



# ARIES G

Air cooled water chillers featuring hermetic scroll compressors with R454B.

Nominal cooling capacity 228 – 867 kW



R454B



## High efficiency, low GWP.

The air-cooled water chillers ARIES G are designed to meet the current and future needs of process cooling applications. The huge versatility and reliability combined with an extended operating limits makes it suitable for every type of process. Developed to satisfy the seasonal efficiency performances required by the ERP EcoDesign Regulation, minimizing the environmental impact through the low GWP refrigerant R454B.

The ARIES G range is the example of targeted design, essential to obtain a reduced management costs without excluding reliability and environment protection.



Cooling, conditioning, purifying.

## Benefits

- Low GWP refrigerant R454B (GWP466);
- Seasonal efficiency compliant with the 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, down to -10 °C);
- Acoustic configurations SHE and SSN with reduced sound levels;
- Extended working limits for starting up and operating even in the worst conditions;
- Wide choice of options and kits for easy installation;
- Easy access to all internal components;
- Advanced electronic control with web server integrated.

## Options

- MWT version (down to -10 °C outlet water temperature);
- Low ambient temperature option (down to -20 °C);
- Stainless steel shell & tube evaporator;
- Single or twin water pump with low or medium head pressure;
- Water accumulation tank;
- Anti-freeze protection heaters for heat exchangers, pump/s and water accumulation tank (if included);
- IN/OUT compressors valves;
- Soundproof jacket or housing for compressors (for HE configuration);
- High efficiency EC brushless fans (base option for SSN version);
- Total heat recovery;
- Protection coating for condenser coils, suitable for installation in aggressive environments;
- Metallic mesh filters for condenser coils protection;
- Soft starters to reduce by 20% the unit's starting current.

## Standard Features

- Refrigerant R454B;
- 4 or 6 scroll compressors on two refrigerant circuits;
- Crankcase heater compressor and phase-monitor;
- Shell & tube evaporator;
- "Victaulic" hydraulic connections kit (supplied for each unit)
- Electronic expansion valve;
- Axial fans complete with protective grids and die-cast aluminium airfoil blade profiles;
- Electrical cabinet protection rating IP54;
- Refrigerant and oil charge;
- Tests and checks performed on factory;
- Electronic microprocessor controller with touch screen user display;
- Modbus RS485 serial output for connections to supervision systems;
- Master/slave configuration manageable between 2 units.

## Kits

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

## Acoustic configurations

- HE - Basic acoustic configuration;
- SHE - Low noise acoustic configuration;
- SSN - Very low noise acoustic configuration.

| Models ASG2                      | 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)     | kW      |      |      | 228                   | 219  | 208  | 260  | 246  | 236  | 305  | 285  | 269  | 371  | 353  | 339  | 415  | 390  | 374  | 487  | 451  | 432  |
| Total absorbed power (1)         | kW      |      |      | 57                    | 58   | 62   | 60   | 62   | 65   | 76   | 81   | 86   | 82   | 85   | 88   | 97   | 101  | 106  | 119  | 128  | 134  |
| EER (2)                          | 4,01    | 3,78 | 3,38 | 4,34                  | 3,96 | 3,64 | 4,00 | 3,51 | 3,14 | 4,50 | 4,17 | 3,87 | 4,27 | 3,85 | 3,53 | 4,09 | 3,52 | 4,09 | 3,52 | 3,23 |      |
| SEPR HT (3)                      | 5,28    | 5,45 | 5,37 | 5,62                  | 5,53 | 5,63 | 5,44 | 5,23 | 5,66 | 5,61 | 5,72 | 5,84 | 5,57 | 5,50 | 5,98 | 5,60 | 5,24 | 5,88 |      |      |      |
| Max external air temperature (4) | °C      |      |      | 43                    | 42   | 43   | 47   | 44   | 45   | 46   | 41   | 42   | 47   | 46   | 47   | 47   | 43   | 44   | 47   | 41   | 43   |
| Power supply                     | V/Ph/Hz |      |      | 400 ± 10% / 3-PE / 50 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Circuits / Compressors           | N°      |      |      | 2/4                   |      |      | 2/4  |      |      | 2/4  |      |      | 2/4  |      |      | 2/4  |      |      | 2/4  |      |      |
| Sound power (5)                  | dB(A)   |      |      | 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)               | dB(A)   |      |      | 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                            | mm      |      |      | 2191                  | 2191 | 2191 | 2191 | 2191 | 2191 | 2191 | 2191 | 2191 | 2191 | 2191 | 2191 | 2191 | 2191 | 2191 | 2191 | 2191 | 2191 |
| Depth                            | mm      |      |      | 3091                  | 3091 | 3091 | 3091 | 3091 | 3091 | 3091 | 3091 | 3091 | 3439 | 3439 | 3439 | 3439 | 3439 | 3439 | 3465 | 3465 | 3465 |
| Height                           | mm      |      |      | 2424                  | 2424 | 2424 | 2424 | 2424 | 2424 | 2424 | 2424 | 2424 | 2424 | 2424 | 2424 | 2424 | 2424 | 2424 | 2424 | 2424 | 2424 |
| Installed weight                 | kg      |      |      | 1626                  |      |      | 1820 |      |      | 1850 |      |      | 2240 |      |      | 2317 |      |      | 2590 |      |      |

