

# BQ-200K2-260-Z Spec.

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



## Product Description

K2 Series is a long bipolar stroboscopic No strisolated constant current drive power supply, this series is specially designed adeveloped for shoebox lights, wall lights, fl ood 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 funct design needs of customers. with ihigh 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 withtacles.

## Model List

Model List	Pout	Vin	Vout	Vout	Iout	Eff.	0-10V
						@480Vac	Aux12V
BQ-200K2-260-Z	200	277-480	180-260	200-250	700-1000	95%	Class 2
Suffix	-V	-A	-D	-AD	-AD	-P	-AP
Function Description	0-10V	0-10V+12V	0-10V	0-10V+12V	0-10V+12V	0-10V	0-10V+12V

### \* Warm prompt

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	277	/	480	Vac	/
Input voltage range	249	/	528	Vac	/
Input frequency	47	50/60	63	Hz	/
Input current	/	/	820	mA	@277Vac
Inrush Current	/	/	120	A	@480Vac 100% 100%load at 480 Vac input cold start
PF	0.9	/	/	N/A	@277- 480Vac 80%full load
THD	/	/	20	%	@277- 480Vac 80%full load
Flicker	/	/	5	%	@277- 480Vac
Turn- on Delay Time	/	/	750	mS	@277Vac
No Load Power	/	/	5	W	@277- 480Vac
Short circuit power	/	/	10	W	@277- 480Vac

## Output Characteristics

Parameters	Min.	Typical	Max.	Unit	Testing Conditions/Remark
Rated Output Voltage	180	/	260	Vdc	/
Rate Iout (adjustable)	700	/	1000	mA	±5% Rated Vout*Rate Iout ≤ Rated Pout
Rated Pout	/	/	200	W	@100% Load at 277- 480Vac
No- Load Voltage	/	/	315	Vdc	@277- 480Vac
Efficiency@277V ac	93.5	95	/	%	@Full Load Output: 250v/0.8A
Efficiency@347V ac	94	95	/	%	@Full Load Output: 250v/0.8A
Efficiency@480V ac	94	95	/	%	@Full Load Output: 250v/0.8A
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 isolation 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	
	Performance Load	Please pay attention to the compatibility verification with the LED Driver when using the Aux12V or other sensor.				
Photocell sensor (Optional)	Start delay	2	4	6	S	
	Shutdown delay	2	4	6	S	
Noted	The optical control and DIP functions share the same interface. When both the optical control and DIP functions need to be used simultaneously, it is recommended to DIP the code and adjust the light to use it.					

## Protection Function

Function	Parameters	Min.	Typical	Max.	Unit	Remark
OTP ( TC )	Current drop mode	90	95	105	℃	Auto recovery
SCP	Not damaged with long time short circuit, hiccup mode					It Auto recovery
OVP	The output voltage will limit the scope					Auto recovery
Others						

## Environmental Characteristics

Parameters	Min.	Typical	Max.	Unit	Remark
Operating Temp	-40	/	90	°C	Tc
Storage Temp	-40	/	90	°C	RH:5%~95%
Tc Temp.	/	/	90	°C	
Life Time 50000H/ @Tc80°C at full load	/	80	/	°C	Refer to the life curves.
MTBF 00000 H/@ 25 °C	/	25	/	°C	MIL-HDBK-217F

## Safety and EMI Standards

Status	Certification	Country	Safety Standard	Remark
<input checked="" type="checkbox"/>	UL/Cul	USA/Canada	UL 8750	
<input type="checkbox"/>	CCC	China	GB19510.1;GB19510.14 GB17625.1;GB/T17743	
<input type="checkbox"/>	CE-LVD ENEC	European	EN61347-2-13;EN61347-1 EN62384	
<input type="checkbox"/>	CB	CB Member states	IEC61347-2-13 IEC61347-1	
<input type="checkbox"/>	SAA	Australia	AS/NZS61347.1+AS/NZS61347.2.13	

