

## 40W DALI+PUSH Dimming power supply



### Features

- Class II, SELV, independent
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor: >0.95
- Efficiency: 87%
- Support DALI-2, Push Dimming
- 5 years warranty

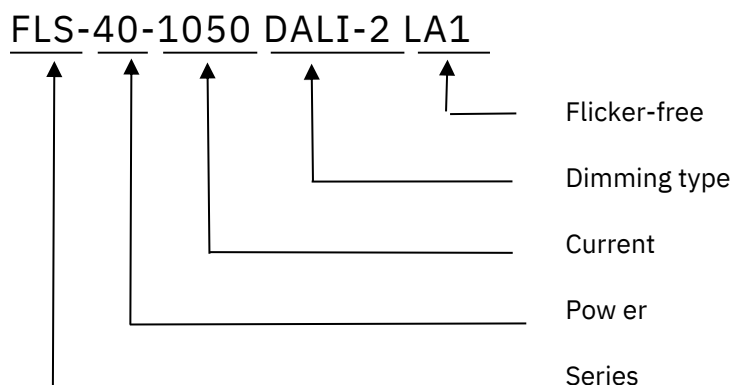
### Applications

- LED panel, down light

### Description

FLS-40-1050 DALI-2 LA1 is a 40W constant current LED driver with 700 to 1050mA output current and a forward voltage range from 9 to 52Vdc. The output current is adjustable by DIP Switch. With its dimensions from 187 x 45 x 30.5mm 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)	700	750	800	850	900	950	1000	1050
	Voltage Range (VDC)	9-52			9-49		9-46	9-44	9-42
	Unload voltage Max.	6 0VDC							
	Current Accuracy	±5%							
	Output HF current ripple(≥1KHz)	±10%							
	Output LF current ripple(≤120Hz)	±3%							
	SVM	≤0.4							
	Pst	≤1							
	Efficiency(Typ.)	87%@Full load							
Input	Rated input voltage	220-240VAC							
	Range of input voltage	198-264VAC							
	Range input voltage(DC)	198-280VDC							
	Frequency(Hz)	0/50/60 Hz							
	Displacement factor	≥0.9							
	Power Factor	>0.95@Full load							
	Input Current	0.34A							
	Start-up time	<0.7S							
	No Load Power	≤0.5W							
	Standby Power	≤0.5W							
	Network standby power	≤0.5W							
	THD (Typ.)	<10%@Full load							
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%							
	Over Voltage Protection	YES/Latch off							
	Short circuit Protection	>6 0VDC							
	Over Temperature Protection	YES/Latch off							
Environment	Operating Temperature	YES/Latch off							
	Humidity	YES/Auto Resume							
	Tc	- 20°C~+4 5°C							
	Storage Temperature	20%-90%RH							
	Lifetime	75°C							
Surface	Dimension	>50000h,@Tc=75°C							
		187X45X30.5(LXWXH)mm							

s standards	EN 61347- EN61347-2-13; EN62384; EN55015; EN61000-3-2 ; EN61000-3-3; EN 61547;		
Others	1; 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.		

## Parameter

Number	Output	Switch position		
	Current(mA)	1	2	3 -
1	700	--	--	---
2	750	ON	--	--
3	800	--	ON	--
4	850	ON	ON	ON
5	900	--	--	ON
6	950	ON	--	ON
7	1000	--	ON	ON
8*	1050	ON	ON	

