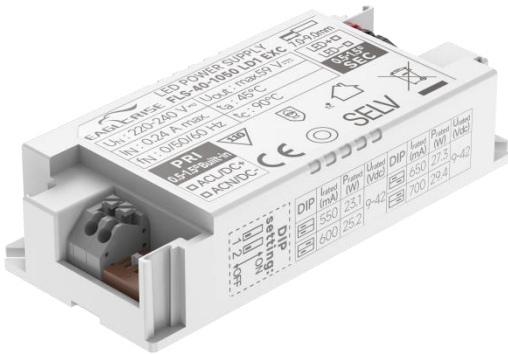


40W Constant Current Power Supply



■ Approve



Features

- For luminaires of protection Class II, SELV, Built-in/Independent
- Input Voltage: 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor: ≥ 0.95 (Typ.)
- Efficiency: $\geq 90\%$ (Typ.)
- Adjustable Output Current with dip-switch
- 5 years warranty
- IP20

Applications

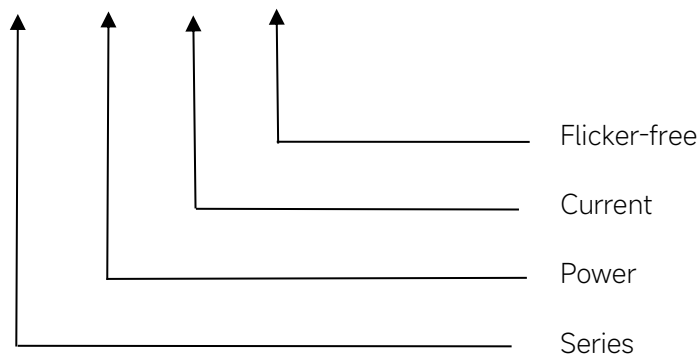
- LED panel, LED down light

◆ Description

FLS-40-1050 LD1 EXC is a 40W constant current LED driver with 900 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 88 x 40 x 22 mm. It is easy to integrate in LED Panel and down light products. The side covers are available as accessories and allow to use the LED driver independent.

◆ Model code

FLS-40-1050 LD1 EXC



◆ Specification

	Constant Current (mA)	900mA	950mA	1000mA	1050mA
Output	Voltage Range(VDC)	9-42V		9-40V	9-38V
	Unload voltage Max.(VDC)	59V			
	Current Accuracy	±5%			
	Output HF current ripple(≥1KHz)	≤±5%			
	Output LF current ripple(≤120Hz)	≤±3%			
	SVM	≤0.4			
	Pst	≤1			
	Efficiency(Typ.)	≥90% @Full Load,230V			
	EOFI	100%			
	Input	Rated input voltage	220-240V		
Range of input voltage(VAC)		198-264VAC			
Maximum voltage		300VAC@1 h maximum,unit might not operate in this abnormal condition			
Range of input voltage(VDC)		176-280VDC			
Frequency(Hz)		0/50/60 Hz			
Displacement factor		≥0.95 @Full Load,230V			
Power Factor		0.95 @Full Load,230V			
Input Current max		0.24A Max			
Start-up time		< 0.5S			
No Load Power		≤0.5W			
THD (Typ.)		<10% @Full Load,230V			
Protection		Over Load Protection	103-130%		
	YES/Auto Resume				
	Over Voltage Protection	>59V YES/Auto Resume			
Short circuit Protection	YES/Auto Resume				
capability	Surge capability (L-N)	1KV			
	Surge capability (L/N-Ground)	NA			
Environment	Operating Temperature	-20°C~+45°C			
	Humidity	20%-90%RH			
	Tc	90°C			
	Storage Temperature	-25°C~+60°C			
	Life time	> 50000h@Tc=85°C			
Noise	≤20dB(A)@10cm				
Surface	Dimension	88X40X22mm (With side caps):122X40X22mm			
	material	PC			
Standards	Safety	GB19510. 1, GB19510. 14;IEC61347- 1, IEC61347-2- 13;EN61347- 1, EN61347-2-13; EN62384;			

