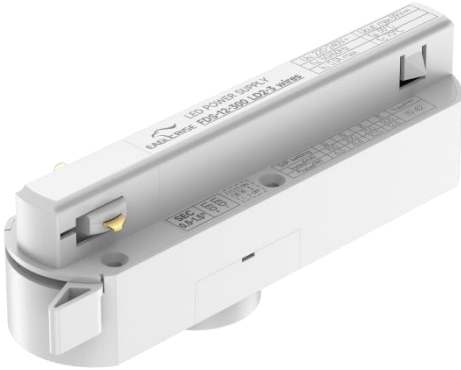


12W Constant Current -FDS power supply



■ Approve



Features

- For luminaires of protection Class II,SELV
- 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

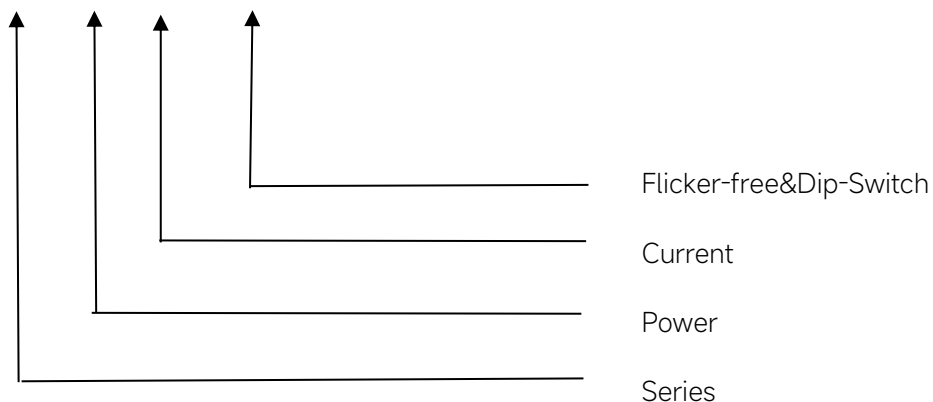
- Track Spot light

◆ Description

FDS-12-300 LD2-3 Wires is a 12W constant current LED driver that operates from 198-264Vac input with 150 to 300mA output current and a forward voltage range from 15 to 42 Vdc. The output current is adjustable by DIP Switch. With it's compact dimensions from 130 X 34 X 45.5mm 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-12-300 LD2-3 Wires



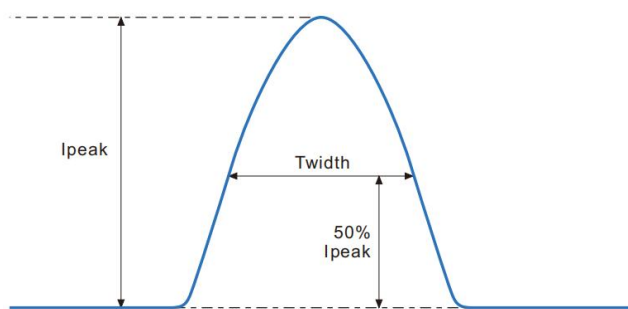
◆ Specification

	Constant Current	150mA	200mA	250mA	300mA
Output	Voltage Range	15-42VDC			
	Unload voltage Max.	59VDC			
	Current Accuracy	±10%	±7%		±5%
	Output HF current ripple(≥1KHz)	±5%			
	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			
	Maximum voltage	300VAC@1 h maximum,unit might not operate in this abnormal condition			
	Frequency(Hz)	50/60 Hz			
	Displacement factor	≥0.9			
	Power Factor	>0.9C			
	Input Current max	0.1A MAX.			
	Start-up time	< 0.5S			
	No Load Power	≤0.5W			
	THD (Typ.)	<10%@full load			
Protection	Over Load Protection	103-130%			
		YES/Auto Resume			
	Over Voltage Protection	> 59VDC			
		YES/Auto Resume			
capability	Short Circuit Protection	YES/Auto Resume			
	Surge capability (L-N)	2KV			
Environment	Surge capability (L/N-Ground)	4KV			
	Operating Temperature	-20°C~+35°C			
	Humidity	20%-90%RH			
	T _c	70°C			
	Storage Temperature	-20°C~+60°C			
	Life time	> 50000h@T _c =70°C			
Surface	Noise	≤25dB(A)@20cm			
	Dimension	130 X 34 X 45.5(LXWXH)mm			
Standards	material	PC			
	Safety	GB19510. 1, GB19510. 14; IEC61347- 1, IEC61347-2- 13; 61347.2.13			
	EMC	GB/T17743, GB17625. 1; EN55015, EN61000-3-2, EN61000-3-3, EN61547			
	ErP	Erp2.0 EU 2019/2020			
Standards	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. 3.Data are typical values obtained from test samples 4.The over-temperature protection of the product is provided by the IC. 5.All Eaglerise power supply are complied with EMI regulations. Since they are belong to component and will be installed inside system enclosure. When they are integrated into a system, the EMI characteristics of the system must be re-verified again.
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◆ Inrush Current

