

42W Constant Current -FDS power supply



■ Approve



Features

- For luminaries of protection Class II,SELV
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP
- Power Factor: >0.9@800-900mA
>0.95@950-1050mA
- Efficiency ≥89%
- Adjustable Output Current with dip-switch
- 5 years warranty
- IP20

Applications

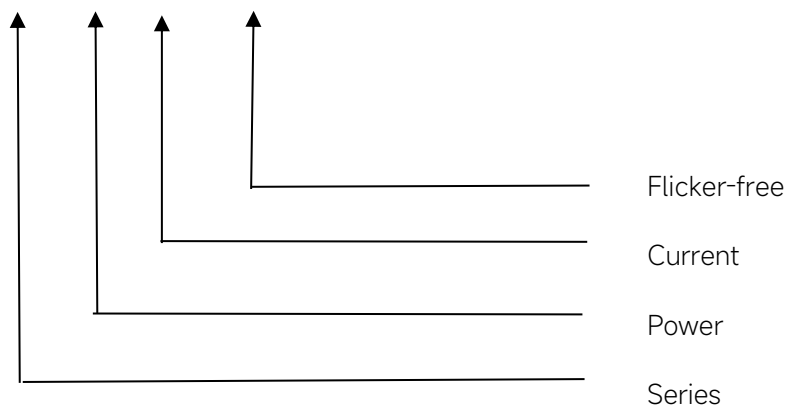
- Track Spot light

◆ Description

FDS-42-1050 LD2 is a 42W constant current LED driver that operates from 198-264Vac input with 800 to 1050 mA output current and a forward voltage range from 27 to 40Vdc. The output current is adjustable by DIP Switch. With it's compact dimensions from 161.8 x 30.6 x 44.5 mm 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 LD2



◆ Specification

	Constant Current	800mA	850mA	900mA	950mA	1000mA	1050mA
Output	Voltage Range(VDC)	27-40VDC					
	Unload voltage Max.	55VDC					
	Current Accuracy	±5%					
	Output HF current ripple(≥1KHz)	±5%					
	Output LF current ripple(≤120Hz)	±5%					
	SVM	≤0.4					
	P _{st}	≤1					
	Efficiency(Typ.)	≥89%@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		0.85C-0.95@230VAC, full load					
Input Current max		0.34A MAX. @Full Load,198VAC					
Start-up time		< 0.5S					
No Load Power		≤0.5W					
THD (Typ.)		<10% @Full load					
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	70°C					
	Storage Temperature	-20°C~+60°C					
	Life time	> 50000h@Tc=70°C,230VAC					
Surface	Dimension	161.8X30.6X44.5(LXWXH)mm					
Standards	EN 61347-1,EN 61347-2-13(CE-LVD,ENEC); IEC 61347-1,IEC 61347-2-13(CB); EN 62384(ENEC) EN IEC 55015,EN IEC 61000-3-2,EN 61000-3-3(CE-EMC,RCM)EN 61547(CE-EMC,RCM)						
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.						

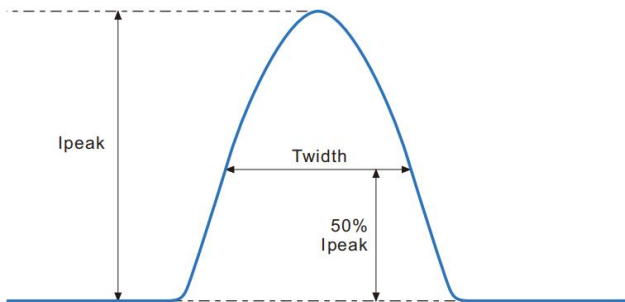
◆ Parameter

Number	Output				Switch position	
	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)	1	2
1	800mA	27-40VDC	55	32	--	--
2	900mA	27-40VDC	55	36	ON	--
3	950mA	27-40VDC	55	38	--	ON
*4	1050mA	27-40VDC	55	42	ON	ON

