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TRANSFORMER TESTING EQUIPMENT FROM WRINDU



Rui Du Mechanical and electrical (Shanghai) Co.Ltd.

TAN DELTA DISSIPATION FACTOR TESTER

RD6000A

CVT self-exciting low voltage output	Output voltage 3-50V, output current 3-30A
Measuring duration	About 40s, depending on the measuring method
Test mode	UST, GST, GSTG,AC HIPOT, CVT
HV output	Voltage setting range: 100V~10kV adjustable, resolution: 1V; Maximum output current: 200mA
Test frequency	40.0~70.0Hz, resolution 0.1Hz
Test accuracy	Cx ±(reading×1%+1pF) ; tgδ ±(reading×1%+0.00040)



- Large touchscreen LCD with a user-friendly interface, no specialized training required for ease of use.
- This capacitance and tan delta kit built-in storage, supports data export via USB, enabling advanced data handling.
- Including electric shock, overcurrent, and grounding protection for safety during high-voltage testing.
- Widely used in the power industry for insulation loss measurements, AC voltage withstand tests, and self-excitation testing for CVTs. Allows parameter configuration for safety.

TRANSFORMER RATIO METER

RDB-II, RDB- III

Model	RDB-II	RDB- III
Test Range	0.9 ～ 10000	Vriable ratio 0.9 ～ 10000, angle 0 ～ 360°
Angle Accuracy		±0.2°
Resolution	Minimum 0.0001	Minimum ratio 0.0001, angle 0.01°



- Suits various transformer types
- It is fortified with high and low-voltage reverse connection safeguards, winding short-circuit protection, and disconnect switch position security with easy input of rated parameters
- Has a user-friendly 7-inch color touchscreen featuring intuitive menus, eliminating the need for extensive manuals.
- Supports various output choices, including printing, USB interfaces,
- It automatically measures turn ratio, error values, and disconnect switch positions.

DC RESISTANCE FAST TESTER

RDZR-10A

Test current	AUTO, <20mA, 40mA, 200mA, 1A, 5A, 10A
Measuring range	0.5mΩ-0.8Ω (10A)
	1mΩ-4Ω (5A)
	5mΩ-20Ω (1A)
	100mΩ-100Ω (200mA)
	1Ω-500Ω (40mA)
100Ω-100KΩ (<20mA)	Accuracy: ± (0.5% + 2 words)
Minimum resolution	0.1μΩ



- High-precision transformer DC resistance tester max 24V output for faster high-resistance measurements.
- Auto-selects current, suitable for medium-to-small transformers.
- Protection against electromotive force, disconnections, and overheating, with audible alarms.
- High-precision transformer DC resistance tester easily switches between copper and aluminum temperature settings.
- Efficient power use, reducing heat and energy consumption.
- High-brightness 7-inch touchscreen, clear in strong light, multilingual.

ON-LOAD TAP CHANGER ANALYZER

RDKC-2000

Output Current	1.0A, 0.5A, 0.2A
Measuring Range	Transition resistance: 0.3Ω~20Ω (1.0A) 5Ω~40Ω (0.5A) 20Ω~100Ω (0.2A)
	Transition time: 0~320ms
Open Circuit Voltage	24V



- Lightweight and high-current capability.
- Impedance displayed directly for YN, Y, and Δ transformers.
- Versatile winding configurations.
- Adaptive waveform adjustments based on data.
- Robust protective circuit for dependable performance.
- Spacious 7-inch LCD.
- Extended lithium battery life.
- Accommodates storage of 500 data sets and supports USB data transfer.

PORTABLE TRANSFORMER TURN RATIO TESTER

RDB-IIH

Test Range	0.9~10000
Measurement Accuracy	±0.1% + 2 digits (0.9 ~ 500)
	±0.2% + 2 digits (501 ~ 2000)
	±0.5% + 2 digits (2001 ~ 10000)
Resolution	Minimum 0.0001



- Employs a three-phase precision inverter power source to eliminate mains-related harmonic voltage interference
- Seamlessly handles an extensive array of transformer types, providing a comprehensive suite of measurement parameters.
- Integrated safeguarding elements, including protections against high and low-voltage reverse connections, inter-turn short-circuits, and safeguarding tap changer positions.
- By entering the rated parameters, the tester performs automatic measurements for turn ratio, error value, and tap changer position.

PORTABLE DC RESISTANCE TESTER

RDZR-10AH

Test current	<20mA, 40mA, 200mA, 1A, 3A, 10A
Measuring range	0.5mΩ ~ 0.2Ω (10A)
	5mΩ ~ 4Ω (3A)
	10mΩ ~ 10Ω (1A)
	100mΩ ~ 50Ω (20mA)
	1Ω ~ 300Ω (40mA)
100Ω ~ 50kΩ (<20mA)	Accuracy: ± (0.5%+2d)
Minimum resolution	0.1μΩ

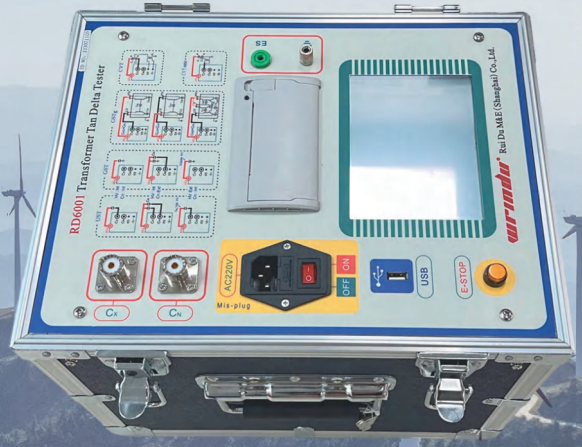


- High-resolution 7-inch color touchscreen for clear and easy reading.
- Powered by internal batteries or an external adapter, suitable for outdoor use.
- Facilitate data comparison through copper-to-aluminum temperature conversion.
- Non-volatile data storage for up to 1000 test records.
- Integrated USB interface.
- Discharge alarms and multiple protective functions.

