

12W FDS-DALI-2 Dimming power supply



■ Approve



Features

- Class II, SELV, Built-in
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor: 0.4C-0.96
- Efficiency: $\geq 82\%$
- Adjustable Output Current with dip-switch
- Support DALI-2
- 5 years warranty

Applications

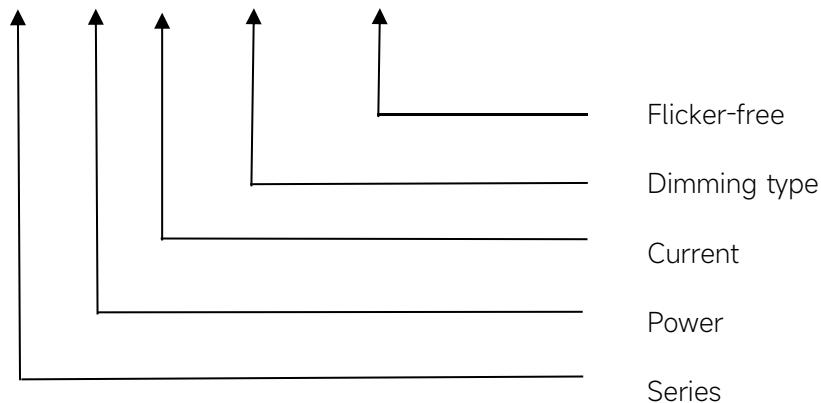
- Track light

◆ Description

FDS-12-350 DALI-2 LD is a 12W constant current LED driver that operates from 198-264Vac input with 120 to 350mA output current and a forward voltage range from 9 to 42Vdc. The output current is adjustable by DIP Switch. With it's compact dimensions from 212 x 31 x 45 mm. It is easy to integrate in track light products. To ensure trouble-free operation, protection is provided against output short circuit and over Load.

◆ Model code

FDS-12-350 DALI-2 LD



◆ Specification

Output	Constant Current （mA）	120	150	180	200	250	280	300	350
	Voltage Range （VDC）	9-42VDC							
	Unload voltage Max.	57VDC							
	Current Accuracy	±7%				±5%			
	Output LF current ripple(≤120Hz)	±5%							
	SVM	≤0.4							
	P _{st}	≤1							
	Efficiency(Typ.)	≥82%@Full load,230V							
Input	Rated input voltage	220-240VAC							
	Range of input voltage	198-264VAC							
	Range input voltage(DC)	198-280VDC							
	Frequency(Hz)	0/50/60 Hz							
	Displacement factor	≥0.9							
	Power Factor	0.4C-0.96							
	Input Current	0.12A							
	Start-up time	< 0.5S							
	No Load Power	≤0.5W							
	Standby Power	≤0.5W							
	Network standby power	≤0.5W							
	THD (Typ.)	<10%@Full load,230V							
Dimming	Dimming	YES							
	Dimming mode	DALI-2 （IEC 62386-101,102,207）							
	Dimming depth	1%							
	Dimming current range	1 ~100%							
Protection	Over Load Protection	103-120%							
		YES/Latch off							
	Over Voltage Protection	> 57VDC							
		YES/Latch off							
	Short circuit Protection	YES/Latch off							
	Over Temperature Protection	YES/Auto Resume							
Environment	Operating Temperature	-20℃~+35℃							
	Humidity	20%-90%RH							
	Tc	70℃							
	Storage Temperature	-20℃~+60℃							
	Lifetime	>50000h,@Tc=70℃							
Surface	Dimension	212X31X45(LXWXH)mm							

standards	EN 61347-1,EN 61347-2-13(CE-LVD,ENEC) IEC 61347-1,IEC 61347-2-13(CB) EN 62384(ENEC) EN IEC 55015,EN IEC 61000-3-2,EN 61000-3-3(CE-EMC) EN 61547(CE-EMC)	
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. 4.The DC input for this product is only used for emergency lighting and applies to functional and safety requirements, EMC is not	

