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Datasheet

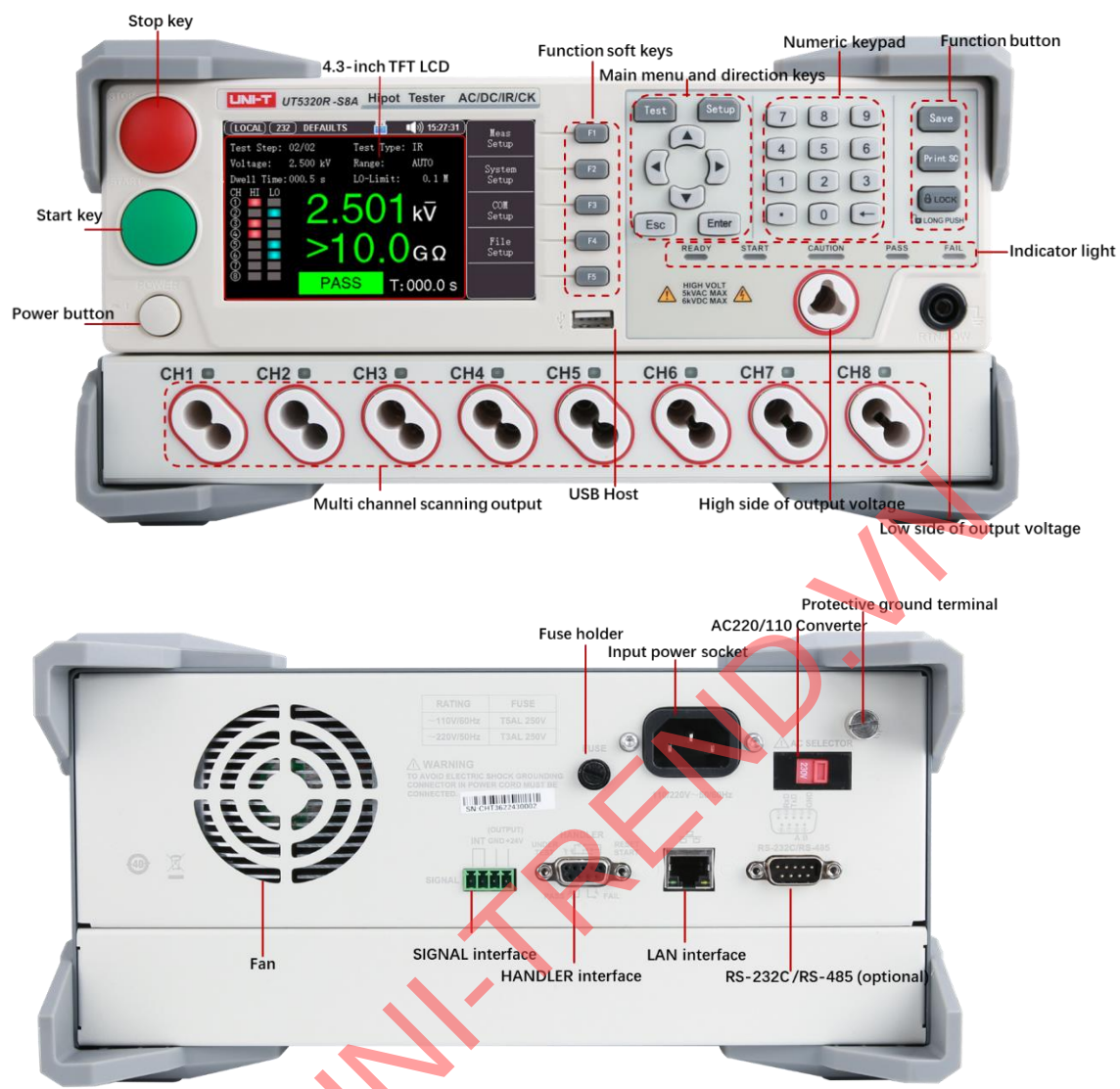
UT5320R-SxA Series Hipot Tester

Main Features

- 4.3 inch TFT true color LCD
- 4/8 channels, multiple outputs
- Support AC/DC withstand voltage test, IR insulation test, contact test
- Fully isolated and floating output
- AC withstand voltage (ACW): 5kV/20mA
- DC withstand voltage (DCW): 6kV/10mA
- Insulation resistance (IR): 2.5kV/10G Ω (optional to 5kV)
- Rise up time/slope down time/test time/compensation return to zero, multiple functions can be set flexibly
- Intelligent judgment: over-upper limit/over-lower limit/arc/over-charging lower limit (sound and light indication)
- Overvoltage/short circuit protection/rapid discharge/earth failure multiple protection
- Anti-electric wall technology detects the circuit at any time to prevent electric shock and ensure personnel safety
- Overvoltage, overcurrent protection, current base reset function
- Can store 100 test files, each file can store 20 test steps, test modes can be combined arbitrarily
- Comply with standard SCPI and Modbus communication protocols
- Equipped with Handler (PLC) interface, RS-232C and LAN interface

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Panel Structure



