powerBOX®

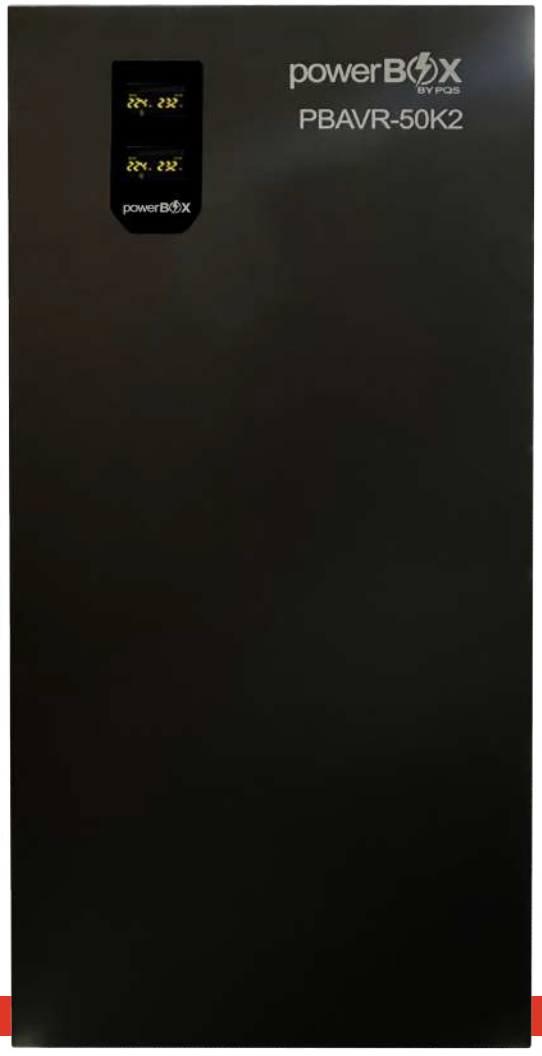
Regulator-Estabilizer

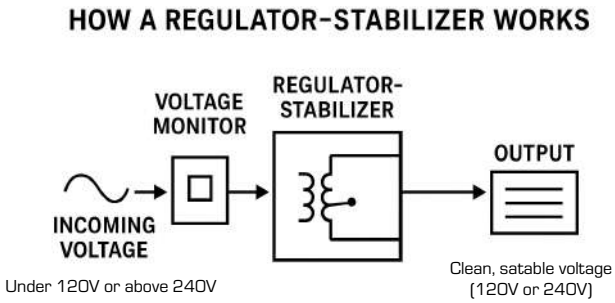
AVR XR

10kVA-20kVA-30kVA-50kVA

Features

- MCU control
- Overload protection (on PCB)≥120%
- Motor protection (unique function)
- If fan fails, the device will cut off output to avoid over-heat
- Colorful LED display
- More accurate output precision ≤2%
- Three phase compensation servo motor technology
- Industrial strenght components
- 100% unbalanced loadeing capability between three phases
- **40% voltage regulation tolerance**





At 120V, the lower voltage is 72V and higher is 168V.

At 240V, the lower voltage is 140V and higher is 336V.

www.powerboxups.com

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Specification		10KVA	20KVA	30KVA	50KVA
Input	Phase	Dual phase			
	Voltage	AC 144-336V			
	Frequency	50Hz/60Hz			
Output	Voltage	AC 120V/240V±3%			
	Capacity	8KW	16KW	24KW	40KW
Protection	Frequency	50Hz/60Hz			
	Low voltage	100±4V/200±4V			
	Over voltage	134±4V/268±4V			
	Time Delay	5s / 255s optional			
	Overload/ short circuit	Fuse/MCB			
Packaging	Pcs per Carton	1			
	Shipping Wt.(kg)	101.5	139	193	351
	Package dimensions (mm)	700*540*890	610*770*890	780*645*980	690*1100*1150
Efficiency	AC-AC	98%			
Acoustic	Noise level	≤50dB			
Environment	Temperature	-5℃ to 40℃			
	Humidity	20% to 90%			

How it works

It constantly monitors incoming voltage electricity coming from the utility can go too high (overvoltage) or too low (undervoltage) because of:
Grid instability, Lightning, Heavy machinery starting, Long or poor-quality power lines, Blackouts and brownouts.
The regulator measures this incoming voltage in real time.
It corrects the voltage before sending it to your equipment when it detects a deviation, it automatically performs one of two actions: A. If voltage is too LOW it boosts (raises) the voltage, it adds electrical “steps” using: Transformer taps, Electronic circuits, Relay switching, Servo-motor adjustment (in servo regulators)
B. If voltage is too HIGH it reduces the voltage
It subtracts electrical steps and brings the voltage back to the safe level, it delivers clean, stable voltage to the load.
After correction, the regulator outputs:
Constant voltage (e.g., exactly 120V or 220V)
Minimal fluctuation
Protection against damaging conditions
This ensures equipment—like computers, AC units, servers, medical devices, motors, solar systems—runs efficiently and safely.

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