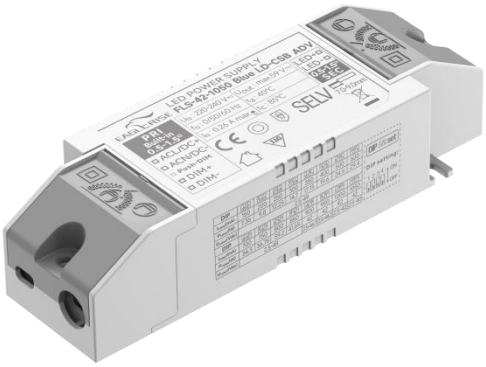
42W Blue+Push Dimming power supply



Features

- For luminaries of protection Class II, SELV, built-in/independent
- Input Voltage: 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor: 0.95(Typ.)
- Efficiency: 89%(Typ.)
- 5 years warranty
- IP20

Applications

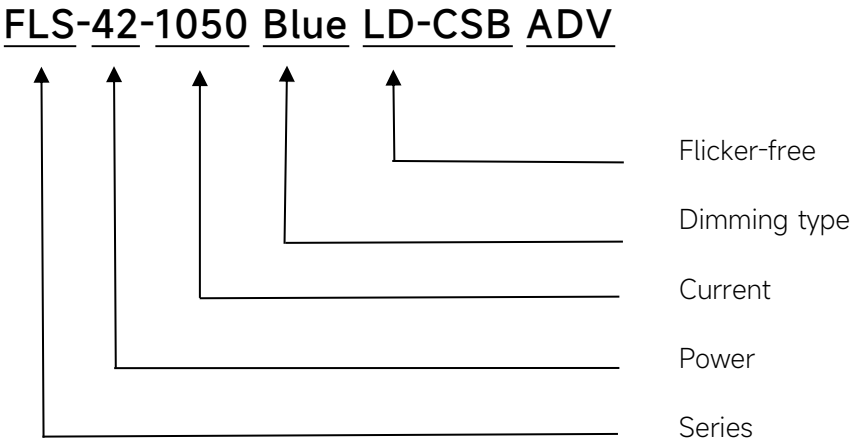
- LED panel、LED down light、Ceiling light

■Approve

◆ 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 it's 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



◆ Specification

Output	Constant Current (mA)	150mA	200mA	.....	1000mA	1050mA
	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.)	≥89%@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	Bluetooh,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				
	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℃...+40℃				
	Humidity	20%-95%RH				
	Tc	85℃				
	Storage Temperature	-25℃...+60℃				
	Life time	＞50,000h@Tc=80℃				

	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	1.All parameters NOT specially mentioned are measured at 230VAC input , full load and 25℃ 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. 3.Data are typical values obtained from test samples 4.The DC input for this product is only used for emergency lighting and applies to functional and safety requirements，EMC is not considered. 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. 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.	

◆ Parameter

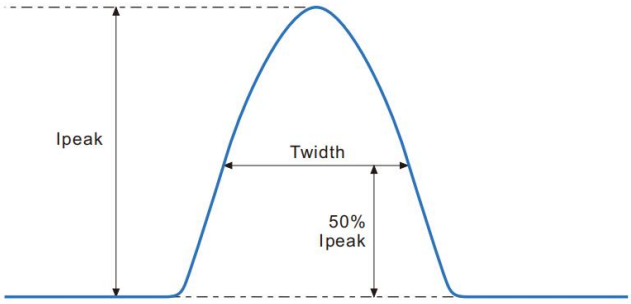
Number	Output				Switch position			
	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)	1	2	3	4
1	150mA	2.5-49VDC	59VDC	7.4W	--	--	--	--
2	200mA			9.8W	ON	--	--	--
3	250mA			12.3W	--	ON	--	--
4	300mA			14.7W	ON	ON	--	--
5	350mA			17.2W	--	--	ON	--
6	400mA			19.6W	ON	--	ON	--
7	500mA			24.5W	--	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	2.5-46.7VDC		42W	--	--	ON	ON
14	950mA	2.5-44.2VDC		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

