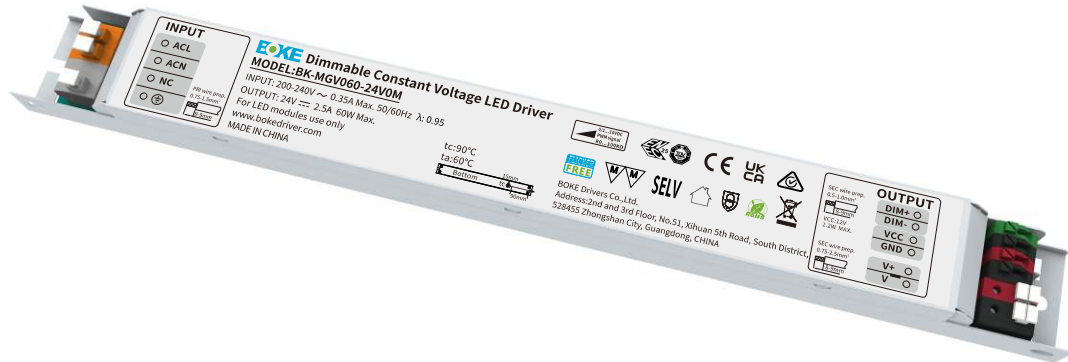


Constant voltage linear dimmable driver

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, meets the new requirements of ErP certification
- 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 luminaires
- Compliance with CE, ENEC, UKCA, RCM, CCC and other certifications
- IP20 protection grade, indoor use
- Nominal life-time up to 100,000 h
- 5.5-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 protection)

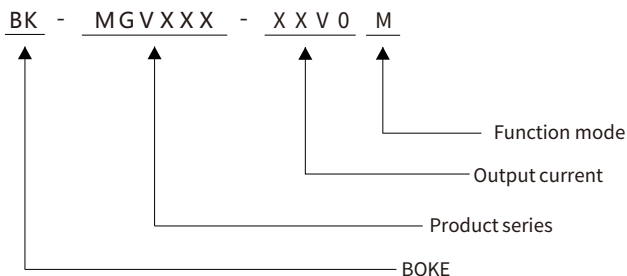
Suitable for lights

- Suitable for CV strip lights, CV linear lights, floor lights, tri-proof lights, bracket lights, etc

Typical applications

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

Model coding rules of MGV series



Function list

Model	Suffix	Wired dimming	Aux power
		1-10V 3in1	12V/0.1A
BK-MGV036 BK-MGV060 BK-MGV100 BK-MGV150	M	√	√

Model list

Model	Input voltage	Output power	Output voltage	Output current	Dimension
BK-MGV036-24V0M	200-240VAC	36W MAX.	24VDC	1.5A	L245*W30*H21mm
BK-MGV036-48V0M	200-240VAC	36W MAX.	48VDC	0.75A	L245*W30*H21mm
BK-MGV060-24V0M	200-240VAC	60W MAX.	24VDC	2.5A	L285*W30*H21mm
BK-MGV060-48V0M	200-240VAC	57.6W MAX.	48VDC	1.2A	L285*W30*H21mm
BK-MGV100-24V0M	200-240VAC	100W MAX.	24VDC	4.2A	L355*W30*H21mm
BK-MGV100-48V0M	200-240VAC	100W MAX.	48VDC	2.09A	L355*W30*H21mm
BK-MGV150-24V0M	200-240VAC	150W MAX.	24VDC	6.25A	L355*W36*H23mm
BK-MGV150-48V0M	200-240VAC	150W MAX.	48VDC	3.12A	L355*W36*H23mm

Technical data

Product model	BK-MGV036-24V0M	BK-MGV036-48V0M	
Output parameters			
Regulation method	Constant voltage	Constant voltage	
Rated output current	1.5A	0.75A	
Rated output voltage	24VDC	48VDC	
Rated output power	36W Max	36W Max	
Output current adjustment	Fixed output	Fixed output	
Output current ripple LF	±2%	±2%	
Voltage accuracy	±5%	±5%	
Linear regulation	±1%	±1%	
Load regulation	±5%	±5%	
Flicker-free(typical)	Pst LM=0.000, SVM=0.000,(The above parameters are obtained by testing with constant voltage light strip)		
Input parameters			
Rated input voltage range	200-240VAC		
Input voltage range	180-264VAC		
Input votage shock	<380 V AC		
Input current	<0.25A(Rated input voltage)		
Input frequency	50/60Hz		
Input PF/Input DF(typical)	PF: 0.98,DF: 0.99,see the electrical values below for details		
Input THD(typical)	8%,see the electrical values below for details		
Efficiency(typical)	89%, see the electrical values below for details		
In-rush current(typical)	16.3A peak ,260us duration(50 % Ipeak), see the description below for details		
Start/Switchover/Turn off	<0.5s(AC start),<0.5s(Turn off)		
Switching cycles	> 100,000 switching cycles		
Power consumption(typical)	Full load (Pin):40.4W, No load (Pno): N/A, On stand-by(Psb) : <0.5W, Network stand-by(Pnet) : N/A		
Safety			
Withstand voltage	I/P-O/P: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(90°/270° , 5 times each with an interval of 60s)(Performance criterion:A)		
Leakage current(typical)	0.4mA		
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, Normal operation)		
Environmental protection	RoHS		
Certifications and standards			
Certification	CE, ENEC, UKCA, RCM, CCC		
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	N/A		
EL	N/A		
RF	N/A		

Remarks

- 1.By default, all parameter are measured at 230VAC input, 50Hz, full load and 25°C of ambient temperature.
- 2.The LED lamp load is a constant-voltage load.

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	24VDC	48VDC	
Rated output power	60W Max	57.6W Max	
Output current adjustment	Fixed output	Fixed output	
Output current ripple LF	±2%	±2%	
Voltage accuracy	±5%	±5%	
Linear regulation	±5%	±5%	
Load regulation	±5%	±5%	
Flicker-free(typical)	Pst LM=0.002, SVM=0.000,(The above parameters are obtained by testing with constant voltage light strip)		
Input parameters			
Rated input voltage range	200-240VAC		
Input voltage range	180-264VAC		
Input votage shock	<380 V AC		
Input current	<0.35A(Rated input voltage)		
Input frequency	50/60Hz		
Input PF/Input DF(typical)	PF: 0.98,DF: 0.99,see the electrical values below for details		
Input THD(typical)	8%,see the electrical values below for details		
Efficiency(typical)	91% ,see the electrical values below for details		
In-rush current(typical)	34.65A peak ,256us duration(50 % Ipeak), see the description below for details		
Start/Switchover/Turn off	<0.5s(AC start),<0.5s(Turn off)		
Switching cycles	> 100,000 switching cycles		
Power consumption(typical)	Full load (Pin):65.9W, No load (Pno): N/A, On stand-by(Psb) : <0.5W, Network stand-by(Pnet) : N/A		
Safety			
Withstand voltage	I/P-O/P: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(90°/270° , 5 times each with an interval of 60s)(Performance criterion:A)		
Leakage current(typical)	0.6mA		
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, Normal operation)		
Environmental protection	RoHS		
Certifications and standards			
Certification	CE, ENEC, UKCA, RCM, CCC		
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	N/A		
EL	N/A		
RF	N/A		

Remarks

- 1.By default, all parameter are measured at 230VAC input, 50Hz, full load and 25°C of ambient temperature.
- 2.The LED lamp load is a constant-voltage load.

Technical data

Product model	BK-MGV100-24V0M	BK-MGV100-48V0M	
Output parameters			
Regulation method	Constant voltage	Constant voltage	
Rated output current	4.2A	2.09A	
Rated output voltage	24VDC	48VDC	
Rated output power	100W Max	100W Max	
Output current adjustment	Fixed output	Fixed output	
Output current ripple LF	±2%	±2%	
Voltage accuracy	±5%	±5%	
Linear regulation	±5%	±5%	
Load regulation	±5%	±5%	
Flicker-free(typical)	Pst LM=0.027, SVM=0.018,(The above parameters are obtained by testing with constant voltage light strip)		
Input parameters			
Rated input voltage range	200-240VAC		
Input voltage range	180-264VAC		
Input votage shock	<380 V AC		
Input current	<0.65A(Rated input voltage)		
Input frequency	50/60Hz		
Input PF/Input DF(typical)	PF: 0.99,DF: 0.99,see the electrical values below for details		
Input THD(typical)	5%,see the electrical values below for details		
Efficiency(typical)	93% ,see the electrical values below for details		
In-rush current(typical)	33.7A peak ,328us duration(50 % Ipeak), see the description below for details		
Start/Switchover/Turn off	<0.5s(AC start),<0.5s(Turn off)		
Switching cycles	> 100,000 switching cycles		
Power consumption(typical)	Full load(Pin):107.5W, No load(Pno): N/A, On stand-by(Psb) : <0.5W, Network stand-by(Pnet) : N/A		
Safety			
Withstand voltage	I/P-O/P: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(90°/270° , 5 times each with an interval of 60s)(Performance criterion:B)		
Leakage current(typical)	0.5mA		
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, Normal operation)		
Environmental protection	RoHS		
Certifications and standards			
Certification	CE, ENEC, UKCA, RCM, CCC		
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	N/A		
EL	N/A		
RF	N/A		

Remarks

- 1.By default, all parameter are measured at 230VAC input, 50Hz, full load and 25°C of ambient temperature.
- 2.The LED lamp load is a constant-voltage load.

