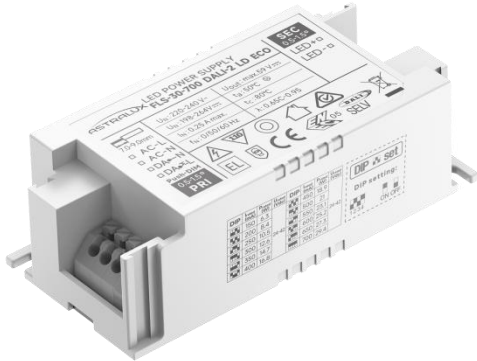


## 30W DALI + PUSH Dimming power supply



### Features

- For luminaries of protection Class I, II, SELV, Built-in/Independent (With side caps)
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor :0.97
- Efficiency :87%
- Support DALI-2, Push Dimming
- 5 years warranty

### Applications

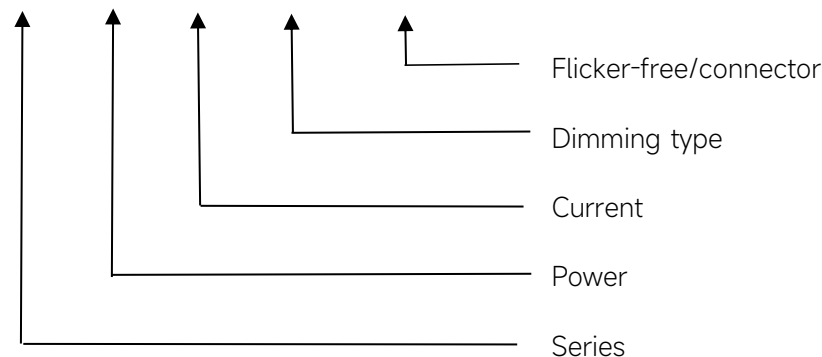
- LED panel, Spot light, Down light

### ◆ Description

FLS-30-700 DALI-2 LD ECO is a 30W constant current LED driver with 150 to 700mA output current and a forward voltage range from 24 to 42VDC. The output current is adjustable by DIP Switch. With it's dimensions from 97 x 43 x 30 mm. It is easy to integrate in LED panel, spot and down light products. To ensure trouble-free operation, protection is provided against output short circuit and over Load.

### ◆ Model code

#### FLS-30-700 DALI-2 LD ECO



## ◆ Specification

	Constant Current (mA)	150	200	250	300	350	400	450	500	550	600	650	700
Output	Voltage Range	24-42VDC											
	Unload voltage Max.	59VDC											
	Current Accuracy	±8%			±7%			±5%					
	Output HF current ripple(≥1KHz)	±5%											
	Output LF current ripple(≤120Hz)	±3%											
	SVM	≤0.01@Full Load											
	P <sub>st</sub>	≤0.05@Full Load											
	Efficiency(Typ.)	≥87%@Full Load, 230VAC											
	Input	Rated input voltage	220-240VAC										
Range of input voltage		198-264VAC											
Rated input voltage(DC)		198-280VDC											
Frequency(Hz)		0/50/60 Hz											
Displacement factor		≥0.9											
Power Factor		0.97@220-240VAC, full load											
Input Current		0.25A max.											
Start-up time		< 0.5S											
No Load Power		≤0.5W											
Standby Power		≤0.5W											
Network standby power		≤0.5W											
THD		≤6%@230V, Full Load											
Dimming	Dimming	YES											
	Dimming mode	DALI-2 (IEC 62386-101,102,207) & Push Dimming (Corridor Function)											
	Dimming depth	1%											
	Dimming current range	1 ~100%											
Protection	Over Load Protection	103-120%											
	Over Voltage Protection	YES/Latch off > 59VDC											
	Short circuit Protection	YES/Latch off											
	Over Temperature Protection	YES/Auto Resume											
Environment	Operating Temperature	-20°C~+50°C											
	Humidity	20%-90%RH											
	T <sub>c</sub>	80°C											
	Storage Temperature	-40°C~+80°C											
	Lifetime	>50000h,@T <sub>c</sub> =75°C											
Surface	Dimension	97X43X30mm (With side caps :131X43X30mm)											
standards	EN 61347-1; EN61347-2-13; EN62384; EN55015; EN61000-3-2 ; EN61000-3-3; 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 &amp; Noise are measured at 20MHz of bandwidth by using a 300mm twisted pair-wire terminated with a 0.1uF &amp; 47 uF parallel capacitor.</p> <p>3.Output current can be from 150mA to 700mA. Please see Model list below and contact Astralux for details.</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</p>	

