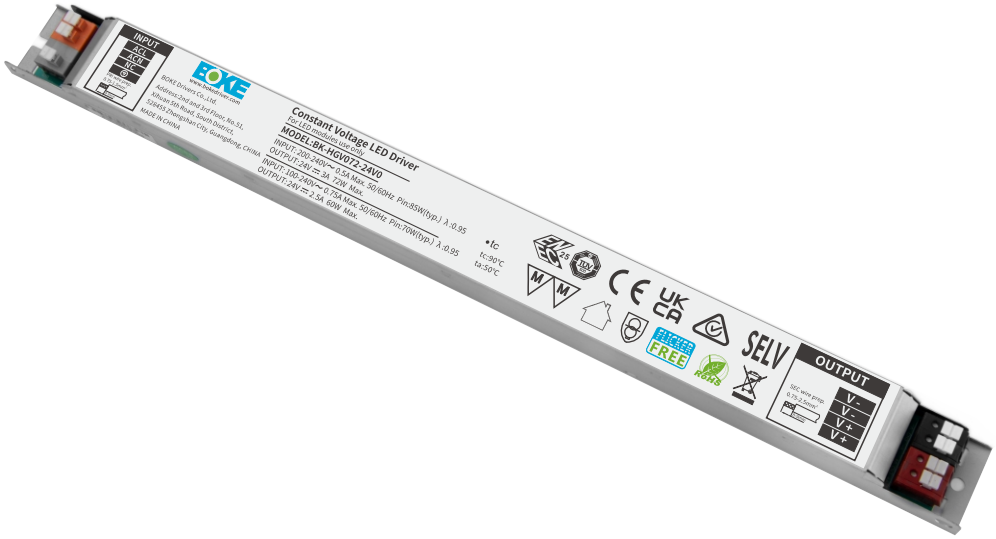
Constant voltage linear driver

HGV Series



Features

- Soft dimming and flicker-free at any brightness
- 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 CE,ENEC,RCM and other certifications
- IP20 protection grade, indoor use
- Nominal life-time up to 100,000 h
- 5-year guarantee

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 HGV series

BK - HGVXXX - XXV0

- BK — BOKE
- HGVXXX — Product series
- XXV0 — Output current

Model list

Model	Input voltage	Output power	Output voltage	Output current	Dimension	Certifications
BK-HGV022-12V0	200-240VAC	21.6W MAX.	12VDC	1.8A	L195*W30*H21mm	CE, ENEC, RCM, UKCA
BK-HGV022-24V0	200-240VAC	21.6W MAX.	24VDC	0.9A	L195*W30*H21mm	CE, ENEC, RCM, UKCA
BK-HGV048-12V0	200-240VAC	48W MAX.	12VDC	4.0A	L245*W30*H21mm	CE, ENEC, RCM, UKCA, CCC
BK-HGV048-24V0	200-240VAC	48W MAX.	24VDC	2.0A	L245*W30*H21mm	CE, ENEC, RCM, UKCA, CCC
BK-HGV048-48V0	200-240VAC	48W MAX.	48VDC	1.0A	L245*W30*H21mm	CE, ENEC, RCM, UKCA, CCC
BK-HGV060-12V0	200-240VAC	60W MAX.	12VDC	5.0A	L285*W30*H21mm	CE, ENEC, RCM, UKCA
BK-HGV060-24V0	200-240VAC	60W MAX.	24VDC	2.5A	L285*W30*H21mm	CE, ENEC, RCM, UKCA
BK-HGV070-48V0	200-240VAC	72W MAX.	48VDC	1.5A	L355*W30*H21mm	CE, ENEC, RCM, UKCA, CCC
BK-HGV072-12V0	200-240VAC	72W MAX.	12VDC	6.0A	L355*W30*H21mm	CE, ENEC, RCM, UKCA, CCC
BK-HGV072-24V0	200-240VAC	72W MAX.	24VDC	3.0A	L355*W30*H21mm	CE, ENEC, RCM, UKCA, CCC
BK-HGV100-24V0	200-240VAC	96W MAX.	24VDC	4.0A	L355*W30*H21mm	CE, ENEC, RCM, UKCA, CCC
BK-HGV100-48V0	200-240VAC	96W MAX.	48VDC	2.0A	L355*W30*H21mm	CE, ENEC, RCM, UKCA, CCC
BK-HGV150-24V0	200-240VAC	144W MAX.	24VDC	6.0A	L355*W36*H23mm	CE, ENEC, RCM, UKCA, CCC
BK-HGV150-48V0	200-240VAC	144W MAX.	48VDC	3.0A	L355*W36*H23mm	CE, ENEC, RCM, UKCA, CCC
BK-HGV200-24V0	200-240VAC	199.2W MAX.	24VDC	8.3A	L321.5*W48*H30mm	CE, ENEC, RCM, UKCA
BK-HGV200-48V0	200-240VAC	199.2W MAX.	48VDC	4.15A	L321.5*W48*H30mm	CE, ENEC, RCM, UKCA

Technical data

Product model	BK-HGV022-12V0	BK-HGV022-24V0	
Output parameters			
Regulation method	Constant voltage	Constant voltage	
Rated output current	1.8A	0.9A	
Rated output voltage	12VDC	24VDC	
Rated output power	21.6W Max	21.6W Max	
Output voltage adjustment	Fixed output	Fixed output	
Output current ripple LF	±2%	±2%	
Voltage accuracy	±5%	±5%	
Linear regulation	±1%	±1%	
Load regulation	±5%	±5%	
No load output voltage	N/A	N/A	
Flicker-free	Pst LM=0.013, SVM=0.000,(The above parameters are obtained by testing with constant voltage light strip)		
Input parameters			
Rated input voltage range	200-240VAC		
Input votage range	180-264VAC		
Input votage shock	<380 V AC		
Input current	<0.3A (AC200V)		
Input frequency	50/60Hz		
Input PF	PF=0.5C (230V AC & Full load)		
Input THD	N/A		
Efficiency(typical)	87% (230V AC & Full load)	88% (230V AC & Full load)	
In-rush current	25.75A peak ,300us 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(Pin):24.7W, No load(Pno): N/A, On stand-by(Psb) : N/A, Network stand-by(Pnet) : N/A		
Safety			
Withstand voltage	I/P-O/P(LED):3750VAC,I/P-FG:1750VAC,O/P-FG:500VAC		
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	N/A		
Auxiliary power supply	N/A		
Dimming range	N/A		
Dimming drive mode	N/A		
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, not condensing		
Storage temp./humidity	-40-80°C, 5-85% RH, not 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			
Certified	CE, ENEC, RCM		
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-HGV048-12V0	BK-HGV048-24V0	BK-HGV048-48V0
Output parameters			
Regulation method	Constant voltage	Constant voltage	Constant voltage
Rated output current	4A	2A	1A
Rated output voltage	12VDC	24VDC	48VDC
Rated output power	48W Max	48W Max	48W Max
Output voltage adjustment	Fixed output	Fixed output	Fixed output
Output current ripple LF	±2%	±2%	±2%
Voltage accuracy	±5%	±5%	±5%
Linear regulation	±1%	±1%	±1%
Load regulation	±5%	±5%	±5%
No load output voltage	N/A	N/A	N/A
Flicker-free	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 votage range	180-264VAC		
Input votage shock	<380 V AC		
Input current	<0.4A (AC200V)		
Input frequency	50/60Hz		
Input PF/Input DF	PF>0.95 (230V AC & Full load),DF>0.98 (230V AC & Full load)		
Input THD	10% (230V AC & Full load)		
Efficiency(typical)	87% (230V AC & Full load)	89% (230V AC & Full load)	88.5% (230V AC & Full load)
In-rush current	27A peak ,262us duration(50 % Ipeak), see the description below for details		
Start/Switchover/Turn off	<0.7s(AC start),<0.7s(DC start),<0.3s(AC/DC switchover),<0.5s(Turn off)		
Switching cycles	> 50,000 switching cycles		
Power consumption	Full load(Pin):54.2W, No load(Pno): N/A, On stand-by(Psb) : N/A, Network stand-by(Pnet) : N/A		
Safety			
Withstand voltage	I/P-O/P(LED):3750VAC,I/P-FG:1750VAC,O/P-FG:500VAC		
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	N/A		
Auxiliary power supply	N/A		
Dimming range	N/A		
Dimming drive mode	N/A		
Emergency support			
Central emergency system	Supported		
Self-contained emergency	Supported		
Environment & Life time			
Operating temperature	Ta=-20-50°C		Ta=-20-55°C
Case temperature	Tc=90°C		
Operating humidity	5-85% RH, not condensing		
Storage temp./humidity	-40-80°C, 5-85% RH, not 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			
Certified	CE, ENEC, RCM, CCC		
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-HGV060-12V0	BK-HGV060-24V0	
Output parameters			
Regulation method	Constant voltage	Constant voltage	
Rated output current	5A	2.5A	
Rated output voltage	12VDC	24VDC	
Rated output power	60W Max	60W Max	
Output voltage adjustment	Fixed output	Fixed output	
Output current ripple LF	±2%	±2%	
Voltage accuracy	±5%	±5%	
Linear regulation	±1%	±1%	
Load regulation	±5%	±5%	
No load output voltage	N/A	N/A	
Flicker-free	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 votage range	180-264VAC		
Input votage shock	<380 V AC		
Input current	<0.45A (AC200V)		
Input frequency	50/60Hz		
Input PF/Input DF	PF>0.95 (230V AC & Full load),DF>0.98 (230V AC & Full load)		
Input THD	10% (230V AC & Full load)		
Efficiency(typical)	87% (230V AC & Full load)	89% (230V AC & Full load)	
In-rush current	30A peak ,300us 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(Pin):67.8W, No load(Pno): N/A, On stand-by(Psb) : N/A, Network stand-by(Pnet) : N/A		
Safety			
Withstand voltage	I/P-O/P(LED):3750VAC,I/P-FG:1750VAC,O/P-FG:500VAC		
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	N/A		
Auxiliary power supply	N/A		
Dimming range	N/A		
Dimming drive mode	N/A		
Emergency support			
Central emergency system	Supported		
Self-contained emergency	Supported		
Environment & Life time			
Operating temperature	Ta=-20-50°C		
Case temperature	Tc=90°C		
Operating humidity	5-85% RH, not condensing		
Storage temp./humidity	-40-80°C, 5-85% RH, not 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			
Certified	CE, ENEC,RCM		
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-HGV070-48V0	
Output parameters		
Regulation method	Constant voltage	
Rated output current	1.5A	
Rated output voltage	48VDC	
Rated output power	72W Max	
Output voltage adjustment	Fixed output	
Output current ripple LF	±2%	
Voltage accuracy	±5%	
Linear regulation	±1%	
Load regulation	±5%	
No load output voltage	N/A	
Flicker-free	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 votage range	180-264VAC	
Input votage shock	<380 V AC	
Input current	<0.5A (AC200V)	
Input frequency	50/60Hz	
Input PF/Input DF	PF>0.95 (230V AC & Full load),DF>0.99 (230V AC & Full load)	
Input THD	10% (230V AC & Full load)	
Efficiency(typical)	89% (230V AC & Full load)	
In-rush current	34A peak ,360us 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(Pin):81.4W, No load(Pno): N/A, On stand-by(Psb) : N/A, Network stand-by(Pnet) : N/A	
Safety		
Withstand voltage	I/P-O/P(LED):3750VAC,I/P-FG:1750VAC,O/P-FG:500VAC	
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	N/A	
Auxiliary power supply	N/A	
Dimming range	N/A	
Dimming drive mode	N/A	
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, not condensing	
Storage temp./humidity	-40-80°C, 5-85% RH, not 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		
Certified	CE, ENEC, RCM, CCC	
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-HGV072-12V0	BK-HGV072-24V0	
Output parameters			
Regulation method	Constant voltage	Constant voltage	
Rated output current	6A	3A	
Rated output voltage	12VDC	24VDC	
Rated output power	72W Max	72W Max	
Output voltage adjustment	Fixed output	Fixed output	
Output current ripple LF	±2%	±2%	
Voltage accuracy	±5%	±5%	
Linear regulation	±1%	±1%	
Load regulation	±5%	±5%	
No load output voltage	N/A	N/A	
Flicker-free	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 votage range	180-264VAC		
Input votage shock	<380 V AC		
Input current	<0.5A (AC200V)		
Input frequency	50/60Hz		
Input PF/Input DF	PF>0.95 (230V AC & Full load),DF>0.99 (230V AC & Full load)		
Input THD	10% (230V AC & Full load)		
Efficiency(typical)	89% (230V AC & Full load)	90% (230V AC & Full load)	
In-rush current	40A peak ,336us 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(Pin):80.4W, No load(Pno): N/A, On stand-by(Psb) : N/A, Network stand-by(Pnet) : N/A		
Safety			
Withstand voltage	I/P-O/P(LED):3750VAC,I/P-FG:1750VAC,O/P-FG:500VAC		
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	N/A		
Auxiliary power supply	N/A		
Dimming range	N/A		
Dimming drive mode	N/A		
Emergency support			
Central emergency system	Supported		
Self-contained emergency	Supported		
Environment & Life time			
Operating temperature	Ta=-20-50°C		
Case temperature	Tc=90°C		
Operating humidity	5-85% RH, not condensing		
Storage temp./humidity	-40-80°C, 5-85% RH, not 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			
Certified	CE, ENEC, RCM, CCC		
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-HGV100-24V0	BK-HGV100-48V0	
Output parameters			
Regulation method	Constant voltage	Constant voltage	
Rated output current	4A	2A	
Rated output voltage	24VDC	48VDC	
Rated output power	96W Max	96W Max	
Output voltage adjustment	Fixed output	Fixed output	
Output current ripple LF	±2%	±2%	
Voltage accuracy	±5%	±5%	
Linear regulation	±1%	±1%	
Load regulation	±5%	±5%	
No load output voltage	N/A	N/A	
Flicker-free	Pst LM=0.012, SVM=0.013,(The above parameters are obtained by testing with constant voltage light strip)		
Input parameters			
Rated input voltage range	200-240VAC		
Input votage range	180-264VAC		
Input votage shock	<380 V AC		
Input current	<0.8A (AC200V)		
Input frequency	50/60Hz		
Input PF/Input DF	PF>0.95 (230V AC & Full load),DF>0.99 (230V AC & Full load)		
Input THD	10% (230V AC & Full load)		
Efficiency(typical)	89% (230V AC & Full load)		
In-rush current	46A peak ,280us 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(Pin):108.5W, No load(Pno): N/A, On stand-by(Psb) : N/A, Network stand-by(Pnet) : N/A		
Safety			
Withstand voltage	I/P-O/P(LED):3750VAC,I/P-FG:1750VAC,O/P-FG:500VAC		
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	N/A		
Auxiliary power supply	N/A		
Dimming range	N/A		
Dimming drive mode	N/A		
Emergency support			
Central emergency system	Not supported		
Self-contained emergency	Supported		
Environment & Life time			
Operating temperature	Ta=-20-50°C		
Case temperature	Tc=90°C		
Operating humidity	5-85% RH, not condensing		
Storage temp./humidity	-40-80°C, 5-85% RH, not 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			
Certified	CE, ENEC, RCM, CCC		
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-HGV150-24V0	BK-HGV150-48V0	
Output parameters			
Regulation method	Constant voltage	Constant voltage	
Rated output current	6A	3A	
Rated output voltage	24VDC	48VDC	
Rated output power	144W Max	144W Max	
Output voltage adjustment	Fixed output	Fixed output	
Output current ripple LF	±2%	±2%	
Voltage accuracy	±5%	±5%	
Linear regulation	±1%	±1%	
Load regulation	±5%	±5%	
No load output voltage	N/A	N/A	
Flicker-free	Pst LM=0.013, SVM=0.000,(The above parameters are obtained by testing with constant voltage light strip)		
Input parameters			
Rated input voltage range	200-240VAC		
Input votage range	180-264VAC		
Input votage shock	<380 V AC		
Input current	<1A (AC200V)		
Input frequency	50/60Hz		
Input PF/Input DF	PF>0.95 (230V AC & Full load),DF>0.99 (230V AC & Full load)		
Input THD	10% (230V AC & Full load)		
Efficiency(typical)	90% (230V AC & Full load)		
In-rush current	72A peak ,410us 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(Pin):160.9W, No load(Pno): N/A, On stand-by(Psb) : N/A, Network stand-by(Pnet) : N/A		
Safety			
Withstand voltage	I/P-O/P(LED):3750VAC,I/P-FG:1750VAC,O/P-FG:500VAC		
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	N/A		
Auxiliary power supply	N/A		
Dimming range	N/A		
Dimming drive mode	N/A		
Emergency support			
Central emergency system	Not supported		
Self-contained emergency	Supported		
Environment & Life time			
Operating temperature	Ta=-20-50°C		
Case temperature	Tc=90°C		
Operating humidity	5-85% RH, not condensing		
Storage temp./humidity	-40-80°C, 5-85% RH, not 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			
Certified	CE, ENEC, RCM, CCC		
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-HGV200-24V0	BK-HGV200-48V0	
Output parameters			
Regulation method	Constant voltage	Constant voltage	
Rated output current	8.3A	4.15A	
Rated output voltage	24VDC	48VDC	
Rated output power	199.2W Max	199.2W Max	
Output voltage adjustment	Fixed output	Fixed output	
Output current ripple LF	±2%	±2%	
Voltage accuracy	±3%	±3%	
Linear regulation	±1%	±1%	
Load regulation	±5%	±5%	
No load output voltage	N/A	N/A	
Flicker-free	Pst LM=0.162, SVM=0.007,(The above parameters are obtained by testing with constant voltage light strip)		
Input parameters			
Rated input voltage range	200-240VAC		
Input votage range	180-264VAC		
Input votage shock	<380 V AC		
Input current	<1.1A (AC200V)		
Input frequency	50/60Hz		
Input PF/Input DF	PF>0.95 (230V AC & Full load),DF>0.98 (230V AC & Full load)		
Input THD	10% (230V AC & Full load)		
Efficiency(typical)	91.5% (230V AC & Full load)	92.5% (230V AC & Full load)	
In-rush current	65A peak ,410us 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(Pin):217.7W, No load(Pno): N/A, On stand-by(Psb) : N/A, Network stand-by(Pnet) : N/A		
Safety			
Withstand voltage	I/P-O/P(LED):3750VAC,I/P-FG:1750VAC,O/P-FG:500VAC		
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	N/A		
Auxiliary power supply	N/A		
Dimming range	N/A		
Dimming drive mode	N/A		
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 condensing		
Storage temp./humidity	-40-80°C, 5-85% RH, not 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			
Certified	CE, ENEC, RCM		
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		

