



TECHNICAL CATALOGUE

2019

THERMODYNAMICS



www.climertechnology.com



CLIMER

Company

The experience of a consolidated technical team coupled with the enthusiasm for the creation of a brand of quality and reliability, has resulted in the commitment to CLIMER. It is a young technology-based company that aims to tackle the heat pumps sector by presenting a premium and competitive product, designed to meet the demand of the end user adapting to their needs and with a high range of features that differentiate it of the rest of the market.



EFFICIENCY

The CLIMER heat pumps offer a high efficiency energetic with maximal energy savings to the end user.



DESIGN AND INNOVATION

We apply the latest advances betting on own innovation and exclusive designs.



EUROPEAN MANUFACTURING

We are committed to high quality components to provide the most reliable equipment.



PERSONALISED ATTENTION

We offer an integral support to our clients, training, commissioning and after-sales service.



EXTENSIVE EXPERIENCE IN THE SECTOR

Design of products thinking of professional.



CUSTOM DESIGN

Solutions developed for special and customized projects.

Contents



Solutions for DHW

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Heating Solutions - DHW / HTM Range

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Solar Thermodynamic

One goal: Savings

- ▶ Savings up to 75% compared to conventional energies
- ▶ Simple installation
- ▶ Maintenance-free
- ▶ Wide range of capacities

▶ Buffer tanks manufactured in 2205 Inox Duplex

The entire range of buffer tanks is manufactured in 2205 Duplex stainless steel, the highest quality on the market for this application.

In addition, all tanks are insulated with polyurethane foam free of CFCs and HCFCs, complying with market requirements.

- *No sacrificial anode*
- *Inert high precision welding*
- *Increases thermal transfer, heating faster*
- *5 year guarantee on the buffer tank(*see conditions)*
- *CFC free isolation*
- *Recirculation connection as standard*



Technical performance



Reduces energy use by up to 60%



Extracts heat from sun, rain and air



DHW up to 60°C with heat pump operation



Smart controller design with 3 operating modes



Aluminium condenser fitted around the tank



High quality cylinder made of SS Duplex 2205



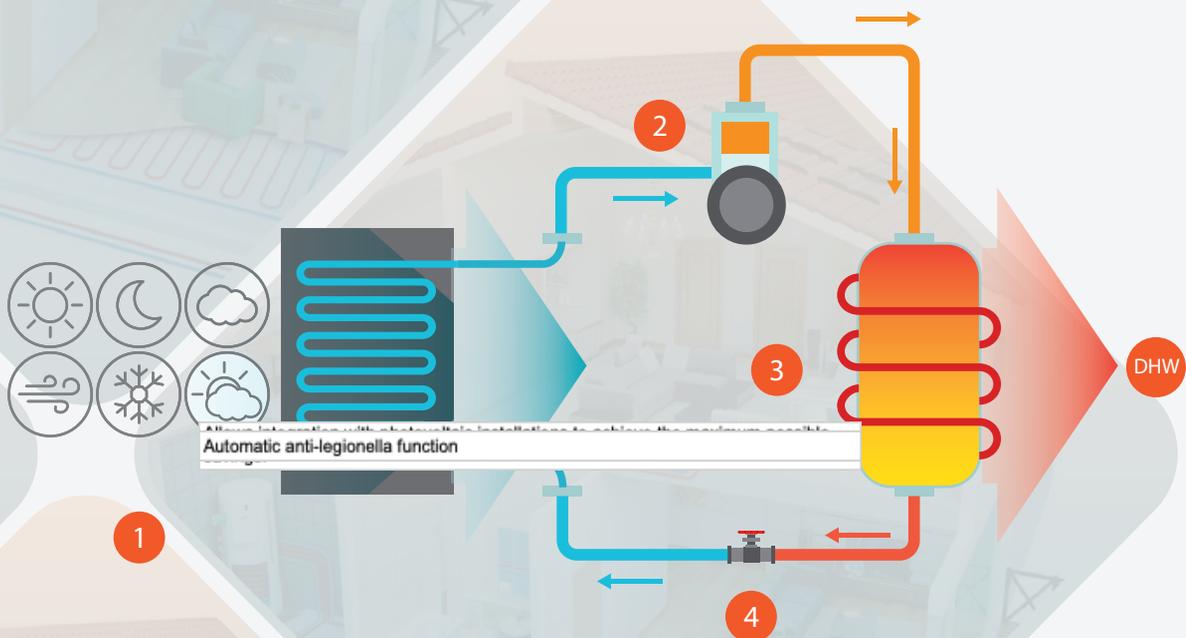
Allows integration with photovoltaic installations to achieve the maximum possible savings.



Automatic anti-legionella function



Compliant with Eco-design and Eco-labelling



1. The refrigerant captures the thermal energy from air and solar radiation through the thermodynamic panel.
2. The compressor compresses the refrigerant, increasing its temperature and pressure.
3. The collected energy is transferred to water in the condenser. The accumulated water increases its temperature reaching up to 60°C.
4. The refrigerant circulates to the expansion valve, where its pressure decreases to achieve the optimum conditions before entry into the evaporator.

DHW / Thermodynamics

Advanced Controller



Green symbols
The symbols indicate the item in operation at that time

Display
Touch screen, simple and intuitive operation with a modern design and fast learning

Functions
Alarm log, working hours, connection with photovoltaic panels...

