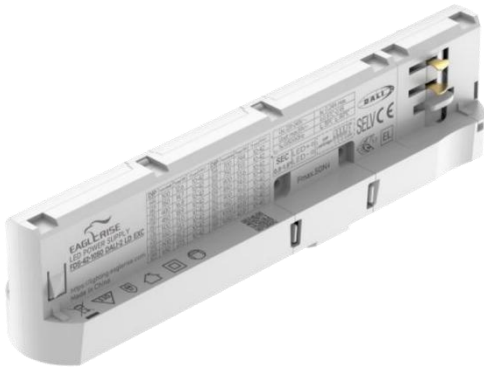


42W Constant Current in-track driver



■ Approve

CE CB SELV

Features

- For luminaries of protection Class II, SELV
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OTP
- Power Factor: 0.95
- Efficiency: 88%
- Support DALI-2
- Adjustable Output Current with dip-switch
- EOFI=15%
- 5 years warranty

Applications

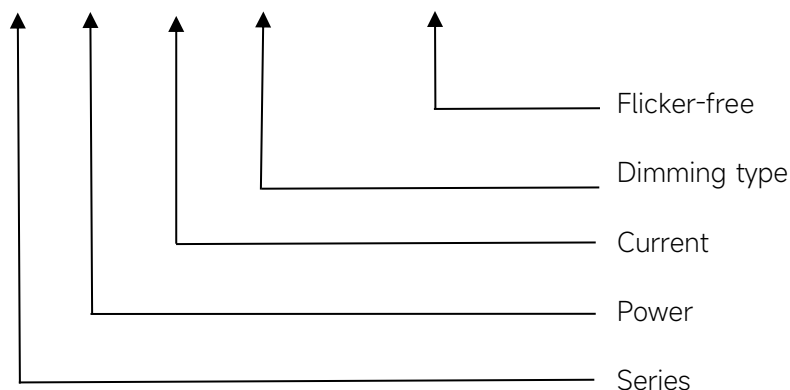
- Track Spot light

◆ Description

FDS-42-1050 DALI-2 LD EXC is a 42W constant current LED driver that operates from 198-264Vac input with 300 to 1050mA output current and a forward voltage range from 10 to 42Vdc. The output current is adjustable by DIP Switch. With it 's compact dimensions from 178x31.1x42.2mm. It is easy to integrate in track spot light products. To ensure trouble-free operation, protection is provided against output short circuit and over Load.

◆ Model code

FDS-42-1050 DALI-2 LD EXC



◆ Specification

Output	Constant Current	300mA	350mA	...	1050mA
	Voltage Range(VDC)	10-42VDC			10-40VDC
	Unload voltage Max.	59VDC			
	Current Accuracy	±5%			
	Output HF current ripple(≥1KHz)	±5%			
	Output LF current ripple(≤120Hz)	±3%			
	SVM	≤0.4			
	P _{st}	≤1			
	Efficiency(Typ.)	87% @550-1050mA			
	EOFI	15%			
Input	Rated input voltage	220-240V			
	Range of input voltage	198-264VAC			
	Range of DC input voltage	176-280VDC			
	Maximum voltage	300VAC@1 h maximum,unit might not operate in this abnormal condition			
	Frequency(Hz)	0/50/60 Hz			
	Displacement factor	≥0.9			
	Power Factor	≥0.95 @Full Load,230VAC			
	Input Current max	0.24A MAX. @Full Load,230VAC			
	Start-up time	< 0.8S			
	Standby Power	≤0.5W			
	THD (Typ.)	<15% @Full Load,230VAC			
Dimming	Dimming	YES			
	Dimming mode	DALI-2 (IEC 62386-101,102,207,251,252,253) &Push Dimming (Corridor Function)			
	Dimming depth	1%			
	Dimming current range	1~100%			
Protection	Over Load Protection	103-130%			
		YES/Auto Resume			
	No-load Protection	YES/Auto Resume			
capability	Short circuit Protection	YES/Auto Resume			
	Surge capability (L-N)	1KV			
	Surge capability (L/N-Ground)	NA			
Environment	Operating Temperature	-25°C~+35°C			
	Humidity	10%-90%RH			
	Tc	80°C			
	Storage Temperature	-25°C...+80°C			
	Life time	> 50000h@Tc=80°C			
	Noise	≤25dB(A)@20cm			

