45W DALI+PUSH Dimming power supply



Approve

DALI 2 EL

CE CB EK SELV

Features

- Class II, SELV, Independent
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor: 0.9@Full Load
- Efficiency: ≥85%@Full Load
- 5 years warranty
- Support DALI-2, Push Dimming
- IP20

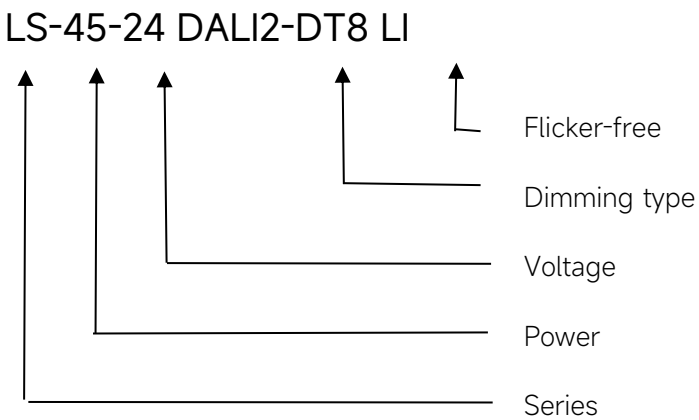
Applications

- LED strips

◆ Description

LS-45-24 DALI2-DT8 LI is a 45W constant Voltage LED driver that operates from 176-264Vac input with 24V output voltage. With it's compact dimensions from 187 x 45 x 30.5 mm. 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



◆ Specification

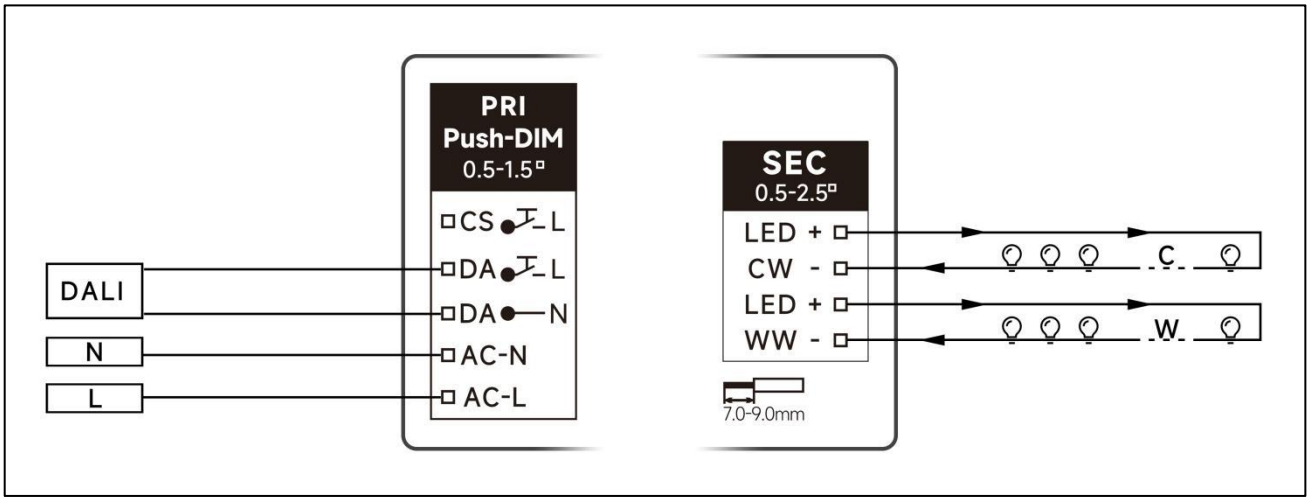
Output	Constant Voltage	24VDC
	Current Range	0-1.875A
	Voltage Accuracy	±5%
	Output HF current ripple(≥1KHz)	±1%
	Output LF current ripple(≤120Hz)	±1%
	SVM	≤0.4@Full Load
	Pst	≤1@Full Load
	Efficiency(Typ.)	≥85%@Full Load
Input	Rated input voltage	220-240VAC
	Range of input voltage	198-264VAC
	Rated input voltage(DC)	198-280VDC
	Frequency(Hz)	0/50/60 Hz
	Displacement factor	≥0.9
	Power Factor	0.9@Full Load
	Input Current max	0.34A MAX
	Start-up time	< 0.5S
	No Load Power	≤0.5W
	Standby Power	≤0.5W
	Network standby power	≤0.5W
	THD (Typ.)	<15%
Dimming	Dimming	YES
	Dimming mode	DALI-2 IEC 62386-101,102,207,209 & Push Dimming (Corridor Function)
	Dimming depth	1%
	Dimming current range	1-100%
Protection	Over Load Protection	105-150% rated output power
		YES/Auto Resume
	Over Voltage Protection	> 25.2VDC
		YES/Auto Resume
	Short circuit Protection	YES/Auto Resume
	Over Temperature Protection	YES/Auto Resume
Environment	Operating Temperature	-20℃~+45℃
	Humidity	20%-90%RH
	Tc	85℃
	Storage Temperature	-25℃~+60℃
	Life time	> 50000h@Tc=85℃
Surface	Dimension	187x45x30.5(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℃ 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.This LED driver meets the EMI specifications above, but EMI performance of a lighting fixture also depends on the other devices on the fixture.	

