Track Adapters DALI

SC28W150-700CG-6X DALI HE
SC42W300-1050CG-6X DALI HE



Constant current lighting track adapters

Product features

- Dip Switch selectable current output
- Supply voltage 220-240 Vac ± 10%
- Range input voltage 198-264 Vac
- Range DC input voltage 180-280Vdc
- Frequency: 50/60 Hz
- Class II
- Power factor ≥0,95 (at full load)
- Low Ripple ±5%
- Low THD ≤15% (at full load)
- Dimming range 0.1to 100 %
- Type of protection: IP20
- SELV
- 50.000 Hours lifetime (At Tc Max.)
- 5 Years guarantee

Product benefit

- Flexible configuration with Dip Switch
- Wide voltage range (10-42V)
- Flexible configuration via DALI-2

Application

- Shops
- Home living room/ Dining room
- Residential
- Office/Co working space
- Art museum / Exhibition space
- Track lights



Product parameters

Model	Watt Range	Input Voltage	Mains current (mA)	Inrush current (A/μs)	DC Operation Range	Output Voltage	Output Current	Efficiency (typical)	Power factor (full load)	Rippel 100Hz(%)
SC28W150-700CG-6W DALI HE SC28W150-700CG-6B DALI HE SC28W150-700CG-6G DALI HE	1.50-6.0W	220-240VAC	0.05A	25A/4μS	180-280VDC	10-40V	150mA	84%	0.72	±5%
	2.00-8.0W		0.06A				200mA	86%	0.80	
	2.50-10.0W		0.07A				250mA	88%	0.88	
	3.00-12.0W		0.08A				300mA	89%	0.92	
	3.50-14.0W		0.09A				350mA	90%	0.94	
	4.00-16.0W		0.10A				400mA	90%	0.95	
	4.50-18.0W		0.11A				450mA	90%	0.95	
	5.00-20.0W		0.12A				500mA	91%	0.95	
	5.50-22.0W		0.13A				550mA	91%	0.95	
	6.00-24.0W		0.14A				600mA	91%	0.95	
	6.50-26.0W		0.16A				650mA	91%	0.95	
	7.00-28.0W		0.17A				700mA	91%	0.95	
SC42W300-1050CG-6W DALI HE SC42W300-1050CG-6B DALI HE SC42W300-1050CG-6G DALI HE	3.00-12.6W	220-240VAC	0.08A	25A/4μS	180-280VDC	10-42V	300mA	88%	0.90	±5%
	4.00-14.7W		0.09A				350mA	89%	0.95	
	4.00-16.8W		0.10A				400mA	90%	0.96	
	4.50-18.9W		0.12A				450mA	90%	0.96	
	5.00-21.0W		0.13A				500mA	91%	0.96	
	5.50-23.1W		0.14A				550mA	91%	0.96	
	6.00-25.2W		0.15A				600mA	91%	0.96	
	6.50-27.3W		0.16A				650mA	91%	0.96	
	7.00-29.4W		0.18A				700mA	91%	0.96	
	7.50-31.5W		0.19A				750mA	91%	0.96	
	8.00-33.6W		0.20A				800mA	91%	0.96	
	8.50-35.7W		0.21A				850mA	91%	0.96	
	9.00-37.8W		0.23A				900mA	91%	0.96	
	9.50-38.0W		0.23A			10-40V	950mA	91%	0.96	
	9.50-40.0W		0.24A				1000mA	91%	0.97	
	10.50-42.0W		0.25A				1050mA	91%	0.97	

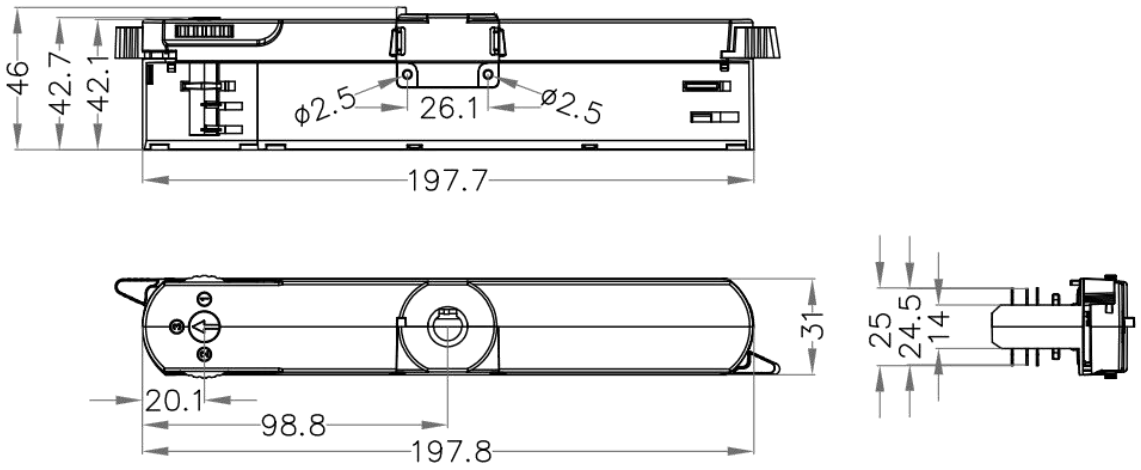
Operational temperatures and humidity

Ambient temperature range	-20 ... +35℃
Operation humidity range	10 ... 95%
Storage temperature range	-25 ... +85℃
Storage humidity range	5 ... 95%
Maximum temperature at tc point	70℃@28W 75℃@42W

