

Constant voltage linear dimmable driver
MGV Series suffix M (isolated 1-10V/10V PWM/Rx+12V)



Features

- Support isolate interface dimming 1-10V/10V PWM/Rx dimming +12V auxiliary power
- Provide 12V 100mA auxiliary power supply to power control module or sensor
- Soft dimming and flicker-free at any brightness
- Dimming range 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
- Passed ENEC-TUV, CE, RCM, CCC, UKCA and other certifications
- IP20 protection grade, indoor use
- Nominal life-time up to 100,000 h
- 5-year guarantee

Interfaces

- 1-10V 3in1 isolated (1-10V / 10V PWM/Rx)
- VCC Auxiliary power (12V, 100mA)

Functions

- Support self-contained emergency application
- Protective features (short-circuit, overload, no-load protection)

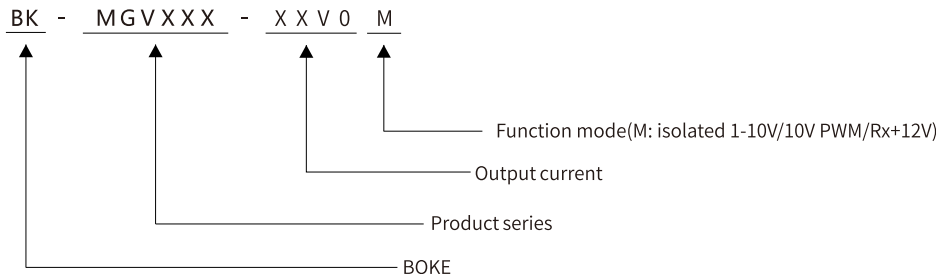
Suitable for lights

- Suitable for CV strip lights, CV linear lights, floor lights, three-proof lights, etc

Typical applications

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

Model coding rules of MGV series



Dimming function table of DGV series

| Model | Suffix | Wired dimming | | | Aux power | Advanced functions | | | | Device Configuration | |
|-------------------------------------|----------|---------------|---------|------------|-----------|--------------------|----|-----|-------------|----------------------|----------------|
| | | DALI-2 | pushDIM | 1-10V 3in1 | 12V/0.1A | AOC | EL | CLO | corridorDIM | DALI interfaces | NFC interfaces |
| BK-MGV060 BK-MGV100 BK-MGV150 | M | | | √ | √ | | | | | | |

* The description in this specification is only applicable to the products with the suffix M and the model are MG060, MG100 and MG150 .

Selection table of MG0 series(just suffix M, 60W/100W/150W)

| Model | Input voltage | Output power | Output voltage | Output current | Dimension |
|-----------------|---------------|--------------|----------------|----------------|----------------|
| BK-MGV060-24V0M | 200-240VAC | 60W | 24VDC | 2.5A | L285*W30*H21mm |
| BK-MGV060-48V0M | 200-240VAC | 60W | 48VDC | 1.2A | L285*W30*H21mm |
| BK-MGV100-24V0M | 200-240VAC | 100W | 24VDC | 4.0A | L355*W30*H21mm |
| BK-MGV100-48V0M | 200-240VAC | 100W | 48VDC | 2.0A | L355*W30*H21mm |
| BK-MGV150-24V0M | 200-240VAC | 150W | 24VDC | 6.0A | L355*W36*H23mm |
| BK-MGV150-48V0M | 200-240VAC | 150W | 48VDC | 3.0A | L355*W36*H23mm |

Technical data

| Product model | BK-MGV060-24V0M | BK-MGV060-48V0M | |
|-------------------------------------|--|------------------|--|
| Output parameters | | | |
| Regulation method | Constant voltage | Constant voltage | |
| Rated output current | 2.5A | 1.2A | |
| Rated output voltage | 24V | 48V | |
| Rated output power | 60W Max | 57.6W Max | |
| Output current adjustment | N/A | N/A | |
| Output current ripple LF | ±2% | ±2% | |
| Voltage accuracy | ±5% | ±5% | |
| Linear regulation | ±5% | ±5% | |
| Load regulation | ±5% | ±5% | |
| No load output voltage | N/A | N/A | |
| Flicker-free | Exempt flicker-free | | |
| Input parameters | | | |
| Rated input voltage | 200-240VAC 200-240VDC | | |
| Rated input voltage | 180-264VAC 180-264VDC | | |
| Input voltage shock | <380 VAC, 1 h | | |
| Input current | <0.35A (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) | 89% (230V AC & Full load) | | |
| In-rush current | 34.65A peak, 256us duration(50% Ipeak), see the description below for details | | |
| Start/Switchover/Turn off | <0.5s(AC start), <0.5s(DC start), <0.3s(AC/DC switchover), <0.5s(Turn off) | | |
| Switching cycles | > 50,000 switching cycles | | |
| Power consumption | Full load(Pmax):60W, No load(Pno): N/A, On stand-by(Psb) : <0.5W, Network stand-by(Pnet) : N/A | | |
| Safety | | | |
| Withstand voltage | I/P-O/P:3750VAC,I/P-FG:1750VAC,O/P-FG:500VAC,I/P-DIM: 1500VAC,O/P-DIM: 1500VAC | | |
| Mains surge capability | L-N:2KV,L-FG/N-FG: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 | N/A | | |
| pushDIM dimming port | N/A | | |
| 1-10V 3in1 dimming port | Voltage range: 0-20V, interface current consumption: <1mA | | |
| Auxiliary power supply | 12V±5% 100mA | | |
| Dimming range | 1-100% | | |
| Dimming drive mode | H-PWM | | |
| Emergency support | | | |
| Central emergency system | Not supported | | |
| 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,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 | N/A | | |
| EL | N/A | | |
| RF | N/A | | |

Remarks

1.By default, all parameter are measured at 230VAC input, full load and 25°C of ambient temperature.

