

AIR  BLUE  
a i r c o n d i t i o n i n g

## Cool Design for Homes and Offices

### Homes

Easy to install and use, quiet, attractive, and designed to fit any space: there are a lot of reasons why Air Blue air conditioners have always been a reliable solutions for homes of any size.

### Offices

Air Blue has great experience in cooling high-tech rooms whose temperature and humidity levels require constant monitoring. Installed in EDP and telecommunication centers, Dat’Air air conditioning systems ensure the correct functioning of the most advanced technological equipment by stabilizing the climatic factors within the environment.



ISO 9002 Certified Quality System.



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- 172 UTA-UTAH** 6 ÷ 49,3 kW Concealed direct expansion fan unit.
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### *Fan units*

- 180 MINIDAT** 6 ÷ 9 kW Low power air conditioners with vertical duct.
- 196 CONSOLE** 11 ÷ 20 kW Low and medium power air conditioners with horizontal duct.
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### *Air-cooled condensers*

- 244 CRCF** Remote air-cooled condensers with centrifugal fans.
- 250 CRAX** Remote air-cooled condensers with axial fans.
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Prices are in Euro. V.A.T. not included.

**Air/Water chillers and heat pumps with axial fans, scroll compressors, storage tank and water pump, evaporator of the coaxial type.**



## GENERAL DESCRIPTION

### Unit Frame.

Galvanized steel frame with 180° baked-on epoxy-polyester powder paint for maximum weather resistance even in marine environments. RAL 7032 colour paint.

### Compressor.

Lownoise, scroll type compressor with thermal overload cutout included in motor windings and rubber vibration-damping supports. The three-phase models are equipped with a safety device (phase sequence relay), that prevents reverse compressor rotation, and a crankcase heater.

### Condenser.

Copper tube coils with aluminium fins. The finned coil pack is protected by a galvanized metal guard.

### Fans.

Axial fans directly coupled to 6-pole single-phase motor, IP 54 fan protection grading. Fitted with accident-prevention guard.

### Evaporator.

Of the coaxial type, immersed in storage tank with anti-condensate insulation consisting of closed-cell foam material, chilled water pump and flow switch.

### Refrigerant circuit.

With charging connection, drier filter, liquid sight glass (on models 410-610-810 only), thermostatic valve, melting plug.

### Electrical panel.

The panel includes:

- main switch (on models 410-610-810 only);
- compressor and control circuit protections;
- compressor contactor;
- 230÷24 V transformer.

### Microprocessor.

It controls the following functions:

- water temperature control;
- anti-freeze protection;
- compressor operation timing;
- alarm reset;
- alarm buzzer;
- digital input for external ON/OFF signal
- potential contact for remote alarm signals.

Digital display of:

- inlet and outlet water temperature;
- temperature and differential settings;
- hour meter readouts of compressor and pump operation;
- alarm description;
- operating status indicator (summer/winter) - green LED;
- compressor status indicator - green LED.

### Other controls.

- manual-reset high pressure switch;
- automatic-reset low pressure switch;
- flow switch on evaporator water circuit.

### Testing.

The units are factory tested and come with anti-foaming synthetic oil and R 407C refrigerant.

## AVAILABLE VERSIONS

FREEZY/HP reversible heat pump. In addition to the basic version components, the unit also includes:

### Refrigerant circuit:

four-way diverting valve, liquid receiver, check valve, second thermostatic valve.

### Electrical panel:

- a microprocessor also controls the following functions: summer/winter changeover, automatic defrost.

## ACCESSORIES

- remote control terminal;
- card for RS485 serial line;
- rubber vibration dampers;
- special voltages: 400V/3pH/50Hz for models 210 to 360;
- fan speed control;
- coils with special treatments.

## FREEZY - R407C TECHNICAL DATA

Unit size		210	310	360	410	610	810
<b>Cooling(*)</b>							
Total nominal capacity	kW	4,6	7,0	8,2	10,0	12,4	14,9
<b>Heating (**)</b>							
Nominal capacity	kW	5,2	8,0	9,2	11,2	13,6	16,4
<b>Compressor</b>							
Quantity	n°	1	1	1	1	1	1
Type	/			scroll	scroll		
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
<b>Fans</b>							
Air flow	m³/s	0,83	0,83	0,83	1,8	1,8	1,8
N° X installed capacity	n° x kW	1 x 0,14	1 x 0,14	1 x 0,14	1 x 0,20	1 x 0,20	1 x 0,20
<b>Refrigerant charge</b>							
For water chiller version	kg	1,7	2,0	2,1	3,0	3,2	3,7
For heat pump version	kg	2,2	2,5	2,6	4,0	4,2	4,7
<b>Oil charge</b>	kg	1,00	1,10	1,10	1,85	1,55	1,65
<b>Heat exchanger water volume</b>	dm³	11	11	11	33	33	33
<b>ST version</b>							
Pump nominal power	kW	0,37	0,37	0,37	0,37	0,37	0,37
Water flow rate	l/s	0,234	0,363	0,430	0,521	0,635	0,769
Pump available pressure	kPa	137	115	100	160	135	105
<b>Shipping weight (#)</b>	kg	135	138	140	175	177	180

(\*) 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.

(#) For heat pump units increase weight by 10%..

## FREEZY

Prices Units	210	310
FREEZY	4.334	4.433
FREEZY/HP	5.337	5.458
2.5% reduction in price of basic unit for R22 refrigerant.		

