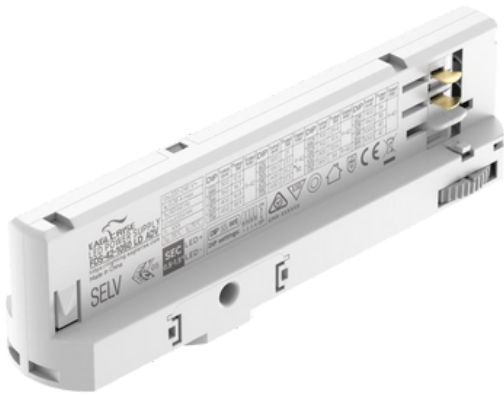


42W Constant Current -FDS power supply



■ Approve



Features

Class II, SELV, Built-in
 Input Voltage 220-240VAC
 Protections: SCP/OLP/OVP/OTP
 Power Factor: >0.92
 Efficiency: 88%
 Adjustable Output Current with dip-switch
 5 years warranty

Applications

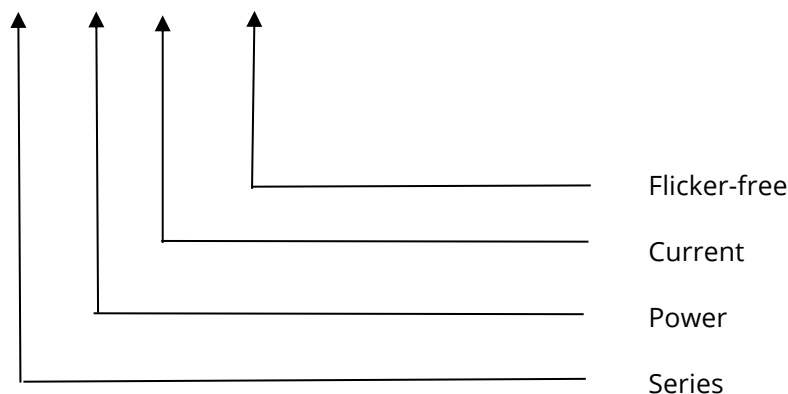
Track Spot light

Description

FDS-42-1050 LD ADV is a 42W constant current LED driver that operates from 198-264Vac input with 300 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 158x30.6x41.6mm. It is easy to integrate in track spot light products. To ensure trouble-free operation, protection is provided against output short circuit and over Load.

Model code

FDS-42-1050 LD ADV



◆ Specification

Output	Constant Current	300mA	350mA	...	1050mA
	Voltage Range(VDC)	9-42VDC	9-42VDC	...	9-40VDC
	Unload voltage Max.	55VDC	55VDC	...	55VDC
	Current Accuracy	±5%			
	Output HF current ripple(≥1KHz)	±5%			
	Output LF current ripple(≤120Hz)	±5%			
	SVM	≤0.4			
	P _{st}	≤1			
	Efficiency(Typ.)	88%@ 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	>0.85@230VAC, full load, 300/350/400/450/500mA >0.92@230VAC, full load, 550/600/650/700/750/800/900/950/1050mA			
	Input Current max	0.28A MAX. @Full Load,198VAC			
	Start-up time	< 0.5S			
	No Load Power	≤0.5W			
	THD (Typ.)	<10%			
	Protection	Over Load Protection	103-120% YES/Auto Resume		
Over Voltage Protection		> 55VDC YES/Auto Resume			
Short circuit Protection		YES/Auto Resume			
Over Temperature Protection		YES/Auto Resume			
Environment	Operating Temperature	-20°C~+35°C			
	Humidity	10%-90%RH			
	Tc	75°C			
	Storage Temperature	-40°C...+85°C			
	Life time	> 50000h@Tc=75°C			
Surface	Dimension	158x30.6x41.6mm(LXWXH)mm			
Standards	EN 61347-1,EN 61347-2-13;IEC 61347-1,IEC 61347-2-13;EN 62384; EN IEC 55015,EN IEC 61000-3-2,EN 61000-3-3,EN 61547				
Others	ErP	EU 2019/2020			
	RoHS	RoHS (2011/65/EU) (EU)2015/863			

