

Range INVERTER

Wall units Flo inv
Floor/ceiling SX inv
Cassettes K inv



	Cooling capacity (kW)	Heating capacity (kW)
Flo 9 INV	2.56 (1.3 - 3)	3.05 (1.03 - 4)
Flo 12 INV	3.4 (1.38 - 3.9)	4.25 (1.23 - 4.78)
SX 9 INV	2.5 (1.2 - 3.1)	3 (1.3 - 3.65)
SX 12 INV	3.23 (1.27 - 4.08)	3.5 (1.2 - 4.55)
K 9 INV	2.5 (1.2 - 3.1)	2.8 (1.3 - 3.65)
K 12 INV	3.2 (1.27 - 4.02)	3.95 (1.2 - 4.55)

Airwell

INDIVIDUAL COMFORT RANGE

Technical instructions manual
TM-GINV-A-1GB
Cancels and replaces :



Range **INVERTER**

CONTENTS

PRESENTATION	3
TECHNICAL SPECIFICATIONS	7
COOLING CAPACITY	8
HEATING CAPACITY	14
DIMENSIONS	
• outdoor unit GC	20
• indoor unit FLO	21
• indoor unit SX	22
• indoor unit K	23
INSTALLATION	24
CONNECTIONS	25
REFRIGERATION CONNECTIONS	26
REFRIGERANT CHARGE	27
ELECTRICAL SPECIFICATIONS	28
ELECTRICAL CONNECTIONS	28
RC4 INFRARED REMOTE CONTROL	29



Range **INVERTER**

PRESENTATION

These appliances have been optimized to operate with the **R-407C** coolant which contains no chlorine and has no effect on the ozone layer.

The range of **INVERTER Heatpump splits**, compatible with **indoor units**:



offers numerous advantages for the residential and tertiary markets.

1. **INVERTER technology**

- Controlling the compressor rotational speed to adjust the capacity provided (Both in Heating and Cooling modes) to the needs of the premises being air conditioned.
- The extended operating range
- Incorporating capacity modulation for energy savings of up to 35% (PWM control).
- Constant indoors temperature and regulation to within 0.5°C.



Range **INVERTER**

PRESENTATION



2. Air handling unit

2.1 Wall splits FLO INV

Being unobtrusive and comfortable to use, this appliance offers maximised ease of installation allied to incomparable air quality in response to professional installers' and individual users' expectations.

2.1.1 Compact, efficient

The extremely silent and compact indoors units provide effective air conditioning for rooms of between 20 and 40 m².

Their sleek aesthetics blend discreetly into all types of interior décor.

2.1.2 Proven technology

The microprocessor controlled safety systems and operation guarantee unequalled quality and comfort in use.

The alliance of leading edge technology with an ioniser and an electrostatic filter for wall FLO provides for precisely controlled air conditioning comfort.

2.1.3 Total reliability

Equipped with rotary compressors with variable speed, guaranteed for two years, the outdoor units provide low energy consumption, low acoustic levels and high corrosion resistance.



2.1.4 A.Q.S. 3 filtration levels for perfect air quality

In addition to the re-usable filter, two further levels of air filtration are incorporated in the INVERTER wall splits units:

- Active electrostatic filter neutralising odours and capturing the finest particles from the air.
- Photo catalytic filter breaking down the various pollutants contained in the air. This filter automatically regenerates itself on contact with light.

2.1.5 Ionisation

The air we breathe is electrically charged, with both positive and negative ions. In closed and urban environments, the concentration of negative ions in the atmosphere is reduced. The ionizer **Airwell** re-establishes the balance of negative ions in our environment for optimal living comfort.

The ion generator installed on the unit generates a quantity of between 30.000 and 50.000 ions per cubic centimetre.

2.1.6 Infrared remote control with batteries.

2.1.7 Cooling connections possibilities : right, left or rear.

2.1.8 Wall mounting plate.



Range **INVERTER**

PRESENTATION



2.2 Floor/ceiling unit SX inv

Having reduced dimensions (only 190 mm deep), and being aesthetically pleasing, it can be very easily installed in any residential, tertiary or industrial location.

Supplied as standard for both wall and ceiling installation, without any on site modifications.

It includes :

- Casing with air intake grille, filter and air distribution grille with dual motorised flaps.
- Control panel with warning light.
- Easily accessible side mounted microprocessor controls and electrical connections behind a pivoting panel, for easy commissioning and maintenance.
- Multi-speed fan with silent fan drive, mounted on flexible suspension and equipped with internal thermal protection.
- Heat exchanger with copper pipes and treated aluminium fins for improved efficiency.
- Condensate tray with connections for vertical and horizontal installation.
- Wall or ceiling support with fitting template, providing rapid electrical and refrigerant connections before siting the unit.
- Infrared remote control with batteries.
- Possibility of left, right or rear refrigerant pipe connection.



2.3 Colorado cassette K inv

Allying technical quality with reliability and ease of installation.

It comprises :

- A shallow depth (287 mm) cassette unit to be built in to the ceiling, with dimensions compatible with standard suspended ceiling panels (600 mm x 600 mm).
- Multi-speeds fan.
- Interior, slide-mounted electrical controls and safeties box including power supply terminal block with screw-less terminals and multi output automatic transformer for setting different operating speed (on site).
- Infrared remote control with liquid crystal display.
- Combined air distribution and intake grille with air filter, manually adjustable blowing vents on all four sides, central air intake.

Range **INVERTER**



PRESENTATION



3. Condensing group GC inv

This group contains in a small volume, requiring only a small floor space, the cooling compressor, air-cooled condenser and electric box.

It includes :

- A body especially treated to resist bad weather conditions.
- A special soundproof compartment containing the compressor.
- Two installation possibilities : floor-or wall mounted.

4. Pipe connections

Both the indoors and outdoors units are equipped with FLARE connectors, thus enabling the use of FLARE type pipes (refrigerating quality copper piping equipped with nuts at both ends).

5. DOCUMENTATION

Each unit is supplied with general wiring and connection diagrams and specific installation and operation instructions.

Each accessory (or kit) is accompanied by technical specifications for fitting and adjustment as required.

You can find all these elements on Internet site : <http://www.airwell.com>

Consult the corresponding instructions and follow the recommendations when carrying out any work



