

MU water chillers and water/water heat pumps with scroll compressor

5,1 ÷ 42,7 kW



COMPRESSOR

Water chiller

Unit frame

Frame with anodized aluminium sections, aluminium corner joints and steel outer panels finished with baked-on epoxy-polyester powder coating, colour RAL 7032.

Hermetic compressor

Scroll type with thermal overload protection and installed on rubber antivibration mounts.

Refrigerant circuit

With charge connection, sight glass (except 21-31-36), filter dryer, thermostatic expansion valve, high and low pressure switches, safety device.

Evaporator

Braze-welded plate type with anticondensate insulation, antifreeze protection and mechanical flow switch.

Condenser

Braze-welded plate type for well water with condensing pressure control valve.

Electrical panel

With main switch, power and control circuit protection, compressor contactor.

Microprocessor control with function display.

Testing

The units are factory-tested and supplied with refrigerant charge and oil.

MU/HP

Reversible heat pump

In addition to the components featured on MU, this unit includes: 4-way reversing valve and second thermostatic expansion valve. Hydraulic circuit with condensing pressure control valve, bypass solenoid valve, second water flow switch.

HYDRAULIC MODULE OPTIONS

MU/ST

In addition to the components featured on MU, this model includes: insulated storage tank, pump, safety valve and expansion vessel (for heat pump only).

MU/PF

In addition to the components featured on Alfa, this model features a pump.

ACCESSORY VERSIONS

MU/DC

Unit with 100% heat recovery condenser. Contacts on terminal board for external enabling.

Not available for all /HP models and for models 21 to 81.

MU/DS

Unit with desuperheater for partial (20%) recovery of heat rejection.

Not available for models 21 to 81.

ACCESSORIES

- rubber antivibration mounts;
- condenser for cooling tower water (30-35 °C);
- automatic filling kit with pressure gauge (unit /ST);
- RS 485 microprocessor serial interface card for remote supervision or tele-assistance via personal computer. Proprietary communication protocol;
- special voltages;
- remote control terminal;
- expansion vessel (standard on MU /ST/HP).

MU - R407C TECHNICAL DATA

Unit size		21	31	36	41	61
Nominal cooling capacity (*)	kW	5,1	7,9	9,2	11,3	13,9
Nominal heating capacity (**)	kW	6,9	10,6	12,4	15,1	18,7
Compressor						
Quantity/Refrigerant circuits	no.	1/1	1/1	1/1	1/1	1/1
Cooling power input (*)	kW	1,3	2,0	2,3	2,8	3,5
Heating power input (**)	kW	1,6	2,5	2,9	3,5	4,2
Capacity steps	%	100	100	100	100	100
Evaporator characteristics						
Water contents	l	0,50	0,85	0,85	1,04	1,41
Pressure drop	kPa	3,4	3,1	4,0	21,4	17,7
Condenser characteristics						
Water contents	dm ³	0,25	0,25	0,25	0,50	0,50
Hydraulic module characteristics						
Water flow rate	l/s	0,258	0,392	0,453	0,558	0,689
Available pump pressure	kPa	60	60	60	120	100
Storage tank capacity	l	100	100	100	100	100
Expansion vessel	l	2	2	2	2	2
Noise level (***)	dB(A)	43	43	44	46	46
Power supply	V/f/Hz	230/1/50	230/1/50	400/3+N/50	400/3+N/50	400/3+N/50
Dimensions and weight						
Width	mm	600	600	600	600	600
Depth	mm	500	500	500	500	500
Height	mm	600	600	600	600	600
Shipping weight (#)	kg	74	77	79	89	91

Unit size		81	91	101	141	161
Nominal cooling capacity (*)	kW	16,6	21,7	29,6	36,7	42,7
Nominal heating capacity (**)	kW	22	29,8	39,7	49,0	56,8
Compressor						
Quantity/Refrigerant circuits	no.	1/1	1/1	1/1	1/1	1/1
Cooling power input (*)	kW	4	5,3	7,3	9,1	10,8
Heating power input (**)	kW	4,9	6,5	8,9	11,1	13,1
Capacity steps	%	100	100	100	100	100
Evaporator characteristics						
Water contents	dm ³	1,41	1,88	2,64	2,91	3,57
Pressure drop	kPa	30,9	45,0	36,2	36,6	32,9
Condenser characteristics						
Water contents	dm ³	0,50	1,04	1,04	1,04	1,04
Hydraulic module characteristics						
Water flow rate	l/s	0,828	1,028	1,425	1,778	2,136
Available pump pressure	kPa	80	100	80	110	80
Storage tank capacity	l	100	100	100	100	100
Expansion vessel	l	2	2	2	2	2
Noise level (***)	dB(A)	47	53	54	55	55
Power supply	V/f/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
Dimensions and weight						
Width	mm	600	920	920	920	920
Depth	mm	500	500	500	500	500
Height	mm	600	1000	1000	1000	1000
Shipping weight (#)	kg	95	184	191	200	211

(*) Condenser inlet water temperature 15 °C; evaporator inlet/outlet water temperature 12-7 °C.

(**) Evaporator inlet/outlet water temperature 15-10 °C; condenser inlet/outlet water temperature 40-45 °C.

(***) Sound pressure levels measured in free field conditions at 1 m from the unit.

(#) FOR HEAT PUMP UNITS INCREASE WEIGHT BY 10%.