



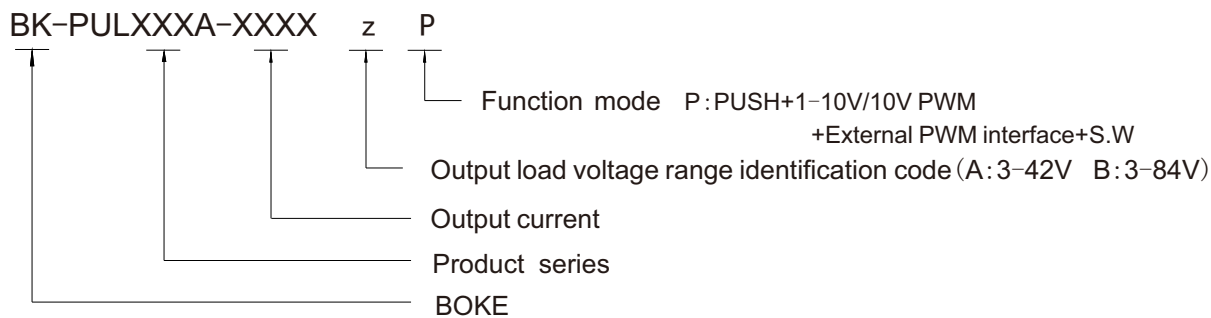
## ■ FEATURES

- 1.180-264VAC input
- 2.Built in active PFC function,high PF,low THD
- 3.Stanby power consumption <0.5W to turn off dimmable port
- 4.Built in PUSH/1-10V&10V PWM dimming function
- 5.Provide external input PWM dimming interface, can be extended to other functional applications
- 6.Constant current mode output with multiple levels selectable by DIP.switch
- 7.Supporting multi-power supplies synchronous dimming connected in parallel
- 8.Cooling by free air convection
- 9.Suitable for indoor LED lighting applications
- 10.5 years warranty

