

Constant Voltage Dimmable Driver

Model: CV30W24/48CG DALI



Model	Output Current	Input Current	Input Power	Output Power Range	PF	Efficiency (*Typical)	Output Voltage	No load Voltage
CV30W24CG DALI	0.375-1.25A	≤0.19A	≤34W	9-30W	≥0.92	89%	24V	23.5-24.5V
CV30W48CG DALI	0.18-0.625A	≤0.19A	≤34W			90%	48V	47.5-48.5V

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

* Recommended minimum full load power is 30% load.

1. Parameters

Category	Item	Technical Norm
Features	Output Type	Constant Voltage
	Dimmable 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	0/50/60Hz
	Input Current	≤0.19A (230VAC, full load)
	Input Power	≤34W (230VAC, full load)
	Power Factor	≥0.92 (230VAC, full load)
	THD	≤15% (230VAC, full load)
	No-load Power Consumption	≤0.5W @230VAC
	Inrush Current	≤15A/350us (CV30W24/48CG DALI 230VAC, full load)
Output	Output Voltage Range	23.5-24.5VDC (CV30W24CG DALI) 47.5-48.5VDC (CV30W48CG DALI)
	No Load Voltage	23.5-24.5VDC (CV30W24CG DALI) 47.5-48.5VDC (CV30W48CG DALI)
	Output Current	375mA -1250mA (CV30W24CG DALI) 180mA -625mA (CV30W48CG DALI)
	Max. Output Power	30W
	Efficiency	≥89% (CV30W24CG DALI 230VAC, full load) ≥90% (CV30W48CG DALI 230VAC, full load)
	Current Ripple(< 120 Hz)	±5% (Imax-Imin)/(Imax+Imin)
	Output Voltage Ripple	<480mVPP-K

	Line Regulation	±1%	
	Load Regulation	±2%	
	PstLM	≤1	
	SVM	≤0.4	
	Overshoot	<105%Vo	
	Current Accuracy	±5%	
	Started Delay Time	≤1S(230VAC, full load)	
Control Method	Secondary PUSH dimming	Secondary PUSH dimming (Max. lead wire length : 20m,same port of DALI)	
	PUSH dimming terminal	Max parallel connections qty for Push-dim 64 PCS	
	DALI function	DALI dimming (Max. lead wire length: 300m) Logarithmic or linear dimming curves are available DALI-2 certified incl. Parts 251, 252, 253,CLO	
	Dimming range	DALI dimming: 1%-100%,Dim to off .	
	Dimming frequency	8KHz	
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....+50°C	
	Ts/Storage Temperature	-25....+85°C	
	Tc/Enclosure Temperature	75°C	
	Humidity	10%....90%RH	
	Atmosphere	86-108KPa	
Construction	Connection Method	Push-in Terminal	
	Installation	Independent	
	PRI Wire preparation	0.75-1.5 [□] / 8-9mm	
	SEC Wire preparation	0.5-1.5 [□] / 8-9mm	
	DALI Wire preparation	0.75-1.5 [□] /8-9mm	
	Dimension	135*36*25mm (L*W*H)	
Standards	Certification	UKCA EAC ENEC EL CE	
	Safety Standards	EN 61347-1:2015/A1:2021 EN 61347-2-13:2014/A1:2017 EN IEC 62384:2020 EN 62493:2015/A1:2022	
		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 IEC 61547:2023
		Performance	EN62384:2020
	Surge	L-N/2KV	
Others	RoHS	complied to 2011/65/EU	

	REACH	EU Regulation (EC) No 1907/2006
	Life Time	50000h @Ta/ Tc
	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.
3. During the PUSH DIM test, the number of parallel connections must be less than 64 PCS
4. Do not install upside down.

2. Connected quantities of different current Breaker

TYPE	Connected quantities of different current Breaker						Input Voltage (V)	Inrush Current(A)	Time (μs)
	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	40	52	64	80	100	@230VAC	15	300	
TYPE C	64	83	102	128	160				
TYPE D	102	133	164	205	256				

