

Resistive Load Bank Tester for Constant Current Regulators

The Freedom Series™ Resistive Load Bank Tester provides a safe method of testing and calibrating constant current regulators (CCR) without using the airfield lighting circuit as a load. By simulating maximum load conditions, load bank testing identifies potential system weaknesses and keeps CCRs within FAA specifications, while protecting fixture lamps from overcurrent conditions.

Without a load bank tester, maintenance personnel must test the CCR in short circuit (no load) or use the actual field circuit to troubleshoot problems. During troubleshooting, high currents or spikes could be present which may shorten the life of the airfield lamps or even cause them to fail suddenly.

Using the load bank also helps to conclusively determine whether a problem is in the field or with the CCR. If the CCR operates correctly with the load bank, the problem most likely is with the airfield lighting circuit.

The load bank tester complements both commissioning and regulator maintenance to ensure the integrity and availability of your CCRs, lights and airfield circuits.



Fig. 1 30 KW, 20A Resistive Load Bank with castors.

Features

- Available in 10KW, 20KW and 30KW modular versions suitable for testing CCRs operating at 6.6A or 20A output current.
- Field circuit (S1) cutouts provide plug and play load adjustments in 5KW increments, without the need to disconnect wiring.
- Fine load adjustments can be made by removing the terminal box covers and reconnecting to terminals provided (ie. for testing 4KW and 7.5KW regulators).
- Castors are provided to facilitate moving the load bank when required for testing.
- A Load Bank Test plate can be provided to simplify testing of CCRs that have integral or external Liberty ALSC safety cutouts or Westinghouse style LDT field circuit isolators.
- Load Banks are convection air cooled and require no additional power.

Benefits

- Allows full load testing of CCR without using the field circuit. Ensures CCR is capable of operating to it's rated capacity.
- Allows partial load testing of CCR in 5KW increments from short circuit to full load.
- Provides a quick test to determine whether a problem is a field problem or a CCR problem.
- Provides off-line testing of CCR without energizing the airfield lighting circuit. Allows trouble-shooting without affecting airport operations.
- Ensures testing and calibration of CCR does not damage the lamps or airfield lighting circuit.
- Provides exact measurement comparisons from year to year during annual maintenance testing. Since the load remains the same and is not affected by field circuit conditions, CCR performance can be compared to known good values.

Ordering Information

Rating:

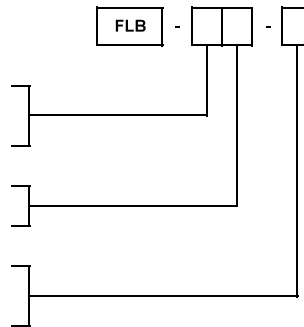
- 10 - 10 KW Resistive Load Bank
- 20 - 20 KW Resistive Load Bank
- 30 - 30 KW Resistive Load Bank

Output Current:

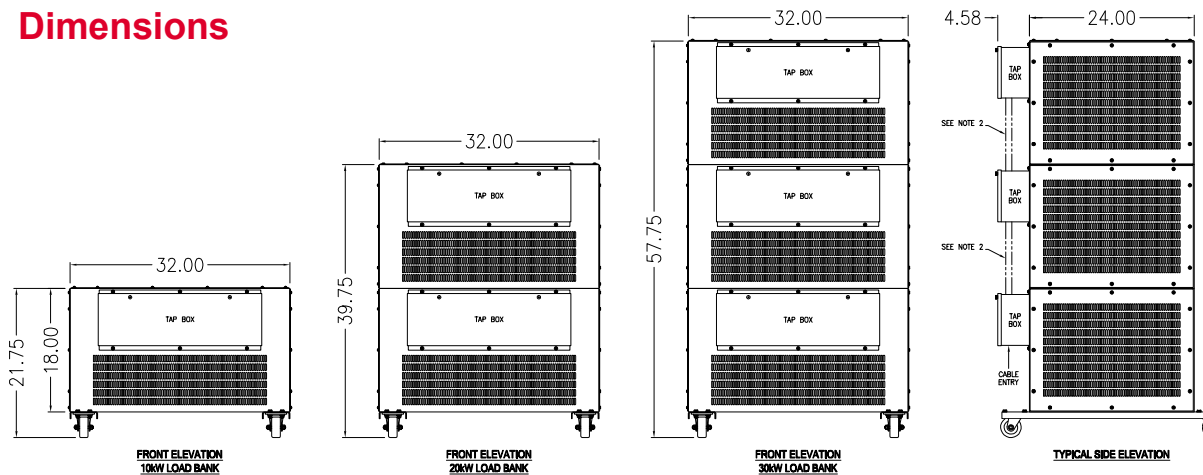
- A - 6.6A Output
- B - 20 A Output

Options (Select as Many as Required):

- 01 - Liberty Safety Cutouts to adjust taps in 5KW Increments
- 02 - Liberty Safety Cutout Load Bank Test Plate
- 03 - Westinghouse LDT Load Bank Test Plate



Dimensions



Compatibility

The *Freedom Series*™ Resistive Load Bank Tester is compatible with all types of constant current regulators including ferro-resonant, saturable reactor, PWM and SCR (thyristor) type. It is also compatible with any make of model of CCRs made by any manufacturer.

For customers that have 50KW or 70KW CCRs, contact us for a load bank designed for these KW ratings. Since the product is modular in increments of 10KW, any desired rating can be provided.



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