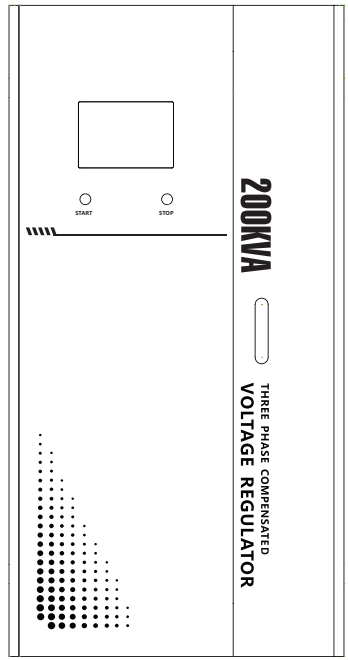
USER MANUAL



THREE PHASE COMPENSATED

VOLTAGE REGULATOR

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OPERATION INSTRUCTION

1. Summary

STB Series AC compensating Electric-power Voltage Stabilizers (voltage stabilizer for short hereunder) are designed for the stabilization of voltage by adopting the advanced technology introduced from Western Europe and Japan, combined with our country's practical situation of power grid. When the voltage of outside power supply grid fluctuates, the voltage stabilizer can keep the stabilization of the output voltage automatically. Compared with other type of voltage stabilizer. the series of products have many advantages such as large capacitance, high efficiency, no waveform distortion, stable voltage adjustment, powerful control functions, complete breeds, wide application of load and so on. The product can endure instantaneous overload, work for long time, shift manual-operation and automatic operation optionally.t is designed with the automatic protection equipment against over and undervoltage, phase sequence and loss of phase.

The series has features of small bulk, light weight, convenient installation. and reliable running.

This series of products can be widely used for large-scale electro mechanical equipment, metal-processing equipment, production line, constructional engineering equipment, elevator, medical-treatment appliance, computer chamber, computer-control equipment, embroider and textile and other industrial equipment, air-conditioner, broadcast and television, bowling equipment, hotel and home appliance and lighting in various fields that need stable voltage such as industry, agriculture, communication, telecommunication, military, railroad, science research culture and so on.

2. Structure

It is made up of three-phase compensating transformer, three-phase regulating transformer, isolating transformer, gearing, electrical brush contact system, case-body and control system. The surface of the cylindrical solenoid of the three-phase regulating transformer is burnished and wiped off insulation. Smooth conductor surface enables it to contact with the electrical brush wells the gearing is made up of servo motor, worm-wheel, worm, chain wheel and chain. Reasonable The case-body is of and reliable structure of the brush contact system assures the brush pressure enclosed type, small bulk and good radiating capability. The instrumentation is located observably with accurate indications.

3. OPERATIONAL PRINCIPLE

STB Series AC Compensating Electric-power Voltage Stabilizers are made up of three-phase compensating transformer, three-phase regulating transformer, TUV voltage detecting unit, servo motor control and gearing, contact operating circuit and protection circuit. The electric functional block diagram is shown as Fig.1.

The primary winding of regulating transformer TUV is connected in the shape of Y. It is connected with the output terminal of the voltage stabilizer; the secondary winding is connected with the primary winding of the compensating transformer TB. The operation principle of the compensating transformer can be found in Fig 2. Exclusive of the impedance drop of the compensating transformer, the following is shown in Fig.2.

U,,=U.+U,,
In the formula,
U,,... A-phase input voltage of the voltage stabilizer
U,,..A-phase output voltage of the voltage stabilizer

U,,...A-phase compensating voltage of the voltage stabilizer.

The principle is: When the A-phase input voltage increases by ΔU_{ah}, ΔU_{ac}. Of the compensating voltage ΔU_{ac}. will change accordingly; and when ΔU_{ac} is equal to ΔU_{ai} A-phase output voltage ΔU_{ac}. is kept changeless. B and C phases follow the same principle.

The procedure of voltage-stabilizing is as follows: According to the change of output voltage, the voltage detecting unit samples, detects and outputs the signals to control the running of the servo motor SM, through the reducing mechanism and drive the electrical brush set on the regulating transformer to slide or scroll with the chain In this way, the secondary voltage of the regulating transformer can be adjusted to change the polarity and magnitude of the compensating voltage and succeed in controlling the output voltage within the permitted range of voltage-stabilizing precision and carry the point of automatic voltage-stabilizing.

Fig.1 Electric functional block diagram of automatic compensating electric-power voltage stabilizer.

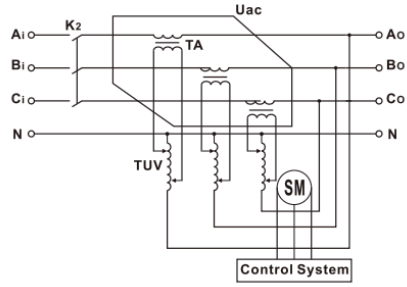
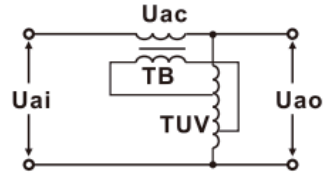


Fig.2 schematic diagram of single-phase compensating cireuit

4. BASIC COMPONENTS AND CIRCUIT



1. Compensation transformer
   When the polarity and magnitude voltage increased on the primary coil changes, the secondary coil that is connected with the load loop in series will produce compensating voltage with changeable amplitude value and polarity.
2. Regulating transformer
   The regulating transformer is a three-phase autotransformer that can adjust secondary voltage automatically. It has three pairs of electrical brushes that can slide symmetrically and automatically. By using the chain to drive the electrical brush to slide on along the exposed part (slideway) of the autotransformer's cylindrical solenoid, the servo motor can adjust the secondary voltage reposeful and carry the point of changing compensating voltage and keeping the stabilization of output voltage.
3. Control circuit of servo motor
   The servo motor has two control modes: manual – operation and automatic-operation, which can be selected by using change over switch. When at the position of manual operation, press the button of voltage step-up if you want to increase the output voltage

and press the button of voltage step-down if you want to decrease the output voltage so as to meet the output voltage meet the power supply requirement. At this time, the voltage stabilizer doesn't have the function of voltage-stabilizing. When the automatic operation is selected, the voltage step up/down can be detected automatically by the detecting unit to carry the point of automatic voltage-stabilizing.

