

21W Constant Current -FDS power supply



■ Approve

CE SELV

Features

- Class II,SELV,built-in
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor : 0.9C
- Efficiency 85%
- Adjustable Output Current with dip-switch
- 5 years warranty

Applications

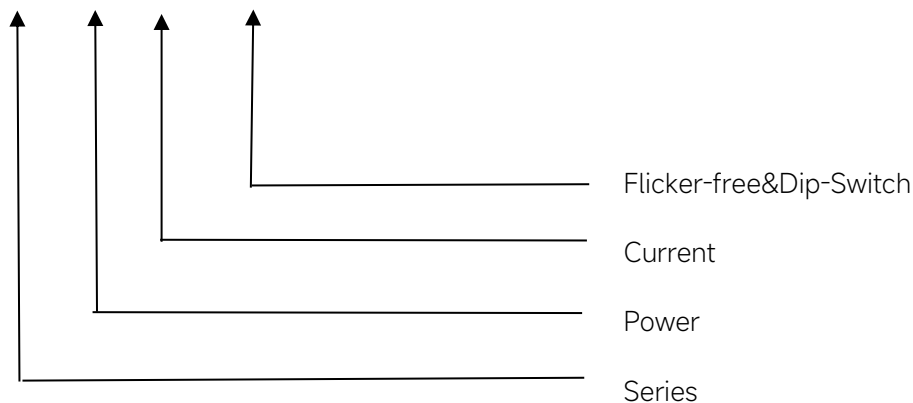
- Track Spot light

◆ Description

FDS-21-500 LD1-3 Wires is a 21W constant current LED driver that operates from 198-264Vac input with 350 to 500mA output current and a forward voltage range from 28 to 40Vdc. The output current is adjustable by DIP Switch. With it's compact dimensions from 128x 36.5 x 26mm 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-21-500 LD1-3 Wires



◆ Specification

	Constant Current	350mA	400mA	450mA	500mA
Output	Voltage Range	28-40VDC			
	Unload voltage Max.	55VDC			
	Current Accuracy	±5%			
	Output HF current ripple(≥1KHz)	±3%			
	Output LF current ripple(≤120Hz)	±3%			
	SVM	≤0.4			
	P _{st}	≤1			
	Efficiency(Typ.)	85%			
	Input	Rated input voltage	220-240VAC		
Range of input voltage		198-264VAC			
Rated input voltage(DC)		198-280VDC			
Frequency(Hz)		0/50/60 Hz			
Displacement factor		≥0.9			
Power Factor		>0.9C			
Input Current max		0.16A			
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	-25°C~+40°C			
	Humidity	20%-90%RH			
	Tc	75°C			
	Storage Temperature	-20°C~+60°C			
	Life time	> 30000h@Tc=75°C			
Surface	Dimension	128 x 36.5 x 26mm			
standards	EN 61347-1; EN61347-2-13; EN62384				
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

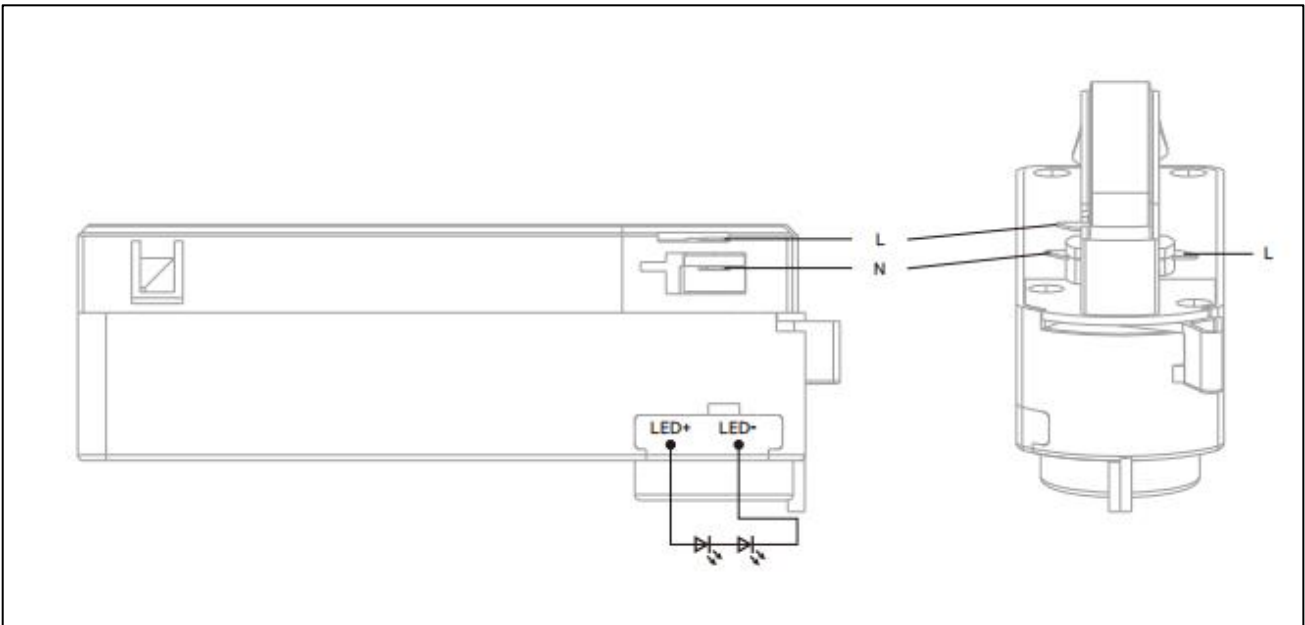
Number	Output				Switch position	
	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)	1	2
1	350mA	28-40VDC	55	14	--	--
2	400mA			16	ON	--
3	450mA			18	--	ON
*4	500mA			20	ON	ON