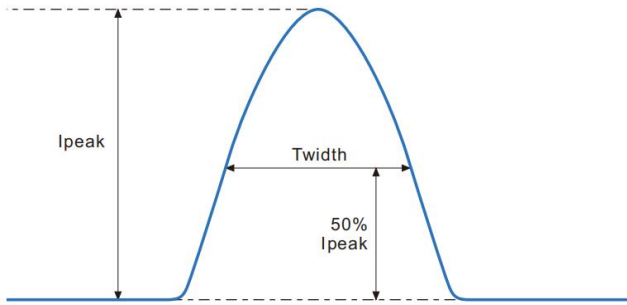
## ◆ Parameter

Number	Output				Switch position			
	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)	1	2	3	4
1	150mA	24-42VDC	59	6.3	--	--	ON	--
2	200mA	24-42VDC	59	8.4	ON	--	ON	--
3	250mA	24-42VDC	59	10.5	--	ON	ON	--
4	300mA	24-42VDC	59	12.6	ON	ON	ON	--
5	350mA	24-42VDC	59	14.7	--	--	--	ON
6	400mA	24-42VDC	59	16.8	ON	--	--	ON
7	450mA	24-42VDC	59	18.9	--	ON	--	ON
8	500mA	24-42VDC	59	21	ON	ON	--	ON
9	550mA	24-42VDC	59	23.1	--	--	ON	ON
10	600mA	24-42VDC	59	25.2	ON	--	ON	ON
11	650mA	24-42VDC	59	27.3	--	ON	ON	ON
<b>*12</b>	<b>700mA</b>	<b>24-42VDC</b>	<b>59</b>	<b>29.4</b>	<b>ON</b>	<b>ON</b>	<b>ON</b>	<b>ON</b>

\* Factory default

## ◆ Inrush Current

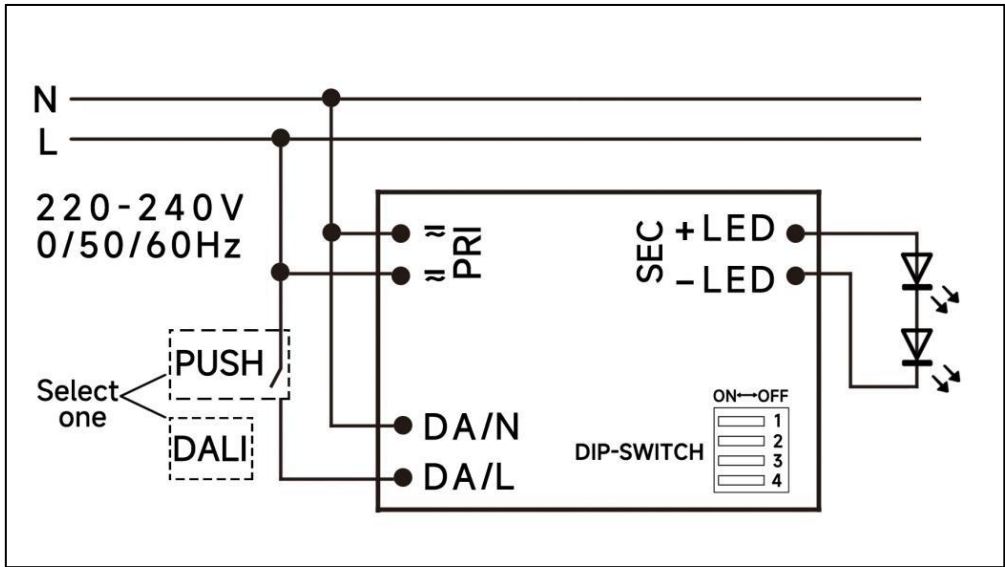
$I_{peak}$	Twidth	B10	B16	B20	C10	C16	C20
4.64A	41.6μs	32pcs	51pcs	64pcs	32pcs	51pcs	64pcs