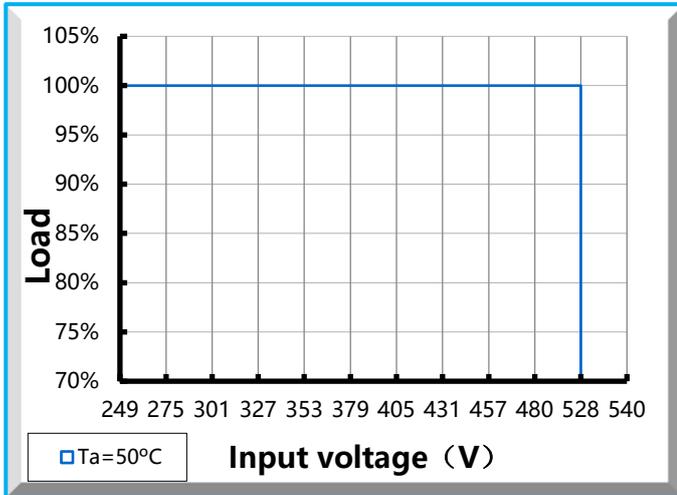
EMI/EMS	Area	Standard	Requirement
FCC	USA	Part 15,ANSI C63.4	Class A
Harmonic Current Emissions	European	EN/IEC55015;EN61547 EN/IEC61000-3-2 EN61000-3-3	Class C
Surge	European	IEC/EN61000-4-5	DM:6KV CM:6KV
Ring wave	USA	IEC/EN 61000-4-12;ANSI/C82.77-5	2.5KV
ESD	European	EN 61000-4-2	8 KV air discharge; 4 KV contact discharge

Remark:The LED Driver itself complies with EMC standardoHwever, the LED Driver's EMC should be re-checked with lamp when integrated into lighting systems.

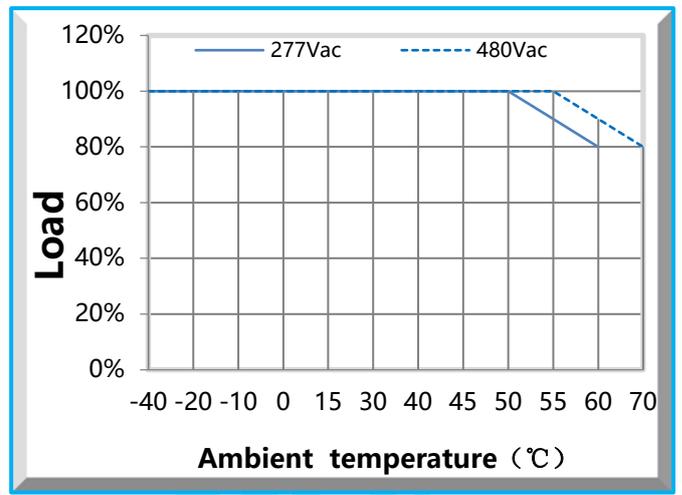
Insulation Requirements	UL	TUV	CCC	Unit	Remark
Input-Case	2U+1000	/	/	Vac	/
Input-Dim	2U+1000	/	/	Vac	Reinforced insulation 2U+1000V
Dim-Case	500	/	/	Vac	Basic insulation
Insulation Resistance	> 10	/	/	MΩ	Input-Dim@500Vdc/25°C
Ground Resistance	< 0.1	/	/	Ω	PE-Case,25A/1min
Leakage Current	≤0.75	/	/	mA	@480Vac