* Factory default

◆ Inrush Current

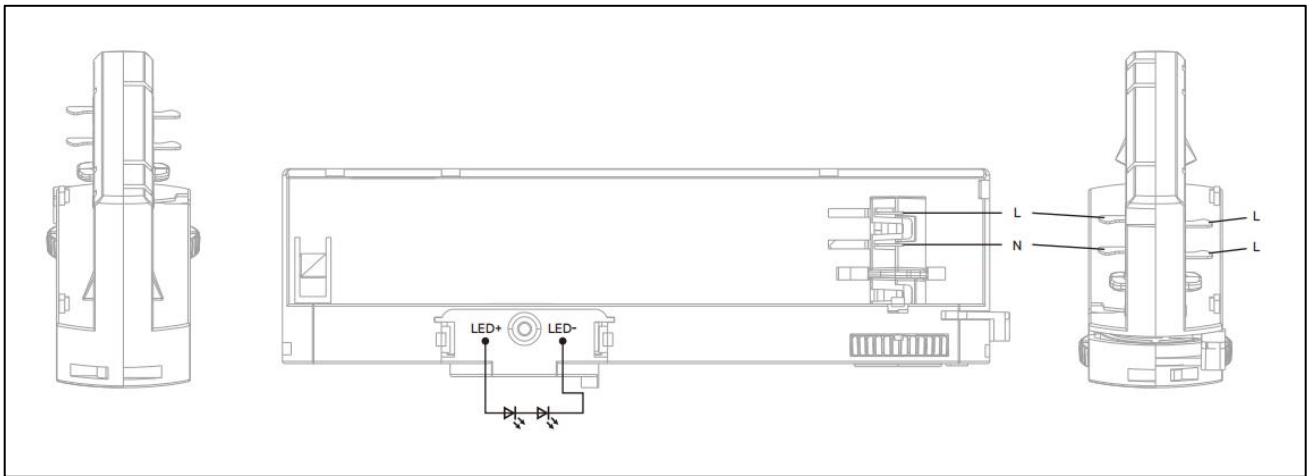
I _{peak}	T _{width}	B10	B16	B20	C10	C16	C20
30.5A	129.8μs	21pcs	33pcs	42pcs	23pcs	37pcs	47pcs



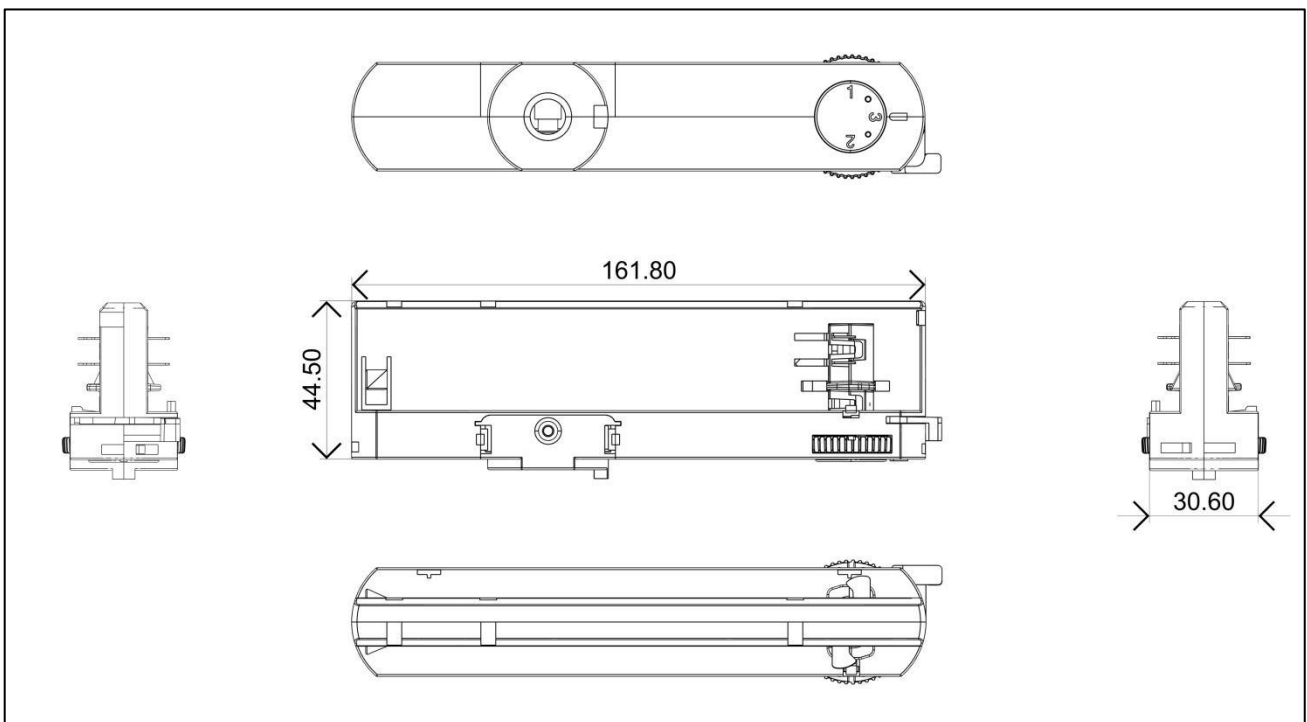
Remarks:

- 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**



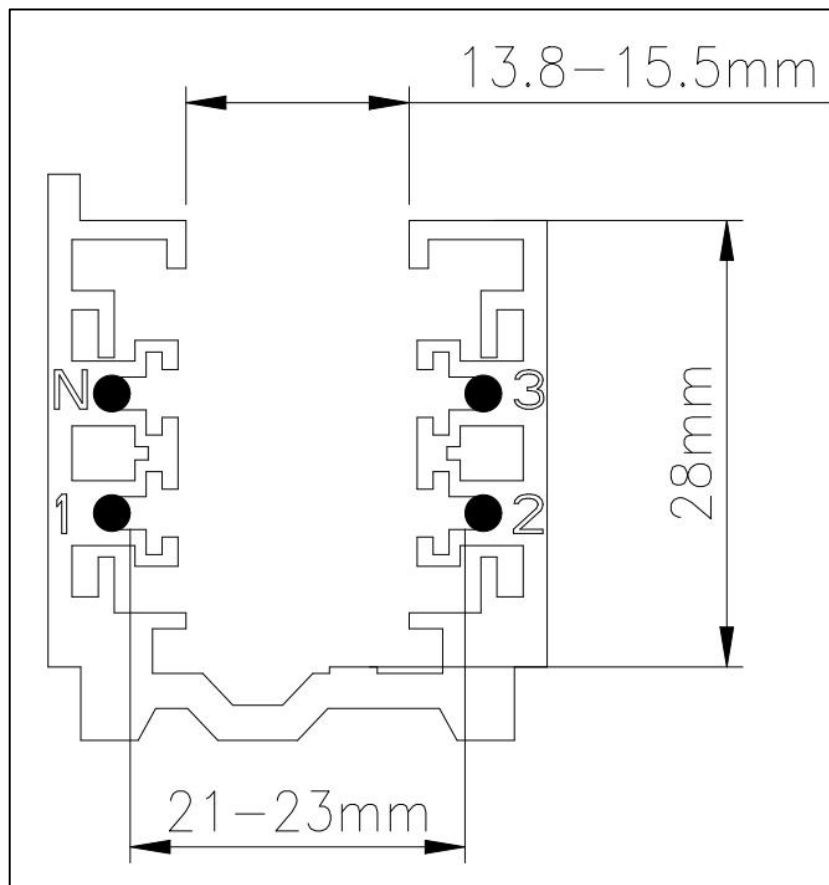
◆ **2D diagram**



◆ Matching brand

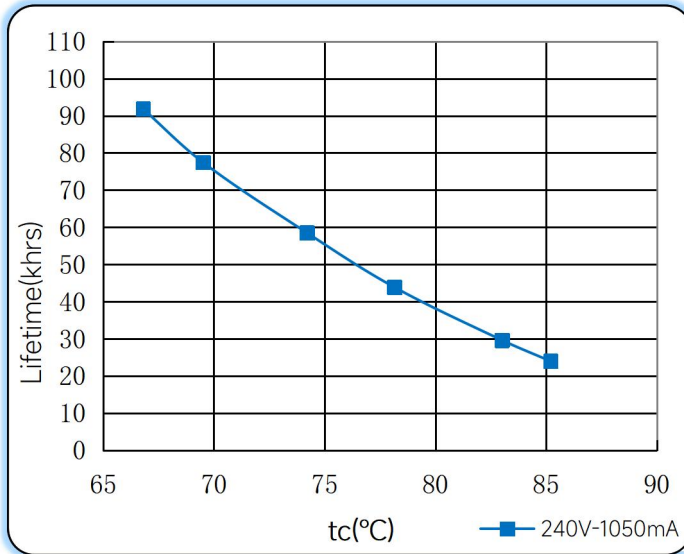
Brand	IVELA	7501
	STUCCHI	9000XX Series
	POWERGEAR	PRO-0431
	GLOBAL	XTS 4 & XTSF 4
	Unipro	T32B
	JBD	H-04
	GUANG FA	GF016
	JIN HAOTAI	4 wires

