

TJD(SVC)

Series High-accuracy Automatic AC Voltage Stabilizer

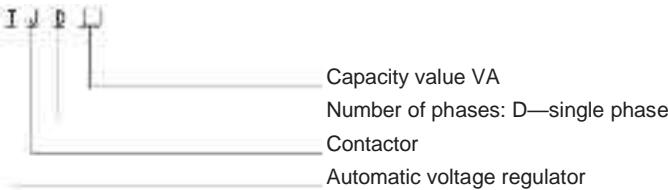


I. Scope of Application

This series of high-accuracy automatic AC voltage stabilizers is designed and manufactured according to the principle of automatic voltage regulation that widely used in the world at present. The key components and elements are imported. This series of stabilizers is characterized by high voltage stabilization accuracy, small distortion of output waveform, small power consumption, small size and light weight, and can be widely used in computer rooms, laboratories, factories and other occasions to provide stable AC voltage for high-end electrical equipment and electrical appliances requiring stable voltage. It can also provide 110 V stable voltage for the imported electrical equipment. Compared with other AC voltage stabilizers, it has a higher performance-price ratio, which is an ideal AC voltage stabilizer at present.

This series of products complies with the requirements of SB/T 10266 and JB/T 10089.

II. Model Description



III. Main Technical Parameters

Model	Input voltage range	Rated output voltage
TJD(SVC)-0.5kVA	140V-250V	220V/110V
TJD(SVC)-1kVA		
TJD(SVC)-1.5kVA		
TJD(SVC)-2kVA		
TJD(SVC)-3kVA		
TJD(SVC)-5kVA		
TJD(SVC)-7.5kVA		
TJD(SVC)-10kVA		
TJD(SVC)-15kVA	140V-250V	220V
TJD(SVC)-20kVA		
TJD(SVC)-30kVA		

IV. Performance Indicators

Voltage stabilization accuracy	±3%
Frequency	50Hz-60Hz
Speed of voltage regulation	>10V/s
Ambient temperature	-5°C~+10°C
Winding temperature rise	<80°C (under full load)
Relative humidity	<90% (at 25°C)
Waveform distortion	<1%
Efficiency	>90%
Withstand voltage	1,500 V/min without breakdown
Protection performance	When the output voltage is 246 V±4 V, the circuit board protection unit shall act, and the execution unit will cut off the output or input. (TJD (SVC)-0.5 kVA, 1 kVA, 1.5 kVA, 2 kVA, 3 kVA, 5 kVA and 7.5 kVA have no protection function.)

