*Air Conditioning Catalogue*

Extract

# Commercial & Tertiary sector
# Industry
# Low Temperature

*8b Edition*



## *Air Conditioning with no outdoor unit*

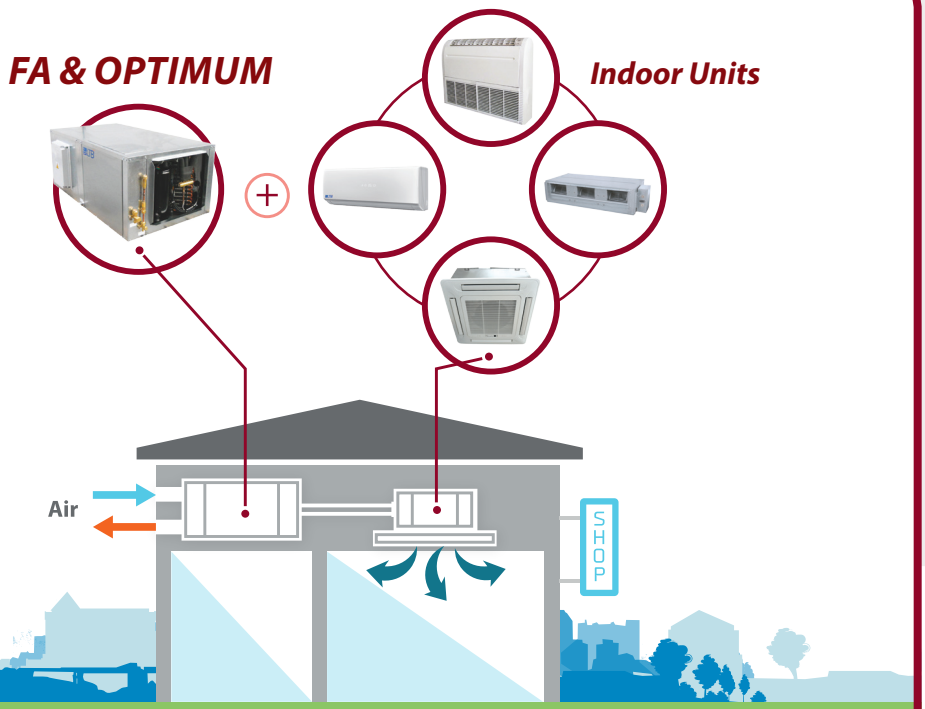
## Le spécialiste de la climatisation sans unité extérieure

LTB

Air Conditioning

**Possibles applications:**

- City centers
  *(offices, shops, classified buildings, services, etc.).*
- Industry.






# FA & OPTIMUM Range
## Centrifugal Fan Split Systems


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OPTIMUM Reversible - Monosplits .....p. 13





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Functional diagram for installing FA (or OPTIMUM) + indoor unit ..... p. 9

# Centrifugal Fan Split Systems
## OPTIMUM Reversible Range

### OPTIMUM



Direct Expansion

*The unit is installed inside the building. The outside air is led to the unit through ducts to evacuate the calories in cooling mode or to draw them in heating mode.*

**Indoor Units**

⊕ MI



⊕ CI



⊕ KI



⊕ GI





### Applications

- City centers (offices, shops, classified buildings, services, etc.).

### Product benefits

- No outdoor unit (only 2 grids).
- High static pressure allowing long distance ducting.
- No need to be against an exterior wall.
- ON/OFF: easy to maintain.
- Circular ducting easy to procure.
- Included as standard feature: Enhanced phonic insulation and G2 filter.

**Build your PART NUMBER (P/N)**

| A | P | H | 1 | 0 | 1 | D | A |
|---|---|---|---|---|---|---|---|

MODEL CODE 6 characters — OPTIONS Pack 2 characters

*Don't forget to order the accessories you may need !*

### Refrigerant connections

- Max length: 20 m
- Max height difference: 5 m
- Preloaded for 4 m of refrigerant lines

*The power ratings indicated in the tables are "total power" and are delivered for an indoor air (indoor unit inflow) of +27°C / 50% RH (cooling mode) and +20°C (heating mode). Notice: the power available to cool down the inside air ("sensible power") equals the "total power" minus the power absorbed by the condensation of air moisture (condensate).*

# OPTIMUM Reversible Range - Monosplits
## Centrifugal Fan Split Systems



R410A



| Size | - | 09 | 14 |
|---|---|---|---|
| Model | - | OPTI09R6 | OPTI14R6 |
| Model code | - | APH101 | APH102 |
| Rated cooling power | [kW] | 2,5 | 3,3 |
| Rated heating power | [kW] | 2,7 | 3,9 |
| EER / COP | - | 2,1 / 2,3 | 2,5 / 3,0 |
| Electrical power supply | V-Ph-Hz | 230-1-50 | 230-1-50 |
| Rated absorbed electrical power | [kW] | 1,2 | 1,3 |
| Rated current | [A] | 5,8 | 6,6 |
| Maximum current | [A] | 7,2 | 8,3 |
| Power supply cable | [mm²] | 3 x 2,5 | 3 x 2,5 |
| Connection cable | [mm²] | 8 x 1,5 | 8 x 1,5 |
| Rated Airflow | [m3/h] | 750 | 1000 |
| Static pressure available (filter included) | [Pa] | 160 | 115 |
| Dimensions (LxDxh) | [mm] | 750x600x425 | 750x600x425 |
| Weight | [kg] | 62 | 64 |
| Dimensions air outlet (Ø) | [mm] | 250 | 250 |
| Dimensions air inlet (Ø) | [mm] | 250 | 250 |
| Condensate line | [mm] | 30 | 30 |
| Liquid line | [inch] | 1/4" | 1/4" |
| Suction line | [inch] | 3/8" | 1/2" |

*In heat pump mode, the outside air inflow T° should be at least -7°C and at maximum +20°C. The unit delivers the rated heating power with the rated airflow rate at the T° of +7°C. Below this value, the delivered heating power is lower than the rated heating power.*

*In cooling mode, the unit delivers its rated cooling power for an outside air inflow at the T° of + 35°C with an airflow rate equal to the rated airflow. The outside air inflow must be at a T° of +40°C max and +20°C min. The "winter start option" enables the unit to operate with an outside air temperature below +20°C.*

## Options

| | | Low Pressure Switch (LPS) | |
|---|---|---|---|
| | | WITHOUT | WITH |
| Winter start option | WITHOUT | CA | DA |
| | WITH | CB | DB |

***Low pressure switch (LPS):*** *stops the compressor in case of a too low pressure to protect the unit (lack of gas, leakage …).*

***Winter start option:*** *enables the unit to operate in cooling mode with a low outside air temperature (between +20°C and -5°C). It protects the unit against excessive cooling of the condenser.*

## Accessories

| Disconnecting switch | SET003YY |
|---|---|

***Disconnecting switch :*** *Ensures a mechanical separation of the unit from its power supply. Can be secured in open position with a padlock*

## Association with indoor units

| Size | | 09 | 14 |
|---|---|---|---|
| Wall mounted indoor units | Cf. p.36 | • | • |
| Console type indoor units | Cf. p.37 | | • |
| Ceiling Cassettes | Cf. p.38 | | • |
| Ductable indoor units | Cf. p.39 | • | • |

# Centrifugal Fan Split Systems

## FA Reversible Range

### FA



Direct Expansion

*The unit is installed inside the building. The outside air is led to the unit through ducts to evacuate the calories in cooling mode or to draw them in heating mode.*

**Indoor Units**

+ MI



+ CI



+ KI



+ GI





### Applications

- City centers (offices, shops, classified buildings, services, etc.).
- Industry.

### Product benefits

- No outdoor unit (only 2 grids).
- High static pressure allowing long distance ducting.
- No need to be against an exterior wall.
- Interchangeable air inlet and outlet positions (cf. p.17).
- ON/OFF: easy to maintain.
- Easy access for maintenance through removable panels.

**Build your PART NUMBER (P/N)**

| A | R | H | 2 | 0 | 1 | D | B |
|---|---|---|---|---|---|---|---|

MODEL CODE 6 characters — OPTIONS Pack 2 characters

*Don't forget to order the accessories you may need !*

### Refrigerant connections

- Max length: 20 m
- Max height difference: 5 m
- Preloaded for 4 m of refrigerant lines

*The power ratings indicated in the tables are "total power" and are delivered for an indoor air (indoor unit inflow) of +27°C / 50% RH (cooling mode) and +20°C (heating mode). Notice: the power available to cool down the inside air ("sensible power") equals the "total power" minus the power absorbed by the condensation of air moisture (condensate).*

# FA Reversible Range - Monosplits

## Centrifugal Fan Split Systems



R410A





| Size | - | 09 | 14 | 18 | 24 | 36 | 40 | 50 | 64 |
|---|---|---|---|---|---|---|---|---|---|
| Model | - | FA09R6 | FA14R6 | FA18R6 | FA24R6 | FA36R6 | FA40RY | FA50RY | FA64RY |
| Model code | - | ARH101 | ARH102 | ARH103 | ARH104 | ARH105 | ARH106 | ARH107 | ARH108 |
| Rated cooling power | [kW] | 2,5 | 3,3 | 5,0 | 7,0 | 8,8 | 9,5 | 12,3 | 14,0 |
| Rated heating power | [kW] | 2,7 | 3,9 | 6,0 | 8,0 | 9,5 | 10,3 | 13,4 | 15,5 |
| EER / COP | - | 2,25 / 2,94 | 2,44 / 3,89 | 2,42 / 3,14 | 2,51 / 3,12 | 2,00 / 2,47 | 2,38 / 2,78 | 2,32 / 2,77 | 2,06 / 2,62 |
| Electrical power supply | V-Ph-Hz | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 | 400-3-50+N | 400-3-50+N | 400-3-50+N |
| Rated absorbed electrical power | [kW] | 1,2 | 1,3 | 2,1 | 2,7 | 4,4 | 4,0 | 5,3 | 6,8 |
| Rated current | [A] | 6,0 | 6,8 | 10,7 | 12,7 | 21,5 | 9,7 | 12,8 | 14,8 |
| Maximum current | [A] | 7,1 | 8,2 | 12,5 | 14,9 | 28,0 | 14,0 | 13,8 | 19,3 |
| Power supply cable | [$mm^2$] | 3 x 1,5 | 3 x 2,5 | 3 x 2,5 | 3 x 4,0 | 3 x 6,0 | 5 x 4,0 | 5 x 4,0 | 5 x 4,0 |
| Connection cable | [$mm^2$] | 8 x 1,5 | 8 x 1,5 | 8 x 1,5 | 8 x 1,5 | 8 x 1,5 | 8 x 1,5 | 8 x 1,5 | 8 x 1,5 |
| Rated Airflow | [m3/h] | 1200 | 1400 | 2100 | 2100 | 2600 | 2700 | 3000 | 3500 |
| Static pressure available (without / with filter) | [Pa] | 150 / 100 | 150 / 100 | 220 / 120 | 150 / 100 | 230 / 160 | 190 / 120 | 200 / 120 | 150 / 100 |
| Dimensions (LxDxh) (1) | [mm] | 950x510x355 | 1120x630x450 | 1120x630x450 | 1520x900x550 | 1520x900x550 | 1520x900x550 | 1520x900x550 | 1520x900x550 |
| Weight | [kg] | 62 | 75 | 80 | 135 | 144 | 158 | 159 | 160 |
| Dimensions air outlet (Lxh) | [mm] | 245 x 230 | 245 x 230 | 310 x 270 | 345 x 300 | 320 x 350 | 320 x 350 | 345 x 300 | 320 x 350 |
| Dimensions air inlet (Lxh) | [mm] | 290 x 300 | 410 x 360 | 410 x 360 | 465 x 465 | 465 x 465 | 465 x 465 | 465 x 465 | 465 x 465 |
| Condensate line | [mm] | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| Liquid line - Suction line | [inch] | 1/4"-3/8" | 1/4"-1/2" | 1/4"-1/2" | 3/8"-5/8" | 3/8"-5/8" | 3/8"-3/4" | 3/8"-3/4" | 3/8"-3/4" |

