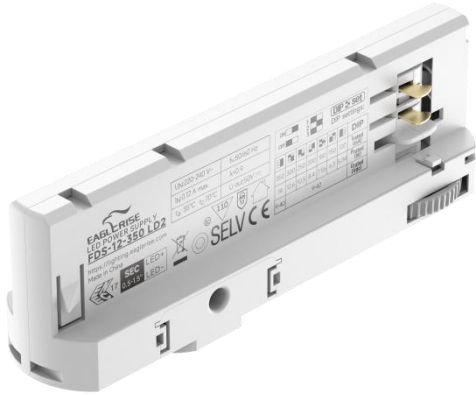


## 12W Constant Current -FDS power supply



■ Approve



### Features

- Class II, SELV, built-in
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP
- Power Factor: >0.9
- Efficiency: ≥82%
- Adjustable Output Current with dip-switch
- 5 years warranty
- IP20

### Applications

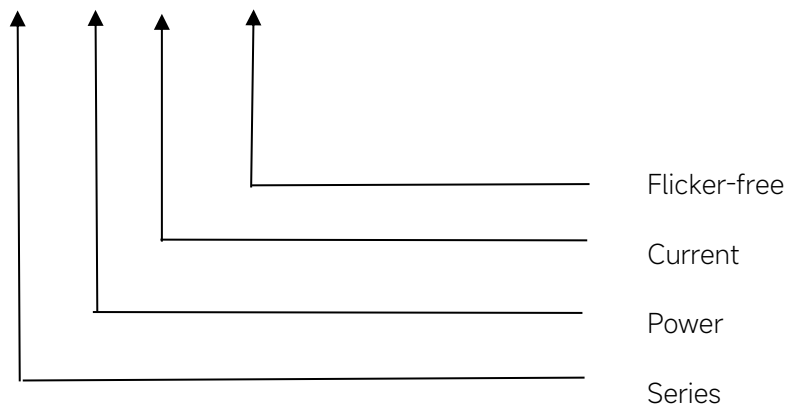
- Track Spot light

### ◆ Description

FDS-12-350 LD2 is a 12W constant current LED driver that operates from 176-264Vac input with 120 to 350 mA output current and a forward voltage range from 9 to 42Vdc. The output current is selectable by DIP Switch. With its compact dimensions from 141.8 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-12-350 LD2



## ◆ Specification

Output	Constant Current	120mA	150mA	...	350mA
	Voltage Range	9-42VDC	9-42VDC	...	9-40VDC
	Unload voltage Max.	50VDC	50VDC	...	50VDC
	Current Accuracy	±7%@220-240VAC,250mA/300mA/350mA ; ±9%@220-240VAC,120mA/150mA/180mA/200mA.			
	Output HF current ripple(≥1KHz)	±5%			
	Output LF current ripple(≤120Hz)	±5%			
	SVM	≤0.4			
	P <sub>st</sub>	≤1			
	Efficiency(Typ.)	82%@Full load			
Input	Rated input voltage	220-240VAC			
	Range of input voltage	176-264VAC			
	Range input voltage(DC)	176-280VDC			
	Frequency(Hz)	0/50/60 Hz			
	Displacement factor	≥0.9			
	Power Factor	>0.95@Full load			
	Input Current max	0.12A MAX.			
	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	> 50VDC YES/Auto Resume			
	Short circuit Protection	YES/Auto Resume			
Environment	Operating Temperature	-20°C~+35°C			
	Humidity	10%-90%RH			
	T <sub>c</sub>	70°C			
	Storage Temperature	-20°C~+60°C			
	Life time	> 50000h@T <sub>c</sub> =70°C			
Surface	Dimension	141.8X30.6X44.5(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.				