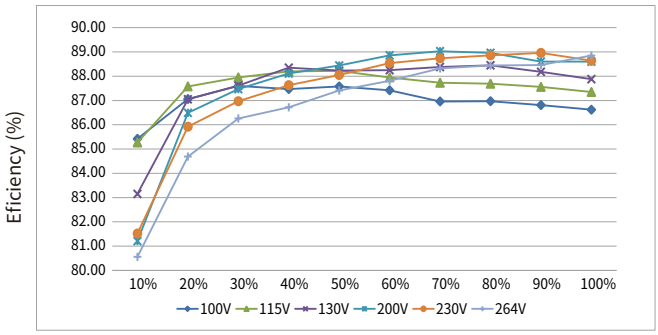
Remarks

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

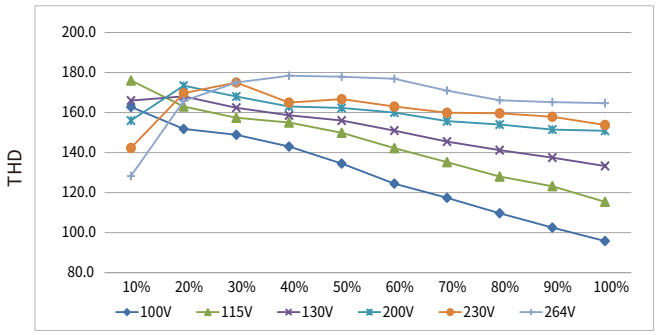
Electrical values

BK-HGV022-12V0

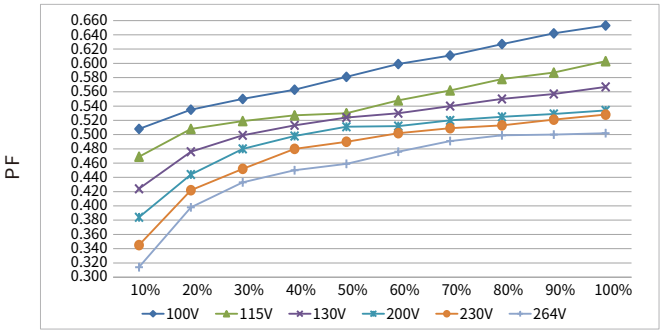
Efficiency vs load



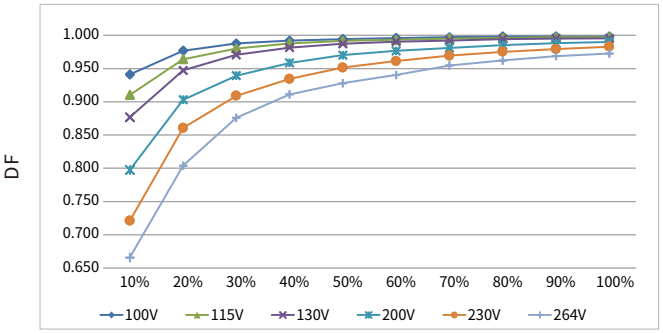
THD vs. Load



Power factor vs. Load

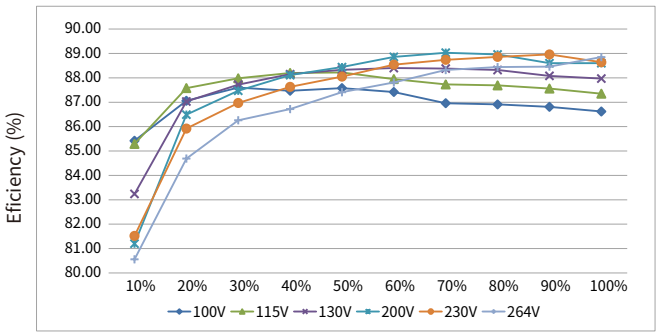


Displacement factor vs. Load

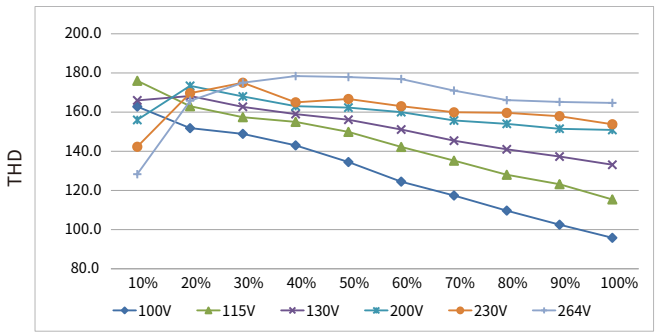


BK-HGV022-24V0

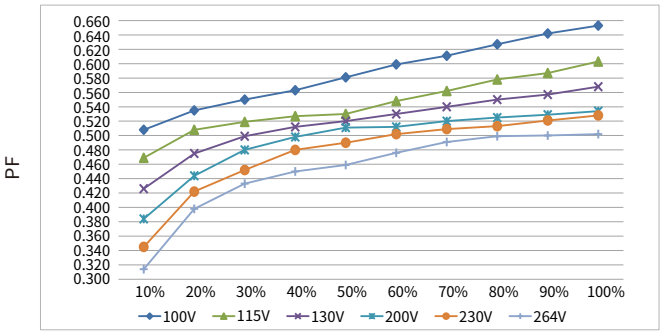
Efficiency vs load



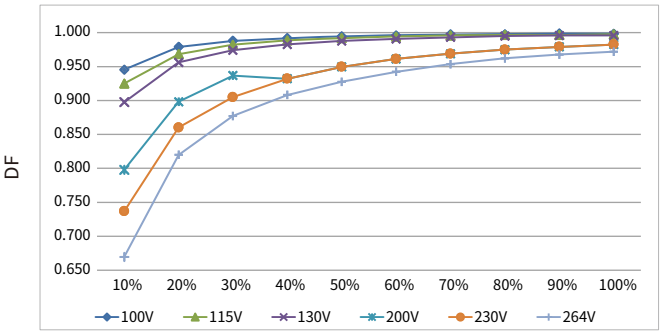
THD vs. Load



Power factor vs. Load



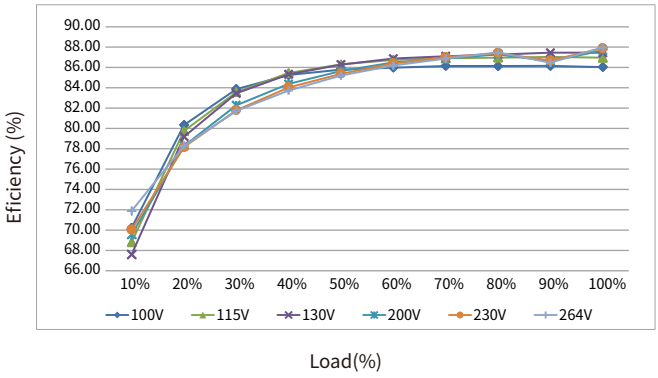
Displacement factor vs. Load



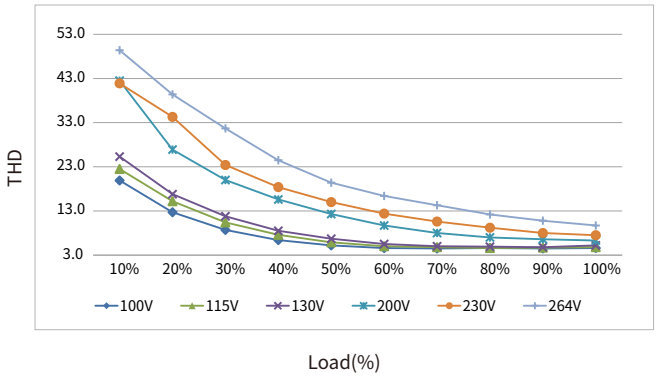
Electrical values

BK-HGV048-12V0

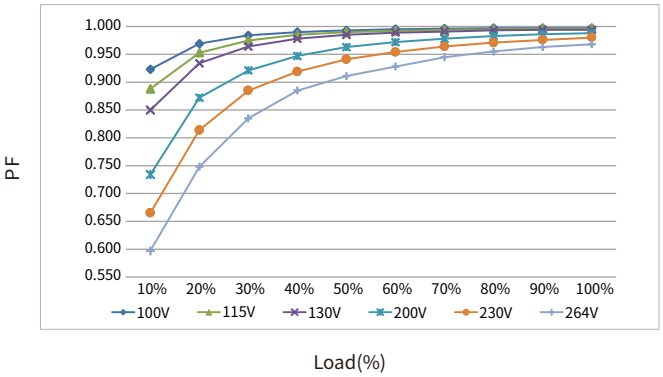
Efficiency vs load



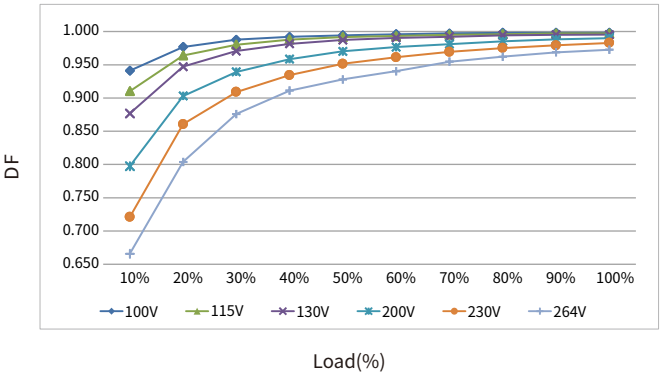
THD vs. Load



Power factor vs. Load

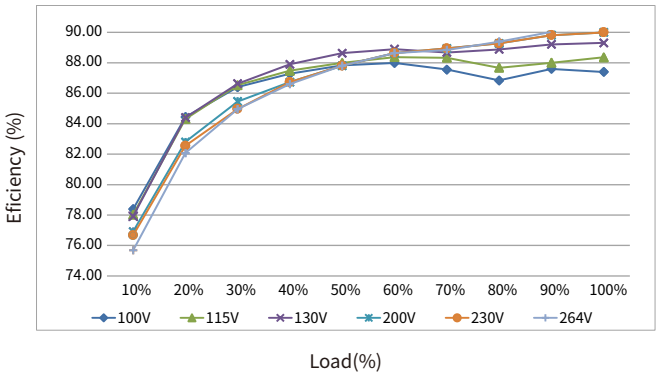


Displacement factor vs. Load

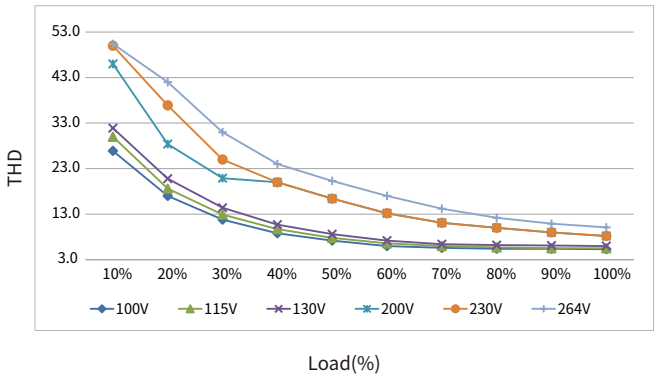


BK-HGV048-24V0

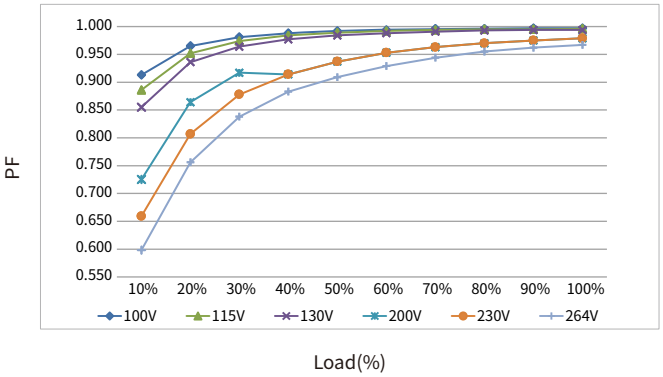
Efficiency vs load



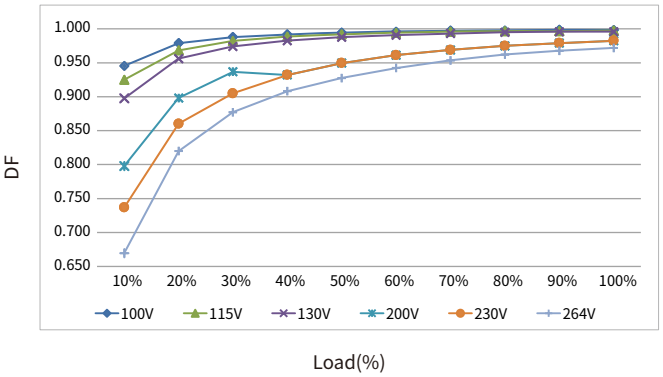
THD vs. Load



Power factor vs. Load



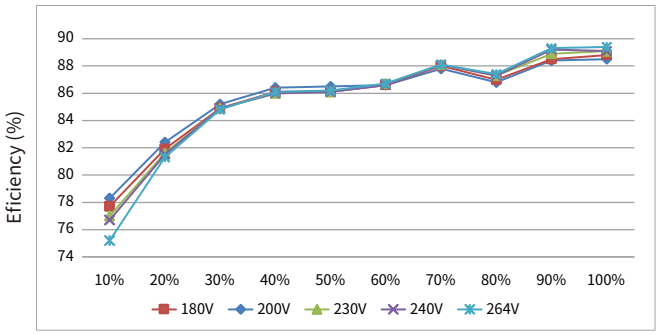
Displacement factor vs. Load



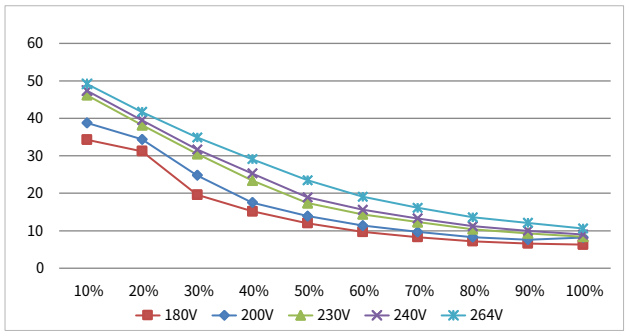
Electrical values

BK-HGV048-48V0

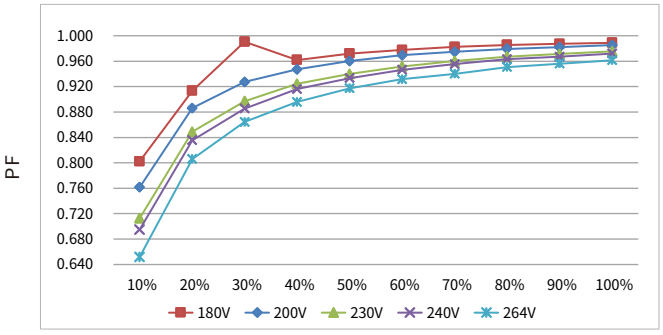
Efficiency vs load



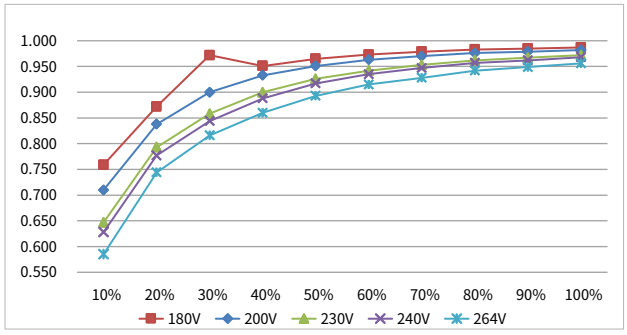
THD vs. Load



Power factor vs. Load

