


**FLICKER
FREE**

SELV RoHS

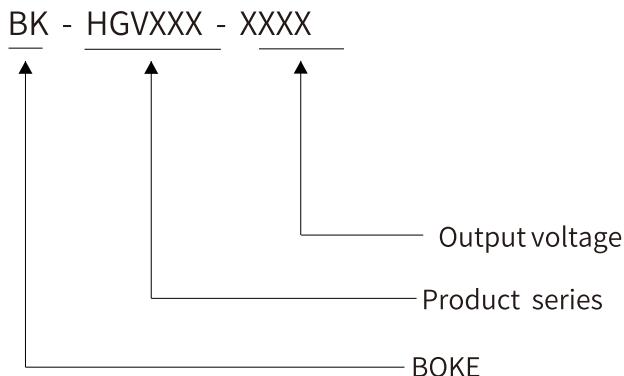

FEATURES

- Constant voltage output design, flicker-free
- 200-240V voltage input
- High efficiency, THD <10, PF > 0.95
- For luminaires of protection class I and protection class II
- Turn on delay time less than 0.5s
- Screwless terminal design, convenient for fast connection
- Simply add accessories for flexible use in independent applications
- Linear shape design, convenient for installation in groove and inside the linear light
- Suitable for constant voltage lights, such as strip lights, linear lights, etc.
- Lighting certification design, passed TUV-ENEC, CE, CCC certifications
- 5 years warranty

APPLICATION

- LED indoor lighting
- LED office lighting
- LED architectural lighting
- LED strip lighting

MODEL CODE



ELECTRICAL SPECIFICATION

MODEL	BK-HGV022-12V0	BK-HGV022-24V0	BK-HGV048-12V0	BK-HGV048-24V0			
OUTPUT							
Output voltage range	12V	24V	12V	24V			
Output current	1.8A	0.9A	4A	2A			
Output power	21.6W Max.	21.6W Max.	48W Max.	48W Max.			
Voltage ripple & noise(note.2)	≤350mV(Vpp)	≤350mV(Vpp)	≤350mV(Vpp)	≤350mV(Vpp)			
Voltage & current accuracy	±5%	±5%	±5%	±5%			
Linear regulation	±5%	±5%	±5%	±5%			
Load regulation	±5%	±5%	±5%	±5%			
INPUT							
Rated input voltage	200-240VAC						
Input voltage range	180-264VAC						
Frequency range	47-63Hz						
Power factor	≤0.5(230VAC & full load)		PF>0.95(230VAC & full load);PF>0.90(230VAC & full load>50%)				
Total harmonic distortion	NA		THD<10%(230VAC & full load);THD<20%(230VAC & full load>50%)				
Efficiency(Typ.)	87%	88%	87%	89%			
Standby power (note.2)	<0.5W						
Input current	<0.3A		<0.4A				
Inrush current(cold start)	See data table for details						
Max. drivers under the MCB	See data table for details						
Power on delay	<0.5s						
PROTECTION							
Short circuit	Hiccup,recover automatically after environment temperature declines						
OCP	≤3A	≤1.6A	≤6A	≤3.5A			
OVP	≤16Vdc	≤35Vdc	≤16Vdc	≤35Vdc			
ENVIRONMENT							
Operation temperature	-20-60°C		-20-50°C				
Operation humidity	10-90% RH,non-condensing						
Storage temperature/humidity	-25-80°C,5-95% RH,non-condensing						
IP class	IP20						
Vibration	10~500Hz,5G 12min./1cycle,period for 72min. each along X,Y,Z axes						
Tc (note.3)	Tc=90°C(Ta=60°C)		Tc=90°C(Ta=50°C)				
MTBF	500000H,MIL-HDBK-217F(25°C)						
Life time	See life time curve table for details						
Environmental protection	RoHS						
EMC							
EMC emission (note.4)	EN55015,GB17743,EN61000-3-2 Class C,EN61000-3-3						
EMC immunity	EN61000-4-2,3,4,5,6,8,11,EN61547						
SAFETY							
Safety standards	EN61347-1/2-13,GB19510.1/14,EN62384						
Flicker-free standard	IEEE1789:2015						
Certificate	TUV-ENEC CE CCC						
Withstand voltage	I/P-O/P:3750VAC,I/P-FG:1750VAC,O/P-FG:500VAC						
Surge	DM 2KV CM 2KV						
Leakage current	<0.7mA @ 240Vac						
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH						

NOTE

- 1.All parameter are measured at 230VAC input, rated load and 25°C of ambient temperature.
- 2.Ripple & Noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor.
- 3.If this driver used for led lighting, the tc should not higher than tc showed on the driver when the lighting working on the highest working temperature.
- 4.The driver is considered as a component that will be operated in combination with final equipment, since EMC performance will be affected by the complete installation the final equipment manufacturer must re-validate EMC directive on the complete installation again.

ELECTRICAL SPECIFICATION

MODEL	BK-HGV060-12V0	BK-HGV060-24V0	BK-HGV072-12V0	BK-HGV072-24V0			
OUTPUT							
Output voltage range	12V	24V	12V	24V			
Output current	5A	2.5A	6A	3A			
Output power	60W Max.	60W Max.	72W Max.	72W Max.			
Voltage ripple & noise(note.2)	≤350mV(Vpp)	≤350mV(Vpp)	≤350mV(Vpp)	≤350mV(Vpp)			
Voltage & current accuracy	±5%	±5%	±5%	±5%			
Linear regulation	±5%	±5%	±5%	±5%			
Load regulation	±5%	±5%	±5%	±5%			
INPUT							
Rated input voltage	200-240VAC						
Input voltage range	180-264VAC						
Frequency range	47-63Hz						
Power factor	PF>0.95(230VAC & full load);PF>0.90(230VAC & full load>50%)						
Total harmonic distortion	THD<10%(230VAC & full load);THD<20%(230VAC & full load>50%)						
Efficiency(Typ.)	87%	89%	89%	90%			
Standby power (note.2)	<0.5W						
Input current	<0.45A		<0.5A				
Inrush current(cold start)	See data table for details						
Max. drivers under the MCB	See data table for details						
Power on delay	<0.5s						
PROTECTION							
Short circuit	Hiccup,recover automatically after environment temperature declines						
OCP	≤6.5A	≤4.5A	≤8A	≤4.5A			
OVP	≤16Vdc	≤35Vdc	≤16Vdc	≤35Vdc			
ENVIRONMENT							
Operation temperature	-20-50°C						
Operation humidity	10-90% RH,non-condensing						
Storage temperature/humidity	-25-80°C,5-95% RH,non-condensing						
IP class	IP20						
Vibration	10~500Hz,5G 12min./1cycle,period for 72min. each along X,Y,Z axes						
Tc (note.3)	Tc=90°C(Ta=50°C)						
MTBF	500000H,MIL-HDBK-217F(25°C)						
Life time	See life time curve table for details						
Environmental protection	RoHS						
EMC							
EMC emission (note.4)	EN55015,GB17743,EN61000-3-2 Class C,EN61000-3-3						
EMC immunity	EN61000-4-2,3,4,5,6,8,11,EN61547						
SAFETY							
Safety standards	EN61347-1/2-13,GB19510.1/14,EN62384						
Flicker-free standard	IEEE1789:2015						
Certificate	TUV-ENEC CE CCC						
Withstand voltage	I/P-O/P:3750VAC,I/P-FG:1750VAC,O/P-FG:500VAC						
Surge	DM 2KV CM 2KV						
Leakage current	<0.7mA @ 240Vac						
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH						

NOTE

- 1.All parameter are measured at 230VAC input, rated load and 25°C of ambient temperature.
- 2.Ripple & Noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor.
- 3.If this driver used for led lighting, the tc should not higher than tc showed on the driver when the lighting working on the highest working temperature.
- 4.The driver is considered as a component that will be operated in combination with final equipment, since EMC performance will be affected by the complete installation the final equipment manufacturer must re-validate EMC directive on the complete installation again.

