9230/25/1-PD

Coupling capacitor 25 kV for partial discharge measurement

Datasheet



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Current and voltage – our passion

Designed by Tettex

General Description

The coupling capacitor type 9230/25/1-PD includes a high voltage capacitor, a high voltage filter and a measuring impedance (modified AKV 9310) in a compact design. It is optimized for measuring partial discharges together with the PD detector DDX 9121b.

A half-T filter incorporated with the high voltage electrode not only attenuates any interference from the power supply, but also increases the sensitivity of the PD measuring circuit. The filter is protected from overvoltages by a mechanical spark-gap.

Features	Advantages
▪ HV filter ▪ Coupling capacitor ▪ Built-in measuring impedance	☑ All in one solution including the coupling capacitor, the HV filter, and the measuring impedance ready to plug into PD detector and start the measurement.
▪ High stability in capacitance values ▪ Guaranteed optimal frequency bandwidth ▪ PD free (< 1 pC)	☑ Highest accuracy results – large measurement frequency bandwidth, high stability in capacitance values with frequency and temperature guarantee a consistent and reliable measurement.
▪ Small dimensions ▪ Light weight	☑ Portable and perfect solution for onsite measurements of rotating machines (together with MIDAS 2881 and DDX 9121b).

Applications

- Distribution transformers (LV/MV)
- Instrument transformers (LV/MV)
- Rotating machines
- Switchgears (LV/MV)
- Surge arresters (LV/MV)
- Bushings (LV/MV)
- Components testing
- Research and development

Scope of Supply

- Coupling capacitor with embedded HV filter and measuring impedance
- Test certificate
- Operating manual

Technical Data

Electrical	
Voltage	25 kV
Capacitance	1.3 nF
PD level	< 1 pC
Max. current	2 A (continuous), 6.7 A (10 minutes ON, 15 minutes OFF)
Filter typical attenuation (with 1 nF load)	30 dB (40 – 1000 kHz)

Measuring impedance (modified AKV 9310)	
PD Lower Limit Frequency	34 kHz (-6dB) and 7 kHz (-20dB)
PD Upper Limit Frequency	> 8 MHz
Max. Output Voltage	65 V_{RMS} @ 25 kV
Low-Arm Capacitance	0.5 µF

Environmental	
Operating temperature	0 °C … +50 °C
Storage temperature	-20 °C … +70 °C
Humidity	5 ... 90% r.h., non-condensing

Mechanical	
Dimensions (W x D x H)	178 x 239 x 420 mm (7.0 x 9.4 x 16.5 in)
Weight	10.5 kg (23.1 lb)

Accessories	
BNCTwin/20	BNC twin cable (2 x BNC) 50 Ohm, 20 m
BNCTwin/40	BNC twin cable (2 x BNC) 50 Ohm, 40 m

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