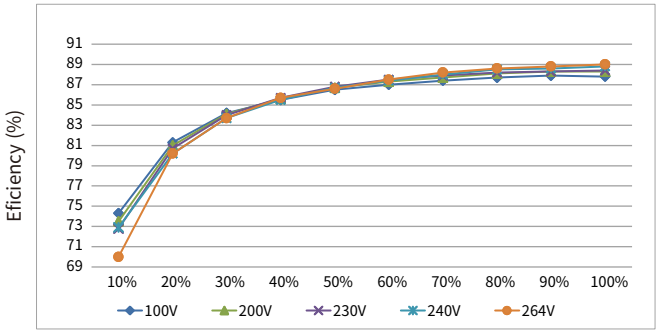


Displacement factor vs. Load

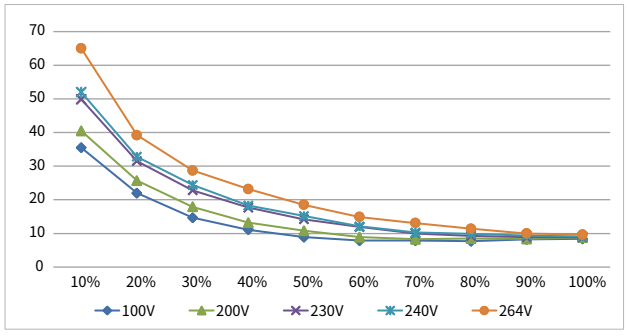


BK-HGV060-12V0

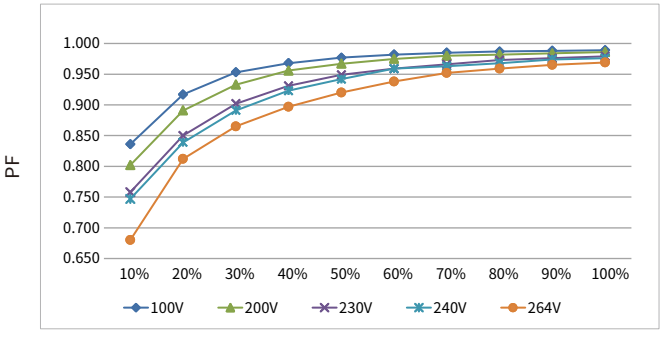
Efficiency vs load



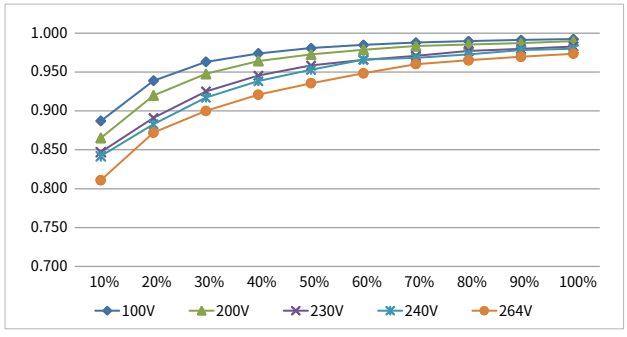
THD vs. Load



Power factor vs. Load



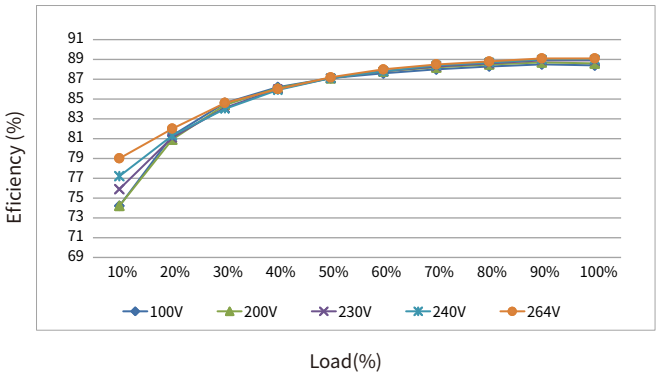
Displacement factor vs. Load



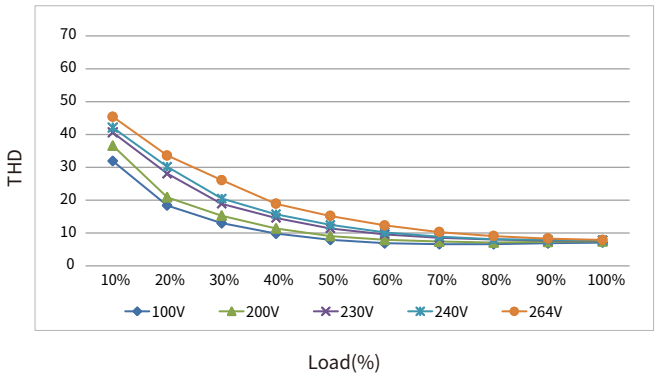
Electrical values

BK-HGV060-24V0

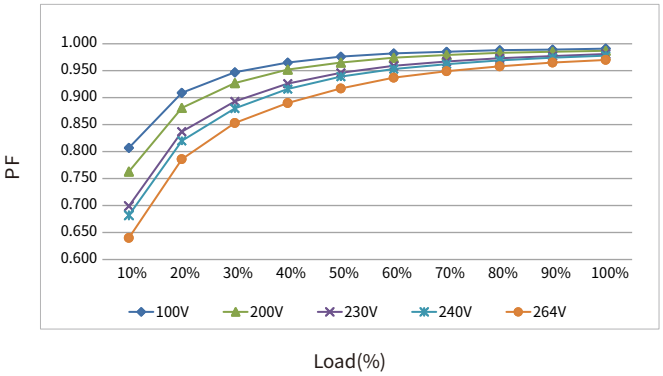
Efficiency vs load



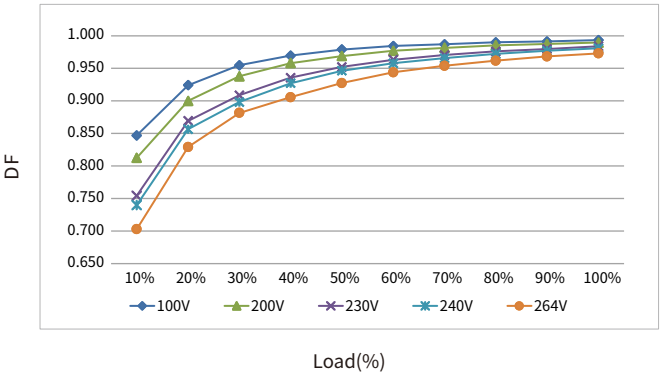
THD vs. Load



Power factor vs. Load

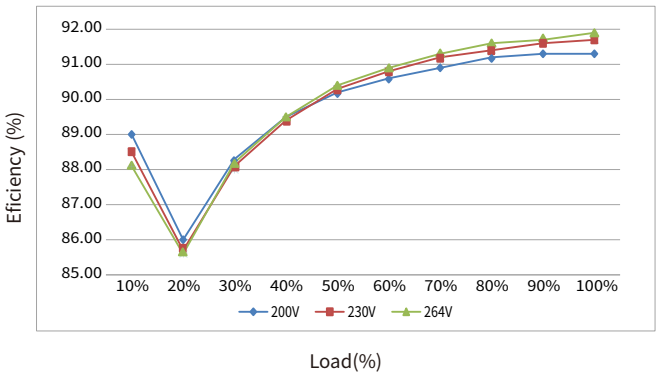


Displacement factor vs. Load

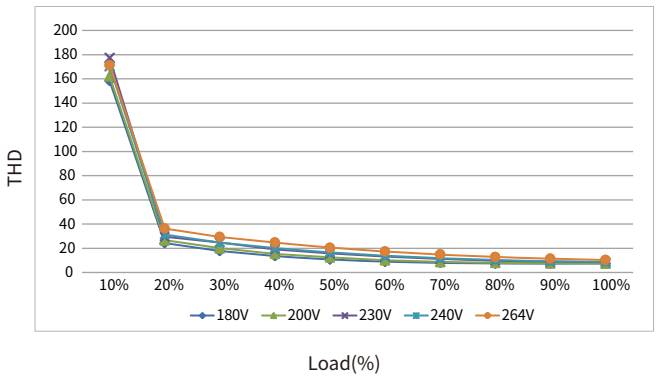


BK-HGV070-48V0

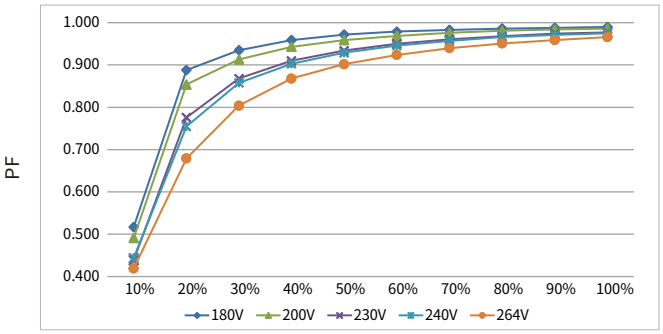
Efficiency vs load



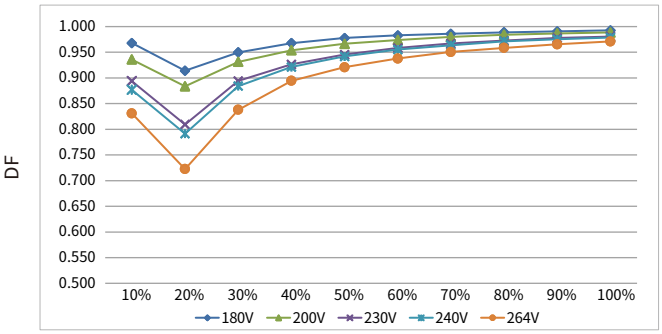
THD vs. Load



Power factor vs. Load



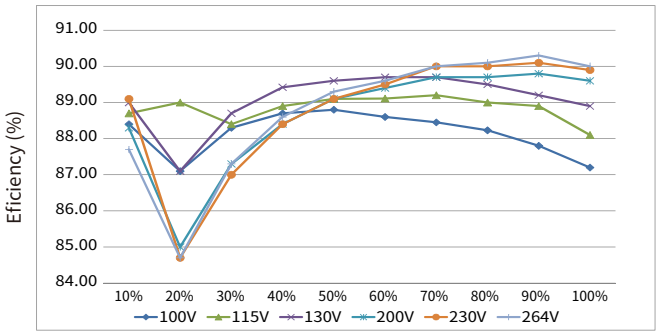
Displacement factor vs. Load



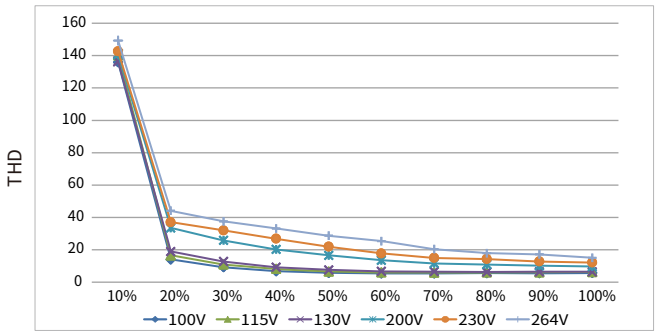
Electrical values

BK-HGV072-12V0

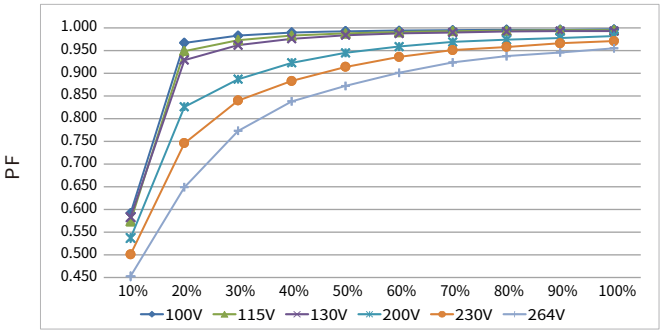
Efficiency vs load



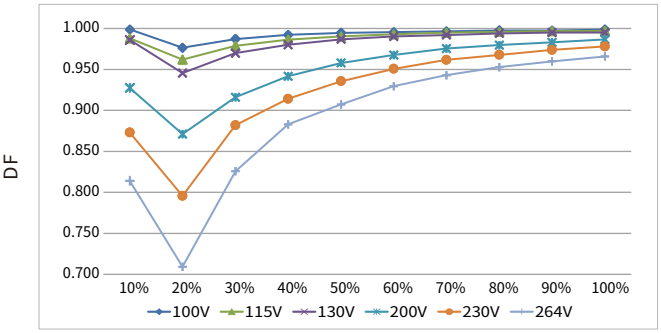
THD vs. Load



Power factor vs. Load

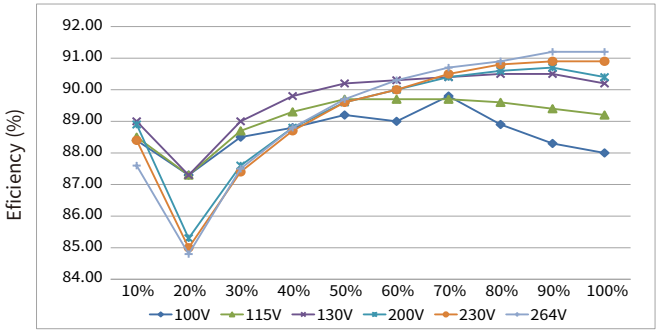


Displacement factor vs. Load

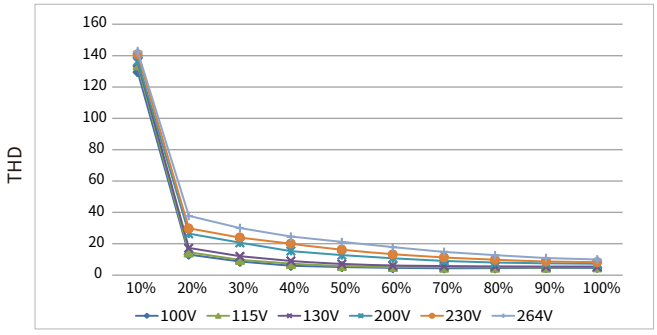


BK-HGV072-24V0

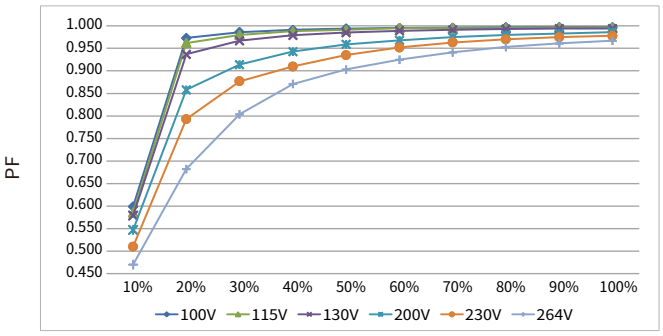
Efficiency vs load



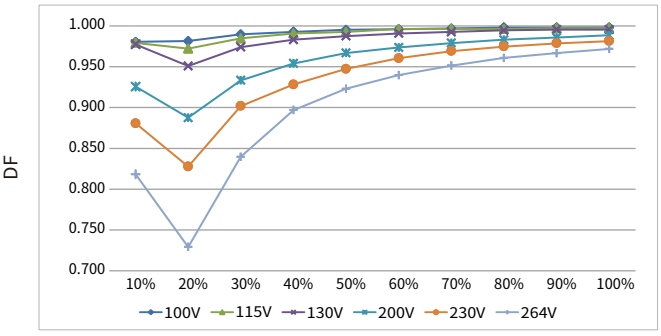
THD vs. Load



Power factor vs. Load



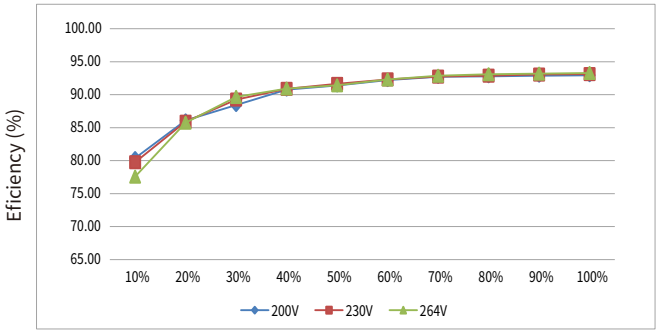
