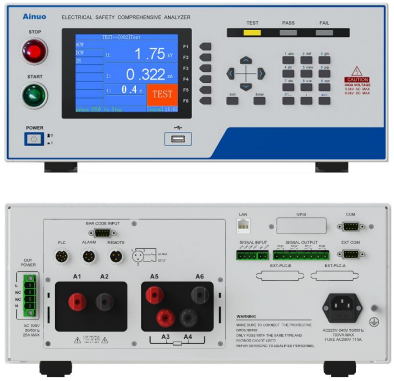
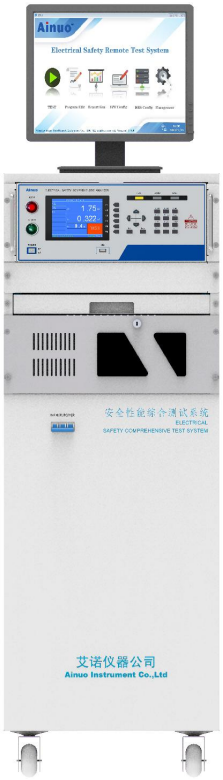
AN9640H(F)/AN9651H(F) Efficient Electrical Safety Comprehensive Tester

※ 7-in-1: ACW/DCW/IR/GB/LC/PW/ST
※ High precision: 1% accuracy for safety comprehensive analyzer, 0.2% accuracy for power
※ High speed: GB and ACW/DCW/IR in parallel, up to 0.5s step fast test
※ Informatization: Optional ESRS for storage, barcode recognition, MES connection





Product Introduction

This Ainuo AN9640H(F)/AN9651H(F)/AN9651H-C(F) electrical safety comprehensive tester features high speed, high accuracy and informatization, suitable for lines of intelligent manufacturing with fast-pace, hybrid, automation, informatization and MES management.

In addition to seven-in-one testing, this series of products has rich optional functions for sub-sectors, including automatic multi-stage power judgment, smart lamp switching test, LN phase sequence detection, LN detection, 64A ground bond resistance test, 500W/6kW/10kW testing power supply, U.S. standard testing power supply, leakage/power uninterruptible power supply test, etc.

This series of products can meet the safety standard testing requirements of various electrical products such as household appliances, energy-saving lamps, medical equipment, information equipment, audio and video equipment, laboratory equipment, and charging piles.

PC ESRS system, with barcode scanning interface to automatically identify the product barcode and specifications, automatically call the test program, scan the code and start automatically, and pack and store the test data.

PC ESRS system, with local storage of test data, data query, statistics and export; real-time transmission of test data, active upload, query upload, breakpoint resume, etc.; downloading test programs from the server.

Optional connection with MES through WIFI, LAN, RS232 and other interfaces, connection with intermediate table of Sql Server, Oracle, Mysql and other database, Modbus TCP connection, Web Api interface for connection, as well as connection with local TXT and Access database.

Features

★ High reliability

- ※ 13 draft units who participated in drafting of national standards and verification regulations for safety comprehensive tester;
- ※ 30 years of experience on safety testing expertise and understanding of customer needs;
- ※ Strict electromagnetic environment, load conditions, endurance test verification;
- ※ Electric shock protection, arc detection, open circuit detection, slow rise and down;
- ※ 1% accuracy for safety comprehensive tester, 0.2% accuracy for power.

★ High speed

- ※ Fast measurement and control: 0.5s step fast test, self-starting of first item after GB;
- ※ Parallel test: GB and ACW/DCW/IR in parallel, time-saving.

★ Intelligent

- ※ Intelligent system: PC ESRS system;
- ※ Barcode management: barcode scanning and recognition, program matching, scan to start;
- ※ Data management: test data storage, query, export, program file copy;
- ※ Connection with MES: LAN\WIFI interface, MES connection for various database.

Specifications

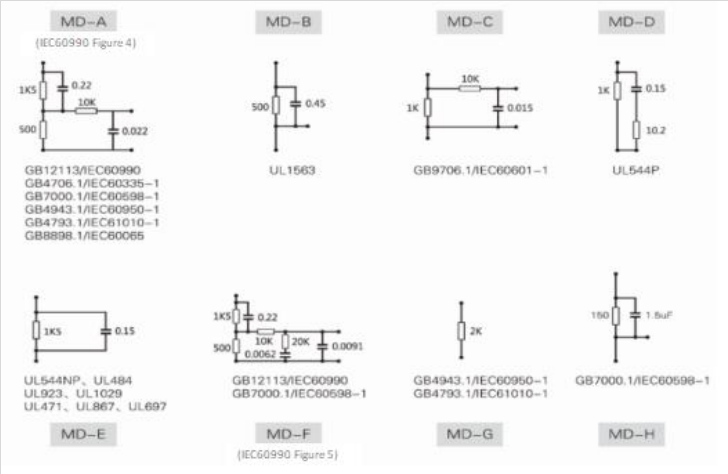
Model	AN9640H(F)	AN9651H(F)	AN9651H-C(F)
AC withstand voltage (ACW)	5kVac/100mA		
DC withstand voltage (DCW)	6kVdc/10mA		
Insulation resistance (IR)	2.5kVdc/50GΩ		
Ground bond resistance (GB)	32Aac/600mΩ（optional 64A）		
Leakage current (LC)	300V/20A, MD-A (IEC60990 Figure 4, 8 MDs optional), RMS/peak measurement		
Power test (PW)	300V/20A/6kW		
Start-up test (ST)	300V/20A		

