

30W Constant Current -FDS power supply



■ Approve



Features

- Class II, SELV, built-in
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP
- Power Factor: >0.9@550-650mA
>0.95@700mA
- Efficiency: ≥88%
- Adjustable Output Current with dip-switch
- 5 years warranty
- IP20

Applications

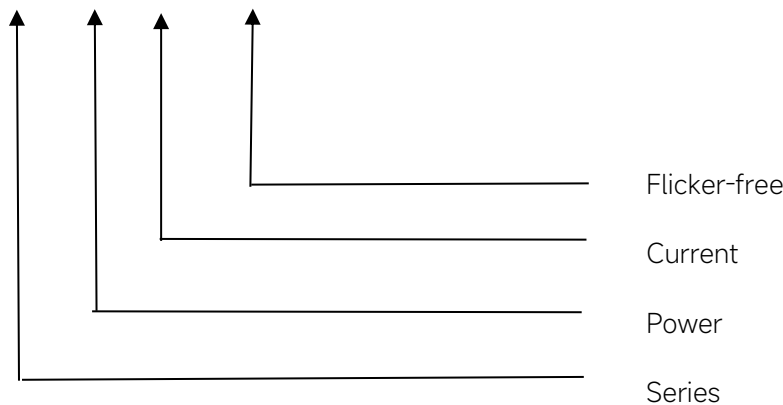
- Track Spot light

◆ Description

FDS-30-700 LD2 is a 30W constant current LED driver that operates from 198-264Vac input with 550 to 700 mA output current and a forward voltage range from 27 to 42Vdc. The output current is adjustable by DIP Switch. With its 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-30-700 LD2



◆ Specification

Output	Constant Current	550mA	600mA	...	700mA
	Voltage Range	27-42VDC	27-42VDC	...	27-42VDC
	Unload voltage Max.	55VDC	55VDC	...	55VDC
	Current Accuracy	±7%			
	Output HF current ripple(≥1KHz)	±5%			
	Output LF current ripple(≤120Hz)	±5%			
	SVM	≤0.4			
	P _{st}	≤1			
	Efficiency(Typ.)	≥88%@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	>0.9@230VAC, full load, 550/600/650mA >0.95@230VAC, full load, 700mA			
	Input Current max	0.22A MAX.			
	Start-up time	< 0.5S			
	No Load Power	≤0.5W			
	THD (Typ.)	<10% @Full Load,240VAC			
	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			
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

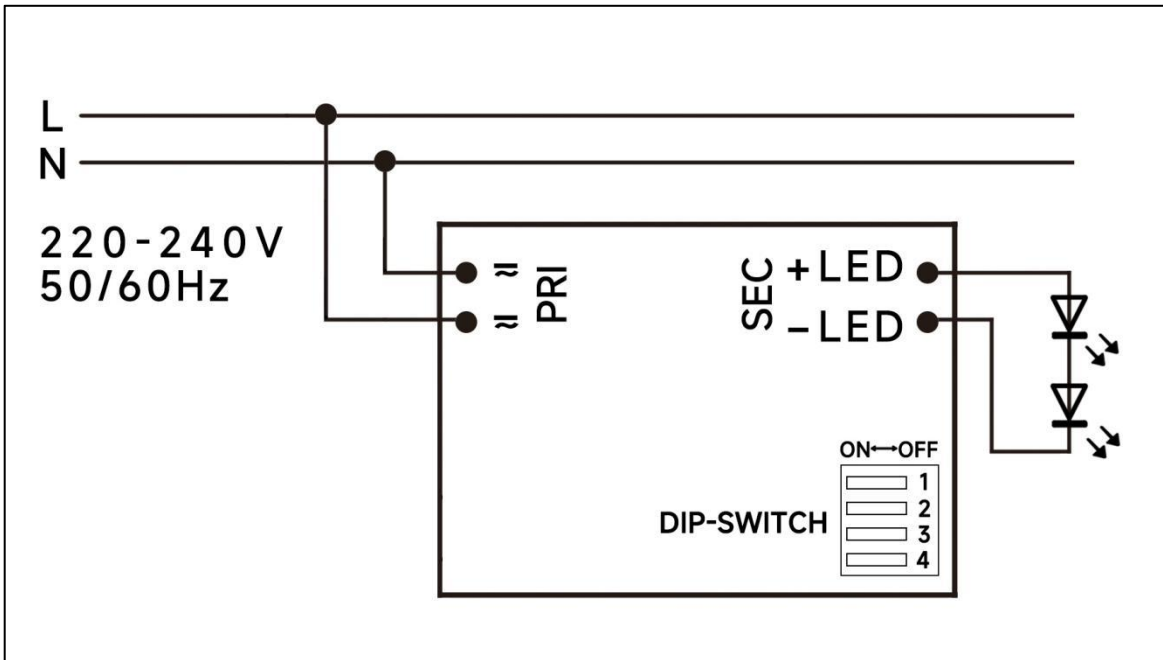
Number	Output				Switch position	
	Current (mA) I1+I2	Voltage (VDC)	Voltage No load (VDC)	Power (W)	1	2
1	550mA	27-42	55	23.1	--	--
2	600mA			25.2	ON	--
3	650mA			27.3	--	ON
4	700mA			29.4	ON	ON

