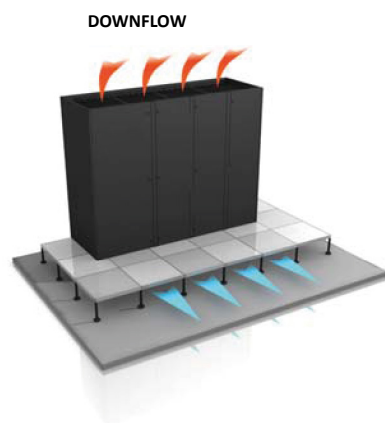


DAC

06/35

R410A

Precision Air Conditioning units:
C cooled water
Cooling capacity 6÷200kW



Coils DAC_N-R



Coils DAC_D



- DUCTABLE PRECISION AIR CONDITIONERS
- DEDICATED TO STRUCTURES FOR TELECOMMUNICATIONS, COMPUTER ROOMS, DATA CENTERS, STERILIZED ROOMS AND LABORATORIES
- POSSIBILITY OF TOTAL CONTROL OF TEMPERATURE, HUMIDIFICATION, DEHUMIDIFICATION, AFTER HEATING AND FILTRATION

FEATURES

MODELS

- **DAC_D** down flow

VERSIONS

- **DAC_C** cooled water

FEATURES

The cooled water Precision Air Conditioning units DAC are designed for precision air conditioning of technological rooms characterized from elevated thermal loads to be eliminated, such as computing centres and other applications where high performances and maximum reliability are required. Precision Air Conditioning units can be customized as per necessities, in order to offer a complete control of temperature, of humidity and of air quality through accessories such as humidifier, after-heating and high efficiency filters.

STRUCTURE

The structure is composed by a painted aluminium frame with black aluminium angles and removable panels made of painted plate galvanized with epoxy

powders, which can grant a lasting finish.

The standard supplied unit is of colour grey-black (RAL 7021). The colour light grey (RAL 7035) is optional.

COOLED WATER COIL

The finned pack cooling coil is with internally lined copper pipes and aluminium fins blocked through mechanical expansion of pipes. The fins are coated with hydrophilic film which guarantees a successful removal of water drops from the surface and permits to increase the coils's performances.

Modulating 3-way valve is standard supplied.

"EC" FANS

Centrifugal fans with back curved blades (plug-fan) with EC motor directly coupled with electronic control to minimize electric consumption and sounds emissions.

FILTERS

Filters with corrugated separator, class of efficiency G4 (according to EN 779).

There are available as optional high efficiency filters with pre-filters, class G3+F6.

ELECTRONIC REGULATION

The microprocessor regulation permits to visualize: return air temperature, air temperature humidity (optional), condensation pressure (optional) and cooled coil temperature and to regulate the load on return air. The microprocessor manages also the working alarms.

Possibility of interfacing with supervision system (there are different communications protocols available, ModBus, BACnet...). Visualisation of all working parameters in 4 languages.

EC FANS - PLUG-FAN



HUMIDIFIER "ACCESSORY"



2-WAY VALVE "STANDARD"



3-WAY VALVE "ACCESSORY"



ACCESSORIES

Wide range of accessories, which can be chosen by using the selection programme, that permits also a real time-fast dimensioning of the units.