Prices Accessories	210	310
Remote control terminal	282,03	282,03
Card for RS 485 serial line	266,02	266,02
Rubber vibration dampers	66,64	66,64
Anti-freeze kit (evaporator / tank)	186,47	186,47
Aluminium coil with cataphoretic treatment	691,64	691,64
Copper/copper coil	867,26	867,26
Copper/tin-plated copper coil	1.024,28	1.024,28
Low ambient kit fan speed control	170,46	170,46
Special supply voltage: 400/3/50 + N*	+4%	+4%

(\*) % increase calculated on the basic unit;

(S) Standard;

(-) Not available.

## FREEZY

360	410	610	810
4.696	5.787	6.247	7.179
5.835	7.124	7.672	8.850

360	410	610	810
282,03	282,03	282,03	282,03
266,02	266,02	266,02	266,02
66,64	66,64	66,64	66,64
186,47	212,81	212,81	212,81
691,64	742,26	742,26	782,03
867,26	1.090,91	1.090,91	1.271,70
1.024,28	1.316,64	1.316,64	1.558,89
170,46	212,81	212,81	212,81
+4%	S	S	S

**Water chillers and air/water heat pumps  
with axial fans and scroll compressors.**



### GENERAL DESCRIPTION

#### Unit Frame.

Galvanized steel frame with baked-on epoxy-polyester powder paint. RAL 7032 colour.

#### Hermetic compressors.

Scroll and reciprocating type (mod. 181-201) with thermal overload cutout, mounted on rubber vibration-dampers, installed in a technical compartment separated from the air flow.

#### Refrigerant circuit.

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

#### Evaporator.

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

#### Condenser.

With finned coils and galvanized metal protection guard.

#### Axial fans.

Directly coupled to single-phase, 6-pole motors with speed control and accident-prevention guard.

#### 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 initial refrigerant and oil charge.

### AVAILABLE VERSIONS

#### ALFA

Water chiller.

#### ALFA/HP

Heat pump equipped with four-way diverting valve, liquid receiver, second thermostatic expansion valve and suction line separator (mod. 181-201).

Defrosting for summer/winter changeover.

#### ALFA/ST

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

### ACCESSORIES

- no-frost electric heater on evaporator (for /ST, installed also in tank, pumps and pipes);
- desuperheater for 20% recovery of condensation heat (from 91 to 201);
- 100% condensation heat recovery condenser (from 91 to 201);
- rubber vibration dampers;
- coils with special treatments;
- special voltages;
- expansion vessel (standard on ALFA/ST/HP);
- automatic filling unit with gauge;
- additional heaters for ALFA/ST/HP units);
- remote control terminal;;
- card for RS 422 or RS 485 serial line.



## ALFA - R407C TECHNICAL DATA

Unit size		21	31	36	41	61	81
<b>Cooling(*)</b>							
Nominal capacity	kW	4,6	7,0	8,2	10,0	12,4	14,9
<b>Heating (**)</b>							
Nominal capacity	kW	5,2	8,0	9,2	11,2	13,6	16,4
<b>Compressor</b>							
Quantity	n°	1	1	1	1	1	1
Type	/	scroll	scroll	scroll	scroll	scroll	scroll
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
<b>Fans</b>							
Air flow	m³/s	0,83	0,83	0,83	1,8	1,8	1,8
N° X installed capacity	n° x kW	1 x 0,14	1 x 0,14	1 x 0,14	1 x 0,37	1 x 0,37	1 x 0,37
<b>Refrigerant charge</b>							
For water chiller version	kg	1,7	2,0	2,1	3,0	3,2	3,7
For heat pump version	kg	2,2	2,5	2,6	4,0	4,2	4,7
<b>Oil charge</b>	kg	1,00	1,10	1,10	1,85	1,55	1,65
<b>Heat exchanger water volume</b>	dm³	0,50	0,85	0,85	1,03	1,41	1,41
<b>ST version</b>							
Pump nominal power	kW	0,22	0,22	0,22	0,46	0,46	0,46
Water flow rate	l/s	0,220	0,334	0,392	0,478	0,592	0,712
Pump available 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
<b>Shipping weight (#)</b>	kg	96	100	101	136	138	141
<b>Shipping weight ST vers. (#)</b>	kg	152	156	157	192	194	197
Unit size		91	101	141	161	181	201
<b>Cooling(*)</b>							
Nominal capacity	kW	20,1	26,3	32,9	38,2	43,0	49,8
<b>Heating (**)</b>							
Nominal capacity	kW	21,9	29,8	36,5	42,9	44,1	52,6
<b>Compressor</b>							
Quantity	n°	1	1	1	1	1	1
Type	/	scroll	scroll	scroll	scroll	reciprocating	reciprocating
Cooling power input	kW	6,5	8,9	10,8	12,7	14,6	17,8
Heating power input	kW	6,8	9,3	11,3	13,4	13,3	16,3
<b>Fans</b>							
Air flow	m³/s	2,12	2,12	5,0	5,0	3,5	3,5
N° X installed capacity	n° x kW	1 x 0,53	1 x 0,53	2 x 0,53	2 x 0,53	2 x 0,53	2 x 0,53
<b>Refrigerant charge</b>							
For water chiller version	kg	4,5	5,5	7,2	9,0	10,0	12,0
For heat pump version	kg	6,0	7,0	8,8	10,6	14,0	16,0
<b>Oil charge</b>	kg	2,5	2,5	4,0	4,0	6,6	6,6
<b>Heat exchanger water volume</b>	dm³	1,60	2,35	2,91	3,57	3,57	4,00
<b>ST version</b>							
Pump nominal power	kW	0,62	0,62	0,82	0,82	0,90	0,90
Water flow rate	l/s	0,960	1,256	1,572	1,825	2,054	2,379
Pump available pressure	kPa	116	93	124	110	153	121
Storage tank capacity	l	100	100	200	200	200	200
Expansion vessel	l	2	2	5	5	5	5
<b>Shipping weight (#)</b>	kg	189	243	337	357	391	400
<b>Shipping weight vers. ST (#)</b>	kg	240	292	401	423	460	479

(\*) 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.