* Factory default

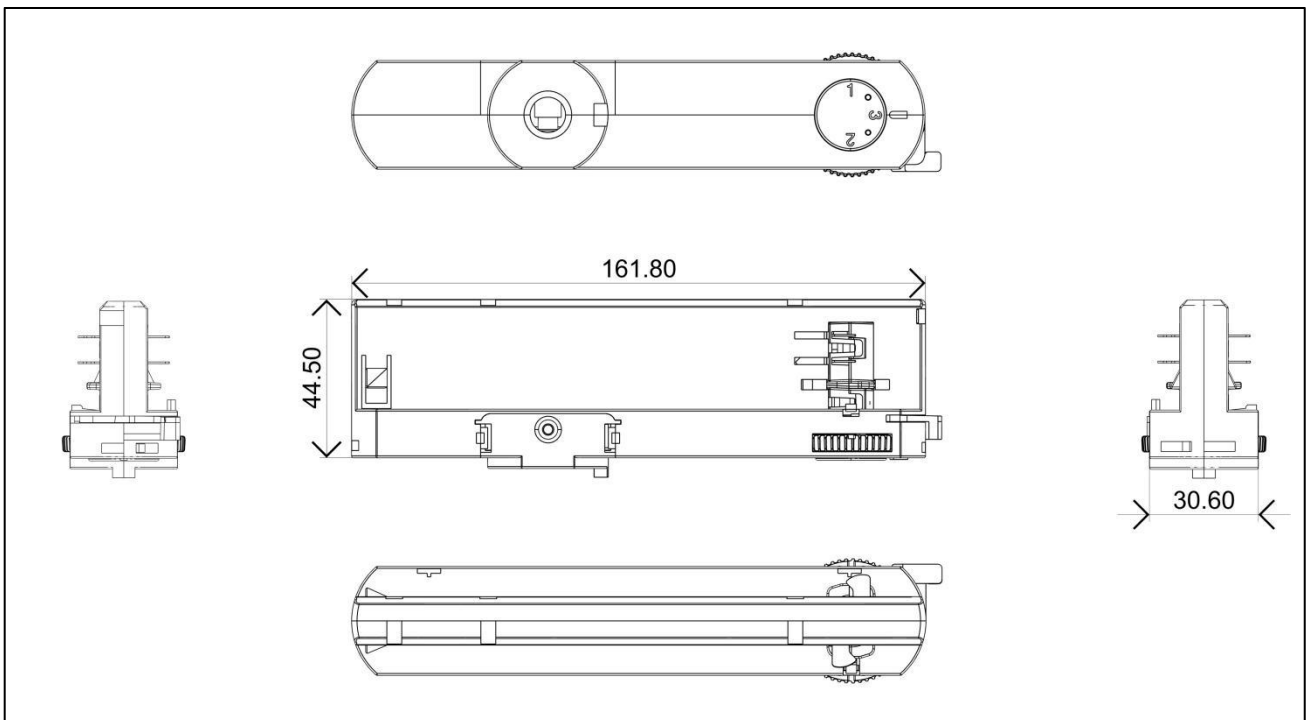
◆ Circuit Breaker

I _{peak}	T _{width}	B10	B16	B20	C10	C16	C20
30A	110μs	25pcs	41pcs	51pcs	36pcs	58pcs	72pcs