Displacement factor vs. Load



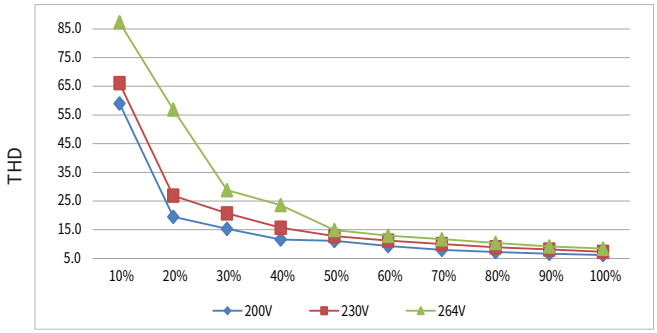
Electrical values

BK-HGV100-24V0

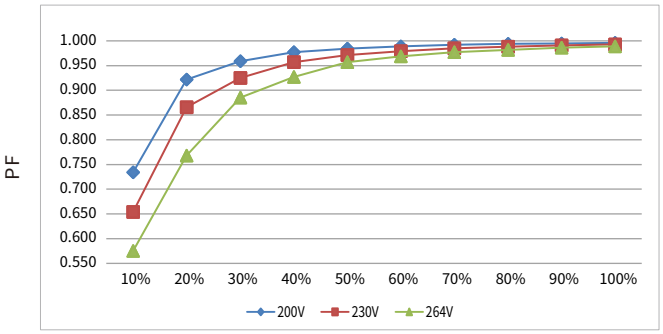
Efficiency vs load



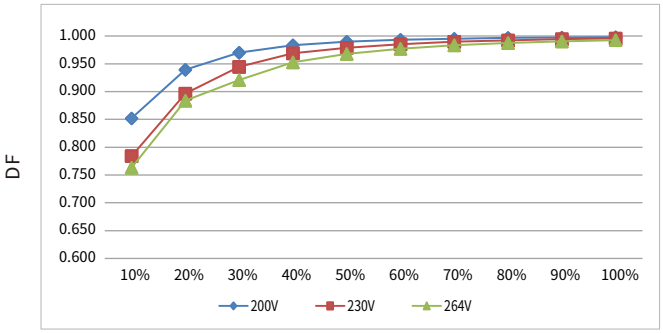
THD vs. Load



Power factor vs. Load

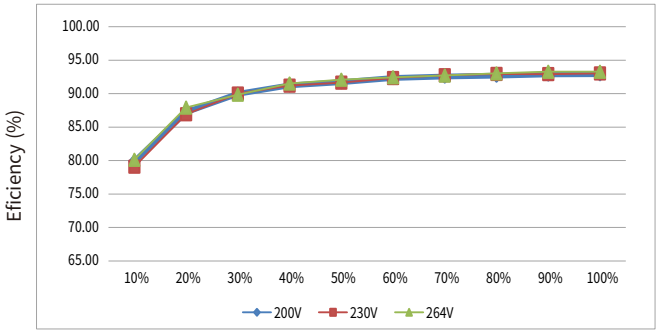


Displacement factor vs. Load

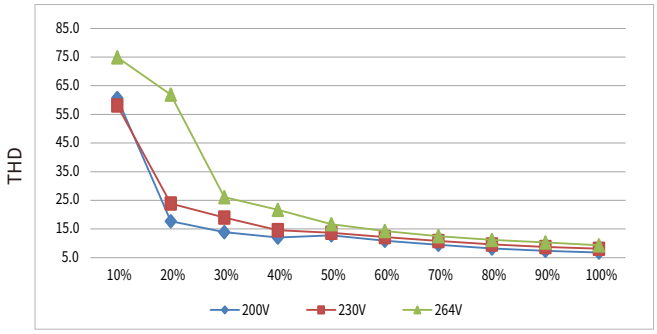


BK-HGV100-48V0

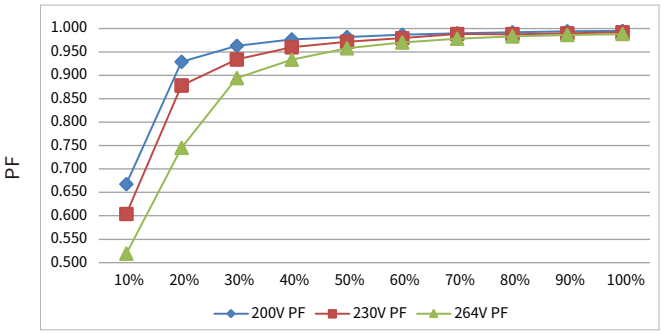
Efficiency vs load



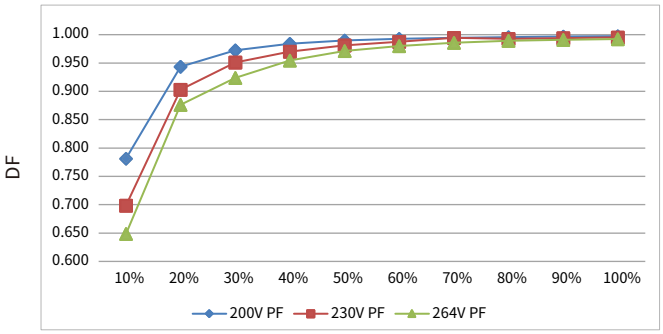
THD vs. Load



Power factor vs. Load



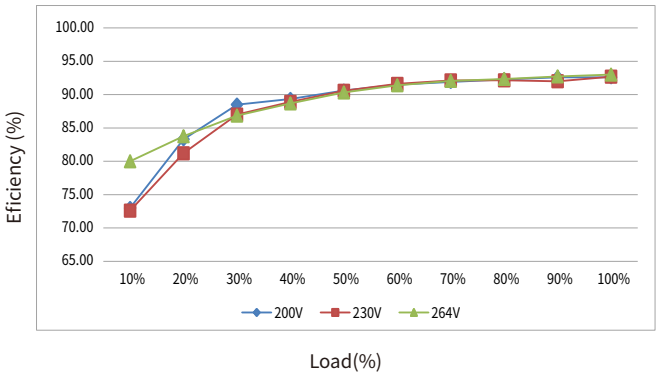
Displacement factor vs. Load



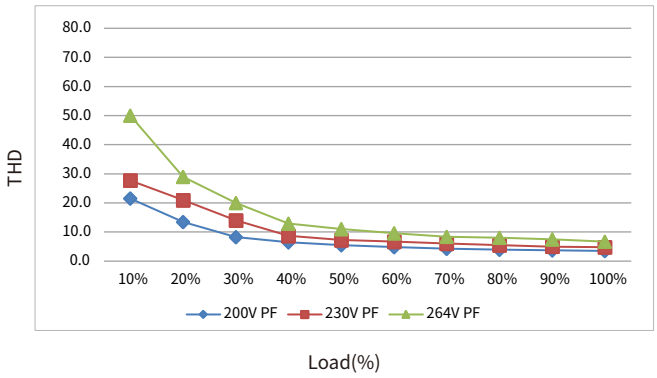
Electrical values

BK-HGV150-24V0

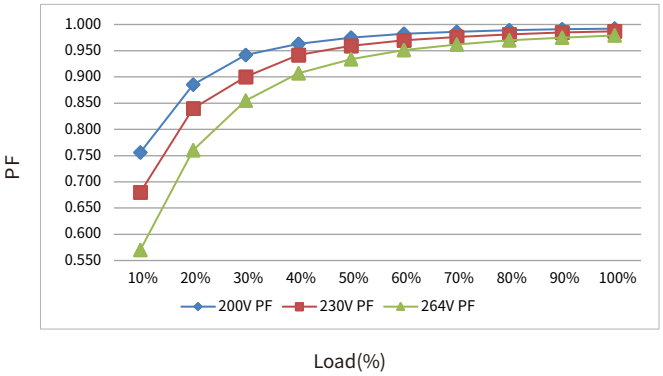
Efficiency vs load



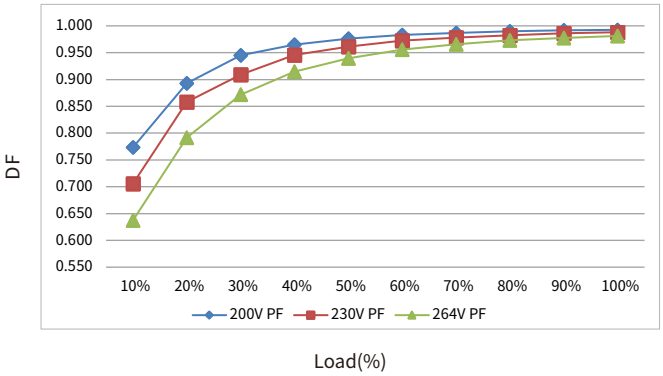
THD vs. Load



Power factor vs. Load

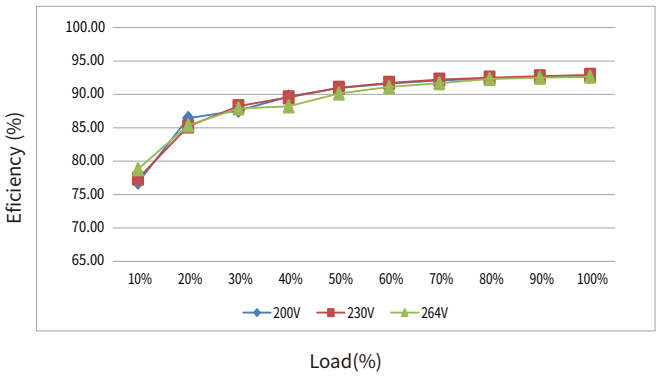


Displacement factor vs. Load

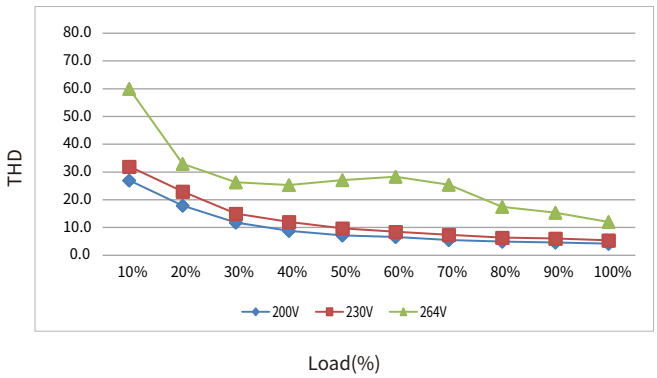


BK-HGV150-48V0

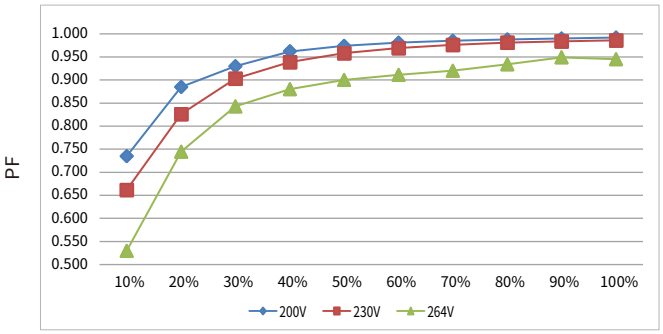
Efficiency vs load



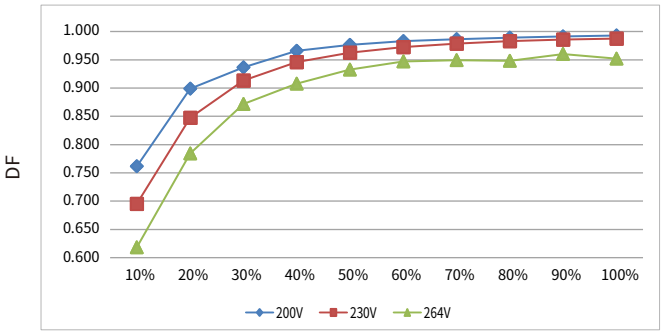
THD vs. Load



Power factor vs. Load



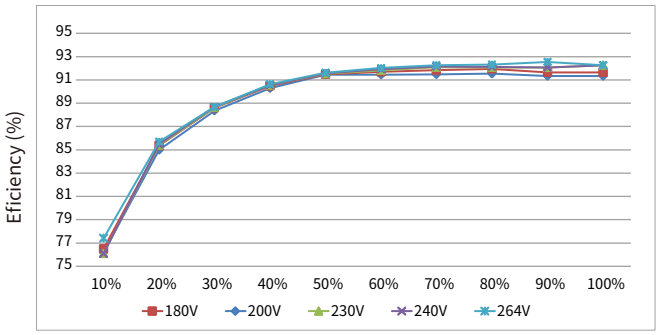
Displacement factor vs. Load



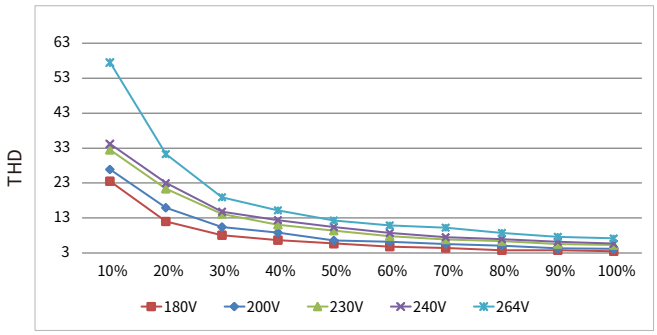
Electrical values

BK-HGV200-24V0

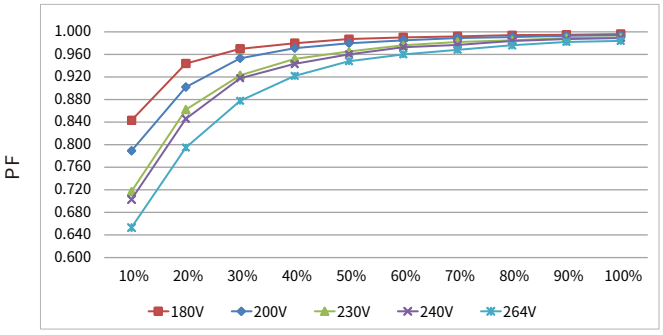
Efficiency vs load



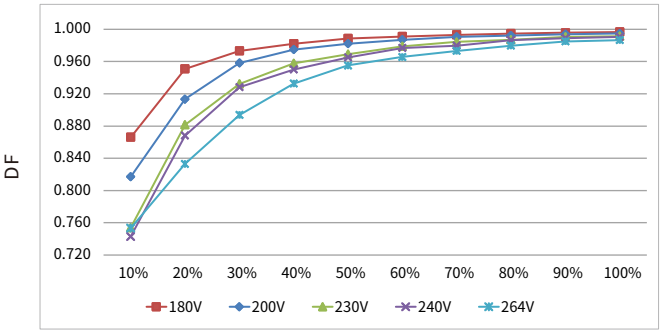
THD vs. Load



Power factor vs. Load

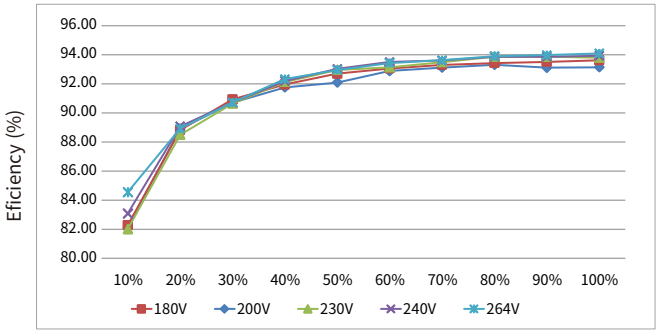


Displacement factor vs. Load

