



Specification

Project NO.	PYW000257-18033	Model.	<u>AFCH-120D12+13.8B</u>
Rev.	S01	Engineer.	Huang Tujun

Prepared		Date	
Checked		Date	
Approved		Date	

Change Reason and content:

Sign:



PYW ELECTRONICS TECH. CO.,LTD.

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**Feature :**

- Global voltage input: 176~ 264Vac,
- Meet the safety design requirements
- Compact structure, easy installation, output terminal with protective cover
- Ultra-wide operating temperature range (-25℃ ~ 70℃)
- Comprehensive protection: overload/short circuit/overvoltage
- Luxury electrolytic capacitor, high reliability, long life
- 2 years warranty

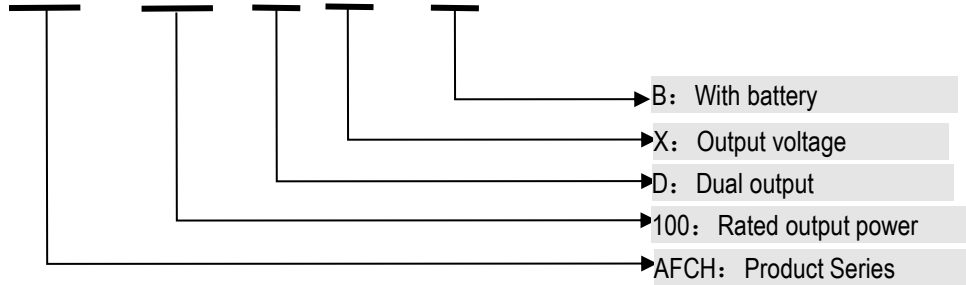
**Specifications**

★ Picture for reference

Product name Note 1		AFCH-120D12+13.8B								
exportati on	Rated output voltage	12V	13.8V							
	Settingrange(10%loa		/		/		/		/	
	Output current range	10A	0.5A							
	Rated output power	120W								
	Ripple noise note 2	<120 mV	<120 mV							
	Output control range	-5%~+5%	/			/		/		/
	Pressure stabilization	±2.0%	±5.0%							
	Output start time	≤1S (230Vac input, Full load)								
	Output hold time	≥20mS(230Vac input, Full load)								
	Voltage overshoot	<5.0%								
	Dynamic	10%-100%Load:10%Vp-p		10%-50%Load: 5%Vp-p		50%-100%Load: 5%Vp-p				
input	Input voltage range	176~264Vac/ 47~63Hz,								
	Rated input	100~240Vac / 47~63Hz,								
	Starting voltage	90Vac								
	Efficiency (typical	81%								
	Input current (max.)	<1.2A								
	Starting impulse	<40A@264Vac Cold start								
Protectio n function	Output overpower	105%~150%								
	Output overvoltage	Constant pressure, self-recovery								
	Output overcurrent	105%~150%								
	Output short-circuit	Swing machine, long-term self-recovery								
	Overtemperature	/								
Working environ ment	Operating	-25℃~70℃; 20%~90%RH No condensing								
	Store temperature	-30℃~85℃; 10%~95%RH No condensing								
	Vibration	10 ~ 500Hz, 2G 10min./1cycle, period for60min. each along X,Y, Z axes								
	strike	20G/11mS pulse ,3 times at each X,Y,Z axes								
	altitude	5000m								
Safety and electrom agnetic compati bility	Safety standard	GB4943/EN60950 <input checked="" type="checkbox"/> 参考 <input type="checkbox"/> 认证								
	Leakage current	Primary side - secondary side ≤0.25mA Primary side - Earth ≤3.5mA								
	Insulation strength	Input - Output :3KVac/10mA Input - Ground :1.5KVac/10mA Output - Ground :500Vdc/10mA Test time 1min								
	Insulation impedance	Input - Output: 100M ohms Input - Earth: 100M ohms Output - Earth: 100M ohms								
	Harmonic wave	EN61000-3-2,-3								
	Electromagnetic	EN55022 Class B; FCC PRAT15 B								
	Electromagnetic	EN61000-4-2,3,4,5,6,8,11 A 类设备								
other	Size (L * W * H)	159mm×98mm×38mm								
	Connecting terminal	95-5PFence type with protective cover terminal block								
	Cooling mode	Natural air cooling								
reliability	Design MTBF	200,000Hrs AT 25℃, MIL-217 Method 2 Components Stress Method								
	Electrolytic	17520h @T 50℃ FULL Load and Units Continuously Working								
remark	Note 1: Unless otherwise specified, all parameters are tested after 15min in the oven at room temperature.									
	Note 2: Ripple noise is connected using 12# twisted pair, and at 20MHz bandwidth, 0.1uF and 10uF capacitors in parallel.									
	Note 3: -5V output load: When the ratio of 5V output load is in the ratio range of 2:1 ~ 1:6, the voltage regulator accuracy of -5V is ±5.0%; If other limit load ratio ranges exist, confirm the impact of the -5V output range on system reliability. If the -5V is in the air, the -5V output does not affect the system and the reliability of the power module.									
	4: For details, see the derating curve, positioning diagram, and installation mode description.									

