

100W Constant Current -FMS Series



■ Approve



Features

- Class I , Non-isolated, Built-in
- Input Voltage :220-240VAC
- Protections: SCP/OVP/OTP
- Power Factor: 0.95(Typ.)
- Efficiency: ≥95%(Typ.)
- Adjustable Output Current with dip-switch
- 5 years warranty
- IP20

Applications

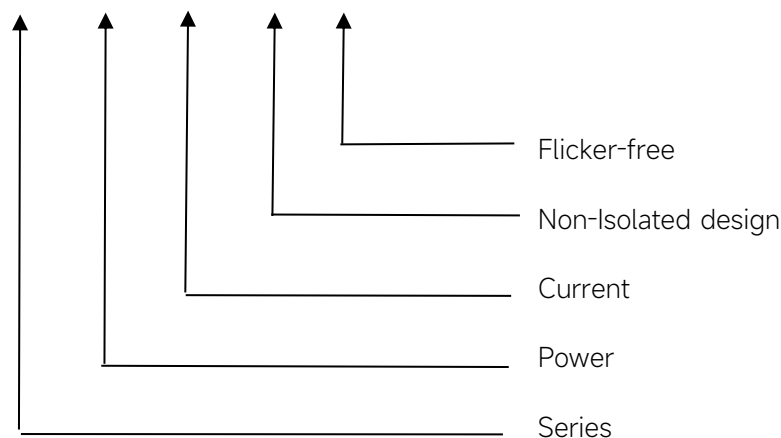
- Linear light

◆ Description

FMS-100-700 N-S LD-F is a 100W constant current LED driver that operates from 176-264Vac input with 350 to 700mA 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-100-700 N-S LD-F



◆ Specification

Output	Constant Current	350mA	400mA	450mA	...mA	700mA
	Voltage Range	40-260VDC	40-228VDC	40-220VDC	...VDC	40-136VDC
	Unload voltage Max.(VDC)	300VDC				
	Current Accuracy	±5%				
	Output HF current ripple(≥1KHz)	±5%				
	Output LF current ripple(≤120Hz)	±5%				
	SVM	≤0.4				
	Pst	≤1				
	Efficiency(Typ.)	95%@≤500mA,94%@≥550mA				
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 DC 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	0.65A				
	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	YES/Auto Resume				
Capability	Short circuit Protection	YES/Auto Resume				
	Surge capability (L-N)	1KV				
Environment	Surge capability (L/N-Ground)	2KV				
	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				
Surface	Noise	≤25dB(A)@20cm				
	Dimension	280 x 30 x 21(LXWXH)mm				
Standards	material	metal case				
	Safety	IEC61347- 1, IEC61347-2- 13;EN61347- 1, EN61347-2- 13;EN61347- 1, EN61347-2- 13, EN62384				

	EMC	EN55015, EN61000-3-2, EN61000-3-3, EN61547;EN61000-4-2,3,4,5,6,8,11, EN61547
	ErP	Erp2.0 EU 2019/2020
	RoHS	RoHS (2011/65/EU) (EU)2015/863
Note	1.All parameters not specially mentioned are measured at 230VAC input, full load and 25°C of ambient temperature. 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. 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.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. 5.The current with load range cannot exceed 130% of the maximum power at full load. 6.The over-temperature protection of the product is provided by the IC. 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.	

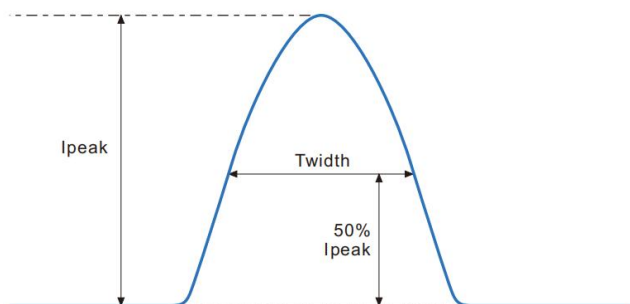
◆ Parameter

Number	Output				Switch position		
	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)	1	2	3
1	350mA	40-260VDC	300VDC	91	--	--	--
2	400mA	40-228VDC		91.2	ON	--	--
3	450mA	40-220VDC		99	--	ON	--
4	500mA	40-200VDC		100	ON	ON	--
5	550mA	40-180VDC		99	--	--	ON
6	600mA	40-160VDC		96	ON	--	ON
7	650mA	40-146VDC		94.9	--	ON	ON
*8	700mA	40-136VDC		95.2	ON	ON	ON

