

30W FDS-DALI-2 Dimming power supply



Features

- Class II,SELV,built-in
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor > 0.95
- Efficiency ≥85%
- Adjustable Output Current with dip-switch
- Support DALI-2
- 5 years warranty

Applications

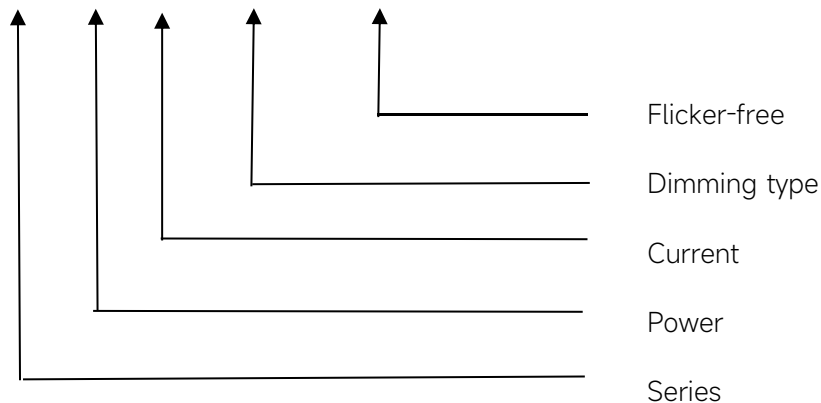
- Track light

◆ Description

FDS-30-700 DALI-2 LD is a 30W constant current LED driver that operates from 198-264Vac input with 350mA to 700 mA 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 248 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-30-700 DALI-2 LD



◆ Specification

	Constant Current (mA)	350	400	450	500	550	600	650	700
Output	Voltage Range (VDC)	9-42VDC							
	Unload voltage Max.	55VDC							
	Current Accuracy	±5%							
	Output HF current ripple(≥1KHz)	±10%							
	Output LF current ripple(≤120Hz)	±3%							
	SVM	≤0.4							
	P _{st}	≤1							
	Efficiency(Typ.)	≥85%@Full load							
	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		>0.95@Full load							
Input Current		0.2A							
Start-up time		< 0.5S							
No Load Power		≤0.5W							
Standby Power		≤0.5W							
Network standby power		≤0.5W							
THD (Typ.)		<10%@Full load							
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	> 55VDC YES/Latch off							
	Short circuit Protection	YES/Latch off							
	Over Temperature Protection	YES/Auto Resume							
Environment	Operating Temperature	-20°C~+45°C							
	Humidity	20%-90%RH							
	Tc	85°C							
	Storage Temperature	-25°C~+60°C							
	Lifetime	>50000h,@Tc=85°C							
Surface	Dimension	248X31X45(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,RCM) EN 61547(CE-EMC,RCM)	
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.	

◆ Parameter

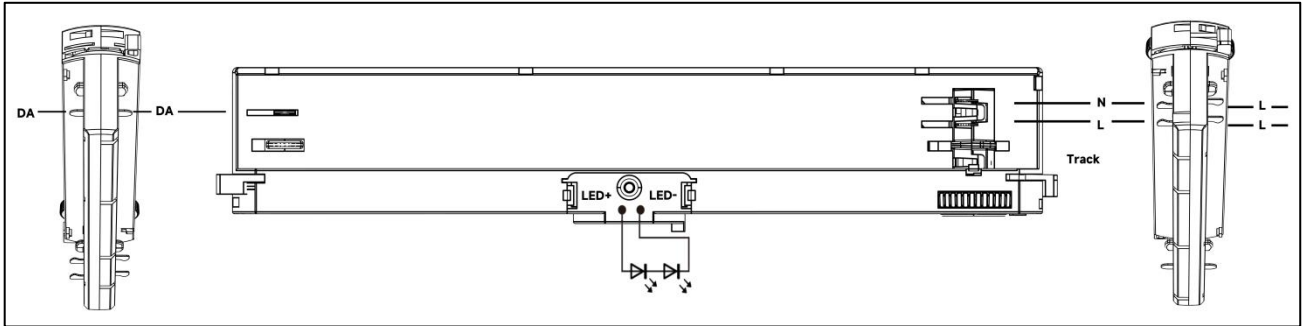
Number	Current(mA)	Switch position		
		1	2	3
1	350mA	--	--	--
2	400mA	ON	--	--
3	450mA	--	ON	--
4	500mA	ON	ON	--
5	550mA	--	--	ON
6	600mA	ON	--	ON
7	650mA	--	ON	ON
*8	700mA	ON	ON	ON

