

# 44W DALI DT8+ PUSH Dimming power supply



#### **Features**

- For luminaries of protection Class I, II
- SELV, Built-in
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor: 0.95
- Efficiency: 86%
- Support DALI-2, Push Dimming
- 5 years warranty

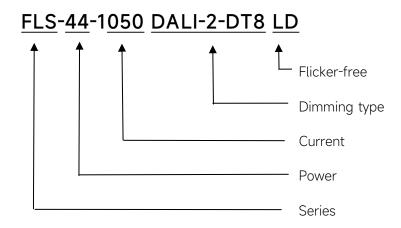
#### **Applications**

LED panel Down light

### **♦** Description

FLS-44-1050 DALI-2-DT8 LD is a 44W constant current LED driver with 700 to 1050mA output current and a forward voltage range from 9 to 42Vdc. 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 and down light products. To ensure trouble-free operation, protection is provided against output short circuit and over Load.

### **♦** Model code





# FLS-44-1050 DALI-2-DT8 LD

# **♦** Specification

Output	Constant Current	700mA 750mA 800mA 850mA 900mA 950mA 1000mA 1050mA					
	Voltage Range	9-42VDC					
	Unload voltage Max.	60VDC					
	Current Accuracy	±5%					
	Output HF current ripple(>1KHz)	±5%					
	Output LF current ripple(≤120Hz)	±5%					
	SVM	≤0.01@Full Load					
	P <sub>st</sub>	≤0.05@Full Load					
	Efficiency(Typ.)	86%@Full Load, 240VAC					
	Rated input voltage	220-240VAC					
	Range of input voltage	176-264VAC					
	Rated input voltage(DC)	176-280VDC					
	Frequency(Hz)	0/50/60 Hz					
	Displacement factor	>0.9@Full load, 240VAC					
l	Power Factor	0.95@220-240VAC, full load					
Input	Input Current max	0.34A MAX. @Full Load,176VAC					
	Start-up time	<0.5 S					
	No Load Power	<0.5W					
	Standby Power	≤0.5W					
	Network standby power	<0.5W					
	THD (Typ.)	10% Typ. @Full Load, 240VAC, Io=1050mA					
	Dimming	YES					
Dimming	Dimming mode	DALI-2 IEC 62386-101,102,207,209 & Push					
Diffiffing	Dimming depth	1%					
	Dimming current range	1 ~100%					
	Over Load Protection	103-120% @lo=1050mA					
	Over Load Protection	YES/Auto resume(When there is dimming command input)					
Protection	Ourse Valtage Dustration	>60VDC					
Protection	Over Voltage Protection	YES/Auto resume(When there is dimming command input)					
	Short circuit Protection	YES/Auto resume(When there is dimming command input)					
	Over Temperature Protection	YES/Auto Resume					
	Operating Temperature	-20°C~+50°C					
	Humidity	20%~90%RH					
Environment	Тс	90℃					
	Storage Temperature	-25°C~+60°C					
	Life time	> 50000h@Tc=80°C,230VAC Full Load, 230VAC					
Surface	Dimension	110X74X30(LXWXH)mm /With side caps :160X74X30(LXWXH)mm					



# FLS-44-1050 DALI-2-DT8 LD

standards	EN 61347-1; EN61347-2-13; EN62384; EN55015; EN61000-3-2 ; EN61000-3-3; EN 61547;			
Othors	ErP	EU 2019/2020		
Others	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.  4.Data are typical values obtained from test samples.  5.Switch and dimmer are not recommended to connect between this product output and luminaries.			

### **◆** Parameter

	Output	Switch position			
Number	Current(mA) I1+I2	1	2	3	
1	700				
2	750	ON			
3	800		ON		
4	850	ON	ON		
5	900			ON	
6	950	ON		ON	
7	1000		ON	ON	
*8	1050	ON	ON	ON	

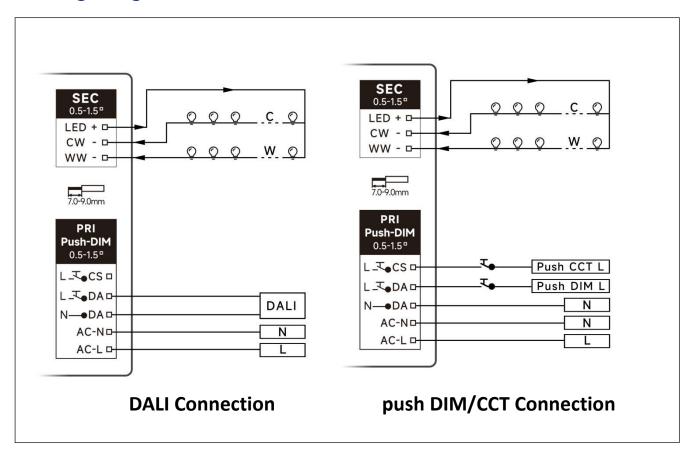
<sup>\*</sup> Factory default

## **♦ Circuit Breaker**

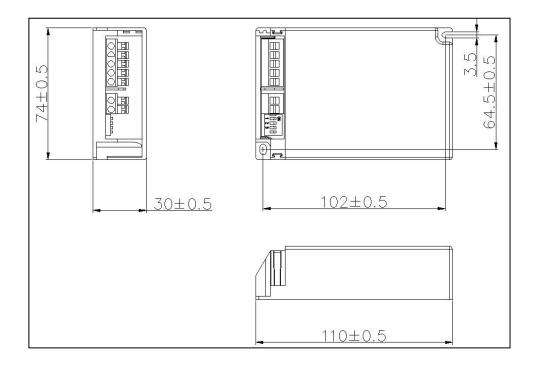
Ipeak	Twidth	B10	B16	B20	C10	C16	C20
8.84A	<b>37.42μ</b> s	22pcs	32pcs	38pcs	27pcs	41pcs	47pcs



