



# Specification

<b>Project NO.</b>	<b>PYW000257-18033</b>	<b>Model.</b>	<b>AFOU-5D5+3.3-86PR03</b>
<b>Rev.</b>	<b>S01</b>	<b>Engineer.</b>	<b>Huang Tujun</b>

<b>Prepared</b>		<b>Date</b>	
<b>Checked</b>		<b>Date</b>	
<b>Approved</b>		<b>Date</b>	

**Change Reason and content:**

**Sign:**

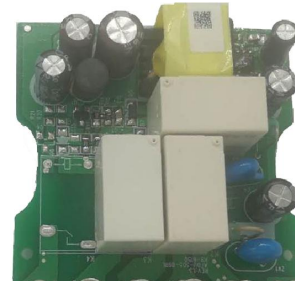


**DONGGUAN PYW ELECTRONICS TECH. CO.,LTD.**

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## ■Feature :

- Global voltage input (90VAC ~ 264 VAC)
- At the same time can provide two DC output, suitable for 86 box system use
- Meet the safety design requirements
- Small size, modular insert
- Ultra-wide operating temperature range (-10°C ~ 50°C)
- Comprehensive protection: short circuit/overload/overvoltage
- Warranty for 2 years



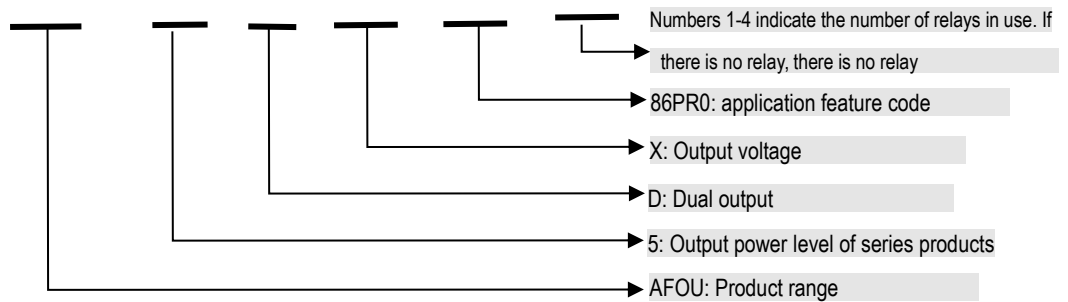
## ■Specifications

★ Picture for reference

Product name note 1		AFOU-5D5+3.3-86PR03		
Dc output	Dc output parameter			
	Rated output voltage	V1: 5.0V	V2: 3.3V	
	Rated output current	0.6A（含 3.3V 端的 0.25A）	0.25A	
	Rated output current range	0~0.6A（含 3.3V 端的 0.25A）	0~0.25A	
	Rated output power	3W		
	Steady state operating	0-10A		
	Ripple noise note 2	≤100mV	≤50 mV	
	Output control range	/	/	
	Voltage regulation accuracy	±5%	±2%	
	Output start time	≤1.5S (230Vac input, Full load)		
	Output hold time	≥20mS(230Vac input, Full load)		
	Voltage overshoot	<5.0%		
	Dynamic characteristic	10%-100%Load:10%Vp-p    10%-50%Load: 5%Vp-p    50%-100%Load: 5%Vp-p		
Input	Input voltage range	90Vac~264Vac / 47Hz~63Hz		
	Rated input voltage	100Vac~240Vac / 47Hz~63Hz		
	Starting voltage	90Vac		
	Power factor	/		
	Efficiency (typical value)	58%		
	Standby power consumption	<0.5W		
	Input current (Max.)	<0.2A		
	Starting impulse current	<40A@230Vac Cold start		
	Protection function	Output overpower protection	V1/105% ~200% swing machine, long-term self-recovery. V2/ No requirement.	
Output overvoltage		VCC self-shutdown		
Output overcurrent		V1/105% ~200% swing machine, long-term self-recovery. V2/ No requirement.		
Output short-circuit		Swing machine, long-term self-recovery		
Overtemperature protection		/		
Working environment	Operating temperature and	-10°C~50°C; 20%~90%RH No condensing		
	Store temperature and	-30°C~85°C; 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 electromagnetic compatibility standards	Safety standard	GB4943/EN60950 /EN62368    Refer to □ Certification		
	Leakage current	Primary side and secondary side ≤0.25mA		
	Insulation strength	Input-output :3KVac/10mA test time 1min		
	Insulation impedance	Input - Output: 100M ohms		
	Harmaonic current	EN61000-3-2,-3		
	Electromagnetic interference EMI	Conduction CE	EN55022 CLASSB; FCC PRAT15A margin of 3dB or above	
		Radiation RE	EN55022 CLASSB; FCC PRAT15A margin of 3dB or above	
	anti-interference EMS	Electrostatic	IEC61000-4-2: contact discharge ±6KV, air discharge ±8KV, criterion B	
		Surge	IEC61000-4-5: (differential mode 1KV, common mode 2KV, criterion B) Leve3	
		Fast pulse	IEC61000-4-4: level3, Criterion B (System)	
		DIPS	IEC61000-4-11: Criterion A	
		Conductive	IEC61000-4-6: Criterion A	
	other	Size (L * W * H)	53.6*58*24.6mm	

