

LF-GIF009YK0220U(S)

SELV Flicker Free LED Driver | Constant Current - 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
- Lifetime up to 100,000h

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 135/160/200/220mA | — Output voltage 24-42Vdc |
| — Output power 3.24-9.24W | — Efficiency 82% |
| — Input voltage 108–305Vac | |

Electrical data

Input data

Rated AC input voltage	120 ... 277V
AC voltage range	108 ... 305V
Mains frequency	50/60Hz
Rated DC input voltage	/
DC voltage range	/
Power factor	0.95 ¹⁾ @230Vac
Efficiency	82% @230Vac; 80.5% @120Vac
THD	≤20%
Input current	0.14A Max
Inrush current	30A ²⁾
Loading number on circuit breaker 10 A (B)	27
Loading number on circuit breaker 10 A (C)	44
Loading number on circuit breaker 16 A (B)	45
Loading number on circuit breaker 16 A (C)	74
Protective conductor current	≤0.7mA

Output data

Nominal output voltage	24...42V ³⁾
Nominal output current	135/160/200/220mA
Default output current	135mA
Current setting	DIP Switch (see the DIP switch definition for the corresponding current)
Maximum output power	9.24W
Nominal output power	3.24 ... 9.24W
Output ripple current (100 Hz)	<5%
Flicker	According to IEEE Std 1789-2015
CIE SVM	≤0.4
IEC-Pst	≤1
Current tolerance	±8% ⁴⁾
Temperature tolerance	±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: >100MΩ@500Vdc
Lifetime	Up to 100,000 hours ⁵⁾
Guarantee	5 years ⁶⁾

1) @220mA full load

2) t =100μs

3) Refer to the operating window for the relation between output voltage and current

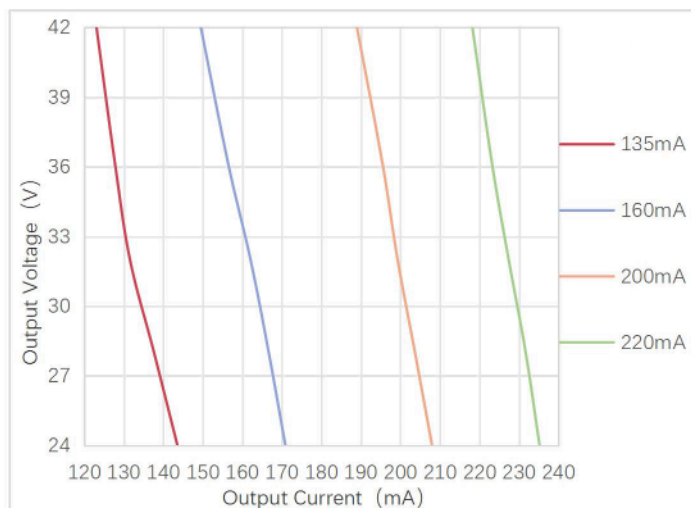
4) ±8%@220mA; ±10%@160mA, 200mA; ±13%@135mA