Technical data

Product model	BK-MGV150-24V0M	BK-MGV150-48V0M	
Output parameters			
Regulation method	Constant voltage	Constant voltage	
Rated output current	6.25A	3.12A	
Rated output voltage	24VDC	48VDC	
Rated output power	150W Max	150W Max	
Output current adjustment	Fixed output	Fixed output	
Output current ripple LF	±2%	±2%	
Voltage accuracy	±5%	±5%	
Linear regulation	±5%	±5%	
Load regulation	±5%	±5%	
Flicker-free(typical)	Pst LM=0.000, SVM=0.000,(The above parameters are obtained by testing with constant voltage light strip)		
Input parameters			
Rated input voltage range	200-240VAC		
Input voltage range	180-264VAC		
Input votage shock	<380 V AC		
Input current	<1A(Rated input voltage)		
Input frequency	50/60Hz		
Input PF/Input DF(typical)	PF: 0.99,DF: 0.99,see the electrical values below for details		
Input THD(typical)	5%,see the electrical values below for details		
Efficiency(typical)	94% ,see the electrical values below for details		
In-rush current(typical)	50A peak ,468us duration(50 % Ipeak), see the description below for details		
Start/Switchover/Turn off	<0.5s(AC start),<0.5s(Turn off)		
Switching cycles	> 100,000 switching cycles		
Power consumption(typical)	Full load (Pin):159.6W, 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(90°/270° , 5 times each with an interval of 60s)(Performance criterion:B)		
Leakage current(typical)	0.4mA		
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, Normal operation)		
Environmental protection	RoHS		
Certifications and standards			
Certification	CE, ENEC, UKCA, RCM, CCC		
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	N/A		
EL	N/A		
RF	N/A		

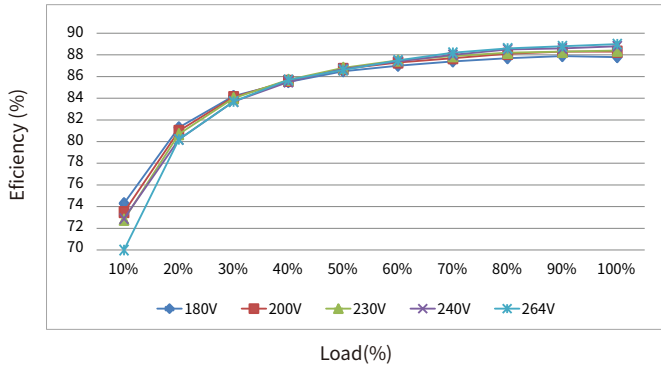
Remarks

- 1.By default, all parameter are measured at 230VAC input, 50Hz, full load and 25°C of ambient temperature.
- 2.The LED lamp load is a constant-voltage load.

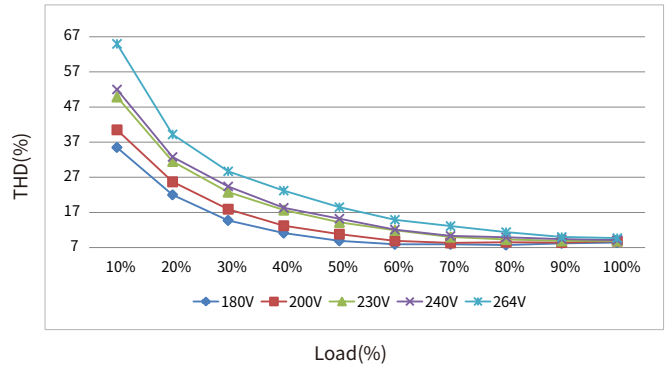
Electrical values and expected life-time

