

## 150W DALI+PUSH Dimming power supply



■ Approve



### Features

- Class II, SELV, Independent
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OTP
- Power Factor: 0.95(Typ.)
- Efficiency:  $\geq 91\%$ (Typ.)
- 5 years warranty
- Support DALI-2, Push Dimming

### Applications

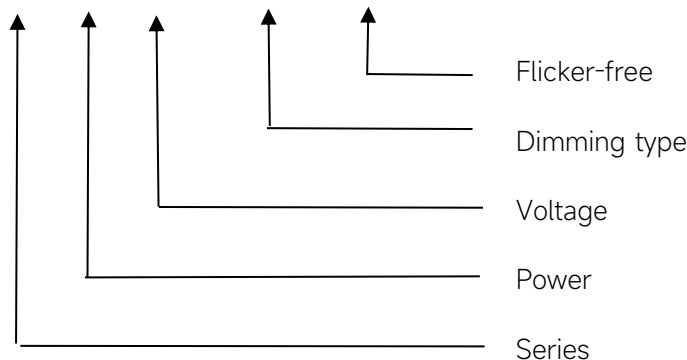
- LED strips

### ◆ Description

LS-150-24 DALI2 LI is a 150W constant voltage LED driver that operates from 176-264Vac input with 24V output voltage. With its compact dimensions from 290 x 45 x 30.5mm. It is easy to integrate in LED strips products. To ensure trouble-free operation, protection is provided against output short circuit and over Load.

### ◆ Model code

#### LS-150-24 DALI2 LI



## ◆ Specification

Output	Constant Voltage	24VDC
	Current Range	0-6.25A
	Voltage Accuracy	±3.5%
	Output HF current ripple(≥1KHz)	±1%
	Output LF current ripple(≤120Hz)	±1%
	SVM	≤0.4@Full Load
	P <sub>st</sub>	≤1@Full Load
	Efficiency(Typ.)	≥91%
Input	Rated input voltage	220-240VAC
	Range of input voltage	176-264VAC
	Rated input voltage(DC)	176-280VDC
	Frequency(Hz)	0/50/60 Hz
	Displacement factor	≥0.9
	Power Factor	>0.95
	Input Current max	1A MAX. @Full Load,198VAC
	Start-up time	< 0.5S
	No Load Power	≤0.5W
	Standby Power	≤0.5W
	Network standby power	≤0.5W
	THD (Typ.)	< 10% @220-240VAC, Full load
Dimming	Dimming	YES
	Dimming mode	DALI-2 IEC 62386-101,102,207 & Push Dimming (Corridor Function)
	Dimming depth	1%
	Dimming current range	1-100%
	PWM Resolution	16 bit
Protection	Over Load Protection	105-150% rated output power YES/Auto Resume
	Short circuit Protection	YES/Auto Resume
	Over Temperature Protection	YES/Auto Resume
Environment	Operating Temperature	-20°C...+45°C
	Humidity	20%-90%RH
	Tc	85°C
	Storage Temperature	-20°C...+60°C
	Life time	≥50000h@Tc=85°C, full load
Surface	Dimension	290 x 45 x 30.5mm(LXWXH)mm
Standards	IEC61347- 1, IEC61347-2- 13;EN61347- 1, EN61347-2- 13;EN61347- 1;EN61347-2- 13, EN62384;EN55015	
Others	ErP	EU 2019/2020
	RoHS	RoHS (2011/65/EU) (EU)2015/863