Expected lifetime

Expected lifetime at measured temp. at tc point	Tc=70℃ for 28W Tc=75℃ for 42W	50000h

Dimensions:197.8*31*46mm (L*W*H)

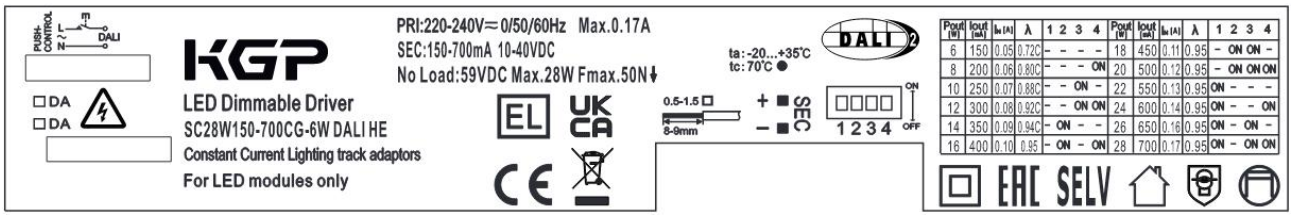


Wiring And Connections

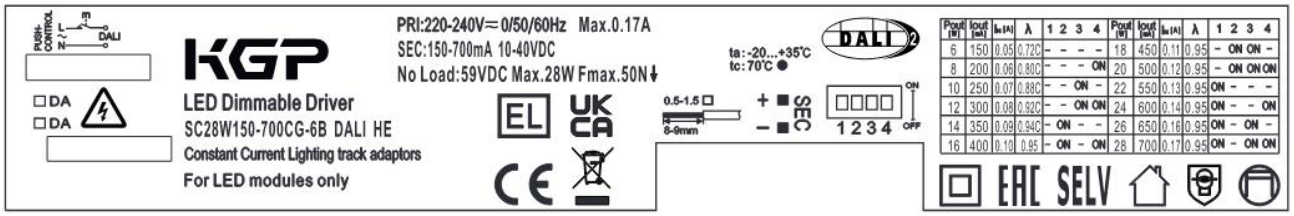
Connectors	Push in terminal
Output wire cross-section	0.5-1.5 mm²
Output wire strip length	8-9 mm
Maximum length	3 m

