SOLLATEK OUTDOOR AVR3x50PTZ

THREE PHASE AUTOMATIC VOLTAGE REGULATOR WITH ISOLATING TRANSFORMERS

*Actual unit may differ from shown

DESCRIPTION

The AVR3x50PTZ is an advanced high-performance three-phase solid-state voltage regulator designed to regulate voltage in demanding outdoor industrial and commercial environments.

The AVR consists of three identical single-phase regulator units that work together to monitor and adjust the output voltage within a narrow range for your equipment's safe and efficient operation.

The AVR3x50PTZ has a very wide input voltage range of -30% to +22% making it suitable even in areas with a very erratic supply. It maintains an output accuracy of ±4%, which makes it ideal for even the most sensitive equipment.

The AVR uses isolating transformers to isolate the potential voltages from the source to the load, with no input neutral, providing protection against grounding issues and preventing electric shock. The transformers also reduce electrical noise and interference and offer surge and spike protection.

The AVR3x50PTZ range is fully electronic and has no moving parts, which makes it highly reliable and accurate with fast response times. It is enclosed in an IP44 enclosure, making it suitable for installation in outdoor and harsh environments that are susceptible to dust and water splashes.

Overall, the AVR3x50PTZ is a highly reliable and accurate voltage regulator designed to provide safe and efficient equipment operation even in the harshest voltage and environmental conditions.

Internal componets of an outdoor AVR

Internal AVR display panel with input, output and current digital displays

FEATURES

- Wide input range of -30% to +22%
- Output accuracy of 4%
- Solid state stabiliser with no moving parts - no maintenance required
- Ultra-fast operation
- Wide input frequency tolerance allows the unit to function properly in areas of severe voltage disturbances
- High overload capability with up to 150% for 4 minutes
- Very low losses and minimal heat dissipation due to an efficiency of over 96% at full load
- IP44 outdoor enclosure
- Easy access cabinet with lockable doors
- Galvanised steel enclosure with high anti-corrosion paint finish
- Warranty of 2 years. Sollatek provides full backup support with local support in over twenty countries worldwide

Voltright™

EQUIPPED WITH

- Automatic Voltage Switcher to protect against very low and very high voltage
- Input Circuit Breaker protecting the AVR
- Output Circuit Breaker protecting the load in the event of a short circuit or overload
- Isolating Transformer
- Digital Meters for Input and output voltage, output current & frequency
- Changeover Switch to power the load direct from the utility supply
- Class I & II Surge Protection Device

SUITABLE FOR:

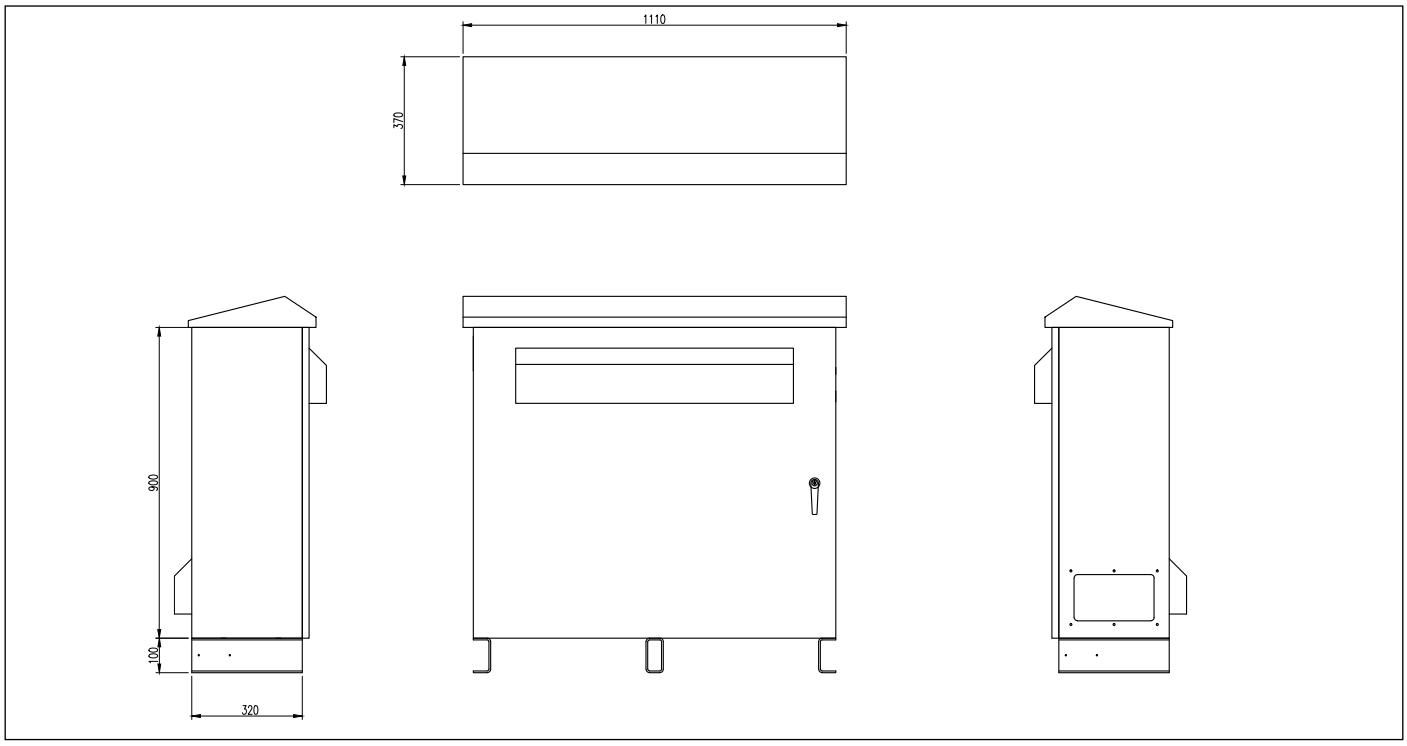
- Satellite and mobile phone operators
- Refrigeration equipment
- Telecom infrastructure companies
- Embassies for reliable electrification of their posts
- Medical systems for digital imaging, scanning and X-ray equipment
- Offices and factories

