



Execution:

ONIS 600 and 1000 as:

Classic: Frequency range up to 20 kHz

Premium: Frequency range up to 150 kHz

Plus: Frequency range up to 500 kHz

Technical data:

- Voltage range at the load and sense terminals (outer conductor-outer conductor voltage) ± 70 to max. 1000 V_{peak}
- 50 V_{rms} to 690 V_{rms}
- Measurement category of load and sensor connections CAT IV 600 V to 1000V
- 50/60Hz Power frequency
- Maximum current of load connections 6 A_{peak}
- Frequency range of impedance measurements DC up to a maximum of 500kHz
- $\pm 5\%$ Measurement tolerance of impedance measurements
- Representation of the net impedance as magnitude & phase and Nyquist curve
- Automated three-phase impedance measurement
- Class A measurement accuracy for voltage measurements
- Sampling rate up to 1 MHz for voltage measurements
- three-phase measurement inputs for voltage measurement
- Supply voltage of the ONI 12 VDC \pm 1.2 VDC, max.5 A 60 W
- Connection via 5.5/2.1 hollow plug
- Supply voltage of the supplied 12 V power supply for the ONI 100-240 VAC 50/60 Hz
- Operating environment IP 20, 0-40°C, 75% RH
- Maximum operating altitude \leq 2000 m above sea level
- Dimensions (L x W x H) 54 cm x 45 cm x 14.5 cm
- Weight 13 kg



- **PQ-Plus module**

With the additional module you get a more complete picture of harmonics at the mains connection. This makes it easier to see not only symptoms, but also the cause of harmonics. All relevant characteristic values are calculated and displayed according to DIN EN 61000-4-7.

- **Current and power module**

Flows and outputs of plants are recorded and examined. With this module, a further detection of network points and systems is possible, since the current is also analyzed at high frequency and a calculation of the complex electrical powers is made possible. For the module, the ONIS measuring system is extended with three analog inputs for current sensors.

- **Grid nominal frequency extension**

In principle, nominal network frequencies of the network to be measured from DC to 800 Hz can be implemented.

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Application areas

- **PQ-Check: Checking the network quality**

Get to the bottom of failures or recurring defects in systems.

- **Fingerprint of electrical installations**

Rely on plant health from the very beginning and create the basis for a long and efficient service life.

- **Efficiency of network connection points**

Determination of the real performance of network connection points. Optimal resource allocation for grid expansion.

- **Elimination of sources of interference**

Identification of systems and electrical components that interfere with the network. Cause determination of network instabilities.

- **Construction of charging parks for e-mobility**

Determination of dependencies and influences of different e-models on each other.



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What can the ONIS measure?

The ONIS can measure the network impedance up to 500 kHz and detect resonance points in the network, identify sources of interference and make a statement about the performance of a network connection point.

How complex are the measurements?

The measurements can be easily carried out by trained specialists. The setup of a measurement is usually completed within 5 minutes.

Systems must be switched off during the measurements?

A big advantage of the ONIS is the measurement of the network impedance in real-time operation. Systems do not have to be de-energized and changes and short-term influences on the grid are easily recognizable during operation.

Is the ONIS designed for short-term or continuous measurements?

Measurement campaigns can be carried out from 15 minutes to weeks. The longer a measurement campaign lasts, the more detailed the network behavior becomes visible at certain times of the day.

Do measurements have to be constantly accompanied by personnel?

No. Once connected, the ONIS can measure for weeks at a connection point and results can be called up via an online interface regardless of location. However, the measuring location should be secured before unauthorized access.