Product Label

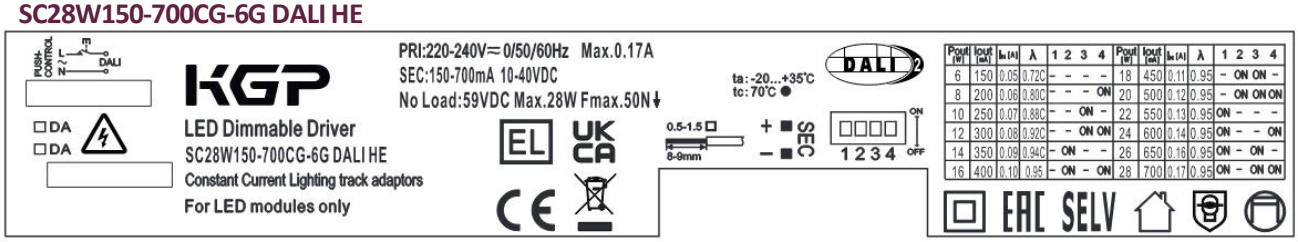
SC28W150-700CG-6W DALI HE



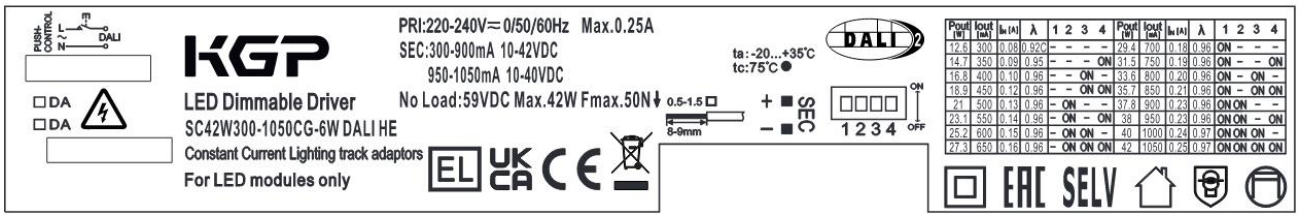
SC28W150-700CG-6B DALI HE



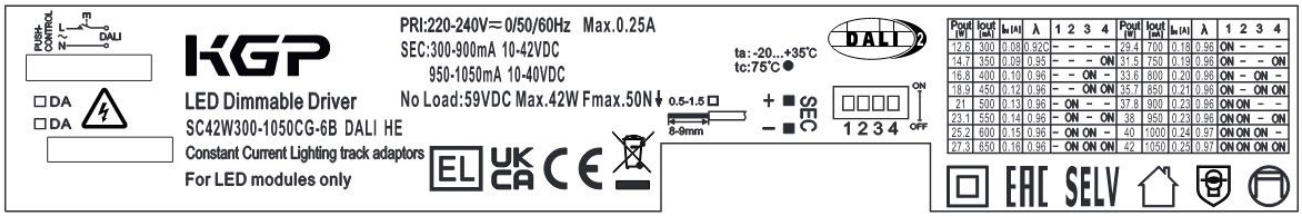
SC28W150-700CG-6G DALI HE



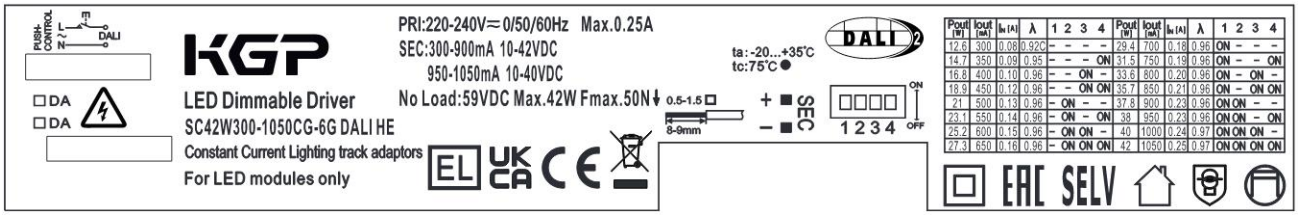
SC42W300-1050CG-6W DALI HE



SC42W300-1050CG-6B DALI HE



SC42W300-1050CG-6G DALI HE



Dip Switch Settings

SC28W150-700CG-6X DALI HE

PIN 1	PIN 2	PIN 3	PIN 4	I rated (mA)	P rated (W)	U rated (V)	Factory settings (mA)
OFF	OFF	OFF	OFF	150mA	1.50-6.0W	10-40V	700mA
OFF	OFF	OFF	ON	200mA	2.00-8.0W		
OFF	OFF	ON	OFF	250mA	2.50-10.0W		
OFF	OFF	ON	ON	300mA	3.00-12.0W		
OFF	ON	OFF	OFF	350mA	3.50-14.0W		
OFF	ON	OFF	ON	400mA	4.00-16.0W		
OFF	ON	ON	OFF	450mA	4.50-18W		
OFF	ON	ON	ON	500mA	5.00-20.0W		
ON	OFF	OFF	OFF	550mA	5.50-22.0W		
ON	OFF	OFF	ON	600mA	6.00-24.0W		
ON	OFF	ON	OFF	650mA	6.50-26.0W		
ON	OFF	ON	ON	700mA	7.00-28.0W		

SC42W300-1050CG-6X DALI HE

PIN 1	PIN 2	PIN 3	PIN 4	I rated (mA)	P rated (W)	U rated (V)	Factory settings (mA)
OFF	OFF	OFF	OFF	300mA	3.00-12.6W		
OFF	OFF	OFF	ON	350mA	4.00-14.7W		
OFF	OFF	ON	OFF	400mA	4.00-16.8W		
OFF	OFF	ON	ON	450mA	4.50-18.9W		
OFF	ON	OFF	OFF	500mA	5.00-21.0W		
OFF	ON	OFF	ON	550mA	5.50-23.1W		
OFF	ON	ON	OFF	600mA	6.00-25.2W	10-42V	
OFF	ON	ON	ON	650mA	6.50-27.3W		
ON	OFF	OFF	OFF	700mA	7.00-29.4W		1050mA
ON	OFF	OFF	ON	750mA	7.50-31.5W		
ON	OFF	ON	OFF	800mA	8.00-33.6W		
ON	OFF	ON	ON	850mA	8.50-35.7W		
ON	ON	OFF	OFF	900mA	9.00-37.8W		
ON	ON	OFF	ON	950mA	9.50-38.0W		
ON	ON	ON	OFF	1000mA	9.50-40.0W	10-40V	
ON	ON	ON	ON	1050mA	3.00-12.6W		

