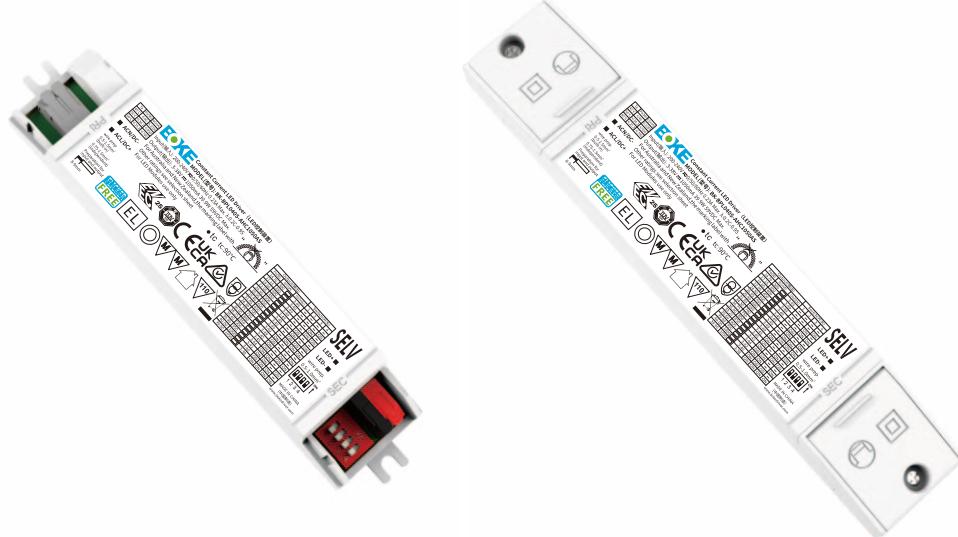


Constant current independent driver
BPL(S) Series suffix S



Features

- 16-level current output can be realized by DIP-switch
- Flicker-free output, which meets the requirement of ErP standard
- Withstand 380VAC high voltage short-time shock
- Mains surge capability up to 2KV
- High PF, high efficiency, low THD
- Compact housing design
- SELV and Class II design, suitable for use outside or inside of the luminaires
- Compliance with CE, ENEC, UKCA, RCM, 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, no-load, overload, over temperature protection)

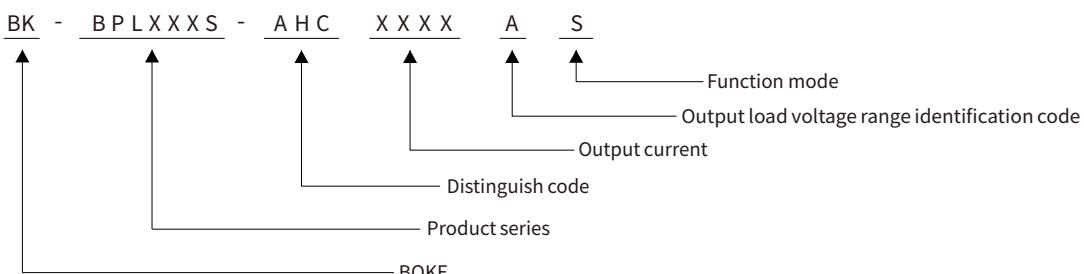
Suitable for lights

- Suitable for lights with independent drivers such as downlights, spotlights, panel lights, etc
- It is necessary to evaluate the chamber temperature of the light when it is used in the built-in

Typical applications

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

Model coding rules of BPL(S) series



Model list

Model	Input voltage	Output power	Output voltage	Output current	Dimension
BK-BPL040S-AHC1050AS	200-240VAC/DC	40W MAX.	3-49VDC	0.3-1.05A	L145.5*W30*H21.4mm(Built-in) L163.5*W30*H21.4mm(Independent)