I _{peak}	T _{width}	B10	B16	B20	C10	C16	C20
13.7A	114μs	54pcs	86pcs	108pcs	80pcs	128pcs	160pcs



Remarks:

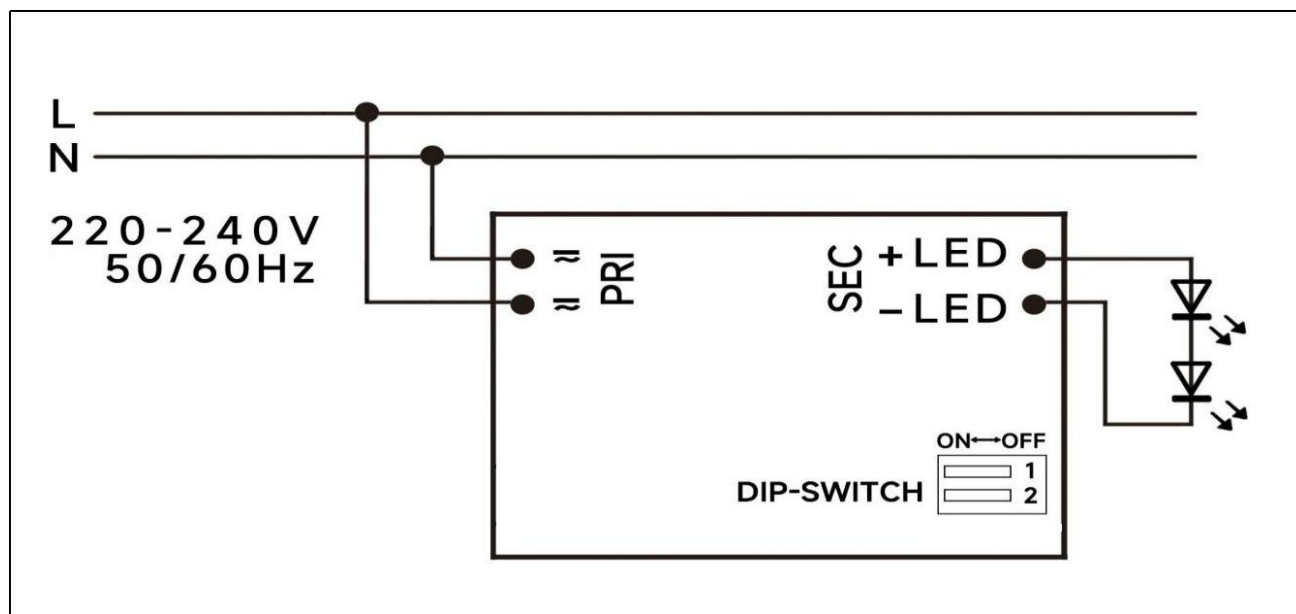
- 1.The number of drives mounted under different MCBs in the table is the maximum value. Please do not exceed this number during installation.
- 2.Different brands and models of miniature circuit breakers, the number of drives mounted will be slightly different.