	EMC	GB/T17743, GB17625. 1;EN55015, EN61000-3-2, EN61000-3-3, EN61547;EN61000-4-2,3,4,5,6,8,11, EN61547;EN61000-4-5
	Energy Efficiency	Erp2.0 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.The over-temperature protection of the product is provided by the IC.</p> <p>5.All Eaglerise power supply are complied with EMI regulations. Since they are belong to component and will be installed inside system enclosure. When they are integrated into a system, the EMI characteristics of the system must be re-verified again.</p>	

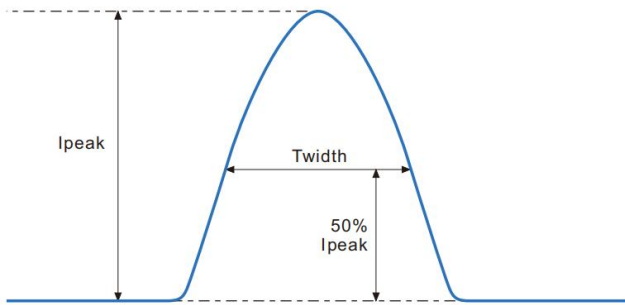
◆ Parameter

Number	Output				Switch position	
	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)	1	2
1	900mA	9-42VDC	59	37.8	--	--
2	950mA			40	ON	--
3	1000mA	9-40VDC		40	--	ON
*4	1050mA	9-38VDC		40	ON	ON

* Factory default

◆ **Inrush Current**

I_{peak}	Twidth	B10	B16	B20	C10	C16	C20
21A	150μs	26pcs	42pcs	52pcs	33pcs	53pcs	66pcs

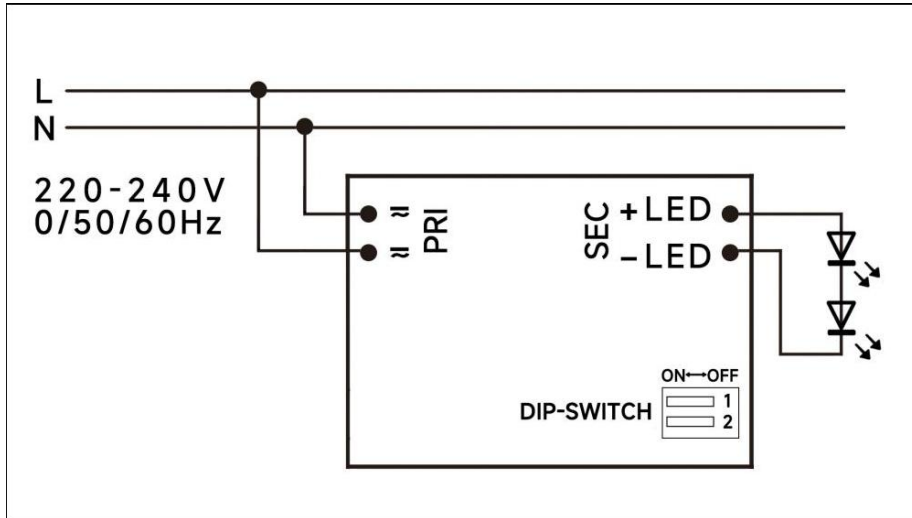


Remarks:

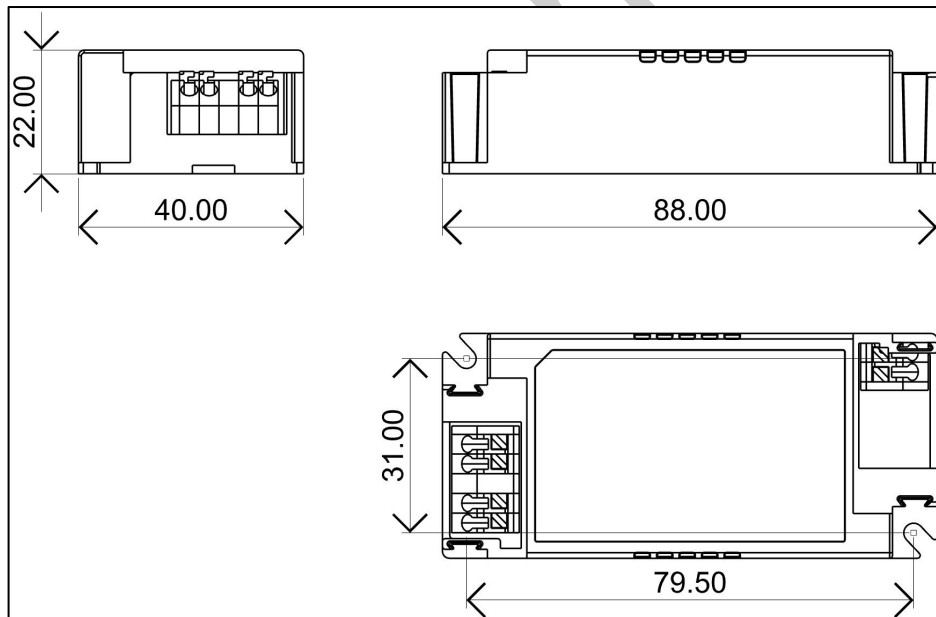
- 1.The number of drives mounted under different MCBs in the table is the maximum value. Please do not exceed this number during installation.
- 2.Different brands and models of miniature circuit breakers, the number of drives mounted will be slightly different.

Preliminary

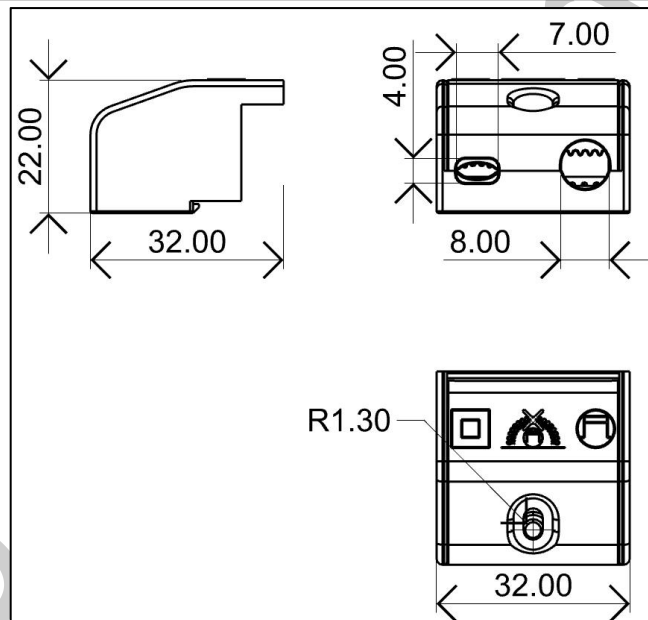
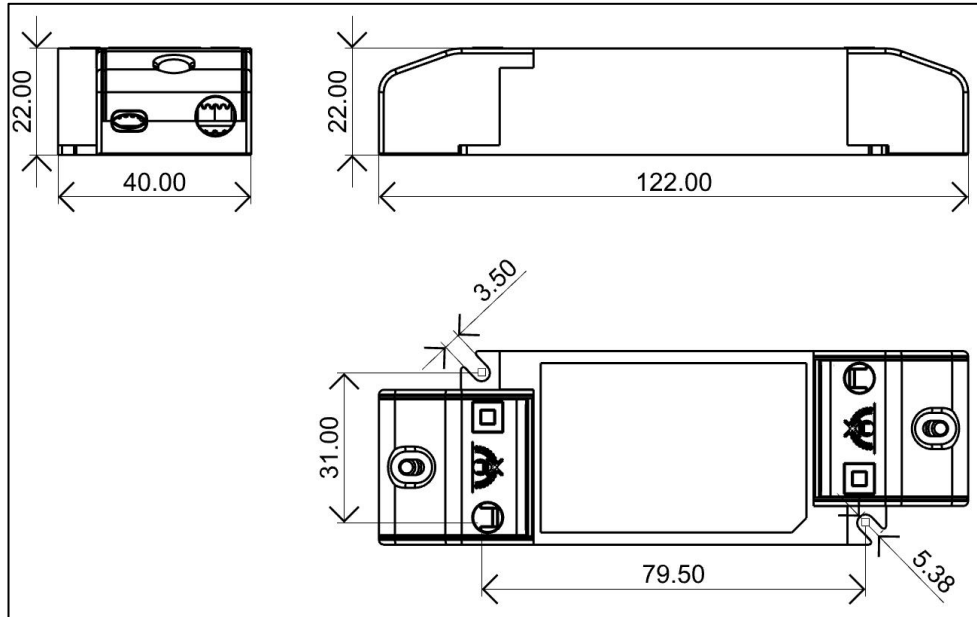
◆ **Wiring diagram**