4. Switch gear and operation circuit of three-phase main circuit
   1) Three AC contactor are set in the main circuit (one for shifting of mains supply, one for voltage stabilizing startup, and one for protection) of voltage stabilizer 30 KVA-100 KVA.
   2) An automatic switch and a knife switch are set in the main circuit of voltage stabilizer above 150K.To run the voltage-stabilizing function.one should only put the knife switch handle to the position of voltage stabilizing, and press the button of voltage-stabilizing. If you want to connect the power grid directly, you should only put the knife switch to the position of mains supply.
5. Detecting and adjusting unit of three-phase voltage stabilizer
   Sampling control transformer takes out the sampling voltage and control voltage from the output terminal of the voltage stabilizer. The upper-limit reference voltage can be gotten after transforming, commutating, wave-filtering, stabilizing, and dividing of common voltage. The signal voltage. which changes subject to output voltage, can be gotten after transforming, commutating and wave-filtering of sampling voltage. If output is to the comparator for comparison, when the signal voltage is between the upper-limit and lower-limit voltage, all the contacts of the control relays are on "OFF" position. When the signal voltage exceeds the upper-limit and the upper-limit reference voltage(precision),the control relay and contact relay will actuate. Servo motor runs to adjust compensating voltage and stabilize the output voltage. In a word, when the changing of output voltage exceeds the permitted-range of set-precision, the voltage detecting unit will send the command of adjusting the output voltage until the voltage resumes to the permitted-range of the set precision. The voltage stabilizing precision can be adjusted between+1% and 5% with the potentiometer PR3. The central position of the rated voltage is adjusted by the regulator potentiometer.
6. Three-phase protection circuit
   1) The automatic switch QA protects the main circuit from overload and short out The QLS1 and QLS2 limit switches form the overrun protection circuit. When the electrical brush slides and touches the upper-limit or lower-limit switch, coil of the voltage regulating relay will be disconnected with the power supply to release the relay and stop the servo motor and protect the circuit from overrunning.
   2) The normally closed contact of the control relay is closed while the over-and undervoltage protection circuit is in normal running state. When the signal voltage exceeds overvoltage protection set-value or fall under the under-pressure protection set-value, the normally closed contact of the protection relay will be cut off and accordingly the control circuit will be cut off; the automatic compensating system will quit working. The overvoltage set-value is about 420V and the under-voltage set-value 320V and acousto-optic alarm is set well before delivery.
   3) Protection circuit for phase sequence and loss of phase

When the lead in phase sequence of the three-phase power supply is mismatched or lose phase the indicator light of the phase sequence protector will be off, and whole machine will be in automatic protection state.

7. This machine has two control boards named A and B. If there is any malfunction found on control board A during using, you can prod the changeover switch of the standby board to control board B, which will work instead of board A.
8. Voltage detecting and adjusting unit of single-phase voltage stabilizer

   The operation principle of the detecting and adjusting unit of the single-phase voltage stabilizer is the same as the three-phase voltage stabilizer.

   The automatic switch QA protects the main circuit from overvoltage and short out The automatic voltage compensating system is set with overrun protection. When the electrical brush slides to each side and hit the limit switch, the normally closed contact will be cut off, and servo motor will stop.

   When the overvoltage protection circuit is in normal running state, the normally closed contact of the control relay is closed. When the signal voltage exceeds the set-value of overvoltage protection, the normally closed contact of the control relay will be cut off and accordingly the control circuit will be-cut off, and the automatic compensating system will quit working. The circuits of three-phase and single-phase voltage stabilizers are show in Fig.3,4,5,6, and 7.

5. SERVICE CONDITIONS

The STB series voltage stabilizers should be used indoor. The normal service conditions are as follows:

1. Ambient temperature: —5°C~+45°C;
2. Height above sea level: not exceeding 1000 meters;
3. Relative temperature: <90%
4. There should be no gas, vapor, chemical sediment, dust, dirt, or other volatile and erosive medium that will influence the insulation intensity of the voltage stabilizer at the installation site.
5. There should be no severe vibration or bump at the installation site.
6. The user should consult with us if the product is used in special using condition which does not meet the above-mentioned conditions.

6. MAIN TECHNICAL TARGETS AND SPECS

Model	Rated Capacitance (KVA)	Output Current (A)	Input Voltage (V)	Output Voltage (V)	Phase Number	Withstand Voltage (V)	Insurance (MΩ)	Efficiency	Waveform distortion	Operation Frequency (Hz)	Voltage Stabilizing Precision
STB-50K STB-50K-F	50	76	304-456V	380±2-4% can be set	Three phase	2000V no disruption for 1 min	≥3	≥98%	≤0.1%	50~60	≤±5% can be set (three-phase output balance)
STB-80K STB-80K-F	80	121									
STB-100K STB-100K-F	100	152									
STB-150K STB-150K-F	150	227									
STB-180K STB-180K-F	180	272									
STB-200K STB-200K-F	200	303									
STB-250K STB-250K-F	250	379									
STB-300K STB-300K-F	300	455									
STB-350K STB-350K-F	350	530									
STB-400K STB-400K-F	400	606									
STB-500K STB-500K-F	500	758									
STB-800K STB-800K-F	800	1212									
STB-1000K STB-1000K-F	1000	1515									
STB-1200K STB-1200K-F	1200	1818									
STB-1500K STB-1500K-F	1500	2273									
STB-1800K STB-1800K-F	1800	2727									
STB-2000K STB-2000K-F	2000	3030									
STB-2500K STB-2500K-F	2500	3788									
STB-2800K STB-2800K-F	2800	4242									
STB-3000K STB-3000K-F	3000	4545									

MANUAL FOR DEBUGGING AND MAINTENANCE

1. Unpacking examination

1. Whether the pack is damaged during transportation.
2. Whether the technical document, certificate of conformity, warrant and fittings are all complete.
3. Whether the compensating transformer, the regulating transformer and other components are in good condition.
4. Whether the fasteners are loose, shifted, and whether the terminals are well-connected.
5. Whether voltage regulating system and gearing are safe and reliable. If the carbon brush is misplaced or broken, correct it or replace it in time.
   Notice: Do not put the machine in a damp place for a long time; otherwise, the machine's performance and quality will be influenced.