Product Introduction

UT5320R-SxA series is an instrument that integrates multiple testing functions of electrical strength (AC/DC withstand voltage) and insulation resistance. It can be widely used in the safety performance inspection of household appliances, transformers, electrical equipment and components.

Multiple test modes

Support multiple test modes, support AC, DC withstand voltage test, insulation resistance test. high accuracy and fast measurement speed

<RESULT LIST> Use the ▲/▼ key to turn page					
STEPS	Test Type	Dwell Time	VOLT	DATA	JUDGE
01	ACW	000.5 s	0.049 kV	0.005 mA	PASS
02	ACW	000.5 s	0.050 kV	0.005 mA	PASS
03	DCW	005.0 s	6.001 kV	0.1 uA	PASS
04	IR	005.0 s	2.500 kV	>10.0 GΩ	PASS
05					
06					
07					
08					
09					
10					

Easy to operate

With 4.3 inch LCD screen, numeric keys and function keys, it is convenient to set up, select and control the test process. The screen is large and the displayed content is specific and clear.



File management

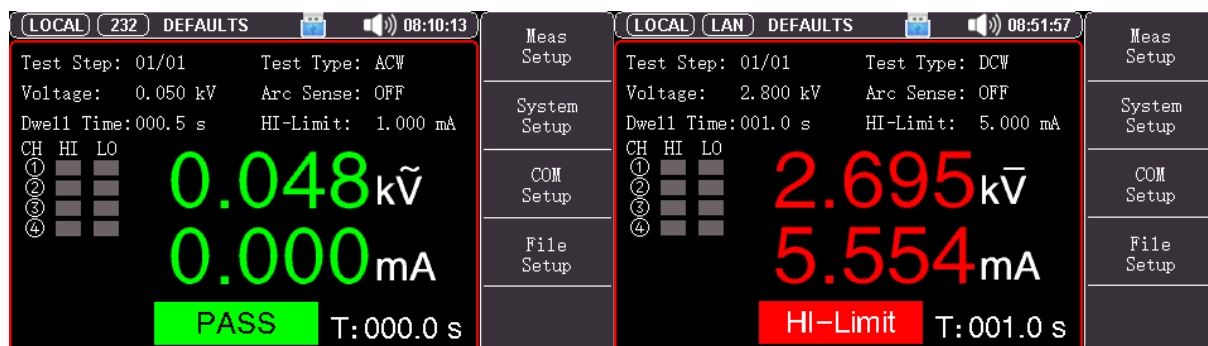
Programmable 100 groups of test files, each group can contain 20 steps of test operations. Create favorable conditions for programmatic control of safety testing operations.