Operating mode

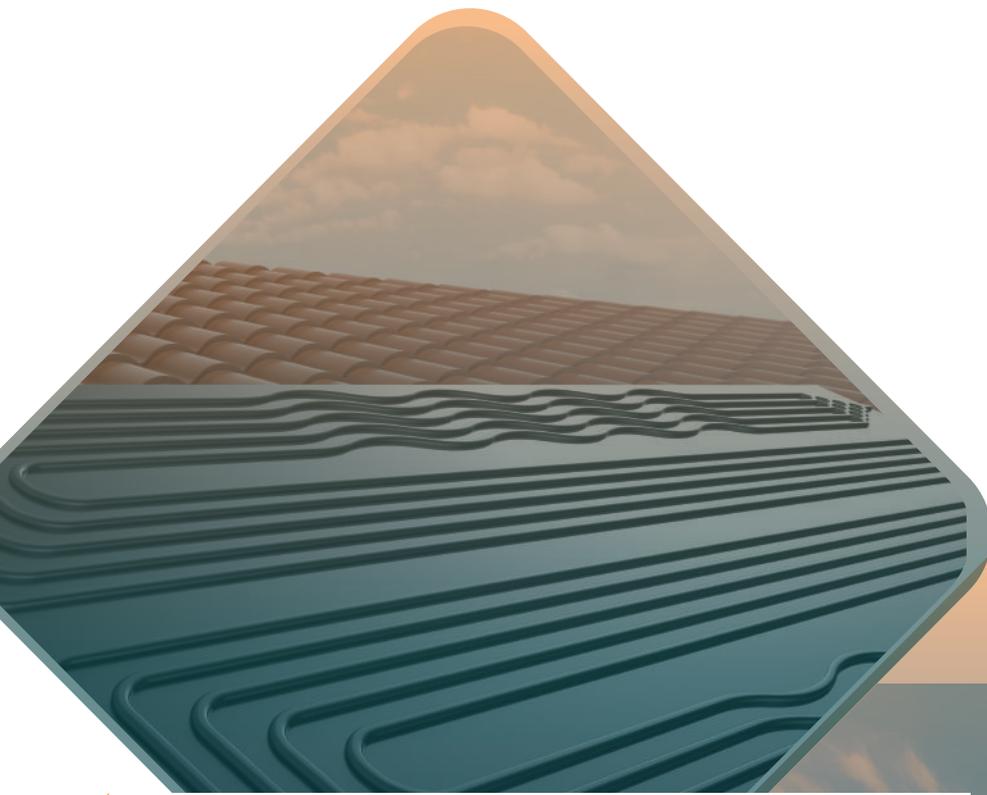
- **Automatic:** DHW production is handled by the HP module and the electric back-up, based on the input air temperature and inner performances of the heat pump.
- **Eco:** «reduced» programme enabled, DHW production is handled only by the HP module
- **Boost:** A single Boost operates the heat pump and the heating element to heat up the water in the shortest time to the setting temperature.

Possibility of adaptation with photovoltaic installations:

The controller includes a connection with the Inverter module that allows the equipment to be started up when there is an excess of energy generated by the photovoltaic panels.

-  **Antilegionella disinfection:** The equipment automatically performs a thermal shock disinfection eliminating any possibility of bacteria proliferation.





These equipments incorporate one or several thermodynamic solar panels installed outside, capable of extracting solar energy and that contained in the surrounding environment.

This energy is used in the thermodynamic cycle to heat water, achieving high efficiency and savings for housing.





ECOHEAT TD

ECOHEAT TD is the new solar thermodynamic heat pumps series for the domestic hot water production.

These system include one or more solar thermodynamic panels installed outdoors, able to extract solar energy and the available energy of the surrounding environment. Then, the energy is used by the thermodynamic cycle to heat water, achieving high efficiency and important savings for the house.

ECOHEAT is a high quality product with outstanding performance available in 6 different capacities suitable for any kind of housing.

Technical data

Cylinder	EH085 TD	EH115 TD	EH160 TD	EH200 TD	EH260 TD
Capacity, L	85	115	160	200	260
Maximum operating pressure, bar	6				
Heat pump data					
Energy Efficiency Class	A				
Load profile	M	M	L	XL	
Heating capacity range (1), W	1430-2560		1430-2560		
Input power range (1), W	450-540		450-540		
COP (1), W	2,4-4,6		2,5-4,6		
Maximum temp. HP, °C	60				
Maximum temp. electric element, °C	62				
Coolant	R134a				
Electric data					
Power supply, V/ph/Hz	230 / 1 / 50				
Potencia resistencia eléctrica, W	1500				
Maximum power absorbed, W	2100		2100		
Thermodynamic panel					
Number of panels	1				
Dimensions, mm	1700x800				
Maximum operating pressure, bar	10				
Refrigerant inlet/ outlet, inch	3/8-1/4				

