

**Constant Current Dimmable Driver**

**Model: SC30W150-700CG-6X DALI**



Model	Output Current	Input Current	Input Power	Output Power Range	PF	Efficiency (*Typical)	Output Voltage	No load Voltage
SC30W150-700CG-6W DALI SC30W150-700CG-6B DALI SC30W150-700CG-6G DALI	150mA	0.10A	8.07W	1.50-6.30W	0.75	83%	10-42V	59V
	200mA	0.11A	10.5W	2.00-8.40W	0.8	85%	10-42V	59V
	250mA	0.12A	12.8W	2.50-10.50W	0.82	86%	10-42V	59V
	300mA	0.13A	15.3W	3.00-12.60W	0.83	88%	10-42V	59V
	350mA	0.14A	17.7W	3.50-14.70W	0.85	88%	10-42V	59V
	400mA	0.15A	20W	4.00-16.80W	0.91	89%	10-42V	59V
	450mA	0.16A	22.5W	4.50-18.90W	0.92	89%	10-42V	59V
	500mA	0.17A	25W	5.00-21.00W	0.94	89%	10-42V	59V
	550mA	0.18A	27.5W	5.50-23.10W	0.94	89%	10-42V	59V
	600mA	0.19A	29.6W	6.00-25.20W	0.95	89%	10-42V	59V
	650mA	0.20A	32.1W	6.50-27.30W	0.95	89%	10-42V	59V
	700mA	0.21A	34.4W	7.00-29.40W	0.95	89%	10-42V	59V

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

### 1. Parameters

Category	Item	Technical Norm
Features	Output Type	Constant Current
	Dimming Type	DALI-2 / PUSH Dimming
	Output Features	Isolation
	IP Grade	IP20
	Insulation Class	Class II
Input	Rated Input Voltage	220-240VAC
	Range of Input Voltage	198-264VAC or 198-280VDC
	Frequency	50/60Hz

	Input Current	≤0.21A (230VAC, full load)
	Input Power	≤34.4W (230VAC, full load)
	Power Factor	≥0.95 (230VAC, full load)
	THD	≤15% (230VAC, full load)
	Standby power(dim to off)	≤0.5W @230VAC (DIM to off)
Output	No Load Voltage	59VDC Max.
	Output Current	150mA -700mA
	Max. Output Power	29.4W
	Efficiency	≥89% (230VAC, full load)
	Current Ripple(< 120 Hz)	±5% (Imax-Imin)/(Imax+Imin)
	PstLM	≤1
	SVM	≤0.4
	Current Accuracy	±5% (@300-700mA) ±8% (@150-250mA)
	Started Delay Time	Start-up time <0.5s @ power switch on without DALI control. Start-up time <1s @ DALI system on.
Control Method	Primary PUSH dimming	Primary PUSH dimming (Max. lead wire length: 25m,same port of DALI)
	DALI function	DALI dimming (Max. lead wire length: 300m) logarithm or linear dimming curve selectable DALI Part -251,-252 and -253
	Dimming range	DALI dimming: 0.1%-100%
	Current setting	dial switches
Protection	Short Circuit Protection	Auto Recovery
	Overload Protection	Auto Recovery
	No-load Protection	Auto Recovery
	Insulation voltage	3000V 5mA 60S between P-S
	Insulation resistance	>100M ohm @ 500VDC
	Leakage current	I/P to O/P <0.7mA
Environment	Ta/Operation Temperature	-20....+35°C
	Ts/Storage Temperature	-25....+85°C
	Tc/Enclosure Temperature	70°C
	Humidity	10%....90%RH
	Atmosphere	86-108KPa
Construction	Connection Method	Push-in Terminal
	Installation	Independent
	SEC Wire preparation	0.3-0.75 <sup>□</sup>
	Dimension	308.3*21.8*35.8mm (L*W*H)
Standards	Certification	CE EAC
	Safety Standards	EN 61347-1:2015/A1:2021 EN 61347-2-13:2014/A1:2017 EN IEC 62384:2020
	EMC Standards EMC	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
	Surge	L-N/2KV
Others	RoHS	complied to 2011/65/EU
	Life Time	50000h @Ta
	Warranty	5years ,F.R. < 10000ppm
	Noise	≤ 24dB @Background noise ≤18dB , Interval≥15cm

