





ERFORMANCE VENTILATION

.20 VERSATILITY

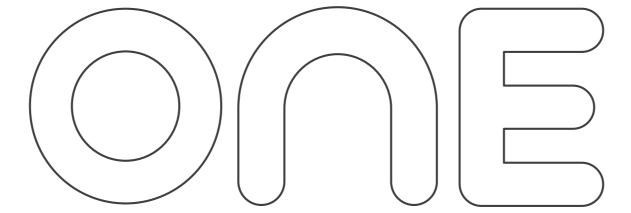
DESIGN

01.

VERSATI

05. CONTROL

06. A SINGLE







## SIBER ONE

# DESIGN



## First compact residential AHU

Residential air handling unit. Compact unit that combines CMV with heat recovery and water coil for air conditioning or heating.



## Easy access for maintenance



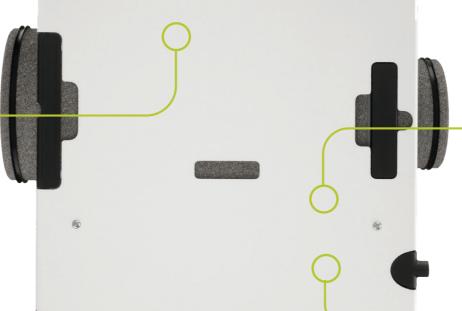
## Water coil

Compact high-efficiency water coil for cooling and heating in Fan Coil mode



## Ultra-compact design

Ultra-compact design with a reduced height of 27.5 cm



## Air recirculation

Air recirculation for air conditioning in addition to ventilation



## Smart design

Made of technical polymer and galvanised steel





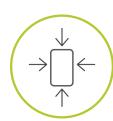
## Hydronic system

It does not need to comply with the regulations on refrigerant concentration per room as it does not displace oxygen in the event of a leak.





# 02 VERSATILITY



## Compact system

Compact system, avoiding having to install both climate control and ventilation systems



## Plug and play

Quick, easy and flexible installation



## Silent block

Simple attachment via four anti-vibration hooks, damping any vibrations to the structure.



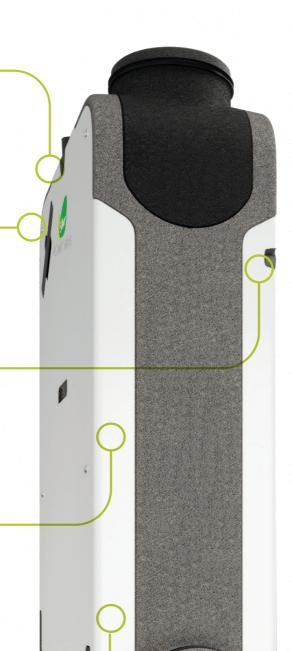
## Integration with other systems

Integration capability with other systems (underfloor heating and cooling, high- and low-temperature radiators, additional fan coil and DHW)



## Universal connectivity

Can be connected to any aerothermal or geothermal production unit



## Multiple configurations

Multiple air distribution configurations (star or spine network), climate control and/or ventilation...



## Guide adjustment

The guides can be installed on all sides of the unit thanks to the versatile silent block hooks.



## Position parallel to the ceiling

The unit does not need to be tilted in order to drain off condensates. Its design means it can be parallel to the ceiling without the need for a slant.



no 2% slant

## Adjustable condensation drains

With 3 rotating drains, which can be adjusted in line with the facility.



## Orientable nozzles

Quick and easy connection modularity.







## O 3 HIGH-PERFORMANCE VENTILATION

## Silent operation

High-performance unit for a constant flow rate with minimal noise, ensuring acoustic comfort.





## Maximum seal-tight integrity

The nozzles are designed to ensure maximum seal-tight integrity. Double symmetrical seal to ensure a tight fit between the duct and the unit.



Unit designed with crossed flows consisting of a highperformance counter-flow heat exchanger.





# Free cooling thanks to the automatic bypass

The bypass allows you to enjoy favourable indoor temperatures in both summer and winter, bypassing the heat exchanger. This is done automatically (configured at factory).

