



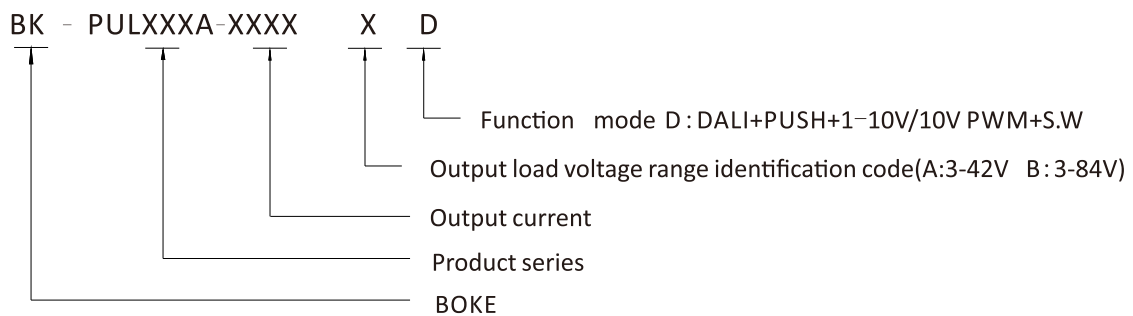
■ FEATURES

- 1.180-264VAC input
- 2.Class II driver,without FG,flicker free
- 3.Built in active PFC function,high PF,low THD
- 4.Stanby power consumption <0.5W to turn off dimmable port
- 5.Built in DALI/PUSH/1-10V&10V PWM dimming function
- 6.Constant current mode output with multiple levels selectable by DIP.switch
- 7.Supporting multi-power supplys 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

