

100W Constant Current -FMS Series



■ Approve



Features

- For luminaries of protection Class I/II, Non-isolated, Built-in
- Input Voltage :220-240VAC
- Protections: SCP/OVP/OLP/OTP
- Power Factor: 0.95(Typ.)
- Efficiency: $\geq 95\%$ (Typ.)
- Adjustable Output Current with dip-switch
- 5 years warranty
- IP20

Applications

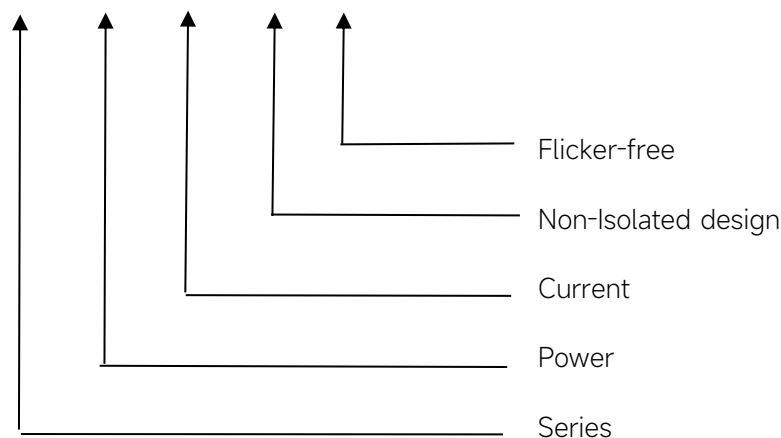
- Linear light

◆ Description

FMS-100-500 N-S LD1 E is a 100W constant current LED driver that operates from 198-264Vac input with 350 to 500mA output current. The output current is adjustable by DIP Switch. With it's dimensions from 280 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 voltage and over temperature.

◆ Model code

FMS-100-500 N-S LD1 E



◆ Specification

	Constant Current	350mA	400mA	450mA	500mA	
Output	Voltage Range	40-220VDC			40-200VDC	
	Unload voltage Max.(VDC)	250VDC				
	Current Accuracy	±5%				
	Output LF current ripple(≤120Hz)	±5%				
	SVM	≤0.4				
	Pst	≤1				
	Efficiency(Typ.)	≥95%			94.5%	
	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				
Displacement factor		≥0.9				
Power Factor		0.95@Full load ,220-240V				
Input Current max		0.61A				
Start-up time		< 0.5S				
No Load Power		≤0.5W				
THD (Typ.)		<10% @Full load ,220-240V				
Protection	Over Load Protection	>105%				
		YES/Auto Resume				
	Over Voltage Protection	>250V				
	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 ~+50°C				
	Humidity	20%-90% RH				
	Tc	85°C				
	Storage Temperature	-25°C ~+60°C				
	Life time	> 50000h@Tc=75°C ,230VAC				
	Noise	≤25dB(A)@20cm				
Surface	Dimension	280 x 30 x 21(LXWXH)mm				
	material	metal case				
Standards	Safety	GB19510.1, GB19510.14; IEC61347-1, IEC61347-2-13; EN61347-1, EN61347-2-13, EN62384;AS/NAS 61347-1, AS/NAS 61347-2-13;AS/NZS 61347.1,AS 61347.2.13				

	EMC	GB/T17743, GB17625. 1; EN55015, EN61000-3-2, EN61000-3-3, EN61547; 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 .</p> <p>3.Switch and dimmer are not recommended to connect between this product output and luminaries.</p> <p>4.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>5.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>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>	

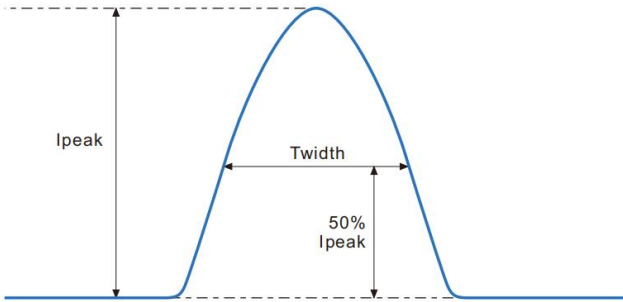
◆ Parameter

Number	Output			Switch position		
	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)	1	2
1	350mA	40-220VDC	250	77	--	--
2	400mA	40-220VDC		88	ON	--
3	450mA	40-220VDC		99	--	ON
*4	500mA	40-200VDC		100	ON	ON

