

**MITSUBISHI ELECTRIC
HYDRONICS & IT COOLING SYSTEMS S.p.A.**

IT COOLING

ROOM COOLING

CWWALL

**FANWALL UNIT FOR
DATA CENTER COOLING.
FROM 77 TO 418 kW**



CVWALL

Extremely versatile solution for high thermal loads in IT environments

CVWALL combines low initial investment costs, speed of installation and optimization of the space occupied by the cooling system.

These aspects fit perfectly with modern Colocation and Hyperscale data centers where the development time is rapid and special attention is given to the costs of the entire plant.



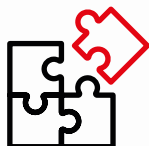
Raised floor not needed

The absence of raised floor reduces costs and routine maintenance.



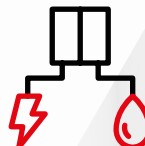
Lower initial cost per kW

Reduced initial costs compared to traditional solutions due to product design.



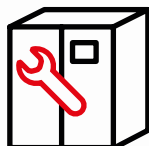
Modular design

With stackable modules.



Connection flexibility

Top and side hydraulic connections are available to match the needs of the plant.



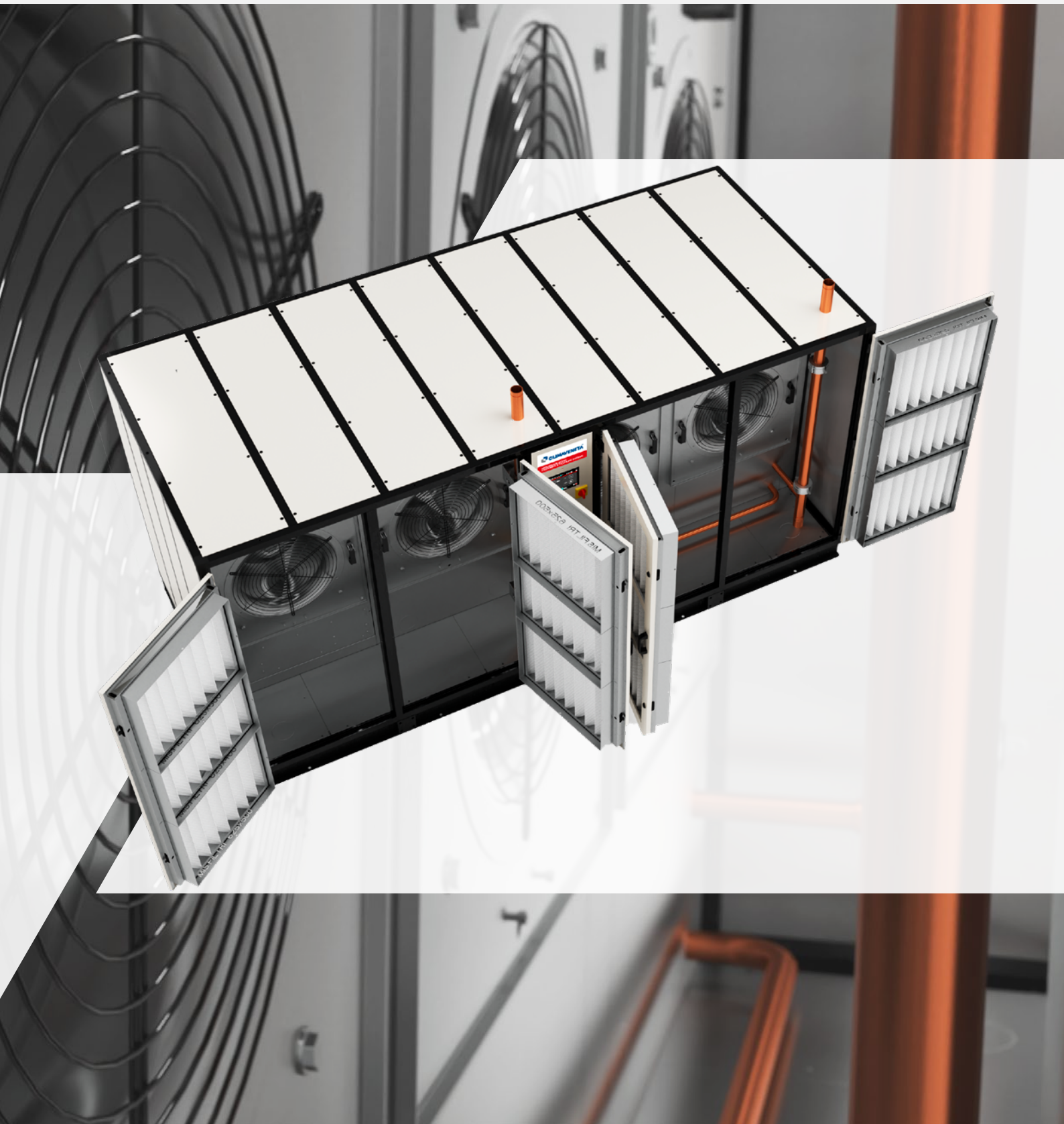
Full frontal accessibility

To main components from suction side (blown coil).



More room available for equipment

The positioning of the units in the technical corridor provides more usable space for the server racks.

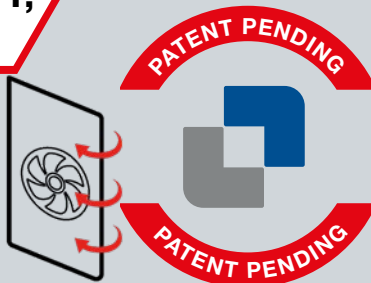


TECHNOLOGICAL FEATURES

FAN WALL is completely versatile solution. Each unit is stackable in order to increase the kW per footprint.

FULL FRONTAL ACCESSIBILITY, COIL INCLUDED

Openable filters, removable fans, and patented tilting movement of the fan section, allow access to any component inside the unit.



TAILOR-MADE COIL

Thanks to the customization of the heat exchanger, it is possible to satisfy the request for particular delivery air temperatures, specific delta T and volumetric air flow rates.

MAGNETIC LAMP

The possibility to adjust the magnetic lamp in any position facilitates inspection and routine maintenance.



EC PLUG FANS



The use of permanent magnet motors coupled with plug fans guaranteed high efficiency.

The range boasts great scalability of the volumetric air flow thanks to the number of fans: from 2 up to 8.

GALVANIZED STEEL FRAME

Verification of structural strength through drop tests from a height of 30 cm.

Holes are provided in the brackets at the base of the unit to facilitate lifting and handling.

TOUCH DISPLAY (opt.)

The touch display makes it easy to interact with the unit thanks to the latest generation Human-machine interface.



PRESSURE INDEPENDENT CONTROL VALVE (opt.)

Pressure-independent electronic control valve ensures accurate modulation and energy savings.