(#) For heat pump units increase weight by 10%.

## ALFA

Prices Units	21	31	36	41
ALFA	4.329	4.587	4.850	5.672
ALFA/HP	5.206	5.508	5.864	6.878
ST MODULE	893,60	893,60	893,60	893,60
2.5% reduction in price of basic unit for R22 refrigerant.				

Prices Accessories	21	31	36	41
Remote control terminal	282,03	282,03	282,03	282,03
Card for RS 422 or RS 485 serial line	266,02	266,02	266,02	266,02
Expansion vessel (for ST version - standard on HP version)	194,22	194,22	194,22	194,22
Additional heaters (for ST version)	430,79	430,79	430,79	612,09
20% heat recovery desuperheater	-	-	-	-
100% heat recovery condenser	-	-	-	-
Rubber vibration dampers	66,64	66,64	66,64	66,64
Anti-freeze kit (for ST version)	585,23	585,23	585,23	585,23
Filling unit with gauge (for ST version)	111,57	111,57	111,57	111,57
No-frost electric heater on evaporator	292,88	292,88	292,88	292,88
Aluminium coil with cataphoretic treatment	691,64	691,64	691,64	742,26
Copper/copper coil	867,26	867,26	867,26	1.090,91
Copper/tin-plated copper coil	1.024,28	1.024,28	1.024,28	1.316,64
Special supply voltage: 230/1/50*	S	S	+3%	-
Special supply voltage: 400/3/50+N*	+3%	+3%	S	S
Special supply voltage: 220/3/50*	-	-	-	+3%

(\*) % increase calculated on the basic unit;

(S) Standard;

(-) Not available.

## ALFA

61	81	91	101	141	161	181	201
6.137	7.343	7.836	9.014	10.576	12.439	15.015	16.111
7.426	8.878	9.480	10.905	12.823	15.070	18.303	19.508
893,60	893,60	1.303,72	1.303,72	1.808,89	1.808,89	2.181,31	2.181,31

61	81	91	101	141	161	181	201
282,03	282,03	282,03	282,03	282,03	282,03	282,03	282,03
266,02	266,02	266,02	266,02	266,02	266,02	266,02	266,02
194,22	194,22	223,66	223,66	223,66	223,66	223,66	223,66
612,09	612,09	612,09	612,09	691,64	691,64	691,64	691,64
-	-	1.776,86	1.776,86	2.048,56	2.048,56	2.340,91	2.340,91
-	-	3.258,78	3.258,78	3.697,83	3.697,83	4.149,80	4.149,80
66,64	66,64	80,07	80,07	80,07	80,07	80,07	80,07
585,23	585,23	691,64	691,64	691,64	691,64	691,64	691,64
111,57	111,57	111,57	111,57	111,57	111,57	111,57	111,57
292,88	292,88	346,08	346,08	346,08	346,08	346,08	346,08
742,26	782,03	893,60	893,60	989,67	989,67	1.090,91	1.090,91
1.090,91	1.271,70	893,60	2.154,96	2.372,94	2.372,94	2.819,74	2.819,74
1.316,64	1.558,89	2.444,74	2.740,19	3.032,55	3.032,55	3.606,93	3.606,93
-	-	-	-	-	-	-	-
S	S	S	S	S	S	S	S
+3%	+3%	+3%	+3%	+3%	+3%	+3%	+3%

### Air-condensed liquid chillers with axial fans and free-cooling coils.



#### GENERAL DESCRIPTION

##### Unit Frame.

Galvanized steel frame with baked-on epoxy-polyester powder paint. RAL 7032 colour.

##### Hermetic compressors.

Scroll type compressors with thermal overload cutout, mounted on rubber vibration dampers, installed in a technical compartment separated from the air flow.

##### Refrigerant circuit.

With charging connection, liquid sight glass, drier filter, thermostatic expansion valve, low ambient liquid back-up kit, high and low pressure switches, safety devices.

##### Evaporator.

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

##### Condenser.

Of the finned-coil type, with copper tubes and aluminium fins.

##### Axial fans.

Directly coupled to single-phase, 6-pole motors, with accident-prevention guard. Free-cooling coils

charged with a water/glycol mixture and encased in an aluminium frame. Vent valves and discharge valves, galvanized metal protection guard.

##### Hydraulic circuit.

With insulated storage tank, water pump, safety valve, three-way valve for free-cooling.

##### Electrical panel.

With main switch, power and control circuit automatic breakers, pump motor overload cutout, compressor and pump contactors. Microprocessor-controlled unit with function display mode. Free-cooling logic.

##### Testing.

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

#### ACCESSORIES

- no frost kit (evaporator, storage tank, pumps and pipings);
- rubber vibration dampers;
- coils with special treatment;
- special voltages;
- expansion vessel;
- automatic filling unit with gauge;
- remote control terminal;
- card for RS 485 serial line.

