

18W Constant Current -FDS power supply

■ Approve

CECB  EL SELV

Features

- For luminaries of protection Class II,SELV,Built-in
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor: 0.95
- Efficiency: 89%
- Adjustable Output Current with dip-switch
- 5 years warranty

Applications

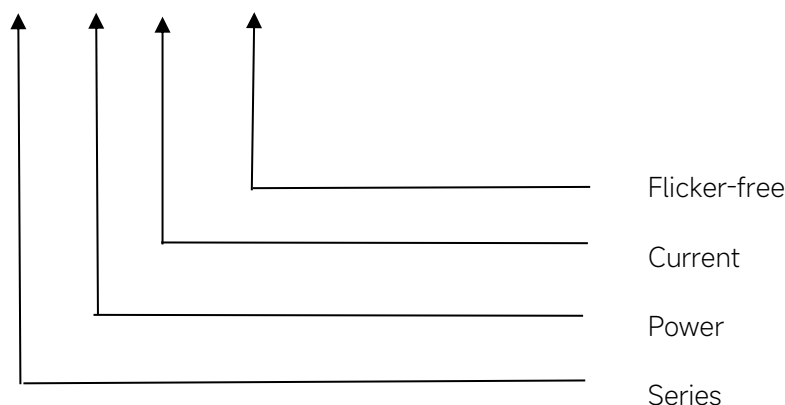
- Track Spot light

◆ Description

FDS-18-450 LD2 EXC is a 18W constant current LED driver that operates from 198-264Vac input with 200 to 450mA output current and a forward voltage range from 24 to 42Vdc. The output current is adjustable by DIP Switch. With it's compact dimensions from 155x31.1x42.2mm. 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-18-450 LD2 EXC



◆ Specification

Output	Constant Current	200mA	250mA	...	450mA
	Voltage Range(VDC)	24-42VDC			24-42VDC
	Unload voltage Max.	59VDC			
	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,230VAC			
Input	Rated input voltage	220-240V			
	Range of input voltage	198-264VAC			
	Maximum voltage	300VAC@1 h maximum,unit might not operate in this abnormal condition			
	Range input voltage(DC)	176-280VDC			
	Frequency(Hz)	0/50/60 Hz			
	Displacement factor	≥0.9			
	Power Factor	0.95@230VAC, full load			
	Input Current max	A MAX. @Full Load,230VAC			
	Start-up time	< 0.5S			
	No Load Power	≤0.5W			
	THD (Typ.)	<10% @Full Load,230VAC			
Protection	Over Load Protection	103-130%			
		YES/Auto Resume			
	Over Voltage Protection	> 59VDC			
		YES/Auto Resume			
	Short circuit Protection	YES/Auto Resume			
capability	Over Temperature Protection	YES/Auto Resume			
	Surge capability (L-N)	2KV			
Environment	Surge capability (L/N-Ground)	NA			
	Operating Temperature	-20°C~+35°C			
	Humidity	10%-90%RH			
	T _c	75°C			
	Storage Temperature	-40°C...+85°C			
	Life time	> 50000h@T _c =75°C			
Surface	Noise	≤25dB(A)@20cm			
	Dimension	155x31.1x42.2mm(LXWXH)mm			
	material	PC			
Standards	Safety	IEC61347- 1, IEC61347-2- 13;EN61347- 1, EN61347-2- 13;EN62384			

	EMC	EN55015, EN61000-3-2, EN61000-3-3, EN61547;EN61000-4-5
	Energy Efficiency	Erp2.0 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. 3.The DC input for this product is only used for emergency lighting and applies to functional and safety requirements, EMC is not considered. 4.EL compatible with IEC 61347-2-13 Annex J, compatible with EN 60598-2-22 emergency lighting fixtures, compatible with EN 50172 central battery system applications. 5.Switch and dimmer are not recommended to connect between this product output and luminaries. 6.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.	

