

Model	Item Code	Output current	Output power range	PF	Efficiency	Output voltage	No load voltage
SC42W300-1050CG6-W-DALI-NX SC42W300-1050CG6-B-DALI-NX SC42W300-1050CG6-G-DALI-NX	160970 160980 160990	300mA	3.00-12.60W	0.86	84%	10-42V	59V
		350mA	3.50-14.70W	0.87	85%		
		400mA	4.00-16.80W	0.88	85%		
		450mA	4.50-18.90W	0.89	86%		
		500mA	5.00-21.00W	0.90	86%		
		550mA	5.50-23.10W	0.91	87%		
		600mA	6.00-25.20W	0.92	87%		
		650mA	6.50-27.30W	0.93	87%		
		700mA	7.00-29.40W	0.94	87%		
		750mA	7.50-31.50W	0.94	87%		
		800mA	8.00-33.60W	0.95	87%		
		850mA	8.50-34.00W	0.95	87%	10-40V	
		900mA	9.00-36.00W	0.96	87%		
		950mA	9.50-38.00W	0.96	87%		
		1000mA	10.00-40.00W	0.97	87%		
		1050mA	10.50-42.00W	0.97	87%		

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

1. Parameters

Category	Item	Technical Norm
Features	Output Type	Constant Current,dimmable
	Dimming Type	Amplitude (DALI-2)
	Output Feature	Insulated output(SELV)
	IP Grade	IP20
	Insulation Class	IEC Class II
Input	Rated Input Voltage	220-240VAC,performance range: 202-254VAC
	Range of Input Voltage	198-264VAC or 180-280VDC

	Frequency	0, 50/60Hz (performance range:47-63Hz; operational safety range:45-66Hz)	
	Input Current	$\leq 0.25A$ (230VAC, full load)	
	Input Power	$\leq 48.8W$ (230VAC, full load)	
	Power Factor	0.97 (230VAC, full load)	
	THD	12% (230VAC, full load)	
	Standby power(dim to off)	0.47W @230VAC	
	Inrush Current	I_{peak} $\leq 18A$	240Vac/50Hz, 90-degree phase, full load, cold start-up, duration time measure from 50%I _{pk} to 50%I _{pk}
Output	Output Voltage range	10-42VDC@300-800mA 10-40VDC@850-1050mA	
	No Load Voltage	59VDC Max	
	Output Current	300mA -1050mA (Max. output)	
	Max. Output Power	42W	
	Efficiency	$\geq 87\%$ (230VAC, full load)	
	Current Ripple	$\pm 5\% (I_{max}-I_{min})/(I_{max}+I_{min})$	
	Current Accuracy	$\pm 5\% (I_{max}-I_{min})/(I_{max}+I_{min}) (< 120 \text{ Hz})$ $\pm 5\% (I_{max}-I_{min})/(I_{max}+I_{min}) (> 120 \text{ Hz})$	
	PSTLM	≤ 1 (across entire operating window)	
	SVM	≤ 0.4 (across entire operating window)	
	Current Accuracy	$\pm 5\%$	
	Started Delay Time	$\leq 1.0S$ (230VAC, any load)	
Control Method	Secondary PUSH dimming	Secondary PUSH dimming (Max. lead wire length: 20m,same port of DALI,different phase supported)	
	PUSH-button	Max parallel connections qty for Push-dim 15	
	DALI function	Per IEC62386, DALI dimming (Max. lead wire length: 300m logarithm or linear dimming curve selectable, incl. DALI parts 101,102,207,251,252,253,CLO	
	Dimming range	DALI AM dimming: 1%-100% , Dim to off . Abs. min output current: 10mA	
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	$> 100M \text{ ohm @ } 500VDC$	
	Touch current	$< 250\mu A$, I/P to O/P@230V input per IEC60598-1:2015+A1:2018	
	ESD	Contact Discharge	$\pm 4kV$
		Air Discharge	$\pm 8kV$
Environment	Ta/Operation Temperature	$-20 \dots +35^{\circ}C$;	
	Ts/Storage Temperature	$-25 \dots +85^{\circ}C$	
	Tc/Enclosure Temperature	$85^{\circ}C$	
	Humidity	10%.... 65%RH	
	Storage Humidity	10%....85%RH	
	Atmosphere	86-108KPa	

