

## SOLLATEK AVRs SAFEGUARD CRITICAL ENTERTAINMENT EQUIPMENT ON CRUISE SHIPS



TechnoGroup VOLTAGE PROTECTION

Client: TechnoGroup & Others Country: USA Year: 2024 – Present Product: AVR3LE030





Power fluctuations can pose a serious risk, potentially affecting cruise ships and their passengers if left unchecked. To proactively prevent such issues, TechnoGroup installed Sollatek's robust 3-phase 20kVA AVRs to protect custom entertainment equipment on board the sea vessel.

TechnoGroup, a leading entertainment systems integrator, specialise in installing and maintaining audiovisual, broadcast, and entertainment systems on marine vessels. In a recent project, they opted for Sollatek Automatic Voltage Regulators (AVRs) to protect their custom LED video walls on Royal Caribbean's Radiance of the Seas and Enchantment of the Seas cruise ships.

Cruise ships require vast amounts of power to facilitate their operations and accommodate their passengers. However, power fluctuations can pose a serious risk potentially affecting the ship and its passengers if left unchecked. To proactively prevent such issues, cruise ships implement robust power management systems to ensure a stable and uninterrupted power supply onboard.

To protect the entertainment equipment, TechnoGroup installed Sollatek's robust 3-phase 20kVA AVRs, operating at 220VAC. These AVRs consist of three independent single-phase regulators, each monitoring its own output voltage. This close control allows for precise adjustments to counteract fluctuations in the ship's power supply, ensuring a consistently stable output within tight tolerances. Furthermore, Sollatek's standard 3-phase AVRs boast a wide input voltage range (-30% to +22%), making them perfectly suited for environments prone to erratic power, such as cruise ships. The AVR was easily installed by converting it from a wheeled to a fix-based frame, ideal for marine environments.

By installing Sollatek AVRs, TechnoGroup fully protected the equipment on both cruise ships by ensuring consistent and stable power supply. This stability significantly reduces the risk of damage to sensitive electronics, like the LED walls. Therefore, taking such precautions maintains reliable power onboard the ships, ensuring customer satisfaction at lower long-term maintenance costs. TechnoGroup's commitment to using high-quality, equipment like the Sollatek AVR provided peace of mind for both themselves and the cruise line operator.



The seamless integration of Sollatek AVRs on the Radiance and Enchantment of the Seas cruise ships highlights the importance of proactive engineering in safeguarding sensitive electronics within harsh marine environments. This project also showcases the versatility of Sollatek's AVRs, effectively mitigating power fluctuations across diverse applications. By stabilising the power, TechnoGroup not only ensured reliable operation of their entertainment systems but also delivered a visually stunning pool deck experience for Royal Caribbean's passengers.

### Automatic Voltage Regulator (AVR3x Series) VOLTAGE PROTECTION

Output Voltage	±4% (230/400 V)
Output Current	20-200 Amps
Input Voltage	-30% to +22% (230/40
Frequency Range	45-75 Hz
INCLUDED FEATURES	
AVS™ Function	High Permissible Overload
(Automatic Voltage Switcher)	150% for 4 mins
Digital Display	Minimal Heat Dissipation

>96% (at 100% linear load)





I/O Voltage, Output Current

Galvanised Steel EnclosureWide Frequency Tolerance

# 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).

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#### ISO9001: 2015 accredited company

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