Constant current independent dimmable driver

DDL Series suffix DP(DALI-2+pushDIM+EL+CLO+corridorDIM+DALI Programmable)

Features

- Support DALI-2+pushDIM dimming mode
- Support advanced functions such as corridorDIM,EL, CLO
- The output current programming can be realized through the DALI interface
- 16-level current output can be realized by DIP-switch
- Dual input terminal design, Support loop-in and loop-out wiring without junction box
- Soft dimming and flicker-free at any brightness, meets the new requirements of ErP certification
- Using HPC patented technology, at any dimming level, the brightness of the lights is the same
- Dimming range 1~100%, output current accuracy 2%
- Standby power input<0.5W, meets the requirements of ErP certification
- High PF, high efficiency, low THD
- Screw-free and pressing type strain relief, supports thicker cables and is easier to install
- Intelligent LED hot-plug protection function
- SELV and Class II design, suitable for use outside of the light
- Compliance with CE,ENEC,UKCA,RCM,CCC,DALI-2,EL and other certifications
- IP20 protection grade, indoor use
- Nominal life-time up to 100,000 h
- 5-year guarantee

Interfaces

- DALI-2(DT6)
- PUSH(pushDIM,corridorDIM)

Functions

- Support central emergency application (dimming normal in DC input)
- Support self-contained emergency application
- Emergency lighting(EL)
- Constant light output function(CLO)
- Corridor dimming (corridorDIM)
- Programming via DALI(EasySet)
- Protective features (short-circuit, overload,no-load, hot plug-in protection)

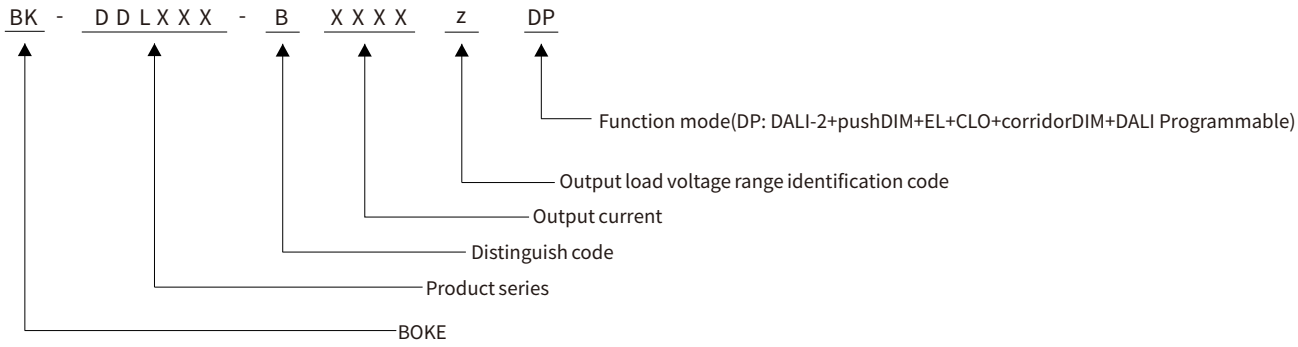
Suitable for lights

- Suitable for lights with independent drivers such as downlights, spotlights, panel lights, etc
- Not suitable for lights with built-in drivers

Typical applications

- LED indoor lighting
- LED office lighting
- LED commercial lighting

Model coding rules of DDL series



Function list

Model	suffix	Wired dimming		Advanced functions				Device Configuration	
		DALI-2	pushDIM	corridorDIM	AOC	EL	CLO	DALI interfaces	NFC interfaces
BK-DDL030-B	**DP**	√	√	√	√	√	√	√	
BK-DDL042-B	DF	√	√	√	√	√	√	√	√

* The description in this specification is only applicable to the products with the suffix DP and the model are DDL030-B,DDL042-B.

Model list

Model	Input voltage	Output power	Output voltage	Output current	Dimension	Certifications
BK-DDL030-B0800ADP	200-240VAC/DC	33.6W MAX.	6-42VDC	0.25-0.8A	L172*W57.5*H30mm	CE, ENEC, UKCA, RCM, CCC, EL, DALI-2
BK-DDL030-B0800ADF	200-240VAC/DC	33.6W MAX.	6-42VDC	0.25-0.8A	L172*W57.5*H30mm	CE, ENEC, UKCA, RCM, CCC, EL, DALI-2
BK-DDL042-B1100ADP	200-240VAC/DC	42W MAX.	6-38/40/42VDC	0.45-1.1A	L172*W57.5*H30mm	CE, ENEC, UKCA, RCM, CCC, EL, DALI-2
BK-DDL042-B1100ADF	200-240VAC/DC	42W MAX.	6-38/40/42VDC	0.45-1.1A	L172*W57.5*H30mm	CE, ENEC, UKCA, RCM, CCC, EL, DALI-2

* The description in this specification is only applicable to the products with the suffix DP and the model are DDL030-B,DDL042-B.

Technical data

Product model	BK-DDL030-B0800ADP	
Output parameters		
Regulation method	Constant Current	
Rated output current range	0.25-0.8A	
Rated output voltage range	6-42VDC	
Rated output power	33.6W Max	
Output current adjustment	DIP S.W(16 levels)	
Output current ripple LF	±2%	
Output current accuracy	±2%	
Linear regulation	±1%	
Load regulation	±1%	
No load output voltage	50VDC	
Flicker-free(typical)	Flickering percent(IEEE 1789)=0.116%, Flicker index(IEEE 1789)=0.001, Pst LM = 0.017, SVM = 0.003, (The above parameters are obtained from testing the panel lights)	
Input parameters		
Rated input voltage range	200-240VAC 200-240VDC	
Input voltage range	180-264VAC 200-264VDC	
Input votage shock	<380 V AC	
Input current	<0.195A (Rated input voltage)	
Input frequency	0/50/60Hz	
Input PF/Input DF	PF : 0.97 DF:0.97 ,see the electrical values below for details	
Input THD	8.5% ,see the electrical values below for details	
Efficiency(Max)	88% ,see the electrical values below for details	
In-rush current	7.6A peak ,178us duration(50 % Ipeak), see the description below for details	
Start/Switchover/Turn off	<0.7s(AC start),<0.7s(DC start),<0.3s(AC/DC switchover),<0.5s(Turn off)	
Switching cycles	> 50,000 switching cycles	
Power consumption	Full load(Pin):39.5W, No load(Pno): N/A, On stand-by(Psb) : <0.5W, Network stand-by(Pnet) : N/A	
Safety		
Withstand voltage	I/P-O/P(LED):3750V AC, I/P-DALI: 1500V AC, O/P-DALI: 1500V AC.	
Mains surge capability	L-N:2KV(Performance criterion:A)	
Leakage current	0.41mA (230V AC & Full load)	
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH	
Control interface		
DALI dimming port	Voltage range: 9.5-22.5V, typical 16V, interface current consumption: 1.8mA	
pushDIM dimming port	Voltage range: 180-264V 47/63Hz	
1-10V dimming port	N/A	
Auxiliary power supply	N/A	
Dimming range	1-100%	
Dimming drive mode	AM(amplitude modulation)	
Emergency support		
Central emergency system	Supported(dimming normal in DC input)	
Self-contained emergency	Supported	
Environment & Life time		
Operating temperature	Ta=-20-50°C	
Case temperature	Tc=80°C	
Operating humidity	5-85% RH, not condensed	
Storage temp./humidity	-40-80°C, 5-85% RH, not condensed	
IP grade	IP20	
MTBF	500,000H,MIL-HDBK-217F(25°C)	
Life-time	Nominal life-time up to 100,000 h, see the description below for details	
Vibration resistant	10~500Hz,5G 12min./1cycle,period for 72min. each along X,Y,Z axes	
Acoustic Noise	<25dB(30cm, Normal operation)	
Environmental protection	RoHS	
Certifications and standards		
Certifications	CE, ENEC, UKCA, RCM, CCC, EL, DALI-2	
Safety	EN61347-1, EN61347-2-13, EN62384	
EMC	EN55015, EN61000-3-2 , EN61000-3-3, EN61000-4-2,3,4,5,6,8,11, EN61547	
DALI-2	IEC 62386-101(DALI-2), IEC 62386-102(DALI-2), IEC 62386-207(DALI-2)	
EL	Compatible IEC 61347-2- 13 Annex J, compatible with EN 60598-2-22 and EN 50172	
RF	N/A	

