



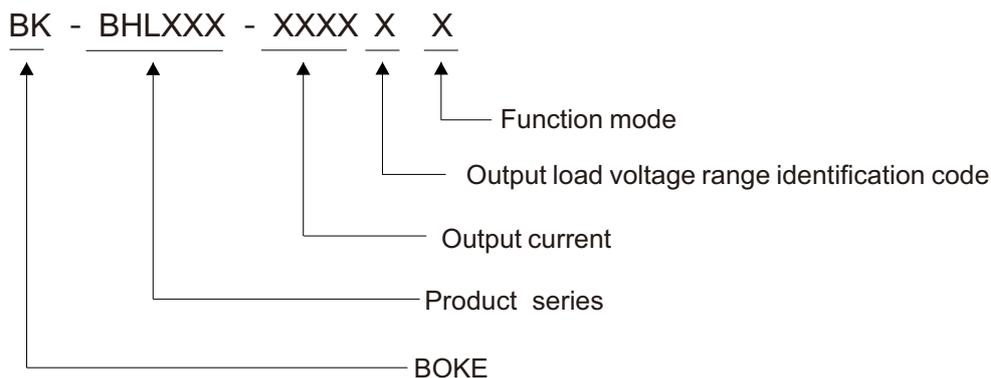
## FEATURES

1. 180-264VAC input
2. Class I driver, with FG, flicker free
3. Built in active PFC function, high PF, low THD
4. Standby power consumption <0.5W to turn off dimmable port.
5. Optional dimming methods
6. Supporting multi-power supplies synchronous dimming connected in parallel
7. Cooling by free air convection
8. Suitable for indoor LED lighting applications
9. Built in DALI dimming function
10. 5 years warranty