◆ **2D diagram**



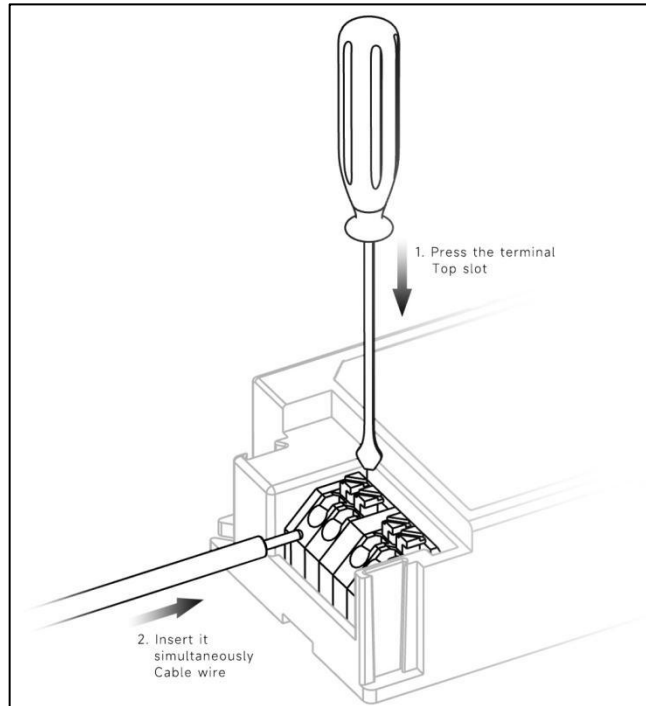
With side caps



B caps

132021T0256	Small, Grey ,with "Don't Cover" mark
1270100280	Screws

Terminal



Preliminary

◆ Wiring & Connections

Specification item		Value (Unit)
Input	Input wire cross-section	0.5...1.5 mm ² (With side caps: 0.75...1.5 mm ²)
	Input wire gauge.	16...20 AWG (With side caps: 16...22 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

◆ Recommended wire

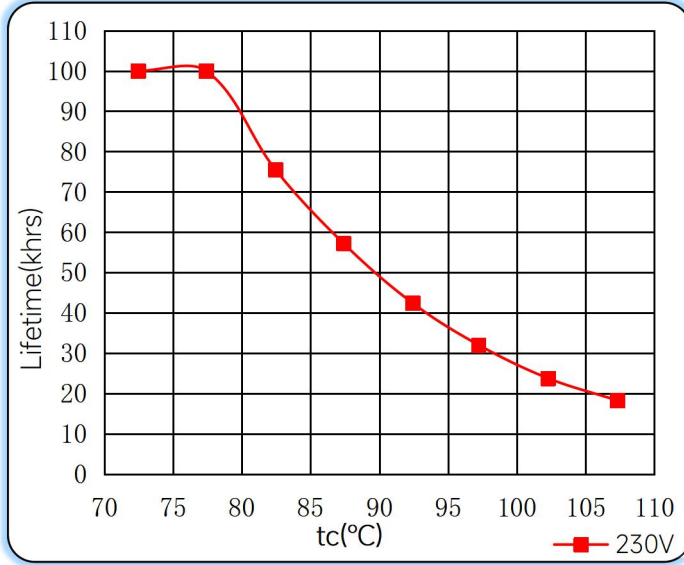
Small side cap of small hole	Wire type
0.5mm ²	H03VVH2-F 2 core&3 core
	H03VV-F 2 core&3 core
0.75mm ²	H03VVH2-F 2 core&3 core
	H03VV-F 2 core&3 core
	H05VV-F 2 core
1.0mm ²	H05VVH2-F 2 core
1.5mm ²	CCC 08(RV-90)