◆ Parameter

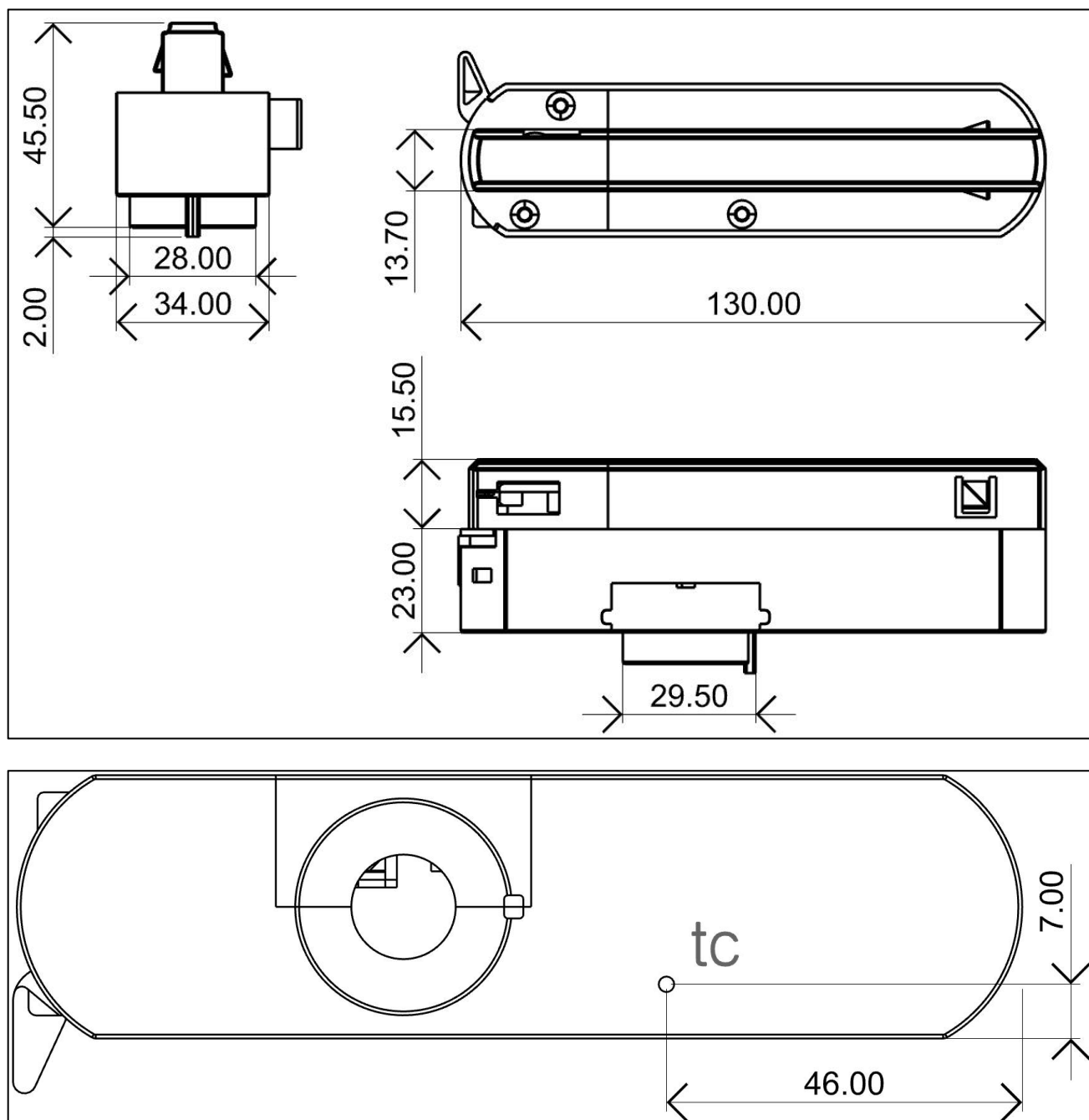
Number	Output				Switch position	
	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)	1	2
1	150mA	15-42VDC	59	6.3	--	--
2	200mA			8.4	ON	--
3	250mA			10.5	--	ON
*4	300mA			12.6	ON	ON

