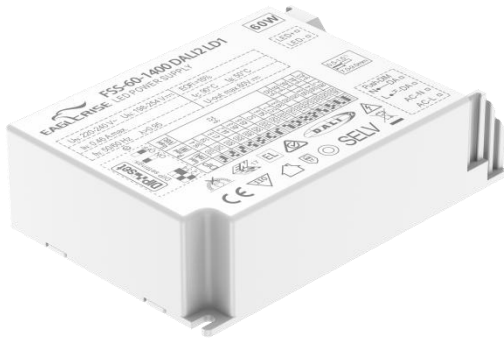


## 60W DALI+PUSH Dimming power supply



### Features

- Class II, SELV, Built-in/Independent
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor : >0.95@Full load,230V
- Efficiency : 88%@Full load,230V
- Support DALI-2, Push Dimming
- 5 years warranty

### Applications

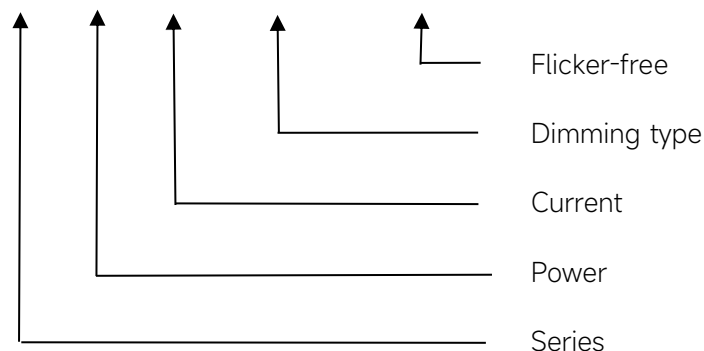
- LED panel,down light,spot light

### ◆ Description

FSS-60-1400 DALI2 LD1 is a 60W constant current LED driver with 700 to 1400mA output current and a forward voltage range from 9 to 52Vdc. The output current is adjustable by DIP Switch. With it's dimensions from 110 x 74 x 30 mm. It is easy to integrate in LED Panel, spot and down light products. To ensure trouble-free operation, protection is provided against output short circuit and over Load.

### ◆ Model code

FSS-60-1400 DALI2 LD1



## ◆ Specification

Output	Constant Current (mA)	700	750	800	.....	1150	1200	1250	1300	1350	1400
	Voltage Range (VDC)	9-52					9-50	9-48	9-46	9-44	9-43
	Unload voltage Max.	60VDC									
	Current Accuracy	±5%									
	Output HF current ripple(≥1KHz)	±10%									
	Output LF current ripple(≤120Hz)	±3%									
	SVM	≤0.4									
	P <sub>st</sub>	≤1									
	Efficiency(Typ.)	88%@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	0.46A									
	Start-up time	< 0.7S									
	No Load Power	≤0.5W									
	Standby Power	≤0.5W									
	THD (Typ.)	<10%@Full Load,230VAC									
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~+50°C									
	Humidity	20%-90%RH									
	T <sub>c</sub>	90°C									
	Storage Temperature	-40°C~+80°C									
Surface	Lifetime	>50000h,@T <sub>c</sub> =85°C									
	Dimension	110X74X30mm (With side caps : 160X74X30mm)									

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.Data are typical values obtained from test samples. 4.Switch and dimmer are not recommended to connect between this product output and luminaries.	