Construction	Connection Method	Push-in Terminal
	Installation	Independent
	SEC Wire preparation	8-9mm(stripped wire length) 0.5-1.5 □ (solid core or stranded)
	Dimension	238*31*45mm (L*W*H)
Standards	Certification	CE/ENEC
	Safety Standards	EN 61347-1:2015/A1:2021 EN 61347-2-13:2014/A1:2017 EN 62493:2015 AS61347.2.13:2018 AS/NZS61347.1:2016 Inc A1 BS EN 61347-1:2015/A1:2021 BS EN 61347-2-13:2014/A1:2017 BS EN 62493:2015 BS EN IEC 62384:2020
	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 61547:2009
	Performance	EN62384:2020
	Surge	L-N:2kV, DA-DA:0.5kV, 1.2/50us per IEC61000-4-5
Others	RoHS	Complied to 2011/65/EU
	Life Time	100kh @ Tc = 60°C, max. failures= 10%
	Warranty	5years, F.R. < 10000ppm
	Noise	<20dB @ 30cm distance, 15dB background
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. 3.During the PUSH DIM test, the number of parallel connections must be less than 15PCS		

2. Output Current Setting

Output Current	1	2	3	4
300mA	-	-	-	-
350mA	-	-	-	ON
400mA	-	-	ON	-
450mA	-	-	ON	ON
500mA	-	ON	-	-
550mA	-	ON	-	ON
600mA	-	ON	ON	-
650mA	-	ON	ON	ON
700mA	ON	-	-	-
750mA	ON	-	-	ON
800mA	ON	-	ON	-

850mA	ON	-	ON	ON
900mA	ON	ON	-	-
950mA	ON	ON	-	ON
1000mA	ON	ON	ON	-
1050mA	ON	ON	ON	ON

3. Connected quantities of different current Breaker

TYPE	Max. recommended number of drivers per MCB						Input Voltage	Inrush Current (A)	Time (us)
	current (A)	10	13	16	20	25			
	Installation wire diameter	1.5mm²	2.5mm²	2.5mm²	4mm²	4mm²			
TYPE B		33	43	53	66	83	@230VAC	18	2.8
TYPE C		33	43	53	66	83			
TYPE D		33	43	53	66	83			

Numbers above based on max. driver input current and 80% loading of MCB (thermal derating)

