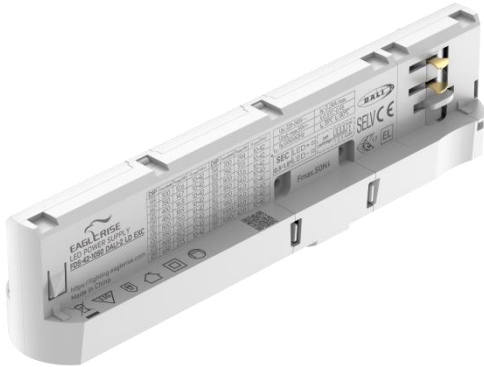


42W Constant Current in-track driver



■ Approve



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
- 4 Wires Single Circuit DALI Track System
- Adjustable Output Current with dip-switch
- 5 years warranty

Applications

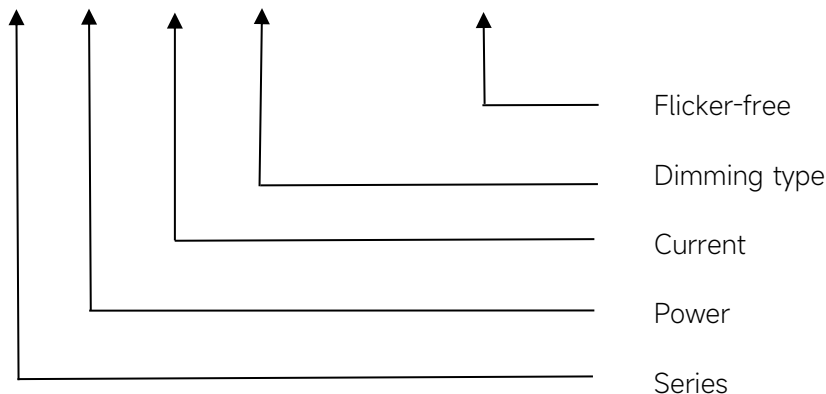
- Track Spot light

◆ 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.)	88%550-1050mA				
Input	Rated input voltage	220-240V				
	Range of input voltage	198-264VAC				
	Maximum voltage	300VAC@1 h maximum,unit might not operate in this abnormal condition				
	Frequency(Hz)	50/60 Hz				
	Displacement factor	≥0.9				
	Power Factor	≥0.95				
	Input Current max	0.24A MAX. @Full Load,230VAC				
	Start-up time	< 0.8S				
	No Load 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				
	Short circuit Protection					
	YES/Auto Resume					
capability	Surge capability (L-N)	1KV				
	Surge capability (L/N-Ground)	NA				
Environment	Operating Temperature	-25°C~+35°C				
	Humidity	10%-90%RH				
	T _c	80°C				
	Storage Temperature	-25°C...+80°C				
	Life time	> 50000h@T _c =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	<p>1.All parameters NOT specially mentioned are measured at 230VAC input , full load and 25°C of ambient temperature.</p> <p>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.</p> <p>3.The DC input for this product is only used for emergency lighting and applies to functional and safety requirements, EMC is not considered.</p> <p>4.Switch and dimmer are not recommended to connect between this product output and luminaries.</p> <p>5.The over-temperature protection of the product is provided by the IC.</p> <p>6.The power supply can be briefly applied to DC.</p> <p>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.</p>	

◆ Parameter

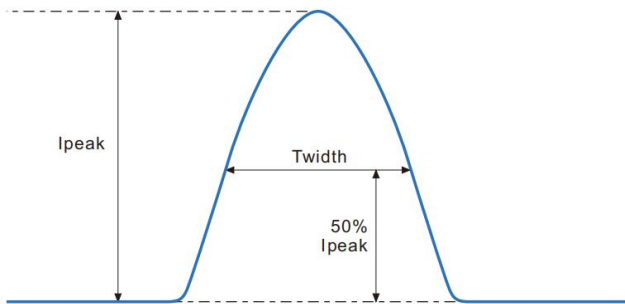
Number	Output				Switch position			
	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)	1	2	3	4
1	300mA	10-42VDC	59V	12.6	--	--	--	--
2	350mA			14.7	--	--	--	ON
3	400mA			16.8	--	--	ON	--
4	450mA			18.9	--	--	ON	ON
5	500mA			21	--	ON	--	--
6	550mA			23.1	--	ON	--	ON
7	600mA			25.2	--	ON	ON	--
8	650mA			27.3	--	ON	ON	ON
9	700mA			29.4	ON	--	--	--
10	750mA			31.5	ON	--	--	ON
11	800mA	33.6	ON	--	ON	--		
12	850mA	10-40VDC		34	ON	--	ON	ON
13	900mA			36	ON	ON	--	--
14	950mA			38	ON	ON	--	ON