Parallel	GB and ACW/DCW/IR in parallel		
Interface	5.5" color LCD, RS232/PLC/USB		PC ESRS system
Load power supply	Optional built-in 500VA variable frequency power supply	Built-in 6kVA variable frequency power supply (optional 10kVAvariable frequency power supply)	
Dimensions	426*177*550 (W×H×D, mm)	483*1355*600 (W×H×D, mm)	483*1355*600 (W×H×D, mm) Note: The height does not include the display at the top of cabinet

Specifications Details (subject to the final confirmation of the technical specification)

Function			Technical indicator
AC withstand voltage test	Rated output capacity		500VA（5000V/100mA, short circuit 200mA）
	Output voltage	Range/Accuracy	Range:(100~5000)V, Resolution:1V, Allowable error:±(1%×setting value+5V)
	Output frequency	Range/Accuracy	50Hz/60Hz, Allowable error:±0.1Hz
	Alarm current setting	Upper limit range/Allowable error	Range:(0.00~ 100.0)mA, Resolution:0.01mA, Allowable error:±(1%×reading value+5 counts)
		Lower limit range/Allowable error	Range:(0.000~9.999)mA, Resolution:0.001mA, Allowable error:±(1%×reading value+5 counts)
	Time setting	Range of testing time	Range:0,(0.5~999.9)s, 0 is infinite, Resolution:0.1s, Allowable error:±(0.1%× setting value+2 counts)
		Range of ramp-up time	Range:0,(0.1~999.9)s, 0 is off, Resolution:0.1s, Allowable error:±(0.1%×setting value+2 counts)
		Range of ramp-down time	Range:0,(0.1~999.9)s, 0 is off, Resolution:0.1s, Allowable error:±(0.1%×setting value+2 counts)
	Arc detection		Level 1~9 (9: highest level), 0 is off.
DC withstand voltage test	Rated output capacity		60VA(6000Vdc/10mA)
	Output voltage	Range/Allowable error	Range:(100~6000)VDC, Resolution:1V, Allowable error:±(1%×setting value+5V)
	Alarm current setting	Upper limit range/Allowable error	Range:(0.0~10000)μA, Resolution:0.1μA/1μA, Allowable error:±(1%×reading value+5 counts)
		Lower limit range/Allowable error	Range:(0.0-999.9)μA, Resolution:0.1μA, Allowable error:±(1%xreading value+5 counts)
	Time setting	Range of testing time	Range:0,(0.5~999.9)s, 0 is infinite, Resolution:0.1s, Allowable error:±(0.1%× setting value+2 counts)

		Range of ramp-up time	Range:0,(0.4~999.9)s, 0 is off, Resolution:0.1s, Allowable error:±(0.1%×setting value+2 counts)
		Range of ramp-down time	Range:0,(1~999.9)s, 0 is off, Resolution:0.1s, Allowable error:±(0.1%×setting value+2 counts)
	Arc detection		Level 1~9 (9: highest level), 0 is off.
Insulation resistance test	Rated output capacity		2500Vdc/50GΩ
	Output voltage	Range/Allowable error	Range:(100~2500)VDC, Resolution:1V, Allowable error:±(1%×setting value+5V)
	Alarm resistance setting	Range of upper/lower limit	Range:0.10MΩ~50000MΩ, the upper limit includes no upper setting
		Allowable error	100~499V:0.10MΩ~999.99MΩ, 1000~2000MΩ,±(5%×reading value+2 counts) 500~2500V:0.10~999.99MΩ,±(2%×reading value+2 counts) 1000~9999MΩ,±(5%×reading value+2 counts) 10000~50000MΩ,±(15%×reading value+2 counts)
	Time setting	Range of delay time	Range:0,(0.5~999.9)s, 0 is infinite, Resolution:0.1s, Allowable error:±(0.1%×setting value+2 counts)
		Range of ramp-up time	Range:0,(0.1~999.9)s, 0 is off, Resolution:0.1s, Allowable error:±(0.1%×setting value+2 counts)
		Range of ramp-down time	Range:0,(1.0~999.9)s, 0 is off, Resolution:0.1s, Allowable error:±(0.1%×setting value+2 counts)
Ground bond resistance test	Rated output		Maximum output current 32A, maximum test resistance 600mΩ, open circuit voltage <12V
	Output current setting	Range/Allowable error	Range:(2.0A-32.0A)AC, Resolution:0.1A, Allowable error:±(1%×setting value+2 counts)
	Output voltage setting	Range/Allowable error	Range:(3.0~10.0) V AC, Resolution:0.1V, Allowable error:±(1%×setting value+2 counts), in the open circuit case
	Output frequency setting	Range/Allowable error	50Hz/60Hz, Allowable error:±0.1Hz
	Alarm limit setting	Range of resistance upper/lower limit	3 A≤output current≤10A：0.1 ~ 600 mΩ 11A≤output current≤32A：0.1-R，R = 6400/setting current value （mΩ） Resolution:0.1/1mΩ
		Allowable error	<100mΩ,±(1%×reading value+1mΩ)；≥100mΩ,±(1%×reading value+2 counts)
	Test time setting	Range/Allowable error	Range:0,(0.5-999.9)s, 0 is infinite, Resolution:0.1s, Allowable error:±(0.1%×setting value+2 counts)