Technical data

| Product model | BK-MGV100-24V0M | BK-MGV100-48V0M |
|-------------------------------------|--|------------------|
| Output parameters | | |
| Regulation method | Constant voltage | Constant voltage |
| Rated output current | 4A | 2A |
| Rated output voltage | 24V | 48V |
| Rated output power | 96W Max | 96W Max |
| Output current adjustment | N/A | N/A |
| Output current ripple LF | ±2% | ±2% |
| Voltage accuracy | ±5% | ±5% |
| Linear regulation | ±5% | ±5% |
| Load regulation | ±5% | ±5% |
| No load output voltage | N/A | N/A |
| Flicker-free | Exempt flicker-free | |
| Input parameters | | |
| Rated input voltage | 200-240VAC 200-240VDC | |
| Rated input voltage | 180-264VAC 180-264VDC | |
| Input voltage shock | <380 VAC, 1 h | |
| Input current | <0.7A (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) | 91% (230V AC & Full load) | |
| In-rush current | 33.7A peak, 328us duration(50 % Ipeak), see the description below for details | |
| Start/Switchover/Turn off | <0.5s(AC start), <0.5s(DC start), <0.3s(AC/DC switchover), <0.5s(Turn off) | |
| Switching cycles | > 50,000 switching cycles | |
| Power consumption | Full load(Pmax):96W, No load(Pno): N/A, On stand-by(Psb) : <0.5W, Network stand-by(Pnet) : N/A | |
| Safety | | |
| Withstand voltage | I/P-O/P:3750VAC,I/P-FG:1750VAC,O/P-FG:500VAC,I/P-DIM: 1500VAC,O/P-DIM: 1500VAC | |
| Mains surge capability | L-N:2KV,L-FG/N-FG: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 | N/A | |
| pushDIM dimming port | N/A | |
| 1-10V 3in1 dimming port | Voltage range: 0-20V, interface current consumption: <1mA | |
| Auxiliary power supply | 12V±5% 100mA | |
| Dimming range | 1-100% | |
| Dimming drive mode | H-PWM | |
| Emergency support | | |
| Central emergency system | Not supported | |
| Self-contained emergency | Supported | |
| Environment & Life time | | |
| Operating temperature | Ta=-20-60°C | |
| Case temperature | Tc=95°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,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 | N/A | |
| EL | N/A | |
| RF | N/A | |

Remarks

1.By default, all parameter are measured at 230VAC input, full load and 25°C of ambient temperature.

Technical data

| Product model | BK-MGV150-24V0M | BK-MGV150-48V0M |
|-------------------------------------|---|------------------|
| Output parameters | | |
| Regulation method | Constant voltage | Constant voltage |
| Rated output current | 6A | 3A |
| Rated output voltage | 24V | 48V |
| Rated output power | 144W Max | 144W Max |
| Output current adjustment | N/A | N/A |
| Output current ripple LF | ±2% | ±2% |
| Voltage accuracy | ±5% | ±5% |
| Linear regulation | ±5% | ±5% |
| Load regulation | ±5% | ±5% |
| No load output voltage | N/A | N/A |
| Flicker-free | Exempt flicker-free | |
| Input parameters | | |
| Rated input voltage | 200-240VAC 200-240VDC | |
| Rated input voltage | 180-264VAC 180-264VDC | |
| Input voltage shock | <380 VAC, 1 h | |
| Input current | <1A (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) | 91% (230V AC & Full load) | |
| In-rush current | 50A peak, 468us duration(50% Ipeak), see the description below for details | |
| Start/Switchover/Turn off | <0.5s(AC start),<0.5s(DC start),<0.3s(AC/DC switchover),<0.5s(Turn off) | |
| Switching cycles | > 50,000 switching cycles | |
| Power consumption | Full load(Pmax):144W, No load(Pno): N/A, On stand-by(Psb) : <0.5W, Network stand-by(Pnet) : N/A | |
| Safety | | |
| Withstand voltage | I/P-O/P:3750VAC,I/P-FG:1750VAC,O/P-FG:500VAC,I/P-DIM: 1500VAC,O/P-DIM: 1500VAC | |
| Mains surge capability | L-N:2KV,L-FG/N-FG: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 | N/A | |
| pushDIM dimming port | N/A | |
| 1-10V 3in1 dimming port | Voltage range: 0-20V, interface current consumption: <1mA | |
| Auxiliary power supply | 12V±5% 100mA | |
| Dimming range | 1-100% | |
| Dimming drive mode | H-PWM | |
| Emergency support | | |
| Central emergency system | Not supported | |
| Self-contained emergency | Supported | |
| Environment & Life time | | |
| Operating temperature | Ta=-20-60°C | |
| Case temperature | Tc=95°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,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 | N/A | |
| EL | N/A | |
| RF | N/A | |

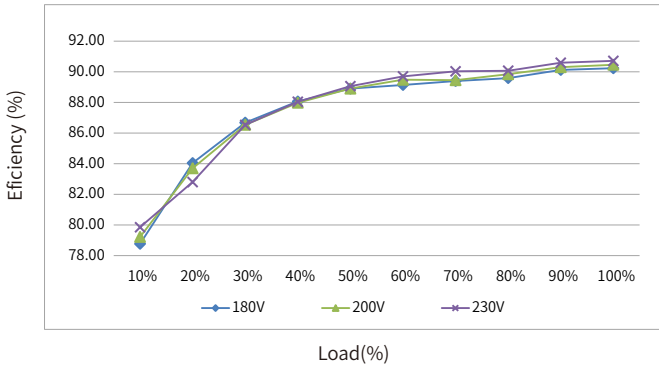
Remarks

1.By default, all parameter are measured at 230VAC input, full load and 25°C of ambient temperature.

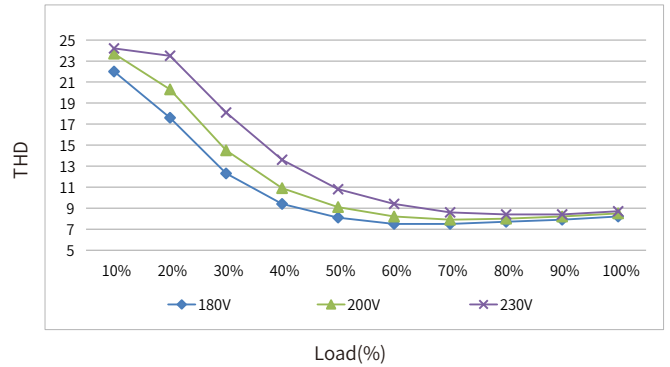
Electrical values and expected life-time

