

Constant current linear dimmable driver  
BHL Series suffix D(DALI-2)



**Features**

- DALI-2 dimming interface
- 10-level current output can be realized by DIP-switch
- Soft dimming and flicker-free at any brightness
- Using HPC patented technology at any dimming level, the brightness of the lights is the same
- Standby power input<0.5W, meets the requirements of ErP certification
- High PF, high efficiency, low THD
- Intelligent LED hot-plug protection function
- SELV and Class II design, suitable for use inside of the light
- Passed CE, ENEC, SAA, RCM, DALI-2 and other certifications
- IP20 protection grade, indoor use
- Nominal life-time up to 100,000 h
- 5-year guarantee

**Interfaces**

- DALI-2(DALI-2 DT6)

**Functions**

- Support self-contained emergency application
- Protective features (short-circuit protection, no-load protection )

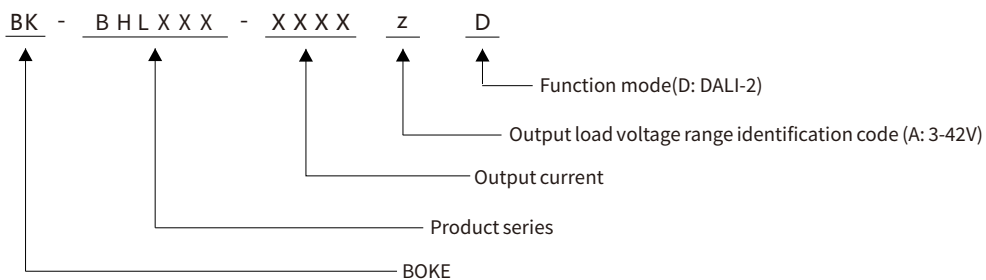
**Suitable for lights**

- Suitable for linear lights, tri-proof lights, working lights and other linear or ultra-thin lights etc.

**Typical applications**

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

**Model coding rules of BHL series**



### Function list

Model	Suffix	Wired dimming	
		DALI-2	1-10V 3in1
BK-BHL030 BK-BHL040 BK-BHL050	M		√
BK-BHL060 BK-BHL070	D	√	

\* The description in this specification is only applicable to the products with the suffix M and the model are BHL030,BHL040,BHL050,BHL060 and BHL070 .

### Model list

Model	Input voltage	Output power	Output voltage	Output current	Dimension	Certifications
BK-BHL030-0750AM	200-240VAC	30W	3-40/42VDC	0.3-0.75A	L245*W30*H21mm	CE, ENEC, SAA, RCM
BK-BHL030-0750AD	200-240VAC	30W	3-40/42VDC	0.3-0.75A	L245*W30*H21mm	CE, ENEC, SAA, RCM, DALI-2
BK-BHL040-1000AM	200-240VAC	40W	3-40/42VDC	0.55-1A	L285*W30*H21mm	CE, ENEC, SAA, RCM
BK-BHL040-1000AD	200-240VAC	40W	3-40/42VDC	0.55-1A	L285*W30*H21mm	CE, ENEC, SAA, RCM, DALI-2
BK-BHL050-1250AM	200-240VAC	50W	3-40/41.5/42VDC	0.8-1.25A	L285*W30*H21mm	CE, ENEC, SAA, RCM
BK-BHL050-1250AD	200-240VAC	50W	3-40/41.5/42VDC	0.8-1.25A	L285*W30*H21mm	CE, ENEC, SAA, RCM, DALI-2
BK-BHL060-1650AM	200-240VAC	60W	3-36/37.5/38.5/40/41/42VDC	1.2-1.65A	L355*W30*H21mm	CE, ENEC, SAA, RCM
BK-BHL060-1650AD	200-240VAC	60W	3-36/37.5/38.5/40/41/42VDC	1.2-1.65A	L355*W30*H21mm	CE, ENEC, SAA, RCM, DALI-2
BK-BHL070-2000AM	200-240VAC	70W	3-35/37/39/41/42VDC	1.3-2A	L355*W36*H23mm	CE, ENEC, SAA, RCM
BK-BHL070-2000AD	200-240VAC	70W	3-35/37/39/41/42VDC	1.3-2A	L355*W36*H23mm	CE, ENEC, SAA, RCM, DALI-2

\* The description in this specification is only applicable to the products with the suffix M and the model are BHL030,BHL040,BHL050,BHL060 and BHL070 .

**Technical data**

Product model	BK-BHL030-0750AD
<b>Output parameters</b>	
Regulation method	Constant Current
Rated output current	0.3-0.75A
Rated output voltage	3V - 40V/42V
Rated output power	30W Max
Output current adjustment	DIP S.W(10 levels)
Output current ripple LF	±2%
Output current accuracy	±1%
Linear regulation	±1%
Load regulation	±1%
No load output voltage	50V
Flicker-free(typical)	Modulation depth =0.200% (100Hz), Pst LM = 0.000, SVM = 0.004,(The above parameters are obtained from testing the panel lights)
<b>Input parameters</b>	
Rated input voltage	200-240VAC 200-240VDC
Rated input voltage	180-264VAC 180-264VDC
Input voltage shock	<380 V AC, 1 h
Input current	<0.25A (AC input)
Input frequency	0/50/60Hz
Input power factor	0.95 (230V AC & Full load)
Input THD	10% (230V AC & Full load)
Efficiency(typical)	87% (230V AC & Full load)
In-rush current	7.48A peak ,194us duration(50 % Ipeak), see the description below for details
Start/Switchover/Turn off	<0.6s(AC start),<0.6s(DC start),<0.3s(AC/DC switchover),<0.5s(Turn off )
Switching cycles	> 50,000 switching cycles
Power consumption	Full load(Pmax):30W, No load(Pno): N/A, On stand-by(Psb) : <0.5W, Network stand-by(Pnet) : N/A
<b>Safety</b>	
Withstand voltage	I/P-O/P:3750VAC,I/P-FG:1750VAC,O/P-FG:500VAC, I/P-DALI: 500V AC.
Mains surge capability	L-N:2KV,L-FG/N-FG:2KV
Leakage current	<0.7mA (230V AC & Full load)
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH
<b>Control interface</b>	
DALI dimming port	Voltage range: 9.5-22.5V, typical 16V, interface current consumption: 1.8mA
PUSH dimming port	N/A
1-10V 3in1 dimming port	N/A
Auxiliary power supply	N/A
Dimming range	1%-100%
Dimming drive mode	AM(amplitude modulation)
<b>Emergency support</b>	
Central emergency system	Not supported
Self-contained emergency	Supported
<b>Environment &amp; Life time</b>	
Operating temperature	Ta=-20-60°C
Case temperature	Tc=90°C
Operating humidity	5-85% RH, not condensed
Storage temp./humidity	-40-80°C, 5-85% RH, not condensed
IP grade	IP20
MTBF	500,000H,MIL-HDBK-217F(25°C)
Life-time	Nominal life-time up to 100,000 h, see the description below for details
Vibration resistant	10~500Hz,5G 12min./1cycle,period for 72min. each along X,Y,Z axes
Acoustic Noise	<25dB(30cm, Full load)
Environmental protection	RoHS
<b>Certifications and standards</b>	
Certified	CE, ENEC, SAA, RCM, DALI-2
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	IEC 62386-101(DALI-2), IEC 62386-102(DALI-2), IEC 62386-207(DALI-2)
RF	N/A

