Product Description

LF-GSD075YV024B series is a 75W constant voltage LED driver with functions of DALI DT6 dimming and PUSH dimming. Input voltage: 220-240Vac; rated output voltage: 24V; rated output current: 0-3.125A. It is a reliable constant voltage LED driver with high efficiency and low THD, suitable for indoor LED strips.

Features

- IP20
- Suitable for Class II light fixtures
- Built-in active power factor correction function
- DALI DT6 dimming + PUSH dimming functions, dimming depth<0.1%
- Flicker free
- Small size; high efficiency (typical value≥87%）
- All-round protection: over voltage protection, over load protection, short circuit protection
- 5-year warranty (Please refer to the warranty condition.)

Applications

- LED strip
- Luminous character
- Light box

Naming

LF-GSD 075 YV 024B

- 024B: DC24V output; B: DALI DT6
- YV: constant voltage series
- 075: rated power 75W
- G: isolated; SD: DALI dimming LED driver

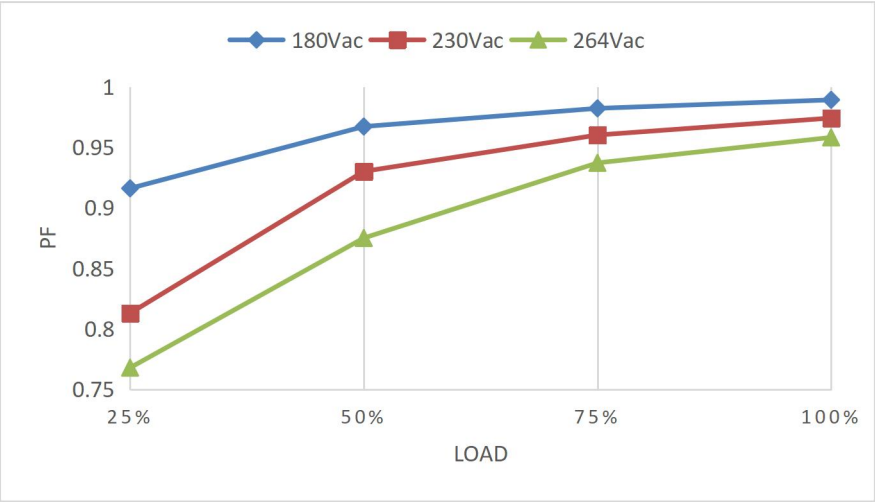
Electrical Characteristics

Model		LF-GSD075YV024B				
Output	Output Voltage	24Vdc				
	Output Current	0-3.125A				
	Output Power	75W max. @220-240Vac				
	Flicker Index	IEC-Pst ≤1, CIE SVM ≤0.9, Modulation Depth ≤1% According to flicker-free standard (IEEE Std 1789-2015)				
	Ripple Current	240mV max.				
	Voltage Tolerance	±2%				
	Temperature Drift	±5%				
	Start-up Time	<1S @230Vac				
Input	Input Voltage	220-240Vac (voltage limit: 198-264Vac)				
	DC Input Voltage	282-340Vdc (voltage limit: 255-373Vdc)				
	Input Frequency	47Hz-63Hz				
	Input Current	0.6A Max				
	Power Factor	≥0.95@230Vac (full load)				
	THD	≤15%@230Vac (full load)				
	Efficiency	≥87%@230Vac (full load)				
	Inrush Current	≤55A & 200uS @230Vac				
	Loading Quantity on Circuit Breaker	Circuit Breaker Model	B10	C10	B16	C16
		Quantity (pcs)	8	11	13	17
	Leakage Current	≤0.5mA				
	Standby Power Consumption	≤1.5W (when DALI OFF signal is effective)				
Protection Characteristics	Open Circuit	<30V				
	Short Circuit	Hiccup mode (auto-recovery)				
Environment Descriptions	Operating Temperature	-20℃~+45℃				
	Operating Humidity	20-90%RH (no condensation)				
	Storage Temperature/ Humidity	-40℃~+ 80℃ (six months under class I environment); 10-95%RH (no condensation)				
	Atmospheric Pressure	86KPa~106KPa				

