



PLT-13234

SPECIFICATION FOR APPROVAL

Customer Name:	
Customer Code:	B347
Customer Model:	BW23-01-329-00
Products Name:	Constant Current LED Driver
Product Characteristics:	<input type="checkbox"/> Non-Dimming <input type="checkbox"/> Traic Dimming <input checked="" type="checkbox"/> 0-10V Dimming <input checked="" type="checkbox"/> Title 24 <input type="checkbox"/> No Stroboscopic <input type="checkbox"/> Bipolar No Strobe
Products Color:	Iron shell white
Product Specification:	Input: 120~277 VAC 50/60 HZ Output: 95 ~ 107 V 1050 mA
Finished Product No.:	S108N107105DAAVS-FG
Model NO.:	BQE108-1050-107-PVF-PSA
Samples No.:	B2101010R1
Recognized Standards:	UL8750

CUSTOMER APPROVE

PURCHING	R/D	QUALITY



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四. Product standard

4.1 Overview

This document describes in detail the electronic, mechanical and environmental specifications for the LED drive power product;The product USES high PF technology, which has the characteristics of low noise, energy saving and environmental protection, long life and so on.Suitable for indoor and semi-outdoor environment, it is a small electrical product box for easy installation and use.

4.2 Electrical parameters

(Light control head with sample number B2011041R1 to test the power adjustment and color adjustment temperature)

4.2.1 Input characteristics

Testing project	standard	unit	Testing Conditions	Remark	
1.Input voltage range	108-305	VAC			
2.Rated input voltage	120~277	VAC			
3.Input frequency	50/60	Hz	60Hz Test		
4.Input current	≤1150	mA	120-277VAC		
5.Start time	≤750	mS	120-277VAC		
6.Power factor	≥0.9	/	120-277VAC		
7.No-load power	≤1.5	W	120VAC		
8.Short circuit power	≤5	W	120-277VAC		
9.THd	≤20	%	120-277VAC		
10.Flicker percentage	≤30	%	120-277VAC		
11.Ringing wave	2.5	KV	L-N L-PE N-PE		
12.Surge test	4	KV	L-N	only for LED driver. The withstand volatege of aluminum PCB must be enough	
	6	KV	L-PE N-PE PE: During the test, two ground wires short-circuited		
13.Dielectric Strength	10mA/60s (UL 8750-8.6 CSA 250.13-9.4 2U+1000V)	VAC	NA	NA	
		VAC	AC-PE	1600VAC	PE: Green line, no heat shrinkable sleeve at the end
		VAC	DC-DIM	500VAC	

4.2.2 Output characteristics (Constant Current Mode:CC Mode)

(Rated input condition 120-277VAC)

Testing project	standard	unit	Testing Conditions	Remark
1.Output voltage range	95 ~ 107	VDC		
2.Output current (I)	1050	mA		± 5%
3.Output current range	997.5 ~ 1102.5	mA		
4.Output power	112.35	W		
5.No-load voltage	≤ 160	VDC		
6.Output Ripple	≤ 10000	mV.		
7.Efficiency (%)	≥ 90	%		
8.Output voltage range	10-14	VDC		The 12V auxiliary
9.Output current	50	mA		White+ Pink

Remark:

* Ripple test matters needing attention:

1) Measurements shall be made with an oscilloscope with 20MHz bandwidth.

2) Outputs shall be bypassed at the connector with a 0.1uF ceramic capacitor and a 10uF electrolytic capacitor to simulate system loading.



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4.2.3 Test instrument

Name	Model	Name	Model
Led Integrated Tester	LED Power Driver Tester (WT2080)	Lightning surge generator	Ringing wave Meter (LSG-6K10D-J)
Oscilloscope	GDS-2204A	Electronic load	M9711
Dynamometer	GPM-8213\IV-1001B	Withstand Voltage Tester	Hipot tester 19073
Flicker photometer	Flicker Puotometer (FP2000)		

4.3 Protective value

4.3.1、Open protection: when the output when open, input normal input, the product will not damage, and open voltage can't more than ratings.

4.3.2、Short circuit protection: if the output appears unusual, causes the product of anode and short sub, this product will start short circuit protection function, and not because this abnormality in product permanent damage.