Note	<p>1.All parameters NOT specially mentioned are measured at 230VAC input , full load and 25°C of ambient temperature.</p> <p>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.</p> <p>3.The DC input for this product is only used for emergency lighting and applies to functional and safety requirements, EMC is not considered.</p> <p>4.Switch and dimmer are not recommended to connect between this product output and luminaries.</p>
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◆ Parameter

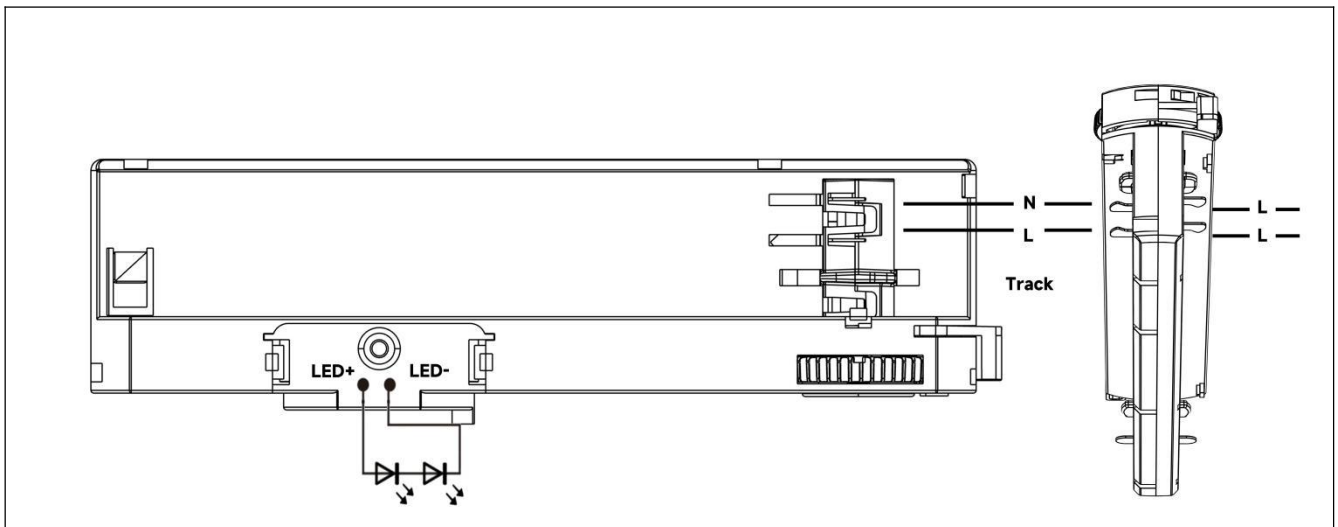
Number	Output				Switch position			
	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)	1	2	3	4
1	300mA	9-42VDC	55VDC	12.6	--	--	--	--
2	350mA			14.7	ON	--	--	--
3	400mA			16.8	--	ON	--	--
4	450mA			18.9	ON	ON	--	--
5	500mA			21	--	--	ON	--
6	550mA			23.1	ON	--	ON	--
7	600mA			25.2	--	ON	ON	--
8	650mA			27.3	ON	ON	ON	--
9	700mA			29.4	--	--	--	ON
10	750mA			31.5	ON	--	--	ON
11	800mA			33.6	--	ON	--	ON
12	850mA	9-40VDC	55VDC	34	ON	ON	--	ON
13	900mA			36	--	--	ON	ON
14	950mA			38	ON	--	ON	ON
15	1000mA			40	--	ON	ON	ON
*16	1050mA			42	ON	ON	ON	ON

