

MAINTENANCE IS KEY IN WIND POWER

Wind turbines convert the kinetic energy in wind into mechanical power. This mechanical power can be converted into electricity by a generator. Hundreds of thousands of large turbines, also known as wind farms, generate over 650 GW of power, with 60 GW added each year. They usually feed into high- and medium-voltage systems. Regular maintenance of wind turbines is needed to reduce downtime and increase efficiency.



MTR105

- The MTR105 is a single, handheld dedicated static motor tester that can perform multiple tests on electric motors and generators, including insulation resistance testing, low resistance testing, as well as inductance and capacitance testing.
- The unit includes a guard terminal that helps to eliminate the effects of surface leakage and delivers accurate results in harsh environments.
- The MTR105 is compact, easy-to-use and features fully automated three-phase insulation diagnostics so that testing can be performed seamlessly with no need to reconnect the unit for each phase-to-phase measurement.



MOM2

- The MOM2 is a lightweight, handheld, high current micro-ohmmeter that delivers up to 220 A of test current and is designed for testing busbar and cable joints, as well carrying out contact resistance measurements on low-, medium- and high-voltage circuit breakers.
- The micro-ohmmeter can be used anywhere to measure a low resistance value with high accuracy.
- The unit uses rechargeable batteries that give over 2000 measurements per charge. It can carry out a full day's testing in locations where there is no power supply available.



MIT1525

- The MIT1525 is a versatile insulation resistance tester that measures motors and generators above 34500 V and equipment rated above 35 kV.
- It is engineered to ensure the highest precision possible, offering 5 % accuracy with maximum resistance up to 3 TΩ. Rated for use at an altitude of 3000 meters, it has a CAT IV 1000 V safety rating.
- The tester is designed to charge while operating. It can take measurements when connected to a line power with a fully discharged battery.
- The MIT1525 has a high noise immunity specified at 6 mA, allowing accurate measurements to be taken where there's excess electrical noise.



DET24C

- The DET24C is a fast, easy-to-use clamp and measure earth/ground digital resistance tester with no leads or probes. It can help prevent a rise in voltage caused by fault current, surges, and lightning strikes in wind turbines.
- These testers are designed with flat core ends that help prevent dirt build up and ensure measurement integrity. Its slim profile and clamp design allows for easier access and testing of round conductors. It can clamp round cables up to 35 mm in diameter and earth tapes/straps up to 50 mm wide.



DET2/3

- The DET2/3 is a high-performance ground tester that measures ground electrode resistance and soil resistivity. It delivers accurate results in the harshest environments.
- This powerful diagnostic tool can be used for lightning protection.
- The unit supports two-, three-, and four-pole ground resistance measurements, as well as three- and four-pole ART (attached rod technique) measurements and stakeless measurements for quick and reliable testing of systems that do not require the driving of distant test probes.



DLRO10HDX

- The DLRO10HDX is a digital low resistance ohmmeter used for lightning protection testing.
- Lightning strikes cause a great deal of downtime and power loss for wind turbines. As towers become taller, the number of strikes continues to grow. Because of this, lightning protection testing is more important than ever. The weather mast, roof cooler, control panels, nacelle-hub junction, nacelle-tower junction, and machine support must be tested at several points to ensure low resistance. The test leads on the cable reel and Kelvin-type clips found in the DLRO10HDX are ideal for this type of testing.



DLRO2

- The DLRO2 is a 2 A handheld digital low resistance ohmmeter that can deliver reliable results when using long test leads because of its long test lead mode.
- This tester can display three measurements at once, providing a quick, easy, and reliable way of comparing the resistance measurements for all three phases (for example, three stator windings or three phases of cable joints).
- The DLRO2 offers three test modes including normal resistance, fast/long leads and inductive resistance that speeds up and improves the testing of highly inductive loads like long test leads and windings.



KC-C test leads

- KC-C test leads are lightweight, making them safe to use at extreme heights, and are designed to work with Megger's DLRO2 low resistance hand-held ohmmeter to measure the resistance of the lightning protection circuit of wind turbines.
- Each lead set includes two test leads fitted with a duplex handspike for probing the lightning receptors on the tips of the turbine blades. They are also fitted with a robust Kelvin clip that is designed to offer ease of use, while providing consistent and reliable connections that are needed to ensure accurate and repeatable results.