



60W 0-10V Dimming power supply



■ Approve

CE CB SELV

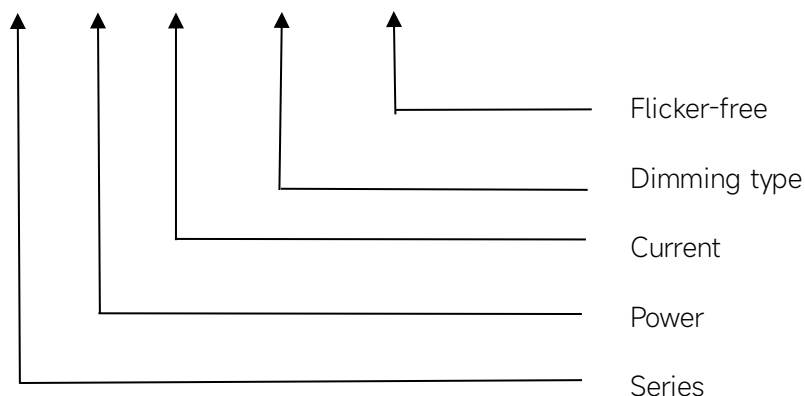


◆ Description

FMS-60-700 0-10 LD-F is a 60W constant current LED driver that operates from 198-264Vac input with 400 to 700mA output current and a forward voltage range from 40 to 150Vdc. The output current is adjustable by DIP Switch. With its compact dimensions from 280x 30 x 21mm. It is easy to integrate in LED Panel products. To ensure trouble-free operation, it provides protection against output short circuit, overload and over Voltage.

◆ Model code

FMS-60-700 0-10 LD-F



Features

- For luminaires of protection Class I, SELV , Built-in
- Input Voltage: 220-240VAC, 176-280VDC
- Protections: SCP/OLP/OVP/OTP
- Power Factor : 0.6C-0.95
- Efficiency : 88%(Typ.)
- Support 0-10V Dimming
- 5 years warranty
- IP20
- EOfi=100%

Applications

- LED panel light
- LED spot light

◆ Specification

	Constant Current (mA)	400mA	500mA	600mA	700mA
Output	Voltage Range(VDC)	40-150VDC	40-120VDC	40-100VDC	40-86VDC
	Unload voltage Max.(VDC)	200V			
	Current Accuracy	±5%			
	Output HF current ripple(≥1KHz)	±5%			
	Output LF current ripple(≤120Hz)	±5%			
	Auxiliary Output Voltage	12V			
	Auxiliary Output Current	50 mA			
	SVM	≤0.4			
	Pst	≤1			
	Efficiency(Typ.)	88%@full Load,220-240V			
	EOFI	100%			
	Input	Rated input voltage(VAC)	220-240V		
Range of input voltage(VAC)		198-264VAC			
Range of input voltage(VDC)		176-280VDC			
Maximum voltage		300VAC@1 h maximum,unit might not operate in this abnormal condition			
Frequency(Hz)		0/50/60 Hz			
Displacement factor		> 0.9			
Power Factor		0.6C-0.95			
Input Current max		0.38A			
Start-up time		< 0.5S			
No Load Power		≤1W			
Standby Power		≤0.5W			
Network standby power		≤0.5W			
THD (Typ.)		<10%@full Load,220-240V			
Dimming	Dimming	YES			
	Dimming mode	0-10V			
	Dimming depth	1%			
	Dimming current range	1-100%			
	Over Load Protection	YES/Auto Resume			
	Over Voltage Protection	> 200VDC YES/Auto Resume			
	Short circuit Protection	YES/Auto Resume			
capability	Surge capability (L-N)	1KV			
	Surge capability (L/N-Ground)	2KV			
Environment	Operating Temperature	-20°C...+60°C			
	Humidity	20%-90%RH			
	Tc	90°C			
	Storage Temperature	-25°C...+60°C			