*(1) Dimensions do not include protruding electrical box.*

*In heat pump mode, the outside air inflow T° should be at least -7°C and at maximum +20°C. The unit delivers the rated heating power with the rated airflow rate at the T° of +7°C. Below this value, the delivered heating power is lower than the rated heating power.*

*In cooling mode, the unit delivers its rated cooling power for an outside air inflow at the T° of + 35°C with an airflow rate equal to the rated airflow. The outside air inflow must be at a T° of +40°C max and +20°C min. The "winter start option" enables the unit to operate with an outside air temperature below +20°C.*

## Options

| | | WITHOUT Enhanced noise insulation | | WITH Enhanced noise insulation | |
|---|---|---|---|---|---|
| | | WITHOUT LPS | WITH LPS | WITHOUT LPS | WITH LPS |
| Winter start option | WITHOUT | AA | BA | CA | DA |
| | WITH | AB | BB | CB | DB |

***Low pressure switch (LPS):*** *stops the compressor in case of a too low pressure to protect the unit (lack of refrigerant gas, leakage …).*
***Enhanced noise insulation:*** *Soundproofing with high density absorbent insulation foam to reduce sound pressure.*

***Winter start option:*** *enables the unit to operate in cooling mode with a low outside air temperature (between +20°C and -5°C). It protects the unit against excessive cooling of the condenser.*

## Accessories

| Size | | 09 | 14 | 18 | 24 | 36 | 40 | 50 | 64 |
|---|---|---|---|---|---|---|---|---|---|
| Disconnecting switch | Code | SET003YY | | | | | SET004YY | | |
| Air filter and bracket | Code | SAT001YY | SAT002YY | | SAT003YY | | | | |
| Mounting brackets | Code | SMT007YY | SMT008YY | | SMT009YY | | | | |

***Disconnecting switch:*** *Ensures a mechanical separation of the unit from its power supply. Can be secured in open position with a padlock.*
***Air filter and bracket:*** *G3 filter and bracket for installation at the air intake of the unit to minimize fouling of the battery (recommended, cf p 17).*
***Mounting brackets:*** *Set of brackets to be mounted on the unit in order to suspend it to threaded rods.*

## Association with indoor units

| Size | | 09 | 14 | 18 | 24 | 36 | 40 | 50 | 64 |
|---|---|---|---|---|---|---|---|---|---|
| Wall mounted indoor units | Cf. p.36 | • | • | • | • | | | | |
| Console type indoor units | Cf. p.37 | | • | • | • | • | | | |
| Ceiling Cassettes | Cf. p.38 | | • | • | • | • | • | • | |
| Ductable indoor units | Cf. p.39 | • | • | • | • | • | • | • | • |

# FA Reversible Range - Bisplits
## Centrifugal Fan Split Systems



R410A





| Size | - | 209 | | 09-14 | | 09-18 | | 214 | | 14-18 | | 14-24 | | 218 | | 18-24 | | 224 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model | - | FA209R6 | | FA0914R6 | | FA0918R6 | | FA214R6 | | FA1418R6 | | FA1424R6 | | FA218R6 | | FA1824R6 | | FA224R6 | |
| Model code | - | ARH201 | | ARH202 | | ARH203 | | ARH204 | | ARH205 | | ARH206 | | ARH207 | | ARH208 | | ARH210 | |
| Size of each circuit | | 09 | 09 | 09 | 14 | 09 | 18 | 14 | 14 | 14 | 18 | 14 | 24 | 18 | 18 | 18 | 24 | 24 | 24 |
| Rated cooling power | [kW] | 2,5 | 2,5 | 2,5 | 3,3 | 2,5 | 5,0 | 3,3 | 3,3 | 3,3 | 5,0 | 3,3 | 7,0 | 5,0 | 5,0 | 5,0 | 7,0 | 7,0 | 7,0 |
| Rated heating power | [kW] | 2,7 | 2,7 | 2,7 | 3,9 | 2,7 | 6,0 | 3,9 | 3,9 | 3,9 | 6,0 | 3,9 | 8,0 | 6,0 | 6,0 | 6,0 | 8,0 | 8,0 | 8,0 |
| EER / COP | - | 2,25 / 2,94 | | 2,34 / 3,42 | | 2,48 / 3,27 | | 2,27 / 3,47 | | 2,34 / 3,28 | | 2,37 / 3,15 | | 2,44 / 3,15 | | 2,38 / 3,01 | | 2,42 / 3,00 | |
| Electrical power supply | V-Ph-Hz | 230-1-50 | | 230-1-50 | | 230-1-50 | | 230-1-50 | | 230-1-50 | | 230-1-50 | | 230-1-50 | | 230-1-50 | | 230-1-50 | |
| Rated absorbed electrical power | [kW] | 2,4 | | 2,5 | | 3,1 | | 2,9 | | 3,5 | | 4,2 | | 4,1 | | 4,9 | | 5,6 | |
| Rated current | [A] | 12,4 | | 13,0 | | 14,8 | | 14,4 | | 17,0 | | 20,7 | | 19,7 | | 23,5 | | 26,4 | |
| Maximum current | [A] | 14,5 | | 15,6 | | 16,9 | | 19,9 | | 22,0 | | 23,6 | | 25,4 | | 28,9 | | 32,4 | |
| Power supply cable | [mm²] | 3 x 4,0 | | 3 x 4,0 | | 3 x 4,0 | | 3 x 4,0 | | 3 x 6,0 | | 3 x 6,0 | | 3 x 6,0 | | 3 x 6,0 | | 3 x 6,0 | |
| Connection cable | [mm²] | 2 x (8 x 1,5) | | 2 x (8 x 1,5) | | 2 x (8 x 1,5) | | 2 x (8 x 1,5) | | 2 x (8 x 1,5) | | 2 x (8 x 1,5) | | 2 x (8 x 1,5) | | 2 x (8 x 1,5) | | 2 x (8 x 1,5) | |
| Rated Airflow | [m3/h] | 2100 | | 2200 | | 2000 | | 2600 | | 2700 | | 3000 | | 2700 | | 3500 | | 3500 | |
| Static pressure available (without / with filter) | [Pa] | 220 / 120 | | 200 / 100 | | 150 / 100 | | 230 / 160 | | 190 / 120 | | 200 / 120 | | 190 / 120 | | 150 / 100 | | 150 / 100 | |
| Dimensions (LxDxh) (1) | [mm] | 1120x630 x450 | | 1120x630 x450 | | 1520x900 x550 | | 1520x900 x550 | | 1520x900 x550 | | 1520x900 x550 | | 1520x900 x550 | | 1520x900 x550 | | 1520x900 x550 | |
| Weight | [kg] | 92 | | 96 | | 145 | | 140 | | 150 | | 152 | | 154 | | 157 | | 160 | |
| Dimensions air outlet (Lxh) | [mm] | 310 x 270 | | 310 x 270 | | 345 x 300 | | 320 x 350 | | 320 x 350 | | 345 x 300 | | 320 x 350 | | 320 x 350 | | 320 x 350 | |
| Dimensions air inlet (Lxh) | [mm] | 410 x 360 | | 410 x 360 | | 465 x 465 | | 465 x 465 | | 465 x 465 | | 465 x 465 | | 465 x 465 | | 465 x 465 | | 465 x 465 | |
| Condensate line | [mm] | 20 | | 20 | | 20 | | 20 | | 20 | | 20 | | 20 | | 20 | | 20 | |
| Liquid line | [inch] | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 3/8" | 1/4" | 1/4" | 1/4" | 3/8" | 3/8" | 3/8" |
| Suction line | [inch] | 3/8" | 3/8" | 3/8" | 1/2" | 3/8" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 5/8" | 1/2" | 1/2" | 1/2" | 5/8" | 5/8" | 5/8" |

*(1) Dimensions do not include protruding electrical box.*

*In heat pump mode, the outside air inflow T° should be at least -7°C and at maximum +20°C. The unit delivers the rated heating power with the rated airflow rate at the T° of +7°C. Below this value, the delivered heating power is lower than the rated heating power.*

*In cooling mode, the unit delivers its rated cooling power for an outside air inflow at the T° of + 35°C with an airflow rate equal to the rated airflow. The outside air inflow must be at a T° of +40°C max and +20°C min. The "winter start option" enables the unit to operate with an outside air temperature below +20°C.*

## Options

| | | WITHOUT Enhanced noise insulation | | WITH Enhanced noise insulation | |
|---|---|---|---|---|---|
| | | WITHOUT LPS | WITH LPS | WITHOUT LPS | WITH LPS |
| Winter start option | WITHOUT | AA | BA | CA | DA |
| | WITH | AB | BB | CB | DB |

***Low pressure switch (LPS):*** *stops the compressor in case of a too low pressure to protect the unit (lack of refrigerant gas, leakage …).*

***Enhanced noise insulation:*** *Soundproofing with high density absorbent insulation foam to reduce sound pressure.*

***Winter start option:*** *enables the unit to operate in cooling mode with a low outside air temperature (between +20°C and -5°C). It protects the unit against excessive cooling of the condenser.*

## Accessories

| Size | | 209 | 09-14 | 09-18 | 214 | 14-18 | 14-24 | 218 | 18-24 | 224 |
|---|---|---|---|---|---|---|---|---|---|---|
| Disconnecting switch | Code | SET003YY | | | | | | | | |
| Air filter and bracket | Code | SAT002YY | | SAT003YY | | | | | | |
| Mounting brackets | Code | SMT008YY | | SMT009YY | | | | | | |

***Disconnecting switch:*** *Ensures a mechanical separation of the unit from its power supply. Can be secured in open position with a padlock.*

***Air filter and bracket:*** *G3 filter and bracket for installation at the air intake of the unit to minimize fouling of the battery (recommended, cf p 17).*

***Mounting brackets:*** *Set of brackets to be mounted on the unit in order to suspend it to threaded rods.*

## Association with indoor units

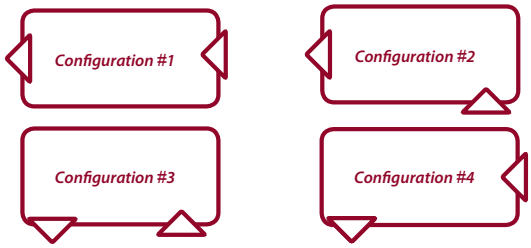
*The indoor units are associated depending on the size of each circuit in the same way as for the mono circuits FA. Refer to the table page 15 (FA - Reversible - monosplits).*

# FA & OPTIMUM Centrifugal Fan Split Systems
## Information & Precautions

### > Airflow configurations

For maximum flexibility in installation inside the building, the panels of the FA centrifugal fan condensing units are interchangeable. Four airflow configurations are possible, offering various positions for the air inlet and air outlet to which ducts must be connected (see sketch beside). Remember to specify the configuration you want, while you place your order. Without specific indication, we manufacture the machine in configuration # 1. It is always possible to change the configuration after delivery. This operation must be performed before installation according to a procedure available on request.