BK-MGV036-24V0M

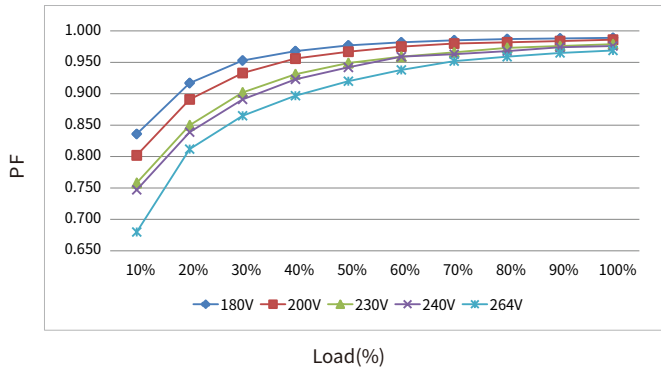
Efficiency vs load



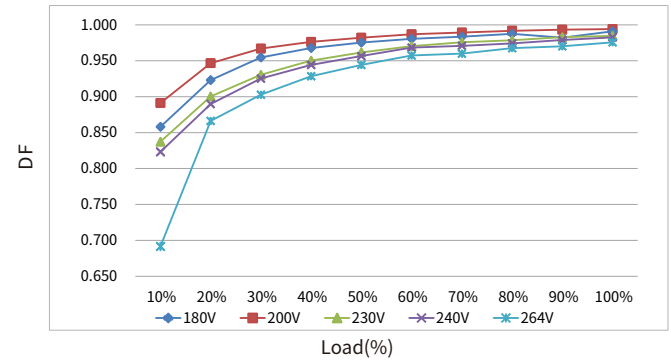
THD vs. Load



Power factor vs. Load

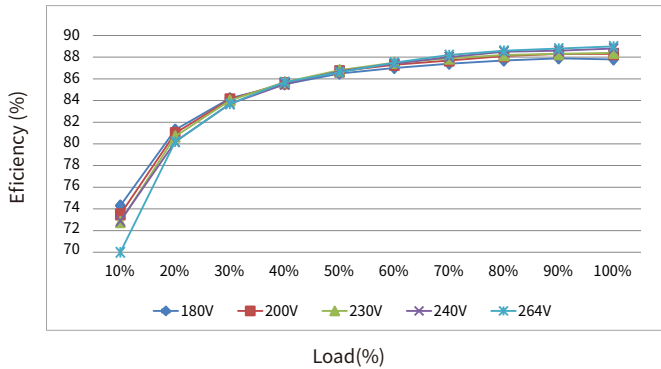


displacement power vs. Load

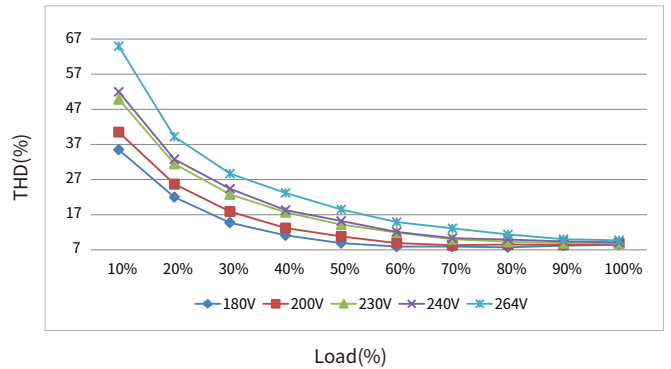


BK-MGV036-48V0M

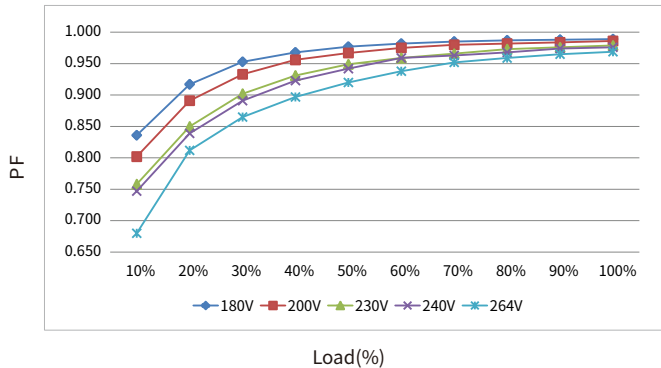
Efficiency vs load



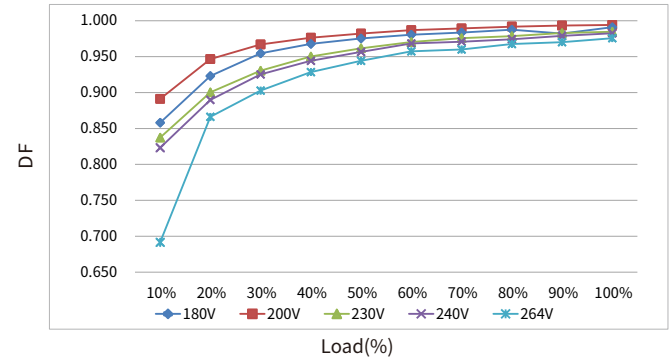
THD vs. Load



Power factor vs. Load



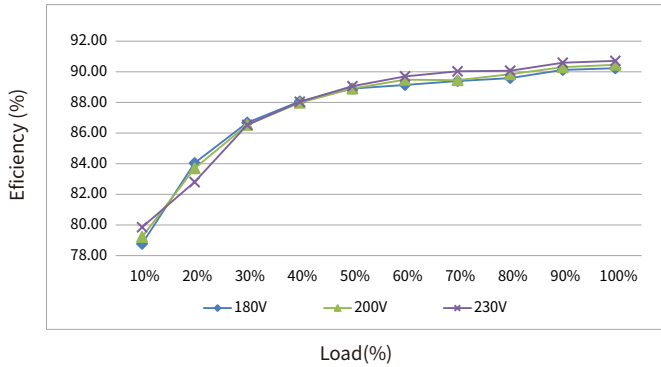
displacement power vs. Load



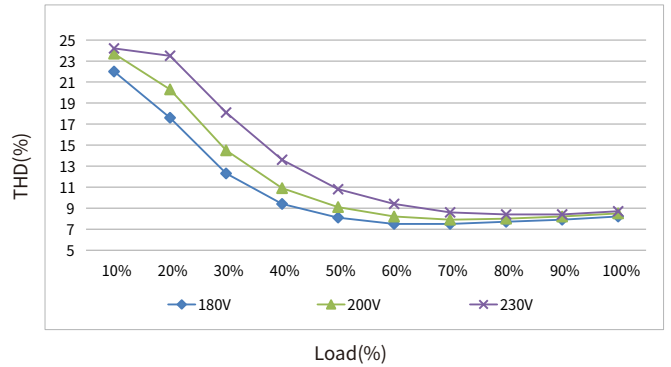
Electrical values and expected life-time

BK-MGV060-24V0M

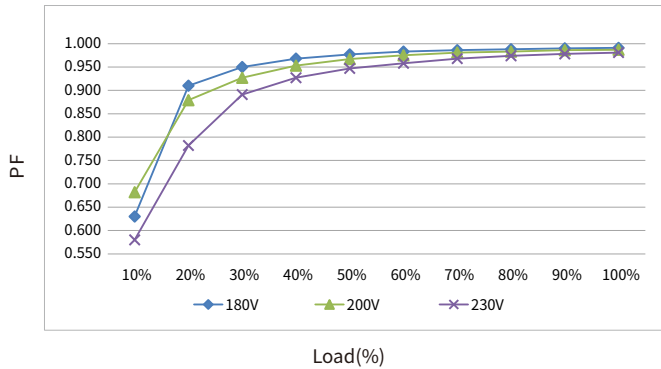
Efficiency vs load



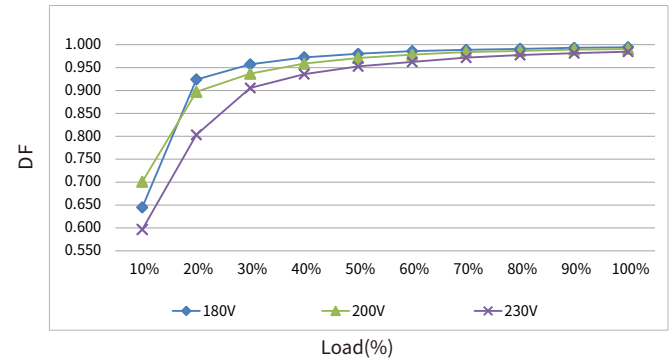
THD vs. Load



Power factor vs. Load

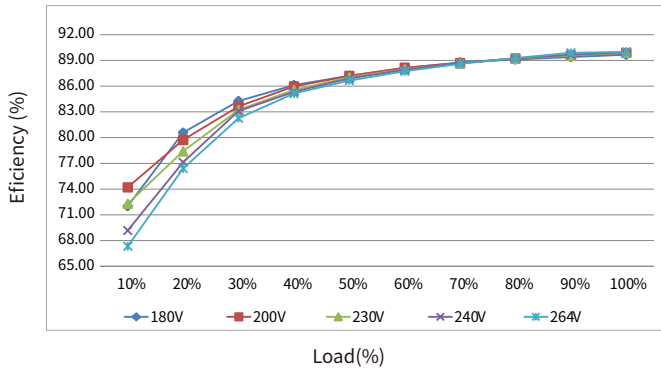


displacement power vs. Load

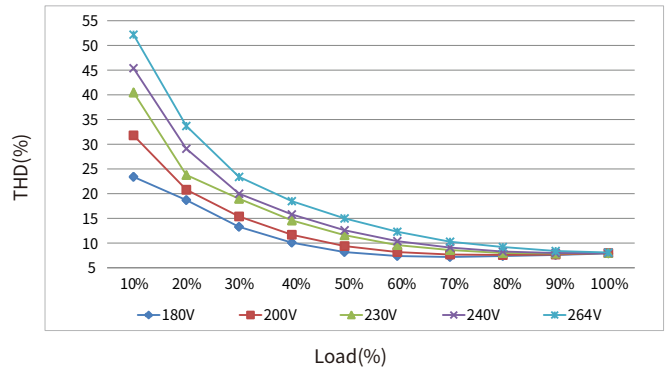


BK-MGV060-48V0M

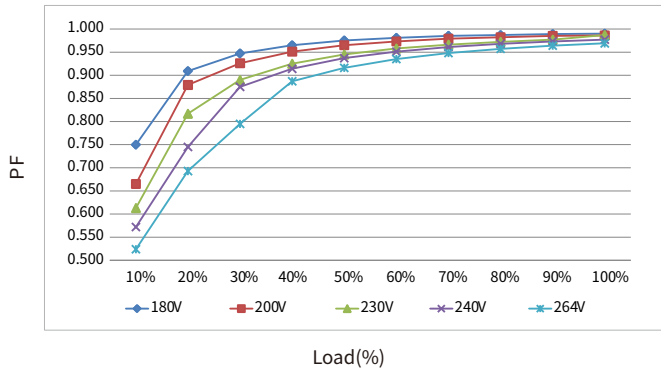
Efficiency vs load



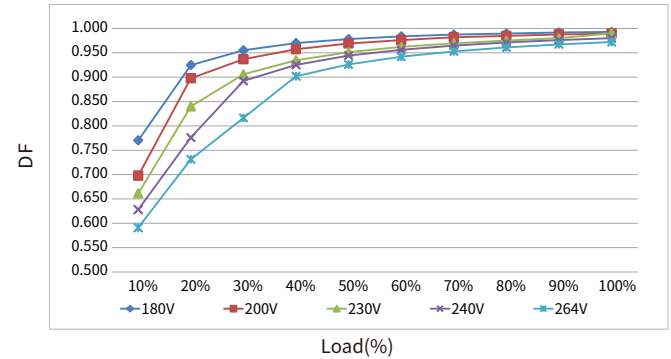
THD vs. Load



Power factor vs. Load



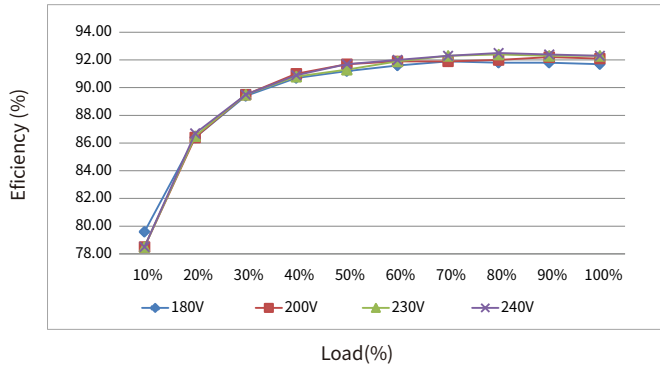
displacement power vs. Load



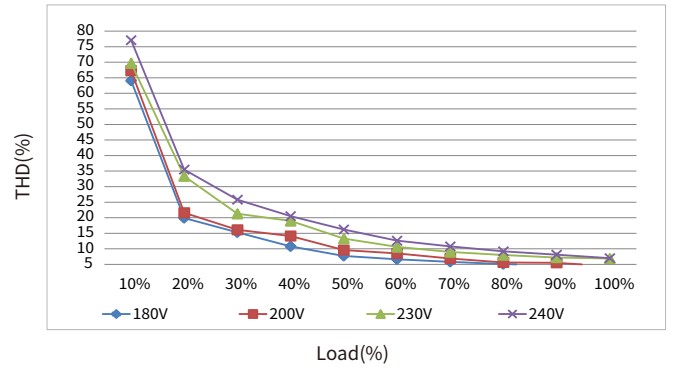
Electrical values and expected life-time

