

TND, SJW Series
High Accuracy Fully Automatic AC Voltage Stabilizer

Operation Manual



Executive standard: Q/DLX 155

☐ Before installing and using the product,
please carefully read the operation manual
and keep it properly for future use.

TND Single-phase, SJW Three-phase High Accuracy Fully Automatic AC Voltage Stabilizer Operation Manual



Safety notice

Before installing, operating, running and maintaining the product, please read this manual carefully, strictly follow the instructions in the manual to correctly install and use the product, so as to avoid dangerous accidents.



Danger

- ① The product is strictly prohibited from being installed in environment containing flammable and explosive gas, as well as in humid or condensing condition. It is also strictly prohibited to operate the product with wet hands.
- ② Do not install in places where gaseous media can corrode metal and damage insulation.
- ③ Sufficient space and safety distance should be reserved around the product installation.
- ④ After unpacking, please inspect the product for any damage and verify the completeness of the items.
- ⑤ When installing and using the product, it is necessary to use standard wire and connect it to power source and load that meet the requirement.
- ⑥ During product work, it is strictly prohibited to touch the conductive parts of the product.
- ⑦ When installing, repairing and maintaining product, it is necessary to ensure that the products are not electrified.
- ⑧ Be sure to regularly tighten the terminal screws or bolts and clean the dust deposited on the product.
- ⑨ Foreign objects should be prevented from falling into the product.
- ⑩ High-precision fully automatic AC voltage stabilizer is prohibited from being used in parallel at the output terminal.



General warning signs:

It is used to alert users to potential hazards. All safety information accompanying this sign should be followed to avoid possible injury.



**Improvements to the product will be updated in the manual,
and no further notice will be given.**



1. Overview

1.1 The TND single-phase and SJW three-phase series high-precision fully automatic AC voltage stabilizers (hereinafter referred to as "voltage stabilizers") are developed with visual aesthetics. Compared to similar products, they feature simple and novel design, easy installation and use, more comprehensive functions, and superior quality.

It is mainly used in various places where stable load voltage is required. When the supply voltage fluctuates, the voltage stabilizer can automatically stabilize the load voltage within the deviation range of the rated value, providing a stable power supply to the load and ensuring the normal operation of electrical equipment.

1.2. The voltage level of this series voltage stabilizer is AC 500V and below, with rated frequency of 50Hz.

The TND series single-phase and the SJW series three-phase voltage stabilizers are mainly composed of contact voltage regulator, sampling control circuits, servo motor and mechanism. When the mains voltage is unstable or voltage fluctuation caused by user's load change, the sampling circuit will process the voltage change signal and sends it to the servo motor, which is enabled to drive the contact voltage regulator carbon brush to move accordingly to ensure the stability of the output voltage.

2. Main technical parameter of the product

2.1 Model meaning

TND(SVC): single-phase high accuracy fully automatic AC voltage stabilizer

SJW(TNS): three-phase high accuracy fully automatic AC voltage stabilizer

2.2 Refer to table 1 for main technical data

Table 1 Main technical data

Item \ Spec.	TND-0.5~30kVA	SJW-3~30kVA	SJW-45~60kVA
Input voltage range	160V~250V	280V~430V	304V~456V
Output voltage	220V ± 4%	380V ± 4%	
Output overvoltage protection value	246V ± 4V	426V ± 7V	
Frequency	50Hz~60Hz		
Temperature rise	<80K		
Efficiency	>90%		
Adjusting time	<1s (when the input voltage changes by 10%)		

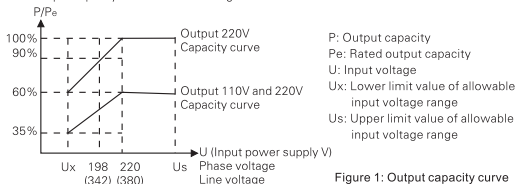
Note 1: The technical specifications of each machine are based on the display on the body. Generally, conventional products do not have "undervoltage protection". If "undervoltage protection" is required, it can be ordered separately and specified. The undervoltage protection value is $184 \pm 4V$.

Note 2: Products above 5k do not have 110V output terminal. For example, the 110V output terminal can be customized according to the agreement. The output value is $110V \pm 4V$, when the 110V is loaded, it should strictly follow the provisions of Article 2.3.

Note 3: Nominal capacity unit of the product: 1000VA equals to 1kVA.

Note 4: Customization can be arranged through agreement if it exceeds the above range.

2.3 The output capacity curve is shown in Figure 1.



2.4 Electric schematic diagram

2.4.1 The electric schematic diagram of 0.5kVA–1.5kVA single-phase high accuracy fully automatic AC voltage stabilizer is shown in Figure 2 (for reference only)

Note: The three-phase assembly structure is identical to that of single-phase voltage stabilizer, consisting of three single-phase voltage stabilizers stacked together, with the windings connected in a star configuration.

