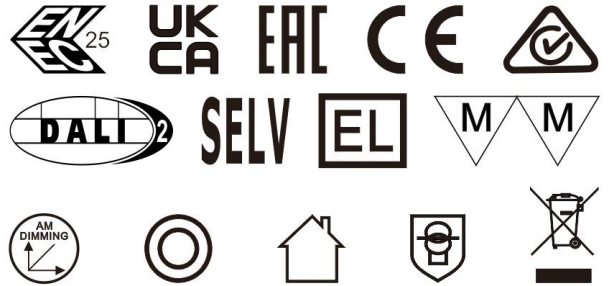




Constant Current Dimmable Driver

Model:C21C150-500D-D



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
		15-42VDC@500mA



Output	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℃
	Ts/Storage Temperature	-25+85℃
	Tc/Enclosure Temperature	85℃
	Humidity	10%.... 90%RH
	Atmosphere	86- 108KPa
Construction	Connection Method	Push-in Terminal
	Installation	Built-in
	PR1 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
Standards	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 ²	2.5mm ²	2.5mm ²	4mm ²	4mm ²			
	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

PR1: L N
DIM: DA DA
PUSH-CONTROL: L N DALI

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
- ●

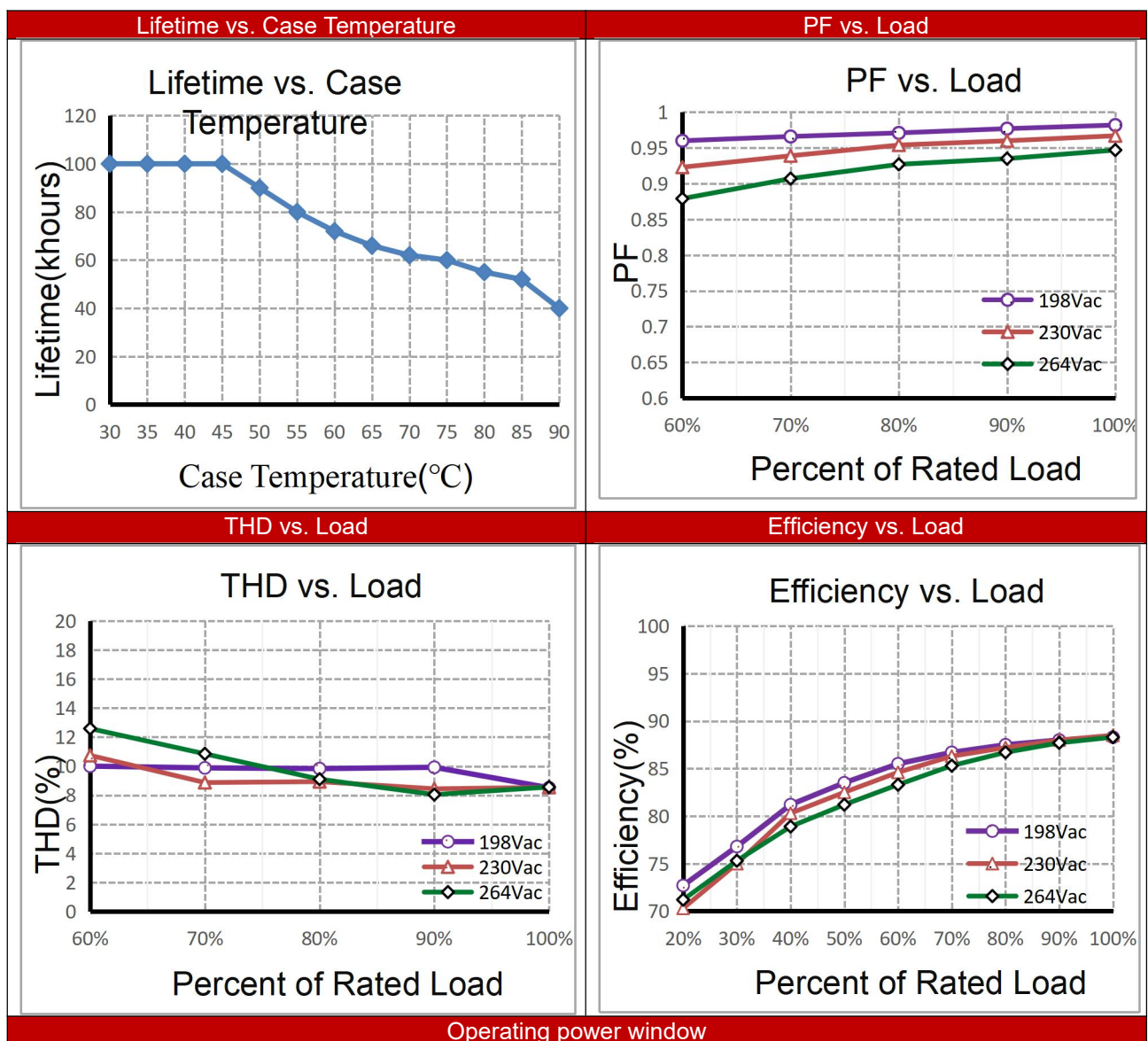
EAC CE SELV DALI 2

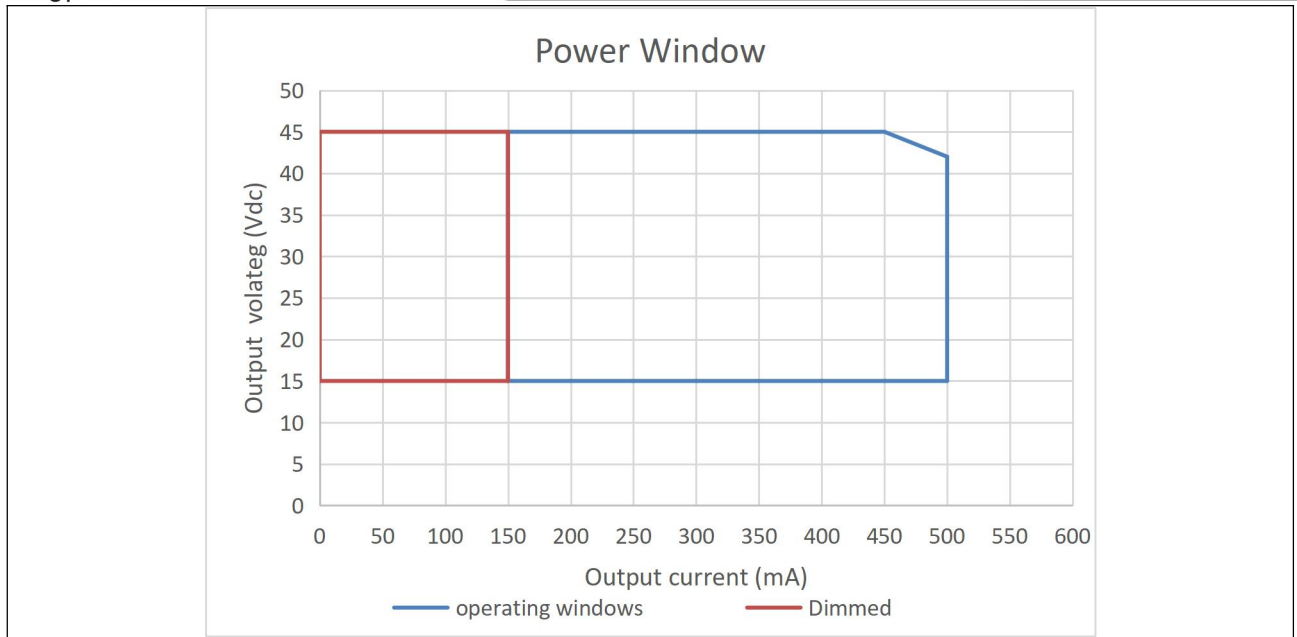


4. Output Current Setting

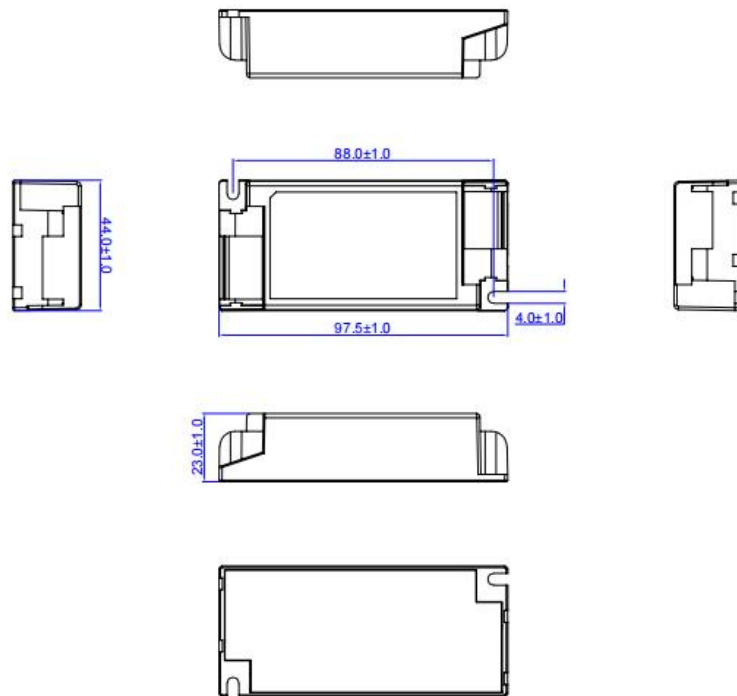
Output Current	1	2	3
150mA	--	--	--
200mA	ON	--	--
250mA	--	ON	--
300mA	ON	ON	--
350mA	--	--	ON
400mA	ON	--	ON
450mA	--	ON	ON
500mA	ON	ON	ON

