



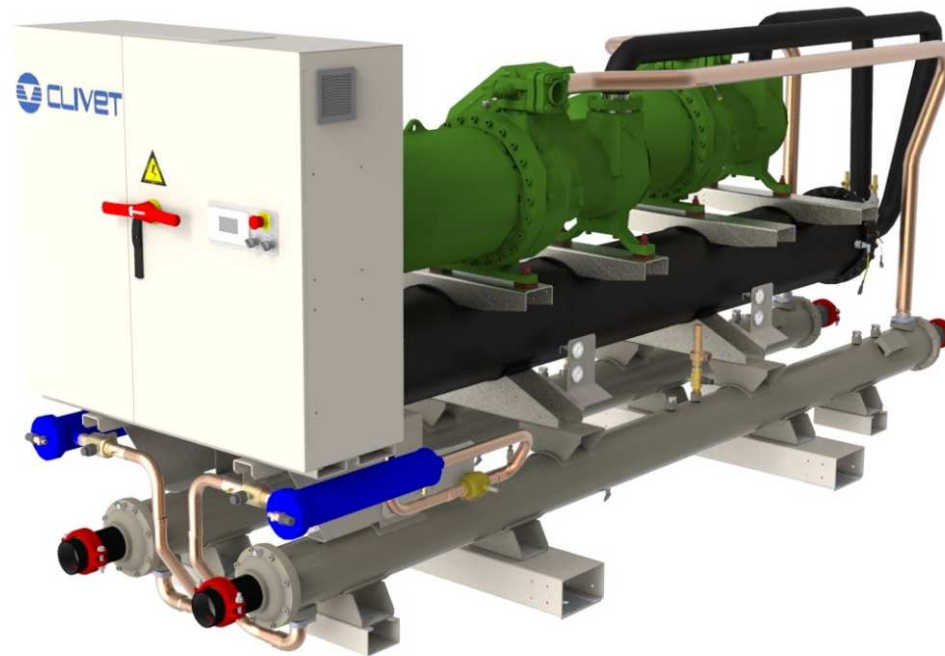
NEW PRODUCT

Product Presentation

SCREWLine³

New water-cooled liquid chiller –Screw technology

Series **WDH-SB3**



A Group Company of

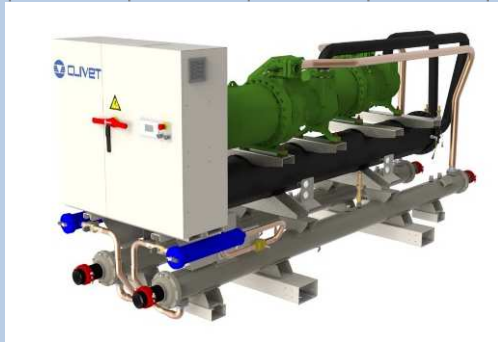


Water cooled liquid chillers – Screw Compressors

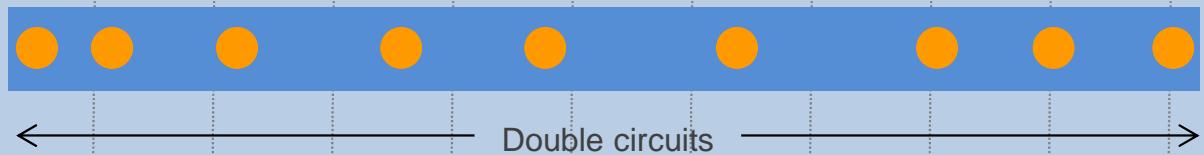
COOLING CAPACITY (kW)

0 100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500

R-134a



SCREWLINE³



- Range from **573** to **1502** kW
- Two independent refrigeration circuits
- Full load efficiency up to **5,26**
- **ErP – LOT21** compliant
- Perfect for **LEED*** < **1000** kW