* Factory default

◆ Inrush Current

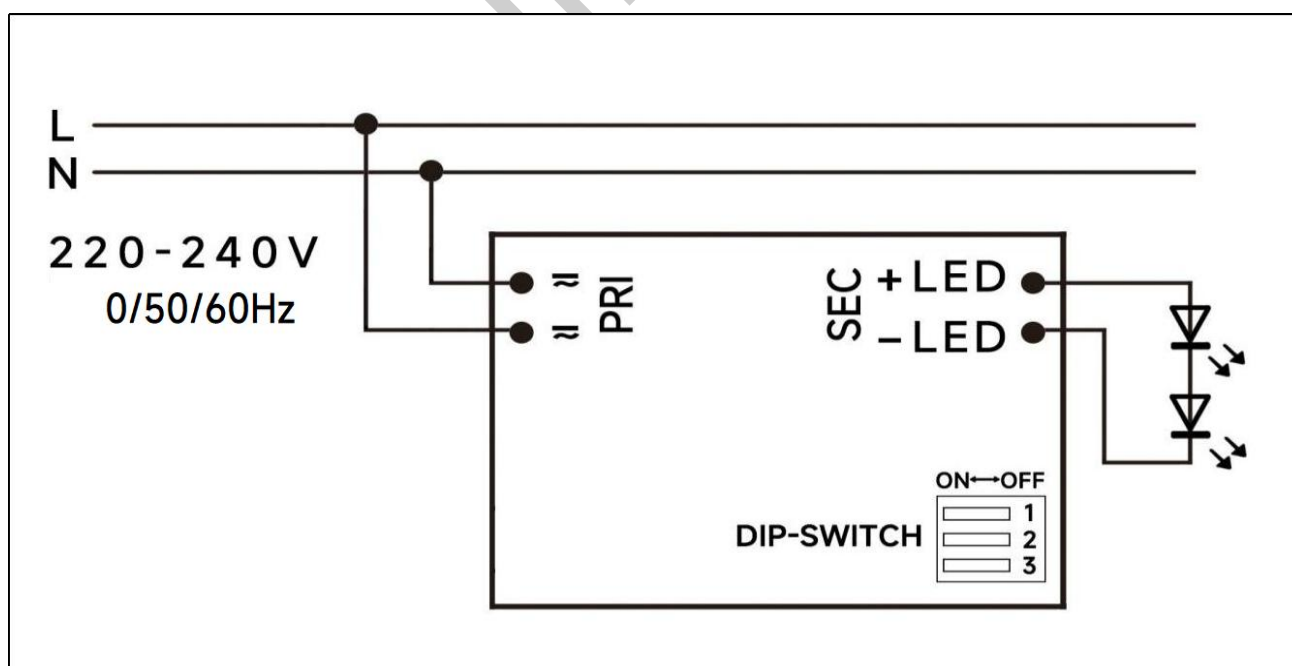
I_{peak}	Twidth	B10	B16	B20	C10	C16	C20
42A	214μs	9pcs	14pcs	18pcs	12pcs	19pcs	24pcs



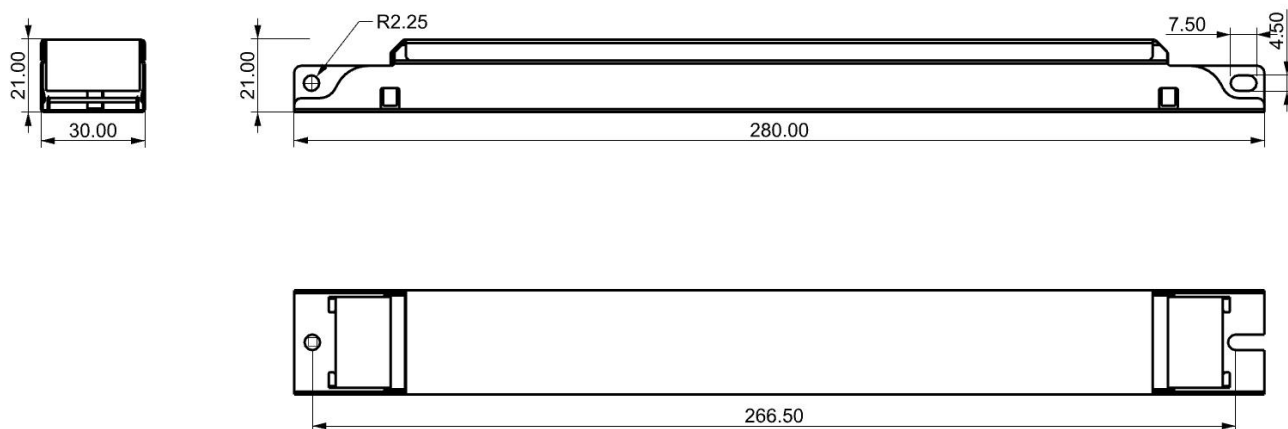
Remarks:

- 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



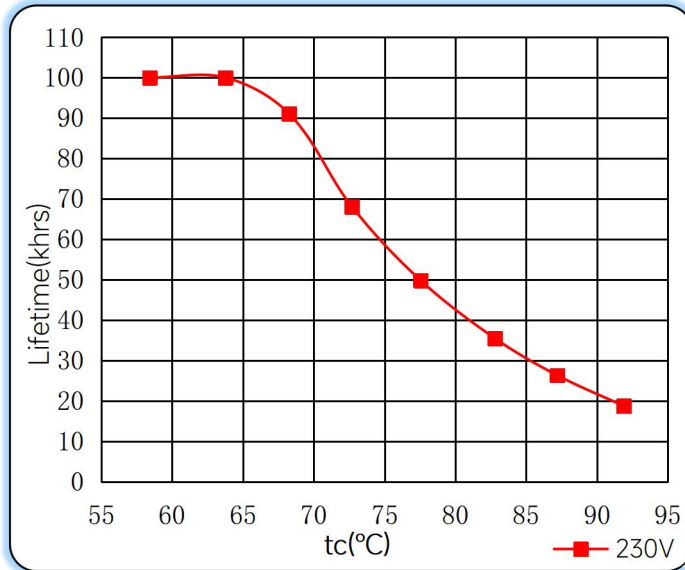
◆ Wiring & Connections

Specification item		Value (Unit)
Input	Input wire cross-section	0.5...1.5 mm ²
	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

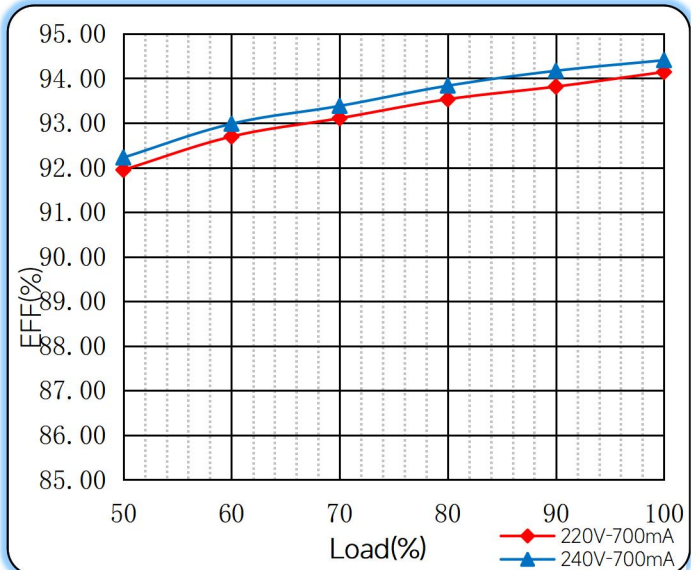
Note: Solid wire is risky to use on an angled terminal. Stranded wire is recommended for this kind of use.

