

50W Constant Current



Features

- For built-in use
- For luminaries of protection Class I ,SELV , built-in
- Input Voltage : 120-277VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor : 0.9
- Support 0-10V dimming
- Efficiency:85%
- Flicker-free
- 5 years warranty

Applications

- Commercial & residential lighting
- Architectural & Indoor lighting

■ Approve



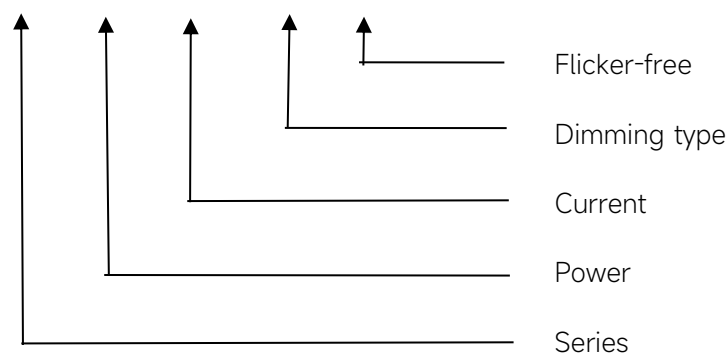
- UL Class P
- Class 2 output

◆ Description

FMW-50-1250 0-10 LD is a 50W power LED driver,that operates from 120-277Vac input, with 750mA,850mA,1000mA,1150mA,1250mA output current. The output current is adjustable DIP Switch. With it's dimensions from 280x 30 x 21 mm. It is easy to integrate in Commercial & residential lighting and Architectural & Indoor lighting products. To ensure trouble-free operation, protection is provided against output short circuit, over load, over voltage and over temperature.

◆ Model code

FMW-50-1250 0-10 LD



◆ Specification

Output	Constant Current	750mA	850mA	1000mA	1150mA	1250mA
	Voltage Range	27-42VDC				27-40VDC
	Unload voltage Max.	55VDC				
	Current Accuracy	±5%				
	Output LF current ripple(≤120Hz)	±5%				
	Flicker	< 5%				
	Efficiency(Typ.)	85%@Full Load,120/277VAC				
Input	Rated input voltage	120-277VAC				
	Frequency(Hz)	50/60Hz				
	Power Factor	0.9@Full Load,277VAC				
	Input Current max	0.65A @Full Load,120VAC				
	Start-up time	≤ 0.75S @Full Load,120VAC				
	Standby Power	≤1.4W @120VAC;1.7W @277VAC				
	THD (Typ.)	< 20% @Full Load,120/277VAC				
Dimming	Dimming	YES				
	Dimming mode	0-10V				
	Dimming depth(Typ.)	5%				
	Dimming current Range	5-100%				
	High Level Voltage	8.2-10V (Typical:9.7V)				
	Low Level Voltage	0-1V (Typical:0.3V)				
Protection	Over Load Protection	103-120%				
		YES/Auto Resume				
	Over Voltage Protection	> 55VDC				
		YES/Auto Resume				
Immunity	Surge capability (L-N)	1 KV				
	Surge capability (L/N-Ground)	2 KV				
Withstand voltage	Input-Output/Ground	1800V/ 5mA/ 60S				
Environment	Operating Temperature	-20°C~+50°C				
	Humidity	5%-95%RH				
	Tc	90°C				
	Storage Temperature	-40°C~+90°C				
	Life time	> 50000h @ Tc ≤ 75°C maximum case hot spot temperature				
	Noise	≤25dB(A)@20cm				
Surface	Dimension	L280xW30xH21 mm				
	material	Metal case				

Standards	Safety	UL8750, Class 2, Class P
	Conducted and Radiated EMI	FCC Part 15 Class B
	RoHS	RoHS (2011/65/EU) (EU)2015/863
Note	1.All parameters NOT specially mentioned are measured at 120/277VAC input , full load and 25°C of ambient temperature. 2.Measured at nominal LED voltage and nominal input voltage , *Calculated in accordance with the IES Lighting Handbook,*Meets IEEE 1789-2015 "no impact" recommended practices for flicker 9th edition 3.Ripple & Noise are measured at 20MHz of bandwidth by using a 300mm twisted pair-wire terminated with a 0.1uF & 47 uF parallel capacitor. 4.The over-temperature protection of the product is provided by the IC. 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. 6.Output current accuracy is less than 10% under high temperature conditions. 7.The dimming depth is no more than 10%.	

