

## 42W Constant Current – DIP-Switch



■ Approve



### Features

- For luminaries of protection Class I or II, SELV, built-in
- Input Voltage : 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor :  $\geq 0.95$
- Efficiency: 90%
- 5 years warranty

### Applications

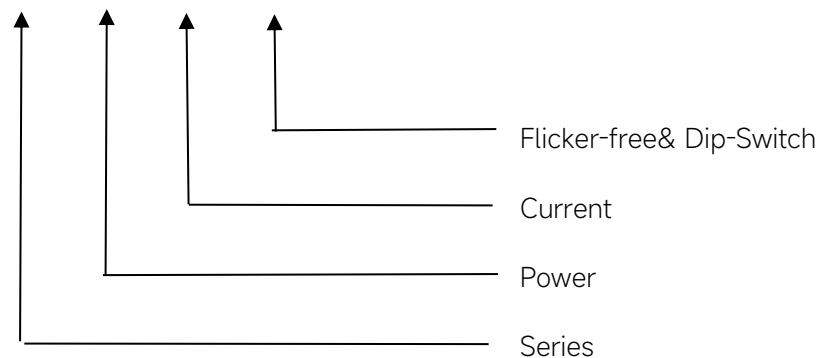
- Linear light

### ◆ Description

FMS-42-1050 LD EXC is a 42W constant current LED driver that operates from 198-264Vac input with 700 to 1050mA output current. The output current is selectable by DIP Switch. With its dimensions from 210 x 30 x 21mm. It is easy to integrate in linear light products. To ensure trouble-free operation, protection is provided against output short circuit, over Load and over temperature.

### ◆ Model code

#### FMS-42-1050 LD EXC



## ◆ Specification

	Constant Current	700mA	800mA	900mA	1050mA
Output	Voltage Range	24-42VDC			24-40VDC
	Unload voltage Max.	59VDC			
	Current Accuracy	±5%			±7%
	Output HF current ripple(≥1KHz)	±3%			
	Output LF current ripple(≤120Hz)	±3%			
	SVM	≤0.4			
	Pst	≤1			
	Efficiency(Typ.)	90%@230V full load			
	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 of input voltage(VDC)		176-280VDC			
Frequency(Hz)		0/50/60 Hz			
Power Factor		≥0.95			
Input Current max		0.24A			
Start-up time		< 0.5S			
No Load Power		≤0.5W			
THD (Typ.)		< 10%.			
Protection	Over Load Protection	102-130% 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~+60°C			
	Humidity	20%-90%RH			
	Tc	80°C			
	Storage Temperature	-25°C~+80°C			
	Life time	> 50000h@Tc=75°C,230VAC			
	Noise	≤25dB(A)@20cm			
Surface	Dimension	210X30X21(LXWXH)mm			
	material	metal case			
Standards	Safety	GB19510. 1, GB19510. 14;IEC61347- 1, IEC61347-2- 13;EN61347- 1, EN61347-2-13;EN62384			
	EMC	GB/T17743, GB17625. 1;EN55015, EN61000-3-2, EN61000-3-3, EN61547;EN61000-4-5;			

	ErP	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 &amp; Noise are measured at 20MHz of bandwidth by using a 300mm twisted pair-wire terminated with a 0.1uF &amp; 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.The over-temperature protection of the product is provided by the IC.</p> <p>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.</p>	

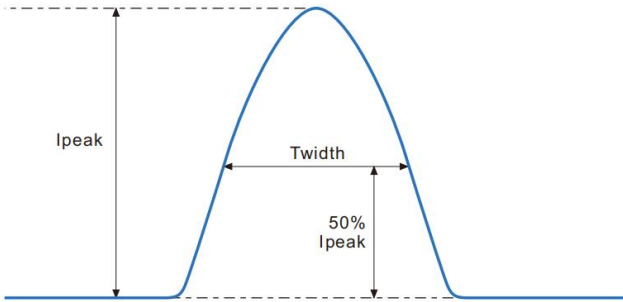
## ◆ Parameter

Number	Output				Switch position	
	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)	1	2
1	700mA	24-42VDC	59	29.4	--	--
2	800mA			33.6	ON	--
3	900mA			37.8	--	ON
4	1050mA	24-40VDC		42	ON	ON