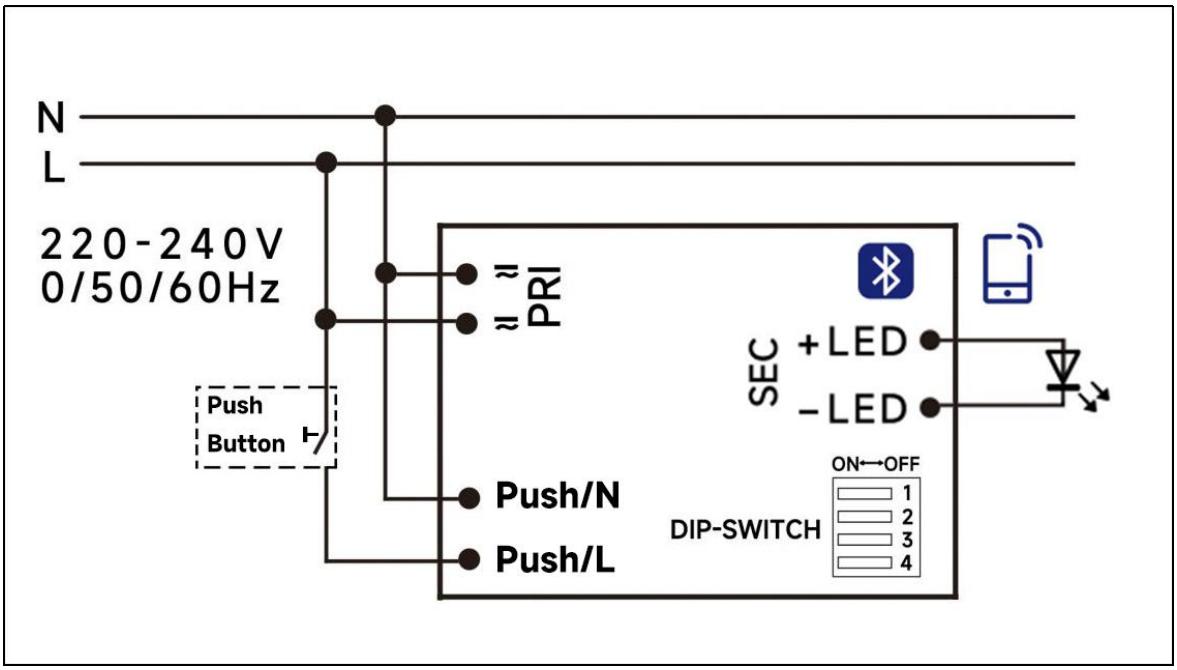


Remarks:

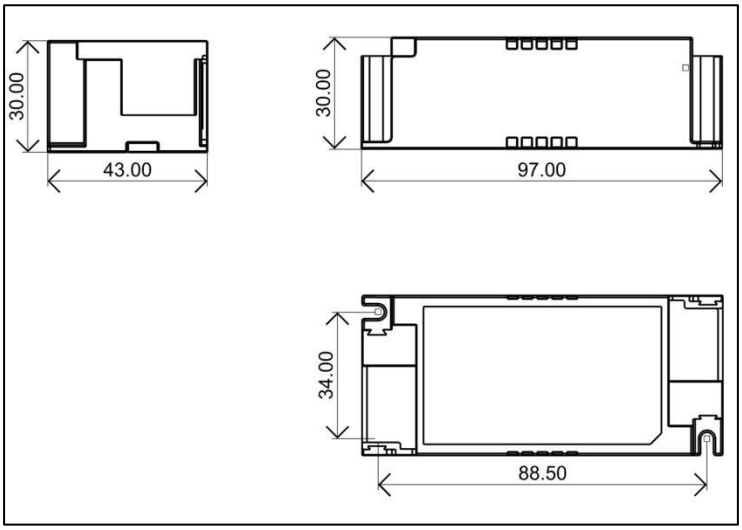
1.The number of drives mounted under different MCBs in the table is the maximum value. Please do not exceed this number during installation.

