

30W DALI + PUSH Dimming power supply



■ Approve



Features

- For luminaires of protection Class I, II, SELV, built-in/independent (With side caps)
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor :0.95
- Efficiency :87%
- Support DALI-2, Push Dimming
- 5 years warranty

Applications

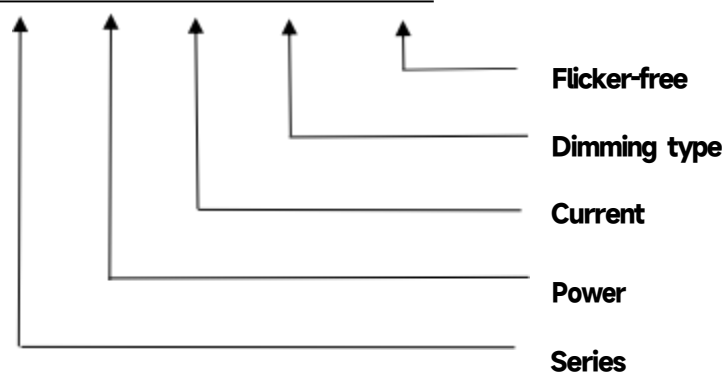
- LED panel, Spot light, Down light

◆ Description

FLS-30-700 DALI-2 LD2 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 LD2



◆ Specification

Output	Constant Current (mA)	150	200	250	300	350	400	450	500	550	600	650	700
	Voltage Range	24-42VDC											
	Unload voltage Max.	59VDC											
	Current Accuracy	±10%	±8%	±7%		±5%							
	Output HF current ripple(≥1KHz)	±5%											
	Output LF current ripple(≤120Hz)	±3%											
	SVM	≤0.02@Full Load											
	P _{st}	≤0.05@Full Load											
	Flicker index	0.005											
	Efficiency(Typ.)	87%											
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	>0.95											
	Input Current	0.25A max.											
	Start-up time	< 0.7S											
	No Load Power	≤0.5W											
	Standby Power	≤0.5W											
	Network standby power	≤0.5W											
	THD (Typ.)	6%											
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%											
		YES/Latch off											
	Over Voltage Protection	> 59VDC											
		YES/Latch off											
	Short circuit Protection	YES/Latch off											
Over Temperature Protection	YES/Auto Resume												
Environment	Operating Temperature	-20°C~+50°C											
	Humidity	20%-90%RH											
	Tc	80°C											
	Storage Temperature	-40°C~+80°C											
	Lifetime	>50000h,@Tc=80°C											

Surface	Dimension	97X43X30mm (With side caps :131X43X30mm)
Standards	EN 61347-1,EN 61347-2-13; EN IEC 55015,EN IEC 61000-3-2,EN 61000-3-3 EN 61547; AS/NZS 61347.1,AS 61347.2.13 IEC 61347-1,IEC 61347-2-13; GB 19510.1,GB 19510.14 , GB/T 17743,GB 17625.1	
Others	Surge	L-N:1kV, Conforms to class C
	ErP	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°C 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.The DC input for this product is only used for emergency lighting and applies to functional and safety requirements, EMC is not considered. 4.Data are typical values obtained from test samples 5.Switch and dimmer are not recommended to connect between this product output and luminaries	