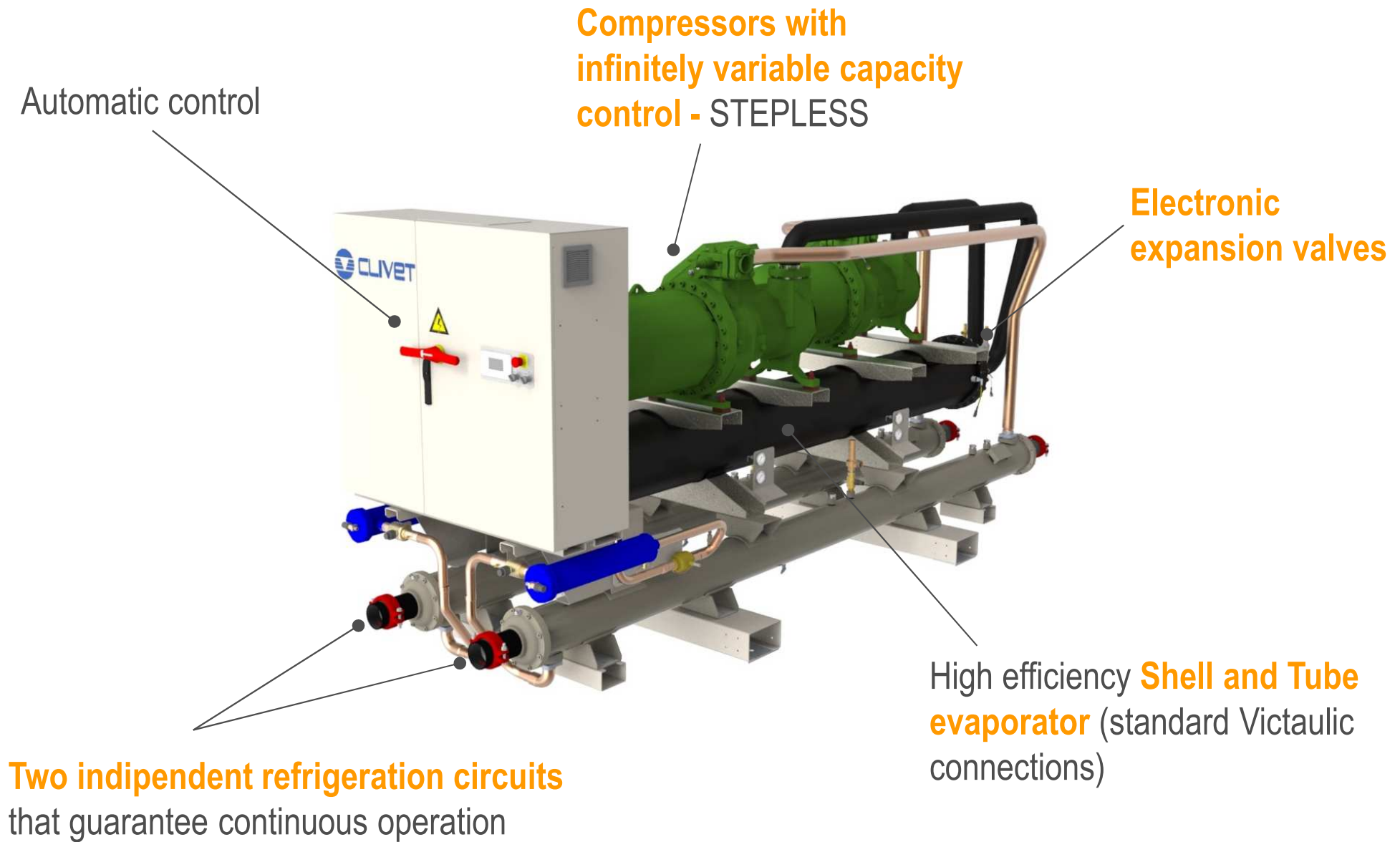


* It satisfies Minimum Energy Performance and Fundamental Refrigerant Management requirements and meets Enhanced Refrigerant Management parameters.