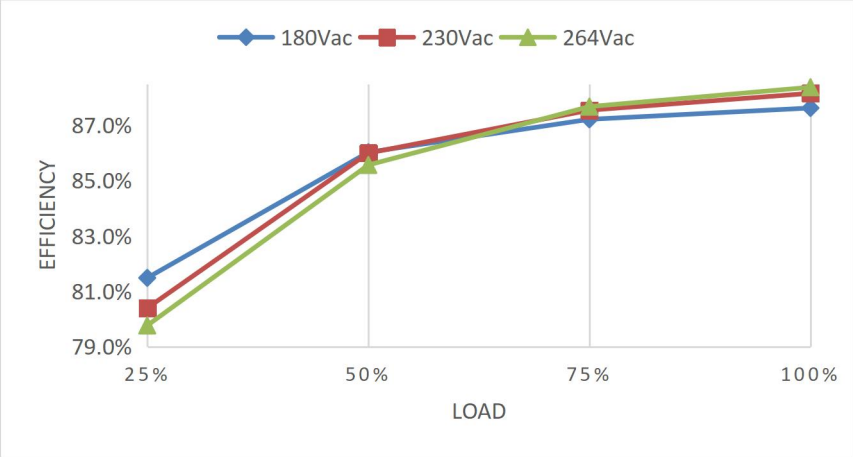
Safety and Electromagnetic Compatibility	Certifications	ENEC, CE, CB, RCM, CCC
	Withstanding Voltage	I/P-O/P: 3.75kV 5mA 60S
	Insulation Resistance	I/P-O/P: >100MΩ@500VDC
	Safety Standards	ENEC: EN61347-1: 2015, EN 61347-2-13: 2014/A1: 2017, EN 62384: 2016/A1: 2009 CE-LVD: EN 61347-2-13: 2014/A1: 2017, EN 61347-1: 2015, EN 62493: 2015 CB: IEC 61347-1: 2015, IE61347-2-3: 2014, IEC 61347-2-13: 2014/AMD1: 2016 SAA: AS 61347.2-13: 2018 CCC: GB19510.1-2009, GB19510.14-2009
	EMI	CE-EMC/RCM: EN55015, EN61000-3-2, EN61000-3-3 CCC: GB/T17743, GB17625.1, GB17625.2
	EMS	CE-EMC/RCM: EN61000-4-2, 3, 4, 5, 6, 11 CCC: GB/T17626.2, 3, 4, 5, 6, 11
Others	IP Rating	IP20
	RoHS	RoHS 2.0 (EU) 2015/863
	Warranty Condition	5 yrs (Tc≤77.5℃)
	DALI Standard	IEC 62386-101 102 207 209: DALI 2.0
Remarks	1. It is recommended that the customer should install over voltage and under voltage protection devices and surge protection devices in the power supply circuits of the light fixtures to ensure safety before connecting to electricity. 2. The PC cover, casing, end caps and other parts of the LED driver inside the LED light fixture must conform to UL94-V0 flammability standard or above. 3. As an accessory, the LED driver is not the only factor determining the EMC performance of the LED light fixture. The structure and the wiring of the light fixture are also relevant. Thus it's strongly recommended the LED light fixture manufacturer should re-confirm the EMC of the whole LED light fixture. 4. Unless otherwise stated, the parameters of PF, THD and efficiency are test results under the conditions of ambient temperature of 25±5℃, humidity of 50%, input voltage of 230Vac and full load.	

