Sollatek™

AVR cabinet next to an AUX cabinet

*Actual unit may differ from shown depending on model and options fitted

AVR3PS1000-11

THREE PHASE STATIC AUTOMATIC VOLTAGE REGULATOR

FEATURES

Designed for regions with voltage supply instability. Designed for remote operation where a high degree of reliability is essential.

Fully electronic with no moving parts for:

- High reliability
- Speed of operation
- Immunity to dust and other environmental conditions

SUITABLE FOR

- Satellite operators
- Infrastructure telecom companies
- Embassies worldwide for reliable electrification of their posts
- Medical systems for digital imaging, scanning and x-ray equipment
- Mobile phone operators
- Offices and factories
- Grid utility companies for voltage regulation to their sub-stations
- Wind Farms
- United Nations divisions including WHO, UNICEF and WFP

Voltright™

SPEACIAL FEATURES

- Wide input voltage range ±20%.
- High output protection accuracy ±3%
- High overload capability with up to 150% for 4 minutes
- Very low losses and minimal heat dissipation due to an efficiency of over 98% at full load
- Enclosure made of galvanised steel construction with high anticorrosion paint finish
- Warranty of 2 years. Sollatek provides full backup support on all its products, with local support in over twenty countries worldwide

EQUIPPED WITH

- Input circuit breaker
- Class II Surge protection
- Digital display: input and output voltage, output current
- Internal automatic bypass
- Anti-condensation heaters
- Volt free contact alarms:
  - High Temp Alarm
  - Internal Bypass Status
  - I/P Circuit Breaker Status
  - Over-Temp Alarm
  - General Fault

OPTIONAL EXTRAS

- Modem for remote monitoring
- High-level lightning protection (Class I)