## **♦** Wiring diagram

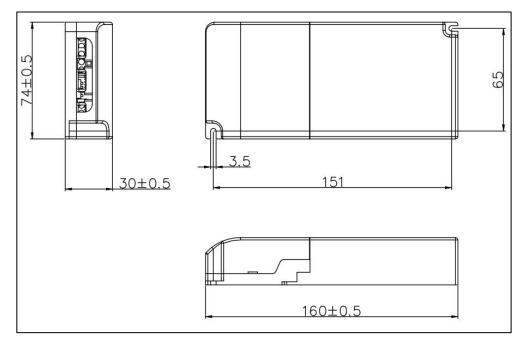


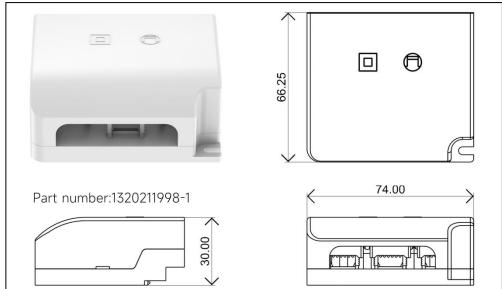
# **♦ 2D diagram**





### With side caps





# **♦ Wiring & Connections**

Specification item		Value (Unit )	
	Input wire cross-section	0.51.5 mm <sup>2</sup>	
Input	Input wire gauge.	1620 AWG	
	Input wire strip length	79mm	
	Output wire cross-section	0.51.5 mm <sup>2</sup>	
Output	Output wire gauge.	1620 AWG	
	Output wire strip length	79mm	

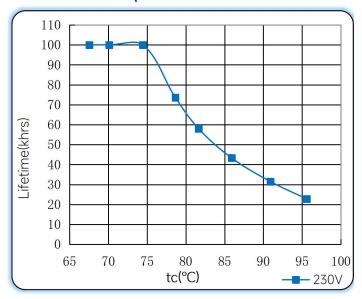
Stock code: 002922 5/9



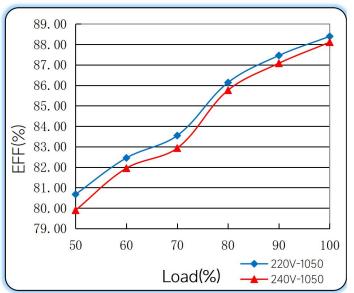


### ◆ Curve for FLS-44-1050 DALI-2-DT8 LD, Io=1050mA

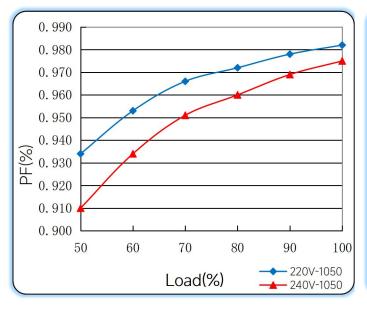
#### Lifetime vs. Temperature Curve



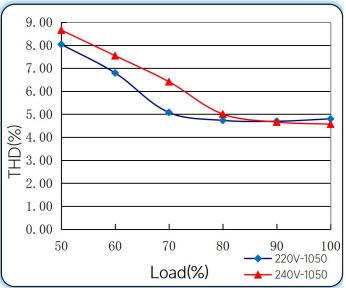
Efficiency vs. Load



**Power Factor Characteristics** 



THD vs. Load



Stock code: 002922 6/9



## **♦ Push dimming operation**

movement	Current state	Brightness key operation	Color temperature button operation
Short press (50ms <push<500ms)< td=""><td>ON</td><td>Turn off the light</td><td>Turn off the light</td></push<500ms)<>	ON	Turn off the light	Turn off the light
Short press (50ms <push<500ms)< td=""><td>Off</td><td>Turn on the light to restore the brightness before OFF, if there is a memory brightness, restore the brightness of the memory</td><td>Turn on the light to restore the brightness before OFF, and restore the brightness of the memory if there is memory brightness</td></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	to the brightest indicates entering the corridor	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	to the brightest indicates entering the corridor mode, if there is a 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

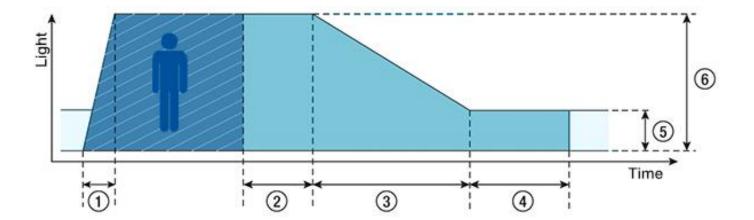
#### **Attention:**

- 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.

Stock code: 002922 7/9



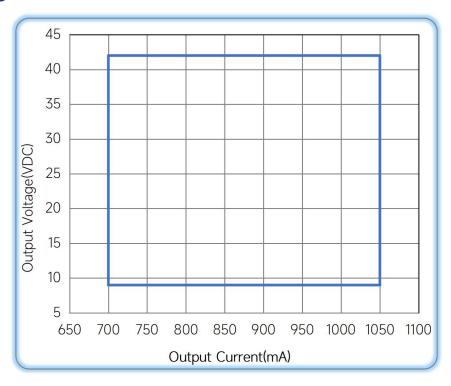
### **◆** Corridor mode



- ◆ 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.
- **(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.
- SAbsence 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**



Operating window 100%

## **Revision Updates**

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			А	2022/05/15
Push dimming operation		Added	В	2023/06/27

Tel: +86-0757-86256822, +86-0757-86256831

E-mail: sales@eaglerise.com

Website: https://lighting.eaglerise.com





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Manual

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