4.3.3、Overload protection: this product is the constant flow design, the LED lights in the design of the product value VF voltage range, the product output current will be constant; When LED lamp of the design of value over VF voltage range, the product will enter overload protection status.

4.3.3.1、Output voltage is too low, the power supply will enter frequent start and shut off, at this time will frequently LED twinkle.

4.3.3.2、The output terminal voltage is too high, the product enters the over-voltage protection state, at this time the LED lamp's luminous intensity is obviously weaker, the current cannot reach the rated value.

4.3.3.3 Light Control Protection: Lux Parameter

light leve to turn ON (CDS 90°C)	MAX:30 LUX
light leve to turn OFF (CDS 90°C)	Min:60 LUX



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4.4. Dimming Control

Dimming Control: the current will adjust from 10% Load~100% Load by 0-10V dimmer

Brand	Model	Applicable voltage	Rating power	Brand	Model	Applicable voltage	Rating power
Leviton	IP710-LFZ	120—277VAC 60HZ	1200VA/1500VA	Lutron	DVSTV	120-277VAC 50/60HZ	8A
Lutron	NTSTV	120-277VAC 50/60HZ	8A				

Remark:

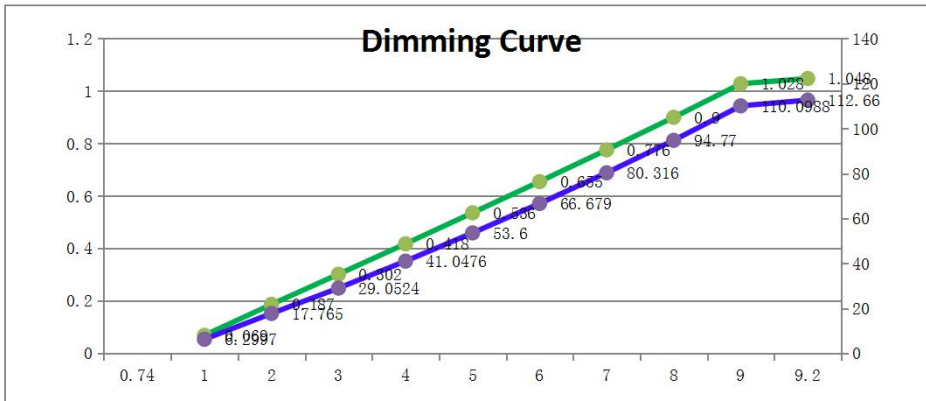
When the dimmer is 0-10V, the lamp is off when the dimmer is 0.6-0.8V

4.4.2. Inductor Blocks

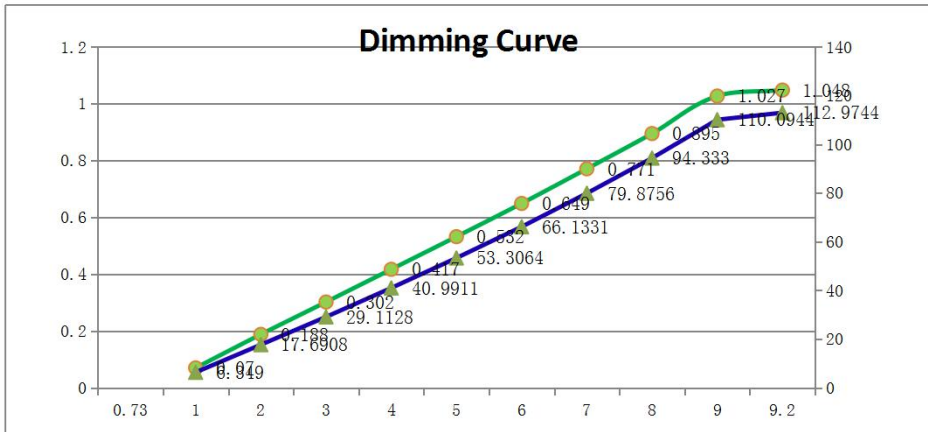
Inductor Blocks	Model	MC090D

Remark: The sensor needs to be turned off

4.4.1. Dimming curve (120VAC)



4.4.2. Dimming curve (277VAC)





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五、 Certification standard

5.1、 Safety

The power supply shall compliance with the following Criterion:

- 1) * UL8750

5.2、 EMC

5.2.1 EMI

The power supply shall compliance with the following Criterion:

5.2.1.1 Conduction Emission :

- 1) * FCC PART15 , CLASS B

5.2.1.2 Radiated Emission :

- 2) * FCC PART15 , CLASS B

六、 Environmental Requirement

This part describes the constant current drive power LED to use and storage environment.