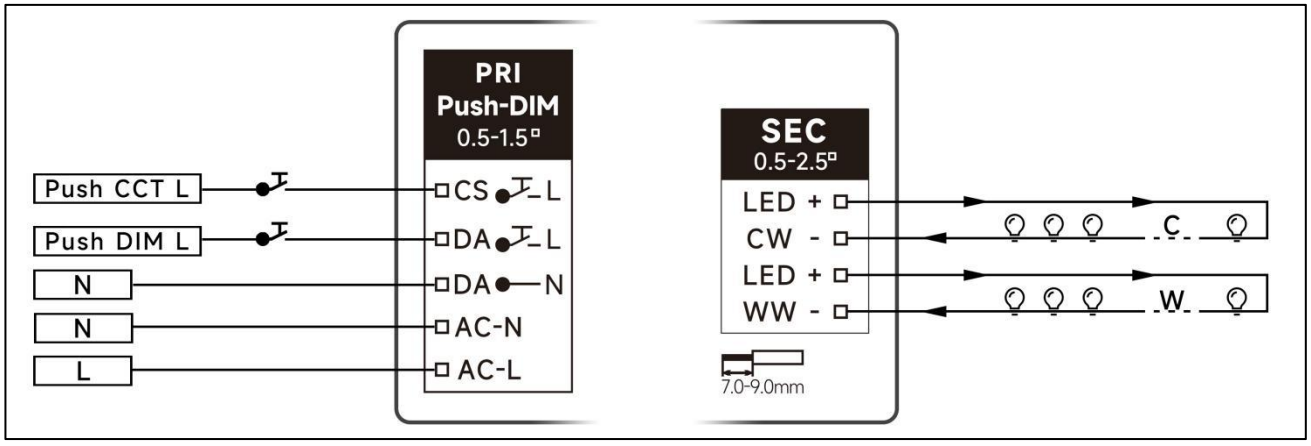
◆ Circuit Breaker

I^{peak}	Twidth	B10	B16	B20	C10	C16	C20
15.1A	**308μs**	17pcs	27pcs	34pcs	23pcs	37pcs	47pcs