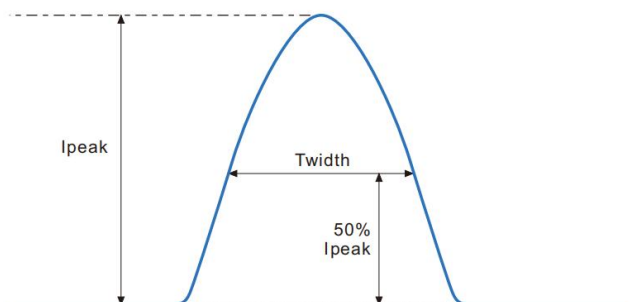
◆ Parameter

Dip-switch	Output			
	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)
1	750mA	27-42VDC	55VDC	31.5
2	850mA			35.7
3	1000mA			42
4	1150mA			48.3
*5	1250mA	27-40VDC		50

* Factory default

◆ Inrush Current

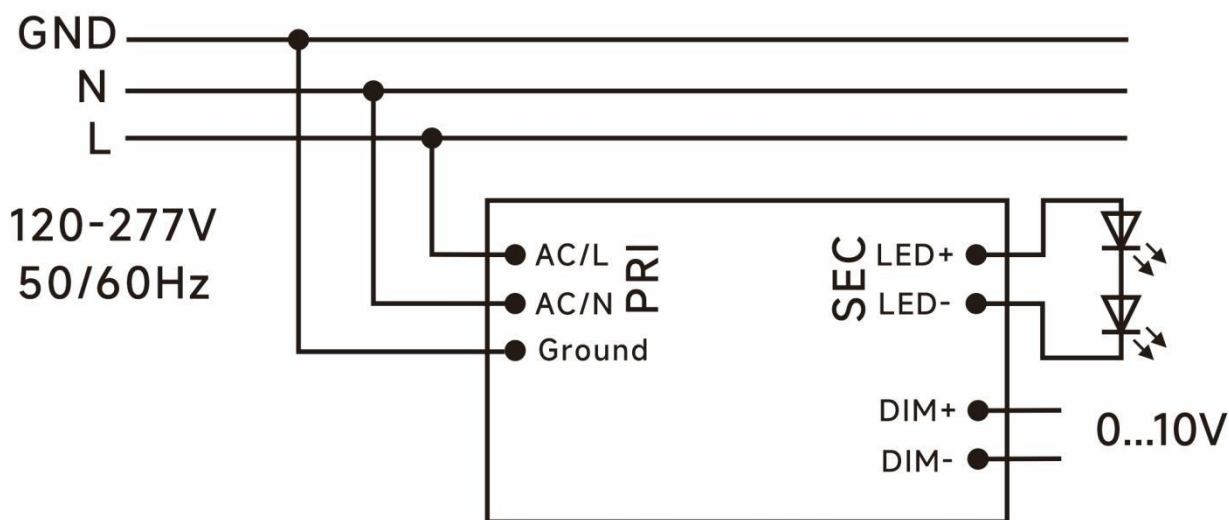
I_{peak}	Twidth	B10	B16	B20	C10	C16	C20
26.1A	104 μ s	12pcs	19pcs	24pcs	12pcs	19pcs	24pcs



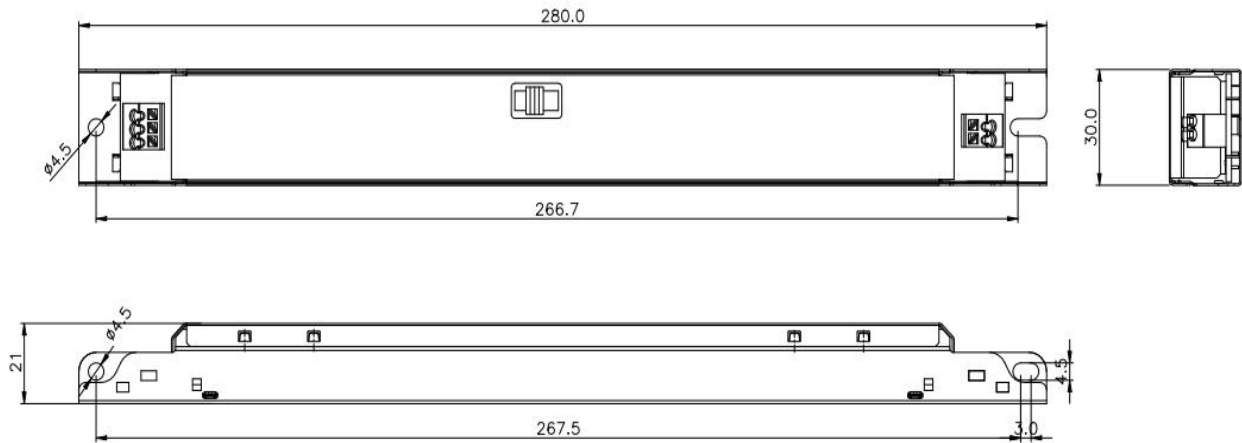
Remarks:

- 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



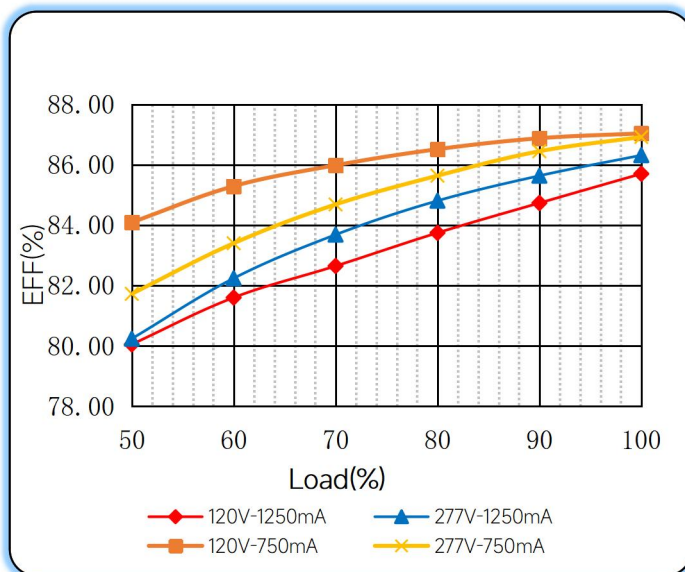
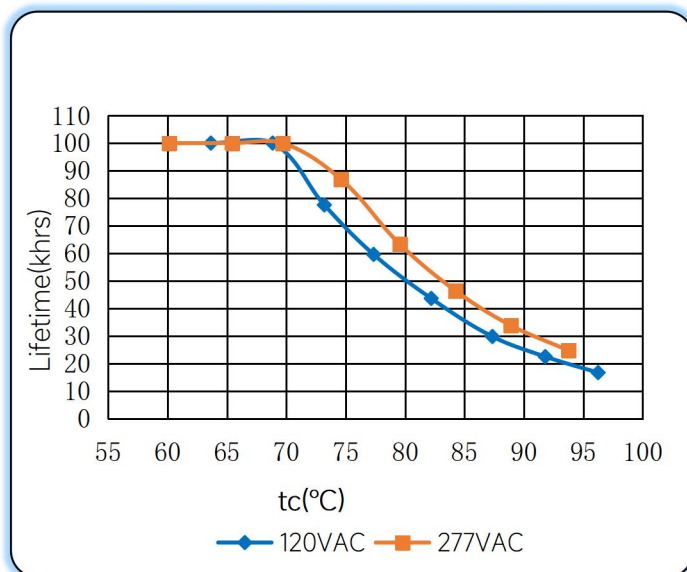
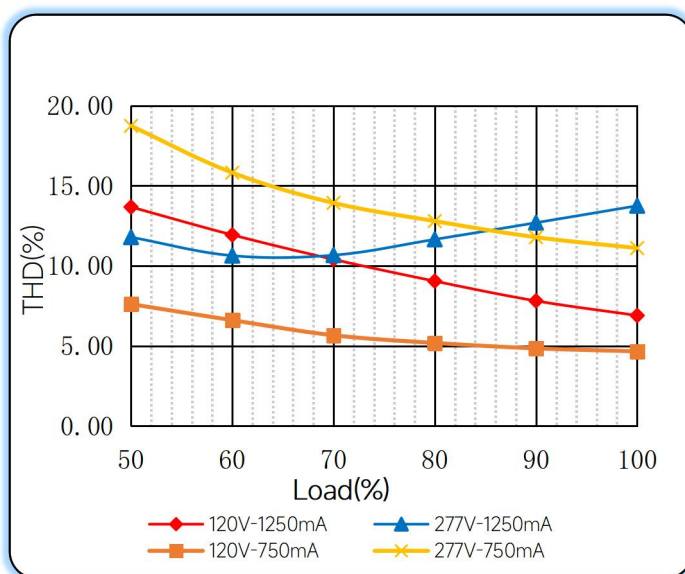
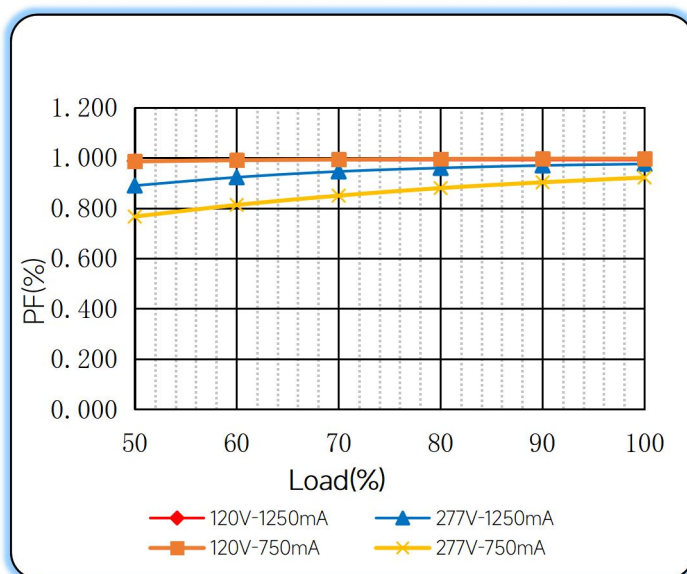
◆ Wiring & Connections