2.Different brands and models of miniature circuit breakers, the number of drives mounted will be slightly different.

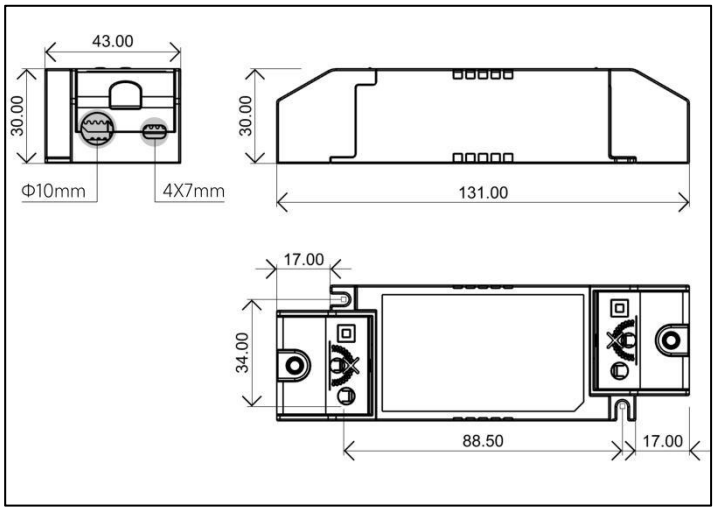
◆ Wiring diagram

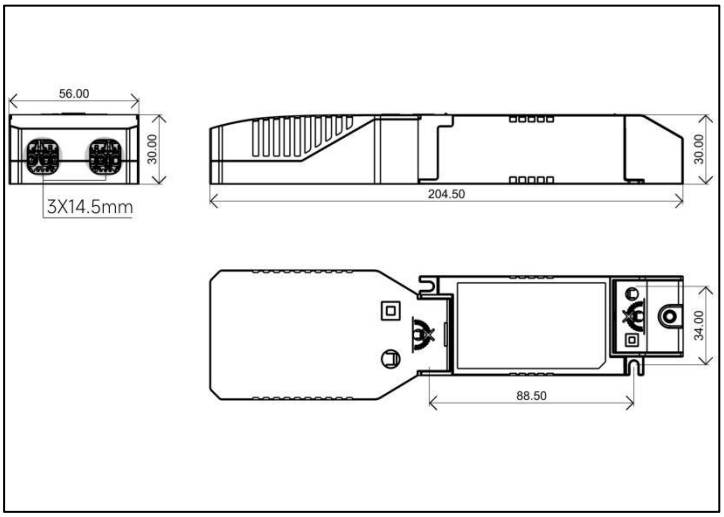


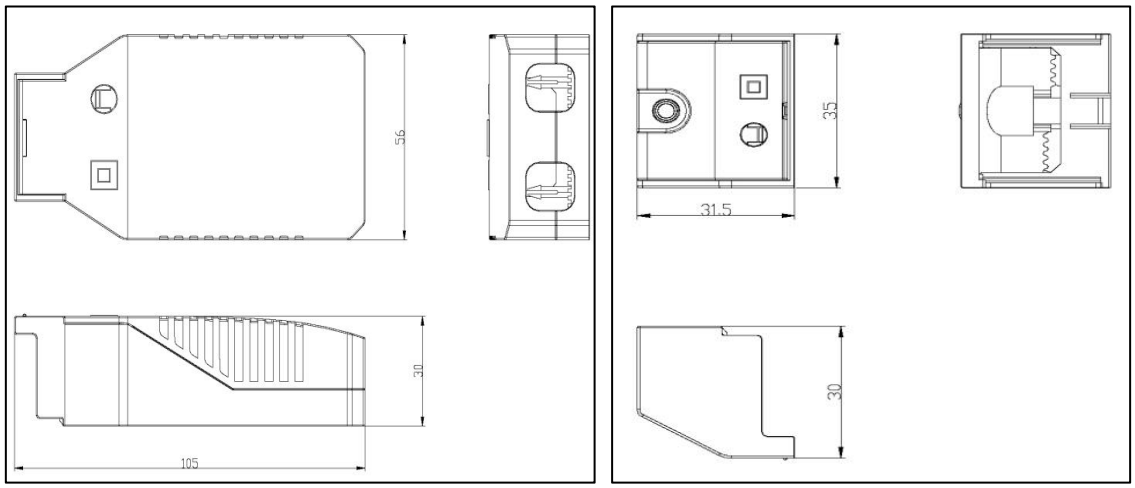
◆ 2D diagram



With side caps





