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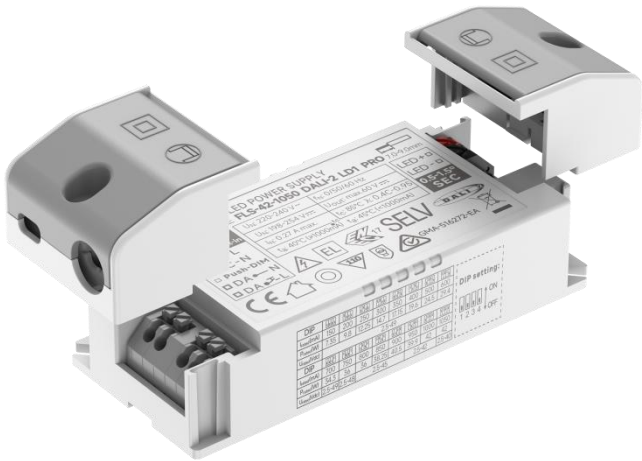
42W DALI + PUSH Dimming power supply

Features

- For luminaries of protection Class I, II, SELV, Built-in/Independent（With side caps)
- Input Voltage：220-240VAC、176-280VDC
- Protections：SCP/OLP/OVP/OTP
- Power Factor：＞0.95
- Efficiency：90%
- Support DALI-2,Push Dimming
- Suitable for emergency lighting acc. to EN 50172
- EOFi=100%
- 22mm height
- DALI maintainace(Part 251,252,253)
- 5 years warranty

Applications

- LED panel、LED down light LED spot light
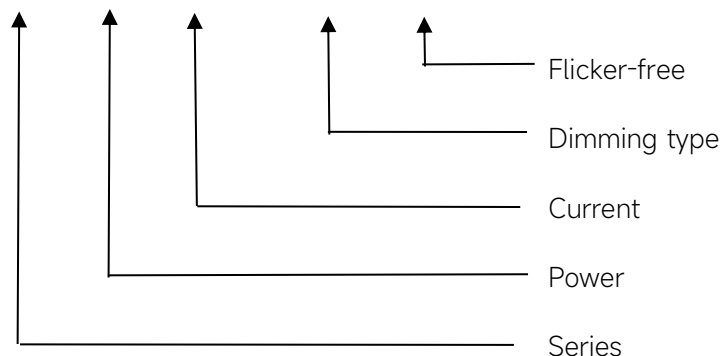
■Approve

CE CB EK CCC EL ... DALI 2 SELV

◆ Description

FLS-42-1050 DALI-2 LD1 PRO is a 42W constant current LED driver with 150 to 1050mA output current and a forward voltage range from 2.5 to 49Vdc. The output current is adjustable by DIP Switch. With it's dimensions from 98 x 43 x 22mm. 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

FLS-42-1050 DALI-2 LD1 PRO

- Flicker-free
- Dimming type
- Current
- Power
- Series

◆ Specification

	Constant Current (mA)	150-200	250-700	750	800-900	950-1000	1050
Output	Voltage Range(VDC)	2.5-49V		2.5-48V	2.5-45V	2.5-42V	2.5-40V
	Unload voltage Max.(VDC)	60VDC					
	Current Accuracy	±7%	±5%				
	Output current ripple(≤120Hz)	±3%					
	SVM	≤0.4@Full Load					
	P_{st}	≤1@Full Load					
	Efficiency(Typ.)	90%@full load，900mA@230VAC					
	EOFI	100%					
Input	Rated input voltage(VAC)	220-240V
	Range of input voltage(VAC)	198-264VAC
	Range of input voltage(VDC)	176-280VDC
	Frequency(Hz)	0/50/60 Hz
	Displacement Factor	≥0.9@full load, 230Vac
	Power Factor	>0.95@full load，230Vac
	Input Current max	0.27A max
	Start-up time(AC mode)	＜0.8S
	Start-up time(DC mode)	＜0.6S
	Switch over time(AC/DC mode)	＜0.6S
	Standby Power	≤0.3W, @220Vac
	Network Standby Power	≤0.3W,@220Vac
	THD (Typ.)	<10%@full load,230Vac
Dimming	Dimming	YES
	Dimming mode	DALI-2（IEC 62386-101,102,207,251,252,253）&Push Dimming (Corridor Function)
	Dimming depth	7mA@150-700mA 1%@ 750-1050mA
	Dimming current range	1~100%
	Dimming method	1%-13% @PWM dimming，13%-100% @AM dimming
Protection	Over Load Protection	103-120%
		YES/latch off
	Over Voltage Protection	60VDC
		YES/latch off
	Short circuit Protection	YES/latch off
	Over Temperature Protection	YES/Auto Resume
capability	Surge capability (L-N)	1KV
	Surge capability (L/N-Ground)	2KV
Environment	Operating Temperature	-20℃~+40℃@1000-1050mA -20℃~+45℃@150-950mA
	Humidity	20%-90%RH

