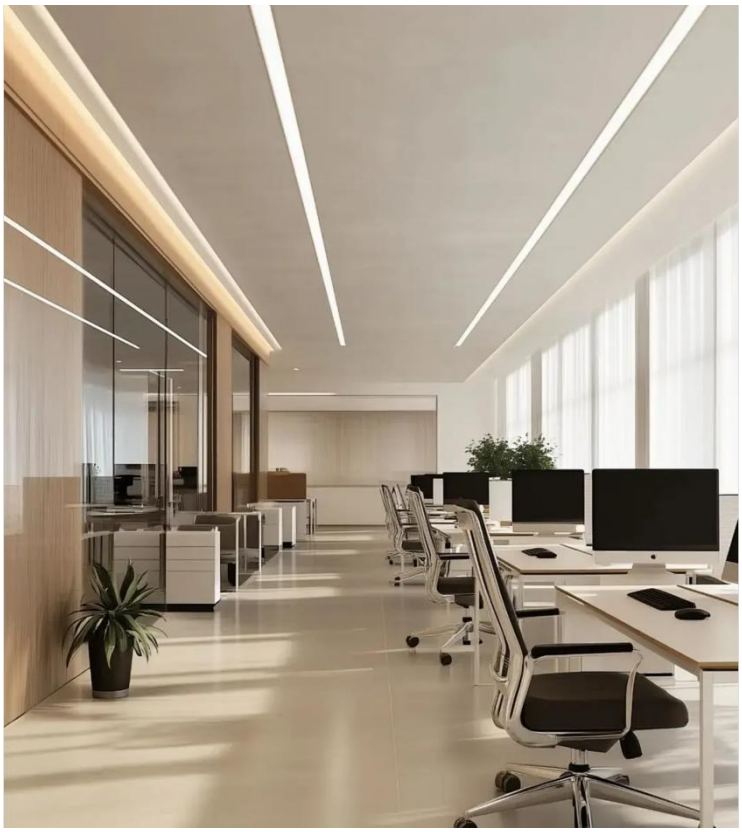
Compact Constant Voltage Drivers DALI

CV30W24CG DALI
CV60W24CG DALI
CV120W24CG DALI
CV180W24CG DALI
CV250W24CG DALI







Constant Voltage Driver

Product features

- Supply voltage 220-240 Vac ± 10%
- Range input voltage 198-264 Vac
- Range DC input voltage 198-280 Vdc
- Frequency: 0/50/60 Hz
- Class II
- Power factor ≥0,92 (at full load for 30W)
  ≥0,95 (at full load for 60W /120W/180W/250W)
- Low THD ≤15% (at full load for 30W/60W)
  ≤7% (at full load for 120W/180W /250W)
- Dimming range 1 to 100 %
- Type of protection: IP20
- SELV
- 50.000 Hours lifetime (At tc Max.)
- 5 Years guarantee

Product benefit

- Compact shape, be either used built-in or independent with clip-on strain-relief
- Dimmable 24 V constant voltage LED driver for flexible constant voltage strips
- Energy saving, High Efficiency
- Flexible configuration via DALI-2

Application

- LED Strips
- Decorative Lighting
- Linear Lighting

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(%)
CV30W24CG DALI	9-30W	220-240VAC	≤0.19A	15A/200μS	198-280VDC	24V	0.375-1.25A	89%	≥0.92	<480mVP K-PK
CV60W24CG DALI	18-60W		≤0.38A	62A/100μS			0.75-2.5A	92%	≥0.95	
CV120W24CG DALI	36-120W		≤0.65A	44A/200μS			1.5-5.0A	92%		
CV180W24CG DALI	54-180W		≤0.9A	56A/250μS			2.25-7.5A	92%		
CV250W24CG DALI	75-250W		≤1.3A	67A/250μS			3.12-10.42A	93%		

