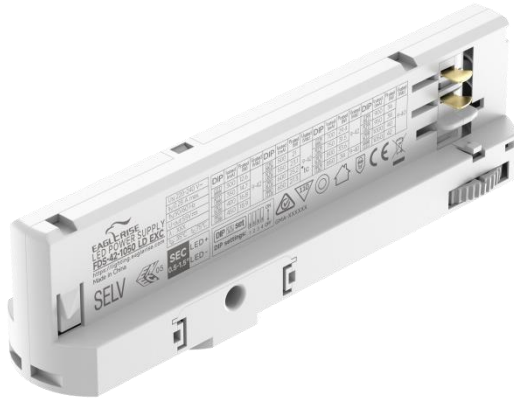


42W Constant Current -FDS power supply



■ Approve



Features

- Class II, SELV, built-in
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP
- Power Factor: >0.85@300-500mA
>0.92@550-1050mA
- Efficiency: 85%
- Adjustable Output Current with dip-switch
- 5 years warranty

Applications

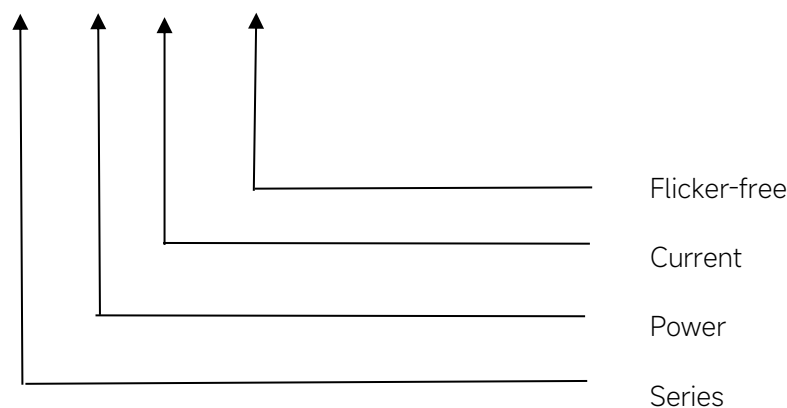
- Track Spot light

◆ Description

FDS-42-1050 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 9 to 42Vdc. The output current is adjustable by DIP Switch. With it's compact dimensions from 158x30.6x41.6mm 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 EXC



◆ Specification

Output	Constant Current	300mA	350mA	...	1050mA
	Voltage Range(VDC)	9-42VDC	9-42VDC	...	9-40VDC
	Unload voltage Max.	55VDC	55VDC	...	55VDC
	Current Accuracy	±5%			
	Output HF current ripple(≥1KHz)	±5%			
	Output LF current ripple(≤120Hz)	±5%			
	SVM	≤0.4			
	P _{st}	≤1			
	Efficiency(Typ.)	85%@ Full Load.			
Input	Rated input voltage	220-240VAC			
	Range of input voltage	198-264VAC			
	Range input voltage(DC)	198-280VDC			
	Frequency(Hz)	0/50/60 Hz			
	Displacement factor	≥0.9			
	Power Factor	>0.85@230VAC, full load, 300/350/400/450/500mA >0.92@230VAC, full load, 550/600/650/700/750/800/900/950/1050mA			
	Input Current max	0.28A MAX. @Full Load.			
	Start-up time	< 0.5S			
	No Load Power	≤0.5W			
	THD (Typ.)	<10%			
Protection	Over Load Protection	103-120%			
		YES/Auto Resume			
	Over Voltage Protection	> 55VDC			
		YES/Auto Resume			
	Short circuit Protection	YES/Auto Resume			
Over Temperature Protection	YES/Auto Resume				
Environment	Operating Temperature	-20°C~-+35°C			
	Humidity	10%-90%RH			
	Tc	75°C			
	Storage Temperature	-40°C...+85°C			
	Life time	> 50000h@Tc=75°C			
Surface	Dimension	158x30.6x41.6mm(LXWXH)mm			
Standards	EN 61347-1,EN 61347-2-13;IEC 61347-1,IEC 61347-2-13;EN 62384;EN IEC 55015, EN IEC 61000-3-2,EN 61000-3-3, EN 61547				
Others	ErP	EU 2019/2020			
	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.

