



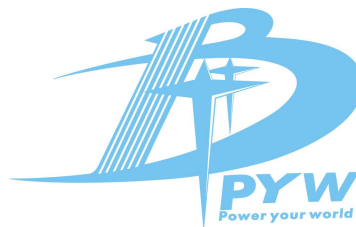
Specification

Project NO.	PYW000257-18033	Model.	AFCU-30D
Rev.	S01	Engineer.	Huang Tujun

Prepared		Date	
Checked		Date	
Approved		Date	

Change Reason and content:

Sign:



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■Feature :

- Global voltage input: 90 ~ 264Vac, 100 ~ 370Vdc
- Meet the safety design requirements
- Compact structure, easy installation, output terminal with protective cover
- Ultra-wide operating temperature range (-25°C ~ 70°C)
- Comprehensive protection: overload/short circuit/overvoltage
- Luxury electrolytic capacitor, high reliability, long life
- 2 years warranty

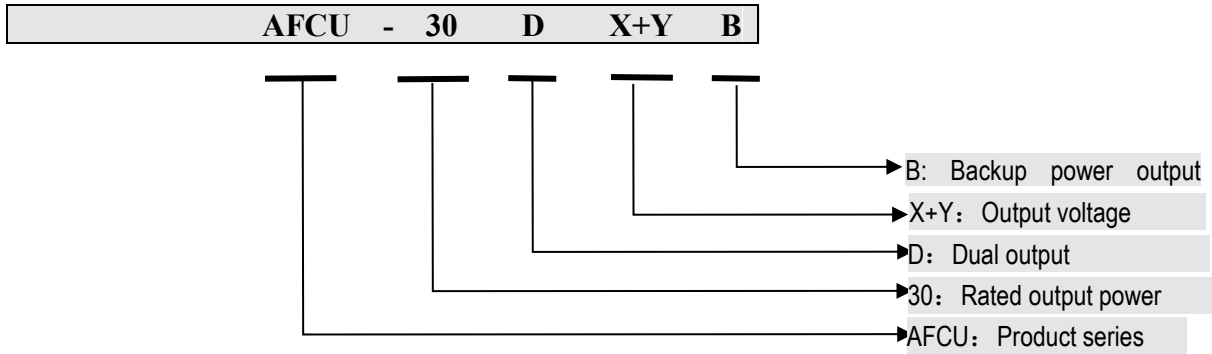


■Specifications

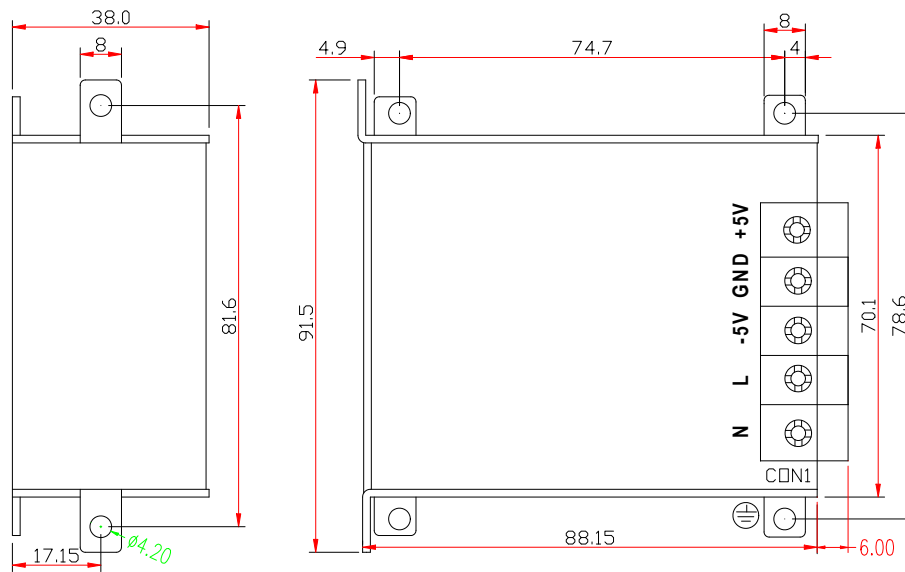
★ Picture for reference

Product name Note 1		AFCU-30D5-5		AFCU-30D5+12		AFCU-30D5+24		AFCU-30D12+12		AFCU-30D12+24	
exportation	Rated output	5V	-5V	5V	12V	5V	24V	12V	12V	12V	24V
	Settingrange(10%load)	5~5.05V	/	5~5.05V	/	5~5.05V	/	12~12.2	/	12~12.2	/
	Output current	0.3~4.0A	0.3~3.0A	0.3~4.0A	0.2~1.5A	0.3~3.0A	0.2~1.2A	0.3~3.0A	0.2~1.0A	0.3~3.0A	0.2~1.2
	Rated output	35W		38W		43.4W		48W		52.8W	
	Ripple noise note 2	<50 mV	<50 mV	<50 mV	<120	<50 mV	<120	<120	<120	<120	<120
	Output control	-5%~+5	/	-5%~+5%	/	-5%~+5	/	-5%~+5	/	-5%~+5	/
	Pressure	±2.0%	±5.0%	±2.0%	±8.0%	±2.0%	±8.0%	±2.0%	±5.0%	±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	90~264Vac/ 47~63Hz, 100~370Vdc									
	Rated input	100~240Vac / 47~63Hz, 100~370Vdc									
	Starting voltage	90Vac									
	Efficiency (typical)	81%		83%		84%		84%		85%	
	Input current	<1.2A									
	Starting impulse	<40A@264Vac Cold start									
Protection function	Output overpower	105%~150%									
	Output overvoltage	Constant pressure, self-recovery									
	Output overcurrent	105%~150%									
	Output	Swing machine, long-term self-recovery									
	Overtemperature	/									
Working environment	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 electromagnetic compatibility	Safety standard	GB4943/EN60950/EN62368 ■Certification □reference									
	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	Input - Output: 100M ohms Input - Earth: 100M ohms Output - Earth: 100M ohms									
	Harmonic wave	EN61000-3-2,-3									
	Electromagnetic	EN55022/EN55032/EN55024 Class A;									
	Electromagnetic	EN61000-4-2,3,4,5,6,8,11 A 类设备									
other	Size (L * W * H)	91.5mm×88.15mm×38mm									
	Connecting	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:



Mechanical:

Unit: mm / Contour tolerance ± 1.0


Ac input terminal definition:

Pin No.	Assignment	Terminal
N	Null line	5 Fence type terminal block with protective cover
L	Live line	
	Earth wire	Case grounding hole lock with yellow-green grounding cable to ground (#18 or above)

Dc output terminal definition:

Pin No.	Assignment	Terminal
+5V bit	V1 Output	9.5 Fence Type Terminal block with protective cover
GND bit	Ground terminal	
-5V bit	V2 Output	

■ 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.