3. Label

L INPUT
 N INPUT
 DA DIM
 DA DIM

KGP LED Dimmable Driver

CV30W48CG DALI

Constant Voltage Type for LED Only

INPUT:220-240V~ 50/60Hz 0.19A Power Factor(λ):≥0.95

OUTPUT:48V---180-625mA Prange:9-30W

ta:-20...50°C tc:75°C

wire preparation

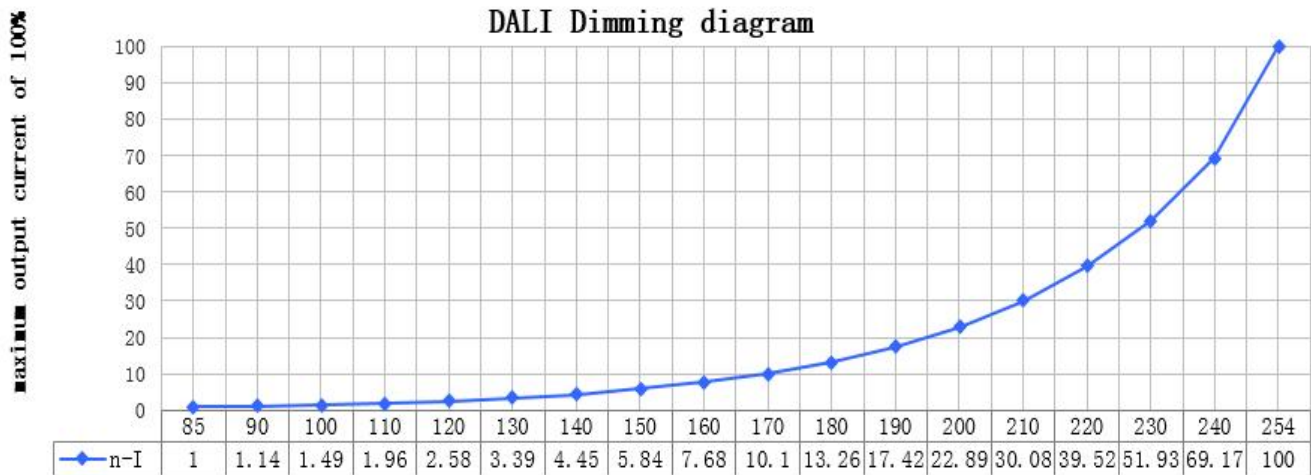
[8mm] PRI 0.75-1.5[□]

SEC 0.5-1.5[□]

