Constant current independent color temperature driver
DWL Series suffix D(DALI-2 + pushDIM + pushCCT+EL+CLO+corridorDIM+DALI PROG)

Features

- Support DALI-2+pushDIM+pushCCT control
- Support advanced functions such as corridorDIM,EL, CLO
- The output current programming configuration of the driver can be realized through the DALI interface
- Suitable for emergency lighting acc. to EN 50172
- 10-level current output can be realized through external DIP-switch, easier to adjust the luminaire power
- 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 lamps is the same
- Dimming range 1%~100%, output current accuracy 1%
- Standby power input<0.5W, meets the requirements of ErP certification
- High PF, high efficiency, low THD
- Screw-free and pressing type strain relief, easier install
- Supports 0.75-1.5mm^2 input wires, stronger wiring
- Intelligent LED hot-plug protection function
- SELV and Class II design, suitable for use outside of the light
- Passed ENEC-TUV,CE,RCM,CCC,DALI-2,UKCA and other certifications
- IP20 protection grade, indoor use
- Nominal life-time up to 100,000 h
- 5-year guarantee

Interfaces

- DALI-2(DALI-2 DT8)
- PUSH(pushDIM,corridorDIM)
- PUSH(pushCCT)

Functions

- PUSH dimming (pushDIM) and PUSH color temperature (pushCCT) with memory
- Support central emergency application (normal dimming and color temperature or fixed output of programming under in DC input)
- Support self-contained emergency application
- Corridor dimming (corridorDIM)
- Emergency lighting(EL)
- Constant light output function(CLO)
- Configure via DALI (PROG)
- Protective features
  (short-circuit, overload,no-load, hot plug-in protection)

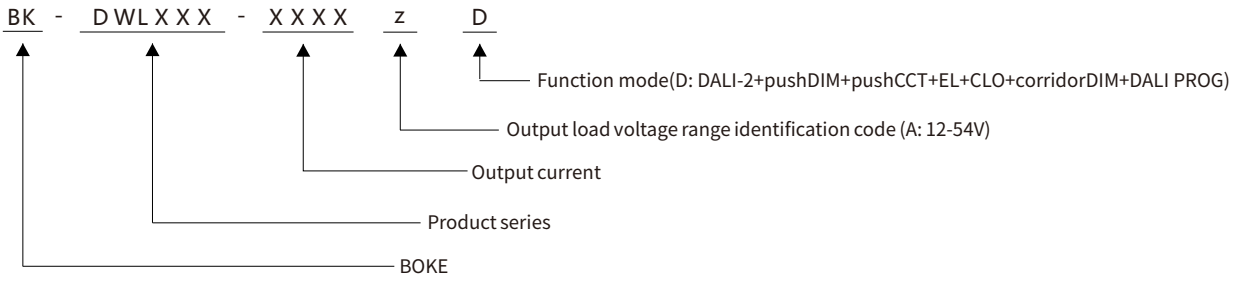
Suitable for lights

- 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 DWL series



Function list

Model	Suffix	Wired dimming		Advanced functions				Device Configuration
		DALI-2	pushDIM	AOC	EL	CLO	corridorDIM	DALI interfaces
BK-DWL010 BK-DWL022 BK-DWL030 BK-DWL042 BK-DWL060	D	√	√	√	√	√	√	√

* The description in this specification is only applicable to the products with the suffix D and the model are DWL010,DWL022 and DWL030 .

Model list

Model	Input voltage	Output power	Output voltage	Output current	Dimension
BK-DWL010-0350AD	200-240VAC	10.5W	12-54VDC	0.1-0.35A	L117*W45.5*H24mm
BK-DWL022-0450AD	200-240VAC	22.5W	12-54VDC	0.15-0.45A	L117*W45.5*H29mm
BK-DWL022-0600AD	200-240VAC	22.8W	12-54VDC	0.225-0.60A	L117*W45.5*H29mm
BK-DWL030-0800AD	200-240VAC	30.4W	12-54VDC	0.35-0.80A	L117*W45.5*H29mm
BK-DWL042-1050AD	200-240VAC	42.0W	12-42VDC	0.60-1.05A	L173.0*W75*H30mm
BK-DWL060-1500AD	200-240VAC	63.0W	12-42VDC	1.05-1.50A	L191.5*W75*H30mm
BK-DWL060-2000AD	200-240VAC	62.0W	12-42VDC	1.55-2.00A	L191.5*W75*H30mm

* The description in this specification is only applicable to the products with the model are DWL010,DWL022 and DWL030 .

Technical data

Product model	BK-DWL010-0350AD	
Output parameters		
Regulation method	Constant Current	
Rated output current	0.1-0.35A	
Rated output voltage	12-54V	
Rated output power	10.5W Max	
Output current adjustment	DIP S.W(10 levels)	
Output current ripple LF	±2%	
Output current accuracy	±5%	
Linear regulation	±5%	
Load regulation	±5%	
No load output voltage	60V	
Flicker-free(typical)	Modulation depth =0.298% (1.967 kHz), Pst LM = 0.027, SVM = 0.007,(The above parameters are obtained from testing the panel lights)	
Input parameters		
Rated input voltage	200-240VAC 200-240VDC	
Rated input voltage	180-264VAC 180-264VDC	
Input votage shock	<380 V AC, 1 h	
Input current	<0.07A (AC input)	
Input frequency	0/50/60Hz	
Input power factor	0.95 (230V AC & Full load)	
Input THD	10% (230V AC & Full load)	
Efficiency(typical)	80% (230V AC & Full load)	
In-rush current	3.83A peak ,154us duration(50 % Ipeak), see the description below for details	
Start/Switchover/Turn off	<0.6s(AC start),<0.6s(DC start),<0.3s(AC/DC switchover),<0.5s(Turn off)	
Switching cycles	> 50,000 switching cycles	
Power consumption	Full load(Pmax):10.5W, No load(Pno): N/A, On stand-by(Psb) : <0.5W, Network stand-by(Pnet) : N/A	
Safety		
Withstand voltage	I/P-O/P:3750V AC, I/P-DALI: 1500V AC, O/P-DALI: 1500V AC.	
Mains surge capability	L-N:2KV	
Leakage current	<0.7mA (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 3in1 dimming port	N/A	
Auxiliary power supply	N/A	
Dimming range	1-100%	
Dimming drive mode	AM+H-PWM	
Emergency support		
Central emergency system	Supported(Normal dimming and color temperature or fixed output of programming under in DC input)	
Self-contained emergency	Supported	
Environment & Life time		
Operating temperature	Ta=-20-60°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, Full load)	
Environmental protection	RoHS	
Certifications and standards		
Certified	ENEC-TUV, RCM, EMC, CE, CCC, DALI-2, UKCA	
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), IEC 62386-209(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 230V AC 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-DWL022-0450AD	BK-DWL022-0600AD	
Output parameters			
Regulation method	Constant Current	Constant Current	
Rated output current	0.15-0.45A	0.225-0.6A	
Rated output voltage	12-54V	12-54V	
Rated output power	22.5W Max	22.8W Max	
Output current adjustment	DIP S.W(10 levels)	DIP S.W(10 levels)	
Output current ripple LF	±2%	±2%	
Output current accuracy	±1%	±1%	
Linear regulation	±1%	±1%	
Load regulation	±1%	±1%	
No load output voltage	60V	60V	
Flicker-free(typical)	Modulation depth =0.590% (1.967 kHz), Pst LM = 0.001, SVM = 0.001,(The above parameters are obtained from testing the panel lights)		
Input parameters			
Rated input voltage	200-240VAC 200-240VDC		
Rated input voltage	180-264VAC 180-264VDC		
Input votage shock	<380 V AC, 1 h		
Input current	<0.14A (AC input)		
Input frequency	0/50/60Hz		
Input power factor	0.95 (230V AC & Full load)		
Input THD	10% (230V AC & Full load)		
Efficiency(typical)	87% (230V AC & Full load)		
In-rush current	4.2A peak ,194us duration(50 % Ipeak), see the description below for details		
Start/Switchover/Turn off	<0.6s(AC start),<0.6s(DC start),<0.3s(AC/DC switchover),<0.5s(Turn off)		
Switching cycles	> 50,000 switching cycles		
Power consumption	Full load(Pmax):22.8W, No load(Pno): N/A, On stand-by(Psb) : <0.5W, Network stand-by(Pnet) : N/A		
Safety			
Withstand voltage	I/P-O/P:3750V AC, I/P-DALI: 1500V AC, O/P-DALI: 1500V AC.		
Mains surge capability	L-N:2KV		
Leakage current	<0.7mA (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 3in1 dimming port	N/A		
Auxiliary power supply	N/A		
Dimming range	1-100%		
Dimming drive mode	AM+H-PWM		
Emergency support			
Central emergency system	Supported(Normal dimming and color temperature or fixed output of programming under in DC input)		
Self-contained emergency	Supported		
Environment & Life time			
Operating temperature	Ta=-20-50°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, Full load)		
Environmental protection	RoHS		
Certifications and standards			
Certified	ENEC-TUV, RCM, EMC, CE, CCC, DALI-2, UKCA		
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), IEC 62386-209(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 230V AC 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-DWL030-0800AD	
Output parameters		
Regulation method	Constant Current	
Rated output current	0.35-0.8A	
Rated output voltage	12-54V	
Rated output power	30.4W Max	
Output current adjustment	DIP S.W(10 levels)	
Output current ripple LF	±2%	
Output current accuracy	±1%	
Linear regulation	±1%	
Load regulation	±1%	
No load output voltage	60V	
Flicker-free(typical)	Modulation depth =0.348% (2.175 kHz), Pst LM = 0.000, SVM = 0.002,(The above parameters are obtained from testing the panel lights)	
Input parameters		
Rated input voltage	200-240VAC 200-240VDC	
Rated input voltage	180-264VAC 180-264VDC	
Input votage shock	<380 V AC, 1 h	
Input current	<0.18A (AC input)	
Input frequency	0/50/60Hz	
Input power factor	0.95 (230V AC & Full load)	
Input THD	10% (230V AC & Full load)	
Efficiency(typical)	88% (230V AC & Full load)	
In-rush current	3.7A peak ,173us duration(50 % Ipeak), see the description below for details	
Start/Switchover/Turn off	<0.6s(AC start),<0.6s(DC start),<0.3s(AC/DC switchover),<0.5s(Turn off)	
Switching cycles	> 50,000 switching cycles	
Power consumption	Full load(Pmax):30.4W, No load(Pno): N/A, On stand-by(Psb) : <0.5W, Network stand-by(Pnet) : N/A	
Safety		
Withstand voltage	I/P-O/P:3750V AC, I/P-DALI: 1500V AC, O/P-DALI: 1500V AC.	
Mains surge capability	L-N:2KV	
Leakage current	<0.7mA (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 3in1 dimming port	N/A	
Auxiliary power supply	N/A	
Dimming range	1-100%	
Dimming drive mode	AM+H-PWM	
Emergency support		
Central emergency system	Supported(Normal dimming and color temperature or fixed output of programming under in DC input)	
Self-contained emergency	Supported	
Environment & Life time		
Operating temperature	Ta=-20-50°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, Full load)	
Environmental protection	RoHS	
Certifications and standards		
Certified	ENEC-TUV, RCM, EMC, CE, CCC, DALI-2, UKCA	
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), IEC 62386-209(DALI-2)	
EL	Compatible IEC 61347-2- 13 Annex J , compatible with EN 60598-2-22 and EN 50172	
RF	N/A	

