



CE



List of Contents

- ▶ Introduction
- ▶ Capabilities of AMT Relay Tester
- ▶ Brief List of Specifications
- ▶ Software Specifications
- ▶ AMT Accessories
- ▶ Contact Information

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 License or there is no optional modules, It can be downloaded 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
15. Capable of PMU Testing

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

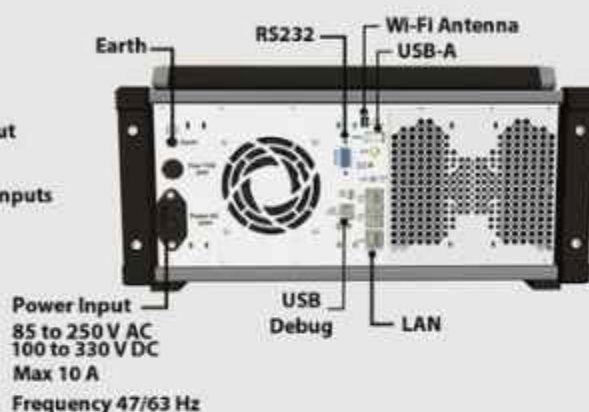
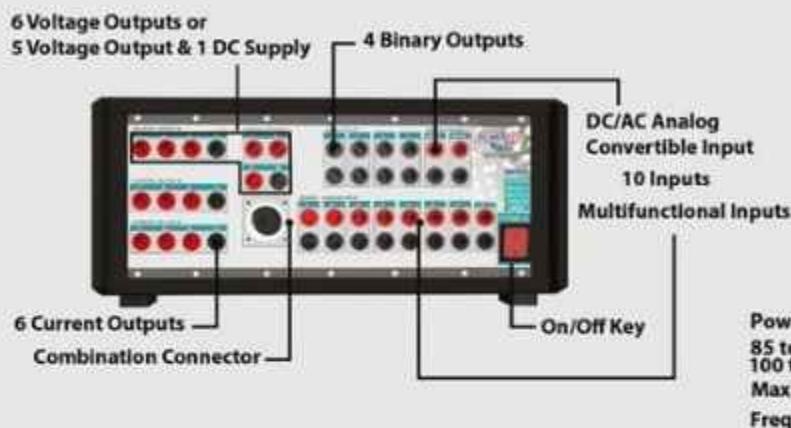
1. Ratio & Polarity test
2. Winding resistance measurement
3. Short Circuit impedance measurement
4. Excitation test

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	800 μ V
	Accuracy	Guar.: 0.15% of rd. + 0.015% of rg. Typ.: 0.05% of rd. + 0.005% of rg.
Current	Normal Mode	6 Phase (L-N) AC: 6 X 0 ... 0.25 A DC: 6 X 0 ... 0.4 A
	Internal Booster Mode	6 Phase (L-N) AC: 6 X 0 ... 0.85 A DC: 6 X 0 ... 1.2 A
	Series and parallel	Yes
	Resolution	20 μ A
Phase	Range	0° to 360°
	Resolution	1 μ °
	Accuracy	Guar.: 0.1° Typ.: 0.01°
	Frequency	0 ... 5 kHz
Frequency	Resolution	1 μ Hz
	Accuracy	Guar.: 10 μ Hz, Typ.: 1 μ Hz

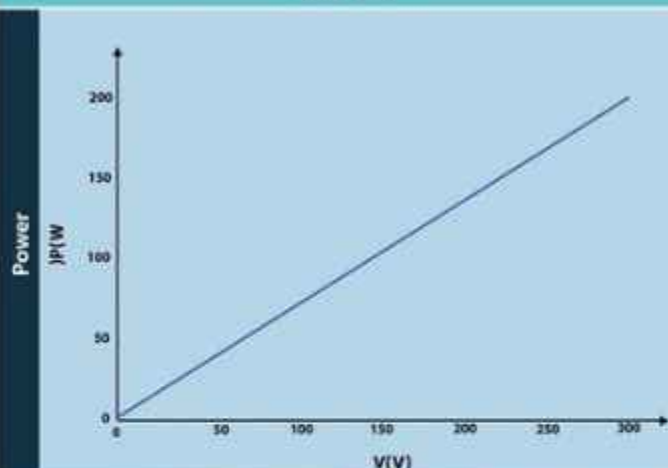
Low Voltage, High Current Generators AMT205

