

Product Description

LF-GSD020YK series is a 20W constant current LED driver with DALI dimming function. The input voltage limit is 198-264VAC. Its output current can be adjusted from 350mA to 700mA via the DIP switch, in steps of 50mA.

Features

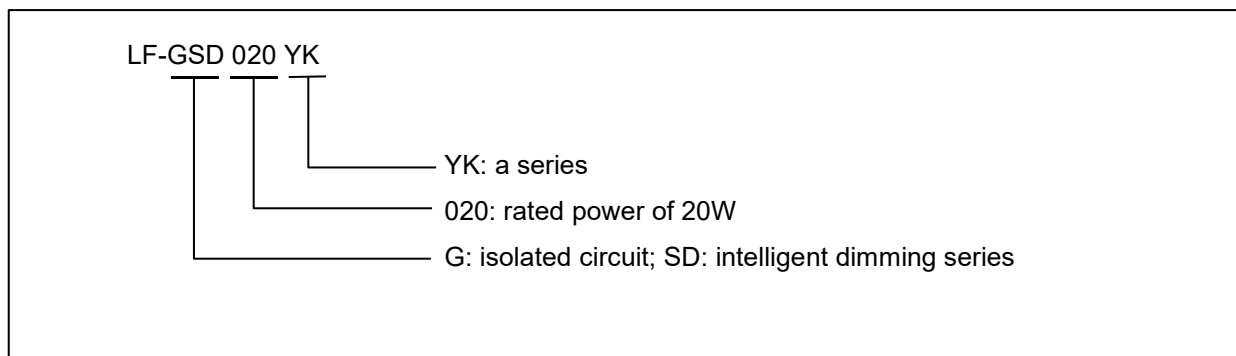
- IP20
- Suitable for Class II light fixtures
- Constant current output. The output current can be adjusted via the DIP switch
- Built-in active power factor correction function
- Standby power consumption: <0.5W
- Adjustable CCT range: 2700K-6500K
- DALI dimming function. The logarithmic dimming curve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

Applications

- Indoor office lighting
- Decorative lighting
- Commercial lighting
- Residential lighting
- Plant lighting



Product Naming



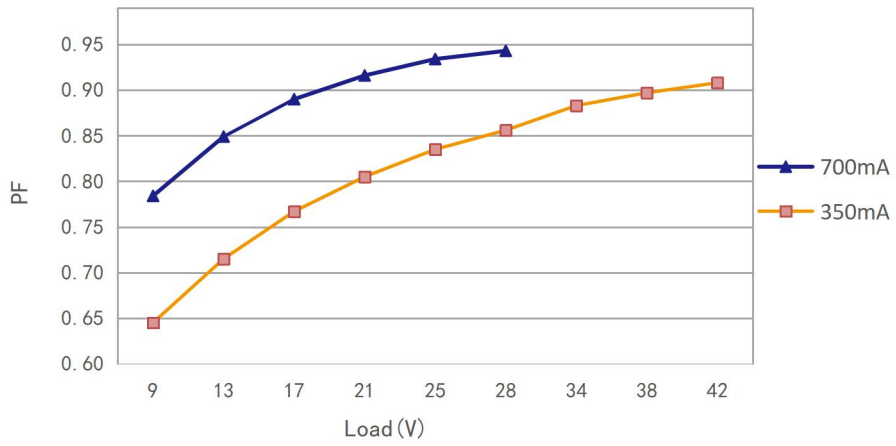
Electrical Characteristics

Model		LF-GSD020YK							
Output	Output Voltage	9-42V		9-40V	9-36V	9-34V	9-30V	9-28V	
	Output Current	The output current can be adjusted via the DIP switch. Please refer to the DIP switch table.							
		350mA	400mA	450mA	500mA	550mA	600mA	650mA	700mA
	Flicker Index	IEC-Pst \leq 1, CIE SVM \leq 0.9, Modulation Depth \leq 1% (Meet with flicker free standard: IEEE Std 1789-2015)							
	Ripple Current	<5% (rated current)							
	Current Tolerance	\pm 5%							
	Temperature Drift	\pm 10%							
	Start-up Time	<1.5S @230Vac							
Input	Input Voltage	220-240Vac (limit: 198-264Vac)							
	DC Input Voltage	310-340Vdc (limit: 280-374Vdc)							
	Input Frequency	47Hz-63Hz							
	Input Current	0.2A Max.							
	Power Factor	\geq 0.9			\geq 0.92				
		THD \leq 15% 230Vac (full load)							
	Efficiency	\geq 82%	\geq 82.5%	\geq 84%	\geq 83.5%	\geq 82%	\geq 82.5%	\geq 81%	
	Inrush Current	\leq 60A & 50uS @230Vac (max)							
	Load Quantity Carried by the Circuit Breaker	Circuit Breaker Model	B10		C10		B16		C16
		Quantity (pcs)	33		33		52		52
	Surge Protection	L-N: 1KV							
	Leakage Current	\leq 0.7mA							
	Standby Power Consumption	\leq 0.5W (when the DALI signal is off)							
Protection Characteristics	Open Circuit Protection	<59V							
	Short Circuit Protection	Hiccup mode (auto-recovery)							
Environment Descriptions	Operating Temperature	-20 $^{\circ}$ C ~+45 $^{\circ}$ C							
	Operating Humidity	20-90%RH (no condensation)							
	Storage Temperature/ Humidity	-30 $^{\circ}$ C ~+ 80 $^{\circ}$ C (six months under class I environment);							
		10-90%RH (no condensation)							
Atmospheric Pressure	86KPa~106KPa								

