



Ensure Safe and Reliable Cable Performance

Cable testing is vital for ensuring that your cables will operate safely and reliably.

New cables must demonstrate that they are safe to energize and will hold up during operation. Our NETA accredited technicians will examine the aging cables at regular intervals to determine the rate of deterioration or formation of defects. We will perform di-electric withstand tests, insulation resistance, cable phasing and continuity, and tan delta testing (typically performed on aging cables.) These tests ensure correct installation of the cable and prevent avoidable and costly arc flash incidents.



When to Carry Out Cable Testing

Recognizing a potential fault or failure prior to occurrence can allow you to make repairs promptly to avoid equipment damage or personnel injury when an arc flash occurs.

- According to the NETA (InterNational Electrical Testing Association) Standard for Acceptance Testing of new cables, it is advisable to test the cables before voltage is ever applied.
- According to the NETA (InterNational Electrical Testing Association) Standard for Maintenance Testing, testing medium voltage cables at least every 36 months is recommended.

Comprehensive Cable Fault Detection and Testing Solutions

Quad Plus performs multiple testing types during acceptance testing of new cable installations and maintenance testing of cables already in service.

- Very low-frequency testing checks installation quality and places less stress on your cables than AC and DC high-potential testing.
- Partial discharge testing identifies defects in cable terminations and insulation, enabling the detection of problems before energizing the cable for the first time or as defects progress over time.
- Tan Delta testing is a powerful tool when evaluating the effectiveness of insulation over time. This AC test can track the expected life of cables and determine if faults or defects are forming.
- DC high potential testing is typically not recommended for EPR and silicone-rubber compounded cables due to the premature failure this test can cause. However, it is still valid for PILC (oil-impregnated paper-insulated, lead-covered) cables.

The Quad Plus team can locate, isolate, and trace a cable fault on shielded cables. Our experienced and qualified engineers use proper testing equipment to interpret the data and ensure your cables are safe for operation.



Cable Fault Locating and Tracing

If there are any testing issues or equipment failures during operation due to an expected cable issue, we can verify, trace, and locate the source of the faulty shielded cable.

We identify the faulty cable through Megger IR tests and pre-locate it with Time Domain Reflectometry (TDR) or Arc Reflection Method (ARM). We use ARM with TDR and acoustic/electromagnetic receivers to examine the cable for faults. We will be able to detect the location of the cable fault through radar indication.

Understanding how to read the radar is essential to quickly finding the fault since most cables are underground or in enclosed piping extending up to miles.

Connect with us



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