**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. Output Current Setting

Output Current	1	2	3	4
150mA	-	-	-	-
200mA	ON	-	-	-
250mA	-	ON	-	-
300mA	ON	ON	-	-
350mA	-	-	ON	-
400mA	ON	-	ON	-
450mA	-	ON	ON	-
500mA	ON	ON	ON	-
550mA	-	-	-	ON
600mA	ON	-	-	ON
650mA	-	ON	-	ON
700mA	ON	ON	-	ON

### 3. Connected quantities of different current Breaker

TYPE	Connected quantities of different current Breaker					Input Voltage	Inrush Current (A)	Time (us)	
	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		18	24	29	36	45	@230VAC	33	50
TYPE C		29	38	47	58	73			
TYPE D		47	61	74	93	116			

### 4. Label

DA  
 DA

**KGP**  
KGP Electronics GmbH  
Hueckstraße 19  
DE-58511 Lüdenscheid

**LED Dimmable Driver**  
**SC30W150-700CG-6B DALI**

0.5-1.5<sup>SP</sup>  
8-9mm

ta:-20...+35°C  
tc:70°C

ON OFF  
1 2 3 4

Constant Current Lighting track adaptors  
For LED modules only  
PRI:220-240VAC 50/60Hz Max.0.21A  
SEC:150-700mA 10-42VDC  
Uout:59VDC Max.30W Fmax.50Nf

Rated [W]	rated [mA]	ln [A]	λ	1	2	3	4	Rated [W]	rated [mA]	ln [A]	λ	1	2	3	4
6.3	150	0.10	0.75C	-	-	-	-	18.9	450	0.16	0.92C	-	ON	ON	-
8.4	200	0.11	0.80C	ON	-	-	-	21	500	0.17	0.94C	ON	ON	ON	-
10.5	250	0.12	0.82C	-	ON	-	-	23.1	550	0.18	-	-	-	-	ON
12.6	300	0.13	0.83C	ON	ON	-	-	25.2	600	0.19	-	-	-	-	ON
14.7	350	0.14	0.85C	-	-	ON	-	27.3	650	0.20	0.95	-	ON	ON	-
16.8	400	0.15	0.91C	ON	-	ON	-	29.4	700	0.21	-	ON	ON	ON	-

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10.5	250	0.12	0.82C	-	ON	-	-	23.1	550	0.18	-	-	-	-	ON
12.6	300	0.13	0.83C	ON	ON	-	-	25.2	600	0.19	-	-	-	-	ON
14.7	350	0.14	0.85C	-	-	ON	-	27.3	650	0.20	0.95	-	ON	ON	-
16.8	400	0.15	0.91C	ON	-	ON	-	29.4	700	0.21	-	ON	ON	ON	-

