

42W Blue+Push Dimming power supply



■ Approve

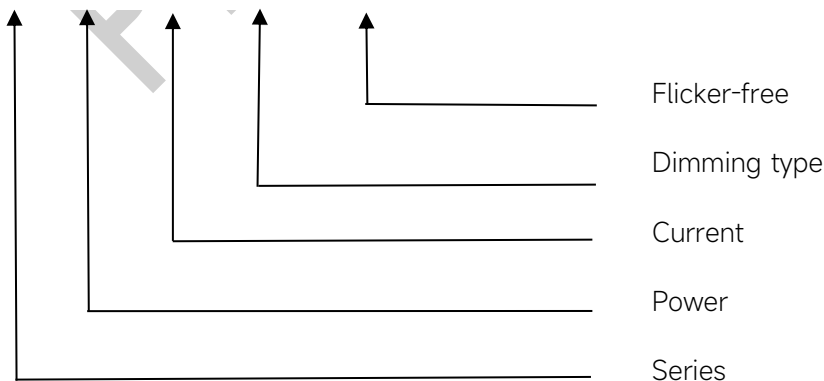
CE SELV CAS AMBI

◆ Description

FLS-42-1050 Blue LD-CSB ADV is a 42W constant current LED driver with 150 to 1050mA output current and a forward voltage range from 2.5 to 49Vdc. The output current is adjustable by DIP Switch. With its dimensions from 97 x 43 x 30mm it is easy to integrate in Ceiling light and down light products. To ensure trouble-free operation, protection is provided against output short circuit and over Load.

◆ Model code

FLS-42-1050 Blue LD-CSB ADV



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: 87%(Typ.)
- 5 years warranty
- IP20

Applications

- LED panel, LED down light, Ceiling light

◆ Specification

	Constant Current (mA)	150mA	200mA	1000mA	1050mA
Output	Voltage Range(VDC)	2.5-49VDC	2.5-49VDC	2.5-42VDC	2.5-40VDC
	Unload voltage Max.(VDC)	59 VDC				
	Current Accuracy	±7%	±5%			
	Output HF current ripple(≥1KHz)	±10%@Full Load,240VAC				
	Output LF current ripple(≤120Hz)	±3%@Full Load,240VAC				
	SVM	≤0.4@Full Load				
	P _{st}	≤1@Full Load				
	Efficiency(Typ.)	≥87%@full load				
	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				
Power Factor		≥0.95@220-240VAC, full load				
Input Current max		0.26A MAX. @Full Load,198VAC				
Start-up time		< 0.5S				
No Load Power		≤0.5W				
Standby Power		≤0.5W				
THD (Typ.)		≤10% @ Full Load ,230VAC				
Dimming	Dimming	YES				
	Dimming mode	Bluetooth,Push				
	Dimming depth	1%				
	Dimming current range	1-100%				
Protection	Over Load Protection	103-120%				
		YES/Latch off				
	Over Voltage Protection	> 59VDC				
		YES/Latch off				
Capability	Short circuit Protection	YES/Latch off				
	Over Temperature Protection	YES/Auto Resume				
Capability	Surge capability (L-N)	1KV				
	Surge capability (L/N-Ground)	2KV				
Environment	Operating Temperature	-20°C...+40°C				
	Humidity	20%-95%RH				
	T _c	85°C				
	Storage Temperature	-25°C...+60°C				
	Life time	> 50,000h@T _c =80°C				

	Noise	25dB(A)@20CM
Surface	Dimension	97X43X30mm With side caps :131X43X30mm)
	material	PC
Standards	Safety	IEC61347- 1, IEC61347-2- 13;EN61347- 1, EN61347-2- 13;EN61347- 1, EN61347-2- 13, EN62384
	EMC	EN55015, EN61000-3-2, EN61000-3-3, EN61547;EN61000-4-2,3,4,5,6,8,11, EN61547
	ErP	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.Data are typical values obtained from test samples</p> <p>4.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>5.EL compatible with IEC 61347-2-13 Annex J, compatible with EN 60598-2-22 emergency lighting fixtures, compatible with EN 50172 central battery system applications.</p> <p>6.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