5) For details, please refer to the service life table

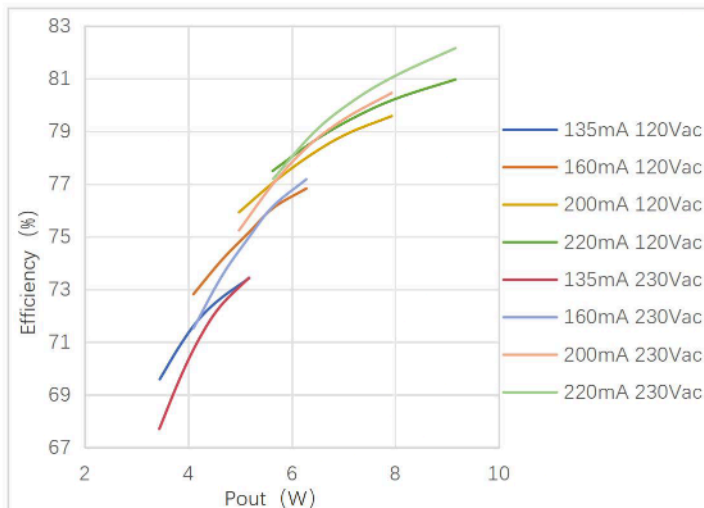
6) 5 years@Tc≤75°C

Characteristic diagrams

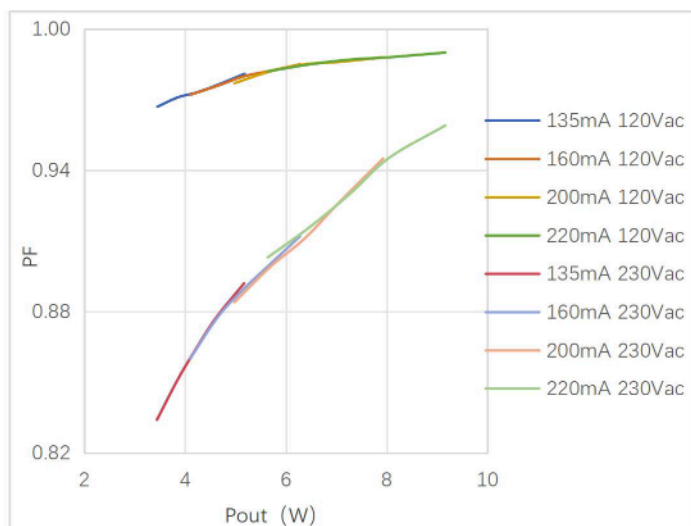
Operating Window



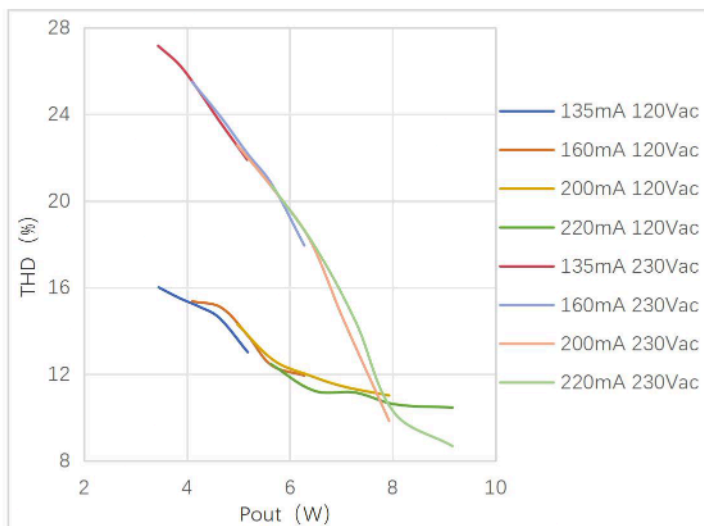
Typical Efficiency vs Load



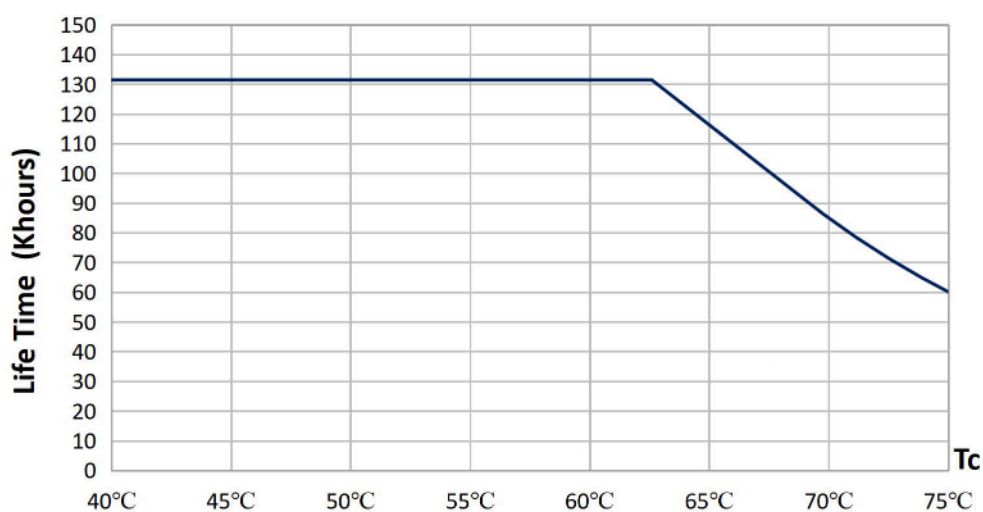
Typical Power Factor vs Load



Typical THD vs Load



Lifespan



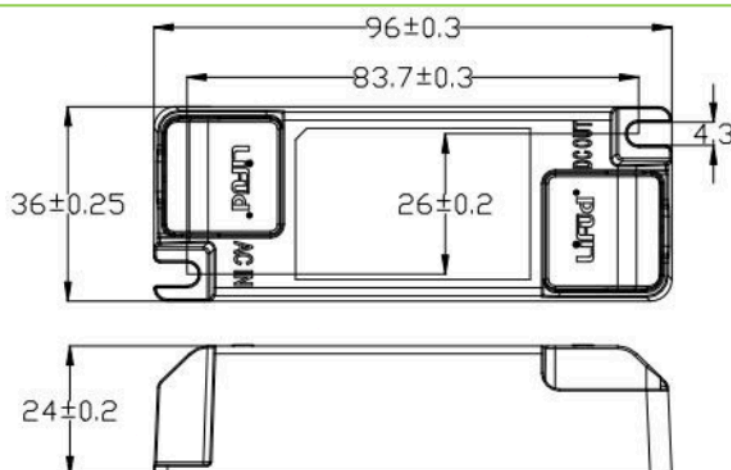
Service life

Model	I _{out}	P _{out}	T _a	35°C	45°C
LF-GIF009YK0220U(S)	220mA	9.24W	T _c	65°C	75°C
			Lifetime	>100,000h	>50,000h

Note: The design life of the LED driver is as described above under reference conditions. The failure probability is less than 10%.

The relationship between T_c and T_a also depends on the design of the luminaire.

Dimensions (Unit: mm)



Mounting hole spacing, length	83.7±0.3mm
Positioning hole diameter	4.3mm
Product weight	52g
Cable cross-section, input side	0.75 ... 1.5 mm ²
Cable cross-section, output side	0.2 ... 1.5 mm ²
Cable outside diameter, input side	Max: 5.0mm Min: 3.0mm
Cable outside diameter, output side	Max: 5.0mm Min: 3.0mm
Wire preparation length, input side	7...8mm
Wire preparation length, output side	7...8mm
Length	96±0.3mm
Width	36±0.25mm
Height	24±0.2mm

Colors & materials

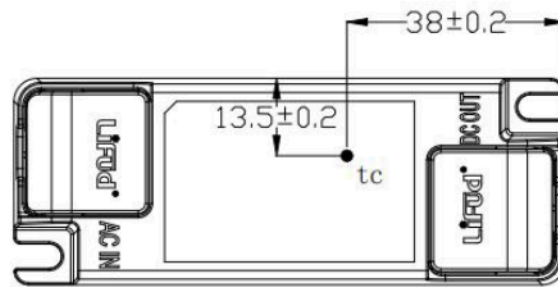
Casing material	PC
Casing color	White

Temperature & operating conditions

Ambient temperature range	-30 ... +45°C
Maximum temperature at tc test point	75°C
Temperature range at storage	-40 ... +80°C (6 months in Class I environment)
Humidity range at storage	10-90%RH (no condensation)

