

DAC-STM-1

Advanced Stand-alone Tester for Insulation Assessment of Motor / Generator / Transformer

This instrument is a standalone and portable AC insulation test system containing a built-in high-voltage testing power supply. Simplified and automated operation and wiring are realized, and the time needed for setting and measurement can be greatly reduced, strongly supporting on-site measurements.

Advance

- A portable instrument equipped with casters, perfect for on-site measurements.
- This instrument has a built-in testing power supply, and is easy to carry and wire, enabling quick setup for measurement.
- This instrument adopts a high-voltage CT method, and provides highly reliable measurements without being affected by stray current in grounding.
- A selector for UST (ungrounded specimen test), GST (grounded specimen test), and GSTg (grounded specimen test with guard) connections is equipped for automatic measurement without the need for rewiring.
- Can be applied to the testing of a transformer with tertiary winding.
- Functions of induction elimination (Induced Interference Suppression) and polarity switching are incorporated, being advantageous for on-site measurements that are prone to inductive interference.
- Insulating oil measurement mode and inductance measurement mode are available.

Applications

- Both performance test and maintenance test of power transformers
- Best for shipping test of vehicle motors and for overhaul-pertinent tests

Specimen

- Power Transformer
- Power Cable
- Generator, Motor, Coil, Coil Bar
- Power Capacitor, Insulator, Bushing
- Insulation Oil and Materials

Measuring Parameters

- $\tan \delta$
- P.F.
- Capacitance
- Inductance
- Output Current
- Loss Power
- Output Voltage
- Testing Frequency

Measuring Mode

- High Voltage Transformer Automatic Measuring Mode
- Manual Measuring Mode
- Insulation Measuring Mode
- Inductance Measuring Mode

Function

- Induced Interference Suppression
- Polarity Change
- USB Interface.

Product Configuration

- Main body
- Measuring cable (H): 5 m
- Measuring cable (L): 5 m
- Grounding cable: 5 m
- Power cable: 3 m
- Liquid electrode: DAC-OBE-2 (optional)
- Operation Manual



Head Office & Plants
ISO 9001 Accredited

SOKEN SOKEN ELECTRIC Co., Ltd.

<http://www.soken-jp.com>

3-57-124 Kami-Ishihara, Choufu-City, Tokyo 182-0035 JAPAN
TEL +81 42 490 6929 (Export Dept.) FAX +81 42 490 6807
e-mail : s2258@soken-jp.com

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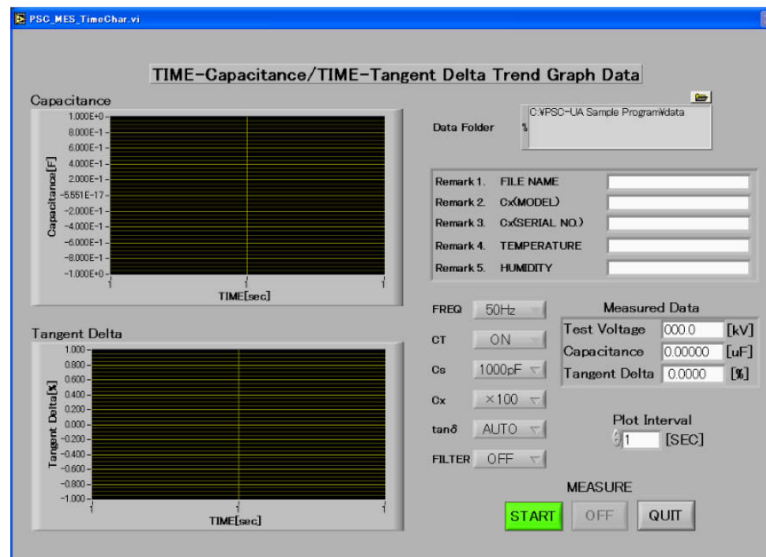
Liquid crystal display

By taking into account outdoor tests, a large (8.4 inch), high-resolution LCD panel is adopted, being perfect for field measurements, because touch-operation is provided for selecting measuring voltage and measuring range and for switching between automatic mode and manual mode, and measured data are displayed quickly.



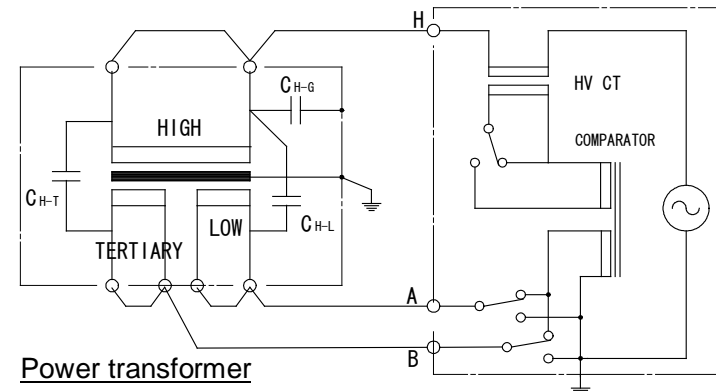
PC software

Being standard equipped with USB interface, an external PC can be used for the control of the mobile Advanced Stand-alone Tester for Insulation Assessment of Motor/Generator/Transformer, DAC-STM-1. A dedicated control program supports the acquisition of test data on the V-tan σ characteristic.



