

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: 90%(Typ.)
- Adjustable Output Current with dip-switch
- 5 years warranty
- IP20

Applications

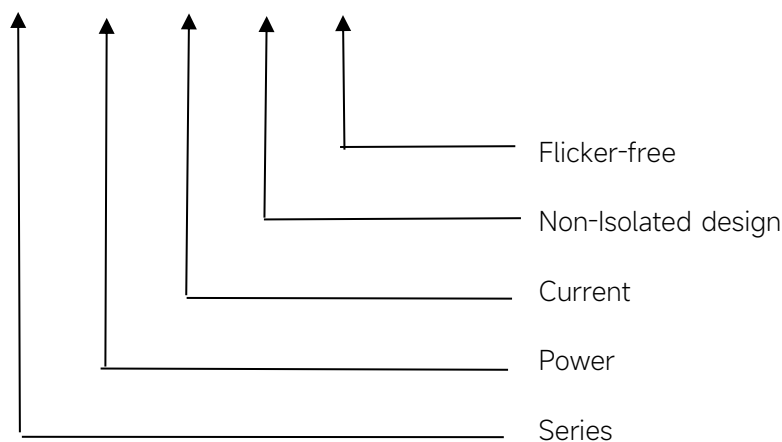
- Linear light

◆ Description

FMS-100-700 N-S LD EXC is a 100W constant current LED driver that operates from 198-264Vac input with 350 to 700mA output current. The output current is adjustable by DIP Switch. With it's dimensions from 280x30x21mm. 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 EXC



◆ Specification

Output	Constant Current	350mA	400mA	...mA	700mA
	Voltage Range	40-220VDC			
	Unload voltage Max.(VDC)	250VDC			
	Current Accuracy	±5%			
	Output HF current ripple(≥1KHz)	±5%			
	Output LF current ripple(<120Hz)	±5%			
	SVM	≤0.4			
	Pst	≤1			
	Efficiency(Typ.)	≥90%@Full load ,220-240V			
Input	Rated input voltage	220-240VAC			
	Range of input voltage	198-264VAC			
	Range of input DC voltage(VDC)	198-280VDC			
	Frequency(Hz)	0/50/60 Hz			
	Displacement factor	≥0.9			
	Power Factor	≥0.95@Full load ,220-240V			
	Input Current max	0.6A			
	Start-up time	< 0.5S			
	No Load Power	≤0.5W			
	THD (Typ.)	<10% @Full load ,220-240V			
Protection	Over Voltage Protection	YES/Auto Resume			
	Short circuit Protection	YES/Auto Resume			
	Over Temperature Protection	YES/Auto Resume Ta≥75° C, reducing the output current			
Environment	Operating Temperature	25°C~+60°C			
	Humidity	20%-90%RH			
	Maximum case temperature(Tc)	85°C			
	Storage Temperature	-40°C~+85°C			
	Life time	>50,000h@Tc=85°C >100,000h@Tc=75°C			
	Ripple & Noise	≤20dB(A)@20cm			
Surface	Dimension	280X30X21(LXWXH)mm			
Standards	IEC61347- 1, IEC61347-2- 13; EN61347- 1, EN61347-2- 13; EN61347- 1, EN61347-2- 13, EN62384; GB/T17743, GB17625. 1, GB19510. 1, GB19510. 14; EN55015, EN61000-3-2, EN61000-3-3, EN61547				
Others	ErP	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.Switch and dimmer are not recommended to connect between this product output and luminaries.				