## Performance Curves

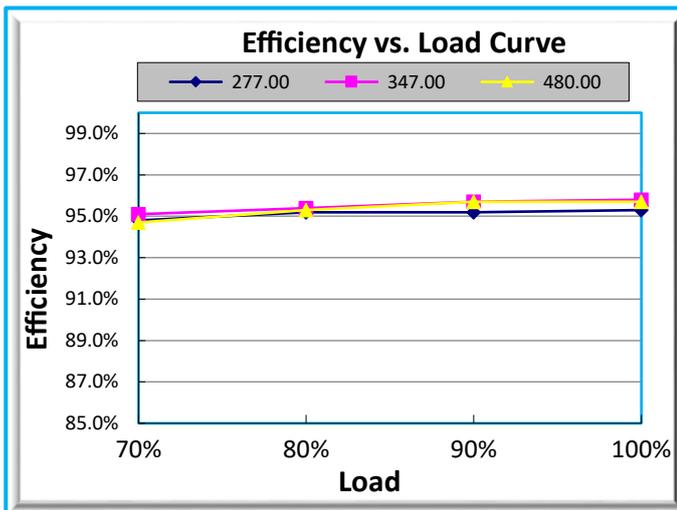
◇ Derating curve



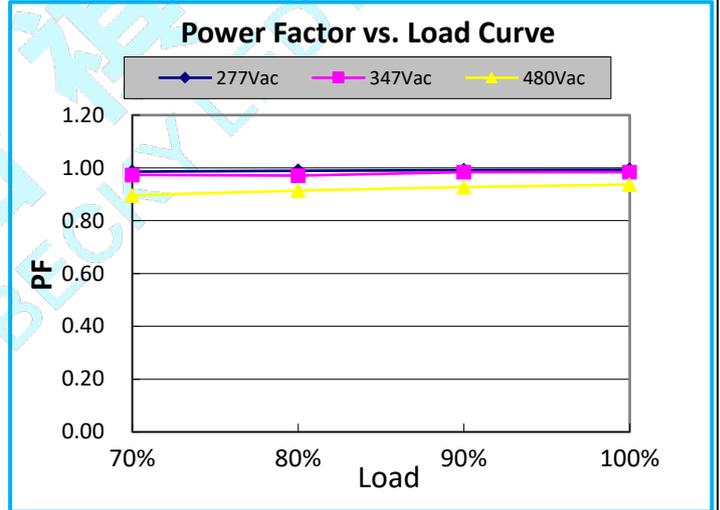
◇ Ta Vs. Load



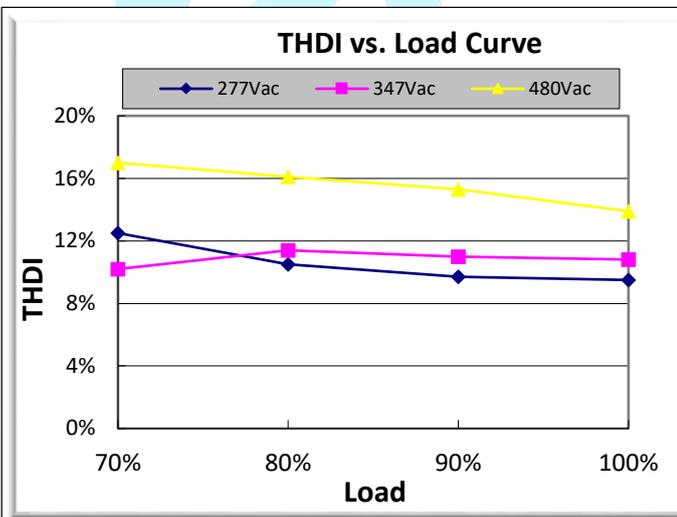
◇ Efficiency vs. Load Curve