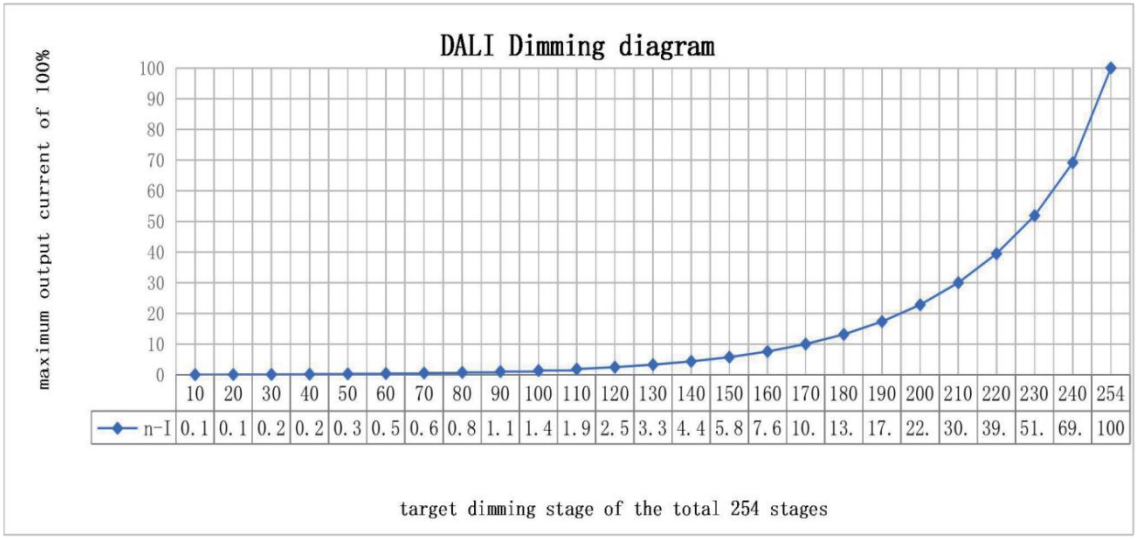
DALI dimming curve

formula for DALI dimming.

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

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

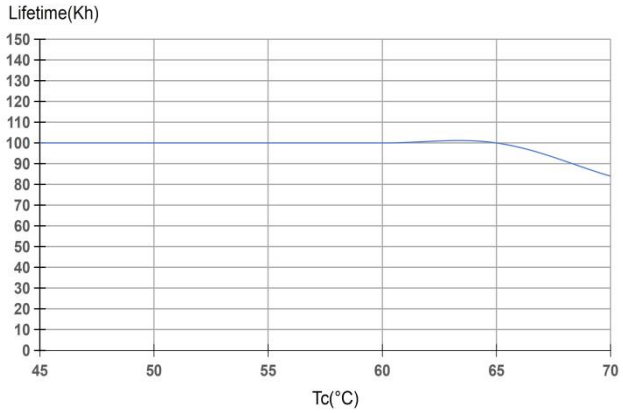
X(n) means the percent of the maximum output current



