

44W Constant Current DALI-FLS Series

FLS-44-1050 DALI2-DT8 LD

■Approve

SELV CE

■Features

- Class II, SELV, built-in
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor >0.95
- Efficiency ≥86%
- Support DALI II, Push Dimming
- 5 years warranty

■Applications(Typ.)

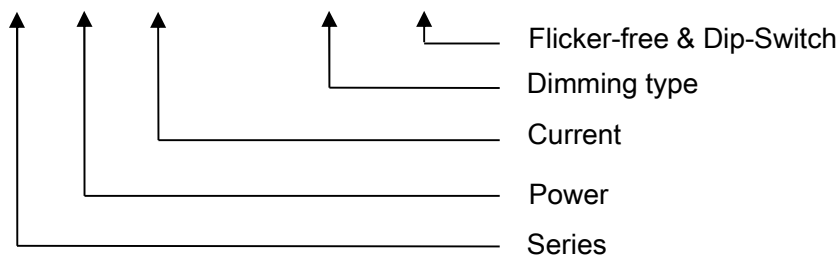
- LED panel
- Spot light
- Down light

■Description

FLS-44-1050 DALI2-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 selectable 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

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■ Specification

Input	Rated input voltage	220-240VAC
	Range of input voltage	176-264VAC
	Rated input voltage(DC)	198-245V
	Range of input voltage(DC)	176-280V
	Frequency(Hz)	0/50/60 Hz
	Displacement factor	≥0.9@Full load, 240VAC
	Power Factor	> 0.95@220-240VAC, full load
	Input Current max	0.34A MAX. @Full Load,176VAC
	Start-up time	< 1S
	Unload Power Consumption	≤0.5W@DALI OFF
	Inrush Current	30A Max.
	THD	10% Typ. @Full Load, 240VAC , Io=1050mA
	Leakage Current	< 0.7mA(240VAC)
Output	Constant Current	700/.../1050mA
	Unload voltage Max.	60 VDC
	Voltage Range(VDC)	9-42VDC
	Rated power	44.1W Max.
	Current Accuracy	±5% @220-240VAC, Io>750mA
	Voltage Regulation	±5% @220-240VAC, full load
	Load Regulation	±5% @220-240VAC
	Hold-up Time	1s max.@Full Load
	Output HF current ripple *Note.2	≤±20% @Full Load,240VAC
	Output LF current ripple(<120Hz)	≤±3% @Full Load,240VAC
	Efficiency(Typ.)	≥86%@Full Load(单色温满载) , Io=1050mA,240VAC,Ta=25°C
	P _{st}	≤1@Full Load
	SVM	≤0.4@Full Load
	Standby Power	≤0.5W
	Networked standby power	≤0.5W
	Minimum energy efficiency	≥84%
Dimming	Dimmable	YES
	Dimming mode	DALI II, Push
	Dimming current range	1%~100%
Protection	Over Load Protection	103-120% @Io=1050mA Protection type: Auto resume(When there is dimming command input)
	Over Voltage Protection	> 60VDC Protection type: Auto resume(When there is dimming command input)
	Short circuit Protection	Protection type: Auto resume(When there is dimming command input)
	Over Temperature protection	Protection type: Auto Resume
Environment	Operating Temperature	-20°C...+50°C
	t _c	90°C
	Storage Temperature	-25°C...+60°C
	Life time	> 50,000h@50°C
	Humidity	20%-90%RH
Others	Dimension	110X74X30(LXWXH)mm
	Weight	0.182kg/PC
Safety &	Safety standards	EN 61347-1; EN61347-2-13; EN62384

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EMC	Withstand voltage	Input-Output : 3750V/5mA/1min
	Isolation resistance	Input-Output : $\geq 4M\Omega$ @500VDC
	EMI	EN55015; EN61000-3-2 Class C; EN61000-3-3
	EMS	EN 61547; EN 61000-4-2; EN 61000-4-5 —1000V;
Note	1.All parameters NOT specially mentioned are measured at 240VAC 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.	