## ◆ Parameter

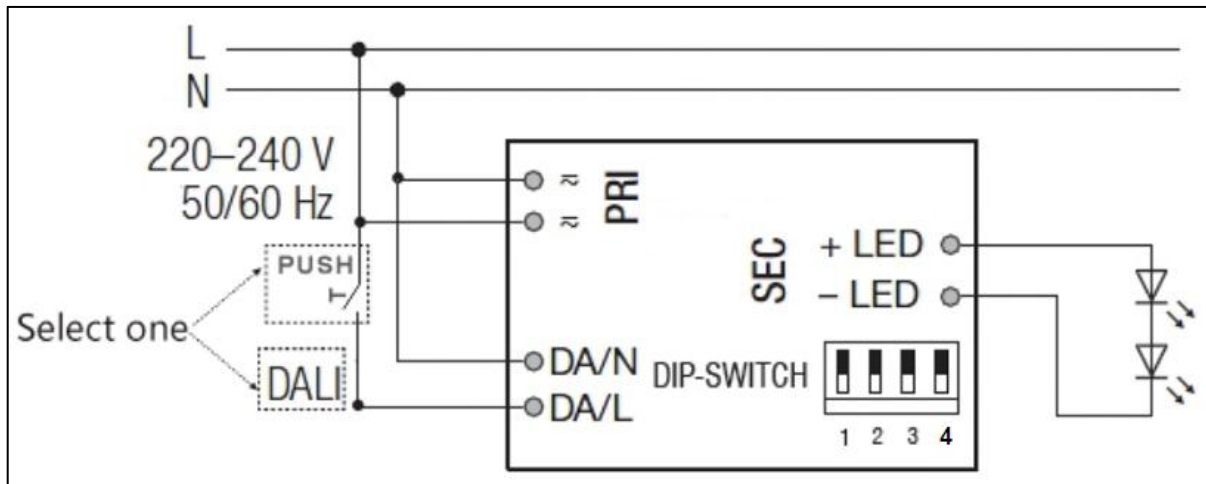
Number	Output	Switch position			
	Current(mA)	1	2	3	4
1	700	ON	--	--	--
2	750	--	ON	--	--
3	800	ON	ON	--	--
4	850	--	--	ON	--
5	900	ON	--	ON	--
6	950	--	ON	ON	--
7	1000	ON	ON	ON	--
8	1050	--	--	--	ON
9	1100	ON	--	--	ON
10	1150	--	ON	--	ON
11	1200	ON	ON	--	ON
12	1250	--	--	ON	ON
13	1300	ON	--	ON	ON
14	1350	--	ON	ON	ON
15*	1400	ON	ON	ON	ON