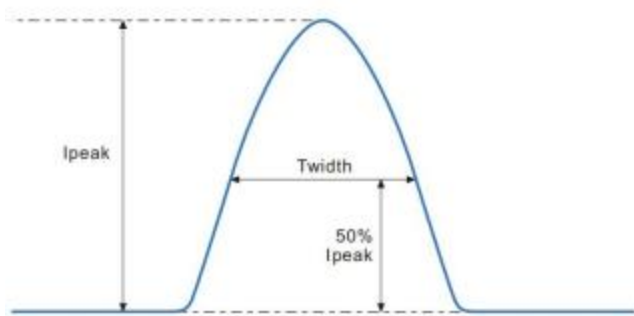
◆ Parameter

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

* Factory default

◆ Inrush Current

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

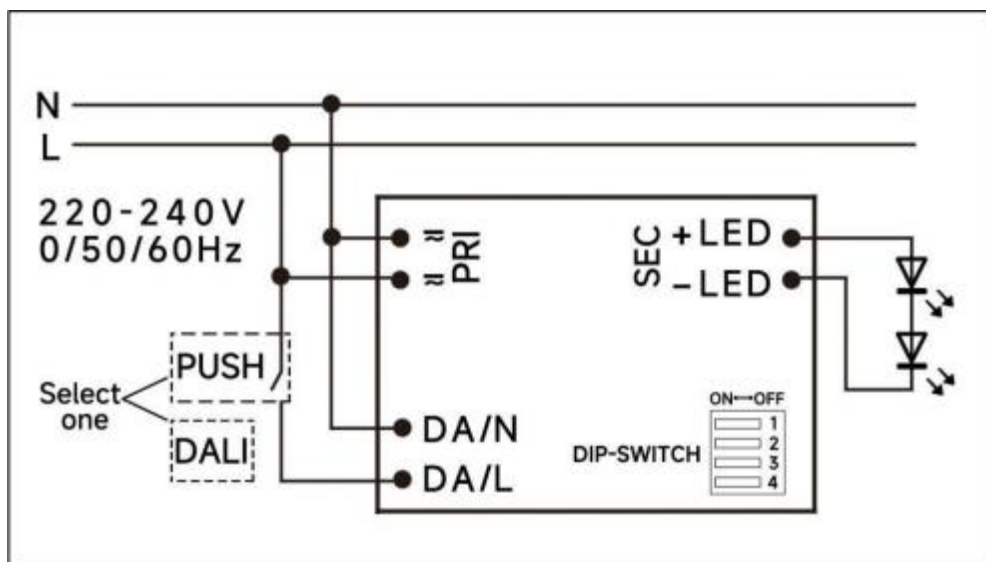


Remarks:

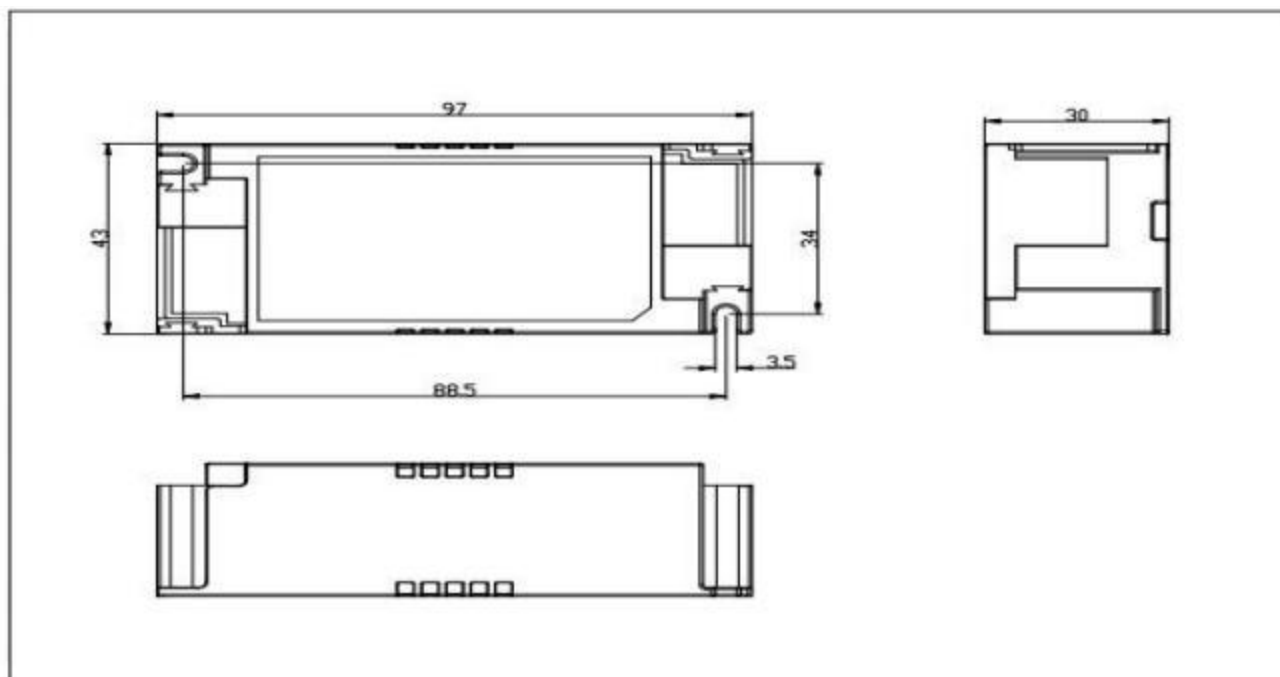
1.The number of drives mounted under different MCBs in the table is the maximum value. Please do not exceed this number during installation.

