

KV30-40mk2 series

High Voltage AC Test Systems



Features

- 0-6kV (KV6-200), 0-10kV (KV10-120), 0-15kV (KV15-80), 0-30kV (KV30-40)
- Other voltages available to order
- Automatic mains voltage selection
- Key operated supply switch to prevent unauthorised operation
- Dual overload protection
- Variable electronic trip - 10-110% of rated output
- Voltage and current metering
- Zero-volt interlock
- External 24Vdc interlock circuit
- Visual indication of test piece failure

The KV30-40 mk2 series of high voltage test sets are general purpose test instruments designed for testing insulation systems and the measurement of breakdown voltage on electrical plant and components.

Four units are available in the range, and voltages up to 30kV (with 1.2kVA output) are available to special order.

Unit	Maximum Voltage	Maximum current	kV meter full scale	mA meter full scale
KV6-200	6kV	200mA	3.25kV 6.5kV	25mA/ 250mA
KV10-120 mk2	10kV	120mA	6kV/ 12kV	14mA/ 140mA
KV15-80 mk2	15kV	80mA	10kV/ 20kV	10mA/ 100mA
KV30-40 mk2	30kV	40mA	20kV/ 40kV	5mA/ 50mA

The output voltage on all units is variable from zero to the maximum rated output voltage. A zero-voltage interlock is provided, ensuring that the output may only be energised with the voltage control at zero.

The units feature automatic mains voltage selection and an external 24Vdc interlock circuit for connection of emergency-off switches and interlock switches on the test enclosure.

The output voltage and current are metered by large, linear analogue instruments. All units have a x0.5 range on the voltmeter and a x0.1 range on the mA meter.

The test object and output are protected by an adjustable electronic current trip. The trip level may be set to 10-110% of the rated output in 10% steps. Breakdown of the test object is visibly indicated and the unit must be manually reset after a trip condition before testing can be resumed.

The unit is supplied in a compact, portable case with a permanently connected 2 metre long HV output lead.



This unit is also available in other voltages up to 30kV to special order. The KV6-200, KV10-120, KV15-80 and KV30-40 are part of a range of high voltage test systems available from T&R Test Equipment starting at 5kV and extending to 100kV.

KV100-100

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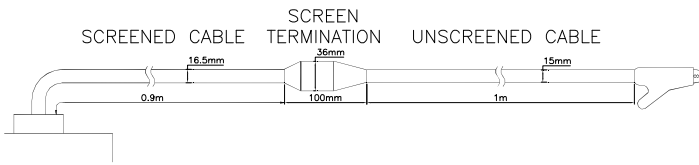
KV6-200/KV10-120/KV15-80/KV30-40 Specification

Supply Requirements

115V/230V±10% auto-selecting
50/60Hz 1ph 1200VA max

Output

The output of the KV series units is by a permanently connected partially screened high voltage cable.



Unit	Output Voltage	Current (continuous)	Current (5 min)
KV6-200	0-6kV	100mA	200mA
KV10-120 mk2	0-10kV	60mA	120mA
KV15-80 mk2	0-15kV	40mA	80mA
KV30-40 mk2	0-30kV	20mA	40mA

The above intermittent on times must be followed by an off time of 15 minutes, and are based on an ambient temperature of 25°C.

If you require a different output voltage test system, please contact us with your specification and we will quote for a custom design.

Metering

The output voltage is metered by a dual range analogue instrument.

Unit	x0.5 Range	x1 Range	Accuracy
KV6-200	3.25kV	6.5kV	±2% of FS
KV10-120 mk2	0-6kV	0-12kV	±2% of FS
KV15-80 mk2	0-10kV	0-20kV	±2% of FS
KV30-40 mk2	0-20kV	0-40kV	±2% of FS

The output current is metered by a dual range analogue instrument.

Unit	x0.1 Range	x1 Range	Accuracy
KV6-200	25mA	250mA	±2% of FS
KV10-120 mk2	14mA	140mA	±2% of FS
KV15-80 mk2	10mA	100mA	±2% of FS
KV30-40 mk2	5mA	50mA	±2% of FS

Overload Protection

Two overload protection circuits are provided on the units. The first is user selectable, and allows trip currents between 10% and 110% of the rated output to be set. A trip condition is indicated by an illuminated push button and an audible alarm. The second trip circuit is a magnetic circuit breaker operating on the primary of the HV transformer. This operates on large overloads (such as under flashovers).

Protection and Safety

In addition to the output protection the input and control supplies are protected by fuses.

All units are designed to meet the requirements of BS EN61010.

An earth terminal is provided on the transformer which must be connected to a low impedance local earth.

Temperature Range

Storage -20°C to 60°C Operating 0°C to 45°C

Dimensions

KV6-200	300x400x470mm	34kg
KV10-120	300x400x470mm	42kg
KV15-80	300x400x470mm	42kg
KV30-40	300x400x470mm	42kg

Weight

Accessories

Supply lead, spare fuse set, operating manual, earth lead, ES30 earthing stick.



ES30 Earthing stick

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