**Remarks**

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

**Technical data**

Product model	BK-BHL040-1000AD
<b>Output parameters</b>	
Regulation method	Constant Current
Rated output current	0.55-1A
Rated output voltage	3V - 40V/42V
Rated output power	40W Max
Output current adjustment	DIP S.W(10 levels)
Output current ripple LF	±2%
Output current accuracy	±1%
Linear regulation	±1%
Load regulation	±1%
No load output voltage	50V
Flicker-free(typical)	Modulation depth =0.374% (100Hz), Pst LM = 0.003, SVM = 0.006,(The above parameters are obtained from testing the panel lights)
<b>Input parameters</b>	
Rated input voltage	200-240VAC 200-240VDC
Rated input voltage	180-264VAC 180-264VDC
Input voltage shock	<380 V AC, 1 h
Input current	<0.3A (AC input)
Input frequency	0/50/60Hz
Input power factor	0.95 (230V AC & Full load)
Input THD	10% (230V AC & Full load)
Efficiency(typical)	89% (230V AC & Full load)
In-rush current	8.65A peak ,186us duration(50 % Ipeak), see the description below for details
Start/Switchover/Turn off	<0.6s(AC start),<0.6s(DC start),<0.3s(AC/DC switchover),<0.5s(Turn off )
Switching cycles	> 50,000 switching cycles
Power consumption	Full load(Pmax):40W, No load(Pno): N/A, On stand-by(Psb) : <0.5W, Network stand-by(Pnet) : N/A
<b>Safety</b>	
Withstand voltage	I/P-O/P:3750VAC,I/P-FG:1750VAC,O/P-FG:500VAC, I/P-DALI: 500V AC.
Mains surge capability	L-N:2KV,L-FG/N-FG:2KV
Leakage current	<0.7mA (230V AC & Full load)
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH
<b>Control interface</b>	
DALI dimming port	Voltage range: 9.5-22.5V, typical 16V, interface current consumption: 1.8mA
PUSH dimming port	N/A
1-10V 3in1 dimming port	N/A
Auxiliary power supply	N/A
Dimming range	1%-100%
Dimming drive mode	AM(amplitude modulation)
<b>Emergency support</b>	
Central emergency system	Not supported
Self-contained emergency	Supported
<b>Environment &amp; Life time</b>	
Operating temperature	Ta=-20-60°C
Case temperature	Tc=90°C
Operating humidity	5-85% RH, not condensed
Storage temp./humidity	-40-80°C, 5-85% RH, not condensed
IP grade	IP20
MTBF	500,000H,MIL-HDBK-217F(25°C)
Life-time	Nominal life-time up to 100,000 h, see the description below for details
Vibration resistant	10~500Hz,5G 12min./1cycle,period for 72min. each along X,Y,Z axes
Acoustic Noise	<25dB(30cm, Full load)
Environmental protection	RoHS
<b>Certifications and standards</b>	
Certified	CE, ENEC, SAA, RCM, DALI-2
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	IEC 62386-101(DALI-2), IEC 62386-102(DALI-2), IEC 62386-207(DALI-2)
RF	N/A

**Remarks**

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



**Technical data**

Product model	BK-BHL050-1250AD
<b>Output parameters</b>	
Regulation method	Constant Current
Rated output current	0.8-1.25A
Rated output voltage	3V - 40V/41.5V/42V
Rated output power	50W Max
Output current adjustment	DIP S.W(10 levels)
Output current ripple LF	±2%
Output current accuracy	±1%
Linear regulation	±1%
Load regulation	±1%
No load output voltage	50V
Flicker-free(typical)	Modulation depth =0.275% (100Hz), Pst LM = 0.002, SVM = 0.006,(The above parameters are obtained from testing the panel lights)
<b>Input parameters</b>	
Rated input voltage	200-240VAC 200-240VDC
Rated input voltage	180-264VAC 180-264VDC
Input voltage shock	<380 V AC, 1 h
Input current	<0.35A (AC input)
Input frequency	0/50/60Hz
Input power factor	0.95 (230V AC & Full load)
Input THD	10% (230V AC & Full load)
Efficiency(typical)	90% (230V AC & Full load)
In-rush current	8.31A peak ,201us duration(50 % Ipeak), see the description below for details
Start/Switchover/Turn off	<0.6s(AC start),<0.6s(DC start),<0.3s(AC/DC switchover),<0.5s(Turn off )
Switching cycles	> 50,000 switching cycles
Power consumption	Full load(Pmax):50W, No load(Pno): N/A, On stand-by(Psb) : <0.5W, Network stand-by(Pnet) : N/A
<b>Safety</b>	
Withstand voltage	I/P-O/P:3750VAC,I/P-FG:1750VAC,O/P-FG:500VAC, I/P-DALI: 500V AC.
Mains surge capability	L-N:2KV,L-FG/N-FG:2KV
Leakage current	<0.7mA (230V AC & Full load)
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH
<b>Control interface</b>	
DALI dimming port	Voltage range: 9.5-22.5V, typical 16V, interface current consumption: 1.8mA
PUSH dimming port	N/A
1-10V 3in1 dimming port	N/A
Auxiliary power supply	N/A
Dimming range	1%-100%
Dimming drive mode	AM(amplitude modulation)
<b>Emergency support</b>	
Central emergency system	Not supported
Self-contained emergency	Supported
<b>Environment &amp; Life time</b>	
Operating temperature	Ta=-20-60°C
Case temperature	Tc=90°C
Operating humidity	5-85% RH, not condensed
Storage temp./humidity	-40-80°C, 5-85% RH, not condensed
IP grade	IP20
MTBF	500,000H,MIL-HDBK-217F(25°C)
Life-time	Nominal life-time up to 100,000 h, see the description below for details
Vibration resistant	10~500Hz,5G 12min./1cycle,period for 72min. each along X,Y,Z axes
Acoustic Noise	<25dB(30cm, Full load)
Environmental protection	RoHS
<b>Certifications and standards</b>	
Certified	CE, ENEC, SAA, RCM, DALI-2
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	IEC 62386-101(DALI-2), IEC 62386-102(DALI-2), IEC 62386-207(DALI-2)
RF	N/A

**Remarks**

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

**Technical data**

Product model	BK-BHL060-1650AD
<b>Output parameters</b>	
Regulation method	Constant Current
Rated output current	1.2-1.65A
Rated output voltage	3V - 36V/37.5V/38.5V/40V/41V/42V
Rated output power	60W Max
Output current adjustment	DIP S.W(10 levels)
Output current ripple LF	±2%
Output current accuracy	±1%
Linear regulation	±1%
Load regulation	±1%
No load output voltage	50V
Flicker-free(typical)	Modulation depth =0.241% (100Hz), Pst LM = 0.004, SVM = 0.006,(The above parameters are obtained from testing the panel lights)
<b>Input parameters</b>	
Rated input voltage	200-240VAC 200-240VDC
Rated input voltage	180-264VAC 180-264VDC
Input voltage shock	<380 V AC, 1 h
Input current	<0.45A (AC input)
Input frequency	0/50/60Hz
Input power factor	0.95 (230V AC & Full load)
Input THD	10% (230V AC & Full load)
Efficiency(typical)	90% (230V AC & Full load)
In-rush current	8.23A peak ,196us duration(50 % Ipeak), see the description below for details
Start/Switchover/Turn off	<0.6s(AC start),<0.6s(DC start),<0.3s(AC/DC switchover),<0.5s(Turn off )
Switching cycles	> 50,000 switching cycles
Power consumption	Full load(Pmax):60W, No load(Pno): N/A, On stand-by(Psb) : <0.5W, Network stand-by(Pnet) : N/A
<b>Safety</b>	
Withstand voltage	I/P-O/P:3750VAC,I/P-FG:1750VAC,O/P-FG:500VAC, I/P-DALI: 500V AC.
Mains surge capability	L-N:2KV,L-FG/N-FG:2KV
Leakage current	<0.7mA (230V AC & Full load)
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH
<b>Control interface</b>	
DALI dimming port	Voltage range: 9.5-22.5V, typical 16V, interface current consumption: 1.8mA
PUSH dimming port	N/A
1-10V 3in1 dimming port	N/A
Auxiliary power supply	N/A
Dimming range	1%-100%
Dimming drive mode	AM(amplitude modulation)
<b>Emergency support</b>	
Central emergency system	Not supported
Self-contained emergency	Supported
<b>Environment &amp; Life time</b>	
Operating temperature	Ta=-20-60°C
Case temperature	Tc=90°C
Operating humidity	5-85% RH, not condensed
Storage temp./humidity	-40-80°C, 5-85% RH, not condensed
IP grade	IP20
MTBF	500,000H,MIL-HDBK-217F(25°C)
Life-time	Nominal life-time up to 100,000 h, see the description below for details
Vibration resistant	10~500Hz,5G 12min./1cycle,period for 72min. each along X,Y,Z axes
Acoustic Noise	<25dB(30cm, Full load)
Environmental protection	RoHS
<b>Certifications and standards</b>	
Certified	CE, ENEC, SAA, RCM, DALI-2
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	IEC 62386-101(DALI-2), IEC 62386-102(DALI-2), IEC 62386-207(DALI-2)
RF	N/A