Technical data

Product model	BK-BPL040S-AHC1050AS
Output parameters	
Regulation method	Constant Current
Rated output current range	0.3-1.05A,see the DIP-switch for details
Rated output voltage range	3-49VDC,see the DIP-switch for details
Rated output power	40W Max,see the DIP-switch for details
Output current adjustment	DIP S.W(16 levels)
Output current ripple(typ.)	±5%(100Hz)
Output current accuracy	±5%
Linear regulation	±5%
Load regulation	±5%
No load output voltage	59VDC
Flicker-free(typ.)	Flickering percent(IEEE 1789)=0.424%(100Hz), Flicker index(IEEE 1789)=0.001(100Hz), Pst LM = 0.032, SVM = 0.011, (The above parameters are obtained from testing the panel lights)
Input parameters	
Rated input voltage range	200-240VAC 200-240VDC
Input voltage range	180-264VAC 180-264VDC
Input voltage shock	<380 VAC
Input current	<0.23A (Rated input voltage)
Input frequency	0/50/60Hz
Input PF/Input DF(typ.)	PF: 0.98,DF:0.98 , see the electrical values below for details
Input THD(typ.)	8% , see the electrical values below for details
Efficiency(typ.)	91% , see the electrical values below for details
In-rush current(typ.)	1.87A peak ,70us 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):43.9W, No load(Pno): N/A, On stand-by(Psb) : N/A, Network stand-by(Pnet) : N/A
Safety	
Withstand voltage	I/P-O/P:3750VAC
Mains surge capability	L-N:2KV(90°/270°, 5 times each with an interval of 60s)(Performance criterion:B)
Leakage current(typ.)	0.67mA
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=-20-45/50/60°C,see the operating temperature for details
Case temperature	Tc=90°C
Operating humidity	5-85% RH, non-condensing
Storage temp./humidity	-40-80°C, 5-85% RH, non-condensing
IP grade	IP20
MTBF	500,000H,MIL-HDBK-217F(25°C)
Life-time	Nominal life-time up to 100,000 h, see the description below for details
Vibration resistant	10~500Hz,5G 12min./1cycle,period for 72min. each along X,Y,Z axes
Acoustic Noise	<25dB(30cm, Normal operation)
Environmental protection	RoHS
Certifications and standards	
Compliance certification	CE, ENEC, UKCA, RCM, CCC, EL
Safety	GB/T 19510.1, GB/T 19510.213, EN61347-1, EN61347-2-13, EN62384
EMC	GB/T 17743 ,GB17625.1, EN55015, EN61000-3-2, EN61000-3-3, EN61000-4-2,3,4,5,6,8,11, EN61547
DALI-2	N/A
EL	Compatible IEC 61347-2- 13 Annex J, compatible with EN 60598-2-22 and EN 50172
RF	N/A

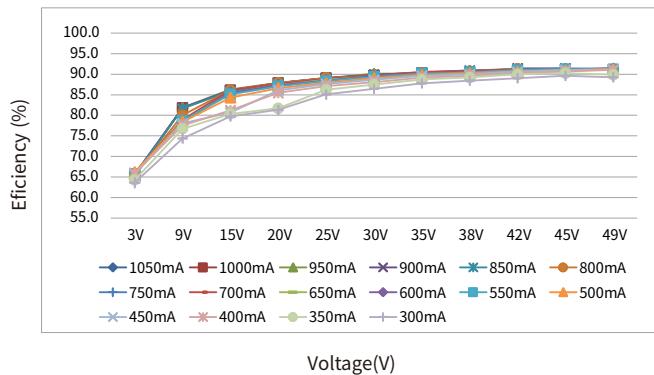
Remarks

1.By default, all parameter are measured at 230VAC input, 50Hz, full load and 25°C of ambient temperature.

