

SOLLATEK AVR3x SERIES

THREE PHASE AUTOMATIC VOLTAGE REGULATOR 18 TO 190 kVA

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	Peak kVA @ 230 V	AVR Dimension LxWxH	AVR Weight
AVR3-18kVA 3x26/20A	20 A	26 A	18	450 x 635 x 850 mm	119 kg
AVR3-25kVA 3x40/30A	30 A	39 A	25	450 x 635 x 850 mm	145 kg
AVR3-45kVA 3x66/50A	50 A	65 A	45	500 x 685 x 1060 mm	224 kg
AVR3-70kVA 3x100/75A	75 A	98 A	70	600 x 735 x 1110 mm	280 kg
AVR3-90kVA 3x133/100A	100 A	130 A	90	500 x 835 x 1280 mm	350 kg
AVR3-140kVA 3x200/150A	150 A	195 A	140	500 x 835 x 1280 mm	405 kg
AVR3-190kVA 3x266/200A	200 A	260 A	190	680 x 1200 x 2070 mm	767 kg

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