

THREE PHASE STATIC ELECTRONIC AC VOLTAGE STABILISER

● 10kVA~3000kVA

Three Phase input/ Three Phase output

SINGLE PHASE STATIC ELECTRONIC AC VOLTAGE STABILISER

● 10kVA~100kVA

Single Phase input/ SinglePhase output

This series of industrial grade static electronic AC voltage stabilizers have single phase SWV-1P and three phase SWV-3P.

Compare with other forms voltage stabilizers, have large capacity, high efficiency, no waveform distortion, and fast response time, suitable for wide range loads, this series products is equipped with overvoltage, undervoltage, overcurrent and other protection functions, easy to install, and operation. The product adopts the latest DSP calculation and measurement chip control technology, fast AC sampling technology, effective value correction technology, current zero-crossing switching technology and fast compensation voltage stabilization technology. It combines intelligent instruments, fast voltage stabilization and fault diagnosis, make the product safe and efficient, precision.

10-50Kva



150Kva-500Kva



30Kva IP54 Outdoor



The product is mainly composed of isolation transformer, SCR module, CPU control core and safe protection device, realizing full nocontact control.

Widely used in large electromechanical equipment, metal processing equipment, production lines, elevators, medical equipment, embroidery and textile equipment, air conditioners, radio and television, household appliances and building lighting in the fields of industry, transportation, post and telecommunications, national defense, railways, scientific research and other fields. and other electrical equipment that require stable voltage.

Comply with standard: YD/T 1270.

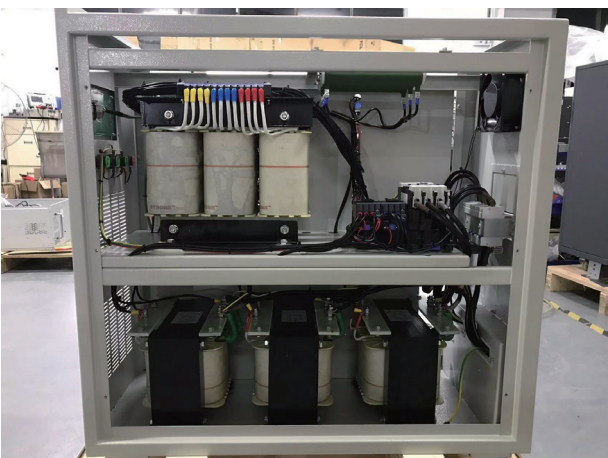
Input Voltage Range

Three Phase 304V-456V / 278V-433V

Single Phase 152V-228V / 166V-249V / 173V-263V

Additional Features

- Front Status Panel with Metering
- Input Circuit Breaker to protect against overload and short circuit
- **Voltage stabilization response:** voltage stabilization response time in 40 ms and not affect the load to high speed voltage changes.
- **High Accuracy:** SWV-3 series products output voltage accuracy can be set from $\pm 1\%$ to $\pm 5\%$, and the maximum voltage stabilization accuracy is $\pm 1\%$.
- **Communication interface:** RS-232 and RS-485 communication interfaces (optional)
- Over & Under Volts and Over Current Protection
- Anti interference, strong purification ability, safe and pure output power.
- Automatic Re-Start in the event of a Utility Mains Failure
- Virtually Maintenance Free



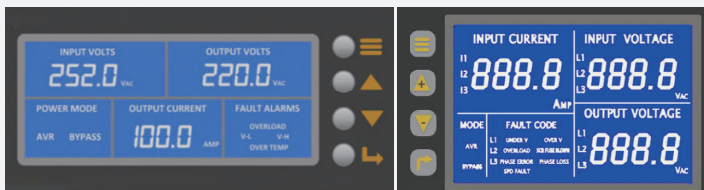
System Parameters

		10Kva	20Kva	30Kva	40Kva	50Kva	60Kva	80Kva	100Kva
Rated Power		10KW	20KW	30KW	40KW	50KW	60KW	80KW	100KW
Input	Phase	3-phase 4-wire(Can be customized 3-phase 3-wire) / single phase							
	Voltage	278V-437V / 152V-253V							
	Frequency	50Hz/60Hz							
Output	Phase	3 phase/single phase							
	Voltage	AC 380V ±3% / 190V ±2% (208V/220V) / Customisation							
	Accuracy	±1%							
	Frequency	50Hz/60Hz							

