

Constant voltage linear driver
HGV(B) Series



Features

- Flicker-free output, which meets the requirement of ErP standard
- High PF, high efficiency, low THD
- SELV and Class I design, suitable for use inside of the luminaires
- Compliance with CE, ENEC, RCM, UKCA, CCC, EL and other certifications
- IP20 protection grade, indoor use
- Nominal life-time up to 100,000 h
- 5.5-year guarantee

Functions

- Support central emergency application (100% output in DC input)
- Support self-contained emergency application
- Protective features (short-circuit, overload protection)

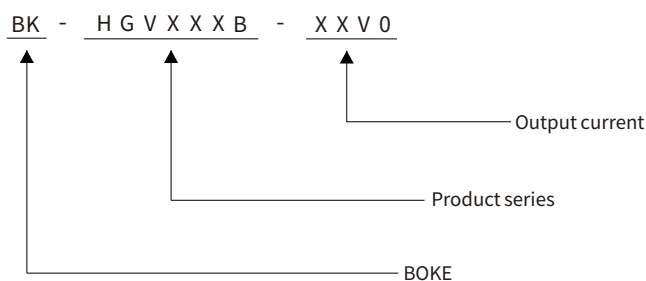
Suitable for lights

- 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 HGV(B) series



Model list

Model	Input voltage	Output power	Output voltage	Output current	Dimension
BK-HGV080B-48V0	200-240VAC/DC	80W MAX.	48VDC	1.75A	L305*W30*H21mm
BK-HGV100B-24V0	200-240VAC/DC	100W MAX.	24VDC	4.2A	L305*W30*H21mm
BK-HGV100B-48V0	200-240VAC/DC	100W MAX.	48VDC	2.1A	L305*W30*H21mm
BK-HGV120B-24V0	200-240VAC/DC	120W MAX.	24VDC	5A	L375*W30*H21mm
BK-HGV120B-48V0	200-240VAC/DC	120W MAX.	48VDC	2.5A	L375*W30*H21mm
BK-HGV150B-24V0	200-240VAC/DC	150W MAX.	24VDC	6.25A	L375*W30*H21mm
BK-HGV150B-48V0	200-240VAC/DC	150W MAX.	48VDC	3.12A	L375*W30*H21mm
BK-HGV200B-48V0	200-240VAC/DC	199.2W MAX.	48VDC	4.15A	L375*W36*H23mm
BK-HGV200B-56V0	200-240VAC/DC	201.6W MAX.	56VDC	3.6A	L375*W36*H23mm
BK-HGV250B-24V0	200-240VAC/DC	250W MAX.	24VDC	10.4A	L405*W36*H23mm
BK-HGV250B-48V0	200-240VAC/DC	250W MAX.	48VDC	5.2A	L405*W36*H23mm
BK-HGV250B-56V0	200-240VAC/DC	250W MAX.	56VDC	4.5A	L405*W36*H23mm

Technical data

Product model	BK-HGV080B-48V0
Output parameters	
Regulation method	Constant voltage
Rated output current range	1.75A
Rated output voltage range	48VDC
Rated output power	80W Max
Output voltage adjustment	Fixed output
Output voltage ripple(typ.)	≤500mA(100Hz)
Voltage accuracy	±5%
Linear regulation	±5%
Load regulation	±5%
Flicker-free(typ.)	Pst LM = 0.002, SVM = 0.003,(The above parameters are obtained by testing with constant voltage light strip)
Input parameters	
Rated input voltage range	200-240VAC 200-240VDC
Input voltage range	180-264VAC 180-240VDC
Input voltage shock	<380V AC
Input current	<0.6A (Rated input voltage)
Input frequency	0/50/60Hz
Input PF/Input DF(typ.)	PF: 0.99,DF:0.99 , see the electrical values below for details
Input THD(typ.)	5% , see the electrical values below for details
Efficiency(typ.)	91% , see the electrical values below for details
In-rush current(typ.)	17.95A 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	> 100,000 switching cycles
Power consumption(typ.)	Full load(Pin):87.9W, 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(90°/270° , 5 times each with an interval of 60s)(Performance criterion:A)
Leakage current(typ.)	0.39mA
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70%RH
Control interface	
DALI dimming port	N/A
pushDIM dimming port	N/A
XDIM 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=-25-50°C
Case temperature	Tc=90°C
Operating humidity	5-85% RH, non-condensing
Storage temp./humidity	-40-80°C, 5-85% RH, non-condensing
IP grade	IP20
MTBF	500,000H,MIL-HDBK-217F(25°C)
Life-time	Nominal life-time up to 100,000 h, see the description below for details
Vibration resistant	10~500Hz,5G 12min./1cycle,period for 72min. each along X,Y,Z axes
Acoustic Noise	<25dB(30cm, Normal operation)
Environmental protection	RoHS
Certifications and standards	
Compliance certification	CE, ENEC, RCM,UKCA,CCC, EL
Safety	GB/T 19510.1,GB/T 19510.213, EN61347-1, EN61347-2-13, EN62384
EMC	GB/T 17743, GB17625.1, EN55015, EN61000-3-2, EN61000-3-3, EN61000-4-2,3,4,5,6,8,11, EN61547
DALI-2	N/A
EL	Compatible IEC 61347-2- 13 Annex J, compatible with EN 60598-2-22 and EN 50172
RF	N/A

Technical data

Product model	BK-HGV100B-24V0		BK-HGV100B-48V0
Output parameters			
Regulation method	Constant voltage		
Rated output current range	4.2A	2.1A	
Rated output voltage range	24VDC	48VDC	
Rated output power	100W Max		
Output voltage adjustment	Fixed output		
Output voltage ripple(typ.)	≤350mA(100Hz)	≤500mA(100Hz)	
Voltage accuracy	±5%		
Linear regulation	±5%		
Load regulation	±5%		
Flicker-free(typ.)	Pst LM = 0.009, SVM = 0.014,(The above parameters are obtained by testing with constant voltage light strip)		
Input parameters			
Rated input voltage range	200-240VAC 200-240VDC		
Input voltage range	180-264VAC 180-240VDC		
Input votage shock	<380 V AC		
Input current	<0.8A (Rated input voltage)		
Input frequency	0/50/60Hz		
Input PF/Input DF(typ.)	PF: 0.99,DF:0.99 , see the electrical values below for details		
Input THD(typ.)	5% , see the electrical values below for details		
Efficiency(typ.)	92.5% , see the electrical values below for details		
In-rush current(typ.)	28.75A peak ,308us 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	> 100,000 switching cycles		
Power consumption(typ.)	Full load(Pin):108.1W, 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(90°/270° , 5 times each with an interval of 60s)(Performance criterion:B)		
Leakage current(typ.)	0.38mA		
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70%RH		
Control interface			
DALI dimming port	N/A		
pushDIM dimming port	N/A		
XDIM 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=-25-50°C		
Case temperature	Tc=90°C		
Operating humidity	5-85% RH, non-condensing		
Storage temp./humidity	-40-80°C, 5-85% RH, non-condensing		
IP grade	IP20		
MTBF	500,000H,MIL-HDBK-217F(25°C)		
Life-time	Nominal life-time up to 100,000 h, see the description below for details		
Vibration resistant	10~500Hz,5G 12min./1cycle,period for 72min. each along X,Y,Z axes		
Acoustic Noise	<25dB(30cm, Normal operation)		
Environmental protection	RoHS		
Certifications and standards			
Compliance certification	CE, ENEC, RCM,UKCA,CCC, EL		
Safety	GB/T 19510.1,GB/T 19510.213, EN61347-1, EN61347-2-13, EN62384		
EMC	GB/T 17743 , GB17625.1, EN55015, EN61000-3-2 , EN61000-3-3, EN61000-4-2,3,4,5,6,8,11, EN61547		
DALI-2	N/A		
EL	Compatible IEC 61347-2- 13 Annex J, compatible with EN 60598-2-22 and EN 50172		
RF	N/A		

Technical data

Product model	BK-HGV120B-24V0	BK-HGV120B-48V0
Output parameters		
Regulation method	Constant voltage	
Rated output current range	5A	2.5A
Rated output voltage range	24VDC	48VDC
Rated output power	120W Max	
Output voltage adjustment	Fixed output	
Output voltage ripple(typ.)	≤350mA(100Hz)	≤500mA(100Hz)
Voltage accuracy	±5%	
Linear regulation	±5%	
Load regulation	±5%	
Flicker-free(typ.)	Pst LM = 0.000, SVM = 0.014,(The above parameters are obtained by testing with constant voltage light strip)	
Input parameters		
Rated input voltage range	200-240VAC 200-240VDC	
Input voltage range	180-264VAC 180-240VDC	
Input votage shock	<380 V AC	
Input current	<0.85A (Rated input voltage)	
Input frequency	0/50/60Hz	
Input PF/Input DF(typ.)	PF: 0.99,DF:0.99 , see the electrical values below for details	
Input THD(typ.)	5% , see the electrical values below for details	
Efficiency(typ.)	93% , see the electrical values below for details	
In-rush current(typ.)	39A peak ,358us 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	> 100,000 switching cycles	
Power consumption(typ.)	Full load(Pin):129W, 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(90°/270°, 5 times each with an interval of 60s)(Performance criterion:B)	
Leakage current(typ.)	0.31mA	
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70%RH	
Control interface		
DALI dimming port	N/A	
pushDIM dimming port	N/A	
XDIM 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=-.25-50°C	
Case temperature	Tc=90°C	
Operating humidity	5-85% RH, non-condensing	
Storage temp./humidity	-40-80°C, 5-85% RH, non-condensing	
IP grade	IP20	
MTBF	500,000H,MIL-HDBK-217F(25°C)	
Life-time	Nominal life-time up to 100,000 h, see the description below for details	
Vibration resistant	10~500Hz,5G 12min./1cycle,period for 72min. each along X,Y,Z axes	
Acoustic Noise	<25dB(30cm, Normal operation)	
Environmental protection	RoHS	
Certifications and standards		
Compliance certification	CE, ENEC, RCM,UKCA,CCC, EL	
Safety	GB/T 19510.1,GB/T 19510.213, EN61347-1, EN61347-2-13, EN62384	
EMC	GB/T 17743 , GB17625.1, EN55015, EN61000-3-2 , EN61000-3-3, EN61000-4-2,3,4,5,6,8,11, EN61547	
DALI-2	N/A	
EL	Compatible IEC 61347-2- 13 Annex J, compatible with EN 60598-2-22 and EN 50172	
RF	N/A	

Technical data

Product model	BK-HGV150B-24V0		BK-HGV150B-48V0
Output parameters			
Regulation method	Constant voltage		
Rated output current range	6.25A	3.12A	
Rated output voltage range	24VDC	48VDC	
Rated output power	150W Max		
Output voltage adjustment	Fixed output		
Output voltage ripple(typ.)	≤350mA(100Hz)	≤500mA(100Hz)	
Voltage accuracy	±5%		
Linear regulation	±5%		
Load regulation	±5%		
Flicker-free(typ.)	Pst LM = 0.032, SVM = 0.019,(The above parameters are obtained by testing with constant voltage light strip)		
Input parameters			
Rated input voltage range	200-240VAC 200-240VDC		
Input voltage range	180-264VAC 180-240VDC		
Input votage shock	<380 V AC		
Input current	<1A (Rated input voltage)		
Input frequency	0/50/60Hz		
Input PF/Input DF(typ.)	PF: 0.99,DF:0.99 , see the electrical values below for details		
Input THD(typ.)	5% , see the electrical values below for details		
Efficiency(typ.)	93.5% , see the electrical values below for details		
In-rush current(typ.)	46.5A peak ,318us 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	> 100,000 switching cycles		
Power consumption(typ.)	Full load(Pin):160.4W, 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(90°/270° , 5 times each with an interval of 60s)(Performance criterion:B)		
Leakage current(typ.)	0.36mA		
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70%RH		
Control interface			
DALI dimming port	N/A		
pushDIM dimming port	N/A		
XDIM 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=-25-50°C		
Case temperature	Tc=90°C		
Operating humidity	5-85% RH, non-condensing		
Storage temp./humidity	-40-80°C, 5-85% RH, non-condensing		
IP grade	IP20		
MTBF	500,000H,MIL-HDBK-217F(25°C)		
Life-time	Nominal life-time up to 100,000 h, see the description below for details		
Vibration resistant	10~500Hz,5G 12min./1cycle,period for 72min. each along X,Y,Z axes		
Acoustic Noise	<25dB(30cm, Normal operation)		
Environmental protection	RoHS		
Certifications and standards			
Compliance certification	CE, ENEC, RCM,UKCA,CCC, EL		
Safety	GB/T 19510.1,GB/T 19510.213, EN61347-1, EN61347-2-13, EN62384		
EMC	GB/T 17743 , GB17625.1, EN55015, EN61000-3-2 , EN61000-3-3, EN61000-4-2,3,4,5,6,8,11, EN61547		
DALI-2	N/A		
EL	Compatible IEC 61347-2- 13 Annex J, compatible with EN 60598-2-22 and EN 50172		
RF	N/A		