## ■ APPLICATION

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

## ■ MODEL CODE

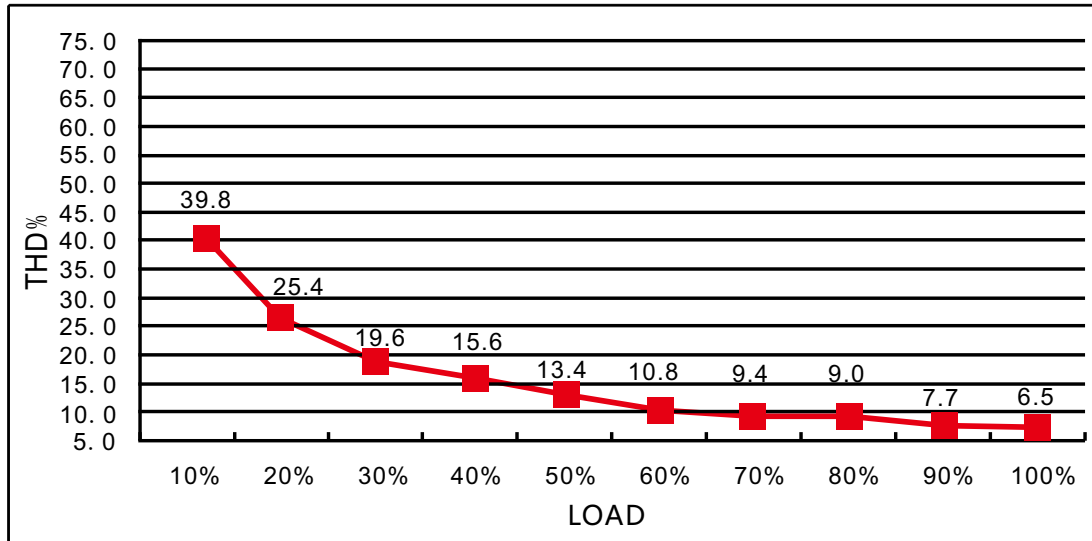



**ELECTRICAL SPECIFICATION**

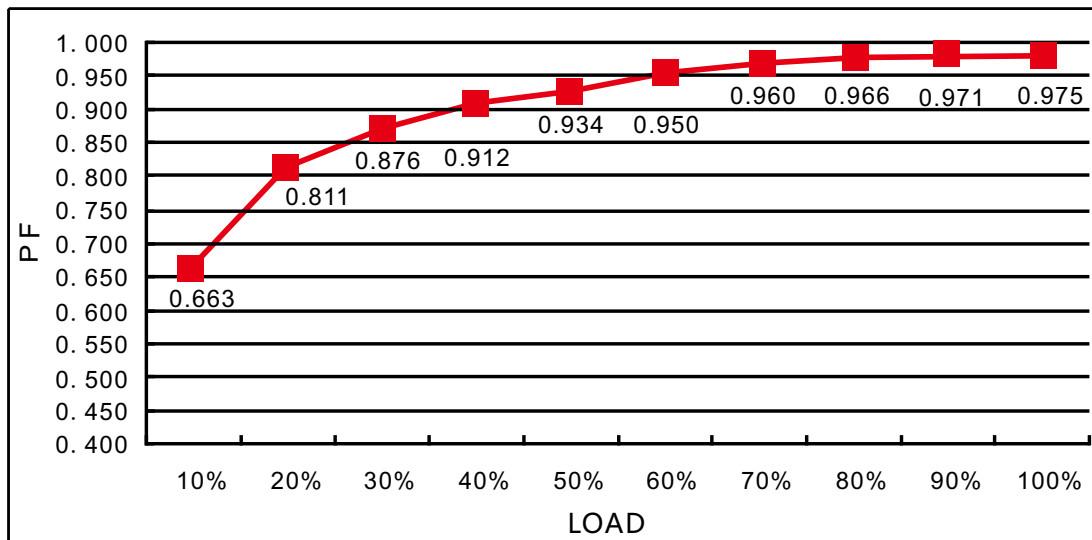
| MODEL         |   | BK-PUL042A-0700BP  | BK-PUL042A-1100AP | BK-PUL060A-2000AP |  |  |
|---------------|---|--|-------------------|-------------------|--|--|
| OUTPUT        | DC CURRENT  | 0.25-0.7A  | 0.6-1.1A          | 0.8-2.0A          |  |  |
|               | DC VOLTAGE RANGE  | 3-84V  | 3-42V             | 3-42V             |  |  |
|               | RATED POWER   | 42W Max  | 42W Max           | 61.2W Max         |  |  |
|               | RIPPLE & NOISE <small>Note.2</small>  | 200mV  | 200mV             | 200mV             |  |  |
|               | CONSTANT CURRENT ADJ. RANGE   | DIP S.W  | DIP S.W           | DIP S.W           |  |  |
|               | CONSTANT CURRENT ACCURACY   | ±20mA  | ±30mA             | ±40mA             |  |  |
|               | LINE REGULATION   | ±20mA  | ±30mA             | ±40mA             |  |  |
|               | LOAD REGULATION   | ±20mA  | ±30mA             | ±40mA             |  |  |
|               | External PWM interface  | VCC +5VDC±5%@20mA  |                   |                   |  |  |
| INPUT         | RATED VOLTAGE   | 200-240VAC   |                   |                   |  |  |
|               | 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/>50% load                    |                   |                   |  |  |
|               | TOTAL HARMONIC DISTORTION   | THD<15% @ 230VAC/full load,THD<20% @ 230VAC/>50% load                    |                   |                   |  |  |
|               | EFFICIENCY (Typ.)   | 89%  | 88%               | 90%               |  |  |
|               | STANDBY POWER <small>Note.3</small>   | <0.5W @ 230Vac   | <0.5W @ 230Vac    | <0.5W @ 230Vac    |  |  |
|               | INPUT CURRENT   | <0.3A @ 230Vac   | <0.3A @ 230Vac    | <0.4A @ 230Vac    |  |  |
|               | INRUSH CURRENT  | Cold start <30A @ 230Vac   |                   |                   |  |  |
|               | LEAKAGE CURRENT   | <0.7mA @ 230Vac  |                   |                   |  |  |
| TURN ON DELAY | <0.5S @ 230Vac  |  |                   |                   |  |  |
| PROTECTION    | SHORT CIRCUIT   | Hiccup,recovers automatically after environment temperature declines     |                   |                   |  |  |
|               | OVER VOLTAGE  | 100V   | 50V               | 50V               |  |  |
|               | OVER TEMPERATURE  | Hiccup,recovers automatically after fult condition is removed            |                   |                   |  |  |
| ENVIRONMENT   | OPERATION TEMPERATURE   | - 20---45°C  |                   |                   |  |  |
|               | OPERATION HUMIDITY  | 10---90% RH non-condensing   |                   |                   |  |  |
|               | STORAGR TEMPERATURE/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  | PUL042;Tc=75°C (Ta=45°C) PUL060;Tc=80°C (Ta=45°C)                        |                   |                   |  |  |
| MTBF          | 30000H min.,MIL-HDBK-217F(45°C)   |  |                   |                   |  |  |
| EMC           | EMC EMISSION <small>Note.4</small>  | Compliance to EN55015,GB17743,EN61000-3-2 Class C(≥50% load),EN61000-3-3 |                   |                   |  |  |
|               | EMC IMMUNITY  | Compliance to EN61000-4-2,3,4,5,6,8,1, EN61547, surge : DM 2KV           |                   |                   |  |  |
| SAFETY        | SAFETY STANDARDS  | EN61347-1/2-13,GB19510.1/14 EN62384                                      |                   |                   |  |  |
|               | DALI STANDARDS  | N/A  |                   |                   |  |  |
|               | CERTIFICATE   | Conform to CE ENEC , SAA,RCM   |                   |                   |  |  |
|               | WITHSTAND VOLTAGE   | I/P-O/P:3750V  |                   |                   |  |  |
|               | ISOLATION RESISTANCE  | I/P-O/P:100MΩ/500Vdc/25°C /70% RH  |                   |                   |  |  |
| PACKAGE       | DIMENSION   | L103*W68*H30mm   | L103*W68*H30mm    | L123*W79*H31mm    |  |  |
|               | CARTON  | L415*W330*H190mm   | L415*W330*H190mm  | L415*W330*H190mm  |  |  |
|               | SINGLE WEIGHT   | 0.16KG   | 0.16KG            | 0.24KG            |  |  |
|               | PACKING   | 48PCS/CTN  | 48PCS/CTN         | 48PCS/CTN         |  |  |
|               | NET WEIGHT  | 7.9KG/CTN  | 7.9KG/CTN         | 11.5KG/CTN        |  |  |
|               | GROSS WEIGHT  | 9.4KG/CTN  | 9.4KG/CTN         | 13.2KG/CTN        |  |  |
|               | Environmental protection  | RoHS   |                   |                   |  |  |
|               | INPUT CONNECTION  | PCB connector/3PIN/orange+orange+blue/0.75mm <sup>2</sup>                |                   |                   |  |  |
|               | OUTPUT CONNECTION   | PCB connector/4PIN/black+green+red+black/0.5-1.5mm <sup>2</sup>          |                   |                   |  |  |
| NOTE          | 1.All parameter are measured at 230VAC input,rated load and 25°C of ambient temperature.  |  |                   |                   |  |  |
|               | 2.Ripple & Noise are measured at 20MHz of bandwith 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.Stand-by power <1W when using external PWM dimming interface.  |  |                   |                   |  |  |
|               | 4.The power supply is considers as a compent that wil be operated in combination with final equipment.Since EMC performance will be affected by the complete installation the final equipment manfactures must re-quality EMC directive on the complete installation again. |  |                   |                   |  |  |

