



SERVO MOTOR VOLTAGE STABILIZER BK-TND SERIES 3KVA-60KVA

TO BE GLOBAL LEADER IN POWER SOLUTIONS



BK-TND Series Single Phase Voltage Stabilizer

Product Overview

The BK-TND series single-phase servo voltage stabilizer integrates a high-speed servo motor, intelligent control circuitry, and a low-loss auto-voltage regulator into a compact package.

Designed specifically for complex and changing power grid environments, it provides stable and reliable power for a wide range of electrical equipment.

It is widely used in locations requiring extremely high voltage stability, such as computer rooms, medical equipment rooms, laboratories, and high-end office areas, making it an ideal choice for ensuring the normal operation of precision instruments and sensitive equipment.

Applications

Precision Light Manufacturing

Single-phase CNC machines, laser engravers, 3-D printers, micro-assembly lines and handheld welders— $\pm 3\%$ regulation keeps every cut, layer and bead within spec.

Medical & Lab Front-Ends

Dental/ophthalmic treatment chairs, portable CT/DR imagers, high-precision analyzers and biological-sample cold-chain monitors—shield delicate sensors and reagents from grid transients.

Commercial & Public Facilities

Bank branches, retail stores, smart-building lighting, hospital outpatient clinics, metro-station weak-current rooms and elevator control panels—ultra-compact, wall-mountable and whisper-quiet, with field-replaceable carbon brushes for zero-downtime maintenance.



Technical Advantages

Precision Mechanical Adjustment

A servo motor drives a carbon brush mechanism for voltage regulation. The mechanical transmission ensures linear output voltage adjustment, with a voltage regulation accuracy of up to $\pm 3\%$.

Instantaneous Response to Fluctuations

Equipped with a highly sensitive voltage sampling and servo drive system, the servo motor quickly drives the carbon brushes to adjust the position of the autovoltage regulator when the input voltage fluctuates.

Strong Load Adaptability

The design offers strong power handling capabilities and stable operation under various load types, including resistive, inductive, and capacitive loads.

Proven and Reliable Structure

Core components, including the servo motor, autovoltage regulator, and transmission mechanism, utilize proven and reliable technologies. The simple mechanical structure is easy to maintain and has a low failure rate.

Product Features

Precise Voltage Regulation

Utilizing advanced servo motor drive technology combined with sophisticated automatic control circuitry, it rapidly responds to grid voltage fluctuations.

Wide Input Voltage Range

An extremely wide input voltage range, covering 150V to 250V, adapts to voltage fluctuations in different regions and grid conditions.

Efficient and Fast Response

Voltage regulation is extremely fast. Even with a 10% input voltage change, the adjustment time is $\leq 1\text{S}$, enabling instant voltage adjustments.



Specifications

PRODUCT CATALOG

UPS System

Voltage Stabilizer

Transformer

VFD Inverter

Soft Starter

Solar Inverter

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