Features

- High performance; low THD
- Flicker free; high PF
- Support DALI 2.0 dimming
- Suitable for Class I/II light fixtures
- 5-year warranty (please refer to the warranty condition)

Applications

· Commercial lighting · indoor office lighting · decorative lighting · residential lighting

Descriptions

LF-GIT040YA(D) is a 44.1W isolated constant current flicker-free LED driver. Its input voltage ranges from 220-240V and its output voltatge ranges from 9-42V. Its output current is adjustable from 300-1050mA via DIP switch with every 50mA as a step. It is suitable for Class I/II light fixtures, including in-track lighting.

Product Model

LF - GIT 040 YA (D)

- (D): DALI dimming
- Y: complies with certifications; A: serial number
- 040: output power
- G: isolated design; IT: in-track

■ **Electrical Characteristics**

Model		LF-GIT040YA(D)			
Output	Output Voltage	9-42V			
	Output Current (mA)	300 350 400 450 500 550 600 650 700 750 800 850 900 950 1000 1050			
	Ripple Current (<100Hz)	±5%			
	Flicker Index	Complies with IEEE 1789-2015 standard			
	CIE SVM	≤0.4			
	IEC-Pst	≤1			
	Current Tolerance	±5%			
	Temperature Drift	±10%			
	Start-up Time	<2S			
Input	Input Voltage	220-240Vac			
	Input Voltage Range	198-264Vac			
	DC Input Voltage	180-264Vdc[①]			
	Input Frequency	0/50/60Hz			
	Input Current	0.28A max.			
	PF	≥0.87	≥0.9		≥0.95
	THD	≤20%			
	Efficiency	≥84%	≥86%		≥87%
	Inrush Current	≤22A[②]			
	Loading Quantities of Circuit Breaker	Model	B10	C10	B16	C16
		Quantity (pcs)	25	25	40	40
	Leakage Current	≤0.7mA			
	Standby Power Consumption	≤0.5W			
Protection Characteristics	Open Circuit	<55V			
	Short Circuit	Hiccup mode (auto-recovery)			
Environment Descriptions	Operating Temperature	-20℃ - +35℃			
	Operating Humidity	20-90%RH (no condensation)			
	Storage Temperature/ Humidity	-30℃ - 80℃ (6 months in Class I environment); 10-90%RH (no condensation)			
	Atmospheric Pressure	86-106kPa			

■ **Electrical Characteristics**

Inrush Level	L-N	1KV
	PUSH	0.5KV
Safety & EMC	Certifications	ENEC, CE, CB, UKCA, RCM, EAC
	Withstand Voltage	I/P-O/P：3.75kV&5mA&60S；I/P-DA1/DA2：1.5kV&5mA&60S O/P-DA1/DA2：0.5kV&5mA&60S
	Insulation Resistance	I/P-O/P：＞100MΩ@500VDC
	Safety Standards	ENEC: EN61347-1:2015，EN 61347-2-13:2014/A1:2017，EN 62384：2020 CE-LVD: EN 61347-2-13:2014/A1:2017，EN 61347-1:2015，EN 62493:2015 UKCA-LVD:EN 61347-1:2015/A1:2021，EN 61347-2-13:2014/A1:2017 EN 62493:2015 RCM:AS 61347.2.13:2018 & AS/NZS 61347.1:2016+A1
	EMI	CE-EMC/RCM:EN55015，EN61000-3-2，EN61000-3-3
	EMS	CE-EMC/RCM: EN61000-4-2,3,4,5,6,11
Other Parameters	IP Rating	IP20
	DALI Standard	IEC62386-101、102、207、250、251、252、253
	RoHS	RoHS 2.0 (EU) 2015/863
	Tc Max	90℃
	Warranty	5 years[③]
Test Equipment		AC power source: CHROMA6530, digital power meter: CHROMA66202, 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 coeffcient test) Everfine LFA-3000, etc.
Test Remark		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.