**BK-PUL042A-0700BP Electrical characteristics (84V/0.5A@230Vac)**

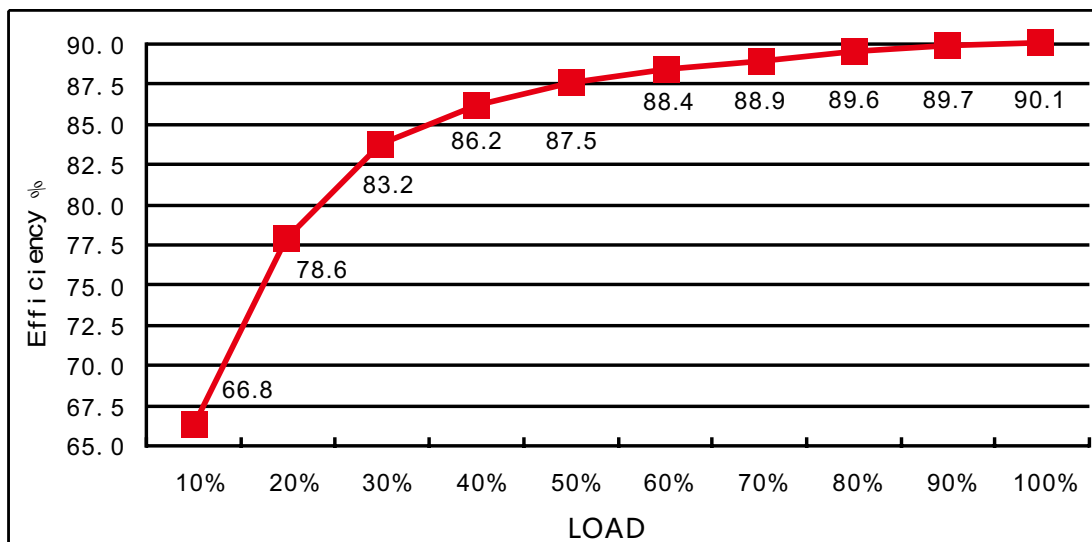
■ Total Harmonic Distortion vs LOAD Characteristic curve



