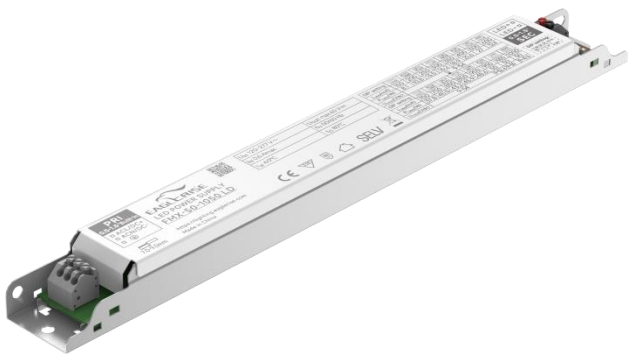
50W Constant Current - DIP-Switch



Features

- For luminaries of protection Class I or II, SELV,Built-in/Independent(With side caps)
- Input Voltage: 120-277VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor: 0.95
- Efficiency ： 90%
- Adjustable Output Current with dip-switch
- Suitable for emergency lighting acc. to EN 50172
- 5 years warranty

Applications

- Linear light

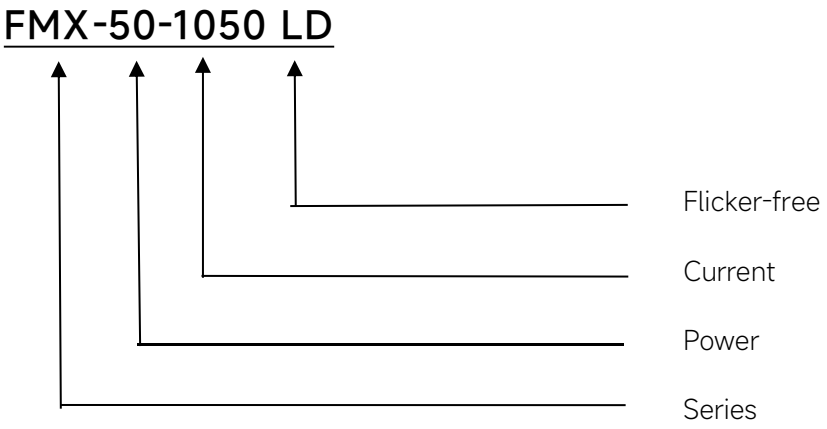
■Approve

LISTED
(LED POWER SUPPLY)
E357718

◆ Description

FMX-50-1050 LD is a 50W constant current LED driver that operates from100-305Vac input with 150 to 1050mA output current and a forward voltage range from 9 to 54Vdc. The output current is adjustable by dip-switch.With it's compact dimensions from 280 x 30 x 21 mm. It is easy to integrate in linear light products. To ensure trouble-free operation, protection is provided against output Short Circuit, over Load, over Voltage and over Temperature.

◆ Model code



◆ Specification

Output	Constant Current	150mA	200mA	...mA	1050mA
	Voltage Range	9-54VDC		...VDC	9-47.6VDC
	Unload voltage Max.	60VDC			
	Current Accuracy	±5%			
	Output LF current ripple(≤120Hz)	±5%			
	SVM	≤0.4@Full load,120-277VAC			
	Pst	≤1@Full load,120-277VAC			
	Efficiency(Typ.)	90%@230VAC;88%@Full load,120VAC			
	EOFI	100%			
Input	Rated input voltage(AC)	120-277VAC			
	Range of input voltage(AC)	100-305VAC			
	Maximum voltage	315VAC@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(Typ.)	0.95@Full load,120-277VAC			
	Input Current	0.6A max.			
	Start-up time	< 0.5S			
	No Load Power	≤0.5W@277VAC			
	THD (Typ.)	<10%@Full load, 120-230VAC; <15%@Full load, 277VAC			
Protection	Over Load Protection	103-120%			
		YES/Latch off			
	Over Voltage Protection	60VDC			
		YES/Latch off			
	Short Circuit Protection	YES/Latch off			
Capability	Surge capability (L-N)	1KV			
	Surge capability (L/N-Ground)	2KV			
Withstand voltage	Input-Output	3750V/5mA/60S			
	Input-Ground	1500V/5mA/60S			
	Output-Ground	500V/5mA/60S			
Environment	Operating Temperature	-25℃~+60℃			
	Humidity	10%-90%RH			
	Tc	85℃			
	Storage Temperature	-25℃~+85℃			
	Lifetime	>50000h,@Tc=80℃			
	Ripple&Noise	25dB(A)@20cm			
Surface	Dimension	280 x 30 x 21(LXWXH)mm			
	material	metal case			

