



Product Features

- 1, Constant voltage output
- 2, High Quality of light
- 3, High Reliability
- 4, Low Output Current Ripple
- 5, Isolated
- 6, Internal usage

1) Compliances and Approvals

Approvals	CE EAC
Built-in/independent	Independent
Ingress protection	IP20
Suitable for fixture of protection Class	Class II
Output Safety Level	Isolated
Environmental	Indoor
Features	Fixed

2) Electric Input Characteristics

	Symbol	Remarks	Min.	Typical	Max.	Unit
Input Voltage						
Rated mains voltage	Vin	Nominal range	220	-	240	Vac
Mains voltage range	Vin.op	operational	195	-	264	Vac
Mains frequency nominal	fn	Nominal range	50	-	60	Hz
Rated mains voltage	Vin	Nominal range		-		Vdc
Starting time		@230Vac, full load			500	ms
Input Current						
Input current	Iin	@230Vac, full load		0.11		A
Input inrush current		@230Vac, 50% width		18.9A, 197us		A, us
Power Factor	PF	@230Vac, full load	0.9			
Total Harmonic distortion	THD	@230Vac, full load			20	%
System Efficiency	η	@230Vac, full load		85		%
Input Power						
Input Power	Pin	@230Vac, full load			23	W
Input Power@ open load		rated input voltage			0.5	W
Input Power@ standby		rated input voltage		NA		
Dimming						
Dimming type				NA		

3) Electric Output Characteristics

	Symbol	Remarks	Min.	Typical	Max.	Unit
Output Voltage						
Output voltage range	Vo	measured at end of wire	11.4	12	12.6	Vdc
Output voltage @no load	Vo.max	open load			13	Vdc
Output Current						
Output Current	Io				1670	mA
Output voltage tolerance			-5		5	%
Voltage Ripple		@230Vac (Imax-Imin)/(Imax+Imin)		1		%
Output Power						
	Po	output performance power			20	W
Isolation						
	In-Out	3000Vac. for 1min			10	mA

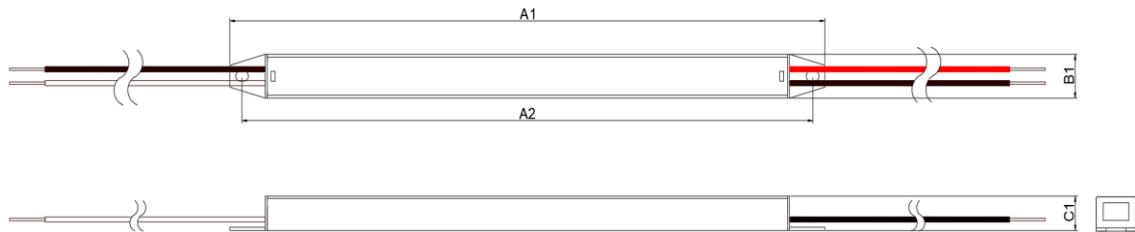
4) Robustness	Symbol	Remarks	Min.	Typical	Max.	Unit
General						
Electric strength	Input-Output	50Hz/60Hz and be applied for 1 min		3000		Vrms
	Input-GND			NA		Vrms
Insulation Resistance Test		500Vd.c. for 1min, For SELV part is 100 Vd.c.	2			MΩ
Reliability						
Rated Life@Tc.max		10% failure			50K	Hrs
Rated Life@Tc.life		10% failure			100K	Hrs
Surge	L-N			1		kV
Surge	L/N-PE			NA		kV
Environment Operation						
Ambient temperature	Ta		-40		45	°C
Maximum Tcase	Tc.max				85	°C
Tc life	Tc.life				75	°C
Operation Humidity	H.op		10		90	%
Environment Storage						
Storage temperature	T.st		-40		85	°C
Storage Humidity	H.st		10		90	%
Abnormal Condition						
Input Over Voltage		Protected, no damage to driver ^①		Without		Vac
Output Short Circuit		Protected, no damage to driver ^②		With		
Output Open load		Output voltage limited to Vo.max ^③		12		Vdc
Too High Ambient Temperature		Protected by built-in thermal protection in controller IC ^④		With		
Input Over Power		Input power should be limited and no damage to driver ^⑤			23	W

- ① If the LED driver connects to Input Voltage 380Vac, then the protection Turn On and the Led driver is switched off until its connect to Input voltage 220-240Vac.
In this protection mode, the led driver does not blink and can be not damage more than 48 hours
- ② Auto Recovery
- ③ Auto Recovery
- ④ When the junction temperature of the chip exceeds 155°C, the chip stops working and the VDD is powered off and restarted. It does not resume operation until the junction temperature of the chip drops below 125°C
- ⑤ There is risk to damage the LED driver or decreases the life time.