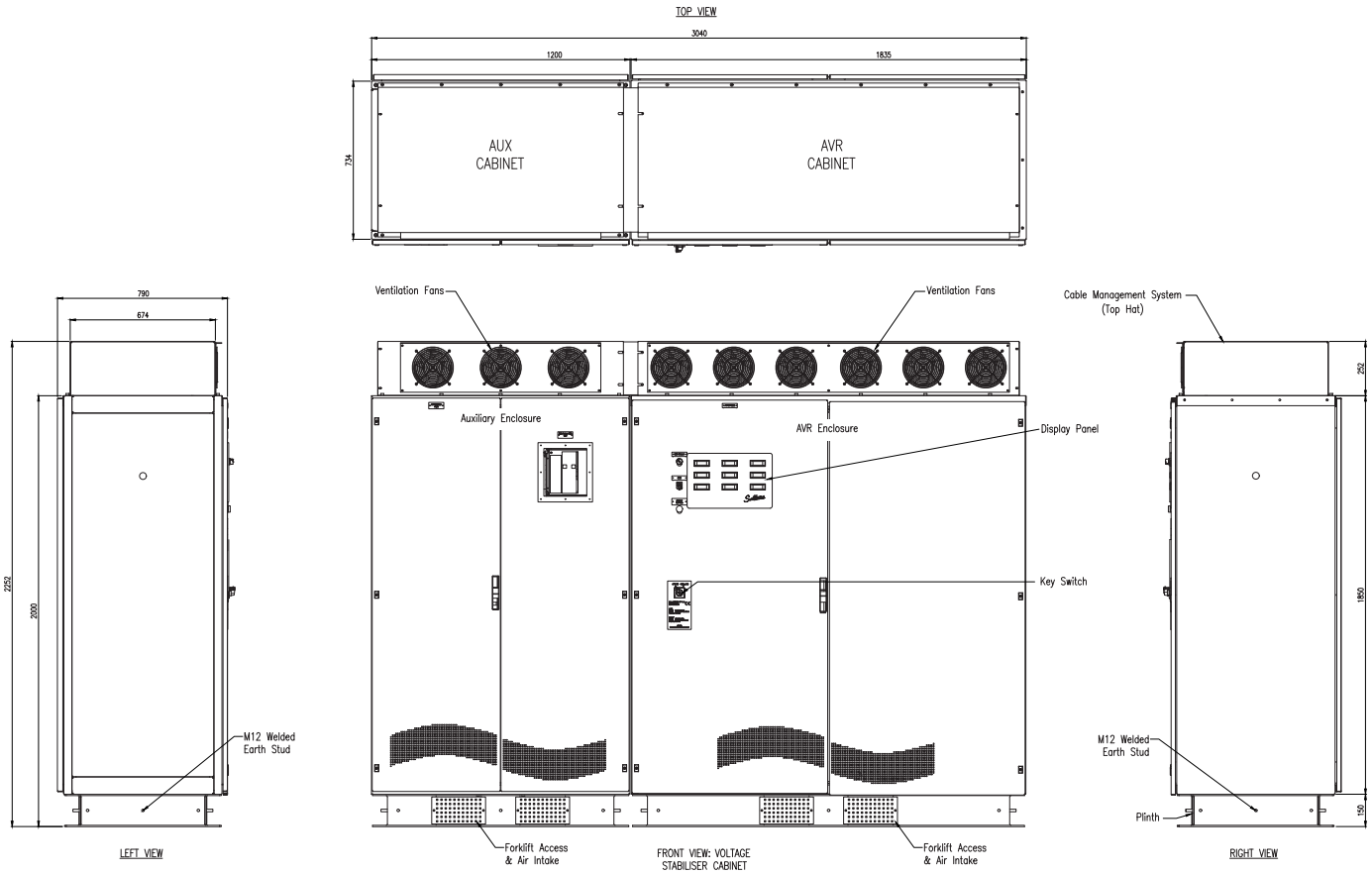
TECHNICAL SPECIFICATION

INPUT	
Input Voltage	230/400 V ±20%
Maximum Input Current	1200 A
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	230/400 V ± 3%
Maximum Output Current	1000 A
Maximum Output Power	690 kVA
Speed of Correction	750 V/s
As the AVR powers up, the Load will receive raw mains (i.e. AVR in bypass mode) for a period of 3 seconds while the AVR initialises. If this is not desired, the AVS option (see below) can be used to delay the start-up until the AVR is initialised.	
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	Designed to run lighting, motors, battery chargers, communications equipment, office equipment, SMPS, air- conditioners, compressors, industrial machines, medical equipment and others. Suitable for all domestic, commercial and industrial sites.
GENERAL	
Technology	All solid state (static) switching
Efficiency	>98% (at 100% linear load)
Heat Dissipation	~ 13 kW at 690 kVA (at extremes i.e. +20% or -20%)
Control	Microcontroller based control system provides self-checks, system integrity monitoring and diagnostic indicators
Control Protection	Internal surge arrestors and filters in control circuit protect against disturbances. Filtering algorithms and faulty tolerant software protect against disturbances and false measurements.
Power Connections	Supply phases, neutral and earth. Load phases, neutral and earth
Input Circuit Breaker (Draw-out)	Input circuit breaker to protect the AVR against overload and short circuits.
Surge Protection	Heavy duty input and output surge arrestors to protect against extreme surges and lightning on the supply. Dual mode. 2880 Joules total. Class II, 8/20 us, 80 kA.
Digital Meters	Accurate measurement of the AC RMS currents in three-phase systems Accuracy: 0.5% + 1 digit
Internal Bypass	If the AVR enters into bypass mode for whatever reason, the input voltage will be supplied to the load without stabilisation.

