

GALAXY

R410A

Air-cooled chillers with R410A or R407C equipped scroll compressors. Cooling capacity 480 - 1442 kW.

UP TO 12 SCROLL COMPRESSORS OFFER PERFECT TEMPERATURE CONTROL IN ALL CONDITIONS, WITH ELEVATED PARTIAL LOAD EFFICIENCIES. THE MULTI-COMPONENT CONFIGURATION ENSURES PEACE OF MIND IN APPLICATIONS REQUIRING ROUND THE CLOCK COOLING.



HIGH ENERGY EFFICIENCY

The use of several scroll compressors in parallel ensures high performance at partial loads, with the absorbed power decreasing in proportion to the cooling capacity demand. The electronic thermostatic valve, available as an option, offers further energy savings and high precision capacity control; the microprocessor analyses signals transmitted by the sensors in the circuit and consequently adjusts the degree of opening of the valve, thus optimising operation in all load conditions.

ADVANCED MICROPROCESSOR

Thanks to its processing power the 32-byte programmable microprocessor permits energy efficiency maximization in all load conditions and the management of up to 4 units in master-slave mode. The microprocessor features STATUS CONTROL design, presenting the user with a full range of information concerning the status of the various controlled parameters.

Remote interfaceability is assured by means of a GSM modem and full compatibility with the most widely used Building Management System (BMS) communication protocols: BACnet, Lonworks, and ModBus.

EASY TO INSTALL

Storage tank, single or double pumps, expansion vessel, pressure relief valve, and pressure gauge: with Galaxy all the main hydronic components can be installed on board.

This translates into savings in time otherwise required to select hydraulic circuit components, plus simplified installation procedures, leading to reduced installation times and costs.

Galaxy is supplied, as standard, with a differential pressure switch protecting the evaporator and with "Victaulic" connections to help reduce vibration, noise levels and the problems associated with thermal expansion of the piping.



MULTI-SCROLL TECHNOLOGY

Multi-scroll technology, with several compressors in parallel on each circuit, ensures maximum performance at partial loads by varying the cooling capacity in proportion to the real demand. This solution also reduces the system minimum thermal inertia value and its related energy loss. Apart from reducing the level of absorbed power, progressive disactivation of the compressors and fans renders Galaxy extremely quiet, making it ideal for installation in noise-sensitive surroundings.

ABSOLUTE RELIABILITY

The numerous compressors (up to 12) and refrigerant circuits (up to 4) reduces the risk of downtimes in the event of faults, thus increasing system reliability levels. In fact, even in the presence of faults the unit can continue to provide continuous duty.

VERSIONS

- N - standard;
- SN - low noise;
- SSN - super-silent;
- Low ambient temperature version (-20 °C);
- R410A or R407C refrigerant.

ACCESSORIES

- Electronic fan speed regulation;
- Electronic thermostatic valve;
- Pre-coated condensing coils for aggressive atmospheres;
- Storage tank with single or double pumps;
- Pumps with reduced or increased head pressure;
- Crankcase heater;
- Phase monitor;
- Power factor correction capacitors;
- Antivibration dampers kit;
- Remote control kit;
- Supervisor kits;
- Metal mesh protection filters for condensing coils;
- Antifreeze heaters on evaporator, pump and tank;
- Compressor shut-off valves.

Model GALAXY		120	135	150	165	180	195	210	225	240	255	270	285	300	315	330	345	360	
GALAXY <i>tech</i>	Cooling capacity (1)	kW	480	538	598	652	705	782	841	905	959	1013	1066	1136	1196	1250	1303	1357	1411
	Absorbed power (1)	kW	97,5	110	125	136	147	158	173	188	199	210	221	235	250	261	272	283	293
	Max external air temperature (1)	°C	43	43	42	42	43	43	42	42	42	42	42	42	42	42	42	42	43
	Cooling capacity (2)	kW	359	402	447	488	529	584	629	676	717	758	799	850	894	935	976	1017	1057
	Absorbed power (2)	kW	109	125	141	153	164	180	196	212	224	235	247	266	283	294	305	317	328
	Max external air temperature (2)	°C	46	46	46	46	46	46	46	45	45	46	46	46	46	46	46	46	46
	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
I.P.L.V.	-	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	
GALAXY	Cooling capacity (1)	kW	487	540	594	658	721	784	838	892	956	1019	1084	1134	1187	1252	1314	1379	1442
	Absorbed power (1)	kW	109	118	130	147	164	172	183	195	212	230	247	248	260	277	294	312	329
	Max external air temperature (1)	°C	42	42	42	41	41	42	41	42	42	41	42	42	42	42	41	41	41
	Cooling capacity (2)	kW	361	398	440	488	535	577	618	660	709	756	805	838	879	928	975	1023	1070
	Absorbed power (2)	kW	117	130	142	160	177	188	201	214	231	248	266	272	285	302	319	337	354
	Max external air temperature (2)	°C	46	46	46	45	45	46	46	46	46	45	45	46	46	46	45	45	45
	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
I.P.L.V.	-	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	
Power supply	V/Ph/Hz	400±10%/3/50																	
Noise 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	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	
Width	mm	4530	4530	4530	4530	4530	6510	6510	6510	6510	6510	6510	8490	8490	8490	8490	8490	8490	
Height	mm	2360	2360	2360	2360	2360	2360	2360	2360	2360	2360	2360	2360	2360	2360	2360	2360	2360	
Installed weight	Kg	3107	3408	3503	3711	3909	5041	5136	5239	5449	5650	5841	6787	6883	7090	7287	7495	7692	

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

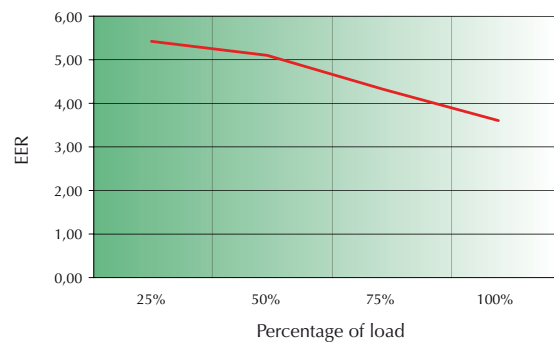
- (1) Evaporator water inlet-outlet 20-15 °C, external air temperature 25 °C;
- (2) Evaporator water inlet-outlet 12-7 °C, external air temperature 35 °C;

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.

R410A ENVIRONMENTALLY-FRIENDLY REFRIGERANT

MTA, traditionally attentive to the issues of environmental protection and energy efficiency, has developed its Galaxy*tech* series based on the use of eco-friendly refrigerant R410A. This fluid has zero impact on the ozone layer (ODP=0), features a very high thermal conductivity, and achieves excellent energy efficiency levels with resulting benefits in terms of reduced electrical power consumption and hence lower CO₂ emissions.

EER AT PARTIAL LOADS



Backlit semi-graphic user terminal



Optimised performance in the most common conditions thanks to multiscroll logic



Add-on pumping module with or without storage tank



Design with individual independent modules