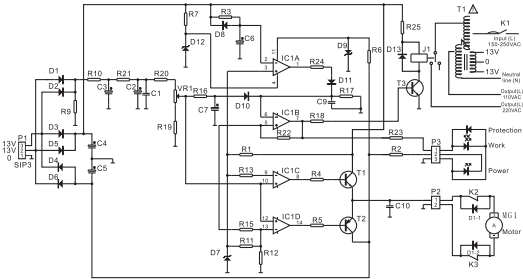


Figure 2 Single-phase: 0.5-1.5kVA Three-phase: 3-4.5kVA

2.4.2 The electric schematic diagram of single-phase 0.5kVA–10kVA is shown in Figure 3.

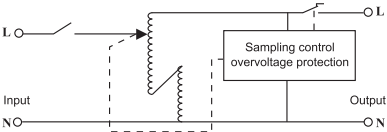


Figure 3 Single-phase 0.5kVA~10kVA Three-phase 1.5kVA~30kVA

2.4.3 The electric schematic diagram of single-phase 15kVA–30kVA compensation line is shown in Figure 4.

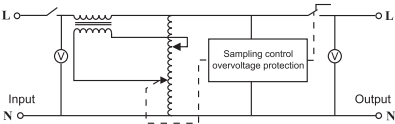


Figure 4 Single-phase 15kVA~30kVA Three-phase 45kVA~60kVA

2.4.4 Electric schematic diagram of single-phase 2kVA–10kVA high accuracy fully automatic AC voltage stabilizer, as shown in Figure 5.

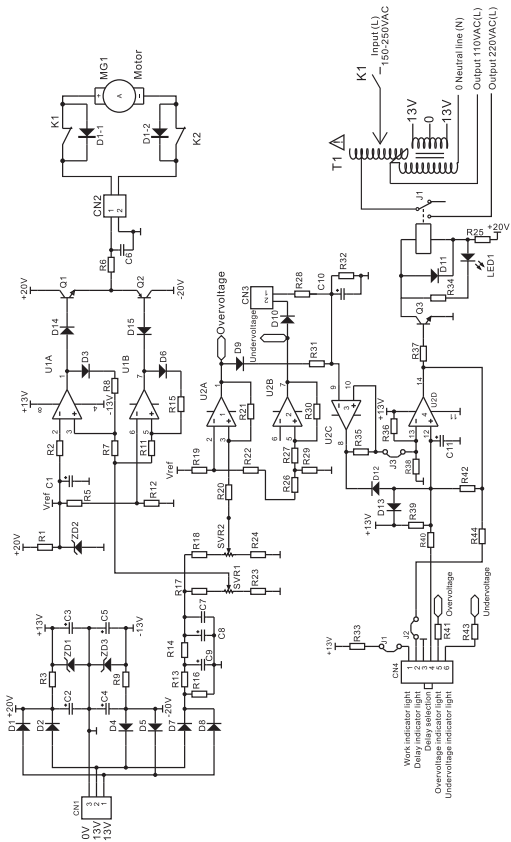
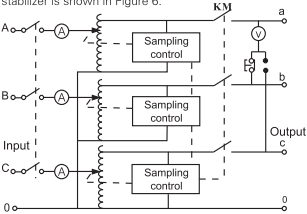


Figure 5 Schematic diagram of 2kVA~10kVA single-phase high accuracy fully automatic AC voltage stabilizer

2.4.5 The electric schematic diagram of 1.5kVA~30kVA three-phase fully automatic AC voltage stabilizer is shown in Figure 6.



Note 1: Refer to single-phase electric schematic diagram Figure 2 and Figure 5 for three-phase 1.5kVA, 3kVA, 4.5kVA, 6kVA, 9kVA, 15kVA, 20kVA, 30kVA sampling control circuit

Note 2: Refer to Figure 4 for three-phase 45kVA~60kVA compensation type circuit.

