

# SBW-SW SERIES Intelligent power stabilizer

Number control technology

Large capacity

High efficiency

Support remote communication



Comply with IEC/GBT standards

Provide your house energy storage solution

Whole solutions for design, assembly, test...

Accountable solution for safety and reliability

Wide range offering, easy business and ready to use out of the box



Table of contents

<http://www.rw-relay.com>

About us / contact us	1
Summary	2
Main characteristics	3
System structure	4
Main technical parameters	5
After-sales service	7



Zhejiang Rockwill Energy Technology Co., Ltd. is a technology enterprise specializing in providing complete solutions for power automation system and related automation system supporting equipment.

The company has a long-term strategic cooperation with internationally renowned middle and high voltage electrical equipment R & D and manufacturing companies and research institutes, and has jointly developed a series of high-quality automation products,. The company has also married with the provincial intelligent high-voltage switch laboratory to jointly develop a new generation of intelligent synchronous switch measurement and control devices, electronic transformers, voltage sensor processing units, etc., and has achieved some fruitful technical achievements and accumulated a large number of industry professional and technical elites with excellent experience. Solid talent base, advanced production equipment, perfect quality system, strict testing means, is a strong guarantee for the company's product quality alone.

In addition to providing a rich choice of products, we can provide you with technical solution support services, you only need to tell us your needs, our technical staff will be tailored for you to design a complete set of product solutions

The company is renowned at home and abroad for providing high-quality products and services. In addition to the domestic market, the products are currently exported to South America, Central Asia, the Middle East, Central Europe, Southeast Asia, Africa and other places. We always adhere to the belief of growing together with customers, and strive to provide safer, more reliable, more advanced and more humane automation system solutions and equipment.

ROCKWILL<sup>®</sup>, China. Provide with best support.

If you have any question please consult below:

Email: [support@rw-relay.com](mailto:support@rw-relay.com)

Tel: [+86 \(577\) 27819965](tel:+86(577)27819965)

WEB station: <http://www.rw-relay.com/>

mobile: [+86 13867748881](tel:+8613867748881)

ROCKWILL® Energy strives to bring our customers the latest technology and competitive pricing and best service for distribution automatic.

The SBW-SW series of intelligent thyristor contactless AC voltage stabilize new generation of intelligent, fast and energy-saving voltage stabilizers designed to stabilize AC voltage according to customer needs. central control system of the voltage stabilizer adopts single-chip intelligent control and is equipped with a multi-language liquid display, which highlights the safety, stability, energy saving and humanized human machine interface of this equipment. Compared with traditional compensated voltage stabilizers and conventional contactless AC voltage stabilizers in the industry, it has five significant advantages: intelligent control ah precision, fast voltage stabilization, silent energy saving, and no sudden change in output; and it has high precision, fast voltage stabilization and no sudden change in output without contact. It is the leading technology in the industry

SBW-SW series intelligent thyristor contactless AC voltage stabilizer integrates digitalization, intelligence and humanization, and has a powerful information collection system, signal processing system, detection and control system and a complete protection system. This voltage stabilizer is an energy-saving, environmentally friendly and efficient power supply product integrates advanced thyristor contactless switch, microcomputer controlled AC voltage stabilization technology and。

It is a comprehensive replacement product for traditional compensated voltage stabilizers, traditional contactless AC voltage stabilizers and other voltage stabilization equipment.

### Service environment

Air temperature: Ambient temperature: -15°C ~ +40°C

Humidity: 0% ~ 90% (Non-congealing cream)

Above sea level: -100~1000m

Install site Free of severe vibration or bumps

**1. Fast response speed:**

The main control chip adopts ARM7 (32-bit single-chip microcomputer), with a Cortex-M4 core (with floating-point unit) operating at a frequency of 168 MHz, a 12-bit high-speed AD acquisition module, 256 points per cycle, true effective value calculation combined with efficient digital processing operations, and fast switching compensation of the thyristor electronic module when the current crosses zero

**2. Multiple adjustment modes can be set:**

Coordinated adjustment: When coordinated adjustment is set, AD simultaneously collects the true effective values of the three-phase voltages of A, B, and C for average calculation, and gives instructions for compensation, which can effectively improve the imbalance of the three-phase voltage.

Separate adjustment: When separate adjustment is set, the three-phase voltages are adjusted separately to ensure that the three-phase voltages are within the accuracy range, which is particularly suitable for single-phase loads

**3. Advanced measurement technology**

12-bit high-speed AD acquisition, MCU for digital filtering and true effective value calculation, precise control, perfect coordination of large-scale programmable logic devices and MCU

**4. Humanized human-machine interface:**

Various indicators (output voltage, voltage regulation accuracy, protection function, etc.) can be set through the touch keys of the operation panel

**5. Output waveform without distortion:**

SCR current zero-crossing switching: superposition compensation principle, smooth adjustment without sudden changes and distortion.

