

Uniflair Chilled Water

23 kW -130 kW

Perimeter, chilled water cooling for data centers

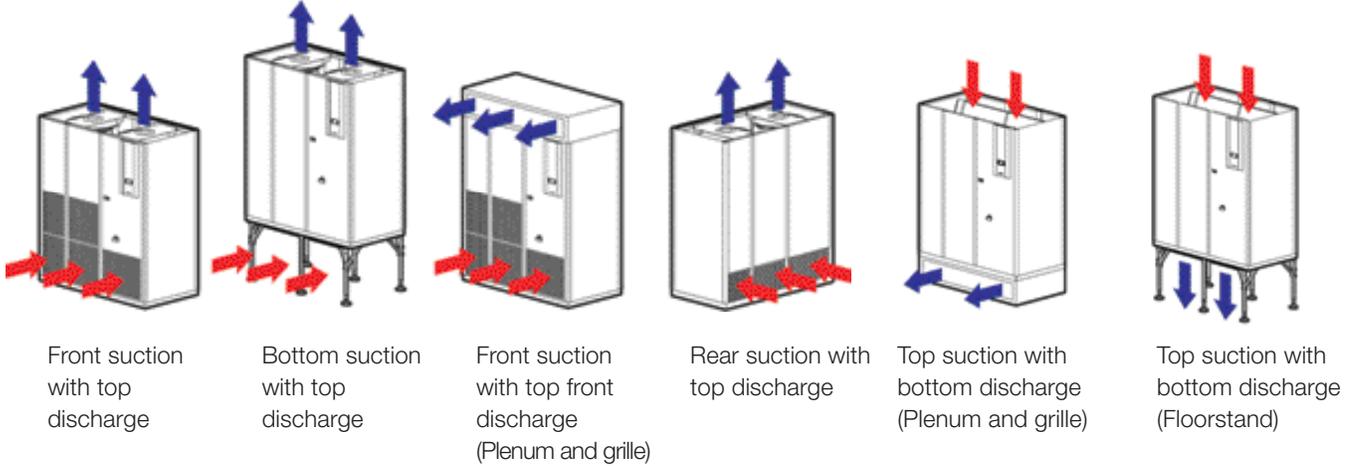


Reliable, efficient, and flexible room-based cooling

Uniflair Chilled Water products offer flexible cooling solutions perfect for lower density racked and non-racked IT loads. These products meet the diverse requirements of the data center environment to efficiently provide cooling at the room level. Uniflair Chilled Water offers a flexible, assemble to order solution that provides variable fan technology and intelligent control for a more efficient solution.

Features and benefits

Airflow configurations



Uniflair Chilled Water

Total cost of ownership

Electronically commutated fans provide the highest efficiency and reduce total power consumption by matching heat load of the data center

Careful sizing of heat exchanger coils yields a high sensible-to-total cooling ratio

Units were designed with compact dimensions to minimize cooling footprint and provide more space for IT equipment

Flexibility

Equipped with the ability to control both equipment cooling as well as humidity control

Units are available in both upflow and downflow configurations with multiple airflow options for any type of cooling application

Advanced controls enable the operation of the unit to adapt to every type of installation

Availability

Dehumidification operates only when required and is achieved without a reduction in airflow rate, ensuring continuous and uniform air distribution

Microprocessor controls the modulating three-way (or optional two-way) chilled water valve to give accurate capacity control

Serviceability

All front panels can be opened without the need for special tools and all normal maintenance operations can be carried out from the front of the unit

A push-button catch ensures easy access to the electrical panel and can be carried out with the unit in operation without disrupting airflow

Uniflair Chilled Water features



TDCV2500G electrical box

- 1 Backward curved EC fans**
Electronically commutated fans provide high efficiencies by controlling fan speed to the heat load of the IT equipment, thus reducing total fan power consumption
- 2 Immersed electrode humidifier**
Provides precise humidification control through the use of steam. Only requires potable water
- 3 30% efficiency air filters**
Filters maintain clean air throughout the IT space by collecting particles and debris in the airstream
- 4 Chilled water two- or three-way valve and actuator**
The modulating chilled water valve provides accurate capacity control of the unit
- 5 Cooling coil**
Chilled water coil utilizes a large surface area for decreased pressure drop
- 6 Temperature and humidity sensor**
Provides accurate temperature and humidity readings of the IT space for optimized control of the unit
- 7 Manual disconnect switch**
Allows the user to manually disconnect the power from outside the unit through a panel disconnect switch handle
- 8 User interface**
Allows the user to check alarms, program setpoints, and view all operations via an LCD interface on the front of the unit
- 9 Microprocessor controller**
Advanced controls provide absolute reliability, flexibility, and the highest possible performance of the unit
- 10 Integrated airflow switches**
Airflow switches detect a disruption of airflow across the filters or coil to alert the user that the filters need to be changed or there is a problem
- 11 Front service access**
Uniflair units only require front access to service the equipment

Schneider Electric Critical Power & Cooling Services

Dedicated teams with experience you can trust

Advantage Plans include technical support, preventive maintenance, and quick on-site response. Optional services and response time upgrades can be added to customize a service plan to meet your specific requirements and budget.