Standards	Safety	GB/T 19510. 1, GB/T 19510. 213; IEC61347- 1, IEC61347-2- 13;EN61347- 1, EN61347-2- 13;EN61347- 1, EN61347-2- 13, EN62384, UL8750
	EMC	GB/T17743, GB17625. 1;EN55015, EN61000-3-2, EN61000-3-3, EN61547;EN61000-4-2,3,4,5,6,8,11, FCC Part 15 Class B
	ErP	Erp2.0 EU 2019/2020
	RoHS	RoHS (2011/65/EU) (EU)2015/863
Note	1.All parameters NOT specially mentioned are measured at 100-277VAC input , full load and 25℃ of ambient temperature. 2.Ripple & Noise are measured at 20MHz of bandwidth. 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.Unload voltage Max. is measured 5 seconds after power-on. 5.The over-temperature protection of the product is provided by the IC. 6.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. 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.	

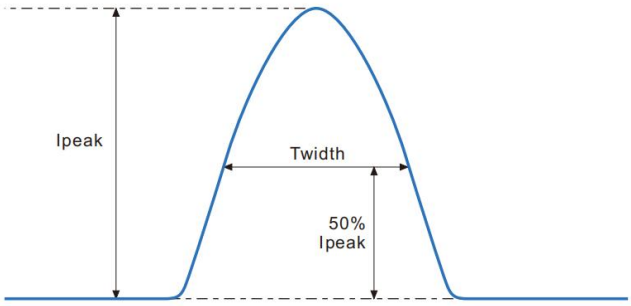
◆ Parameter

Number	Output				Switch position			
	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)	1	2	3	4
1	150mA	9-54VDC	60VDC	8.1W	--	--	--	--
2	200mA	9-54VDC		10.8W	ON	--	--	--
3	250mA	9-54VDC		13.5W	--	ON	--	--
4	300mA	9-54VDC		16.2W	ON	ON	--	--
5	350mA	9-54VDC		18.9W	--	--	ON	--
6	400mA	9-54VDC		21.6W	ON	--	ON	--
7	500mA	9-54VDC		27W	--	ON	ON	--
8	600mA	9-54VDC		32.4W	ON	ON	ON	--
9	700mA	9-54VDC		37.8W	--	--	--	ON
10	750mA	9-54VDC		40.5W	ON	--	--	ON
11	800mA	9-54VDC		43.2W	--	ON	--	ON
12	850mA	9-54VDC		45.9W	ON	ON	--	ON
13	900mA	9-54VDC		48.6W	--	--	ON	ON
14	950mA	9-52.6VDC		50W	ON	--	ON	ON
15	1000mA	9-50VDC		50W	--	ON	ON	ON
*16	1050mA	9-47.6VDC		50W	ON	ON	ON	ON

* Factory default

◆ Inrush Current

I_{peak}	Twidth	B10	B16	B20	C10	C16	C20
42.8A	274μs	6pcs	10pcs	13pcs	11pcs	18pcs	22pcs