## APPLICATION

1. LED indoor lighting
2. LED office lighting
3. LED architectural lighting
4. LED panel lamp lighting

## MODEL CODE

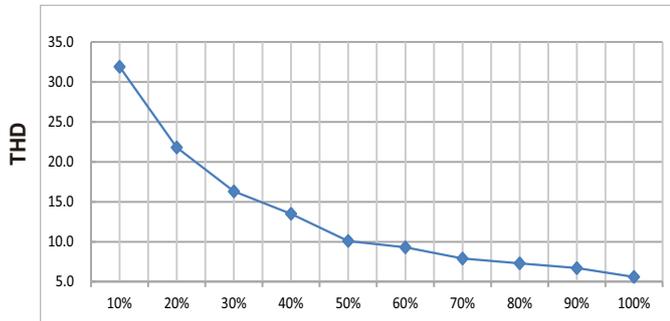


ELECTRICAL SPECIFICATION					
MODEL	BK-BHL030-0750AD	BK-BHL040-1000AD	BK-BHL050-1250AD	BK-BHL060-1650AD	BK-BHL070-2000AD
<b>OUTPUT</b>					
DC current	0.3-0.75A	0.55-1.0A	0.8-1.25A	1.2-1.65A	1.3-2A
DC voltage range	3-42V	3-42V	3-42V	3-42V	3-42V
Rated power	30W Max	40W Max	50W Max	60W Max	70.3W Max
Voltage ripple & noise note.2	≤200mV(Vpp)	≤300mV(Vpp)	≤300mV(Vpp)	≤350mV(Vpp)	≤300mV(Vpp)
Current ripple & noise	≤20mA(RMS)	≤30mA(RMS)	≤50mA(RMS)	≤50mA(RMS)	≤80mA(RMS)
Constnt current ADJ. range	DIP S.W	DIP S.W	DIP S.W	DIP S.W	DIP S.W
Constant current accuracy	±5%	±5%	±5%	±5%	±5%
Line regulation	±5%	±5%	±5%	±5%	±5%
Load regulation	±5%	±5%	±5%	±5%	±5%
DALI port input current	≤2mA				
1-10V port input current	<1mA(When DIM + is shorted with DIM - )				
<b>INPUT</b>					
Rated voltage	200-240VAC 200-240VDC				
Input AC voltage range	180-264VAC				
Input DC voltage range	180-264VDC				
Frequency range	47-63Hz				
Power factor	PF>0.95 @ 230VAC/full load,PF>0.90 @ 230VAC/>30% load				
Total harmonic distortion	THD<10% @ 230VAC/full load,THD<20% @ 230VAC/>30% load				
Efficiency (Typ.)	87%	89%	90%	90%	90%
Standby power note.3	<0.5W @ 230Vac	<0.5W @ 230Vac	<0.5W @ 230Vac	<0.5W @ 230Vac	<0.5W @ 230Vac
Input current	<0.2A @ 230Vac	<0.3A @ 230Vac	<0.35A @ 230Vac	<0.45A @ 230Vac	<0.5A @ 230Vac
Inrush current(Typ.)	<30A, <0.09A'S ,Twidth=100us	<30A, <0.1A'S ,Twidth=110us	<30A, <0.12A'S ,Twidth=130us		<30A, <0.14A'S ,Twidth=158us
Max. No. of PSUs on 16A circuit breaker	B:40PCS,C:48PCS	B:38PCS,C:45PCS	B:32PCS,C:37PCS	B:26PCS,C:31PCS	B:25PCS,C:27PCS
Turn on delay	<0.5s @ 230Vac				
<b>PROTECTION</b>					
Short circuit	Hiccup,recovers automatically after environment temperature declines				
Max output voltage	50V				
Over temperature	Hiccup,recovers automatically after fult condition is removed				
<b>ENVIRONMENT</b>					
Operation temperature	-20-60°C				
Operation humidity	10-90% RH,non-condensing				
Storagr tempera-ture/humidity	-40-80°C,5-95% RH				
IP class	IP20				
Vibration	10~500Hz,5G 12min./1cycle,period for 72min. each along X,Y,Z axes				
Tc	Tc=90°C(Ta=60°C)				
MTBF	500000H,MIL-HDBK-217F(25°C)				
<b>EMC</b>					
EMC emisson Note.4	Compliance to EN55015,GB17743,EN61000-3-2 Class C(≥30% load),EN61000-3-3				
EMC immunity	Compliance to EN61000-4-2,3,4,5,6,8,1,EN61547,surge:DM 2.5KV CM 2.5KV				
<b>SAFETY</b>					
Safety standards	EN61347-1/2-13,GB19510.1/14,EN62384,IEEE1789				
Dali standards	IEC62386-101,102,207				
Certificate	CE-SUD ENEC CCC SAA RCM				
Withstand voltage	I/P-O/P:3750VAC,I/P-FG:1750VAC,O/P-FG:500VAC.				
Leakage current	<0.75mA @ 240Vac				
Isolation resis-tance	I/P-O/P:100MΩ/500Vdc/25°C/70% RH				
<b>PACKAGE</b>					
Environmental protection	RoHS				
Input connection	PCB connector/4PIN/orange+orange+gray+gray/0.75-1.5mm <sup>2</sup>				
Output connection	PCB connector/4PIN/black+green+black+red/0.5-1.5mm <sup>2</sup>				
<b>NOTE</b>	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 paralld capacitor. 3.Stand-by power consumption is measured at dimmable off condition. 4.The power supply is considers as a compent that will be operated in combination with final equipment.Since EMC performance will be affected by the complete installation the final equipment manufactures must re-quality EMC directive on the complete installation again. 5.When using the power supply, first make sure that the power output and the load are properly connected, and then turn on the AC.Do not connect the AC power before connecting the LED light load. 6.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 rated working temprature.				

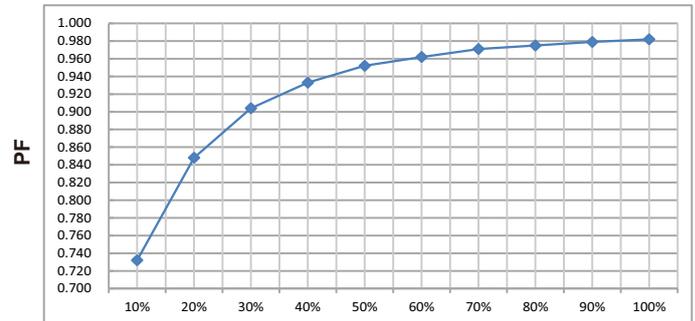
## Electrical characteristics

### BK-BHL030-0750AD Electrical characteristics(40V/0.75A)

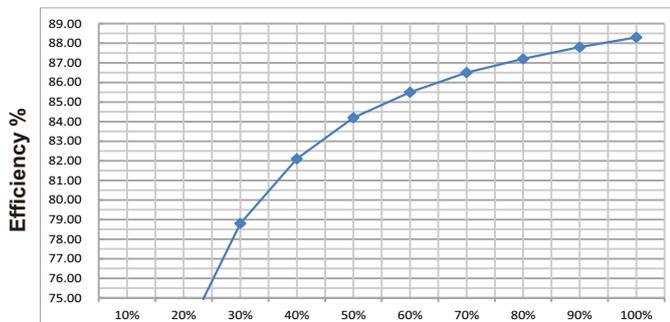
Total harmonic distortion vs Load characteristic curve



