

WinPACK ECO HT65

THAEU 4120÷4190

Cooling capacity 103,6÷175,8 kW

Heating capacity 120,7÷197,4 kW



Features

Efficient and eco-friendly range in R454B

Temperature of the produced water up to 65°C

Full optional unit

Integrated MASTER/SLAVE control

Partial heat recovery with pump and mixing valve

Tax incentives*



Packaged reversible air-cooled heat pumps with axial fans. Range with hermetic scroll compressors and R454B refrigerant.

Construction features

- Compressor: hermetic rotary, scroll type with steam injection, complete with thermal protection and casing heater.
- Water side heat exchanger: with stainless steel plates, complete with closed cell polyurethane foam rubber insulation and water flow differential pressure switch.
- Air side heat exchanger: featuring finned coil with copper pipes and aluminium fins.
- Fan: external rotor axial type electric fans equipped with internal thermal protection, accident protection grilles and proportional electronic device for continuous regulation of the rotation speed of the fans.
- Control: microprocessor electronic control with Adaptive Function Plus logic.
- Structure: load-bearing structure made of galvanised and painted steel plate with polyester powder coating.
- The unit is also complete with:
 - compressor and fan circuit breaker switches;
 - electronic expansion valve;

- display of cooling circuit high and low pressure;
- Master/Slave control up to 4 units in parallel;
- clock board;
- control of Variable Primary Flow (VPF_R).

Versions

- T - High efficiency version with oversized condensing section.
- Q - Super-silenced version complete with compressor technical compartment soundproofing, reduced speed fans and oversized condensing section.

Models

- THAETU: high efficiency heat pump unit.
- THAEQU: super silenced heat pump unit.

Factory fitted accessories

- PUMP with single or double electric pump, one of which automatic in standby. The electric pumps are available in the low or high head versions.
- TANK&PUMP with 440 – 700 litre (depending on the sizes) integrated buffer tank and single or double electric pump, complete with expansion tank, air vent valves, safety valve and water side pressure gauge.
- Inverter pump control for unit start-up.
- Desuperheater.
- Desuperheater with pump and mixing valve
- Condensing control with fans with EC motor.
- Condensing control with over-pressure fans (T version only)
- Power factor correction capacitors ($\cos\phi > 0.94$).
- Forced limit of power consumption.
- Forced noise limit.
- Energy parameter measuring device.
- Soft starter.
- Technical compressor compartment soundproofing.
- Compressor soundproof enclosures.
- Cooling circuit outlet valves.
- Refrigerant leak detector.
- Gas control and refrigerant leak detector (leak detector plus).
- Cooling circuit high and low pressure gauges.
- Double safety valves.
- Metal filters or coil protection nets.
- Copper/copper, pre-painted copper/aluminium or with hydrophilic treatment coils.
- Control of min/max power supply voltage and backup battery
- Digital input for double set-point.
- 4-20 mA analogue signal for shifting set-point.
- Contacts for Smart Grid integration and photovoltaic system.
- Evaporator antifreeze heater, electrical panel, buffer tank, electric pumps and heat exchangers for heat recovery if applicable, and base.

- Buffer tank integrative heaters.
- Low temperature water production.
- Interfaces for serial communication with other devices.
- Colour touch user keypad (fitted on the machine or remotely) with 7" display.
- Anti-vibration mounts.

Separately supplied accessories

- Remote keypad with display.
- Thermostat with display.
- Rhoss supervisors for unit monitoring and remote management.
- Rhoss sequencer for integrated management of multiple chillers.