◆ Parameter

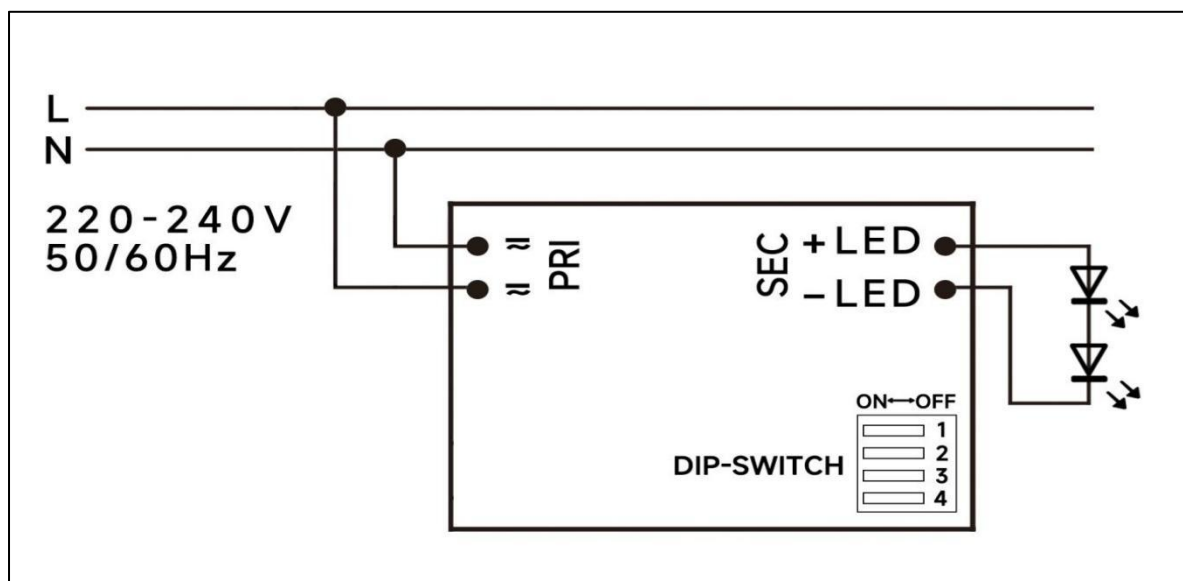
Number	Output				Switch position			
	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)	1	2	3	4
1	300mA	9-42VDC	55VDC	12.6	--	--	--	--
2	350mA			14.7	ON	--	--	--
3	400mA			16.8	--	ON	--	--
4	450mA			18.9	ON	ON	--	--
5	500mA			21	--	--	ON	--
6	550mA			23.1	ON	--	ON	--
7	600mA			25.2	--	ON	ON	--
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	9-40VDC		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

