

Features

- Constant voltage output
- Built-in active PFC function
- Supports triac dimming; dimming depth $\leq 0.1\%$
- Flicker free
- High efficiency (typical value $\geq 88\%$)
- All-round protections: over voltage protection, over load protection, short circuit protection and over temperature protection
- IP20
- 5-year warranty (please refer to the warranty description)



Applications

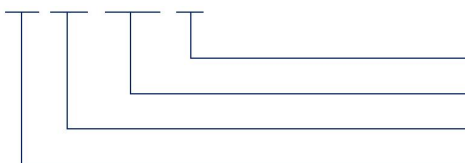
· Grow lighting · indoor office lighting · decorative lighting · commercial lighting · residential lighting

Descriptions

LF-GAT150-6250-24 is a 150W constant voltage flicker-free triac dimmable LED driver with 0-100% dimming range. It is compatible with leading and trailing edge dimmers. Its rated input voltage ranges from 198 to 253Vac; output voltage: 24Vdc and maximum output current: 6.25A. It has high efficiency and low THD. It is suitable for indoor constant voltage LED strip, etc.

Product Model

LF - GAT 150 - 6250 - 24



- 24: output voltage: 24V
- 6250: maximum output current: 6250mA
- 150: maximum output power: 150W
- GAT: CV triac LED driver

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■ Electrical Characteristics

Model		LF-GAT150-6250-24				
Output	Output Current	6250mA max.				
	Output Voltage	DC 24V				
	Output Power	150W max.				
	Flicker Index	IEC-Pst ≤1, CIE SVM ≤0.9, modulation depth ≤0.1% According to flicker-free standard (IEEE Std 1789-2015)				
	Voltage Tolerance	24V±2.5%				
	Temperature Drift	±10%				
Input	Input Voltage	220-240Vac (voltage limit: 198-253Vac)				
	Input Frequency	47-63Hz				
	Input Current	1.2A max.				
	THD	≤15%@230Vac full load				
	PF	≥0.95@230Vac full load				
	Efficiency	≥88%@230Vac@24V full load				
	Inrush Current	≤70A & 600uS@230Vac				
	Loading Quantities of Circuit Breaker	Model	B10	C10	B16	C16
		Quantity (pcs)	5	5	8	8
	Leakage Current	<0.5mA				
Protections	Surge	L-N: 1kV				
	Open Circuit	Open circuit voltage ≤30Vdc				
	Short Circuit	Hiccup mode (auto-recovery)				
	Over Temperature	Decreasing the output current (auto-recovery)				
Environment Descriptions	Operating Temperature	-20°C~+45°C				
	Operating Humidity	20-90%RH (without condensation)				
	Storage Temperature/ Humidity	-30°C~+60°C (6 months in Class I environment); 10-95%RH (without condensation)				
	Atmospheric Pressure	86-106kPa				

■ Electrical Characteristics

Safety and EMC	Certifications	TUV-ENEC, CE, CB, RCM, CCC
	Withstanding Voltage	I/P-O/P: 3.75kVac, <5mA, 60S
	Insulation Resistance	I/P-O/P: >100MΩ@500Vdc
	Safety Standards	ENEC:EN61347-1:2015, EN61347-2-13:2014/A1:2017, EN62384: 2016/A1:2009; CE-LVD: EN61347-2-13:2014/A1:2017, EN61347-1:2015, EN62493: 2015; SAA: AS61347.2-13:2018; CB: IEC61347-1:2015, IEC61347-2-3:2014, IEC61347-2-13:2014/AMD1:2016; CCC: GB19510.1-2009, GB19510.14-2009
	EMI	CE-EMC/RCM: EN55015, EN61000-3-2, EN61000-3-3 CCC: GB/T17743, GB17625.1, GB17625.2
	EMS	CE-EMC/RCM: EN61000-4-2, 3, 4, 5, 6, 11 CCC: GB/T17626.2, 3, 4, 5, 6, 11
	ESD	Air 8kV, touch 4kV (Class B)
Other Parameters	IP Rating	IP20
	RoHS	RoHS 2.0 (EU) 2015/863
	Warranty Condition	5 years (Tc ≤90℃)
Testing Equipment	Digital power meter: CHROMA66202, oscilloscope: Tektronix DPO3014, DC electronic load: M9712B, LED board, constant temperature and humidity chamber; Everfine EMS61000-5B; Everfine EMS61000-4A, spectroanalyzer: KH3935, hi-pot tester: TH9201B, flicker tester (flicker-free coefficient test) 60N-01, etc.	
Testing Remarks	The above parameters are tested at the ambient temperature of 25℃, humidity of 50%, full load and input voltage of 230Vac without any special remarks.	
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.	

