

### Features

- Support independent and built-in use
- Adjustable output current with DIP switch
- Flicker free
- IP20
- For luminaires of protection class I and protection class II
- 5-year warranty (please refer to the warranty condition)



### Applications

· Indoor office lighting · decorative lighting · residential lighting

### Descriptions

LF-GIF028YZ is an isolated flicker-free LED driver with the maximum output power of 28W. Its rated input voltage ranges from 220 to 240Vac, output voltage from 9 to 42Vdc and its output current is adjustable from 350 to 700mA via DIP switch with every 50mA as a step.

### Product Model

LF - GIF 028 YZ



- Y: complies with certifications; Z: serial number
- 028: maximum output power: 28W
- G: isolated design; IF: indoor flicker-free LED driver

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### ■ Electrical Characteristics

Model		LF-GIF028YZ								
Output	Output Voltage	9-42Vdc							9-40Vdc	
	Output Current	350mA	400mA	450mA	500mA	550mA	600mA	650mA	700mA	
	Ripple Current (100Hz)	<5%								
	Flicker	Complies with IEEE 1789-2015 standard.								
	CIE SVM	≤0.4								
	IEC-Pst	≤1.0								
	Current Tolerance	±10%	±7%		±5%					
	Temperature Drift	±10%								
	Startup Time	<0.5S@230Vac								
Input	Rated Input Voltage	220-240Vac								
	Input Voltage Range	198-264Vac								
	DC Input Voltage Range	180-264Vdc <sup>①</sup>								
	Input Frequency	0/50/60Hz								
	Input Current	0.2A max.								
	PF	≥0.95								
	THD	≤10%								
	Efficiency	≥89%								
	Inrush Current	≤25A <sup>②</sup>								
	Loading Quantities of Circuit Breaker	Model	B10		C10		B16		C16	
		Quantity (pcs)	28		41		46		66	
	Leakage Current	≤0.7mA								
	Standby Power Consumption	≤0.5W								
Protections	Open Circuit	<55Vdc								
	Short Circuit	Hiccup mode (auto-recovery)								
	Overload	If the maximum load is exceeded by a defined internal limit, the LED Driver turns off the LED output. The driver will recover automatically once the overload is eliminated.								
Environment Descriptions	Operating Temperature	-30°C - +50°C								
	Operating Humidity	20-95%RH (no condensation)								
	Storage Temperature/Humidity	-30°C - 80°C (6 months in Class I environment); 10-95%RH (no condensation)								
	Atmospheric Pressure	86-106kPa								

### ■ Electrical Characteristics

<b>Surge</b>	L-N	1kV
<b>Safety &amp; EMC</b>	Certifications	ENEC, CE, CB, UKCA, RCM
	Withstanding Voltage	I/P-O/P: 3.75kV&5mA&60S
	Insulation Resistance	I/P-O/P: >100MΩ@500VDC
	Safety Standards	CB:IEC61347-1:2015 IEC61347-1:2015/AMD1:2017 IEC61347-2-13:2014 CE:EN 61347-2-13:2014/A1:2017 EN 61347-1:2015/A1:2021 EN 62493:2015 IEC61347-2-13:2014/AMD1:2016 ENEC:EN 61347-2-13:2014/A1:2017 EN 61347-1:2015/A1:2021 EN IEC62384:2020 RCM:AS 61347.2.13:2018 & AS/NZS 61347.1:2016+A1 UKCA-LVD:EN 61347-1:2015/A1:2021, EN 61347-2-13:2014/A1:2017 EN 62493:2015
	EMI	CE-EMC: EN55015, EN61000-3-2, EN61000-3-3
	EMS	CE-EMC: EN61000-4-2,3,4,5,6,11
<b>Other Parameters</b>	IP Rating	IP20
	RoHS	RoHS 2.0 (EU) 2015/863
	Tc Max	75°C
	Warranty	5 years <sup>③</sup>
<b>Testing Equipment</b>	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.	
<b>Test Remark</b>	If there are no special remarks, the above parameters are tested at the ambient temperature of 25°C, humidity of 50%, maximum output power and input voltage of 230Vac/50Hz.	