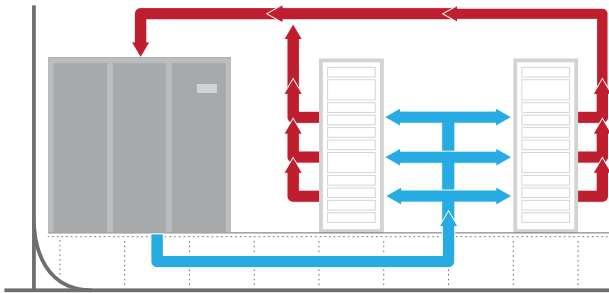
CONFIGURATOR

Field	DESCRIPTION
1, 2, 3	DAC
4	FRAME VERSIONS N Narrow (depth 600mm) R Regular (depth 890mm) D Dedicated
5, 6	FRAME 06, 09, 12, 15 18, 22, 25, 31, 35
7	MODEL D down flow
8, 9, 10	SIZES 085÷255
11	CIRCUIT 1 C cooled water
12	COIL CIRCUIT 1 0 Without Circuit 1 (only versions N-R) H High capacity (only versions R-D) L Low capacity (only versions R-D)
13	CIRCUIT 2 0 Without Circuit 2 C cooled water
14	COIL CIRCUIT 2 0 Without Circuit 2 (only versions N-R) H High capacity (only versions R-D) L Low capacity (only versions R-D)
15	POWER SUPPLY 0 400V/3/50Hz

DAC FRAME	FRAME VERSIONS		
	N	R	D
06	•		
09	•	•	
12	•	•	
15		•	
18		•	•
22			•
25			•
31			•
35			•

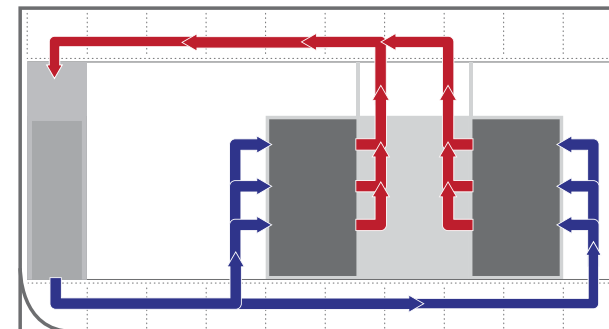
• Possible configurations

OPEN PASSAGES



In low density's applications (< 5 kW/rack) this configuration permits to distribute the air in front of racks, without having an appreciable mixing between cold air and hot air flows, as happens instead in rooms with a traditional configuration. This is an easy and flexible solution, because it permits to change rapidly, if necessary, the room's layout.

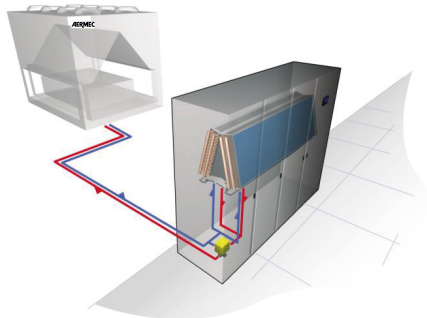
CLOSED PASSAGES



When power density in the server room grows, a solution with open passages is no more able to avoid mixing between hot and cold air flows. For high-medium power density applications (from 6 to 20 kW/rack) it must be used the solution with closed passages. The reduction through hot and cold passages avoids the risk of any mixing between the two air flows, ensuring to the server the needed cold air and increasing the global efficiency of the system.

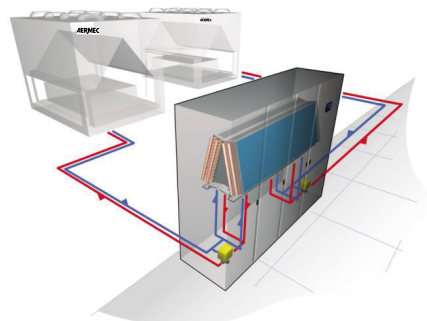
CONFIGURATIONS

C000



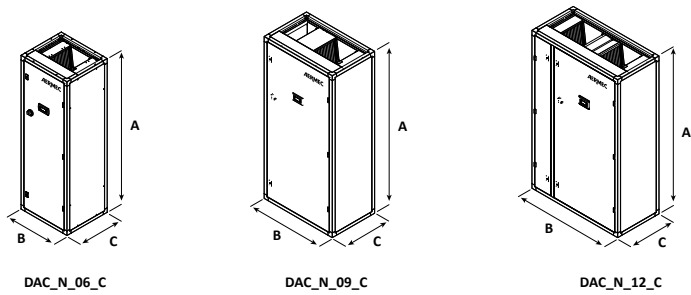
When cooled water monocircuit system is preferred, hot air of the room is aspirated through the efficient cooling coil of Precision Air Conditioning C000 and the heat is transferred to a cooled water system. Controlling the regulation 2-way or 3-way valve, the smart microprocessor can reach a precise control of temperature and humidity.

