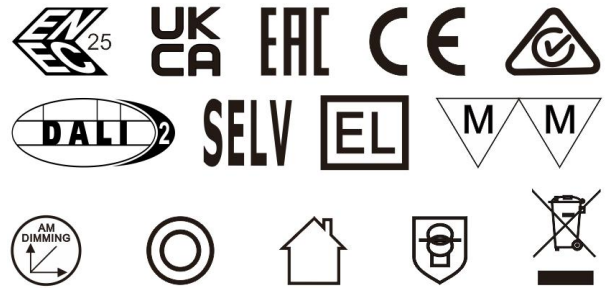




**Constant Current Dimmable Driver**



Model	Output Current	Input Current	Input Power	Output Power Range	PF	Efficiency	Output Voltage	No load Voltage
C21C150-500D-D	150mA	0.05A	9.8W	2.25-6.75W	0.75	80%	15-45V	59V Max
	200mA	0.068A	13.4W	3-9W	0.82	81%		
	250mA	0.082A	16.2W	3.75-11.25W	0.86	83%		
	300mA	0.094A	18.8W	4.5-13.5W	0.9	84%		
	350mA	0.11A	21.1W	5.25-15.7W	0.92	85%		
	400mA	0.12A	23.3W	6-18W	0.92	86%		
	450mA	0.13A	25.7W	6.75-20.25W	0.94	87%		
	500mA	0.133A	26.3W	7.5-21W	0.95	87%	15-42V	

\* Test result @230V, 50Hz, Full Load.

**1. Parameters**

category	Item	Technical Norm
Features	Output Type	Constant Current
	Dimming Type	DALI-2 / Push DIM
	Output current setting	DIP
	Output Features	Isolation
	IP Grade	IP20
	Insulation Class	Class II
Input	Rated Input Voltage	220-240VAC
	Range of Input Voltage	198-264VAC
	Range of DC Input Voltage	180-280VDC
	Frequency	0/50/60Hz, Range:0/47-63Hz
	Input Current	≤0.133A max
	Input Power	≤26.3W max
	Power Factor	≥0.95 (230VAC, full load)
	THD	≤10% (230VAC, full load)
	Standby Power Consumption	≤0.5W @230VAC (DIM to off)
	Inrush Current	≤45A/36us (230VAC, full load)
	Connected quantity of 10A Breaker	13pcs/type B ; 21pcs/type C ;27pcs/type D
Connected quantity of 16A Breaker	21pcs/type B ;34pcs/type C ;43pcs/type D	
Connected quantity of 20A Breaker	34pcs/type B ;55pcs/type C ;68pcs/type D	
Output Voltage	15-45VDC@150-450mA	



Output		15-42VDC@500mA
	No Load Voltage (Uout)	59VDC Max.
	Output Current	150- 500mA
	Max. Output Power	21W
	Efficiency	≥87% (230VAC , full load@max current)
	Output LF current ripple (< 120 Hz)	±5% (Imax-Imin) / (Imax+Imin )
	Current Accuracy	±5%
	Output PstLM (at full load)	≤ 1
	Output SVM (at full load)	≤0.4
	Starting Time (AC mode)	≤1S (230VAC , full load, by DALI system)
	Starting Time (DC mode)	≤0.5S
Switching over time (AC/DC)	≤0.4S	
Control Method	PUSH dimming	PUSH dimming (Max. lead wire length: 20m,same port of DALI)
	DALI function	DALI dimming (Max. lead wire length: 30m) logarithm or linear dimming curve selectable
	Dimming range	DALI dimming: 1%- 100%
Protection	Short Circuit Protection	Latch off
	Overload Protection	Latch off
	No-load Protection	Latch off
	Insulation voltage	3000V 5mA 60S between P-S
	Insulation resistance	>100M ohm @ 500VDC
	Leakage current	< 700pA, I/P to O/P @230V input
Environment	Ta/Operation Temperature	-25 ... .+45°C
	Ts/Storage Temperature	-25 ... .+85°C
	Tc/Enclosure Temperature	85°C
	Humidity	10%.... 90%RH
	Atmosphere	86- 108KPa
Construction	Connection Method	Push-in Terminal
	Installation	Build-in
	PRI Wire preparation	0.5- 1.5 □ / 8-9mm
	SEC Wire preparation	0.5- 1.5 □ / 8-9mm
	DALI Wire preparation	0.5- 1.5 □ / 8-9mm
	Dimension	97*44*23mm (L*W*H)
Standards	Certification	CE
	Safety Standards	EN 61347-1:2015/A1:2021 EN 61347-2-13:2014/A1:2017 EN IEC 62384:2020 EN 62493:2015
	EMC Standards	EN IEC 55015:2019 EN IEC 55015:2019/A11:2020 EN IEC 61000-3-2:2019/A1:2021 EN 61000-3-3:2013/A2:2021 EN IEC 61547:2023
	Performance	EN62384:2020



