



● **Features**

- ✓ Low profile,height:30mm
- ✓ Universal AC input range 90 ~264VAC
- ✓ -30~+70°C working temperature
- ✓ Short circuit/Over load/Over voltage/Over temperature
- ✓ Built-in active PFC function
- ✓ With remote on/off
- ✓ 3 years warranty

● **Product Application:**

Industrial control system,mechanical and electrical equipment, electronic instruments, industrial automation, etc.

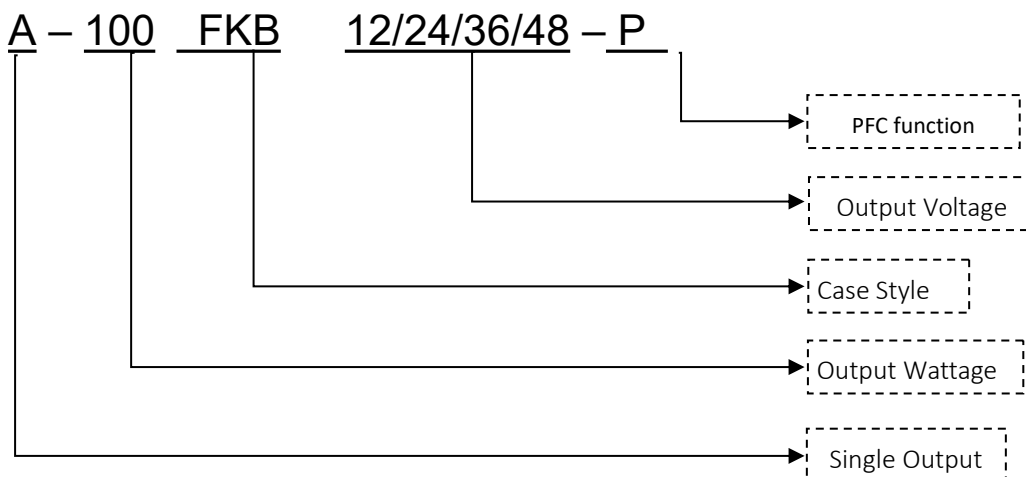
● **Standard:**

EN61000-4-2,3,4,5,6,8,11\GB17625.1\EN61000-3-2,-3\EN55032\GB4943\UL62368-1\IEC62368-1

● **Product Description**

A-100FKB-P series is a 100W output industrial control power supply. The voltage input range is 90~264VAC, and the output voltages are 12V, 24V, 36V, 48V, etc. It can be applied to industrial control systems, mechanical and electrical equipment, electronic instruments and meters, industrial automation, household appliances and other industrial fields. This series of products are designed with constant current limit, which is more suitable for inductive loads such as motors. Ultra high efficiency, compact shell design and good heat dissipation ensure that this series of products can work stably for a long time.