15	1000mA			40	ON	ON	ON	--
*16	1050mA			42	ON	ON	ON	ON

* Factory default

◆ Inrush Current

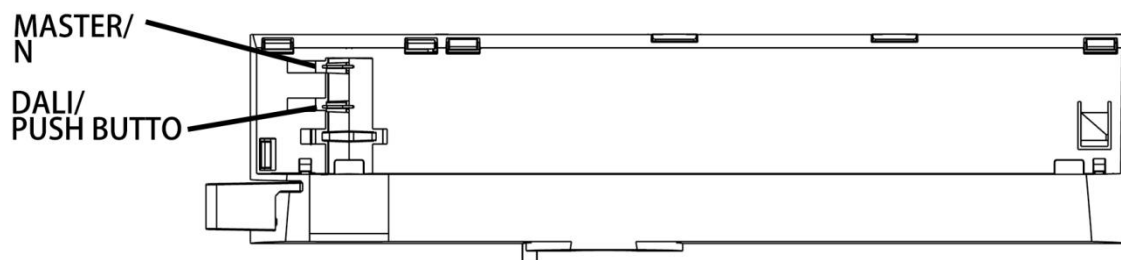
I_{peak}	Twidth	B10	B16	B20	C10	C16	C20
9.5A	16 μ s	33pcs	53pcs	66pcs	53pcs	84pcs	105pcs



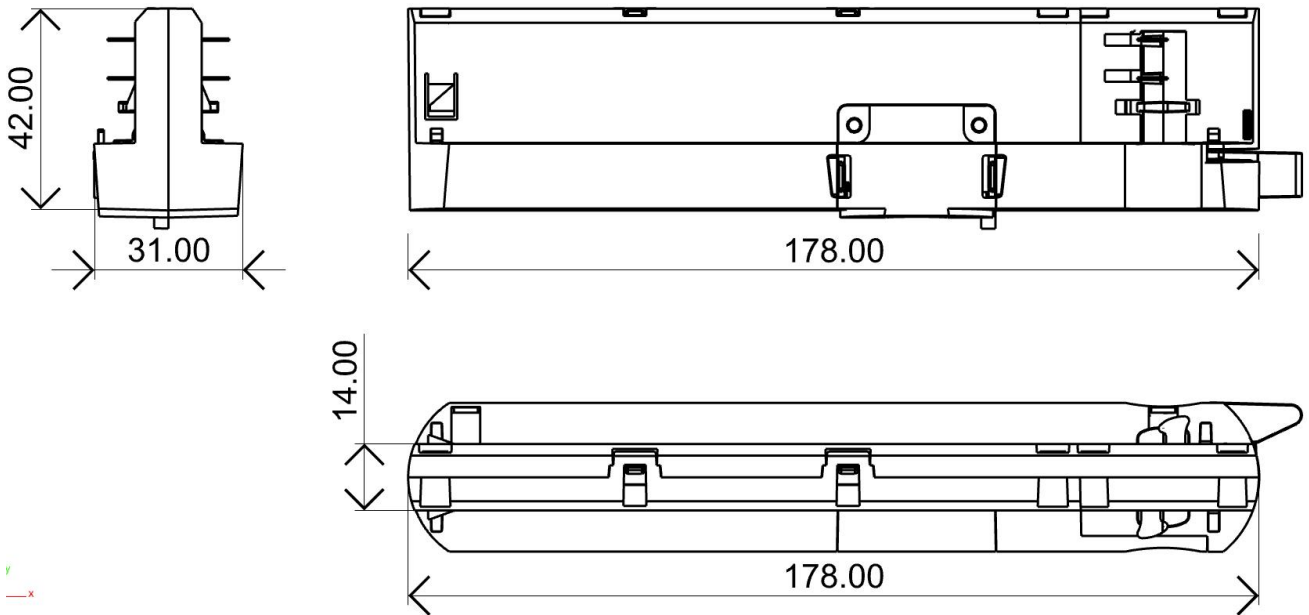
Remarks:

- 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**

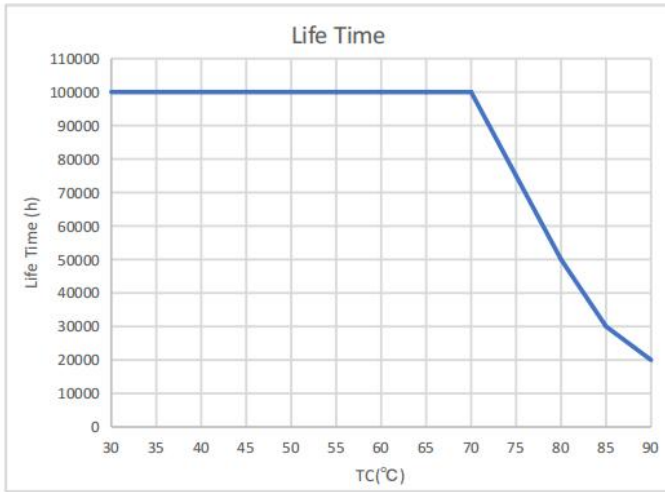
	Specification item	Value (Unit)
Output	Output wire cross-section	0.5...1.5 mm ²
	Output wire gauge.	16...20 AWG
	Output wire strip length	8...9mm

◆ Matching brand

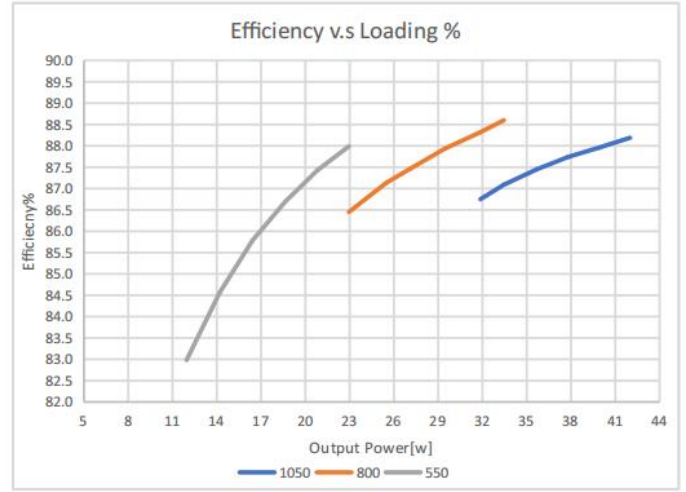
Serial number	Serial number	Serial number	Serial number
1	Global	XTSC&XTSCF6	3P
2	Stucchi	9000XX Series	3P
3	Unipro	TC33B	3P
4	Eutrac	2510x	3P
5	Lvela	7501	3P
6	ERCO	ZUMTOBEL	3P