Figure 6 Electric schematic diagram of three-phase high accuracy fully automatic AC voltage stabilizer

3. Outline drawing dimension of product

3.1. The appearance of the TND-series is shown in Figures 7, 8, 9 and 10.

3.2. The appearance of the SJW-series is shown in Figure 11 and Figure 12.

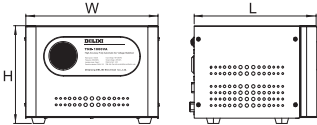


Figure 7 TND-0.5~1.5kVA Product outline dimension

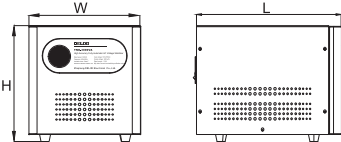


Figure 8 TND-2, 3, 5kVA Product outline dimension

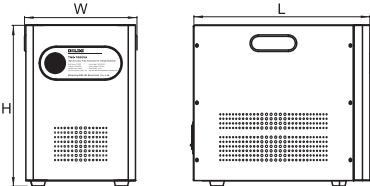


Figure 9 TND-7kVA , 10kVA Product outline dimension

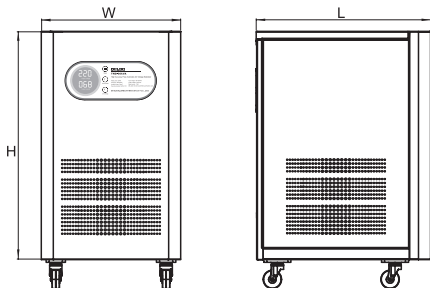


Figure 10 TND-10~30kVA Product outline dimension

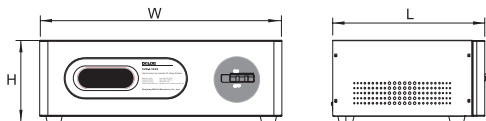


Figure 11 SJW-1.5~4.5kVA Product outline dimension

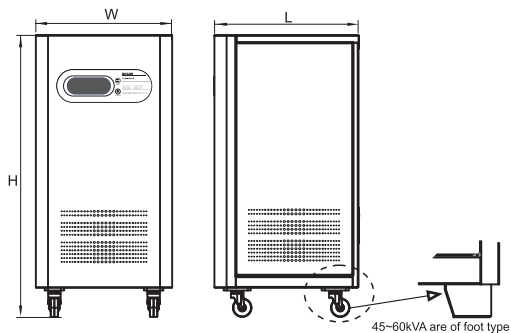


Figure 12 SJW-6~30kVA Product outline dimension

3.3 Outline dimension

The outline dimensions of the TND series products are shown in Table 2, and the outline dimensions of the SJW series products are shown in Table 3

Table 2 TND series product outline dimension

Structure	Spec. and capacity (kVA)	Product dimension (mm)		
		W	L	H
Desk type	TND-0.5	192	165	135
	TND-1~1.5	210	200	153
	TND-2	195	275	195
	TND-3	225	300	230
	TND-5	225	310	230
	TND-7~10	245	392	352
Cabinet type (with caster)	TND-10	302	350	502
	TND15~20	336	432	600
	TND-30	360	452	665

Table 3 SJW series product outline dimension

Structure	Spec. and capacity (kVA)	Product dimension (mm)		
		W	L	H
Desk type	SJW-1.5~4.5	480	305	165
Cabinet type (with caster)	SJW-6	300	310	645
	SJW-9~15	350	370	725
	SJW-20~30	420	480	825
Cabinet type (with foot)	SJW-45~60	600	520	1050

3.4 Outline drawing and wiring instruction

The outline wiring diagrams for TND single-phase and SJW three-phase products are shown in Figures 13, 14, 15, 16, 17 and 18;

3.4.1. The outline and wiring of the TND-0.5, 1 and 1.5kVA high-precision fully automatic AC voltage stabilizers are shown in Figure 13.

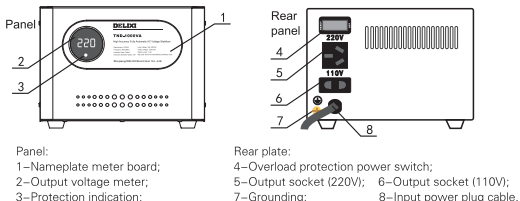


Figure 13 TND-0.5, 1, 1.5k VA

3.4.2. The outline and wiring of the TND-2, 3 and 5kVA high-precision fully automatic AC voltage stabilizers are shown in Figure 13.

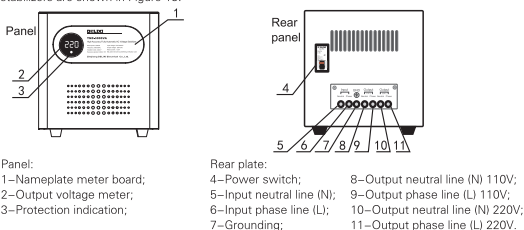


Figure 14 TND-2, 3, 5kVA

3.4.3. The outline and wiring of the TND-7~10kVA high-precision fully automatic AC voltage stabilizers are shown in Figure 15.