CAPACITANCE & TAN DELTA TESTER

RD6001

High voltage output	Range: 0.5kV ～ 10kV, Accuracy: 2%, Maximum current: 200mA, Capacity: 1500VA
CVT test auto-exciting output	AC 0 ～ 50V/15A
CVT ratio test	Range: 10 ～ 10000, Accuracy: 0.1%, Resolution: 0.01
Test frequency	50Hz, 60Hz, 45Hz/55Hz, 55Hz/65Hz, 47.5Hz/52.5Hz



- Measures CVT high-voltage leads using a shielded reverse connection for C0's dielectric loss and capacitance.
- Internal inverter and sampling circuits are digitally managed, allowing continuous voltage adjustments.
- Utilizes digital trap wave tech to eliminate power frequency field interference for accurate measurements, even when using a generator after an outage.

TRANSFORMER DC WINDING RESISTANCE TESTER

RDZR-20A,RDZR40A,RDZR-50A

	RDZR-20A	RDZR40A	RDZR-50A
Measuring Current	<20mA, 1A, 2.5A, 5A, 10A, 20A	<20mA, 2.5A, 5A, 10A, 20A, 40A	<20mA, 2.5A, 5A, 10A, 20A, 50A
Measuring Range	100μΩ ～ 1Ω (20A)	50μΩ ～ 500m (40A)	40μΩ ～ 400m (50A)
	500μΩ ～ 2Ω (10A)	100μΩ ～ 1Ω (20A)	100μΩ ～ 1Ω (20A)
	1mΩ ～ 4Ω (5A)	500μΩ ～ 2Ω (10A)	500μΩ ～ 2Ω (10A)
	2mΩ ～ 8Ω (2.5A)	1mΩ ～ 4Ω (5A)	1mΩ ～ 4Ω (5A)
	5mΩ ～ 20Ω (1A)	2mΩ ～ 8Ω (2.5A)	2mΩ ～ 8Ω (2.5A)
Minimum Resolution	0.1μΩ		



- High-speed microcontroller for highly automated operation and user-friendly interface.
- It is equipped with audible discharge alarms and clear indicators to reduce the risk of errors during operation.
- Equipped with robust protection measures to reliably withstand electromotive force impacts, ensuring outstanding performance and reliability.
- Fast response time enables seamless switching of on-load tap changers during measurement, and automatic data refresh.
- Utilizes power management technology to minimize energy consumption and heat generation, ensuring minimal power usage.

SFRA TEST EQUIPMENT

RDRB-V

Measuring Speed	1 min- 2 min for single-phase winding
Output Voltage	Vpp-25V, adjusting automatically in the test
Output Impedance	50Ω
Input Impedance	1MΩ (the response channel is built with 50Ω matching resistance)
Frequency Sweep Scope	10Hz-2MHz
Frequency Accuracy	0.00001



- 1-2 minutes per winding.
- Exceptional 0.001% precision.
- SFRA test equipment utilizes digital frequency synthesis for stability.
- Includes 5000V voltage isolation for computer protection.
- Simultaneously loads 9 curves, auto-calculates parameters, and provides diagnostic guidance.
- Automates report storage and export in Word or JPG formats.

DUAL-CHANNEL DC RESISTANCE TESTER

RDZR-5AS, RDZR-10AS

Model	RDZR-5AS	RDZR-10AS
High-voltage side output current	<15mA, 40mA, 200mA, 1A, 5A	<15mA, 40mA, 200mA, 1A, 5A, 10A
Test range High voltage side	0.5mΩ ～ 0.8Ω (10A)	
	1mΩ ～ 2Ω (5A)	
	5mΩ ～ 10Ω (1A)	
	100mΩ ～ 50Ω (200mA)	
	1Ω ～ 250Ω (40mA)	
	10Ω ～ 20kΩ (<15mA)	



- Ensures precise resistance measurement.
- Incorporates advanced circuits, enhancing reliability and ensuring safety.
- Ideal for on-site transformer manufacturing, offering convenience and stability.
- Equipped with alarms and clear indicators for safety and accuracy.
- Features automated self-checks, data processing, and an intuitive display.
- Includes automatic discharge and dual-channel real-time sampling for convenience.

TRANSFORMER DEMAGNETIZATION TESTER

RDXC-3000A

Output Voltage	Vpp-40v, automatic adjustment during the test
Output Current	5A, 4A, 3A, 2A, 1A, optional
Remanence Rate	0-100%
Demagnetization Progress	0-100%
Minimum Resolution	0.001
Operating Power	AC100V-240V ±10%
Power Frequency	50±1Hz



- Employs advanced technology with minimal current impact.
- Ensures high demagnetization efficiency, allowing for operations on a single winding, thus saving valuable time.
- Offers both manual and automatic operation for added user convenience.
- Facilitates straightforward connection using DC resistance testing wires.
- Implements digital current adjustment for exceptionally accurate current control.

