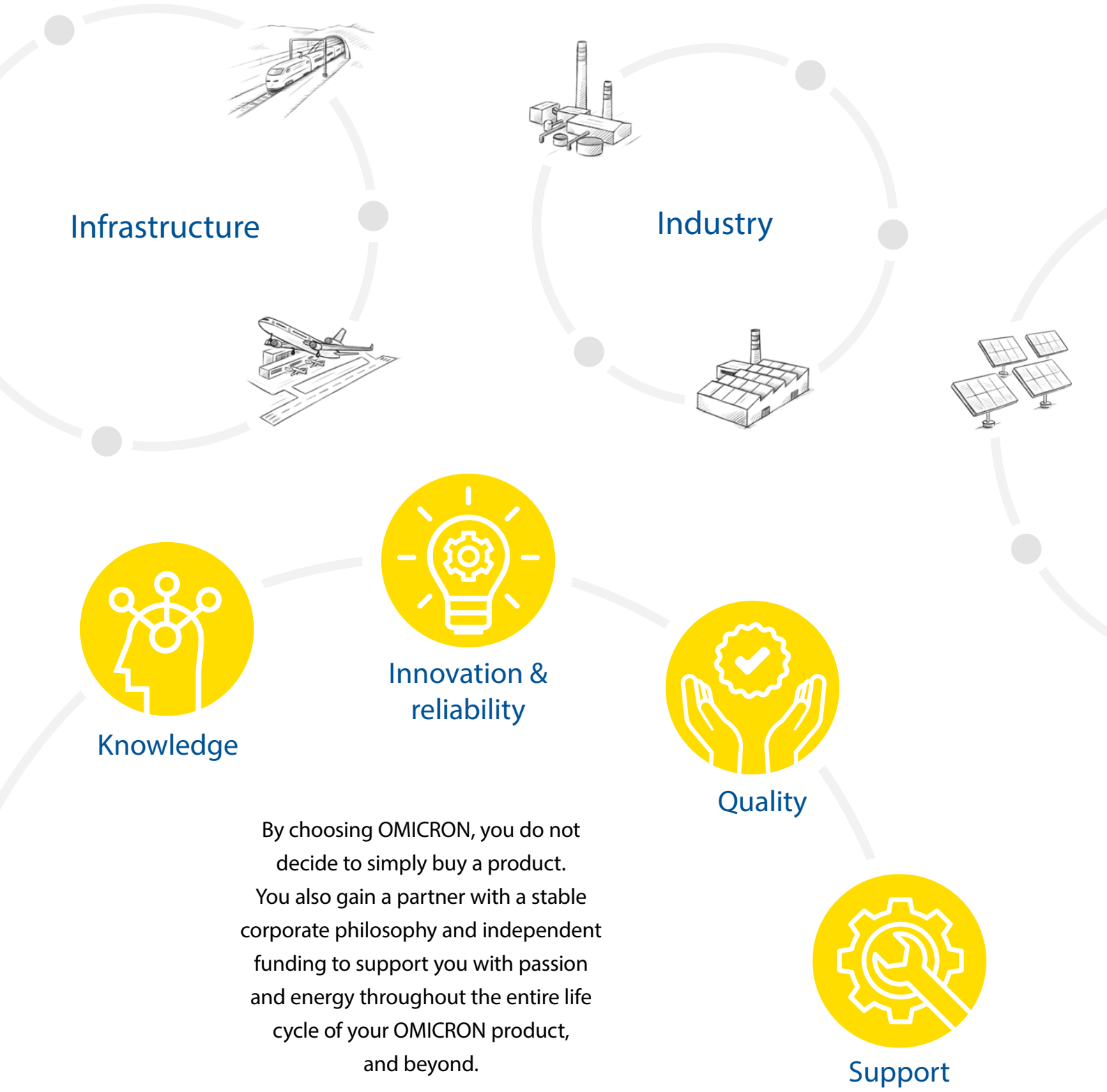


# OMICRON Products and Solutions



# TAILORED TESTING AND MONITORING SOLUTIONS



Infrastructure

Industry



Knowledge



Innovation & reliability



Quality

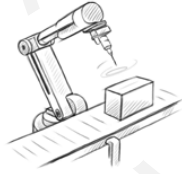


Support

By choosing OMICRON, you do not decide to simply buy a product. You also gain a partner with a stable corporate philosophy and independent funding to support you with passion and energy throughout the entire life cycle of your OMICRON product, and beyond.

