

LF-GIF020YK0550U(S)

GIF*YK Flicker Free LED Driver | Constant Current Compact - Non Dimmable

Product family features

- Low THD $\leq 20\%$ @full load
- Rated input range: 120–277Vac
- Ta range: -30 - +45 °C
- Ripple current $<5\%$
- 5 years guarantee



Product family benefits

- Compact size, independent use, and high PF
- Flicker free
- Current adjustable via DIP switch
- SELV output

Typical applications

- For down light
- For office, commercial, and decorative lighting

Product parameters

- | | |
|------------------------------------|---------------------------|
| — Output current 400/450/500/550mA | — Output voltage 24-42Vdc |
| — Output power 9.6-20.9W | — Efficiency 87% |
| — Input voltage 108–305Vac | |

Electrical data

Input data

Nominal input voltage	120 ... 277V
Input voltage AC	108 ... 305V
Mains frequency	50/60Hz
Input voltage DC	/
Power factor	$\geq 0.95^{1)}$
Efficiency	$\geq 87\%^{2)}$
THD	$\leq 20\%$
Input current	0.28A Max
Inrush current	45A ³⁾
Loading number on circuit breaker 10 A (B)	17
Loading number on circuit breaker 10 A (C)	29
Loading number on circuit breaker 16 A (B)	28
Loading number on circuit breaker 16 A (C)	47
Protective conductor current	$\leq 0.7\text{mA}$

Output data

Nominal output voltage	24...42V ⁴⁾
Nominal output current	400/450/500/550mA
Default output current	550mA
Current setting	DIP switch
Maximum output power	20.9W
Nominal output power	9.6 ... 20.9W
Output ripple current (100 Hz)	<5%
Flicker	According to IEEE Std 1789-2015
CIE SVM	≤ 0.4
IEC-Pst	≤ 1
Current tolerance	$\pm 5\%^{5)}$
Temperature tolerance	$\pm 10\%$
Start-up time	<0.5S

Safety

Withstanding voltage	I/P-O/P: 3.75kV&5mA&60S
Surge capability (L-N)	1kV
Surge capability (L/N-Ground)	-
Insulation resistance	I/P-O/P: >100M Ω @500Vdc
Guarantee	5 years ⁶⁾

1) 0.95@550mA; 0.94@450-500mA; 0.93@400mA

2) 87%@500-550mA; 86.5%@450mA; 86%@400mA

3) $t = 100\mu\text{s}$

4) Please refer to the operating window about the relation between output voltage and output current

5) 5%@500mA and 550mA; $\pm 7\%$ @400mA and 450mA

6) 5 years@120Vac@Tc $\leq 75^{\circ}\text{C}$; 5 years@230Vac@Tc $\leq 75^{\circ}\text{C}$

Characteristic diagrams

Operating Window

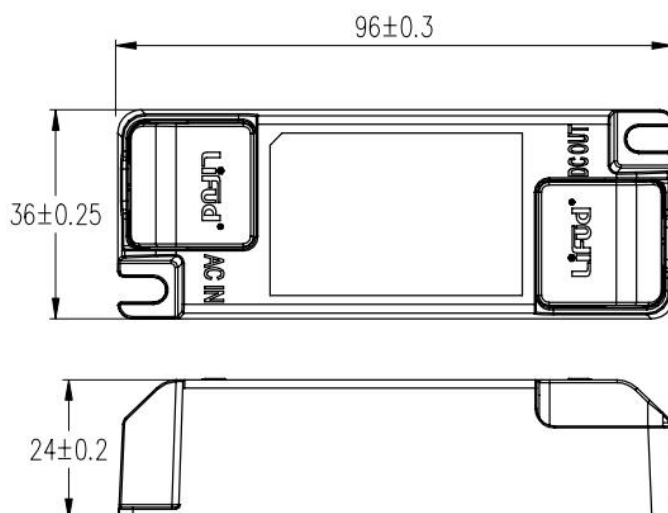
Typical Efficiency vs Load

Typical Power Factor vs Load

Typical THD vs Load

Lifespan

Dimensions (Unit: mm)