Power Factor vs LOAD Characteristic curve

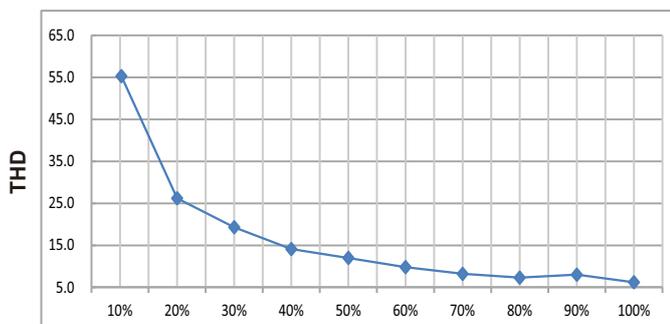


Efficiency vs Load characteristic curve

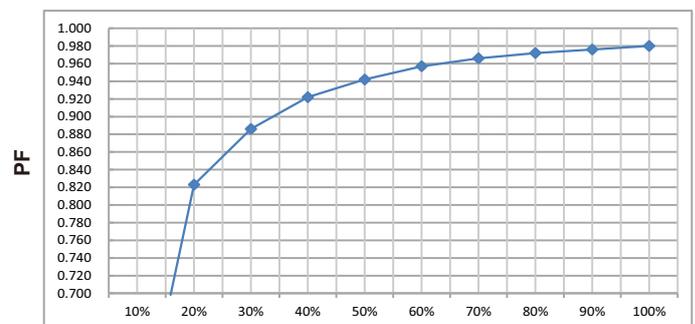


### BK-BHL040-1000AD Electrical characteristics(40V/1A)

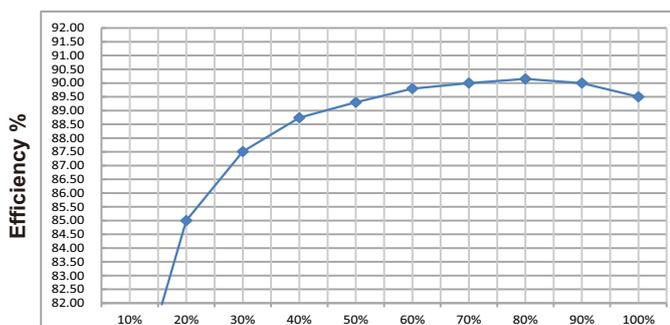
Total harmonic distortion vs Load characteristic curve



Power Factor vs LOAD Characteristic curve



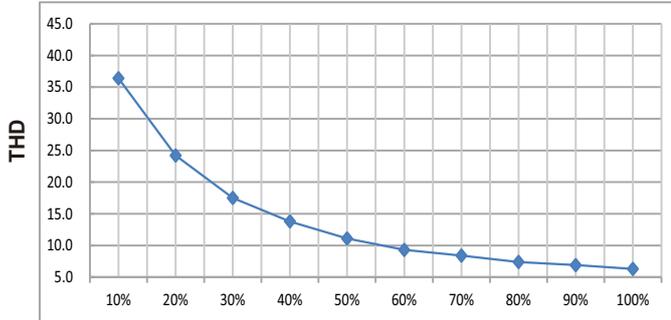
Efficiency vs Load characteristic curve



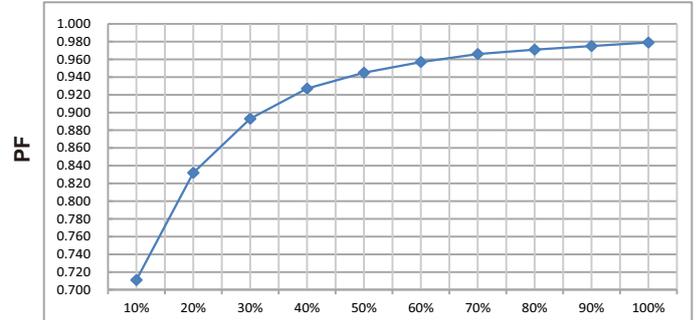
Electrical characteristics

BK-BHL050-1250AD Electrical characteristics(40V/1.25A)

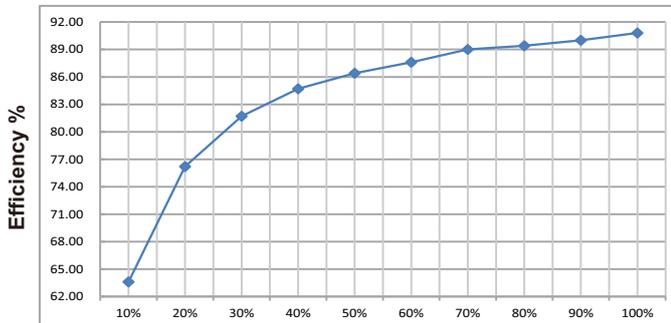
Total harmonic distortion vs Load characteristic curve



