Product Description

LF-GIR009YSxxxxH is an isolated constant current LED driver. The maximum output power is 9W. It has small size, suitable for spot light, down light, panel light, etc.

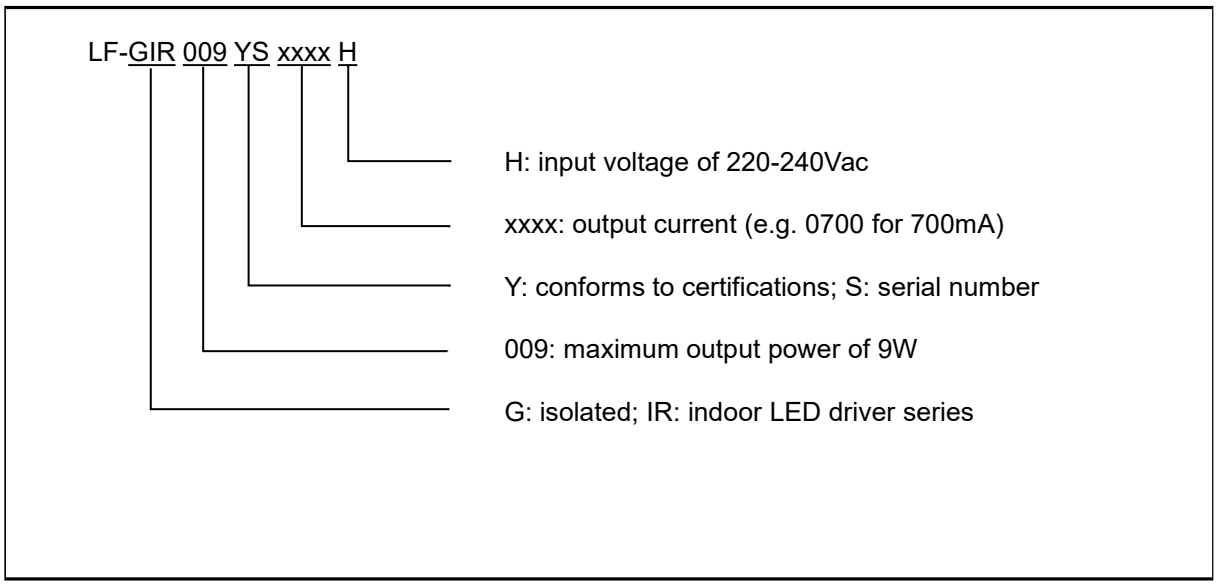
Features

- Suitable for Class II light fixtures
- External assembly
- Flicker free
- 5-year warranty (Please refer to the warranty condition.)
- Conforms to the latest harmonic current emissions standard: IEC 61000-3-2:2018+A1: 2020
- Conforms to the ERP standard: (EU) 2019/2020@2019.12.05

Applications

- Indoor office lighting
- Decorative lighting

Product Naming



Electrical Characteristics 1

Model		LF-GIR009YSxxxxH				
Output	Output Voltage	25-42V				25-36V
	Output Current	135mA	160mA	180mA	200mA	250mA
	Flicker Index (Modulation Depth)	Conforms to the standard of IEEE 1789-2015				
	CIE SVM	≤0.4				
	IEC-Pst	≤1				
	Current Tolerance	±7%				
	Temperature Drift	±10%				
	Start-up Time	<0.5S				
Input	Input Voltage	220-240Vac (voltage limit: 198-264Vac)				
	Input Frequency	50/60Hz				
	Input Current	0.1A Max				
	DF	≥0.7				
	Efficiency	≥77%	≥78%	≥79%	≥79%	≥79%
	Inrush Current	≤10A @ 80uS @220Vac				
	Load Quantity Carried by the Circuit Breaker	Circuit Breaker Model	B10	C10	B16	C16
		Quantity (pcs)	60	100	96	160
	Leakage Current	≤0.7mA				
	Standby Power Consumption	<0.5W				
Protection Characteristics	Open Circuit Protection	<80V				
	Short Circuit Protection	Hiccup mode (auto-recovery)				
Environment Description	Operating Temperature	-30℃~+50℃				
	Operating Humidity	20-90%RH (no condensation)				
	Storage Temperature/Humidity	-40℃~+ 80℃ (six months under class I environment); 10-90%RH (no condensation)				
	Atmospheric Pressure	86KPa~106KPa				