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

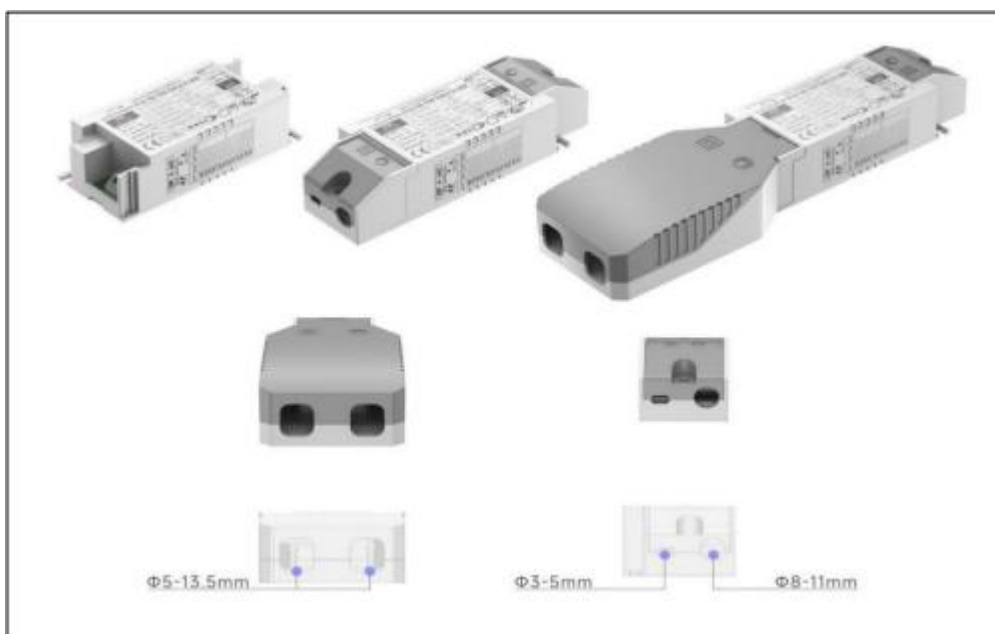
◆ Wiring diagram

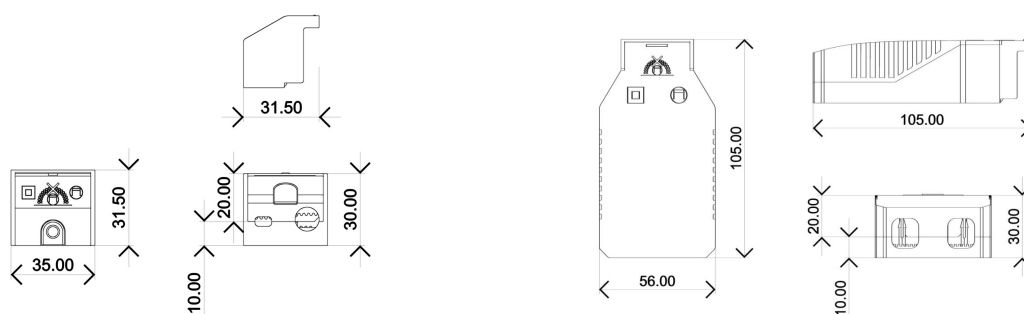


◆ 2D diagram



With side caps





A caps

B caps

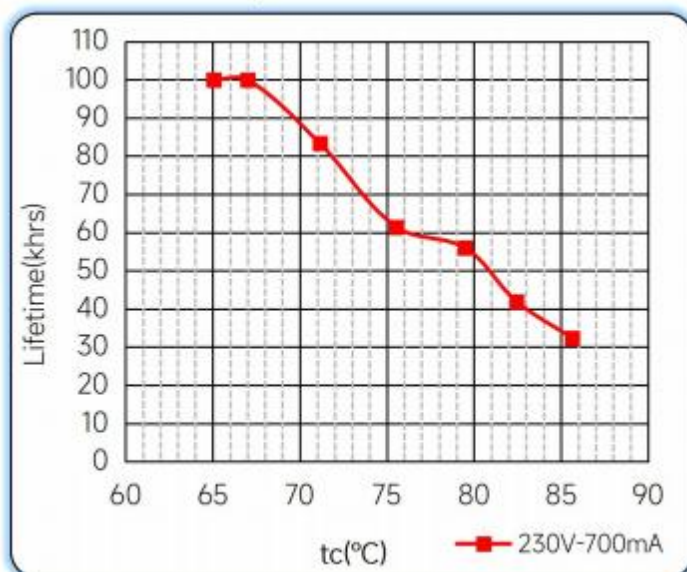
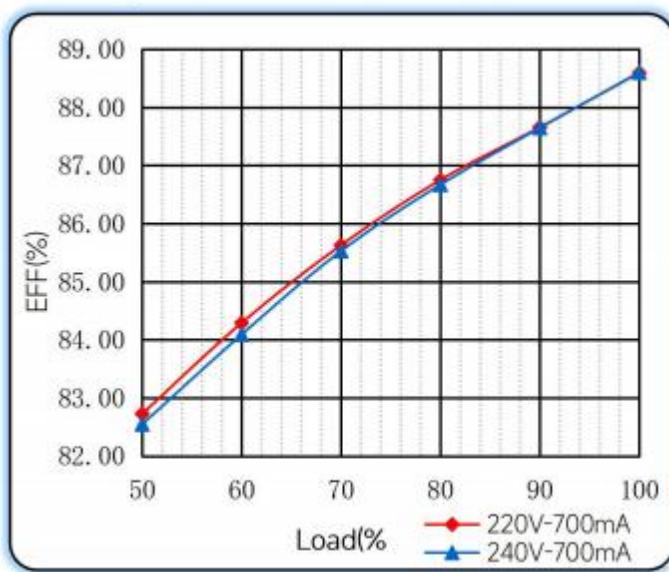
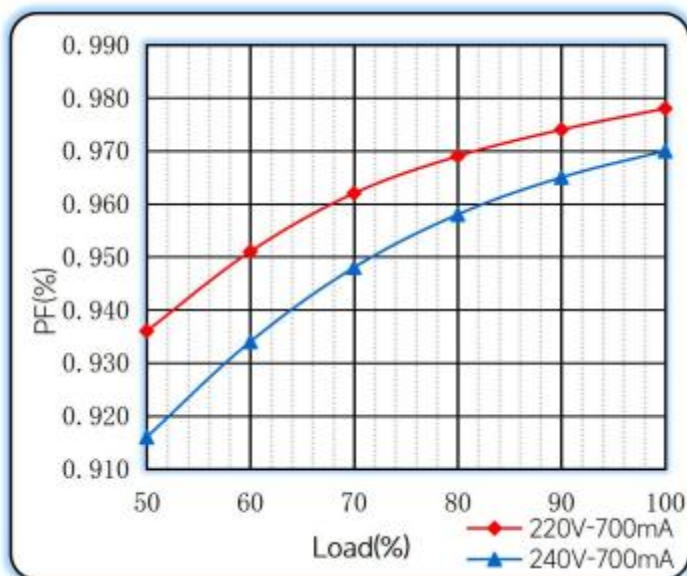