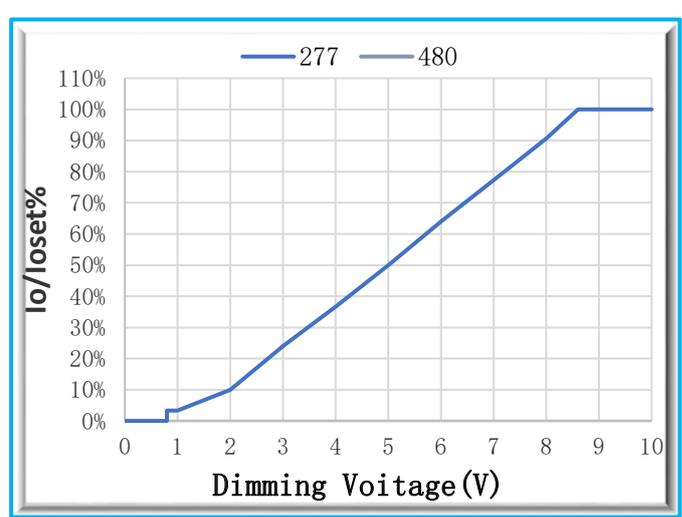
◇ THD vs. Load Curve



◇ PF Vs. Pout



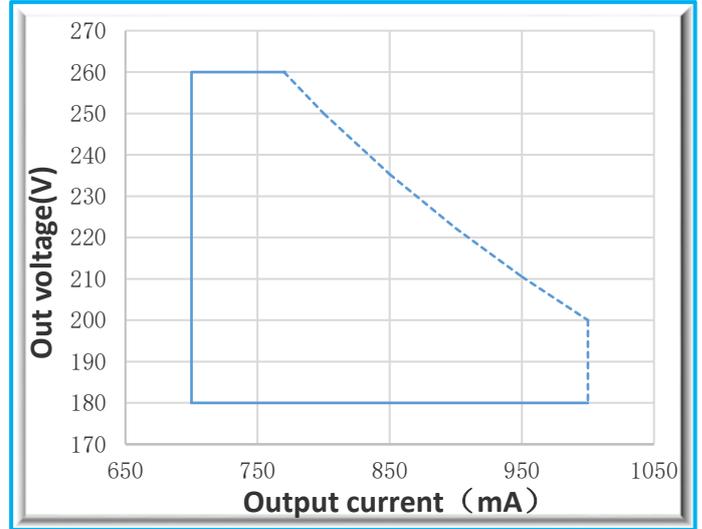
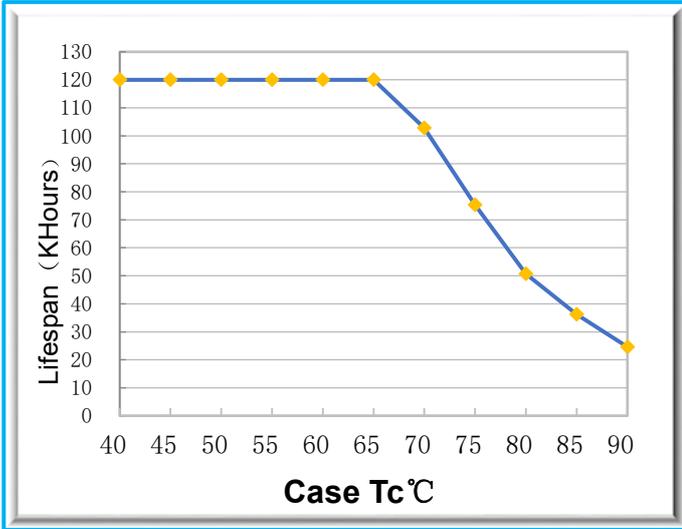
◇ Io/loset vs. Dimming Voltage



