



High accuracy automatic Schering Bridge

# SPC 5000

## TECHNICAL SPECIFICATIONS



### General information

Vettiner among world longest experience specialist of tan d Test since 1933. Our tan d and capacitance products are ones of the most accurate Tan D tester in HV on the market.

#### Main applications

- Dielectric insulation qualification / status
- Power / Instrument Transformers insulation
- Generators insulation
- Bars / Coils insulation
- Cables insulation
- Power Capacitors insulation
- Liquid / solid dielectric samples
- All HV equipment insulation
- Laboratories, Production & Maintenance

#### Calibration

- Easy check & easy calibration
- Vettiner calibration certificate included (BNM Traceable)\*
- \*External laboratory calibration (ISO 17025,...) under request*

#### Main characteristic

- Schering Bridge Structure
- UST, GST & GSTg measuring modes
- Automatic / manual (selection in the menu) balancing modes

#### Main Measured Values (All displayed)

	Ranges	Display	Resolution	Accuracy
Voltage (*)	0-...999kV	5 dgts.	0,1V	0,5 % ± 5 dgts
Current (*)	0 - 6 A (& +)	4 dgts.	0,1 μA	0,5 % ± 5 dgts
Frequency (*)	45 - 65 Hz & +	4 dgts.	0,01 Hz	0,01 % ± 1 dgts
Capacitance (*)	0 - 80 000 μF & +	7 dgts.	0,01 pF	0,025 % ± 5 dgts
Tan Delta - Tan d (*)	0 - 100 % & +	9 dgts.	1.10-6 (1 ppm)	0,5 % ± 1.10-5
P. factor - cos f	0 - 1	4 dgts.	0.001	1,0 % ± 1 dgt
Watt Loss	0 - 100 kW	5 dgts.	1 μW	1,0 % ± 1 dgt
Permittivity - er	0 - 30	5 dgts.	0.001	1,0 % ± 1 dgt

*\*better on request*

#### Benefits

- HMI 10" Touch screen PC Control & sturdy controller base
- PC Benefits & Built-in Excel & PDF conversion
- Easy use, very intuitive, & built-in interactive manual
- Customizable software
- Total operator safety & ease of use
- 10 years of After Sales Service guaranteed.
- Sturdiness & reliability over time
- No or reduced maintenance over time

#### Environment

- Operating temperature: -10°C up to +50°C
- Storage temperature: -20°C up to +60°C

*Some of the above technical data are valid at the above-mentioned date but could change without any notice at any time (Ex. dimensions or weight or else...)*

## Other Tests or interfaces

Ambient Temperature T °C & Hydro %  
 Option: Local Temp. T °C /PT100, Resistivity r  
 Software to drive tests, manage tests results...  
 Interface: RS 232, USB for Tests storage...

## Cases

### Rack case

Dimension	520 mm x 400 mm x 290 mm
Weight	29 kg

## Option and accessories

Ref	Description	
SCT	Connection Terminals	UHF by default - Lemo under request
TCA AFP XX	Measuring cables - XX m under request	XX m under request
SRA 3	Automatic Guard Potential regulator	Already built-in parametric compensation for parasite capacitances & resistances of cables but SRA 3 option compulsory for test cells
PT/AFP	Measure & display of local Temp.	Usually not necessary for most production routine tests - Nevertheless, necessary for tests with test cells & some specific application
$\epsilon_r$ /SPC	Measure & display of permittivity $\epsilon_r$	Usually not necessary for most production routine tests - Can be required for tests with test cells & some specific application
$\rho$ /SPC	Measure & display of resistivity r in DC	Can be required with few application. In main cases, a separate special test cell with a specific Mega/Tera-Ohmmeter i required
SS XX	Additional shunt or CT / high current tests	According to application*
SPCPPACK	Special protection / proof container	To be agreed
GOSCB	Null Oscilloscopic indicator 3 Fixed frequencies	To be agreed
GOSCFV	Null Oscilloscopic indicator variable frequency	To be agreed
CA/CS/CG	Std Capacitor, Cn included or separated	Std Capacitor XXXX kV - YYYY pF under request
AL XX-YY	HV Generator, included or separated	Typically, it can be built in for application on Test cells, 2 kV up to 5 kV when in rack case. For higher voltage, it is necessary separated
ALRI XX-YY	Variable resonating inductance	Usually required for tests in power plants (MV/HV Generators, Motors...) - Available on request
SCL/SCS	Sample test cell, liquids or solids	To be agreed
SC/SH	Heating Control for self-heating test cells	To be agreed
TRAIN	Eventual training	To be agreed
INSTAL.	Eventual on site setting up	To be agreed
EOR	Eventual other requests	To be agreed, Ex: On site tests

All options and accessories specifications under request

\*To be agreed

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