



CC12W100-800-DALI-UNI-NX

Constant Current Dimmable Driver

Model: CC12W100-800-DALI-UNI-NX



Model	Item Code	Output current	Input current	Input power	Output power range	PF	Efficiency	Output voltage	No load voltage
CC12W100-800-DALI-UNI-NX	158370	100mA	0.08A	5.90W	0.30-4.50W	0.95	76.7%	3-45V	60V Max.
		150mA	0.10A	8.30W	0.50-6.80W	0.97	82.0%		
		200mA	0.12A	11.00W	0.60-9.00W	0.98	82.3%		
		250mA	0.14A	13.50W	0.80-11.30W	0.98	83.4%		
		300mA	0.16A	14.05W	0.90-12.00W	0.98	83.2%	3-40V	
		350mA	0.16A	14.40W	1.10-11.90W	0.98	82.8%	3-34V	
		400mA	0.16A	14.60W	1.20-12.00W	0.98	82.4%	3-30V	
		450mA	0.16A	14.30W	1.40-11.70W	0.98	81.8%	3-26V	
		500mA	0.16A	14.70W	1.50-12.00W	0.98	81.6%	3-24V	
		550mA	0.16A	14.30W	1.70-11.60W	0.98	81.0%	3-21V	
		600mA	0.16A	14.90W	1.80-12.00W	0.98	80.8%	3-20V	
		650mA	0.16A	14.60W	2.00-11.70W	0.98	80.3%	3-18V	
		700mA	0.16A	14.90W	2.10-11.90W	0.98	80.0%	3-17V	
		750mA	0.16A	15.10W	2.30-12.00W	0.98	79.5%	3-16V	
		800mA	0.16A	15.20W	2.40-12.00W	0.98	79.1%	3-15V	

* Test result @100V, 50Hz, Full Load.

1. Parameters

Category	Item	Technical Norm
Features	Output Type	Constant Current
	Dimming Type	Amplitude (DALI-2)
	Output Features	Isolation
	IP Grade	IP20
	Insulation Class	Class II (compatible Class I)

Input	Rated Input Voltage	100-240VAC
	Range of Input Voltage	100-264VAC
	Range of DC Input Voltage	180-280VDC
	Frequency	0/50/60Hz, Range:0/47-63Hz
	Overvoltage protection	2h@380VAC, 48h@320VAC
	Input Current	≤0.16A
	Input Power	≤15.2W
	Power Factor	≥0.98
	THD	≤9%(100VAC, full load)
	Standby Power Consumption	≤0.45W(100VAC, full load)
	Inrush Current	≤7.5A/16us (100VAC, full load)
	Connected quantity of 10A Breaker	26pcs/type A ; 41pcs/type B ; 66pcs/type C
	Connected quantity of 13A Breaker	33pcs/type A; 54pcs/type B ; 86pcs/type C
Output	Connected quantity of 16A Breaker	41pcs/type A; 66pcs/type B ; 106pcs/type C
	Connected quantity of 20A Breaker	52pcs/type A; 83pcs/type B ; 133pcs/type C
	Output Voltage Range	3-45VDC@100-250mA, 3-40VDC@300mA, 3-34VDC@350mA, 3-30VDC@400mA, 3-26VDC@450mA, 3-24VDC@500mA, 3-21VDC@550mA, 3-20VDC@600mA, 3-18VDC@650mA, 3-17VDC@700mA, 3-16VDC@750mA, 3-15VDC@800mA,
	No Load Voltage	60VDC Max.
	Output Current	100-800mA (Factory set current of 100mA)
	Max. Output Power	12W
	Efficiency	≥83.4% @250mA, 100VAC
	Output LF current ripple (< 120 Hz)	±3% (Imax-Imin) / (Imax+Imin)
	Current Accuracy	±5%
	PSTLM	≤1
	SVM	≤0.4
	Starting Time (AC mode)	≤0.8S (100VAC, full load, by DALI system)
	Starting Time (DC mode)	≤0.4S
Control Method	Switching over time (AC/DC)	≤0.4S
	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
Protection	Dimming range	DALI dimming:1%-100%
	Short Circuit Protection	Auto Recovery
	Overload Protection	Auto Recovery (not be hot swap)
	No-load Protection	Auto Recovery
	Insulation voltage	3000V 5mA 60S between P-S
	Insulation resistance	>100M ohm @ 500VDC
	Leakage current	<700μA,I/P to O/P @100V input

