

40W Constant Current – DIP-Switch



■ Approve

CE CB EN SELV

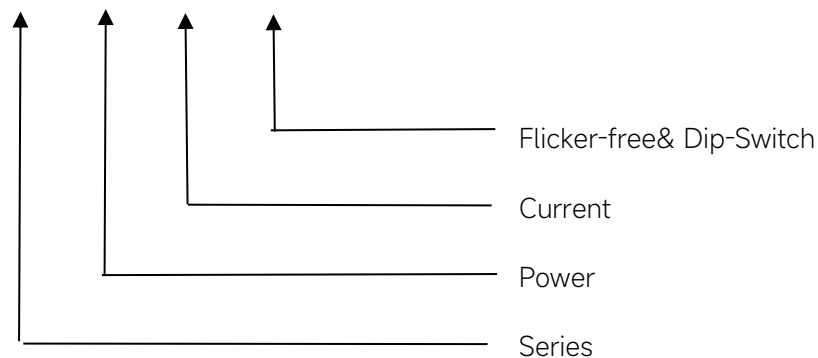


◆ Description

FMS-40-1050 LD EXC is a 40W 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-40-1050 LD EXC



Features

- For luminaries of protection Class I or II, SELV, built-in
- Input Voltage : 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor : > 0.95
- Efficiency: 90% @ 700~850mA;
89% @ 900~1050mA

- 5 years warranty

Applications

- Linear light

◆ Specification

	Constant Current	700mA	750mA	800mA	...	1000mA	1050mA
Output	Voltage Range	15-54VDC		15-52VDC		15-40VD	15-38VDC
	Unload voltage Max.	59VDC					
	Current Accuracy	±5%					
	Output HF current ripple(≥1KHz)	±3%					
	Output LF current ripple(≤120Hz)	±3%					
	SVM	≤0.4					
	Pst	≤1					
	Efficiency(Typ.)	90%@700-850mA;89%@900-1050mA					
	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		0.28A					
Start-up time		< 0.5S					
No Load Power		≤0.5W					
THD (Typ.)		< 10%.					
Protection	Over Load Protection	101-160% YES/Auto Resume					
	Over Voltage Protection	> 59VDC YES/Auto Resume					
	Short circuit Protection	YES/Auto Resume					
	Over Temperature 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=80°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 & 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.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>	

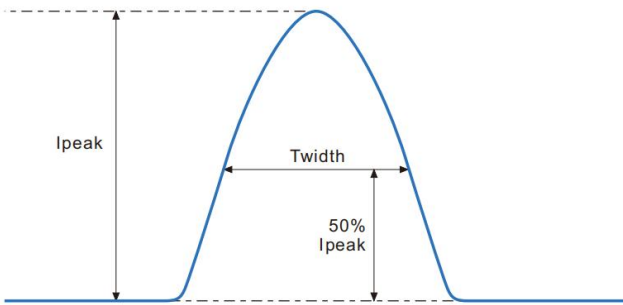
◆ Parameter

Number	Output			Power (W)	Switch position		
	Current (mA)	Voltage (VDC)	Voltage No load (VDC)		1	2	3
1	700mA	15-54VDC	59	37.8	--	--	--
2	750mA	15-54VDC		40.5	ON	--	--
3	800mA	15-52VDC		41.6	--	ON	--
4	850mA	15-48VDC		40.8	ON	ON	--
5	900mA	15-46VDC		41.4	--	--	ON
6	950mA	15-44VDC		41.8	ON	--	ON
7	1000mA	15-40VDC		40	--	ON	ON
*8	1050mA	15-38VDC		39.9	ON	ON	ON

