

40W FDS-DALI-2 Dimming power supply



■ Approve

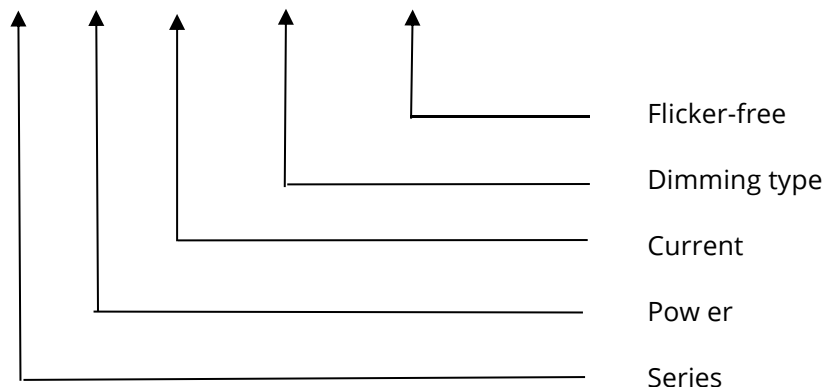


Description

FDS-40-1050 DALI-2 LD is a 40W constant current LED driver that operates from 198-264Vac input with 700mA to 1050mA 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-40-1050 DALI-2 LD



Features

- Class II,SELV,Built-in
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor 0.75C-0.98
- Efficiency ≥86%
- Adjustable Output Current with dip-switch Support DALI-2
- 5 years warranty

Applications

Track light

Specification

Output	Constant Current (mA)	700	750	800	850	900	950	1000	1050
	Voltage Range (VDC)	9-42						9-40	9-38.5
	Unload voltage Max.	56VDC							
	Current Accuracy	±5%							
	Output HF current ripple(≥1KHz)	±10%							
	Output LF current ripple(≤120Hz)	±3%							
	SVM	≤0.4							
	Pst	≤1							
	Efficiency(Typ.)	≥86%@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	0.75C-0.98							
	Input Current	0.26A							
	Start-up time	<0.5S							
	No Load Power	≤0.5W							
	Standby Power	≤0.5W							
	Network standby power	≤0.5W							
	THD (Typ.)	<10%							
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	>56VDC YES/Latch off							
	Short circuit Protection	YES/Latch off							
	Over Temperature Protection	YES/Auto Resume							
Environment	Operating Temperature	-20°C~+35°C							
	Humidity	20%-90%RH							
	Tc	85°C							
	Storage Temperature	-20°C~+60°C							
	Lifetime	>50000h,@Tc=85°C							
Surface	Dimension	248X31X45(LXWXH)mm							

Standards	EEN 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 EU2019/2020	
	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 &	

Parameter

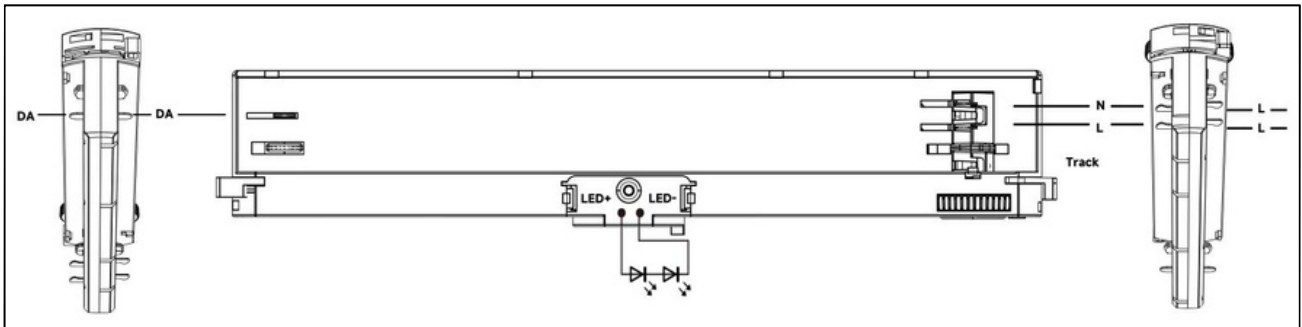
Number	Output	Switch position		
	Current(mA)	1	2	3
1	700	--	--	--
2	750	ON	--	--
3	800	--	ON	--
4	850	ON	ON	--
5	900	--	--	ON
6	950	ON	--	ON
7	1000	--	ON	ON
*8	1050	ON	ON	ON

