SOLLATEK AVRs SELECTED FOR US EMBASSY IN NIGERIA TO ADDRESS POWER CHALLENGES

U.S. EMBASSY IN NIGERIA

US EMBASSY
VOLTAGE PROTECTION

Client: US Embassy
Country: Nigeria
Year: 2019 – Present
Product: AVR (100kVA to 1500kVA)

In 2019, as part of a facilities upgrade, the embassy decided to address Nigeria's power challenges by installing Automatic Voltage Regulators (AVR) from Sollatek throughout the buildings on their compound.

The United States has a strong presence in Africa, with the second-highest number of embassies across the continent. Among them, the U.S. Embassy in Abuja stands out as one of the largest diplomatic missions in Africa. In 2019, as part of a facilities upgrade, the embassy decided to address Nigeria's power challenges by installing Automatic Voltage Regulators (AVR) from Sollatek throughout the buildings on their compound.

Utility companies across Africa do provide power; however, it is often unreliable and frequently falls outside acceptable tolerances, making it insufficient for reliable operation and pose a significant challenge for users. For most modern industrialised economies, it is standard for power utilities to deliver a stable mains voltage, typically around 220V or 230V in Europe, with a tolerance of -10% to +6% (as per EN 50160). This level of stability is crucial for the proper functioning of modern electrical and electronic equipment. Consequently, a stabiliser that maintains an output within 3% or 4% of the nominal voltage exceeds even the strictest international standards.

The U.S. Embassy awarded Sollatek the contract to supply 17 Automatic Voltage Regulators (AVRs) of varying capacities totalling over 5 Megwatts of power to regulate the supply across different buildings within the embassy compound. The embassy opted for Sollatek's robust, solid-state AVRs. With a response time of just 15 milliseconds. These AVRs ensure fast, consistent, clean and accurate power output.

Sollatek's AVRs use state of the art microprocessor control technology with advanced solid state switching devices capable of withstanding hundreds of times the nominal running current during inrush periods. Additionally, the AVRs offer an input tolerance of +/-20% and an output tolerance of +/-3%, and unlike Servo technology, they have no moving parts.

This results in almost negligible maintenance costs as well as a reduced reliance on diesel generators than previously used. By protecting equipment from excessive voltage fluctuations, the AVRs also extend the operational life of the equipment, leading to further cost savings.

Sollatek's successful reputation hinges on its customer-centric approach, which involves designing solutions that meet and can exceed their specifications at an affordable price.

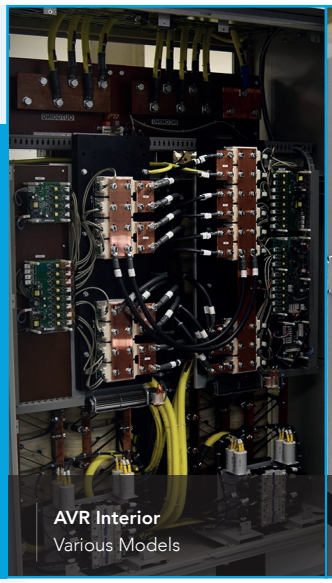
Automatic Voltage Regulator (AVR Various)

VOLTAGE PROTECTION

Models	100 kVA to 1500kVA
Number of Systems	17 AVRs
Output Voltage	±3% (230/400 V)
Input Voltage	±20% (230/400 V)
Frequency Range	45-75 Hz

INCLUDED FEATURES

- AVS
- Input Circuit Breaker
- Output Circuit Breaker
- 15ms Response Time
- Class II Surge Protection
- Digital Smart Meter
- Special Options



AVR Interior
Various Models

AVR Exterior
Various Models

Sollatek's expertise extends worldwide through local networks

Established for over 40 years in the United Kingdom, Sollatek is a manufacturer of innovative products in power control, energy saving, temperature control and solar energy. Operating from 12 countries and a global distribution network in 60 more. Sollatek has grown to become a household name, particularly in harsh and demanding environments where reliability and affordability are essential to everyday life. The Sollatek voltage protection product range now includes full lines of voltage switches, stabilisers, conditioners and uninterruptible power supplies (UPS).

SOLLATEK UK LTD.
Tel: +44 (1753) 214 500
sales@sollatek.com
www.sollatek.com

Sollatek House
Waterside Drive,
Langley, Slough
SL3 6EZ, UK

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