EDIT
ELECTRONIC

Innovative Power Solutions & Voltage Stabilizers

SSG Catalog

ENG

SSG
Voltage Sag-Swell Simulator

Key Features
- High speed IGBT and Thyristor Technology
- Voltage adjustment range: 1% - 150%
- Test currents: 20A – 1000A
- Test duration: 0.01sec – 999sec (Adjustable)
- Independent voltage adjustment on each phase
- Star connected Network simulation
- Delta connected Network simulation
- IEC 61000-4-34 Standard tests
- Automatic test restart
- Production at all industrial input voltages
- 7" touchscreen Operator Panel
- IP20 Standard Cabinet
- TS EN ISO 9001: 2015 Quality Certified

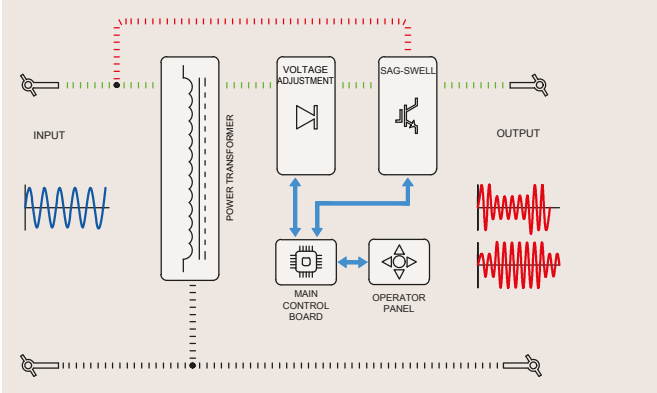
Optional Features
- Ethernet Web Server and Mod-Bus RTU
- Portable Aluminum Cabinet
- Power Analyzer
- Galvanic Isolation Transformer
- Surge Arrester

What is SSG Voltage Sag-Swell Simulator?

The SSG Sag Swell Simulator is an AC voltage source that artificially generate instantaneous voltage drops (sags) and spikes.

It is designed to test the operating performance of electronic devices and industrial machines in voltage disturbances and fluctuations and to measure Sag-Swell durability.

SSG simulator, in star and delta connected networks automatically performs voltage and vector distortions for the time set by the operator. Programmed voltage distortion tests can be repeated periodically.



Test time in SSG simulator between 10msec.-999sec. and output voltages between 1% and 150% Vnom. can be adjusted. Voltage adjustment is made independently for each phase.

Design Features

SSG Simulators are designed to operate at all industrial voltages. The supply voltage of the control units is separate and independent from the test voltage.

Power transformers are produced with aluminum or copper windings.

To ensure quiet and moisture-proof operation, transformers are vacuum-impregnated varnish and dried at high temperature.

Control unit and transformer in portable versions can be produced in separate cabinets.

Fast and Durable with Thyristor-IGBT Technology

Thyristor and IGBTs are used for voltage adjustment and voltage Sag-Swell crossing in the SSG simulator.

Voltage adjustment is made directly from AC to AC. There is no AC/DC, DC/AC Voltage conversion.

Therefore, it does not generate electromagnetic noise or harmonic noise on the input or output side.

It can work with the same high performance in all inductive, capacitive, non-linear loads.

Production at All Industrial Voltages (optional)

SSG Simulator is produced in all industrial input voltages.

3 Phase + Neutral connection , 208VAC, 220VAC, 380VAC, 400VAC, 415VAC, 480VAC, 600VAC

The nominal operating voltage of the SSG Simulator is determined in the order. It cannot be changed later.

Galvanic Isolation Transformer

Some models of SSG Simulator can be produced with isolation transformer. Isolation transformer can be placed at the input or output of the SSG simulator in accordance with the customer's request. Voltage switching or vector switching can also be done with the isolation transformer.

High Voltage Protection-Surge Arrester

Surge arresters can be placed at the inputs and outputs of the SSG Simulator for protection against high voltage and lightning strikes. Please contact with your sales representative for Class-I or Class-II surge arrester options and all your other requests.

