

Uniflair LE IDAV

Direct Expansion air-cooled units with backward-curved fans equipped with EC motor and variable speed compressors

15 - 50kW



**Perimeter cooling for
medium/large data center**

- > Refrigerant R-410A
- > EC Fans
- > Brushless Variable Speed Scroll DC compressors

Available Versions:

- > Downflow

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

Electronic Expansion Valve

- Controlled by the microprocessor and a dedicated software
- Increased cooling precision
- Increased energy efficiency of the cooling cycle

Fans

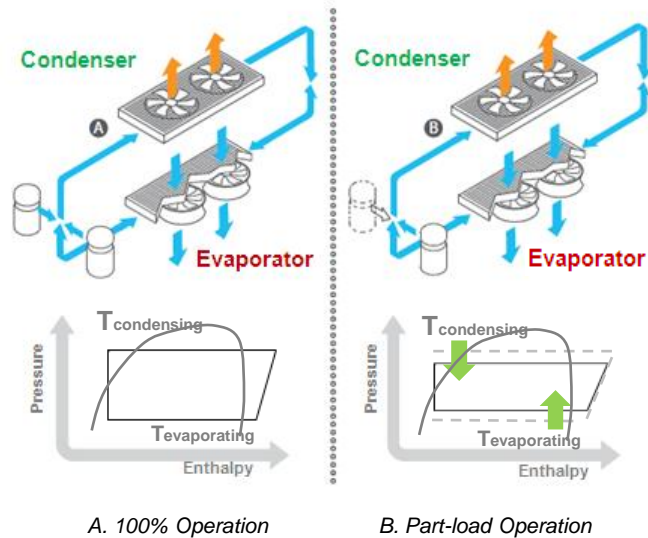
- Electronically Commuted
- Fan speed adjustment via microprocessor control
- High partial load efficiency

Brushless compressors

- Brushless Variable Speed Scroll DC compressors, which are modulated to respond to and match changes in room thermal load
- High efficiency at full and partial loads

Tandem

- Units in Tandem Version (models **21) equipped with one Brushless compressor and one fixed speed compressor operating in parallel on the same circuit
- At part-load one single compressor in operation (fig. B) benefits from the availability of a "double sized" evaporator coil
- Part load efficiency and COP (Coefficient of Performance) are significantly improved



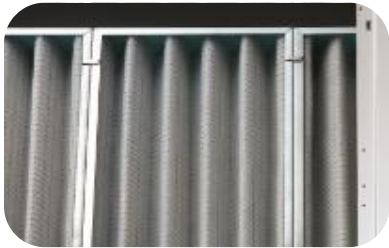
Main Technical Features

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

- Intelligent Dehumidification integrated in the unit
- Advanced microprocessor control system UG50 is included
- Integrated Discharge Temperature Control and Room Moisture Control

External Accessories

The units can be supplied with the following accessories:

- Double power supply with automatic changeover and manual selection with integrated ultra capacitor (on demand)
- Automatic Floor Pressurization System
- Energy meter and CO2 emissions calculator integrated in the unit (on demand)
- Ultra capacitor for single power supply units
- Direct free-cooling (on demand)
- Air cooled condensers equipped with EC fans

Technical Data

IDAV Model		0601A	0611A	1021A	1321A	1421A
Fan Type	EC Backward-curved centrifugal motor fan					
Power supply	V/ph/Hz	400/3/50Hz				
Fans	Nr.	2	1	1	2	2
Airflow	m3/h	4500	5700	8600	12320	16500
N° of compressors		1	1	1+1	1+1	1+1
Refrigerating Circuits		1	1	1	1	1
Gross Total Cooling Cap.(1) (2)	kW	23,1	23,4	31,4	39,3	53,4
Gross Sensible Cooling Cap.(1) (2)	kW	16,6	20,2	26,3	35,3	53,4
DIMENSIONS						
Height	mm	1740	1960	1960	1960	1960
Length	mm	1200	1010	1310	1720	2170
Depth	mm	450	750	865	865	865

1. Gross Cooling capacities; fans must be deduced to obtain net cooling data.
2. Data refers to nominal conditions : room at 24°C- 50% RH , 45°C condensing temperature, and ESP = 20Pa.