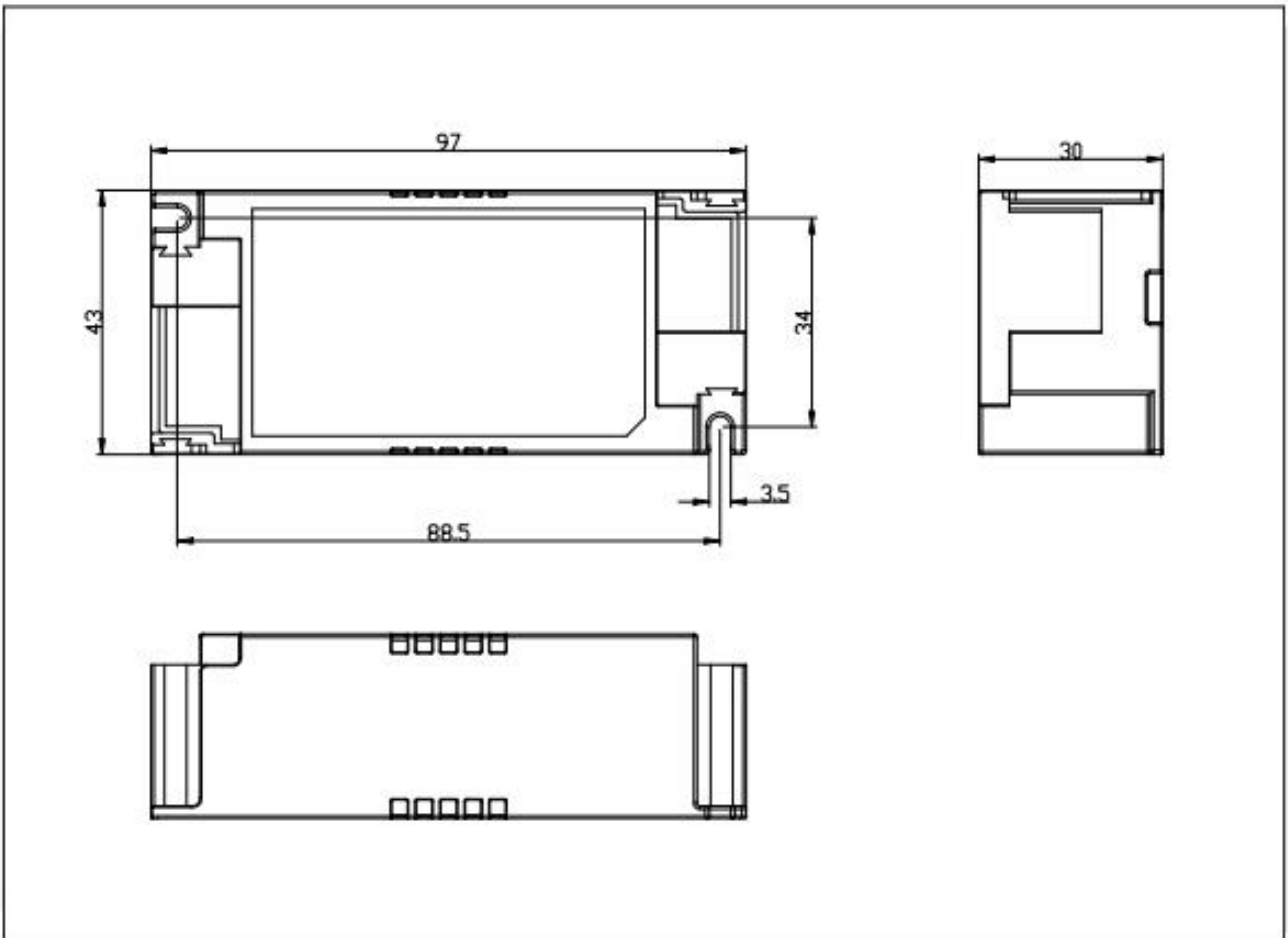
Remarks:

- 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.

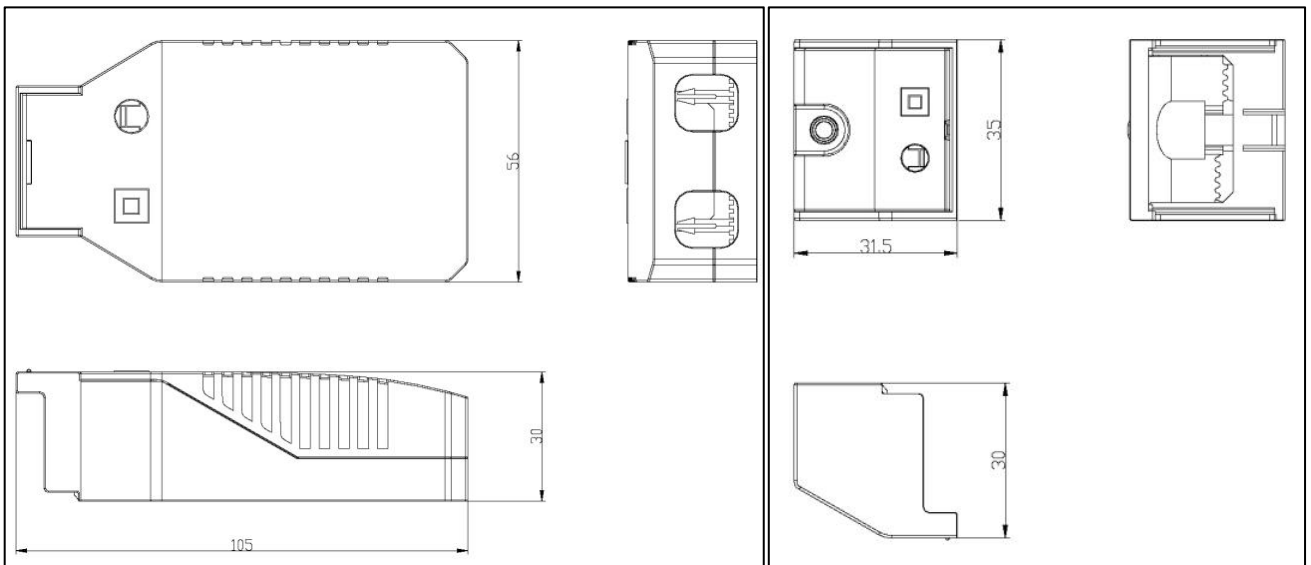
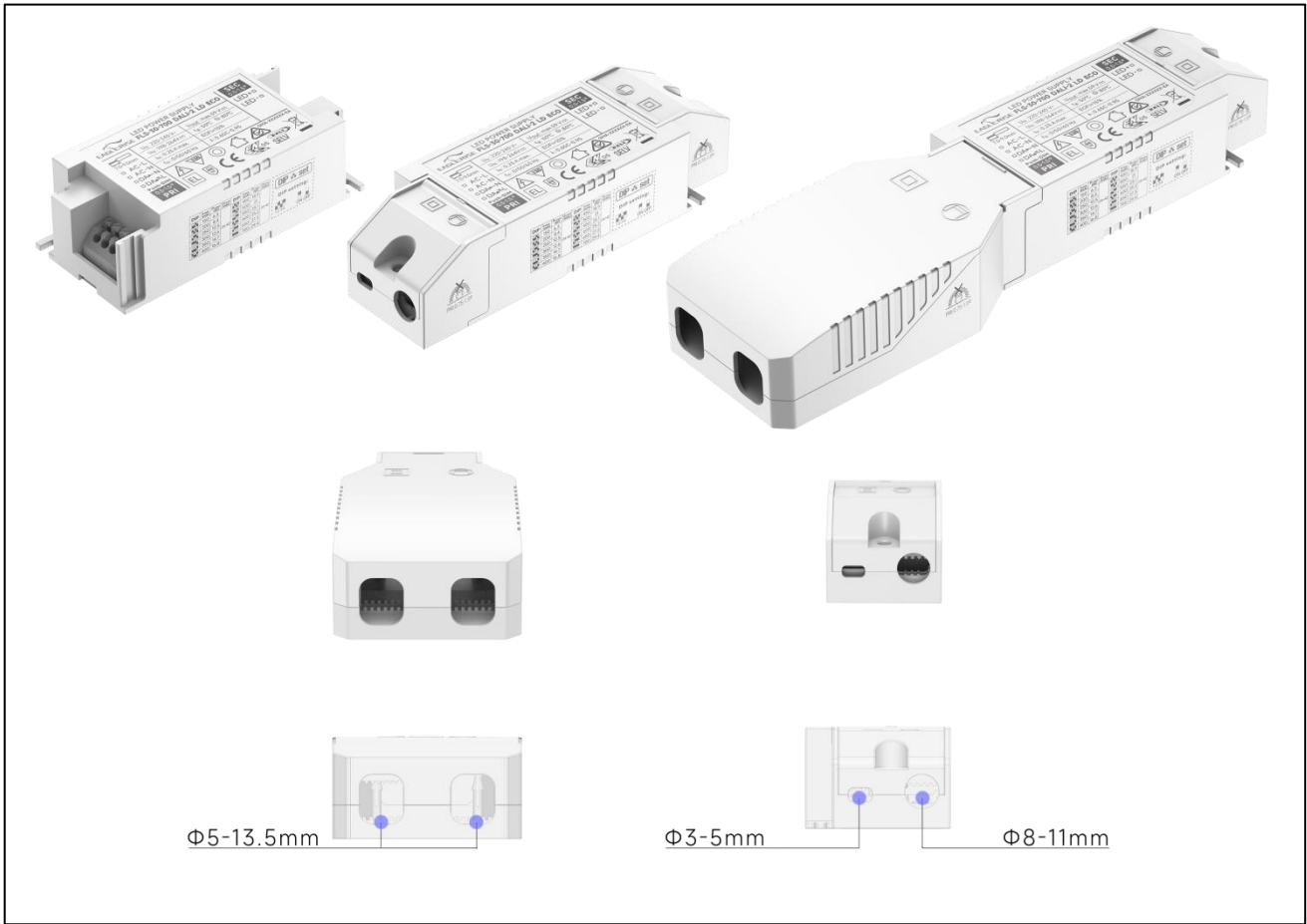
◆ Wiring diagram



◆ 2D diagram



With side caps



A caps

B caps



Top end caps coding: 132021T0079-1  
 Bottom end caps coding: 132021T0033  
 Strain relief coding: 132038T0046  
 Terminal coding: 126016T0009