5. Electrical values

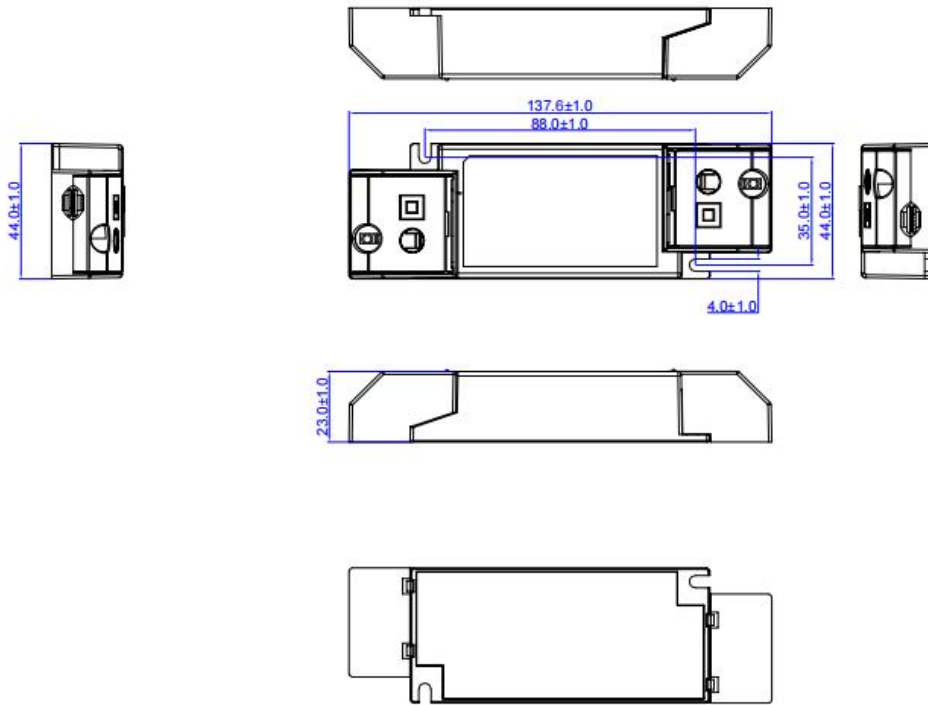




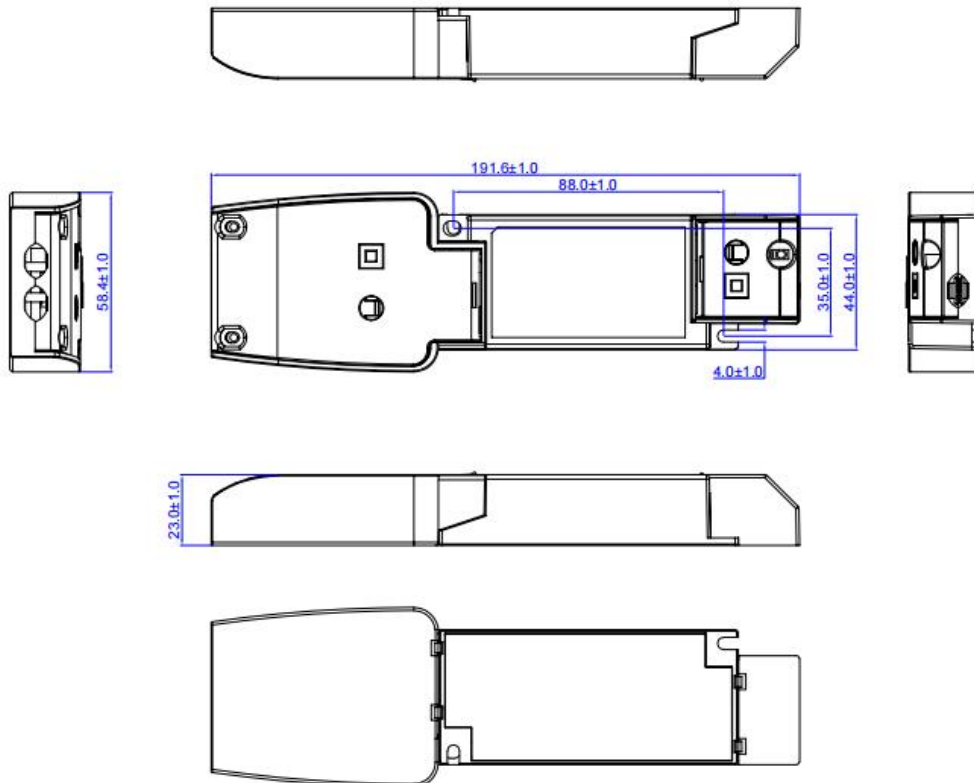
6. Dimension SC (A) :



Small side cover(B) :



Large side cover(C):



