

POWERTEST

Vebko
amirkabir



CE



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Introduction

VEBKO, a Leading Innovator in the field of Relay Testing Solutions and POWER TEST, an evolving solution provider, joined hands recently to Manufacture Next-Gen Multifunction Relay Tester Kits- AMT 205 in India to cater Quality Product locally and fast service support to customers.

VEBKO in a way of Innovation stays ahead of the curve by Investing in Research and Development to provide you the latest advancement in the Electrical Equipment Testing world.

AMT is a Universal Solution for Testing of All Type of Protection Relays and Sub Station Equipment, Transformer, Circuit Breaker, Isolator, Current Transformer, Potential Transformer, Transducer and Energy Meters. AMT is one of its kind and unique solution for Test all substation Equipment.

AMT-205 have Six 32A Current Source (64A in Three Phase mode, 128A in Single Phase mode), In Booster mode, AMT can inject Three phase current up to 70 A and Single Phase current up to 200A up to 300ms.

AMT 205 have Six 300V Voltage Source(1200V in Single Phase mode), current and voltage combination cable, 8 Analog Binary Inputs, 2 DC Analog Current and voltage Inputs with high accuracy, 4 Binary Outputs, DC Voltage source(420V).

AMPro Software is very versatile and with full features, There is no Licence or there is no optional modules, It can be download freely from website and freely upgraded anytime. AMT 205 complied with IEC 61850, can do GOOSE Message for Testing and even Sample Value (SV) Testing for Latest Advanced Protection Relays.

AMT 205 comes with full accessories required for Testing of All Substation Equipment like GPS Antenna, Energy Meter Sensor, Long Cables for Transformer Testing, Heavy duty Clamps and Rugged Transport case. AMT-205 with its robust design ensures its Durability, Longevity, Consistent Performance and user friendly interface for seamless operation.



Capabilities of AMT205

Software Specifications

1. Capable of testing a wide range of Static, Electromechanical & Numerical relays
2. Capable of reading, editing & creating all XRio & Rio files
3. Capable of Transient testing
4. Capable of point-to-point or End-To-End testing
5. Built-in GPS & Wi-Fi Modules
6. Automatically performing tests
7. Comprehensive Report of tests
8. Capable of automatically filling out the test sheets of different companies
9. Compatible with Windows XP, 8, 10, 11
10. Android & iOS application for easy operation
11. Autosave, redo & undo options
12. Manual HTML file in various languages
13. Using bootloader technology to update firmware
14. A host of training videos

Capable of testing power transformers

1. Winding resistance measurement
2. No-Load current measurement
3. Magnetic balance test
4. Tap Changer continuity measurement
5. Ratio (TTR) measurement
6. Vector group test
7. Demagnetizing of transformers
8. Leakage reactance measurement

Capable of testing current transformers (CT)

1. Excitation (Saturation) - KPV test
2. Hysteresis curve test
3. Ratio using current or voltage measurement
4. polarity using current or voltage test
5. Phase error measurement
6. Winding resistance measurement
7. Secondary burden measurement

Capable of testing transducers & Meters

1. Highly precise in testing of transducers & meters
2. Equipped with a pulse counter to automatically Read energy & to test ENERGY METER

Capable of testing VT/CVT

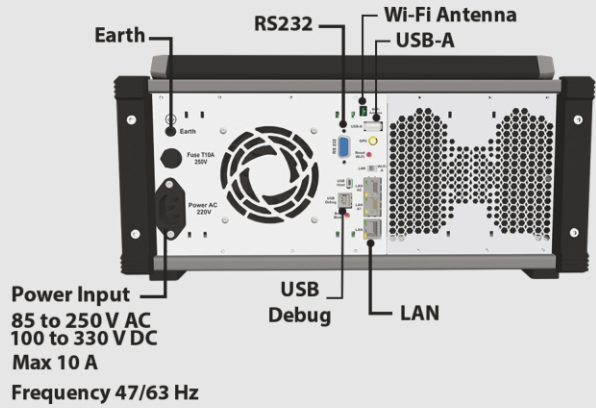
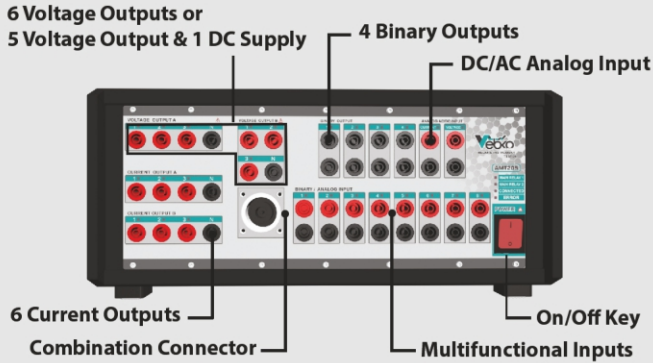
1. Ratio & Polarity test
2. Winding resistance measurement
3. Short Circuit impedance measurement
4. Excitation test