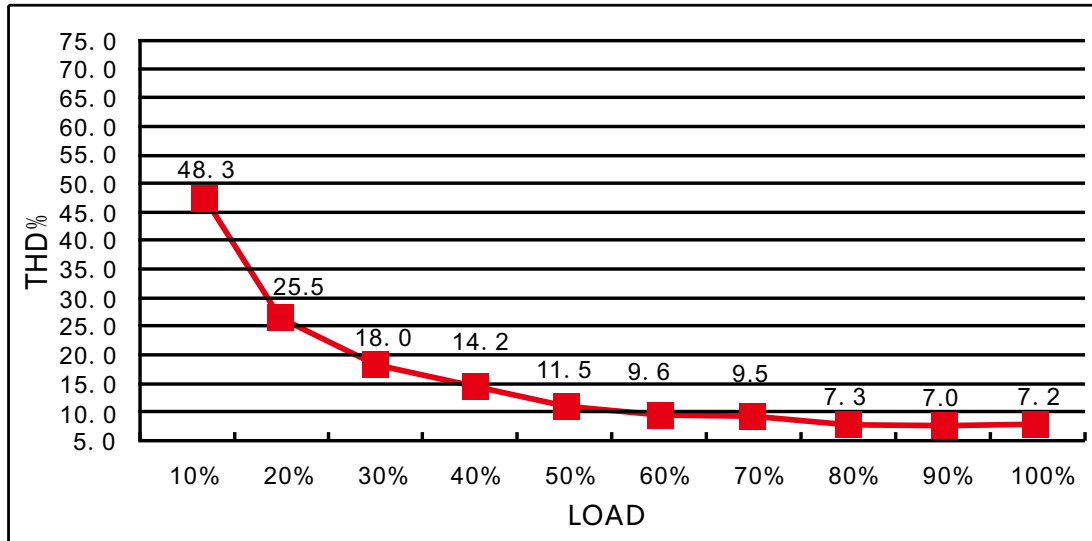


## ELECTRICAL SPECIFICATION

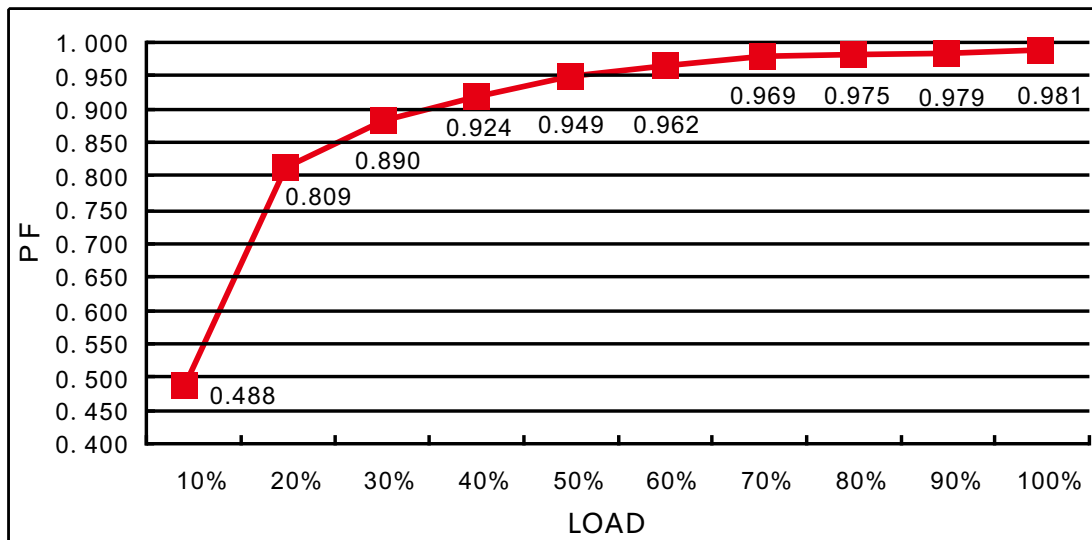
MODEL	BK-PUL030A-0700AD	BK-PUL042A-0700BD	BK-PUL042A-1100AD	BK-PUL060A-2000AD		
OUTPUT	DC CURRENT	0.25-0.7A	0.25-0.7A	0.6-1.1A	0.8-2.0A	
	DC VOLTAGE RANGE	3-42V	3-84V	3-42V	3-42V	
	RATED POWER	29.4W Max	42W Max	42W Max	61.2W Max	
	RIPPLE & NOICE Note.2	200mV	200mV	200mV	200mV	
	CONSTSNT CURRENT ADJ. RANGE	DIP S.W	DIP S.W	DIP S.W	DIP S.W	
	CONSTANT CURRENT ACCURACY	±20mA	±20mA	±30mA	±40mA	
	LINE REGULATION	±20mA	±20mA	±30mA	±40mA	
	LOAD REGULATION	±20mA	±20mA	±30mA	±40mA	
	DALI port input current	≤ 2mA				
	External PWM interface	N/A				
INPUT	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/>50% load				
	TOTAL HARMONIC DISTORTION	THD<15% @ 230VAC/full load,THD<20% @ 230VAC/>50% load				
	EFFICIENCY (Typ.)	87%	89%	88%	90%	
	STANDBY POWER Note.3	<0.5W @ 230Vac	<0.5W @ 230Vac	<0.5W @ 230Vac	<0.5W @ 230Vac	
	INPUT CURRENT	<0.2A @ 230Vac	<0.3A @ 230Vac	<0.3A @ 230Vac	<0.4A @ 230Vac	
	INRUSH CURRENT	Cold start <30A(Twidth=120us measured at 50% Ipeak) @ 230Vac.				
	LEAKAGE CURRENT	<0.7mA @ 230Vac				
	TURN ON DELAY	<0.5S @ 230Vac				
PROTE- CTION	SHORT CIRCUIT	Hiccup,recovers automatically after environment temperature declines				
	Max Output Voltage	50V	100V	50V	50V	
	OVER TEMPERATURE	Hiccup,recovers automatically after fult condition is removed				
ENVIRO- HMENT	OPERATION TEMPERATURE	-20-45°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	PUL030A:Tc=75°C (Ta=45°C) PUL042A:Tc=75°C (Ta=45°C) PUL060A:Tc=80°C (Ta=45°C)				
	MTBF	500000H,MIL-HDBK-217F(25°C)				
EMC	EMC EMISSON Note.4	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,IEEE1789				
	DALI STANDARDS	IEC62386-101, 102, 207				
	CERTIFICATE	CE-SUD,ENEC,CCC,SAA,RCM				
	WITHSTAND VOLTAGE	I/P-O/P:3750V				
	LEAKAGE CURRENT	<0.7mA @ 230Vac				
	ISOLATION RESIS-TANCE	I/P-O/P:100MΩ/500Vdc/25°C/70% RH				
PACKAGE	DIMENSION	L103*W68*H30mm	L123*W79*H31mm			
	CARTON	L415*W330*H190mm	L415*W330*H190mm			
	SINGLE WEIGHT	0.16KG	0.24KG			
	PACKING	48pcs/box	48pcs/box			
	NET WEIGHT	7.9KG/box	11.5KG/box			
	GROSS WEIGHT	9.4KG/box	13.2KG/box			
	Environmental protection	RoHS				
	INPUT CONNECTION	PCB connector/4PIN/orange+orange+blue+blue/PUL030A PUL042A:0.75-1.5mm^2/PUL060A:0.75-2.0mm^2				
	OUTPUT CONNECTION	PCB connector/4PIN/black+green+red+black/0.5-1.5mm^2				
	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" twised pair-wire terminated with a 0.1uF & 47uF paralled capacitor.						
3.Stand-by power consumption is measured at dimmable off condition.						
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 manufactures must re-quality EMC directive on the complete installation again.						
5.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 tempreture.						

BK-PUL030A-0700AD Electrical characteristics (42V/0.7A@230Vac)

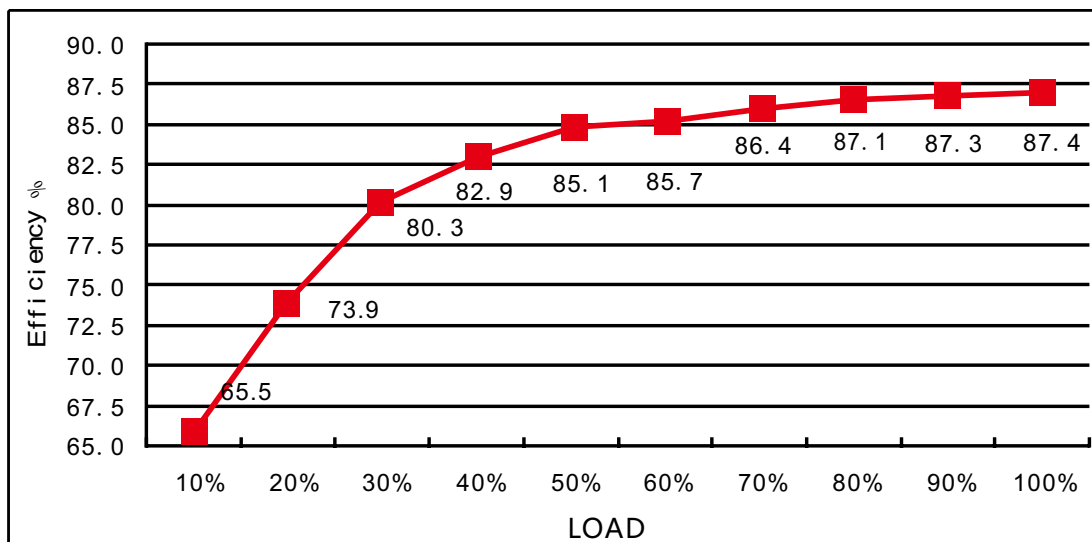
■ Total Harmonic Distortion vs LOAD Characteristic curve