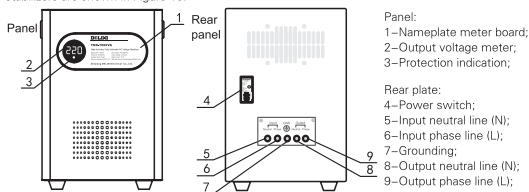


Figure 15 TND-7kVA~10kVA

3.4.4. The outline and wiring of the TND-10~30kVA high-precision fully automatic AC voltage stabilizers are shown in Figure 16.

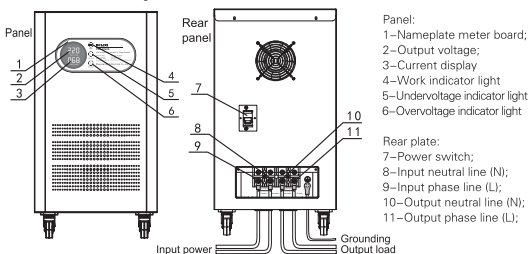


Figure 16 TND-10~30kVA

3.4.5. The outline and wiring of the SJW-1.5~4.5kVA high-precision fully automatic AC voltage stabilizers are shown in Figure 17.

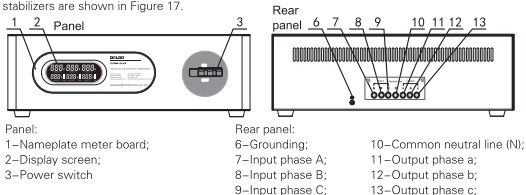
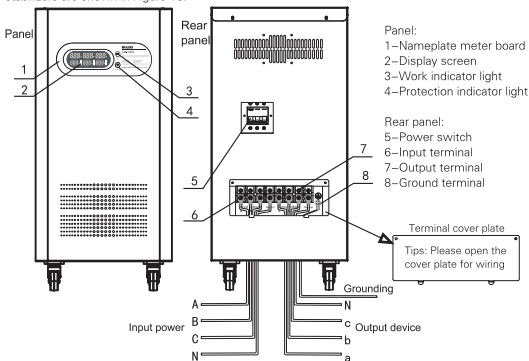


Figure 17 SJW-1.5~4.5kVA

3.4.6. The outline and wiring of the SJW-6~60kVA high-precision fully automatic AC voltage stabilizers are shown in Figure 18.



Input and output terminal (input power supply is of three-phase four-wire system)
Input ABCN (neutral), output a b c N (neutral)

Figure 18 SJW-6~60kVA

3.4.7 SJW-series display screen schematic diagram 19

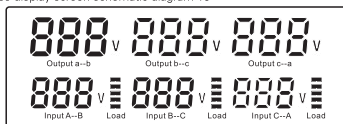


Figure 19 SJW-1 display screen schematic diagram

4. Instruction for use

4.1 The output power indicated by the voltage stabilizer is the maximum apparent power, while the nominal power of household appliance refers to active power. However, inductive loads such as refrigerator and air conditioner have a high current at the moment of startup, so refrigerator and air conditioner are rated at a power of $\times 2 \sim 3$ times. If the input voltage is too low, the load should be reduced, and the specific selection can refer to the output capacity curve (Figure 1).

4.2 When the input phase voltage is lower than 198V (the line voltage is lower than 342V), the output capacity curve (Figure 1) should be followed for derating purpose! When using a three-phase product with single-phase load, the load per phase should not exceed 1/3 of the rated capacity (for example, for the SJW-30kVA high-precision fully automatic AC voltage stabilizer, the load capacity per phase should not exceed 10kVA); the three-phase current should be balanced as much as possible, otherwise it may damage the voltage stabilizer and affect its service life.

4.3 When the output voltage of the TND-0.5-5kVA voltage stabilizer is 110V, the output capacity cannot exceed 35% of the rated capacity to avoid overload damage.

4.4 When installing and using this product, it is necessary to select the load reasonably. During selection, the voltage stabilizer should be chosen based on the rated power, inductive or capacitive load condition of the electrical equipment. Its output capacity should have sufficient margin, especially for impact load. The specific safety factors for selection are shown in Table 4.

Table 4

Load characteristic	Device type	Safety factor	Selection of voltage stabilizer capacity
Purely resistive load	Incandescent lamp, resistance wire, electric furnace and other equipment	1.3 ~ 2	≥ 1.3 times the total load power
Inductive, capacitive load	Electric equipment (motor), elevator, air conditioner, computer room, factory, office building, etc	2~3	≥ 2 times the total load power
Principles for selecting the safety factor: In inductive or capacitive load environment, due to the large starting current of the load, there may be an impact on the voltage stabilizer. To ensure reliable operation of the product, the safety factor must be carefully selected during model selection. The safety factor should be chosen based on the load condition. Generally, when the load has a small variety, high power, continuous long-term operation, or repeated short-term operation (frequent starting), and there's no additional starting equipment, a larger value should be chosen, conversely, a smaller value should be selected.			