Range INVERTER

TECHNICAL SPECIFICATIONS

Models	FLO inv		SX inv		K inv		
	9	12	9	12	9	12	
Power supply ~230 V - 50 Hz	•	•	•	•	•	•	
Nominal cooling capacity	kW 2.55 (1.28-3.03)	3.4 (1.40-4.16)	2.5 (1.35-3)	3.5 (1.30-4.20)	2.58 (1.30-3)	3.3 (1.30-3.90)	
Power input in cool	kW 0.88	1.2	0.89	1.23	1.17	1.47	
Nominal heating capacity	kW 3.15 (1.30-4.20)	4.42 (1.33-5.21)	3 (1.30-4)	4.35 (1.30-5.10)	3.01 (1.30-4)	4.15 (1.30-5)	
Power input in heat	kW 1.12	1.62	1.06	1.54	1.07	1.47	
Coefficient of performances (COP)	W/W 2.81	2.72	2.81	2.82	2.81	2.82	
Noise levels							
indoor unit							
- low speed	dB(A)	29	34	31	36	32	32
- medium speed	dB(A)	31	38	39	43	38	38
- high speed	dB(A)	35	41	39	43	38	38
- maxi speed	dB(A)	-	-	41	45	41	41
outdoor unit							
- low speed	dB(A)	52	47	52	49	52	49
- medium speed	dB(A)	53	51	53	51	53	51
- high speed	dB(A)	54	52	54	52	54	52
Airflow							
- low speed	m³/h	300	390	420	380	420	380
- medium speed	m³/h	350	480	540	520	540	520
- high speed	m³/h	400	560	540	520	540	520
- maxi speed	m³/h	-	-	580	560	580	560
Dimensions & Weight							
indoor unit							
Length x Depth x Height	mm	810 x 190 x 285		820 x 190 x 630		571 x 571 x 287	
Weight	kg	10 10.5		19.5 21		26 26	
Packed Length x Depth x Height	mm	885 x 360 x 285		890 x 280 x 710		685 x 685 x 415	
Dimensions & Weight							
outdoor unit							
Length x Depth x Height	mm	795 x 290 x 610		795 x 290 x 610		795 x 290 x 610	
Weight	kg	37.5 38		37.5 38		37.5 38	
Packed Length x Depth x Height	mm	945 x 395 x 655		945 x 395 x 655		945 x 395 x 655	
Refrigerant (see pages 26 and 27)	R-407C						

NOTE :

- Nominal cooling capacity, international conditions :
27°C/19°C wet bulb - outside air temperature 35°C/24°C wet bulb (Standards NF EN 255.2-NF EN 814.2).
- Nominal heating capacity, international conditions :
20°C/12°C wet bulb - outside air temperature 7°C/6°C wet bulb (Standards NF EN 255.2-NF EN 814.2).
- Global acoustic pressure in dB(A) under nominal conditions :
Indoor unit installation in an average sized room (LS - 0.5 s reverberation)
Outdoor unit in an open area against a reflective background

These characteristics are provided for information purposes only and are subject to change without prior notice.

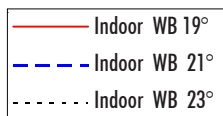
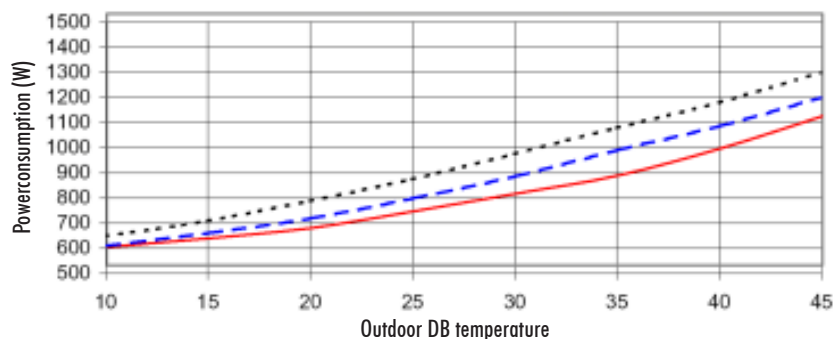
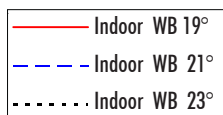
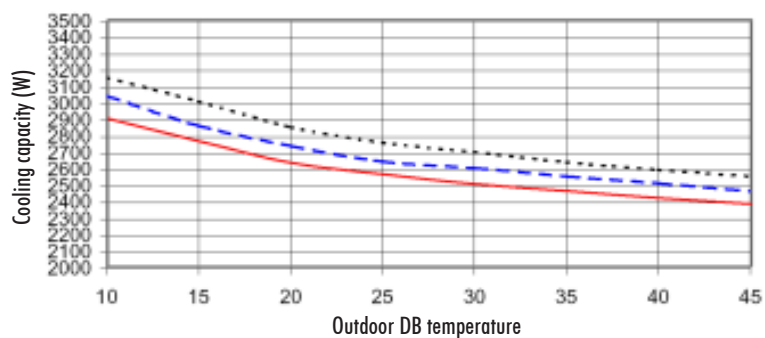


Range **INVERTER**

COOLING CAPACITY



wall unit
Flo 9 inv



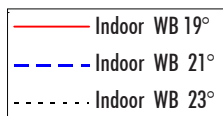
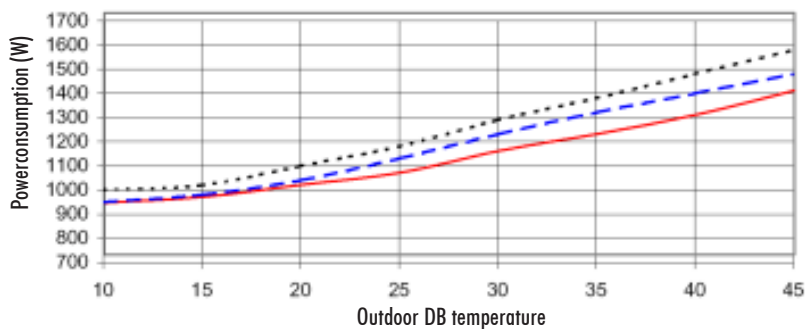
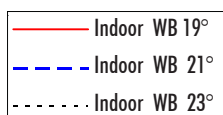
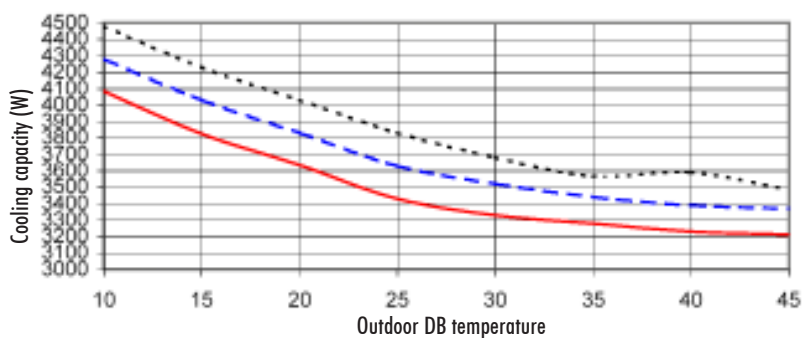


