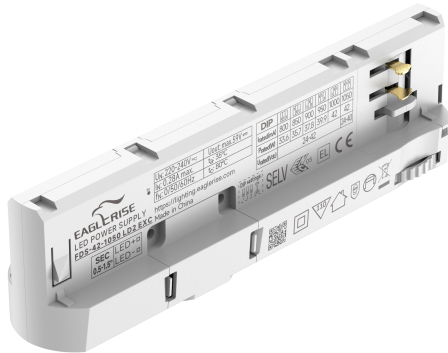


42W Constant Current -FDS power supply



■ Approve

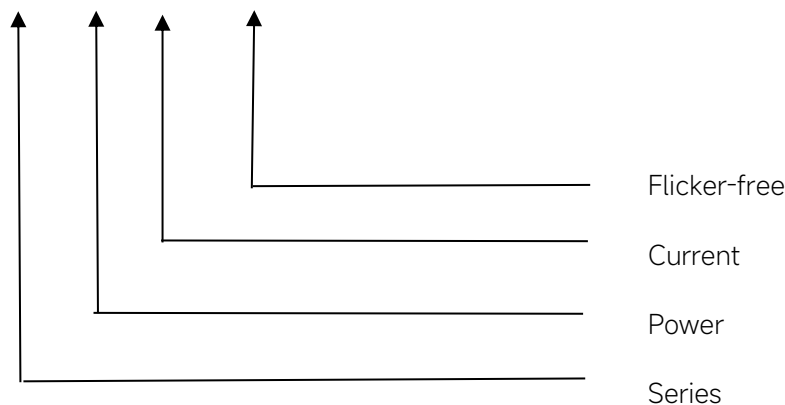


◆ Description

FDS-42-1050 LD2 EXC is a 42W constant current LED driver that operates from 198-264Vac input with 800 to 1050mA 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-42-1050 LD2 EXC



Features

- For luminaires of protection Class II,SELV
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor: 0.95
- Efficiency: 90%
- Adjustable Output Current with dip-switch
- 5 years warranty

Applications

- Track Spot light

◆ Specification

Output	Constant Current	800mA	850mA	...	1050mA
	Voltage Range(VDC)	24-42VDC	24-42VDC	...	24-40VDC
	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.)	90%@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			
	Input Current max	0.25A 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	Surge capability (L-N)	2KV			
	Surge capability (L/N-Ground)	2KV			
Environment	Operating Temperature	-20°C~+35°C			
	Humidity	10%-90%RH			
	Tc	75°C			
	Storage Temperature	-40°C...+85°C			
	Life time	> 50000h@Tc=70°C			
	Noise	≤25dB(A)@20cm			
Surface	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	<p>1.All parameters NOT specially mentioned are measured at 230VAC input , full load and 25°C of ambient temperature.</p> <p>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.</p> <p>3.The DC input for this product is only used for emergency lighting and applies to functional and safety requirements, EMC is not considered.</p> <p>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.</p> <p>5.Switch and dimmer are not recommended to connect between this product output and luminaries.</p> <p>6.The over-temperature protection of the product is provided by the IC.</p> <p>7.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.</p>	

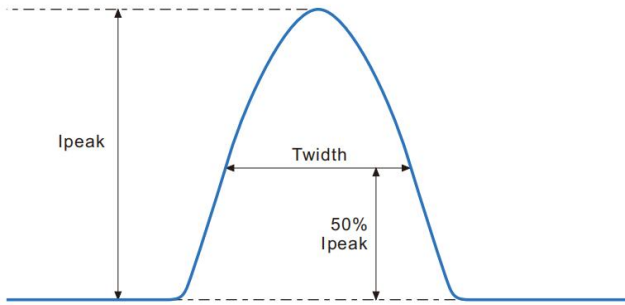
◆ Parameter

Number	Output				Switch position		
	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)	1	2	3
1	800mA	24-42VDC 59V		33.6	--	--	--
2	850mA			35.7	ON	--	--
3	900mA			37.8	--	ON	--
4	950mA			39.9	ON	ON	--
5	1000mA			42	--	ON	ON
*6	1050mA	24-40VDC		42	ON	ON	ON

