BQ-250F3-260-Z Spec.

产品特性 Product Characteristics

- 效率高达：95%
  Efficiency up to 95%
- 调光隔离：0/1-10V,调光可关断
  Isolated dimming:0/1-10V, Dim-to-Off
- 功能配置：调光/不调光/12V/输出电流可调，满足客人不同产品需求可选
  Functional: Dim/Non-Dim/Aux 12V / The output current is adjustable meet different customer requirement is optional.
- 防水等级 IP Rating：IP67
- 雷击浪涌 Surge：CM(L/N):6KV,DM (L/N-PE) :6KV
- 质保 Warranty：5Years

产品概述 Product Description

F3系列为长条形双极无频闪非隔离恒流驱动电源，此系列专为路灯，隧道灯，泛光灯，壁灯，平板工矿灯等而设计开发，外观设计美观大体，产品多功能配置满足客户不同的功能设计需求，超高的效率，良好的散热，极大提高了产品的可靠性，保证寿命，同时全方位的保护功能确保产品无障碍运作.

F3 Series is a long bipolar stroboscopic No strobe non-isolated constant current drive power supply, This series is designed and developed for street lamps, tunnel lights, floodlights, wall lamps, flat plate and mining lamps, 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.

型号清单 Model List

电源型号 Model List	输出功率 Pout	输入电压 Vin	输出电压 Vout	推荐工作电压 Vout	输出电流 Iout	效率 Eff. 277Vac	0-10V Aux12V
BQ-250F3 -260-Z	250	100-240/277	180-260	200-250	800-1200	95%	SELV
产品功能 Function "Z"	N			V		A	
	□			□		□	

N：不调光/No Dimming,

V：0-10V 调光/ 0-10V Dimming;

A：0-10V 调光+12V/0-10V Dimming and Aux12V

*. 温馨提示 Warm prompt：当使用电流可调功能时，输出电压 X 输出电流不能超最大的输出功率；
The output voltage * output current must not exceed the maximum output power when using the current adjustable function;

* 输入 AC(100-120V)最大输出功率 200W ;Output Power Max.200W(when input:100-120V)

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输入特性 Input Characteristics

参数 Parameters	最小值 Min.	典型值 Typical	最大值 Max.	单位 Unit	测试条件/备注 Testing Conditions/Remark
额定输入电压 Rated Input Voltage Range	100	/	277	Vac	/
输入电压范围 Input voltage range	90	/	305	Vac	/
输入频率 Input frequency	47	50/60	63	Hz	/
输入电流 Input current	/	/	2800	mA	@100-277Vac
浪涌电流 Inrush Current	/	/	100	A	@240Vac 100%负载冷机启动 100%load at 240Vac input cold start
功率因素 PF	0.9	/	/	N/A	@100-240Vac 60%full load
谐波 THD	/	/	20	%	@100-240Vac 60%full load
频闪 Flicker	/	/	5	%	@100-277Vac
启动时间 Turn-on Delay Time	/	/	500	mS	@230Vac
待机功耗 Stand-by Power	/	/	0.5	W	@100-240Vac
短路功耗 Short circuit power	/	/	10	W	@100-277Vac(进入打嗝模式)

输出特性 Output Characteristics

参数 Parameters	最小值 Min.	典型值 Typical	最大值 Max.	单位 Unit	测试条件/备注 Testing Conditions/Remark	
额定输出电压 Rated Output Voltage	180	/	260	Vdc	/	
额定输出电流(可调) Rate Iout (adjustable)	800	/	1200	mA	±5%	额定输出电压*输出电流≤额定功率 Rated Vout*Rate Iout≤Rated Pout
额定输出功率 Rated Pout	/	/	250	W	@100% Load at120-277Vac	
空载电压 No-Load Voltage	/	/	300	Vdc	@100-277Vac	
效率 Efficiency@120V ac	90	93	/	%	@Full Load Output: 260v/0.96A	
效率 Efficiency@230V ac	93	95	/	%	@Full Load Output: 260v/0.96A	
效率 Efficiency@277V ac	93	95	/	%	@Full Load Output: 260v/0.96A	
线性调整率 Line Regulation	-5%	/	+5%	%	@ Full Load	
负载调整率 Load Regulation	-5%	/	+5%	%		
电流纹波 Ripple Current	/	5%	10%	%		

