

Constant voltage linear dimmable driver

DGV(S) Series suffix DP(DALI-2+pushDIM+1-10V/10V PWM/Rx+12V+EL+CLO+corridorDIM+DALI programmable)



Features

- Support DALI-2/pushDIM+1-10V/10V PWM/Rx dimming +12V auxiliary power
- Provide 12V 100mA auxiliary power supply to power control module or sensor
- Support advanced functions such as corridorDIM, EL, CLO
- The programming configuration of the driver can be implemented via the DALI interface.
- Soft dimming and flicker-free at any brightness
- Dimming range 0.1~100%,support multiple lights dimming
- Standby power input<0.5W, meets the requirements of ErP certification
- High PF, high efficiency, low THD
- SELV and Class I design, suitable for use inside 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
- 5.5-year guarantee

Interfaces

- DALI-2(DALI-2 DT6)
- PUSH(pushDIM,corridorDIM)
- 1-10V 3in1(1-10V/10V PWM/Rx)
- VCC Auxiliary power (12V,100mA)

Functions

- Support central emergency application
- Support self-contained emergency application
- Emergency lighting(EL)
- Corridor dimming(corridorDIM)
- Constant light output function(CLO)
- Programming via DALI(EasySet)
- Protective features (short-circuit, overload protection)

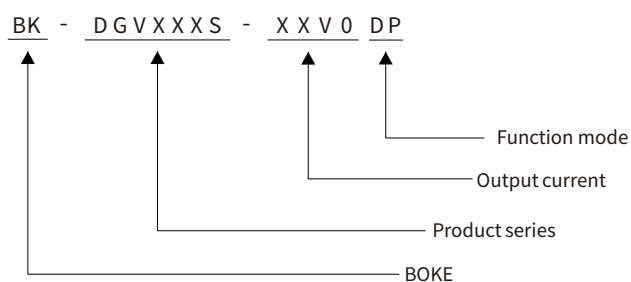
Suitable for lights

- Only for constant voltage type lights strips or lingts

Typical applications

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

Model coding rules of DGV(S) series



Function list

Model	Suffix	Wired dimming			Aux power	Advanced functions			Device Configuration
		DALI-2	pushDIM	1-10V	12V	EL	CLO	corridorDIM	DALI interfaces
BK-DGV036S BK-DGV060S BK-DGV120S	DP	√	√	√	√	√	√	√	√

Model list

Model	Input voltage	Output power	Output voltage	Output current	Dimension
BK-DGV036S-12V0DP	110-277VAC/200-300VDC	36W MAX.	12VDC	3A	L280*W30*H21mm
BK-DGV060S-12V0DP	110-277VAC/200-300VDC	60W MAX.	12VDC	5A	L355*W30*H21mm
BK-DGV120S-12V0DP	110-277VAC/200-300VDC	120W MAX.	12VDC	10A	L355*W36*H23mm

Technical data

Product model	BK-DGV036S-12V0DP
Output parameters	
Regulation method	Constant voltage
Rated output current	3A
Rated output voltage	12VDC
Rated output power	36W Max
Output voltage adjustment	Fixed output
Output voltage ripple(typ.)	≤300mV(62kHz)
Output voltage accuracy	±5%
Linear regulation	±5%
Load regulation	±5%
Flicker-free(typ.)	Pst LM=0.03, SVM=0.02,(The above parameters are obtained by testing with constant voltage light strip)
Input parameters	
Rated input voltage range	110-277VAC 200-300VDC
Input voltage range	100-305VAC 180-315VDC
Input votage shock	<380 V AC
Input current	<0.42A (Rated input voltage)
Input frequency	0/50/60Hz
Input PF/Input DF(typ.)	PF: 0.99,DF:0.99, see the electrical values below for details
Input THD(typ.)	6.5% , see the electrical values below for details
Efficiency(typ.)	88% , see the electrical values below for details
In-rush current(typ.)	20.47A peak ,180us 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	> 100,000 switching cycles
Power consumption(typ.)	Full load(Pin):40.9W, 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):3750VAC,I/P-FG:1750VAC,O/P-FG:500VAC,I/P-DALI: 1500VAC,O/P-DALI: 1500VAC
Mains surge capability	L-N:2KV,L-FG/N-FG:2KV(90°/270°, 5 times each with an interval of 60s)(Performance criterion:A)
Leakage current(typ.)	0.6mA
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: AC110-277V 50/60Hz
1-10V 3in1 dimming port	Voltage range: DC0-15V, maximum output current ≤0.75mA
Auxiliary power supply	DC12V ±5% 100mA
Dimming range	0.1-100%
Dimming drive mode	H-PWM
Emergency support	
Central emergency system	Supported
Self-contained emergency	Supported
Environment & Life time	
Operating temperature	Ta=-20-60°C
Case temperature	Tc=90°C
Operating humidity	5-85% RH, non-condensing
Storage temp./humidity	-40-80°C, 5-85% RH, non-condensing
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	
Compliance certification	CE, ENEC, UKCA, RCM, CCC, DALI-2, EL
Safety	GB/T 19510.1,GB/T 19510.213, EN61347-1, EN61347-2-13, EN62384
EMC	GB/T 17743, GB17625.1, 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, 50Hz, full load and 25°C of ambient temperature.
- 2.Connect the power supply to the load before powering it on.
- 3.When the load is a DC to DC module, the input impulse current of this module must be controlled (<30A).
- 4.The LED lamp load is a constant-voltage load.

Technical data

Product model	BK-DGV060S-12V0DP
Output parameters	
Regulation method	Constant voltage
Rated output current	5A
Rated output voltage	12VDC
Rated output power	60W Max
Output voltage adjustment	Fixed output
Output voltage ripple(typ.)	≤300mV(62kHz)
Output voltage accuracy	±5%
Linear regulation	±5%
Load regulation	±5%
Flicker-free(typ.)	Pst LM=0.1, SVM=0.02,(The above parameters are obtained by testing with constant voltage light strip)
Input parameters	
Rated input voltage range	110-277VAC 200-300VDC
Input voltage range	100-305VAC 180-315VDC
Input voltage shock	<380 V AC
Input current	<0.7A (Rated input voltage)
Input frequency	0/50/60Hz
Input PF/Input DF(typ.)	PF: 0.99,DF:0.99, see the electrical values below for details
Input THD(typ.)	6% , see the electrical values below for details
Efficiency(typ.)	87% , see the electrical values below for details
In-rush current(typ.)	28.08A peak ,360us 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	> 100,000 switching cycles
Power consumption(typ.)	Full load(Pin):69W, 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):3750VAC,I/P-FG:1750VAC,O/P-FG:500VAC,I/P-DALI: 1500VAC,O/P-DALI: 1500VAC
Mains surge capability	L-N:2KV,L-FG/N-FG:2KV(90°/270°, 5 times each with an interval of 60s)(Performance criterion:A)
Leakage current(typ.)	0.44mA
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: AC110-277V 50/60Hz
1-10V 3in1 dimming port	Voltage range: DC0-15V, maximum output current ≤0.75mA
Auxiliary power supply	DC12V ±5% 100mA
Dimming range	0.1-100%
Dimming drive mode	H-PWM
Emergency support	
Central emergency system	Supported
Self-contained emergency	Supported
Environment & Life time	
Operating temperature	Ta=-20-60°C
Case temperature	Tc=90°C
Operating humidity	5-85% RH, non-condensing
Storage temp./humidity	-40-80°C, 5-85% RH, non-condensing
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	
Compliance certification	CE, ENEC, UKCA, RCM, CCC, DALI-2, EL
Safety	GB/T 19510.1,GB/T 19510.213, EN61347-1, EN61347-2-13, EN62384
EMC	GB/T 17743, GB17625.1, 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, 50Hz, full load and 25°C of ambient temperature.
- 2.Connect the power supply to the load before powering it on.
- 3.When the load is a DC to DC module, the input impulse current of this module must be controlled (<30A).
- 4.The LED lamp load is a constant-voltage load.

