



**VOLTAGE STABILIZER  
BK-AVR SERIES  
20KVA-3000KVA**

**TO BE GLOBAL LEADER IN POWER SOLUTIONS**



## Product Overview

The BKPOWER three-phase non-contact voltage stabilizer is designed for precision and reliability. It uses an SCR module and DSP chip to achieve contactless control.

This design ensures high voltage stabilization accuracy, fast response speed, and no mechanical wear and tear.

It is suitable for various fields such as industrial, transportation, power, oilfields, railways, hospitals, and scientific research.

## Applications

- **Industrial Manufacturing**  
CNC machine tools, automated production lines, industrial robots, welding equipment, etc.
- **Data Centers and Communication Base Stations**  
Server rooms, 5G base stations, network switches, etc.
- **Medical and Laboratory Equipment**  
MRI, CT scanners, high-precision analytical instruments, etc.
- **New Energy and Power Infrastructure**  
Solar/wind farm grid connection points, charging piles, substations, etc.
- **Commercial Buildings and Public Facilities**  
Large shopping malls, hospitals, airports, rail transit, etc.



## Technical Advantages

### ■ Non-contact design

Utilizes solid-state electronic components like silicon control instead of mechanical contacts for voltage regulation. This avoids issues such as mechanical contact wear and poor contact, enhancing reliability, reducing maintenance costs, and extending service life.

### ■ Intelligent Control and Display

The central control system uses microcontroller intelligent control with an LCD display. This provides real-time monitoring of parameters such as voltage, current, and power. The user-friendly interface allows for easy operation.

### ■ Wide Input Voltage Range

Can operate in a wide input voltage range and effectively regulates voltage even with significant grid fluctuations. This ensures stable output.

### ■ High Customization and Expandability

Customizable according to specific voltage requirements of various industrial and commercial applications. It can also be easily integrated into existing electrical systems.

## Product Features

### ■ High Voltage Stabilization Accuracy

The three-phase non-contact voltage regulator uses thyristor silicon-controlled technology to enable fast and precise voltage adjustment. It typically achieves a voltage stabilization accuracy of  $\pm 1\%$  or even higher.

### ■ Fast Response Speed

With a voltage response speed of  $\leq 4\text{ms/step}$  or  $< 10\text{ms}$ , it can quickly respond to load changes and grid voltage fluctuations. This ensures timely output voltage stabilization and effective protection of power equipment.

### ■ Three-Phase Regulation and Balancing

Each phase voltage can be independently stabilized without mutual interference. It can automatically balance three-phase output voltage, even when the input voltage is unbalanced, with a balance degree of less than 1%.

### ■ High Efficiency and Energy Saving

Efficiency reaches 99% or higher, offering higher efficiency and lower energy consumption compared to traditional voltage regulators. This significantly reduces operating costs.

### ■ No Waveform Distortion

Using current over-zero switching technology, it ensures no current interruption or inrush current during switching. This provides pure sine wave voltage to the load and better protects power equipment.

### ■ Safe and Reliable

Equipped with protection functions such as overload, overvoltage, undervoltage, phase loss, short circuit, and overheating. It also features fault diagnosis and automatic bypass functions to ensure stable operation in abnormal situations.



