Power adapter
LGV(B) Series

Features

- **DC output cables are available in straight/angled types, and DC output connectors are available in 5521/5525 specifications.**
- Flicker-free output,which meets the requirement of ErP standard
- High PF, high efficiency, low THD
- SELV and Class II design
- Compliance with CE, 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, etc

Typical applications

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

Model coding rules of LGV(B) series

BK - LGVXXXB - XXV0

- Output current
- Product series
- BOKE

Model list

Model	Input voltage	Output power	Output voltage	Output current	Dimension
BK-LGV100B-24V0	200-240VAC/DC	100.8W MAX.	24VDC	4.2A	L146*W63*H32mm
BK-LGV100B-48V0	200-240VAC/DC	100.8W MAX.	48VDC	2.1A	L146*W63*H32mm
BK-LGV120B-24V0	200-240VAC/DC	120W MAX.	24VDC	5A	L146*W63*H32mm
BK-LGV120B-48V0	200-240VAC/DC	120W MAX.	48VDC	2.5A	L146*W63*H32mm
BK-LGV150B-24V0	200-240VAC/DC	150W MAX.	24VDC	6.25A	L146*W63*H32mm
BK-LGV150B-48V0	200-240VAC/DC	158W MAX.	48VDC	3.3A	L146*W63*H32mm
BK-LGV200B-24V0	200-240VAC/DC	200W MAX.	24VDC	8.3A	L175*W63*H32mm
BK-LGV200B-48V0	200-240VAC/DC	200W MAX.	48VDC	4.15A	L175*W63*H32mm

Technical data

Product model	BK-LGV100B-24V0	BK-LGV100B-48V0	
Output parameters			
Regulation method	Constant voltage	Constant voltage	
Rated output current	4.2A	2.1A	
Rated output voltage	24VDC	48VDC	
Rated output power	100.8W Max	100.8W Max	
Output voltage adjustment	Fixed output	Fixed output	
Output current ripple(typ.)	≤350mV(100Hz)	≤500mV(100Hz)	
Voltage accuracy	±5%	±5%	
Linear regulation	±5%	±5%	
Load regulation	±5%	±5%	
Flicker-free(typ.)	Pst LM = 0.012, SVM = 0.026 ,(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	<0.65A (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.)	6% ,see the electrical values below for details		
Efficiency(typ.)	93% ,see the electrical values below for details		
In-rush current(typ.)	49.7A peak ,250us 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):108.4W, 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		
Mains surge capability	L-N:2KV(90°/270°, 5 times each with an interval of 60s)(Performance criterion:B)		
Leakage current(typ.)	0.17mA		
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=-20-45°C		
Case temperature	Tc=80°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			
Compliance certification	CE, CCC, EL		
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	Compatible IEC 61347-2- 13 Annex J , compatible with EN 60598-2-22 and EN 50172		
RF	N/A		

Remarks

1.By default, all parameter are measured at 230VAC input, 50Hz, full load and 25°C of ambient temperature.
2.The power supply needs to be connected to the load before being powered on.
3. When the load is DC to DC module, it is necessary to control the input surge current (<30A) of this module.

Technical data

Product model	BK-LGV120B-24V0	BK-LGV120B-48V0	
Output parameters			
Regulation method	Constant voltage	Constant voltage	
Rated output current	5A	2.5A	
Rated output voltage	24VDC	48VDC	
Rated output power	120W Max	120W Max	
Output voltage adjustment	Fixed output	Fixed output	
Output current ripple(typ.)	≤350mV(100Hz)	≤500mV(100Hz)	
Voltage accuracy	±5%	±5%	
Linear regulation	±5%	±5%	
Load regulation	±5%	±5%	
Flicker-free(typ.)	Pst LM = 0.015, SVM = 0.024 ,(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	<0.7A (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.)	6% ,see the electrical values below for details		
Efficiency(typ.)	92.5% ,see the electrical values below for details		
In-rush current(typ.)	36.3A peak ,332us 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):129.7W, 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		
Mains surge capability	L-N:2KV(90°/270°, 5 times each with an interval of 60s)(Performance criterion:B)		
Leakage current(typ.)	0.24mA		
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=-20-45°C		
Case temperature	Tc=80°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			
Compliance certification	CE, CCC, EL		
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	Compatible IEC 61347-2- 13 Annex J , compatible with EN 60598-2-22 and EN 50172		
RF	N/A		

Remarks

1.By default, all parameter are measured at 230VAC input, 50Hz, full load and 25°C of ambient temperature.
2.The power supply needs to be connected to the load before being powered on.
3. When the load is DC to DC module, it is necessary to control the input surge current (<30A) of this module.

Technical data

Product model	BK-LGV150B-24V0	BK-LGV150B-48V0	
Output parameters			
Regulation method	Constant voltage	Constant voltage	
Rated output current	6.25A	3.3A	
Rated output voltage	24VDC	48VDC	
Rated output power	150W Max	158W Max	
Output voltage adjustment	Fixed output	Fixed output	
Output current ripple(typ.)	≤350mV(100Hz)	≤500mV(100Hz)	
Voltage accuracy	±5%	±5%	
Linear regulation	±5%	±5%	
Load regulation	±5%	±5%	
Flicker-free(typ.)	Pst LM = 0.012, 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	<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.)	61.8A peak ,296us 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		
Mains surge capability	L-N:2KV(90°/270°, 5 times each with an interval of 60s)(Performance criterion:B)		
Leakage current(typ.)	0.47mA		
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=-20-45°C		
Case temperature	Tc=85°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			
Compliance certification	CE, CCC, EL		
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	Compatible IEC 61347-2- 13 Annex J , compatible with EN 60598-2-22 and EN 50172		
RF	N/A		

Remarks

1.By default, all parameter are measured at 230VAC input, 50Hz, full load and 25°C of ambient temperature.
2.The power supply needs to be connected to the load before being powered on.
3. When the load is DC to DC module, it is necessary to control the input surge current (<30A) of this module.