	DALI performance	EN 62386- 101 (DALI-2) EN 62386- 102 (DALI-2) EN 62386-207 (DALI-2, including part 251, 252, 253)
	Surge	L-N/1KV
Others	RoHS	2011/65/EU
	Life Time	50000h@Ta
	Warranty	5years , F.R. < 10000ppm

Remark: 1.All Parameters, if not specified, are measured at 230VAC/50Hz and 25°C ambient temperature.  
2.LED Driver is a component of the luminaires, Luminaires and wire layout will affect the EMC, please check the EMC with end products again.

## 2. Connected quantities of different current Breaker

TYPE	Connected quantities of different current Breaker						Input Voltage	Inrush Current	Time
	current (A)	10	13	16	20	25			
	Installation wire diameter	1.5mm <sup>2</sup>	2.5mm <sup>2</sup>	2.5mm <sup>2</sup>	4mm <sup>2</sup>	4mm <sup>2</sup>			
	TYPE B	13	17	21	27	33	@230VAC	45	36us
	TYPE C	21	28	34	43	53			
	TYPE D	34	44	55	68	85			

## 3. Label

**KGP** **C21C150-500D-D** LED Dimmable Driver  
Constant Current LED Power Supply tc:85°C ta:45°C  
PRI:220-240VAC 50/60Hz 0.133A Max.  
SEC:150-450mA 15-45VDC Uout:Max.59VDC  
500mA 15-42VDC For LED modules Only

wire preparation 8-9mm

PRI:0.5-1.5"  
DALI:0.5-1.5"  
SEC:0.5-1.5"

PRI: L N  
DIM: DA DA  
PUSH-CONTROL: L N DM

Pout [W]	Iout [mA]	λ	1	2	3	Pout [W]	Iout [mA]	λ	1	2	3
6.75	150	0.78C	-	-	-	15.7	350	0.92C	-	-	ON
9.0	200	0.84C	ON	-	-	18.0	400	0.92C	ON	-	ON
11.25	250	0.88C	-	ON	-	20.25	450	0.94C	-	ON	ON
13.5	300	0.90C	ON	ON	-	21.0	500	0.95	ON	ON	ON

