Uniflair Chilled Water InRow Cooling

InRow CW range

Close-coupled cooling for closets, server rooms, and data centers.
To meet the diverse requirements of IT environments, the Uniflair Chilled Water InRow products are available in two sizes.
The InRow RC is available in 300mm and 600 mm wide cabinets. Optional humidification and reheat is available in select units.

Benefits

- The Uniflair Chilled Water InRow product design closely couples the cooling with the IT heat load.
- This design prevents hot air recirculation, while improving cooling predictability and allowing for a pay as you grow environment.
- IT operators looking to improve efficiency or deploy higher density equipment will benefit from the modular design of the Uniflair Chilled Water InRow products.
- The intelligent controls of the Uniflair Chilled Water InRow products actively adjust fan speed and water flow to match the IT heat load to maximize efficiency and address the dynamic demands of today's IT environments.

Features and Benefits

Serviceability

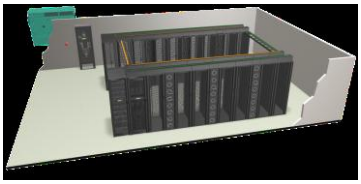
- Modular Components simplify replacement and reduce mean time to repair
- Allows system to remain operational if a fan replacement is required (300mm only)
- Row based equipment allows for all serviceable components to be replaced/maintained in the hot or cold aisles
- Easy to maintain, cleanable, deep loading mesh filter removes particles from the return air stream

Availability

- Active Response Controls monitor and actively adjust cooling capacity to ensure proper server inlet temperatures
- Placing the unit in the row of racks moves the source of cooling closer to the heat load. This eliminates air mixing and provides a predictable cooling architecture

Total Cost of Ownership

- Close Coupled Cooling improves operational efficiency 30%-50% over traditional data center cooling approaches
- Variable speed fans reduce energy consumption during off-peak cooling periods and adapt to unpredictable power densities

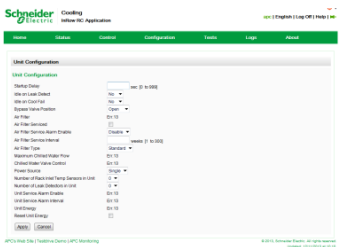


Flexibility

- Adapts to work in both new and existing data center environments

Manageability

- Real time display of current and available cooling.
- InfrastruXure Central compatible
- User-friendly touch screen display
- Building management system integration



Uniflair Chilled Water InRow Cooling 300mm

ACRC301S (Standard Temp)

Up to 40 kW

- Variable speed, hot-swappable fans reduce energy consumption during off-peak hours and allow system to remain operational if a replacement is required
- 4.3” Touch screen display for easy navigation and configuration
- New door design allows more airflow with supplemental side-air distribution
- Slide out electrical box for easy access
- Intelligent controls offer network manageability, real time capacity monitoring, predictive failure notification, and rack inlet temperature control
- Top or bottom piping / power connections
- Dual A-B power inputs offers redundancy and protection
- Remote probe ensures proper inlet temperature to IT equipment
- Condensate management –factory installed pump removes water from the unit, ensuring continuous operation

Performance specifications

- Increased Cooling Capacity
  - Up to 40 kW
  - 3200 CFM max airflow

  Conditions @ 45F EWT, 120F RAT, 12F dT
- Improved Energy Efficiency
  - 1.0 kW @ maximum operating condition
- 4.3” User Friendly Touch Screen
- 100-240V, 1-ph, 50/60Hz Integrated Compatibility
  - 100-120V: NEMA L5-20P to C19
  - 200-240V: IEC 309-16A to C19
- Compatible with Cooling Distribution Unit (CDU)
- Thermal containment & Active Flow Control Compatible

Net Cooling Capacity

Return air temperature	SKU	Total capacity kW	Sensible capacity kW
80ºF DB, 62.8ºF WB (26.7ºC DB, 17.1ºC WB)	ACRC301S	18,4	18,2
85ºF DB, 64.5ºF WB (29.4ºC DB, 18.1ºC WB)	ACRC301S	21,8	21,6
90ºF DB, 66.1ºF WB (32.2ºC DB, 18.9ºC WB)	ACRC301S	25,2	25,0
95ºF DB, 67.7ºF WB (35.0ºC DB, 19.8ºC WB)	ACRC301S	28,7	28,2
100ºF DB, 69.2ºF WB (37.8ºC DB, 20.7ºC WB)c	ACRC301S	30,4	30,1
105ºF DB, 70.8ºF WB (40.6ºC DB, 21.6ºC WB)[1]	ACRC301S	33,6	33,3
110ºF DB, 72.0ºF WB (43.3ºC DB, 22.4ºC WB)[2]	ACRC301S	35,8	35,4

Note: All values are accurate to +/-1 kW and based on full speed with standard filters
Note: All values in table are based on 45°F (7°C) entering water temperature with a 10°F (5.5°C) chilled water delta temperature
1 -Chilled water delta temperature is 12°F (6.6°C)
2 -Chilled water delta temperature is 14°F (7.7°C)

Uniflair Chilled Water InRow Cooling 300mm

ACRC301H (High Temp)