**6. Anti-harmonic interference:**

True RMS voltage and current frequency detection, voltage and current zero-crossing detection.

**7. Wide load range:**

Can adapt to resistive, capacitive and inductive loads.

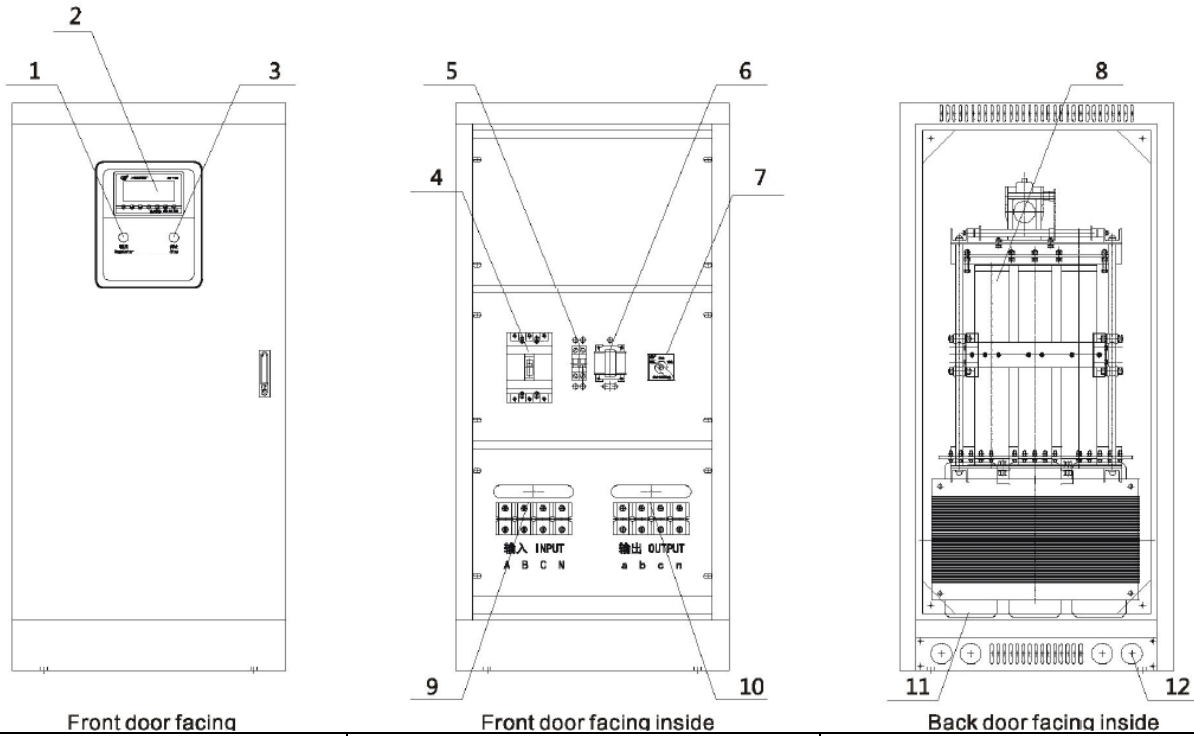
**8. Complete protection functions:**

When overvoltage or undervoltage occurs, protection can be provided according to the set time. When the fuse is blown, it can automatically switch to bypass operation without interruption. It also has complete phase sequence (optional), phase loss, short delay for overcurrent, long delay for overload (inverse time limit), short circuit instantaneous protection and sound and light alarm function after failure