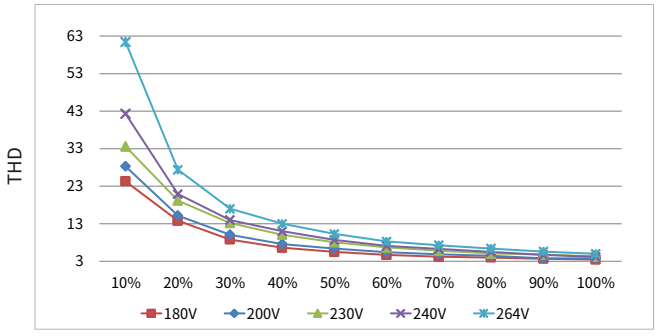


BK-HGV200-48V0

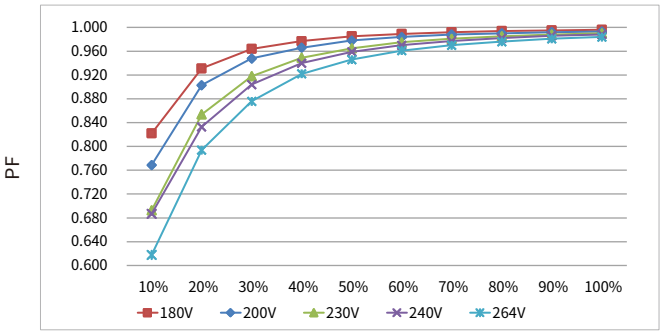
Efficiency vs load



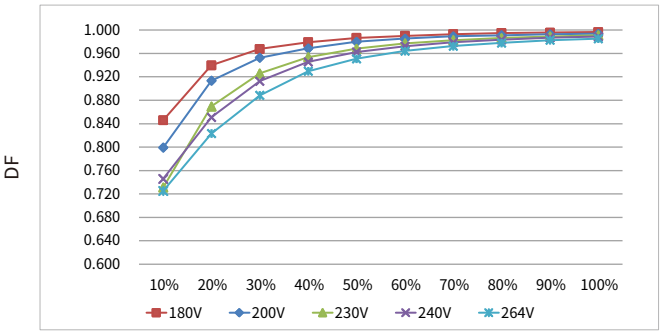
THD vs. Load



Power factor vs. Load



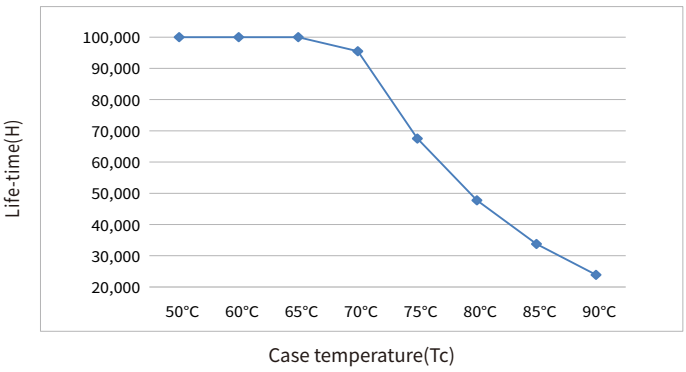
Displacement factor vs. Load



Expected life-time

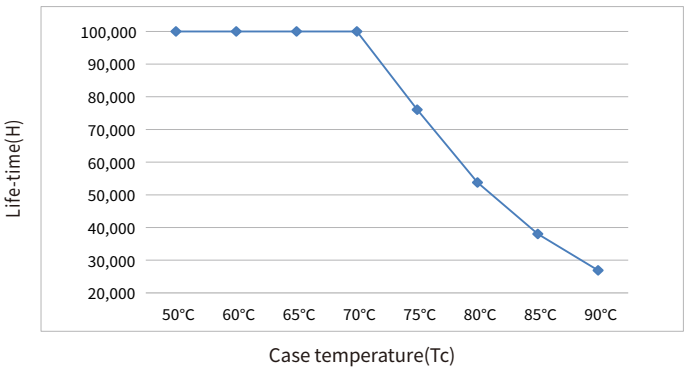
BK-HGV022-12V0

Life-time vs. case temperature



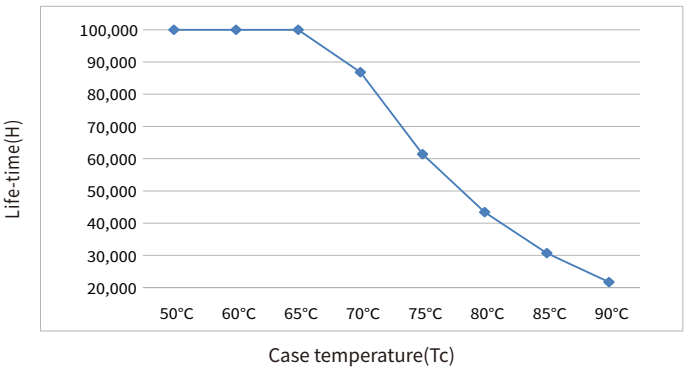
BK-HGV022-24V0

Life-time vs. case temperature



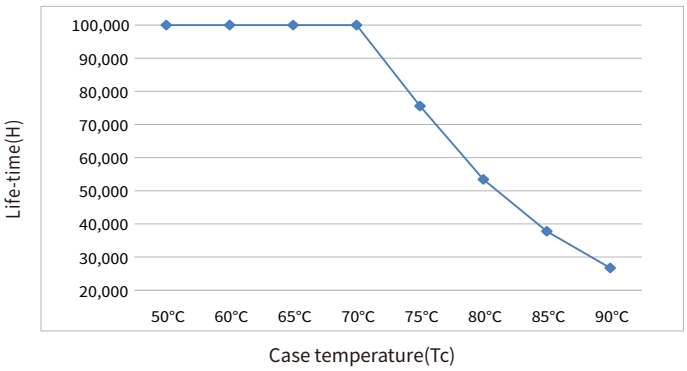
BK-HGV048-12V0

Life-time vs. case temperature



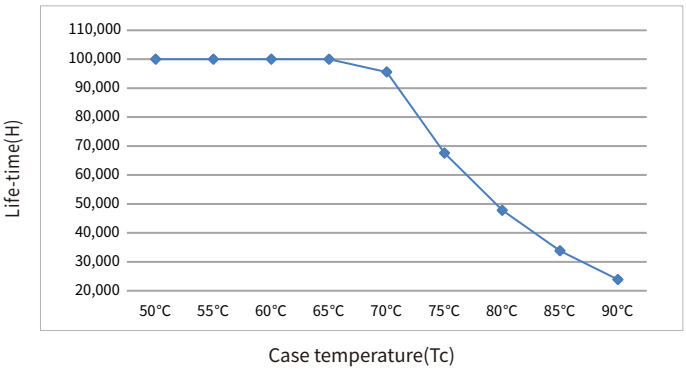
BK-HGV048-24V0

Life-time vs. case temperature



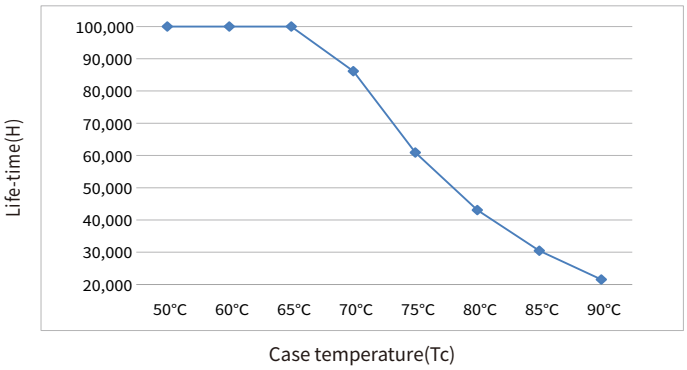
BK-HGV048-48V0

Life-time vs. case temperature



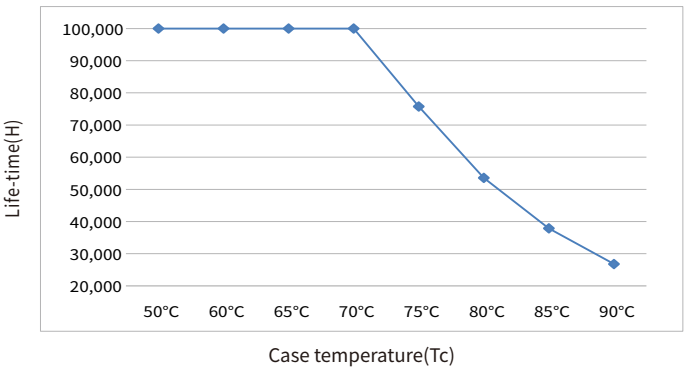
BK-HGV060-12V0

Life-time vs. case temperature



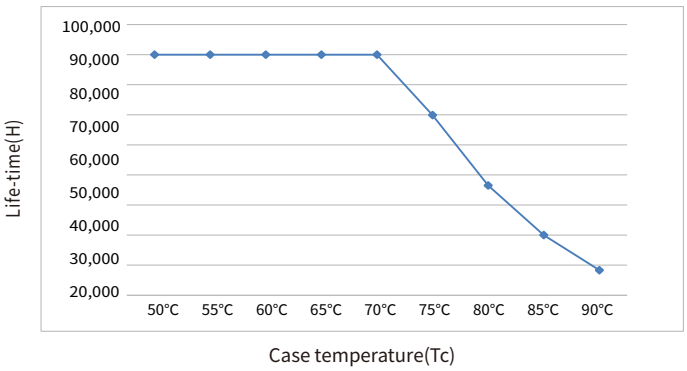
BK-HGV060-24V0

Life-time vs. case temperature



BK-HGV070-48V0

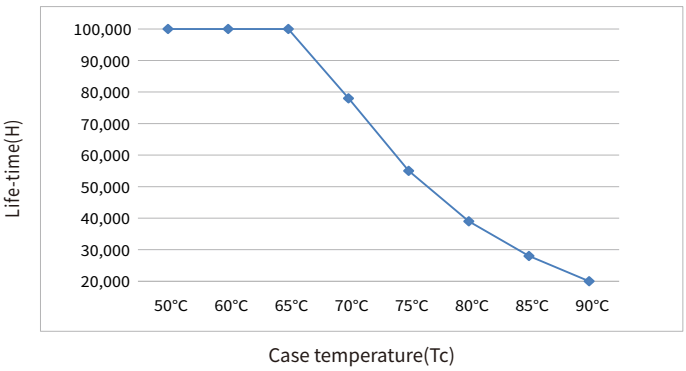
Life-time vs. case temperature



Expected life-time

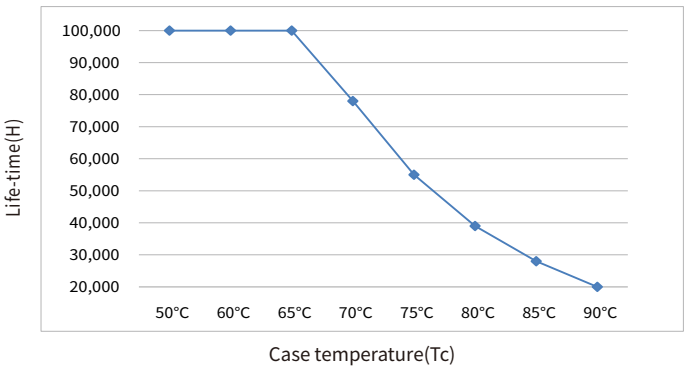
BK-HGV072-12V0

Life-time vs. case temperature



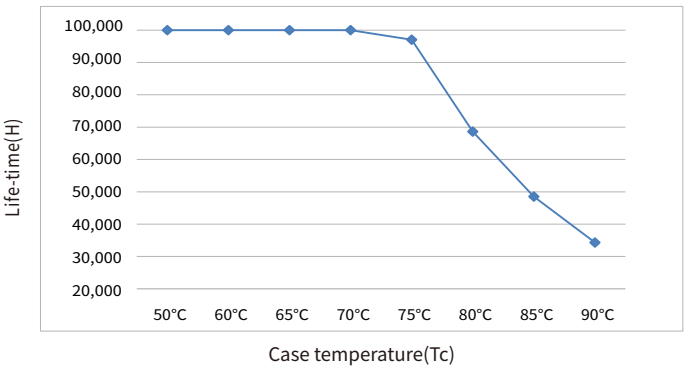
BK-HGV072-24V0

Life-time vs. case temperature



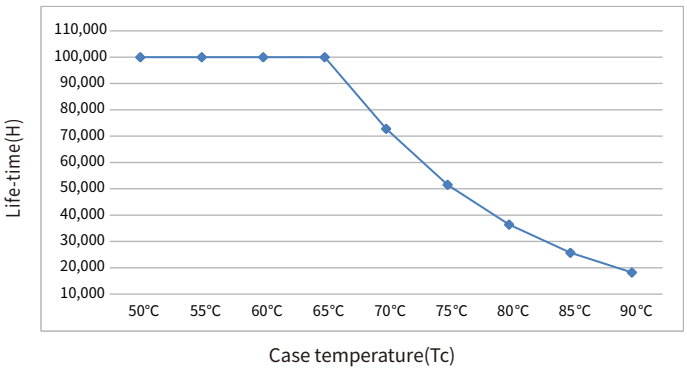
BK-HGV100-24V0

Life-time vs. case temperature



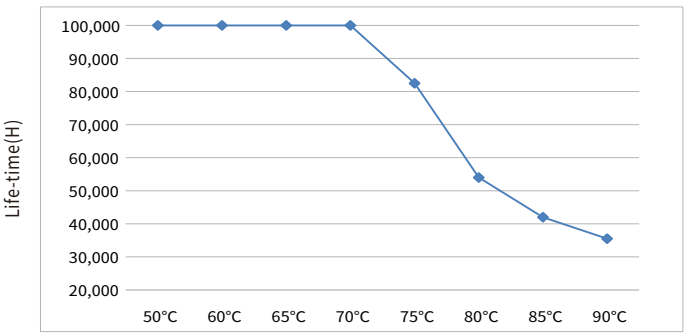
BK-HGV100-48V0

Life-time vs. case temperature



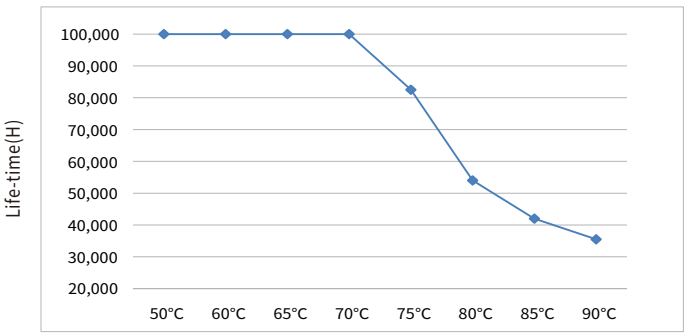