OUTPUT + □

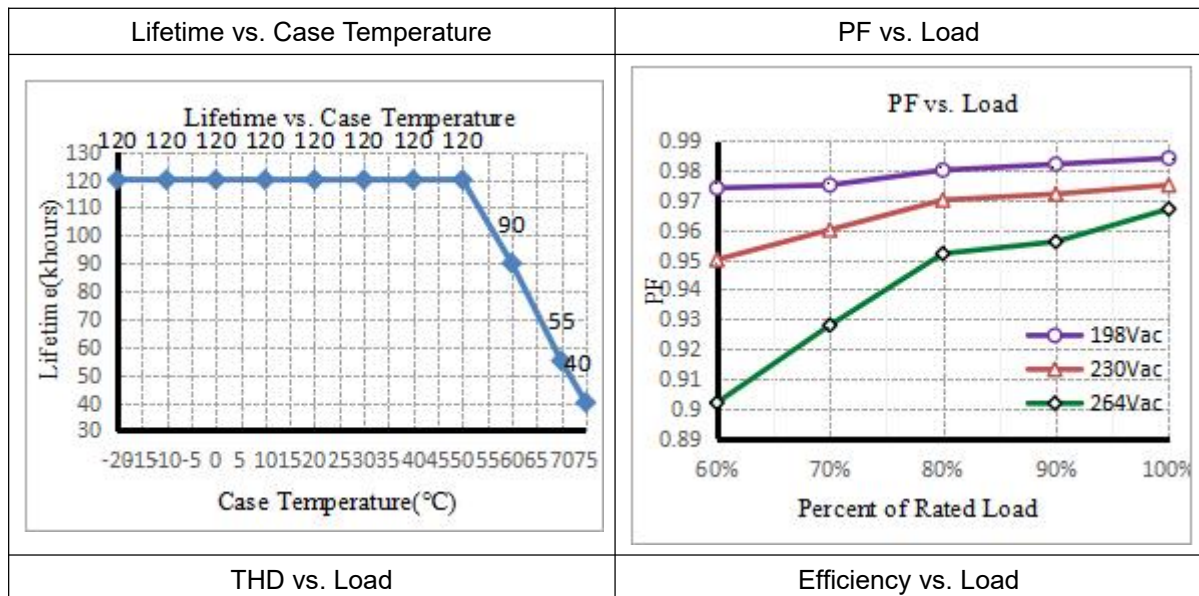
OUTPUT - □

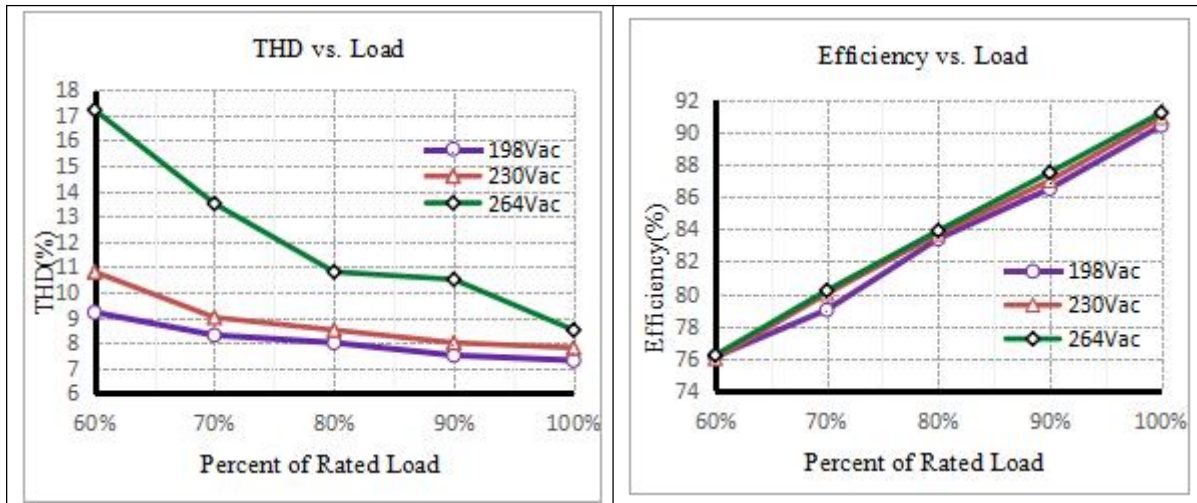
4. DALI dimming curve



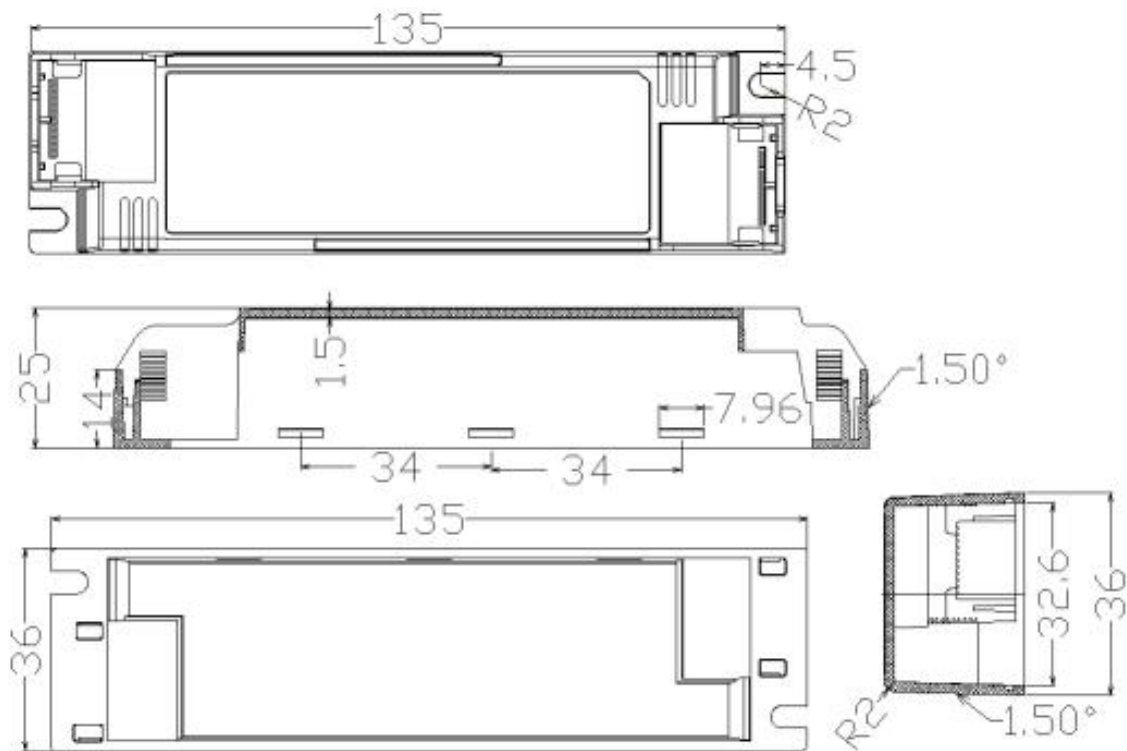
target dimming stage of the total 254 stages