Technical data

Product model	BK-LGV200B-24V0	BK-LGV200B-48V0	
Output parameters			
Regulation method	Constant voltage	Constant voltage	
Rated output current	8.3A	4.15A	
Rated output voltage	24VDC	48VDC	
Rated output power	200W Max	200W Max	
Output voltage adjustment	Fixed output	Fixed output	
Output current ripple(typ.)	≤350mV(100Hz)	≤500mV(100Hz)	
Voltage accuracy	±5%	±5%	
Linear regulation	±5%	±5%	
Load regulation	±5%	±5%	
Flicker-free(typ.)	Pst LM = 0.001, SVM = 0.008 ,(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	<1.4A (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.)	68A peak ,296us duration(50 % Ipeak), see the description below for details		
Start/Switchover/Turn off	<0.8s(AC start),<0.8s(DC start),<0.3s(AC/DC switchover),<0.5s(Turn off)		
Switching cycles	> 100,000 switching cycles		
Power consumption(typ.)	Full load(Pin):216.2W, 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		
Mains surge capability	L-N: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		
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=-20-45°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			
Compliance certification	CE, CCC, EL		
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	Compatible IEC 61347-2- 13 Annex J , compatible with EN 60598-2-22 and EN 50172		
RF	N/A		

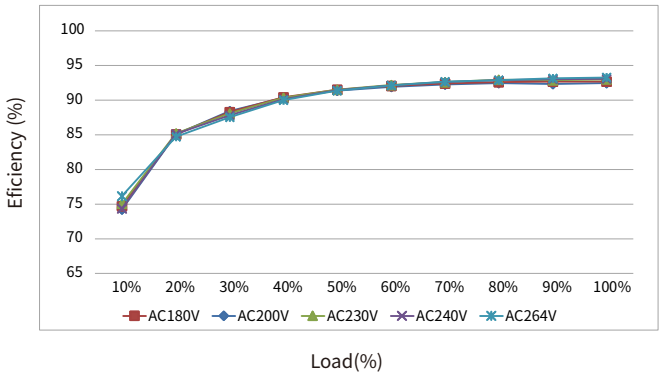
Remarks

1.By default, all parameter are measured at 230VAC input, 50Hz, full load and 25°C of ambient temperature.
2.The power supply needs to be connected to the load before being powered on.
3. When the load is DC to DC module, it is necessary to control the input surge current (<30A) of this module.