* Factory default

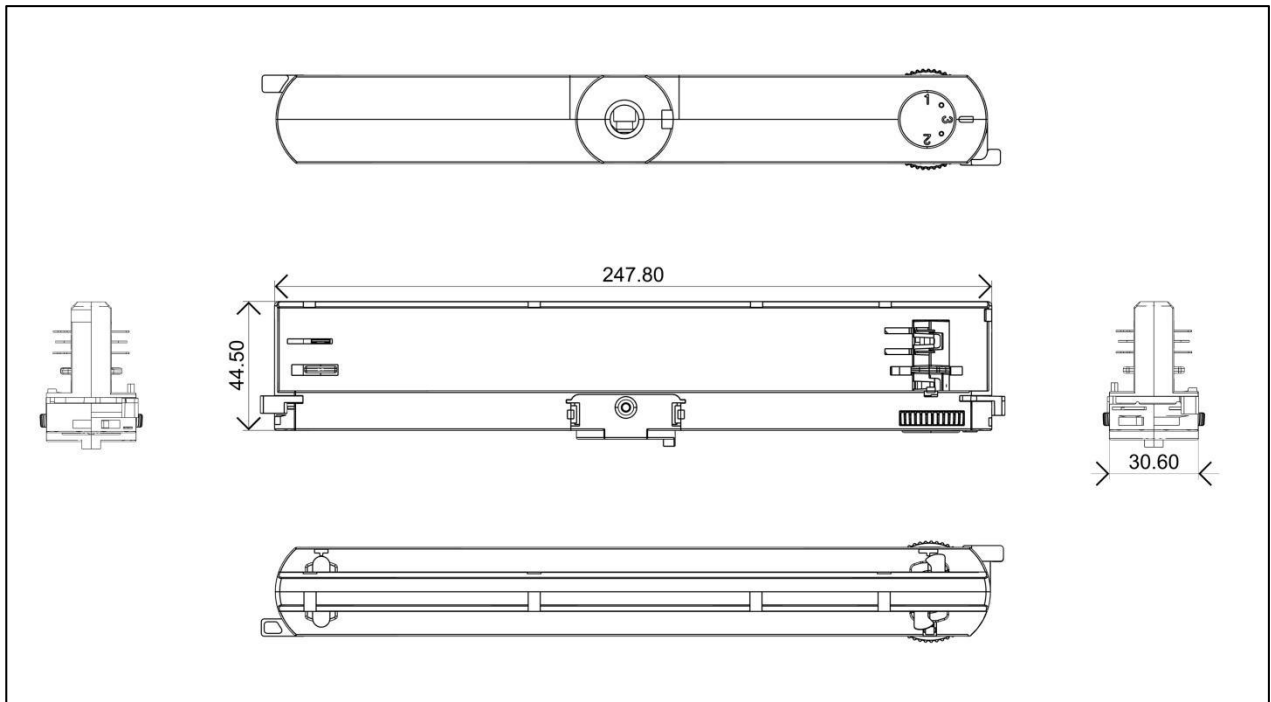
◆ Circuit Breaker

I ^{peak}	T ^{width}	B10	B16	B20	C10	C16	C20
17.6A	101.1μs	30pcs	49pcs	61pcs	30pcs	49pcs	61pcs

