



AQS 9110a

Wide band quadripole system for partial discharge measurements

Datasheet



HAEFELY

Current and voltage – our passion

Designed by



General Description

The AQS 9110a series of quadripole (measuring impedance) is a fully passive measurement system optimized for use with the DDX series of partial discharge detectors.

It is designed for simultaneous measurement of high-frequency discharge pulses as well as the HV test voltage.

The AQS 9110a is equipped with a user selectable three positions internal voltage divider and it is retro-compatible with Haefely older DDX series as e.g. DDX 9101 or DDX 7000/8003 (requires max. 7 V_{AC} voltage signal output).

Features	Advantages
<ul style="list-style-type: none">Passive coupling impedance	<ul style="list-style-type: none"><input checked="" type="checkbox"/> No batteries or charger needed
<ul style="list-style-type: none">Due to the three voltage ranges switch unit can be tuned to work with up to three different coupling capacitors or three different output voltages ranges	<ul style="list-style-type: none"><input checked="" type="checkbox"/> Multi coupling capacitor ready
<ul style="list-style-type: none">High input current	<ul style="list-style-type: none"><input checked="" type="checkbox"/> High coupling capacitors' capacitance range
<ul style="list-style-type: none">Built in overvoltage protection	<ul style="list-style-type: none"><input checked="" type="checkbox"/> The built-in overvoltage protection will protect the PD detector in case a flash in the test object would happen during the test.

Applications

- Power and distribution transformers
- Instrument transformers
- Rotating machines
- Switchgears (MV/HV/GIS)
- Surge arresters
- Bushings
- Cables
- Power capacitors
- Components testing
- Research and development

Scope of Supply

- AQS 9110a
- Connection cables
- Test certificate and operating manual

Technical Data

PD measurement system	
PD lower limit frequency	50 kHz (-6 dB)
PD upper limit frequency	> 5 MHz
PD input isolation	500 V

Voltage measurement system	
Max. current	6 A (RMS)
Max. output voltage	140 V _{RMS} (200 V _{Pk})
Low-arm Capacitance	Three ranges, user selectable

Connectors	
Input	2 x 4 mm
Output	2 x BNC (PD and voltage)
Grounding	1 x 8mm wing nut

Environmental	
Operating temperature	-10 °C ... +55 °C
Storage temperature	-20 °C ... +70 °C
Humidity	0 ... 90% r.h., non-condensing

Mechanical	
Dimensions (W x D x H)	160 x 260 x 90 mm (6.3 x 10.2 x 3.5 in)
Weight	3.2 kg (7.1 lb)

Applicable Standards	
General	IEC 60270:2000+AMD1:2015
CE conformity	EMC Directive 2014/30/EU and RoHS Directive 2011/65/EU

Ordering information

Models	
AQS 9110a	Internal three ranges voltage divider to be defined at time of ordering -> capacitance and voltage of the coupling capacitor(s) needs to be provided/defined by the customer.

Global Presence

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V2020.04



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HIGH VOLTAGE



INSTRUMENTS



EMC

precision.
swiss made.