

Features

- DALI DT6 dimming or PUSH dimming
- Built-in active PFC function
- Standby power consumption <0.5W
- Dimming depth≤0.3%
- Isolated; flicker-free
- Over-current protection and short-circuit protection
- IP20; suitable for Class I light fixtures



Applications

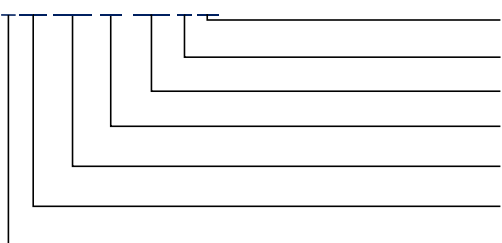
· Indoor office lighting · decorative lighting · commercial lighting · residential lighting

Descriptions

LF-GSD150YV024BII is a 150W (max.) isolated constant voltage tunable white LED driver supporting DALI DT6 dimming or PUSH dimming. Its rated input voltage ranges from 220 to 240Vac; output voltage: 24V and rated output current: 6.25A. It is suitable for indoor LED strip, etc.

Product Model

LF - GSD 150 YV 024 B II



- II: the 2nd generation
- B: DALI DT6 dimming
- 024: output voltage: 24V
- Y: complies with certifications; A: serial number
- 150: output power: 150W
- SD: indoor DALI dimmable LED driver
- G: isolated design

Lifud Technology Co., Ltd.

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■ Electrical Characteristics

Model		LF-GSD150YV024BII				
Output	Output Voltage	24Vdc				
	Output Current	0-6.25A				
	Flicker Index	IEC-Pst ≤ 1 , CIE SVM ≤ 0.4 Complies with IEEE Std 1789-2015				
	Ripple Voltage	240mV Max				
	Voltage Tolerance	$\pm 3\%$				
	Temperature Drift	$\pm 5\%$				
	Start-up Time	$< 2S$ @230Vac				
Input	Input Voltage	220-240Vac (voltage limit: 180-264Vac)				
	DC Input Voltage	220-240Vdc (voltage limit: 180-264Vdc)				
	Input Frequency	0/50/60Hz				
	Input Current	1A max.				
	PF	≥ 0.95 @230Vac (Max Load)				
	THD	$\leq 10\%$ @230Vac (Max Load)				
	Efficiency	$\geq 93\%$ @230Vac (Max Load)				
	Inrush Current	$\leq 60A$ & $350\mu S$ @230Vac				
	Loading Quantities of Circuit Breaker	Model	B10	C10	B16	C16
		Quantity (pcs)	5	6	8	10
	Leakage Current	$\leq 0.7mA$				
	Standby Power Consumption	$\leq 0.5W$ @230Vac (Dim Signal Off)				
Protections	Over voltage	$\leq 33.6V$, $\geq 25V$				
	Over Current	$\leq 15A$, $\geq 9A$				
	Short Circuit	Hiccup mode (auto-recovery)				
Environment Descriptions	Operating Temperature	$-20^{\circ}C \sim +50^{\circ}C$				
	Operating Humidity	20-90%RH (no condensation)				
	Storage Temperature/ Humidity	$-40^{\circ}C \sim +80^{\circ}C$ (6 months in Class I environment); 10-90%RH (no condensation)				
	Atmospheric Pressure	86-106kPa				