\* Factory default

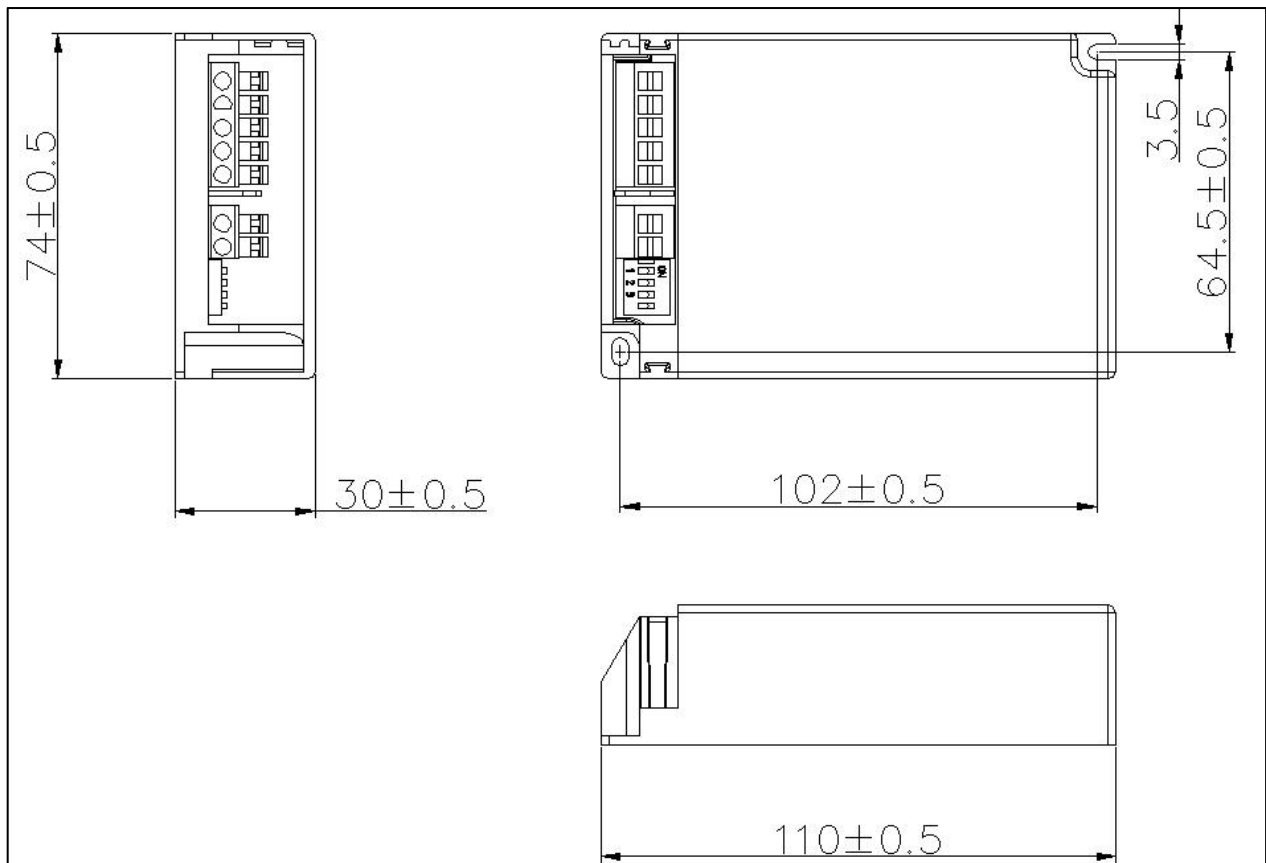
## ◆ Circuit Breaker

Ipeak	Twidth	B10	B16	B20	C10	C16	C20
5.88A	32.4μs	40pcs	64pcs	80pcs	40pcs	64pcs	80pcs