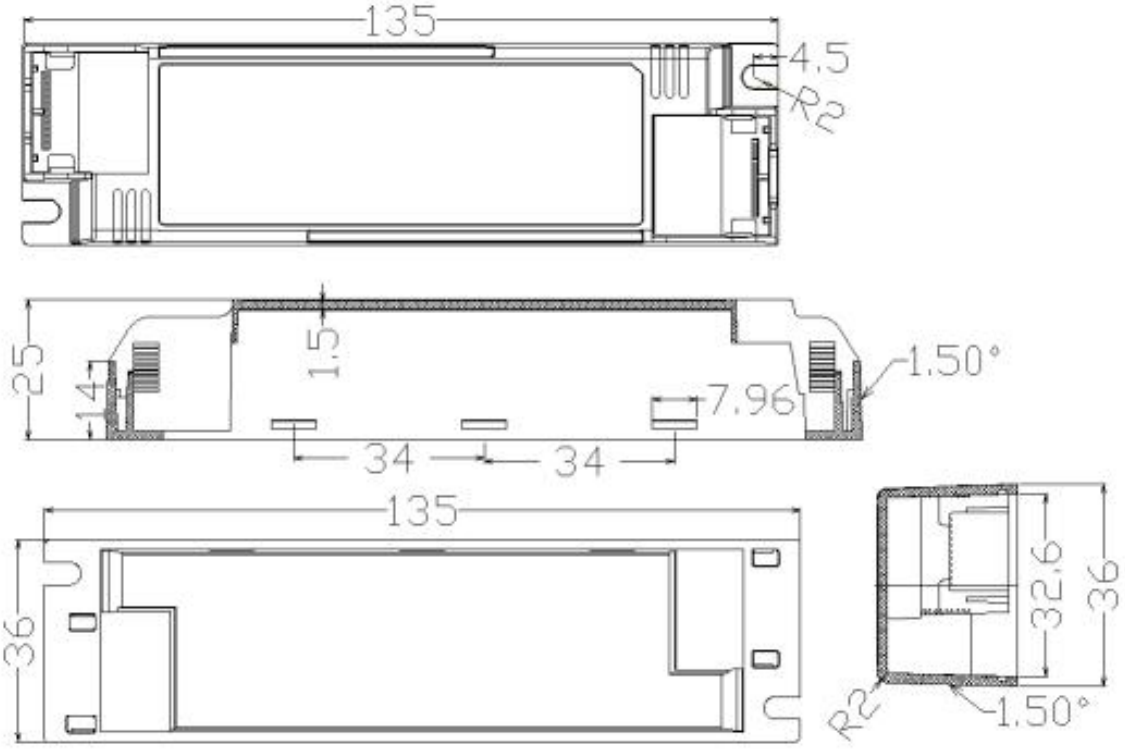
Operational temperatures and humidity

Ambient temperature range for	-20 ... +50℃
Ambient temperature range for	-25 ... +50℃
Operation humidity range	10 … 90%
Storage temperature range	-25 … +85℃
Storage humidity range	5 … 95%
Maximum temperature at tc point for 30W	75℃
Maximum temperature at tc point for 60W	85℃
Maximum temperature at tc point for 100W/150W/250W	90℃

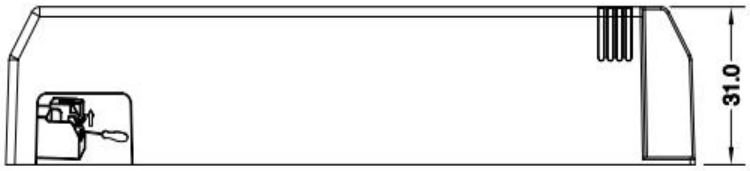
Expected lifetime

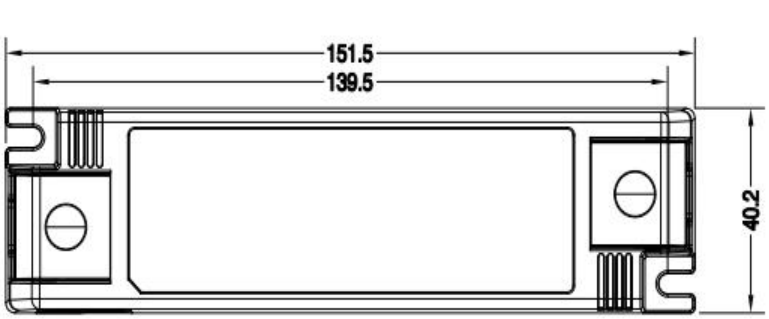
Expected lifetime at measured temp. at tc point	Ta=50℃	50000h

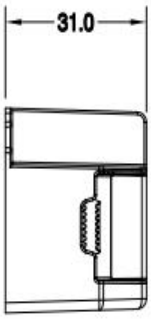
Dimensions: 135 x 36 x 25mm(L*W*H) 30W



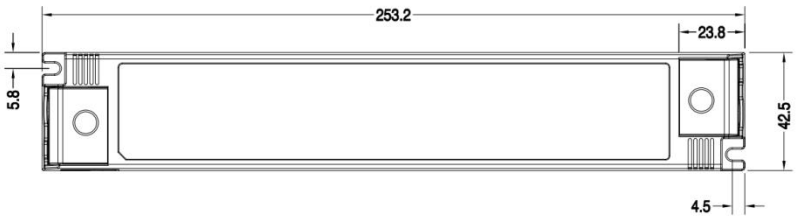
Dimensions: 151 x 40.2 x 31mm(L*W*H) 60W

