



InfraStruXure™ InRow RC

Chilled Water — 50/60Hz

In-row air conditioning for medium to large data centers including high density applications.

The predictable solution for an unpredictable environment. Data center heat densities continue to increase, making it more difficult to provide adequate cooling. The distance between heat sources and heat removal systems must decrease to ensure proper airflow paths. The closer to the heat generation source the air conditioner is, the less likely mixing of hot and cold air streams will occur. The InfraStruXure InRow RC is a computer room air conditioning system with a horizontal airflow pattern specifically designed for hot aisle/cold aisle configurations. Warm exhaust air is drawn from the hot aisle, cooled, and distributed into the cold aisle, ensuring that equipment inlet temperatures are constant and adequate for proper operation. Closely coupling the air conditioner with the heat source produces warmer return air to the system. This increases the heat removal capacity of the system and nearly eliminates the need for make-up humidification.

Features and Benefits:

AVAILABILITY

- **Predictable cooling:** 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.
- **Dual A-B power inputs:** Draws power from the UPS for power protection with dual feeds for redundancy.
- **Rack inlet control:** Rack inlet control guarantees inlet temperature to IT equipment.

TOTAL COST OF OWNERSHIP

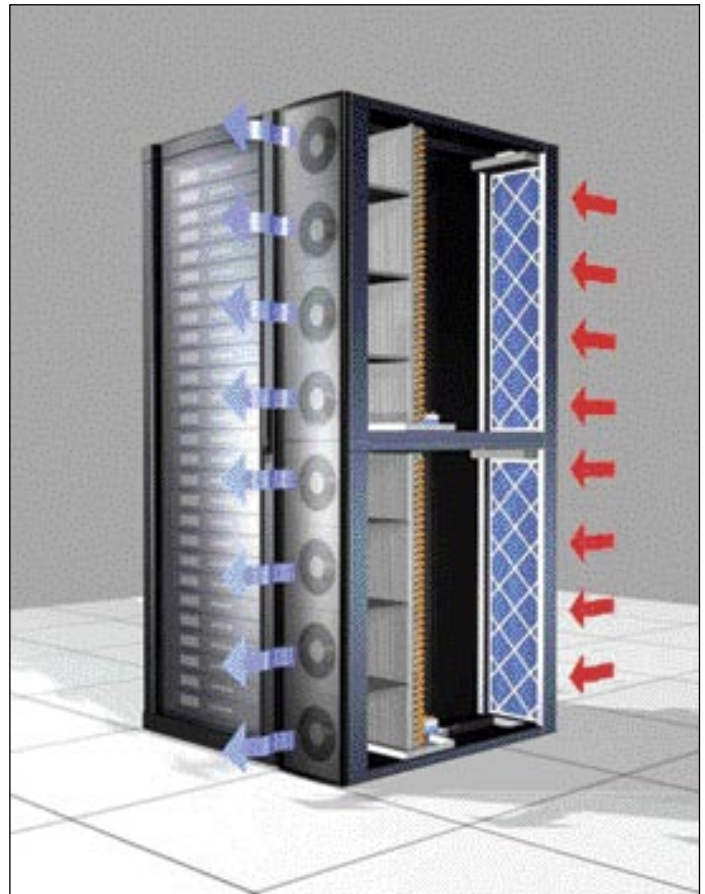
- **Variable speed fans:** Variable speed fans reduce energy consumption during off-peak cooling periods.
- **In-Row architecture:** In-row architecture enables pay-as-you-grow deployment of cooling.

AGILITY

- **Modular design:** Modular design provides scalable solutions to add cooling as demand increases.

SERVICEABILITY

- **Hot swappable fans:** Allows system to remain operational if a fan replacement is required.



