

KINGSINE KFA320 Mini Universal Protection Relay Test Set

The Kingsine KFA320 protection relay tester has been designed with a compact interior, similar in size to an iPad, and is powered by replaceable batteries. It weighs only 3.8 kg and offers 4x300V and 6x20A outputs. Its maximum current can reach 60A, and the output power reaches 200VA/Phase.

Additionally, the Kingsine KFA320 supports IEC61850 SV/GOOSE, LPIT simulation, energy meter testing, low-level output, and transducer calibration.

Its compact design enhances engineers' work efficiency while meeting complex testing requirements.



AC Voltage Outputs	
Source Channels	4 × 300 V ac (L-N)
pAC Voltage Output Power	35 VA max each@300V
	28 VA max each@3x300V
	23 VA max each@200V
	12 VA max each@100V
	7 VA max each@63.5V
	6.65 VA max each@57.7V
	1.1 VA max each@10V
Accuracy	<0.015%Rd+0.005%Rg Typ. <0.02%Rd+0.03%Rg Guar.
Resolution	0.001V
DC Offset	<5mV Typ. <60mV Guar.
Distortion	<0.05% Typ. / <0.1% Guar.
Rising/Falling Response	<100us
DC Voltage Outputs	
Source Channels	4
DC Voltage Output Range	0~300 V (L-N)
DC Voltage Output Power	40W Max
DC Voltage Accuracy	<0.03%Rd+0.01%Rg Typ. <0.04%Rd+0.06%Rg Guar.
Rising/Falling Response	<100us
Resolution	1mV
AC Current Outputs	
Source Channels	6
AC Current Output Range	6 x 0~20A, L-N
	3 x 0~40A, LL-N

	1 x 0~60A, LLL-N
AC Current Output Power (Max)	180VA max for 20A L-N 200VA max for >20A LL-N
AC Current Output Accuracy	<0.015%Rd+0.01%Rg Typ. <0.02%Rd+0.03%Rg Guar.
DC Offset	<1mA Typ. <2mA Guar
Distortion	<0.05% Typ. / <0.1% Guar.
Rising/Falling Response	<100us
Resolution	1mA
DC Current Outputs	
Source Channels	3
DC Current Output Range	0~10A, L-N
DC Current Output Power	145W
DC Current Accuracy	<0.03%Rd+0.01%Rg Typ. <0.04%Rd+0.06%Rg Guar.
Rising/Falling Response	<100us
Resolution	1mA
AC Frequency	
Range Sine Signals	DC, 10 ~ 1000Hz, 3000Hz transient
Output Accuracy	±5ppm
Resolution	0.001Hz
Phase	
Output Range	-360°~360°
50Hz Output Accuracy	±0.1° Typ. / <0.2° Guar.
Resolution	0.001°
Binary Input and Time Accuracy	
Binary Input Logarithm	4 pairs
Trigger Mode	Dry/Wet contact

Input Voltage Range	0V~300Vdc
Timing Accuracy	< ±1ms @ 0.001~1s < ±0.1% @ >1s
Timing Resolution	36us
Max Time Limit	infinity
Binary Output (Relay Contacts)	
Binary Output Pairs	2 pairs (DO-1 and DO-2)
Type	Potential free relay contacts, software controlled
Break Capacity AC	Vmax: 380V(AC) / Imax: 8A / Pmax: 2000VA
Break Capacity DC	Vmax: 240V(DC) / Imax: 5A / Pmax: 150W
Response Time	≤10 ms
Binary Output (Fast eSSR)	
Binary Output Pairs	2 pairs (DO-3 and DO-4)
Circuit Breaker Simulate	Can be define as Open or Close status
Break Capacity AC	Vmax : 250V(AC) / Imax: 0.2A
Break Capacity DC	Vmax : 250V(DC) / Imax: 0.5A
Response Time	<100us
Contact Performance	Open the dry contact output using opto-coupler relay, the on-resistance is ≤ 6Ω, and the shut-off withstand voltage is ≥DC300V
Time Synchronization (Time Accuracy)	
GPS / BD	Yes, <1us
IRIG-B	Yes, <1us
Power Charger	
Rated Power Supply	110~240Vac, 1-phase
Rated Input Frequency	50 Hz/60 Hz
Charger Output	>65W, compatible with QD3.0 or PD3.0, supporting single-port output of 20V × 3.25A
Inbuilt Battery	

Nominal Volume	10.8V, 2x47.52Wh (5000mAh)
Operating Temperature	Charge: 0 to 45°C (Ambient) Discharge: -20 to 60°C (Ambient)
Charge Time (0-80%)	2h
Charge Time (0-100%)	4h
Interface Port	
RJ45 Ethernet	1 port, 10/100M
USB	USB2.0 x 1
Wifi	Inbuilt 2.4GHz wifi
Operation Control	
Touch Screen & Host Control	Yes, 10.1" LCD
Basic PC Software	Support
Advance PC Software	Support
Other Information	
Weight	3.8kg
Dimensions (W x D x H)	288x185x95 (mm)