



● **Features:**

- ✓ Miniature size and 30mm low profile
- ✓ Withstand 300VAC input surge for 5 second
- ✓ load power consumption<0.3W
- ✓ -30°C~+70°C working temperature(refer to derating curve)
- ✓ Protections: short circuit/overload/over voltage
- ✓ 100% full load burn-in test
- ✓ High efficiency, High reliability
- ✓ 2 years warranty

Application: Industrial control system, machinery and electrical equipment, electronic instruments, industrial automation, household appliances, etc.

● **Approval:**



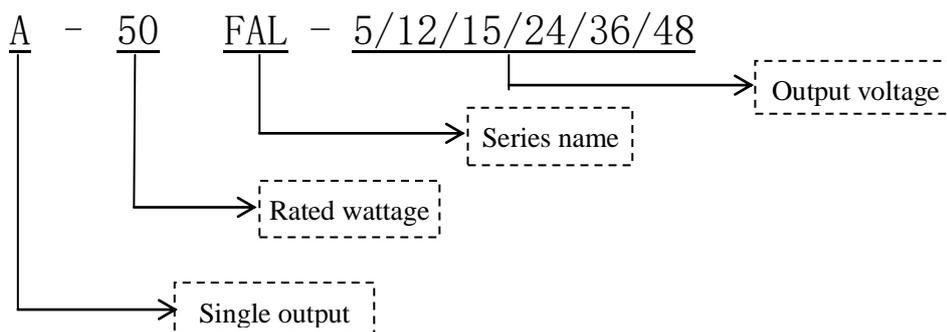
● **Standard:**

EN55024\EN61000-4-2, 3, 4, 5, 6, 8, 11\GB17625. 1\EN61000-3-2, -3\EN55022\GB4943\UL1012

● **Product Description:**

50FAL is single-output enclosed type power supply. Adopting the full range 90~264VAC input, the entire series provides an output voltage line of 5V, 12V, 24V, 36V and 48V. It can be applied to industrial control system, mechanical and electrical equipment, electronic instruments, industrial automation, household appliances and other industrial fields. This series of products is designed for low power consumption, with no-load power consumption less than 0.3W, which can make the terminal equipment system easily meet the requirements of international energy conservation and environmental protection. High efficiency, compact design and good heat dissipation ensure the long-term stable work of this series of products.

