60W 0-10V Dimming power supply

■Approve

Features

- Class I, SELV , Built-in
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP
- Power Factor : 0.65C-0.95
- Efficiency : 88%(Typ.)
- Support 0-10V Dimming
- 5 years warranty
- IP20

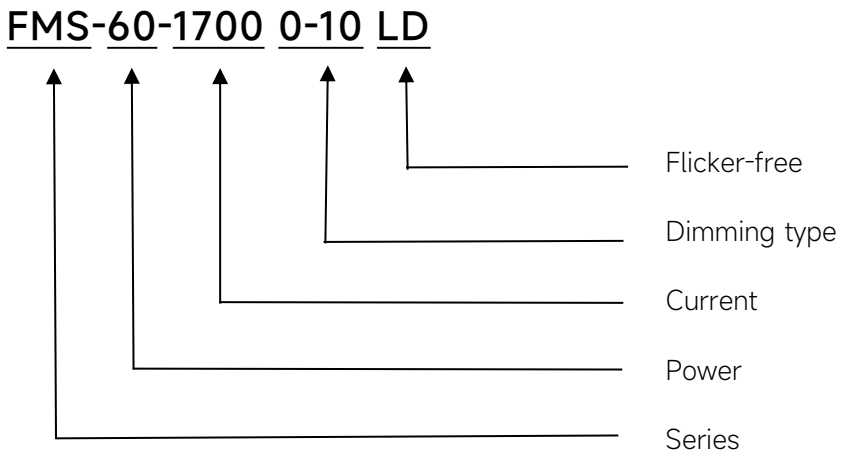
Applications

- LED panel light

◆ Description

FMS-60-1700 0-10 LD is a 60W constant current LED driver that operates from 198-264Vac input with 1100 to 1700mA output current and a forward voltage range from 12 to 42Vdc.The output current is adjustable by DIP Switch. With it's compact dimensions from 325 x 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



◆ Specification

Output	Constant Current (mA)	1100mA	1150mA	1200mA	...	1700mA
	Voltage Range(VDC)	12-42V	12-42V	12-42V	...	12-36V
	Unload voltage Max.(VDC)	59V				
	Current Accuracy	±7%@1100-1400mA;±5%@1450-1700mA;				
	Output HF current ripple(≥1KHz)	±3%				
	Output LF current ripple(≤120Hz)	±3%				
	Auxiliary Output Voltage	12V				
	Auxiliary Output Current	50 mA				
	SVM	≤0.4				
	Pst	≤1				
	Efficiency(Typ.)	88%@full Load,220-240V				
Input	Rated input voltage(VAC)	220-240VAC				
	Range of input voltage(VAC)	198-264VAC				
	Range of input voltage(VDC)	176-280VDC				
	Frequency(Hz)	0/50/60 Hz				
	Displacement factor	>0.9				
	Power Factor	0.65C-0.95@full Load,240V				
	Input Current max	410mA				
	Start-up time	< 0.5S				
	No Load Power	≤0.5W				
	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%				
Protection	Over Load Protection	103-130%				
		YES/Auto Resume				
	Over Voltage Protection	59VDC				
		YES/Auto Resume				
	Short circuit Protection	YES/Auto Resume				
Environment	Operating Temperature	-20℃...+60℃				
	Humidity	20%-90%RH				
	Tc	85℃				
	Storage Temperature	-25℃~+60℃				
	Life time	>50000h@Tc=80℃				
Surface	Dimension	325 x 30 x 21mm				

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; BS EN IEC 55015, BS EN IEC 61000-3-2, BS EN 61000-3-3, BS EN 61547	
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℃ 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.	