| Surface	Tc	85℃
	Storage Temperature	-40℃~+80℃
	Life time	＞50000h,@TC=80℃
	Noise	≤25dB(A)@20cm
Surface	Dimension	98 x 43 x 22 mm (With side caps) : 132 X43X22mm
	material	PC
Standards	EN 61347-1,EN 61347-2-13; EN IEC 55015,EN IEC 61000-3-2,EN 61000-3-3 ;EN 61547; AS/NZS 61347.1,AS 61347.2.13 ;IEC 61347-1,IEC 61347-2-13; GB 19510.1,GB 19510.14，GB/T 17743,GB 17625.1	
DALI	EN 62386-101 (DALI-2) EN 62386-102 (DALI-2) EN 62386-207 (DALI-2,including part251,252,253)	
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.DALI protocol comprises 16 groups and 64 addresses.Up to 32 drivers can perform the PUSH dimming at the same time when utilizing one push button. 5.Suitable for emergency lighting systems according to EN50172. 6.Switch and dimmer are not recommended to connect between this product output and luminaries.	

◆ Parameter

Number	Output				Switch position			
	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)	1	2	3	4
1	150mA	2.5-49VDC	60VDC	7.35W	--	--	--	--
2	200mA			9.8W	ON	--	--	--
3	250mA			12.25W	--	ON	--	--
4	300mA			14.7W	ON	ON	--	--
5	350mA			17.15W	--	--	ON	--
6	400mA			19.6W	ON	--	ON	--
7	500mA			24.5W	--	ON	ON	--
8	600mA			29.4W	ON	ON	ON	--
9	700mA			34.3W	--	--	--	ON
10	750mA	2.5-48VDC		36W	ON	--	--	ON
11	800mA	2.5-45VDC		36W	--	ON	--	ON
12	850mA			38.25W	ON	ON	--	ON
13	900mA			40.5W	--	--	ON	ON

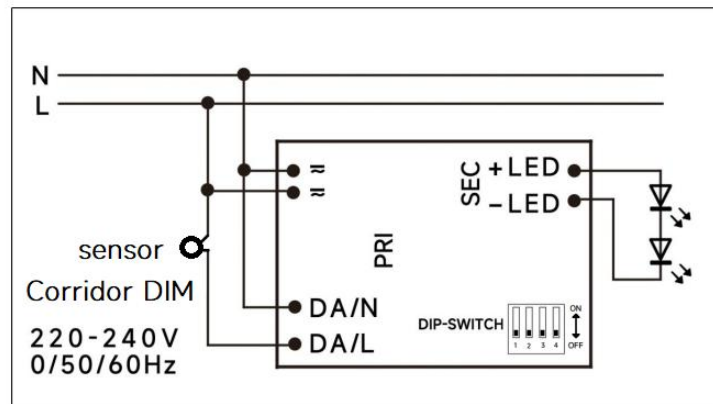| 14	950mA	2.5-42VDC		39.9W	ON	--	ON	ON
15	1000mA			42W	--	ON	ON	ON
*16	1050mA	2.5-40VDC		42W	ON	ON	ON	ON