## ALFA/ST/FC - R407C TECHNICAL DATA

### Unit size

#### Cooling(\*)

Total nominal capacity	kW
Sensible nominal capacity	kW

#### Heating (\*\*)

Nominal capacity	kW
------------------	----

#### Compressors

Quantity	n°
Capacity steps	%
Refrigerant circuits	n°
Cooling power input (*)	kW
Heating power input (**)	kW

#### Evaporator

Air flow	m³/s
Fan motors X installed capacity	n° x kW
Available static pressure	Pa

#### Condenser

Air flow	m³/s
Fan motors X installed capacity	n° x kW

#### Refrigerant charge

For water chiller version	kg
For heat pump version	kg

#### Oil charge

	kg
--	----

#### Shipping weight (#)

	kg
--	----

*Data currently being updated.  
Please contact our sales office*

### Unit size

#### Cooling(\*)

Total nominal capacity	kW
Sensible nominal capacity	kW

#### Heating (\*\*)

Nominal capacity	kW
------------------	----

#### Compressors

Quantity	n°
Capacity steps	%
Refrigerant circuits	n°
Cooling power input (*)	kW
Heating power input (**)	kW

#### Evaporator

Air flow	m³/s
Fan motors X installed capacity	n° x kW
Available static pressure	Pa

#### Condenser

Air flow	m³/s
Fan motors X installed capacity	n° x kW

#### Refrigerant charge

For water chiller version	kg
For heat pump version	kg

#### Oil charge

	kg
--	----

#### Shipping weight (#)

	kg
--	----

*Data currently being updated.  
Please contact our sales office*

## ALFA/ST/FC

Prices Units	91	101
ALFA/ST/FC	13.974	15.398
2.5% reduction in price of basic unit for R22 refrigerant.		

Prices Accessories	91	101
Remote control terminal for "main" microprocessor	282,03	282,03
Card for RS 485 serial line for "main" microprocessor	266,02	266,02
Expansion vessel	223,66	223,66
Rubber vibration dampers	80,07	80,07
Anti-freeze kit (evaporator, tank, pumps and piping)	691,64	691,64
Automatic filling unit with gauge	112,09	112,09
Coil with cataphoretic treatment °	893,60	893,60
Copper/copper coil °	893,60	2.154,96
Copper/tin-plated copper coil °	2.444,74	2.740,19
Special supply voltage: 400/3/50+N*	S	S
Special supply voltage: 220/3/50*	+3%	+3%

(\*) % increase calculated on the basic unit.

(S) Standard.

(-) Not available.

(°) The price refers to a single coil.

## ALFA/ST/FC

141	161
18.138	20.111

141	161
282,03	282,03
266,02	266,02
223,66	223,66
80,07	80,07
691,64	691,64
112,09	112,09
989,67	989,67
2.372,94	2.372,94
3.032,55	3.032,55
S	S
+3%	+3%

## Water chillers and air/water heat pumps with centrifugal fans and scroll compressors



### GENERAL DESCRIPTION

#### Unit Frame.

Galvanized steel frame with baked-on epoxy-polyester powder paint. RAL 7032 colour.

#### Hermetic compressors.

Scroll and reciprocating type compressors (mod. 181-201) with thermal overload cutout, mounted on rubber vibration dampers and installed in a technical compartment separated from the air flow.

#### Refrigerant circuit.

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

#### Evaporator.

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

#### Condenser.

Of the finned-coil type, with galvanized metal protection guard.

#### Centrifugal fans.

Directly coupled to electric motors (from 21 to 81), with V-belt transmis-

sion and pulleys (from 91 to 201). Accident-prevention guard fitted on delivery outlet.

#### Electrical panel.

With main switch, power and control circuit automatic breakers, pump motor overload cutout, compressor and pump contactors. Microprocessor-controlled unit with function display mode.

#### Testing.

Units are factory tested and supplied with refrigerant fluid and oil charge.

### AVAILABLE VERSIONS

#### ALFA CF

Water chiller.

#### ALFA CF/HP

Heat pump equipped with four-way diverting valve, liquid receiver, second thermostatic expansion valve and suction line separator (mod. 181-201). Defrosting for summer/winter changeover.

#### ALFA CF/ST

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

### ACCESSORIES

- no-frost electric heater on evaporator (for /ST, installed also in tank, pumps and pipes);
- desuperheater for 20% recovery of condensation heat (from 91 to 201);
- 100% condensation heat recovery condenser (from 91 to 201);
- rubber vibration dampers;
- coils with special treatment;
- special voltages;
- expansion vessel (standard on ALFA CF/ST/HP);
- automatic filling unit with gauge;
- additional heaters (for ALFA CF/ST/HP units);
- increased available pressure;
- mufflers on air suction and discharge lines;
- low ambient kit with:
  - speed control (from 21 to 36),
  - air shutters (from 41 to 201),
- remote control terminal;
- card for RS 422 or RS 485 serial line.