* Factory default

◆ Inrush Current

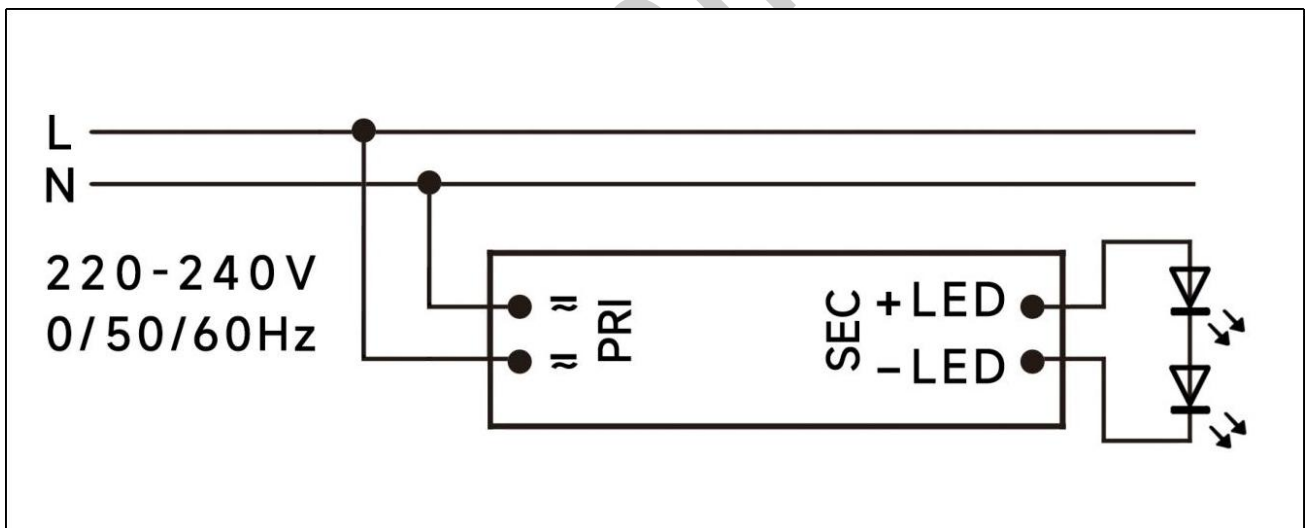
I_{peak}	Twidth	B10	B16	B20	C10	C16	C20
16.8A	162 μ s	28pcs	45pcs	57pcs	28pcs	45pcs	57pcs



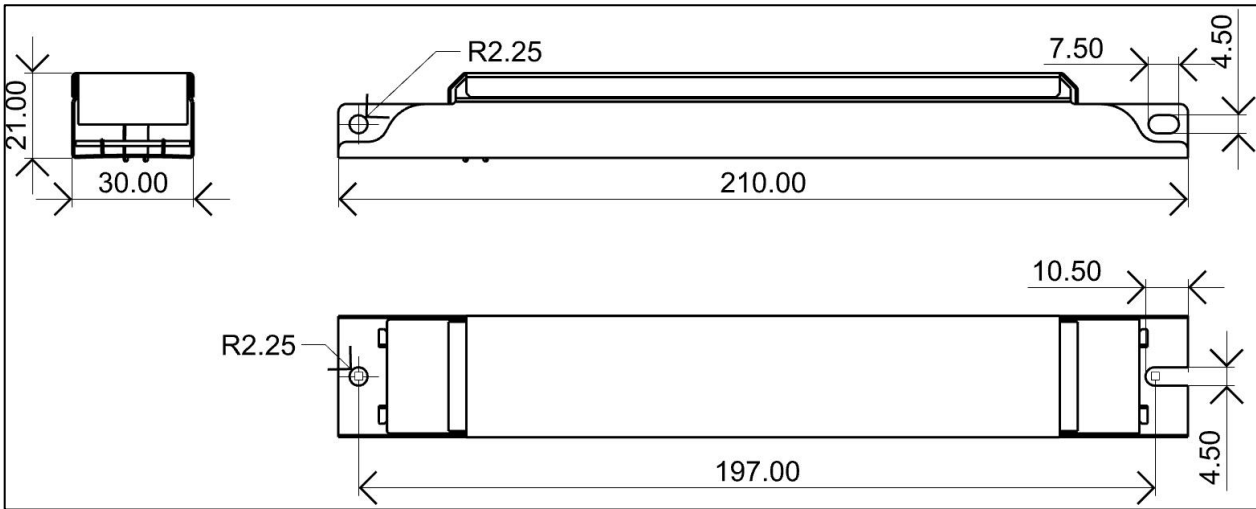
Remarks:

- 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 ²
	Input wire gauge.	16...20 AWG
	Input wire strip length	7...9mm
Output	Output wire cross-section	0.5...1.5 mm ²
	Output wire gauge.	16...20 AWG
	Output wire strip length	7...9mm