* Factory default

◆ Wiring diagram
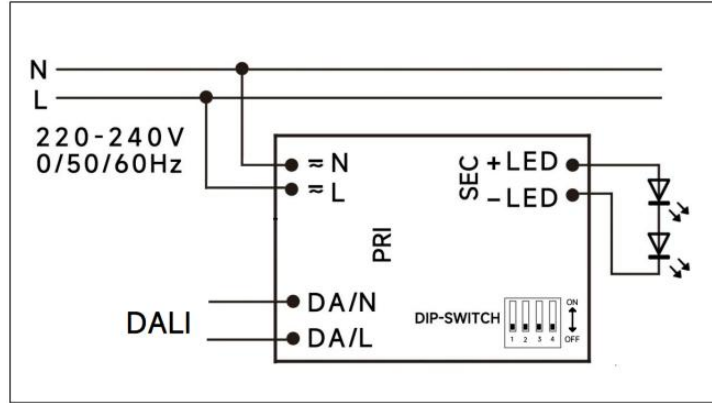
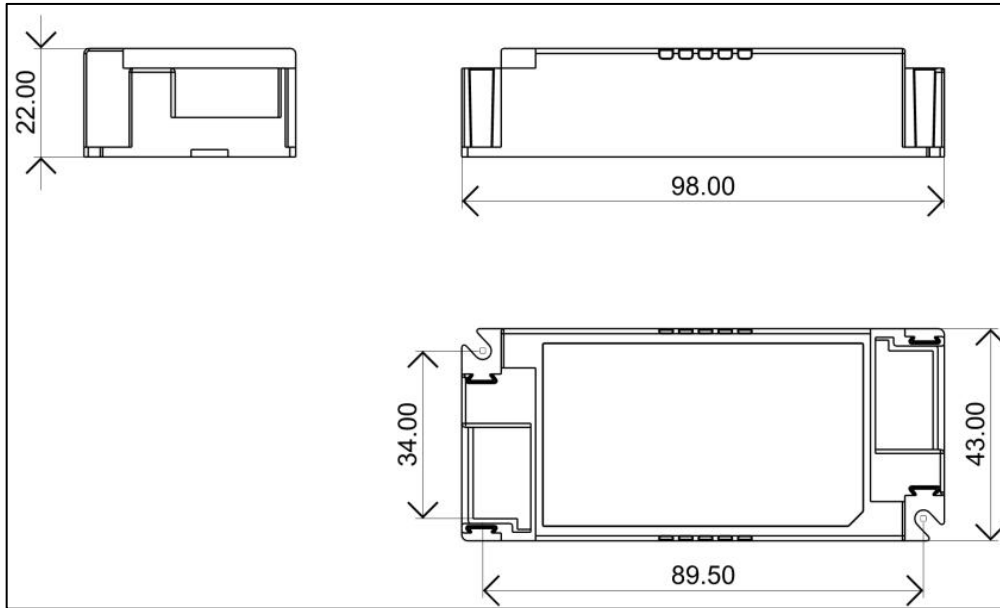DALI dimming application
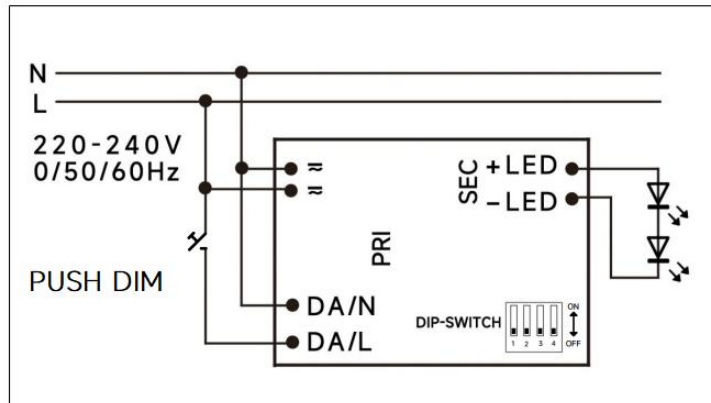
PushDIM dimming application

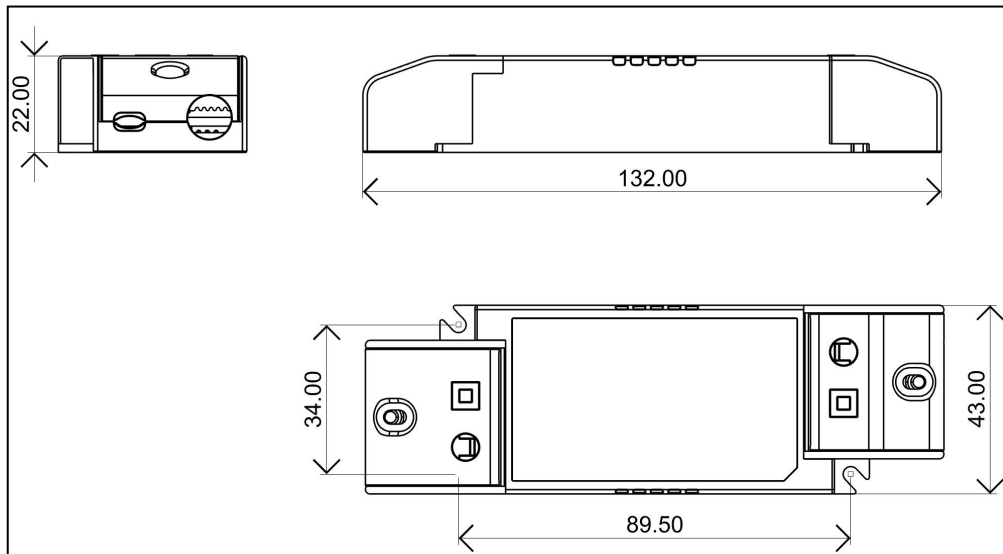Corridor DIM dimming application

◆ 2D diagram

With side caps

◆ 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...1.5 mm^2
	Output wire gauge.	16...20 AWG
	Output wire strip length	7...9mm