* Factory default

◆ **Inrush Current**

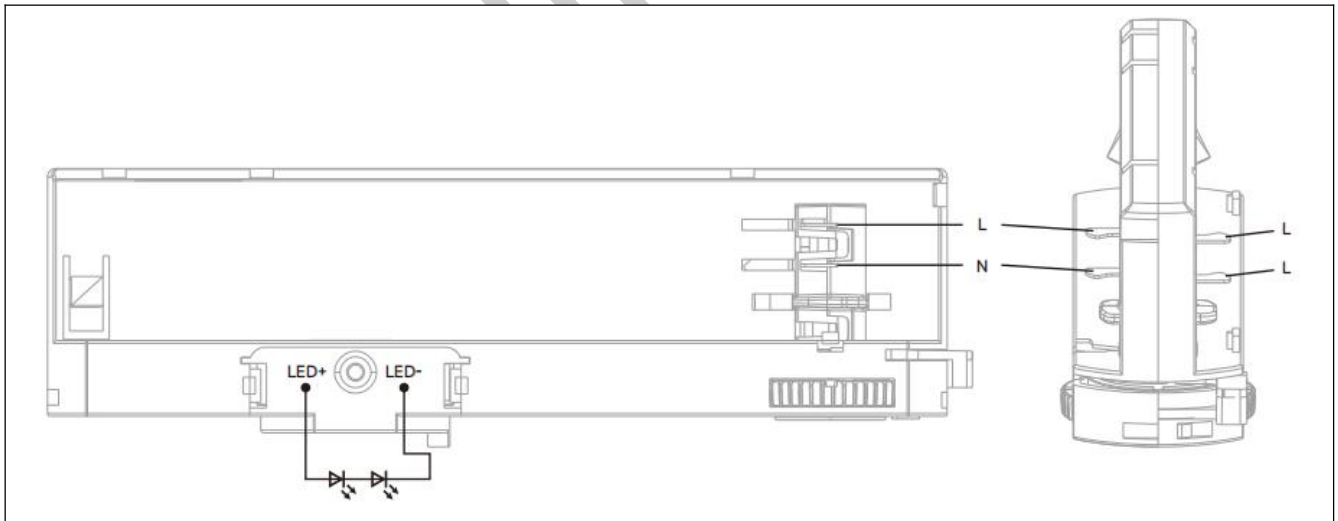
I_{peak}	Twidth	B10	B16	B20	C10	C16	C20
19A	156.8μs	27pcs	44pcs	55pcs	32pcs	51pcs	64pcs

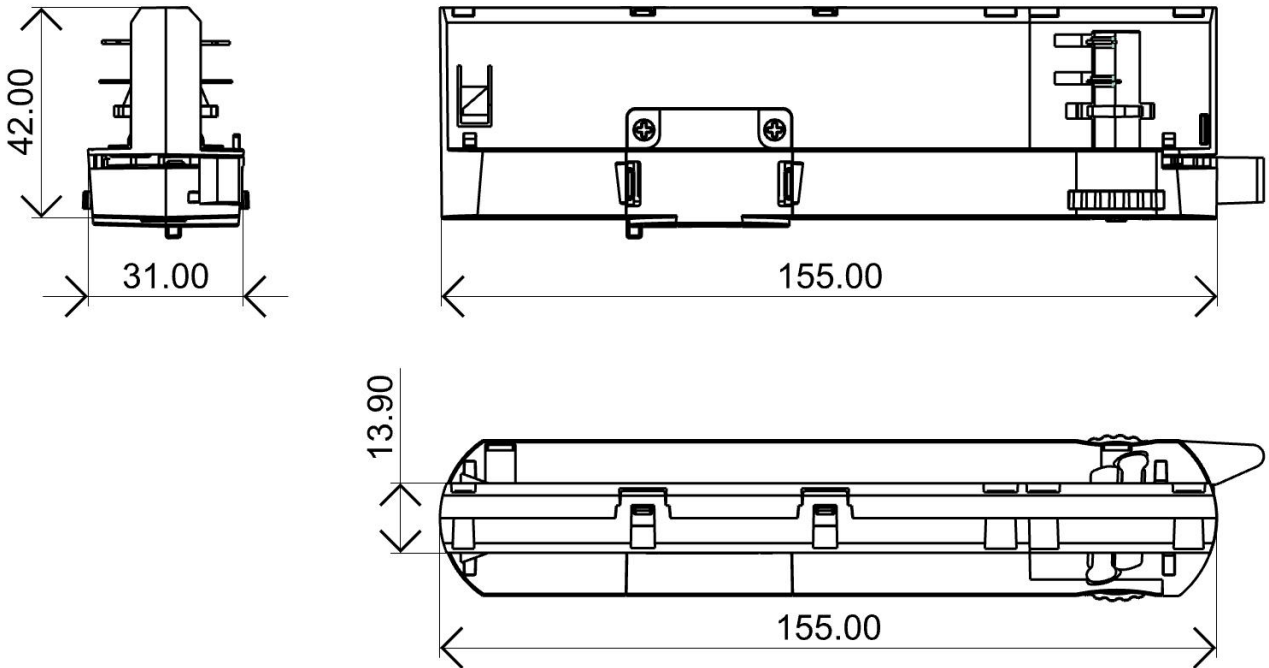


Remarks:

- 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

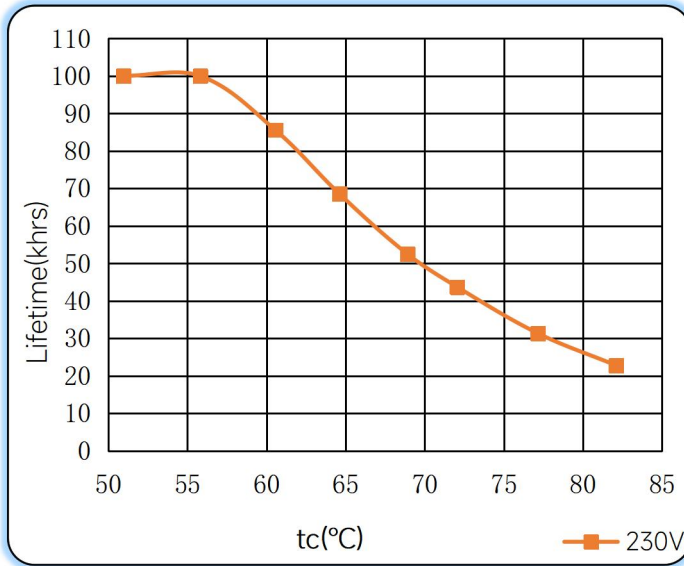
	Specification item	Value (Unit)
Output	Output wire cross-section	0.5..1.5 mm ²
	Output wire gauge.	16..20 AWG
	Output wire strip length	8..9mm

◆ Matching brand

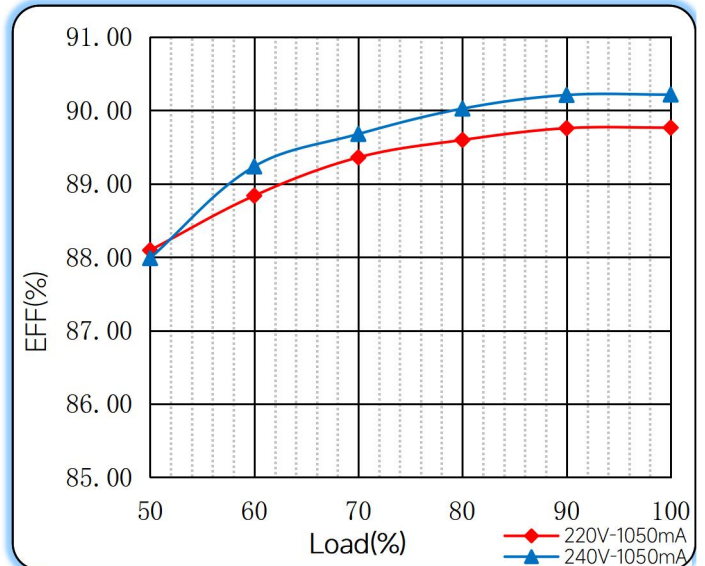
Manufacturer	Type	System	Intrack casing colour
EUTRAC	25-XX-XX/26-XX-XX	3P	Black, white, gray
IVELA	7501/7511/7512	3P	Black, white, gray
LUMISYS UNIPRO	T32/T33/34	3P	Black, white, gray
LUMISYS UNIPRO	T32F/T33F/34F	3P	Black, white, gray
NORDIC ALUMINIUM	GLOBAL Trac Pro XTS 4XXX	3P	Black, white, gray
NORDIC 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-42-1050 LD2 EXC, I_o=1050mA**