◆ Parameter

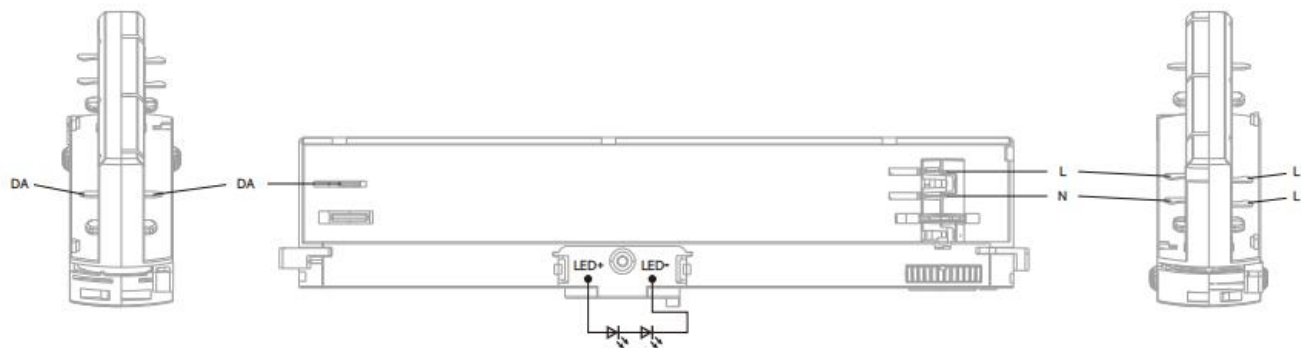
Number	Output	Switch position		
	Current(mA)	1	2	3
1	120	--	--	--
2	150	--	--	ON
3	180	--	ON	--
4	200	--	ON	ON
5	250	ON	--	--
6	280	ON	--	ON
7	300	ON	ON	--
*8	350	ON	ON	ON

* Factory default

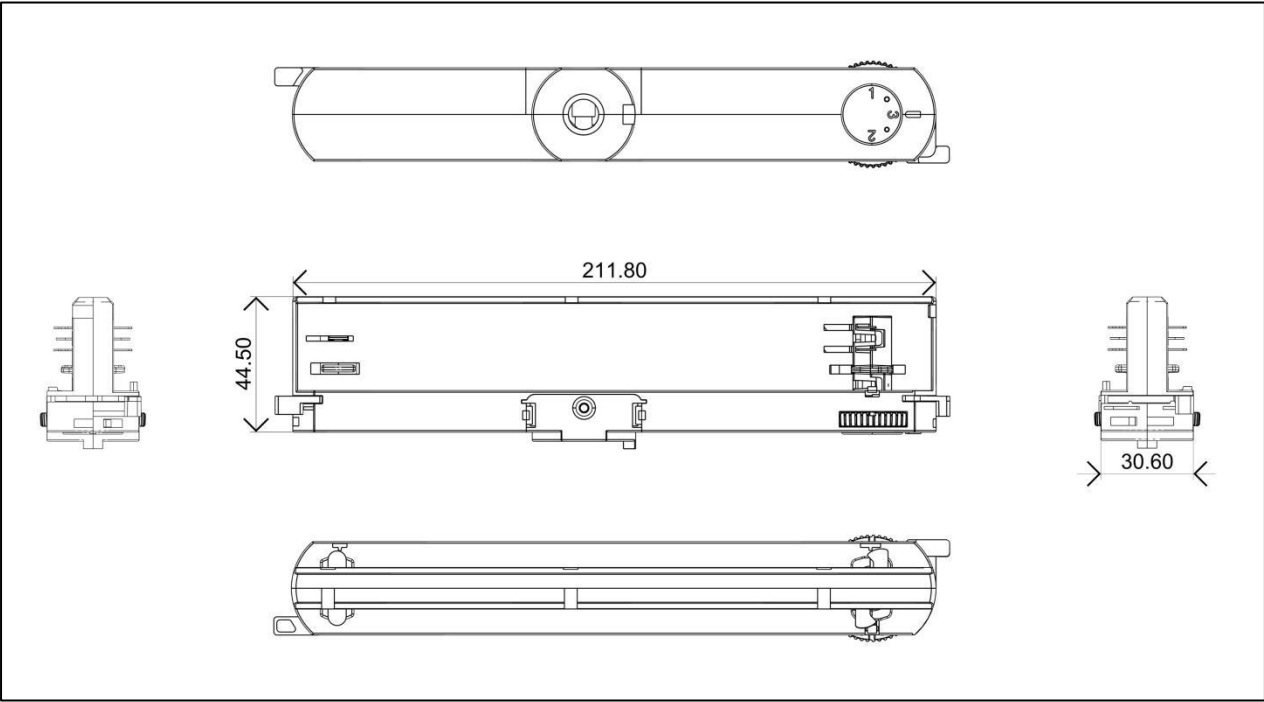
◆ Circuit Breaker

I _{peak}	T _{width}	B10	B16	B20	C10	C16	C20
7.96A	116μs	66pcs	106pcs	133pcs	66pcs	106pcs	133pcs