Electrical Characteristics 2

Model		LF-GIR009YSxxxxH				
Output	Output Voltage	14-24V				
	Output Current	300mA		350mA		
	Flicker Index (Modulation Depth)	Conforms to the standard of IEEE Std 1789-2015				
	CIE SVM	≤0.4				
	IEC-Pst	≤1				
	Current Tolerance	±7%				
	Temperature Drift	±10%				
	Start-up Time	<0.5S				
Input	Input Voltage	220-240Vac (voltage limit: 198-264Vac)				
	Input Frequency	50/60Hz				
	Input Current	0.1A Max				
	DF	≥0.7				
	Efficiency	≥79%		≥79%		
	Inrush Current	≤10A @ 80uS @220Vac				
	Load Quantity Carried by the Circuit Breaker	Circuit Breaker Model	B10	C10	B16	C16
		Quantity (pcs)	60	100	96	160
	Leakage Current	≤0.7mA				
	Standby Power Consumption	<0.5W				
Protection Characteristics	Open Circuit Protection	<55V				
	Short Circuit Protection	Hiccup mode (auto-recovery)				
Environment Description	Working Temperature	-30℃~+50℃				
	Working Humidity	20-90%RH (no condensation)				
	Storage Temperature/Humidity	-40℃~+ 80℃ (six months under class I environment); 10-90%RH (no condensation)				
	Atmospheric Pressure	86KPa~106KPa				

Electrical Characteristics 3

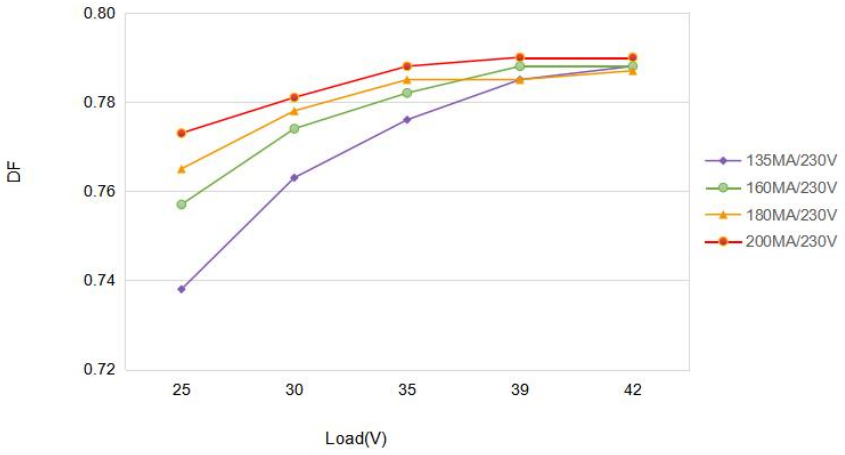
Model		LF-GIR009YSxxxxH				
Output	Output Voltage	8-13V				
	Output Current	500mA	600mA	700mA		
	Flicker Index (Modulation Depth)	Conforms to the standard of IEEE Std 1789-2015				
	CIE SVM	≤0.4				
	IEC-Pst	≤1				
	Current Tolerance	±7%				
	Temperature Drift	±10%				
	Start-up Time	<0.5S				
Input	Input Voltage	220-240Vac (voltage limit: 198-264Vac)				
	Input Frequency	50/60Hz				
	Input Current	0.1A Max				
	DF	≥0.7				
	Efficiency	≥79%				
	Inrush Current	≤10A & 80uS @220Vac				
	Load Quantity Carried by the Circuit Breaker	Circuit Breaker Model	B10	C10	B16	C16
		Quantity (pcs)	60	100	96	160
	Leakage Current	≤0.7mA				
	Standby Power Consumption	<0.5W				
Protection Characteristics	Open Circuit Protection	<30V				
	Short Circuit Protection	Hiccup mode (auto-recovery)				
Environment Description	Working Temperature	-30℃~+50℃				
	Working Humidity	20-90%RH (no condensation)				
	Storage Temperature/Humidity	-40℃~+ 80℃ (six months under class I environment); 10-90%RH (no condensation)				
	Atmospheric Pressure	86KPa~106KPa				

