

Load Bank Energy Dissipation Units



EDU-100 standard model.

Description

Chromalox load banks provide durable, precise energy control for applications requiring anywhere from 1 kW of power to multi-megawatt capacity. All units are subjected to a high-voltage flash test, an insulation resistance check, and a simulated load test. Chromalox load bank energy dissipation units hold resistances within ± 5 percent of hot operating resistance. The units are fabricated from weatherproof stainless steel for durability and feature overtemperature protection with fan interlock. Thermally protected fan motors are easily accessible. Electrical connections and components are protected by hinged, lockable doors or bolt-on panels, depending on unit type.

Applications

- Factory or field testing diesel generators
- Braking resistors for traction or inverter drives
- Base loading of remote or standby power plants
- Battery discharge testing
- UPS testing
- Marine applications

Load Bank Dimensions and Weight

Model Number	kW	Dimensions (in.)			Approx. Weight lb
		Length	Width	Height	
EDU-01	100	45	34	26	450
EDU-02	200	47	41	33	550
EDU-03	300	49	45	41	890
EDU-04	400	55	45	65	1,110
EDU-05	500	55	49	73	1,215
EDU-06	600	51	65	71	1,775
EDU-08	800	79	69	83	2,000
EDU-10	1,000	79	69	83	2,210

Benefits

Construction

The stainless steel construction of a Chromalox load bank provides strength and corrosion-resistance. Alloy steel sheathed tubular heating elements stand up to harsh weather, including heavy rain. And all electrical enclosures are protected to IP54 requirements (NEMA 3R).

Single or multiple self-powered fans provide cooling airflow to hold outer skin temperature within safe limits. Units up to and including 500 kW are designed for horizontal airflow, while larger units, up to 1,000 kW, utilize a vertical airflow.

For applications requiring mobility, Chromalox fits units up to and including 500 kW with casters for easy positioning on smooth floors. Larger units are skid-mounted for easy transportation.

Controls

Chromalox load banks are controlled by a multi-stage, contactor-based system that is an integral part of the load frame. The controls are painstakingly engineered to provide the utmost precision and protection:

- Easy-to-use keypad enables operator to enter the load before pressing an "enter" key to actuate the contactors.
- Loads can be progressively applied in 1 kW increments up to full load, preventing spikes.
- Load spikes can be induced if the test requires.
- High limit controls for temperature and low limit controls for airflow helps ensure protection from damage due to incorrect use.
- Can be UL-listed for U.S. market or CE-marked for European markets.

Standard Options

In addition to these standard options, our engineers will be glad to discuss adding any features not listed below.

Remote Control

Control keypad on a 25 m cable enables load application from inside generator room.

Master-and-Slave Configuration

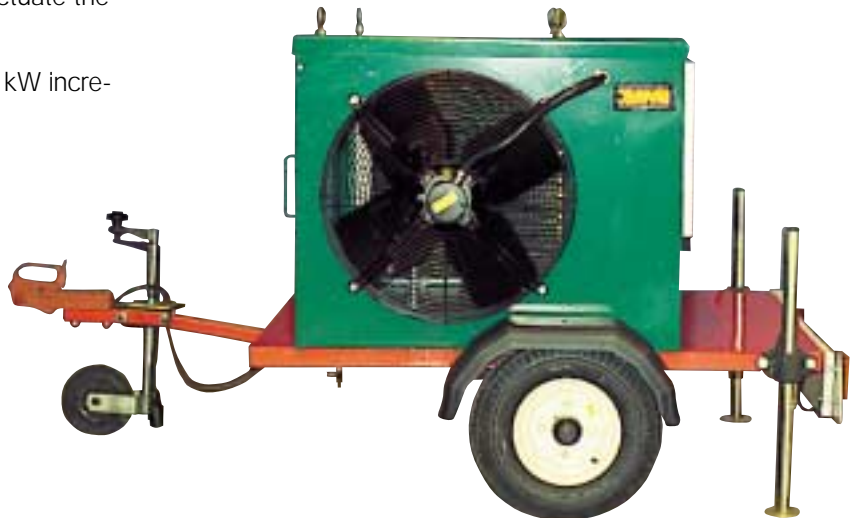
Links up to 10 load banks of any size together to form a much larger total load. Individual load banks can still be used discretely, each retaining its 1 kW switching resolution. This is ideal for applications where multiple, small loads are tested but a single large load may need testing periodically.



Hand-portable 128 kW dc load bank for low-power UPS or Telecoms testing.

Designs for Special Voltages, Multiple Voltages, and Various Frequencies

Designed for voltages from 12 Vdc to 780 Vac or Vdc. Chromalox load banks can also accommodate most voltage combinations within a single load frame. Units are available for dc, 50 or 60 Hz ac, and 400 Hz ac frequencies.



Trailer-mounted EDU-100T portable load bank used for field-testing and commissioning generators.

Construction Materials for Special Applications and Hazardous Areas

Special construction materials can be used to suit applications like small hand-held portables or salt water environments. Chromalox load banks can also be designed and manufactured for hazardous areas.

A Full Range of Instrumentation

Whether the application requires a simple status display box or data log and download capability, Chromalox has the right load bank instrumentation solution.

Alternative Cooling Systems

Water-cooled units can be produced that are ideal for shipboard applications. Units are available without fans for engine radiator mounting.



Containerized 3.5 MW load bank.



Easy-to-use keypad interface minimize operator error.

Load controllers change load in 1 kW increments without moving back to zero, preventing constant spikes.

Stainless steel construction ensures toughness and corrosion-resistance.

Enclosures protect to IP54 (NEMA 3R) standards.

Fan units designed to keep outer skin temperature within safe limits.

Industrial casters provide for easy movement on smooth floors (available on units up to 500 kW).

EDU-400 standard model.

Ordering Information for Standard Load Banks

Model

EDU Load Bank Energy Dissipation Unit

Code Power/Kilowatt rating

01	100 kW
02	200 kW
03	300 kW
04	400 kW
05	500 kW
06	600 kW
08	800 kW
10	1000 kW

Code Mounting

1	Caster Mounted
2	Skid Mounted
3	Trailer Mounted

Code Steps

1	1 kW
2	10 kW

Code Load Switching Scheme

TG	Toggle selector switches
PB	Push buttons
KE	Keypad mounted on unit
RE	Remote control with cord

Code Voltage

1	120 Vac
2	208 Vac
3	208/240 Vac
4	240 Vac
5	240/480 Vac
6	277 Vac
7	380 Vac
8	480 Vac

EDU 06 3 2 KE 8 ————— **Typical Model Number**

Code Options

A	Multifunction Digital Readout Meter
B	Single-Volt Meter with Phase Selection Switch
C	Three-Volt Meters
D	Single Ammeter with Phase Selection Switch
E	3 Ammeters
F	kW Meter
G	Control Panel Cooling Fan

Code Options

H	Anticondensation Heater
I	Load Management Module for 5MW
J	Remote Control with 25ft. Cord
K	Wrong Voltage Indication
L	Camlock Power Connections
M	Phase Reversal Switch
N	Fan Delay Switch

Other combinations are available upon request.

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