



HV SF6 or SF6 free Standard Capacitor

CG 50-100

TECHNICAL SPECIFICATIONS



General information

Ensure precise capacitance measurement with the CG50-100. Designed for high-voltage calibration and testing, these reference capacitors offer exceptional accuracy and stability.

Main applications

HV Tan Δ & Capa. Standard
 HV AC Accurate divider (See options)
 HV Coupling capacitor std. (60 270 IEC std)

Benefits

Voltage coefficient $\Delta C / [0-U_n] \leq 30$ ppm *
 Capacitance stability / year $< 0.05\%$
 Capacitance adjustment /
 Nominal capacitance < 1.0 pF
 Accuracy / Capa. Vettiner calibration 0.05%
 Accuracy / Capa. External 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 of after sales service guaranteed, over
 50 years recorded

Calibration

Vettiner calibration certificate included (ILAC Traceability) *
 *External laboratory calibration (ISO 17025,...) under request

Environment

Operating temperature: -10°C up to $+50^{\circ}\text{C}$
 Storage temperature: -20°C up to $+70^{\circ}\text{C}$
 Operating Hydrometry: $\leq 70\%$ non-condensing
 (Ambient temp. 5°C mini $>$ dew point $T^{\circ}\text{C}$)
 Altitude: ≤ 1000 m or consult us for higher elevation

Main characteristic

Bulb electrode technology
 SF6 Gas - 5 bar insulant (Or alternatively NG New Gas, SF6 Free)

Technical data

Nominal Voltage	50 kV rms (Continuous)
Maxi tested Voltage	60 kV rms (1 minute)
Nominal Capacitance	100pF (or 50pF on request)
Tan delta	$< 1.10^{-5}$
Partial Discharges level	< 1 pC
Frequency operating	1 Hz up to 1 kHz
Insulation resistance	> 500 M Ω
HV Terminal - Fixed Socket	Banana Terminal 4 mm or/& fixing Screw
Cn Terminal - Fixed Socket	Lemo Unipole type ERA 3S 140 CTL (Other type on request)
SF6 Fill-in Input	DN 40 ISO-KF

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...)

Pressure & Temperature coeff.

Def	Unit	Value
Pressure coeff.	$\Delta C / p$	$+ 2.2 \cdot 10^{-3} / \text{bar}$
Temperature coeff.	$\Delta C / ^\circ\text{C}$	$\pm 2 \cdot 10^{-5} / ^\circ\text{C}$
Pressure drift / $^\circ\text{C}$	$\Delta p / ^\circ\text{C}$	$\pm 0.03 \text{ bar} / ^\circ\text{C}$

Dimensions & weight

Height	78 cm
Base	\varnothing 45 cm
Head	\varnothing 28 cm
Weight	34 kg

Option and accessories

Set of measuring cables Cn 67 pF/m, Cx 100 pF/m under request

Use as HV AC divider

Accessories	Description
Second measuring electrode Cn ₂ (Tan δ +HV Div.)	Ratio 1000 / 1 or else under request
0.5% divider with built-in LV capacitance	Ratio 1000 / 1 or else under request
\leq 0.1% divider with ext. LV Std. Capacitance	Under Request
Tan δ Calibrator/4 Values: 5.10 ⁻⁵ - 1.10 ⁻⁴ - 5.10 ⁻⁴ - 1.10 ⁻³	Under Request
Digital Kilo-Voltmeter: AC RMS, Peak, Peak/ $\sqrt{2}$... & DC Comply	Under Request

All options and accessories specifications under request

Freight & packaging

Std Capacitor is disassembled for freight & integrated inside a 40 feet container from Vettiner Lyon up to customer site

Ref	Description	Dimensions & weight
 CG 50 PPACK	Common container (UN 1080 comply)	81 x 50 x 50 cm Net crates: 11 kg Gross weight: 45 kg \pm 10%
 CG 50 WO1	Wooden packing 1 unit (UN 3538 & ISPM 15 comply)	114 x 67 x 67 cm Net crates: 38kg \pm 10% Gros weight: 72kg \pm 8 kg

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...)