

Product Description

LF-GSD012YK series is a 12W constant current LED driver with DALI dimming function. The input voltage range is 198-264Vac. The output current can be adjusted from 100mA to 350mA via the DIP switch, in steps of 50mA.

Features

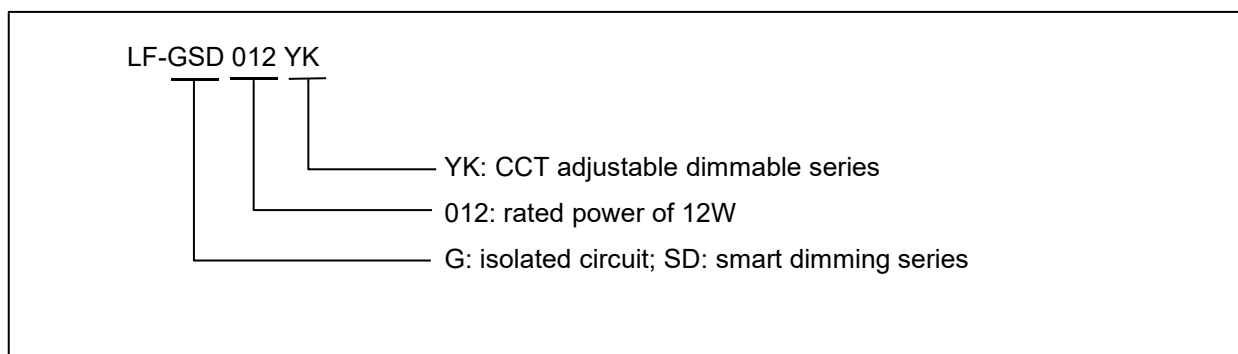
- IP20
- Suitable for Class II light fixtures
- Constant current output and the output current can be adjusted via the DIP switch
- Built-in active power factor correction function
- Standby power consumption <0.5W
- Adjustable CCT range: 2700K-6500K
- With DALI dimming function. (The logarithmic dimming curve or the linear dimming curve can be selected via the software)
- 5-year warranty (Please refer to the warranty condition.)

Applications

- Horticultural lighting
- Indoor office lighting
- Decorative lighting
- Commercial lighting
- Residential lighting