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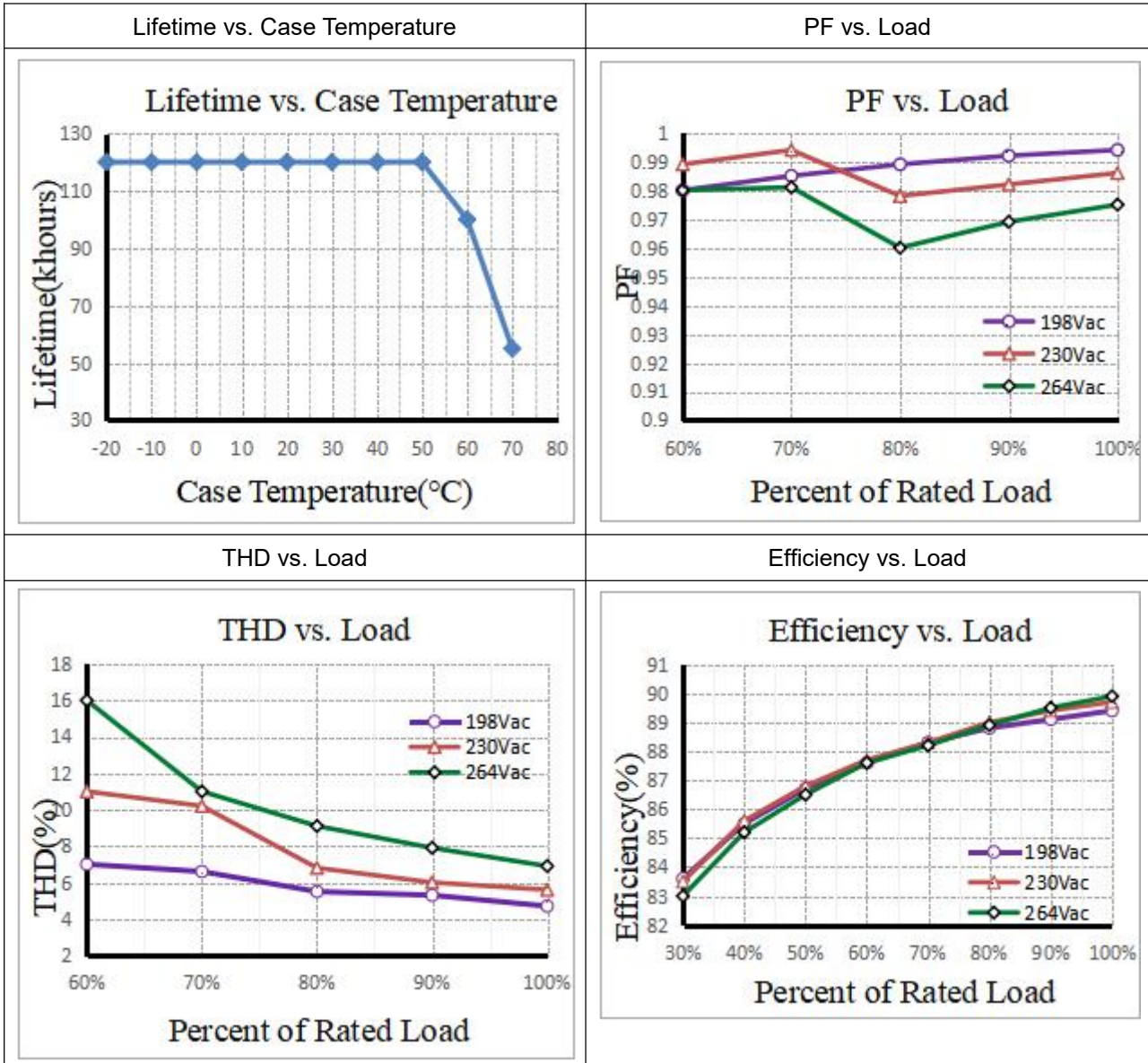
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14.7	350	0.14	0.85C	-	-	ON	-	27.3	650	0.20	0.95	-	ON	ON	-
16.8	400	0.15	0.91C	ON	-	ON	-	29.4	700	0.21	-	ON	ON	ON	-

### 5. Electrical values

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KGP-V1.3



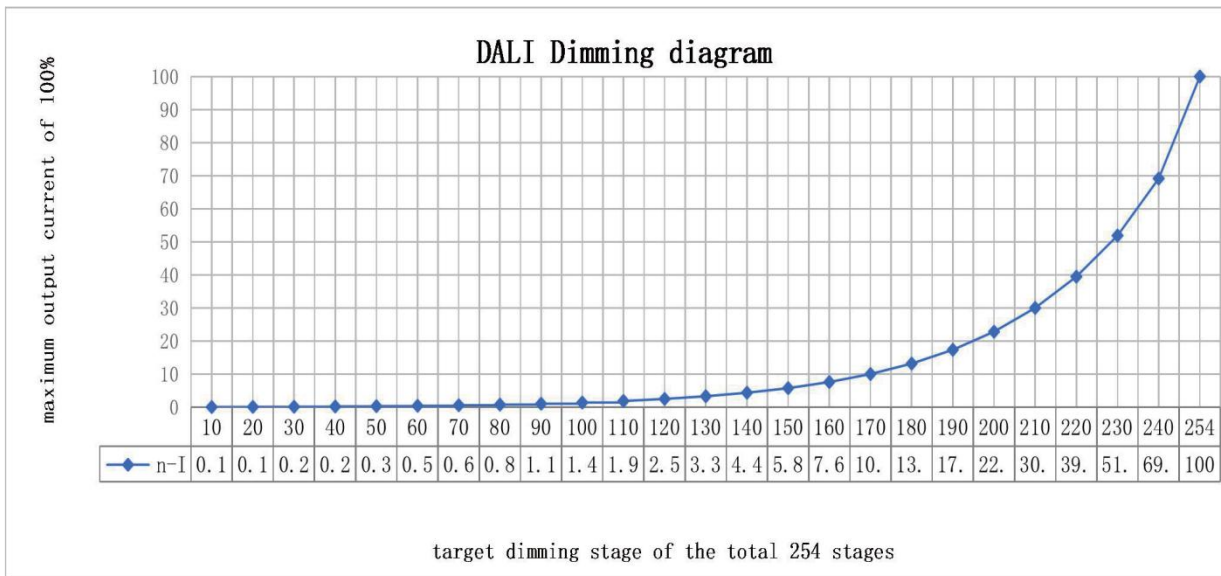
### 6. DALI dimming curve

formula for DALI dimming.