■ **Electrical Characteristics**

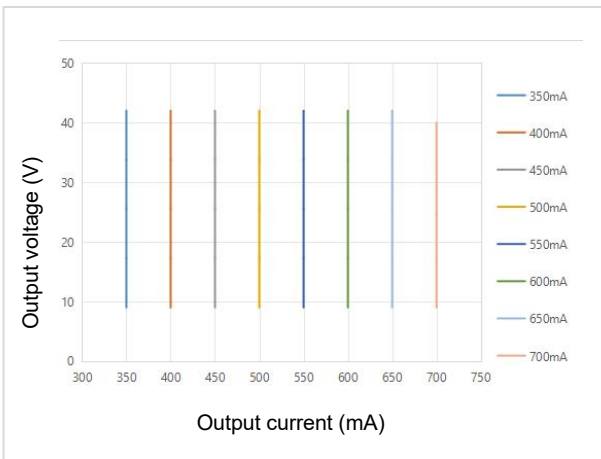
<b>Remarks</b>	<ol style="list-style-type: none"> <li>1. It is recommended that user install over voltage protection, under voltage protection and surge protection devices in the power supply circuits of light fixtures to ensure electricity safety.</li> <li>2. The LED driver used in combination with 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.</li> <li>3. The test conditions of the circuit breaker configuration quantity are the same as those of the inrush current.</li> <li>4. 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.</li> <li>5. It is prohibited to be built into in-track lights, integrated downlights, etc.</li> <li>6. The product CANNOT meet the single harmonic requirements of the European standard EN61000-3-2 below 35% load.</li> </ol>
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Notice:

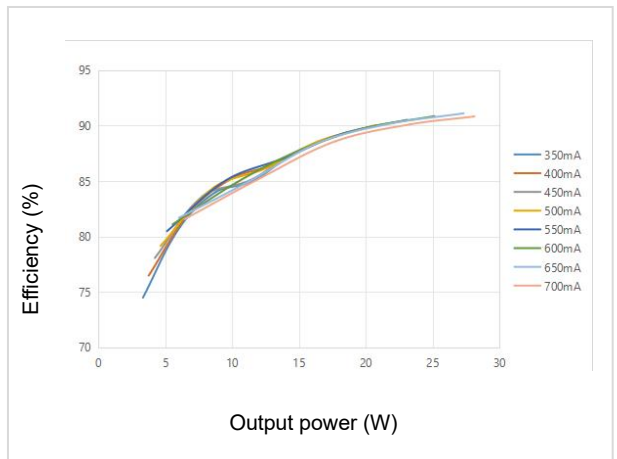
- ①: DC input is only for emergency with the maximum using time of 90 mins.
- ②: @200uS
- ③: 5 years @Tc≤70°C

