Specification

Project NO.	PYW000257-18033	Model.	AFCU-75T18+12+13.8B
Rev.	S01	Engineer.	Huang Tujun

Prepared		Date	
Checked		Date	
Approved		Date	

Change Reason and content:
Sign:

DONGGUAN PYW ELECTRONICS TECH. CO.,LTD.

■Feature ：

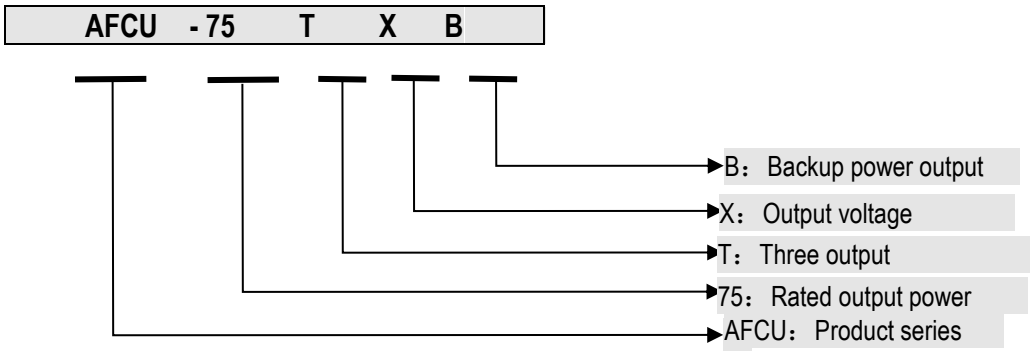
- Global voltage input: 90 ~ 264Vac, 100 ~ 370Vdc
- Meet the safety design requirements
- Compact structure, easy installation, output terminal with protective cover
- Ultra-wide operating temperature range (-25℃ ~ 70℃)
- Comprehensive protection: overload/short circuit/overvoltage
- Luxury electrolytic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

★ Picture for reference

■Specifications

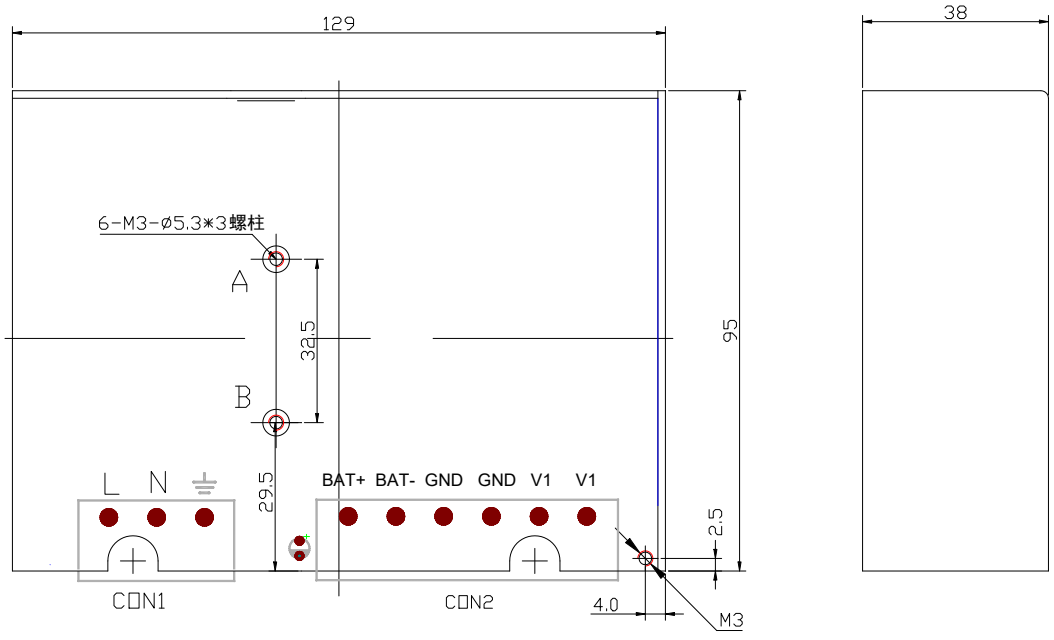
Product name Note 1		AFCU-75T18+12+13.8B		
exportation	Rated output voltage	V1	V2	BAT
		18V	12V	13.8V
	Rated output current	2.5A	21A	0.5A（恒流：0.4~0.65A）
	Rated output current range	0.1~2.5A	0.1~1.0A	0～0.5A
	Rated output power	42.9W		
	Ripple noise note 2	<120 mV	<120 mV	/
	Output light load setting	13.9-14.2V	/	/
	Voltage regulation accuracy	+5.0%/-3%	12.5V~14.5V	/
	Output start time	≤1S (230Vac input, Full load)		
	Output hold time	≥20mS(230Vac input, Full load)		
	Voltage overshoot	<5.0%		
	Dynamic characteristic	V1：10%-100%Load:<±350mV 10%-50%Load: <±200mV 50%-100%Load: <±200mV		
input	Input voltage range	90Vac~264Vac		
	Rated input voltage	100Vac~240Vac / 47Hz~63Hz		
	Starting voltage	90Vac		
	Efficiency (typical value)	76%		
	Input current (Max.)	<1.5A		
	Starting impulse current	<60A@230Vac Cold start		
Protection function	Input power failure protection	Ac input power failure, uninterrupted switch battery power supply; The AC input is restored, and the AC		
	Backup battery undervoltage	BAT:10.2±0.5V		
	Output overpower protection	**V1：3.5~6A**		
	Output overvoltage protection	V1: constant voltage, self-recovery		
	Output overcurrent protection	**V1:3.5~6A, swing, long-term self-recovery (V2 & BAT no-load)**		
	Output short-circuit protection	The output V2 is short-circuited. The other channels are normal		
Signal	On-board LED (S1)	Power module working indicator: working normally - green on; No AC input is available. - The indicator is off		
Working environment	Operating temperature and	-10℃~50℃; 20%~90%RH No condensing		
	Store temperature and	-25℃~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 standards	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 impedance	Input - Output: 100M ohms Input - Earth: 100M ohms Output - Earth: 100M ohms		
	Harmaonic current	EN61000-3-2,-3		
	Electromagnetic interference	EN55022/EN55032/EN55024 Class A；		
	Electromagnetic immunity 传	EN61000-4-2,3,4,5,6,8,11		
other	Size (L * W * H)	129mm×95mm×38mm		
	Connecting terminal	Input: 3961-3P middle foot removal; Output: 3961-6P pin holder		
	Cooling mode	Natural air cooling		
	Design MTBF	200,000Hrs AT 25℃, MIL-217 Method 2 Components Stress Method		
备注	Note 1: Unless otherwise specified, all parameters are tested after 15min in the oven at room temperature. Note 2: Ripple noise was measured using 12# twisted pair wires connected in parallel with 0.1uF and 10uF capacitors at 20MHz bandwidth. 3:. For details, see the derating curve, positioning diagram, and installation mode description. 4: V1 loses in mass production 出负载 2A，BAT 输出负载 0.2A 进行老化；V1 路输出容性负载 32000uF。			

■ Model Code Description:



■ 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.