■ Power Factor vs LOAD Characteristic curve

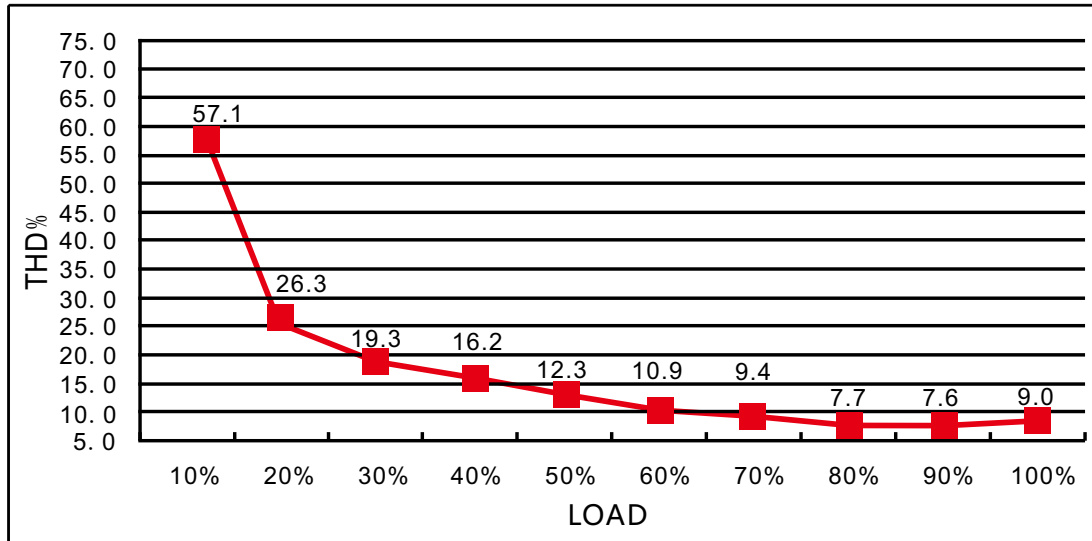


■ EFFICIENCY vs LOAD Characteristic curve

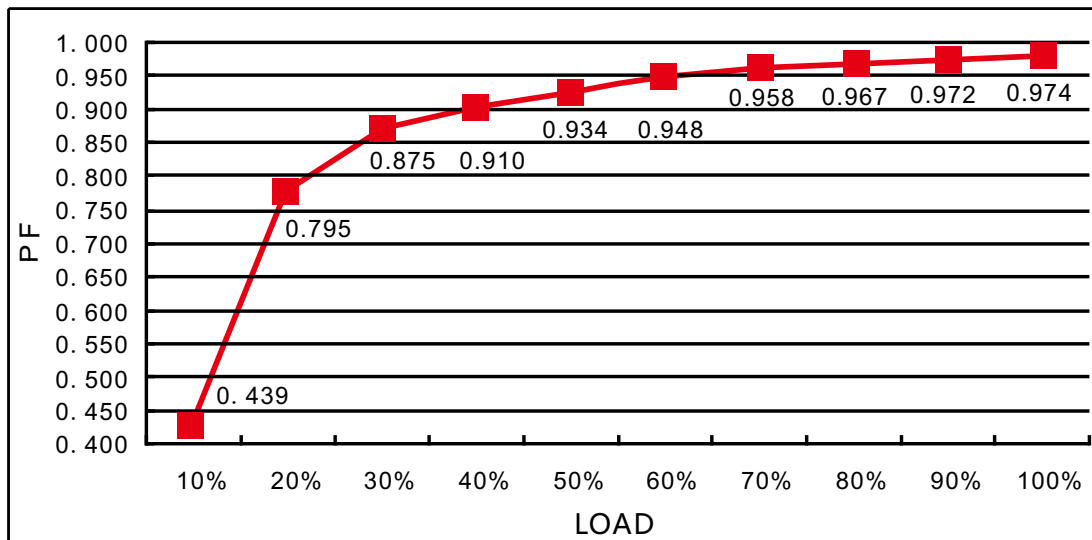


**BK-PUL042A-1100AP Electrical characteristics (42V/1A@230Vac)**

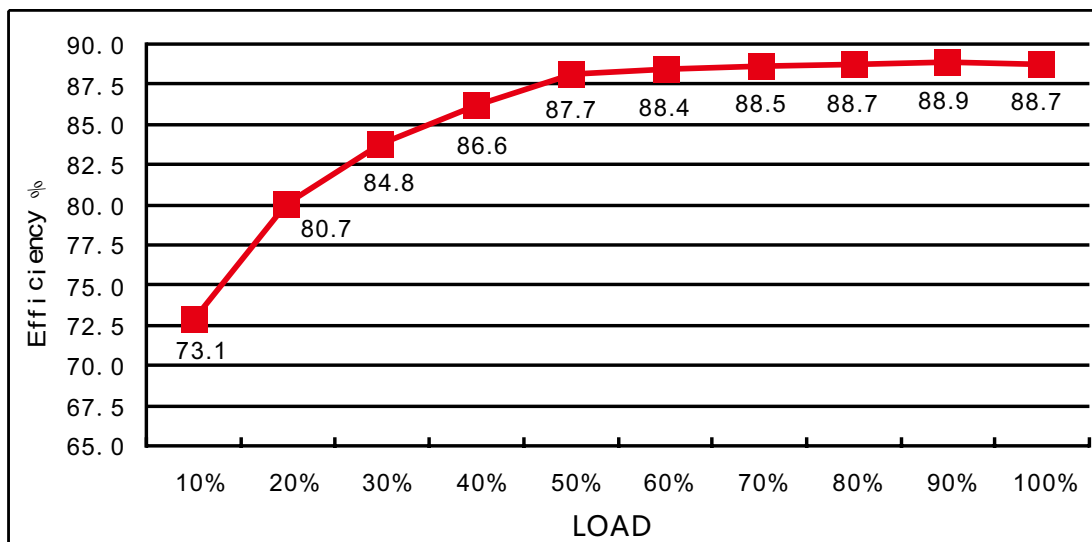
■ Total Harmonic Distortion vs LOAD Characteristic curve



