EAGLOTEST

Down-to-earth instruments you can trust!

S431

10 kV INSULATION TEST SET

UP TO 20 TΩ · SIX TEST VOLTAGES FROM 250 V TO 10 kV



INSULATION FAILS SLOWLY.

Catch it while it's still a trend.

The S431 stores test records, displays trend curves and exports measurement data, so a winding's condition reads as a service history rather than a single number taken on a single day.

Key Diagnostic Highlights

PI & DAR

Time-ratio readings expose damp or contaminated windings

SV & DD TESTS

Step voltage and dielectric discharge expose what a spot reading hides

RAMP TEST

Rising-voltage test reveals how insulation responds as stress increases

TREND & REPORT

On-screen trend graph and 1-second logging build a service history

Where It Works







EAGLOTEST

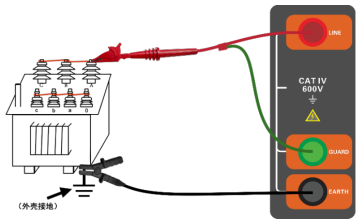
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Test Connections

Connect LINE and EARTH across the insulation under test; connect the HV lead shield branch to GUARD to bypass lead leakage.

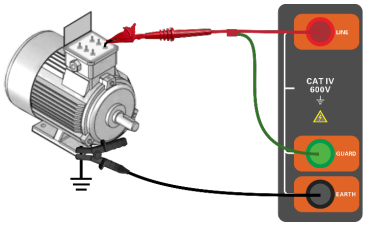
Transformer Winding

L → HV winding | E → Chassis ground



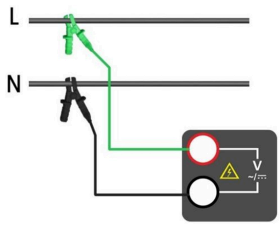
Motor Winding

L → Winding | E → Housing



External Voltage

AC/DC → up to 1000 V



How To Test — 4 Steps

1. **CONNECT** — Clip L, G and E to the test object
2. **SELECT kV** — Select 250 V to 10 kV
3. **TEST** — PI and DAR run automatically
4. **READ & SAVE** — Auto-discharge, then store or export

Technical Specifications

MEASUREMENT

Insulation Resistance	**0.01 MΩ – 20.0 TΩ**
Test Voltages	**250 V, 500 V, 1 / 2.5 / 5 / 10 kV**
Best Accuracy	**±(3% rdg + 5 dgt) / ±(5% rdg + 5 dgt)***
Resistance Resolution	**0.01 MΩ**
Leakage Current	**0.01 nA – 20.00 mA**
Capacitance	**0.200 – 100.0 µF**
AC/DC Voltage	**1 – 1000 V**
Short-Circuit Current	**≥ 5 mA**
Test Timer	**Up to 99 min 99 s**

GENERAL

Diagnostics	**PI · DAR · SV · DD · Ramp**
Display	**5.6" colour LCD**
Memory	**1,000 records · auto save**
Connectivity	**USB + Bluetooth App**
Power Supply	**14.8 V 5200 mAh Li-ion**
Auto Power Off	**15 min on battery**
Dimensions	**320 × 240 × 145 mm**
Weight	**Approx. 3.5 kg**
Safety	**CAT IV 600 V · IP54**

* 250 V to 5 kV / 10 kV respectively; specified resistance ranges only. See datasheet.

Safety & Compliance

Designed in accordance with IEC 61010-1 · Pollution Degree 2 · 5 kV AC dielectric strength · Operating −10 °C to 40 °C

What's in the Box

- Insulation Test Set
- HV Test Lead (3 m)
- Guard & Earth Leads (3 m)
- Voltage Leads (2 × 3 m)
- Tool Bag
- Charger
- USB Cable
- Manual & Docs

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