Capable of testing circuit breakers (CB) & sectioners

1. Testing of opening & closing time of CB
2. Contact resistance measurement
3. Minimum voltage test operate CB

Relay Tester AMT205

Tester Hardware Features



A summary of electrical & physical characteristics of the device

Power Supply AMT205

Power supply range	85-250 VAC or 100-330VDC
Input frequency range	0-100 Hz
Consumption	up to 3 kVA
Nominal current	3 A at 230 VAC
Connection	According to IEC60320

High Voltage, Low Current Generators AMT205

Voltage	6 Phase (L-N)	AC: 6 X 0 ... 300 V DC: 6 X 0 ... 420 V
	Series and parallel	Yes
	Resolution	3 mV
	Accuracy	0.2% or 20 mV
Current	6 Phase (L-N)	AC: 6 X 0 ... 1 A DC: 6 X 0 ... 1 A
	Series and parallel	Yes
	Resolution	16 μ A
	Accuracy	0.2% or 100 μ A
Phase	Range	0 to 360
	Resolution	0.001
	Accuracy	0.1
Frequency	Range	0 ... 10 kHz
	Resolution	1 μ Hz
	Accuracy	1 μ Hz

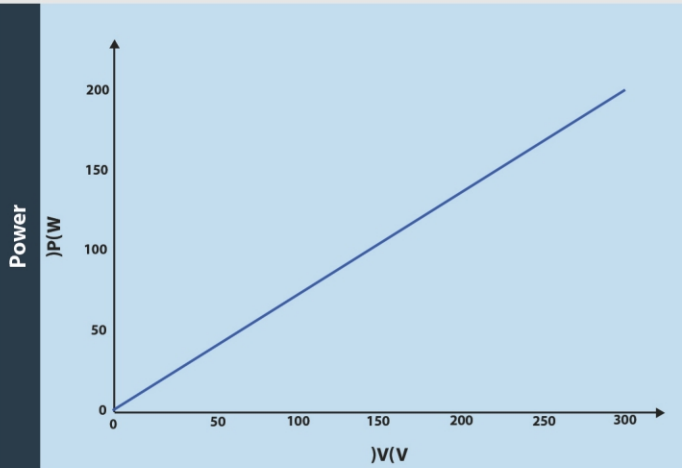
Low Voltage, High Current Generators AMT205

Current	Normal Mode	6 Phase (L-N)	AC: 6 X 0 ... 32 A DC: 6 X 0 ... 32 A
		Resolution	85 μ A
		Accuracy	0.2% or 1 mA
	Internal Booster Mode	6 Phase (L-N)	AC: 6 X 0 ... 70 A DC: 6 X 0 ... 70 A
		Resolution	350 μ A
		Accuracy	0.2% or 5 mA
	Maximum Compliance Voltage	22V	
	Series and parallel	Yes	
Voltage	6 Phase (L-N)	AC: 6 X 0 ... 15 V DC: 6 X 0 ... 22 V	
		Series and parallel	Yes
	Resolution	300 μ V	
	Accuracy	0.2% or 5 mV	
Phase	Range	0 to 360	
	Resolution	0.001	
	Accuracy	0.1	
Frequency	Range	0 ... 2.5 kHz	
	Resolution	1 μ Hz	
	Accuracy	1 μ Hz	
Connection Banana Sockets	4 mm (0.16 in) banana sockets / 32 A continuously		
Connection Combination Socket	Group A (15 A continuously max)		
LED	RGB (16 Million Color)		