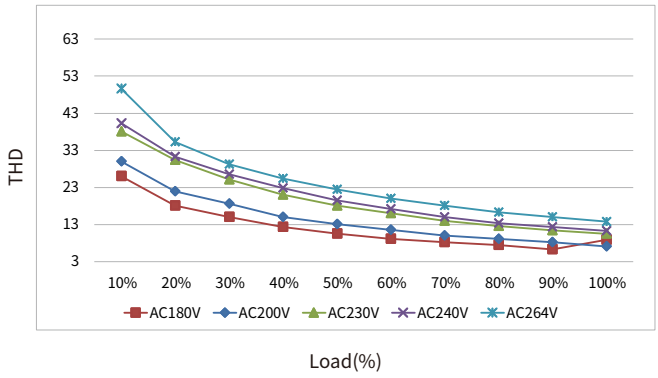
Electrical values

BK-LGV100B-24V0

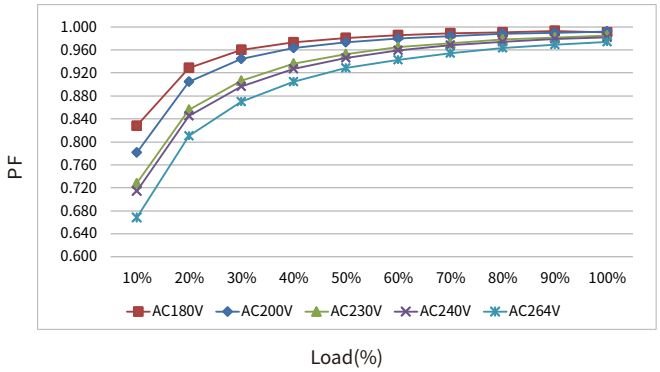
Efficiency vs load



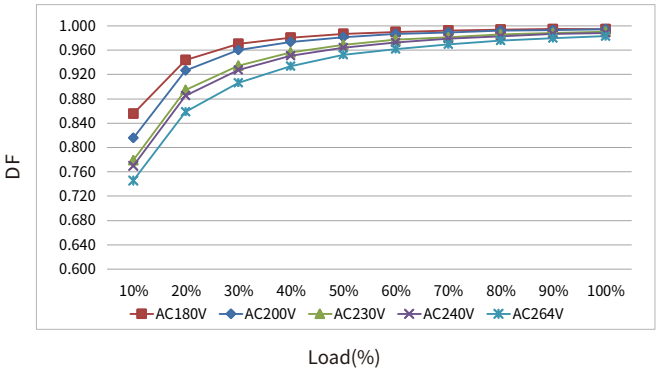
THD vs. Load



Power factor vs. Load

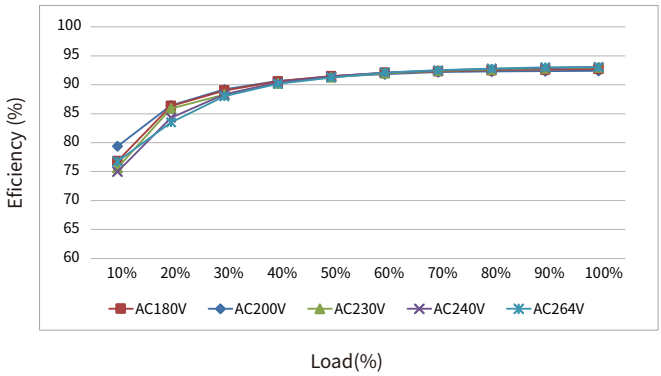


Displacement power vs. Load

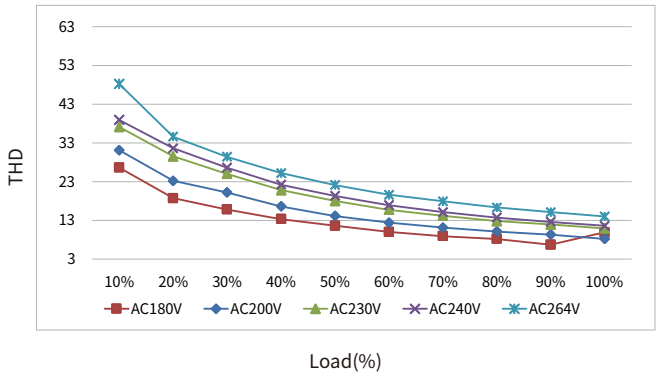


BK-LGV100B-48V0

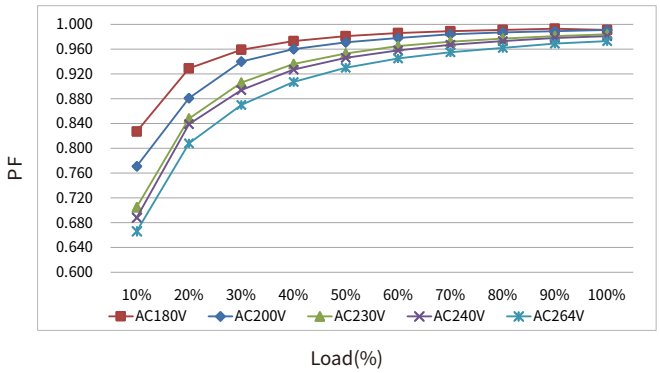
Efficiency vs load



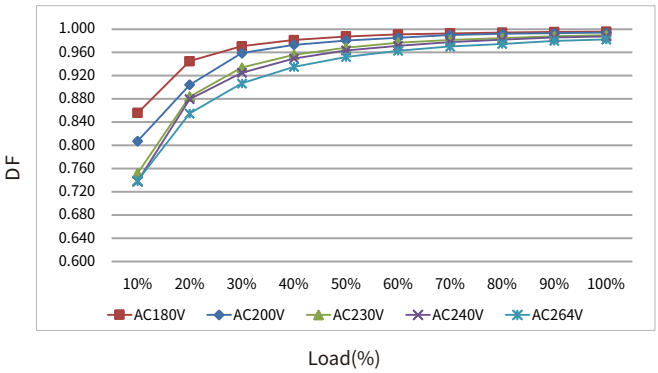
THD vs. Load



Power factor vs. Load



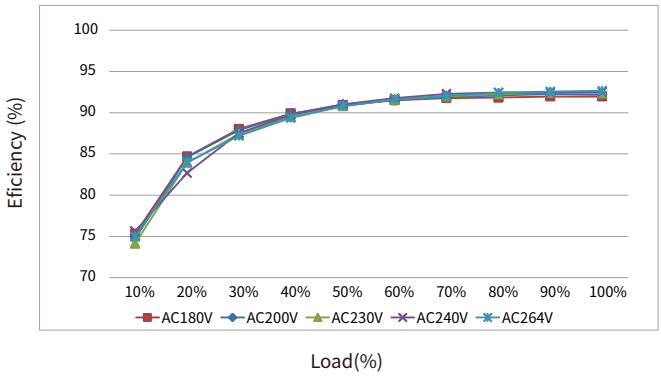
Displacement power vs. Load



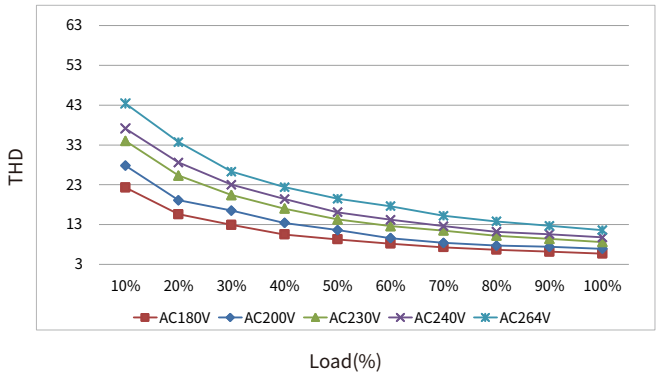
Electrical values

BK-LGV120B-24V0