Top end caps coding:132021T0080-1  
 Bottom end caps coding: 132021T0035

## ◆ Wiring & Connections

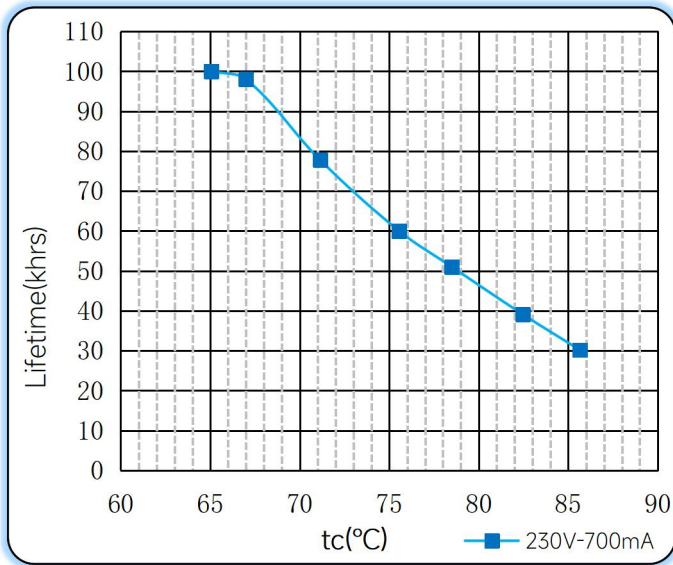
Specification item		Value (Unit )
Input	Input wire cross-section	0.5...1.5 mm <sup>2</sup> (With A side caps: 0.75...2.5 mm <sup>2</sup> )
	Input wire gauge.	16...20 AWG (With A side caps: 14...20 AWG )
	Input wire strip length	7...9mm
Output	Output wire cross-section	0.5...1.5 mm <sup>2</sup>
	Output wire gauge.	16...20 AWG
	Output wire strip length	7...9mm

Common ways of wire clamping:

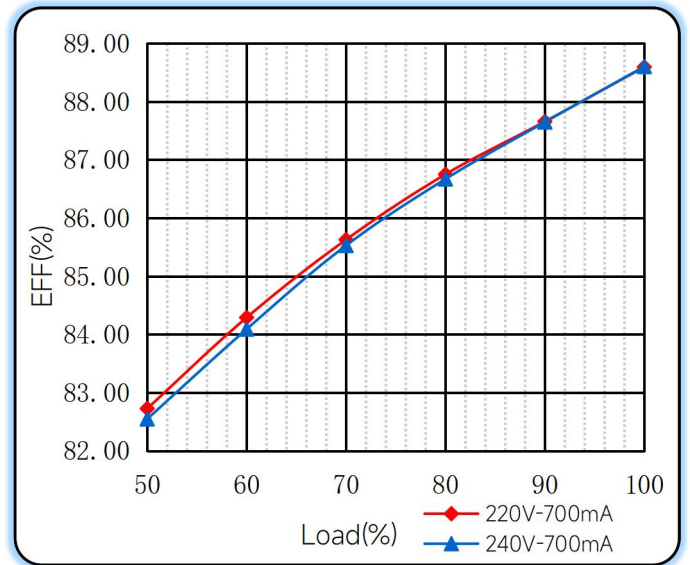
1. Tighten the screws to secure the side cover or clips, to clamp the cables
2. Through the main shell and side cover side teeth to clamp the cables