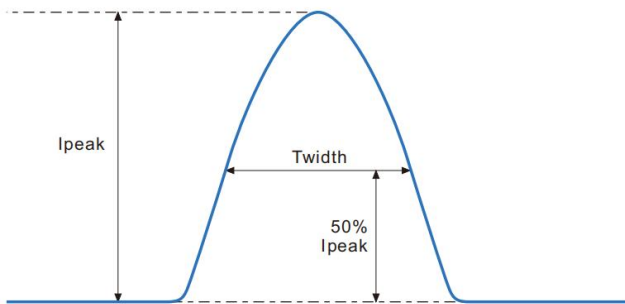
Number	Output				Switch position			
	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)	1	2	3	4
1	150mA	2.5-49VDC	59VDC	7.4W	--	--	--	--
2	200mA			9.8W	ON	--	--	--
3	250mA			12.3W	--	ON	--	--
4	300mA			14.7W	ON	ON	--	--
5	350mA			17.2W	--	--	ON	--
6	400mA			19.6W	ON	--	ON	--
7	500mA			24.5W	--	ON	ON	--
8	600mA			29.4W	ON	ON	ON	--
9	700mA			34.3W	--	--	--	ON
10	750mA			36.8W	ON	--	--	ON
11	800mA			39.2W	--	ON	--	ON

12	850mA			41.7W	ON	ON	--	ON
13	900mA	2.5-46.6VDC		42W	--	--	ON	ON
14	950mA	2.5-44.21VDC		42W	ON	--	ON	ON
15	1000mA	2.5-42VDC		42W	--	ON	ON	ON
*16	1050mA	2.5-40VDC		42W	ON	ON	ON	ON

* Factory default

◆ Inrush Current

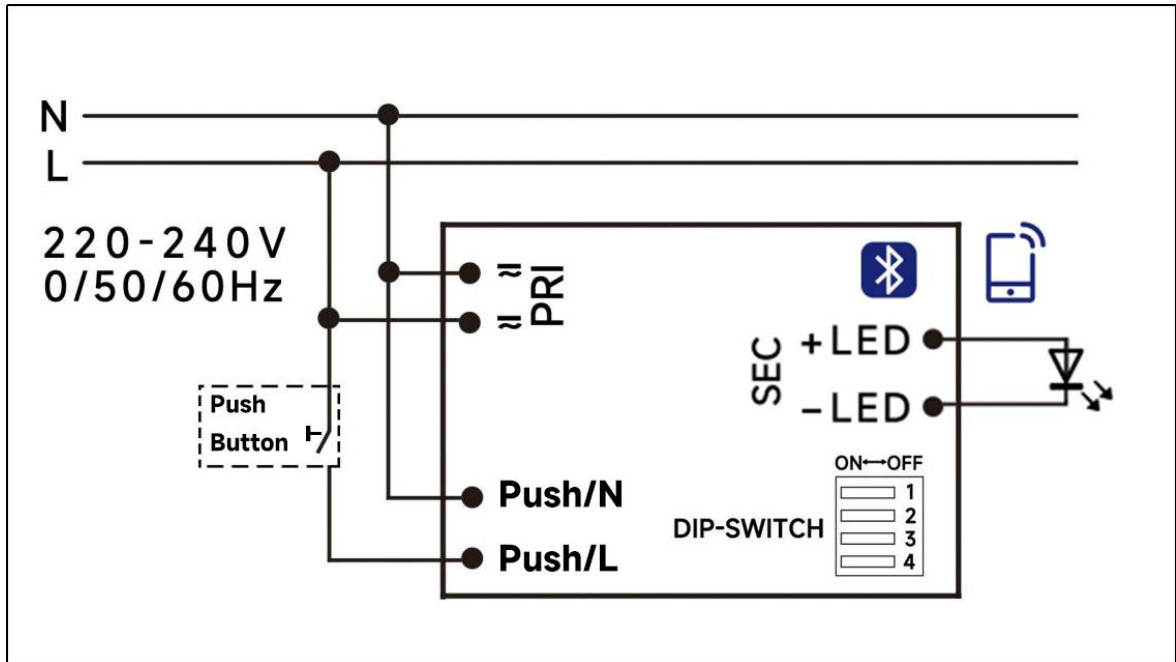
I ^{peak}	T _{width}	B10	B16	B20	C10	C16	C20
9.35A	32μs	30pcs	49pcs	61pcs	30pcs	49pcs	61pcs



