



Features:

- Common international AC input voltage range (up to 300 VAC)
- Adopt active PFC function
- Protection: Short-circuit, over-current, over-voltage, Over-Temp.
- IP67 waterproof grade, suitable for indoor and outdoor installation
- Conform to World-lighting-equipment-safety Standard
- Suitable for Dry, wet, rainy Environment
- 5 years warranty

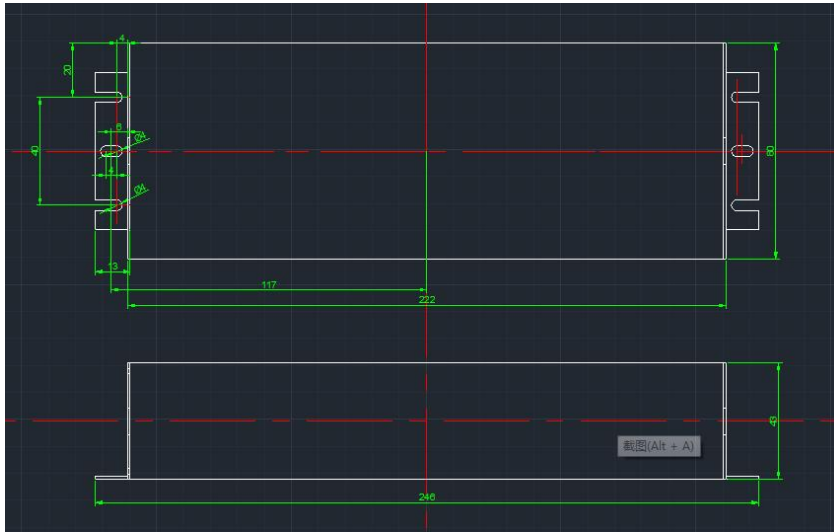
■ Specification

Model No.		SP-GLB-320-60	SP-HCL-320-36	SP-HCL-320-42	SP-HCL-320-48	SP-HCL-320-54
Output	NO-load voltage (MAX)	61VDC	37VDC	43VDC	49VDC	55VDC
	Output current (Typ)	4.85A	8.33A	7.15A	6.25A	5.55A
	Output power (MAX)	332W	332W	332W	332W	332W
	Ripple or Noise Re.2	800mV	800mV	800mV	800mV	800mV
	Output voltage range	38-60VDC	25-36VDC	25-42VDC	25-48VDC	38-54VDC
	Efficiency (Typ)	≥93%	≥92%	≥93%	≥93%	≥93%
	Current error (MAX)	±2%	±2%	±2%	±2%	±2%
	Line regulation	±2%	±2%	±2%	±2%	±2%
	Load regulation	±2%	±2%	±2%	±2%	±2%
	Setup, rise time	≤800ms, ≤100ms (full load) 115VAC/230VAC				
Hold up time (Typ)	10ms full load 230VAC/115VAC					
Dimming	Dimming control Mode Remark.	Series/parallel/ PWM signal control				
	Maximum dimming range in series/parallel	0-100%, Minimum boot brightness/6%				
	Power Maintenance Voltage Note 5	25VDC				
Input	Input voltage range	100-285VAC or 130-400VDC				
	frequency range	47-63HZ				
	PFC (Typ)	PF≥0.98 230VAC Full load				
	THD (Typ)	<15%(Standard for load lamp)				
	AC current (Typ)	<1.4A/115VAC, <0.9A/230VAC, <0.5A/277VAC				
	Surge current (Typ)	Cold start<80A /230VAC				
Protection	Leakage current	<0.75MA/300VAC				
	Over-current	100%				
	Short-circuit	Protection mode: hiccup, short circuit can be recovered after removal				
Environment	Over-load	Maximum operating voltage limit.				
	Working Temperature	-40---+60℃				