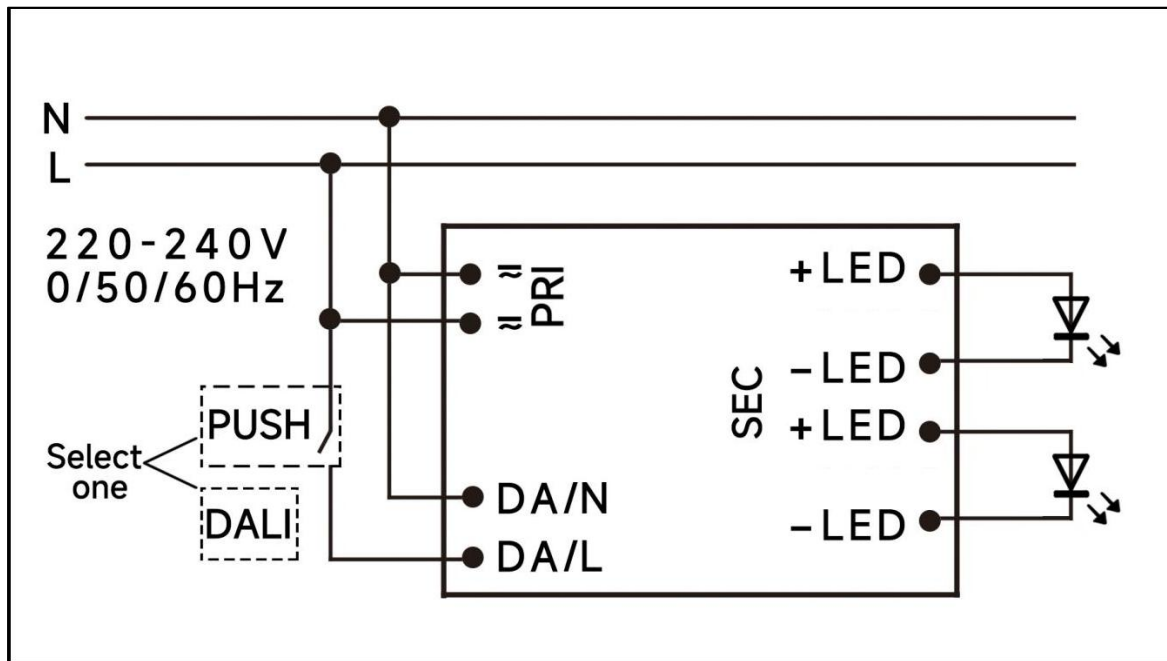
Note

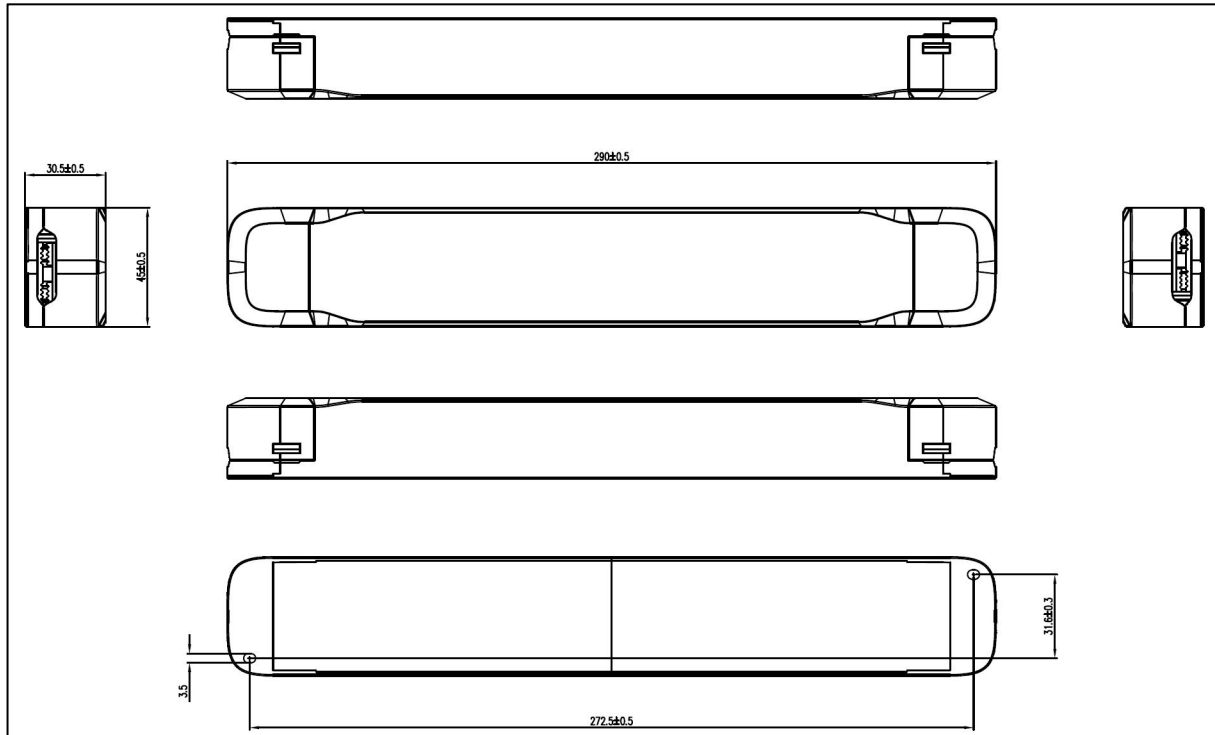
- 1.All parameters NOT specially mentioned are measured at 230VAC input , full load and 25°C of ambient temperature.
- 2.Ripple & Noise are measured at 20MHz of bandwidth by using a 300mm twisted pair-wire terminated with a 0.1uF & 47 uF parallel capacitor.
- 3.The DC input for this product is only used for emergency lighting and applies to functional and safety requirements, EMC is not considered.