6.1、 Storage temperature and humidity

6.1.1、 Storage temperature range: from -40°C to $+85^{\circ}\text{C}$

6.1.2、 Storage humidity range: from 5 %RH to 95 %RH

6.2、 Using temperature and humidity

6.2.1、 Using temperature range: from -40°C to $+50^{\circ}\text{C}$ (Max), $T_c=90^{\circ}\text{C}$ (Max)

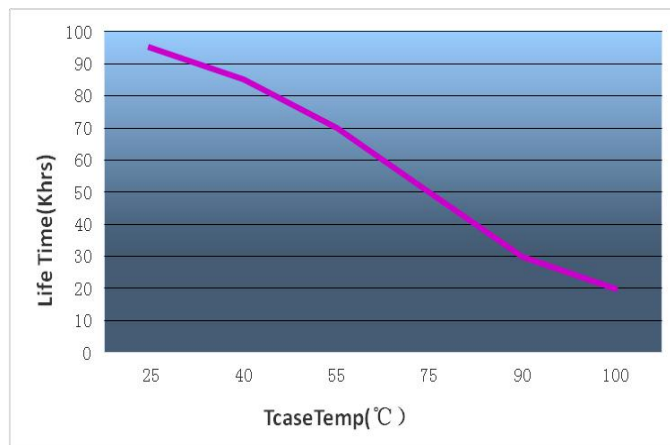
6.2.2、 Case T_c Temperature: T_c : 90°C @ T_a : 50°C

6.2.3、 Use humidity range: from 5 %RH to 95 %RH ,

6.2.4、 MTBF @ 25°C (t_a): 500000 hours

6.2.5、 LIFE @ 75°C (t_c): 50000 hours @ full load

6.2.6、 Warranty:5 years





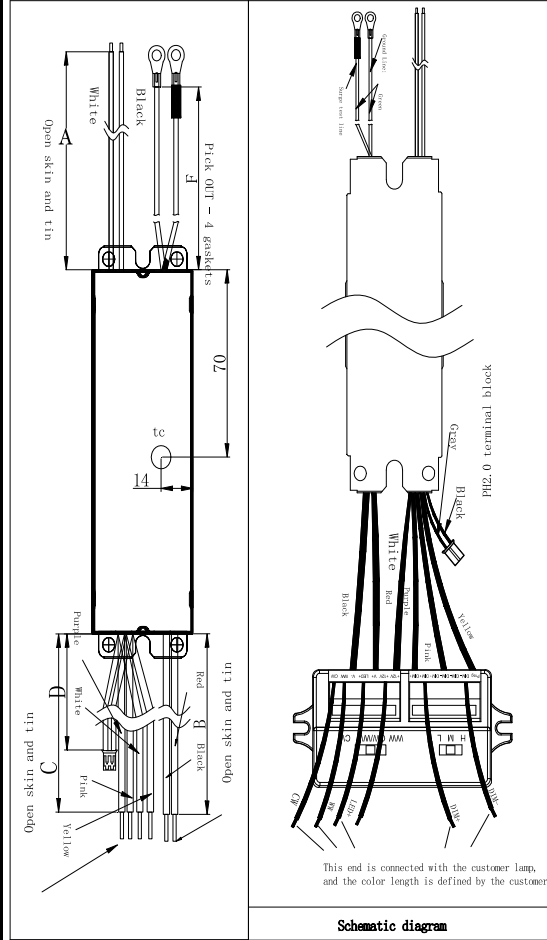
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七、Product Mix