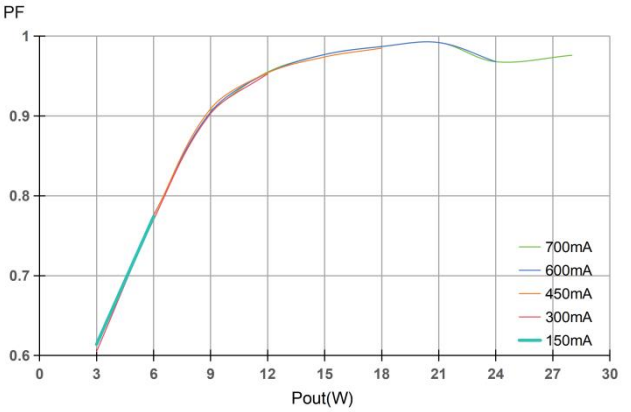
Graphs

SC28W150-700CG-6X DALI HE

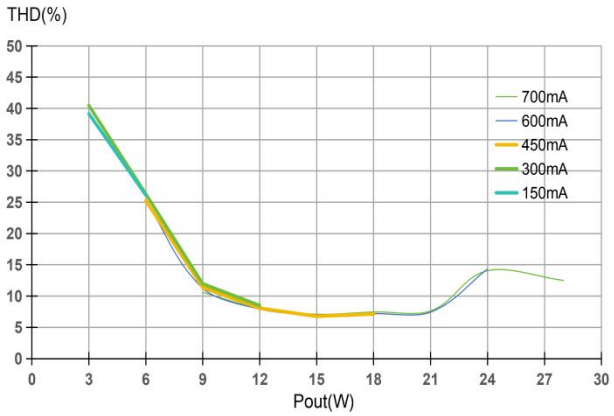
Lifetime vs. Case Temperature



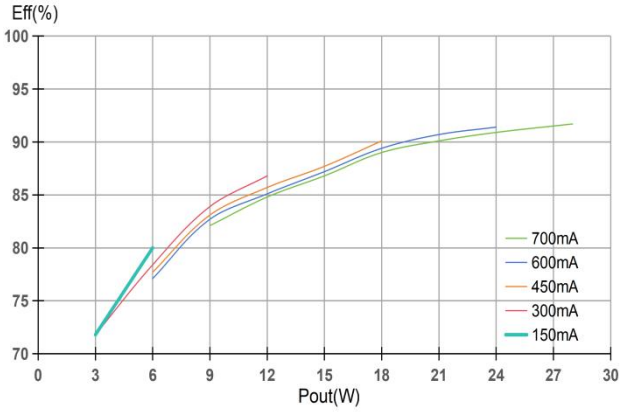
PF vs.Load



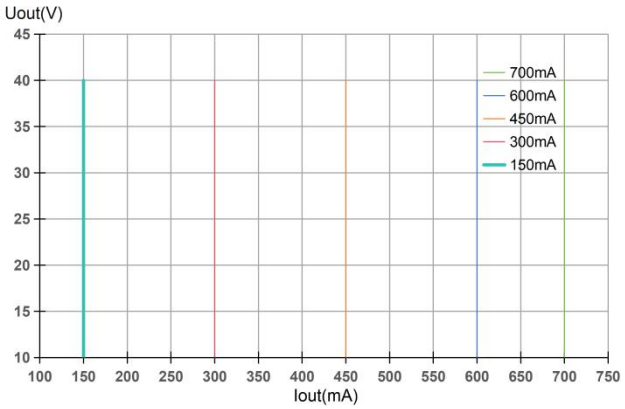
THD vs.Load



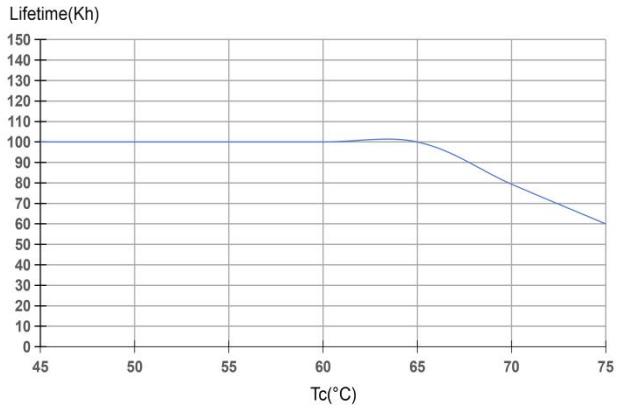
Efficiency vs. Load



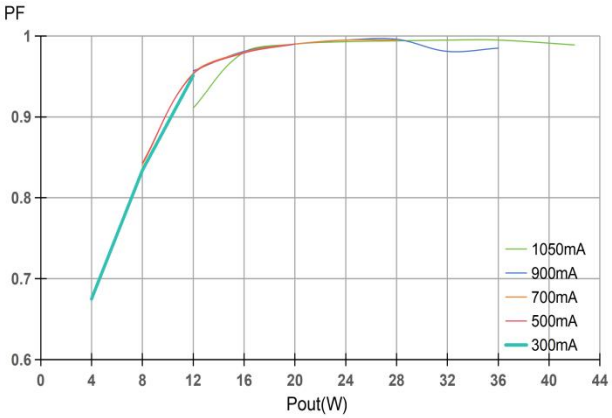
Uout vs.Iout



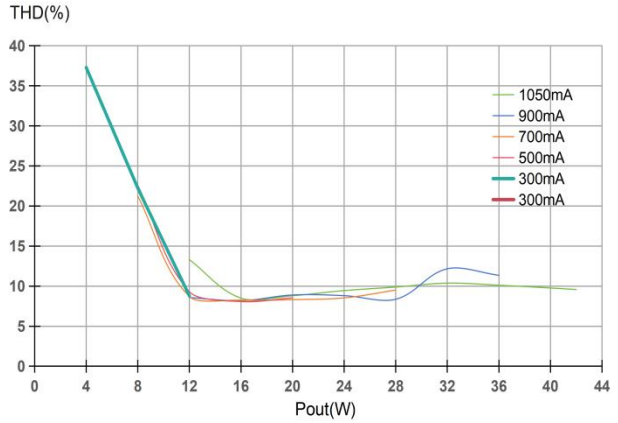
Lifetime vs. Case Temperature



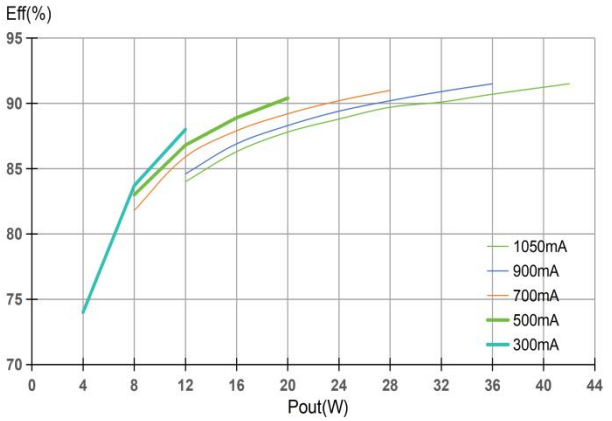
PF vs.Load



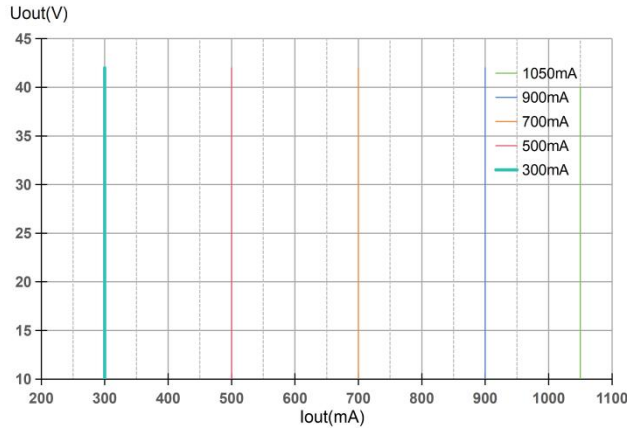
THD vs.Load



Efficiency vs. Load



Uout vs.Iout



Certificates and standards

EN 61347-1:2015/A1:2021
EN 61347-2-13:2014/A1:2017
EN IEC 62384:2020
EN 62493:2015/A1:2022
AS61347.2.13:2018
AS/NZS61347.1:2016 Inc A1 Amd 1:2018
GB 17625.1-2022
GB/T 17743-2021
GB 19510.1-2023
GB 19510.213-2023
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
BS EN 61347-1:2015/A1:2021
BS EN 61347-2-13:2014/A1:2017
BS EN 62493:2015/A1:2022
BS EN IEC 62384:2020
BS EN IEC 55015:2019
BS EN IEC 55015:2019+A11:2020
BS EN IEC 61000-3-2:2019/A1:2021
BS EN 61000-3-3:2013+A2:2021
BS EN IEC 61547:2023

Safety Features

- Transient mains peaks protection:
  Values are in compliance with EN62384
  (Interference Immunity)
  Surges between L-N:up to 2kV
- Short-Circuit Protection: The control gear is protected against
- Permanent short-circuit with automatic restart function.
- Overload Protection: The control gear only works in range of rated output power and voltage (< 60VDC)
