

60W Constant Current -FMS Series



■ Approve

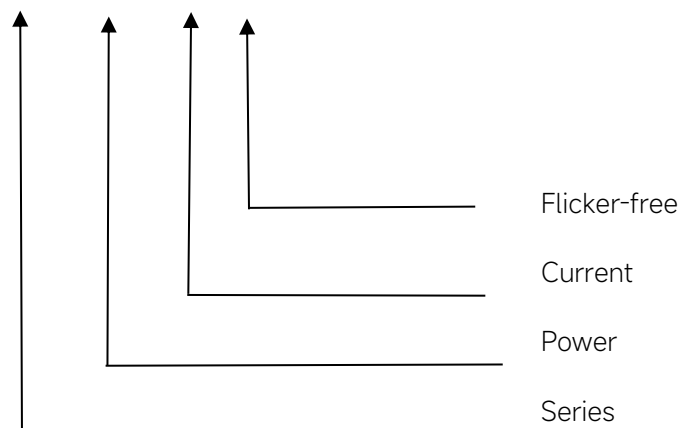
CE SELV

◆ Description

FMS-60-700 LD-F is a 60W isolated design constant current LED driver that operates from 176-264Vac input with 400 to 700mA output current. The output current is adjustable by dip-switch. With it's long 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 Load and over temperature.

◆ Model code

FMS-60-700 LD-F



Features

- Class I , Built-in
- Input Voltage :220-240VAC
- Protections: SCP/OLP/OVP
- Power Factor: >0.95@full load
- Efficiency: 90%
- Adjustable Output Current with dip-switch
- 5 years warranty

Applications

- Linear light

◆ Specification

	Constant Current	400mA	450mA	500mA	550mA	600mA	650mA	700mA	
Output	Voltage Range	40-120V			40-109V	40-100V	40-92.3V	40-85.7V	
	Unload voltage Max.	160VDC							
	Current Accuracy	±5%							
	Output HF current ripple(≥1KHz)	±5%							
	Output LF current ripple(≤120Hz)	±3%							
	SVM	≤0.4							
	Pst	≤1							
	Efficiency(Typ.)	90%							
	Input	Rated input voltage(V)	220-240V						
Range of input voltage(VAC)		176-264VAC							
Maximum voltage		380VAC@1 h maximum,unit might not operate in this abnormal condition							
Frequency(Hz)		50/60 Hz							
Displacement factor		>0.95							
Power Factor		>0.95@full load							
Input Current max		0.45A							
Start-up time		< 0.5S							
No Load Power		≤0.5W							
THD (Typ.)		<10%							
Protection	Over Load Protection	> 105%							
		YES/Auto Resume							
	Over Voltage Protection	> 160VDC							
	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	10%-90%RH							
	Tc	80°C							
	Storage Temperature	-25°C~+85°C							
	Life time	> 50000h@Tc=80,230VAC							
	Noise	≤25dB(A)@20cm							
Surface	Dimension	280X30X21(LXWXH)mm							
	material	metal case							
Standards	Safety	EN61347- 1, EN61347-2- 13;							
	EMC	EN55015, EN61000-3-2, EN61000-3-3, EN61547;EN62493;EN61000-4-5;EN61000-4-2,3,4,5,6,8,11, EN61547							

	RoHS	RoHS (2011/65/EU) (EU)2015/863
Note	<p>1.All parameters not specially mentioned are measured at 240VAC 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.Temperature test: tested at high temperature(50°C)/low temperature(-20°C)/normal temperature(25°C)</p> <p>4.Data are typical values obtained from test samples</p> <p>5.Switch and dimmer are not recommended to connect between this product output and luminaries.</p>	

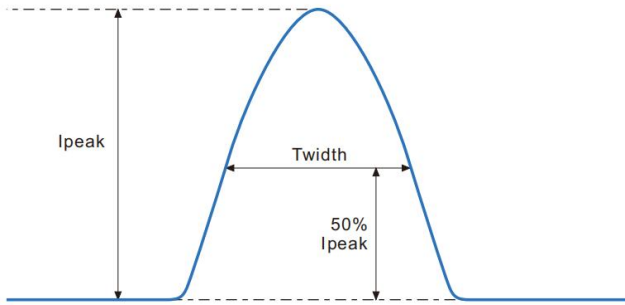
◆ Parameter

Number	Output				Switch position			
	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)	1	2	3	4
1	400mA	40-120VDC	160VDC	48	--	--	--	--
2	450mA	40-120VDC		54	ON	--	--	--
3	500mA	40-120VDC		60	--	ON	--	--
4	550mA	40-109VDC		60	ON	ON	--	--
5	600mA	40-100VDC		60	ON	--	ON	--
6	650mA	40-92.3VDC		60	ON	ON	ON	--
*7	700mA	40-85.7VDC		60	ON	ON	ON	ON