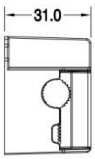






Dimensions: 253.2x 42.5 x 31mm(L*W*H) 120W/180W

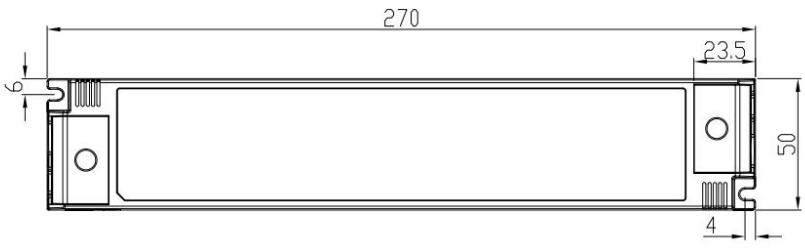


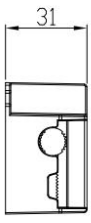




Dimensions: 253.2x 42.5 x 31mm(L*W*H) 250W







Wiring And Connections

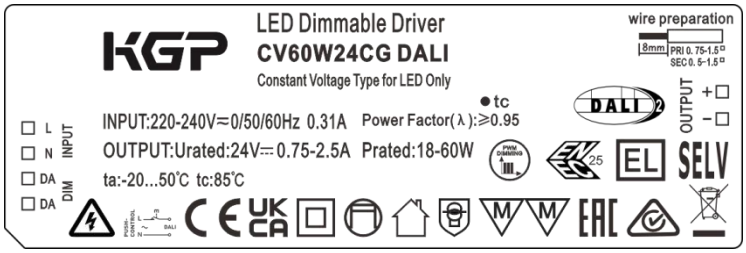
Connectors	Push in terminal
Input wire cross-section for 30W/60W	0.75-1.5 mm²
Output wire cross-section for 30W/60W	0.5-1.5 mm²
Input and Output wire cross-section for 120W/180W/250W	0.75-2.0 mm²
Input and Output wire strip length	8-9 mm
Maximum length	3 m

