

HPAC - HIGH PRECISION AIR CONDITIONING

COOLING DOOR

Chilled Water
Cooling Door unit
26÷39kW

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CCD COOLING DOOR

NEW!

CHILLED WATER COOLING DOOR UNIT 26÷39 kW



VERSIONS

CCD - Cooling door BASIC: Single chilled water coil version

CCD - Cooling door DUAL: Double chilled water coil version

UNIT DESCRIPTION

The CCD unit is the most innovative and efficient system for managing Hot spots inside Data Centers, in other words, HIGH DENSITY racks up to and over 40 kW/m² per rack.

The Cooling door unit is housed at the rear of the rack and is managed by a DYNAMIC system, especially designed to handle the rack exhaust air, which SELF-ADAPTS to rack requirements.

MAIN FEATURES

- New generation EC fans
- 42U / 48U racks adaptability
- Can be supplied with rack
- Dynamic control of air stratification
- Configuration with reduced Airflow Rate R(N+1) and total T
- Integration into DUAL CIRCUIT, FREECOOLING + BACK UP system
- Dehumidification Less Management

WORKING MODE

The CCD unit is to be considered both as a stand-alone cooling unit for the exhaust air of the single rack in small Data Centers and as a system for managing Hot-Spots in large Data Centers for integration of hot and cold aisles or aisle containment structures. While the cooling of rack is delegated to the perimeter air conditioning units that provides cold air between 18-20°C in the cold aisle, the Cooling Door handles racks at a higher thermal load.

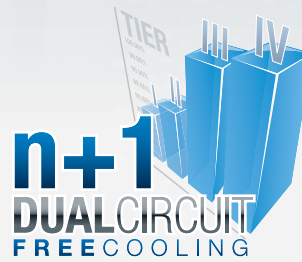
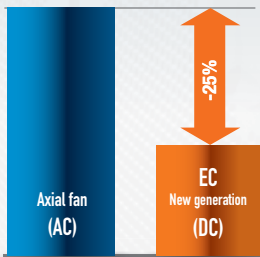
CCD

Cooling door BASIC

Cooling door DUAL

Models		0030 R	0030 T	0035 R	0035 T	0036 R	0036 T
Electrical power supply	V-Ph~Hz	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
Cooling Performances							
Total cooling capacity	(1) kW	26,6	31,8	32,2	39,1	29,2	35,8
Sensible cooling capacity	(1) kW	26,6	31,8	32,2	39,1	29,2	35,8
SHR		1	1	1	1	1	1
EER	W/W	157	110	189	135	172	123
Water flow rate	(1) l/h	3830	4570	4620	5610	4190	5140
Total unit pressure drop	(1) kPa	53	73	37	51	35	50
N° water circuits	n°	1	1	1	1	2	2
Fans							
Number	n°	4	4	4	4	4	4
Fan air flow	m ³ /h	5040	6520	4790	6200	4140	5520
Power Input	kW	0,17	0,29	0,17	0,29	0,17	0,29
Dimension							
Dimension LxHxP	mm	600x2020x260	600x2020x260	600x2020x260	600x2020x260	600x2020x260	600x2020x260

Note: (1) Inlet air : 46° C/15% r.h. ; Water (in/out): 14/20° C



EFFICIENCY

The CCD unit combines the efficiency of a hydronic heat extraction system with the use of last-generation electronic-switching EC fans in order to achieve EER values of over 100. The reduction in the temperature of the exhaust air allows the CCD to use cooling water with higher temperatures (14-20° C). This feature prevents unwanted condensation (SHR=1) whilst allowing just the freecooling system to be used on external Climaveneta chillers.

REDUNDANCY

CCD is designed to ensure maximum reliability of the system through full redundancy of the cooling system. This is guaranteed by the new DUAL version with dual power feed, dual battery and dual valve, which are completely independent; the result is the 100% back-up in conditioning system. This allows you to connect the new DUAL version from one side to a primary FREECOOLING system (Circuit 1) and the other to a chiller in total back up.



MINIMUM FLOORSPACE OCCUPANCY

The great advantage of the CCD lies in the fact that it is installed at the back of the rack (hot aisle) without occupying space that can be used for the racks, unlike other solutions which, instead, reduce the number of racks per row.



ADAPTABILITY

Climaveneta can supply the CCD complete with rack or just the CCD for installation in different types of rack using a 'surround' which adapts to every kind of rack.

FLEXIBILITY

To assure quick and easy installation, the CCD unit is fitted with flexible steel connectors on the water side and the electrical power input at the bottom. This allows the CCD to be comfortably opened and closed like a normal door for access to the rack at any time and without any difficulties in wiring, servicing and expanding the servers.

MODULARITY

As CCD units must only cater for the T° gradient, they are required to dissipate much less heat than local conditioning units (in the row) and therefore, unlike the latter, they never risk having a limited cooling capacity.

DYNAMIC RACK CONTROL

Optimal control of temperature stratification depending on the load of individual BLADES using 4 independent temperature probes connected to the 4 fans operating in the modulating and independent modes.

aisle CONTAINMENT AND INTEGRATION

Perfect integration with the aisle containment system as, being installed on the hot aisle, they do not require an entrance in the cold corridor for maintenance. Integration with all the HYDRONIC products in the Climaveneta range via monitoring software.



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