Current	Normal Mode	6 Phase (L-N)	AC: 6 X 0 ... 32 A DC: 6 X 0 ... 45 A
		Resolution	170 μ A
	Internal Booster Mode	6 Phase (L-N)	AC: 6 X 0 ... 67 A DC: 6 X 0 ... 95 A
		Resolution	170 μ A
Voltage	Normal Mode	Accuracy	Guar.: 0.15% of rd. + 0.015% of rg. Typ.: 0.05% of rd. + 0.005% of rg.
		Maximum Compliance Voltage	25V
	Internal Booster Mode	Series and parallel	Yes
		Resolution	40 μ V
Phase	Normal Mode	6 Phase (L-N)	AC: 6 X 0 ... 12 V DC: 6 X 0 ... 20 V
		Series and parallel	Yes
	Internal Booster Mode	Resolution	40 μ V
		Accuracy	Guar.: 0.15% of rd. + 0.015% of rg. Typ.: 0.05% of rd. + 0.005% of rg.
Frequency	Normal Mode	Range	0° to 360°
		Resolution	1 μ °
	Internal Booster Mode	Accuracy	Guar.: 0.1° Typ.: 0.01°
Frequency	Normal Mode	Range	0 ... 2.5 kHz
		Resolution	1 μ Hz
	Internal Booster Mode	Accuracy	Guar.: 10 μ Hz Typ.: 1 μ Hz
Connection	Normal Mode	Connection Banana Sockets	4 mm (0.16 in) banana sockets / 32 A continuously
		Connection Combination Socket	Group A (30 A continuously max)
LED	Normal Mode	LED	RGB (16 Million Color)
		LED	RGB (16 Million Color)

Relay Tester AMT205



(Continue) High Voltage, Low Current Generators AMT205



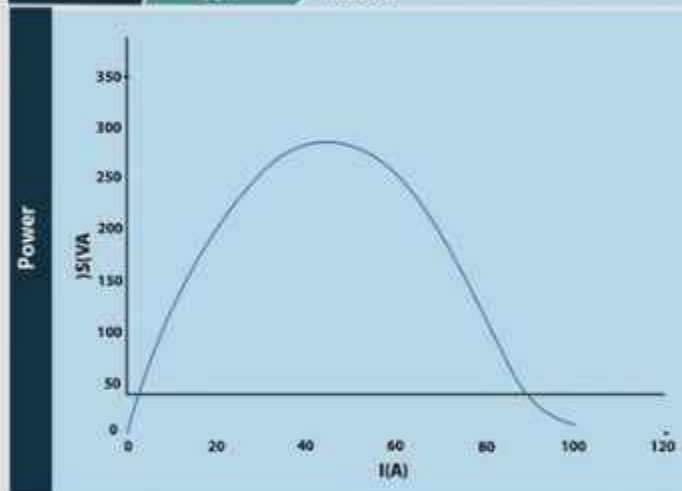
Harmonic Injection	Enter Harmonics	Yes	2 Free Harmonic
	Harmonic Order	Yes	Maximum order 100 for 50Hz (5KHz)
Recording	Sampling Rate	25 μ s	
	Variable	Currents and Voltages	
Protection	Detection	Power according to power curves: Inverse	
	Type	Overcurrent: Instantaneous	
Connection Banana Sockets		4 mm (0.16 in) banana sockets	
Connection Combination Socket		Group A	
LED		RGB (16 Million Color)	

