

# AQUARIUS *plus*

Water-cooled chillers with heat pump function  
with screw compressors



## An MTA first: water-cooled chillers with class A efficiency

Opting for the highest efficiency class in the centralised air conditioning system leads to numerous benefits: reduced energy consumptions; minimised operating costs; the avoidance of unnecessary dispersion of resources; and most importantly, limited direct and indirect environmental impact. The new AQUARIUS PLUS chiller range has been specially designed to maximise the cooling properties of refrigerant R134a and can be used to optimal effect in those applications in which the effective thermal load is lower than the nominal unit capacity for the majority of the system working cycle. The technical solutions adopted, combined with continuous compressor capacity control ensuring delivery of exactly the cooling capacity required by the installation, offer ESEER and IPLV seasonal performance indices which are at the very top of the category.



Cooling, conditioning, purifying.

## BENEFITS

- 19 base models with single or twin compressors to perfectly match each specific system requirement;
- Class leading nominal and seasonal energy efficiency ratings;
- Reduced noise levels, thanks also to the availability of two differing acoustic versions;
- Easy access to all components;
- Continuous control of the cooling capacity.

## STANDARD CHARACTERISTICS

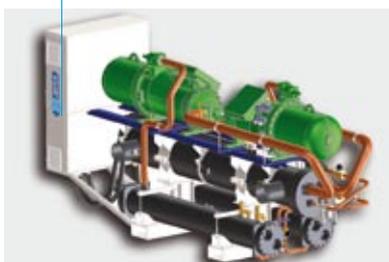
- Refrigerant R134a;
- Electronic expansion valves as standard on models 1401-2401 and 2202-4802, optional for the remaining models;
- Semi-hermetic dual screw compressors expressly developed for use with R134a;
- Evaporator and shell and tube condensers optimised for operation with R134a;
- Easily adapted to heat pump operation;
- Check valve on compressor discharge, shut-off valves on suction and discharge lines;
- Shut-off valve and solenoid valve on the liquid line;
- Start-up with low peak current;
- Suitable for outdoor installation.



Semi-graphic backlit microprocessor display



Maximum ease of access to all components



Electronic thermostatic valves



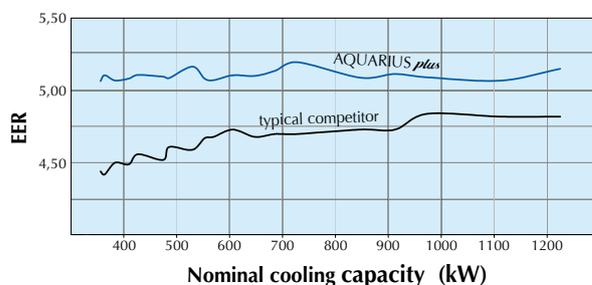
Continuous control of the cooling capacity



## MAIN OPTIONS

- Pressure control or servo-controlled valves for condensing pressure control;
- Condensers for tower or well water;
- Duplicated or simple remote control;
- Connection to supervision systems;
- Antivibration dampers;
- Matching cooling towers or dry coolers available on request;
- Version for water temperatures down to -10 °C;
- Power factor correction condensers;
- Heat recovery exchangers (in dedicated unit frame).

## A SAVING WHICH YOU CAN'T IGNORE



## TECHNICAL DATA

Model AQP	1401	1601	1801	2101	2401	1402	1502	1602	1802	2002	2202	2502	2652	2802	3202	3402	3602	4202	4802	
<b>Tower water</b>																				
Cooling capacity	kW	356	427	486	553	607	364	384	410	475	530	570	648	686	728	847	913	974	1112	1225
Absorbed power	kW	70	84	95	109	119	71	76	81	93	103	112	127	134	140	166	178	191	219	238
ESEER	-	6,32	6,13	6,52	5,89	6,43	6,50	6,21	6,14	6,47	6,61	6,50	5,98	6,43	6,54	6,10	6,47	6,53	5,92	6,47
I.P.L.V.	-	6,11	5,86	6,26	5,65	6,18	6,43	6,14	6,09	6,41	6,55	6,46	5,93	6,36	6,48	6,06	6,42	6,49	5,87	6,42
<b>Well water</b>																				
Cooling capacity	kW	373	446	506	578	634	380	401	428	497	553	593	677	718	762	886	952	1014	1161	1281
Absorbed power	kW	66	78	88	102	111	67	70	75	87	95	104	119	124	131	154	165	176	206	222
Compressors	n°	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Sound pressure level	dB(A)	69.0	68.0	68.0	69.0	70.0	66.0	66.0	66.0	68.0	68.5	69.0	70.0	71.0	72.0	71.0	71.0	71.0	72.0	73.0
Depth	mm	3345	3345	3345	3345	3345	3745	3745	3745	3745	3745	3745	3745	4295	3755	4745	4845	4860	4760	4760
Width	mm	1020	1020	1020	1020	1020	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Height	mm	2020	2020	2110	2110	2110	1850	1850	1850	1850	1940	1940	1940	1940	2000	2130	2200	2200	2250	2250
Installed weight	Kg	2455	2909	3420	3477	3586	2691	2966	2966	3024	3683	3983	4040	4409	4509	5826	6539	6539	6953	7141

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

**Tower water:** evaporator water inlet/outlet temperature 12-7 °C, condenser water inlet/outlet temperature 30-35 °C;

**Well water:** evaporator water inlet/outlet temperature 12-7 °C, condenser water inlet/outlet temperature 15-30 °C;

Heating capacity = Cooling capacity + Absorbed power.

ESEER calculated according to EECAC; IPLV calculated according to ARI Standard 550/590-2003.

Sound pressure level in free field at 10 m from electrical panel side and 1.6 m from ground.

[www.mta-it.com](http://www.mta-it.com)

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