Transformer Load and No-Load Tester

RDBK- III

Voltage Range	15V ~ 500V (PT extension), Accuracy: ± (0.2% rdg ± 0.05% f.s)
Current Range	0.5A ~ 15A (internal), Accuracy: ± (0.2% rdg ± 0.05% f.s)
	0.5A ~ 50A (external) (can CT extension), Accuracy: ± (0.2% rdg ± 0.05% f.s)
Impedance Range	0 ~ 100%



- Automatic adjustments for frequency, temperature, and current, ensuring uniform and consistent data.
- Options for power supply include both an internal battery and external single-phase voltage stabilizers.
- Enjoy an extended range for precision measurements of voltage and current.
- Effortless operation is at your fingertips with the user-friendly 7.0-inch touchscreen interface.
- The built-in memory can conveniently store up to 160 test data sets.
- Swiftly obtain test results via the integrated high-speed thermal printer.

TRANSFORMER CORE GROUNDING CURRENT TESTER

RD8100B

Power Supply	DC 9V alkaline dry battery LR6 1.5V×6
Test Mode	Clamp CT
Jaw Size	80mm×80mm
Current Range	AC 0.00mA ～ 100A
Resolution	AC 0.00mA ～ 9.99mA, resolution: 0.01mA
	AC 10.0mA ～ 99.9mA, resolution: 0.1mA
	AC 100mA ～ 999mA, resolution: 1mA
	AC 1.0A ～ 100.0A, resolution: 0.1A



- Seamlessly store up to 200 data sets, conveniently transferable to a computer via USB.
- The device vividly showcases real-time current waveforms, ensuring users have a crystal-clear understanding of current conditions.
- Users can readily define alarm thresholds and witness visible alarm indicators.
- This tool features a suite of functions for extracting, archiving, and printing historical data, greatly simplifying the task of equipment maintenance record-keeping.

TRANSFORMER COMPREHENSIVE TEST BENCH

RDTBT

Voltage	Measuring range 1V ~ 500V, Accuracy: 0.1
Current	Measuring range 100mA ~ 5A, Accuracy: 0.1
Power	U*I, Accuracy: 0.2
Working frequency	50Hz
Power factor	0.050 ~ 0.999, Accuracy: 0.2
Frequency	45 ~ 65Hz, Accuracy 0.1
Test voltage	Uab, Ubc, Uac
Test current	Ia, Ib, Ic



- Covers power transformers (10kV to 220kV, 10kVA to 10,000kVA) with tests including DC resistance, turns ratio, no-load loss, load loss, AC withstand voltage, and induced voltage withstand.
- Clear voltage and current displays; ability to print test results.
- Incorporates a slow rise and fall function for precise voltage adjustments.
- User-friendly operational steps with clear indications ensure ease of use.
- Prioritizes a user-friendly interface for optimal visibility.
- Allows flexible switching of low-voltage transformer taps.
- Easily switches between various test circuits on the platform.

SINGLE-STAGE HIGH VACUUM TRANSFORMER OIL PURIFYING MACHINE

ZYA SERIES

Flow rate	L/min	20 30 50 100 150 200 300
Vacuum range	MPa	-0.06 ~ -0.095
Working pressure	MPa	⩽ 0.4
Temperature range	℃	20 ~ 80



- This machine is small, hi-efficient conveniently. And it can live operated with electrical, vacuum oiling the power equipment and dry moisture of power equipment.
- Distinctive removing the impurities technology filtering through double FH trapezoidal network and absorbing by high polymer without the mechanical power.
- Bi-infrared liquid Duplex 3D stereo-evaporation technology, dewatering and degassing very effectively.
- The oil of any grades can be treated on line at the working site.
- Heavy duty suitable for 24 hours continuous operation.
- Can work independently; also it can work with the oil regeneration system (optional).
- Can be operated both on-load and off-load.

DOUBLE-STAGE VACUUM TRANSFORMER OIL FILTRATION SYSTEM

ZYD SERIES

Flow Rate	Liter/hour	1800	3000	6000	10000	12000	15000	18000
Recommended Max. oil volume in one storage tank	Tons	6	12	24	40	60	90	110
Relative Working Vacuum Degree	MPa	-0.08 ~ -0.099 MPa						
Absolute Operating Vacuum Level	Pa	⩽ 8 Pa						
Working Discharge Pressure	MPa	⩽ 0.5						

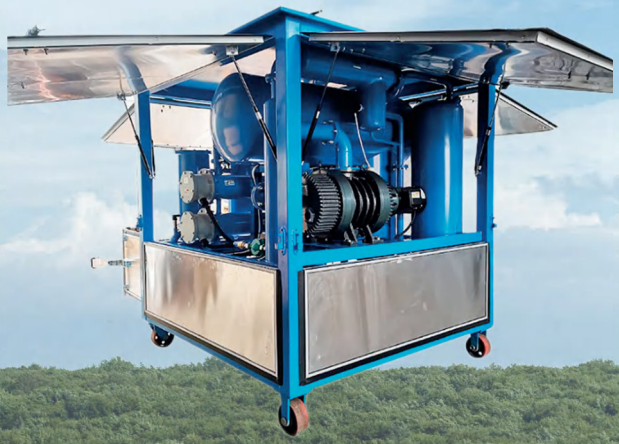


- Special "T" shape double vacuum separation technology, double stages thin film drying degassing technology, double evaporation area and degassing time.
- Patented degassing tank: anti-foam structure & dual electronic foam monitoring system (key components are from Switzerland), completely eradicating oil entering into vacuum pump.
- Oil atomized particles size is less than 50μm, largely increasing efficiency for water molecules and gas molecules escaping from oil molecules.
- High density electrical heaters with surface efficiency below 1 5 W/cm2, with indirect heating to prevent local overheating and oil cracking & aging.