ELECTRICAL SPECIFICATION

MODEL	BK-HGV100-24V0	BK-HGV100-48V0	BK-HGV150-24V0	BK-HGV150-48V0	BK-HGV070-48V0	
OUTPUT						
Output voltage range	24V	48V	24V	48V	48V	
Output current	4A	2A	6A	3A	1.5A	
Output power	96W Max.	96W Max.	144W Max.	144W Max.	72W Max.	
Voltage ripple & noise(note.2)	≤350mV(Vpp)	≤350mV(Vpp)	≤350mV(Vpp)	≤350mV(Vpp)	≤350mV(Vpp)	
Voltage & current accuracy	±5%	±5%	±5%	±5%	±5%	
Linear regulation	±5%	±5%	±5%	±5%	±150mA	
Load regulation	±5%	±5%	±5%	±5%	±30mA	
INPUT						
Rated input voltage	200-240VAC					
Input voltage range	180-264VAC					
Frequency range	47-63Hz					
Power factor	PF>0.95(230VAC & full load);PF>0.90(230VAC & full load>50%)					
Total harmonic distortion	THD<10%(230VAC & full load);THD<20%(230VAC & full load>50%)					
Efficiency(Typ.)	89%		90%		89%	
Standby power (note.2)	<0.5W					
Input current	<0.8A		<1A		<0.5A	
Inrush current(cold start)	See data table for details					
Max. drivers under the MCB	See data table for details					
Power on delay	<0.5s					
PROTECTION						
Short circuit	Hiccup,recover automatically after environment temperature declines					
OCP	≤5.8A	≤3.5A	≤8A	≤4.5A	≤2.2A	
OVP	≤35Vdc	≤63Vdc	≤28Vdc	≤55Vdc	≤63Vdc	
ENVIRONMENT						
Operation temperature	-20-50°C					
Operation humidity	10-90% RH,non-condensing				-20-60°C	
Storage temperature/humidity	-25-80°C,5-95% RH,non-condensing					
IP class	IP20					
Vibration	10~500Hz,5G 12min./1cycle,period for 72min. each along X,Y,Z axes					
Tc (note.3)	Tc=90°C(Ta=50°C)				Tc=90°C(Ta=60°C)	
MTBF	500000H,MIL-HDBK-217F(25°C)					
Life time	See life time curve table for details					
Environmental protection	RoHS					
EMC						
EMC emission (note.4)	EN55015,GB17743,EN61000-3-2 Class C,EN61000-3-3					
EMC immunity	EN61000-4-2,3,4,5,6,8,11,EN61547					
SAFETY						
Safety standards	EN61347-1/2-13,GB19510.1/14,EN62384					
Flicker-free standard	IEEE1789:2015					
Certificate	TUV-ENEC CE CCC					
Withstand voltage	I/P-O/P:3750VAC,I/P-FG:1750VAC,O/P-FG:500VAC					
Surge	DM 2KV CM 2KV					
Leakage current	<0.7mA @ 240Vac					
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH					

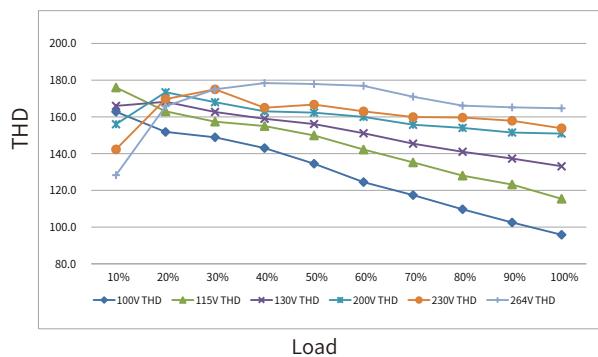
NOTE

- 1.All parameter are measured at 230VAC input,rated load and 25°C of ambient temperature.
- 2.Ripple & Noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor.
- 3.If this driver used for led lighting, the tc should not higher than tc showed on the driver when the lighting working on the highest working temperature.
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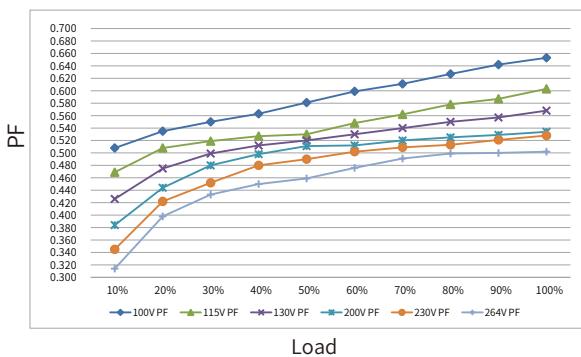
Electrical characteristics

