

25W DALI + PUSH Dimming power supply



Features

- Class II, SELV, Independent
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP
- Power Factor: > 0.95@Full load,230V
- Efficiency: 84%@Full load,230V
- 2 Slots
- 5 years warranty
- Support DALI-2,Push Dimming

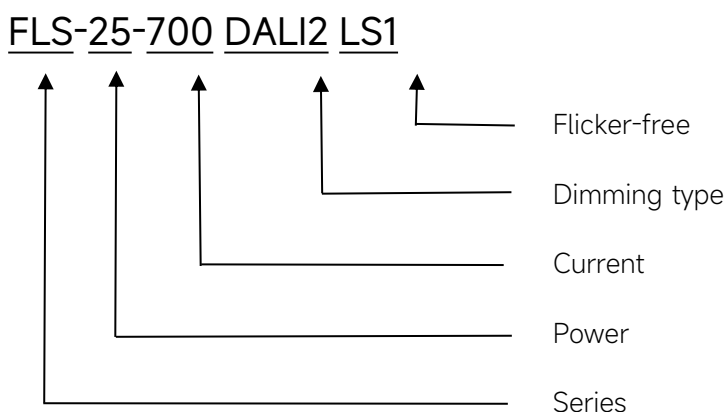
Applications

- LED panel,down light

◆ Description

FLS-25-700 DALI2 LS1 is a 25W constant current, 2 slots LED driver with 150 to 700mA output current and a forward voltage range from 9 to 52Vdc. The output current is adjustable by DIP Switch. With it's dimensions from 180 x 80 x 30mm. It is easy to integrate in LED Panel and down light products. To ensure trouble-free operation, protection is provided against output short circuit and over Load.

◆ Model code



◆ Specification

Output	Constant Current (mA)	150mA	200mA	...	700mA
	Voltage Range (VDC)	9-52V	9-52V		9-37.5V
	Unload voltage Max.	60VDC			
	Current Accuracy	±7%@150-350mA; ±5%@400-700mA;			
	Output HF current ripple(≥1KHz)	±10%			
	Output LF current ripple(≤120Hz)	±3%			
	SVM	≤0.4			
	P _{st}	≤1			
	Efficiency(Typ.)	84%@Full load,230V			
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	>0.95@Full load,230V			
	Input Current	0.2A			
	Start-up time	< 0.5S			
	No Load Power	≤0.5W			
	Standby Power	≤0.5W			
	Network standby power	≤0.5W			
	THD (Typ.)	<10%			
Dimming	Dimming	YES			
	Dimming mode	DALI-2 (IEC 62386-101,102,207) & Push Dimming (Corridor Function)			
	Dimming depth	1%			
	Dimming current range	1 ~100%			
Protection	Over Load Protection	103-120%			
		YES/Latch off			
	Over Voltage Protection	> 60VDC			
		YES/Latch off			
	Short circuit Protection	YES/Latch off			
Environment	Over Temperature Protection	YES/Auto Resume			
	Operating Temperature	-20°C~+45°C			
	Humidity	20%-90%RH			
	T _c	75°C			
	Storage Temperature	-25°C~+60°C			
Surface	Lifetime	>50000h,@T _c =75°C			
	Dimension	180x80x30mm			

Standards	IEC61347- 1, IEC61347-2- 13;EN61347- 1, EN61347-2- 13;EN61347- 1, EN61347-2- 13, EN62384;GB/T17743;EN61547 GB 19510.1,GB 19510.14;GB/T 17743,GB 17625.1;EN IEC 55015,EN IEC 61000-3-2,EN 61000-3-3	
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.	