TECHNICAL SPECIFICATION

INPUT	
Input Voltage	380 V -30% to +22%
Frequency Range	45 Hz to 75 Hz
Additional Voltage THD	<0.2% at input (tested at 100% linear load) (No PWM methods used)
Maximum Input THD	Can withstand >10% THD from the supply
OUTPUT	
Output Accuracy	380 V ±4%
Max. Output Current/Phase	50 A
Output Power @ 230 V	34.5 kVA
Speed of Correction	750 V/s
Additional Voltage THD	<0.25% at output (tested at 100% linear load) (No PWM methods used)
Crest Factor	>1:3 permissible on load current (tested at 100% load)
Synchronisation	Output synchronised to input
Permissible Overload	1000% for 100 ms ; 150% for 4 mins ; 110% for 10 mins
Load Types	Suitable for all domestic, commercial, and industrial sites. Designed to run refrigerators, lighting, motors, battery chargers, communications equipment, office equipment, SMPS, air-conditioners, compressors, industrial machines, medical equipment, and others.
GENERAL	
Technology	All solid-state (static) switching
Efficiency	>96% (at 100% linear load)
Control	Microcontroller-based control system provides self-checks, system integrity monitoring and diagnostic indicators
Control Protection	Internal surge arrestors and filters in the control circuit protect against disturbances. Filtering algorithms and faulty tolerant software protect against disturbances and false measurements.
Power Connections Cable Connection	Supply phases and earth. Load phases, neutral and earth Bottom Entry - Internal terminal connectors
Surge Protection	Input and output surge arrestors protect against surges on the supply.
Cooling	Forced Air Cooling - Thermostatically controlled Fans
Ambient Temperature	-10°C to +55°C
Relative Humidity	>95%, non-condensing
Altitude	<1000 m
Environmental Protection	IP44
Acoustic Noise	<45 dB (A)
Expected Service Life	>25 years
Standards	Manufactured to comply with: ISO9001:2015, CE, EN 55022, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-11. CE

OPTIONS FITTED	
Automatic Voltage Switcher	AVS provides over and under-voltage protection and a reconnect delay. Protects the load from an extreme supply voltage where the AVR might not be able to stabilise the output voltage to its operating range.
Input Circuit Breaker	For short circuit protection within the AVR
Output Circuit Breaker	For short circuit protection from wiring to load or load short circuit or overload protection from the load side
Isolating Transformer	Isolate the input voltage from the output protecting against electric shock, surge/spikes, and noise interference. Neutral is generated from within the AVR.
Digital Meters	Accurate measurement of the AC RMS currents in three-phase systems Accuracy: 0.5% + 1 digit
Changeover Switch	Switch to run load direct from utility power for AVR maintenance
Extra Surge Protection Device	Class I and Class II Surge protection

DIMENSIONAL DRAWING



SOLLATEK (UK) LIMITED
Sollatek House, Waterside Drive, Langley, Slough SL3 6EZ, United Kingdom

Tel: +44 (1753) 214 500
Email: sales@sollatek.com
Web: www.sollatek.com