

MidiPACK-PI

THAIP 120÷140

Cooling capacity 18,7÷32,6 kW
Heating capacity 20,8÷40,9 kW



Features

Efficient and eco-friendly range in R290

Plug&Play unit with integrated hydraulic module

Full inverter units

Hot water production from -20°C to 40°C outdoor air

Temperature of the produced water up to 80°C

Integrated MASTER/SLAVE control

Tax incentives*



Reversible packaged heat pumps for high temperature water production, air cooled with axial fans.

Range with scroll hermetic compressors, DC inverter and R290 refrigerant gas.

Construction features

- Compressor: hermetic rotary, scroll type with inverter actuation, complete with thermal protection and casing heater.
- Water side heat exchanger: adequately insulated stainless steel plates, complete with antifreeze heater and water flow differential pressure switch.
- Air side heat exchanger: finned coil heat exchanger, with copper pipes and aluminium fins with hydrophilic treatment.
- Fan: external rotor helical type electric fan and permanent magnet motor (EC brushless) for electronic speed control, equipped with internal thermal protection.
- Control: microprocessor electronic control with Adaptive Function Plus logic.
- Structure: galvanised and painted steel plate, complete with antifreeze heater on the condensate drain pan.
- The unit is also complete with:
 - electronic expansion valve;

- outdoor air temperature probe for set-point compensation;
- display of cooling circuit high and low pressure;
- Master/Slave control up to 4 units in parallel;
- clock board;
- automatic management of anti-legionella cycles.

Version

T - High efficiency version.

Factory fitted accessories

- Forced limit of power consumption.
- Unit with copper/pre-painted aluminium or copper/copper condensation coils.

- Hot wire heaters protecting pump and piping down to -20°C outdoor air.
- Silenced set up (muffled compressors).
- Digital input for double set-point.
- 4-20 mA analogue signal for shifting set-point.
- Contacts for Smart Grid integration and photovoltaic system.
- Energy parameter measuring device.
- Low temperature water production.
- Interfaces for serial communication with other devices.

Separately supplied accessories

- Inertial storage tank, energy class C (class between F and A+).
- Buffer tank antifreeze heater.
- 3-way valve for the production of domestic hot water, managed by the adjustment.
- Remotable outdoor air temperature probe for compensation of the set-point.
- Additional electrical resistance for heat pump, managed by the adjustment.
- Rubber anti-vibration mounts.
- Water filter.
- Thermostat with display.
- Remote keypad with display.
- Interfaces for serial communication with other devices.
- Serial converter (RS485/USB).
- Rhoss supervisors for unit monitoring and remote management.

Technical data

THAITP MODEL		120	125	130	135	140
❶ Nominal heating capacity	kW	20,8	25,1	30,5	34,9	40,9
❶ Absorbed power	kW	5,76	7,56	8,69	10,58	12,21
❶ C.O.P.		3,61	3,32	3,51	3,3	3,35
❷ Nominal heating capacity	kW	21,3	25,5	31,1	35,5	42
❷ Absorbed power	kW	4,80	6,28	7,23	8,83	9,98
❷ C.O.P.		4,44	4,06	4,3	4,02	4,21
❸ Nominal cooling capacity	kW	18,7	22,3	25,8	28,9	32,6
❸ Absorbed power	kW	5,77	7,88	8,54	10,59	12,94
❸ E.E.R.		3,24	2,83	3,02	2,73	2,52
❹ Nominal cooling capacity	kW	25,1	30,1	35,2	39,6	43,9
❹ Absorbed power	kW	6,06	8,34	8,78	10,94	13,18
❹ E.E.R.		4,14	3,61	4,01	3,62	3,33
❺ Sound pressure	dB(A)	46	48	48,5	49,5	51
Scroll compressor	no.	1 inverter	1 inverter	1 inverter	1 inverter	1 inverter
Circuits	no.	1	1	1	1	1
❻ Available circulator head	kPa	81	60	59	41	-
KAI Buffer tank water content	l	150	150	150	150	150
Electrical supply	V-ph-Hz	400-3+N-50	400-3+N-50	400-3+N-50	400-3+N-50	400-3+N-50
DIMENSIONS AND WEIGHTS		120	125	130	135	140
L – THAITP width	mm	1635	1635	1635	1635	1635
H – THAITP height	mm	1290	1290	1670	1670	1670
P – THAITP Depth	mm	600	600	600	600	600
❻ THAITP weight	kg	260	260	330	330	350
L – THAITP+KAI width	mm	1740	1740	1740	1740	1740
H – THAITP+KAI height	mm	1795	1795	2175	2175	2175
P – THAITP+KAI Depth	mm	730	730	730	730	730
❻ THAITP+KAI weight	kg	360	360	430	430	450
SEASONAL ENERGY PERFORMANCE		120	125	130	135	140
THAITP MODEL SEASONAL PERFORMANCE IN HEATING MODE – Low temperature application 35°C						
❸ Pdesignh (EN 14825)	kW	20	23	28	31	39
❸ SCOP (EN 14825)		4,54	4,5	4,7	4,69	4,52
❹ ηs	%	178	177	185	185	178
❹ Energy class		A+++	A+++	A+++	A+++	A+++
THAITP MODEL SEASONAL PERFORMANCE IN HEATING MODE – Medium temperature application 55°C						
❸ Pdesignh (EN 14825)	kW	20	23	27	30	37
❸ SCOP (EN 14825)		3,67	3,61	3,8	3,78	3,62
❹ ηs	%	144	141	149	148	142
❹ Energy class		A++	A++	A++	A++	A++

Data at the following conditions:

- ❶ Air: 7°C D.B. – 6°C W.B. – Water: 40/45°C.
- ❷ Air: 7°C D.B. – 6°C W.B. – Water: 30/35°C.
- ❸ Air: 35°C D.B. – Water: 12/7°C.
- ❹ Air: 35°C D.B. – Water: 23/18°C (not Eurovent certified).
- ❺ In open field (Q = 2) at 5 m from the unit.
- ❻ Weight referred to the unit without load and not accessorised.
Performance according to EN 14511
- ❸ In Average climatic conditions.
- ❹ Seasonal energy efficiency: ambient heating in Average climate (EU Regulations No.811/2013 and No.813/2013 – class between D and A+++)



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