



# ARIES TECH 2



Air cooled water chillers featuring hermetic scroll compressors with R410A.

Nominal cooling capacity 232 – 908 kW



## The process cooling 2.0

The air-cooled water chillers ARIES Tech 2 are designed to fulfil the present and future needs of process cooling applications. Their versatility, reliability and extended operating limits allow to satisfy every type of process.

Developed to meet the seasonal efficiency performances required of the ERP EcoDesign Regulation, they are extremely customizable to guarantee an easy installation for any plant solution. The ARIES Tech 2 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

- The ARIES Tech 2 range meet the efficiency parameters required by the ErP regulation for SEPR HT (Tier 2 01/01/2021 - base version) and SEPR MT (Tier 2 02/07/2018 - low water temperature version, up to -10 °C);
- 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.

## Options

- Low water temperature configuration (up to -10 °C outlet water temperature);
- Stainless steel shell and tube evaporator;
- Single or twin water pump with low or medium head pressure;
- Water accumulation tank;
- IN/OUT compressors valves;
- High efficiency EC brushless fans (base equipment for SSN version);
- Total heat recovery;
- Protection coating for condenser coils, suitable for installation in aggressive environments;
- Microchannels condenser coils;
- 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.

## Standard Features

- Refrigerant R410A;
- 4 or 6 scroll compressors on two independent refrigerant circuits;
- Crankcase heater compressor and phase-monitor;
- Shell & tube evaporator;
- Electronic expansion valve;
- Axial fans, developed on the basis of bionic principles that allow to achieve high performance with low noise emissions;
- Electrical panel protection rating IP54;
- 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;
- Serial connection to supervision systems;
- Master/slave configuration manageable between 2 units.

## Kits

- Antivibration mountings kit;
- Replicated remote user terminal kit;
- Supervision system xWEB300D EVO;
- Modularity kit for xDRIVE (master/slave from 3 to 8 units).

## Versions

- HE - basic acoustic configuration;
- SHE - low noise acoustic configuration;
- SSN - very low noise acoustic configuration.



Latest-generation touch screen user terminal.



Shell and tube evaporator.



External supervisor systems.



High efficiency EC inverter fans.

Models AST 2	065			075			090			105			115			140		
Versions	HE	SHE	SSN	HE	SHE	SSN	HE	SHE	SSN	HE	SHE	SSN	HE	SHE	SSN	HE	SHE	SSN
Nominal cooling capacity (1)	232,13	223,42	211,80	264,88	251,37	240,94	307,87	289,13	274,62	384,44	365,84	351,55	435,30	409,15	390,50	508,42	469,05	447,39
Total absorbed power (1)	60,20	61,46	65,58	62,37	64,67	67,60	76,28	80,91	85,79	85,65	87,56	90,77	103,04	108,18	113,50	129,21	141,03	148,67
EER (2)	3,86	3,63	3,23	4,25	3,89	3,56	4,04	3,57	3,20	4,49	4,18	3,87	4,22	3,78	3,44	3,93	3,33	3,01
SEPR HT (3)	5,16	5,25	5,42	5,33	5,32	5,55	5,22	5,09	5,23	5,46	5,51	5,51	5,38	5,32	5,57	5,28	5,26	5,35
Max external air temp. (4)	44	42	42	45	43	44	46	40	41	46	45	46	45	42	43	46	39	42
Power supply	V/Ph/Hz 400 ± 10% / 3-PE / 50																	
Circuits / Compressors	2/4			2/4			2/4			2/4			2/4			2/4		
Sound power (5)	91,3	83,7	79,3	92,9	85,3	80,6	94,4	86,8	80,7	95,3	87,8	80,7	96,1	88,6	82,5	96,1	88,8	80,6
Sound pressure (6)	63,3	55,7	51,3	64,9	57,3	52,6	66,4	58,8	52,7	67,3	59,8	52,7	68,1	60,6	54,5	68,1	60,8	52,6
Width	2191			2191			2191			2191			2191			2191		
Depth	3091			3091			3091			3439			3439			3465		
Height	2424			2424			2424			2424			2424			2424		
Installed weight	1779			1875			1972			2474			2566			2875		

Models AST 2	150			160			170			190			210			240		
Versions	HE	SHE	SSN	HE	SHE	SSN	HE	SHE	SSN	HE	SHE	SSN	HE	SHE	SSN	HE	SHE	SSN
Nominal cooling capacity (1)	559,86	527,91	505,14	605,82	570,41	546,41	676,36	641,56	616,87	745,47	700,25	668,40	829,92	785,24	753,25	908,23	852,14	814,55
Total absorbed power (1)	130,42	136,67	143,29	134,67	141,89	148,53	146,17	150,61	156,17	170,82	179,64	188,69	182,09	188,72	196,54	206,38	218,71	229,92
EER (2)	4,29	3,86	3,53	4,50	4,02	3,68	4,63	4,26	3,95	4,36	3,90	3,54	4,56	4,16	3,83	4,40	3,90	3,54
SEPR HT (3)	5,42	5,42	5,63	5,66	5,57	5,94	5,67	5,70	6,07	5,52	5,73	5,74	5,67	5,67	6,03	5,59	5,80	5,81
Max external air temp. (4)	46	43	44	46	44	44	47	44	46	47	42	44	46	44	46	47	43	44
Power supply	V/Ph/Hz 400 ± 10% / 3-PE / 50																	
Circuits / Compressors	2/4			2/6			2/6			2/6			2/6			2/6		
Sound power (5)	97,1	89,8	81,9	94,8	87,5	81,8	95,6	88,2	82,8	96,8	89,4	82,8	98,1	90,8	83,7	99,5	92,2	83,7
Sound pressure (6)	69,1	61,8	53,9	66,8	59,5	53,8	67,6	60,2	54,8	68,8	61,4	54,8	70,1	62,8	55,7	71,5	64,2	55,7
Width	2191			2191			2191			2191			2191			2191		
Depth	4455			4455			5445			5445			6435			6435		
Height	2424			2424			2424			2424			2424			2424		
Installed weight	3420			3371			3934			4136			4861			4923		

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.

- (1) 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;
  - (2) 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;
  - (3) SEPR HT: 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 15 °C;
  - (5) Sound power: determined on the basis of measurements taken in accordance with the standard ISO 3744;
  - (6) 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 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.
- 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 recognised by the CE symbol.



MTA participates in the E.C.C. programme for LCP-HR. Certified products are listed on: [www.eurovent-certification.com](http://www.eurovent-certification.com). Certification applied to the units: - Air/Water up to 600 kW - Water/Water up to 1500 kW



EAC Declaration

## M.T.A. S.p.A.

Business Office  
Viale Spagna, 8 - ZI  
35020 Tribano (PD) - Italy  
Tel. +39 049 9588611  
Fax +39 049 9588612  
info@mta-it.com  
[www.mta-it.com](http://www.mta-it.com)



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