

AKV 9360 AKV 9360-SEK

Measuring impedance for
partial discharge
measurement

Datasheet



AKV 9360



AKV 9360-SEK



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Current and voltage – our passion

Designed by



General Description

The AKV 9360 is a measuring impedance (sometimes also called coupling device or quadripole). It is a fully passive and optimized for use with the DDX 916x series of partial discharge detectors.

The AKV 9360 splits and condition the partial discharge high-frequency signal and HV test voltage signal (power frequency). It serves as well as a surge and over-voltage protection.

It is equipped with an internal voltage divider and a dedicated 4 mm output connector for an external low-arm device.

It fulfils the NEMA and CISPR requirements for the RIV measurement. It can be optionally equipped with a secondary low-arm resistance allowing measuring the DC voltage (AKV 9360DC).

AKV 9360-SEK provides combination of the measuring impedance and calibrated voltage secondary measuring unit (SEK).

Features	Advantages
<ul style="list-style-type: none">Passive measuring impedance	<ul style="list-style-type: none"><input checked="" type="checkbox"/> No batteries or charger needed.
<ul style="list-style-type: none">Compact design, standard BNC outputs and grounded/floating switch feature	<ul style="list-style-type: none"><input checked="" type="checkbox"/> Easy to integrate into test systems
<ul style="list-style-type: none">Internal voltage dividerHigh input current	<ul style="list-style-type: none"><input checked="" type="checkbox"/> Brings the synchronization and voltage measurement signal to the PD detector
<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.
<ul style="list-style-type: none">Measuring impedance (AKV) + secondary voltage measuring unit (SEK) in one box	<ul style="list-style-type: none"><input checked="" type="checkbox"/> 2 in 1 solution reduces connections and space

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

- AKV 9360 or AKV 9360-SEK
- Banana cables
- BNC cables
- Test certificate and operating manual

Technical Data

PD measurement system	
PD lower limit frequency	30 kHz (-6 dB) and 15 kHz (-20 dB)
PD upper limit frequency	15 MHz (-6 dB) and 35 MHz (-20 dB)
PD input impedance	300 ± 40 Ω (60 kHz – 2.5 MHz) according to CISPR
Max. current	5 A (RMS)

Voltage measurement system			
	AKV 9360	AKV 9360DC	AKV 9360-SEK
Output voltage	Max. 160 V _{RMS} (225 V _{PK})	Max. 160 V _{RMS} (225 V _{PK})	User definable ¹⁾
Low-arm capacitance	20 µF	20 µF	Adjustable ²⁾
Low-arm resistance	Not applicable	Adjustable ³⁾	Adjustable ³⁾

¹⁾ Definable on request. Default value is 140 V_{RMS} (200 V_{PK})

²⁾ Adjustable on request. Information about used C (capacitance) value of the HV divider is required.

³⁾ Adjustable on request. Information about used RC (resistance and capacitance) values of the HV divider is required.

Connectors		
	AKV 9360 / AKV 9360DC	AKV 9360-SEK
Input	2x 4 mm	2x 4 mm
Output	2x BNC (PD and voltage)	3x BNC (1x PD and 2x voltage)
External Low-arm	1x 4 mm	1x 4 mm
Grounding	1x 4mm connector or M5 thread	1x 4mm connector or M5 thread

Environmental	
Operating temperature	-20 °C ... +55 °C
Storage temperature	-40 °C ... +85 °C
Humidity	5 ... 95 % r.h., non-condensing
Vibration/Shock	3G

Mechanical		
	AKV 9360 / AKV 9360DC	AKV 9360-SEK
Dimensions (W x D x H)	170 x 145 x 55 mm (6.7 x 5.7 x 2.2 in)	255 x 165 x 85 mm (10 x 6.5 x 3.4 in)
Weight	1.1 kg (2.2 lb)	2.3 kg (5.1 lbs)

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

Ordering information

Models	
AKV 9360	PD/RIV testing under the AC/DC voltage. AC voltage synchronization/indication.
AKV 9360DC	PD/RIV testing under the AC/DC voltage. AC/DC voltage synchronization/indication.
AKV 9360-SEK	PD/RIV testing under the AC/DC voltage. Calibrated AC/DC voltage measurement.

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HIGH VOLTAGE



INSTRUMENTS



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