DOUBLE-STAGE VACUUM TRANSFORMER OIL PURIFIER

ZYD-F SERIES

Flow rate	L/min	30	50	100	150	200	250	300
Working vacuum degree	MPa	-0.08 ~ -0.099						
Working discharge pressure	MPa	⩽ 0.4						
Ultimate vacuum value	Pa	⩽ 10						
Temperature control range	℃	20 ~ 80						



- Double -stage high vacuum pumping system ,strong power of vacuum evacuating, ultimate vacuum value ⩽10Pa.
- Special "T" shape double vacuum separation technology, double stages thin film drying degassing technology, double evaporation area and degassing time.
- Patented degassing tank: anti-foam structure & dual electronic foam monitoring system (key components are from Switzerland), completely eradicating oil entering into vacuum pump.
- Reliable Control System: Optimized design of control interlock protection device, overpressure alarm and protection, phase sequence protection, to ensure whole machine working stably for a long time.

INSULATING OIL DIELECTRIC STRENGTH TESTER

RDJJD-100KV

Booster capacity	1.5 kVA
Step up speed	0.5kV/s ~ 5.0kV/s, 10 gears optional, error 0.2kV/s
Output voltage	0 ~ 100 kV
Voltage accuracy	2% reading + 2 words
Power distortion rate	< 1%
Electrode gap standard	2.5mm
Test times	1 ~ 9 times optional

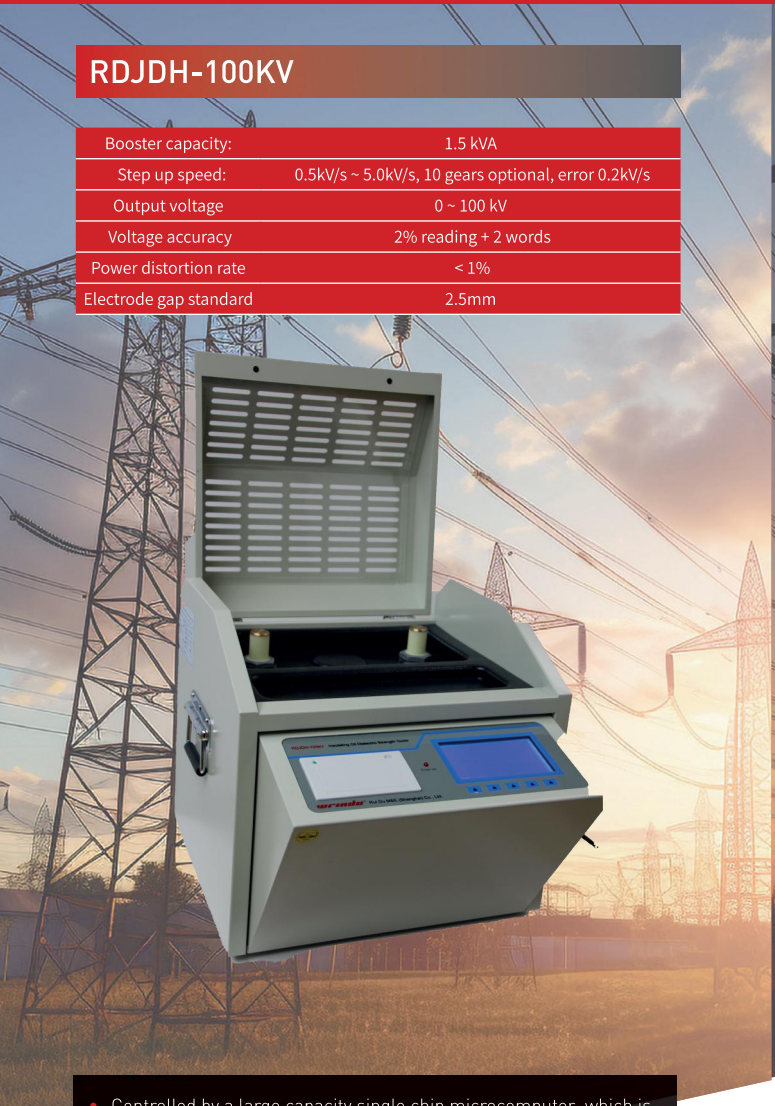


- Controlled by a large capacity single chip microcomputer, which is stable and reliable;
- Equipped with temperature, humidity and clock display functions, and can be customized for infrared oil temperature measurement.
- The wide range watchdog circuit is set in the instrument to prevent the crash;
- A variety of standard options. The instrument program is equipped with IEC156 and self programming operation, which can adapt to a variety of choices of different users;
- The oil cup of the instrument is made of special glass and high polymer materials, which are processed finely to prevent oil leakage and corrosion;