◆ Parameter

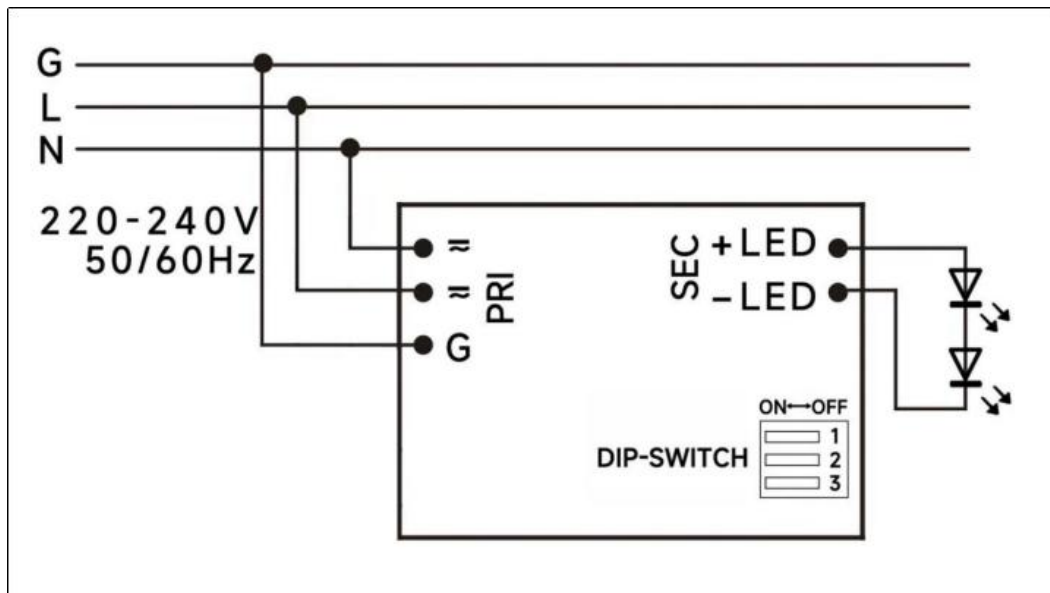
Number	Output				Switch position		
	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)	1	2	3
1	350mA	40-220	250	77W	--	--	--
2	400mA	40-220		88W	ON	--	--
3	450mA	40-220		99W	--	ON	--
4	500mA	40-200		100W	ON	ON	--
5	550mA	40-180		99W	--	--	ON
6	600mA	40-160		96W	ON	--	ON
7	650mA	40-146		94.9W	--	ON	ON
*8	700mA	40-136		95.2W	ON	ON	ON

* Factory default

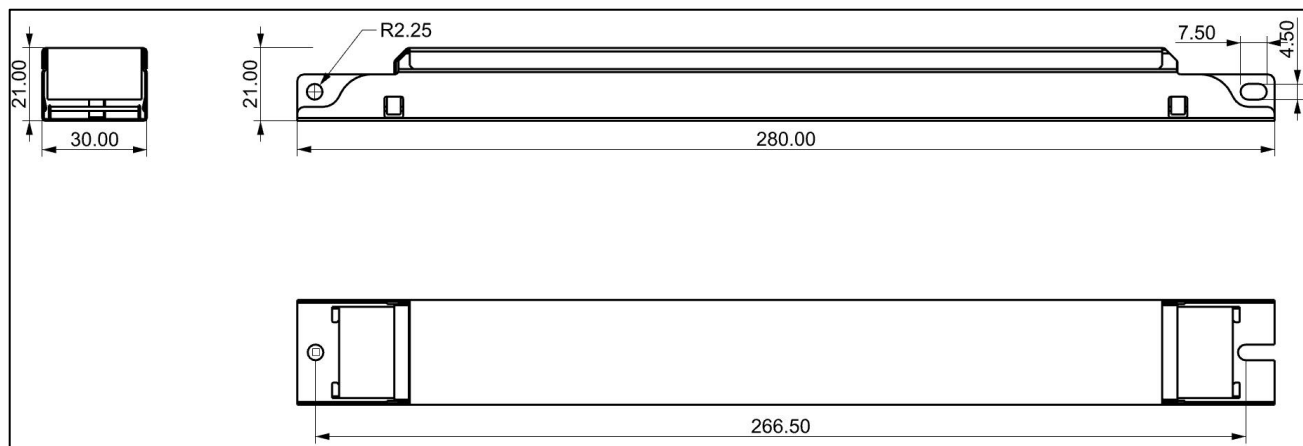
◆ Circuit Breaker

I _{peak}	T _{width}	B10	B16	B20	C10	C16	C20
41.8A	258μs	7pcs	11pcs	14pcs	12pcs	19pcs	24pcs

