

INVERTER



Electa-ECO

Packaged air-water heat pumps
for heating, cooling and domestic hot water.

Smart & Green
Comfort





Electa-ECO uses the new ecological R32 refrigerant gas, with low global warming potential, in line with the European F-gas Directive, for the progressive reduction of the use of greenhouse gases.

Electa-ECO is a packaged air-water heat pump for heating and cooling rooms and producing domestic hot water, by means of an external boiler. Ideal for new homes or low energy consumption residences, even in combination with an existing boiler.

Electa-ECO is a simple and reliable solution to manage comfort during all the seasons of the year, with utmost attention to energy saving.

Electa-ECO offers user-friendly simplicity, thanks to the touch control panel and dedicated App for remote control, via a smartphone.



SMART & GREEN COMFORT

A solution for heating, cooling and
domestic hot water.



Efficient throughout the year!

Hot water up to 60°C with high performance
and excellent energy efficiency levels.

Heating mode with hot water production
starting from an outdoor air temperature of -25°C
in winter and up to +45°C in summer.

INVERTER

Ecological R32 refrigerant gas with low GWP (Global Warming Potential 675).

Green technology

Multi-colour touch-screen control panel with an advanced interface that allows the main settings to be controlled and a simplified first start-up.

Smart control

The dedicated APP via a smartphone or tablet ensures remote unit control, with operating temperatures and any alarms displayed.

iOs and Android App

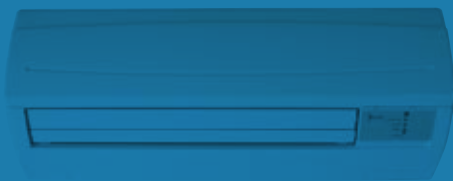
A twin rotary DC Inverter compressor and DC brushless helical fan guarantee maximum efficiency in all outdoor conditions, modulating the adjustment frequency according to the system load.

Full inverter

Hot water up to 60°C with outdoor temperature at -8°C and hot water up to 40°C with outdoor air at -25°C, in winter.

Hot water production from 60°C to +45°C outdoor air, in summer.

Reliable in every condition



Plug& Play solution for every requirement



The Quiet function with the activation timer, allows the noise to be reduced by up to 2 dB(A), according to the specific use requirement.

Quiet

High seasonal efficiency values in winter mode:

- SCOP up to 4.7 in Class A+++ for low temperature application (35°C), in Average climate.
- SCOP up to 3.25 in Class A++ for medium temperature application (55°C), in Average climate.

Efficient even in summer mode:

- SEER cooling seasonal energy efficiency up to 5.05, compliant with ERP 2021 requirements, for all models in chiller mode.

High seasonal efficiency

The unit is equipped with an EC circulator, a membrane expansion tank, an automatic air vent valve, a safety valve, a flow switch and a water filter, to be connected directly to the system.

Hydraulic Plug&Play

The compact dimensions and reduced height allow the unit to be installed in tight spaces, reducing the visual impact, especially the latest models.

Compact



Electa-ECO

Packaged reversible air-cooled heat pumps with axial fans.

Range with hermetic rotary DC Inverter compressors and R32 refrigerant gas.

Construction features

- Compressor: hermetic, twin rotary DC Inverter with steam injection, complete with thermal protection and casing heater
- Expansion valve: electronic.
- Cooling circuit with economiser
- Water side heat exchanger: adequately insulated stainless steel plates, complete with antifreeze heater.
- Air side heat exchanger: finned coil with copper pipes and aluminium-manganese fins with Golden Fin anti-corrosion treatment in epoxy resin and hydrophilic treatment.
- Fan: axial type impeller with DC brushless motors, equipped with internal thermal protection, accident protection grilles and proportional electronic device for continuous fan rotation speed regulation.
- Structure: made of galvanised and painted steel plate RAL9002, complete with condensate drain pan and unit base antifreeze heater.
- Control: microprocessor electronic control with touch-screen control panel with remote control option, for integrated management of the heat pump and the heating system, according to the various requirements relating to the use of the energy sources.
 - 3-way diverter valve management for production of domestic hot water.
 - Rapid heating function for domestic hot water.
 - Anti-legionella cycle function, with activation timer.
 - Auxiliary or supplementary heat source management.
 - Operation in silent mode with timer.
 - Weekly and daily time bands.
 - Holiday mode and antifreeze function.
 - Power consumption limiting function.
 - 2-way on/off valve management for shutting off a part of the system, in heating or cooling mode.
 - Management through room thermostat, as an alternative to the touch-screen panel.
 - Unit activation from external contact (remote ON/OFF)

Unit complete with:

- Outdoor temperature probe for set-point compensation.
- Remote ambient air temperature probe, for managing the unit according to the ambient set-point.
- Water temperature probe for domestic hot water tank.
- Water temperature probe for auxiliary or supplementary heat source.
- Connection cable for touch-screen (8 m).
- RS485 interface for serial communication with other devices (Modbus RTU protocol).
- iOS and Android APP for managing the unit via smartphone and tablet.