4. Label

PUSH CONTROL ☐ DA ☐ DA		 NEXIVO by KGP Electronics GmbH Hueckstraße 19 DE-58511 Lüdenscheld LED Dimmable Driver SC42W300-1050CG6-W-DALI-NX 160970 Constant Current Lighting track adaptors	PRI:220-240VAC 50/60Hz Max.0.24A SEC:300-800mA 10-42VDC 850-1050mA 10-40VDC NO Load:59VDC Max.42W Fmax.50N+ For LED modules only	 ta:35°C tc:85°C  0.5-1.5 6-9mm	   1 2 3 4 ON OFF	<table><tr><th>Pout (W)</th><th>Iout (mA)</th><th>Iin(A)</th><th>λ</th><th>1</th><th>2</th><th>3</th><th>4</th><th>Pout (W)</th><th>Iout (mA)</th><th>Iin(A)</th><th>λ</th><th>1</th><th>2</th><th>3</th><th>4</th></tr><tr><td>12.6</td><td>300</td><td>0.09</td><td>0.86C</td><td>-</td><td>-</td><td>-</td><td>-</td><td>29.4</td><td>700</td><td>0.18</td><td>0.94C</td><td>ON</td><td>-</td><td>-</td><td>-</td></tr><tr><td>14.7</td><td>350</td><td>0.10</td><td>0.87C</td><td>-</td><td>-</td><td>-</td><td>ON</td><td>31.5</td><td>750</td><td>0.19</td><td></td><td>ON</td><td>-</td><td>-</td><td>ON</td></tr><tr><td>16.8</td><td>400</td><td>0.12</td><td>0.88C</td><td>-</td><td>-</td><td>ON</td><td>-</td><td>33.6</td><td>800</td><td>0.21</td><td></td><td>ON</td><td>-</td><td>ON</td><td>-</td></tr><tr><td>18.9</td><td>450</td><td>0.13</td><td>0.89C</td><td>-</td><td>-</td><td>ON</td><td>ON</td><td>34</td><td>850</td><td>0.22</td><td></td><td>ON</td><td>-</td><td>ON</td><td>ON</td></tr><tr><td>21</td><td>500</td><td>0.14</td><td>0.90C</td><td>-</td><td>ON</td><td>-</td><td>-</td><td>36</td><td>900</td><td></td><td>0.23</td><td>ON</td><td>ON</td><td>-</td><td>-</td></tr><tr><td>23.1</td><td>550</td><td>0.15</td><td>0.91C</td><td>-</td><td>ON</td><td>-</td><td>ON</td><td>38</td><td>950</td><td></td><td>0.24</td><td>ON</td><td>ON</td><td>ON</td><td>-</td></tr><tr><td>25.2</td><td>600</td><td>0.16</td><td>0.92C</td><td>-</td><td>ON</td><td>ON</td><td>-</td><td>40</td><td>1000</td><td></td><td></td><td>ON</td><td>ON</td><td>ON</td><td>ON</td></tr><tr><td>27.3</td><td>650</td><td>0.17</td><td>0.93C</td><td>-</td><td>ON</td><td>ON</td><td>ON</td><td>42</td><td>1050</td><td></td><td></td><td>ON</td><td>ON</td><td>ON</td><td>ON</td></tr></table>	Pout (W)	Iout (mA)	Iin(A)	λ	1	2	3	4	Pout (W)	Iout (mA)	Iin(A)	λ	1	2	3	4	12.6	300	0.09	0.86C	-	-	-	-	29.4	700	0.18	0.94C	ON	-	-	-	14.7	350	0.10	0.87C	-	-	-	ON	31.5	750	0.19		ON	-	-	ON	16.8	400	0.12	0.88C	-	-	ON	-	33.6	800	0.21		ON	-	ON	-	18.9	450	0.13	0.89C	-	-	ON	ON	34	850	0.22		ON	-	ON	ON	21	500	0.14	0.90C	-	ON	-	-	36	900		0.23	ON	ON	-	-	23.1	550	0.15	0.91C	-	ON	-	ON	38	950		0.24	ON	ON	ON	-	25.2	600	0.16	0.92C	-	ON	ON	-	40	1000			ON	ON	ON	ON	27.3	650	0.17	0.93C	-	ON	ON	ON	42	1050			ON	ON	ON	ON
Pout (W)	Iout (mA)	Iin(A)	λ	1	2	3	4	Pout (W)	Iout (mA)	Iin(A)	λ	1	2	3	4																																																																																																																																							
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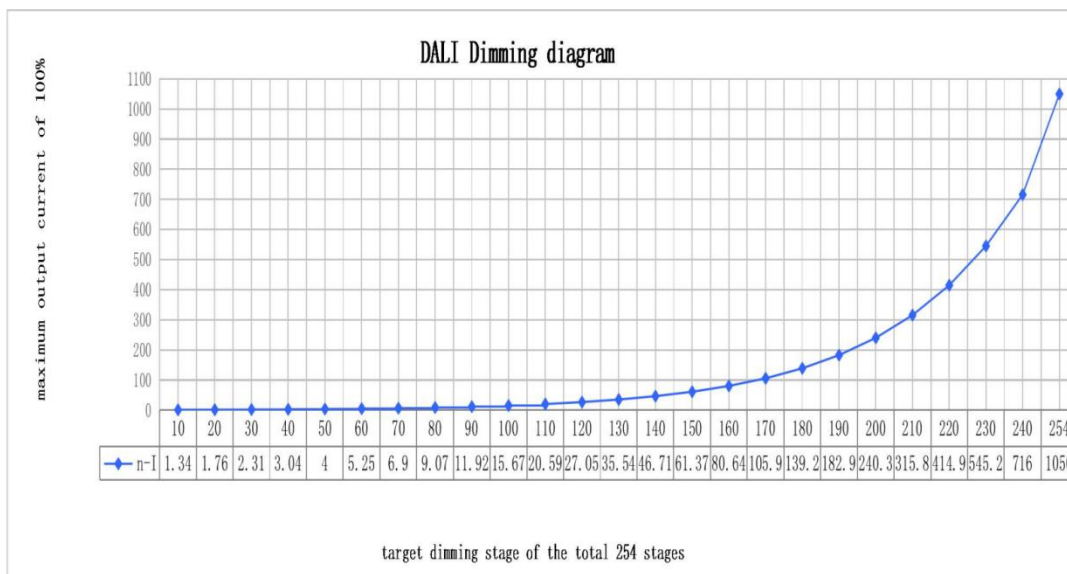
5. DALI dimming curve

formula for DALI dimming.

