Variable Frequency Transmission Line Parameter Tester

RDTL-501A & RDTL-501B

RDTL Series **Variable Frequency Transmission Line Parameter Tester** is a high-precision testing instrument for on-site testing of power frequency parameters of various high-voltage transmission lines (including overhead, cable, and hybrid overhead cables). The instrument is an integrated structure with a built-in variable frequency power module, which can output power through variable frequency and voltage regulation. The frequency can be changed to 47.5Hz/52.5Hz, 45.0Hz/55.0Hz, 57.5Hz/62.5Hz and 55.0Hz/65.0Hz, using digital filtering technology to avoid interference from power frequency electric fields in testing, fundamentally solving the problem of accurate measurement under strong electric field interference. It is also suitable for occasions where a generator is used for power supply detection after all power outages.

🕮 Product features

1. The Variable Frequency Transmission Line Parameter Tester is equipped with a 7-inch large touchscreen color display screen, an ultra large full touch operation interface, easy to operate, and all operation steps menu display.
2. Minimal size, easy to carry, and easy to use on site.
3. All the measuring processes of the instrument only need to be connected with the mains supply voltage of 220V. It can also be powered by a single-phase generator on site (power ≥ 3kW).
4. The unique technology anti-induction voltage circuit is adopted inside the instrument to ensure that the instrument can withstand higher induction voltage (the anti-induction current can reach 30A) and can work normally under high induction voltage of 10,000 volts.
5. The anti-interference ability is strong. The internal variable frequency power supply module of the instrument provides the instrument measurement output power supply, the frequency

can be changed to 47.5Hz\52.5Hz, 45.0Hz\55.0Hz, 57.5Hz\62.5Hz and 55.0Hz\65.0Hz.The digital filtering technology is adopted, thus effectively avoiding various power frequency interference signals on site and enabling the instrument to realize high - precision, accurate and reliable measurement.

6. The Variable Frequency Transmission Line Parameter Tester uses a professional fast digital signal processor as the processing core, which greatly improves the operation and processing capability of the instrument on the premise of ensuring the accuracy of measurement data.
7. The external connection is simple, and the positive sequence impedance, zero sequence impedance, positive sequence capacitance and zero sequence capacitance can be completely measured only by once accessing the down lead of the tested line at the testing end; To avoid the injury of the experimental personnel caused by the induced voltage when the wiring is changed.
8. The inside of the instrument is equipped with calendar chip and large-capacity memory, which can save the test results in chronological order, check the historical records at any time and print them out.
9. The instrument data can be exported through U disk, and can be viewed and managed on any PC and made into work report.
10. The function of detecting grounding is specially designed inside the instrument to judge whether the instrument is well grounded on site. If the grounding is not connected or loose connection, the instrument will automatically judge, prohibit the operation of users, ensure personal safety and protect the use of the instrument.

🕮 Product specifications and technical parameters

Picture		
Model	**RDTL-501A**	**RDTL-501B**
Utilization conditions	RH < 80%	
	-20℃ ~ 50℃	
Anti-interference principle	Variable frequency method	
Power supply	AC220V±10%	
	Generator ≥3kW	
Power output		
Max.output voltage	AC250V	
Voltage accuracy	0.5%	
Max.output current	8A	
Current accuracy	0.5%	
Output frequency	50Hz, 60Hz, 47.5Hz\52.5Hz, 45.0Hz\55.0Hz, 57.5Hz\62.5Hz, 55.0Hz\65.0Hz	
Power	6 kVA	
Measurement range		
Capacitance	0.01 ~ 30μF	
Impedance	0.01 ~ 400Ω	
Impedance angle	-180° ~ +180°	
Induced voltage/Induced current	\	0 ~ 30kV/0 ~ 50A
Measurement resolution		

Capacitance	0.0001μF	
Impedance	0.001Ω	
Impedance angle	0.001°	
Measurement accuracy		
Capacitance	≥1μF, ±1%rdg ±0.01μF; <1μF, ±2% rdg ±0.01μF;	
Impedance	≥1Ω, ±1% rdg ±0.01Ω; <1Ω, ±2% rdg ±0.01Ω;	
Impedance angle	±0.2°(voltage >1.0V）; ±0.3°(voltage:0.2V ~ 1.0V);	
Ability to resist induced current	Ia+Ib+Ic<30A, accuracy: 2%	Ia+Ib+Ic<**60A**, accuracy: 2%
Ability to resist induced voltage	Ua<10kV, Ub<10kV, Uc<10kV; accuracy: 2%	Ua<**30kV**, Ub<**30kV**, Uc<**30kV**; accuracy: 2%
Memory	100 groups, support U disk data storage	

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