4.5 To ensure equipment and personal safety, the voltage stabilizer housing is equipped with grounding screws or grounding terminals. During installation, it must be reliably grounded to prevent induced voltage or moisture leakage on the housing, thereby ensuring equipment and personal safety.

4.6 With motor operated equipment or high current starting device, a voltage stabilizer with a capacity of more than 3 times should be selected to avoid excessive starting current and voltage drop in the power supply line, which may prevent normal operation.

4.7 Single-phase 0.5-2kVA adopts overload protection switch, and voltage stabilizer of 3kVA and above uses DZ47s miniature circuit breaker for overcurrent protection. Before use, check whether the overload protector is in the closed position, and whether the circuit breaker and switch are flexible and reliable.

4.8 It is not advisable to install electric leakage circuit breaker at the input end of the three-phase voltage stabilizer. If leakage protection is required, it should be installed at the output end of the voltage stabilizer to avoid accidental tripping caused by neutral line deviation.

4.9 When installing voltage stabilizer, it is necessary to consider the specification of the main power switch and fuse at the front end of the voltage stabilizer, the current should be greater than or equal to the nominal current of the voltage stabilizer switch to avoid affecting the output power of the voltage stabilizer or error tripping.

4.10 When wiring the product, first open the terminal cover plate and strictly follow the terminal markings, make sure the wiring is securely and reliably crimped, refer to Figures 13, 14, 15, 16, 17 and 18 for specific wiring locations.

4.11 The opening method of the TND-2 ~ 10kVA, SJW-1.5 ~ 4.5kVA (desk type) wiring terminal is as follows: loosen the screw of terminal cover plate, pull out the terminal, loosen the input, grounding and output terminal screws at the back row of wiring terminal, select the copper wire that meets the electrician's requirements according to Table 6, peel off the 10mm outer skin of the wire, install it onto the hole of the input, grounding and output wiring terminal, and make sure secure crimping. **Note: the front screws are used for internal wiring of the product, and it is strictly prohibited to loosen the front screws!**

4.12 To ensure equipment and personal safety, the voltage stabilizer housing is equipped with grounding screws or grounding terminals. During installation, it must be reliably grounded to prevent induced voltage or moisture leakage on the housing, thereby ensuring equipment and personal safety.

4.13 The opening method of the TND-10 ~ 30kVA, SJW-6 ~ 60kVA wiring terminal is as follows: loosen the screw of "terminal cover plate", take off the terminal cover plate, loosen the input, grounding and output terminal screws at the lower row, select the copper wire that meets the electrician's requirements according to Table 6, peel off the outer skin of the wire according to threading length of terminal lug, after cold pressing firmly with the terminal lug, then install it onto the input, grounding and output wiring terminal. The upper row screws are used for internal wiring of the product, and it is strictly prohibited to loosen the upper row screws!

4.14 The three-phase voltage stabilizer must be connected to the neutral line, i.e. the three-phase four-wire system for work, and it cannot replace the neutral line with ground wire!

4.15 Before connecting to the power supply and starting up, it is necessary to check whether the input voltage falls within the range of the voltage stabilizer's input voltage level. Only after confirmation can it be put into operation.

4.16 After installation, when turning on the input power switch, and the voltage stabilizer will automatically enter the voltage stabilization mode. Once the output voltage becomes normal, it can be used normally by connecting the load device. At this point, the working state of the voltage stabilizer is as follows:

TND-0.5 ~ 10kVA (desk type) normally displays the output voltage;

The TND-10 ~ 30kVA (cabinet type) work light is on, and it normally displays the output voltage and current;

SJW-1.5 ~ 4.5kVA (desk type) only displays the input and output voltage and current normally;

The SJW-6 ~ 60kVA (cabinet type) work light is on, and it normally displays the input and output voltage and current;

4.17 When the input voltage exceeds the voltage regulation range or a fault causes the output phase voltage to exceed $246V \pm 4V$, the voltage stabilizer automatically cuts off the output voltage to protect the electrical equipment, and displays the following status:

The 'Protection' indicator light is on in the voltage meter of the TND-0.5~10kVA voltage stabilizer (desk type);

The 'Overvoltage' indicator light of the TND-10~30kVA voltage stabilizer (cabinet type) is on;

The power switch of the SJW-1.5~4.5kVA voltage stabilizer features direct tripping protection without any status display;

The 'Protection' indicator light of the SJW-6~60kVA voltage stabilizer is on;

4.18 When the input voltage falls below the regulated range or a fault causes the output phase voltage to drop below $184V \pm 4V$, the "undervoltage" indicator light of the TND-10~30kVA voltage stabilizer (cabinet type) will turn on, but the output cut-off function will not be executed. Other products also have no status display, and the voltage stabilizer will operate at low voltage output;

4.19. The product panel is equipped with display meter. The display meter status: see the illustration in Article 3.4 for the single-phase TND series; see the illustration in Article 3.4.7 for the three-phase SJW series.