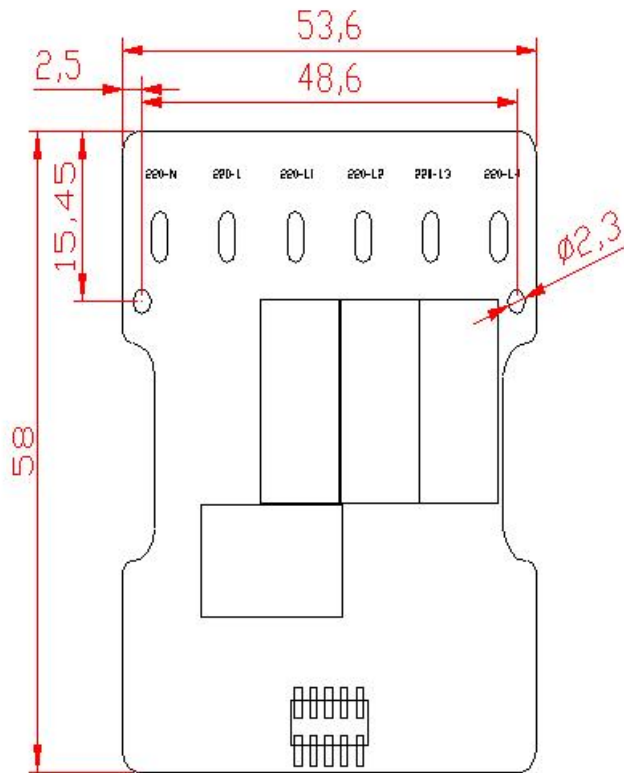


	Connecting terminal	Input: White wire *1, black wire *1; Output 210-2SMT-2*5P with positioning columns in double rows
	Cooling mode	Natural air cooling
Reliability	Design MTBF	200,000Hrs AT 25°C, MIL-217 Method 2 Components Stress Method
	Design electrolytic capacitor	3 years@ 40°C FULL Load and Units 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: In actual application, see the derating curve, positioning diagram, and installation mode description for details.	

**Model Code Description:****AFOU - 5 D X - 86PR0 X**

## Mechanical:

Unit: mm



### Ac input terminal definition:

Pin No.	Assignment
220-N	earth line
220-L	Firewire
220-L1	K1 Output fire line when working
220-L2	K2 Output fire line when working
220-L3	K3 Output fire line when working

### Defined DC output terminal J1:

Pin No.	Assignment
1、5	Output negative
2、3	+ 3.3V
4	+ 5V
6	S1 Signal input
7	S2 Signal input
8	S3 Signal input
9	S4 Signal input
10	ZX Signal input

## ■ 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.**