■ Power Factor vs LOAD Characteristic curve

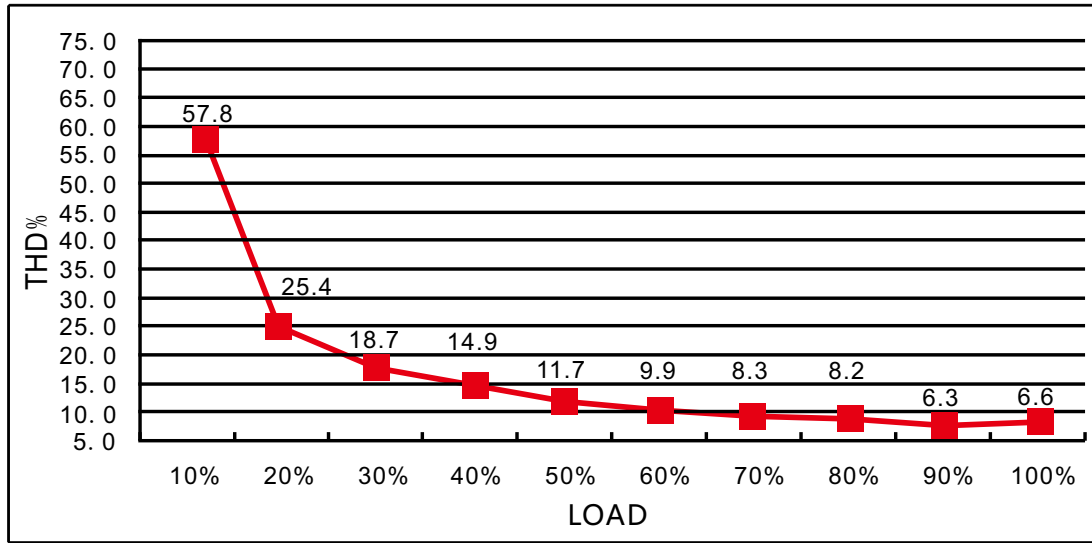


■ EFFICIENCY vs LOAD Characteristic curve

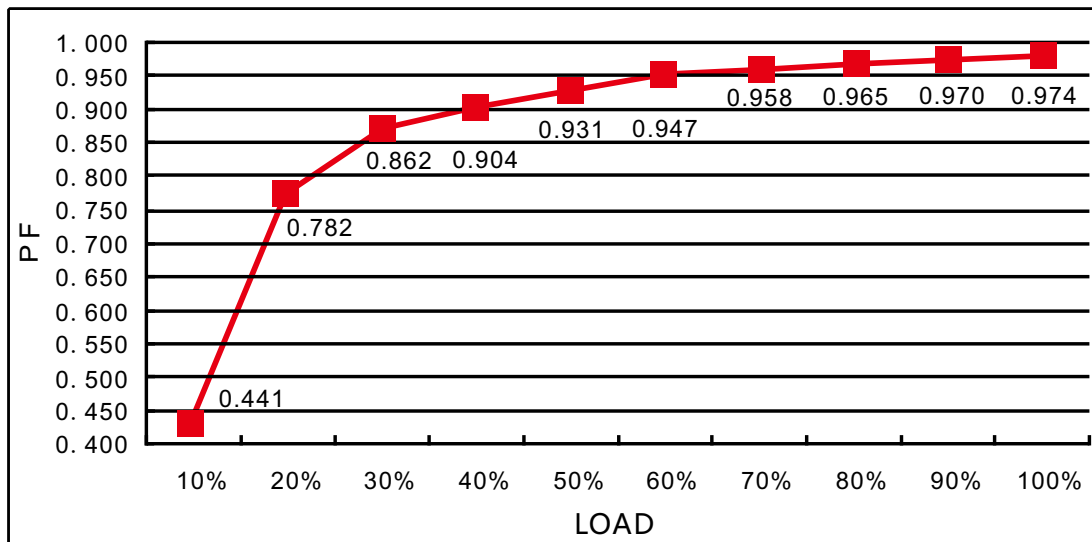


**BK-PUL060A-2000AP Electrical characteristics (40V/1.5A@230Vac)**

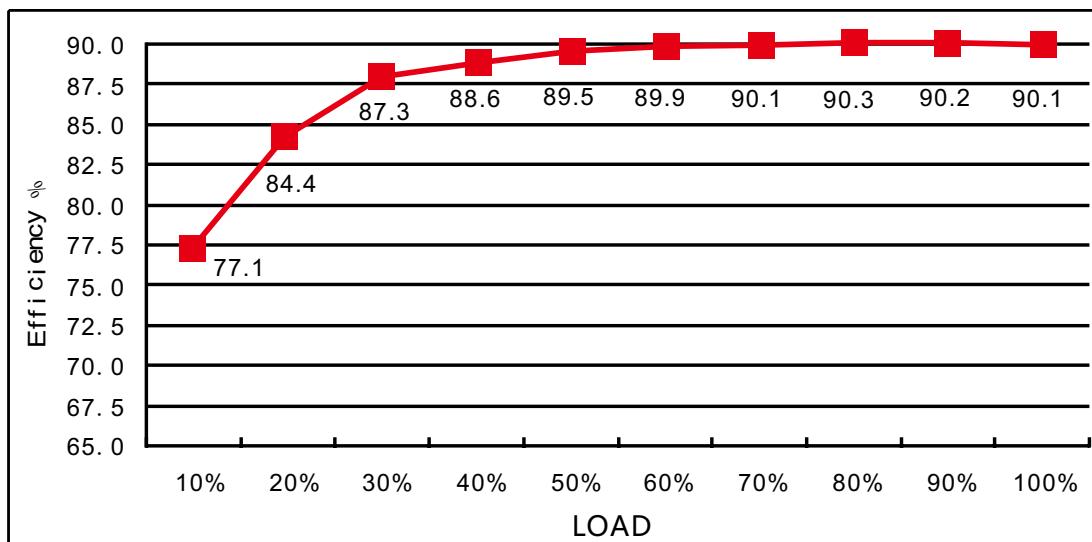
■ Total Harmonic Distortion vs LOAD Characteristic curve



■ Power Factor vs LOAD Characteristic curve



■ EFFICIENCY vs LOAD Characteristic curve



**DIP S.W Select output current table**

## ■ BK-PUL042A-0700BP

| Irated  | Urated  | 1  | 2  | 3  | 4  |
|---------|---------|----|----|----|----|
| 250mA   | 3-84VDC | —  | ON | ON | ON |
| 300mA   | 3-84VDC | ON | —  | ON | ON |
| 350mA   | 3-84VDC | —  | —  | ON | ON |
| 400mA   | 3-84VDC | —  | ON | —  | ON |
| 450mA   | 3-84VDC | —  | —  | —  | ON |
| 500mA   | 3-84VDC | ON | ON | ON | —  |
| 550mA   | 3-76VDC | —  | —  | ON | —  |
| 600mA   | 3-70VDC | —  | ON | —  | —  |
| 650mA   | 3-64VDC | ON | —  | —  | —  |
| 700mA ★ | 3-60VDC | —  | —  | —  | —  |

## ■ BK-PUL042A-1100AP

| Irated   | Urated  | 1  | 2  | 3  | 4  |
|----------|---------|----|----|----|----|
| 600mA    | 3-42VDC | —  | ON | ON | ON |
| 700mA    | 3-42VDC | ON | —  | ON | ON |
| 750mA    | 3-42VDC | —  | —  | ON | ON |
| 800mA    | 3-42VDC | —  | ON | —  | ON |
| 850mA    | 3-42VDC | —  | —  | —  | ON |
| 900mA    | 3-42VDC | ON | ON | ON | —  |
| 950mA    | 3-42VDC | —  | —  | ON | —  |
| 1000mA   | 3-42VDC | —  | ON | —  | —  |
| 1050mA   | 3-40VDC | ON | —  | —  | —  |
| 1100mA ★ | 3-38VDC | —  | —  | —  | —  |