AC/DC Analog / Measuring Binary Inputs AMT205

Number	8+2		
Dry	Open circuit voltage	5 V	
	Short circuit voltage	Software controlled	
Wet	Range 1: 0 ... ±4.5 V(Peak)	Accuracy	0.05% of rg.
		Accuracy(avg)	0.02% of rg.
		Resolution	35 μV
		Impedance	493.75 KΩ
	Range 1: 0 ... ±30 V(Peak)	Accuracy	0.05% of rg.
		Accuracy(avg)	0.02% of rg.
		Resolution	250 μV
		Impedance	414.783 KΩ
	Range 1: 0 ... ±180 V(Peak)	Accuracy	0.05% of rg.
		Accuracy(avg)	0.02% of rg.
		Resolution	1.5 mV
		Impedance	405.267 KΩ
Range 1: 0 ... ±520 V(Peak)	Accuracy	0.05% of rg.	
	Accuracy(avg)	0.02% of rg.	
	Resolution	4 mV	
	Impedance	404.298 KΩ	
Recording	Sampling Rate	12.5 us	
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) = 10 Groups		
LED	RGB (16 Million Color)		

(continue) Low Voltage, High Current Generators AMT205

Harmonic Injection	Enter Harmonics	Yes	2 Free Harmonic
	Harmonic Order	Yes	Maximum order 40 for 50Hz (2KHz)
Recording	Sampling Rate	25 μ s	
	Variable	Currents & Voltages	
Protection	Detection	Maximum Neutral Current	32A: Unlimited
			64 A: 3 s
	Setting		100 A: 300 ms
			4 mm (0.16 in) banana sockets
	Type	Software controlled: Time, Enable	
		Test off	



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 us	
	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	0.05% of rg.
	Accuracy(avg)	0.02% of rg.
	Resolution	6 μ A
	shunt	1 Ω
Range 3: 0 ... ± 35 mA	Accuracy	0.05% of rg.
	Accuracy(avg)	0.02% of rg.
	Resolution	0.3 μ A
	shunt	22 Ω
Range 1: 0 ... ± 10 A	Accuracy	0.05% of rg.
	Accuracy(avg)	0.02% of rg.
	Resolution	1.5mA
	shunt	5m Ω
Range 4: 0 ... ± 82 μ A	Accuracy	0.05% of rg.
	Accuracy(avg)	0.02% of rg.
	Resolution	6 nA
	shunt	3 K Ω
Recording	Sampling Rate	12.5 us
Protection	Detection	Over current
	Setting	Software Controlled: Time , Enable
	Type	Test off, Change to open circuit
Galvanic Isolation	1 Group	
LED	RGB (16 Million Color)	

Protocol AMT205

IEC 61850	Goose Message	yes
	SV, IRGB	yes

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	0.05% of rg.
	Accuracy(avg)	0.02% of rg.
	Resolution	3 μ V
	Impedance	54.7826 K Ω
Range 2: 0 ... ± 60 mV(Peak)	Accuracy	0.05% of rg.
	Accuracy(avg)	0.02% of rg.
	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
	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 : 1200V , 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