◆ Wiring diagram

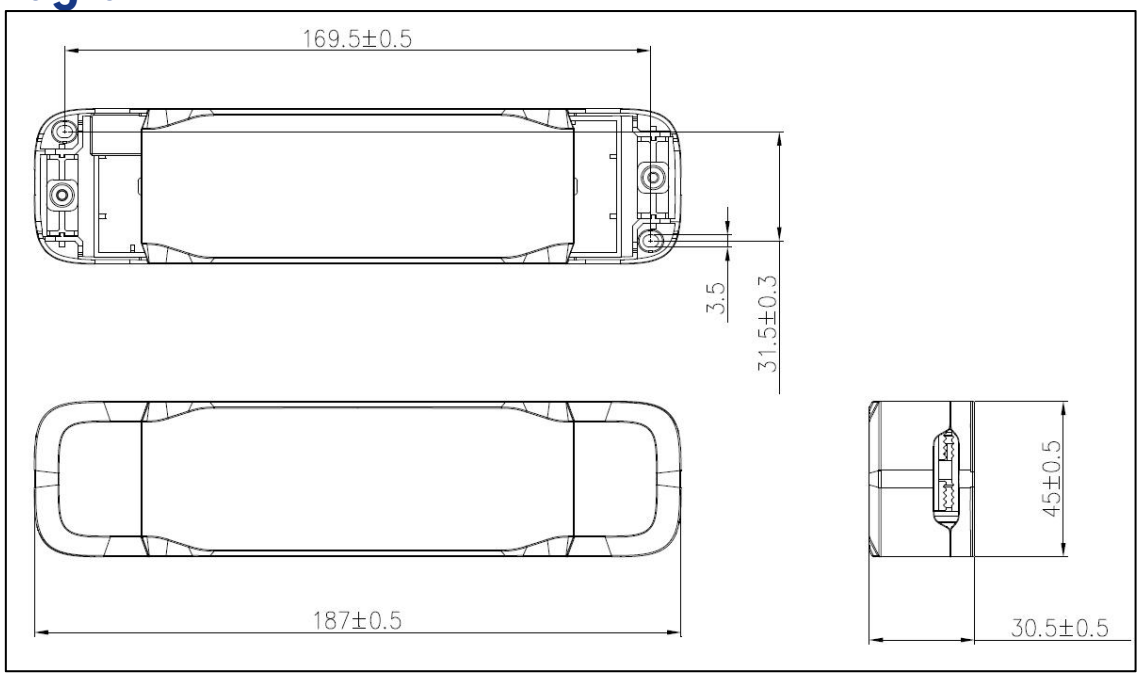


DALI Connection



push DIM/CCT Connection

◆ 2D diagram

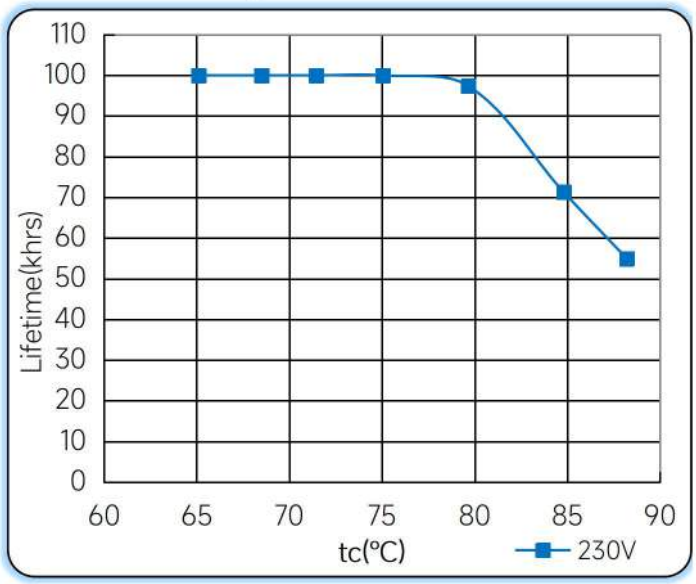


◆ Wiring & Connections

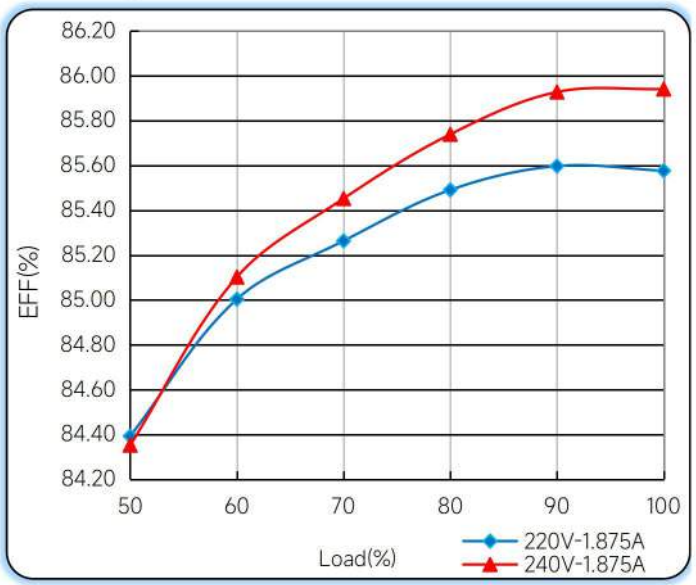
Specification item		Value （Unit ）
Input	Input wire cross-section	0.5...1.5 mm^2
	Input wire gauge.	16...20 AWG
	Input wire strip length	7...9mm
Output	Output wire cross-section	0.5...2.5 mm^2
	Output wire gauge.	16...20 AWG
	Output wire strip length	7...9mm