Remarks:

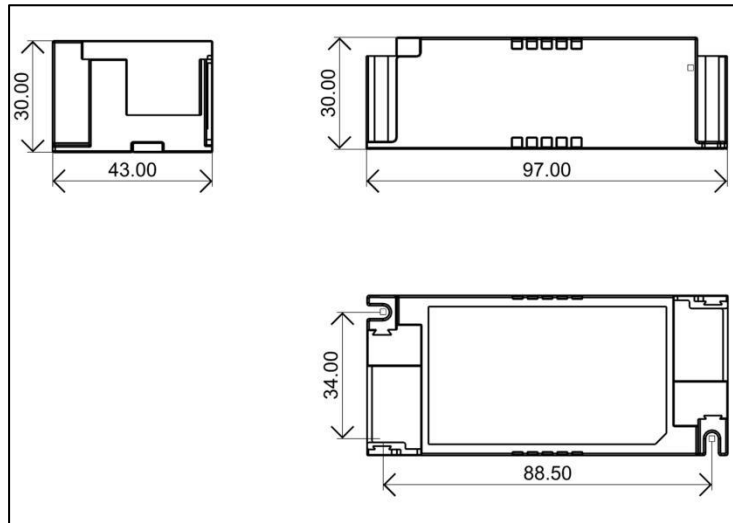
- 1.The number of drives mounted under different MCBs in the table is the maximum value. Please do not exceed this number during installation.
- 2.Different brands and models of miniature circuit breakers, the number of drives mounted will be slightly different.

◆ **Wiring diagram**

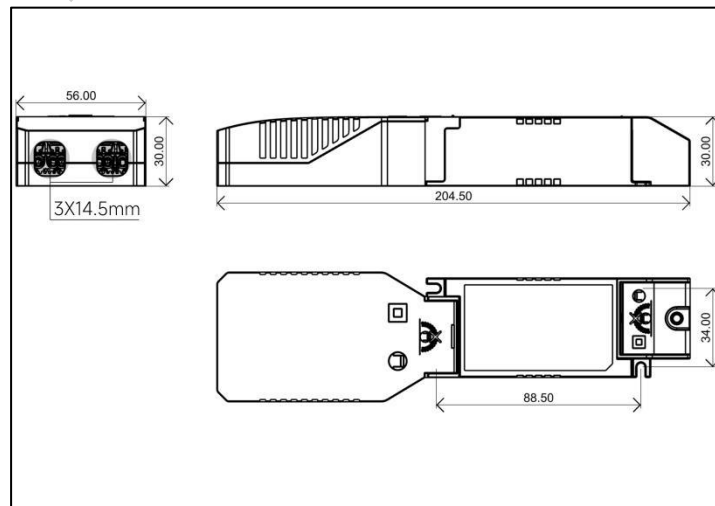
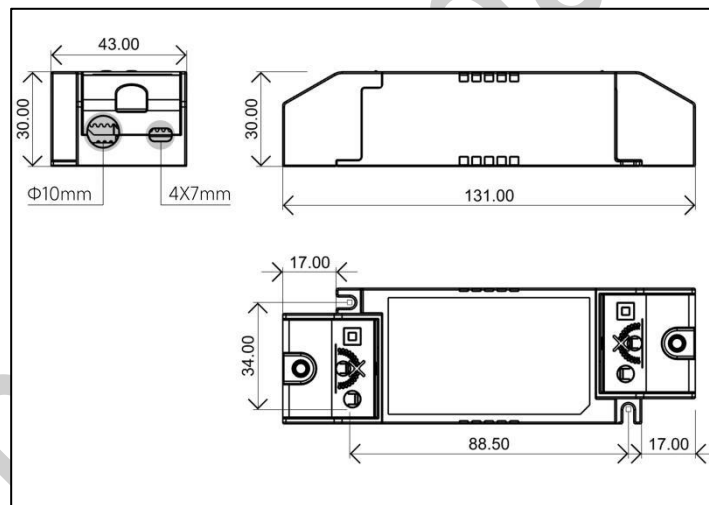