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■ Electrical Characteristics

Additional Remarks	1. It is recommended that user install over voltage protection, under voltage protection and surge protection devices in the power supply circuits of light fixtures to ensure electricity safety. 2. 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. 3. 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. 4. The test conditions of the circuit breaker configuration quantity are the same as those of the inrush current. Note: ① DC input is only for emergency with the maximum using time of 90 mins ② @10uS ③ 5 years@Tc≤74℃

■ Product Characteristic Curves

Working Window Curve
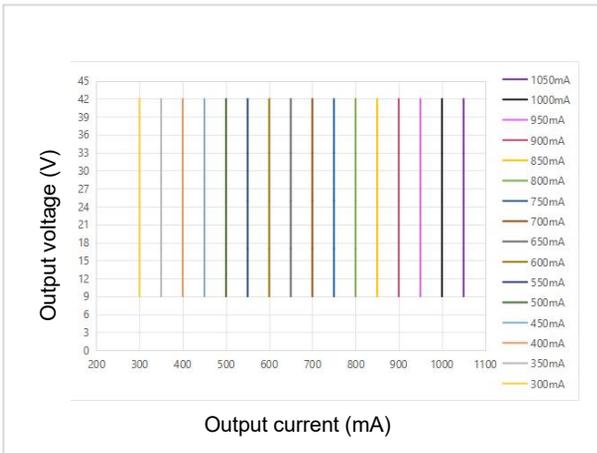
Efficiency Curve
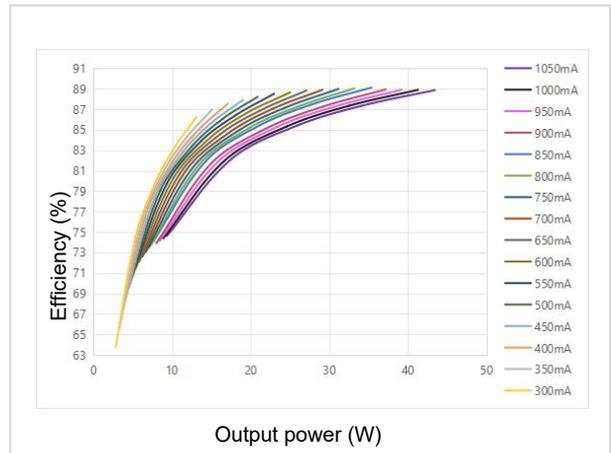
PF Curve
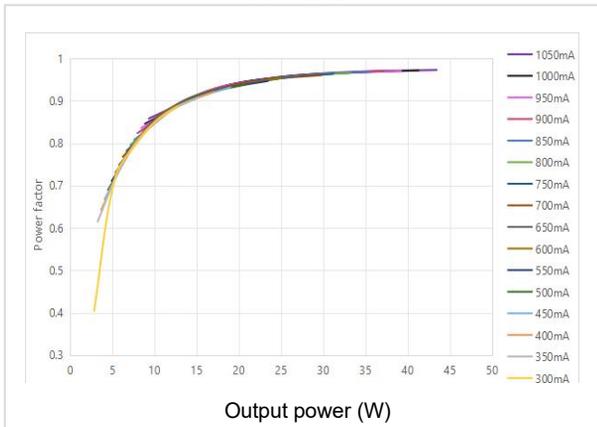
THD Curve
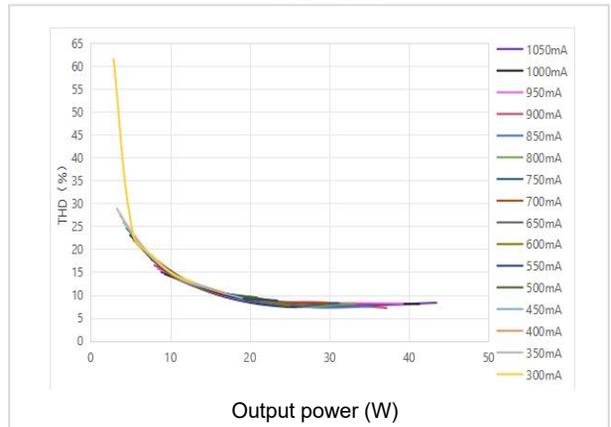
■ **Product Characteristic Curves**