BK-HGV022-24V0 Electrical characteristics

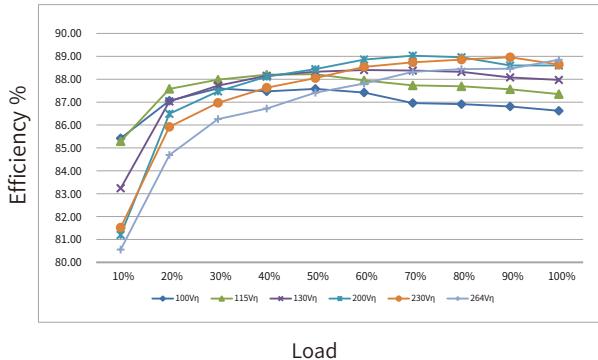
THD vs. Load



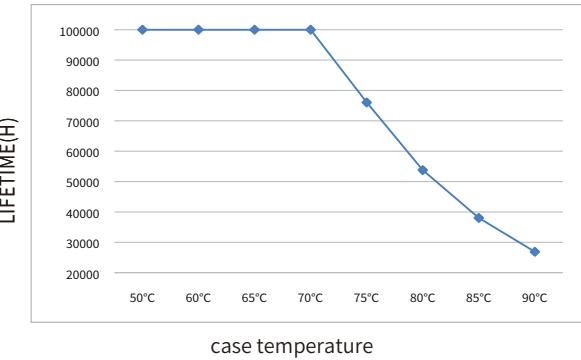
Power factor vs. Load



Efficiency vs. Load

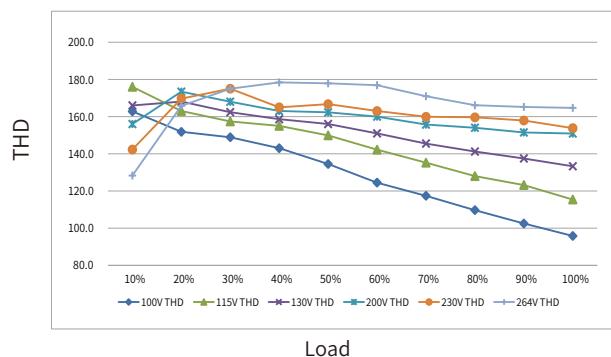


Lifetime vs. case temperature

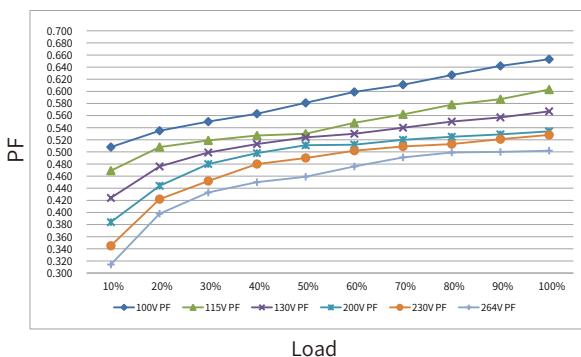


BK-HGV022-12V0 Electrical characteristics

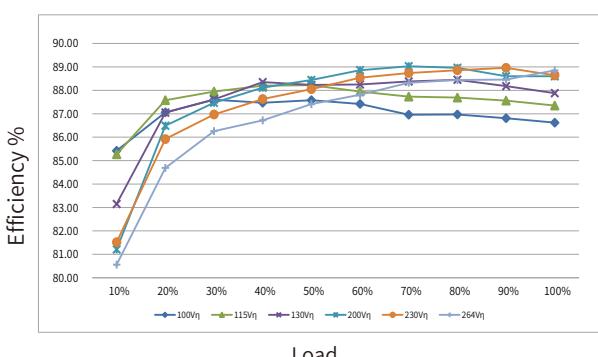
THD vs. Load



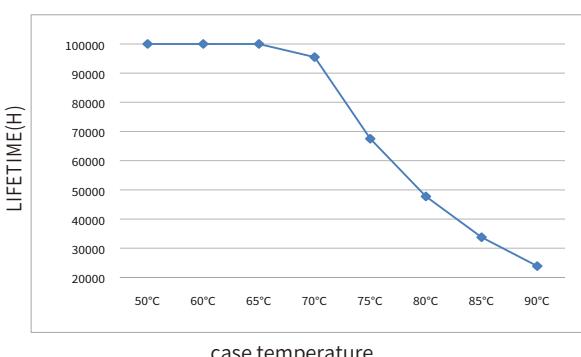
Power factor vs. Load



Efficiency vs. Load



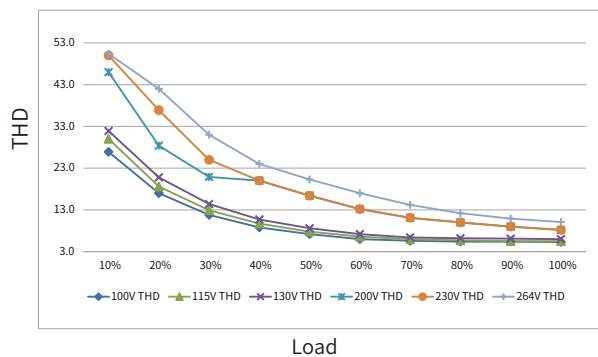
Lifetime vs. case temperature



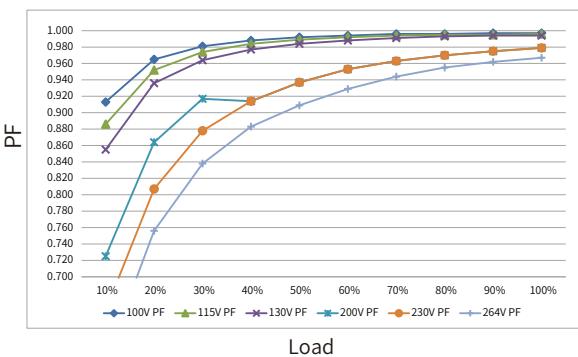
Electrical characteristics

BK-HGV048-24V0 Electrical characteristics

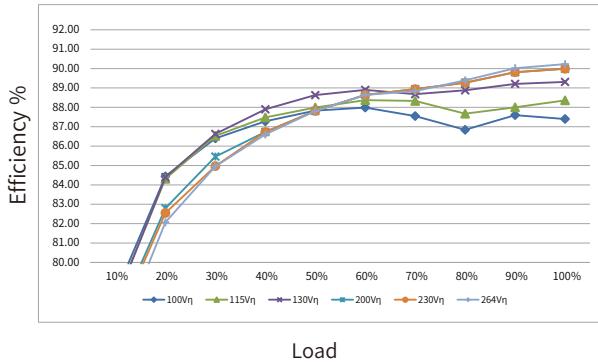
THD vs. Load



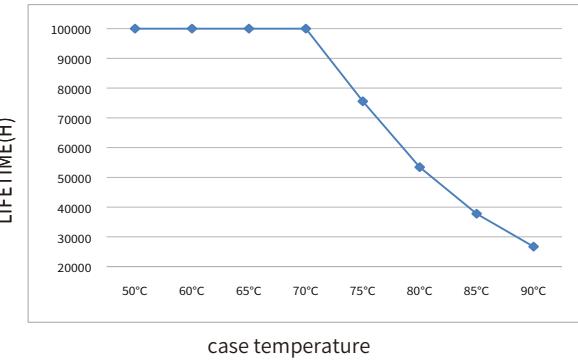
Power factor vs. Load



Efficiency vs. Load

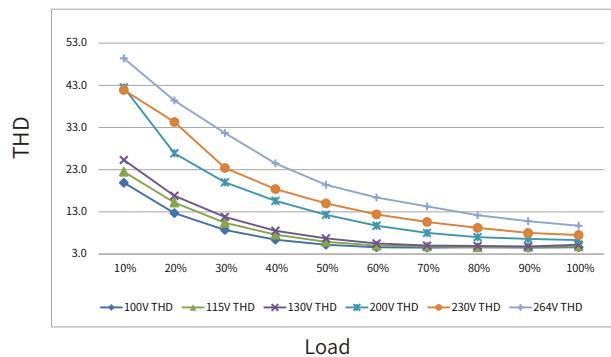


Lifetime vs. case temperature

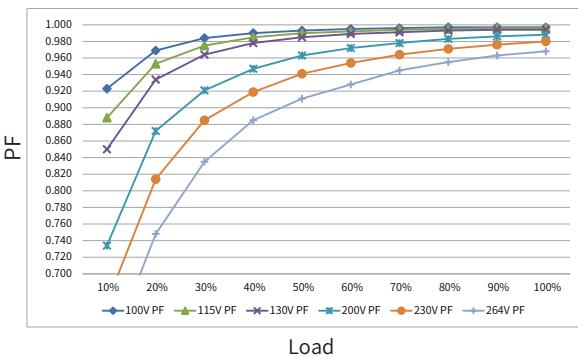


BK-HGV048-12V0 Electrical characteristics

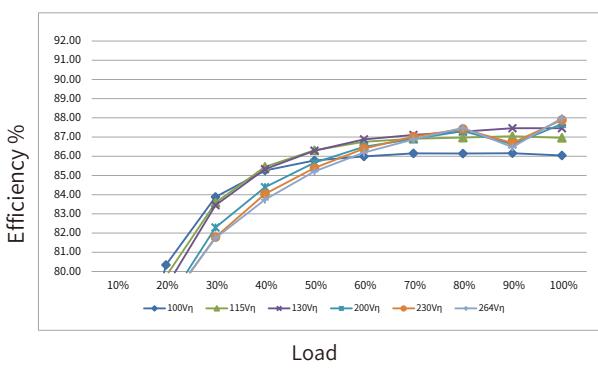
THD vs. Load



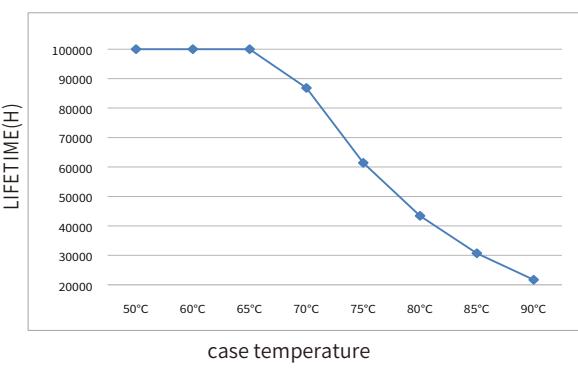
Power factor vs. Load



Efficiency vs. Load



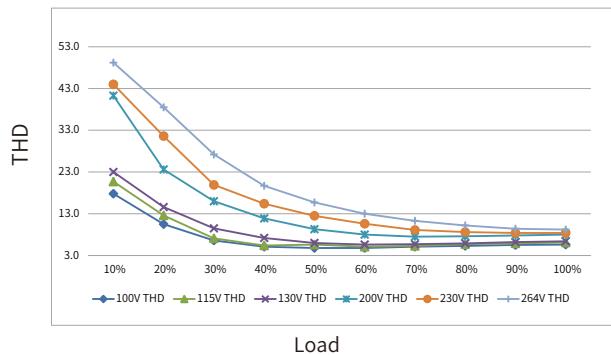
Lifetime vs. case temperature



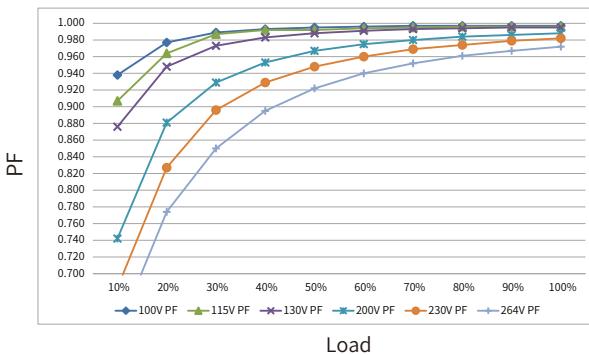
