

SGMC Series

Portable HV AC Resonant Test System (Container Type)



Portable HV AC Resonant Test System are used to apply to the generation of high voltage AC of power frequency for routine, type and development testing of large capacitive test objects such as power generators and cables.

The oil-cooling HV reactor of **Portable HV AC Resonant Test System** is installed in a closed steel tank. The high voltage is fed outward through the steel tank via a HV bushing. The reactor can be fitted with additional voltage taps (bushings) to achieve largest testable capacitances of test objects at lower test voltages.

Portable HV AC Resonant Test System install in the standard 10ft container, it is suitable to frequently transportation. All in one design guarantee lowest onsite preparing time and fewest human resource for testing.

Applications:

- ◆ Power cable up to 35kV
- ◆ Power generator up to 20kV
- ◆ Onsite testing for other capacitive test object

- ◆ R&D

Testing Applications:

- ◆ AC Apply Voltage Test
- ◆ Partial Discharge Measurement
- ◆ Capacitance & Tan Delta Measurement

Benefit and Advantage:

- ◆ Container type design, easy for transportation;
- ◆ All in one design, save time for testing;
- ◆ Heavy duty;
- ◆ Suitable to test large capacitance;
- ◆ Low power demand due to high quality factor;
- ◆ Lowest pad noise level;
- ◆ Additional DC Hipot available to fit into system;





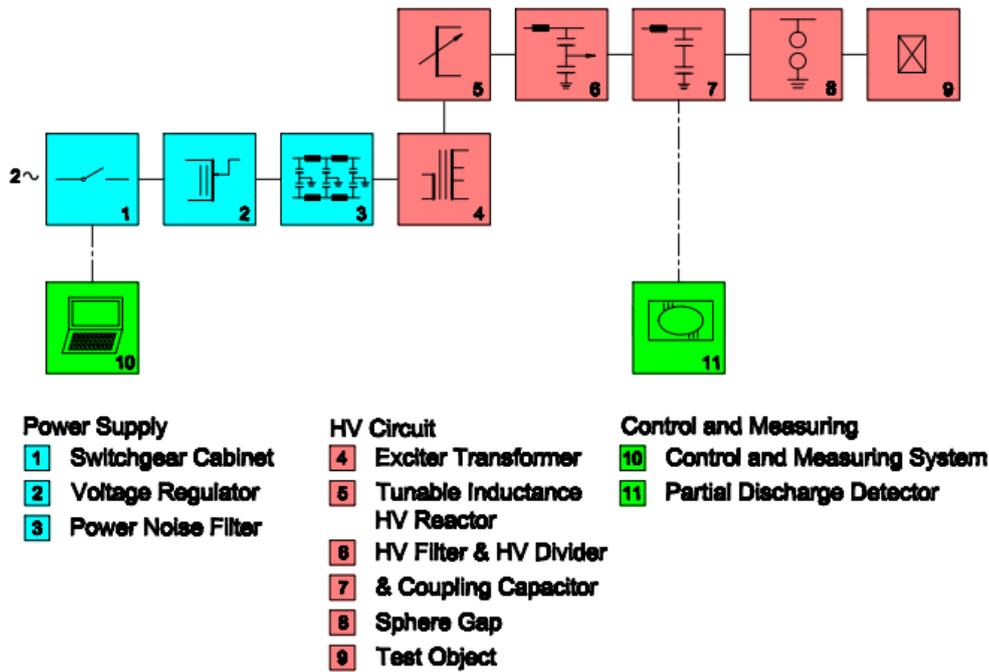
System and Components:

The system is supplied with the feeding power from the power network via a switching cabinet, a voltage regulator and an exciter transformer. The exciter transformer is equipped with taps for an optimum adaptation of the output voltage. In case of tank-type reactors the exciter transformer can build into the tank of the HV reactor or locate outside of the HV reactor. The HV reactor varies its inductance by a magnetic core that can be adjusted to a precise distance. The moveable part of the core is driven by a DC motor. The test object is connected via a HV filter. The filter consisting of a block impedance and a HV capacitor has several functions: It reduces the conductor-connected HF noise for PD measurement, protects the HV reactor in case of a breakdown and acts as a basic load which guarantees resonance if no test object is connected. The capacitor is the divider for voltage measurement and the coupling capacitor for PD measurement. For very precise voltage or tan delta measurement a compressed-gas standard capacitor can be added.