BK-MGV060-24V0M

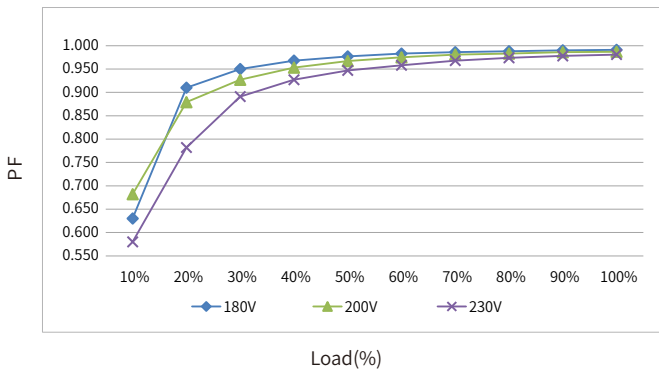
Efficiency vs load



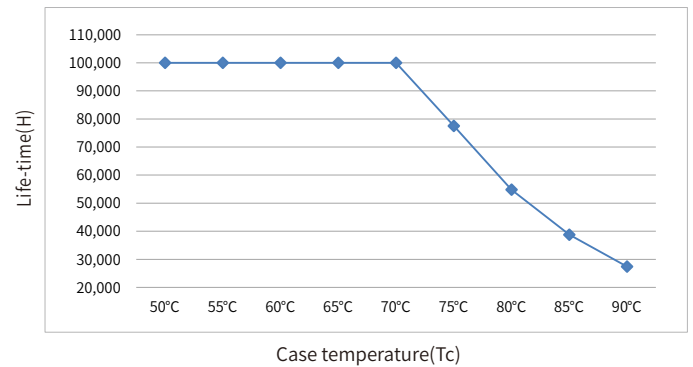
THD vs. Load



Power factor vs. Load



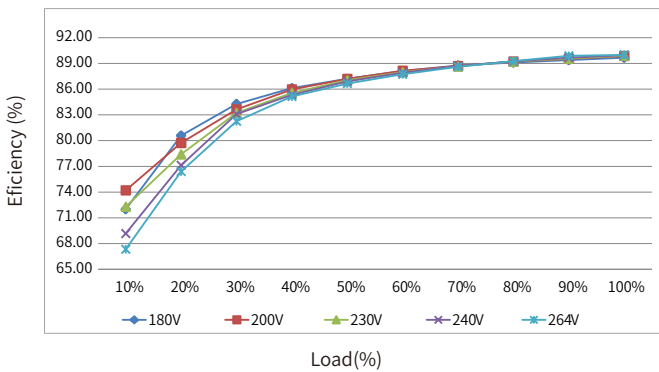
Life-time vs. case temperature



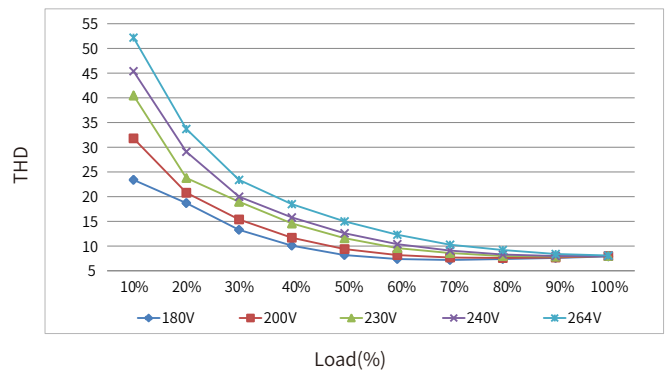
-The life-time of the LED driver is shown in the figure above (calculated based on the 90% survival rate).
 - The relation of tc to ta temperature depends also on the luminaire design.

BK-MGV060-48V0M

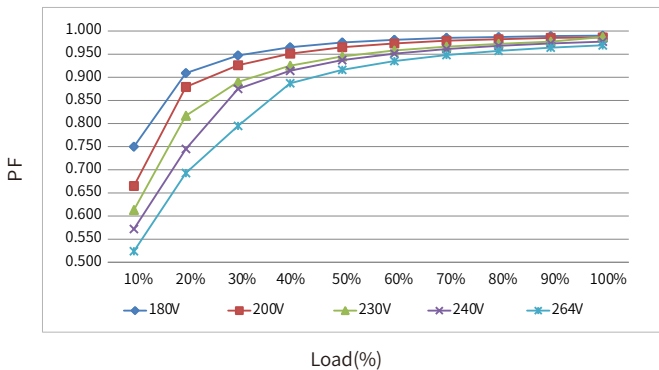
Efficiency vs load



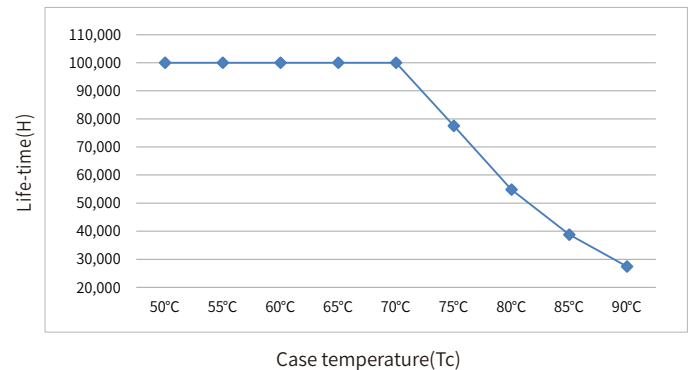
THD vs. Load



Power factor vs. Load



Life-time vs. case temperature

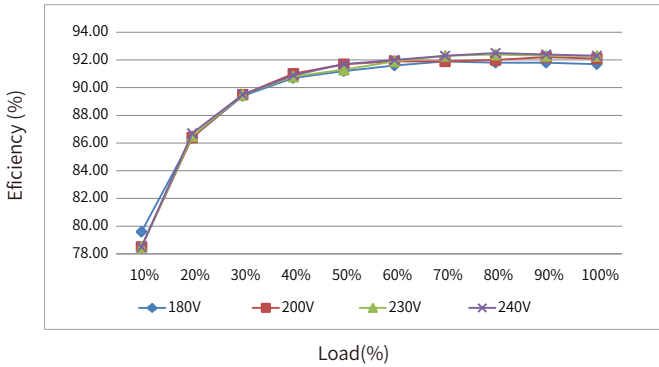


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 - The relation of tc to ta temperature depends also on the luminaire design.

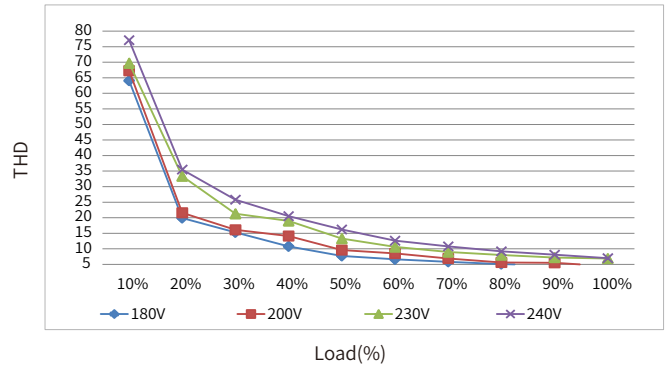
Electrical values and expected life-time

