



Our solution for:

Data Center

To assist our customers in selecting optional features to install on our machines, we have compiled this short list of accessories that we typically recommend for applications destined for Data Centers.

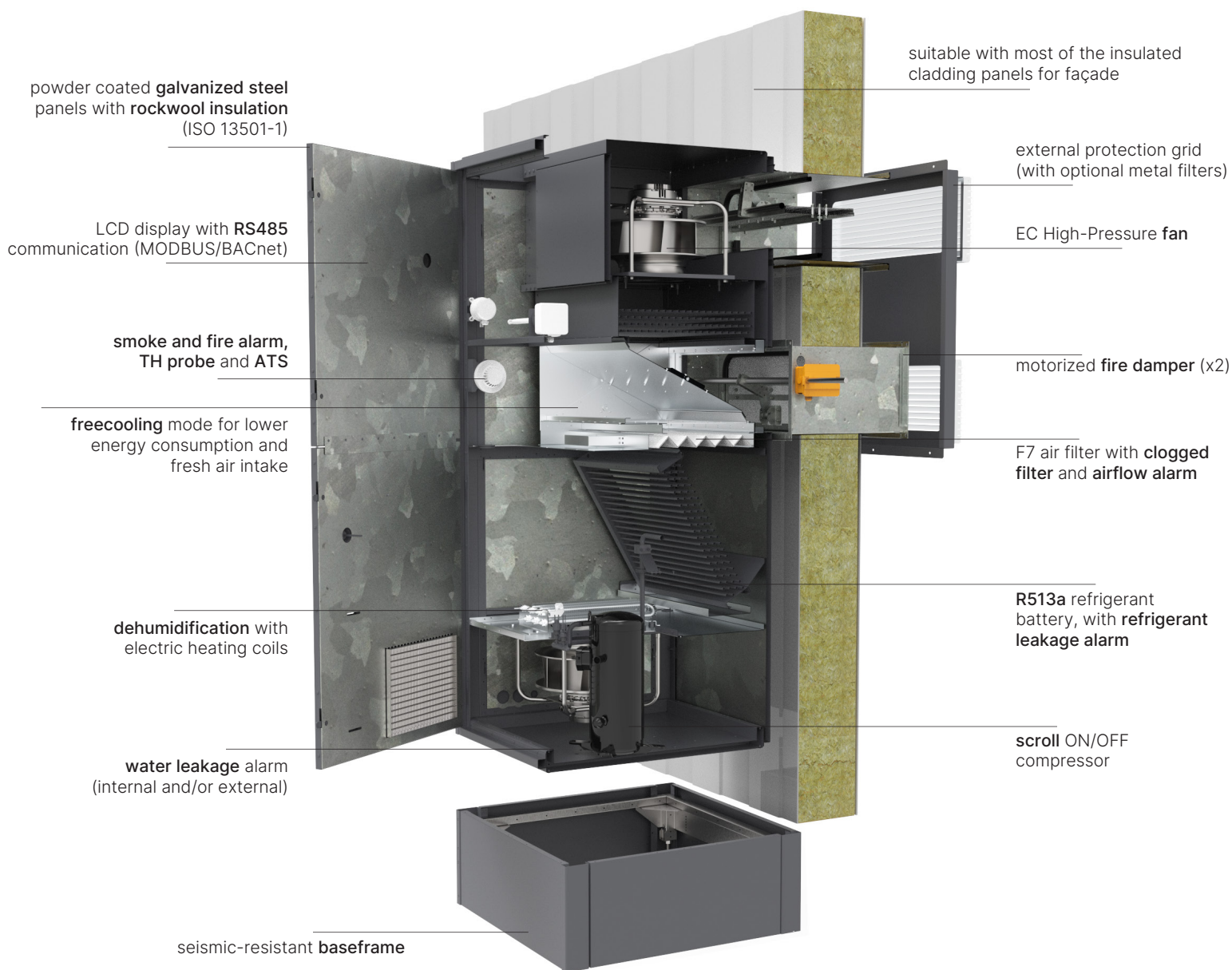


Our specific set-up for Data Centers:

*Do you need to maintain the right temperature
and humidity levels in your Data Center?*

Clima Processor is renowned for quality and reliability in the Data Center and technical facilities conditioning sector. We have developed a series of compact conditioning units designed specifically for Data Center applications, allowing for quick installation, even in locations where pre-existing systems are not available.