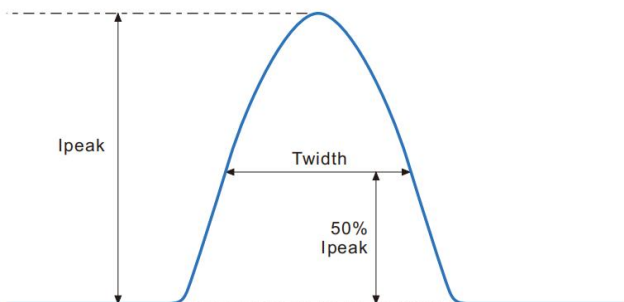
### ◆ Parameter

Number	Output				Switch position		
	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)	1	2	3
1	120mA	9-42VDC	50	5.04	--	--	--
2	150mA	9-42VDC	50	6.3	ON	--	--
3	180mA	9-42VDC	50	7.56	--	ON	--
4	200mA	9-42VDC	50	8.4	ON	ON	--
5	250mA	9-42VDC	50	10.5	--	--	ON
6	300mA	9-42VDC	50	12.6	--	ON	ON
*7	350mA	9-40VDC	50	14	ON	ON	ON

\* Factory default

### ◆ Inrush Current

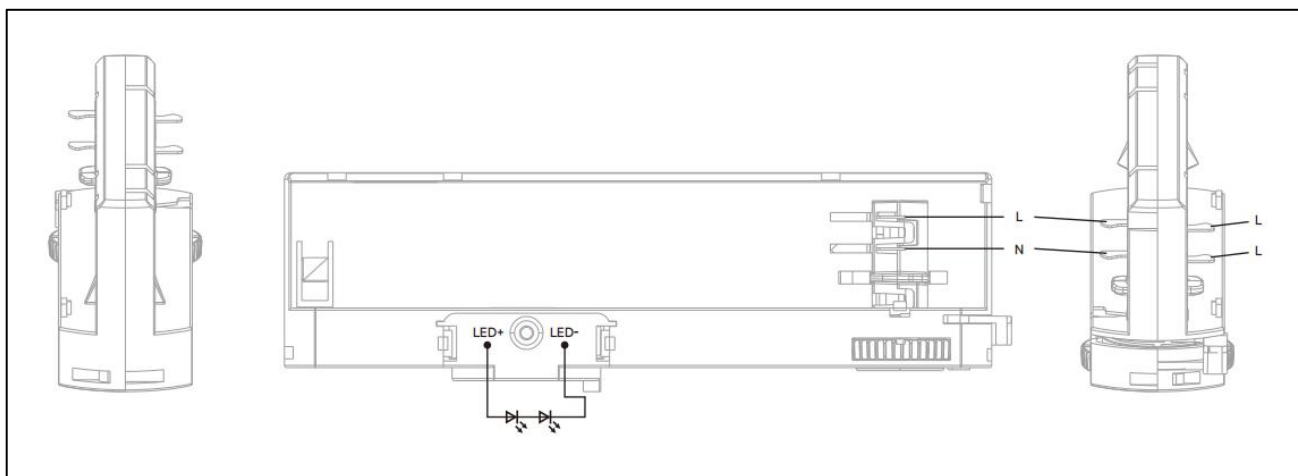
I <sub>peak</sub>	T <sub>width</sub>	B10	B16	B20	C10	C16	C20
2.12A	31.9μs	66pcs	106pcs	133pcs	66pcs	106pcs	133pcs



