

GALAXY

AIR COOLED WATER CHILLERS WITH R410A AND R407C FEATURING TANDEM/TRIPLE SCROLL COMPRESSORS.
COOLING CAPACITY 366 - 1079 KW.



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 to installation thanks to direct access water connections and the presence of headers (victaulic connections);
- Simple to install and maintain, easily accessible components.

MAIN OPTIONS

- Add-on external pumping unit with 1 or 2 pumps and water pressure gauge;
- Storage tank;
- Condenser coils designed for aggressive atmospheres;
- Metal mesh filters for condenser coil protection;
- Fan step regulation;
- Compressor suction and discharge valves;
- Electronic expansion valve;
- Antifreeze heater on evaporator, pumps and tank;
- Compressor crankcase heater;
- Antivibration springs;
- Serial connection to supervisor system;
- Master-slave configuration allowing the interconnection and control of up to 4 units in parallel;
- Replicated remote user terminal.

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;
- Main switch;
- Phase monitor;
- 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 refrigerants with R410A and R407C zero ozone depletion potential.

VERSIONS

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

Model GLT - GL		120	135	150	165	180	195	210	225	240	255	270	285	300	315	330	345	360	
R410A (low)	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 temperature °C	46	46	46	46	46	46	46	46	45	45	46	46	46	46	46	46	46	46
R407C	Cooling capacity kW	361	398	440	488	535	577	618	660	709	756	805	838	879	928	975	1023	1070	
	Absorbed power kW	117	130	142	160	177	188	201	214	231	248	266	272	285	302	319	337	354	
	ESEER	-	4,10	4,15	4,22	4,25	4,26	4,14	4,21	4,28	4,29	4,30	4,32	4,25	4,29	4,30	4,32	4,33	4,34
	IPLV	-	4,57	4,34	4,42	4,44	4,46	4,35	4,44	4,53	4,51	4,52	4,54	4,49	4,55	4,54	4,56	4,57	4,58
	Max external air temperature °C	46	46	46	45	45	46	46	46	46	46	45	45	46	46	46	45	45	45

Power supply	V/Ph/Hz	400±10%/3/50																
Circuit / 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
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:

Chiller: evaporator water inlet-outlet 12-7 °C, external air temperature 35 °C.

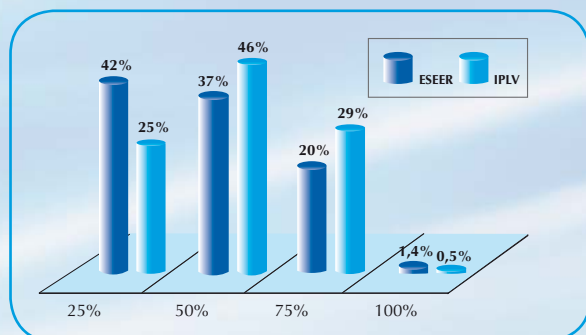
Sound pressure level in hemispherical field at 10 m from condenser side and 1.6 m from ground. Values with tolerance ± 2 dB.

The sound levels refer to operation of the unit under full load in nominal conditions and with circulation pump.



PARTIAL LOADS

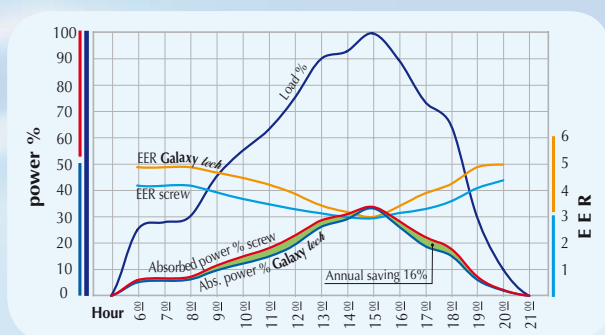
ESEER and IPLV operating time percentages



The standardised IPLV and ESEER indices establish the average weighted efficiency of a chiller and provides insight – in a more accurate manner than the EER value – into the relationship between the useful effect (energy removed from the rooms) and the energy expended (electrical power consumption) of an air conditioning unit throughout an entire season of operation.

The graphs show the importance of operation at partial load from the energy standpoint.

MULTISCROLL SOLUTION



City: Milan - **Application:** offices air conditioning

Comparison of absorbed power during a hot summer day; the chart refers to the worst situation among the possible ones during the whole year, as the multiscroll chiller maximizes the EER at partial loads.

Semi-graphic backlit PGD terminal.



Optimisation of performance in the most frequent duty conditions thanks to the multiscroll logic.



Pump section with or without storage tank.

