

## Electrical Safety Comprehensive tester

### Desktop Safety Comprehensive tester

AN9640A(F)/AN9640B(F)



AN9640A(F)



AN9640B(F)

### Main features

- ★ **Fullfill Latest international standard:** 500VA AC Hipot capacity (AC 5kV/100mA), short-circuit output current up to 200mA. Built-in optional leakage current test network MD card, meeting requirements of different industrial standards . Maximum test current of ground bond is up to 64A, optional ground bond resistance or voltage test mode. Comply with CCC, IEC, EN, VDE, BS, UL, JIS standard requirements.
- ★ **Up to 6 functions:** AC Hipot, Insulation Resistance, Ground Bond, leakage current, running power, low-voltage start, flexibly configured for different models.
- ★ **Intelligent operation:** 15 groups of test memories, 7-step programming for each group, button start. External programmable power supply, auto-configuration of power voltage/frequency for the DUT (Device under test) .
- ★ **Auto control:** standard RS232, Optional RS485/GPIB/LAN interface, AN97 power supply interface, Remote interface, easily compose automation system.
- ★ **Information management:** optional software (ESRS), realizing test process and data management, improving product quality and production management level.
- ★ **Simplified operation:** LED backlit screen display, menu operation, Chinese/English, socket test fixture.

### Order information and extended functions

- ★ AN9640A(F): 6 in 1, external AN97 series power supply is required for leakage/power/start test. Safety capacity 500VA
- ★ AN9640B(F): 5 in 1, external AN97 series power supply is required for leakage/power test.

### Type function

Model	Withstand voltage ACW	Insulation Resistance IR	Ground Bond GB	Leakage LC	Power PWR	Start	Isolated power supply
AN9640A(F)	5kV/100mA	Yes	Yes	Yes	6kVA	Yes	Optional, External
AN9640B(F)	5kV/20mA	Yes	Yes	Yes	2kVA	-	Optional, External

Spec.

AC Hipot test	Booster rated	AN9640A(F)	500VA (5000V/100mA)	
	output capacity	AN9640B(F)	100VA (5000V/20mA)	
	Booster maximum short-circuit current		>200mA	
	Output waveform distortion and regulation		Sine wave, <3%(pure resistance, 5000V/1mA), <3%(From empty load to full load)	
	Output voltage setting	Range		500~5000V
		Resolution		5V
		Accuracy		± (3%×setting+10V)
	Output voltage frequency setting	Range		50Hz/60Hz
		Accuracy		±0.1%×setting
	Alarming limits setting	Current upper-limit		0.10~99.99mA(20.00mA for AN9640B/C(F))
		Current lower-limit		0.00~10.00mA
	Compensation current setting	Range		0.00~10.00mA, automatic testing, compensation can be set to ON/OFF
	Time setting	Range		1~999s
Ramp up time range			1~100s	
Accuracy			± (0.1%×setting+1 count)	
Breakdown current measurement	Range		0.10~99.99mA(20.00mA for AN9640B/C(F))	
	Accuracy		± (3%×reading+3 counts)	
Insulation Resistance test	Rated output capacity		2VA (1000V/2mA)	
	Output voltage regulation		<3% (From no load to full load)	
	Output voltage ripple		<1%	
	Output voltage setting	Range		DC 500V or 1000V
		Accuracy		± (3%×setting+3 counts)
	Alarming limits setting	Resistance upper-limit range		0.0~99.9 MΩ, 100~2000MΩ (If upper-limit is set to 0, it will not make judgment for upper limit)
		Resistance lower-limit range		0.3~99.9 MΩ, 100~2000MΩ
	Time setting	Range		1~999s
		Accuracy		± (0.1%×setting+1 count)
	Insulation resistance measurement	Range		0.0~99.9 MΩ, 100~2000 MΩ
Accuracy			≤200MΩ: ± (3%×reading+3 counts) >200MΩ: ± (8%×reading+8 counts)	
Remarks: Except 500V and 1000V voltage points, other voltage accuracy are all 10%. Insulation resistance accuracy is under temperature 0~40℃, humidity 40℃/ (20~75) % RH, otherwise the accuracy will change.				
Ground Bond Resistance test	No load output voltage		<12V	
	Output current setting	Range		3~30A
		Accuracy		± (3%×setting+0.2A)
	Current frequency setting	Range		Sine waveform 50Hz/60Hz
		Accuracy		±0.1%×setting
	Test time setting	Range		1~999s
		Accuracy		± (0.1%×setting+1 count)
	Result display mode			Ground resistance or voltage
	Ground resistance display mode			
	Alarming limits setting	Resistance upper-limit range		3A≤output current≤10A:10~600 mΩ 11A≤output current≤25A:10~300 mΩ 26A≤output current≤30A:10~200 mΩ
		Resistance lower-limit range		0~100 mΩ
	Compensation resistance setting	Range		0~200 mΩ, automatic testing, compensation can be set to ON/OFF
	Ground bond resistance measurement	Range		10~600 mΩ
		Accuracy		± (3%×reading+ 5 counts)
	Ground 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	
GB resistance measurement	Range		10~7500 mV	
	Accuracy		±(3%×reading+ 50mV)	

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## Spec.