4.20. If the product experiences overload, power switch tripping or abnormal power on, it indicates that the load exceeds the capacity of the voltage stabilizer or there is a short circuit. In this case, just reduce the load, eliminate the short circuit point, wait for 2-3 minutes until the input power switch cools down, and then close the power switch again.

5. Normal usage condition and maintenance

5.1 The normal operating conditions of the voltage stabilizer should meet the following requirements:

5.1.1 Altitude

The altitude of the installation site for the voltage stabilizer should not exceed 1000m.

5.1.2 Environment temperature

The highest temperature is 40°C; the minimum temperature is -5°C;(suitable for indoor voltage stabilizer);

The average temperature of the hottest month is 30°C; the highest annual average temperature is 20°C.

5.1.3 Atmospheric pressure

Atmospheric pressure: 86kPa~106kPa.

5.1.4 Work environment

a) The product should be installed indoors in a well ventilated and dry place without direct sunlight; the product should be free from corrosive gas, chemical deposit, dirt, conductive dust, combustible material and other explosive and corrosive media;

b) The installation of the product should ensure heat dissipation, and a heat dissipation space of more than 0.5m should be reserved around the product. It is strictly prohibited to place other items on the product;

c) The output terminal cannot be used in parallel.

5.1.5 Relative humidity

The relative humidity should not exceed 90% (at a temperature of 25°C).

5.2 Maintenance

5.2.1 Before use, please carefully read the operation manual and scan the QR code of product's "Tips" label with your phone to obtain the manual;

5.2.2 When the input voltage or load changes, the internal voltage stabilizer will emit mechanical rotation and friction sounds, which is a normal phenomenon;

5.2.3 Maintenance and upkeep require professional personnel. Depending on different usage environment, the maintenance cycle may vary greatly, but the maximum cycle should not exceed half a year. During maintenance, the front switch of the voltage stabilizer should be turned off, and it must be ensured that there is no voltage on the upper end of the power switch at the input end inside the voltage stabilizer. Meanwhile, the main power switch at the input end should be turned off, and all parts of the voltage stabilizer should be thoroughly cleaned to ensure no dust or dirt remains, especially on the carbon brush and the grinding surface of the voltage regulator.

5.2.4 According to the usage environment, it is necessary to regularly disconnect the power supply (usually 6 months); clean the dust inside the product, keep the contact surface, gear and carbon brush of the voltage stabilizer clean. If the carbon brush head is excessively worn, it should be replaced with the same model of carbon brush in a timely manner.

5.2.5 After using the product for one year or when replacing the carbon brush, the pressure of the carbon brush should be adjusted appropriately. The adjustment method is as follows: loosen the screw of the carbon brush component installed on the middle shaft of the motor, press the carbon brush component with hand, so that the carbon brush component can extend and retract within 3~5mm, and then tighten the screw.

5.2.6 Replace worn or damaged (of the same specification) brush in a timely manner to ensure reliable contact of the carbon brush. When the product is operating, the movement of the brush may cause weak punctate sparks at the contact point. If severe sparking occurs, power off the product for maintenance, clean the voltage stabilizer, and if there is a gap between the brush and the coil contact point, place #0 sandpaper between the carbon brush and the coil, rotate the carbon brush assembly naturally by hand, and grind the contact surface of the carbon brush to ensure good flat contact between the brush and the voltage regulator.

5.2.7 When maintaining and servicing motor equipment, strictly follow the prescribed wiring instruction and do not connect the motor phase sequence incorrectly. After maintenance, conduct startup debugging in order, and only put it back into use after it has been debugged to be normal.

5.2.8 The product should be stored indoors in well-packaged condition, with good ventilation and dryness, and free from vibration and corrosive gas (liquid).

5.2.9 This product cannot be lifted, and can only be transported with a forklift. During transportation, it cannot be exposed to moisture, laid on its side or inverted, otherwise the mechanical adjustment mechanism of the voltage stabilizer may be displaced and damaged.

6. Common fault and troubleshooting method

Installation, wiring, maintenance and troubleshooting are not allowed to be operated with electricity, and must be operated by professional electricians or technical personnel to avoid electric shock accidents or damage to the voltage stabilizer!