◆ Curve for LS-45-24 DALI2-DT8 LI

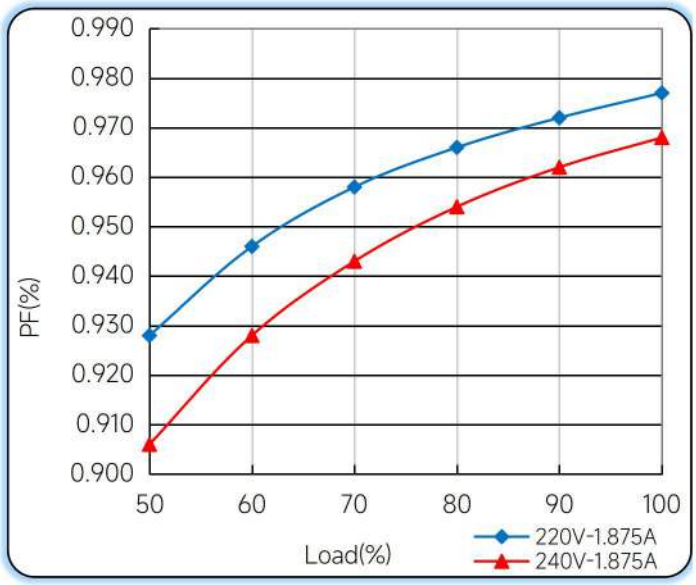
Lifetime vs. Temperature Curve



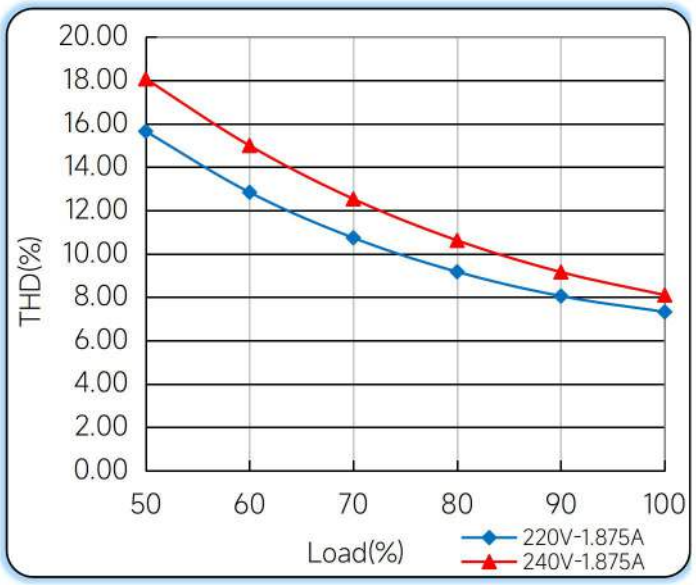
Efficiency vs. Load



Power Factor Characteristics



THD vs. Load



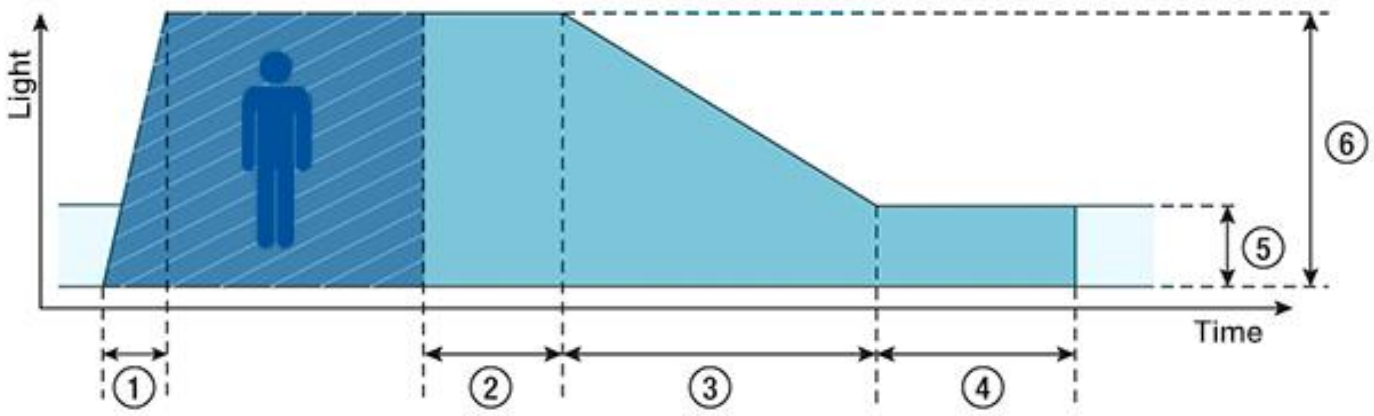
◆ Push dimming operation

movement	Current state	Brightness key operation	Color temperature button operation
Short press (50ms<PUSH<500ms)	ON	Turn off the light	Turn off the light
Short press (50ms<PUSH<500ms)	Off	Turn on the light to restore the brightness before OFF, if there is a memory brightness, restore the brightness of the memory	Turn on the light to restore the brightness before OFF, and restore the brightness of the memory if there is memory brightness
Double-click (Press twice within 500ms)	On	Save the current brightness and color temperature. If the indicator blinks twice (Max-Min-Max-Min), the storage is saved successfully	Save the current brightness and color temperature. If the indicator blinks twice (Max-Min-Max-Min), the storage is saved successfully
Double-click (Press twice within 500ms)	Off	Cancel double click save value, restore default brightness (100%) and default color temperature (4000K)	
Tap and hold (0.5 -120s)	ON	Adjust the brightness and switch the adjustment direction after each release	Adjust the color temperature and switch the adjustment direction after each release
Tap and hold (0.5 -120s)	Off	Turn on the light and turn it on from the minimum brightness	Turn on the light at the lowest brightness and turn it down from the warmest color temperature
Enter Corridor mode: Hold down for 120 seconds	Max	First, long press dimming to the darkest, 120S to the brightest indicates entering the corridor mode, if there is a save color temperature, switch to the save color temperature	First, long press dimming to the darkest, 120S to the brightest indicates entering the corridor mode, if there is a save color temperature, switch to the save color temperature
