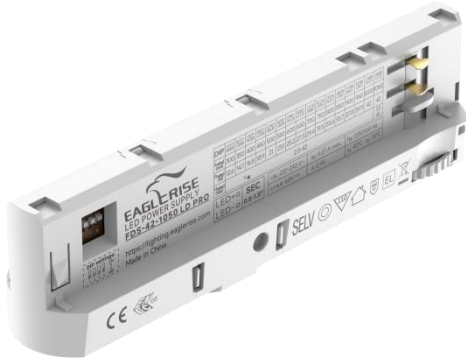


42W Constant Current -FDS power supply



Features

- Class II,SELV,Built-in
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor: 0.3C-0.95
- Efficiency: 88%@full load
- Adjustable Output Current with dip-switch
- 5 years warranty

Applications

- Track light

■ Approve

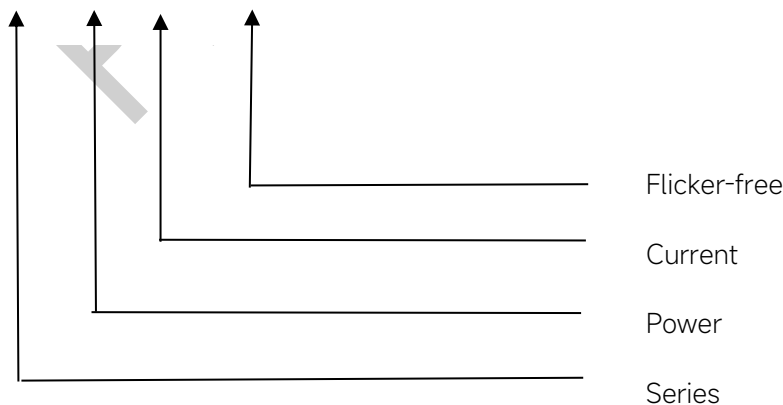


◆ Description

FDS-42-1050 LD PRO is a 42W constant current LED driver with 300 to 1050mA output current and a forward voltage range from 2.5 to 42Vdc. The output current is adjustable by DIP Switch. With its compact dimensions from 162x31.1x42.2mm. 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 LD PRO



◆ Specification

Output	Constant Current	300-400mA	...mA	1000mA	1050mA
	Voltage Range(VDC)	2.5-42VDC			2.5-40VDC
	Unload voltage Max.	59VDC			
	Current Accuracy	±7%	±5%		
	Output HF current ripple(≥1KHz)	±5%			
	Output LF current ripple(≤120Hz)	±3%			
	SVM	≤0.4@Full Load			
	Pst	≤1@Full Load			
	Efficiency(Typ.)	88%@full load, 230Vac			
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			
	Range of input voltage(VDC)	176-280VDC			
	Frequency(Hz)	0/50/60 Hz			
	Displacement factor	≥0.9@full load, 230Vac			
	Power Factor	0.3C-0.95			
	Input Current max	0.27A max			
	Start-up time(AC mode)	< 0.5S			
	Start-up time(DC mode)	< 0.4S			
	Switch over time(AC/DC mode)	< 0.4S			
	No Load Power	≤0.5W			
	THD (Typ.)	<10%			
Protection	Over Load Protection	103-130% YES/Auto Resume			
	Over Voltage Protection	> 59VDC YES/Auto Resume			
	Short circuit Protection	YES/Auto Resume			
	Over Temperature Protection	YES/Auto Resume			
capability	Surge capability (L-N)	1KV			
	Surge capability (L/N-Ground)	1KV			
Environment	Operating Temperature	-20°C~+35°C			
	Humidity	20%-90%RH			
	Tc	85°C			
	Storage Temperature	-40°C...+85°C			
	Life time	> 50000h@Tc=80°C			
	Noise	≤25dB(A)@20cm			
Surface	Dimension	162x31.1x42.2mm(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
	ErP	Erp2.0 EU 2019/2020
	RoHS	RoHS (2011/65/EU) (EU)2015/863
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 consider</p> <p>4.Switch and dimmer are not recommended to connect between this product output and luminaries.</p> <p>5.EL compatible with IEC 61347-2-13 Annex J, compatible with EN 60598-2-22 emergency lighting fixtures, compatible with EN 50172 central battery system applications.</p>	