■Adjustable Output Current with dip-switch

Vo	Po	I1+I2	3	2	1
9-42VDC	29.4W	700mA	--	--	--
9-42VDC	31.5W	750mA	--	--	ON
9-42VDC	33.6W	800mA	--	ON	--
9-42VDC	35.7W	850mA	--	ON	ON
9-42VDC	37.8W	900mA	ON	--	--
9-42VDC	39.9W	950mA	ON	--	ON
9-42VDC	42.0W	1000mA	ON	ON	--
9-42VDC	44.1W	1050mA	ON	ON	ON

*Factory default

■Push dimming operation

Action	Action duration	LED status	Fuction	
			Brightness button	Color temperature button
Short push one time	<0.5s	On	Turn off LED	Turn off LED
		Off	Turn on LED at last brightness and color temperature level or saved brightness and color temperature level if already saved.	Turn on LED at last brightness and color temperature level or saved brightness and color temperature level if already saved.
Short push twice	<0.5s	On	Save current brightness and color temperature level. LED flash twice(Max-Min-Max-Min) indicate that driver saved the level successfully.	Save current brightness and color temperature level. LED flash twice(Max-Min-Max-Min) indicate that driver saved the level successfully.
		Off	Delete saved level and dim the brightness and color temperature to be factory default value-100% brightness and (neutral)4000K color temperature.	Delete saved level and dim the brightness and color temperature to be factory default value-100% brightness and (neutral) 4000K color temperature.
Long push	0.5s-15s	On	Dimming brightness up or down. Every long push changes the dimming direction	Dimming color temperature cool or warm. Every long push changes the dimming direction
		Off	Turn on LED and dim brightness from min. to max.	Turn on LED at min. brightness level and dim color temperature from cool(6500K) to warm(2700K).

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Long push	>120s	On & off	Enter Corridor mode — LED keep max. brightness for 2mins. The brightness will turn to be 10% within 32s if no action during 2mins max. brightness. Color temperature is at last off level or turn to be saved level if already saved	Enter Corridor mode — LED keep max. brightness for 2mins. The brightness will turn to be 10% within 32s if no action during 2mins max. brightness. Color temperature is at last off level or turn to be saved level if already saved
Short push five times	<3s	Corridor mode	Quit Corridor mode	Quit Corridor mode

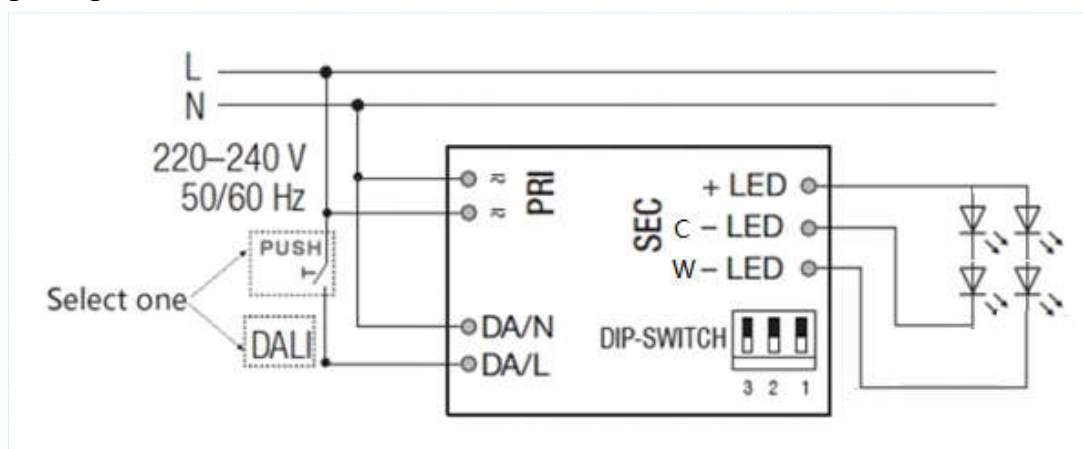
Note:

1. The factory default brightness is 100%,color temperature is 4000K
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.
4. Sync: Long push to ensure all LEDs to be on and then short push one time to turn off. Then Long push Color temperature button to sync all LEDs.