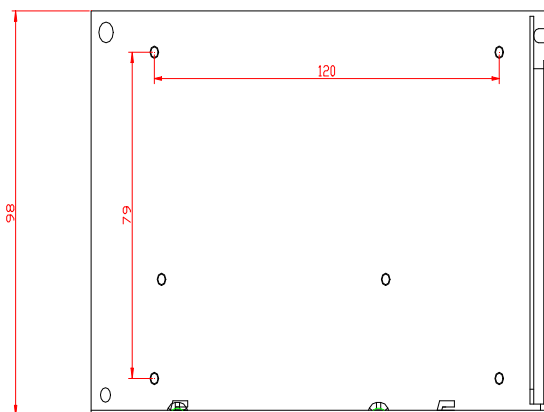
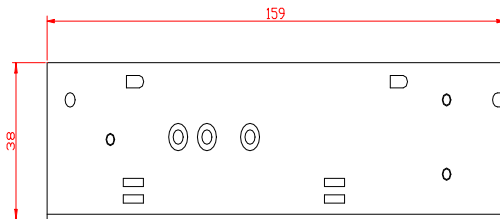
■ Model Code Description:

AFCH - 100 D X B



■ Mechanical:

Unit: mm / Contour tolerance ± 1.0



■ Product installation and instruction:

1. Refer to the mechanical to select the appropriate installation. If necessary, the diameter of the kelly wire is no less than AWG #1.
2. Make the electrical connection is correct, to avoid damage to the SPS or equipment : Input & Output, Ac & DC, Positive & negative, Input Voltage Range.
3. Do not touch circuit board to avoid electric shock when SPS is working. Do not touch to avoid heat in three minutes after working. Do not touch the soldering side.
4. Let it work at ventilated conditions to improve reliability. Do not make it ON/OFF too quickly . Any condition is out of the rated range, please contact FAE for suggestion.
5. If the SPS works abnormally, do not open to repair except professional, contact FAE for support.

■ Packaging, transportation, storage:

1. **Package:** Unless customer's special demand, Product name, model, manufacturer logo in the box; Date of production can be traced back.
2. **Transport:** Product packaging is suitable for road, railway, air shipping and sea shipping, etc. Be to civilized handling, waterproof, anti-fall, and to avoid severe impact.
3. **Storage:** Do not disassemble or take off the packing box when the product is not in use. Keep 20cm away from ground, and 50cm away from Wall, heat source and air inlet. The storage temperature and relative humidity shall be in accordance with the specifications, and Avoid strong mechanical vibration, shock and strong magnetic field. If the storage period is more than two years, it should be tested again before use.

■ Reference standard:

1. **GB4943/EN60950/ EN62368:** Safety of Information Technology Equipment.
2. **GB2324:** Basic environmental testing procedures for electric and electronic products.
3. **EN55022/EN55032/EN55024:** Information technology equipment – Radio disturbance characteristics - Limits and methods of measurement
4. **IEC61000-4:** Electromagnetic compatibility (EMC) test and measurement techniques.
5. **IEC 61000-6-1 :** Standard and measurement of electromagnetic immunity for residential, commercial and light industrial environments.
6. **IEC 61000-6-2 :** Standard and measurement of electromagnetic immunity for products used in industrial environment.
7. **GB17625.1-2022:** The limits for the harmonic current from low-voltage electrical and electronic equipment (equipment input current≤16A per phase).
8. **GB/T 17626:** Electromagnetic compatibility testing and measurement techniques.
9. **GB/T14714:** General specification for switching power supply of micro computer system equipment.
10. **GB/T9254.1-2021:** Radio disturbance limits and methods of measurement for information technology equipment.
11. DONGGUAN PYW ELECTRONICS TECH. CO.,LTD. Enterprise standard.

■ Statement

Class A statement

Warning

In a residential environment, running this device may cause radio interference.