SPECIFICATION FOR APPROVAL

Customer Code:	**B347**
Customer P/N:	**BW23-02-00126-00**
Products Name:	**Constant Current Driver**
Certification Model	**BQ-150B2-260-AD**
Samples No.:	**BQ-150B2-AD-54**
Becky P/N:	

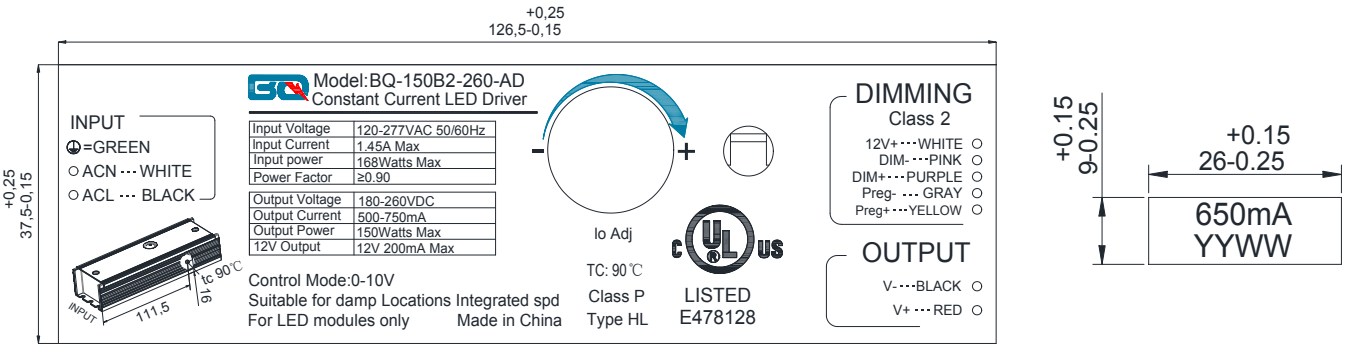
Input & Output characteristics			
Rated Input Voltage	**120 - 277**	**Vac**	**Attention:** **Output voltage✕ output current should be no more than max output wattage in adjustable current mode**
Output power	**150**	**W max**	
Output Voltage	**180-260**	**Vdc**	
Output Current/Range	**500-750**	**mA**	
Fixed Current	**650**	**mA**	
flicker	**Title24**	**Bipolar flicker-free**	**Unipolar flicker-free**
	<30%	**<5%**	**<5%**
		☑	

Approval Of Customer Signature			
Quality Dept	**R&D**	**ENG**	**Recognition seal**

Wire specifications

Item	location	Color	Guage	AWG	Length	Method connecting wire	Remark
AC I/P	L	Black	UL1015	AWG18	200±5mm	Peel off the tin 10±1mm	
	N	White					
	GND	Green			150±5mm	The tail is connected with the OUT-4 gasket	High voltage test ground wire
Dc O/P	V+	Red	UL1015	AWG18	100±5mm	Peel off the tin 8±1mm	
	V-	Black					
Dimming	Dim+	Purple	UL1569	AWG22	100±5mm	Peel off the tin 4±0.5mm	Add black protective casing
	Dim-	Pink					
Aux12V	12V+	White					
Preg	Preg+	Yellow	UL1569	AWG22	100±5mm	Peel off the tin 4±0.5mm	
	Preg-	Gray					

Nameplate Information :



Nameplate Description	Material	Surface treatment:	Thickness:	Unit:	remark
	Silver polyester	Polishing	0.13/+0.02	mm	The bottom of the silver black
decal	Silver polyester	Polishing	0.1±0.02	mm	The bottom of the silver black

PLT-13226

Product Characteristics

Efficiency up to 95%

Isolated dimming:0/1-10V, Dim-to-Off

Functional: Dim/Non-Dim/Aux 12V / The output current is adjustable（External Adj power And Photocell sensor Choose between）. meet different customer requirement is optional.

Bring afterglow optional function

- IP Rating：IP54
- Surge：DM(L/N):6KV,CM (L/N-PE) :6KV
- Warranty：5Years

LISTED
E478128

Product Description

B2 Series is a long bipolar stroboscopic No strobe non-isolated constant current drive power supply, this series is specially designed and developed for shoebox lights, wall lights, flood lights, industrial and mining lights, beautiful appearance design, The overall appearance design is aesthetically pleasing, and the multifunctional configuration of the product meets the different functional design needs of customers. With ultra-high efficiency and good heat dissipation, it greatly improves the reliability of the product and ensures its lifespan. At the same time, comprehensive protection functions ensure that the product operates without obstacles.