2. Notice for location

1. The installation site of the voltage stabilizer should be dry and ventilated without severe vibration, dust or sand, and rainfall penetration.
2. During removal, it should be handled with care, over-incline is banned. The stress on chassis should he even. The machine should be placed on an even keel.
3. There should be enough space around the machine to insure the ventilation and the convenience for maintenance.

3. Insulation Requirements

Strap the input and output terminals and lead out the testing point. Test the insulance to ground of the testing point with a 1000V megohm meter, the measured value should be more than IMQ, if the value is less than IMG, check the causes, or dry the humidity in the case with an electric heater, until it reaches the standard value.

4. Installation and connection

1. Lead in connection for the voltage stabilizer under 225KVA; The three-phase wires A, B, and C of the input power supply should be led in from the lower and rear part of the case, through the current transformer, (the number of turns is according to the request of the nameplate) and connected with the upper pile head of the air switch in the case.
2. Lead in connection for the voltage stabilizer above 320 KVA: The three-phase wires A, B, and C of the input power supply should be connected with the copper bus corresponding to the upper pile head of the air switch or the air breaker (the bus is marked with the letters A, B, and C).
3. Connecting wire for multi-case products: the connecting wire for the double-case and four-case can be the soft copper wire with section no less than Imm^2 and the wire should be connected with the line contact bank of the inter-case terminal and ranged up-to-down correspondingly.
4. Connection of outgoing line: Each connection terminal marked with "output voltage" on the voltage stabilizer should be connected with load. The specification of the connecting wire is decided by the user according to the load.Generally.it should be the same as the lead in wire.
5. Chassis protective earthing: the gauge of the earth wire is carried out according to the relative stipulations of local power supply authority. The earth wire should be connected with the pile head marked with "earth wire" in the case. The resistance of earth wire should be less than 0.40Ω.

6. The gauge of the power lead in wire can be chosen by the user according to the magnitude of machine's capability. The following table is only for reference.

Capacitance (KVA)	50	80	100	150	180	200	250	300	350	400	500	800	1000	1200	1500	1800	2000	2500	2800	3000
Wire (mm^2)	16	35	50	70	95	120	185	240	240	Copper bus wiring is suggested										

5. Earthing examination

The first and most important step for the debugging personnel is to cht^ the connecting wires carefully, which is pivotal to assure the reliable running of the voltage stabilizer. The detailed working contents are as follows:

1) Check the main loop connecting wire and see whether it is firm and reliable, whether the connecting wires of the universal breaker switch or QN knife switch comes loose. Screw it down if it comes loose.
2) Check the contact wires of all kinds of electrical devices behind the panel such as voltmeter, ammeter, lamp indicator button, changeover-switch and see whether they are firm and reliable. You should screw them down if they come loose.
3) Check the circuit board and see whether connecting wire of each point comes loose. You should screw it down if it comes loose. Check the servo motor on the voltage regulator and see whether the connecting wire of limit switch is reliable. You should screw it down if it comes loose.
4) Check the control circuit board and C45 power switch which control the power supply of electric motor in the control box and see whether they are closed.

6. Operation of electrifying and debugging

1) Put the "Manual/Automatic" optional switch to the position of "Manual".
2) Put the knife switch to the position of "Voltage Stabilizing" the voltage stabilizer is in zero load state, switch on the power supply close the switch QA, at this time, the indicator light of the three-phase electrical source on the panel is on. The reading is shown on the input voltmeter, and the input power-on test is finished.
3) Press the button of' Voltage Stabilizing" about 5—15 seconds later, the delay relay is closed, which makes the output contactor electrified and close. The green light for "Voltage Stabilizing" is on hen, according to the reading shown on the output voltmeter V,,, press the button of "Voltage Step-up" or "Voltage Step-down", the pointer of output voltmeter will rise or fall accordingly and the manual voltage regulation test is finished.

Notices:

If the voltage stabilizer can't be started up and the indicator light of the phase sequence protector doesn't shine after pressing the button of "Voltage Stabilizing", that means the phase sequence is wrongly connected. To clear the trouble, you should first cut off the power supply and then only exchange any two lead in wires of the three.

After pressing the button of "Voltage Stabilizing", the voltage stabilizer will have output voltage but instantaneous warning and automatic trip protection will function, which is to show the

connection is right. As the input voltage is on the high side, and the output voltage is also on high side and will exceed the protection-value for overvoltage. At this time, you should put the "Manual/Automatic" optional switch to the position of "Automatic", push the button of "Voltage Stabilizing", watch the reading on the voltmeter until the voltage is stabilized to 380V, and then operate as step4.Under the two states of "Voltage Step—up" and "Voltage Step—down", debug the stabilizer and make clear if it can stabilize the voltage to 380V automatically. If anything abnormal occurs, please contact with our company at once.

4) Put the button of "Manual/Automatic" switch to the position of "Manual", push the button of "Voltage Step-up" and make the voltage value reach to 400V or so. Shift the switch to the position of 'Automatic", the output voltage will accordingly fall to 380V or so. This is voltage step-up test. Put the button of "Manual/Automatic" switch to the position of "Manual", push the button of "Voltage Step—down" and make the voltage value reach to 360Vor so. Shift the switch to the position of "Automatic", the output voltage will accordingly rise to 380V or so. This is voltage step-down test. Automatic voltage stabilizing test is finished upon the success of above two tests.

   Put the "Manual/Automatic "switch to the position of "Automatic" when the debugging is over and the voltage stabilizer will be in running state.

5) Put the knife switch to the position of "mains supply", close the QA switch and you can get the "mains supply" output.