Remarks

1.By default, all parameter are measured at 230VAC input, full load and 25°C of ambient temperature.
2.The driver can not be installed inside the light. when the driver is used with the light, the EMC of the whole light needs to be tested.

Technical data

Product model	BK-DDL042-B1100ADP	
Output parameters		
Regulation method	Constant Current	
Rated output current range	0.45-1.1A	
Rated output voltage range	6-38/40/42VDC	
Rated output power	42W Max	
Output current adjustment	DIP S.W(16 levels)	
Output current ripple LF	±2%	
Output current accuracy	±2%	
Linear regulation	±1%	
Load regulation	±1%	
No load output voltage	50VDC	
Flicker-free(typical)	Flickering percent(IEEE 1789)=0.099%, Flicker index(IEEE 1789)=0.001, Pst LM = 0.015, SVM = 0.003, (The above parameters are obtained from testing the panel lights)	
Input parameters		
Rated input voltage range	200-240VAC 200-240VDC	
Input voltage range	180-264VAC 200-264VDC	
Input votage shock	<380 V AC	
Input current	<0.25A (Rated input voltage)	
Input frequency	0/50/60Hz	
Input PF/Input DF	PF : 0.97 DF:0.97 ,see the electrical values below for details	
Input THD	8% ,see the electrical values below for details	
Efficiency(Max)	89% ,see the electrical values below for details	
In-rush current	8.5A peak ,174us duration(50 % Ipeak), see the description below for details	
Start/Switchover/Turn off	<0.7s(AC start),<0.7s(DC start),<0.3s(AC/DC switchover),<0.5s(Turn off)	
Switching cycles	> 50,000 switching cycles	
Power consumption	Full load(Pin):48W, No load(Pno): N/A, On stand-by(Psb) : <0.5W, Network stand-by(Pnet) : N/A	
Safety		
Withstand voltage	I/P-O/P(LED):3750V AC, I/P-DALI: 1500V AC, O/P-DALI: 1500V AC.	
Mains surge capability	L-N:2KV(Performance criterion:A)	
Leakage current	0.31mA (230V AC & Full load)	
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH	
Control interface		
DALI dimming port	Voltage range: 9.5-22.5V, typical 16V, interface current consumption: 1.8mA	
pushDIM dimming port	Voltage range: 180-264V 47/63Hz	
1-10V dimming port	N/A	
Auxiliary power supply	N/A	
Dimming range	1-100%	
Dimming drive mode	AM(amplitude modulation)	
Emergency support		
Central emergency system	Supported(dimming normal in DC input)	
Self-contained emergency	Supported	
Environment & Life time		
Operating temperature	Ta=-20-45°C	
Case temperature	Tc=90°C	
Operating humidity	5-85% RH, not condensed	
Storage temp./humidity	-40-80°C, 5-85% RH, not condensed	
IP grade	IP20	
MTBF	500,000H,MIL-HDBK-217F(25°C)	
Life-time	Nominal life-time up to 100,000 h, see the description below for details	
Vibration resistant	10~500Hz,5G 12min./1cycle,period for 72min. each along X,Y,Z axes	
Acoustic Noise	<25dB(30cm, Normal operation)	
Environmental protection	RoHS	
Certifications and standards		
Certifications	CE, ENEC, UKCA, RCM, CCC, EL, DALI-2	
Safety	EN61347-1, EN61347-2-13, EN62384	
EMC	EN55015, EN61000-3-2 , EN61000-3-3, EN61000-4-2,3,4,5,6,8,11, EN61547	
DALI-2	IEC 62386-101(DALI-2), IEC 62386-102(DALI-2), IEC 62386-207(DALI-2)	
EL	Compatible IEC 61347-2- 13 Annex J, compatible with EN 60598-2-22 and EN 50172	
RF	N/A	

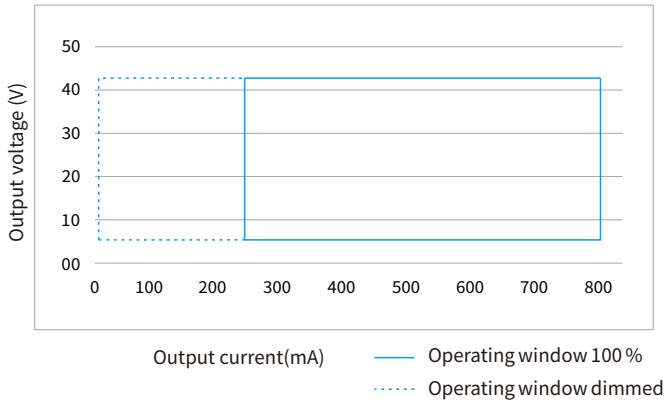
Remarks

1.By default, all parameter are measured at 230VAC input, full load and 25°C of ambient temperature.
2.The driver can not be installed inside the light. when the driver is used with the light, the EMC of the whole light needs to be tested.