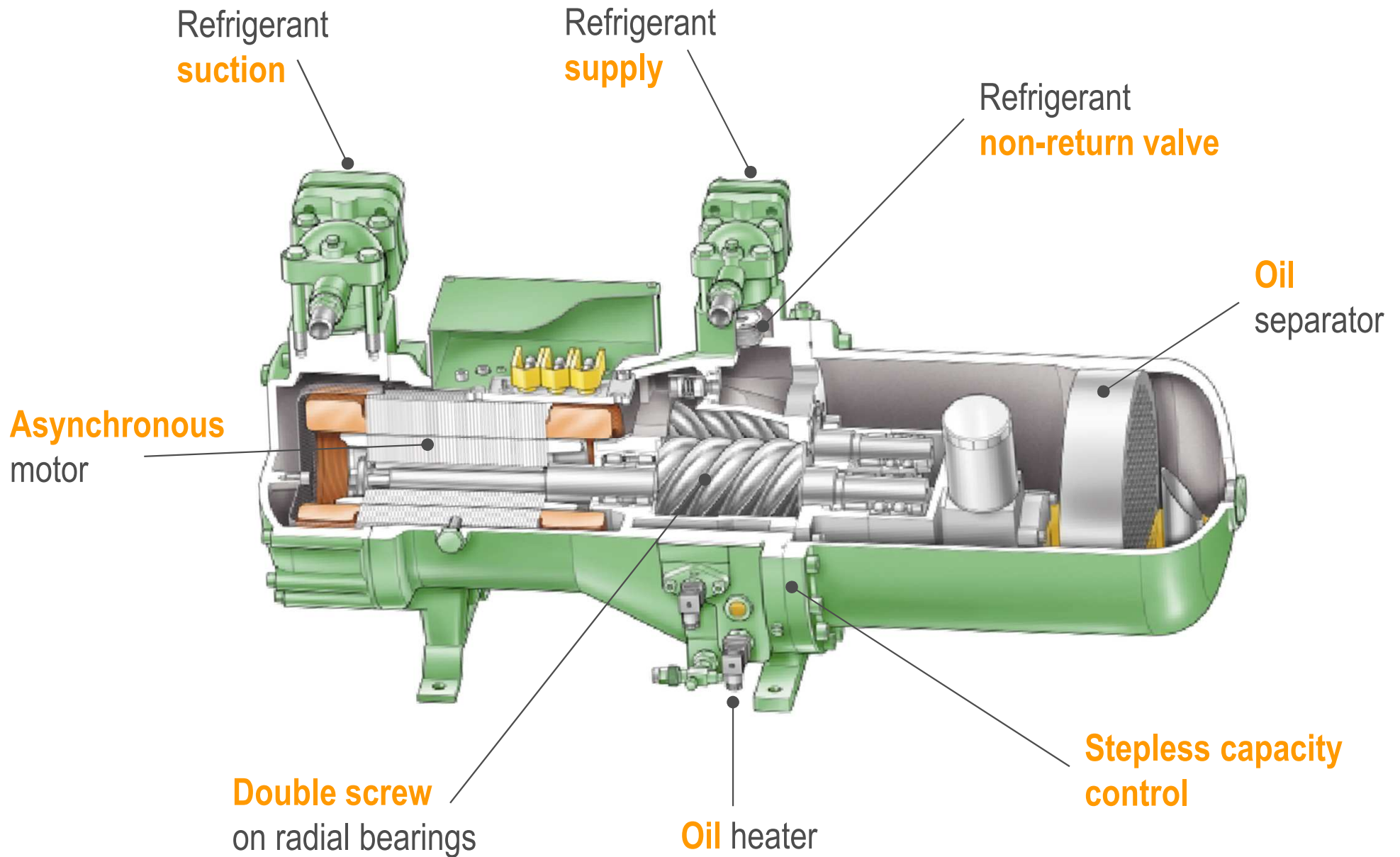
Maximum adaptability to the System needs

- Compact dimensions
- **Minimum turndown** capacity of **25%**
- Two operation versions available:
 - **Cooling only** operation
 - **Water circuit change-over** operation
- Two acoustic configurations:
 - **Standard** acoustic configuration
 - **Super-silenced** acoustic configuration
- Ideal for industrial applications: Chilled water production down to **-8°C (Brine)**
- Solutions for energy saving:
 - **Partial** recovery
 - **Total** recovery

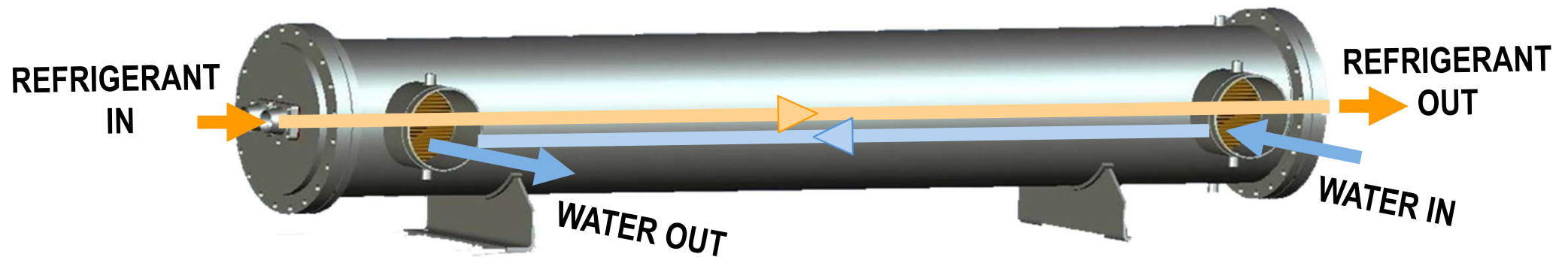
Technologies that increase the efficiency



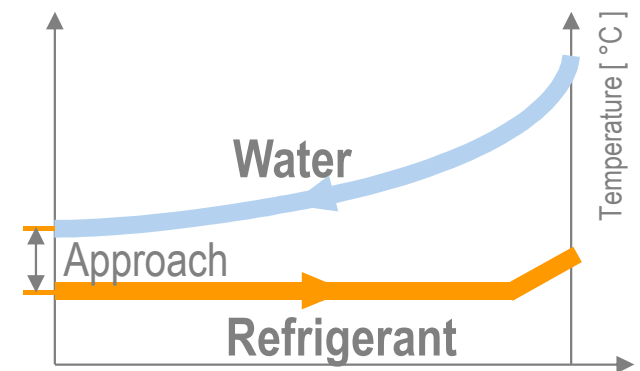
Efficient and reliable screw compressor



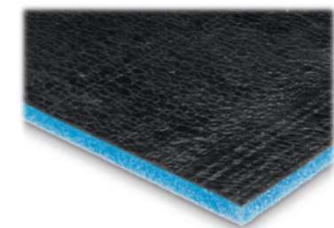
High efficiency dry expansion evaporator