Product Label

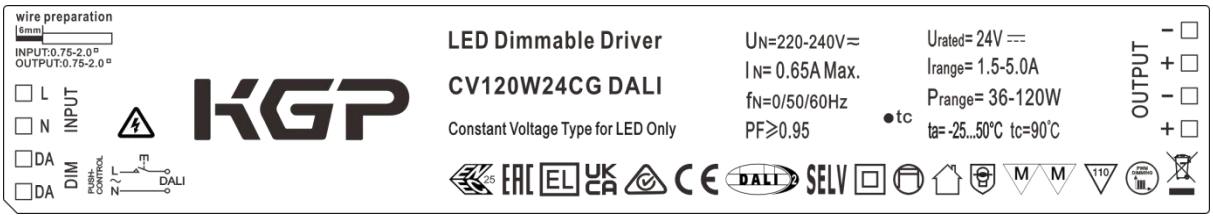
CV30W24CG DALI



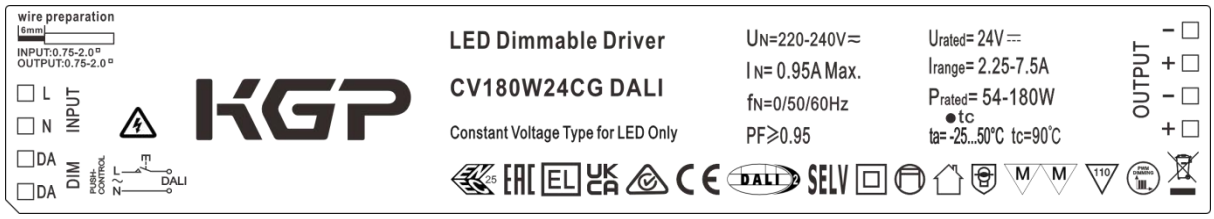
CV60W24CG DALI



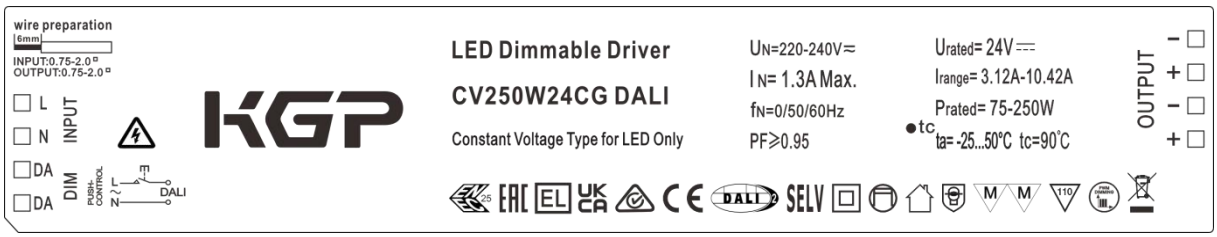
CV120W24CG DALI



CV180W24CG DALI



CV250W24CG DALI

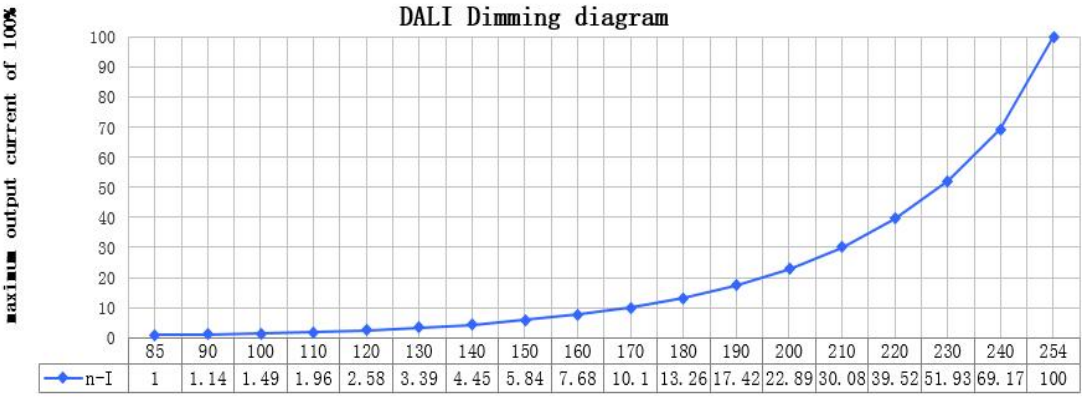


DALI dimming curve

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



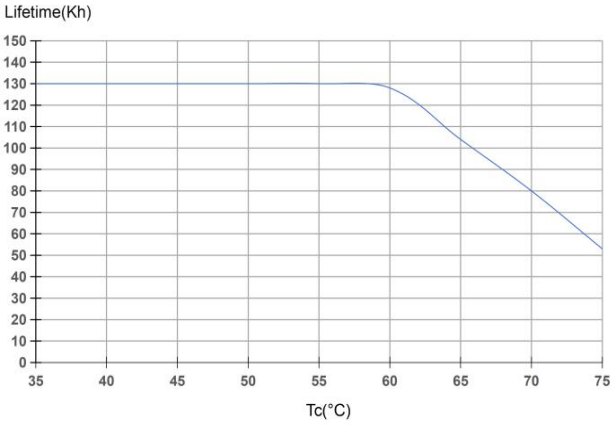
	85	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	254
n-I	1	1.14	1.49	1.96	2.58	3.39	4.45	5.84	7.68	10.1	13.26	17.42	22.89	30.08	39.52	51.93	69.17	100