◆ Parameter

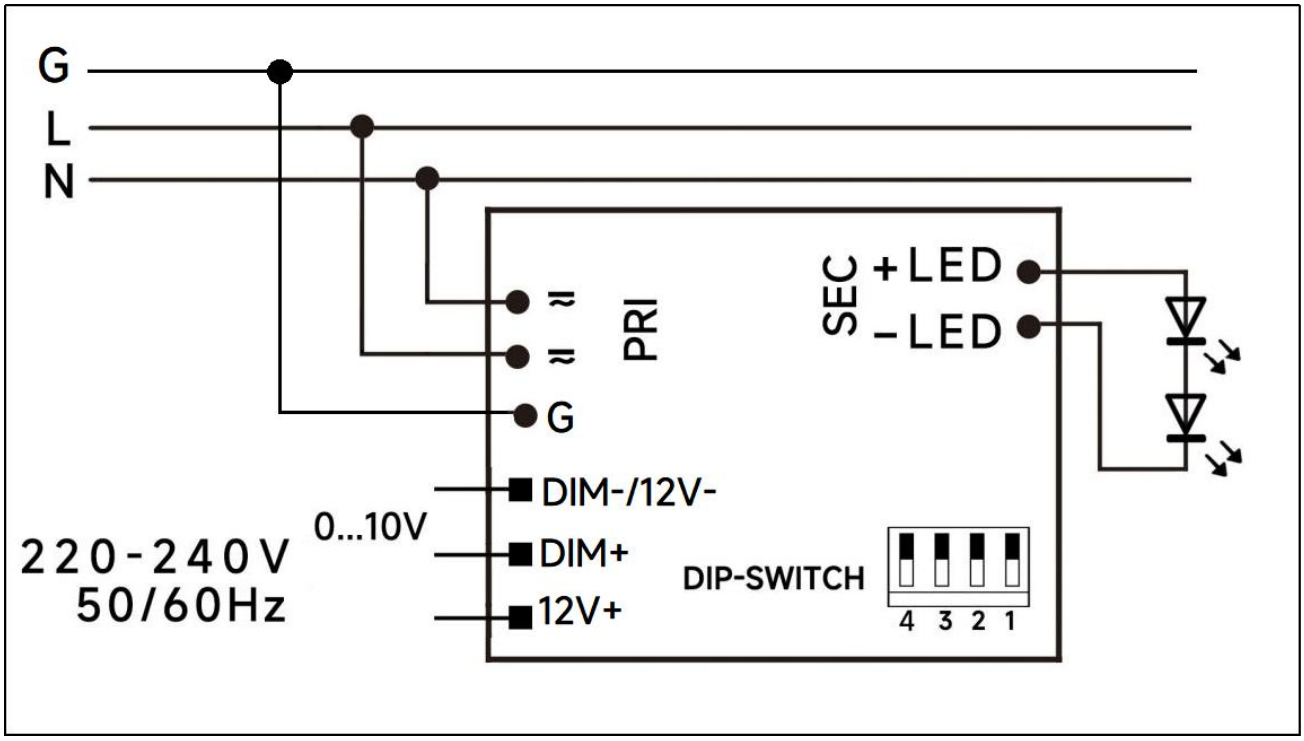
Number	Output				Switch position			
	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)	1	2	3	4
1	1100mA	12-42V	59V	46.2	--	--	--	--
2	1150mA			48.3		--	--	ON
3	1200mA			50.4	--	--	ON	--
4	1250mA			52.5	--	--	ON	ON
5	1300mA			54.6	--	ON	--	--
6	1350mA			56.7	--	ON	--	ON
7	1400mA			58.8	--	ON	ON	--
8	1450mA	12-41V		59.5	--	ON	ON	ON
9	1500mA	12-40V		60	ON	--	ON	ON
10	1550mA	12-38.7V		60	ON	ON	--	--
11	1600mA	12-37.5V		60	ON	ON	--	ON
12	1650mA	12-36V		59.4	ON	ON	ON	--
*13	1700mA	12-36V		61.2	ON	ON	ON	ON