Leakage Current test Only for AN9640A(F)/AN9640B(F)	Leakage current test type setting		Single phase load, static/dynamic leakage current
	MD network selection		Standard IEC 60335-1 figure 4 network
	Alarming limits Setting	Current upper-limit range	0.050~9.999mA
		Current lower-limit range	0.000~5.000mA
	Leakage current compensation setting	Range	0.000~1.000mA, automatic testing, compensation can be set to ON/OFF
		Test time setting	Range Accuracy
	Leakage current measurement	Range	0.050~9.999mA
		Accuracy	DC~10kHz: $\pm (3\% \times \text{reading} + 0.010\text{mA})$ 10k~1MHz: $\pm (5\% \times \text{reading} + 0.050\text{mA})$
Output voltage measurement	Range	60~280V (phase voltage)	
	Accuracy	$\pm (0.5\% \times \text{reading} + 2 \text{ counts})$	
Running Power Only for AN9640A(F)/AN9640B(F)	Alarming limits setting	Power upper-limit range	6~6000W
		Power lower-limit range	0~6000W
	Test time setting	Range	1~999s
		Accuracy	$\pm (0.1\% \times \text{setting} + 1 \text{ count})$
	Voltage measurement	Range	60~280V (phase voltage)
		Accuracy	$\pm (0.5\% \times \text{reading} + 2 \text{ counts})$
	Current measurement	Range	0.030~3.999A, 4.00~25.00A
		Accuracy	$\pm (0.5\% \times \text{reading} + 2 \text{ counts})$
Active power measurement	Range	30.0~199.9W: $\pm (0.5\% \times \text{reading} + 5\text{W})$	
	Accuracy	200~6000W(or2000W): $\pm (0.5\% \times \text{reading} + 30\text{W})$	
Power-factor measurement	Range	0.10~1.00	
	Accuracy	$\pm (2\% \times \text{reading} + 2 \text{ counts})$	
Voltage Start Only for AN9640A(F)	Alarming limits setting	Current upper-limit range	0.30~25.00A
		Current lower-limit range	0.00~25.00A
	Test time setting	Range	1~999s
		Accuracy	$\pm (0.1\% \times \text{setting} + 0.05\text{s})$
	Voltage measurement	Range	60~280V (phase voltage)
		Accuracy	$\pm (0.5\% \times \text{reading} + 2 \text{ counts})$
Current measurement	Range	0.030~3.99A, 4.00~25.00A	
	Accuracy	$\pm (0.5\% \times \text{reading} + 2 \text{ counts})$	
DUT power control	DUT input power requirements		Leakage current, running power and voltage start test, user shall provide the correct input power input to safety tester, recommend to use AN97 frequency conversion power supply
	Input voltage, frequency		0~300V (phase voltage) , 45~65Hz
	Isolation transformer output voltage ratio	Leakage current test	1.06 times rated voltage
		Running Power test	1.00 times rated voltage
		Voltage start test	0.85 times rated voltage
	DUT Capacity		Single phase, AN9640A(F) load capacity is 6 KVA AN9640B(F)/AN9640C(F) load capacity is 2KVA
Over current protection		Max current 30A, after the over current 5S, automatically cut off the isolation transformer	
Interface	Remote interface		Standard, foot pedal(start/stop)
	Alarming lamp interface		Standard, 3 color light (test/pass/fail)
	Communication interface		Standard RS232, internet, RS485, GPIB optional
	97 Power supply control interface		Standard, combine with AN97 series frequency conversion power
	PLC interface		Optional, start、stop、test、pass、fail output
	Printer interface		Optional
General specification	Operating environment		0~40℃, 40℃ / (20~75) % RH, little dust
	Storage environment		-40~60℃, 50℃ / (20~90) % RH, little dust
	Input power (DUT consumption is not included)		220V±10%, 50Hz±5%, 10A
	Power consumption (DUT consumption is not included)		100~600VA (According to working condition)
	Gross Weight		About 50kg
	Dimension (WxHxD)	With packing	600×385×820mm
Without packing		426×178×600mm	