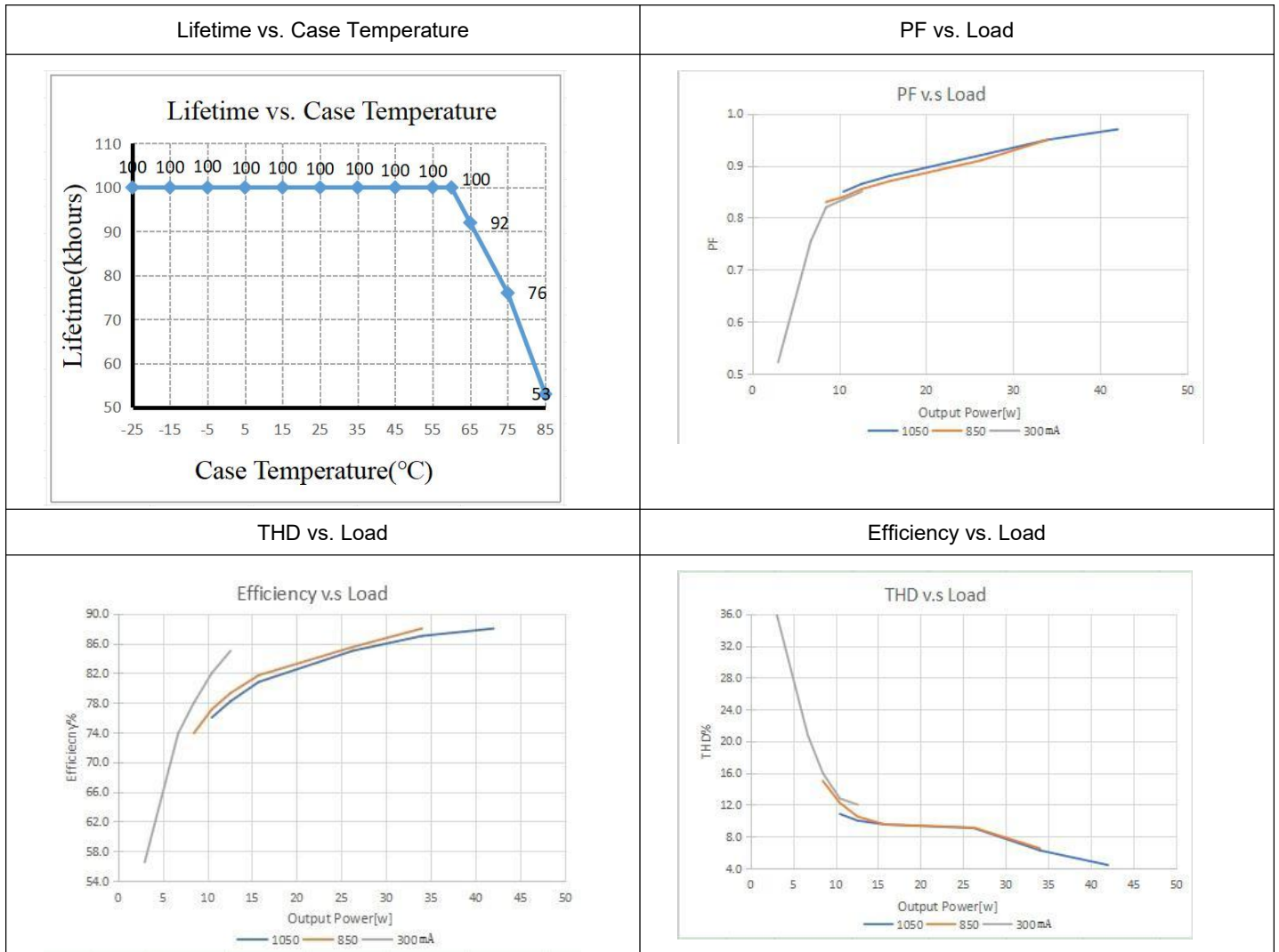
$$X(n)=10^{\frac{(n-1)}{(253/3)}-1},$$

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

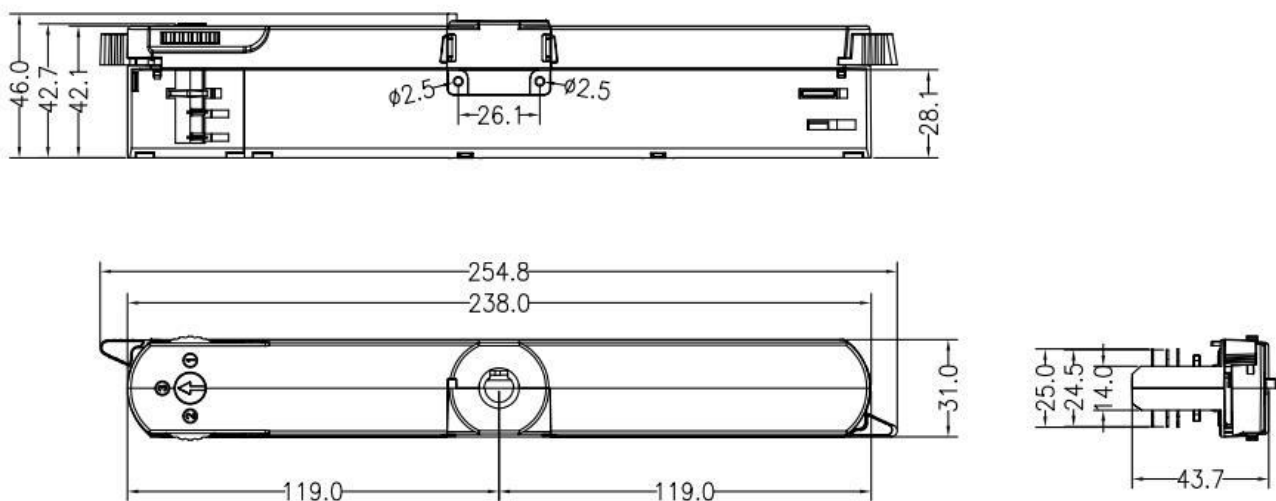
