

# GALAXY *tech*

Air cooled liquid chillers  
featuring scroll compressors.



## Optimised performance in everyday working conditions

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 elimination of the storage tank with the associated dispersal of cooling energy, thus further reducing the static loading on the supports. Progressive stopping of the compressors and fans means that **Galaxy tech** is extremely quiet in operation, rendering it ideal for installation in noise-sensitive surroundings.



Cooling, conditioning, purifying.

## BENEFITS

- Reduced sound pressure level on all models, with the choice of three acoustic versions;
- High EER values, especially at partial loads;
- Permits start-up and operation in even the most adverse conditions;
- Easy installation and simple access to all chiller components.
- User-friendly microprocessor controller thanks to the PGD user terminal;
- Compatible with the very latest supervisor and interface systems (BMS).

## STANDARD CHARACTERISTICS

- 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;
- Shut-off valve and solenoid valve on the liquid line in each refrigeration circuit;
- "Victaulic" hydraulic couplings directly accessible from the unit exterior;
- Axial fans with progressive starting for condensing pressure control, arranged in two independent aerulic sections;
- Developed for outdoor operation (IP54 protection rating);
- Factory tested and supplied with refrigerant charge and antifreeze oil;
- R410A environmentally friendly refrigerant with zero ozone depletion potential.



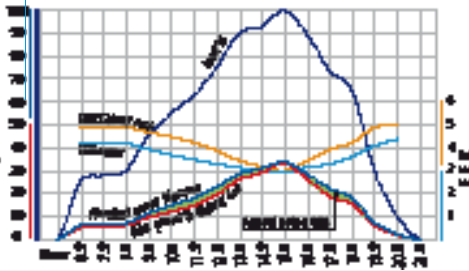
## MAIN OPTIONS

- Pump sets with 1 or 2 pumps, and with or without water tank;
- Electronic thermostatic expansion valves;
- Shut-off valves on compressor discharge and suction lines;
- Electronic fan speed control;
- Condensing coils for use in aggressive ambients;
- Antivibration dampers;
- Antifreeze heater on evaporator, pumps and tank.
- Metal mesh protection filters for condensing coils;
- Duplicated remote control interface;
- Serial connection to supervisor systems;
- Master-slave control for parallel connection and control of up to 4 units.

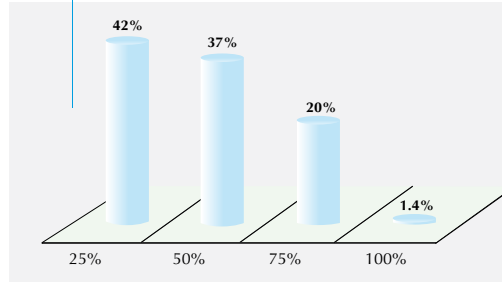
## VERSIONS

- Chiller;
- Acoustic configurations:
  - N standard;
  - SN low noise;
  - SSN super-silent;
- Low ambient air temperature in cooling mode (down to -20 °C);
- Version with recovery desuperheaters;
- Version with total recovery condensers;
- Applications for water temperatures down to -10 °C;
- Special applications with dual set-point operation.

Multiscroll vs Screw: performance comparison.



ESEER calculation method for % operating time.



Optimised performance in the most frequent duty conditions.



## TECHNICAL DATA

Model GLT		120	135	150	165	180	195	210	225	240	255	270	285	300	315	330	345	360
Cooling capacity	kW	359	402	447	488	529	584	629	676	717	758	799	850	894	935	976	1017	1057
Absorbed power	kW	109	125	141	153	164	180	196	212	224	235	247	266	283	294	305	317	328
ESEER	-	4.33	4.23	4.26	4.40	4.47	4.29	4.32	4.34	4.44	4.49	4.55	4.32	4.33	4.40	4.47	4.51	4.54
IPLV	-	4.52	4.37	4.42	4.56	4.64	4.49	4.52	4.56	4.65	4.72	4.78	4.49	4.51	4.58	4.65	4.69	4.73
Max external air temp.	°C	46	46	46	46	46	46	46	45	45	46	46	46	46	46	46	46	46
Compressor	n°	4	6	6	6	6	9	9	9	9	9	9	12	12	12	12	12	12
Sound pressure level	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
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	3106	3407	3505	3711	3908	5040	5138	5240	5449	5651	5840	6787	6884	7091	7287	7495	7691

All data refers to standard units at the following nominal conditions: evaporator water inlet-outlet 12-7 °C, external air temperature 35 °C;

ESEER: European Seasonal Energy Efficiency Ratio adopted by EECAC. - IPLV calculated in accordance with ARI Standard 550/590-2003.

Sound pressure level in hemispherical field at 10 m from condenser side and 1.6 m from ground. Values with tolerance ± 2 dB.

Sound levels refer to unit operating at full load.

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