- Please check before switch-on mains power supply that the selected LED load is
  suitable (see Electrical Characteristics on data sheet).
- Overheating: The control gear has overheating protection.
- No Load Operation: The control gear is protected against no load operation(open load)
- If any of the above mentioned safety functions will be triggered disconnect the control gear from the power supply then
- Find and eliminate the cause of the problem.

- SELV
- SVM≤0,4
- PstLM≤1
- Open Circuit Voltage (Umax):59V
- Noise:≤ 20dB @Background noise ≤15dB, Interval≥20cm
- Insulation voltage: 3000V 5mA 60S between P-S
- Leakage current: I/P to O/P <0.7mA

Suitable for following tracks

Serial Number	Brand	Track Model	System
1	Global	XTSC611	3P
2	A.A.G STUCCHI	9000-1-ST	3P
4	PowerGEAR	Pro-D631R	3P
5	UNIPRO	T32B	3P

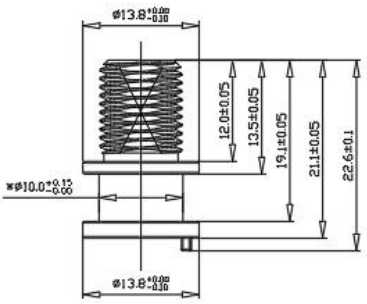
Remark:

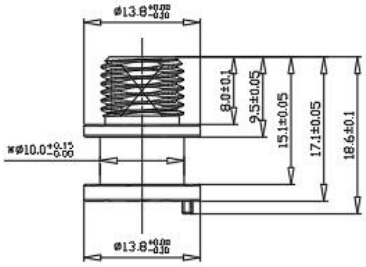
1.The model name is XTSC611 tracks, and its brand is Global.
2.The model name used is the 9000-1-ST track, and its brand is A.A.G STUCCHI.
3.The model name is T32B tracks, and its brand is Unipro.
4.The model name is Pro-D631R tracks, and its brand is PowerGEAR.

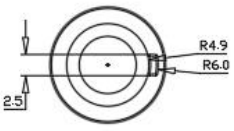
Lamp Screw Type

- 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

Type	Colour	Article Number	Qty/Ctn	Weight(g)/Pcs
M10x8	White	ZN	PC	5.47
	Black	ZN	PC	5.47
	Gray	ZN	PC	5.47
M10x12	White	ZN	PC	6.13
	Black	ZN	PC	6.13
	Gray	ZN	PC	6.13