7.1 Product Appearance Figure :

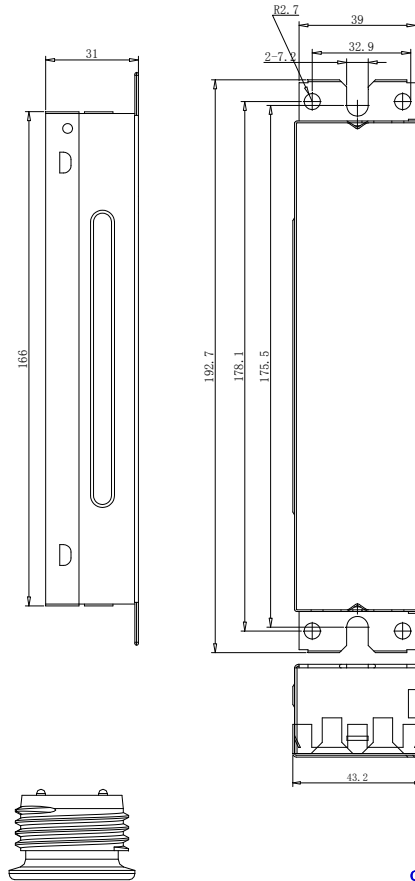
7.1.1 外观尺寸 Dimensions of the outline

Remark:
Unit:mm, Tolerance: ± 1.5 mm



7.1.2 Shell dimension positioning drawing:

Remark:
Unit:mm, Dimensional tolerances are shown in the table below



Optical head

12V cable. Black protective casing for Preg cable and light adjusting sleeve as shown

With light control box BQE-PS2+ light control head (light sensing)BQE-PS1 test

7.2 Shell Color:

Iron shell white

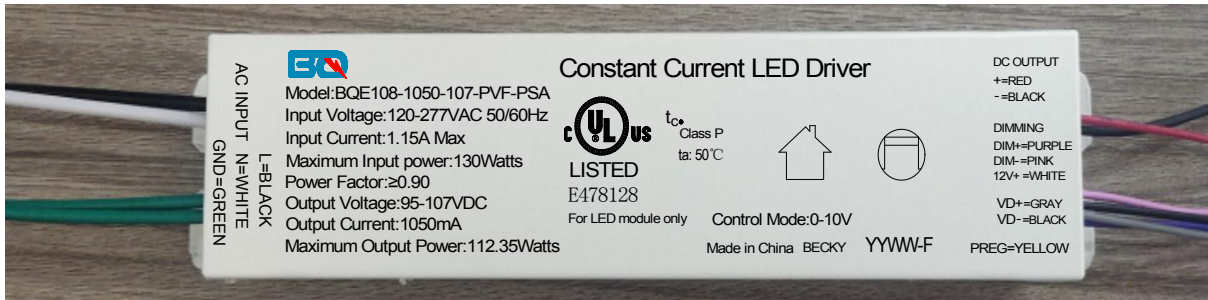
7.3 Input output specification:

Input:	UL1015 AWG18 A=400 \pm 10mm White color Pick up N Black color Pick up L, Open skin and tin 10 \pm 1mm
Output:	UL1569 AWG22 B=200 \pm 10mm Red color Pick up+, Black color Pick up -, Open skin and tin 10 \pm 1mm
Dimming:	UL1569 AWG22 C=200 \pm 10mm Purple color Pick up DIM+, Pink color Pick up DIM-, Open skin and tin 10 \pm 1mm (Tail sleeve black sleeve)
Optical control:	UL1569 AWG22 D=200 \pm 10mm Gray color Pick up VD+, Black color Pick up VD-, PH2.0 terminal block
12V+:	UL1569 AWG22 C=200 \pm 10mm White color Pick up 12V+, Pick up Open skin and tin 10 \pm 1mm (Very common Pink) (Tail sleeve black sleeve)
Surge test line	UL1569 AWG18 E=200 \pm 10mm Green color Pick up GND Pick OUT - 4 gaskets (Heat shrinkable sleeve)
Ground Line: (Pressure line)	UL1569 AWG18 E=200 \pm 10mm Green color Pick up GND Pick OUT - 4 gaskets
Preg	UL1569 AWG22 C=200 \pm 10mm Yellow color Pick up Preg Open skin and tin 10 \pm 1mm (Tail sleeve black sleeve)



