

InRow[®] Chilled Water

Close-coupled, chilled water cooling for small to large data centers

Up to 70kW



InRow RC, 300mm

Standard Temp (ACRC301S)



InRow RC, 300mm

High Temp (ACRC301H)



InRow RC/RP, 600mm

(ACRC500/ACRP500 series)



Row-Based Cooling

The InRow Chilled Water 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 InRow Chilled Water products. The intelligent controls of the InRow Chilled Water 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.

To meet the diverse requirements of IT environments, the InRow Chilled water products are available in two sizes. The InRow RC is available in 300 and 600 mm wide cabinets. The InRow RP is available in 600 mm wide only and includes humidifiers and reheat for humidity control.



Features/Benefits

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.



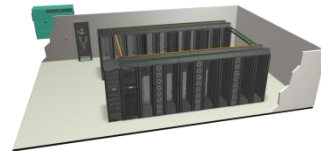
Total Cost of Ownership

- > 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.



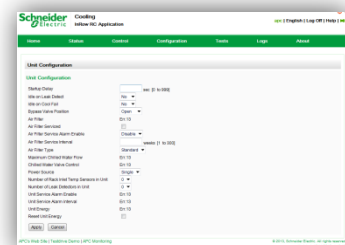
Serviceability

- > 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.



Manageability

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



InRow Chilled Water 300mm

ACRC301S (Standard Temp)

Up to 40kW



- 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 guarantees 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
- 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)
- EcoAisle & Active Flow Control Compatible

Net Cooling Capacity			
Return Air Temperature	SKU	Total Capacity kW	Sensible Capacity kW
80°F DB, 62.8°F WB (26.7°C DB, 17.1°C WB)	ACRC301S	18.4	18.2
85°F DB, 64.5°F WB (29.4°C DB, 18.1°C WB)	ACRC301S	21.8	21.6
90°F DB, 66.1°F WB (32.2°C DB, 18.9°C WB)	ACRC301S	25.2	25.0
95°F DB, 67.7°F WB (35.0°C DB, 19.8°C WB)	ACRC301S	28.7	28.4
100°F DB, 69.2°F WB (37.8°C DB, 20.7°C WB) ¹	ACRC301S	30.4	30.1
105°F DB, 70.8°F WB (40.6°C DB, 21.6°C WB) ¹	ACRC301S	33.6	33.3
110°F DB, 72.0°F WB (43.3°C DB, 22.4°C 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)

InRow Chilled Water 300mm

ACRC301H (High Temp)

Up to 60kW

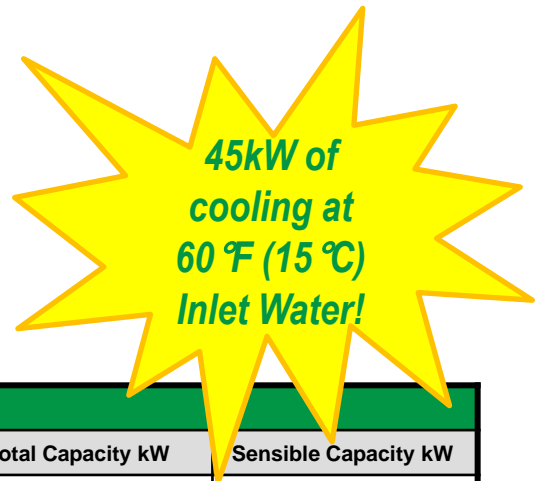


- Economization and free cooling
- Variable speed, hot-swappable fans reduce energy consumption during off-peak hours and allow system to remain operational if a replacement is required.
- Passive noise control foam fan bezels
- 4.3" Touch screen display for easy navigation and configuration.
- New door 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 guarantees inlet temperature to IT equipment.
- Dew Point Control Pump – internal pump recirculates coil water to keep coil temperature above dew point.

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
- Dewpoint Control
 - 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



Net Cooling Capacity			
Return Air Temperature	SKU	Total Capacity kW	Sensible Capacity kW
80°F DB, 62.8°F WB (26.7°C DB, 17.1°C WB)	ACRC301H	13.4	13.4
85°F DB, 64.5°F WB (29.4°C DB, 18.1°C WB)	ACRC301H	18.0	18.0
90°F DB, 66.1°F WB (32.2°C DB, 18.9°C WB)	ACRC301H	24.0	24.0
95°F DB, 67.7°F WB (35.0°C DB, 19.8°C WB)	ACRC301H	29.9	29.9
100°F DB, 69.2°F WB (37.8°C DB, 20.7°C WB)	ACRC301H	34.9	34.9
105°F DB, 70.8°F WB (40.6°C DB, 21.6°C WB)	ACRC301H	40.3	40.3
110°F DB, 72.0°F WB (43.3°C DB, 22.4°C 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.

InRow Chilled Water 600mm

ACRC500 / ACRP500 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.
- Electric reheat controls temperature during dehumidification (**RP only**)
- Top or bottom piping / Power connections
- Dual A-B power inputs offers redundancy and protection (**RC only**)
- Remote probe guarantees inlet temperature to IT equipment.
- Humidifier maintains moisture level (**RP only**)
- 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
 - RC: 3.3 kW @ maximum operating condition
 - RP: 15 kW @ maximum operating condition
- EcoAisle Compatible

Net Cooling Capacity			
Return Air Temperature	SKU	Total Capacity kW (BTU/hr)	Sensible Capacity kW (BTU/hr)
80°F DB, 62.8°F WB (26.7°C DB, 17.1°C WB) ¹	ACRC500 / ACRC500	37.9 (130,000)	36.8 (126,000)
85°F DB, 64.5°F WB (29.4°C DB, 18.1°C WB) ¹	ACRC500 / ACRC500	45.0 (154,000)	43.7 (149,000)
90°F DB, 66.1°F WB (32.2°C DB, 18.9°C WB) ¹	ACRC500 / ACRC500	52.3 (179,000)	51.2 (175,000)
95°F DB, 67.7°F WB (35.0°C DB, 19.8°C WB) ²	ACRC500 / ACRC500	57.2 (195,000)	56.0 (191,000)
100°F DB, 69.2°F WB (37.8°C DB, 20.7°C WB) ³	ACRC500 / ACRC500	61.6 (210,000)	61.0 (208,000)
105°F DB, 70.8°F WB (40.6°C DB, 21.6°C WB) ³	ACRC500 / ACRC500	69.6 (238,000)	69.6 (238,000)

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.