* Factory default

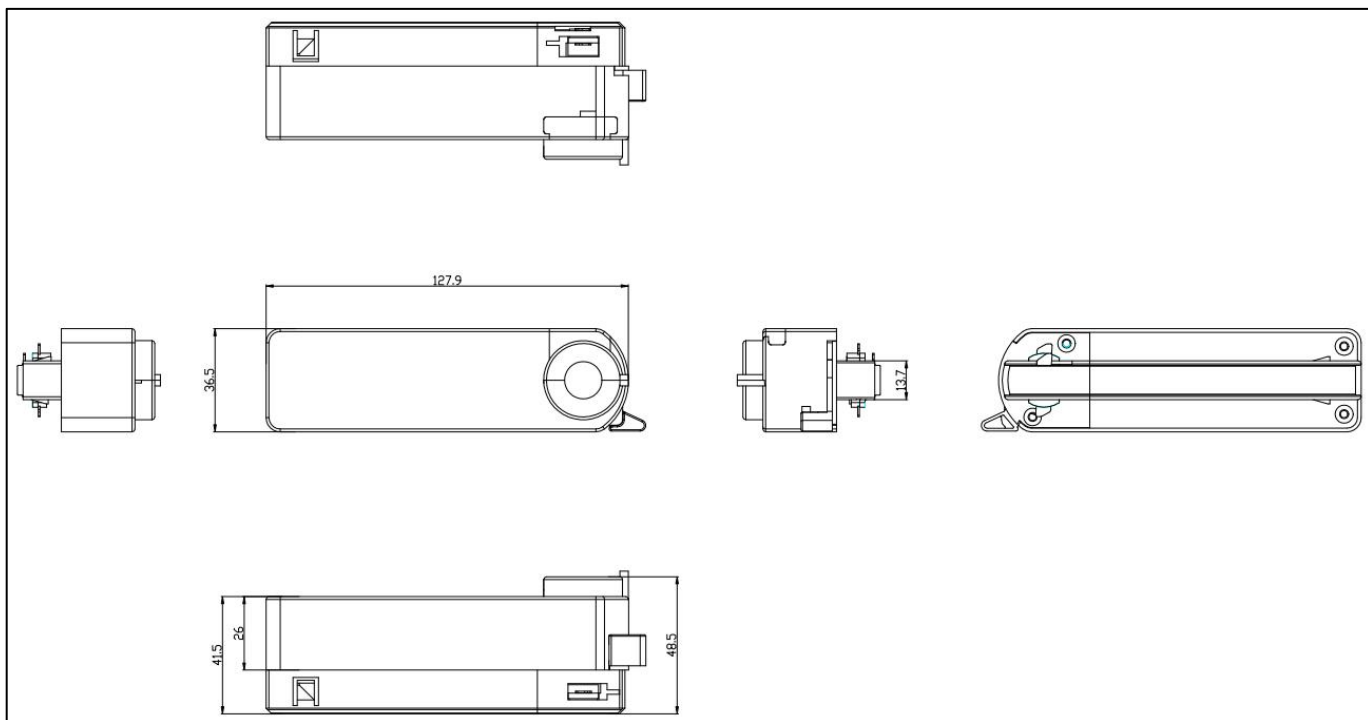
◆ Circuit Breaker

I _{peak}	T _{width}	B10	B16	B20	C10	C16	C20
2.12A	31.9μs	66pcs	106pcs	133pcs	66pcs	106pcs	133pcs