◆ Curve for FDS-42-1050 DALI-2 LD EXC, $I_o=800mA$

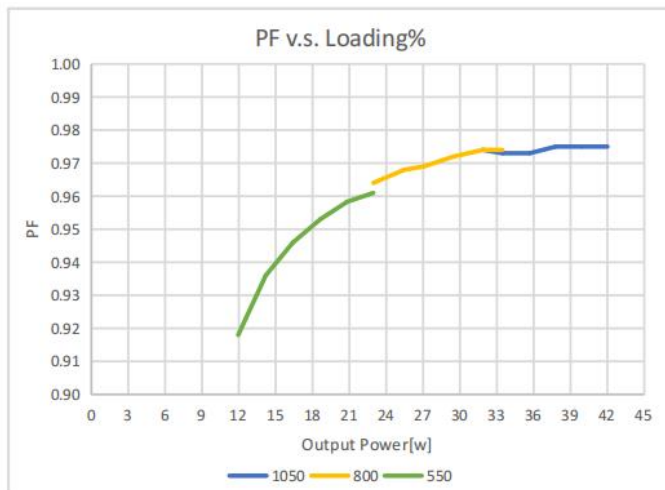
Lifetime vs. Temperature Curve



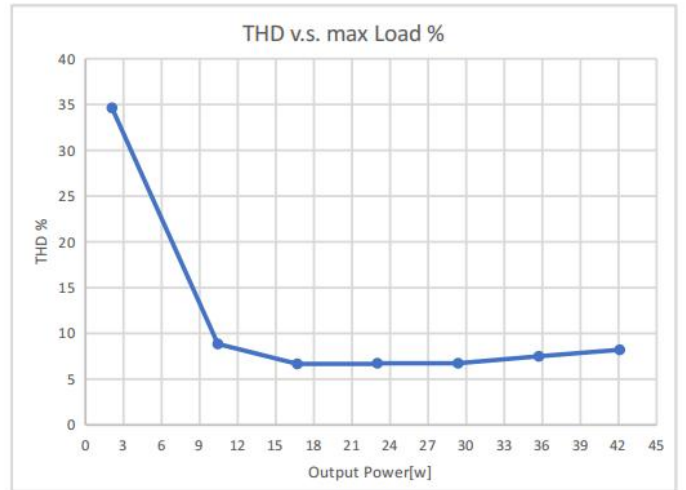
Efficiency vs. Load



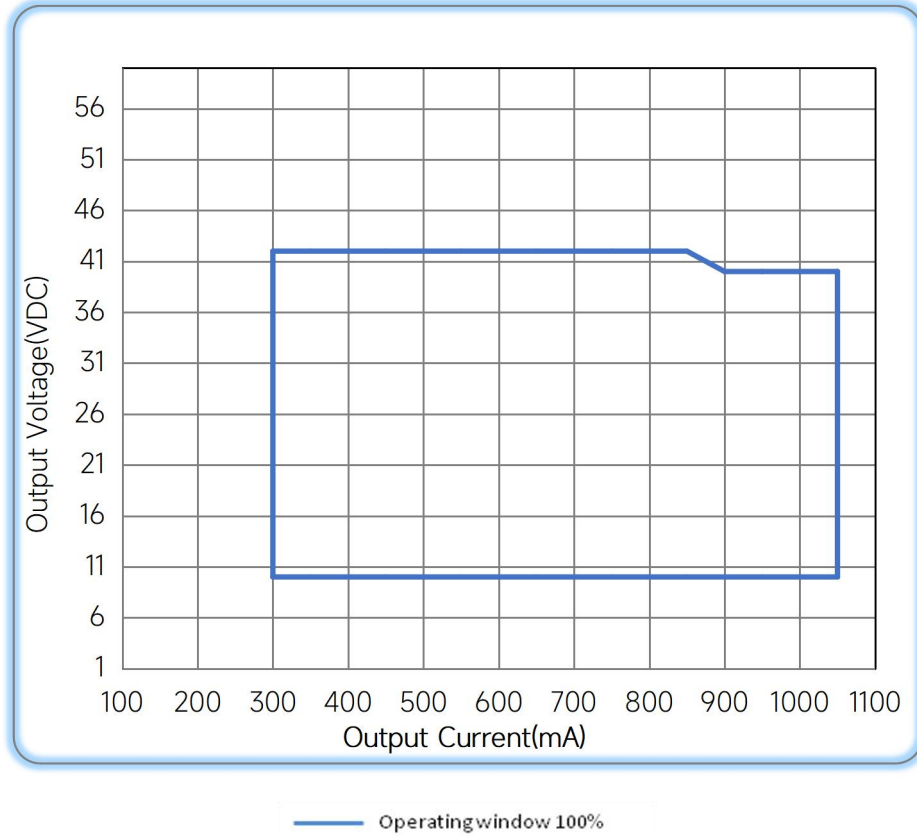
Power Factor Characteristics



THD vs. Load



◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2024/09/19

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

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EAGLERISE



Manual