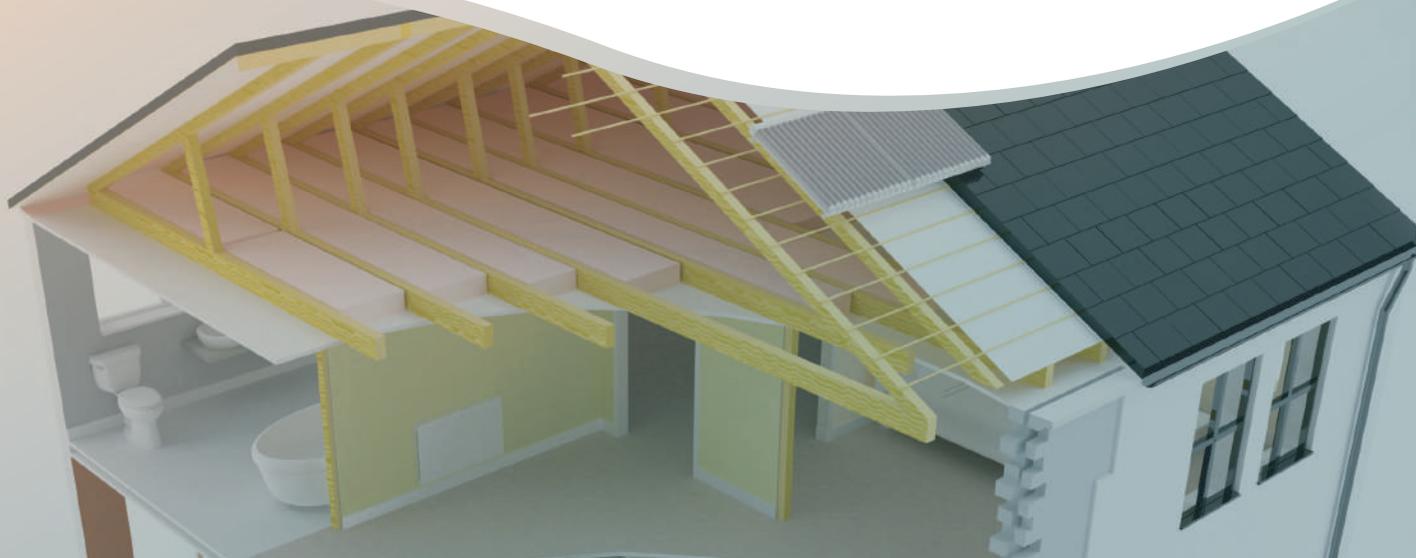
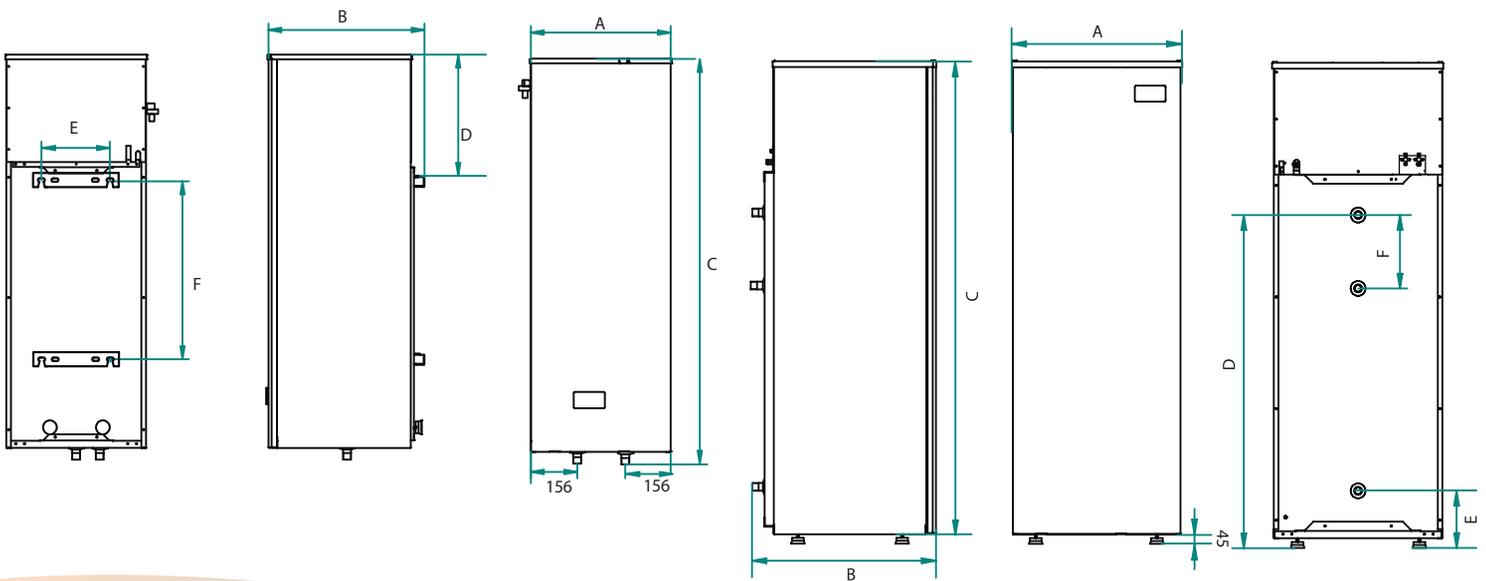
(1) Depending of ambient temperature and incident solar radiation

Dimensions

Dimensions and connections	EH085 TD	EH115 TD	EH160 TD	EH200 TD	EH260 TD
Configuration	Wall- Mounted			Floor- Mounted	
A, mm	480			585	
B, mm	510			587	
C, mm	1195	1420	1297	1527	1945
D, mm	560	560	797	956	1323
E, mm	-	540	217		
F, mm	-		94	194	
Water inlet / outlet, inch				3/4	
Refrigerant inlet / outlet, inch				3 / 8-1 / 4	