Technical data

Product model	BK-DGV120S-12V0DP
Output parameters	
Regulation method	Constant voltage
Rated output current	10A
Rated output voltage	12VDC
Rated output power	120W Max
Output voltage adjustment	Fixed output
Output voltage ripple(typ.)	≤300mV(100Hz)
Output voltage accuracy	±5%
Linear regulation	±5%
Load regulation	±5%
Flicker-free(typ.)	Pst LM=0.005, SVM=0.008,(The above parameters are obtained by testing with constant voltage light strip)
Input parameters	
Rated input voltage range	110-277VAC 200-300VDC
Input voltage range	100-305VAC 180-315VDC
Input votage shock	<380 V AC
Input current	<1.6A (Rated input voltage)
Input frequency	0/50/60Hz
Input PF/Input DF(typ.)	PF: 0.99,DF:0.99, see the electrical values below for details
Input THD(typ.)	4% , see the electrical values below for details
Efficiency(typ.)	91.5% , see the electrical values below for details
In-rush current(typ.)	32A peak ,470us 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	> 100,000 switching cycles
Power consumption(typ.)	Full load(Pin):131.1W, 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):3750VAC,I/P-FG:1750VAC,O/P-FG:500VAC,I/P-DALI: 1500VAC,O/P-DALI: 1500VAC
Mains surge capability	L-N:2KV,L-FG/N-FG:2KV(90°/270°, 5 times each with an interval of 60s)(Performance criterion:B)
Leakage current(typ.)	0.23mA
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: AC110-277V 50/60Hz
1-10V 3in1 dimming port	Voltage range: DC0-15V, maximum output current ≤0.75mA
Auxiliary power supply	DC12V ±5% 100mA
Dimming range	0.1-100%
Dimming drive mode	H-PWM
Emergency support	
Central emergency system	Supported
Self-contained emergency	Supported
Environment & Life time	
Operating temperature	Ta=-20-60°C
Case temperature	Tc=90°C
Operating humidity	5-85% RH, non-condensing
Storage temp./humidity	-40-80°C, 5-85% RH, non-condensing
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	
Compliance certification	CE, ENEC, UKCA, RCM, CCC, DALI-2, EL
Safety	GB/T 19510.1,GB/T 19510.213, EN61347-1, EN61347-2-13, EN62384
EMC	GB/T 17743, GB17625.1, 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

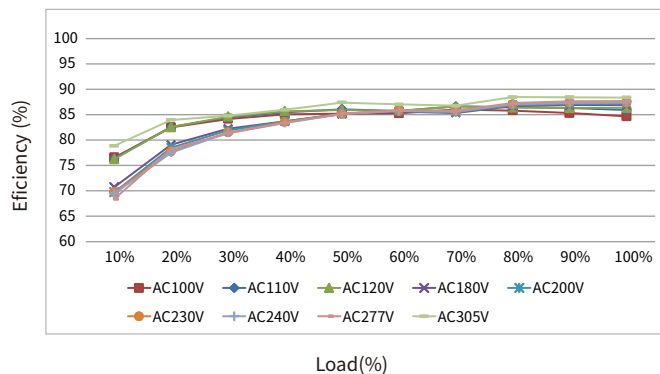
Remarks

- 1.By default, all parameter are measured at 230VAC input, 50Hz, full load and 25°C of ambient temperature.
- 2.Connect the power supply to the load before powering it on.
- 3.When the load is a DC to DC module, the input impulse current of this module must be controlled (<30A).
- 4.The LED lamp load is a constant-voltage load.

