

Product Description

LF-GOE320YE/YF8900-56 series is a 320W constant current LED driver, specifically designed for street lights, tunnel lights, horticulture lighting and landscape lighting projects and suitable for various indoor and outdoor applications. Rated voltage: 100-277Vac (limit: 90-305Vac); output voltage: 27-56Vdc; output current: 4000-8900mA. It has features of high surge protection, high waterproof protection, low standby power consumption and low THD, and can be dimmed to off. It is also equipped with all-round protections: surge protection, over-voltage protection, short circuit protection, open circuit protection and over temperature protection, which greatly improves the product stability.

Features

- Output current adjustable via the potentiometer
- Two-stage flicker free design
- Three-in-one dimming (YF): 0-10V, PWM and Rx
- All-round protections: over temperature protection, over-voltage protection, short circuit protection, open circuit protection and IP67
- Surge protection: standard version and enhanced version optional
- 5yrs warranty (Please refer to the warranty description.)

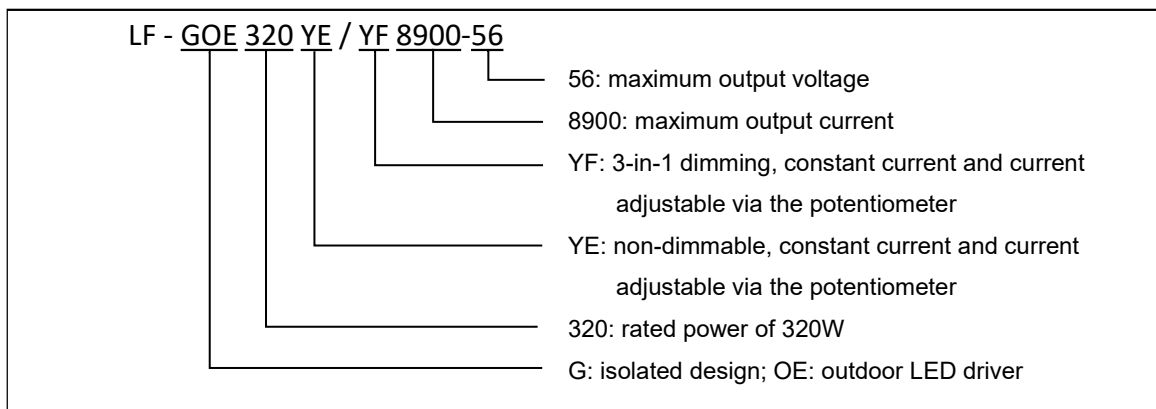
Applications

- Street lighting
- Tunnel lighting
- Horticulture lighting
- Landscape lighting



Class P FC IP67

Product Naming



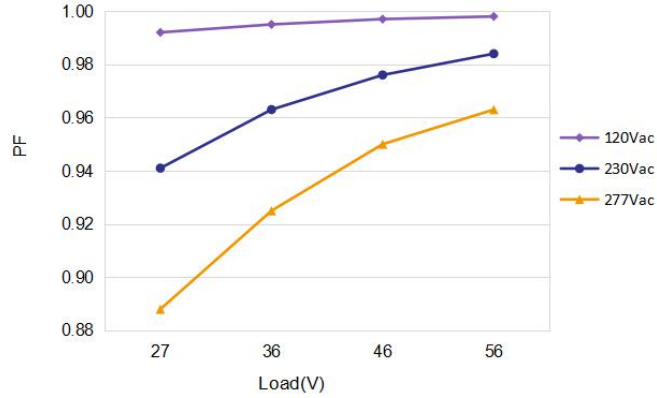
Electrical Characteristics

Model		LF-GOE320YE8900-56	LF-GOE320YF8900-56
Output	Output Voltage	27-56Vdc	
	Output Current	4000mA - 8900mA	
	Output Power	320W max @108~277Vac	
	Default Setting	5700mA	
	Ripple Current	Typical: 5%; Maximum: 10%	
	Current Tolerance	±5%	
	Temperature Drift	±5%	
	Start-up Time	<1S@120Vac, <0.5S@230Vac	
Input	Input Voltage	100-277Vac (limit: 90-305Vac)	
	DC Input Voltage	141-391Vdc (limit: 127-431Vdc)	
	Input Frequency	47Hz-63Hz	
	Input Current	4A Max@100Vac	
	Power Factor	≥0.97@120Vac (full load); ≥0.95@230Vac (full load)	
	THD	≤10%/230Vac @full load	
	Efficiency	≥93%/230Vac @49Vdc 6530mA; ≥90%/115Vac @49Vdc 6530mA	
	In-rush Current	<100A@230Vac	
	Leakage Current	≤0.7mA	
Protection Characteristics	Surge Protection	<input checked="" type="checkbox"/> Standard version: L-N:6KV (2Ω), L/N-GND:10KV (12Ω) <input type="checkbox"/> Enhanced version: L-N:6KV (2Ω), L/N-GND:10KV (2Ω)	
	Open Circuit Protection	≤63Vdc	
