TJD(SVC) Series

High-accuracy Automatic AC Voltage Stabilizer

Operation Instruction

Before installing and using the product,

please read the instruction carefully and well keep it for future reference.

Product Certificate This product has passed the inspection and meets the requirements of SB/T 10266 and JB/T 10089, and therefore is allowed to leave the factory.

> Inspector: Production date: See the product or packaging.

> > Huanyu Group Co., Ltd.

	Design document name											
	Product model and name	TJD(SVC) Se	eries High-accuracy Auto Voltage Stabilizer	Total of 6 pages	Page 1							
	Ove											
	manufactured according to the principle of automatic AC voltage stabilizers is designed manufactured according to the principle of automatic voltage regulation that widely used in world at present. The key components and elements are imported. This series of stabilize characterized by high voltage stabilization accuracy, small distortion of output waveform, s power consumption, small size and light weight, and can be widely used in computer roo laboratories, factories and other occasions to provide stable AC voltage for high-end elect equipment and electrical appliances requiring stable voltage. It can also provide 110 V st voltage for the imported electrical equipment. Compared with other AC voltage stabilize has a higher performance-price ratio, which is an ideal AC voltage stabilizer at present.											
	Model	nnical pa	Input voltage range	Rat	ed output voltage							
	TJD(SVC) -0.5k TJD(SVC) -1kV/ TJD(SVC) -1.5k TJD(SVC) -2kV/ TJD(SVC) -3kV/ TJD(SVC) -3kV/ TJD(SVC) -7.5k TJD(SVC) -7.5k	VA A VA A A A VA VA	140V-250V	220\)V/110V							
	TJD(SVC) -15k TJD(SVC) -20k TJD(SVC) -30k	VA VA VA	140V-250V	220\	220V							
	Prin ◆ This print and amplification control circuit. ◆ When the second	 Principle of Operation This product is mainly composed of a contact voltage regulator, sampling, comparison and amplification control circuits, and an executive motor. The whole circuit constitutes a closed control circuit. When the input voltage and load change, the output voltage is sampled by the sampling 										
Drawn by	circuit and corr	pared with the s	set reference, and the ar	mplified and	output signal	controls the						
Checked by Former outline drawing number	servo motor to adjusting the o	drive the carbo utput voltage to t	on brush rotating arm of he set rated voltage valu	f the voltage ue to ensure	e regulator to stable voltage	rotate, thus output.						

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Outline



Operation Instruction of the TJD(SVC) Series High-accuracy Automatic AC Voltage Stabilizer

Instruction

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Rev. No.

Signature Date

First, take the machine out of the packing box, properly keep the spare parts, and carefully read the Operation Instruction. Place the machine in a dry and ventilated place indoors, plug in the power plug or connect the wires according to the labels on the machine. After checking properly, turn on the power switch of the machine, and once the machine works, observe the output voltmeter indication. When it indicates 220 V correctly, turn on the electrical equipment so that the machine can automatically adjust the voltage and supply power normally. When the input voltage or load changes, the servo motor in the machine will automatically rotate to adjust the output voltage, and the rotating sound is normal. ◆ After use, turn off the power switch of the electrical equipment first, and then turn off the power switch of the voltage stabilizer. Please do not use the power switch of the voltage stabilizer as the switch of all electrical appliances. • This voltage stabilizer adopts a fuse or an automatic air switch as the overload or short circuit protection. Before starting, check whether it is in good condition. This voltage stabilizer shall not be used for a long time under overload conditions. See the table below for the time limits of different overloads. Overload (%) Time (min) not allowed to exceed 20 60 40 30 60 5 When this voltage stabilizer is used in areas where the grid voltage is generally low, it shall be noted that the effective capacity used shall be reduced proportionally. The relationship is shown in the figure below: Output capacity curve P₂ P₂—Output capacity; 100% Output singlephase 220 V U₁—Input voltage; Output three-U_x—Lower limit of allowable phase 380 V input voltage range; 50% Output single-phase Us-Upper limit of allowable 110 V and 220 V input voltage range. 35% Capacity curve ► U1 Ux single-phase 160 V 198V 220V Us: 250V Ux three-phase 280 V Us:430V 342V 380V Wiring Diagrams: Drawn by œ Ð (B) (\mathfrak{S}) (ϵ) £ Ð Checked by Former outline drawing number N 110V 220V N Outline Output Output Input drawing number TJD-(2-3)kVA Signature Date