Mounting hole spacing, length	83.7 ± 0.3 mm
Positioning hole diameter	4.3 mm
Product weight	$g \pm 5\%$
Cable cross-section, input side	0.75 ... 1.5 mm ²
Cable cross-section, output side	0.5 ... 1.5 mm ²
Cable outside diameter, input side	Max: 5.0 mm Min: 3.0 mm
Cable outside diameter, output side	Max: 5.0 mm Min: 3.0 mm
Wire preparation length, input side	7...8 mm
Wire preparation length, output side	7...8 mm
Length	96.0 ± 0.3 mm
Width	36.0 ± 0.25 mm
Height	24.0 ± 0.2 mm

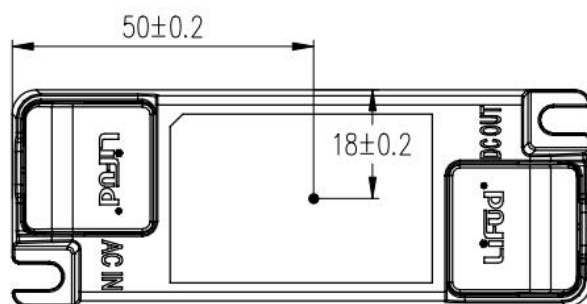
Colors & materials

Casing material	PC
Casing color	White

Temperature & operating conditions

Ambient temperature range	-30 ... +45°C
Maximum temperature at tc test point	80°C
Temperature range at storage	-30 ... +80°C (6 months in Class I environment)
Humidity range at storage	10-95%RH (no condensation)
Humidity during operation	20-90%RH
RoHS	RoHS 2.0 (EU) 2015/863

Tc test point (Unit: mm)



Note: The picture is a front view, and the Tc point is on the front of the product.

Product terminal

Input		Output	
AC-L	AC live wire input	LED+	Positive terminal output of LED driver
AC-N	AC neutral wire input	LED-	Negative terminal output of LED driver

DIP switch definition

Vo DC	I rated	1	2
24-42V	400mA	-	-
24-42V	450mA	ON	-
24-40V	500mA	-	ON
24-38V	*550mA	ON	ON

Note: "-": OFF, *: default current. When adjusting the output current via the DIP switch, please disconnect input AC first so as to use the DIP switch without the input AC connected.

Capabilities

Dimmable	-
Over-temperature protection	When the front temperature of U2 reaches 137 °C , the output current decreases
Overload protection	-
Short circuit protection	Automatic reversible
No-load protection	<55V
Suitable for fixtures with prot. class	II
Control interface	-
Output interface	1 channel

Programming

Programming device	-
DALI control software	-
APP	-

Certificates & standards

Approval marks – approval	ENEC, CB, CE, RCM
Standards	IEC/EN 61347-2-13, IEC/EN 61347-1, IEC/EN 62493 IEC/EN 62384 AS 61347.1, AS 61347.2.13
EMC	EN 55015, EN 61547, EN 61000-3-2,3
Type of protection	IP20

Logistical data

Product	Packaging unit (Pieces/Unit)	Dimensions (L*W*H)	Volume	Gross weight
LF-GIF020YK0550U (S)	161	385mm*285mm*210mm	23.04 dm ³	kg±5%

Test equipment & condition

Test equipment	AC power source: CHROMA6530, digital power meter: CHROMA66205, 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.
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If there are no special remarks, the above parameters are tested at the ambient temperature of 25°C, humidity of 50%, maximum output power and input voltage of 230Vac/50Hz.

Additional information

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.

Transportation & storage

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.

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 Lifud warranty service.

Disclaimer

Subject to change without notice. Errors and omissions excepted. Always make sure to use the most recent release.

Lifud Technology Co., Ltd. reserves the right to interpret any content of this specification.