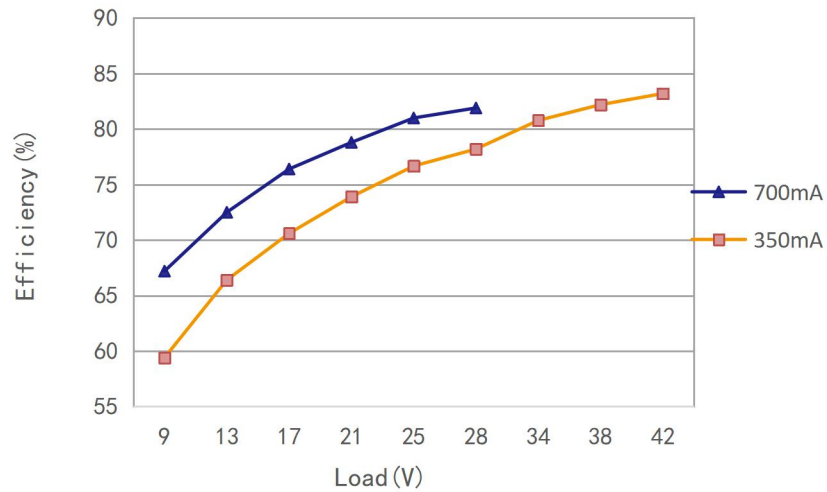
Safety and Electromagnetic Compatibility	Certifications	ENEC, CE, CB, RCM, CCC
	Withstanding Voltage	I/P-O/P: 3.75KV, 5mA, 60S
	Insulation Resistance	I/P-O/P: >100MΩ @500Vdc
	Safety Standards	ENEC: EN61347-1: 2015, EN 61347-2-13: 2014/A1:2017, EN 62384: 2016/A1: 2009; CCC: GB19510.1-2009, GB19510.14-2009; 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
Others	IP Rating	IP20
	RoHS	RoHS 2.0 (EU) 2015/863
	Warranty Condition	5 yrs (TC≤86℃)
	DALI Standard	IEC 62386-101 102 207 209: DALI 2.0
Remarks	<ol style="list-style-type: none"> 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 that of the inrush current test. 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 Curve

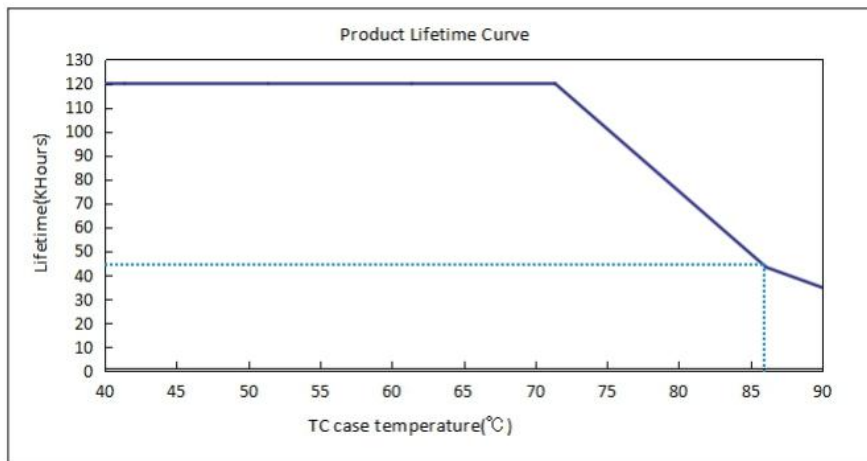
■ **PF Curve**



■ **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 white light
WW-	Negative electrode output of warm white light
CW-	Negative electrode output of cool white light