		150Kva	200Kva	300Kva	400Kva	500Kva	600Kva	800Kva	1000Kva	2000Kva
Rated Power		150KW	200KW	300KW	400KW	500KW	600KW	800KW	1000KW	2000KW
Input	Phase	3-phase 4-wire(Can be customized 3-phase 3-wire)								
	Voltage	278V-437V								
Output	Frequency	50Hz/60Hz								
	Phase	3-phase								
	Voltage	AC 380V ±3% / Customize								
	Accuracy	±1%								
	Frequency	50Hz/60Hz								
Response time		Power supply changes corrected in 0.1 seconds								
Efficiency		≥ 98%								
Cooling		Natural Ventilation (aided with fans)								

Operating Ambient Temperature	-10/+45°C								
Storage Temperature	-25/+60°C								
Max Relative Humidity (Non Condensing)	95%								
Admitted Overload	150% for up to 10 seconds			200% for up to 2 seconds					
Harmonic Distortion	None Introduced								
Colour	RAL 7032								
Max Ingress Protection Degree	IP54								
Status & Alarm Indication (Front Panel)	Input Switch, InputBreaker, Output Breaker and Manual Bypass, Phase Failure Protection, Automatic Electronic Bypass, Class II Lightning Surge Arrestors, Temperature Controller, LCD Display Panel with RS/485 – Modbus Interface.								
Installation	Indoor or Outdoor - Hardwired Screw Terminals (bottom or side cable entry)								
Physical Size (W x H x D)	1200*800*1600			1300*800*1950			1550*1050*2000	1800*1000*2000	1500*1000*2000*2
Weight (KG)	500	530	650	700	790	940	1800	2200	3200

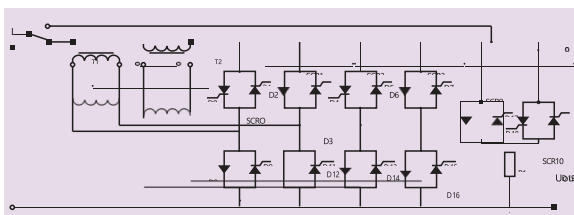
Front Status Panel



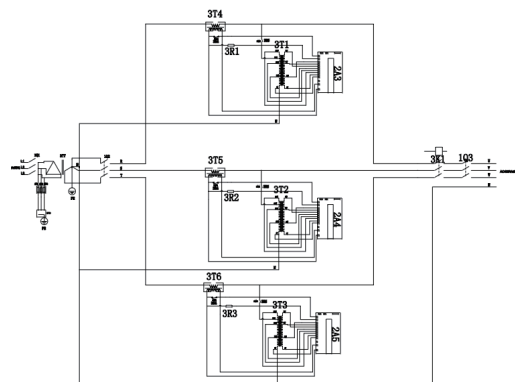
Input & Output Connection



Schematic Diagram



Note: This picture is single phase schematic block diagram.



Note: This picture is three phase schematic diagram

Technical Performance Comparison

Technical Indicators	SWV Industrial Grade Static Electronic AC Voltage Stabilizer	Compensated column type Current regulator (servo type)	Inductive voltage regulator
Work Principle	The microcomputer intelligent detection output command is used to control the rapid switching of the silicon controlled thyristor module (SCR), and the stability of the output voltage is maintained through the same frequency of the transformer, phase locking, and sine wave superposition compensation. Fast response, no carbon brushes, no contacts, no machinery, no sparks, three-phase adjustment.	Relying on the movement of the carbon brush frame on the voltage regulating transformer, the voltage of the secondary winding of the compensation transformer is changed to maintain the stability of the output voltage. There are carbon brushes, contacts, and mechanical transmission.	By changing the phase angle of the stator and rotor, the relative voltages of the input and output are changed.
Response time	Fast: The time to stabilize to the rated voltage value is $\leq 40\text{ms}$, which can suppress instantaneous input high and low surge voltages and effectively protect precision equipment in real time.	Slow (3~5)s: Motor adjustment (servo l)	Slow (3~5) s: It is a hysteresis voltage regulator, which cannot suppress the instantaneous input high and low surge voltage, and it is difficult to protect precision equipment.
Parameter set	on the display panel can set various parameters	No	No
Three phases no Balance	automatic balancing function.	No	No
Protect response time	20ms protection after abnormal situation occurs	$\geq 10\text{s}$	No
Magnetic leakage interference	No	No	Yes (stator/rotor magnetic leakage)
Grid pollution	No	No	surge voltage feed back to the power grid, which increases b ypower.
Maintenance	Free	periodical	periodical