Wall- Mounted

Floor- Mounted

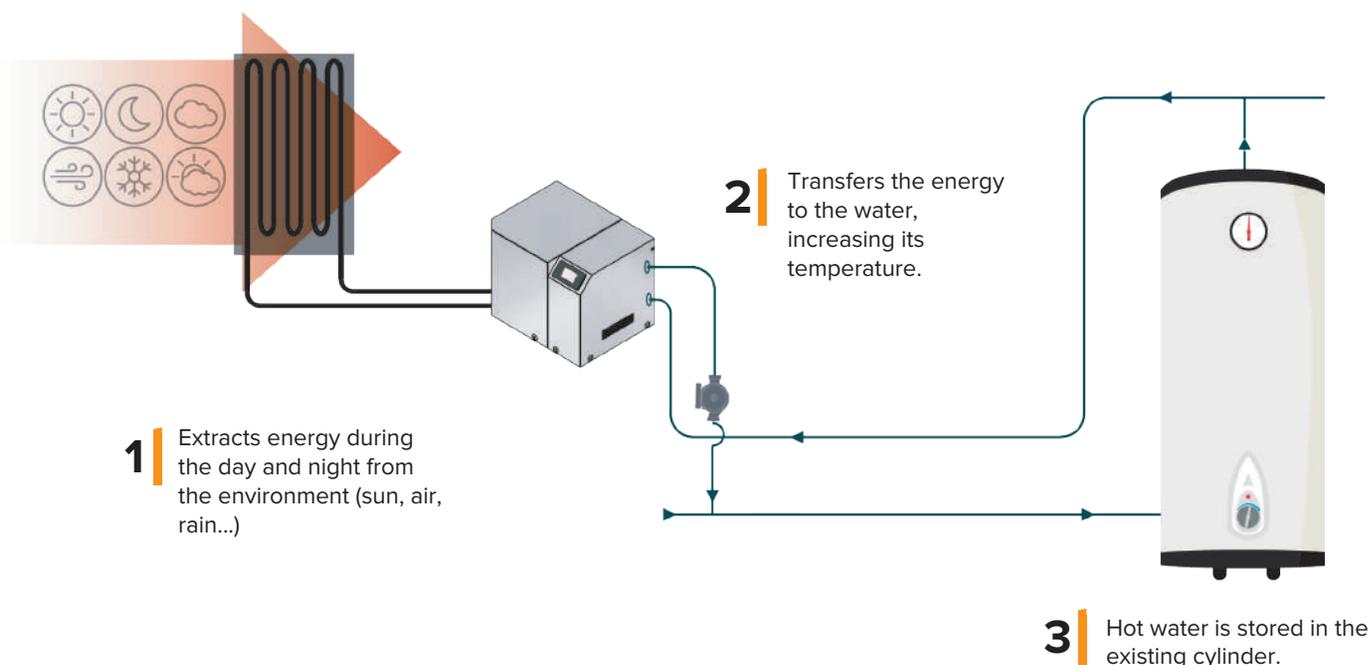




ECOFLEX TD

ECOFLEX is a new heat pump system designed for retrofitting in any installed cylinder.

The user can benefit from the economic saving that brings the heat pump technology using the cylinder already installed, without a large additional investment. This technology extracts solar energy and the available energy of the surrounding environment to heat water with lower power consumption.



CHARACTERISTICS

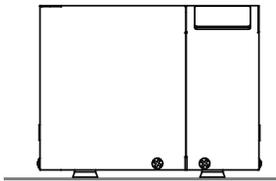
- It is able to control the electrical heater of the cylinder and use it in different operating modes.
- It is able to control the electrical heater of the cylinder and use it in different operating modes.
- Allows integration with photovoltaic installations to achieve the maximum possible savings.
- Floor or wall mounting installation.

Technical data

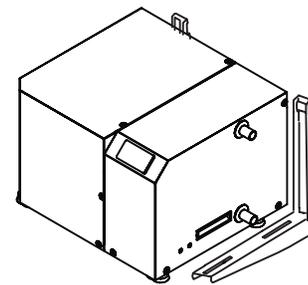
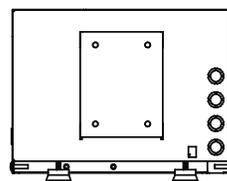
Model	EF02 TD	EF04 TD
Energy Efficiency Class	A	A
Load profile	L	XL
Heating capacity range (1), W	1430-2560	2860-5120
Input power range (1), W	450-540	900-1080
COP (1)	2,5-3,8	2,5-4,6
Minimum / maximum fun temperature, °C	-5 / 45	
Maximum temp. HP, °C	60	
Refrigerant	R134a	
Charge, g	1100	2200
Power supply, V/ph/Hz	230 / 1 / 50	
Number of panels	1	2
Dimensions, mm	1700x800	
Panel connection, in.	1 / 4-3 / 8	
Mimimum water flow, L/h	250	485
Pressure drop heat exchanger, kPa	2	2
Water connection, inch	3 / 4	1

(1) Depending of ambient temperature and incident solar radiation

Wall or floor installation:



EF02TD



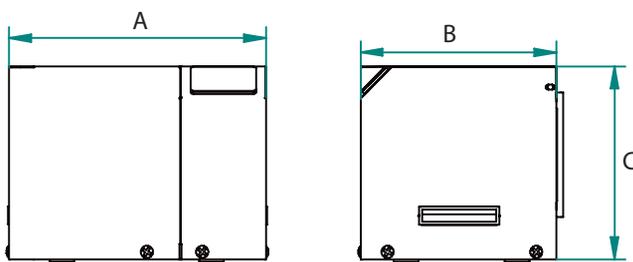
EF04TD

Compatible with photovoltaic installations



The equipment has a connection to the installation inverter for automatic start-up when there is excess energy in the installation. The excess accumulates in the form of free DHW

Dimensions



Model	EF02 TD	EF04 TD
A, mm	442	560
B, mm	320	505
C, mm	370	370



ECOHEAT EH500TD

The ECOHEAT EH500TD system captures solar and environmental energy through its two thermodynamic panels and transfers it to water. It is an ideal system to meet the DHW needs in stores with large consumption: gyms, hairdressers, farms, hostels ...