**Configurations: air inlet and outlet (top view sketch)**




### > Air filter option

We recommend using an air filter for reversible centrifugal units. Indeed, in heating mode, the heat exchanger of the units functions as an evaporator and produces condensation water which agglomerates dust and accelerates fouling. In order to limit this effect, we recommend using the G3 class filter option proposed for the FA units. If the external environment is dusty, the filter option may be also needed for cooling only units (not reversible units).

Notice: OPTIMUM centrifugal units are reversible and include G2 air filter as a standard feature.

### > Air inlet temperature (cooling mode)

The FA and OPTIMUM condensing units are designed to operate in cooling mode with an outside air at a minimum temperature of +20°C and up to +40°C.
A too high outdoor temperature leads to a loss of performance, a premature compressor wear and possibly a HP pressure switch cut-out.
A too low outside temperature would result in operational problems and even premature breakage of the compressor. When the outside air is a too cold, there is too much sub-cooling of the condenser. This causes the HP to be a too low pressure and the compressor to be operated outside its operating envelope. However, the "winter start option" enables the FA unit to operate in cooling mode with an outside air temperature below 20°C.

The minimum and maximum values of + 20°C and +40°C are given for an air flow rate to equal to the rated air flow of the machine. These values vary with a higher or lower air flow rate. Contact us if necessary.

### > Air inlet temperature (heating mode)

In heating mode, the reversible FA condensing units and the OPTIMUM units are designed to operate while sucking the outside air at a minimum temperature of -7°C and up to + 20°C.
Operation outside this range will result in operational problems, premature wear or breakage of the compressor and possibly a HP pressure switch cut-out.
As for the cooling mode, the minimum and maximum values are given for an air flow rate equal to the rated air flow of the machine.

### > Winter start option

The winter start option enables the cooling mode to be operated in spring, autumn or winter, when the outside air is below +20°C. It avoids an excessive sub-cooling of the condenser by adjusting the rotation speed of the fan, thus adapting the airflow to maintain the condensing temperature at an optimum value.

### > Applications for industry sector

Sizes 40, 50 and 64 of the FA range are powered by three-phase current with neutral. They are especially suitable for applications in the industry sector. If required, we can adapt the units to be powered by three-phase supply with no neutral.

### > Aeraulics and Ducting: Precautions

In cooling mode, the FA and OPTIMUM centrifugal units evacuate calories in an outside air flow in cooling mode (respectively capture calories in heating mode). The unit is ducted to lead the outside air to the unit and discharge it outside. The centrifugal blower of the unit provides a high static pressure of 100 up to 230 Pa according to the model (see data tables) which allows ducts lengths up to about 5 m (both suction and discharge), if the ducts sections are observed.
Nevertheless, it is necessary to make sure that the total aeraulic pressure drop of the grids, suction and discharge ducts, as well as the air filter (if any), is compatible with the rated air flow rated required for normal operation of the unit.
It is also recommended to ensure that the positioning of the intake and discharge grids does not induce a recirculation of discharged air in the suction.
It is possible not to duct the air in flow, should the unit be installed in a very large volume which has no communication with the air conditioned volume.

# Centrifugal Fan Split Systems

## FA Cooling only Range

### FA



**The unit is installed inside the building. The outside air is led to the unit through ducts to evacuate the calories.**

Direct Expansion

*Indoor Units*

+ **MI**



+ **CI**



+ **KI**



+ **GI**





### Applications

- City centers (offices, shops, classified buildings, services, etc.).
- Industry.

### Product benefits

- No outdoor unit (only 2 grids).
- High static pressure allowing long distance ducting.
- No need to be against an exterior wall.
- Interchangeable air inlet and outlet positions (cf. p.17).
- ON/OFF: easy to maintain.
- Easy access for maintenance through removable panels.

**Build your PART NUMBER (P/N)**

| A | Q | H | 1 | 0 | 3 | B | A |
|---|---|---|---|---|---|---|---|

MODEL CODE 6 characters | OPTIONS Pack 2 characters

*Don't forget to order the accessories you may need !*

### Refrigerant connections

- Max length: 20 m
- Max height difference: 5 m
- Preloaded for 4 m of refrigerant lines

*The power ratings indicated in the tables are "total power" and are delivered for an indoor air (indoor unit inflow) of +27°C / 50% RH (cooling mode). Notice: the power available to cool down the inside air (''sensible power'') equals the ''total power'' minus the power absorbed by the condensation of air moisture (condensate).*

R410A





| Size | - | 09 | 14 | 18 | 24 | 36 | 40 | 50 | 64 |
|---|---|---|---|---|---|---|---|---|---|
| Model | - | FA09Q6 | FA14Q6 | FA18Q6 | FA24Q6 | FA36Q6 | FA40QY | FA50QY | FA64QY |
| Model code | - | AQH101 | AQH102 | AQH103 | AQH104 | AQH105 | AQH106 | AQH107 | AQH108 |
| Rated cooling power | [kW] | 2,50 | 3,30 | 5,00 | 7,00 | 8,80 | 9,50 | 12,30 | 14,00 |
| EER | - | 2,25 | 2,44 | 2,42 | 2,51 | 2,00 | 2,38 | 2,32 | 2,06 |
| Electrical power supply | V-Ph-Hz | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 | 400-3-50+N | 400-3-50+N | 400-3-50+N |
| Rated absorbed electrical power | [kW] | 1,2 | 1,3 | 2,1 | 2,7 | 4,4 | 4,0 | 5,3 | 6,8 |
| Rated current | [A] | 6,0 | 6,8 | 10,7 | 12,7 | 21,5 | 9,7 | 12,8 | 14,8 |
| Maximum current | [A] | 7,1 | 8,2 | 12,5 | 14,9 | 28,0 | 14,0 | 13,8 | 19,3 |
| Power supply cable | [mm²] | 3 x 1,5 | 3 x 2,5 | 3 x 2,5 | 3 x 4,0 | 3 x 6,0 | 5 x 4,0 | 5 x 4,0 | 5 x 4,0 |
| Connection cable (2) | [mm²] | 5 x 1,5 | 5 x 1,5 | 5 x 1,5 | 5 x 1,5 | 5 x 1,5 | 5 x 1,5 | 5 x 1,5 | 5 x 1,5 |
| Rated Airflow | [m3/h] | 1200 | 1400 | 2100 | 2100 | 2600 | 2700 | 3000 | 3500 |
| Static pressure available (without / with filter) | [Pa] | 190 / 110 | 170 / 110 | 230 / 130 | 160 / 100 | 240 / 170 | 230 / 150 | 220 / 130 | 210 / 110 |
| Dimensions (LxDxh) (1) | [mm] | 950x510x355 | 1120x630x450 | 1120x630x450 | 1520x900x550 | 1520x900x550 | 1520x900x550 | 1520x900x550 | 1520x900x550 |
| Weight | [kg] | 61 | 74 | 79 | 134 | 143 | 157 | 158 | 159 |
| Dimensions air outlet (Lxh) | [mm] | 245 x 230 | 245 x 230 | 310 x 270 | 345 x 300 | 320 x 350 | 320 x 350 | 345 x 300 | 320 x 350 |
| Dimensions air inlet (Lxh) | [mm] | 290 x 300 | 410 x 360 | 410 x 360 | 465 x 465 | 465 x 465 | 465 x 465 | 465 x 465 | 465 x 465 |
| Liquid line - Suction line | [inch] | 1/4"-3/8" | 1/4"-1/2" | 1/4"-1/2" | 3/8"-5/8" | 3/8"-5/8" | 3/8"-3/4" | 3/8"-3/4" | 3/8"-3/4" |

(1) Dimensions do not include protruding electrical box.
(2) The cables type and gauge are indicative. They correspond to an installation with a LTB indoor unit without electrical heating option.

The unit delivers its rated cooling power for an outside air inflow at the T° of + 35°C with an airflow rate equal to the rated airflow. The outside air inflow must be at a T° of +40°C max and +20°C min. The "winter start option" enables the unit to operate with an outside air temperature below +20°C.

## Options

| | | WITHOUT Enhanced noise insulation | | WITH Enhanced noise insulation | |
|---|---|---|---|---|---|
| | | WITHOUT LPS | WITH LPS | WITHOUT LPS | WITH LPS |
| Winter start option | WITHOUT | AA | BA | CA | DA |
| | WITH | AB | BB | CB | DB |

**Low pressure switch (LPS):** stops the compressor in case of a too low pressure to protect the unit (lack of refrigerant gas, leakage …).
**Enhanced noise insulation:** Soundproofing with high density absorbent insulation foam to reduce sound pressure.
**Winter start option:** enables the unit to operate in cooling mode with a low outside air temperature (between +20°C and -5°C). It protects the unit against excessive cooling of the condenser.

## Accessories

| Size | | 09 | 14 | 18 | 24 | 36 | 40 | 50 | 64 |
|---|---|---|---|---|---|---|---|---|---|
| Disconnecting switch | Code | SET003YY | | | | | SET004YY | | |
| Air filter and bracket | Code | SAT001YY | SAT002YY | | SAT003YY | | | | |
| Mounting brackets | Code | SMT007YY | SMT008YY | | SMT009YY | | | | |

**Disconnecting switch:** Ensures a mechanical separation of the unit from its power supply. Can be secured in open position with a padlock.
**Air filter and bracket:** G3 filter and bracket for installation at the air intake of the unit to minimize fouling of the battery .
**Mounting brackets:** Set of brackets to be mounted on the unit in order to suspend it to threaded rods.