ON OFF 1 2 3

+ ● SEC  
- ●

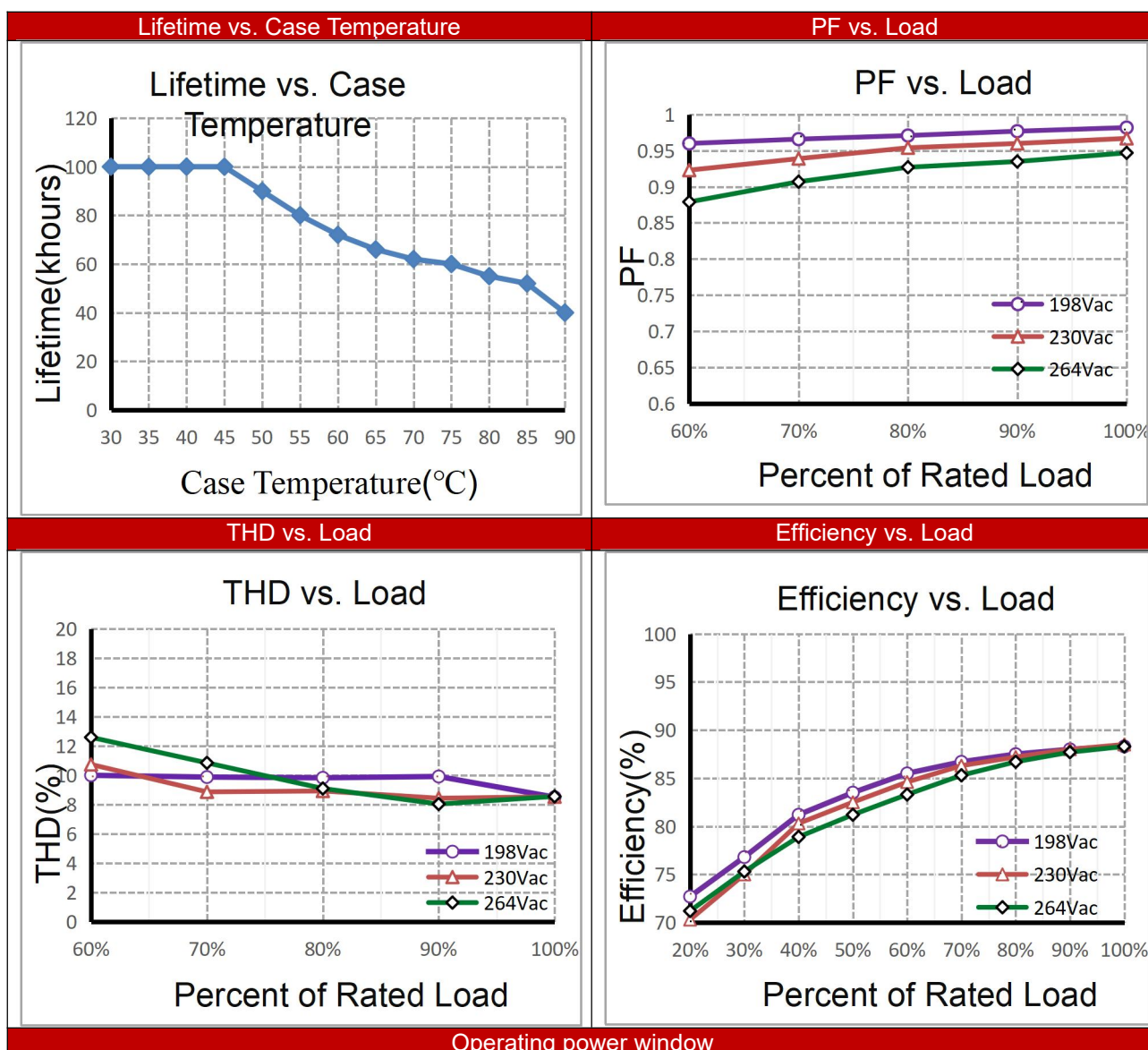
EAC CE SELV DALI 2

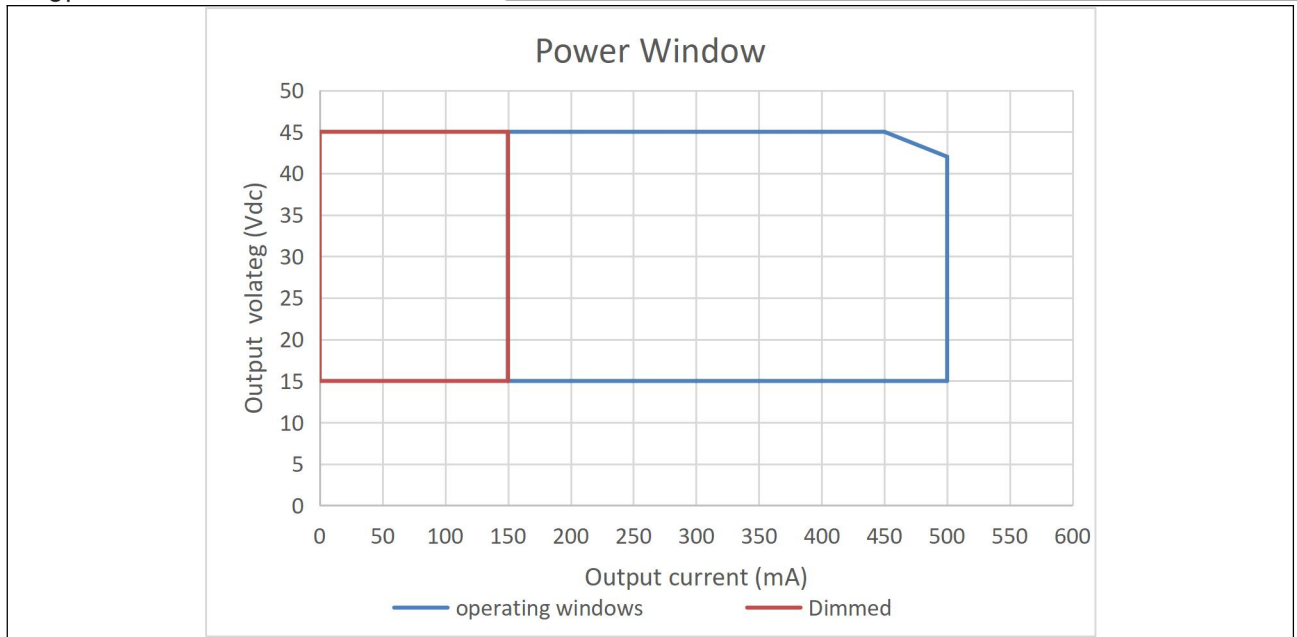
## 4. Output Current Setting



