

MarMonix Digital Insulation Resistance Tester

Model: MIR-500
5KV/10TΩ/7mA/DAR/PI



Short Introduction

- **MIR-500 series** High Voltage Insulation Resistance Tester an intelligent high voltage insulation resistance tester of well research and development by our company. The instrument has perfect testing function of various insulation resistance parameters and excellent anti-interference ability, which can be used for insulation resistance testing of large-capacity high voltage electrical equipment and transmission lines. The instrument adopts true color touch screen, and all the test data and battery power are displayed on the same screen for viewing clear and obvious. The combination of knob switch and button makes the operation very simple. The user does not need to memorize the operation method, but just click "HELP" on the screen to pop up the operation method, effectively guiding the user to operate the instrument. The instrument has the function of rapid discharge, the charge of the tested object is released automatically after the test. The voltage monitor of the instrument automatically monitoring the live voltage of the measured object, when the voltage exceeding 36V will automatically prohibits testing and effectively protects the instrument and operator.
- **MIR-500 Series** instrument adopts large capacity rechargeable lithium battery pack. The test timer of the instrument automatically records the test time and stores the test results with date and time. The touch screen can easily check the historical data recorded. The fully isolated USB interface can upload the test data to the PC safely. The instrument is equipped with the test line with double insulation and shielding layer, and the high voltage rod is equipped with replaceable crocodile clip and hook, which can adapt to various test places. The instrument adopts a strong double-shell structure, and the outer case of the instrument has a protection rating of IP65, which can prevent the intrusion of moisture and dust as well as prevent to impact in the transportation and storage process, effectively protect the instrument.
- **MIR-500 Series** series High Voltage Insulation Resistance Tester with a wide measurement range, high resolution, convenient operation, strong and durable, accurate and reliable, stable performance and strong anti-interference ability. The instrument has the functions of insulation resistance test (IR), polarization index test PI, dielectric absorption ratio test (DAR), ramp test mode (RAMP), filtered resistance test mode (10S, 20S, 30S, 40S four selections), voltage test (V), capacity measurement (uF), leakage current measurement (nA), voltage monitor, test timer etc. The instrument is applied to the insulation resistance test of cable, motor, generator, transformer, transducer, high voltage switch, lightning arrester and other large equipment, and can be used for the insulation resistance test of large-capacity high voltage electrical equipment and transmission line, which is the power, telecommunications, meteorology, computer rooms, oil fields, mechanical and electrical installation and maintenance and power supply departments of industrial and mining enterprises commonly used but essential instruments.

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Functions & Features

- Suitable for insulation resistance testing of cable, motor, generator, transformer, mutual inductor, high voltage switch, arrester and other large equipment.
- Insulation Resistance Range: 0.5MΩ~10TΩ
- Rated Voltage: 250V~5Kv(5 gears)
Shout Circuit Current: >7mA MAX, Voltage monitor function, Test timer function, Automatic discharge function Insulation resistance measurement (IR); polarization index measurement (PI); absorption ratio (DAR); Ramp Test Mode (RAMP); filtered resistance test (FR)