**9. Display:**

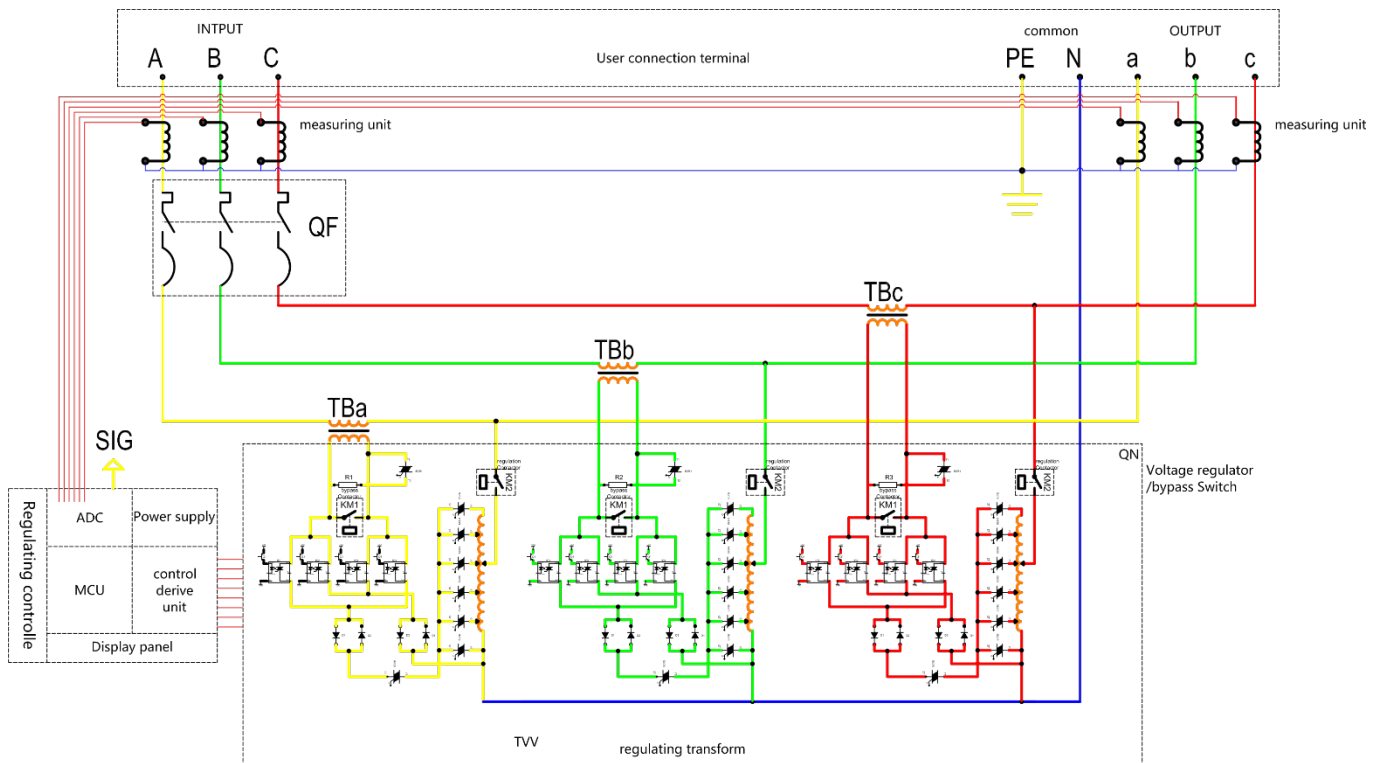
Four-split screen display: input phase/line voltage, output phase/line voltage, output working current, working mode (voltage regulation, mains) voltage regulation mode (central regulation, separate regulation), fault information display (overvoltage, undervoltage, overcurrent, overload, fuse break) and information query function, etc.

Product display:



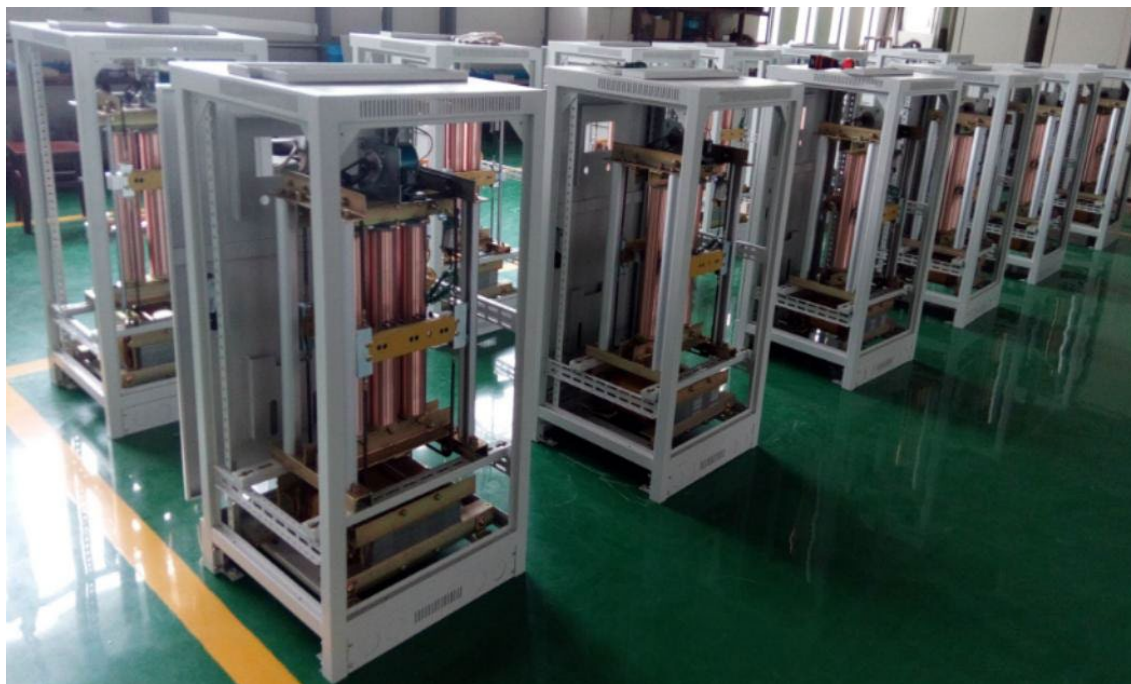
Front door facing	Front door facing inside	Back door facing inside
1.stable Voltage indicator lighting	2.Intelligent control display	3.Stop button
4.Mian power switch	5.Control loop fuse	6.Control power transform
7.gird/stabilization switch	8.Voltage regulating transform	9.Input terminal block
10.output terminal block	11. Compensation transform	12. cable entry and exit hole