	Over Temperature Protection	YF: if the operating temperature exceeds the specified temperature, the current will decrease; recover automatically after fault condition is removed. YE: if the operating temperature exceeds the specified temperature, the driver will not work; the driver will restart and the current will recover after fault condition is removed.	
	Short Circuit Protection	Hiccup mode (auto-recovery)	

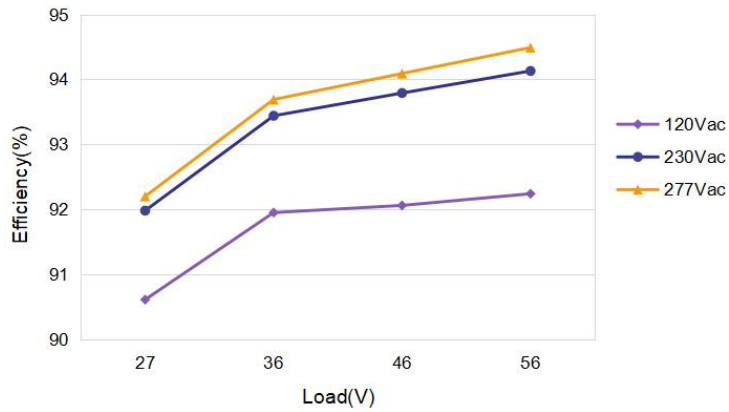
Environment Description	Operating Temperature	-40°C~+60°C (200-277Vac); -40°C~+50°C (100-200Vac)
	Operating Humidity	0-95%RH (no condensation)
	Storage Temperature & Humidity	-40°C~+ 80°C (six months under class I environment); 0-95%RH (no condensation)
	Atmospheric Pressure	86~106KPa
Safety and Electromagnetic Compatibility	Certification	UL(Conforms to Class P), FCC
	Withstanding Voltage	I/P-O/P: 3.75kV 5mA 60S; I/P-FG: 1.5kV 5mA 60S; O/P-FG: 0.5kV, 5mA 60S
	Insulation Resistance	I/P-O/P: >100MΩ@500VDC
	Safety Standard	UL:UL8750, CSA 250.13
	EMI	FCC: PART 15B
Others	IP Rating	IP67
	RoHS	RoHS 2.0 (EU) 2015/863
	Warranty	5 years (Tc≤75°C)
Remarks	<p>1. It is recommended that customer should install protection devices for surge, over voltage and undervoltage to ensure safety before connecting to electricity.</p> <p>2. As an accessory, the LED driver is not the only factor determining the EMC performance of the LED light fixture. The structure and the wiring of the light fixture are also relevant. Thus it's strongly recommended the LED light fixture manufacturer re-confirms the EMC of the whole LED light fixture.</p> <p>3. It's suggested that the user should use a slotted screwdriver or a Philips screwdriver to adjust the output current in case the potentiometer is damaged. The screwdriver with a 2mm slot head is recommended. Torque is NO higher than 0.5NM. Make sure the insulation of the screwdriver is good enough.</p> <p>4. When adjust the output current, please make sure the total output power of the light fixture NOT exceed the rated maximum output power of the driver. ⚠</p> <p>5. Unless otherwise stated, the parameters above are test results under these conditions: ambient temperature of 25°C, humidity of 50%, 100% load and input voltage of 230Vac.</p> <p>6. In compliance with ERP2019, please use dimmer or system that is not designed to dim to off to ensure that the LED driver does not enter standby mode.</p>	