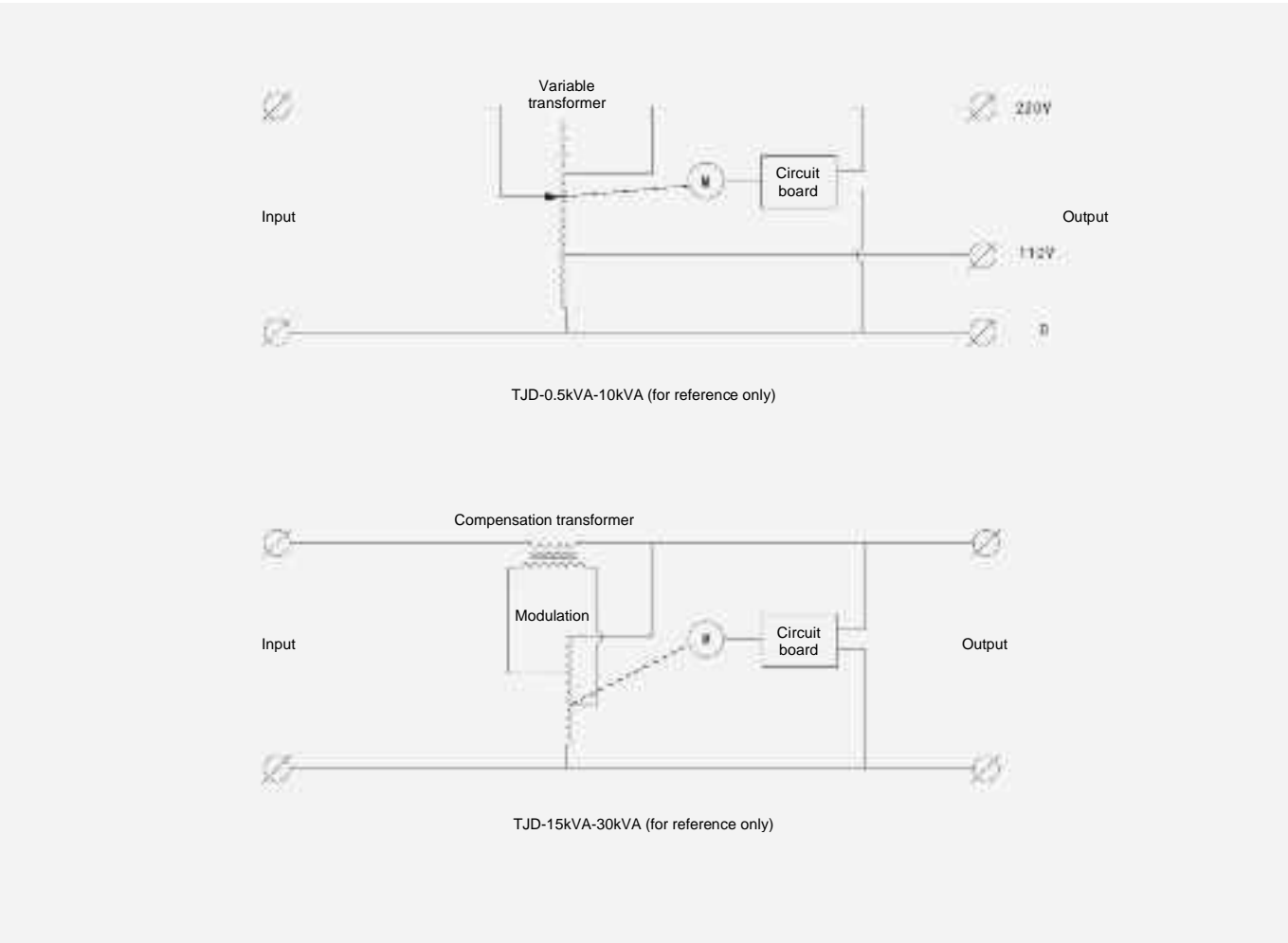
TJD(SVC)

Series High-accuracy Automatic AC Voltage Stabilizer

V. 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 loop.

When the input voltage and load change, the output voltage is sampled by the sampling circuit and compared with the set reference, and the amplified and output signal controls the servo motor to drive the carbon brush rotating arm of the voltage regulator to rotate, thus adjusting the output voltage to the set rated voltage value to ensure stable voltage output.



VI. 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. 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.

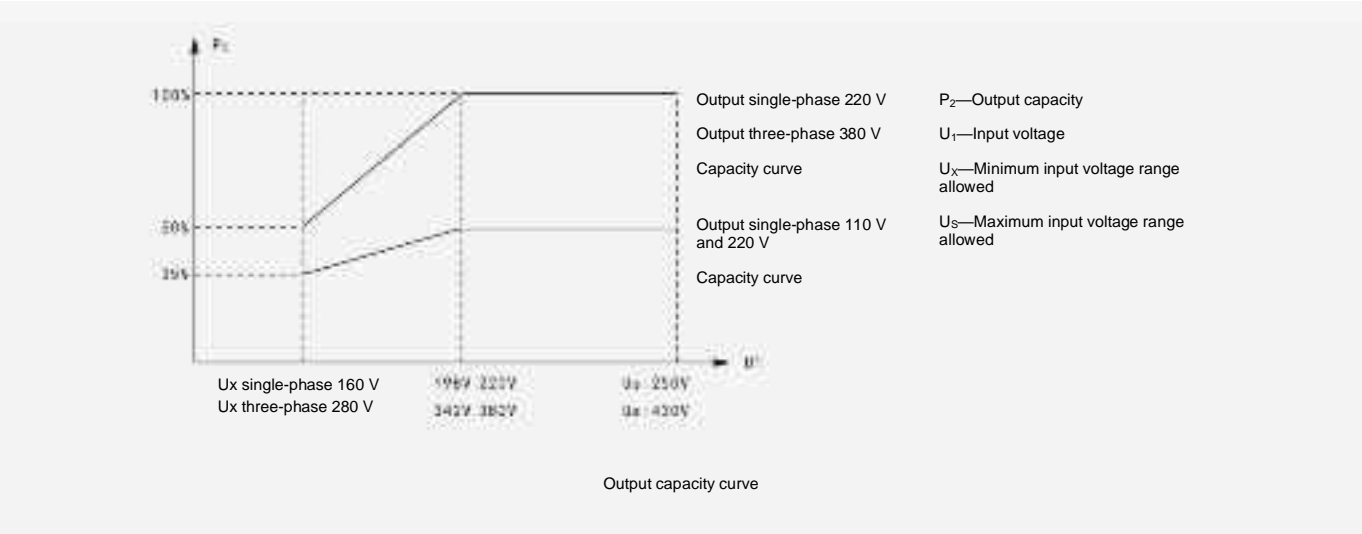
This voltage stabilizer shall not be used for a long time under overload conditions. See the table below for the time limits of different overloads.