■ Electrical Characteristics

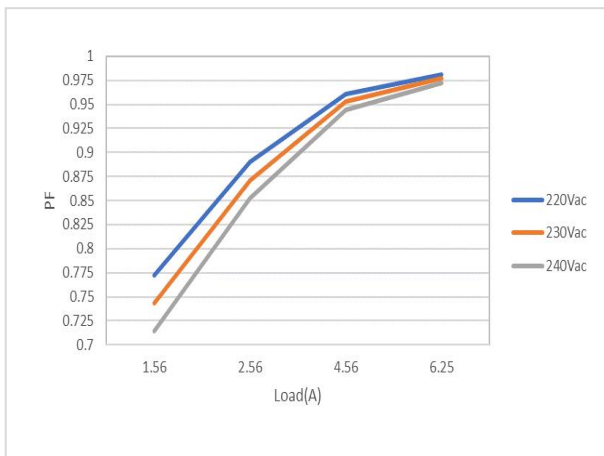
Safety and EMC	Certifications	TUV-ENEC、CCC、CE、RCM、SAA、CB
	Withstanding Voltage	I/P-O/P: 3.75kV 5mA 60S.I/P-PG:1.5KVac,<5mA 60S.O/P-PG:0.5KVac,<5mA 60S.I/P-DALI:1.5KVac,<5mA 60S;O/P-DALI:0.5.KVac,<5mA 60S;PG-DALI:0.5KVac,<5mA 60S.
	Insulation Resistance	I/P-O/P: >100MΩ@500Vdc; I/P-PG:>100MΩ@500Vdc; O/P-PG:>100MΩ@500Vdc;I/P-DALI:500VDC,>100MΩ; O/P-DALI:500VDC,>100MΩ; PG-DALI:500VDC,>100MΩ
	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 SAA:AS61347.2-13:2018 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/AMD1:2016ERP:EU 2019/2020@2019.12.05
	EMI	CE-EMC:EN55015, EN61000-3-2, EN61000-3-3 CCC:GB/T17743, GB17625.1, GB17625.2
	EMS	CE-EMC/RCM:EN61000-4-2,3,4,5(L-N:2KV,L/N-PG:4KV)),6,11 CCC:GB/T17626.2,3,4,5,6,1
	DALI Inrush	DA1-DA2:0.5kV
Other Parameters	IP Rating	IP20
	RoHS	RoHS 2.0 (EU) 2015/863
	Noise Level	≤29dB (The noise collector should be tested at 10cm from the driver in a quiet room)
	DALI Standard	IEC 62386-101 102 207: DALI 2.0
	Warranty Condition	5 years (Tc≤75°C)
Testing Equipment	AC power source: CHROMA6530, digital power meter: CHROMA66202, oscilloscope: Tektronix DPO3014, DC electronic load: M9712B, LED board, constant temperature and humidity chamber; Everfine EMS61000-5B, fast transient generator: Everfine EMS61000-4A, spectroanalyzer: KH3935, hi-pot tester: EEC SE7440, flicker tester (flicker-free coefficient test): Everfine LFA-3000, etc.	
Testing Remark	If there are no special remarks, the above parameters are tested at the ambient temperature of 25°C, humidity of 50%, full load and input voltage of 230Vac/50Hz.	

■ Electrical Characteristics

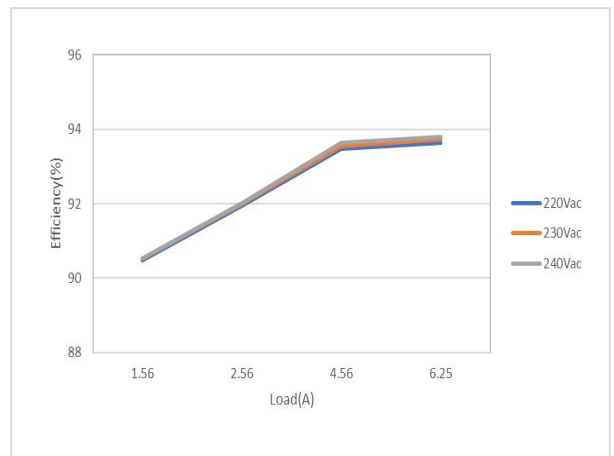
Additional Remarks	<ol style="list-style-type: none"> 1. It is recommended that user install the over voltage protection, under voltage protection and surge protection devices in the power supply circuits of light fixtures to ensure electricity safety. 2. The PC cover, casing and end cap for assembling 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 total output power of the driver cannot exceed the rated maximum power during use, otherwise it cannot be warranted.
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■ Product Characteristic Curves