## Association with indoor units

| Size | | 09 | 14 | 18 | 24 | 36 | 40 | 50 | 64 |
|---|---|---|---|---|---|---|---|---|---|
| Wall mounted indoor units | Cf. p.36 | • | • | • | • | | | | |
| Console type indoor units | Cf. p.37 | | • | • | • | • | | | |
| Ceiling Cassettes | Cf. p.38 | | • | • | • | • | • | • | |
| Ductable indoor units | Cf. p.39 | • | • | • | • | • | • | • | • |

# FA Cooling only Range - Bisplits

## Centrifugal Fan Split Systems



R410A





| Size | - | 209 | | 09-14 | | 09-18 | | 214 | | 14-18 | | 14-24 | | 218 | | 18-24 | | 224 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model | | FA209Q6 | | FA0914Q6 | | FA0918Q6 | | FA214Q6 | | FA1418Q6 | | FA1424Q6 | | FA218Q6 | | FA1824Q6 | | FA224Q6 | |
| Model code | | AQH201 | | AQH202 | | AQH203 | | AQH204 | | AQH205 | | AQH206 | | AQH207 | | AQH208 | | AQH210 | |
| Size of each circuit | | 09 | 09 | 09 | 14 | 09 | 18 | 14 | 14 | 14 | 18 | 14 | 24 | 18 | 18 | 18 | 24 | 24 | 24 |
| Rated cooling power | [kW] | 2,5 | 2,5 | 2,5 | 3,3 | 2,5 | 5,0 | 3,3 | 3,3 | 3,3 | 5,0 | 3,3 | 7,0 | 5,0 | 5,0 | 5,0 | 7,0 | 7,0 | 7,0 |
| EER | - | 2,25 | | 2,34 | | 2,48 | | 2,27 | | 2,34 | | 2,37 | | 2,44 | | 2,38 | | 2,42 | |
| Electrical power supply | V-Ph-Hz | 230-1-50 | | 230-1-50 | | 230-1-50 | | 230-1-50 | | 230-1-50 | | 230-1-50 | | 230-1-50 | | 230-1-50 | | 230-1-50 | |
| Rated absorbed electr. power | [kW] | 2,4 | | 2,5 | | 3,1 | | 2,9 | | 3,5 | | 4,2 | | 4,1 | | 4,9 | | 5,6 | |
| Rated current | [A] | 12,4 | | 13,0 | | 14,8 | | 14,4 | | 17,0 | | 20,7 | | 19,7 | | 23,5 | | 26,4 | |
| Maximum current | [A] | 14,5 | | 15,6 | | 16,9 | | 19,9 | | 22,0 | | 23,6 | | 25,4 | | 28,9 | | 32,4 | |
| Power supply cable | [mm²] | 3 x 4,0 | | 3 x 4,0 | | 3 x 4,0 | | 3 x 4,0 | | 3 x 6,0 | | 3 x 6,0 | | 3 x 6,0 | | 3 x 6,0 | | 3 x 6,0 | |
| Connection cable (2) | [mm²] | 2 x (5 x 1,5) | | 2 x (5 x 1,5) | | 2 x (5 x 1,5) | | 2 x (5 x 1,5) | | 2 x (5 x 1,5) | | 2 x (5 x 1,5) | | 2 x (5 x 1,5) | | 2 x (5 x 1,5) | | 2 x (5 x 1,5) | |
| Rated Airflow | [m3/h] | 2100 | | 2200 | | 2000 | | 2600 | | 2700 | | 3000 | | 2700 | | 3500 | | 3500 | |
| Static pressure available (without / with filter) | [Pa] | 230 / 130 | | 220 / 120 | | 160 / 110 | | 250 / 180 | | 230 / 150 | | 260 / 170 | | 230 / 150 | | 210 / 110 | | 210 / 110 | |
| Dimensions (LxDxh) (1) | [mm] | 1120x630 x450 | | 1120x630 x450 | | 1520x900 x550 | | 1520x900 x550 | | 1520x900 x550 | | 1520x900 x550 | | 1520x900 x550 | | 1520x900 x550 | | 1520x900 x550 | |
| Weight | [kg] | 91 | | 95 | | 144 | | 139 | | 149 | | 151 | | 153 | | 156 | | 159 | |
| Dimensions air outlet (Lxh) | [mm] | 310 x 270 | | 310 x 270 | | 345 x 300 | | 320 x 350 | | 320 x 350 | | 345 x 300 | | 320 x 350 | | 320 x 350 | | 320 x 350 | |
| Dimensions air inlet (Lxh) | [mm] | 410 x 360 | | 410 x 360 | | 465 x 465 | | 465 x 465 | | 465 x 465 | | 465 x 465 | | 465 x 465 | | 465 x 465 | | 465 x 465 | |
| Liquid line | [inch] | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 3/8" | 1/4" | 1/4" | 1/4" | 3/8" | 3/8" | 3/8" |
| Suction line | [inch] | 3/8" | 3/8" | 3/8" | 1/2" | 3/8" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 5/8" | 1/2" | 1/2" | 1/2" | 5/8" | 5/8" | 5/8" |

(1) Dimensions do not include protruding electrical box.

(2) The cables type and gauge are indicative. They correspond to an installation with a LTB indoor unit without electrical heating option.

The unit delivers its rated cooling power for an outside air inflow at the T° of + 35°C with an airflow rate equal to the rated airflow. The outside air inflow must be at a T° of +40°C max and +20°C min. The "winter start option" enables the unit to operate with an outside air temperature below +20°C.

## Options

| | | WITHOUT Enhanced noise insulation | | WITH Enhanced noise insulation | |
|---|---|---|---|---|---|
| | | WITHOUT LPS | WITH LPS | WITHOUT LPS | WITH LPS |
| Winter start option | WITHOUT | AA | BA | CA | DA |
| | WITH | AB | BB | CB | DB |

**Low pressure switch (LPS)**: stops the compressor in case of a too low pressure to protect the unit (lack of refrigerant gas, leakage …).

**Enhanced noise insulation**: Soundproofing with high density absorbent insulation foam to reduce sound pressure.

**Winter start option:** enables the unit to operate in cooling mode with a low outside air temperature (between +20°C and -5°C). It protects the unit against excessive cooling of the condenser.

## Accessories

| Size | | 209 | 09-14 | 09-18 | 214 | 14-18 | 14-24 | 218 | 18-24 | 224 |
|---|---|---|---|---|---|---|---|---|---|---|
| Disconnecting switch | Code | SET003YY | | | | | | | | |
| Air filter and bracket | Code | SAT002YY | | SAT003YY | | | | | | |
| Mounting brackets | Code | SMT008YY | | SMT009YY | | | | | | |

**Disconnecting switch:** Ensures a mechanical separation of the unit from its power supply. Can be secured in open position with a padlock.

**Air filter and bracket:** G3 filter and bracket for installation at the air intake of the unit to minimize fouling of the battery .

**Mounting brackets:** Set of brackets to be mounted on the unit in order to suspend it to threaded rods.

## Association with indoor units

The indoor units are associated depending on the size of each circuit in the same way as for the mono circuits FA. Refer to the table page 19 (FA - Cooling only - monosplits).

# FA Cooling only Range - Trisplits

## Centrifugal Fan Split Systems

> TRISPLITS



R410A



| Size | - | 309 | | | 209-14 | | | 09-214 | | | 209-18 | | | 09-14-18 | | | 09-218 | | | 314 | | | 214-18 | | | 14-218 | | | 318 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model | | FA309Q6 | | | FA20914Q6 | | | FA09214Q6 | | | FA20918Q6 | | | FA091418Q6 | | | FA09218Q6 | | | FA314Q6 | | | FA21418Q6 | | | FA14218Q6 | | | FA318Q6 | | |
| Model code | | AQH301 | | | AQH302 | | | AQH303 | | | AQH304 | | | AQH305 | | | AQH306 | | | AQH307 | | | AQH308 | | | AQH309 | | | AQH310 | | |
| Size of each circuit | | 09 | 09 | 09 | 09 | 09 | 14 | 09 | 14 | 14 | 09 | 09 | 18 | 09 | 14 | 18 | 09 | 18 | 18 | 14 | 14 | 14 | 14 | 14 | 18 | 14 | 18 | 18 | 18 | 18 | 18 |
| Rated cooling power | [kW] | 2,5 | 2,5 | 2,5 | 2,5 | 2,5 | 3,3 | 2,5 | 3,3 | 3,3 | 2,5 | 2,5 | 5,0 | 2,5 | 3,3 | 5,0 | 2,5 | 5,0 | 5,0 | 3,3 | 3,3 | 3,3 | 3,3 | 3,3 | 5,0 | 3,3 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 |
| EER | - | 2,38 | | | 2,23 | | | 2,29 | | | 2,25 | | | 2,32 | | | 2,39 | | | 2,41 | | | 2,35 | | | 2,43 | | | 2,22 | | |
| Electrical power supply | V-Ph-Hz | 230-1-50 | | | 230-1-50 | | | 230-1-50 | | | 230-1-50 | | | 230-1-50 | | | 230-1-50 | | | 230-1-50 | | | 230-1-50 | | | 230-1-50 | | | 230-1-50 | | |
| Rated absorbed electrical power | [kW] | 3,4 | | | 3,8 | | | 4,0 | | | 4,6 | | | 4,7 | | | 5,3 | | | 4,1 | | | 4,8 | | | 5,4 | | | 6,0 | | |
| Rated current | [A] | 16,5 | | | 18,8 | | | 19,4 | | | 22,5 | | | 23,0 | | | 25,7 | | | 20,0 | | | 23,6 | | | 26,3 | | | 28,9 | | |
| Maximum current | [A] | 18,9 | | | 24,0 | | | 25,1 | | | 27,4 | | | 28,5 | | | 30,9 | | | 26,2 | | | 29,6 | | | 32,0 | | | 34,4 | | |
| Power supply cable | [mm²] | 3 x 4,0 | | | 3 x 6,0 | | | 3 x 6,0 | | | 3 x 6,0 | | | 3 x 6,0 | | | 3 x 6,0 | | | 3 x 6,0 | | | 3 x 6,0 | | | 3 x 6,0 | | | 3 x 6,0 | | |
| Connection cable (2) | [mm²] | 3 x (5 x 1,5) | | | 3 x (5 x 1,5) | | | 3 x (5 x 1,5) | | | 3 x (5 x 1,5) | | | 3 x (5 x 1,5) | | | 3 x (5 x 1,5) | | | 3 x (5 x 1,5) | | | 3 x (5 x 1,5) | | | 3 x (5 x 1,5) | | | 3 x (5 x 1,5) | | |
| Rated Airflow | [m3/h] | 2000 | | | 2700 | | | 2700 | | | 3500 | | | 3500 | | | 3500 | | | 2700 | | | 3500 | | | 3500 | | | 3500 | | |
| Static pressure available (without / with filter) | [Pa] | 160 / 100 | | | 220 / 140 | | | 220 / 140 | | | 210 / 110 | | | 210 / 110 | | | 210 / 110 | | | 220 / 140 | | | 210 / 110 | | | 210 / 110 | | | 210 / 110 | | |
| Dimensions (LxDxh) (1) | [mm] | 1520x900 x550 | | | 1520x900 x550 | | | 1520x900 x550 | | | 1520x900 x550 | | | 1520x900 x550 | | | 1520x900 x550 | | | 1520x900 x550 | | | 1520x900 x550 | | | 1520x900 x550 | | | 1520x900 x550 | | |
| Weight | [kg] | 156 | | | 158 | | | 160 | | | 163 | | | 165 | | | 169 | | | 162 | | | 167 | | | 171 | | | 175 | | |
| Dimensions air outlet (Lxh) | [mm] | 345 x 300 | | | 320 x 350 | | | 320 x 350 | | | 320 x 350 | | | 320 x 350 | | | 320 x 350 | | | 320 x 350 | | | 320 x 350 | | | 320 x 350 | | | 320 x 350 | | |
| Dimensions air inlet (Lxh) | [mm] | 465 x 465 | | | 465 x 465 | | | 465 x 465 | | | 465 x 465 | | | 465 x 465 | | | 465 x 465 | | | 465 x 465 | | | 465 x 465 | | | 465 x 465 | | | 465 x 465 | | |
| Liquid line | [inch] | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" |
| Suction line | [inch] | 3/8" | 3/8" | 3/8" | 3/8" | 3/8" | 1/2" | 3/8" | 1/2" | 1/2" | 3/8" | 3/8" | 1/2" | 3/8" | 1/2" | 1/2" | 3/8" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" |