◆ Matching description

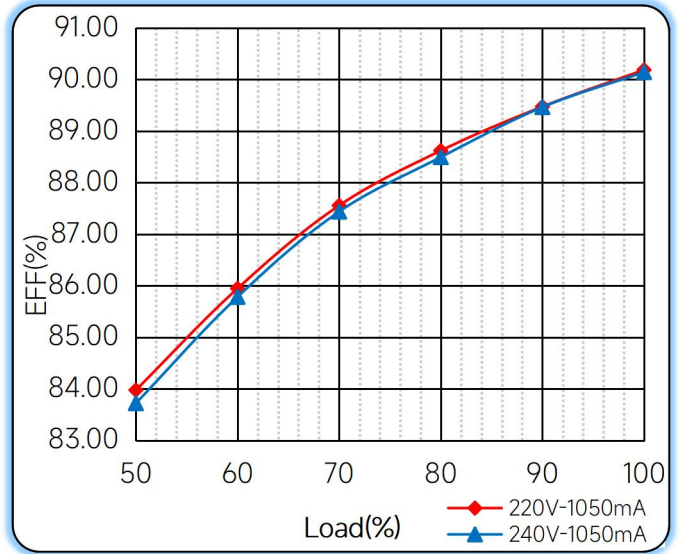


◆ **Curve for FDS-42-1050 LD2, I_o=1050mA**

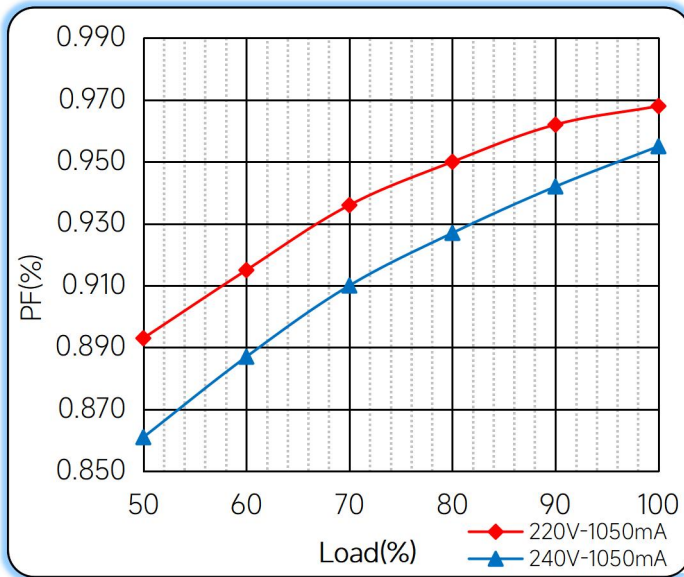
Lifetime vs. Temperature Curve



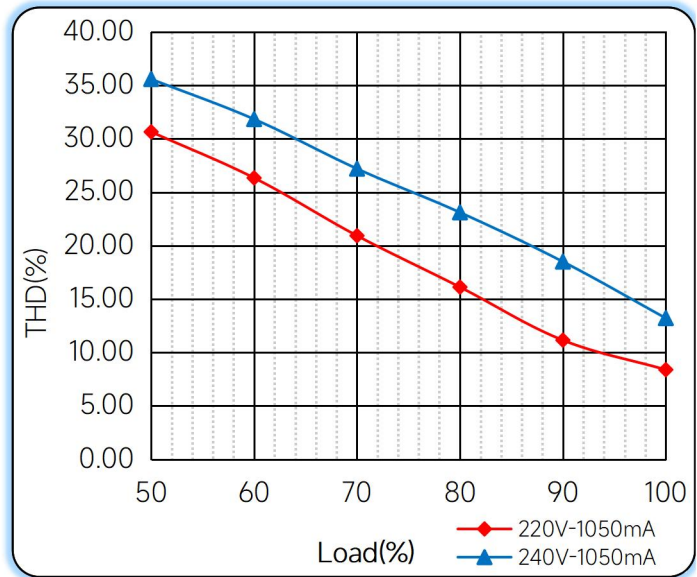
Efficiency vs. Load



