

ARIES TECH



Air cooled water chillers featuring hermetic scroll compressors with R410A.

Nominal cooling capacity 230 – 469 kW



Process cooling without compromises.

The air-cooled water chillers ARIES Tech have evolved to fulfil the present and future needs of process cooling applications. Preserving their versatility and reliability, the result of years of development and functioning on the field, ensure extended operating limits and the seasonal efficiency performances necessary to meet the requirements of the ERP Regulation EcoDesign.

They are extremely customizable to guarantee an easy installation for any plant solution. The ARIES Tech range is the example of targeted design, essential to obtain a reduced operating cost for air process cooling application without excluding reliability and environment protection.



Cooling, conditioning, purifying.

Benefits

- HE version high efficiency;
- SHE and SSN version with super low noise levels;
- High efficiency performances at full load [EER];
- High value of SEPR efficiency, compliant with requirements of Regulation ERP EcoDesign;
- Wide operating limits for starting up and functioning even in the worst conditions;
- Wide range of options and kits for easy installation;
- Easy access to all components;
- Advanced electronic control with integrated web server.

Main Options

- Shell and tube evaporator;
- Single or double water pump (one in stand-by) with low or medium head pressure;
- Water accumulation tank;
- Electronic expansion valves;
- IN/OUT compressors' valves;
- High efficiency Brushless EC condenser fans;
- Protection coating for condenser coils, for installation in aggressive environments;
- Antifreeze heaters for evaporator pump/s and tank;
- Metallic mesh filters for condenser coil protection;
- Soft starters to reduce by 20% the unit's starting current.

Versions

- HE - High energy efficiency and basic acoustic configuration;
- SHE - High energy efficiency and low noise acoustic configuration;
- SSN - Standard energy efficiency and very low noise acoustic configuration.

Standard Features

- Environment friendly refrigerant R410A;
- 4 scroll compressors in parallel on two independent refrigerant circuits;
- Crankcase heater and phase-monitor;
- Plates stainless steel evaporator with 2 refrigerant circuits;
- Axial fans, developed on the basis of bionic principles that allow to achieve high performance with low noise emissions;
- Electrical panel protection rating IP54;
- xDRIVE electronic microprocessor controller with high computing capacity and an easy to use graphical interface;
- Refrigerant charge, non-freezing oil and tests performed in the factory;
- Modbus RS485 serial output for connection to supervision systems;
- Ethernet port with HTML supervision pages preloaded for viewing and modifying the machine parameters to corporate or internet network;
- Serial connection to supervision systems;
- MTA xCONNECT Supervision based on internal web pages;
- Modularity Hub / web interconnection.

Sales kit

- Replicated remote user terminal kit;
- Modularity kit for xDRIVE;
- Condensers air filter kit;
- Antivibration mountings kit;
- Packaging kit for transportation by container.



Semigraphic user terminal with multifunctional buttons and dynamic display icons.



Also available with shell and tube evaporator.



Pump section with or without storage tank.



High efficiency EC inverter fans.

Models AST		70			80			90			100			110			120			130			140		
		HE	SHE	SSN	HE	SHE	SSN	HE	SHE	SSN	HE	SHE	SSN	HE	SHE	SSN	HE	SHE	SSN	HE	SHE	SSN	HE	SHE	SSN
Nominal cooling capacity [1]	kW	167	162	157	192	185	177	203	195	186	213	204	193	248	241	233	273	264	254	308	296	282	339	323	306
Total absorbed power [1]	kW	56	56	56	63	64	66	68	69	73	73	75	79	81	81	82	89	90	92	104	106	110	119	123	130
EER [2]		3,02	2,90	2,80	3,04	2,90	2,66	3,00	2,82	2,56	2,93	2,74	2,46	3,05	2,98	2,84	3,06	2,93	2,75	2,97	2,79	2,56	2,85	2,62	2,35
SEPR [3]		4,95	4,02	4,11	5,06	4,08	4,15	4,96	4,06	4,18	4,86	4,02	4,05	5,00	4,16	4,23	5,02	4,16	4,20	5,09	4,15	4,18	5,08	4,05	4,05
Max external air temp. [4]	°C	50	47	45	49	47	44	48	45	41	48	45	41	50	48	45	49	47	44	48	45	43	47	44	41
Nominal cooling capacity [5]	kW	230	222	215	265	255	243	281	270	256	295	282	266	343	333	321	378	364	349	426	407	388	469	446	421
Total absorbed power [5]	kW	51	52	52	58	59	62	63	64	68	67	69	73	75	76	82	83	85	96	98	102	110	115	122	
EER [6]		4,50	4,30	4,14	4,55	4,31	3,95	4,47	4,20	3,79	4,37	4,07	3,62	4,56	4,45	4,23	4,61	4,40	4,11	4,45	4,15	3,79	4,24	3,87	3,46
Max external air temp. [7]	°C	50	47	45	49	47	44	48	45	41	48	45	41	50	48	45	49	47	44	48	45	43	47	44	41
Power supply	V/Ph/Hz	400 ± 10% / 3-PE / 50																							
Circuits / Compressors	N°	2/4																							
Sound power [8]	dB(A)	93	87	78	92	86	78	92	86	77	92	86	77	92	86	78	92	86	78	93	86	77	93	86	79
Sound pressure [9]	dB(A)	65	59	50	64	58	50	64	58	49	64	56	49	64	56	50	64	56	50	65	58	51	65	58	51
Depth	mm	2188			2188			2188			2188			2188			2188			2188			2188		
Width	mm	3495			3495			3495			3495			4595			4595			4595			4595		
Height	mm	2150			2150			2150			2150			2150			2150			2150			2150		
Installed weight	kg	1548			1712			1897			1972			2356			2497			2486			2432		

Data declared according to UNI EN 14511:2013.

- (1) **Nominal cooling capacity and Nominal absorbed power:** data referred to nominal conditions, external ambient temperature 35 °C and evaporator water temperature IN/OUT 12/7 °C;
- (2) **EER:** 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) **SEPR:** data declared in compliance with the European Regulation (EU) 2016/2281 with regard to ecodesign requirements for cooling products and high temperature process chillers;
- (4) **Maximum external air temperature:** data declared referred to cooling mode and outlet water temperature 7 °C;
- (5) **Nominal cooling capacity and Nominal absorbed power:** data referred to nominal conditions, external ambient temperature 25 °C and evaporator water temperature IN/OUT 20/15 °C;
- (6) **EER:** data referred to the full load functioning and nominal conditions, external ambient temperature 25 °C and evaporator water temperature IN/OUT 20/15 °C;
- (7) **Maximum external air temperature:** data declared referred to cooling mode and outlet water temperature 15 °C;
- (8) **Sound power:** determined on the basis of measurements taken in accordance with the standard ISO 3744;
- (9) **Sound pressure at 10 m:** average value obtained in free field on a reflective surface at a distance of 10 m from the external side of the electrical panel of machine and at a height of 1.6 m from the unit support base. Values with tolerance ± 2 dB. The sound levels refer to operation of the unit under full load in nominal conditions and with circulation pump.

The listed noise levels, weights and dimensions refer to base units with no options fitted.



MTA is ISO9001 certified, a sign of its commitment to complete customer satisfaction.



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



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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