Leakage current/ Touch current test	Load power supply	Single-phase power supply, Desktop analyzer: external isolation power supply or optional built-in 500W power supply is required, Cabinet-type analyzer: built-in 6kw power supply or other power supplies.
	Load current	Upper limit:20A
	Test method	G-Single-phase load, leakage current at operating temperature (dynamic) and leakage current at non-operating temperature (static), G-L、G-N、AUTO(G-L、G-N) switch setting.
	State of operating power supply	Polarity: on, off, automatic; neutral: on, off; ground: on, off
	Built-in 8 human MD networks: Standard MD-A network, IEC60990 Figure 4; other networks optional	
	Touch current/Leakage current upper/lower limit setting (effective value)	Range:0.0μA~12.00mA,Resolution:0.1μA/1μA/0.01mA; Allowable error:DC, 15Hz≤f≤100kHz:±(1.5%×reading value+10 counts) 100kHz<f≤1000kHz:±5%×reading value
	Touch current/Leakage current upper/lower limit setting (peak)	Upper/lower range:0.0μA~18.00mA, Resolution:0.1μA/1μA/0.01mA Allowable error:DC:±(2%×setting value+2μA), 15Hz<f≤1000kHz:±(10%×reading value+2μA)
	Test time	Range:0,(1~999.9), 0 is infinite, Resolution:0.1s, Allowable error:±(0.1%×setting value+2 counts),(when test method is AUTO(G-L、G-N),each gets half time)
Power parameter measurement	Alarm function	You can choose to set power, voltage or current
	Power upper/lower limit setting (the actual upper limit is determined by the power of the power supply)	Range:0.00W~6000W; Resolution： 0.01W/0.1W/1W Allowable error:PF>0.5:±(0.1%×reading value+0.1%×measuring range)； PF≤0.5:±(0.4%×reading value+0.1%×measuring range)
	Voltage upper/lower limit setting	Range:0.00V~300.0V, Resolution:0.01V/0.1V; Allowable error:±(0.1%×reading value+0.1%×measuring range),45Hz≤f≤

		65Hz
	Current upper/lower limit setting (the actual upper limit is determined by the power of the power supply)	Range:0.010A-0.999A, 1.000A-4.999A, 5.00A-20.00A; Resolution:0.001A、0.01A, Allowable error:±(0.1%×reading value+0.1%×measuring range),45Hz≤f≤65Hz
	Test time	Range:0,(0.5-999.9)s, 0 is infinite, Resolution:0.1s, Allowable error:±(0.1%×setting value+2 counts)
Low voltage starting test	Current upper/lower limit setting (the actual upper limit is determined by the power of the power supply)	Range:0.010A-0.999A, 1.000A-4.999A, 5.00A-20.00A; Resolution:0.001A、0.01A Allowable error:±(0.1%×reading value+0.1%×measuring range),45Hz≤f≤65Hz
	Voltage measurement	Range:10.00-300.0V, crest factor:≤1.6, Resolution:0.01V/0.1V; Allowable error:±(0.1%×reading value+0.1%×measuring range),45Hz≤f≤65Hz
	Current measurement (the actual upper limit is determined by the power of the power supply)	Range:0.010A-0.999A, 1.000A-4.999A, 5.00A-20.00A, crest factor:≤1.6 Resolution:0.001A、0.01A Allowable error:±(0.1%×reading value+0.1%×measuring range),45Hz≤f≤65Hz
	Test time	Range:0,(0.5-999.9)s, 0 is infinite, Resolution:0.1s, Allowable error:±(0.1%×setting value+2 counts)
Interface	Communication interface	RS232（optional RS485）、USB
	Control interface	PLC interface, alarm light interface, remote control interface, I/O interface
Accessories	Standard accessories	Safety test box, ground bond test clip, three-color alarm light, remote control foot switch, power cord
Dimensions	AN9640H	426*177*550（W×H×D，mm）
	AN9651H\AN9651H-C	483*1355*600（W×H×D，mm）(excluding external monitor height, optional monitor built-in cabinet)