



## HYBRID LOAD BANKS

For testing and commissioning of data center's cooling systems. Simulate both liquid and air heat loads in integrated system tests.

Designed to be modular and scalable, the units can work in tandem to achieve a great number of heating capacities and temperature rise.

Built with stainless steel materials as well as being subjected to high-level cleaning before delivery, the units ensure there is no contamination or debris into the coolant distribution lines.

Provided with PLC/HMI control and available to interconnect using a cluster controller (separate unit) to integrate its use with Liquid Load Banks and other Hybrid Load Banks for up to (120) connected machines.



- 5kW load steps
- PLC controller and 7" HMI
- Modbus TCP/IP communication
- Integration with Liquid Load Banks
- ASME U-stamped pressure vessels
- Variable air-load fan speed control
- Modular deployment and operation
- Suitable for use within the white space
- Field-adjustable alarms and set points



# KEY FEATURES

## HYBRID LIQUID/AIR LOAD BANK

### HEATING SPECIFICATIONS

|                 |                           |
|-----------------|---------------------------|
| Liquid Capacity | 165kW with 1kW load steps |
| Air capacity    | 60kW with 1kW load steps  |
| Liquid Media    | DI water / PG25           |

### HYDRAULIC SPECIFICATIONS

|                      |         |
|----------------------|---------|
| Design pressure      | 90 psi  |
| MAWP                 | 150 psi |
| Liquid pressure drop | <5 psi  |

### ELECTRICAL AND POWER

|             |   |
|-------------|---|
| Input power | 415-460 VAC / 3 $\Phi$ / 60Hz                         |
| Interface   | Two sets of (3) male cam-lock connections plus ground |
| Protection  | Circuit breakers                                      |

### CONTROL AND COMMUNICATIONS

|                         |               |
|-------------------------|---------------|
| Control type            | PLC           |
| Interface               | 7" HMI        |
| Communication protocols | Modbus TCP/IP |
| Communication ports     | (2) RJ45      |

### 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   |

### EQUIPMENT SPECIFICATIONS

|                     |  |
|---------------------|--|
| Piping material     | 304SS  |
| Process connections | 2"QD   |
| Base                | Metal frame with built-in casters and forklift slots |
| Dimensions          | 800Wx1400Dx2200H mm                                  |

### CERTIFICATIONS

|       |                        |
|-------|------------------------|
| Tanks | ASME U Pressure Vessel |
|-------|------------------------|

