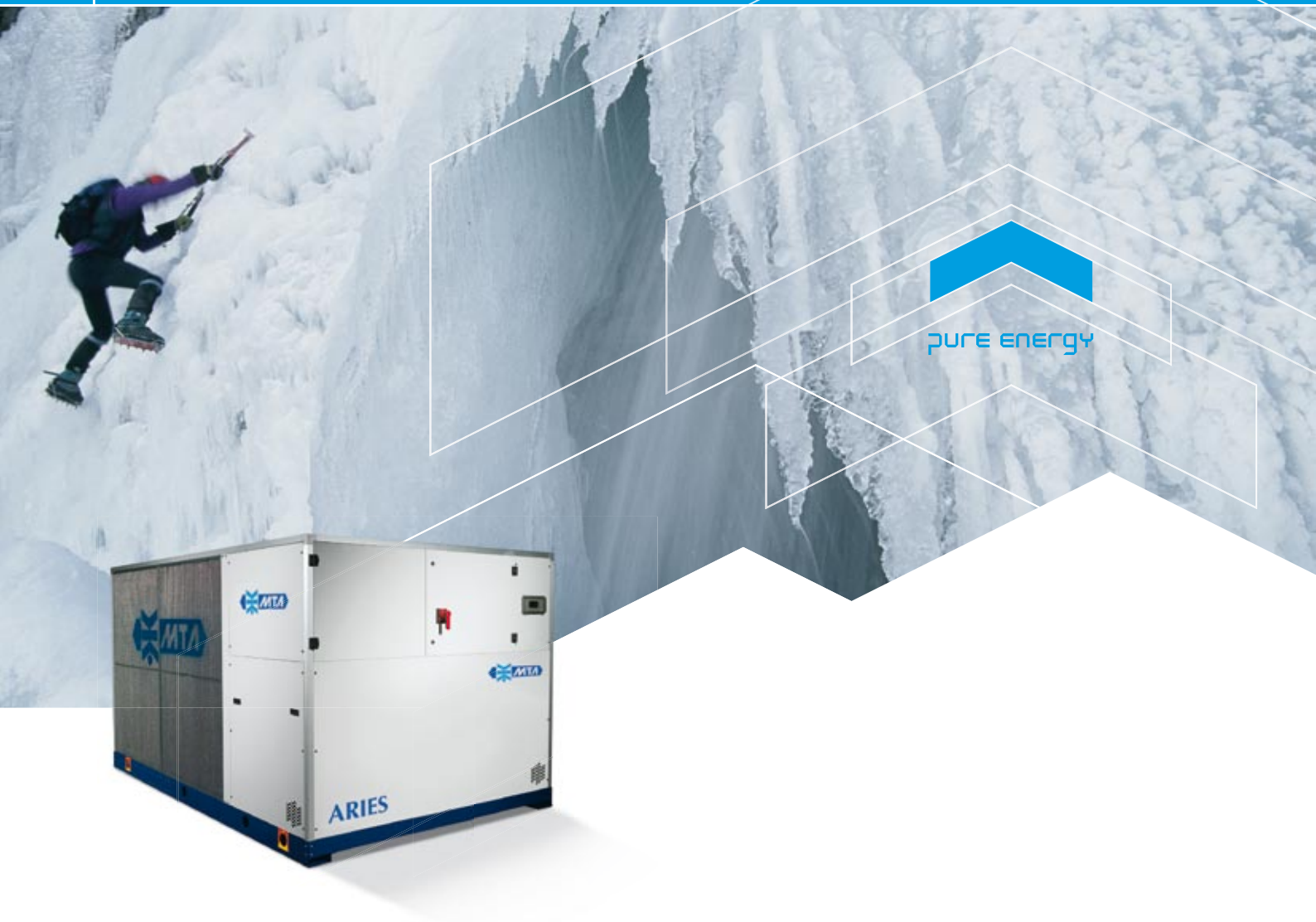
ARIES

ARIES - HARIES

Air-cooled chillers and heat pumps
with scroll compressors



Designed with your energy in mind

Aries chillers and heat pumps represent the ideal example of design aimed at energy savings in all operating conditions. The technical solutions implemented on Aries all contribute to the reduction in overall system operating costs and the protection of the environment. Aries features: 4 scroll compressors connected in parallel within two cooling circuits, offering the exact cooling output required by the system; exchanger on the utility side with dual cooling circuits and a single water circuit, allowing operation with higher evaporating temperatures; cooling circuits with separate aeraulic sections, permitting progressive shutdown of the fans according to the instantaneous thermal load; heat pumps with hot gas injection and MTA's intelligent FDS (Frost Detecting System) defrosting logic, to optimise seasonal energy efficiencies in winter conditions.