INSULATING OIL DIELECTRIC STRENGTH TESTER

RDJDH-100KV

Booster capacity:	1.5 kVA
Step up speed:	0.5kV/s ~ 5.0kV/s, 10 gears optional, error 0.2kV/s
Output voltage	0 ~ 100 kV
Voltage accuracy	2% reading + 2 words
Power distortion rate	< 1%
Electrode gap standard	2.5mm



- Controlled by a large capacity single chip microcomputer, which is stable and reliable;
- The wide range watchdog circuit is set in the instrument to prevent the crash;
- A variety of standard options. The instrument program is equipped with IEC156 and self programming operation, which can adapt to a variety of choices of different users;
- The oil cup of the instrument is made of special glass and high polymer materials, which are processed finely to prevent oil leakage and corrosion;

WATER SOLUBLE ACID (PH) TESTER

RDPH-313D

Measurement range	PH 3.6 ~ 7.0
Measurement error	⩽ ± 0.1PH
Resolution	0.1PH
Constant temperature accuracy	± 2 °C



- Adopts six cup integrated design, which can process and complete 1 ~ 6 types of tests in sequence at a time.
- High degree of automation, short measuring period and high working efficiency;
- Large screen color touch LCD display, simple operation and convenient man-machine dialogue;
- During testing, simply inject oil and water into the instrument according to standard regulations, and the instrument will automatically complete functions such as heating, oscillation, static placement, oil-water separation, color rendering, colorimetry, display and print measurement results.

INSULATING OIL MICRO WATER TESTER

RDKF-106D

Titration method	Coulometric titration (coulometric analysis)
Display	Color LCD touch screen
Electrolysis current control	0 ~ 400mA automatic control
Measurement range	1μg ~ 200mg
Resolution	0.1 μg

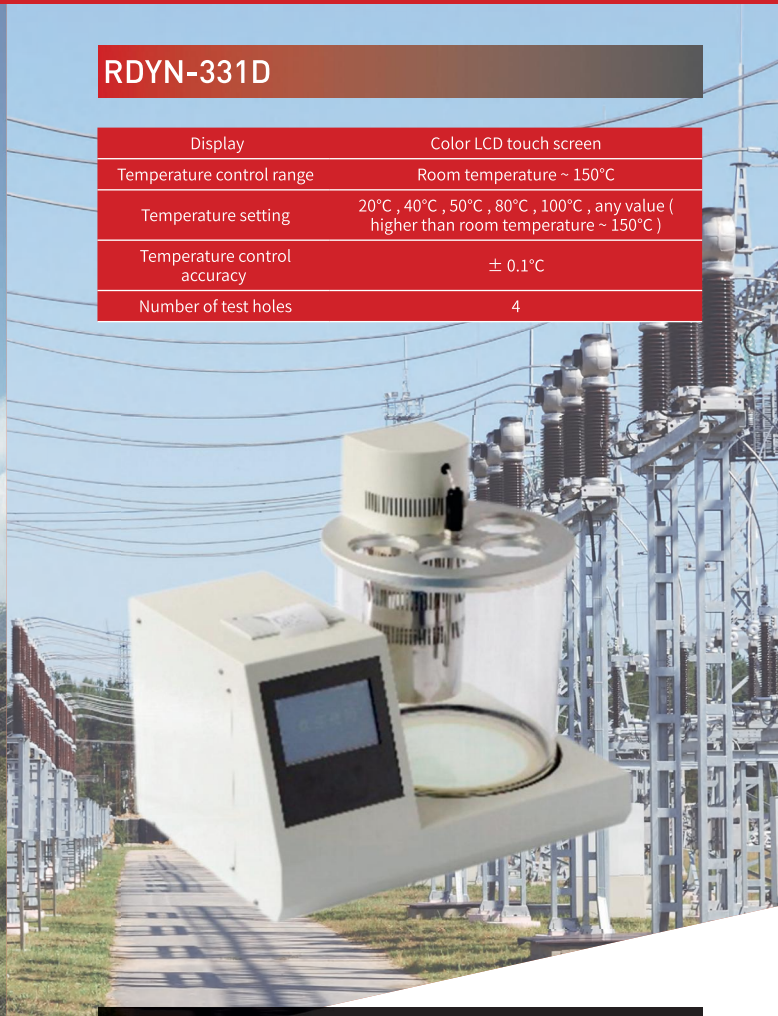


- The 32-bit embedded microprocessor is used as the main control core to embed the mini operating system.
- 0-400mA automatic detection ,high precision ,fast measurement speed, stable and reliable.
- The motherboard adopts high-quality SMT components with high integration, simple operation and long service life
- Contains 4 calculation formulas ,and the measurement results are automatically converted to the required units and can be converted to each other.

KINEMATIC VISCOSITY TESTER

RDYN-331D

Display	Color LCD touch screen
Temperature control range	Room temperature ~ 150°C
Temperature setting	20°C , 40°C , 50°C , 80°C , 100°C , any value (higher than room temperature ~ 150°C)
Temperature control accuracy	± 0.1°C
Number of test holes	4