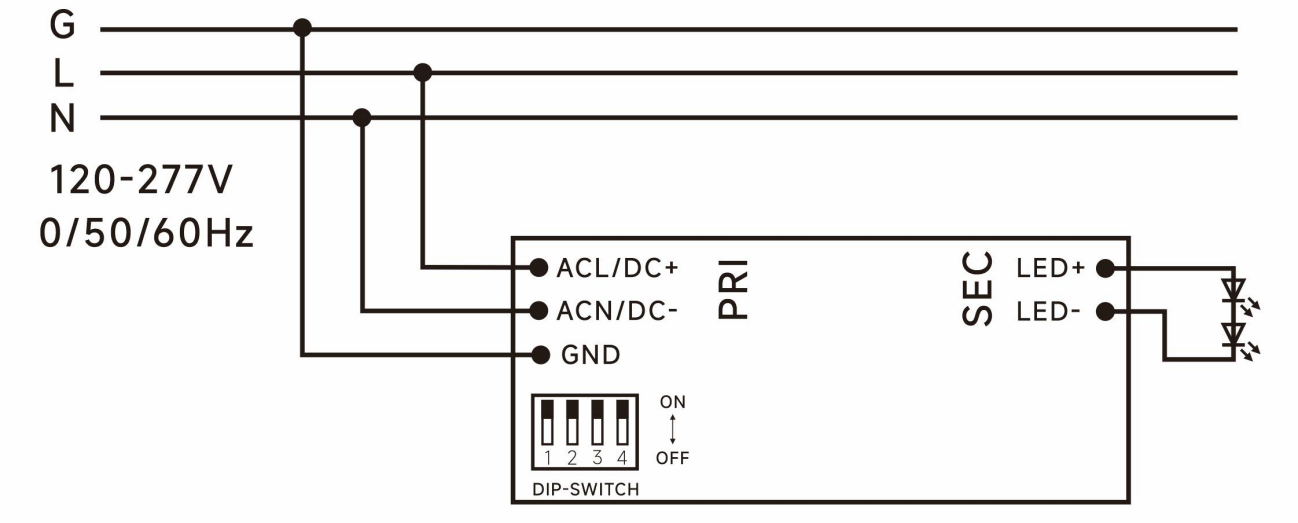


Remarks:

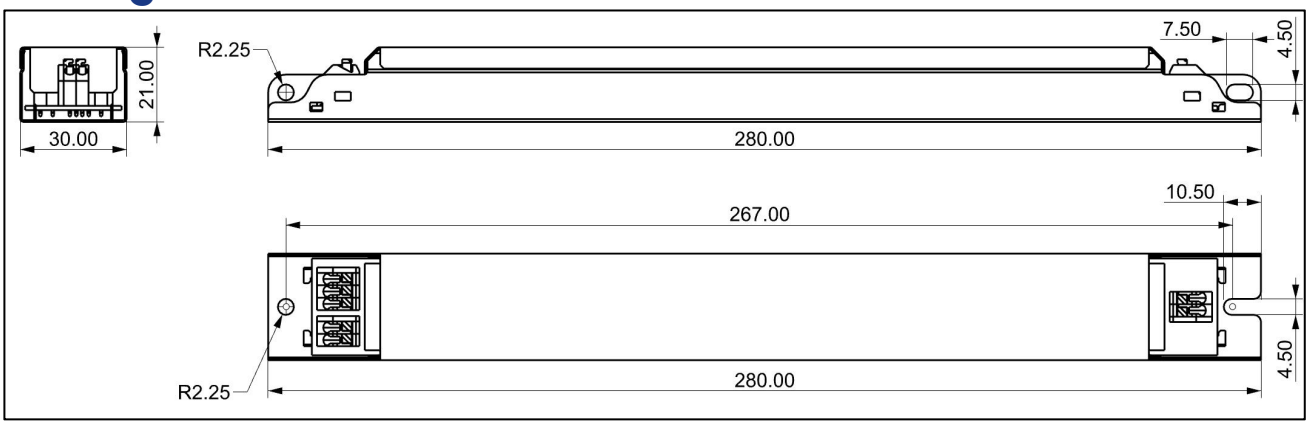
1.The number of drives mounted under different MCBs in the table is the maximum value. Please do not exceed this number during installation.

