Uniflair LE
TDCR-TUCR

Chilled water units with backward-curved fans

20-160kW

Perimeter cooling for medium/large data center

> Refrigerant Chilled Water

Available Versions:

> Downflow (TDCR)
> Upflow (TUCR)

Main Technical Features

Microprocessor control

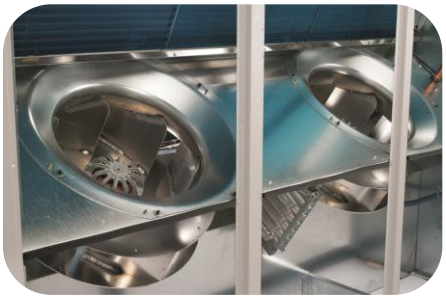
- Local or remote user terminal
- Integrated LAN card for group connection
- Rotation and active stand-by management
- Remote on/off
- Modbus protocol interface
- Other external communication protocols: Bacnet, Lonworks, Trend, Metasys, TCP/IP, SNMP, and StruxureWare™ platform.

Expansion Valve

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

Fans

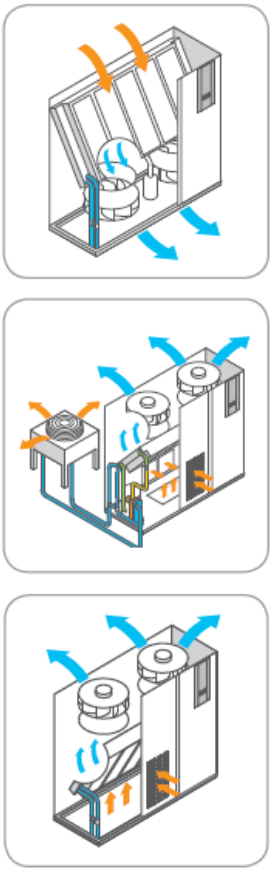
- High-efficiency backward-curved
- Directly-coupled asynchronous motor



Downflow unit with backward-curved 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.

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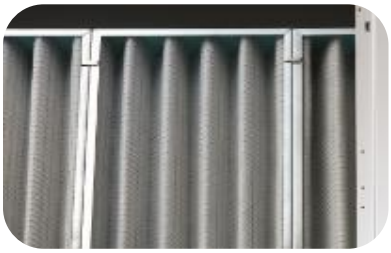
Main Technical Features

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
- Selfsupporting 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

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Technical Data

TDCR-TUCR Model		0600A	0700A	0600A	0700A	1000A	1200A	1700A
Fan Type	Backward-curved centrifugal motor fan							
Power supply	V/ph/Hz	230/1/50Hz		400/3/50Hz				
Fans	Nr.	1	1	1	1	1	1	2
Airflow	m3/h	5936	6193	5936	6193	10148	10723	14297
Gross Total Cooling Cap.(1) (2)	kW	23,7	26,7	23,7	26,7	33,8	42,7	56,7
Gross Sensible Cooling Cap.(1) (2)	kW	21,6	24,0	21,6	24,0	32,5	39,3	51,5
DIMENSIONS								
Height	mm	1960	1960	1960	1960	1960	1960	1960
Length	mm	1010	1010	1010	1310	1010	1310	1720
Depth	mm	750	750	750	750	865	865	865
TDCR-TUCR Model		**2000A**	**2500A**	**2700A**	**3400A**	**4000A**	**4300A(3)**	
Power supply	V/ph/Hz	400/3/50Hz						
Fans	Nr.	2	2	2	3	3	3	
Airflow	m3/h	18498	18615	19052	24422	25834	27984	
Gross Total Cooling Cap.(1) (2)	kW	70,2	86,4	90,4	110,9	126,0	161,8	
Gross Sensible Cooling Cap.(1) (2)	kW	63,5	76,1	82,7	100,4	112,6	131,9	
DIMENSIONS								
Height	mm	1960	1960	1960	1960	1960	2170	
Length	mm	2170	2170	2170	2582	2582	2582	
Depth	mm	865	865	865	865	865	865	
TDCR-TUCR Model		**0700A**	**1000A**	**1700A**	**2000A**	**4000A**	**4300A(3)**	
Fans	Nr.	1	1	2	2	3	3	
Airflow	m3/h	5817	10073	14619	19834	26463	28226	
Gross Total Cooling Cap.(1) (2)	kW	22,3	37,9	58,8	74,3	103,3	109,0	
Gross Sensible Cooling Cap.(1) (2)	kW	22,1	37,6	56,5	72,7	89,9	103,7	
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% ESP = 20Pa.
2.Gross Cooling capacities; fans must be deduced to obtain net cooling data.
3. Only Downflow version is available.

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