Learn more on page 18

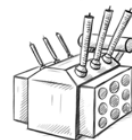
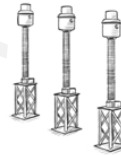
# Research & manufacturing



# Generation



# Transmission & distribution



Protection and recloser control testing



IEC 61850 testing and cyber security



Measurement equipment testing



Data and maintenance management



Power transformer testing and monitoring



Instrument transformer testing



Circuit breaker/switchgear testing



Motor/generator testing and monitoring



Partial discharge analysis and monitoring



Cable testing and monitoring



Transmission line testing



Grounding system testing





# Protection and recloser control testing

## Multi-phase test set



**CMC 500**  
Modular, multi-phase protection relay test set and commissioning tool

Get to know the CMC 500



[omicon.energy/cmc500-links](https://omicon.energy/cmc500-links)

## 3-phase test sets



**CMC 430**  
Ultra-portable high-precision protection test set and calibrator



**CMC 310**  
Test set for basic three-phase testing

## Recloser control test set



**ARCO 400**  
Universal test set for recloser controls

## 1-phase test set



**COMPANO 100**  
Battery-operated primary injection, secondary injection and basic protection test set

## Digital substation test set



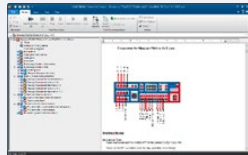
**CMC 850**  
Dedicated IEC 61850 protection test set for digital substations



## Operation



+



**Test Universe**  
PC software suite for advanced secondary testing with CMC test sets

**PTL**  
Creation of specific test templates which adapt automatically to the actual relay settings



**RelaySimTest**  
Software for system-based protection testing with CMC test sets and ARCO 400

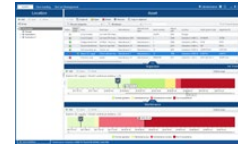


**CMControl P**  
Intuitive control option for simple manual testing with CMC test sets



**CMEngine**  
Programming interface for controlling CMC test sets with user-specific software

## Management



**ADMO**  
Maintenance management solution for protection systems

## Planning



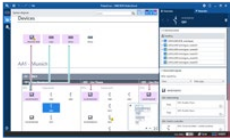
**Time Grading**  
Software for easy creation of time grading schedules



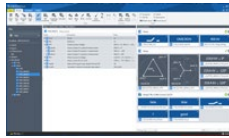


# IEC 61850 testing and cybersecurity in energy systems

## IEC 61850 testing solutions



**StationScout**  
Software for a clear overview and automated testing of Substation Automation Systems



**IEDScout**  
Software for analyzing IEC 61850 IEDs. Available for PC, MBX, RBX and VBX



**Test Universe**  
Software suite for advanced secondary testing on CMC test sets

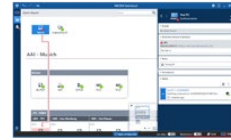


**RelaySimTest**  
Software for testing protection systems with Sampled Values and GOOSE



**DANEO Control**  
Software for simultaneous analysis of GOOSE, Sampled Values and analog/binary signals

## Cybersecurity solutions

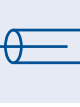


**StationGuard**  
Software for functional security monitoring, asset lists, and intrusion detection for IEC 61850 and IEC 104



**GridOps**  
Central management system for StationGuard with vulnerability and asset management





## Software-independent platforms for StationGuard, StationScout and IEDScout



**RBX**  
Permanently installed 19-inch platform for cybersecurity and testing applications



**MBX**  
Mobile and DIN rail mountable platform for cybersecurity and testing applications



**VBX**  
Virtual machine platform for cybersecurity and testing applications

## Test sets



**DANE0 400**  
Measurement and recording device for analyzing signals and network traffic with DANE0 Control



**CMC family**  
Versatile protection testing using GOOSE, Client/Server (MMS) and Sampled Values



**CMC 850**  
Dedicated IEC 61850 protection test set for digital substations



**CPC 100**  
Universal primary test set with the ability to receive IEC 61850 Sampled Values

## Accessories



**EMCON 200**  
PTP transparent Ethernet media converter powered by PoE



**OTMC 100p**  
Antenna integrated PTP grandmaster clock for the use in Substation Automation Systems



**TICRO 100**  
Device for synchronization of non-PTP equipment to the PTP grandmaster of an IEEE 1588/PTP infrastructure