Range **INVERTER**

COOLING CAPACITY



wall unit
Flo 12 inv



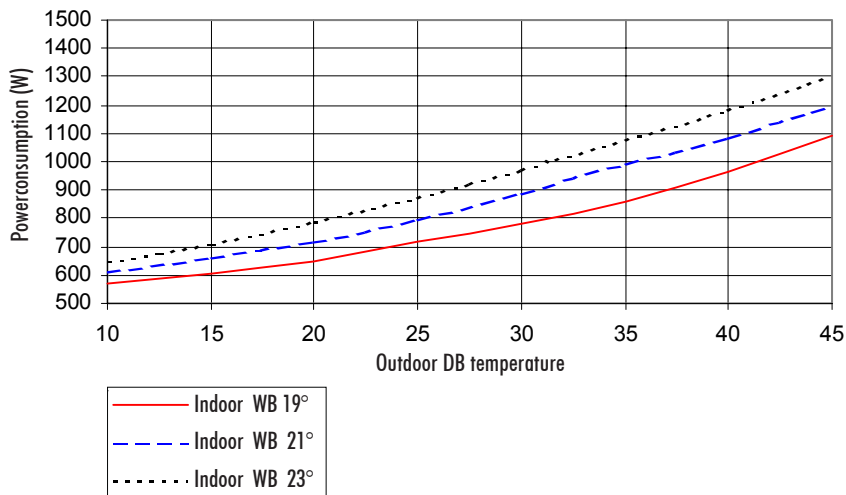
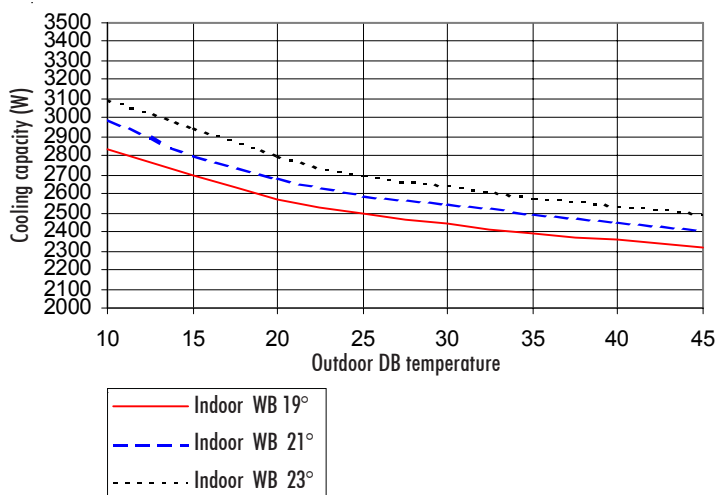


Range INVERTER

COOLING CAPACITY



floor/ceiling
SX 9 inv



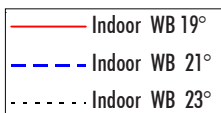
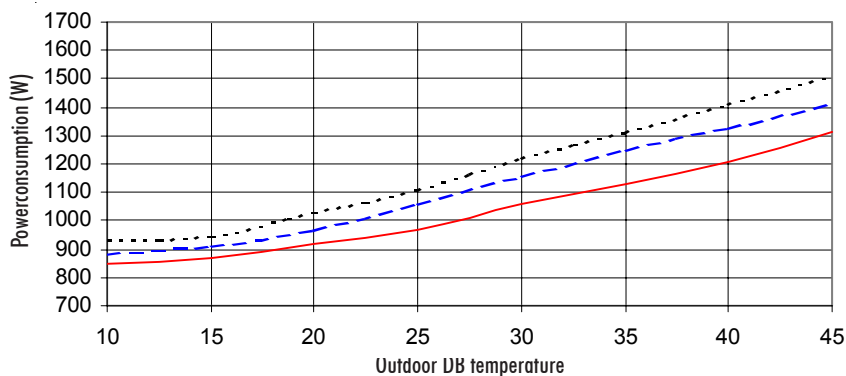
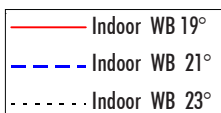
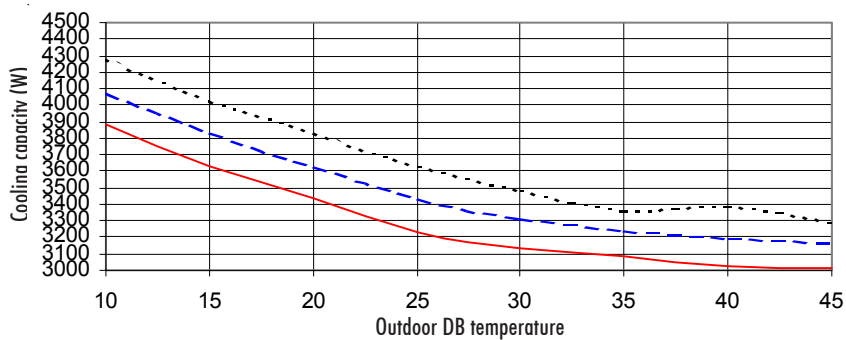


Range INVERTER

COOLING CAPACITY



floor/ceiling
SX 12 inv



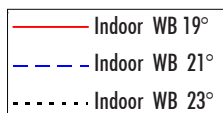
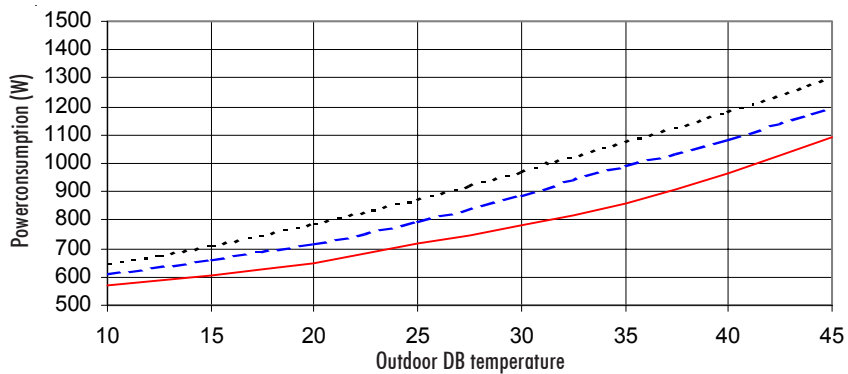
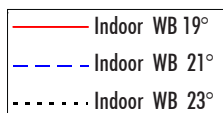
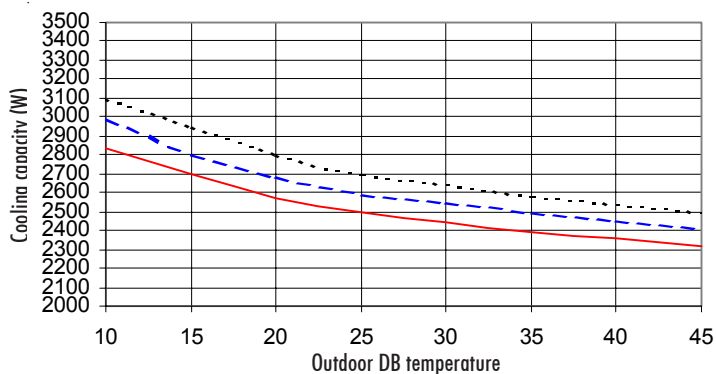