BK-MGV100-24V0M

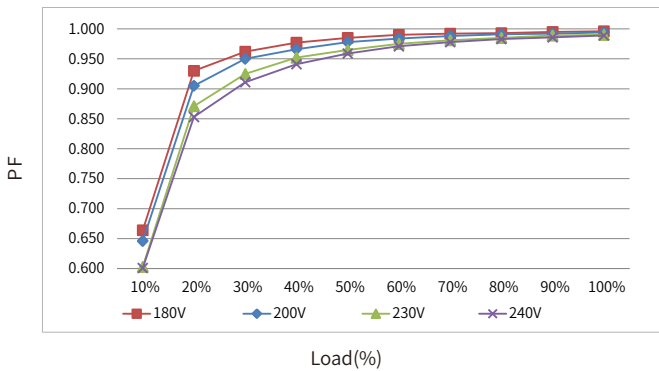
Efficiency vs load



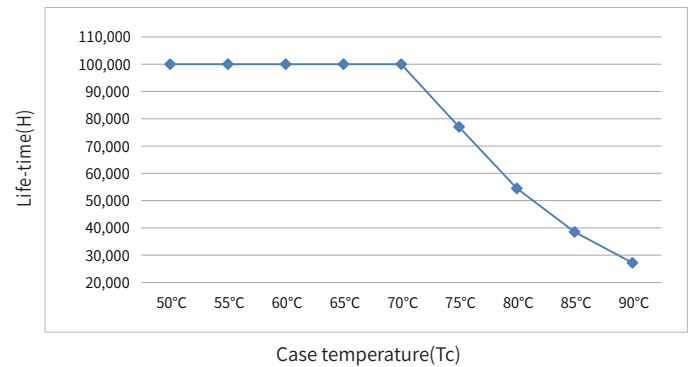
THD vs. Load



Power factor vs. Load



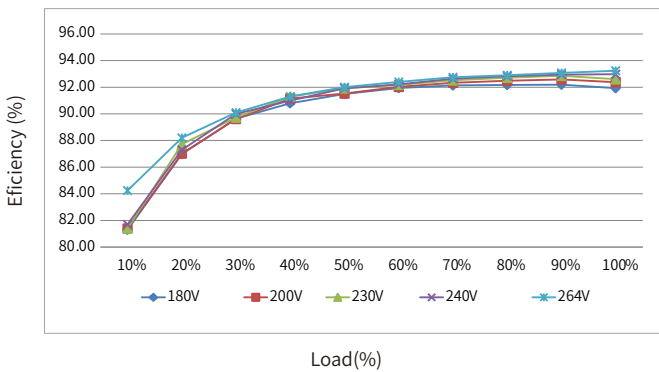
Life-time vs. case temperature



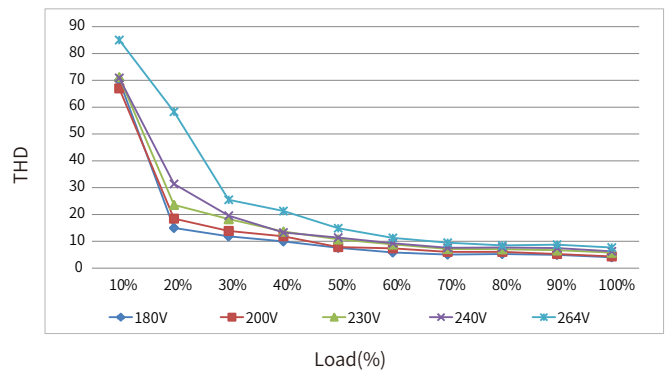
-The life-time of the LED driver is shown in the figure above (calculated based on the 90% survival rate).
 - The relation of tc to ta temperature depends also on the luminaire design.

BK-MGV100-48V0M

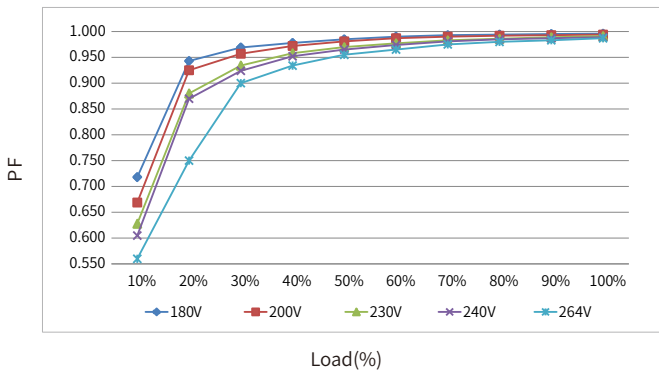
Efficiency vs load



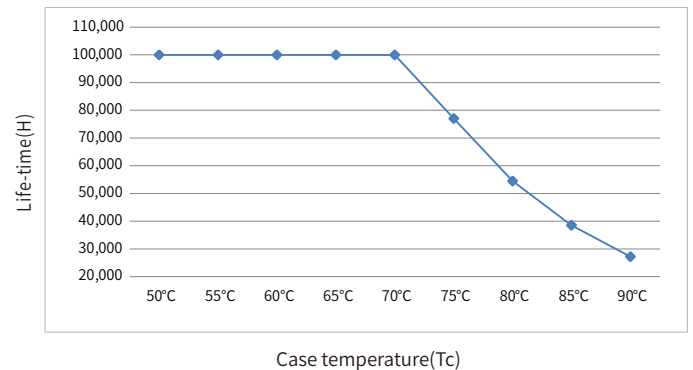
THD vs. Load



Power factor vs. Load



Life-time vs. case temperature

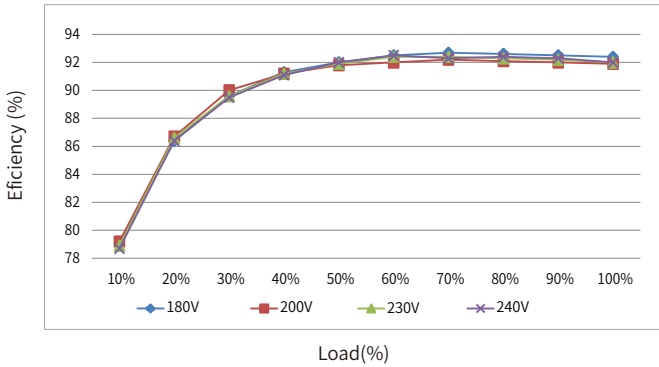


-The life-time of the LED driver is shown in the figure above (calculated based on the 90% survival rate).
 - The relation of tc to ta temperature depends also on the luminaire design.

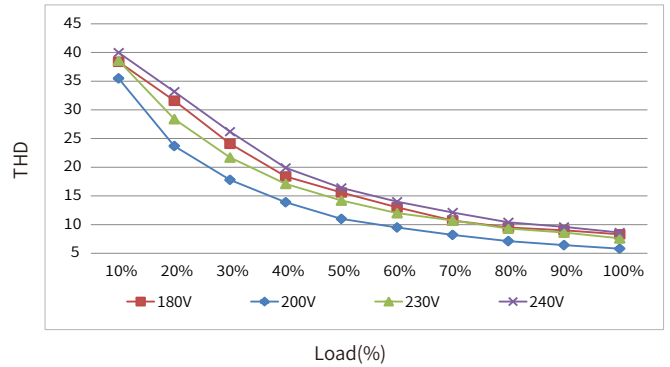
Electrical values and expected life-time