system structure:



Input	Input Voltage range	3-phase 5line AC380V±20%
	Rated Voltage range	3-phase 5line AC380V±15%
	Rated frequency	47Hz-63Hz
Output	Rate output Voltage	3-phase 5line AC380V (adjustable)
	Center Voltage	±5% adjustable (adjustable)
	Voltage stabilization accuracy	1%~5%
	Response time	≤0.1s
	Stabilization time	≤1S
	Waveform distortion	Increment ≤0.5%
	Efficiency	≥97%
	3-phase unbalance	Increment ≤0.5%
	Operation mode	Manual Voltage regulator/automatic Voltage regulator
Protection	Over-voltage	Default 10% 6s cut off
	Under-voltage	Default 12% 12s cut off
	Overload	Inverse-time curve cut off
	Overcurrent	Inverse-time curve cut off
	Short-circuit	Instantaneous Cut off
	Bypass	Manual direct-through device
Display and alarm	Input voltage display	Automatic rotation display UAB UBC UCA
	output voltage display	Automatic rotation display UAB UBC UCA
	line current display	Automatic rotation display IA IB IC
	Working status display and report	a. over-voltage, b. under-voltage, c. overload
Safety regulations	Ground	≥10mm <sup>2</sup>
	Electrical clearance and creepage distance	≥22mm
	Dielectric strength	≥20MΩ
	work frequency withstand voltage	AC2000V1Min ≤20mA
Optional feature		Lighting protection device
		EMI filter device
		Phase sequence, phase loss protection function
		Communication interface

Model	Input Voltage	Rated capacity	Rated current
SBW-SW-20	3-phase AC380V±20%	20KVA	31A
SBW-SW-30		30KVA	46A
SBW-SW-50		50KVA	76A
SBW-SW-60		60KVA	91A
SBW-SW-80		80KVA	122A
SBW-SW-100		100KVA	152A
SBW-SW-120		120KVA	182A
SBW-SW-150		150KVA	228A
SBW-SW-180		180KVA	274A
SBW-SW-225		225KVA	342A
SBW-SW-250		250KVA	380A
SBW-SW-320		320KVA	486A
SBW-SW-400		400KVA	608A
SBW-SW-500		500KVA	760A
SBW-SW-600		600KVA	912A
SBW-SW-800		800KVA	1216A
SBW-SW-1000		1000KVA	1520A
SBW-SW-1200		1200KVA	1824A
SBW-SW-1400		1400KVA	2128A
SBW-SW-1600		1600KVA	2432A
SBW-SW-2000	2000KVA	3040A	
SBW-SW-2500	2500KVA	3800A	
SBW-SW-3200	3200KVA	4860A	



Field service operation and warranty issues:

ROCKWILL® can provide competent, well trained field service representatives to provide technical guidance and advisory assistance for the installation, overhaul, repair and maintenance of ROCKWILL® equipment, processes and systems.

ROCKWILL® service Tel: [+86 \(577\) 27819965](tel:+86(577)27819965)/[+86 13867748881](tel:+8613867748881)

Email: [support@rw-relay.com](mailto:support@rw-relay.com)

Or check the website information: <http://www.rw-relay.com>