

## 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

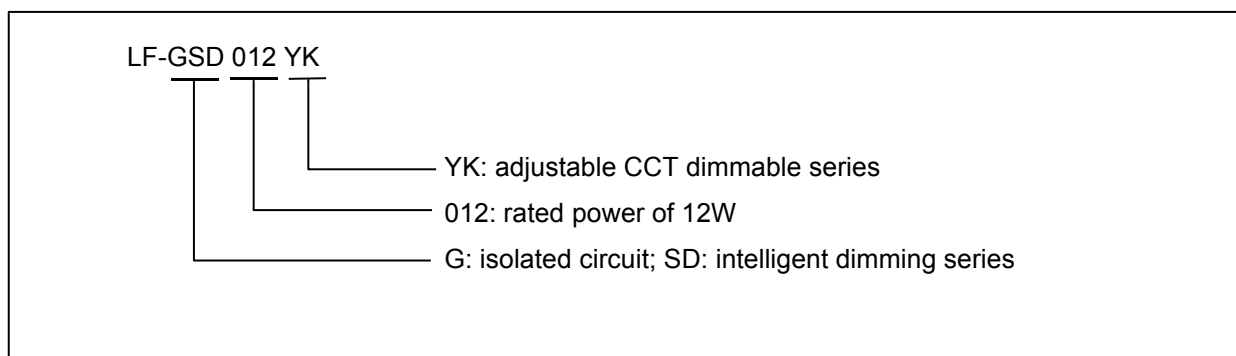
- IP20
- Suitable for Class II light fixtures
- Constant current output and the output current can be adjusted via the DIP switch
- Built-in active power factor correction function
- Standby power consumption <0.5W
- Adjustable CCT range: 2700K-6500K
- DALI dimming function. (The logarithmic dimming 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



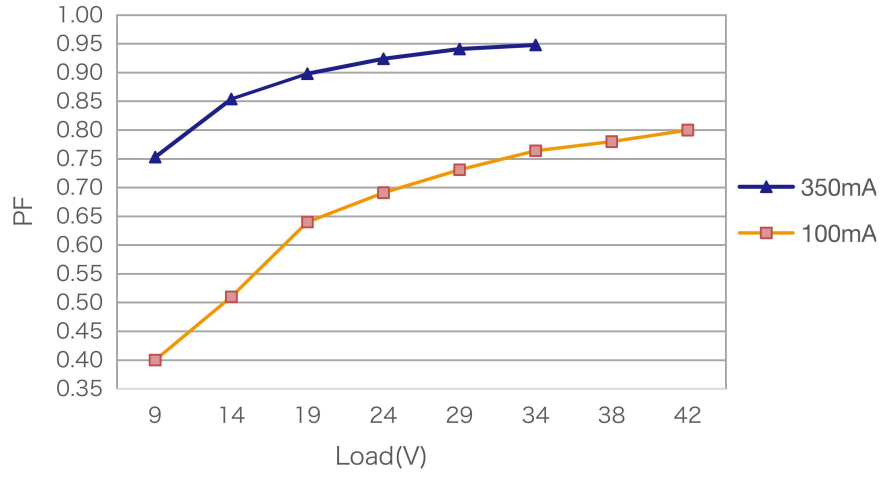
## Electrical Characteristics

Model		LF-GSD012YK					
<b>Output</b>	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 $\leq$ 1%, CIE SVM $\leq$ 0.4%, Modulation Depth $\leq$ 1% Conforms to the flicker free standard (IEEE Std 1789-2015)					
	Ripple Current	5% (rated current)					
	Current Tolerance	$\pm$ 5% (25°C)			$\pm$ 10%(25°C)		
	Temperature Drift	$\pm$ 10%			$\pm$ 15%		
Start-up Time	<1.5S @230Vac						
<b>Input</b>	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	$\geq$ 0.93	$\geq$ 0.92		$\geq$ 0.89	$\geq$ 0.8	$\geq$ 0.7
	THD	$\leq$ 15%/230Vac (full load)					
	Efficiency	$\geq$ 80%	$\geq$ 81%	$\geq$ 80.5%	$\geq$ 79%	$\geq$ 75.5%	$\geq$ 69.5%
	Inrush Current	$\leq$ 50A&50uS@230Vac (max)					
	Load Quantity Carried by the Circuit Breaker	Circuit Breaker Model	B10	C10	B16	C16	
		Quantity (pcs)	44	44	70	70	
	Leakage Current	$\leq$ 0.7mA					
	Standby Power Consumption	$\leq$ 0.5W (when the DALI OFF signal is effective)					
<b>Protection Characteristics</b>	Open Circuit Protection	<59V					
	Short Circuit Protection	Hiccup mode (auto-recovery)					
<b>Environment Descriptions</b>	Operating Temperature	-20°C ~+45°C					
	Operating Humidity	20-90%RH (no condensation)					
	Storage Temperature/ Humidity	-20°C ~+ 80°C (six months under class I environment); 10-90%RH (no condensation)					
	Atmospheric Pressure	86KPa~106KPa					