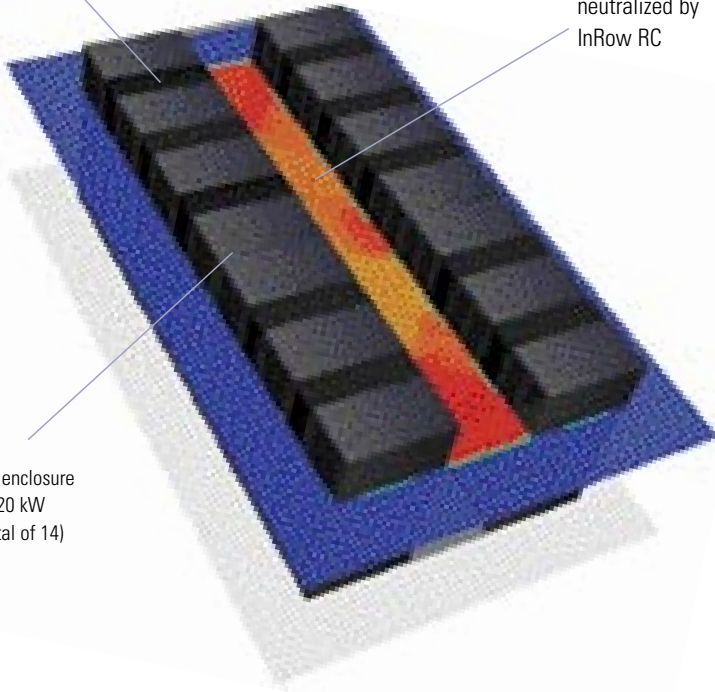
For more information about APC's Rack products, go to www.apc.com

APC[®]
Legendary Reliability[®]

InRow RC

All heat is contained and neutralized by InRow RC

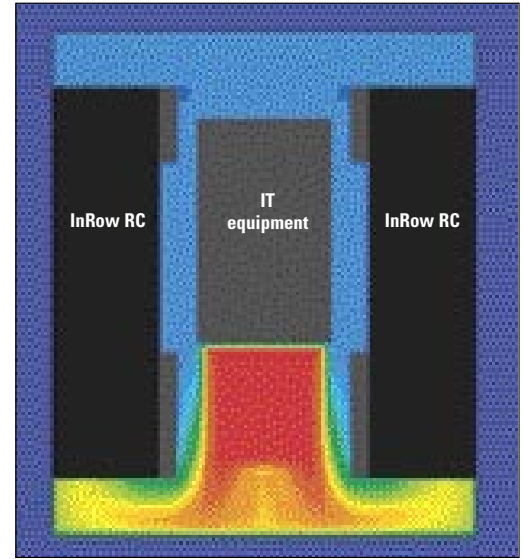
SX enclosure at 20 kW (total of 14)



APC Analysis on in-row cooling with hot aisle containment. Each rack is operating at 20 kW. All heat is captured and neutralized before mixing in the room.

Scalable for High Density

The predictable performance of the In-Row RC makes it well suited for high density applications. InRow RC units can be added in the row of racks as the IT heat load increases. This in-row architecture increases the ability to meet the needs of growing heat densities in today's data centers.



Plan view of APC Analysis on in-row cooling with Rack Air Containment System. It equipment operating at 45 kW.

InfraStruXure InRow RC Cooling Capacity

Temperature °F (°C)	CW Delta T °F (°C)	Total Net Capacity BTU/hr (kW)	Sensible Net Capacity BTU/hr (kW)	Sensible Heat Ratio SHR	CW Flow Rate GPM (l/s)	Total CW Pressure Drop PSIG (kPa)
85°F DB, 64.5°F WB (29.4°C DB, 18.1°C WB)	10 (5.5)	62000 (18.2)	62000 (18.2)	1.00	13.2 (0.83)	6.9 (47.53)
90°F DB, 66.1°F WB (32.2°C DB, 18.9°C WB)	10 (5.5)	74000 (21.7)	74000 (21.7)	1.00	15.5 (0.98)	8.8 (60.48)
95°F DB, 67.7°F WB (35.0°C DB, 19.8°C WB)	10 (5.5)	86000 (25.2)	86000 (25.2)	1.00	17.9 (1.13)	10.9 (74.78)
100°F DB, 69.2°F WB (37.8°C DB, 20.7°C WB)	10 (5.5)	98000 (28.7)	98000 (28.7)	1.00	20.2 (1.28)	13.1 (90.44)
105°F DB, 70.8°F WB (40.6°C DB, 21.6°C WB)	12 (6.6)	105000 (30.7)	105000 (30.7)	1.00	18.1 (1.14)	11 (76.01)

APC's quality system is certified by ISO 9001 standards



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