# World's Lightest relay test kit with analog O/Ps

### KFA 300 Intelligent Relay Tester



A 3 Kg versatile solutions for testing of Relays

Current Sources : 3 X 10 A Voltage Sources : 3 X 265 V Inbuilt Display & Battery







### **IDEAL FOR TESTING OF 3 PHASE NUMERICAL RELAYS**

### **KEY PARAMETER MONITORING**

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### **Technical Specifications**

Resolution

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| Voltage Outputs      |   |                        |  |  |
|----------------------|---|------------------------|--|--|
|                      |   | 22.5 VA max each@265V  |  |  |
|                      |   | 21 VA max each@200V    |  |  |
| Output Range & Power | 3×265 V ac (L-N)                          | 12.5 VA max each@100V  |  |  |
|                      |   | 7 VA max each@63.5V    |  |  |
|                      |   | 6.65 VA max each@57.7V |  |  |
|                      |   | 1.1 VA max each@10V    |  |  |
| Acouracy             | 0~1V: ±2mV                                | 0~1V: ±2mV             |  |  |
| Accuracy             | $1 \sim VMax: \pm (0.02\%Rd+0.03Rg)$ Guar |                        |  |  |
| Resolution           | 0.001V                                    |                        |  |  |
| Distortion           | <0.05%Typ. / <0.1% Guar.                  |                        |  |  |
| Current Outputs      |   |                        |  |  |
| Output Range & Power | 3×10A ac (L-N)                            | 27 VA max each@10A     |  |  |
|                      |   | 25.5 VA max each@9A    |  |  |
|                      |   | 24 VA max@8A           |  |  |
|                      |   | 17 VA max each@5A      |  |  |
|                      |   | 3.88VAmax each@1A      |  |  |
|                      | 0~0.2A: ±2mA                              |                        |  |  |
| Accuracy             | 0.2~IMax: ± (0.02%Rd+0.03Rg) Guar.        |                        |  |  |

| Frequency & Phase Angle                    |   |  |  |  |
|--|---|--|--|--|
| Frequency Range                            | DC~1KHz   |  |  |  |
| Frequency Accuracy                         | ±5ppm   |  |  |  |
| Frequency Resolution                       | 0.001 Hz  |  |  |  |
| Phase Range                                | 0°~360°   |  |  |  |
| Phase Accuracy                             | <0.1° Typ. / <0.2° Guar. 50/60Hz                              |  |  |  |
| Phase Resolution                           | 0.001°  |  |  |  |
| Aux. DC Voltage Source (Battery simulator) |   |  |  |  |
|  | 24V (0.9A) 、48V (0.6A) Switchable;                            |  |  |  |
| Range                                      | 110V or 220V output (/Option);                                |  |  |  |
|  | Other type can be customized;                                 |  |  |  |
| Accuracy                                   | 5%Rg Guar.  |  |  |  |
| Binary Input                               |   |  |  |  |
| Quantity                                   | 2pairs  |  |  |  |
| Voltage range                              | dry contact, input voltage DC 0~300V                          |  |  |  |
| Fast Binary Output                         |   |  |  |  |
| Quantity                                   | 2pairs  |  |  |  |
| Circuit Breaker Simulate                   | Can be define as Open or Close status                         |  |  |  |
|  | Open the dry contact output using opto-coupler                |  |  |  |
| Contact performance                        | relay, the on-resistance is $\leq 6\Omega$ , and the shut-off |  |  |  |
|  | withstand voltage is ≤DC350V                                  |  |  |  |
| SOE test function                          | the time error between the two outputs is $\leq 0.2$ ms,      |  |  |  |
|  | and the SOE resolution test can be performed                  |  |  |  |
| Communication                              |   |  |  |  |
| USB2.0                                     | 1 USB socket, used for software upgrade                       |  |  |  |

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| Built-in Internal Battery |  |  |  |
|---------------------------|--|--|--|
| Battery capacity          | 90WH   |  |  |
| Work time                 | standby working time is not less than 8 hours;   |  |  |
|                           | 5A current output can work for not less than 1   |  |  |
|                           | hour;  |  |  |
| Charge time               | Fast charging, charging time is less than 1 hour |  |  |
| AC/DC Charger             |  |  |  |
| Input                     | 100~240Vac 50/60Hz Max 2 5A                      |  |  |

| Ŭ                     |                              |  |
|-----------------------|------------------------------|--|
| Input                 | 100~240Vac, 50/60Hz, Max2.5A |  |
| Output                | 33.6Vdc, 5.0A (168W)         |  |
| Environment           |                              |  |
| Operating Temperature | 0°C~45°C                     |  |
| Storage Temperature   | -5°C~50°C                    |  |
| Humidity              | <85%RH, non-condensing       |  |
| Others                |                              |  |
| Grounding Terminal    | 4mm banana socket            |  |
| Weight                | Approximately 3.5kg          |  |
| Dimensions(W x D x H) | 252×95 ×185 (mm)             |  |