Applications

- ✓ Laboratories
- ✓ R&D Centers
- ✓ Serial production lines
- ✓ Industrial Machine manufacturers
- ✓ Electronic device manufacturers

Please contact with sales representative for special production requests and the right solutions.

SSG simulator has an ergonomic and user-friendly Operator Panel designed for management and monitoring.

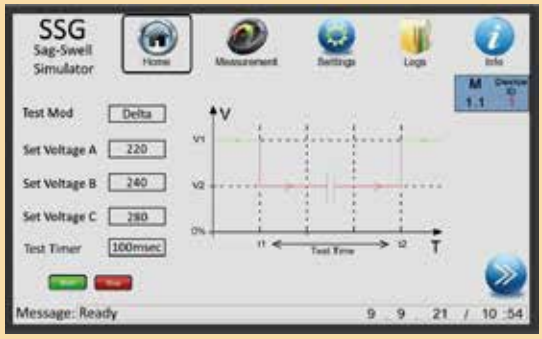
All operating parameters can be monitored from this panel and some operating parameters can be adjusted.

Monitorable parameters: Input Voltage, Test Voltage, Output Current, Operating Frequency, Test Duration, Operating Mode, Date-Time, Device Status Information, Fault and Error Codes.

Changeable Parameters: Operating Mode, Test Voltages, Test Duration, Communication Parameters, Date-Time information.

1. Touchscreen Operator Panel

- **7" inch Color Display**
- **Resistive Feature**
- **Backlight**
- **Three Language Options (On Order)**
- **Simple and Understandable Menu**



Remote Monitoring and Management

Ethernet Web Server (optional):

It is designed for remote monitoring via network. The whole system can be monitored and managed with an Ethernet cable. The remote management interface is designed as browser-based. It can be connected from any computer with a web browser. No additional software is required.

With remote management interface; all parameters of all SSG Simulator can be monitored and some parameters can be changed.

There is two-step password protection for accessing the remote monitoring interface.

MOD-BUS RTU (optional):

It is designed for monitoring and management via Mod-Bus. The whole system can be monitored and managed by connecting with a cable. All parameters of SSG Simulator can be monitored and some parameters can be changed with Mod-Bus protocol.

Technical specifications

SSG Voltage Sag-Swell Simulator	
General Features	
Power (kVA)	In the power range of 10KVA-1000KVA
Technology	High-speed and Durable Structure with IGBT and Thyristor Technology
Input	
Voltage Range	Test Voltage: 100V-600VAC 3Phase+Neutral+Ground Control Unit Supply Voltage: 110V-250VAC 1Phase+Neutral+Ground
Voltage Tolerance	-%25 , +%15
Frequency	50 Hz. +/-%5 (60 Hz. optional)
Output	
Voltage Range	It can be adjusted between 0V-%150 Vnominal
Voltage Tolerance	+/-%2
Test Duration	It can be adjusted between 10msec-999sec.
Voltage SAG Test	Adjustable between 0% and 100% Vnominal in 2% steps
Voltage Swell Test	Adjustable between > 100% Vnominal and 150% Vnominal in 2% steps
Management Monitoring and Communication Interfaces	
Touchscreen Operator Panel	7" Touchscreen Display Input Voltage, Output Voltage, Load Percentage, Frequency, Status Information, Fault Information, Parameter settings
Remote Management Interface (Optional)	Browser-based remote management with Ethernet connection MOD-BUS RTU with RS485 connection
Protection Functions	
Voltage Protection	Electronic Protection for Low Voltage and High Voltage (optional)
Current Protection	Input Circuit Breaker (Output Circuit Breaker optional)
Over Temperature Protection	Fan cooling works at 50°C. At 80°C, the power to the load is cut off.
Emergency Shutdown	Quick-off button of input power for emergency
Environmental Conditions	
Operating Temperature	-10 °C ~ +40 °C
Altitude Operating Height	1.500m
Humidity	90% none condensed
Cabinet Specifications	
Type–Protection Class	Free Standing Modular Cabinet, IP21 Indoor type
Paint–Color	Epoxy-Polyester Powder Paint - RAL 7035
Cooling	Air cooling with thermostat controlled fan.

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