

# ARIES

AIR COOLED WATER CHILLERS AND HEAT PUMPS WITH R410A OR R407C FEATURING HERMETIC SCROLL COMPRESSORS.  
COOLING CAPACITY 161 - 346 KW, HEATING CAPACITY 170 - 374 KW.



## BENEFITS

- Reduced noise levels, thanks also to the availability of three differing acoustic versions;
- High EER/COP levels, especially at partial loads;
- Optimisation of performance also in heat pump mode thanks to hot gas injection and the innovative FDS defrosting system (min. ambient temperature -10 °C in heat pump mode);
- Allows start-up and operation in even the most severe conditions thanks to the unloading function;
- Simplified installation and easy access to all components;
- User friendly controller with multifunctional buttons and dynamic display icons.

## MAIN OPTIONS

- Shell and tube evaporator (R407C);
- Add-on external pumping unit with 1 or 2 pumps and water pressure gauge;
- Storage tank;
- Electronic thermostatic valve;
- Compressor shut-off valves on suction and discharge lines;
- Electronic fan speed control;
- Condenser coils designed for aggressive atmospheres;
- Antivibration dampers;
- Anti-freeze heaters on evaporator, pump and tank;
- Metal mesh filters for condenser coil protection;
- Replicated remote user terminal;
- Serial connection to supervisor system;
- MTA xWEB supervision based on internal web pages;
- Electric power supply different from standard.

## STANDARD FEATURES

- 4 scroll compressors in parallel within two independent circuits;
- Single brazed stainless steel plate evaporator "dual-circuit";
- Heat pumps equipped with 2<sup>nd</sup> thermostatic valve for optimised performance in all operating conditions);
- Axial fans with progressive activation for optimised condensing pressure control, installed in two independent aerualic sections;
- RS485 ModBus interface for connection to supervisor systems;
- Ethernet connection featuring pre-programmed HTML supervision pages, allowing local or internet based visualization and modification of the operating parameters;
- Factory tested and supplied with refrigerant charge and antifreeze oil;
- IP54 electric protection rating;
- Environmentally friendly refrigerants with R410A and R407C zero ozone depletion potential.

## VERSIONS

- Chiller;
- Heat pump;
- Low ambient air temperature version (down to -20 °C in cooling mode);
- High external air temperature; (H version);
- Version with desuperheaters;
- Versions with total heat recovery;
- Configuration with integrated Free-cooling, featuring unique aerualic separation between chiller and Free-cooling sections (R407C);
- Acoustic configurations:
  - N standard;
  - SN low noise;
  - SSN very low noise.

		Model AST - HAST	070	080	090	100	110	120	130	140	
R410A (ARIES <i>tech</i> )	AST	Cooling capacity	kW	162	196	213	225	250	272	312	331
		Absorbed power	kW	58,1	66	70	76,9	90,4	105	107	118
		ESEER	-	3,84	4,15	4,29	4,32	4,12	4,15	4,07	4,10
		IPLV	-	4,08	4,53	4,58	4,58	4,49	4,46	4,38	4,36
		Max external air temperature vers. N	°C	45	46	46	46	45	44	46	45
		Max external air temperature vers. H	°C	49	49	48	48	49	48	48	48
	HAST	Heating capacity	kW	179	214	230	243	276	317	339	374
		Absorbed power	kW	51,9	61,4	65,9	70,4	80,2	88,5	95,5	103
		Min. external air temperature	°C	-7	-7	-6	-6	-6	-8	-7	-8

Power supply	V/Ph/Hz	400±10%/3/50							
Circuit / Compressors	N°	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4
Sound pressure version N	dB(A)	65,6	64,6	64,6	64,6	64,6	64,6	65,3	65,3
Sound pressure version SN	dB(A)	59,2	58,0	58,0	58,0	58,0	58,0	58,2	58,2
Sound pressure version SSN	dB(A)	50,9	50,9	49,7	49,7	50,7	50,7	51,1	51,1
Sound pressure version H	dB(A)	64,6	64,6	63,7	63,7	65,3	65,3	64,3	64,3
Depth	mm	3418	3418	3418	3418	4518	4518	4518	4518
Width	mm	2188	2188	2188	2188	2188	2188	2188	2188
Height	mm	1989	1989	1989	1989	1989	1989	1989	1989
Installed weight	Kg	1765	1941	2005	2068	2296	2319	2504	2599

		Model AS - HAS	162	195	209	219	247	267	299	319	
R407C (ARIES)	AS	Cooling capacity	kW	161	197	219	233	261	281	323	346
		Absorbed power	kW	61,4	69,6	74,3	81,3	90,1	102	107	121
		ESEER	-	3,76	3,96	4,16	4,18	4,20	4,17	4,10	4,09
		IPLV	-	4,31	4,52	4,66	4,65	4,84	4,79	4,64	4,68
		Max external air temperature vers. N	°C	45	46	46	46	46	45	46	45
		Max external air temperature vers. H	°C	50	49	49	49	50	49	49	49
	HAS	Heating capacity	kW	169	203	221	233	261	296	323	360
		Absorbed power	kW	51,7	60,6	64,7	69,1	75,9	83,9	92,7	103
		Min. external air temperature	°C	-8	-7	-8	-7	-7	-7	-7	-8

Power supply	V/Ph/Hz	400±10%/3/50							
Circuit / Compressors	N°	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4
Sound pressure version N	dB(A)	65,6	64,6	64,6	64,6	64,6	64,6	65,3	65,3
Sound pressure version SN	dB(A)	59,2	58,0	58,0	58,0	58,0	58,0	58,2	58,2
Sound pressure version SSN	dB(A)	50,9	50,9	49,7	49,7	50,7	50,7	51,1	51,1
Sound pressure version H	dB(A)	64,6	64,6	63,7	63,7	65,3	65,3	64,3	64,3
Depth	mm	3418	3418	3418	3418	4518	4518	4518	4518
Width	mm	2188	2188	2188	2188	2188	2188	2188	2188
Height	mm	1989	1989	1989	1989	1989	1989	1989	1989
Installed weight	Kg	1764	1933	1997	2065	2299	2307	2495	2590

All data refers to standard units at the following nominal conditions:

**Chiller:** evaporator water inlet-outlet 12-7 °C, external air temperature 35 °C;

**Heat pump:** condenser water inlet-outlet 40-45 °C, external air temperature 7 °C dry bulb, 6 °C wet bulb.

Sound pressure level in hemispherical field at 10 m from condenser side and 1.6 m from ground. Values with tolerance ± 2 dB.

The sound levels refer to operation of the unit under full load in nominal conditions and with circulation pump.



Semigraphic user interface with multifunctional buttons and dynamic display icons.



Available with either plate or shell and tube evaporators (R407C).



Pump section with or without storage tank.