● **Model Encoding**

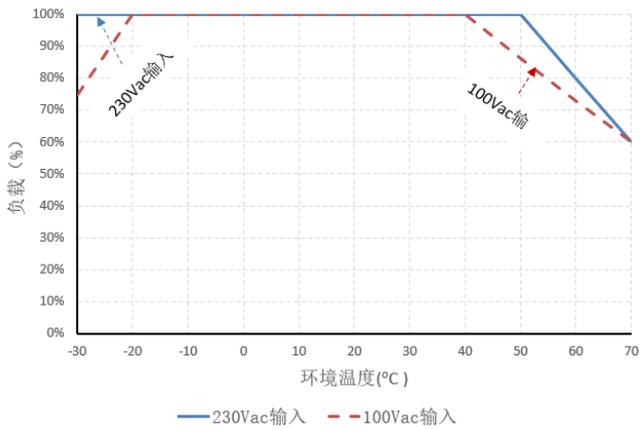


● SPECIFICATION

MODEL	A-50FAL-5	A-50FAL-12	A-50FAL-15	A-50FAL-24	A-50FAL-36	A-50FAL-48	
Input	Voltage range	90~264VAC					
	Input current	230VAC/0.8A					
		115VAC/1.6A					
	Efficiency	≥78%	≥86%	≥86%	≥88%	≥89%	≥90%
	Frequency range	47~63HZ					
	Leakage current	<3.5mA/240VAC					
Inrush current	50A/230VAC						
Output	DC voltage	5V	12V	15V	24V	36V	48V
	Rated current	10A	4.2A	3.4A	2.2A	1.45A	1.1A
	Power	50W	50.4W	51W	52.8W	52.2W	52.8W
	Voltage adj. range	4.5~5.5V	10.8~13.2V	13.5~16.5V	21.6~26.4V	32.4~39.6V	43.2~52.8V
	Ripple and noise	80mVp-p	120mVp-p	120mVp-p	150mVp-p	200mVp-p	200mVp-p
	Set up, rise time	1000ms, 30ms/230VAC 100%Loading					
	Hold up time	30ms/230VAC 100%Loading					
	Line regulation	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	Load regulation	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	Output Voltage Accuracy	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
EMC	EMS	Design refer to:EN55024 ;EN61000-4-2, 3, 4, 5, 6, 8, 11					
	Harmonic current	Design refer to:GB17625.1;EN61000-3-2, -3					
	EMC	Design refer to:EN55022, Class B					
Safety	Safety standard	Design refer to:GB4943/UL1012					
	Withstand voltage	I/P-O/P:3KVac/10mA; I/P-CASE:1.5KVac/10mA; O/P-CASE:0.5KVAC/10mA Each testing time:lmin					
	Isolation resistance	I/P-O/P: 100M ohms; I/P-Case:100M ohms; O/P-Case:100M ohms					
Protection	Over voltage	5.75~6.9V	13.8~16.2V	18.75~21.75V	28.8~33.6V	41.4~48.6V	55.2~64.8V
		shut down output voltage, re-power to recover					
	Over load	110~150% rated Hiccup mode, recovers automatically after fault condition is removed					
	Short circuit Hiccup mode, recovers automatically after fault condition is removed						
Environment	Working temperature and humidity	-30~70℃ 20%~95%RH no condensing (refer to derating curve)					
	Storage temperature and humidity	-30℃~80℃; 10%~95%RH no condensing					
	Vibration	Frequency range 10~500Hz, acceleration 5G, Each sweep cycle 10min. 6 sweep cycles along X, Y and Z axes					
	Shock	Acceleration 20G, Duration 11mS, 3 shocks along X, Y and Z axes					
	Altitude	2000mtrs (for every 100 m higher than 2000 m, the ambient temperature decreases by 0.6 ℃)					
Reliability	MTBF	25℃:50000Hrs, MIL-217 Method					
Others	Size	99*82*30 mm (L*W*H)					
	Packing	0.23Kg/piece, 60pcs/ctn, 16KG/ctn					
	Cooling mode	<input checked="" type="checkbox"/> Free air <input type="checkbox"/> Fan					
	Extension mode	<input checked="" type="checkbox"/> terminal cover <input type="checkbox"/> Low temperature start (-40℃) <input type="checkbox"/> Others					
Remarks	*In order to extend the lifetime, it is recommended to configure the load more than 30% of the remaining allowance. For example: the power of the device requires 100W, then use the power of not less than 130W. *Ripple test method: 20MHz oscilloscope in power output terminal test, oscilloscope probe wire length is not more than 12mm, and input parallel 47uF electrolytic capacitors and 0.1uF high frequency capacitance probe. *All electrical performance tests are performed at 25 C.						