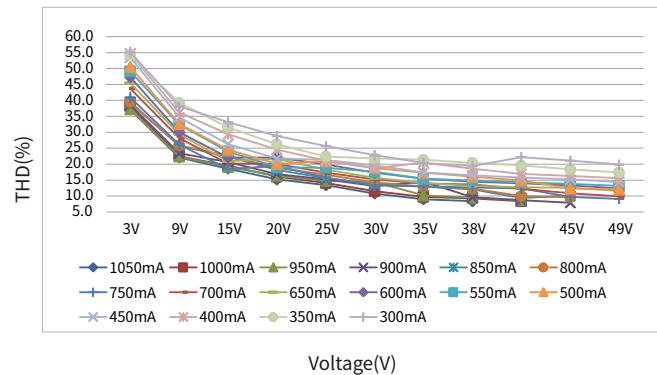
Electrical values

BK-BPL040S-AHC1050AS

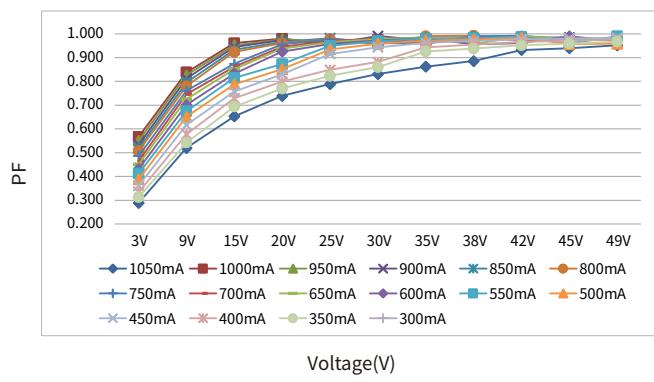
Efficiency vs voltage



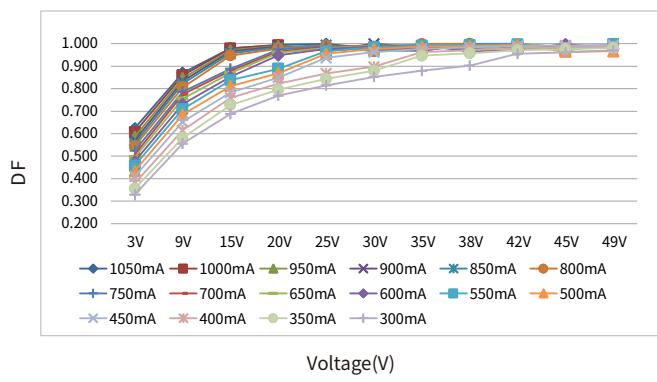
THD vs. voltage



Power factor vs. voltage

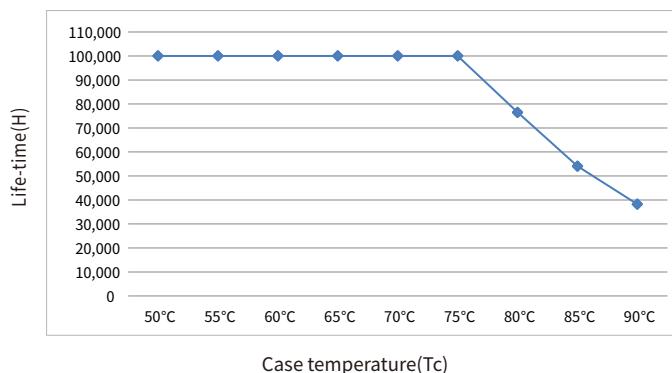


Displacement factor vs. voltage



Expected life-time

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).

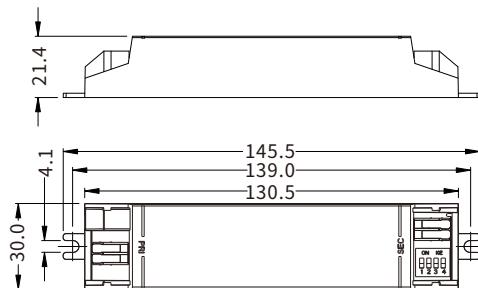
- The relation of t_c to t_a temperature depends also on the luminaire design.

Mechanical Specification

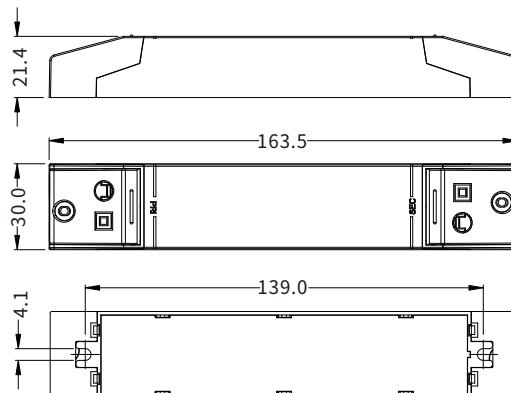
Size

Unit:mm

BK-BPL040S(built-in)



BK-BPL040S(independent)

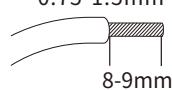


INPUT

numbering	function	colour
1	ACN/DC-	grey
2	ACL/DC+	grey

Input wire

0.5-1.5mm²(Built-in)
0.75-1.5mm²(Independent)



OUTPUT

numbering	function	colour
1	LED+	red
2	LED-	black

Output wire

0.5-1.0mm²



Installation note

Hot plug-in

- Hot plug-in is not supported due to residual output voltage of > 0 V.

Installation requirements

- The driver should be installed in a dry, acid-free, oil-free, fat-free environment.
- The installation ambient temperature of the driver shall not exceed the value of Ta at any time.
- The temperature of the mounting surface of the driver should be lower than the temperature of Ta.
- The driver should keep a certain distance from the heating stuff (such as the lamp radiator).
- If the driver is used externally (it needs to be used with the power end cover), the installation of the driver should also meet the following conditions:

1. The driver should be a certain distance between the drives, as shown in Figure 1.

2. The driver keeps a certain distance from surrounding objects, as shown in Figure 2.

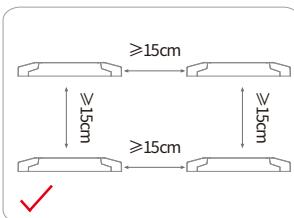
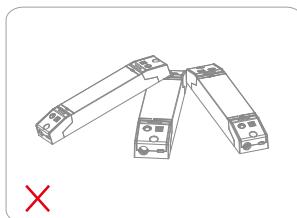


Figure 1

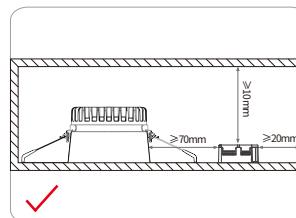


Figure 2

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 2m.
- Incorrect wiring can damage LED modules.

Replace LED module

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

Packaging



Product

Packaging

20pcs×4boxes=80pcs/CTN

Model	Product size	Weight	Packaging size	Carton size	Qty/carton	N.W	G.W
BPL040S(bilt-in)	L145.5*W30*H21.4mm	83g	L227*W150*H67mm	L320*W245*H155mm	80pcs	6.64KG	7.95KG
BPL040S(independent)	L163.5*W30*H21.4mm	95g	L232*W170*H71mm	L360*W250*H165mm	80pcs	7.60KG	8.91KG

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.