

GALAXY *tech*

Air cooled water chillers with R410A
with tandem/trio scroll compressors.



Operation at partial loads corresponds to the largest portion of the working life of a unit dedicated to air conditioning applications: typically thermal loads vary widely both during the year and throughout each 24 hour period. The subdivision of the total cooling capacity over a large number of capacity steps, rendered possible thanks to the implementation of multi-scroll technology and environmentally friendly refrigerant R410A, ensure maximised performance at partial loads, resulting in seasonal energy savings of more than 16% with respect to conventional solutions. The multi-scroll configuration offers a lightweight solution, and permits the volume reduction of the storage tank with the associated dispersal of cooling energy, thus further reducing the static loading on the unit supports. Progressive stopping of the compressors and fans means that Galaxytech is extremely quiet in operation, rendering it ideal for installation in noise-sensitive surroundings.



Cooling, conditioning, purifying.

BENEFITS

- Reduced noise levels, thanks also to the availability of three differing acoustic versions;
- High EER/COP levels, especially at partial loads;
- Ideal for large hydronic air conditioning installations in public and private surroundings;
- Allows start-up and operation in even the most severe conditions;
- Easy installation with direct access to the water connections and the applications of victaulic connections;
- Simple to install and maintain, easily accessible components;
- User friendly controller with multifunctional buttons and dynamic display icons.

MAIN OPTIONS

- 1 or 2 pumps and water pressure gauge;
- Storage tank;
- Condenser coils designed for aggressive atmospheres;
- Metal mesh filters for condenser coil protection;
- Electronic fan speed control;
- Compressor suction and discharge valves;
- Electronic thermostatic expansion valve;
- Antifreeze heater on evaporator, pumps and tank;
- Antivibration dampers;
- Serial connection to supervisor systems;
- MTA xCONNECT supervision based on internal web pages;
- Modularity / web interconnection hub;
- Replicated remote user terminal;
- Soft starter;
- Compressor housings for acoustic insulation;
- Victaulic connections;
- Simple remote control;
- Special applications with partial or total heat recovery exchangers;
- Special applications for water temperatures down to -10 °C;
- Shell and tube evaporator (special).

STANDARD FEATURES

- Multiple scroll compressors (4, 6, 9 or 12 depending on the model) connected in parallel (tandem or trio) on 2, 3 or 4 independent refrigeration circuits;
- Stainless steel brazed plate dual-circuit evaporators "dual-circuit";
- Shut-off valve and solenoid valve on the liquid line in each refrigeration circuit;
- xDRIVE is a microprocessor electronic controller with high computing capacity and user friendly graphic interface;
- xDRIVE features the ModBUS-RTU communication protocol as standard, allowing connection with the most widely utilised Building Management Systems (BMS). It also features an Ethernet port as standard, with HTML supervision pages preloaded for connection to a company intranet or the Internet. The xDRIVE can manage in master/slave mode up to 8 units;
- Phase monitor against phase loss and phase reversal and checks the operating voltage limits;
- Axial fans with progressive starting for condensing pressure control;
- High and low pressure transducer;
- Water differential pressure switch, air bleed valve and water drain valve;
- Water collectors for twin evaporator models;
- Factory tested and supplied with refrigerant charge and antifreeze oil;
- Environmentally friendly refrigerant R410A with zero ozone depletion potential;
- All the compressors are equipped with crankcase heaters as standard.

VERSIONS

- Chiller;
- Low ambient temperature in cooling mode (down to -20 °C);
- Acoustic & high efficiency configurations:
 - N (standard);
 - SN (low noise);
 - SSN (very low noise);
 - HE (high efficiency);
 - SHE (low noise high efficiency).

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



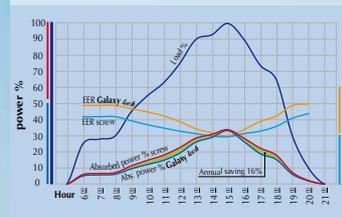
Pump section with or without storage tank.



Optimisation of performance thanks to the multiscroll logic.



Multiscroll chiller vs screw chiller.



Model GLT		120	135	150	165	180	195	210	225	240	255	270	285	300	315	330	345	360	
Cooling capacity	kW	343	383	426	465	504	557	600	645	684	723	762	810	852	891	930	969	1008	
Total absorbed power	kW	126	143	159	170	182	206	222	238	250	262	273	301	317	329	341	352	364	
ESEER (N)	-	4,01	3,88	3,92	4,02	4,10	3,96	3,98	4,01	4,09	4,13	4,19	3,97	3,98	4,04	4,10	4,13	4,16	
ESEER (HE)	-	4,33	4,11	4,12	4,10	4,14	4,21	4,21	4,21	4,29	4,19	4,20	4,19	4,18	4,16	4,16	4,23	4,22	
ESEER (SHE)	-	4,55	4,30	4,29	4,39	4,43	4,45	4,41	4,39	4,52	4,47	4,51	4,42	4,39	4,43	4,46	4,55	4,38	
Max external air temperature (N)	°C	46	46	46	46	46	46	46	45	45	46	46	46	46	46	46	46	46	
Max external air temperature (HE)	°C	51	48	48	48	51	48	48	48	48	48	51	48	48	48	48	48	46	
Power supply	V/Ph/Hz	400 ± 10% / 3 - PE / 50																	
Circuits / Compressors	N°	2/4	2/6	2/6	2/6	2/6	3/9	3/9	3/9	3/9	3/9	3/9	4/12	4/12	4/12	4/12	4/12	4/12	
Sound pressure version (N)	dB(A)	66,6	66,5	66,3	66,4	66,6	67,6	67,5	67,4	67,5	67,7	67,9	68,7	68,6	68,7	68,8	68,9	69,0	
Sound pressure version (SN)	dB(A)	59,2	59,1	58,9	59,0	59,1	60,1	60,0	60,1	60,0	60,1	60,3	61,2	61,1	61,2	61,3	61,3	61,4	
Sound pressure version (SSN)	dB(A)	52,9	53,0	53,1	53,9	54,1	54,7	54,6	54,8	55,4	55,9	56,4	56,0	56,1	56,5	56,9	57,2	57,5	
Sound pressure version (HE)	dB(A)	65,6	65,8	65,8	66,6	67,3	67,5	67,6	67,6	68,1	68,6	69,1	68,8	68,8	69,3	69,6	70,0	70,2	
Sound pressure version (SHE)	dB(A)	58,2	58,5	58,6	60,0	60,2	60,3	60,3	60,8	61,3	61,7	61,5	61,6	62,0	62,3	62,7	62,7	62,8	
Depth	mm	4530	4530	4530	4530	4530	6510	6510	6510	6510	6510	6510	8490	8490	8490	8490	8490	8490	
Width	mm	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	
Height	mm	2360	2360	2360	2360	2360	2360	2360	2360	2360	2360	2360	2360	2360	2360	2360	2360	2360	
Installed weight	Kg	3096	3399	3491	3690	3887	5022	5116	5218	5422	5616	5801	6748	6839	7057	7237	7444	7640	

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.

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 and with circulation pump.

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 800 kW
- Water/Water up to 1500 kW