Electrical characteristics

BK-HGV060-24V0 Electrical characteristics

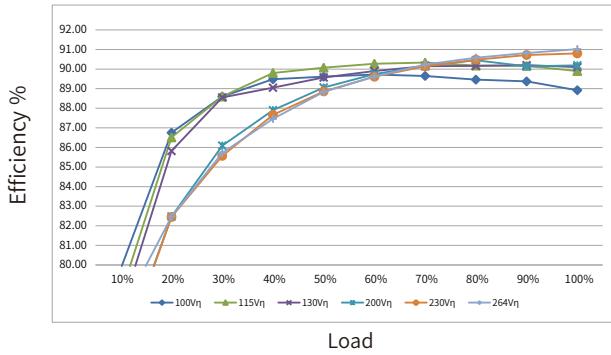
THD vs. Load



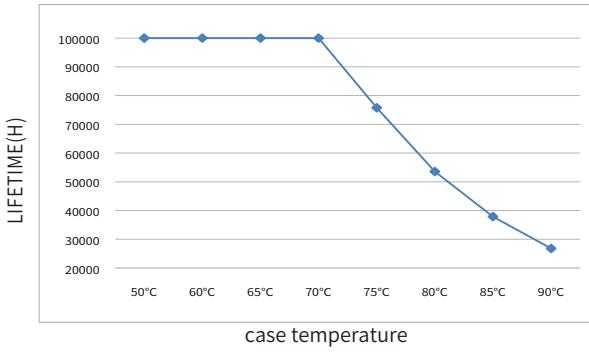
Power factor vs. Load



Efficiency vs. Load

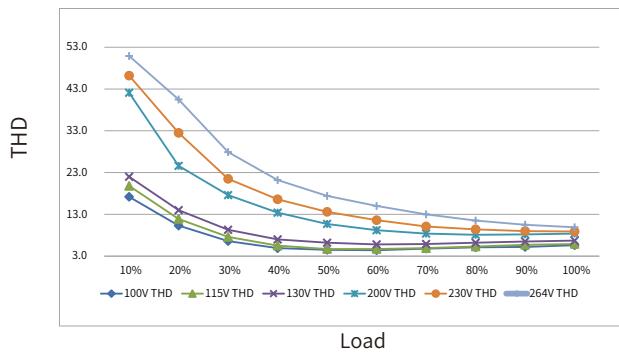


Lifetime vs. case temperature

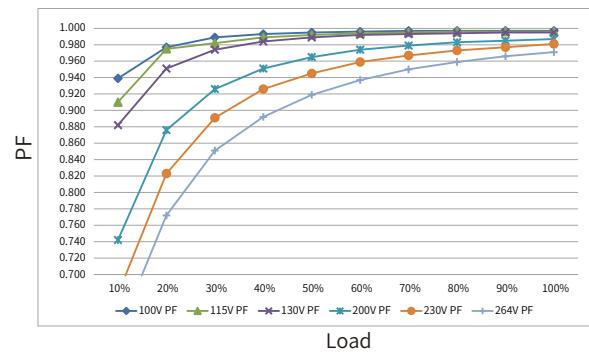


BK-HGV060-12V0 Electrical characteristics

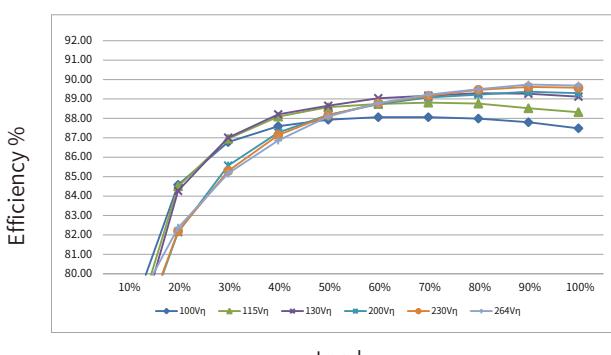
THD vs. Load



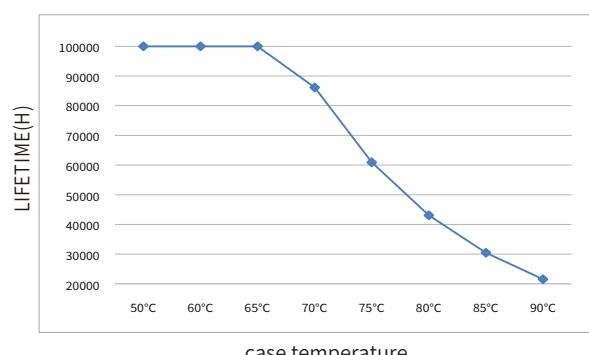
Power factor vs. Load



Efficiency vs. Load



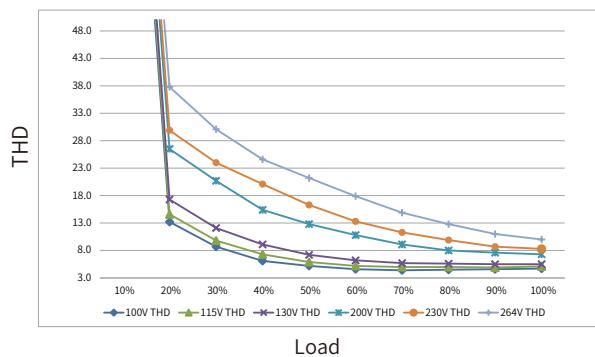
Lifetime vs. case temperature



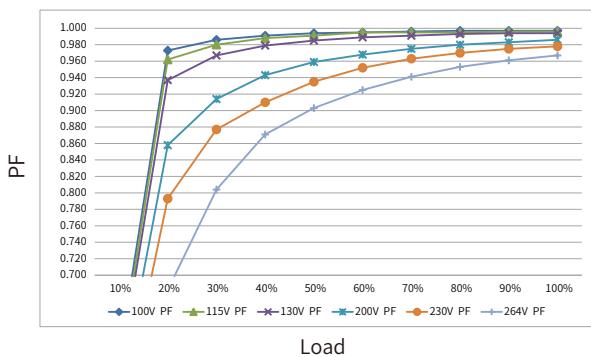
Electrical characteristics

BK-HGV072-24V0 Electrical characteristics

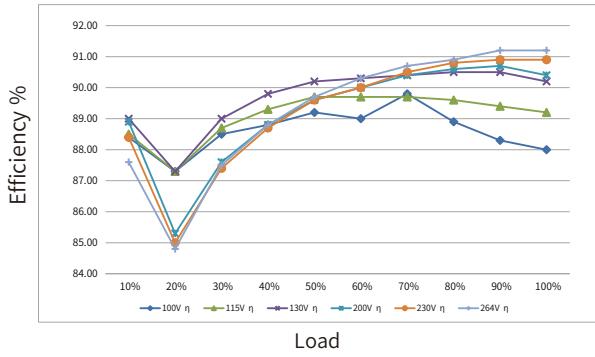
THD vs. Load



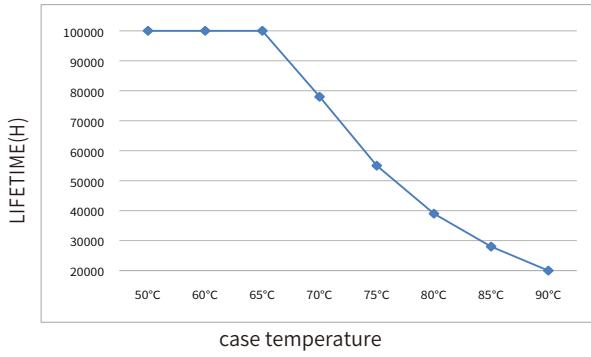
Power factor vs. Load



Efficiency vs. Load

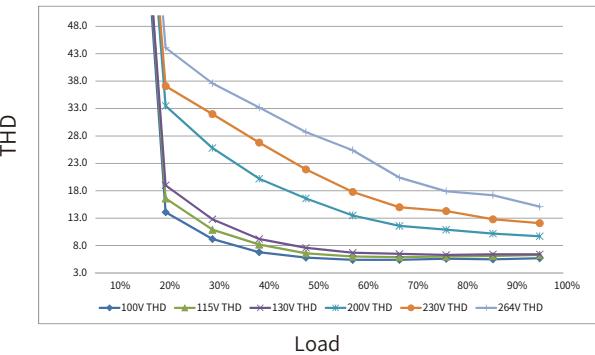


Lifetime vs. case temperature

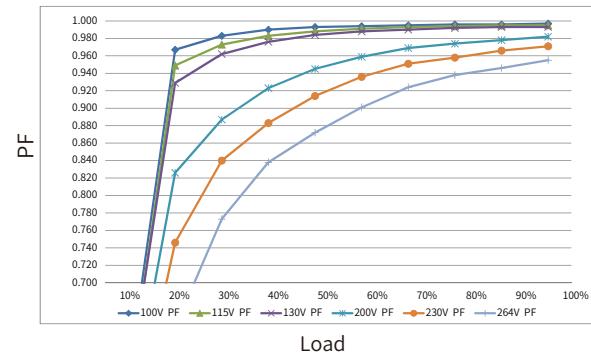


BK-HGV072-12V0 Electrical characteristics

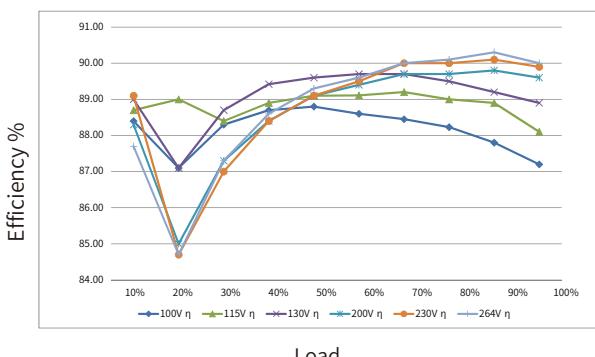
THD vs. Load



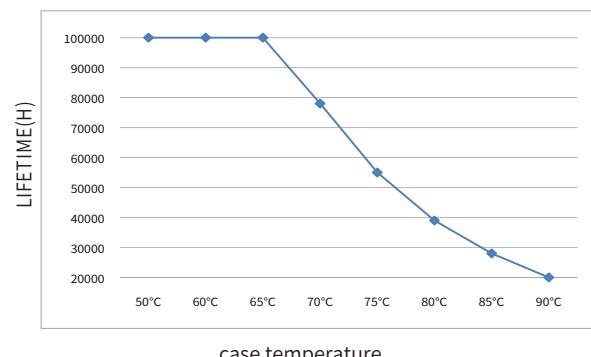
Power factor vs. Load



Efficiency vs. Load



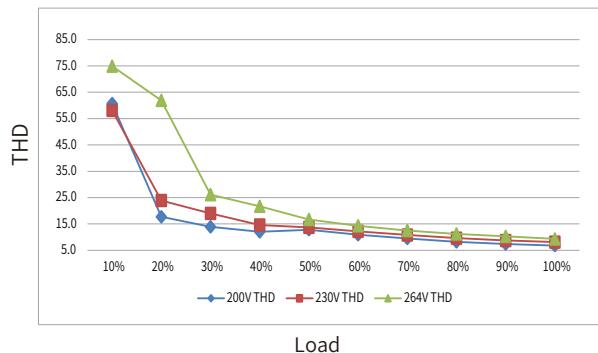
Lifetime vs. case temperature



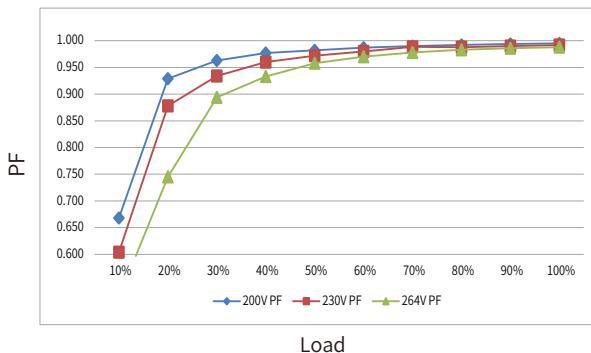