◆ **Wiring diagram**



◆ **2D diagram**

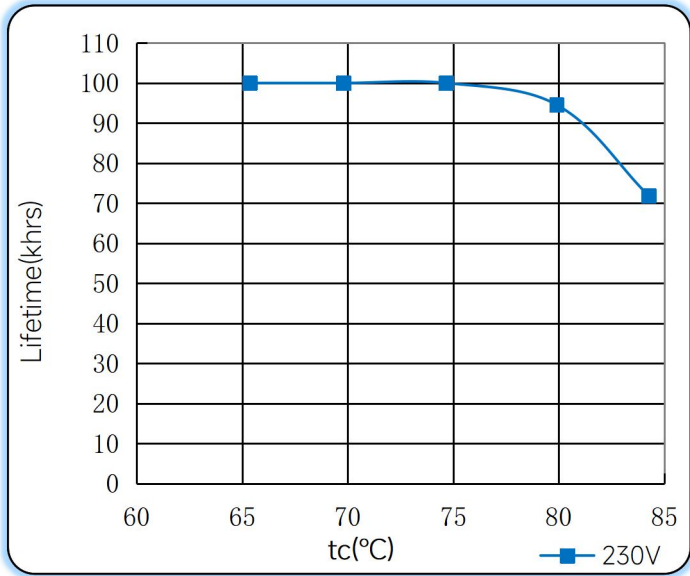


◆ **Wiring & Connections**

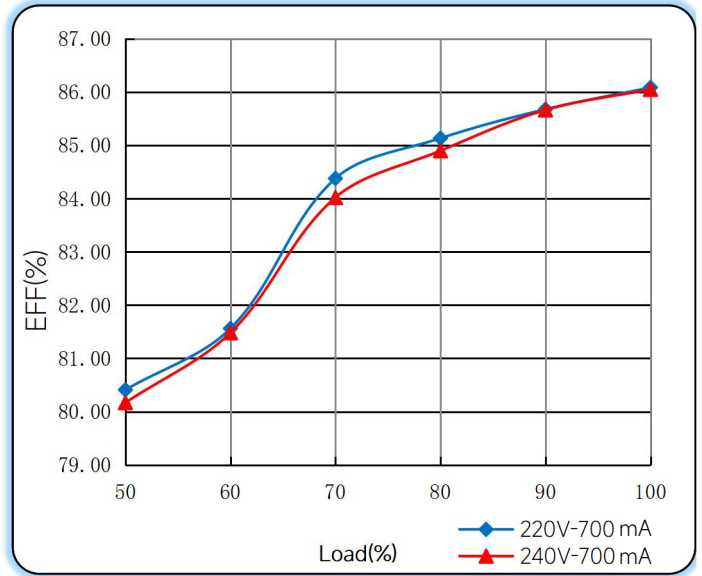
Specification item		Value (Unit)
Output	Output wire cross-section	0.5...1.5 mm ²
	Output wire gauge.	16...20 AWG
	Output wire strip length	8...9mm