Function	Description
Function	Insulation resistance measurement (IR); polarization index measurement (PI) ;Dielectric Absorption Ratio Test(DAR); Ramp Test Mode(RAMP); filtered resistance test(10S, 20S, 30S, 40S 4 options); Voltage measurement(V); capacity measurement(uF); current measurement(nA)
Power Supply	Rechargeable lithium battery pack 6.2Ah
Rated Voltage	250V / 500V / 1000V / 2500V/5000V
Output Voltage Accuracy	(5%~10%)±10V
Insulation Resistance Range	0.5MΩ~10TΩ
Short Circuit Current	>7mA MAX
Polarization Index Test(PI)	Yes
Dielectric Absorption Ratio Test(DAR)	Yes
Ramp Test Mode	Test at 10% of the preset voltage until the preset voltage
Filtered Resistance Test Mode	10S, 20S, 30S, 40S
Voltage Measurement	Range: AC/DC 0V~1000V; Accuracy: ± 5%rdg±3V
Capacitance Measurement	Range: 10nF~25uF; Accuracy: ±10% ± 10 nF
Leakage Current Measurement	Range: 0.01nA~9.00mA; Accuracy: ± 5%rdg±0.5nA ;
Voltage Monitor	Monitor the voltage of the measured object, and monitor discharge status after test, Forbidden to test when voltage is larger than 36V, protect instrument and operator.
Test Time	Automatic record test time, time range: 0s~9999s
Storage Function	Automatically store the test data with test date and time, total of 1000 groups
Upload Function	Upload the stored data to computer with USB communication cable.
Battery Power Display	With battery power display, when battery voltage low will remind to replace the battery
Automatic Shutdown	After 15 minutes start up will shut down automatically without any operation
Meter Dimension	280mm×260mm×160mm
Weight	4900g
Test Wire	Red color high voltage test wire 1 pcs (with alligator clip 1PCS and hook 1PCS), green color test wire 1PCS, black color test wire 1PCS
Protection Level	Close the case IP65, open the case Ip40
Withstand Voltage	3mA AC 50Hz
Working Temperature and Humidity	-20°C~50°C, 80%rh
Storage Temperature and Humidity	-25°C~65°C, 80%rh
Insulation Resistance	50MΩ(1000v)(between the test circuit and shell)
Withstand Voltage	AC 3Kv 50Hz 1min(between the test circuit and shell)
Suitable Safety Standard	IEC61010-1, IEC61326-1

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Measure Range and Accuracy

Function	Output Voltage	Range (Ω)	Accuracy	Resolution
	250V($\pm 2\%$)	500K \sim 25M	$\pm 3\%rdg \pm 5dgt$	0.01M
		25M \sim 500M	$\pm 5\%rdg \pm 5dgt$	0.1
		500M \sim 5G	$\pm 5\%rdg \pm 5dgt$	1M
		5G \sim 20G	$\pm 10\%rdg \pm 5dgt$	10M
	500V($\pm 2\%$)	1M \sim 50M	$\pm 3\%rdg \pm 5dgt$	0.1M
		50M \sim 1G	$\pm 5\%rdg \pm 5dgt$	1M
		1G \sim 10G	$\pm 5\%rdg \pm 5dgt$	10M
		10G \sim 40G	$\pm 10\%rdg \pm 5dgt$	0.1G
	1000V($\pm 2\%$)	2M \sim 100M	$\pm 3\%rdg \pm 5dgt$	0.1M
		100M \sim 2G	$\pm 5\%rdg \pm 5dgt$	1M
		2G \sim 20G	$\pm 5\%rdg \pm 5dgt$	10M
		20G \sim 80G	$\pm 10\%rdg \pm 5dgt$	0.1G
	2500V($\pm 2\%$)	10M \sim 250M	$\pm 3\%rdg \pm 5dgt$	0.1M
		250M \sim 5G	$\pm 5\%rdg \pm 5dgt$	1M
		5G \sim 50G	$\pm 5\%rdg \pm 5dgt$	10M
		50G \sim 200G	$\pm 10\%rdg \pm 5dgt$	1G
	5000V($\pm 2\%$)	50M \sim 500M	$\pm 3\%rdg \pm 5dgt$	1M
		500M \sim 10G	$\pm 5\%rdg \pm 5dgt$	10M
		10G \sim 100G	$\pm 5\%rdg \pm 5dgt$	1G
		100G \sim 400G	$\pm 10\%rdg \pm 5dgt$	
	10KV	1.00M $\Omega \sim$ 500G Ω	$\pm 5\%rdg \pm 5dgt$	
		500G $\Omega \sim$ 2.00T Ω	$\pm 10\%rdg \pm 5dgt$	
		2.00T $\Omega \sim$ 5.00T Ω	$\pm 20\%rdg \pm 5dgt$	
Voltage	AC/DC: 0.0V \sim 750V		$\pm 5\%rdg \pm 5dgt$	0.1V