Power Factor vs LOAD Characteristic curve

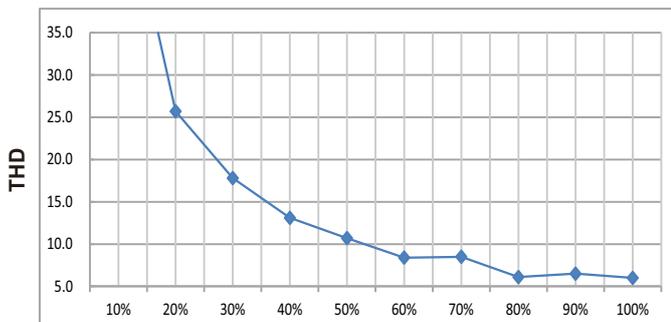


Efficiency vs Load characteristic curve

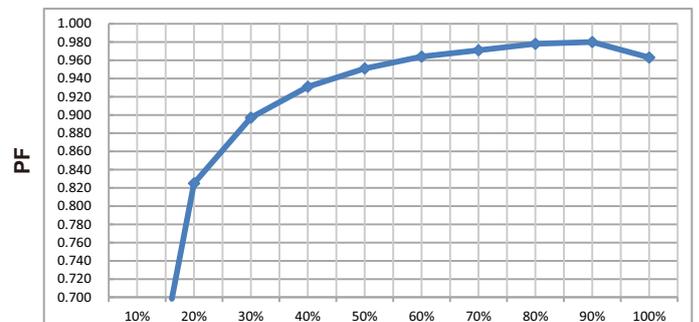


BK-BHL060-1650AD Electrical characteristics(40V/1.65A)

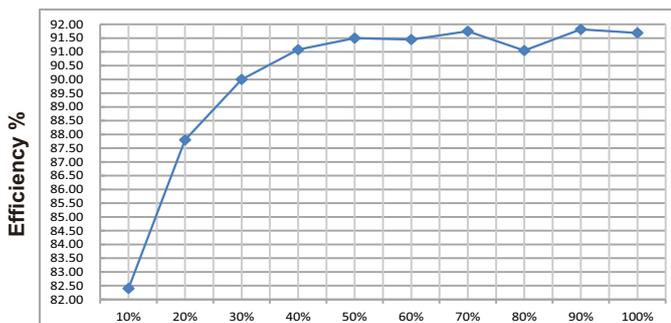
Total harmonic distortion vs Load characteristic curve



Power Factor vs LOAD Characteristic curve



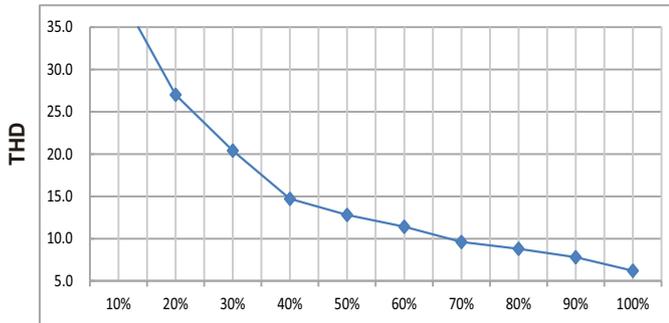
Efficiency vs Load characteristic curve



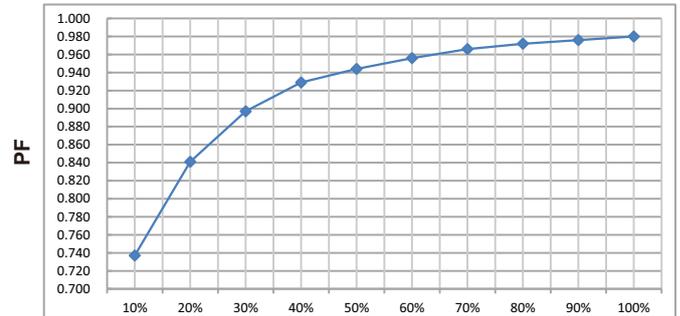
## Electrical characteristics

### BK-BHL070-2000AD Electrical characteristics(40V/2A)

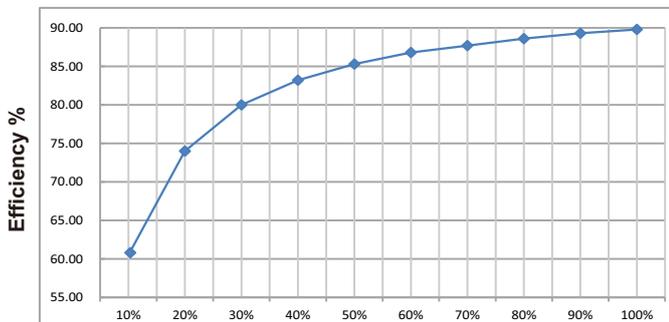
Total harmonic distortion vs Load characteristic curve



Power Factor vs LOAD Characteristic curve



Efficiency vs Load characteristic curve



## Product label

**INPUT** AC-L AC-N NC  
**BOKE** Dimmable Constant Current LED Driver For LED modules use only  
 MODEL: BK-BHL030-0750AD  
 INPUT: 200-240V ~ 50/60Hz 0.25A Max.  $\lambda$ : 0.95  
 OUTPUT: 50V --- Max. 30W Max. tc: 90°C ta: 60°C  
 Other ratings see selection sheet  
 MADE IN CHINA

