POWERHOUSE LED DRIVERS

ZLIGHT Technology

120W 12/24V Smart LED Driver (Auto-Sensing Output)

Z-PW-120W-12/24V

PATENT PENDING

Feature

- Meet U.S.,Canada standard
- Automatically detects 12V or 24V LED loads and adjusts output accordingly
- Universal input range:100-277Vac
- short circuit,over voltage and overload protection
- Suitable for dry,damp,wet locations
- UL/cUL,Class 2
- 5 years warranty
- Applied to LED advertising signs,cabinet
- Minimum load ≥ 5% is required under 12V operation
- Dimmers and controllers are not supported under 12V load

Z-PW-120W-12/24V

- Output Switchable Voltage
- Output Watts
- Model Name

c UL us E338098 FC CE Class 2 5 YEAR WARRANTY

Technical Specs

Z-PW-120W-12/24V			
OUTPUT			
Output Voltage		12Vdc	24Vdc
Output Voltage Range		12Vdc±5%Vdc	24Vdc±5%VDC
Output Current		5A*2 Max	2.5A*2 Max
Output Power		120W	
Output Ripple & Noise		≤400mV	
INPUT			
Input Voltage Range		100Vac-277Vac	
Input Frequency Range		50～60HZ	
Input Current		≤2.5A(120Vac)	
Surge Current (cold start)		75A @230Vac	
Power Efficiency (TYP)		88%(120Vac)	
Leakage Current		<0.75mA/277Vac	
PROTECTION			
Over-Current Protection		Shut down the output when current load ≥ 110% ,and recover automatically	
Short-Circuit Protection		Hiccup Mode,and recover automatically	
Over-Voltage Protection		Shut down the output when non-load voltage≥ 13V, and recover automatically	Shut down the output when non-load voltage≥ 26V, and recover automatically
ENVIRONMENT			
Working Temperature		-30°C~+60°C (See below derating curve)	
Working Humidity		10%~95%RH	
Approved Enviroments location		For dry,damp,wet locations	
Storage Temperature		~35°C~+65°C	
Storage Humidity		10%~95%RH	
IP Rating		IP67(note 1)	
Vibration		10~500Hz，1.0mm，15 minutes(for X、Y、Z each axis)	
Tcase		+90°C	
SAFETY&EMC			
Safety Standard		Design refer to UL8750,CSA C22.2 NO.250.13,CSA C22.2 NO.207-15	
		Design refer to EN61347-1,EN61347-2-13,EN62493	
Dielectric Strength (Hi-Pot)	I/P-O/P	1.8KVAC/5mA/1min	
	I/P-Case	1.8KVAC/5mA/1min	
Insulation Resistance		100MΩ / 500VDC/1min	
Grounding Resistance		≤0.5Ω	
EFT		2kv on AC power line	
Surge		2kv(L-N) 4kv(L-GND, N-GND) (IEC61000-4-5)	
OTHERS			
MTBF		200Khrs.MIL-HDBK-217F(25℃)	
LIFE TIME		50,000 hours at Tc ≤ 80°C maximum case hot spot temperature	
Dimensions		8.23″ *2.84″ *0.93″ (L*W*H)；209*72*23.6mm(L*W*H)	
Weight		0.6 kg	
Outer Box Specifications		21.06″*10.43″*6.10″ (L*W*H); 535*265*155mm(L*W*H)/30pcs/ctn	
		Total 5 layer,each layer 6pcs/G.W18.5kg/N.W17.5kg(1+10%)	

Remarks:

Note 1: IP67 can be used in dry, damp, wet locations. Avoid installing in submerged environments or applications where drivers will come into direct contact with prolonged flowing or dipping water.

Test environment temperature : 25 ± 2°C;

Ripple and noise measurement methods: terminal to parallel 47uF electrolytic capacity and 0.1uF ceramic capacity, in 20 MHZ Bandwidth measurement.