◆ Wiring diagram

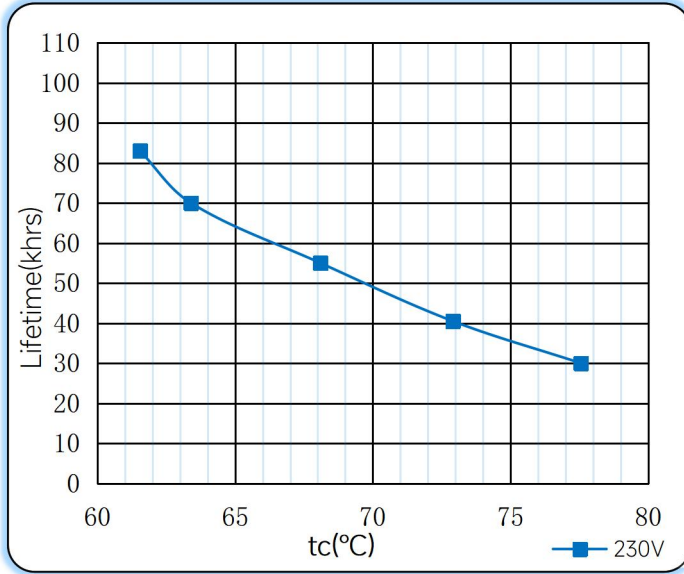


◆ 2D diagram

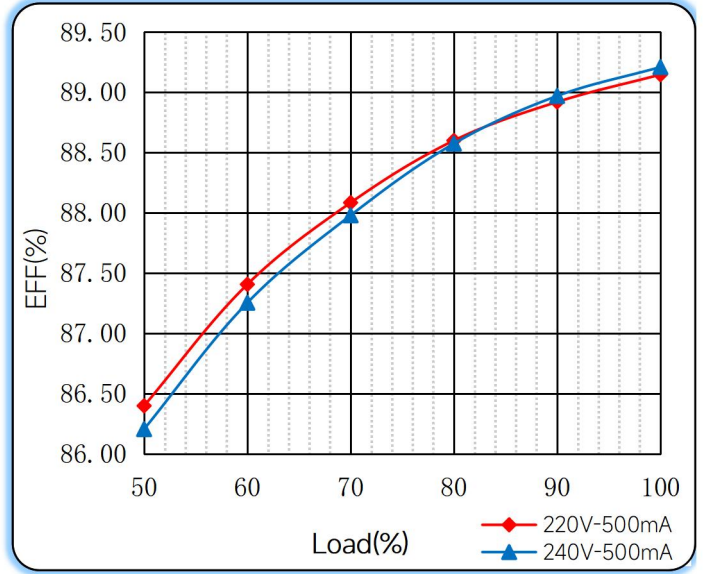


◆ Curve for FDS-21-500 LD1-3 Wires, $I_o=500mA$

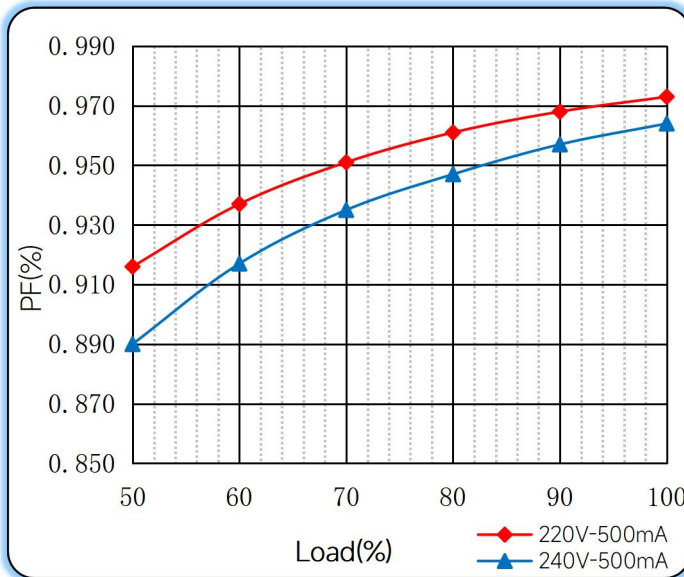
Lifetime vs. Temperature Curve



