

OCEAN

OCEAN - HOCEAN - ME/OCEAN

Water-cooled chillers, heat pumps and evaporating units with scroll compressors



An unobtrusive companion

Space availability is frequently a critical factor for indoor chillers, so OCEAN minichillers are designed to be installed literally anywhere, and allow easy transport and simplified installation. The fully enclosed design with acoustic insulation means no special precautions or accessibility measures are required, wherever the unit is installed, and renders unit operation virtually imperceptible for occupants of adjoining rooms.

The microprocessor controller offers a dual display and icon-based interface which allows even inexperienced users to adjust the main operating parameters with ease. MTA's Self Adaptive Control logic, supplied on single-circuit units, helps to limit on-off cycling frequencies in systems with low water contents.



Cooling, conditioning, purifying.

BENEFITS

- Reduced noise levels thanks to extensive sound insulation;
- High EER/COP levels;
- Self-adaptive temperature control for operation in systems with reduced water contents (up to model 350);
- Reduced dimensions;
- Flexibility of use, sized for operation with either tower or well water;
- Easy installation and complete access to all internal components;
- Easy to use thanks to an intuitive controller with dual icon display;
- Compatible with the latest BMS supervision and interface systems.

STANDARD CHARACTERISTICS

- Hermetic rotary (018-030), scroll (040-150) and twin scroll (200-600) compressors;
- Brazed stainless steel plate evaporator and condenser;
- Individually factory tested, charged with refrigerant and antifreeze oil, ready for operation;
- IP22 protection rating;
- Refrigerant R407C.



Microprocessor controller with dual icon-based display



Storage tank and pump in separate adjoinable module



Allows installation in even the most limited spaces

MAIN OPTIONS

- Separate module containing storage tank and pump, conceived to allow easy connection to the chiller itself;
- High and low head pressure pumps;
- Condensing pressure control valve;
- Antivibration dampers;
- Duplicated remote control kit;
- RS485 MODBUS interface kit for connection to supervisor systems;
- X-WEB300 remote supervision, allowing local or remote monitoring via a web server or a GSM cell phone;
- Matching cooling towers or dry coolers available on request.

VERSIONS

- Chiller;
- Heat pump:
 - Inversion on the gas side (models 018-350);
 - Inversion on the hydraulic side (models 400-600);
- Evaporating unit with in/out shut-off valves, designed for use with a remote condenser.

TECHNICAL DATA

Model OC-HOC-/ME		018	022	030	040	050	070	100	130	150	200	230	280	350	400	500	600
Well water																	
OC	Cooling capacity	kW	4.3	5.3	7.7	11.1	15.1	24.8	34.1	43.8	50.7	66.7	77.4	95.4	120.9	140.0	205.3
	Absorbed power	kW	1.0	1.2	1.6	2.3	3.1	4.4	6.0	8.0	9.3	11.9	13.9	17.1	22.1	25.5	40.0
Tower water																	
OC	Cooling capacity	kW	4.2	5.1	7.2	10.5	14.3	23.5	32.0	41.1	47.6	62.4	72.7	89.5	113.6	131.5	193.6
	Absorbed power	kW	1.1	1.2	1.8	2.6	3.4	4.9	6.8	9.1	10.6	13.7	15.8	19.5	25.1	28.9	45.1
HOC	Heating capacity	kW	4.6	5.4	7.8	11.3	16.1	24.7	33.3	43.7	50.7	65.6	77.2	94.1	121.0	155.7	229.9
	Absorbed power	kW	1.3	1.5	2.2	3.3	4.4	6.3	8.9	11.6	13.3	18.2	20.5	25.16	31.9	35.4	54.0
/ME	Cooling capacity	kW	4.1	4.9	6.9	10.2	13.9	22.8	31.2	40.3	46.7	60.9	70.8	87.2	111.4	128.6	191.1
	Absorbed power	kW	1.1	1.3	1.9	2.8	3.6	5.2	7.2	9.5	11.0	14.4	16.6	20.5	26.1	30.2	46.3
Power supply		V/Ph/Hz	230±10%/1/50					400±10%/3/50									
Sound pressure level		dB(A)	30.1	30.5	31.1	35.1	37.8	38.4	41.3	45.7	46.3	48.1	49.4	49.9	50.7	51.7	53.9
Depth		mm	310	310	310	310	500	500	500	500	500	640	640	640	640	720	720
Width		mm	520	520	520	520	780	780	780	780	780	1550	1550	1550	1550	1750	1750
Height		mm	800	800	800	800	1000	1000	1000	1000	1000	1200	1200	1200	1200	1200	1200
Installed weight		Kg	48	52	58	66	120	159	181	204	217	388	430	478	538	664	715

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

Well water: Chiller: evaporator water inlet/outlet temperature 12-7 °C, condenser water inlet/outlet temperature 20-30 °C.

Tower water: Chiller: evaporator water inlet/outlet temperature 12-7 °C, condenser water inlet/outlet temperature 30-35 °C.

Heat pump: condenser water inlet/outlet temperature 40-45 °C; evaporator water inlet/outlet temperature 12-7 °C.

Evaporating unit: evaporator water inlet/outlet temperature 12-7 °C; condensing temperature (DEW) 45 °C.

Maximum condenser water outlet temperature at nominal conditions 50 °C; Minimum evaporator water outlet temperature at nominal conditions 2 °C;

Maximum condensing temperature for evaporating unit at nominal conditions 64 °C.

Sound pressure level in free field at 10 m from electrical panel side and 1.6 m from ground.

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