



VOLT X LB2000 DATASHEET

3 Phase AC Load Bank

2000 KW

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KEY FEATURES

- Designed for AC three -phase generator loading test
- Microprocessor based controlled three phase load bank
- Rugged and reliable for field use with side fan cooling
- Ammeter, Voltammeter, and power metering are available for the operator monitoring on 10 inch touch HMI
- Two units design for flexibility and mobility feature
- HMI monitoring for system alarms
- Safety conditions are included and indicated.
- Forced fan controlled on the control panel face plate.

GENERAL DESCRIPTION AND OPERATION

1. IPSUM LB2000 is a controlled programmed 2000 KW Resistive Load bank two-units seen as a one unit that contains 24 resistive load steps.
2. Control and monitoring via 10" touch screen multi-colored industrial HMI
3. Online monitoring for the system voltage, current and power
4. Emergency Push-button and temperature switches are provided for Safety shutdown.
5. Heavy-duty metal frame design is considered
6. Side forced Fan cooling system is provided
7. Safety is the main feature of IPSUM LB2000M
8. The output terminals are enclosed in a separate cable box.
9. The load bank is seen as a one unit 2000 kW even if it is provided as two packages.
10. Load bank be complete with connection cables and its accessories from load bank unit-1 to Unit-2.
11. Each of the load bank units shall be switched off automatically if the temperature of the load bank steps (Thermal Status) exceeds the threshold temperature (90 °C), then the fan shall continue to operate for 5 minutes
12. If one of the Emergency Stop button is pressed, Both Units shall be tripped.

SPECIFICATIONS of IPSUM LB2000

General specifications:

Mains supply	3P+N+PE
Fan voltage	Supplied from Load bank mains supply
Load connections	4 Poles (3P +N) + 1 x PE copper bars connection
Load bank units	2 separate units (Each 1000 kW)
Aoorox. Dimensions (L x W x H)	315 x 125 x 270 CM for the unit
Display	10" Touch screen
Fault Rating	MCCB for step short circuit current rating
Load Control	Branch circuit contactors
Ingress protection	IP54 for control panel

Safety specifications:

Thermal protection via overheating safety protection switches

Electrical interlocks to inhibit the step operation in case if the fan fails.

Fan phase sequence protection

Fan overload / wire break protection.

Measurement specifications:

A 10" Touch screen in the control panel is used to show a digital display of voltage, current and power.

Steps Rated Power Specifications:

Rated Power 2000 KW, Resistive load

Rated Voltages 400 VAC

Step No.	Step Power (KW)	Step Amount	Total Power (KW)
1	8	4	32
2	16	2	32
3	32	8	256
4	160	10	1600
Total		24	1920

* Load bank steps may be optimized upon order during the detailed design phase.

Units Specifications:

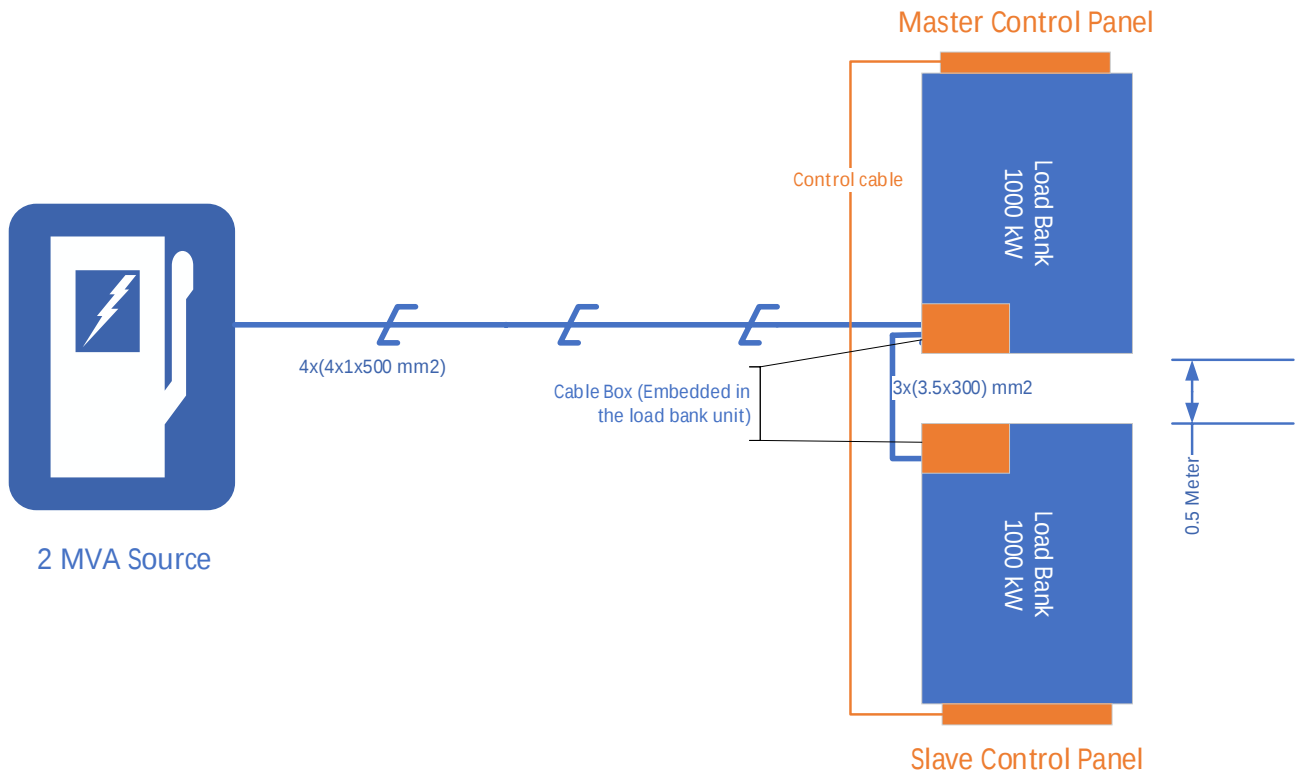
The load bank configuration comprises a 2000 kW load capacity, structured into two distinct units. Each unit is accompanied by its respective switchboard, and these units are interconnected through a control cable housed within the control panel. Within this setup, the master unit houses the primary controller and display screen, while the slave unit is equipped with its localized controller.

The master unit is outfitted with the primary power connection cables (client scope) linked to the source. Meanwhile, the slave unit is interlinked with the master unit via other power cables (client scope).

This design incorporates two separate units to offer enhanced flexibility and mobility benefits, providing a modular structure that facilitates ease of use and adaptability in diverse operational scenarios.

LOAD BANK UNITS – CONNECTION DIAGRAM

The master unit is connected to the source using rated cables (out of VOLTIX scope) that able to carry 2000 kW. However, the power and control cables between the 2 units will be provided as per figure below.



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