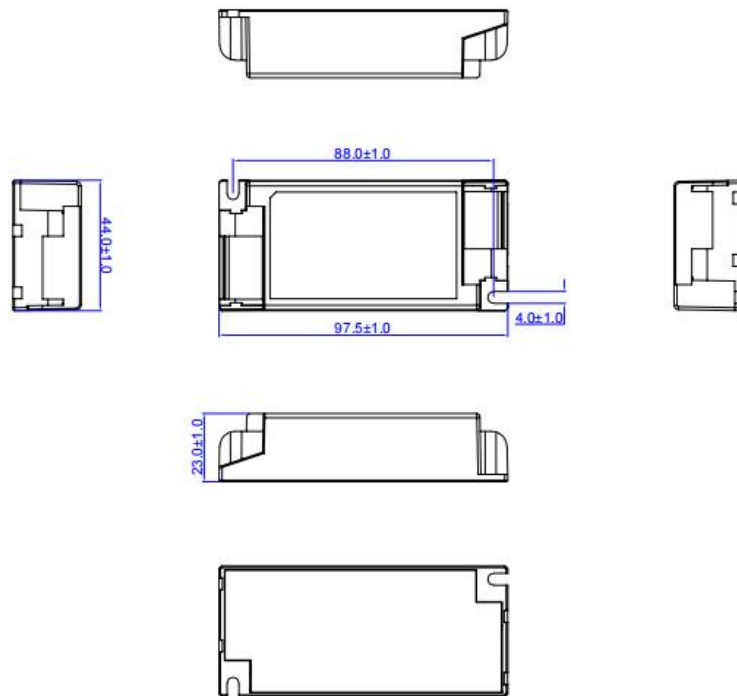
Output Current	1	2	3
150mA	--	--	--
200mA	ON	--	--
250mA	--	ON	--
300mA	ON	ON	--
350mA	--	--	ON
400mA	ON	--	ON
450mA	--	ON	ON
500mA	ON	ON	ON