Product Naming



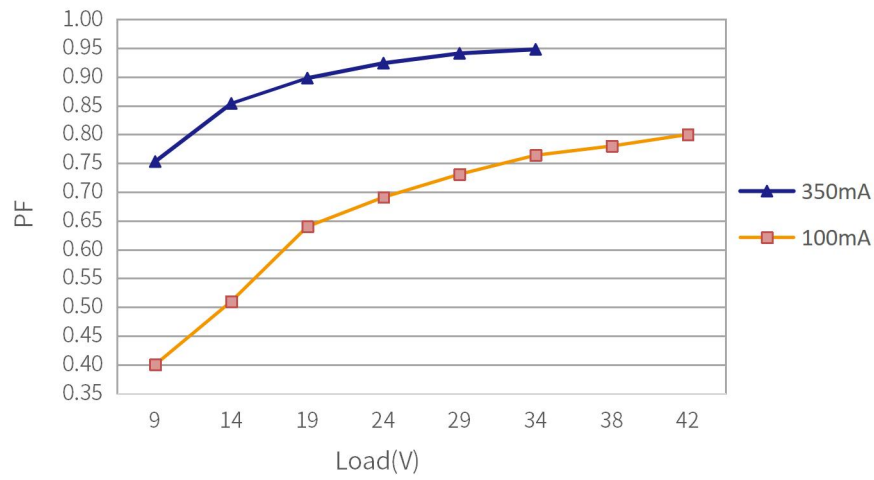
Electrical Characteristics

Model		LF-GSD012YK					
Output	Output Voltage	9-42V					
	Output Current	The output current can be adjusted via the DIP switch. Please refer to the DIP switch table.					
		9-34V	9-40V	9-42V	9-42V	9-42V	9-42V
		350mA	300mA	250mA	200mA	150mA	100mA
	Flicker Index	IEC-Pst≤1%, CIE SVM≤0.4%, Modulation Depth≤1% According to the flicker free standard (IEEE Std 1789-2015)					
	Ripple Current	5% (rated current)					
	Current Tolerance	±5% (25℃)				±10%(25℃)	
	Temperature Drift	±10%				±15%	
	Start-up Time	<1.5S @230Vac					
Input	Input Voltage	220-240Vac (voltage limit: 198-264Vac)					
	DC Input Voltage	310-340Vdc (voltage limit: 280-374Vdc)					
	Input Frequency	47Hz-63Hz					
	Input Current	0.2A Max					
	Power Factor	≥0.91	≥0.90		≥0.87	≥0.8	≥0.7
	THD	≤15%/230Vac (full load)					
	Efficiency	≥80%	≥81%	≥80.5%	≥79%	≥75.5%	≥69.5%
	Inrush Current	≤20A&100uS@230Vac (max)					
	Loading Quantity on Circuit Breaker	Model	B10		C10	B16	C16
		Quantity (pcs)	44		44	70	70
	Leakage Current	≤0.7mA					
	Standby Power Consumption	≤0.5W (when the DALI OFF signal is effective)					
Protection Characteristics	Open Circuit Protection	<59V					
	Short Circuit Protection	Hiccup mode (auto-recovery)					
Environment Descriptions	Operating Temperature	-20℃~~+45℃					
	Operating Humidity	20-90%RH (no condensation)					
	Storage Temperature/ Humidity	-20℃~~+ 80℃ (6 months under class I environment); 10-90%RH (no condensation)					
	Atmospheric Pressure	86KPa~106KPa					

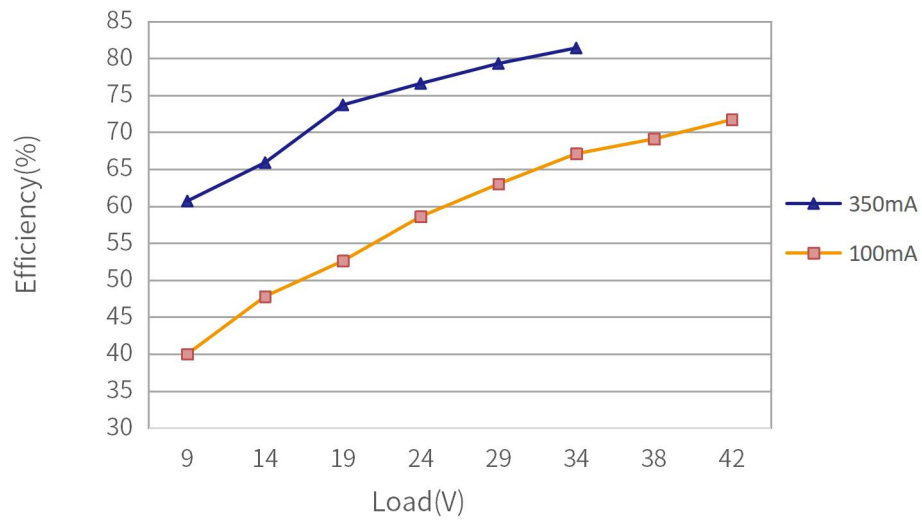
Safety and EMC	Certifications	ENEC, CCC, RCM, CE, CB
	Withstanding Voltage	I/P-O/P: 3.75kV&5mA&60S; I/P-DA1/DA2, O/P-DA1/DA2: 1.5kV&5mA&60S
	Insulation Resistance	I/P-O/P: >100MΩ @500Vdc
	Safety Standards	ENEC: EN61347-1: 2015, EN 61347-2-13: 2014/A1: 2017, EN 62384: 2016/A1: 2009; CCC: GB19510.1-2009, GB19510.14-2009; RCM: AS 61347.2-13: 2018; 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
	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 (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≤89℃)
	DALI Standard	IEC 62386-101 102 207 209: DALI 2.0
Remarks	<ol style="list-style-type: none"> 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. Unless otherwise stated, the parameters above are test results under the conditions of ambient temperature of 25℃, humidity of 50%, DALI signal input, 100% load, maximum output current, CCT of 3830K and input voltage of 230Vac. 	

Product Characteristic Curves

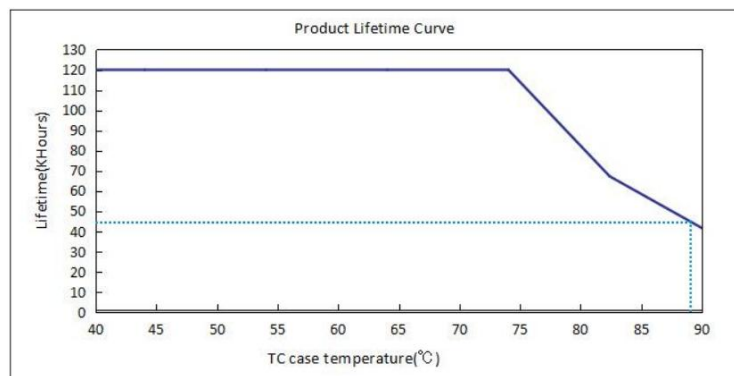
■ PF Curve



■ Efficiency Curve



■ Lifetime Curve



Instructions of Dimming Operation

■ Terminals

INPUT

DA1	DA1 dimming signal input
DA2	DA2 dimming signal input
NC	Vacant
AC-L	AC live wire input
AC-N	AC neutral wire input