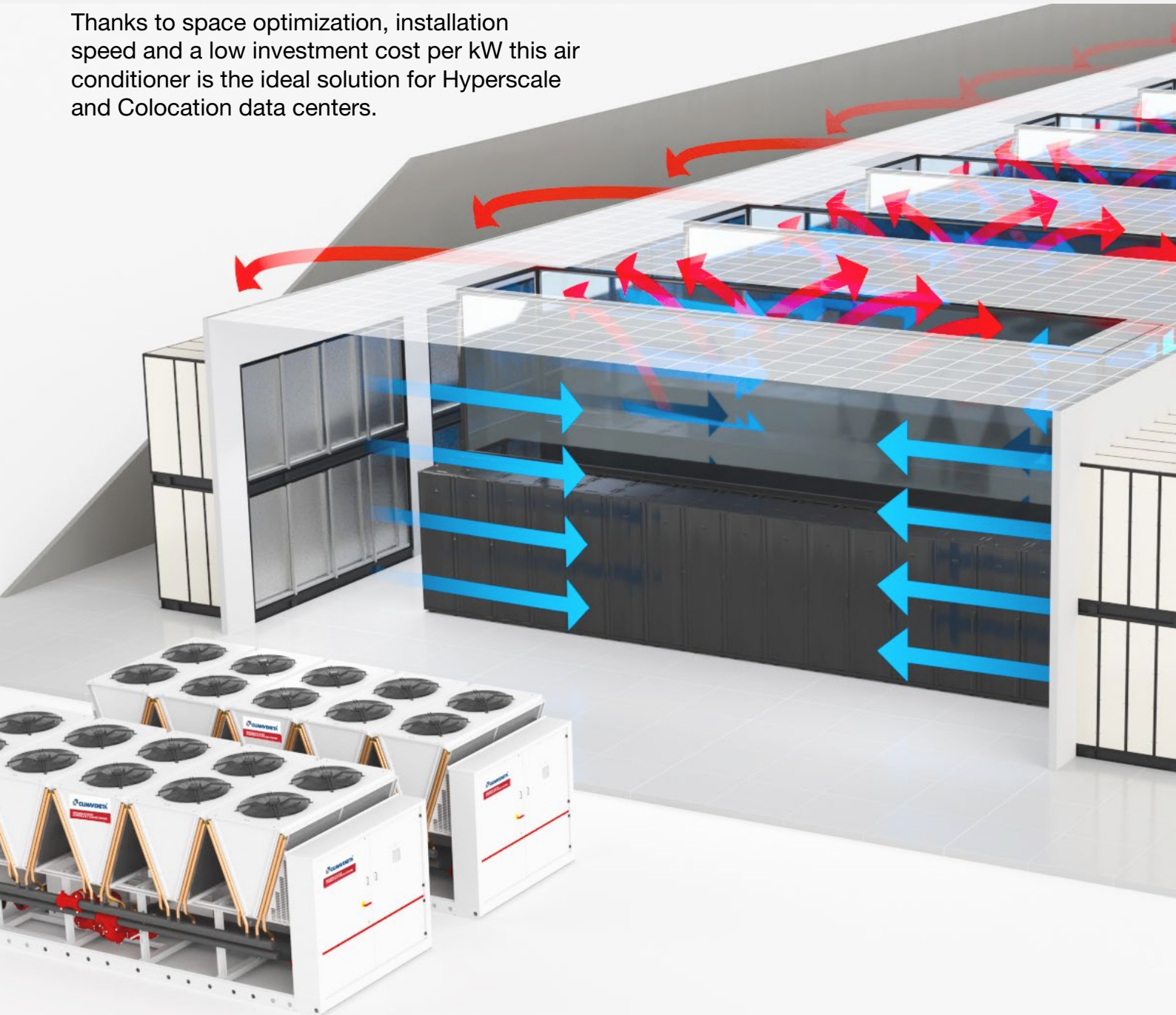
HIGH EFFICIENCY FILTERS

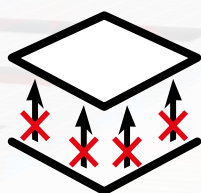
Large filtering surface area ensures low pressure drop and high efficiency.



HYPERSCALE AND COLOCATION DATA CENTERS

Thanks to space optimization, installation speed and a low investment cost per kW this air conditioner is the ideal solution for Hyperscale and Colocation data centers.





NO RAISED FLOOR

The absence of the raised floor ensures lower initial costs of the system and reduces routine maintenance.



CUSTOMIZATION

The organization of airflows and ducting depends on the data center designer. This range provides a wide choice of cooling powers, available air flow rates and dimensions in order to satisfy any requirement.



COOLING DENSITY

The increase the heating load forces the use of increasingly powerful cooling units without taking up any usable space. CVWALL is designed to increase the power density per square meter by taking advantage of the height, which are generally available in large data centers.

USER INTERFACE & CONNECTIVITY

State-of-the-art interface in terms of user experience.

The 7" touch screen display (opt.) with easy-to-read color graphics ensures the immediate visualization of the units' status and provides simple alarms and event management.

