

AN9640(F)/AN9651(F) Electrical Safety Comprehensive Tester

- ※ Six-in-one: ACW/IR/GB/LC/PW/ST
- ※ High stability: 1.5% accuracy for safety comprehensive tester, 0.5% accuracy for power
- ※ High reliability: industry classic, best-selling for 30 years



Product Introduction

This Ainuo AN9640B(F)/AN9651B(F)/AN9651F(F) series electrical safety comprehensive tester is a typical safety analyzer in the industry, and has been sold well at home and abroad for nearly 30 years. This product keeps pace with the times in terms of functions and performance, and is continuously improved to meet the requirements of change of electrical product safety standards and changes of safety compliance testing requirements of production lines.

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

Features

- ※ Classic functions: AC withstand voltage, insulation resistance, ground bond resistance, leakage current, power parameters, starting performance.
- ※ Fast test: One station, one-key start, and complete full-function testing quickly.
- ※ Regulations: 500VA AC withstand voltage (AC 5kV/100mA), 200mA or higher short-circuit current, optional thermal withstand voltage, up to 32A ground bond resistance test current,

and 12V or lower open circuit voltage; leakage current testing under operating/non-operating temperature, standard GB/T12113 Figure 4 Human Body Simulation Network (MD).

Specifications

Model	AN9640B(F)	AN9651B(F)	AN9651F(F)
AC withstand voltage (ACW)	5kVac/100mA		
Insulation resistance (IR)	1kVdc/2000MΩ		
Ground bond resistance (GB)	32Aac/600mΩ		
Leakage current (LC)	300V/20A, MD-A(IEC60990 Figure 4), RMS		
Power test (PW)	300V/20A/6kW		
Start-up test (ST))	300V/20A		
Interface	5.5" LCD, RS232/PLC		
Load power supply	With external isolated power supply	Built-in 6kVA isolation transformer	Built-in 6kVA variable frequency power supply
Dimensions (W*H*D,mm)	426 * 178* 600	530 * 1105* 460	483 * 1355* 600

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

AC withstand voltage test		
Rated capacity		500VA (5000V/100mA) , short circuit current>200mA
Output voltage waveform, distortion, adjustment rate		Sine wave, <3% (pure resistance, 5000V/1mA) , <3%
Output voltage setting	Range	500 ~ 5000V (automatic testing is optional)
	Resolution/Accuracy	5V, ± (1.5%×setting value+2V)
Voltage frequency setting	Range/Accuracy	50Hz or 60Hz, ±0.1%×setting value
Alarming limits setting	Current upper limit range	0.10 ~ 99.99mA
	Current lower limit range	0.00 ~ 10.00mA
Compensation current setting	Range	0.00 ~ 10.00mA, automatic testing, compensation can be set to ON/OFF
Time setting	Test time range	1 ~ 999s
	Ramp up time range	1 ~ 100s
	Accuracy	± (0.1%×setting value+1 count)
Breakdown current measurement	Range/Accuracy	0.10 ~ 99.99mA, ± (1.5%×reading value+3 counts)
Insulation resistance test		
Rated capacity		2VA (1000V/2mA)
Output voltage adjustment rate, voltage ripple		<3% (from no load to full load) , <1%
Output voltage setting	Range/Accuracy	DC 500V or 1000V, ± (1.5%×setting value+3 counts)

Alarming limits	Resistance upper limit range	0.0 ~ 99.9 M Ω , 100 ~ 2000M Ω (Upper limit is set to 0, it will not make adjudgment for upper limit)
	Resistance lower limit range	0.3 ~ 99.9 M Ω , 100 ~ 2000M Ω
Time setting	Range/Accuracy	1 ~ 999s, \pm (0.1% \times setting value+1 count)
Insulation resistance measurement	Range	0.0 ~ 99.9 M Ω , 100 ~ 2000 M Ω
	Accuracy	$\leq 200\text{M}\Omega$: \pm (2% \times reading value+2 counts) > 200M Ω : \pm (5% \times reading value+2 counts)
Ground bond resistance test		
No load output voltage		<12V
Output current setting	Range/Accuracy	3 ~ 32A, \pm (1.5% \times setting value+0.2A)
Current frequency setting	Range/Accuracy	Sine wave 50Hz or 60Hz, $\pm 0.1\%$ \times setting value
Test time setting	Range	1 ~ 999s
	Accuracy	\pm (0.1% \times setting value+1 count)
Ground bond resistance test display mode		Ground bond resistance or ground bond voltage
Ground bond resistance display mode:		
Alarming limits setting	Resistance upper limit range	3A \leq output current \leq 10A: 10 ~ 600 m Ω 11A \leq output current \leq 25A: 10 ~ 300 m Ω 26A \leq output current \leq 32A: 10 ~ 200 m Ω
	Resistance lower limit range	0 ~ 100 m Ω
Compensation resistance setting	Range	0 ~ 200 m Ω , automatic testing, compensation can be set to ON/OFF
Ground bond resistance measurement	Range/Accuracy	10 ~ 600 m Ω , \pm (1.5% \times reading value+ 2 m Ω)
Ground bond voltage display mode:		
Alarming limits setting	Voltage upper limit range	30 ~ 7500 mV
	Voltage lower limit range	0 ~ 3000 mV
Compensation voltage setting	Range	0 ~ 1000 mV, automatic testing, compensation can be set to ON/OFF
Ground bond resistance measurement	Range/Accuracy	10 ~ 7500 mV, \pm (1.5% \times reading value+ 20mV)
Leakage current test		
Leakage current test type		Single-phase load, leakage current at operating temperature (dynamic) and leakage current at non-operating temperature (static)
MD network selection		Standard GB/T 12113 Figure 4
Alarming limits setting	Current upper limit range	0.050 ~ 9.999mA
	Current lower limit range	0.000 ~ 5.000mA
Leakage current	Range	0.000 ~ 1.000mA, automatic testing, compensation can be set to