*(1) Dimensions do not include protruding electrical box.*

*(2) The cables type and gauge are indicative. They correspond to an installation with a LTB indoor unit without electrical heating option.*

*The unit delivers its rated cooling power for an outside air inflow at the T° of + 35°C with an airflow rate equal to the rated airflow. The outside air inflow must be at a T° of +40°C max and +20°C min. The "winter start option" enables the unit to operate with an outside air temperature below +20°C.*

## Options

| | | WITHOUT Enhanced noise insulation | | WITH Enhanced noise insulation | |
|---|---|---|---|---|---|
| | | WITHOUT LPS | WITH LPS | WITHOUT LPS | WITH LPS |
| Winter start option | WITHOUT | AA | BA | CA | DA |
| | WITH | AB | BB | CB | DB |

***Low pressure switch (LPS)**: stops the compressor in case of a too low pressure to protect the unit (lack of refrigerant gas, leakage ….).*

***Enhanced noise insulation:** Soundproofing with high density absorbent insulation foam to reduce sound pressure.*

***Winter start option:** enables the unit to operate in cooling mode with a low outside air temperature (between +20°C and -5°C). It protects the unit against excessive cooling of the condenser.*

## Accessories

| Size | | 309 | 209-14 | 09-214 | 209-18 | 09-14-18 | 09-218 | 314 | 214-18 | 14-218 | 318 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Disconnecting switch | Code | SET003YY | | | | | | | | | |
| Air filter and bracket | Code | SAT003YY | | | | | | | | | |
| Mounting brackets | Code | SMT009YY | | | | | | | | | |

***Disconnecting switch:** Ensures a mechanical separation of the unit from its power supply. Can be secured in open position with a padlock.*

***Air filter and bracket :** G3 filter and bracket for installation at the air intake of the unit to minimize fouling of the battery .*

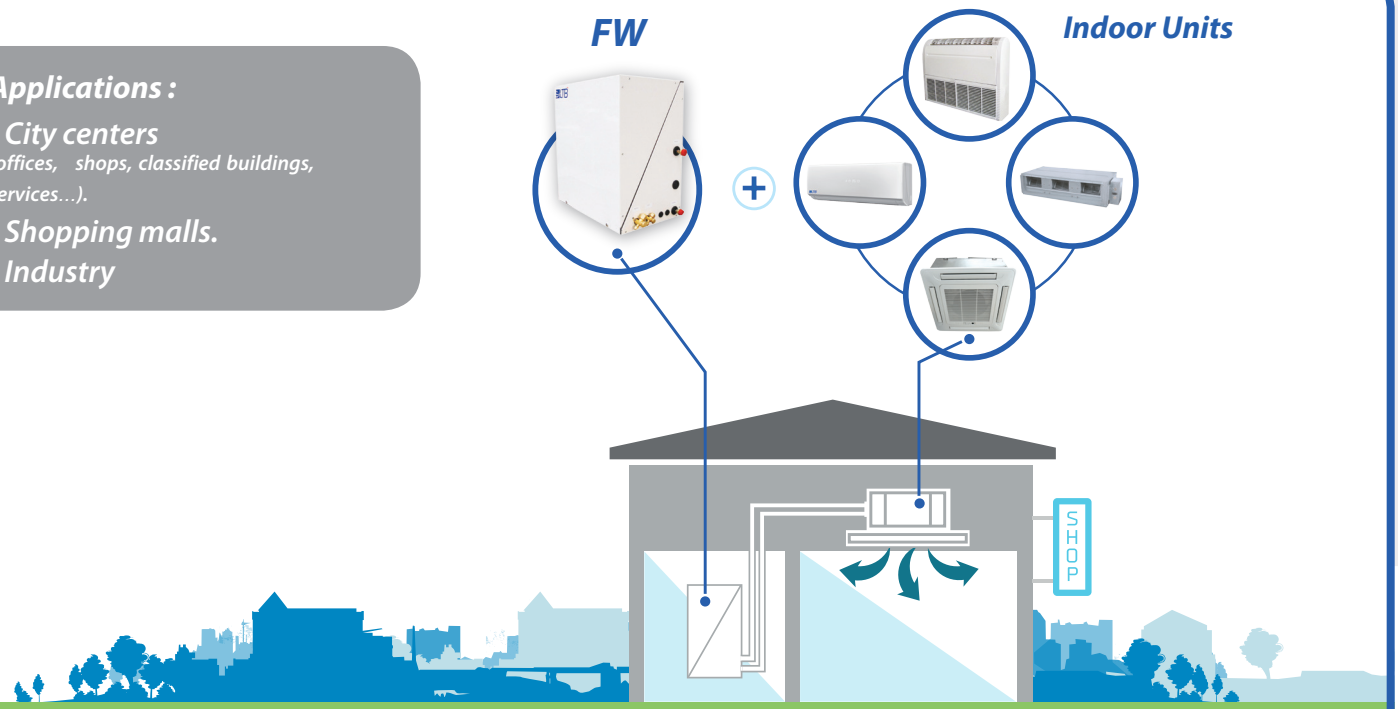
***Mounting brackets:** Set of brackets to be mounted on the unit in order to suspend it to threaded rods.*

## Association with indoor units

*The indoor units are associated depending on the size of each circuit in the same way as for the mono circuits FA. Refer to the table page 19 (FA - Cooling only - monosplits).*

**Applications :**

- *City centers*
  *(offices, shops, classified buildings, services...).*
- *Shopping malls.*
- *Industry*






# FW range
## Water-cooled condenser Split System - NEO


Cooling only range.....p. 24

Cooling only - Monosplits .....p. 25

Cooling only - Bisplits.....p. 26

Cooling only - Trisplits.....p. 27





Reversible range.....p. 28

Reversible - Monosplits.....p. 29

Reversible - Bisplits .....p. 30





FW Cooling only - Monosplits R513A ..... p. 31

Information & Precautions.....p. 32-33

Functional diagram for installing FW + indoor unit .....p. 8

# Water-cooled condenser Split System - NEO

## Cooling only Range

The most water-efficient on the market !

### FW



Direct Expansion

**The unit is installed inside the building.**
**Calories are evacuated in a flow of water.**

Indoor Units

⊕ MI



⊕ CI



⊕ KI



⊕ GI





### Applications

- City centers (offices, shops, classified buildings, services, etc.).
- Shopping malls
- Industry.

### Product benefits

- No outdoor unit.
- No grid on the facade of the building
- Small-sized and easy to install.
- ON/OFF : easy to maintain.
- The most water-efficient of the market.
- Included as standard feature: Pressostatic water valve.

**Build your PART NUMBER (P/N)**

| W | Q | F | 1 | 0 | 4 | B | H |
|---|---|---|---|---|---|---|---|

MODEL CODE 6 characters — OPTIONS Pack 2 characters

Don't forget to order the accessories you may need !

### Refrigerant connections

- Max length : 20 m.
- Max height difference : 5 m.
- Preloaded for 4 m of refrigerant lines.

The power ratings indicated in the tables are "total power" and are delivered for an indoor air (indoor unit inflow) of +27°C / 50% RH (cooling mode). Notice: the power available to cool down the inside air ("sensible power") equals the "total power" minus the power absorbed by the condensation of air moisture (condensate).

R407C





| Size | | 07 | 09 | 14 | 18 | 24 | 36 | 40 | 50 | 64 | 80 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Model | | FW07Q6 | FW09Q6 | FW14Q6 | FW18Q6 | FW24Q6 | FW36Q6 | FW40QY | FW50QY | FW64QY | FW80QY |
| Model code | | WQF101 | WQF102 | WQF103 | WQF104 | WQF105 | WQF106 | WQF107 | WQF108 | WQF109 | WQF110 |
| Rated cooling power (1) | [kW] | 2,0 | 2,5 | 3,3 | 5,0 | 7,0 | 8,8 | 9,5 | 12,3 | 14,0 | 17,5 |
| EER | - | 2,85 | 2,95 | 2,95 | 3,12 | 3,68 | 3,14 | 3,65 | 3,85 | 3,58 | 3,80 |
| Electrical power supply | V-Ph-Hz | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 | 400-3-50 +N | 400-3-50 +N | 400-3-50 +N | 400-3-50 +N |
| Rated absorbed electrical power | [kW] | 0,7 | 0,8 | 1,1 | 1,6 | 1,9 | 2,8 | 2,6 | 3,2 | 3,9 | 4,6 |
| Rated current | [A] | 3,8 | 4,5 | 5,7 | 8,5 | 9,3 | 13,2 | 5,2 | 5,7 | 7,0 | 8,2 |
| Maximum current | [A] | 4,1 | 4,7 | 6,6 | 8,8 | 11,0 | 14,6 | 7,3 | 8,4 | 10,5 | 12,4 |
| Power supply cable | [mm²] | 3 x 1,5 | 3 x 1,5 | 3 x 1,5 | 3 x 2,5 | 3 x 2,5 | 3 x 4,0 | 5 x 2,5 | 5 x 2,5 | 5 x 2,5 | 5 x 2,5 |
| Connection cable (4) | [mm²] | 4 x 1,5 | 4 x 1,5 | 4 x 1,5 | 4 x 1,5 | 4 x 1,5 | 4 x 1,5 | 4 x 1,5 | 4 x 1,5 | 4 x 1,5 | 4 x 1,5 |
| Dimensions (LxDxh) | [mm] | 600x310 x430 | 600x310 x430 | 600x310 x430 | 600x310 x430 | 600x310 x430 | 600x360 x630 | 800x360 x630 | 800x360 x630 | 800x360 x630 | 800x360 x630 |
| Weight | [kg] | 33 | 34 | 37 | 41 | 42 | 55 | 70 | 72 | 75 | 78 |
| Sound pressure (at 1m) | [dB(A)] | 47 | 47 | 47 | 48 | 49 | 49 | 49 | 49 | 49 | 50 |
| Liquid line - Suction line | [inch] | 1/4"-3/8" | 1/4"-3/8" | 1/4"-1/2" | 1/4"-1/2" | 3/8"-5/8" | 3/8"-5/8" | 3/8"-3/4" | 3/8"-3/4" | 3/8"-3/4" | 3/8"-3/4" |
| Water connection | [inch] | 1/2" | 1/2" | 1/2" | 1/2" | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" |
| Rated water flow for a T° of +15°C (2) | [L/h] | 80 | 100 | 120 | 180 | 270 | 430 | 425 | 520 | 600 | 780 |
| Rated water flow for a T° of +30°C (2) | [L/h] | 180 | 230 | 240 | 420 | 1000 | 2000 | 2300 | 2400 | 2700 | 2900 |
| Maximum inlet water T° (3) | [°C] | +46 | +45 | +47 | +45 | +43 | +42 | +43 | +42 | +45 | +42 |