Lifetime Curve
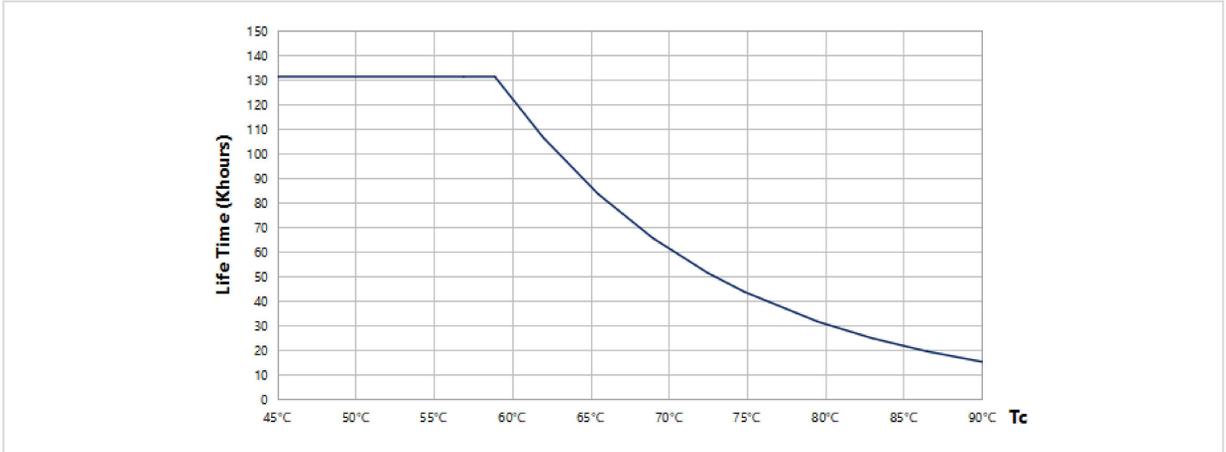
Tc Point Test Diagram
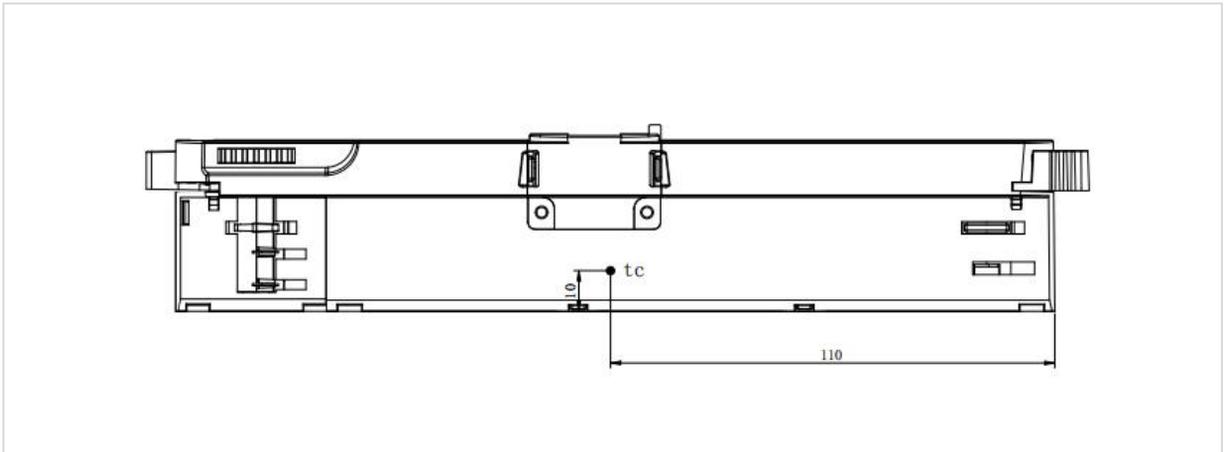
■ **Product Definitions**