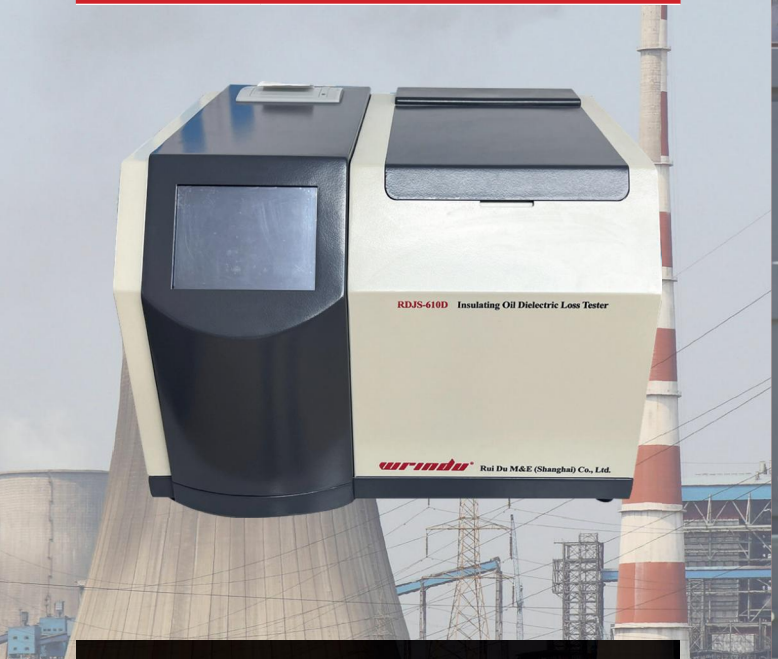


- Adopt advanced digital PID temperature control technology, wide temperature control range and high temperature control accuracy;
- The control temperature can be set to any temperature (room temperature~150), and can also be used as a regular constant temperature water bath.
- Adopt high-definition color touch screen technology, rich and clear interface content, quick and flexible touch screen response
- It has the advantages of high measurement accuracy, fast speed, stable and reliable measurement data, etc
- Equipped with micro printer, it can print test data anytime and anywhere;

INSULATING OIL DIELECTRIC LOSS TESTER

RDJS-610D

Power supply voltage:	AC 220 V ± 10%
Power frequency	50 Hz / 60 Hz ± 1%
Measurement range	Capacitance is 5pF ~ 200pF
	The relative permittivity is 1.000 ~ 30.000
	The dielectric loss factor is 0.00001 ~ 100
	DC resistivity 2.5 M Ω m ~ 20 T Ω M



- Adopts medium frequency induction heating and PID temperature control algorithm. The heating method has the advantages of non-contact between the oil cup and the heating body, uniform heating, fast speed and convenient control, so that the temperature is strictly controlled within the preset temperature error range.
- The internal standard capacitor is SF6 gas filled three electrode capacitor. The dielectric loss and capacitance of the capacitor are not affected by the ambient temperature and humidity, so that the accuracy of the instrument can still be guaranteed after a long time of use.
- Perfect protection function .When there is over-voltage ,over-current, high voltage short circuit, the instrument can quickly cut off the high voltage, and send out a warning message. When the temperature sensor fails or is not connected, a warning message is issued.

INSULATING OLEIC ACID VALUE TESTER

RDSZ-303D

Test range	0.001~ 0.400 mgKOH/g;
Minimum resolution	0.001 mgKOH/g
Repeatability	2~5% (RSD)



- Three cup integrated design, suitable for testing the oleic acid value of transformer oil and steam turbine;
- Adopts microcomputer control to automatically complete liquid addition, stirring, titration, and endpoint determination
- Touch type color LCD display screen, accurate parameter input response, stable and reliable display performance;
- It can display up to 35 sets of measurement results separately and print out multiple parameters related to the measurement.
- The design structure of the case is simple and reasonable, the volume is small and exquisite, and the appearance is elegant and generous;

INTERFACE TENSION TESTER

RDZL-321D

Measurement Method	Platinum Ring Method (DuNouy Ring method)
Measurement range	5 ~ 200 mN/m
Accuracy	0.1% reading ± 0.1 mN/m
Resolution	0.1 mN/m
Sensitivity	0.1 mN/m
Power supply	AC220V, 50Hz



- Wien bridge sine wave oscillator composed of high-precision and high-speed operational amplifiers, characterized by low distortion and easy debugging.
- Easy to operate and works stably and reliably. Under non-equilibrium conditions, it can measure the surface tension of various liquid-gas phases and the interfacial tension of liquid-liquid phases, and automatically calculate the tension value.
- Adopts a newly improved magnetic tank sealed electromagnetic force balance sensor, which improves response speed and linearity.
- The new sensor only needs to be calibrated at one point, solving the problem of multiple-point calibration required by the previous generation sensor to ensure linearity and accuracy.

HIGH-END MULTIFUNCTION CLAMP EARTH RESISTANCE TESTER

RDER2200

Resistance Range	0.01Ω ~ 1500Ω
Resistance Resolution	0.001Ω
Resistance Max Accuracy	± (1% + 0.01Ω)
Current Range	0.00mA ~ 40.0A
Current Resolution	0.001mA
Current Max Accuracy	± (1.5% + 0.5mA)
Data Storage	999 groups



- It offers diverse display combinations like resistance + current, resistance + time, and current + time, providing flexible monitoring options
- With an extensive measurement range, this product ensures thorough coverage while conserving power efficiently.
- Capable of storing up to 999 data groups, enabling robust and organized data storage capabilities.
- Equipped with a nickel-metal hydride rechargeable battery, ensuring long-lasting and eco-friendly power support.
- Comes with comprehensive monitoring software for real-time monitoring, historical data analysis, customizable alarm settings, and streamlined data management functions.

