

**AVR、 SVC – Series**

**AUTOMATIC VOLTAGE REGULATOR  
INSTRUCTION MANUAL**

**Please do read the Instruction Manual carefully before using.**

## 1、 AVR、 SVC summary

AVR、 SVC series full-automatic high precision AC stabilizer is composed of automatic coupling regulator, automatic control circuit, servomotor and so on. When there is change either input voltage or load, The sampling circuit the rated norm. The output signal controls the servo-motor to regulate the voltage to the designated voltage value.

It has the characteristic of no waveform distortion, compact size, small power consumption, light weight. it can be widely. As we know, when the voltage is high, it will damage the electrical appliance. on the other hand, when the voltage is low, it is difficult to start to work for appliance. And it's ideal in providing stabilized voltage for high class electrical appliance. Compared with other AC stabilizers, the unit has a better performance price ratio.

## 2、 Technical parameters

### (1) AVR,SVC series high precision single phase AC stabilizer

1. Please refer to the picture (2) to get the theory of 500VA~3000VA automatic high performance AC stabilizer. when you choose the output 110V, then the output capacity is no more than 40% of rated capacity. when the output(110V) and output(220V) are working together, the total capacity is no more than 50% of rated capacity to preventing overloading.

2. Pls refer to the picture 1 to get the relation between input voltage and output capacity, please pay attention on overloading problem. don't make the goods in overloading condition for a long time.

## 5、 maintenance instruction

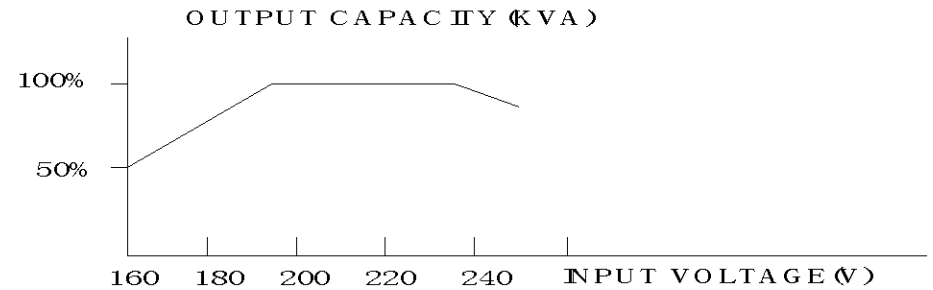
Trouble encountered	Possible cause	Trouble-shooting
Voltmeter does not Read when the unit starts	1.incomplete plugging on socket 2.fuse protector broken down	1.check up power socket to secure complete plugging 2.replace with new fuse conforming to standard
The voltage does not Initiate after power Switched on. output Voltage becomes lower	The carbon brush is on the Lowest reach of coil, so when The input voltage is too low, The soft start will not working Properly	Power off. using a small Screwdriver to edge carbon Brush to the middle of coil Restart the unit
Output voltage Reads abnormally	1.voltmeter broken down 2.input voltage too high or too Low, and the carbon brush is on the lower reach of coil, the regulation of the unit stops to function	1.replace the voltmeter after measuring and get the normal result 2.the unit should be powered off if excessive high or low voltage are detected to prevent your appliance from damaging

- 6. turn off the stabilizer and the appliance in time when it come across some error(including less phase)
- 7. it should obey the table 2 with low power when the local voltage is lower than 9KVA.
- 8. it unnecessary to obey the table 2 when the capacity is more than 15KVA, but is also limited by the table 1 with loading condition.

#### 4、 matters need attention

- 1. it must contact with ground firmly ,like this can ensure safe.
- 2. task of installing, such as repairing, debugging, must operate by expert avoiding accident to happen and damage the goods.
- 3. the product should install in environment that is good airing, far way heat Producer ,no rust ,no flammable gas ,and no explosion hazard gases .
- 4. when it is working, emitting some heat is normal phenomenon, unnecessary to cover our product by plastics dust guard or others. like this avoid normal state ,not bring out the loss.
- 5. serve regulator voltage would adjust voltage when outer voltage is fluctuating ,then ,it sound lightly and fitfully is normal appearance.
- 6. it necessary to clean dust inner trimly ,keep the gear ,brush, surface of wire cleaning ,after works for a long time ,carbon brush is faired ,then, response pressure between carbon brush with wire ,keeping connect well ,avoiding arc-over.