| Models ASG2                      | 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)     | kW      |      |      | 537                   | 507  | 486  | 593  | 556  | 533  | 647  | 614  | 591  | 713  | 672  | 643  | 787  | 747  | 718  | 867  | 815  | 781  |
| Total absorbed power (1)         | kW      |      |      | 120                   | 125  | 130  | 129  | 136  | 142  | 137  | 141  | 146  | 159  | 167  | 174  | 167  | 173  | 179  | 188  | 198  | 207  |
| EER (2)                          | 4,49    | 4,06 | 3,74 | 4,61                  | 4,10 | 3,76 | 4,71 | 4,34 | 4,04 | 4,49 | 4,03 | 3,71 | 4,71 | 4,31 | 4,01 | 4,61 | 4,11 | 3,78 |      |      |      |
| SEPR HT (3)                      | 5,87    | 5,68 | 6,15 | 5,88                  | 6,20 | 6,13 | 5,81 | 5,75 | 6,26 | 5,75 | 6,10 | 6,12 | 5,94 | 5,80 | 6,28 | 6,04 | 5,80 | 6,32 |      |      |      |
| Max external air temperature (4) | °C      |      |      | 47                    | 45   | 46   | 47   | 44   | 45   | 47   | 46   | 47   | 47   | 44   | 46   | 47   | 46   | 47   | 47   | 45   | 46   |
| Power supply                     | V/Ph/Hz |      |      | 400 ± 10% / 3-PE / 50 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Circuits / Compressors           | N°      |      |      | 2/4                   |      |      | 2/6  |      |      | 2/6  |      |      | 2/6  |      |      | 2/6  |      |      |      |      |      |
| Sound power (5)                  | dB(A)   |      |      | 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)               | dB(A)   |      |      | 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                            | mm      |      |      | 2191                  | 2191 | 2191 | 2191 | 2191 | 2191 | 2191 | 2191 | 2191 | 2191 | 2191 | 2191 | 2191 | 2191 | 2191 | 2191 | 2191 | 2191 |
| Depth                            | mm      |      |      | 4455                  | 4455 | 4455 | 4455 | 4455 | 4455 | 5445 | 5445 | 5445 | 5445 | 5445 | 5445 | 6435 | 6435 | 6435 | 6435 | 6435 | 6435 |
| Height                           | mm      |      |      | 2424                  | 2424 | 2424 | 2424 | 2424 | 2424 | 2424 | 2424 | 2424 | 2424 | 2424 | 2424 | 2424 | 2424 | 2424 | 2424 | 2424 | 2424 |
| Installed weight                 | kg      |      |      | 3180                  |      |      | 3249 |      |      | 3788 |      |      | 3994 |      |      | 4617 |      |      | 4667 |      |      |

**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) Data referred to 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 25 °C and evaporator water temperature IN/OUT 20/15 °C;
- (3) 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) 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-HP. 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

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