# Testing of meters, transducers and power quality meters

## 3-phase test set



**CMC 430**  
Ultra-portable high-precision protection test set and calibrator

## Multi-phase test set



**CMC 500**  
Modular, multi-phase protection relay test set and commissioning tool

## Operation



**Test Universe**  
Software suite for advanced secondary testing on CMC test sets

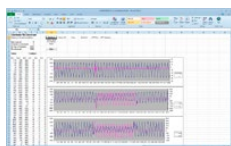


**CMControl P**  
Intuitive control option for simple manual testing with CMC test sets

## Management



**ADMO**  
Convenient asset and testing management



**CMEngine**  
Programming interface for developing user-specific test software for CMC test sets





# Data and maintenance management

## ADMO



ADMO is an easy-to-use database software for central planning and management of all testing and maintenance activities for protection systems in the power industry.

## Modules for ADMO



**InSight**  
The ADMO dashboard processes the asset and maintenance data available in ADMO and displays it using widgets.

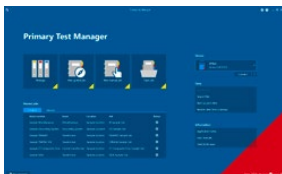


**Test Set Management**  
Enables you to add the test sets you use for your maintenance tasks, store test set specific data, schedule test set calibration, and keep track of repair events.



**Time Grading**  
This module supports you in creating your time grading schedules.

## Primary Test Manager (PTM)



The Primary Test Manager (PTM) software supports you during diagnostic tests on circuit breakers, current and voltage transformers, rotating machines, grounding systems, power transformers as well as associated equipment such as bushings and on-load tap changers (OLTC).

A high-performance database ensures that the installed equipment and the associated test plans can be managed easily. With the module "PTM DataSync", you can synchronize your database to a central server in order to share and consolidate important asset information company-wide.



# Power transformer testing and monitoring



**TESTRANO 600**  
Three-phase test system for all common conventional tests on power transformers



**TESTRANO 600 + CP TD12**  
Three-phase test system expanded for dissipation/power factor measurements



**CPC 100**  
Universal primary injection test system for electrical diagnostics on various assets



**CPC 100 + CP TD12/15**  
Universal test system expanded for dissipation/power factor measurements



**FRANEQ 800**  
Sweep frequency response analyzer (SFRA) for core and winding diagnosis



**DIRANA**  
Dielectric response analyzer for moisture determination in oil-paper insulations



**CT Analyzer**  
Current transformer test system, e.g. for bushing current transformers



**MPD 800**  
Universal partial discharge (PD) measurement and analysis system



**UHF 800**  
Ultra-high frequency (UHF) partial discharge measurement and analysis system





PD



PDL 650  
Acoustic partial discharge  
localization test system



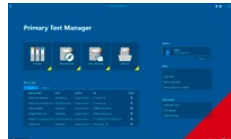
MONTESTO 200  
Portable on-line partial  
discharge measurement and  
temporary monitoring system



TANDO 700  
High-precision test system for  
dissipation/power factor and  
capacitance measurements



CPC Sync  
Portable HV source for partial  
discharge and voltage withstand  
tests on dry-type transformers



Primary Test Manager  
Software for testing and  
management of primary assets





# Instrument transformer testing



CT Analyzer  
Current transformer test and calibration system



VOTANO 100  
Voltage transformer test and calibration system



CPC 100  
Universal primary injection test system for electrical diagnostics on various assets



COMPANO 100  
Portable primary and secondary injection and basic protection test set



DIRANA  
Dielectric response analyzer for insulation condition assessment



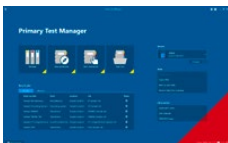
CPC 100 + CP TD12/15  
Universal test system expanded for dissipation/power factor measurements



MPD 800  
Universal power discharge measurement and analysis system



TANDO 700  
High-precision test system for dissipation/power factor and capacitance measurements