● Derating Curve

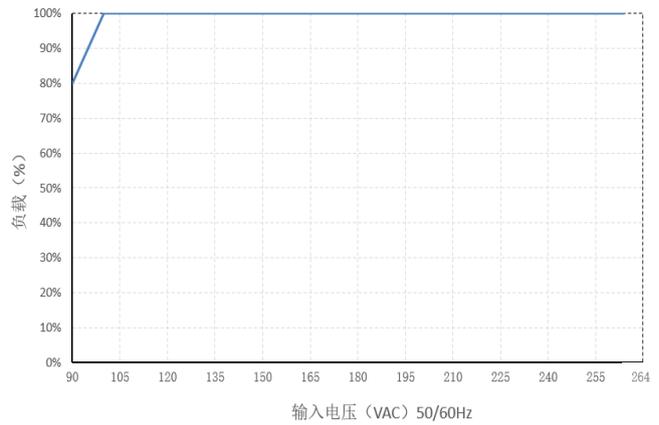
负载VS环境温度



Load VS Ambient Temperature

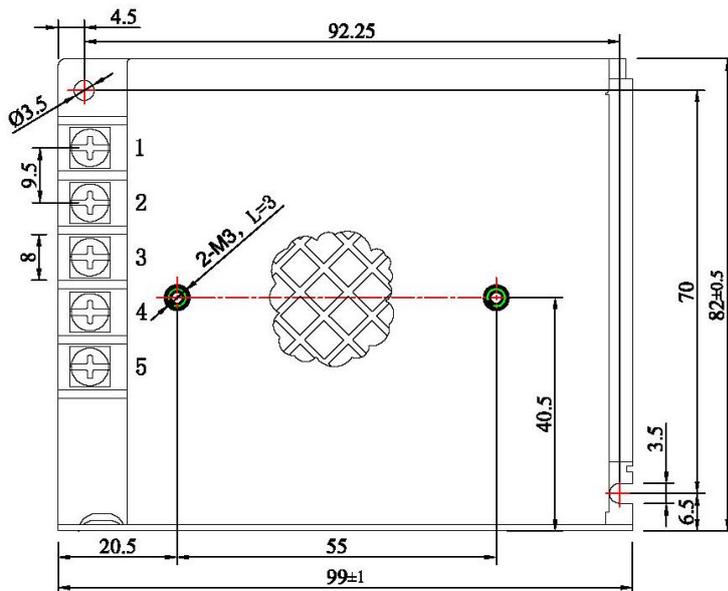
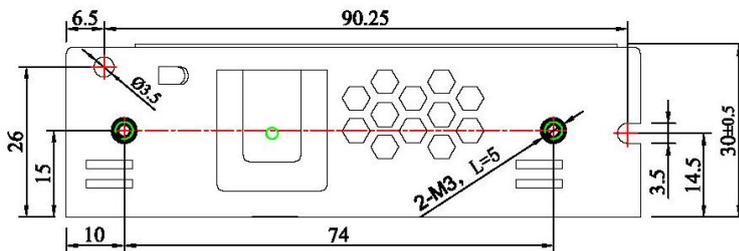
● Static Characteristics

负载VS输入电压



Load VS Input Voltage

● Mechanical Specification



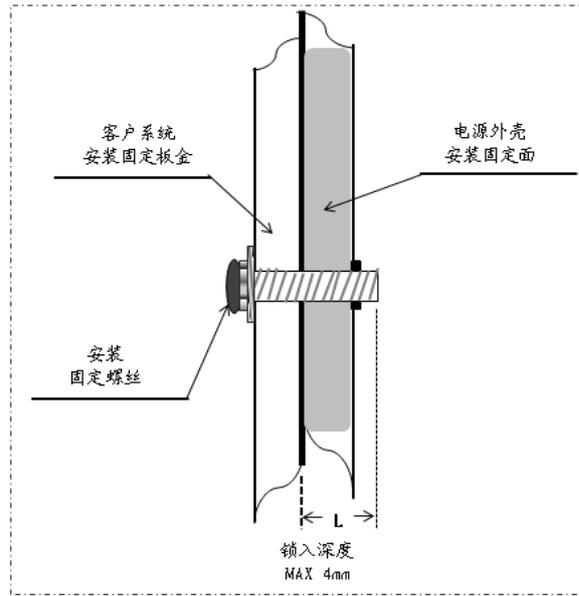
端子脚位定义

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

● Installation

Warning

- Using the mounting screws M3*6mm
- Deep housing screw depth Max 4mm
- As shown on the right



● Product installation and Instructions:

- 1、 When installing, please follow the mechanical size and installation method.
- 2、 Before commissioning, please check and proofread the connections on the terminals to make sure that the input and output, AC and DC, positive and negative poles, voltage and current values are correct, to prevent the occurrence of reverse connection errors and to avoid damage to power supply and user equipment.
- 3、 Please use the multimeter to measure whether the fire line, zero line and ground line are short-circuited and whether the output terminal is short-circuited before power is turned on.
- 4、 Do not exceed the nominal value of the power supply in use, so as to avoid affecting the reliability of the product. If you need to change the output parameters of the power supply, please consult the technical department of our company before using the power supply to ensure the effectiveness and reliability of the use.
- 5、 To ensure safety and reduce interference, ensure reliable grounding of grounding end (grounding wire>AWG18#).
- 6、 If the power supply fails, please do not repair it without authorization. Please contact our customer service department as soon as possible. Customer service line:86-519-85210050.

● Transport and storage:

1、 Transport:

This packing is suitable for transportation of automobiles, ships, airplanes and trains. It should be rainproof and handled civilly during transportation.

2、 Storage:

When the product is not in use, it should be placed in the packing box. The storage environment temperature and relative humidity should meet the requirements of the product. There should be no corrosive gas or products in the warehouse, and there should be no strong mechanical vibration, impact and strong magnetic field. Packing box should be at least 20 cm high from the ground, do not allow water immersion. If the storage time is too long (more than one year), it should be re-examined by professionals before it can be used.