Uniflair LE HDCV

Chilled water units with backward-curved fans equipped with EC motor; underfloor configuration

30 - 250kW

Perimeter cooling for medium/large data center

- Refrigerant Chilled Water
- RadiCal EC Fans

Available Versions:

- Downflow Single Coil
- Downflow Dual Coil
Main technical features

**Underfloor Fan Module**
- Unit made of two sections for installation of fan module under the raised floor and increase of coil surface for energy efficiency maximization
- Floor stand integrated in the fan module

**Latest Generation RadiCal composite EC Fans**
- Very high reliability (brushless)
- New impeller design improves the auralic of the fan, maximizing the efficiency and reducing power consumption
- Continuous fan speed regulation from the microprocessor

**Unit with fan plenum installed under the raised floor**

**Unit with fan plenum installed above the raised floor**

**Single / Dual Coil versions**
- Single Coil: one chilled water circuit equipped with 2 or 3 way valve
- Dual Coil: unit equipped with two separate chilled water circuits equipped with 2 or 3 way valve
- Regulation logic chosen according to different strategies for energy efficiency maximization and for circuit operation

**Traditional or ASHRAE TC9.9**
- Range optimized for latest ASHRAE guidelines that grant higher operating temperatures in order maximize system efficiency
- One unit on each frame optimized for traditional operating conditions
Main technical features

**Microprocessor control**
- Advanced microprocessor control UG50
- Integration with Uniflair Chillers for Optimized Management logics
- Free-contact for general alarm and 2 for addressable alarms
- Remote ON-OFF switch
- Integrated RS485 serial card for direct connection to external BMS (Modbus)
- Second slot for additional serial card for BMS connection (optional)
- Clock Card integrated in the unit
- Chilled water inlet temperature measurement

**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

**Direct Free-cooling (optional)**
- Direct Free Cooling plenum as an option with maximum and minimum humidity levels monitored.

**Chilled water circuit**
- Selection of two-way or three-way valve
- Actuator integrated with microprocessor
- Zinc-free chilled water circuit

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

**Electrical panel**
- Situated in a compartment separated from the air flow

**Accessories**
- Double power supply with automatic changeover and manual selection with integrated ultra capacitor
- Intelligent dehumidification
- Automatic floor pressurization system
- Chilled water outlet temperature measurement integrated in the microprocessor
- Energy meter and CO₂ emissions calculator integrated in the unit
- Ultra capacitor for single power supply units
- Integrated base frame
- PIBCV valves
- Flowmeter

*Image of a metal frame air filter*
## Technical Data

### HDCV Model 0800A 1300A 1400A 1700A 1800A 2500A 2900A 4100A 4600A 4800A 5100A 5300A 5500A

<table>
<thead>
<tr>
<th>Fan type</th>
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### DIMENSIONS

| Height (2) | mm | 2510 | 2510 | 2510 | 2510 | 2510 | 2510 | 2510 | 2510 | 2510 | 2510 | 2510 |
| Length    | mm | 1010 | 1310 | 1310 | 1720 | 1720 | 2170 | 2170 | 2570 | 2570 | 3100 | 3100 |
| Depth     | mm | 865  | 865  | 865  | 865  | 865  | 865  | 865  | 865  | 865  | 865  | 865  |

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1.  Data refer to nominal conditions: Room at 35°C-30%RH, water temperature 18/24°C, fan module fully open installed under a 900mm raised floor, and glycol 0%.
2.  Includes fan module.
3.  Cooling performance refers to one running chilled water circuit.