Range **INVERTER**

COOLING CAPACITY



colorado cassette
K 9 inv



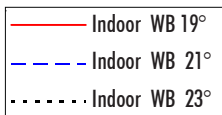
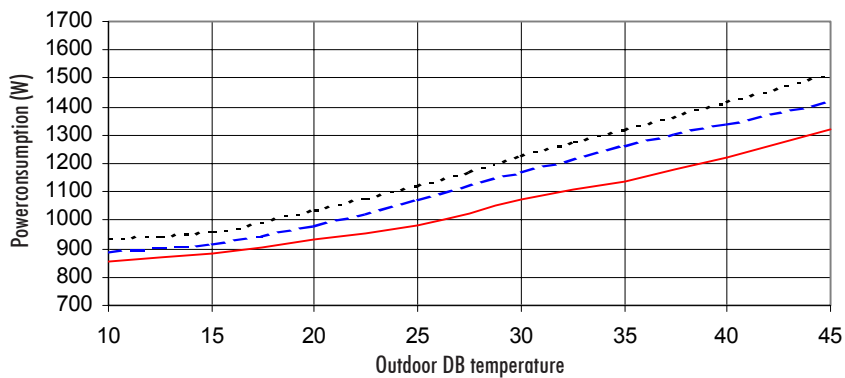
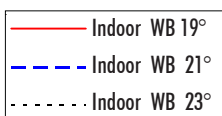
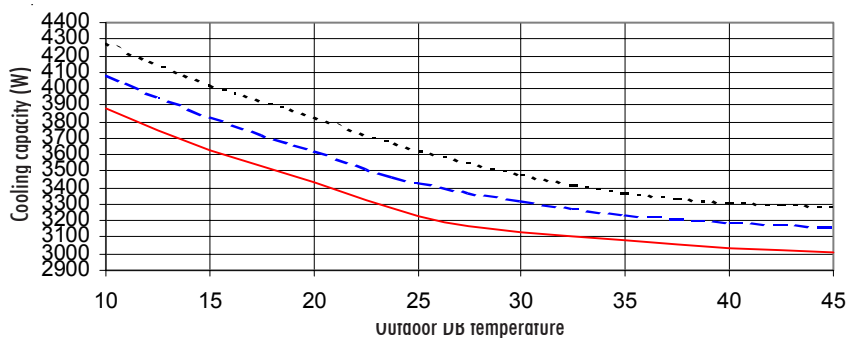


Range INVERTER

COOLING CAPACITY



colorado cassette
K 12 inv



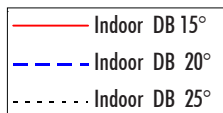
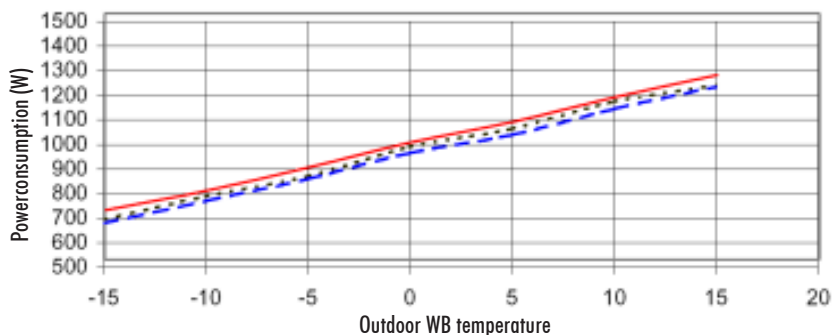
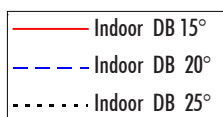
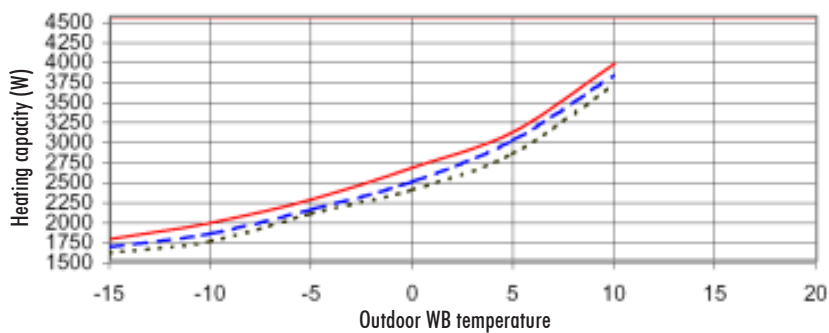


Range INVERTER

HEATING CAPACITY



wall unit
Flo 9 inv



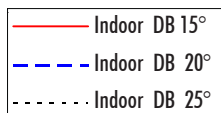
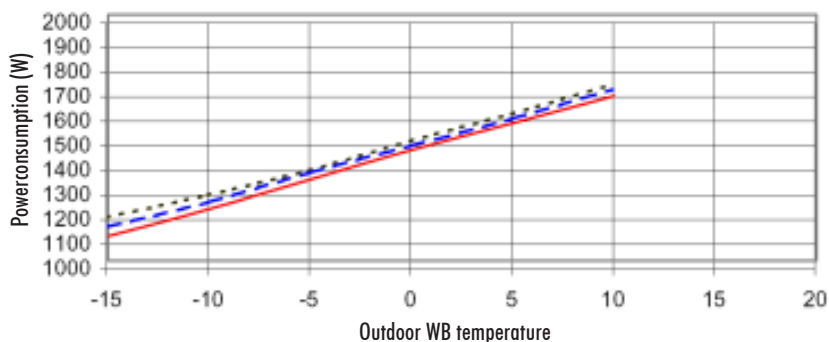
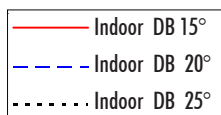
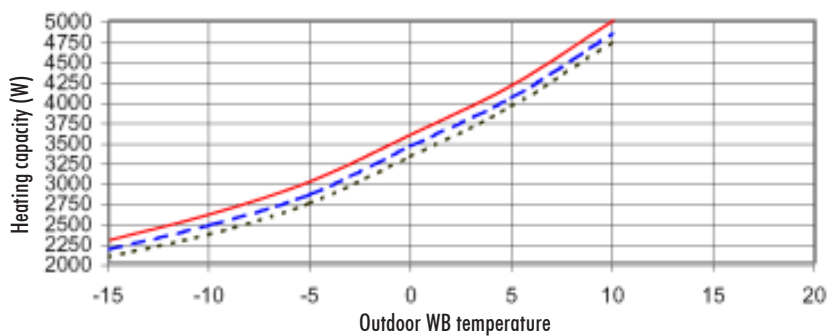


Range INVERTER

HEATING CAPACITY



wall unit
Flo 12 inv



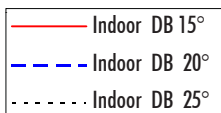
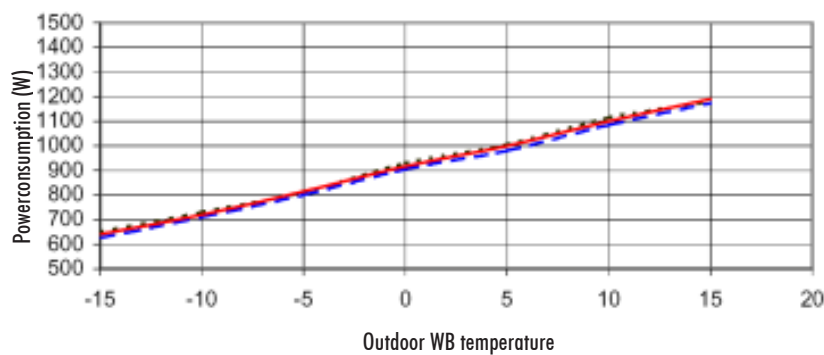
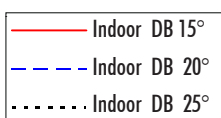
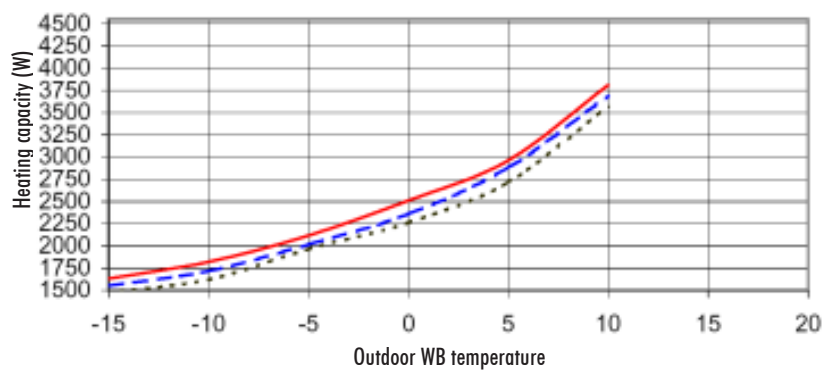