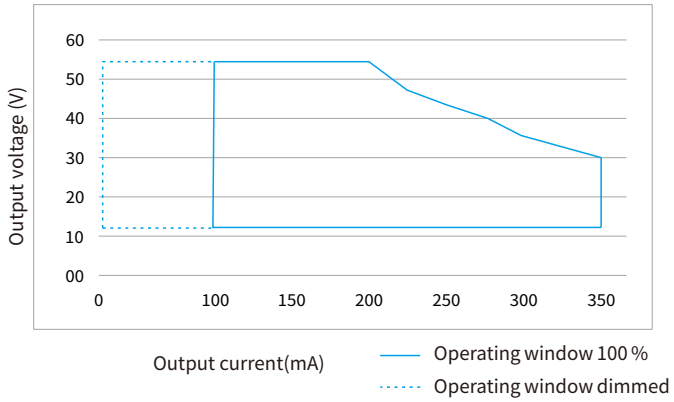
Remarks

1.By default, all parameter are measured at 230V AC 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.

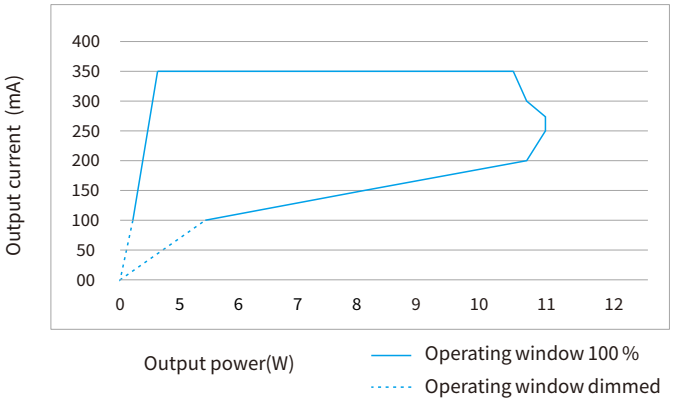
Electrical values

BK-DWL010-0350AD

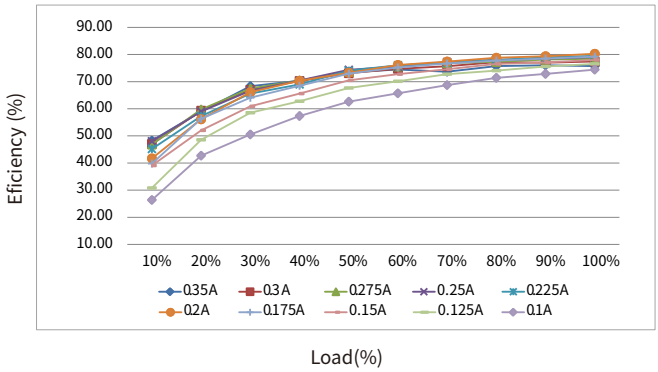
Operating window



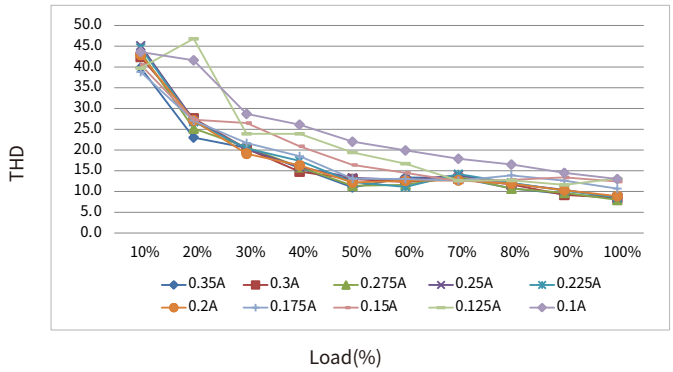
Operating window



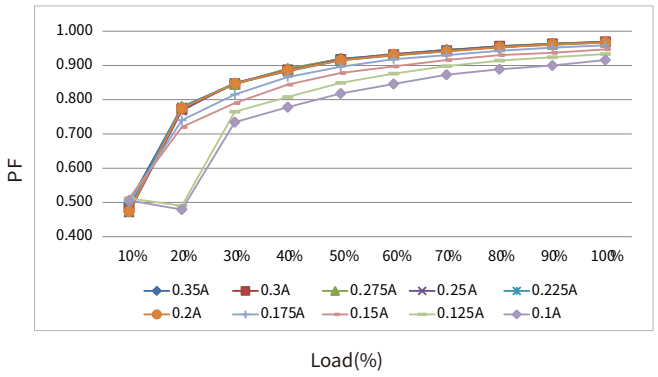
Efficiency vs load



THD vs. Load

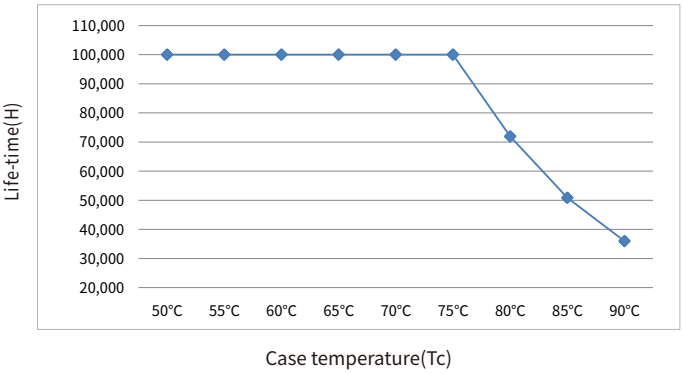


Power factor vs. Load



Expected life-time

Life-time vs. case temperature

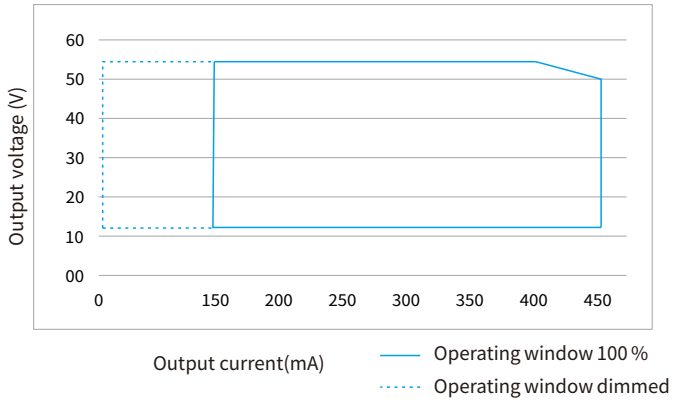


-The life-time of the LED driver is shown in the figure above (calculated based on the 90% survival rate).
