

Uniflair LE TDCV-TUCV

Chilled water units with backward-curved fans
equipped with EC motor

20-160kW



Perimeter cooling for medium/large data center

- > Refrigerant Chilled Water
- > EC Fans

Available Versions:

- > Downflow (TDCV)
- > Upflow (TUCV)

Main Technical Features

Microprocessor control

- Local or remote user terminal
- Integrated LAN card for group connection
- Rotation and active stand-by management
- Remote on/off
- Modbus protocol interface
- Other external communication protocols: Bacnet, Lonworks, Trend, Metasys, TCP/IP, SNMP, and StruxureWare™ platform.

Expansion Valve

- Selection of two-way or three-way valve
- Actuator integrated with microprocessor

Fans

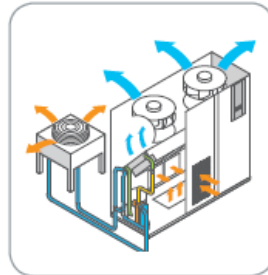
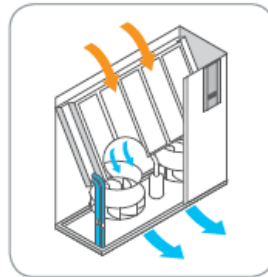
- Electronically Commuted Radical fans
- High-tech compound material impellers with optimized flow control
- Highly efficient Green Tech EC motors



Last generation Radical EC fans

Chilled Water system

- Availability of chilled water is used to control room conditions.
- Simple construction while providing outstanding reliability.
- Careful sizing of the heat exchanger coils for high sensible-to-total cooling ratio.



Note: This configuration is shown only as an example.

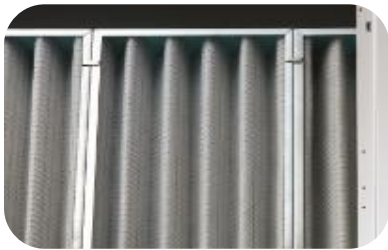
Main Technical Features

Cooling coil

- Elevated SHR and reduced pressure drops in the air section
- Made from copper tubes mechanically expanded on aluminum fins
- Hydrophilic treatment

Air filters

- EU4-pleated air filters housed in a metal frame
- Dirty filter differential pressure switch
- Low airflow differential pressure switch



Metal frame air filter

Frame

- Self-supporting frame in galvanized steel with panels.
- External panels coated with RAL9003 epoxy-polyester paint
- Internally lined with heat and sound-proofing insulation.

Electrical panel

- Situated in a compartment separated from the air flow
- Complying with 2006/95/EC directive and related standard

Directives compliance

- 2006/42/EC, 2004/108/EC, 2006/95/EC, 97/23/EC, 842/2006/EC F-GAS regulation

Construction Options

- Double power supply with automatic integrated management on the active line
- Immersed electrode humidifier (D/U versions)
- Low surface temperature electrical heaters with extended fans, complete with double safety thermostat and manual resetting (T/H versions)
- Discharge temperature sensor integrated with the microprocessor to allow discharge temperature control; in combination with D and U version, moisture control can be selected

External Accessories

- Remote, semi-graphic user terminal
- RS485 serial adaptor to communicate with external BMS
- LON FTT10 serial adaptor to communicate with external BMS managed with LON protocol
- TCP/IP serial adaptor to communicate with external BMS managed with SNMP protocol
- Motorized damper
- Suction from the top or front discharge plenums
- Adjustable floor stands

Technical Data

TDCV-TUCV Model		0600A	0700A	1000A	1200A	1700A	2000A
Fan Type	EC Backward-curved centrifugal motor fan						
Power supply	V/ph/Hz	400/3/50Hz					
Fans	Nr.	1	1	1	1	2	2
Airflow	m ³ /h	5950	6200	10200	10700	15000	18800
Gross Total Cooling Cap.(1) (2)	kW	23,7	26,7	33,9	42,7	58,5	70,9
Gross Sensible Cooling Cap.(1) (2)	kW	21,6	24,0	32,6	39,3	53,3	64,2
DIMENSIONS							
Height	mm	1960	1960	1960	1960	1960	1960
Length	mm	1010	1010	1310	1310	1720	2170
Depth	mm	750	750	865	865	865	865
TDCV-TUCV Model		2500A	2700A	3400A	4000A	4300A(3)	
Fans	Nr.	2	2	3	3	3	
Airflow	m ³ /h	18800	18800	24800	25200	29500	
Gross Total Cooling Cap.(1) (2)	kW	76,7	81,8	101,6	110,4	138,0	
Gross Sensible Cooling Cap.(1) (2)	kW	18800	18800	24800	25200	29500	
DIMENSIONS							
Height	mm	1960	1960	1960	1960	2170	
Length	mm	2170	2170	2582	2582	2582	
Depth	mm	865	865	865	865	865	
TDCV – TUCV Model Dual Coil		0700A	1000A	1700A	2000A	4000A	4300A(3)
Fans	Nr.	1	1	2	2	2	2
Airflow	m ³ /h	5875	10000	14400	19000	27500	29500
Gross Total Cooling Cap.(1) (2)	kW	22,5	37,7	58,2	72,3	105,8	112,2
Gross Sensible Cooling Cap.(1) (2)	kW	22,3	37,4	55,9	70,6	101,5	107,0
DIMENSIONS							
Height	mm	1960	1960	1960	1960	1960	2170
Length	mm	1010	1310	1720	2170	2582	2582
Depth	mm	865	865	865	865	865	865

1. Data refers to nominal conditions: Room at 24°C-50% RH, water temperature 7/12°C, glycol 0%, and ESP = 20Pa
2. Gross Cooling capacities; fans must be deduced to obtain net cooling data.
3. Only Downflow version is available.