## **KINGSINE K68 Protection Relay Test Set**



Software Features:

1. Able to test most of Relays by manual or automation: Voltage relays, Current relays, Frequency relays, Power relays, Impedance relays, Harmonic relays, Distance relays etc;

2. With self housing-grounding-detecting function, the software interface can show whether the housing well grounding or not, effectively ensure the safety of testing.

Hardware Features:

1. All-in-one design relay tester with 6.4 inches LCD display;

2.4 Phase AC Voltage source and 3 phase AC current source can be output together, even the Range, Phase, Frequency can be set independently;

3. Max AC voltage can reach 300V each phase, Offer independent Aux. DC to tested devices, 0 ~ 300V/0.6A (Poleless and adjustable);

4. Offer different type of computer port: USB port, RJ45 port, VGA Video Port , USB / RJ45 ports convenient for data transfer, VGA Video Port can connect to projector and easy for study and training;

5. Super long life Rotary encoder + Functional keyboard.

## **Technical Data of K68**

Voltage gene	erators		
Setting Range	4-phase AC (L-N)	4 x 0 130V	
	2-phase AC (L-L)	2x 0260 V	
Power	4-phase AC (L-N)	4 x70VA, at 0130 V	
	2-phase AC (L-L)	2 x 140VA, at 0260 V	
Accuracy		<0.07% reading + 0.03% range guaranteed at 0-130V <0.04% reading + 0.01% range typical at 0-130V	
Resolution		1mV	
Current gene	erators		
Setting Range	3-phase AC (L-N)	3 x 0 35 A	
	1-phase AC (3L- N)	1 x 0105 A	
Power	3-phase AC (L-N)	1x 450VA, at 0 35A	
	1-phase AC (3L- N)	1 x 1000VA, at 0105A	
Accuracy		<0.14% reading + 0.06% range guaranteed at 0-35A	
Resolution		1mA	
Generators,	general		
Frequency	Range	0 1000 Hz	
	Accuracy / drift	Error < 0.001Hz at 10 65Hz, Error < 0.01Hz at 65Hz450Hz Error < 0.02Hz at 450Hz1000Hz	
	Resolution	0.001Hz	
Phase	Range	- 360° +360°	
	Accuracy / drift	Error < 0.2 °	
	Resolution	0.1°	
Time	Range	0 999,999.999s	
	Accuracy / drift	Error<1ms	
DC generato	ors		
Voltage ranges		0 300V/180VA	
Current ranges		0 20A/300W	
Accuracy		Error <0.1% reading + 0.1% range guaranteed at 0300 V; Error <0.1% reading + 0.1% range guaranteed at	

	020 A;			
Resolution	1mA; 1 mV			
Aux DC Supply				
Range	0300V/0.6A			
Binary inputs				
Number	8 pairs			
Compatible Voltage	10V 250V DC			
Binary outputs				
Number	4 Pairs			
Capacity	250V/3A (AC/DC)			
Synchronization				
Synchronization mode	GPS			
Harmonic				
Harmonic overlap times	2 9 times			
Power supply				
Nominal input voltage	220V±20% VAC, 1-phase			
Power	1000VA			
Nominal frequency	50±10% Hz			
Environmental conditions				
Operation temperature	-5°C 55 °C			
Storage temperature	-20°C 75 °C			
Humidity range	5% 90 %, non-condensing			
Weight	20KG			
Dimensions	460(D)×140 (W)×360 (H) mm			
Interface	RJ45 , USB, VGA			

## Main Series Relay Tester List:

K68 series	K68	3x35A, 4x130V, 5 function modules,	Ethernet,	TFT LCD,	WinCE
Noo series	K68i	3x35A, 4x300V, 5 function modules,	Ethernet,	TFT LCD,	WinCE

## Major functions:

Items	IEEE(R) No.
Overcurrent relays	50/76
Inverse time overcurrent relays	51

Undercurrent relays	37
Ground fault relays	50
Directional overcurrent relays	67
Directional ground fault relays	67N
Overvoltage relays	59
Undervoltage relays	27
Directional voltage relays	91
Directional power relays	32
Power factor relays	55
Distance protection equipment (phase by phase)	21
Automatic reclosing devices	79
Tripping relays	94
Voltage regulating relays	
Overimpedance relays, Z>	
Underimpedance relays, Z	
Time-delay relays	