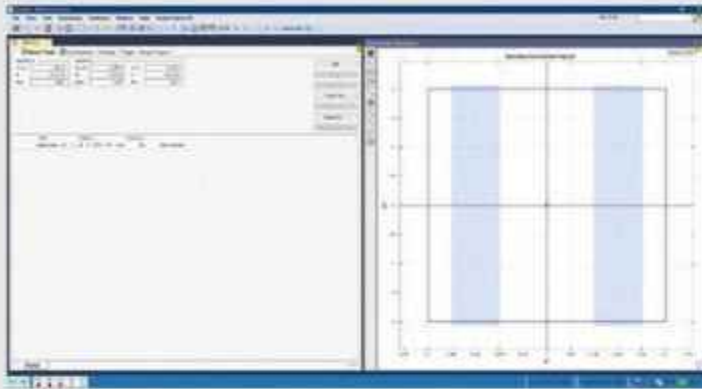
Physical Characteristic AMT205

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

Relay Tester AMT205



AMT Synchronizer



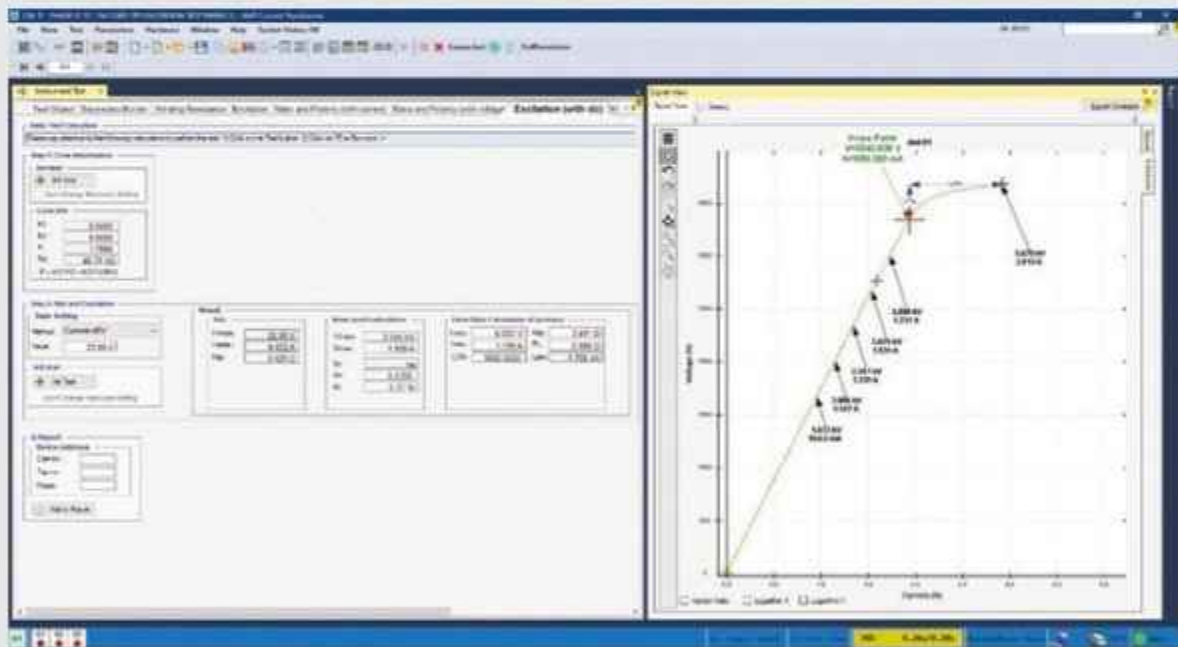
VCC

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

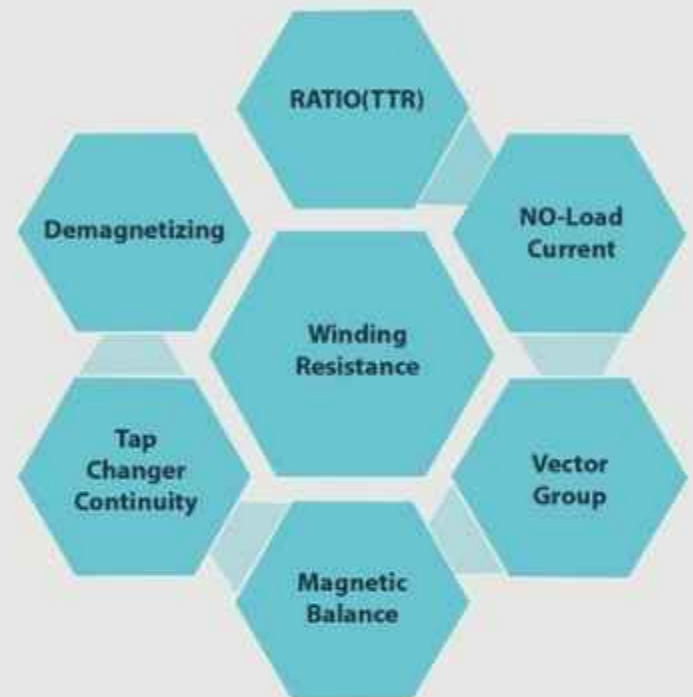