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

◆ Packaging

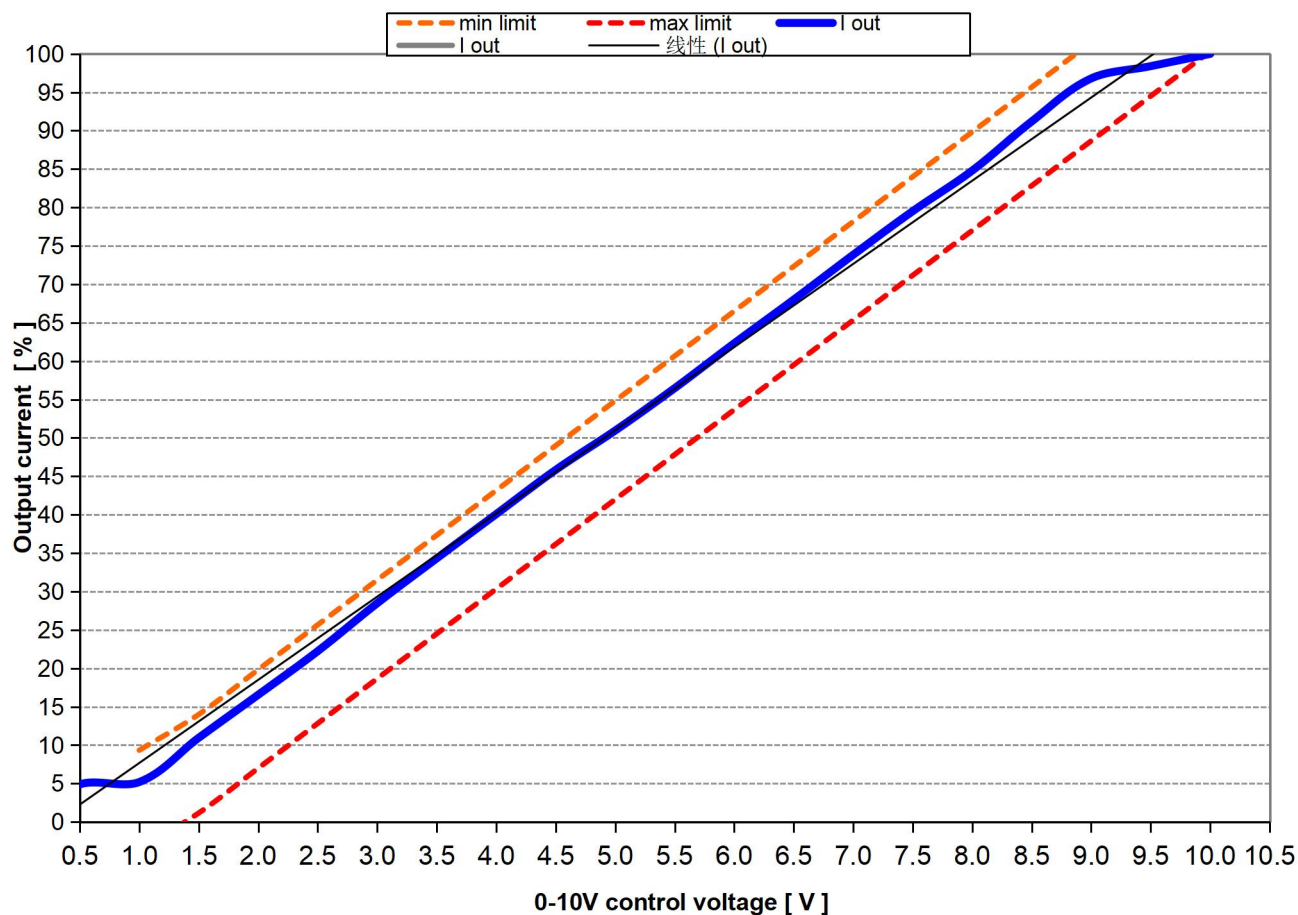
Model	Product Dimensions(mm)	weight/piece(Kg)	Outer carton dimension(mm)	Quantity/carton	Net weight/carton(Kg)	Gross weight/carton(Kg)
FMW-50-1250 0-10 LD	280X30X21	0.19	310X265X210	56	10.64	11.45

