Keysight U1450A/U1460A Series Insulation Resistance Testers

Do MORE, test MORE with a single tool

Accomplish more in a day's work with a single insulation tester – test more applications, make various types of measurements and easily generate reports. Certified to IP 67 and tested to withstand a 3 meter (10-feet) drop, this robust tester is capable to withstand harsh conditions.
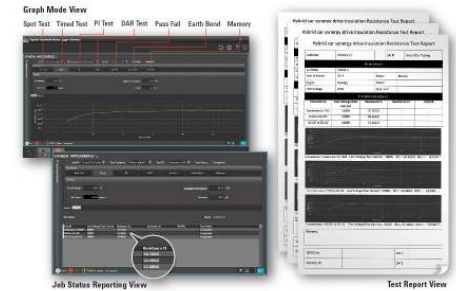
Features:

– Remote testing coupled with report generation capability
– 50 V/100 V/250 V/500 V/1000 V test voltages (1)
– Adjustable test voltages from 10 V up to 1.1 kV (2) [2]
– Up to 260 GΩ insulation resistance range
– Full-featured 4.5 digit OLED DMM (66,000 counts) (3) [1]
– Timed/PI/DAR test (4)
– IP 67 certified – waterproof and dust proof (5)
– Tested to withstand a 3 meter (10-ft) drop
– (–40 °C to +55 °C) operating temperature range [2]
– CAT III 1000 V/CAT IV 600 V safety ratings (6)

1. U1461A only
2. U1453A and U1461A only

Generate test reports remotely via the U1117A IR-to-*Bluetooth*® adapter or U1173B IR-USB cable on a Windows PC or iOS/Android based smart devices.

Testing insulation resistance cables when commissioning electrical installations

Troubleshooting electrical motor accurately using the insulation resistance tester

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Product specifications

Industry	Industrial and Power				Telecommunication
	U1451A	**U1452A**	**U1453A**	**U1461A**	**U1452AT**
Applications	Testing hybrid/ electric vehicles high voltage cables, solar cables (Test voltage > 250 V)	Testing motors, electrical panels, switches, transformers (Test voltage 50 V to 1000 V, PI/DAR)	Testing motors, electrical panels, switches, transformers, electronics, commercial avionics (Test voltage 10 V to 1100 V, PI/DAR)	Testing motors, electrical panels, switches, transformers, electronics, commercial avionics, facilities troubleshooting (Test voltage 10 V to 1100 V plus full DMM functions)	Communication signal cable testing (Test voltage < 100 V, Selectable 30 V/50 V/75 V test inhibit)
Display type	LCD	LCD	OLED	OLED	LCD
Insulation resistance tester features					
Insulation test voltage range	250 V, 500 V, 1000 V	50 V, 100 V, 250 V, 500 V, 1000 V	50 V, 100 V, 250 V, 500 V, 1000 V	50 V, 100 V, 250 V, 500 V, 1000 V	50 V, 100 V
Insulation resistance range	66 GΩ	260 GΩ	260 GΩ	260 GΩ	66 GΩ
Earth bond resistance range	60 Ω to 60 KΩ	60 Ω to 60 KΩ	6 Ω to 60 KΩ	6 Ω to 60 KΩ	60 Ω to 60 KΩ
Timed, Polarization Index (PI), Dielectric Absorption Ratio (DAR)	Timed only	√	√	√	√
Adjustable insulation test voltages	–	–	10 V to 1.1 kV	10 V to 1.1 kV	–
Live circuit test inhibit (30 V, 50 V, 75 V)	√	√	√	√	√
Data management					
Remote testing and report generation [1]	√	√	√	√	√
Multimeter features					
Measurements	AC/DC voltage, Resistance, Continuity, Capacitance	AC/DC voltage, Resistance, Continuity, Capacitance	AC/DC voltage, Resistance, Continuity, Capacitance, Diode test	AC/DC voltage (V, mV), AC/DC current (uA, mA), Resistance, Continuity, Capacitance, Diode test, Temperature, Low Pass Filter (LPF), Non-Contact AC Voltage Detection (Vsense)	AC/DC voltage, Resistance, Continuity, Capacitance
General specifications					
IP rating, drop test	IP 67, 10 ft (3 meters)	IP 67, 10 ft (3 meters)	IP 67, 10 ft (3 meters)	IP 67, 10 ft (3 meters)	IP 67, 10 ft (3 meters)
Safety protection	CAT III 1000 V/ CAT IV 600 V	CAT III 1000 V/ CAT IV 600 V	CAT III 1000 V/ CAT IV 600 V	CAT III 1000 V/ CAT IV 600 V	CAT III 1000 V/ CAT IV 600 V
Operating temperature	−20 °C to +55 °C	−20 °C to +55 °C	−40 °C to +55 °C	−40 °C to +55 °C	−20 °C to +55 °C
Battery life	270 hours	270 hours	160 hours	160 hours	270 hours
Included accessories					
Test lead set, alligator clips, IR-to-USB cable	√	√	√	√	√
Remote switch probe	–	√	√	√	–
Bluetooth adapter (U1117A) [2]	–	√	√	√	–
Thermocoupler adapter (J/K Type), bead (J-Type, K-Type)	–	–	–	√	–
Batteries	4x AA alkaline	4x AA alkaline	4x AA lithium	4x AA lithium	4x AA alkaline
Warranty	3 years	3 years	3 years	3 years	3 years

1. Requires the Keysight Handheld Logger software for Windows PC, or the Keysight Insulation Tester app for iOS/Android smart devices.
2. All U1450A/60A Series models support the U1117A IR-to-Bluetooth adapter, however the U1117A cannot be shipped to selected countries as a standard accessory. Please refer to www.keysight.com/find/U1117A for more information.

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Recommended accessories

U1117A
IR-to-Bluetooth adapter

U5403A
Remote switch probe

Keysight's new insulation resistance tester family

U1451A   U1452A   U1461A   U1453A   U1452AT

For more information go to
www.keysight.com/find/insulationtesters

Three-Year Warranty

www.keysight.com/find/ ThreeYearWarranty
Keysight's commitment to superior product quality and lower total cost of ownership. The only test and measurement company with three-year warranty standard on all instruments, worldwide.

Keysight Assurance Plans

www.keysight.com/find/ AssurancePlans
Up to five years of protection and no budgetary surprises to ensure your instruments are operating to specification so you can rely on accurate measurements.

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