

250W DALI+PUSH Dimming power supply



■ Approve



Features

- Class II, SELV, independent
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OTP
- Power Factor: ≥ 0.95
- Efficiency: $> 91\%$
- 5 years warranty
- Support DALI-2, Push Dimming

Applications

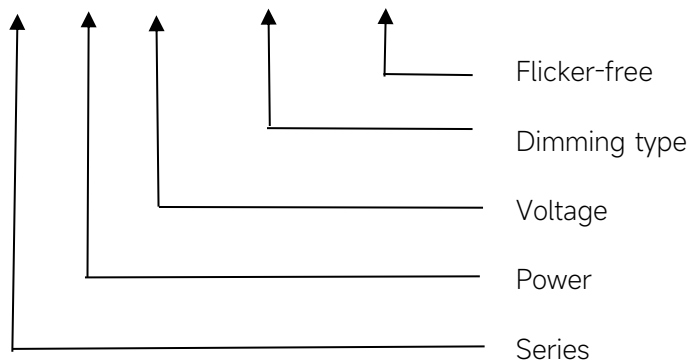
- LED strips

◆ Description

LS-250-XX DALI-2 LI is a 250W constant voltage LED driver that operates from 198-264Vac input with 24V/48V output voltage. With it's compact dimensions from 431 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, over Load. and over Temperature.

◆ Model code

LS-250-XX DALI-2 LI



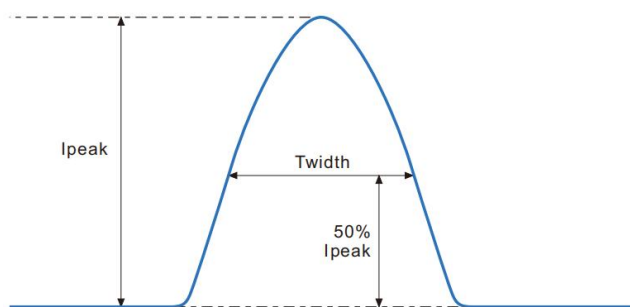
◆ Specification

Output	Constant Voltage	24VDC	48V
	Current Range	10.41A MAX	5.21A MAX
	Voltage Accuracy	±3.5%	
	Output HF voltage ripple(≥1KHz)	±1%	
	Output LF voltage ripple(≤120Hz)	±1%	
	SVM	≤0.4@Full Load	
	Pst	≤1@Full Load	
	Efficiency(Typ.)	>91%@Full load,220-240V	
Input	Rated input voltage	220-240V	
	Range of input voltage	198-264VAC	
	Range of input voltage(VDC)	176-280VDC	
	Frequency(Hz)	0/50/60 Hz	
	Displacement factor	≥0.9	
	Power Factor	≥0.95@Full load,230V	
	Input Current max	1.5AMAX. @Full Load,198VAC	
	Start-up time	< 0.8S	
	No Load Power	≤0.5W	
	Standby Power	≤0.5W@DALI OFF signal is in effect	
	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 depth	1%	
	Dimming current range	1-100%	
Protection	Over Load Protection	105-150% rated output power	
		YES/Auto Resume	
	Short circuit Protection	YES/Auto Resume	
	Over Temperature Protection	YES/Auto Resume	
Capability	Surge capability (L-N)	1KV	
Environment	Operating Temperature	-20°C...+45°C	
	Humidity	20%-90%RH	
	Tc	85°C	
	Storage Temperature	-20°C...+60°C	
	Life time	≥50000h@Tc=80°C, full load	
	Ripple&Noise	≤25dB(A)@20cm	
Surface	Dimension	431 x 45 x 30.5(LXWXH)mm	
	material	PC	

Standards	Safety	IEC61347- 1, IEC61347-2- 13;EN61347- 1, EN61347-2- 13;AS/NZS 61347- 1, AS/NZS 61347-2- 13;EN61347- 1, EN61347-2- 13, EN62384
	EMC	EN55015, EN61000-3-2, EN61000-3-3, EN61547;EN55015, EN61000-3-2, EN61000-3-3, EN61547,EN 62493;EN61000-4-5
	ErP	Erp2.0 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. 4.The EMI test method is to pad the board, place the led strips in S-shape, and the length of the lead from the power supply to the lamp belt is 20cm. 5.The start time is measured when the cold machine is started, and a quick switch may extend the start time. 6.DC input does not guarantee EMI performance.	