Its large capacity allows accumulate water up to 60°C providing the end user to have a large useful volume.

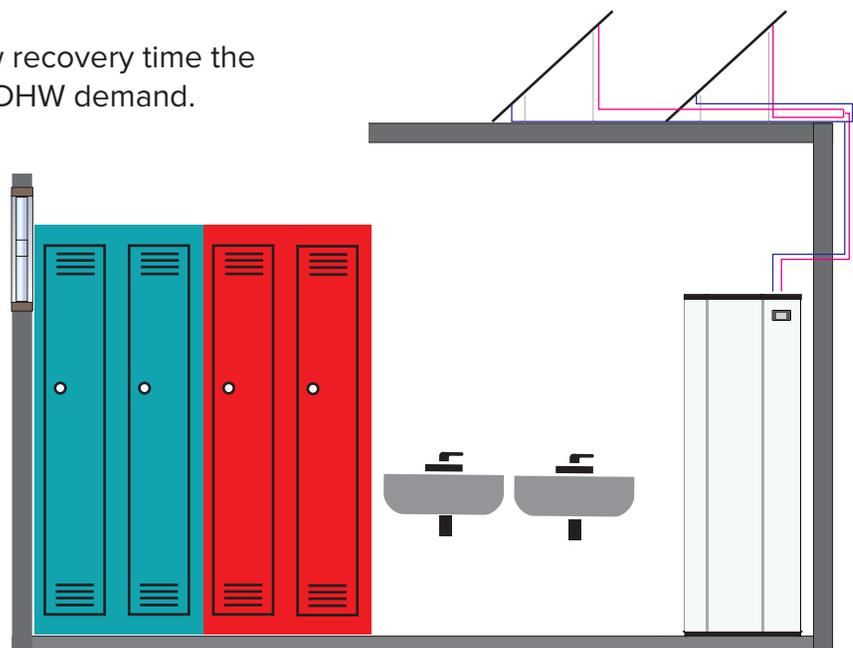
APPLICATIONS

Gyms, changing rooms, hairdressers ...

Ideal equipment to cover large consumption of hot water in places of great influx of people.

Rural houses, hotels ...

Due to its high capacity and low recovery time the equipment is ideal to meet the DHW demand.

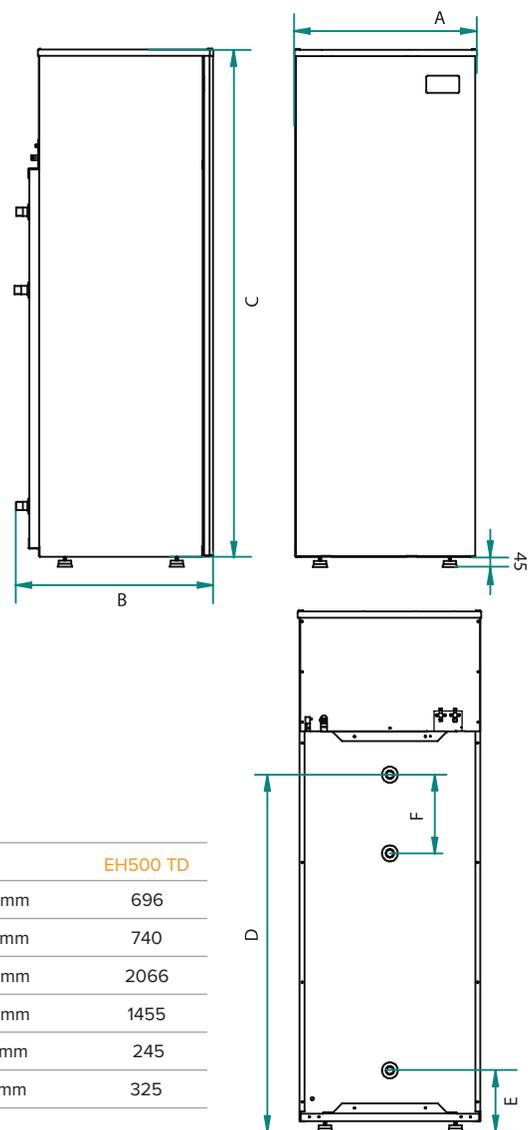


Technical data

Cylinder	EH500 TD
Capacity, L	500
Maximum operating pressure, bar	6
Heat pump data	
Energy Efficiency Class	A
Load profile	XXL
Heating capacity range (1), W	2860-5120
Input power range (1), W	900-1080
COP (1), W	2,5-4,6
Maximum temp. HP, °C	60
Maximum temp. electric element, °C	62
Coolant	R134a
Electric data	
Power supply, V/ph/Hz	230 / 1 / 50
Electric element power, W	2000
Maximum power absorbed, W	3100
Thermodynamic panel	
Número de paneles	2
Dimensions, mm	1700x800
Maximum operating pressure, bar	10
Refrigerant inlet/ outlet, inch	1/2-3/8

(1) Depending of ambient temperature and incident solar radiation

Dimensions





Heating/ Solar Thermodynamic

Heating: HTM Series



HTM is the new line developed by CLIMER of Solar Thermodynamic Heat pumps suitable for heating and DHW production.

