

Capacitance & Tan Delta Bridge

HCL2840 (0~12kV)

HCL2840: UST, GST, GSTg

HCL2840-F: CVT, UST, GST, GSTg



Description

HCL2840 Automatic 12kV Capacitance & Dissipation Factor Test Set is designed to measure dissipation (Dielectric Loss factor/DF/tg δ) or power factor (PF/cos ϕ) in heavy electromagnetic interference environment such as in power plants or substations. Also it can be used in laboratory for high accurate test. The test set is all-in-one structure: including precision digital bridge, 12kV/200mA frequency conversion power unit, reference capacitor (CN), and other electronic circuits. An external power supply can expand the test range. True portability is realized by the lightweight. Simple usage is realized by the full automation. High performance is realized by the digital process.

Features

The HCL2840 has advanced interference suppression circuit based on the frequency conversion and digital filter technique, the ratio of interference current to specimen current is 2:1(200%).

High speed A/D converters, processed by a DSP. self-calibrating, accuracy standard capacitor, so the HCL2840 has high accuracy.

All the input resistance is less than 2 Ohm, the attached capacitance of connection cable is negligible.

Not only for on-the-spot test, it can also be used in laboratory for high accuracy test, such as oil dissipation factor test.

Safe protection: output protection, input protection, grounded protection, fault protection.

HCL2840 has multiple functions:UST / GST /GSTg, all these functions with internal high voltage power supply need no assistant equipment.

Using an external high voltage power supplies over 12kV or 5A

All test work will be done automatically after start the set

The set can save 100 groups of data. And has a serial port to transmit data to the computer.



There will be overall two aluminum cases for the packing. The above one is for the packing of accessories. The bottom one is the packing for the tan delta bridge.



Technical Parameter

Accuracy:	Cx	$\pm(\text{reading} \times 1\% + 1\text{pF})$
	DF tg δ	$\pm(\text{reading} \times 1\% + 0.00040)$
	PF cos ϕ	$\pm(\text{reading} \times 1\% + 0.00040)$
Interference:		Ratio of interference current to specimen current is 2:1 (200%)
Capacitance Range:	Internal HV	3pF~60000pF / 10kV, 60pF~1uF/0.5kV
	External HV	3pF~1.5uF/ no limit on voltage
	Resolution	0.001pF, 4 digitals
tg δ Range:	No limit, Resolution 0.001% (C/L/R specimen is automatic recognized)	
Input current range:		10 μ A~5A
Internal HV:		0.5~12kV / 200mA (max)
	Accuracy	$\pm(\text{reading} \times 1\% + 10\text{V})$
Control mode		Rise or fall smoothly
		45Hz, 50Hz, 55Hz, 60Hz, 65Hz single frequency
	Frequency	45Hz/55Hz, 55Hz/65Hz, 47.5Hz/52.5Hz dual frequency
External HV:		UST: 5A max, GST: 12kV/5A max, 38-72Hz
Test Time:		30s typical
		may vary in different test mode
Power Supply:		95V~130V, 180V~260V, 50Hz/60Hz Or 1 phase power supply or generator
Display:		128*64 dot matrix
Printer:		Thermal printer
Communication Port:		RS-232
Operating Temperature:		-10 $^{\circ}$ C~50 $^{\circ}$ C
Storage Temperature:		-20 $^{\circ}$ C~60 $^{\circ}$ C
Humidity:		<90% non-condensing
Dimensions:		46cm(L)*35cm(W)*34cm(H)
Weight:	Main unit	29kg
	cable	5kg

Note:

When select the device, please confirm the function requirement first.

- HCL2840 function include: UST, GST, GSTg
- HCL2840-F function include: CVT, UST, GST, GSTg





Left cases is automatic tan delta bridge.

The right one is manual tan delta bridge.

If need gas insulated standard Capacitor, please contact with Himalaya sales

Our HSC Serial Standard capacitor range is 10kV ~ 1300kV.



Gas Insulated Standard Capacitor
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