   Notice for debugging voltage stabilizers above 400KVA:

   The capacitance products of this kind have the similar debugging method with the voltage stabilizer under 400KVA.But as the capacitance is relatively large, generally the equipment of automatic powerup and time delay input are not designed (which can be added according to the user's request)

   Notice for debugging of split-phase voltage regulating stabilizer:

   The capacitance products of this kind have the similar debugging method to the above —mentioned stabilizer. The difference is that the split phases regulate the voltage severally; the regulating system of each phase is separate and uncorrelated with other phases. Each phase is set with manual/automatic switch; the debugging should be carried phase by phase.

7. Load operation

When debugging, the load should be added in step by step, one should take strict precautions against overload. It is strongly recommended that the load of the voltage stabilizer should not surpass 80% of rated value, the stabilizing and the reliability is the highest at this time. if the load is assuredly on the high side, you should strengthen the cooling measures when use it.

If breakdown occurs at the time the machine is running with large load, it is required that the load should be increased step by step when the power supply is resumed. One should take strict

precautions against simultaneous startup of several high-power electromotors, or the overwhelming electric current will damage the voltage stabilizer.

COMMON MALFUNCTION AND TROUBLESHOOTING

NO	MALFUNCTION	CAUSE	SOLUTION
1	Can not start	1. Error phase sequence of input power wiring or abnormal electric network; 2. Air switch in the device is not closed or broken;	1. Change any two power supply wires. or check if the power line is in order (it is in correct phase order if the phase order protector light is on and then start the device.) 2. Switch on or replace air switch;
2	Can not regulate the voltage	1. Sampling transformer is broken; 2. Control circuit board is broken; 3. The motor is broken; 4. The mechanical system failure; 5. Load feeds back higher harmonic wave	1,2,3, and 4: Repair or replace
3	Voltage regulation actuates in one direction only	1. Normally closed contact of travel limit switch is open or broken; 2. Manual / automatic changeover switch contact is broken; 3. Step-up/down relay on the control panel is broken;	Replace
4	No output voltage	1. Normally closed contact of stop button is open; 2. The contact of voltage stabilizing button is broken; 3. Contact KM in main loop is broken;	Replace
5	Often trip	1. Overvoltage value of control circuit board is not adjusted well; 2. The resistance of control circuit board varies.	Have it adjusted or repaired by professional personnel

8. Function, collocation and adjusting method of the components on control panel:

For loss of phase and phase sequence relay: When meet with lead in mis phase or loss of phase the indicator light doesn't shine and the machine can't start.

For overvoltage and undervoltage protection relay: When the voltage stabilizer goes wrong or the lead in voltage is too high or too low and makes-the output voltage exceed 420V or less than 320V KC3 actuates (protection light is on) to stop the-voltage stabilizer, and the siren will sound. Use PR3 relay to adjust the value of overvoltage protection point. Use PRI to adjust the value of undervoltage protection point.

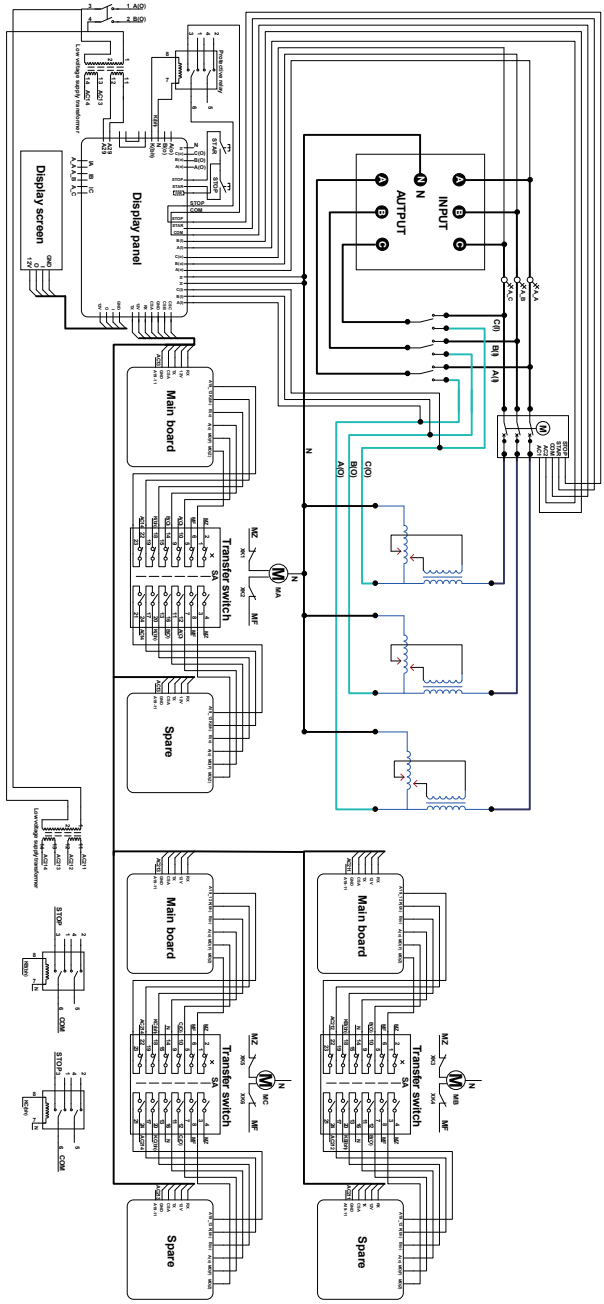
For KC1 step-up relay: When the output voltage of the stabilizer is under the set stabilizing range, KC1 actuates to make the servo motor drive the electrical brush and increase the output voltage to 380V, and KC1 releases. The process of automatic regulating is over. For KC2 step-down relay: When the output voltage of the stabilizer exceeds the set stabilizing range, KC2 actuates to make the servo motor drive the electrical brush and lower the output voltage to 380V, and KC1 releases. The process of automatic regulating is over. For RPP, central voltage regulating relay: Put the voltage stabilizer in zero load running state, first adjust RP2 to minimum (adjust anti-clockwise), then revolve RPP1; Revolve anti-clockwise, to lower the output voltage and revolve clockwise to raise the output voltage. For PR, regulating relay of voltage-stabilizing precision: Revolve the potentiometer anti-clock wise, the voltage stabilizing precision inclines to the direction of 1%; revolve the potentiometer clockwise, the voltage stabilizing precision inclines to the direction of 5%.