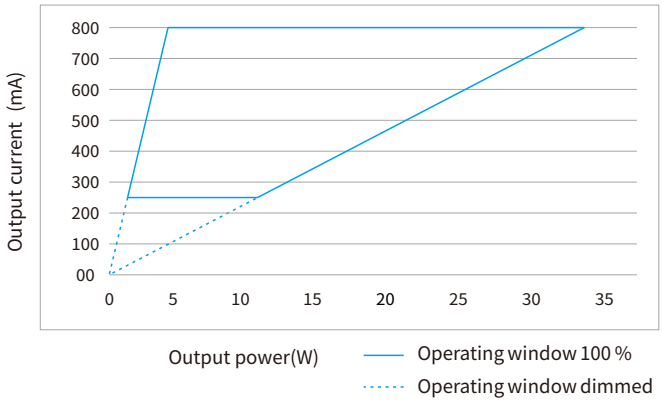
Electrical values

BK-DDL030-B0800ADP

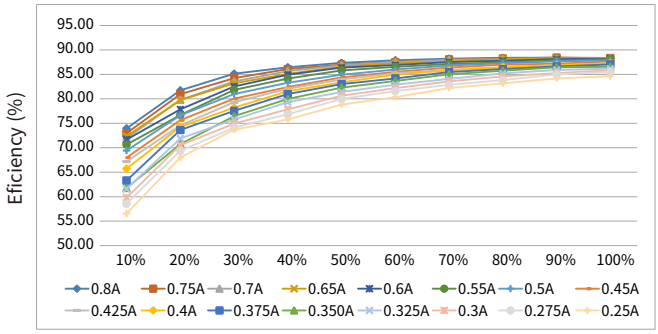
Operating window



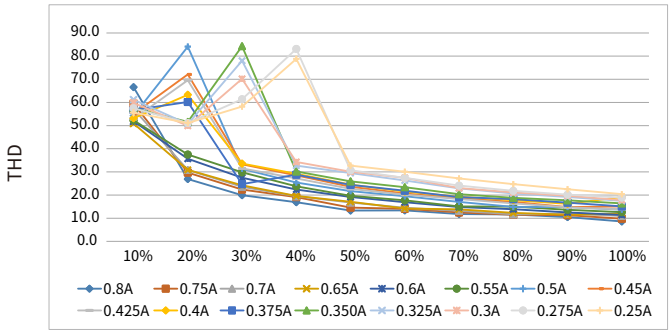
Operating window



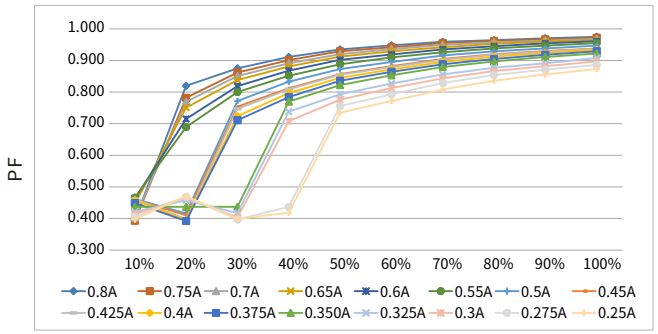
Efficiency vs load



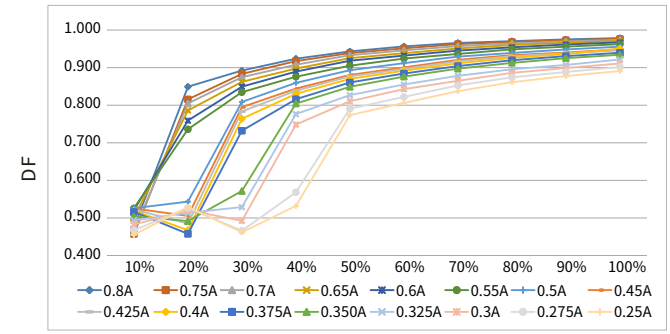
THD vs. Load



Power factor vs. Load

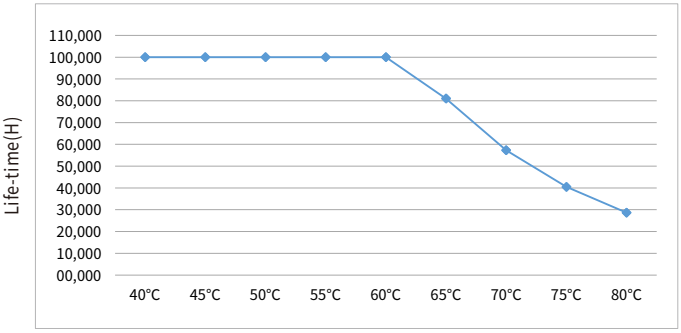


Displacement factor vs. Load



Expected life-time

Life-time vs. case temperature



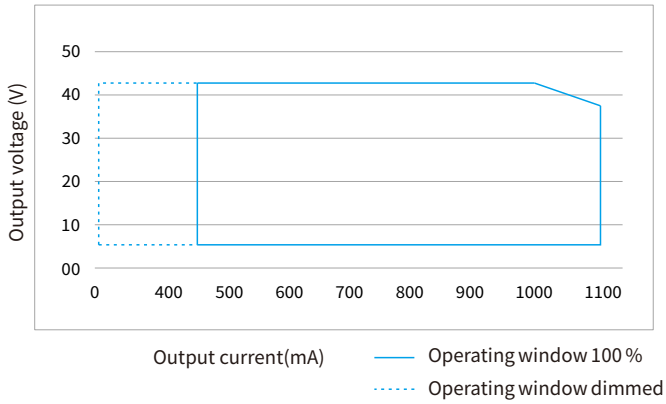
-The life-time of the LED driver is shown in the figure above (calculated based on the 90% survival rate).

- The relation of tc to ta temperature depends also on the luminaire design.