Model List

Model List	Pout	Vin	Vout	Vout	Iout	Eff. 277Vac	0-10V Aux12V	
BQ-150B2 -260-Z	150W	120-277V	180-260	200-250	500-750	95%	Class 2	
Function "Z"	**N**	**V**	**A**	**D**	**AD**	**P**	**AP**	**Y**
					☑			

N：No Dimming，
V：0-10V Dimming;
A：0-10V Dimming and Aux12V
D：0-10V+External Adj power
AD：0-10V Dimming + Aux12V+External Adj power
P：0-10V dimming+Photocell sensor
AP：0-10V dimming+ Aux12V+ Photocell sensor
Y：Indicates that the afterglow function is removed
*
The output voltage * output current must not exceed the maximum output power when using the current adjustable function;

Input Characteristics

Parameters	Min.	Typical	Max.	Unit	Testing Conditions/Remark
Rated Input Voltage Range	120	/	277	**Vac**	/
Input voltage range	108	/	305	**Vac**	/
Input frequency	47	50/60	63	**Hz**	/
Input current	/	/	1450	**mA**	@120Vac
Inrush Current	/	/	120	**A**	100%load at 277Vac input cold start
PF	0.9	/	/	**N/A**	@120-277Vac 70%full load
THD	/	/	20	**%**	@120-277Vac 70%full load
Flicker	/	/	5	**%**	@120-277Vac
Turn-on Delay Time	/	/	750	**mS**	@120Vac
No Load Power	/	/	5	**W**	@120-277Vac
Short circuit power	/	/	10	**W**	@120-277Vac(Enter hiccup mode)

Output Characteristics

Parameters	Min.	Typical	Max.	Unit	Testing Conditions/Remark	
Rated Output Voltage	180	/	260	**Vdc**	/	
Rated output current(adjustable)	500	/	750	**mA**	±5%	Rated Vout*Rate Iout≤Rated Pout
Rated output wattage	/	/	150	**W**	@100% Load at120-277Vac	
No-Load Voltage	/	/	315	**Vdc**	@120-277Vac	
Efficiency@120V ac	91	93	/	**%**	@Full Load Output: 260v/0.58A	
Efficiency@230V ac	93	95	/	**%**	@Full Load Output: 260v/0.58A	
Efficiency@277V ac	93	95	/	**%**	@Full Load Output: 260v/0.58A	
Line Regulation	-5%	/	+5%	**%**	@Full Load	
Load Regulation	-5%	/	+5%	**%**		
Ripple Current	/	5%	10%	**%**		

Dimming Characteristics

Function	Parameters		Min.	Typical	Max.	Unit	Remark
0-10V Class 2	Applied maximum voltage		0	/	12	V	
	Dimming output current range		0	/	100	%	High compatibility
	Dimming Voltage		0	/	10	V	
	Dimming Current		90	100	110	uA	
Dim to Off (Optional)	0-10V	Turn-off voltage	0.6	0.8	1.0	V	Dim short circuit- Off
		cut-in voltage	0.7	0.95	1.2	V	
	1-10V		/	/	/		Dim short circuit-Not Off
Noted	Please take good insulation measures if the dimming cable is not in use						

Auxiliary Characteristics

Function		Parameters	Min.	Typical	Max.	Unit	Remark
■	Aux12V (Optional) Class 2	Output Voltage	11	12	13	V	
		Output Current	0	/	200	mA	
		Ripple Voltage	/	/	500	mV	
		Dynamic Load	◆ Please pay attention to the compatibility verification with the LED Driver when using the Aux12V or other sensor.				
	(Optional)	Adj.Power	/	/	/	%	L/M/H Third gear output percentage
		3CCT	/	/	/	K	CW:Cool whiteMC:Colour mixture(CW and WW mixed)WW:Warm white

			Start-up delay			Power-on delay		
		Test enviroment	Min	Type	Max.	Min	Type	Max.
	Photocell sensor	Incandescent lamp	/	/	/	/	/	/
		Notes	1. The position of photocell should be designed to avoid the reflection interference of body light source; 2. Should be avoid interference from light source reflection when installing lamps 3. This data is for reference only. The actual value varies due to the selection of light control head and the structural design of lamps 4. Infrared light sensitive head					