BK-HGV150-24V0

Life-time vs. case temperature



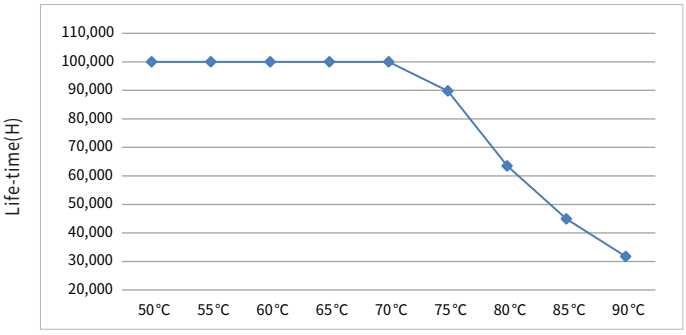
BK-HGV150-48V0

Life-time vs. case temperature



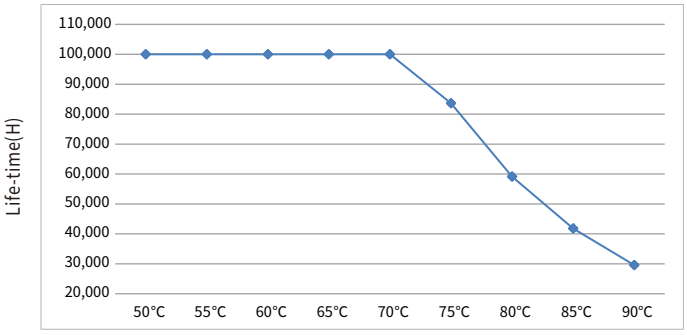
BK-HGV200-24V0

Life-time vs. case temperature



BK-HGV200-48V0

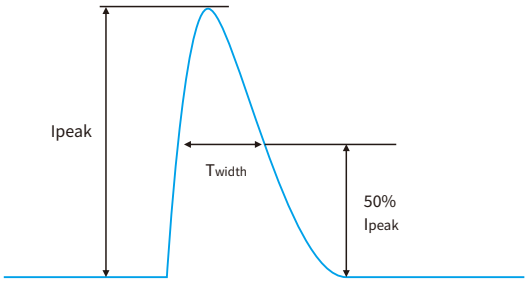
Life-time vs. case temperature



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

Surge

Model	Ipeak	Twidth	Condition	Relative number of MCB/pcs														
				B10	B13	B16	B20	B25	C10	C13	C16	C20	C25	D10	D13	D16	D20	D25
BK-HGV022	25.75A	300us	AC 230V,Full load, Cold start,Ta≤30°C, MCB is not installed side by side	7	10	12	15	18	12	16	20	24	31	24	32	39	49	61
BK-HGV048	27A	262us		8	10	13	16	13	17	17	21	26	33	26	34	42	52	65
BK-HGV060	30A	300us		6	8	10	13	16	11	14	17	21	26	21	27	34	42	53
BK-HGV070	34A	360us		5	6	7	9	12	8	10	12	15	19	15	20	25	31	39
BK-HGV072	40A	336us		4	5	7	8	11	7	9	11	14	18	14	18	22	28	35
BK-HGV100	46A	280us		4	6	7	9	11	7	10	12	15	18	14	19	23	29	36
BK-HGV150	72A	410us		2	2	3	4	5	3	4	5	6	8	6	8	10	13	16
BK-HGV200	65A	410us		2	3	3	4	5	4	5	6	7	9	7	9	11	14	18



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

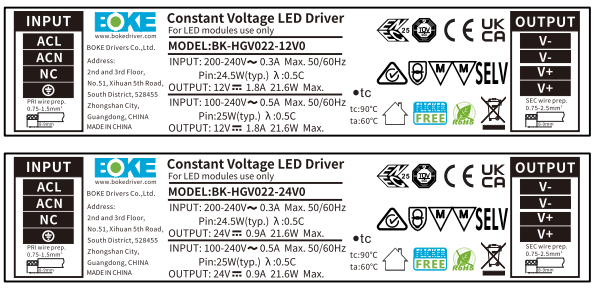
- When the load connected to the drive exceeds the rated power, the drive will enter a hiccup state. After reducing the load power, the drive will resume normal output.

Insulation between circuits

Isolation	Input	Output	Case
Input	-	Double	Basic
Output	Double	-	Basic
Case	Basic	Basic	-