* Factory default

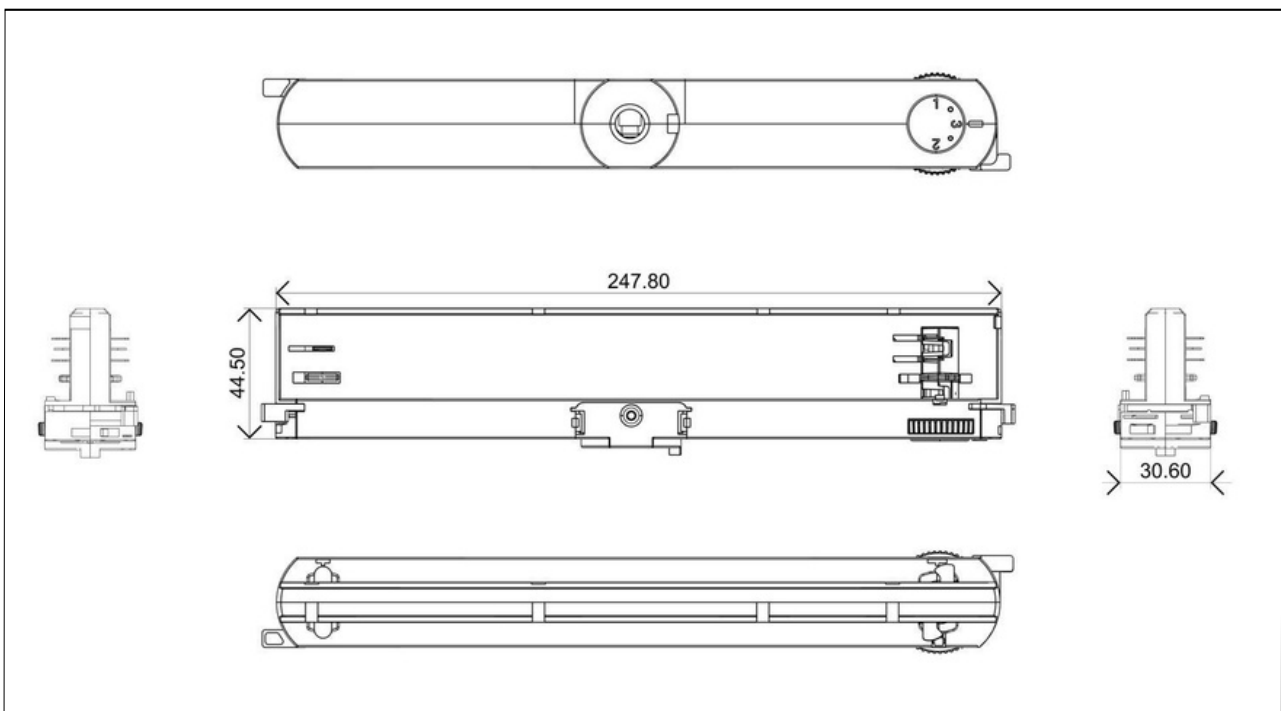
Circuit Breaker

Ipeak	Tw idth	B10	B16	B20	C10	C16	C20
14.7A	101.6µs	30pcs	49pcs	61pcs	30pcs	49pcs	61pcs

