

40W 0-10V Dimming power supply

Features

- Class I, SELV , Built-in
- Input Voltage: 220-240VAC、176-280VDC
- Protections: SCP/OLP/OVP
- Power Factor : 0.6C-0.95
- Efficiency : 88%(Typ.)
- Support 0-10V Dimming
- IP20

Applications

- LED panel light
- LED spot light

■ Approve

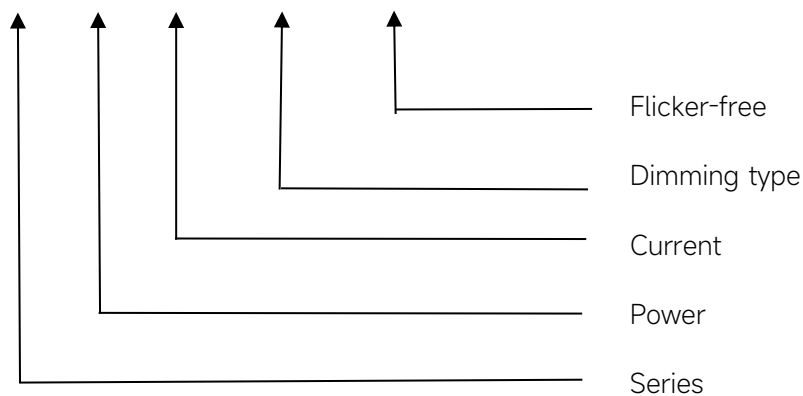


◆ Description

FMS-40-350 0-10 LD is a 40W constant current LED driver that operates from 198-264Vac input with 200 to 350mA output current and a forward voltage range from 20 to 200Vdc. The output current is adjustable by DIP Switch. With its compact dimensions from 220 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

FMS-40-700 0-10 LD-F



◆ Specification

Output	Constant Current (mA)	200mA	250mA	300mA	350mA
	Voltage Range(VDC)	40-200V	40-160V	40-135V	40-115V
	Unload voltage Max.(VDC)	250V			
	Current Accuracy	±8%			
	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			
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@full load, 230Vac			
	Power Factor	>0.95@Full load,230V			
	Input Current max	0.35A			
	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%			
Protection	Over Load Protection	103-130%			
		YES/Auto Resume			
	Over Voltage Protection	230VDC			
		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...+50°C			
	Humidity	20%-90%RH			
	Tc	85°C			

	Storage Temperature	-25°C...+60°C
	Life time	>50000h@Tc=80°C
	Noise	≤25dB(A)@20cm
Surface	Dimension	220 x 30 x 21mm
	material	metal case
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	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.	

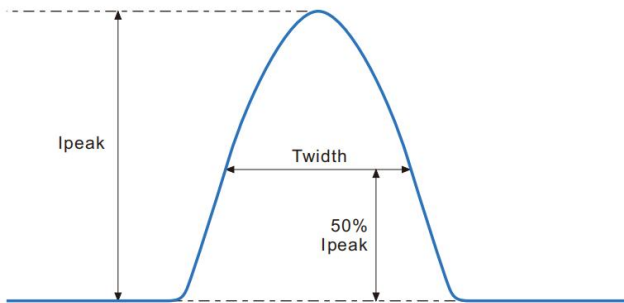
◆ Parameter

Number	Output				Switch position	
	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)	1	2
1	200mA	40-200V	250	40W	--	--
2	250mA	40-160V		40W	ON	--
3	300mA	40-135V		40.5W	--	ON
*4	350mA	40-115V		40.25W	ON	ON