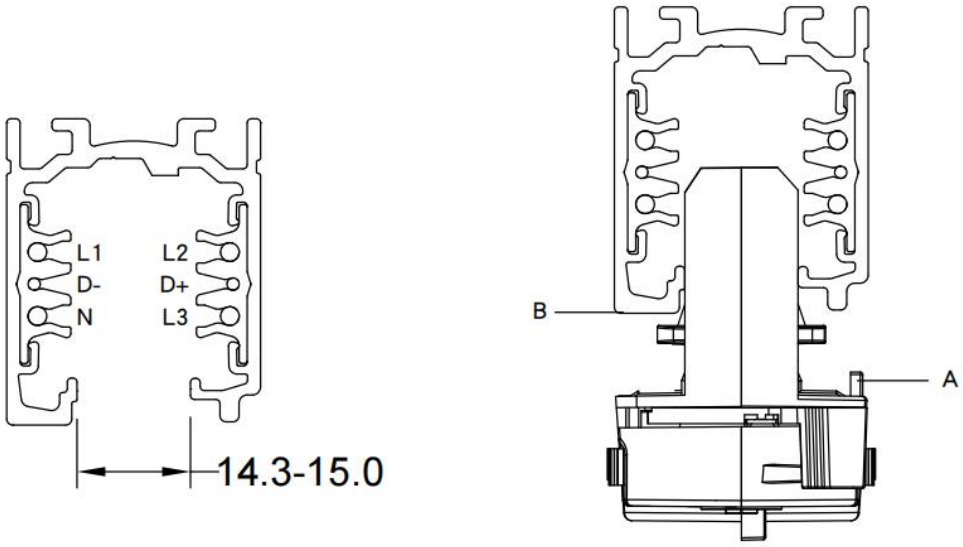




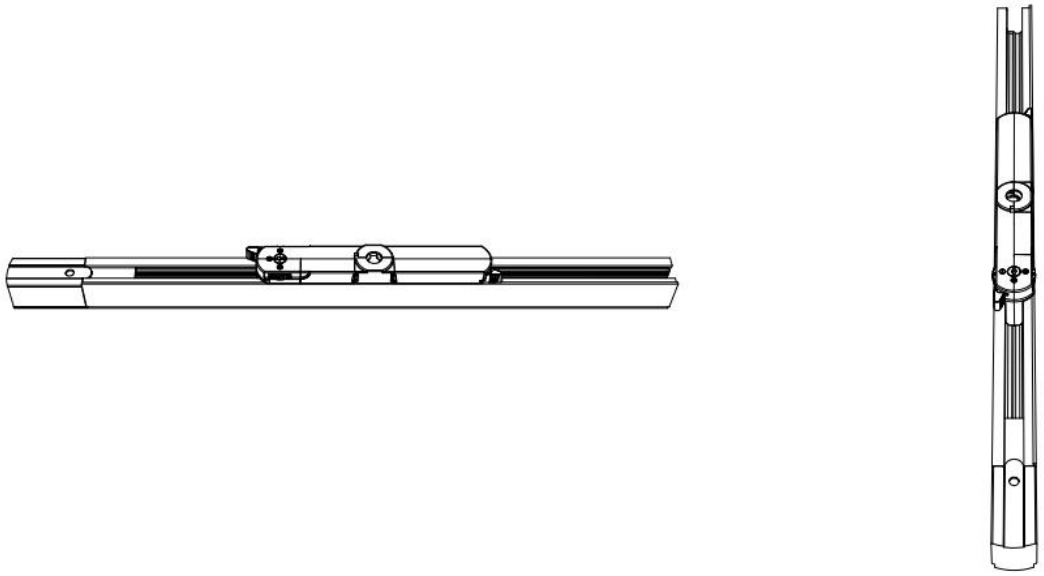




Phase track light rail specification:



Lighting track adapter and rail system installation diagram:

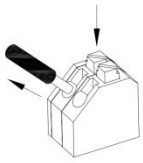


The adaptor shall be given that the use is limited to the track system specified.

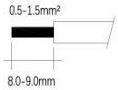
Electrical installation

- Connection terminals: Push-in terminals for rigid or flexible conductors with a section of Built-in:0,5-1,5mm² cable
- Stripped Length: 8-9mm
- Wiring: The mains conductor within the luminaire must be kept short
- Polarity: Please ensure the correct polarity of the leads. Reversed polarity can destroy the modules.
- Secondary Load: The sum of forward voltages of LED loads is within the tolerances which are mentioned in the Electrical Characteristics on the data sheet.
- Parallel Wiring: Parallel connection of LED loads is not allowed.

Press down the "Push Button" and remove the cable from front.