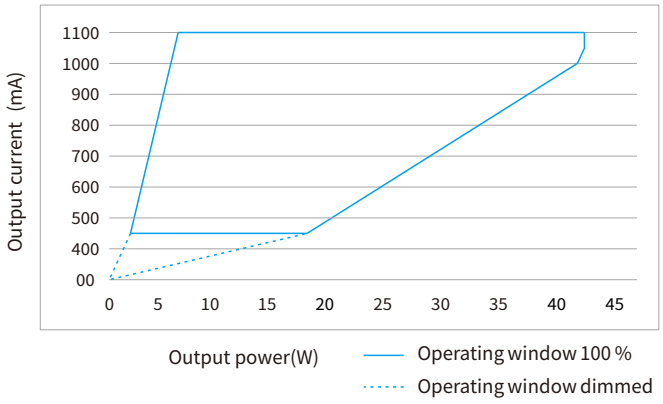
Electrical values

BK-DDL042-B1100ADP

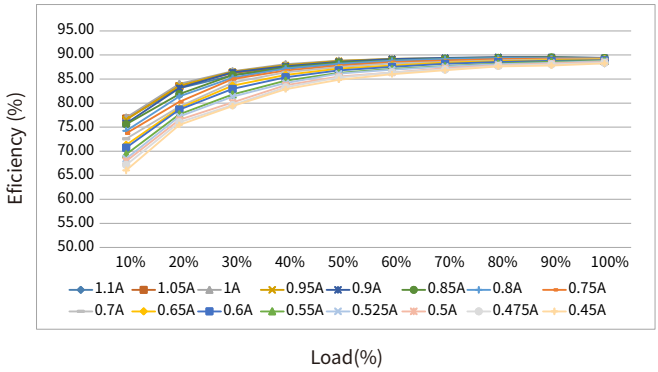
Operating window



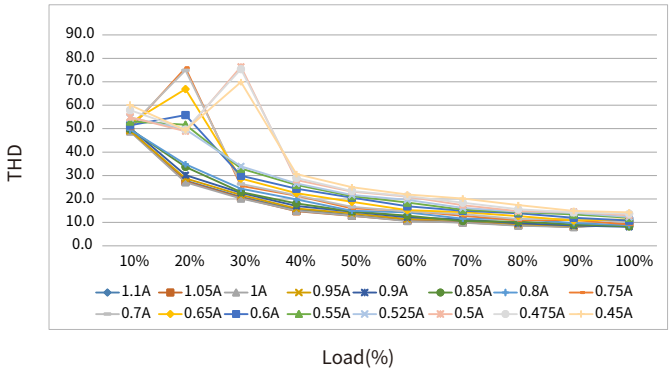
Operating window



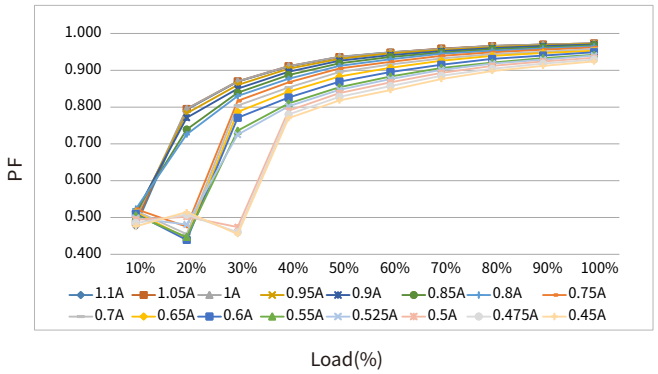
Efficiency vs load



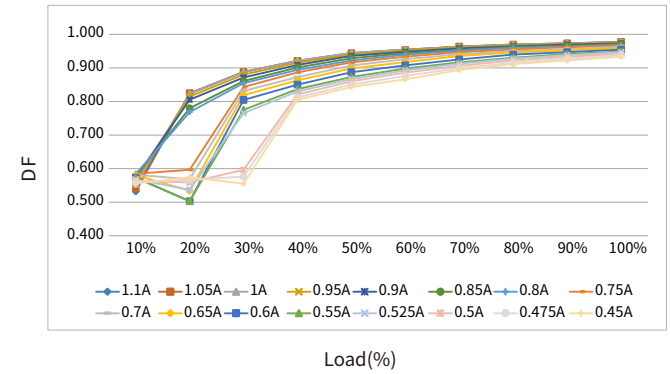
THD vs. Load



Power factor vs. Load

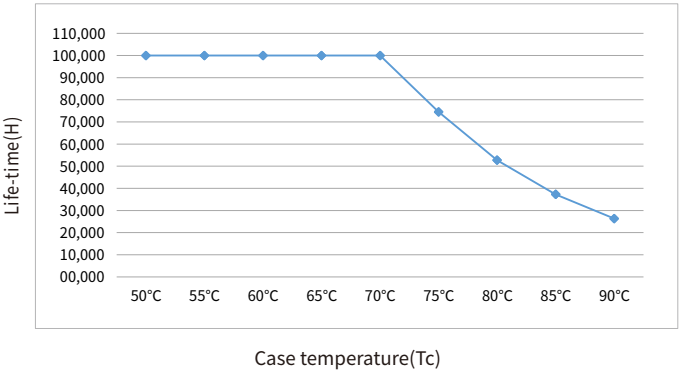


Displacement factor vs. Load



Expected life-time

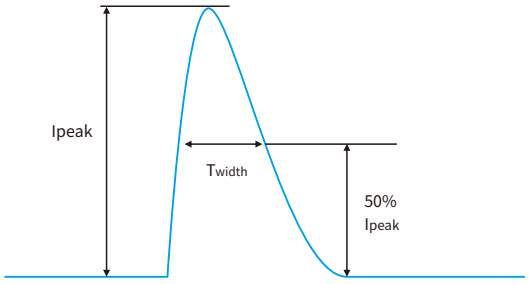
Life-time vs. case temperature



-The life-time of the LED driver is shown in the figure above (calculated based on the 90% survival rate).
- The relation of tc to ta temperature depends also on the luminaire design.

Surge

Model	Ipeak	Twidth	Condition	Relative number of MCB/pcs														
				B10	B13	B16	B20	B25	C10	C13	C16	C20	C25	D10	D13	D16	D20	D25
BK-DDL030-B0800ADP	7.6A	178us	AC 230V,Full load, Cold start,Ta≤30°C, MCB is not installed side by side	45	59	72	90	113	45	59	72	90	113	45	59	72	90	113
BK-DDL042-B1100ADP	8.5A	174us		37	48	59	74	93	37	48	59	74	93	37	48	59	74	93



Remarks

- The number of drives mounted under different MCBs in the table is the maximum value. Please do not exceed this number during installation.
- Calculation uses typical values from ABB series S200 as a reference.
- Different brands and models of miniature circuit breakers, the number of drives mounted will be slightly different.
- If the ambient temperature of the MCB installation exceeds 30°C or multiple MCBs are installed side by side, the number of drives mounted will be reduced and the calculation needs to be recalculated.
- Electrician's usually consider Type B for household lighting and Type C for commercial lighting application.

Functions

Output short-circuit behaviour

- Output short-circuit will not damage the driver.
  After removing the short circuit fault, the driver will automatically resume output.

Output no-load operation

- Output no-load will not damage the driver.
  Please turn off the driver first if you need to connect the LED load.

Output overload protection

- The LED driver turns off the output if the output voltage range is exceeded. The output will be activated again after restart the LED driver .

Output hot plug-in

In the following two cases,the LED driver will automatically turn off the output to protect the LED:

- When the driver is powered on first and the LED is connected later.
- When the driver is powered on,disconnected and connecred again.

The output will be activated again after restart of the LED driver .

Driver restart method

There are two ways to restart the driver:

- Through the AC input:disconnect the AC of the driver and power it again.
- Through dimming interface.
  DALI:send “OFF” command first,then send “MAX” command.
  pushDIM:short press pushbutton two times,then long press pushbutton.
  1-10V:first adjust the output voltage of the dimmer to 0.9V or below, then adjust it to 1V or above.

Corridor dimming (corridorDIM)

- Please see the "corridorDIM dimming" section.

Adjustable output current (AOC)

- The output current of the driver can be adjusted within a certain range, and 2 options can be selected through the EasySet configuration software.

Setting 1 (default): By DIP-switch setting
The output current is determined by the selection of the DIP-switch.

Setting 2: By programming setting
The output current is determined by the programming setting.

