



AQUARIUS G



Water cooled reversible water chillers
with semi hermetic screw compressors.
Nominal cooling capacity 456 – 1934 kW
Nominal heating capacity 399 – 1721 kW *



Best performance and maximum reliability.

The water cooled reversible water chiller AQUARIUS G is the best solution for large process cooling applications when reliability and high performances are the main requirements.

The AQUARIUS G units are designed to meet market requirements in terms of versatility and energy efficiency using high quality components. The smart stepless cooling capacity regulation, electronic expansion valves and high efficiency heat exchangers with integrated heat recovery systems allow to increase the partial and full loads efficiency optimising the seasonal performances.

* Data referred to units fitted with heat pump option.



Cooling, conditioning, purifying.

Benefits

- Low GWP refrigerant R513A;
- Seasonal energy efficiency compliant with ErP Directive 2009/125/EC;
- High energy efficiency levels, especially at partial loads;
- Smart stepless cooling capacity regulation with self-adaptive control;
- High accuracy and adaptability in cooling capacity regulation;
- Single compressors minimum capacity step 25%;
- Heat exchangers with low water side pressure drops in order to reduce the pumping systems management costs;
- Integrated heat recovery systems (partial or total heat recovery);
- Condenser outlet water temperature up to 60 °C.

Standard features

- High efficiency screw compressors with smart stepless cooling capacity regulation optimised for R513A refrigerant;
- Check valve and shut-off valve on compressors discharge line;
- Compressors crankcase heater and phase monitor;
- Automatic circuit breakers for compressors;
- Electronic expansion valves;
- Single pass shell & tube heat exchangers optimised for R513A refrigerant;
- "Unloading" function that allows the start-up and operation of the units, even in conditions very different by the nominal ones;
- Programmable microprocessor electronic control with high computing capacity and user friendly interface, suitable for connectivity with RS485 Modbus protocol supervisor systems;
- Electrical cabinet protection rating IP54;
- Inspections and tests performed on all units;
- Non-freezing oil and refrigerant factory charged.

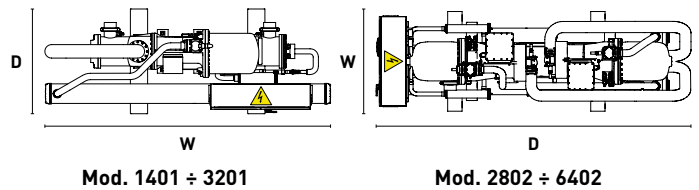
Options

- Soundproof compressors housing;
- Water side reversible heat pump configuration;
- MWT configuration, for low outlet water temperatures (down to -8 °C);
- Partial heat recovery - desuperheater (20% heat recovery);
- Total heat recovery (100% heat recovery);
- Shut-off valve on compressors suction line;
- Soft starter;
- Power factor correction capacitors ($\cos\phi > 0,9$).

Kits

- Pressure controlled or modulating condensing regulation valves;
- Flanged hydraulic connections (evaporators);
- Victaulic or flanged hydraulic connections (condensers and heat recovery);
- Antivibration mounts;
- Remote display;
- xWEB300D EVO to monitoring, control and register data, based on "WEB server" technology;
- Modularity kit, for master/slave system management (up to 7 units).

Product layout (top view)



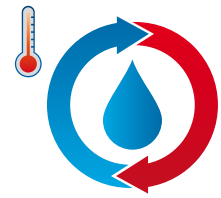
Latest-generation touch screen user terminal.



High efficiency screw compressors designed for R513A refrigerant gas.



Electronic expansion valve.



Integrated partial or total heat recovery systems.