Technical data

Product model	BK-HGV200B-48V0	BK-HGV200B-56V0
Output parameters		
Regulation method	Constant voltage	
Rated output current range	4.15A	3.6A
Rated output voltage range	48VDC	56VDC
Rated output power	199.2W Max	201.6W Max
Output voltage adjustment	Fixed output	
Output voltage ripple(typ.)	≤500mA(100Hz)	≤560mA(100Hz)
Voltage accuracy	±5%	
Linear regulation	±5%	
Load regulation	±5%	
Flicker-free(typ.)	Pst LM = 0.016, SVM = 0.012,(The above parameters are obtained by testing with constant voltage light strip)	
Input parameters		
Rated input voltage range	200-240VAC 200-240VDC	
Input voltage range	180-264VAC 180-240VDC	
Input votage shock	<380 V AC	
Input current	<1.25A (Rated input voltage)	
Input frequency	0/50/60Hz	
Input PF/Input DF(typ.)	PF: 0.99,DF:0.99 , see the electrical values below for details	
Input THD(typ.)	5.5% , see the electrical values below for details	
Efficiency(typ.)	94% , see the electrical values below for details	
In-rush current(typ.)	76.25A peak ,392us 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	> 100,000 switching cycles	
Power consumption(typ.)	Full load(Pin):214.5W, 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(90°/270°, 5 times each with an interval of 60s)(Performance criterion:B)	
Leakage current(typ.)	0.48mA	
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70%RH	
Control interface		
DALI dimming port	N/A	
pushDIM dimming port	N/A	
XDIM 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=-25-50°C	
Case temperature	Tc=90°C	
Operating humidity	5-85% RH, non-condensing	
Storage temp./humidity	-40-80°C, 5-85% RH, non-condensing	
IP grade	IP20	
MTBF	500,000H,MIL-HDBK-217F(25°C)	
Life-time	Nominal life-time up to 100,000 h, see the description below for details	
Vibration resistant	10~500Hz,5G 12min./1cycle,period for 72min. each along X,Y,Z axes	
Acoustic Noise	<25dB(30cm, Normal operation)	
Environmental protection	RoHS	
Certifications and standards		
Compliance certification	CE, ENEC, RCM,UKCA,CCC, EL	
Safety	GB/T 19510.1,GB/T 19510.213, EN61347-1, EN61347-2-13, EN62384	
EMC	GB/T 17743 , GB17625.1, EN55015, EN61000-3-2 , EN61000-3-3, EN61000-4-2,3,4,5,6,8,11, EN61547	
DALI-2	N/A	
EL	Compatible IEC 61347-2- 13 Annex J, compatible with EN 60598-2-22 and EN 50172	
RF	N/A	

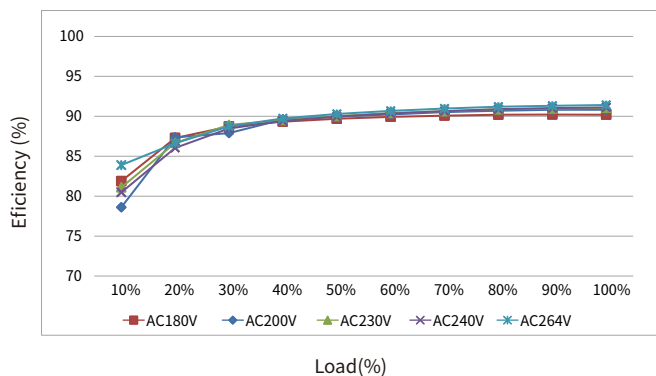
Technical data

Product model	BK-HGV250B-24V0		BK-HGV250B-48V0	BK-HGV250B-56V0
Output parameters				
Regulation method	Constant voltage			
Rated output current range	10.4A	5.2A	4.5A	
Rated output voltage range	24VDC	48VDC	56VDC	
Rated output power	250W Max			
Output voltage adjustment	Fixed output			
Output voltage ripple(typ.)	≤350mA(100Hz)	≤500mA(100Hz)	≤560mV(100Hz)	
Voltage accuracy	±5%			
Linear regulation	±5%			
Load regulation	±5%			
Flicker-free(typ.)	Pst LM = 0.014, SVM = 0.015,(The above parameters are obtained by testing with constant voltage light strip)			
Input parameters				
Rated input voltage range	200-240VAC 200-240VDC			
Input voltage range	180-264VAC 180-240VDC			
Input votage shock	<380 V AC			
Input current	<1.8A (Rated input voltage)			
Input frequency	0/50/60Hz			
Input PF/Input DF(typ.)	PF: 0.99,DF:0.99 , see the electrical values below for details			
Input THD(typ.)	5% , see the electrical values below for details			
Efficiency(typ.)	93% , see the electrical values below for details			
In-rush current(typ.)	81A peak ,460us 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	> 100,000 switching cycles			
Power consumption(typ.)	Full load(Pin):268.8W, 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(90°/270°, 5 times each with an interval of 60s)(Performance criterion:B)			
Leakage current(typ.)	0.25mA			
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70%RH			
Control interface				
DALI dimming port	N/A			
pushDIM dimming port	N/A			
XDIM 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=-.25-50°C			
Case temperature	Tc=90°C			
Operating humidity	5-85% RH, non-condensing			
Storage temp./humidity	-40-80°C, 5-85% RH, non-condensing			
IP grade	IP20			
MTBF	500,000H,MIL-HDBK-217F(25°C)			
Life-time	Nominal life-time up to 100,000 h, see the description below for details			
Vibration resistant	10~500Hz,5G 12min./1cycle,period for 72min. each along X,Y,Z axes			
Acoustic Noise	<25dB(30cm, Normal operation)			
Environmental protection	RoHS			
Certifications and standards				
Compliance certification	CE, ENEC, RCM,UKCA,CCC, EL			
Safety	GB/T 19510.1,GB/T 19510.213, EN61347-1, EN61347-2-13, EN62384			
EMC	GB/T 17743 , GB17625.1, EN55015, EN61000-3-2 , EN61000-3-3, EN61000-4-2,3,4,5,6,8,11, EN61547			
DALI-2	N/A			
EL	Compatible IEC 61347-2- 13 Annex J, compatible with EN 60598-2-22 and EN 50172			
RF	N/A			

