

Constant Current Dimmable Driver

Model:SC28W150-700CG-6X DALI



Model	Output Current	Input Current	Input Power	Output Power Range	PF	Efficiency	Output Voltage	No load Voltage
SC28W150-700CG-6W DALI/ SC28W150-700CG-6B DALI/ SC28W150-700CG-6G DALI	150mA	0.10A	7.70W	1.50-6.00W	0.75	77%	10-40V	59V
	200mA	0.11A	10W	2.00-8.00W	0.80	80%	10-40V	59V
	250mA	0.12A	12.2W	2.50-10.00W	0.82	82%	10-40V	59V
	300mA	0.13A	14.6W	3.00-12.00W	0.85	84%	10-40V	59V
	350mA	0.14A	16.9W	3.50-14.00W	0.88	84%	10-40V	59V
	400mA	0.15A	19W	4.00-16.00W	0.90	85%	10-40V	59V
	450mA	0.16A	21.5W	4.50-18W	0.91	85%	10-40V	59V
	500mA	0.17A	23.8W	5.00-20W	0.92	85%	10-40V	59V
	550mA	0.18A	26.2W	5.50-22W	0.94	86%	10-40V	59V
	600mA	0.19A	28.2W	6.00-24W	0.95	86%	10-40V	59V
	650mA	0.20A	30.6W	6.50-26W	0.95	86%	10-40V	59V
	700mA	0.21A	32.9W	7.00-28W	0.95	86%	10-40V	59V

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

1. Parameters

Category	Item	Technical Norm
Features	Output Type	Constant Current
	Dimming Type	DALI 2
	Output Features	Isolation
	IP Grade	IP20
	Insulation Class	Class II
Input	Rated Input Voltage	220-240VAC
	Range of Input Voltage	198-264VAC or 180-280VDC
	Frequency	50/60Hz
	Input Current	≤0.21A (230VAC, full load)
	Input Power	≤32.9W (230VAC, full load)
	Power Factor	≥0.95 (230VAC, full load)
	THD	≤20% (230VAC, full load)
	Standby power(dim to off)	≤0.5W @230VAC
Output	Output Voltage Range	10-40VDC

	No Load Voltage	59VDC Max.
	Output Current	150mA -700mA (Max. output)
	Max. Output Power	28W
	Efficiency	≥86% (230VAC, full load)
	Current Ripple(< 120 Hz)	±5% (Imax-Imin)/(Imax+Imin)
	PstLM	≤1
	SVM	≤0.4
	Current Accuracy	±5%
	Started Delay Time	≤0.5S (230VAC, full load)
Control Method	Secondary PUSH dimming	Secondary PUSH dimming (Max. lead wire length : 20m,same port of DALI)
	PUSH-button	Max parallel connections qty for Push-dim 15
	DALI function	DALI dimming (Max. lead wire length: 300m) logarithm or linear dimming curve selectable DALI-2 certified incl. Parts 251, 252, 253 , CLO
	Dimming range	DALI dimming: 1%-100% , Dim to off .
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	< 250μA, I/P to O/P or I/P to PE @230V input
Environment	Ta/Operation Temperature	-25....+35℃
	Ts/Storage Temperature	-30....+85℃
	Tc/Enclosure Temperature	85℃
	Humidity	10%....90%RH
	Atmosphere	86-108KPa
Construction	Connection Method	Push-in Terminal
	Installation	Independent
	SEC Wire preparation	0.5-1.5□
	Dimension	198*31*45mm (L*W*H)
Standards	Certification	CE ENEC SAA UKCA CB
	Safety Standards	EN 61347-1:2015/A1:2021 EN 61347-2-13:2014/A1:2017 EN IEC 62384:2020 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 N IEC 55015:2019/A11:2020 EN IEC 61000-3-2:2019/A1:2021 EN 61000-3-3:2013/A2:2021 EN 61547:2009

Others	Performance	EN62384:2020
	Surge	L-N/2KV
	RoHS	complied to 2011/65/EU
	Life Time	50000h @Ta/ Tc
	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.
- 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
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	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		60	78	96	120	150	@230VAC	10	2.8
TYPE C		96	125	154	192	240			
TYPE D		154	200	246	307	384			

4. Label

KGP
KGP Electronics GmbH
Hueckstraße 19
DE-58511 Lüdenscheld

PRI:220-240VAC 50/60Hz Max.0.21A
SEC:150-700mA 10-40VDC
No Load:59VDC Max.28W Fmax.50N ↓
For LED modules only