**Remarks**

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

**Technical data**

Product model	BK-BHL070-2000AD
<b>Output parameters</b>	
Regulation method	Constant Current
Rated output current	1.3-2A
Rated output voltage	3V - 35V/37V/39V/41V/42V
Rated output power	70W Max
Output current adjustment	DIP S.W(10 levels)
Output current ripple LF	±2%
Output current accuracy	±1%
Linear regulation	±1%
Load regulation	±1%
No load output voltage	50V
Flicker-free(typical)	Modulation depth =0.155% (100Hz), Pst LM = 0.002, SVM = 0.005,(The above parameters are obtained from testing the panel lights)
<b>Input parameters</b>	
Rated input voltage	200-240VAC 200-240VDC
Rated input voltage	180-264VAC 180-264VDC
Input voltage shock	<380 V AC, 1 h
Input current	<0.5A (AC input)
Input frequency	0/50/60Hz
Input power factor	0.95 (230V AC & Full load)
Input THD	10% (230V AC & Full load)
Efficiency(typical)	90% (230V AC & Full load)
In-rush current	8.54A peak ,214us duration(50 % Ipeak), see the description below for details
Start/Switchover/Turn off	<0.6s(AC start),<0.6s(DC start),<0.3s(AC/DC switchover),<0.5s(Turn off )
Switching cycles	> 50,000 switching cycles
Power consumption	Full load(Pmax):70W, No load(Pno): N/A, On stand-by(Psb) : <0.5W, Network stand-by(Pnet) : N/A
<b>Safety</b>	
Withstand voltage	I/P-O/P:3750VAC,I/P-FG:1750VAC,O/P-FG:500VAC, I/P-DALI: 500V AC.
Mains surge capability	L-N:2KV,L-FG/N-FG:2KV
Leakage current	<0.7mA (230V AC & Full load)
Isolation resistance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH
<b>Control interface</b>	
DALI dimming port	Voltage range: 9.5-22.5V, typical 16V, interface current consumption: 1.8mA
PUSH dimming port	N/A
1-10V 3in1 dimming port	N/A
Auxiliary power supply	N/A
Dimming range	1%-100%
Dimming drive mode	AM(amplitude modulation)
<b>Emergency support</b>	
Central emergency system	Not supported
Self-contained emergency	Supported
<b>Environment &amp; Life time</b>	
Operating temperature	Ta=-20-60°C
Case temperature	Tc=90°C
Operating humidity	5-85% RH, not condensed
Storage temp./humidity	-40-80°C, 5-85% RH, not condensed
IP grade	IP20
MTBF	500,000H,MIL-HDBK-217F(25°C)
Life-time	Nominal life-time up to 100,000 h, see the description below for details
Vibration resistant	10~500Hz,5G 12min./1cycle,period for 72min. each along X,Y,Z axes
Acoustic Noise	<25dB(30cm, Full load)
Environmental protection	RoHS
<b>Certifications and standards</b>	
Certified	CE, ENEC, SAA, RCM, DALI-2
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	IEC 62386-101(DALI-2), IEC 62386-102(DALI-2), IEC 62386-207(DALI-2)
RF	N/A

