

CHA/ML/ST 41÷71

AIRCOOLED LIQUID HEAT PUMPS WITH DOMESTIC HOT WATER PRODUCTION, AXIAL FANS, SCROLL COMPRESSORS, PLATE EXCHANGERS AND HYDRONIC KIT. FROM 11 kW TO 22 kW.



UNIT DESCRIPTION

MIDYLINE is the new line of heat pumps dedicated to air/water for production of hot water up to 60 °C and operations up to -20 °C external air temperature, with scroll compressors, axial fans and integrated hydronic unit. The unit is designed to singly handle winter heating, summer air conditioning and the production of high temperature hot water, making use of the electrical energy and heat accumulated in the clean air source, free and infinite, which can also transfer heat to homes. Flexibility is the main feature of the **MIDYLINE** series, which is also combined with heating units and managed by the innovative, intelligent AQUALOGIK control system, optimizing the water setpoint and regulating power supply voltage to the pump and fans, making use of an inertial tank unnecessary. This results in performance with elevated energy efficiency, silent functioning, optimized dimensions and costs. **MIDYLINE** is also able to operate in extreme conditions where the external air temperature is very low, as well as intelligently managing integrated elements such as furnaces and electrical coils. Based on the external air sensor, the microprocessor activates the single integration elements in the system.

MIDYLINE

AQUA Logik



VERSIONS

CHA/ML/ST

Heat pump with AQUALOGIK technology

CHA/ML/WP/ST

Reversible heat pump with AQUALOGIK technology

FEATURES

- Structure with supporting frame, in peraluman, galvanized sheet and with rubber shock absorbers on the frame.
- Scroll compressors with internal overheat protection and crankcase heater if needed.
- Axial fan type low ventilation and special wing profile, they are directly coupled to external rotor motors.
- Condenser with copper tube and aluminium finned coil.
- Evaporator in AISI 316 stainless steel brazewelded plates type, complete with water differential pressure switch and an antifreeze heater.
- R407C refrigerant.
- Electrical panel includes: main switch with door lock device, fuses, compressor and pump remote control switch.
- Microprocessor control and regulation system with AQUALOGIK technology.
- Electronic proportional device to decrease the sound level, with a continuous regulation of the fan speed. This device allows also the cooling functioning of the unit by external temperature till -20°C.
- The hydraulic circuit includes variable speed circulation pump, safety valve, gauge and expansion vessel.

ACCESSORIES

Factory fitted accessories:

- | | |
|----|-----------------------------|
| EH | Integrated electrical coils |
| KC | Furnace integration Kit |

Loose accessories:

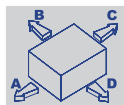
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|----|-------------------------------|
| HW | Storage tank for DHW |
| CR | Remote control panel |
| IS | RS 485 serial interface |
| RP | Metallic guards for condenser |

CHA/ML/ST			41	51	71
Heating	Heating capacity (1)	kW	11,3	15,8	22,4
	Absorbed power (1)	kW	3,2	4,6	6,5
	Heating capacity (1)	kW	11,5	16,0	22,5
	Absorbed power (1)	kW	2,7	3,8	5,4
Cooling	Cooling capacity (1)	kW	7,3	10,5	16,0
	Absorbed power (1)	kW	2,5	3,6	5,2
	Cooling capacity (1)	kW	10,8	15,5	21,2
	Absorbed power (1)	kW	2,7	4,0	6,1
Compressors	Quantity	n°	1	1	1
	Type		Scroll		
Condenser	Fans	n°	2	2	2
	Air flow	m³/s	1,58	1,58	1,44
Integrated electrical coils	Power supply	V/Ph/Hz	< - - - - - 230 / 1 / 50 - - - - - >		
	Heating capacity	kW	4/6	4/6	4/6
	Max absorbed current	A	18/26	18/26	18/26
	Steps	n°	2	2	2
Electrical characteristics	Power supply	V/Ph/Hz	< - - - - - 430 / 3+N / 50 - - - - - >		
	Max. running current	A	8	12	16
	Max. inrush current	A	40	64	101
Water circuit	Water flow	l/s	0,54	0,75	1,07
	Pump nominal power	kW	0,5	0,5	0,5
	Available static pressure	kPa	231	185	156
	Expansion vessel	l	2	2	2
	Water connections	"G	1"	1"	1"
Sound pressure (3)	STD	dB(A)	52	52	52
Weights	Peso di trasporto	Kg	205	208	210
	Peso in esercizio	Kg	209	212	214

DIMENSIONS

CHA/ML/ST			41	51	71
L	STD	mm	1160	1160	1160
P	STD	mm	500	500	500
H	STD	mm	1270	1270	1270

DIMENSIONAL



CLEREANCE AREA

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A	mm	200
B	mm	200
C	mm	200
D (*)	mm	800

NOTES

- Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
 - Heated water from 30 to 35 °C, ambient air temperature 7 °C d.b./6 °C w.b.
 - Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
 - Chilled water from 23 to 18 °C, ambient air temperature 35 °C.
 - Sound pressure level measured in free field conditions at 1 m from the unit and. According to ISO 3744.
- (*) D SIDE: Fan side.