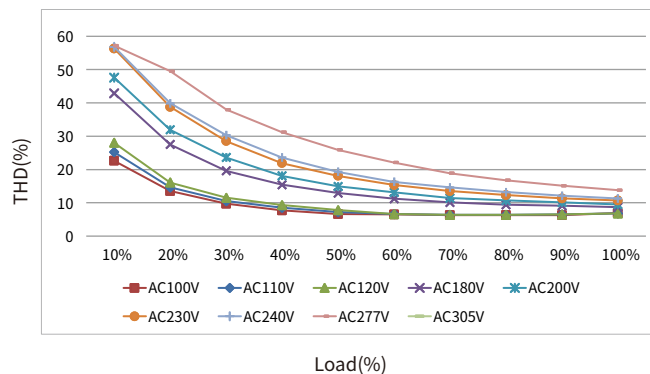
Electrical values

BK-DGV036S

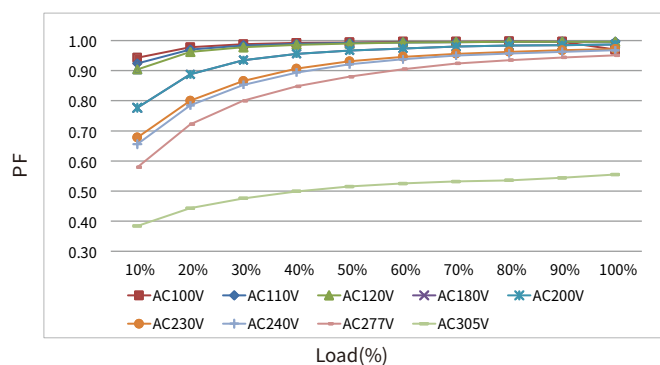
Efficiency vs load



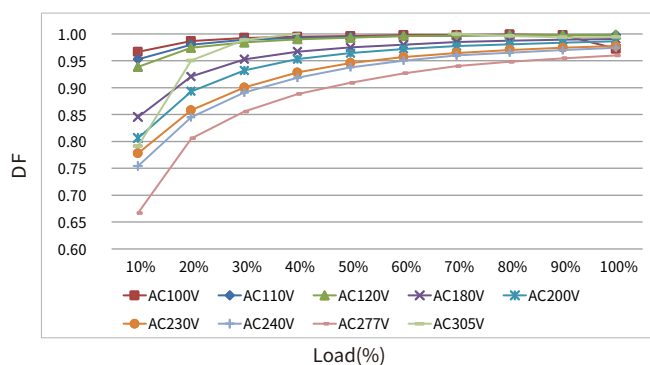
THD vs. Load



Power factor vs. Load

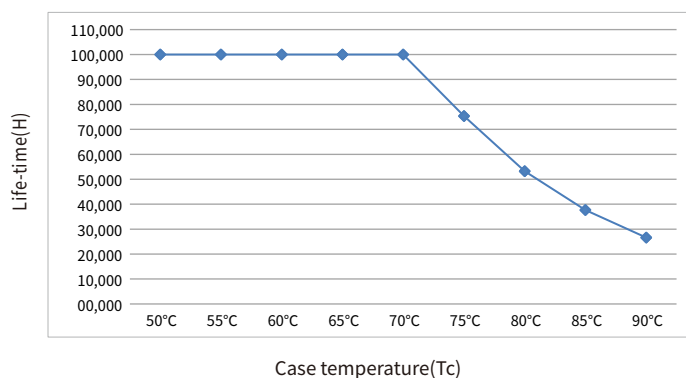


displacement power vs. Load



Expected life-time

Life-time vs. case temperature



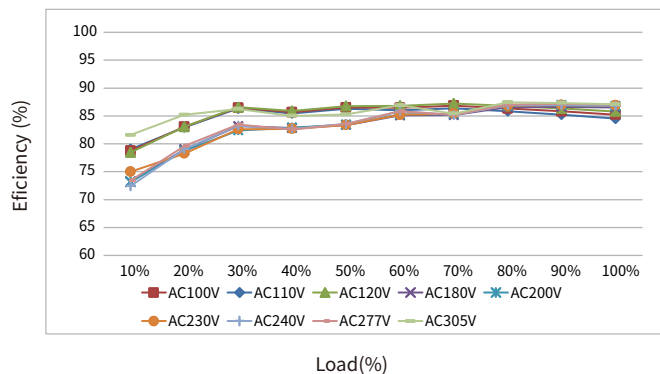
-The life-time of the LED driver is shown in the figure above (calculated based on the 90% survival rate).

- The relation of t_c to t_a temperature depends also on the luminaire design.

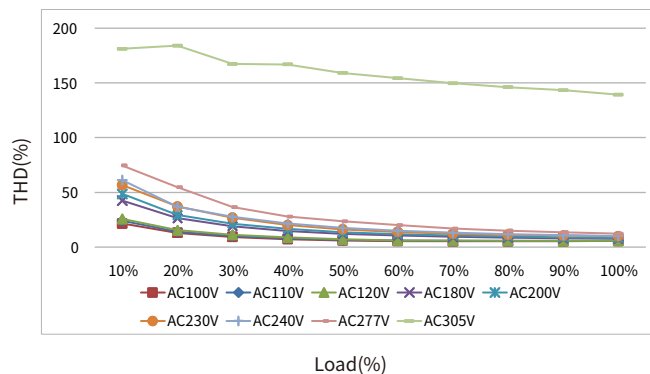
Electrical values

BK-DGV060S

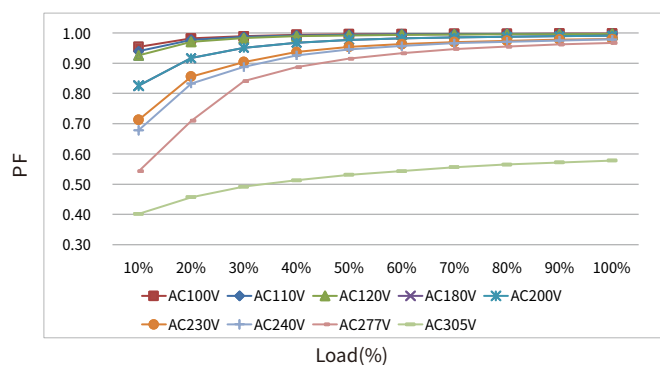
Efficiency vs load



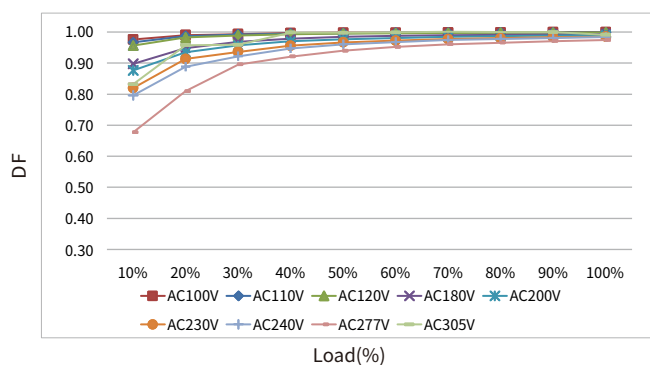
THD vs. Load



Power factor vs. Load

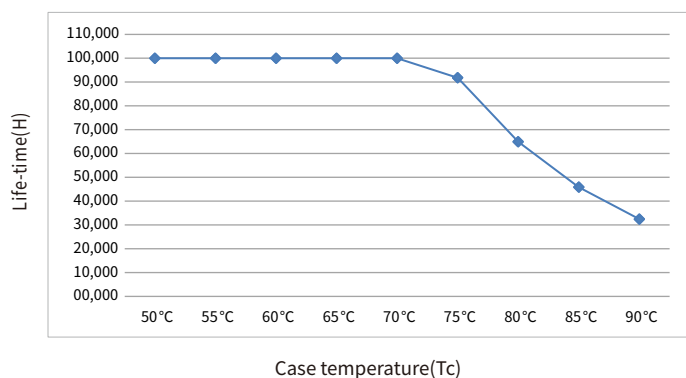


displacement power vs. Load



Expected life-time

Life-time vs. case temperature



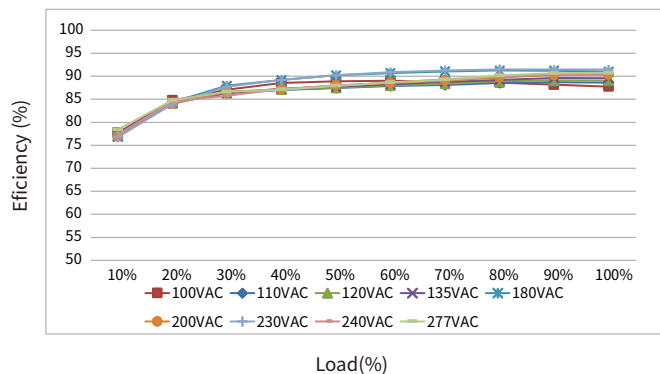
-The life-time of the LED driver is shown in the figure above (calculated based on the 90% survival rate).