Product Terminals

INPUT		OUTPUT	
AC-L	AC live wire input	LED-	Negative electrode output of LED driver
AC-N	AC neutral wire input	LED+	Positive electrode output of LED driver

■ **Product Definitions**

Product DIP Switch

I rated (CC)	1	2	3	4
300mA	-	-	-	-
350mA	-	-	-	ON
400mA	-	-	ON	-
450mA	-	-	ON	ON
500mA	-	ON	-	-
550mA	-	ON	-	ON
600mA	-	ON	ON	-
650mA	-	ON	ON	ON
700mA	ON	-	-	-
750mA	ON	-	-	ON
800mA	ON	-	ON	-
850mA	ON	-	ON	ON
900mA	ON	ON	-	-
950mA	ON	ON	-	ON
1000mA	ON	ON	ON	-
*1050mA	ON	ON	ON	ON

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

■ Dimming Operation Instructions

Wiring Diagram of PUSH Dimming
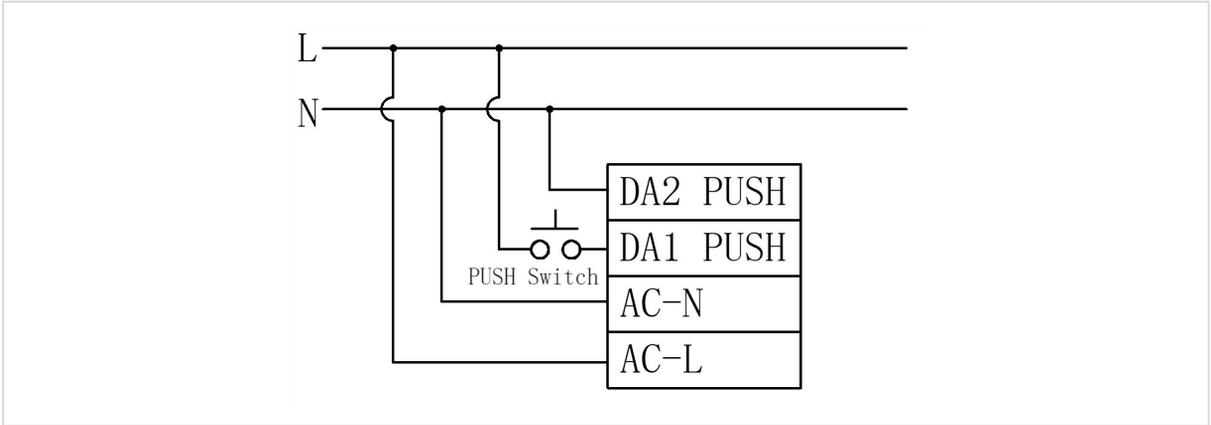
- Connect PUSH switch between AC-L and DA1 PUSH in series and connect DA2 PUSH to AC-N.
- Make sure that AC-L and AC-N are not directly connected to DA1 PUSH and DA2 PUSH terminals.
- Make sure that PUSH switch is off before the AC is powered on; operate PUSH after the AC is powered on.
- Make sure the PUSH switch is off before disconnecting the AC.
- If you have any questions about the wiring and operation, please confirm with Lifud FAE.

- ⚠ Wrong wiring or operation may cause damage to the driver.

Operations of PUSH Dimming

Operation	Duration	Function
Instant Push	0.1-0.5 sec(s)	LED light on/off
Long Push	0.6-9 sec(s)	When light is on, long PUSH to dim up/down
Reset Push	>9 sec(s)	Long press the PUSH button to reset the brightness to 50%

- The PUSH operation won't cause any variations on LED driver if it's less than 0.1S.
- Min. dimming depth of PUSH dimming: 3%.
- The PUSH dimming mode has the memory function in case of any power failure. When powering the LED driver on again, the light will return to the previous state before power failure.
- The present dimming direction of PUSH dimming is opposite to the former one.
- In automatic mode, long press for over 3 mins to enter the corridor lighting function.