LED Dimmable Driver ta:35°C tc:85°C
SC28W150-700CG-6W DALI
Constant Current Lighting track adaptors

UK
CA
SELV

PUSH-CONTROL L N DALI

Port	Iout	Iin	λ	1	2	3	4
6	150	0.10	0.75C	-	-	-	-
8	200	0.11	0.84C	-	-	-	ON
10	250	0.12	0.88C	-	-	-	ON
12	300	0.13	0.88C	-	-	ON	ON
14	350	0.14	0.90C	-	ON	-	-
16	400	0.15	0.91C	-	ON	-	ON
18	450	0.16	0.92C	-	ON	ON	-
20	500	0.17	0.94C	-	ON	ON	ON
22	550	0.18	0.94C	ON	-	-	-
24	600	0.19	0.95	ON	-	-	ON
26	650	0.20	0.95	ON	-	ON	-
28	700	0.21	0.95	ON	-	ON	ON

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Port	Iout	Iin	λ	1	2	3	4
6	150	0.10	0.75C	-	-	-	-
8	200	0.11	0.84C	-	-	-	ON
10	250	0.12	0.88C	-	-	-	ON
12	300	0.13	0.88C	-	-	ON	ON
14	350	0.14	0.90C	-	ON	-	-
16	400	0.15	0.91C	-	ON	-	ON
18	450	0.16	0.92C	-	ON	ON	-
20	500	0.17	0.94C	-	ON	ON	ON
22	550	0.18	0.94C	ON	-	-	-
24	600	0.19	0.95	ON	-	-	ON
26	650	0.20	0.95	ON	-	ON	-
28	700	0.21	0.95	ON	-	ON	ON

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Port	Iout	Iin	λ	1	2	3	4
6	150	0.10	0.75C	-	-	-	-
8	200	0.11	0.84C	-	-	-	ON
10	250	0.12	0.88C	-	-	-	ON
12	300	0.13	0.88C	-	-	ON	ON
14	350	0.14	0.90C	-	ON	-	-
16	400	0.15	0.91C	-	ON	-	ON
18	450	0.16	0.92C	-	ON	ON	-
20	500	0.17	0.94C	-	ON	ON	ON
22	550	0.18	0.94C	ON	-	-	-
24	600	0.19	0.95	ON	-	-	ON
26	650	0.20	0.95	ON	-	ON	-
28	700	0.21	0.95	ON	-	ON	ON

