

# YDSW series

### Gas insulated Transformer Systems



## 500kV/1A SF6 filled Test Transformer for GIS/CVT testing

SF6 insulated Test Transformers are especially designed for testing metal-clad switchgear (GIS) in the factory and on-site, and for testing on-site substation equipment. It is also a portable and easy maintenance solution to instead of the Oil Filled cylinder type transformer system and AC resonant test system. The conventional transformers can be flanged directly to the GIS. This makes testing of such GIS installations possible without feeding them through an air-SF6 merits bushing. Therefore. the encapsulation remain effective also during the testing which is of importance for Partial Discharge tests. These systems are particularly suited for on-site tests of GIS after assembly. In the factory, they allow to test sub-assemblies and components directly in the manufacturing line, thus avoiding transportation to a central test facility, and extra handling.

#### **User Benefit**

- Small and compact dimensions resulting in minimum space requirements
- Light-weight components
- Rugged construction to withstand transportation stresses
- · Direct flanging to the test object
- High safety for operating personnel because of encapsulation of all HV carrying parts
- Large range of application in conjunction with test bushing for testing of "open" equipment
- Built-in HV measuring capacitor, standard capacitor, standard CT and PT.

### Quality

SAMGOR quality assurance complies with ISO 9001. We have over 20 years experience in the field of high voltage testing. The electronic measurement and control devices are designed and manufactured in-house. The test system is shut-down in case of over-voltage, over-current and fast voltage transients. Damage at the fault area is minimized.



600kV/1.5A SF6 filled Test Transformer for GIS/CVT testing



### **Ambient Conditions for the AC Test Equipment**

- Height above sea level:	≤1000 m
For each add. 100 m, the HV rating must be decreased by	1 %
- Relative humidity in main hall under non condensing conditions:	90 %
- Temperature averaged over 24 h for H.V. components	min. 0 °C, max. + 30 °C
- Extreme temperatures for H.V. components:	min 5 °C, max. + 40 °C
- Temperature for electronic controls	
(Equipment to operate with the specified measuring errors):	min. + 15 °C, max. + 25 °C



20kV/1A SF6 filled Test Transformer

### The test system includes following main components:

- · Regulating transformer
- Power line filter
- Compensating reactor
- Test transformer
- Coupling capacitor / HV divider / HV filter/
- Standard capacitor/ Standard capacitor divider
- Low voltage protection (TPU)
- Control system AC2000 or ACA-2000
- HV and grounding connections between HV elements. The connection to test object is usually not included.

### **Available Options**

- SF6-air bushing type and various connection or adaptation flanges between test transformer & bushing & coupling capacitor & test object.
- Specific base frames or containers for on-site testing.
- Standard CT/PT (Tap switch change)
- · Additional HV connections
- · Partial Discharge detectors
- Capacitance and power loss factor measuring bridges
- · Other devices upon request.

### **Technical Data**

These systems are usually customized designs. The table below only gives some typical examples. Rated voltages between 10 and 800 kV and rated currents up to 4A are available.

The duty cycle is also adapted to customers' needs and is therefore not stated.

#### For further information please contact:

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