MAXIMUM EFFICIENCY

A combination of well thought-out features and the use of automation make testing solutions incredibly efficient.

Typical testing time

SAVE AT LEAST 50%

SAVE UP TO 66%
When it comes to testing assets in substations and performing comprehensive condition assessments, efficiency is king. All the relevant test data has to be collected quickly in order to ensure downtimes that are as short as possible and to allow informed conclusions about the correct operation and condition of the tested asset to be made. The safety of the asset, the test engineers and the immediate surroundings must be guaranteed at all times. All of these factors need to work together as smoothly as possible in order to achieve maximum efficiency.

Our developer teams are passionate about developing solutions that fulfill these demands and make the procedure as efficient as it can be.

«With smart testing solutions you can reduce the number of steps in a procedure, resulting in easier, faster and safer testing.»

Christian Enk
Area Sales Manager & Regional Training Manager, OMICRON
Testing circuit breakers

A broad spectrum of mechanical and electrical errors can occur in circuit breakers due to their design. For this reason a number of diagnostic tests must be carried out, which until now required multiple devices and a time-consuming wiring effort. Another important factor is the power supply being used during the test. Normally, the substation battery is used to supply power for these tests, resulting in a volatile test voltage and less reliable test results.

CIBANO 500 has revolutionized medium-voltage and high-voltage circuit breaker testing by combining a micro-ohmmeter, timing analyzer, and a coil and motor supply in a single device. A number of parameters such as switching times, static and dynamic contact resistance, motion sequences, coil and motor current, and undervoltage condition and minimum pick-up tests, can all be tested with one single test setup. Testing times with CIBANO 500 are up to two thirds shorter than that of conventional solutions.

Its integrated power supply also guarantees safe and independent operation, as well as reliable and reproducible measurement results. Having the ability to perform tests with a circuit breaker that is grounded on both sides increases the safety of all on-site personnel.

The included Primary Test Manager™ software and its new Circuit Breaker Testing Library (CBTL) also support testing engineers on site with useful features such as test templates with pre-filled asset data, automatic assessment and test logging. In addition, all of the data can be collected, stored and managed in a single central database.
Testing protection relays and measuring instruments

For electromechanical and digital protection relays – as well as measuring devices – functionality, response times, and accuracy must be checked regularly. Testing numerous relay parameters without optimized tools is very time-consuming. CMC devices provide users with a wide range of test sets that meet all of the relevant requirements in relation to functions and features, output power, and accuracy. In order to meet individual demands regarding scope and completeness (testing depth), a range of different control options and testing concepts are available for CMC test sets.

The modular Test Universe software suite offers the most comprehensive and complete solution for parameter-based tests. The flexible software environment from the OMICRON Control Center (OCC), technologies such as XRIO and test templates from the Protection Testing Library (PTL) allow various test functions to be combined into a single test plan. Furthermore, they support extensive test automation, and continually updated and improved test plans.

Tests conducted using CT Analyzer and VOTANO 100 are also very safe, as CT Analyzer’s maximum test voltage output is 120 V. Regarding VOTANO 100, the necessary 4 kV test voltage is generated by the separate VBO2 voltage booster. For security reasons VBO2 is situated close to the test object but far away from the tester.