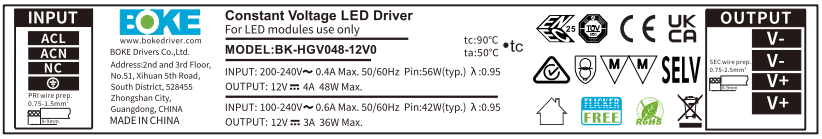
Label

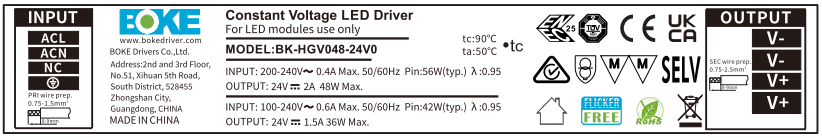
BK-HGV022

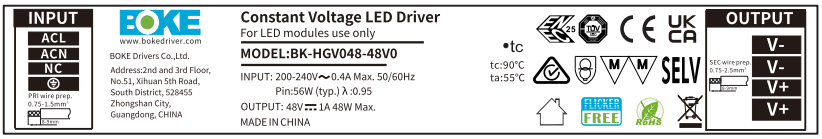


Label

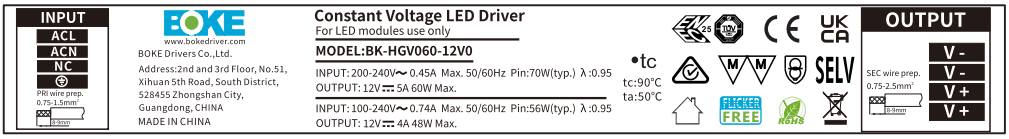
BK-HGV048

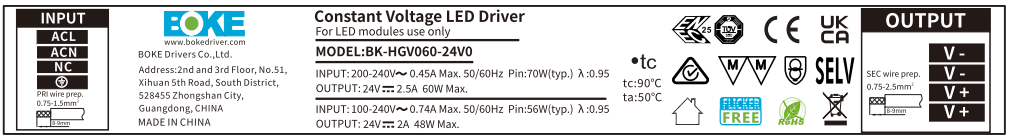




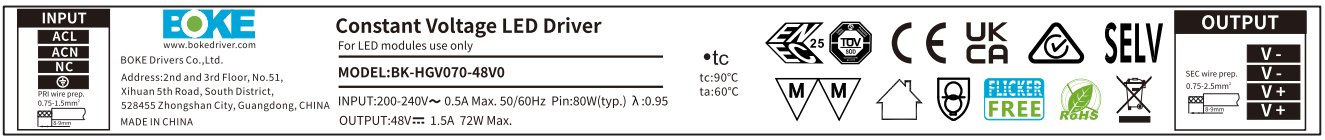


BK-HGV060

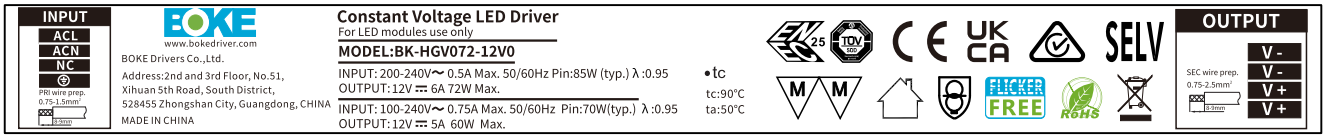


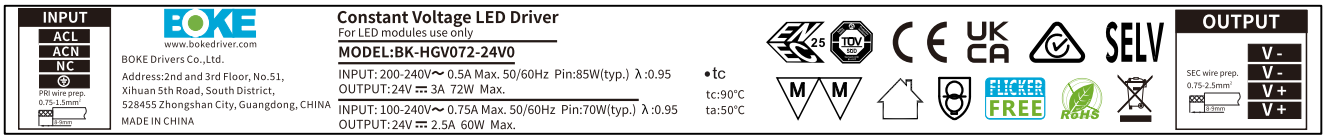


BK-HGV070

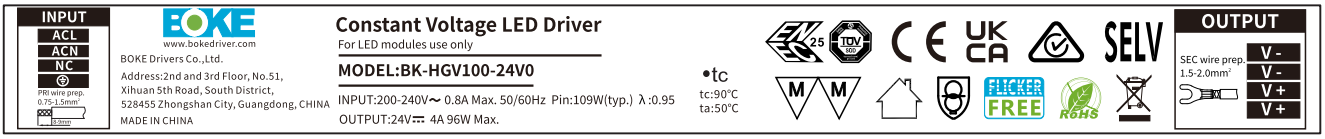


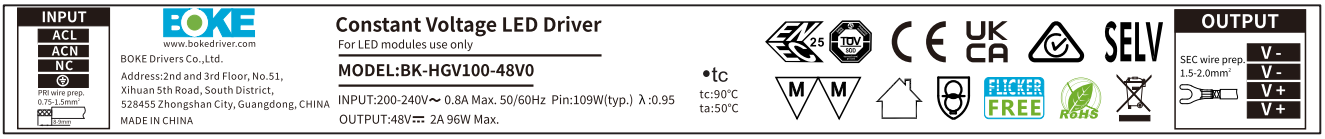
BK-HGV072

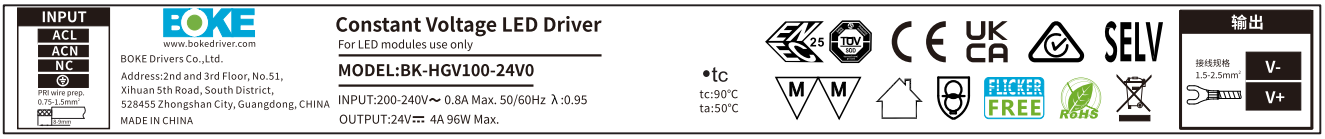


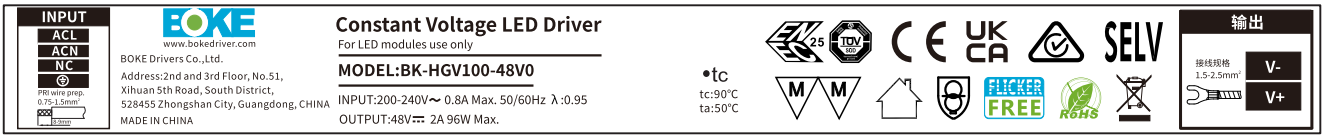


BK-HGV100



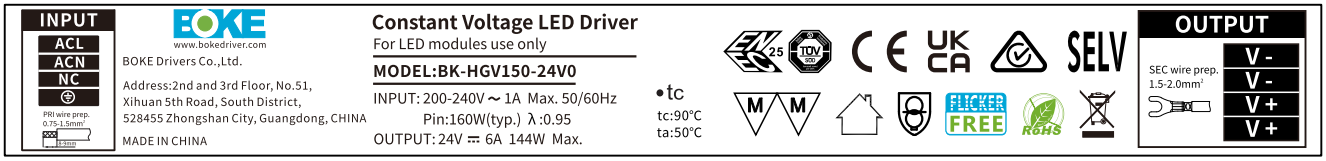


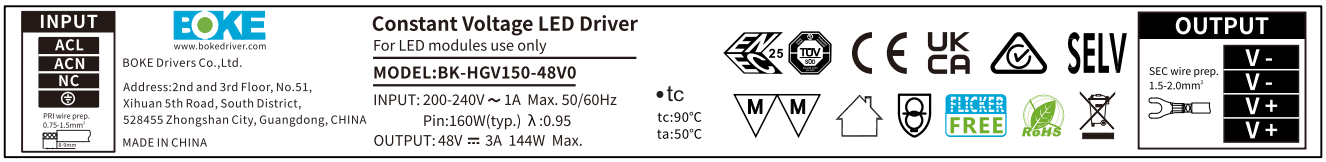


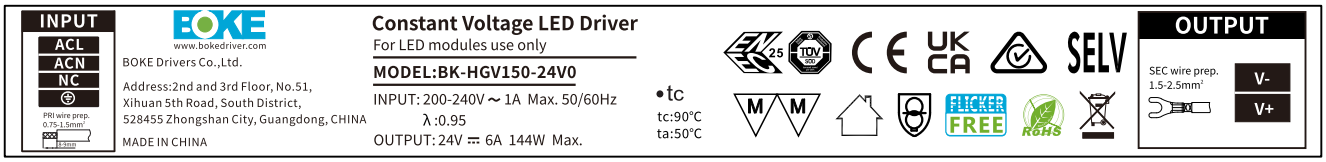


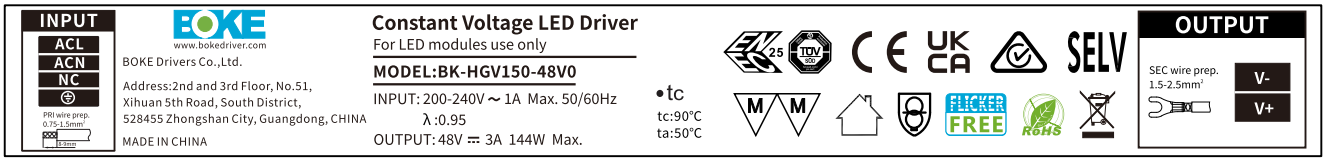
Label

BK-HGV150

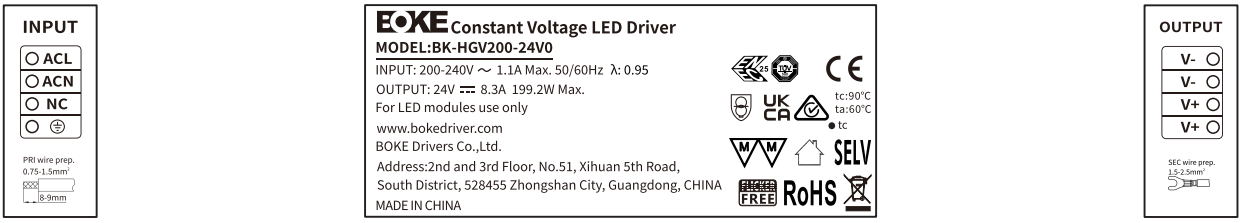




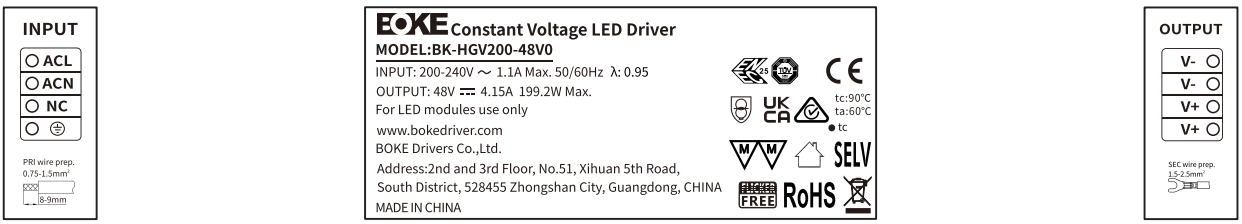




BK-HGV200

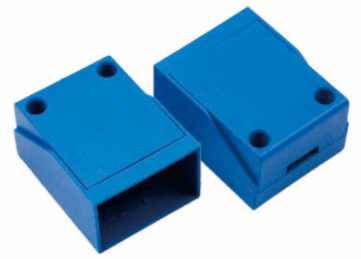


Laser engraving technology

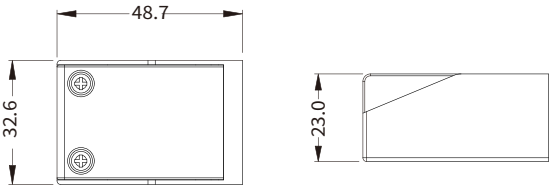


Laser engraving technology

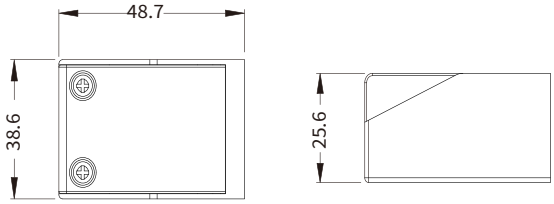
Optional accessories



(**Model:BK-BAS003A**)



(**Model:BK-BAS003B**)



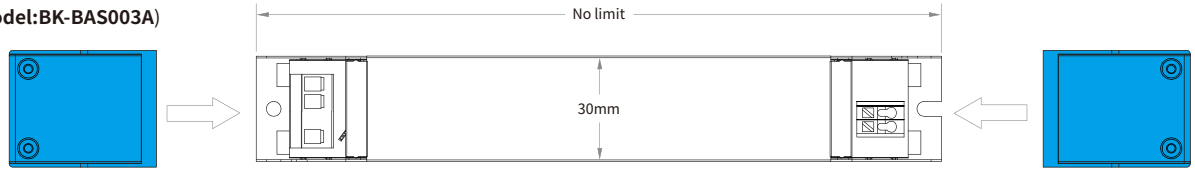
Unit:mm

Remark：BAS003A apply to HGV022/HGV048/HGV060/HGV072/HGV070/HGV100

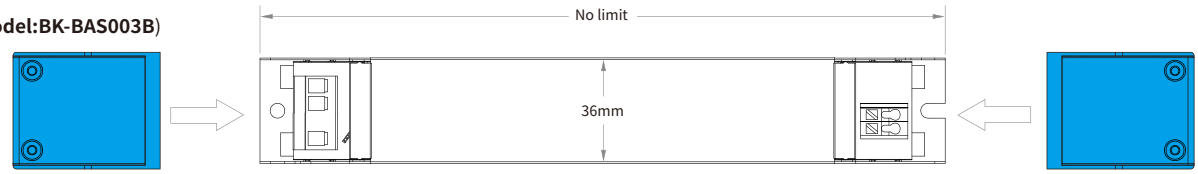
BAS003B apply to HGV150

Installation diagram of accessories

(**Model:BK-BAS003A**)

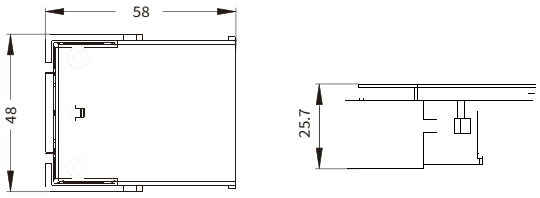


(**Model:BK-BAS003B**)



Optional accessories

(**Model:BAS008**)

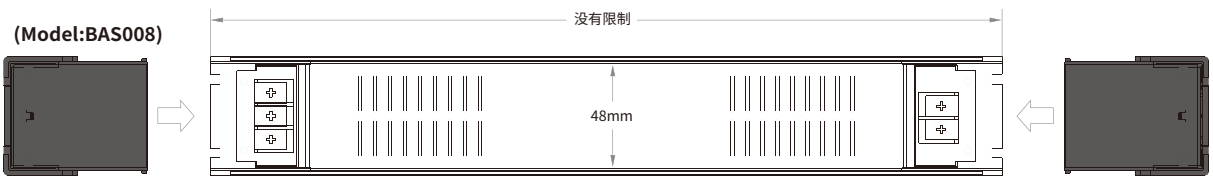


Remark: BAS008 apply to HGV200

Unit:mm

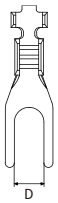
Installation diagram of accessories

(**Model:BAS008**)



Optional accessories

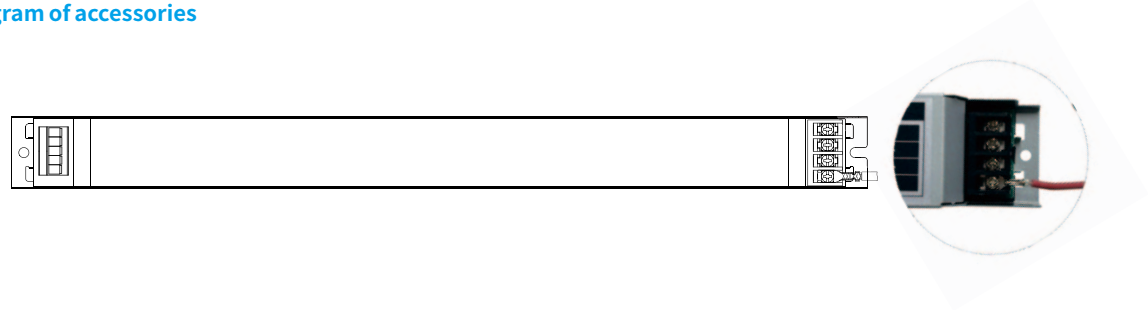
Unit:mm



Recommended size

Number	Bolt hole diameter(D)	Model
1	5mm	HGV100(4PIN)/HGV150(4PIN)
2	6.5mm	HGV100(2PIN)/HGV200
3	7.2mm	HGV150(2PIN)

Installation diagram of accessories

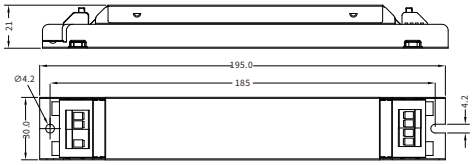


Mechanical Specification

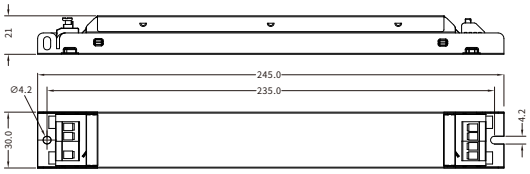
Size(Excluding accessories)