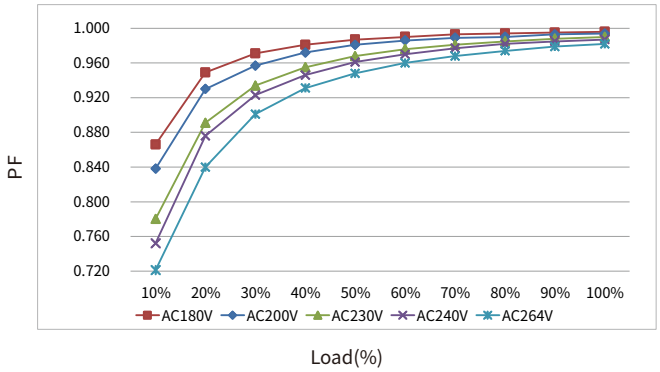
Efficiency vs load



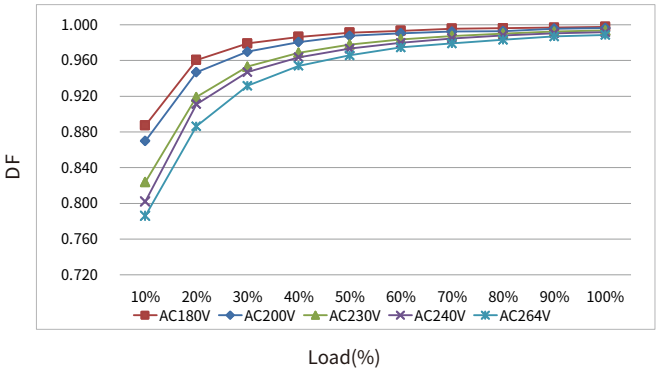
THD vs. Load



Power factor vs. Load

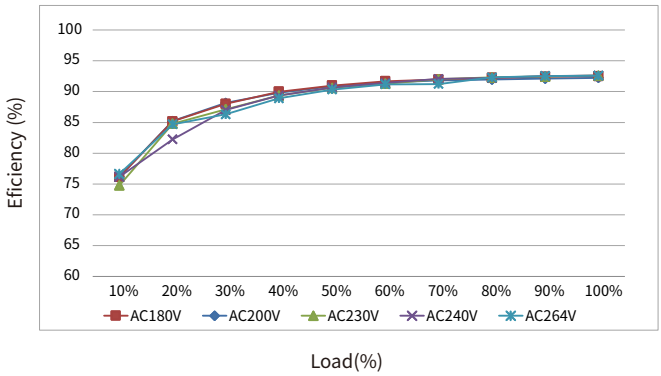


Displacement power vs. Load

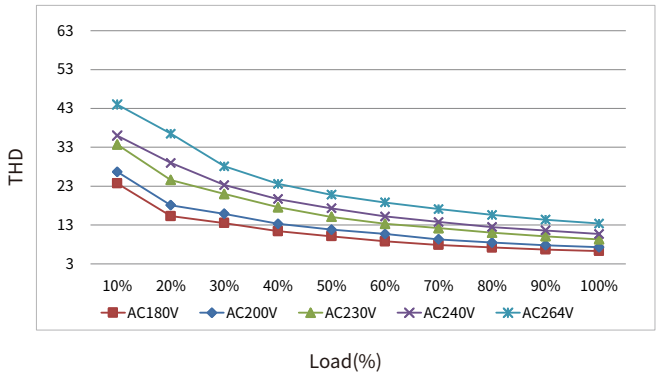


BK-LGV120B-48V0

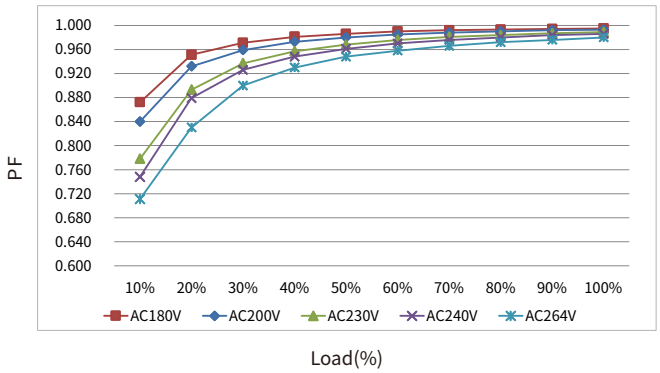
Efficiency vs load



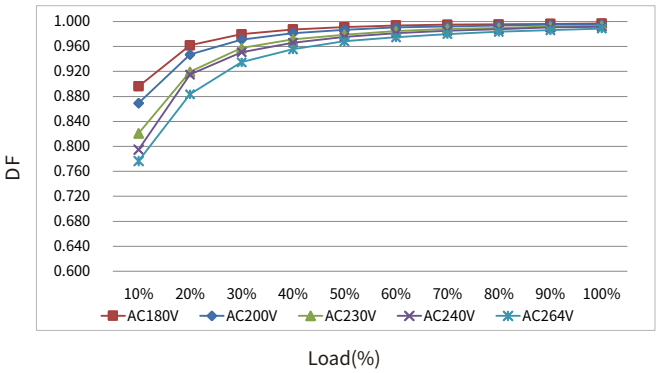
THD vs. Load



Power factor vs. Load



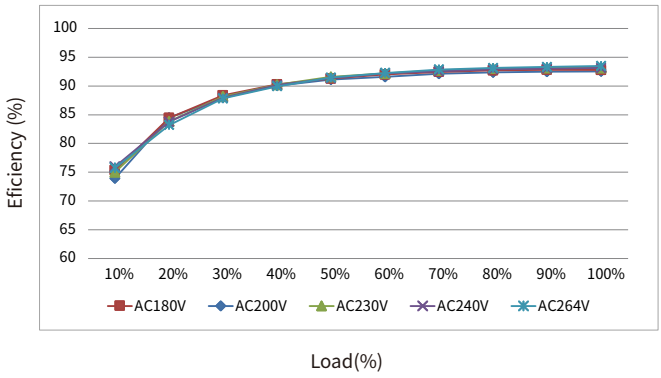
Displacement power vs. Load



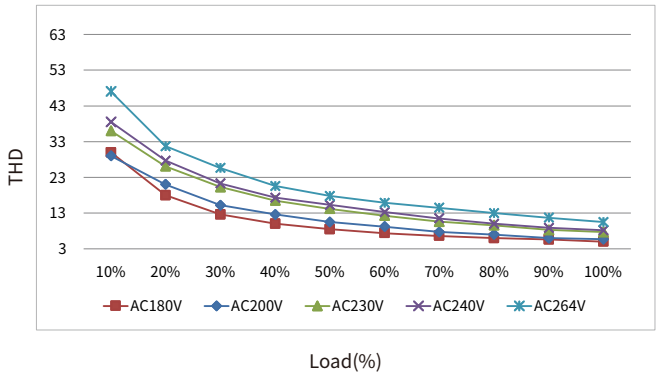
Electrical values

BK-LGV150B-24V0

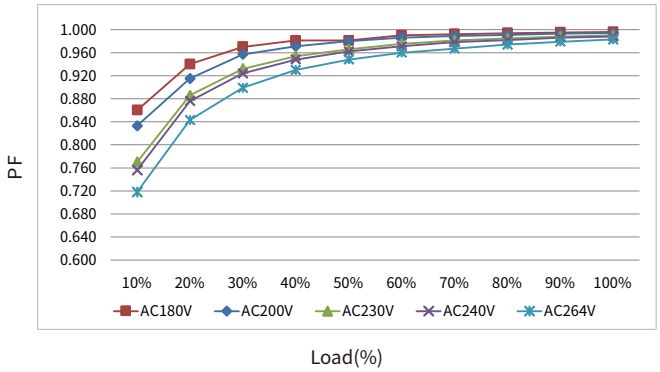
Efficiency vs load



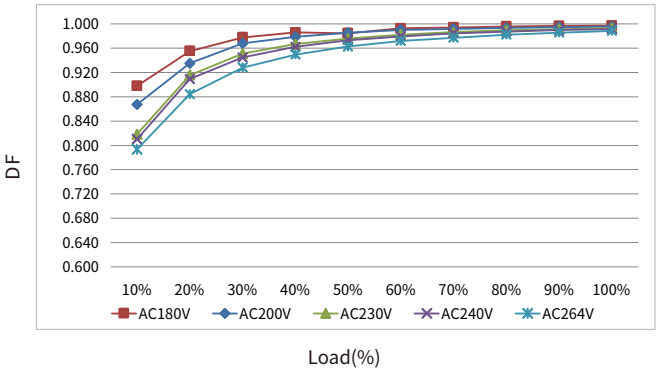