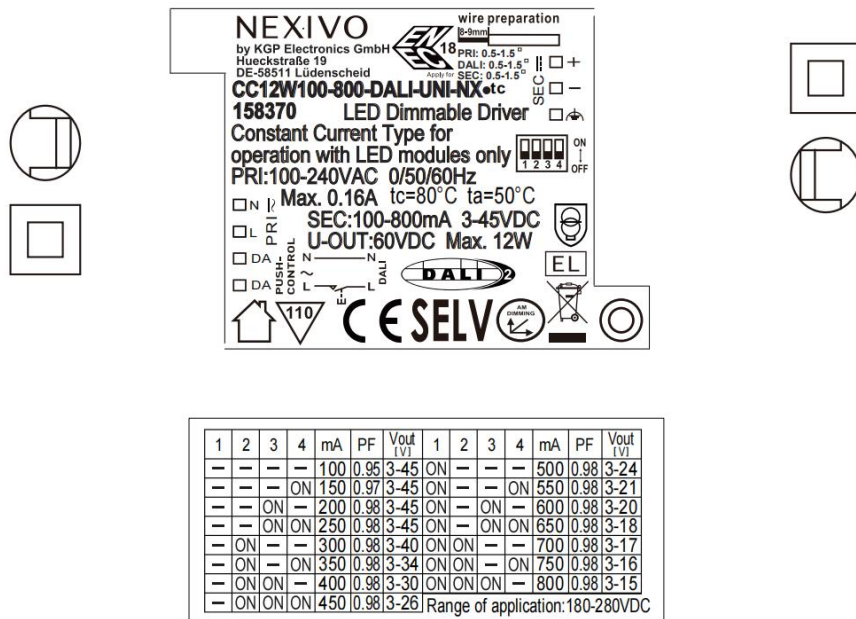
Environment	Ta/Operation Temperature	-20....+50°C
	Ts/Storage Temperature	-20....+80°C
	Tc/Enclosure Temperature	80°C
	Humidity	10%.... 90%RH
	Atmosphere	86-108KPa
Construction	Connection Method	Push-in Terminal
	Installation	Build-in & Independent
	PRI Wire preparation	0.5-1.5□/ 8-9mm
	SEC Wire preparation	0.5-1.5□/ 8-9mm
	DALI Wire preparation	0.5-1.5□/ 8-9mm
	SEC Wire preparation	0-0.8±0.05m (The EMC test results were achieved at approximately 0.8 meters) (the length required by the standard). If there are any data differences, please test according to the length required by the standard)
	Dimension	75*40*21mm (L*W*H)
Standards	Certification	CE
	Safety Standards	EN61347-1:2015/A1:2021; EN61347-2-13:2014/A1:2017;
	Performance	EN62384
	DALI Performance	EN 62386-101 (DALI-2) EN 62386-102 (DALI-2) EN 62386-207 (DALI-2, including part 251, 252, 253)
	Surge	L-N:1kV
Others	RoHS	complied to 2011/65/EU
	Life Time	50000h Tc=80°C
		75000h Tc=75°C
		100000h Tc=70°C
	Warranty	5years , F.R. < 10000ppm

Remark:

- 1.All Parameters,if not specified,are measured at 100VAC/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.Please make sure Tc under Lifetime condition when long term operate under DC input.
- 4.DC emergency (DCemDim):Default 15%, EOFx range = 1 .. 100% (EOFx = DCemDIM level)
- 5.During the PUSH DIM test, the number of parallel connections must be less than 15PCS.