BK-MGV100-24V0M

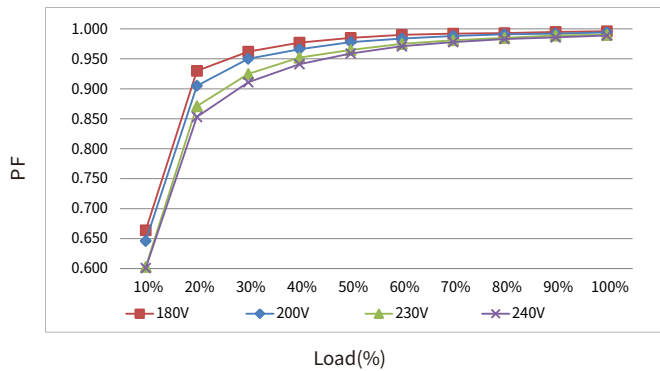
Efficiency vs load



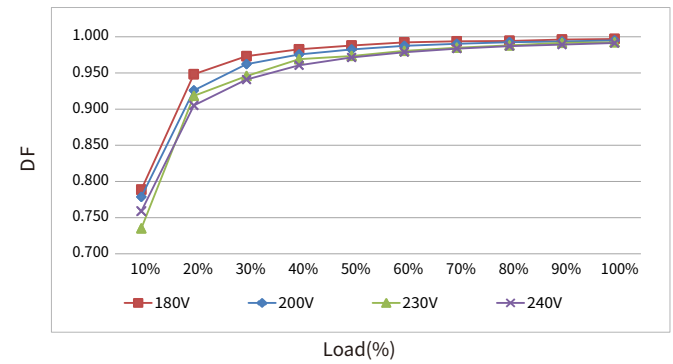
THD vs. Load



Power factor vs. Load

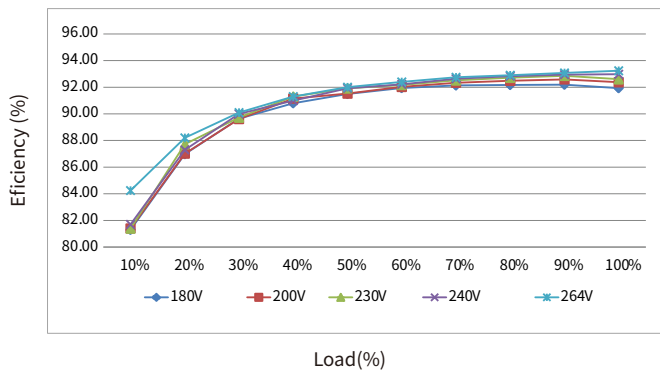


displacement power vs. Load

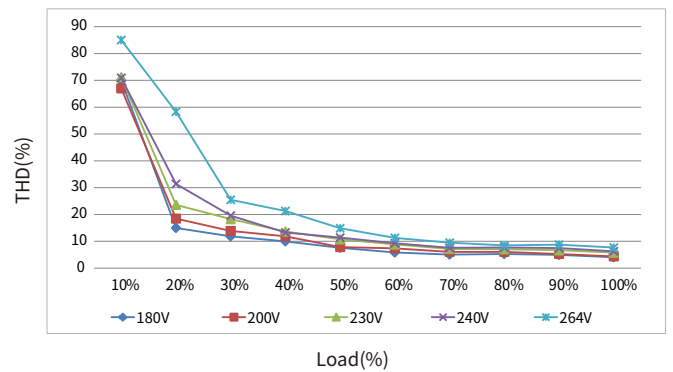


BK-MGV100-48V0M

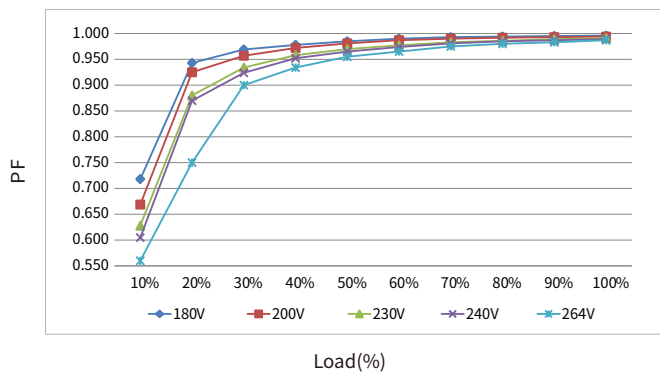
Efficiency vs load



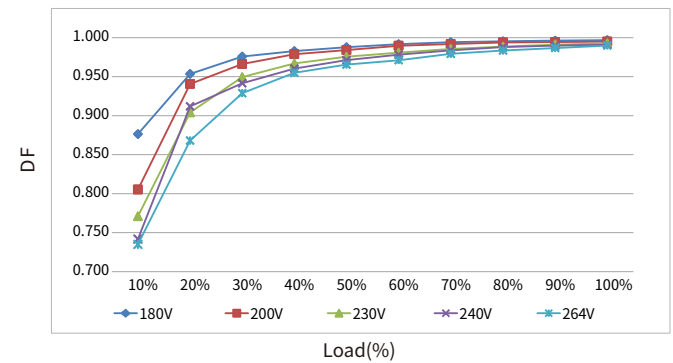
THD vs. Load



Power factor vs. Load



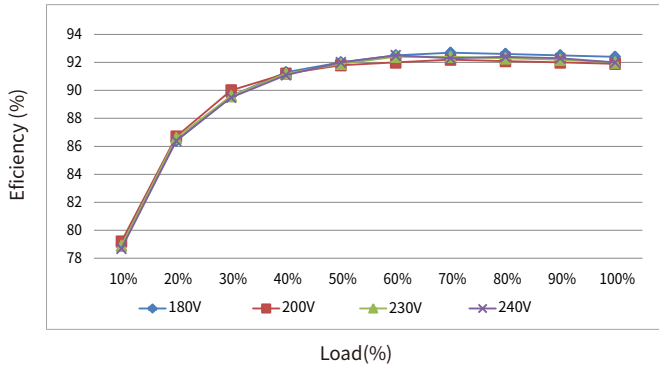
displacement power vs. Load



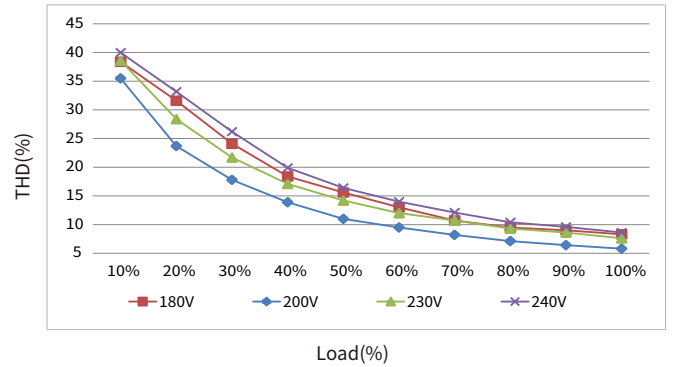
Electrical values and expected life-time