target dimming stage of the total 254 stages

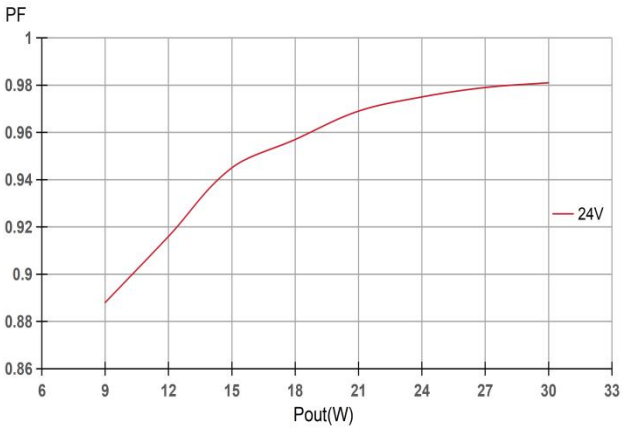
Graphs

CV30W24CG DALI

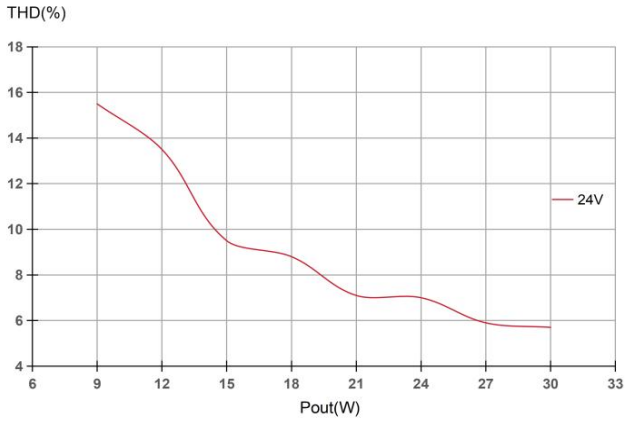
Lifetime vs. Case Temperature



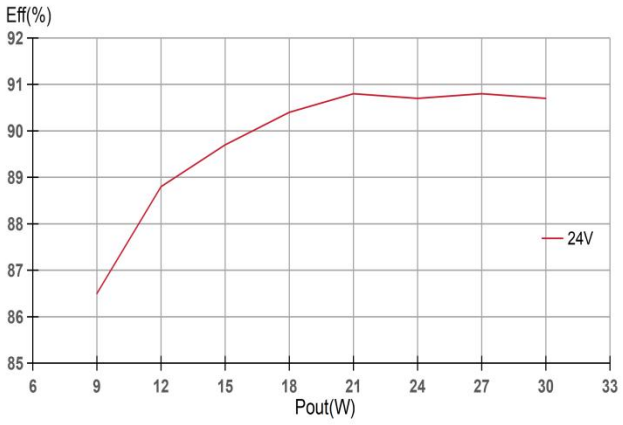
PF vs.Load



THD vs.Load

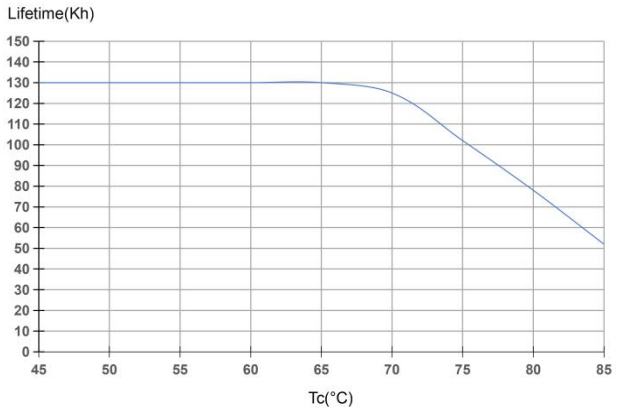


Efficiency vs. Load

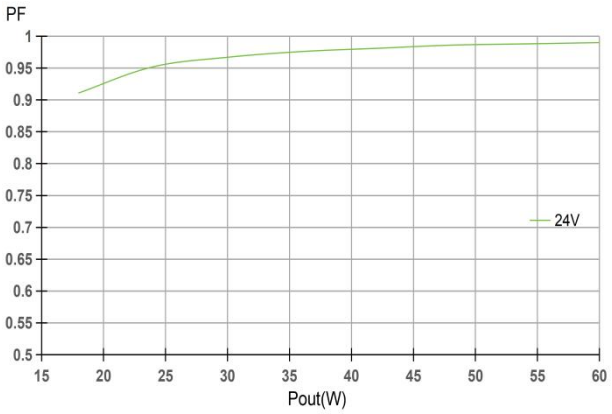


CV60W24CG DALI

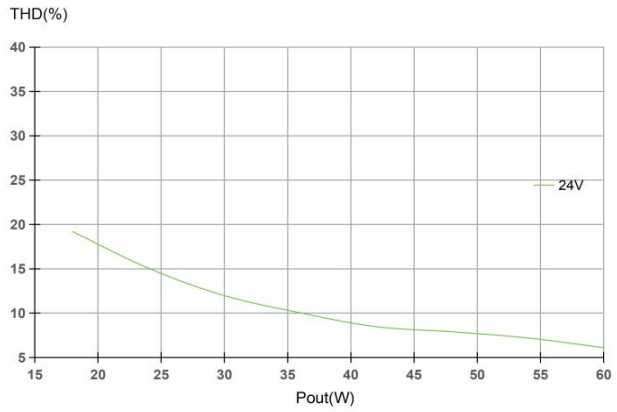
Lifetime vs. Case Temperature



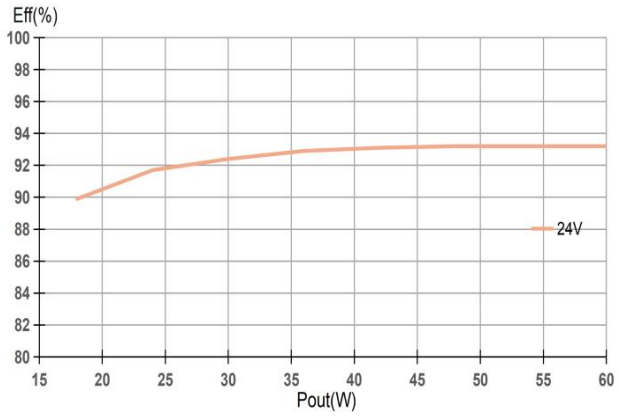
PF vs.Load



THD vs.Load

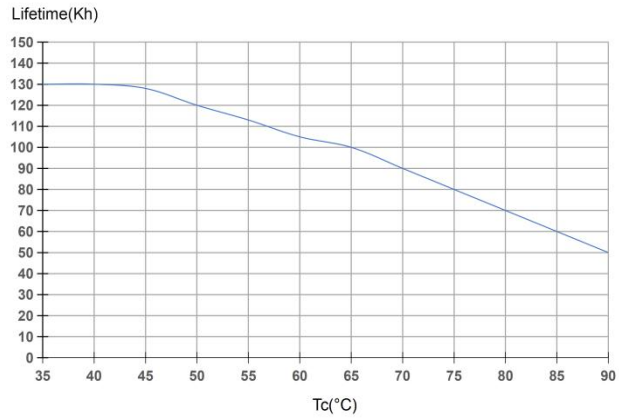


Efficiency vs. Load

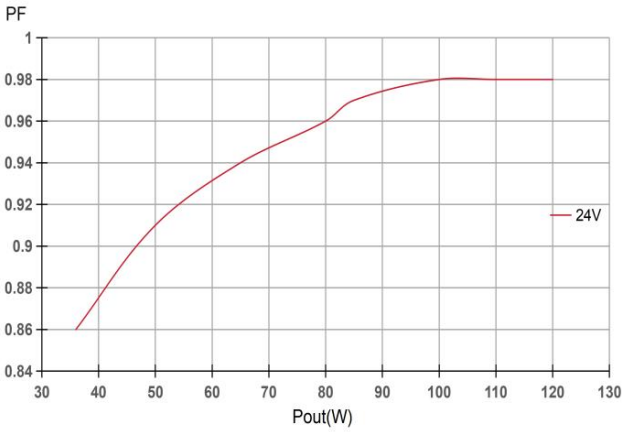


CV120W24CG DALI

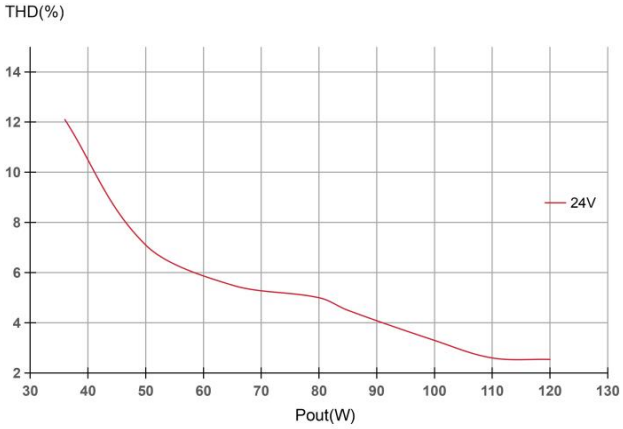
Lifetime vs. Case Temperature



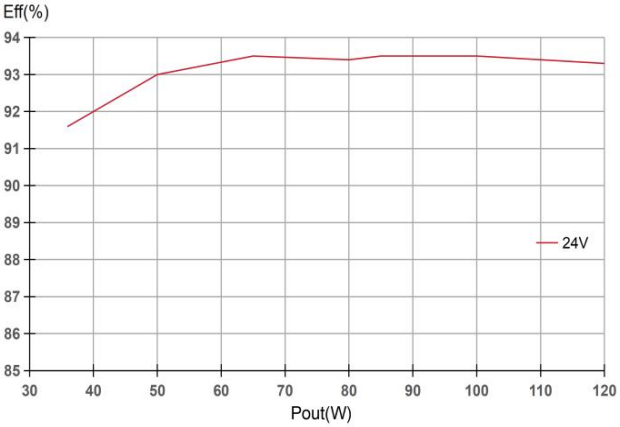
PF vs.Load



THD vs.Load

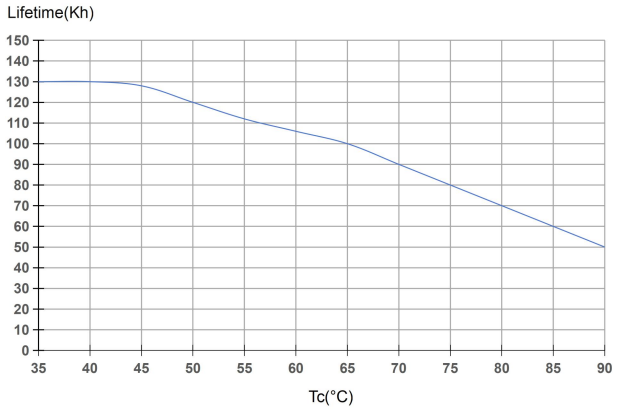