◆ Inrush Current

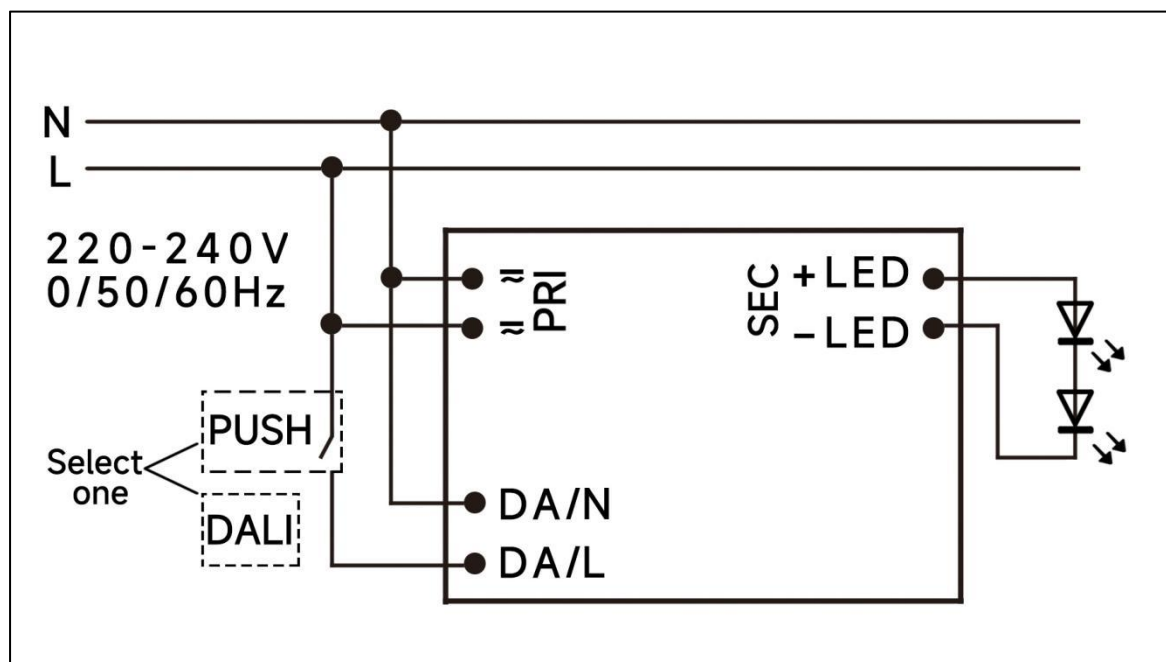
I_{peak}	Twidth	B10	B16	B20	C10	C16	C20
33.4A	220μs	5pcs	8pcs	10pcs	5pcs	8pcs	10pcs