### 5. Electrical values



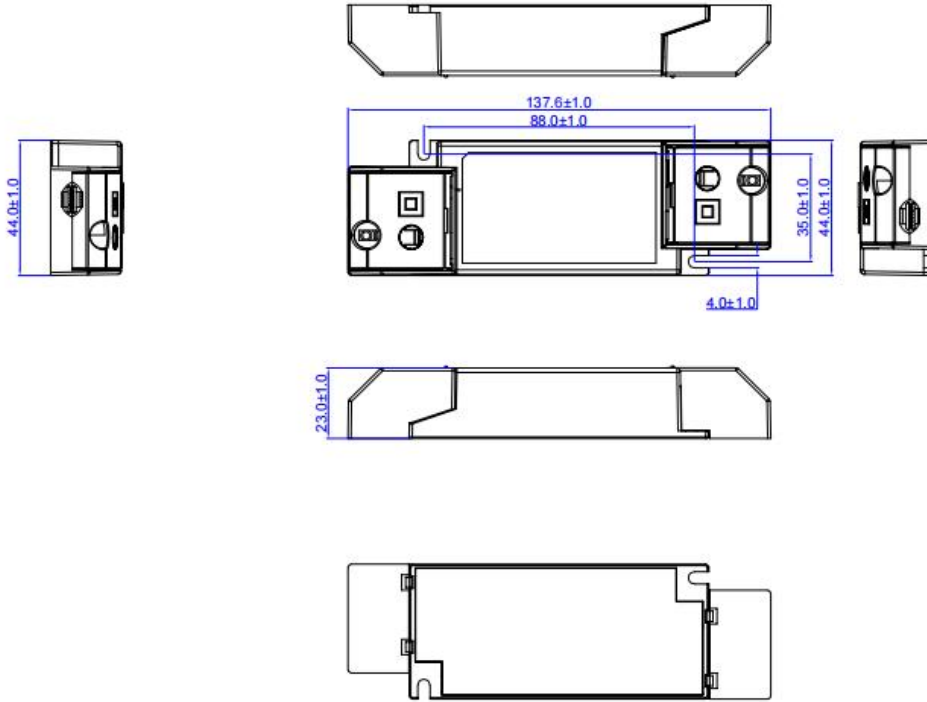


**6. Dimension SC (A) :**

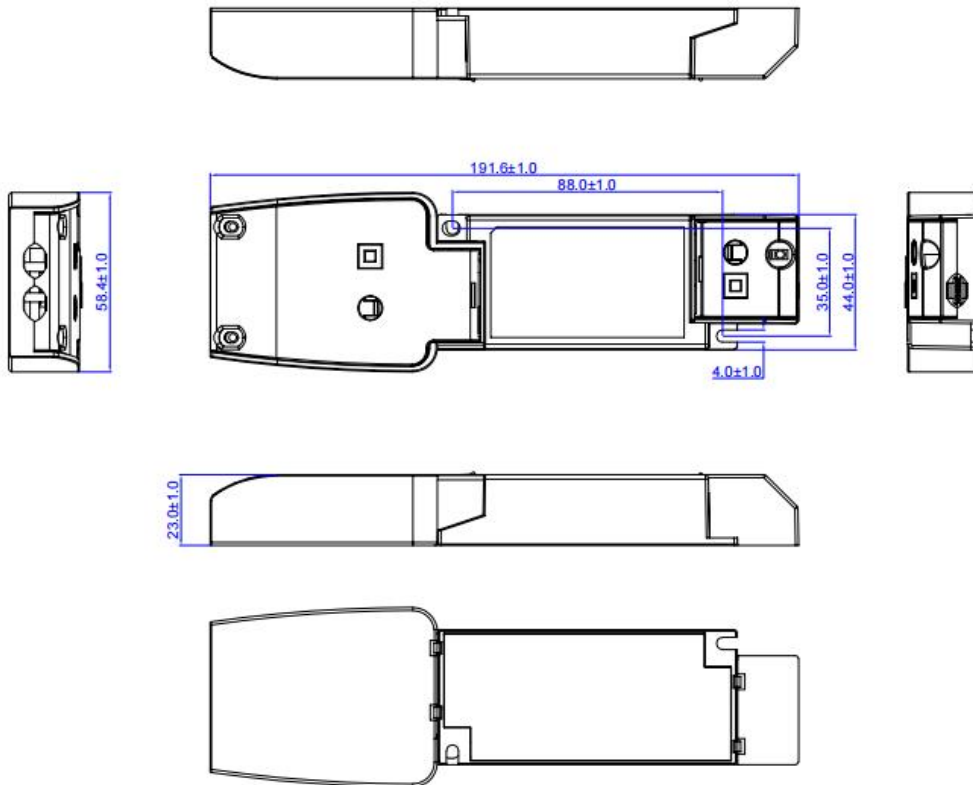


