

Safety Tester/Hipot Tester

IV. TH9130 Series Multifunction Safety Compliance Analyzer

NEW

Features

- 7-inch capacitive touch screen, 800×480 resolution Linux operating system
- Seven-in-one comprehensive test system with the following functions:
 - 1) AC withstand voltage test
 - 2) DC withstand voltage test
 - 3) Insulation resistance test
 - 4) Ground bond test
 - 5) Continuity test
 - 6) Leakage current test
 - 7) Electrical performance test
- 500VA power AC withstand voltage design
- Maximum voltage 5kV for Insulation resistance test
- Leakage current supports a variety of human body impedance simulation resistance (MD)
- 500VA high-power AC power output (only TH9130, TH9131 this function is optional)
- Open/short circuit detection OSC
- ARC detection function
- Crash voltage test function
- Single screen display test mode, time, voltage, current, resistance value, test steps
- List display function: Simultaneously display the test results of multi-step settings and sequential execution
- Storage: 100 files, 50 steps/file



RS232	USB HOST	USB DEVICE	HANDLER	LAN
standard	standard	standard	standard	standard

Dimension(mm):430mm(W)x132mm(H)x550mm(D)
Weight: 40kg

Application

- Comprehensive electrical performance test and analysis of household appliances
- Comprehensive test and analysis of lighting appliances
- Motor comprehensive analysis test
- Test and analysis of high-power electrical appliances
- Comprehensive test and analysis of electronic components
- Medical electrical comprehensive test analysis

Specifications

Model				TH9130	TH9131	TH9130A	TH9131A	
Withstand Voltage Test								
Outout Voltage	AC	Range		0.05 - 5.0kV				
		Waveform		50/60Hz±0.1% Sine Wave				
		Oputput Power		500VA (5.0kV/100mA)	200VA	500VA	200VA	
	DC	Range		0.05 - 6.0kV				
		Oputput Power		150VA (6.0kV/25mA)	120VA	150VA	120VA	
	Load Change Rate		±(1% set value+10V) (Rated power)					
	Voltage Resolution		2V					
	Voltage Accuracy		±(1% set value+5V)					
Output Current	AC	Range	V≤4kV	0.001mA - 120mA	0.001mA - 40mA	0.001mA - 120mA	0.001mA - 40mA	
			V>4kV	0.001mA - 100mA	0.001mA - 40mA	0.001mA - 100mA	0.001mA - 40mA	
		Resolution		0.001mA				
		Accuracy	120mA	0.1mA-120.0mA ± (1% Reading +0.6mA)				
			30mA	0.01mA-29.99mA ± (1% Reading +0.15mA)				
			3mA	0.001mA-2.999mA ± (1% Reading +0.015mA)				
	DC	Range	V≥1.5kV	0.0001mA - 25mA	0.0001mA - 12mA	0.0001mA - 25mA	0.0001mA - 20mA	
			V<1.5kV	0.0001mA - 20mA	0.0001mA - 12mA	0.0001mA - 20mA	0.0001mA - 10mA	
		Resolution		0.1μA				
		Accuracy	25mA	0.01mA-25.00mA ± (1% Reading +0.12mA)				
			3mA	0.001mA-2.999mA ± (1% Reading +0.015mA)				
			5.1μA	0.1μA-299.9μA ± (1% Reading +1.5μA)				
Time Setting	Testing time		0.3 - 999s, 0 means continuous testing					
	Rise Time/ Fall time		0.1 - 999s, 0 means off					
	Waiting time		0.1 - 999s, 0 means off (only DC withstand voltage)					
ARC Detection	AC		1.0mA - 20.0mA	1.0mA - 20.0mA	1.0mA - 20.0mA	1.0mA - 20.0mA		
	DC		1.0mA - 10.0mA					