* Factory default

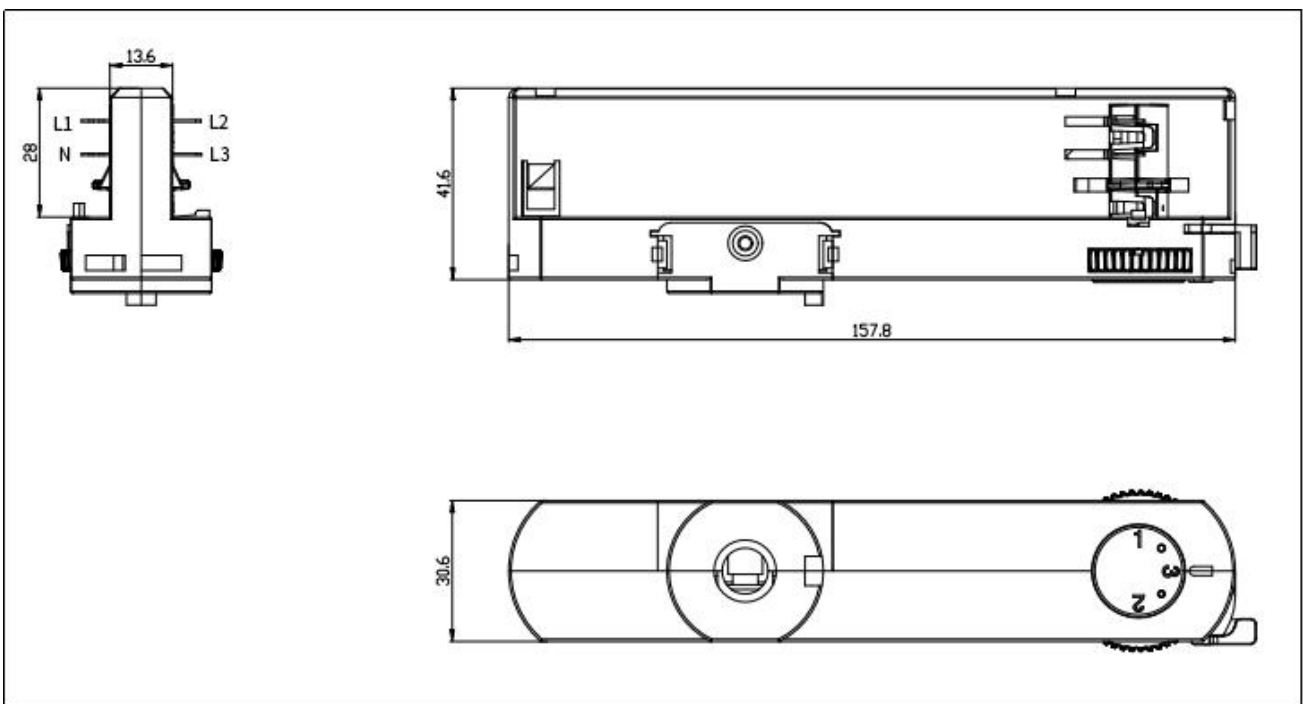
◆ Circuit Breaker

I_{peak}	Twidth	B10	B16	B20	C10	C16	C20
6.18A	30 μ s	28pcs	45pcs	57pcs	28pcs	45pcs	57pcs

◆ Wiring diagram



◆ 2D diagram

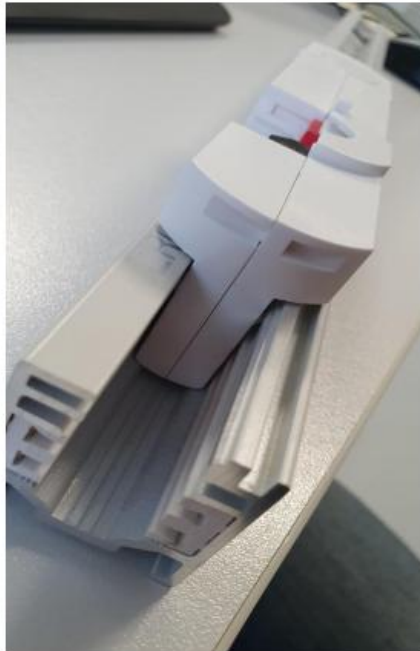
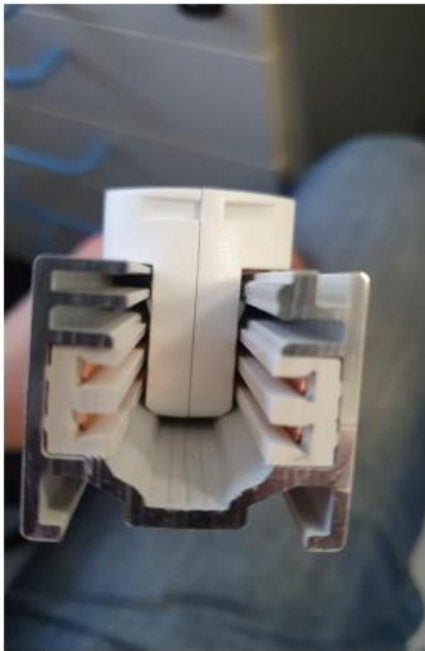