* Factory default

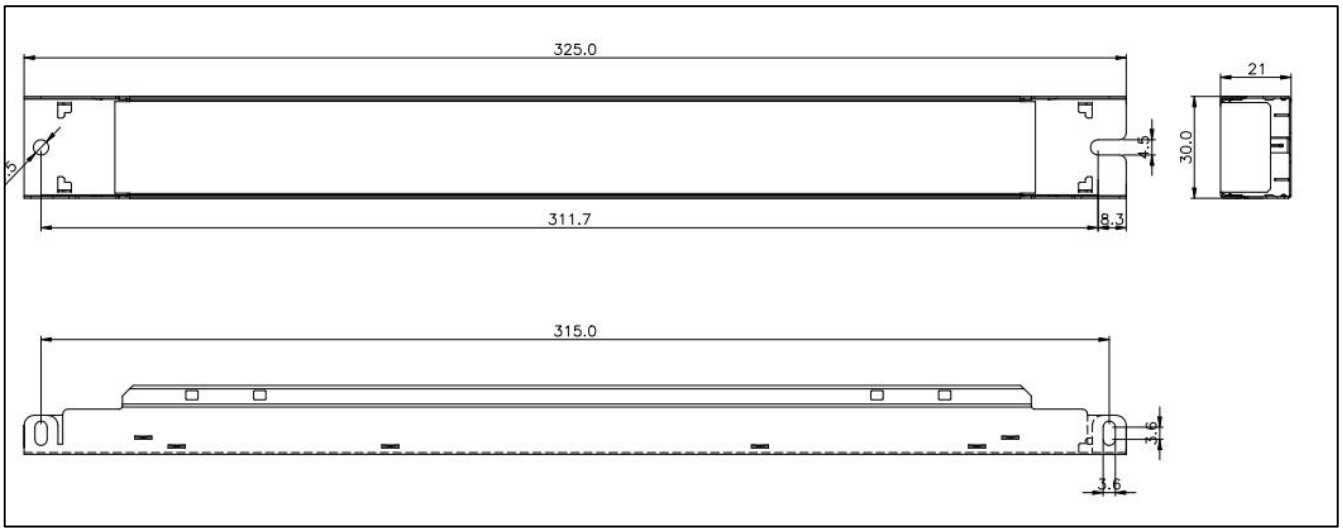
◆ Circuit Breaker

I_{peak}	Twidth	B10	B16	B20	C10	C16	C20
15.3A	**104µs**	19pcs	31pcs	39pcs	19pcs	31pcs	39pcs

◆ Wiring diagram



◆ 2D diagram

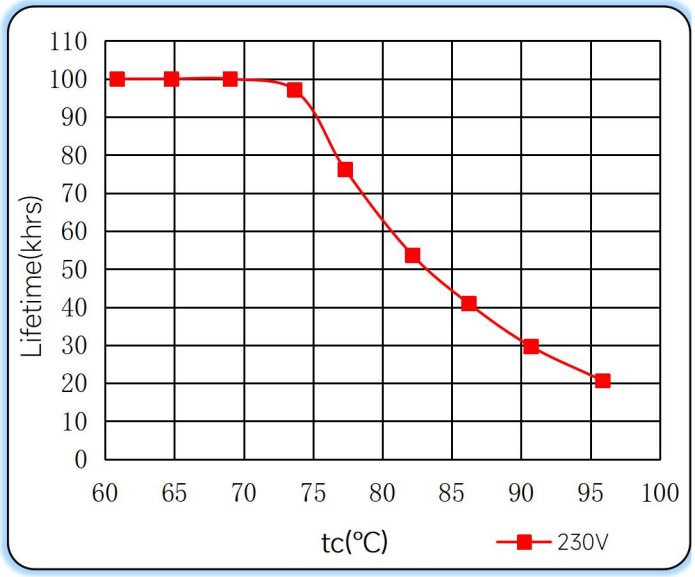


◆ Wiring & Connections

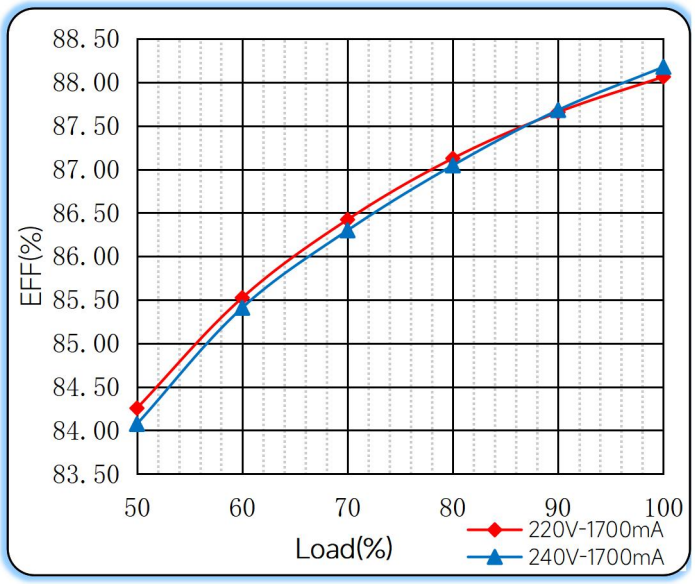
Specification item		Value (Unit)
Input	Input wire cross-section	0.5...1.5 mm^2
	Input wire gauge.	16...20 AWG
	Input wire strip length	7...9mm
Output	Output wire cross-section	0.5...1.5 mm^2
	Output wire gauge.	16...20 AWG
	Output wire strip length	7...9mm