It uses solar thermodynamic panels to extract energy from solar radiation and environmental factors and transfers it into the water.

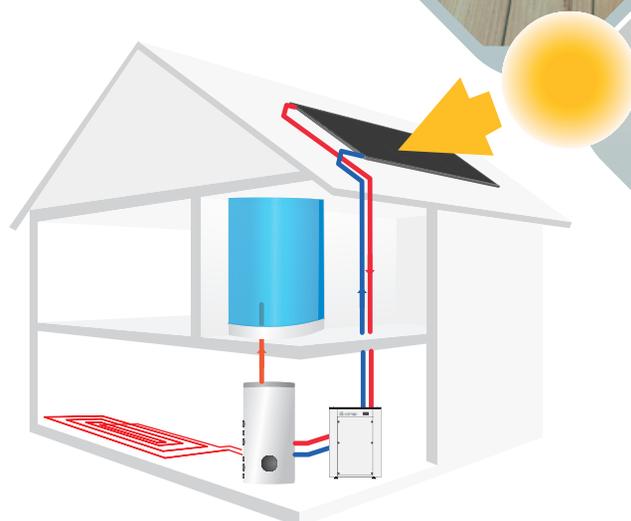
The advantage of working in any weather condition and its reliable components make it an ideal solution to achieve the highest savings.

Easy installation

HTM heat pumps have been specially designed for quick installation and easy maintenance, thanks to independent units for the hydraulic circuit, gas refrigerant and electrical control panel. In addition, the access and operation of the electrical control panel is very simple and the hydraulic connections allow a quick installation.

Low and high temperature emitters

The HTM heat pump range has different series according to customer requirements, for low temperature emitters or underfloor heating or for high temperature radiators.





Solar thermodynamic panel that works throughout the year, day or night.

Thermodynamic solar panels, thanks to its application with heat pump technology, can work both day and night, with or without solar radiation, since in addition to capturing energy from the sun, they also capture environmental energy. In this way, they capture the energy contained in the environment at any time of day to heat the water, without the need for an auxiliary system.

No defrosting / No fan consumption.

The thermodynamic solar heat pump technology uses the evaporator panels instead of a tube and fins with fan exchanger. The advantage of this circuit is that the fan's electrical consumption is not added nor is it necessary to defrost resulting in a very efficient system.

Improved technology

- **Reinforced thermodynamic panel:** 2.5 mm thickness to increase the strength and its durability.
- Circuit configuration specially designed to favour thermal exchange with external factors.
- Possibility of installing left or right to decrease the length of pipes
- Fully homogeneous distributor to ensure the exact flow of refrigerant to each panel. This factor is decisive to increase the efficiency of the panel assembly.

Technical performance



Reduces energy use by up to 60%



High efficient SCROLL compressor



Heats water up to 65 °C depending of the model



Extracts heat from sun, rain and air



Premium Stainless Steel plate heat exchanger



Compliant with Eco-design and Eco-labelling



Designed for ease of install, servicing and repair



Unnecessary defrost function, increases efficiency



Made of 100% European components.



Advanced controller

Electric box

The electric box is mounted on a separated circuit from the hydraulic and refrigeration components.

- General circuit breaker
- Remote ON-OFF switch
- Remote alarm switch
- Possibility of remote display

Controller

- Hourly and weekly programming
- Eco and Automatic mode
- Integration management with other energy sources
- Alarm display and log
- Real time pressures and operating temperatures of the unit checking, as well as overheating and sub-cooling.

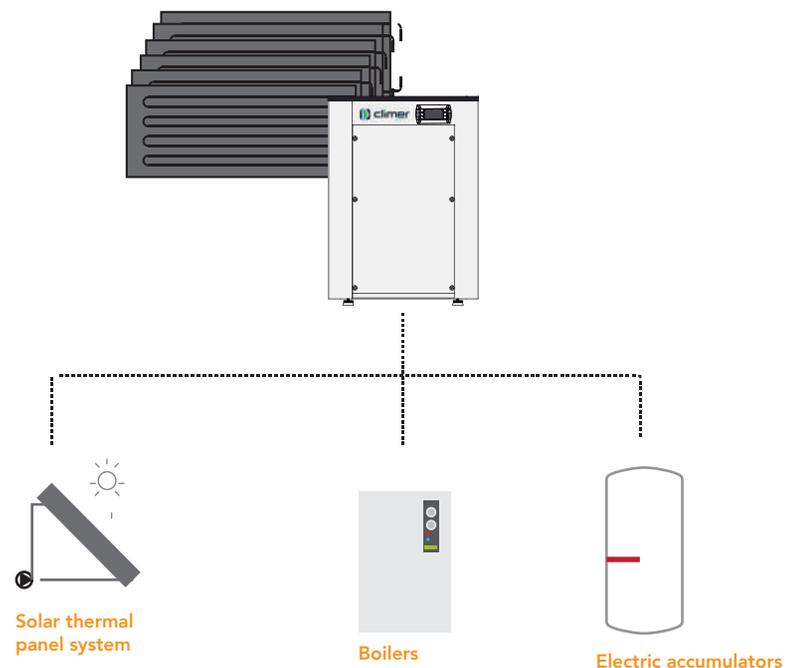
Security

- Thermal of compressor
- High / Low operating pressure
- High / Low voltage supply
- High temperature compressor discharge
- Compressor operating hours

Compatibility with other systems

The HTM system can be integrated to existing installations, with the goal of increasing its production or reducing energy consumption and cost thanks to its great performance.