■ Power Factor vs LOAD Characteristic curve

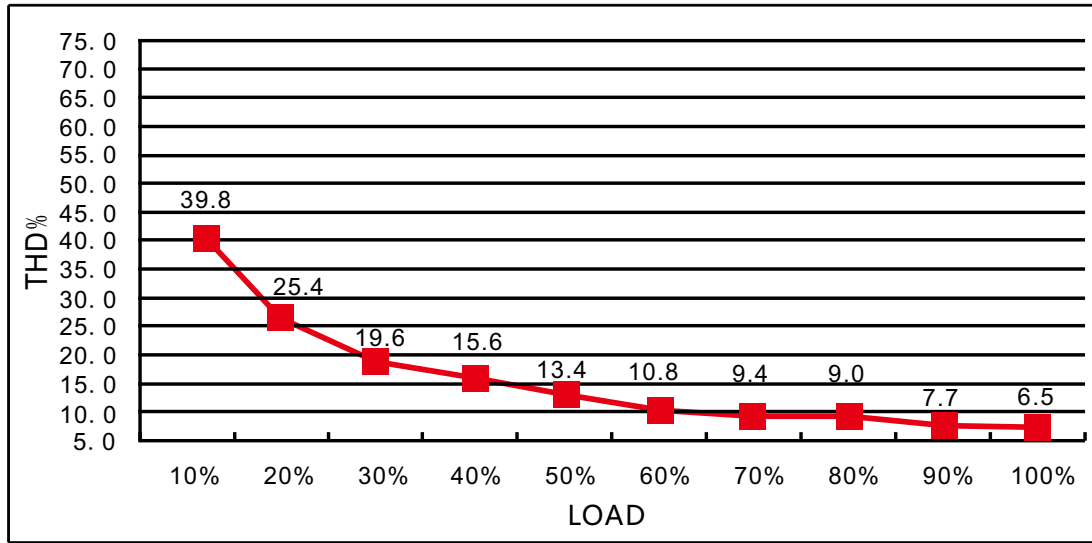


■ EFFICIENCY vs LOAD Characteristic curve

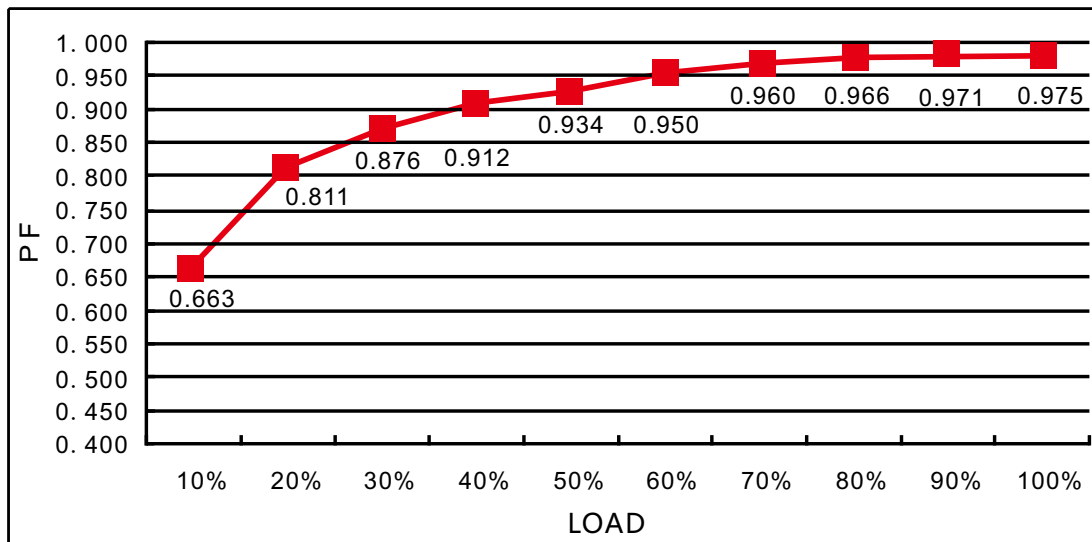


BK-PUL042A-0700BD Electrical characteristics(84V/0.5A@230Vac)

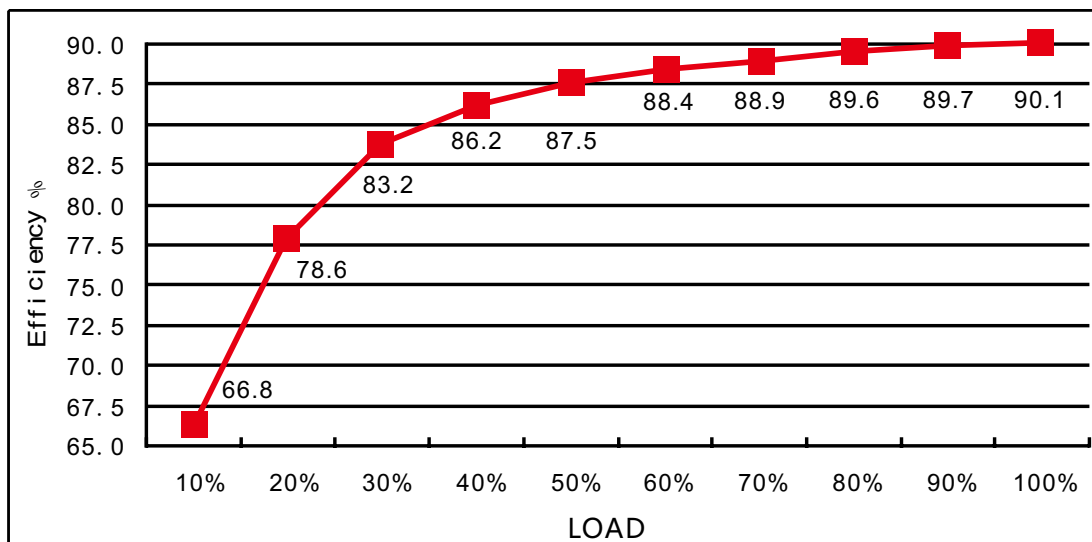
■ Total Harmonic Distortion vs LOAD Characteristic curve



