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### VOLTAGE PROTECTION

#### REGULATORS

AVR

# 🍄 Voltright<sup>™</sup> SOLLATEK AUTOMATIC VOLTAGE REGULATOR (AVR) THREE PHASE AVR L-SERIES

#### **Description:**

The L-Series Sollatek AVR is a solid state stabiliser , microprocessor technology controlled range. At the heart of the unit is an advanced microcomputer that not only ensures very accurate control of output voltage to the load, but also provides a host of advanced features.

The AVR L-Series output voltage accuracy is 3.5% or better exceeding the most demanding advanced utilities minimum standards around the world.

This range can cope with the harshest environments yet designed to ensure it is affordable for demanding application but where cost is also an important consideration.

#### The AVR L-Series is suitable for:

- Satellite operators
- Infrastructure telecom companies
- Embassies worldwide for reliable electrification of their posts
- Medical systems for digital imaging, scanning and x-ray AVR ADM (Advanced Display Module); equipment
- Mobile phone operators
- Offices and factories

### Features:

- Digital display: input and output voltage, output current
- DSP Class II surge protection
- Wide input frequency tolerance allowing unit to function properly in areas of severe voltage disturbances.
- Includes Automatic Voltage Switcher that will protect against very low and very high voltage.
- Output circuit breaker protecting the unit in the event of a short circuit or overload.
- 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
- Enclosure made of galvanised steel construction with high anti-corrosion paint finish
- Warranty of 2 years. Sollatek provides full back up support on all its products, with local support in over twenty countries worldwide

Actual unit may differ from shown

- 7" full-colour touchscreen module
- Displays operational status at a glance
- Displays live and historic operational data including:
  - Input/output voltages
  - . Output Current
  - Transformer and Thyristor temperatures
- Network connectivity through Ethernet and Wi-Fi
- Allows access to event logs via LAN, USB or directly on screen
- Features a web-based portal for monitoring through trusted local network
- Allows for fast on-site configuration and maintenance without additional tools



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# **Specification:**

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General			
Technology	All solid state Silicon Controlled Rectifiers (SCR or Thyristor) switching		
Efficiency	>98% (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 control circuit protect against disturbances. Filtering algorithms and faulty tolerant software protect against disturbances and false measurements.		
Power Connections Cable Connection Cable Entry	Supply phases, neutral and earth. Load phases, neutral and earth Terminals at the top of the unit From bottom or rear		
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, 8/20us, 80kA.		
Display	7" full-colour touchscreen display module for live and historical operational data		
Ambient Temperature	-10 <sup>0</sup> C to +55 <sup>0</sup> 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.		
Input			
Input Voltage	220/380 V ±20%		
Frequency Range	45 Hz to 75 Hz (i.e. 50 Hz, -10% to +50% or 60 Hz, -25% to +25%)		
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 ± 3.5%		
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	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.		
Voltage Protection	Automatic Voltage Switcher (AVS) providing over and under voltage protection and re-connect delay, c/w five status LED indicators. Protects load from extreme supply voltage and AVR malfunction.		
Data Communications	The ADM (Advanced Display Module) connects to a trusted local network via ethernet or WiFi. This allows read-only access to system readings and status information from the local network via web browser or through SNMP. Sollatek also provides a cloud server with secure log-ins so customers can view the information from their sites across the world.		

## **Model Specification:**

Stock Code	Description	Output Current per phase	Output Power @ 220 V
973LS020	AVRLS20 20A 13.2kVA 230/100V 20%	20 A	13.2 kVA
973LS030	AVRLS30 30A 19.8kVA 230/100V 20%	30 A	19.8 kVA
973LS050	AVRLS50 50A 33kVA 230/100V 20%	50 A	33.0 kVA
973LS075	AVRLS75 75A 49.5kVA 230/100V 20%	75 A	49.5 kVA
973LS101	AVRLS100 100A 66kVA 230/100V 20%	100 A	66.0 kVA
973LS151	AVRLS150 150A 99kVA 230/100V 20%	150 A	99.0 kVA
973LS201	AVRLS200 200A 132kVA 230/100V 20%	200 A	132.0 kVA

For more information on the Sollatek product range visit www.sollatek.com



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