THD vs. Load



Power factor vs. Load

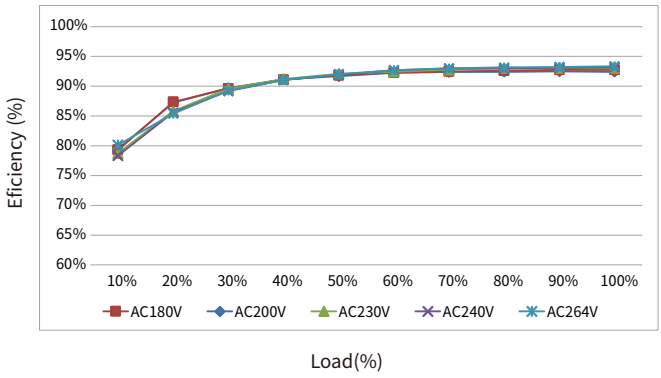


Displacement power vs. Load

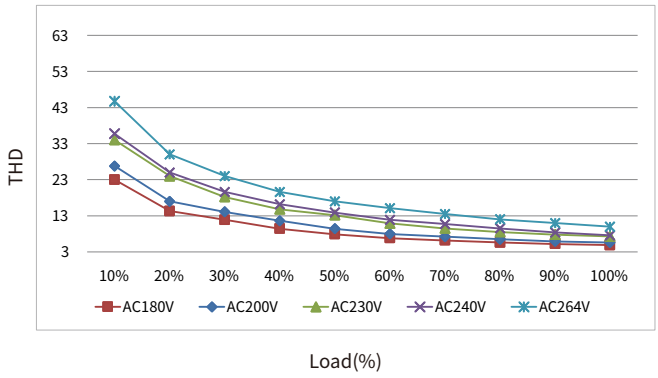


BK-LGV150B-48V0

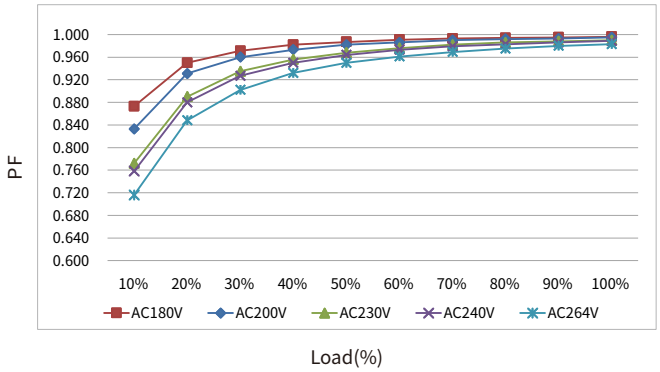
Efficiency vs load



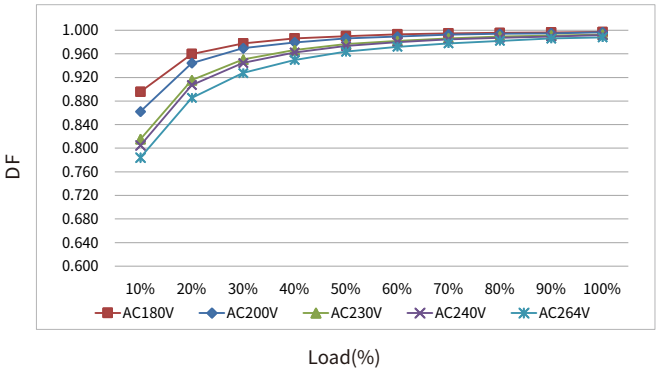
THD vs. Load



Power factor vs. Load



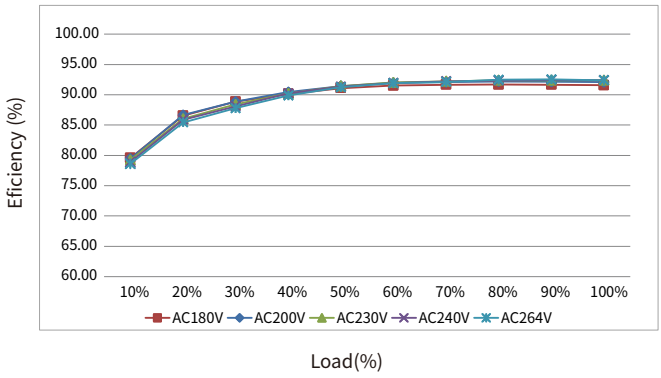
Displacement power vs. Load



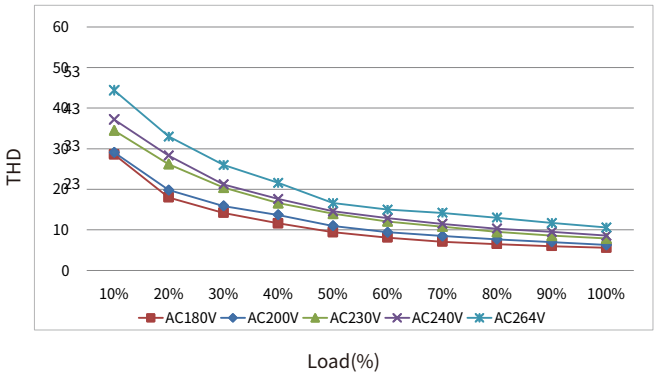
Electrical values

BK-LGV200B-24V0

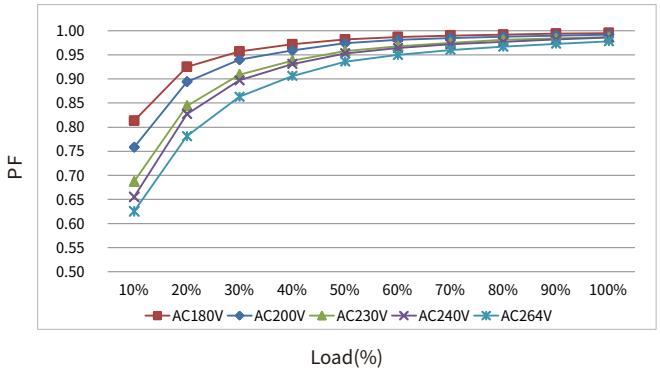
Efficiency vs load



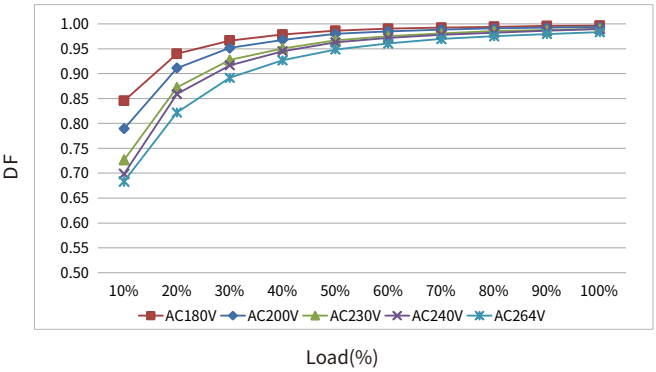
THD vs. Load



Power factor vs. Load

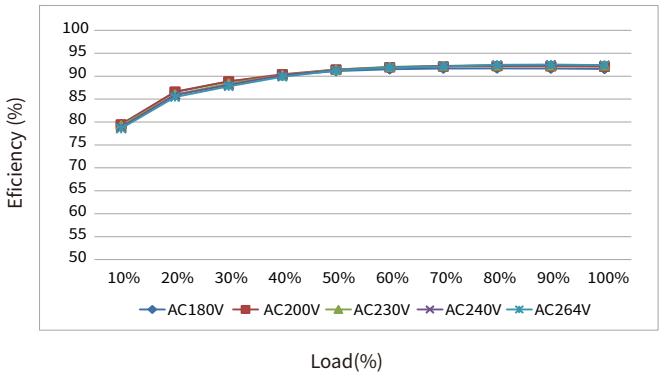


