

**C2C****POWER
SOLUTIONS**

600 kW Liquid Cooled Loadbank

The 600 kW liquid-cooled load bank is designed for high-density data center commissioning, enabling accurate thermal validation and precision electrical testing of liquid-cooled infrastructure.

Built for fast deployment and demanding site environments, it combines stable ΔT thermal control, full system protection, rugged transportability, and audit-ready reporting—delivering confidence, repeatability, and efficiency across every commissioning project.



Precision ΔT Control: Maintains temperature stability to $\pm 0.5^\circ\text{C}/32^\circ\text{F}$ regardless of flow variation, ensuring repeatable results and greater confidence during critical commissioning activities.



Full system protection: Integrated flow, pressure, overload/underload and thermal shock protection, safeguarding the load bank and connected infrastructure.



Quick-release dry disconnect: Designed for fast deployment, the unit features quick-release, no-drip dry disconnect couplings for main supply (inlet/outlet), drain and overpressure connections, reducing downtime and improving on-site safety between jobs.



Compact and easy to move: Space-saving footprint with flush-mounted connections for safer stacking and transport. Heavy-duty castors plus dual-side forklift pockets for easy handling and positioning.



IP55 Rated Enclosure: Built for demanding indoor and outdoor commissioning environments.

CE compliant and built to UL Standards: Certified compliance for global deployment and regulated sites.

Description		
Model		Transportable (Castor Mounted)
Country of Origin		United Kingdom
Max Capacity - Packaged Load Bank		600 kW (648 kW at 415 V)
Voltage Ranges - (Continuous Operation at Specified)		400V-415V
Operating Frequency Range		50/60 Hz
Main Supply Phases		3ph
Wires (Delta Connection)		3
Step Resolution @ Design Voltage		5 kW
Voltage Tolerance (Short Term Operation)		+5%
Load Element Tolerance		+10%/-5%
Elements		80/20 nickel chrome resistance wire
Insulation Test		1000 V
Auxiliary Supply Voltage		380-480 V Via Ceeform
Auxiliary Supply Current		32A
Operating Frequency Range		50/60 Hz
Auxiliary Supply		220-240 V 1ph
Main Supply Connections		3x 500 A Single Pole PowerSafe Connectors Per Phase + 2 PE
Control Supply		Selectable - Main or Auxiliary
Pipework Connections		DN100/PN16 Flange - Dry Disconnect Coupling (With Covers)
Inlet / Outlet		4" STANAG 3756
Pressure Relief / Drain		1" STANAG 3756
Pipework Material		316L Stainless Steel
Coolant Compatibility		PG25 - PG35
Coolant Drain		Drain At Lowest Point Of Coolant Circuit
Protection		Thermal Emergency Cut Out
		Fan Overload (Control)
		Over Current Protection
		Process Stop
		Leak Detection
		Pressure Release Valve (9 Bar)
		Low Coolant/Flow Detection
		Pressure Detection
Cooling Method		Forced Liquid Cooling (Driven by CDU Pump)
Liquid Flow rate (Approx.)		Dependent on CDU (15 l/s Expected, Could Be Higher)
Utilization Category		AC-1 Resistive
Load Switching Contactor Type		3 Pole AC Contactors
Rated Maximum Ambient Temperature Operation		+80°C / +176°F
Rated Minimum Ambient Temperature Operation		-20°C / -4°F
Rated Maximum Relative Humidity		95% RH
Maximum Rated Operating Pressure		8 Bar [Pressure Relief @ 9 Bar]
Altitude Rating		<500 m [m.a.s.l.]/1,640 ft
Sound Power Level		50 dB(A) @ 32 ft
Enclosure		
Material		Powder Coated Mild Steel
Finish		RAL9002 Grey White
Control Chamber IP Rating		IPSS
Lifting		Fork Lift Pockets / Single Point Lift
Protection Frame		Integrated Crash-Pack
Stacking		Stacking Pockets (*Requires Crash Pack)
Enclosure Dimensions		
Length (Approx.)	(ft)	5 ft
Width (Approx.)	(ft)	34 ft
Height (Approx.)	(ft)	3.8 ft
Total Weight (Approx.)	(lbs)	2,755 lbs (Wet)
Load Bank Control Systems		
Control System		VCS2 - Software: V2.0.0
Control Method		Local Control Interface, Panel PC (Default)
		LC10 Remote (Default)
		LC80 Remote (Optional Extra)
		PC Software With Report Running Capability (Optional Extra)
Additional Features:		Current Limiting Available With Instrumentation
		Modbus TCP
		Extendable - Cluster Monitoring - Up To 240 Loadbanks
		Power & Fluid Instrumentation Data Reporting
Optional Extra:		
Control Extension Cable		32 ft, 65 ft, 164 ft, 295 ft Extension
Protective Cover		Loadbank PVC Cover

600kW Liquid Cooled - March 26 (Changes to specification may vary without notice)

Advanced Control & Reporting



The 600 kW platform is available with either a simple on-board local controller, a portable handheld basic controller LC10, or Crestchic's state-of-the art control and condition monitoring software [VCS shown above].



Automatic load profiles: Create, run and monitor an unlimited amount of pre-set load application profiles; enabling repeatable tests and less intervention during commissioning.



Real-time monitoring and control: Comprehensive digital dashboard with live supply and hydraulic instrumentation data with full data export functionality.



Cluster Up to 240 Units: Combine air or liquid cooled loadbanks running the VCS platform to control. Monitor and control in clusters or as standalone units.



Automated compliance reporting: Audit-ready reports via Crestchic Portal, including: ISO 8258-5/22514, NEMA MG1, EN60150, IEEE 141, ASHRAE G22 standards.

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