Distance	15m	30m	50m
Cable selection	0.5mm ²	0.75mm ²	1.0mm ²

2. Label

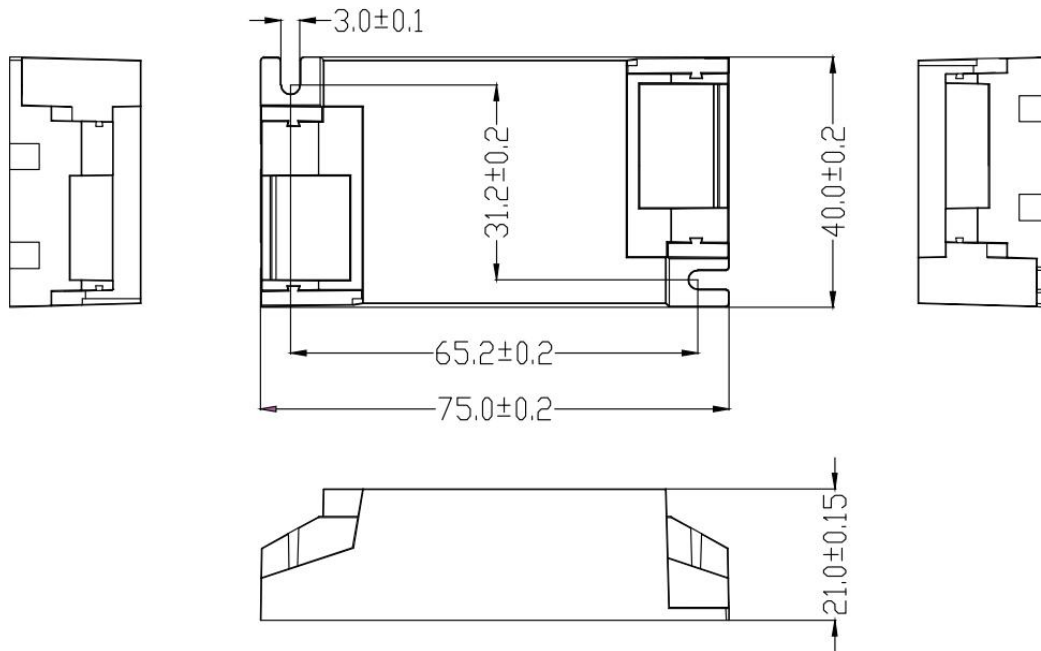


3. Output current setting

Output Current	1	2	3	4
100mA	-	-	-	-
150mA	-	-	-	ON
200mA	-	-	ON	-
250mA	-	-	ON	ON
300mA	-	ON	-	-
350mA	-	ON	-	ON
400mA	-	ON	ON	-
450mA	-	ON	ON	ON
500mA	ON	-	-	-
550mA	ON	-	-	ON
600mA	ON	-	ON	-
650mA	ON	-	ON	ON
700mA	ON	ON	-	-
750mA	ON	ON	-	ON
800mA	ON	ON	ON	-

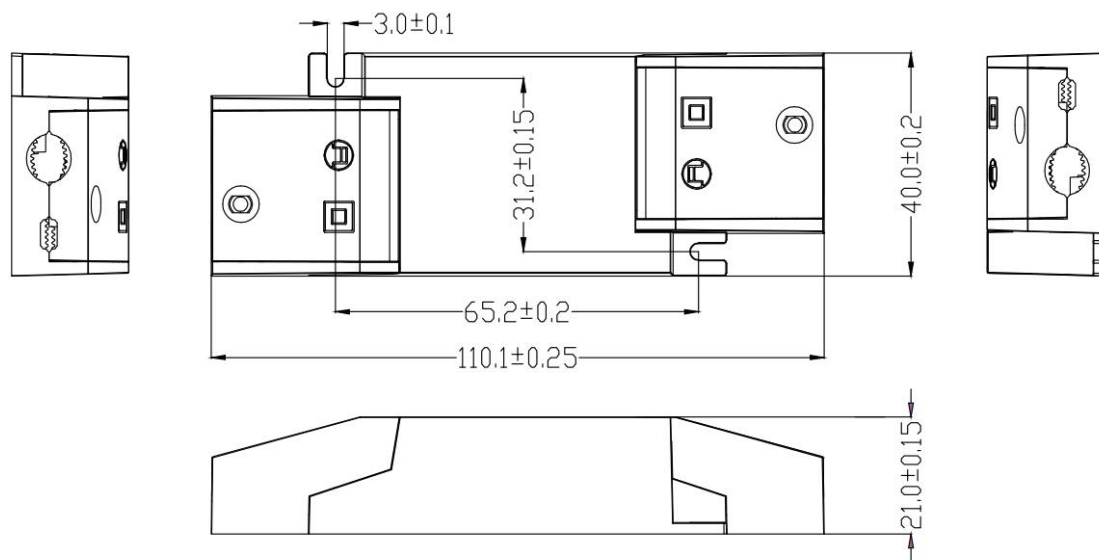
4. Dimension (Unit: mm)