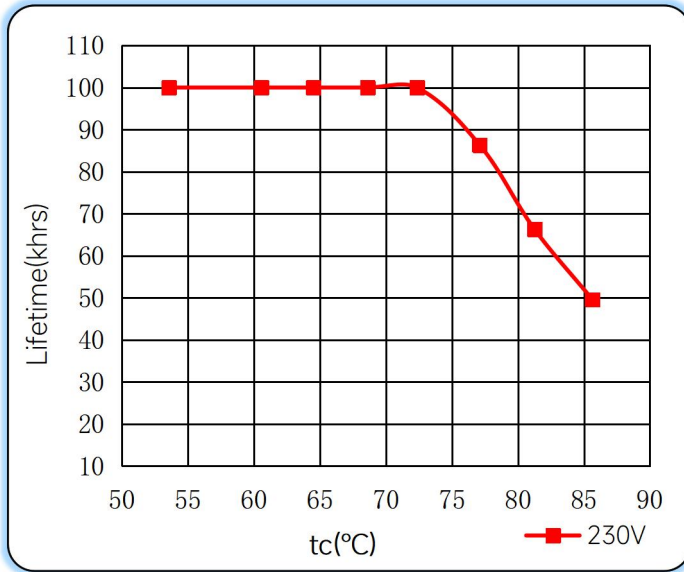
◆ Recommended wire

Wire cross-section	Wire type
2*0.5mm ²	H03VVH2-F 2core
2*0.75mm ²	H03VVH2-F 2core
1.5mm ²	CCC 08(RV-90)
16AWG(1.25mm ²)	UL1015

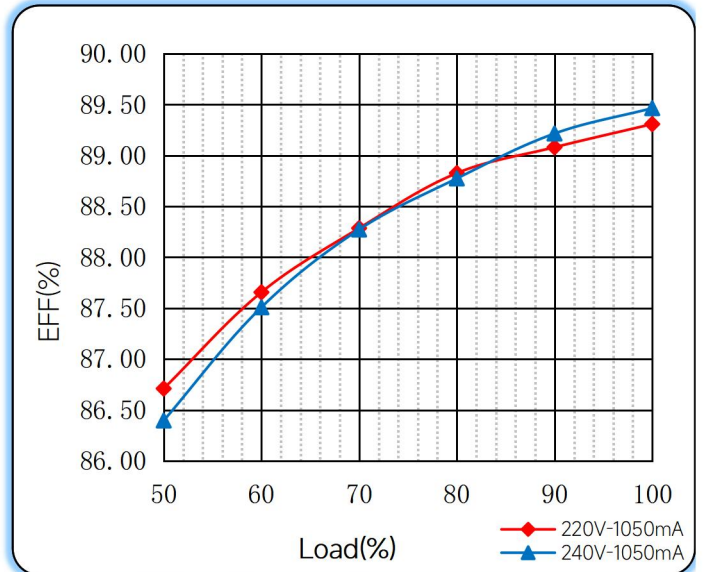
Note: Solid wire is risky to use on an angled terminal. Stranded wire is recommended for this kind of use.