X(n) means the percent of the maximum output current



6. Electrical values



7. Dimension



8. Wiring Diagram

Fig. A: Push Dimming

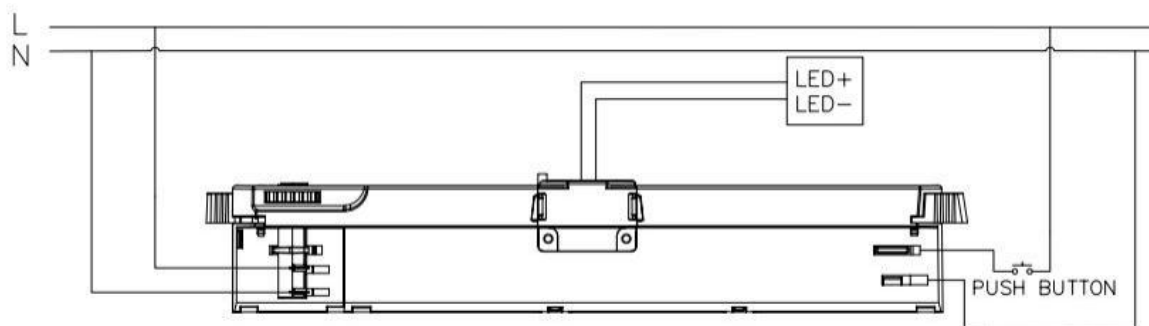
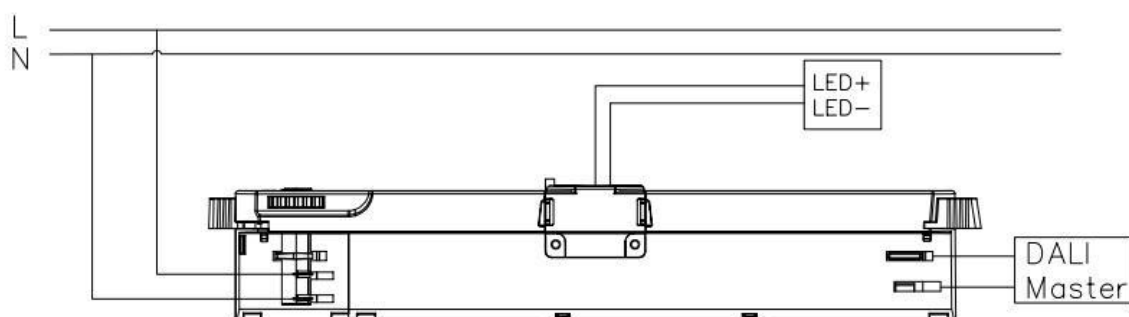


