

# Capacitance and Tand delta Automatic Measuring Test Set for High Voltage Machines DAC-HAS-5



This instrument, model DAC-HAS-5, is used for measuring dielectric loss tangent ( $\tan \delta$ ) of a non-grounded specimen. In addition to  $\tan \delta$  (%), the voltage and the capacitance of a non-grounded electric equipment like cable, transformer, coil bar or capacitor under test can be automatically measured by applying a desired testing voltage.

The GP-IB interface, which is equipped standard with the instrument, enables you to arrange a desired measuring system.

### Composition:

- (1) Instrument main body (model DAC-HAS-5) ..... 1
- (2) Testing cable..... 1
- (3) Cs connection cable..... 1
- (4) Grounding wire ..... 1
- (5) Power cable ..... 1
- (6) Instruction manual and Test Report ..... 1 copy

### Specifications

- Testing voltage 0.1 kV AC - 30 kV AC  
Note that accuracy is guaranteed for testing voltages of 0.50 kV or higher.
- Frequency of testing voltage 50 Hz or 60 Hz (the frequency of the testing voltage will be automatically selected)
- Measurement range
  - capacitance 30 pF – 10 nF (3 ranges)  
100 pF range: 30.0 pF - 100.0 pF  
1 nF range: 0.100 nF - 1.000 nF  
10 nF range: 1.00 nF - 10.00 nF
  - Dielectric loss tangent ( $\tan \delta$ ) 0% - 100% (2 ranges)  
20% range: 0.00% - 20.00%  
100% range: 0.0% - 100.0%
  - Voltmeter 0 kV – 30 kV (fixed range)
- Accuracy
  - capacitance  $\pm$  (1% of the reading + 2 digits)  
 $\pm$  (5% of the reading + 5 digits) equal to 100 pF or less
  - $\tan \delta$   $\pm$  (0.01% + 3% of the reading + 2 digits)  
 $\pm$  (0.03% + 5% of the reading + 2 digits) equal to 100 pF or less
  - Voltmeter  $\pm$  3% (mean value)
- Interface GP-IB
- Operating power supply (100 – 240  $\pm$  10%) VAC, 50/60 Hz
- Environmental conditions
  - Operation-guaranteed temperature 15°C – 35°C
  - Operating temperature 0°C - 40°C
  - Relative humidity 20% - 85% (non-condensing)
- Dimensions and mass
  - Dimensions (W×D×H) 430 mm × 380 mm × 200 mm (without protrusions)
  - Mass About 15 kg

## Measuring Circuit

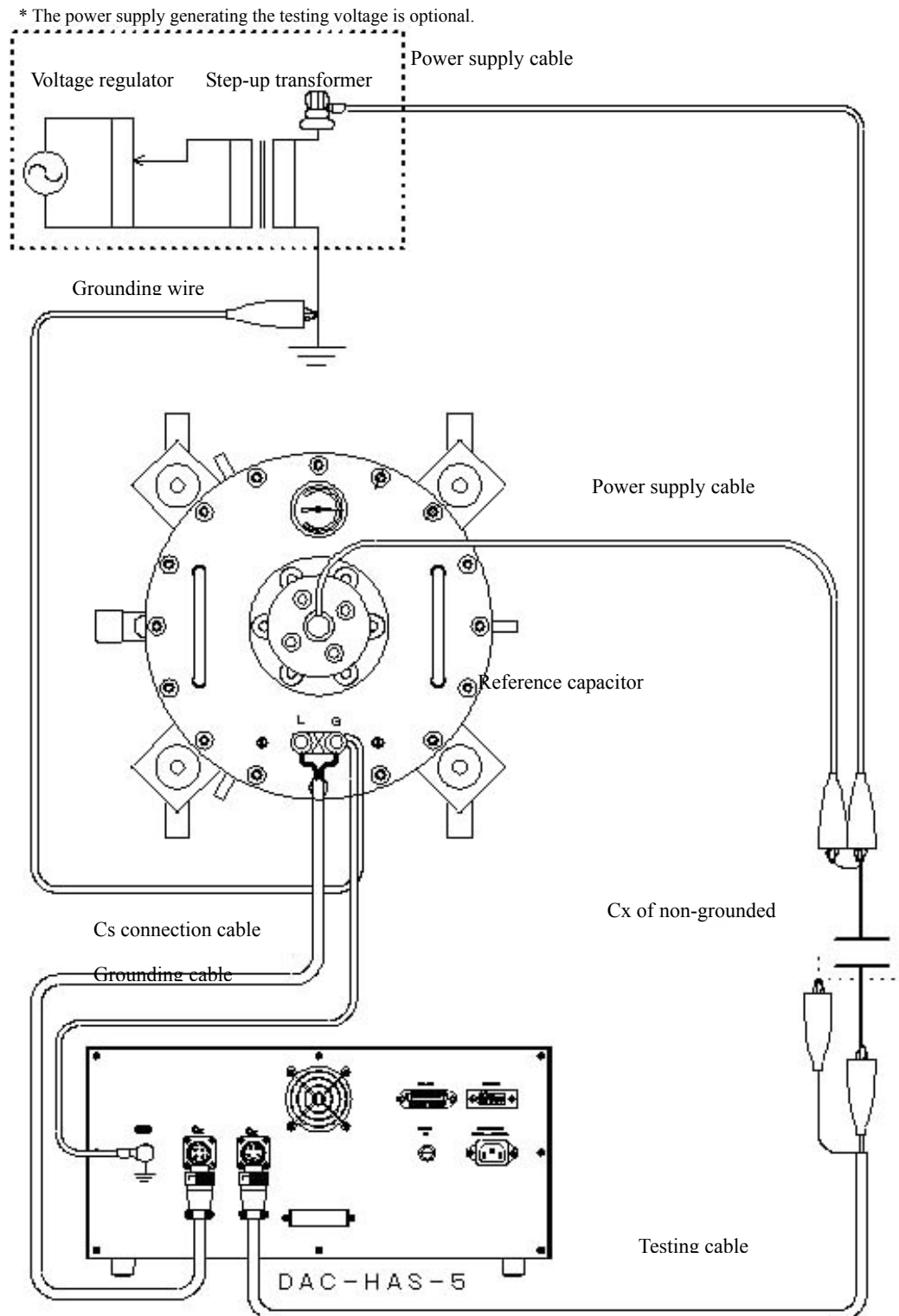


Fig. 3-1 Wiring Diagram