◆ Wiring diagram



◆ 2D diagram



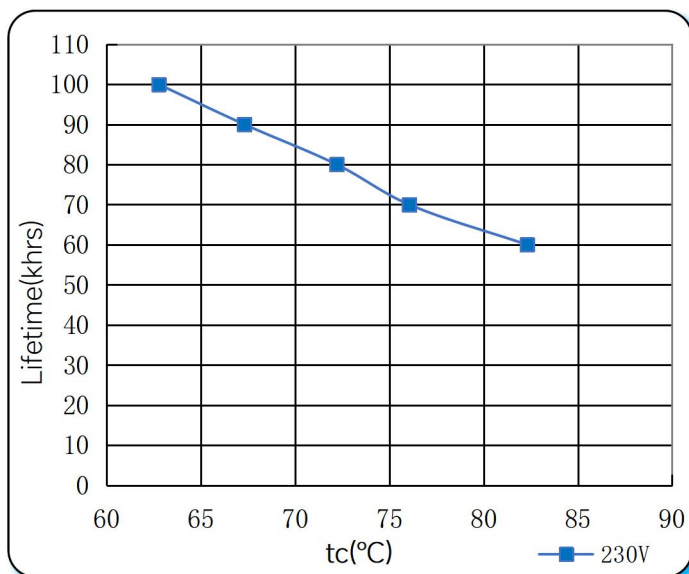
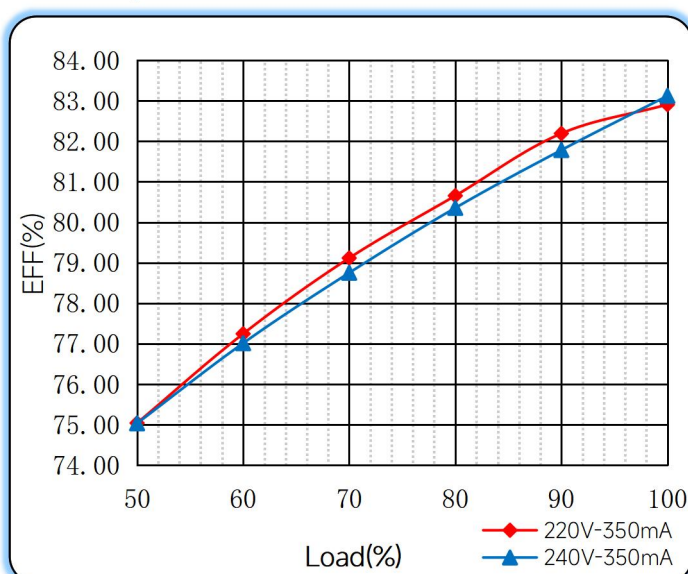
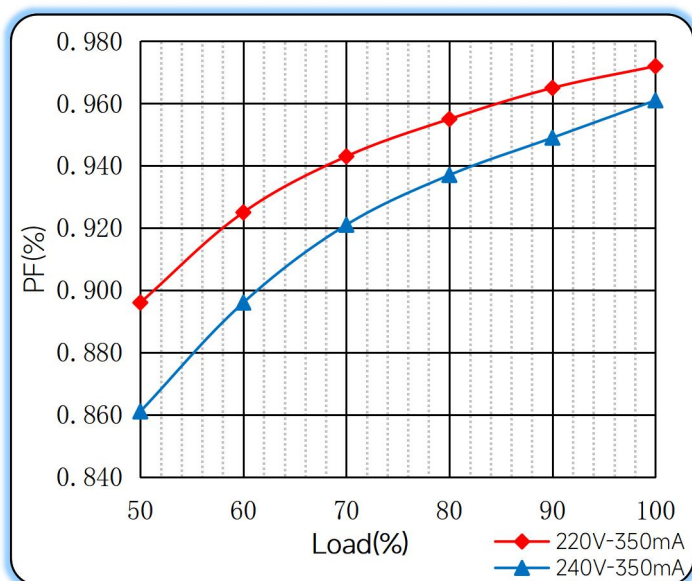
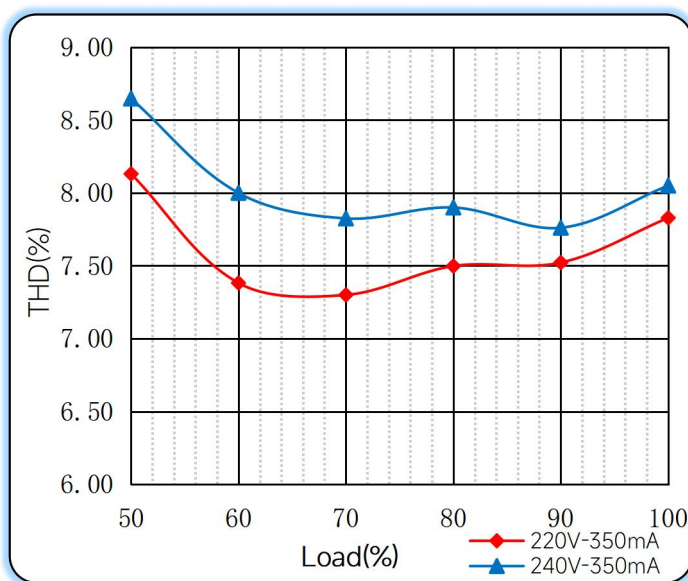
◆ Wiring & Connections