■ Power Factor vs LOAD Characteristic curve

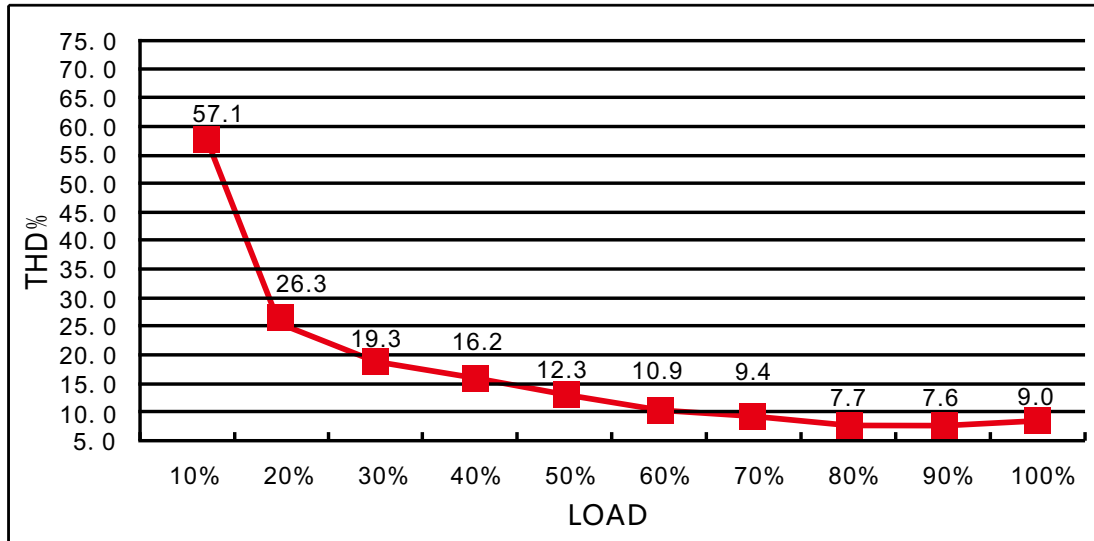


■ EFFICIENCY vs LOAD Characteristic curve

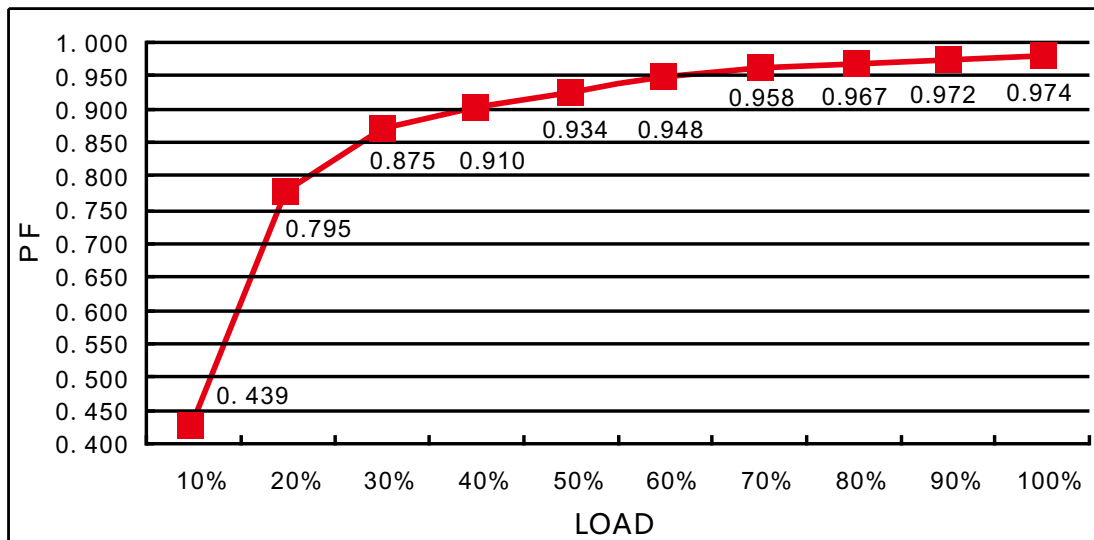


BK-PUL042A-1100AD Electrical characteristics(42V/1A@230Vac)

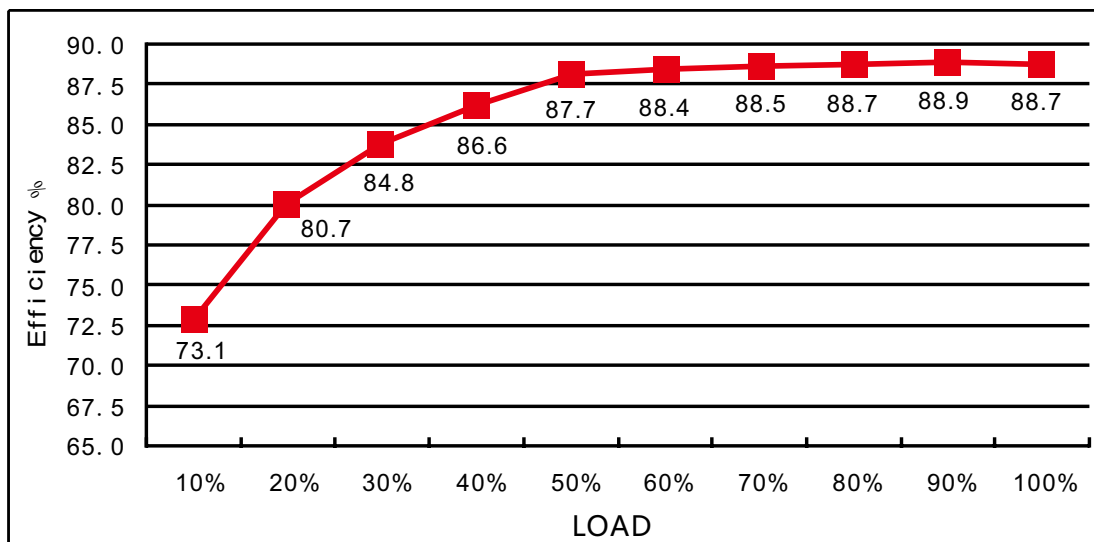
■ Total Harmonic Distortion vs LOAD Characteristic curve