Built in type:



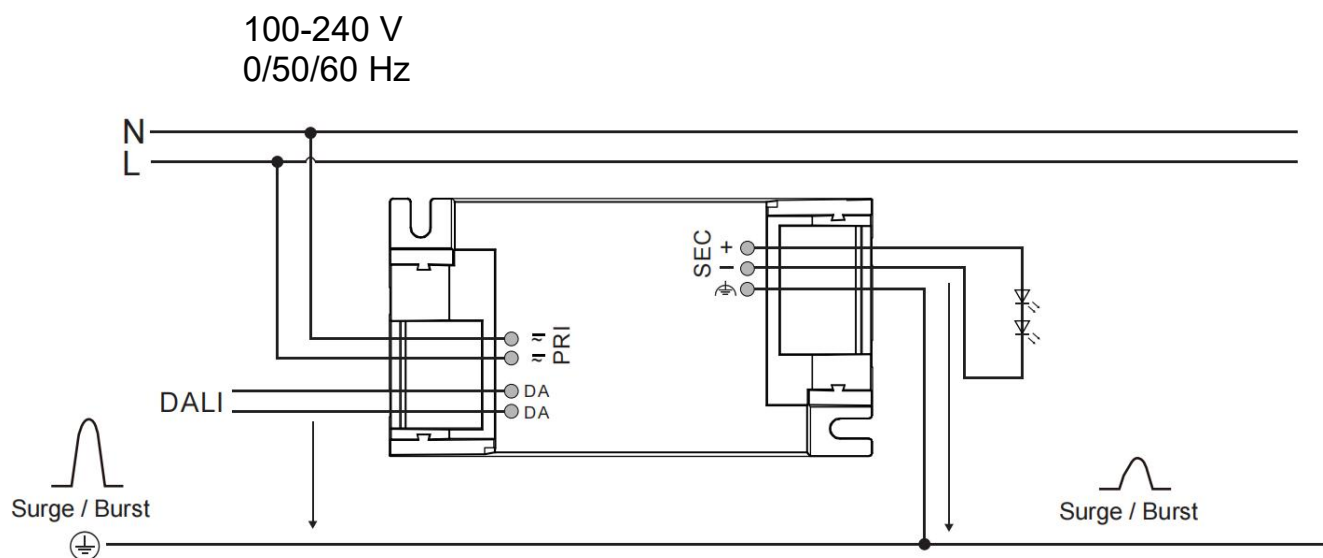
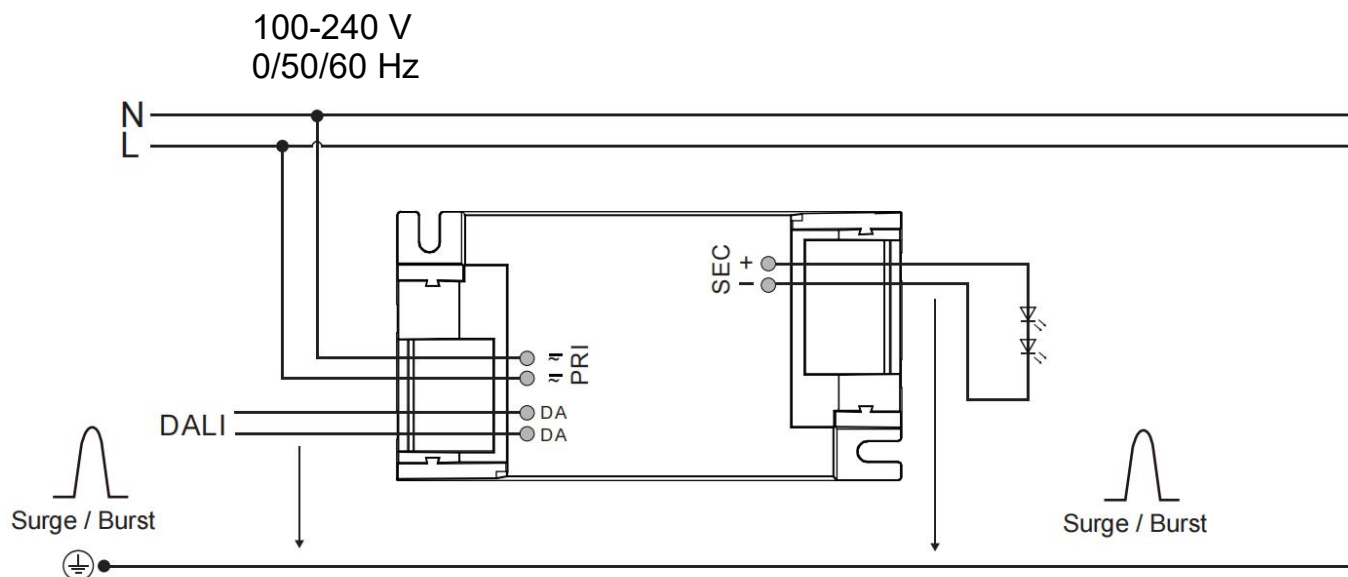
Compatible Strain reliefs: SR_CC_20-28_UNI