Electrical characteristics

BK-HGV100-48V0 Electrical characteristics

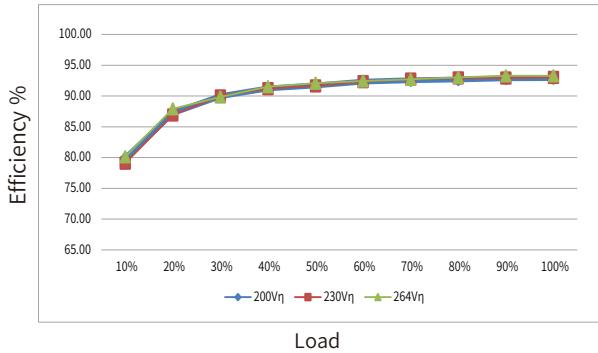
THD vs. Load



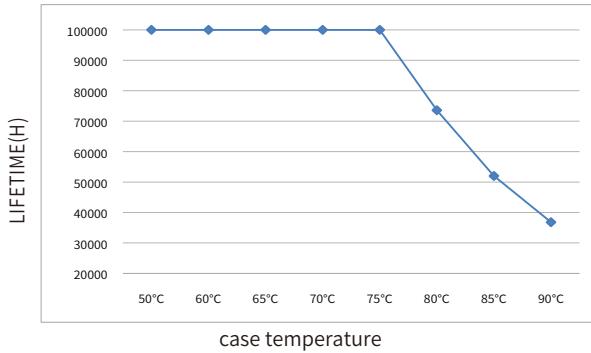
Power factor vs. Load



Efficiency vs. Load

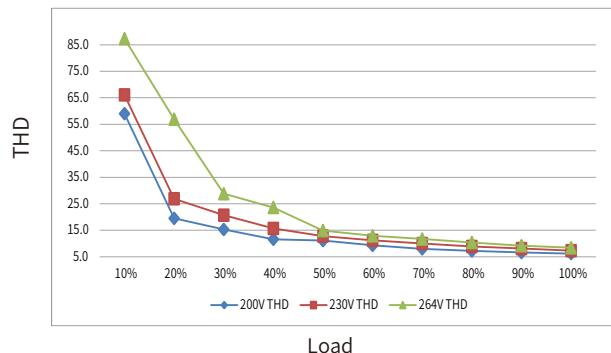


Lifetime vs. case temperature

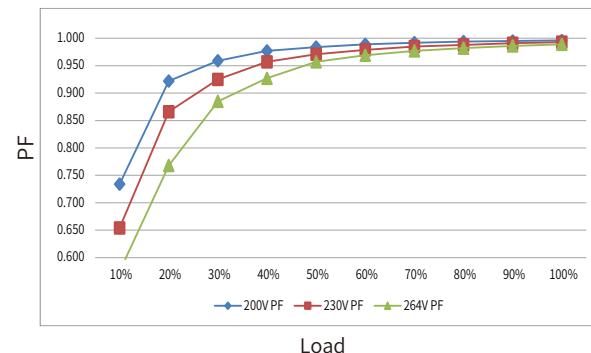


BK-HGV100-24V0 Electrical characteristics

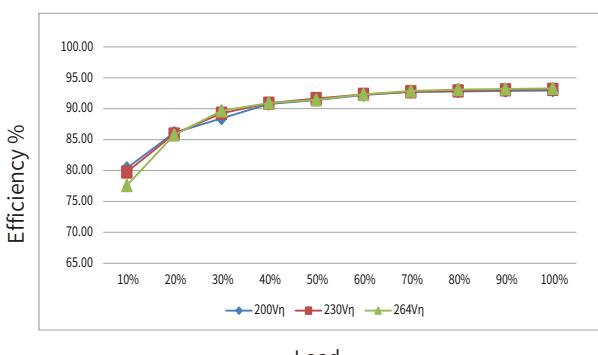
THD vs. Load



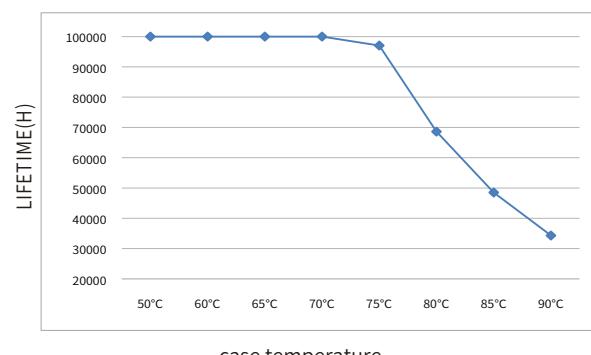
Power factor vs. Load



Efficiency vs. Load



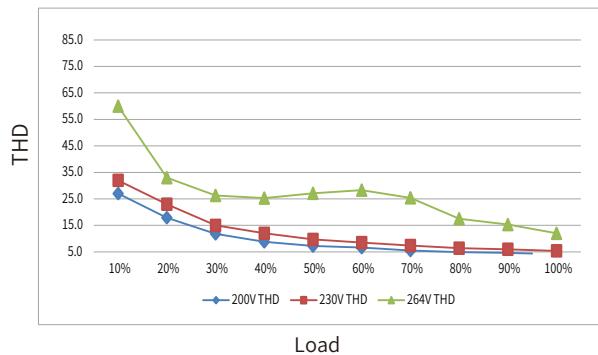
Lifetime vs. case temperature



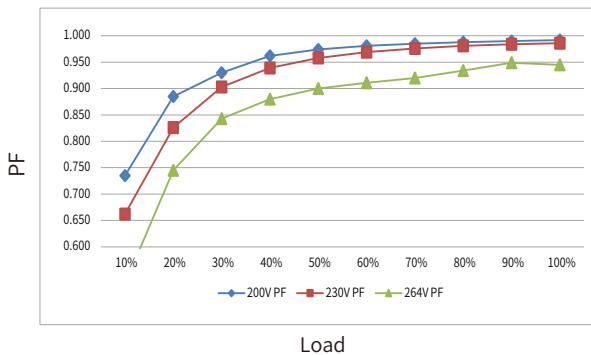
Electrical characteristics

BK-HGV150-48V0 Electrical characteristics

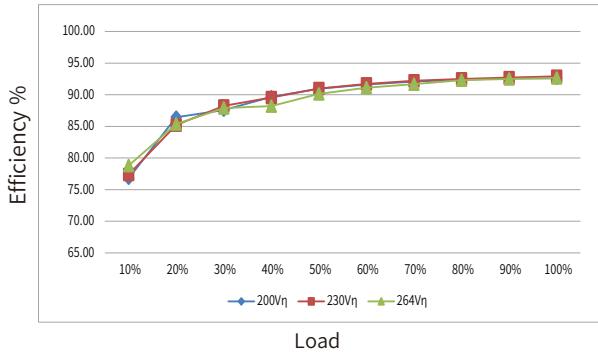
THD vs. Load



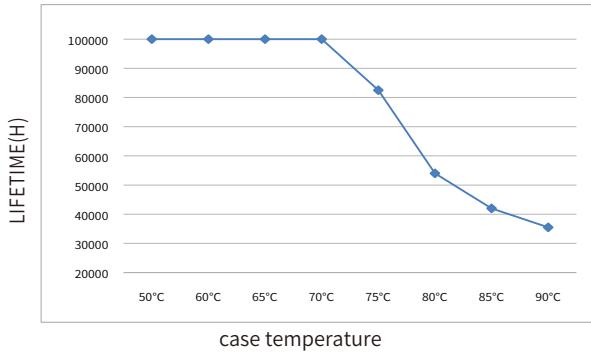
Power factor vs. Load



Efficiency vs. Load

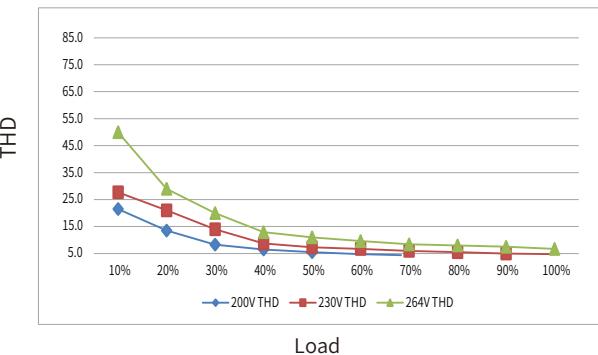


Lifetime vs. case temperature

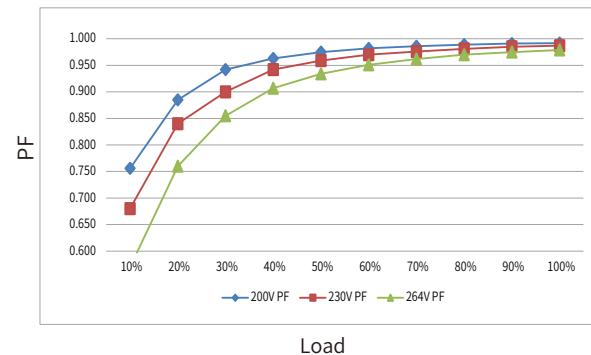


BK-HGV100-24V0 Electrical characteristics

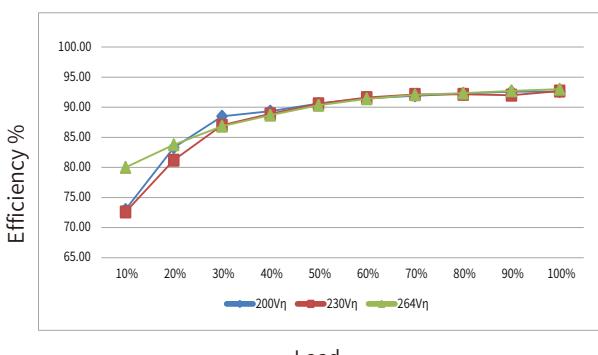
THD vs. Load



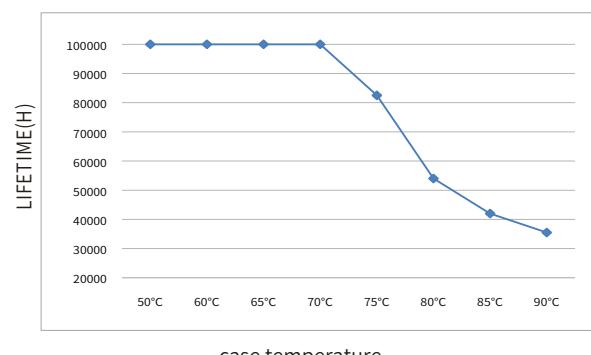
Power factor vs. Load



Efficiency vs. Load



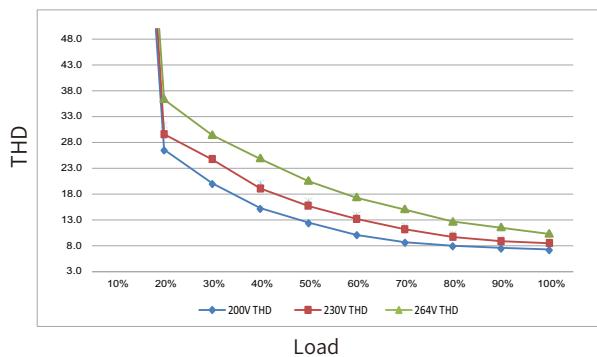
Lifetime vs. case temperature