Preliminary

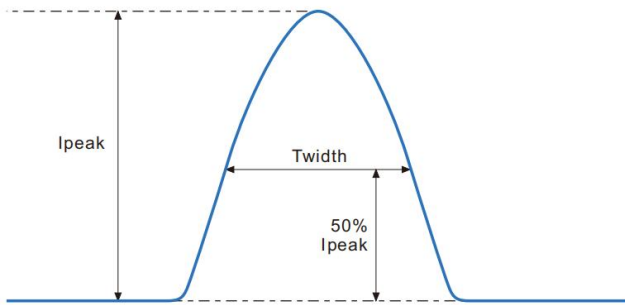
◆ Parameter

Number	Output				Switch position			
	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)	1	2	3	4
1	300mA	2.5-42V	59VDC	12.6W	--	--	--	--
2	350mA			14.7W	ON	--	--	--
3	400mA			16.8W	--	ON	--	--
4	450mA			18.9W	ON	ON	--	--
5	500mA			21W	--	--	ON	--
6	550mA			23.1W	ON	--	ON	--
7	600mA			25.2W	--	ON	ON	--
8	650mA			27.3W	ON	ON	ON	--
9	700mA			29.4W	--	--	--	ON
10	750mA			31.5W	ON	--	--	ON
11	800mA			33.6W	--	ON	--	ON
12	850mA			35.7W	ON	ON	--	ON
13	900mA			37.8W	--	--	ON	ON
14	950mA			39.9W	ON	--	ON	ON
15	1000mA			42W	--	ON	ON	ON
*16	1050mA	2.5-40V		42W	ON	ON	ON	ON

* Factory default

◆ Inrush Current

I_{peak}	Twidth	B10	B16	B20	C10	C16	C20
5.6A	34 μ s	29pcs	47pcs	59pcs	29pcs	47pcs	59pcs

