Product Overview

SVC (TND, TNS) series high-precision automatic AC voltage regulator is composed of contact autotransformer, servo motor, automatic control circuit, etc. When the grid voltage is unstable or the load changes, the automatic control circuit drives the servo motor according to the change of the output voltage, adjusts the position of the carbon brush on the contact autotransformer and adjusts the output voltage to the rated value, the output voltage is stable, reliable, high efficiency and can work continuously for a long time. Especially in the grid voltage fluctuation or grid voltage seasonal changes in the region using this machine can get satisfactory results. It is suitable for instruments, meters, household appliances and other kinds of loads to work normally.

Product conforms to: JB/T8749.7 standard.

Selection Guide

SVC(TND)	0.5	kVA
Model	Rated	Capacity
SVC (TND): Single-phase SVC (TNS): Three-phase	0.5, 1 ... 100kVA	kVA

Features and scope of application

It can be widely used in production, scientific research, medical and health care, as well as in air conditioning, refrigerators and other household appliances, and is a kind of AC voltage stabilizer with ideal performance and price.

Normal operating conditions and installation conditions

- Ambient temperature: -5 to +40°C;
- Relative humidity: not more than 90% (at 25°C);
- Altitude: ≤ 2000m;
- Working environment: indoor without chemical deposits, dirt, harmful erosive media and flammable and explosive gases; continuous operation.

Key technical data

The main technical specifications are shown in Table 1

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Input voltage	160~250V	280~430V
range	220V±2.5%	380±3%
Output	246±4V	426±7V
voltage	<1 sec (at 7.5V input voltage	
Overvoltage	change) 50Hz	
protection	1500V at 50Hz sine AC for 1min in cold condition	
Load power factor	0.8	
Efficiency	Greater	

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Note: 1. The technical specifications of each machine refer to those shown on the housing, single-phase 0.5 to 3 kVA with 110V ± 3% output voltage;

2、Input voltage beyond the above range, and special technical specifications can be specially ordered.

Output capacity curve; see Figure 1

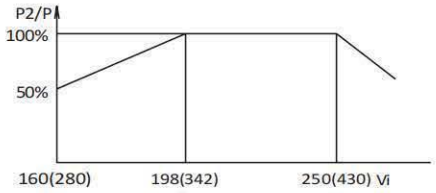


Figure 1

Fig. (1) Output capacity curve Vi input voltage P2 output capacity P rated output capacity

Electrical schematics

- The electrical schematic of the 0.5kVA to 1.5kVA high precision full自 motion AC regulator is shown in Figure 2;
- The electrical schematic for the SVC-5kVA and above is shown in Figure 3;
- The electrical schematic of the single-phase voltage regulator is shown in Figure 4;
- The electrical schematic of the three-phase voltage regulator is shown in Figure 5.