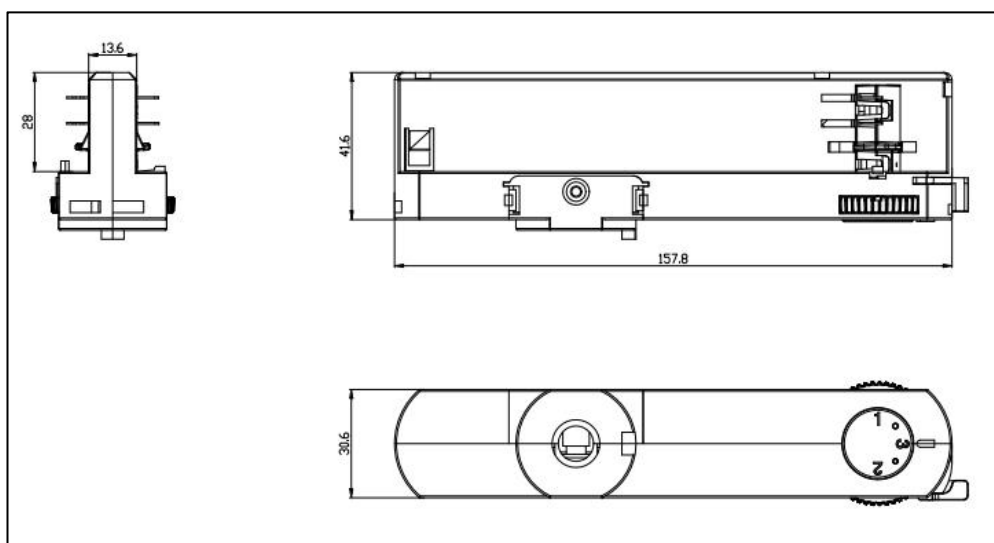
◆ Circuit Breaker

I _{peak}	T _{width}	B10	B16	B20	C10	C16	C20
6.18A	30μs	28pcs	45pcs	57pcs	28pcs	45pcs	57pcs

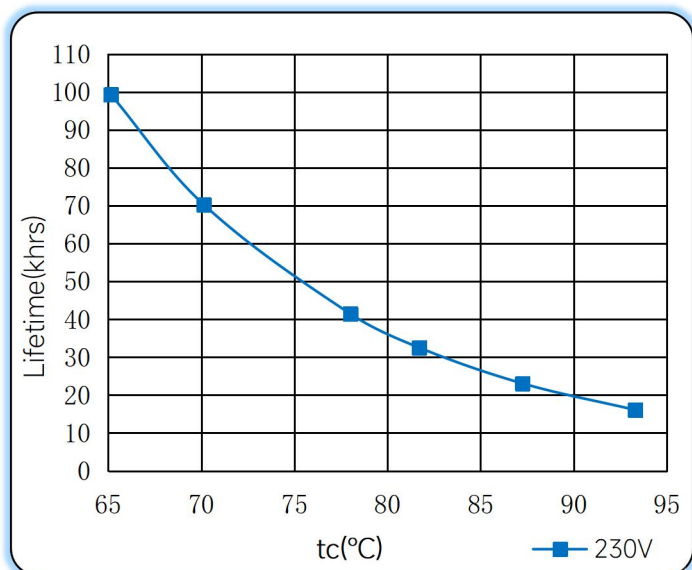
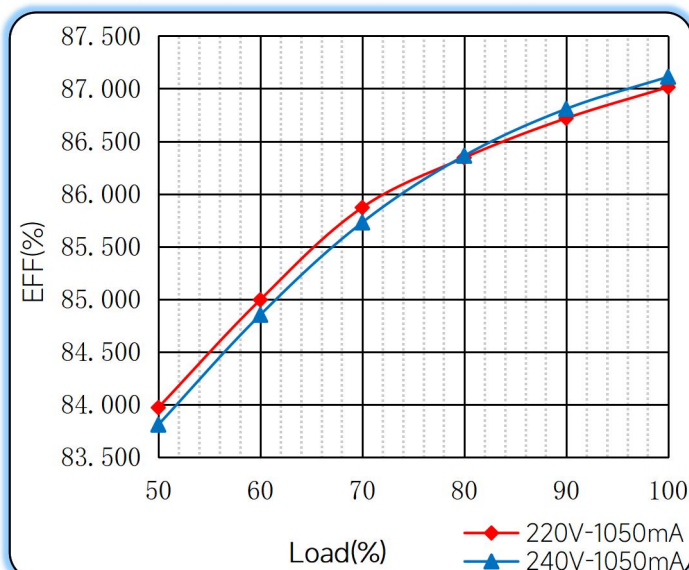
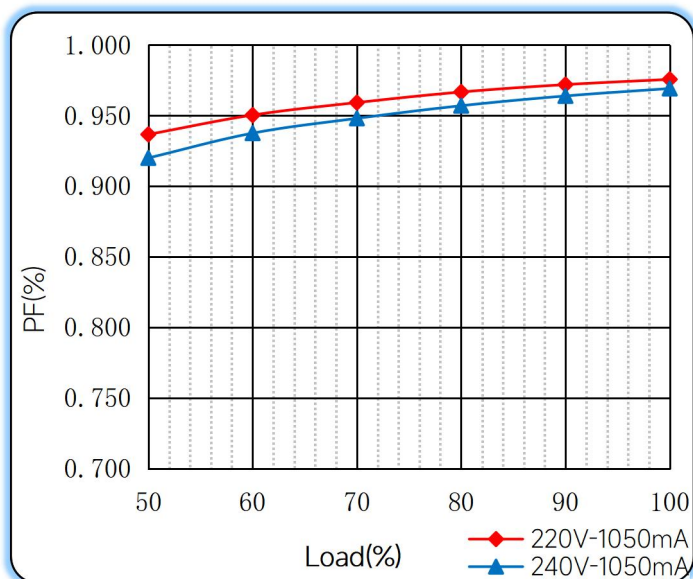
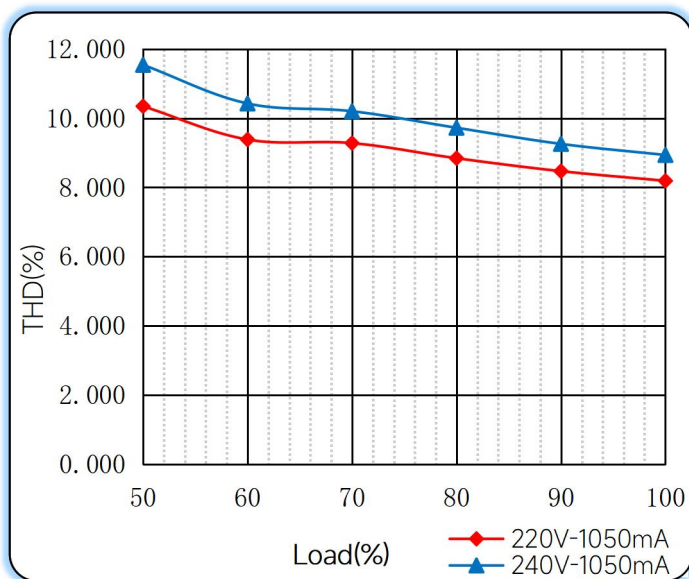
◆ Wiring diagram