## Air purifier filters

Wide range of filters on 3 of the nozzles (input, discharge and return), guaranteeing indoor air quality.



Low power consumption, Specific Fan Power

With low SFP (consumption per m3/h)





EFFICIENTAIR CONDITIONING

## Climate distribution

# up to 600 m<sup>3</sup>/h

## **Dehumidify** mode

Reduced relative humidity

## **Efficient** transfer

Efficient water-to-air temperature transfer

## **Brushless**

The ranges are available with variable speed motors regulated by an integrated EC driver, enabling efficient, adaptable operation.

## Reduced heat pump

Helps ensure energy savings of the pumps.



## motors

# power

by reducing the power output



## **Efficient** and sustainable air conditioning

Efficient and sustainable air conditioning thanks to the combination with renewable energy sources, solar panel, aerothermal/geothermal (multi-energy systems)



## Any type of installation

For individual and communal residential use (single- and multi-family properties).



## Cooling and heating mode

Air conditioning power up to 4-5 kW(\*) (EN 1397:2022)







## **APP**

App for controlling and monitoring the unit





They can be adapted to any type of building or integrated into building management systems (BMS), either external or in-house



Intuitive control

Remote access and monitoring



## Modbus as standard

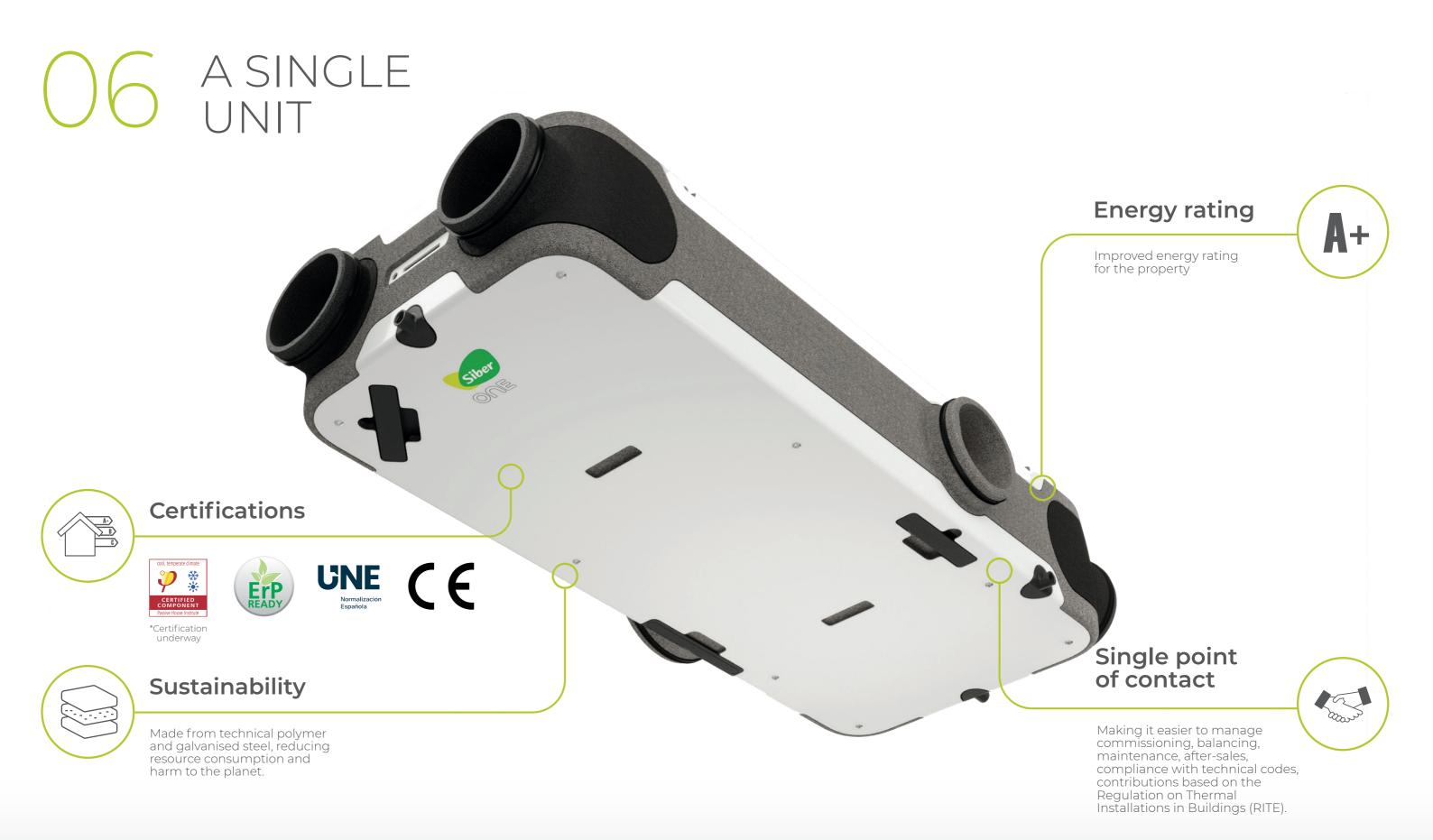
Modbus incorporated as standard in the unit