* Factory default

◆ **Inrush Current**

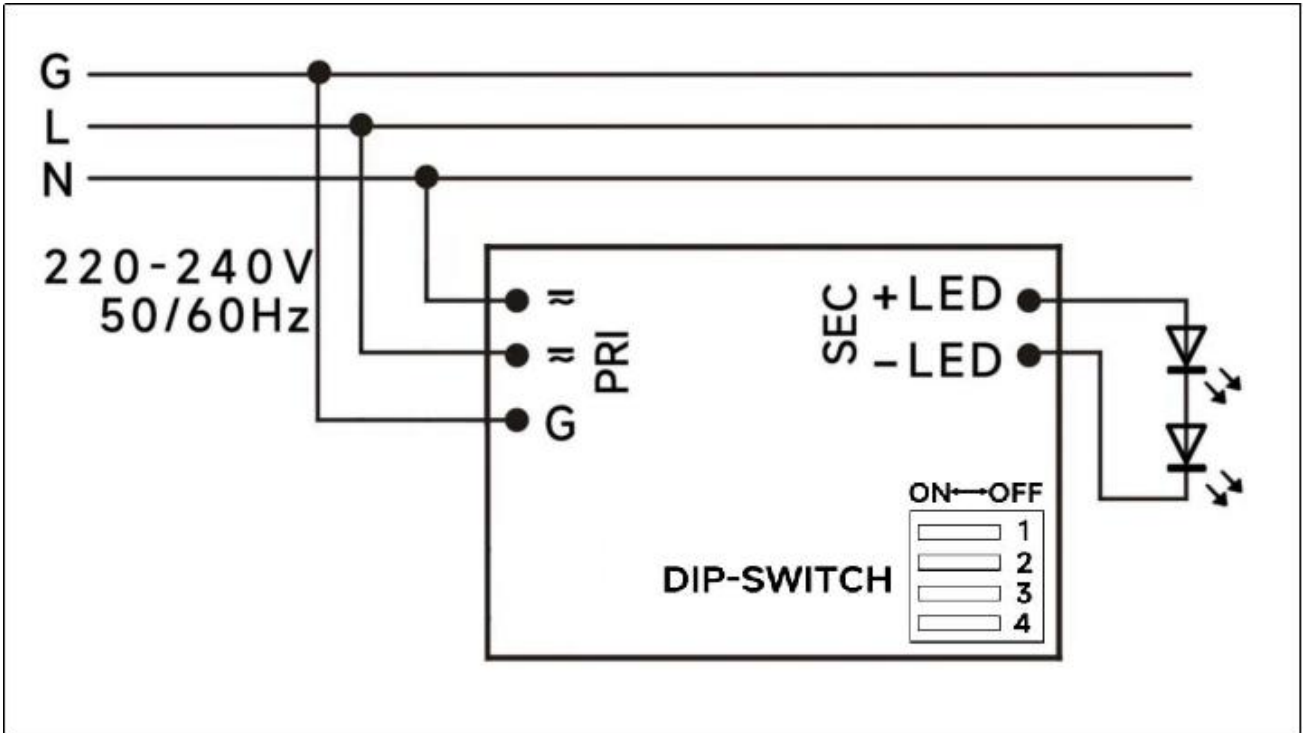
I_{peak}	T_{width}	B10	B16	B20	C10	C16	C20
41.2A	218μs	9pcs	14pcs	18pcs	15pcs	24pcs	30pcs



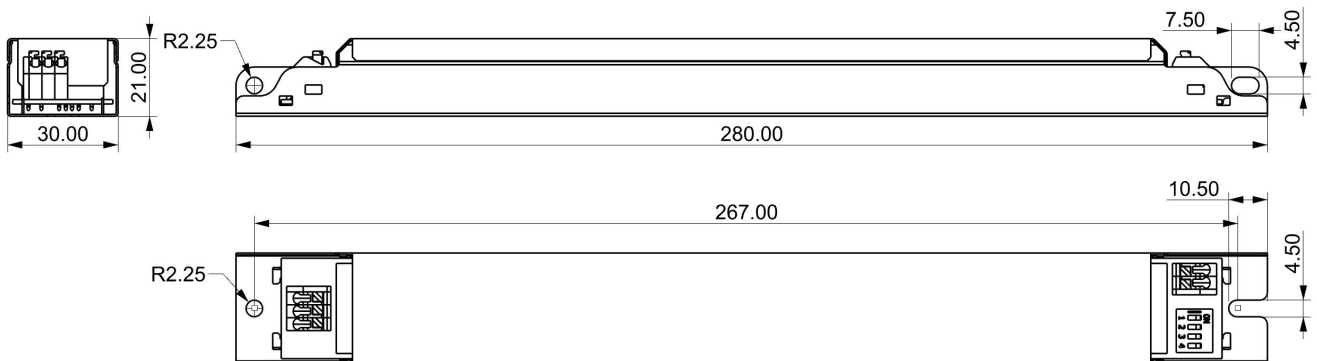
Remarks:

- 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

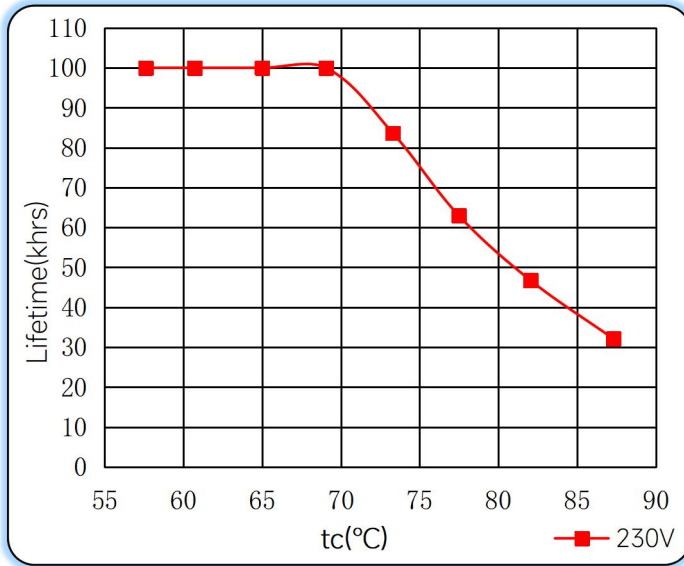
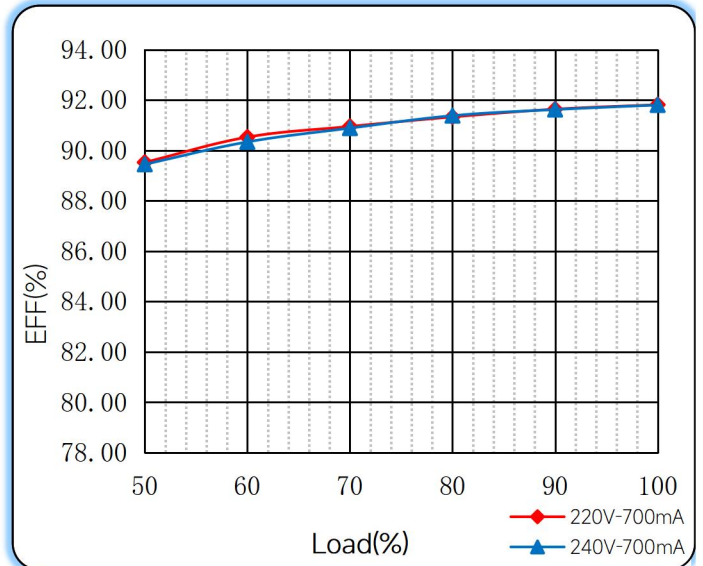
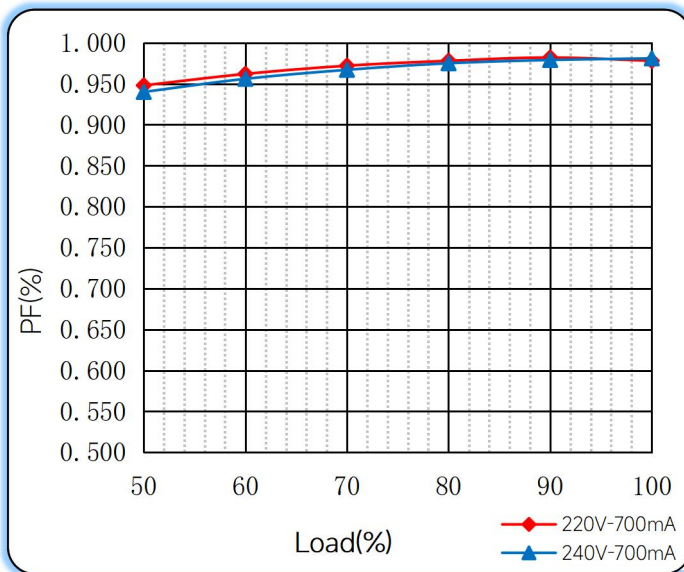
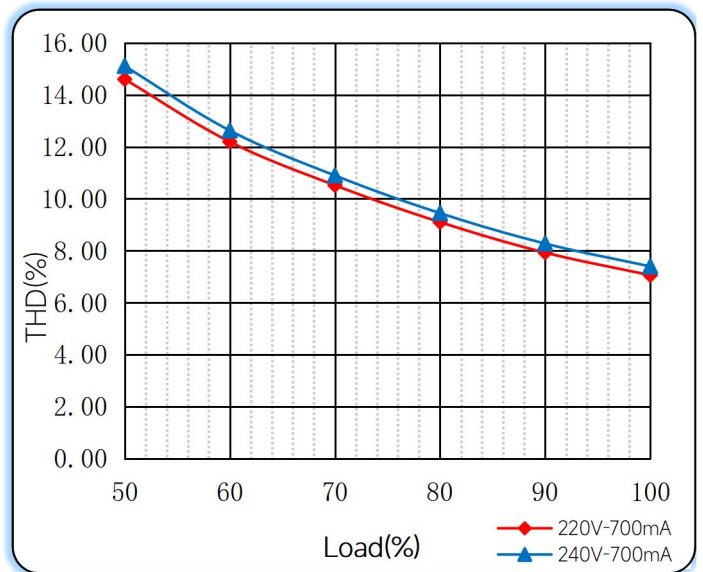
Specification item		Value (Unit)
Input	Input wire cross-section	0.5...1.5 mm ²
	Input wire gauge.	16...20 AWG
	Input wire strip length	7...9mm
Output	Output wire cross-section	0.5...1.5 mm ²
	Output wire gauge.	16...20 AWG
	Output wire strip length	7...9mm