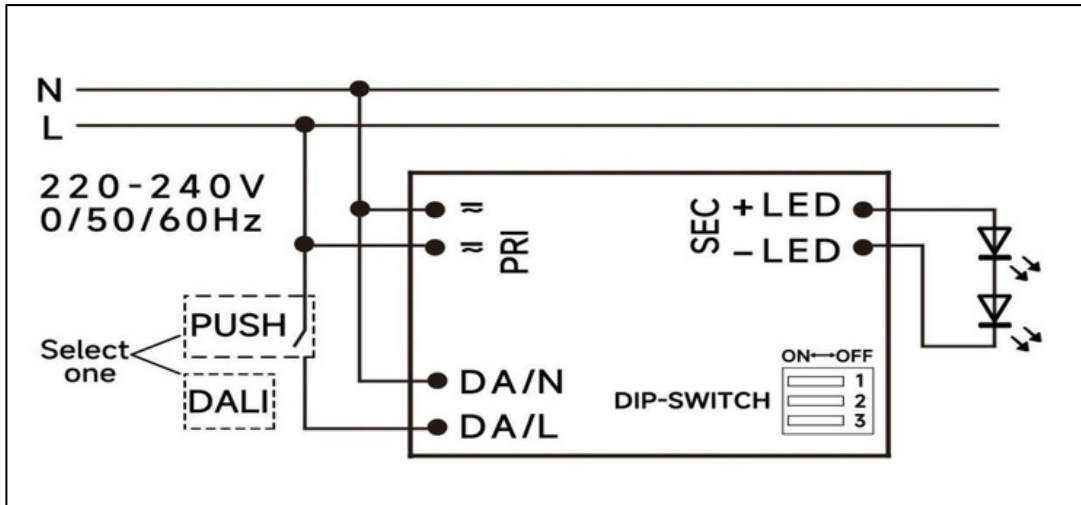
\* Factory default

## Circuit Breaker

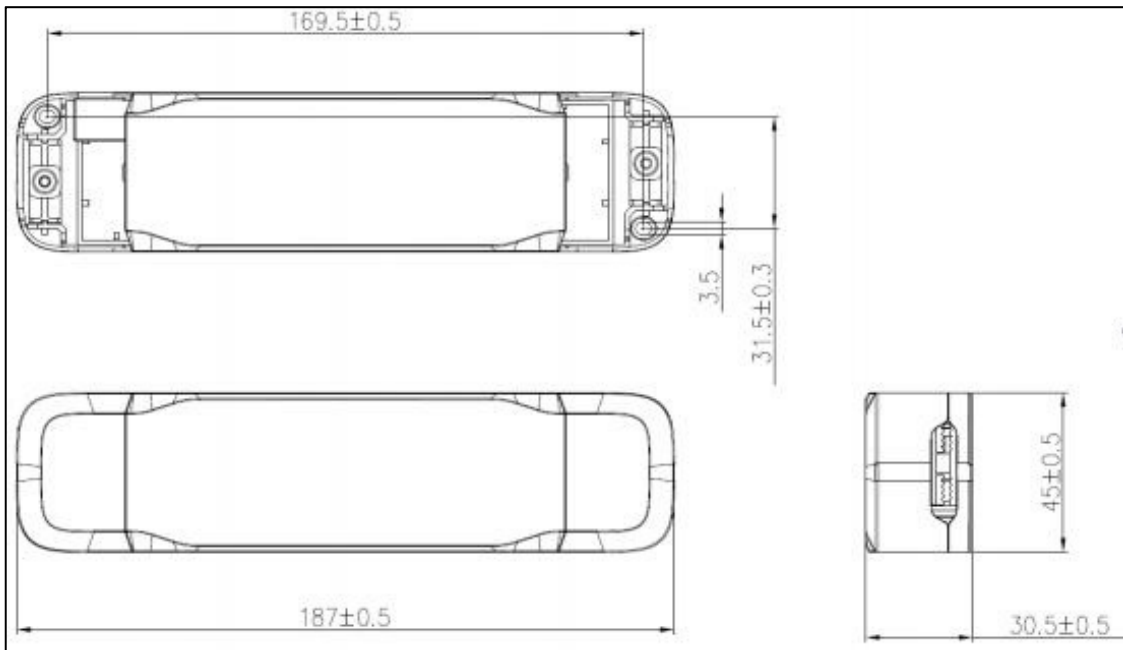
Ipeak	Tw idth	B10	B16	B20	C10	C16	C20
5.76A	62.4 μ s	23pcs	37pcs	47pcs	23pcs	37pcs	47pc