Power (W)	Output (V)	Frequency (kHz)	Switch	1	2	3	4
15.0	27.0	850	3-42	ON	ON	ON	ON
17.0	17.8	850	3-42	ON	ON	ON	ON
19.0	18.8	850	3-42	ON	ON	ON	ON
22.0	18.9	1450	3-42	ON	ON	ON	ON
24.0	21.0	1500	3-42	ON	ON	ON	ON
25.0	23.1	1550	3-42	ON	ON	ON	ON
26.0	25.2	1600	3-42	ON	ON	ON	ON
31.0	27.3	1650	3-42	ON	ON	ON	ON
34.0	29.4	1700	3-42	ON	ON	ON	ON
37.0	30.0	1750	3-40	ON	ON	ON	ON

**OUTPUT** SEC wire prep 0.5-1.5mm<sup>2</sup> LED+ LED- DA DA  
 Do not energize the driver before connecting the LED.  
 1 2 3 4

**INPUT** AC-L AC-N NC  
**BOKE** Dimmable Constant Current LED Driver For LED modules use only  
 MODEL: BK-BHL040-1000AD  
 INPUT: 200-240V ~ 50/60Hz 0.3A Max.  $\lambda$ : 0.95  
 OUTPUT: 50V --- Max. 40W Max. tc: 90°C ta: 60°C  
 Other ratings see selection sheet  
 MADE IN CHINA

Power (W)	Output (V)	Frequency (kHz)	Switch	1	2	3	4
27.0	23.1	1550	3-42	ON	ON	ON	ON
29.0	25.2	1600	3-42	ON	ON	ON	ON
31.0	27.3	1650	3-42	ON	ON	ON	ON
33.0	28.4	1700	3-42	ON	ON	ON	ON
35.0	31.5	1750	3-42	ON	ON	ON	ON
38.0	33.6	1800	3-42	ON	ON	ON	ON
41.0	35.7	1850	3-42	ON	ON	ON	ON
43.0	37.8	1900	3-42	ON	ON	ON	ON
46.0	39.9	1950	3-42	ON	ON	ON	ON
49.0	42.0	2000	3-42	ON	ON	ON	ON
50.0	44.1	2050	3-42	ON	ON	ON	ON

**OUTPUT** SEC wire prep 0.5-1.5mm<sup>2</sup> LED+ LED- DA DA  
 Do not energize the driver before connecting the LED.  
 1 2 3 4

**INPUT** AC-L AC-N NC  
**BOKE** Dimmable Constant Current LED Driver For LED modules use only  
 MODEL: BK-BHL050-1250AD  
 INPUT: 200-240V ~ 50/60Hz 0.35A Max.  $\lambda$ : 0.95  
 OUTPUT: 50V --- Max. 50W Max. tc: 90°C ta: 60°C  
 Other ratings see selection sheet  
 MADE IN CHINA

Power (W)	Output (V)	Frequency (kHz)	Switch	1	2	3	4
38.0	33.6	1850	3-42	ON	ON	ON	ON
41.0	35.7	1900	3-42	ON	ON	ON	ON
43.0	37.8	1950	3-42	ON	ON	ON	ON
46.0	39.9	2000	3-42	ON	ON	ON	ON
49.0	42.0	2050	3-42	ON	ON	ON	ON
53.0	46.2	2100	3-42	ON	ON	ON	ON
55.0	48.3	2150	3-42	ON	ON	ON	ON
57.0	50.4	2200	3-41.5	ON	ON	ON	ON
57.0	50.4	2250	3-40	ON	ON	ON	ON

**OUTPUT** SEC wire prep 0.5-1.5mm<sup>2</sup> LED+ LED- DA DA  
 Do not energize the driver before connecting the LED.  
 1 2 3 4

**INPUT** AC-L AC-N NC  
**BOKE** Dimmable Constant Current LED Driver For LED modules use only  
 MODEL: BK-BHL060-1650AD  
 INPUT: 200-240V ~ 50/60Hz 0.4A Max.  $\lambda$ : 0.95  
 OUTPUT: 50V --- Max. 60W Max. tc: 90°C ta: 60°C  
 Other ratings see selection sheet  
 MADE IN CHINA

Power (W)	Output (V)	Frequency (kHz)	Switch	1	2	3	4
50.0	44.1	2100	3-42	ON	ON	ON	ON
53.0	46.2	2150	3-42	ON	ON	ON	ON
55.0	48.3	2200	3-42	ON	ON	ON	ON
57.0	50.4	2250	3-42	ON	ON	ON	ON
60.0	54.6	2300	3-42.0	ON	ON	ON	ON
63.0	58.8	2350	3-42	ON	ON	ON	ON
66.0	63.0	2400	3-42.0	ON	ON	ON	ON
69.0	67.2	2450	3-42.0	ON	ON	ON	ON
72.0	71.4	2500	3-42	ON	ON	ON	ON
75.0	75.6	2550	3-42	ON	ON	ON	ON
78.0	79.8	2600	3-42	ON	ON	ON	ON
81.0	84.0	2650	3-42.0	ON	ON	ON	ON
84.0	88.2	2700	3-42.0	ON	ON	ON	ON
87.0	92.4	2750	3-37.5	ON	ON	ON	ON
90.0	96.6	2800	3-35	ON	ON	ON	ON