■ Dimming Operation Instructions

Operations of DALI Dimming

- Default setting brightness is 100%.
- Connect DALI signal to DA1 PUSH and DA2 PUSH.
- DALI protocol includes Max.16 scene groups.
- Maximum number of LED drivers connected in parallel in DALI dimming mode: 64 pcs.
- Dimming depth of DALI dimming: 3%.

Wiring Diagram of DALI Dimming

L
N
DA2 — DA2 PUSH
DA1 — DA1 PUSH
AC-N
AC-L
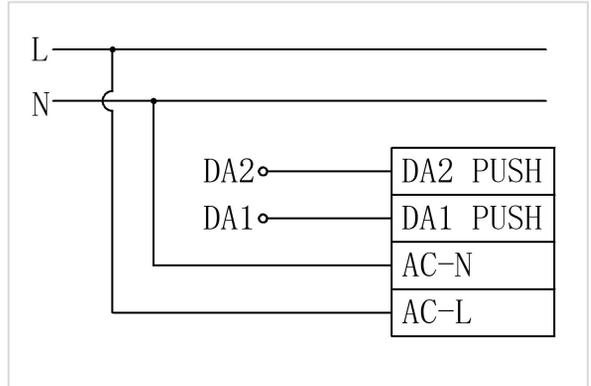
DALI Dimming Curve (Linear)

Output current mA)
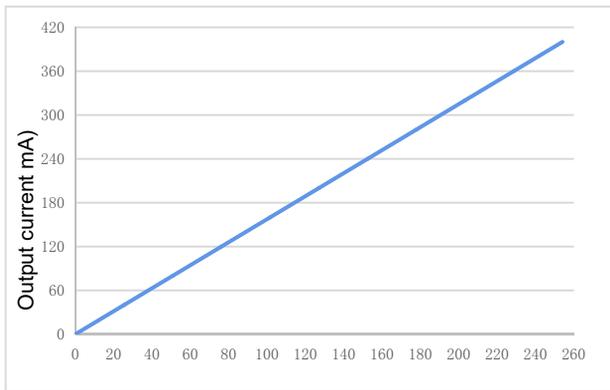
DALI Dimming Curve (Logarithmic)

Output current mA)
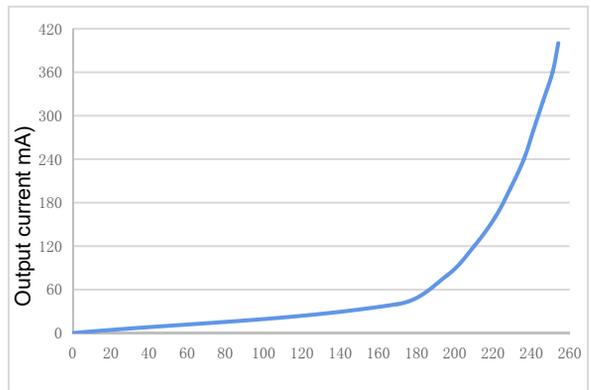
⚠ Remark: Choose only ONE as opposed to use DALI or PUSH at the same time in case of the damage of DALI master.