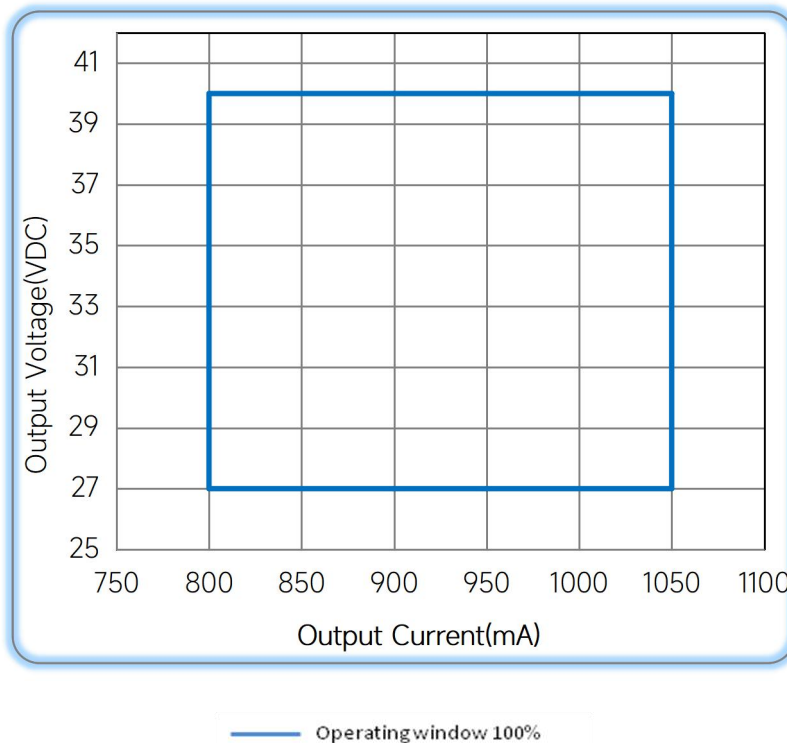
Power Factor Characteristics



THD vs. Load



◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2022/10/24
PF		0.85C-0.95@230VAC, full load	B	2023/07/22

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Manual