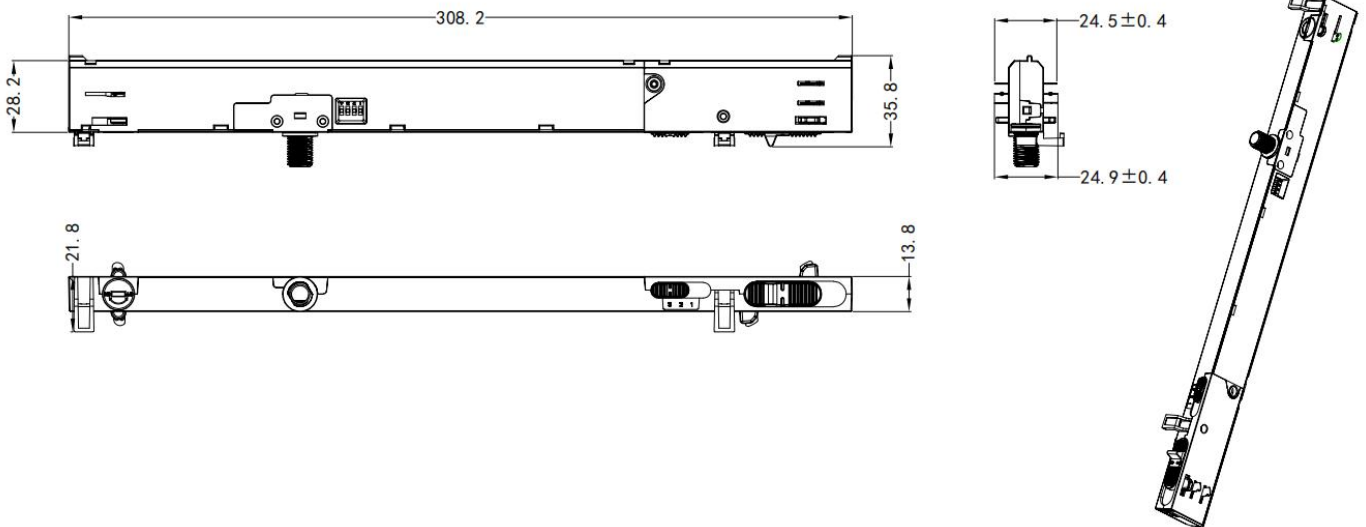
$$X(n) = 10^{\left\{ \left[ \frac{(n-1)}{(253/3)} \right] - 1 \right\}}$$

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

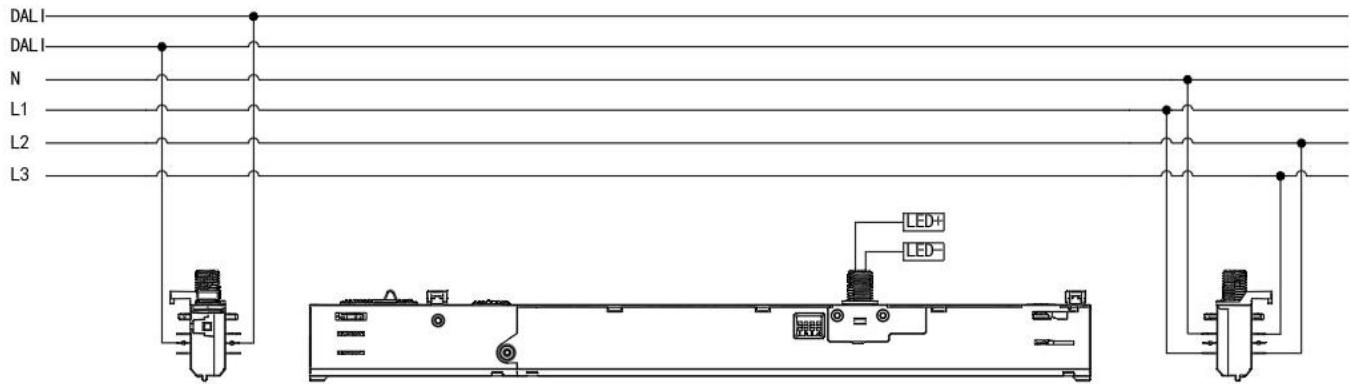
X(n) means the percent of the maximum output current