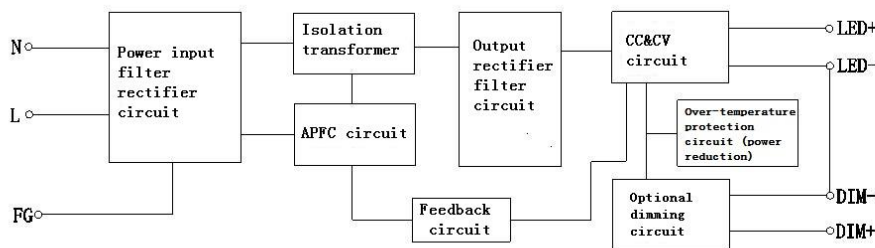
	Working Humidity	20-95%RH, No condensation
	Storage temperature, humidity	-40-+80°C, 20-95%RH
	MAX. temperature rise	+40°C Airless open environment, shell MAX. temperature point
	Vibration	10-500HZ,5G 12 Min./1cycle, period for 72min. each along X, Y, Z axes
Safety and standards	Safety Code Note 4	EN 61347-1: 2008+A1: 2011+A2: 2013, EN 61347-2-13: 2006, EN 62493: 2010
	Isolation resistance	I/P-O/P:3.75KVAC I/P-FG:2KVAC O/P-FG:1KVAC I/P-DIM:3.75KVAC O/P-DIM:1.5KVAC
	Withstand voltage	I/P-O/P, I/P-FG, O/P-FG: 100M Ohms/500VDC/25°C/70%RH
	EMC emission	EN55015, EN55022(CISPR22),Class B,EN61000-3-2 : 2006+AA:2009
	EMC immunity	EN55024-A, EN61000-3-3: 2013
Lightning Surge	L/N-FG	L/N-FG,±6KV
	L-N	L-N,±4KV
cable	Rubber cable	Input 3*0.75 ²
	Rubber cable	Output 2*0.75 ²
	Series/parallel Control Line	4/6 core 0.42 telephone line, RJ45 must be used 6P6 Core Crystal Head
case	Full Aluminum case	Silica filling
Others	MTBF	≥150Khrs MIL-HDBK-217F(25°C)
	Main body size	L250*W80*H43mm
	Net weight	
	Packing size with Box	L260*W84*H45
Remarks	<p>1. if not specified, all specifications are measured at ambient temperature VAC.25°C230.</p> <p>2. ripple and noise measurement method: a 0.52mm twisted pair wire is used, and the terminal should parallel the capacitance of 0.1uf and 47uf bandwidth measurement.</p> <p>3. the start-up time is measured under the start-up of the cold machine, frequent switching machines may change the start-up time.</p> <p>4. the slow dimming of the lamp after dimming is turned off is a normal phenomenon, because the output filter electrolytic capacitance capacity is large, and the discharge capacity of dimming to the minimum power is weaker than that of the maximum power. Therefore, the power in electrolytic capacitance can be maintained for a long time, making the dimming time relatively slow.</p> <p>5. the power supply through dimming control off the no-load voltage, that is, the final load voltage of the lamp is lower than the holding voltage, the lamp will have a weak brightness</p> <p>6.TUVEN61347-1,EN61347-2-13,IEC/EN60968-1.2004A1: 2006 6. Safety Design</p> <p>7. power supply is regarded as a combination of components and terminal equipment. Because the EMC is affected by the whole device, the terminal equipment manufacturer needs to confirm the whole device EMC.</p>	

■ Structure size

Main Body size: **L250*W80*H43mm**



■ Block diagram



■ Dimming function (optional)

※ The output current can be adjusted by potentiometer with DIM+, DIM-connected 1~10Vdc, 10V PWM signal, and maximum resistance of 100K.

※ When using the potentiometer to control the dimming, only one product can be controlled. If you need to control multiple products, you need to change the maximum value of the potentiometer. The resistance change calculation formula is: $100K / \text{parallel control product} = \text{demand resistance}$ The use of potentiometer to control multiple products is also affected by other conditions, and the actual experience is poor, so it is not recommended to use potentiometer to control multiple products.)

※ When controlling 10 products with 1~10Vdc, 10V PWM signal, ensure that the controller output current is $\geq 3\text{mA}$

※ After the product is powered on, the DIM+ output line cannot be short-circuited with the LED+ output line to prevent the high voltage of the LED+ output from damaging the constant current control system inside the product.