● **Product Name Breakdown**



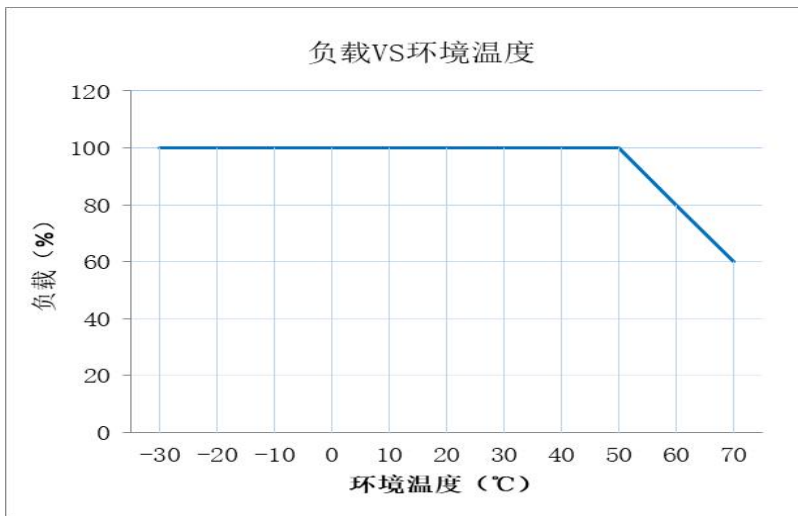
**● Electrical parameters**

Models		A-100FKB-12P	A-100FKB-24P	A-100FKB-36P	A-100FKB-48P
<b>Input</b>	Input Voltage range	90~264VAC			
	Input Current	230VAC/0.55A、115VAC/1.1A			
	Efficiency (Typ.) 220VAC, Full load)	≥86%	≥87%	≥87%	≥88%
	Frequency range	47~63HZ			
	Leakage current	≤2mA/240VAC			
	Inrush current	≤30A (@230VAC, phase angle 90°, cold start )			
	PF factor	PF≥0.93/230VAC PF≥0.98/115VAC , 100% load			
<b>Output</b>	DC Voltage	12V	24V	36V	48V
	Rated current	8.5A	4.2A	2.8A	2.1A
	Output Power	102W	100.8W	100.8W	100.8W
	Voltage adjust range	10.8~13.2V	21.6~26.4V	32.4~39V	43.2~52V
	Ripple and noise (pk-pk)	≤100mVp-p	≤150mVp-p	≤200mVp-p	≤250mVp-p
	Setup, rise time	2500ms, ≤30ms/220VAC, full load; 3000ms, ≤30ms/110VAC, full load			
	Hold up time	≥16ms/230VAC full load			
	Line regulation	±0.5%	±0.5%	±0.5%	±0.5%
	Load regulation	±1.0%	±1.0%	±1.0%	±1.0%
	Output Voltage Accuracy	±1.0%	±1.0%	±1.0%	±1.0%
	Temperature coefficient	0.03%/°C (AT = 0°C~Ta Maximum)			
<b>EMC</b>	Conducted Emission(EMC)	Design refer to: EN 55032			Class B
	Radiated Emission(EMI)	Design refer to: EN 55032			Class B
	Harmonic current	Design refer to: EN/IEC 61000-3-2			Class D
<b>EMI</b>	Radiated Susceptibility	Design refer to: EN/IEC 61000-4-3 80MHz~1000MHz 10V/m Criteria A			
	Conducted Susceptibility	Design refer to: EN/IEC 61000-4-6 0.15MHz~80MHz 10VRms Criteria A			
	ESD	Design refer to: EN/IEC 61000-4-2 Contact ±4KV, Air ±8KV; Criteria B			
	EFT	Design refer to: EN/IEC 61000-4-4 ±2KV 5KHz/100KHz Criteria B			
	Surge	Design refer to: EN/IEC 61000-4-5 line to line ±1KV line to ground ±2KV Criteria B			
	Voltage Dips	Design refer to: EN/IEC 61000-4-11 Dip to 70%UT last 500mS Criteria C Dip to 0%UT last 10mS Criteria B Dip to 0%UT last 20mS Criteria B Dip to 0%UT last 5000mS Criteria C			
<b>Safety</b>	Safety specification	Design refer to: GB4943/UL62368-1			
	Withstand voltage	I/P-O/P: 4KVAC/10mA; I/P-CASE: 2KVAC/10mA; O/P-CASE: 0.5KVAC/10mA Each testing time: 1min			
	Ground impedance	≤100mΩ 8V/40A test time: 1min			
	Insulation impedance	I/P-O/P: 100M ohms; I/P-Case: 100M ohms; O/P-Case: 100M ohms			
<b>Protections</b>	Over voltage	13.2-16.2V	26.4-32.4V	39.6-48.6V	52.8-64.8V
		Shut down output voltage; recovers automatically			
	Over load	105~135% rated Constant current, recovers automatically after fault condition removed			
	Over temperature	Shut down output voltage; recovers automatically after temperature decreases			
<b>Function</b>	Short circuit	Constant current limited, recovers automatically after fault condition removed			
	Remote on/off	CN1: <0~0.8VDC power on, 4~10VDC power off			
<b>Ambient requirements</b>	Working Temp&humidity	-30~70°C; 20%~95%RH non-condensing (Refer to Derating Curve)			
	Storage Temp&humidity	-40~80°C; 10%~95%RH non-condensing			
	Vibration	frequency range: 10~500Hz, 2G, 10min/1 cycle, 60min.each along X, Y, Z axes			
	Impact	20G, last 11mS, 3 impacts along X, y and Z axes			
	Altitude	≤5000mtrs			
<b>Reliability</b>	MTBF	Under 25°C: 100000Hrs, MIL-217 Method			
<b>Other requirements</b>	Size	179*99*30mm (L*W*H)			
	Package	N.W: 0.43Kg/pc, 24pcs/ctn			
	Cooling method	<input checked="" type="checkbox"/> free air convection <input type="checkbox"/> with fan			
	More options	<input type="checkbox"/> PCB double side conformal coating <input type="checkbox"/> low temp start (-40°C) <input type="checkbox"/> Other			