Displacement power vs. Load

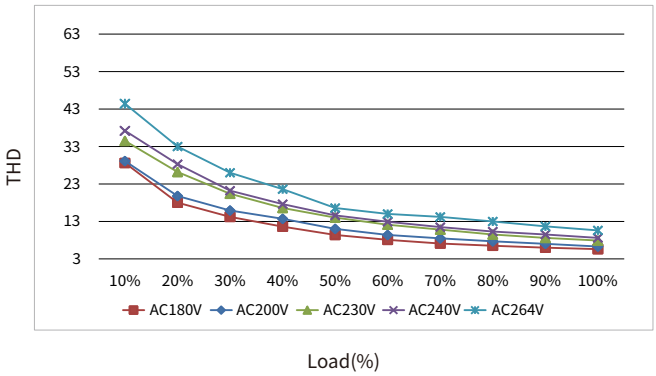


BK-LGV200B-48V0

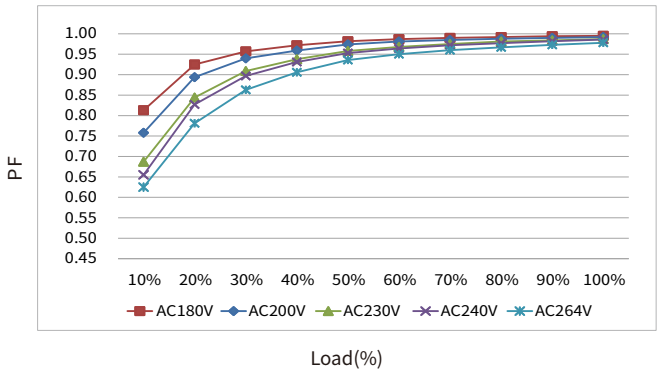
Efficiency vs load



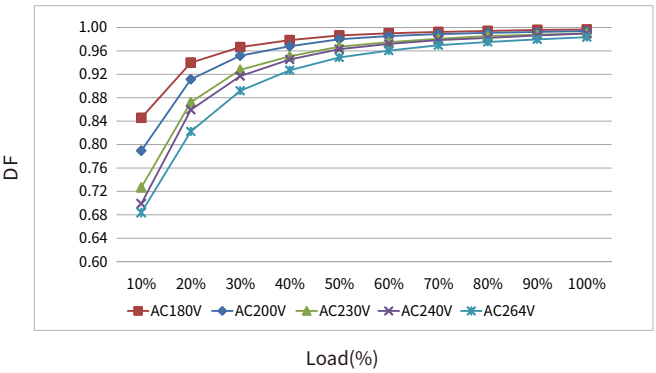
THD vs. Load



Power factor vs. Load

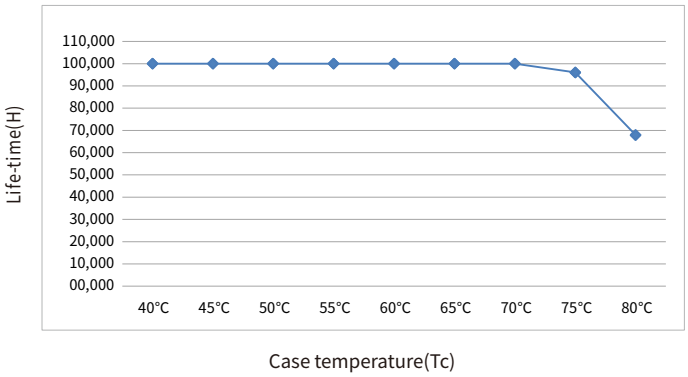


Displacement power vs. Load

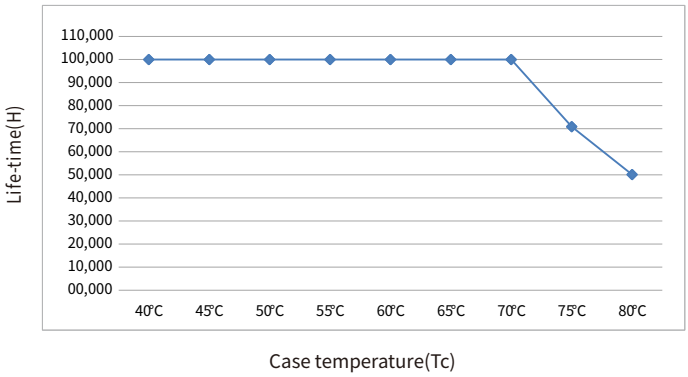


Expected life-time

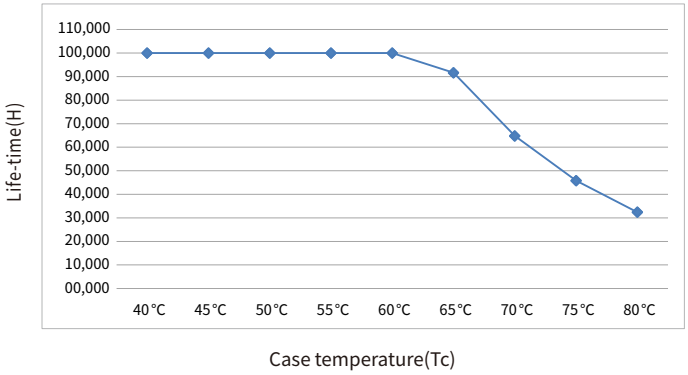
BK-LGV100B-24V0
Life-time vs. case temperature



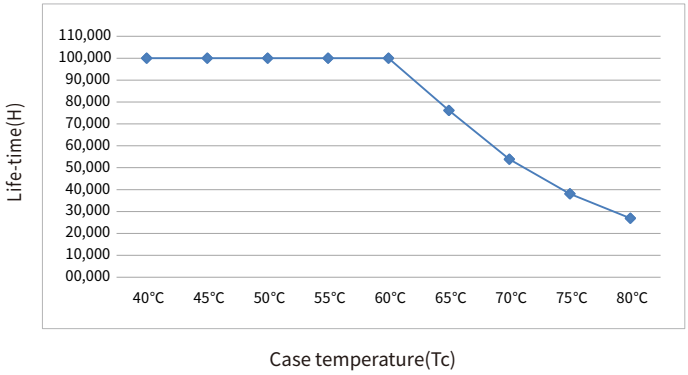
BK-LGV100B-48V0
Life-time vs. case temperature



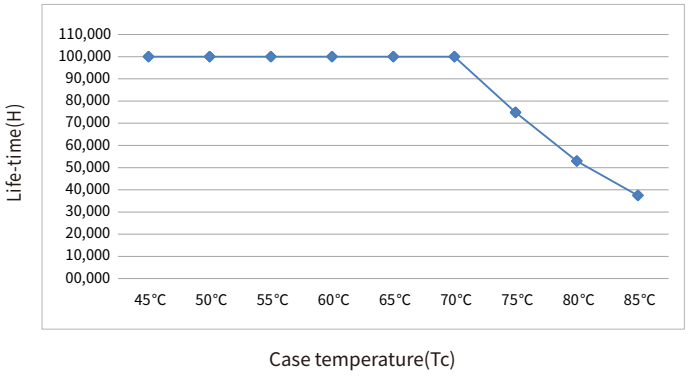
BK-LGV120B-24V0
Life-time vs. case temperature