## ALFA/CF - R407C TECHNICAL DATA

Unit size		21	31	36	41	61	81
<b>Cooling(*)</b>							
Nominal capacity	kW	4,6	7	8,2	10	12,4	14,9
<b>Heating (**)</b>							
Nominal capacity	kW	5,2	8	9,2	11,2	13,6	16,4
<b>Compressor</b>							
Quantity	n°	1	1	1	1	1	1
Type	/	scroll	scroll	scroll	scroll	scroll	scroll
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
<b>Fans</b>							
N° x installed capacity	n° x kW	1x0,52	1x0,52	1x0,52	1x1,1	1x1,1	1x1,1
Air flow	m³/s	0,90	0,90	0,90	1,67	1,67	1,67
Available static pressure	Pa	50	50	50	50	50	50
<b>Refrigerant charge</b>							
For water chiller version	kg	1,7	2,0	2,1	3,0	3,2	3,7
For heat pump version	kg	2,2	2,5	2,6	4,0	4,2	4,7
<b>Oil charge</b>							
	kg	1,00	1,10	1,10	1,85	1,55	1,65
<b>Heat exchanger water volume</b>							
	dm³	0,50	0,85	0,85	1,03	1,41	1,41
<b>ST version</b>							
Pump nominal power	kW	0,22	0,22	0,22	0,46	0,46	0,46
Water flow rate	l/s	0,220	0,334	0,392	0,478	0,592	0,712
Pump available 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
<b>Shipping weight (#)</b>							
	kg	115	121	122	155	157	160
<b>Shipping weight vers. ST (#)</b>							
	kg	169	177	178	211	213	216

Unit size		91	101	141	161	181	201
<b>Cooling(*)</b>							
Nominal capacity	kW	20,1	26,3	32,9	38,2	43,0	49,8
<b>Heating (**)</b>							
Nominal capacity	kW	21,9	29,8	36,5	42,9	44,1	52,6
<b>Compressor</b>							
Quantity	n°	1	1	1	1	1	1
Type	/	scroll	scroll	scroll	scroll	reciprocating	reciprocating
Cooling power input	kW	6,5	8,9	10,8	12,7	14,6	17,8
Heating power input	kW	6,8	9,3	11,3	13,4	13,3	16,3
<b>Fans</b>							
N° x installed capacity	n° x kW	1x1,1	1x1,1	1x2,2	1x2,2	1x3,0	1x3,0
Air flow	m³/s	2,12	2,12	5,0	5,0	3,5	3,5
Available static pressure	Pa	50	50	50	50	50	50
<b>Refrigerant charge</b>							
For water chiller version	kg	4,5	5,5	7,2	9,0	10,0	12,0
For heat pump version	kg	6,0	7,0	8,8	10,6	14,0	16,0
<b>Oil charge</b>							
	kg	2,5	2,5	4,0	4,0	6,6	6,6
<b>Heat exchanger water volume</b>							
	dm³	1,60	2,35	2,91	3,57	3,57	4,00
<b>ST version</b>							
Pump nominal power	kW	0,62	0,62	0,82	0,82	0,90	0,90
Water flow rate	l/s	0,960	1,256	1,572	1,825	2,054	2,379
Pump available pressure	kPa	116	93	124	110	153	121
Storage tank capacity	l	100	100	200	200	200	200
Expansion vessel	l	2	2	5	5	5	5
<b>Shipping weight (#)</b>							
	kg	220	275	363	383	420	429
<b>Shipping weight vers. ST (#)</b>							
	kg	275	325	427	450	511	534

(\*) 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.

(#) For heat pump units increase weight by 10%

## ALFA/CF

Prices Units	21	31	36	41
ALFA/CF	4.822	5.041	5.370	6.192
ALFA/CF/HP	5.809	6.083	6.494	7.507
ST MODULE	893,60	893,60	893,60	893,60
2.5% reduction in price of basic unit for R22 refrigerant.				

Prices Accessories	21	31	36	41
Remote control terminal	282,03	282,03	282,03	282,03
Card for RS 422 or RS 485 serial line	266,02	266,02	266,02	266,02
Expansion vessel (for ST version - standard on HP version)	194,22	194,22	194,22	194,22
Additional heaters (for ST version)	482,44	430,79	430,79	612,09
20% recovery desuperheater	-	-	-	-
100% recovery desuperheater	-	-	-	-
Rubber vibration dampers	66,64	66,64	66,64	66,64
Anti-freeze kit (for ST version)	585,23	53,21	585,23	585,23
Automatic filling unit with gauge (for ST version)	111,57	111,57	111,57	111,57
No-frost electric heater on evaporator	292,88	292,88	292,88	292,88
Aluminium coil with cataphoretic treatment	691,64	691,64	691,64	742,26
Copper/copper coil	867,26	867,26	867,26	1.090,91
Copper/tin-plated copper coil	1.024,28	1.024,28	1.024,28	1.316,64
Mufflers on air suction line	798,04	798,04	798,04	957,65
Mufflers on air discharge line	425,62	425,62	425,62	585,23
Fan available pressure (Pa 100)	-	-	-	292,88
Fan available pressure (Pa 150)	292,88	292,88	292,88	292,88
Fan available pressure (Pa 200)	292,88	292,88	292,88	319,22
Fan available pressure (Pa 250)	292,88	292,88	292,88	319,22
Fan available pressure (Pa 300)	292,88	292,88	292,88	346,08
Fan available pressure (Pa 350)	292,88	292,88	292,88	346,08
Fan available pressure (Pa 400)	-	-	-	346,08
Low ambient kit fan speed control	255,17	255,17	255,17	-
Low ambient kit with air shutters	-	-	-	798,04

## ALFA/CF

61	81	91	101	141	161	181	201
6.713	7.645	7.974	9.425	11.453	12.960	15.607	16.659
8.138	9.261	9.645	11.398	13.864	15.700	18.905	20.166
893,60	893,60	1.303,72	1.303,72	1.808,89	1.808,89	2.181,31	2.181,31