Compatible systems: gas boilers, diesel boilers, biofuel boilers, solar thermal equipment, photovoltaic solar equipment, electric heaters, heat pumps ...





HTM Standard Series

The Standard series heats up to 55 °C. This series is suitable for underfloor heating, fan coils and medium temperature applications.



HTMPOOL - OPTIONAL

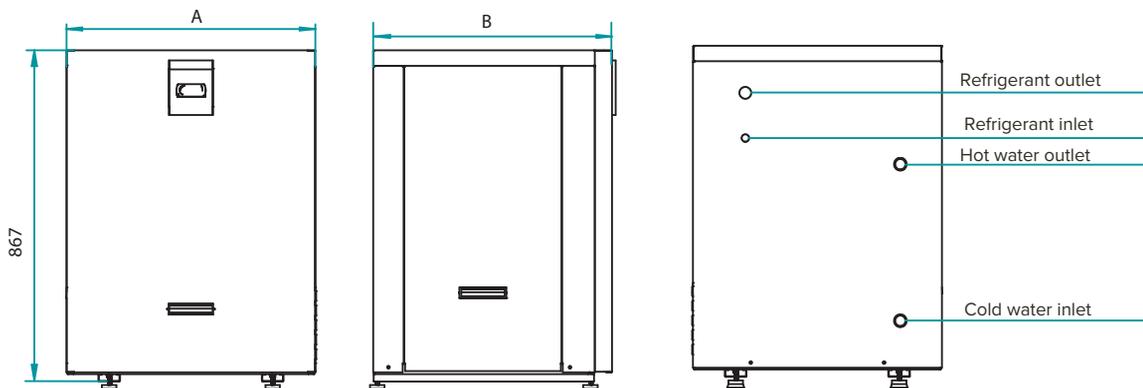
Pool heating.
Titanium-PVC exchanger

TECHNICAL DATA

Standard models	HTM06	HTM08	HTM12	HTM16	HTM20	HTM24	HTM30	HTM36
Heating capacity range (1), W	11.450 - 7.420	14.100 - 9.280	17.000 - 11.310	21.710 - 14.310	26.350 - 17.430	36.630 - 23.770	44.440 - 29.050	52.790 - 34.550
Input power range (1), W	1.980 - 1.820	2.630 - 2.550	3.010 - 3.000	3.540 - 3.530	4.130 - 4.070	5.700 - 5.680	6.650 - 6.910	8.200 - 8.080
Heating capacity range (2), W	10.000 - 6.810	12.850 - 9.150	15.500 - 11.150	18.940 - 13.420	22.730 - 15.970	31.150 - 21.770	33.900 - 26.540	44.570 - 31.400
Input power range (2), W	2.830 - 2.640	3.760 - 3.650	4.460 - 4.420	5.630 - 5.690	6.620 - 6.610	8.730 - 8.600	10.500 - 10.220	12.820 - 12.570
Maximum temp. HP, °C	55							
Coolant	R407c							
Power supply, V/ph/Hz	230 / 1 / 50				380 / 3 / 50			
Number of panels	5	8	12	16	20	24	30	36
Panel dimensions, mm	1700x800							
Casing	M				L			

(1) Heating: Water 35°C/ Ambient temp. Range 20-7°C (2) Heating: Water 55°C/ Ambient temp. Range 20-7°C (3) Heating: Water 65°C / Temp. Environment 20-7 ° C

Dimensions





HTME

Heating Thermodynamic Module for cold weather

The HTM-EVI is the new thermodynamic line developed by CLIMER for production of DHW and heating in cold weather conditions.

This system works with thermodynamic panels using solar radiation and environmental energy heating water up to 60°C in extreme outdoor temperature to -15°C providing high energy savings for the customer.