◆ Parameter

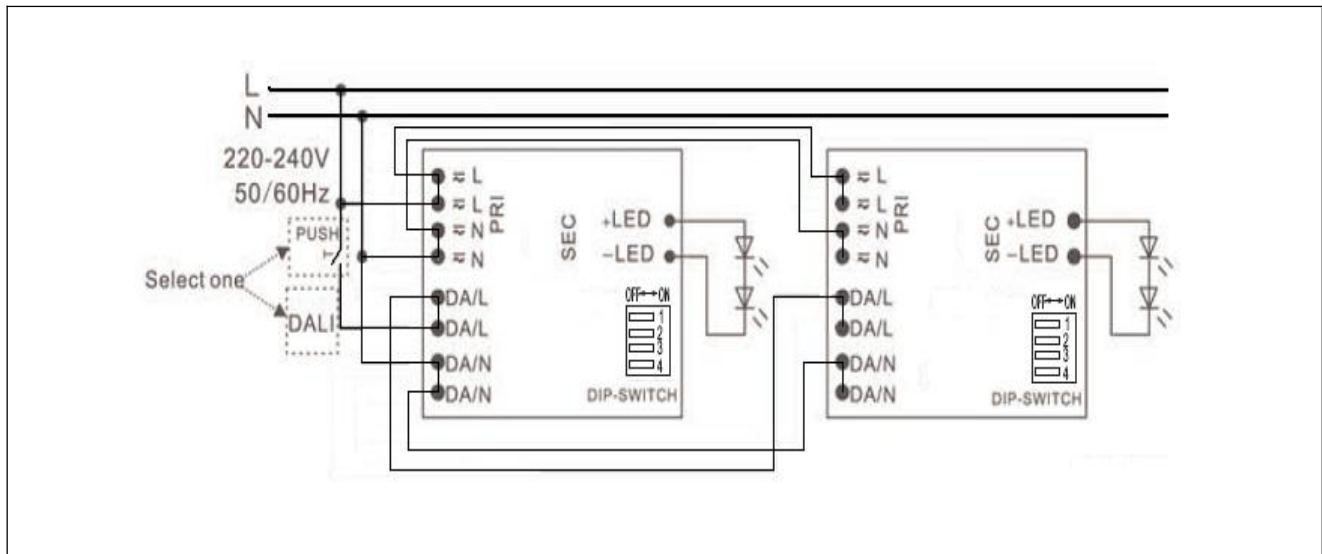
Number	Output	Switch position			
	Current(mA)	1	2	3	4
1	150	--	--	ON	--
2	200	ON	--	ON	--
3	250	--	ON	ON	--
4	300	ON	ON	ON	--
5	350	--	--	--	ON
6	400	ON	--	--	ON
7	450	--	ON	--	ON
8	500	ON	ON	--	ON
9	550	--	--	ON	ON
10	600	ON	--	ON	ON
11	650	--	ON	ON	ON
*12	700	ON	ON	ON	ON