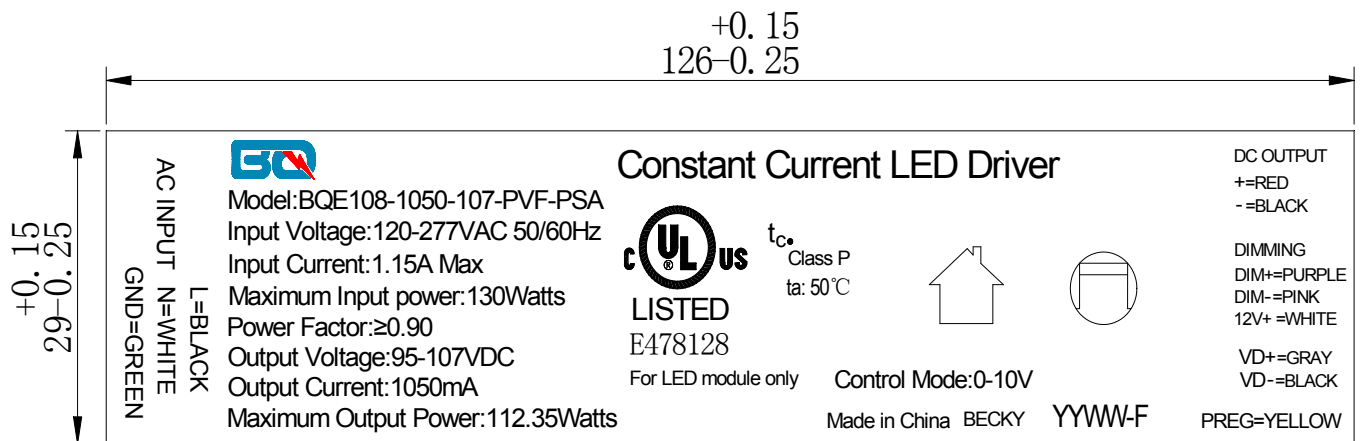
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7.4 Picture of real products:



The pictures are for reference only

7.5 Nameplate figure:



Remarks:	YYWW means:	year week;				
	H means:	NA				
	F means:	When the dimmer is 0-10V, the lamp is off when the dimmer is 0.6-0.8V				
Material:	Colour :	Surface treatment:	Thickness:	Unit:	else:	Customer confirmation signature:
Coated paper	black character on a white background	Polishing	0.12±0.03	mm		