* Factory default

◆ Inrush Current

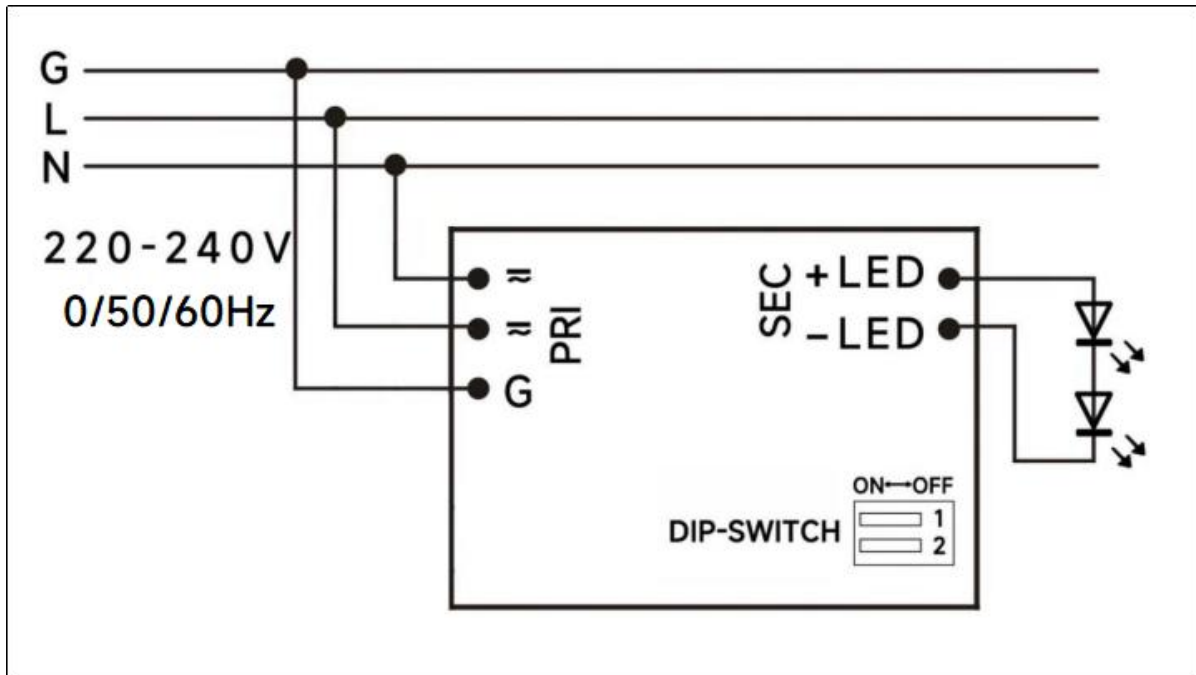
I_{peak}	T_{width}	B10	B16	B20	C10	C16	C20
43A	206μs	9pcs	14pcs	18pcs	13pcs	20pcs	26pcs



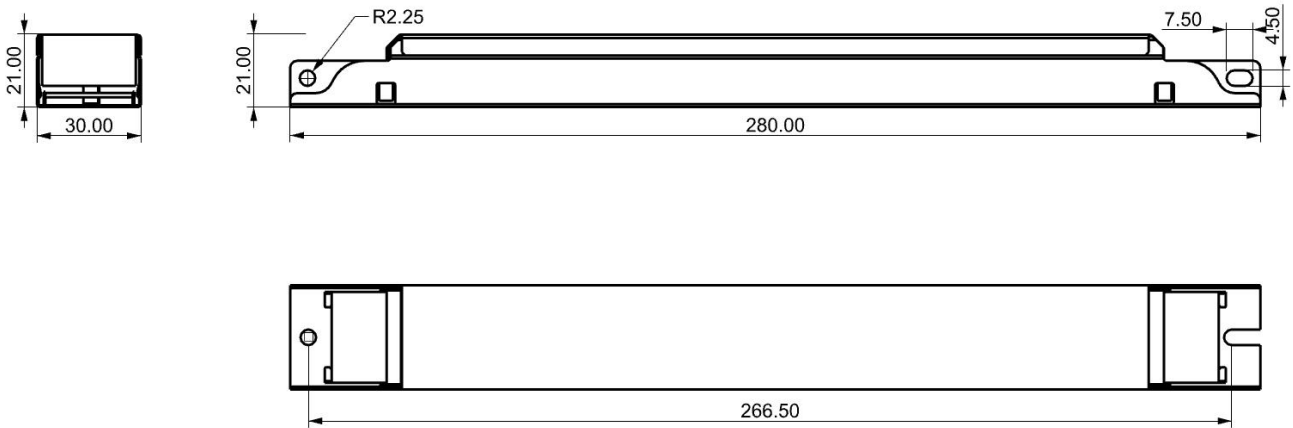
Remarks:

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**



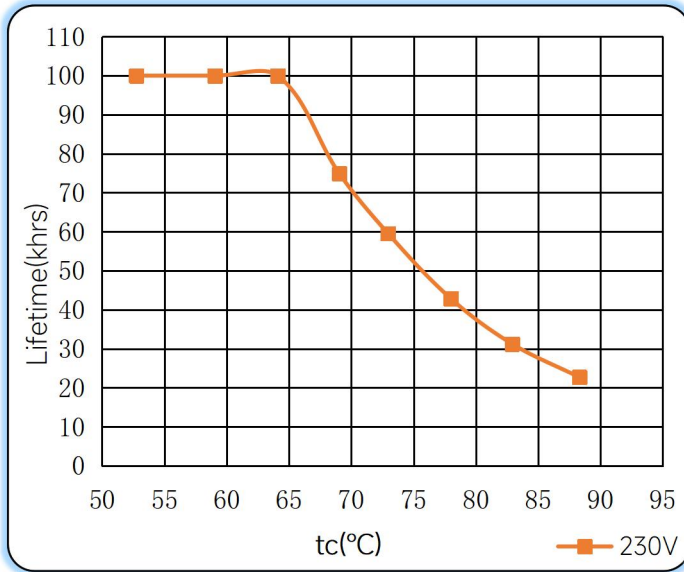
◆ **Wiring & Connections**

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

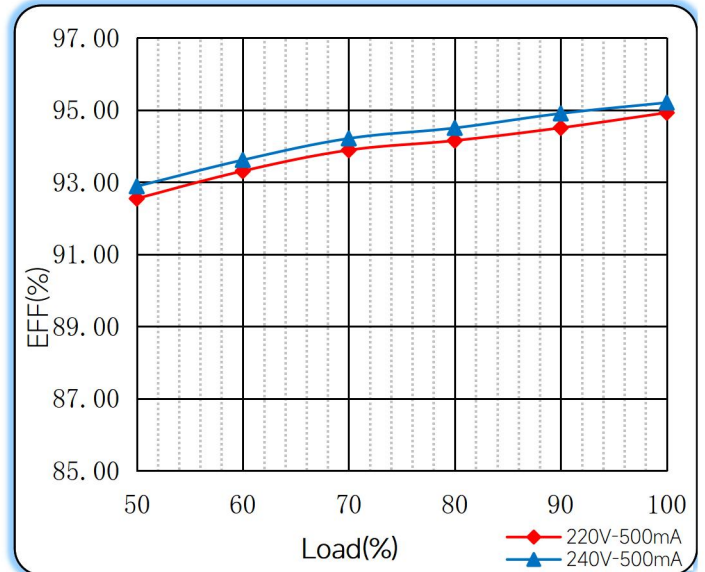
Note: Solid wire is risky to use on an angled terminal. Stranded wire is recommended for this kind of use.