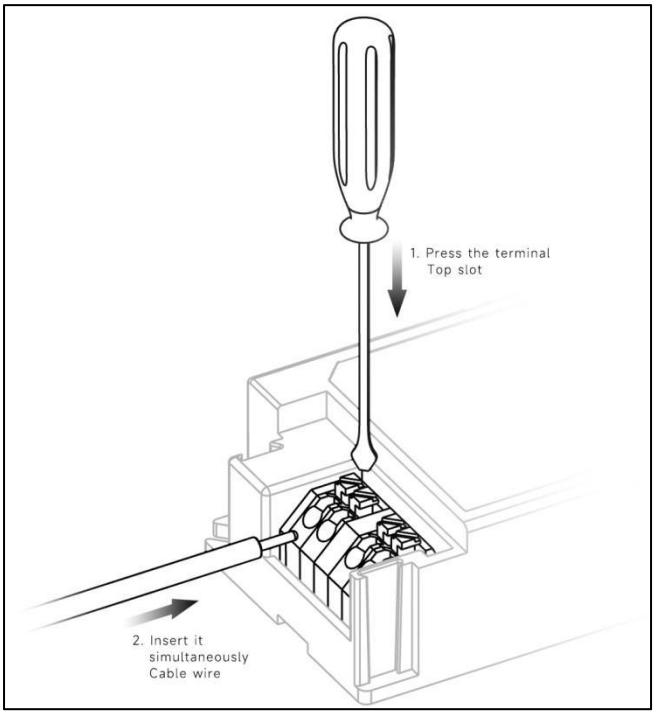


A caps B caps

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)

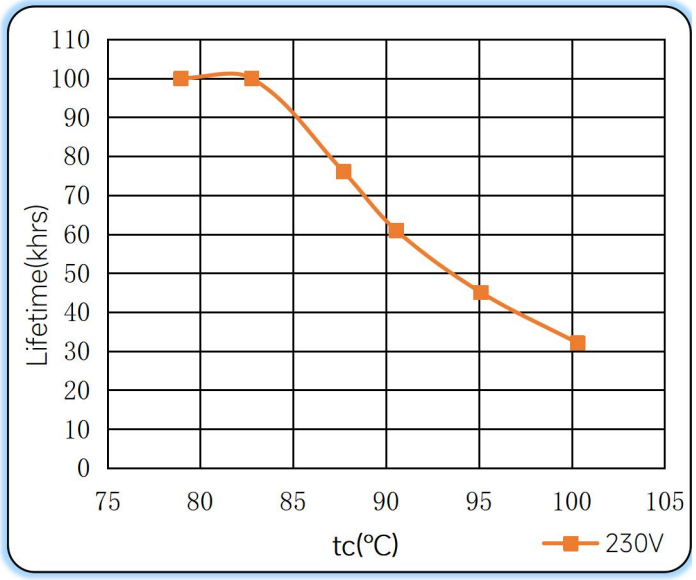
Small side cap of big hole	Wire type
0.75mm^2	H05VV-F 2 core&3 core&4 core
1.0mm^2	H05VV-F 2 core&3core
1.5mm^2	H05VV-F 2 core&3core

