



Self-heating Dielectric Solid Test Cell

# SCS 20/60 SH

## TECHNICAL SPECIFICATIONS



### General information

Heating & pressure regulation & Protection according to customer specifications.

#### Main applications

Solid insulating materials (non-exhaustive list):  
Paper, plastic foils, elastomer, XLPE, glass, ceramics etc...  
HV AC Tan  $\delta$  & Capacitance test  
HV AC Permittivity test  
HV DC Resistivity test

#### Environment

Operating temperature: - 25 °C up to + 50 °C  
Storage temperature: - 55 °C up to + 70 °C  
Operating Hydrometry: up to 70% & if H<sup>3</sup> 70%,  
Ambient temperature 5°C mini > dew point temp.

Altitude: up to 1000 m\*

\*Consult us for eventual application at higher elevation

#### Benefits

Compliance to International Standards & recommendations IEC, NFC, VDE, ASTM, IS, CIGRE, ...  
Voltage coefficient  $\Delta C / [0-U_n] < 10 \text{ ppm} / \text{kV}$   
Capacitance stability / year  $< \pm 0.5 \%$   
Adjustment / Nominal capacitance  $< 5.0 \%$   
Accuracy / Capa. Vettiner calibration 0.05%  
Accuracy / Capa. Ext. calibration  $\leq 0,02\%*$   
No or reduced Maintenance  
Sturdiness & reliability over time  
Total operator safety & easy use  
2 years warranty included, 3 or 5 or 10 years in option  
10 years after sales service guaranteed, over 50 years recorded

#### Calibration

Vettiner calibration certificate included (BNM Traceable)\*

\*External laboratory calibration ISO 17025 under request

### Main Characteristics

Designation	Description
Technology	Three Terminals controlled expansion steel Test Cell
Operating surface of measured electrode	20 cm <sup>2</sup>
Diameter of measuring electrode	50 mm
Operating surface covering sample	60 cm <sup>2</sup>
Minimum size of sample (For easy handling keeping guard electrode benefit)	Ø 100 mm or □ side 100 mm
Insulating material	Polyether Ether Ketone
Inter Electrode Distance (Between HV & Cx)	0 - 10 mm
Nominal Voltage	2 kV (# Same model possible up to 5 kV)
Maxi Tested Voltage	2.2 kV (# Same model possible up to 5.5 kV)

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...)

Empty Capacitance	17.70 pF / 1 mm
Empty Tan delta	$\leq 1.10^{-5}$
Operating Frequency	1 Hz up to 1 kHz
Temperature of Tests (Built-in resistances according to maxi temperature)	Ambient to 150 °C (Possible up to 200°C or 300 °C in option)
Special PT 100 sensor socket for Temperature Test cell	PT 100 sensor

## Dimensions & weight

Height	580 mm (with cover)
Head Ø	300 mm (with cover)
Side	516x400 mm
Weight	28 kg

## Freight & Packaging

No specific requirement, except shock protection for freight.

	Ref	Description	Dimension & Weight
	SCS 20/60 SH PACK	Container	810 x 600 x 600 mm 15 kg
	SCS 20/60 SH WOI	Wooden Packing	800 x 600 x 600 mm 30.0 kg $\pm$ 20 %

## Option and accessories

Ref	Description	
TCA-SPC XX	Set of measuring cables & instruments	XX m to be agreed
	Higher voltage test cell (2.5 kV, 5 kV, 10 kV, 30 kV... 100 kV)	Same dimensions for 2 kV up to 5 kV, then other models under Request
H XXX	Other Maxi Temperature	3 main possibilities: 150 °C, 200 °C & 300 °C maxi
TCU	Temperature control unit	To be agreed
PC	Pressure control	To be agreed
TV	Thickness variation test due to pressure variation	To be agreed
VC	Vacuum facility	To be agreed
GFC	Gas fill in facility	To be agreed
OR	Other requirements	To be agreed

All options and accessories specifications under request

*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...)*