"The driver is suitable for connecting resistor current-limiting LED fixture (e.g. LED strip). The inrush current will be dozens of times increased if connecting built-in constant current IC current-limiting LED fixtures, the driver will activate the overloaded protection (hiccups flickering). "

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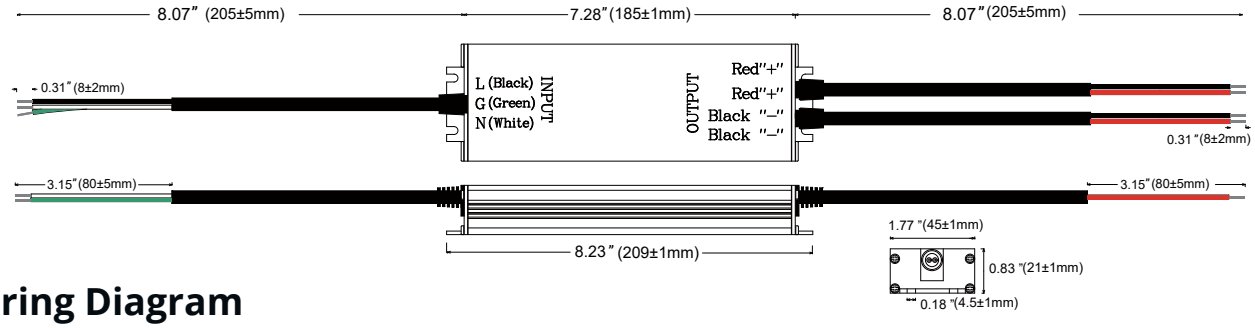
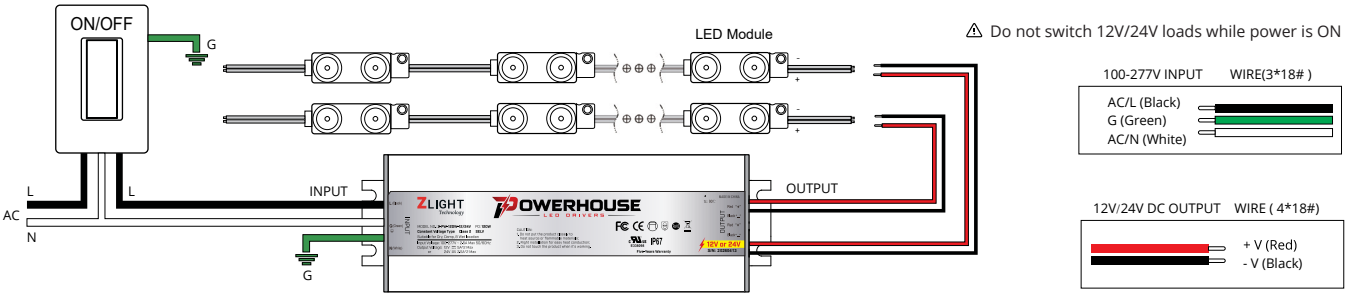
120W 12/24V Smart LED Driver (Auto-Sensing Output)

Profile Drawing

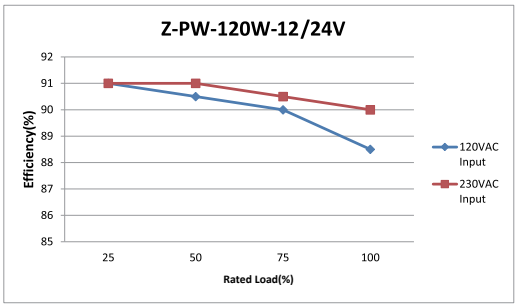
Unit:inch&mm



Wiring Diagram

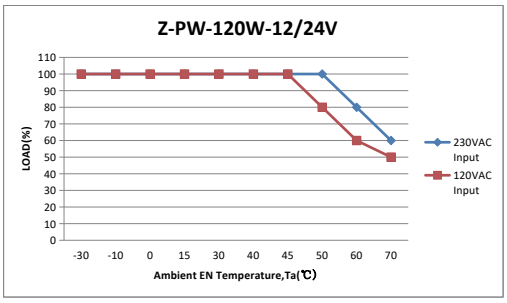


OUTPUT LOAD vs Efficiency (Input 120VAC &230VAC)



OUTPUT LOAD vs Temperature (Input 120VAC &230VAC)

The Z-PW-120W-12/24V series can be operated with cooling air temperatures between-30°C- 50°C by linearly de-rating the total maximum output power (or current) by 2.0%/°C from 50°C to 70°C (see figure).



Attentions

— Please ensure that the ground wire is properly grounded and ensure it does not come into contact with the neutral wire.
— Please make the power supply installed in a well-ventilated place, to ensure that the environment temperature is appropriate.
— Do not overload the power supply with multiple appliances.
— Please do not touch the metal shell surface to avoid high temperature scald.
— Do not install in the minefield or high pressure area.
— Do not attempt to repair privately. Please contact the supplier if you have any questions.

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Tips

— To be installed by a certified electrician. Please read and follow the instructions carefully before installing. Ensure all contact points are connected firmly.
— Please pay attention to the using environment, and conduct regular check and maintenance to eliminate safety risks.