* Factory default

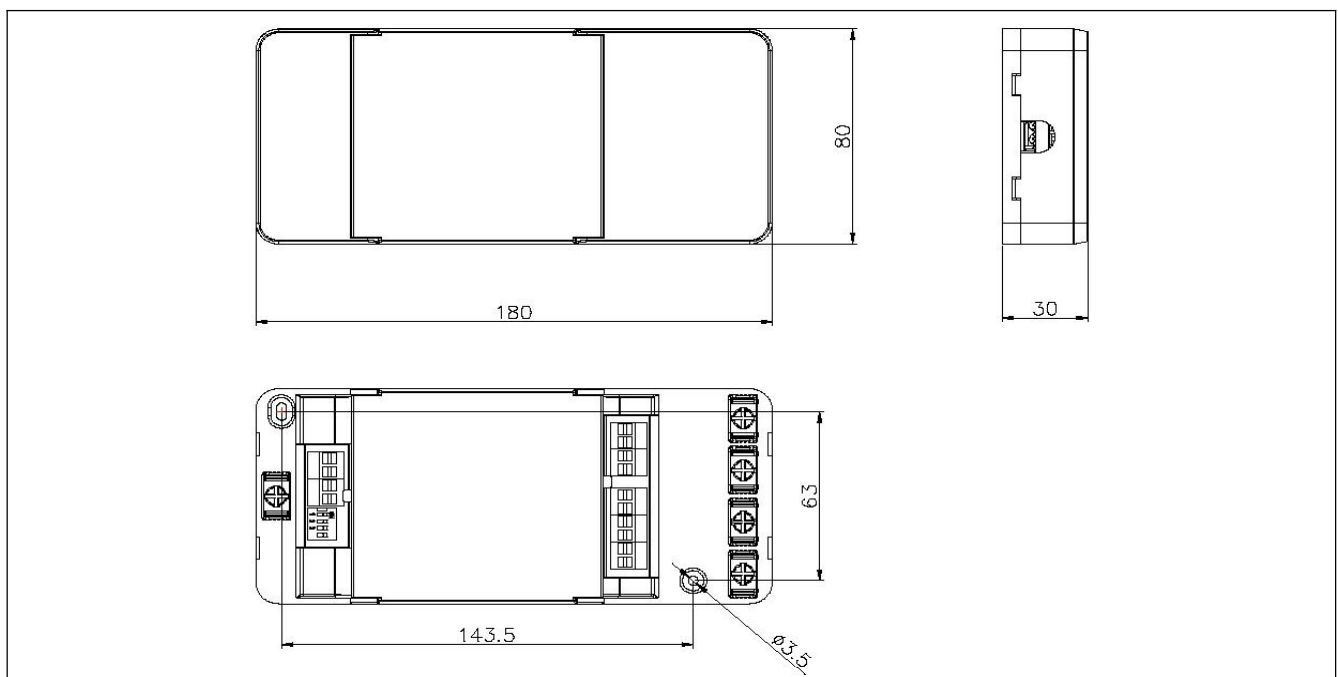
◆ Circuit Breaker

I _{peak}	T _{width}	B10	B16	B20	C10	C16	C20
5.6A	34.78μs	40pcs	64pcs	80pcs	40pcs	64pcs	80pcs