Humidity during operation	20-90%RH
RoHS	RoHS 2.0 (EU) 2015/863

Tc test point (Unit: mm)



Tc point is on the top 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 (CC)	1	2
24-42V	135mA	-	-
24-42V	160mA	ON	-
24-42V	200mA	-	ON
24-42V	220mA	ON	ON

Note: "-": shift OFF. "": default current. DIP when power on is NOT allowed. Please disconnect the AC power before DIP.

Capabilities

Dimmable	-
Over-temperature protection	When the chip temperature hits over-temperature regulation point, output current will gradually decrease
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, SAA
Standards	EN/IEC 61347-2-13; EN/IEC 61347-1; EN/IEC 62384; EN 62493; AS 61347.2.13 & AS/NZS 61347.1
EMC	EN IEC 55015, EN IEC 61547, EN IEC 61000-3-2, EN 61000-3-3
Type of protection	IP20

Logistical data

Product	Packaging unit (Pieces/Unit)	Dimensions (L*W*H)	Volume	Gross weight
LF-GIF009YK0220U (S)	161	385mm*285mm*210mm	23.04 dm ³	8.65kg±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℃, 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.

1. When using the products which have been stored for more than 6 months, please re-test their electrical parameters firstly by powering on. Do not use them unless they are tested to be qualified.

2. When using the products which have been stored for 6 to 12 months, please run them on power for more than 2 hours firstly.

3. When using the products which have been stored for more than 12 months, please conduct an actual assessment of quality risks firstly. Direct use is not recommended.

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.