TH9130 Series

Multifunction Safety Compliance Analyzer

A single-channel, seven-in-one electrical safety test system combining AC/DC withstand voltage, insulation resistance, ground bond, continuity, electrical performance and leakage current testing in one 7-inch touchscreen instrument (TH9130A/TH9131A cover the first four tests). Suited to full safety-compliance testing of household appliances, lighting, motors, high-power equipment, electronic components and medical electrical equipment.

430(W) × 132(H) × 550(D) mm · 40 kg (TH9130) / 38 kg (TH9131) / 34 kg (TH9130A) / 32 kg (TH9131A)



- 7-inch capacitive touchscreen, 800×480 resolution, English UI
- **Seven-in-one** test system: ACW, DCW, insulation resistance, ground bond, continuity, electrical performance and leakage current (TH9130/TH9131)
- 500 VA AC withstand-voltage output; insulation resistance test up to **6 kV / 50 GΩ**
- Ground bond test up to **40 A**; can run simultaneously with withstand voltage to shorten test time
- Open/short-circuit detection (OSC) and arc detection (ARC)
- Electrical performance test up to 277 V / 16 A / 4500 W (TH9130/TH9131 only)
- Leakage current test with 7 selectable body-impedance networks (MD A–H) (TH9130/TH9131 only)
- Single-screen step view plus list mode showing all step results and pass/fail at once
- Shock-protection cut-off, lockable panel, pass/fail alarm (green/red)
- Standard **SCPI**; storage for 100 files, 50 steps/file

Four models, one platform

Parameter	TH9130	TH9131	TH9130A	TH9131A
AC withstand voltage output	5.0 kV / 100 mA / 500 VA	5.0 kV / 40 mA / 200 VA	5.0 kV / 100 mA / 500 VA	5.0 kV / 40 mA / 200 VA
DC withstand voltage output	6.0 kV / 20 mA / 150 VA	6.0 kV / 20 mA / 120 VA	6.0 kV / 20 mA / 150 VA	6.0 kV / 20 mA / 120 VA
Insulation resistance / Ground bond / Continuity	Included on all four models — see specification table			
Electrical performance test (277 V / 16 A / 4500 W)	Included	Included	Not available	Not available
Leakage current test (MD A–H)	Included	Included	Not available	Not available
Max short-circuit current (AC test)	200 mA	80 mA	200 mA	80 mA
Weight	40 kg	38 kg	34 kg	32 kg

All four models share the same 7-in-1 touchscreen platform, interfaces (RS232 / USB / LAN / HANDLER, optional GPIB) and SCPI support. TH9130A/TH9131A are the ACW/DCW/IR/ground-bond/ continuity variants of TH9130/TH9131 — they do not include the electrical performance or leakage current test functions.

Applications

Household appliances
Full electrical safety and performance testing.

Lighting
Comprehensive lighting-appliance safety testing.

Motors
Comprehensive electric-motor safety testing.

High-power equipment
Withstand-voltage and ground-bond testing of high-power appliances.

Electronic components
Comprehensive component safety testing.

Medical electrical
Leakage current testing per IEC 60601 / GB 9706.1 (TH9130/TH9131).