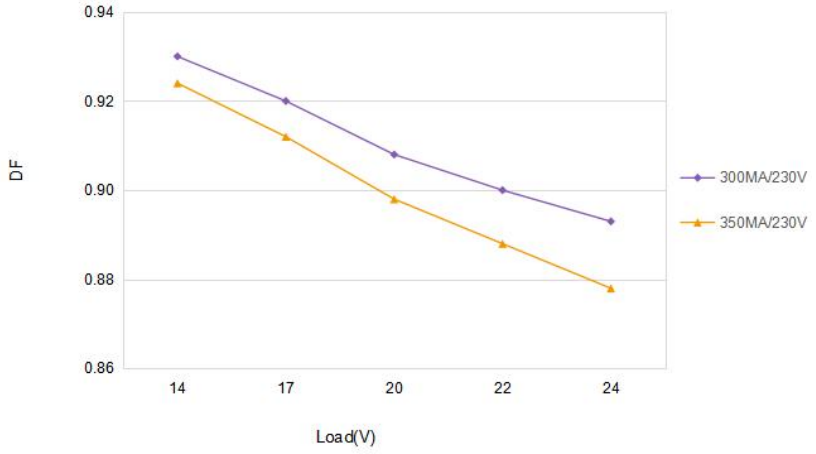
Other Electrical Characteristics

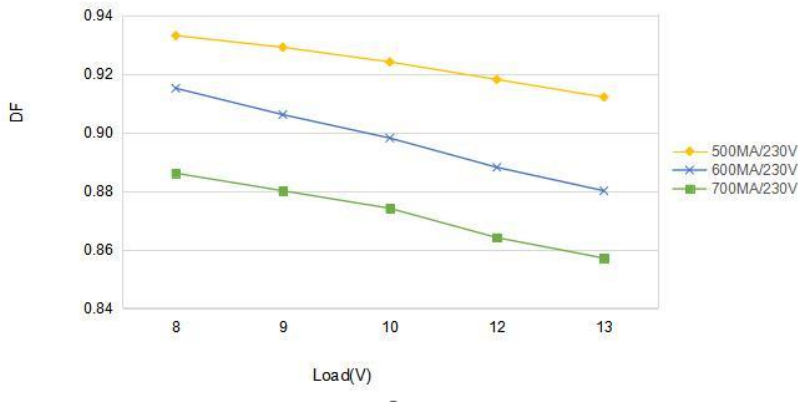
Safety & Electromagnetic Compatibility	Certifications	ENEC, TUV, CCC, RCM, CE, CB, UKCA
	Withstanding Voltage	I/P-O/P: 3.75KV, 5mA, 60S
	Insulation Resistance	I/P-O/P: >100MΩ @ 500Vdc
	Safety Standards	ENEC: EN61347-1:2015, EN 61347-2-13:2014/A1:2017, EN 62384 2016/A1:2009 CE-LVD: EN 61347-2-13:2014/A1:2017, EN 61347-1:2015, EN 62493:2015 CB: IEC 61347-1:2015, IEC61347-2-3:2014, IEC 61347-2-13:2014/AMD1:2016 UKCA-LVD: EN 61347-1:2015/A1:2021, EN 61347-2-13:2014/A1:2017 EN 62493:2015 RCM: AS 61347.2-13:2018 CCC: GB19510.1-2009, GB19510.14-2009
	EMI	CE-EMC/RCM: EN55015, EN61000-3-2, EN61000-3-3 UKCA-EMC: EN IEC 55015:2019/A11:2020, EN 61547:2009, EN IEC 61000-3- 2:2019/A1:2021, EN 61000-3-3:2013/A2:2021 CCC: GB/T17743, GB17625.1, GB17625.2
	EMS	CE-EMC/RCM: EN61000-4-2, 3, 4, 5(lightning strike 1KV), 6, 11 CCC: GB/T17626.2, 3, 4, 5 (lightning strike 1KV), 6, 11
Others	IP Rating	IP20
	RoHS	RoHS 2.0 (EU) 2015/863
	Warranty Condition	5 yrs (Tc≤77℃)
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-free tester (flicker-free coefficient tester) LFA-3000, etc.	
Remarks	1. It is recommended that customer should install overvoltage and undervoltage protection devices and surge protection devices in the power supply circuits of the light fixtures to ensure safety before connecting to electricity. 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 should re-confirm the EMC of the whole LED light fixture. 3. The test conditions of the circuit breaker configuration quantity are the same as those of the inrush current test. 4. Unless otherwise stated, the parameters above were test results under the ambient temperature of 25℃, humidity of 50%, input voltage of 220Vac/50Hz and full load.	