Efficiency vs. Load

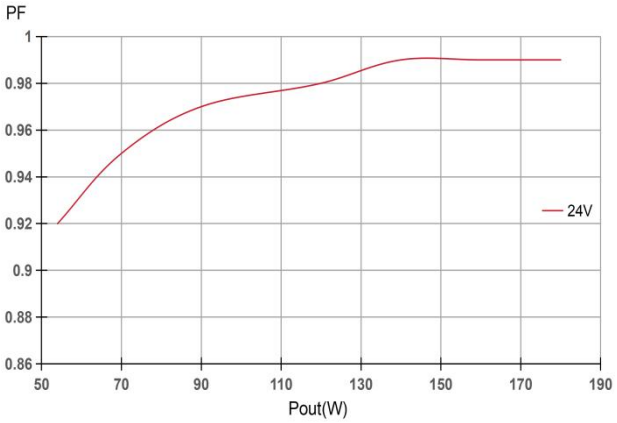


CV180W24CG DALI

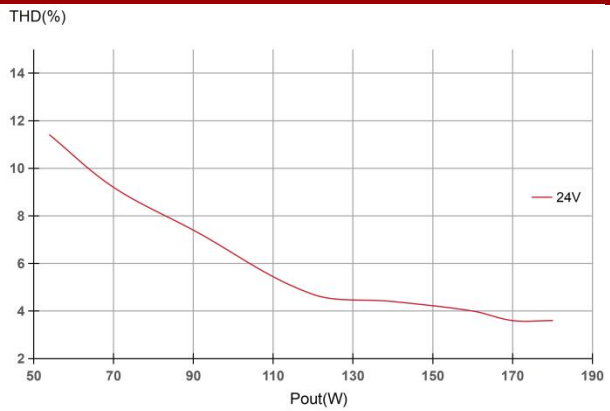
Lifetime vs. Case Temperature



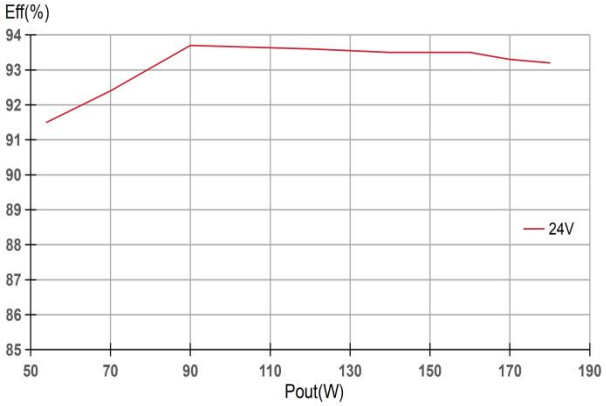
PF vs.Load



THD vs.Load

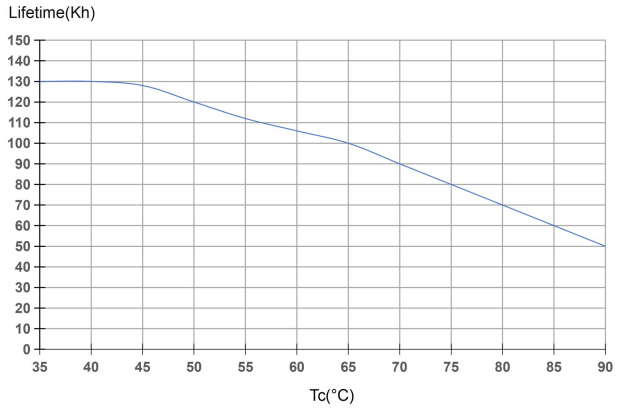


Efficiency vs. Load

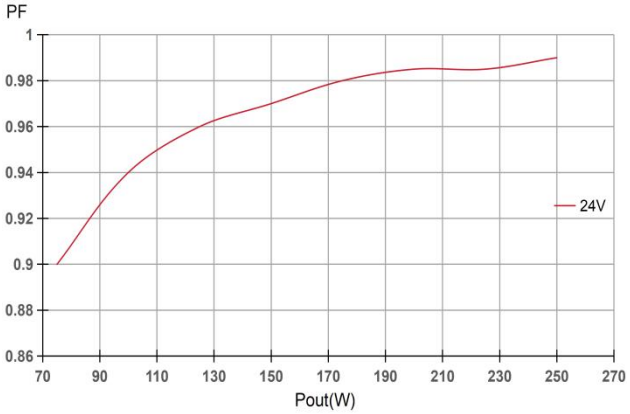


CV250W24CG DALI

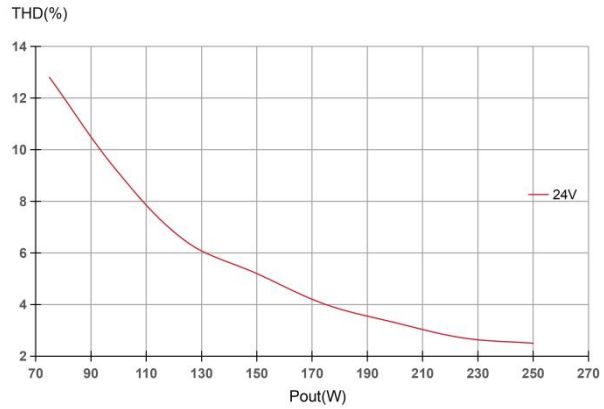
Lifetime vs. Case Temperature



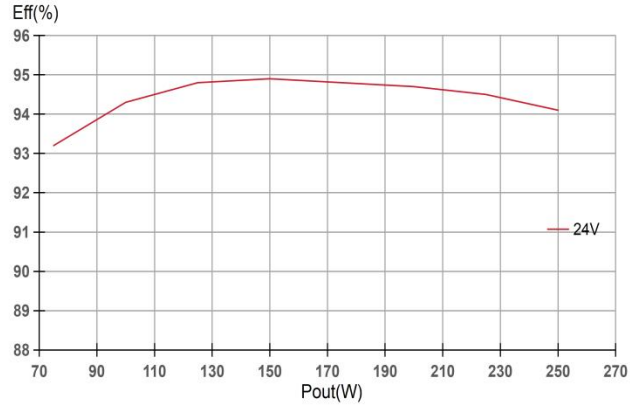
PF vs.Load



THD vs.Load



Efficiency vs. Load



Certificates and standards

EN 61347-1:2015/A1:2021
EN 61347-2-13:2014/A1:2017EN 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

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
BS EN 61000-3-3:2013+A2:2021
BS EN IEC 61547:2023
EN IEC 62384:2020
EN 62493:2015/A1:2022

Safety Features

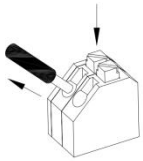
- Transient mains peaks protection:
  Values are in compliance with EN62384
  (Interference Immunity)
  Surges between L-N:up to 2kV
- Short-Circuit Protection: The control gear is protected against
- Permanent short-circuit with automatic restart function.
- Overload Protection: The control gear only 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).
- 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 Voltaje (Umax):24VDC+5%
- Noise:≤ 24dB @Background noise ≤18dB ,Interval≥15cm
- Insulation voltage: 3000V 5mA 60S between P-S
- Leakage current: I/P to O/P <0.7mA

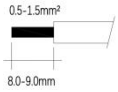
Electrical installation

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
- 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