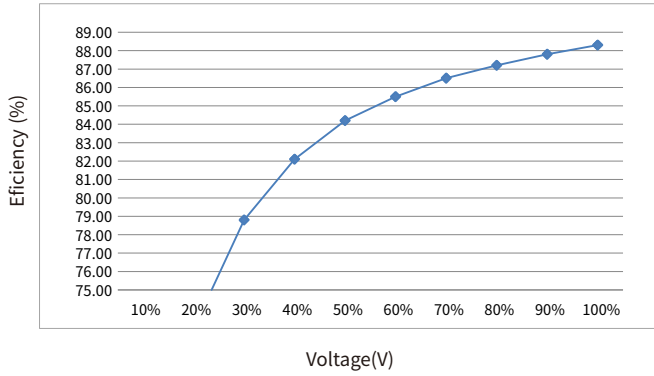
**Remarks**

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

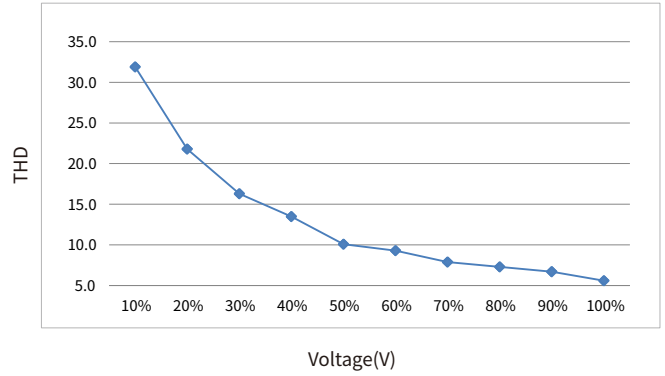
Electrical values

**BK-BHL030-0750AD**

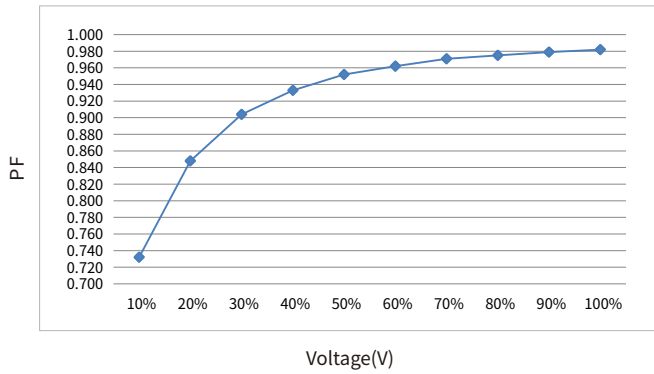
Efficiency vs voltage



THD vs. voltage

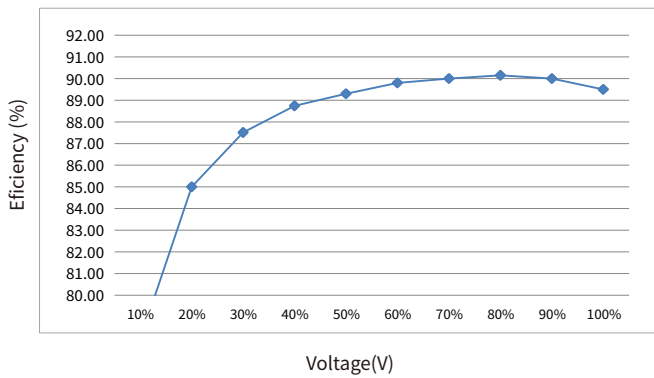


Power factor vs. voltage

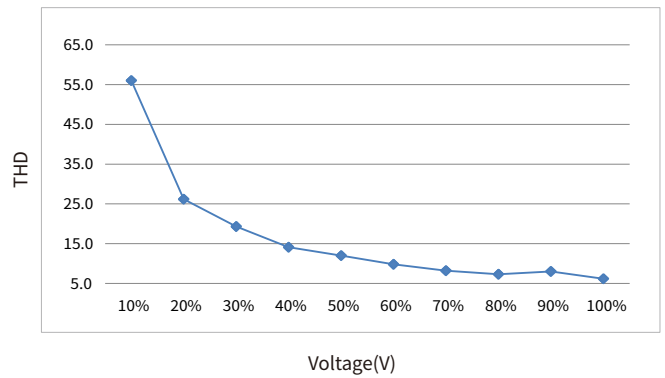


**BK-BHL040-1000AD**

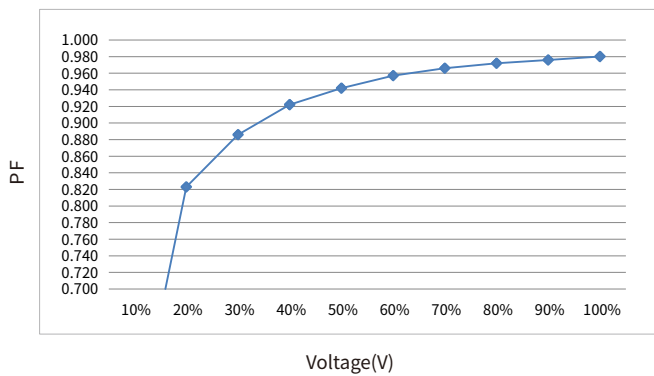
Efficiency vs voltage



THD vs. voltage



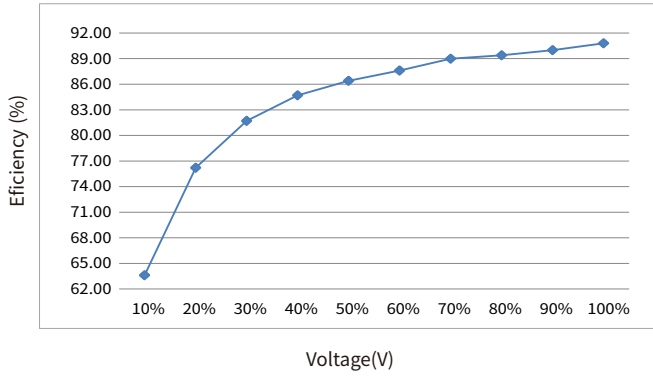
Power factor vs. voltage



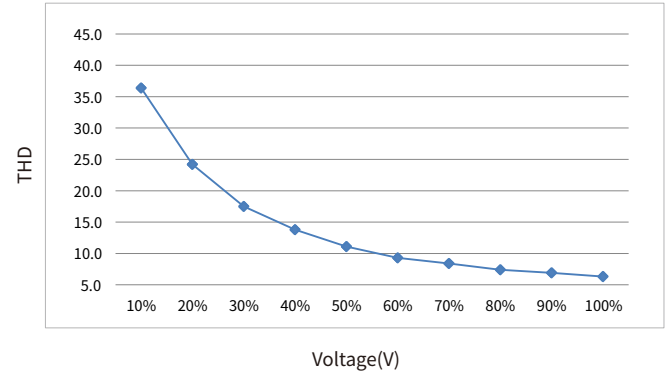
Electrical values

**BK-BHL050-1250AD**

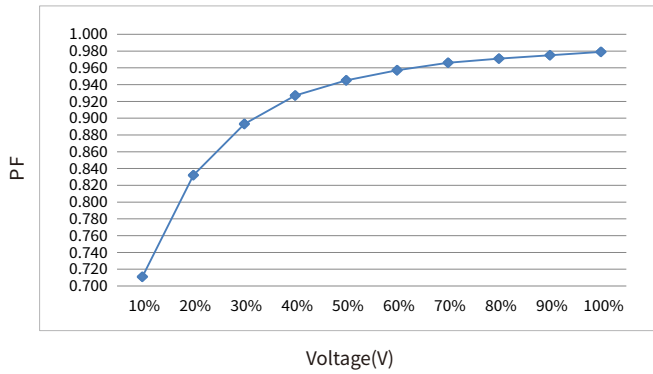
Efficiency vs voltage



THD vs. voltage

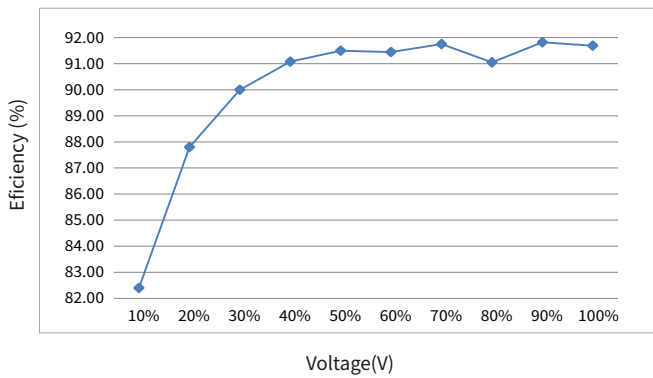


Power factor vs. voltage

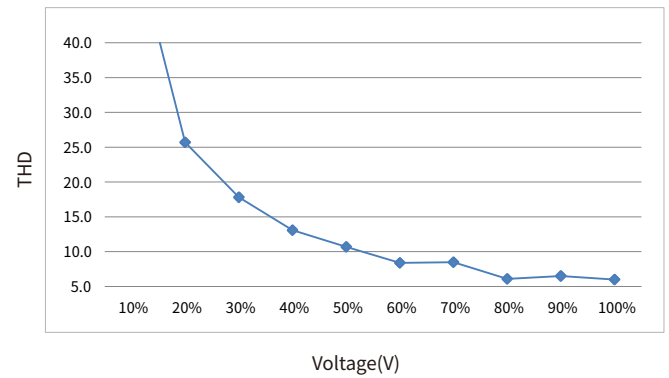


**BK-BHL060-1650AD**

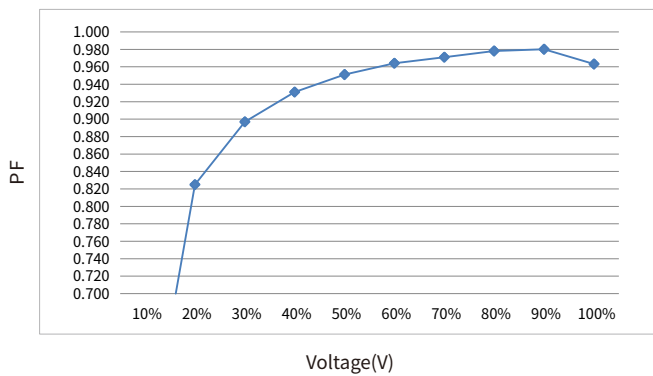
Efficiency vs voltage



THD vs. voltage



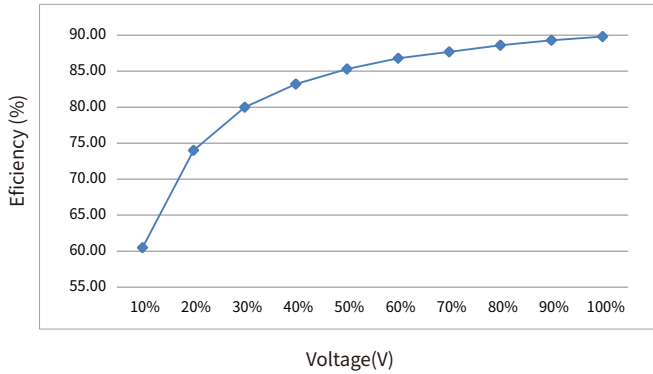
Power factor vs. voltage



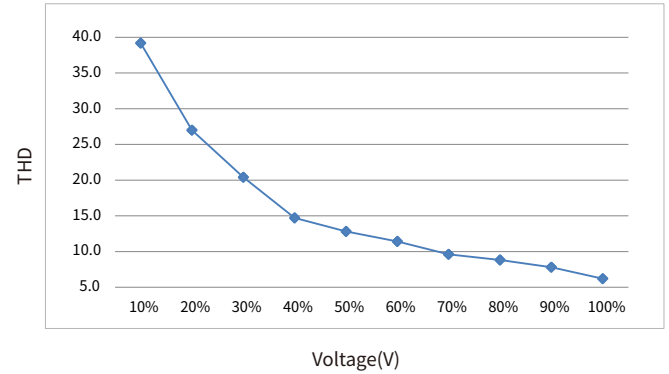
Electrical values

**BK-BHL070-2000AD**

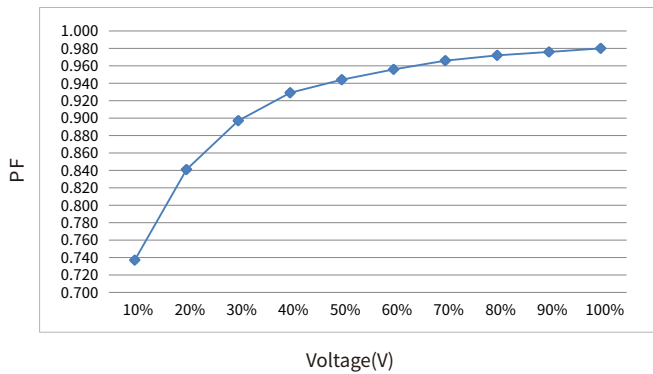
Efficiency vs voltage



THD vs. voltage



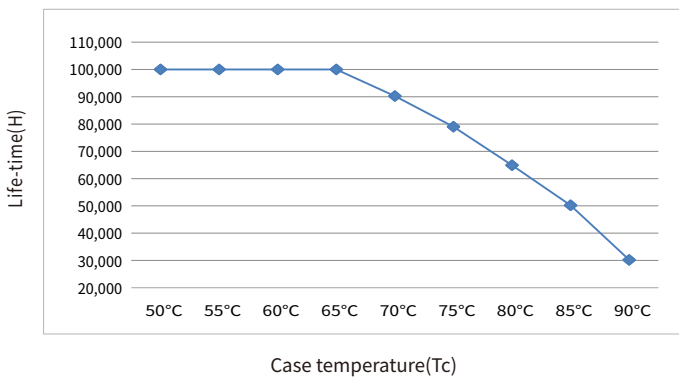
Power factor vs. voltage



Expected life-time

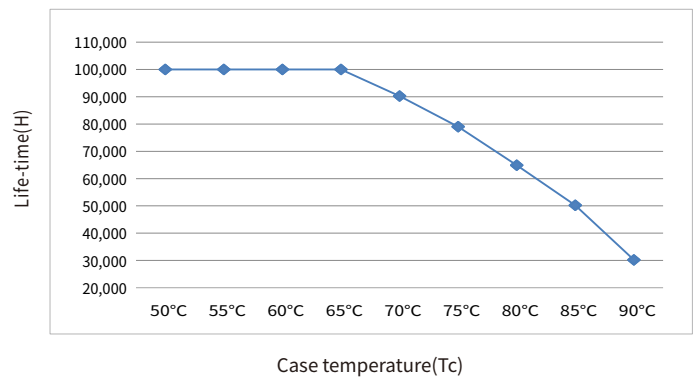
**BK-BHL030-0750AD**

Life-time vs. case temperature



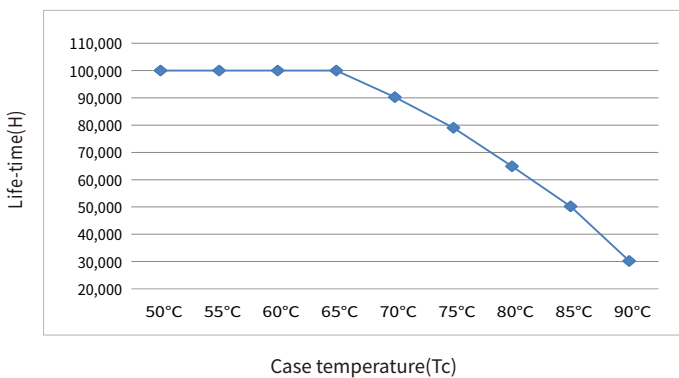
**BK-BHL040-1000AD**

Life-time vs. case temperature



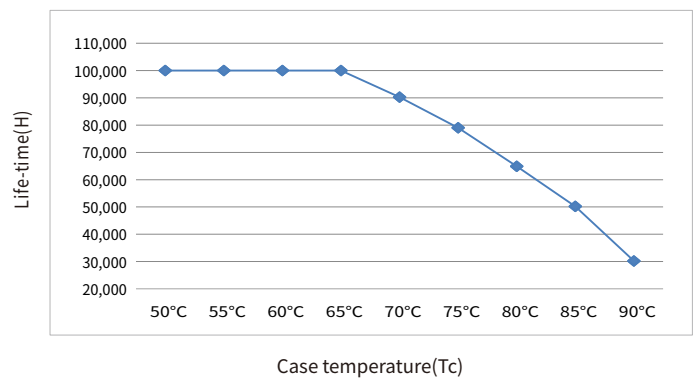
**BK-BHL050-1250AD**

Life-time vs. case temperature



**BK-BHL060-1650AD**

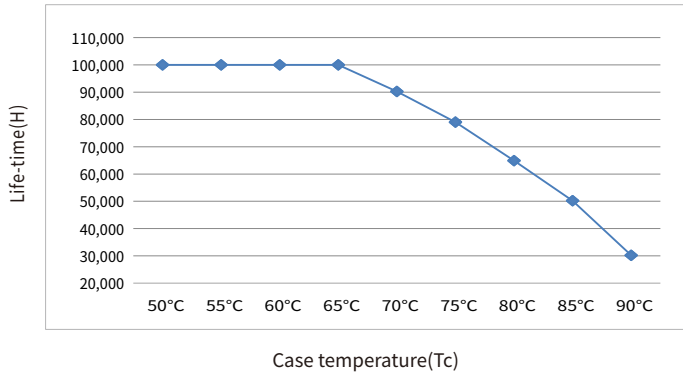
Life-time vs. case temperature



### Expected life-time

#### BK-BHL070-2000AD

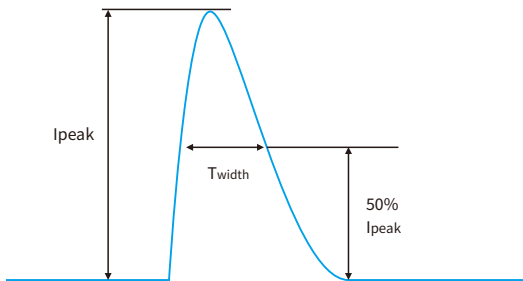
Life-time vs. case temperature



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

### Surge

Model	Ipeak	Twidth	Condition	Relative number of MCB														
