

WR SERIES

[500KW-6.7MW]

Built for Critical Power. Driven by Innovation.



ABOUT UNIVERSAL LOAD BANKS

ULB is an engineering-led company dedicated to delivering reliable, high-performance load bank solutions for the world's most demanding applications. Known for responsive customer support, innovative technology, and rugged continuous-duty designs, ULB provides the confidence needed to test, validate, and protect critical power infrastructure.



Why ULB Liquid Cooled Load Bank for CDU Testing?

TRUE THERMAL EMULATION

Real IT Loads. Real Thermal Behavior.

Conventional load banks dissipate heat. ULB systems emulate actual server thermal behavior.

Key Benefits

- Realistic heat rejection simulation
- Dynamic load profile testing
- Precise ΔT control
- Real-world CDU validation

SAFETY & RELIABILITY

Built for Continuous Testing.

Designed for safe, unattended operation during extended validation programs.

Protection Features

- Leak detection with automatic shutdown
- Integral self-contained drip pan for fluid containment
- Over-temperature protection
- Low-flow and pressure monitoring
- Pre-test diagnostics

ADVANCED MONITORING & DATA LOGGING

Every Parameter. Every Second.

Integrated controls provide complete visibility into system performance throughout the test cycle.

Capabilities

- Real-time monitoring & continuous data logging, and trend analysis
- Programmable up to 10 thermal load profiles, expandable up to 30,000 using LoadEZ™*
- Exportable test reports

* LoadEZ™ software license sold separately

INTELLIGENT MULTI-ZONE ARCHITECTURE

Control Heat Where It Matters.

ULB's advanced thermal platform delivers granular control and realistic heat distribution.

Features

- Independently controlled thermal zones
- Independent flow and temperature control
- Low fluid volume for rapid response
- Rack-, row-, and pod-level thermal load simulation



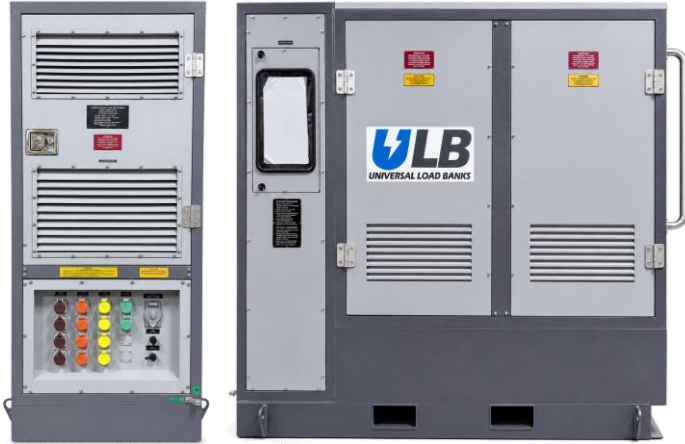
WIDE FLOW RANGE COVERAGE

Test Across the Entire CDU Envelope.

Validate CDU performance across all operating conditions.

Capabilities

- Flow range from 10–4500 LPM
- Fixed-flow and variable-flow testing
- Low-flow to peak-load validation



WR SERIES

LIQUID COOLED LOAD BANK

Features

- Modular design with available power of 500 kW to 6.7 MW*
- ASME Stamped, UL Listed
- Zero Leak Design
- Extended Range Flow Meters
- Proportional Control Valves
- Outdoor-Rated Construction
- Network multiple load banks
- Advanced Color Touchscreen for Control and Monitoring

Liquid Cooling System

The load bank incorporates multiple vertical, ASME-stamped, stainless-steel tanks with integrated heaters and stainless-steel piping to dissipate electrical energy into a circulating liquid medium. Multiple independent liquid circuits, each with dedicated sensors and controls, can operate as a combined system or as independent flow/power circuits. This design provides precise thermal and hydraulic load simulation for commissioning and performance testing applications.

Resistor Elements

Tubular elements made out of stainless steel / Incoloy™ with reduced watt density for immersion fluid or liquid application, with efficient heat transfer rate for the lowest sheath temperature w/o any vaporization of fluid on the sheath.

Power Connections and Power Control

Industry-standard color-coded quick disconnect connectors are provided. Provided by an integral dual voltage 120V control power transformer or external 120V power source.

System Digital Controls

- Integral PLC and Color Touchscreen HMI. Volt, Amp, Frequency, kW monitoring along with real-time data acquisition.
- HMI screens include Power Data, Safety, Screen Capture, Data Logging and Maintenance.

