

SOLLATEK AVR3LExx RANGE

THREE PHASE WIDE RANGE STATIC AUTOMATIC VOLTAGE REGULATOR

DESCRIPTION

The Sollatek AVR3LE range is a robust and versatile three-phase solid-state stabiliser. The AVR consists of three identical single-phase regulator units which work in unison to monitor and adjust the output voltage within a narrow range for safe and efficient operation of your equipment.

The AVR3LE range has a wide input voltage range of -30% to +22% and maintains an output accuracy of $\pm 4\%$, making the AVR suitable for the most sensitive equipment even in areas with a very erratic supply.

The AVR3LE range is fully electronic, which means that it has no moving parts. This makes it highly reliable with a fast response time with immunity to dust and other environmental conditions, making it suitable for use even in harsh environments.

SUITABLE FOR:

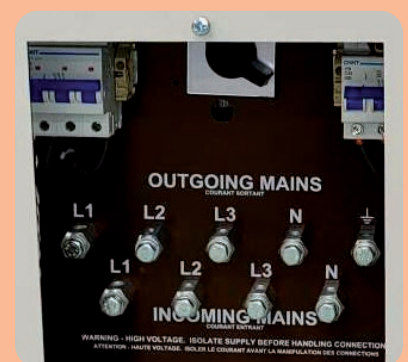
- Refrigeration equipment
- Satellite operators
- Infrastructure telecom companies
- Embassies worldwide for reliable electrification of their posts
- Medical systems for digital imaging, scanning and x-ray equipment
- Mobile phone operators
- Offices and factories

FEATURES

- Wide input range of -30% to +22%
- Output accuracy of 4%
- 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
- Galvanised steel enclosure 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

EQUIPPED WITH

- Automatic Voltage Switcher with High and Low voltage disconnection
- Input & output circuit breaker to protect against overload or short circuit
- Digital display: input and output voltage, output current & frequency
- Manual bypass transferring the load to the utility grid



AVR Rear Panel with Cable Entry Plate Removed
Input & Output terminals, Input & Output Circuit Breakers and Manual Bypass Switch,

TECHNICAL SPECIFICATION

INPUT	
Input Voltage	230/400 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	230/400 V ±4%
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 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
Cable Connection	Internal terminal connectors (accessible via the rear panel)
Surge Protection	Input and output surge arrestors to protect against surges on the supply
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	Protect the AVR against overload and short circuits.
Output Circuit Breaker	Protect the load against overload and short circuits
Digital Meters	Accurate measurement of the AC RMS currents in three-phase systems Accuracy: 0.5% + 1 digit
Manual Bypass Switch	Internal switch to bypass the AVR and connects the input directly to the load
Ambient Temperature	-10°C to +55°C
Relative Humidity	>95%, non-condensing
Environmental Protection	IP31
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



VOLTAGE TABLE

INPUT	OUTPUT
0 - 118	OFF
125	173
135	185
145	200
155	213
160	220
165	226
175	221
185	234
195	228
205	222
210	228
215	233
220	239
225	225
235	235
240	221
245	226
255	235
265	225
275	235
285	242
295	251
305	260
315	268

MODEL TABLE

Part Number	AVR Model	Max Input Current/Phase	Max Output Current/Phase	Output Power @ 230V	Dimension W x D x H	Weight
973LE020-BP	AVR3LE20-22	28.5 A	20 A	13.8 kVA	450 x 635 x 850 mm	100 kg
973LE030-BP	AVR3LE30-22	42.8 A	30 A	20.7 kVA	450 x 635 x 850 mm	150 kg
973LE050-BP	AVR3LE50-22	71.4 A	50 A	34.5 kVA	500 x 685 x 1060 mm	210 kg

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ISO9001: 2015 accredited company
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