

# LF-GMR040YS-ELS005

GMR\*YS SELV 4-output current | Constant Current - Non dimmable



## Product family features

- Low THD<10%@full load
- Rated input voltage: 220-240Vac
- Ta: -30°C~+60°C
- Ripple current<5%
- 5 years guarantee



## Product family benefits

- Output current adjustable via DIP switch in 4 shifts
- Super high efficiency
- Linear metal casing with 21mm housing height
- Long lifetime and high reliability
- Flicker free
- SELV output

## Typical applications

- For linear light and tri-proof light
- For office, commercial, and decorative lighting

## Product parameters

- Output current 250/300/350/400mA
- Output power 19.5-40W
- Input voltage 198–264Vac
- Output voltage 65-150Vdc
- Efficiency 90%

## Electrical data

### Input data

Rated supply voltage	220 ... 240 V
AC voltage range	198 ... 264 V
Mains frequency	50/60 Hz
Input voltage DC	220 ... 240V <sup>1)</sup>
Power factor	$\geq 0.95$
Efficiency in max. power	90%
THD	$\leq 10\%$
Input current	0.3A Max
Inrush current	25A <sup>2)</sup>
Loading no. on circuit breaker 10 A (B)	21
Loading no. on circuit breaker 10 A (C)	34
Loading no. on circuit breaker 16 A (B)	28
Loading no. on circuit breaker 16 A (C)	45
Protective conductor current	$\leq 3.5\text{mA}$

### Output data

Nominal output voltage	65 ... 150V <sup>3)</sup>
Nominal output current	250/300/350/400mA
Default output current	400mA
Current set	DIP switch (please see the DIP switch definition)
Maximum output power	40W
Nominal output power	19.5... 40W
Output ripple current (100 Hz)	<5%
Flicker	Comply with IEEE Std 1789-2015
CIE SVM	$\leq 0.4$
IEC-Pst	$\leq 1$
Output current tolerance	$\pm 5\%$
Temperature tolerance	$\pm 10\%$
Starting time	<0.5S

### Safety

Withstanding voltage	I/P-O/P: 3.75kV&5mA&60S; I/P-PG: 1.5kV&5mA&60S O/P-PG: 0.5kV&5mA&60S
Surge capability (L-N)	1 kV
Surge capability (L/N-Ground)	2 kV
Insulation resistance	I/P-PG I/P-O/P O/P-PG: > 100M $\Omega$ @500VDC
Guarantee	5 years <sup>4)</sup>

1) DC input is only for emergency; limited input voltage range: 180-264V

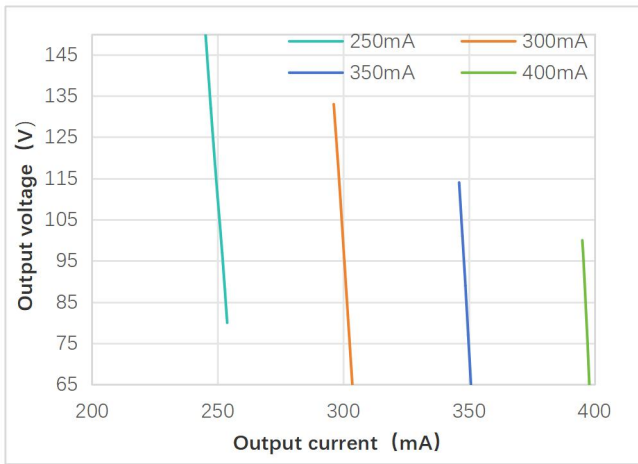
2)  $t = 215\mu\text{s}$

3) Please refer to the operating window about the relationship between output voltage and output current.

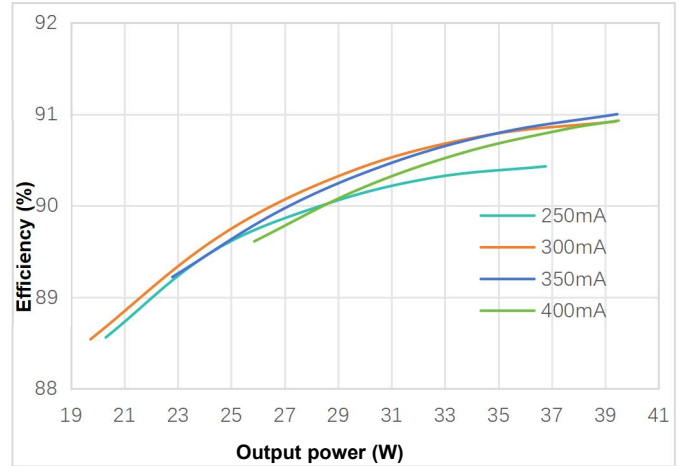
4) 5 years @  $T_c \leq 80^\circ\text{C}$