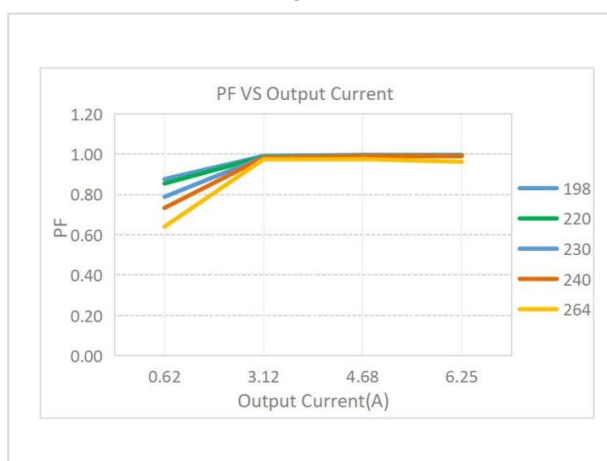
■ Recommended Dimmers

Leading edge	SIEMENS: 57C8-256	Legrand: 58325671325/40-500W	VARIL1 GHT: HQ3W	BULL: G07D101D	CHNT: NEW	HDL SYSTEM: MD0602.432
Trailing edge	GIRA:030700		Schneider: ALT400905		LUTRON SYSTEM: LQSE-4A-D	

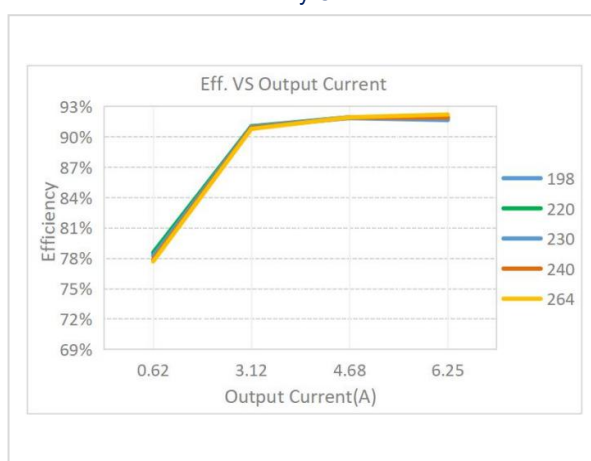
Note: The above list is tested recommended dimmers. Triac dimmers not recommended need to be tested and confirmed to be normal before use.

■ Product Characteristic Curves

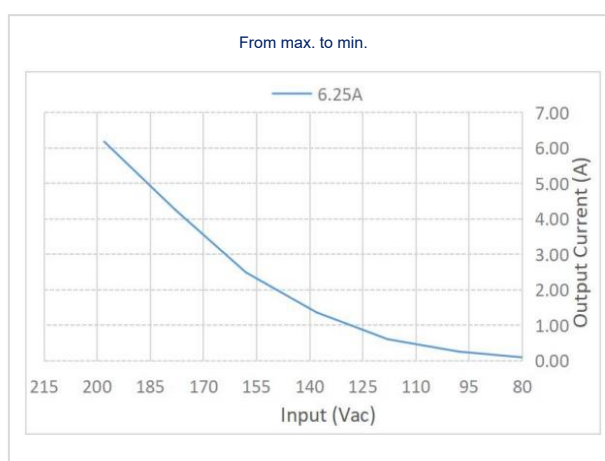
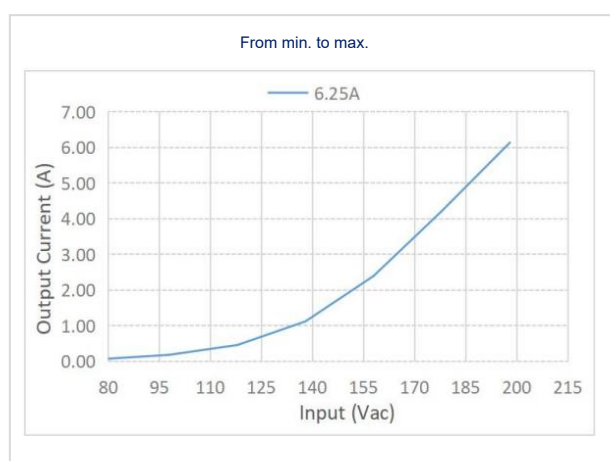
PF Curve