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 （With A side caps：0.75...1.5 mm^2）
	Input wire gauge.	16...20 AWG （With A side caps：16...22 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

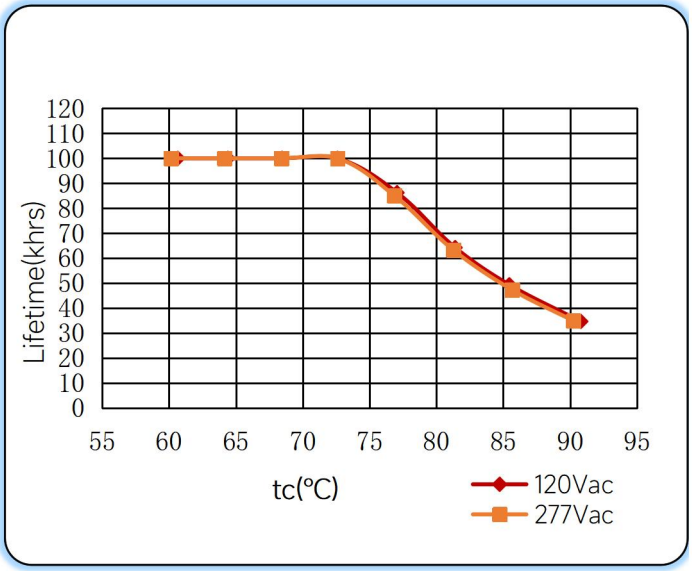
Note:Solid wire is risky to use on an angled terminal.Stranded wire is recommended for this kind of use.

◆ Packaging

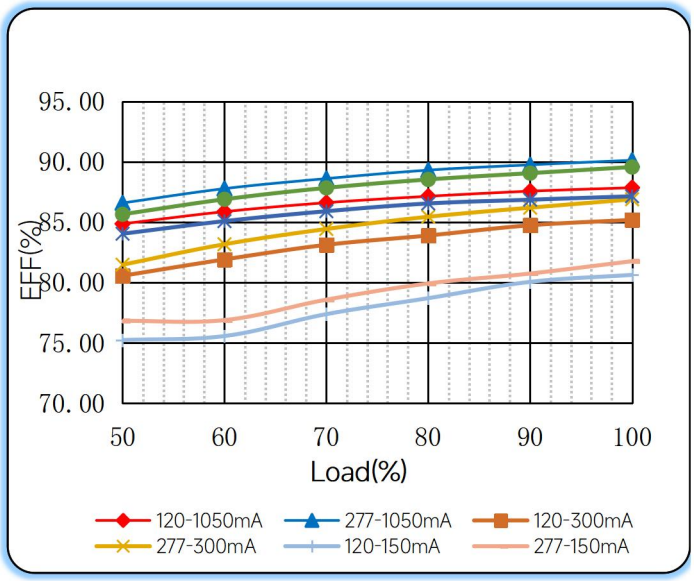
Model	Product Dimensions(mm)	Weight /piece(Kg)	Outer carton dimension(mm)	Quantity/carton	Net weight/carton(Kg)	Gross weight/carton(Kg)
FMX-50-1050 LD	280 x 30 x 21mm	0.204	295 x 255 x 200mm	180	11.4	12

