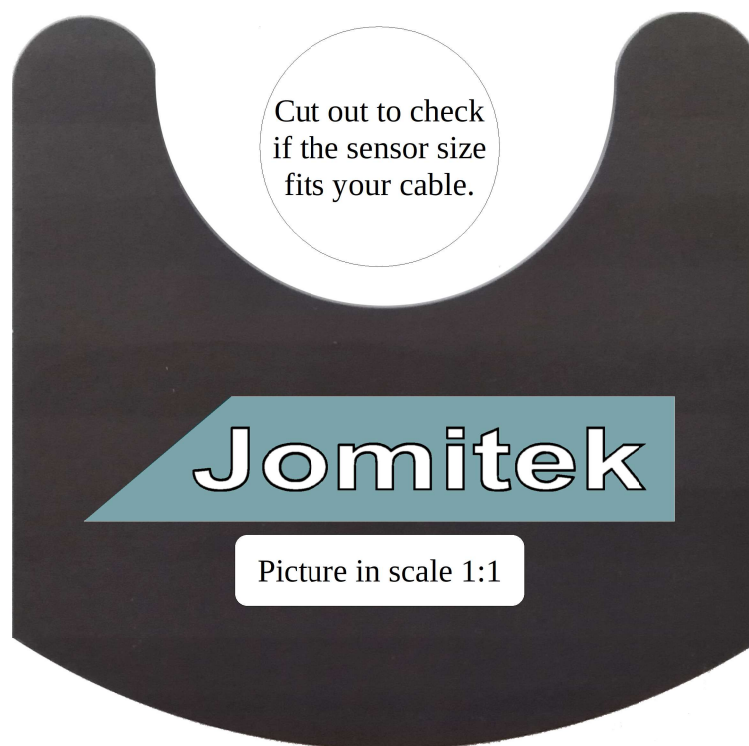


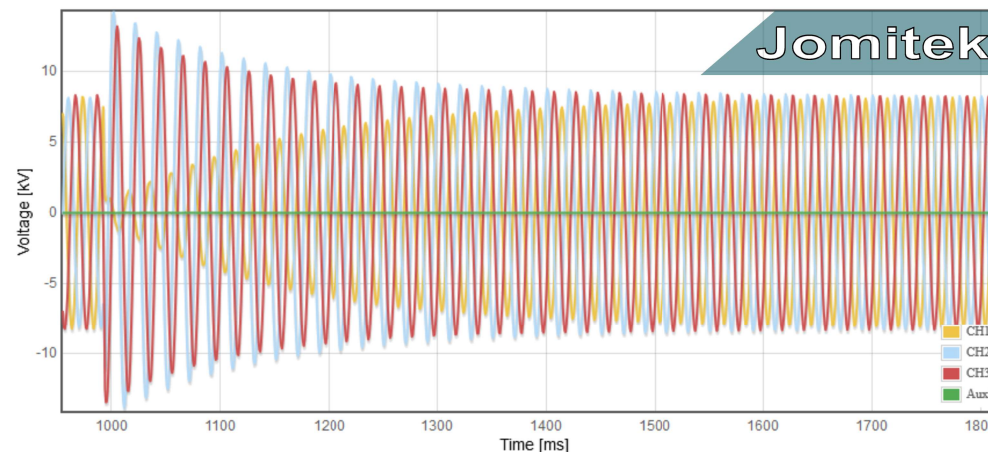
The Jomitek I3 Power Sensor

- Extremely easy installation, and no calibration requirements.
- Measurement on 3-wire cables.
- Earth fault detection reporting.



Other sizes of the sensor is available for improved fit.
 Contact Jomitek for more information or visit our website.

The Jomitek I3+ Power Sensor Revolutionary grid monitoring and analysis



An earth fault in a coil grounded distribution grid, recorded by the Jomitek I3+ Power Sensor.

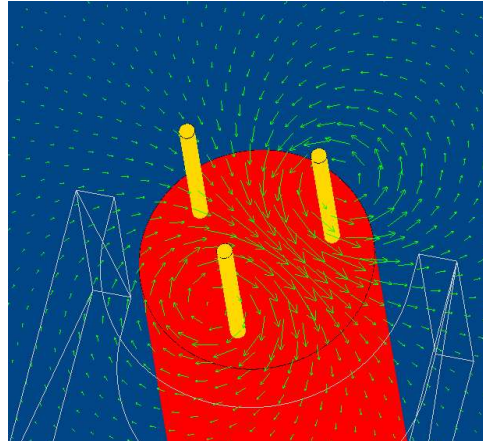
A revolution in multi phase current measurement

- No voltage- or current transformer needed.
- No calibration needed.
- No need to split cable for 3 phase current measurements.

To the right is shown a Simulation of the magnetic field generated by a three phase current.

The sensor is sketched in white.
The currents are measured by magnetic field sensors.

The sensor continuously determine the wire positions inside the cable from which it is then possible to determine the individual phase currents.



Technical data

Power supply	PoE/class 2
Voltage range	0.1 kV – 36 kV
Current range	1 A – 5 kA
Voltage accuracy	Calibrated typical: 0.5 %, uncalibrated typical < 5 %
Current accuracy absolute	Typical 2-5 %
Current accuracy relative	1 %
Frequency analysis	Up to the 312 th harmonic @ 50 Hz
Directional fault indications	Earth fault and short circuits
Communication	Ethernet based protocols i.e. Modbus and IEC 60870-5-104
EMC directive	Emission: EN 50081-2:1993, Immunity: EN 61000-6-2:2005
IP rating	IP55

A measurement lab in the palm of your hand

Utilizing directly imbedded processing and analysis of raw measurement data, the sensor is able to operate as a localized mini SCADA system, featuring measuring of..

- Large on board memory capacity – design for full lifetime data logging.
- Highly optimized for low bandwidth requirements, conforming with IoT cellular service capabilities.
- High level parameter readout including configurable time span true RMS of:
 - Voltage
 - Current
 - Apparent power
 - Reactive power
 - Real (active) power
 - Phase difference between voltage and current
 - Power factor
- Total Harmonic Distortion, THD readout according to EN50160, and additional configurable THD variants.
- Automatic event logging of current and voltage waveforms for advanced post processing.
- Directional detection of short circuits and earth faults.

.. leading to high value Smart Grid operational information

Load monitoring

- Enables targeted upgrades of stressed sections of the power grid, and improved load distribution during normal operation.
- Provides an overview of non-linear load via frequency analysis on the electrical current.

Fault reporting

- Directional detection of short circuits, enabling shortened downtime via quick reestablishment of power to the surrounding grid.
- Directional detection of both high and low impedance earth faults, which can severely affect the lifetime of the power grid infrastructure, and may go unnoticed for years at a time, or be extremely difficult to identify, in terms of the area at fault.

Lifetime assessment

- Reveal transformer operational health state prior to breakdown via frequency analysis (FFT and THD data) combined with long term load profile data, to enable timely replacement of equipment, and prolong the lifetime where possible.