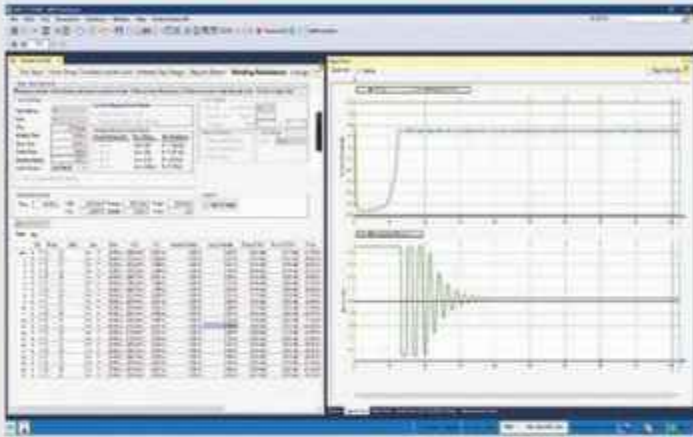
Ratio using
current or
voltage

Hysteresis
curve

Excitation
(Saturation)

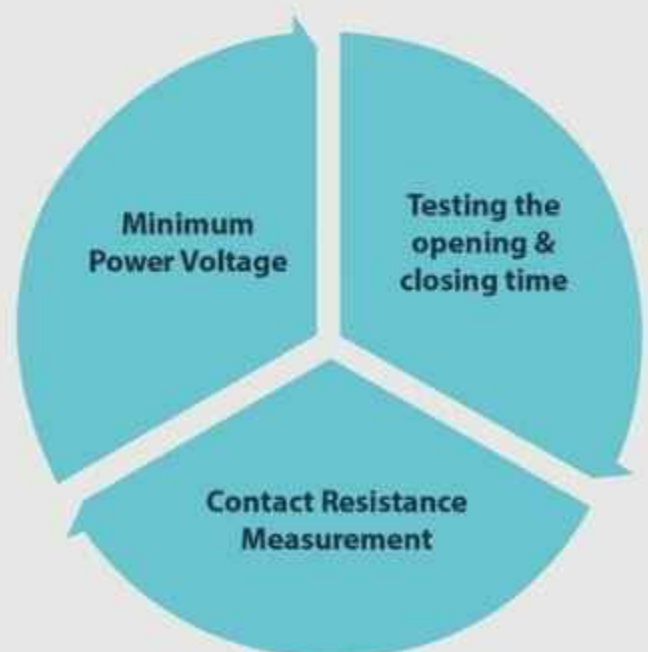
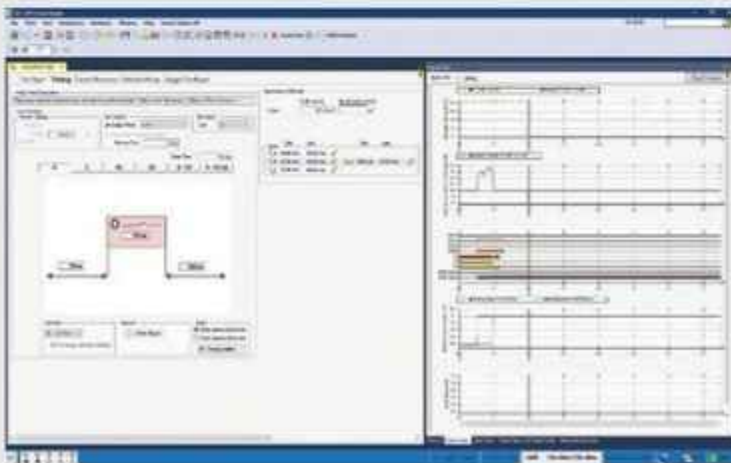
Transformer

Used to perform different transformer tests



Circuit Breaker

Used to MV & HV circuit breaker tests.



