

ORION

AIR COOLED WATER CHILLERS AND HEAT PUMPS WITH CENTRIFUGAL FANS, FEATURING HERMETIC SCROLL COMPRESSORS. COOLING CAPACITY 17 – 67 kW, HEATING CAPACITY 20 – 75 kW.



BENEFITS

- High installation flexibility: direction of condensing air expulsion easily changed, even in site;
- Ideal for small hydronic air conditioning systems;
- Complete with storage tank and pump to facilitate installation and start-up operations;
- Designed for installation in confined spaces;
- High EER and COP values;
- Extended operating limits;
- Optimisation of heat pump defrosting cycles (HON) thanks to the exclusive Frost Detecting System;
- Self-adaptive temperature control logic SAC;
- Extremely quiet even without the use of sound-insulating devices;
- Easy to use thanks to an intuitive controller with dual icon-based display;
- Practical routine maintenance with easily accessible internal parts.

MAIN OPTIONS

- Layout without storage tank;
- High/low pressure head pump;
- Changing orientation of fans delivery port;
- Fans electronic speed control;
- Remote user interface;
- RS485 ModBus interface for connection to supervisor systems;
- xWEB300 for local or remote (GSM mobile phone) monitoring plus data filing based on WEB server technology;
- Antivibration mounts;
- Filters to protect the condenser coils;
- Phase monitor.

STANDARD FEATURES

- Hermetic scroll compressors (tandem dual compressor from model 211);
- Integral hydronic kit complete with centrifugal pump, tank, expansion vessel, relief valve, filling/drain valve, pressure gauge, and manual bleed valve;
- Hydraulic threaded connections directly accessible from the exterior of the unit;
- Brazed stainless steel plate evaporator;
- Centrifugal fans with fanwheel having forward-curved blades, double suction and belt-drive transmission with variable pitch pulley;
- Microprocessor controller with dual icon-based display;
- Panelling with internal condensate proof insulation;
- Condensate tray with threaded drain connection;
- Refrigerant charge, non-freezing oil, and factory testing;
- IP54 electric protection rating;
- Inspections and tests performed in factory as per all MTA products and components;
- Environmentally friendly refrigerants with R407C zero ozone depletion potential.

VERSIONS

- Chiller;
- Heat pump;
- Split chiller system in chiller mode or reversible heat pump.

Model ON-HON		071	081	101	131	171	211	251	301	
ON	Cooling capacity	kW	17,1	21,1	28,8	37,3	43,6	50,1	57,1	66,6
	Absorbed power	kW	5,91	6,61	9,15	11,9	13,4	15,9	17,7	21,0
	Available static pressure	Pa	110	117	131	130	153	181	202	205
	ESEER	-	2,69	2,97	2,94	2,90	2,99	3,13	2,95	2,78
	IPLV	-	2,38	2,48	2,41	2,43	2,49	3,01	2,91	2,72
	Max external air temperature	°C	46	47	47	46	48	47	46	47

HON	Cooling capacity	kW	16,1	20,7	28,1	36,3	41,6	48,4	54,8	63,2
	Absorbed power	kW	5,76	6,54	9,02	11,8	13,3	15,8	17,7	21,0
	Available static pressure	Pa	128	144	151	161	153	181	225	232
	ESEER	-	2,58	2,93	2,89	2,84	2,88	3,00	2,82	2,63
	IPLV	-	2,30	2,46	2,39	2,38	2,40	2,96	2,78	2,56
	Max external air temperature	°C	47	45	47	46	46	46	47	46
	Heating capacity	kW	19,8	23,5	31,2	42,1	49,2	57,1	63,7	74,7
	Absorbed power	kW	6,12	6,81	9,46	12,0	14,3	16,5	19,0	21,9
	Min. external air temperature	°C	-8	-6	-7	-8	-8	-8	-7	-6

Power supply	V/Ph/Hz	400±10%/3/50							
Circuit / Compressors	N°	1/1	1/1	1/1	1/1	1/1	1/2	1/2	1/2
Noise level	dB(A)	52,9	54,0	54,2	55,8	56,2	55,9	57,3	58,8
Depth	mm	930	930	930	930	1081	1081	1081	1081
Width	mm	1265	1265	1915	1915	2110	2110	2507	2507
Height	mm	1444	1444	1444	1444	1900	1900	1900	1900
Installed weight	Kg	225	258	350	377	672	731	877	907

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

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.

Sound pressure level in hemispherical field at 10 m from condenser side and 1.6 m from ground with ducted air outlet. Values with tolerance ± 2 dB. The sound levels refer to operation of the unit under full load in nominal conditions and with circulation pump.



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.