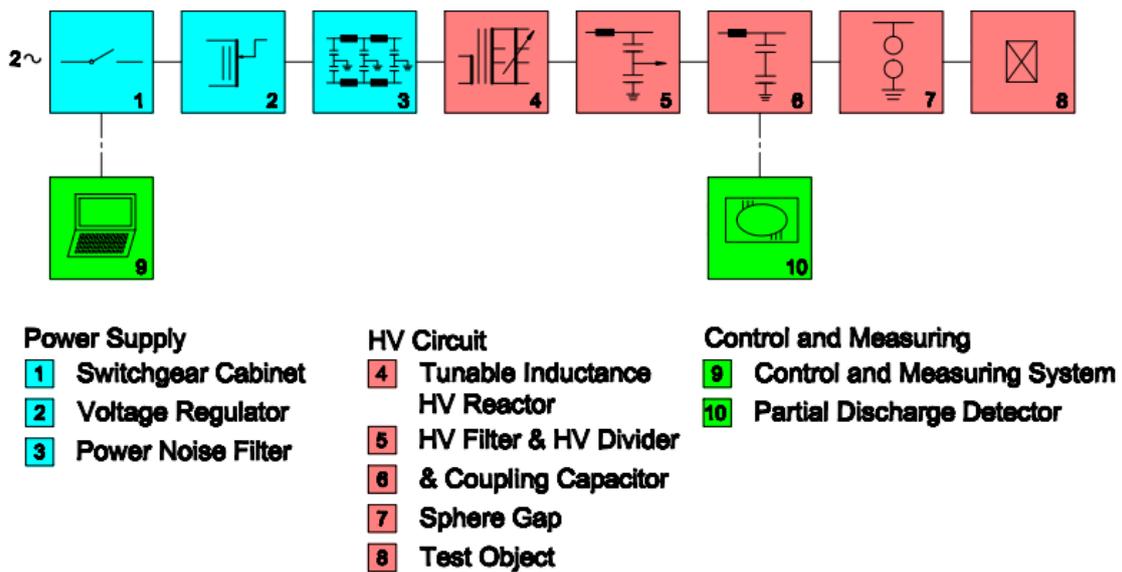
A digital resonant control and measuring system is included, it is base on Windows 10 and Labview to develop. Manual, semi automatic and fully automatic modes are available in the software. The control and measuring system is measuring and monitoring voltage, current and resonant point, a very well software and hardware protection are be built into the system. Also it can record the test datasheet and generate the test report.

A 10ft or 20ft standard container is be used to fit the whole resonant test system in. It is suitable to frequent transportation and well protect in hostile environment. Few minutes preparing time onsite is enough.

Typical Series AC Resonant Test System Block Diagram:



Typical Parallel AC Resonant Test System Block Diagram:



Technical Parameter:

Model No.	Capacity	Voltage	Current	Load Range

SGMC-300/30(15)	300kVA	Tap 1: 30kV Tap 2: 15kV	Tap 1: 10A Tap 2: 20A	Tap 1: up to 1061nF Tap 2: up to 4246nF
SGMC-500/50(20)	500kVA	Tap 1: 50kV Tap 2: 20kV	Tap 1: 10A Tap 2: 25A	Tap 1: up to 636nF Tap 2: up to 3980nF
SGMC-750/75(35)	750kVA	Tap 1: 75kV Tap 2: 35kV	Tap 1: 10A Tap 2: 21.4A	Tap 1: up to 424nF Tap 2: up to 1947nF
SGMC-1000/70(35)	1000kVA	Tap 1: 70kV Tap 2: 35kV	Tap 1: 14.2A Tap 2: 28.5A	Tap 1: up to 646nF Tap 2: up to 2593nF

- ◆ All parameter is calculated by 50Hz.
- ◆ Special request is available, please fulfill the rated questionnaire.

For further information please contact:

Samgor Technology

Add: No.2979A Chuansha Rd. Pudong,
Shanghai, 201201, China

Tel: 86-21-58999556

Fax: 86-21-58999556

E-mail: info@samgor.com

Http:// www.samgor.com