Primary Test Manager  
Software for testing and management of primary assets

# Circuit breaker / switchgear testing



**CIBANO 500 + CB MC2 + CB TN3**  
Circuit breaker test system for timing, micro-ohm and motion tests with integrated power supply



**CPC 100**  
Universal primary injection test system for electrical diagnostics on various assets



**CPC 100 + CP TD12/15**  
Universal test system expanded for dissipation/ power factor measurements



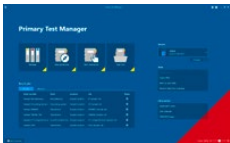
**COMPANO 100**  
Basic test set, e.g. for single-phase timing tests



**CT Analyzer**  
Current transformer test and calibration system, e.g. for GIS current transformers



**CPC 100 + CP RC**  
Voltage withstand test on GIS with power voltage transformer



**Primary Test Manager**  
Software for testing and management of primary assets



**UHF 800**  
Ultra-high frequency (UHF) partial discharge measurement and analysis system



**PARADIMO 100**  
Ultra-high-frequency partial discharge monitoring system for GIS and GIL



# Motor / generator testing and monitoring



**CPC 100**  
Universal primary injection test system for electrical diagnostics on various assets



**CPC 100 + CP TD15 + CP CR600**  
Universal test system expanded for dissipation/power factor measurements, incl. high-voltage source



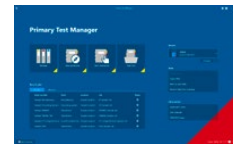
**MONESTO 200**  
Portable on-line partial discharge measurement and temporary monitoring system



**MPD 800**  
Universal power discharge measurement and analysis system



**MONGEMO**  
Partial discharge monitoring system for rotating machines



**Primary Test Manager**  
Software for testing and management of primary assets



**TANDO 700**  
High-precision test system for dissipation/power factor and capacitance measurements



**DIRANA**  
Dielectric response analyzer for insulation condition assessment



# Partial discharge analysis and monitoring



**MPD 800**  
Universal power discharge measurement and analysis system



**UHF 800**  
Ultra-high frequency (UHF) partial discharge measurement and analysis system



**MONTESTO 200**  
Portable on-line partial discharge measurement and temporary monitoring system



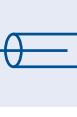
**MONCABLO**  
Permanent on-line partial discharge monitoring system for high-voltage cables



**MONGEMO**  
Partial discharge monitoring system for rotating machines



**PARADIMO 100**  
Ultra-high-frequency partial discharge monitoring system for GIS and GIL





# Cable testing and monitoring



**CPC 100 + CP CU1**  
Universal test system expanded for impedance and k-factor measurements



**MPD 800**  
Universal power discharge measurement and analysis system



**UHF 800**  
Ultra-high frequency (UHF) partial discharge measurement and analysis system



**TANDO 700**  
High-precision test system for dissipation/power factor and capacitance measurements



**MONTESTO 200**  
Portable on-line partial discharge measurement and temporary monitoring system



**MONCABLO**  
Permanent on-line partial discharge monitoring system for high-voltage cables







# Transmission line testing



CPC 100 + CP CU1  
Universal test system expanded for impedance, k-factor and mutual coupling measurements



# Grounding system testing



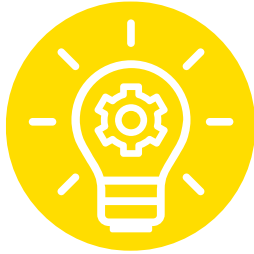
CPC 100 + CP CU1 + HGT1  
Universal test system expanded for ground impedance, and step and touch voltage measurements



COMPANO 100 + HGT1  
Basic test set for ground impedance, and step and touch voltage measurements in small stations

**Continuous software maintenance and upgrades**  
More than 200 software developers ensure our software tools stay up-to-date in the long term.

**Safe operation**  
We use state-of-the-art technology for a maximum level of security: guided workflows, simple wiring concepts, fiber-optical connections, safety accessories, manuals in many languages.



## Innovation and long-term reliability

**Time-saving solutions**  
Our solutions help you to reduce your testing time with test templates, one-button-tests, automated test procedures and reduced wiring efforts.

**Large investments in R&D**  
We invest over 15% of our annual sales in R&D to continually set groundbreaking standards in our industry.