**OUTPUT** SEC wire prep 0.5-1.5mm<sup>2</sup> LED+ LED- DA DA  
 Do not energize the driver before connecting the LED.  
 1 2 3 4

**INPUT** AC-L AC-N NC  
**BOKE** Dimmable Constant Current LED Driver For LED modules use only  
 MODEL: BK-BHL070-2000AD  
 INPUT: 200-240V ~ 50/60Hz 0.5A Max.  $\lambda$ : 0.95  
 OUTPUT: 50V --- Max. 70.3W Max. tc: 90°C ta: 60°C  
 Other ratings see selection sheet  
 MADE IN CHINA

Power (W)	Output (V)	Frequency (kHz)	Switch	1	2	3	4
63.0	54.6	2300	3-42	ON	ON	ON	ON
66.0	58.8	2350	3-42	ON	ON	ON	ON
70.0	60.9	2400	3-42	ON	ON	ON	ON
72.0	63.0	2450	3-42	ON	ON	ON	ON
75.0	67.2	2500	3-42	ON	ON	ON	ON
78.0	71.4	2550	3-42	ON	ON	ON	ON
81.0	75.6	2600	3-41	ON	ON	ON	ON
84.0	79.8	2650	3-39	ON	ON	ON	ON
87.0	84.0	2700	3-37	ON	ON	ON	ON
90.0	88.2	2750	3-35	ON	ON	ON	ON

**OUTPUT** SEC wire prep 0.5-1.5mm<sup>2</sup> LED+ LED- DA DA  
 Do not energize the driver before connecting the LED.  
 1 2 3 4

## DIP S.W Select output current table

**BK-BHL030-0750AD**

Switching selection sheet							
Pin(W) typ.	Output			Switch			
	Prated(W)	Irated(mA)	Voltage(Vdc)	1	2	3	4
15.0	12.6	300 <input type="checkbox"/>	3-42	-	ON	ON	ON
17.0	14.7	350 <input type="checkbox"/>	3-42	ON	-	ON	ON
19.5	16.8	400 <input type="checkbox"/>	3-42	-	-	ON	ON
22.0	18.9	450 <input type="checkbox"/>	3-42	-	ON	-	ON
24.0	21.0	500 <input type="checkbox"/>	3-42	-	-	-	ON
26.5	23.1	550 <input type="checkbox"/>	3-42	ON	ON	ON	-
29.0	25.2	600 <input type="checkbox"/>	3-42	-	-	ON	-
31.0	27.3	650 <input type="checkbox"/>	3-42	-	ON	-	-
34.5	29.4	700 <input type="checkbox"/>	3-42	ON	-	-	-
34.5	30.0	750 <input checked="" type="checkbox"/>	3-40	-	-	-	-

Before use, always check dipswitch settings!

**BK-BHL040-1000AD**

Switching selection sheet							
Pin(W) typ.	Output			Switch			
	Prated(W)	Irated(mA)	Voltage(Vdc)	1	2	3	4
27.0	23.1	550 <input type="checkbox"/>	3-42	-	ON	ON	ON
29.0	25.2	600 <input type="checkbox"/>	3-42	ON	-	ON	ON
31.5	27.3	650 <input type="checkbox"/>	3-42	-	-	ON	ON
33.5	29.4	700 <input type="checkbox"/>	3-42	-	ON	-	ON
36.0	31.5	750 <input type="checkbox"/>	3-42	-	-	-	ON
38.5	33.6	800 <input type="checkbox"/>	3-42	ON	ON	ON	-
41.0	35.7	850 <input type="checkbox"/>	3-42	-	-	ON	-
43.0	37.8	900 <input type="checkbox"/>	3-42	-	ON	-	-
46.0	39.9	950 <input type="checkbox"/>	3-42	ON	-	-	-
46.0	40.0	1000 <input checked="" type="checkbox"/>	3-40	-	-	-	-

Before use, always check dipswitch settings!

**BK-BHL050-1250AD**

Switching selection sheet							
Pin(W) typ.	Output			Switch			
	Prated(W)	Irated(mA)	Voltage(Vdc)	1	2	3	4
38	33.6	800 <input type="checkbox"/>	3-42	-	ON	ON	ON
41	35.7	850 <input type="checkbox"/>	3-42	ON	-	ON	ON
43	37.8	900 <input type="checkbox"/>	3-42	-	-	ON	ON
46	39.9	950 <input type="checkbox"/>	3-42	-	ON	-	ON
48	42.0	1000 <input type="checkbox"/>	3-42	-	-	-	ON
50	44.1	1050 <input type="checkbox"/>	3-42	ON	ON	ON	-
53	46.2	1100 <input type="checkbox"/>	3-42	-	-	ON	-
55	48.3	1150 <input type="checkbox"/>	3-42	-	ON	-	-
57	49.8	1200 <input type="checkbox"/>	3-41.5	ON	-	-	-
57	50.0	1250 <input checked="" type="checkbox"/>	3-40	-	-	-	-

Before use, always check dipswitch settings!