\* Factory default

### ◆ Inrush Current

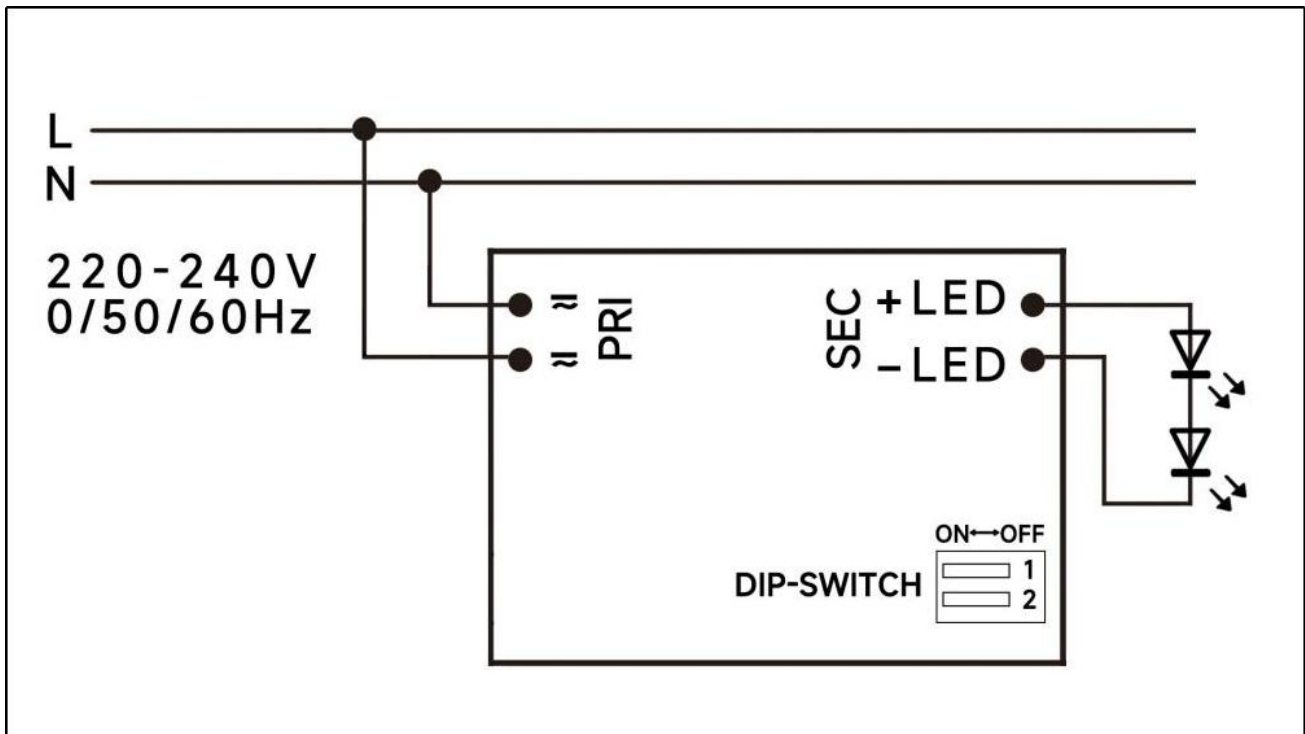
$I_{peak}$	Twidth	B10	B16	B20	C10	C16	C20
16.6A	166 $\mu$ s	30pcs	48pcs	60pcs	33pcs	53pcs	66pcs

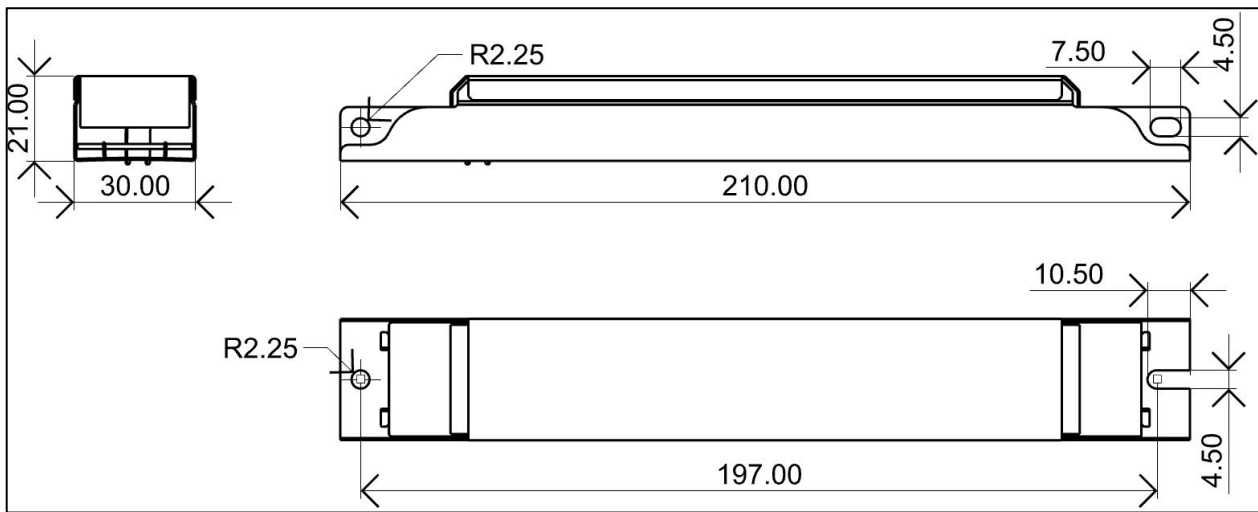


Remarks:

- 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



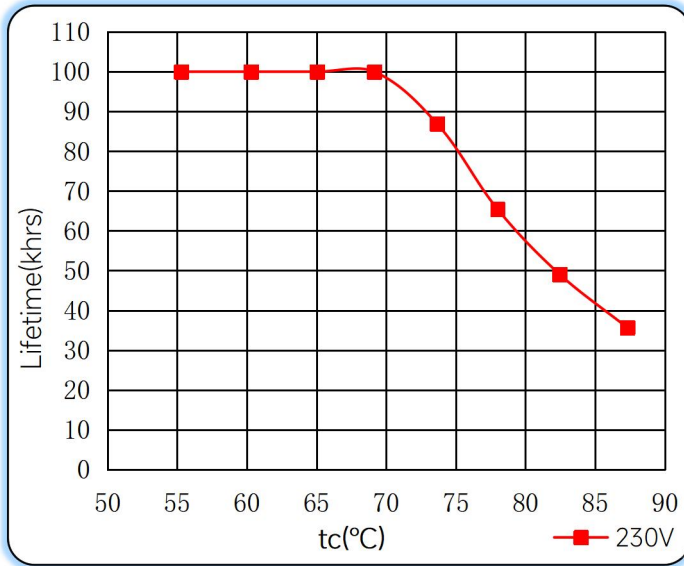
**◆ 2D diagram**

**◆ Wiring & Connections**

Specification item		Value (Unit )
Input	Input wire cross-section	0.5...1.5 mm <sup>2</sup> (With side caps: 0.75...1.5 mm <sup>2</sup> )
	Input wire gauge.	16...20 AWG (With side caps: 16...22 AWG )
	Input wire strip length	7...9mm
Output	Output wire cross-section	0.5...1.5 mm <sup>2</sup>
	Output wire gauge.	16...20 AWG
	Output wire strip length	7...9mm

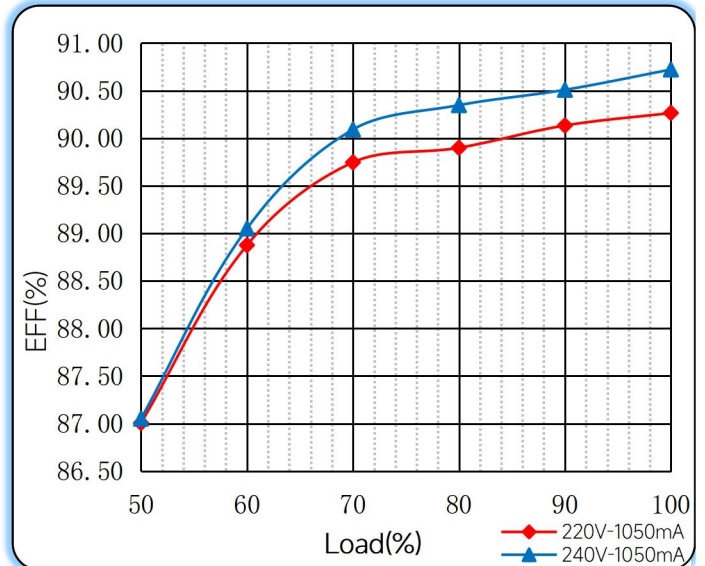
Note: Solid wire is risky to use on an angled terminal. Stranded wire is recommended for this kind of use.