				B10	B13	B16	B20	B25	C10	C13	C16	C20	C25	D10	D13	D16	D20	D25
BK-BHL030-0750AD	7.48A	194us	AC 230V, Full load, Cold start, Ta ≤ 30°C, MCB is not installed side by side	43	55	68	85	107	45	59	73	91	113	45	59	73	91	113
BK-BHL040-1000AD	7.65A	186us		35	45	56	70	87	35	45	56	70	87	35	45	56	70	87
BK-BHL050-1250AD	8.31A	201us		28	36	45	56	70	28	36	45	56	70	28	36	45	56	70
BK-BHL060-1650AD	7.23A	196us		23	30	38	47	59	23	30	38	47	59	23	30	38	47	59
BK-BHL070-2000AD	8.54A	214us		20	26	32	40	50	20	26	32	40	50	20	26	32	40	50



#### 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

- Output short-circuit will not damage the driver.
- After removing the short-circuit fault point, the driver will automatically restore output.

#### Output no-load protection

- Output no-load will not damage the driver.
- Please turn off the mains first if you need to connect the LED load.

#### Output hot plug-in

- For protection LED if plug the LED into the output of the powered driver, the LED will not on, the device has to be restarted.
- The restart can either be done via mains reset or via interface (DALI).

DIP-switch & output current

BK-BHL030-0750AD

Pin(w) typ.	Output			1	2	3	4
	Prated(w)	Irated(mA)	Voltage(Vdc)				
15.0	12.6	300	3-42	--	ON	ON	ON
17.0	14.7	350	3-42	ON	--	ON	ON
19.5	16.8	400	3-42	--	--	ON	ON
22.0	18.9	450	3-42	--	ON	--	ON
24.0	21.0	500	3-42	--	--	--	ON
26.5	23.1	550	3-42	ON	ON	ON	--
29.0	25.2	600	3-42	--	--	ON	--
31.0	27.3	650	3-42	--	ON	--	--
34.5	29.4	700	3-42	ON	--	--	--
34.5	30.0	750	★ 3-40	--	--	--	--

BK-BHL040-1000AD

Pin(w) typ.	Output			1	2	3	4
	Prated(w)	Irated(mA)	Voltage(Vdc)				
27.0	23.1	550	3-42	--	ON	ON	ON
29.0	25.2	600	3-42	ON	--	ON	ON
31.5	27.3	650	3-42	--	--	ON	ON
33.5	29.4	700	3-42	--	ON	--	ON
36.0	31.5	750	3-42	--	--	--	ON
38.5	33.6	800	3-42	ON	ON	ON	--
41.0	35.7	850	3-42	--	--	ON	--
43.0	37.8	900	3-42	--	ON	--	--
46.0	39.9	950	3-42	ON	--	--	--
46.0	40.0	1000	★ 3-40	--	--	--	--