## Specifications

Capacity		20KVA	30KVA	50KVA	60KVA	80KVA	100KVA	120KVA	150KVA	
Input	Rated voltage	Phase voltage AC220V, line voltage AC380V, (or customized)								
	Voltage regulation range	Normal $\pm 15\%$ , ( $\pm 20\pm 30\pm 40\%$ optional)								
	Frequency	50Hz/60Hz								
Output	Rated Voltage	Phase voltage AC220V, line voltage AC380V (or customized)								
	Center Voltage	$\pm 5\%$ Adjustable								
	Voltage Stabilization Accuracy	$\pm 1\%$								
	Response Time	$\leq 0.03s$								
	Stabilization Time	$\leq 40ms/Step$								
	Waveform Distortion	No additional waveform distortion								
	Efficiency	$\geq 99\%$								
	Three-phase Balance	Three-phase voltage automatic balance, increment $\leq 2\%$								
Protection	Overpressure	When the output phase voltage is higher than 10%, it will switch to bypass continuously								
	Undervoltage	Output phase voltage is lower than 10%, and it will switch to bypass continuously								
	Phase Loss	Uninterrupted steering bypass								
	Overload	Electronic detection, overload for 1 minute, output cut-off								
	Overcurrent/Short Circuit	Electronic detection and circuit breaker dual protection								
	Bypass	Manual bypass and uninterruptible automatic bypass								
Instruct	Voltage	A, B, C, $\Sigma ABC$ three phases have true effective value digital display								
	Current	A, B, C, $\Sigma ABC$ three phases have true effective value digital display								
	Working Status	Voltage stabilization state/mains power state								
	Abnormal	Overvoltage, undervoltage, overload, fuse blown								
Control Method		DSP calculation metering chip intelligent control technology								
Working Mode		Automatic voltage regulation / Bypass								
Voltage adjustment method		Three-phase regulation								
Dimensions (L×W×H) MM		380×750×860					410x810x1110			



## Specifications

Capacity		200KVA	250KVA	300KVA	400KVA	500KVA	600KVA
Input	Rated voltage	Phase voltage AC220V, line voltage AC380V, (or customized)					
	Voltage regulation range	Normal $\pm 15\%$ , ( $\pm 20\pm 30\pm 40\%$ optional)					
	Frequency	50Hz/60Hz					
Output	Rated Voltage	Phase voltage AC220V, line voltage AC380V (or customized)					
	Center Voltage	$\pm 5\%$ Adjustable					
	Voltage Stabilization Accuracy	$\pm 1\%$					
	Response Time	$\leq 0.03s$					
	Stabilization Time	$\leq 40ms/Step$					
	Waveform Distortion	No additional waveform distortion					
	Efficiency	$\geq 99\%$					
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	Working Status	Voltage stabilization state/mains power state					
	Abnormal	Overvoltage, undervoltage, overload, fuse blown					
Control Method		DSP calculation metering chip intelligent control technology					
Working Mode		Automatic voltage regulation / Bypass					
Voltage adjustment method		Three-phase regulation					
Dimensions (L×W×H) MM		1000×600×1600			1100×685×1600		



## Specifications

Capacity		800KVA	1000KVA	1200KVA	1600KVA	2000KVA	2500KVA	3000KVA
Input	Rated voltage	Phase voltage AC220V, line voltage AC380V, (or customized)						
	Voltage regulation range	Normal $\pm 15\%$ , ( $\pm 20\pm 30\pm 40\%$ optional)						
	Frequency	50Hz/60Hz						
Output	Rated Voltage	Phase voltage AC220V, line voltage AC380V (or customized)						
	Center Voltage	$\pm 5\%$ Adjustable						
	Voltage Stabilization Accuracy	$\pm 1\%$						
	Response Time	$\leq 0.03s$						
	Stabilization Time	$\leq 40ms/Step$						
	Waveform Distortion	No additional waveform distortion						
	Efficiency	$\geq 99\%$						
	Three-phase Balance	Three-phase voltage automatic balance, increment $\leq 2\%$						
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	Working Status	Voltage stabilization state/mains power state						
	Abnormal	Overvoltage, undervoltage, overload, fuse blown						
Control Method		DSP calculation metering chip intelligent control technology						
Working Mode		Automatic voltage regulation / Bypass						
Voltage adjustment method		Three-phase regulation						
Dimensions (L×W×H) MM		1200×800×2000		1500×800×2000		1500×800×2000 Single Cabinet Size × 3		

# PRODUCT CATALOG

Industrial Frequency UPS  
Rack Mounted UPS  
Offline UPS  
Battery Cabinet

High Frequency UPS  
Modular UPS  
UPS Battery  
Voltage Regulator

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