

AQUARIUS *plus*

Water cooled water chillers and heat pumps
with screw compressors.



pure energy



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 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;
- User friendly controller with multifunctional buttons and dynamic display icons.

STANDARD FEATURES

- Electronic thermostatic 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;
- xDRIVE is a microprocessor electronic controller with high computing capacity and user friendly graphic interface;
- RS485 ModBus interface for connection to Supervisors;
- Ethernet connection featuring pre-programmed HTML supervision pages, allowing local or internet based visualization and modification of the operating parameters;
- Start-up with low peak current;
- Suitable for outdoor installation (IP44 protection rating);
- Environmentally friendly refrigerant R134a with zero ozone depletion potential;
- All the units are equipped with a phase monitor which provides protection against phase loss and phase reversal and checks the operating voltage limits; • Compressor crankcase heaters.

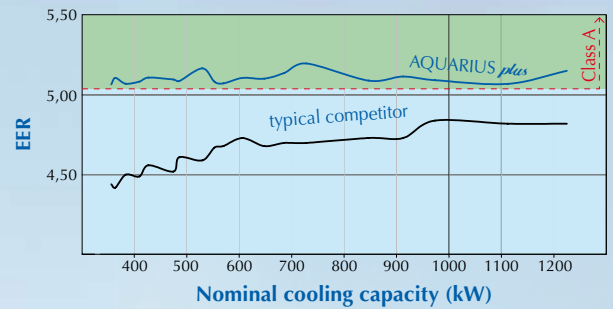
MAIN OPTIONS

- Compressor protection by means of automatic cut-outs;
- Condensing pressure control kit;
- Anti-vibration dampers kit;
- Replicated remote user terminal kit;
- Supervisor kits;
- Combinable cooling tower or dry cooler available on request;
- Antifreeze heater;
- Total or partial recovery exchangers (50% or 100% of rejection heat (available on request);
- Pressure control valves kit;
- MTA xCONNECT supervision based on internal web pages;
- Modularity / web interconnection hub.

VERSIONS

- N (standard);
- SSN (very low noise);
- Heat pump with inversion on water side.

A SAVING WHICH YOU CAN'T IGNORE



Semi-graphic user terminal with multifunction keys and dynamic icons.



Easy access to all components.



Electronic thermostatic expansion valves.



Continuous control of the cooling capacity.



Model AQP		1401	1601	1801	2101	2401	1402	1502	1602	1802	2002	2202	2502	2652	2802	3202	3402	3602	4202	4802
Tower water																				
Cooling capacity	kW	353	423	481	549	603	360	381	407	472	525	565	644	680	723	842	904	964	1107	1214
Total absorbed power	kW	73	87	99	113	123	74	79	85	98	106	116	132	139	145	173	185	199	228	246
ESEER	-	5,70	5,42	5,90	5,32	5,77	5,91	5,67	5,48	5,79	6,11	5,99	5,48	5,78	6,01	5,58	5,91	5,93	5,50	5,92
Well water																				
Cooling capacity	kW	370	441	501	574	630	376	398	424	494	549	589	672	711	756	880	942	1002	1155	1268
Total absorbed power	kW	67	81	90	105	114	69	73	78	90	97	106	123	129	134	159	170	182	212	228
Heat Pump																				
Heating capacity	kW	400	476	547	617	681	405	428	457	531	593	645	723	766	813	948	1023	1098	1244	1369
Total absorbed power	kW	86	103	119	132	146	87	93	99	113	126	141	154	163	172	203	221	240	266	291
Power supply	V/Ph/Hz	400 ± 10% / 3 - PE / 50																		
Circuits / Compressors	N°	1/1	1/1	1/1	1/1	1/1	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Sound pressure level (N)	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
Sound pressure level (SSN)	dB(A)	63,0	62,0	62,0	63,0	64,0	60,0	60,0	60,0	62,0	62,5	63,0	64,0	65,0	66,0	65,0	65,0	65,0	66,0	67,0
Depth	mm	1020	1020	1020	1020	1020	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Width	mm	3345	3345	3345	3345	3345	3745	3745	3745	3745	3745	3745	3745	4295	3755	4745	4845	4860	4760	4760
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	6539	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.

Heat pump: condenser water inlet/outlet temperature 40-45 °C; evaporator water inlet/outlet temperature 12-7 °C.

Heating capacity = Cooling capacity + Absorbed power.

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.

The listed noise levels, weights and dimensions refer to base chillers with no options fitted. Data declared according to UNI EN 14511:2011.

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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.



Cooling, conditioning, purifying.



MTA participates in the E.C.C. programme for LCP-HP. Certified products are listed on www.eurovent-certification.com. Eurovent Certification applied to the units:
- Air/Water with cooling capacity up to 600 kW
- Water/Water up to 1500 kW