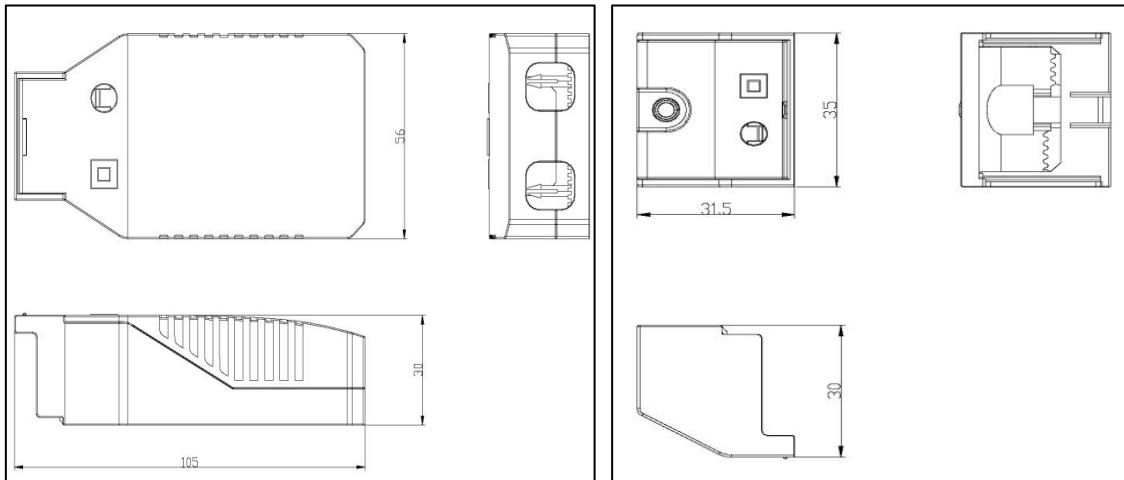
Preliminary

◆ **2D diagram**



With side caps





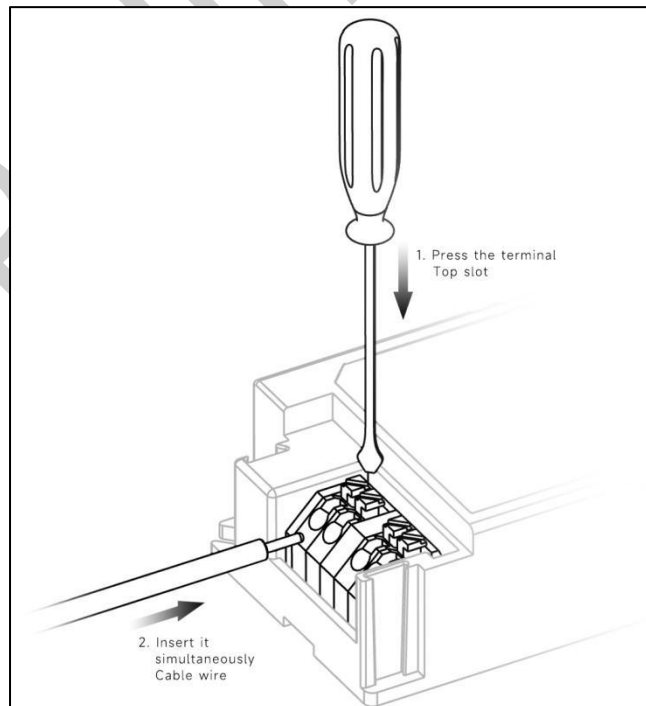
A caps

B caps

132021T0033-1	Bottom,Big,White
132021T0034-2	Top,Big,Grey
132021T0079-2	Top,Big,White
126016T0009	5P Terminal
132038T0046	Crimp Plate

132021T0197	Small, Grey ,with "Don't Cover" mark
132021T0181	Small, white,with "Don't Cover" mark
1270100280	Screws

Terminal



◆ **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)