s

### Wiring diagram



### 2D diagram

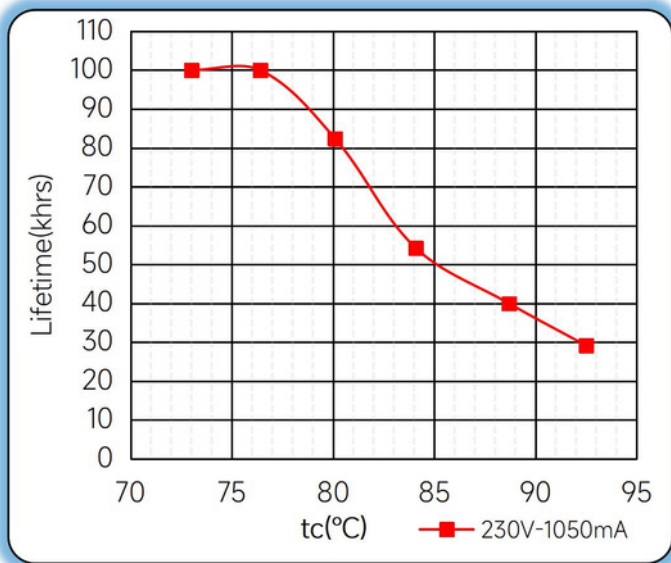


### Wiring & Connections

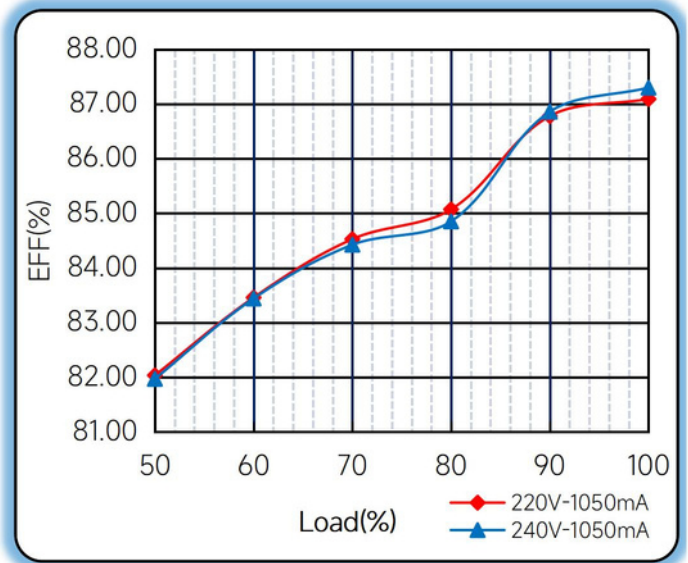
Specification item		Value (Unit)
Input	Input wire cross-section	0.5...1.5 mm <sup>2</sup>
	Input wire gauge.	16...20 AWG
	Input wire strip length	8...9mm
Output	Output wire cross-section	0.5...1.5 mm <sup>2</sup>
	Output wire gauge.	16...20 AWG
	Output wire strip length	8...9mm