BK-MGV150-24V0M

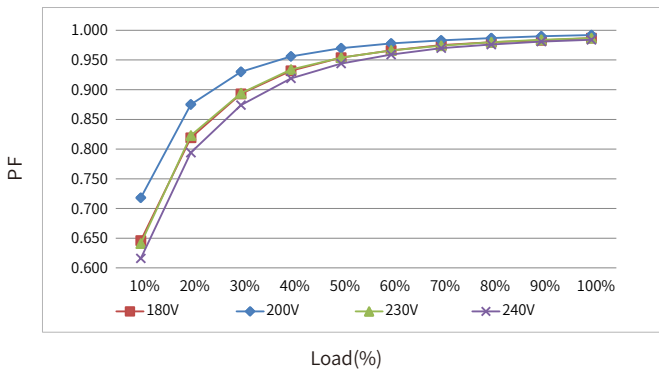
Efficiency vs load



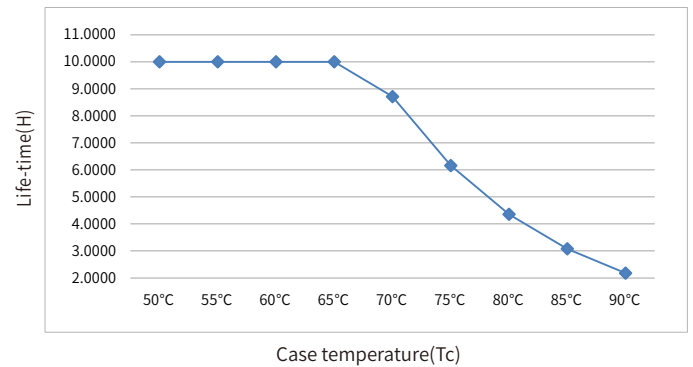
THD vs. Load



Power factor vs. Load



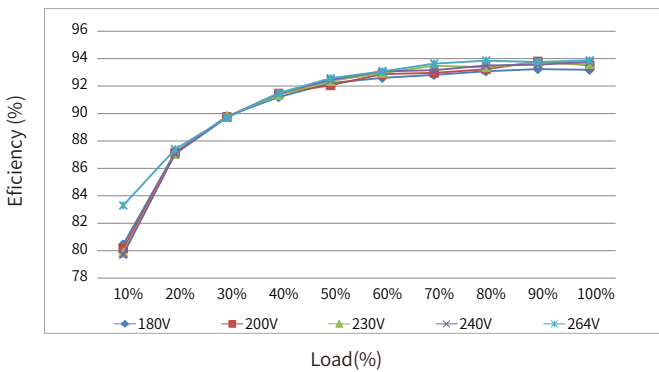
Life-time vs. case temperature



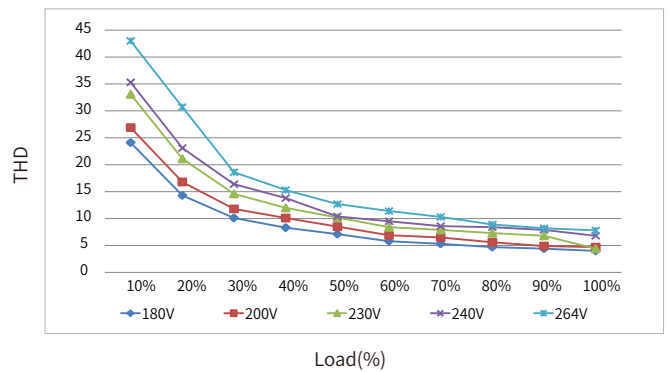
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 - The relation of tc to ta temperature depends also on the luminaire design.

BK-MGV150-48V0M

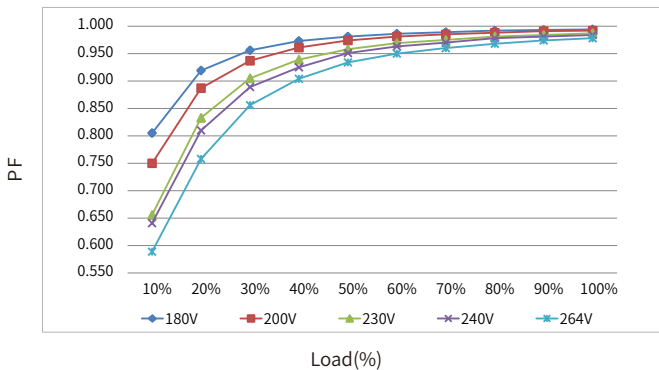
Efficiency vs load



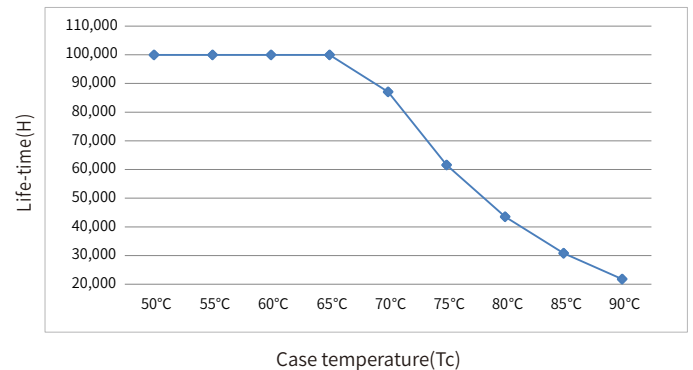
THD vs. Load



Power factor vs. Load



Life-time vs. case temperature



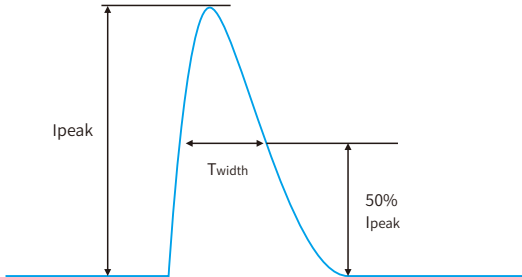
-The life-time of the LED driver is shown in the figure above (calculated based on the 90% survival rate).
 - The relation of tc to ta temperature depends also on the luminaire design.

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-MGV060-48V0M | 34.65A | 256us | AC 230V, Full load, Cold start, Ta ≤ 30°C, MCB is not installed side by side | 6 | 8 | 10 | 12 | 15 | 10 | 13 | 16 | 20 | 26 | 20 | 27 | 33 | 41 | 51 | |
| BK-MGV100-48V0M | 33.7A | 328us | | 5 | 7 | 8 | 10 | 13 | 9 | 11 | 14 | 17 | 22 | 14 | 18 | 22 | 28 | 35 | |
| BK-MGV150-48V0M | 50A | 468us | | 2 | 3 | 4 | 5 | 6 | 4 | 5 | 6 | 8 | 10 | 8 | 10 | 13 | 16 | 20 | |

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 protection

- 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 no-load protection

- When there is no load on the driver, the driver will enter a hiccup state. After the load is connected, the output will return to normal.