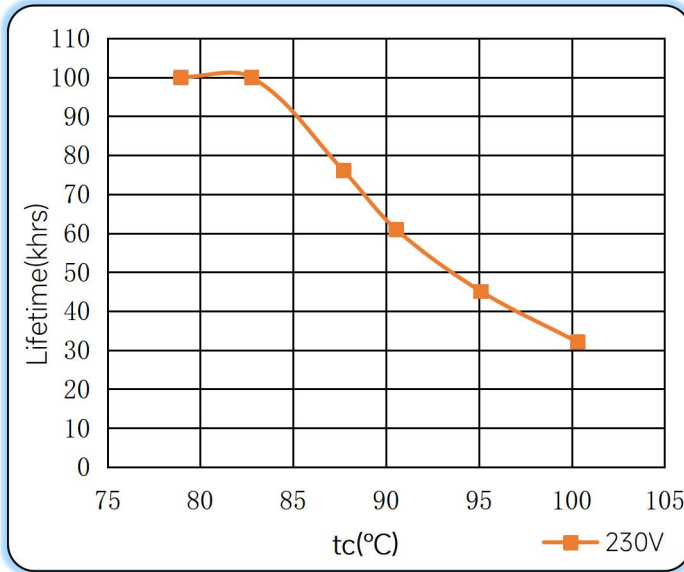
Small side cap of big hole	Wire type
0.75mm ²	H05VV-F 2 core&3 core&4 core
1.0mm ²	H05VV-F 2 core&3core
1.5mm ²	H05VV-F 2 core&3core

Big side cap	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&3 core&4 core
1.0mm ²	H05VVH2-F 2 core&3 core
1.5mm ²	CCC 08(RV-90) H05VV-F 2 core&3core

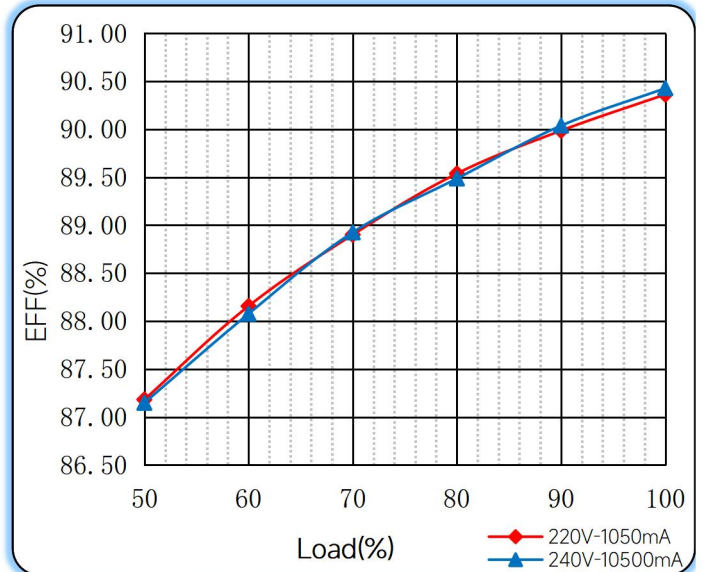
Note: Solid wire is risky to use on an angled terminal. Stranded wire is recommended for this kind of use.