■ Power Factor vs LOAD Characteristic curve

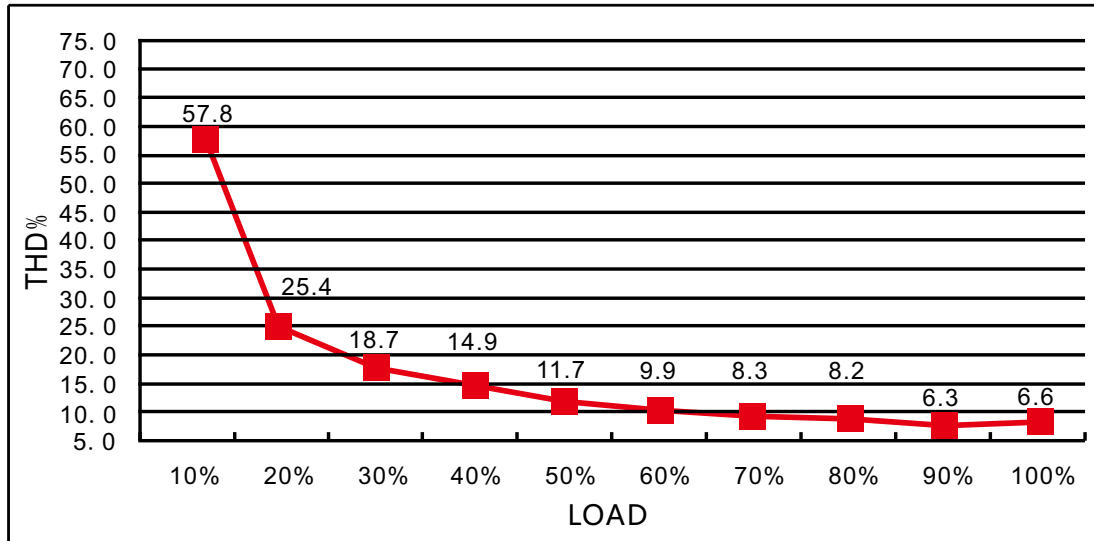


■ EFFICIENCY vs LOAD Characteristic curve

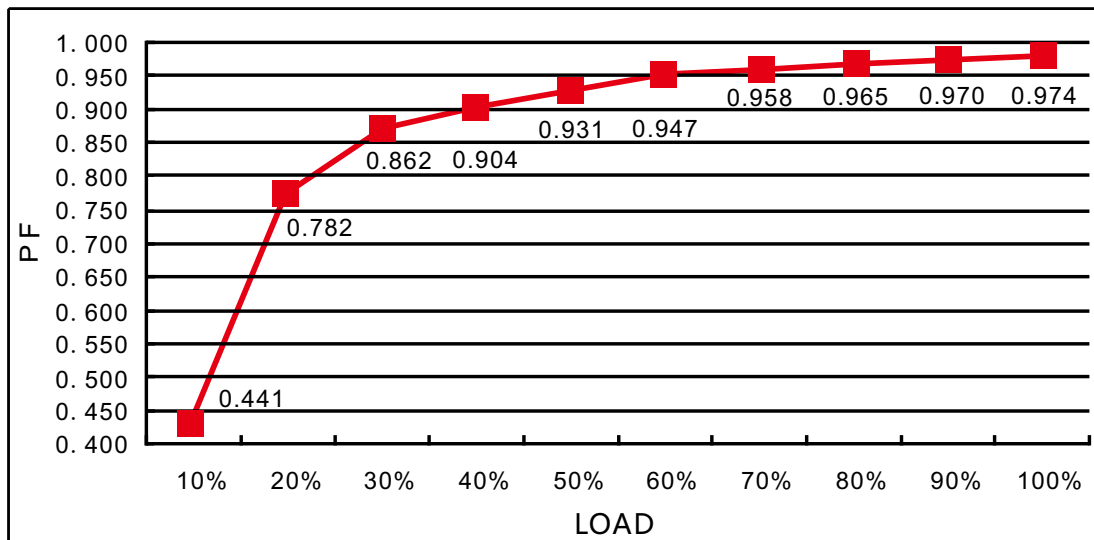


BK-PUL060A-2000AD Electrical characteristics(40V/1.5A@230Vac)

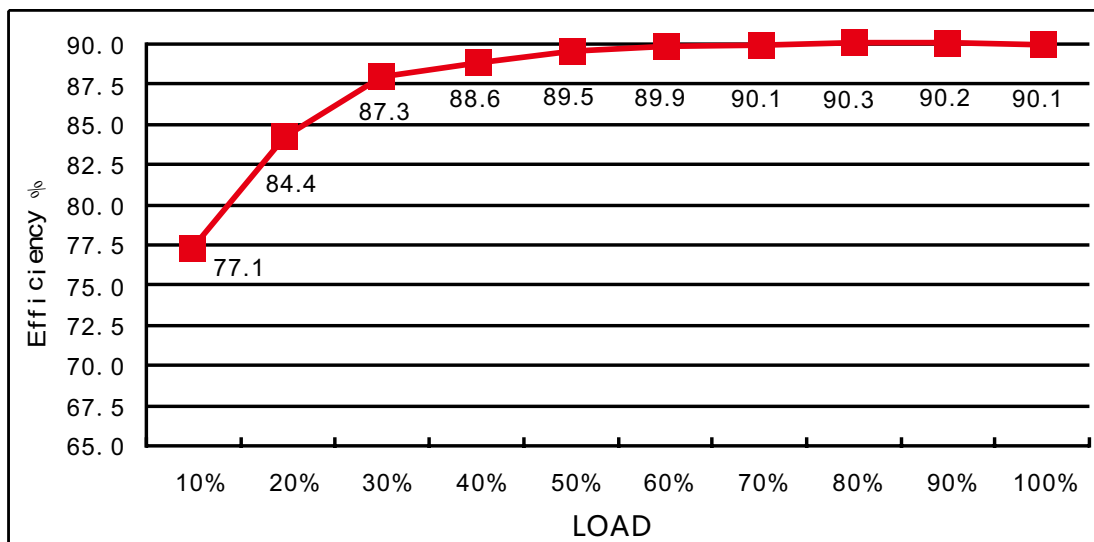
■ Total Harmonic Distortion vs LOAD Characteristic curve



