

Features

- Metal casing
- Isolated; flicker-free
- IP20, suitable for Class I light fixtures



Applications

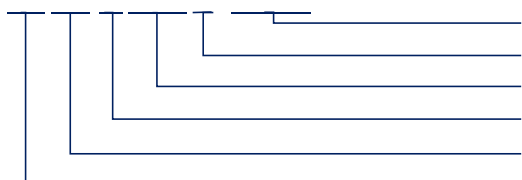
· commercial lighting · indoor-office lighting · decorative lighting · residential lighting

Descriptions

LF-GMR040YSxxxxH-ELS001 is a 40W constant current LED driver. Its input voltage ranges from 220 to 240Vac. Its output current is adjustable from 250 to 400mA via DIP switch with every 50mA as a step. It is suitable for Class I light fixtures like tri-proof light and linear light.

Product Model

LF- GMR040 YS xxxx H- ELS001



- ELS001: customized serial number
- H: input voltage 220-240Vac
- xxxx: output current (e.g. 0400 for 400mA)
- Y: complies with certifications; S: serial number
- 040: output power: 40W
- G: isolated design; MR: indoor metal casing tri-proof light

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■ Electrical Characteristics

Model		LF-GMR040YSxxxxH-ELS001				
Output	Output Voltage	80-150Vdc	65-133Vdc	65-114Vdc	65-100Vdc	
	Output Current	250mA	300mA	350mA	400mA	
	Ripple Current (100Hz)	<5%				
	Flicker Index	According to IEEE Std 1789				
	CIE SVM	≤0.4				
	IEC-Pst	≤1				
	Current Tolerance	± 8%	± 7%			
	Temperature Drift	± 10%				
	Start-up Time	<0.5S@230Vac				
Input	Rated AC Input Voltage	220-240Vac				
	AC Input Voltage Range	176-264Vac				
	Rated DC Input Voltage	220-240Vdc				
	DC Input Voltage Range	200-264Vdc				
	Input Frequency	50-60Hz (47-63Hz)				
	Input Current	0.3A Max				
	PF	≥0.95				
	THD	≤20%				
	Efficiency	≥86%	≥86.5%			
	Inrush Current	≤20A ^①				
	Loading Quantity on Circuit Breaker	Model	B10	C10	B16	C16
		Quantity (pcs)	19	22	32	38
	Leakage Current	≤0.7mA				
Protection Characteristics	Open Circuit	<200V				
	Over Voltage	No output or damage when powering on 380Vac				
	Short Circuit	Hiccup mode(auto-recovery)				
Environment Descriptions	Operating Temperature	-30℃ - +50℃				
	Operating Humidity	0-95%RH (no condensation)				
	Storage Temperature/ Humidity	-30℃ - +80℃(6 months in Class I environment); 0-95%RH (no condensation)				
	Atmospheric Pressure	86-106kPa				

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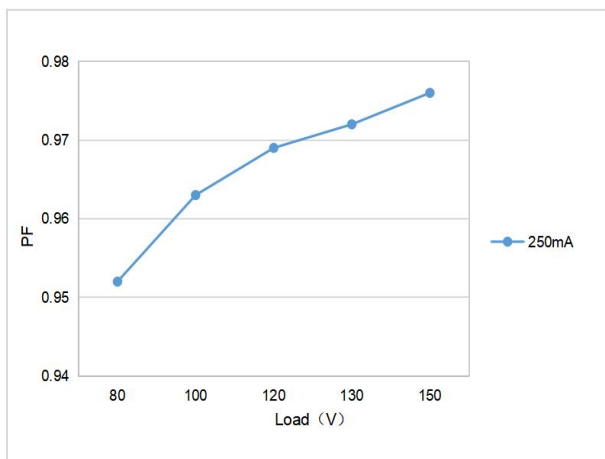
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■ Electrical Characteristics