INSULATION RESISTOR TESTER

RD3202E

Rated Voltage	50V, 250V, 500V, 1kV, 2.5kV, 5kV
Insulation Resistance Range	0.005MΩ ~ 5.00TΩ
Custom Setting Output Voltage	40V ~ 5kV



- Boasts a vivid display of test results and battery status, with a user-friendly interface.
- Combines both knobs and buttons for straightforward and intuitive operation.
- Offers the flexibility to choose PI and DAR calculation methods, as well as adjust test voltage and duration settings to accommodate specific testing.

SOIL RESISTIVITY METER

RD3022E

Power Supply	DC 7.4V 2600mAh rechargeable lithium battery, full of about 8.4V
Auto-shut off	Automatically shut down after 10 minutes
Measurement Range	Earth Resistance: 0.00Ω ~ 30.00kΩ
	Soil Resistivity: 0.00Ωm ~ 9000kΩm
	Earth Voltage: 0V ～ 600V

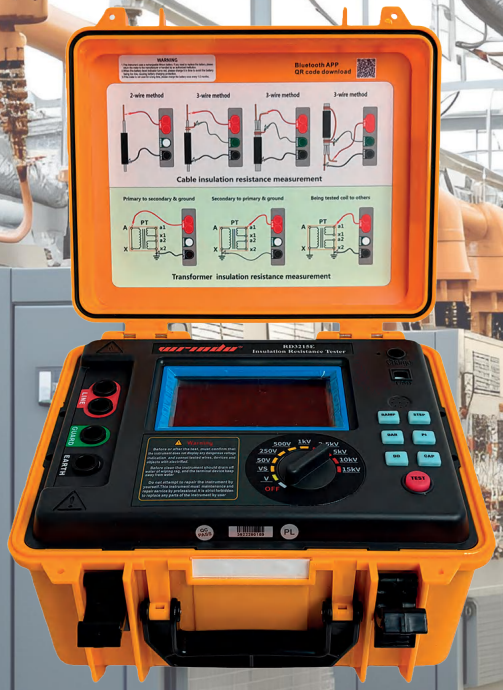


- Excels in on-site ground resistance and soil resistivity measurements, using advanced digital technology for accuracy through various methods.
- Incorporating FFT and AFC technologies, it effectively mitigates interference, ensuring consistent and reliable performance.
- With an enhanced waterproof casing conforming to IP65, offers robustness and durability for outdoor applications.
- Featuring an LCD, white screen backlight, and bar graph indication, it provides an intuitive experience with data storage capacity.

INSULATION RESISTANCE TESTER

RD3215E

Rated Voltage	50V, 250V, 500V, 1kV, 2.5kV, 5kV, 10kV, 15kV
Insulation Resistance Range	0.005MΩ ~ 30.0TΩ
Custom Setting Output Voltage	"40V ~ 15kV"



- Offers a wide range of features for assessing insulation resistance parameters, with customizable modes and formulas for precision.
- The full-color touchscreen displays test data and battery status for easy navigation and access to records.
- Unique anti-interference technology ensures consistent and reliable results in challenging environments.
- The dual-layer housing with IP65 protection shields the tester from moisture, dust, and impacts in various settings.
- Supports USB and Bluetooth for efficient data transfer and storage.

DOUBLE CLAMP GROUNDING RESISTANCE TESTER

RD3032E

Power Supply	DC 7.4V 2600mAh rechargeable lithium battery, full of about 8.4V
Short-circuit Test Current	AC 100mA max
Protection Level	IP65 (close the case)
Measuring Rate	AC: about 2 times/second
	Earth Voltage: about 2 times/second
	Earth resistance, soil resistivity: about 7 seconds/time



- Utilizes precise 4-wire, 3-wire, 2-wire, selection, and dual-clamp methods for adaptability and precision.
- Features a spacious aperture current sensor for measuring ground leads, expanding the measurement range.
- Accurately assesses grounding resistance in diverse complex conditions, eliminating the need to disconnect parallel grounding electrodes, and enhancing convenience.
- Incorporates advanced FFT and AFC technologies for highly accurate, stable, and reliable measurement results.

GROUNDING CONTINUITY TESTER

RDDT-10A

Test Current	AUTO, 1A, 3A, 5A, 10A
Measuring Range	0.8mΩ-0.8Ω (10A)
	1mΩ-2Ω (5A)
	5mΩ-3Ω (3A)
	10mΩ-10Ω (1A)
Minimum Resolution	0.1μΩ
Accuracy	± (0.5%±2 digits)



- Using high-performance single chip microcomputer control, the test process can be intelligent.
- Small size, easy to carry and operate.
- High precision fast testing speed good repeatability and intuitive reading.

GROUND GRID TESTER

RDWR-5A

Measurement Range	0 ~ 5000Ω (including current pile impedance)
Resolution	0.001mΩ
Measurement Error	± (reading×2% + 0.005Ω)
Anti-power Frequency 50 Hz Voltage Interference Ability	10V
Test Current Waveform	Sine Wave



- The measured power frequency equivalence is good.
- Strong anti-interference ability. High anti-interference performance makes the test data stable and reliable.
- High measurement accuracy; the basic error is only 0.005 Ω.
- Powerful function. It can measure current pile, voltage pile, grounding grid impedance, grounding resistance, grounding conduction, soil resistivity, etc.
- Full touch LCD and super large full graphic operation interface have each process very clear.