Range INVERTER

HEATING CAPACITY



floor/ceiling
SX 9 inv



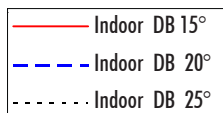
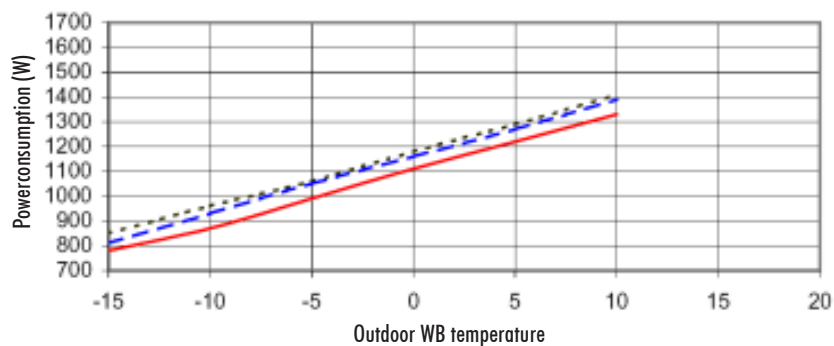
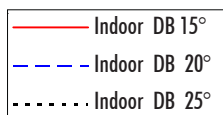
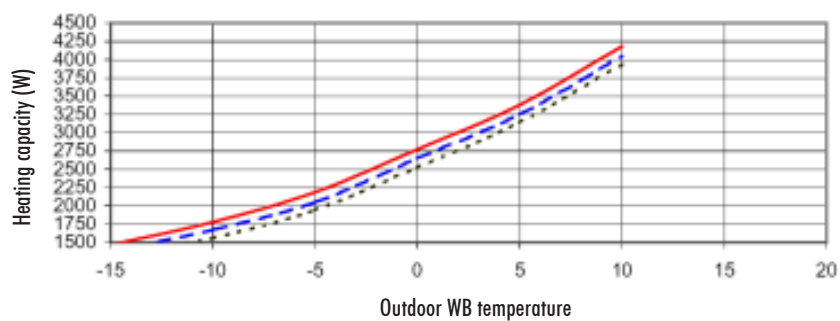


Range **INVERTER**

HEATING CAPACITY



floor/ceiling
SX 12 inv



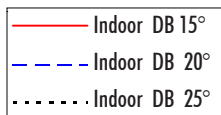
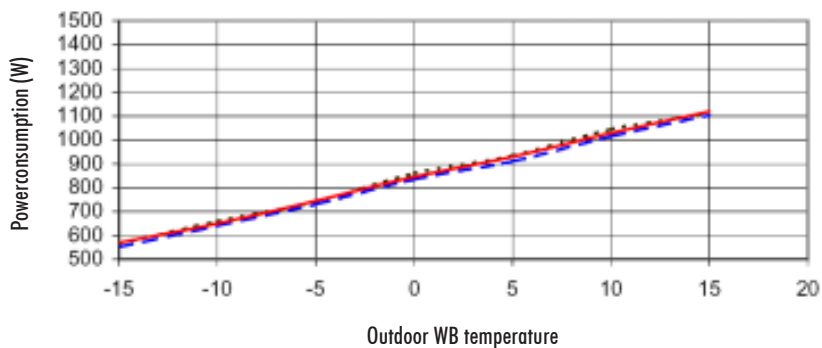
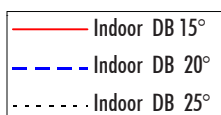
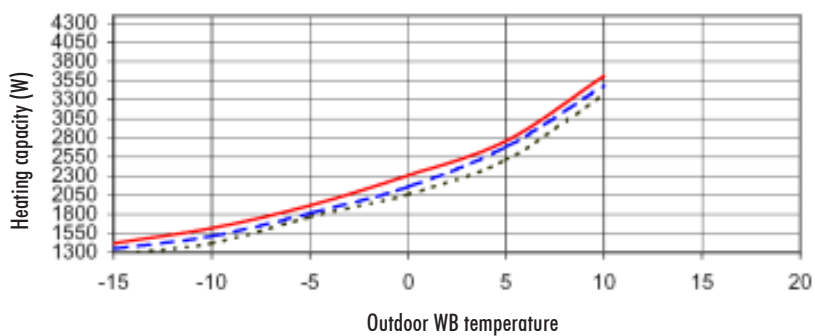


Range INVERTER

HEATING CAPACITY



colorado cassette
K 9 inv



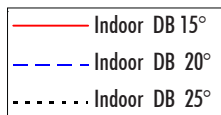
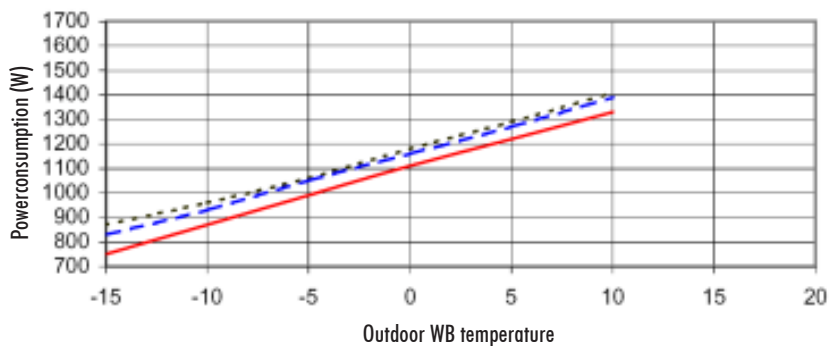
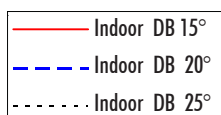
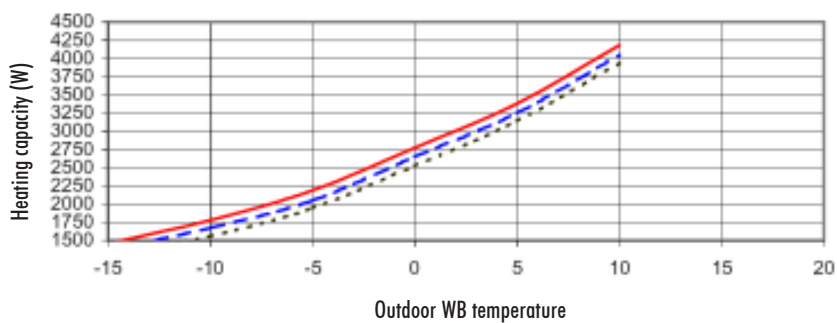