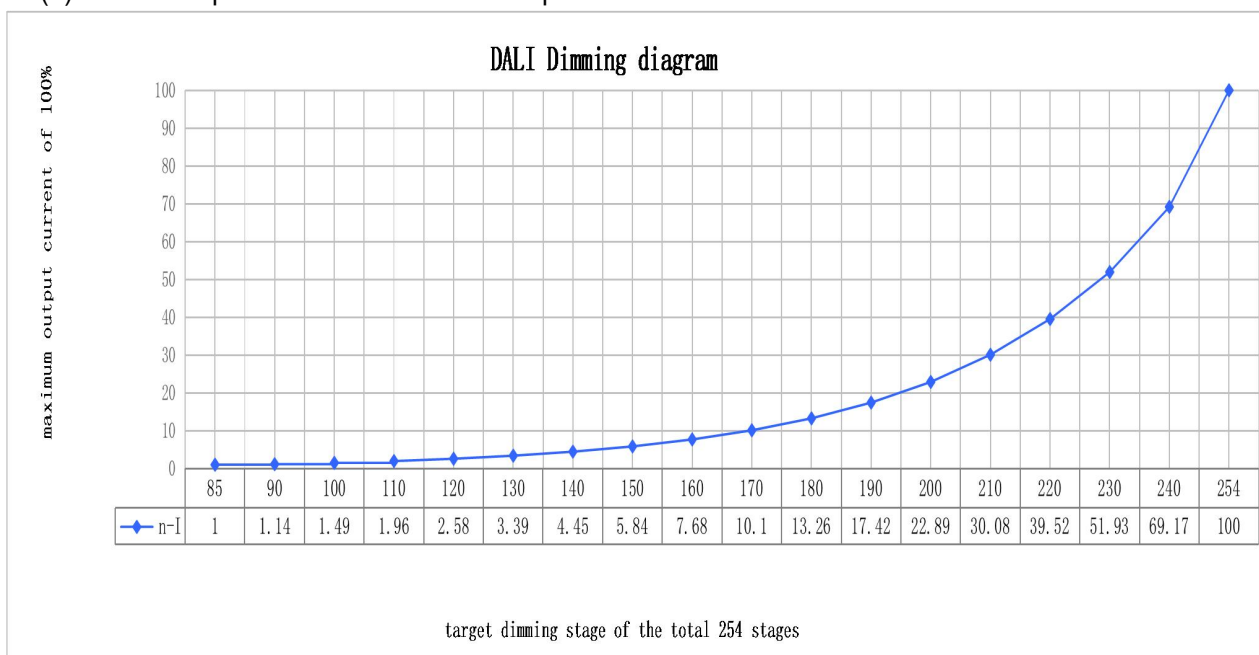
5. DALI dimming curve

formula for DALI dimming.