61	81	91	101	141	161	181	201
282,03	282,03	282,03	282,03	282,03	282,03	282,03	282,03
266,02	266,02	266,02	266,02	266,02	266,02	266,02	266,02
194,22	194,22	223,66	223,66	223,66	223,66	223,66	223,66
612,09	612,09	612,09	612,09	691,64	691,64	691,64	691,64
-	-	1.776,86	1.776,86	2.048,56	2.048,56	2.340,91	2.340,91
-	-	3.258,78	3.258,78	3.697,83	3.697,83	4.149,80	4.149,80
66,64	66,64	80,07	80,07	80,07	80,07	80,07	80,07
585,23	585,23	691,64	691,64	691,64	691,64	691,64	691,64
111,57	111,57	111,57	111,57	111,57	111,57	111,57	111,57
292,88	292,88	346,08	346,08	346,08	346,08	346,08	346,08
742,26	782,03	893,60	893,60	989,67	989,67	1.090,91	1.090,91
1.090,91	1.271,70	893,60	2.154,96	2.372,94	2.372,94	2.819,74	2.819,74
1.316,64	1.558,89	2.444,74	2.740,19	3.032,55	3.032,55	3.606,93	3.606,93
957,65	957,65	1.330,07	1.330,07	1.330,07	1.330,07	1.330,07	1.330,07
585,23	585,23	691,64	691,64	691,64	691,64	691,64	691,64
292,88	292,88	186,47	186,47	212,81	212,81	212,81	212,81
292,88	292,88	186,47	186,47	346,08	346,08	346,08	346,08
319,22	319,22	325,93	186,47	346,08	346,08	346,08	346,08
319,22	319,22	239,67	239,67	346,08	346,08	346,08	346,08
346,08	346,08	239,67	239,67	346,08	346,08	346,08	346,08
346,08	346,08	239,67	239,67	-	-	-	-
346,08	346,08	-	-	-	-	-	-
-	-	-	-	-	-	-	-
798,04	798,04	851,24	851,24	957,65	957,65	957,65	957,65

## ALFA/CF

Prices Accessories	21	31	36	41
Special supply voltage: 230/1/50*	S	S	+3%	-
Special supply voltage: 400/3/50+N*	+3%	+3%	S	S
Special supply voltage: 220/3/50*	-	-	-	+3%

(\*) The increase is calculated on the basic unit.

(S) Standard.

(-) Not available.

## ALFA/CF

61	81	91	101	141	161	181	201
-	-	-	-	-	-	-	-
S	S	S	S	S	S	S	S
+3%	+3%	+3%	+3%	+3%	+3%	+3%	+3%

## Condensing units and heat pumps with axial fans and scroll compressors



### GENERAL DESCRIPTION

#### Unit Frame.

Galvanized steel frame with baked-on epoxy-polyester powder paint. RAL 7032 colour.

#### Hermetic compressors.

Scroll and reciprocating type compressors (mod. 181-201) with thermal overload cutout, mounted on rubber vibration dampers and installed in a technical compartment separated from the air flow.

#### Refrigerant circuit.

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

#### Condenser.

Of the finned-coil type, with galvanized metal protection guard.

#### Ventilatori assiali.

Directly coupled to single-phase, 6-pole motors, with accident-prevention guard.

#### Electrical panel.

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

#### Testing.

Units are factory tested and supplied with initial oil charge.

### AVAILABLE VERSIONS

#### ALFA/LE

Condensing unit

#### ALFA/LE/HP

Reversible condensing unit equipped with four-way diverting valve, liquid receiver, second thermostatic expansion valve and suction line separator (mod. 181-201). Defrosting for summer/winter changeover.

### ACCESSORIES

- solenoid valve on liquid line (except HP version);
- liquid receiver;
- expansion vessel for remote evaporator;
- fan speed control;
- rubber vibration dampers;
- coils with special treatment;
- special voltages.

**Can be used in combination with UTA – UTAH direct-expansion fan units**

## ALFA/LE - R407C TECHNICAL DATA

Unit size		21	31	36	41	61	81
<b>Cooling(*)</b>							
Nominal capacity	kW	5,6	8,7	10,1	12,3	15,4	18,1
<b>Heating (**)</b>							
Nominal capacity	kW	5,6	8,6	10,0	12,2	14,9	17,8
<b>Compressor</b>							
Quantity	n°	1	1	1	1	1	1
Type	/	scroll	scroll	scroll	scroll	scroll	scroll
Cooling power input	kW	1,6	2,5	2,8	3,5	4,2	4,9
Heating power input	kW	1,7	2,6	2,9	3,5	4,2	4,9
<b>Fans</b>							
Air flow	m³/s	0,83	0,83	0,83	1,8	1,8	1,8
N° X installed capacity	n° x kW	1 x 0,14	1 x 0,14	1 x 0,14	1 x 0,37	1 x 0,37	1 x 0,37
<b>Oil charge</b>	kg	1,00	1,10	1,10	1,85	1,55	1,65
<b>Shipping weight (#)</b>	kg	92	94	95	129	129	132

Unit size		91	101	141	161	181	201
<b>Cooling(*)</b>							
Nominal capacity	kW	24,1	32,1	40,	46,2	56,9	64,6
<b>Heating (**)</b>							
Nominal capacity	kW	23,3	31,3	39,7	46,5	51,5	60,8
<b>Compressor</b>							
Quantity	n°	1	1	1	1	1	1
Type	/	scroll	scroll	scroll	scroll	reciprocating	reciprocating
Cooling power input	kW	6,7	9,1	11,1	13,1	16	19,3
Heating power input	kW	6,5	8,9	10,9	12,9	13,5	16,5
<b>Fans</b>							
Air flow	m³/s	2,12	2,12	5,0	5,0	3,5	3,5
N° X installed capacity	n° x kW	1 x 0,53	1 x 0,53	2 x 0,53	2 x 0,53	2 x 0,53	2 x 0,53
<b>Oil charge</b>	kg	2,5	2,5	4,0	4,0	6,6	6,6
<b>Shipping weight (#)</b>	kg	179	230	321	338	371	380

(\*) Ambient air temperature 32 °C; evaporator inlet/outlet water temperature 7 °C.