5. Electrical values





6. Dimension (Unit: mm)



7. Wiring Diagram

Fig. A: DALI Dimming

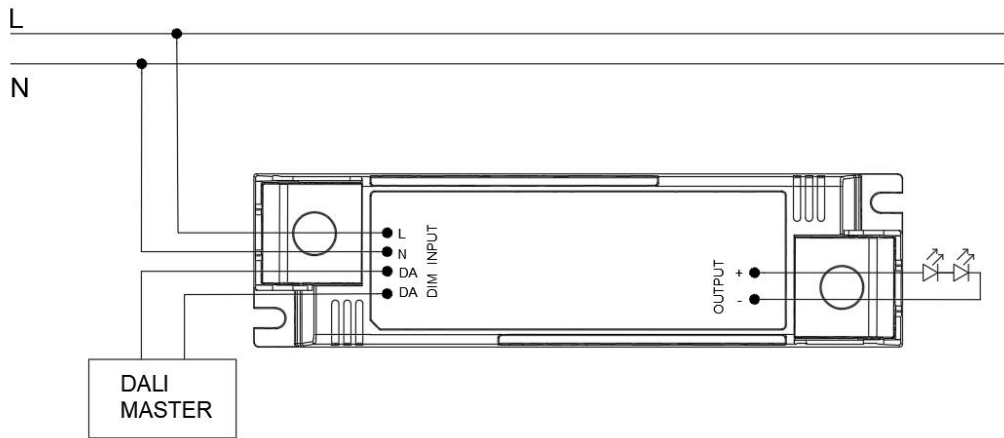
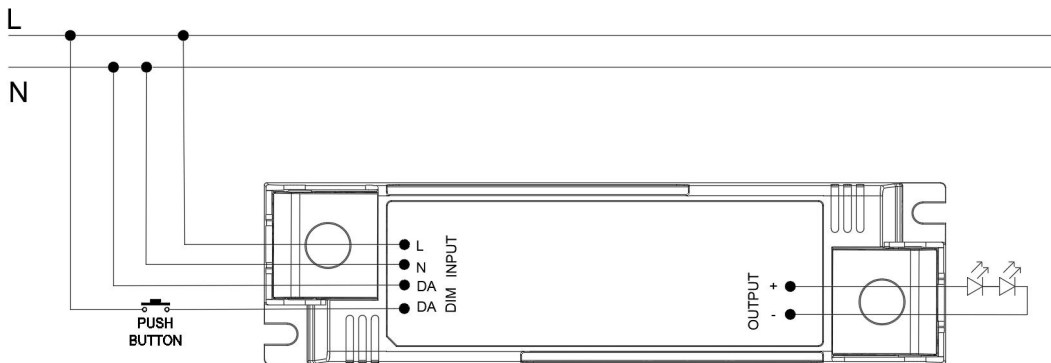


Fig. B: Push Dimming



1. The factory default brightness is at 100%.
2. Up to 64 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

8. Packing information

Packing way	Model	Carton L*W*H(mm)	Pcs/ Carton	Net weight/ Pcs(kg)	Net weight/ Carton(kg)	Gross weight/ Carton(kg)
Industrial	CV30W24CG DALI CV30W48CG DALI	447*240*200	90	0.087	7.83	8.53
With white box		430*290*135	80	0.087	6.96	8.13

9. 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 0.5 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).

10. Replace LED module

- 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

11. Functions

11.1 OEM Identification

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

DALI Part 251: Memory bank 1 extension.

11.2 OEM GTIN

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

DALI Part 251: Memory bank 1 extension.

11.3 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.

11.4 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.

Adjustment is done by KGP Configurator via NFC.

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.

11.5 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.

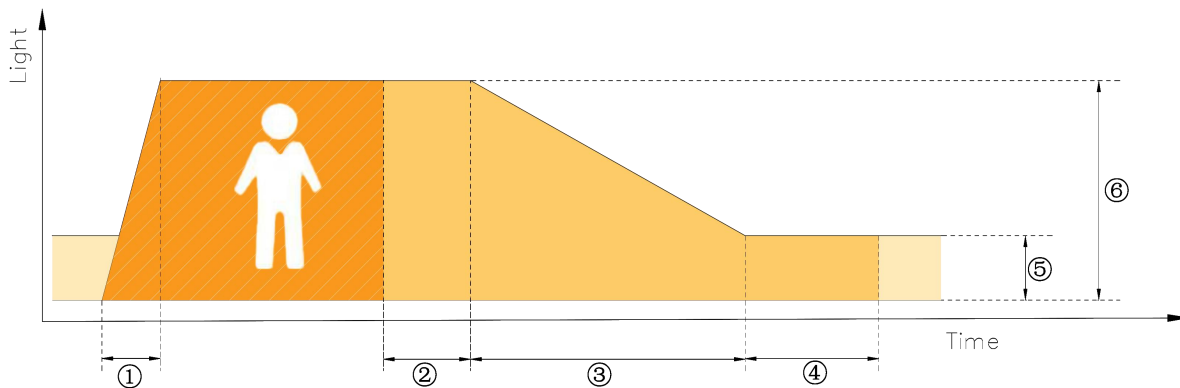
11.6 Corridor FUNCTION

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.

11.7 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.

11.8 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.

12. REVISION HISTORY

DATE	REV	Modification details
2024-12-07	V1.0	Initial release.
2025-10-15	V1.1	The wire gauge of the updated wire matches the one printed on the nameplate.