## Ambient unit control

Room unit control compatible with any hydronic system (individual or communal heat pump, whether aerothermal, geothermal or chiller) for operation in cooling or heating mode with controlled ventilation 24/7.







Clean air intake from the outside

Discharge of stale

indoor air

## SIBER® ONE



### **Technology**

**HRV** Controlled Mechanical Ventilation

### **System**

Individualised

### **Projects**

New-build or refurbishment projects

### **Buildings**

Multi- or singlefamily buildings

### Flow rate

max. 200 m<sup>3</sup>/h ventilation

max. 600 m<sup>3</sup>/h climate control and ventilation

### Compact individual residential air handling unit (AHU) per property.

Ventilation unit that combines heat recovery with recirculation and a built-in thermal conditioning system.

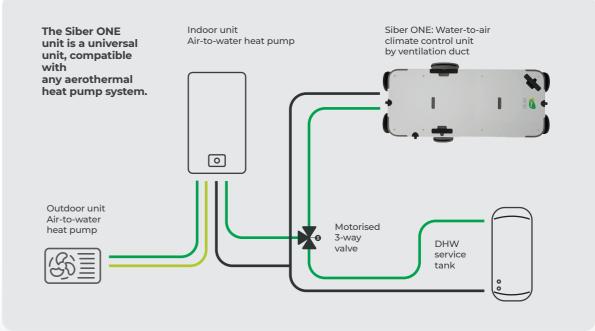
This dual combination ensures optimal comfort through a single unit and air duct system, maximising the efficiency of the installation and the equipment within the residential property.



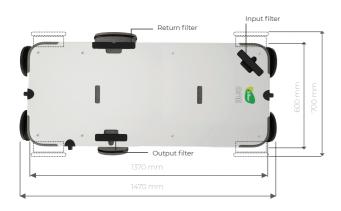
### **ADVANTAGES**

- Air conditioning power of up to 4-5 kW(\*) (EN 1397:2022)
- High recovery performance
- Silent operation
- Free-cooling, 100% automatic ventilation bypass
- Water coil with 3 rows of piping
- Half-inch water connection system
- Quick and easy installation
- Adjustable nozzles for maximum seal-tight integrity
- Triple drain, adjustable
- Fastener guides with silent block hooks

## I EXAMPLE OF A TYPICAL INDIVIDUAL HYDRAULIC CONFIGURATION



### **I DIMENSIONS**





### Main advantages

Very low profile - Height of 27.5 cm

Maximum flow rate in ventilation: 600 m3/h.

ModBus connectivity included.

Ambient unit control included.

Compatible with any heat pump.