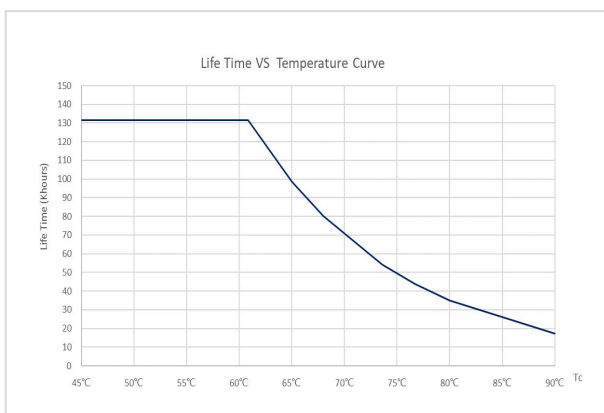
PF Curve



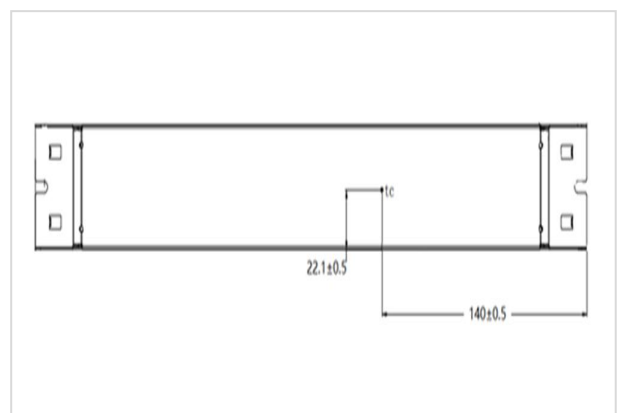
Efficiency Curve



Lifetime Curve



Tc Point (unit: mm)



■ Product Terminal Definition

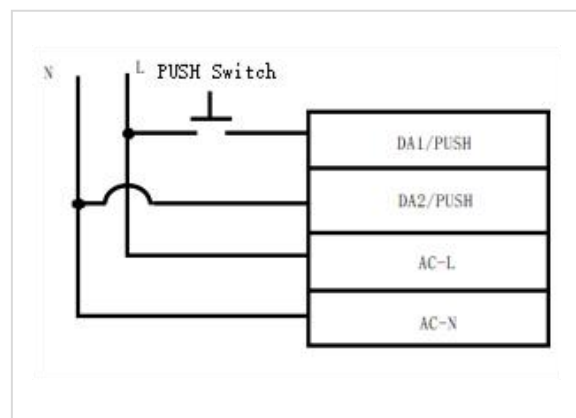
Product Terminals


INPUT		OUTPUT	
PGND	Earth wire input		
AC-L	AC live wire input	LED+	Positive electrode output of LED driver
AC-N	AC neutral wire input	LED-	Negative electrode output of LED driver
DA2 PUSH	DALI 2/PUSH dimming input		
DA1 PUSH	DALI 1/PUSH dimming input		

■ Dimming Operation Instructions

Wiring Diagram of PUSH Dimming

Remarks



- 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	LED light on/off
Long Push	0.6-9 sec	LED light dim up/down
Reset Push	>9 sec	Reset the brightness of all luminaires 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 $\leq 0.3\%$ (I_{out})
- The PUSH dimming mode has the memory function in case of any power failure. When the LED driver is powered 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.
- Max. wire length from the PUSH switch to the farthest LED driver: 135m; wire diameter: 12-24AWG
- Max. quantity of drivers connected in parallel in DALI dimming mode: 64 pcs.

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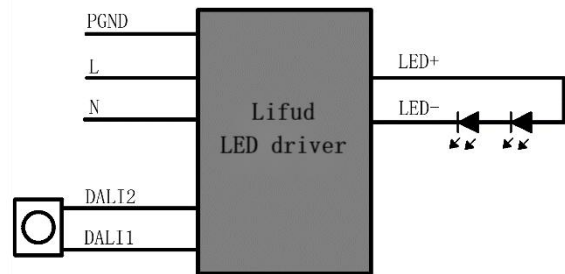
■ Dimming Operation Instructions

Operations of DALI Tunable White

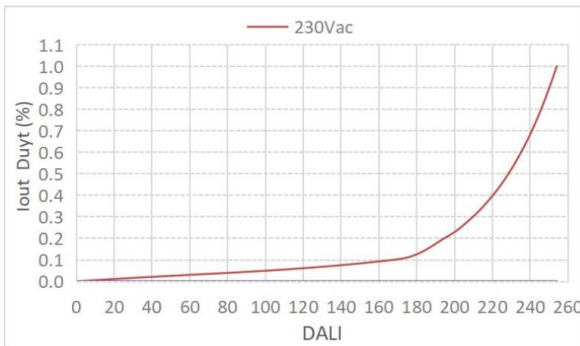
Operations of DALI Tunable White

- 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.
- Min. dimming depth of DALI dimming $\leq 0.3\%$ (max. output current).

