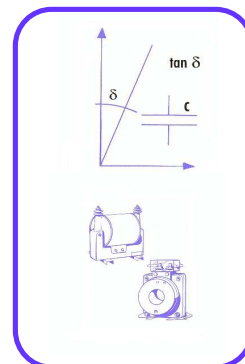
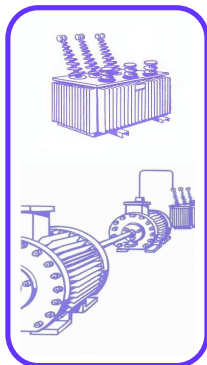


SF6 STANDARD CAPACITORS

CS Type

1 kV up to 12 kV application



FUNCTION

- Standard reference value used for very accurate measurement of capacitance and dielectric dissipation factor (Tan δ) in high and low voltage
- Measurements from some Volts up to over 12 kV as a reference & additional characteristics available in other Vettiner Standard Capacitors ranges
- Calibration / Traceability linked to BNM Channel / LNE French National Laboratory

APPLICATIONS

- HV Standard Capacitor for capacitance & Tan delta measurements,
- HV standard Capacitor for very accurate capacitive voltage divider,
- HV standard Capacitor for coupling capacitor in Partial Discharges measurements
- Manufacturers, repairers, maintenance of all HV insulated equipments (oil, impregnated paper, transformers, turning machines, cables, bushings...
- Production, transmission and distribution of energy on national grid networks or local (including internal networks of industries)

CS RANGE BENEFITS

- Very high accuracy technology
- Operating simplicity
- Fast measurement
- Total safety of operator
- Reliability
- Sturdiness
- No maintenance
- Easy check of calibration
- Convenient and simple calibration



STANDARDS

- Conformity to IEC 76, NFC 52 Standards

QUALITY

- of Manpower
- of Know-how
- of Procedures
- of Components

ACCURACY

- High accuracy of measurements
- Stability of components

CALIBRATION

- Primary Standards linked to LNE
- Traceability

WARRANTY

1 YEAR

AFTER SALES SERVICE

10 YEARS

SF6 STANDARD CAPACITORS

CS Type

1 kV up to 12 kV application

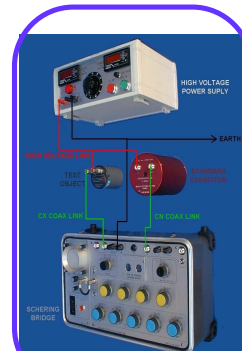


PRINCIPLE

- Capacitor is made with the special assembly of metallic multi-plates and their surface with quantities allows to reach expected final capacitance value.
- An assembly disc, fixed to a metallic cover, supports the plates
- Whole system is fixed inside anodized metallic cylinder box which insures perfect stability, rigidity and protections.
- Temperature coefficient of capacitance is lower as possible thanks to selected materials' performances.
- External connections are with coaxial terminals

MAIN CHARACTERISTICS

- Dielectric Gas used : SF6
- Gas operating pressure : 1 bar up to 5 bars
- Pressure coefficient $\Delta p/p$: $+ 2.2 \cdot 10^{-3} / \text{bar}$
- Temperature coefficient $\Delta c/c$: $\# + 2 \cdot 10^{-5} / ^\circ\text{C}$
- Pressure / temperature $\Delta p/c$: $\# 0.03 \text{ bar} / ^\circ\text{C}$
- Operating temperature range : $- 20 ^\circ\text{C}$ up to $+ 70 ^\circ\text{C}$
- Operating hygrometry : up to 80 %
- Dissipation factor of C (Tan δ) : $\leq 1 \cdot 10^{-5}$ ($\leq 10 \text{ ppm}$)
- Voltage Coefficient $\Delta c/kV$: $< 10 \text{ ppm} / kV$
- Accuracy when used as divider : $0.1 \% \text{ rdg.} \pm 0.03 \%$
- Accuracy of calibration of C : $0.02 \% \text{ rdg.} \pm 0.01 \%$
- Stability : $< 0.05 \% / \text{year}$



Note : Technical characteristics may change without any notice

CS RANGE TECHNICAL SPECIFICATION

Main CS range standard capacitors

PARAMETERS		1 kV			2 kV		5 kV			10 kV		12 kV	
Vettiner reference		CS 1-100	CS 1-1000	CS 1-10 000	CS 2-100	CS 2-1000	CS 5-100	CS 5-500	CS 5-1000	CS 10-100	CS 10-1000	CS 12-100	CS 12-1000
• Rated Voltage RMS	(kV)	1 kV	1 kV	1 kV	2 kV	2 kV	5 kV	5 kV	5 kV	10 kV	10 kV	12 kV	12 kV
• Test Voltage RMS	(kV)	1.2 kV	1.2 kV	1.2 kV	2.4 kV	2.4 kV	6 kV	6 kV	6 kV	12 kV	12 kV	15 kV	15 kV
• Rated Capacitance	(pF)	100 pF	1000 pF	10 000 pF	100 pF	1000 pF	100 pF	500 pF	1000 pF	100 pF	1000 pF	100 pF	1000 pF
Dimensions													
• Height	(mm)	150 mm	190 mm	350 mm	150 mm	190 mm	190 mm	190 mm	220 mm	220 mm	250 mm	220 mm	250 mm
• Diameter Ø	(mm)	200 mm	200 mm	250 mm	200 mm	200 mm	200 mm	200 mm	200 mm	200 mm	200 mm	200 mm	200 mm
• Weight	(kg)	3.0 kg	3.5 kg	15 kg	3.0 kg	3.5 kg	4.0 kg	5.0 kg	6.0 kg	4.0 kg	6.0 kg	5.0 kg	6.0 kg

PRESENTATION

- Shielded cylinder and terminals
 - Dust free
 - External connections : BNC & HV type terminals (Lemo or other terminals on simple request)
 - Other values of Rated Capacitances or/and Rated Voltages possible on simple request.
- Feel free to contact us !



OTHER POSSIBILITIES

- For additional possibilities, don't forget also to think to other Vettiner Standard Capacitors : (From some hundred Volts up to 800 kV)



CG bulb range