- The relation of tc to ta temperature depends also on the luminaire design.

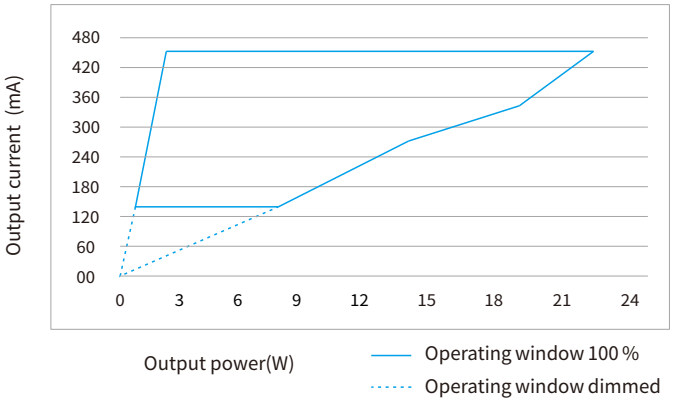
Electrical values

BK-DWL022-0450AD

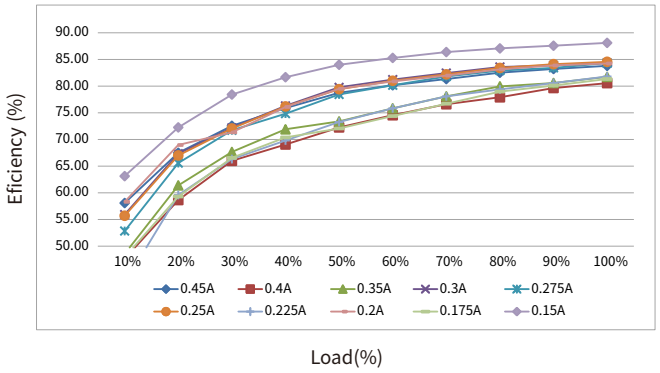
Operating window



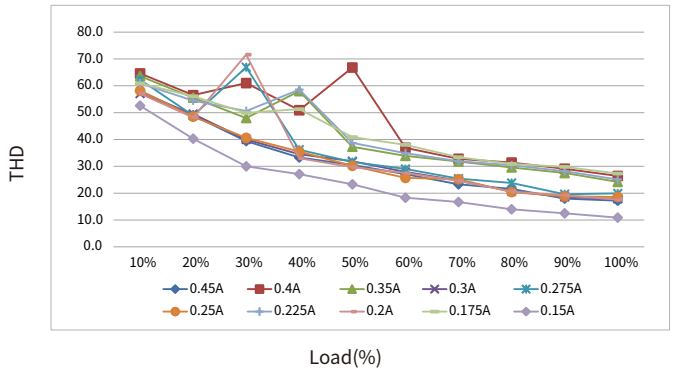
Operating window



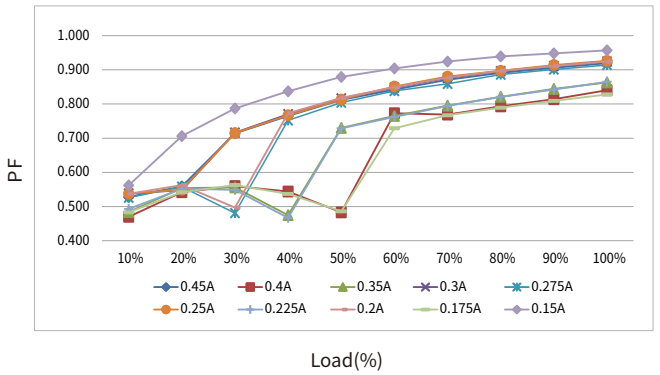
Efficiency vs load



THD vs. Load

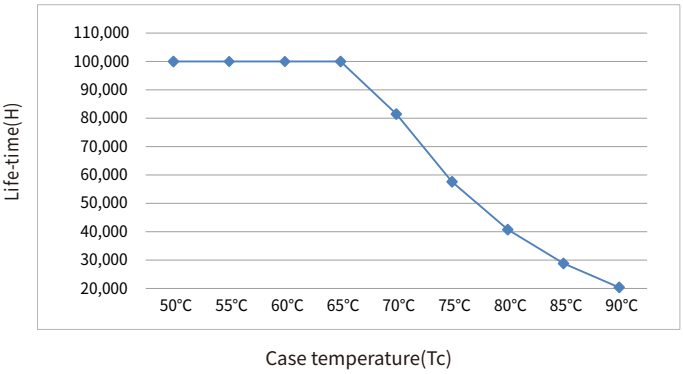


Power factor vs. Load



Expected life-time

Life-time vs. case temperature

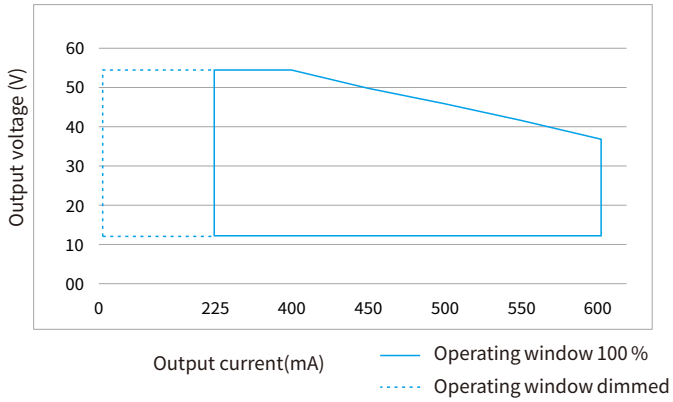


-The life-time of the LED driver is shown in the figure above (calculated based on the 90% survival rate).
- The relation of tc to ta temperature depends also on the luminaire design.