Fig. B: DALI Dimming



Note: Output lines with a length of less than 3 meters can pass EMI testing.

1. The factory default brightness is at 100%.
2. Up to 15 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. Packing information

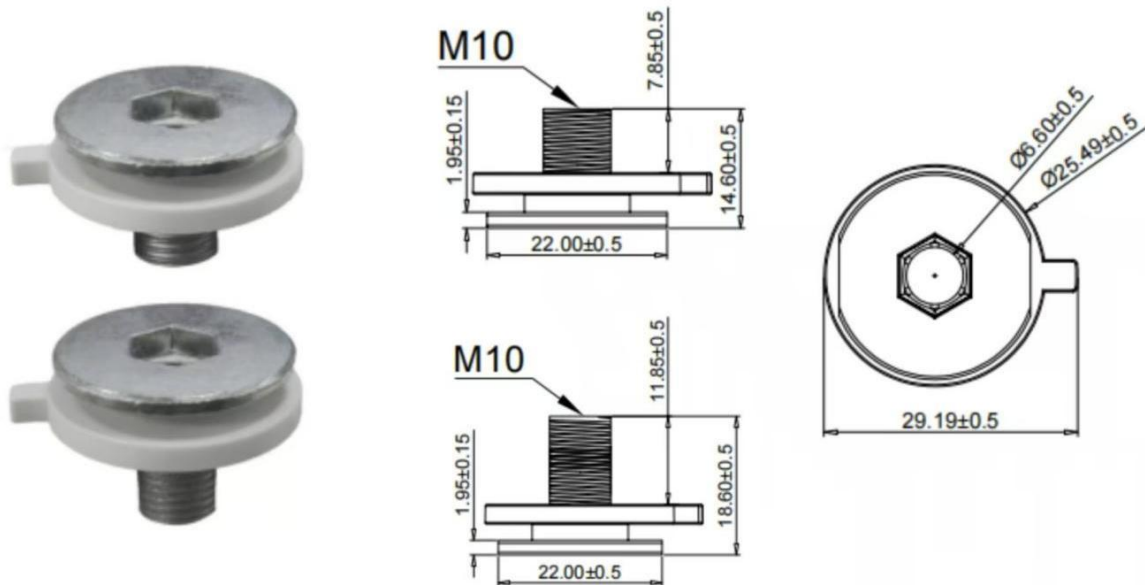
Packing way	Model	Color	Carton L*W*H(mm)	Pcs/ Carton	Net weight/ Pcs(kg)	Net weight/ Carton(kg)	Gross weight / Carton(kg)
Industrial	SC42W300-1050CG-6W-DALI-NX	White	385*270*230	40	0.15	6.00	7.50
	SC42W300-1050CG-6B-DALI-NX	Black					
	SC42W300-1050CG-6G-DALI-NX	Grey					

10. Ordering data

Model No	Item code
SC42W300-1050CG6-W-DALI-NX	160970
SC42W300-1050CG6-B-DALI-NX	160980
SC42W300-1050CG6-G-DALI-NX	160990
NIP M10x1x8 B G2	142261
NIP M10x1x8 G G2	142271
NIP M10x1x8 W G2	142281
NIP M10x1x12 B G2	142211
NIP M10x1x12 G G2	142221
NIP M10x1x12 W G2	142231