◆ Wiring & Connections

	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

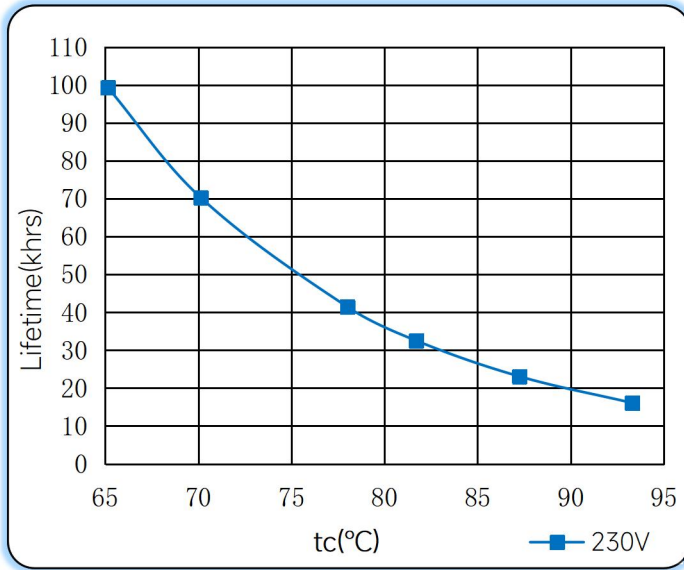
◆ Matching brand

Brand	Ivela	7511
	POWERGEAR	PRO-0431
	EUTRAC	25-103

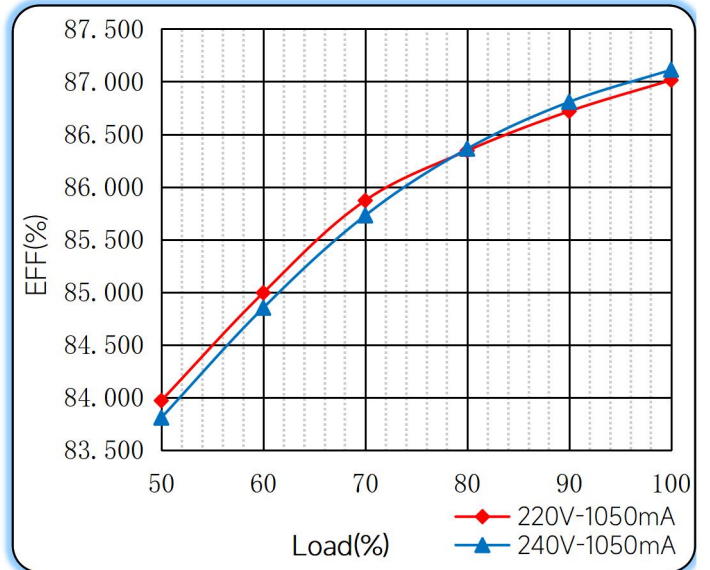


◆ Curve for FDS-42-1050 LD ADV, $I_o=1050mA$

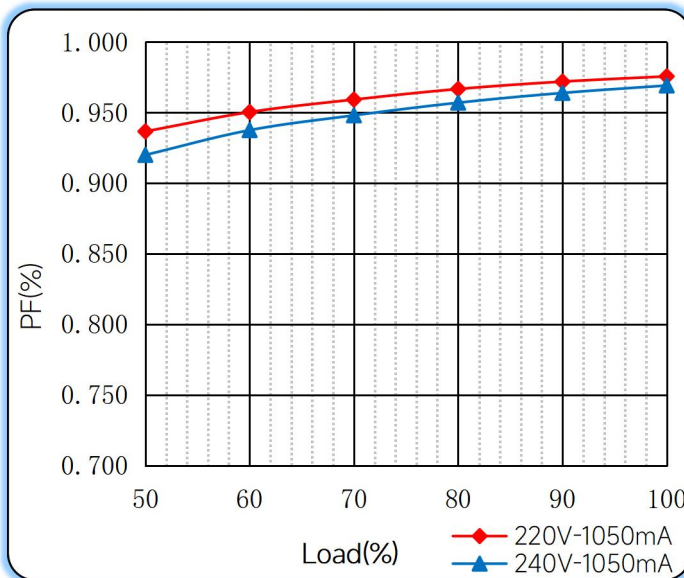
Lifetime vs. Temperature Curve