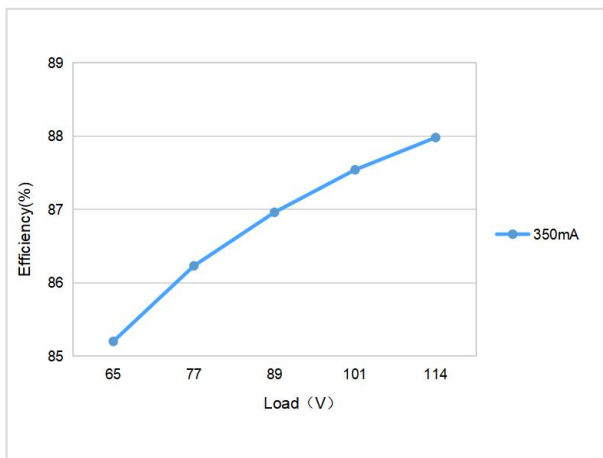
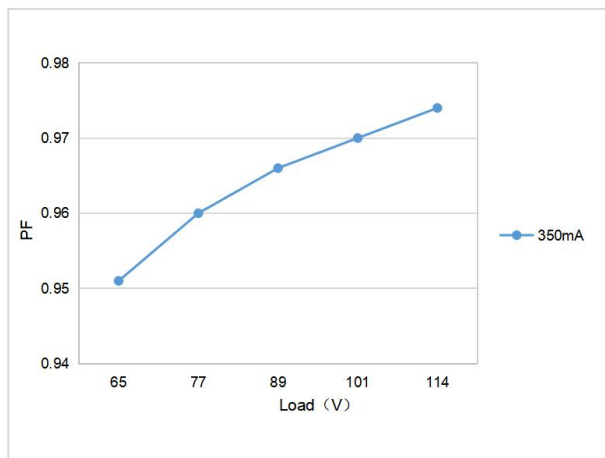
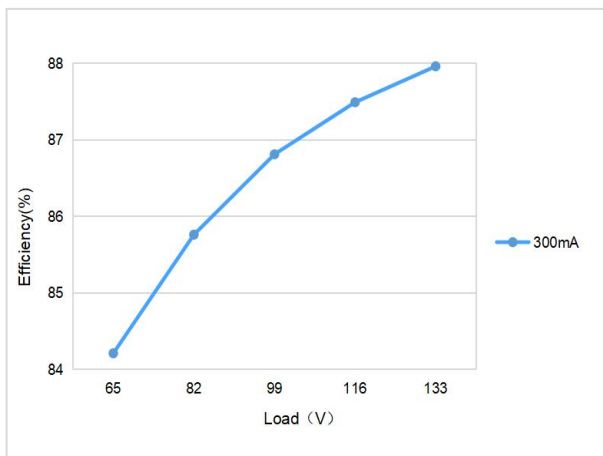
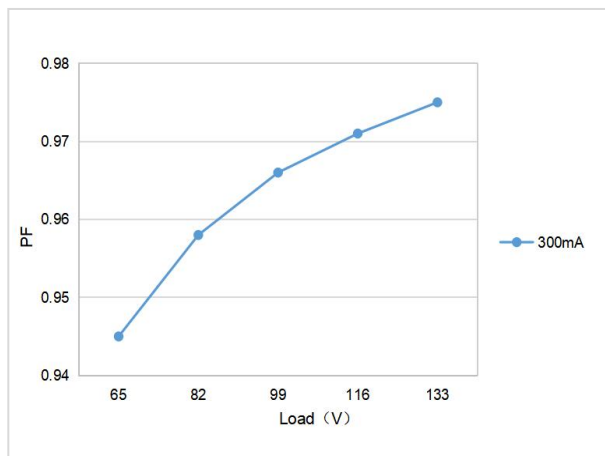
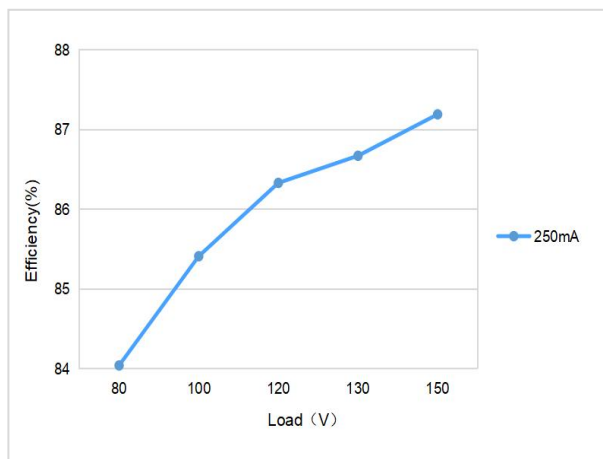
Surge	L-N	1kV
	L/N-PG	2kV
Safety & EMC	Certification	CE
	Withstand Voltage	I/P-O/P: 3.75kV&5mA&60S; I/P-PG: 1.5kV&5mA&60S; O/P-PG: 0.5kV&5mA&60S
	Insulation Resistance	I/P-O/P: >100MΩ@500Vdc
	Safety Standards	CE-LVD: EN 61347-2-13:2014/A1:2017, EN 61347-1:2015, EN 62493:2015
	EMI	CE-EMC/RCM: EN55015, EN61000-3-2, EN61000-3-3
	EMS	CE-EMC/RCM: EN61000-4-2,3,4,5,6,11
Other Parameters	IP Rating	IP20
	RoHS	RoHS 2.0 (EU) 2015/863
	Tc Max	90°C
	Warranty	5 years ^② 7 years ^③
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°C, humidity of 50%, maximum output 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 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. 3. The number of LED drivers that can be connected to a circuit breaker and the inrush current are tested under the same conditions. 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. 5. It is recommended to install double-pole switch at AC input terminal. If user uses the single-pole switch, make sure to connect it to wire L (live wire), otherwise the afterglow of light fixture would be incurred after the AC is disconnected. Note: ①: @190uS ②: 5 years@Tc≤78°C, failure rate 2.5% ③: 7 years@Tc≤73°C, failure rate 3.5%	