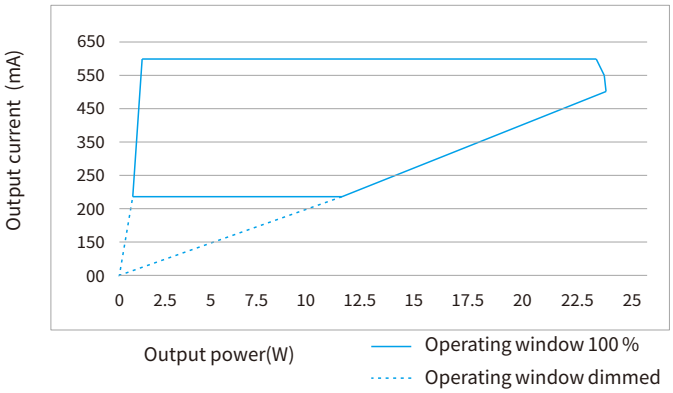
Electrical values

BK-DWL022-0600AD

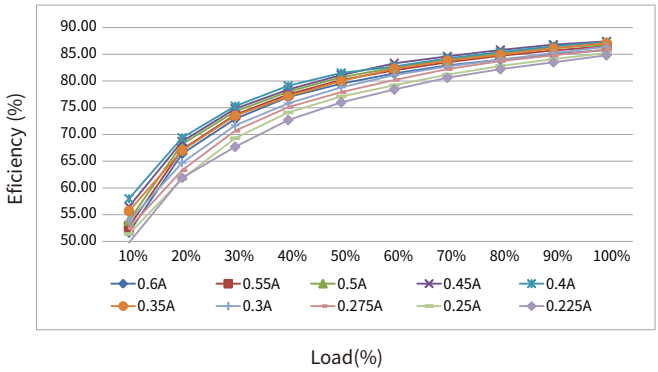
Operating window



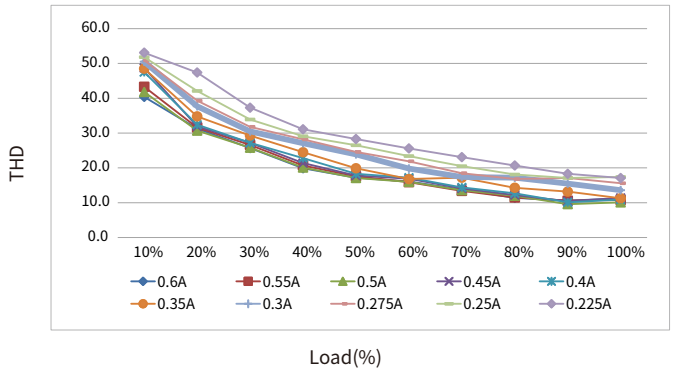
Operating window



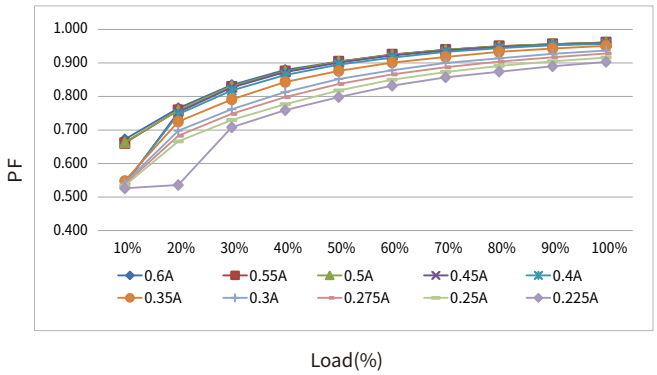
Efficiency vs load



THD vs. Load

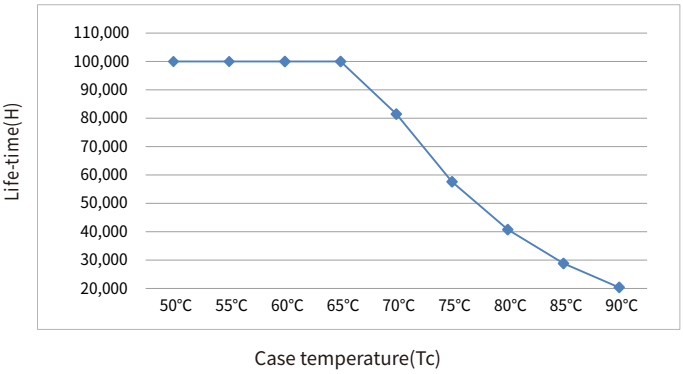


Power factor vs. Load



Expected life-time

Life-time vs. case temperature

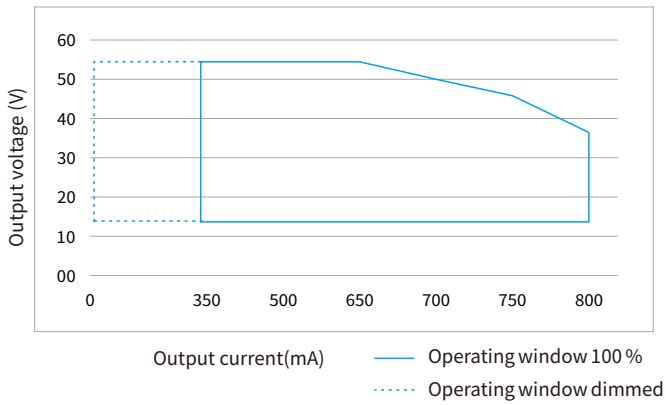


-The life-time of the LED driver is shown in the figure above (calculated based on the 90% survival rate).
- The relation of tc to ta temperature depends also on the luminaire design.

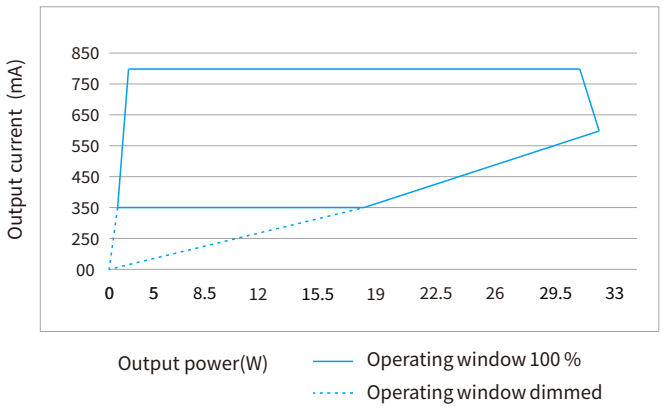
Electrical values

BK-DWL030-0800AD

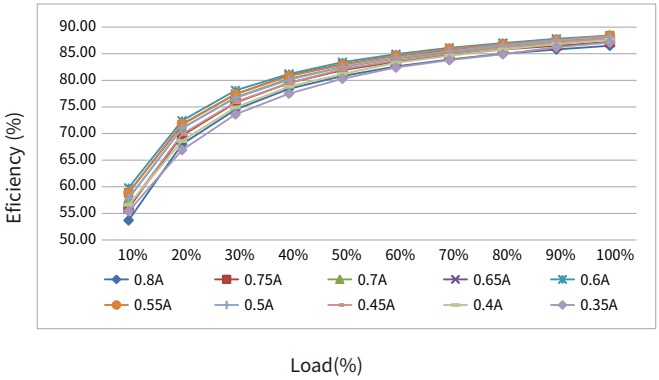
Operating window



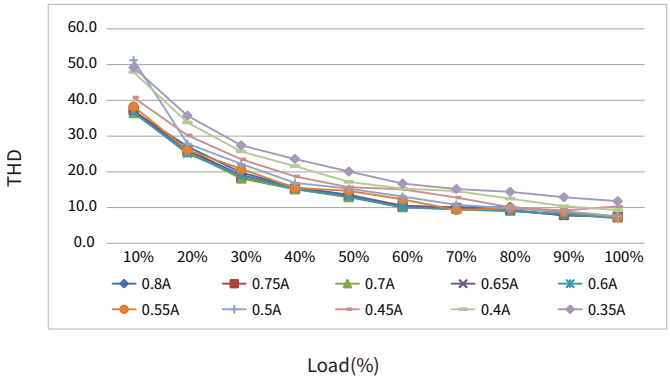
Operating window



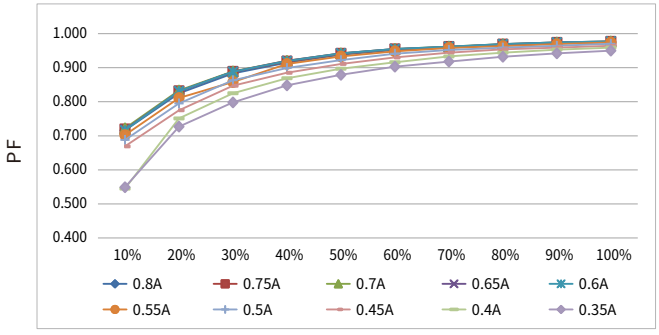
Efficiency vs load



THD vs. Load

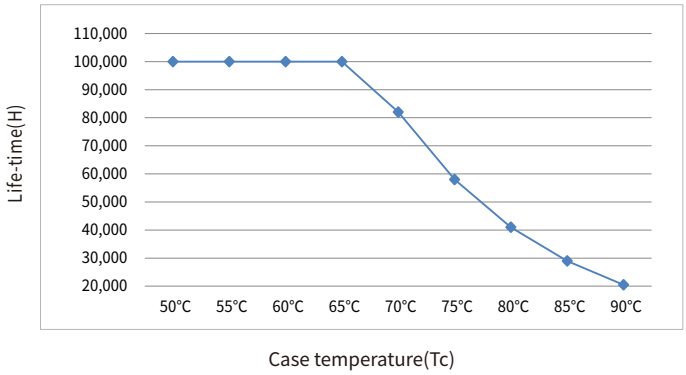


Power factor vs. Load



Expected life-time

Life-time vs. case temperature

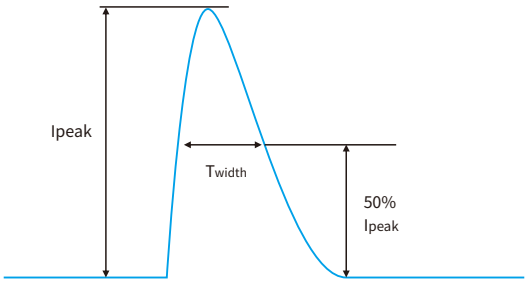


-The life-time of the LED driver is shown in the figure above (calculated based on the 90% survival rate).