Overload (%)	Time (min) not allowed to exceed
20	60
40	30
60	5

TJD(SVC)

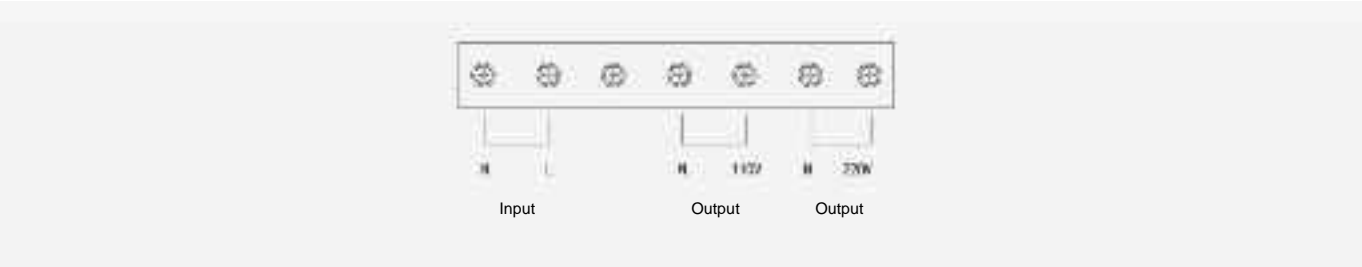
Series High-accuracy Automatic AC Voltage Stabilizer

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:

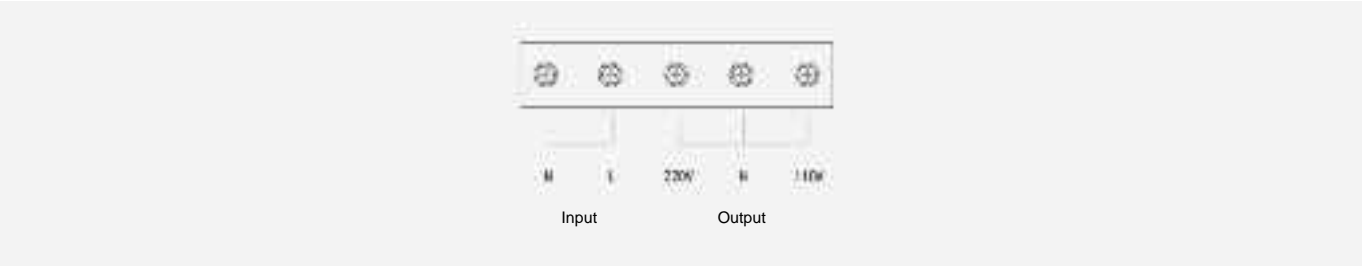


VII. Wiring Diagrams

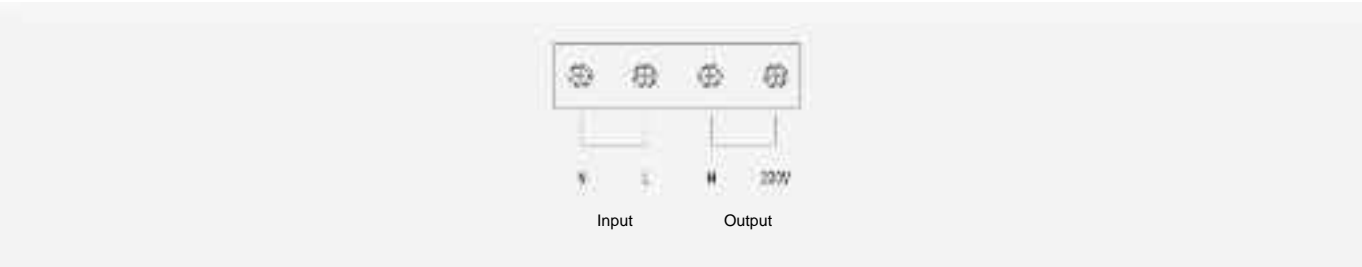
TJD-(2-3) kVA Wiring Diagram



TJD-(5-10) kVA Wiring Diagram



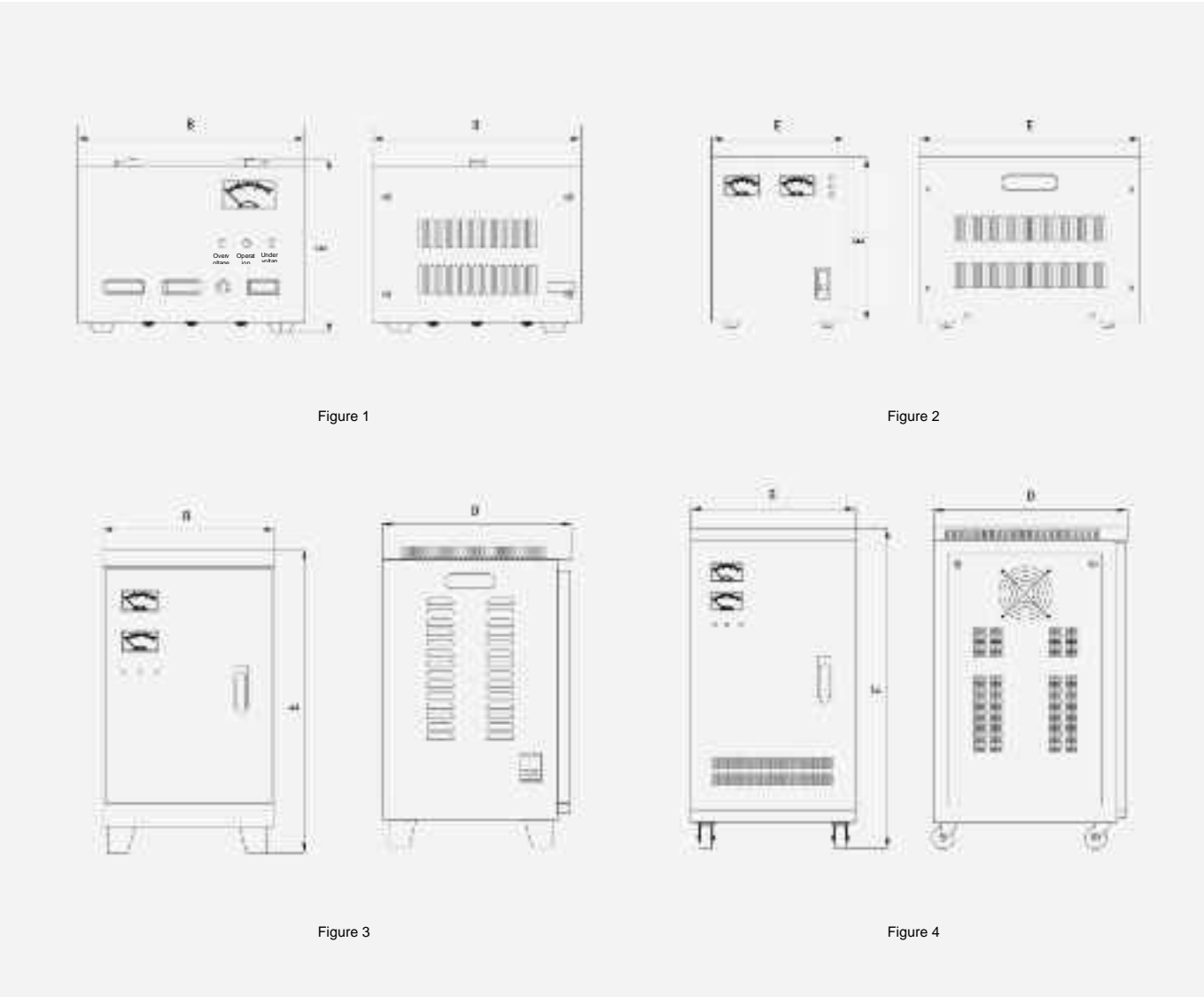
TJD-(15-30) kVA Wiring Diagram



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VIII. Outline and Installation Dimension Diagrams



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