■ Power Factor vs LOAD Characteristic curve



■ EFFICIENCY vs LOAD Characteristic curve



 DIP S.W Select output current table

■ BK-PUL030A-0700AD

Pin typ.	Irated	Output Voltage	1	2	3	4
12.7W	250mA	42VDC	—	ON	ON	ON
14.9W	300mA	42VDC	ON	—	ON	ON
17.4W	350mA	42VDC	—	—	ON	ON
19.5W	400mA	42VDC	—	ON	—	ON
21.9W	450mA	42VDC	—	—	—	ON
24.3W	500mA	42VDC	ON	ON	ON	—
26.5W	550mA	42VDC	—	—	ON	—
28.9W	600mA	42VDC	—	ON	—	—
31.3W	650mA	42VDC	ON	—	—	—
33.7W	700mA ★	42VDC	—	—	—	—

■ BK-PUL042A-0700BD

Pin typ.	Irated	Output Voltage	1	2	3	4
23W	250mA	84VDC	—	ON	ON	ON
28W	300mA	84VDC	ON	—	ON	ON
32W	350mA	84VDC	—	—	ON	ON
37W	400mA	84VDC	—	ON	—	ON
41W	450mA	84VDC	—	—	—	ON
46W	500mA	84VDC	ON	ON	ON	—
46W	550mA	76VDC	—	—	ON	—
46W	600mA	70VDC	—	ON	—	—
46W	650mA	64VDC	ON	—	—	—
47W	700mA ★	60VDC	—	—	—	—

■ BK-PUL042A-1100AD

Pin typ.	Irated	Output Voltage	1	2	3	4
29W	600mA	42VDC	—	ON	ON	ON
34W	700mA	42VDC	ON	—	ON	ON
36W	750mA	42VDC	—	—	ON	ON
39W	800mA	42VDC	—	ON	—	ON
41W	850mA	42VDC	—	—	—	ON
43W	900mA	42VDC	ON	ON	ON	—
46W	950mA	42VDC	—	—	ON	—
48W	1000mA	42VDC	—	ON	—	—
48W	1050mA	40VDC	ON	—	—	—
48W	1100mA ★	38VDC	—	—	—	—

■ BK-PUL060A-2000AD

Pin typ.	Irated	Output Voltage	1	2	3	4	5	6
38W	800mA	42VDC	ON	—	ON	—	ON	ON
43W	900mA	42VDC	—	—	—	—	—	ON
47W	1000mA	42VDC	ON	ON	ON	—	ON	—
52W	1100mA	42VDC	—	ON	ON	—	ON	—
54W	1150mA	42VDC	—	—	—	—	ON	—
56W	1200mA	42VDC	—	ON	ON	ON	—	—
59W	1250mA	42VDC	ON	—	ON	ON	—	—
61W	1300mA	42VDC	—	—	ON	ON	—	—
65W	1400mA	42VDC	—	ON	—	ON	—	—
68W	1500mA	40VDC	—	—	—	ON	—	—
69W	1600mA	38VDC	ON	ON	ON	—	—	—
69W	1700mA	36VDC	—	—	ON	—	—	—
69W	1800mA	34VDC	—	ON	—	—	—	—
69W	1900mA	32VDC	ON	—	—	—	—	—
69W	2000mA ★	30VDC	—	—	—	—	—	—

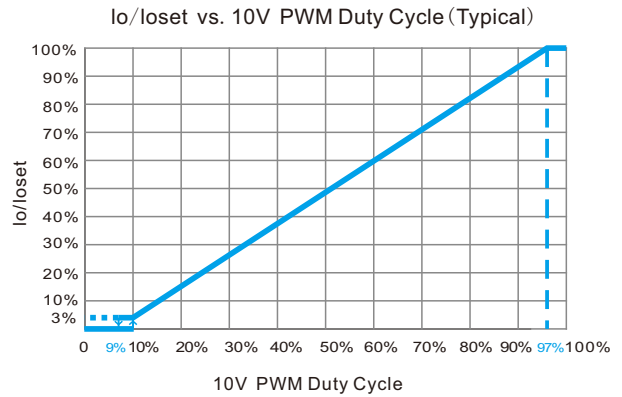
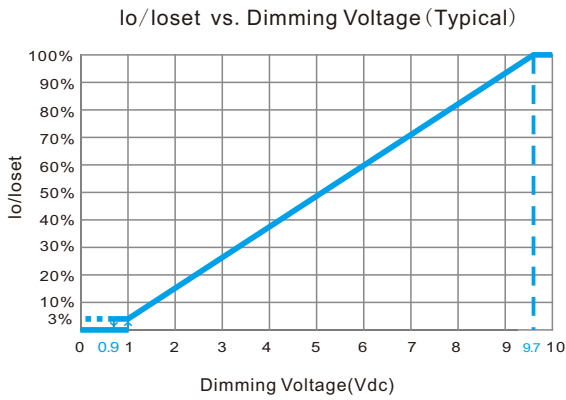
Remark: ★ this current is factory default.