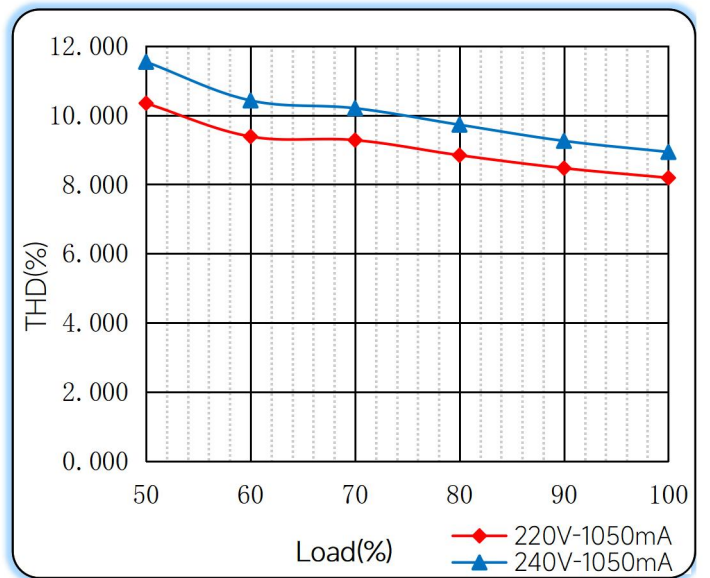
Efficiency vs. Load



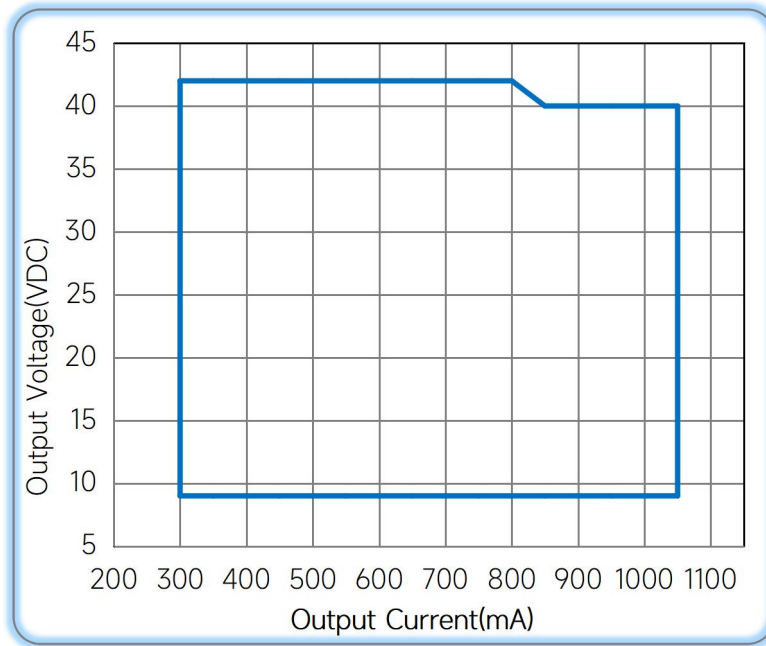
Power Factor Characteristics



THD vs. Load



◆ **Operating window**



— Operating window 100%

◆ **Revision Updates**

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2022/12/06
Efficiency(Typ.)		88%@ Full Load.	B	2023/03/17