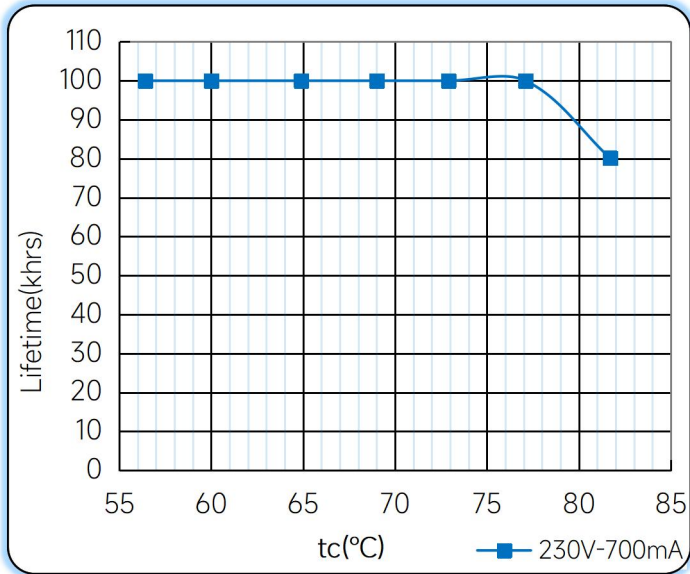
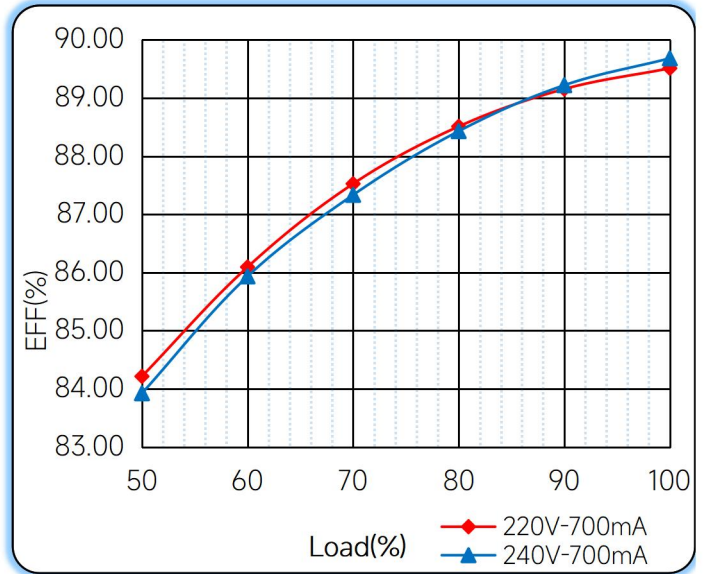
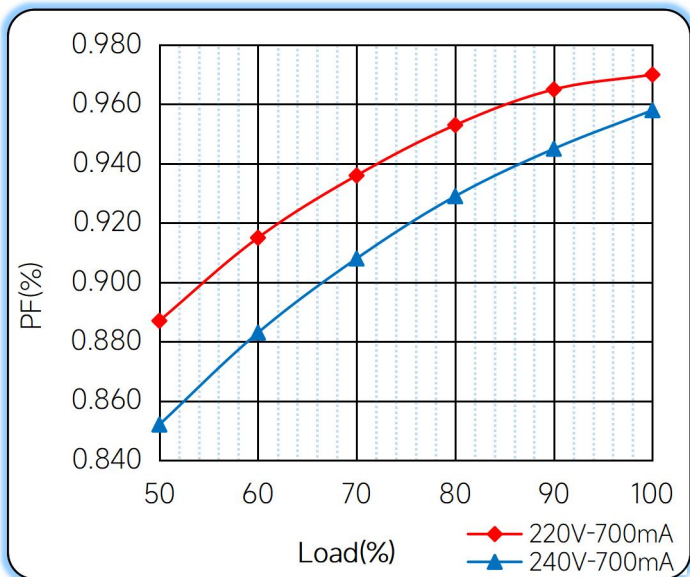
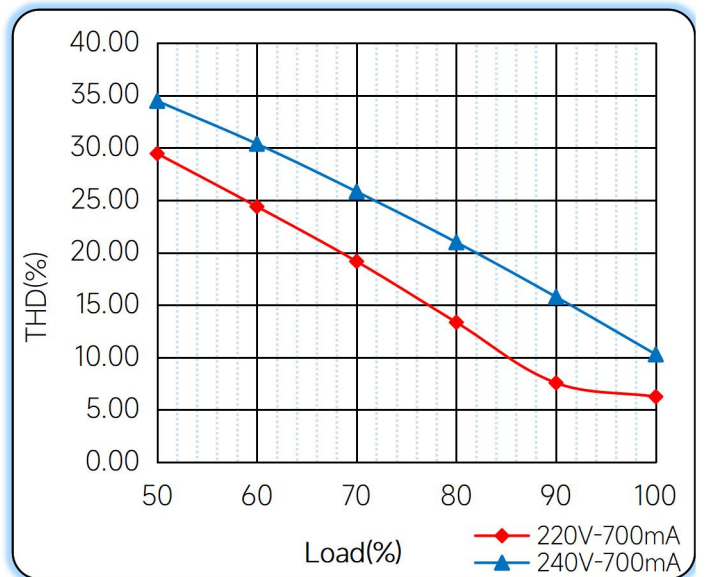
◆ Wiring diagram