※ Adjust the reference resistance of the output current (typical)

Resistance Value	10K Ω	20K Ω	30K Ω	40K Ω	50K Ω	60K Ω	70K Ω	80K Ω	90K Ω	100K Ω	OPEN
Rated current percentage	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95%-108%

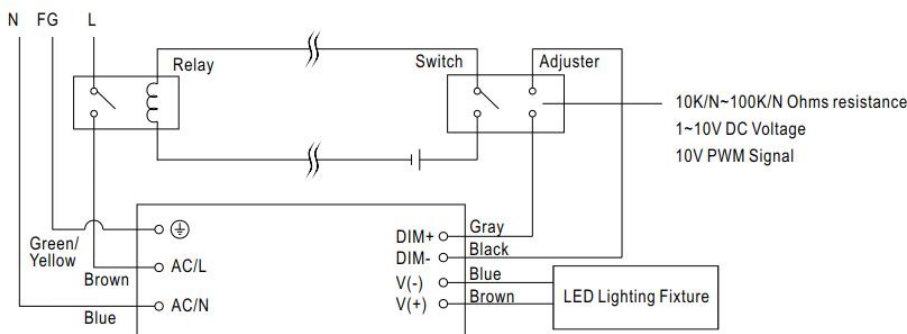
※ 1-10V Dimming Function Adjusts Output Current (Typical)

Voltage adjustment	1V	2V	3V	4V	5V	6V	7V	8V	9V	10V	OPEN
Rated current percentage	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95%-108%

※ 10V PWM Signal Adjust Output Current Value (Typical) Frequency Range: 100Hz-3KHz

Duty Ration	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	OPEN
Rated current percentage	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95%-108%

Dimming connection block diagram of lighting device using controller to turn on/off



2. Dimming method 2: timing dimming

Timer dimming internally uses a micro controller as a timer. A dimming ratio of 5% to 100% can be achieved.

This dimming method uses the power-on time as 0 o'clock. When the power supply starts the timer, it will restart at 0:00:00:00. Once the power is turned off or the power-on time is lost, the time will start again.

The minimum current changes by 1%. The maximum current changes by 95%. The minimum time set value is 1 second, and the maximum time setting value is infinite.

For example, the output power of the customer is reduced to 70% after 3 hours of start-up, 50% after 5 hours, 35% after 6.5 hours, and then maintained. This can be achieved by this function.

Note: The start time of the dimming and the percentage of the dimming output current are set by the customer and cannot be changed once shipped.

This control mode cannot turn off the power.

There are two ways of current regulation, one is real-time, and the other is gradual, such as reducing the weight to 100% and reducing it to 50%. In real time, it only takes 1 second to reduce the current by 100% to 50%. The gradual change is a gradual decrease at a rate of 1% per second. The reduction from 100% to 50% takes 50 seconds to complete. Customers can choose a suitable change in a more practical environment.

■ Declaration

- 1.the picture is for reference only, products in kind prevail.
- 2.Due to errors in the test equipment, the conversion efficiency is only for reference.
- 3.power can not be soaked in water for a long time.

■ Product Usage Notes

1. When the device is powered, please pay attention to the correct installation of the input and output terminals.
2. When the power supply is turned on for the first time, if a light flash occurs, check the DC output terminal; if it is confirmed that the load voltage of the DC output terminal is lower than the minimum operating voltage, when the load voltage is lower than the minimum operating voltage, the power supply is not in operation. In the normal work area, various abnormal conditions will occur.
3. When the power is turned on for the first time, if the load power is low, check the DC output voltage and confirm whether the DC output voltage is lower than the maximum operating voltage. If the load voltage is higher than or equal to the maximum operating voltage, When the power supply enters the constant voltage operation mode, the power supply loses the constant current function and changes to the load impedance constant current. After encountering this situation, it is necessary to replace the power supply with higher operating voltage to properly match the lamps.

■ Warranty instructions

- 1.the warranty date start date is the product date of manufacture
- 2.The product damage caused by using the environment beyond the nominal range of the specification is not covered by the warranty.
- 3.Product damage caused by incorrect installation and use is not covered by the warranty.
4. Product failure caused by long-term immersion in water is not covered by the warranty.
- 5.Users will not warranty after disassembling the product