(\*\*) Evaporator inlet air temperature DB 8 °C rel. hum. 75%; condenser inlet/outlet water temperature 40-45 °C.

(#) For heat pump units increase weight by 10%.

## ALFA/LE

Prices Units	21	31	36	41
ALFA/LE	3.173	3.411	3.617	4.110
ALFA/LE/HP	3.831	4.110	4.357	4.932
2.5% reduction in price of basic unit for R22 refrigerant.				

Prices Accessories	21	31	36	41
Rubber vibration dampers	66,64	66,64	66,64	66,64
Aluminium coil with cataphoretic treatment	691,64	691,64	691,64	742,26
Copper/copper coil	867,26	867,26	867,26	1.090,91
Copper/tin-plated copper coil	1.024,28	1.024,28	1.024,28	1.316,64
Low ambient kit fan speed control	255,17	255,17	255,17	255,17
Solenoid valve on liquid line (not on HP version)	212,81	212,81	212,81	212,81
Expansion valve (for remote evaporator)	106,41	106,41	106,41	159,61
Liquid receiver	414,78	414,78	414,78	414,78
Special supply voltage: 230/1/50*	S	S	+3%	-
Special supply voltage: 400/3/50+N*	+3%	+3%	S	S
Special supply voltage: 220/3/50*	-	-	-	+3%

(\*) % increase calculated on the basic unit.

(S) Standard.

(-) Not available.



## ALFA/LE

61	81	91	101	141	161	181	201
4.384	5.096	5.535	6.850	8.768	10.302	12.494	13.426
5.288	6.162	6.631	8.220	10.604	12.467	14.988	16.111

61	81	91	101	141	161	181	201
66,64	66,64	80,07	80,07	80,07	80,07	80,07	80,07
742,26	782,03	893,60	893,60	989,67	989,67	1.090,91	1.090,91
1.090,91	1.271,70	893,60	2.154,96	2.372,94	2.372,94	2.819,74	2.819,74
1.316,64	1.558,89	2.444,74	2.740,19	3.032,55	3.032,55	3.606,93	3.606,93
255,17	255,17	414,78	414,78	414,78	414,78	414,78	414,78
212,81	212,81	212,81	212,81	212,81	212,81	212,81	212,81
159,61	159,61	212,81	212,81	212,81	212,81	212,81	212,81
414,78	537,19	537,19	537,19	537,19	537,19	537,19	537,19
-	-	-	-	-	-	-	-
S	S	S	S	S	S	S	S
+3%	+3%	+3%	+3%	+3%	+3%	+3%	+3%

## Condensing units with centrifugal fans and scroll compressors



### GENERAL DESCRIPTION

#### Unit Frame.

Galvanized steel frame with baked-on epoxy-polyester powder paint. RAL 7032 colour.

#### Hermetic compressors.

Scroll and reciprocating type compressors (mod. 181-201) with thermal overload cutout, mounted on rubber vibration dampers and installed in a technical compartment separated from the air flow.

#### Refrigerant circuit.

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

#### Condenser.

Of the finned-coil type, with galvanized metal protection guard.

#### Centrifugal fans.

Directly coupled to electric motors (from 21 to 81), with V-belt transmission and pulleys (from 91 to 201). Accident-prevention guard fitted on delivery outlet.

#### Electrical panel.

With main switch, power and auxiliary circuit protection, compressor and fan contactors.

#### Testing.

Units are factory tested and supplied with initial oil charge.

Can be used in combination with UTA direct-expansion fan units.

### AVAILABLE VERSIONS

#### ALFA CF/LE

Condensing unit.

#### ACCESSORIES

- solenoid valve on liquid line;
- liquid receiver;
- expansion valve for remote evaporator;
- rubber vibration dampers;
- coils with special treatments;
- special voltages;
- increased available pressure;
- mufflers on air suction and discharge lines;
- low ambient kit with:
  - speed control (from 21 to 36),
  - air shutters (from 41 to 201).

## ALFA CF/LE - R407C TECHNICAL DATA

Unit size		21	31	36	41	61	81
<b>Cooling(*)</b>							
Nominal capacity	kW	5,6	8,7	10,1	12,3	15,4	18,1
<b>Heating(**)</b>							
Nominal capacity	kW	5,6	8,6	10,0	12,2	14,9	17,8
<b>Compressor</b>							
Quantity	n°	1	1	1	1	1	1
Type	/	scroll	scroll	scroll	scroll	scroll	scroll
Cooling power input	kW	1,6	2,5	2,8	3,5	4,2	4,9
Heating power input	kW	1,7	2,6	2,9	3,5	4,2	4,9
<b>Fans</b>							
N° x installed capacity	n° x kW	1 x 0,52	1 x 0,52	1 x 0,52	1 x 1,1	1 x 1,1	1 x 1,1
Air flow	m³/s	0,90	0,9	0,9	1,67	1,67	1,67
Available static pressure	Pa	50	50	50	50	50	50
<b>Oil charge</b>	kg	1,00	1,10	1,10	1,85	1,55	1,65
<b>Shipping weight (#)</b>	kg	92	94	95	129	129	132