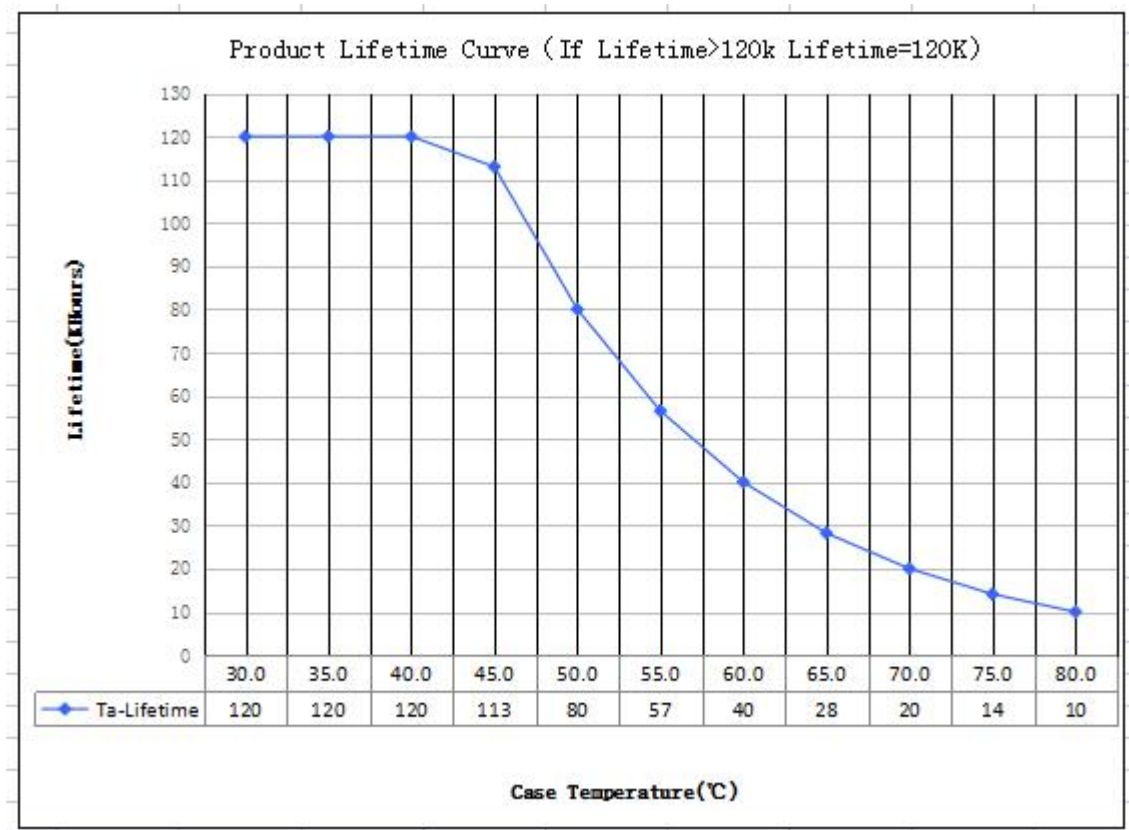
$$X(n)=10^{\{[(n-1)/(253/3)]-1\}},$$

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

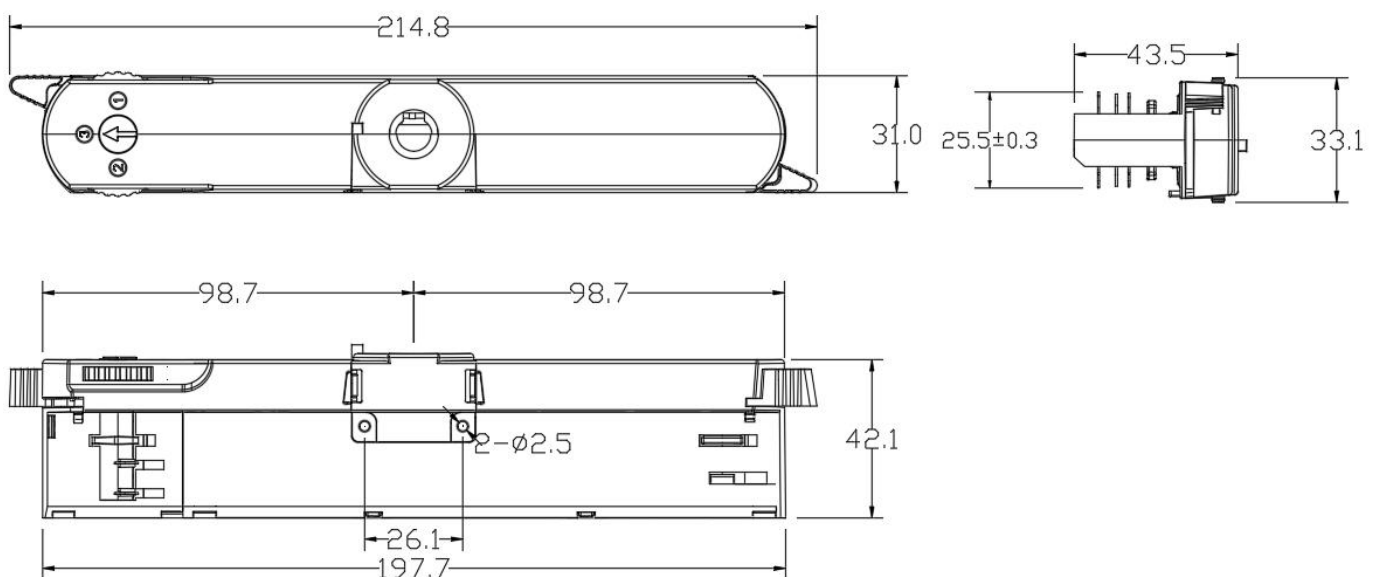
X(n) means the percent of the maximum output current



6. Lifetimecurve



7. Dimension



8. Wiring Diagram
Fig. A: Push Dimming

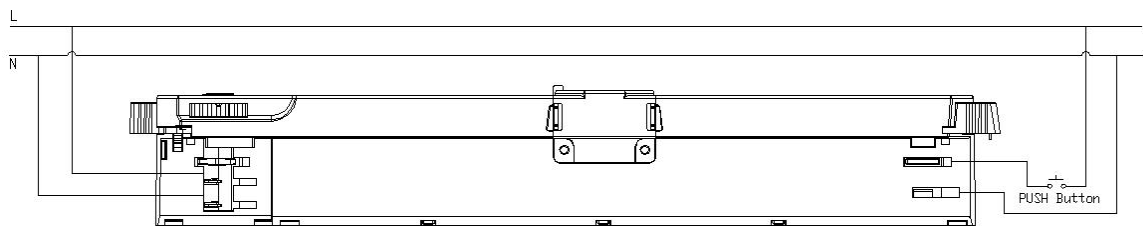
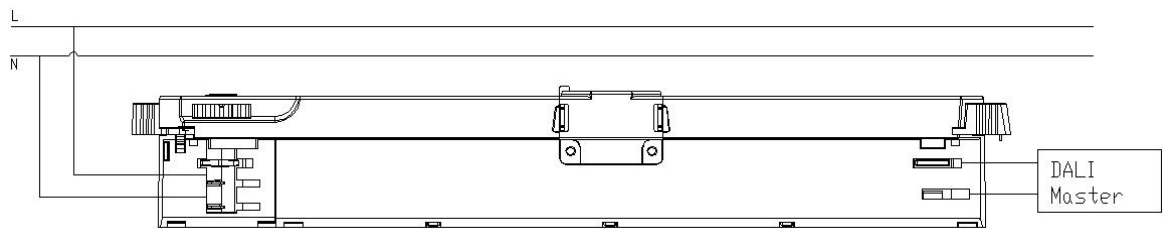