BK-MGV150-24V0M

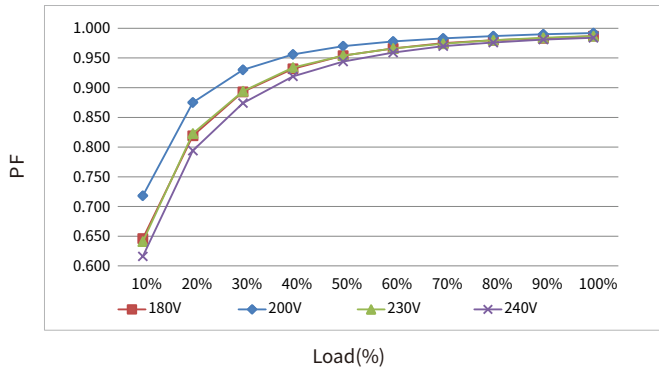
Efficiency vs load



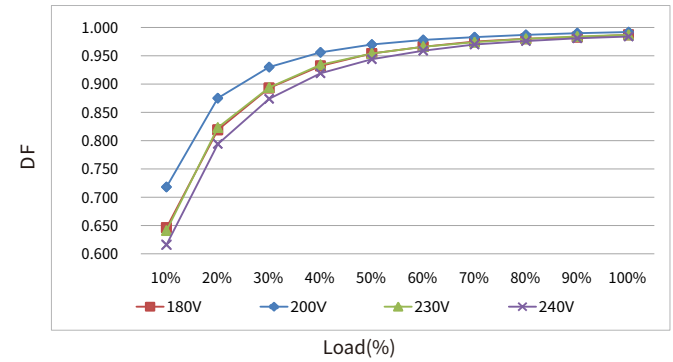
THD vs. Load



Power factor vs. Load

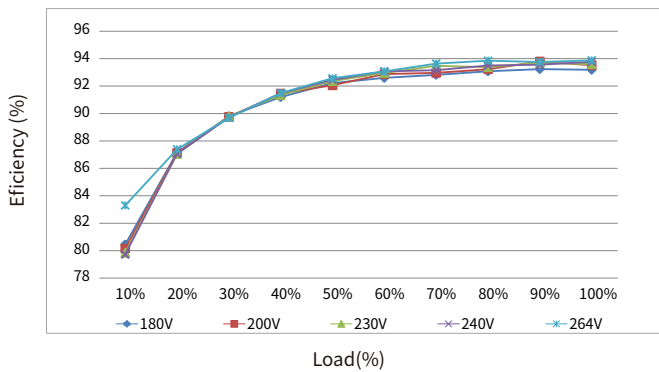


displacement power vs. Load

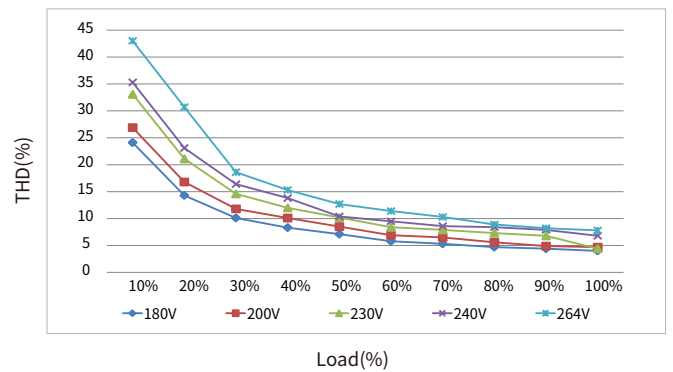


BK-MGV150-48V0M

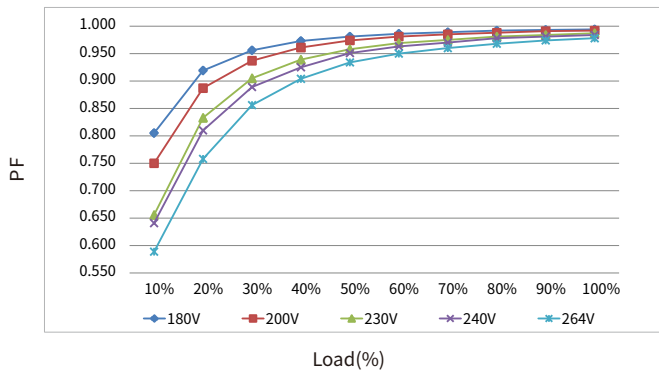
Efficiency vs load



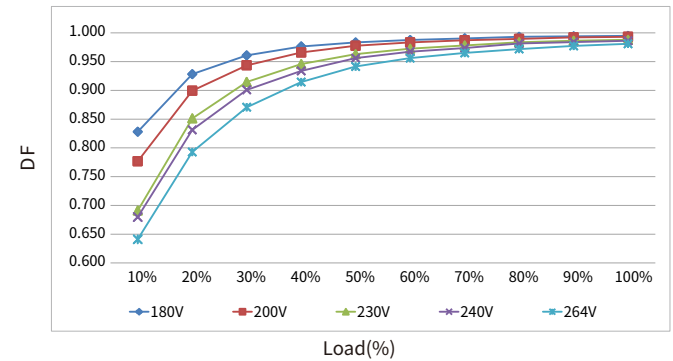
THD vs. Load



Power factor vs. Load



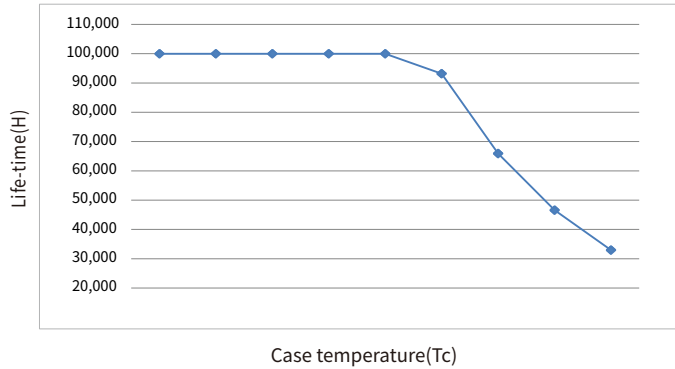
displacement power vs. Load



Expected life-time

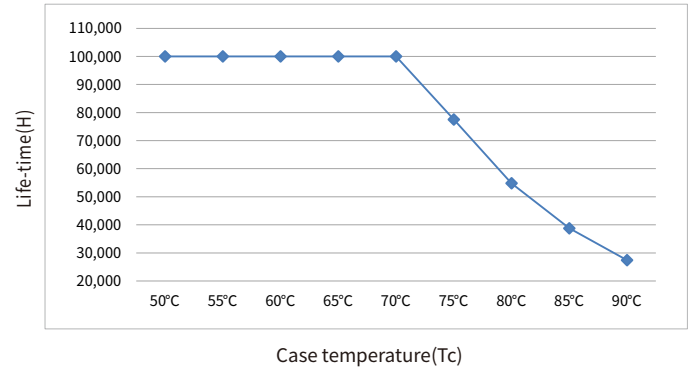
BK-MGV036

Life-time vs. case temperature



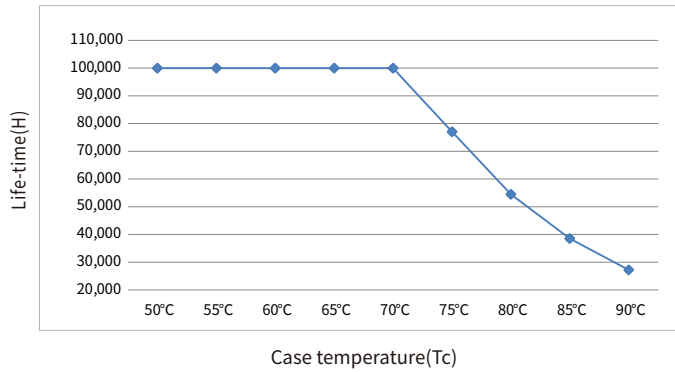
BK-MGV060

Life-time vs. case temperature



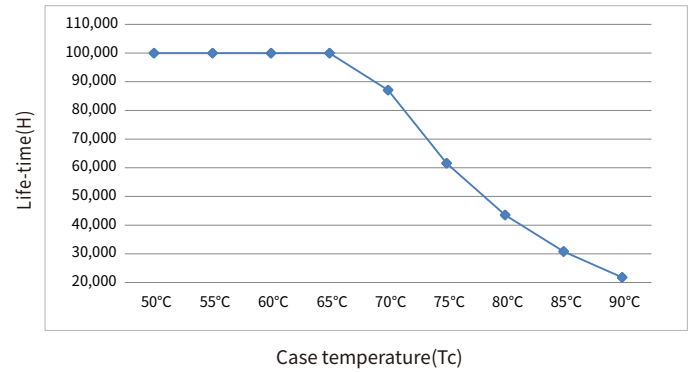
BK-MGV100

Life-time vs. case temperature



BK-MGV150

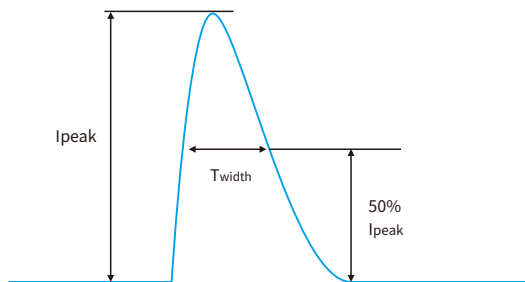
Life-time vs. case temperature



- 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-MGV036	16.3A	260us	AC 230V,Full load, Cold start,Ta≤30°C, MCB is not installed side by side	14	18	23	28	35	24	31	38	47	59	38	50	61	76	95	
BK-MGV060	34.65A	256us		6	8	10	12	15	10	13	16	20	26	20	27	33	41	51	
BK-MGV100	33.7A	328us		5	7	8	10	13	9	11	14	17	22	14	18	22	28	35	
BK-MGV150	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 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.

Insulation between circuits

Isolation	Input	Output	Case	DIM	PWM	VCC
Input	-	Double	Basic	Double	Double	Double
Output	Double	-	Basic	-	-	-
Case	Basic	Basic	-	Basic	Basic	Basic
VCC	Double	-	Basic	Basic	Basic	-

Label

MGV036

INPUT ○ ACL ○ ACN ○ NC ○  PFI wire prep: 0.75-1.5mm ² 18-20mm	BOKE Dimmable Constant Voltage LED Driver MODEL:BK-MGV036-24V0M INPUT: 200-240V ~ 0.25A Max. 50/60Hz λ: 0.95 OUTPUT: 24V $\overline{\text{---}}$ 1.5A 36W Max. For LED modules use only www.bokedriver.com MADE IN CHINA	         tc:90°C ta:60°C BOKE Drivers Co.,Ltd. Address:2nd and 3rd Floor, No.51, Xihuan 5th Road, South District, 528455 Zhongshan City, Guangdong, CHINA	OUTPUT DIM+ ○ DIM- ○ VCC ○ GND ○ V+ ○ V- ○ SEC wire prep: 0.5-1.0mm ² 18-20mm VCC:12V 1.2W MAX. SEC wire prep: 0.75-2.5mm ² 18-20mm
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INPUT ○ ACL ○ ACN ○ NC ○  PFI wire prep: 0.75-1.5mm ² 18-20mm	BOKE Dimmable Constant Voltage LED Driver MODEL:BK-MGV036-48V0M INPUT: 200-240V ~ 0.25A Max. 50/60Hz λ: 0.95 OUTPUT: 48V $\overline{\text{---}}$ 0.75A 36W Max. For LED modules use only www.bokedriver.com MADE IN CHINA	         tc:90°C ta:60°C BOKE Drivers Co.,Ltd. Address:2nd and 3rd Floor, No.51, Xihuan 5th Road, South District, 528455 Zhongshan City, Guangdong, CHINA	OUTPUT DIM+ ○ DIM- ○ VCC ○ GND ○ V+ ○ V- ○ SEC wire prep: 0.5-1.0mm ² 18-20mm VCC:12V 1.2W MAX. SEC wire prep: 0.75-2.5mm ² 18-20mm
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MGV060