八、Packaging Technology

Glue process



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九、Related test data

9.1 LED electrical performance test report

Model NO. :		BQE108-1050-107-PVF-PSA												Output voltage:		95 ~ 107 VDC	
Input voltage:		120~277 VAC												Output current:		1050 mA	
test item	Serial	1				2				3				Decide			
	Voltage	108 VAC	120 VAC	277 VAC	305 VAC	108 VAC	120 VAC	277 VAC	305 VAC	108 VAC	120 VAC	277 VAC	305 VAC	Condition	Standard	Pass Fail	
Vout	NO Load	145	145	145	145	143	143	143	143	NA	NA	NA	NA	120-277Vac	≤ 160 V	Pass	
Input Power	NO Load	0.19	0.22	0.85	0.98	0.19	0.21	0.79	0.98	NA	NA	NA	NA	120Vac	≤ 1.5 W	Pass	
	107 V	120.4	121.2	119.4	119.3	121	120.7	120.6	121.8	NA	NA	NA	NA	120-277Vac	≤ 130 W	Pass	
Input current	107 V	1125	1015	442	410	1132	1017	444	411	NA	NA	NA	NA	120-277Vac	≤ 1150 mA	Pass	
THD	95 V	10.6	10.8	10.8	12.6	10.8	11.5	11.3	12.8	NA	NA	NA	NA	120-277Vac	≤ 20%	Pass	
	107 V	9.9	10.1	10.5	12.5	9.7	10.7	10.7	12.1	NA	NA	NA	NA			Pass	
Power factor	95 V	0.99	0.99	0.97	0.96	0.99	0.99	0.98	0.97	NA	NA	NA	NA	120-277Vac	> 0.9	Pass	
	107 V	0.99	0.99	0.97	0.97	0.99	0.99	0.98	0.97	NA	NA	NA	NA			Pass	
Outputcurrent (I)	95 V	1048	1049	1048	1047	1049	1050	1050	1049	NA	NA	NA	NA	120-277Vac	997.5 ~ 1102.5 mA	Pass	
	107 V	1047	1051	1048	1047	1045	1048	1050	1053	NA	NA	NA	NA			Pass	
12V+TEST	50 mA	13.1	13.1	13.1	13.1	12.9	12.9	12.9	12.9	NA	NA	NA	NA	120-277Vac	10 ~ 14 V	Pass	
Shut off the voltage	107 V	0.73	0.73	0.73	0.73	0.79	0.79	0.79	0.79	NA	NA	NA	NA	120-277Vac	0.6 ~ 0.8 V	Pass	
Start time	107 V	445	438	232	230	472	442	265	254	NA	NA	NA	NA	120-277Vac	≤ 750 mS	Pass	
Flicker percentage	95 V	22.2				22.3				NA				120-277Vac	≤ 30%	Pass	
	107 V	20				19.9				NA						Pass	
Ripple	107 V	6560	6560	7600	7680	6720	6720	7600	7680	NA	NA	NA	NA	120-277Vac	≤ 10000 mV.	Pass	
Efficiency	95 V	92.7	93.1	93.5	93.3	93	83.2	83.5	83.3	NA	NA	NA	NA	120-277Vac	≥ 90%	Pass	
	107 V	92.5	93	93.7	93.5	92.6	93.1	93.7	93.4	NA	NA	NA	NA			Pass	
High-voltage insulation test	OK				OK				OK				AC-PE 1600VAC/10mA/60s			Pass	
Test engineer:	MeiJiang Huang				Inputter:				XueQin Yin				Auditor:		YuTing Shu		
Date:	2021/9/3				Date:				2021/9/3				Date:		2021/8/13		



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十、Packaging figure

PACKING DRAWING



Qty :	_____	PCS
G.W :	_____	Kgs
N.W :	_____	Kgs
SIZE :	X X	cm
Made in china		

Side marking

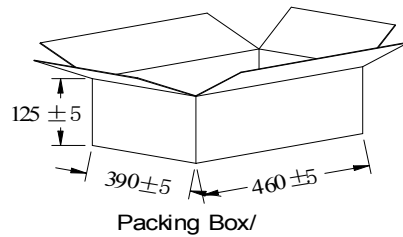
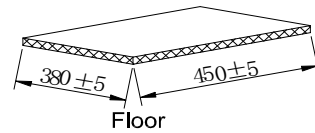
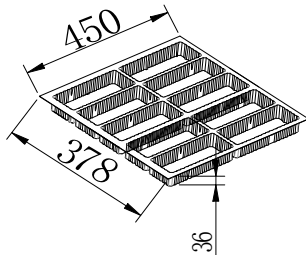
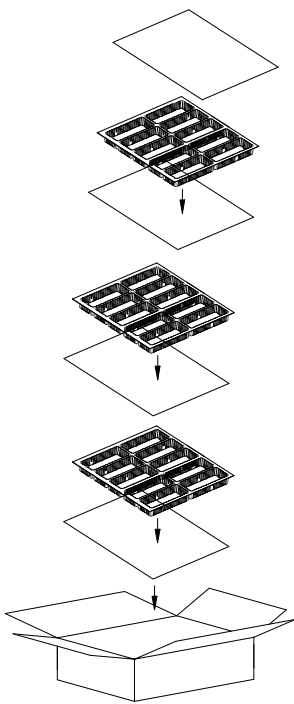


The Leader of Non-Isolated LED Driver

Professional Manufacturer of Outdoor LED Driver

Web: <http://www.becky-dg.com> <http://www.becky-usa.com>

Address: Yinyong Industrial zone Jinma Road
Hengli Town Dongguan City



108 78 58 85W

Not in Scale
For reference only
Unit: mm
± 2mm

Material	Material part list	Size	(PCS)		
Floor	JD450380B3320000	450 x 380mm(B33)	4/BOX	Total amount:	30Pcs
Blister Box	UT4538036W020000	450x 378x36mm	3/BOX		
Packng Box	JC463913A2A20000	460 x 390x125mm(A=A) (A66A)	1/BOX		