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

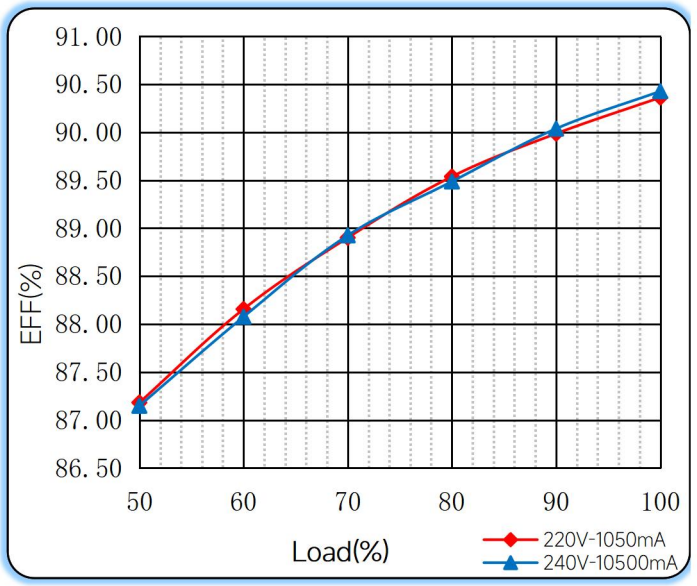
Note:Solid wire is risky to use on an angled terminal.Stranded wire is recommended for this kind of use.