compensation setting		ON/OFF
Test time setting	Range/Accuracy	1 ~ 999s, $\pm (0.1\% \times \text{setting value} + 1 \text{ count})$
Leakage current measurement	Range	0.050 ~ 9.999mA
	Accuracy	DC ~ 10kHz: $\pm (1.5\% \times \text{reading value} + 0.010\text{mA})$ 10k ~ 1MHz: $\pm (5\% \times \text{reading value} + 0.050\text{mA})$
Output voltage measurement	Range/Accuracy	60 ~ 280V (phase voltage), $\pm (0.5\% \times \text{reading value} + 2 \text{ counts})$
Power test		
Alarming limits setting	Power upper limit range	6 ~ 6000W
	Power lower limit range	0 ~ 6000W
Test time setting	Range/Accuracy	1 ~ 999s, $\pm (0.1\% \times \text{setting value} + 1 \text{ count})$
Voltage test	Range/Accuracy	60 ~ 280V (phase voltage), $\pm (0.5\% \times \text{reading value} + 2 \text{ counts})$
Current test	Range/Accuracy	0.030 ~ 3.999A, 4.00 ~ 25.00A, $\pm (0.5\% \times \text{reading value} + 2 \text{ 个字})$
Active power measurement	Range/Accuracy	30.0 ~ 199.9W, $\pm (0.5\% \times \text{reading value} + 5\text{W})$
		200 ~ 6000W, $\pm (0.5\% \times \text{reading value} + 30\text{W})$
Power-factor measurement	Range/Accuracy	0.10 ~ 1.00, $\pm (2\% \times \text{reading value} + 2 \text{ counts})$
Start test		
Alarming limits setting	Current upper limit range	0.30 ~ 25.00A
	Current lower limit range	0.00 ~ 25.00A
Test time setting	Range/Accuracy	1 ~ 999s, $\pm (0.1\% \times \text{setting value} + 1 \text{ count})$
Voltage test	Range/Accuracy	60 ~ 280V (phase voltage), $\pm (0.5\% \times \text{reading value} + 2 \text{ counts})$
Current test	Range/Accuracy	0.030 ~ 3.99A, 4.00 ~ 25.00A, $\pm (0.5\% \times \text{reading value} + 2 \text{ counts})$
DUT power control		
AN9651B(F) built-in isolation transformer		
Isolation transformer input voltage, frequency		According input voltage and frequency
Isolation transformer output voltage ratio	Leakage current test	1.06 times rated voltage
	Running power test	1.00 times rated voltage
	Low voltage test	0.85 times rated voltage
Isolation transformer capacity		Single-phase rated capacity is 6000VA
Isolation transformer voltage regulation		3% (from no load to full load)
Over current protection		Max current 30A, after the over current 5s, automatically cut off the isolation transform
AN9651F(F) built-in frequency conversion power supply		
Max output capacity		6000VA
Output voltage distortion		1%@ 47-63Hz
Output voltage stability		1%
Programmable output voltage	Range	0-300V
	Accuracy	0.5%RD+0.5%F.S.

Programmable output frequency	Range	47-63Hz
	Stability	0.1%
Max output current	0-300V	220V and below, max 27A, over 220V, is calculated according to the power of 6000W
Interface		
Remote interface		Standard, foot pedal (start)
Alarming lamp interface		Standard, three-color light (test/pass/fail)
Communication interface		Standard RS232, optional RS485, internet, GPIB, etc.
PLC interface		Optional, start/stop/test/pass/fail output
Dimensions (mm, without packaging)	AN9651F(F)	483(W) * 1355(H) * 600(D)
	AN9651B(F)	530(W) * 1105(H) * 460(D)
	AN9640B(F)	426(W) * 178(H) * 600(D)