Constant light output (CLO)

- The luminous flux of a LED decreases constantly over the life-time.
- The CLO function ensures that the emitted luminous flux remains stable.For that purpose the LED current will increase continuously over the LED life-time.
- In EasySet configuration it is possible to select a start value(in percent) and an expected life-time.The LED driver adjusts the current afterwards automatically.

Emergency lighting(EL)

- The driver works normally under DC input.
- When the driver is applied in DC input, the positive pole of the DC cable should be connected to the ACL/DC+ terminal, and the negative pole of the DC cable should be connected to the ACN/DC- terminal. If the connection is reversed, the driver will not be damaged, but it will affect the EL function normal work.
- The output response action after DC input can be set through the EasySet configuration software.

Setting 1 (default): When DC input, the output of the driver remains unchanged, and the dimming function responds normally.

Setting 2: When DC input, the output of the driver jumps to the setting brightness, and the dimming function is invalid.

Configuration programming(EasySet)

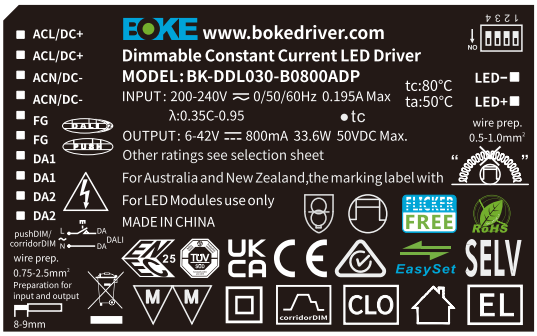
- The programming configuration of the driver is realized using the BOKE EasySet programming suite and through the driver's DALI interface.
- Please see the "Device configuration" section.
- More information about the EasySet programming suite can be found at www.bokedriver.com.

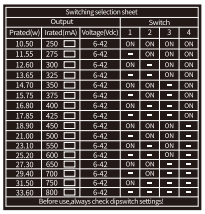
Insulation between circuits

Isolation	Input	Output	Case	DALI	PUSH
Input	-	Double	Double	Basic	-
Output	Double	-	Basic	Double	Double
Case	Double	Basic	-	Double	Double

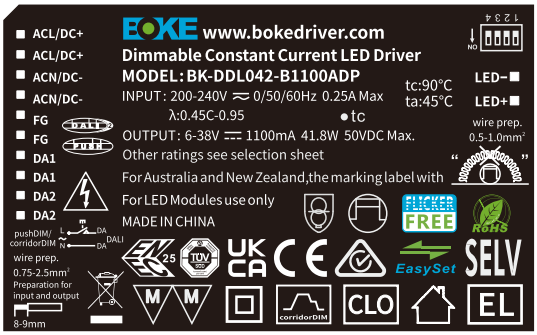
Label

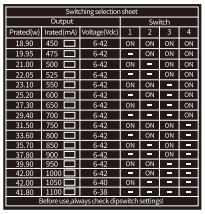
BK-DDL030-B0800ADP





BK-DDL042-B1100ADP





DIP-switch & output current

BK-DDL030-B0800ADP

Output			1	2	3	4	Dimming depth
Prated(w)	Irated(mA)	Voltage(Vdc)					
10.50	250	6-42	ON	ON	ON	ON	1%
11.55	275	6-42	--	ON	ON	ON	1%
12.60	300	6-42	ON	--	ON	ON	1%
13.65	325	6-42	--	--	ON	ON	1%
14.70	350	6-42	ON	ON	--	ON	1%
15.75	375	6-42	--	ON	--	ON	1%
16.80	400	6-42	ON	--	--	ON	1%
17.85	425	6-42	--	--	--	ON	1%
18.90	450	6-42	ON	ON	ON	--	1%
21.00	500	6-42	--	ON	ON	--	1%
23.10	550	6-42	ON	--	ON	--	1%
25.20	600	6-42	--	--	ON	--	1%
27.30	650	6-42	ON	ON	--	--	1%
29.40	700	6-42	--	ON	--	--	1%
31.50	750	6-42	ON	--	--	--	1%
33.60	800 ★	6-42	--	--	--	--	1%

BK-DDL042-B1100ADP

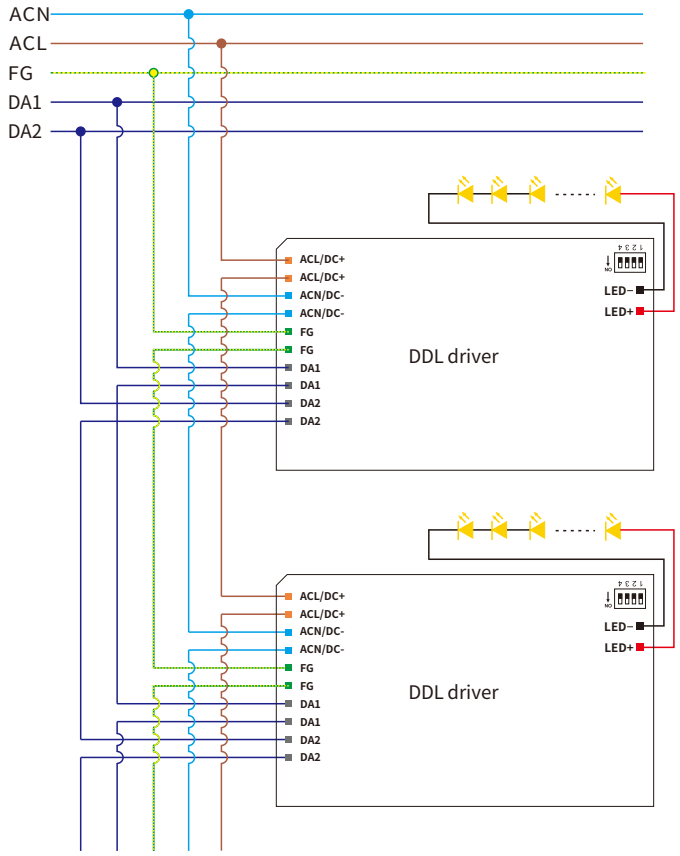
Output			1	2	3	4	Dimming depth
Prated(w)	Irated(mA)	Voltage(Vdc)					
18.90	450	6-42	ON	ON	ON	ON	1%
19.95	475	6-42	--	ON	ON	ON	1%
21.00	500	6-42	ON	--	ON	ON	1%
22.05	525	6-42	--	--	ON	ON	1%
23.10	550	6-42	ON	ON	--	ON	1%
25.20	600	6-42	--	ON	--	ON	1%
27.30	650	6-42	ON	--	--	ON	1%
29.40	700	6-42	--	--	--	ON	1%
31.50	750	6-42	ON	ON	ON	--	1%
33.60	800	6-42	--	ON	ON	--	1%
35.70	850	6-42	ON	--	ON	--	1%
37.80	900	6-42	--	--	ON	--	1%
39.90	950	6-42	ON	ON	--	--	1%
42.00	1000	6-42	--	ON	--	--	1%
42.00	1050	6-40	ON	--	--	--	1%
41.80	1100 ★	6-38	--	--	--	--	1%

Remarks:

1. ★ It means that this item is the factory default current.
2. -- It means that this channel is OFF.