## ◆ Circuit Breaker

I <sub>peak</sub>	T <sub>width</sub>	B10	B16	B20	C10	C16	C20
47A	<b>428μs</b>	3pcs	6pcs	7pcs	6pcs	10pcs	12pcs

## ◆ Wiring diagram



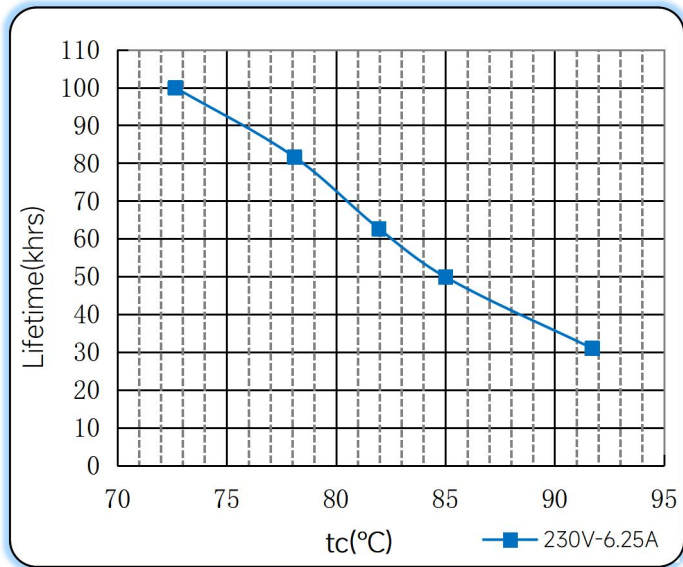
**◆ 2D diagram**


## Wiring & Connections

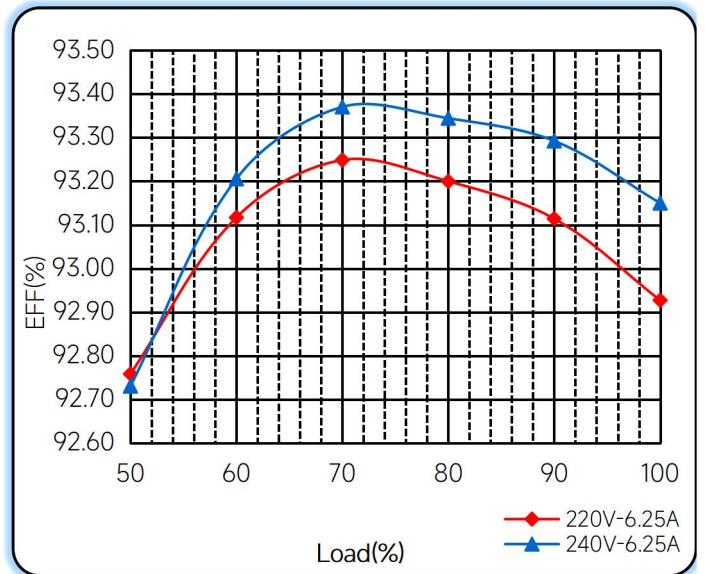
	Specification item	Value (Unit )
Input	Input wire cross-section	0.5...1.5 mm <sup>2</sup>
	Input wire gauge.	16...20 AWG
	Input wire strip length	7...9mm
Output	Output wire cross-section	0.5...1.5 mm <sup>2</sup>
	Output wire gauge.	16...20 AWG
	Output wire strip length	7...9mm