◆ **Curve for FMS-100-500 N-S LD1 E, I_o=500mA**

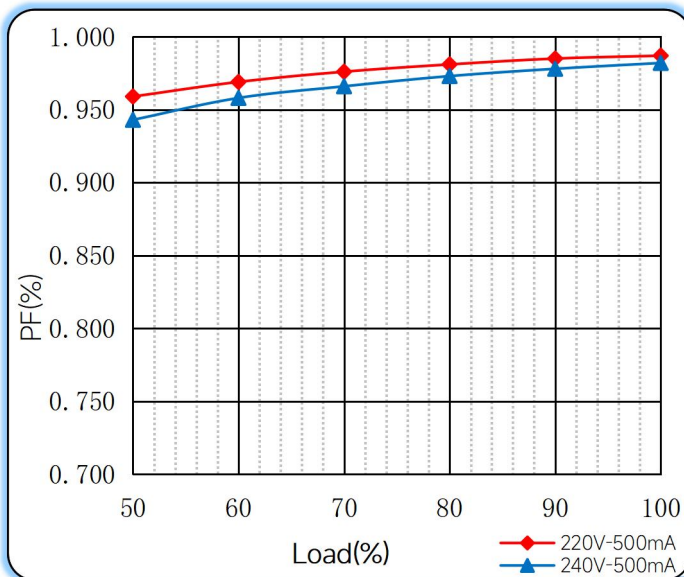
Lifetime vs. Temperature Curve



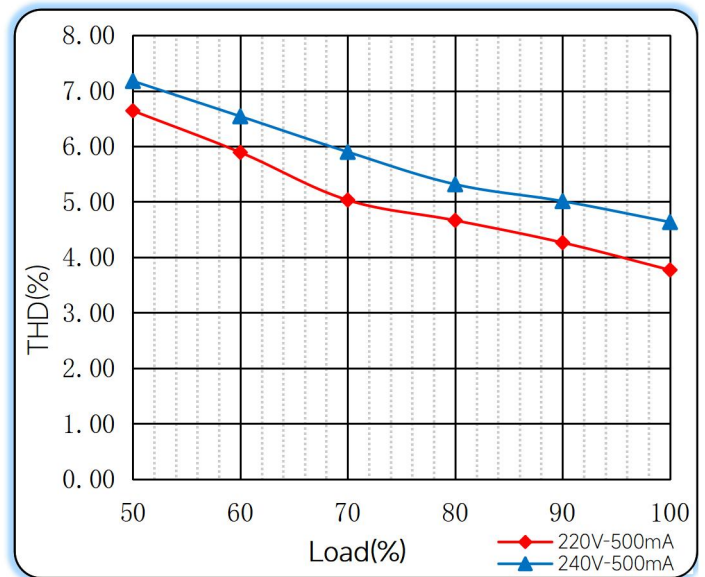
Efficiency vs. Load



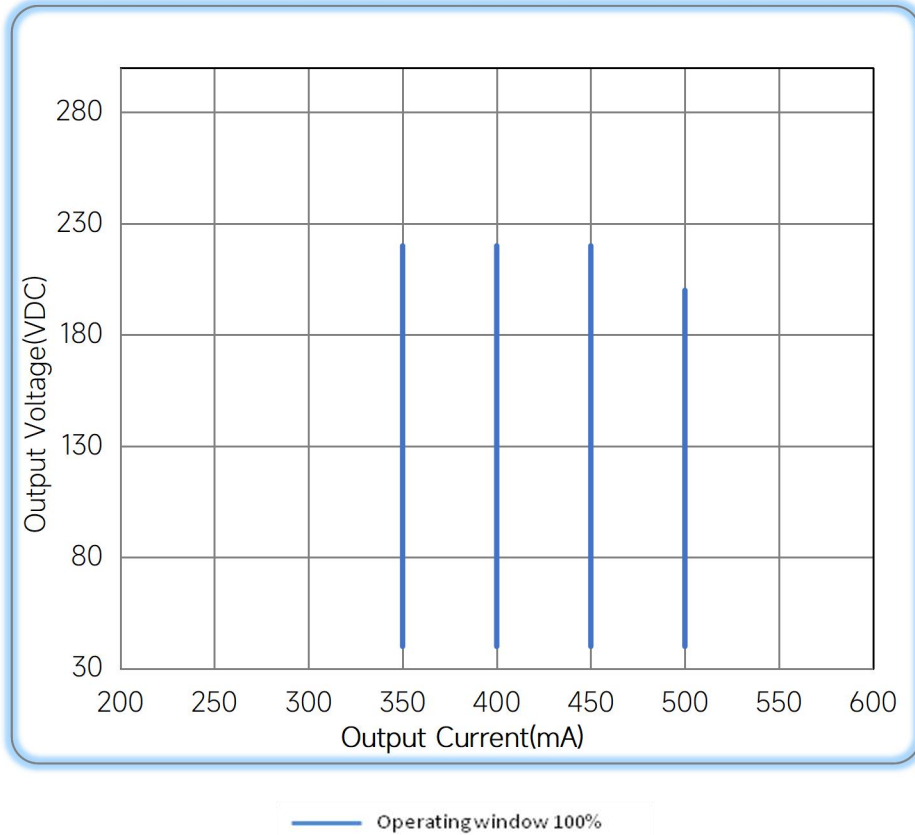
Power Factor Characteristics



THD vs. Load



◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2024/01/09
Tc	80°C	85°C	B	2024/06/28

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

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Manual