HAEevo TECH

ErP Tier 2 COMPLIANT

R410A

Air cooled reversible heat pumps with scroll compressors.
Nominal cooling capacity 12,8 - 88,4 kW
Nominal heating capacity 11,1 - 84,3 kW

High efficiency air cooled reversible process heat pumps.

The HAEevo TECH reversible heat pumps are high efficiency units specifically designed for wine industry, and generally for all process applications when high performance, continuous operation and reduced management costs are the main requirements. The oversized heat exchangers surfaces and optimised scroll compressors ensure high performances, maximising the energy savings. The wide numbers of options available makes the units highly customizable, suitable to satisfying any type of plant solution.
All units are compliant with the limits imposed by the ErP regulation for seasonal efficiency ratio SEPR HT and SCOP.

MTA®
Cooling, conditioning, purifying.

Standard features

- Hermetic scroll compressors;
- Compressors crankcase heater and phase monitor;
- High-efficiency finned coil evaporator with copper tubes and aluminum fins, installed inside the carbon steel water storage tank;
- Axial AC fans;
- Air cooled condensers with copper tubes and aluminium fins protected by hydrophilic treatment;
- Condenser air filters;
- Electronic expansion valves;
- 4-way refrigerant cycle reversing valve;
- Storage tank;
- Single water pump with medium head pressure (P3);
- Internal hydraulic by-pass between the inlet and outlet connections;
- Electronic level sensor with water conductivity function;
- High and low refrigerant pressure switches;
- Parametric microprocessor control;
- IP54 electrical protection rating.

Options

- Single water pump with high head pressure (P5);
- Single water pump with medium head pressure (P3) suitable for open hydraulic systems;
- Non-Ferrous hydraulic circuit, suitable for aggressive process fluids (finned coil evaporator with copper tubes and fins installed inside the AISI304 water storage tank);
- Anti-freeze protection heaters for evaporator and pump (if included);
- EC brushless fans.

Benefits

- Seasonal energy efficiency compliant with ErP Directive 2009/125/EC;
- Scroll compressors ensure high efficiency and performances, maximising the energy savings;
- Evaporator with in-tank configuration specifically designed for process cooling applications. It allows high flow rates with low pressure drops and compatibility with impure process fluids even with high percentages of glycol;
- Oversized water storage tank, useful to compensate the instability caused by sudden changes of the required load;
- Extended operating limits (chiller mode): Tw in max = +35 °C; Tw out min = -10 °C; Tamb max = +46 °C; Tamb min = -10 °C;
- Extended operating limits (HP mode): Tw out max = +55 °C; Tw out min = +30 °C; Tamb max = +20 °C; Tamb min = -10 °C.

Kits

- Manual filling tank kit: suitable for at atmospheric hydraulic circuits;
- Automatic filling kit: suitable for pressurized hydraulic circuits;
- Glycol filling kit: suitable for pressurized hydraulic circuits;
- Automatic hydraulic bypass kit: includes adjustable pressure relief valve;
- Condenser air filters;
- LED remote display;
- LCD remote display;
- RS485 Modbus interface for connection to supervisor systems;
- xWEB300D EVO to monitoring, control and register data, based on "WEB server" technology;
- Modularity kit, for master/slave system management (up to 5 units).

Parametric microprocessor control.


Hydrophilic coating of condensers fins.


Single water pump with medium or high head pressure.


Integrated oversized water storage tank.

HAEevo Tech		031	051	081	101	121	161	201	251	301	351
Nominal cooling capacity (1)	kW	12,79	17,74	27,20	36,33	47,02	51,21	60,58	65,66	75,70	88,39
Total absorbed power (1)	kW	2,90	4,41	6,56	8,80	11,42	12,91	16,19	18,81	21,21	24,26
EER (1)		4,41	4,03	4,14	4,13	4,12	3,97	3,74	3,49	3,57	3,64
Nominal cooling capacity (2)	kW	8,98	12,60	19,48	26,40	33,90	36,90	43,42	47,46	54,76	64,52
Total absorbed power (2)	kW	3,39	5,07	7,41	10,02	12,75	14,54	17,88	20,75	23,32	27,47
EER (2)		2,65	2,49	2,63	2,63	2,66	2,54	2,43	2,29	2,35	2,35
SEPR HT (3)		5,13	5,04	5,09	5,02	5,04	5,04	5,58	5,53	5,49	5,16
Nominal heating capacity (4)	kW	11,13	16,39	24,08	32,19	41,34	45,70	55,15	61,49	70,91	84,31
Total absorbed power (4)	kW	3,69	5,23	7,56	10,54	13,15	14,31	17,33	19,51	21,98	27,19
COP (4)		3,02	3,14	3,18	3,05	3,14	3,19	3,18	3,15	3,23	3,10
SCOP (5)		-	3,50	3,43	3,25	3,38	3,41	3,75	3,78	3,89	3,69
ErP efficiency class (5)		-	A+	A+	A+	A+	A+	A+	A+	A++	A+
Power supply	V/Ph/Hz	400 ± 10% / 3 - PE / 50									
Sound power (6)	dB(A)	76,8	77,9	78,0	81,5	82,0	82,5	83,6	83,6	83,9	85,5
Sound pressure (7)		48,8	49,9	50	53,5	54,0	54,5	55,6	55,6	55,9	57,5
Width	mm	662	662	761	761	761	761	865	865	865	865
Depth	mm	1315	1315	1864	1864	1864	1864	2251	2251	2251	2251
Height	mm	1416	1416	1470	1470	1470	1470	2085	2085	2085	2085
Operating weight (P3 pump)	Kg	336	360	500	654	686	700	1038	1038	1078	1089
Tank volume	l	115	115	140	255	255	255	350	350	350	350
Evaporator water connections	Rp	1"	1"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	2"	2"	2"	2"

Data declared according to UNI EN 14511:2018. All data refers to standard units without accessories/options which require an electrical feeding source and in nominal working conditions. The listed noise levels, weights and dimensions refer to base units with no options fitted.

(1) Data referred to the full load functioning and nominal conditions, external ambient temperature 25 °C and evaporator water temperature IN/OUT 20/15 °C;
(2) Data referred to the full load functioning and nominal conditions, external ambient temperature 35 °C and evaporator water temperature IN/OUT 12/7 °C;
(3) Data declared in compliance with the European Regulation (EU) 2016/2281 for high temperature process chillers;
(4) Data referred to the full load functioning and nominal conditions, external ambient temperature 7 °C and condenser water temperature IN/OUT 40/45 °C;
(5) Data declared according to the European Regulation 813/2013 for low temperature heat pumps;
(6) Calculated in accordance with the standard ISO 3744;
(7) Average value obtained in free field on a reflective surface at the distance of 10 m by the external side of the electrical cabinet of the unit and at height of 1.6 m by the unit foothold. Considered tolerances ±2 dB. The sound levels are referred to the full load operations in nominal working conditions.

ISO 9001 BUREAU VERITAS Certification
MTA is ISO9001 certified, a sign of its commitment to complete customer satisfaction.

MTA products comply with European safety directives, as recognised by the CE symbol.

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com
MTA participates in the E.C.C. programme for LCP-HP. Certified products are listed on: www.eurovent-certification.com
Certification applied to the units:
- Air/Water up to 600 kW
- Water/Water up to 1500 kW

EAC Declaration

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