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

Surge

Model	Ipeak	Twidth	Condition	Relative number of MCB													
				B10	B13	B16	B20	B25	C10	C13	C16	C20	C25	D10	D13	D16	D20	D25
BK-DWL010-0350AD	3.83A	154us	AC 230V,Full load, Cold start,Ta≤30°C, MCB is not installed side by side	106pcs	138pcs	169pcs	212pcs	265pcs	119pcs	155pcs	190pcs	238pcs	297pcs	119pcs	155pcs	190pcs	238pcs	297pcs
BK-DWL022-0450AD	4.2A	194us		60pcs	77pcs	95pcs	119pcs	149pcs	60pcs	77pcs	95pcs	119pcs	149pcs	60pcs	77pcs	95pcs	119pcs	149pcs
BK-DWL022-0600AD	4.2A	194us		60pcs	77pcs	95pcs	119pcs	149pcs	60pcs	77pcs	95pcs	119pcs	149pcs	60pcs	77pcs	95pcs	119pcs	149pcs
BK-DWL030-0800AD	3.7A	173us		45pcs	58pcs	72pcs	89pcs	112pcs	45pcs	58pcs	72pcs	89pcs	112pcs	45pcs	58pcs	72pcs	89pcs	112pcs



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

- In case of a short-circuit at the LED output ,the LED output is switched off.
- After restart of the LED driver ,the output will be activated again.

Output no-load operation

- The LED driver will not be damaged in no-load operation.
- The output will be deactivated and is therefore free of voltage.
- If a LED load is connected , the device has to be restarted before the output will be activated again.

Output overload protection

- If the output voltage range is exceeded the LED driver turns off the LED output.
- After restart of the LED driver the output will be activated again.

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.
- After restart of the LED driver the output will be activated again.

Driver restart method

There are two ways to restart the device:

- Through the AC input portr: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 PUSH switch two times,then long press PUSH switch.

Tunable white functionality

- This driver have 2 output channels used to control the intensity and temperature of white colour as well known as “Tunable White”.
- These drivers respond to DALI type 8 (DT8) commands, which in practice means that they only have 1 common address for both output channels .
- The tunable white level of intensity and colour temperature can be set either with a DALI command or by PUSH switch control.
- The higher the brightness, the wider the color temperature range can be obtained.

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 3 options can be selected through the EasyConfigurator software.

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

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

Setting 3: DIP-switch & programming
The output current is determined by the DIP-switch and programming setting. When the DIP-switch is changed, the output current is determined by the DIP-switch selection. When the programming setting is changed, 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 EasyConfigurator 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 EasyConfigurator 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 set brightness, and the dimming function is invalid.

Programming(PROG)

- Connect the "DALI Programmer" programmer to the DALI port of the driver and use the "EasyConfiguration" software to configure the functions of the driver.

EasyConfigurator

- Minimum version requirements V1.0.
- Please see the “Device configuration" section.
- For further information see EasyConfigurator manual.

DIP-switch & output current

BK-DWL010-0350AD

Pin	Irated	Voltage	1	2	3	4
7.00W	100mA	54VDC	--	ON	ON	ON
8.60W	125mA	54VDC	ON	--	ON	ON
10.2W	150mA	54VDC	--	--	ON	ON
11.7W	175mA	54VDC	--	ON	--	ON
13.3W	200mA	54VDC	--	--	--	ON
13.4W	225mA	48VDC	ON	ON	ON	--
13.7W	250mA	44VDC	--	--	ON	--
13.9W	275mA	40VDC	--	ON	--	--
13.9W	300mA	36VDC	ON	--	--	--
13.9W	350mA ★	30VDC	--	--	--	--

BK-DWL022-0450AD

Pin	Irated	Voltage	1	2	3	4
9.80W	150mA	54VDC	--	ON	ON	ON
11.3W	175mA	54VDC	ON	--	ON	ON
12.8W	200mA	54VDC	--	--	ON	ON
14.3W	225mA	54VDC	--	ON	--	ON
15.8W	250mA	54VDC	--	--	--	ON
17.2W	275mA	54VDC	ON	ON	ON	--
18.7W	300mA	54VDC	--	--	ON	--
21.6W	350mA	54VDC	--	ON	--	--
24.6W	400mA	54VDC	ON	--	--	--
25.7W	450mA ★	50VDC	--	--	--	--

BK-DWL022-0600AD

Pin	Irated	Voltage	1	2	3	4
14.3W	225mA	54VDC	--	ON	ON	ON
15.8W	250mA	54VDC	ON	--	ON	ON
17.2W	275mA	54VDC	--	--	ON	ON
18.7W	300mA	54VDC	--	ON	--	ON
21.6W	350mA	54VDC	--	--	--	ON
24.6W	400mA	54VDC	ON	ON	ON	--
25.7W	450mA	50VDC	--	--	ON	--
26.3W	500mA	46VDC	--	ON	--	--
26.6W	550mA	42VDC	ON	--	--	--
26.4W	600mA ★	38VDC	--	--	--	--

BK-DWL030-0800AD

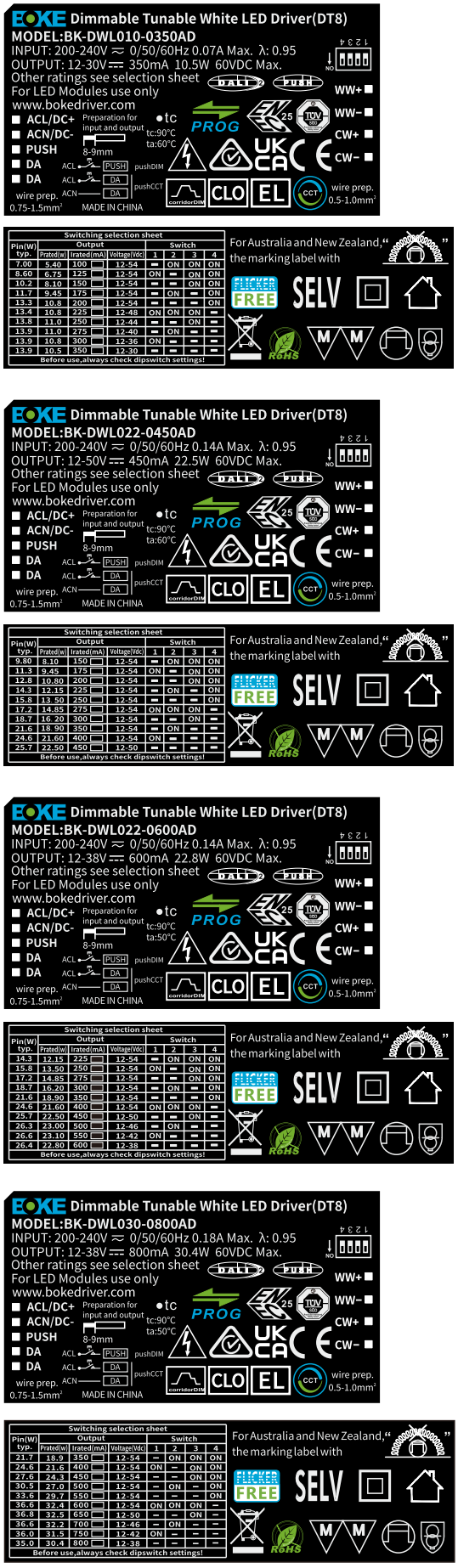
Pin	Irated	Voltage	1	2	3	4
21.7W	350mA	54VDC	--	ON	ON	ON
24.6W	400mA	54VDC	ON	--	ON	ON
27.6W	450mA	54VDC	--	--	ON	ON
30.5W	500mA	54VDC	--	ON	--	ON
33.6W	550mA	54VDC	--	--	--	ON
36.6W	600mA	54VDC	ON	ON	ON	--
36.8W	650mA	50VDC	--	--	ON	--
36.6W	700mA	46VDC	--	ON	--	--
36.0W	750mA	42VDC	ON	--	--	--
35.0W	800mA ★	38VDC	--	--	--	--

Remarks:

1.★ It means that this item is the factory default current.