— this channel is off.

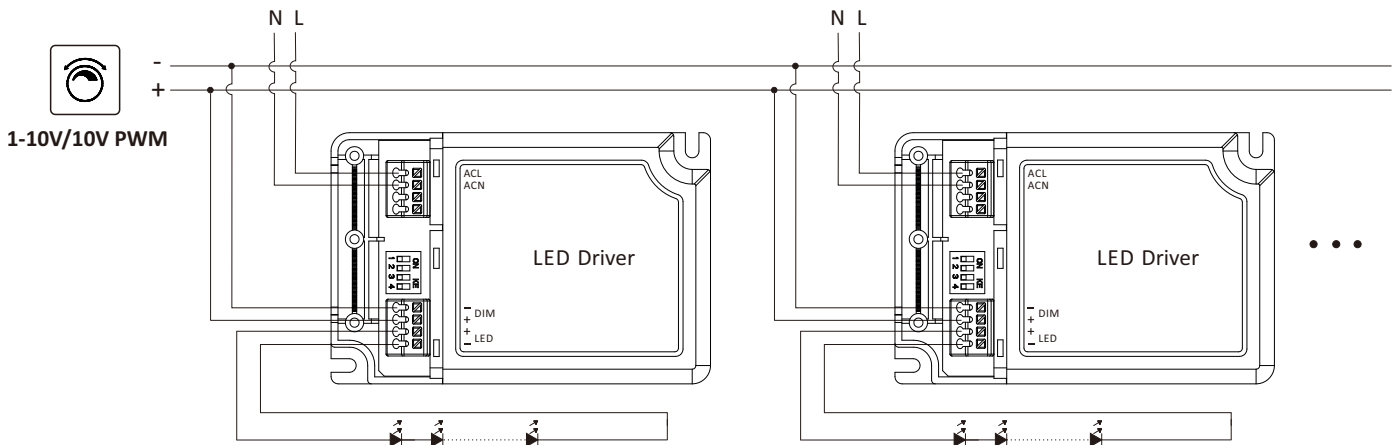
**Dimming function**

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

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



\*Frequency range:100Hz-3KHz



**Multi machine parallel synchronous dimming**

Synchronization up to 16 drivers.

Maximum cable length between each units : 20 meters.

**About 1-10V dimming statement:**

1. Please carry out the sample or small batch test before the batch purchase.
2. The number of drives and the length of wire connections are determined by the following factors:
  - a. Current output capacity of the dimmer.
  - b. The interface of the driver consumes current, this product is less than 1mA.
  - c. The size of the connection wire, and is recommended to use less than 20AWG;
  - d. Install environmental interference, avoid wiring with high voltage or interference source. If you can't avoid it, you can consider using shield wire.
3. It is recommended that the number of drives and the dimming connection length are: ≤16 PCS, ≤20m.
4. It is recommended to use a dimmer with active, isolated and strong output current capacity. This product cannot use a non-isolation dimmer.
5. This product is compatible with various active or passive dimmers. If a few dimmers are not compatible, it is a normal case and can be contacted us for confirmation.



**Dimming function**

**Note:**

Turn on or turn off: pressing the PUSH switch for 0.2-1s(Short press).  
 Dimming: pressing the PUSH switch for 1-5s(Long press).

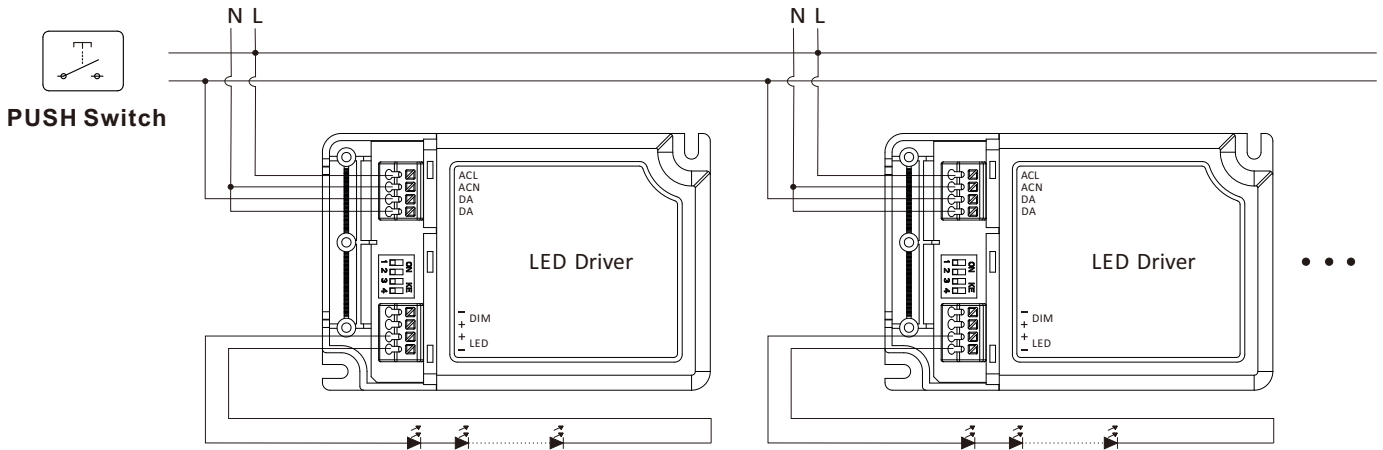
Power on status: light is brightest.

**Multiple lights synchronize control operation:**

Step 1: long press the PUSH switch,confirm each light is on.

Step 2: short press the PUSH switch,confirm each light is off.