**Small side cover(B) :**





**Large side cover(C):**



## 7. Wiring Diagram

Fig. A: Push Dimming

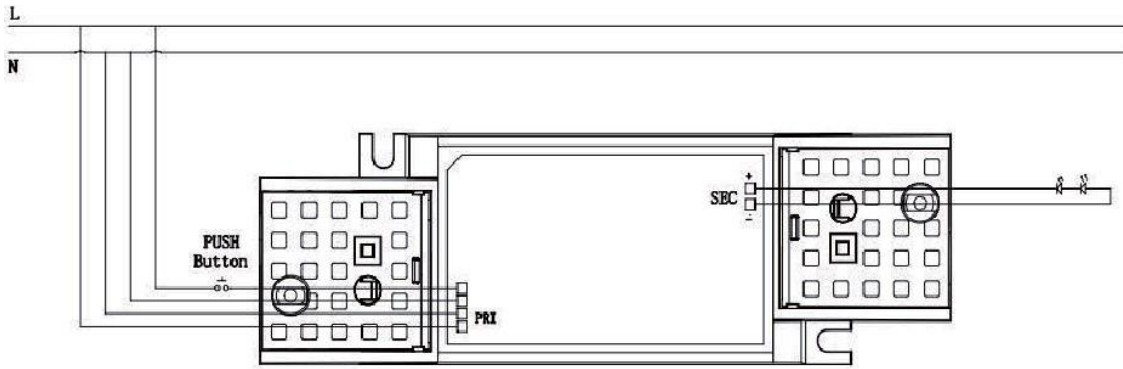
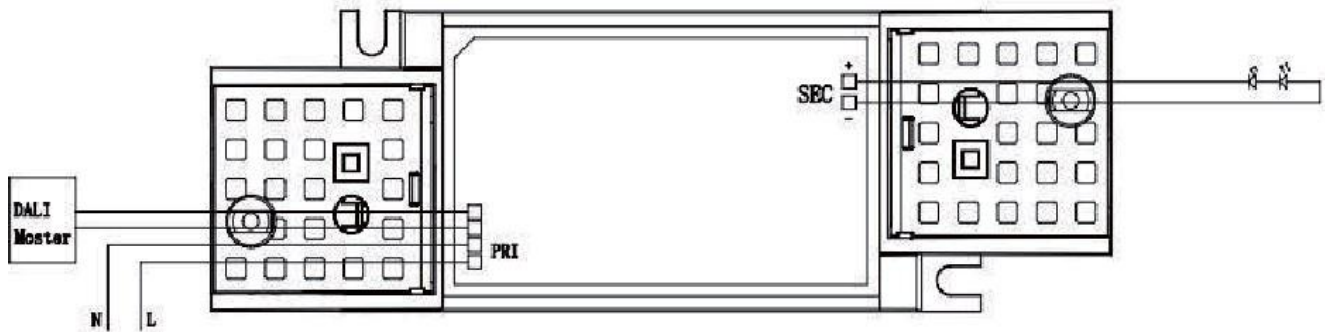