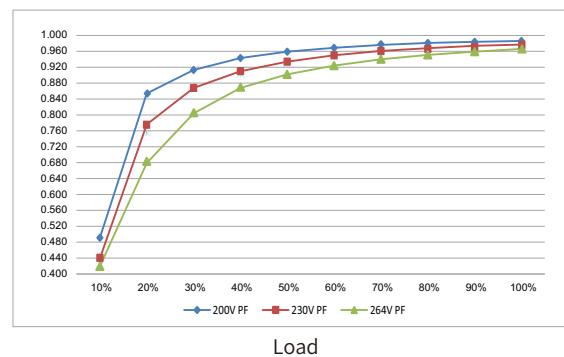
Electrical characteristics

BK-HGV070-48V0 Electrical characteristics

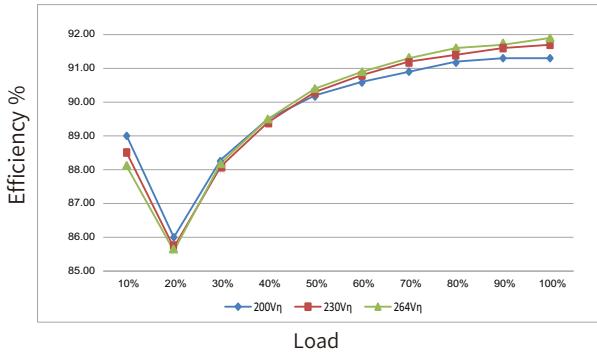
THD vs. Load



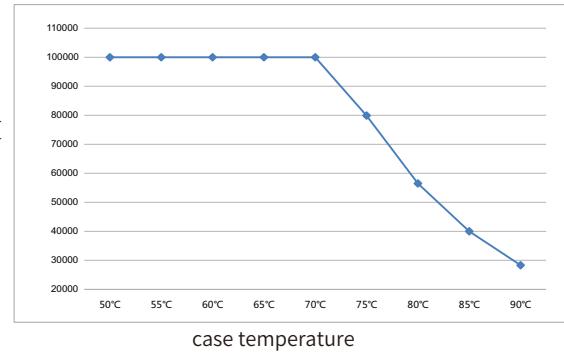
Power factor vs. Load



Efficiency vs. Load



Lifetime vs. case temperature

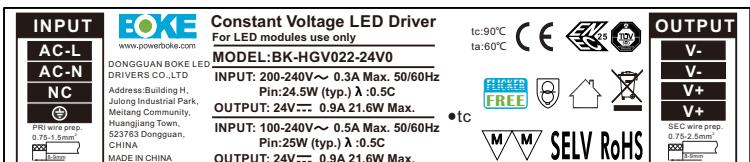


Label

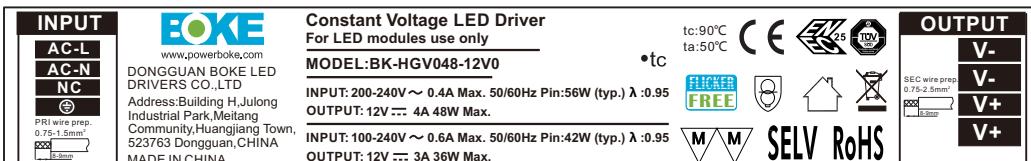
BK-HGV022-12V0



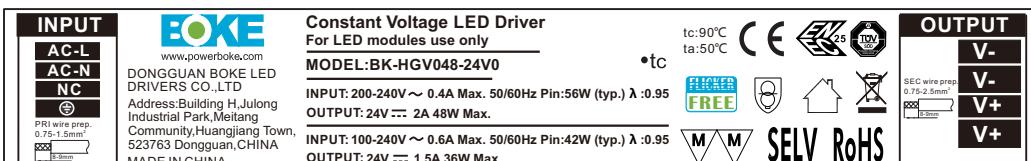
BK-HGV022-24V0



BK-HGV048-12V0

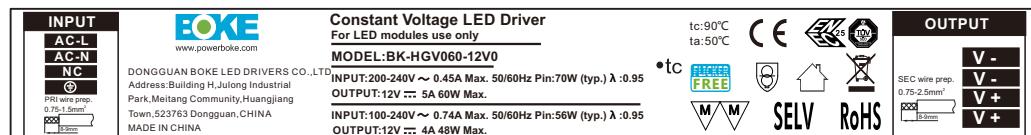


BK-HGV048-24V0

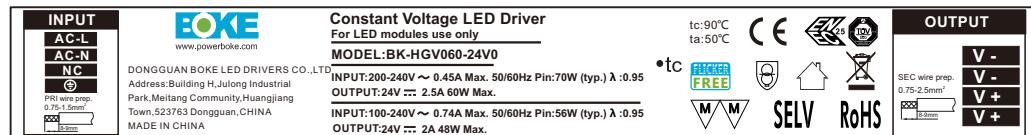


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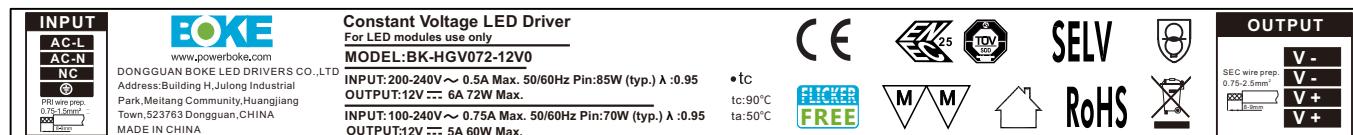
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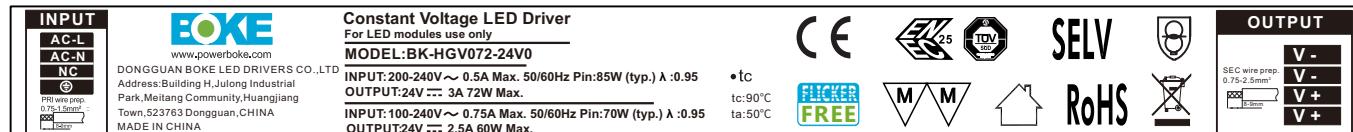
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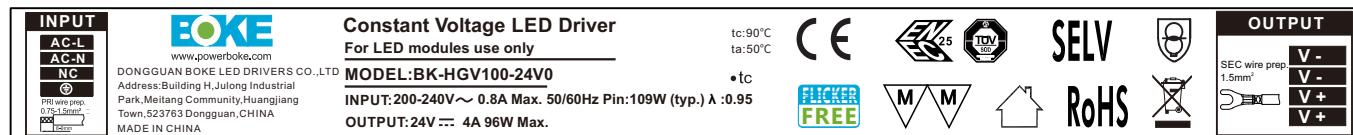
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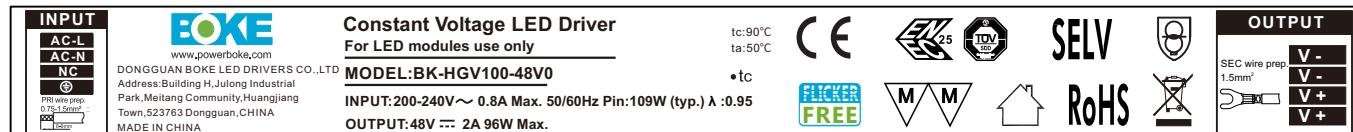
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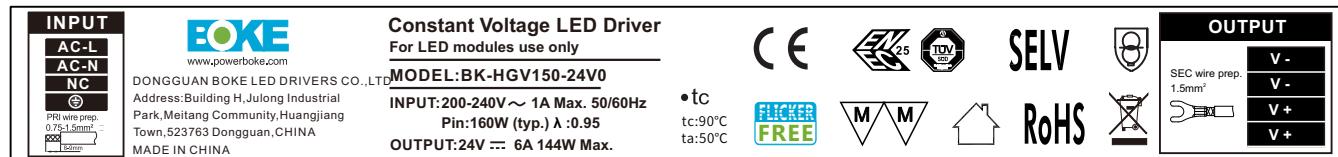
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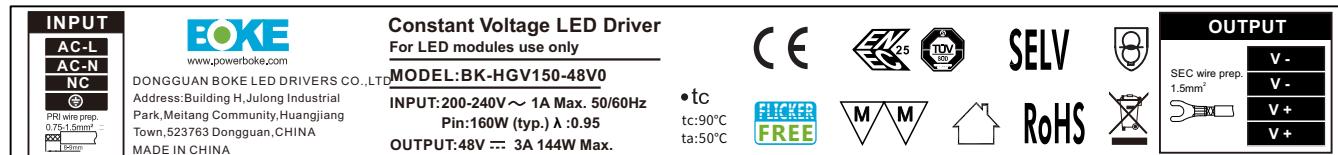
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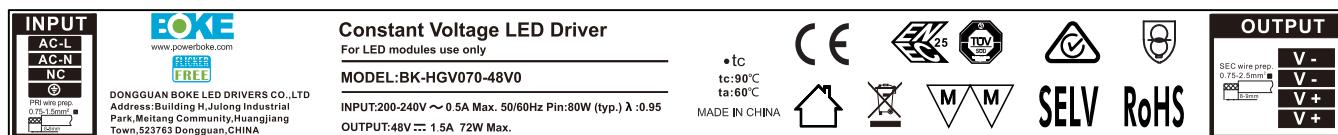
BK-HGV150-24V0