Relay Tester AMT205



Standard Accessories

1



AMT 205 Relay Tester

Part Description	AMT 205 Relay Tester
Weight	14 Kg
Part Code	AMT1003
Qty	1.00

2



Suitcase

Part Description	Suitcase
Part Code	AMT1001
Qty	1.00

3



Serial Dongle

Part Description	Serial Dongle
Part Code	AMT1020
Qty	1.00

4



Combination Cable

Part Description	Combination Cable
Part Code	AMT1004
Qty	1.00

5



Lead Cable

Part Description	Lead Cable
Part Code	AMT1005
Qty	5.00

6



Power Cable

Part Description	Power Cable
Part Code	AMT1006
Qty	1.00

7



Ethernet Cable

Part Description	Ethernet Cable
Part Code	AMT1007
Qty	1.00

8



Ground Cable

Part Description	Ground Cable
Part Code	AMT1008
Qty	1.00

9



**Flexible Terminal Adapters
2.5 cm, 4 mm, 32 A**

Part Description	Flexible Terminal Adapters 2.5 cm, 4 mm, 32 A
Part Code	AMT1009
Qty	12.00

10



Cable Lug Adapter 4 mm

Part Description	Cable Lug Adapter 4 mm
Part Code	AMT1010
Qty	12.00

11



**Flexible Test Lead Adapters
with retractable sleeves
4 mm safety plugs 10 cm long, 320 A**

Part Description	Flexible Test Lead Adapters with retractable sleeves 4 mm safety plugs 10 cm long, 320 A
Part Code	AMT1011
Qty	4.00

12



**Crocodile Clips to
contacting pins or Screw Bolts**

Part Description	Crocodile Clips to contacting pins or Screw Bolts
Part Code	AMT1012
Qty	4.00

Optional Accessories

1



Luggage Cover

Part Description	Luggage Cover
Part Code	AMT1024
Qty	1.00

2



Transformer Test Clamp

Part Description	Transformer Test Clamp
Part Code	AMT1016
Qty	8.00

3



Clamp Cover

Part Description	Clamp Cover
Part Code	AMT1028
Qty	8.00

4



Transformer Test Cable

Part Description	Transformer Test Cable
Part Code	AMT1015
Qty	3.00

5



Shoulder Bag

Part Description	Shoulder Bag
Part Code	AMT1002
Qty	1.00

6



Capacitor Box

Part Description	Capacitor Box
Part Code	AMT1019
Qty	1.00

7



Programming USB cable

Part Description	Programming USB cable
Part Code	AMT1026
Qty	1.00

8



**Flexible test lead adaptive with
retractable sleeves 4 mm,
safety plugs 10 cm long, 320 A**

Part Description	Flexible test lead adaptive with retractable sleeves 4 mm, safety plugs 10 cm long, 320 A
Part Code	AMT1014
Qty	4.00

9



**Cable ties (Velcro fastener)
Black, 15 cm long**

Part Description	Cable ties (Velcro fastener) Black, 15 cm long
Part Code	AMT1013
Qty	5.00

10



**Optical Sensor for
testing meter**

Part Description	Optical Sensor for testing meter
Part Code	AMT1018
Qty	1.00

11



Screwdriver

Part Description	Screwdriver
Part Code	AMT1023
Qty	1.00

12



GPS Antenna

Part Description	GPS Antenna
Part Code	AMT1017
Qty	1.00

13



Bag A

Part Description	Bag A
Part Code	AMT1025
Qty	1.00

14



Trans Cable Holder

Part Description	Trans Cable Holder
Part Code	AMT1021
Qty	16.00

15



Backpack Trans

Part Description	Backpack Trans
Part Code	AMT1023
Qty	1.00

Relay Tester AMT205



Clients



and many more...

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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