7. Wiring Diagram

Fig. A: Push Dimming

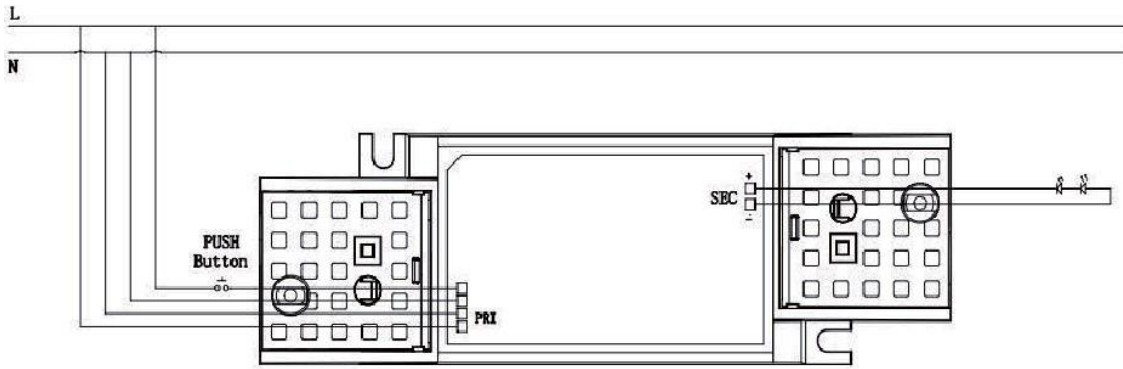
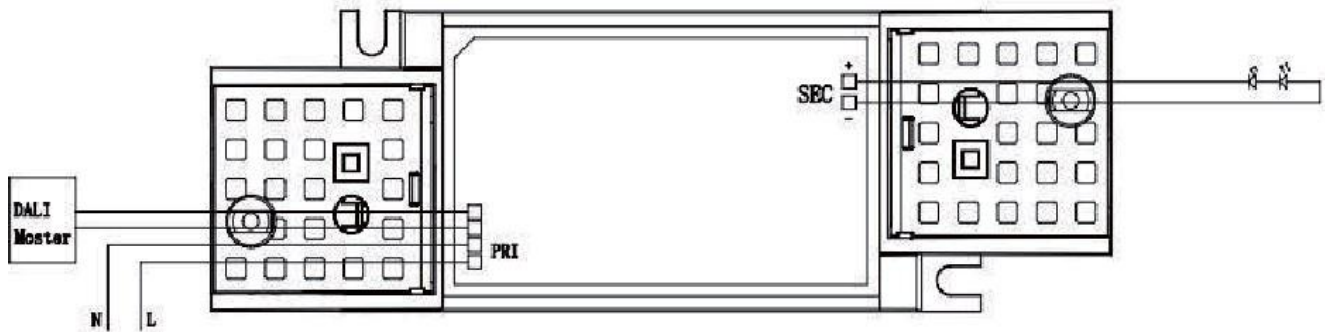


Fig. B: DALI Dimming



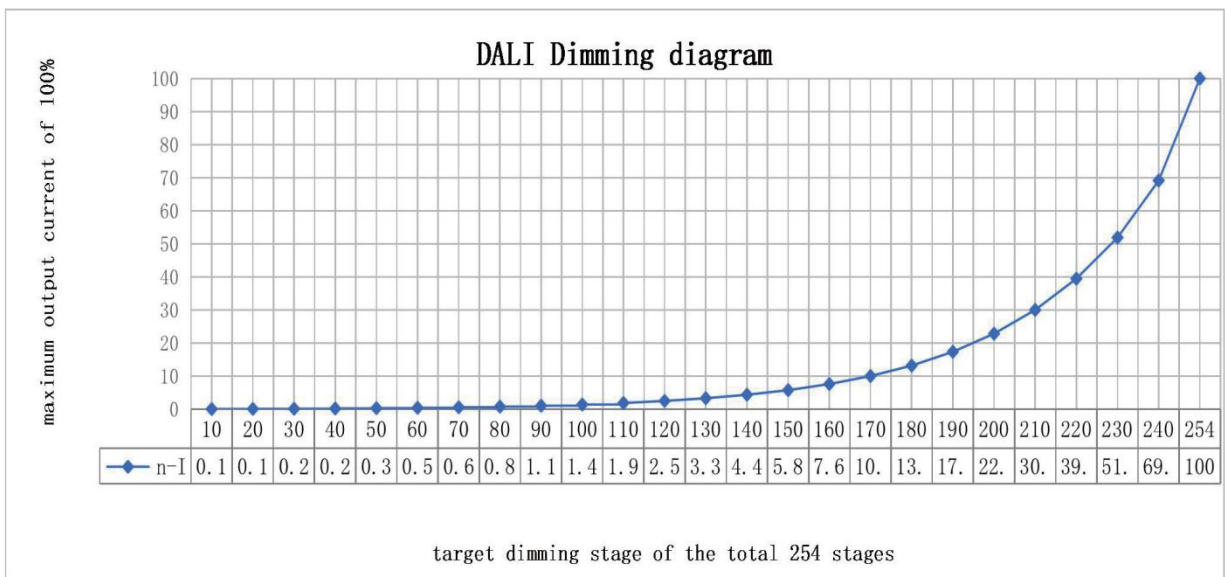
8. DALI dimming curve

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



11. Revision History

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