■ **Product Characteristic Curves**

Working Window Curve

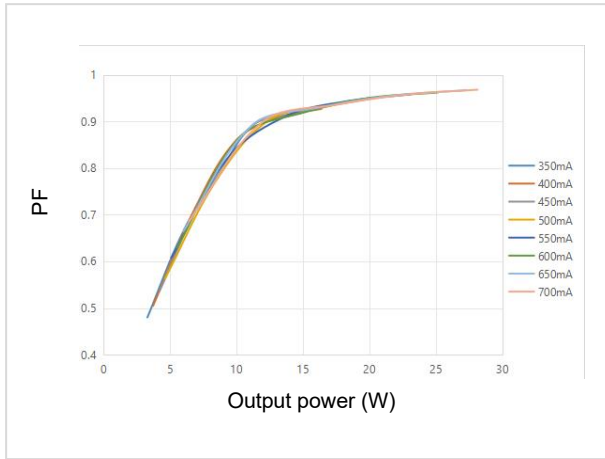


Efficiency Curve

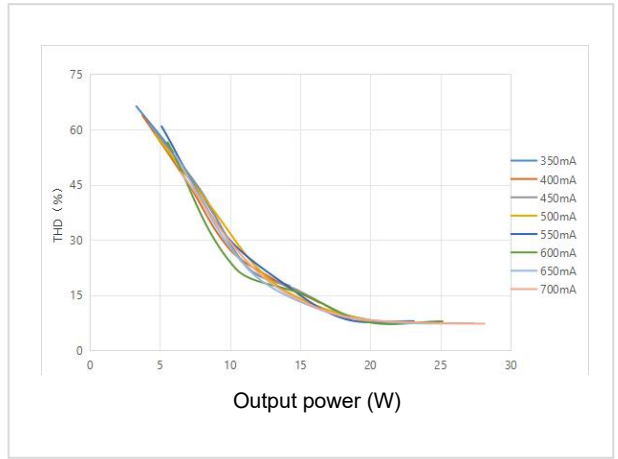


■ **Product Characteristic Curves**

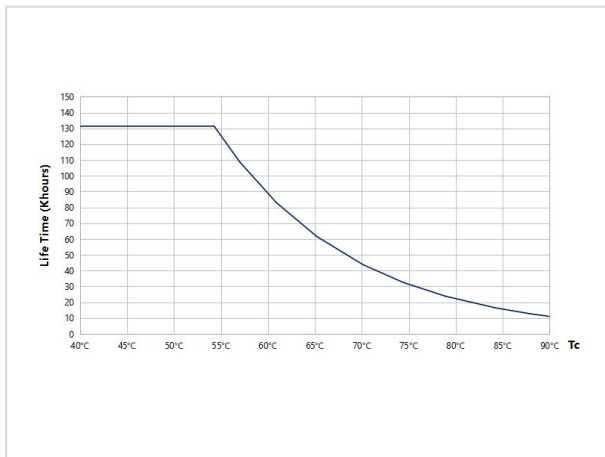
PF Curve



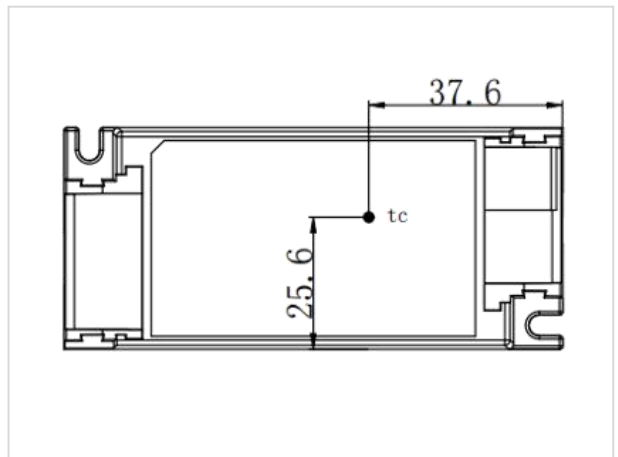
THD Curve



Lifetime Curve



Tc Point Testing Diagram



■ **Product Definitions**

Product Terminal

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

■ **Product Definitions**

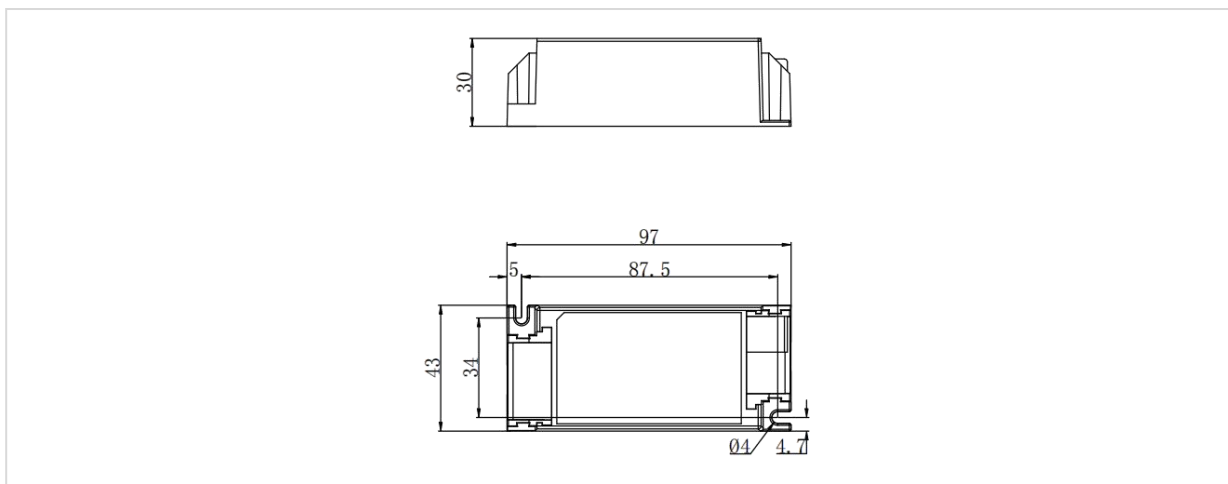
Product DIP Switch

I rated (CC)	1	2	3
350mA	-	-	-
400mA	-	-	ON
450mA	-	ON	-
500mA	-	ON	ON
550mA	ON	-	-
600mA	ON	-	ON
650mA	ON	ON	-
*700mA	ON	ON	ON

Remark: "-": shift OFF. "\*": default current. DIP when power on is NOT allowed. Please disconnect the AC power before DIP.