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Maximum short circuit current (AC test)				200mA	80mA	200mA	80mA
Quick discharge function				Automatic discharge after test (DCW)			
Insulation Resistance Test							
Voltage	Output			DC:0.05 - 5.0kV			
	Resolution			2V			
	Accuracy			±(1% Reading +5V)			
Resistance	Test Range			0.1MΩ - 50.0GΩ			
	Accuracy	V≥500V	1MΩ - 1GΩ	±(3% Reading +1M)			
			1GΩ - 10GΩ	±(7% Reading +0.2G)			
			10GΩ - 50GΩ	±(10% Reading +0.5G)			
		V<500V	1MΩ - 1GΩ	±(5% Reading +100V/Vs*10M)			
Time Setting	Testing time			0.3 - 999s, 0 means continuous testing			
	Rise Time/ Fall time			0.1 - 999s, 0 means off			
	Waiting time			0.1 - 999s, 0 means off			
Quick discharge function				Automatic discharge after test			
AC Ground Bond Test							
Output Current	Range			1.00 - 40.00A			
	Resolution			0.01A			
	Accuracy			±(2% set value +2 Digit)			
Output Voltage	Range			3.00 - 8.00V			
	Resolution			0.01V			
	Accuracy			±(2% set value +3 Digit)			
Test Frequency				50/60Hz±0.1%			
Output Regulation				±(1% Output Value+0.02A)			
Resistance Test	Range and Accuracy	1.00 - 3.00A		0 - 600mΩ± (3% Reading +3 Digit)			
		3.01 - 10.00A		0 - 600mΩ± (2% Reading +2 Digit)			
		10.01 - 30.00A		0 - 200mΩ± (2% Reading +2 Digit)			
		30.01 - 40.00A		0 - 150mΩ± (2% Reading +2 Digit)			
Test Time				0.5 - 999s, 0 means continuous testing			
Continuity test							
Test Current	0.0001A - 0.1A			0.00 - 10000Ω			
Resistance Accuracy	0 - 1000Ω			± (1% Reading +3 Digi)			
	1001 - 10000Ω			± (1% Reading +10 Digi)			
Test Time				0.3 - 999s, 0 means continuous testing			
Electrical performance test							
Voltage Test	Range			0.0 - 277.0V			-----
	Resolution			0.1V			-----
	Accuracy			± (1.5% Reading +2 Digit) (30 - 277V)			-----
Current Test	Range			0.00 - 16.00A			-----
	Resolution			0.01A			-----
	Accuracy			± (2% Reading +2 Digit)			-----
Power Test	Range			0 - 4500W			-----
	Resolution			1W			-----
	Accuracy			± (5% Reading +3W)			-----
Power Factor	Range			0.000 - 1.000			-----
	Resolution			0.001			-----
	Accuracy			± (8% Reading +2 Digit)			-----
Leakage Current	Range			0.00 - 10.00mA			-----
	Resolution			0.01mA			-----
	Accuracy			± (2% Reading +2 Digit)			-----
Test Time				0.1 - 999s, 0 means continuous testing			-----
Waiting Time				0.2 - 999s			-----

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Leakage Current Test									
Input Voltage	Range		0 - 277Vac,16Aac Max		-----				
	Accuracy		±（1.5% Reading +2 Digit）（30 - 277V）		-----				
Leakage Current	Test Range		0.0μA - 10.00mA		-----				
	Test Frequency		DC, 15Hz - 1MHz		-----				
Test Time	AC+DC		0.5 - 999s, 0 means continuous testing		-----				
	AC/DC		0.1 - 999s, 0 means continuous testing		-----				
Waiting Time			AC+DC	0.5 - 999s	-----				
			AC/DC	1.8 - 999s Auto Range 1.3 - 999s Fixed Range	-----				
Body Impedance Network (MD)	A:		UL544NP、UL484、IEC60598、UL1363、UL923、UL471、UL867、UL697		-----				
	B:		UL544P		-----				
	C:		UL2601 - 1、IEC60601 - 1、EN60601 - 1		-----				
	D:		UL1563		-----				
	E:		IEC60990Fig4U2、IEC60950 - 1、IEC60335 - 1、IEC60598 - 1、UL484、IEC60065、IEC61010		-----				
	F:		IEC60990Fig5U3、IEC60598 - 1		-----				
	G:		Frequency Detection 1kΩ		-----				
MDA-G Devices precision	Resistance Precision		±1%		-----				
	Capacitance Precision		±5%		-----				
MD Voltage Protection			30V Peak Value or 30Vdc		-----				
30V Peak Value or 30Vdc			G - L、PH - L、PH - PL		-----				
Leakage Current Range eEffective Value RMS	MD main resistance		Range		-----				
	0.5kΩ / 1kΩ / 1.5kΩ		0.0μA - 10.00mA		-----				
	Resolution	Auto Range & Fixed Range 1 - 2 & Fixed Range 3 (1k&1.5kMD)		<1000μA	0.1μA	-----			
				1000μA - 8400μA	1μA	-----			
				>8400μA	0.01mA	-----			
				<8400μA	1μA	-----			
				>8400μA	0.01mA	-----			
	Range Accuracy	Range	Test Mode	Frequency		Accuracy	-----		
				DC		±（2%Reading+3 Digit）	-----		
		Range 1 - 5	AC+DC	15Hz<f<100kHz		±（2%Reading+3 Digit）	-----		
				100kHz≤f≤1MHz		±（5%Reading）>10.0μA	-----		
				AC only	15Hz<f≤30Hz		±（3%Reading+5 Digit）	-----	
					30Hz<f<100kHz		±（2%Reading+3 Digit）	-----	
			100kHz≤f≤1MHz		±（5%Reading）>10.0μA	-----			
			DC only		DC		±（2%Reading+3 Digit）>10.0μA	-----	
				Range 6	AC+DC	DC		±（5%Reading）>10.0μA	-----
						15Hz<f<100kHz			
		AC only			15Hz<f≤30Hz				
30Hz<f<100kHz									
DC only	DC								
Leakage Current Range Peak Value PEAK	MD main resistance		Range		-----				
	0.5kΩ / 1kΩ / 1.5kΩ		0.0μA - 10.00mA		-----				
	Resolution	Auto Range & Fixed Range 1 - 2 & Fixed Range 3 (1k&1.5kMD)		<1000μA	0.1μA	-----			
				1000μA - 8400μA	1μA	-----			
				>8400μA	0.01mA	-----			
				<8400μA	1μA	-----			
				>8400μA	0.01mA	-----			
	Range Accuracy	Range	Test Mode	Frequency		Accuracy	-----		
				DC		±（2%Reading+2μA）	-----		
		Range1-5	AC+DC	15Hz≤f≤1MHz		±（10%Reading+2μA）	-----		
				AC only		15Hz<f<1MHz	±（10%Reading+2μA）	-----	
			Range6	AC+DC	DC		±（2%Reading+3 Digit）	-----	
15Hz<f<100kHz					±（10%Reading+2 Digit）	-----			
AC only		15Hz<f<100kHz		±（10%Reading+2 Digit）	-----				