* Factory default

◆ Wiring diagram

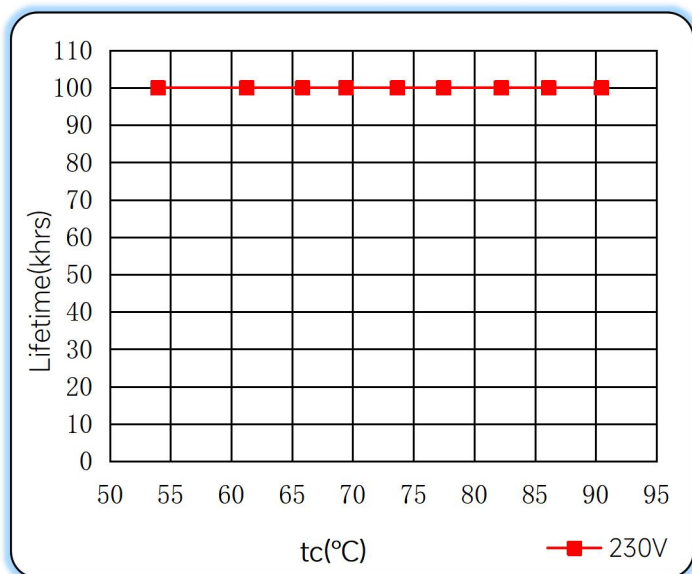


◆ 2D diagram

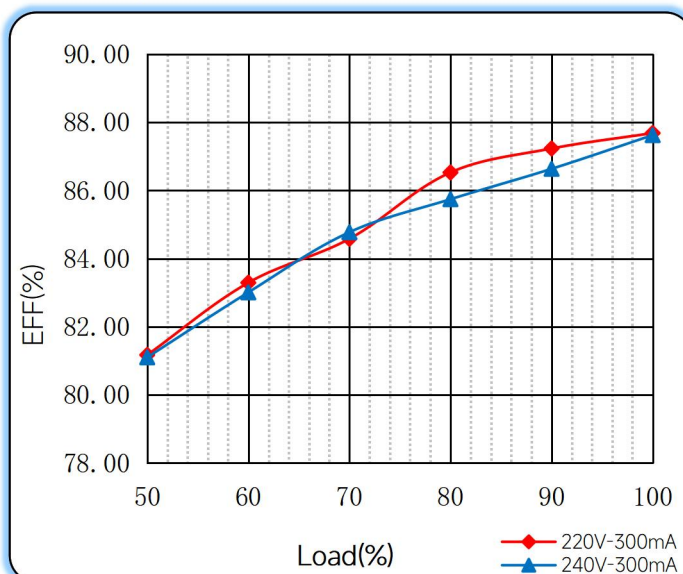


◆ Curve for FDS-12-300 LD2-3 Wires, $I_o=300\text{mA}$

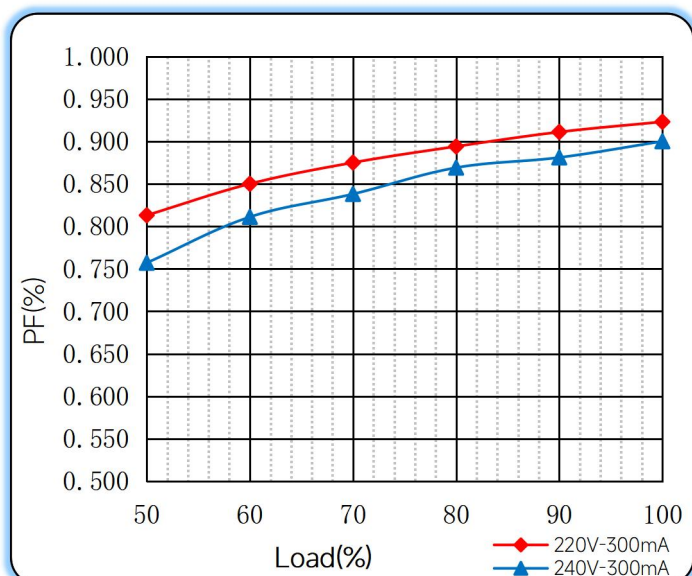
Lifetime vs. Temperature Curve



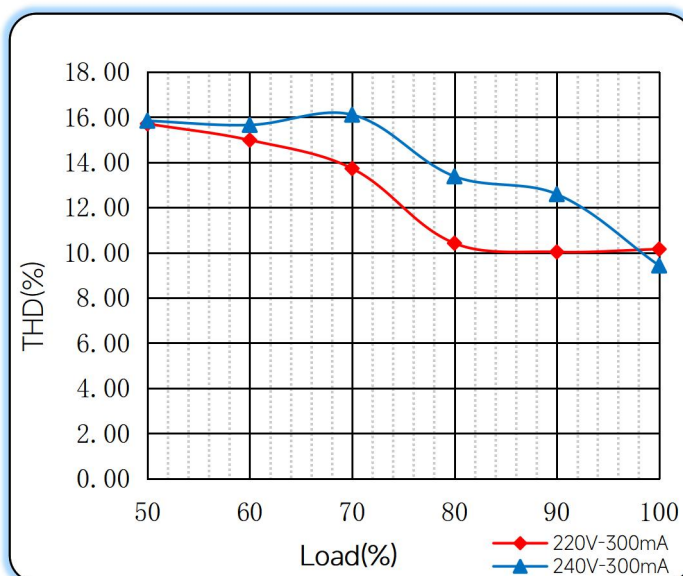
Efficiency vs. Load



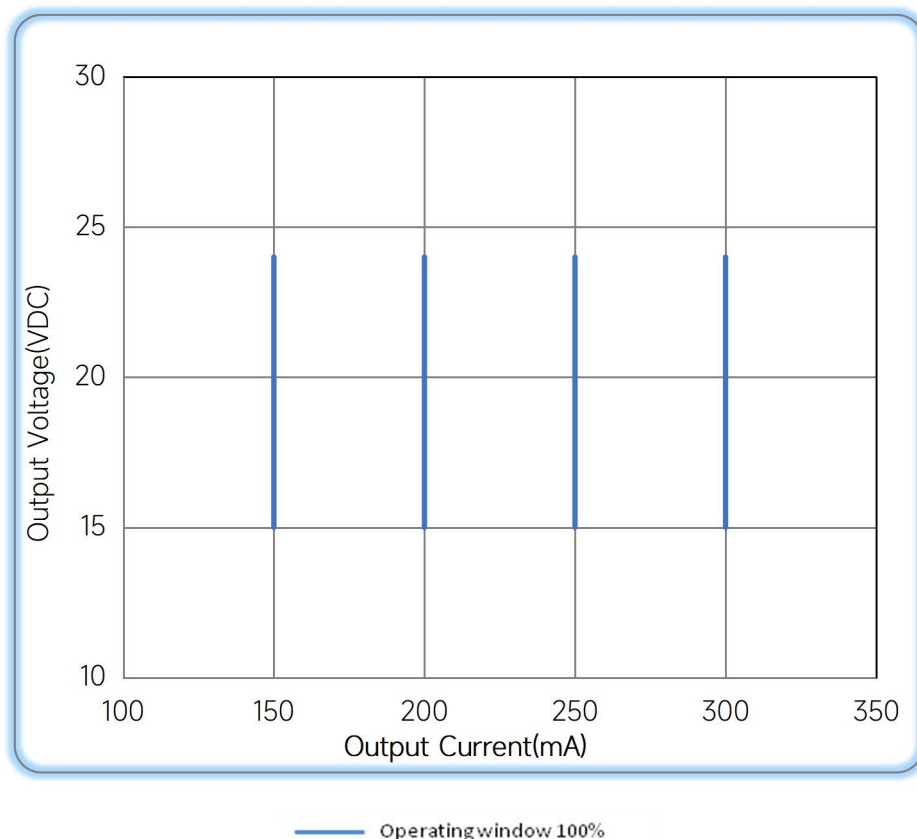
Power Factor Characteristics



THD vs. Load



◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2023/08/17
Current Accuracy	±7%@150mA	±10%@150mA	B	2024/06/12

Remark:The final interpretation of the contents of the specification belongs to Eaglerise Electric & Electronic (China) Co., Ltd.

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Manual