Range INVERTER

HEATING CAPACITY



colorado cassette
K 12 inv



Range **INVERTER**



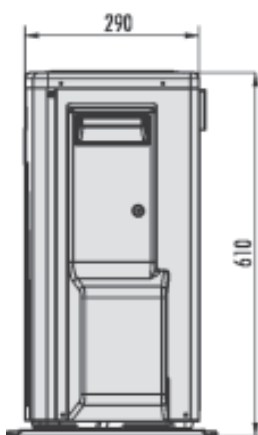
DIMENSIONS

Dimensions in mm

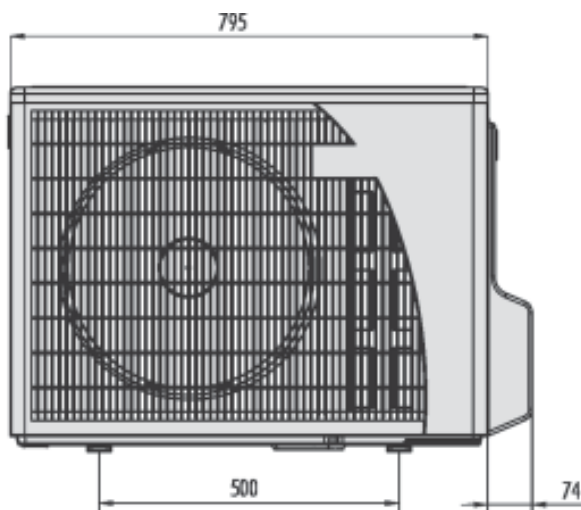


condensing unit
GC 9 inv
GC 12 inv

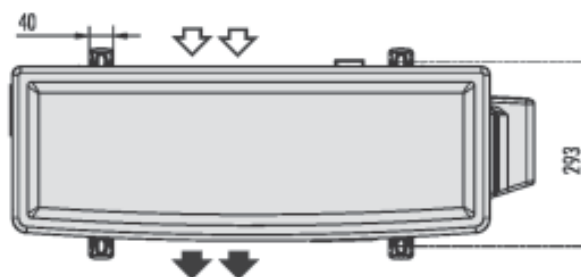
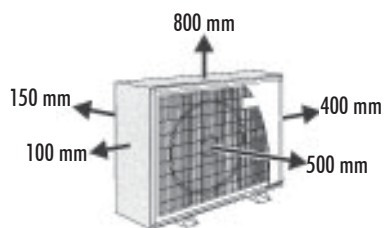
side view



front view



Clearances



top view

⇨ INTAKE

⇨ DISCHARGE

Range **INVERTER**

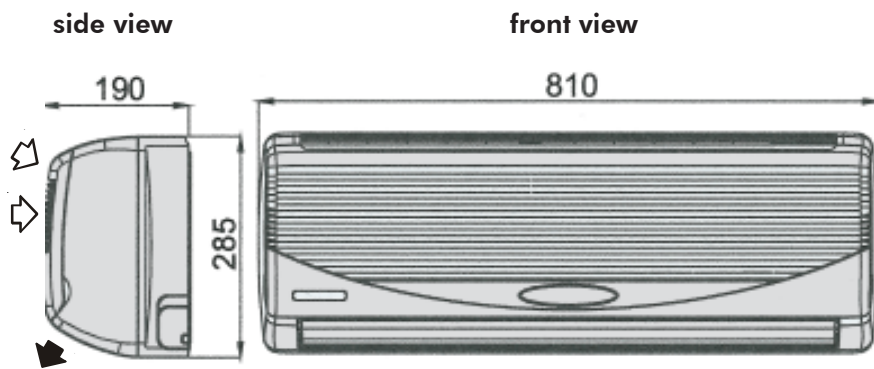


DIMENSIONS

Dimensions in mm



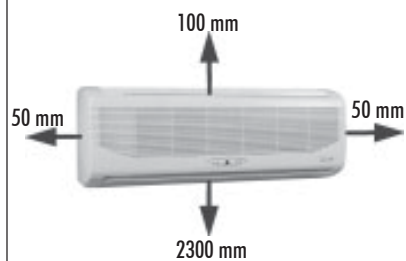
wall units
Flo 9 inv
Flo 12 inv



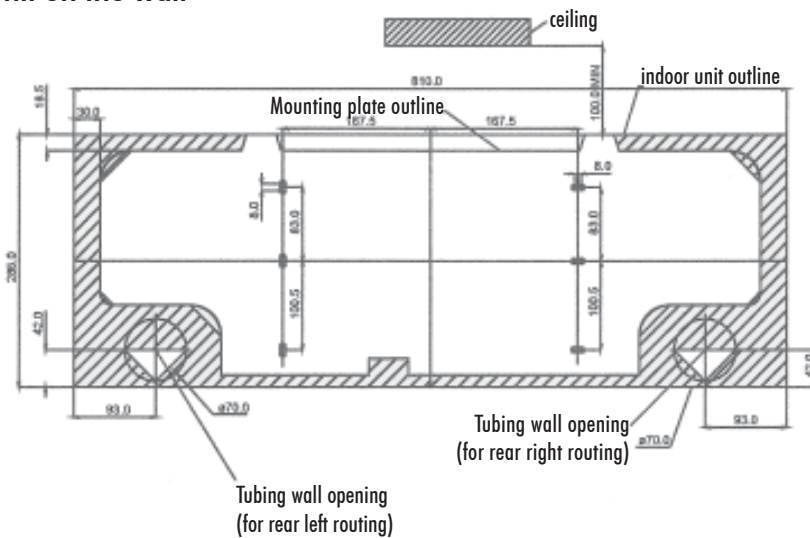
⇨ INTAKE

➡ DISCHARGE

Clearances



Mounting template yo be used for location of indoor unit on the wall





Range **INVERTER**

DIMENSIONS

Dimensions in mm



floor/ceiling
SX 9 inv
SX 12 inv

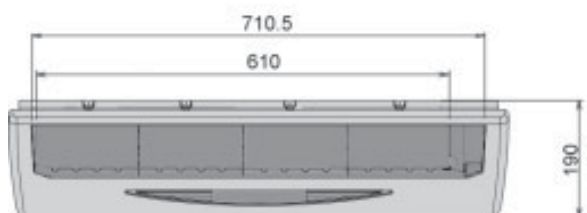
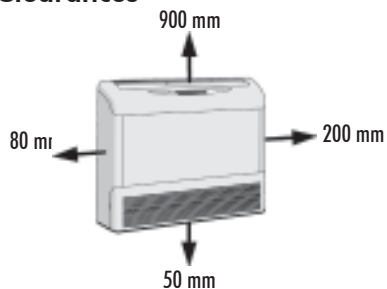
front view