Unit:mm

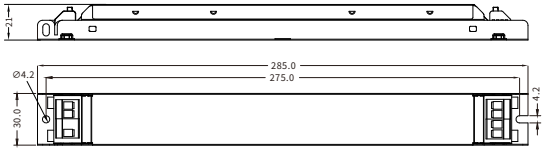
HGV022



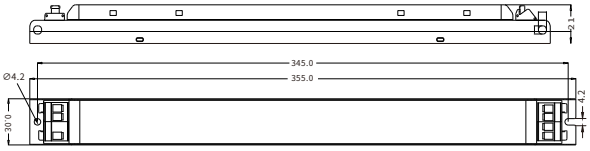
HGV048



HGV060



HGV070/HGV072

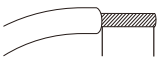


INPUT

Numbering	function	colour
1	ACL	orange
2	ACN	orange
3	NG	grey
4	FG	grey

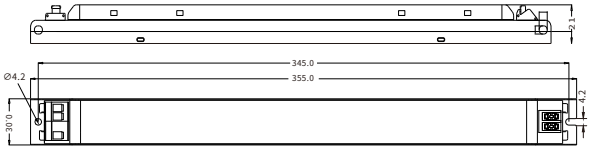
Input wire

0.75-1.5mm^2

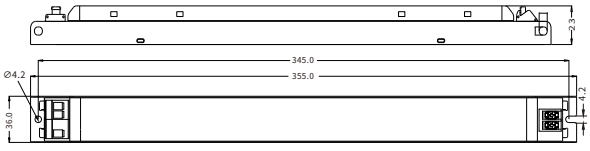


8-9mm

HGV100



HGV150

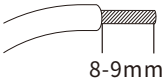


INPUT

Numbering	function	colour
1	ACL	orange
2	ACN	orange
3	NG	grey
4	FG	grey

Input wire

0.75-1.5mm^2



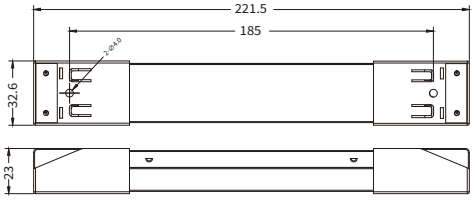
8-9mm

Mechanical Specification

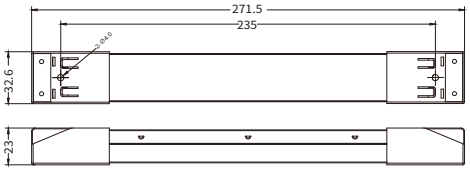
Size(Include accessories)

Unit:mm

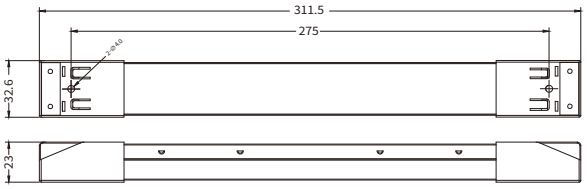
HGV022



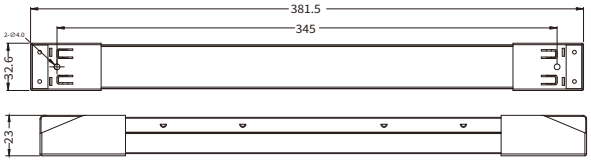
HGV048



HGV060



HGV070/HGV072

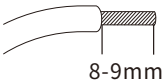


OUTPUT

Numbering	function	colour
1	V-	black
2	V-	black
3	V+	red
4	V+	red

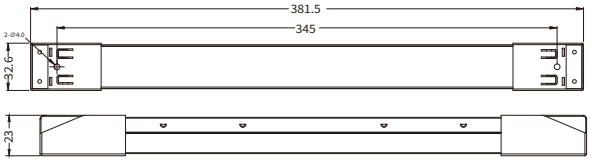
Output wire

0.75-2.5mm^2

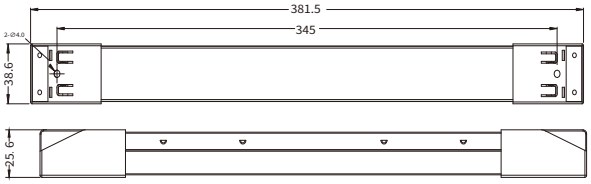


8-9mm

HGV100



HGV150



OUTPUT

Numbering	function
1	V-
2	V+

Output wire

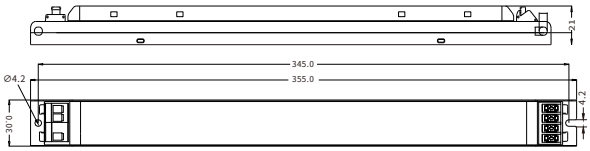
1.5-2.5mm^2

Mechanical Specification

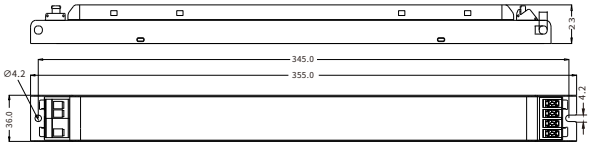
Size(Excluding accessories)

Unit:mm

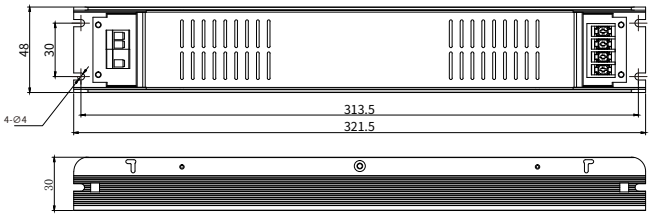
HGV100



HGV150



HGV200

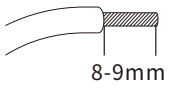


INPUT

Numbering	function	colour
1	ACL	orange
2	ACN	orange
3	NG	grey
4	FG	grey

Input wire

0.75-1.5mm²

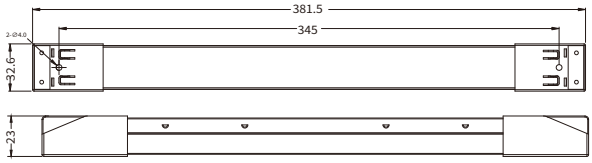


Mechanical Specification

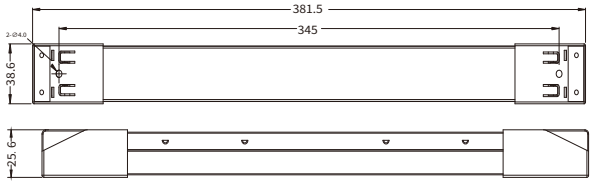
Size(Include accessories)

Unit:mm

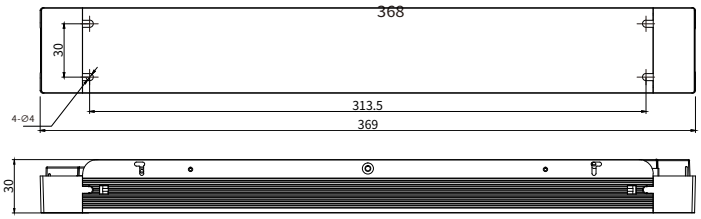
HGV100



HGV150



HGV200



OUTPUT

Numbering	function
1	V-
2	V-
3	V+
4	V+

Output wire

100/150W:1.5-2.0mm²

200W:1.5-2.5mm²

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

Mounting screw specifications and torque

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

Replace LED module

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

Installation requirements

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

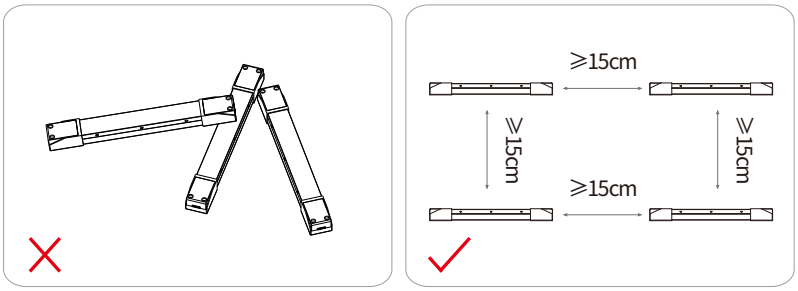


Figure 1

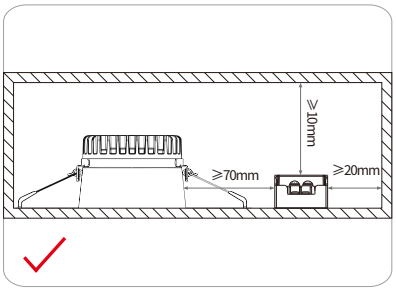
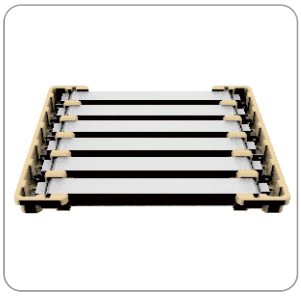


Figure 2

Packaging

Optional 1: factory default

Product



Pearl wool

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

Packaging(Excluding accessories)

Model	Product size	Weight	Pearl wool	Carton size	Qty/carton	N.W	G.W
HGV022	L195*W30*H21mm	130g	L340*W75*H29mm	L355*W235*H205mm	42pcs	5.46KG	6.86KG
HGV048	L245*W30*H21mm	181g	L340*W75*H29mm	L355*W285*H205mm	42pcs	7.60KG	9.90KG
HGV060	L285*W30*H21mm	220g	L340*W75*H29mm	L355*W325*H170mm	35pcs	7.70KG	8.90KG
HGV070	L355*W30*H21mm	383g	L340*W75*H29mm	L395*W355*H140mm	28pcs	10.7KG	11.9KG
HGV072	L355*W30*H21mm	303g	L340*W75*H29mm	L395*W355*H140mm	28pcs	8.48KG	9.68KG
HGV100	L355*W30*H21mm	293g	L340*W75*H29mm	L395*W355*H140mm	28pcs	8.21KG	9.41KG
HGV150	L355*W36*H23mm	414g	L340*W75*H33mm	L395*W355*H160mm	24pcs	9.94KG	11.2KG

Packaging(Include accessories)

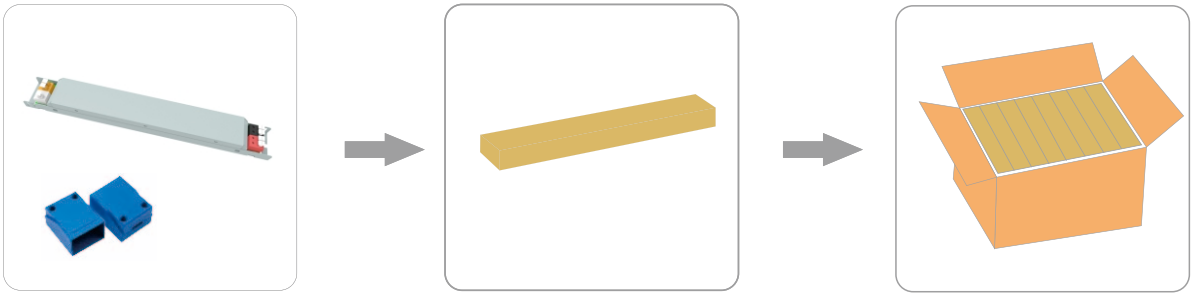
Model	Product size	Weight	Pearl wool	Carton size	Qty/carton	N.W	G.W
HGV022	L221.5*W32.6*H23mm	150g	L340*W75*H29mm	L355*W235*H205mm	42pcs	6.30KG	7.70KG
HGV048	L271.5*W32.6*H23mm	201g	L340*W75*H29mm	L355*W285*H205mm	42pcs	8.44KG	9.74KG
HGV060	L311.5*W32.6*H23mm	240g	L340*W75*H29mm	L355*W325*H140mm	35pcs	8.40KG	9.70KG
HGV070	L381.5*W32.6*H23mm	403g	L340*W75*H29mm	L395*W355*H140mm	28pcs	11.3KG	12.5KG
HGV072	L381.5*W32.6*H23mm	323g	L340*W75*H29mm	L395*W355*H140mm	28pcs	9.04KG	10.3KG
HGV100	L381.5*W32.6*H23mm	313g	L340*W75*H29mm	L395*W355*H140mm	28pcs	8.76KG	9.96KG
HGV150	L381.5*W38.6*H25.6mm	439g	L340*W75*H33mm	L395*W355*H160mm	24pcs	10.5KG	11.7KG

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.

Packaging

Optional 2:



Product

Packaging

12pcs*4layer=48pcs/CIN
11pcs*4layer=44pcs/CIN
7pcs*5layer=35pcs/CIN
9pcs*3layer=27pcs/CIN
4pcs*4layer=16pcs/CIN

Packaging(Excluding accessories)

Model	Product size	Weight	Packaging size	Carton size	Qty/carton	N.W	G.W
HGV022	L195*W30*H21mm	130g	L230*W40*H30mm	L280*W300*H180mm	48pcs	6.24KG	7.80KG
HGV048	L245*W30*H21mm	181g	L280*W40*H30mm	L345*W300*H175mm	44pcs	7.96KG	9.57KG
HGV060	L285*W30*H21mm	220g	L320*W40*H30mm	L345*W300*H175mm	35pcs	7.70KG	9.30KG
HGV070	L355*W30*H21mm	383g	L390*W40*H30mm	L410*W285*H155mm	27pcs	10.3KG	11.9KG
HGV072	L355*W30*H21mm	303g	L390*W40*H30mm	L410*W285*H155mm	27pcs	8.18KG	9.78KG
HGV100	L355*W30*H21mm	293g	L390*W40*H30mm	L410*W285*H155mm	27pcs	7.91KG	9.51KG
HGV150	L355*W36*H23mm	414g	L390*W43*H30mm	L410*W285*H155mm	27pcs	11.2KG	12.7KG
HGV200	L321.5*W48*H30mm	530g	L380*W54*H37mm	L400*W240*H165mm	16pcs	8.48kg	9.68kg

Packaging(Include accessories)

Model	Product size	Weight	Packaging size	Carton size	Qty/carton	N.W	G.W
HGV022	L221.5*W32.6*H23mm	150g	L230*W40*H30mm	L280*W300*H180mm	48pcs	7.20KG	8.80KG
HGV048	L271.5*W32.6*H23mm	201g	L280*W40*H30mm	L345*W300*H175mm	44pcs	8.85KG	10.4KG
HGV060	L311.5*W32.6*H23mm	240g	L320*W40*H30mm	L345*W300*H175mm	35pcs	8.40KG	10.0KG
HGV070	L381.5*W32.6*H23mm	403g	L390*W40*H30mm	L410*W285*H155mm	27pcs	10.9KG	12.5KG
HGV072	L381.5*W32.6*H23mm	323g	L390*W40*H30mm	L410*W285*H155mm	27pcs	8.72KG	10.3KG
HGV100	L381.5*W32.6*H23mm	313g	L390*W40*H30mm	L410*W285*H155mm	27pcs	8.45KG	10.1KG
HGV150	L381.5*W38.6*H25.6mm	439g	L390*W43*H30mm	L410*W285*H155mm	27pcs	11.9KG	13.5KG
HGV200	L369*W48*H30mm	570g	L380*W54*H37mm	L400*W240*H165mm	16pcs	9.12kg	10.33kg

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.