BK-BHL050-1250AD

Pin(w) typ.	Output			1	2	3	4
	Prated(w)	Irated(mA)	Voltage(Vdc)				
38.0	33.6	800	3-42	--	ON	ON	ON
41.0	35.7	850	3-42	ON	--	ON	ON
43.0	37.8	900	3-42	--	--	ON	ON
46.0	39.9	950	3-42	--	ON	--	ON
48.0	42.0	1000	3-42	--	--	--	ON
50.0	44.1	1050	3-42	ON	ON	ON	--
53.0	46.2	1100	3-42	--	--	ON	--
55.0	48.3	1150	3-42	--	ON	--	--
57.0	49.8	1200	3-41.5	ON	--	--	--
57.0	50.0	1250	★ 3-40	--	--	--	--

BK-BHL060-1650AD

Pin(w) typ.	Output			1	2	3	4
	Prated(w)	Irated(mA)	Voltage(Vdc)				
57.5	50.4	1200	3-42	--	ON	ON	ON
59.5	52.5	1250	3-42	ON	--	ON	ON
61.5	54.6	1300	3-42	--	--	ON	ON
64.0	56.7	1350	3-42	--	ON	--	ON
66.5	58.8	1400	3-42	--	--	--	ON
67.5	59.5	1450	3-41	ON	ON	ON	--
68.0	60.0	1500	3-40	--	--	ON	--
68.0	59.7	1550	3-38.5	--	ON	--	--
68.0	60.0	1600	3-37.5	ON	--	--	--
67.5	59.4	1650	★ 3-36	--	--	--	--

BK-BHL070-2000AD

Pin(w) typ.	Output			1	2	3	4
	Prated(w)	Irated(mA)	Voltage(Vdc)				
63.0	54.6	1300	3-42	--	ON	ON	ON
68.0	58.8	1400	3-42	ON	--	ON	ON
70.0	60.9	1450	3-42	--	--	ON	ON
72.0	63.0	1500	3-42	--	ON	--	ON
74.0	65.1	1550	3-42	--	--	--	ON
79.0	69.3	1650	3-42	ON	ON	ON	--
79.0	69.7	1700	3-41	--	--	ON	--
80.0	70.2	1800	3-39	--	ON	--	--
80.0	70.3	1900	3-37	ON	--	--	--
80.0	70.0	2000	★ 3-35	--	--	--	--

Remarks:

- ★ It means that this item is the factory default current.
- It means that this channel is OFF.

Label

**INPUT**  
AC-L  
AC-N  
NC

www.powerboke.com

BOKE  
FREE

DONGGUAN BOKE LED DRIVERS CO.,LTD  
Address: Building H, Julong Industrial Park, Meliang Community, Huangjiang Town, 523763 Dongguan, CHINA

PR1 wire prep: 0.75±0.05mm  
PR2 wire prep: 0.75±0.05mm

**Dimmable Constant Current LED Driver**  
For LED modules use only

MODEL: BK-BHL030-0750AD

INPUT: 200-240V~ 50/60Hz 0.25A Max. λ: 0.95

OUTPUT: 50V --- Max. 30W Max. tc: 90°C +tc

Other ratings see selection sheet ta: 60°C

MADE IN CHINA

**Switching selection sheet**

Pin(w) typ.	Prated(w)	Irated(mA)	Voltage(Vdc)	1	2	3	4
15.0	12.6	300	3-42	--	ON	ON	ON
17.0	14.7	350	3-42	ON	--	ON	ON
19.5	16.8	400	3-42	--	--	ON	ON
22.0	18.9	450	3-42	--	ON	--	ON
24.0	21.0	500	3-42	--	--	--	ON
26.5	23.1	550	3-42	ON	ON	ON	--
29.0	25.2	600	3-42	--	--	ON	--
31.0	27.3	650	3-42	--	ON	--	--
34.5	29.4	700	3-42	ON	--	--	--
34.5	30.0	750	★ 3-40	--	--	--	--

Before use, always check dipswitch settings!

**OUTPUT**  
SEC wire prep: 0.5±0.1mm  
PR1 wire prep: 0.75±0.05mm  
PR2 wire prep: 0.75±0.05mm

LED+  
LED-  
DA+  
DA-

Do not energize the driver before connecting the LED.

1 2 3 4

**INPUT**  
AC-L  
AC-N  
NC

www.powerboke.com

BOKE  
FREE

DONGGUAN BOKE LED DRIVERS CO.,LTD  
Address: Building H, Julong Industrial Park, Meliang Community, Huangjiang Town, 523763 Dongguan, CHINA

PR1 wire prep: 0.75±0.05mm  
PR2 wire prep: 0.75±0.05mm

**Dimmable Constant Current LED Driver**  
For LED modules use only

MODEL: BK-BHL040-1000AD

INPUT: 200-240V~ 50/60Hz 0.3A Max. λ: 0.95

OUTPUT: 50V --- Max. 40W Max. tc: 90°C +tc

Other ratings see selection sheet ta: 60°C

MADE IN CHINA

**Switching selection sheet**

Pin(w) typ.	Prated(w)	Irated(mA)	Voltage(Vdc)	1	2	3	4
27.0	23.1	550	3-42	--	ON	ON	ON
29.0	25.2	600	3-42	ON	--	ON	ON
31.5	27.3	650	3-42	--	--	ON	ON
33.5	29.4	700	3-42	--	ON	--	ON
36.0	31.5	750	3-42	--	--	--	ON
38.5	33.6	800	3-42	ON	ON	ON	--
41.0	35.7	850	3-42	--	--	ON	--
43.0	37.8	900	3-42	--	ON	--	--
46.0	39.9	950	3-42	ON	--	--	--
46.0	40.0	1000	★ 3-40	--	--	--	--

Before use, always check dipswitch settings!

**OUTPUT**  
SEC wire prep: 0.5±0.1mm  
PR1 wire prep: 0.75±0.05mm  
PR2 wire prep: 0.75±0.05mm

LED+  
LED-  
DA+  
DA-

Do not energize the driver before connecting the LED.

1 2 3 4

**INPUT**  
AC-L  
AC-N  
NC

www.powerboke.com

BOKE  
FREE

DONGGUAN BOKE LED DRIVERS CO.,LTD  
Address: Building H, Julong Industrial Park, Meliang Community, Huangjiang Town, 523763 Dongguan, CHINA

PR1 wire prep: 0.75±0.05mm  
PR2 wire prep: 0.75±0.05mm

**Dimmable Constant Current LED Driver**  
For LED modules use only

MODEL: BK-BHL050-1250AD

INPUT: 200-240V~ 50/60Hz 0.35A Max. λ: 0.95

OUTPUT: 50V --- Max. 50W Max. tc: 90°C +tc

Other ratings see selection sheet ta: 60°C

MADE IN CHINA

**Switching selection sheet**

Pin(w) typ.	Prated(w)	Irated(mA)	Voltage(Vdc)	1	2	3	4
38.0	33.6	800	3-42	--	ON	ON	ON
41.0	35.7	850	3-42	ON	--	ON	ON
43.0	37.8	900	3-42	--	--	ON	ON
46.0	39.9	950	3-42	--	ON	--	ON
48.0	42.0	1000	3-42	--	--	--	ON
50.0	44.1	1050	3-42	ON	ON	ON	--
53.0	46.2	1100	3-42	--	--	ON	--
55.0	48.3	1150	3-42	--	ON	--	--
57.0	49.8	1200	3-41.5	ON	--	--	--
57.0	50.0	1250	★ 3-40	--	--	--	--

Before use, always check dipswitch settings!

**OUTPUT**  
SEC wire prep: 0.5±0.1mm  
PR1 wire prep: 0.75±0.05mm  
PR2 wire prep: 0.75±0.05mm

LED+  
LED-  
DA+  
DA-

Do not energize the driver before connecting the LED.