Small side cap of big hole	Wire type
0.75mm ²	H05VV-F 2 core&3 core&4 core
1.0mm ²	H05VV-F 2 core&3core
1.5mm ²	H05VV-F 2 core&3core

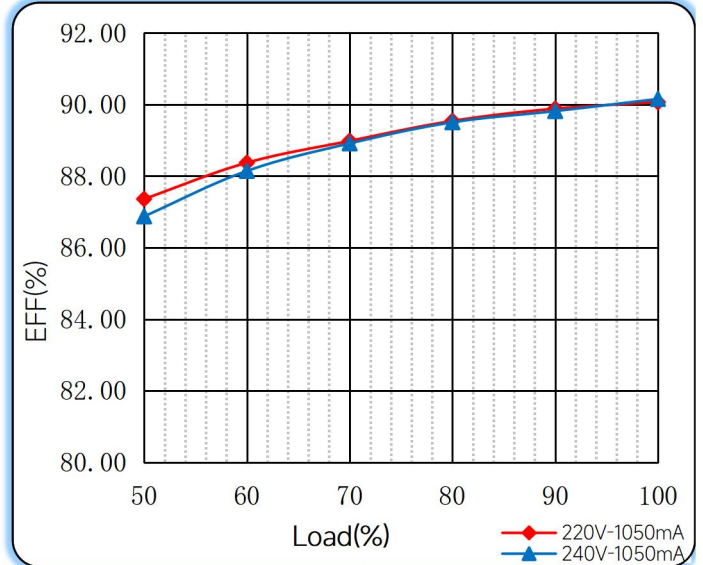
Note: Solid wire is risky to use on an angled terminal. Stranded wire is recommended for this kind of use.