We also offer the following dedicated services to ensure reliable implementation and operation of the key critical application:

- **Schneider Electric™-certified installation** and startup of your solution ensures it is properly and safely installed and configured for optimal performance
- **On-site Warranty Extension** sends a certified field service engineer on-site within a predetermined period of time to correct a problem, minimizing downtime

- **Preventive Maintenance** visits scheduled proactively aim to prevent problems before they occur
- **Extended Warranties** provide an extension of the factory warranty in a one or two year increment
- **Cool Upgrade Service** provides two years of parts only protection and includes one annual Preventive Maintenance for three years

With Schneider Electric Critical Power & Cooling Services you can concentrate on your company's key competencies while we keep your solution running at optimal performance. Ask your representative to suggest a service plan from Schneider Electric that fits your unique needs.

Technical specifications

Model		700	1000	1200	1700	2500	3400	4000	4300*
Net cooling capacity kBTU/Hr (kW) based on 45F (7.2C) entering water 10F (5.5C) temperature rise									
75F DB, 62.5F WB (23.8C DB, 16.9 WB) 50% RH	Total	79 (23.1)	105 (30.6)	127 (37.2)	175 (51.1)	240 (70.3)	315 (92.4)	348 (102)	443 (129.6)
	Sensible	69 (20.1)	94 (27.6)	114 (33.2)	157 (46.1)	220 (64.3)	291 (85.4)	324 (95)	412 (120.6)
75F DB, 61F WB (23.9C DB, 16.1C WB) 45%RH	Total	76 (22.1)	98 (28.6)	120 (35.2)	168 (49.1)	233 (68.3)	308 (90.4)	342 (100)	436 (127.6)
	Sensible	69 (20.1)	94 (27.6)	114 (33.2)	157 (46.1)	220 (64.3)	295 (86.4)	328 (96)	419 (122.6)
72F DB, 58.7F WB (22.2C DB, 14.8C WB) 45% RH	Total	62 (18.1)	84 (24.6)	103 (30.2)	140 (41.1)	199 (58.3)	264 (77.4)	297 (87)	378 (110.6)
	Sensible	62 (18.1)	81 (23.6)	100 (29.2)	140 (41.1)	196 (57.3)	261 (76.4)	290 (85)	371 (108.6)
70F DB, 57.1F WB (21.1C DB, 13.9C WB) 45% RH	Total	55 (16.1)	74 (21.6)	90 (26.2)	127 (37.1)	179 (52.3)	237 (69.4)	266 (78)	344 (100.6)
	Sensible	55 (16.1)	74 (21.6)	90 (26.2)	127 (37.1)	175 (51.3)	237 (69.4)	263 (77)	340 (99.6)
Fan data									
Air volume - CFM (CMH)		3,650 (6,201)	6,030 (10,245)	6,320 (10,737)	8,650 (14,696)	11,000 (18,689)	14,700 (24,975)	15,300 (25,994)	17,350 (29,477)
External static pressure - inches of water (Pa)		0.08 (20)	0.08 (20)	0.08 (20)	0.08 (20)	0.08 (20)	0.08 (20)	0.08 (20)	0.08 (20)
Number of fans		1	1	1	2	2	3	3	3
Physical									
Weight - lbs (kg)		529 (240)	758 (344)	776 (352)	937 (425)	1,009 (457)	1,730 (785)	1,778 (805)	1,951 (885)
Height - in. (mm)		77.2 (1,960)	77.2 (1,960)	77.2 (1,960)	77.2 (1,960)	77.2 (1,960)	77.2 (1,960)	77.2 (1,960)	85.4 (2,170)
Length - in. (mm)		39.8 (1,010)	51.6 (1,310)	51.6 (1,310)	66.7 (1,695)	85.4 (2,170)	101.6 (2,580)	101.6 (2,580)	101.6 (2,580)
Depth - in. (mm)		29.5 (750)	34.0 (865)	34.0 (865)	34.0 (865)	34.0 (865)	34.0 (865)	34.0 (865)	34.0 (865)

*available only in downflow version