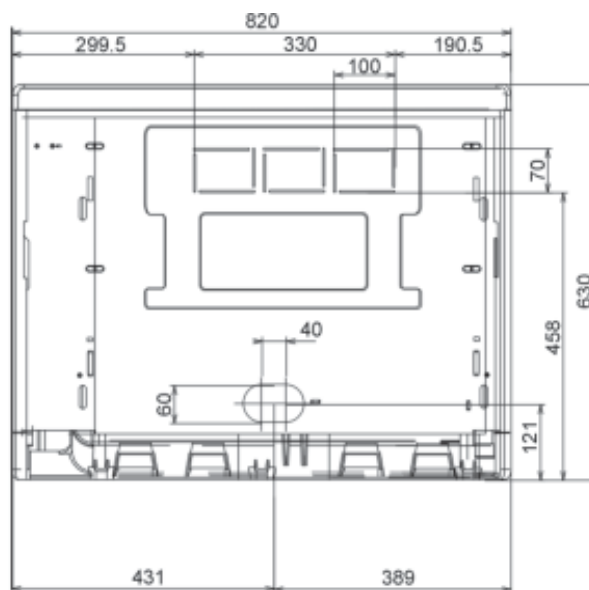
side view



Clearances



top view





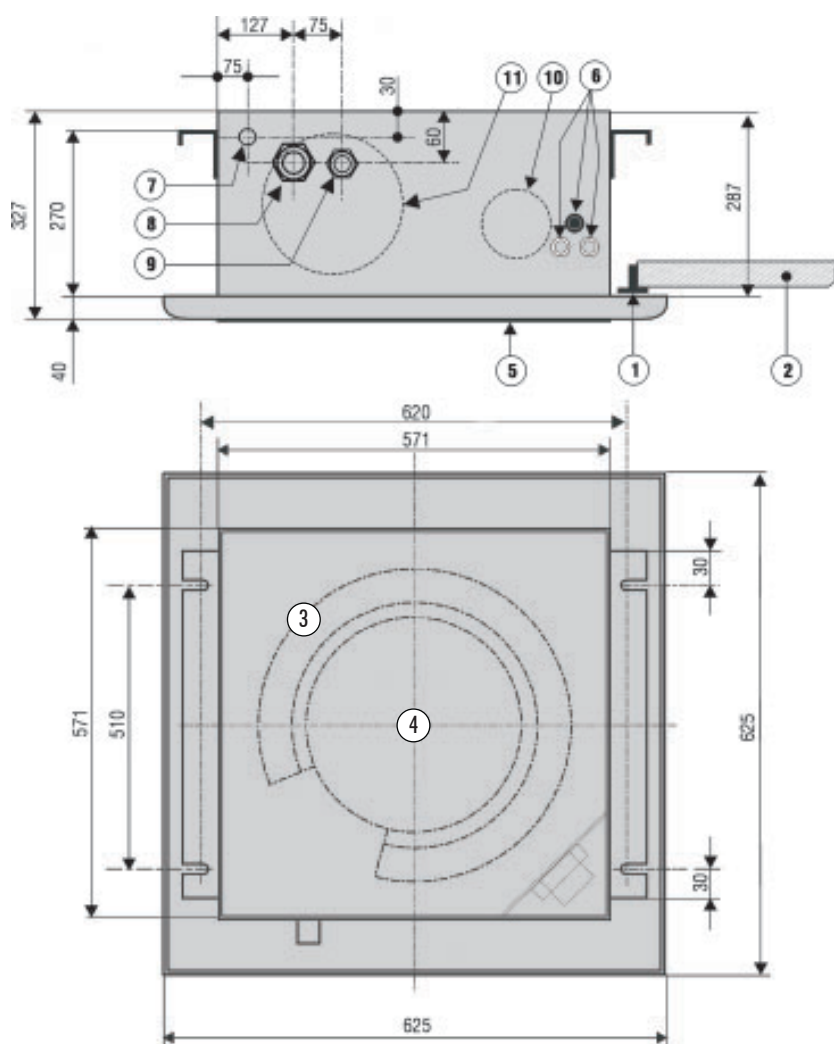
Range INVERTER

DIMENSIONS

Dimensions in mm



colorado cassette
K 9 inv
K 12 inv



DESCRIPTION

- ① T bar (suspended ceiling)
- ② Suspended ceiling
- ③ Evaporator
- ④ Fan
- ⑤ Air intake grille
- ⑥ Electrical connections
- ⑦ Condensates drainage
- ⑧ «GAS» valve
- ⑨ «LIQUID» valve
- ⑩ Fresh air intake
- ⑪ Orifice for ducted air distribution into adjacent room



Range **INVERTER**

INSTALLATION

indoor unit

1. Choose a location which will provide good air circulation. ensure that no objects or furnishings prevent air circulation.
2. Do not install the unit near a heat source or where it will be exposed to direct sunlight.
3. The location must allow convenient electrical, drainage and tubing connections.
4. Installation site should provide an easy passage to outdoors.
5. The unit must be mounted on a strong wall that will withstand the appliance:
 - **FLO** (Mounting plate supplied)
 - **SX** (Support supplied)
 - **K** (Fits into a suspended ceiling and it is attached by means of threaded rods on the mounting lugs)

outdoor unit

1. The location must allow easy servicing
2. Avoid any recycling, even partial, of blown air with fresh air.
3. The unit may be suspended from a wall or located in a free standing position on the floor (slightly elevated - Place the mounting pads under the legs).
4. if the unit is suspended, ensure that the bracket is firmly connected and the wall is strong enough to withstand appliance.

Refer to detailed fitting instructions in the installation manual supplied with the equipment.

Range **INVERTER**



CONNECTIONS

The pipe and electrical wiring connections to be made between the indoors and outdoors units are fully explained in the **Installation Instructions manual** supplied with the equipment.



**Cooling connections
of the GC to the ST**



**Electrical connections
of the GC to the ST**



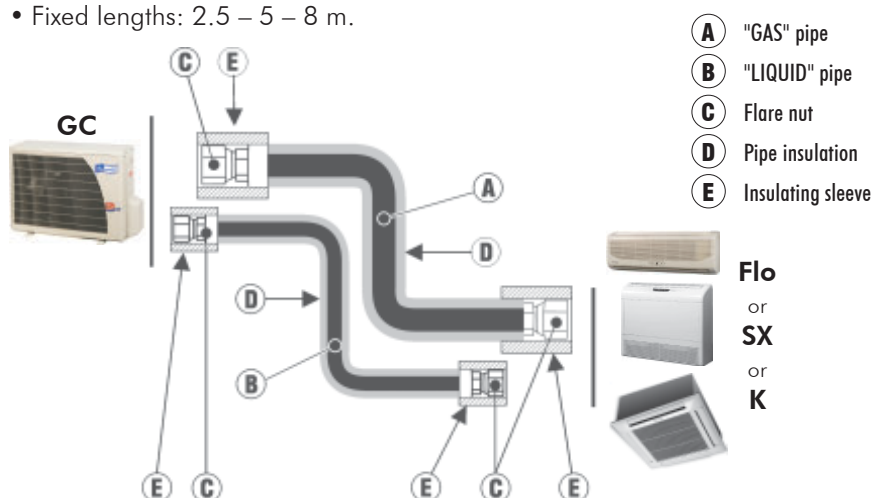
Range **INVERTER**

REFRIGERATION CONNECTIONS

The **indoor units** are designed for refrigeration connection to the outdoors units by means of pipes with Flare connectors (completely insulated refrigeration quality copper pipes with ends equipped with Flare nuts).