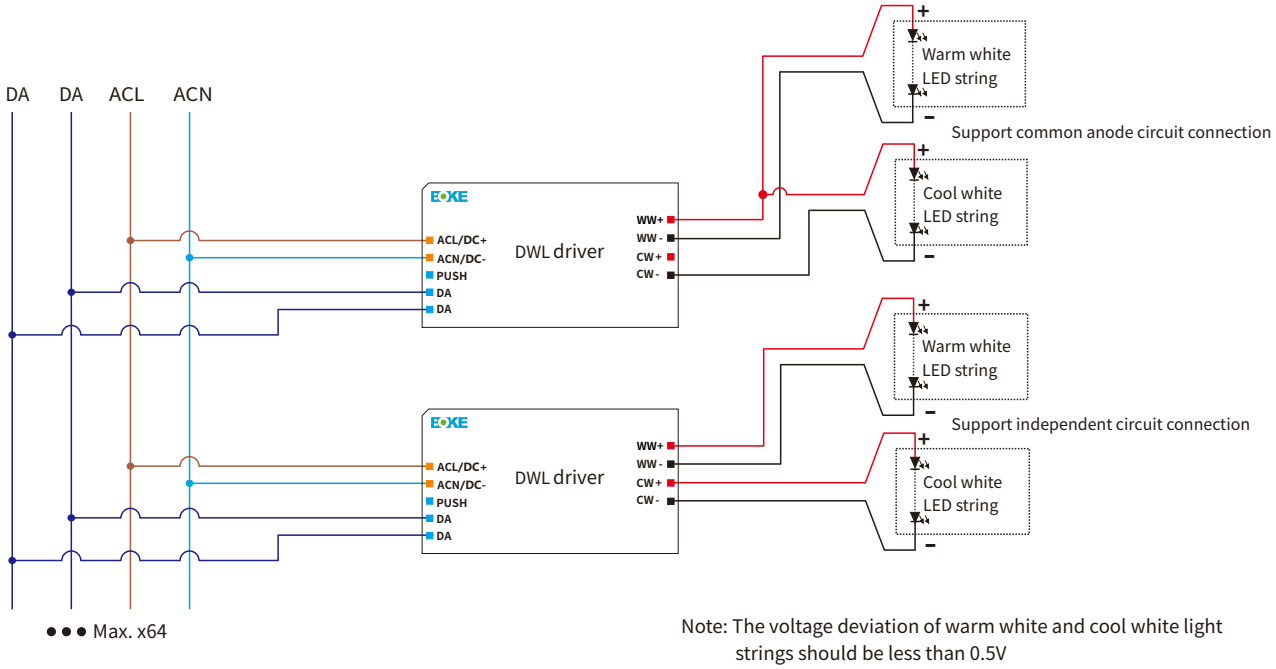
2. -- It means that this channel is OFF.

Label



DALI dimming application

Wiring diagram



Note: The voltage deviation of warm white and cool white light strings should be less than 0.5V

Activating DALI control mode

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

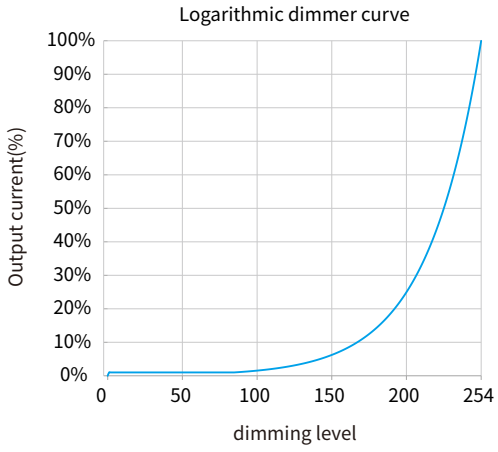
Remarks:

- 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 2×1.5mm^2.
- DALI bus can be wired together with any mains voltage cables, but separate wiring is recommended.

Wiring distance vs cable size

Cable size	Distance
2×0.50mm^2	max.100m
2×0.75mm^2	max.150m
2×1.00mm^2	max.200m
⩾2×1.50mm^2	max.300m

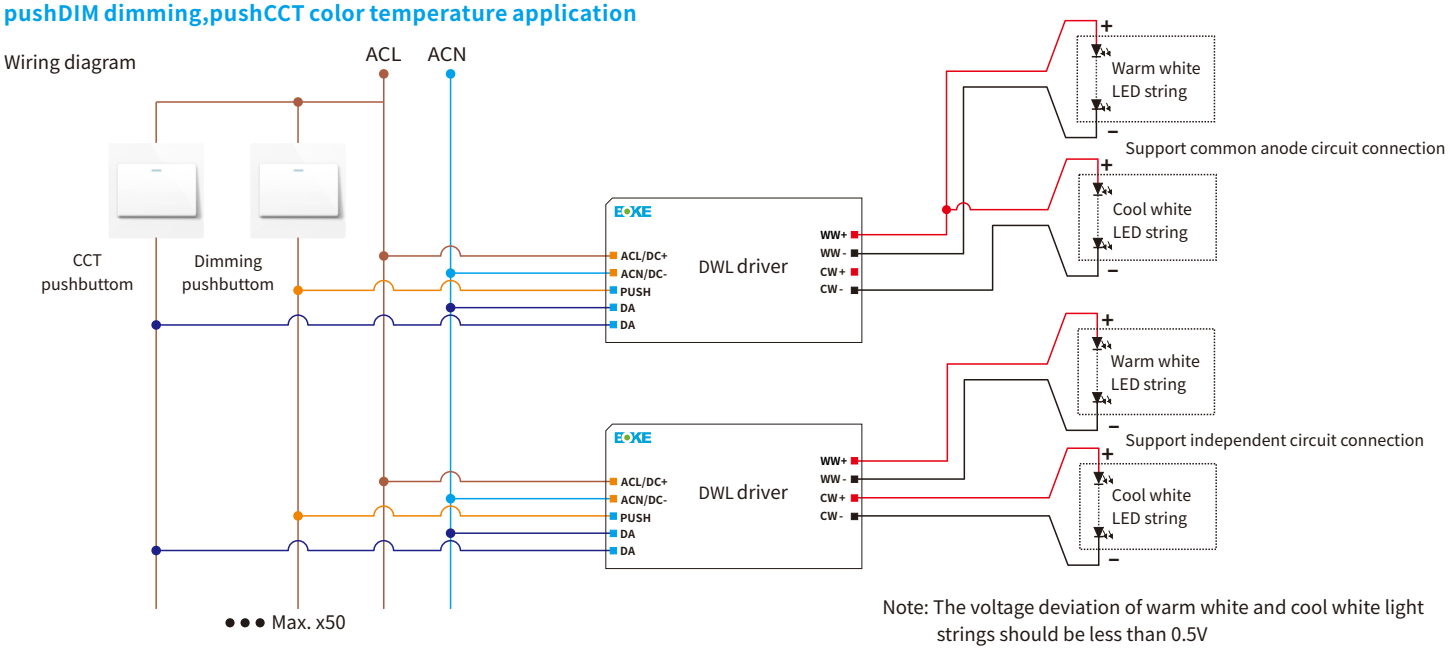
Dimming curve



Remarks:

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

pushDIM dimming,pushCCT color temperature application



Note: The voltage deviation of warm white and cool white light strings should be less than 0.5V

Activating pushDIM control mode

- After installation according to the wiring diagram of pushDIM control application, short press the dimmming pushbuttom(pushDIM port) 5 times within 3 seconds, the driver will automatically switch to pushDIM control mode.
- After activating pushDIM, pushCCT control mode, corridorDIM mode will be automatically closed.