11. Lamp Screw Type

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



12. Suitable for following tracks

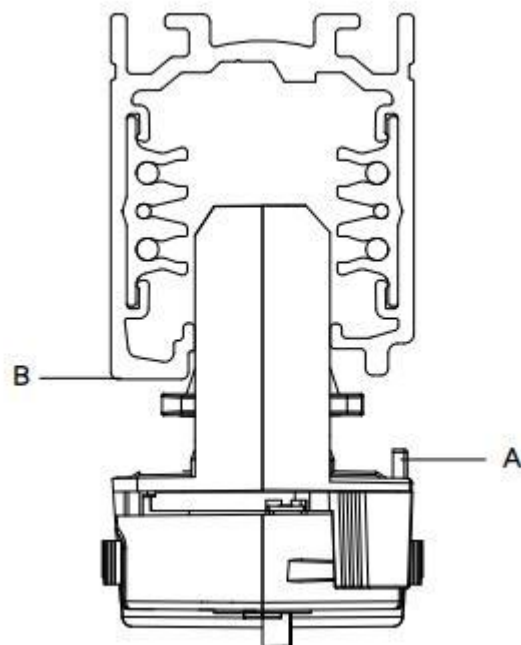
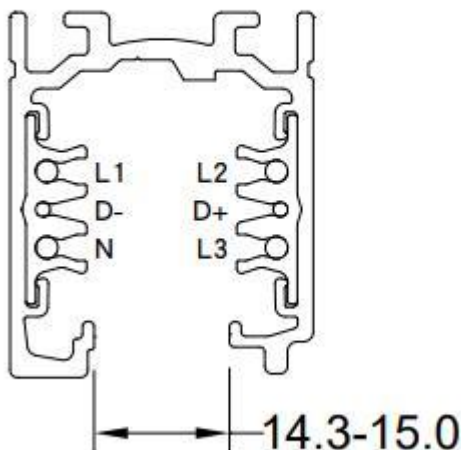
Serial number	Brand	Track model	System
1	Global	XTS11 & XTSC611	3P
2	A.A.G STUCCHI	9000A-2-ST	3P
3	Eutrac	25-106	3P
4	Unipro	T32B	3P
5	PowerGEAR	Pro-0431L	3P
6	ERCO	1079301000	3P

Remark:

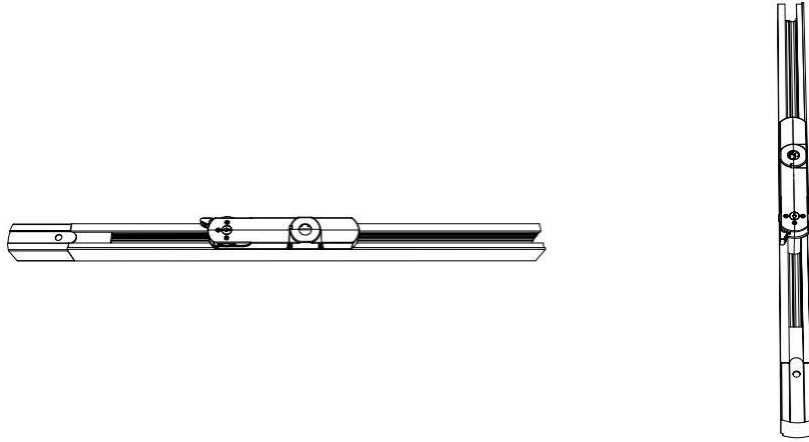
1. The model name is XTS11 and XTSC611 tracks, and its brand is Global.
2. The model name used is the 9000A-2-ST track, and its brand is A.A.G STUCCHI.
3. The model name is 25-106 tracks, and its brand is Eutrac.
4. The model name is T32B tracks, and its brand is Unipro.
5. The model name is Pro-0431L tracks, and its brand is PowerGEAR.
6. The model name is 1079301000 tracks, and its brand is ERCO.
7. If other brands are suitable, please communicate and consult first

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:



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.)
- Hot plug-in is not supported due to residual output voltage of > 0 V up to mains voltage. Danger to life.
- When connecting an LED load, restart the device to activate the LED output.
- This can be done via mains reset or via interface (DALI, DSI, switch DIM).