Various lengths of pipes equipped with Flare connectors are available from the factory:

- Fixed lengths: 2.5 – 5 – 8 m.

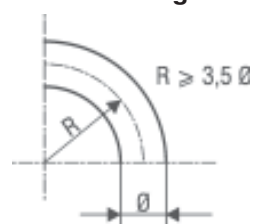


Tightening torque

Pipe Ø	Torque
1/4" pipe	15-20 Nm
3/8" pipe	30-35 Nm
1/2" pipe	50-54 Nm
5/8" pipe	70-75 Nm

1 Newton – metre = 0.1 metre-kilo

Refrigeration pipe bending





Range **INVERTER**

REFRIGERANT CHARGE

The **R-407C** charge is only contained in the outdoors unit. The indoors unit contains a small quantity of neutral GAS. For this reason, after having installed the pipe connections, it is imperative to proceed with vacuum draining the connections and the indoors unit.

R-407C charge in relation to refrigerant connection pipe lengths.

Models	FLO inv		SX inv		K inv	
	9	12	9	12	9	12
GAS pipe Ø	3/8	1/2	3/8	1/2	3/8	1/2
LIQUID pipe Ø	1/4	1/4	1/4	1/4	1/4	1/4
FLARE connections GC charge for 6 m (factory charged)	g 960	1060	1040	1250	890	1110
Max length	m	15				
Additional charge						
Charge to be added						
length of connections of 6 to 8 m	g/m	+ 5				
length of connections + of 8 m	g/m	+ 9				
Maximum height difference	m	7				



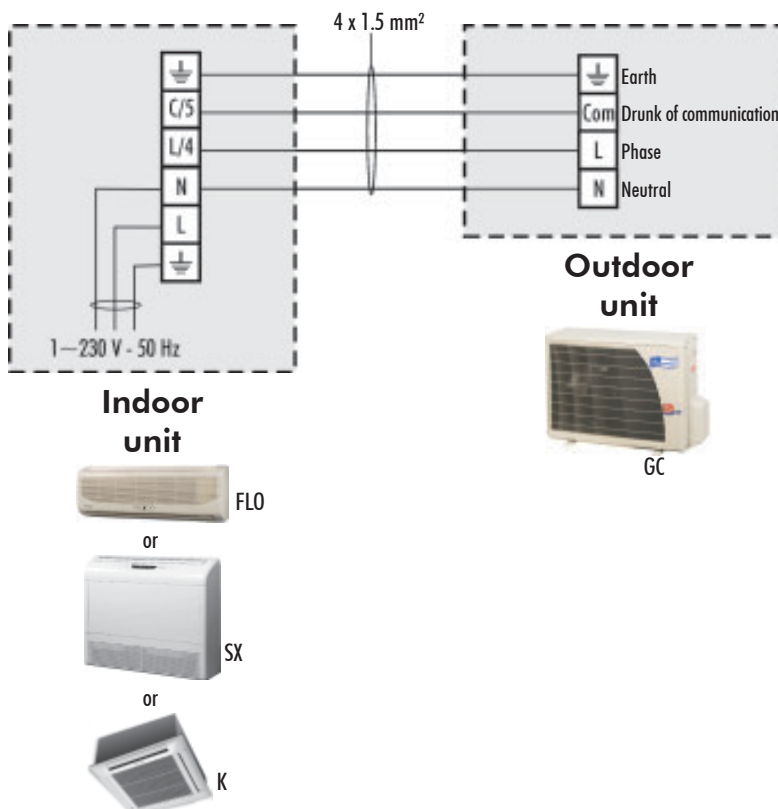
Range **INVERTER**

ELECTRICAL SPECIFICATIONS

These characteristics are provided for information purposes only and are subject to change without prior notice.

Models	FLO inv		SX inv		K inv	
	9	12	9	12	9	12
Power supply~230 V - 50 Hz	•	•	•	•	•	•
Current input cooling	A 4	5.4	4.1	5.5	4.2	5.3
Current input heating	A 5	7.1	4.8	6.4	4.9	6.5
Linkings						
Cable section	mm ² 4 x 1.5	4 x 1.5	4 x 1.5	4 x 1.5	4 x 1.5	4 x 1.5

ELECTRICAL CONNECTIONS





Range INVERTER

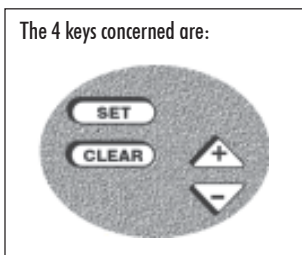


RC4 INFRARED REMOTE CONTROL

RESET FUNCTION

1. Remove the battery.
2. Simultaneously press these 4 keys until the symbols disappear.
3. Replace the battery.

The 4 keys concerned are:



Note
Flip open the cover/flap to gain access to the controls.

- ① START / STOP key
- ② Operating mode selection key: COOLING, HEATING, AUTOMATIC COOLING/HEATING REGULATION, VENTILATION, DEHUMIDIFICATION
- ③ I FEEL key: local temperature sensing
- ④ VENTILATION SPEED or AUTOMATIC VENTILATION selection key
- ⑤ Key for raising ambient temperature
- ⑥ Key for lowering ambient temperature
- ⑦ SLEEP key
- ⑧ Key inactive
- ⑨ Key inactive
- ⑩ PROGRAMMING mode selection key
- ⑪ «+» key for raising set temperature and increasing operating time
- ⑫ «-» key for lowering set temperature and decreasing operating time
- ⑬ Liquid crystal display
- ⑭ I FEEL sensor
- ⑮ Infrared signal emitter
- ⑯ ROOM key: ambient temperature display
- ⑰ SET key for setting the PROGRAMMING STOP and/or START times
- ⑱ CLEAR key for erasing the timer parameters
- ⑲ LOCK key

A.C.E Marketing

FRANCE :

1 bis, Avenue du 8 Mai 1945
Saint-Quentin-en-Yvelines
78284 GUYANCOURT Cedex

Tél. 33 1 39 44 78 00

Fax 33 1 39 44 11 55

www.airwell.com

ACE Klimatechnik GmbH

DEUTSCHLAND :

Berner Straße 43
60437 FRANKFURT/MAIN

Tel. 0 69/507 02-0

Fax 0 69/507 02-250

www.airwell.de

Itelco-Clima Srl

ITALY :

Via XXV April, 29
20030 BARLASSINA

Tel. 00 39 03.62.6801

Fax 00 39 03.626.80238

www.itelco-clima.com

Iber elco s.a.

SPAIN :

Ciències 71-81
Mòdul 5
POLIGONO PEDROSA
08908 L'HOSPITALET DE LLOBREGAT

Tel. 34-93-264 66 00

Fax 34-93-335 95 38

www.iberelco.es

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ACE

1 bis, Avenue du 8 Mai 1945
Saint-Quentin-en-Yvelines
78284 GUYANCOURT Cedex