Efficiency Curve



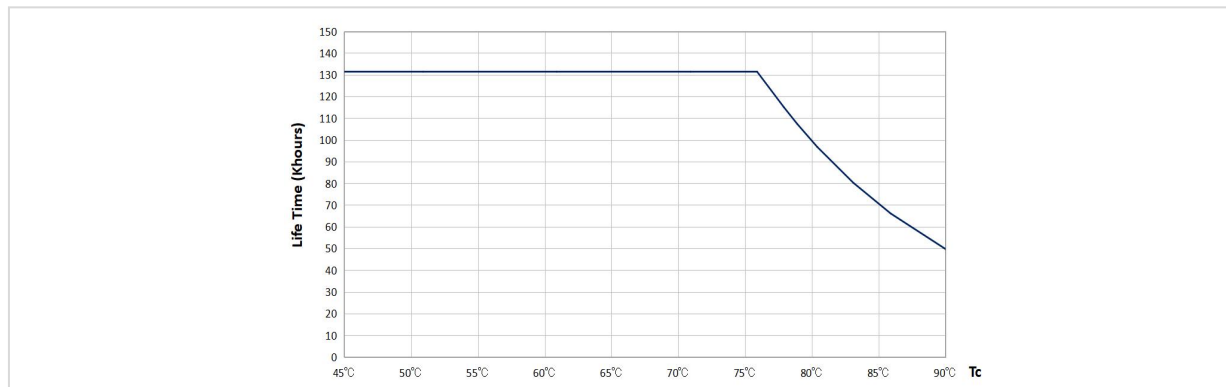
Triac Dimming Curves



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

■ Product Characteristic Curves

Lifetime Curve

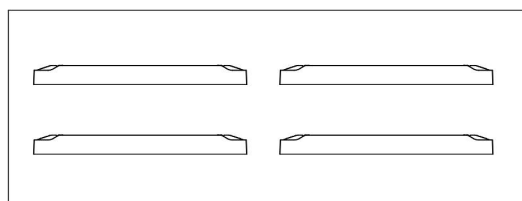
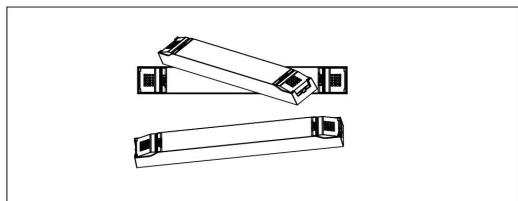


■ Dimming Operation Instructions

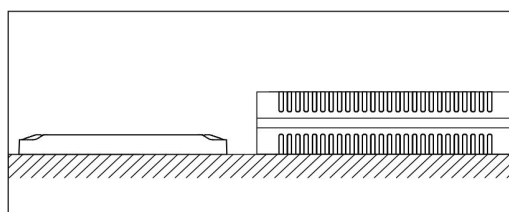
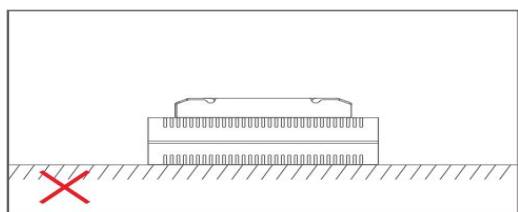
Product terminals

INPUT		OUTPUT	
AC-L	Input terminal of AC live wire	LED+	Positive terminal output of LED driver
AC-N	Input terminal of AC neutral wire	LED-	Negative terminal output of LED driver

■ Installation Notes

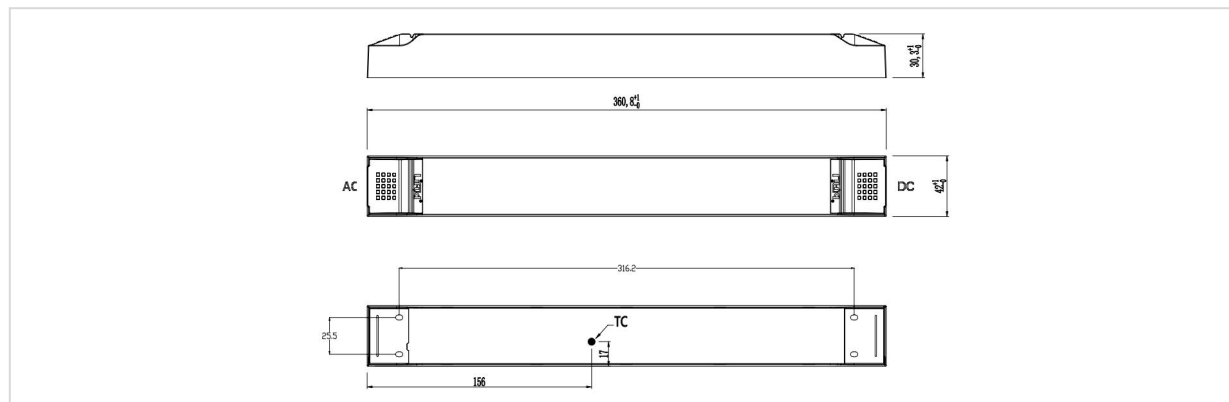


Do NOT stack LED drivers. Keep a distance of at least 10cm between LED drivers when using them to avoid affecting the heat dissipation and lifetime of the LED drivers.



Direct contact between the load and the LED driver is prohibited when using the LED driver. Keep a distance of at least 10cm between the LED driver and the load to avoid affecting the heat dissipation and lifetime of the LED drivers.

Wiring Diagram of Triac Dimming Operation



■ Packaging Specifications

■ 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 Technology Co., Ltd. reserves the right to interpret any contents of this specification.