■Ordering data

Type	Pcs/Ctn	G.W.(KG/Ctn)	N.W.(KG/Ctn)	Dimension /Ctn (mm)
FLS-44-1050 DALI2-DT8 LD	20	4.1	3.64	110*74*30

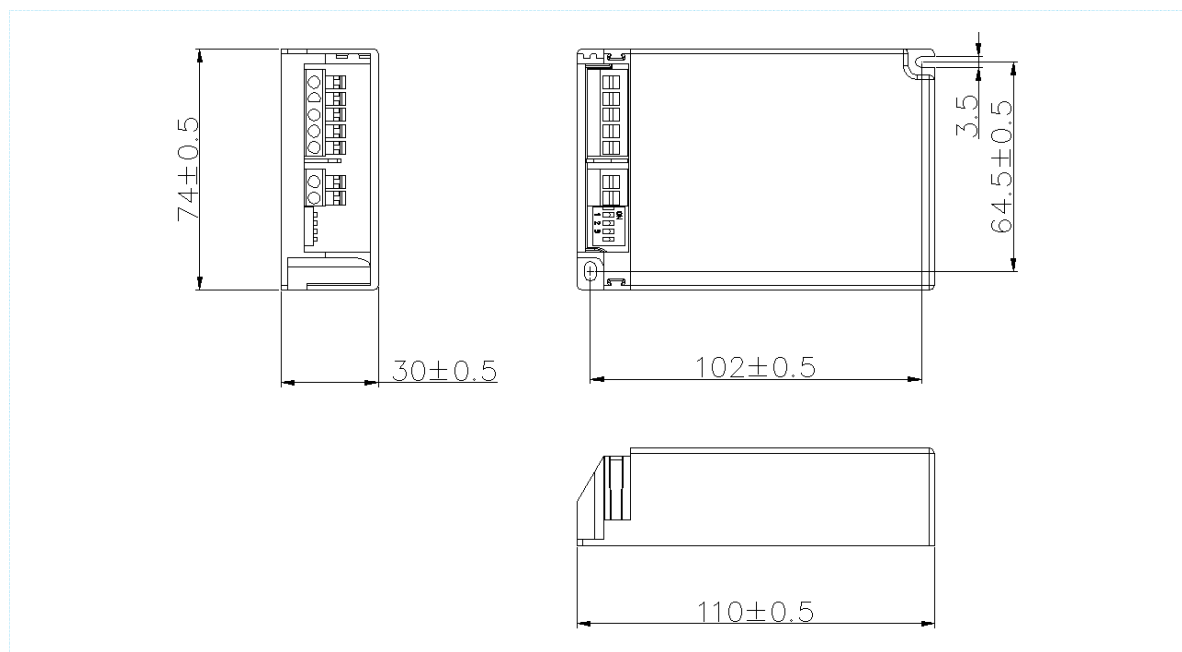
■Wiring diagram



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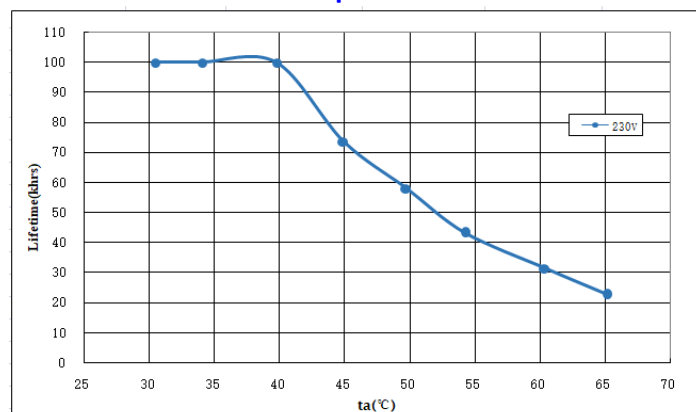
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■2D diagram