调光特性 Dimming Characteristics

功能 Function	参数 Parameters		最小值 Min.	典型值 Typical	最大值 Max.	单位 Unit	备注 Remark
0-10V Class 2	外加最大电压 Applied maximum voltage		0	/	12	V	
	调光输出电流范围 Dimming output current range		0	/	100	%	调光器兼容性强 High compatibility
	调光电压 Dimming Voltage		0	/	10	V	
	调光电流 Dimming Current		90	100	110	uA	
关断电压 Dim to Off (Optional)	0-10V	关断电压 Turn-off voltage	0.6	0.8	1.0	V	调光线短路关灯 Dim short circuit- Off
		开启电压 Cut-in voltage	0.7	0.95	1.2	V	
	1-10V		/	/	/		调光短路不灭灯 Dim short circuit-Not Off
Noted	**当调光线不使用时，请将调光线做好绝缘措施** Please take isolation if the dimming cable is not in use						

辅助特性 Auxiliary Characteristics

功能 Function	参数 Parameters	最小值 Min.	典型值 Typical	最大值 Max.	单位 Unit	备注 Remark
Aux12V 辅助源 (Optional) Class 2	输出电压 Output Voltage	11	12	13	V	
	输出电流 Output Current	0	/	200	mA	
	纹波电压 Ripple Voltage	/	/	500	mV	
	动态负载 Performance Load					
Noted	**◆请在使用 12V 辅助源或其它感应器时注意与电源相互匹配性验证；** Please pay attention to the compatibility verification with the LED Driver when using the Aux12V or other sensor.					

保护功能 Protection Function

功能 Function	参数 Parameters	最小值 Min.	典型值 Typical	最大值 Max.	单位 Unit	备注 Remark
过温保护 OTP（TC）	降电流模式 Current drop mode	90	95	105	℃	过温解除时，电流自动恢复. Auto recovery
短路保护 SCP	长时间短路不损坏，打嗝模式 Not damaged with long time short circuit, hiccup mode					短路解除后可自动恢复 It Auto recovery
输出开路保护 OVP	输出电压会限制在规定范围 The output voltage will limit the scope					自动恢复模式 Auto recovery
其它 Others						

环境要求 Environmental Characteristics

参数 Parameters	最小值 Min.	典型值 Typical	最大值 Max.	单位 Unit	备注 Remark
工作温度 Operating Temp.	-40	/	90	℃	Tc
储存温度/湿度 Storage Temp.	-40	/	90	℃	RH:5%~95%
Tc 温度/Tc Temp.	/	/	90	℃	
寿命 Life Time 50000H/ @Tc80℃ at full load	/	80	/	℃	参考寿命曲线图 Refer to the life curves.
MTBF200000 H/@ 25℃	/	25	/	℃	80%负载MIL-HDBK-217F

安全与电磁兼容 Safety and EMI Standards

认证状况 Status	认证 Certification	国家地区 Country	标准 Safety Standard	备注 Remark
☐	UL/CuI	美国/加拿大 USA/Canada	UL 8750	
☐	CCC	中国 China	GB19510.1;GB19510.14 GB17625.1;GB/T17743	
☑	CE-LVD ENEC	欧洲 European	EN61347-2-13; EN61347-1 EN62384	
☑	CB	CB 成员国 Member states	IEC61347-2-13 IEC61347-1	
☐	SAA	Australia	AS/NZS61347.1+AS/NZS61347.2.13	

EMI/EMS	地区 Area	标准 Standard	Requirement
EMI	欧洲 European	EN55015:2013+A1:2015	Class B
Harmonic Current Emissions	欧洲 European	EN/IEC55015; EN61547 EN/IEC61000-3-2 EN61000-3-3	Class C
雷击浪涌 Surge	欧洲 European	IEC/EN61000-4-5	差模 DM:6KV 共模 CM:6KV
振铃波 Ring wave	USA	IEC/EN 61000-4-12; ANSI/C82.77-5	2.5KV
ESD	欧洲 European	EN 61000-4-2	8 KV air discharge ; 4 KV contact discharge

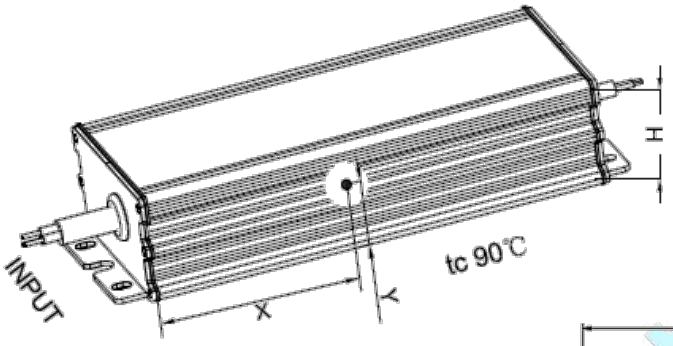
驱动电源本身是满足 EMI 标准,但驱动电源作为灯具零部件的一部分,需结合成品灯具进行 EMI 相关确认.