## ◆ Curve for FMS-42-1050 LD EXC, $I_o=1050mA$

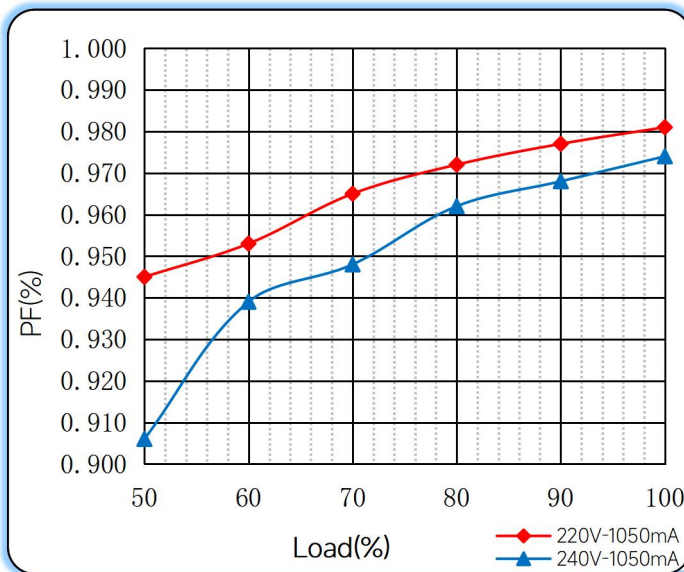
### Lifetime vs. Temperature Curve



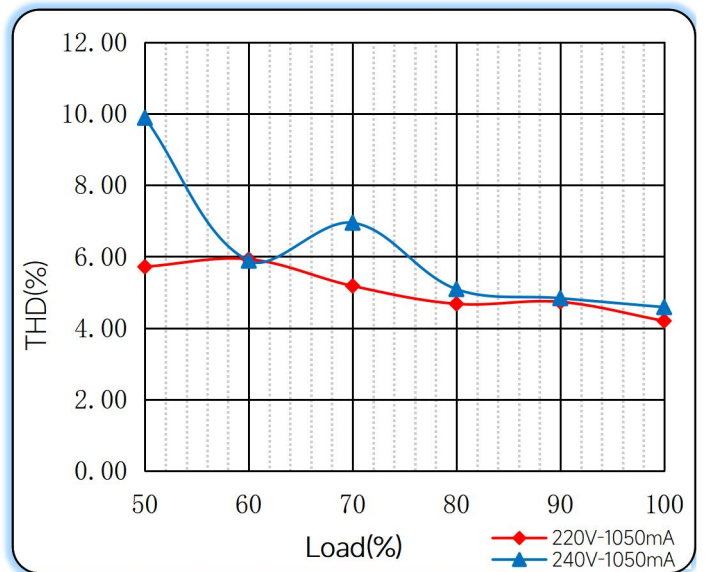
### Efficiency vs. Load



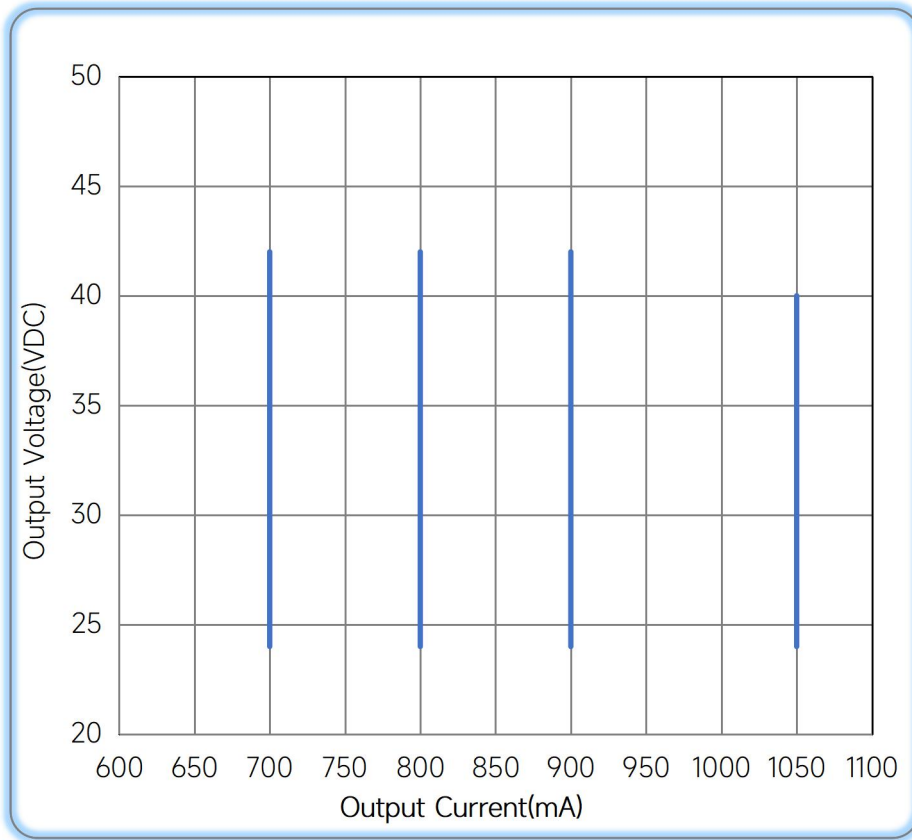
### Power Factor Characteristics



### THD vs. Load



### ◆ Operating window



— Operating window 100%

### ◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2024/08/15

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

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Manual