9. Daily maintenance

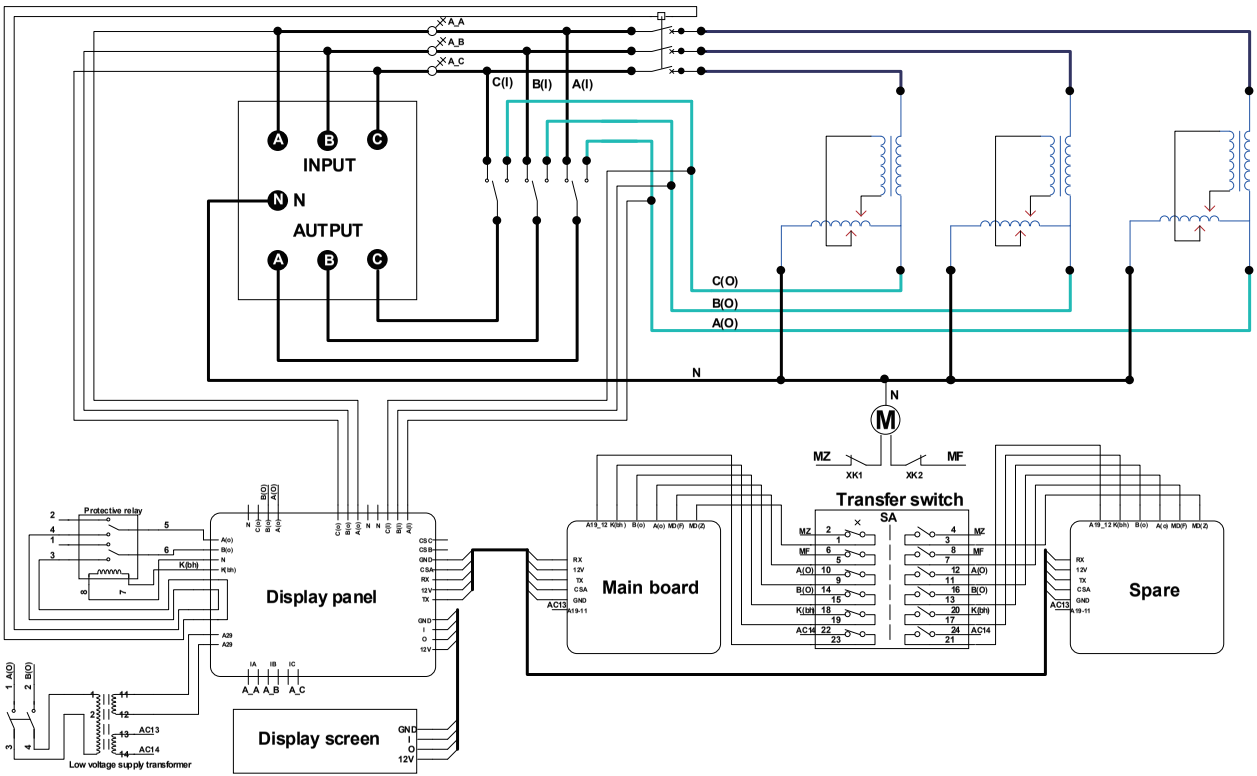
During operation, scout regularly the working state of the voltage stabilizer, check the temperature rise of the compensating transformer and regulating transformer and see if they are normal, if the load surpasses the rated value, if the input voltage surpasses the stipulated limit, if the regulating system and gearing (includes gearing chains and reduction case) are working normally, if 6 carbon brush racks come loose. if the carbon brushes are on the same planar and the same line. None of the problems mentioned above is permitted. So you should solve it in time if any of the problems is found. For further information, please notice the management personnel for solution to avoid damaging the equipment.

It is suggested that maintenance should be made every three months, which includes:

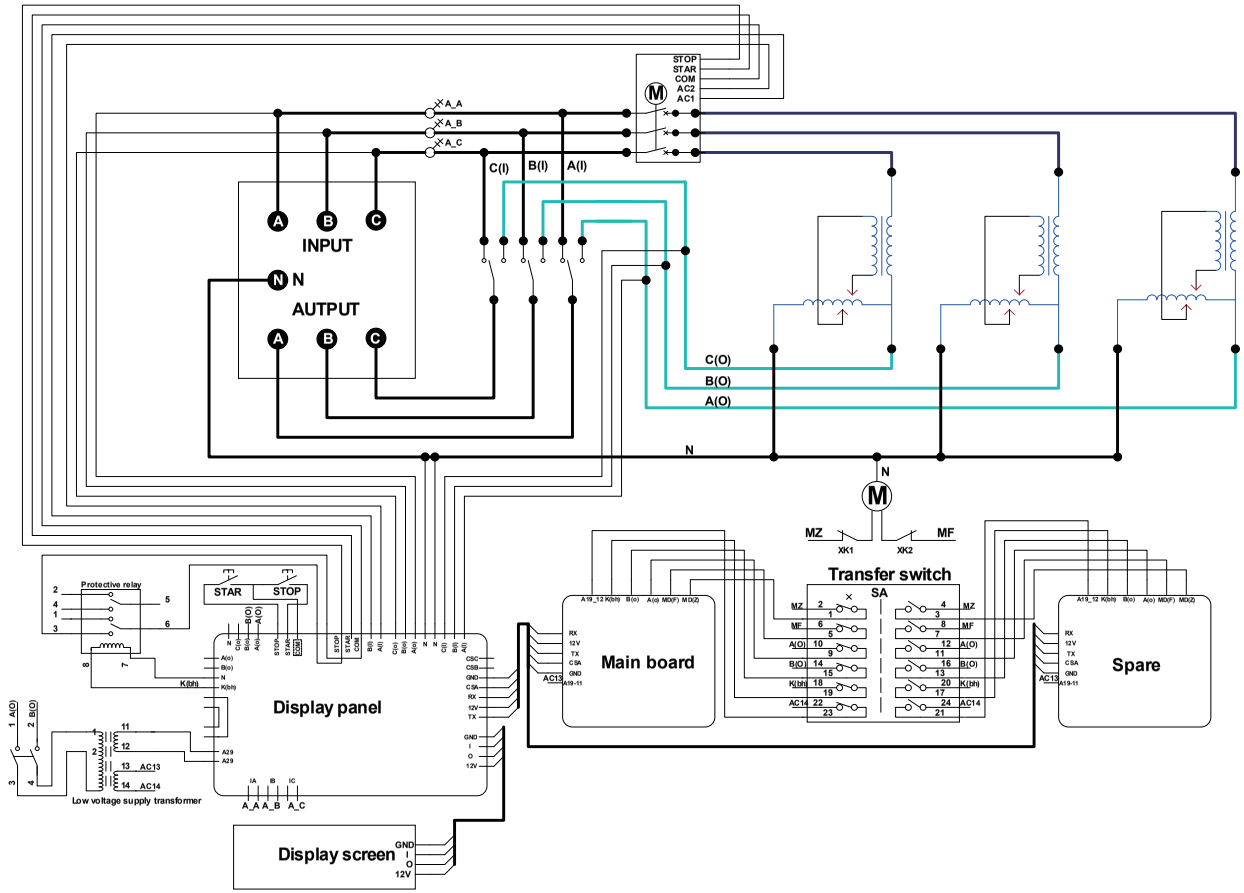
1. Clear up the dust and dirt on the components of the voltage stabilizer.
2. Check the components and replace them if they are broken.
3. Check the decelerator of regulating system and the chain gearing and see if they are working normally. You should keep the chains lubricant, and correct the tension of the chains; replace the broken or greatly-abrased brush strips. Clean the coil of the columnar regulator with carbon tetrachloride and cotton.
4. Make records of maintenance careful.



Electric schematic diagram STB-F Series three-phase compensating voltage stabilizer (no extra notice for changing)



Electric schematic diagram STB Series(50K-150K) three-phase compensating voltage stabilizer (no extra notice for changing)



Electric schematic diagram STB Series(180K-3000K) three-phase compensating voltage stabilizer (no extra notice for changing)

Touch operation instructions

1. Main interface

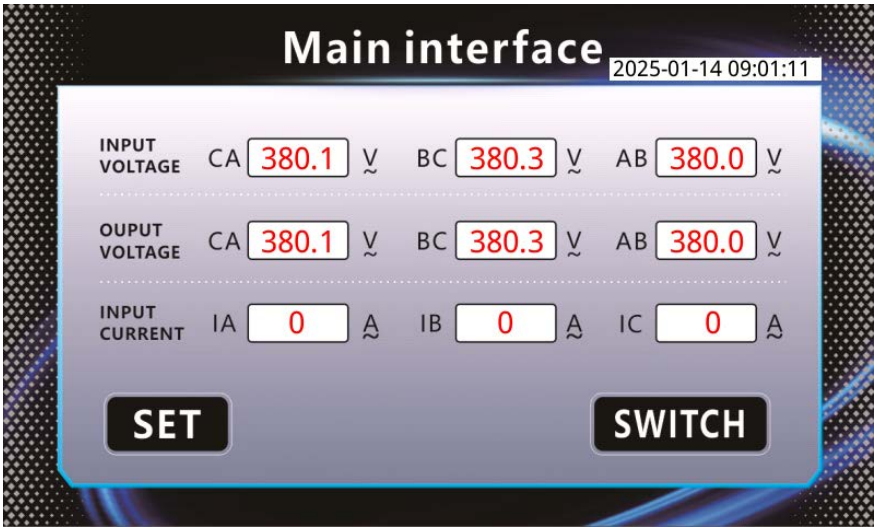


Figure 1

2. Time setting

1. Long press the time display bar on the main interface to enter (Figure2-1).
2. Time setting interface (Figure2-2). press button to select the parameters item to set the value.
3. To exit the setting interface,please click the "EXIT" button.

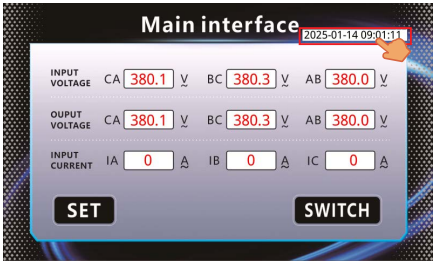


Figure 2-1

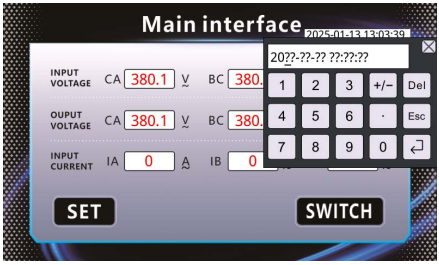


Figure 2-2

3. Single-phase display function

1. Click the "SWITCH" button on the main interface (Figure 3-1).
2. The single-phase display interface (Figure 3-2). The input voltage, output voltage, and input current for each phase are shown here.
3. To exit the setting interface,please click the "EXIT" button.

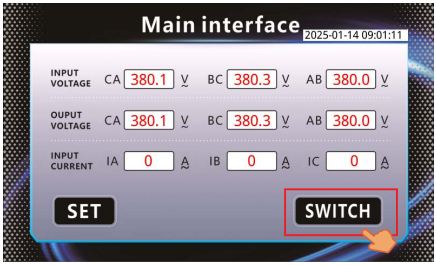


Figure 3-1

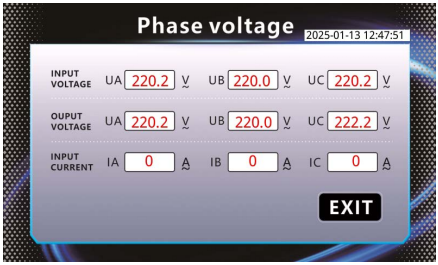


Figure 3-2

⚠ Caution: For the following functions, non-professionals are not allowed to modify the initial parameters.