◆ Curve for FLS-30-700 DALI-2 LD ECO,  $I_o=700mA$

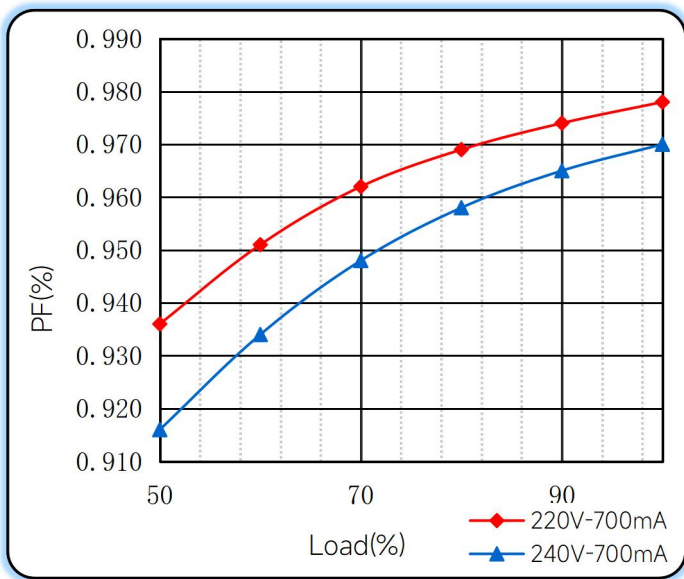
Lifetime vs. Ambient Temperature Curve



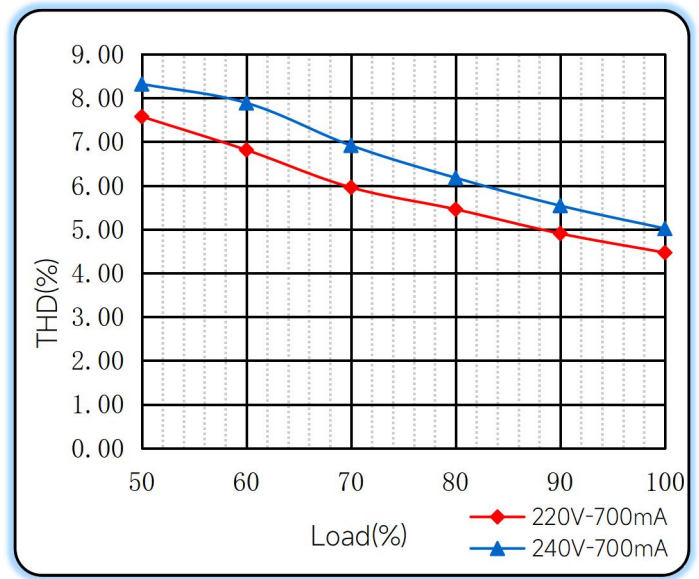
Efficiency vs. Load



Power Factor Characteristics



THD vs. Load





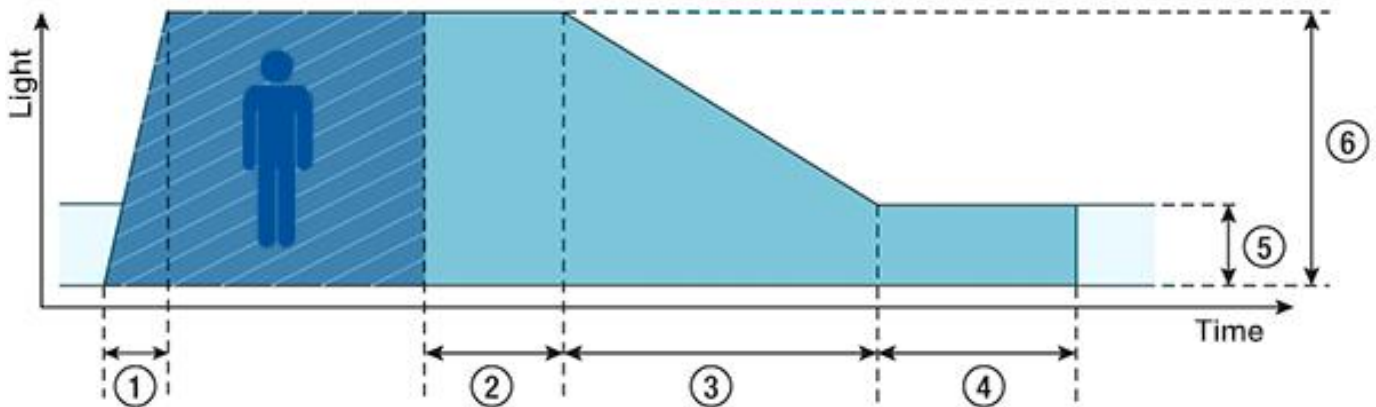
## ◆ Push dimming operation

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:

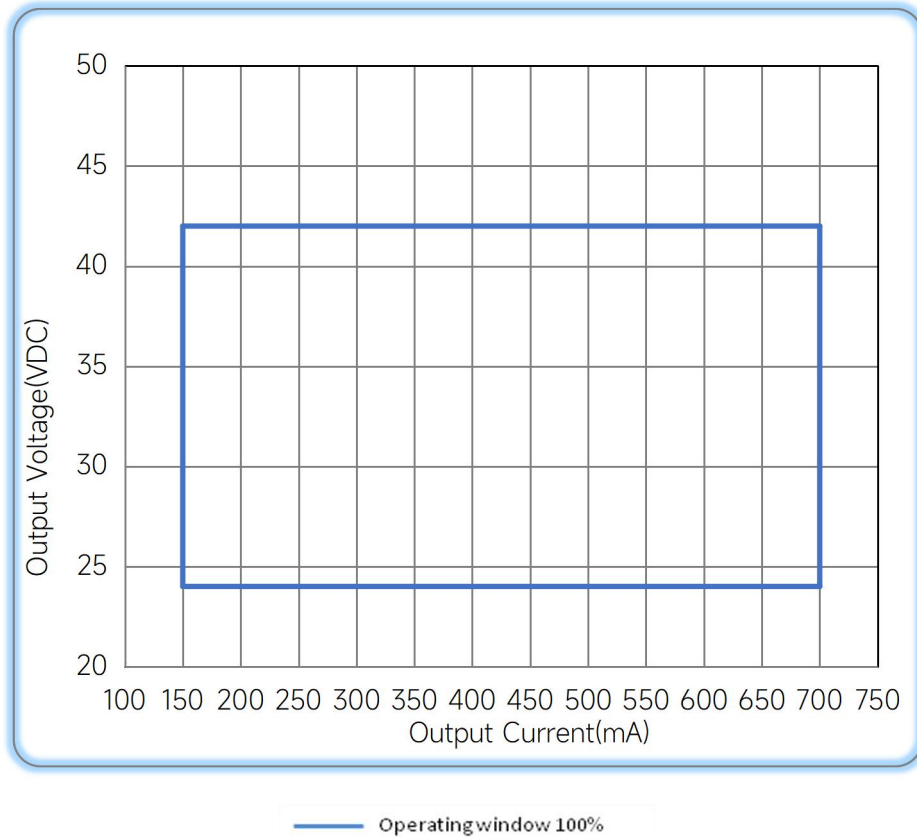
- 1.The factory default brightness is at 100%.
- 2.Up to 30 drivers can perform the PUSH dimming at the same time when utilizing one common push button
- 3.The maximum length of the cable from the push button to the last driver is 200 meters.

## ◆ Corridor mode



- ◆ ① **Fade-in time(0.5s)**: the time that starts as soon as the presence of a person is detected. During the fade-in time the luminous intensity is faded up to the presence value.
- ◆ ② **Run-on time(120s)**: the time that starts as soon as the presence of a person is no longer detected. If the presence of a person is detected again during the run-on time the run-on time is restarted from zero. If no presence is detected during the run-on time the fade time is started as soon as the run-on time expires.
- ◆ ③ **Fade time(32s)**: the time during which the luminous intensity is faded from the presence value to the absence value.
- ◆ ④ **Switch-off delay (Never Off)**: the time during which the absence value is held before the lighting is switched off. Depending on the profile selected the switch-off delay may have different values or may not be defined.
- ◆ ⑤ **Absence value(default: 10 %)**: the luminous intensity when there is no person present.
- ◆ ⑥ **Presence value (default: 100 %)**: the luminous intensity when persons are present.

◆ **Operating window**



◆ **Revision Updates**

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2023/08/09

Remark: The final interpretation of the contents of the specification belongs to Astralux.

E-mail: [sales@astralux-driver.com](mailto:sales@astralux-driver.com)  
 Website : [www.astralux-driver.com](http://www.astralux-driver.com)