Relay Tester AMT205



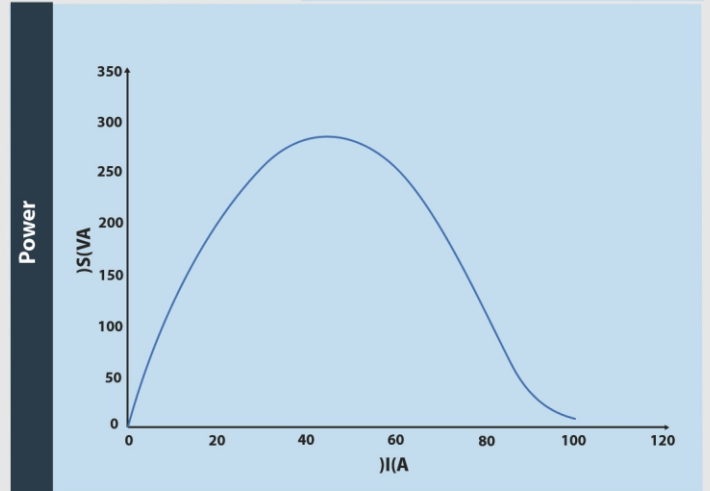
(Continue) High Voltage, Low Current Generators AMT205



Recording	Sampling Rate	25 μ s
	Variable	Currents and Voltages
Protection	Detection	Power according to power curves: Inverse
	Type	Test off
Connection	Banana Sockets	4 mm (0.16 in) banana sockets
Connection	Combination Socket	Group A
LED		RGB (16 Million Color)

(continue) Low Voltage, High Current Generators AMT205

Recording	Sampling Rate	25 μ s
	Variable	Currents & Voltages
Protection	Detection	Maximum Neutral Current
		32A: Unlimited
		64 A: 3 s
		100 A: 300 ms
	Setting	Test off
	Type	Power according to power curves



AC/DC Analog Binary Inputs AMT205

Number	8		
Dry	Open circuit voltage	5 V	
	Short circuit voltage	Software controlled	
Wet	Range 1: 0 ... ± 4.5 V(Peak)	Accuracy	150 μ V
		Resolution	35 μ V
		Impedance	493.75 K Ω
	Range 1: 0 ... ± 30 V(Peak)	Accuracy	1 mV
		Resolution	250 μ V
		Impedance	414.783 K Ω
	Range 1: 0 ... ± 180 V(Peak)	Accuracy	10 mV
		Resolution	1.5 mV
		Impedance	405.267 K Ω
	Range 1: 0 ... ± 520 V(Peak)	Accuracy	25 mV
		Resolution	4 mV
		Impedance	404.298 K Ω
Recording	Sampling Rate	12.5 μ s	
Protection	Detection	Over voltage	
	Setting	Software Controlled: Time, Enable	
	Type	Test off, Change to Dry	
Galvanic Isolation	8 Group (1+1+1+1+1+1+1+1)		
LED	RGB (16 Million Color)		

Binary Outputs AMT205

Type	Electro mechanical relay contacts	
	Transistor	
Control	Software controlled	
Number	4	
Maximum Voltage in open mode	Electro Mechanic	750V (Rms)
	Transistor	50 V
Maximum Current	Electro Mechanic	10A (Rms)
	Transistor	50 mA
Break Capacity AC	Electro Mechanic	Smax 2500 VA
	Transistor	Smax 2.5 VA
Break Capacity DC	Electro Mechanic	Pmax 300 W
	Transistor	Pmax 2.5W
Recording	Sampling Rate	50 μ s
	Resolution	2 mA
	Accuracy	0.3 mA
Protection	Detection	Over current
	Setting	Software Controlled: Time, Enable
	Type	Test off, Open Relays
Galvanic Isolation	4 Group (1+1+1+1)	
LED	RGB (16 Million Color)	

