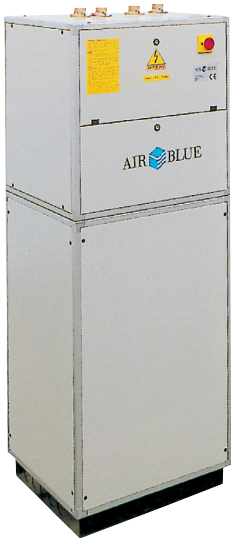
AIR BLUE
air conditioning

M U

5,1 ÷ 42,7 kW

Water chillers and water/water heat pumps with scroll compressors



GENERAL DESCRIPTION

Unit Frame.
Frame is made of anodized aluminium section bars, with aluminium corner joints and galvanized steel panel casing with baked-on epoxy-polyester powder paint. RAL 7032 colour.

Hermetic compressors.
Scroll type with thermal overload cutout, mounted on rubber vibration-dampers.

Refrigerant circuit.
With charging connection, liquid sight glass (except 21-31-36), drier filter, thermostatic expansion valve, high and low pressure switches, safety device.

Evaporator.
Braze-welded plate type with anti-condensate insulation, anti-freeze protection and mechanical flow switch.

Condenser.
Braze-welded plate construction for well water, with pressure control valve.

Electrical panel.
With main switch, power and control circuit protection, compressor contactor. Microprocessor-controlled unit with function display mode.

Testing.
Units are factory tested and supplied with refrigerant charge and initial oil charge.

AVAILABLE VERSIONS

MU
Water chiller.

MU/HP
Heat pump fitted with four-way diverting valve and second thermostatic expansion valve. Hydraulic circuit with pressure control valve, by-pass solenoid valve, second water flow switch.

MU/ST
Hydraulic circuit featuring insulated storage tank, water pump, safety valve and expansion vessel (for heat pump only).

MU/PF
Hydraulic circuit with water pump.

ACCESSORIES

- desuperheater for 20% recovery of condensation heat (from 91 to 161);
- 100% condensation heat recovery condenser (from 91 to 161);
- condenser for tower water
- rubber vibration dampers;
- special voltages;
- expansion vessel (standard on MU/ST/HP);
- automatic filling unit with gauge (for ST version);
- remote control terminal;
- card for RS 485 serial line.

MU - R407C TECHNICAL DATA

Unit size		21	31	36	41	61
Cooling(*)						
Nominal capacity	kW	5,1	7,9	9,2	11,3	13,9
Heating (**)						
Nominal capacity	kW	6,9	10,6	12,4	15,1	18,7
Compressor						
Quantity	n°	1	1	1	1	1
Type	/			scroll		
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
Evaporator				plate type		
Water volume	dm^3	0,50	0,85	0,85	1,04	1,41
Condenser				plate type		
Water volume	dm^3	0,25	0,25	0,25	0,50	0,50
Refrigerant charge						
For water chiller version	kg	0,5	0,6	0,7	0,8	0,9
For heat pump version	kg	0,9	1,0	1,1	1,3	1,4
Oil charge	kg	1,00	1,10	1,10	1,85	1,55
ST version						
Pump nominal power	kW	0,22	0,22	0,22	0,46	0,46
Water flow rate	l/s	0,258	0,392	0,453	0,558	0,689
Pump available pressure	kPa	60	60	60	120	100
Storage tank capacity	l	100	100	100	100	100
Expansion vessel	l	2	2	2	2	2
Shipping weight (#)	kg	74	77	79	89	91
Shipping weight vers. ST (#)	kg	141	145	147	159	161

Unit size		81	91	101	141	161
Cooling(*)						
Nominal capacity	kW	16,6	21,7	29,6	36,7	42,7
Heating (**)						
Nominal capacity	kW	22	29,8	39,7	49,0	56,8
Compressor						
Quantity	n°	1	1	1	1	1
Type	/			scroll		
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
Evaporator				plate type		
Water volume	dm^3	1,41	1,88	2,64	2,91	3,57
Condenser				plate type		
Water volume	dm^3	0,5	1,04	1,04	1,04	1,04
Refrigerant charge						
For water chiller version	kg	1	4,5	5,5	7,2	9,0
For heat pump version	kg	1,5	6,0	7,0	8,8	10,6
Oil charge	kg	1,65	2,5	2,5	4,0	4,0
ST version						
Pump nominal power	kW	0,46	0,62	0,62	0,82	0,82
Water flow rate	l/s	0,828	1,028	1,425	1,778	2,136
Pump available pressure	kPa	80	100	80	110	80
Storage tank capacity	l	100	100	100	100	100
Expansion vessel	l	2	2	2	2	2
Shipping weight (#)	kg	95	184	191	200	211
Shipping weight vers. ST (#)	kg	165	243	251	260	271

(*) Condenser inlet/outlet water temperature 30-35 °C; evaporator inlet/outlet water temperature 12-7 °C.
(**) Evaporator inlet/outlet water temperature 15/10 °C; condenser inlet/outlet water temperature40-45 °C.
(#) For heat pump units increase weight by 10%.