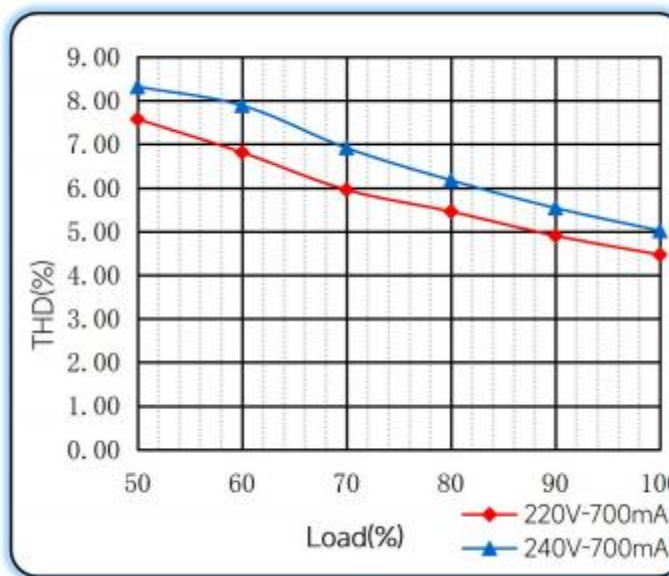
◆ Wiring & Connections

Specification item		Value (Unit)
Input	Input wire cross-section	0.5...1.5 mm ² (With A side caps: 0.75...2.5 mm ²)
	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 ²
	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 LD2, $I_o=700\text{mA}$

