

YOUR COMPLETE **CONTROL PACKAGE** FOR DATA CENTER COOLING



One PLC+HMI that handles control, communication, visualization, and monitoring. **No gateways. No add-ons.**

THE RIGHT DECISION WHEN TIME TO MARKET IS IMPORTANT

UniStream PLC + HMI is the best solution designed for your challenges



WHAT MAKES IT DIFFERENT?



100% Control in One Box

- One single PLC handles **everything**: control, I/Os, communication, visualization, diagnostics, and central monitoring.
- **No external gateways. No add-ons.**
No protocol converters. No custom development outside the controller.



Mission-Critical Reliability: Built-In Multi master control strategy

- Built-in support for **N+1 and master-slave group functionality** ensures reliable operation and smooth failovers for continuous cooling.



Adapts to Every Cooling Approach

- A single PLC that adapts to **any** cooling loop architecture.
- **Rack mounted and cabinet mounted** configurations.



Native Redfish + IPv6: The Only PLC Built This Way

- Our PLCs are OCP compliant, integrate **Redfish** and **IPv6 natively**, allowing direct connection to data center management and compliance with the data center network requirements.
- It comes **pre-licensed and pre-configured** with all required Data Center protocols, including **BACnet, Modbus, REST API, and OPC-UA**.



Cybersecure & Remote Access Ready

- **Cybersecure**: Certified to **ISO 27001**, meeting crucial Data Center security requirements.
- **Remote Access, Built In**: Monitor and remotely control your cooling equipment from anywhere via the integrated Web Server and VNC.



Partnership Built on Experience: We Know data center cooling

- **No Control or IT Know-How Needed**: We can provide the services to design your liquid cooling control and communication architecture, leveraging our deep experience to a successful implementation.

WHEN **ONE PLC SOLUTION CONTROLS** A DATA CENTER COOLING SYSTEM

A single UniStream Solution that manages everything.

PRODUCT CONFIGURATIONS

Each solution includes all the hardware and communication modules required to meet modern Data Center cooling requirements, **integrated and ready for deployment.**

DCB-CDU-US7-01 – UNISTREAM CDU US7 CONFIGURATION

Included Item	Description	Quantity
US7-B10-TA32	Main CDU controller with TA32 built-in I/O, B10 version	1
UAC-CX-01CAN	Enables group functionality over CAN network (N+1 or Master-Slave)	1
UAC-CX-01RS4	To support serial RS485 communication requirements with: 1. Modbus RTU devices (pumps, EC fans, VFDs) 2. SCADA/BMS monitoring 3. HVAC devices having BACnet MS/TP communication	2
640008114	16 GB UHS SD Card – mandatory for Redfish Events and Audit Trail	1

DCB-CDU-USC-01 – UNISTREAM CDU USC CONFIGURATION

Included Item	Description	Quantity
USC-B10-TA32	Main CDU controller with TA32 built-in I/O, B10 version	1
UAC-CB-01CAN	Enables group functionality over CAN network (N+1 or Master-Slave)	1
UAC-CB-01RS4	To support serial RS485 communication requirements with: 1. Modbus RTU devices (pumps, EC fans, VFDs) 2. SCADA/BMS monitoring 3. HVAC devices having BACnet MS/TP communication	2
640008114	16 GB UHS SD Card – mandatory for Redfish Events and Audit Trail	1
USL-070-B5	UniStream VNC panel for local or remote HMI access	1

Both configurations deliver the same connectivity and control performance – the difference is simply the physical form factor and installation method.

SOFTWARE CONFIGURATION

Each UniStream solution comes pre-licensed with all required communication and integration protocols for Data Center cooling control – no add-ons or external gateways needed.

License	Function	Why It Matters
BACnet IP Server (ULC-BNET101)	Enable monitoring by a Building Management System	Allows monitoring by a higher-level building management system.
BACnet Client (ULC-BNET201)	Controls BACnet HVAC devices over MS/TP and IP	Provides direct interaction with pumps, valves, and other HVAC components.
IPv6 Protocol (ULC-IPV6101)	Adds IPv6 support	Meets OCP mandatory IPv6 requirements for Data Centers.
Redfish Standard (ULC-RF101)	Enables communication with Data Center management systems	Allows CDU status, alarms, and performance data to be monitored via Redfish clients.