OUTPUT

WW+	Positive terminal output of warm light
WW-	Negative terminal output of warm light
CW-	Negative terminal output of cold light

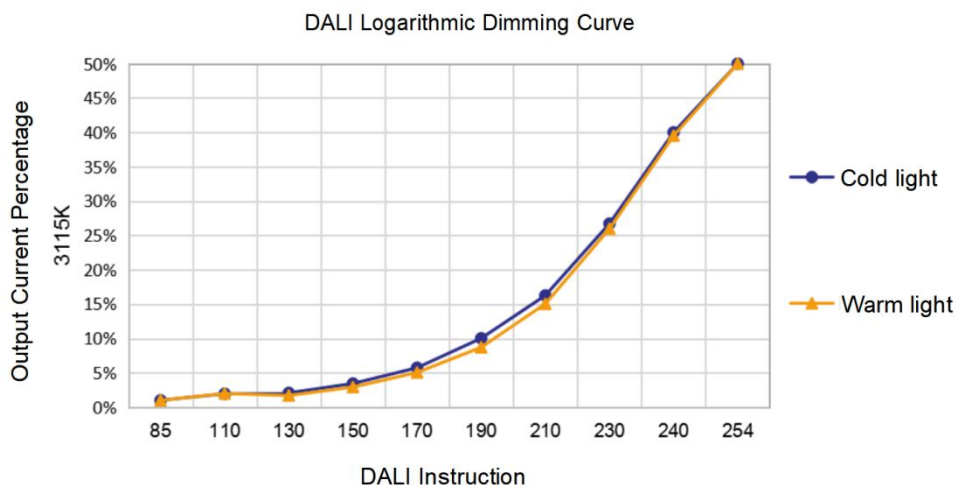
■ DIP Switch

I rated (CC)	1	2	3
350mA	OFF	OFF	OFF
300mA	OFF	OFF	ON
250mA	OFF	ON	OFF
200mA	OFF	ON	ON
150mA	ON	OFF	OFF
100mA	ON	OFF	ON

Remark: Except the settings mentioned in the table above, other DIP switch settings are default to be the maximum current 350mA.

■ DALI dimming operations

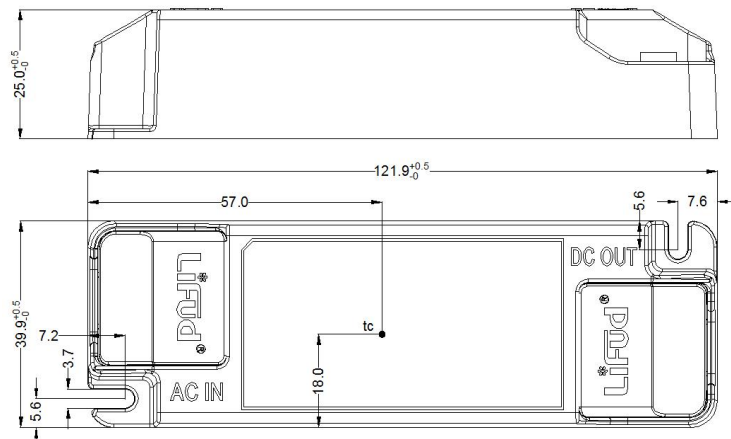
- Factory default is 100% luminance with 50% luminance each of the warm light output and cold light output.
- Connect the DALI signal to the DA1 and DA2 terminals.
- DALI protocol includes 16 groups and 64 IP addresses.
- The minimum dimming depth of the DALI dimming is 0.1% (Iout).



Label



Dimensions (unit: mm)



Packaging Specification

Model	LF-GSD012YK
Packaging Dimension	385×285×210mm (L×W×H)
Quantity	14 pcs/layer; 6 layers/ctn; 84 pcs/ctn
Weight	0.098 kg/pc; 8.8 kg±5%/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 content of this data sheet belongs to Lifud Technology Co., Ltd.