



The Avtron Model LC35 is ideal for data center commissioning and testing while integrating seamlessly with existing cooling infrastructure. They are resistive, AC liquid cooled load banks designed for operation indoors when up to 500 kW of resistive load is required.

- Corrosion resistant stainless steel tank and pipes
- Controller enables networking up to 200 liquid or air cooled load banks
- Stackable for easy transport and storage
- Ability to drain system to avoid cross contamination between jobs
- Monocoque chassis construction, crash frame and heavy duty castors for durability
- Temperature, pressure and flow sensors to allow system monitoring

LOAD BANK RATINGS

Standard capacity rating:

- Nominal Rating: 500kW at 415V
- Also rated at 500kW at 400V and 460kW at 380V
- 3 PH, 50/60Hz
- 5 kW load step resolution

Please consult factory for non-standard ratings.

FEATURES

- **Flow:**
Minimum Flow rate of 1.3 Litres Per Minute (LPM) per kW
- **Sensors:**
Over Pressure, Over Temperature, Low Flow Rate Protection, Leak Detection
- **Pressure Rating:**
70 PSI [4.8 bar] Working Pressure
105 PSI [7.2 bar] Test Pressure
- **Temperature:**
82°C Max. Water Outlet
32°C Max. Temperature Differential
- **Control Power:** INT/EXT with Switch
- **Inlet/Outlet Connections:**
100mm (4 Inch) Non Drip Coupling,
- **Mobility:** 125mm Nylon Castors with brakes

Control Power

The control circuit may be powered from an external auxiliary supply or from the supply on test, provided it is of the correct voltage and frequency. Lower voltages and other frequencies must be tested using the external supply.

An IEC 60309-2 plug and socket with a three-position switch enables quick and easy connection.

Cooling System

The unit has a single corrosion resistant, stainless steel (304) tank mounted horizontally to maintain a low centre of gravity. Inlet & outlet piping are stainless steel (304 and 316). Corrosion resistant resistive elements are positioned inside of the tanks to heat the fluid. Avtron liquid cooled load banks have the capability to monitor flow, pressure, temperature, and set operational limits.

Operator Controls

The Avtron RxMS controller integrates both liquid cooled and air-cooled load banks within the same network, managing up to 200 load banks from a single Windows-based interface. It supports TCP/IP Modbus communication, utilizing an Ethernet-based wiring infrastructure for seamless connectivity.

The control panel features power on/off functions, master load on/off management, and alarm indicators for low flow, over-temperature, and over-pressure conditions, and control power internal/external switch, as well as a notification for remote mode and quantity (2) Ethernet connections.

An integrated Shark power meter displays AC 3-phase voltage and current, power (kW), frequency, and power factor.

Construction

The frame of the load bank is constructed from 2mm 'Zintec' steel, folded and welded to form a monocoque construction.

The recessed doors allow easy access to the enclosure for control, switch gear and power connections.

All electrical enclosures are to IP54. The frame contains fork lift pockets for manoeuvrability.

The load bank is protected by a crash frame around the enclosure.

Model LC35 Specifications

Finish

A durable powder coated finish is used on all panels. Standard colour is grey RAL7012.

The base is hot dip galvanised steel.

Fluid Couplings

100mm (4 Inch) Non drip stainless steel couplings are provided as the standard connection points.

Resistor Elements

The heating elements are immersion-type with an Incoloy 800 sheath, and flange mounted.

The elements are continuously rated at the specific voltage. Tests at lower voltages, with a corresponding reduction in overall rating, may be carried out.

Safety

Thermocouples monitor temperature, triggering a resistor elements shutdown if high readings are detected by the software.

A pressure sensor measures pressure, shutting down the resistor elements if high-pressure levels are identified. An adjustable over pressure valve is also fitted.

A sensor is fitted underneath the tank to alert the user, in the unlikely event that a leak is detected

A magmeter tracks flow rate and the resistor elements shut down if flow drops below 70 LPM.

The load bank contains fuses for short circuit protection. The control circuit is protected with a 10 amp fuse while the individual load steps have branch circuit fuse protection.

