

## ≡ PORTABLE CAPACITIVE LOAD BANK

PSA55

A portable capacitive load bank for electrical power experiments and general laboratory use



### KEY FEATURES

- For use as a single or three-phase load
- Four selectable load values on each bank
- Works as a balanced or unbalanced load in three-phase circuits
- Totally independent banks to allow connection as a star or delta load
- Needs no external supply
- Capacitors include discharge resistors for safety
- Includes circuit-breakers on each bank for circuit protection
- Coloured, shrouded sockets for increased laboratory safety

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## DESCRIPTION

The Portable Capacitive Load Bank is a robust steel enclosure that contains three banks of switchable capacitive loads. Each bank of capacitors is electrically separate, so they can connect as a star or delta load for three-phase circuits. Each bank has a set of switches to bring each capacitor into circuit. This allows students to create and study the effects of balanced or unbalanced capacitive loads. Each bank of capacitors includes a thermally operated circuit-breaker to protect the loads.

Each capacitor of the load bank includes a high-value discharge resistor that safely discharges any d.c. electrical charge that remains after experiments. This helps to prevent electrical shocks when the students disconnect the circuits. The value of the discharge resistor is too high to affect any experiment results.

Students connect the loads to experiment circuits using safety sockets on the enclosure front panel. Students can use this load bank in combination with the other similar load banks to provide variable power and power factor loads. The other load banks are Resistive (PSA50) and Inductive (PSA60).

The enclosure has ventilation holes and has carrying handles for portability.

**Note:** This load bank only works correctly with 50 Hz or 60 Hz circuits (not both). You must let us know which you need when you place an order.

## STANDARD FEATURES

- Supplied with comprehensive user guide
- Five-year warranty
- Manufactured in accordance with the latest European Union directives

## SPECIFICATIONS

### NETT DIMENSIONS:

400 mm x 450 mm x 450 mm

**NETT WEIGHT:** 22 kg

**PACKED WEIGHT:** 32 kg

**PACKED VOLUME:** 0.15 m<sup>3</sup>

### MAXIMUM LOAD (CONNECTED AS A THREE-PHASE DELTA LOAD):

3 kVA<sub>r</sub> (reactive power)

**MAXIMUM VOLTAGE (ACROSS EACH BANK):** 230 VAC

### LOAD SETTINGS:

100%, 75%, 50%, 25% and off

### THERMAL CIRCUIT-BREAKER (3 OFF):

5 A r.m.s

## OPERATING CONDITIONS

### OPERATING ENVIRONMENT:

Laboratory environment

### STORAGE TEMPERATURE RANGE:

-25°C to +55°C (when packed for transport)

### OPERATING TEMPERATURE RANGE:

+5°C to +40°C

### OPERATING RELATIVE HUMIDITY RANGE:

80% at temperatures < 31°C decreasing linearly to 50% at 40°C

## SOUND LEVELS

Less than 70 dB(A)