MTA®

Cooling, conditioning, purifying.

BENEFITS

- High EER/COP levels, especially at partial loads;
- Reduced noise levels, thanks also to the availability of three differing acoustic versions;
- Optimized and guaranteed heat pump operation thanks to hot gas injection and innovative FDS defrosting system (minimum external air temperature –10 °C);
- Allows start-up and operation in even the most severe conditions thanks to the unloading function;
- Reduced overall dimensions;
- Simplified installation and easy access to all components;
- User friendly microprocessor control with PGD display;
- Compatible with the latest BMS supervision and interface systems.

STANDARD CHARACTERISTICS

- 4 scroll compressors in parallel within two independent circuits;
- Single brazed stainless steel plate evaporator;
- Heat pumps equipped with 2nd thermostatic valve (for optimised performance in all operating conditions) and condensate collection tray with hose clamp connections;
- Axial fans with progressive activation for optimised condensing pressure control, installed in two independent aeraulic sections;
- Designed for outdoor operation (IP54 protection rating);
- Individually factory tested, charged with refrigerant and antifreeze oil, ready for operation;
- Refrigerant R407C.

MAIN OPTIONS

- Shell and tube evaporator;
- Internally mounted storage tank with single or twin pumps;
- 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 heater;
- Metal mesh filters for condenser coil protection;
- Remote control kit;
- Remote Supervisor Systems;
- Refrigerant R22, R134a or R410A;
- 460/3/60 power supply.

VERSIONS

- Chiller;
- Heat pump;
- Acoustic configurations:
  - N standard;
  - SN low noise;
  - SSN very low noise.
- Low external air temperature version (up to –20 °C);
- High external air temperature;
- Version with desuperheaters;
- Versions with either partial or total heat recovery;
- Configuration with integrated Free-cooling, featuring unique aeraulic separation between chiller and Free-cooling sections.

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pure energy

Semi-graphic backlit microprocessor display

Available with either plate or shell and tube evaporators

Pump section with or without storage tank

TECHNICAL DATA

	Model AS-HAS		162	195	209	219	247	267	299	319
AS	Cooling capacity	kW	161	197	219	233	261	281	323	346
AS	Absorbed power	kW	57,4	65,3	69,8	76,4	84,5	96,2	100	114
AS	ESEER	-	3,79	3,99	4,19	4,21	4,23	4,20	4,13	4,12
AS	IPLV	-	4,31	4,52	4,66	4,65	4,84	4,79	4,64	4,68
AS	Max external air temperature	°C	45	46	46	46	46	45	46	45
HAS	Heating capacity	kW	169	203	221	233	261	296	323	360
HAS	Absorbed power	kW	51,7	60,6	64,7	69,1	75,9	83,9	92,7	103
HAS	Min external air temperature (water 45 °C)	°C	-8	-7	-8	-7	-7	-7	-7	-8
	Power supply	V/Ph/Hz	400±10%/3/50							
	Sound pressure level	dB(A)	65.6	64.6	64.6	64.6	64.6	64.6	65.3	65.3
	Depth	mm	3495	3495	3495	3495	4595	4595	4595	4595
	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 temperature 12-7 °C, external air temperature 35 °C.
- Heat pump: condenser inlet-outlet temperature 40-45 °C, external air temperature 7 °C D.B., 6 °C W.B.

ESSER calculated according to EECCAC; IPLV calculated according to ARI Standard 550/590-2003.

Sound pressure level in hemispheric field at a distance of 10 m from condenser side and 1.6 m from ground.

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