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

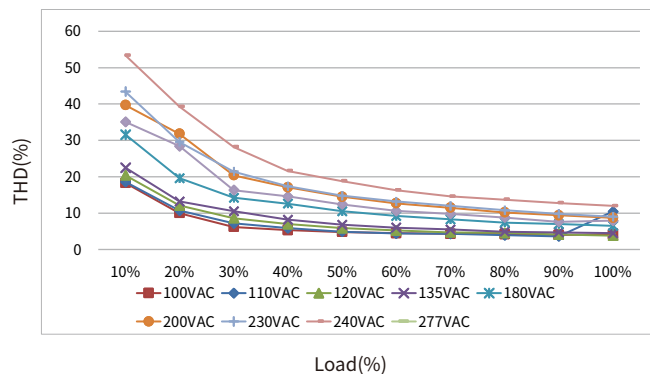
Electrical values

BK-DGV120S

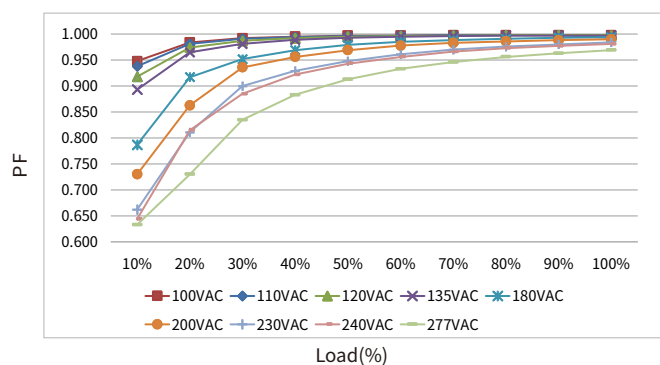
Efficiency vs load



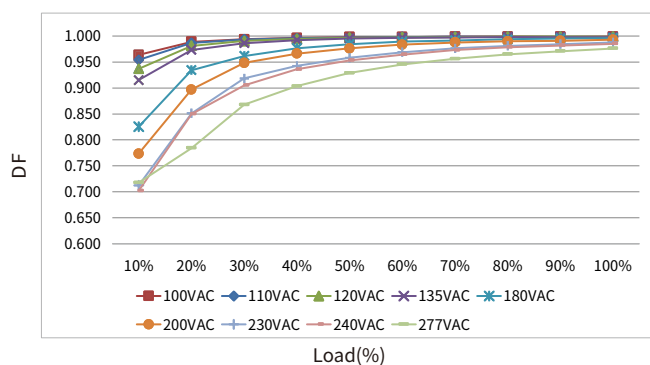
THD vs. Load



Power factor vs. Load

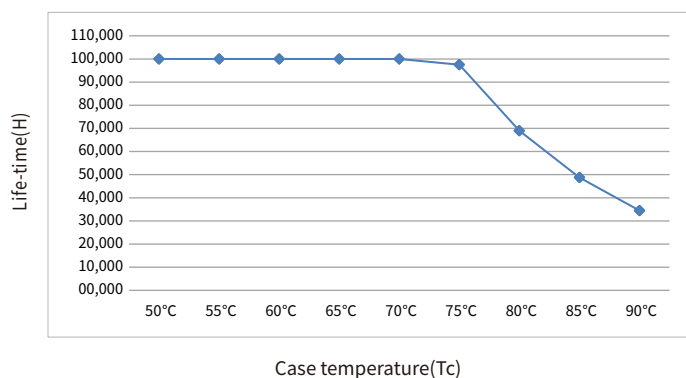


displacement power vs. Load



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).

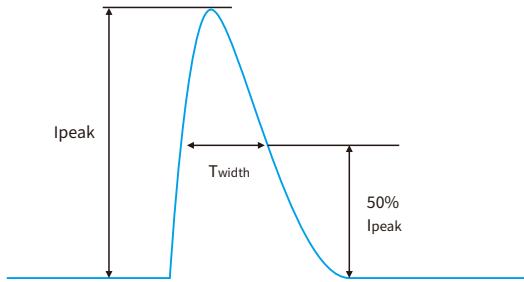
- The relation of tc to ta temperature depends also on the luminaire design.

Surge

Model	I _{peak}	T _{width}	Condition	Relative number of MCB/pcs														
				B10	B13	B16	B20	B25	C10	C13	C16	C20	C25	D10	D13	D16	D20	D25
BK-DGV036S	20.45A	180us	AC 230V, Full load, Cold start, T _a ≤ 30°C, MCB is not installed side by side	20	26	32	39	49	33	43	53	66	82	46	59	73	91	114
BK-DGV060S	28.08A	360us		20	26	32	39	49	33	43	53	66	82	46	59	73	91	114
BK-DGV120S	32A	470us		4	6	7	9	11	7	9	12	15	18	14	18	22	27	34

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

- When the output of the driver is short-circuited, the driver will enter the protection state, disconnect the AC for more than 1 minute, and the output will return to normal.

Output overload protection

- When the load connected to the driver exceeds the rated power, the driver will enter a hiccup state. After reducing the load power, the driver will resume normal output.

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.

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.

Corridor dimming (corridorDIM)

- Please see the "corridorDIM dimming" section.

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: When DC input, the output of the driver remains unchanged, and the dimming function responds normally.
Setting 2 (default): When DC input, the output of the driver jumps to the set brightness of 15%, 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	PWM	VCC
Input	-	Double	Basic	Basic	-	Double	Double
Output	Double	-	Basic	Basic	Double	-	-
Case	Basic	Basic	-	Basic	Basic	Basic	Basic

Label

DGV036S

INPUT ☐ ACL/DC+ ☐ ACN/DC- ☐ DA ☐ DA ☐ $\oplus$		BOKE Dimmable Constant Voltage LED Driver (LED控制装置) MODEL: BK-DGV036S-12V0DP INPUT: 110-277V $\sim$ 0.42A Max. 50/60Hz λ : 0.95 200-300V $\sim$ 0.25A Max. 0Hz OUTPUT: 12V $\sim$ 3A 36W Max. For LED modules use only BOKE Drivers Co., Ltd. www.bokedriver.com MADE IN CHINA(中国制造)		OUTPUT V+ ☐ V- ☐ VCC ☐ GND ☐ DIM ☐
--	--	---	--	--

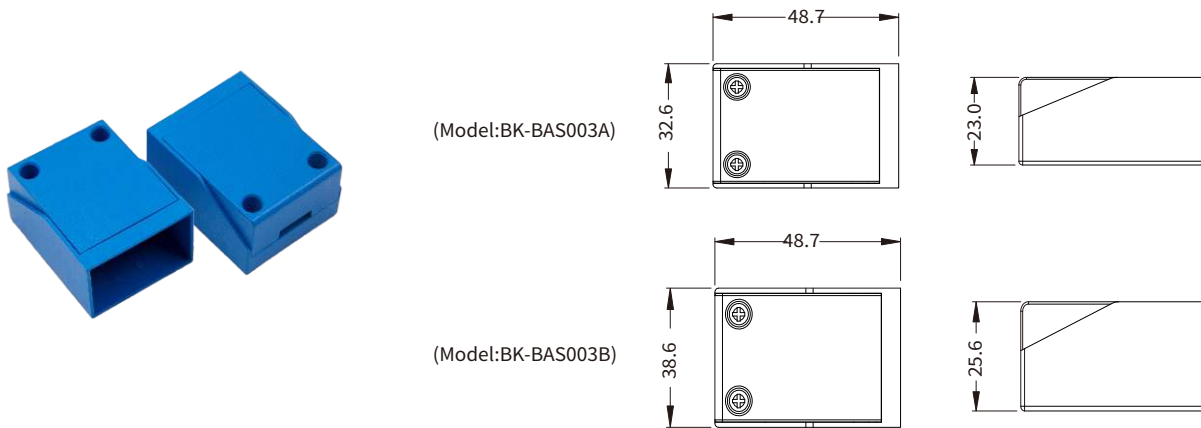
DGV060S

INPUT ☐ ACL/DC+ ☐ ACN/DC- ☐ DA ☐ DA ☐ $\oplus$		BOKE Dimmable Constant Voltage LED Driver (LED控制装置) MODEL: BK-DGV060S-12V0DP INPUT: 110-277V $\sim$ 0.7A Max. 50/60Hz λ : 0.95 200-300V $\sim$ 0.4A Max. 0Hz OUTPUT: 12V $\sim$ 5A 60W Max. For LED modules use only BOKE Drivers Co., Ltd. www.bokedriver.com MADE IN CHINA(中国制造)		OUTPUT V+ ☐ V- ☐ VCC ☐ GND ☐ DIM ☐
--	--	---	--	--

DGV120S

INPUT ☐ ACL/DC+ ☐ ACN/DC- ☐ DA ☐ DA ☐ $\oplus$		BOKE Dimmable Constant Voltage LED Driver (LED控制装置) MODEL: BK-DGV120S-12V0DP INPUT: 110-277V $\sim$ 1.6A Max. 50/60Hz λ : 0.95 200-300V $\sim$ 0.85A Max. 0Hz OUTPUT: 12V $\sim$ 10A 120W Max. For LED modules use only BOKE Drivers Co., Ltd. www.bokedriver.com MADE IN CHINA(中国制造)		OUTPUT V+ ☐ V- ☐ VCC ☐ GND ☐ DIM ☐
--	--	--	--	--