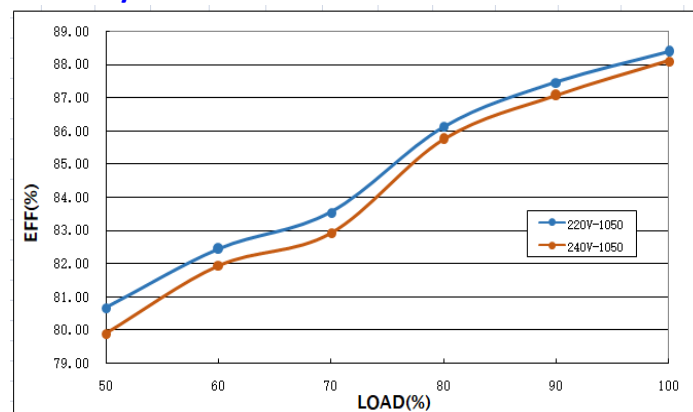


■Curve for FLS-44-1050 DALI2-DT8 LD , $I_o=1050\text{mA}$

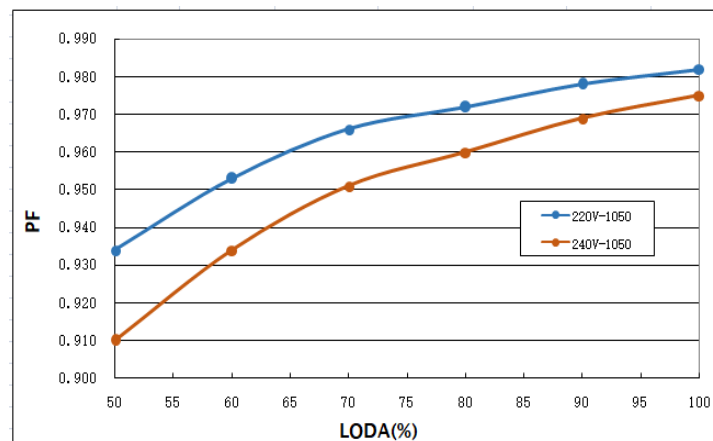
Lifetime vs. Ambient Temperature Curve



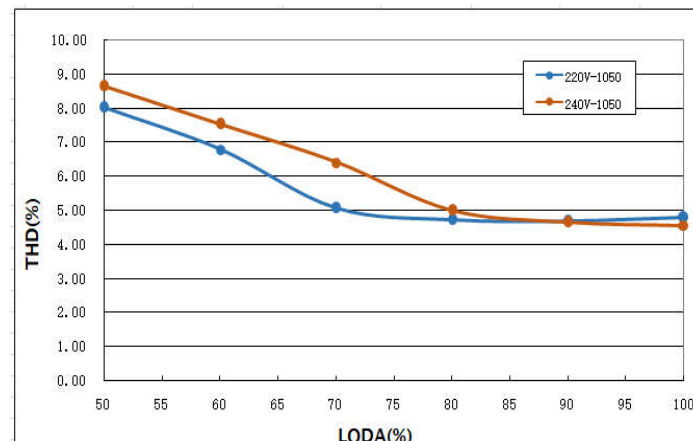
Efficiency vs. Load



Power Factor Characteristics



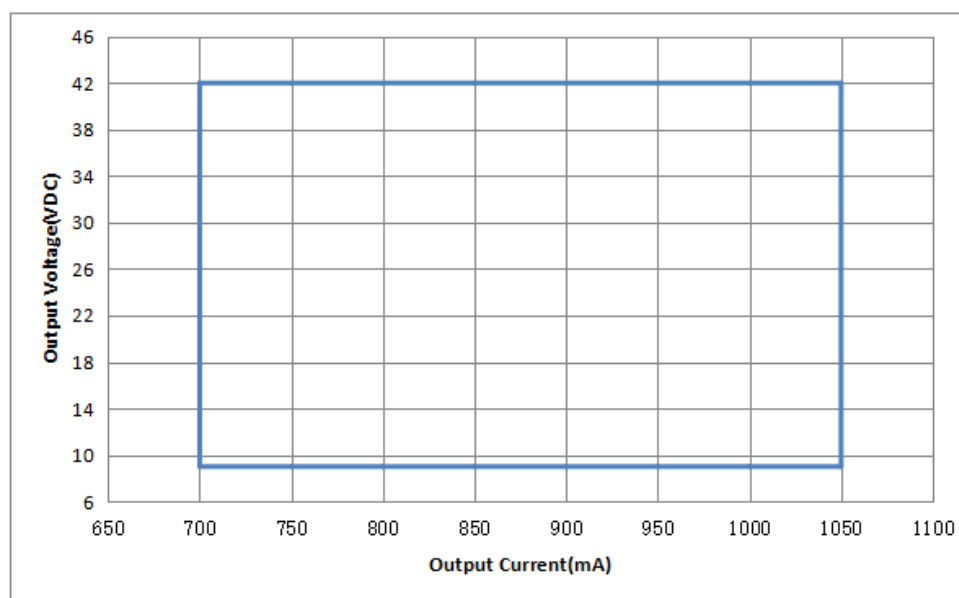
THD vs. Load



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■Operating window



— Operating window 100%