■ Product Application Track

Number	Brand
1	NORDIC ALUMINIUM
2	Stucchi
3	Powergear

■ **Structure & Dimensions (unit: mm)**

Product Dimensions

Model	Overall Appearance (L*W*H)	Color
LF-GIT040YA(D)	217.8*42.2*31.1mm（±0.5mm）	Black
		White
		Grey

Structure Diagrams
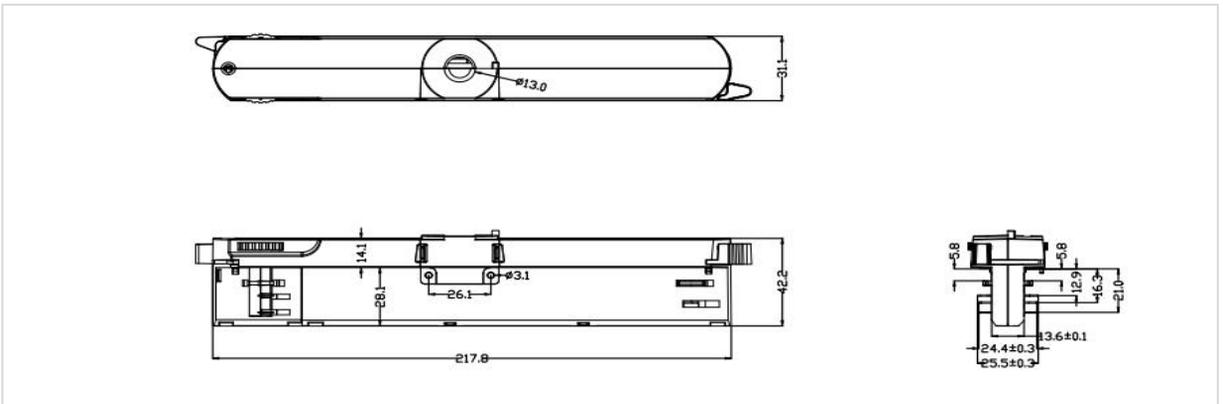
■ **Wiring Diagram**
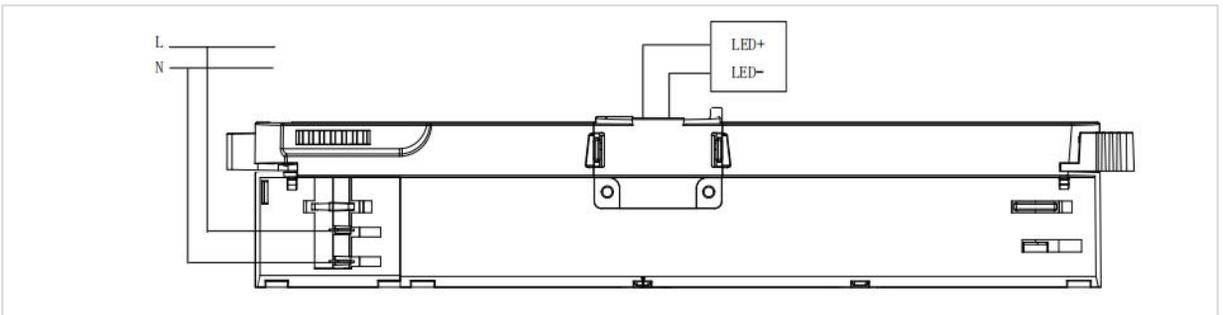
■ **Screw thread**
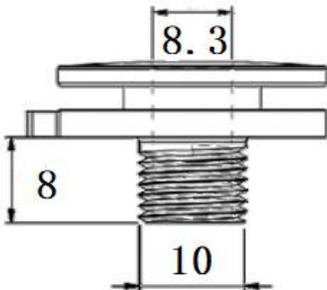
Specification	Color
M10*8mm	Black
	White
	Grey

Remark: The screw thread need to be purchased separately and shipped as accessories.

■ Packaging Specifications

Model	LF-GIT040YA(D)
Carton Size	385*285*210mm (L*W*H)
Quantity	8 pcs/layer; 4 layers/ctn; 32 pcs/ctn
Weight	0.157±5% kg/pc; 5.84±5% kg/ctn

■ Transportation & Storage

1. Transportation

- 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.

2. Storage

- 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.

Remark: Lifud Tecnology Co., Ltd. reserves the right to interpret any contents of this specification.

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