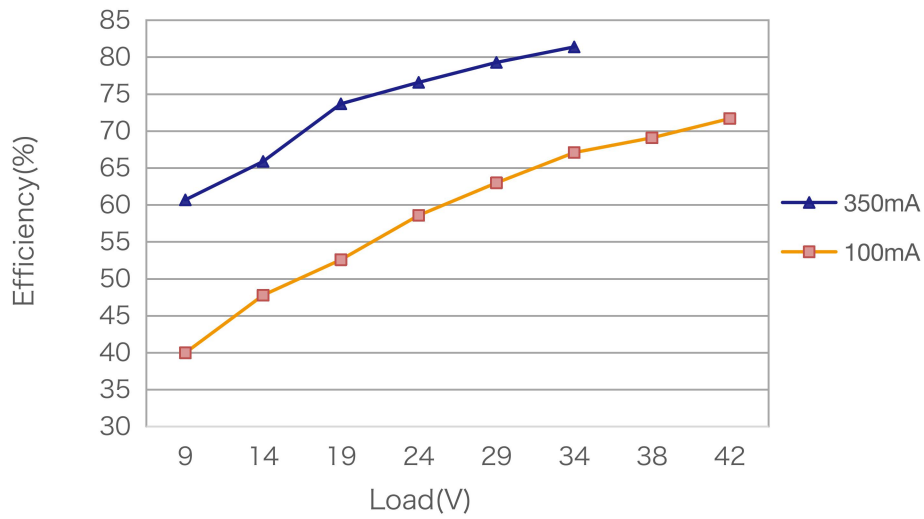
<b>Safety and Electromagnetic Compatibility</b>	Certifications	ENEC, CCC, RCM, CE, CB
	Withstanding Voltage	I/P-O/P: 3.75KV, 5mA, 60S
	Insulation Resistance	I/P-O/P: >100MΩ @500Vdc
	Safety Standards	ENEC: EN61347-1: 2015, EN 61347-2-13: 2014/A1: 2017, EN 62384: 2016/A1: 2009; CCC: GB19510.1-2009, GB19510.14-2009; 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
<b>Others</b>	IP Rating	IP20
	RoHS	RoHS 2.0 (EU) 2015/863
	Warranty Condition	5 yrs (Tc≤89°C)
	DALI Standard	IEC 62386-101 102 207 209: DALI 2.0
<b>Remarks</b>	<ol style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>3. The test conditions of the circuit breaker configuration quantity are the same as that of the inrush current test.</li> <li>4. Unless otherwise stated, the parameters above are test results under the conditions of ambient temperature of 25°C, humidity of 50%, DALI signal input, 100% load, maximum output current, CCT of 3830K and input voltage of 230Vac.</li> </ol>	

### Product Characteristic Curves

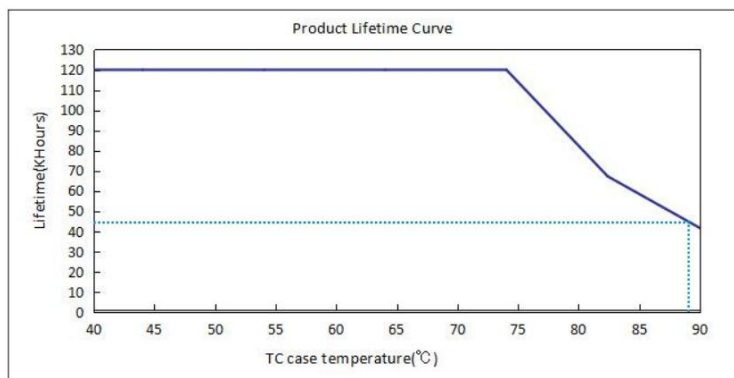
■ PF Curve



■ 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

LED+	Positive electrode output of warm light
WW-	Negative electrode output of warm light
CW-	Negative electrode output of cold light