Characteristic Curve

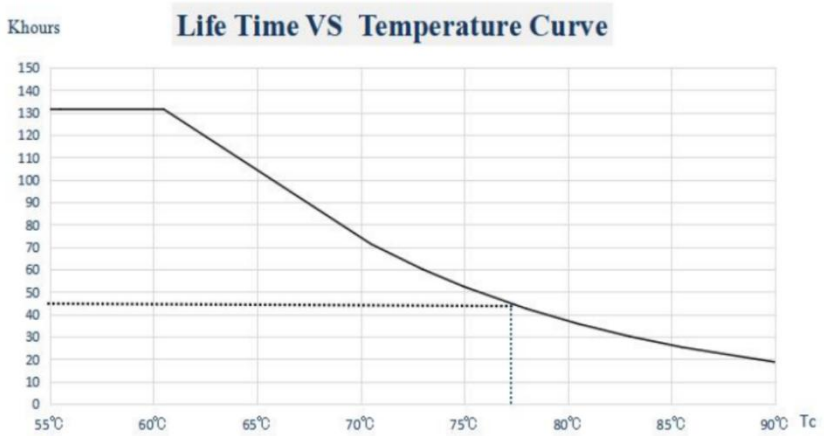
■ PF Curve



■ Efficiency Curve



■ Lifetime Curve



Operations of Dimming

■ Definitions of Terminals

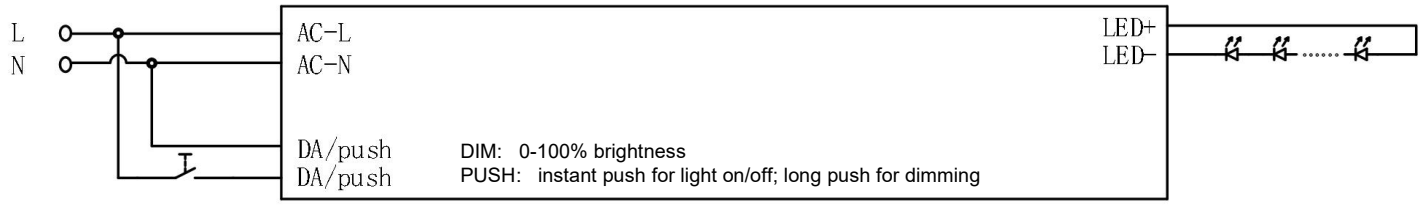
INPUT

AC-L	AC live wire input
AC-N	AC neutral wire input
NC	Vacant
DA/PUSH	DALI/PUSH dimming input terminal
DA/PUSH	DALI/PUSH dimming input terminal

OUTPUT

LED+	Positive terminal output of driver
LED-	Negative terminal output of driver

■ Wiring Diagram of Brightness Change in Push Dimming Mode



⚠ Remark: When using the PUSH function, AC-L/AC-N should be powered on first, and then the PUSH terminal can be powered on. Otherwise, the PUSH terminal will be burned.

■ Brightness Change in Push Dimming Mode

Operation	Operation Time	Function
Instant Push	0.1 - 0.5S	LED Light on / off
Long Push	0.6 - 5S	Dim up / down
Reset Push	> 9S	Reset to the 50% luminance

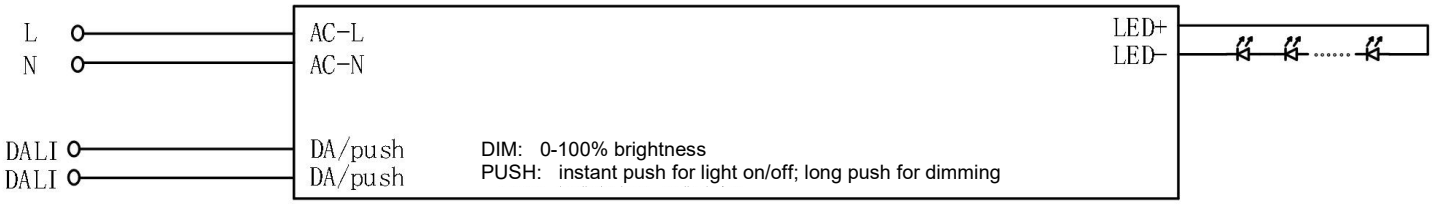
The push operation won't cause any variation if it's less than 0.1 sec.

- The minimum dimming depth of push dimming is 1% (Iout)
- When entering to the push dimming mode for the first time, it's default to be 100% luminance output.
- For the first long press on the push button, the luminance dims down.
- For the press on the PUSH button again, the dimming is opposite to the last one.