INPUT ○ ACL ○ ACN ○ NC ○  PFI wire prep: 0.75-1.5mm ² 18-20mm	BOKE Dimmable Constant Voltage LED Driver MODEL:BK-MGV060-24V0M INPUT: 200-240V ~ 0.35A Max. 50/60Hz λ: 0.95 OUTPUT: 24V $\overline{\text{---}}$ 2.5A 60W Max. For LED modules use only www.bokedriver.com MADE IN CHINA	         tc:90°C ta:60°C Bottom BOKE Drivers Co.,Ltd. Address:2nd and 3rd Floor, No.51, Xihuan 5th Road, South District, 528455 Zhongshan City, Guangdong, CHINA	OUTPUT DIM+ ○ DIM- ○ VCC ○ GND ○ V+ ○ V- ○ SEC wire prep: 0.5-1.0mm ² 18-20mm VCC:12V 1.2W MAX. SEC wire prep: 0.75-2.5mm ² 18-20mm
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INPUT ○ ACL ○ ACN ○ NC ○  PFI wire prep: 0.75-1.5mm ² 18-20mm	BOKE Dimmable Constant Voltage LED Driver MODEL:BK-MGV060-48V0M INPUT: 200-240V ~ 0.35A Max. 50/60Hz λ: 0.95 OUTPUT: 48V $\overline{\text{---}}$ 1.2A 57.6W Max. For LED modules use only www.bokedriver.com MADE IN CHINA	         tc:90°C ta:60°C Bottom BOKE Drivers Co.,Ltd. Address:2nd and 3rd Floor, No.51, Xihuan 5th Road, South District, 528455 Zhongshan City, Guangdong, CHINA	OUTPUT DIM+ ○ DIM- ○ VCC ○ GND ○ V+ ○ V- ○ SEC wire prep: 0.5-1.0mm ² 18-20mm VCC:12V 1.2W MAX. SEC wire prep: 0.75-2.5mm ² 18-20mm
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MGV100

INPUT ○ ACL ○ ACN ○ NC ○  PFI wire prep: 0.75-1.5mm ² 18-20mm	BOKE Dimmable Constant Voltage LED Driver MODEL:BK-MGV100-24V0M INPUT: 200-240V ~ 0.65A Max. 50/60Hz λ: 0.95 OUTPUT: 24V $\overline{\text{---}}$ 4.2A 100W Max. For LED modules use only www.bokedriver.com MADE IN CHINA	tc:90°C ta:60°C •tc          BOKE Drivers Co.,Ltd. Address:2nd and 3rd Floor, No.51, Xihuan 5th Road, South District, 528455 Zhongshan City, Guangdong, CHINA	OUTPUT DIM+ ○ DIM- ○ VCC ○ GND ○ V+ ○ V- ○ SEC wire prep: 0.5-1.0mm ² 18-20mm VCC:12V 1.2W MAX. SEC wire prep: 0.75-2.5mm ² 18-20mm
---	---	---	--

INPUT ○ ACL ○ ACN ○ NC ○  PFI wire prep: 0.75-1.5mm ² 18-20mm	BOKE Dimmable Constant Voltage LED Driver MODEL:BK-MGV100-48V0M INPUT: 200-240V ~ 0.65A Max. 50/60Hz λ: 0.95 OUTPUT: 48V $\overline{\text{---}}$ 2.09A 100W Max. For LED modules use only www.bokedriver.com MADE IN CHINA	tc:90°C ta:60°C •tc          BOKE Drivers Co.,Ltd. Address:2nd and 3rd Floor, No.51, Xihuan 5th Road, South District, 528455 Zhongshan City, Guangdong, CHINA	OUTPUT DIM+ ○ DIM- ○ VCC ○ GND ○ V+ ○ V- ○ SEC wire prep: 0.5-1.0mm ² 18-20mm VCC:12V 1.2W MAX. SEC wire prep: 0.75-2.5mm ² 18-20mm
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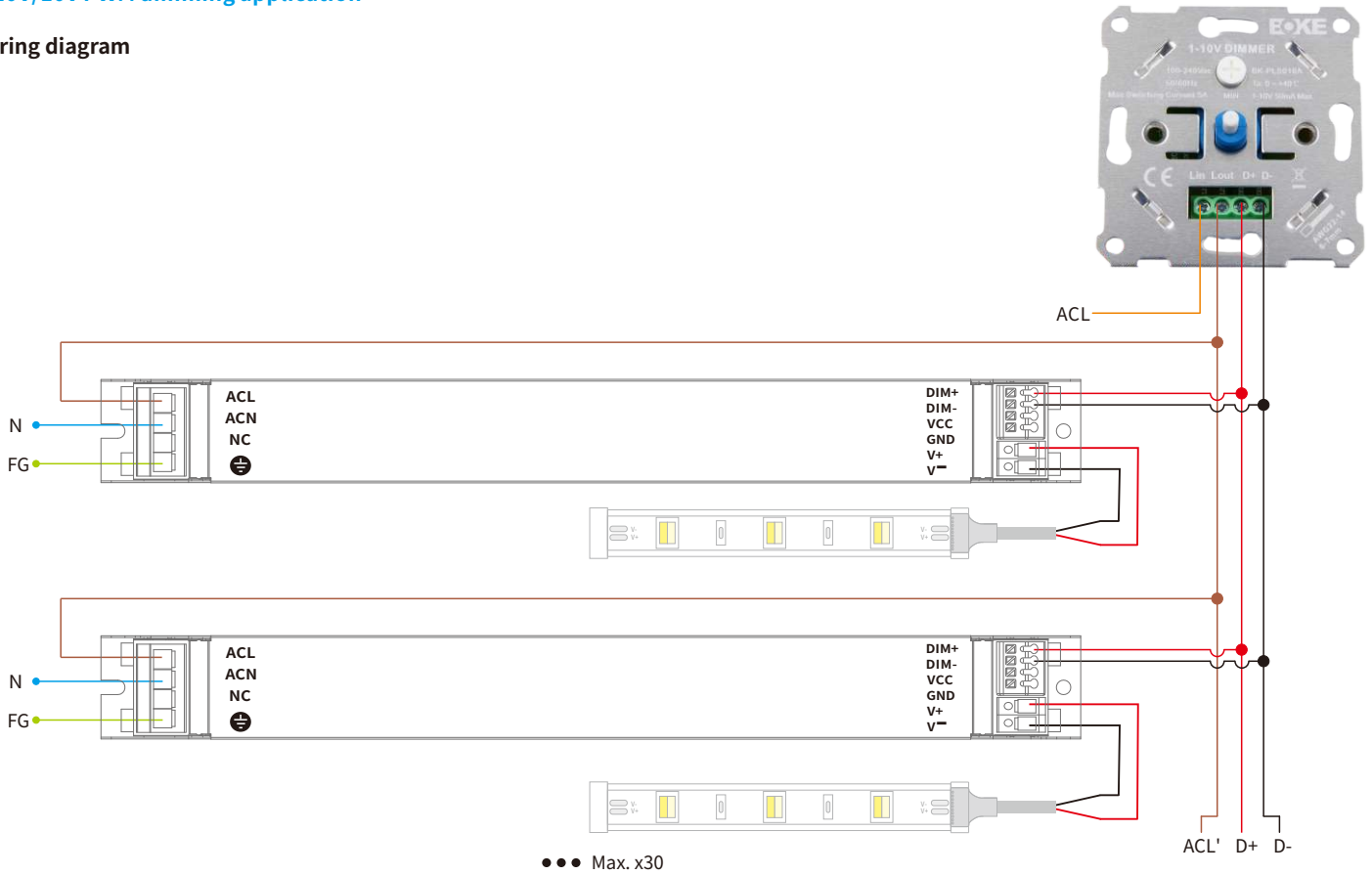
MGV150

INPUT ○ ACL ○ ACN ○ NC ○  PFI wire prep: 0.75-1.5mm ² 18-20mm	BOKE Dimmable Constant Voltage LED Driver MODEL:BK-MGV150-24V0M INPUT: 200-240V ~ 1A Max. 50/60Hz λ: 0.95 OUTPUT: 24V $\overline{\text{---}}$ 6.25A 150W Max. For LED modules use only www.bokedriver.com MADE IN CHINA	tc:90°C ta:60°C •tc          BOKE Drivers Co.,Ltd. Address:2nd and 3rd Floor, No.51, Xihuan 5th Road, South District, 528455 Zhongshan City, Guangdong, CHINA	OUTPUT DIM+ ○ DIM- ○ VCC ○ GND ○ V+ ○ V- ○ SEC wire prep: 0.5-1.0mm ² 18-20mm VCC:12V 1.2W MAX. SEC wire prep: 0.75-2.5mm ² 18-20mm
---	---	--	--