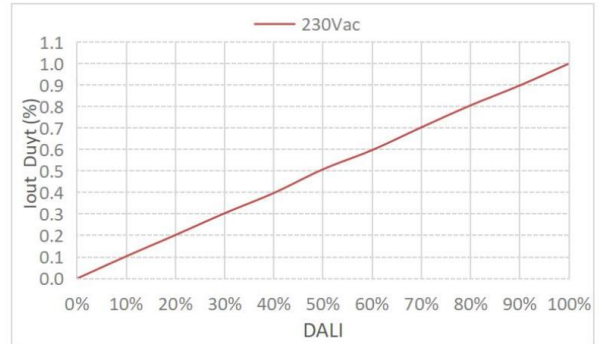
Wiring Diagram of DALI Dimming



DALI Dimming Curve



logarithmic dimming



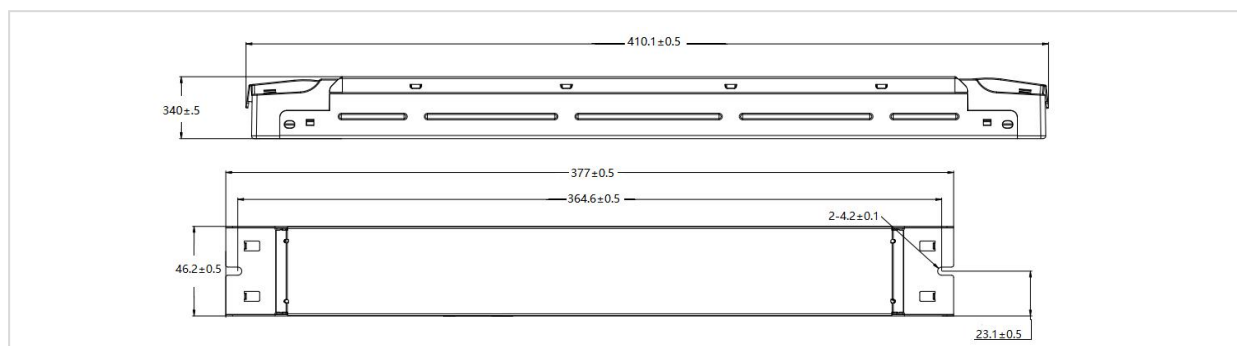
linear dimming

■ Instructions of Switching Dimming Modes

- DALI and PUSH dimming function CANNOT be used at the same time, otherwise it will damage the DALI dimmer.
- It's default to DALI logarithmic dimming mode. If you need DALI linear dimming mode, please use DALI programmer to switch.
- Switching to PUSH dimming: After AC power on for 2s, you can switch to PUSH mode by long press the PUSH switch and hold it for over 3s.
- Switching to DALI dimming: After AC power on for 2s, you can switch to DALI dimming mode by press DALI dimmer for ON/OFF operation.
- It must be DALI ON when switching from DALI dimming mode to other dimming modes. It CANNOT switch dimming modes when DALI OFF by default.

■ Structure & Dimensions (unit: mm)

Model	Overall Appearance (L*W*H)	Distance Between 2 Positioning Holes (L)	Diameter of Positioning Hole (D)
LF-GSD150YV024BII	410.1*46.2*34mm(±0.5mm)	364.6mm(±0.5mm)	4.2mm(±0.1mm)



■ Packaging Specifications

Model	LF-GSD150YV024BII
Carton Size	426*319*150mm (L*W*H)
Quantity	6 pcs/layer; 3 layers/ctn; 18 pcs/ctn
Weight	0.62kg±0.01kg/pc; 12.35kg±0.2kg/ctn

■ Transportation and 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.