

Selecting Voltage Regulator

Voltage Stabilisation with Intelligent Phase Selection

Model:

SVR-3XXX-22
XXX = kVA from 10kVA to 200kVA

Introduction:

Sollatek's SVR is a variation of our renowned solid state AVR (Automatically Voltage Regulator); designed specifically to remain operational when 1 or even 2 phases are down.

The SVR's phase selector continuously monitors incoming power to select the best available phase. For regulation, this phase is then split equally between the 3 transformers which in turn provide 3 separate outputs, each with 1/3 capacity of the incoming single phase supply.

The SVR as standard includes a higher IP rating of 44 (to allow outdoor installation); output circuit breaker, manual by pass and automatic voltage switch function all make this unit the preferred choice for mission critical applications.

With Sollatek's wide input range (-30% to +22%) and high degree of reliability, the SVR provides a stable output and this makes it the most apt solution for today's telecom's needs.

Features:

- Designed for telecom applications.
- Designed for remote operation where a high degree of reliability is essential.
- For areas where excessively low voltage is a major concern.
- Where loss of phase(s) is an issue.
- Fully electronic with no moving parts for:
 - High reliability
 - Speed of operation
- Immunity to dust and other environmental conditions



Equipped with:

- Automatic Voltage Switcher for automatic over and under voltage protection.
- Output Circuit Breaker to protect against overload and short circuit.
- Digital Meters to monitor incoming voltage of all phases and output voltage and current.
- Changeover Switch allows manual bypassing of AVR to run load directly from utility supply.
- Best phase selection of those available.
- Outdoor enclosure with IP rating of 44.

Special features include:

- Wide input frequency tolerance between 45 to 75 Hz allowing unit to function correctly 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 high efficiency design
- Easy access cabinet with lockable doors.
- Provides a complete all in one solution for AC power to a site.
- Warranty of 2 years. Sollatek provides full back up support on all its products, with local support in over twenty countries worldwide

Specifications


Input

Input Voltage	220/380V, -30%, +22%
Frequency Range	45Hz to 75Hz (i.e. 50Hz -10%, +50% or 60Hz -25%, +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 Voltage	220V +/-4%
Correction Time	100msec (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
Permissible Overload	1000% for 100ms 150% for 4 minutes 110% for 10 minutes
Load Types	Designed to power lighting, battery chargers, communications equipment and office equipment

General

Circuit Breaker	Output circuit breaker to protect against overload and short circuit
Voltage Protection	AVS automatic over and under voltage protection and adjustable re-connect delay, c/w five status LED indicators. Protects AVR and load from extreme supply voltage
Phase Selector	Continuously monitors all incoming phases to select the best plus neutral
Changeover Switch	By-pass to run load directly from utility power
Technology	All solid state (static) switching
Efficiency	>97%
Control	Micro-controller 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 fault tolerant software protect against disturbances and false measurements
Power Connections	Supply phases and earth. Load phase, neutral and earth
Surge Protection	Heavy duty input and output surge arrestors to protect against extreme surges and lightning on the supply.
Response time	<20ms
Ambient Temperature Range	0° to +55°C
Environmental Protection	IP44 (outdoor)
Relative Humidity	>95%, non-condensing
Acoustic Noise	<45dB (A)
Expected Service Life	>25 years
Standards	Manufactured to comply with: ISO9001:2000, CE, EN 50081-1:1992, EN 50082-1:1998, EN 55022:1998, EN 61000-4-2:1995/1998, EN 61000-4-3:1996, EN 61000-4-4:1995, EN 61000-4-5:1995, EN 61000-4-6:1996, EN 61000-4-11:1994, DD ENV 50204. 

Options:

Surge Protection (SPD)

This provides a high level of protection (up to 100kVA) from lightning induced voltage and other voltage surges on the mains supply.

Asset Management System (AMS)

Sollatek's Asset Management System is a remote monitoring and data logging system which allows near real time monitoring of all remote BTS sites for customers, regardless of where they are. It gives a constant indication of the status of all sites at a glance and highlights any warnings or problems as soon as they are detected.