Strain reliefs



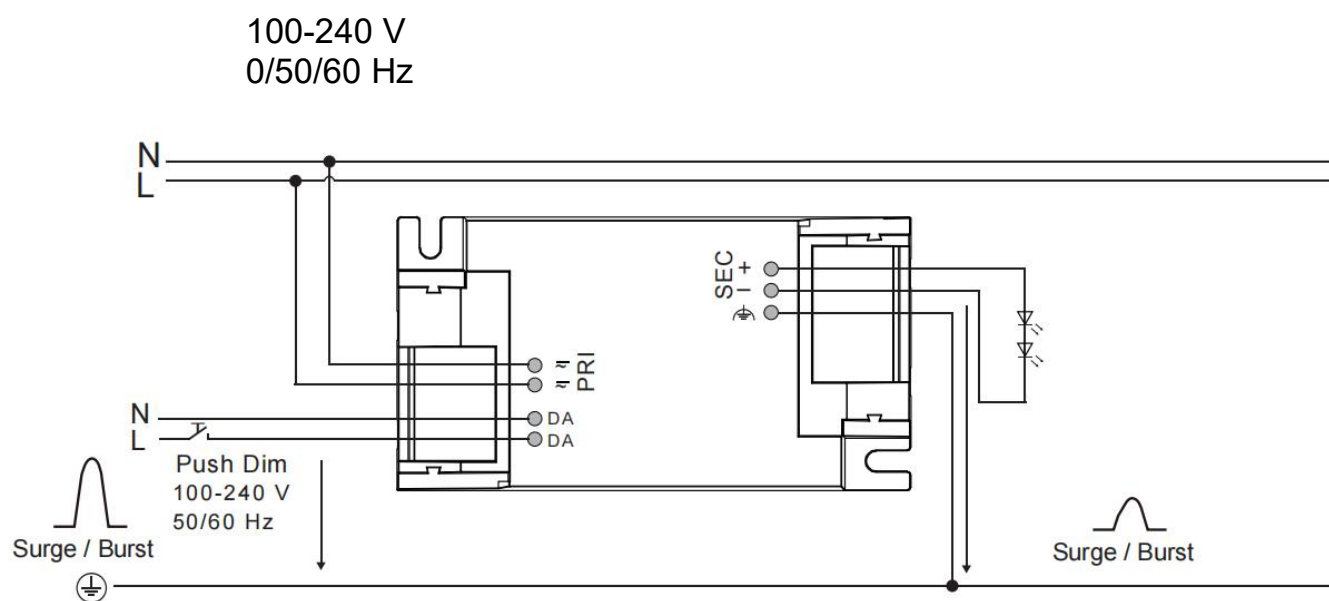
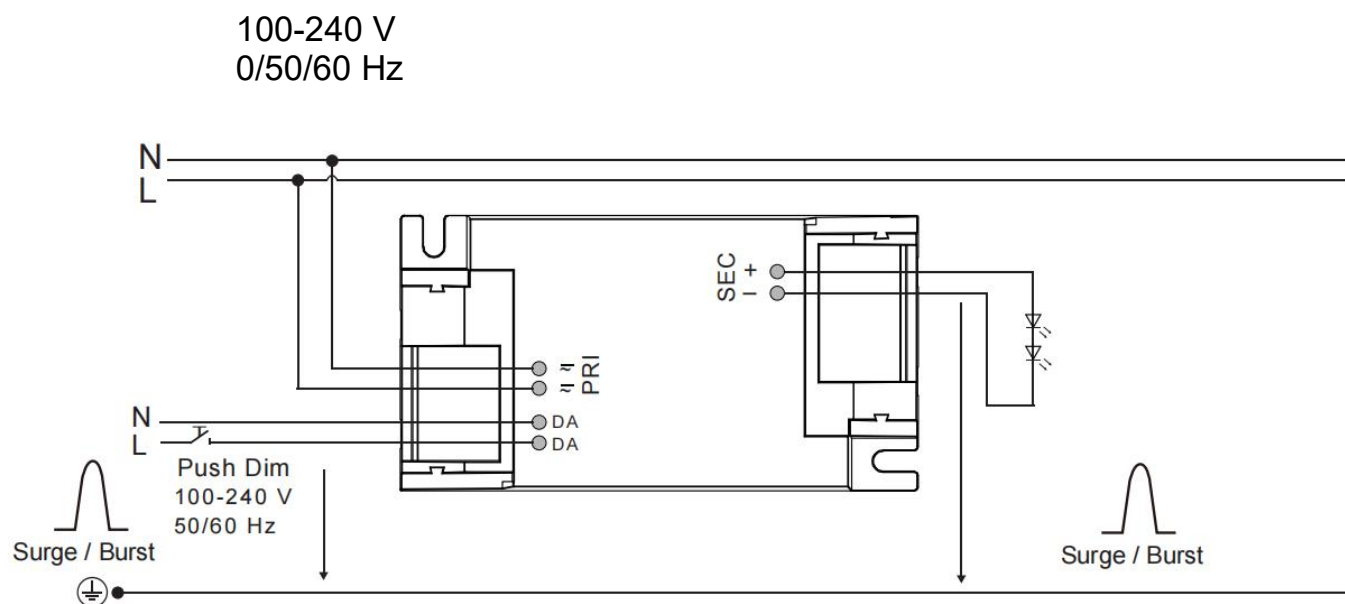
5. Wiring Diagram

Figure: Voltage peaks for LED driver without earthing (Above) and with earthing (Below)



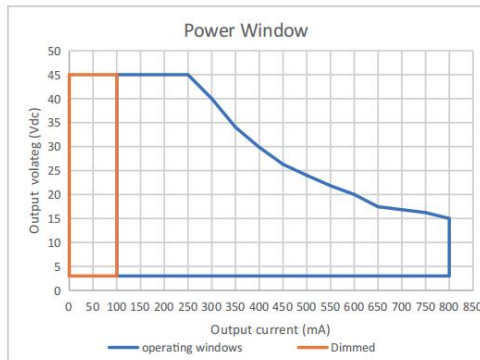
Push Dimming

Figure: Voltage peaks for LED driver without earthing (Above) and with earthing (Below)