5) Warranty

- Warrenty 5 years
- Except for the following circumstance:
 - 1) Improper Installation or operation
 - 2) Misuse
 - 3) Abuse
 - 4) Unauthorized or improper repair alteration
 - 5) Accident or negligence in use, storage, transportation.
 - 6) Any natural destroy
 - 7) Exceed the specifiaction as per the product datasheet

6) Mechanical properties	Symbol	Remarks	Unit			
Dimensions			A1	A2	B1	C1
			270	255	19.5	16.5
Housing Material			Plastic			



7) Physical properties	Symbol	Remarks	Unit	
Weight			67	gram
Qty to Carton			200	pcs
Carton Size:			40*28*20	cm
G.W:			13.5	kgs
Potting Raw materials			without	
Printing		printing can be changed by customer's email confirmation		

size:215*16.5mm

INPUT ☒ N ☐ L	QSSDAT LED Driver PL-HTG-020WA0012V	U _{in} ,Vac	F _n ,Hz	P _{in} ,W	I _{in} ,A	PF	U _{out} ,Vdc	I _{out} ,mA	T _a ,°C	T _c ,°C	tc: test point 0-10mm cable 0.5-0.75	OUTPUT ☒ + ☒ - ☐ + ☐ -	Made in China
		220-240	50/60	23	0.11	0.9	12	0-1670	-40...45	85			

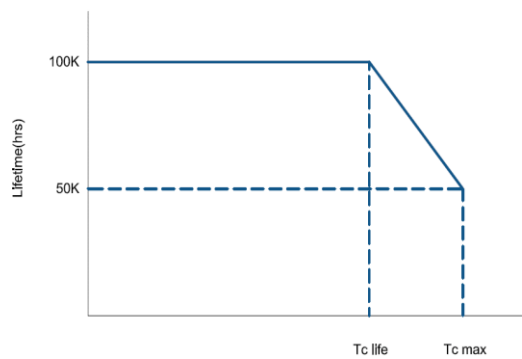
Connection	Signal	Cable Description	Remark
Input	L	0.5-0.75mm ²	white
	N	0.5-0.75mm ²	black
Output	+	0.5-0.75mm ²	red
	-	0.5-0.75mm ²	black
Connection Marking	Yes		

8) Directives / Test Standards	Directives / Test Standards
Safety	IEC61347-1、IEC61347-2-13
EMC	EN55015、CISPR15、EN61000-3-2、EN61547、EN61000-4-2、EN61000-4-3、EN61000-4-4、EN61000-4-5、EN61000-4-6、EN61000-4-11

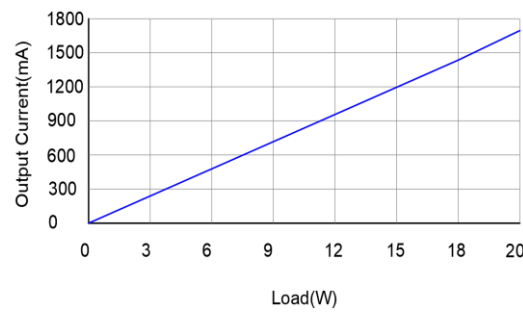
9) Addition Remarks
- The LED driver used in combination with the end device is one of the accessories of the whole light fixture, and the EMC of the whole light fixture is not only susceptible to the driver itself, but to the LED light fixture and the whole light fixture's wiring. The manufacturer of LED light fixture should re-confirm the EMC of the whole light fixture before the whole light fixture is finished. - The luminaire manufacturer is responsible for the correct choice and installation of the LED drivers according to the application and product datasheets. Operating conditions of the LED drivers may never exceed the specifications as per the product datasheet. - All parameters, if not specified, are measured at 230Vac full loading and 25°C ambient temperature

10) Performance

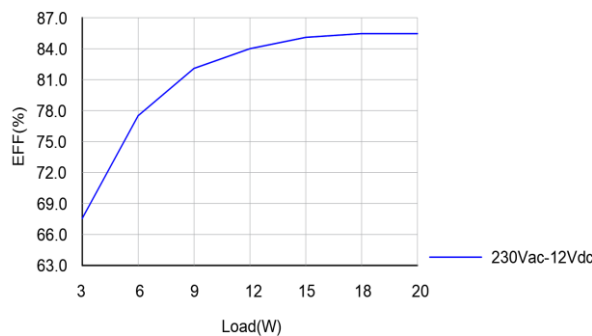
Lifetime vs. Temperature Curve



Output Current vs. Load



Efficiency vs. load



Output Current vs. Load

