



# CYGNUS TECH



Air-cooled water chillers featuring hermetic rotary or scroll compressors with R410A.

Nominal cooling capacity 9 – 80 kW



## The biogas optimised chiller.

CYGNUS TECH is the ideal partner for Biogas hydronic cooling systems, offering wide operating limits and ensuring minimum noise levels. Numerous options, including an integrated hydronic module, medium and low pressure water pumps, winter package and antivibration mounts render CYGNUS TECH chillers the ideal plug-in solution, ready for installation in any system and reducing the time and cost for their integration.



Cooling, conditioning, purifying.

## Benefits

- Extremely low noise levels;
- Ideally suited to small and medium hydronic cooling systems;
- Extended operating limits;
- Self-adaptive temperature control for efficient operation in installations with low water contents;
- Designed for installation in confined spaces;
- Easy to use controller with icon-based dual display;
- Easy access to all internal components.

## Options

- Winter package: minimum ambient temperature -20 °C [-10 °C for mod. 020, storage tank, medium head pressure pump, condenser air filters and antivibration mounts];
- Configuration with storage tank;
- Medium/low head pressure pump (depending on model);
- Double pump (1 run/1 stand-by) (mod. 081-301);
- Anti-freeze heater on evaporator, pump and storage tank (if included).

## Standard Features

- Refrigerant R410A;
- Hermetic rotary compressor (mod. 020), hermetic scroll compressor (mod. 031-171) and double hermetic scroll compressors (mod. 211-301);
- Compressor crankcase heater;
- Integrated hydronic module with pump, storage tank, expansion vessel, safety valve, filling/drain valve, pressure gauge and automatic bleed valve;
- Hydraulic threaded connections directly accessible from the unit's exterior;
- Brazed stainless steel plate evaporator;
- Axial fans with electronic speed control;
- Electrical panel protection grade IPX4;
- Phase monitor;
- Factory charged with refrigerant and non-freezing oil;
- Extensively factory tested (performance, operation, quality and safety).

## Kits

- Replicated remote user display;
- Serial card (RS485 Modbus);
- xWEB300D EVO supervisor system;
- Soft starter;
- Condenser air filters;
- Antivibration mounts.



Microprocessor controller with dual icon-based display.



Scroll compressors (increased energy efficiency, reduced noise levels).



Built-in pumping module with or without storage tank.



Remote control.

CYT model		020	031	051	071	081	101	131	171	211	251	301
Nominal cooling capacity (1)	kW	8,83	12,96	18,59	21,31	27,26	35,54	44,54	51,13	61,57	72,03	80,31
Total absorbed power (1)	kW	1,89	2,82	4,35	5,04	6,07	8,02	10,87	11,91	14,73	15,89	19,01
EER (2)		4,68	4,60	4,28	4,23	4,49	4,43	4,10	4,29	4,18	4,53	4,23
SEPR HT (3)		5,01	5,22	5,44	5,11	5,36	5,40	5,19	5,34	5,21	5,51	5,35
Nominal cooling capacity (4)	kW	6,31	9,16	13,31	15,37	19,48	25,45	31,97	36,68	44,03	51,55	57,56
Total absorbed power (4)	kW	2,09	3,30	4,99	5,63	6,98	9,20	12,13	13,42	16,73	18,29	21,44
EER (5)		3,02	2,77	2,67	2,73	2,79	2,77	2,64	2,73	2,63	2,82	2,69
Power supply	V/Ph/Hz	230±10%/1/50		400 ± 10% / 3+N-PE / 50								
Circuits / Compressors	N°	1/1					1/2					
Sound power level (6)	dB(A)	66,9	68,7	69,9	70,9	69,5	72,5	74,8	76,2	76,6	77,4	77,0
Sound pressure level (7)	dB(A)	38,9	40,7	41,9	42,9	41,5	44,5	46,8	48,2	48,6	49,4	49,0
Depth	mm	426	580	580	580	810	810	1112	1112	1112	1112	1112
Width	mm	978	1420	1420	1420	1960	1960	2060	2060	2470	2470	2470
Height	mm	985	1288	1288	1288	1203	1203	1477	1477	1595	1595	1595
Installed weight	kg	85	145	156	166	244	261	350	381	491	522	533

**Data declared according to UNI EN 14511:2018, referring to standard units without accessories/options and in nominal working conditions. Listed noise levels, dimensions and weights refer to base units without options.**

(1) Data referred to nominal conditions, ambient temperature 25 °C and evaporator water IN/OUT temperature 20/15 °C;

(2) Data referred to full load operation and nominal conditions, ambient temperature 25 °C and evaporator water IN/OUT temperature 20/15 °C;

(3) Data declared in compliance with European Regulation (EU) 2016/2281 regarding ecodesign requirements for cooling products and high temperature process chillers;

(4) Data referred to nominal conditions, ambient temperature 35 °C and evaporator water IN/OUT temperature 12/7 °C;

(5) Data referred to full load operation and nominal conditions, ambient temperature 35 °C and evaporator water IN/OUT temperature 12/7 °C;

(6) Determined on the basis of measurements taken in accordance with ISO 3744 standard;

(7) Average value obtained in free field on a reflective surface at a distance of 10 m from external side of unit's electrical panel and at a height of 1,6 m from unit support base. Values with tolerance ±2 dB. Sound levels refer to full load operation in nominal conditions, with circulation pump operating.



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.



MTA participates in the E.C.C. programme for LCP-HP. Certified products are listed on: [www.eurovent-certification.com](http://www.eurovent-certification.com)  
Certification applied to the units:  
- Air/Water up to 600 kW  
- Water/Water up to 1500 kW



EAC Declaration

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