## ◆ Curve for LS-150-24 DALI2 LI

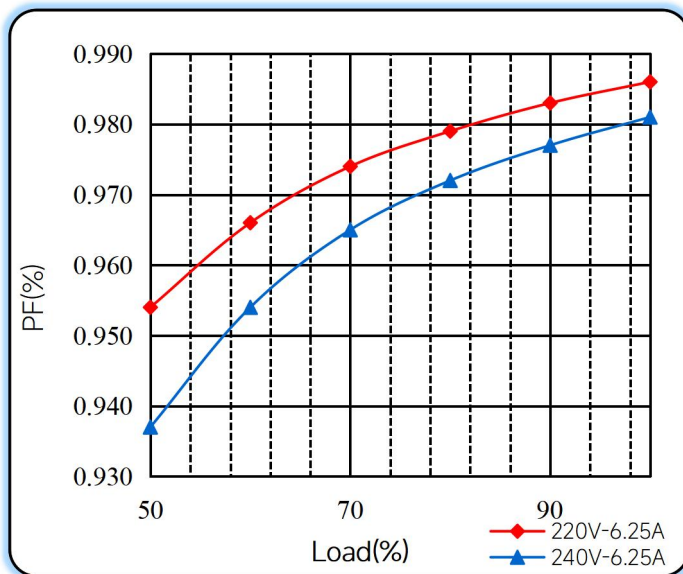
### Lifetime vs. Temperature Curve



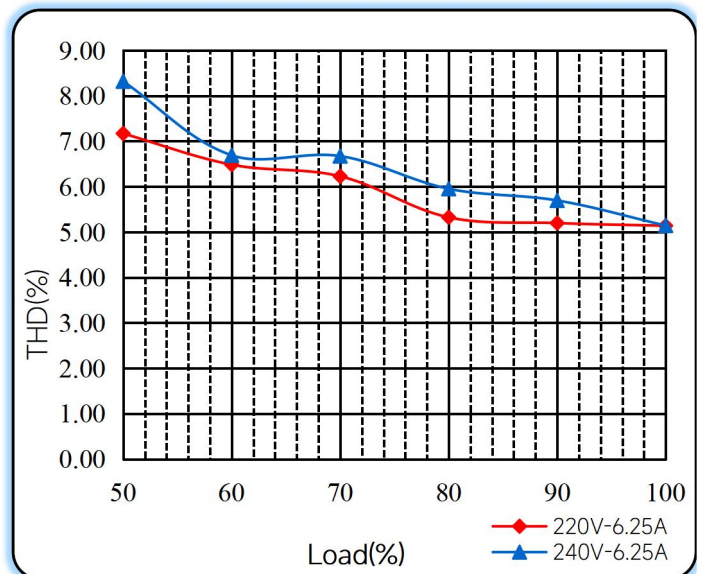
### Efficiency vs. Load



### Power Factor Characteristics



### THD vs. Load



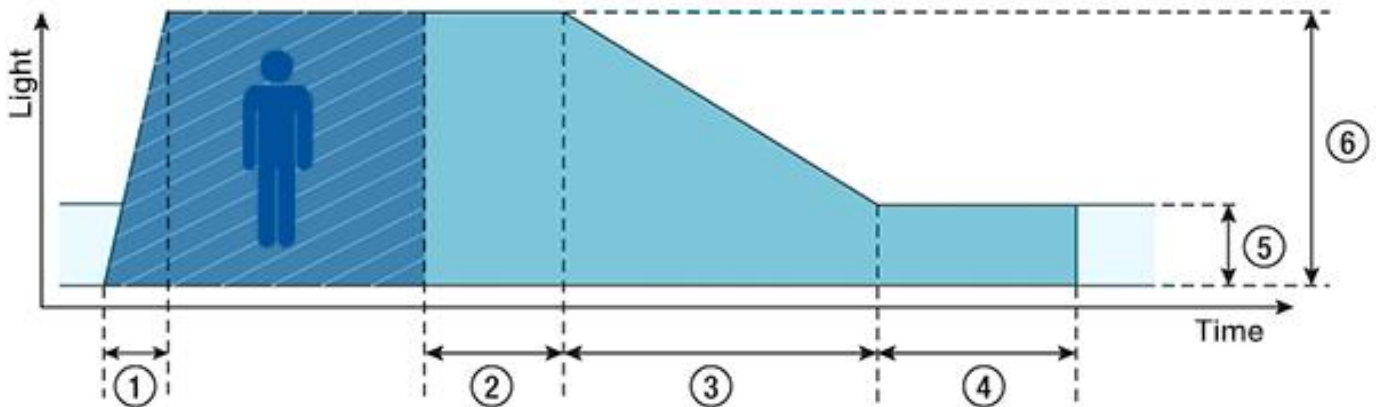
## ◆ Push dimming operation

Action	Action duration	Function
Short push	<0.5s	Turn on/off
Short push twice	<0.5s	LED on: Save current brightness level LED off: Delete saved level and turn on at 100% brightness
Short push five times	<3s	Quit Corridor mode
Long push	0.5-14s	Dimming up or down
Long push	15s-2mins	Sync all LEDs to be 100% brightness
Long push	>2mins	Enter Corridor mode - LED keep 100% brightness for 2mins. Then brightness will turn to be 10% within 32s if no action during 2mins 100% brightness.

### Note:

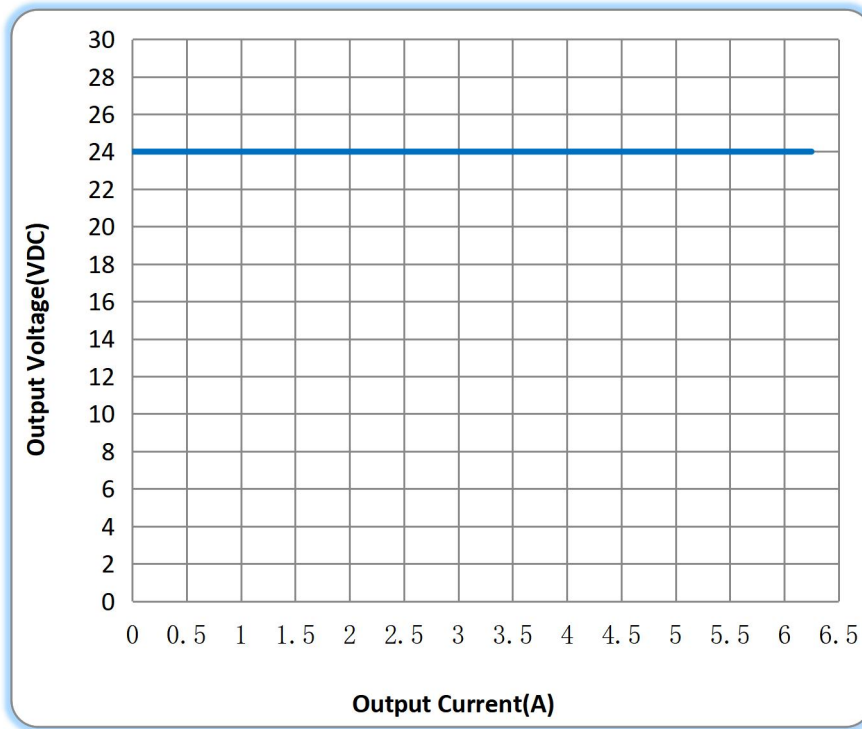
- 1.The factory default brightness is at 100%.
- 2.Up to 30 drivers can perform the PUSH dimming at the same time when utilizing one common push button
- 3.The maximum length of the cable from the push button to the last driver is 200 meters.

## ◆ Corridor mode



- ◆ ① **Fade-in time(0.5s)**: the time that starts as soon as the presence of a person is detected. During the fade-in time the luminous intensity is faded up to the presence value.
- ◆ ② **Run-on time(120s)**: the time that starts as soon as the presence of a person is no longer detected. If the presence of a person is detected again during the run-on time the run-on time is restarted from zero. If no presence is detected during the run-on time the fade time is started as soon as the run-on time expires.
- ◆ ③ **Fade time(32s)**: the time during which the luminous intensity is faded from the presence value to the absence value.
- ◆ ④ **Switch-off delay (Never Off)**: the time during which the absence value is held before the lighting is switched off. Depending on the profile selected the switch-off delay may have different values or may not be defined.
- ◆ ⑤ **Absence value(default: 10 %)**: the luminous intensity when there is no person present.
- ◆ ⑥ **Presence value (default: 100 %)**: the luminous intensity when persons are present.

◆ **Operating window**



◆ **Revision Updates**

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2022/02/15
Efficiency	≥89%	≥91%	B	2022/11/09
Protection	OVP	OTP	B	2022/11/09

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Manual