Dedicated menus show the main operating parameters like temperature, humidity, and ventilation.

MULTILANGUAGE

13 available languages

INTUITIVE ICONS

for a better user experience

REAL-TIME DISPLAY
of main operating variables

QUICK MENU ACCESS



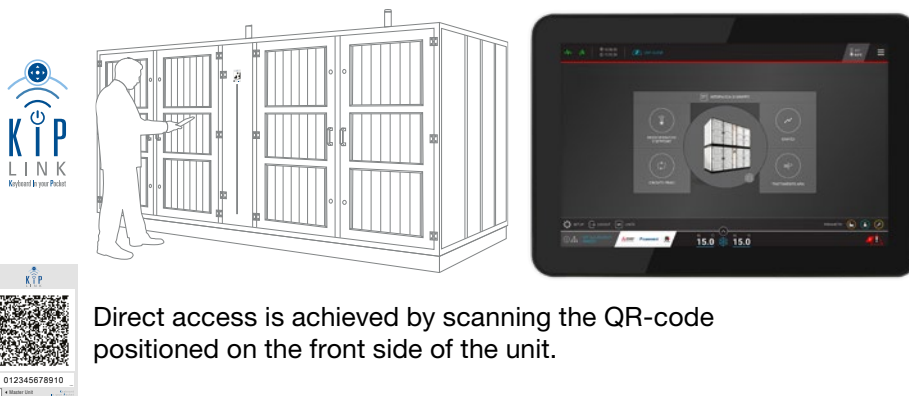
KIPLINK CONNECTIVITY

Based on proprietary technology, KIPLink is an option that allows one to operate the unit directly from a mobile device smartphone, tablet, or notebook

WI-FI KEYBOARD

Close to the unit with MEHITS APP access

MOBILE DEVICE



REMOTE CONTROL

In local network (LAN) of building with internet browser

BROWSER



With a simple Ethernet connection, it is possible to connect KIPLink to the facility LAN and get full access to the unit's control with a browser. Through a VPN it is also possible to access the menu from anywhere that has an Internet connection.

GROUP CONTROL SYSTEMS

Thanks to LAN logics, always integrated in CVWALL, it is possible to manage up to 15 modules in a single group optimizing load distribution, alarm management and back-up/stand-by of the units.



LAN FUNCTION

System solutions are also available to optimize the entire IT cooling system: Fanwalls and Chillers.

HPC

Hydronic Plant Connect



clima PRO+



1

ARCHITECTURE

Exploits **proprietary LAN technology** to connect Chillers' and Fanwalls' groups.

Completely **custom designed** to be connected to every Chiller and Fanwall.

2

PHYSICAL DEVICE

Completely Integrated in the units.

Devoted cabinet with 19" touch display.

3

FUNCTION

Optimization of the entire cooling system: Fanwalls, Chillers, FC availability, fans, pumps, valves.

Full control and monitoring, **advanced and real time optimization based on unit performance curve.**

4

APPLICATION

Straightforward solution for **Medium data centers** with **simple** cooling plant scheme.

State of the art solution for **Large and Hyperscale data centers** also with complex cooling plant scheme. Ideal for **TIER III – TIER IV** data centers.

AVAILABLE EQUIPMENT

PRESSURE INDEPENDENT CONTROL VALVE

- ✓ Automatic and permanent hydronic balancing.
- ✓ Ensures the correct amount of water with differential pressure changes and with partial loads.
- ✓ Real-time information on the measured flow rate and cooling power.

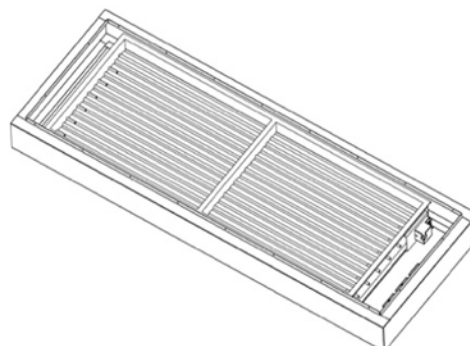


LATERAL CONNECTION KIT

- ✓ In order to make Fanwall more flexible for the specific configuration of the hydronic system, there are two types of connections for the water inlet and outlet from the unit: top connections (standard) or lateral side connections (optional).