Output overload protection

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

Label

MGV060

| | | | |
|---|--|--|---|
| INPUT <input type="radio"/> ACL <input type="radio"/> ACN <input type="radio"/> NC <input type="radio"/> ⊕ | BOKE Dimmable Constant Voltage LED Driver MODEL: BK-MGV060-24V0M INPUT: 200-240V ~ 0.35A Max. 50/60Hz Pin: 67W(typ.) λ: 0.95 OUTPUT: 24V 2.5A 60W Max. For LED modules use only www.bokedriver.com MADE IN CHINA | CE UK CA SELV Flicker Free ROHS SELV BOKE Drivers Co., Ltd. Address: 2nd and 3rd Floor, No.51, Xihuan 5th Road, South District, 528455 Zhongshan City, Guangdong, CHINA | OUTPUT <input type="radio"/> DIM+ <input type="radio"/> DIM- <input type="radio"/> VCC <input type="radio"/> GND <input type="radio"/> V+ <input type="radio"/> V- |
|---|--|--|---|

| | | | |
|---|--|--|---|
| INPUT <input type="radio"/> ACL <input type="radio"/> ACN <input type="radio"/> NC <input type="radio"/> ⊕ | BOKE Dimmable Constant Voltage LED Driver MODEL: BK-MGV060-48V0M INPUT: 200-240V ~ 0.35A Max. 50/60Hz Pin: 66W(typ.) λ: 0.95 OUTPUT: 48V 1.2A 57.6W Max. For LED modules use only www.bokedriver.com MADE IN CHINA | CE UK CA SELV Flicker Free ROHS SELV BOKE Drivers Co., Ltd. Address: 2nd and 3rd Floor, No.51, Xihuan 5th Road, South District, 528455 Zhongshan City, Guangdong, CHINA | OUTPUT <input type="radio"/> DIM+ <input type="radio"/> DIM- <input type="radio"/> VCC <input type="radio"/> GND <input type="radio"/> V+ <input type="radio"/> V- |
|---|--|--|---|

MGV100

| | | | |
|---|--|--|---|
| INPUT <input type="radio"/> ACL <input type="radio"/> ACN <input type="radio"/> NC <input type="radio"/> ⊕ | BOKE Dimmable Constant Voltage LED Driver MODEL: BK-MGV100-24V0M INPUT: 200-240V ~ 0.8A Max. 50/60Hz Pin: 109W(typ.) λ: 0.95 OUTPUT: 24V 4A 96W Max. For LED modules use only www.bokedriver.com MADE IN CHINA | CE UK CA SELV Flicker Free ROHS SELV BOKE Drivers Co., Ltd. Address: 2nd and 3rd Floor, No.51, Xihuan 5th Road, South District, 528455 Zhongshan City, Guangdong, CHINA | OUTPUT <input type="radio"/> DIM+ <input type="radio"/> DIM- <input type="radio"/> VCC <input type="radio"/> GND <input type="radio"/> V+ <input type="radio"/> V- |
|---|--|--|---|

| | | | |
|---|---|--|---|
| INPUT <input type="radio"/> ACL <input type="radio"/> ACN <input type="radio"/> NC <input type="radio"/> ⊕ | BOKE Dimmable Constant Voltage LED Driver MODEL: BK-MGV100-48V0M INPUT: 200-240V ~ 0.65A Max. 50/60Hz Pin: 109W(typ.) λ: 0.95 OUTPUT: 48V 2A 96W Max. For LED modules use only www.bokedriver.com MADE IN CHINA | CE UK CA SELV Flicker Free ROHS SELV BOKE Drivers Co., Ltd. Address: 2nd and 3rd Floor, No.51, Xihuan 5th Road, South District, 528455 Zhongshan City, Guangdong, CHINA | OUTPUT <input type="radio"/> DIM+ <input type="radio"/> DIM- <input type="radio"/> VCC <input type="radio"/> GND <input type="radio"/> V+ <input type="radio"/> V- |
|---|---|--|---|