◆ Curve for FMS-100-700 N-S LD-F, $I_o=700\text{mA}$

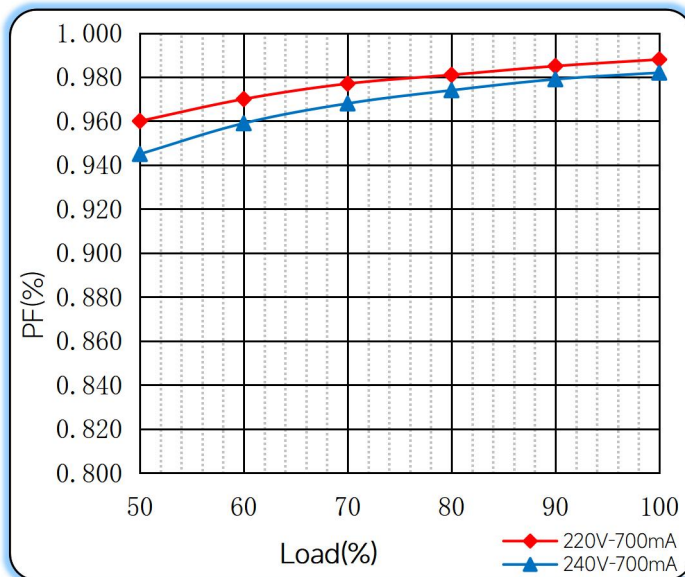
Lifetime vs. Temperature Curve



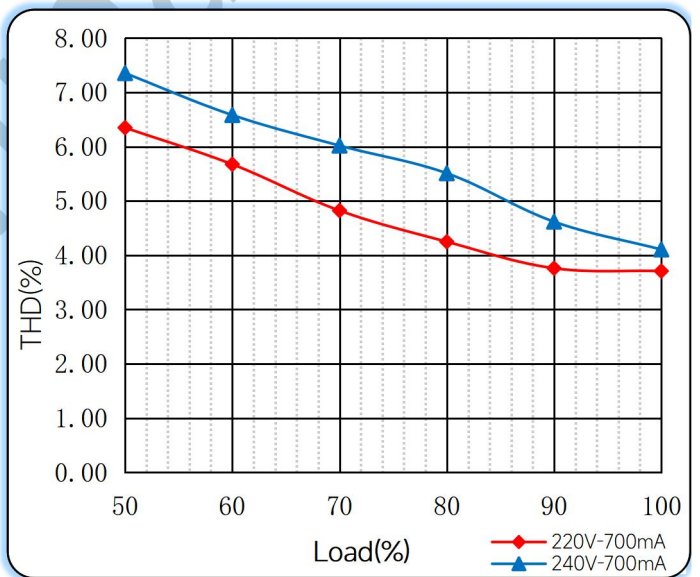
Efficiency vs. Load



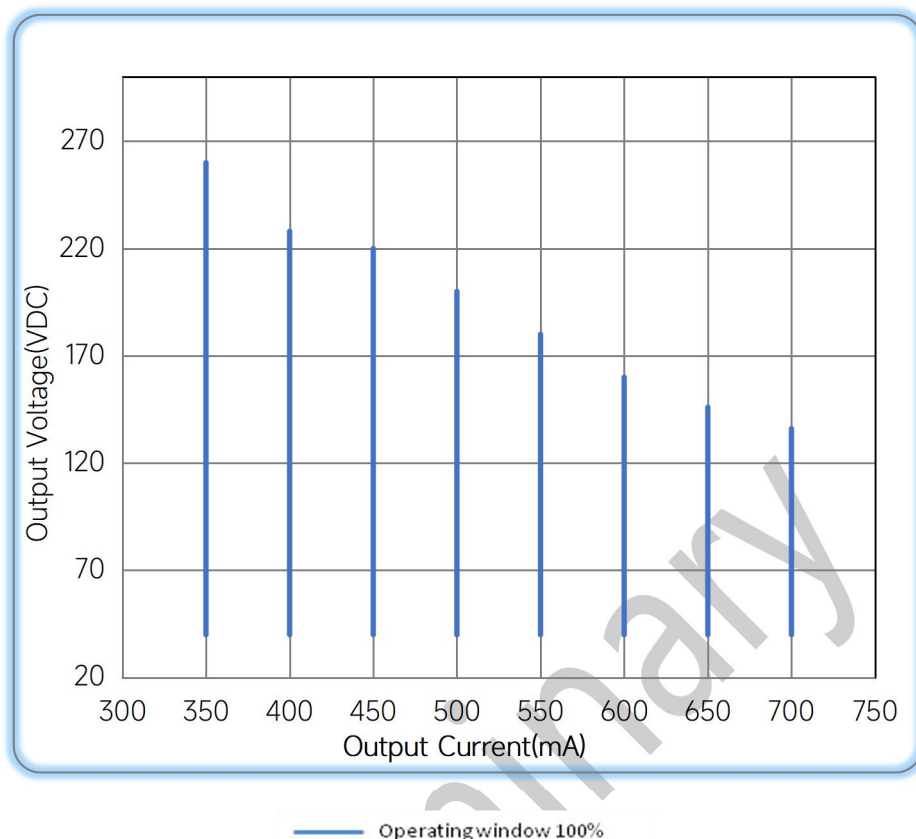
Power Factor Characteristics



THD vs. Load



◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2024/04/12
Unload voltage Max.(VDC)	280VDC	300VDC	B	2024/10/14

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

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EAGLERISE



Manual