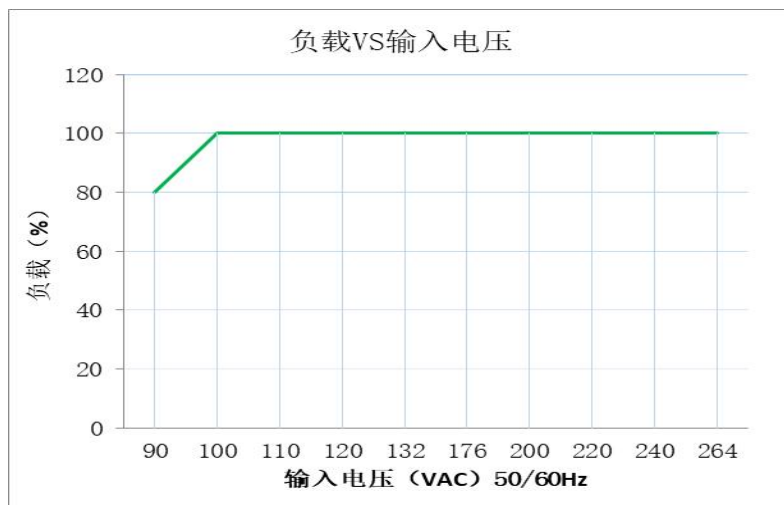
**Notes**

\*In order to extend the service life, it is recommended to leave 30% more allowance when loading. For example, if the equipment needs 100W power, please choose the power supply over 130W.  
 \*Ripple&noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.  
 \*All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.  
 \*The power supply is a part of the components of the equipment system, and it needs to be combined with the terminal equipment for EMC related test.