Product Characteristic Curves

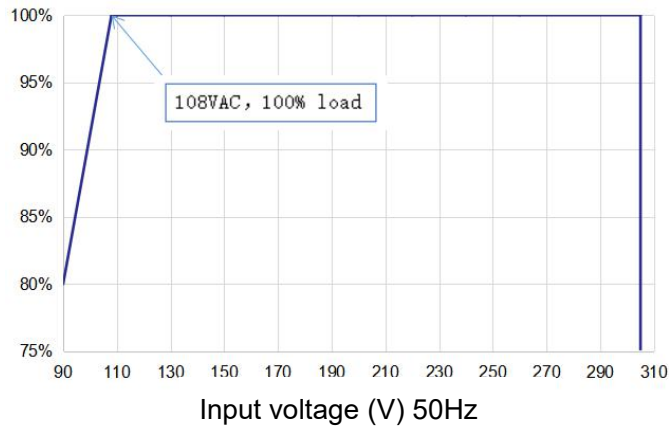
PF Curve



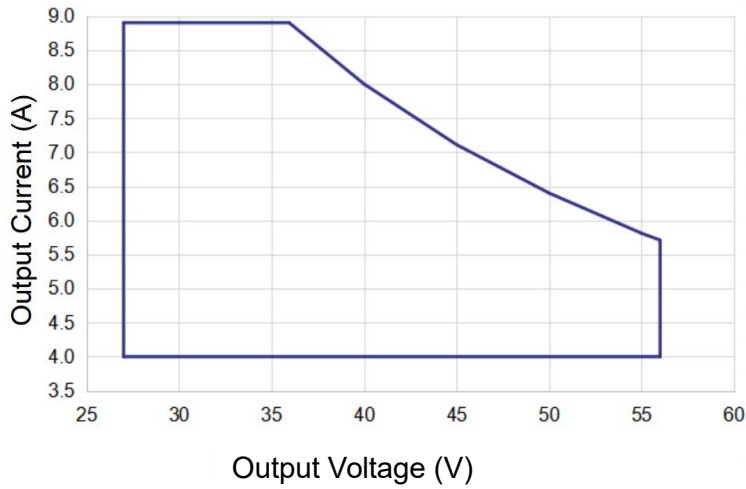
Efficiency Curve



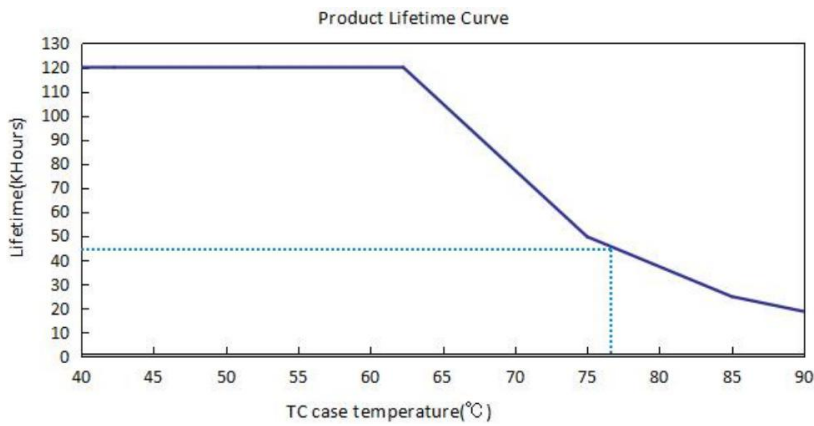
Load Derating Curve



Power Curve



Lifetime Curve

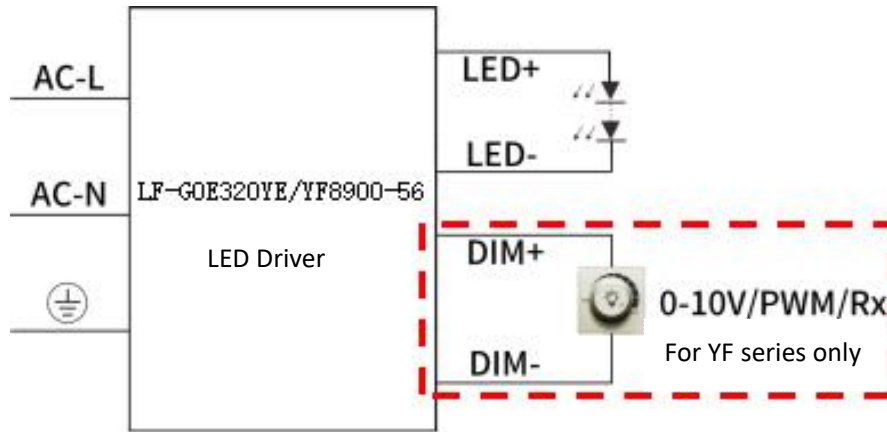


Instruction of Dimming

- Dim via a built-in potentiometer (adjust the output current)

Feature	Minimum	Typical	Maximum	Remark
Output current range	4000mA	-	8900mA	The total output power of the light fixture should NOT exceed 320W (Vout * Iout = Pout)