1 2 3 4

**INPUT**  
AC-L  
AC-N  
NC

www.powerboke.com

BOKE  
FREE

DONGGUAN BOKE LED DRIVERS CO.,LTD  
Address: Building H, Julong Industrial Park, Meliang Community, Huangjiang Town, 523763 Dongguan, CHINA

PR1 wire prep: 0.75±0.05mm  
PR2 wire prep: 0.75±0.05mm

**Dimmable Constant Current LED Driver**  
For LED modules use only

MODEL: BK-BHL060-1650AD

INPUT: 200-240V~ 50/60Hz 0.4A Max. λ: 0.95

OUTPUT: 50V --- Max. 60W Max. tc: 90°C +tc

Other ratings see selection sheet ta: 60°C

MADE IN CHINA

**Switching selection sheet**

Pin(w) typ.	Prated(w)	Irated(mA)	Voltage(Vdc)	1	2	3	4
57.5	50.4	1200	3-42	--	ON	ON	ON
59.5	52.5	1250	3-42	ON	--	ON	ON
61.5	54.6	1300	3-42	--	--	ON	ON
64.0	56.7	1350	3-42	--	ON	--	ON
66.5	58.8	1400	3-42	--	--	--	ON
67.5	59.5	1450	3-41	ON	ON	ON	--
68.0	60.0	1500	3-40	--	--	ON	--
68.0	59.7	1550	3-38.5	--	ON	--	--
68.0	60.0	1600	3-37.5	ON	--	--	--
67.5	59.4	1650	★ 3-36	--	--	--	--

Before use, always check dipswitch settings!

**OUTPUT**  
SEC wire prep: 0.5±0.1mm  
PR1 wire prep: 0.75±0.05mm  
PR2 wire prep: 0.75±0.05mm

LED+  
LED-  
DA+  
DA-

Do not energize the driver before connecting the LED.

1 2 3 4

**INPUT**  
AC-L  
AC-N  
NC

www.powerboke.com

BOKE  
FREE

DONGGUAN BOKE LED DRIVERS CO.,LTD  
Address: Building H, Julong Industrial Park, Meliang Community, Huangjiang Town, 523763 Dongguan, CHINA

PR1 wire prep: 0.75±0.05mm  
PR2 wire prep: 0.75±0.05mm

**Dimmable Constant Current LED Driver**  
For LED modules use only

MODEL: BK-BHL070-2000AD

INPUT: 200-240V~ 50/60Hz 0.5A Max. λ: 0.95

OUTPUT: 50V --- Max. 70.3W Max. tc: 90°C +tc

Other ratings see selection sheet ta: 60°C

MADE IN CHINA

**Switching selection sheet**

Pin(w) typ.	Prated(w)	Irated(mA)	Voltage(Vdc)	1	2	3	4
63.0	54.6	1300	3-42	--	ON	ON	ON
68.0	58.8	1400	3-42	ON	--	ON	ON
70.0	60.9	1450	3-42	--	--	ON	ON
72.0	63.0	1500	3-42	--	ON	--	ON
74.0	65.1	1550	3-42	--	--	--	ON
79.0	69.3	1650	3-42	ON	ON	ON	--
79.0	69.7	1700	3-41	--	--	ON	--
80.0	70.2	1800	3-39	--	ON	--	--
80.0	70.3	1900	3-37	ON	--	--	--
80.0	70.0	2000	★ 3-35	--	--	--	--

Before use, always check dipswitch settings!

**OUTPUT**  
SEC wire prep: 0.5±0.1mm  
PR1 wire prep: 0.75±0.05mm  
PR2 wire prep: 0.75±0.05mm

LED+  
LED-  
DA+  
DA-

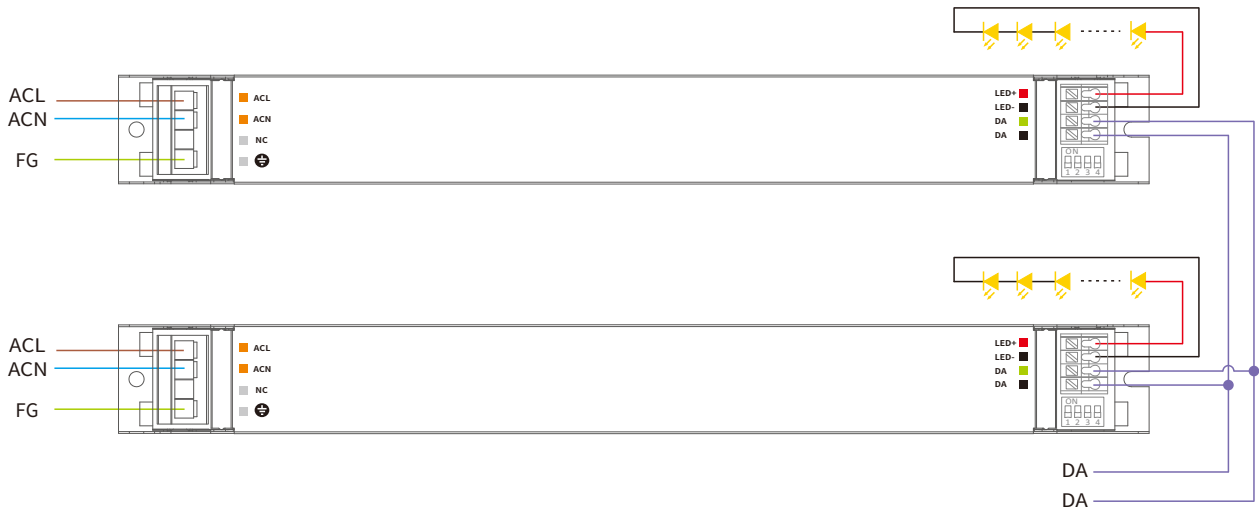
Do not energize the driver before connecting the LED.

1 2 3 4



**DALI dimming application**

**Wiring diagram**



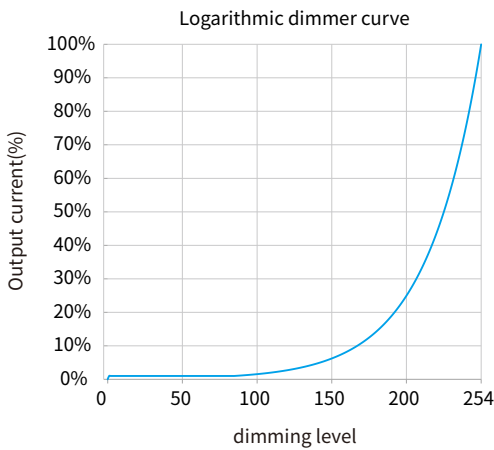
**Remarks:**

- Standard DALI control line voltage range:9.5V to 22.5V ,type 16V.
- The two DALI control lines polarity-reversible.
- Max. 64 DALI drivers per DALI control line.
- The maximum distance length of the DALI control line is 300m at 2×1.5mm<sup>2</sup>.
- DALI bus can be wired together with any mains voltage cables, but separate wiring is recommended.

Please refer to the table below

Cable size	Distance
2×0.50mm <sup>2</sup>	max.100m
2×0.75mm <sup>2</sup>	max.150m
2×1.00mm <sup>2</sup>	max.200m
≥2×1.50mm <sup>2</sup>	max.300m

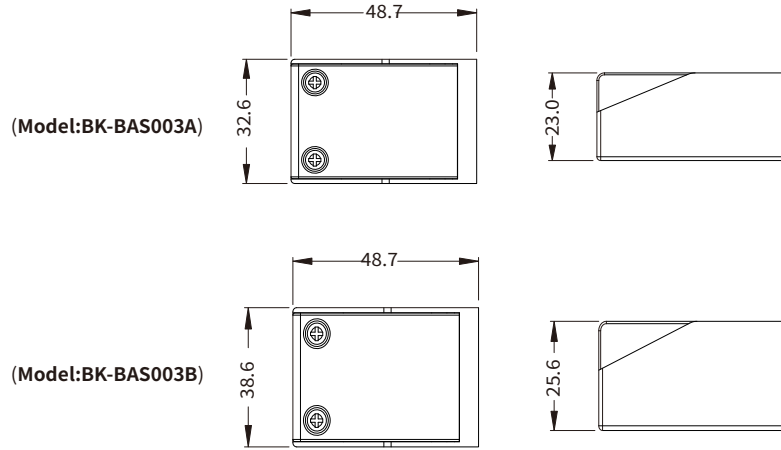
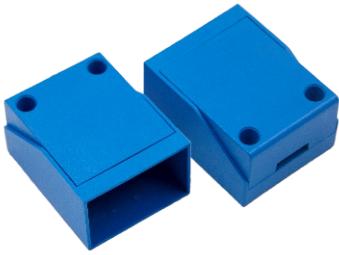
**Dimming curve**