Surface	Dimension	178x31.1x42.2mm(LXWXH)mm
	material	PC
Standards	Safety	IEC61347- 1, IEC61347-2- 13;EN61347- 1, EN61347-2- 13;EN62384
	EMC	EN55015, EN61000-3-2, EN61000-3-3, EN61547;EN61000-4-5
	Energy Efficiency	Erp2.0 EU 2019/2020
	RoHS	RoHS (2011/65/EU) (EU)2015/863
DALI performance	EN 62386-101 (DALI-2) EN 62386-102 (DALI-2) EN 62386-207 (DALI-2,including part251,252,253)	
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.Switch and dimmer are not recommended to connect between this product output and luminaries. 5.The over-temperature protection of the product is provided by the IC. 6.The power supply can be briefly applied to DC. 7.All Eaglerise power supply are complied with EMI regulations. Since they are belong to component and will be installed inside system enclosure. When they are integrated into a system, the EMI characteristics of the system must be re-verified again.	

◆ Parameter

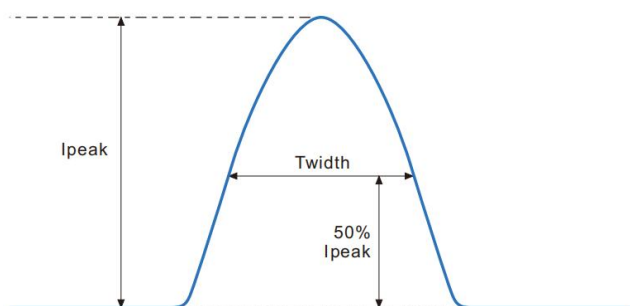
Number	Output			Switch position				
	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	1	2	3	4	Power (W)
1	300mA	10-42VDC	59V	--	--	--	--	4.2
2	350mA			--	--	--	ON	6.3
3	400mA			--	--	ON	--	8.4
4	450mA			--	--	ON	ON	10.5
5	500mA			--	ON	--	--	12.6
6	550mA			--	ON	--	ON	14.7
7	600mA			--	ON	ON	--	16.8
8	650mA			--	ON	ON	ON	18.9
9	700mA			ON	--	--	--	21.0
10	750mA			ON	--	--	ON	23.1
11	800mA			ON	--	ON	--	25.2

12	850mA	10-40VDC		ON	--	ON	ON	27.3
13	900mA			ON	ON	--	--	
14	950mA			ON	ON	--	ON	
15	1000mA			ON	ON	--	--	28.0
16*	1050mA			ON	ON	--	--	28.5

* Factory default

◆ Inrush Current

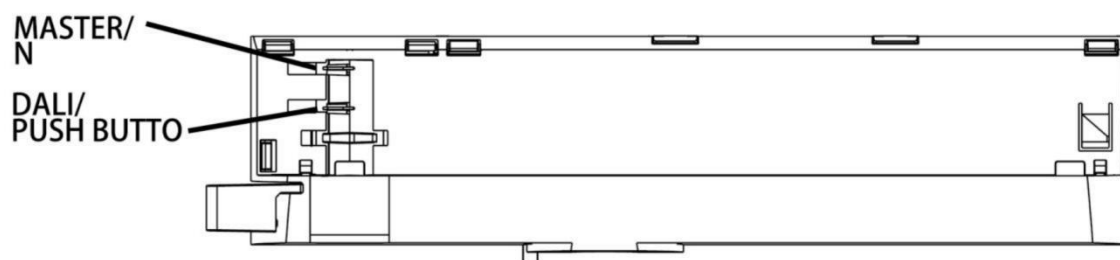
I _{peak}	T _{width}	B10	B16	B20	C10	C16	C20
9.5A	16μs	33pcs	53pcs	66pcs	53pcs	84pcs	105pcs