### 7. Dimension (Unit: mm)



### 8. Wiring Diagram



### 9. Packing information

Packing way	Model	Colour	Carton L*W*H(mm)	Pcs/ Carton	Net weight/ Pcs(kg)	Net weight/ Carton(kg)	Gross weight/ Carton(kg)
industrial	SC30W150-700CG-6W DALI	White	L405*W340*H205	120	0.113	13.56	15.06
	SC30W150-700CG-6B DALI	Black					
	SC30W150-700CG-6G DALI	Grey					

### 10. PUSH DIMMING (see wiring diagram)

#### 10.1 On / off:

Short push (120ms-600ms) on the switch

Stepless dimming: long push (> 0.6sec) on the switch

#### 10.2 Power-on memory function

When the LED driver is powered on, it will restore the memory before the LED driver is powered off. (brightness remembers the brightness after the last dimming is stable, and the brightness during dimming is not memorized).

#### 10.3 Light on/off

If the light is on, the light will be off after a short press. If the light is off, the light will be on after a short press. The time range of short press is 120-600mS.

#### 10.4 PUSH Dimming

Press and hold the push switch for a long time, the light will enter the dimming state, if the previous time is dimming, it will automatically turn to dimming the next time. After releasing the reset button, the dimming stops and the current illuminance is maintained. The dimming range is 3.8%-100%. The default is to dim when the power is first long-press. If the brightness of the power-on is the maximum brightness, the first long-press is to dim. (Long press 0.6-3S to start dimming.)

#### 10.5 Forced synchronization

Long press for 10 seconds to turn on all the lights and turn on the same brightness (50%), and continue to quickly short press will not change. After a short period of time without short press operation, the module exits the synchronization mode, and the short press restores the switch function.

#### 10.6 PUSH Dimming rate

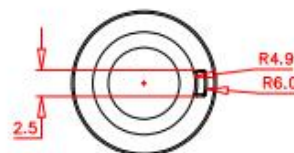
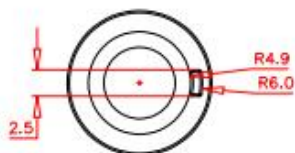
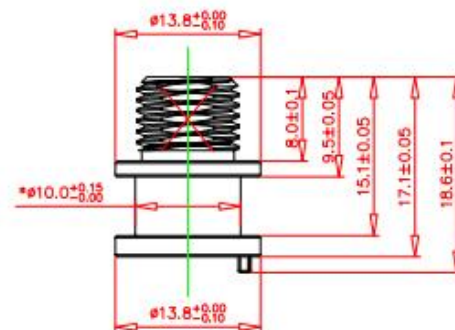
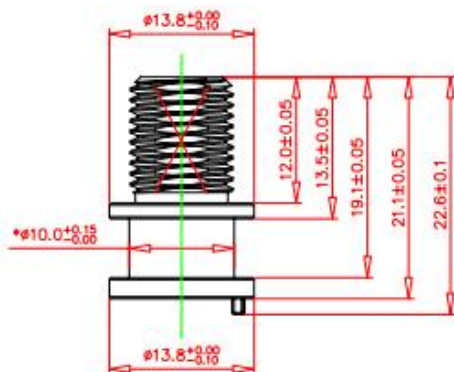
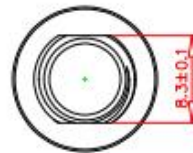
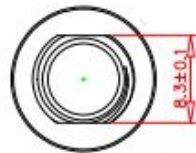
Long press the push switch 10S to switch the dimming rate to 3S, Long press the push switch 20S to switch the dimming rate to 6S, and it can also be changed by MAGIC or production software

### 11. Lamp Screw Type

- Optional threaded sleeve for luminaire mounting
- Suitable for M10x1x8 threaded nut
- Additional mounting equipment, e.g. M10x1x12
- gray, black, white
- further on request

### Ordering data

Type	Colour	Article number	Qty/ctn	Weight(g)/pcs
M10x8	White	AI	PC	5.47
	Black	AI	PC	5.47
	Gray	AI	PC	5.47
M10x12	White	AI	PC	6.13
	Black	AI	PC	6.13
	Gray	AI	PC	6.13