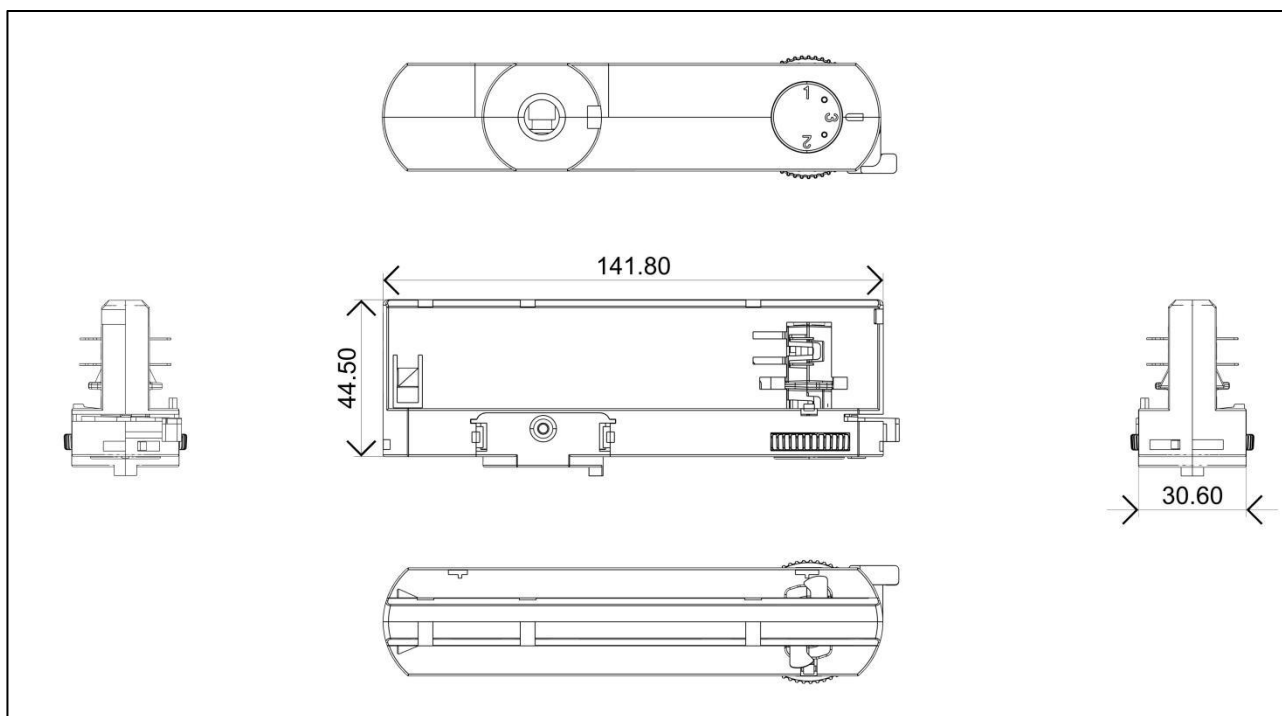
Remarks:

- 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**



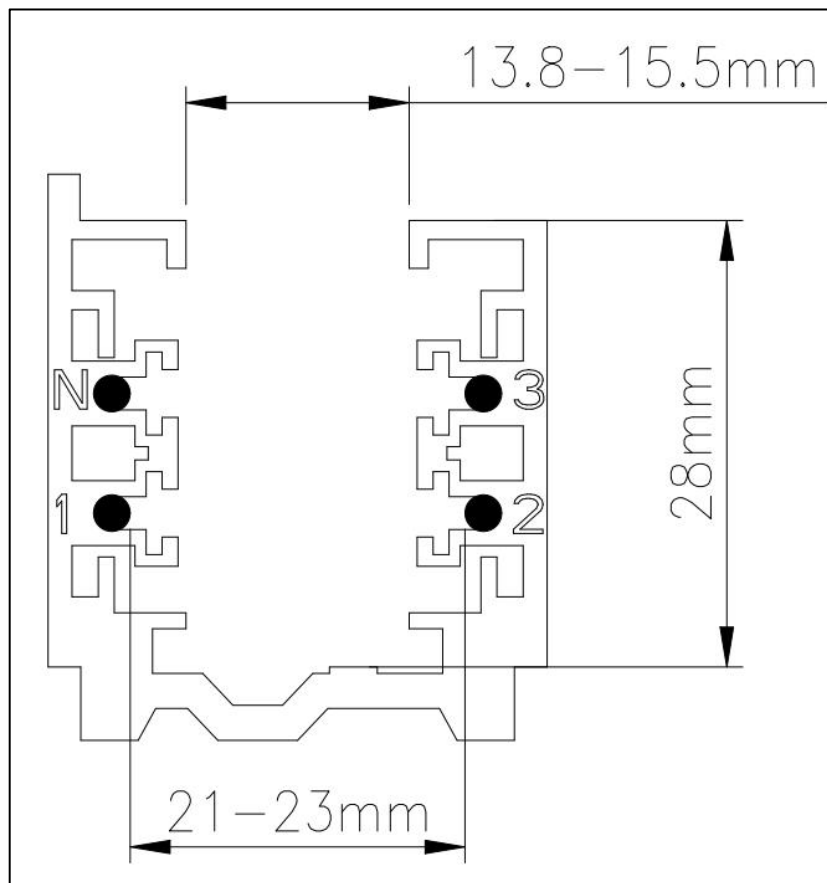
◆ **2D diagram**



### ◆ Matching brand

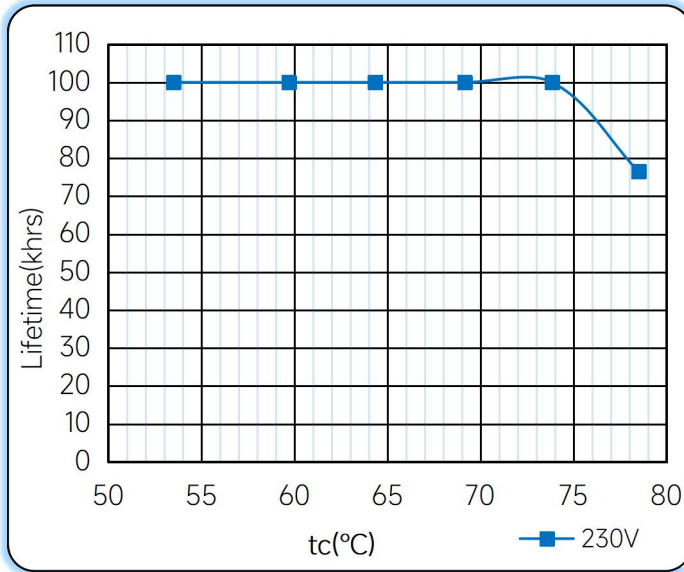
Brand	IVELA	7501
	STUCCHI	9000XX Series
	POWERGEAR	PRO-0431
	GLOBAL	XTS 4 & XTSF 4
	Unipro	T32B
	JBD	H-04
	GUANG FA	GF016
	JIN HAOTAI	4 wires