Wiring diagram



2D diagram

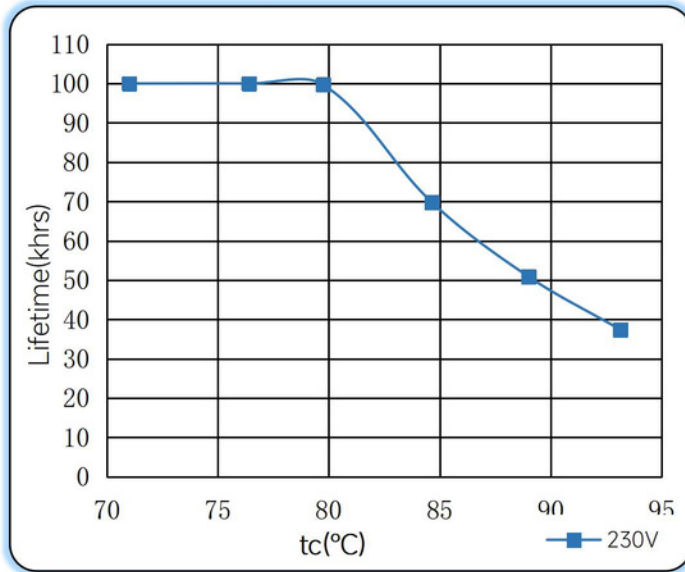


Wiring & Connections

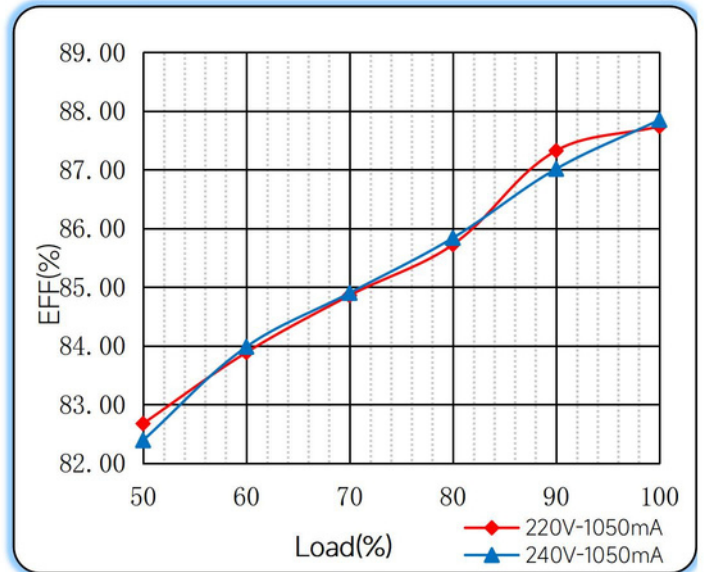
Specification item		Value (Unit)
Output	Output wire cross-section	0.5...1.5 mm ²
	Output wire gauge.	16...20 AWG
	Output wire strip length	8...9mm