Anti-Condensation Heaters	Recommended when the AVR is to be installed in potential condensing environments where the AVR will be off for periods of time
Ambient Temperature	-10°C to +55°C
Relative Humidity	>95%, non-condensing
Environmental Protection	IP21
Acoustic Noise	<45 dB (A), <65 dB with fans on
Expected Service Life	>25 years
Standards	Manufactured to comply with: ISO9001:2015, CE, EN 55022:2010, EN 61000-4-2:2009, EN 61000-4-3:2006, EN 61000-4-4:2012, EN 61000-4-5:2014, EN 61000-4-6:2014, EN 61000-4-11:2004. CE
Dimensions (W x D X H)	AVR: 184 x 79 x 225 cm AUX: 120 x 79 x 225 cm
Weight	AVR: 2,300kg AUX: 500kg
OPTIONS	
GSM Modem	To allow remote monitoring (activation required)
Class I Surge Protection	Extra level of spike protection

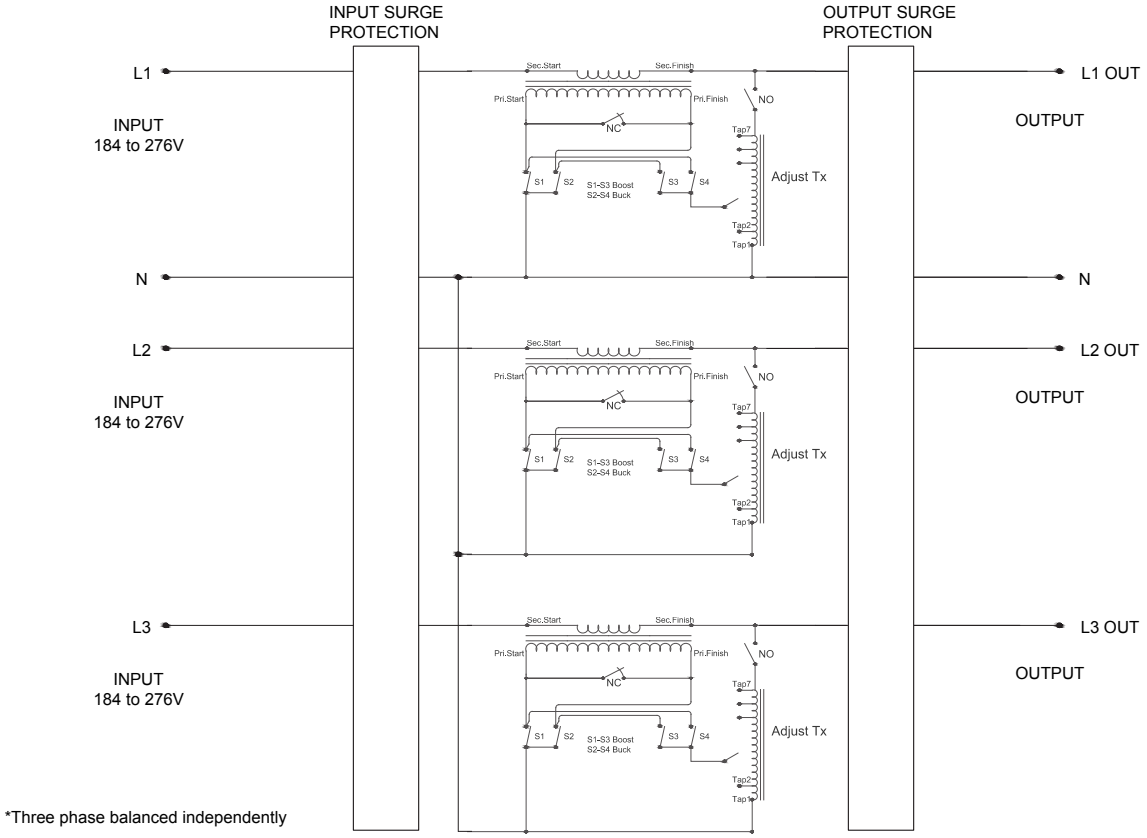
GENERAL ARRANGEMENT DIAGRAM

AVR3PS1000-11



AVR Circuit Diagram available on the following page.

AVR CIRCUIT DIAGRAM



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