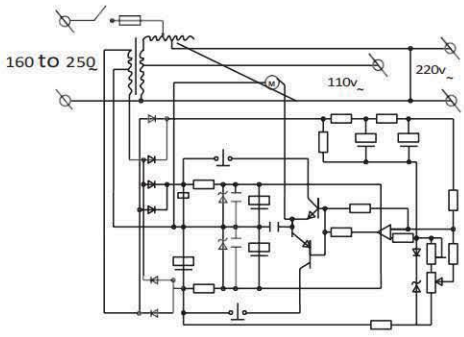


Fig. 2

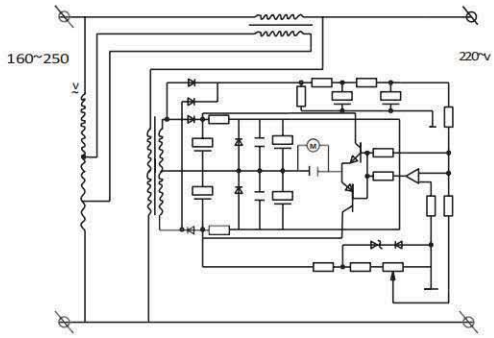


Figure 3

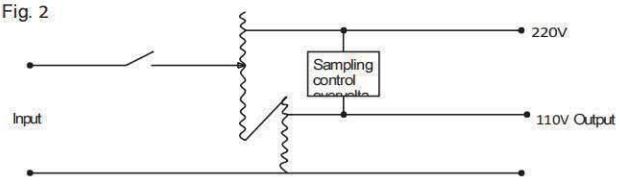


Figure 4

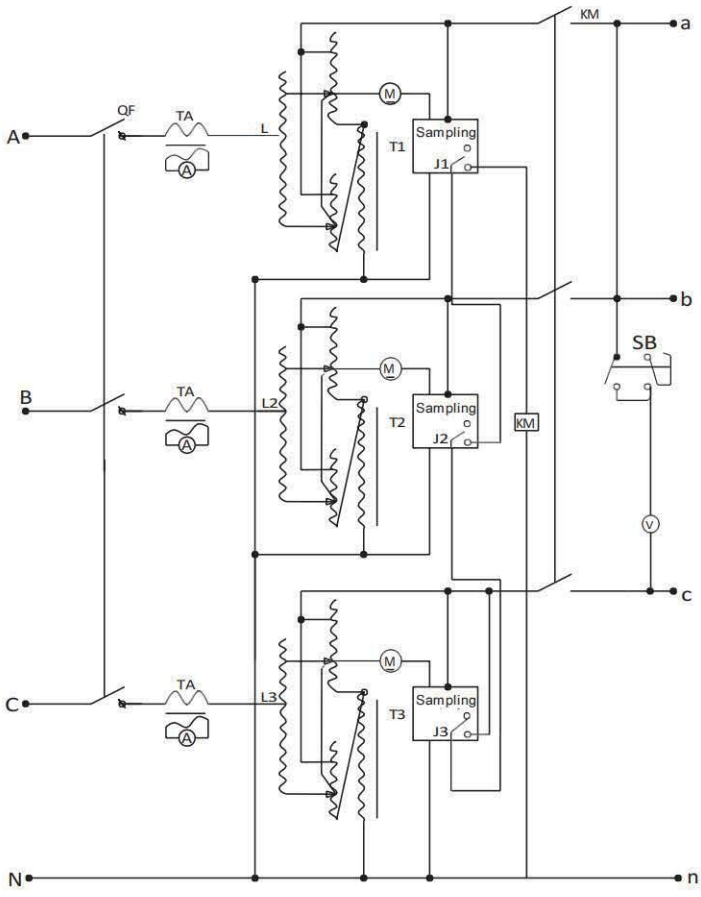
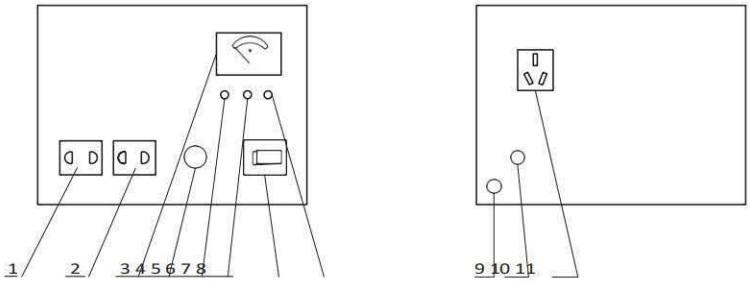


Figure 5

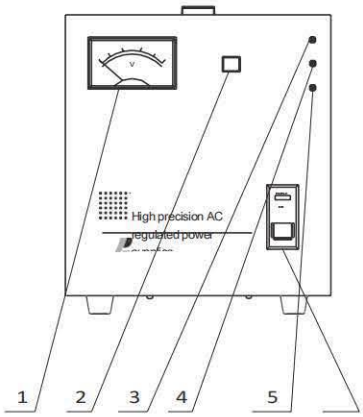
Outline drawing

SVC-0.5kVA~1.5kVA high precision full-motion AC voltage stabilizer:

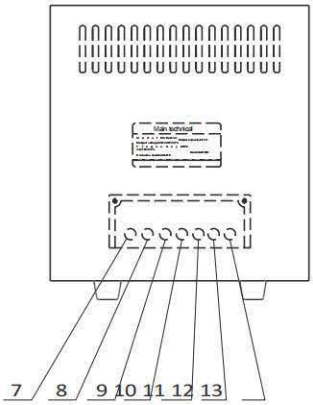


1. Output 2 socket (220V)
2. Output 2 socket (110V)
3. Voltmeter (output voltage)
4. Fuseholders (FU)
5. Working light (green)
6. Undervoltage indicator (yellow)
7. Power switch
8. Overvoltage indicator (red)
9. Grounding
10. Input power cable
11. Output three sockets (220V)

SVC-2kVA~3kVA high precision full自 dynamic AC voltage regulator:



1. Voltmeter
2. Voltage measurement button
3. Overvoltage indicator (red)
4. Working light (green)
5. Undervoltage indicator (yellow)
6. Power switch
7. Grounding



8. Input phase line } 110V
9. Input zero line } 220V
10. Output phase line
11. Output zero line
12. Output phase line
13. Output zero line

Note: Wiring, single-phase SVC-2kVA~5kVA, should unscrew the wiring screws fixed at the back of the base plate, using the bare wire

part of the cross-sectional area of the conductive flow of the wire in line with the needs of the load, the top of the wire stripped bare wire part according to the wiring diagram correspondingly pressed into the full, and fastened, strictly forbidden to loosen the front row of the terminal board fixed internal wire screws and the use of wire does not meet the actual capacity.

Product dimensions are shown in Figure 6, Table 3

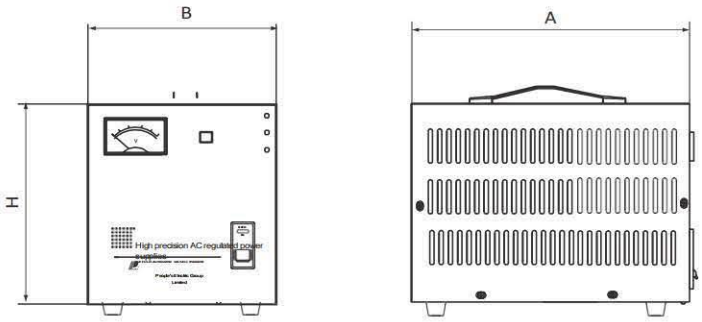


Figure 6

Table 3

Mod	Cap	External
SVC	0.5kVA	19x18x15
	1kVA	22x22x16
	1.5kVA	22x22x16
	2kVA	27x24x21
	3kVA	24x30x23
	5kVA	22x36x28
	7kVA	25x41x36
	10kVA (Horizontal)	25x41x36
		32x35x57
	15kVA	35x39x66
	20kVA	35x39x66
	30kVA	50x50x96
SVC (three-	1.5kVA	49x35x17
	3kVA	49x35x17
	4.5kVA	49x35x17
	6kVA	28x33x68
	9kVA	33x33x76
	15kVA	37x43x82
	20kVA	37x43x82
	30kVA	41x46x95
	50kVA	56x60x130
	60kVA	50x60x130
	100kVA	66x50x129