Protection Function

Function	Parameters	Min.	Typical	Max.	Unit	Remark
OTP (TC)	Current drop mode	90	95	105	℃	.Current is automatically restored when overtemperature is lifted
SCP	Not damaged with long time short circuit, hiccup mode					Automatic recovery after short circuit release
OVP	Output voltage will be limited to the specified range.					Auto recovery
Others						

Environmental Characteristics

Parameters	Min.	Typical	Max.	Unit	Remark
Operating Temp.	-40	/	90	℃	Tc
Storage Temp.	-40	/	90	℃	RH:5%~95%
Tc Temp.	/	/	90	℃	
Life Time 50000H/ @Tc80℃ at full load	/	80	/	℃	Refer to the life curves.
MTBF200000 H/@ 25℃	/	25	/	℃	80%load MIL-HDBK-217F

Safety and EMI Standards

Status	Certification	Country	Safety Standard	Remark
☑	**UL/CuI**	USA/Canada	UL 8750	
	CCC	China	GB19510.1;GB19510.14 GB17625.1;GB/T17743	
	CE-LVD **ENEC**	European	EN61347-2-13; EN61347-1 EN62384	
	CB	CB Member states	IEC61347-2-13 IEC61347-1	
	SAA	Australia	AS/NZS61347.1+AS/NZS61347.2.13	

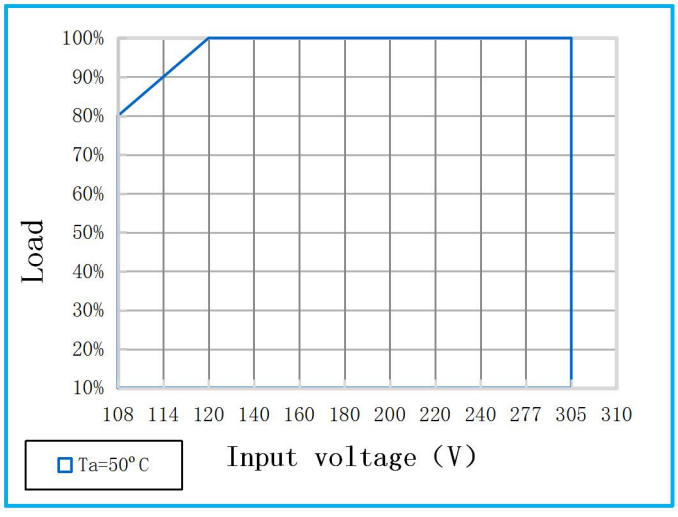
EMI/EMS	Area	Standard	Requirement
FCC	USA	Part 15,ANSI C63.4	Class B
EMC	European	EN/IEC55015; EN61547 EN/IEC61000-3-2 EN61000-3-3	Class C
Surge	European	IEC/EN61000-4-5	DM:6KV CM:6KV

Ring wave	USA	IEC/EN 61000-4-12;ANSI/C82.77-5	2.5KV
ESD	European	EN 61000-4-2	8 KV air discharge ; 4 KV contact discharge
Remark:The LED Driver itself complies with EMC standard. However,the LED Driver's EMC should be re-checked with lamp when integrated into lighting systems.			

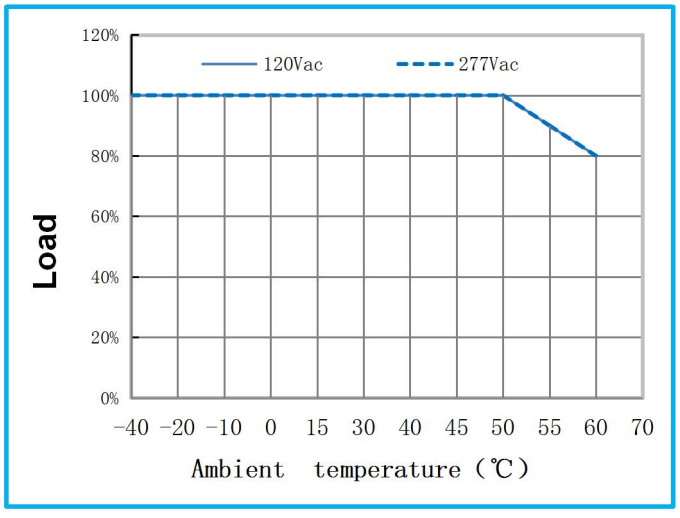
InsulationRequirements	UL	TUV	CCC	Unit	Remark
Input-Case	2U+1000	/	/	**Vac**	
Input-Dim	2U+1000	/	/	**Vac**	Reinforced insulation 2U+1000V
Dim-Case	500	/	/	**Vac**	Basic insulation
Insulation Resistance	> 10	/	/	**MΩ**	Input-Dim@500Vdc/25℃
Ground Resistance	< 0.1	/	/	**Ω**	PE-Case,25A/1min
Leakage Current	≤0.75	/	/	**mA**	@277Vac