DALI dimming application

Wiring diagram



• • • Max. x15
loop-in and loop-out wiring

Switch to the DALI dimming mode

- After installation according to the wiring diagram of DALI dimming application,the driver will automatically switch to the DALI control mode after receiving any DALI command.

Remarks:

- Standard DALI control line voltage range:9.5V to 22.5V ,type 16V.
- The two DALI control lines polarity-reversible.
- Max. 64 DALI drivers per DALI control line.
- The maximum distance length of the DALI control line is 300m at $2\times1.5mm^2$.
- DALI bus can be wired together with any mains voltage cables, but separate wiring is recommended.
- The configuration parameters of the driver can be set through the DALI configuration tool or DALI application controller during installation, such as setting device address, group address, power-on level, bus-failure level, scene level, fade time, dimming curve, etc.

Please refer to the table below

Cable size	Distance
$2\times0.50mm^2$	max.100m
$2\times0.75mm^2$	max.150m
$2\times1.00mm^2$	max.200m
$\geqslant2\times1.50mm^2$	max.300m

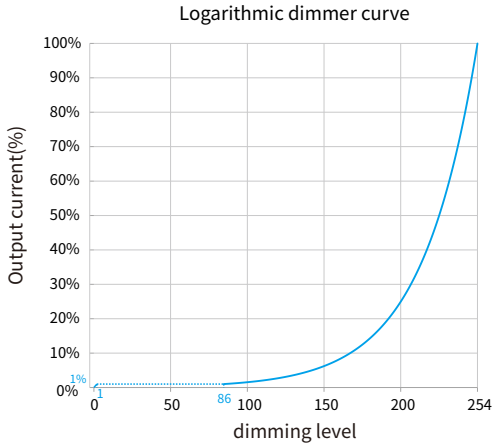
Power-on level :

When the driver is in DALI-2 dimming mode, the factory default level after each power-on is the brightest.

The power-on level can be set through the DALI configuration tool or DALI application controller during installation, and can be set to memory or fixed any brightness (such as off, darkest, 50%, etc.).

Note: The recommended setting for the default factory power-on level of the DALI-2 driver is the brightest in the DALI-2 standard.

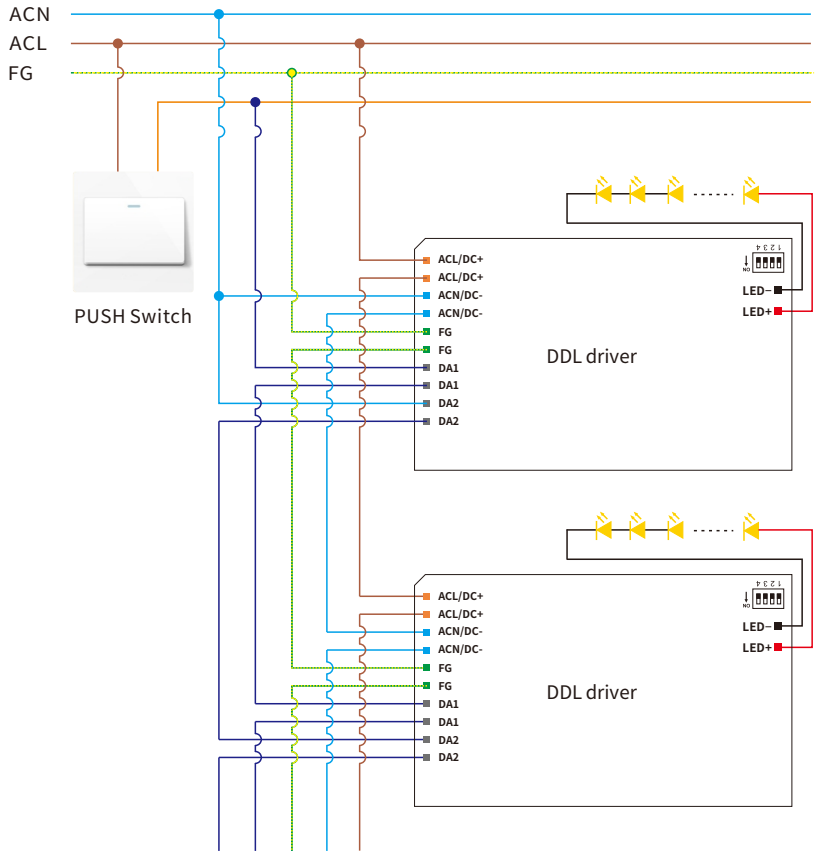
Dimming curve



Remarks: The dimming curve can be selected by DALI configuration. The default is logarithmic dimming curve.

pushDIM dimming application

Wiring diagram



• • • Max. x15
loop-in and loop-out wiring

Switch to the pushDIM dimming mode

- According to the wiring diagram of the pushDIM dimming application, short press(<1s) the pushbutton 5 times quickly 3 within 3s , then long press(>1s) the pushbutton 1 time,The driver will automatically switch to the pushDIM dimming mode.
- After switch to the pushDIM control mode, CorridorDIM mode will be automatically closed.

Multiple lights synchronize control operation

method 1:

Step 1:long press the pushbutton,confirm each light is on.

Step 2:short press the pushbutton,confirm each light is off.

Step 3:long press the pushbutton,confirm each light is from darkest to brightest and all the lights are synchronous.

method 2:

- Long press the pushbutton 15s,all lights output to the brightest state.

Remarks:

Max. 50 drivers per pushDIM control line.

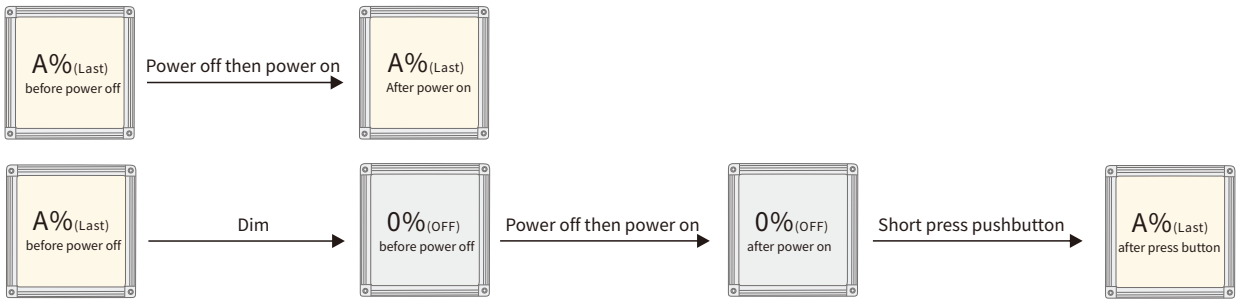
Turn on or turn off:short press pushbutton for 0.2-1s.