Run-in tests for every device  
Assembled devices pass high-voltage tests as well as an environmental test where the device is exposed to temperature changes for 72 hours.

## Quality for your lasting success

100% routine testing  
We test each individual component and module prior to assembling.

Made in Austria and Germany  
All our devices are produced in Austria and Germany and guarantee highest quality during production. Our suppliers are long-term partners in the region.

Compliance with international standards  
We are compliant with ISO 9001, ISO 14001, OHSAS 18001, TÜV and EMAS.

# Knowledge at your fingertips



## Training centers

Make use of the hands-on training possibilities in our well-equipped training centers all around the world and become familiar with both the asset and the product.

## OMICRON Academy

Broaden your knowledge in customized on-site training, more than 300 training courses and free webinars. Benefit from expert trainers, high-quality training material and from exchanging experiences with other students.



## Expert knowledge from standard committees

Get the latest information from standard committees by our experts.



## User meetings, seminars and conferences

Exchange with peer users and industry experts and learn about the latest technological trends at OMICRON events worldwide.



## Knowledge library

Receive free access to a huge user network (over 15,000 people) and thousands of interesting papers and application notes.

### Rental devices

Benefit from our rental device offer when you are in need of a device.



### 24/7 technical support

Reach one of our highly qualified and experienced support engineers – immediately and directly via our technical support hotline. Benefit from our global support network with extensive product and application knowledge – 24 hours, 7 days a week.

|                       |  |
|-----------------------|--|
| Americas:             | +1 713 830 4660<br>+1 800-OMICRON            |
| Europe / Middle East: | +43 59495 4444                               |
| Asia-Pacific:         | +852 3767 5500                               |
| India:                | +91 11 3057 5429                             |
| Australia:            | +61 3 9473 8400<br>1 800 223 177 (toll free) |

### Repair and calibration

We deal with repair and calibration services in a cost-effective and non-bureaucratic manner.

### Worldwide network

Get local support around the world thanks to 25 offices and our worldwide Sales Partner network.

Support whenever you need it

**Engineering services**  
Benefit from our experts' knowledge for consulting, testing and diagnostics.

## Our vision

We innovate with passion.

We create the best place to work.

We change the world for the better.

## About us

## Where it all began

OMICRON was founded in 1984 by Rainer Aberer who had a special vision for his company.

Unfortunately, we lost Rainer in a tragic accident in 2009, but his philosophy still inspires our company culture: we believe in a work setting that entrusts each member of our team with a lot of responsibility. The diverse backgrounds, nationalities and experiences of our colleagues are seen as a fertile ground on which ideas can flourish.

Our working practices encourage team-work and open communication among colleagues and with our customers. An atmosphere of mutual co-operation encourages people to share their ideas, thoughts and opinions. We feel inspired by being able to find new answers that address our customer's unique challenges and requirements.

In this way, we have been able to create an exciting and motivational environment in which we develop our innovative products and services.

»Create an environment with no artificial limits where a team of excellent members can reach an excellent performance and enjoy working (having fun) together at the same time. This team should get its recognition for providing the best solutions to the customers.«

Rainer Aberer, founder of OMICRON

Today we ...

... have more than  
1250 employees from  
59 different nations.



... operate  
23 offices  
worldwide.



... are proud of having  
customers in over  
170 countries.



... have transferred our  
ownership into the OMICRON  
trust, a legal entity, which  
provides a stable basis for  
the company's long-term  
development.



... invest a fixed share of  
our annual profit into social  
projects dedicated to support  
underprivileged children.



OMICRON is an international company that works passionately on ideas for making electric power systems safe and reliable. Our pioneering solutions are designed to meet our industry's current and future challenges. We always go the extra mile to empower our customers: we react to their needs, provide extraordinary local support, and share our expertise.

Within the OMICRON group, we research and develop innovative technologies for all fields in electric power systems. When it comes to electrical testing for medium- and high-voltage equipment, protection testing, digital substation testing solutions, and cybersecurity solutions, customers all over the world trust in the accuracy, speed, and quality of our user-friendly solutions.

Founded in 1984, OMICRON draws on their decades of profound expertise in the field of electric power engineering. A dedicated team of more than 1250 employees provides solutions with 24/7 support at 23 locations worldwide and serves customers in more than 170 countries.