Table 5 Common fault and troubleshooting method

Fault phenomenon	Fault cause	Troubleshooting method
Voltage stabilizer cannot stabilize the voltage	1.The internal servo motor of the voltage stabilizer has malfunctioned; 2.The circuit board is damaged; 3.Input voltage exceeds the regulated range of the voltage stabilizer; 4.Microswitch open circuit;	1. There is voltage at both ends of the motor, but the motor does not run, the motor should be replaced. There is no voltage at both ends of the motor; check if the microswitch has an open circuit and the output voltage potentiometer on the circuit board. If it still cannot be ruled out, replace it with motor of the same model. 2. If the sampling voltage of the circuit board is normal, adjust the output voltage on the circuit board to regulate the potentiometer. If the fault has not been eliminated, the circuit board of the same model should be replaced (the board number should be consistent). 3.Measure whether the input voltage exceeds the regulated range of the product. If it exceeds the regulated range, adjust the grid voltage, circuit, or customize a wide range voltage stabilizer. 4.After power outage, measure the resistance of the pin at both ends of the microswitch, and the resistance value should be 0 Ω. If the resistance is too high or infinite, replace it with a microswitch of the same model.
The voltage stabilizer is not working and there is no output voltage	1.The input terminal of the voltage stabilizer is open circuit; 2. Circuit breaker tripping or overload protection	1.Connect the input power supply and check if the wiring is secure and reliable; 2. Reduce the output load power and reopen the switch.
The voltage stabilizer can stabilize the voltage, but the voltage value is offset	1.Voltage regulation potentiometer deflects; 2. The voltmeter indication is not accurate.	1.Readjust the voltage potentiometer; 2.Replace or repair the voltmeter.
The voltage stabilizer ring transformer is burnt out	1. The load is too large, exceeding the load capacity of the stabilizer.	1.Replace the ring transformer and adjust the output voltage again, and reduce the load to avoid burning out again.
Sometimes there is mechanical rotation and friction sound inside the voltage stabilizer	1.Frequent fluctuation in input voltage; 2.Large load fluctuation.	1. It is a normal phenomenon caused by input voltage fluctuation; 2. It is a normal phenomenon caused by large load fluctuation.
After connecting the voltage stabilizer, the circuit breaker switch trips	1. The input line of the voltage stabilizer is connected incorrectly; 2. The rated current of the circuit breaker switch does not match; 3. The input front end is leakage circuit breaker.	1.Reconnect the input and output wires of the voltage stabilizer correctly; 2.Select circuit breaker with appropriate current; 3.The leakage circuit breaker can be adjusted to the output end of the voltage stabilizer.
The output voltmeter swings continuously	1.Poor contact caused by oxidation of the coil contact surface or low carbon brush pressure; 2. The carbon brush is severely worn.	1.Clean the contact surface of the coil with fine sandcloth and readjust the pressure of the carbon brush; 2.Replace the carbon brush, adjust the pressure of the carbon brush, and ensure good contact with the coil.
The three-phase voltage stabilizer does not start and there's no output voltage	1. The input end of the voltage stabilizer is out of phase; 2. The control circuit board is not working or in a protected state;	1.Properly connect the A,B, and C phase lines and 0 "neutral line" at the input terminal; 2. If the control circuit board is disconnected or damaged, repair or replace it with a new one; 3. If the input voltage exceeds the range of the voltage stabilizer, it is necessary to adjust the mains voltage.

8. Installation tips!

Before installing the product, appropriate external copper wire should be selected based on the load power or rated power of the voltage stabilizer; external input and output wire should not be too thin or too long to prevent the product from working properly due to the selection of wire that are too thin or too long. Recommended selection of external adaptive wire should refer to Table 6:

It's generally calculated based on the general copper wire current carrying capacity: The safe current carrying capacity of the wire is determined based on the maximum allowable core temperature, cooling condition and laying condition. The safe current carrying capacity of general copper wire is $5 \sim 8 \text{ A/mm}^2$

For example, the recommended safe current carrying capacity of 2.5 mm^2 BVV copper wire is $2.5 \times 8 \text{ A/mm}^2 = 20 \text{ A}$