Other parameter setting functions

Click "SET" on the main interface, then enter password and press “E” to confirm， and press “C” to delect.To exit the Setting interface,please click the "EXIT" button.

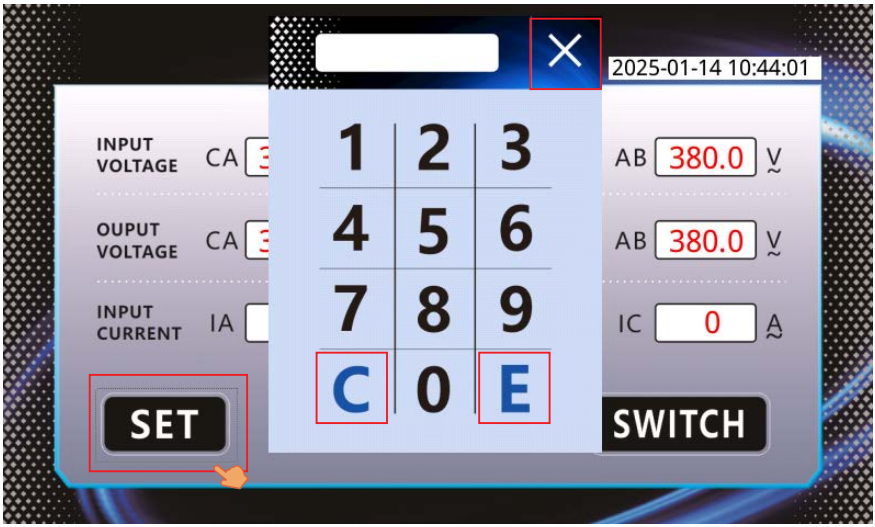


Figure 4

Ⅰ. Query The Current device parameters

1. On the password interface, enter “0000” ,then press “E” to confirm (Figure 5-1).
2. Current device parameters

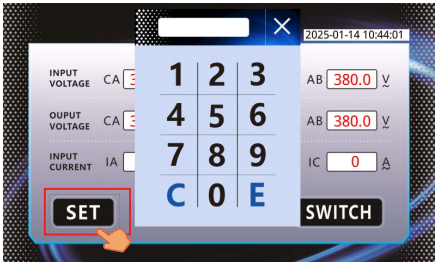


Figure 5-1

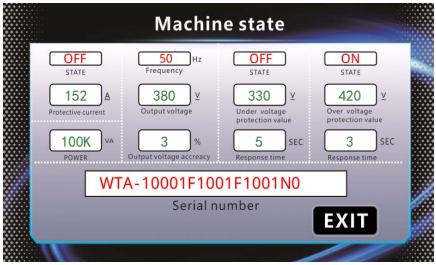


Figure 5-2

Ⅱ. Calibrate the input voltage displayed value of each phase

1. On the password interface, enter “6001” ,then press “E” to confirm (Figure 6-1).
2. The input voltage displayed value calibration interface (Figure 6-2). Press the “+” and “-” buttons to set the displayed value of each phase input voltage to be consistent with the actual value.
3. To exit the setting interface,please click the "EXIT" button.

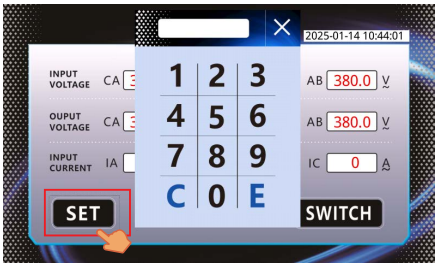


Figure 6-1

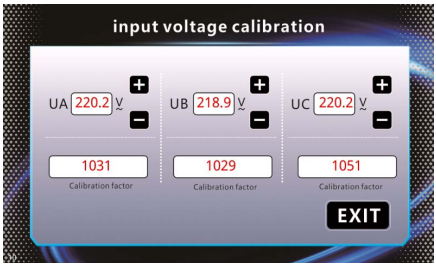


Figure 6-2

Ⅲ. Calibrate the output voltage displayed value of each phase

1. On the password interface, enter “6002” ,then press “E” to confirm (Figure 7-1).
2. The output voltage displayed value calibration interface (Figure 7-2). Press the “+” and “-” buttons to set the displayed value of each phase output voltage to be consistent with the actual value.
3. To exit the setting interface,please click the "EXIT" button.

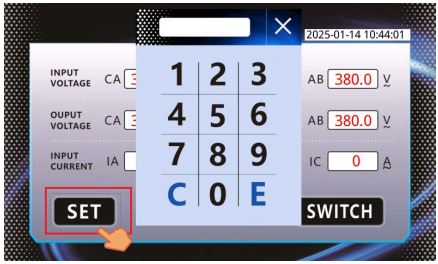


Figure 7-1

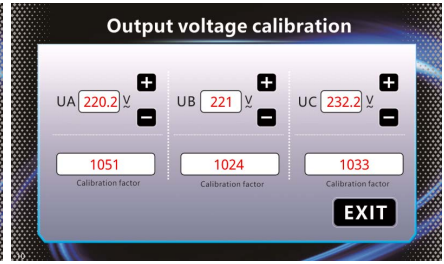


Figure 7-2

Ⅳ. Calibrate the output current displayed value of each phase

1. On the password interface, enter “6003” ,then press “E” to confirm (Figure 8-1).
2. The output current displayed value calibration interface (Figure 8-2). Press the “+” and “-” buttons to set the displayed value of each phase output current to be consistent with the actual value.
3. To exit the setting interface,please click the "EXIT" button.