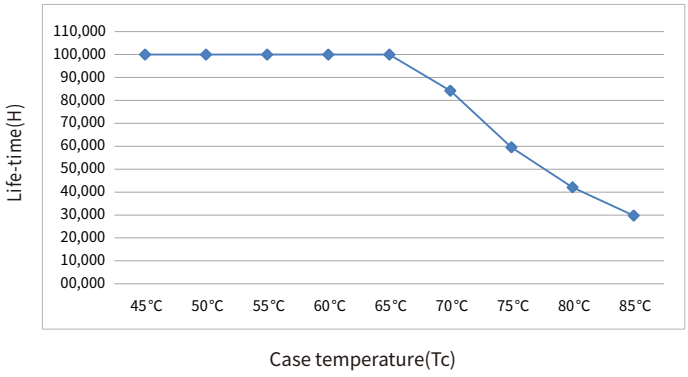
BK-LGV120B-48V0
Life-time vs. case temperature



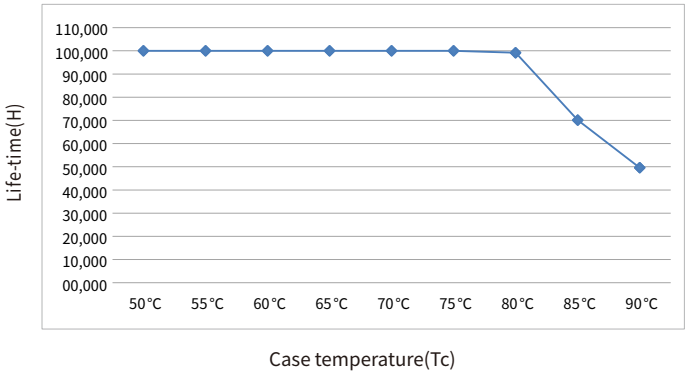
BK-LGV150B-24V0
Life-time vs. case temperature



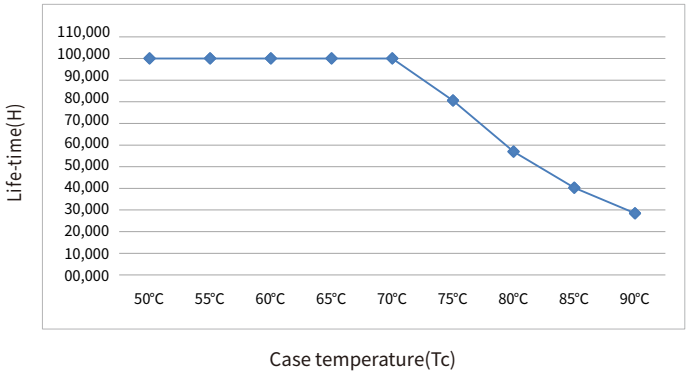
BK-LGV150B-48V0
Life-time vs. case temperature



BK-LGV200B-24V0
Life-time vs. case temperature



BK-LGV200B-48V0
Life-time vs. case temperature

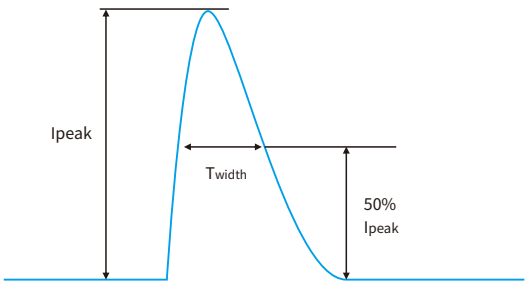


-The life-time of the LED driver is shown in the figure above (calculated based on the 90% survival rate).

- 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-LGV100B	49.7A	250us	AC 230V,Full load, Cold start,Ta≤30°C, MCB is not installed side by side	6	7	9	11	14	9	12	15	19	23	16	21	26	33	41
BK-LGV120B	36.3A	320us		5	7	9	11	14	9	12	14	18	23	14	18	22	28	34
BK-LGV150B	61.8A	294us		4	5	6	7	9	6	8	10	12	15	11	14	18	22	28
BK-LGV200B	68A	440us		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 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	Double
Output	Double	-	Double
Case	Double	Double	-