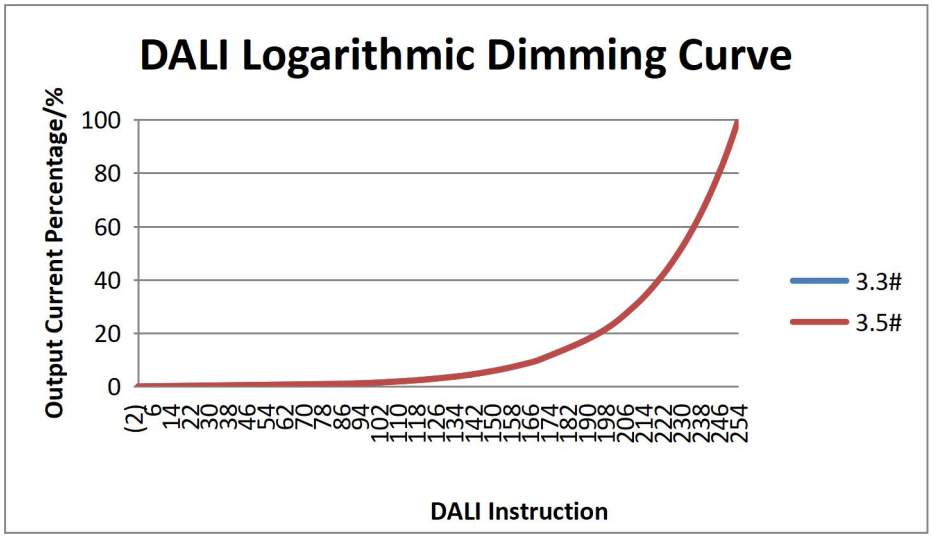
■ DALI Dimming Operations

- Factory default setting is 100% luminance and logarithmic dimming curve
- Connect the DALI signal to the DA/PUSH terminals, no positive or negative designation.
- DALI protocol includes 16 groups and 64 IP addresses.
- The minimum dimming depth of the DALI dimming is 0.1% (Iout).

■ Wiring Diagram of DALI Dimming Operation



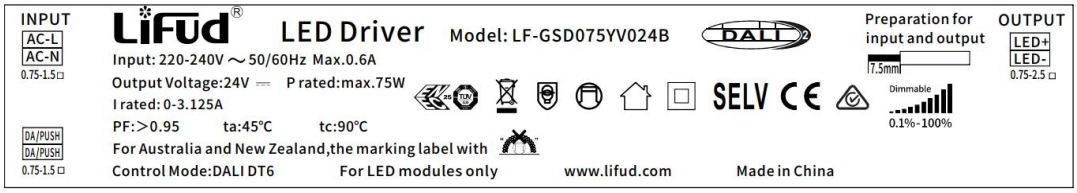
■ DALI Logarithmic Dimming Curve



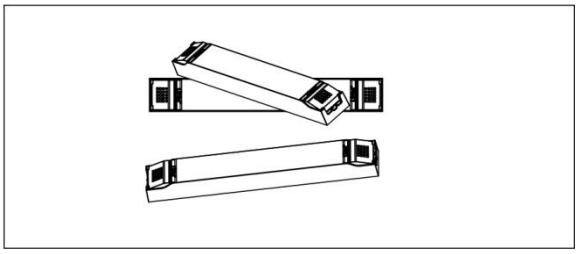
■ Instructions of Switching Dimming Modes

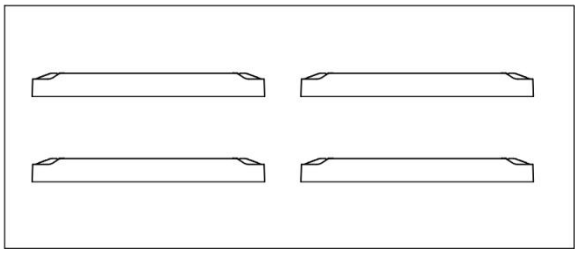
- For the first time being powered on, it's default to be in the DALI dimming mode at 100% luminance output
- Switching between the DALI dimming and the PUSH dimming modes:
  - Switch to the PUSH dimming mode: Long press the push button for over 0.6 sec and then it's switched to the PUSH dimming mode. The current output status is the same as the previous one.
  - Switch to the DALI dimming mode: when receiving any DALI instructions, the driver will switch to the DALI dimming mode. If it's a non-dimming instruction, the output status remains the same. If it's a dimming instruction, the light will be dimmed as the instruction tells.