## ■ BK-PUL060A-2000AP

| Irated   | Urated  | 1  | 2  | 3  | 4  | 5  | 6  |
|----------|---------|----|----|----|----|----|----|
| 800mA    | 3-42VDC | ON | —  | ON | —  | ON | ON |
| 900mA    | 3-42VDC | —  | —  | —  | —  | —  | ON |
| 1000mA   | 3-42VDC | ON | ON | ON | —  | ON | —  |
| 1100mA   | 3-42VDC | —  | ON | ON | —  | ON | —  |
| 1150mA   | 3-42VDC | —  | —  | —  | —  | ON | —  |
| 1200mA   | 3-42VDC | —  | ON | ON | ON | —  | —  |
| 1250mA   | 3-42VDC | ON | —  | ON | ON | —  | —  |
| 1300mA   | 3-42VDC | —  | —  | ON | ON | —  | —  |
| 1400mA   | 3-42VDC | —  | ON | —  | ON | —  | —  |
| 1500mA   | 3-40VDC | —  | —  | —  | ON | —  | —  |
| 1600mA   | 3-38VDC | ON | ON | ON | —  | —  | —  |
| 1700mA   | 3-36VDC | —  | —  | ON | —  | —  | —  |
| 1800mA   | 3-34VDC | —  | ON | —  | —  | —  | —  |
| 1900mA   | 3-32VDC | ON | —  | —  | —  | —  | —  |
| 2000mA ★ | 3-30VDC | —  | —  | —  | —  | —  | —  |

Remark: ★ this current is factory default.

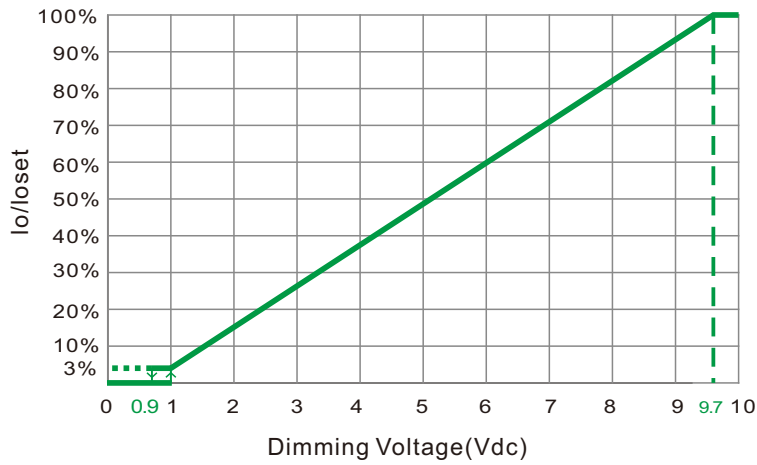
— this channel is off.

## Dimming function

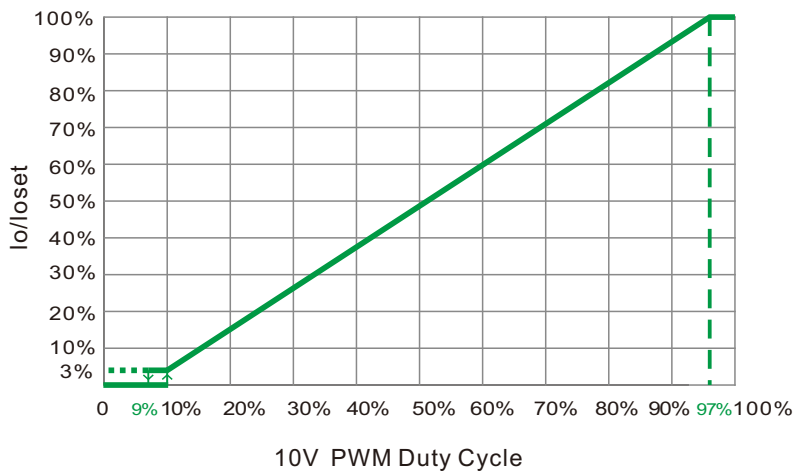
### 1~10VDC / 10V PWM signal dimming

Please DO NOT connect "DIM-"to"LED-" or "DIM+"to"LED+".