16. Replace LED module

- Mains off
- Remove LED module
- Wait for 30 seconds
- Connect LED module again
- Hot plug-in or secondary switching of LEDs is not permitted and may cause a very high current to the LEDs

17. Functions

17.1 OEM Identification

The OEM (Original Equipment Manufacturer) can set his own identification number.

DALI Part 251: Memory bank 1 extension.

17.2 OEM GTIN

The Original Equipment Manufacturer (OEM) can set his own Global Trade Item Number (GTIN).

DALI Part 251: Memory bank 1 extension.

17.3 Luminaire data

This function provides the asset management with accurate data about the luminaire.

17.4 LED current

The LED output current must be adapted to the connected LED module.

The value is limited by the current range of the respective device.

The output current of the LED driver can be adjusted in a certain range.

More functions:

Action	Action duration	Function
Short push	<0.6s	Turn on/off
Short push five Times	<3s	Quit Corridor mode
Long push	0.6-3s	Dimming up or down
Long push	10s	Sync all LEDs to be 50% brightness, and the dimming rate is changed to 3S
Long push	20s	Dimming rate is changed to 6S
Long push	>2mins	Enter Corridor mode - LED keep 100% brightness for 2mins.

17.5 Switch DIM

Integrated Switch DIM function allows a direct connection of a push button for dimming and switching.

Brief push (< 0.6 s) switches LED driver ON and OFF. The dim level is saved at power-down and restored at power-up. When the push button is held, LED modules are dimmed. After repush the LED modules are dimmed in the opposite direction.

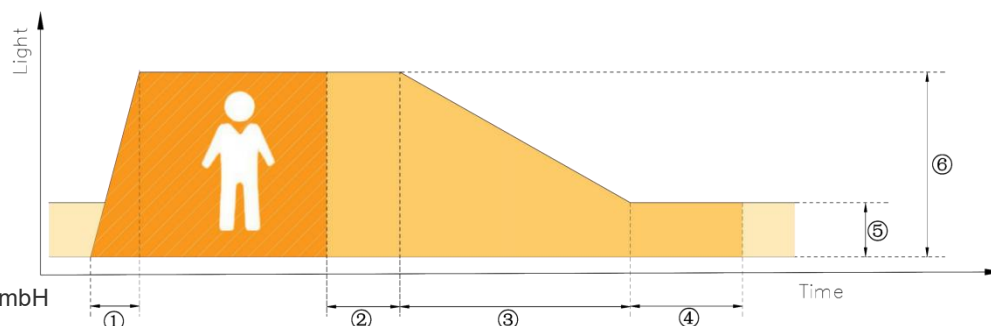
In installations with LED drivers with different dimming levels or opposite dimming directions (e.g. after a system extension), all LED drivers can be synchronized to 50 % dimming level by a 10 s push.

Use of push button with indicator lamp is not permitted.

17.6 Corridor FUNCTION

With the Corridor FUNCTION and a commercially available motion detector, it is easy to adapt the lighting in one area to its use. That is, when the area is entered by a person, the lighting dims instantly to the desired brightness and is available in full strength. After the area is left by the person, the brightness dims slowly to a smaller value or switches off completely.

The individual parameters of the desired profile, such as brightness values or delay times, can be adjusted flexibly and individually.



- ① Fade-in time(1s): 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.

17.7 Constant Light Output (CLO)

With this function the light output of the LED module can be kept equal over the lifetime.

The light output of an LED module reduces over the course of its lifetime.

The Constant Light Output (CLO) function compensates for this natural decline by constantly increasing the output current of the LED driver throughout its lifetime.

CLO shall be achieved by limitation of the LED current at the commissioning of the LED driver and providing a linear interpolation of the current over the time, depending on the data points given by the user.

The user has to insert up to eight pairs of data (time, level).

The output curve is the result of connecting the user data points linear.

Detailed description for CLO see product manual.

The minimal CLO starting point is limited by the smallest output current of the LED driver.

17.8 Dimming curve

DALI: The desired dimming behaviour is selected via two different dimming curves (logarithmic or linear).

The default setting of the dimming behaviour is logarithmic.

18. Revision history

Date	Revision	Remark
2026.16.03	V0.01	Product release