(1) The unit delivers its rated cooling power for a water flow rate which depends on the inlet water temperature. The table indicates both the rated flow for a water inlet temperature of +15°C and of +30°C.
(2) If the water inlet temperature is more than +30°C, please contact us.
(3) The proper operation of the equipment is not guaranteed beyond the maximum water inlet temperature. This can, among others, cause premature wear of the compressor.
(4) The cables type and gauge are indicative. They correspond to an installation with a LTB indoor unit without electrical heating option.

## Options

| | | WITHOUT LPS | WITH LPS |
|---|---|---|---|
| Enhanced noise insulation | WITHOUT | AH | BH |
| | WITH | CH | DH |

**Low pressure switch (LPS):** stops the compressor in case of a too low pressure to protect the unit (lack of refrigerant gas, leakage …).
**Enhanced noise insulation:** Soundproofing with high density absorbent insulation foam to reduce sound pressure.

## Accessories

| Size | | 07 | 09 | 14 | 18 | 24 | 36 | 40 | 50 | 64 | 80 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Disconnecting switch | Code | SET001YY | | | | | | SET002YY | | | |
| Water filter | Code | SWT001YY | | | | SWT002YY | | | | | |
| Water hoses set | Code | SWT004YY | | | | SWT005YY | | | | | |

**Disconnecting switch:** ensures a mechanical separation of the unit from its power supply. Can be secured in open position with a padlock.
**Water filter:** Stainless steel PN16 sieve filter, to be connected to the water inlet of the condensing unit.

## Association with indoor units

| Size | | 07 | 09 | 14 | 18 | 24 | 36 | 40 | 50 | 64 | 80 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Wall mounted units | Cf. p.36 | • | • | • | • | • | | | | | |
| Consoles | Cf. p.37 | | | • | • | • | • | | | | |
| Cassettes | Cf. p.38 | | | • | • | • | • | • | • | | |
| Ducted units | Cf. p.39 | • | • | • | • | • | • | • | • | • | • |

# FW Cooling only Range - Bisplits - NEO

## Water-cooled condensing Units



R407C





| Size | | 209 | 09-14 | 214 | 09-18 | 14-18 | 14-24 | 218 | 18-24 | 18-36 | 224 | 24-36 | 236 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model | | FW209Q6 | FW0914Q6 | FW214Q6 | FW0918Q6 | FW1418Q6 | FW1424Q6 | FW218Q6 | FW1824Q6 | FW1836Q6 | FW224Q6 | FW2436Q6 | FW236Q6 |
| Model code | | WQF201 | WQF202 | WQF204 | WQF203 | WQF205 | WQF206 | WQF207 | WQF208 | WQF209 | WQF210 | WQF211 | WQF212 |
| Size of each circuit | | 09 \| 09 | 09 \| 14 | 14 \| 14 | 09 \| 18 | 14 \| 18 | 14 \| 24 | 18 \| 18 | 18 \| 24 | 18 \| 36 | 24 \| 24 | 24 \| 36 | 36 \| 36 |
| Rated cooling power (1) | [kW] | 2,5 \| 2,5 | 2,5 \| 3,3 | 3,3 \| 3,3 | 2,5 \| 5,0 | 3,3 \| 5,0 | 3,3 \| 7,0 | 5,0 \| 5,0 | 5,0 \| 7,0 | 5,0 \| 8,8 | 7,0 \| 7,0 | 7,0 \| 8,8 | 8,8 \| 8,8 |
| EER | - | 2,95 \| 2,95 | 2,95 \| 2,95 | 2,95 \| 2,95 | 2,95 \| 3,12 | 2,95 \| 3,12 | 2,95 \| 3,68 | 3,12 \| 3,12 | 3,12 \| 3,68 | 3,12 \| 3,14 | 3,68 \| 3,68 | 3,68 \| 3,14 | 3,14 \| 3,14 |
| Electrical power supply | V-Ph-Hz | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 |
| Rated absorbed electrical power | [kW] | 1,6 | 1,9 | 2,2 | 2,4 | 2,7 | 3,0 | 3,2 | 3,5 | 4,4 | 3,8 | 4,7 | 5,6 |
| Rated current | [A] | 9,0 | 10,2 | 11,4 | 13,0 | 14,2 | 15,0 | 17,0 | 17,8 | 21,7 | 18,6 | 22,5 | 26,4 |
| Maximum current | [A] | 9,4 | 11,3 | 13,2 | 13,5 | 15,4 | 17,6 | 17,6 | 19,8 | 23,4 | 22,0 | 25,6 | 29,2 |
| Power supply cable | [mm²] | 3 x 2,5 | 3 x 2,5 | 3 x 4,0 | 3 x 4,0 | 3 x 4,0 | 3 x 4,0 | 3 x 4,0 | 3 x 4,0 | 3 x 6,0 | 3 x 6,0 | 3 x 6,0 | 3 x 6,0 |
| Connection cable (4) | [mm²] | 2 x (4 x 1,5) | 2 x (4 x 1,5) | 2 x (4 x 1,5) | 2 x (4 x 1,5) | 2 x (4 x 1,5) | 2 x (4 x 1,5) | 2 x (4 x 1,5) | 2 x (4 x 1,5) | 2 x (4 x 1,5) | 2 x (4 x 1,5) | 2 x (4 x 1,5) | 2 x (4 x 1,5) |
| Dimensions (LxDxh) | [mm] | 800x360 x630 | 800x360 x630 | 800x360 x630 | 864x469 x835 | 864x469 x835 | 864x469 x835 | 864x469 x835 | 864x469 x835 | 864x469 x835 | 864x469 x835 | 864x469 x835 | 864x469 x835 |
| Weight | [kg] | 66 | 69 | 72 | 84 | 87 | 88 | 91 | 92 | 98 | 93 | 99 | 105 |
| Sound pressure (at 1m) | [dB(A)] | 49 | 49 | 49 | 50 | 50 | 50 | 50 | 50 | 50 | 51 | 51 | 51 |
| Liquid line | [inch] | 1/4" \| 1/4" | 1/4" \| 1/4" | 1/4" \| 1/4" | 1/4" \| 1/4" | 1/4" \| 1/4" | 1/4" \| 3/8" | 1/4" \| 1/4" | 1/4" \| 3/8" | 1/4" \| 3/8" | 3/8" \| 3/8" | 3/8" \| 3/8" | 3/8" \| 3/8" |
| Suction line | [inch] | 3/8" \| 3/8" | 3/8" \| 1/2" | 1/2" \| 1/2" | 3/8" \| 1/2" | 1/2" \| 1/2" | 1/2" \| 5/8" | 1/2" \| 1/2" | 1/2" \| 5/8" | 1/2" \| 5/8" | 5/8" \| 5/8" | 5/8" \| 5/8" | 5/8" \| 5/8" |
| Water connection | [inch] | 1/2" | 1/2" | 1/2" | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" | 1" | 1" | 1" | 1" |
| Rated water flow for a T° of +15°C (2) | [L/h] | 200 | 240 | 240 | 280 | 300 | 390 | 360 | 450 | 610 | 540 | 700 | 860 |
| Rated water flow for a T° of +30°C (2) | [L/h] | 460 | 470 | 480 | 650 | 660 | 1240 | 840 | 1420 | 2420 | 2000 | 3000 | 4000 |
| Maximum inlet water T° (3) | [°C] | +45 | +45 | +47 | +45 | +45 | +43 | +45 | +43 | +42 | +43 | +42 | +42 |

*(1) The unit delivers its rated cooling power for a water flow rate which depends on the inlet water temperature. The table indicates both the rated flow for a water inlet temperature of +15°C and of +30°C.*
*(2) If the water inlet temperature is more than +30°C, please contact us.*
*(3) The proper operation of the equipment is not guaranteed beyond the maximum water inlet temperature. This can, among others, cause premature wear of the compressor.*
*(4) The cables type and gauge are indicative. They correspond to an installation with a LTB indoor unit without electrical heating option.*

## Options

| | | WITHOUT LPS | WITH LPS |
|---|---|---|---|
| Enhanced noise insulation | WITHOUT | AH | BH |
| | WITH | CH | DH |

- **Low pressure switch (LPS):** stops the compressor in case of a too low pressure to protect the unit (lack of refrigerant gas, leakage …).
- **Enhanced noise insulation:** Soundproofing with high density absorbent insulation foam to reduce sound pressure.

## Accessories

| Size | | 209 | 09-14 | 214 | 09-18 | 14-18 | 14-24 | 218 | 18-24 | 18-36 | 224 | 24-36 | 236 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Disconnecting switch | Code | SET001YY | | | | | | | | | | | |
| Water filter | Code | SWT003YY | | | | | | | | | | | |
| Water hoses set | Code | SWT006YY | | | | | | | | | | | |

**Disconnecting switch:** ensures a mechanical separation of the unit from its power supply. Can be secured in open position with a padlock.
**Water filter:** Stainless steel PN16 sieve filter, to be connected to the water inlet of the condensing unit.