◆ Wiring diagram



◆ 2D diagram

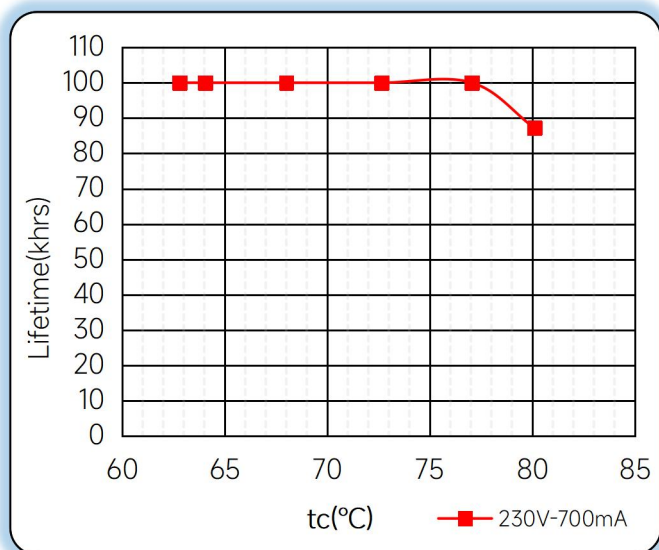


◆ Wiring & Connections

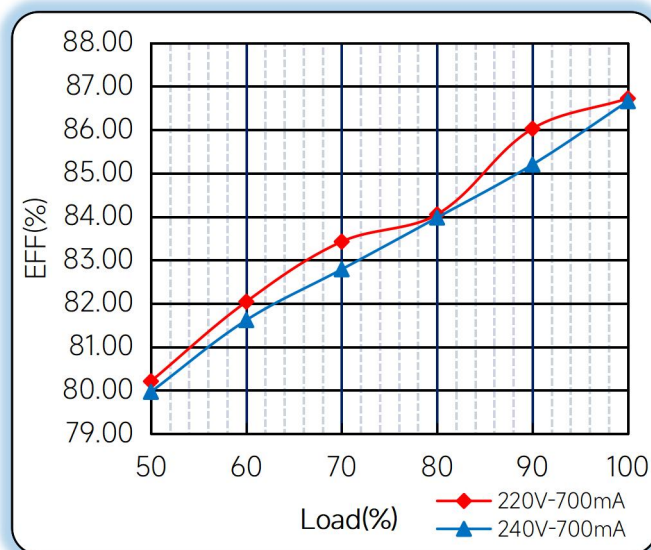
Specification item		Value (Unit)
Input	Input wire cross-section	0.5...1.5 mm ²
	Input wire gauge	16...20 AWG
	Input wire strip length	8...9mm
Output	Output wire cross-section	0.5...1.5 mm ²
	Output wire gauge	16...20 AWG
	Output wire strip length	8...9mm