DAMPERS AND PLENUM

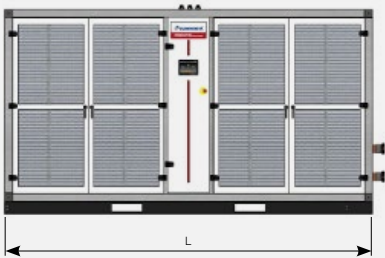
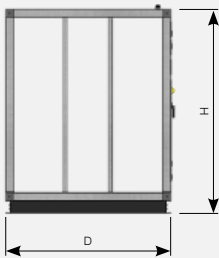
- ✓ The high level of customization allows different couplings between dampers and plenum.
- ✓ Available dampers and plenum from catalog or custom made.



CWWALL



CWWALL		081	091	131	151	201	231
Total cooling capacity	kW	77,7	89,2	131	142	198	209
Air flow	m³/h	21150	24800	34400	36300	47400	48800
Lenght (L)	mm	1800	1800	2700	2700	3600	3600
Depth (D)	mm	1600	1600	1600	1600	1600	1600
Height (H)	mm	1750	2000	1750	2000	1750	2000





CVWALL		162	182	262	302	402	462
Total cooling capacity	kW	155	178	262	283	397	418
Air flow	m³/h	42300	49600	68800	72600	94800	97600
Lenght (L)	mm	1800	1800	2700	2700	3600	3600
Depth (D)	mm	1600	1600	1600	1600	1600	1600
Height (H)	mm	3500	4000	3500	4000	3500	4000

Return air conditions 37°C, 25% RH with IN/OUT water temperature 20/30°C

“BY FAR THE BEST PROOF IS EXPERIENCE”

Sir Francis Bacon
British philosopher (1561-1626)

All over the world, in most data centers and in all projects where efficiency, quality, and reliability are priorities, the precision Climaveneta IT Cooling air conditioners are the best guarantee.

TRUE MTG DATA CENTER BANGKOK - THAILAND

Data center
Total cooling capacity: 3103 kW
Installed units:
50 x close control units



BRUNEI SHELL PETROLEUM DATA CENTER PANAGA-BRUNEI

Data center
Total cooling capacity: 1137 kW
Installed units:
4x Chilled water close control
air conditioners, downflow version



TECNOPOLO BOLOGNA BOLOGNA-ITALY

Mixed-Use Development, Offices, Residential buildings,
Data Center
Cooling capacity: 6490 kW
Heating capacity: 6490 kW
Installed units:
2x NECS-WQ 0904, 2x NX-WN 0252, 1x WIZARD 1720,
2x WIZARD 2080, 3x ClimaPRO, 9x i-FR-G05-Z/E/S
3602, 28x w-NEXT2 K E8 U 180





Data Center in UAE DUBAI - UNITED ARAB EMIRATES

Data center

Total cooling capacity: 25031 kW

Installed units:

5x ClimaPRO, 2x w-AV2 S U/S 065 E4, 6x w-AV2 S U/S 088 E5, 96x w-AV2 S U/S 210 E9, 16x i-FX-G01-Z/K 6042, 3x i-FX-G01-Z/A 3152



JUNIPER DATA CENTER BANGALORE - INDIA

Data center

Installed units:

5x FOCS2-CA 4802, 2x i-FX(1+I)CA 4513



CED MONCALIERI DATA CENTER MONCALIERI - ITALY

Data center

Total cooling capacity: 2868 kW

Installed units:

3x FX CA 4202



TRUE MTG DATA CENTER BANGKOK - THAILAND

Data center

Total cooling capacity: 771 kW

Installed units:

3x i-NX-Z/SL 0302P, 1x i-FX-G04-Z/SL-A 2602, 8x CRCV, 2x Aisle Containment



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