◆ 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
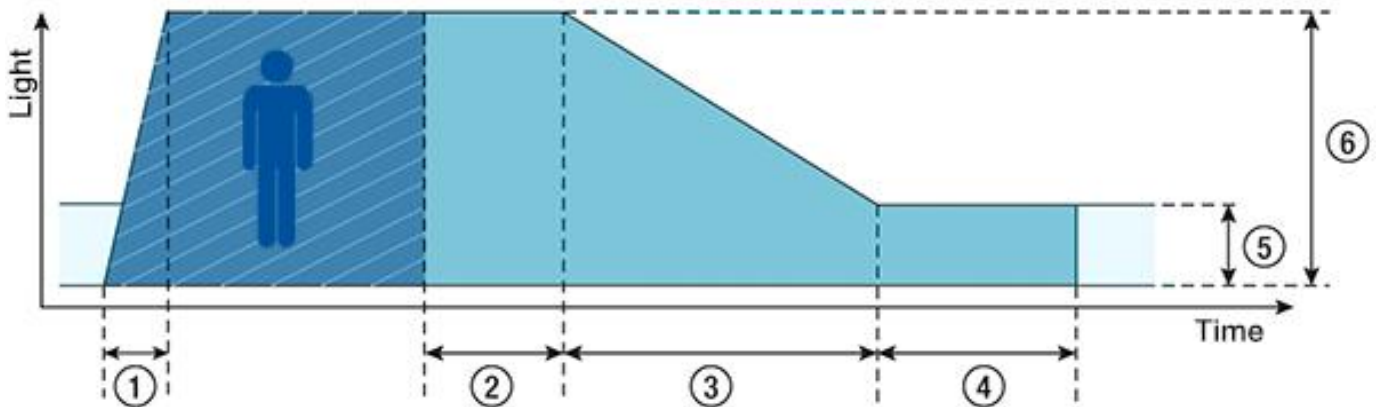
- ◆ ①**Fade-in time(0.5s):** the time that starts as soon as the presence of a person is detected. During the fade-in time the luminous intensity is faded up to the presence value.

- ◆ 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

Output Voltage(VDC) vs Output Current(mA)
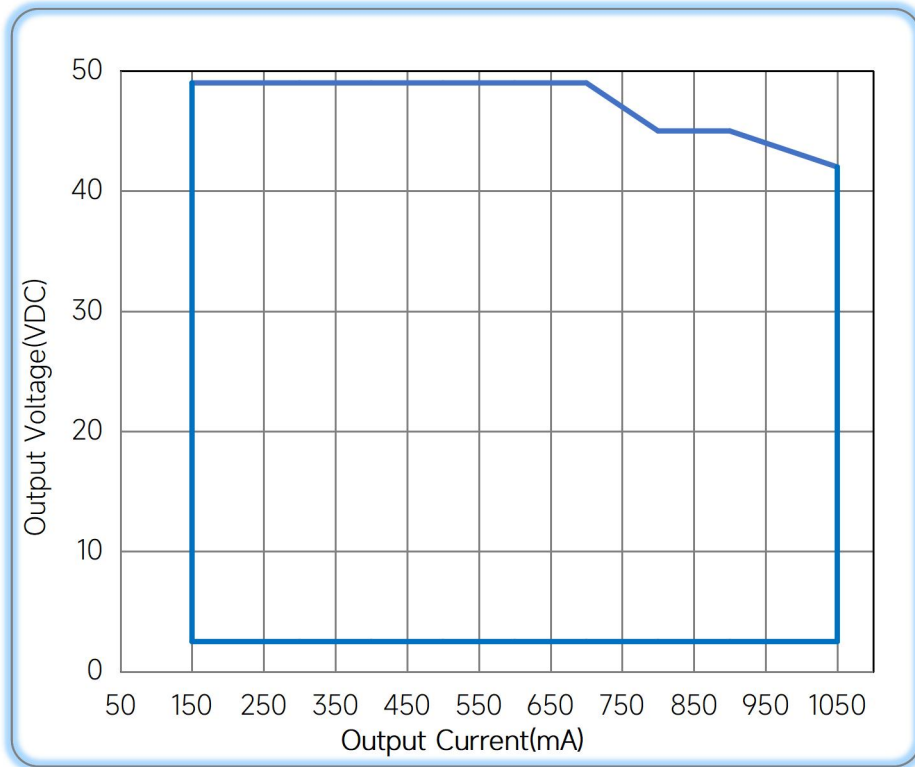
——— Operating Window 100%　　- - - Minimum dimming current

◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2023/06/30
Specification		Update	B	2023/10/14

Remark:The final interpretation of the contents of the specification belongs to Eaglerise Electric & Electronic (China) Co., Ltd.

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