LOCAL 232 DEFAULTS 11:01:50			
<FILE> Use the arrow keys in the list to select			
MEDIA:	INTERNAL	AUTO LOAD:	FILE 1
NO.	File Name	Save Time	LOAD
94			
95			
96			
97			
98			
99			
100	DEFAULTS	CREATED BY SYSTEM	YES

SAVE
 RECALL
 ERASE
 RENAME

Intelligent judgment

Upper and lower limit intelligent judgment function, and provide sound and light alarm at the same time. Provide a good prompt for the measurement work, and broadcast the results immediately.



IR measurement

Insulation resistance test voltage is 2.5kV as standard, 5.0kV is optional, suitable for more test occasions.



Rich interface

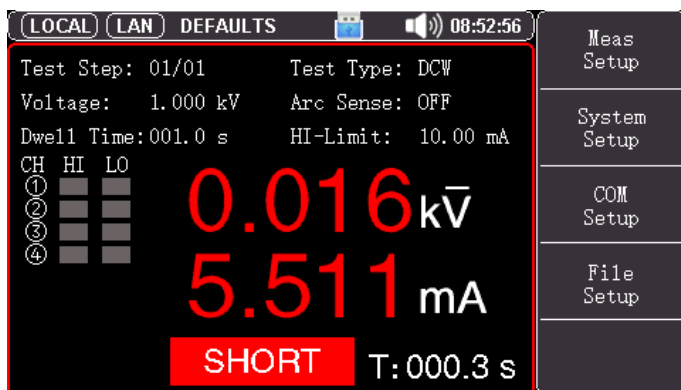
Equipped with Handler (PLC) interface for industrial control, RS485 (option), RS-232C and LAN interface for connecting to a computer. At the same time, it supports two communication protocols, SCPI and Modbus RTU, and efficiently completes the functions of remote control and data acquisition.



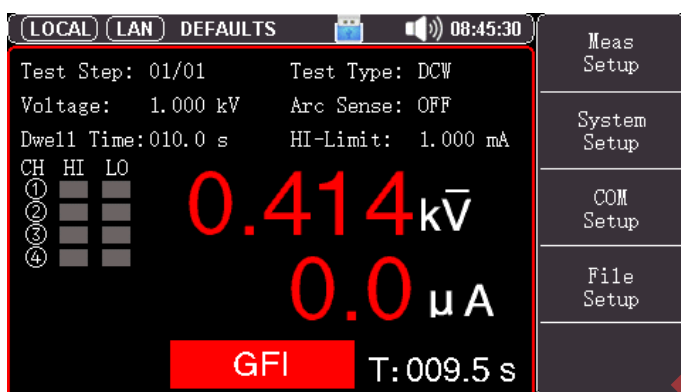
Multiple Protection Mode

Multiple protection functions provide you with a safer test environment

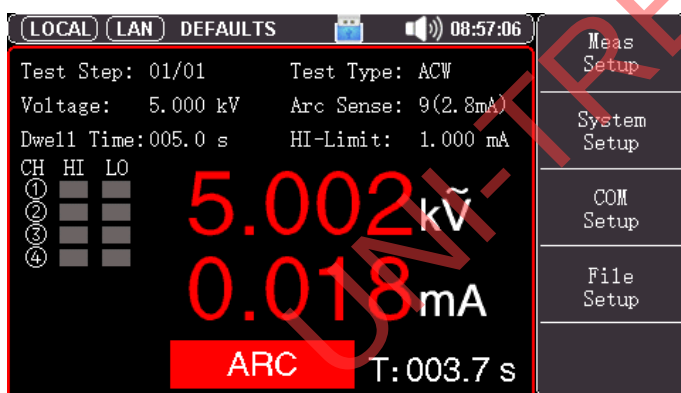
Short protection



GFI(Ground Fault Interruption)

