

# KV30-40D Digital Metering

# High Voltage AC Test System



## Features

- 0-30kV output voltage
- 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 KV30-40D high voltage test set is a general purpose test instrument designed for testing insulation systems and the measurement of breakdown voltage on electrical plant and components.

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

The KV30-40D is one of a family of 1200VA high voltage units spanning the range 6kV 200mA to 30kV 40mA. Most of the units in the range are supplied with analogue metering.

Unit	Maximum Voltage	Maximum current	kV meter resolution	mA meter resolution
KV30-40D	30kV	40mA	0.1kV	0.1mA

The output voltage is variable up to 30kV. A zero-voltage interlock is provided, ensuring that the output may only be energised with the voltage control at zero. The output voltage and current are metered by large true rms reading digital meters.

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

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.

Unit	Maximum Voltage	Maximum current	Metering
KV6-200	6kV	200mA	Analogue
KV10-120 mk2	10kV	120mA	Analogue
KV15-80 mk2	15kV	80mA	Analogue
KV30-40 mk2	30kV	40mA	Analogue
KV30-40D	30kV	40mA	Digital

High voltage test systems are also available from T&R Test Equipment up to 100kV 100mA.



**KV100-100**  
100kV 100mA

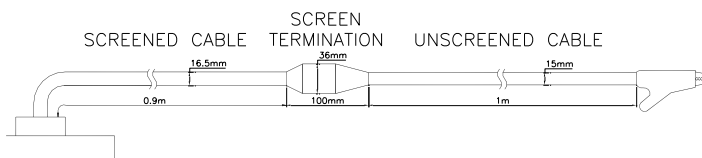
## KV30-40D Specification

### Supply Requirements

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

### Output

The output of the KV30-40D is supplied via a permanently connected partially screened high voltage cable. This stows in the lid for transit along with the ES30 earthing stick.



The output of the KV30-40D is rated at 40mA on a duty cycle of 5 minutes on/15 minutes off or 20mA continuously. These ratings are based on an ambient temperature of 25°C.

### Metering

The output voltage and current are metered by large, accurate true RMS digital meters. The meters are backlit and have a digit height of 19mm.

Meter	Full scale	Resolution	Accuracy
kV	35.0kV	0.1kV	±1% rdg±4d
mA	50.0mA	0.1mA	±1% rdg±4d

### 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 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

300x400x470mm

### Weight

42kg

### Accessories supplied with unit

Supply lead, spare fuse set, operating manual, 5m earth lead, ES30 earthing stick.

### Special Products

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



ES30 Earthing stick