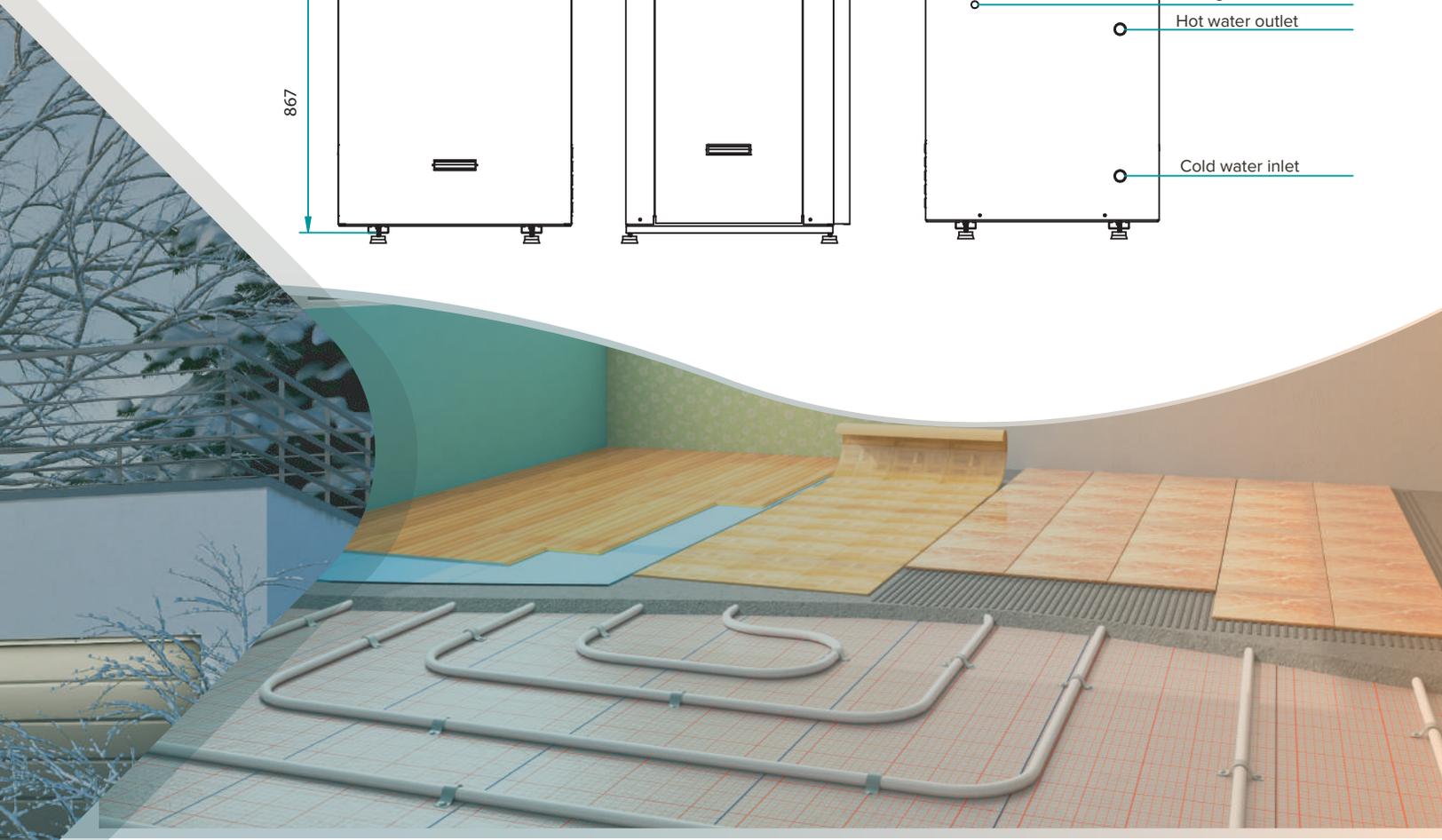
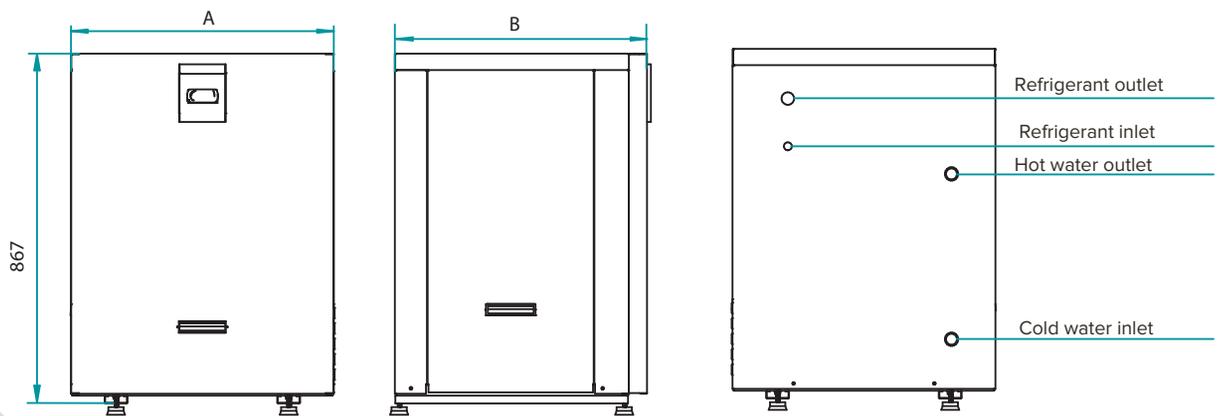


Technical Data

Standard models	HTM-12E	HTM-16E	HTM-20E	HTM-24E	HTM-36E	HTM-42E
Input power range (1), W	15100-10910	18440-16200	22700-16180	26210-18710	38170-27070	45570-32030
Heating capacity range (2), W	2600-2700	3600-3700	3650-3700	4220-4260	6220-6190	7750-7450
Input power range (2), W	14300-11300	17780-13960	22520-16950	26050-19610	37310-28340	44340-33590
Heating capacity range (3), W	4500-4570	5260-5350	6580-6400	7600-7390	11070-10780	13320-12750
Input power range (3), W	7.560	9.230	10.500	12.180	17.800	20.970
Maximum temp. HP, °C	4.530	5.410	6.090	7.040	10.300	11.820
Maximum temp. heat pump, °C	60					
Coolant	R407C					
Power supply, V/ph/Hz	230 / 1/ 50			380 / 3 / 50		
Number of panels	12	16	20	24	36	42
Panel dimensions, mm	1700x800					
Casing	M			L		

- (1) Heating: Water 35°C/ Ambient temp. Range 20-7°C
 (2) Heating: Water 60°C/ Ambient temp. Range 20-7°C
 (3) Heating: Water 65 °C/ Ambient temp. -15 °C

Dimensions





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