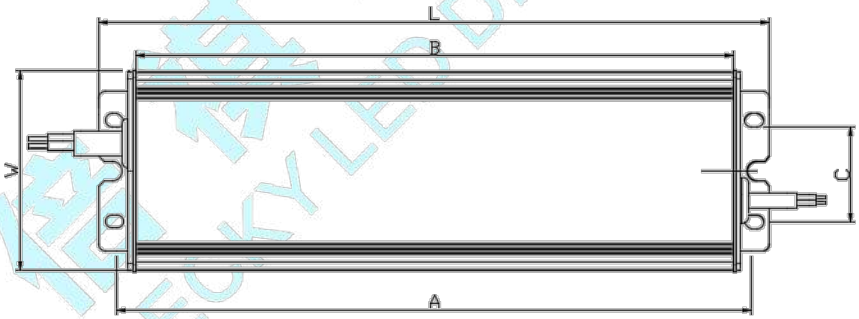
Remark: The LED Driver itself complies with EMC standard. However, the LED Driver's EMC should be re-checked with lamp when integrated into lighting systems.

绝缘要求 Insulation Requirements	UL	TUV	CCC	单位 Unit	备注 Remark
输入对外壳 Input-Case	/	2U+1000	/	Vac	/
输入对调光 Input-Dim	/	3000	/	Vac	Reinforced insulation 3000V
调光对外壳 Dim-Case	/	500	/	Vac	Basic insulation
绝缘阻抗 Insulation Resistance	/	> 10	/	MΩ	Input-Dim@500Vdc/25℃
接地电阻 Ground Resistance	/	< 0.1	/	Ω	地线对外壳,PE-Case,25A/1min
漏电流 Leakage Current	/	≤0.75	/	mA	@277Vac

结构尺寸 Mechanical Characteristics

外壳材质 Material of case	外壳尺寸 mm Dimension for case						Tc 位置 Tc position		公差 Tolerance	重量 weight	公差 Tolerance	工艺 Process
	A	B	C	L	W	H	X	Y				
铝壳 Aluminum	197	184	31	206.5	61	35.5	89.5	23	±2mm	0.84kg (含灌胶)	±50g	灌胶 Glue





类别 Item		颜色 Color	线规 AWG	线号 AWG	出线方式	备注
输入线	ACL	棕色：Brown	H05RN-F	3G1.0mm² 300/500V	开皮上锡 10mm	☞仅供客户选型的时候参考，详细的线材规格和线材长度以及线材的颜色以承认样品后的规格书第 2 页为准;
	ACN	蓝色：Blue				
	GND	绿/黄：Green/Yellow				
输出线	LED+	棕色：Brown	H05RN-F	2G1.0mm² 300/500V		
	LED-	蓝色：Blue				
调光线	Dim+	紫色：Purple	UL21996	AWG22/300V/105℃ AWG24/300V/105℃	Z=V (开皮上锡 10mm) Z=A(PH2.0-2PIN 端子)	
	Dim-	粉色：Pink				
Aux 12v	12v+	黑/白：Black/ White				

1) 产品符合欧盟RoHS2.0指令(2011/65/EU)和REACH(No.1907/2006)要求
The Products comply with RoHS Directive (2011/65/EU) and REACH(No.1907/2006).

2) **非隔离电源灯板设计注意事项：Notes for design of non-isolated driver light board:**

2.1 灯珠排列方式建议先并后串；
The arrangement of lamp beads is recommended to design parallel first then series;

2.2 铝基板耐压满足>3KV以上;
Withstand voltage of dielectric layers between aluminum PCB and LED>3KV.

2.3 所有走线到板边铜箔建议距离>4.7mm以上;
Safety space between aluminum base and LED coppers coil than 4.7mm

2.4 铝基板上LED+与LED-爬电距离 > 2.5mm;
The creepage distance than 2.5mm between LED+ and LED- on the aluminum substrate

2.5 铝基板上不覆多余的散热铜箔；
Aluminum substrate is not covered with excess heat dissipation copper foil