## Association with indoor units

*The indoor units are associated depending on the size of each circuit in the same way as for the mono circuits FA. Refer to the table page 25 (FW- Cooling only - monosplits).*

# FW Cooling only Range - Trisplits - NEO

## Water-cooled condensing Units

> TRISPLITS

R407C



| Size | | 309 | 209-14 | 09-214 | 209-18 | 09-14-18 | 09-218 | 314 | 214-18 | 1 4-218 | 318 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Model | | FW309Q6 | FW20914Q6 | FW09214Q6 | FW20918Q6 | FW091418Q6 | FW09218Q6 | FW314Q6 | FW21418Q6 | FW14218Q6 | FW318Q6 |
| Model code | | WQF301 | WQF302 | WQF303 | WQF304 | WQF305 | WQF306 | WQF307 | WQF308 | WQF309 | WQF310 |
| Size of each circuit | | 09 09 09 | 09 09 14 | 09 14 14 | 09 09 18 | 09 14 18 | 09 18 18 | 14 14 14 | 14 14 18 | 14 18 18 | 18 18 18 |
| Rated cooling power (1) | [kW] | 2,5 2,5 2,5 | 2,5 2,5 3,3 | 2,5 3,3 3,3 | 2,5 2,5 5,0 | 2,5 3,3 5,0 | 2,5 5,0 5,0 | 3,3 3,3 3,3 | 3,3 3,3 5,0 | 3,3 5,0 5,0 | 5,0 5,0 5,0 |
| EER | - | 2,95 2,95 2,95 | 2,95 2,95 2,95 | 2,95 2,95 2,95 | 2,95 2,95 3,12 | 2,95 2,95 3,12 | 2,95 3,12 3,12 | 2,95 2,95 2,95 | 2,95 2,95 3,12 | 2,95 3,12 3,12 | 3,12 3,12 3,12 |
| Electrical power supply | V-Ph-Hz | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 |
| Rated absorbed electrical power | [kW] | 2,4 | 2,7 | 3,0 | 3,2 | 3,5 | 4,0 | 3,3 | 3,8 | 4,3 | 4,8 |
| Rated current | [A] | 13,5 | 14,7 | 15,9 | 17,5 | 18,7 | 21,5 | 17,1 | 19,9 | 22,7 | 25,5 |
| Maximum current | [A] | 14,1 | 16,0 | 17,9 | 18,2 | 20,1 | 22,3 | 19,8 | 22,0 | 24,2 | 26,4 |
| Power supply cable | [mm²] | 3 x 4,0 | 3 x 4,0 | 3 x 4,0 | 3 x 4,0 | 3 x 6,0 | 3 x 6,0 | 3 x 4,0 | 3 x 6,0 | 3 x 6,0 | 3 x 6,0 |
| Connection cable (4) | [mm²] | 3 x (4 x 1,5) | 3 x (4 x 1,5) | 3 x (4 x 1,5) | 3 x (4 x 1,5) | 3 x (4 x 1,5) | 3 x (4 x 1,5) | 3 x (4 x 1,5) | 3 x (4 x 1,5) | 3 x (4 x 1,5) | 3 x (4 x 1,5) |
| Dimensions (LxDxh) | [mm] | 864x469x835 | 864x469x835 | 864x469x835 | 864x469x835 | 864x469x835 | 864x469x835 | 864x469x835 | 864x469x835 | 864x469x835 | 864x469x835 |
| Weight | [kg] | 97 | 100 | 103 | 104 | 107 | 111 | 106 | 110 | 114 | 118 |
| Sound pressure (at 1m) | [dB(A)] | 52 | 52 | 52 | 52 | 52 | 52 | 53 | 53 | 53 | 54 |
| Liquid line | [inch] | 1/4" 1/4" 1/4" | 1/4" 1/4" 1/4" | 1/4" 1/4" 1/4" | 1/4" 1/4" 1/4" | 1/4" 1/4" 1/4" | 1/4" 1/4" 1/4" | 1/4" 1/4" 1/4" | 1/4" 1/4" 1/4" | 1/4" 1/4" 1/4" | 1/4" 1/4" 1/4" |
| Suction line | [inch] | 3/8" 3/8" 3/8" | 3/8" 3/8" 1/2" | 3/8" 1/2" 1/2" | 3/8" 3/8" 1/2" | 3/8" 1/2" 1/2" | 3/8" 1/2" 1/2" | 1/2" 1/2" 1/2" | 1/2" 1/2" 1/2" | 1/2" 1/2" 1/2" | 1/2" 1/2" 1/2" |
| Water connection | [inch] | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" |
| Rated water flow for a T° of +15°C (2) | [L/h] | 300 | 320 | 340 | 380 | 400 | 460 | 360 | 420 | 480 | 540 |
| Rated water flow for a T° of +30°C (2) | [L/h] | 690 | 700 | 710 | 880 | 890 | 1070 | 720 | 900 | 1080 | 1260 |
| Maximum inlet water T° (3) | [°C] | +45 | +45 | +45 | +45 | +45 | +45 | +47 | +45 | +45 | +45 |

*(1) The unit delivers its rated cooling power for a water flow rate which depends on the inlet water temperature. The table indicates both the rated flow for a water inlet temperature of +15°C and of +30°C*
*(2) If the water inlet temperature is more than +30°C, please contact us.*
*(3) The proper operation of the equipment is not guaranteed beyond the maximum water inlet temperature. This can, among others, cause premature wear of the compressor.*
*(4) The cables type and gauge are indicative. They correspond to an installation with a LTB indoor unit without electrical heating option.*

## Options

| | | WITHOUT LPS | WITH LPS |
|---|---|---|---|
| Enhanced noise insulation | WITHOUT | AH | BH |
| | WITH | CH | DH |

- ***Low pressure switch (LPS):*** *stops the compressor in case of a too low pressure to protect the unit (lack of refrigerant gas, leakage …).*
- ***Enhanced noise insulation:*** *Soundproofing with high density absorbent insulation foam to reduce sound pressure.*

## Accessories

| Size | | 309 | 209-14 | 09-214 | 209-18 | 09-14-18 | 09-218 | 314 | 214-18 | 14-218 | 318 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Disconnecting switch | Code | SET001YY | | | | | | | | | |
| Water filter | Code | SWT003YY | | | | | | | | | |
| Water hoses set | Code | SWT006YY | | | | | | | | | |

***Disconnecting switch:*** *ensures a mechanical separation of the unit from its power supply. Can be secured in open position with a padlock.*
***Water filter:*** *Stainless steel PN16 sieve filter, to be connected to the water inlet of the condensing unit.*

## Association with indoor units

*The indoor units are associated depending on the size of each circuit in the same way as for the mono circuits FW. Refer to the table page 25 (FW - cooling only - monosplits).*

# Water-cooled condenser Split System - NEO

## FW Reversible Range

On water loop only !

### FW



Direct Expansion

**The unit is installed inside the building. Calories are evacuated in (cooling mode) or drawn from (heating mode) in a water loop.**

**Indoor Units**

⊕ MI



⊕ CI



⊕ KI



⊕ GI





### Applications

- Shopping malls, offices.
- Industry.

### Product benefits

- No outdoor unit.
- No grid on the facade of the building
- Small-sized and easy to install.
- ON/OFF : easy to maintain.
- Adapted to to **high** temperature water-loops.
- Included as standard feature: water flow switch, anti-freeze thermostat and water filter.

**Build your PART NUMBER (P/N)**

| W | R | F | 2 | 0 | 2 | D | H |
|---|---|---|---|---|---|---|---|

MODEL CODE 6 characters — OPTIONS Pack 2 characters

Don't forget to order the accessories you may need !

### Refrigerant connections

- Max length : 20 m.
- Max height difference : 5 m.
- Preloaded for 4 m of refrigerant lines.

The power ratings indicated in the tables are "total power" and are delivered for an indoor air (indoor unit inflow) of +27°C / 50% RH (cooling mode) and +20°C (heating mode). Notice: the power available to cool down the inside air ("sensible power") equals the "total power" minus the power absorbed by the condensation of air moisture (condensate).

# FW Reversible Range - Monosplits - NEO

## Water-cooled condensing Units



R407C





| Size | | 07 | 09 | 14 | 18 | 24 | 36 | 40 | 50 | 64 | 80 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Model | | FW07R6 | FW09R6 | FW14R6 | FW18R6 | FW24R6 | FW36R6 | FW40RY | FW50RY | FW64RY | FW80RY |
| Model code | | WRF101 | WRF102 | WRF103 | WRF104 | WRF105 | WRF106 | WRF107 | WRF108 | WRF109 | WRF110 |
| Rated cooling power (1) | [kW] | 2,0 | 2,5 | 3,3 | 5,0 | 7,0 | 8,8 | 9,5 | 12,3 | 14,0 | 17,5 |
| Rated heating power (1) | [kW] | 2,6 | 3,2 | 4,0 | 6,0 | 7,6 | 10,0 | 10,8 | 13,5 | 15,5 | 19,0 |
| EER | - | 2,85 | 2,95 | 2,95 | 3,12 | 3,68 | 4,4 | 3,65 | 3,85 | 3,58 | 3,8 |
| COP | - | 3,7 | 3,9 | 3,6 | 3,7 | 4,0 | 5 | 4,1 | 4,2 | 3,9 | 4,1 |
| Electrical power supply | V-Ph-Hz | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 | 400-3-50+N | 400-3-50+N | 400-3-50+N | 400-3-50+N |
| Rated absorbed electrical power | [kW] | 0,8 | 0,8 | 1,1 | 1,6 | 1,9 | 2,0 | 2,6 | 3,2 | 3,9 | 4,6 |
| Rated current | [A] | 3,8 | 4,5 | 5,7 | 8,5 | 9,3 | 9,5 | 5,2 | 5,7 | 7,0 | 8,2 |
| Maximum current | [A] | 4,1 | 4,7 | 6,6 | 8,8 | 11,0 | 19 | 7,3 | 8,4 | 10,5 | 12,4 |
| Power supply cable | [mm²] | 3 x 1,5 | 3 x 1,5 | 3 x 1,5 | 3 x 2,5 | 3 x 2,5 | 3 x 4,0 | 5 x 2,5 | 5 x 2,5 | 5 x 2,5 | 5 x 2,5 |
| Connection cable | [mm²] | 5 x 1,5 | 5 x 1,5 | 5 x 1,5 | 5 x 1,5 | 5 x 1,5 | 5 x 1,5 | 5 x 1,5 | 5 x 1,5 | 5 x 1,5 | 5 x 1,5 |
| Dimensions (LxDxh) | [mm] | 600x360x630 | 600x360x630 | 600x360x630 | 600x360x630 | 600x360x630 | 800x360x630 | 864x469x835 | 864x469x835 | 864x469x835 | 864x469x835 |
| Weight | [kg] | 47 | 48 | 51 | 55 | 56 | 71 | 81 | 84 | 88 | 92 |
| Sound pressure (at 1m) | [dB(A)] | 49 | 49 | 49 | 50 | 51 | 51 | 51 | 51 | 52 | 52 |
| Liquid line - Suction line | [inch] | 1/4"-3/8" | 1/4"-3/8" | 1/4"-1/2" | 1/4"-1/2" | 3/8"-5/8" | 3/8"-5/8" | 3/8"-3/4" | 3/8"-3/4" | 3/8"-3/4" | 3/8"-3/4" |
| Water connection | [inch] | 1/2" | 1/2" | 3/4" | 3/4" | 3/4" | 3/4" | 1" | 1" | 1" | 1" |
| Rated water flow (1) for an inlet water T° of +38°C (cooling mode) (2) and +20°C (heating mode) (3) | [L/h] | 350 | 400 | 580 | 1100 | 1200 | 2000 | 2100 | 2600 | 2800 | 3000 |
| Pressure drop | [mbar] | 80 | 100 | 130 | 150 | 150 | 150 | 150 | 150 | 200 | 200 |

(1) The unit delivers its rated cooling power for a water flow rate which depends on the inlet water temperature. The table indicates the rated flow for a water inlet temperature of +38°C (cooling mode) and of +20°C (heating mode).