◆ Wiring diagram

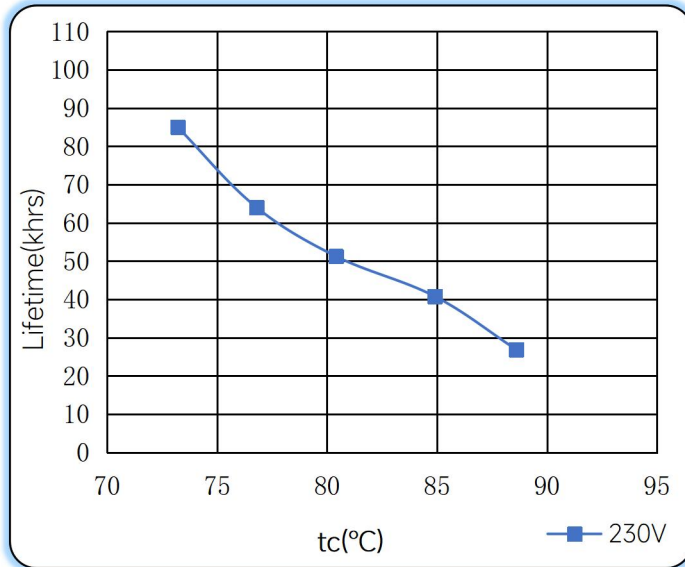


◆ 2D diagram

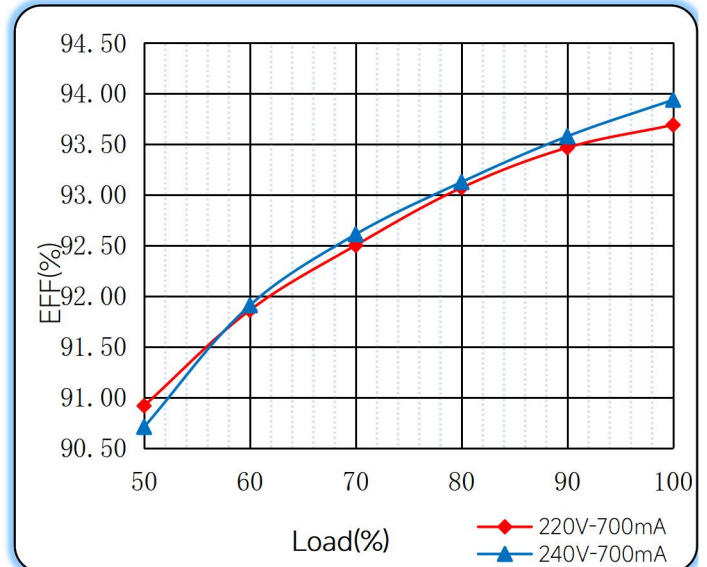


◆ Curve for FMS-100-700 N-S LD EXC, $I_o=700\text{mA}$

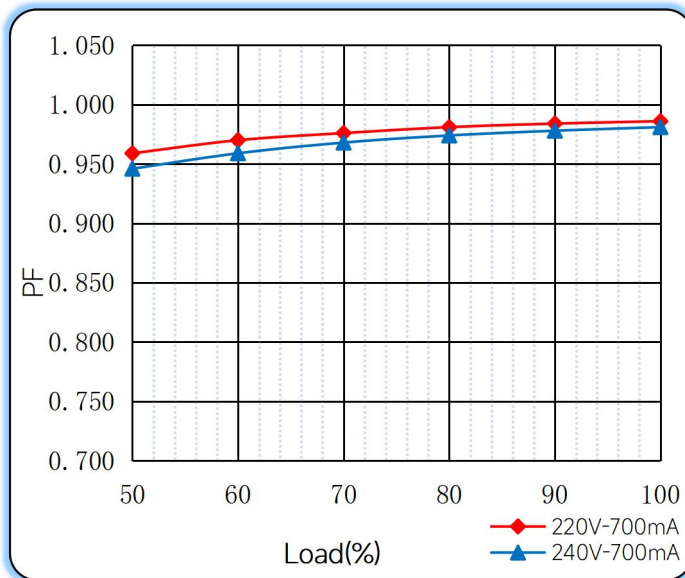
Lifetime vs. Temperature Curve



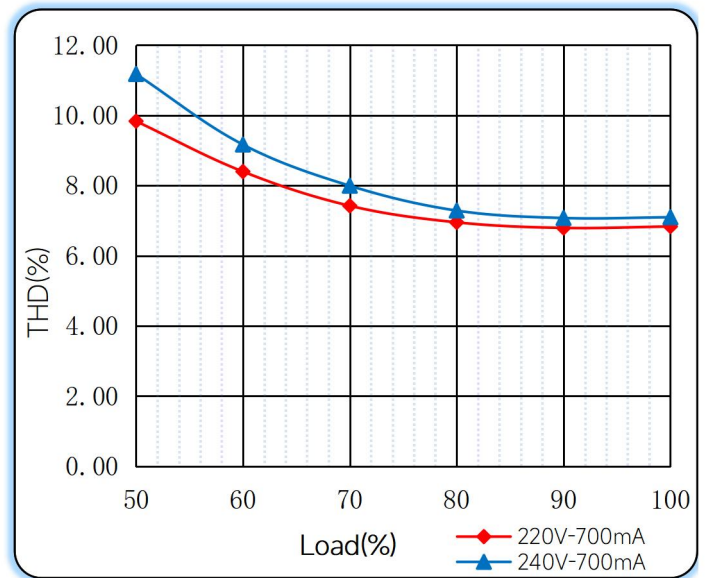
Efficiency vs. Load



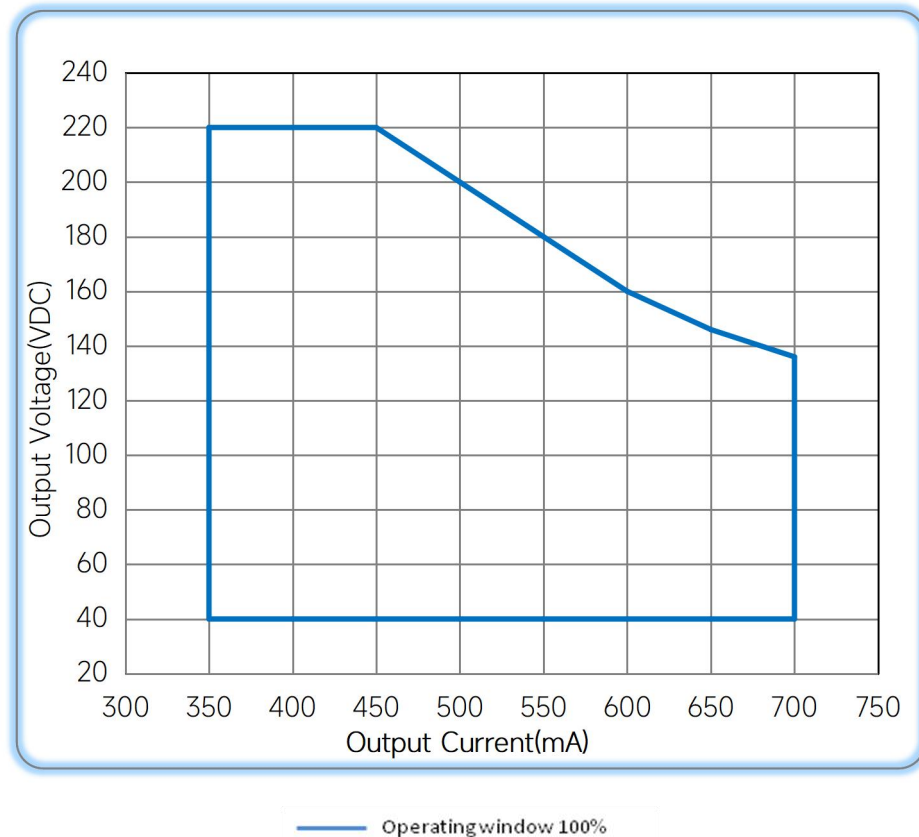
Power Factor Characteristics



THD vs. Load



◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2023/01/13
		Updated	B	2023/05/30
Range of input DC voltage(VDC)	176-280VDC	198-280VDC	C	2024/04/30

Remark: The final interpretation of the contents of the specification belongs to Astralux.

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