◆ Curve for FLS-25-700 DALI2 LS1, $I_o=700\text{mA}$

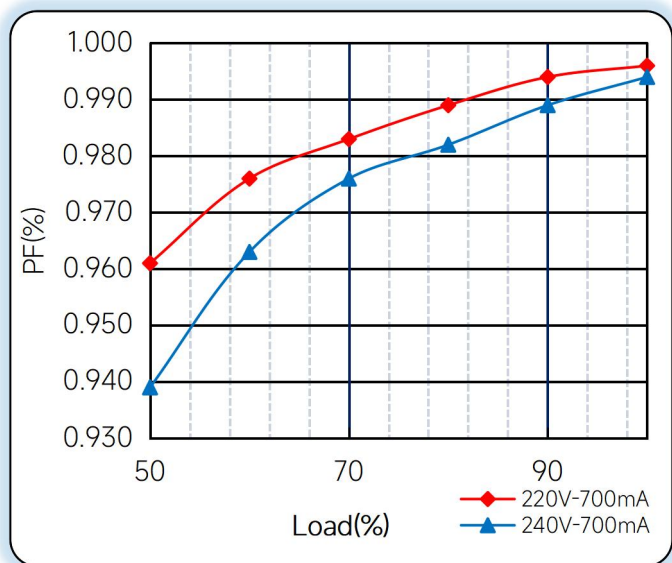
Lifetime vs. Temperature Curve



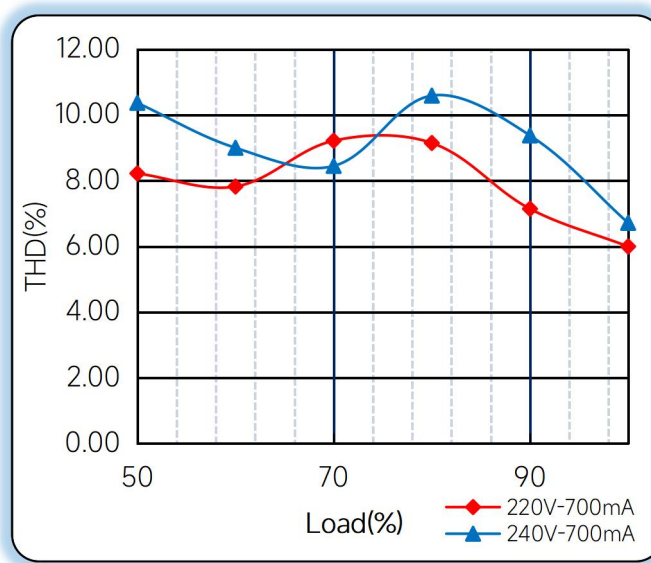
Efficiency vs. Load



Power Factor Characteristics



THD vs. Load



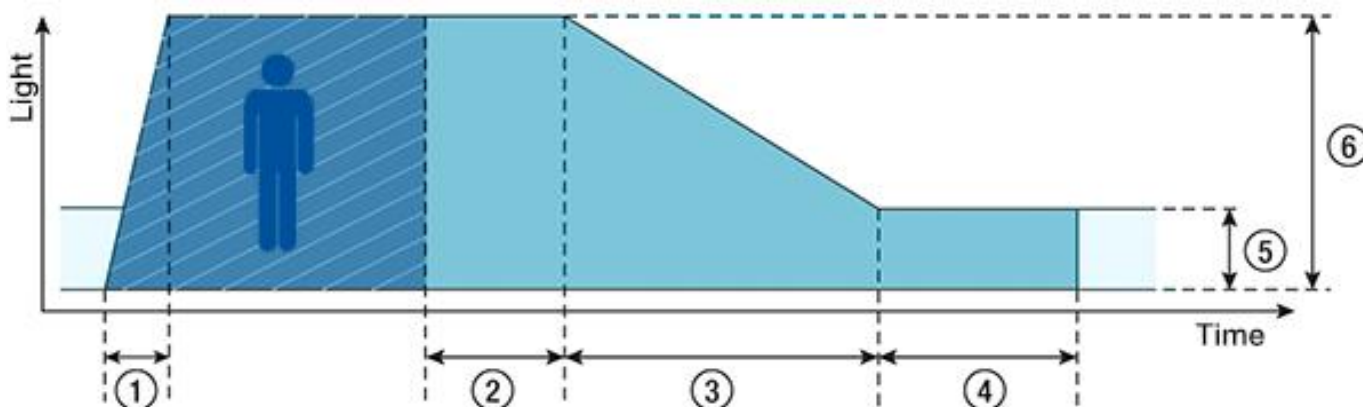
◆ Push dimming operation

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:

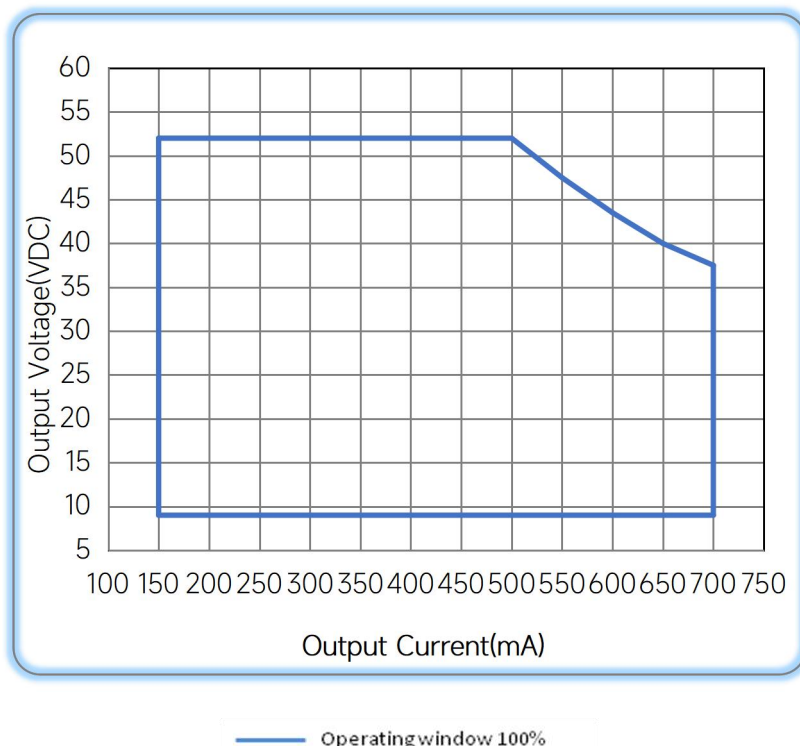
- 1.The factory default brightness is at 100%.
- 2.Up to 30 drivers can perform the PUSH dimming at the same time when utilizing one common push button
- 3.The maximum length of the cable from the push button to the last driver is 200 meters.

◆ 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	2022/05/04

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Manual