Specification item		Value (Unit)
Output	Output wire cross-section	0.5...1.5 mm ²
	Output wire gauge.	16...20 AWG
	Output wire strip length	8...9mm

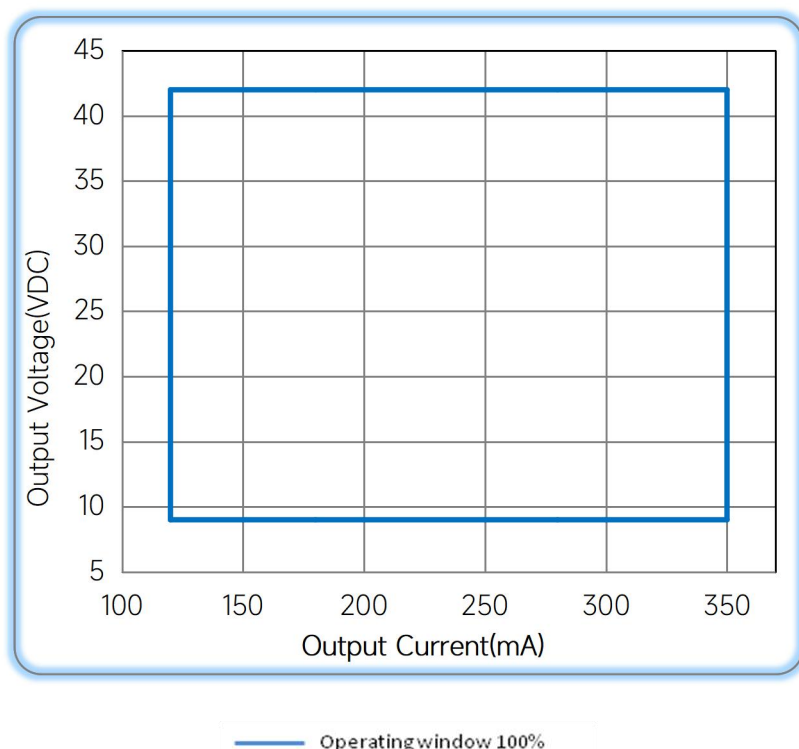
◆ Matching brand

Manufacturer	Type	System	Intrack casing colour
POWERGEAR	PRO-0610	3P+DALI	Black, white, gray
Global	XTSC 6xxx	3P+DALI	Black, white, gray
Unipro	TC33B	3P+DALI	Black, white, gray
Stucchi	9000-2/ B-ST	3P+DALI	Black, white, gray

◆ Curve for FDS-12-350 DALI-2 LD, $I_o=350\text{mA}$

Lifetime vs. Temperature Curve

Efficiency vs. Load

Power Factor Characteristics

THD vs. Load


◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2022/10/24
Updated			B	2023/03/09

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Manual