Discover our tailor-made solutions for your needs!



Different airflow configuration are always possible. It is also possible to create specific ducting or connection for pre-existing air delivery channels for air canalization.

The Clima Processor "CM series" is a *direct expansion* compact unit specifically designed for *indoor application*. This *freestanding version* is our best solution for Data Centers and Computer Rooms.

The series is composed by a variety of dimensions, with a cooling capacity going from 3kW up to 25kW. It is always possible to implement the cooling capacity up to any level requested. We recommend to implement the unit with a freecooling mode, which allows to reduce the energy consumption up to 70%, and by consequence the environmental impact: the Clima Processor can automatically switch to a freecooling mode when the external condition allows it.

The dimensions are extremely compact. Depending by the cooling capacity, they goes from 75cm x 67cm x 198cm high to 120cm x 100cm x 220cm high, which is the biggest standard solution.

The installation is extremely simple, and the complete installation, when the setup is ready, requires no more than 5 hours. Furthermore, *this compact solution require no HVAC technician for the setup.*

The CM series:

Protect Your Data Center from:

FIRE

Data Centers are susceptible to fire hazards due to the presence of electrical equipment. Our premium cooling machines come equipped with advanced fire suppression systems and temperature monitoring to ensure early detection and prevention of fire incidents. For this reason we suggest You to implement the unit with **rockwool insulating cladding** (ref. 01.003.s), **smoke alarm** (ref. 08.003.s), **fire alarm** (ref. 08.003.f) and **fire damper** (ref. 08.004) which can be manual or automatic.

WATER AND HUMIDITY

Excessive moisture and humidity can damage sensitive Data Center equipment. Our cutting-edge cooling units feature integrated dehumidifiers and moisture control mechanisms to maintain optimal humidity levels, safeguarding your equipment from water-related issues. For this reason we suggest You to implement a **dehumidification** system (ref. 06.001), in combination with a **water leakage alarm** (ref. 08.001) which can be punctual, positioned in the lower part of the machine, or linear, running outside the unit.

REFRIGERANT LEAKAGE

Refrigerant leaks can disrupt cooling systems and affect Data Center operations. Our machines can incorporate leak detection sensors and automatic shut-off valves to mitigate the risk of refrigerant leaks, ensuring continuous and efficient cooling performance. Discover more about **R513a** refrigerant (ref. 02.001.1), **refrigeration leakage alarm** (ref. 08.002.1) and **low pressure alarm** in the specific catalogue.

EARTHQUAKE

Earthquakes pose a serious threat to data center infrastructure. Our premium cooling systems are engineered with seismic-resistant features to withstand seismic events and minimize potential damage, providing stability and reliability during earthquakes. In particular, the additional **baseframe** enhances the structure's earthquake and impact resistance, thereby increasing the Data Center's overall safety and security.

DUST AND POLLEN

Dust and pollen particles can infiltrate Data Center equipment, leading to performance issues and potential failures. Our state-of-the-art units include advanced air filtration systems with **F7 filter** (ref. 03.003.2f7) to remove airborne contaminants, maintaining clean air quality and prolonging equipment lifespan. To avoid sudden airflow disruptions caused by a clogged filter, we recommend complementing the unit with a **clogged filter alarm** (ref. 03.005.1.cfa) and/or with an **airflow alarm** (low pressure switch).

Our suggested configuration:

STRUCTURE:

- *rockwool insulating cladding*
- *freecooling / fresh air intake*
- *seismic-resistant baseframe*
- *motorized fire damper (x2)*

ALARM:

- *smoke alarm*
- *fire alarm*
- *water leakage alarm*
- *refrigeration leakage alarm*
- *low pressure alarm**
- *clogged filter alarm*
- *airflow alarm*

AIR TREATMENT:

- *dehumidification (with heating coil)*
- *R513a refrigerant**
- *F7 filter*
- *TH probe*
- *coils special coating*
- *EC High-Pressure fan*

ELECTRIC:

- *ATS*
- *LCD display**
- *RS485 communication*

* included in the standard configuration

GET IN TOUCH FOR MORE INFORMATIONS!