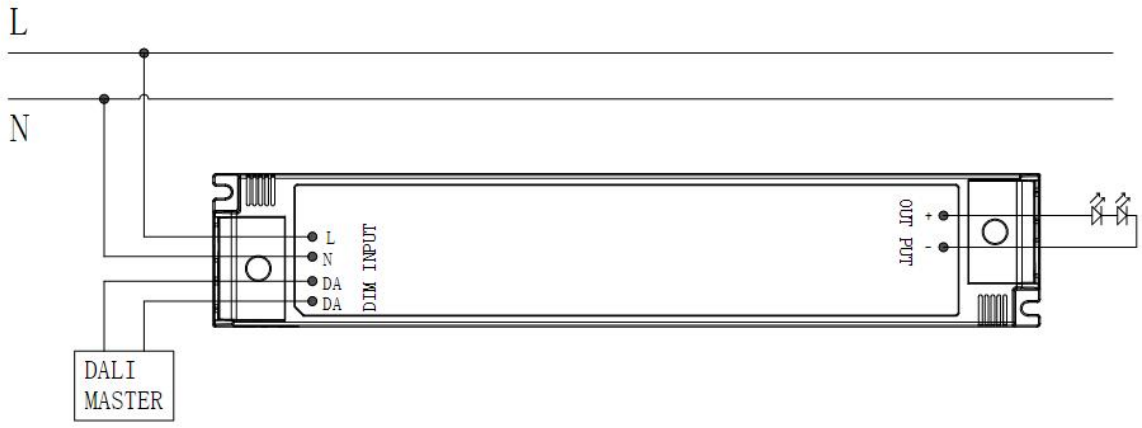
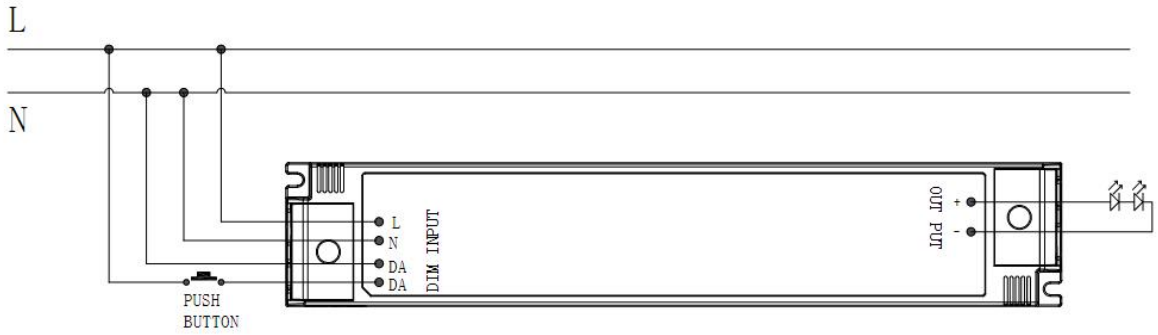


Fig. B: DALI Dimming



- 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.

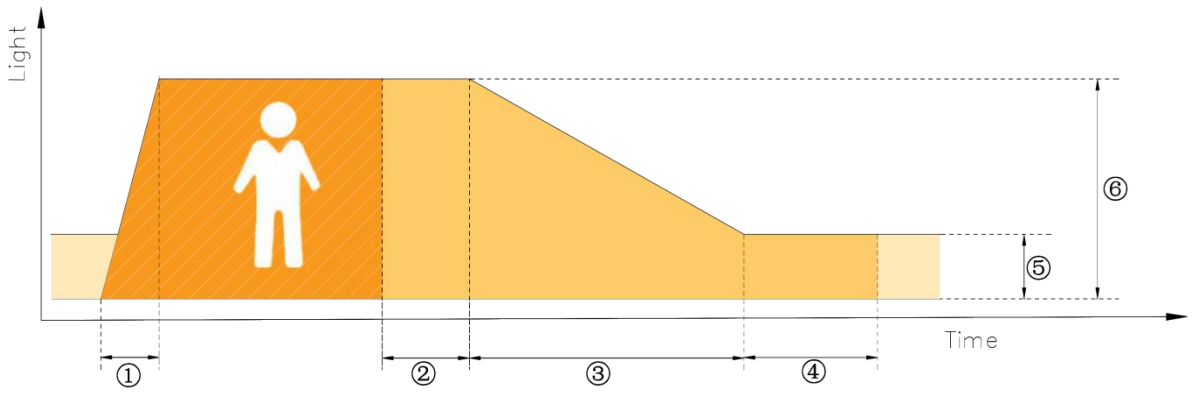
- LED current
- The LED output current must be adapted to the connected LED module.
- The value is limited by the current range of the respective device.
- The output current of the LED driver can be adjusted in a certain range.
- Adjustment is done by KGP Configurator via NFC.

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
CV30W24CG DALI	40	52	64	80	100	61	79	98	122	153	61	79	98	122	153
CV60W24CG DALI	10	13	15	19	24	15	20	25	31	39	25	32	40	50	62
CV120W24CG DALI	14	18	22	27	34	15	19	24	30	38	15	19	24	30	38
CV180W24CG DALI	10	13	16	20	25	10	13	16	20	25	10	13	16	20	25
CV250W24CG DALI	7	9	11	14	18	7	9	11	14	18	7	9	11	14	18

Packaging unit

Model	Packaging Carton	Packaging Pallet	CartonL*W*H (mm)	Net weight/ Pcs (g)	Net weight/ Carton (kg)	Gross weight/Carton (kg)
CV30W24CG DALI	80	36	457*250*220	87	6.96	8.13
CV60W24CG DALI	50	42	420*280*180	186	9.3	10.64
CV120W24CG DALI	35	42	420*280*180	416	14.56	15.06
CV180W24CG DALI	35	42	420*280*180	446	15.61	16.11
CV250W24CG DALI	24	40	440*300*155	592	14.2	14.70

Revision history

DATE	REV	REMARK
2026.01.17	V1.0	Initial release
2026.7.31	V1.1	Update quantity of circuit breakers