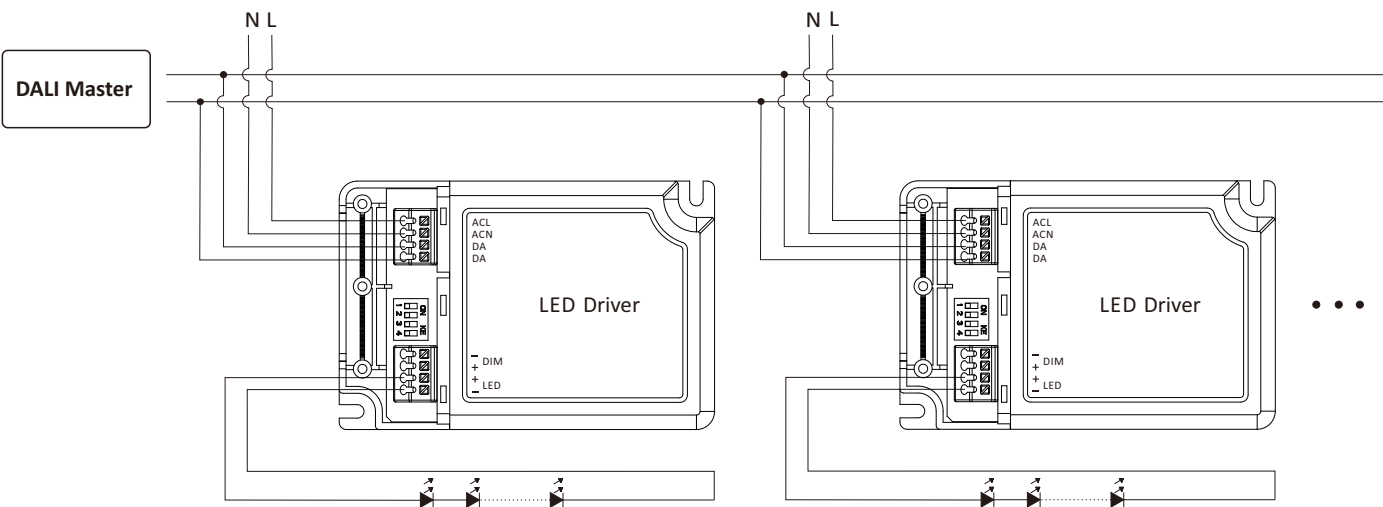
Step 3: long press the PUSH switch,confirm each light is from darkest to brightest and all the lights are synchronous .



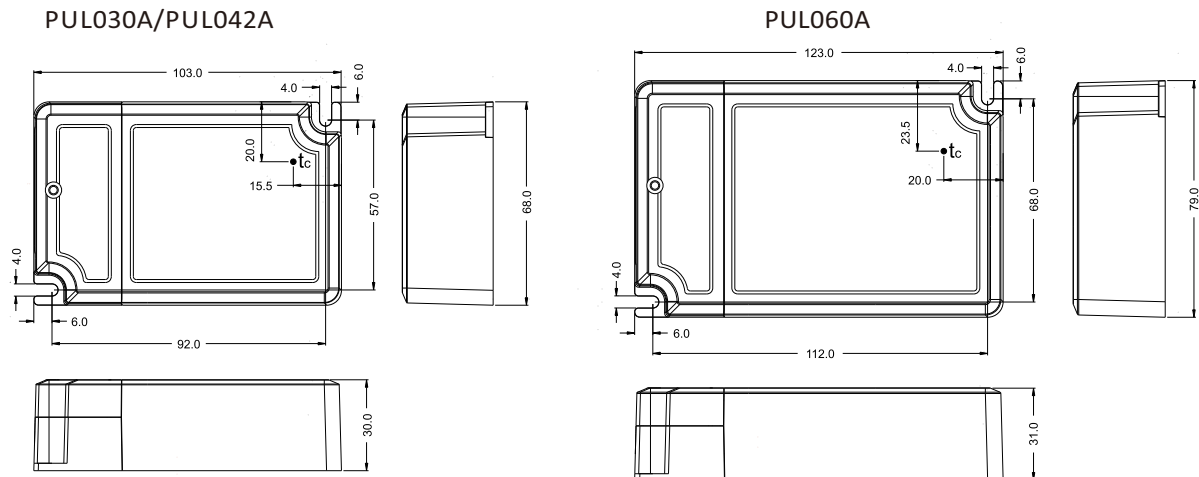
**■ DALI dimming**

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

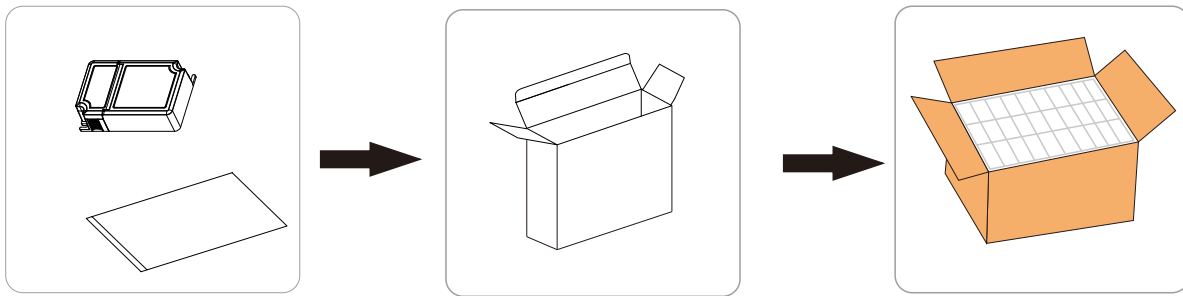


Mechanical Specification



Product package

Unit:mm



Product +PE bag

Packaging

Carton(24pcs×2layer=48pcs/box)

Product	Blister size	Flat card size	Weight/pcs	Carton size	Weight/box
PUL030A	L250×W150mm	L130×W38×H85mm	0.17kg	L415×W330×H190mm	9.4kg
PUL042A	L250×W150mm	L130×W38×H85mm	0.17kg	L415×W330×H190mm	9.4kg
PUL060A	L250×W150mm	L130×W38×H85mm	0.25kg	L415×W330×H190mm	13.2kg

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