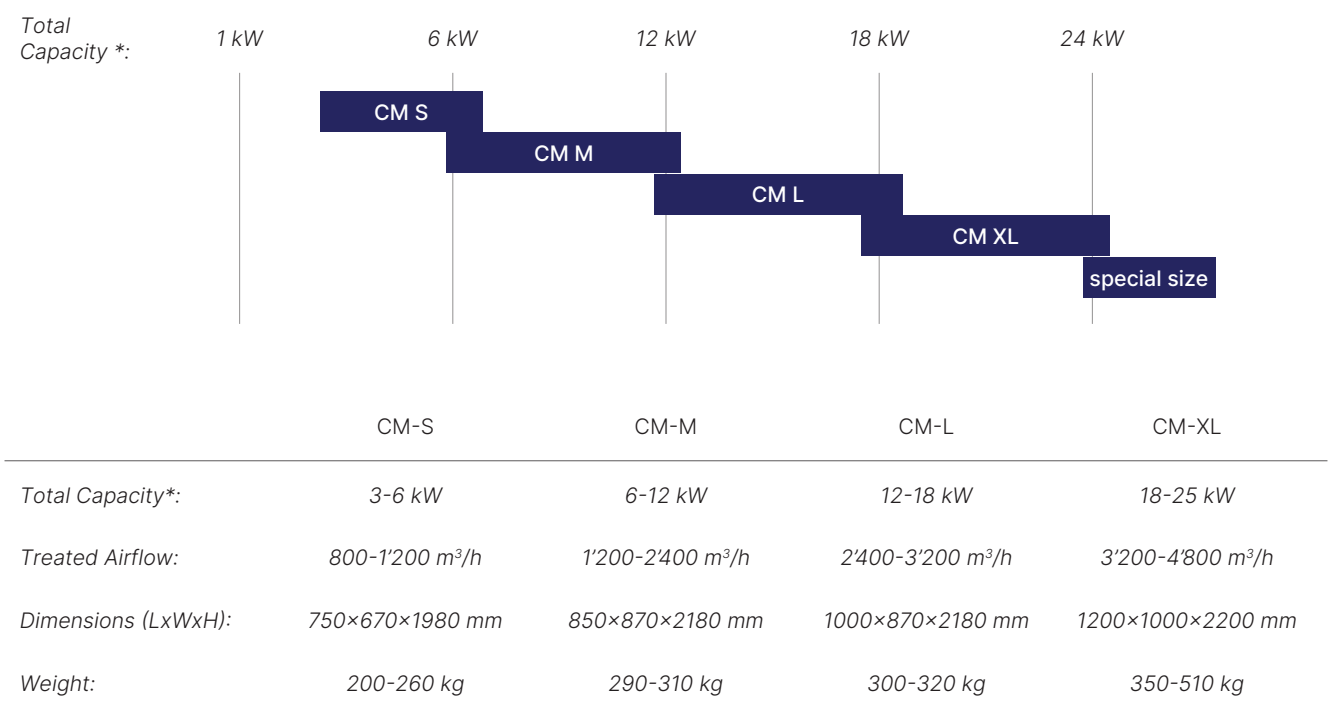
The equipment dimensioning is indicative and may vary based on the operating conditions under which the machines will operate, the temperature and humidity conditions required by the application, and the redundancies needed.

Different sizes for different needs.

For further information, please feel free to contact us, we will be pleased to help You!



For Small Data Center	For Medium Data Center	For Large Data Center	For Enterprise Data Center
Surface: 5-20 m ²	Surface: 20-50 m ²	Surface: 100-300 m ²	Surface: >500 m ²
Power Capacity: 1-5 kW	Power Capacity: 5-20 kW	Power Capacity: 50-200 kW	Power Capacity: >300 kW
Required Cooling Capacity: 0,3-1,7 kW	Required Cooling Capacity: 1,7-7 kW	Required Cooling Capacity: 17-70 kW	Required Cooling Capacity: >100 kW
our solution: 1x CM-S	our solution: 1x CM-M	our solution: 1x CM-M	our solution: 4x CM-XL
Cooling Capacity: from 3 to 6 kW	Cooling Capacity: from 6 to 13 kW	Cooling Capacity: from 6 to 13 kW	total Cooling Capacity: from 80 to 100+ kW
		or	
		2x CM-L	
		total Cooling Capacity: from 25 to 38 kW	
		or	
		3x CM-XL	
		total Cooling Capacity: from 55 to 75 kW	



*The Total Cooling Capacity depends on the external temperature/humidity conditions, as well as the internal conditions. The depicted ranges indicate the minimum and maximum values achievable with the configuration of that specific machine.