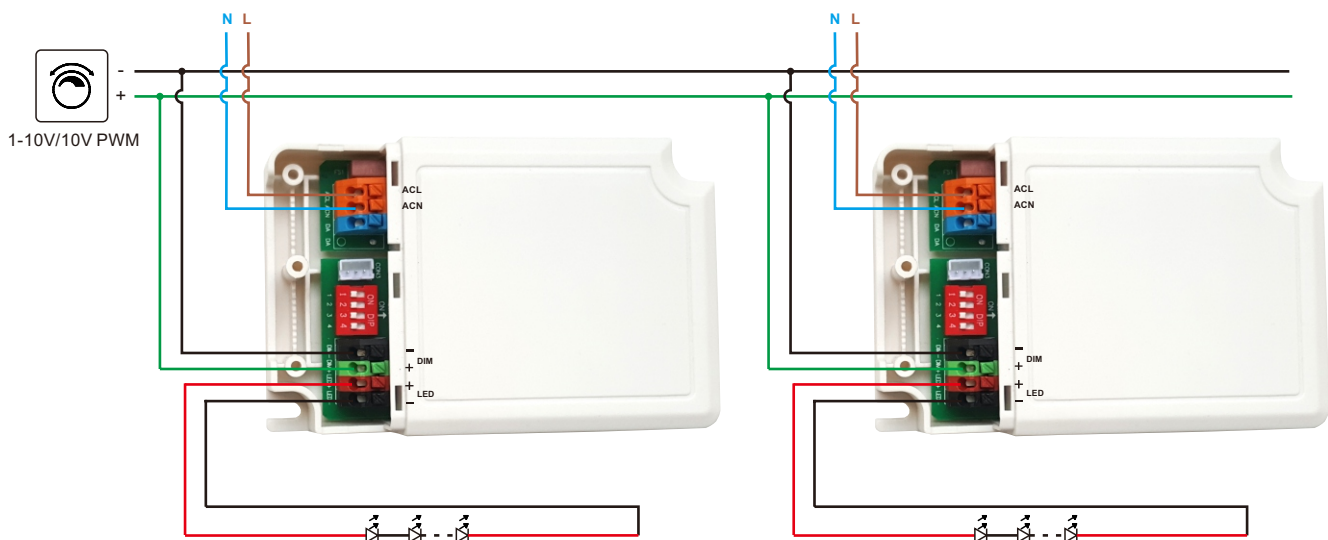
Io/IoSet vs. Dimming Voltage (Typical)



Io/IoSet vs. 10V PWM Duty Cycle (Typical)



\*Frequency range:100Hz-3KHz



### Multi drivers parallel synchronous dimming

Synchronization up to 16 drivers.

Maximum cable length between each units : 20 meters.

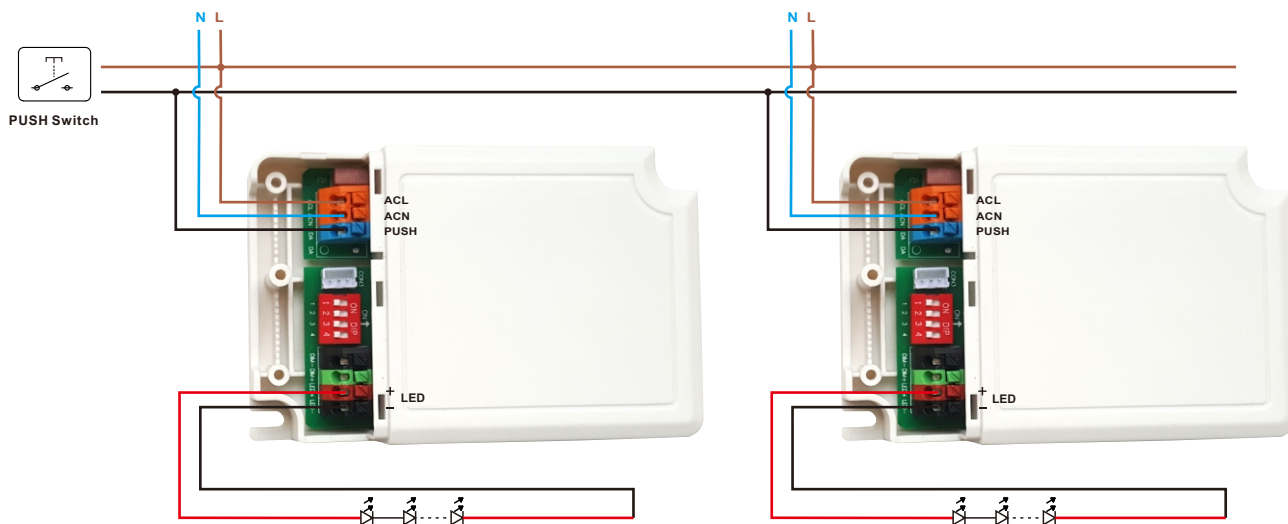
## Dimming function

### ■ PUSH dimming

Turn on the driver or turn it into standby mode by pressing the switch for 0.1-1s(Short press).  
Change the brightness level by pressing the switch for 1-5s(Long press).

The initial state is standby if open the AC power supply under push function, short press the push switch to turn on.

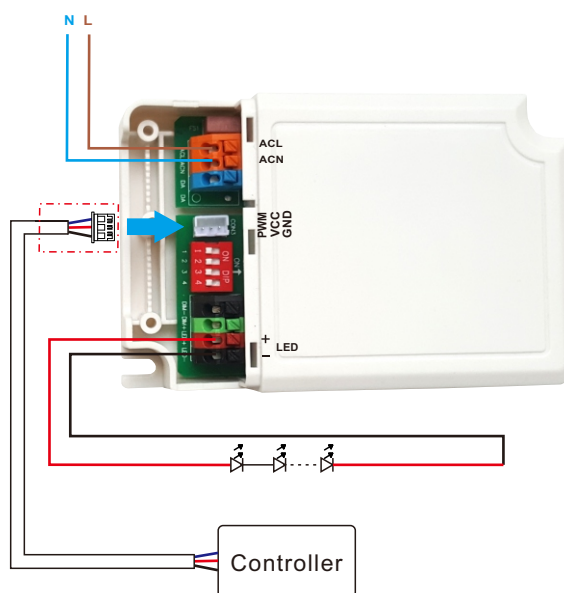
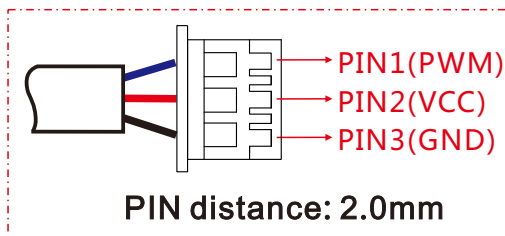
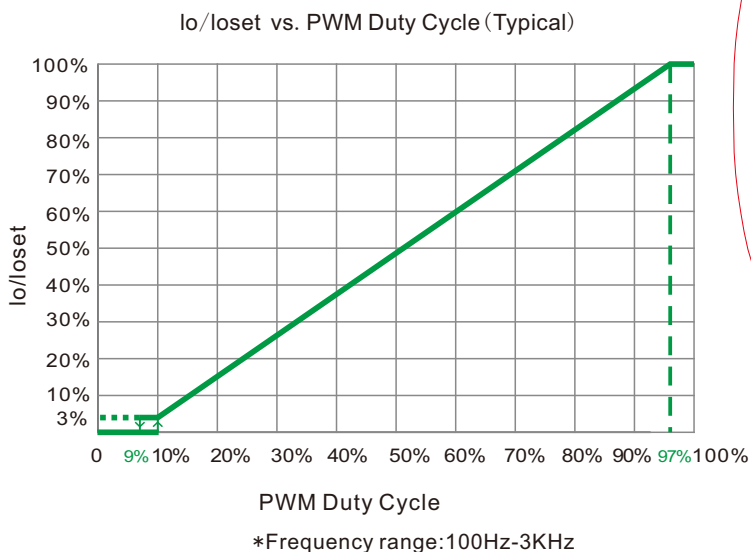
If the drivers in push dimming state need to synchronize multiple dimming, first, turn on the AC power to confirm each driver are stand by, then long press PUSH switch to boot.