Number of mounted drivers

- Up to 50pcs drivers can be mounted.

Dimming pushbuttom operating instructions

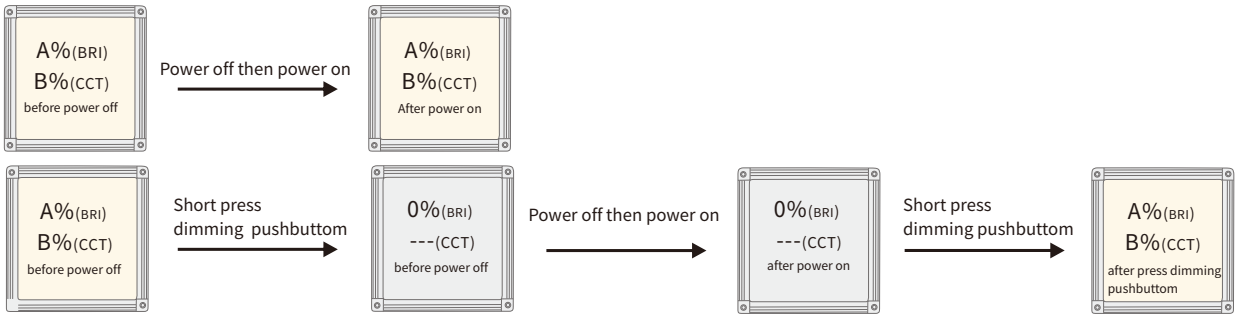
- Turn on or turn off: short press dimming pushbuttom for 0.2-1s.
- Stepless dimming : long press dimming pushbuttom for 1-6s, Press again to switch dimming directions.

CCT pushbuttom operating instructions

- Switch CCT level: short press CCT pushbuttom for 0.2-1s，9 levels of preset CCT can be switched.
- Stepless CCT adjustment: long press CCT pushbuttom for 1-6s,Press again to switch CCT adjustment directions.

Power on status:

- After power on,the light state will be the same as the last dimming level and the last CCT level.
- If the light is on before the power is turned off, after turning the power back on, the brightness will be the same as the last time, and the color temperature will be the same as the last time.
- If the light is off before the power is turned off, the light will be turned off after the power is turned back on. You need to press the dimming pushbuttom for a short time to turn on the light. The brightness after lighting will be the same as the last time, and the color temperature will be the same as the last time.



Multiple lights synchronize control operation

method 1:

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

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

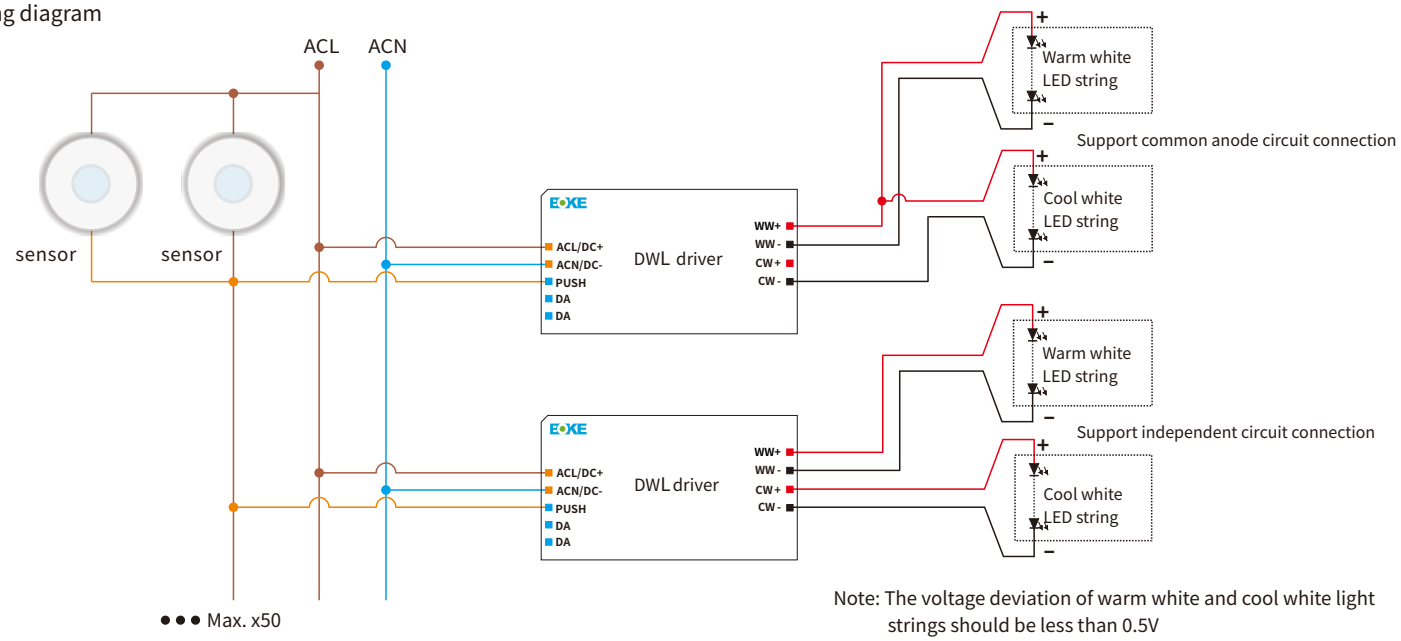
Step 3:long press the dimming pushbuttom,confirm each light is from darkest to brightest and all the lights are synchronous.

method 2:

- Long press the dimming pushbuttom for more than 15s, all drivers will output 100% brightness and the color temperature is natural white (middle of color temperature range).

corridorDIM dimming

Wiring diagram



Note: The voltage deviation of warm white and cool white light strings should be less than 0.5V

Activating the corridorDIM dimming mode

- Method 1: Activating by sensor.

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

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

Method 2: Activate 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 activated and the light will be on 100% (Default), finally restore the hold-time that the sensor actually needs.

-Method 2: Activate 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.

- Method 3: Use the configuration tool to turn on the driver's corridorDIM dimming mode and set the parameters.

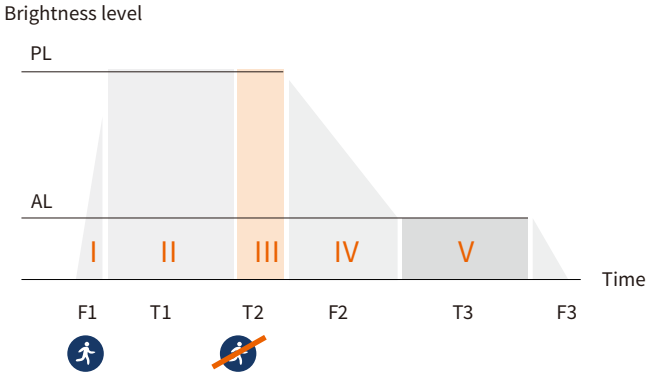
- After activating the corridorDIM dimming mode, the pushDIM dimming mode will be automatically deactivate .

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

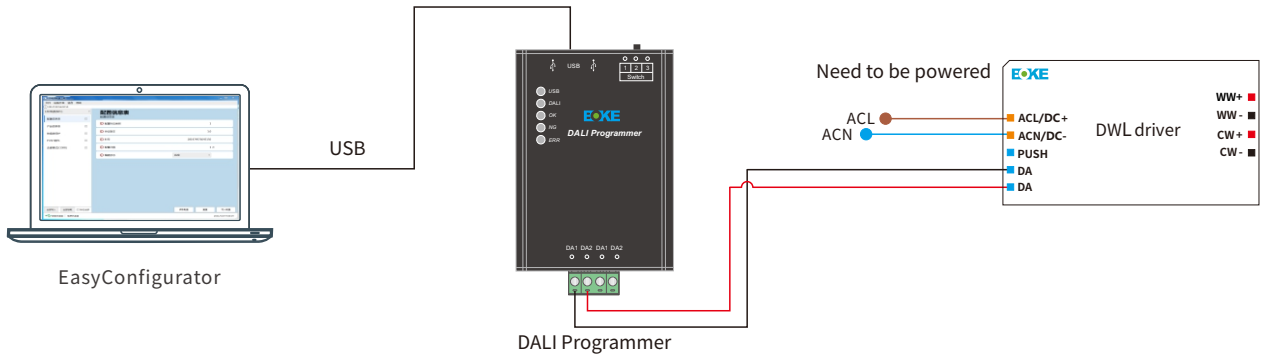


- The parameters of corridorDIM can be set through the configuration tool.
- corridorDIM is activated by default.