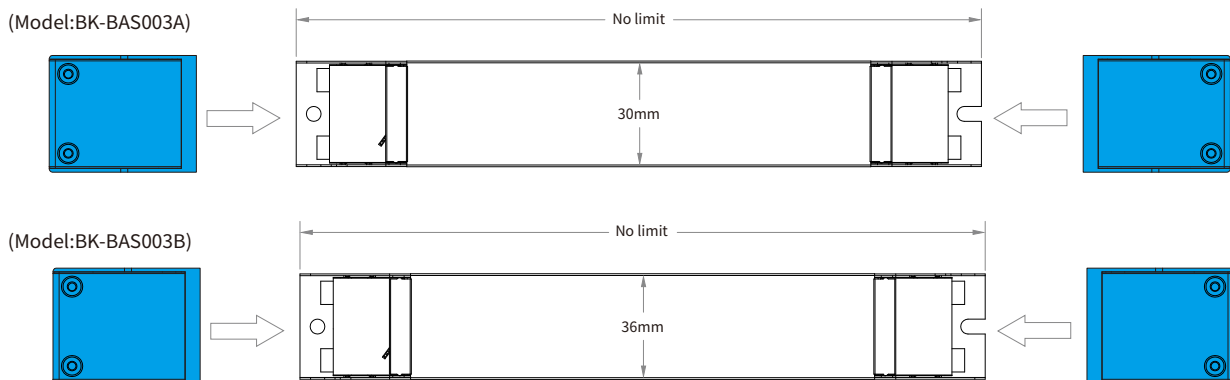
Optional accessories



Remark: BK-BAS003A apply to DGV036S, DGV060S;
BK-BAS003B apply to DGV120S.

Unit:mm

Installation diagram of accessories



DAI dimming application

Wiring diagram



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 $2 \times 1.5\text{mm}^2$.
- 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
2×0.50mm ²	max.100m
2×0.75mm ²	max.150m
2×1.00mm ²	max.200m
≥2×1.50mm ²	max.300m

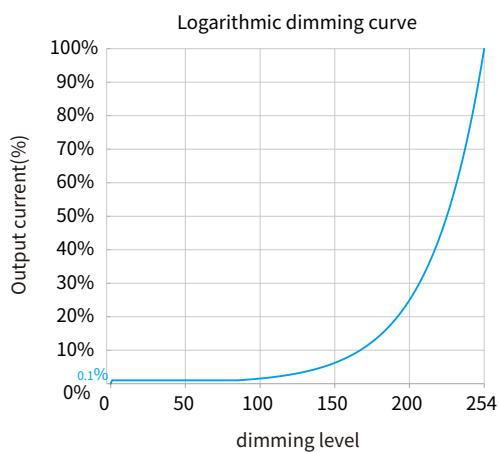
Power-on level :

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.

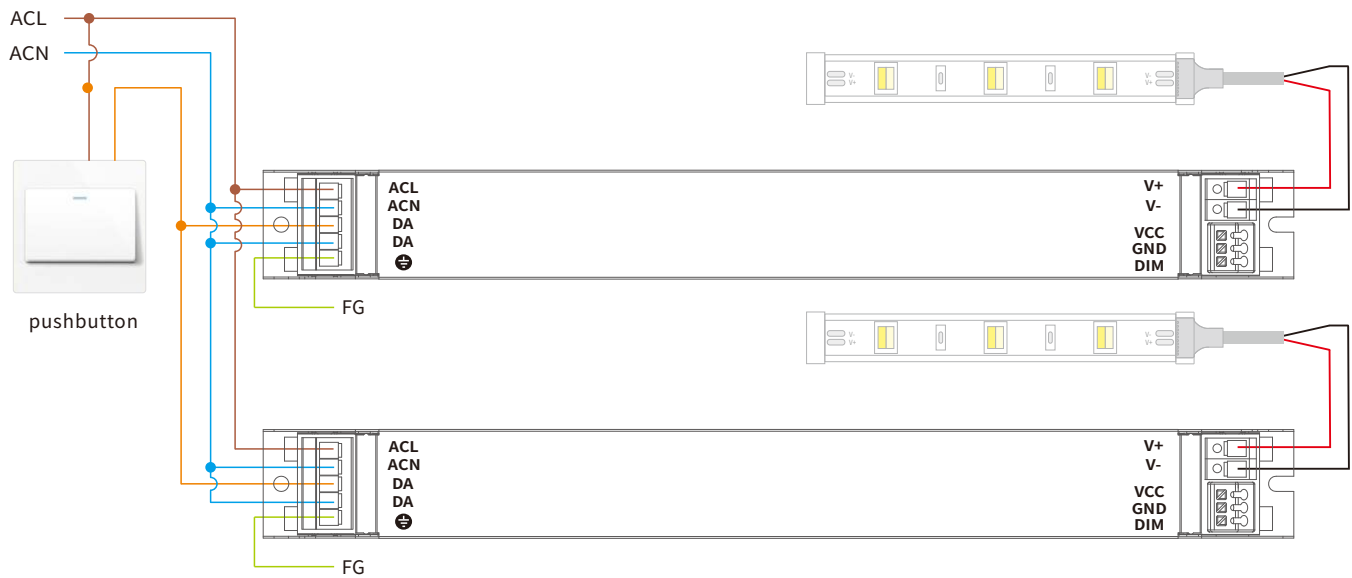
Dimming curve



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

pushDIM dimming application

Wiring diagram



Switch to the pushDIM dimming mode

After installation according to the wiring diagram of pushDIM dimming application, short press the dimming pushbutton(pushDIM port) 5 times within 3 seconds, then the driver will automatically switch to the pushDIM dimming mode.

Remarks:

Max. 50 drivers per pushDIM control line.

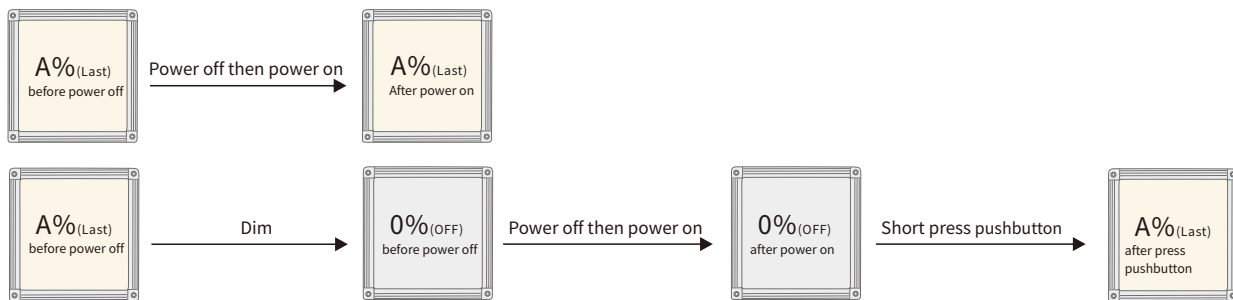
Turn on or turn off: short press pushbutton for 0.2-1s.

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.



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.

