



# 20KVA Two Phase Non-contact Voltage Stabilizer Specifications

## 1. Working Environments

Usage: indoor, vibration-free & jolt, stabilizer no serious affection from insulation gas, steam, chemical deposition, dust, dirt and other bombings and corrosive medium.

Working Voltage: 208V/120V $\pm$ 20% , 50/60HZ

Working Environment Temperature: -15°C ~ +45°C

Altitude:  $\leq$ 1000m

Relative Humidity :  $\leq$ 90%

## 2. Characteristics

### ❖ LCD Large-screen

Using large-screen LCD display, can shows dynamic display voltage, current, and all kinds of working condition.

### ❖ Product Characteristics

The speed of response time(regulating speed) can be fast to 40ms, non-contact, anti-interference, no mechanical failure and wear of carbon brush, maintenance-free. Two-phase voltage regulating independently to ensure the balance of output voltage . Effectively protect the security of the precision equipment.

### ❖ Precision (output accuracy) Can Be Adjusted

All precision of the stabilizer is preset plus or minus 1%. According to different load demand can be adjusted plus or minus 1%, plus or minus 3%, plus or minus 5%.

### ❖ Manual Voltage Regulation

According to production requirement, within the scope of the 10% rated voltage value, the stabilizer can set voltage arbitrarily for different electrical equipment.

### ❖ Automatic Bypass Function

Equipped with automatic bypass function, when the stabilizer fails,it can turn into the mains automatically, no affection for the production.

### ❖ Output High and Low Voltage Protection Function

When monitoring circuit detect the output voltage beyond the upper or lower limit, voltage stabilizer can turn into the mains automatically, no affection for the production.

❖ **Lack of Phase/Phase Fault Protection Function**

When monitoring circuit detected phase failure, voltage regulator /stabilizer will cut off the output automatically and voice alarm.

❖ **Delay Stabilizing Output Voltage Function**

Voltage Stabilizer boot or recover from a state of protection, would not be regulated immediately. But stay on only after users determine that the mains voltage are normal to ensure that the load equipment would not be damaged.

❖ **Automatic Output Function**

System preset is automatic output. When stabilizer connect to the mains, system detect that the power grid is normal, then it would delay 30 seconds, stabilizing output voltage automatically.

❖ **Modular Design, Easy to Replace and Repair**

Adopting modular design, regulating circuit and monitoring circuits independent to each other, all components are standard normalization. Assembly, debugging, maintenance are more simple and quick.

❖ **Strong Load/Carrying Capacity**







When the short-time overload or short-circuit, the transformer would not be damaged to avoid coil burning fire. When overload 150%, stabilizer can withstand 90 seconds, 20 seconds for overload 200%.








### 3.Main Technical Index

INPUT	Rated Voltage	Phase Voltage AC 120V, Line Voltage AC 208V
	Stabilized Voltage Range	2P3W+G 166V-249V
	Frequency	50HZ/60HZ
OUTPUT	Rated Voltage	Phase Voltage AC120V, Line Voltage AC 208V
	Center Voltage	±7%(can be adjusted)
	Output Accuracy	±1%
	Response Time	≤5ms
	Stabilization Time	≤40ms/Step
	Waveform Distortion	Do not produce additional waveform distortion (Static)
	Efficiency	≥99%
	Three-phase Unbalance Factor	Two-phase voltage balance automatically, incrementation≤2%
PROTECTION	Over-voltage	The output phase voltage is higher than 10% (132V), cut off the output.
	Under-voltage	The output phase voltage is lower than 10% (108V) , cut off the output.
	Phase Loss	Yes, uninterrupted to bypass
	Overload	Electric detection, overload 1 minute, the output would be cut off.

	Over-current	Electronic detection and circuit breaker dual protection.
	Short Circuit	Electronic detection and circuit breaker dual protection.
	Bypass	Manual bypass and automatic bypass.
INSTRUCTION	Voltage	A、B、 $\Sigma$ AB Two-phase shows respectively true and effective values
	Current	A、B、 $\Sigma$ AB Two-phase shows respectively true and effective values
	Working State	AVR/Bypass
	Abnormal	Over-voltage, under-voltage, over-load, fuse blowing
CONTROL MODE		DSP operate metering chip intelligent control technology
WORKING MODE		With automatic voltage regulation and the bypass, two working mode.
VOLTAGE REGULATION MODE		Three-phase adjust voltage separately
OVERLOAD CAPACITY		3 times the rated current, 1 second, can be adapted to the resistive, inductive, capacitive and impact load; can withstand the instantaneous overload impact. Stabilizer continuously output the rated current. When temperature rise stably, overload 10% for 30 minutes is allowed. Short-term (5 minutes) overload current (1.6 times rated value) is also allowed.