Wire Preparation



Wiring Diagram:

Fig. A: Push Dimming

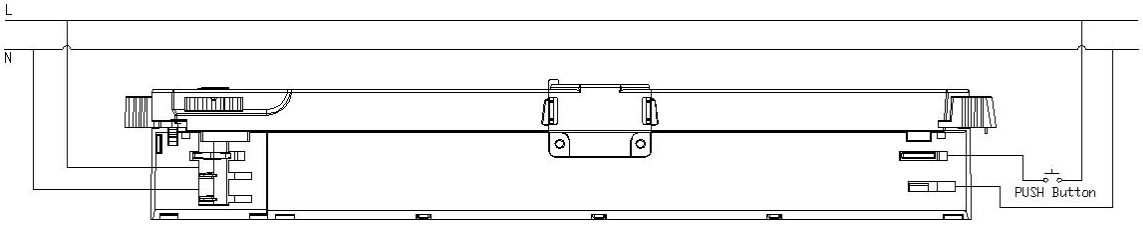
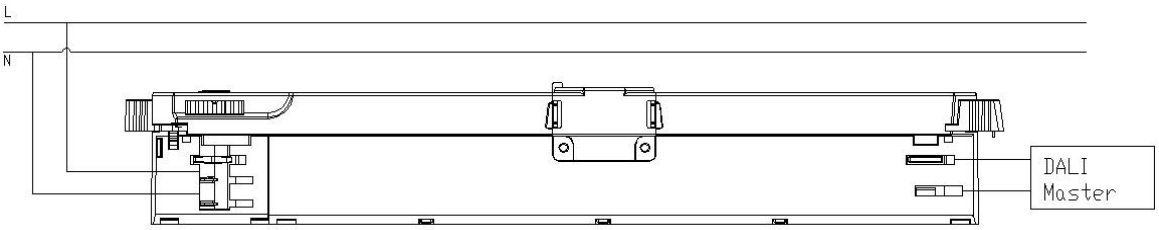


Fig. B: DALI Dimming



- The factory default brightness is at 100%.
- Up to 64 drivers can perform the PUSH dimming at the same time when utilizing one common push button
- DALI Dimming(maximum cable length: 300 m with wire cross-section ⩾1.5 mm²,) supports selectable logarithmic or linear dimming curves.

Functions

- OEM Identification
- The OEM (Original Equipment Manufacturer) can set his own identification number.
- DALI Part 251: Memory bank 1 extension.

- OEM GTIN
- The Original Equipment Manufacturer (OEM) can set his own Global Trade Item Number (GTIN).
- DALI Part 251: Memory bank 1 extension.
- Luminaire data
- This function provides the asset management with accurate data about the luminaire.
- DALI Part 251: Memory bank 1 extension.
- DALI Part 253: Luminaire maintenance data.

- 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.

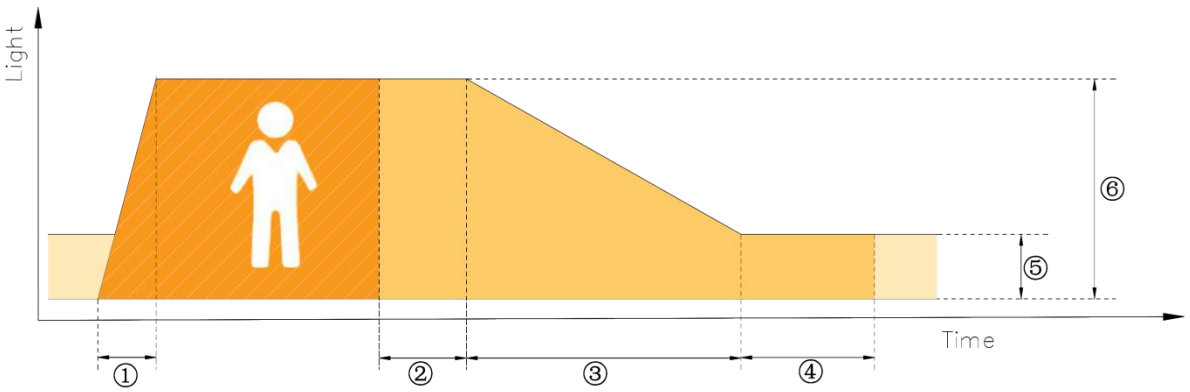
- The output current of the LED driver can be adjusted in a certain range.
- Adjustment is done by KGP Configurator via NFC.

Push 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.

- 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.

- 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.



- 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.
- 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.
- Fade time(32s): the time during which the luminous intensity is faded from the presence value to the absence value.

- 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.
- Absence value(default: 10 %): the luminous intensity when there is no person present.
- Presence value (default: 100 %): the luminous intensity when persons are present.

- 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.

- 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.

Number of drivers per cut-out type

Type	B10A	B13A	B16A	B20A	B25A	C10A	C13A	C16A	C20A	C25A	D10A	D13A	D16A	D20A	D25A
SC28W150-700CG-6X DALI HE	24	31	38	48	60	38	50	61	77	96	61	80	98	123	154
SC42W300-1050CG-6X DALI HE	24	31	38	48	60	38	50	61	77	96	43	56	70	87	109

Model	Packaging Carton	Packaging Pallet	CartonL*W*H (mm)	Net weight/ Pcs (g)	Net weight/ Carton (kg)	Gross weight/Carton (kg)
SC28W150-700CG-6X DALI HE SC42W300-1050CG-6X DALI HE	120	35	515*274*370	0.137	16.44	17.44

Packaging unit

DATE	REV	REMARK
2026.04.20	V1.0	Initial release
2026.7.31	V1.1	Update quantity of circuit breakers

Revision history