

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

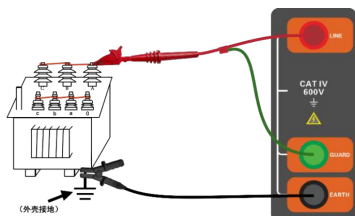


Test Connections

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

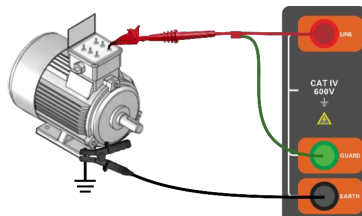
Transformer Winding

L → HV winding | E → Chassis ground



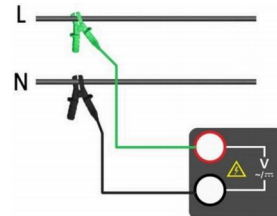
Motor Winding

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% at 250 V–5 kV; ±5% at 10 kV
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

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