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

Wiring diagram



Configure tools and software

Name	Brand	Name	Minimum version
DALI Configurator	BOKE	DALI Programmer	V1.0.0
PC Software	BOKE	EasyConfigurator	V1.0.0

Parameters configure

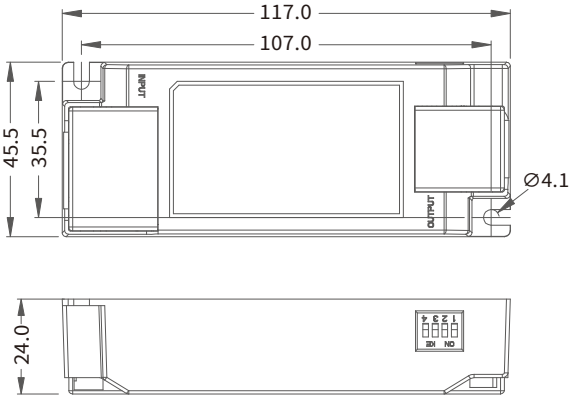
Configuration items	Factory settings	Parameter configuration	Read/Wirte
Product information	-	NO	Read Only
Adjustable output current(AOC)	Activated	YES	Read/Wirte
PUSH dimming function(pushDIM)	Activated	YES	Read/Wirte
Corridor dimming(corridorDIM)	Activated	YES	Read/Wirte
Emergency lighting(EL)	Activated(setting 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

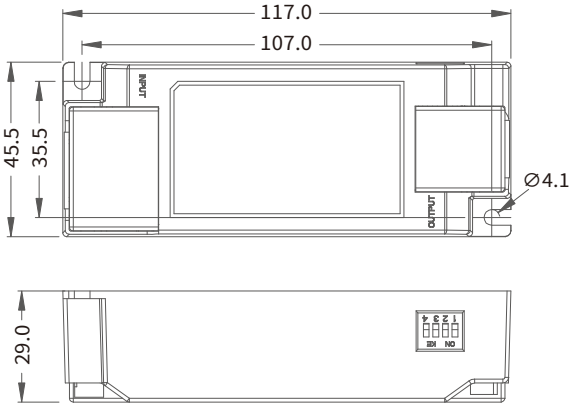
Mechanical dimensions

Unit:mm

DWL010



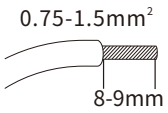
DWL022/DWL030



INPUT

Numbering	function	colour
1	ACL/DC+	orange
2	ACN/DC-	orange
3	PUSH	blue
4	DA	blue
5	DA	blue

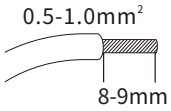
Input wire



OUTPUT

Numbering	function	colour
1	WW+	red
2	WW-	black
3	CW+	red
4	CW-	black

Output wire



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,pushCCT).

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

LED module

- The voltage deviation of warm white and cool white light strings should be less than 0.5V

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 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.

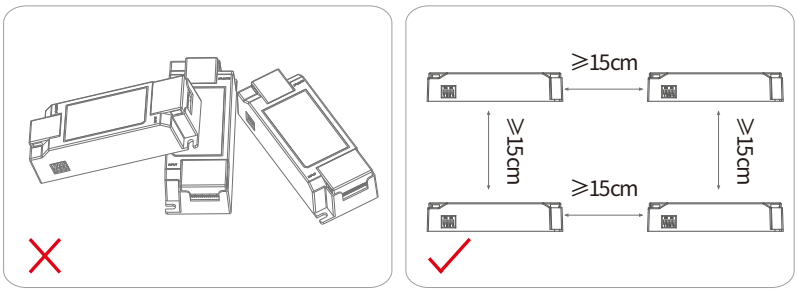


Figure 1

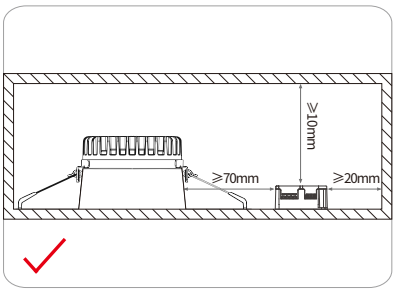
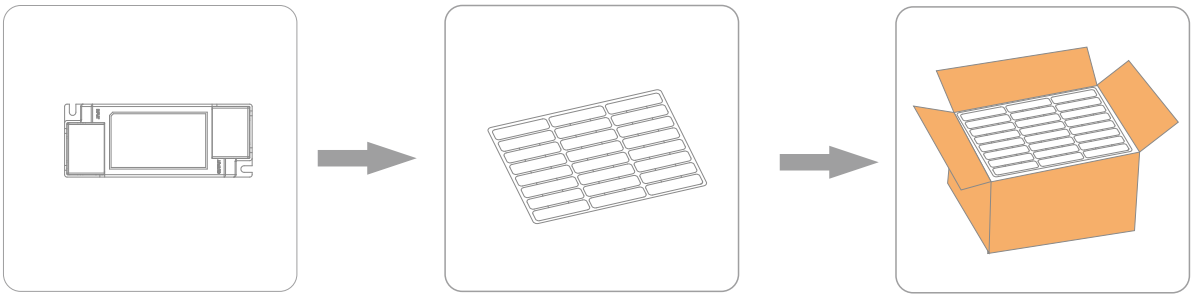


Figure 2

Packaging

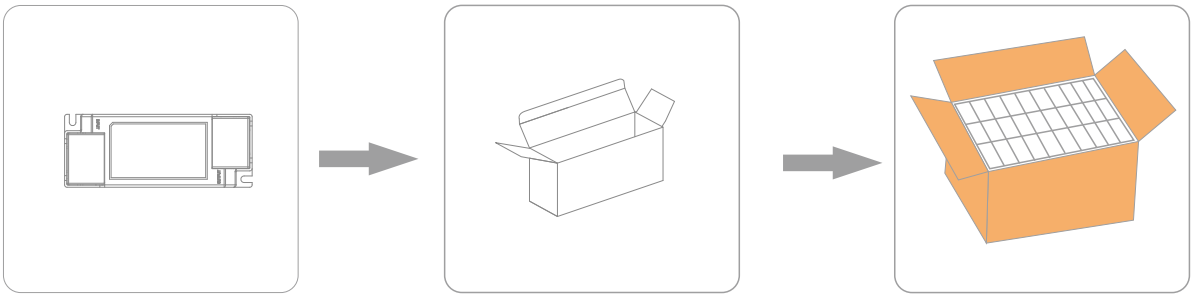
Optional 1: factory default



Product | Blister | 24pcs×3layer=72pcs/CIN
24pcs×2layer=48pcs/CIN

Model	Product size	Weight	Blister size	Carton size	Qty/carton	N.W	G.W
DWL010	L117*W45.5*H29mm	96.3g	L430*W340*H47mm	L450*W350*H180mm	72pcs	6.68kg	8.28kg
DWL022	L117*W45.5*H29mm	118g	L430*W340*H47mm	L450*W350*H180mm	72pcs	8.78kg	9.57kg
DWL030	L117*W45.5*H29mm	170g	L430*W340*H47mm	L450*W350*H130mm	48pcs	8.20kg	9.01kg

Optional 2:



Product | Packaging | 18pcs×3layer=54pcs/CIN

Model	Product size	Weight	Packaging size	Carton size	Qty/carton	N.W	G.W
DWL010	L117*W45.5*H29mm	96.3g	L140*W35*H50mm	L330*W300*H170mm	54pcs	5.20kg	6.71kg
DWL022	L117*W45.5*H29mm	118g	L140*W35*H50mm	L330*W300*H170mm	54pcs	6.40kg	9.00kg
DWL030	L117*W45.5*H29mm	170g	L140*W35*H50mm	L330*W300*H170mm	54pcs	9.20kg	11.5kg

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.