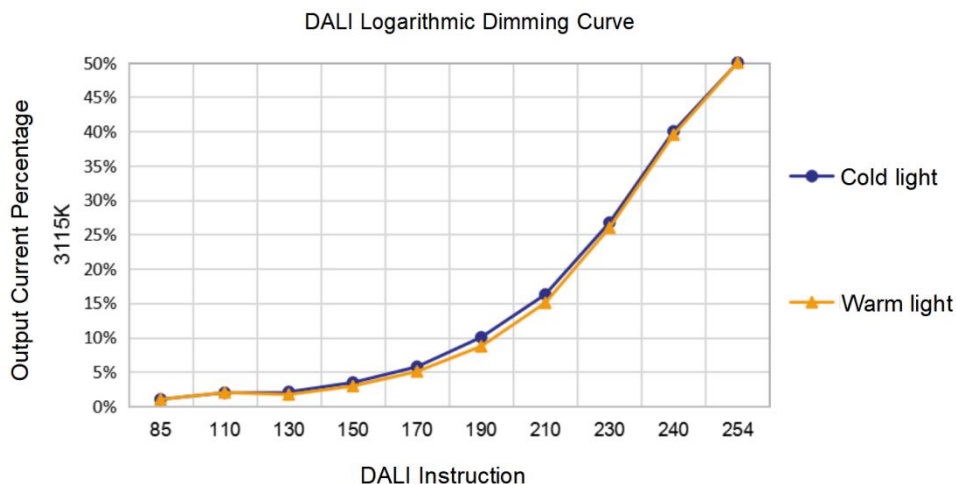
■ DIP Switch Table

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


Remark: Except the settings mentioned in the table above, other DIP switch settings are default to be the maximum current 700mA.

■ 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) Model: LF-GSD020YK
 Input: 220-240V ~ 50/60Hz Max.0.2A
 Uout: 59V PF:>0.9C P rated:20W(Max)
 For Australia and New Zealand,the marking label with "X" 


Output current and setting table					
ta	Vo DC	I rated(CC)	1	2	3
45°C	9-28V	700mA	OFF	OFF	OFF
	9-30V	650mA	OFF	OFF	ON
	9-34V	600mA	OFF	ON	OFF
	9-36V	550mA	OFF	ON	ON
	9-40V	500mA	ON	OFF	OFF
	9-42V	450mA	ON	OFF	ON
	9-42V	400mA	ON	ON	OFF
	9-42V	350mA	ON	ON	ON

INPUT
 DA 1
 DA 2
 AC-L
 AC-N
 0.75-1.5□
 Dimmable
 0.1%-100%

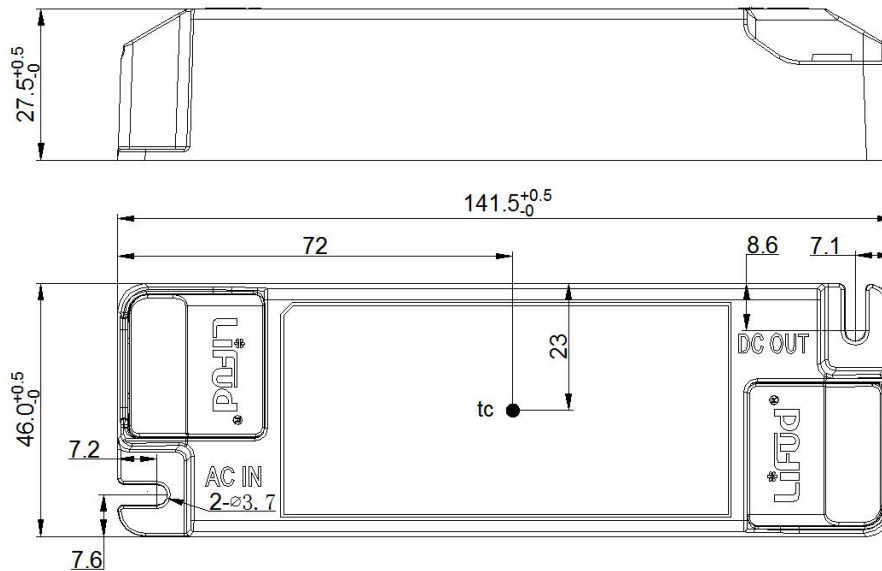
Preparation for input and output
 17.5mm tc:90°C
 ON OFF 1 2 3

For LED modules only
 www.lifud.com
 Made in China (中国制造)

OUTPUT
 LED+
 WW-
 CW-
 0.5-1.0□



Dimensions (unit: mm)



Packaging Specification

Model	LF-GSD020YK
Packaging Dimension	385×285×210mm (L×W×H)
Quantity	10 pcs/layer; 6 layers/ctn; 60 pcs/ctn
Weight	126 g/pc; 8.06 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 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.