Version

- T - High efficiency.

Models

- THAITI: heat pump unit.

PUMP set up

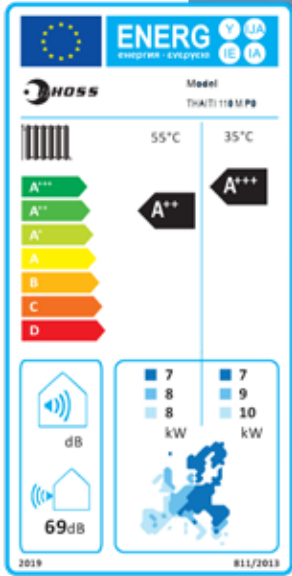
- Pump unit complete with: EC circulator, automatic air vent valve, safety valve, flow switch, expansion tank, water filter.

Separately supplied accessories

- 3-way valve for the management of domestic hot water, managed by regulation
- Additional electrical resistance, managed by regulation.
- Rubber anti-vibration mounts.
- Connection cable for touch-screen (20 m).

Applications with fan coils, radiators or radiant panels.





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THAITI MODEL		106 M	108 M	110 M	114 M	116 M	116 T
① Heating capacity	kW	6	7.5	10	14	15.5	15.5
① Absorbed power	kW	1.58	2	2.7	4.18	4.7	4.7
① C.O.P.		3.8	3.75	3.7	3.35	3.3	3.3
② Heating capacity	kW	6	7.5	10	14	15.5	15.5
② Absorbed power	kW	1.2	1.63	2.17	3.22	3.6	3.6
② C.O.P.		5	4.6	4.61	4.35	4.31	4.3
③ Cooling capacity	kW	4	5	7.8	12	13	13
③ Absorbed power	kW	1.29	1.61	2.48	4.14	4.91	4.73
③ E.E.R.		3.1	3.1	3.15	2.9	2.65	2.75
④ Sound pressure	dB(A)	38	39	43	44	46	46
⑤ Available circulator head	kPa	69	66	77	50	42	42
Electrical supply	V-ph-Hz	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	400-3+N-50
DIMENSIONS AND WEIGHTS		106 M	108 M	110 M	114 M	116 M	116 T
L - Width	mm	1150	1150	1200	1200	1200	1200
H - Height	mm	758	758	878	878	878	878
P - Depth	mm	345	345	460	460	460	460
⑤ Weight	kg	109	109	166	166	166	166

Data at the following conditions:

- ① Air: 7°C D.B. - 6°C W.B. - Water: 40/45°C.
- ② Air: 7°C D.B. - 6°C W.B. - Water: 30/35°C.
- ③ Air: 35° D.B. - Water: 12/7°C.
- ④ In open field (Q = 2) at 5 m from the unit.
- ⑤ Weight refers to the most complete unit set up.

Performance according to EN 14511:2018

SEASONAL ENERGY PERFORMANCE		106 M	108 M	110 M	114 M	116 M	116 T
THAITI MODEL SEASONAL PERFORMANCE IN HEATING MODE - Low temperature application 35°C							
③ Pdesignh (EN 14825)	kW	5	6	9	11	13	13
③ SCOP (EN 14825)		4.7	4.65	4.48	4.28	4.18	4.18
④ η_s	%	185	183	176	168	164	164
④ Energy class		A+++	A+++	A+++	A+++	A++	A++
THAITI MODEL SEASONAL PERFORMANCE IN HEATING MODE - Medium temperature application 55°C							
③ Pdesignh (EN 14825)	kW	6	7	8	11	13	13
③ SCOP (EN 14825)		3.23	3.25	3.23	3.2	3.2	3.2
④ η_s	%	126	127	126	125	125	125
④ Energy class		A++	A++	A++	A++	A++	A++

③ In Average climatic conditions.

④ Seasonal energy efficiency: heating in Average climate (EU Regulations No.811/2013 and No.813/2013)



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