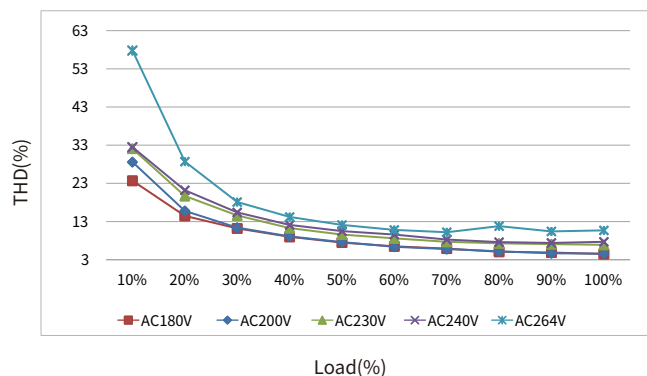
Electrical values

BK-HGV080B-48V0

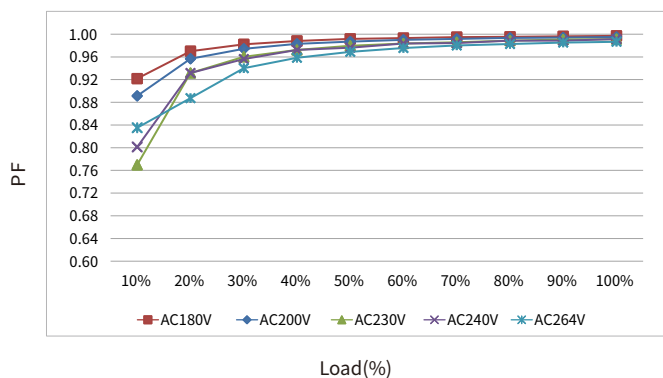
Efficiency vs load



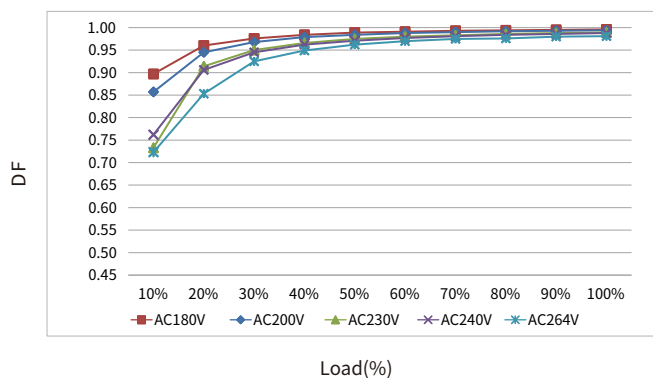
THD vs. Load



Power factor vs. Load

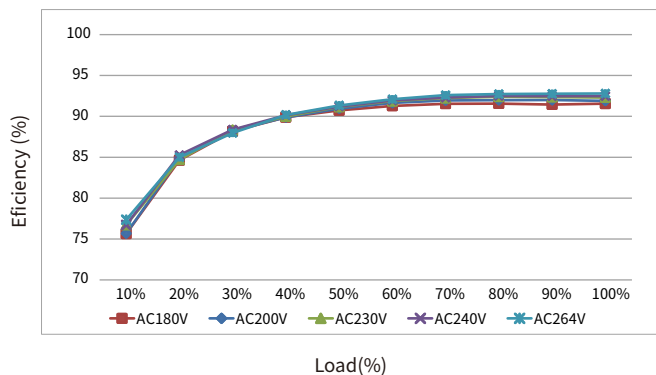


Displacement factor vs. Load

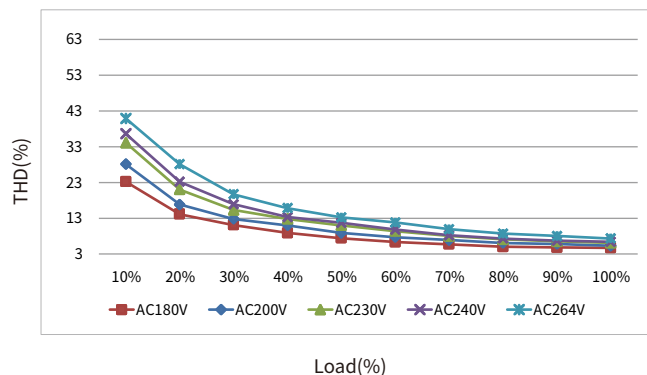


BK-HGV100B-24V0

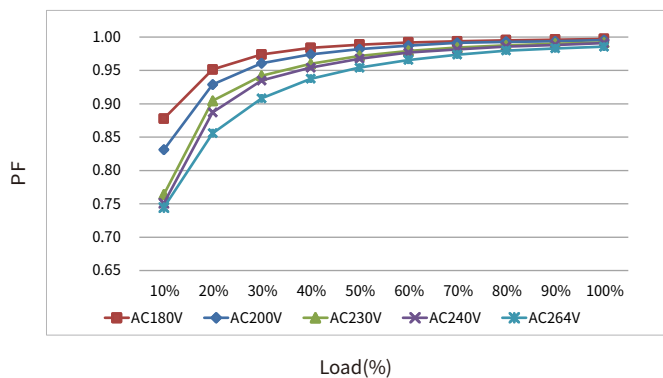
Efficiency vs load



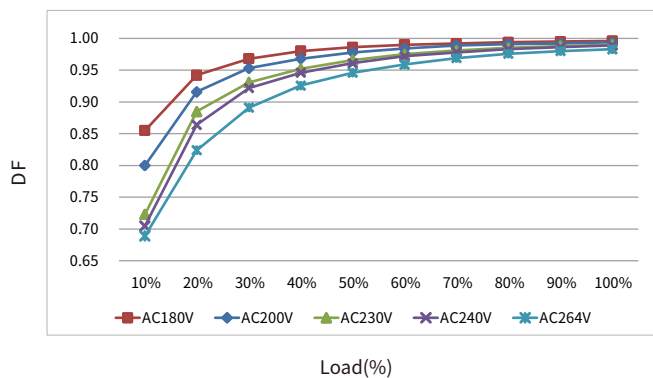
THD vs. Load



Power factor vs. Load



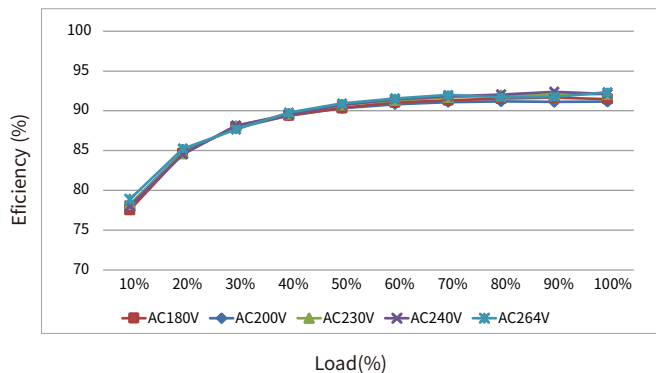
Displacement factor vs. Load



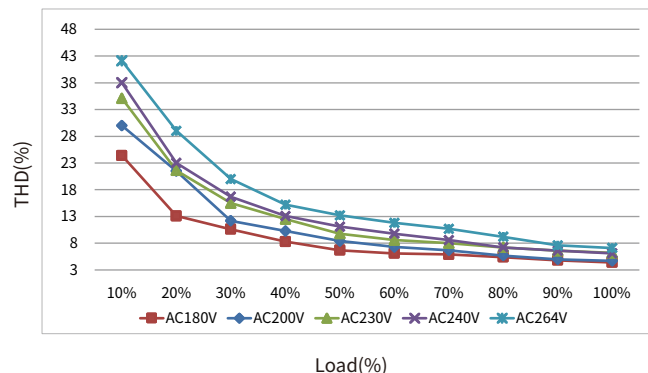
Electrical values

BK-HGV100B-48V0

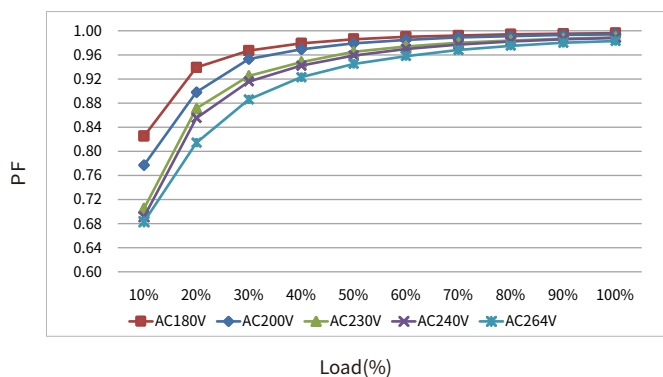
Efficiency vs load



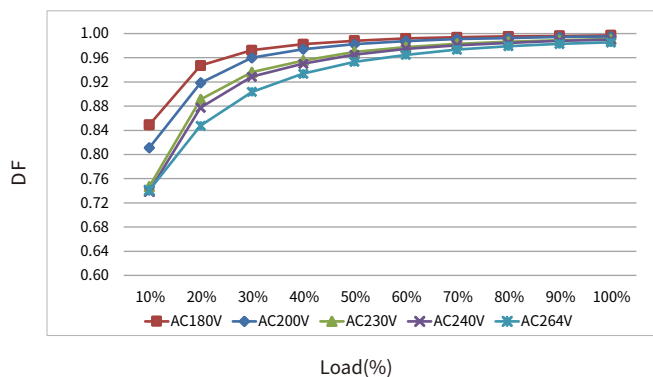
THD vs. Load



Power factor vs. Load

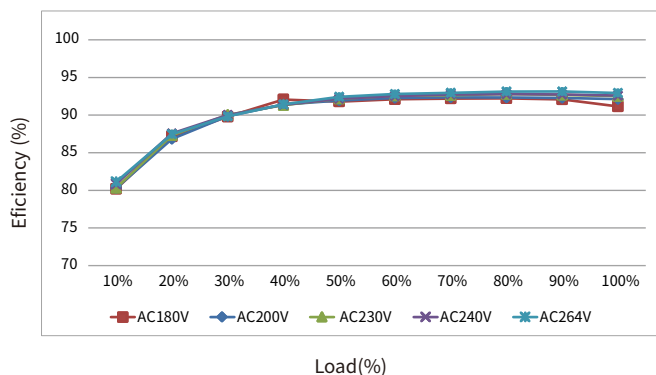


Displacement factor vs. Load

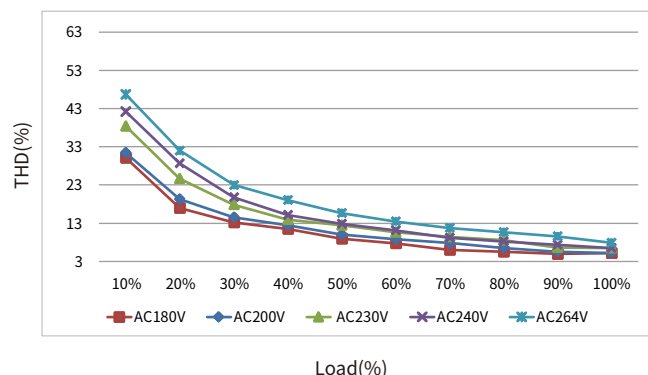


BK-HGV120B-24V0

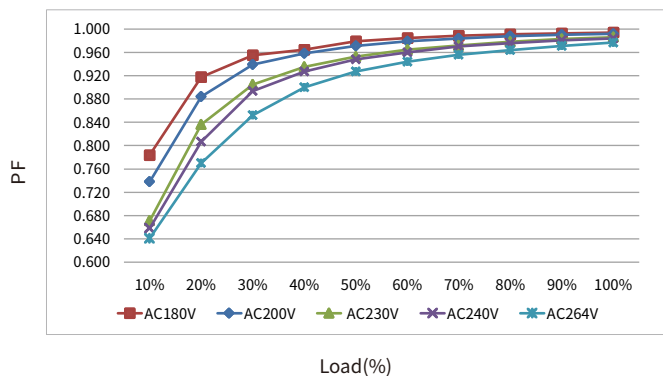
Efficiency vs load



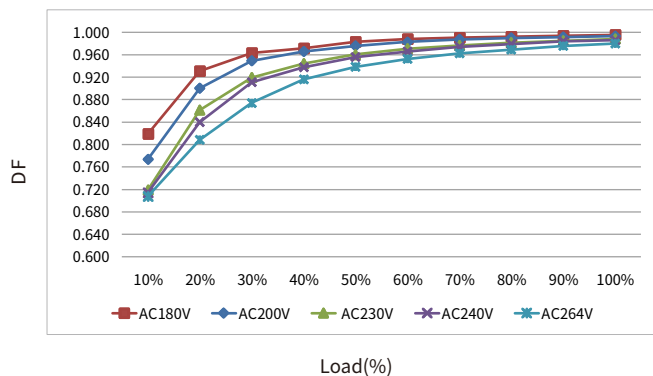
THD vs. Load



Power factor vs. Load

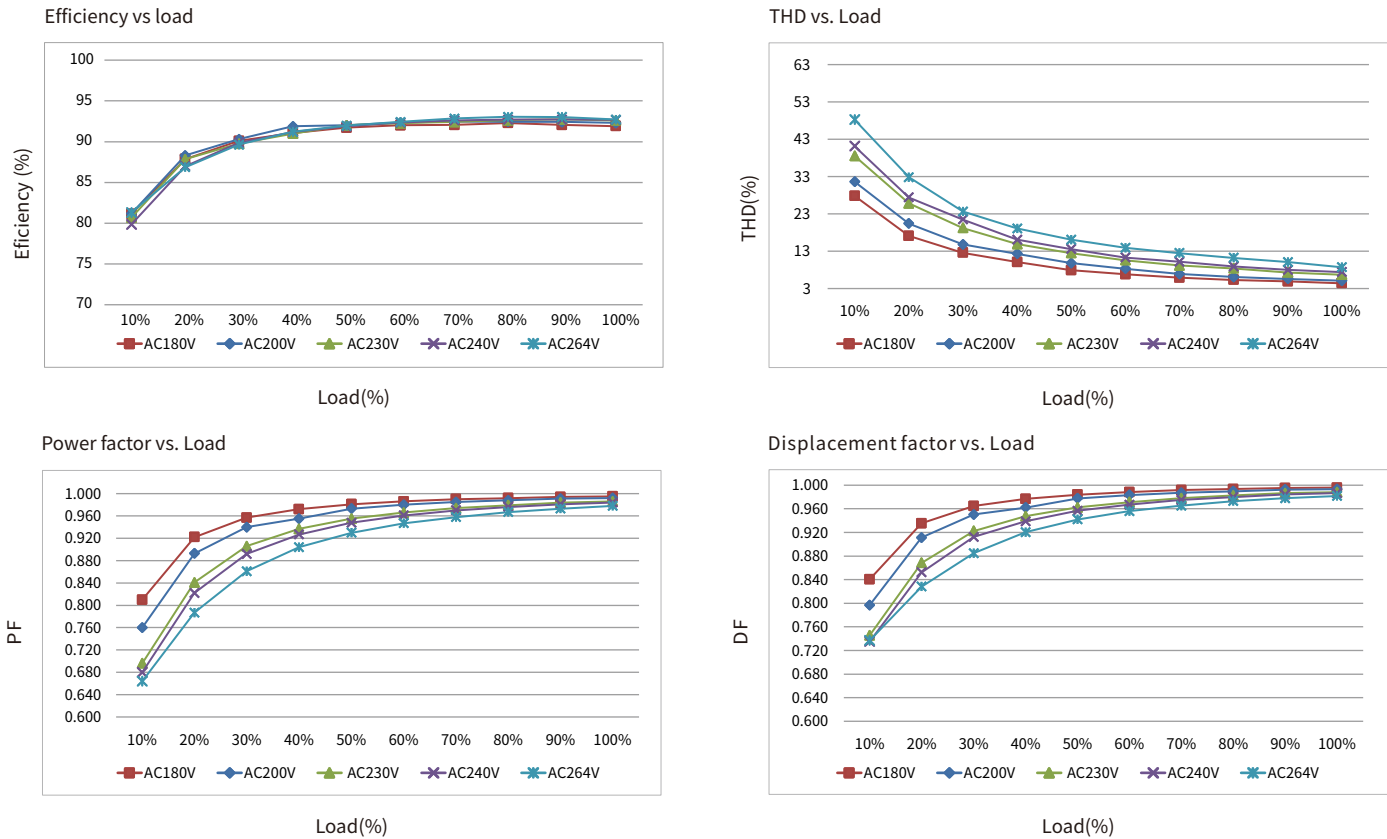


Displacement factor vs. Load

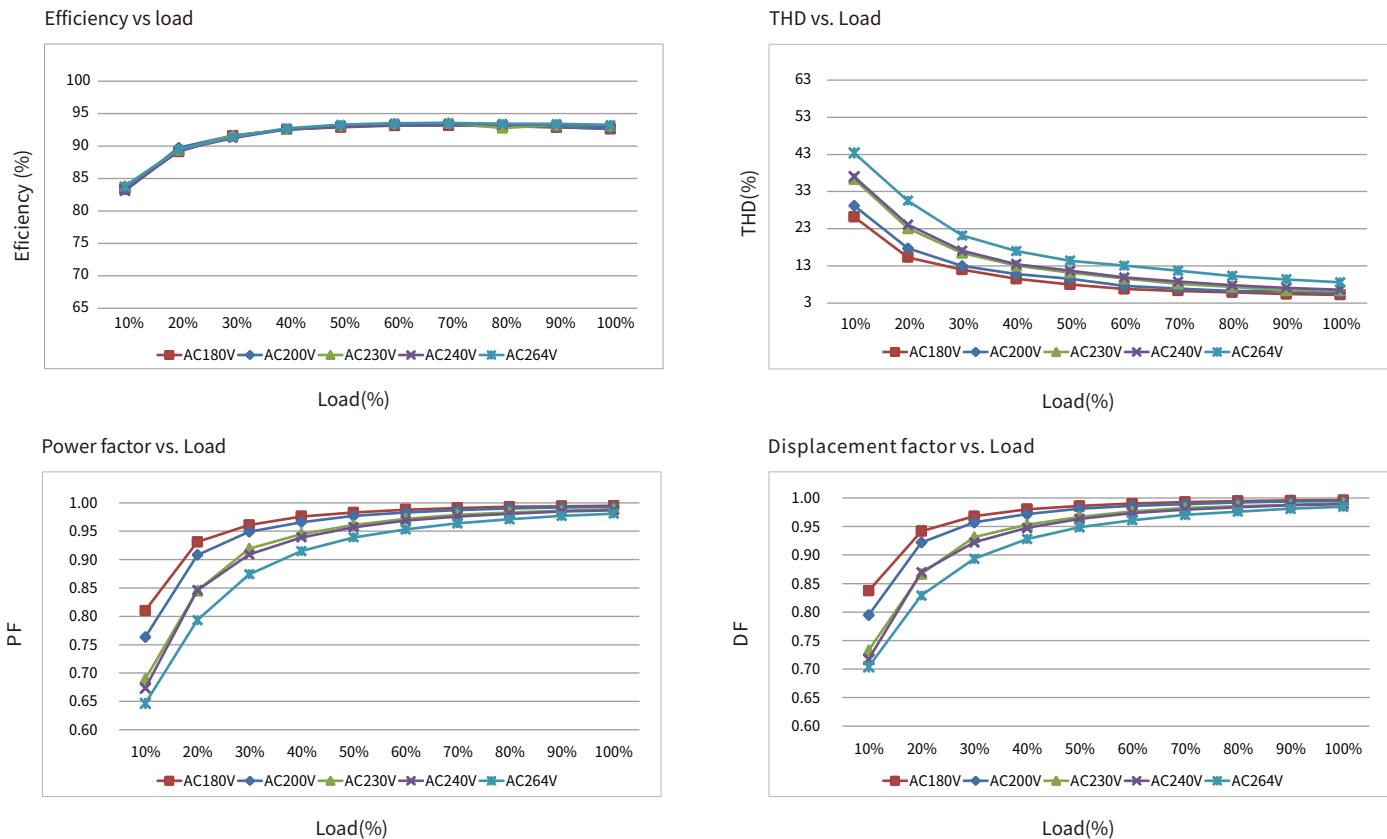