6. Electrical values

1. Operating power windows



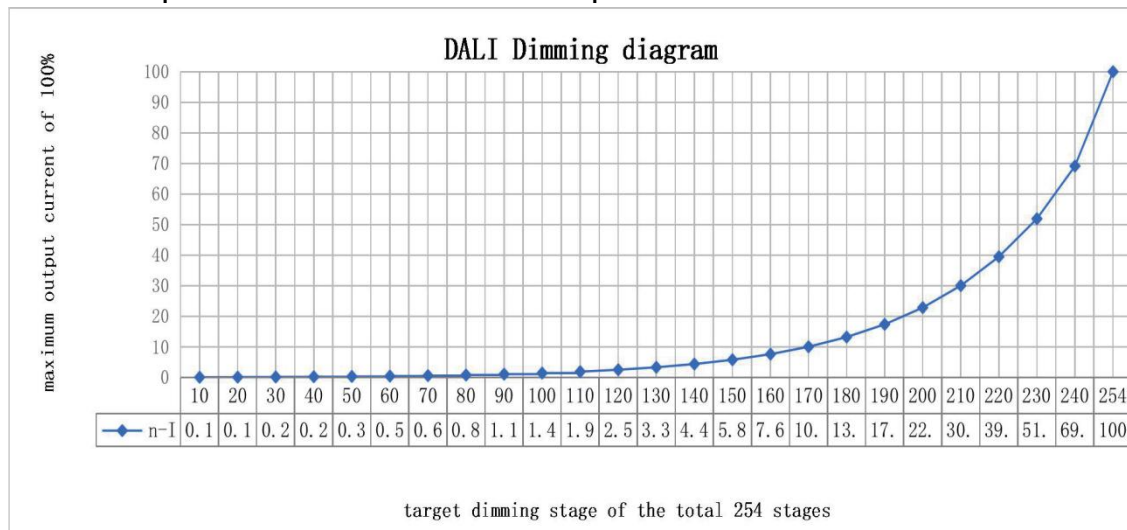
7. DALI dimming curve

formula for DALI dimming.

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

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

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



8. Function of the earth terminal:



The earth connection is conducted as protection earth (PE). The LED Driver can be earthed via earth terminal or metal housing

(if device has metal housing). If the LED Driver will be earthed, protection earth (PE) has to be used. There is no earth connection required for the functionality of the LED Driver. Earth connection is recommended to improve following behaviour.

- Electromagnetic interferences (EMI)
- LED glowing at standby

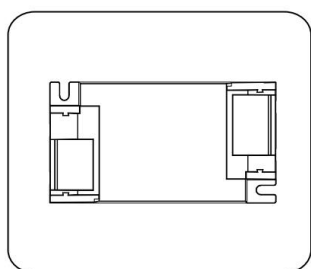
In general, it is recommended to earth the LED Driver if the LED module is mounted on earthed luminaire parts respectively heat sinks and thereby representing a high capacity against earth.

Avoiding residual LED glow on standby Residual LED glow on standby may occur as a result of capacitive leakage currents from the LED module onto earthed luminaire parts (such as the heat sink). This mainly affects high-efficiency LED systems with large surface areas installed in luminaires with protection class 1.

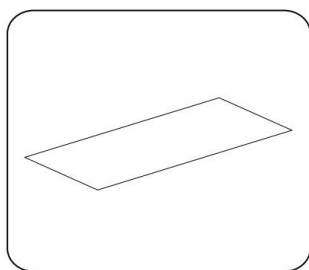
The topology has been improved so that residual LED glow can be virtually eliminated by earthing the devices.