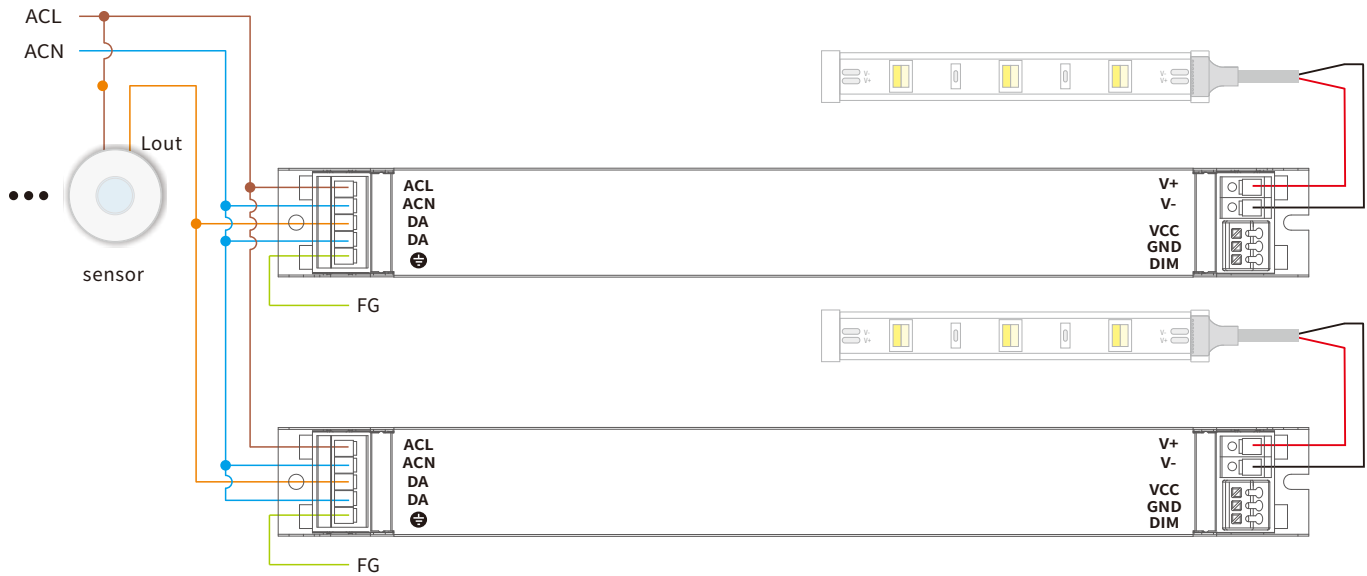
Step 3: long press the pushbutton, confirm each light is from darkest to brightest and all the lights are synchronous.

method 2:

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

corridorDIM dimming and color temperature application

Wiring diagram



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.

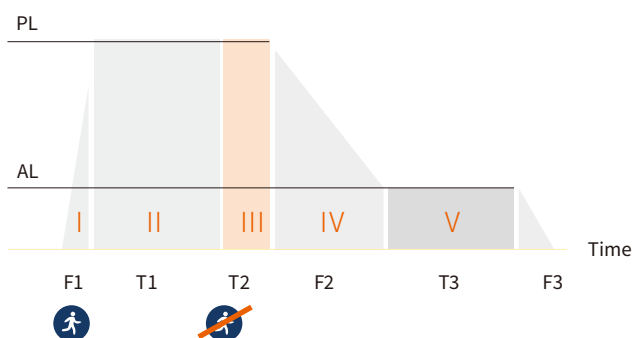
- After switch to the corridorDIM dimming mode, the pushDIM dimming mode will be automatically deactivate .

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

Brightness level

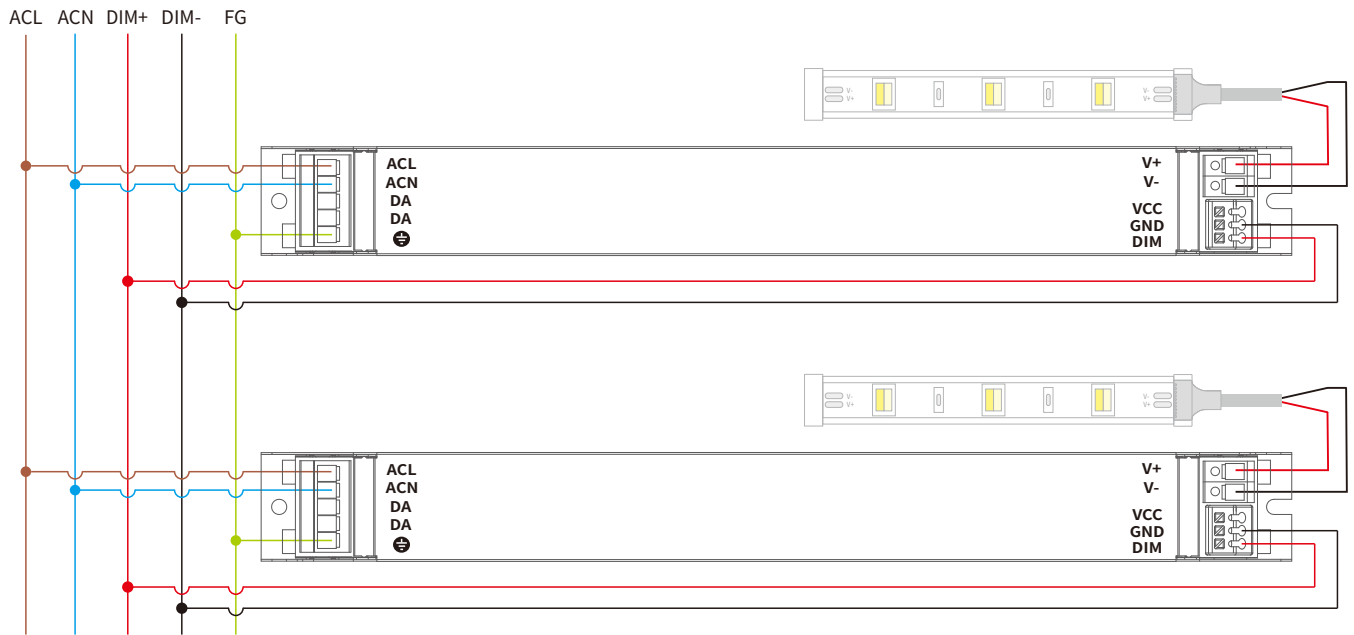


- The parameters of corridorDIM can be set through the configuration tool.
- corridorDIM is not activated by default.