- Very high efficiency (kW/m²) mainly due to:
 - Single-pass and **counter-current design**
 - New patented refrigerant distributor



- **Extra thick evaporator insulation** for the best thermal break



Main standard features

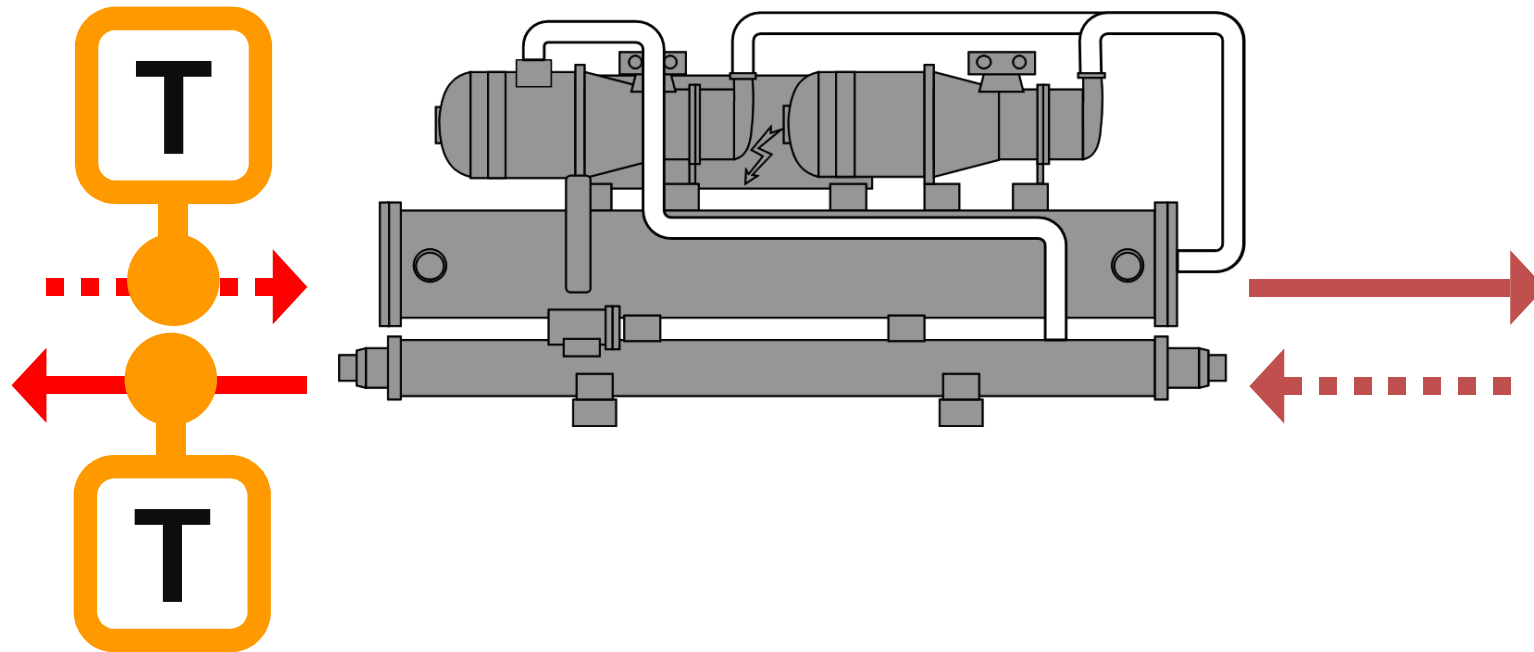
	EXC
Infinitely variable capacity control of the compressors (STEPLESS)	
Electronic expansion valves	
Phase monitor for electric supply control	
Demand limit for the automatic maximum power consumption limitation	
Single pass high efficiency evaporator	

 STANDARD

Operation with water circuit change-over

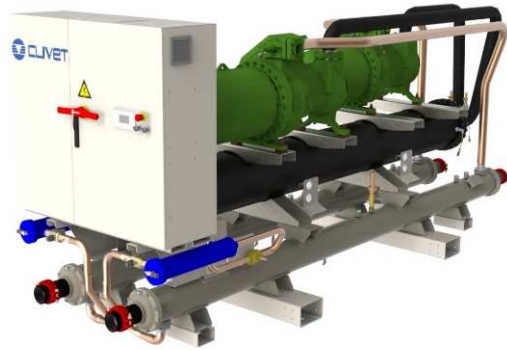
This feature allows:

- **Hot water** production up to **+56°C**
- Condenser temperature control



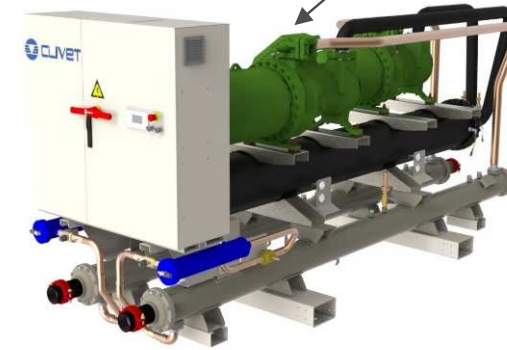
Two acoustic versions available

ST = Standard



EN = Super-silenced

Compressors supply with sound absorbing hood



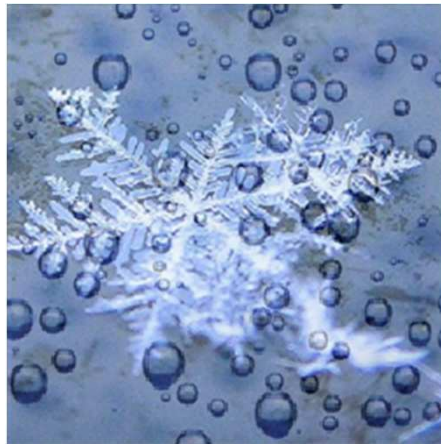
**Sound power level
reduced up to 4 dB(A)**



Low temperature water production

Brine configuration = **Low temperature** of chilled water

- Chilled water between **+4°C and -8°C**
- **Process** application or high **dehumidification**
- Evaporators are complete with **thick closed-cell insulation**
- Anti-freeze **glycol** solution is needed



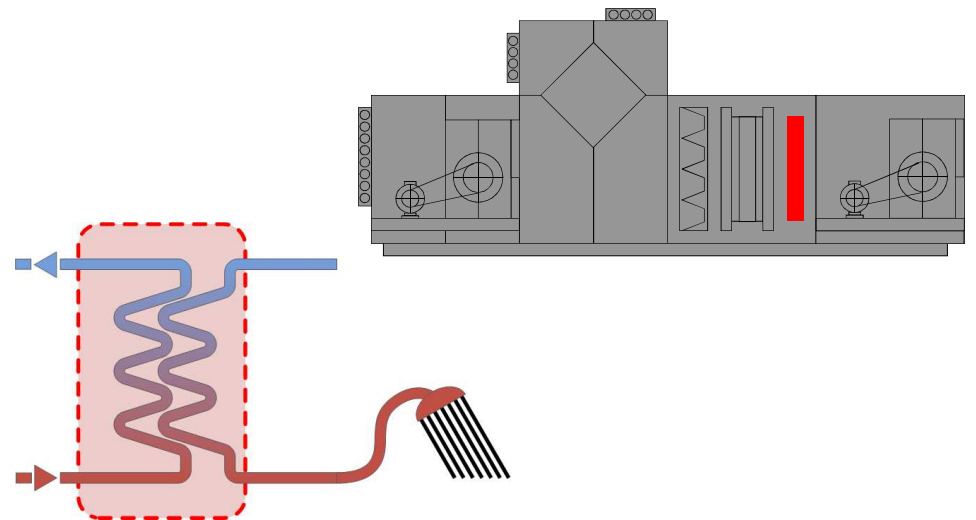
High efficiency of the heat recovery

Recovery of the condensing heat, in cooling mode

- **Partial recovery** = around 5% of the available heat rejection
- **Total recovery** = 100% of the available heat rejection