**BK-BHL060-1650AD**

Switching selection sheet							
Pin(W) typ.	Output			Switch			
	Prated(W)	Irated(mA)	Voltage(Vdc)	1	2	3	4
57.5	50.4	1200 <input type="checkbox"/>	3-42.0	-	ON	ON	ON
59.5	52.5	1250 <input type="checkbox"/>	3-42.0	ON	-	ON	ON
61.5	54.6	1300 <input type="checkbox"/>	3-42.0	-	-	ON	ON
64.0	56.7	1350 <input type="checkbox"/>	3-42.0	-	ON	-	ON
66.5	58.8	1400 <input type="checkbox"/>	3-42.0	-	-	-	ON
67.5	59.5	1450 <input type="checkbox"/>	3-41.0	ON	ON	ON	-
68.0	60.0	1500 <input type="checkbox"/>	3-40.0	-	-	ON	-
68.0	59.7	1550 <input type="checkbox"/>	3-38.5	-	ON	-	-
68.0	60.0	1600 <input type="checkbox"/>	3-37.5	ON	-	-	-
67.5	59.4	1650 <input checked="" type="checkbox"/>	3-36.0	-	-	-	-

Before use, always check dipswitch settings!

**BK-BHL070-2000AD**

Switching selection sheet							
Pin(W) typ.	Output			Switch			
	Prated(W)	Irated(mA)	Voltage(Vdc)	1	2	3	4
63.0	54.6	1300 <input type="checkbox"/>	3-42	-	ON	ON	ON
68.0	58.8	1400 <input type="checkbox"/>	3-42	ON	-	ON	ON
70.0	60.9	1450 <input type="checkbox"/>	3-42	-	-	ON	ON
72.0	63.0	1500 <input type="checkbox"/>	3-42	-	ON	-	ON
74.0	65.1	1550 <input type="checkbox"/>	3-42	-	-	-	ON
79.0	69.3	1650 <input type="checkbox"/>	3-42	ON	ON	ON	-
79.0	69.7	1700 <input type="checkbox"/>	3-41	-	-	ON	-
80.0	70.2	1800 <input type="checkbox"/>	3-39	-	ON	-	-
80.0	70.3	1900 <input type="checkbox"/>	3-37	ON	-	-	-
80.0	70.0	2000 <input checked="" type="checkbox"/>	3-35	-	-	-	-

Before use, always check dipswitch settings!

Remark:  this current is factory default.

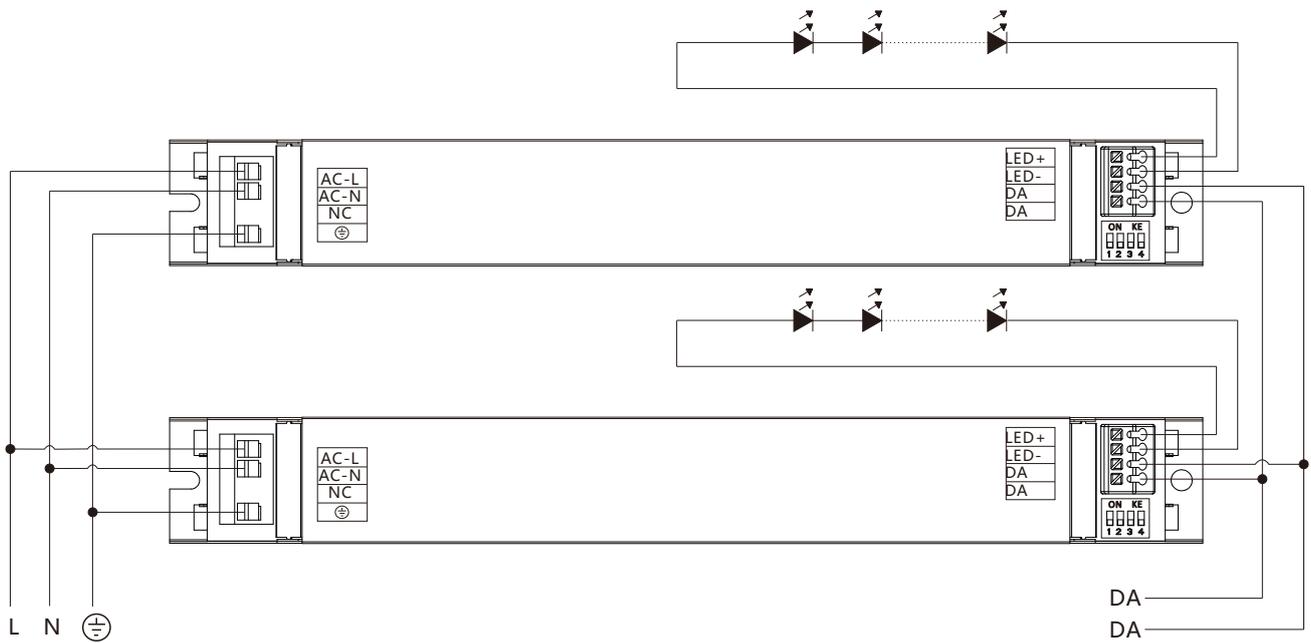
this channel is off.

