HAC-315 Series

Air cooling 45kW + Liquid cooling 270kW / Total power 315kW

HAC-315 integrates air-cooled and liquid-cooled resistor elements into a single floor-standing cabinet, accurately simulating next-generation AI racks (e.g. INLANX GB200 / GB300 NVL72). Part of the heat is expelled by fans, while the rest is carried away through direct cold-plate / immersion liquid cooling. The air-cooled and liquid-cooled zones are independently adjustable, enabling verification of PDU three-phase current balance, CDU flow rate and chiller capacity under real mixed heat-dissipation conditions.

Features

- Air-cooled zone 45kW - simulates CRAH / server fan heat
- Liquid-cooled zone 270kW - 2 immersion SS heating tanks
- Independent air/liquid zone control - mixed-load simulation
- Quick-connector panel - color-coded N/A/B/C phases
- 304 SS piping & elements, pickled & corrosion-resistant
- Touch-screen HMI - full-parameter display & data export
- Manual/program dual mode - auto load/unload sequence
- Customizable power, voltage, step, interface, coolant



Design & Installation

Applications: AI rack (GB200/GB300) thermal simulation; data-center Tier acceptance; energy-storage BESS inverter testing; EV-charging module testing; aerospace power verification; microgrid / virtual power plant verification.

Design: upper section is air-cooled load (built-in fan); lower section has 2 immersion SS heating tanks (external circuit). Zones independently controlled, simulating mixed heat conditions.

Installation: color-coded quick-connector panel; water inlet/outlet to CDU or chilled-water circuit; lock casters before operation; ground reliably before power-on.

Cooling medium: deionized water or 50% ethylene-glycol; flanged immersion heating tanks.

Electrical Specifications

Item	Specification
Product Type	Air-liquid integrated resistive load bank, floor-standing cabinet
Air-cooled Total Power	45kW (upper air-cooled zone, 500mm high)
Liquid-cooled Total Power	270kW (lower liquid-cooled zone, 1500mm high)
Total Power	315kW
Rated Voltage	AC 380V / 400V / 415V / 480V (customizable), three-phase
Dimensions	W 600 x H 2100 x D 1200 mm
Connection	Quick connectors, color-coded N/A/B/C/PE, customizable
Control Mode	Manual local / touch-screen program
Material	304 stainless steel, pickled & passivated
Protection	Dry-run, short circuit, low flow, over-temp, over-current, phase-loss/sequence, over/under-voltage, emergency stop

Monitoring Parameters

Zone	Displayed Parameters
Air-cooled Zone	Voltage, current, active power, power factor
Liquid-cooled Zone	Voltage, current, power, flow, inlet/outlet water temp, temp diff, inlet/outlet pressure, pressure diff

W	H	D	Air H	Liq H
600	2100	1200	500	1500

[Dimension drawing]