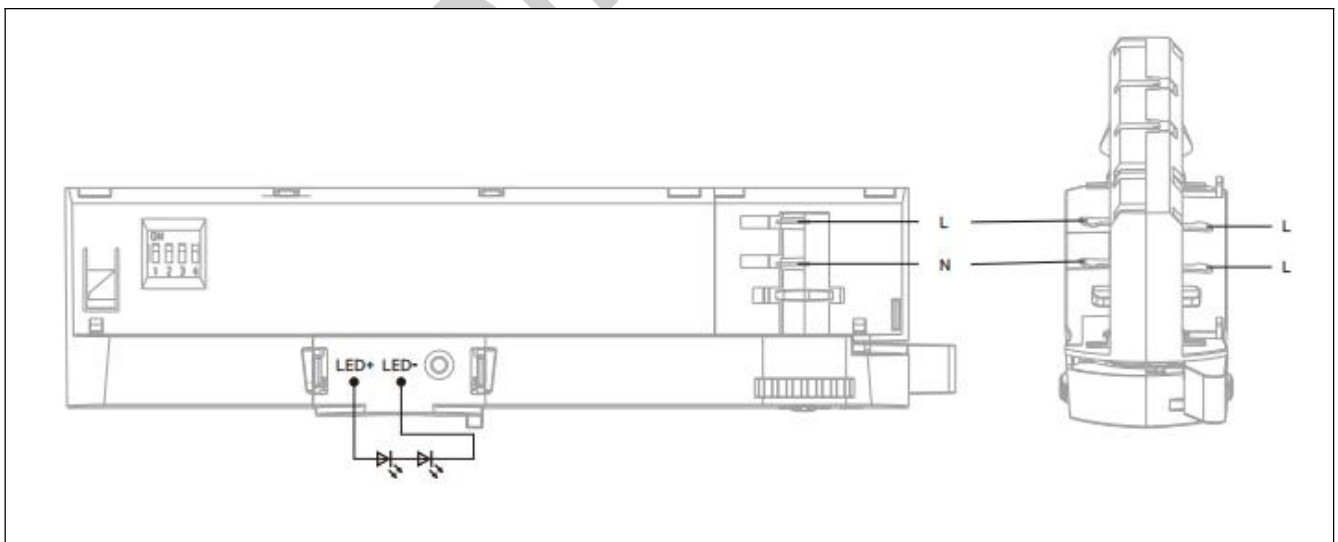


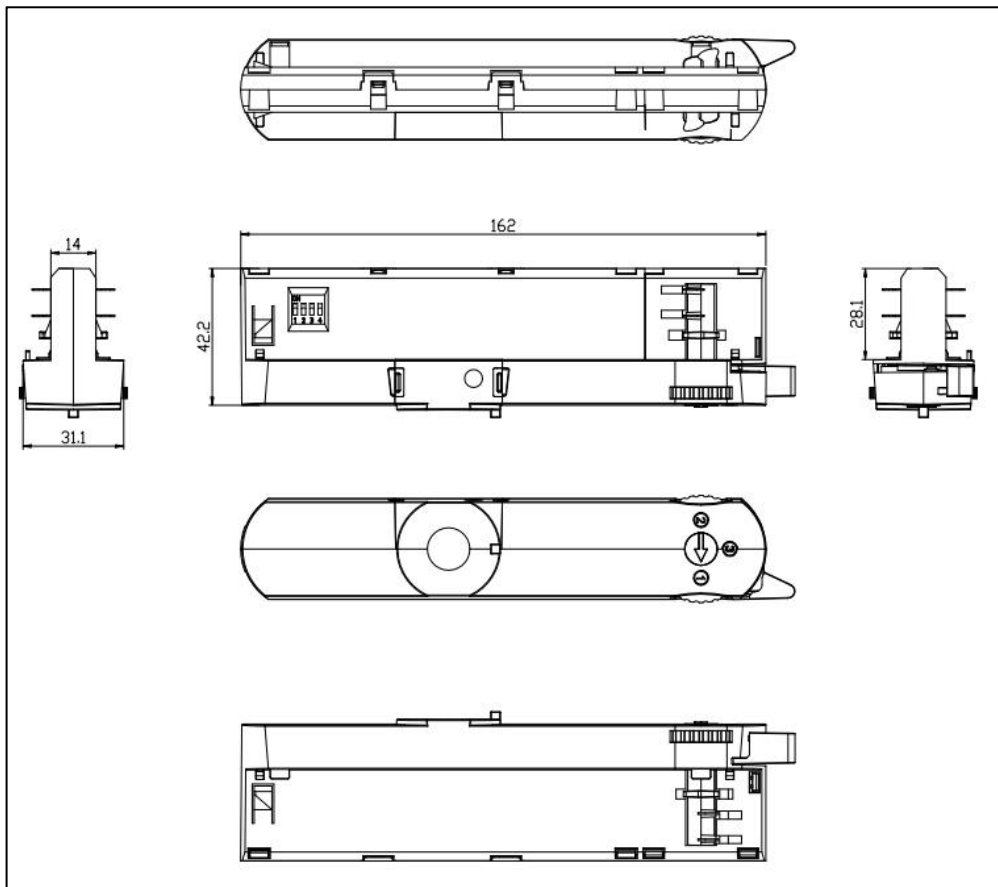
Remarks:

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

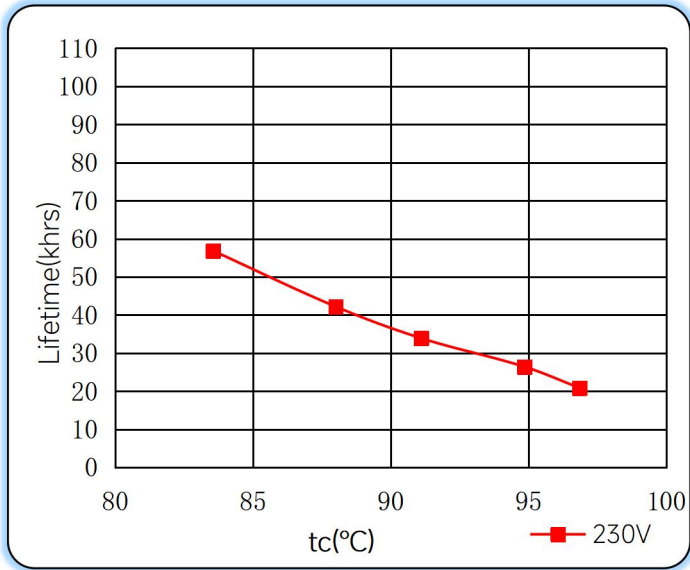
	Specification item	Value (Unit)
Output	Output wire cross-section	0.5...1.5 mm ²
	Output wire gauge.	16...20 AWG
	Output wire strip length	8...9mm

◆ Matching brand

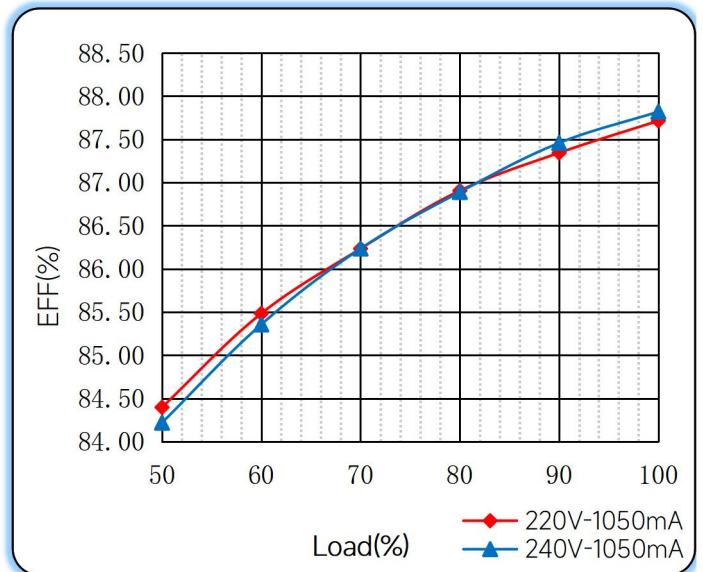
Brand	Global	XTS 4 & XTSE 4
	Stucchi	9000XX Series
	Eutrac	2510x
	Unipro	T32B
	Lvela	7501