BK-HGV150-48V0



BK-HGV070-48V0



Surge curve

HGV022

Specification item	Value	unit	Condition
Inrush current Ipeak	25.75	A	Input voltage 230V
Inrush current Twidth	300	us	Input voltage 230V, width at 50% peak
Drivers/MCB 16A type B	≤7	PCS	

HGV048

Specification item	Value	unit	Condition
Inrush current Ipeak	26.4	A	Input voltage 230V
Inrush current Twidth	300	us	Input voltage 230V, width at 50% peak
Drivers/MCB 16A type B	≤9	PCS	

HGV060

Specification item	Value	unit	Condition
Inrush current Ipeak	30	A	Input voltage 230V
Inrush current Twidth	300	us	Input voltage 230V, width at 50% peak
Drivers/MCB 16A type B	≤7	PCS	

HGV072

Specification item	Value	unit	Condition
Inrush current Ipeak	50	A	Input voltage 230V
Inrush current Twidth	970	us	Input voltage 230V, width at 50% peak
Drivers/MCB 16A type B	≤5	PCS	

HGV100

Specification item	Value	unit	Condition
Inrush current Ipeak	46	A	Input voltage 230V
Inrush current Twidth	280	us	Input voltage 230V, width at 50% peak
Drivers/MCB 16A type B	≤5	PCS	

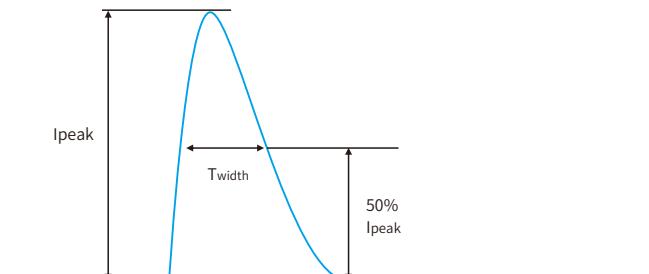
HGV150

Specification item	Value	unit	Condition
Inrush current Ipeak	60	A	Input voltage 230V
Inrush current Twidth	485	us	Input voltage 230V, width at 50% peak
Drivers/MCB 16A type B	≤2	PCS	

HGV070

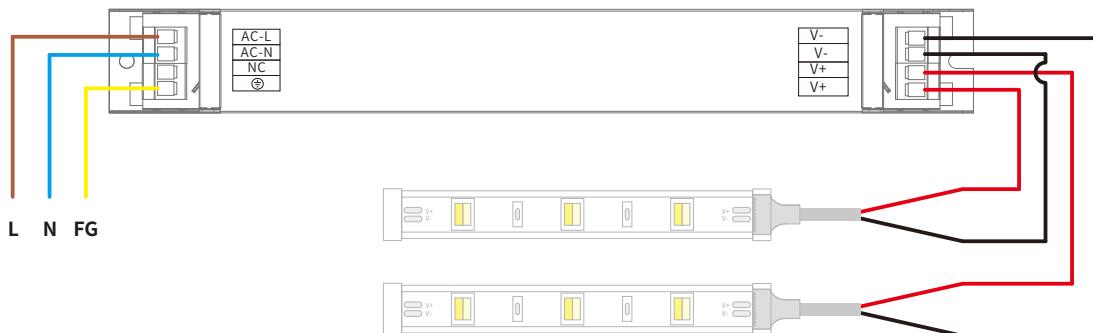
Specification item	Value	unit	Condition
Inrush current Ipeak	34	A	Input voltage 230V
Inrush current Twidth	360	us	Input voltage 230V, width at 50% peak
Drivers/MCB 16A type B	≤5	PCS	

MCB	Rating	Relative number of LED driver
B	10A	63%
B	13A	81%
B	16A	100%(stated in datasheet))
B	20A	125%
B	25A	156%
C	10A	104%
C	13A	135%
C	16A	170%
C	20A	208%
C	25A	260%

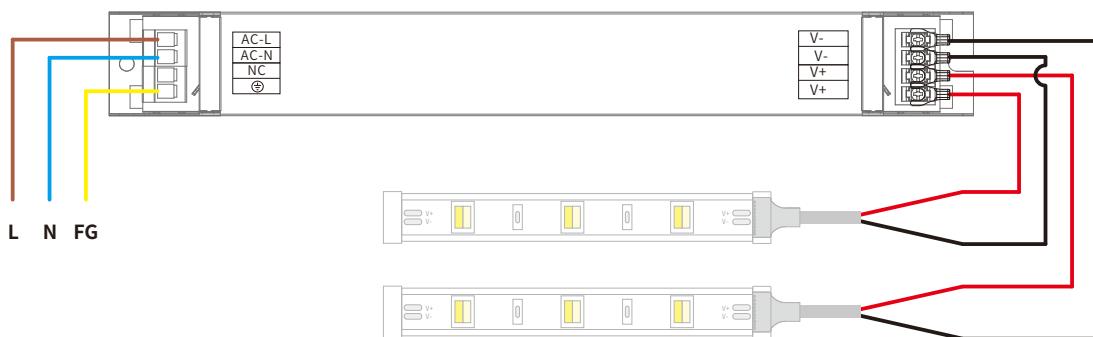


Wiring

HGV022
HGV048
HGV060
HGV072
HGV070



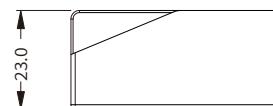
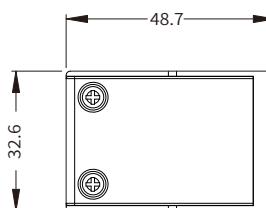
HGV100
HGV150



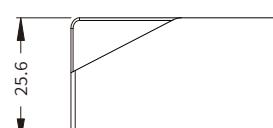
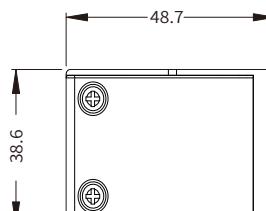
Wiring block size



(Model: BK-BAS003A)



(Model: BK-BAS003B)