Electrical values

BK-HGV120B-48V0



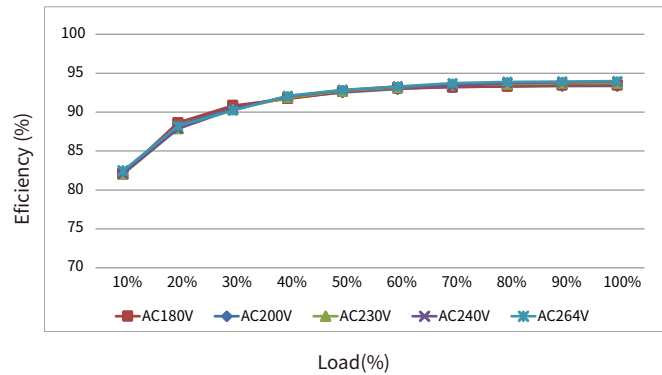
BK-HGV150B-24V0



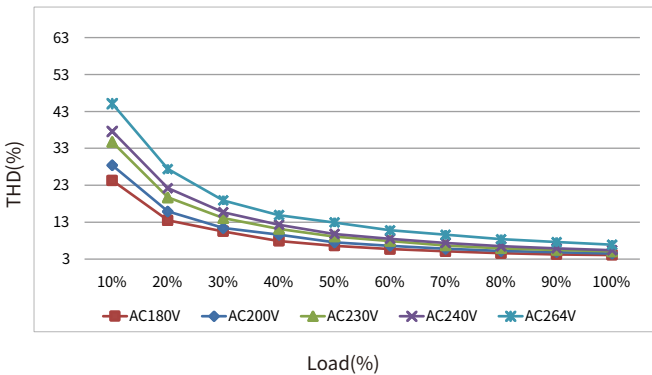
Electrical values

BK-HGV150B-48V0

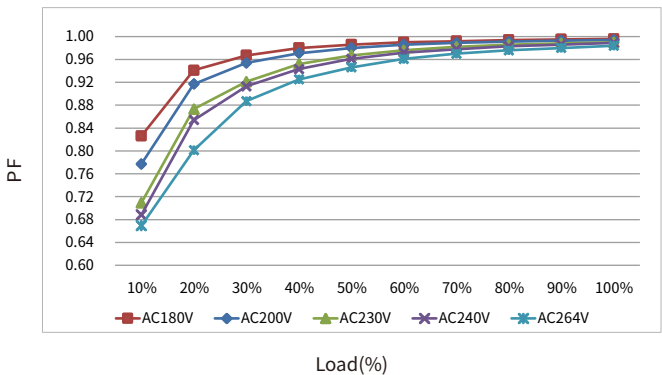
Efficiency vs load



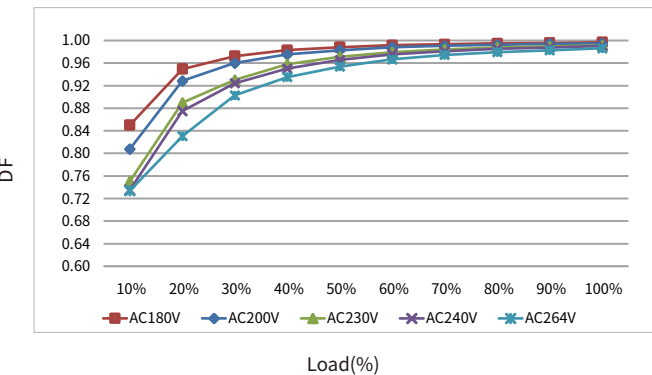
THD vs. Load



Power factor vs. Load

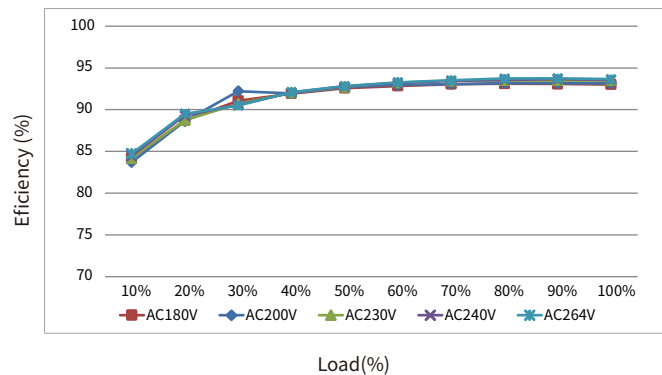


Displacement factor vs. Load

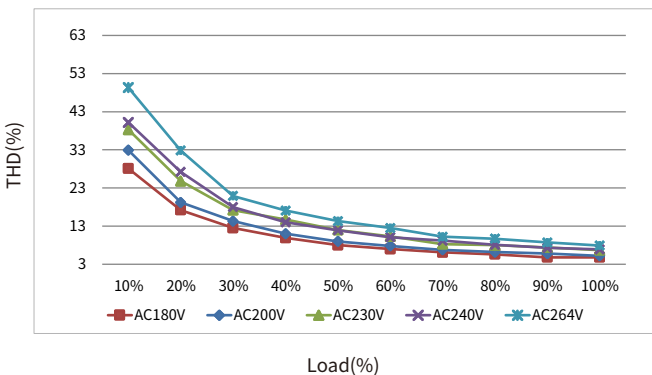


BK-HGV200B-48V0

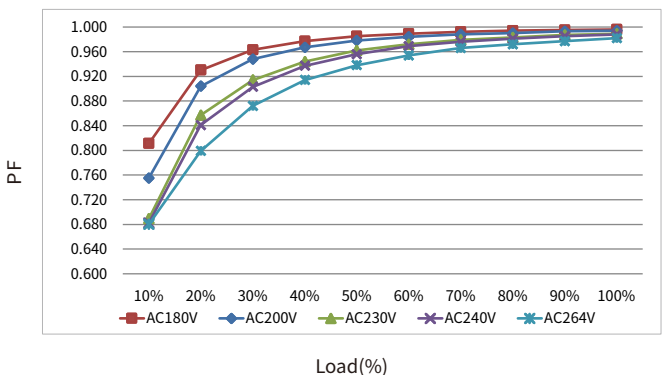
Efficiency vs load



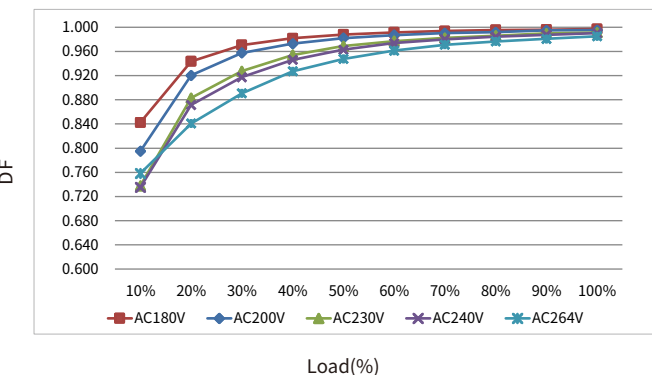
THD vs. Load



Power factor vs. Load



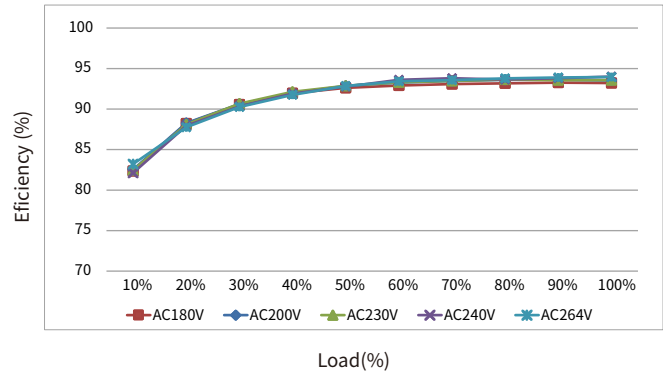
Displacement factor vs. Load



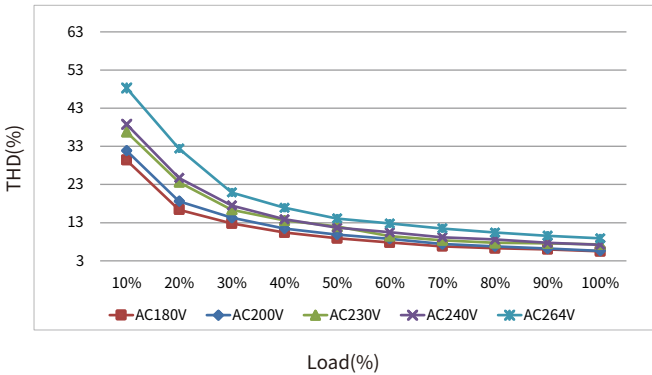
Electrical values

BK-HGV200B-56V0

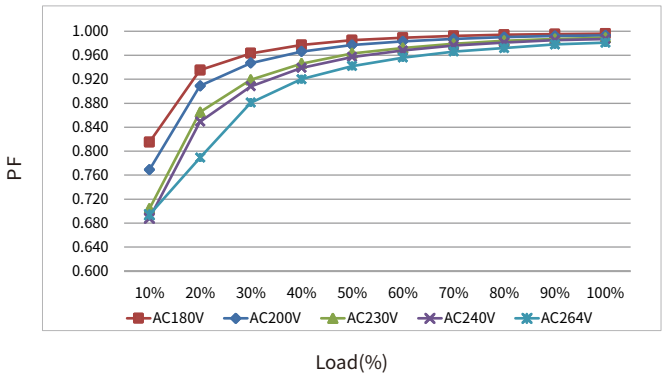
Efficiency vs load



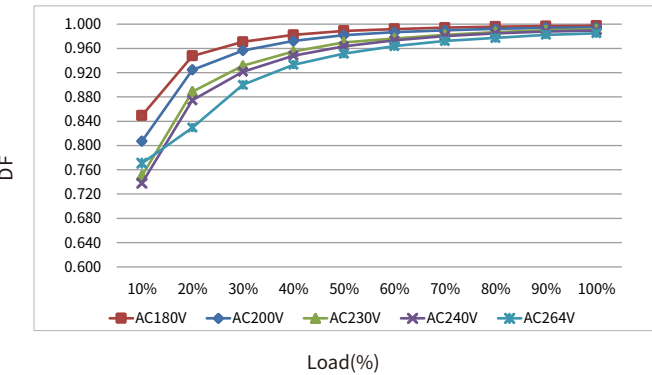
THD vs. Load



Power factor vs. Load

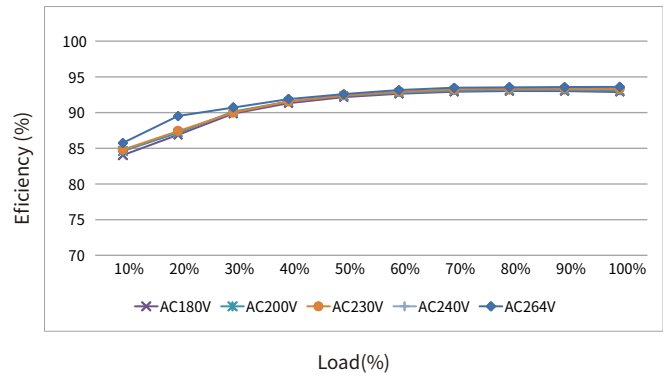


Displacement factor vs. Load

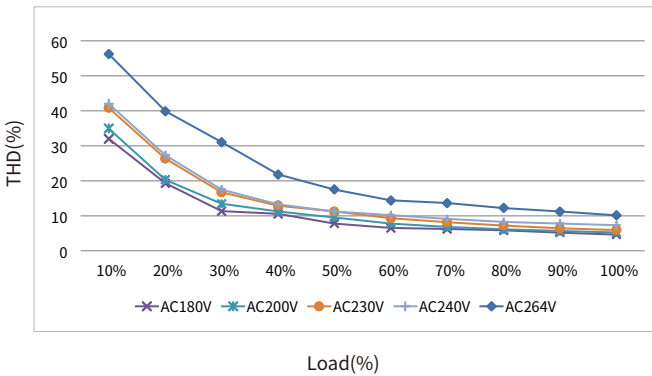


BK-HGV250B-24V0

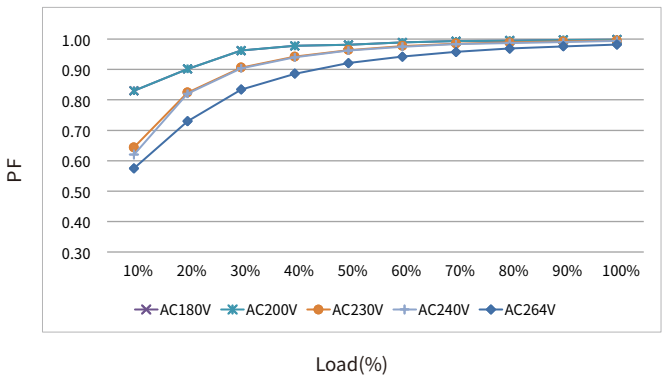
Efficiency vs load



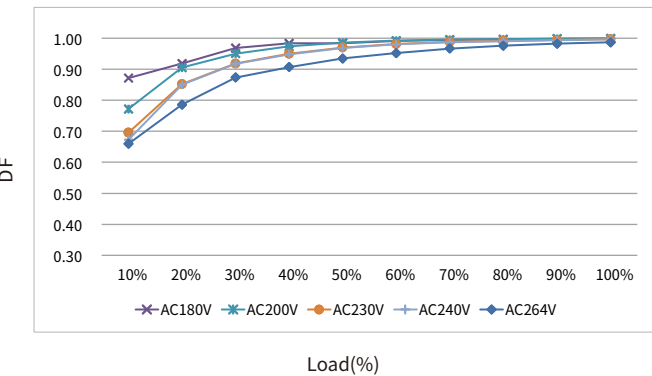
THD vs. Load



Power factor vs. Load