### 12. Suitable for following tracks

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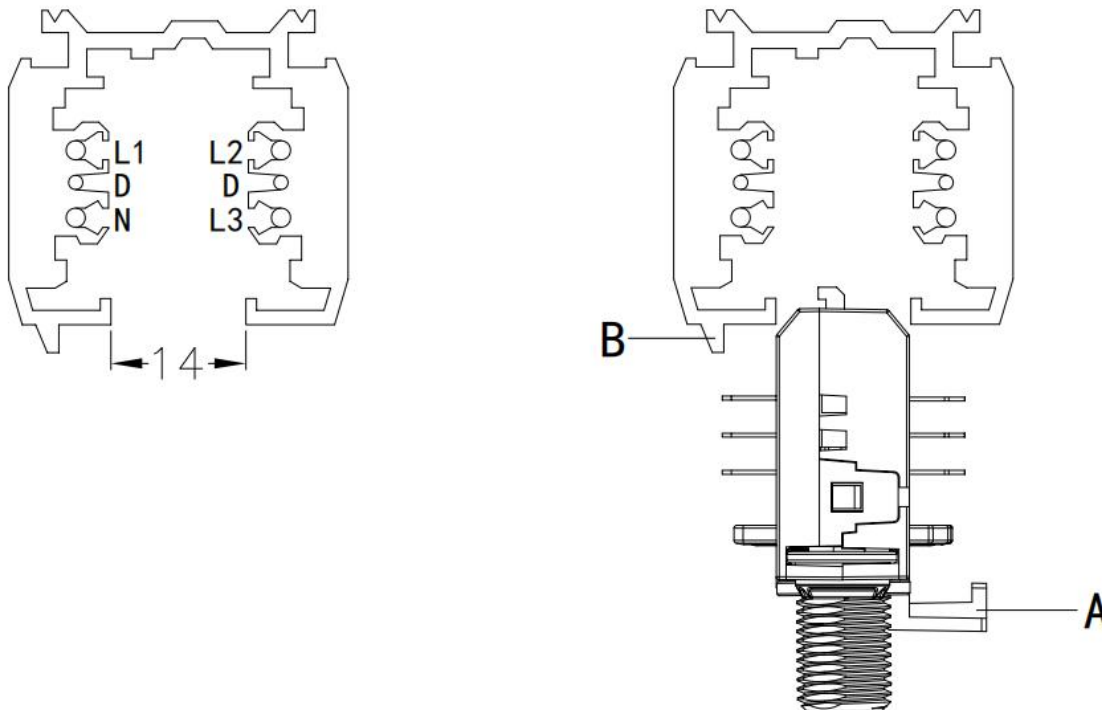
Serial number	Brand	Track model	System
1	Global	XTSC6100	3P
2	POWERGEAR	PRO-0610	3P
3	UNIPRO	TC312W / TC312FW	3P
4	AAG	TEACK 9000A-1-ST	3P

**Remark:**

1. The model name is XTSC6100 tracks, and its brand is Global.
2. The model name used is the PRO-0610 track, and its brand is POWERGEAR.
3. The model name used is the TC312W and TC312FW tracks, and its brand is Unipro.
4. The model name used is the TEACK 9000A-1-ST track, and its brand is AAG.

**KGP does not guarantee the compatibility of the tracks and the track-adapter, because manufacturing tolerances of the tracks or changes made at the tracks by the manufacturer could affect the compatibility between the tracks and the adapter.**

**13. Phase track light rail specification:**



**\*Insert the adapter into the guide rail, paying attention to the positions of mechanical keys (A) and (B).**

**14. Lighting track adapter and rail system installation diagram:**



**The adaptor shall be given that the use is limited to the track system specified.**

### 15. Wiring instructions

- All connections must be kept as short as possible to ensure good EMI behaviour
- Mains leads should be kept apart from LED Driver and other leads (ideally 5 – 10 cm distance)
- Advice the maximum length of output wires is 3 m
- Secondary switching is not permitted ( Except for constant voltage )
- Incorrect wiring can damage LED modules.
- The wiring must be protected against short circuits to earth (sharp edged metals parts, metal cable clips, louver, etc.)

### 16. REVISION HISTORY

DATE	REV	Modification details
2024-8-27	V1.0	Initial release.
2025-7-24	V1.1	Shell modification
2025-8-06	V1.2	Update the life curve chart, Update label drawings
2025-8-25	V1.3	Update dimension diagram