	Life time	>50000h@Tc=80°C
	Ripple&Noise	≤25dB(A)@20cm
Surface	Dimension	280 x 30 x 21mm
	material	PC
statutory	Safety Standards	GB19510. 1, GB19510. 14; IEC61347- 1, IEC61347-2- 13; EN 60598-2-22; EN61347- 1, EN61347-2- 13; AS/NAS 61347- 1, AS/NAS 61347-2- 13; EN61347-1, EN61347-2- 13, EN62384; 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;
	Energy Efficiency	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 by using a 300mm twisted pair-wire terminated with a 0.1uF & 47 uF parallel capacitor.</p> <p>3.Switch and dimmer are not recommended to connect between this product output and luminaries.</p> <p>4.The over-temperature protection of the product is provided by the IC.</p> <p>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.</p>	

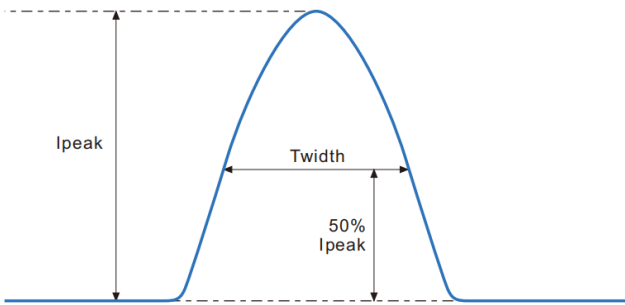
◆ Parameter

Number	Output				Switch position	
	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)	1	2
1	400mA	40-150VDC	200	60W	--	--
2	500mA	40-120VDC		60W	ON	--
3	600mA	40-100VDC		60W	--	ON
*4	700mA	40-86VDC		60.2W	ON	ON

* Factory default

◆ Inrush Current

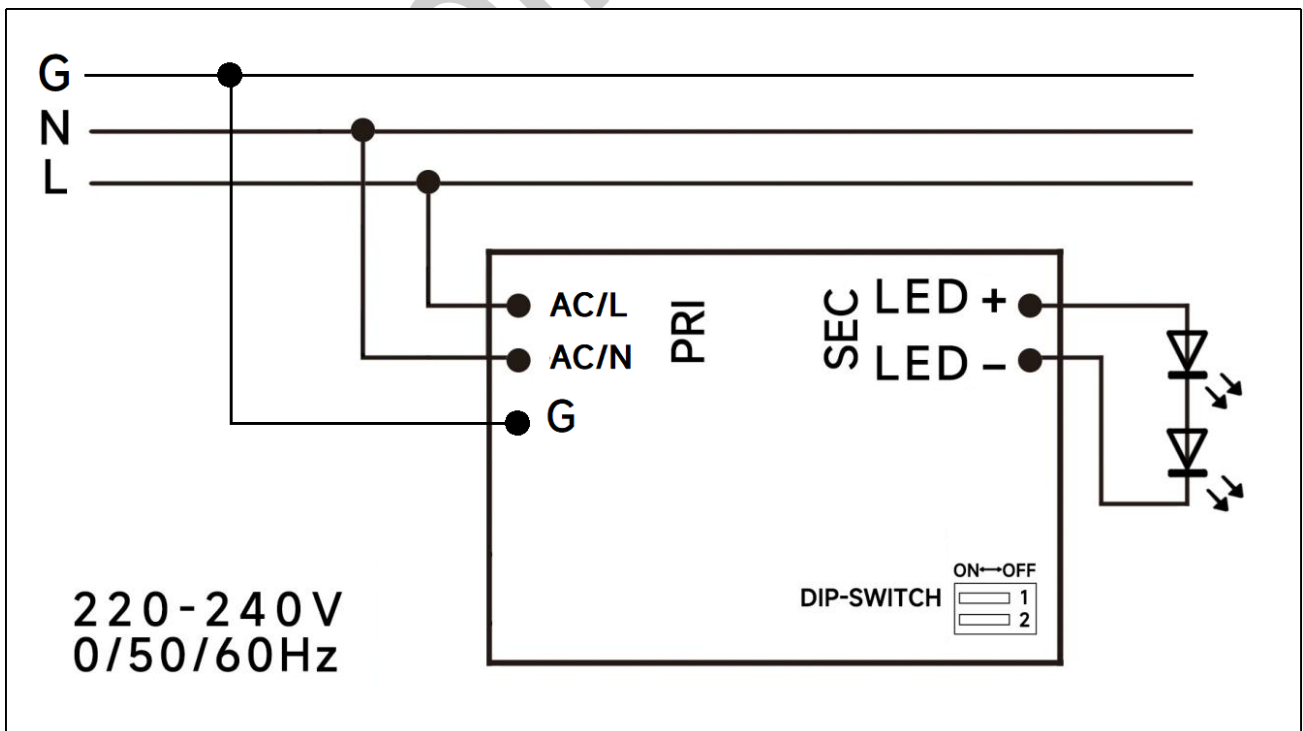
I _{peak}	T _{width}	B10	B16	B20	C10	C16	C20
32.2A	240μs	10pcs	16pcs	20pcs	17pcs	27pcs	34pcs