Label

BK-LGV100B-24V0

BK-LGV100B-48V0

BK-LGV120B-24V0

BK-LGV120B-48V0

BK-LGV150B-24V0

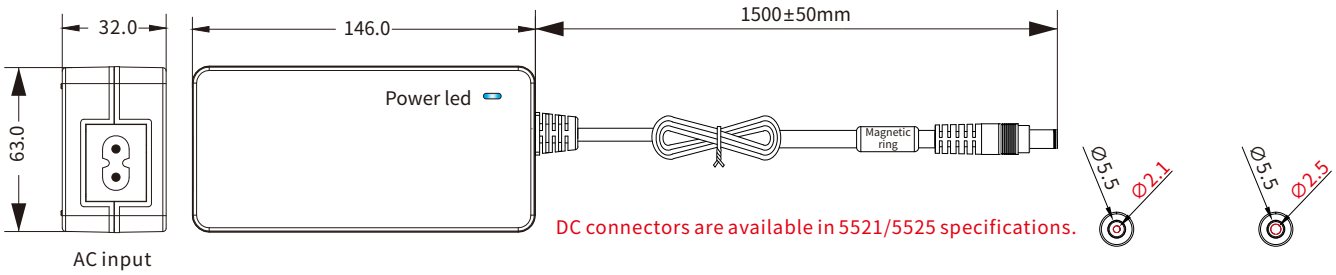
BK-LGV150B-48V0

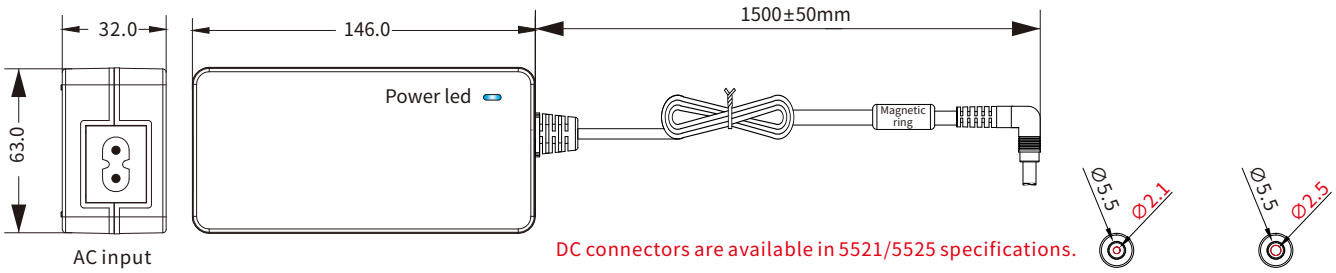
BK-LGV200B-24V0

BK-LGV200B-48V0

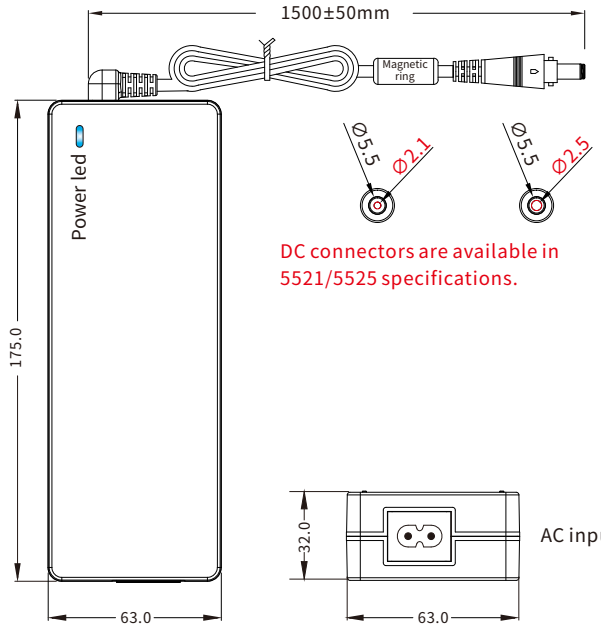
Mechanical Specification(Wire is optional)

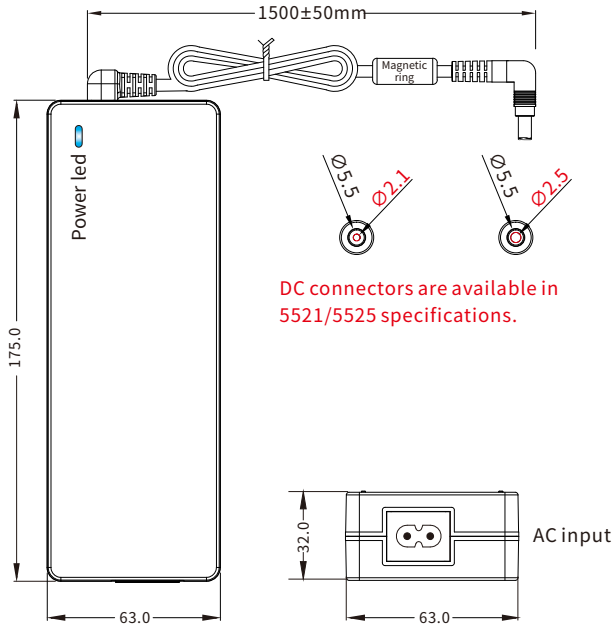
LGV100B/LGV120B/LGV150B

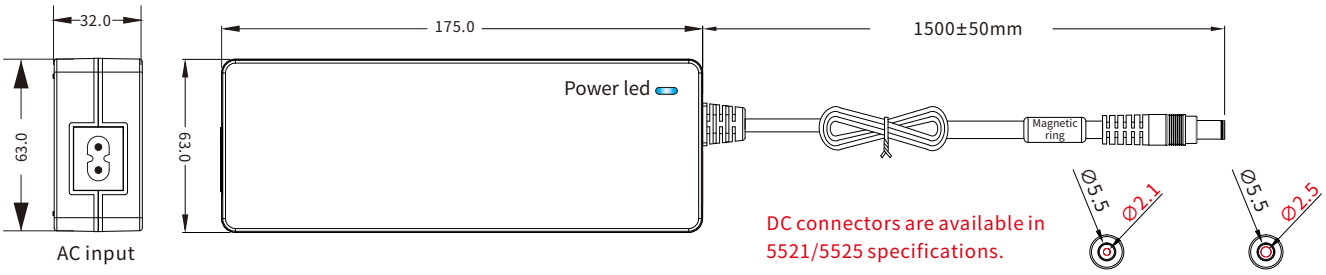


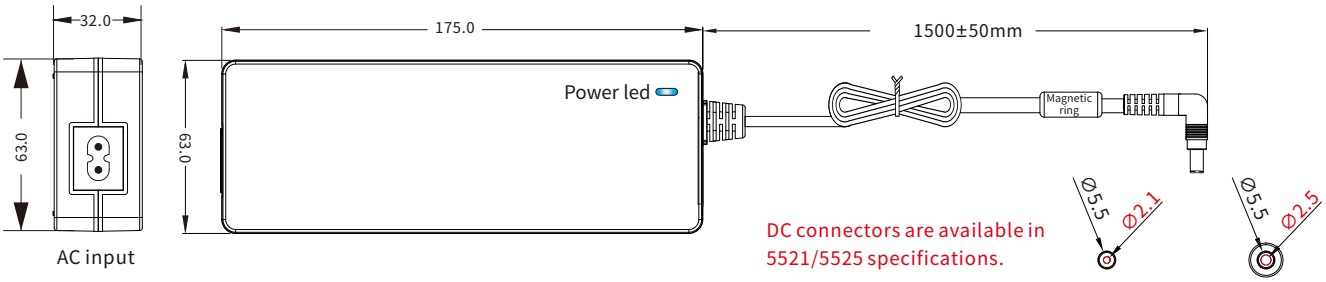


LGV200B



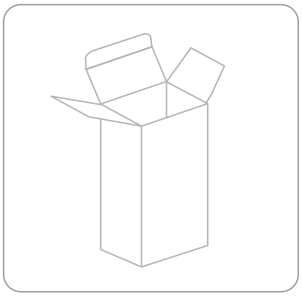






Packaging

Product



Packaging

10pcs*3layer=30pca/CTN
15pcs*1layer=15pca/CTN
6pcs*2layer=12pca/CTN

Model	Product size	Weight	Packaging size	Carton size	Qty/carton	N.W	G.W
LGV100B	L146*W63*H32mm	340g	L190*W72*H72mm	L400*W380*H240mm	30pcs	10.3kg	11.6kg
LGV120B	L146*W63*H32mm	388g	L190*W72*H72mm	L400*W240*H165mm	12pcs	4.66kg	5.99kg
LGV150B	L146*W63*H32mm	450g	L190*W72*H72mm	L400*W240*H165mm	12pcs	5.40kg	7.10kg
LGV200B	L175*W63*H32mm	503g	L210*W72*H72mm	L390*W235*H235mm	15pcs	7.55kg	8.74kg

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.