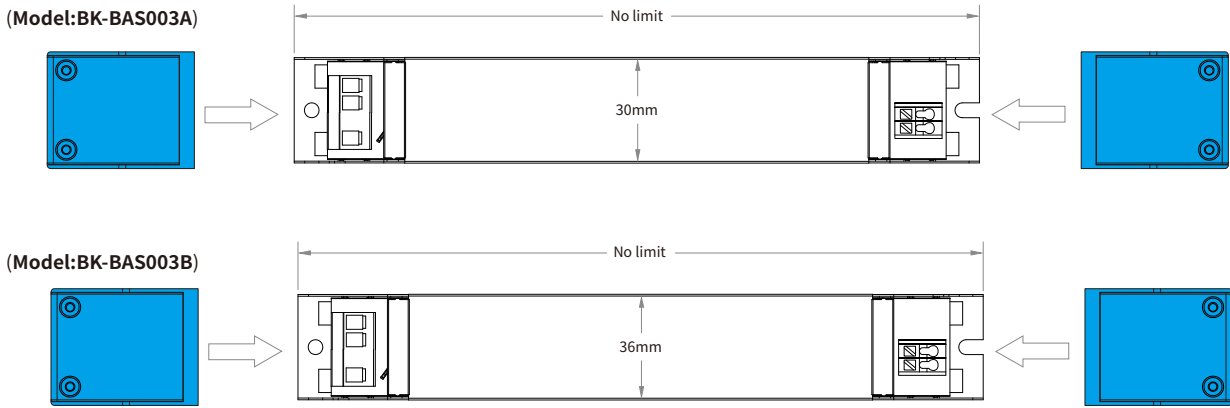
**Remarks:**

The dimming curve can be selected by DALI configuration. The default is logarithmic dimming curve.

Optional accessories



Installation diagram of accessories

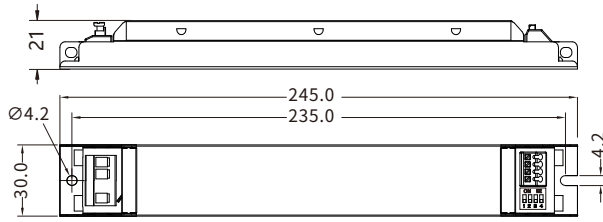


**Installation**

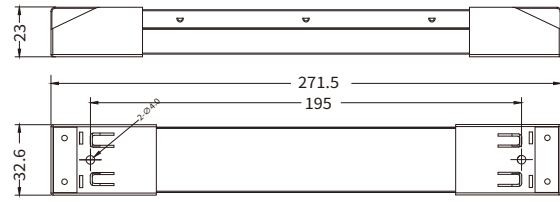
**Mechanical dimensions**

Unit:mm

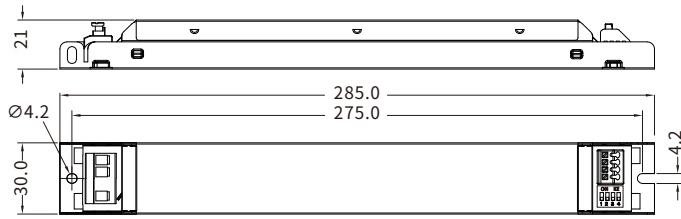
BHL030



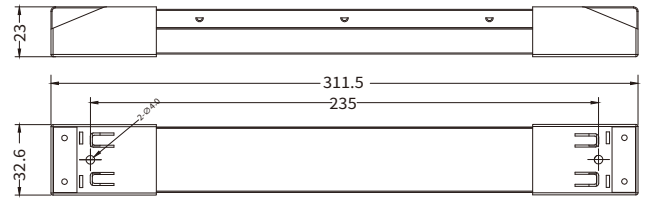
BHL030



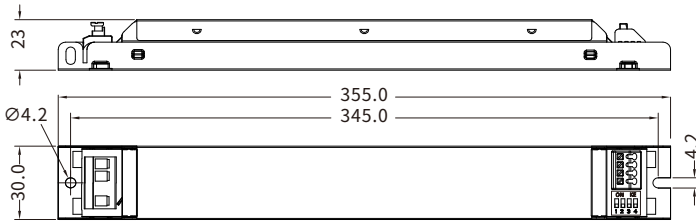
BHL040/BHL050



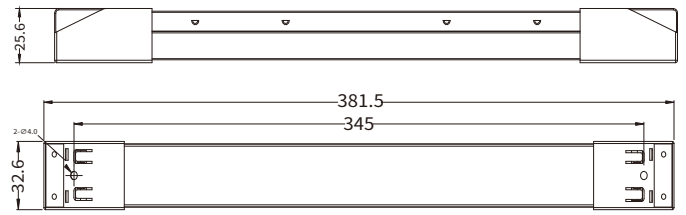
BHL040/BHL050



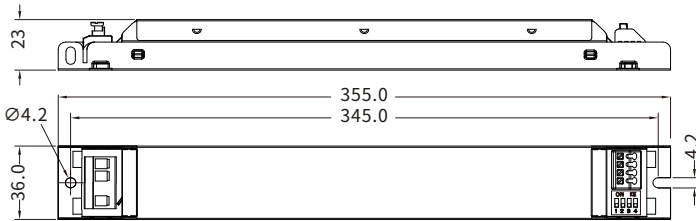
BHL060



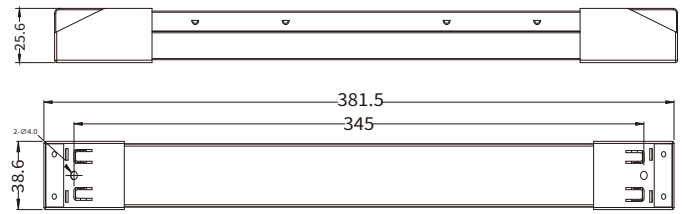
BHL060



BHL080



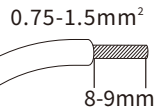
BHL080



**INPUT**

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

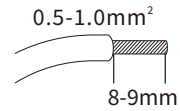
**Input wire**



**OUTPUT**

Pin Numbering	function	colour
1	LED+	red
2	LED-	black
3	DA	green
4	DA	black

**Output wire**



**Installation note**

**Hot plug-in**

- Hot plug-in is not supported due to residual output voltage of > 0 V.
- If a LED load is connected the device has to be restarted.
- This can be done via mains reset or via interface (DALI).

**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.

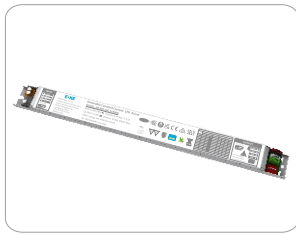
**Mounting screw specifications and torque**

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

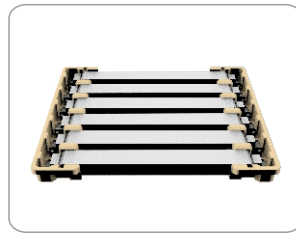
**Replace LED module**

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

**Packaging**



Product



Paper tray



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

Model	Product size	Weight	Paper tray	Carton size	Qty/carton	N.W	G.W
BHL030	L245*W30*H21mm	171g	L340*W75*H29mm	L355*W285*H205mm	42pcs	7.18KG	8.48KG
BHL040	L285*W30*H21mm	206g	L340*W75*H29mm	L355*W325*H170mm	35pcs	7.21KG	8.51KG
BHL050	L285*W30*H21mm	229g	L340*W75*H29mm	L355*W325*H170mm	35pcs	8.02KG	9.32KG
BHL060	L355*W30*H21mm	293g	L340*W75*H29mm	L395*W355*H140mm	28pcs	8.21KG	9.40KG
BHL070	L355*W36*H23mm	381g	L340*W75*H33mm	L395*W355*H160mm	24pcs	9.15KG	10.3KG

**Additional information**

1. 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.
2. For more information, please send an email to [info@bokedriver.com](mailto:info@bokedriver.com).