AQG2 Model		1401	1601	1801	2101	2401	2801	3201	2802	3202	3402	3602	3902	4202	4502	4802	5202	5602	6402		
Nominal cooling capacity (1)	kW	456	520	612	717	804	905	1000	932	1109	1183	1241	1361	1492	1571	1650	1742	1803	1934		
Total absorbed power (1)	kW	82	92	106	119	134	149	163	163	185	200	215	231	240	255	270	288	303	333		
EER (2)		5,57	5,65	5,77	6,02	6,00	6,07	6,12	5,72	5,98	5,91	5,78	5,89	6,21	6,16	6,11	6,06	5,96	5,80		
Nominal cooling capacity (3)	kW	351	400	471	550	619	693	767	724	860	916	965	1053	1148	1212	1275	1343	1392	1499		
Total absorbed power (3)	kW	74	85	97	111	125	139	153	148	171	183	195	211	224	237	251	267	281	310		
EER (4)		4,73	4,69	4,87	4,95	4,95	4,98	5,03	4,89	5,03	5,00	4,94	4,99	5,13	5,10	5,07	5,03	4,95	4,84		
SEPR HT (5)		8,34	7,63	8,25	8,15	8,18	8,97	9,09	8,64	8,19	8,25	8,44	8,29	8,44	8,42	8,49	8,46	8,88	8,70		
Nominal heating capacity (6) (7)	kW	399	461	538	628	708	789	871	825	980	1044	1103	1199	1302	1377	1453	1529	1589	1721		
Total absorbed power (6) (7)	kW	88	103	116	134	151	167	182	176	206	220	234	253	269	286	303	320	336	369		
COP (6) (8)		4,54	4,50	4,64	4,70	4,70	4,73	4,77	4,68	4,76	4,75	4,72	4,74	4,84	4,82	4,80	4,78	4,73	4,67		
Power supply	V/Ph/Hz	400±10%/3 - PE/50																			
Circuits / Compressors	N°	1/1							2/2												
Sound power (9)	dB(A)	93	94	94	95	95	96	97	96	97	97	97	97	97	98	98	98	99	99	100	
Sound pressure (10)	dB(A)	65	66	66	67	67	68	69	68	69	69	69	69	70	70	70	71	71	72		
Width (W)	mm	3752	3747	3807	3807	3995	3995	3995	1390	1390	1390	1390	1390	1390	1390	1390	1390	1390	1390		
Depth (D)	mm	1460	1460	1460	1460	1460	1460	1460	4966	4966	4920	4979	4982	4982	4982	4982	5030	5030	5032		
Height	mm	1645	1645	1735	1735	1820	1820	1820	2165	2165	2165	2165	2278	2278	2278	2278	2278	2278	2278		
Installed weight	Kg	2154	2363	2695	2781	3143	3288	3338	4294	4572	4878	5185	5736	5802	5881	5961	6143	6295	6399		

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

- (1) Data referred to nominal conditions, evaporator water temperature IN/OUT 20/15 °C and condenser water temperature IN/OUT 30/35 °C;
- (2) Data referred to the full load functioning: evaporator water temperature IN/OUT 20/15 °C and condenser water temperature IN/OUT 30/35 °C;
- (3) Data referred to nominal conditions, evaporator water temperature IN/OUT 12/7 °C and condenser water temperature IN/OUT 30/35 °C;
- (4) Data referred to the full load functioning: evaporator water temperature IN/OUT 12/7 °C and condenser water temperature IN/OUT 30/35 °C;
- (5) Data declared in compliance with the European Regulation (EU) 2016/2281 for high temperature process chillers;
- (6) Data referred to units fitted with heat pump option;
- (7) Data referred to nominal conditions, evaporator water temperature IN/OUT 12/7 °C and condenser water temperature IN/OUT 40/45 °C;
- (8) Data referred to the full load functioning: evaporator water temperature IN/OUT 12/7 °C and condenser water temperature IN/OUT 40/45 °C;
- (9) Calculated in accordance with the standard ISO 3744;
- (10) Average value obtained in free field on a reflective surface at the distance of 10 m by the external side of the electrical cabinet of the unit and at height of 1.6 m by the unit foothold. Considered tolerances ±2 dB. The sound levels are referred to the full load operations in nominal working conditions.



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 Certification applied to the units: - Air/Water up to 600 kW - Water/Water up to 1500 kW

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