Relay Tester AMT205



AC/DC Current Measuring Input AMT205

Range 2: 0 ... ± 800 mA	Accuracy	50 μ A
	Resolution	6 μ A
	shunt	1 Ω
Range 3: 0 ... ± 35 mA	Accuracy	2 μ A
	Resolution	0.3 μ A
	shunt	22 Ω
Range 1: 0 ... ± 10 A	Accuracy	10mA
	Resolution	1.5mA
	shunt	5m Ω
Range 4: 0 ... ± 82 μ A	Accuracy	30 nA
	Resolution	6 nA
	shunt	3 K Ω
Recording	Sampling Rate	12.5 us
Protection	Detection	Over current
	Setting	Software Controlled: Time , Enable
Protection	Type	Test off, Change to open circuit
	Galvanic Isolation	1 Group
LED	RGB (16 Million Color)	

Protocol AMT205

IEC 61850	Goose Message SV, IRGB
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Combination Cable AMT205

3 Voltage, 3 current	Yes
6 Current	No

PC connection AMT205

Wifi	Yes
LAN	3 Port, 2 port in wifi Network
Programming USB port	Yes

AC/DC Voltage Measuring Input AMT205

Range 1: 0 ... ±400 mV(Peak)	Accuracy	20 μ V
	Resolution	3 μ V
	Impedance	54.7826 K Ω
Range 2: 0 ... ±60 mV(Peak)	Accuracy	5 μ V
	Resolution	0.5 μ V
	Impedance	133.75 K Ω
Recording	Sampling Rate	12.5 us
Protection	Detection	Over Voltage
	Setting	Software Controlled: Time , Enable
Protection	Type	Test off, Change to Range 1
	Galvanic Isolation	1 Group
LED	RGB (16 Million Color)	

AUX . DC AMT205

Aux . DC	Any combination of 12 channels	Max Voltage : 420V , 0.4 A Max Current : 8 V , 210 A
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GPS AMT205