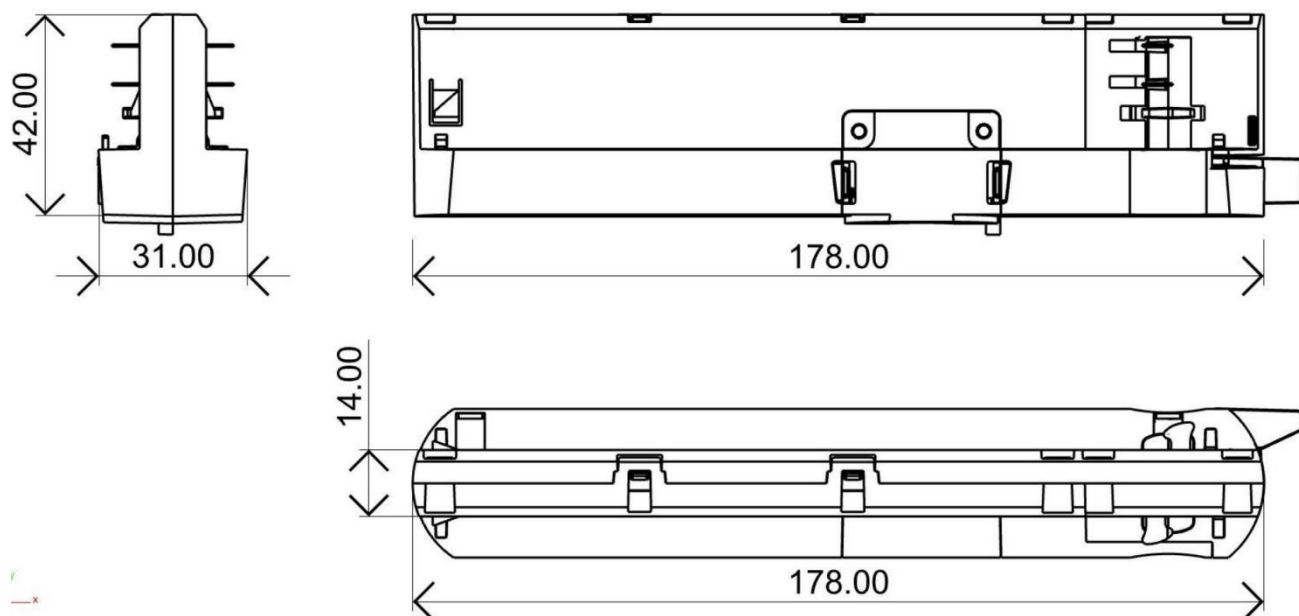
Remarks:

- 1.The number of drives mounted under different MCBs in the table is the maximum value. Please do not exceed this number during installation.
- 2.Different brands and models of miniature circuit breakers, the number of drives mounted will be slightly different.

◆ Wiring diagram



◆ 2D diagram



◆ Wiring & Connections

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

◆ Packaging

Mode	Product. Dimensions(mm)	weight/piece.	Outer carton dimension(mm)	Quantity/ carton	Net weight/ carton(Kg)	Gross weight/ carton(Kg)
FDS-42-1050 DALI-2 LD EXC	178*31.1*42.2mm	0.116	395*295*125mm	50	5.93	6.56

◆ Matching brand

Serial number	Serial number	Serial number	Serial number
1	Global	XTSC&XTSCF6	3P
2	Stucchi	9000XX Series	3P
3	Unipro	TC33B	3P
4	Eutrac	2510x	3P
5	Lvela	7501	3P
6	ERCO	ZUMTOBEL	3P