Please consult The table 1 to get the information.



OVERLOAD ABILITY (%)	TIME CAN NOT BE SURPASSED (MINUTE)
20	60
40	32
60	5

characteristic of compensated structure: it can output full power within rated range and it unnecessary to obey the picture 1. But it is limited by picture 1 when it is overloading, a long time overloading is not accepted.

#### (2) SVC, AVR series 3 phase high precision full automatic voltage stabilizer

<b>Input voltage</b>	<b>Single phase 140~260v</b>
<b>Output voltage</b>	<b>Single phase 220v +/-3%</b>
<b>Frequency</b>	<b>50HZ~60HZ</b>
<b>Voltage regulating speed</b>	<b>&gt;10v/s</b>
<b>Temperature</b>	<b>-5~+40C</b>
<b>Comparative humidity</b>	<b>&lt;90%</b>
<b>Wave distortion</b>	<b>&lt;1.0%</b>
<b>Efficiency</b>	<b>&gt;95%</b>
<b>Winding temperature rise</b>	<b>&lt;60c</b>
<b>Power factor</b>	<b>&gt;0.9</b>

**1. SVC,AVR three-phase high precision full automatic AC voltage stabilizer series ,it is combined the performance of series SVC single-phase products, the input phase system is three-phase and four-wires system,the output power also three-phase four wires with three electric meters to separately indicate three-phase ,and shift switch And voltage meter to shifting and surveying each phase.**

**As the lager power(more than 9KVA) is combined of small power supply(less than 3KVA),so it's characteristic of outputting must obey the picture's showing.**

**2. SVC,AVR series high precision full automatic AC voltage stabilizer which less than 15KVA are made up of small power supply as well. But the small power is compensated. So it's not limited by the picture. When the stabilizer is overloading ,it is obeyed by the pictures as well.**

**3. Please refer to the table 3 to get technical data about 3P AVR,SVC.**

<b>Input voltage</b>	<b>three phase 250~450v</b>
<b>Output voltage</b>	<b>three phase 380v+/-3%</b>
<b>Frequency</b>	<b>50HZ~60HZ</b>
<b>Voltage regulating speed</b>	<b>&gt;10v/s</b>
<b>Temperature</b>	<b>-5~+40C</b>
<b>Comparative humidity</b>	<b>&lt;90%</b>
<b>Wave distortion</b>	<b>&lt;1.0%</b>
<b>Efficiency</b>	<b>&gt;95%</b>
<b>Winding temperature rise</b>	<b>&lt;60c</b>
<b>Power factor</b>	<b>&gt;0.9</b>

### **3、 using direction**

#### **(1).SVC AVR series high precision single phase AC automatic stabilizer**

**1.be used for preventing overloading or short circuit when the capacity is less than 1.5KVA,please check it before use it.be used for preventing overloading or short circuit when the capacity is more than 2KVA,please check it before use it.**

**2.put the plug into the socket ,the socket should comply with standard.(making the plug insert the socket)**

**3.please choose the output voltage 110V or 220V according to the your appliance.**

**4.turn on the stabilizer, the voltage meter point to the 220V on the panel.**

**5.starting your electrical appliance.**

**6.turn off the stabilizer and the equipment in time when come across some error.**

**7.it should obey the picture 1 with low power when the local voltage lower than 198V.**

**8.costomers can adjust output voltage , potentiometer on control panel will move clockwise ,output voltage rise ,move inverted hour ,the output voltage reduce.**

#### **(2)AVR,SVC series high precision three single phase AC automatic stabilizer**

**1.the coming power of the power network is three-phase four wires system.**

**2.we use automatic air-break on the three phase stabilizer, is has the characteristic of preventing overloading or short circuit. turn on the power switch after connecting the power network.**

**3.adjusting surveying voltage alternation switch ,left ,middle, right testing A,B,C 3 three phase respectively.whether it is right. if you want adjusting the output voltage ,then modulate 3 stabilizers one by one.**

**4.it is better for electrical appliance are three phase four wires.**

**5.turn of the stabilizer, then start appliance after the voltage is steady.**