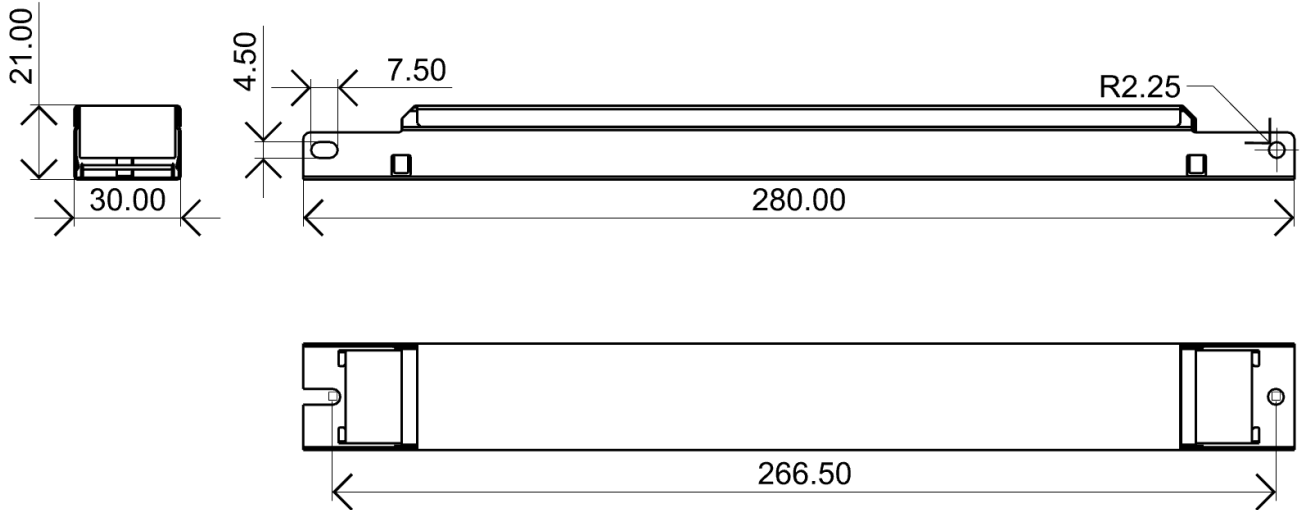
Remarks:

- 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

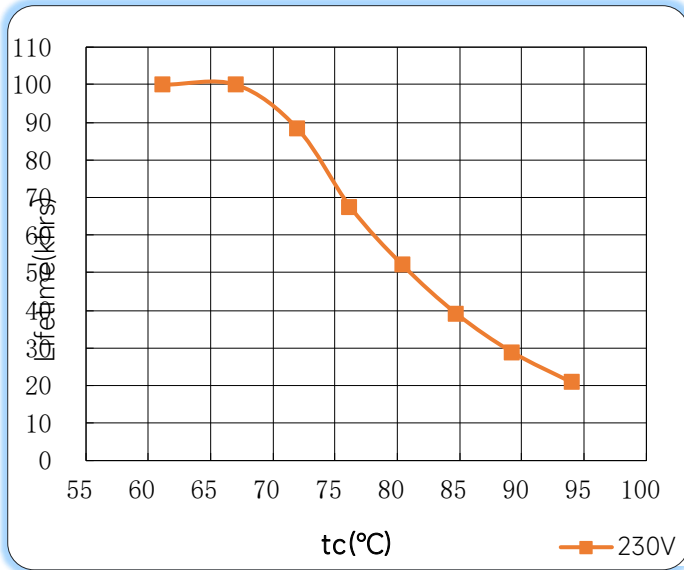


◆ Wiring & Connections

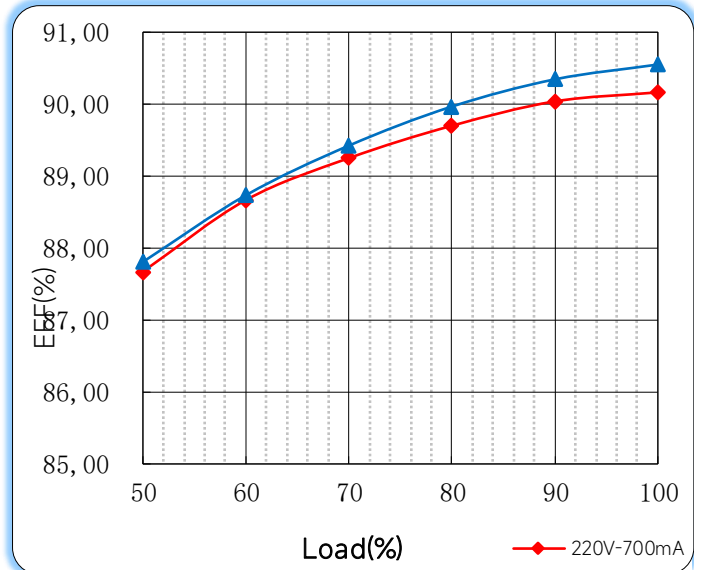
	Specification item	Value (Unit)
Input	Input wire cross-section	0.5...1.5 mm ²
	Input wire gauge.	16...20 AWG
	Input wire strip length	7..9mm
Output	Output wire cross-section	0.5...1.5 mm ²
	Output wire gauge.	16...20 AWG
	Output wire strip length	7..9mm