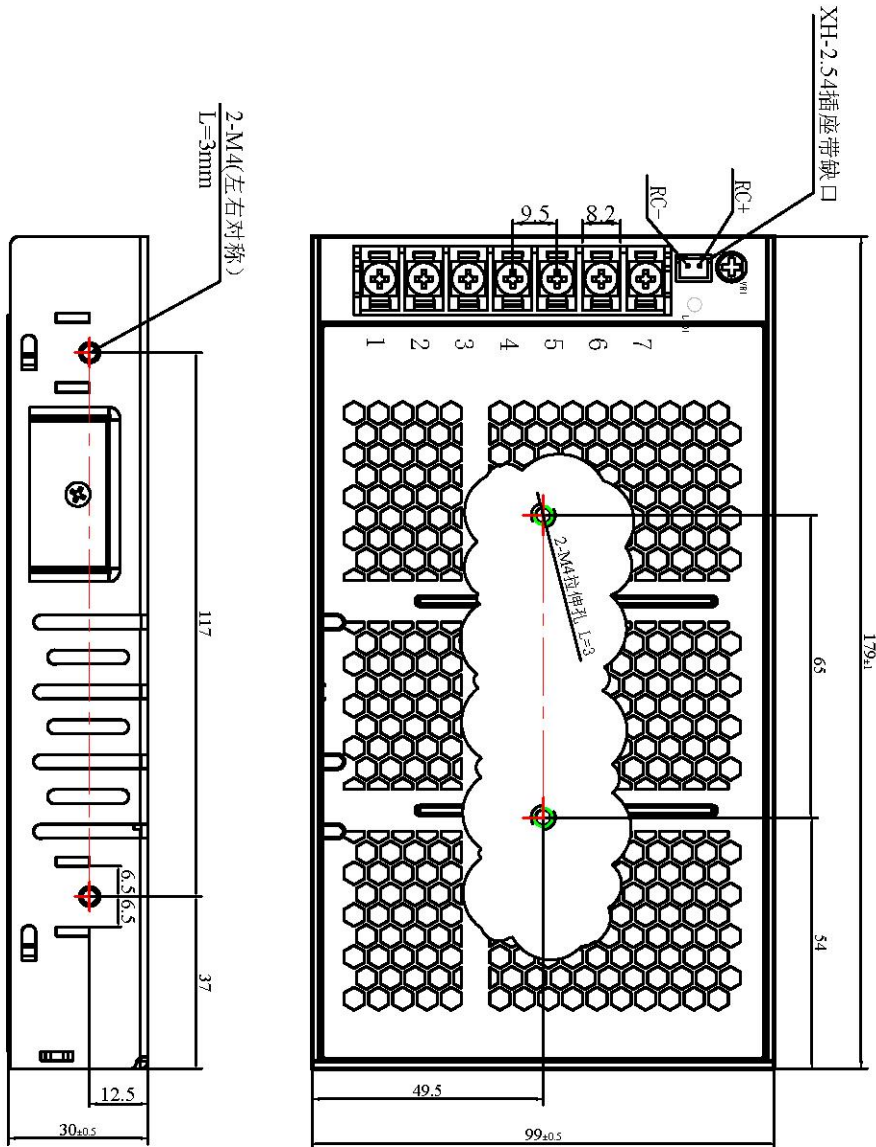
● **Load and Temperature curve**



● **Input voltage and Loading curve**



● Drawing



● Terminal description

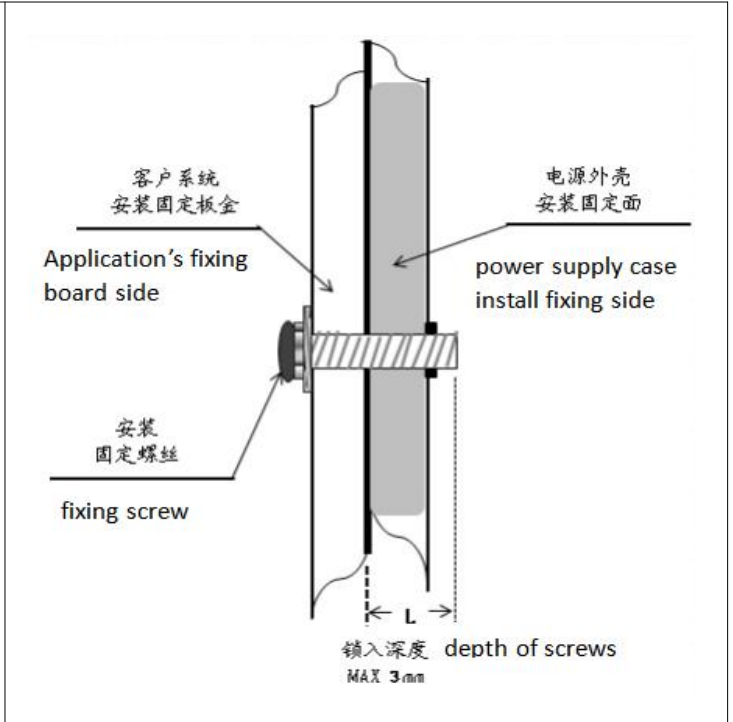
端子脚位定义

引脚编号	引脚功能
1	AC/L
2	AC/N
3	FG ⊕
4	DC OUTPUT -V
5	DC OUTPUT -V
6	DC OUTPUT +V
7	DC OUTPUT +V

● **Installation**

**Warning**

- Use mounting screws by M4\*6mm,
- Max depth of screws into housing is 3mm
- Max torque for the screw terminal: 8kgs
- Right picture with more details.



● **Instructions:**

- 1、 please follow the installation instructions when use the power supply。
- 2、 Before power on test run after installation, please check and proofread the wiring on each terminal, make sure that the input and output, AC and DC, positive and negative, voltage and current values are correct, prevent the occurrence of wrong connection, and avoid damaging the power supply and user equipment。
- 3、 Before power on, please use a multimeter to measure whether the live wire, zero wire and ground wire are short circuited, and whether the output terminal is short circuited; it is better to start without load when power on。
- 4、 Do not exceed the nominal value of the power supply when using, so as not to affect the reliability of the product. If you need to change the output parameters of the power supply, please consult our technical department before using。
- 5、 In order to ensure the safety of use and reduce interference, please ensure that the grounding terminal is reliably grounded (ground wire please thicker than AWG18#) 。
- 6、 If the power supply fails, please do not repair it without permission. Please contact our customer service department as soon as possible, customer service line: 86-519-85215050。

● **Transport、 storage:**

1、 Transport:

The package is suitable for shipping by automobiles, ships, airs, trains, etc. During transportation, it shall be rain proof,loaded and unloaded gently。

2、 Storage:

When the product is not in use, it shall be placed in the packing box. The storage environment temperature and relative humidity shall meet the requirements of the product. No corrosive gas or product in the warehouse, and no strong mechanical vibration, impact and strong magnetic field. The packing box shall be padded at least 20cm above the ground, and not be soaked. If the storage time is too long (more than 1 year), it shall be rechecked by professionals before use.

**Revision History**

<b>Rev.</b>	<b>Change Date</b>	<b>Description of Change</b>
V0		