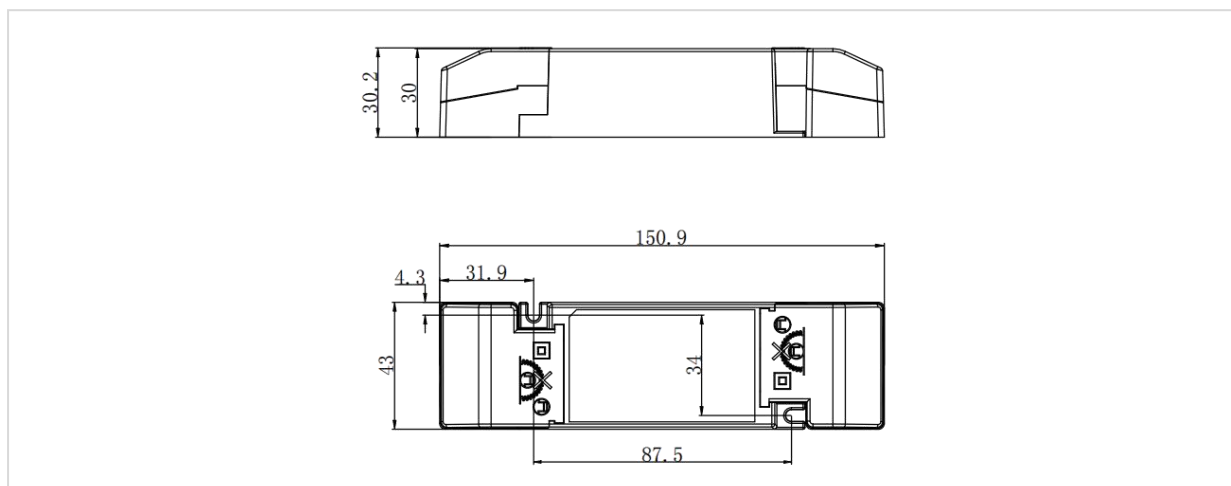
■ **Structure & Dimensions (unit: mm)**

Model	Overall Appearance Dimension (L*W*H)	Distance between 2 Positioning Holes	Diameter of Positioning Hole
LF-GIF028YZ (Internal)	97*43*30 mm (±0.5mm)	87.5*34 mm (±0.2mm)	4 mm



■ **Structure & Dimensions (unit: mm)**

Model	Overall Appearance Dimension (L*W*H)	Distance between 2 Positioning Holes	Diameter of Positioning Hole
LF-GIF028YZ (External)	150.9*43*30.2 mm ( $\pm 0.5$ mm)	87.5*34 mm ( $\pm 0.2$ mm)	4 mm



Remark: End caps should be purchased separately and shipped as accessories.

■ **Packaging Specifications**

Model	LF-GIF028YZ
Carton Size	385*285*210mm (L*W*H)
Quantity	15 pcs/layer; 6 layers/ctn; 90 pcs/ctn
Weight	0.09 $\pm$ 5%kg/pc; 9.03 $\pm$ 5%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.