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

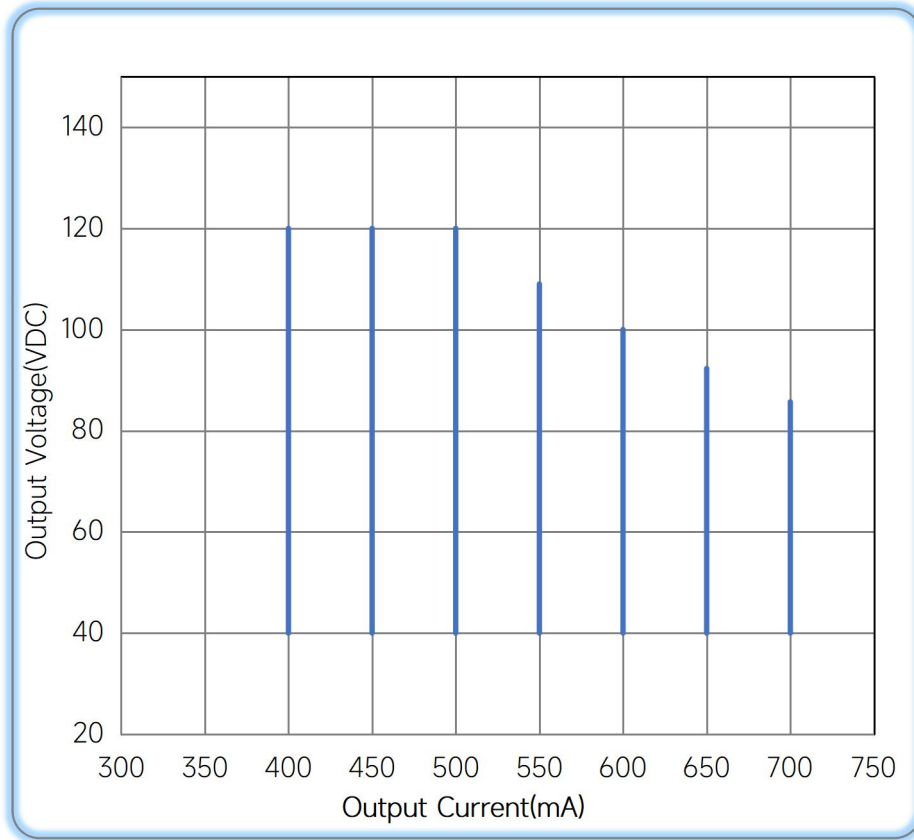
◆ Packaging

Model	Product Dimensions(mm)	weight/piece	Outer carton dimension(mm)	Quantity/carton	Net weight/carton(Kg)	Gross weight/carton(Kg)
FMS-60-700 LD-F	280X30X21	0.1868	Inside:295X255X200 Outside:310X265*210	56	10.4608	11.0008

◆ Curve for FMS-60-700 LD-F, $I_o=700mA$

Lifetime vs. Temperature Curve

Efficiency vs. Load

Power Factor Characteristics

THD vs. Load


◆ **Operating window**



— Operating window 100%

◆ **Revision Updates**

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2024/11/05

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

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Manual