◆ Curve for FMS-60-700 0-10 LD-F, $I_o=700\text{mA}$

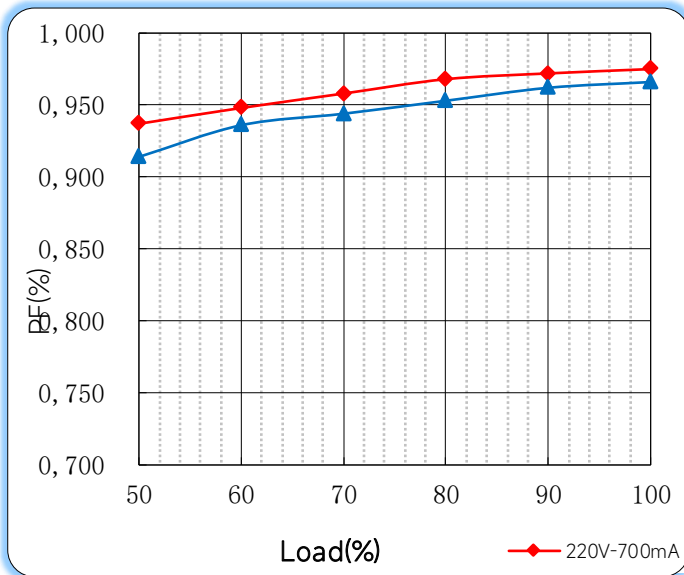
Lifetime vs. Temperature Curve



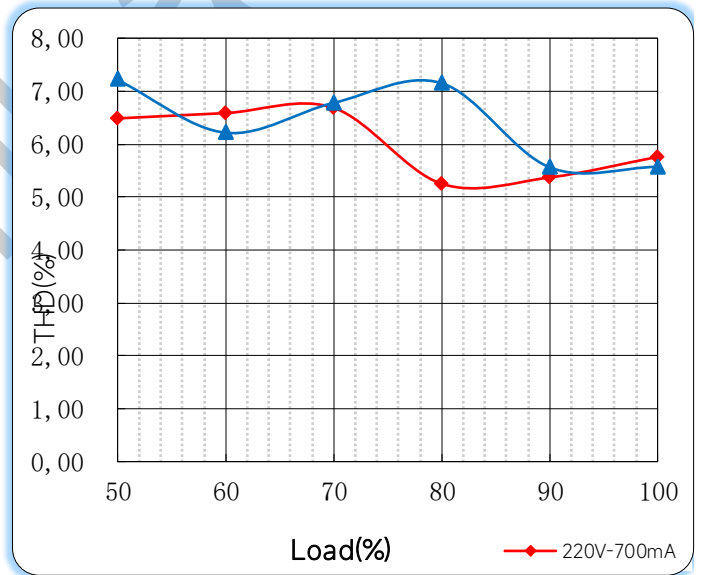
Efficiency vs. Load



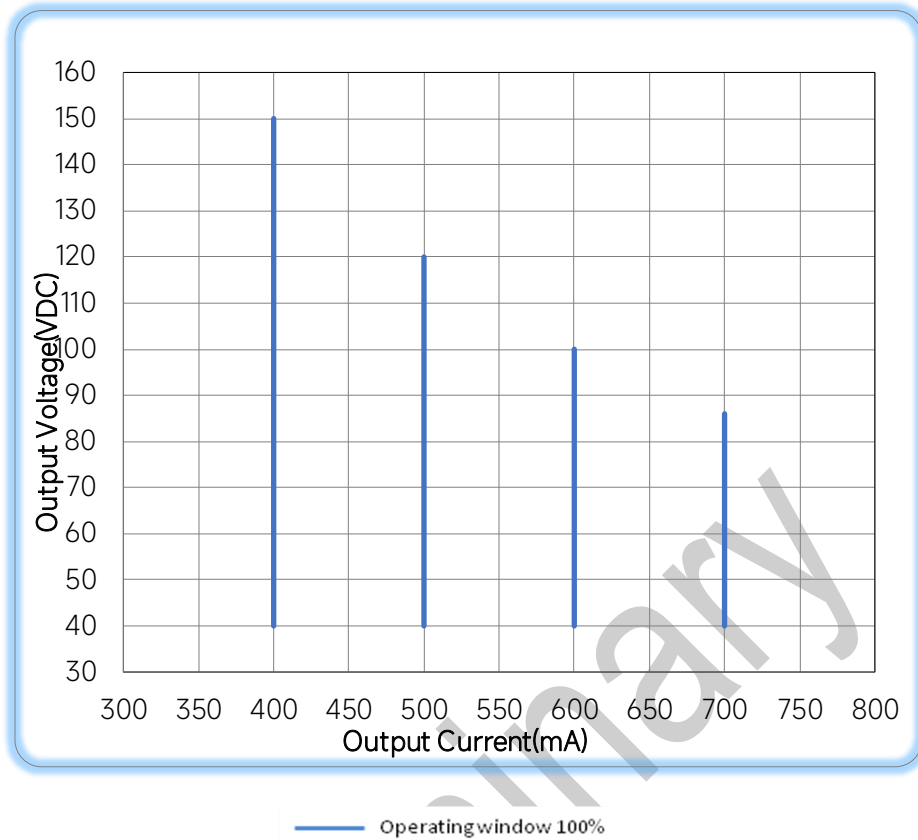
Power Factor Characteristics



THD vs. Load



◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2024/07/19
No Load Power	≤0.5W	≤1W	B	2024/09/03

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



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