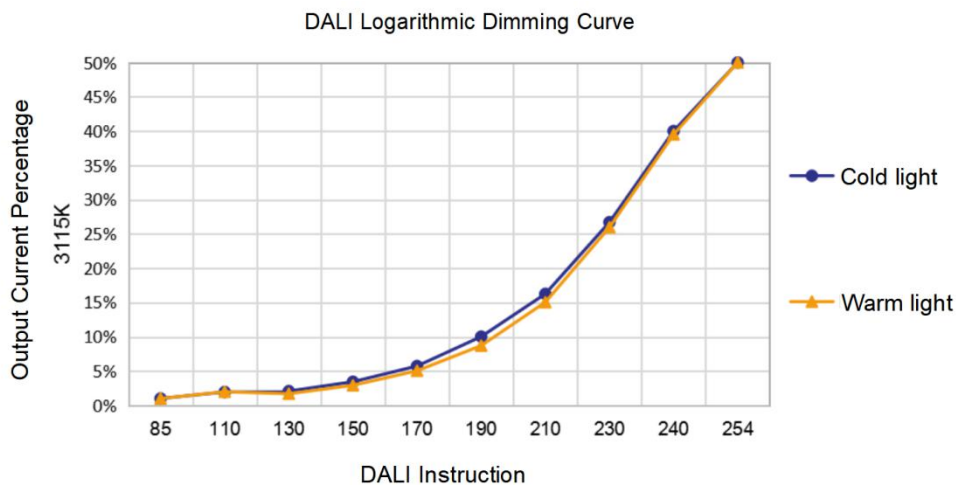
### ■ DIP Switch

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 of 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

**LIFUD**® LED Driver(LED控制装置) Preparation for input and output  
 Model: LF-GSD012YK

INPUT Input: 220-240V~50/60Hz Max.0.15A 7.5mm  
 U out: 59V == PF:>0.9C P rated:12W(Max) tc:90°C

DA 1  
 DA 2  
 AC-L  
 AC-N

0.75-1.5 □

For Australia and New Zealand, the marking label with “”

**Output current and setting table**

ta	V <sub>o</sub> DC	I rated(CC)	1	2	3
45°C	9-34V	350mA	OFF	OFF	OFF
	9-40V	300mA	OFF	OFF	ON
	9-42V	250mA	OFF	ON	OFF
	9-42V	200mA	OFF	ON	ON
	9-42V	150mA	ON	OFF	OFF
	9-42V	100mA	ON	OFF	ON

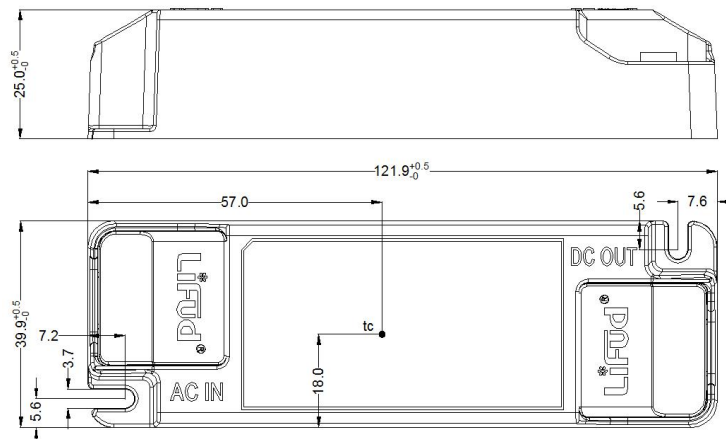
Dimmable 0.1%-100% 1 2 3

For LED modules only ON OFF

www.lifud.com  
 Made in China (中国制造)

LED+  
 WW-  
 CW-  
 0.5-1.0 □

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 contents of this data sheet belongs to Lifud Technology Co., Ltd.