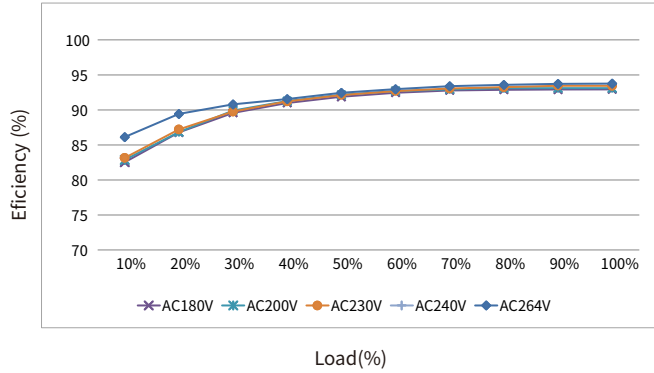
Displacement factor vs. Load



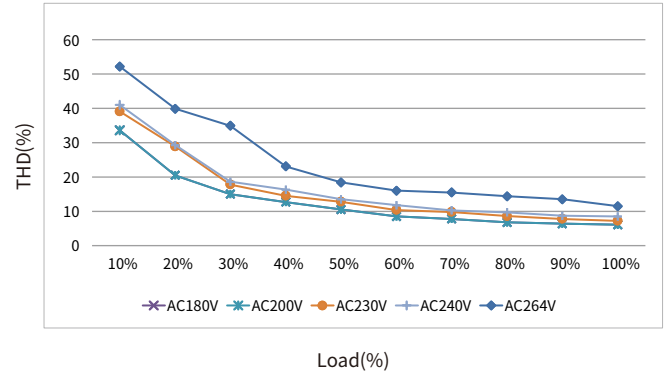
Electrical values

BK-HGV250B-48V0

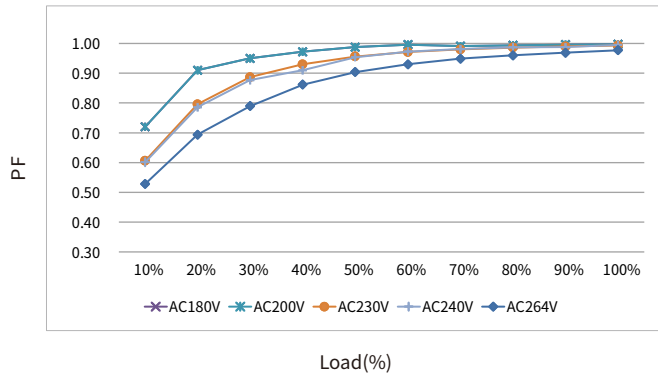
Efficiency vs load



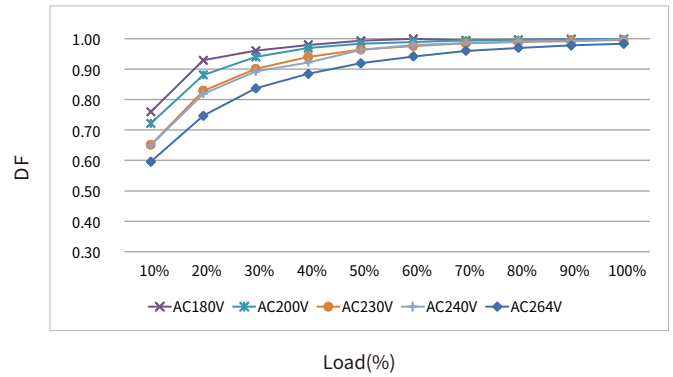
THD vs. Load



Power factor vs. Load

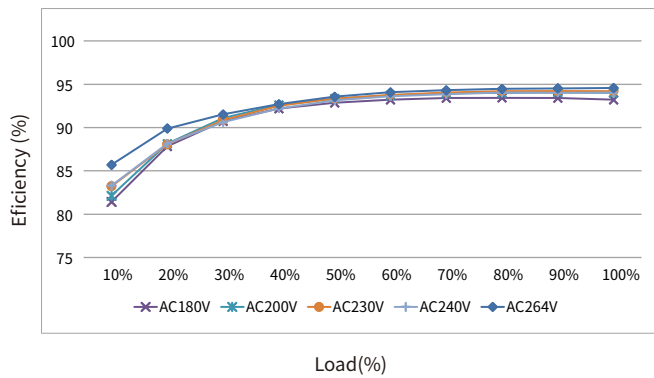


Displacement factor vs. Load

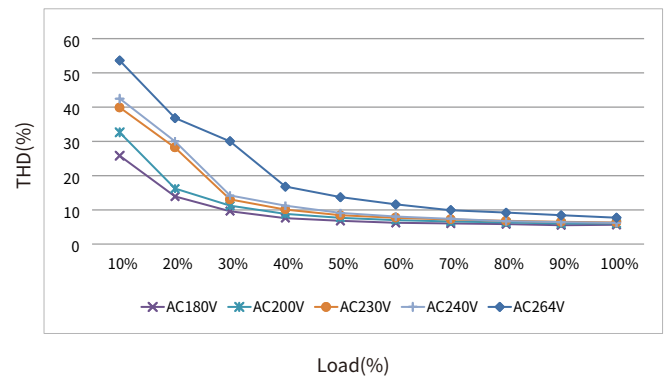


BK-HGV250B-56V0

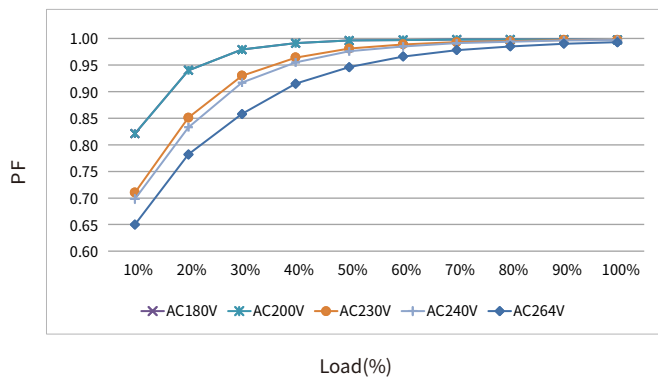
Efficiency vs load



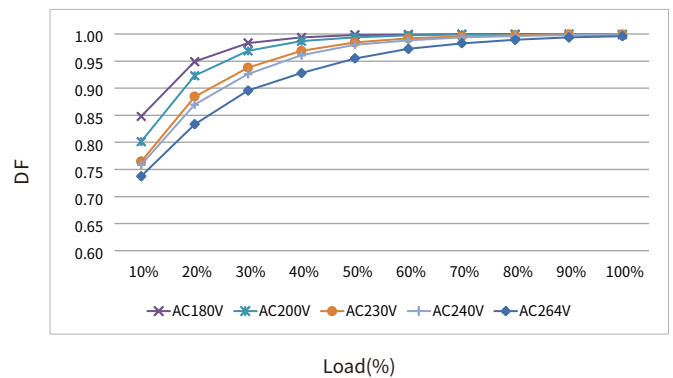
THD vs. Load



Power factor vs. Load



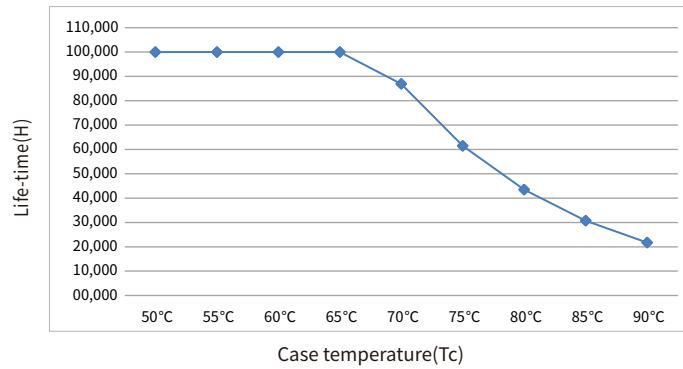
Displacement factor vs. Load



Expected life-time

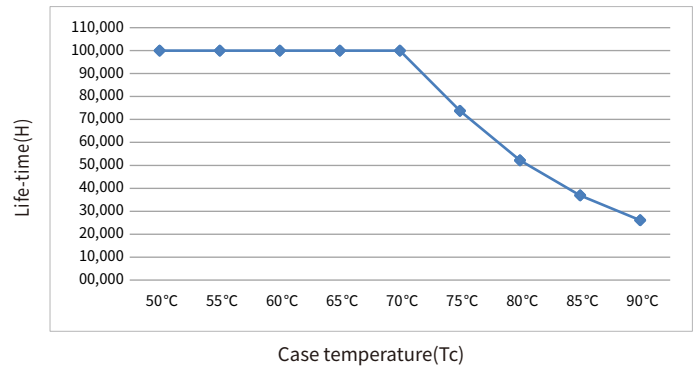
BK-HGV080B-48V0

Life-time vs. case temperature



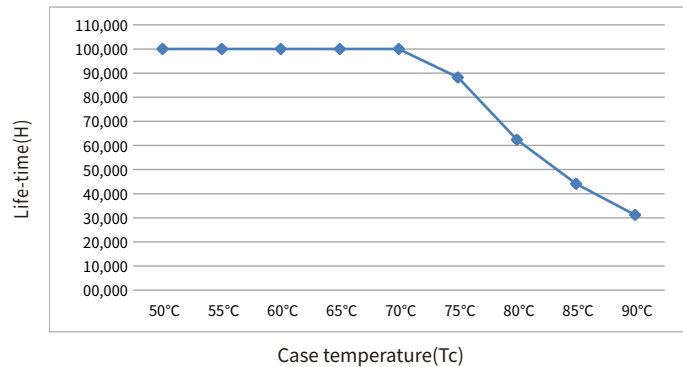
BK-HGV100B-24V0

Life-time vs. case temperature



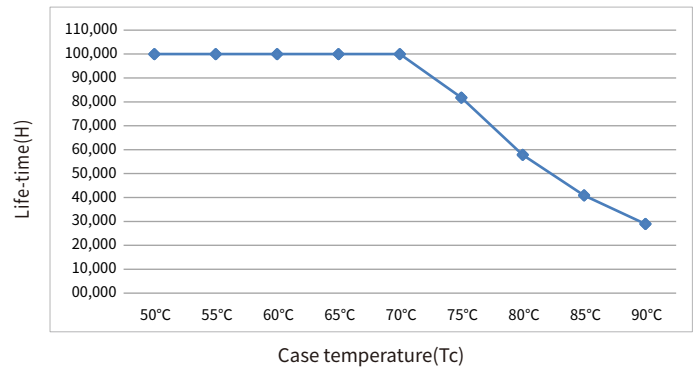
BK-HGV100B-48V0

Life-time vs. case temperature



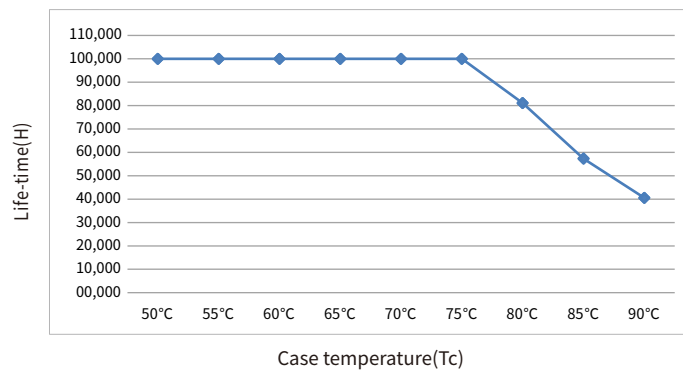
BK-HGV120B-24V0

Life-time vs. case temperature



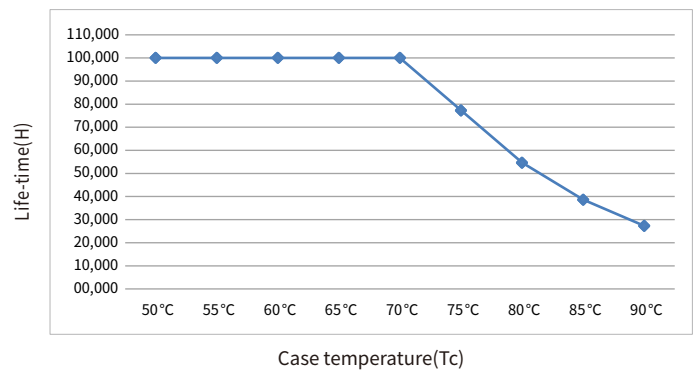
BK-HGV120B-48V0

Life-time vs. case temperature



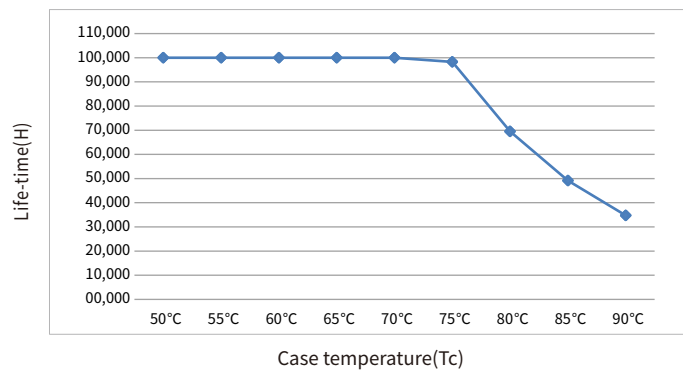
BK-HGV150B-24V0