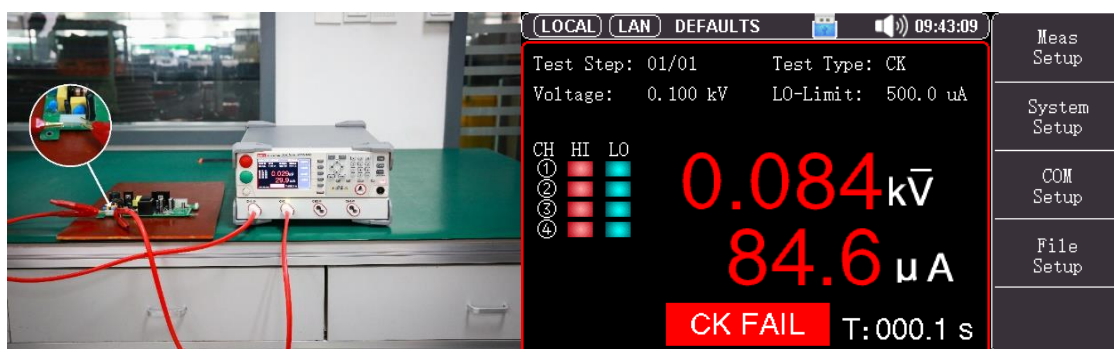


Arc Test



Contact Test

Unique hardware contact test, fast and reliable



Technical Parameter

Model			UT5320R-SxA series		
Withstand voltage test					
Output voltage	AC	Voltage range	0.050kV—5.000kV		
		Voltage waveform	Sine wave		
		Distortion	< 3%		
		Operating frequency	50、60Hz optional		
		Frequency accuracy	±1%		
		Output power	100VA （5.000kV 20mA）		
		Voltage regulation	±(1.0%+50V)(rated power)		
	DC	Voltage range	0.050 kV—6.000kV		
		Signal source frequency	600Hz		
		Output power	60VA （6.000kV 10mA）		
		Voltage regulation	±(1.0% +100V) (rated power)		
	Voltage resolution		1V		
	Voltage output accuracy		±(1.0%set value+5V) (no load)		
	Voltage test accuracy		±(1.0%reading+5V)		
	Voltage generation mode		DDS signal source plus AB class amplifier		
Current test range	AC	Current range	0.001mA – 20mA		
		Short-circuit current （moment）	>40 mA(set output voltage>500V)		
		Current resolution	0.001 mA		
		Current accuracy	±(2.0% reading + 5 digits)		
		Actual current	OFF, 0.001 mA-20mA		
	DC	Current range	0.1uA – 10.00mA		
		Current accuracy	±(2.0% reading + 5 digits)		
		Discharge function	Automatic discharge after test		
	Insulation resistance test				

Output voltage		0.050kV – 2.500kV(Optional 5.00kV)
Voltage resolution		1V
Voltage test accuracy		±(1.0% reading +2V)
Maximum output current		10mA
Maximum output power		25VA (2500V/10mA)
Output instantaneous short-circuit current		>20mA(Set output voltage>500V)
Load regulation		≤1% (rated power)
Ripple (1kV)		≤3% (1kV, no load)
Discharge function		Discharge automatically after the test
Resistance measurement range		0.1MΩ– 10GΩ
Resistance display range(1000V)	10mA	0.1 MΩ-0.5 MΩ
	2mA	0.5 MΩ-5 MΩ
	200uA	5 MΩ-50 MΩ
	20uA	50 MΩ-500 MΩ
	2uA	500 MΩ-10GΩ
Accuracy of resistance measurement	≥500V	
	1MΩ– 1GΩ ±(5% reading+5digits)	
	1GΩ– 10GΩ ±(10% reading+5digits)	
	< 500V	
	0.1MΩ– 1GΩ±(10% reading+5digits)	
Accuracy of current measurement		±(1.5% reading+5digits) (After clearing)
ARC Detector		
Measuring range	AC	OFF, 1-9 level
	DC	OFF, 1-9 level
Comparator		
Discrimination mode		window comparison method Idown ON: when $I_{down} < I_x < I_{up}$, PASS; when $I_x \leq I_{down}$ or $I_x \geq I_{up}$, FAIL; ($I_{down} < I_{up}$) Idown OFF: when $I_x < I_{up}$, PASS; when $I_x \geq I_{up}$, FAIL; Insulation resistance discrimination method is the same as above
Current upper limit setting lup	AC	0.001mA – 20mA
	DC	0.1uA – 10mA
Current lower limit setting Idown (LOWER OFF)	AC	0.001mA – 20mA
	DC	0.1uA –10mA
Resistance upper limit setting		OFF, 0.1MΩ - 10GΩ
Resistance lower limit setting		0.1MΩ– 10GΩ
Discrimination output		PASS/FAIL LCD and LED Separate display and sound alarm