## Dimming function

### DALI dimming

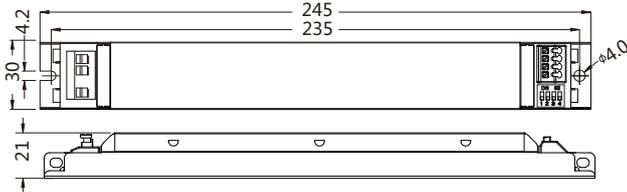
DALI protocol comprises 16 groups and 64 addresses.

DALI INPUT	MIN	TYP	MAX
high level	9.5V	16V	22.5V
low level	-6.5V	0V	6.5V

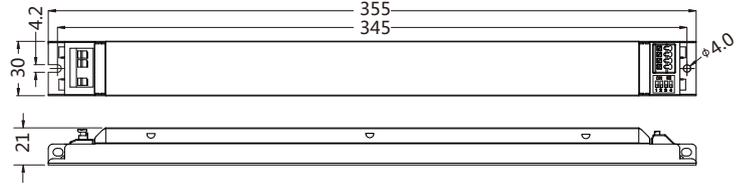


## Mechanical Specification

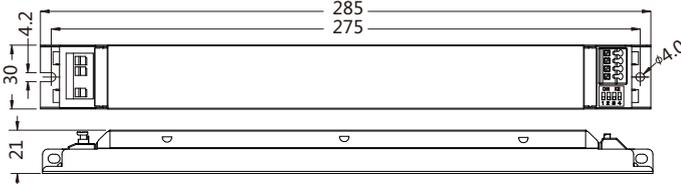
BHL030



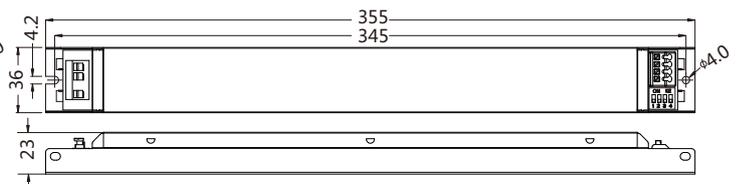
BHL060



BHL040 BHL050

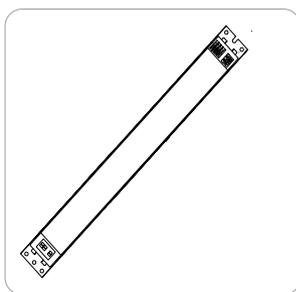


BHL070

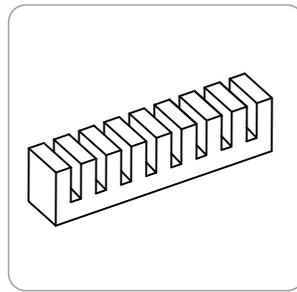


Unit:mm

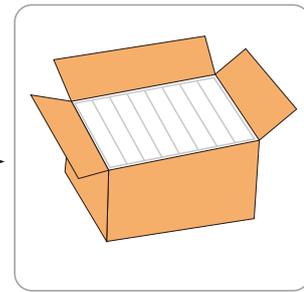
## Product package



Product



Pearl wool



8pcs\*6layer=48pcs/CIN

8pcs\*5layer=40pcs/CIN

7pcs\*5layer=35pcs/CIN

Product	Product size	Weight	Carton size	C.W	N.W	Pearl wool size	Flat card size	Packing
BHL030	L245*W30.2*H20.6mm	168g	L410*W295*H200mm	8.2KG	9.6KG	L394*W23*H70mm	L390*W275mm	48pcs
BHL040	L285*W30.2*H20.6mm	205g	L415*W330*H190mm	8.2KG	9.4KG	L405*W30*H65mm	L395*W300mm	40pcs
BHL050	L285*W30.2*H20.6mm	230g	L415*W330*H190mm	9.3KG	10.5KG	L405*W30*H65mm	L395*W300mm	40pcs
BHL060	L355*W30.0*H20.0mm	305g	L415*W330*H190mm	10.7KG	12.1KG	L319*W30*H75mm	L395*W300mm	35pcs
BHL070	L355*W36.3*H23.0mm	360g	L440*W375*H222mm	12.43KG	14KG	L364*W40*H105mm	L420*W350mm	35pcs

## Sales&Technical Support

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