

# YOUR COMPLETE CONTROL PACKAGE FOR DATA CENTER COOLING

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



## WHAT MAKES IT DIFFERENT?



### 100% Control in One Box

- One single PLC handles **everything**: control, IOs, 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.



[www.unitronics.com](http://www.unitronics.com)

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# DATA CENTER COOLING EQUIPMENT



**CDU**



**Computer Room Air Conditioning –  
CRAC / CRAH**



**Rear Door Heat exchanges RDXH**



**Chillers**



**Immersion Cooling**



**Air Handling Unit**

# 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.



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