Fig. B: DALI Dimming



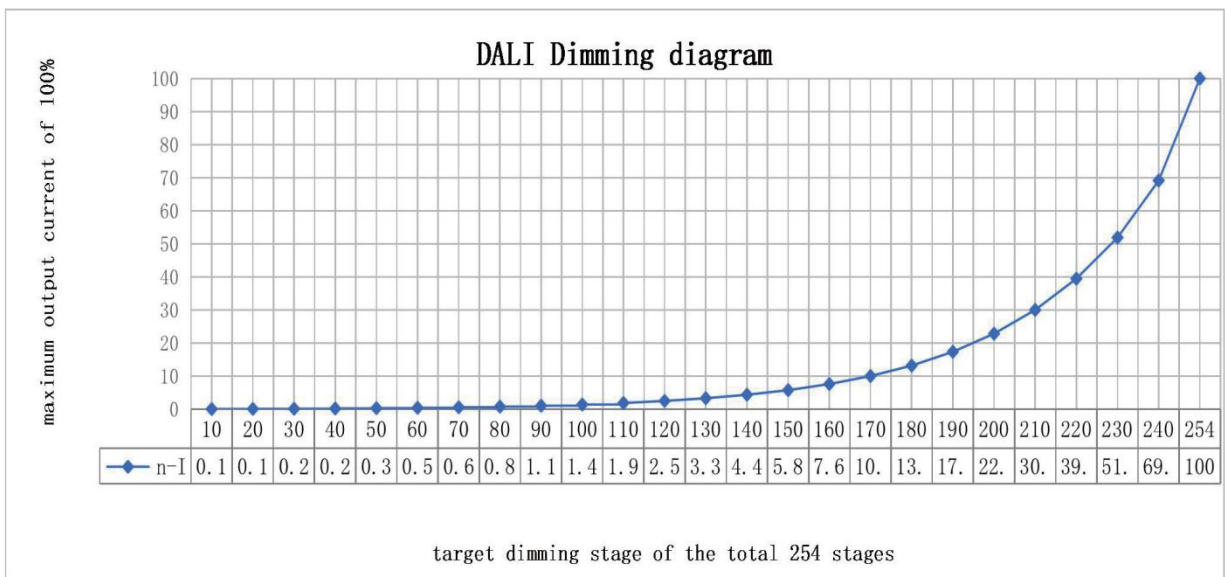
## 8. DALI dimming curve

formula for DALI dimming.

$$X(n) = 10^{\left\{ \left[ \frac{(n-1)}{(253/3)} \right] - 1 \right\}}$$

Here, n means the target dimming stage of the total 254 stages.

X(n) means the percent of the maximum output current



## 9. Packing information

### SC(A)

Packing way	Model	Colour	Carton L*W*H(mm)	Pcs/ Carton	Net weight/ Pcs(kg)	Net weight/ Carton(kg)	Gross weight/ Carton(kg)
industrial	C21C150-500D-D	White	457*250*220	80	0.097	7.76	8.46

### Small side cover(B)

Packing way	Model	Colour	Carton L*W*H(mm)	Pcs/ Carton	Net weight/ Pcs(kg)	Net weight/ Carton(kg)	Gross weight/ Carton(kg)
industrial	C21C150-500D-D	White	457*250*220	80	0.115	9.17	9.87

### Large side cover(C)

Packing way	Model	Colour	Carton L*W*H(mm)	Pcs/ Carton	Net weight/ Pcs(kg)	Net weight/ Carton(kg)	Gross weight/ Carton(kg)
industrial	C21C150-500D-D	White	457*250*220	80	0.137	11	11.7

## 10. Push Dim :

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	<0.5s	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.

- 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



## 9. Revision History

Date	Revision	Remark
2024-5-21	V1.0	preliminary version