Operation Instruction of the TJD(SVC) Series High-accuracy Automatic AC Voltage Stabilizer

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Outline dimensions:

Model & Specification	Outl	Figure		
Model & Specification	В	D	Е	number
TJD(SVC) -0.5kVA	190	170	145	
TJD(SVC) -1kVA	210	200	160	Figure 1
TJD(SVC) -1.5kVA	210	200	160	
TJD(SVC) -2kVA	235	310	235	
TJD(SVC) -3kVA	230	330	245	
TJD(SVC) -5kVA	225	380	285	Figure 2
TJD(SVC) -7.5kVA	225	380	285	
TJD(SVC) -10kVA desktop	240	440	370	
TJD(SVC) -10kVA cabinet	315	345	555	Figure 3
TJD(SVC) -15kVA	380	450	745	
TJD(SVC) -20kVA	380	450	745	Figure 4
TJD(SVC) -30kVA	430	490	880	

Notes

The voltage stabilizer shall be placed in an environment free of corrosive gas, steam, conductive dust, explosive substances, severe vibration or impact.

The voltage stabilizer shall be protected from the sun and rain.

The voltage stabilizer cannot be used in parallel.

◆ When wiring the voltage stabilizer, please equip the connecting conductor with sufficient current capacity according to the rated power. The cross-section area of the conductor is selected as follows:

0.5kVA, 1kVA, 1.5kVA: 1mm ²	2kVA: 2mm ²	3kVA: 2.5mm ²
5kVA: 4mm ²	7.5kVA: 6mm ²	10kVA: 10mm ²
15kVA, 20kVA: 16mm ²	30kVA: 25mm ²	

◆ The enclosure of this machine is equipped with a grounding device. The grounding device shall be reliably connected to the ground. Arbitrary removal of the grounding wire or no grounding is not allowed.

◆ Keep the internal cleanliness of the machine. As the dust hinders the rotation of the gear or reduces the conductivity, which affects the normal work of the machine, it is required to clean and keep the contact surface between the carbon brush and the coil clean in time.

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When the voltage stabilizer loses its automatic control function, it shall stop using electricity, and check whether there is any fault in the microswitch, control circuit board and motor gear in the machine. It can be used again only after the fault is eliminated.

The voltage stabilizer has inductive load, and the rated power of the voltage stabilizer used is more than three times of the electric power.

When the output terminal adopts 110 V voltage, the actual capacity of the voltage stabilizer shall be within 50% of its normal rated capacity.

It is not suitable for the occasions with frequent changes of power grid and impact load.

After using for a period of time, if the output voltage is too high/low, the users are required to adjust the adjustable (w1) potentiometer in the control circuit board by themselves. Turn clockwise to increase the output voltage, and turn counterclockwise to decrease the output voltage.

The rated current value of the fuse and air switch cannot be replaced freely.

The use environment is dry and ventilated, and the inflammable and explosive articles are prohibited to be stacked around.

Maintenance Guide

	Fa	ult			С	Cause analysis						Solution							
	1. ⊺ wh	1. The voltmeter has no readings when starting up.					 The plug is not inserted firmly, and there is no output voltage. The fuse is broken. 						 Check the power socket and make sure the plug is firmly inserted. Replace with the standby fuse that meets the requirements. 						
	2. After startup, the motor in the voltage stabilizer does not work, and the output voltage is unstable.					The carbon brush is at the lowest position of the coil, and the soft start is abnormal when the input voltage is too low.						Turn off the machine, turn the carbon brush to the middle of the coil with a small screwdriver, and then turn on the machine.							
Drawn by Checked by Former outline drawing number	3. The output voltmeter has abnormal readings.					The vo The inț gh/low, o regula arbon bi osition.	Itmeter out volta and the ting fur rush is i	is brok age is t e mach action v in the li	ten. too ine has vhen th mit	e 2 h ti	 Measure with a multimeter and replace it with a new on after confirming that the volt is normal. When the input voltage is high/low, turn off the machin time to avoid damaging the electrical equipment. 								
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Date															<u> </u>				
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