### ◆ Matching description

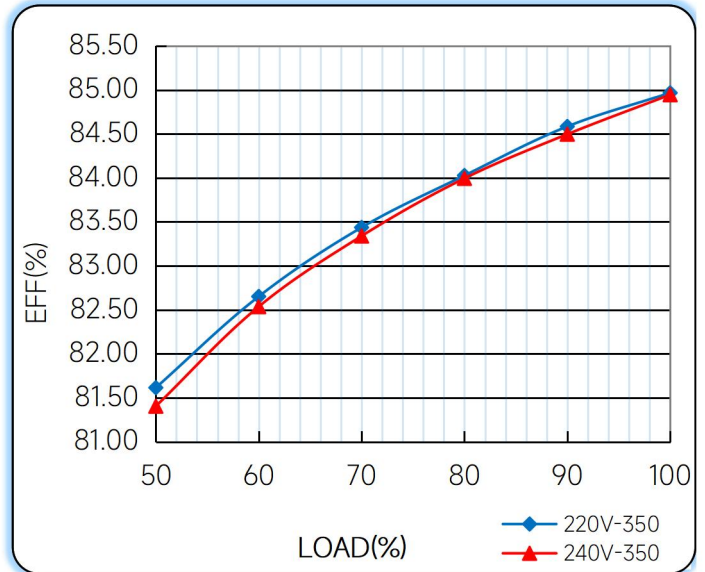


◆ **Curve for FDS-12-350 LD2, I<sub>o</sub>=350mA**

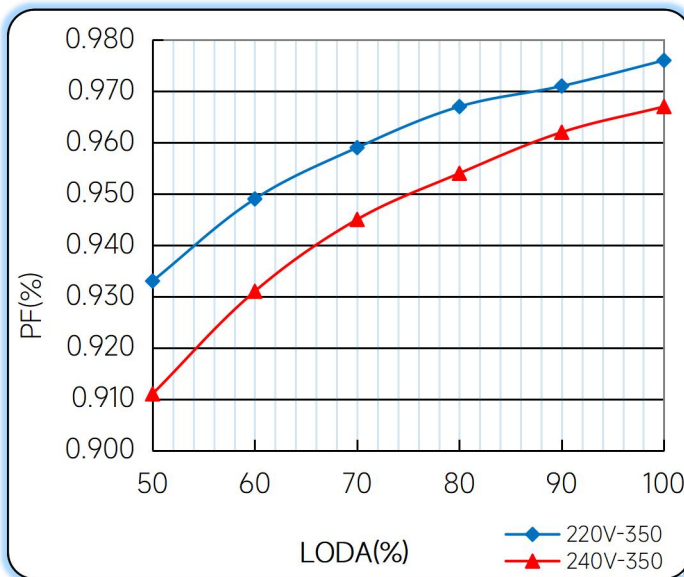
Lifetime vs. Temperature Curve



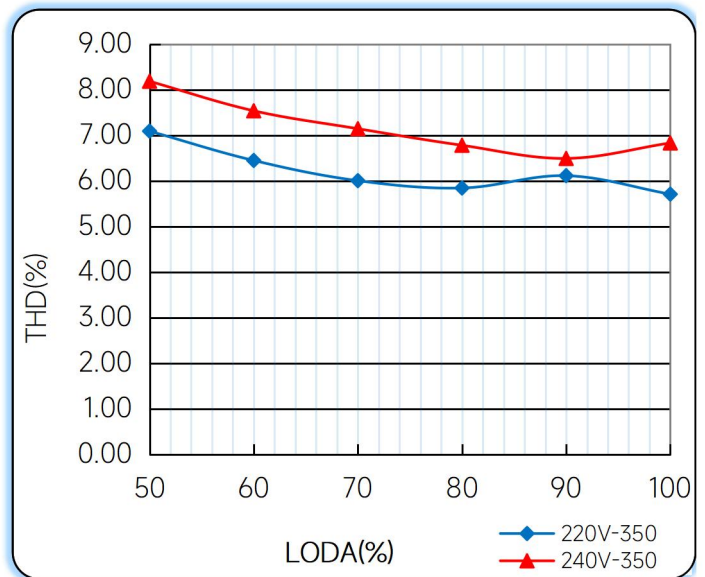
Efficiency vs. Load



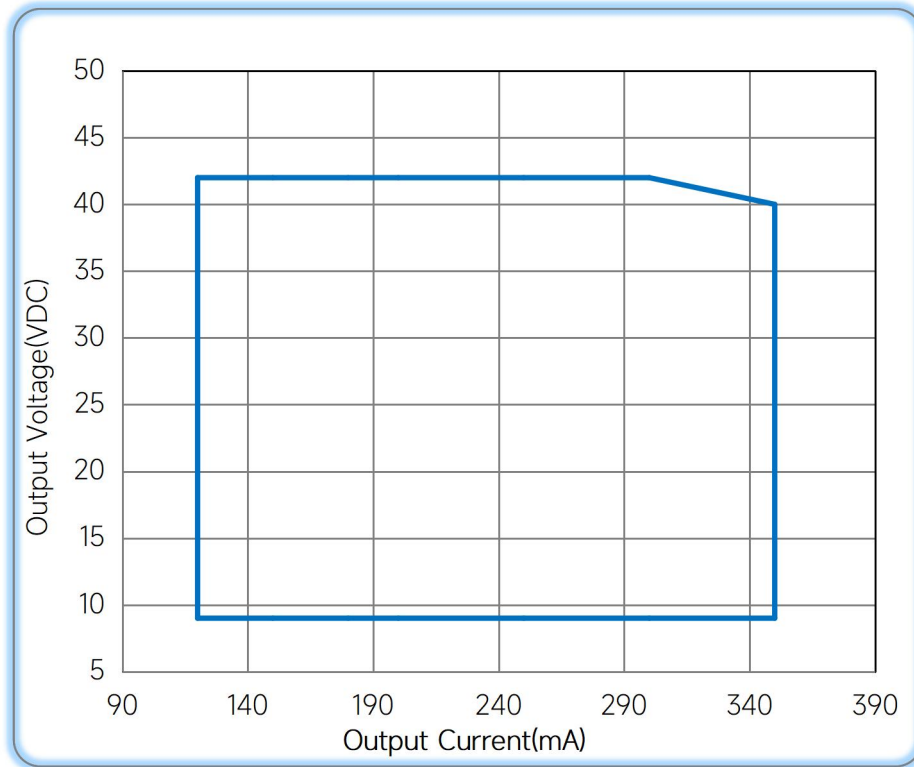
Power Factor Characteristics



THD vs. Load



### ◆ Operating window



— Operating window 100%

### ◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2022/10/24
Brand			B	2023/7/22

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Manual