■ Product Characteristic Curves

PF Curve

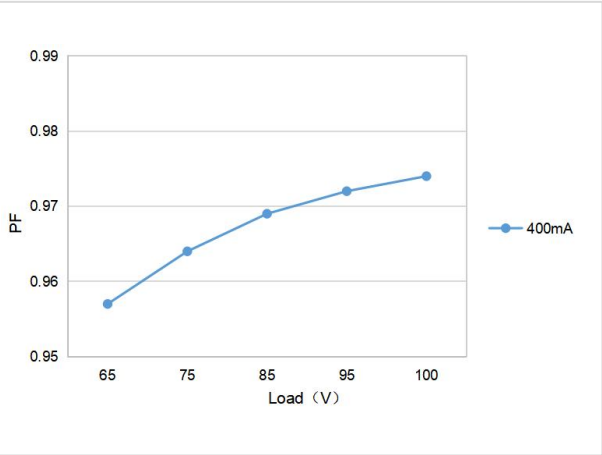


Efficiency Curve

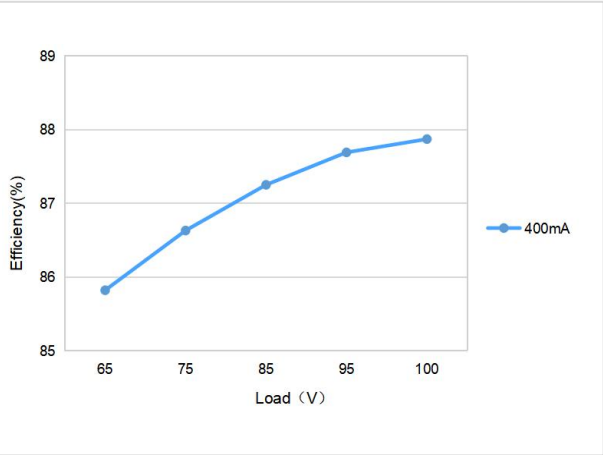


Product Characteristic Curves

PF Curve

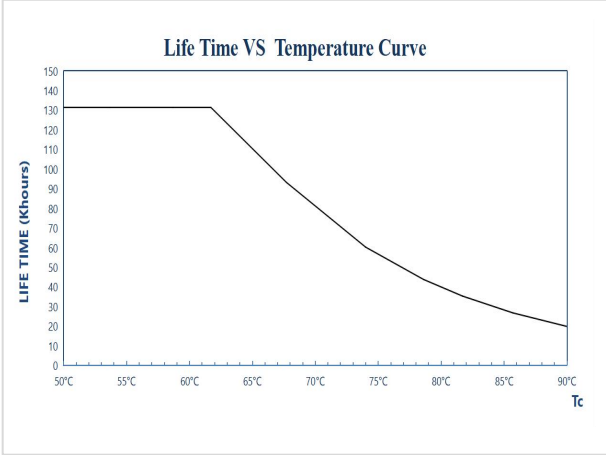


Efficiency Curve

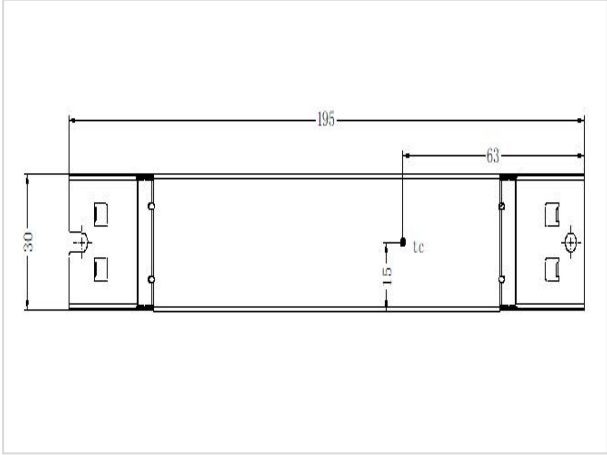


Product Characteristic Curves

Lifetime Curve



Tc Point Testing Diagram



Product Definitions

Product Terminal

INPUT	
AC-L	AC live wire input
AC-N	AC neutral wire input
	Earth wire

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

Product Definitions

Product DIP Switch

I rated (CC)	1	2	3
250mA	-	-	-
300mA	ON	-	-
350mA	-	ON	-
400mA	ON	ON	ON

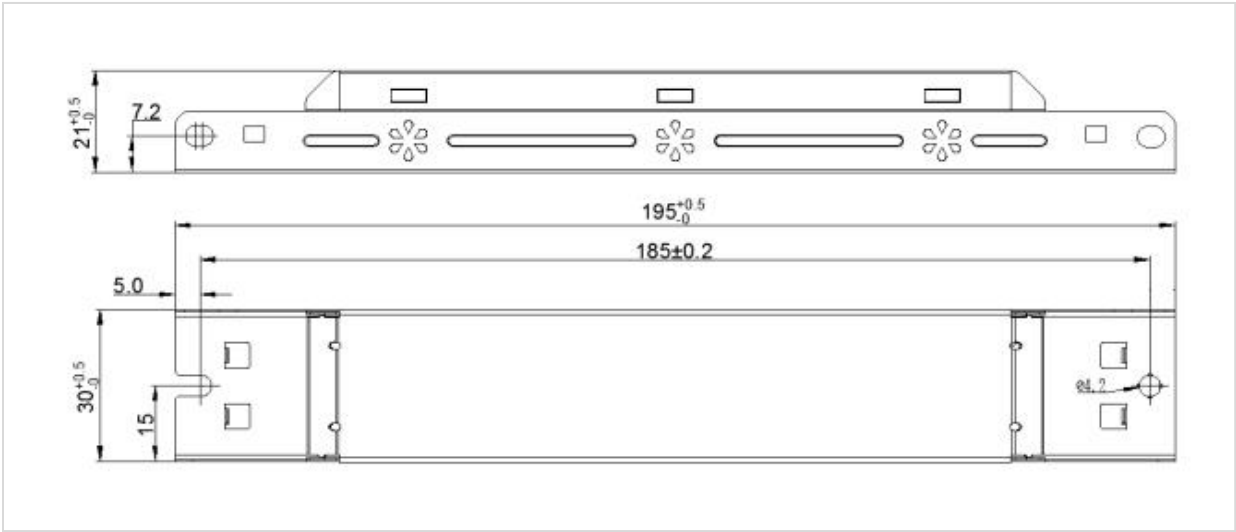
Remark: “-”: shift OFF. Please do not use the DIP switch when the LED driver is powered on. If DIP switch function needed, please disconnect input AC power supply first.

Structure & Dimensions (unit: mm)

Product Dimensions

Model	Overall Appearance (L*W*H)	Distance Between 2 Positioning Holes (L)	Diameter of Positioning Hole (D)
LF-GMR040YSxxxxH-ELS001	195*30*21 mm(±0.5mm)	185 mm (±0.2mm)	4.2 mm

Structure Diagram



■ Packaging Specifications

Model	LF-GMR040YSxxxxH-ELS001
Carton Size	385*285*210mm (L*W*H)
Quantity	8 pcs/layer; 6 layers/ctn; 48 pcs/ctn
Weight	0.14±5% kg/pc; 7.58±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 on 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 warranty service.

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