Dimming: long press pushbutton for 1-5s.

Power on status: after power on,the light state will be the same as the lighting on state.

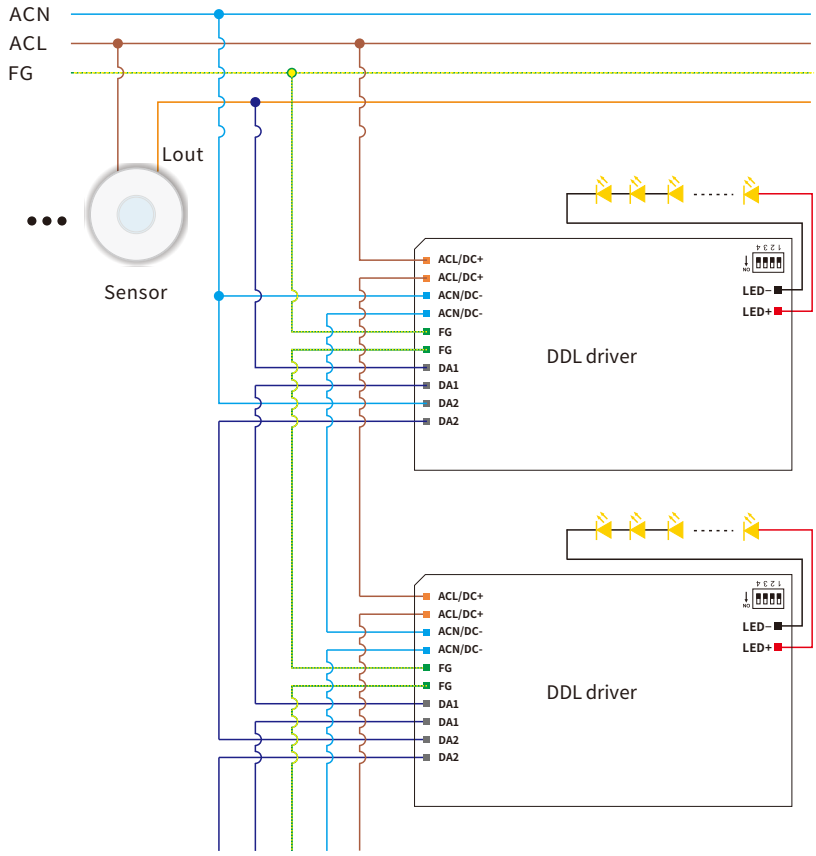
If the light is on before power on,the light will be on after power on again,brightness will be the same as the last lighting on brightness.

If the light is off before power off,the light will be off after power on again,short press the pushbutton,then the light will be on,the brightness will be the same as the last brightness.



corridorDIM dimming application

Wiring diagram



• • • Max. x15
loop-in and loop-out wiring

Switch to the corridorDIM dimming mode

- Method 1: Switch by sensor.

After installation according to the wiring diagram of corridorDIM dimming application, you can use the following two methods to switched.

Method 1: Keep the movement in the effective sensing area for 5 minutes, the corridorDIM dimming function of the driver will be switched and light up 100%(under the default setting).

Method 2: Switch by Hold-time

Set the hold-time of the sensor to more than 5 minutes. When the motion sensor detects a person and turns on the output for 5 minutes, the corridorDIM dimming function will be switched and the light will be on 100% (Default), finally restore the hold-time that the sensor actually needs.

-Method 2: Switch by normal switch

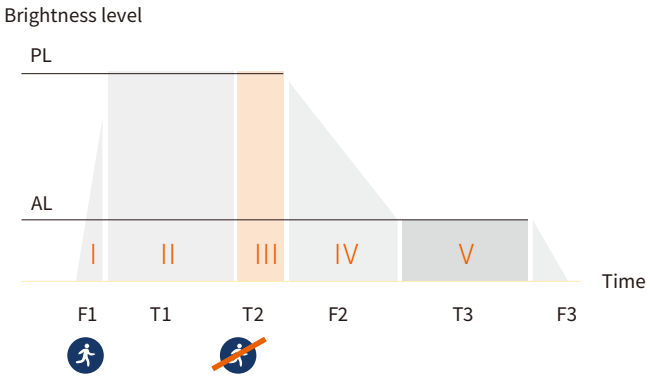
After installation according to the wiring diagram of the corridorDIM dimming application, first replace the sensor with a normal switch, and then turn on the normal switch for 5 minutes, and the driver will automatically switch to corridorDIM dimming mode, then remove the normal switch and replace it with the sensor.

- After switch to the corridorDIM dimming mode, the pushDIM dimming mode will be automatically deactivate .

Remarks

- During normal working,It is recommended to set the hold-time of the motion sensor to the minimum.
- Need to use a motion sensor with AC switch.

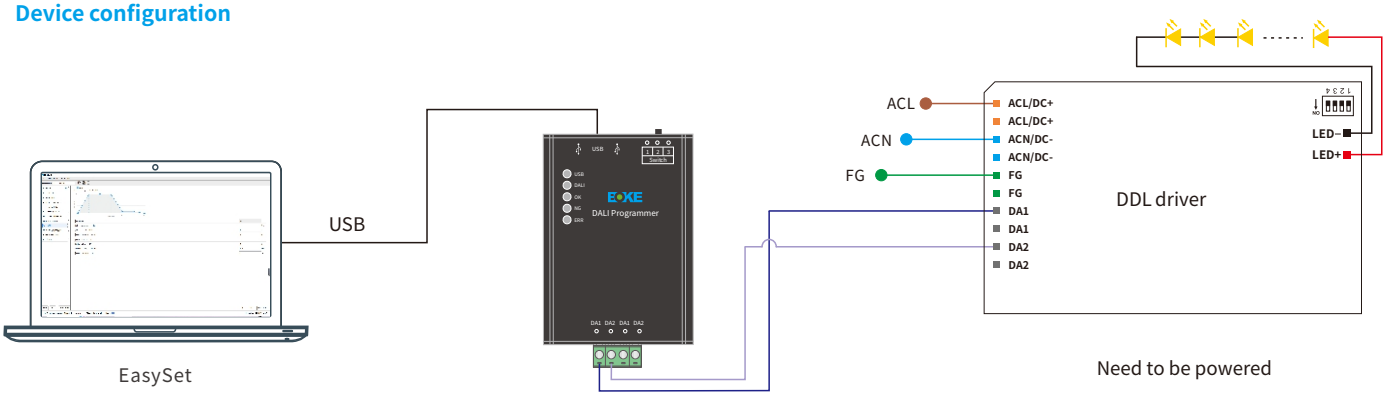
corridorDIM working process



- The parameters of corridorDIM can be set through the configuration tool.
- corridorDIM is not activated by default.