### ■ External PWM dimming interface

Output VCC +5VDC  $\pm$ 5%, 20mA MAX.

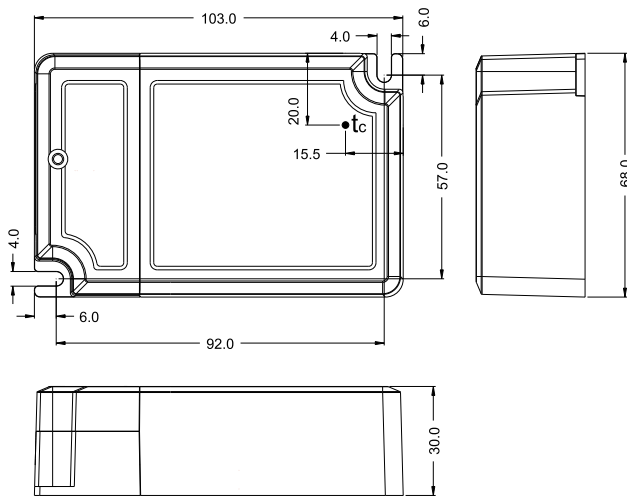
Input PWM signal amplitude 3. 3-10V, Positive logic.



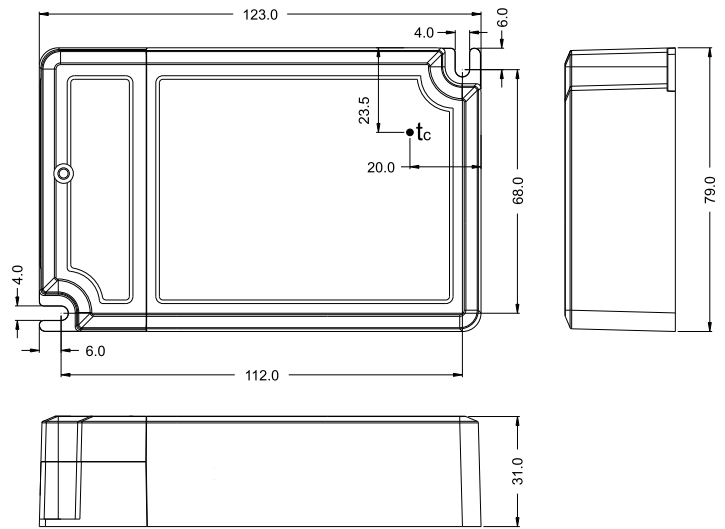


## Mechanical Specification

**PUL042A**

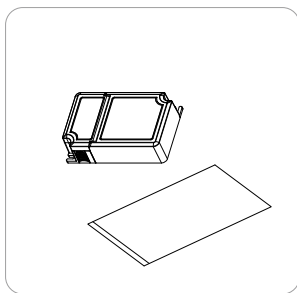


**PUL060A**

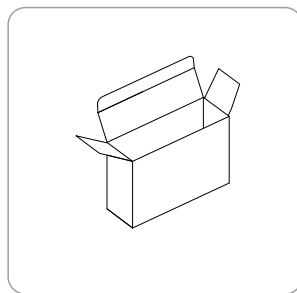


Unit:mm

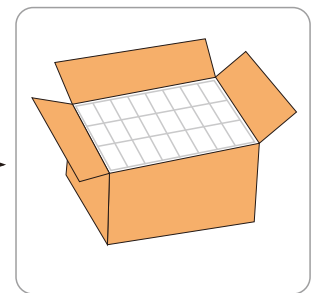
## Product package



Product +PE bag



Packaging



Carton (8row\*3column\*2layer=48pcs/box)

| Product size | PE bag size | Packaging size | Weight/pcs | Carton size      | Weight/box |
|--------------|-------------|----------------|------------|------------------|------------|
| PUL042A      | L250×W150   | L130×W38×H85mm | 0.17kg     | L415×W330×H190mm | 9.4kg      |
| PUL060A      | L250×W150   | L130×W38×H85mm | 0.25kg     | L415×W330×H190mm | 13.2kg     |