#### Software Function

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- 1. Manual/Auto AC test function
- 2. State Sequencer Test Function
- 3. Overcurrent Breaker Tester Function



- Control) Function
- 5. Remote Signal Test function

#### Product Feature :

- Device Size : B5 paper size, aluminum alloy case, Very small and light.
- Device Weight: 3kg ,Beautiful and light, easy to carry and use.
- Operational performance: high-FPGA,32-bit performance ARM microprocessor 1000MHz, smooth operation, 7.0-inch LED capacitive touch screen, full touch operation, non-reflective contrast, clear display for outdoor
- Equipment self-protection function: voltage output short-circuit, 0 current output
  - open-circuit, temperature 0 overheat protection.

#### **Built-in Internal Battery**

8-cell imported lithium battery, standby working time is 8 hours, 5A current output can work continuously for 1 hour; Fast charging, charging time is less than 1 hour.

#### About Us

KPM is a high quality manufacturer & provider of rugged electrical testing equipment for EHV/HV/LV substations. With world class technology collaborations, KPM solutions are known

- Best in class specifications
- Unique test approach
- Interference rejection capability

Each equipment is supported by advance service center in Gurgaon backed by a team of expert application & service engineers. KPM aims in bringing highest specification products at orstep of Indian customers in best rate

| Θ   | AC Test    |   | 1       | 4:51 | 1:43     |    |                       |
|-----|------------|---|---------|------|----------|----|-----------------------|
| UA: | 57.735     | V | 0.000   |      | 50.000   | Hz | Parameter Setting     |
| UB: | 57.735     | v | 240.000 | ) °  | 50.000   | Hz | Start: 0.000 V        |
| UC: | 57.735     | v | 120.000 | •    | 50.000   | Hz | End: 57.735 V         |
| IA: | 5.000      | А | 0.000   | °    | 50.000   | Hz | Step: 1.000 V         |
| IB: | 5.000      | А | 240.000 | •    | 50.000   | Hz | Auto Time: 1.000 s    |
| IC: | 5.000      | А | 120.000 | •    | 50.000   | Hz | Variable: UA          |
|     | Frip Value |   |         |      |          |    |                       |
|     | Trip Time  |   |         |      |          |    | TestItem: Amplitude 🗸 |
|     | urn.Coeff  |   |         |      | Calc     |    | Mode: From-to 🗸       |
|     | Run        | s | top     | [    | DI: 🕶 oʻ | C  | 00: of of + -         |

| 9   | Harmonic | 15:1       | .0:24                         |
|-----|----------|------------|-------------------------------|
|     | Order: 1 | ~ [1/5] 🕨  | Setting                       |
| UA: | 57.735   | ° 0.000 °  | Start: 0.000 V End: 57.735 V  |
| UB: | 57.735   | 240.000°   | Step: 1.000 V 🔲 From-to       |
| UC: | 57.735 V | / 120.000° | Time: 1.000 s Order: 1        |
| IA: | 5.000 A  | 0.000°     | Variable: UA Variable: VA     |
| IB: | 5.000 A  | 240.000°   | THD: • Amplitude • Percentage |
| IC: | 5.000 A  | 120.000 °  |                               |
|     |          |            | Trip Value                    |
|     | Run      | Stop       | DI: • of DO: of of + -        |

| S Fault Test | 1      | 15:21:58    |   |
|--------------|--------|-------------|---|
| Norm(U,F):   | 57.735 | V 50.000 Hz | SOE List:<br>HH:mm:ss:ff SOE event info |
| Load-I:      | 5.000  | A 0.000 °   |   |
| Fault-U:     | 30.000 | V           |   |
| Fault-I:     | 2.000  | A 0.000 °   |   |
| Max Time:    | 10.000 |             |   |
| Pre-Fault    | 10.000 | s           |   |
| Fault-DO     | ୪ ୪    |             |   |
| Trip:        |        |             |   |
|              |        |             |   |
| Run          | Stop   | DI: • o'    | DO: of of Clear SOE                     |

#### **Contact Us**

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