Ambient Temperature

The LC35 load bank is designed for continuous duty cycle with no limitations. The ambient temperatures max is 40°C.

Environment

The LC35 is a self-contained portable load bank designed for operation and storage indoors. The units can be stacked (max two high) to reduce storage and transport footprint.

Power Terminals

Single pole, twist lock power connections are located in the recess below the control panel. Three per phase plus 3 x earth connections.

Optional Accessories

- 20' [6096] Load Cable Set with Connectors

Documentation - Operating Manual

A comprehensive operator's manual is

supplied electronically via a USB drive.

Sections include: Safety, Installation, Operation, Maintenance, and Trouble-shooting.

Two Year Warranty

The equipment is covered by a 24-month parts and labour warranty.

Testing and Standards

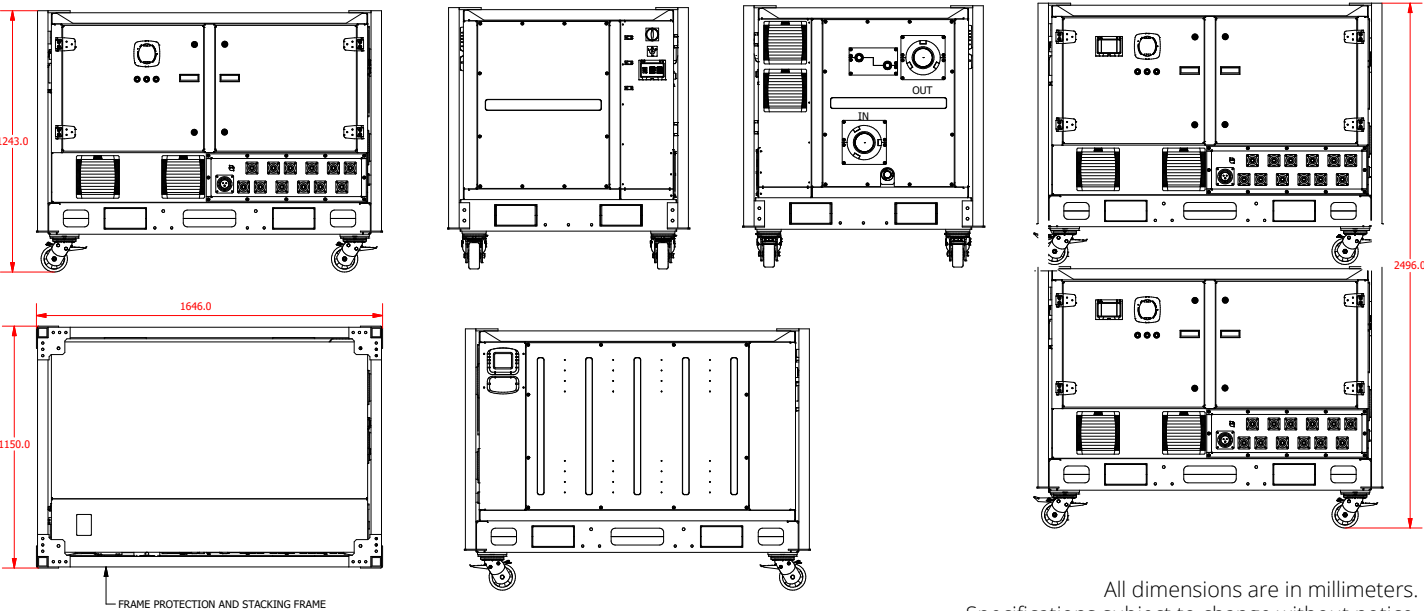
Functional operation and load tests are completed on all load banks, before dispatch, in line with our ISO 9001:2008 procedures.

Avtron load banks comply with international standards and are CE marked to confirm compliance with both the EMC and Low Voltage Directives.

Weight & Dimensions

(approx. mm/in)

Length	1646/64.8
Width	1150/45.3
Height	1253/49.3
Dry Weight	800kg
Wet Weight	1000kg



All dimensions are in millimeters. Specifications subject to change without notice.