Internal GPS Module	yes
Accuracy	8ns
Time To Lock	10s
Delay Adjustment	yes

Physical Characteristic AMT205

Weight	14kg
Dimension	35cm*35cm*15cm

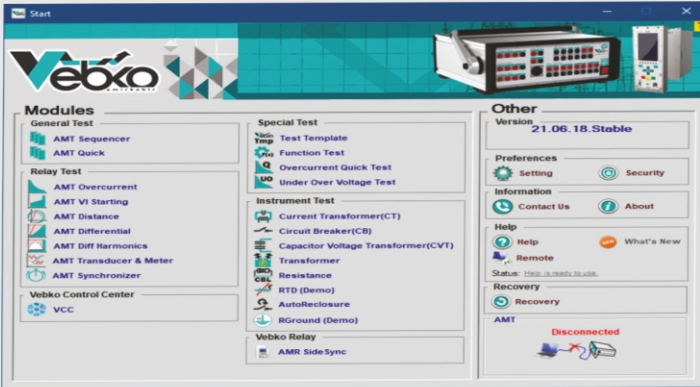
Relay Tester AMT205



Brief List of Specifications

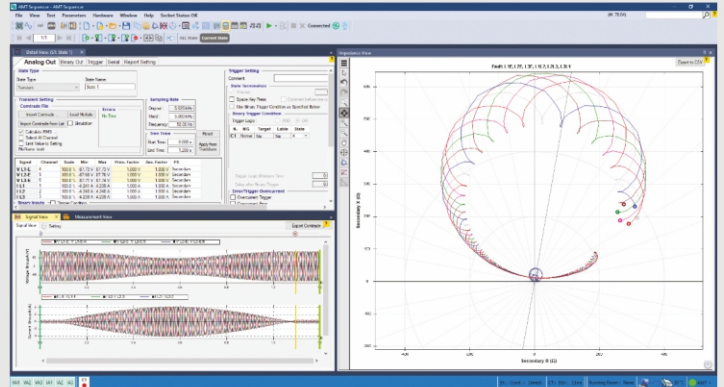
Different Testing Rooms

Home Page of Vebko Software



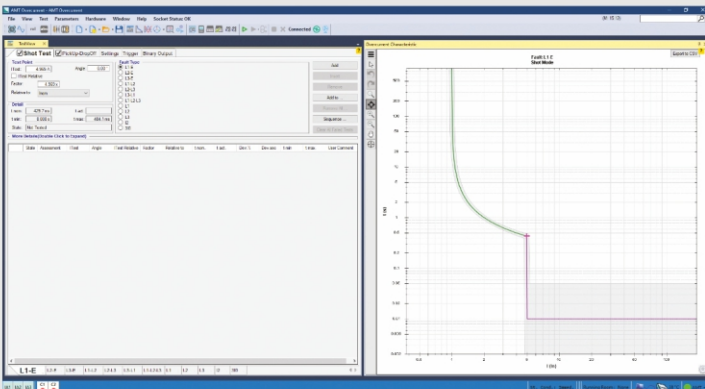
AMT Sequencer

Used to design tests that employ the normal, Quick Step Ramp, Continuous Ramp, Harmonic, Transient



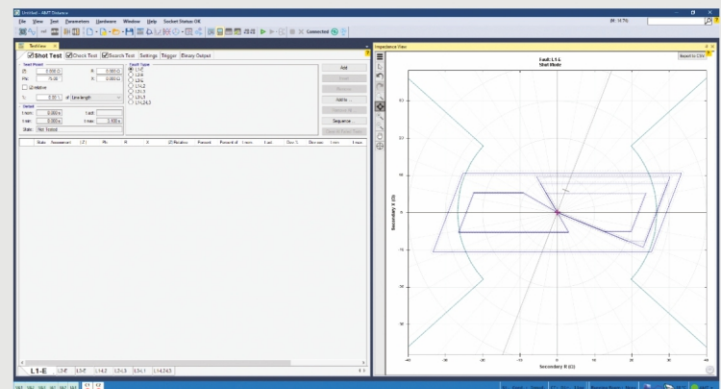
AMT Overcurrent

Used to test current functions like 51/50/67 etc.