Transformer Oil Gas Chromatography

RDSP-3401

Minimum Detection Quantity	
Two injections, the injection volume is 1ml, and the minimum detection concentration in transformer oil	
Component name	Minimum detection concentration (μL/L)
H_2	2
CO	1
CO_2	5
CH_4	0.1
C_2H_4	0.1
C_2H_6	0.1
C_2H_2	0.1
O_2	5
N_2	5
Power supply	AC 220 V ± 10%, 50 Hz ± 0.5 Hz
The Main Technical Indicators	
Temperature control area	8 ways
Temperature control range	-Room temperature above 5 °C ~ 400 °C. -Increment:1 °C. -Accuracy: ±0.1 °C
Temperature-programmed order	16 orders
Temperature-programmed range	0.1~60°C/min
Detector Technology Index	
Hydrogen flame ionization detector (FID)	
The limit of detection	⩽ 5×10^{-12}g/s (sixteen alkyl)
Baseline noise	⩽7×10^{-14}A
Baseline drift	⩽2×10^{-13}A/30min
Linear range	⩾10^6
Thermal conductivity detector (TCD)	
Sensitivity	S ⩾ 2500mV•ml/mg (sixteen alkyl) (1, 2, 3, 4 times enlarged, optional)
Baseline noise	⩽ 20 μV
Baseline drift	⩽ 30 μV/30min
Linear range	⩾10^4



- Features 100/1000 Mbps Ethernet interfaces and embedded IP protocol stack for seamless remote data transmission via intranets/internet, streamlining lab setup and data management.
- Equipped with 3 independent internal IP addresses to connect on-site workstations, departmental computers & executive computers, enabling real-time operation monitoring and data analysis.
- Dedicated workstation supports multi-chromatograph simultaneous connection, simplifying data processing, instrument control and document management.
- Internet connectivity to manufacturers allows for customized remote diagnostics and system updates as per user needs.
- Comes with a hot-swappable color LCD touchscreen, serving as a portable handheld controller for flexible operation.
- Multi-processor parallel mode enhances stability and reliability, accommodating up to 3 detectors for complex sample analysis.
- Modular design ensures convenient post-purchase maintenance and servicing.
- Advanced microcomputer temperature control system delivers high precision; 8 fully independent outputs support 16-stage programmed ramping, with auto rear-door opening for faster heating/cooling and optimized ambient temperature control.
- Integrated low-noise 24-bit high-resolution AD circuit with baseline storage and deduction capabilities.
- Standard workstation is compatible with mainstream operating systems including WinXP, Win2000, Win7, Win8 and Win10.
- Independently developed microcomputer system supports MODBUS/TCP protocol, enabling seamless integration with DCS systems.

Portable Insulation Oil DGA Tester

RDSP-3411

Gas	Range (ppm)	Resolution
Hydrogen (H_2)	5.0 ~ 5000.0	2ppm NA
Carbon Monoxide (CO)	1.0 ~ 50,000.0	2ppm
Carbon Dioxide (CO_2)	2.0 ~ 50,000.0	0.1ppm
Ethylene (C_2H_4)	1.0 ~ 50,000.0	0.1ppm
Ethane (C_2H_6)	1.0 ~ 50,000.0	0.1ppm
Methane (CH_4)	1.0 ~ 50,000.0	0.1ppm
Acetylene (C_2H_2)	0.5 ~ 50,000.0	0.1ppm
Moisture (H_2O)	⩾5ppm	2ppm NA
Accuracy / Tolerance	Valve < 20ppm: ±1ppm Valve ⩾ 20ppm: ±10%	
Sample Volume	Oil: 50ml±2ml; Gas: 5ml±0.2ml	
PC Port	USB	
Printing Output	2-inch mini printer	
Power Supply	AC 100250V, 4763Hz, 12W	
Host Dimension	524mm × 428mm × 206mm	



- Fast measuring in the field: Within 20 minutes, 7 key fault gases and moisture can be read.
- No consumables: Pure physical photo-acoustic spectroscopy technology, the consumables of calibration gas and carrier gas are needless.
- Moisture in the oil: The concentration of moisture in the oil can be given during the same one test.
- DGA diagnosis: International general faults gases diagnosis method, preset the
- warning limits. Roger' s ratios, Duval's Triangle, IEEE key gases.

Automatic Headspace Sampler

RDHS-3401

Temperature range	15°C to 200°C above room temperature, increment:1°C
Sample vial	Number: 27 Material: Neutral glass Volume: 20mL Vial cap: Aluminum
Equilibration area	
Preheating positions	6
Accuracy	0.5% of the full range
Stability	±0.1°C
Sampling system	
Accuracy	0.5% of the full range
Sampling valve	6-way valve (MV65/106HT, optional)
Sampling loop	1mL nickel tube (3mL nickel tube is optional)
Stability	±0.1°C
Transfer line / Needle	
Accuracy	2.0% of the full range
Stability	±0.1°C
Power supply	220V(±10%), 50Hz, 600VA; (110V±10%, 60Hz, 600VA optional)



- Freely adjustable start/end positions to meet on-site special requirements.
- Integrated sample shaking accelerates equilibration, improving analysis efficiency, detection sensitivity & data reproducibility.
- 6 overlapping heating positions cut analysis time for ultra-fast testing.
- Automatic detection prevents sequence confusion and ensures uninterrupted analysis.
- High-precision control ensures excellent reproducibility, avoiding sample condensation and erroneous results.