Enter Corridor mode: Hold down for 120 seconds	Min	First, long press dimming to the darkest, 120s to the brightest indicates entering the corridor mode, if there is a save color temperature, switch to the save color temperature	First, long press the dimmer to the brightest, then turn it to the darkest in 120S, then turn it up to the brightest indicates entering the corridor mode, and switch to the saved color temperature if there is a save color temperature
Exit Corridor mode: Tap 5 times within 3 seconds	Corridor model	Quits The corridor mode and enters the PUSH mod	Quits The corridor mode and enters the PUSH mod

Attention:

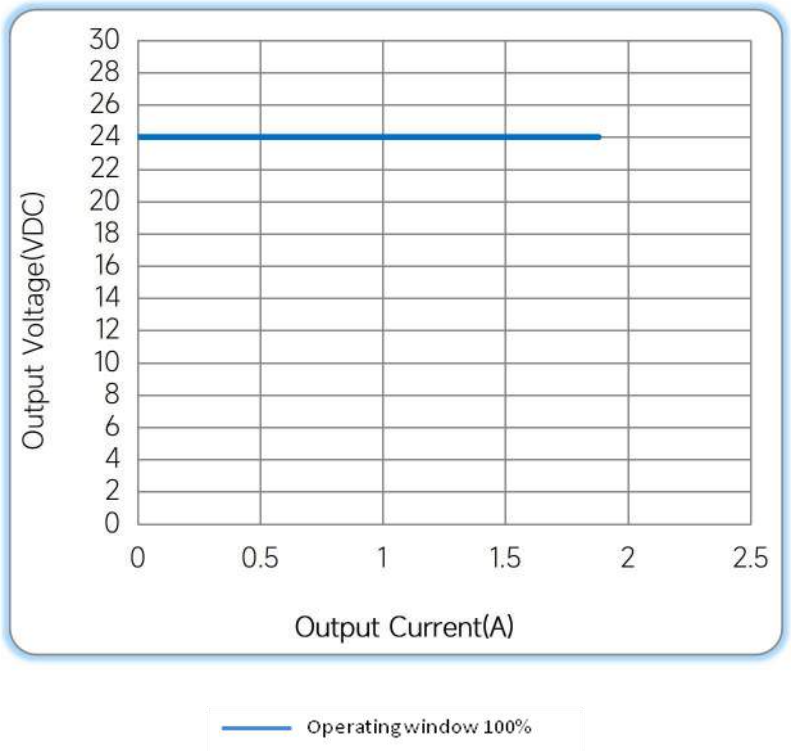
1. Do not use PUSH dimming and DALI dimming at the same time, otherwise it may damage other DALI equipment
2.PUSH Button needs to be connected to 50/60Hz AC, can not be PUSH dimming when connected to DC
3. The product enters PUSH mode after PUSH dimming. If DALI mode needs to be returned, send DALI instructions to return to DALI mode and power-on.

◆ Corridor mode



- ①Fade-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.
- ②Run-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.
- ③Fade time(32s): the time during which the luminous intensity is faded from the presence value to the absence value.
- ④Switch-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.
- ⑤Absence value(default: 10 %): the luminous intensity when there is no person present.
- ⑥Presence value (default: 100 %): the luminous intensity when persons are present.

◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2022/05/15

Tel: +86-0757-86256822, +86-0757-86256831
E-mail: sales@eaglerise.com
Website : https://lighting.eaglerise.com

EAGLERISE Manual