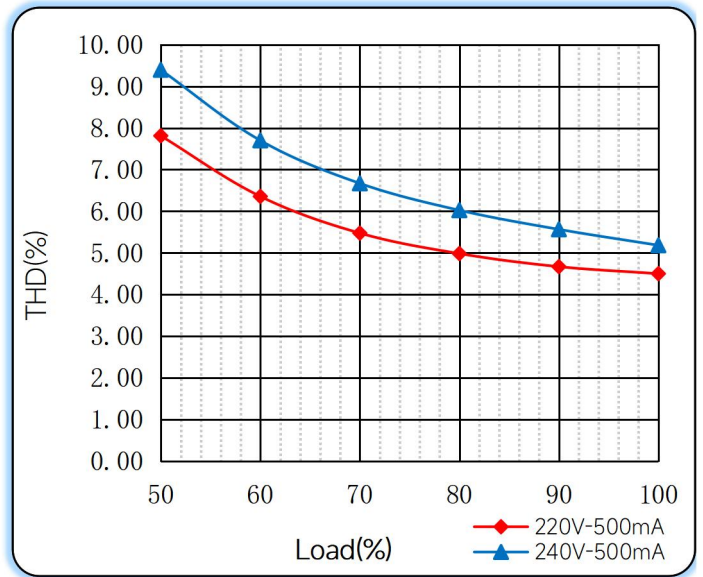
Efficiency vs. Load



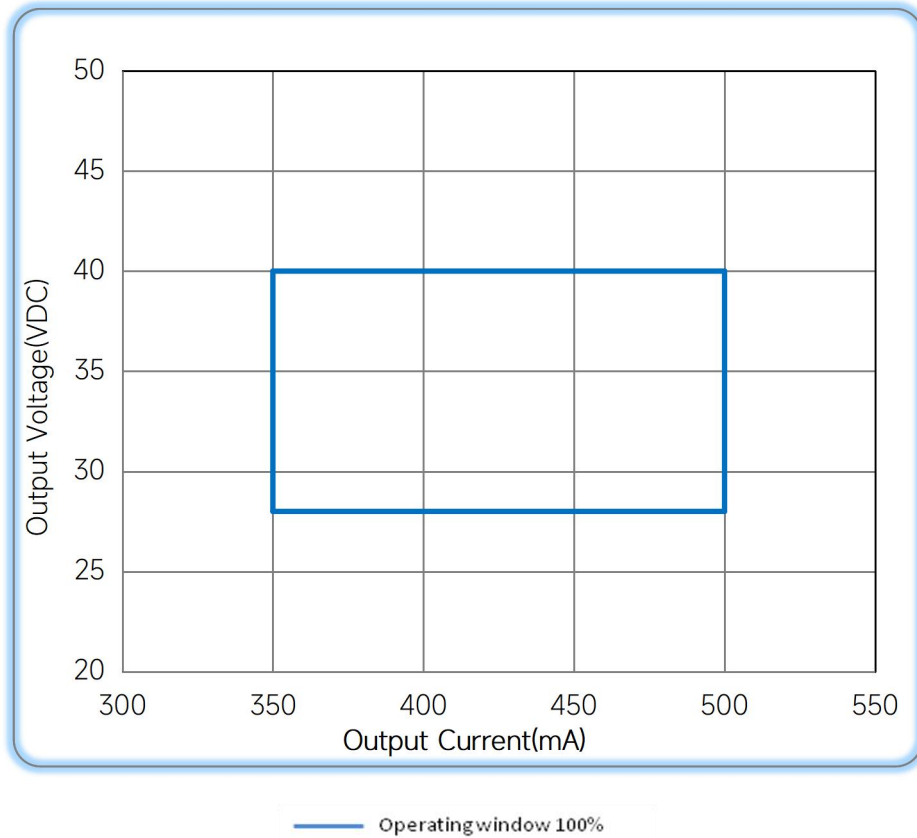
Power Factor Characteristics



THD vs. Load



◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2022/05/15

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Manual