◆ Curve for FLS-42-1050 Blue LD-CSB, I_o=1050mA

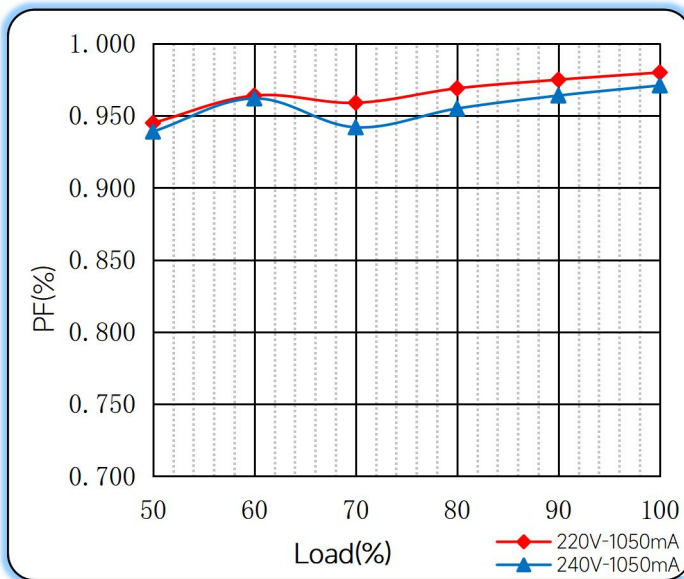
Lifetime vs. Temperature Curve



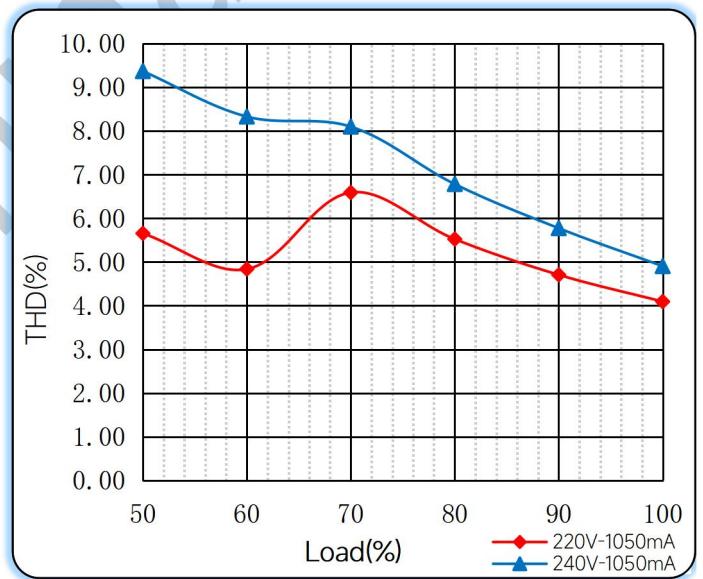
Efficiency vs. Load



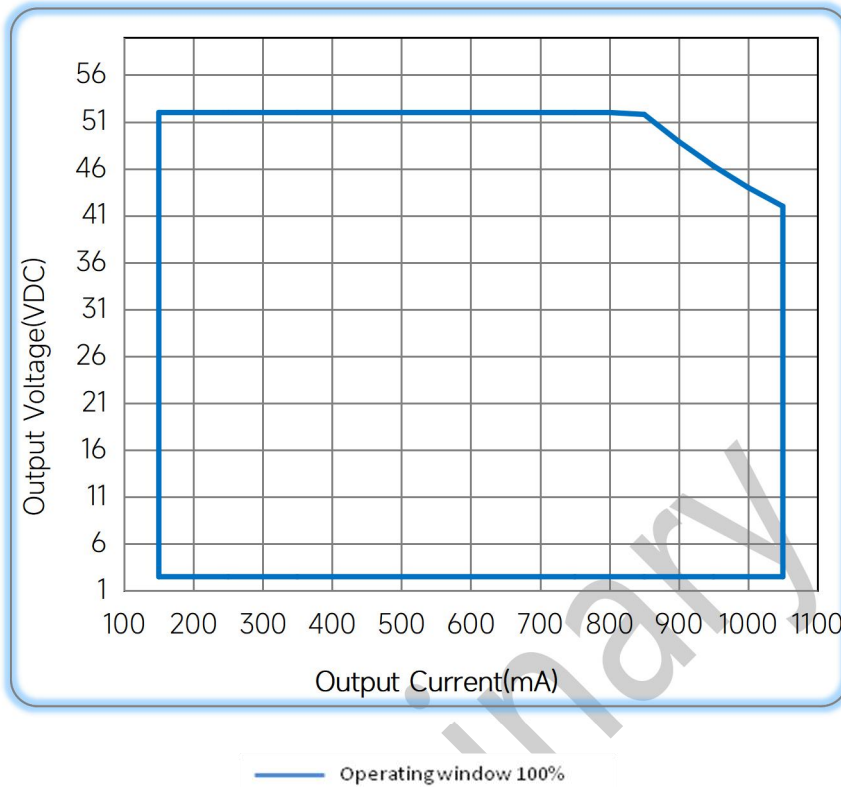
Power Factor Characteristics



THD vs. Load



◆ **Operating window**



◆ **Revision Updates**

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2023/11/14
Current Accuracy	±5%@150mA	±7%@150mA	B	2024/05/11

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

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EAGLERISE



Manual