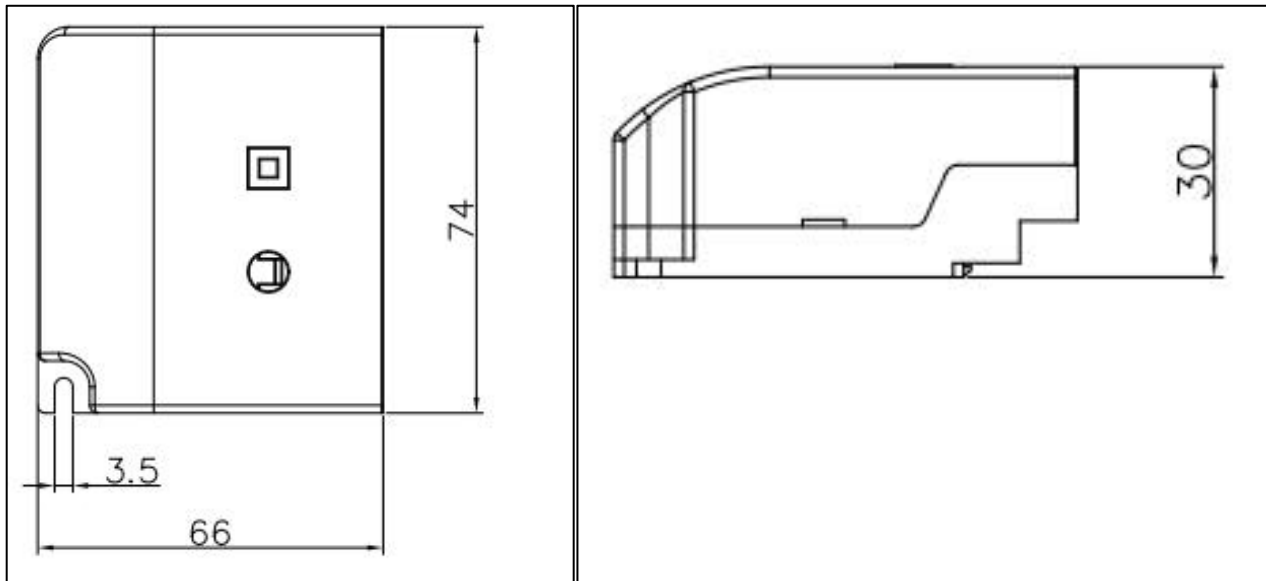
## ◆ Wiring diagram



## ◆ 2D diagram



With side caps

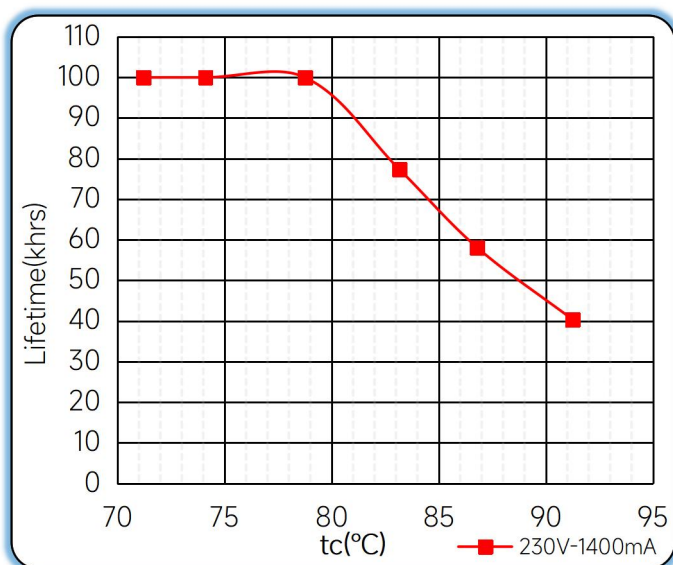
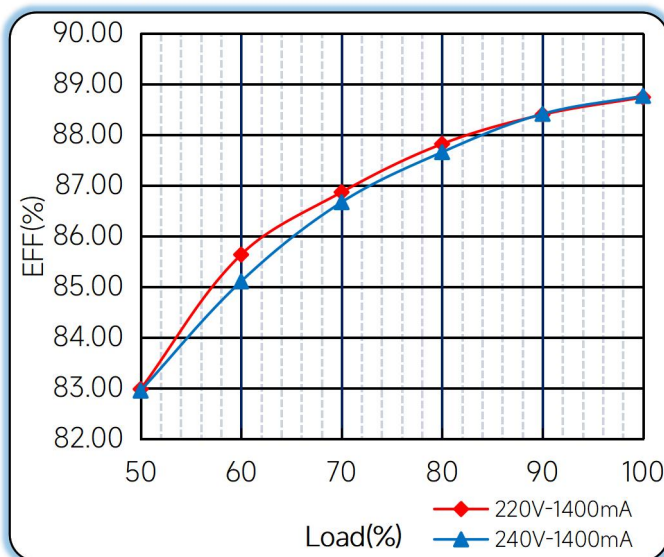
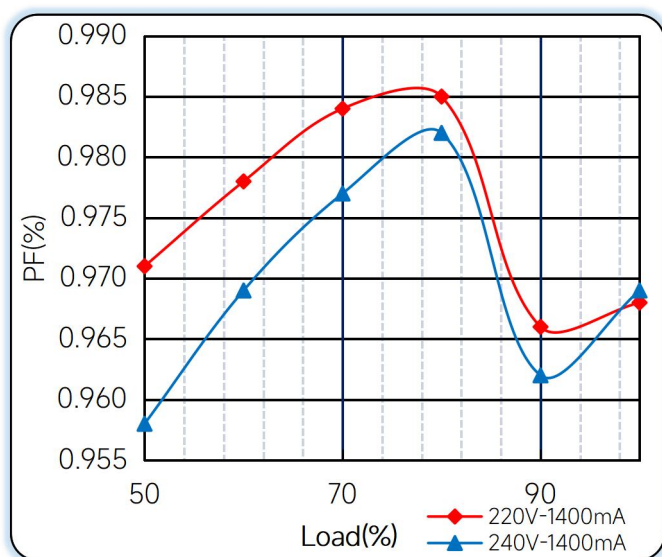
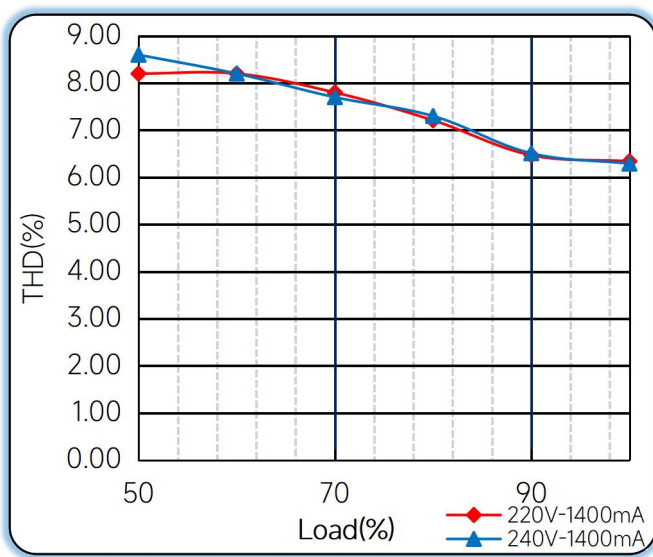