Up to 60 kW

- Economization and free cooling
- Variable speed, hot-swappable fans reduce energy consumption during off-peak hours and allow system to remain operational if a replacement is required
- Passive noise control foam fan bezels
- 4.3” Touch screen display for easy navigation and configuration
- New door design allows more airflow with supplemental side-air distribution
- Slide out electrical box for easy access
- Intelligent controls offer network manageability, real time capacity monitoring, predictive failure notification, and rack inlet temperature control
- Top or bottom piping / power connections
- Dual A-B power inputs offers redundancy and protection
- Remote probe ensures proper inlet temperature to IT equipment
- Dew Point Control Pump –internal pump recirculates return water to keep coil temperature above dew point and prevent condensation

Performance Specifications

- Increased Cooling Capacity
  - Up to 60 kW
  - 4200 CFM max airflow

  Conditions @ 55F EWT, 120F RAT, 12F dT
- Economization
  - Higher entering water temperatures
- DewpointControl
  - Ensure coil temperature is always above dew point
  - Results in no condensate
- Energy Efficient
  - 1.9 kW @ maximum operating condition
- 4.3” User Friendly Touch Screen
- 208-230V, 1-ph, 50/60Hz
  - Hardwired
- EcoAisle & Active Flow Control Compatible

45kW
of cooling at 60°F (15°C) Inlet Water!

Net Cooling Capacity

Return air temperature	SKU	Total capacity kW	Sensible capacity kW
80ºF DB, 62.8ºF WB (26.7ºC DB, 17.1ºC WB)	ACRC301H	13.4	**13,4**
85ºF DB, 64.5ºF WB (29.4ºC DB, 18.1ºC WB)	ACRC301H	18,0	**18,0**
90ºF DB, 66.1ºF WB (32.2ºC DB, 18.9ºC WB)	ACRC301H	24,0	**24,0**
95ºF DB, 67.7ºF WB (35.0ºC DB, 19.8ºC WB)	ACRC301H	29,9	**29,9**
100ºF DB, 69.2ºF WB (37.8ºC DB, 20.7ºC WB)	ACRC301H	34,9	**34,9**
105ºF DB, 70.8ºF WB (40.6ºC DB, 21.6ºC WB)	ACRC301H	40,3	**40,3**
110ºF DB, 72.0ºF WB (43.3ºC DB, 22.4ºC WB)	ACRC301H	44,6	**44,6**

Note: All values are accurate to +/-1 kW and based on full speed with standard filters
Note: All values in table are based on 60°F (15°C) entering water temperature with a 10°F (5.5°C) chilled water delta temperature

Uniflair Chilled Water InRow Cooling 600mm

ACRC600 series

Up to 70kW

- Variable speed fans reduce energy consumption during off-peak hours
- Intelligent controls offer network manageability, real time capacity monitoring, predictive failure notification, and rack inlet temperature control
- Top or bottom piping / Power connections
- Dual A-B power inputs offers redundancy and protection (Cooling only units)
- Remote probe ensures proper inlet temperature to IT equipment
- Electric reheat controls temperature during dehumidification (Optional)
- Humidifier maintains moisture level (Optional)
- Condensate management –factory installed pump removes water from the unit, ensuring continuous operation
- Casters allow for easy movement

Performance Specifications

- High Cooling Capacity
  - Up to 70 kW
  - 6000 CFM maximum airflow
- Optional Humidification & Reheat
  - Integrated and automatically controlled
- Voltage Options
  - 200-240V, 460-480V, & 380-415V
  - 3 phase 50/60 Hz
- Energy Efficient
  - 3.3 kW maximum (cooling only units)
  - 15 kW maximum (with reheat and humidification)
- EcoAisle& Active Flow Control Compatible

Net Cooling Capacity

Return air temperature	SKU	Total capacity kW (BTU/hr)	Sensible capacity kW (BTU/hr)
80ºF DB, 62.8ºF WB (26.7ºC DB, 17.1ºC WB)1	ACRC60x / ACRC60xP	37,9 (130,000)	36,8 (126,000)
85ºF DB, 64.5ºF WB (29.4ºC DB, 18.1ºC WB)1	ACRC60x / ACRC60xP	45,0 (154,000)	43,7 (149,000)
90ºF DB, 66.1ºF WB (32.2ºC DB, 18.9ºC WB)1	ACRC60x / ACRC60xP	53,2 (179,000)	51,2 (175,000)
95ºF DB, 67.7ºF WB (35.0ºC DB, 19.8ºC WB)2	ACRC60x / ACRC60xP	57,2 (195,000)	56,0 (191,000)
100ºF DB, 69.2ºF WB (37.8ºC DB, 20.7ºC WB)3	ACRC60x / ACRC60xP	61,6 (210,000)	61,0 (208,000)
105ºF DB, 70.8ºF WB (40.6ºC DB, 21.6ºC WB)3	ACRC60x / ACRC60xP	69,6 (238,000)	69,6 (208,000)

Note: All values are accurate to +/-0.73 kW (2500 BTU/hr) and based on full speed with standard filters
1 -Values are based on 45°F (7°C) entering water temperature with a 12°F (6.6°C) chilled water delta temperature
2 -Values are based on 45°F (7°C) entering water temperature with a 14°F (7.7°C) chilled water delta temperature
3 -Values are based on 45°F (7°C) entering water temperature with a 16°F (8.8°C) chilled water delta temperature