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

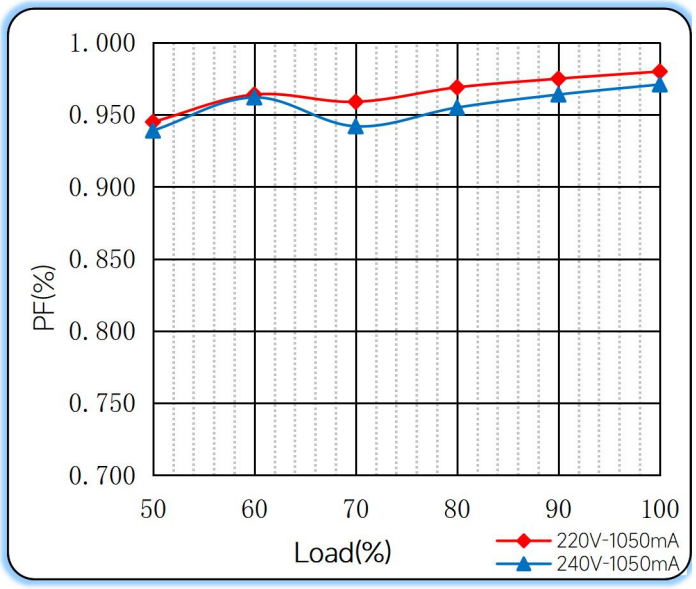
Lifetime vs. Temperature Curve



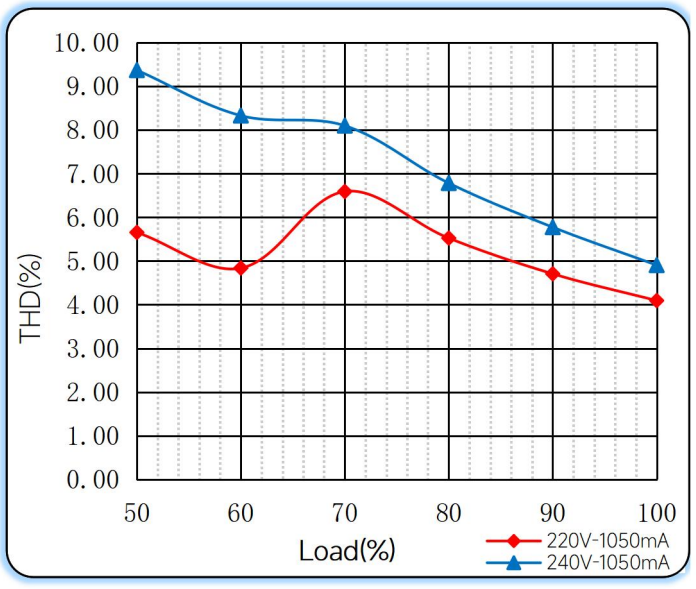
Efficiency vs. Load



Power Factor Characteristics



THD vs. Load



◆ Push dimming operation

Action	Action duration	Function
Short push	<0.5s	Turn on/off
Short push twice	<0.5s	LED on: Save current brightness level LED off: Delete saved level and turn on at 100% brightness
Short push five times	<3s	Quit Corridor mode
Long push	0.5-14s	Dimming up or down
Long push	15s-2mins	Sync all LEDs to be 100% brightness
Long push	>2mins	Enter Corridor mode - LED keep 100% brightness for 2mins. Then brightness will turn to be 10% within 32s if no action during 2mins 100% brightness.

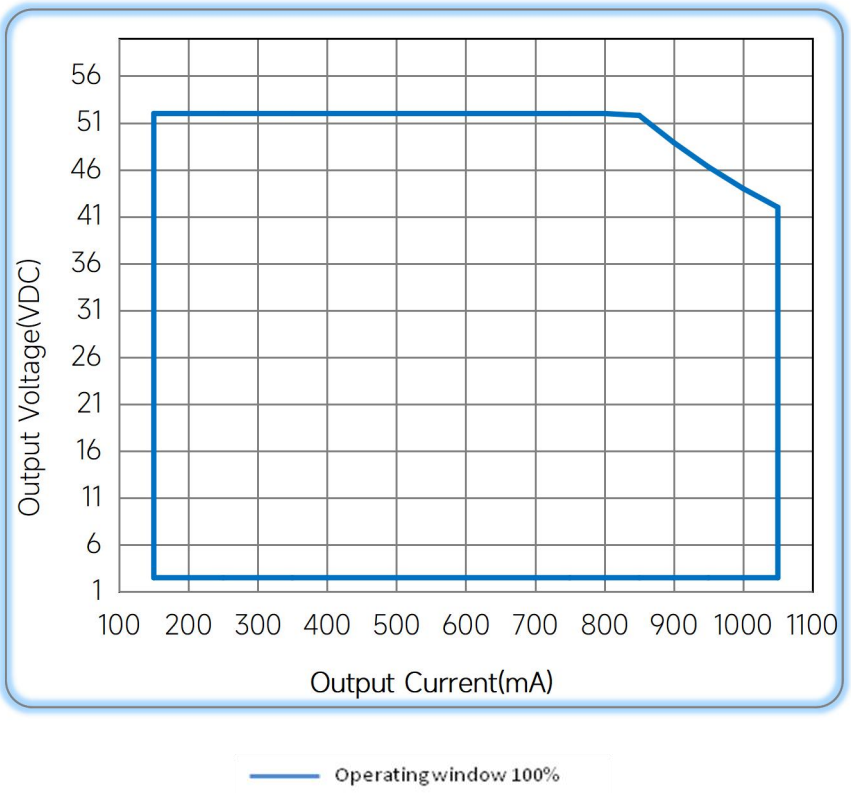
Note:

1.The factory default brightness is at 100%.

2.Up to 30 drivers can perform the PUSH dimming at the same time when utilizing one common push button

3.The maximum length of the cable from the push button to the last driver is 200 meters.

◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2023/11/14
Current Accuracy	±5%@150mA	±7%@150mA	B	2024/05/11
Efficiency(Typ.)	≥87%@full load	≥89%@full load	C	2025/2/11

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

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