



**LIQUIDPULSE**

# LIQUID-COOLED 2 MW LOAD BANKS

Designed for testing and commissioning data center cooling systems, the 2 MW Liquid-Cooled Load Bank simulates real-world IT heat loads for stress testing, integrated system validation, commissioning, and performance verification applications.

Featuring four independently controlled 500 kW heating clusters with advanced IGBT step control, the 2 MW Liquid-Cooled Load Bank delivers precise heat-load simulation while using the facility's cooling water to dissipate generated heat. This approach closely mimics the thermal behavior of high-density IT equipment, making it an ideal solution for data center cooling system commissioning, integrated system testing, and performance validation.

Constructed from stainless steel materials and subjected to rigorous cleaning procedures prior to shipment, the unit helps ensure cooling distribution systems remain free from contaminants and debris during commissioning and operation.

- Modbus TCP/IP and RTU
- SS304 construction materials
- Field-adjustable alarms and faults
- PLC controller and 10" touchscreen HMI
- Modular deployments; individual and synchronized control
- Power, temperature, flow, pressure and level monitoring
- UL508A electrical panel
- Suitable for use with PG/EG and DI water
- Four independent 500 kW heating clusters
- Four IGBT controllers for precise load regulation





# KEY FEATURES

## MODEL LP-AC400V-2MW

### HEATING SPECIFICATIONS

|            |                            |
|------------|----------------------------|
| Capacity   | 2MW at 415V, 2.4MW at 480V |
| Media      | Water/PG25                 |
| Load steps | 5kW                        |

### HYDRAULIC SPECIFICATIONS

|                |                             |
|----------------|-----------------------------|
| Max. flow rate | Nominal: 800 gpm- Max: 1600 |
| MAWP           | 150 psi                     |

### ELECTRICAL AND POWER

|                   |                                              |
|-------------------|----------------------------------------------|
| Input power       | 400-480 VAC / 3 $\Phi$ / 60Hz                |
| Power consumption | (4) 697VAC Total                             |
| Protection        | (4) Circuit breaker short-circuit protection |
| Control power     | Built-in 24 VDC                              |

### CONTROL AND COMMUNICATIONS

|                         |                                 |
|-------------------------|---------------------------------|
| Control type            | PLC                             |
| Interface               | 10" Touchscreen HMI             |
| Communication protocols | Modbus RTU, Modbus TCP/IP, SNMP |
| Communication ports     | (2) RJ-45                       |

### ALARMS AND MONITORING

|            |                                                                                                                                         |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Alarms     | High/Low pressure, High/Low temperature, low level, low flow, instrumentation failure, leakage alarm, heater fault, E-Stop, overcurrent |
| Monitoring | Pressure, flow rate, temperature, power, ambient temperature and relative humidity                                                      |

### EQUIPMENT SPECIFICATIONS

|                 |                  |
|-----------------|------------------|
| Piping material | 304SS            |
| Base            | Built-in casters |
| Dimensions      | 62"Wx79"Hx39"D   |

### CERTIFICATIONS

|            |        |
|------------|--------|
| Electrical | UL508A |
|------------|--------|