◆ Curve for FDS-42-1050 LD PRO, $I_o=1050mA$

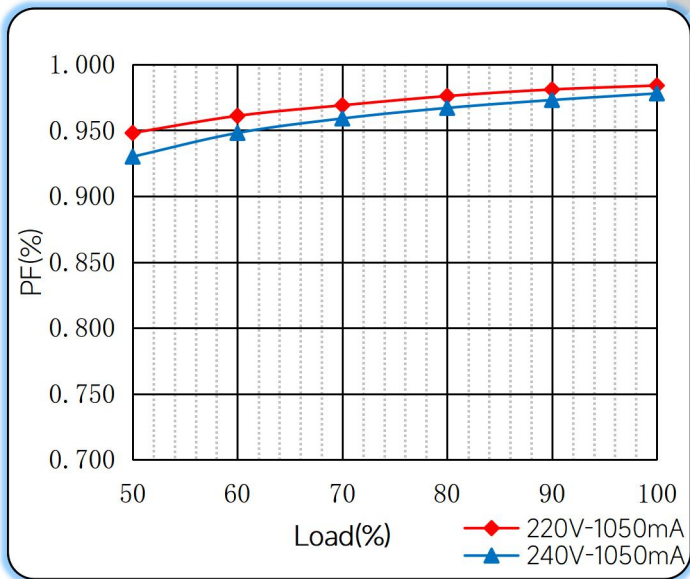
Lifetime vs. Temperature Curve



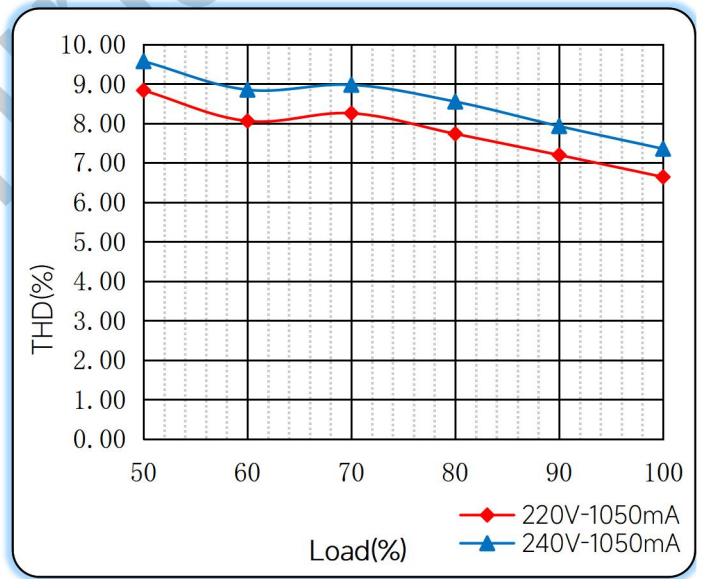
Efficiency vs. Load



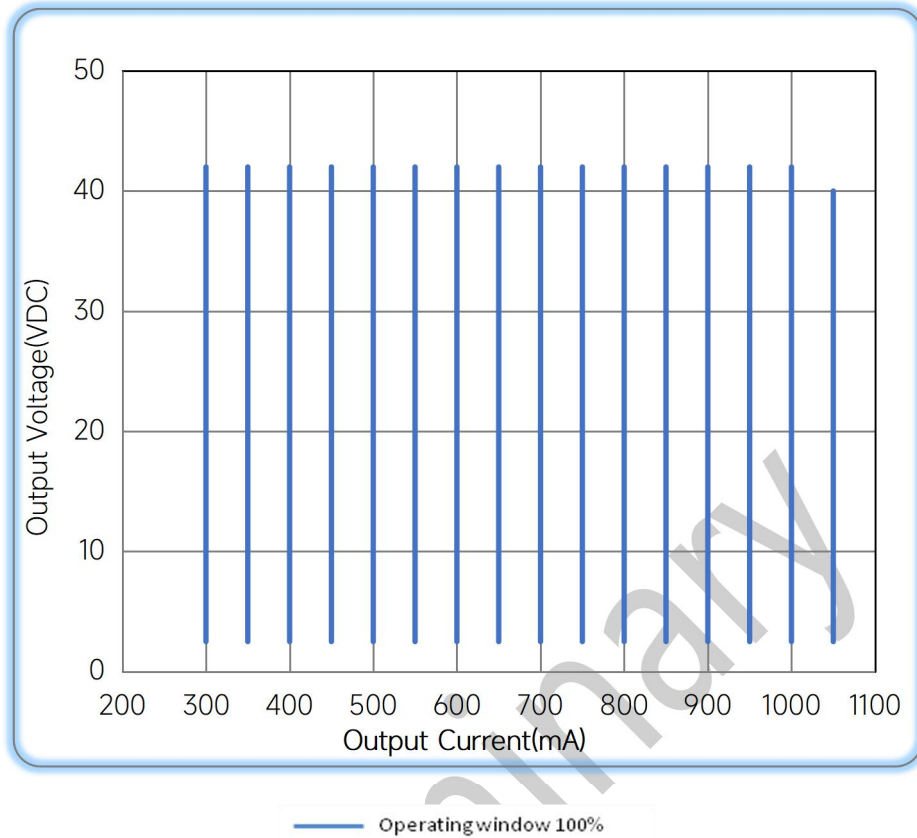
Power Factor Characteristics



THD vs. Load



◆ **Operating window**



◆ **Revision Updates**

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2023/05/10
Current Accuracy	±5%@300-400mA	±7%@300-400mA	B	2023/10/12

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

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EAGLERISE



Manual