Unit size		91	101	141	161	181	201
<b>Cooling(*)</b>							
Nominal capacity	kW	24,1	32,1	40,2	46,2	56,9	64,6
<b>Heating(**)</b>							
Nominal capacity	kW	23,3	31,3	39,7	46,5	51,5	60,8
<b>Compressor</b>							
Quantity	n°	1	1	1	1	1	1
Type	/	scroll	scroll	scroll	scroll	reciprocating	reciprocating
Cooling power input	kW	6,7	9,1	11,1	13,1	16	19,3
Heating power input	kW	6,5	8,9	10,9	12,9	13,5	16,5
<b>Fans</b>							
N° x installed capacity	n° x kW	1 x 1,1	1 x 1,1	1 x 2,2	1 x 2,2	1 x 3,0	1 x 3,0
Air flow	m³/s	2,12	2,12	5,0	5,0	3,5	3,5
Available static pressure	Pa	50	50	50	50	50	50
<b>Oil charge</b>	kg	2,5	2,5	4,0	4,0	6,6	6,6
<b>Shipping weight (#)</b>	kg	179	230	321	338	400	409

(\*) Ambient air temperature 32 °C; dew temperature at suction pressure 7 °C.

(\*\*) Evaporator inlet air temperature DB 8 °C rel. hum. 75%; condenser inlet/outlet water temperature 40-45 °C.

(#) For heat pump units increase weight by 10%.

## ALFA CF/LE

Prices Units	21	31	36	41
ALFA/CF/LE	4.001	4.110	4.439	5.014
2.5% reduction in price of basic unit for R22 refrigerant.				

Prices Accessories	21	31	36	41
Rubber vibration dampers	66,64	66,64	66,64	66,64
Aluminium coil with cataphoretic treatment	691,64	691,64	691,64	742,26
Copper/copper coil	867,26	867,26	867,26	1.090,91
Copper/tin-plated copper coil	1.024,28	1.024,28	1.024,28	1.316,64
Muffler on air suction line	798,04	798,04	798,04	957,65
Muffler on air discharge line	425,62	425,62	425,62	585,23
Fan available pressure (Pa 100)	-	-	-	292,88
Fan available pressure (Pa 150)	292,88	292,88	292,88	292,88
Fan available pressure (Pa 200)	292,88	292,88	292,88	319,22
Fan available pressure (Pa 250)	292,88	292,88	292,88	319,22
Fan available pressure (Pa 300)	292,88	292,88	292,88	346,08
Fan available pressure (Pa 350)	292,88	292,88	292,88	346,08
Fan available pressure (Pa 400)	-	-	-	346,08
Low ambient kit fan speed control	255,17	255,17	255,17	-
Low ambient kit with air shutters	-	-	-	1.010,85
Solenoid valve on liquid line ((not on HP version)	212,81	212,81	212,81	212,81
Expansion valve (for remote evaporator)	106,41	106,41	106,41	159,61
Liquid receiver	414,78	414,78	414,78	414,78
Special supply voltage: 230/1/50*	S	S	+3%	-
Special supply voltage: 400/3/50+N*	+3%	+3%	S	S
Special supply voltage: 220/3/50*	-	-	-	+3%

(\*) (\*) The increase is calculated on the basic unit.

(S) Standard.

(-) Not available

## ALFA CF/LE

61	81	91	101	141	161	181	201
5.398	6.356	6.850	7.946	10.028	11.562	13.590	14.522

61	81	91	101	141	161	181	201
66,64	66,64	80,07	80,07	80,07	80,07	80,07	80,07
742,26	782,03	893,60	893,60	989,67	989,67	1.090,91	1.090,91
1.090,91	1.271,70	893,60	2.154,96	2.372,94	2.372,94	2.819,74	2.819,74
1.316,64	1.558,89	2.444,74	2.740,19	3.032,55	3.032,55	3.606,93	3.606,93
957,65	957,65	1.330,07	1.330,07	1.330,07	1.330,07	1.330,07	1.330,07
585,23	585,23	691,64	691,64	691,64	691,64	691,64	691,64
292,88	292,88	186,47	186,47	212,81	212,81	212,81	212,81
292,88	292,88	186,47	186,47	346,08	346,08	346,08	346,08
319,22	319,22	325,93	186,47	346,08	346,08	346,08	346,08
319,22	319,22	239,67	239,67	346,08	346,08	346,08	346,08
346,08	346,08	239,67	239,67	346,08	346,08	346,08	346,08
346,08	346,08	239,67	239,67	-	-	-	-
346,08	346,08	-	-	-	-	-	-
-	-	-	-	-	-	-	-
1.010,85	1.010,85	1.064,08	1.064,08	1.170,46	1.170,46	1.489,67	1.489,67
212,81	212,81	212,81	212,81	212,81	212,81	212,81	212,81
159,61	159,61	212,81	212,81	212,81	212,81	212,81	212,81
414,78	414,78	537,19	537,19	537,19	537,19	537,19	537,19
-	-	-	-	-	-	-	-
S	S	S	S	S	S	S	S
+3%	+3%	+3%	+3%	+3%	+3%	+3%	+3%