



3388

25 kV Standard Capacitor

Datasheet



Sold & Serviced in USA by:



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General Description

The 3388 is a compressed gas capacitor & is used as standard capacitance in bridge circuits to measure dielectric dissipation factor (tan delta), dielectric constant and capacitance of cables, insulators, transformer windings and other insulation media.

The capacitor is PD free, sealed and highly stable across a wide range of temperature & humidity

The capacitor consists of the following main elements:

- high-polished cylindrical electrodes
- casing serving as pressure vessel, high voltage connection, duct for test electrode and shield, gas inlet valve
- Metallic circular base with lemo type shielded measuring plug and grounding point.

The compressed gas capacitor is filled with sulphur hexafluoride SF6 under pressure for high stability

Features	Advantages
<ul style="list-style-type: none">▪ Rated values are temperature and humidity independent in the range of use	<ul style="list-style-type: none">☑ Use as nominal capacitor in high voltage calibration laboratories
<ul style="list-style-type: none">▪ Negligible losses	<ul style="list-style-type: none">☑ Use in high accuracy dissipation factor (tan δ) measurements
<ul style="list-style-type: none">▪ Guard electrode design	<ul style="list-style-type: none">☑ Elimination of stray capacitances
<ul style="list-style-type: none">▪ Sealed capacitor compartment	<ul style="list-style-type: none">☑ Maintenance free

Applications

Enumerate the applications.

- As nominal capacitor in combination with a dissipation factor (tan δ) measuring bridge.
- As reference capacitor for voltage measurements

Scope of Supply

- Compressed gas standard capacitor, 100 pF, 25 kV type 388/100/25
- 1 shielded unipolar plug
- **Optional:**
 - **Lemo-Lemo/Oran/10** - Lemo-Lemo measuring cable 10m length to be used together with Tettex measuring bridges.
 - **Lemo-Banana** – Adaptor Lemo to Banana to be used together with above cable for non Tettex measuring bridges.
- Operating Manual.

Technical Data

Measurement	
Max. operation voltage EN	25 kV RMS
Test voltage (1 min.)	30 kV RMS
Time constancy of capacitance calibration value after 1 year	< 0.01 %
Test frequency	50/60 Hz
Dissipation factor $\tan \delta$ of C_{12}	$2 \cdot 10^{-5}$
Partial discharge @ rated voltage	< 5 pC
Voltage coefficient (0...EN)	< $2 \cdot 10^{-5}$

Hardware	
Type	3388/100/25
Rated capacitance C_{12}	100 pF \pm 5 %
Partial capacitances $C_{10} \approx$	\cong 20 pF

Environmental	
Operating temperature	-20 °C +70 °C
Storage temperature	-20 °C +70 °C
Operating pressure P_{abs} at 20 °C	250 \pm 50 kPa
Test pressure P_{abs}	1100 kPa
Temperature coefficient	$< 1 \cdot 10^{-4} / ^\circ\text{C}$
Relative humidity (at rated voltage EN) max.	75 %

Mechanical	
Volume pressure vessel	0.8 l
Max. height	500 mm (19.7 in)
Max. Diameter	180 mm (7 in)
Weight	5.3 kg (11.77 lb)

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