Technical data

THAETU-THAEQU MODEL		4120	4130	4140	4150	4170	4180	4190
② Nominal heating capacity	kW	122,6	136	145,4	154,7	178,3	187,7	197,4
② Nominal heating capacity	kW	120,7	133,8	142,7	151,7	175,3	184,3	193,7
② C.O.P.		3,42	3,41	3,46	3,47	3,32	3,32	3,33
② C.O.P.		3,47	3,46	3,5	3,51	3,42	3,41	3,41
① Nominal cooling capacity	kW	105,2	118,4	126,9	135,6	156	166,4	175,8
① Nominal cooling capacity	kW	103,6	116,7	124,7	132,9	153,4	164,4	172,1
① E.E.R.		2,97	2,95	2,92	2,91	2,89	2,87	2,85
① E.E.R.		2,82	2,8	2,74	2,7	2,83	2,81	2,75
② Absorbed power	kW	35,8	39,9	42	44,6	53,7	56,5	59,3
② Absorbed power	kW	34,8	38,7	40,8	43,2	51,3	54	56,8
THAETU-THAEQU MODEL		4120	4130	4140	4150	4170	4180	4190
③ THAETU sound pressure	dB(A)	52	53	53	53	58	58	58
③ THAEQU sound pressure	dB(A)	47	48	48	48	52	52	52
④ THAETU sound power	dB(A)	84	85	85	85	90	90	90
④ THAEQU sound power	dB(A)	79	80	80	80	84	84	84
Scroll compressors/steps	n.	4/4	4/4	4/4	4/4	4/4	4/4	4/4
Circuits	n.	2	2	2	2	2	2	2
Electrical supply	V-ph-Hz	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50
DIMENSIONS AND WEIGHTS		4120	4130	4140	4150	4170	4180	4190
L – Width	mm	3660	3660	3660	3660	3700	3700	3700
H – Height	mm	2000	2000	2000	2000	2030	2030	2030
P – Depth	mm	1520	1520	1520	1520	2090	2090	2090
⑤ THAETU weight	kg	1525	1530	1535	1540	1765	1770	1775
⑤ THAEQU weight	kg	1575	1580	1585	1590	1815	1820	1825
SEASONAL ENERGY PERFORMANCE		4120	4130	4140	4150	4170	4180	4190
THAETU MODEL SEASONAL PERFORMANCE IN HEATING MODE – Low temperature application 35°C								
③ Pdesignh (EN 14825)	kW	96	107	114	122	141	148	156
③ SCOP (EN 14825)		4,21	4,27	4,33	4,36	4,14	4,2	4,22
④ ηs	%	165	168	170	171	163	165	166
THAEQU MODEL SEASONAL PERFORMANCE IN HEATING MODE – Low temperature application 35°C								
③ Pdesignh (EN 14825)	kW	95	105	112	120	138	145	153
③ SCOP (EN 14825)		4,27	4,33	4,37	4,39	4,22	4,28	4,26
④ ηs	%	168	170	172	173	166	168	167
THAETU MODEL SEASONAL PERFORMANCE IN HEATING MODE – Medium temperature application 55°C								
③ Pdesignh (EN 14825)	kW	105	117	124	133	153	161	170
③ SCOP (EN 14825)		3,49	3,54	3,57	3,6	3,48	3,51	3,53
④ ηs	%	137	139	140	141	136	138	138
THAEQU MODEL SEASONAL PERFORMANCE IN HEATING MODE – Medium temperature application 55°C								
③ Pdesignh (EN 14825)	kW	104	115	123	131	150	158	167
③ SCOP (EN 14825)		3,54	3,59	3,61	3,63	3,53	3,55	3,56
④ ηs	%	139	141	142	142	138	139	139

Data at the following conditions:

- ① Air: 35°C – Water: 12/7°C
- ② Air: 7°C, D.B. – 6°C W.B.- Water: 40/45°C.
- ③ In open field (Q = 2) at 10 m from the unit.
- ④ Total sound power level in dB(A) based on measurements carried out in accordance with regulation UNI EN-ISO 9614.
- ⑤ Weight referred to the unit without load and not accessorised.
- THAEQU super-silenced versions.

Performance according to EN 14511.

In Average climatic conditions.

④ Seasonal energy efficiency: low temperature heating in Average climate (EU Regulations No.811/2013 and No.813/2013 – class between D and A+++)

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