* Factory default

◆ Inrush Current

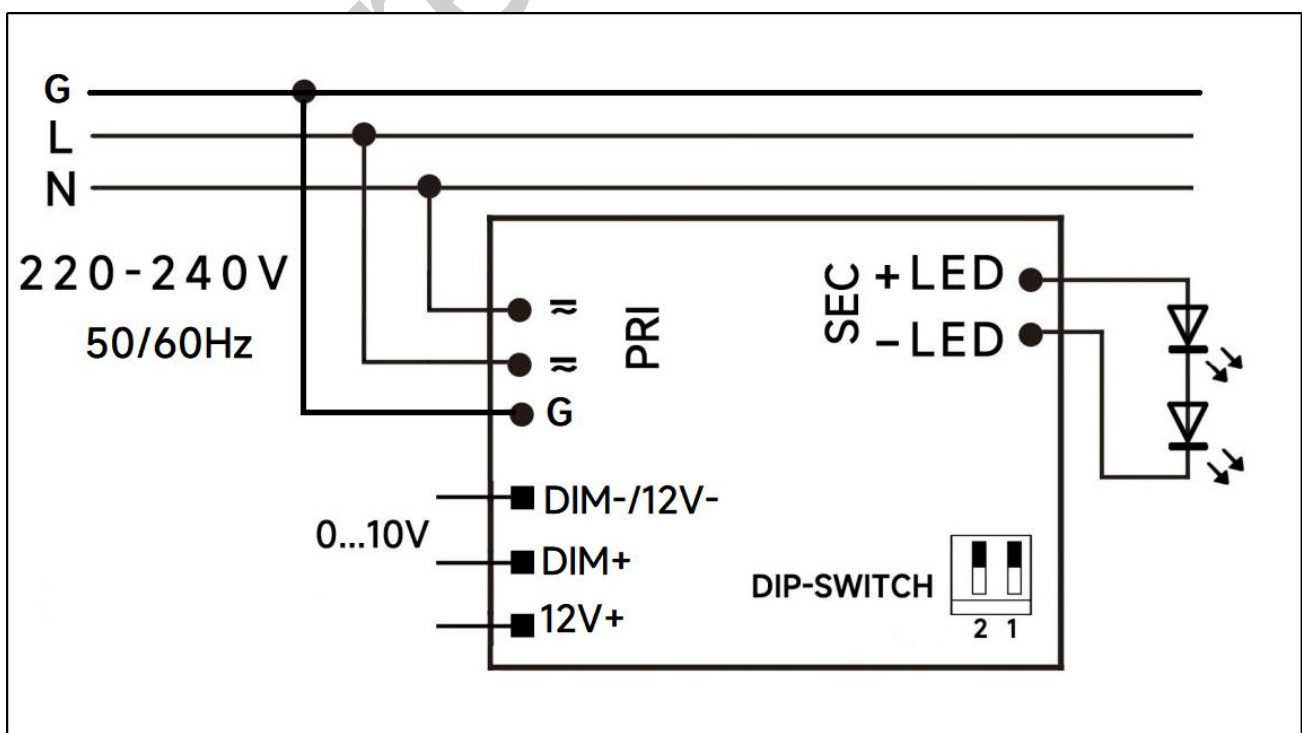
I_{peak}	Twidth	B10	B16	B20	C10	C16	C20
A	μs	pcs	pcs	pcs	pcs	pcs	pcs



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:Single-strand wire is risky to use on an angled terminal mounted on single-sided PCB.Multi-strand wire is recommended for this kind of use.

◆ **Curve for FMS-40-350 0-10 LD-F, $I_o=350\text{mA}$**

Lifetime vs. Temperature Curve

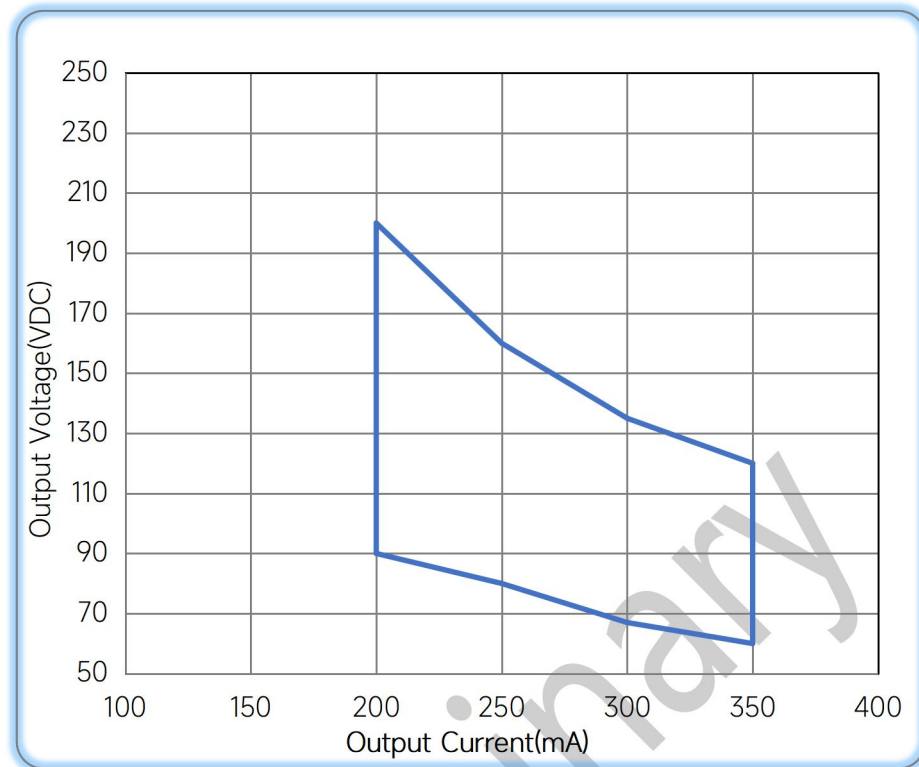
Efficiency vs. Load

Power Factor Characteristics

THD vs. Load

Preliminary

◆ Operating window



— Operating window 100%

◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2023/05/03
Current Accuracy	±5%	±8%	B	2023/11/20