Life-time vs. case temperature



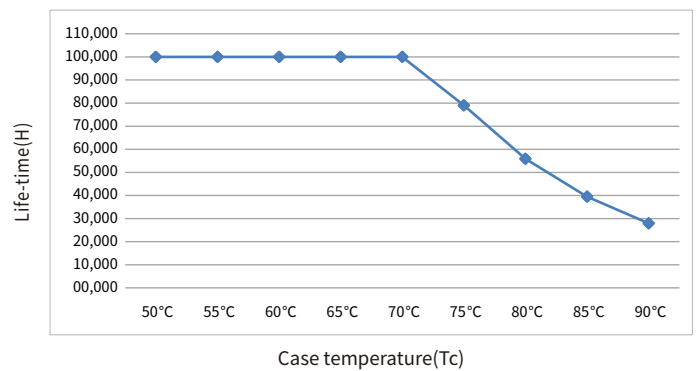
BK-HGV150B-48V0

Life-time vs. case temperature



BK-HGV200B-48V0

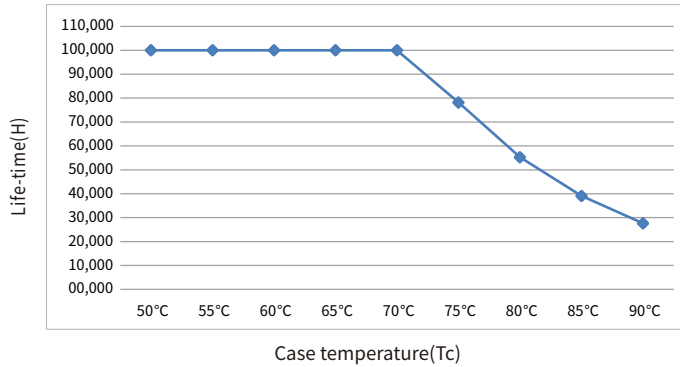
Life-time vs. case temperature



Expected life-time

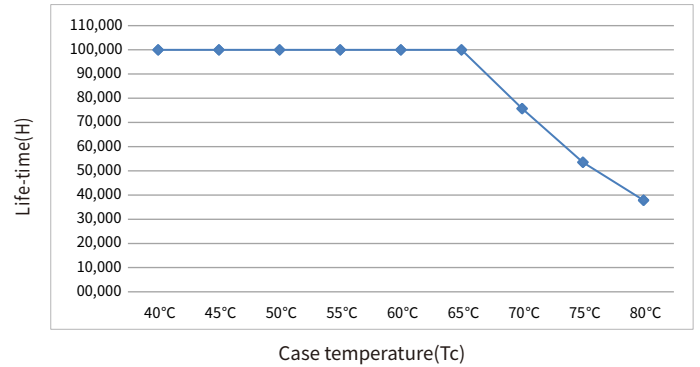
BK-HGV200B-56V0

Life-time vs. case temperature



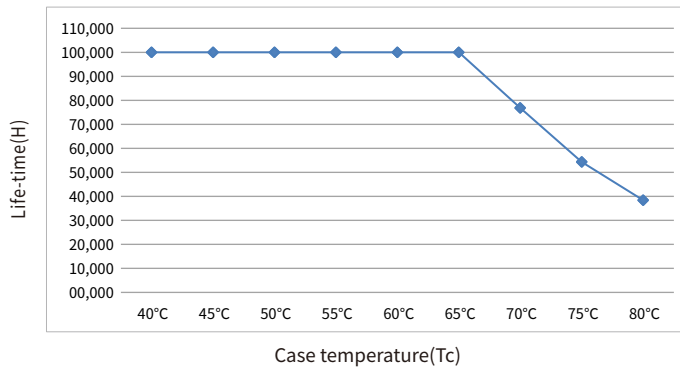
BK-HGV250B-24V0

Life-time vs. case temperature



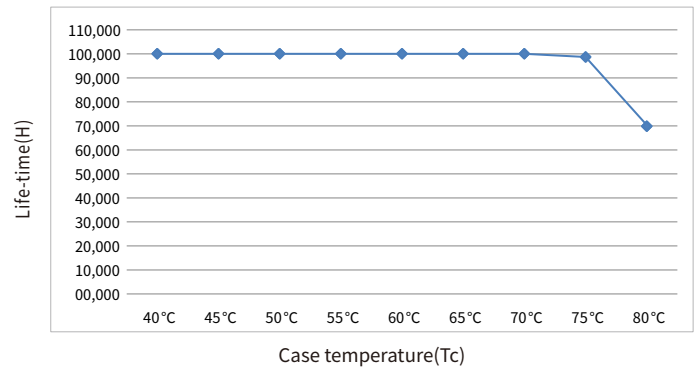
BK-HGV250B-48V0

Life-time vs. case temperature



BK-HGV250B-56V0

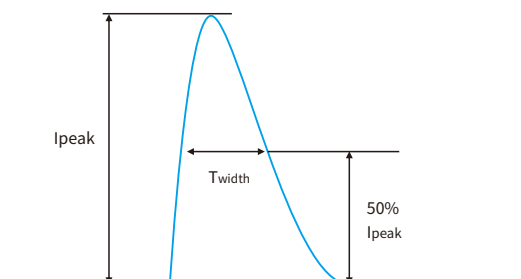
Life-time vs. case temperature



- 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-HGV080B	17.59A	280us	AC 230V,Full load, Cold start,Ta≤30°C, MCB is not installed side by side	13	17	21	27	33	20	26	32	41	51	20	26	32	41	51
BK-HGV100B	28.75A	308us		7	10	12	15	18	12	16	20	24	31	17	21	26	33	41
BK-HGV120B	39A	358us		5	6	7	9	12	8	10	12	16	19	14	18	22	28	39
BK-HGV150B	46.5A	318us		4	6	7	9	11	7	10	12	15	18	11	14	18	22	28
BK-HGV200B	76.25A	392us		2	3	3	4	5	4	5	6	7	9	7	9	11	14	18
BK-HGV250B	81A	460us		2	2	3	4	4	3	4	5	6	7	6	8	9	12	15



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.