INPUT ○ ACL ○ ACN ○ NC ○  PFI wire prep: 0.75-1.5mm ² 18-20mm	BOKE Dimmable Constant Voltage LED Driver MODEL:BK-MGV150-48V0M INPUT: 200-240V ~ 1A Max. 50/60Hz λ: 0.95 OUTPUT: 48V $\overline{\text{---}}$ 3.12A 150W Max. For LED modules use only www.bokedriver.com MADE IN CHINA	tc:90°C ta:60°C •tc          BOKE Drivers Co.,Ltd. Address:2nd and 3rd Floor, No.51, Xihuan 5th Road, South District, 528455 Zhongshan City, Guangdong, CHINA	OUTPUT DIM+ ○ DIM- ○ VCC ○ GND ○ V+ ○ V- ○ SEC wire prep: 0.5-1.0mm ² 18-20mm VCC:12V 1.2W MAX. SEC wire prep: 0.75-2.5mm ² 18-20mm
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1-10V/10V PWM dimming application

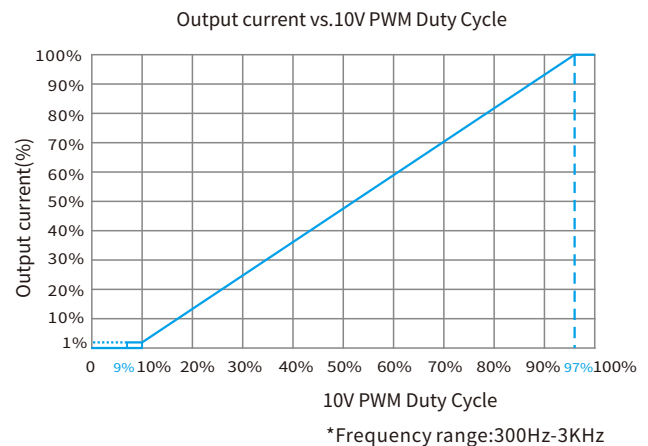
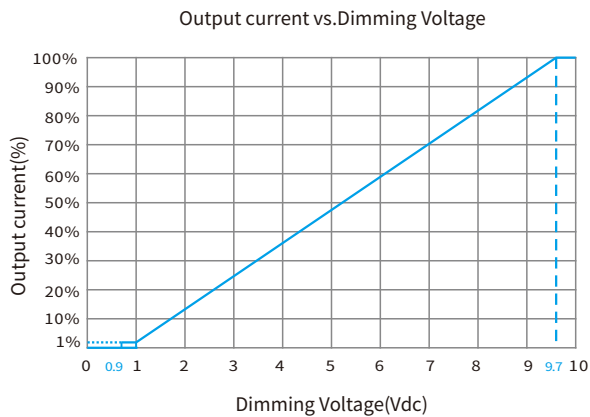
Wiring diagram



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

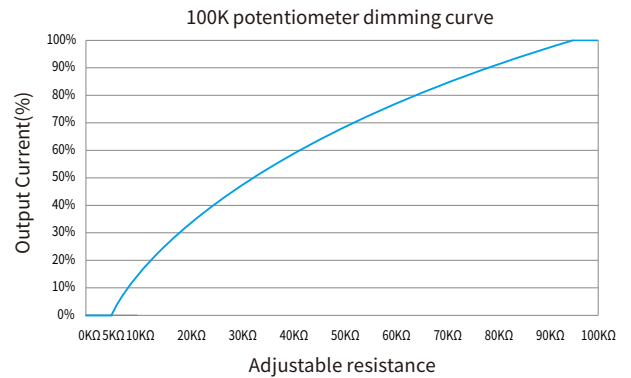
Wiring diagram



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



Note: Module DIM- shorted with GND

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)

典型应用

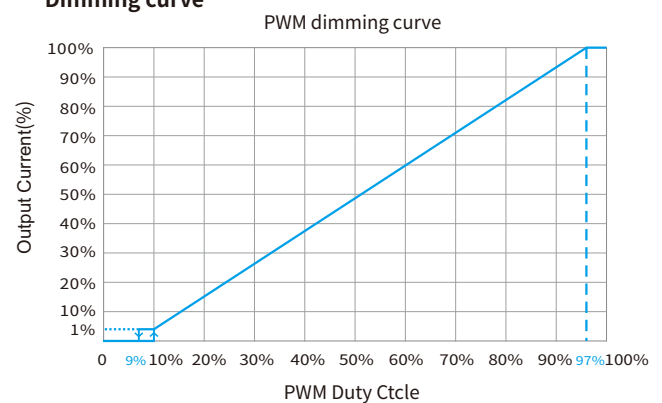
Aux supply 12V

Dimming PWM

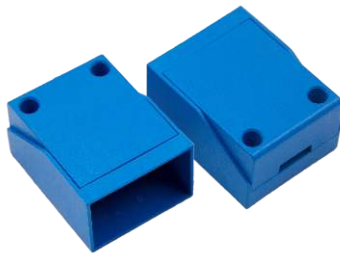
GND

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

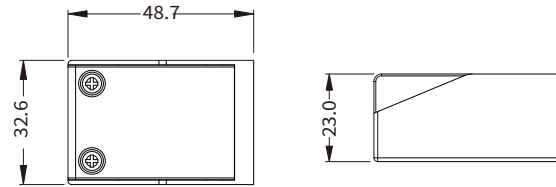
Dimming curve



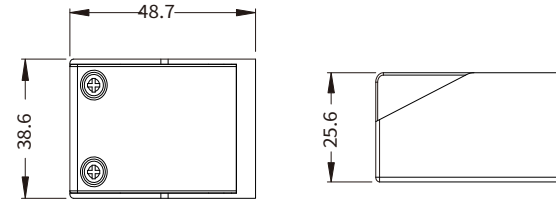
Optional accessories



(Model: BK-BAS003A)



(Model: BK-BAS003B)

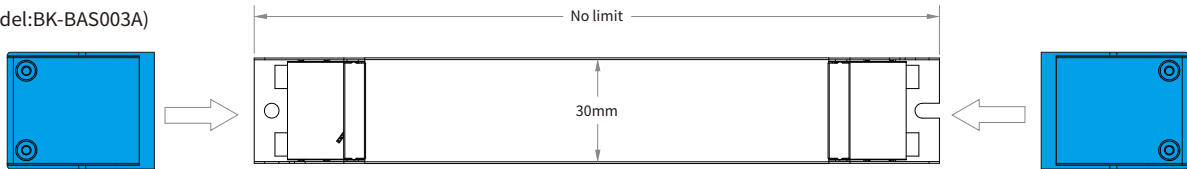


Remark: BK-BAS003A apply to MG036/MGV060/MGV100
BK-BAS003B apply to MG150

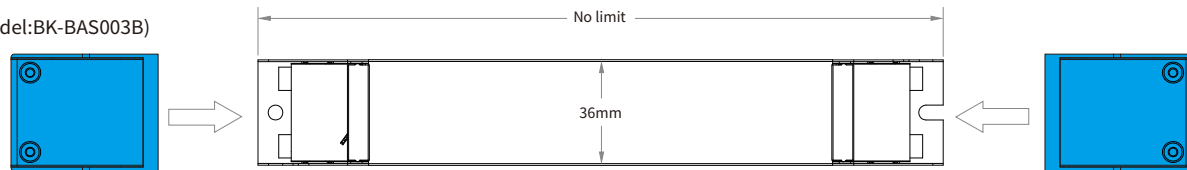
Unit:mm

Installation diagram of accessories

(Model: BK-BAS003A)



(Model: BK-BAS003B)

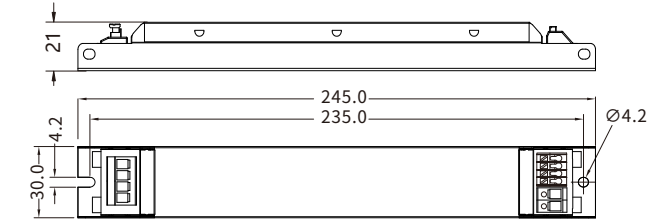


Mechanical Specification

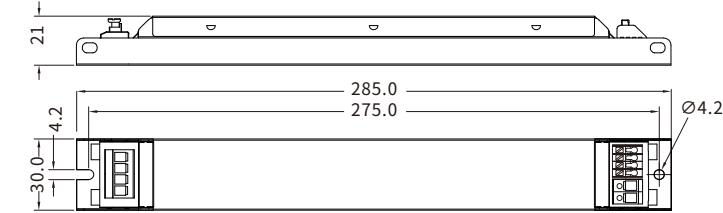
Size(Excluding accessories)