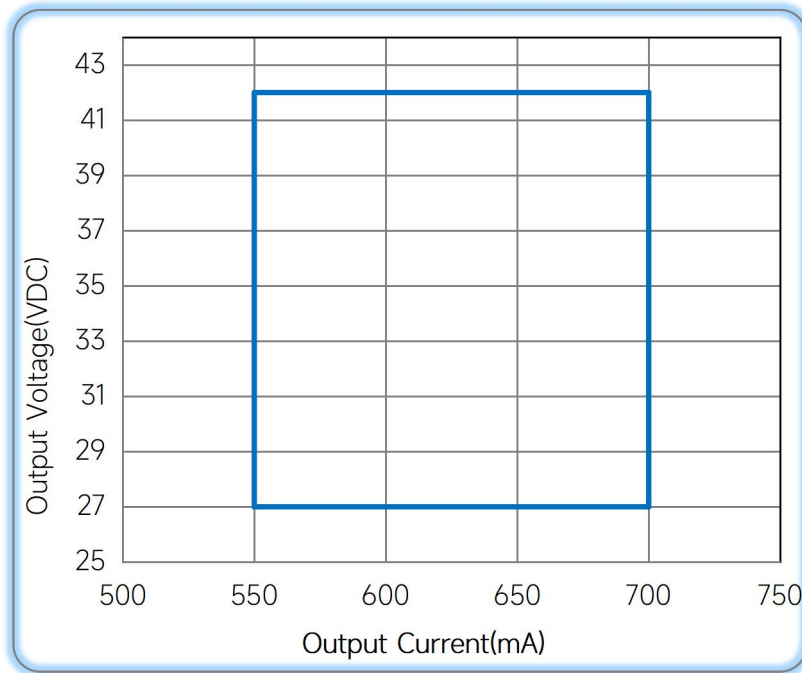
◆ 2D diagram



◆ Curve for FDS-30-700 LD2, I_o=700mA

Lifetime vs. Temperature Curve

Efficiency vs. Load

Power Factor Characteristics

THD vs. Load


◆ Operating window



— Operating window 100%

◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2022/10/24

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Manual