Technical specifications

Parameter	TH9130	TH9131	TH9130A	TH9131A
AC / DC withstand voltage (ACW / DCW)				
AC voltage range	0.05 – 5.0 kV, 50/60 Hz ± 0.1% sine wave			
AC output power	500 VA (5.0 kV/100 mA)	200 VA	500 VA	200 VA
DC voltage range	0.05 – 6.0 kV			
DC output power	150 VA (6.0 kV/25 mA)	120 VA	150 VA	120 VA
Voltage accuracy	± (1% set value + 5 V); resolution 2 V			
AC current range	0.001 mA – 120 mA (V≤4 kV) / 100 mA (V>4 kV)		0.001 mA – 40 mA	
DC current range	0.0001 mA – 25 mA (V≥1.5 kV) / 20 mA (V<1.5 kV)		0.0001 mA – 20 mA	
Test / rise / fall / wait time	0.3–999 s / 0.1–999 s / 0.1–999 s / 0.1–999 s (0 = continuous / off)			
Arc detection (AC / DC)	1.0–20.0 mA / 1.0–10.0 mA	1.0–20.0 mA / —	1.0–20.0 mA / 1.0–10.0 mA	1.0–20.0 mA / —
Max short-circuit current (AC)	200 mA	80 mA	200 mA	80 mA
Fast discharge	Automatic discharge after DC withstand-voltage test			
Insulation resistance (IR)				
Output voltage	DC 0.05 – 6.0 kV, resolution 2 V, accuracy ± (1% reading + 5 V)			
Resistance range	0.05 MΩ – 50.0 GΩ			
Accuracy (V ≥ 1 kV, and 500 V ≤ V < 1 kV)	1 MΩ–1 GΩ: ± (3% reading + 1 MΩ) · 1 GΩ–10 GΩ: ± (7% reading + 0.2 GΩ) · 10 GΩ–50 GΩ: ± (10% reading + 0.5 GΩ)			
Accuracy (V < 500 V)	1 MΩ – 1 GΩ: ± (5% reading + 100 V/Vs × 10 MΩ)			
AC ground bond (GB)				
Output current	1.00 – 40.00 A, ± (2% set value + 2 digits)			
Test voltage	3.00 – 8.00 V, 50/60 Hz ± 0.1%			
Resistance range / accuracy	0–600 mΩ (1–10 A) · 0–200 mΩ (10–30 A) · 0–150 mΩ (30–40 A); accuracy ± (2–3% reading + 2–3 digits)			
Synchronous ACW + GB test	5 kVac/50 mAac & 30 Aac/150 mΩ	5 kVac/30 mAac & 30 Aac/150 mΩ	5 kVac/50 mAac & 30 Aac/150 mΩ	5 kVac/30 mAac & 30 Aac/150 mΩ
Continuity				
Test current / resistance	0.0001–0.1 A / 0.00–10,000 Ω; accuracy ± (1% reading + 3–10 digits)			
Electrical performance test				
Voltage / Current / Power	0–277.0 V / 0–16.00 A / 0–4500 W		Not available	
Power factor / leakage current	0.000–1.000 / 0.00–10.00 mA		—	
Leakage current test				
Supply / leakage range	0–277 Vac, 16 Aac max / 0.0 µA – 10.00 mA		Not available	
Test frequency	DC, 15 Hz – 1 MHz		—	
Body-impedance networks (MD)	7 selectable networks A–H, each corresponding to a product-safety standard: **A** UL544NP/UL484/UL1363/UL923/UL471/UL867/UL697 · **B** UL544P · **C** UL2601-1, IEC 60601-1, EN 60601-1 · **D** UL1563 · **E** IEC 60990 (Fig.4/U2), IEC 60950-1, IEC 60335-1, IEC 60598-1, UL484, IEC 60065, IEC 61010-1, IEC 62368-1 · **F** IEC 60990 (Fig.5/U3), IEC 60598-1, IEC 62368-1, IEC 62722-1 · **G** frequency detection, 1 kΩ · **H** IEC 61010-1		—	
OSC open/short-circuit detection				
Sample capacitance / thresholds	0.001–40 nF · open 10–100% · short 100–500%			
Safety & general				
Electric-shock protection	0.5 mA ± 0.25 mA, selectable on/off; Interlock pin must be pulled low to enable HV output			
Alarm / lock	Pass: short tone + green light · Fail: long tone + red light · lock-on-fail, panel key-lock			
Storage	100 files, 50 steps/file			
Standard interfaces	RS232, USB Device, USB Host, LAN, HANDLER — SCPI standard			
Optional interface	GPIB			
Operating temp. / humidity	0–45 °C, 20–90% RH (comparison ref. 18–28 °C, 30–70% RH)			
Storage temp. / humidity	−10–55 °C, < 80% RH			
Power supply / power	100–240 VAC, 47–63 Hz · no-load < 100 W, rated 1200 W			
Dimensions (W×H×D)	430 × 132 × 550 mm			
Weight	40 kg	38 kg	34 kg	32 kg

Standard accessories

Item	Description
3GTJ316A+3GTJL(C19)	Power cable — TH9130 / TH9131 only
	EU power cable (Schuko, CEE 7/7)
TH90003R	Withstand-voltage test lead
TH26035B	High-current test cable
TH90022	Leakage-current test cable — TH9130 / TH9131 only

Interfaces

- **RS232** standard
- **USB Host** standard
- **USB Device** standard
- **LAN** standard
- **HANDLER** standard
- **SCPI** standard
- **GPIB** optional

Techmize Electronic GmbH

Office 125–126, Regus
Carl-Zeiss-Ring 15a, 85737 Ismaning, Germany
An international subsidiary of Changzhou Tonghui Electronic Co., Ltd. (China)

Contact

Mobile: +49 171 4981898
Email: dx.han@tonghui.com.cn
Web: en.tonghui.com.cn
Or contact your authorized Techmize distributor

Registration

Managing Director: Haohua Zhao
Register Court: Amtsgericht München
HRB 312530
VAT ID DE463170824

Website LinkedIn YouTube

© 2026 Techmize Electronic GmbH · Specifications subject to change without notice