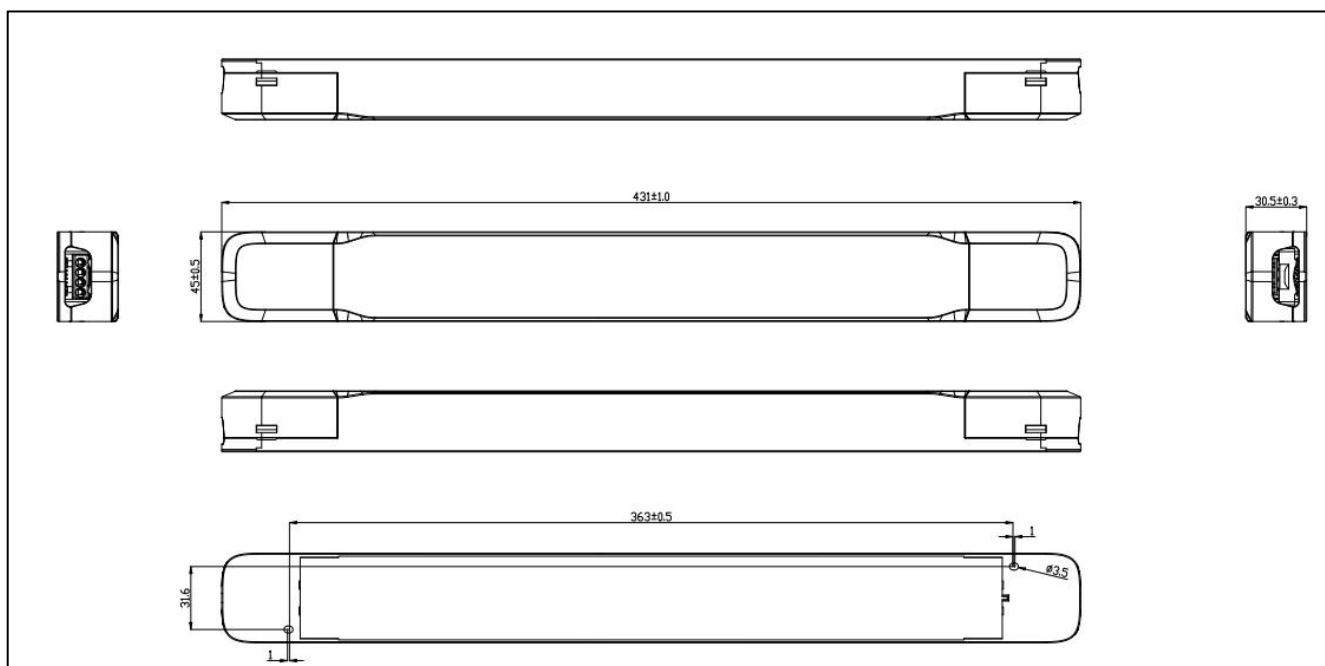
Remarks:

- 1.The number of drives mounted under different MCBs in the table is the maximum value. Please do not exceed this number during installation.
- 2.Different brands and models of miniature circuit breakers, the number of drives mounted will be slightly different.

◆ Wiring diagram



◆ 2D diagram

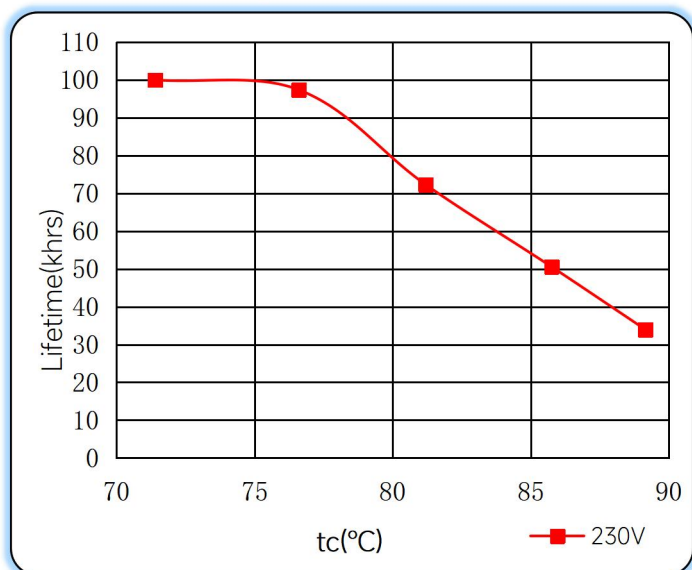


Wiring & Connections

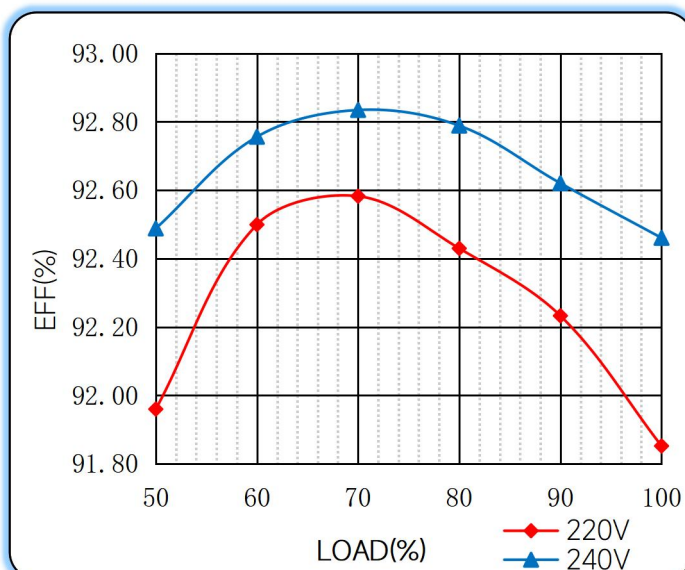
Specification item		Value (Unit)
Input	Input wire cross-section	0.5...1.5 mm ²
	Input wire gauge.	16...20 AWG
	Input wire strip length	7...9mm
Output	Output wire cross-section	1.0...2.5 mm ²
	Output wire gauge.	14...18AWG
	Output wire strip length	7...9mm