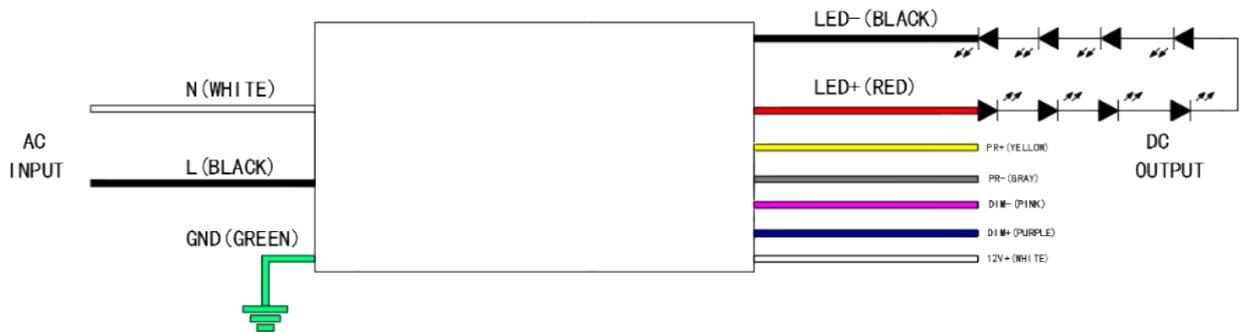
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◇ Life-time VS Case Tc°C

◇ Output voltage vs. output current



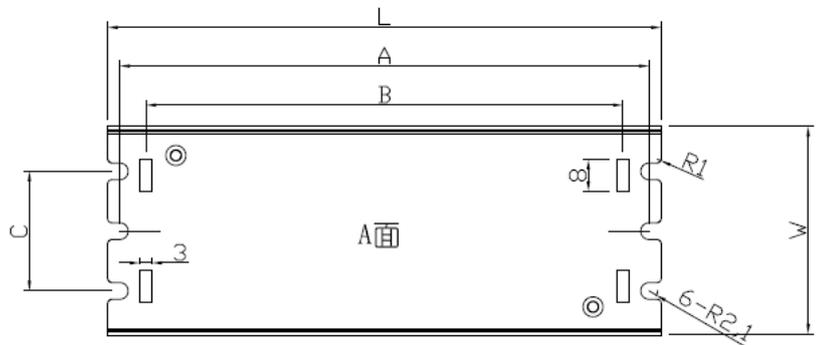
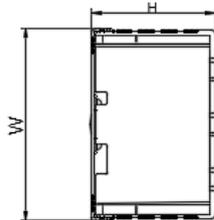
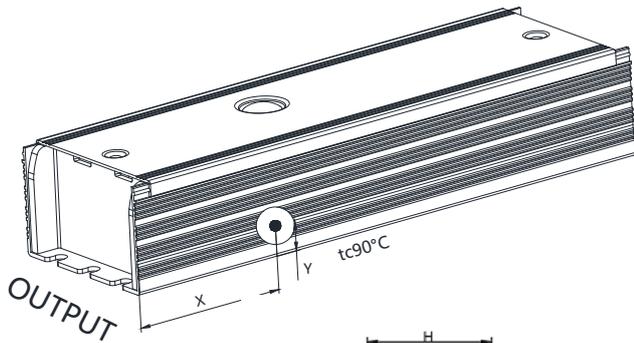
## Typical Applications



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## Mechanical Characteristics

Material of case	Dimension for case						Tc position		Tolerance	weight	olerance T	Process
	A	B	C	L	W	H	X	Y				
Aluminum	166	153	30	172	52.5	33.5	50	9	± 2mm	0.55kg	± 50g	Glue



Item	Color	AWG	AWG
ACL	Black	UL1015	AWG18 600V 105°C
ACN	White		
GND	Green		
LED+	Red		
LED-	Black		
Dim+	Purple	UL1015	AWG22 300V 105°C
Dim-	Pink		
12v	White		
PR+	Yellow		
PR-	Gray		

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

### Notes for design of non-isolated driver light board:

The arrangement of lamp beads is recommended to design parallel first then series;

Withstand voltage of dielectric layers between aluminum PCB and LED > 4KV.

Safety space between aluminum base and LED coppers coil than 5.6mm

The creepage distance than 2.5mm between LED+ and LED- on the aluminum substrate

Aluminum substrate is not covered with excess heat dissipation copper foil

