ALFA/CF

Air/Water chillers and heat pumps with centrifugal fans and scroll compressor

4,6 ÷ 61 kW

ALFA/CF
Water chiller

Unit frame
Galvanized steel frame with baked-on polyester powder coating, colour RAL 7032.
Hermetic compressor
Scroll type with thermal overload protection, installed on rubber antivibration mounts in a compartment separated from the air flow.
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
Finned coil type with galvanized metal guard.
Centrifugal fan
With directly coupled motor (from 21 to 81), with belt/pulley drive (from 91 to 251). Safety guard on delivery outlet.
Electrical panel
With main switch, contactors, power and control circuit protection, compressor contactor.
Microprocessor control with function display.
Testing
Oil charging and and a dry run test are carried out in the factory.

ALFA/CF/HP
Reversible heat pump.

In addition to the components of the Alfa CF, this model includes: 4-way reversing valve, liquid
receiver, second thermostatic expansion valve. Reverse cycle defrost function.

HYDRAULIC MODULE OPTIONS

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

ACCESSORY VERSIONS

ALFA/CF/DC
Unit with 100% heat recovery condenser. Contacts on terminal board for external enabling. Not available for all /HP models and models 21 to 81.

ALFA/CF/DS
Unit with desuperheater for partial (20%) recovery of heat rejection. Not available from model 21 to 81.

ACCESSORIES
- rubber antivibration mounts;
- coils with special protective treatment;
- condensing pressure control (low ambient kit):
  - with speed control (from 21 to 36)
  - with dampers (from 41 to 251).
  Signal from pressure transducer (air down to -20 °C);
- automatic filling kit with pressure gauge;
- electric heater on the evaporator (for /ST also on tank, pumps and piping);
- Integration heaters (units ALFA CF /ST/HP);
- RS 485 microprocessor serial interface card for remote supervision or tele-assistance via personal computer. Proprietary communication protocol;
- silencers on air intake and delivery;
- special power supply voltages;
- remote control terminal;
- expansion vessel (standard on ALFA CF /ST/HP).

ALFA/CF - R407C TECHNICAL DATA

Unit size		21	31	36	41	61	81
Nominal cooling capacity (*)	kW	4,6	7,0	8,2	10,0	12,4	14,9
Nominal heating capacity (**)	kW	5,2	8,0	9,2	11,2	13,6	16,4
Compressor							
Quantity/Refrigerant circuits	no.	1/1	1/1	1/1	1/1	1/1	1/1
Cooling power input (*)	kW	1,6	2,5	2,8	3,4	4,1	4,8
Heating power input (**)	kW	1,8	2,7	3,1	3,7	4,4	5,1
Capacity steps	%	100	100	100	100	100	100
Fans							
Air flow	m^3/s	0,90	0,90	0,90	1,67	1,67	1,67
Available static pressure	Pa	50	50	50	50	50	50
No. x installed power	no. x kW	1x0,52	1x0,52	1x0,52	1x1,1	1x1,1	1x1,1
Evaporator characteristics							
Water contents	l	0,50	0,85	0,85	1,03	1,41	1,41
Pressure drop	kPa	3,4	3,1	4,0	21,4	17,7	24,9
Hydraulic module characteristics							
Water flow rate	l/s	0,220	0,334	0,392	0,478	0,592	0,712
Available pump pressure	kPa	69	67	64	165	155	131
Storage tank capacity	l	70	70	70	70	70	70
Expansion vessel	l	2	2	2	2	2	2
Noise level (***)	dB(A)	61	61	61	62	62	62
Power supply	V/f/Hz	230/1/50	230/1/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
Dimensions and weight							
Width	mm	1200	1200	1200	1200	1200	1200
Depth	mm	600	600	600	680	680	680
Height	mm	700	700	700	950	950	950
Shipping weight (#)	kg	115	121	122	155	157	160

Unit size		91	101	141	161	201	251
Nominal cooling capacity (*)	kW	20,1	26,3	32,9	38,2	50,7	61,0
Nominal heating capacity (**)	kW	21,9	29,8	36,5	42,9	55,5	67,0
Compressor							
Quantity/Refrigerant circuits	no.	1/1	1/1	1/1	1/1	1/1	1/1
Cooling power input (*)	kW	6,5	8,9	10,8	12,7	16,3	19,3
Heating power input (**)	kW	6,8	9,3	11,3	13,4	17,4	20,3
Capacity steps	%	100	100	100	100	100	100
Fans							
Air flow	m^3/s	2,12	2,12	5,0	5,0	5,4	5,4
Available static pressure	Pa	50	50	50	50	50	50
No. x installed power	no. x kW	1x1,1	1x1,1	1x2,2	1x2,2	2x1,5	2x1,5
Evaporator characteristics							
Water contents	l	1,60	2,35	2,91	3,57	4,00	5,00
Pressure drop	kPa	34,8	28,8	29,8	26,3	32,9	31,0
Hydraulic module characteristics							
Water flow rate	l/s	0,960	1,256	1,572	1,825	2,422	2,914
Available pump pressure	kPa	116	93	124	110	140	108
Storage tank capacity	l	100	100	200	200	270	270
Expansion vessel	l	2	2	5	5	5	5
Noise level (***)	dB(A)	65	65	65	65	72	72
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	400/3+N/50
Dimensions and weight							
Width	mm	1500	1500	1750	1750	2340	2340
Depth	mm	800	800	900	900	900	900
Height	mm	1100	1100	1410	1410	1410	1410
Shipping weight (#)	kg	220	275	363	383	610	650

(*) Ambient air temperature 32 °C; evaporator inlet/outlet water temperature 12-7 °C.
(**) Ambient air temperature 8 °C DB, 6 °C WB; condenser inlet/outlet water temperature 40-45 °C.
(***) Sound pressure levels measured in free field conditions at 1m from the unit.
(#) FOR HEAT PUMP UNITS INCREASE WEIGHT BY 10%.