◆ Curve for FMS-60-1700 0-10 LD, Io=1700mA

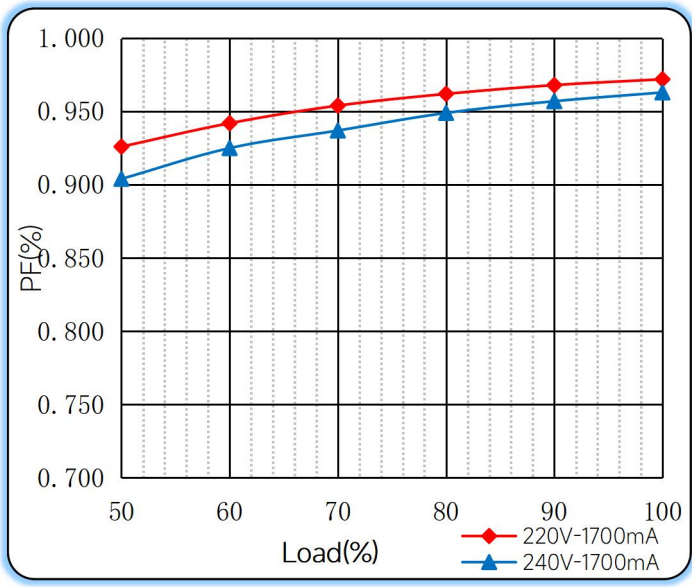
Lifetime vs. Temperature Curve



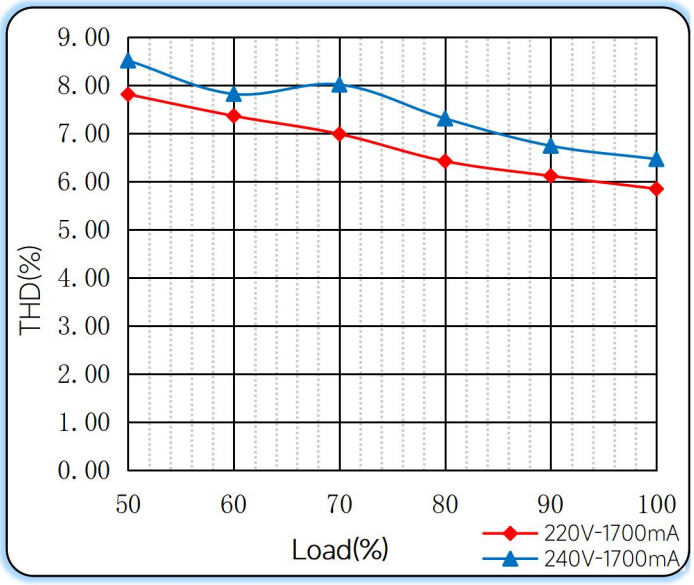
Efficiency vs. Load



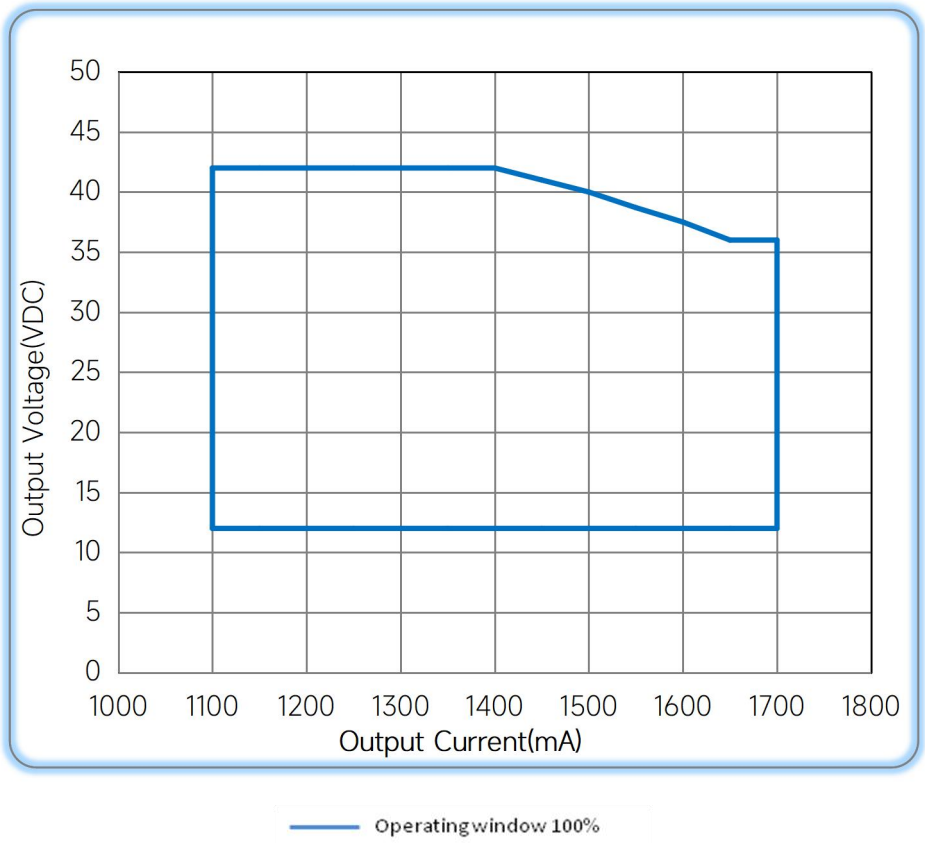
Power Factor Characteristics



THD vs. Load



◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2023/05/03
Specification		Updated	B	2023/06/24

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

E-mail: sales@astralux-driver.com
Website : www.astralux-driver.com