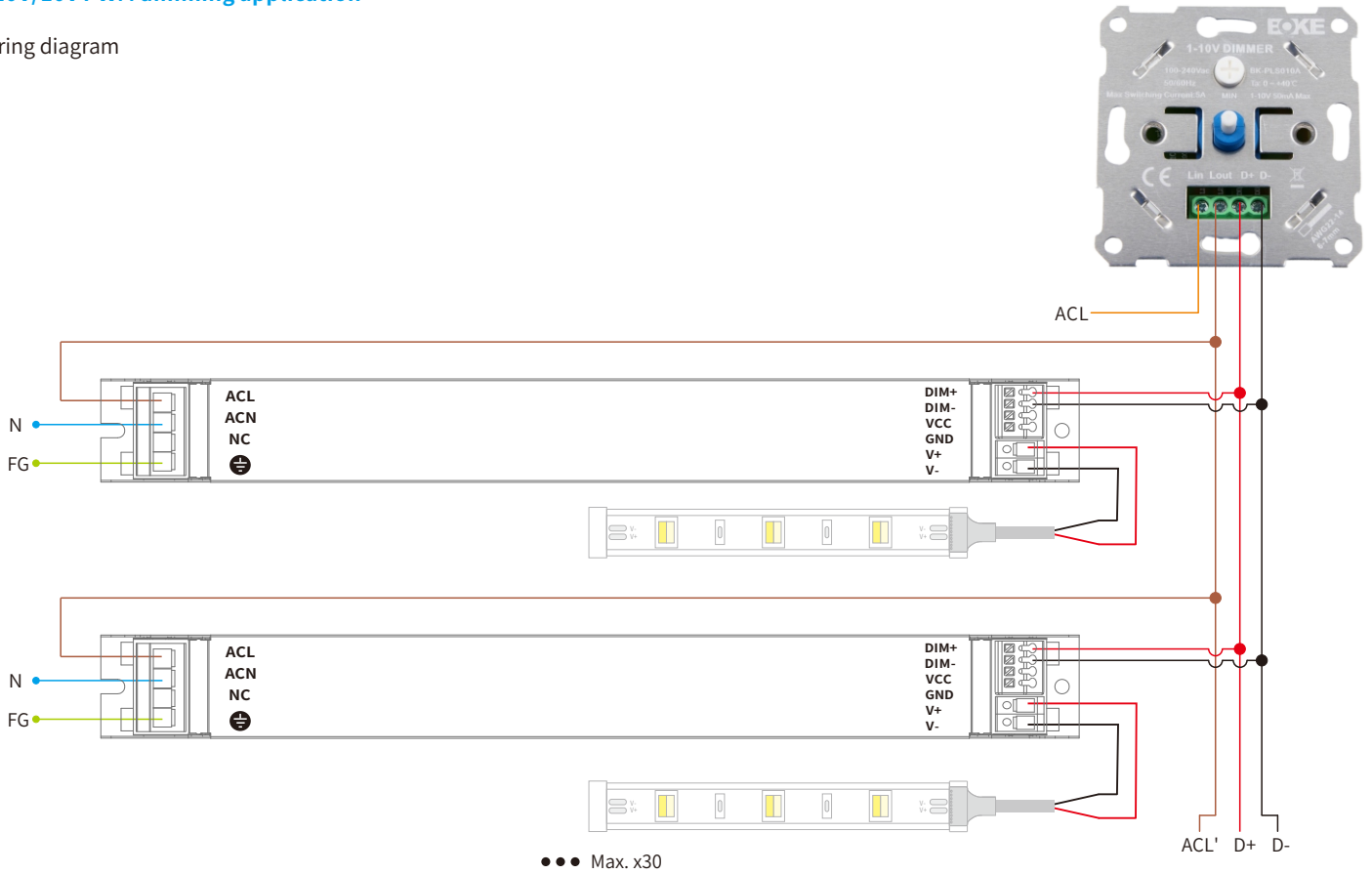
MGV150

| | | | |
|---|---|--|---|
| INPUT <input type="radio"/> ACL <input type="radio"/> ACN <input type="radio"/> NC <input type="radio"/> ⊕ | BOKE Dimmable Constant Voltage LED Driver MODEL: BK-MGV150-24V0M INPUT: 200-240V ~ 1A Max. 50/60Hz Pin: 160W(typ.) λ: 0.95 OUTPUT: 24V 6A 144W Max. For LED modules use only www.bokedriver.com MADE IN CHINA | CE UK CA SELV Flicker Free ROHS SELV BOKE Drivers Co., Ltd. Address: 2nd and 3rd Floor, No.51, Xihuan 5th Road, South District, 528455 Zhongshan City, Guangdong, CHINA | OUTPUT <input type="radio"/> DIM+ <input type="radio"/> DIM- <input type="radio"/> VCC <input type="radio"/> GND <input type="radio"/> V+ <input type="radio"/> V- |
|---|---|--|---|

| | | | |
|---|---|--|---|
| INPUT <input type="radio"/> ACL <input type="radio"/> ACN <input type="radio"/> NC <input type="radio"/> ⊕ | BOKE Dimmable Constant Voltage LED Driver MODEL: BK-MGV150-48V0M INPUT: 200-240V ~ 1A Max. 50/60Hz Pin: 160W(typ.) λ: 0.95 OUTPUT: 48V 3A 144W Max. For LED modules use only www.bokedriver.com MADE IN CHINA | CE UK CA SELV Flicker Free ROHS SELV BOKE Drivers Co., Ltd. Address: 2nd and 3rd Floor, No.51, Xihuan 5th Road, South District, 528455 Zhongshan City, Guangdong, CHINA | OUTPUT <input type="radio"/> DIM+ <input type="radio"/> DIM- <input type="radio"/> VCC <input type="radio"/> GND <input type="radio"/> V+ <input type="radio"/> V- |
|---|---|--|---|

1-10V/10V PWM dimming application

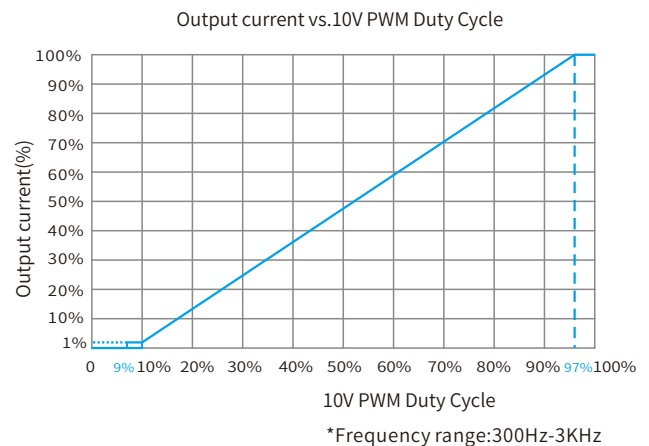
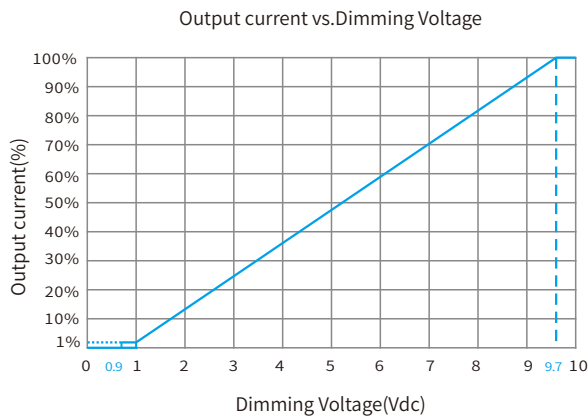
Wiring diagram



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 20V, 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



100K potentiometer dimming application

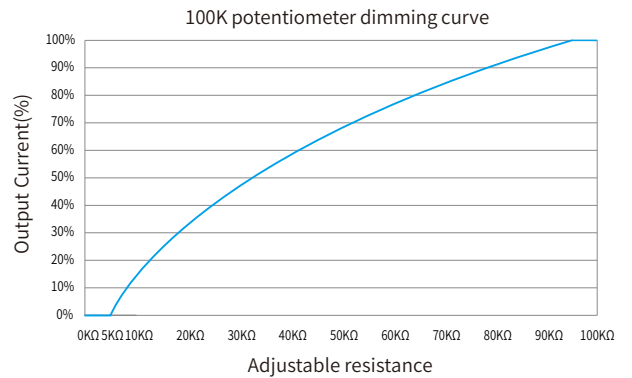
Wiring diagram



Remarks

- In the 100K 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±5% 100mA Max.

PDIM: Voltage: 3.3-10V

Frequency range: 300Hz-3KHz

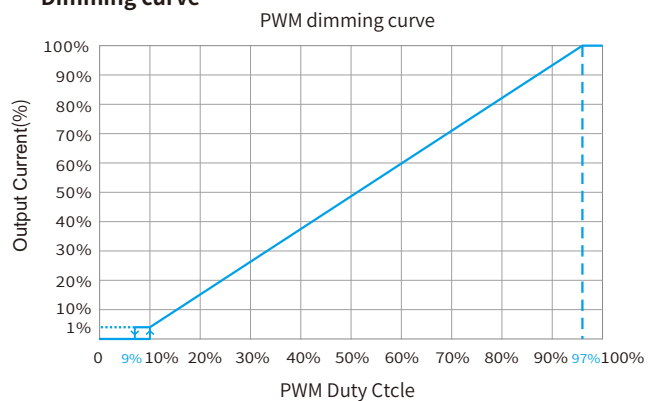
Phase position: positive logic

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

典型应用

- Aux supply 12V
 - Dimming 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