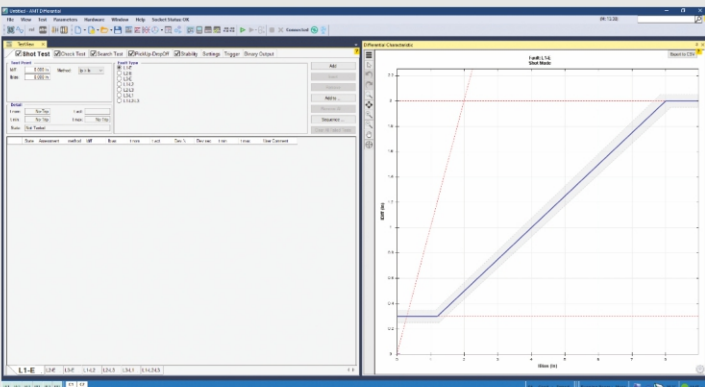
AMT Distance

Used to test Impedance functions



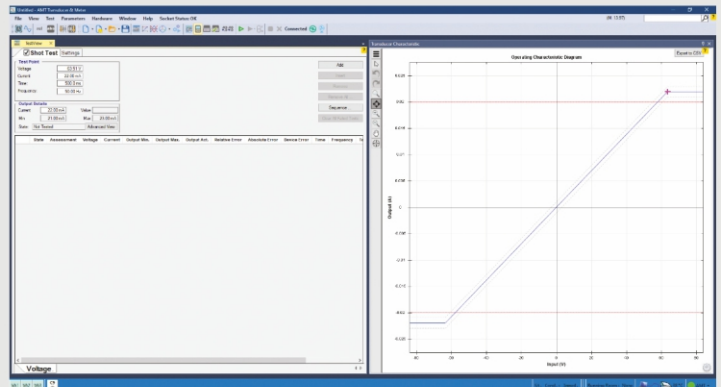
AMT Differential

Used to test differential function



Transducer & Meter

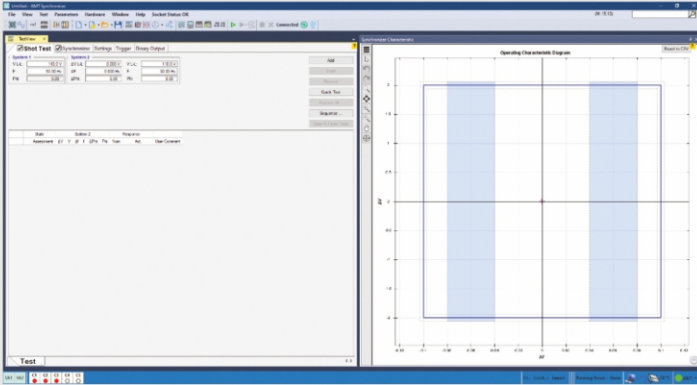
Used to test Transducer & Meter.



Relay Tester AMT205

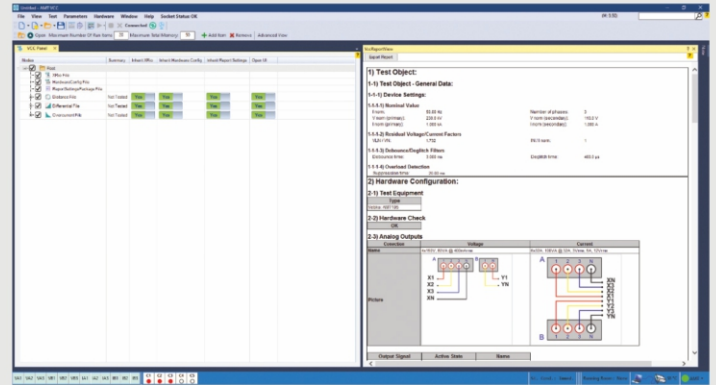


AMT Synchronizer



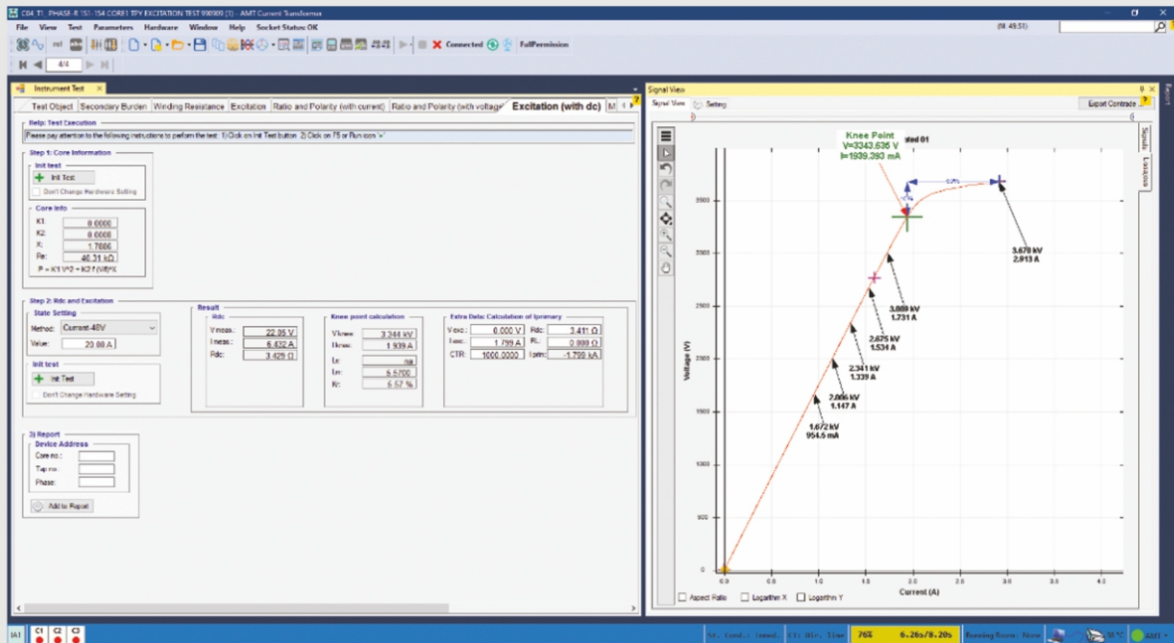
VCC

Used to successively run the tests designed for a relay



Current Transformer

Used to test various classes of CT.