Label

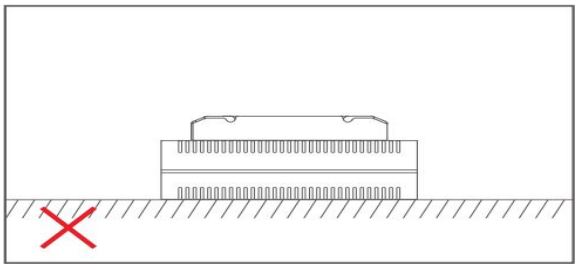


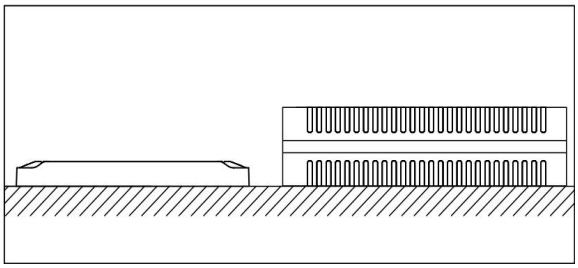
Install Notes





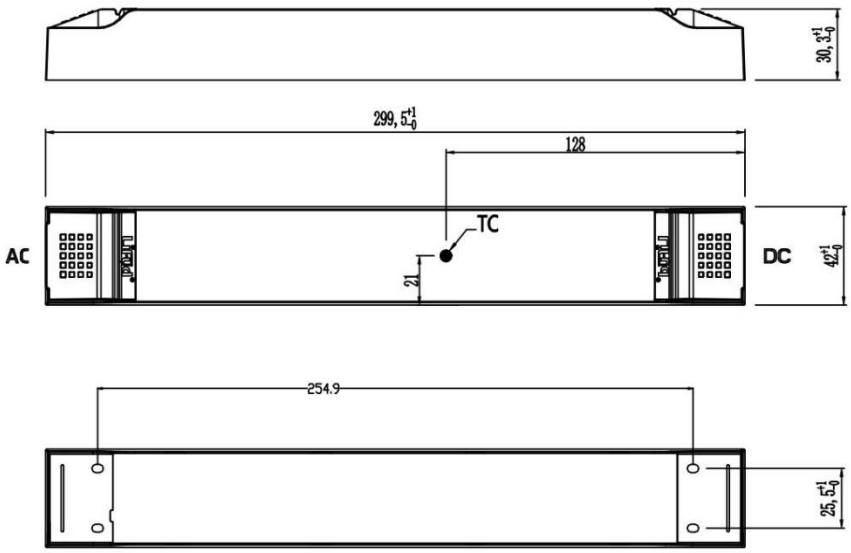
Do NOT stack drivers. Keep at least a certain distance between drivers when using them to avoid affecting the heat dissipation and lifetime of the drivers.





Direct contact between the load and the driver is prohibited when using the driver. Keep a certain distance between the driver and the load to avoid affecting the heat dissipation and lifetime of the drivers.

Dimensions (unit: mm)



Packaging Specification

Model	LF-GSD075YV024B
Packaging Box Size	400*310*170 mm (L*W*H)
Quantities	8 pcs/layer; 4 layers/ctn; 32 pcs/ctn
Weights	330 g/pc; 11.55 kg/ctn

Transportation & Storage

■ **Transportation**

- Suitable transportation means: vehicles, boats and aircraft.
- During transportation, there should be awnings for rain protection and sun protection. Civilized loading and unloading are required. There should be no severe vibration or impact.

■ **Storage**

- Storage in accordance with the provisions of the Class I environment. For products which have been stored for more than six months, they mustn't be used until they pass the re-inspection.

Attention

■ Please use this product according to its specifications otherwise there may be malfunction.

■ Use light fixtures that have not been certified or are not compatible with the LED drivers may cause fire or other hazards.

■ Man-made damage, any use beyond the specification and non-original-factory modification are not covered by warranty.

Remark: The final interpretation right of the content of this data sheet belongs to Lifud Technology Co., Ltd.