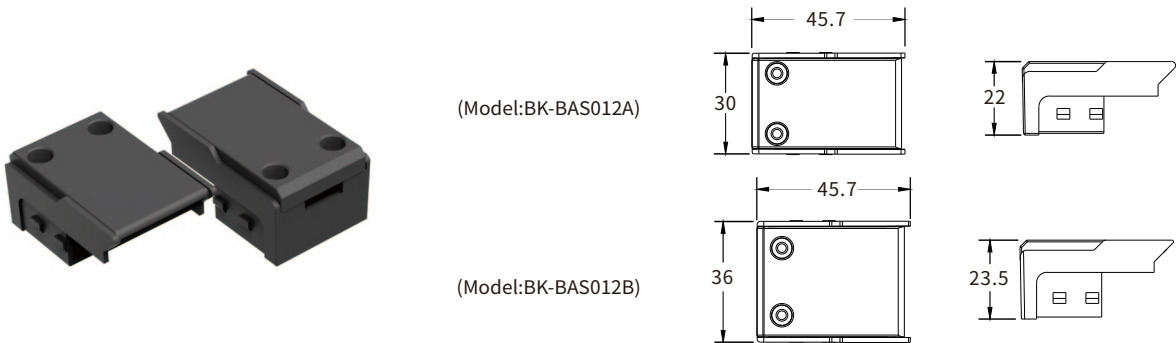
Output overload protection

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

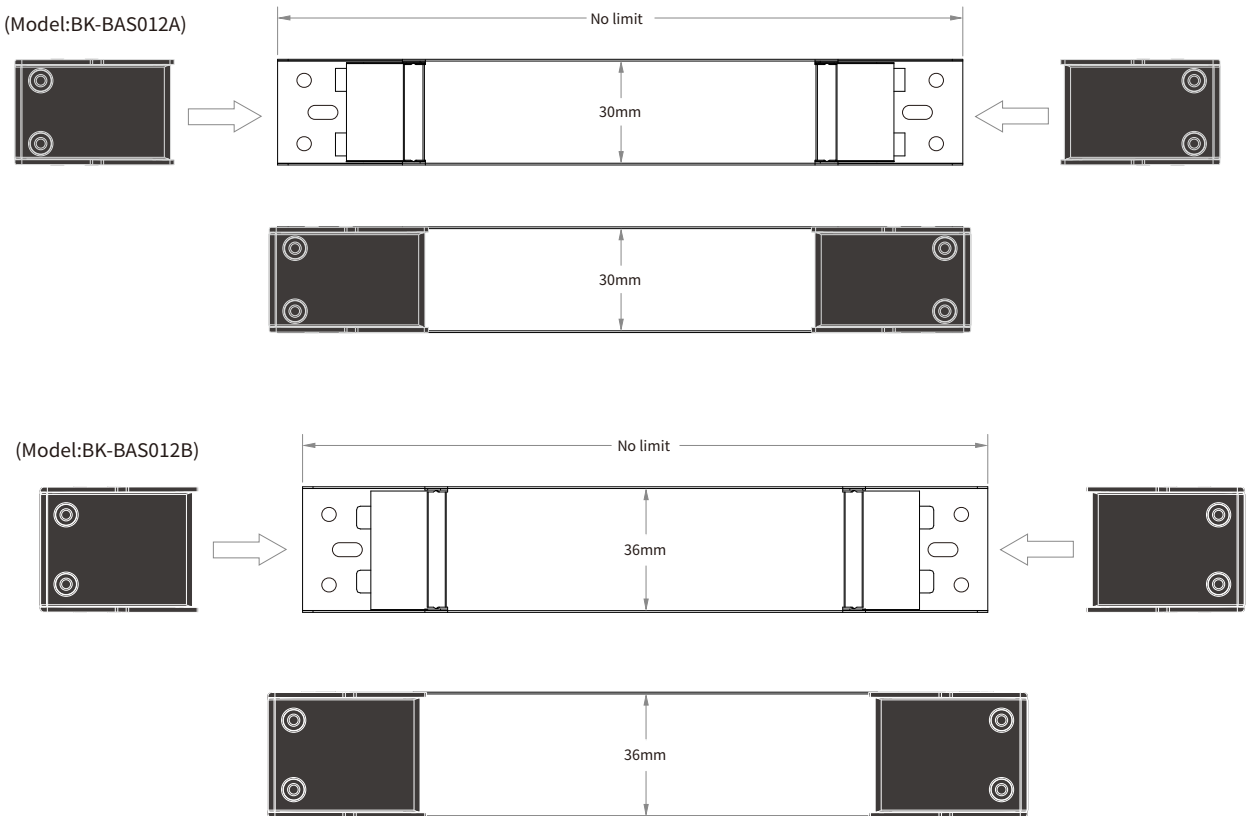
Optional accessories



Remark: BK-BAS012A apply to HGV080B,HGV100B,HGV120B,HGV150B;
BK-BAS012B apply to HGV200B,HGV250B.

Unit:mm

Installation diagram of accessories



Label

BK-HGV080B

INPUT ACL/DC+ ACN/DC- NC PbI wire prep. 0.75-1.5mm ² PbI MADE IN CHINA	BOKE www.bokedriver.com BOKE Drivers Co., Ltd. Address: 2nd and 3rd Floor, No. 51, Xihuan 5th Road, South District, 528455 Zhongshan City, Guangdong, CHINA MADE IN CHINA	Constant Voltage LED Driver For LED modules use only MODEL: BK-HGV080B-48V0 INPUT: 200-240V $\approx$ 0.6A Max. 0/50/60Hz λ : 0.95 OUTPUT: 48V $\approx$ 1.75A 84W Max.		OUTPUT SEC wire prep. 1.5-2.5mm ² V- V+
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BK-HGV100B

INPUT ACL/DC+ ACN/DC- NC PbI wire prep. 0.75-1.5mm ² PbI MADE IN CHINA	BOKE www.bokedriver.com BOKE Drivers Co., Ltd. Address: 2nd and 3rd Floor, No. 51, Xihuan 5th Road, South District, 528455 Zhongshan City, Guangdong, CHINA MADE IN CHINA	Constant Voltage LED Driver For LED modules use only MODEL: BK-HGV100B-24V0 INPUT: 200-240V $\approx$ 0.8A Max. 0/50/60Hz λ : 0.95 OUTPUT: 24V $\approx$ 4.2A 100W Max.		OUTPUT SEC wire prep. 1.5-2.5mm ² V- V+
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INPUT ACL/DC+ ACN/DC- NC PbI wire prep. 0.75-1.5mm ² PbI MADE IN CHINA	BOKE www.bokedriver.com BOKE Drivers Co., Ltd. Address: 2nd and 3rd Floor, No. 51, Xihuan 5th Road, South District, 528455 Zhongshan City, Guangdong, CHINA MADE IN CHINA	Constant Voltage LED Driver For LED modules use only MODEL: BK-HGV100B-48V0 INPUT: 200-240V $\approx$ 0.8A Max. 0/50/60Hz λ : 0.95 OUTPUT: 48V $\approx$ 2.1A 100W Max.		OUTPUT SEC wire prep. 1.5-2.5mm ² V- V+
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BK-HGV120B

INPUT ACL/DC+ ACN/DC- NC PbI wire prep. 0.75-1.5mm ² PbI MADE IN CHINA	BOKE www.bokedriver.com BOKE Drivers Co., Ltd. Address: 2nd and 3rd Floor, No. 51, Xihuan 5th Road, South District, 528455 Zhongshan City, Guangdong, CHINA MADE IN CHINA	Constant Voltage LED Driver For LED modules use only MODEL: BK-HGV120B-48V0 INPUT: 200-240V $\approx$ 0.85A Max. 0/50/60Hz λ : 0.95 OUTPUT: 48V $\approx$ 2.5A 120W Max.		OUTPUT SEC wire prep. 1.5-2.5mm ² V- V+
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INPUT ACL/DC+ ACN/DC- NC PbI wire prep. 0.75-1.5mm ² PbI MADE IN CHINA	BOKE www.bokedriver.com BOKE Drivers Co., Ltd. Address: 2nd and 3rd Floor, No. 51, Xihuan 5th Road, South District, 528455 Zhongshan City, Guangdong, CHINA MADE IN CHINA	Constant Voltage LED Driver For LED modules use only MODEL: BK-HGV120B-24V0 INPUT: 200-240V $\approx$ 0.85A Max. 0/50/60Hz λ : 0.95 OUTPUT: 24V $\approx$ 5A 120W Max.		OUTPUT SEC wire prep. 1.5-2.5mm ² V- V+
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BK-HGV150B

INPUT ACL/DC+ ACN/DC- NC PbI wire prep. 0.75-1.5mm ² PbI MADE IN CHINA	BOKE www.bokedriver.com BOKE Drivers Co., Ltd. Address: 2nd and 3rd Floor, No. 51, Xihuan 5th Road, South District, 528455 Zhongshan City, Guangdong, CHINA MADE IN CHINA	Constant Voltage LED Driver For LED modules use only MODEL: BK-HGV150B-24V0 INPUT: 200-240V $\approx$ 1A Max. 0/50/60Hz λ : 0.95 OUTPUT: 24V $\approx$ 6.25A 150W Max.		OUTPUT SEC wire prep. 1.5-2.5mm ² V- V+
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INPUT ACL/DC+ ACN/DC- NC PbI wire prep. 0.75-1.5mm ² PbI MADE IN CHINA	BOKE www.bokedriver.com BOKE Drivers Co., Ltd. Address: 2nd and 3rd Floor, No. 51, Xihuan 5th Road, South District, 528455 Zhongshan City, Guangdong, CHINA MADE IN CHINA	Constant Voltage LED Driver For LED modules use only MODEL: BK-HGV150B-48V0 INPUT: 200-240V $\approx$ 1A Max. 0/50/60Hz λ : 0.95 OUTPUT: 48V $\approx$ 3.12A 150W Max.		OUTPUT SEC wire prep. 1.5-2.5mm ² V- V+
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BK-HGV200B

INPUT ACL/DC+ ACN/DC- NC PbI wire prep. 0.75-1.5mm ² PbI MADE IN CHINA	BOKE www.bokedriver.com BOKE Drivers Co., Ltd. Address: 2nd and 3rd Floor, No. 51, Xihuan 5th Road, South District, 528455 Zhongshan City, Guangdong, CHINA MADE IN CHINA	Constant Voltage LED Driver For LED modules use only MODEL: BK-HGV200B-48V0 INPUT: 200-240V $\approx$ 1.25A Max. 0/50/60Hz λ : 0.95 OUTPUT: 48V $\approx$ 4.15A 199.2W Max.		OUTPUT SEC wire prep. 1.5-2.5mm ² V- V+
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INPUT ACL/DC+ ACN/DC- NC PbI wire prep. 0.75-1.5mm ² PbI MADE IN CHINA	BOKE www.bokedriver.com BOKE Drivers Co., Ltd. Address: 2nd and 3rd Floor, No. 51, Xihuan 5th Road, South District, 528455 Zhongshan City, Guangdong, CHINA MADE IN CHINA	Constant Voltage LED Driver For LED modules use only MODEL: BK-HGV200B-56V0 INPUT: 200-240V $\approx$ 1.25A Max. 0/50/60Hz λ : 0.95 OUTPUT: 56V $\approx$ 3.6A 201.6W Max.		OUTPUT SEC wire prep. 1.5-2.5mm ² V- V+
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BK-HGV250B