Curve for FDS-40-1050 DALI-2 LD, I_o=1050mA

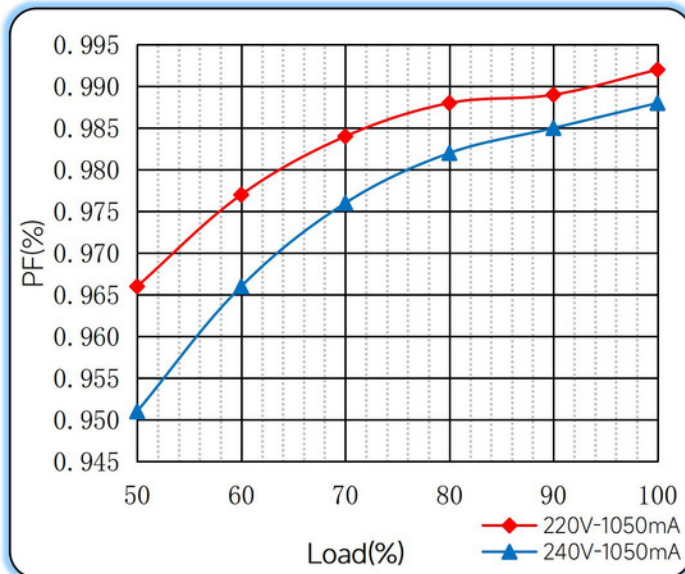
Lifetime vs. Temperature Curve



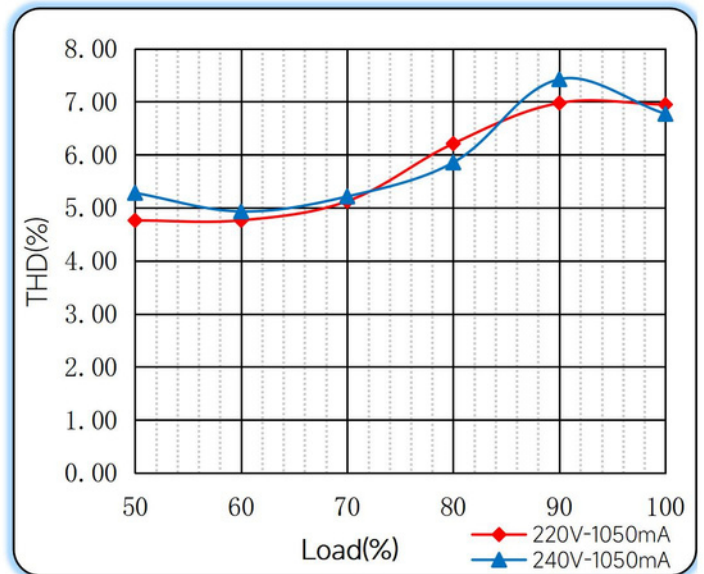
Efficiency vs. Load



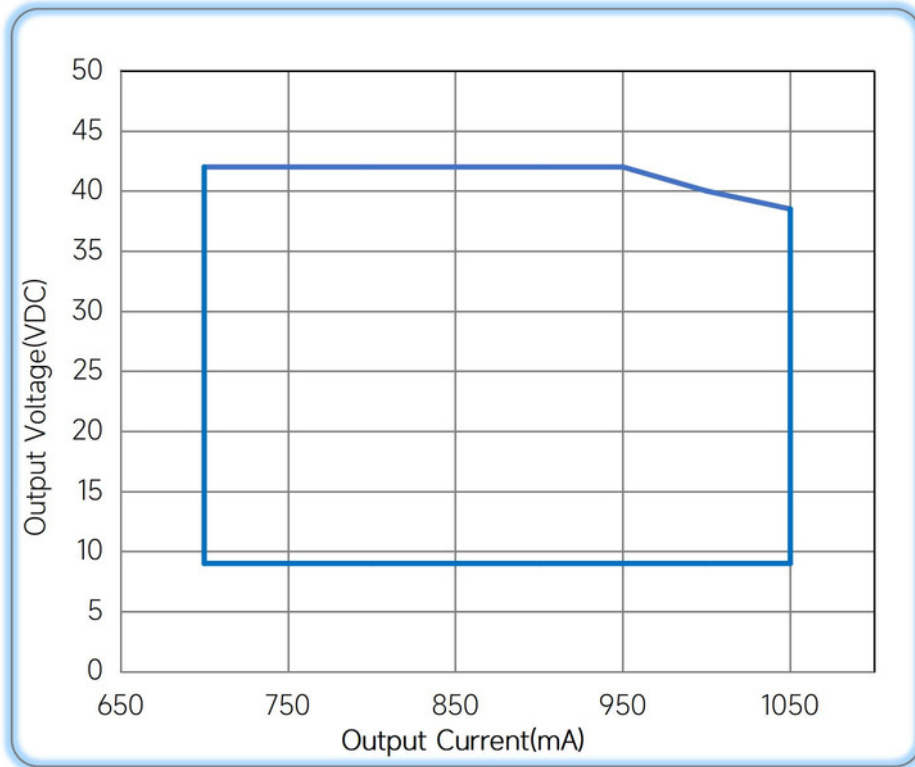
Power Factor Characteristics



THD vs. Load



Operating window



Revision Updates

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