Performance Curves

✧ **Derating curve**

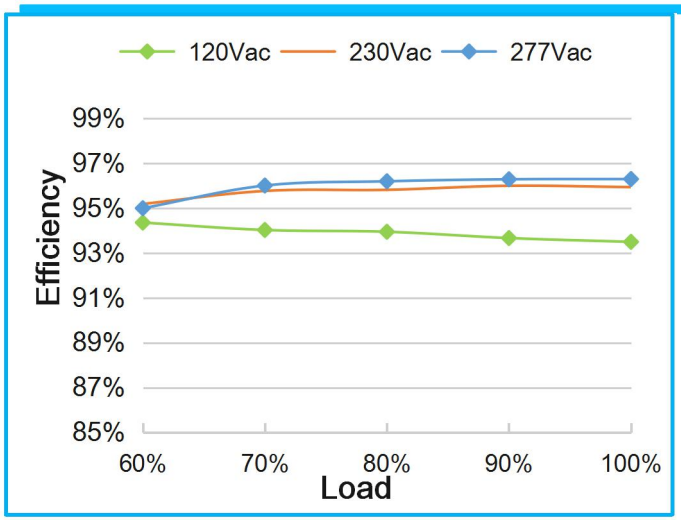


✧ **Ta Vs. Load**

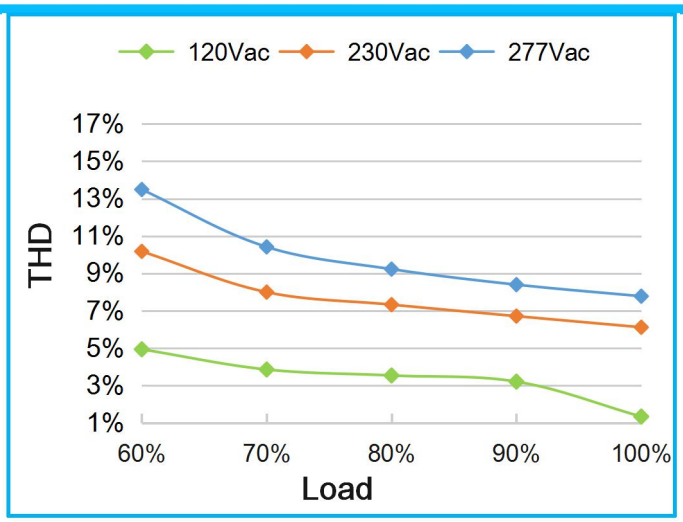


✧ **Efficiency vs. Load Curve**

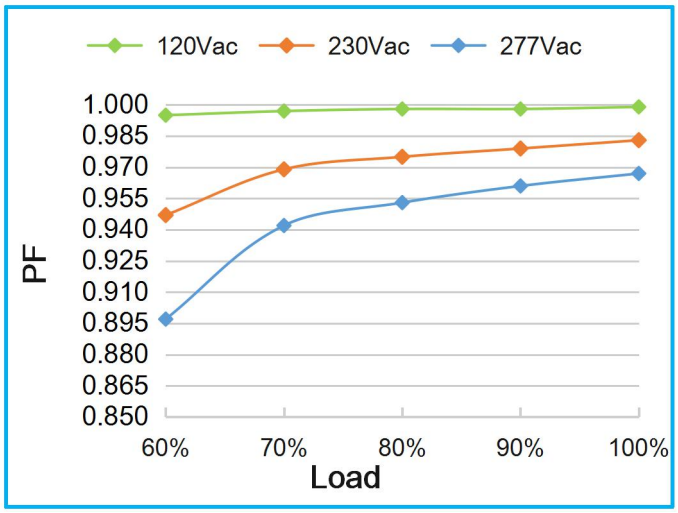
✧ **THD vs. Load Curve**



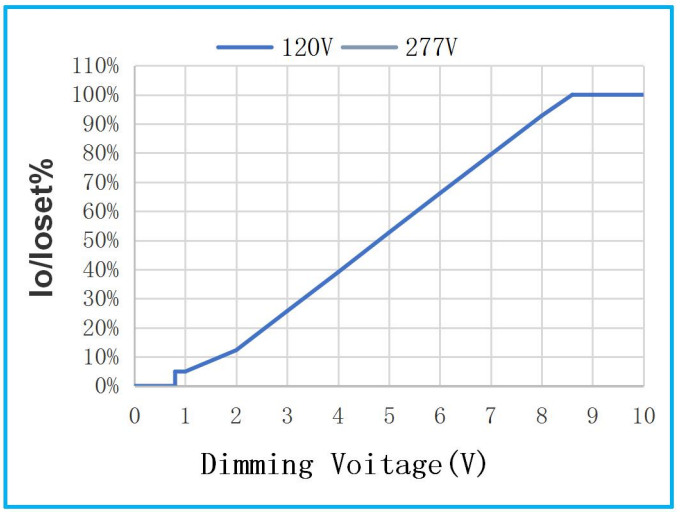
✧ **PF Vs.Pout**



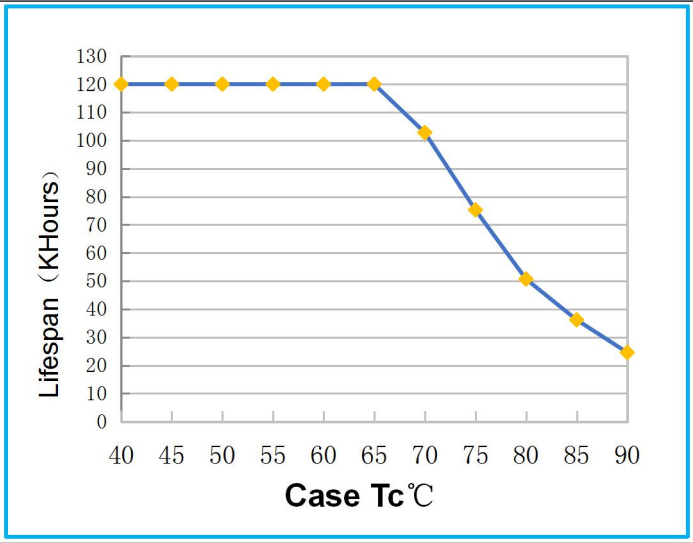
✧ **Dimming Curve**