INPUT ACL/DC+ ACN/DC- NC PbI wire prep. 0.75-1.5mm ² PbI MADE IN CHINA(中国制造)	BOKE www.bokedriver.com BOKE Drivers Co., Ltd. Address: 2nd and 3rd Floor, No. 51, Xihuan 5th Road, South District, 528455 Zhongshan City, Guangdong, CHINA MADE IN CHINA(中国制造)	Constant Voltage LED Driver(LED控制装置) For LED modules use only MODEL: BK-HGV250B-24V0 INPUT: 200-240V $\approx$ 1.8A Max. 0/50/60Hz λ : 0.95 OUTPUT: 24V $\approx$ 10.4A 250W Max. U _{out} =30V		OUTPUT SEC wire prep. 1.5-2.5mm ² V- V- V+ V+
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INPUT ACL/DC+ ACN/DC- NC PbI wire prep. 0.75-1.5mm ² PbI MADE IN CHINA(中国制造)	BOKE www.bokedriver.com BOKE Drivers Co., Ltd. Address: 2nd and 3rd Floor, No. 51, Xihuan 5th Road, South District, 528455 Zhongshan City, Guangdong, CHINA MADE IN CHINA(中国制造)	Constant Voltage LED Driver(LED控制装置) For LED modules use only MODEL: BK-HGV250B-48V0 INPUT: 200-240V $\approx$ 1.8A Max. 0/50/60Hz λ : 0.95 OUTPUT: 48V $\approx$ 5.2A 250W Max. U _{out} =53V		OUTPUT SEC wire prep. 1.5-2.5mm ² V- V- V+ V+
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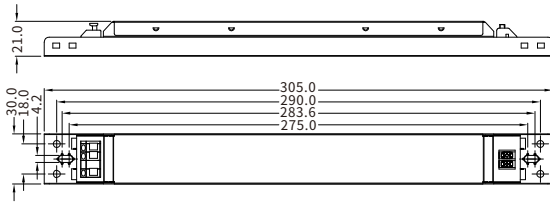
INPUT ACL/DC+ ACN/DC- NC PbI wire prep. 0.75-1.5mm ² PbI MADE IN CHINA(中国制造)	BOKE www.bokedriver.com BOKE Drivers Co., Ltd. Address: 2nd and 3rd Floor, No. 51, Xihuan 5th Road, South District, 528455 Zhongshan City, Guangdong, CHINA MADE IN CHINA(中国制造)	Constant Voltage LED Driver(LED控制装置) For LED modules use only MODEL: BK-HGV250B-56V0 INPUT: 200-240V $\approx$ 1.8A Max. 0/50/60Hz λ : 0.95 OUTPUT: 56V $\approx$ 4.5A 250W Max. U _{out} =60V		OUTPUT SEC wire prep. 1.5-2.5mm ² V- V- V+ V+
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Mechanical Specification

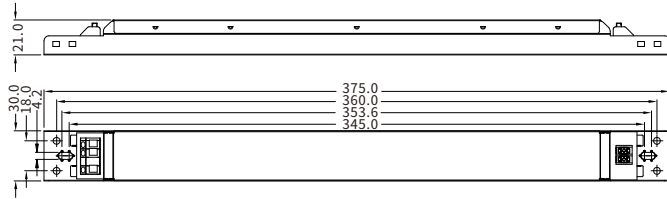
Size(Excluding accessories)

Unit:mm

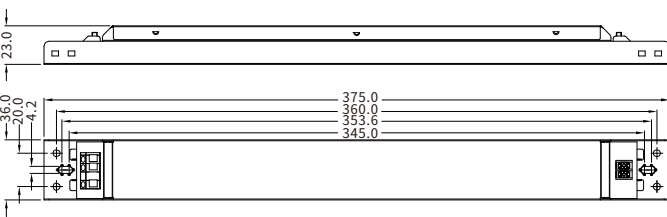
HGV080B/HGV100B



HGV120B/HGV150B

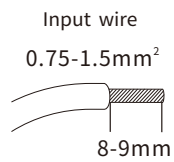


HGV200B



INPUT

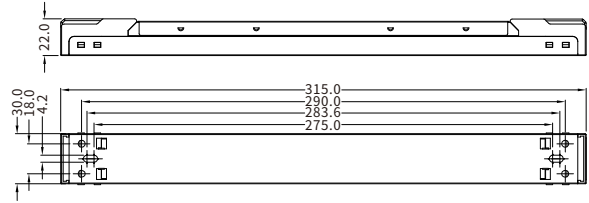
Numbering	function	colour
1	ACL/DC+	orange
2	ACN/DC-	orange
3	NG	grey
4	FG	grey



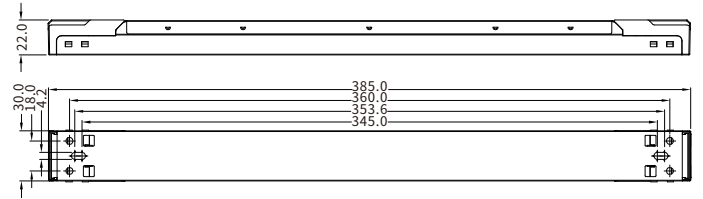
Size(Include accessories)

Unit:mm

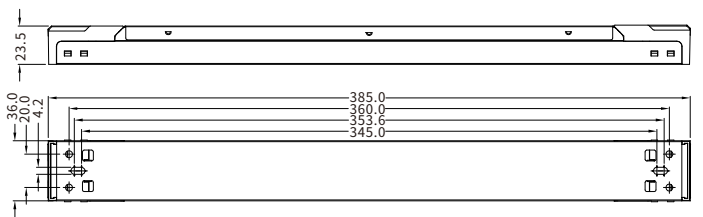
HGV080B/HGV100B



HGV120B/HGV150B



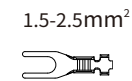
HGV200B



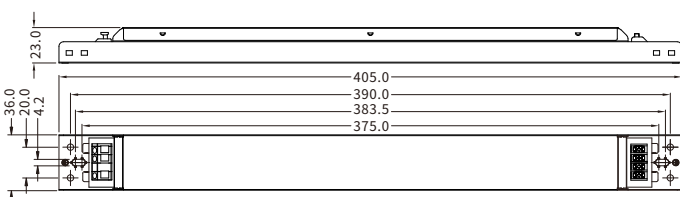
OUTPUT

Numbering	function
1	V-
2	V+

Output wire

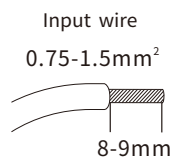


HGV250B

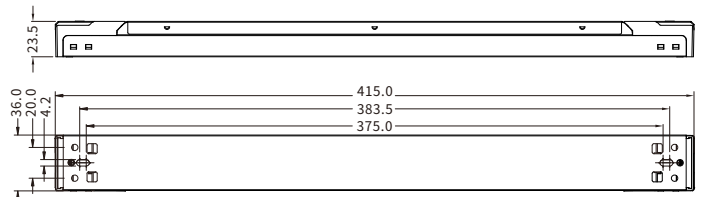


INPUT

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



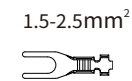
HGV250B



OUTPUT

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

Output wire



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)
HGV080B/HGV100B/HGV120B HGV150B/HGV200B/HGV250B	Output	0.5-1.5mm ²	SNB1.25-3.2/SV1.25-3	3.2mm	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 temperature of the mounting surface of the driver should be lower than the temperature of Ta.
- 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.
 - 3.Two power outputs cannot be connected in parallel.

Replace LED module

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

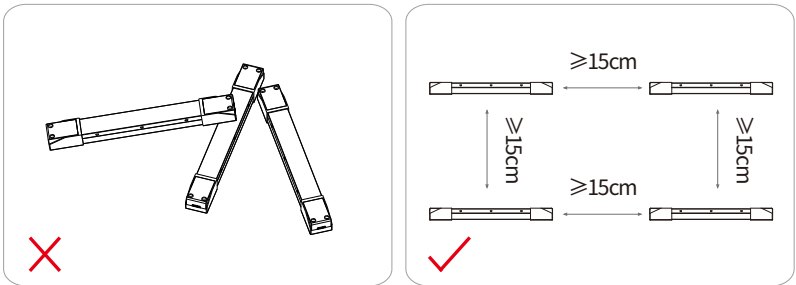


Figure 1

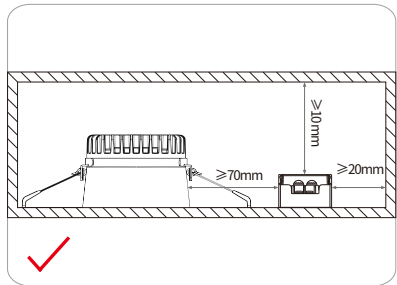
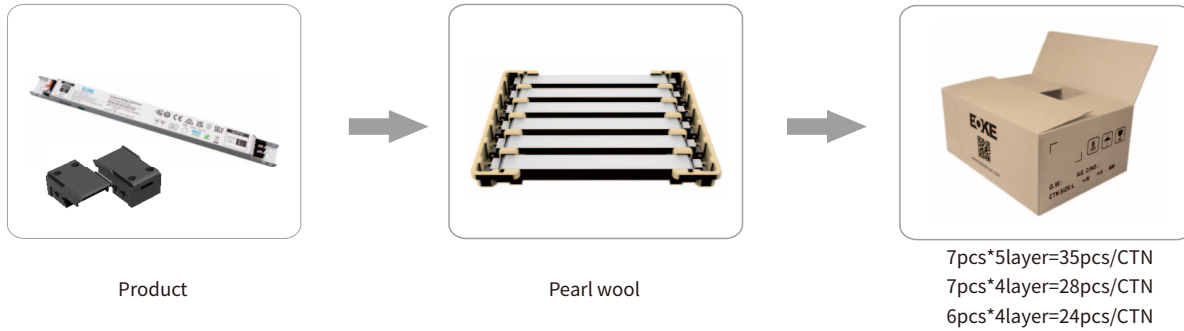


Figure 2

Packaging



Packaging(Excluding accessories)

Model	Product size	Weight	Pearl wool	Carton size	Qty/carton	N.W	G.W
HGV080B	L305*W30*H21mm	239g	L340*W75*H29mm	L355*W345*H170mm	35pcs	8.37KG	9.57KG
HGV100B	L305*W30*H21mm	245g	L340*W75*H29mm	L355*W345*H170mm	35pcs	8.58KG	9.82KG
HGV120B	L375*W30*H21mm	301g	L340*W75*H29mm	L415*W355*H140mm	28pcs	8.43KG	9.71KG
HGV150B	L375*W30*H21mm	335g	L340*W75*H29mm	L415*W355*H140mm	28pcs	9.38KG	10.6KG
HGV200B	L375*W36*H23mm	446g	L340*W75*H33mm	L415*W355*H160mm	24pcs	10.7KG	12.0KG

Packaging(Include accessories)

Model	Product size	Weight	Pearl wool	Carton size	Qty/carton	N.W	G.W
HGV080B	L315*W30*H22mm	269g	L340*W75*H29mm	L355*W355*H170mm	35pcs	9.42KG	10.9KG
HGV100B	L315*W30*H22mm	275g	L340*W75*H29mm	L355*W355*H170mm	35pcs	9.63KG	11.0KG
HGV120B	L385*W30*H22mm	331g	L340*W75*H29mm	L425*W355*H140mm	28pcs	9.27KG	10.6KG
HGV150B	L385*W30*H22mm	365g	L340*W75*H29mm	L425*W355*H140mm	28pcs	10.2KG	11.5KG
HGV200B	L385*W36*H23.5mm	486g	L340*W75*H33mm	L425*W355*H160mm	24pcs	11.7KG	13.0KG



Packaging(Excluding accessories)

Model	Product size	Weight	Packaging size	Carton size	Qty/carton	N.W	G.W
HGV250B	L405*W36*H23mm	412g	L420*W120*H90mm	L445*W260*H110mm	20pcs	8.24KG	9.55KG

Packaging(Include accessories)

Model	Product size	Weight	Packaging size	Carton size	Qty/carton	N.W	G.W
HGV250B	L415*W36*H23.5mm	442g	L430*W120*H90mm	L445*W260*H110mm	20pcs	8.84KG	10.1KG

Additional information

- When the driver is used as an internal power supply for luminaires, re-evaluation of performance including temperature rise, conducted interference, radiated interference, surge immunity and electrostatic discharge (ESD) are required due to differences in luminaire structure and wiring. Ensure compliance with practical application requirements and stable & reliable operation of the driver.
- Unless otherwise specified, all specifications and parameters are measured under conditions of 230VAC input, 50Hz, full load and ambient temperature of 25°C.
- Product service life and MTBF values are for reference only and do not constitute a warranty statement.
- BOKE reserves the final right to interpret the above parameters. For further information, please send an email to info@bokedriver.com.
- The above information is subject to change without prior notice. Please ensure you use the latest version of the datasheet.