Lifetime vs. Temperature Curve

Efficiency vs. Load

Power Factor Characteristics

THD vs. Load


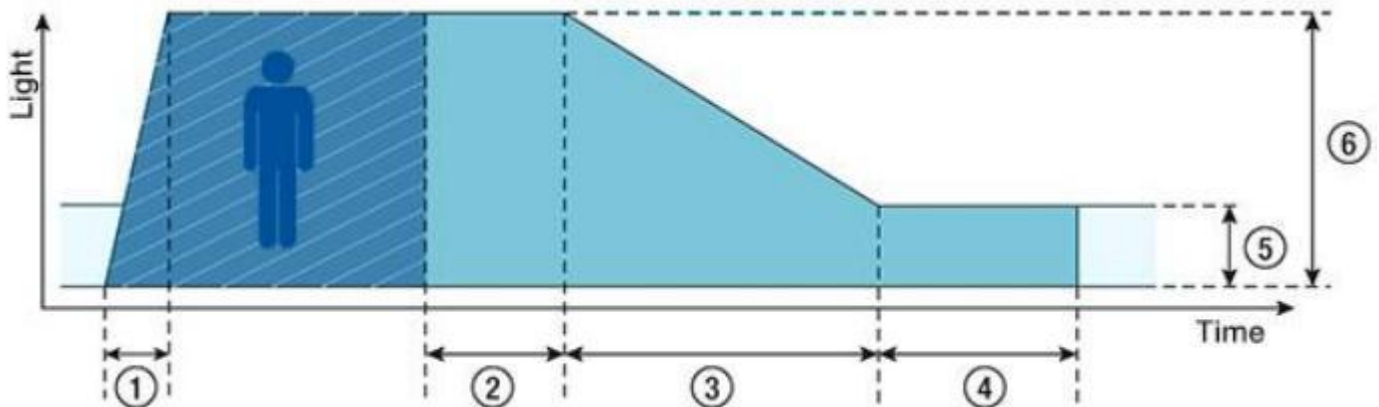
◆ Push dimming operation

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:

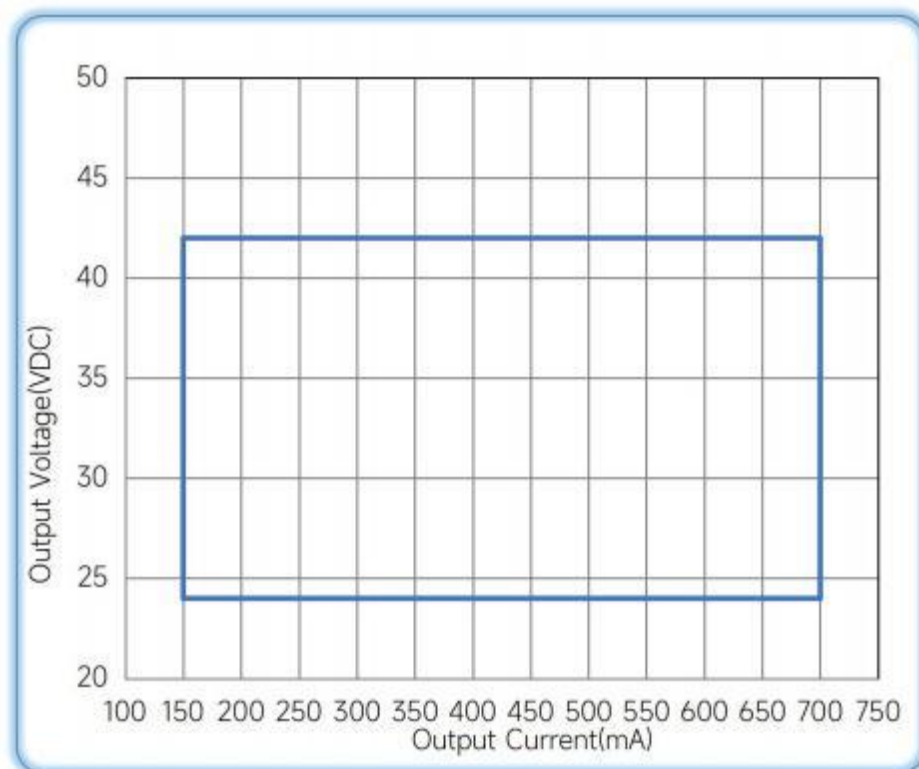
- 1.The factory default brightness is at 100%.
- 2.Up to 30 drivers can perform the PUSH dimming at the same time when utilizing one common push button
- 3.The maximum length of the cable from the push button to the last driver is 200 meters.

◆ 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



——operating window20%_s

◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Start-up time	0.5S	0.7S	A	2022/08/12
Product Picture		Updated	B	2023/05/16
Operating window			C	
Inrush Current				2023/08/09

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Manual