Secondary burden

Winding resistance

Phase error

Polarity using current or voltage

Ratio using current or voltage

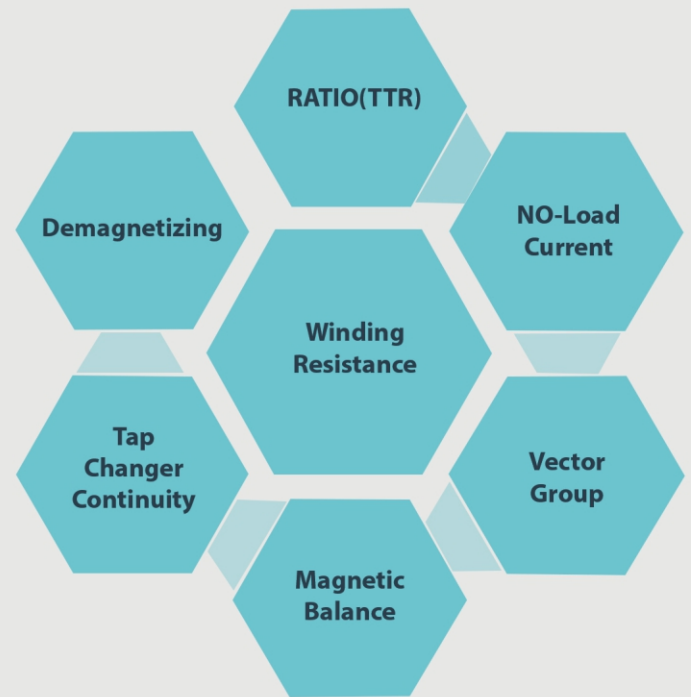
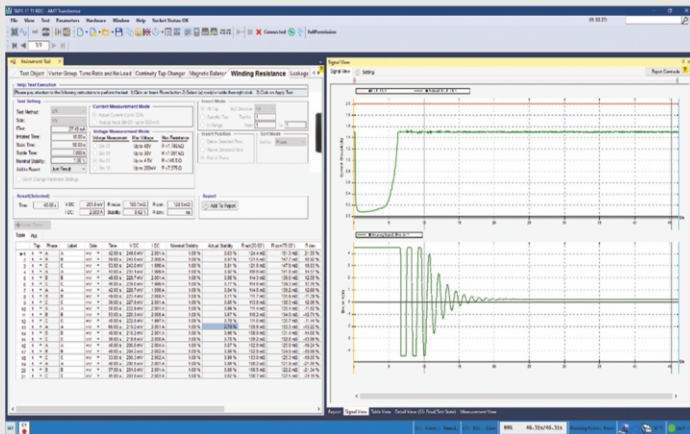
Hysteresis curve

Excitation (Saturation)