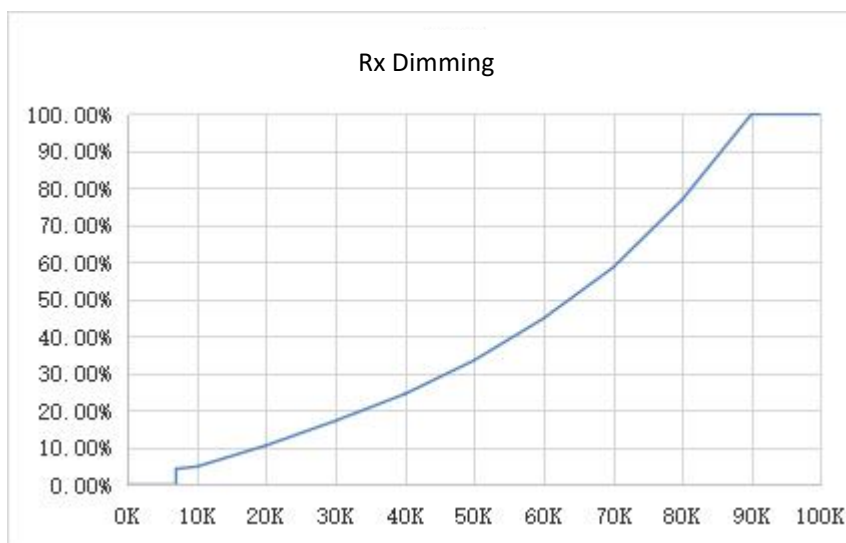
● Dimming Diagram



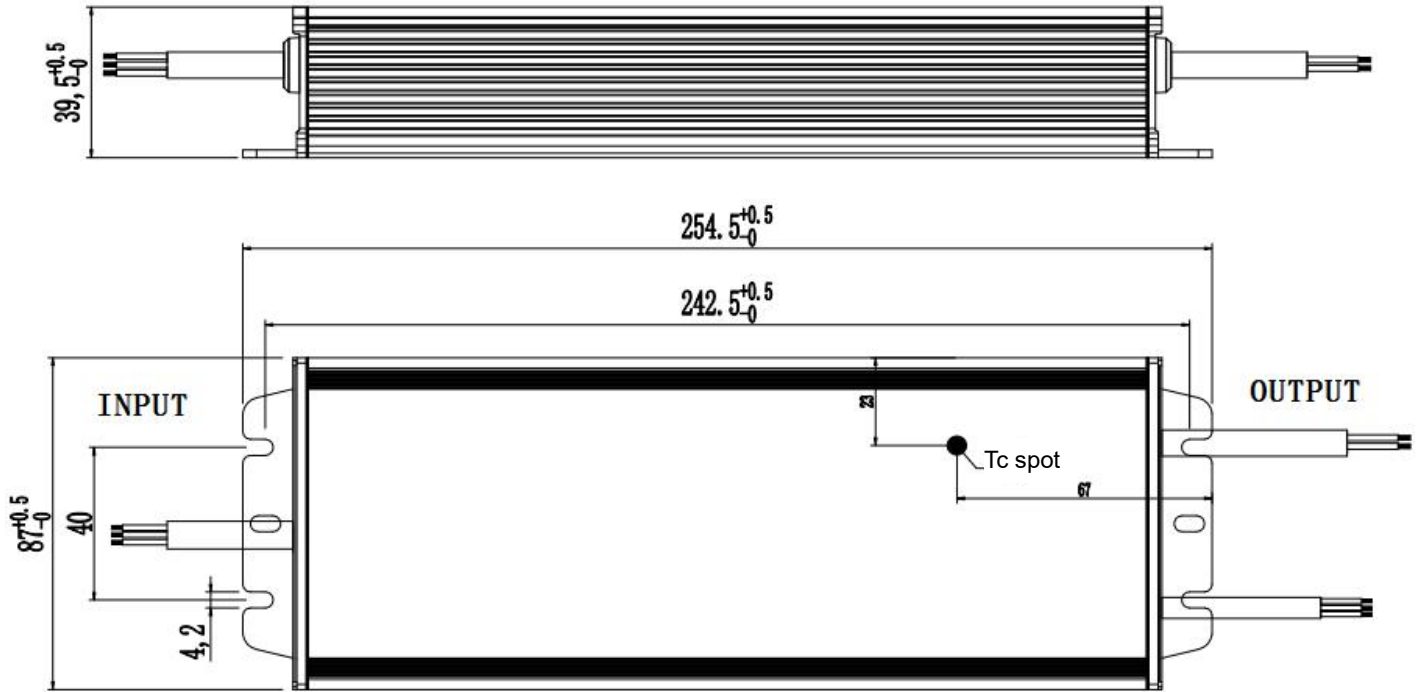
Symbol	US
AC-L	BLACK
AC-N	WHITE
⊕	GREEN
LED+	RED
LED-	BLACK
DIM+	PURPLE
DIM-	GRAY

● Operations of 0-10V, PWM, Rx Dimming

- Connect the 0-10V, PWM or Rx signal to the DIM terminals.
- In 0-10V dimming mode, when the input voltage is 0.7V, the light will be turned off. When it's 0.9V, the light will be turned on. ±0.2V tolerance for the input voltage is acceptable.
- The dimming depth of 0-10V dimming is 10%.
- The dimming depth of PMW dimming is 10%.
- PWM signal range: 400-3000 (Hz); amplitude: 9-10 (V)
- Rx range: 0-100KΩ
- DIM+/- (no signal connection): 100% rated output current



Structure & Dimensions (Unit: mm)



Wire Specification	Input Wire	Output Wire	Dimming Wire
Color	3*18AWG Φ 7.7±1mm AC-L black; AC-N white; PG green	2*16AWG Φ 7.9±1mm LED+ red; LED- black	YF: 2*22AWG Φ 4.5±1mm DIM+ purple; DIM- gray
Length	450±10mm	300±10mm	200±10mm
Peeled	L/N 40±5mm PG 50±5mm	40±5mm	60±5mm
Tinned	10±1mm	6±1mm	10±1mm

Packaging Specification

Model	LF-GOE320YE/YF8900-56
Carton Size	420 x 305 x 225mm (L×W×H)
Quantity	4 pcs/layer; 2 layers/ctn; 8 pcs/ctn
Weight	1.63kg±0.1/pc; 13.1kg±0.8/ctn

Transportation & Storage

■ Transportation

- Suitable transportation means: vehicles, boats and aircraft.
- During transportation, there should be awnings for rain protection and sun protection. Civilized loading and unloading are required. There should be no severe vibration or impact.

■ Storage

- Storage in accordance with the provisions of the Class I environment. For products which have been stored for more than six months, they mustn't be used until they pass the re-inspection.

Attention

- Please use this product according to its specifications otherwise there may be malfunction.
- Use light fixtures that have not been certified or are not compatible with the LED drivers may cause fire or other hazards.
- Man-made damage, any use beyond the specification and non-original-factory modification are not covered by warranty.

Remark: The final interpretation right of the contents of this data sheet belongs to Lifud Technology Co., Ltd.