Unit:mm

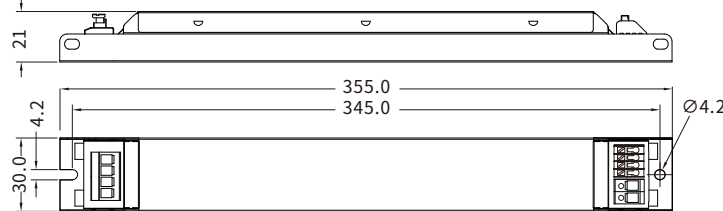
MGV036



MGV060



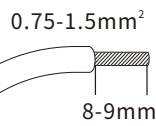
MGV100



INPUT

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

Input wire

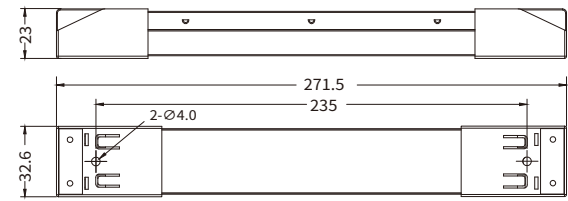


Mechanical Specification

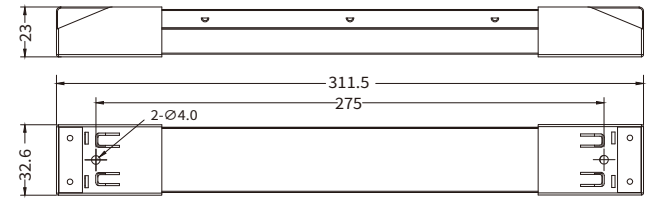
Size(Include accessories)

Unit:mm

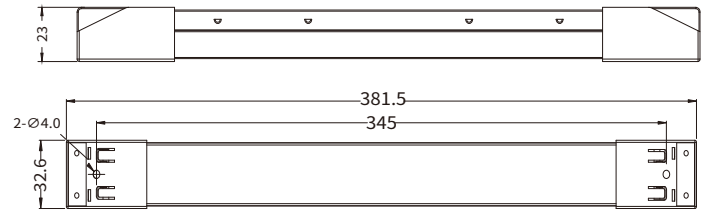
MGV036



MGV060



MGV100

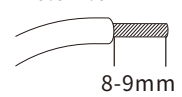


DIMMING

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

Dimming wire

0.5-1.0mm²

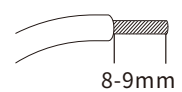


OUTPUT

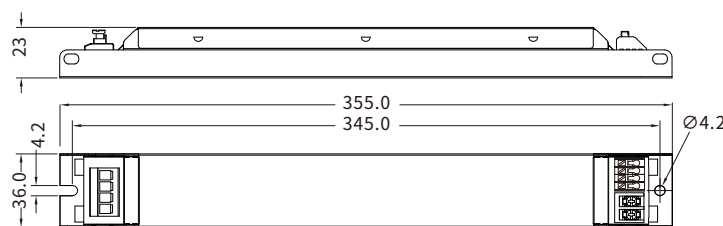
Numbering	function	colour
1	V+	red
2	V-	black

Output wire

0.75-2.5mm²



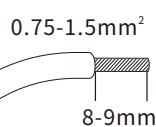
MGV150



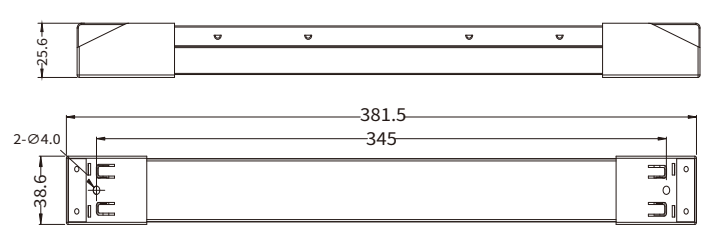
INPUT

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

Input wire



MGV150

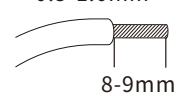


DIMMING

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

Dimming wire

0.5-1.0mm²

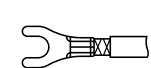


OUTPUT

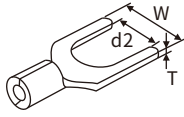
Numbering	function
1	V+
2	V-

Output wire

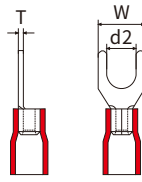
1.5-2.0mm²



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)
MGV150	Output	0.2-0.5mm ²	RNB0.5-3.2	3.2mm	5mm	0.5mm
		0.5-1.5mm ²	SNB1.25-3.2/SV1.25-3		5.7mm	0.7mm
		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 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.

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 Ta at any time.
- The driver should keep a certain distance from the heating stuff (such as the lamp radiator).
- If the driver is used externally (it needs to be used with the plug fitting), the installation of the driver should also meet the following conditions:
 - 1.The driver should be a certain distance between the drives, as shown in Figure 1.
 - 2.The driver keeps a certain distance from surrounding objects, as shown in Figure 2.
 - 3.Two power outputs cannot be connected in parallel.

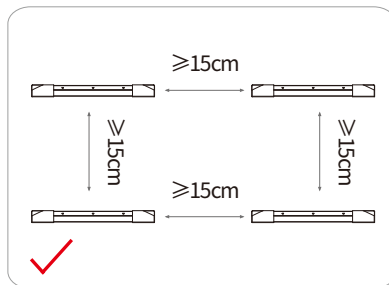
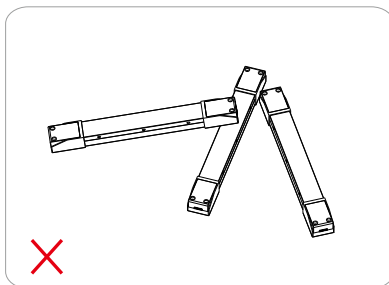


Figure 1

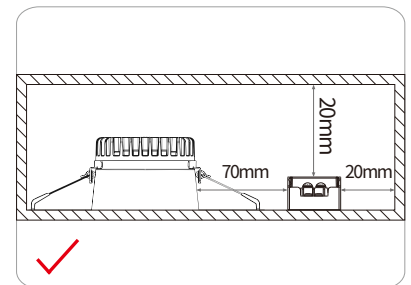
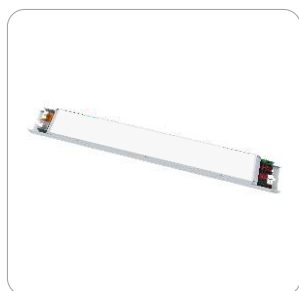


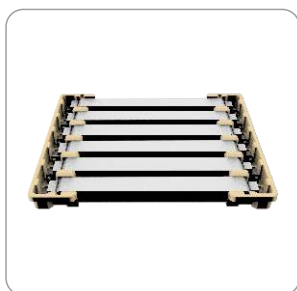
Figure 2

Packaging

Optional 1: factory default



Product



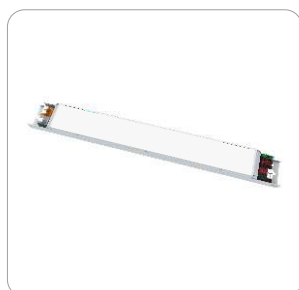
Paper tray



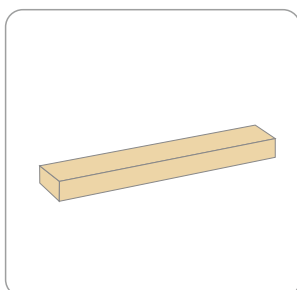
7pcs*6layer=42pcs/CTN
7pcs*5layer=35pcs/CTN
7pcs*4layer=28pcs/CTN
6pcs*4layer=24pcs/CTN

Model	Product size	Weight	Paper tray	Carton size	Qty/carton	N.W	G.W
MGV060	L245*W30*H21mm	205g	L340*W75*H29mm	L355*W385*H205mm	42pcs	8.61KG	9.91KG
MGV060	L285*W30*H21mm	250g	L340*W75*H29mm	L355*W325*H170mm	35pcs	8.75KG	10.1KG
MGV100	L355*W30*H21mm	288g	L340*W75*H29mm	L395*W355*H140mm	28pcs	8.07KG	9.22KG
MGV150	L355*W36*H23mm	430g	L340*W75*H33mm	L395*W355*H160mm	24pcs	10.3KG	11.5KG

Optional 2:



Product



Packaging



8pcs*5layer=40pcs/CTN
7pcs*5layer=35pcs/CTN
9pcs*3layer=27pcs/CTN

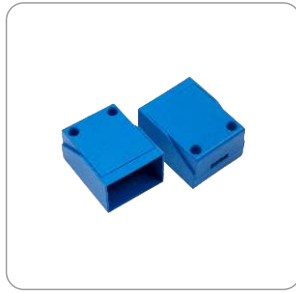
Model	Product size	Weight	Packaging size	Carton size	Qty/carton	N.W	G.W
MGV036	L245*W30*H21mm	205g	L280*W40*H30mm	L345*W300*H175mm	40pcs	8.20kg	9.75kg
MGV060	L285*W30*H21mm	250g	L320*W40*H30mm	L345*W300*H175mm	35pcs	8.75kg	10.2kg
MGV100	L355*W30*H21mm	288g	L390*W40*H30mm	L410*W285*H155mm	27pcs	7.78kg	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.
3. For more information, please send an email to info@bokedriver.com.

Packaging

Accessories



End cap + screws



100 sets/CTN

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

Additional information

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3. For more information, please send an email to info@bokedriver.com.