◆ **Curve for FMS-40-1050 LD EXC, I_o=1050mA**

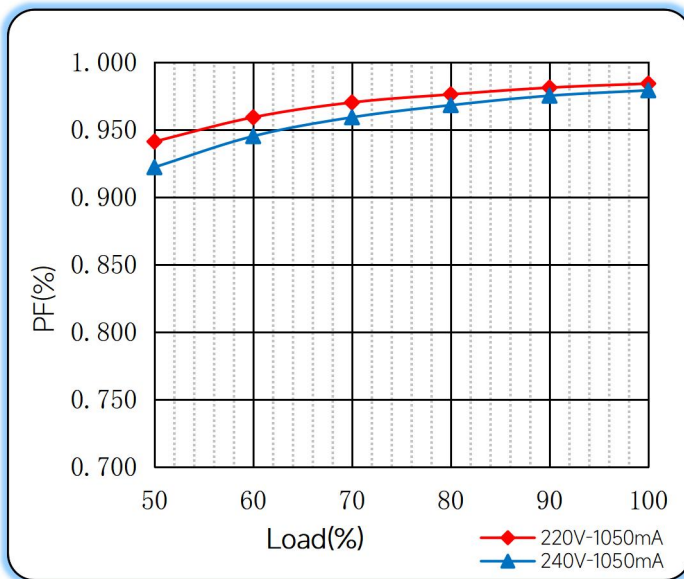
Lifetime vs. Temperature Curve



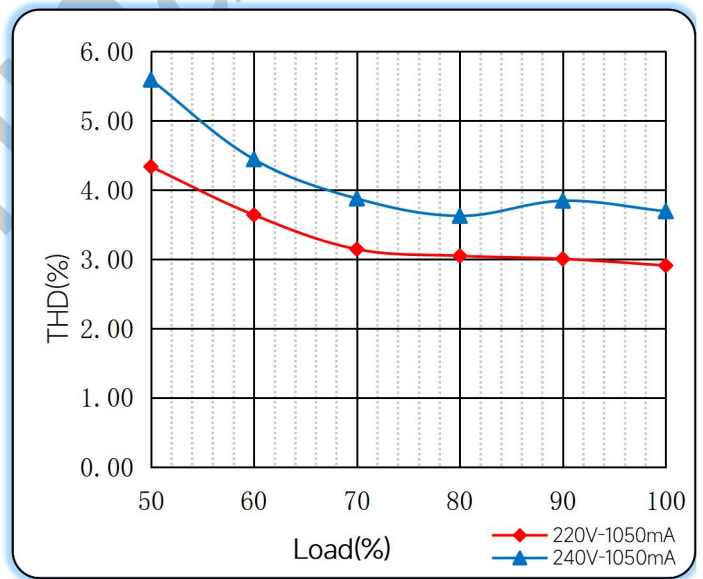
Efficiency vs. Load



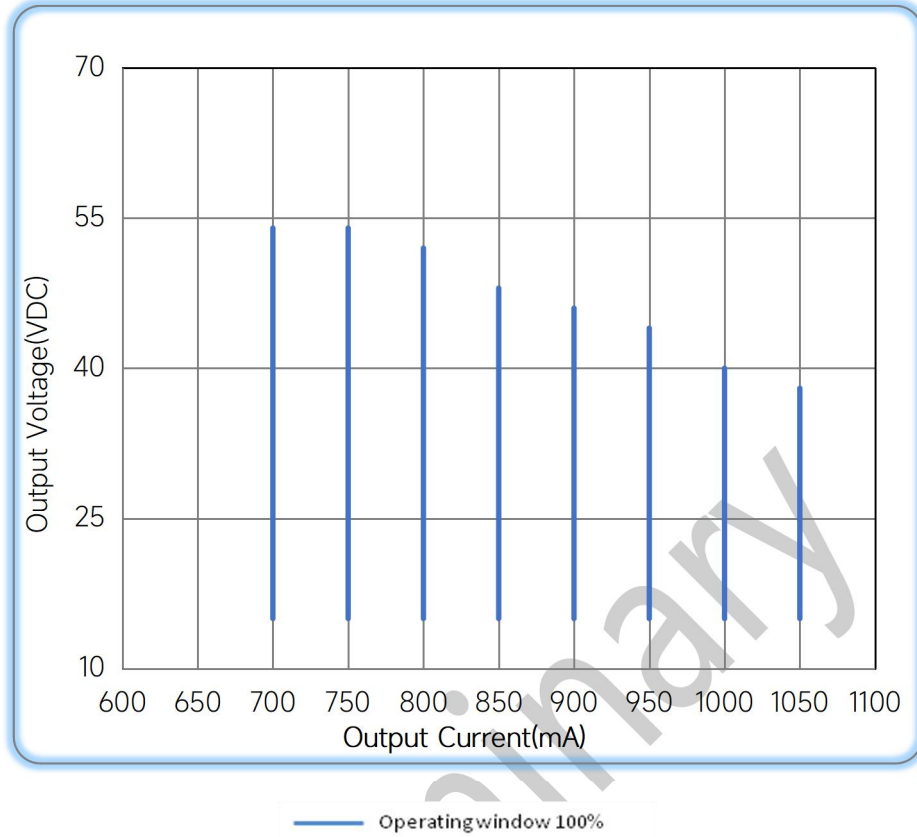
Power Factor Characteristics



THD vs. Load



◆ **Operating window**



◆ **Revision Updates**

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2023/08/15
Efficiency(Typ.)	90%	90%@700~850mA; 89%@900~1050mA	B	2024/01/24

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

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Manual