### CONTROL ADD-ON FOR AMBIENT UNIT INCLUDED

Ambient unit control

- AC/DC 24 V power supply
- 160 x 128 pixel touchscreen ModBus communication protocol
- · Built-in temperature sensor
- · Built-in humidity sensor



**I VENTILATION - AIR CONDITIONING FLOWS** 

Climate control supply (air is collected from the property for air (conditioned clean air is conditioning) sent into the property)

Climate control return

**Extraction of stale** 

indoor air

hydraulic return **Aerothermal** hydraulic output

**Aerothermal** 

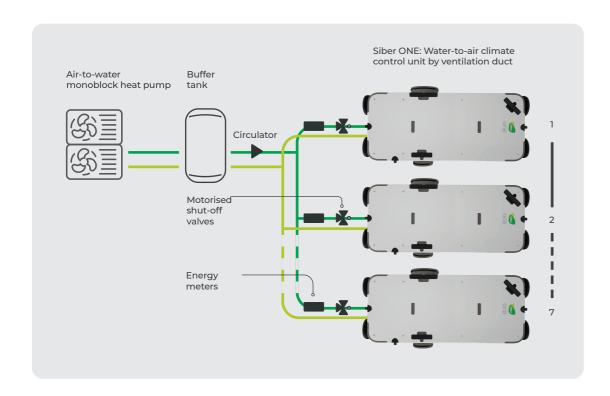
Climate control supply (conditioned clean air is sent into the property)

Aerothermal hydraulic output

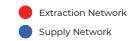
Aerotherma hydraulic return



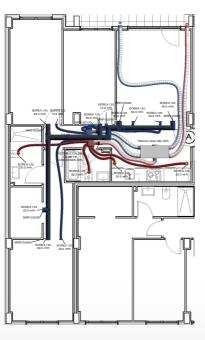
### **I EXAMPLE OF A TYPICAL CENTRALISED HYDRAULIC CONFIGURATION**



### **EXAMPLE OF THE VENTILATION AND AIR CONDITIONING DUCT SYSTEM**







### I TECHNICAL CHARACTERISTICS

SIBER® ONE					
Supply voltage	230/ 50 Hz				
Protection class	IP 44				
Dimensions (LxWxD)	1370 x600x275mm				
Connection diameter	Ø 180				
Condensate drain diameter	1/2"				
Weight	45 kg				
Filter class	Coarse 65% (G4)				

### I THERMAL PERFORMANCE

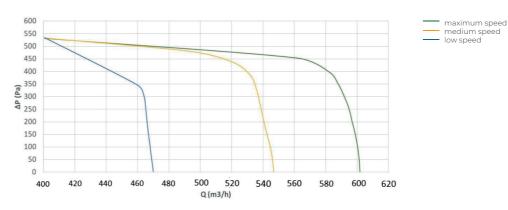
The coil's innovative design and geometry ensure that the unit achieves a high heat exchange efficiency, as can be seen in the table below, which shows that, under various operating temperatures, the air temperature closely matches the water input temperature from the aerothermal system, indicating that practically all of the coil's thermal potential is used.

SIBER® ONE thermal performance								
	T <sub>in</sub> water (°C)	T <sub>out</sub> water (°C)	Q <sub>water</sub> (I/min)	Power (kW)	Q <sub>air</sub> (m³/h)	T <sub>in</sub> air (°C)	T <sub>out</sub> air (°C)	
Heating	45	40	12	4/5(*)	764	20	38,7	
Refrigeración	7	12	11	3/4(*)	602	27,7	13,3	

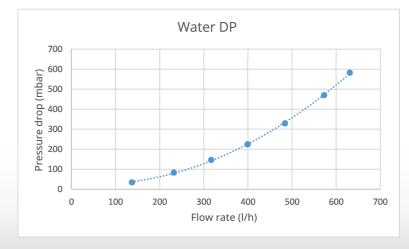


(\*) under official certification process

### I CHARACTERISTIC CURVE

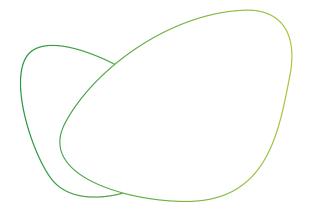








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