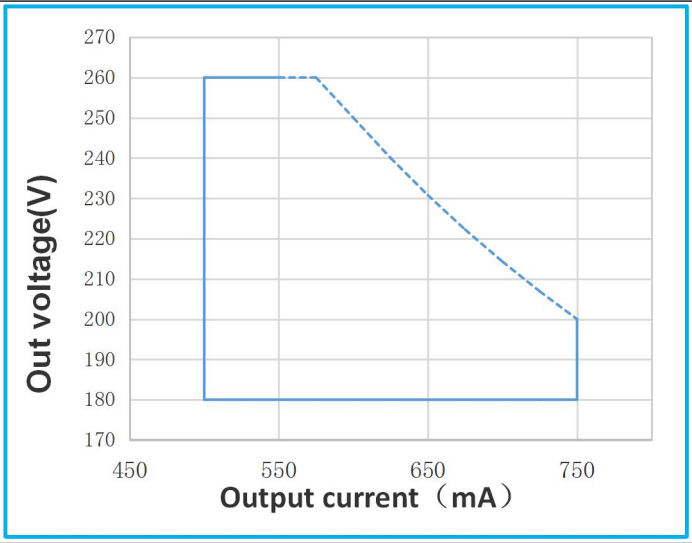


✧ **Life-time VS Case Tc℃**



Output voltage vs. output current

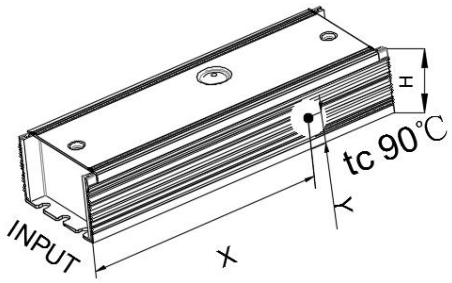


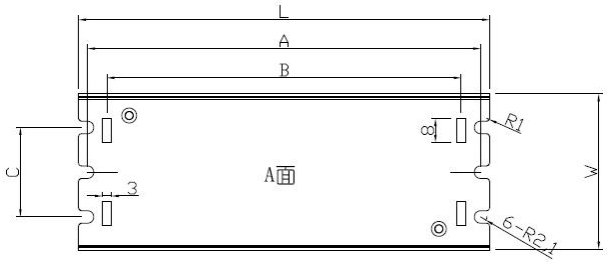


Typical Applications

MechanicalCharacteristics

Material of case	Dimension for case						Tc position		Tolerance	technology	Tolerance
	A	B	C	L	W	H	X	Y			
Aluminum	154	141	30	160	52.5	33.5	111.5	16	±2mm	gluing	±50g