Sensors

- K-Type Thermocouple for Temperature
- Ultrasonic Flow Meters for Coolant flow
- Pressure Transducers for System Pressure

Alarms

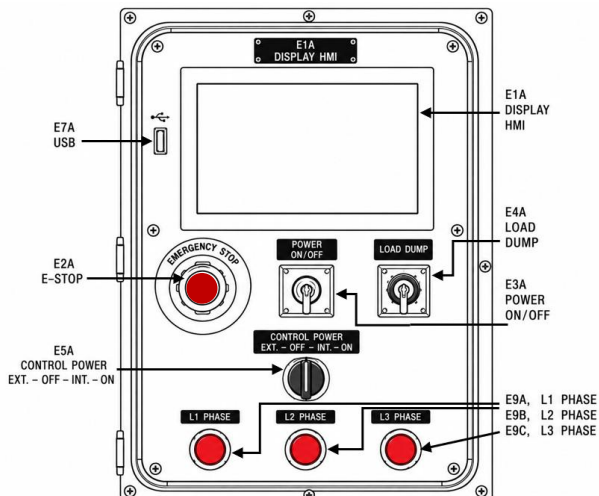
- Over Pressure
- Over Temperature
- Low Liquid Pressure
- Low Liquid ΔP
- High Temperature Rise
- Heater Sheath Over Temperature
- Lower Liquid Flow
- Over Voltage

Certifications

Manufactured in an ISO-9001:2015 certified facility.

Larger Containerized Solution

* Also available in sizes of 3 MW, 4.5 MW, and 6.7 MW. For technical specifications and other details, contact the sales team



WR SERIES TECHNICAL SPECIFICATION

SPECIFICATION	UNITS	WR750	WR1125	MWR2250
Rated Power@ 480V	kW	750	1125	2250
Rated Power@ 415V	kW	560	840	1680
Power Resolution Control	kW	5	5	5
UL Listing		ETL/cUL/UL	ETL/cUL/UL	ETL/cUL/UL
SYSTEM				
System Code-compliant Design	-	ASME	ASME	ASME
Operating Pressure	kPa (psig)	483 (70)	483 (70)	483 (70)
Max System Pressure	kPa (psig)	724 (105)	724 (105)	724 (105)
Standard Inlet Strainer	Micron	6000	6000	6000
Min Flow Control	LPM (GPM)	75 (20)	113 (30)	225 (60)
Max Flow Control	LPM (GPM)	1500 (396)	2250 (594)	4500 (1190)
Min Flow Required to have a Temp Rise of Less Than 10 Deg C at Full KW Rating.	LPM (GPM)	1125 (297)	1688 (446)	3375 (891)
Total Number of tanks	Qty	2	3	6
Total Tank Volume	L (gallons)	250 (66)	375 (99)	749 (198)
Service Tank Size	L (gallons)	15 (4)	15 (4)	30 (8)
Drip Pan Size	L (gallons)	435 (115)	841 (222)	4095 (1081)
CONNECTIONS				
Inlet/ Outlet Connection	cm (in)	10.16 (4) ANSI Flange	15.24 (6) ANSI Flange	20.32 (8) ANSI Flange
Power Connection		Cam Lock	Bus Bar	Bus Bar
# of Cam Lock per phase		4	-	-
CONTROLS/NETWORKING				
Integral PLC & Color Touchscreen HMI		Yes	Yes	Yes
ENCLOSURE				
Enclosure Rating		Nema 3R	Nema 3R	Nema 3R
Enclosure Style (Indoor/Outdoor)		Portable	Stationary	Stationary-Containerized
Enclosure Construction		Aluminum/Steel	Steel	Steel
Dimensions (L x W x H)	cm (in)	213 x 99 x 193 (84 x 39 x 76)	264 x 140 x 203 (104 x 55 x 80)	381 x 244 x 300 (150 x 96 x 118)
Weight	kg (lbs)	1102 (2450)	1737 (3860)	4950 (11000)
Forklift Pockets		Standard	Standard	Standard
Lifting Fixtures		Lifting Eye	Lifting Eye	ISO Corner
Retractable Castor with Floor Lock		Optional	Not Applicable	Not Applicable
OPTIONS				
1 kW Load Resolution		Optional	Optional	Optional
Remote PC with LoadEZ™		Optional	Optional	Optional
Quick-Disconnect Connection		Optional	Optional	Optional
Zero-Leak Connection		Optional	Optional	Optional
Bolt of Filtration System	Microns	5	5	5
		25	25	25
Bolt On Adapters for multiple hose connections		Custom	Custom	Custom