Parameter setting	
Voltage rise time	0.1s – 999.9s
Voltage drop time	0 s – 999.9s, (Only after withstand voltage PASS)
Voltage waiting time	0.3s – 999.9s (Only DC withstand voltage, and meet the rise time + test time > waiting time)
Test time setting	0.1s – 999.9s (when TIMER ON)
Time accuracy	± (0.2% set value ± 0.1s)
Measurement function	
Keyboard lock	Prevent accidental modification of test conditions, or prohibit test conditions from being modified
Base number clearing	The current flowing through the insulation resistance and distributed capacitance between the output lines can be reset to zero
Start wait delay	When starting the test (pressing START), the high voltage start signal is output first, and the high voltage output starts after a certain period of time.
Current over-range judgment	Hardware quickly judges insulation breakdown, which is faster and safer than voltage sampling, and reduces impact damage to products
ARC detection	Sampling the sudden change signal of the current to judge the potential hidden dangers and approximate scale of the circuit
Ground current detection	Protect personal safety in case of accidental electric shock or high voltage leakage to the casing
Alarm volume adjustment	Off, Low, Medium, High
High voltage indication	Window indication and LED light indication
Storage and interface	
File programming and storage	Programmable 100 test files, each file can have 20 test items.
USB HOST interface	Yes (maximum support 128G)
Save boot parameters	The set parameters are saved as default parameters, and they can be automatically restored next time the machine is turned on.
Display	4.3inch (480x272) TFT LCD

Control interface	HANDLER, SIGNAL
Communication protocol	SCPI, Modbus RTU
Communication Interface	RS232C, LAN, optional RS485
Environment	Specifications Temperature 18°C~28°C
	Operation Temperature 10 °C ~40 °C
	Humidity 10~80% RH
	Storage Temperature 0 °C ~50 °C Humidity 10~90% RH
Power	100V-121V, 198V-242V, 47.5-63Hz
Power dissipation	≤400VA
Size	280mm*138mm*428mm
Weight	16.27kg(S4A)/16.87kg(S8A)

Order Information

	Description	Standard per Carton	Quantity	Order No.
Model	UT5320R-S4A (AC/DC/IR, Programmable, 20mA, 4CH)	1 pcs		UT5320R-S4A
	UT5320R-S8A (AC/DC/IR, Programmable, 20mA, 8CH)	1 pcs		UT5320R-S8A
Standard accessories	Power cord that conforms to the standard of the destination country	1 pcs		--
	RS232C Data Cable	1 pcs		--
	High voltage test probe	1 pcs		
	High voltage test clips	1 pair		--
	Double head high voltage test wire (no clips)	4 pcs(S4A)/8 pcs(S8A)		--
	Double head high voltage test wire (with clips)	1 pair		
	Fuse	2 pcs		--
Optional accessories	Remote control high voltage rod test line (support remote start)	--		UT-L62

Note: All mainframes, accessories and options can be ordered from your local UNI-T dealer.

Warranty

Three-years warranty, excluding probes and accessories. Please visit https://instruments.uni-trend.com/list_190/65.html to learn more information. To protect your investment, please purchase from UNI-T official authorized global distributors.

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