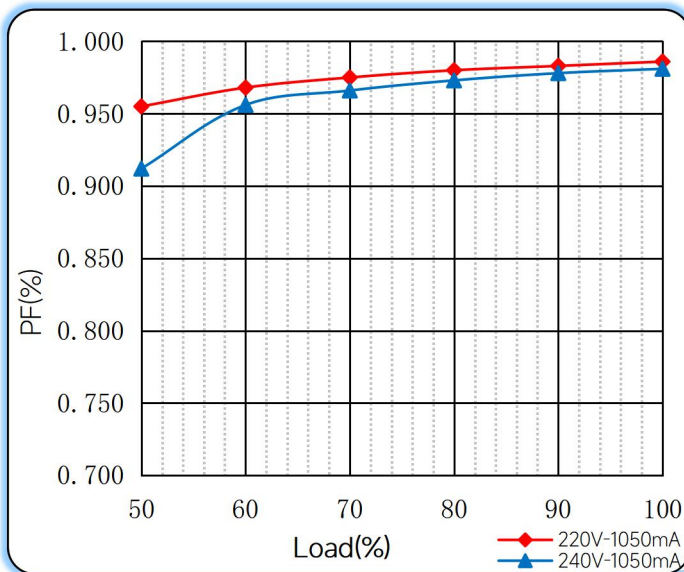
Lifetime vs. Temperature Curve



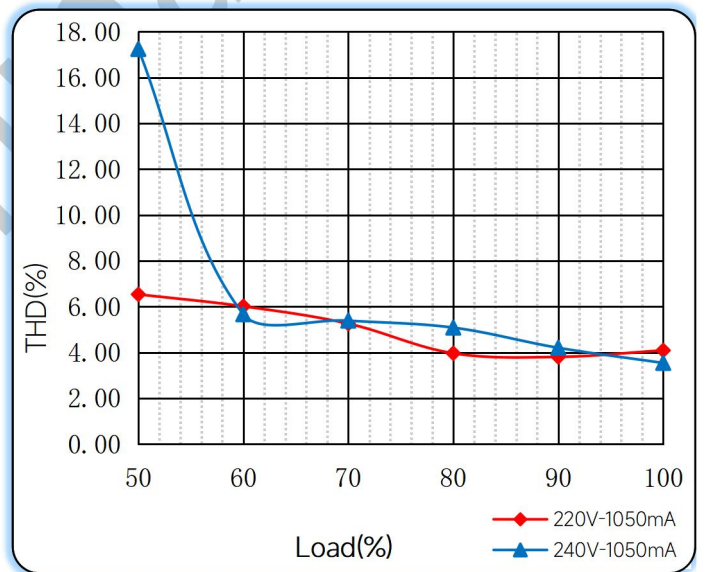
Efficiency vs. Load



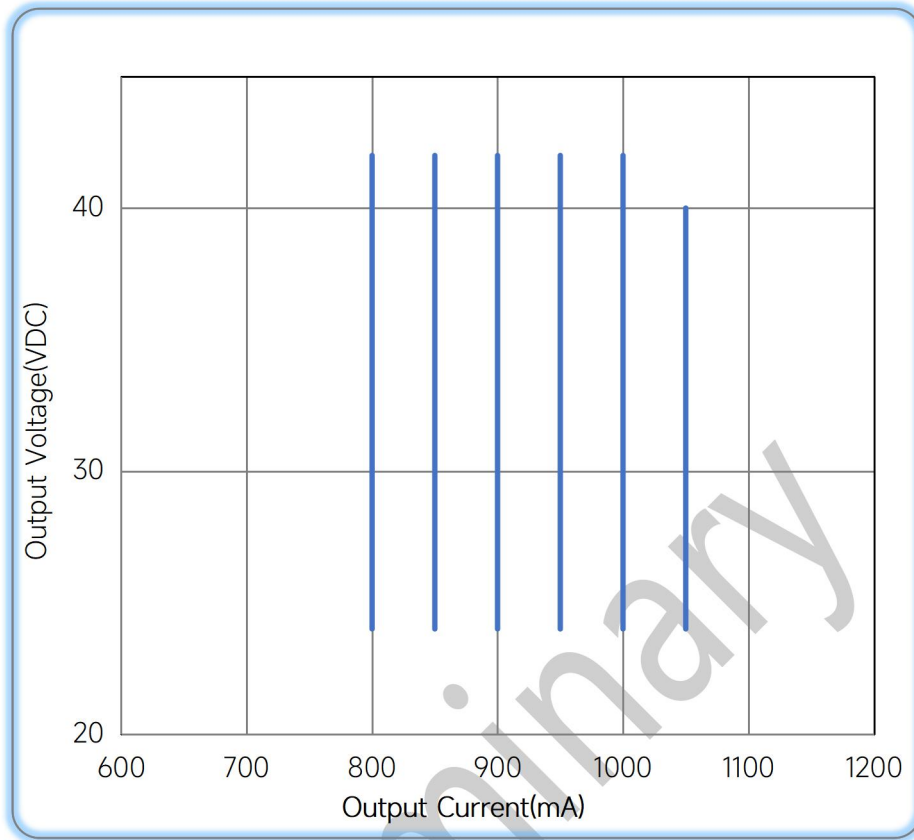
Power Factor Characteristics



THD vs. Load



◆ **Operating window**



◆ **Revision Updates**

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2024/04/27
Life time	> 50000h@Tc=80°C	> 50000h@Tc=70°C	B	2024/09/09

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

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