◆ Curve for FMX-50-1050 LD, Io=150/600/1050mA

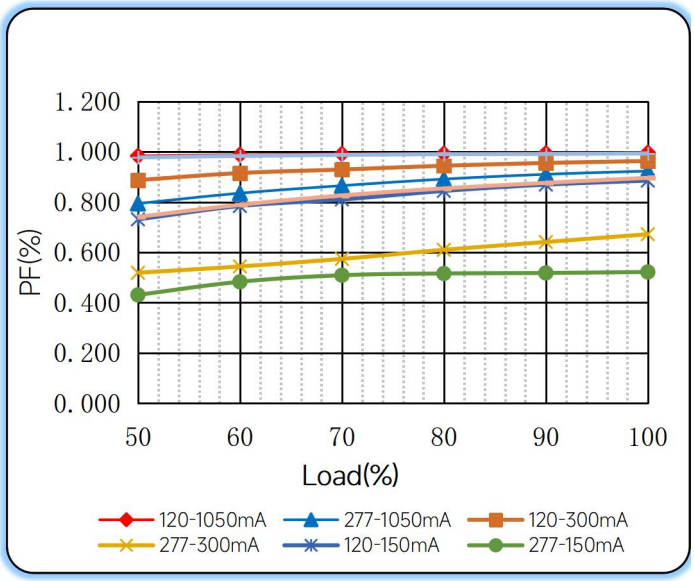
Lifetime vs. Temperature Curve



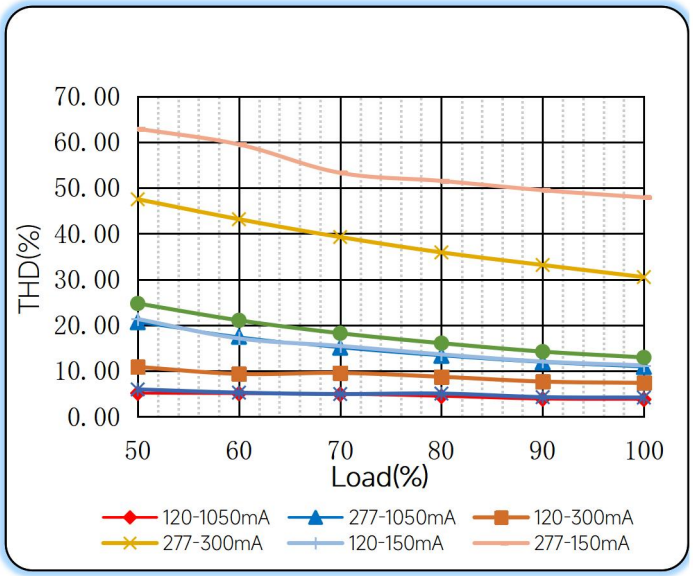
Efficiency vs. Load



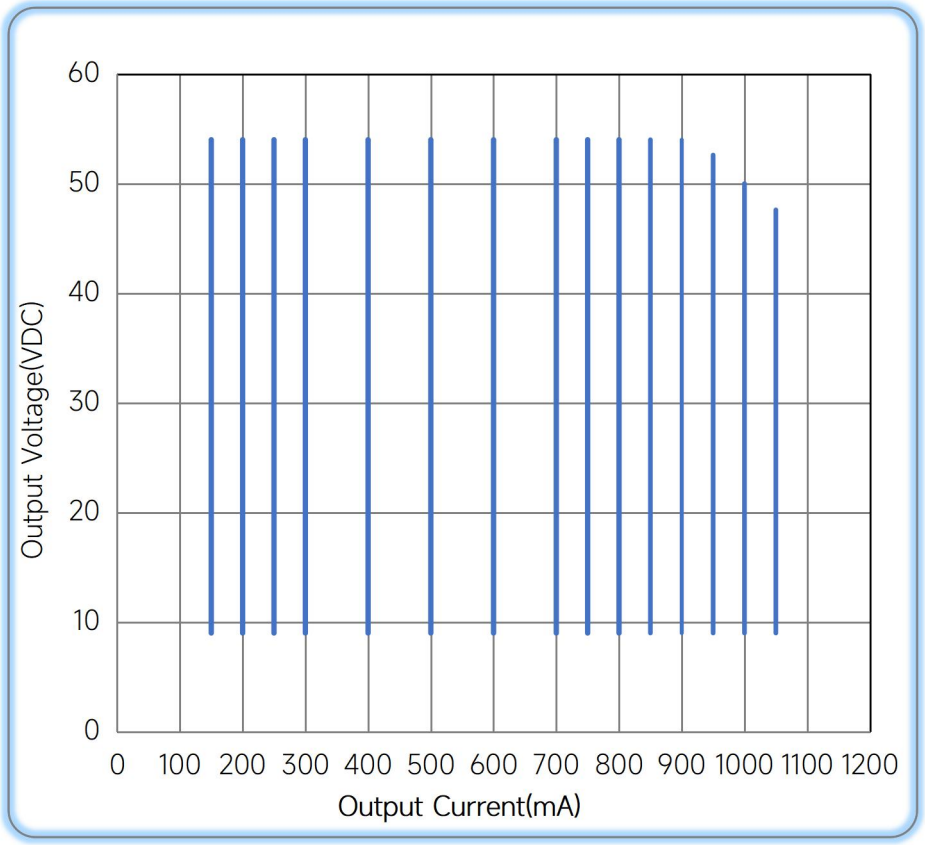
Power Factor Characteristics



THD vs. Load



◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2025/10/27
THD (Typ.)	<10%@Full load,120-277VAC	<10%@Full load, 120-230VAC; <15%@Full load, 277VAC	B	2026/08/21

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

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