

## Electa-ECO

# THAITI 106÷116



Cooling capacity: 4÷13 kW - Heating capacity: 6÷15.5 kW

- √ **Low GWP R32 refrigerant**
- √ **Energy class A+++/A++**
- √ **Temperature of the produced water up to 60°C**
- √ **Domestic hot water production from -25°C to +45°C outdoor air**
- √ **3-way diverter valve management for DHW**
- √ **Touch-screen control panel as standard**
- √ **APP for managing the unit via smartphone (iOS and Android)**
- √ **New inertial tank under unit**



Web code: EE001

**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 (10 m).
  - Water temperature probe for domestic hot water tank (20 m).
  - Water temperature probe for auxiliary or supplementary heat source (5 m).
  - 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**

KAI-70 - Inertial storage tank, with function of thermal flywheel or hydraulic separator, for outdoor installation below Electa-ECO unit; 30W leakage losses, energy class A.

KTAI - Connection pipe between Electa-ECO unit and KAI tank.

KVDEV - 3-way valve for the production of domestic hot water, managed by regulation.

KRIT - Supplementary electrical resistance.

KSA - Rubber anti-vibration mounts.

KPRT - 20 m touch-screen connection cable as an alternative to the cable supplied as standard.

## Technical Data

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 Cooling capacity	kW	5,8	6,8	8,8	12,5	14,5	14,5
④ Absorbed power	kW	1,35	1,58	1,96	3,05	3,85	3,82
④ E.E.R.		4,3	4,3	4,49	4,1	3,77	3,8
⑤ Sound pressure	dB(A)	38	39	43	44	46	46
⑥ Available circulator head	kPa	69	66	77	50	42	42
KAI Buffer tank water content	l	70	70	70	70	70	70
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 - THAITI Width	mm	1150	1150	1200	1200	1200	1200
H - THAITI Height	mm	758	758	878	878	878	878
P - THAITI Depth	mm	345	345	460	460	460	460
⑦ THAITI Weight	kg	109	109	166	166	166	166
L - THAITI+KAI Width	mm	1240	1240	1240	1240	1240	1240
H - THAITI+KAI Height	mm	1165	1165	1285	1285	1285	1285
P - THAITI+KAI Depth	mm	460	460	460	460	460	460
⑧ THAITI+KAI Empty Weight	kg	164	164	221	221	221	221
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 ηs	%	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 ηs	%	126	127	126	125	125	125
④ Energy class		A++	A++	A++	A++	A++	A++

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°C D.B. - Water: 12/7°C.
- ④ Air: 35°C D.B. - Water: 23/18°C.
- ⑤ In open field (Q = 2) at 5 m from the unit.
- ⑥ Weight refers to the most complete set up.  
Performance according to EN 14511
- ③ In Average climatic conditions.
- ④ Seasonal energy efficiency: ambient heating in Average climate (EU Regulations No.811/2013 and No.813/2013)

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