Name	Symbol	Factory setting	Settable range
Fade-in time	F1	1s	0-100s
Presence level	PL	100%	0-100%
Hold-on time	T1	By sensor setting	
Run-on time	T2	180s	0-60000s
Fade-out time	F2	5s	0-100s
Absence level	AL	10%	0-100%
Stand-by Time	T3	unlimited	0-59999s,60000s(unlimited)
Fade-off time	F3	0s	0-100s

Device configuration



Software download(PC)

Note：PC supports Windows 7/Windows 10/Windows 11 32bit/64bit.

Device configuration

Configure tools and software

Type	Name	Brand	Name	Minimum version
Programmer	DALI programmer	BOKE	BK-CS01-SDL	V1.0.0
Software	PC Software	BOKE	BOKE EasySet	V1.0.0

Parameters configure

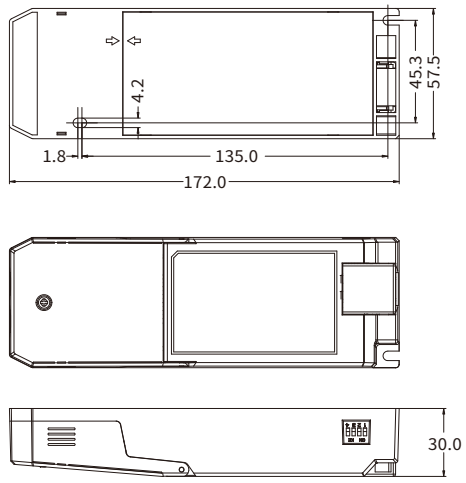
Configuration items	Factory settings	Parameter configuration	Read/Wirte
Product information	-	NO	Read Only
Adjustable output current(AOC)	Activated	YES	Read/Wirte
PUSH dimming function(pushDIM)	Activated	YES	Read/Wirte
1-10V dimming (1-10V)	Activated	YES	Read/Wirte
Corridor dimming(corridorDIM)	Activated	YES	Read/Wirte
Emergency lighting(EL)	Activated(setting 1)	YES	Read/Wirte
Constant light output function(CLO)	Deactivated	YES	Read/Wirte
Hot plug-in protection(HPP)	Activated	YES	Read/Wirte
Running time		NO	Read Only
Other parameters		YES	

Installation

Mechanical dimensions

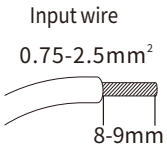
Unit:mm

DDL030-B/DDL042-B



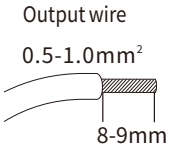
INPUT

Numbering	function	colour
1	ACL/DC+	orange
2	ACN/DC-	orange
3	ACL/DC+	blue
4	ACN/DC-	blue
5	FG	green
6	FG	green
7	DA1	gray
8	DA1	gray
9	DA2	gray
10	DA2	gray



OUTPUT

Numbering	function	colour
1	LED-	black
2	LED+	green



Installation note

Hot plug-in

- Hot plug-in is not supported due to residual output voltage of > 0 V.
- If a LED load is connected the device has to be restarted.
- Restart can be achieved by re-powering the driver or executing a on/off command (action) through the control interface (DALI, pushDIM,1-10V)

Wiring guidelines

- 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)
- Max. lenght of output wires is 2 m.
- Incorrect wiring can damage LED modules.

Mounting screw specifications and torque

- Max. torque at the clamping screw: 0.5 Nm / M4

Replace LED module

1. Mains off
2. Remove LED module
3. Wait for 5 seconds
4. Connect LED module again

Installation requirements

- The driver should be installed in a dry, acid-free, oil-free, fat-free environment.
- The installation ambient temperature of the drive shall not exceed the value of Ta at any time.
- The temperature of the mounting surface of the driver should be lower than 40°C
- The driver should keep a certain distance from the heating stuff (such as the luminaire radiator).
- If the driver is used externally (it needs to be used with the accessories), the installation of the driver should also meet the following conditions:
  1.The driver should be a certain distance between the drivers, as shown in Figure 1.
  2.The driver keeps a certain distance from surrounding objects, as shown in Figure 2.

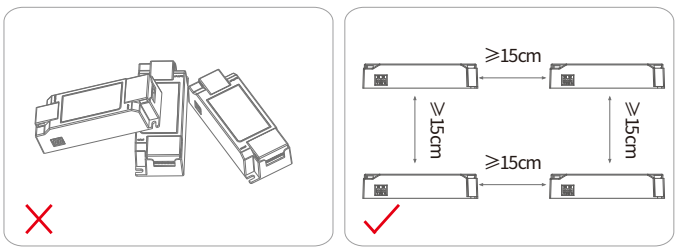


Figure 1

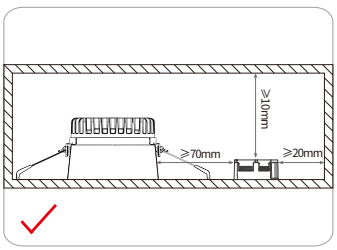
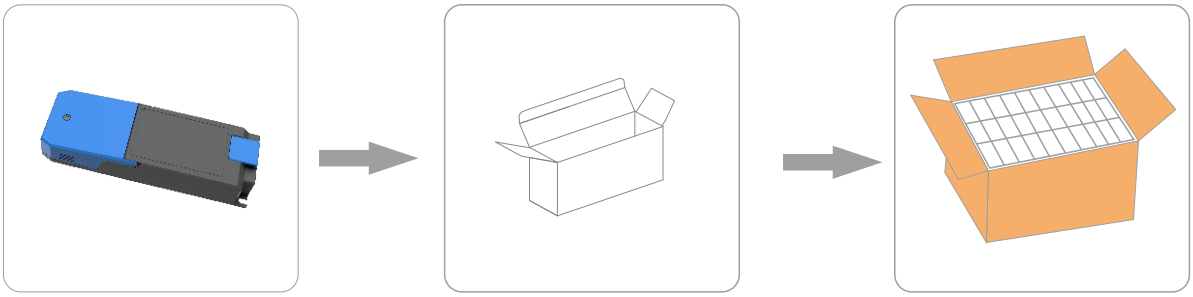


Figure 2

Packaging



Product　　Packaging　　8pcs×5layer=40pcs/CIN

Model	Product size	Weight	Packaging size	Carton size	Qty/carton	N.W	G.W
DDL030-B	L172*W57.5*H30mm	190g	L180*W65*H35mm	L380*W285*H200mm	40pcs	7.60kg	8.90kg
DDL042-B	L172*W57.5*H30mm	192g	L180*W65*H35mm	L380*W285*H200mm	40pcs	7.68kg	8.90kg

Additional information

1. This product can only be used outside the light body, Can not be used inside of the light, and it must be used within the specified working environment.
2. The life and MTBF of the product are for reference only, and do not represent a warranty statement.
3. For more information, please send an email to info@bokedriver.com.