◆ Curve for FMW-50-1250 0-10 LD, Io=750/1250mA

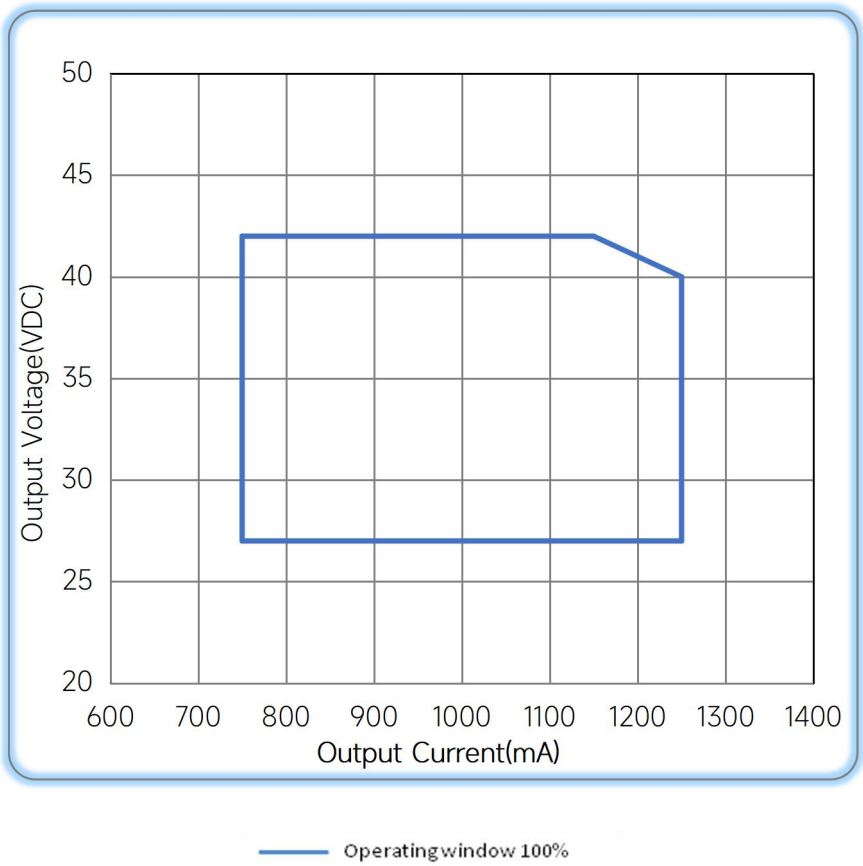
Lifetime vs. Temperature Curve
Efficiency vs. Load

Power Factor Characteristics
THD vs. Load


◆ Dimming Curve

Output @ 0-10V control voltage



◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2025/05/18
Update			B	2025/11/22
Dimming depth	≤7%	5%	C	2026/05/11

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

Tel: +86-0757-86256822, +86-0757-86256831
E-mail: sales@eaglerise.com
Website : <https://lighting.eaglerise.com>



EAGLERISE



Manual