical value)
- DIM+/CT+ (vacant): 100% warm light output
- CT+: switch cold or warm light; DIM+: adjust brightness
- Cold white voltage CT+ — GND:
  8.6V±0.1V (on); 8.8V±0.1V (off)
  Warm white voltage CT+ — GND:
  0.5V±0.1V (on); 0.3V±0.1V (off)
  Neutral white voltage CT+ — GND: 3.8V±0.1V

Wiring Diagram of 0-10V Dimming



Dimming Curve of Dim-to-off Version

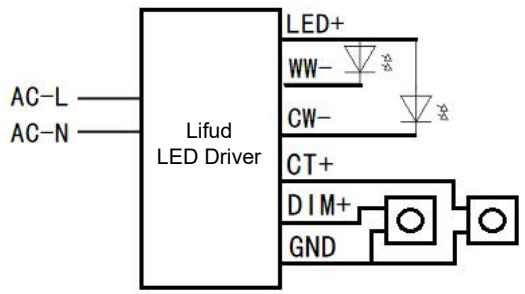


Input: 230Vac; output: 24Vdc/6250mA (this data is measured by Lifud 0-10V dimmer and the chart is for reference only)

PWM Dimming Operations

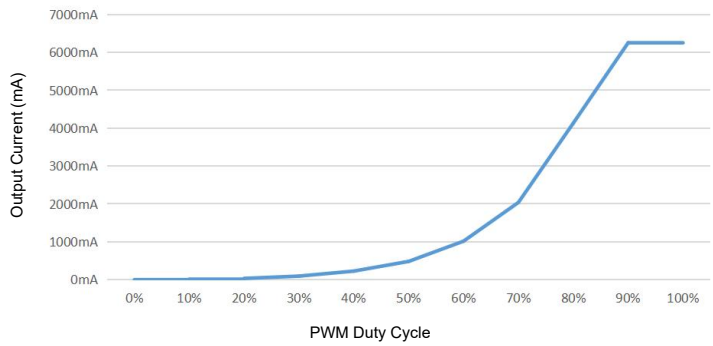
- Connect PWM signal to DIM+ terminal.
- PWM signal frequency: 1000(Hz); amplitude: 9-10(V)
  When it's 6%±1%, the light turns on; when it's 4%±1%, the light turns off.
- Dimming depth: 0.1% (typical value)
- DIM+/CT+ (vacant): 100% warm light output
- CT+: switch cold or warm light; DIM+: adjust brightness
- Cold white voltage CT+ — GND:
  86%±1% (on); 88%±1% (off)
  Warm white voltage CT+ — GND:
  5%±1% (on); 3%±1% (off)
  Neutral white voltage CT+ — GND: 38%±1%

Wiring Diagram of PWM Dimming



■ Dimming Operation Instructions

Dimming Curve of Dim-to-off Version

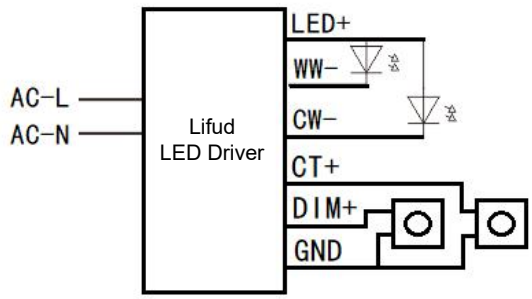


Input: 230Vac; output: 24Vdc/6250mA (this data is measured by PWM signal generator RIGOL and the chart is for reference only)