Relay Tester AMT205

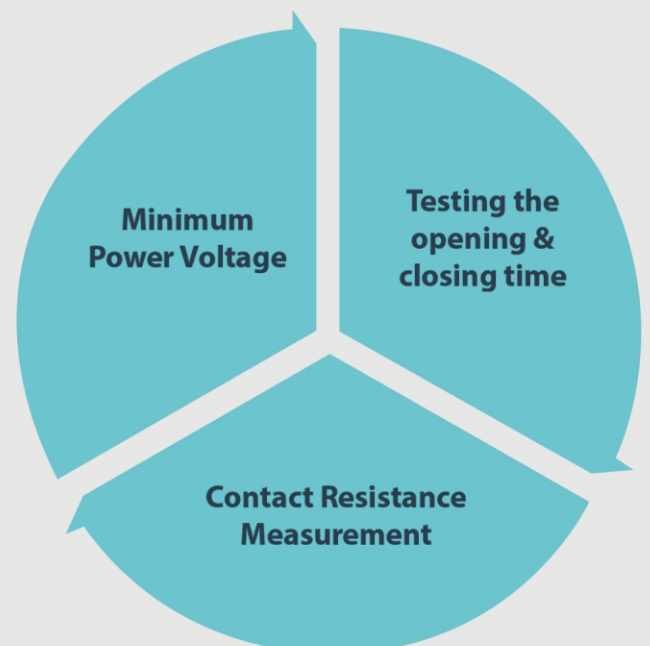
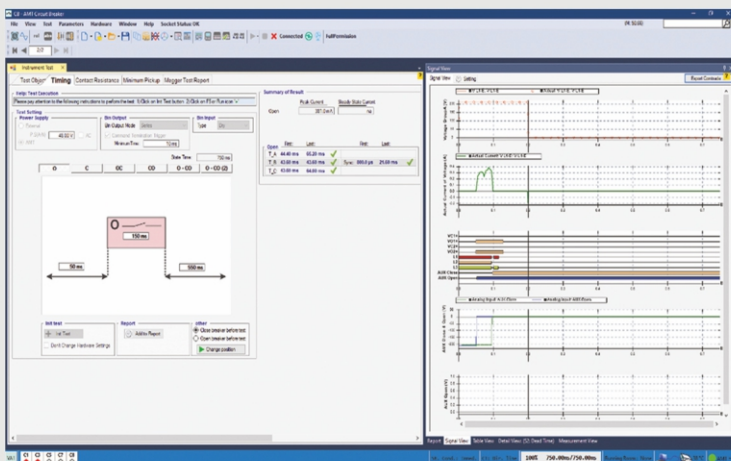
Transformer

Used to perform different transformer tests



Circuit Breaker


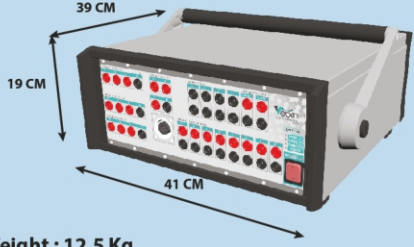
























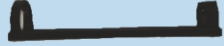
Used to MV & HV circuit breaker tests.



Relay Tester AMT205



Equipment in Transportation Case

															
Tester Transportation Case		AMT205 Relay Tester			Luggage Cover										
AMT1001	Qty: 1	AMT1050			1	AMT1024	1								
															
Transformer Test Clamp	clamp cover	Combination Cable	Ethernet Cable	Power Cable	Crocodile Clips to Contacting Pins or Screw Bolts	Transformer Test Cable	Shoulder Bag								
AMT1016	8	AMT1028	8	AMT1004	1	AMT1007	1	AMT1006	1	AMT1012	4	AMT1015	3	AMT1002	1
															
Capacitor Box	Flexible test load adaptive with retractable sleeves 4 mm safety plugs 30 cm long , 32 A	Programming USB cable	Flexible test load adaptive with retractable sleeves 4 mm safety plugs 10 cm long , 320 A	Cable ties (Velcro fastener) Black , 150 mm long	Load Cable										
AMT1011	4	AMT1026	1	AMT1014	4	AMT1013	5	AMT1005	5						
															
Serial Dongle	Flexible terminal adapters 2.5 cm , 4 mm , 32 A	Cable Lug Adapter 4 mm	Ground Cable	Optical sensor for testing meter	GPS Antenna										
AMT1020	1	AMT1009	12	AMT1010	12	AMT1008	1	AMT1018	1	AMT1017	1				
															
Backpack Trans	Screwdriver	Bag A	Trans Cable Holder												
AMT1023	1	AMT1022	1	AMT1025	1	AMT1021	16								



Training and Software

➤ The AMT205 relay tester is widely recognized as one of the best multifunction devices in the market, and it has no comparable competition.

➤ **Tutorials :**
Our Tutorials are very comprehensive and can be accessed for free on our website/Youtube in the form of videos, in several different languages.
<https://powertest.in/download/tutorials>



➤ **Software :**
You can download all Technical Specifications from the Vebko website, and you can also download the software. Software is always Free and without any License requirement.
<https://powertest.in/download/software>



Relay Tester AMT205



AMT 205 has Global presence, with Distribution worldwide.

We offer 24x7 Support on Whatsapp/Telegram, Ensuring that our Customers can reach us at any time for Assistance.



Contact Details

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