Product Characteristic Curves

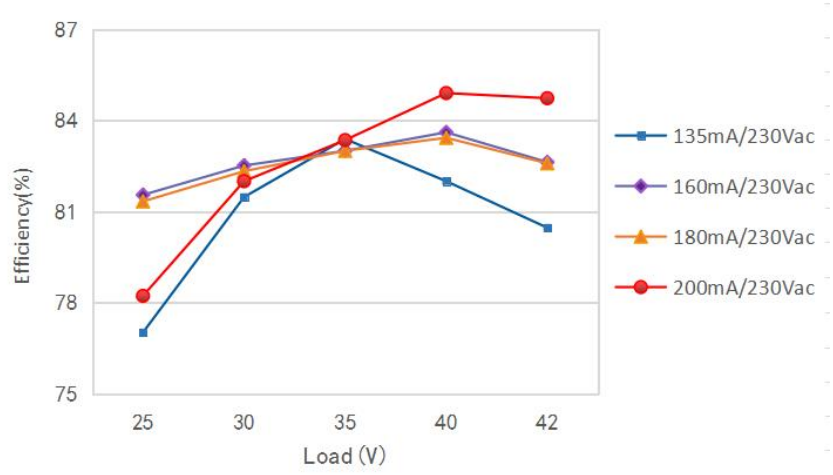
■ DF Curves

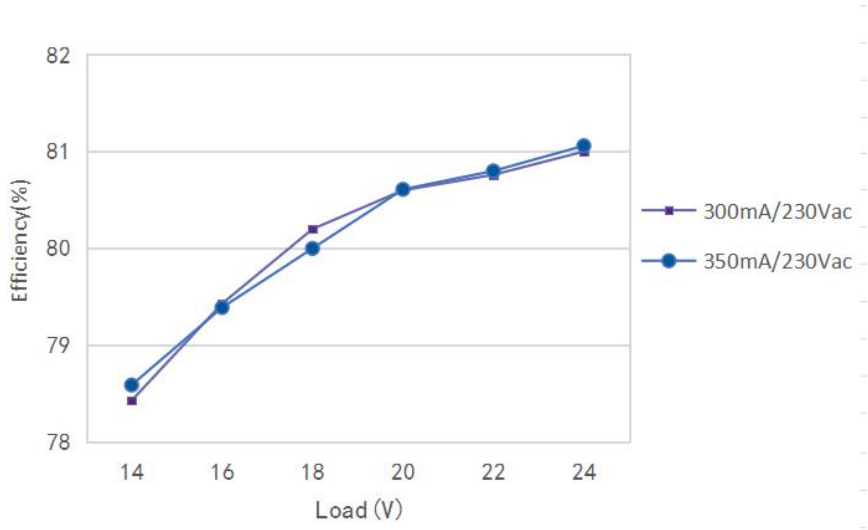


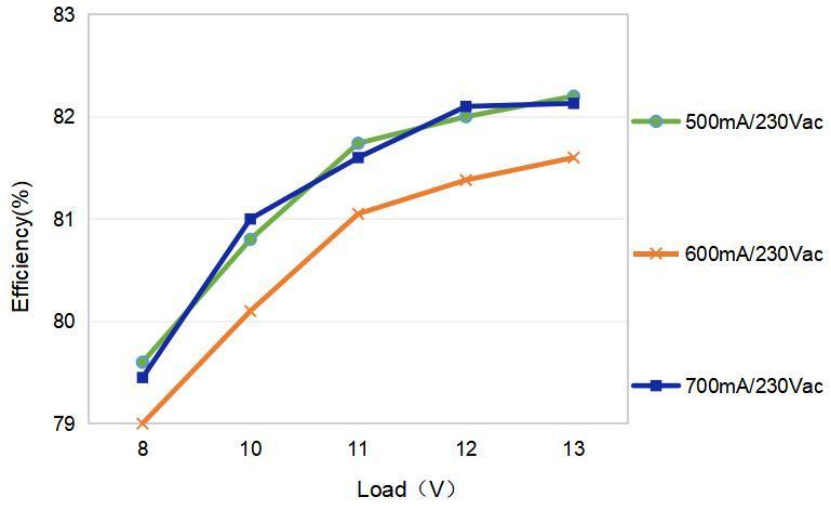




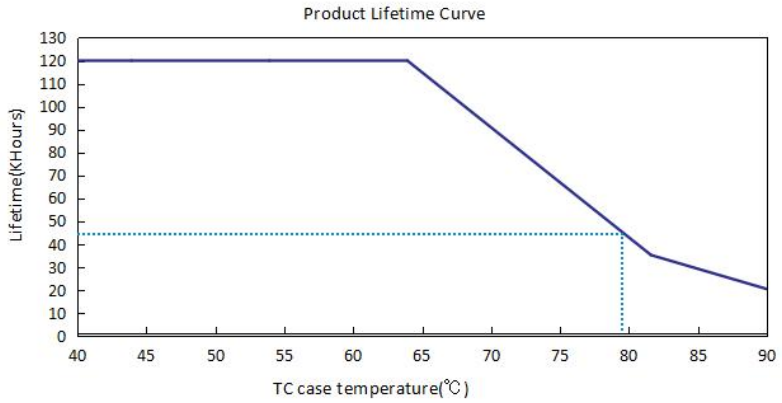
■ Efficiency Curves







■ **Lifetime Curve**



Definition of Terminals

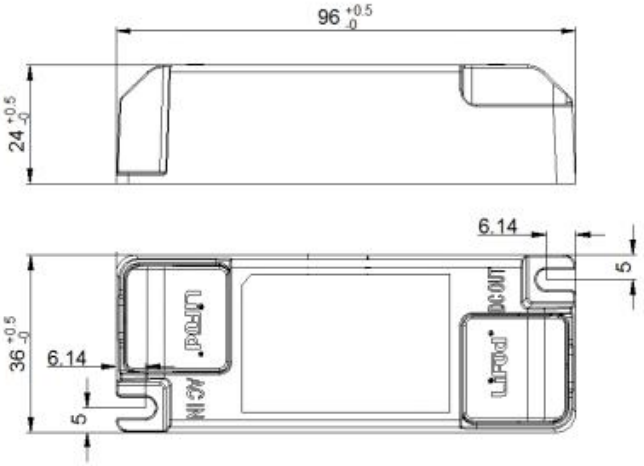
INPUT

AC-L	Input terminal of AC live wire
AC-N	Input terminal of AC neutral wire

OUTPUT

LED+	Positive terminal output of the driver
LED-	Negative terminal output of the driver

Dimensions (unit: mm)



Packaging Specifications

Model	LF-GIR009YSxxxxH
Packaging Dimensions	385*285*223 mm (L*W*H)
Quantities	23 pcs/layer; 7 layers/ctn; 161 pcs/ctn
Weights	0.042 kg/pc; 6.65 kg/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 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 content of this data sheet belongs to Lifud Technology Co., Ltd.