## 4.Main Material List

Material Name		Manufacturer	Introductions
ENCLOSURE			Adopt 2.0 Thick Cold-Roll Steel Sheets.Surface treatment:G139→Phosphating+PZ660 powder+powder coating (RAL7032) plastic spraying;
DISPLAY			Adopt STH wide angle LCD display, reading clearly; stereoscopic and direct.
MAIN BOARD	CONTROL PCB		Develop PCB independently, stable circuitry;The main components adopt imported brand, like "Infineon", "ST", "Fairchild", "Toshiba", etc.
	DRIVER PCB		
SING PHASE COMPENSATING TRANSFORMER			Through secondary vacuum dipping, and continuously bake for 10 hours under the high temperature of 130 .Transformer insulation class F, heat resistance 155 . All the withstanding voltage are 3500V/5mA/min;
THREE-PHASE REGULATING TRANSFORMER			

SCR		“SEMIKRON” or “IXYS” import from Germany authenticity
DIODE		“SEMIKRON” or “IXYS” import from Germany authenticity
FUSE		Adopting domestic fuse, the first brand “Ming Rong” company’s high quality products
INPUT SWITCH		The most famous brands in China with the top quantity. Their Switches are doing much testing.
CONTACTOR		The most famous brands in China with the top quantity.
SWITCHING POWER SUPPLY		“MING WETT” from Taiwan. Global switching power supply professional supplier
SHUNT RESISTENCE		Industrial-grade resistance stable and durable

## 5. Technology and Special Requirements

1. With output manual bypass switch;
2. Enclosure material: Baosteel (or Wuhan Iron and Steel Group Corp) 2mm thick cold-roll steel sheets;
3. Surface Treatment: G139 → Phosphating + PZ660 powder + powder coating (RAL7032);
4. Products manufacture in accordance with the law of the People's Republic of China industry standard "Non-contact Compensating AC Stabilizer" 《YD/T1270-2003》, also accord with 《SBW/IMT01-92 Automatic Compensating AC Stabilizer Standards》, 《JB/T7620-94》 Compensating AC Stabilizer Targets.

## 6. Technical Documents

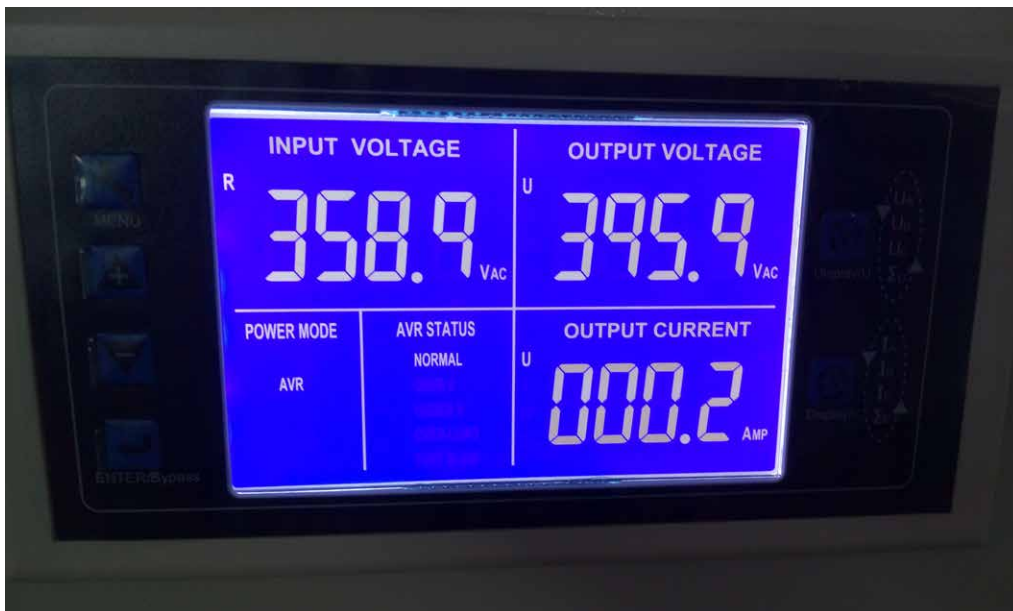
Provide the complete technical file about the equipment :

- A. 1 pcs The whole machine quality certification.
- B. 1 pcs Product test report
- C. 1 pcs User Manual

## 7. Quality Assurance and After-sales Service

- 1) Equipment warranty period is 1 year from the date of delivery;
- 2) During the warranty period, supplier offer technical support for free; When get the notice of the failure by the Party A, Party B should implement the warranty obligations; Reponse within 8 hours and the solution should be given without 24 hours to reduce the losses of Party A. If maintenance need other spare parts, Party B assist purchasing, installation and debugging, within 48 hours solve the problem.
- 3) After the warranty period, the supplier provide user with timely, high-quality, favorable technical service and supply spare parts.

## 8. Non-contact Voltage Stabilizer Large-sreen LCD Display



## 9. Pictures for 20KVA Non-contact/SCR Voltage Stabilizer