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

1-10V/10V PWM dimming application

Wiring diagram



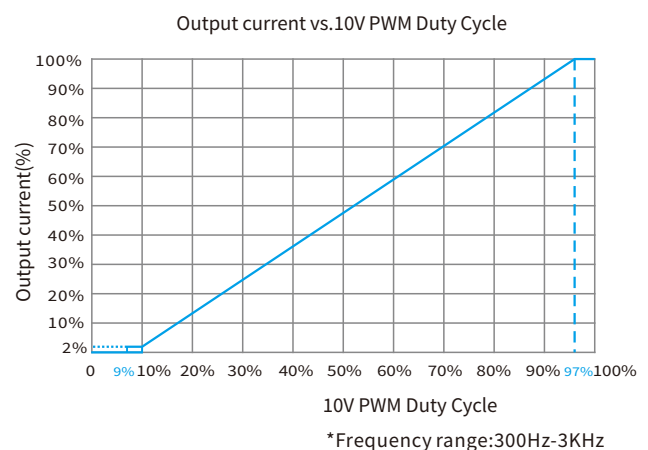
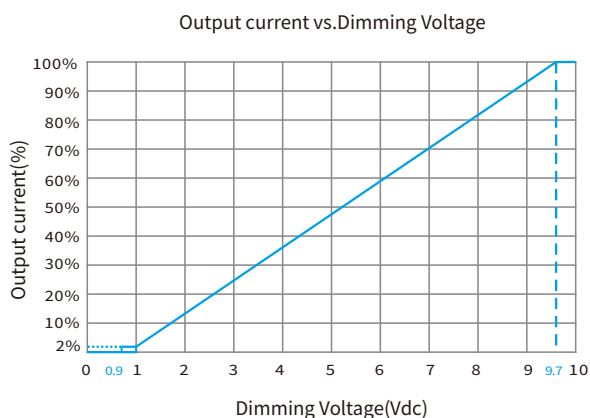
Switch to the 1-10V / 10V PWM dimming mode

- Method 1: After installation according to the wiring diagram of the 1-10V / 10V PWM dimming application, adjust the dimmer to the minimum and then to the maximum, the driver will automatically activate the 1-10V control mode.
- Method 2: Short-circuit the DIM+ and DIM- ports for 2s, the driver will automatically activate the 1-10V control mode.

Remarks

- Dimming interface characteristics: 0.9V and below are closed, 1V is the darkest, 10V is the brightest, 1-10V is the dimming range.
- The dimming interface distinguishes between positive and negative, DIM+ is positive, DIM- is negative, please do not reverse.
- Dimming interface does not support voltage access higher than 15V, otherwise it will cause damage to the internal components.
- When the dimming interface is open, the driver outputs the maximum current. When the interface is short-circuited, the current output is closed.
- When multiple synchronous dimming is required, the positive poles of the dimming interface of each driver are connected together, and the negative poles are connected together.
- Support passive dimmer or isolated active dimmer dimming, does not support non-isolated active dimmer dimming.
- In general, it is recommended that the number of mounted drives does not exceed 30pcs, and the wiring length does not exceed 100m.
- It is recommended that the dimming wires should not be lower than the 22AWG wire.
- Do not put the dimming wires with high voltage or interference sources. If it is unavoidable, please use the shielded wires.
- If you need a drive with 0-10V dimming characteristics, please contact BOKE.

Dimming curve



150K potentiometer dimming application

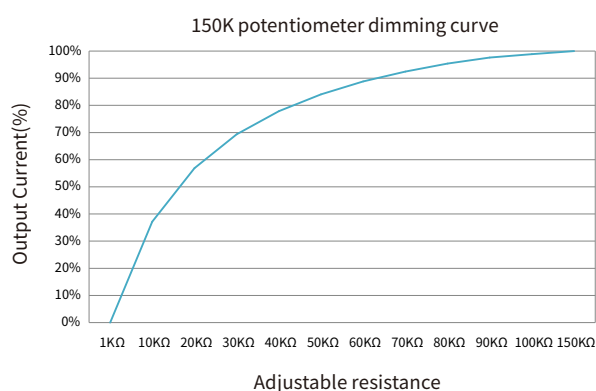
Wiring diagram



Remarks

- In the 150K potentiometer dimming mode, the potentiometer can only be connected to one driver.

Dimming curve



1-10V/10V PWM+12V dimming application

Wiring diagram



Electrical description

VCC: +12VDC $\pm 5\%$, 100mA MAX

PDIM: Voltage: 3.3-10V

Frequency range: 300Hz-3kHz

Phase position: positive logic

Duty cycle: 0%(OFF), 10%(darkest)~100%(brightest)

Typical applications

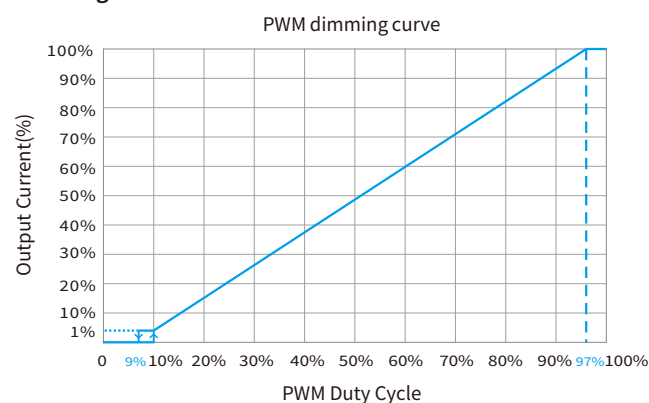
Aux supply 12V

Diming PWM

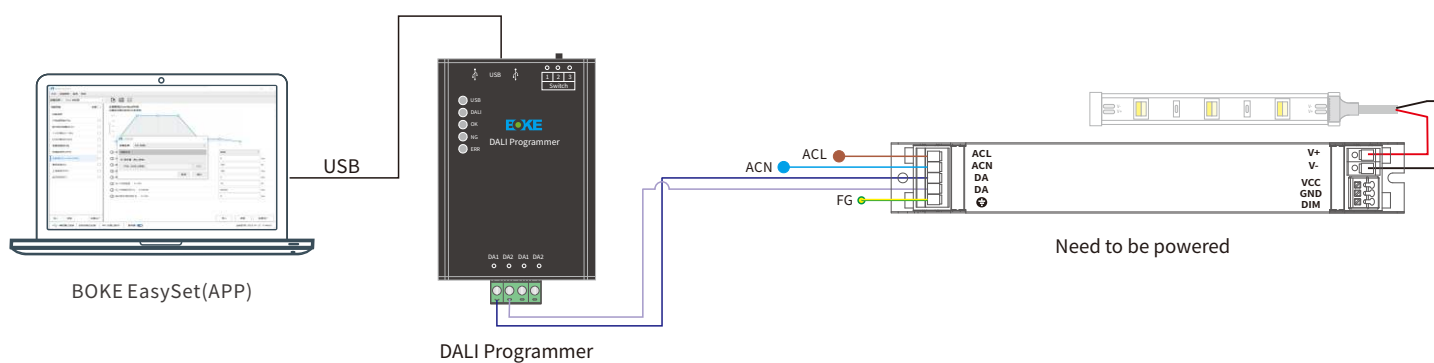
GND

Bluetooth module
Zigbee module
WiFi module
LoRa module
4G/5G module
NB-IoT module
Daylight Sensor
PIR Sensor
Microwave Sensor
IR Sensor
RF module
.....

Dimming curve



Device configuration



Software download(PC&mobile)



PC:Windows7/Windows10/Windows1132bit/64bit;
Mobile:Androidsystem $\geq$ 6.0, iossystem $\geq$ 14.0.