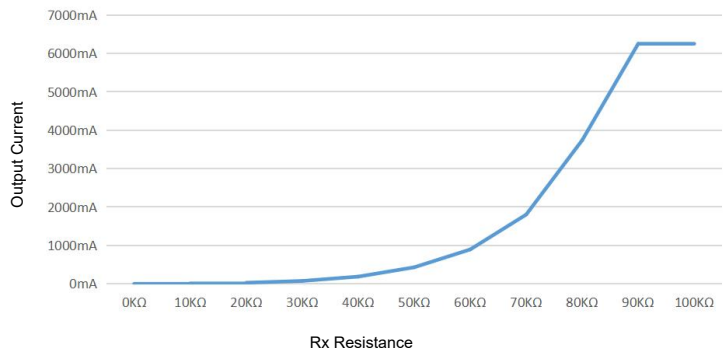
Rx Dimming Operations

- Connect Rx signal to DIM terminal.
  When the resistance is 5K±1K, the light turns on; when it's 3K±1K, the light turns off.
- Range: 0-100KΩ
- Dimming depth: 0.1% (typical value)
- DIM+/CT+ (vacant): 100% warm light output
- CT+: switch cold or warm light; DIM+: adjust brightness
- Cold white voltage CT+ — GND:
  86KΩ±1KΩ (on); 88KΩ±1KΩ (off)
  Warm white voltage CT+ — GND:
  5KΩ±1KΩ (on); 3KΩ±1KΩ (off)
  Neutral white voltage CT+ — GND: 38KΩ±1KΩ

Wiring Diagram of Rx Dimming



Dimming Curve of Dim-to-off Version



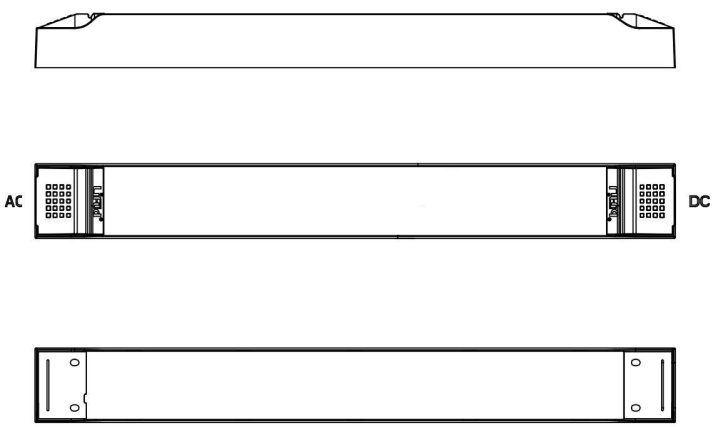
Input: 230Vac; output: 24Vdc/6250mA (this data is measured by LEVITON dimmer and the chart is for reference only)

■ Structure & Dimensions (unit: mm; tolerance: ±1mm)

Product Dimensions

Model	Overall Appearance (L*W*H)	Distance Between 2 Positioning Holes	Diameter of Positioning Hole
LF-GAA150-6250-24	360.8*42*30.3 mm	316.2 mm	3.7 mm

Structure Diagram



■ Packaging Specifications

Model	LF-GAA150-6250-24
Carton Size	385*285*210 mm (L*W*H)
Quantity	6 pcs/layer; 5 layers/ctn; 30 pcs/ctn
Weight	0.39±0.01 kg/pc; 12.24±0.2 kg/ctn

■ Transportation and Storage

1. Transportation

- Suitable transportation means: vehicles, boats and aeroplanes.
- In transit, it is necessary to prepare awnings for rain or sun protection. Moreover, please keep civilized loading and unloading to prevent the vibration or impact of LED driver as much as possible.

2. Storage

- The storage of LED driver shall conform to the standard of Class I environment. When using LED drivers which have been stored for more than 6 months, please re-test them firstly. Do not use them unless they are tested to be qualified.

Cautions

- Please use Lifud LED driver according to its parameters in the specification, otherwise the LED driver may malfunction.
- Using any incompatible light fixtures or those that have not been certified may cause fire, explosion or other risks.
- Man-made damage is beyond the scope of Lifud warranty service.

Remark: Lifud Tecnology Co., Ltd. reserves the right to interpret any contents of this specification.