C0C0

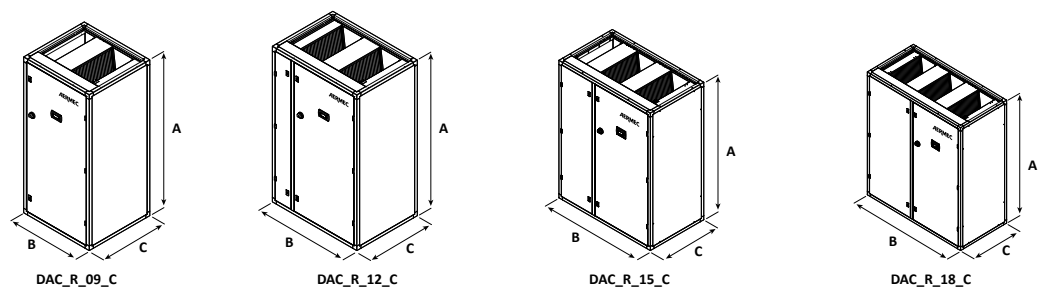


In the system C0C0, the cooling coils are divided into two independent systems, each of them with a modulating 3-way valve, managing in this way the cooling from two separate chillers. To be on the safe side, the double-circuit-configuration C0C0 offers redundancy 2N.

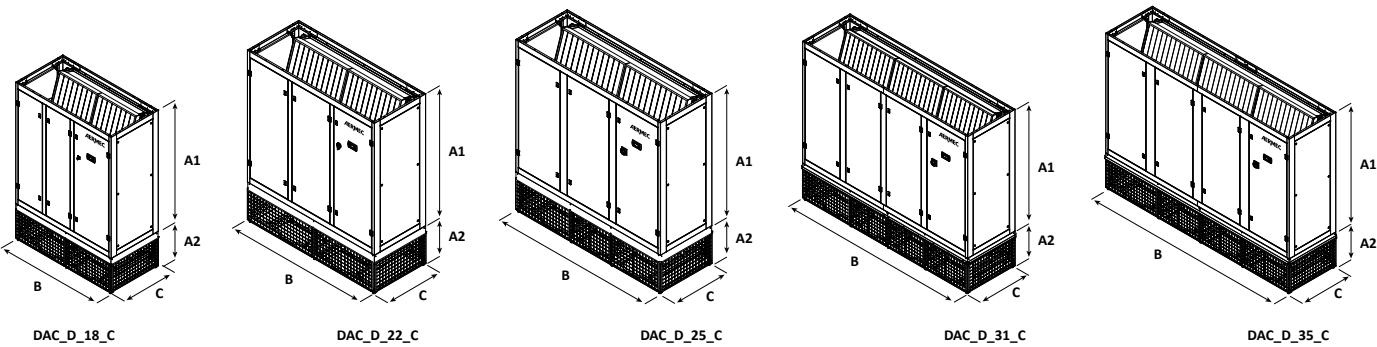
DIMENSIONS



DAC_N		U.M.	06	09	12
Height	A	mm	1980	1980	1980
Width	B	mm	684	963	1242
Depth	C	mm	600	600	600



DAC_R		U.M.	09	12	15	18
Height	A	mm	1980	1980	1980	1980
Width	B	mm	963	1242	1521	1800
Depth	C	mm	890	890	890	890



DAC_D	U.M.	18	22	25	31	35	
Height	A1	mm	1980	1980	1980	1980	1980
	A2	mm	600 minimum	600 minimum	600 minimum	600 minimum	600 minimum
Width	B	mm	1800	2200	2500	3100	3500
Depth	C	mm	890	890	890	890	890

Aermec reserves the right to make all modifications deemed necessary for improving the product at any time with any modification of technical data.

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