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## ◆ Wiring & Connections

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 FSS-60-1400 DALI-2 LD1, $I_o=1400\text{mA}$

**Lifetime vs. Temperature Curve**

**Efficiency vs. Load**

**Power Factor Characteristics**

**THD vs. Load**


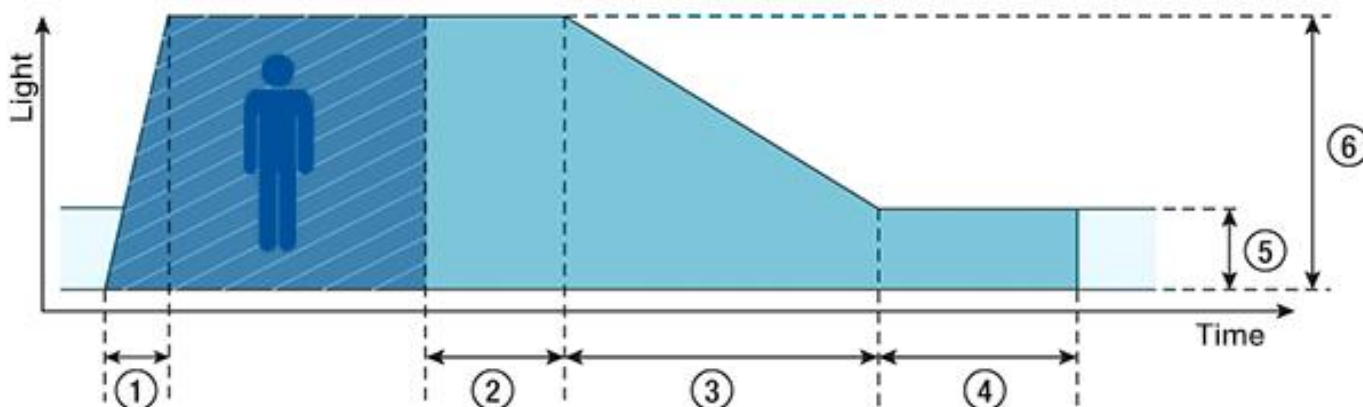
## ◆ Push dimming operation

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.

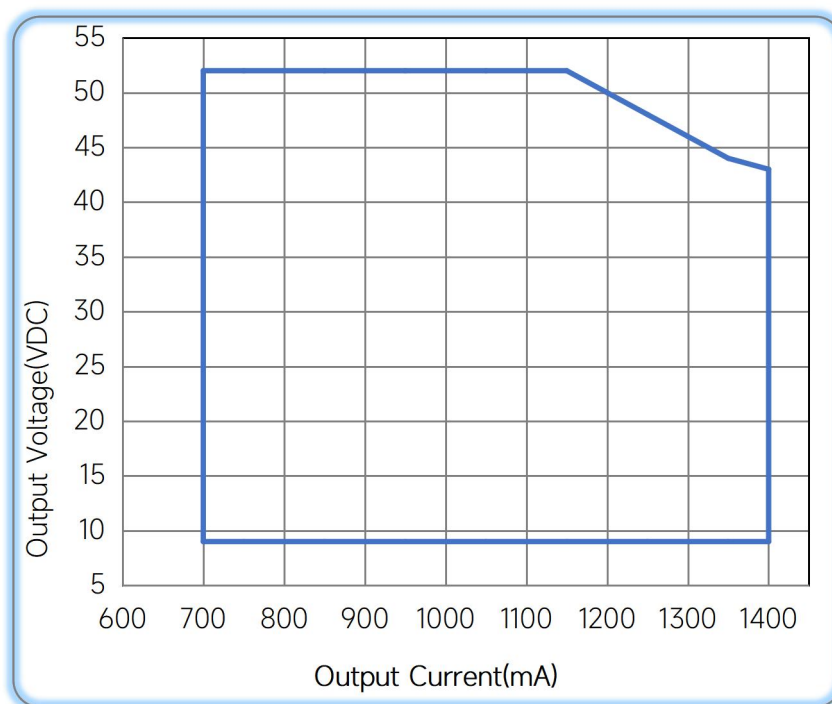
## ◆ Corridor mode



- ◆ **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



— Operating window 100%

## ◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2022/08/12

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Manual