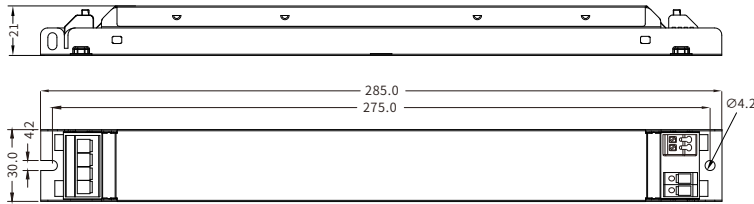


Installation

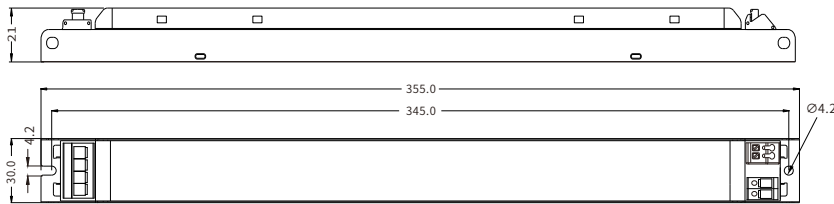
Mechanical dimensions

Unit:mm

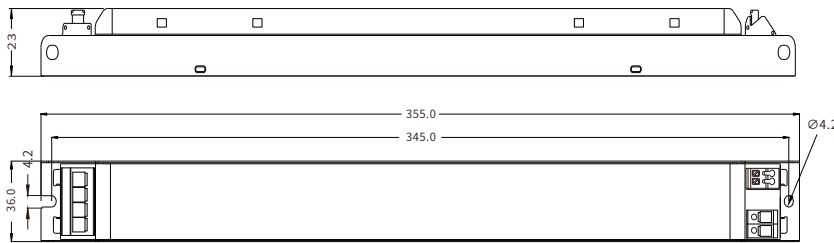
MGV060



MGV100



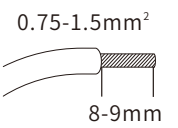
MGV150



INPUT

| Numbering | function | colour |
|-----------|----------|--------|
| 1 | ACL | orange |
| 2 | ACN | orange |
| 3 | NC | gray |
| 4 | FG | gray |

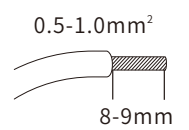
Input wire



DIMMING

| Numbering | function | colour |
|-----------|----------|--------|
| 1 | DIM+ | red |
| 2 | DIM- | black |
| 3 | VCC | red |
| 4 | GND | black |

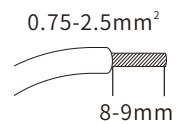
Dimming wire



OUTPUT

| Numbering | function | colour |
|-----------|----------|--------|
| 1 | V+ | red |
| 2 | V- | black |

Output wire



Installation note

Hot plug-in

- Hot plug-in is not supported due to residual output voltage of > 0 V.

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.

Mounting screw specifications and torque

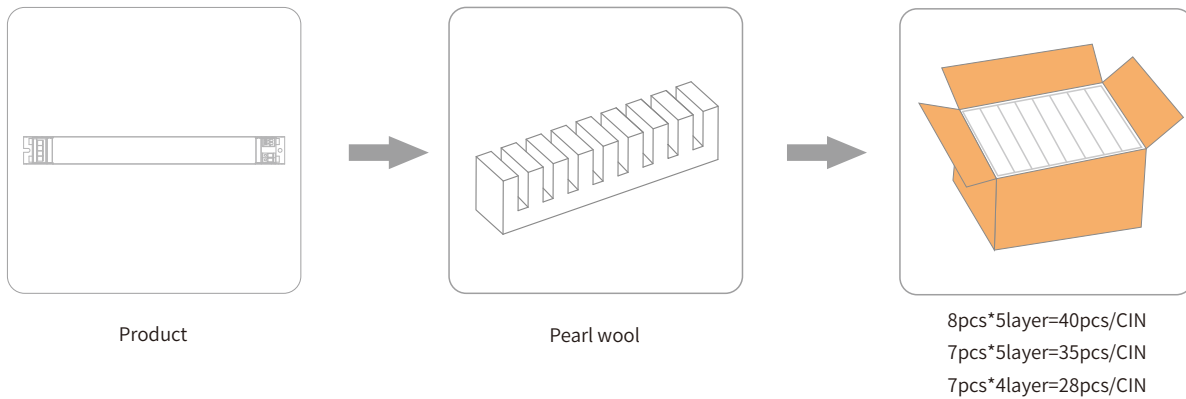
- Max. torque at the clamping screw: 0.5 Nm / M4

Replace LED module

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

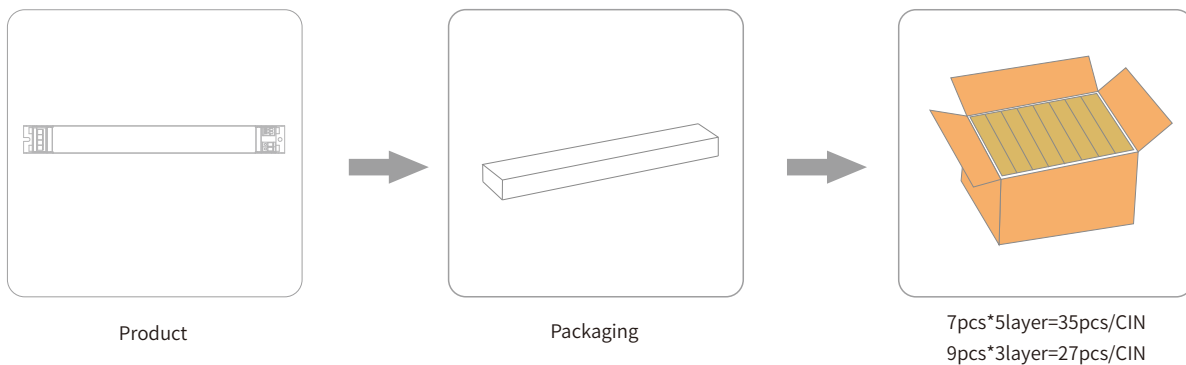
Packaging

Optional 1: factory default



| Model | Product size | Weight | Pearl wool | Carton size | Qty/carton | N.W | G.W |
|--------|----------------|--------|-----------------|------------------|------------|--------|--------|
| MGV060 | L285*W30*H21mm | 250g | L405*W30*H65mm | L415*W330*H190mm | 40pcs | 10.0KG | 11.8KG |
| MGV100 | L355*W30*H21mm | 288g | L319*W30*H75mm | L415*W330*H190mm | 35pcs | 10.0KG | 11.8KG |
| MGV150 | L355*W36*H23mm | 430g | L364*W28*H105mm | L435*W375*H150mm | 28pcs | 12.0KG | 13.5KG |

Optional 2:



| Model | Product size | Weight | Packaging size | Carton size | Qty/carton | N.W | G.W |
|--------|----------------|--------|----------------|------------------|------------|--------|--------|
| MGV060 | L285*W30*H21mm | 250g | L320*W40*H30mm | L345*W300*H175mm | 35pcs | 8.75kg | 10.2kg |
| MGV100 | L355*W30*H21mm | 288g | L390*W40*H30mm | L410*W285*H155mm | 27pcs | 7.78kg | 9.30kg |
| MGV150 | L355*W36*H23mm | 430g | L390*W43*H30mm | L410*W285*H155mm | 27pcs | 11.6kg | 13.0kg |

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. If the drive has been turned on, there is no warranty.
3. For more information, please send an email to info@bokedriver.com.