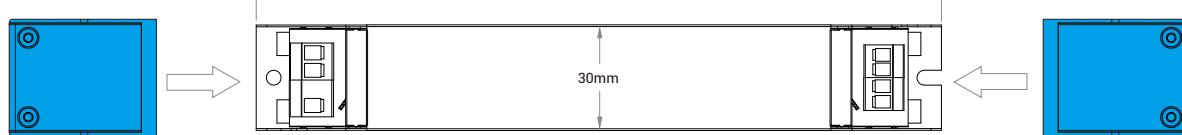


Note: BAS003A suitable for HGV022/HGV048/HGV060/HGV072/HGV070/HGV100

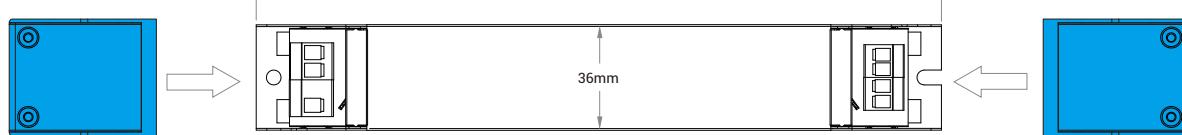
BAS003B suitable for HGV150

Wiring block usage

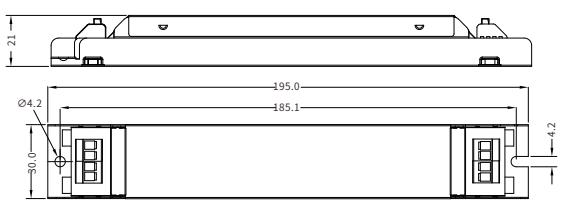
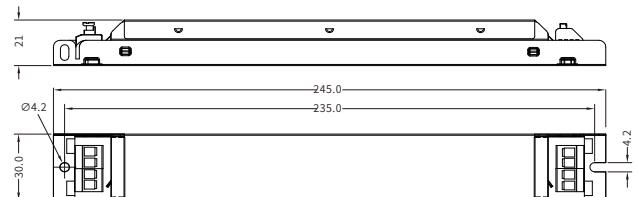
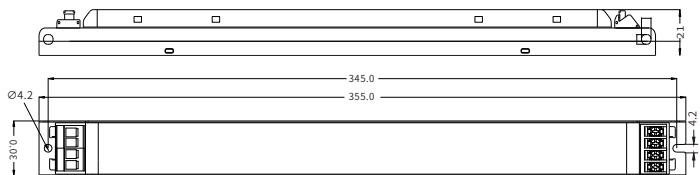
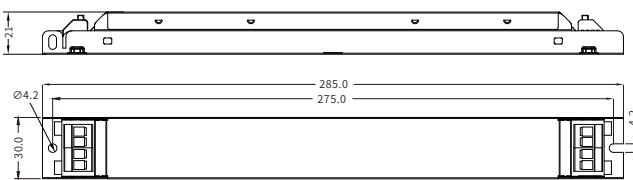
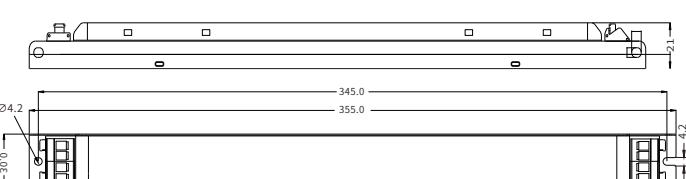
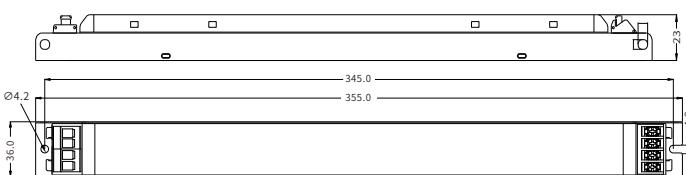
(Model: BK-BAS003A)



(Model: BK-BAS003B)

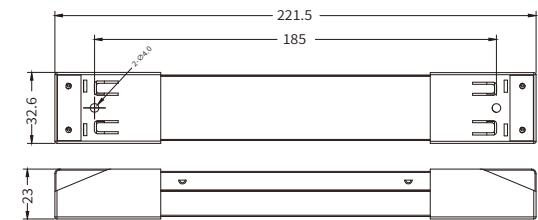
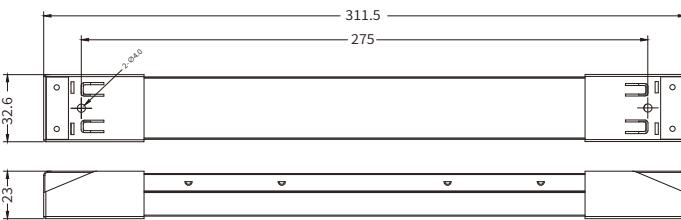
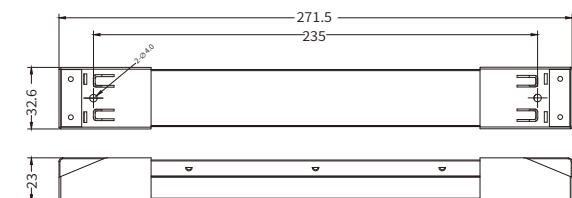
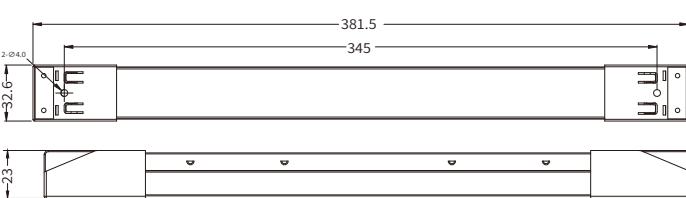
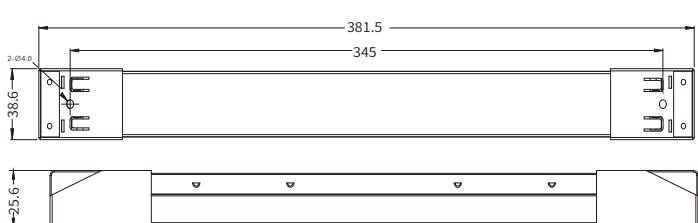


Mechanical Specification

HGV022

HGV048

HGV100

HGV060

HGV072/HGV070

HGV150


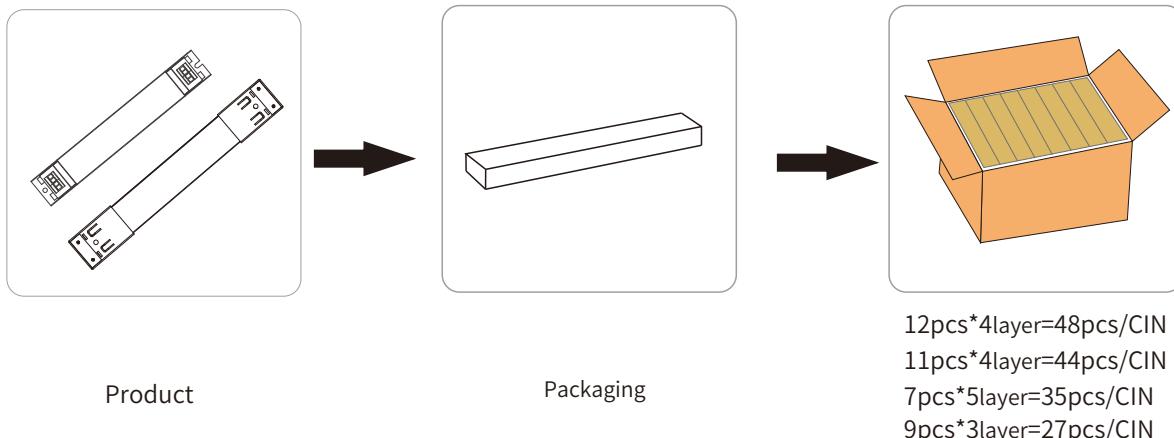
Unit:mm

size(Include accessories)

HGV022

HGV060

HGV048

HGV072/HGV100/HGV070

HGV150


Unit:mm

Product package



Packaging(Excluding accessories)

Mobel	Product size	Weight	Packaging size	Carton size	Qty/carton	N.W	G.W
HGV022	L195*W30*H21mm	130g	L230*W40*H30mm	L380*W250*H180mm	48pcs	6.30kg	8.50kg
HGV048	L245*W30*H21mm	185g	L280*W40*H30mm	L345*W300*H175mm	44pcs	8.20kg	9.60kg
HGV060	L285*W30*H21mm	215g	L320*W40*H30mm	L345*W300*H175mm	35pcs	7.50kg	9.50kg
HGV072	L355*W30*H21mm	290g	L390*W40*H30mm	L410*W285*H155mm	27pcs	7.83kg	9.50kg
HGV100	L355*W30*H21mm	290g	L390*W40*H30mm	L410*W285*H155mm	27pcs	7.83kg	9.50kg
HGV150	L355*W36*H23mm	418g	L390*W43*H30mm	L410*W285*H155mm	27pcs	11.3kg	12.8kg
HGV070	L355*W30*H21mm	300g	L390*W40*H30mm	L410*W285*H155mm	27pcs	8.10kg	9.70kg

Packaging(Include accessories)

Mobel	Product size	Weight	Packaging size	Carton size	Qty/carton	N.W	G.W
HGV022	L221.5*W32.6*H23mm	150g	L230*W40*H30mm	L380*W250*H180mm	48pcs	7.20kg	8.80kg
HGV048	L271.5*W32.6*H23mm	205g	L280*W40*H30mm	L345*W300*H175mm	44pcs	9.00kg	10.7kg
HGV060	L311.5*W32.6*H23mm	235g	L320*W40*H30mm	L345*W300*H175mm	35pcs	8.22kg	9.90kg
HGV072	L381.5*W32.6*H23mm	310g	L390*W40*H30mm	L410*W285*H155mm	27pcs	8.37kg	10.0kg
HGV100	L381.5*W32.6*H23mm	310g	L390*W40*H30mm	L410*W285*H155mm	27pcs	8.37kg	10.0kg
HGV150	L381.5*W38.6*H25.6mm	440g	L390*W43*H30mm	L410*W285*H155mm	27pcs	11.9kg	13.0kg
HGV070	L381.5*W32.6*H23mm	320g	L390*W40*H30mm	L410*W285*H155mm	27pcs	8.64kg	10.5kg

Additional information

- This product can only be used outside the light body, Can not be used inside of the light, and it must be used within the specified working environment.
- The life and MTBF of the product are for reference only, and do not represent a warranty statement. If the drive has been turned on, there is no warranty.
- For more information, please send an email to info@bokedriver.com.