

SOLLATEK AVR3x SERIES

THREE PHASE AUTOMATIC VOLTAGE REGULATOR 20 TO 200 AMPS

DESCRIPTION

The three phase AVR is made up from three identical single phase regulator units. Each of these monitors its own output voltage and adjusts for variations in mains supply voltage. This will maintain an output voltage within close limits.

The standard Sollatek three phase AVRs all feature the same input voltage range as standard (-30% to +22%), making them ideal for all applications where the voltage supply is erratic. Also, when compared to stabilisers of the same input range, the Sollatek AVR is one of the most competitively priced units available.

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

FEATURES

- Digital display: input and output voltage, output current
- 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
- 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

TECHNICAL SPECIFICATION

| INPUT | |
|--|--|
| Input Voltage | 230/400 V (-30% to +22%) |
| Frequency Range | 45 Hz to 75 Hz (i.e. 50 Hz, -10% to +50% or 60 Hz, -25% to +25%) |
| Response Time | 15 ms |
| 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 |
| Permissible Overload | 1000% for 100 ms, 150% for 4 mins, 110% Continuous |
| OUTPUT | |
| Output Voltage | 230/400 V ±4% |
| Speed of Correction | 60 ms per tap (0 to 100% load) |
| 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 |
| 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 | >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 (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 |
| Displays | Digital display, per phase for input voltage, output voltage, output current |
| 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 |
| Optional Extras Voltage Protection | Automatic Voltage Switcher (AVS) providing over and under voltage protection and re-connect delay, c/w five status LED (optional) indicators. Protects load from extreme supply voltage and AVR malfunction |



MODEL SPECIFICATION

| Model | Output Current | Input Current @ Full Boost | Output Power @ 220 V | Output Power @ 230 V | AVR Dimension LxWxH | AVR Weight |
|-------------|----------------|----------------------------|----------------------|----------------------|----------------------|------------|
| AVR3x20-22 | 20 A | 26 A | 13.2 kVA | 13.8 kVA | 450 x 635 x 850 mm | 119 kg |
| AVR3x30-22 | 30 A | 39 A | 19.8 kVA | 20.7 kVA | 450 x 635 x 850 mm | 145 kg |
| AVR3x50-22 | 50 A | 65 A | 33.0 kVA | 34.5 kVA | 500 x 685 x 1060 mm | 224 kg |
| AVR3x75-22 | 75 A | 98 A | 49.5 kVA | 51.7 kVA | 600 x 735 x 1110 mm | 280 kg |
| AVR3x100-22 | 100 A | 130 A | 66.0 kVA | 69.0 kVA | 500 x 835 x 1280 mm | 350 kg |
| AVR3x150-22 | 150 A | 195 A | 99.0 kVA | 103.5 kVA | 500 x 835 x 1280 mm | 405 kg |
| AVR3x200-22 | 200 A | 260 A | 132.0 kVA | 138.0 kVA | 680 x 1200 x 2070 mm | 767 kg |

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