◆ Curve for LS-250-XX DALI-2 LI

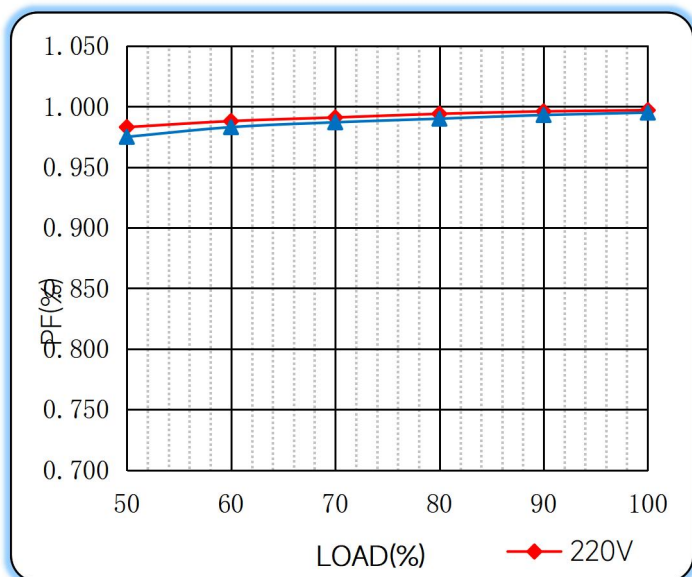
Lifetime vs. Temperature Curve



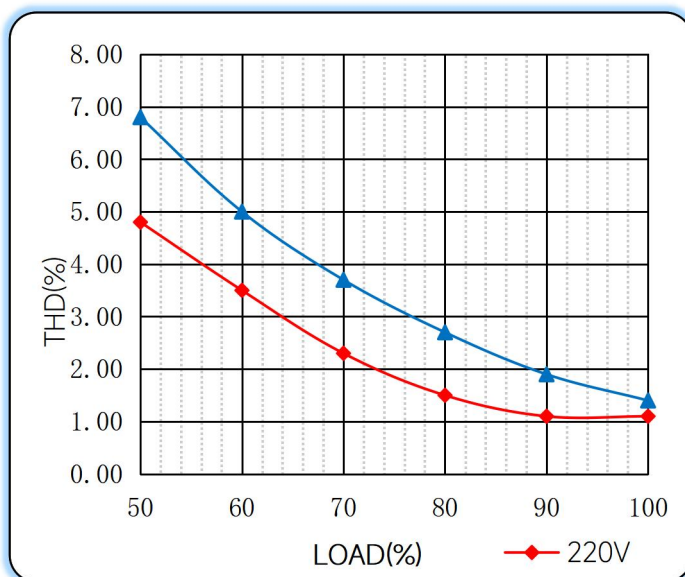
Efficiency vs. Load



Power Factor Characteristics



THD vs. Load



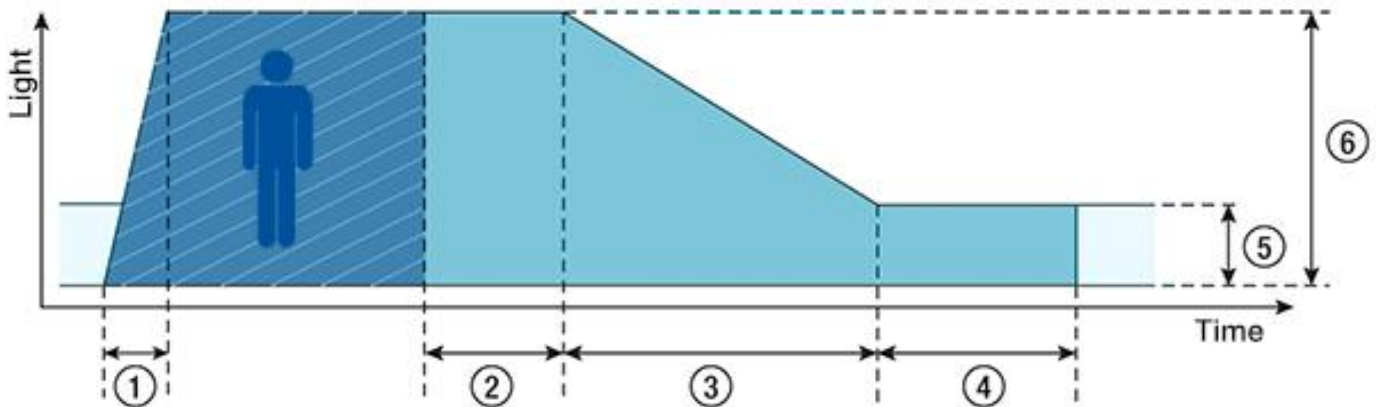
◆ Push dimming operation

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:

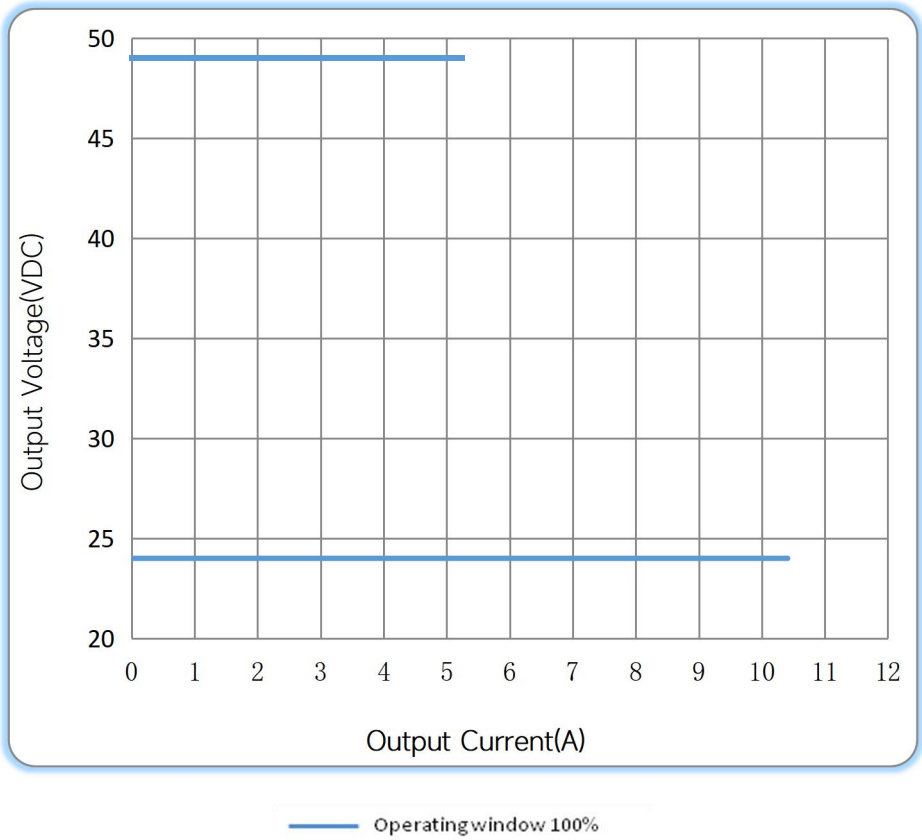
- 1.The factory default brightness is at 100%.
- 2.Up to 30 drivers can perform the PUSH dimming at the same time when utilizing one common push button
- 3.The maximum length of the cable from the push button to the last driver is 200 meters.

◆ 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	2025/07/15

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Manual