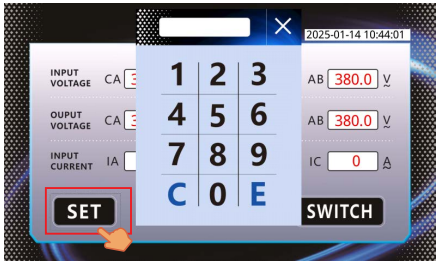


Figure 8-1

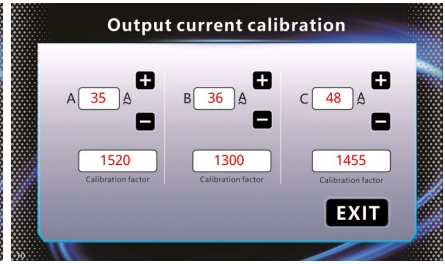


Figure 8-2

Ⅴ. Calibrate the regulated sampling voltage (Only the sampling voltage display value of three-phase electricity can be calibrated).

1. On the password interface, enter “6005” ,then press “E” to confirm (Figure 9-1).
2. The calibration interface (Figure 9-2), Press the “+” and “-” buttons to set the sampling voltage be consistent with the actual value.
3. To exit the setting interface,please click the "EXIT" button.

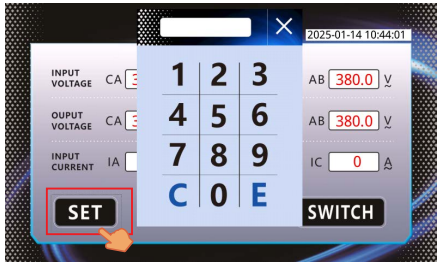


Figure 9-1

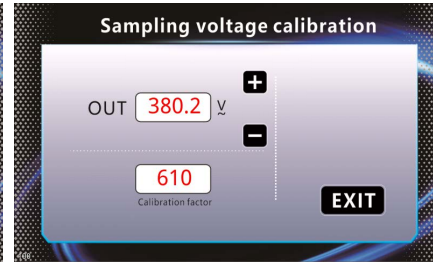


Figure 9-2

VI. Set over/under voltage protection values and over/under voltage protection time

1. On the password interface, enter “6006” ,then press “E” to confirm (Figure 10-1).
2. Enter the setting interface(Figure 10-2),Press the "+" and "-" buttons to set the over/under-voltage protection value, and the over/under-voltage protection period.

⚠ Note: The default over-voltage protection value is 420V voltage(Output Voltage) , and the default under-voltage protection value is 330V voltage(Output Voltage) .

3. To enable or disable the under-voltage protection, please press “ON|OFF”.
4. To exit the setting interface,please click the "EXIT" button.

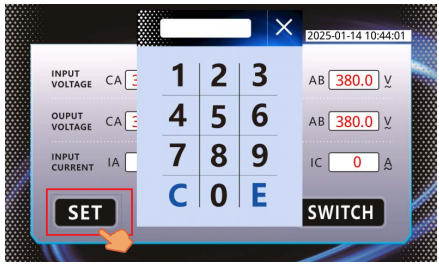


Figure 10-1

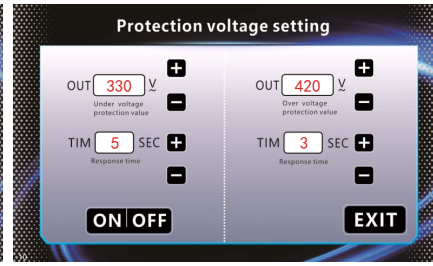


Figure 10-2

VII. Setting over-load protection

1. Enter password “6004” and press “E” to confirm (Figure 11-1)
2. Setting interface(Figure 11-2),Press “OFF” or “ON” to disable or enable overload protection.
3. To exit the setting interface,please click the "EXIT" button.

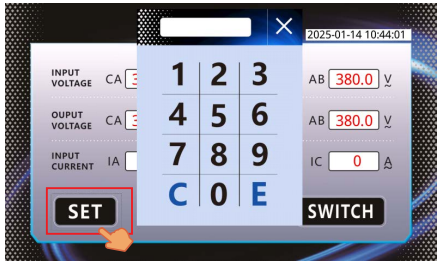


Figure 11-1

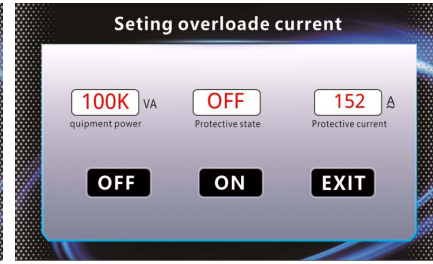


Figure 11-2

Ⅷ .Fine-tuning the output voltage and its accuracy

Caution:This function can only adjust the output voltage threshold of three-phase voltage.

1. Click "SET" on the main interface, then enter password “6007”and press “E” to confirm (Figure 12-1).
2. Fine-tuning the output voltage and its accuracy interface(Figure 12-2).Press the "+" and "-" buttons to set the output voltage (default value is 380V, fine-tuning range is 370-390V) and set the output voltage accuracy (default accuracy is 3%, setting range is (2-4)%). If you want to exit the setting, please click the "EXIT" button.
   《Note: This function can only fine tune the output voltage of three-phase electricity》
3. To exit the setting interface,please click the "EXIT" button.

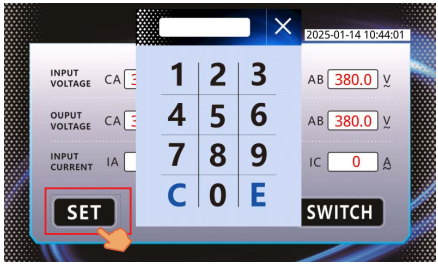


Figure 12-1

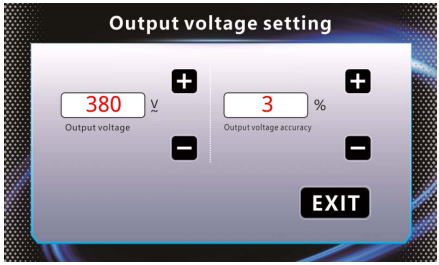


Figure 12-2

THREE PHASE COMPENSATED

VOLTAGE REGULATOR