**Curve for FLS-40-1050 DALI-2 LA1, I<sub>o</sub>=1050mA**

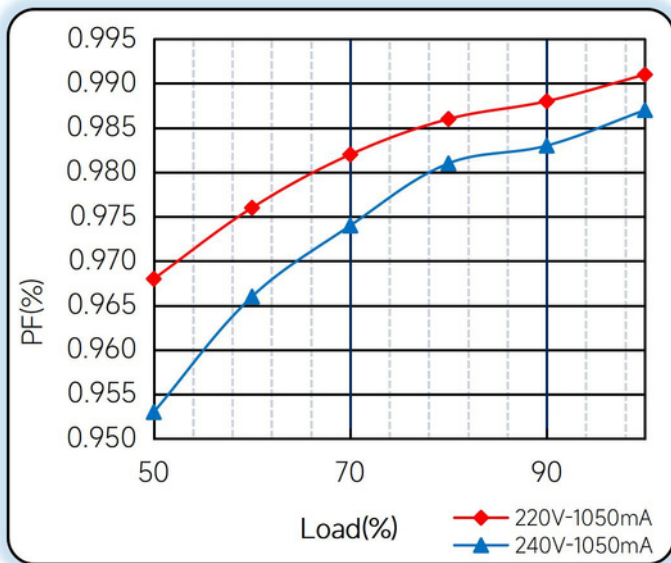
Lifetime vs. Temperature Curve



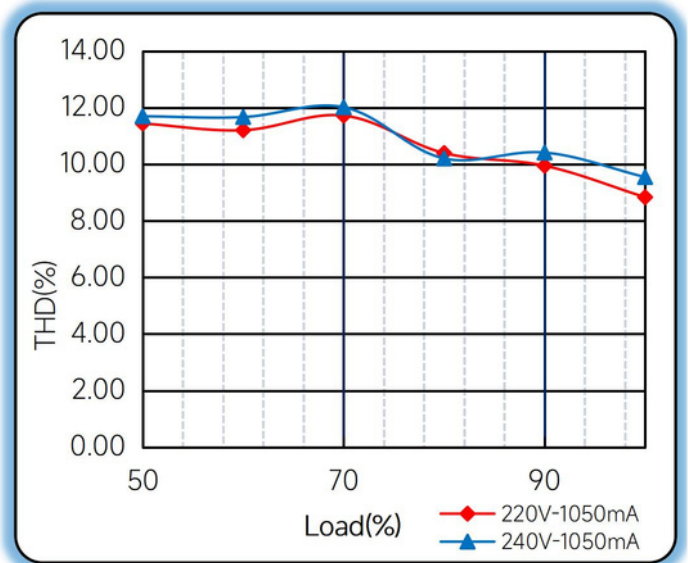
Efficiency vs. Load



Power Factor Characteristics



THD vs. Load



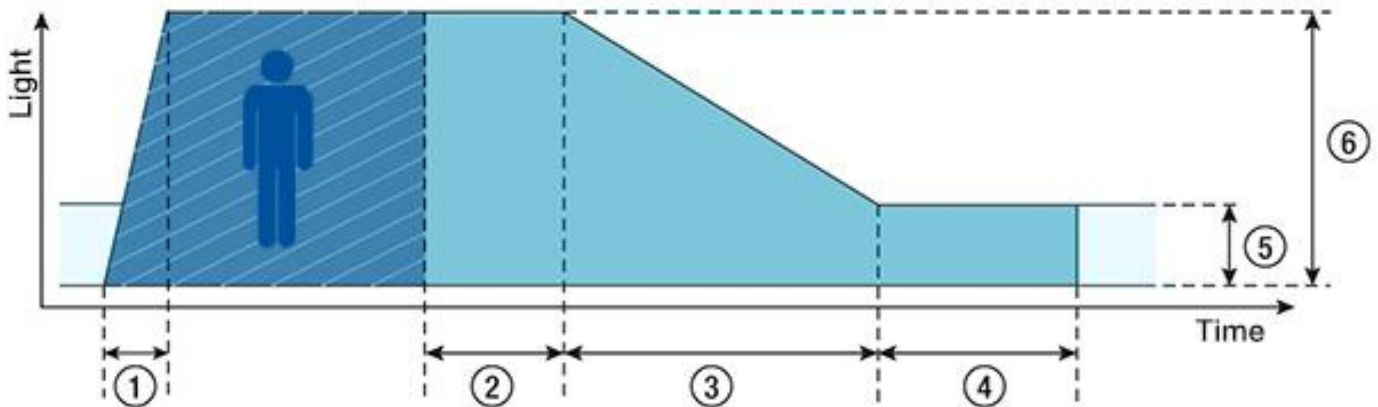
## Push dimming operation

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	<0.5s	Quit Corridor mode
Long push	0.5-14s	Dimming up or down
Long push	15s-2mins	Syncall LED stobe 100% brightness
Long push	>2mins	Enter Corridor mode - LED keep 100% brightness for 2mins. Then brightness will turn to be10% within 32s if no action during 2mins 100% brightness.

Note:

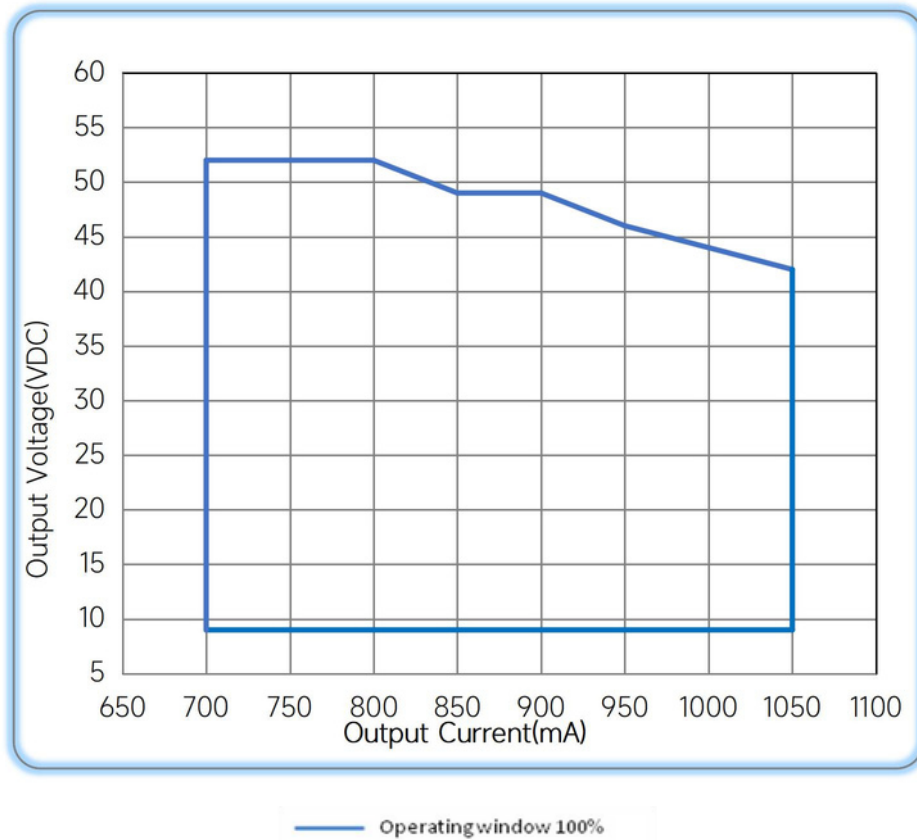
- 1.The factory default brightness is at 100%.
- 2.Up to 30 drivers can perform the PUSH dimming at the same time when utilizing one common push button.
- 3.The maximum length of the cable from the push button to the last driver is 200 meters.

## Corridor mode



- 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.
- 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.
- Fade time(32s): the time during which the luminous intensity is faded from the presence value to the absence value.
- 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.
- Absence value(default: 10 %): the luminous intensity when there is no person present.
- 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
Start-up time	0.6S	0.7S	A	2022/08/12