Item		Color	AWG	AWG	Outlet mode	remark
Input line	ACL	Black	UL1015	AWG18 600V 105℃	Peel off the tin 10mm	Only for customers to select the reference, the detailed wire specifications and wire length and the color of the wire to acknowledge the sample after the specification page 2 shall be subject to;
	ACN	White				
	GND	Green				
Output line	LED+	Red				
	LED-	Black				
Adjust the lightAux 12v	Dim+	Purple	UL1569	AWG22 300V 105℃		
	Dim-	Pink				
	12v	White				
Power modulation line&Light control	PR+	Yellow			Z=D&AD(Peel off the tin10mm) Z=P&AP(PH2.0-2PIN)	
	PR-	Gray				

The Products comply with RoHS Directive (2011/65/EU) and REACH(No.1907/2006).

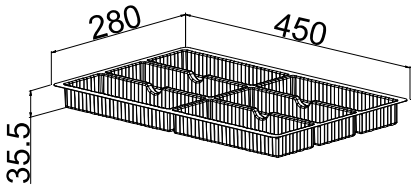
1) **Notes for design of non-isolated driver light board:**

2.1 The arrangement of lamp beads is recommended to design parallel first then series;
2.2 Withstand voltage of dielectric layers between aluminum PCB and LED>3KV.
2.3 Safety space between aluminum base and LED coppers coil than 4.7mm
2.4 The creepage distance than 2.5mm between LED+ and LED- on the aluminum substrate
2.5 Aluminum substrate is not covered with excess heat dissipation copper foil

包 装 资 料 Packaging information

B2/D2/K2(80-200W)

PACKING DRAWING



BECKY LED DRIVER

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

Side marking

BECKY LED DRIVER

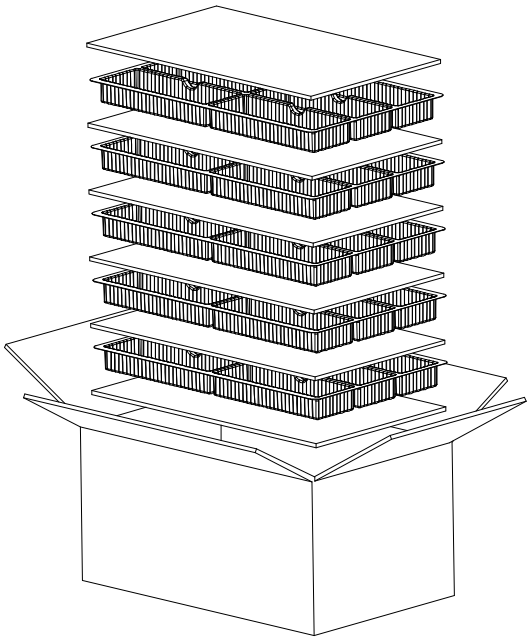
The Leader of Non-Isolated LED Driver

Professional Manufacturer of Outdoor LED Driver

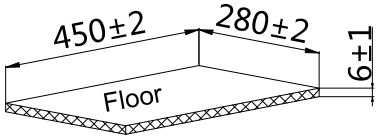
Web: http://www.becky-dg.com http://www.becky-usa.com

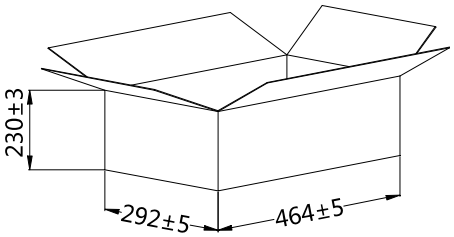
Address:Yinyong Industrial zone Jinma Road Hengll Town Dongguan City

RoHS 2.0



The product is placed flat in the blister box, with
1*6PCS per layer, a total of 30PCS in 5 layers





Packing Box

Not in Scale
For reference only
Unit: mm

Material	Material part list	Size	Dosage PCS	Total amount
Floor	JD450280A6320000	450 x 280mm(A636A)	6/Box	
Blister Box	UT4528036W020000	450 x 280 x 35.5 x 0.35mm	5/Box	30Pcs
Packing Box	JC462923A6320000	464 x 292x 230mm(A636A)	1/Box	