

CYGNUS

Air cooled water chillers, heat pumps, condensing units and reversible condensing units featuring rotary or hermetic scroll compressors.



Conditioning your ambient,
maximising your comfort.



Cooling, conditioning, purifying.

LOW POWER CONSUMPTION, LOW NOISE LEVELS

Cygnus is available in both chiller and reversible heat pump configurations, featuring rotary or scroll compressors and plate heat exchangers; the pump and buffer tank are included within the package.

Low noise levels are imperative for this type of unit, and here Cygnus stands out from the crowd. Furthermore, as the fan speed is electronically regulated according to the real load conditions, so noise levels in typical operating conditions are further reduced.

The microprocessor control is Cygnus' little genius. Twin displays with an icon interface allow the User to reprogram the principal operating parameters, all this in absolute simplicity. FDS (Frost Detection System), unique to MTA, automatically manages the heat pump's defrosting cycles; contrary to typical solutions, this occurs only when effectively necessary, optimizing its operation to the advantage of User comfort and energy efficiency. The Adaptive Set Point, always active even in twin compressor models, modulates the on-off cycles in networks with low water contents.



Microprocessor controller with dual icon-based display.



Higher energy efficiency and quieter operation thanks to the use of scroll compressors.



Built-in pumping module with or without tank.



STANDARD FEATURES

- Refrigerant R407C;
- Hermetic Rotary compressors (013-020) Scroll compressors (031- 171) tandem Scroll compressors (211-301);
- Integrated hydronic group complete with pump, buffer tank, expansion vessel, drain valve, water gauge, air bleed valve;
- Microprocessor control;
- Stainless steel plate heat exchanger (copper braze welded);
- Axial fans with sickle shaped blades, electronic speed control;
- Self-adaptive temperature control logic;
- Protection grade IPX4.
- Extensive factory tested;
- Minimum ambient temperature in heat pump mode = -10°C.

MAIN OPTIONS

- Configuration without hydraulic kit;
- Low head pressure pump;
- Twin water pumps (one in stand-by);
- Condensate drip tray (013-071);
- Anti-freeze heater fitted on the evaporator and heat pump;
- Remote control kit;
- Serial communication card;
- Phase control kit;
- Antivibration mountings;
- Split system;
- Condensing unit version CYGNUS/MC and reversible condensing units.

TECHNICAL DATA

Modelo CG-HCG-/MC		013	015	020	031	051	071	081	101	131	171	211	251	301	
CG	Cooling capacity	kW	4.1	4.8	6.9	9.7	13.5	16.7	21.2	28.5	37.1	43.8	49.8	57.0	65.6
	Absorbed power	kW	1.2	1.5	2.3	3.2	4.2	6.0	6.2	8.8	11.4	13.0	15.4	17.0	20.6
	Max external air temp.	°C	47	47	46	47	46	45	47	46	46	46	46	46	45
HCG	Heating capacity	kW	4.6	5.1	7.2	10.9	14.5	19.2	22.8	30.4	40.2	46.5	54.8	60.9	70.4
	Absorbed power	kW	1.3	1.6	2.3	3.2	4.2	6.0	6.4	8.9	11.3	13.4	15.5	17.9	20.6
	Min. external air temp. (*)	°C	-10	-9	-7	-9	-8	-7	-6	-7	-8	-7	-7	-7	-6
CG/MC	Cooling capacity	kW	3.8	4.5	6.5	9.3	12.6	15.8	19.5	26.2	34.3	40.2	45.9	52.5	61.0
	Absorbed power	kW	1.3	1.6	2.3	3.2	4.4	6.1	6.3	8.9	11.5	13.1	15.5	17.2	20.9
	Max external air temp.	°C	48	47	46	47	46	45	46	48	47	48	47	47	46
HCG/MC	Heating capacity	kW	4.9	5.5	7.7	11.6	15.3	19.8	23.8	31.8	42.1	49.0	57.1	63.6	72.7
	Absorbed power	kW	1.0	1.2	1.6	2.4	3.2	4.7	4.7	6.4	8.5	9.8	11.2	12.84	14.9
	Min. external air temp.	°C	-9	-8	-7	-9	-8	-7	-10	-9	-9	-8	-9	-9	-8
Power supply	V/Ph/Hz	230±10%/1/50						400±10%/3/50							
Noise	dB(A)	39.1	40.3	41.0	43.3	44.8	45.8	43.1	46.3	48.8	49.4	50.0	50.7	51.3	
Depth	mm	380	380	380	550	550	550	810	810	1112	1112	1112	1112	1112	
Width	mm	978	978	978	1420	1420	1420	1960	1960	2060	2060	2470	2470	2470	
Height	mm	985	985	985	1288	1288	1288	1203	1203	1417	1417	1595	1595	1595	
Installed weight	Kg	100	103	113	158	189	191	347	365	475	510	619	644	661	

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

- Heat pump: condenser water inlet-outlet 40-45 °C, external air temperature 7 °C dry bulb, 6 °C wet bulb

- Condensing unit: Evaporating temperature 5 °C (DEW), external air temperature 35 °C.

- Reversible condensing unit: condensing temperature 40 °C (dew), ambient air temperature 7 °C 6 °C W.B.

(*) Max condenser outlet water temperature 50 °C. Min. external air temperature -10 °C with reduction in water outlet temperature.

Sound pressure level in hemispherical field at 10 m from condenser side and 1.2 m from ground.

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