Configure tools and software

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

Parameters configure

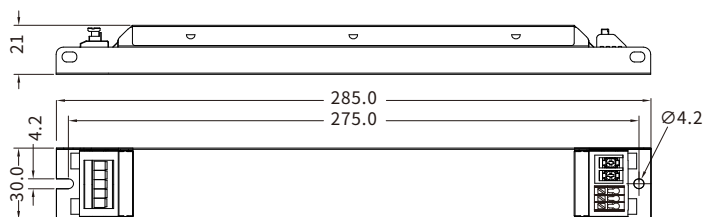
Configuration items	Factory settings	Parameter configuration	Read/Wirte
Product information	-	NO	Read Only
PUSH dimming(pushDIM)	Activated	YES	Read/Wirte
Corridor dimming(corridorDIM)	Activated	YES	Read/Wirte
Emergency lighting(EL)	Activated	YES	Read/Wirte
Power-on fadeing(POF)	Deactivated	YES	Read/Wirte
Constant light output(CLO)	Deactivated	YES	Read/Wirte
Run-time(RT)		NO	Read Only
DALI Address(DA)	Activated	YES	Read/Wirte
DALI basic parameters(DP)	Activated	YES	Read/Wirte
DALI scene setting(DS)	Activated	YES	Read/Wirte
Other parameters		YES	

Note: The default factory mode of emergency lighting is derated mode, and the emergency brightness is 15%

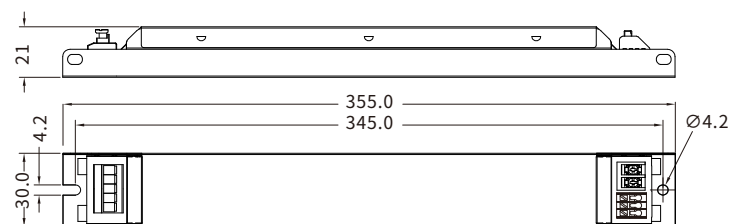
Mechanical Specification

Size(Excluding accessories)

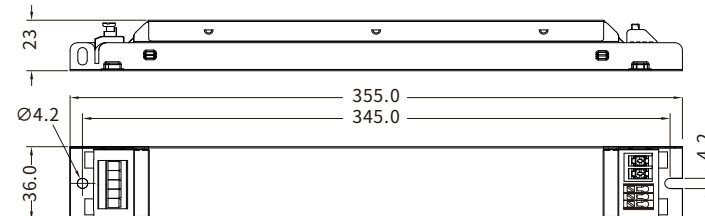
Unit:mm
DGV036S



DGV060S



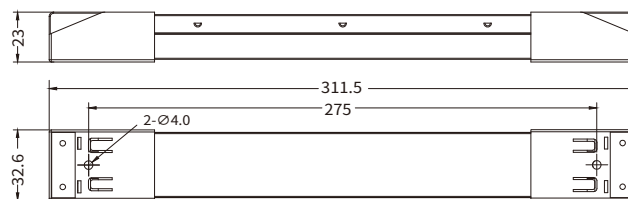
DGV120S



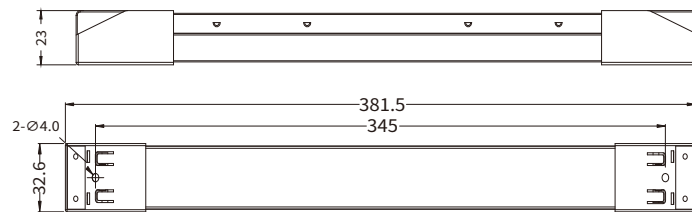
Mechanical Specification

Size(Include accessories)

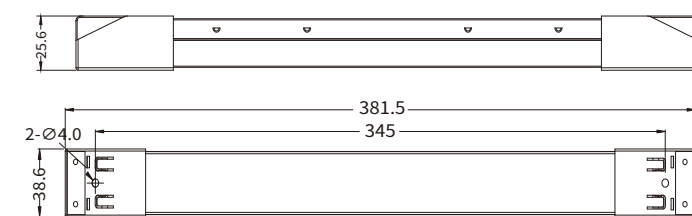
Unit:mm
DGV036S



DGV060S



DGV120S



INPUT

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

Input wire

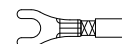
0.75-1.5mm²
8-9mm

OUTPUT

Numbering	function
1	V+
2	V-

Output wire

1.5-2.5mm²



DIMMING

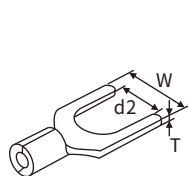
Numbering	function	colour
1	VCC	red
2	GND	black
3	DIM	red

Dimming wire

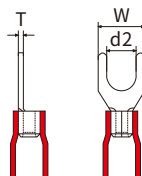
0.5-1.0mm²



Cold-pressed terminal reference



Cold-pressed terminal (bare part)



Cold-pressed terminal (insulating part)

Product model	Position	Cable cord diameter	Cold-pressed Terminal			
			Model reference	Diameter		
				Inside diameter(d2)	Outside diameter(W)	Thickness(T)
DGV036C/DGV060C	输出	0.2-0.5mm ²	RNB0.5-3.2	3.2mm	5mm	0.5mm
DGV036C/DGV060C		0.5-1.5mm ²	SNB1.25-3.2/SV1.25-3		5.7mm	0.7mm
/DGV120C		1.5-2.5mm ²	SNB2-3.2/SV2-3			0.8mm

Installation note

Hot plug-in

- Hot plug-in is not supported due to residual output voltage of $> 0\text{ V}$.

Installation requirements

- The driver should be installed in a dry, acid-free, oil-free, fat-free environment.
- The installation ambient temperature of the driver shall not exceed the value of T_a at any time.
- The temperature of the mounting surface of the driver should be lower than the temperature of T_a .
- 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.

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. length of output wires is 2 m.
- Incorrect wiring can damage LED modules.

Replace LED module

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

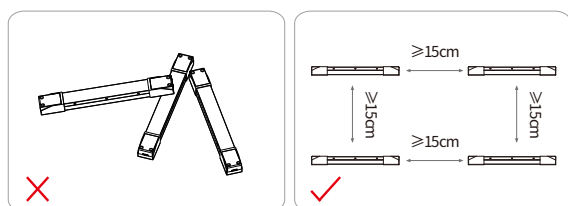


Figure 1

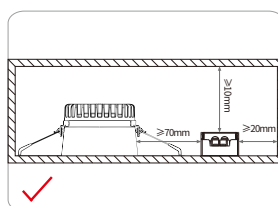
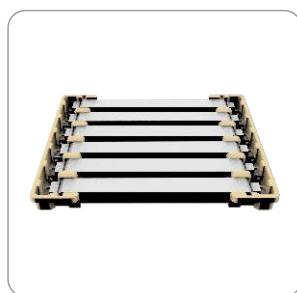


Figure 2

Packaging



Product



Paper tray



7pcs*5layer=35pcs/CTN
7pcs*4layer=28pcs/CTN
6pcs*4layer=24pcs/CTN

Model	Product size	Weight	Paper tray size	Carton size	Qty/carton	N.W	G.W
DGV036S	L285*W30*H21mm	219g	L340*W75*H29mm	L355*W325*H170mm	35pcs	7.67kg	9.15kg
DGV060S	L355*W30*H21mm	303g	L340*W75*H29mm	L395*W355*H140mm	28pcs	8.48kg	9.89kg
DGV120S	L355*W36*H23mm	426g	L340*W75*H33mm	L395*W355*H160mm	24pcs	10.2kg	11.6kg

Accessories



End cap + screws



100 sets/CTN

Model	Product size	Weight/set	Carton size	Qty/carton	N.W	G.W
BK-BAS003A	L48.7*W32.6*H23mm	22g	L450*W350*H180mm	100 sets	2.2kg	2.7kg
BK-BAS003B	L48.7*W38.6*H25.6mm	27g	L450*W350*H180mm	100 sets	2.7kg	3.2kg

Additional information

1. The life and MTBF of the product are for reference only, and do not represent a warranty statement.
2. For more information, please send an email to info@bokedriver.com.