Table 6 External wire recommendation table

No.	Product model	Cross section of external copper wire	No.	Product model	Cross section of external copper wire
1	TND- 500VA	$\geq 0.5 \text{ mm}^2$	12	SJW- 1500VA	$\geq 0.5 \text{ mm}^2$
2	TND-1000VA	$\geq 0.75 \text{ mm}^2$	13	SJW- 3000VA	$\geq 0.75 \text{ mm}^2$
3	TND- 1500VA	$\geq 1.0 \text{ mm}^2$	14	SJW- 4500VA	$\geq 1.0 \text{ mm}^2$
4	TND- 2000VA	$\geq 1.5 \text{ mm}^2$	15	SJW- 6000VA	$\geq 1.5 \text{ mm}^2$
5	TND- 3000VA	$\geq 2.5 \text{ mm}^2$	16	SJW- 9000VA	$\geq 2.5 \text{ mm}^2$
6	TND- 5000VA	$\geq 4.0 \text{ mm}^2$	17	SJW-15kVA	$\geq 4.0 \text{ mm}^2$
7	TND- 7000VA	$\geq 6.0 \text{ mm}^2$	18	SJW- 20kVA	$\geq 6.0 \text{ mm}^2$
8	TND- 10kVA	$\geq 10 \text{ mm}^2$	19	SJW- 30kVA	$\geq 10 \text{ mm}^2$
9	TND-15kVA	$\geq 16 \text{ mm}^2$	20	SJW- 45kVA	$\geq 16 \text{ mm}^2$
10	TND-20kVA	$\geq 16 \text{ mm}^2$	21	SJW- 60kVA	$\geq 16 \text{ mm}^2$
11	TND- 30kVA	$\geq 25 \text{ mm}^2$	22	SJW- 90kVA	$\geq 25 \text{ mm}^2$

General load(such as incandescent lamp, refrigerators, etc.) is classified into two types: resistive load and inductive load.

The calculation formula for commonly used resistive load: $P=U \times I$

P =rated power (W); U =rated voltage (V); I =rated current (A).

There is a factor relationship between apparent power and active power, with power factor of $\cos \phi \ 0.8$; The relationship between the two is: apparent power $1000 \text{ VA} \times 0.8$ =active power 800 W .

9. Attached document

Installation and operation manual (including certificate of conformity), 1 copy;

10. Ordering instruction

10.1 The product model, rated output capacity, number of phases, input voltage and output voltage, voltage regulation accuracy, inlet and outlet wire position and load condition must be indicated when ordering.

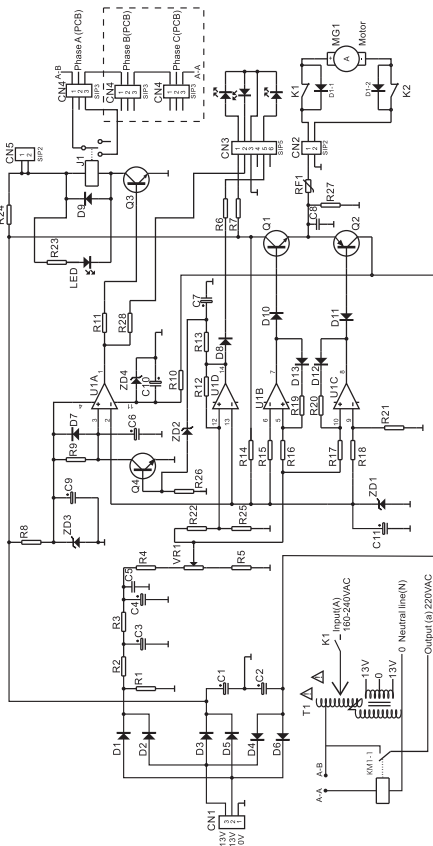
10.2 Required quantity.

10.3 For special requirement, production can be arranged according to customer requirement.



When this product or its component is scrapped, it should be properly disposed of as industrial waste or handed over to recycling station for classification, disassembly, recycling and reuse in accordance with relevant national regulations.

TND-15kVA~20kVA High accuracy fully automatic AC voltage stabilizer (Schematic diagram)
 SJW-6kVA~60kVA High accuracy fully automatic AC voltage stabilizer



For reference only, no further notice for any change

Company commitment

Within 24 months from the production date of the product, the company provides "three guarantees" services when the product cannot be used normally due to manufacturing quality problem under the normal storage, transportation, maintenance and use conditions of the customer. However, if damage is caused by the following circumstances, even within the warranty period, paid repairs will be made.

- 1) Improper use, maintenance or storage;
- 2) Self modification and improper maintenance;
- 3) Falling or damage during installation after purchase;
- 4) Force majeure such as earthquake, fire, lightning strike, abnormal voltage and secondary disaster;

If any question, please contact the dealer or our company's customer service department.
Customer service hotline: 400-826-8008

DELIXI
ELECTRIC

Certificate of Conformity

Name: High Accuracy Fully Automatic
AC Voltage Stabilizer

Model: TND, SJW Series

This product has passed the
inspection and is allowed to leave
the factory.

Executive standard : Q/DLX 155

Inspector: Inspection 05

Zhejiang DELIXI Electrical Co.,Ltd.

Mfg. date: see product number

Zhejiang DELIXI Electrical Co.,Ltd.

Add: No. 155, Zhandong Road, Liushi Town, Yueqing City, Zhejiang Province

Zip code: 325604

Tel: (86-577) 6177 8888

Fax: (86-577) 6177 8000

Customer service hotline: 400-826-8008

www.delixi-electric.com

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