◆ Curve for FDS-30-700 DALI-2 LD, I_o=700mA

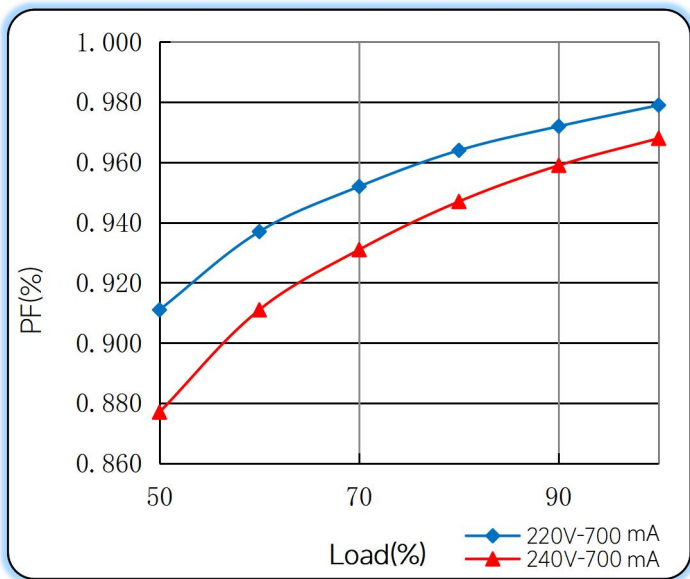
Lifetime vs. Temperature Curve



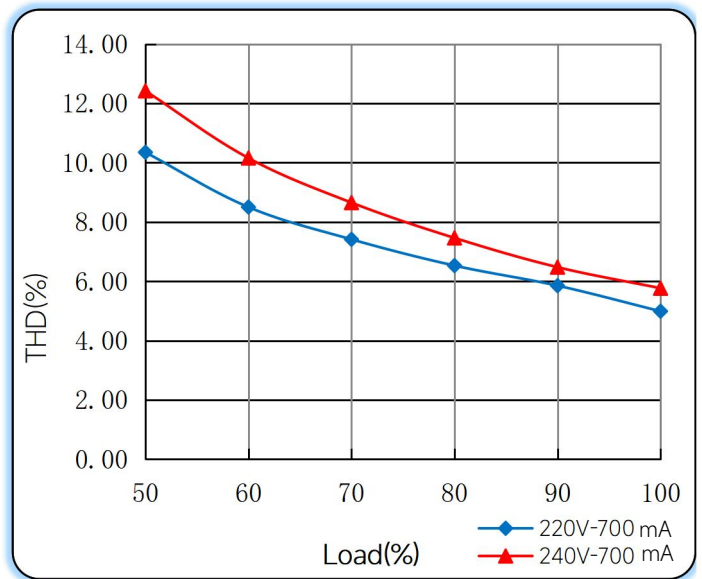
Efficiency vs. Load



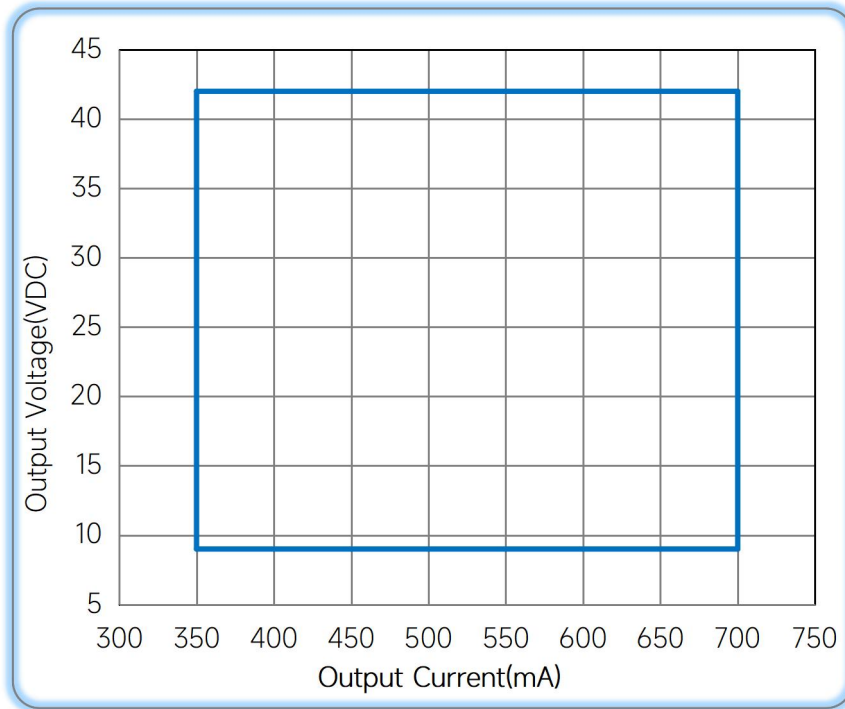
Power Factor Characteristics



THD vs. Load



◆ **Operating window**



— Operating window 100%

◆ **Revision Updates**

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2022/10/24

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Manual