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Leakage Voltage Range Effective Value RMS	MD main resistance		Range				
	0.5kΩ / 1kΩ / 1.5kΩ		0.0mV - 15.00V				
	Resolution	Auto Range & Fixed Range 1 - 2 & Fixed Range 3 (1k&1.5kMD)		<1000mV	0.1mV		
				1000mV - 8400mV	1mV		
				>8400mV	0.01V		
			Fixed range 3 (0.5kMD) & Fixed range 4 - 6		<8400mV	1mV	
				>8400mV	0.01V		
	Range Accuracy	Range	Test Mode	Frequency	Accuracy		
		Range1-5	AC+DC	DC	±（2%Reading+3Digit）		
				15Hz<f<100kHz	±（2%Reading+3Digit）		
				100kHz≤f≤1MHz	±（5%Reading）>10.0mV		
			AC only	15Hz<f≤30Hz	±（3%Reading+5Digit）		
				30Hz<f<100kHz	±（2%Reading+3Digit）		
				100kHz≤f≤1MHz	±（5%Reading）>10.0mV		
		Range6	DC only	DC	±（2%Reading+3Digit） >10.0mV		
			AC+DC	DC	±（5%Reading）>10.0mV		
15Hz<f<100kHz							
15Hz<f≤30Hz							
30Hz<f<100kHz							
DC only	DC						
Leakage Voltage Range Peak Value PEAK	MD main resistance		Range				
	0.5kΩ / 1kΩ / 1.5kΩ		0.0mV - 15.00V				
	Resolution	Auto Range & Fixed Range 1 - 2 & Fixed Range 3 (1k&1.5kMD)		<1000mV	0.1mV		
				1000mV - 8400mV	1mV		
				>8400mV	0.01V		
			Fixed range 3 (0.5kMD) & Fixed range 4 - 6		<8400mV	1mV	
				>8400mV	0.01V		
	Range Accuracy	Range	Test Mode	Frequency	Accuracy		
		Range1-5	AC+DC	DC	±（2% Reading+2mV）		
				15Hz≤f≤1MHz	±（10% Reading+2mV）		
			AC only	15Hz<f<1MHz	±（10% Reading+2mV）		
Range6		AC+DC	DC	±（2% Reading+3 Digit）			
			15Hz<f<100kHz	±（10% Reading+2 Digit）			
	AC only	15Hz<f<100kHz	±（10% Reading+2 Digit）				
OSC Open and Short Circuit Detection							
Sampling Standard Capacitance Range			0.001 - 40nF				
Open circuit judgment range			10% - 100%				
Short circuit judgment range			100% - 500%				
Safety Protection Function							
Electric Shock Protection			0.5mA±0.25mA Option: on or off				
Start Protection Interlock			The pin is grounded to allow high voltage output.				
Panel operation protection			key lock				
Alarm indication			Pass: short tone, green light; Fail: long tone, red light				
Electrical and leakage power short circuit protection			23A _{RMS} or Electric shock 68A _{PEAK}				
Hipot and ground synchronous output test			5kVac/30mAac and 30Aac/150mΩ(TH9131/TH9131A)				
Storage and Interface							
Internal memory			Can save 100 files, 50 steps per file.				
Standard interface			RS232、USB DEVICE、USB HOST、LAN、HANDLER				
Optional interface			GPIB				
Ambient temperature and humidity							
Parameter Comparasion Temperature			18℃ - 28℃， humidity:30% - 70%RH				
Normal Working Temperature			0℃ - 45℃， humidity:20% - 90%RH				
Storage Ambient Temperature			-10℃ - 55℃， humidity:<80%RH				
General Information							
Power Supply			100V - 240VAC， 47Hz - 63Hz				
Power			No load: <100W, Rated power:1200W				
Size (W) × (H) × (D)			430mm×132mm×550mm				
Weight			40kg	38kg	34kg	32kg	