It allows **free hot water production** for

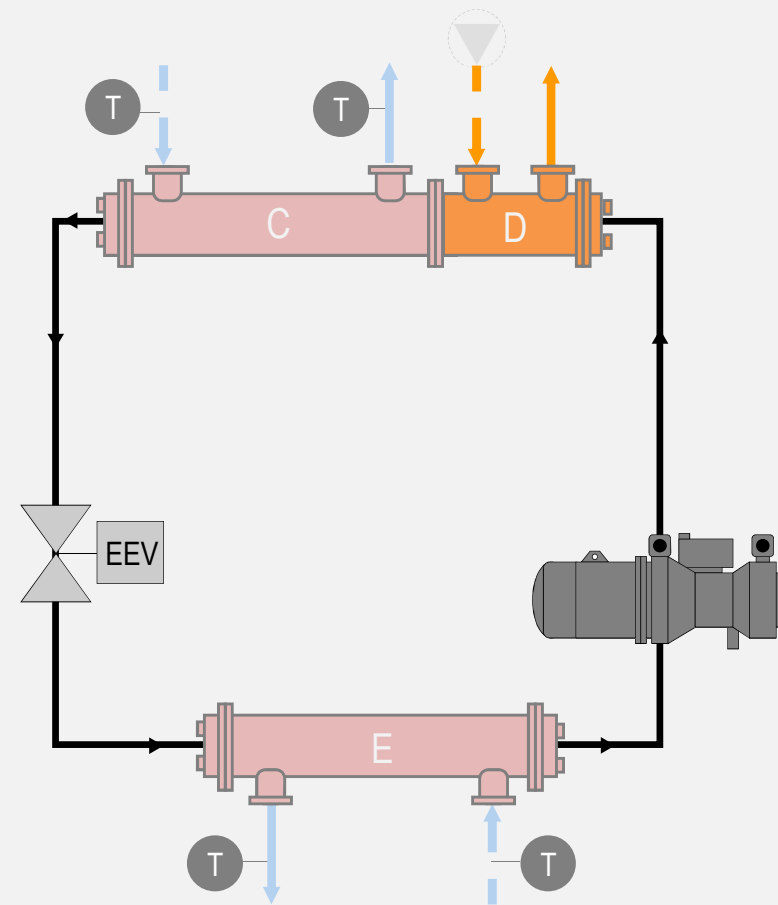
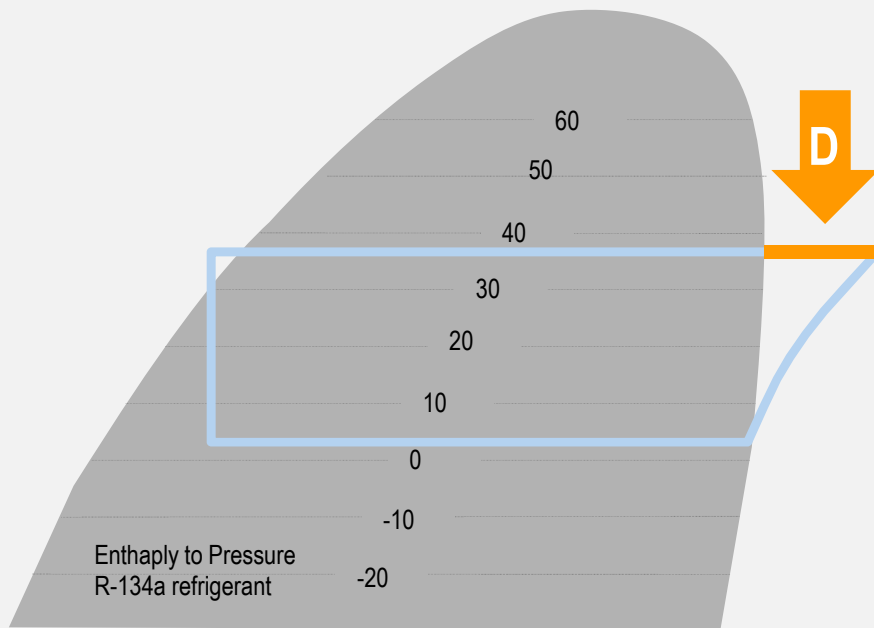
- **Re-heat** hot water coil
- **Domestic** hot water
- Other **processes** or **operation**



High efficiency of the heat recovery

Partial Heat recovery (D)

