



HV SF6 or SF6 free Standard Capacitor

CGP 30-100 & CGP 50-100

TECHNICAL SPECIFICATIONS



General information

Ensure precise capacitance measurement with the CGP series. 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
HV Coupling capacitor std. (60 270 IEC std)

Benefits

Voltage coefficient $\Delta C / [0-U_n] \leq 30 \text{ ppm}^*$
Capacitance stability / year $< 0.05 \%$
Capa. adjustment / Nominal capacitance $\leq 3.0 \text{ pF}$
Accuracy / Capa. Vett. Calibration 0.05%
Accuracy / Capa. External calibration 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

Environment

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

Calibration

Vettiner calibration certificate included (ILAC Traceability) *

**External laboratory calibration (ISO 17025,...) under request*

Main characteristic

Bulb electrode technology
SF 6 Gas - 5 bar insulant (Or alternatively NG New Gas, SF6 Free)

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 / $^\circ\text{C}$	$\Delta p / ^\circ\text{C}$	$\approx 0.03 \text{ bar} / ^\circ\text{C}$

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...)

Technical data

CGP 30-100



CGP 50-100



Nominal Voltage	30 kV	50 kV rms (Continuous)
Maxi tested Voltage	36 kV	55 kV rms (1 minute)
Nominal Capacitance		100pF
Tan delta		< 1.10 ⁻⁵
Partial Discharges level		< 5 pC
Frequency operating	10 Hz up to 1 kHz (At reduced Voltage)	
Insulation resistance		> 500 MΩ
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	"DIL0" Quick coupling DN20	

Dimensions & weight

	CGP 30-100	CGP 50-100
Height	452 mm	570 mm
Base	Ø 200 mm	Ø 200 mm
Head	Ø 200 mm	Ø 200 mm
Weight	12 kg	14 kg

Option and accessories

Accessories	Description
Set of measuring cables (Cn 67 pF/m, Cx 100 pF/m, etc...)	Type & length under request
 Tan d Calibrator 4 steps	4 Tan d Std Values (5.10 ⁻⁵ - 1.10 ⁻⁴ - 5.10 ⁻⁴ - 1.10 ⁻³) 10 000 / 1 (400 kV → 40 V)

Use as HV AC divider

Accessories	Description
Second measuring electrode (For simultaneous use, Tan d + HV Div.)	Under Request (Std Capa would be higher)
0.5% divider with built-in LV capacitance	Ratio Under request (ex. 1000/1 ... 10 000/1...etc)
 ≤ 0.1% divider with ext. LV Std. Capacitance	Under Request
 Digital Kilo-Voltmeter (AC & DC Comply)	Under Request

All options and accessories specifications under request

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Freight & packaging

Std Capacitor is shipped under reduced gas pressure in a wooden crate from our site in Lyon to the customer's site.

Packing & Marking by Road or/& Sea: UN 3538 with SF6,

by air: UN 3363 as SF6 < 500 g & UN 3163 for SF6 Free (Road, Sea & Air)

Ref	Description	Dimensions & weight
	CGP 030 WOI Wooden packing (UN 3538 & ISPM 15 comply) Vertical freight (No SF6 during freight)	65 x 41 x 41 cm Weight: 28kg ±20 % Gross weight: 41 kg ±1 kg
	CGP 030 PPACK Container (UN 3538 & ISPM 15 comply)	530x30x30 Weight: 4.7 kg Gross weight: 16.7 kg
	CGP 050 WOI Wooden packing (UN 3538 & ISPM 15 comply) Vertical freight (No SF6 during freight)	68 x 41 x 41 cm Weight: 5kg ±20 % Gross weight: 19 kg ±1 kg
	CGP 050 PPACK Container (UN 3538 & ISPM 15 comply)	67x30x30 Weight: 5.5 kg Gross weight: 19.5 kg

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