No Re-wiring among UST, GST, and GST-g is necessary.

Traditionally, it has been necessary to rewire the measuring cable among UST, GST, and GST-g connections during measurements of power transformers. The mobile Advanced Stand-alone Tester for Insulation Assessment of Motor/Generator/Transformer, DAC-STM-1, is equipped with a built-in selector circuit, thereby automatic switching among C_{H-L} , C_{H-T} , and C_{H-G} being available.



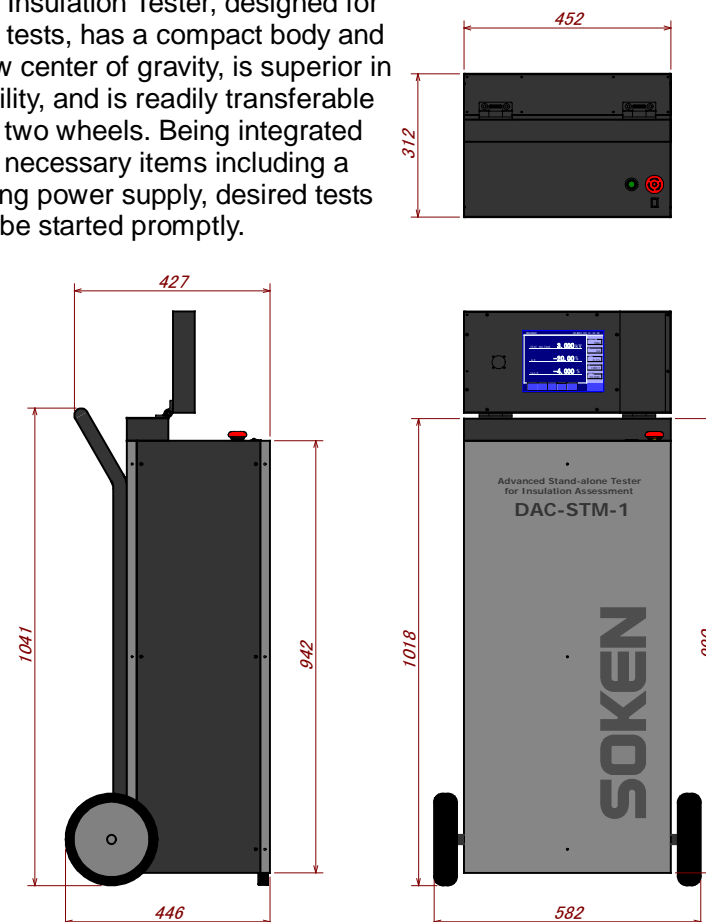
Power transformer

- UST: C_{H-L} with guard-T
- UST: C_{H-T} with guard-L
- UST: $C_{H-L} + C_{H-T}$ with no guard
- GST: $C_{H-G} + C_{H-L} + C_{H-T}$ with no guard

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Dimensions (mm)

This Insulation Tester, designed for field tests, has a compact body and a low center of gravity, is superior in stability, and is readily transferable with two wheels. Being integrated with necessary items including a testing power supply, desired tests can be started promptly.



Specification

tanδ	0.00~100%		
P.F.	0.00~100%		
Capacitance	50.0pF~100.0nF		
Inductance	100H~10000H		
Output Voltage (2 mode)	12.0kV		
	1200V (Insulation Oil Test mode)		
Max. Testing Current	100mA / 300mA (2 mode)		
Test Frequency	50/60Hz (synchronized with AC source)		
Output Current	100mA continuously / Max.300mA		
Output Power	1kVA continuously / Max.3kVA		
Resolution/Accuracy	(at 20°C)		
Parameter	Range	Resolution	Measuring Accuracy
tanδ	2%	0.01%	±0.02%+3%Rdg+2Digits
	20%	0.10%	
	100%	1%	
P.F. (cosθ)	2%	0.01%	±0.02%+3%Rdg+2Digits
	20%	0.10%	
	100%	1%	
Capacitance	1000pF	0.1pF	±0.3%Rdg+2Digits
	10.0nF	0.001nF	
	100nF	0.01nF	
Inductance	10000H	10H	±0.3%Rdg+2Digits
	1000H	1H	
	100H	0.1H	
Output Voltage	12kV	0.10kV	±5% (Mean)
	100V	1V	
	2000V	10V	
Built-in Std. Capacitor	500pF±10% / tanδ <0.05%		
Input Power	100-120/200-240VAC 50/60Hz		
Size	W452×H990×D312mm (w/o projections)		
Weight	Approx. 70kg		
Operating Temp.	-10°C~50°C		
Operating Humidity	5%~95%r.h. (no dew)		

Note: This is a preliminary catalogue exclusively for TECHNO-FRONTIER 2011 in Tokyo, Japan. Contents are subject to change.