Hybrid Load Banks

Gradian provides full platform solutions by designing modular systems that ensure seamless compatibility and scalability delivered to you quickly.

With our DeepCoolAI by Gradian technology, we are able to combine air and liquid cooling methods into an all-encompassing test simulation system, which enables rapid facility upgrades and custom test simulation

KEY FEATURES

- Simulates both liquid and air cooled loads to mimic real world conditions and simulate AI server racks in real world operation (GB200/GB300/Vera Ruben)
- Rapid infrastructure upgrades demand flexible testing solutions, and hybrid units adapt to changing load requirements while still simulating real-world electrical conditions
- Ability to move load banks between multiple facilities to enable consistent, realistic testing wherever systems are upgraded or deployed
- Rapid deployment and speed up testing and commissioning by combining air cooled load banks and liquid cooled load banks in one equipment which mimics actual AI rack power and fluid connection types and quantities
- Hybrid load bank racks are equipped with group control function and controlling up to 200x load bank racks in one group
- Air cooled modules are equipped with FC fans for air flow rate control, and the load bank rack is equipped with electronic control valve to control fluid pressure drop inside the rack



SPECIFICATIONS

CAPACITY
144 – 300kW

POWER SUPPLY
415 – 480VAC / 3Ph / 50–60Hz

LOAD TYPE
Resistive

SENSORS
Display basic functions voltage, current, active power, reactive power, apparent power, power factor, frequency, temperature, pressure, flow rate, etc

COMMUNICATION INTERFACE & PROTOCOL
PLC control through local, or ethernet (RS485 & Modbus protocol)

PROTECTION RATING
IP21

PROTECTION
Short circuit protection, over-current protection, over-voltage protection, fan air volume protection, over-temperature protection, pressure protection and liquid leakage detection.

CONSTRUCTION
Sheet metal enclosure with stainless steel internal piping

LOADING ACCURACY
±2% – ±5%

WORKING SYSTEM
Continuous load

AIR MODULE / LIQUID MODULE

COOLING MODULE	Air	Liquid
CAPACITY	12kW	20kW
FLOW RATE	1300 – 2000 CFM Max (Est.)	≤22 – <40 LPM
PRESSURE DROP	N/A	≤5 psi (22.67 LPM)
TEMPERATURE CHANGE	N/A	≤15°C
AIR DIRECTION	Forward inlet, backward outlet	N/A
FAN TYPE	Variable speed fans	N/A

Specifications may vary based on model and capacity.