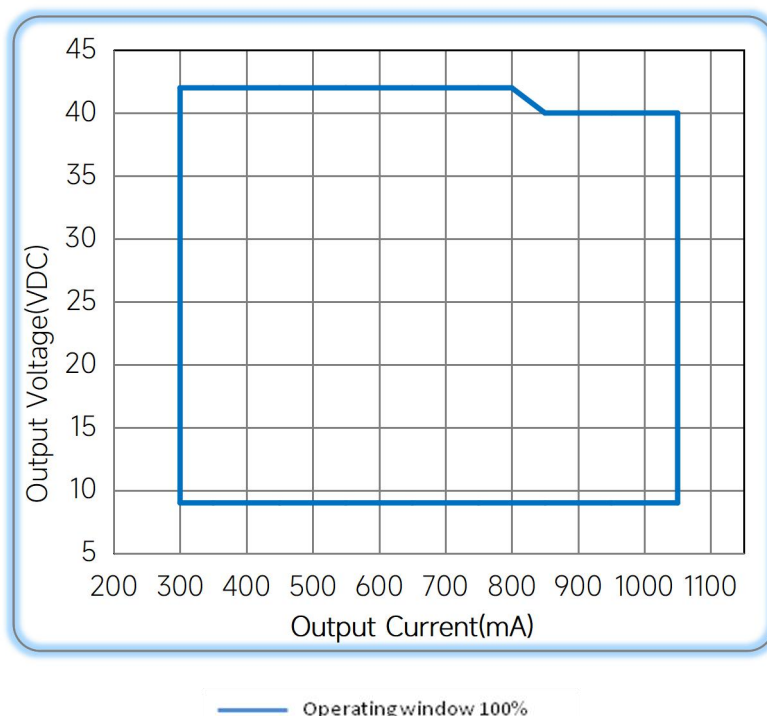
◆ 2D diagram



◆ Curve for FDS-42-1050 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	2022/08/22
product model	FDS-42-1050 LD ADV	FDS-42-1050 LD EXC	B	2022/12/07

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Manual