◆ Curve for FDS-42-1050 DALI-2 LD EXC, $I_o=1050\text{mA}$

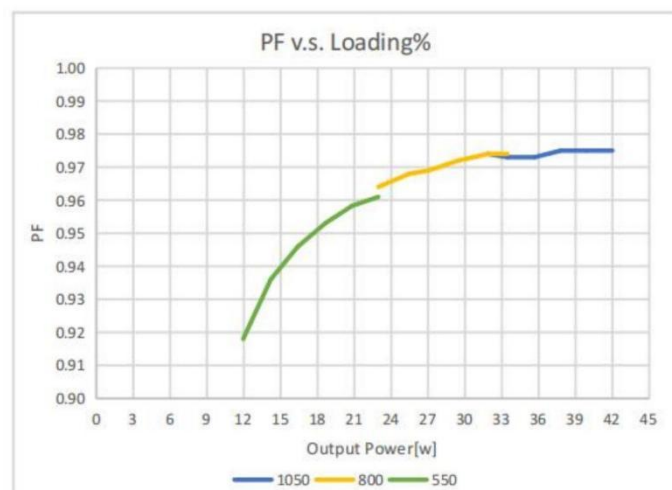
Lifetime vs. Temperature Curve



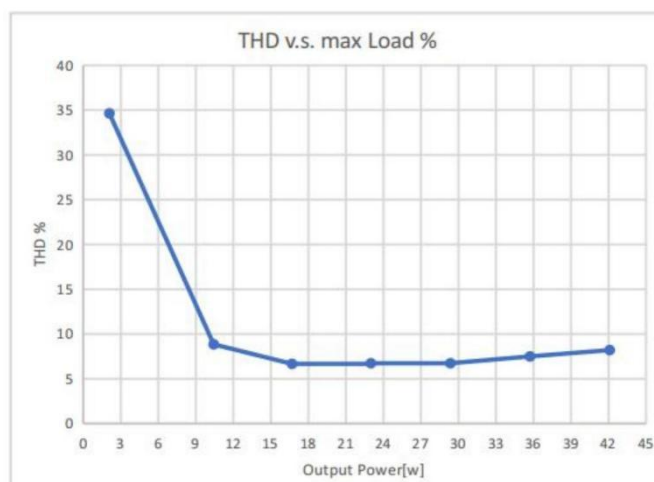
Efficiency vs. Load



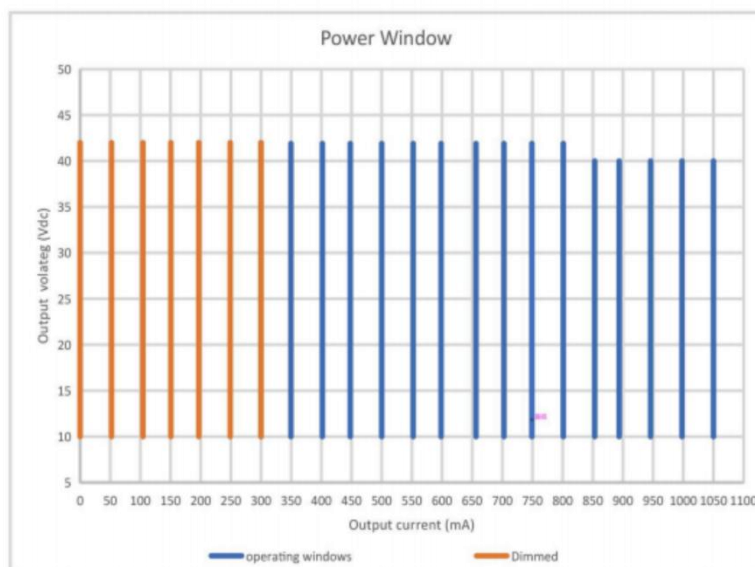
Power Factor Characteristics



THD vs. Load



◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2025/02/20

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

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

E-mail: sales@eaglerise.com

Website : <https://lighting.eaglerise.com>



EAGLERISE



Manual