9. Packing information

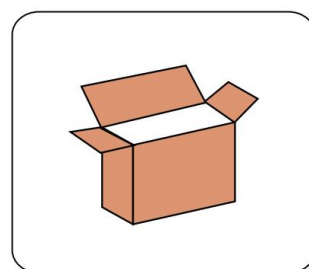
Built-in type



Product



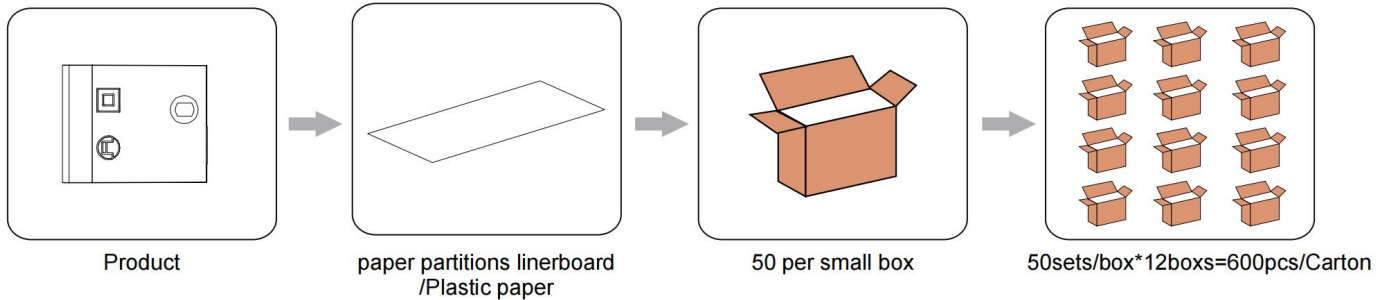
paper partitions linerboard
/Plastic paper



144 per small box

Carton L*W*H(mm)	Pcs/Carton	Net weight/ Pcs(kg)	Net weight/ Carton(kg)	Gross weight / Carton(kg)
315*255*150	144	0.08	12.09	12.58

Strain reliefs



Inner box

Carton L*W*H(mm)	Pcs/Carton	Net weight/ Pcs(kg)	Net weight/ Carton(kg)	Gross weight / Carton(kg)
180*118*75	50	0.007	0.36	0.47

Outer box

Carton L*W*H(mm)	Pcs/Carton	Net weight/ Pcs(kg)	Net weight/ Carton(kg)	Gross weight / Carton(kg)
500*195*245	600	0.007	4.22	5.52

10. Ordering Data

Model No	Item code
CC12W100-800-DALI-UNI-NX	158370
SR_CC20-28	147831

11. Constant light output (CLO)

<https://www.kdocs.cn/l/cbWalbA1eiBv>

12. Push Dim :

12.1 On / off:

Short push (120ms-600ms) on the switch

Stepless dimming: long push (> 0.6sec) on the switch

12.2 Power-on memory function

When the LED driver is powered on, it will restore the memory before the LED driver is powered off. (brightness remembers the brightness after the last dimming is stable, and the brightness during dimming is not memorized)

12.3 Light on/off

If the light is on, the light will be off after a short press. If the light is off, the light will be on after a short press. The time range of short press is 120-600mS.

12.4 PUSH Dimming

Press and hold the push switch for a long time, the light will enter the dimming state, if the previous time is dimming, it will automatically turn to dimming the next time. After releasing the reset button, the dimming stops and the current illuminance is maintained. The dimming range is 1%-100%. The default is to dim when the power is first long-press. If the brightness of the power-on is the maximum brightness, the first long-press is to dim. (Long press 0.6-3S to start dimming.)

12.5 Forced synchronization

Long press for 10 seconds to turn on all the lights and turn on the same brightness (50%), and continue to quickly short press will not change. After a short period of time without short press operation, the module exits the synchronization mode, and the short press restores the switch function.

12.6 PUSH Dimming rate

Long press the push switch 10S to switch the dimming rate to 3S, Long press the push switch 20S to switch the dimming rate to 6S.

13. REVISION HISTORY

Date	Revision	Remark
2026.16.03	V0.01	Product release
2026.27.06	V0.02	Add the logo for applying for ENEC certification