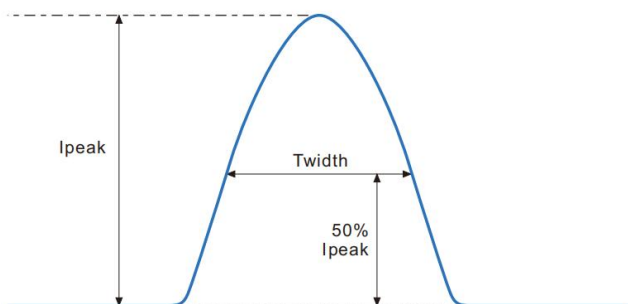
◆ Parameter

Number	Output				Switch position		
	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)	1	2	3
1	200mA	24-42VDC	59V	8.4	--	--	--
2	250mA			10.5	ON	--	--
3	300mA			12.6	--	ON	--
4	350mA			14.7	ON	ON	--
5	400mA			16.8	--	ON	ON
*6	450mA			18.9	ON	ON	ON

* Factory default

◆ Inrush Current

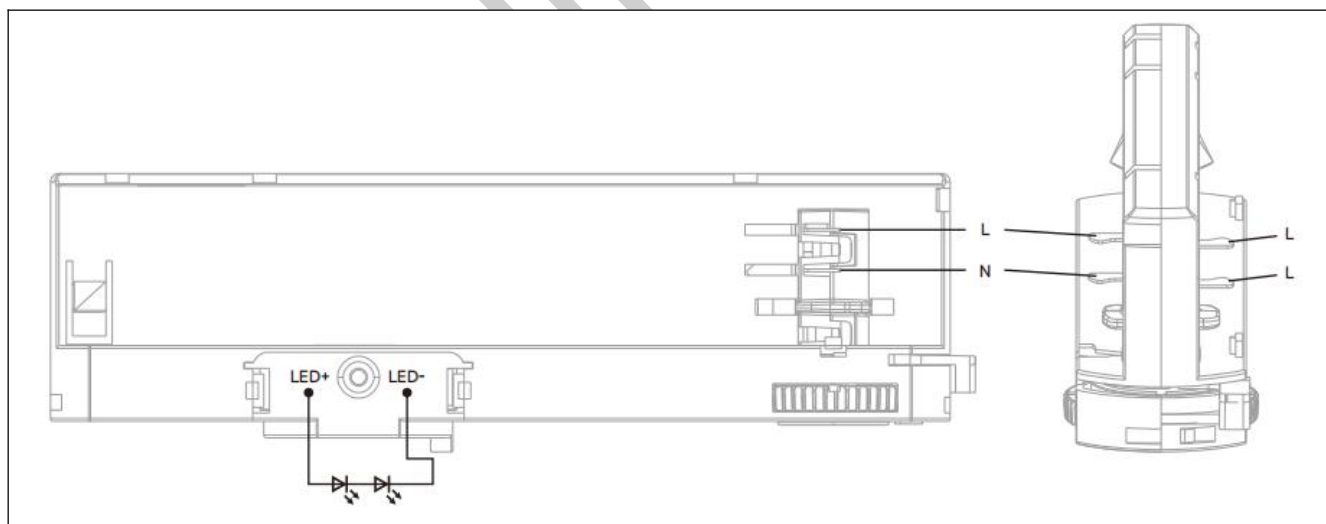
I_{peak}	Twidth	B10	B16	B20	C10	C16	C20
A	μs	pcs	pcs	pcs	pcs	pcs	pcs



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

◆ Wiring & Connections

Specification item		Value (Unit)
Output	Output wire cross-section	0.5...1.5 mm ²
	Output wire gauge.	16...20 AWG
	Output wire strip length	8...9mm

◆ Matching brand

Manufacturer	Type	System	Intrack casing colour
EUTRAC	25-XX-XX/26-XX-XX	3P	Black, white, gray
IVELA	7501/7511/7512	3P	Black, white, gray
LUMISYS UNIPRO	T32/T33/34	3P	Black, white, gray
LUMISYS UNIPRO	T32F/T33F/34F	3P	Black, white, gray
NORDIC ALUMINIUM	GLOBAL Trac Pro XTS 4XXX	3P	Black, white, gray
NORDIC ALUMINIUM	GLOBAL Trac Pro XTSF 4XXX	3P	Black, white, gray
ERCO	783..	3P	Black, white, gray
SIDE	25101	3P	Black, white, gray
PHILIPS	RCS350 3C	3P	Black, white, gray
Stucchi	One track	3P	Black, white, gray
Powergear	PRO-0610	3P	Black, white, gray
Unipro	T32W	3P	Black, white, gray
ZUMTOBEL	280 174	3P	Black, white, gray

◆ **Curve for FDS-18-450 LD2 EXC, $I_o=450\text{mA}$**

Lifetime vs. Temperature Curve

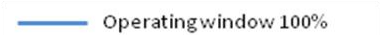
Efficiency vs. Load

Power Factor Characteristics

THD vs. Load

Preliminary

◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2024/04/27

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



Manual