# Characteristic diagram

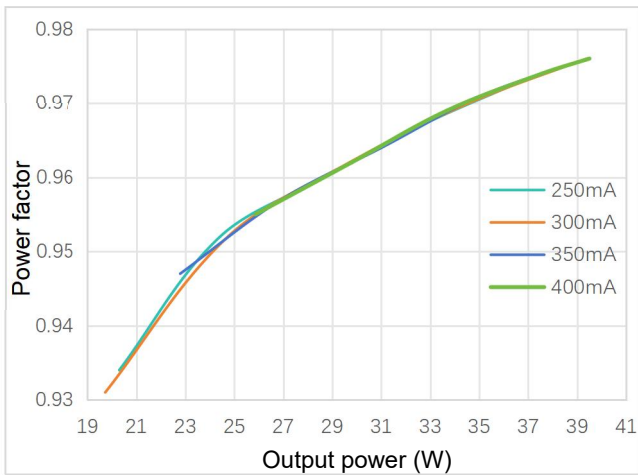
Operating Window



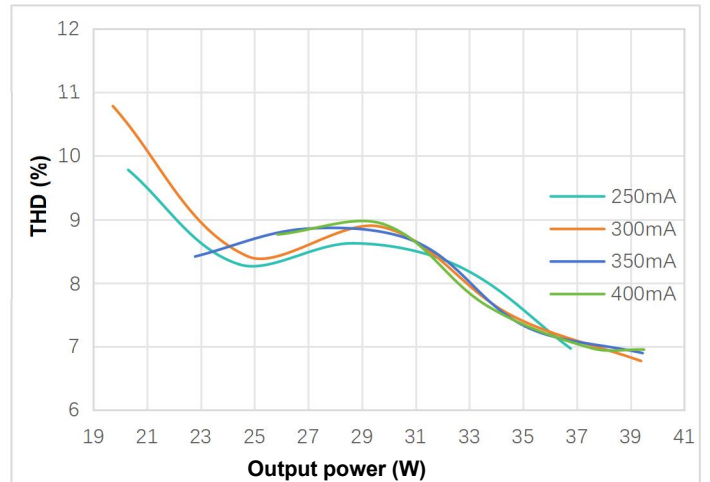
Typical Efficiency vs Load



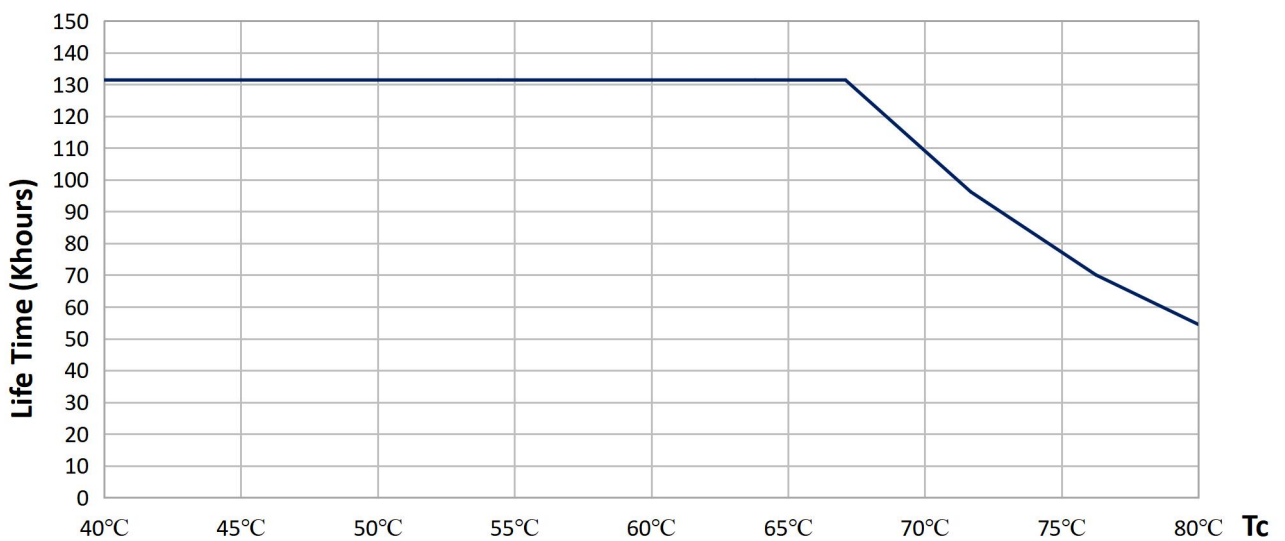
Typical Power Factor vs Load



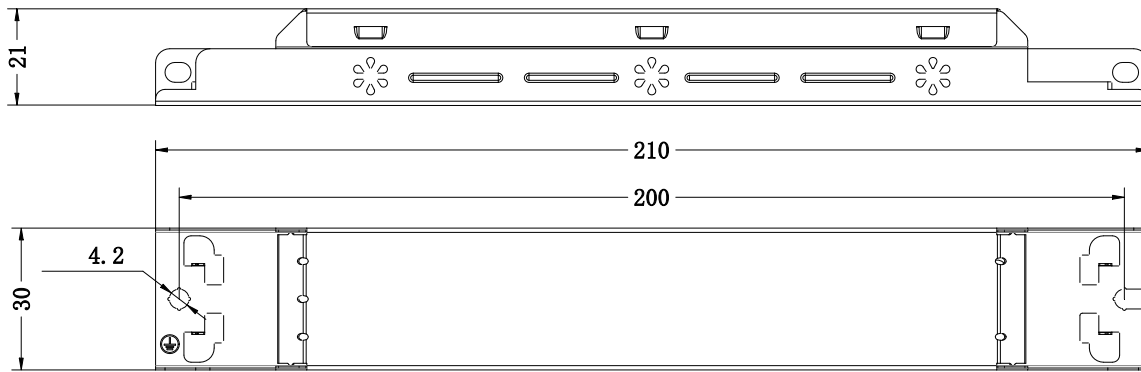
Typical THD vs Load



## Lifespan



## Dimensions



<b>Mounting hole spacing, length</b>	200.0mm
<b>Mounting hole diameter</b>	4.2mm
<b>Product weight</b>	132.0 g
<b>Cable cross-section, input side</b>	0.5 ... 1.5 mm <sup>2</sup>
<b>Cable cross-section, output side</b>	0.5 ... 1.5 mm <sup>2</sup>
<b>Wire preparation length, input side</b>	7 ... 8mm
<b>Wire preparation length, output side</b>	7 ... 8mm
<b>Length</b>	210.0mm
<b>Width</b>	30.0mm
<b>Height</b>	21.0mm

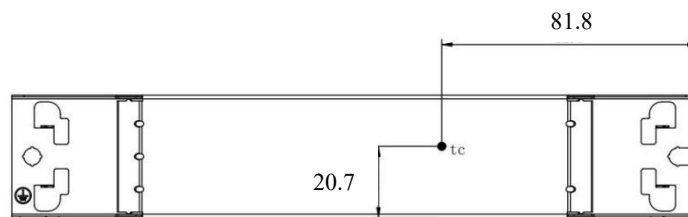
### Colors & materials

<b>Casing material</b>	Color coated galvanized sheet
<b>Casing color</b>	White

## Temperature & operating conditions


<b>Ambient temperature range</b>	-30°C - +60°C
<b>Maximum temperature at Tc test point</b>	80°C
<b>Temperature range at storage</b>	-30°C - +80°C (6 months in Class I environment)
<b>Humidity range at storage</b>	20-95%RH (no condensation)
<b>Humidity during operation</b>	20-90%RH
<b>RoHS</b>	RoHS 2.0 (EU) 2015/863

## Tc test point



Note: this diagram is the front view and Tc point is on the front side of the driver.

## Product Terminal

Input		Output	
<b>AC-L</b>	AC live wire input	<b>LED+</b>	Positive electrode output of LED driver
<b>AC-N</b>	AC neutral wire input	<b>LED-</b>	Negative electrode output of LED driver
	Earth wire		

## Product DIP Switch

Output current	Output voltage application range	DIP1	DIP2
250mA	80-150Vdc	-	-
300mA	65-133Vdc	-	ON
350mA	65-114Vdc	ON	-
* 400mA	65-100Vdc	ON	ON