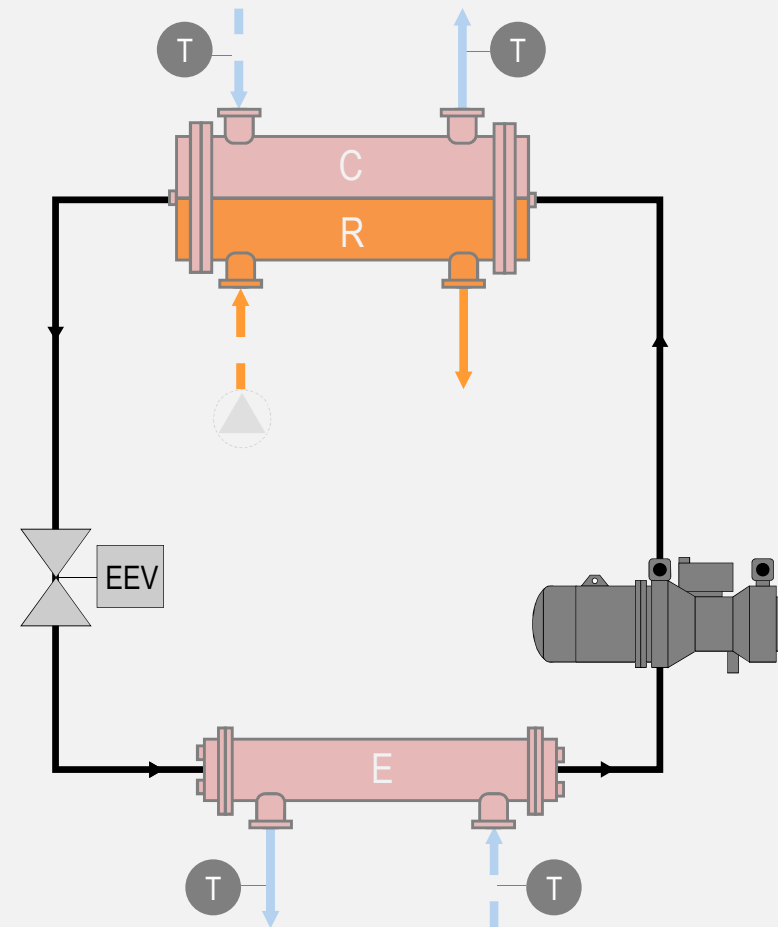
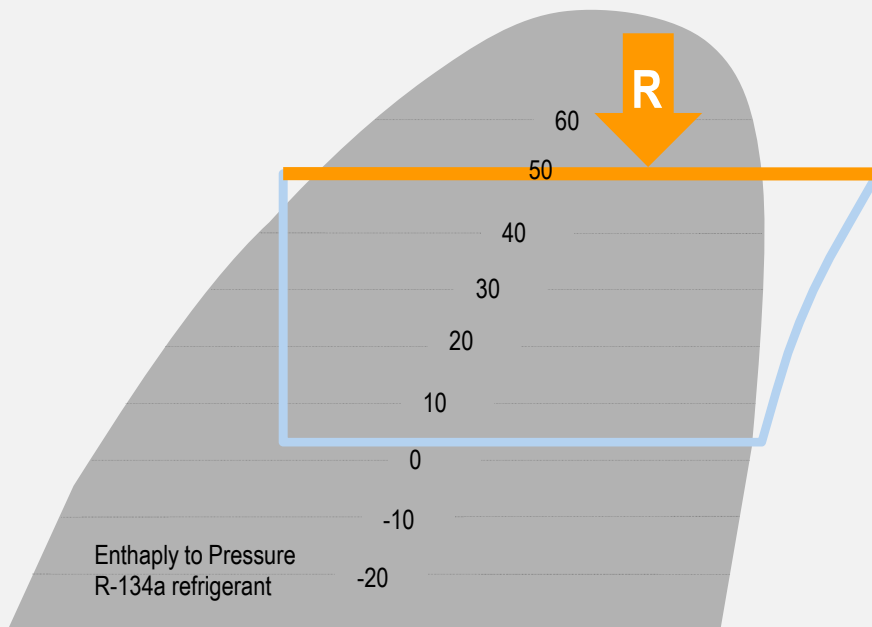
- Around **5%** of the available heat rejection
- **Control** is activated by the user



High efficiency of the heat recovery

Total Heat recovery (R)

- **100%** of the available heat rejection
- Integrated **regulation**
- **Control** is activated by the user



Automatic management of a group of units

Modular system with **ECOSHARE management** up to 7 units in local network

- **Flexible** → closely follows the load
- **Reliable** → a breakdown does not stop the whole system
- **Efficient** → exploits the condition of maximum efficiency of each unit
- Active management of the pumps → Mode 1: all pumps always in ON
→ Mode 2: pumps ON only if unit ON



ECOSHARE NETWORK

Simplified maintenance

Rapid connections as standard:

- **Save time** for thread or welding



Immediate control of the refrigerant's **pressure values**:

- **Electronically** on the user interface
- on the standard supplied **high and low pressure gauges**



Cutoff valve as a standard:

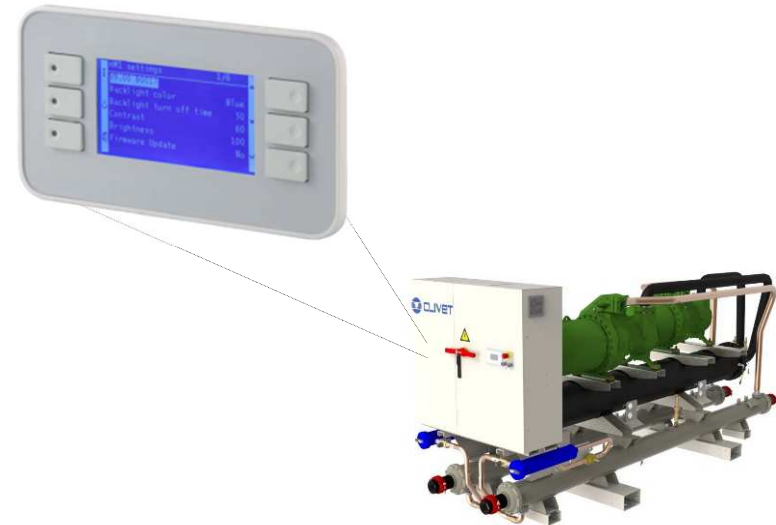
- on compressor supply
- on liquid line



Simplifies and industrializes the plant

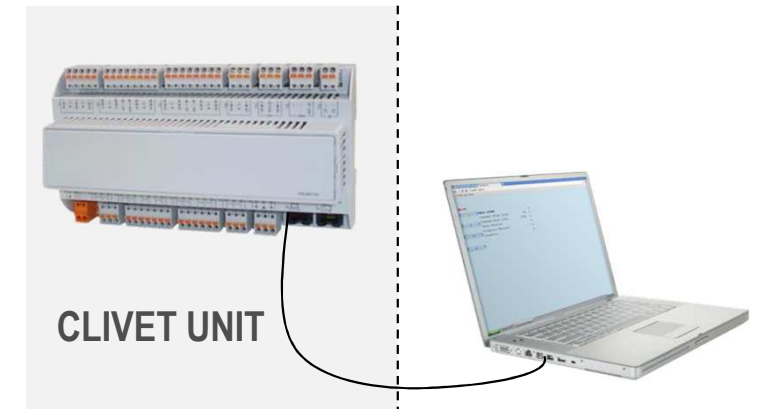
On board display

- Enables to interact easily and immediate with the unit



Connection to the PC through Ethernet port:

- Simplifies after-sales service thanks to the performing diagnostic, updating and for remote assistance tools



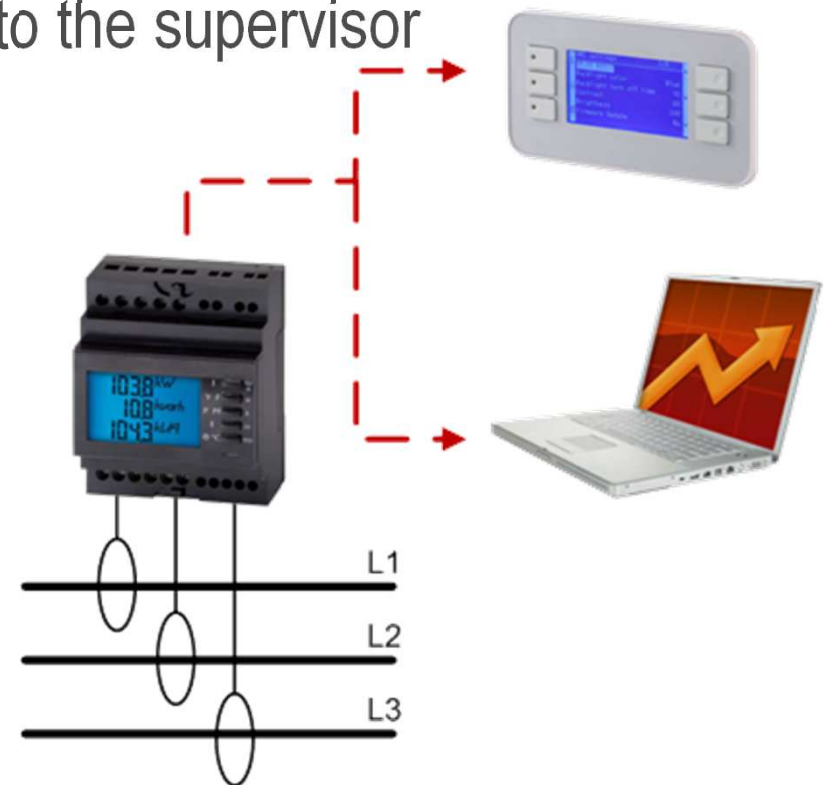
Simplifies and industrializes the plant

Energy measuring

- It **displays** the main unit's electrical parameters
- It **displays** them on the unit display
- It **transmits** them via the serial connection to the supervisor

The monitored **electrical parameters** are:

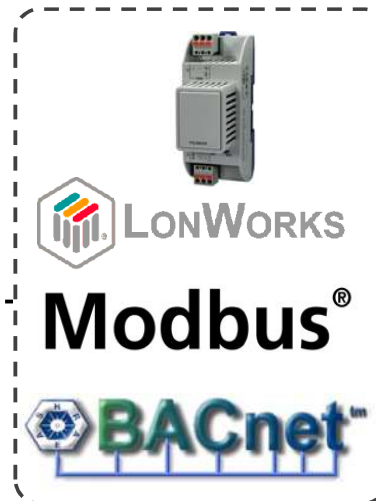
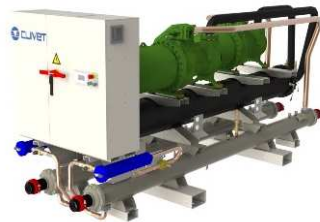
- Voltage/ Current/ Frequency
- Cosfe/ Harmonic components
- Power input/ Energy



Simplifies and industrializes the plant

The unit can be remotely managed by:

- Optional **remote control**
 - Replicates the on board user interface
- the **potential free contacts** as standard
- the **supervision system**
 - through different communication protocols





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