Fig. B: DALI Dimming



9. Packing information

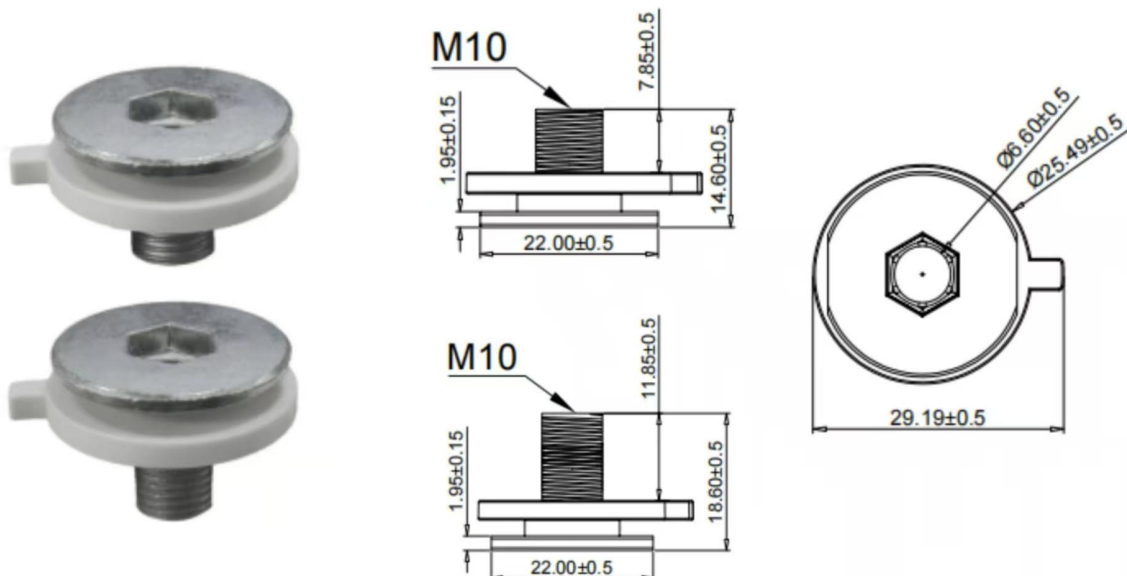
Packing way	Model	Colour	Carton L*W*H(mm)	Pcs/ Carton	Net weight/ Pcs(kg)	Net weight/ Carton(kg)	Gross weight/ Carton(kg)
industrial	SC28W150-700CG-6W DALI	White	515*274*370	120	0.12	14.4	14.9
	SC28W150-700CG-6B DALI	Black					
	SC28W150-700CG-6G DALI	Grey					

10. Lamp Screw Type

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

Ordering data

Type	Colour	Qty/ctn	Weight/pcs
M10x1x8	White	2500	9.31
	Black	2500	9.31
	Grey	2500	9.31
M10x1x12	White	2500	10.01
	Black	2500	10.01
	Grey	2500	10.01



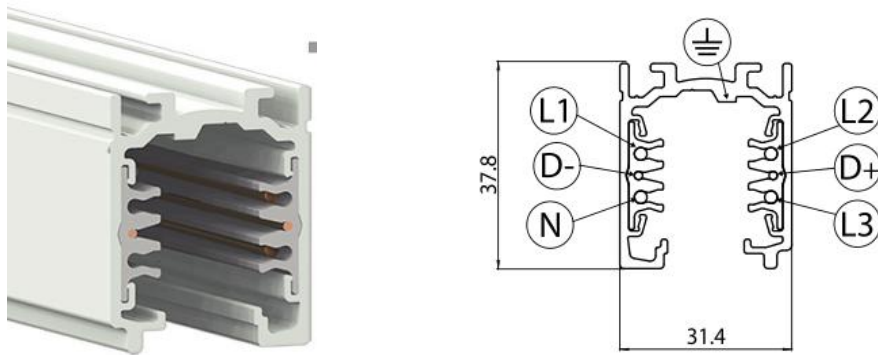
11. Suitable for following tracks

Serial number	Brand	Track model	System
1	Global	XTSC611	3P
2	A.A.G STUCCHI	9000A-2-ST	3P
3	Unipro	T32B	3P
4	PowerGEAR	Pro-D631R	3P

Remark:

1. The model name is 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 T32B tracks, and its brand is Unipro.
4. The model name is Pro-D631R tracks, and its brand is PowerGEAR
5. If other brands are suitable, please communicate and consult first.

12. Phase track light rail specification:



13. Lighting track adapter and rail system installation diagram:



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

14. 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.)



15. REVISION HISTORY

DATE	VER	REMARK
2023-06-20	V1.0	Initial release.
2023-06-21	V1.1	No load power change to Standby power(dim to off)
2024-09-02	V1.2	Update nipple and compatible track
2024-09-02	V1.3	Update nipple