Remark:“-” represents the OFF, “\*” represents the default current. It is not allowed to use DIP switch under power, please disconnect input AC first so as to use the DIP switch without the input AC connected.

<b>Dimmable</b>	-
<b>Over heating protection</b>	-
<b>Overload protection</b>	-
<b>Short-circuit protection</b>	Automatic reversible
<b>No-load protection</b>	<200V
<b>Suitable for fixtures with prot. class</b>	I
<b>Control interface</b>	-

Number of channels	1 channel
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## Programming

Programmer	-
DALI Control Software	-
APP	-

## Certificates & standards

Certifications	CE, EAC
Standards	EN 61347-2-13, EN 61347-1, EN 62493 TP TC 004/2011+TP TC 020/2011 EN55015, EN61000-3-2, EN61000-3-3
EMC	EN 61347-2-13, EN 61347-1, EN 62493 TP TC 004/2011+TP TC 020/2011
Type of protection	IP20

## Logistical Data

Product	Packaging unit (Pieces/Unit)	Dimensions (L*W*H)	Volume	Gross weight
LF-GMR040YS-ELS005	63	385 mm x 285 mm x 210 mm	23.04 dm <sup>3</sup>	8.78kg±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. Configure the quantity of circuit breakers based on inrush current and time.

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.

5. It is recommended to use a double-pole switch for the AC input port. If a single-pole switch is used for the AC input port, the switch must be connected to the L line (live wire), otherwise the lamp will have afterglow after the AC input port is powered off.

## **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 of 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**

The above information is subject to change without notice. Errors and omission excepted. Always make sure to use the most recent release.

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