◆ **Curve for FLS-40-1050 LD1 EXC, I_o=1050mA**

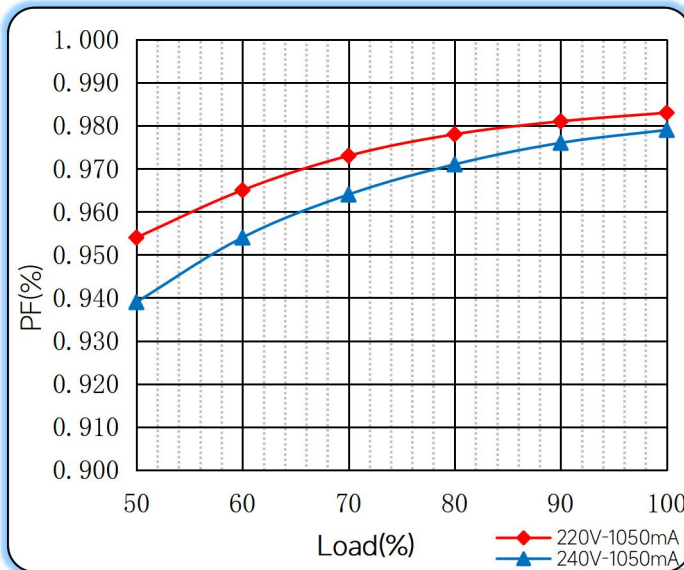
Lifetime vs. Temperature Curve



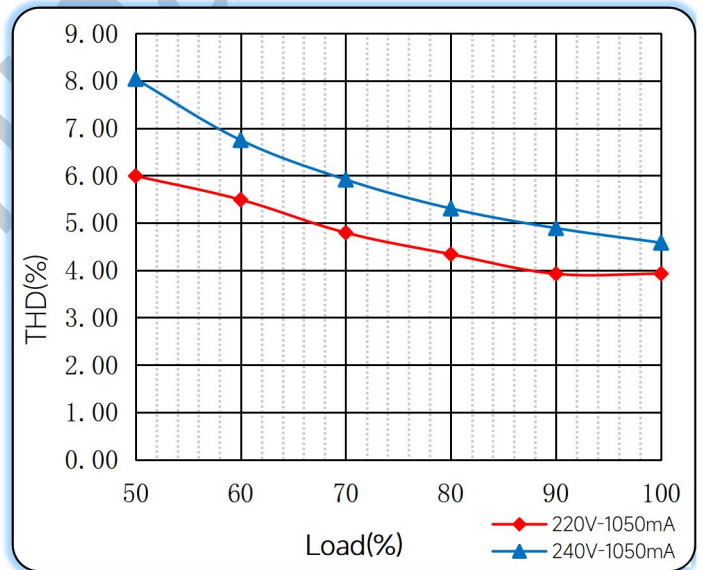
Efficiency vs. Load



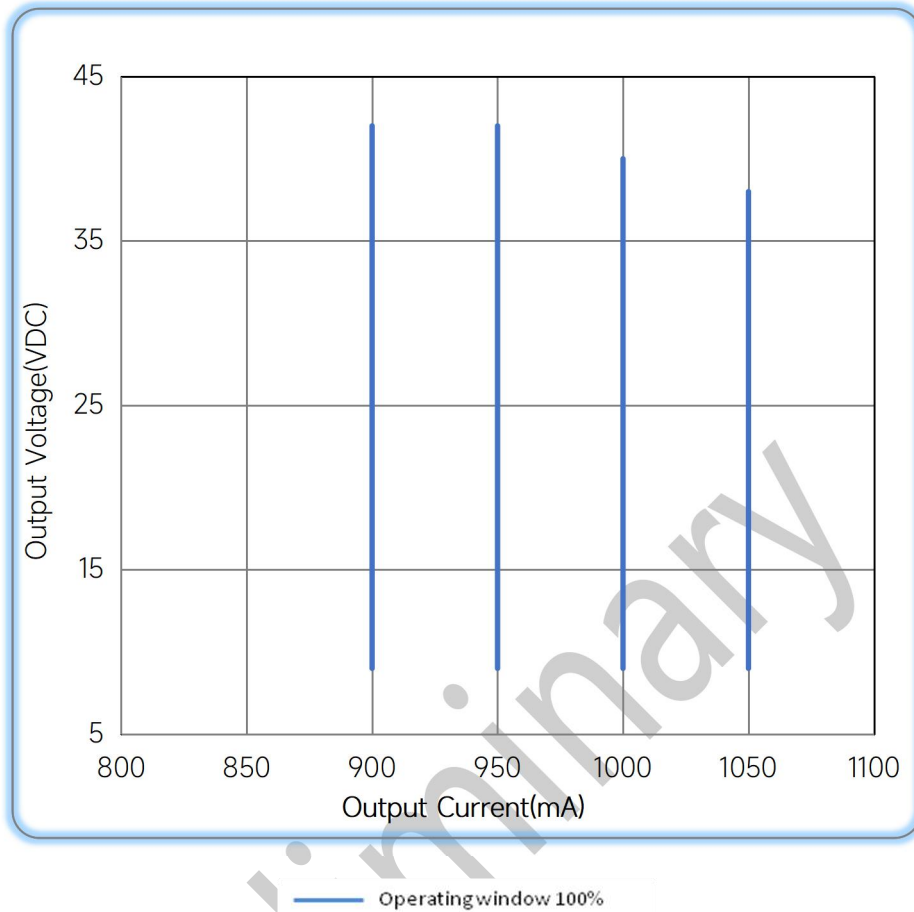
Power Factor Characteristics



THD vs. Load



◆ **Operating window**



◆ **Revision Updates**

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2024/02/23
Input Current max	0.22A Max	0.24A Max	B	2024/10/08

Remark: The final interpretation of the contents of the specification belongs to Eaglerise Electric & Electronic (China) Co., Ltd.

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