(2) In cooling mode, with the rated water flow, the minimum water inlet temperature is +25°C and the maximum water inlet temperature is +40°C.

(3) In heating mode, with the rated water flow, the minimum water inlet temperature is +15°C and the maximum water inlet temperature is +30°C.

The proper operation of the equipment is not guaranteed outside the above indicated water inlet min/max temperature range. This can, among others, cause premature wear of the compressor. If the water temperature is outside the indicated range, please contact us.

## Options

| | | WITHOUT LPS | WITH LPS |
|---|---|---|---|
| Enhanced noise insulation | WITHOUT | AH | BH |
| | WITH | CH | DH |

**Low pressure switch (LPS):** stops the compressor in case of a too low pressure to protect the unit (lack of refrigerant gas, leakage …).

**Enhanced noise insulation:** Soundproofing with high density absorbent insulation foam to reduce sound pressure.

## Accessories

| Size | | 07 | 09 | 14 | 18 | 24 | 36 | 40 | 50 | 64 | 80 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Disconnecting switch | Code | SET001YY | | | | | | SET002YY | | | |
| Water hoses set | | SWT004YY | | | | | | SWT005YY | | | |

**Disconnecting switch :** Ensures a mechanical separation of the unit from its power supply. Can be secured in open position with a padlock.

## Association with indoor units

| Size | | 07 | 09 | 14 | 18 | 24 | 36 | 40 | 50 | 64 | 80 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Wall mounted units | Cf. p.36 | • | • | • | • | • | | | | | |
| Consoles | Cf. p.37 | | | • | • | • | • | • | • | | |
| Cassettes | Cf. p.38 | | | • | • | • | • | | | | |
| Ducted units | Cf. p.39 | • | • | • | • | • | • | • | • | • | • |

# FW Reversible Range - Bisplits - NEO

## Water-cooled condensing Units



R407C



| Size | | 209 | | 09-14 | | 09-18 | | 214 | | 14-18 | | 14-24 | | 218 | | 18-24 | | 18-36 | | 224 | | 24-36 | | 236 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model | | FW209R6 | | FW0914R6 | | FW0918R6 | | FW214R6 | | FW1418R6 | | FW1424R6 | | FW218R6 | | FW1824R6 | | FW1836R6 | | FW224R6 | | FW2436R6 | | FW236R6 | |
| Model code | | WRF201 | | WRF202 | | WRF203 | | WRF204 | | WRF205 | | WRF206 | | WRF207 | | WRF208 | | WRF209 | | WRF210 | | WRF211 | | WRF212 | |
| Size of each circuit | | 09 | 09 | 09 | 14 | 09 | 18 | 14 | 14 | 14 | 18 | 14 | 24 | 18 | 18 | 18 | 24 | 18 | 36 | 24 | 24 | 24 | 36 | 36 | 36 |
| Rated cooling power (1) | [kW] | 2,5 | 2,5 | 2,5 | 3,3 | 2,5 | 5,0 | 3,3 | 3,3 | 3,3 | 5,0 | 3,3 | 7,0 | 5,0 | 5,0 | 5,0 | 7,0 | 5,0 | 8,8 | 7,0 | 7,0 | 7,0 | 8,8 | 8,8 | 8,8 |
| Rated heating power (1) | [kW] | 3,2 | 3,2 | 3,2 | 4,0 | 3,2 | 6,0 | 4,0 | 4,0 | 4,0 | 6,0 | 4,0 | 7,6 | 6,0 | 6,0 | 6,0 | 7,6 | 6,0 | 10,0 | 7,6 | 7,6 | 7,6 | 10,0 | 10,0 | 10,0 |
| EER | - | 2,95 | 2,95 | 2,95 | 2,95 | 2,95 | 3,12 | 2,95 | 2,95 | 2,95 | 3,12 | 2,95 | 3,68 | 3,12 | 3,12 | 3,12 | 3,68 | 3,12 | 4,4 | 3,68 | 3,68 | 3,68 | 4,4 | 4,4 | 4,4 |
| COP | - | 3,9 | 3,9 | 3,9 | 3,6 | 3,9 | 3,7 | 3,6 | 3,6 | 3,6 | 3,7 | 3,6 | 4,0 | 3,7 | 3,7 | 3,7 | 4,0 | 3,7 | 5,0 | 4,0 | 4,0 | 4,0 | 5,0 | 5,0 | 5,0 |
| Electrical power supply | V-Ph-Hz | 230-1-50 | | 230-1-50 | | 230-1-50 | | 230-1-50 | | 230-1-50 | | 230-1-50 | | 230-1-50 | | 230-1-50 | | 230-1-50 | | 230-1-50 | | 230-1-50 | | 230-1-50 | |
| Rated absorbed electrical power | [kW] | 1,6 | | 1,9 | | 2,4 | | 2,2 | | 2,7 | | 3,0 | | 3,2 | | 3,5 | | 3,6 | | 3,8 | | 3,9 | | 4,8 | |
| Rated current | [A] | 9,0 | | 10,2 | | 13,0 | | 11,4 | | 14,2 | | 15,0 | | 17,0 | | 17,8 | | 18,0 | | 18,6 | | 18,8 | | 22,7 | |
| Maximum current | [A] | 9,4 | | 11,3 | | 13,5 | | 13,2 | | 15,4 | | 17,6 | | 17,6 | | 19,8 | | 27,8 | | 22,0 | | 30,0 | | 33,6 | |
| Power supply cable | [mm²] | 3 x 2,5 | | 3 x 2,5 | | 3 x 4,0 | | 3 x 4,0 | | 3 x 4,0 | | 3 x 4,0 | | 3 x 4,0 | | 3 x 4,0 | | 3 x 6,0 | | 3 x 6,0 | | 3 x 6,0 | | 3 x 6,0 | |
| Connection cable | [mm²] | 2 x (5 x 1,5) | | 2 x (5 x 1,5) | | 2 x (5 x 1,5) | | 2 x (5 x 1,5) | | 2 x (5 x 1,5) | | 2 x (5 x 1,5) | | 2 x (5 x 1,5) | | 2 x (5 x 1,5) | | 2 x (5 x 1,5) | | 2 x (5 x 1,5) | | 2 x (5 x 1,5) | | 2 x (5 x 1,5) | |
| Dimensions (LxDxh) | [mm] | 864x469 x835 | | 864x469 x835 | | 864x469 x835 | | 864x469 x835 | | 864x469 x835 | | 864x469 x835 | | 864x469 x835 | | 864x469 x835 | | 864x469 x835 | | 864x469 x835 | | 864x469 x835 | | 864x469 x835 | |
| Weight | [kg] | 94 | | 97 | | 101 | | 100 | | 104 | | 105 | | 108 | | 109 | | 124 | | 110 | | 125 | | 130 | |
| Sound pressure (at 1m) | [dB(A)] | 51 | | 51 | | 52 | | 52 | | 52 | | 52 | | 52 | | 52 | | 52 | | 53 | | 53 | | 53 | |
| Liquid line | [inch] | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 1/4" | 3/8" | 1/4" | 1/4" | 1/4" | 3/8" | 1/4" | 3/8" | 3/8" | 3/8" | 3/8" | 3/8" | 3/8" | 3/8" |
| Suction line | [inch] | 3/8" | 3/8" | 3/8" | 1/2" | 3/8" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 5/8" | 1/2" | 1/2" | 1/2" | 5/8" | 1/2" | 5/8" | 5/8" | 5/8" | 5/8" | 5/8" | 5/8" | 5/8" |
| Water connection | [inch] | 3/4" | | 3/4" | | 3/4" | | 3/4" | | 3/4" | | 3/4" | | 3/4" | | 3/4" | | 1" | | 1" | | 1" | | 1" | |
| Rated water flow (1) for an inlet water T° of +38°C (cooling mode) (2) et +20°C (heating mode) (3) | [L/h] | 800 | | 1040 | | 1600 | | 1160 | | 1960 | | 2060 | | 2200 | | 2300 | | 3100 | | 2400 | | 3200 | | 4000 | |
| Pressure drop | [mbar] | 100 | | 130 | | 150 | | 130 | | 150 | | 150 | | 150 | | 150 | | 150 | | 150 | | 150 | | 150 | |

*(1) The unit delivers its rated cooling power for a water flow rate which depends on the inlet water temperature. The table indicates the rated flow for a water inlet temperature of +38°C (cooling mode) and of +20°C (heating mode).*

*(2) In cooling mode, with the rated water flow, the minimum water inlet temperature is +25°C and the maximum water inlet temperature is +40°C.*

*(3) In heating mode, with the rated water flow, the minimum water inlet temperature is +15°C and the maximum water inlet temperature is +30°C.*

*The proper operation of the equipment is not guaranteed outside the above indicated water inlet min/max temperature range. This can, among others, cause premature wear of the compressor. If the water temperature is outside the indicated range, please contact us.*

## Options

| | | WITHOUT LPS | WITH LPS |
|---|---|---|---|
| Enhanced noise insulation | WITHOUT | AH | BH |
| | WITH | CH | DH |

***Low pressure switch (LPS):*** *stops the compressor in case of a too loX pressure to protect the unit (lack of refrigerant gas, leakage …).*

***Enhanced noise insulation:*** *Soundproofing with high density absorbent insulation foam to reduce sound pressure..*

## Accessories

| Size | | 209 | 09-14 | 09-18 | 214 | 14-18 | 14-24 | 218 | 18-24 | 18-36 | 224 | 24-36 | 236 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Disconnecting switch | Code | SET001YY | | | | | | | | | | | |
| Water hoses set | Code | SWT006YY | | | | | | | | | | | |

***Disconnecting switch :*** *Ensures a mechanical separation of the unit from its power supply. Can be secured in open position with a padlock.*

## Association with indoor units

*The indoor units are associated depending on the size of each circuit in the same way as for the mono circuits FW. Refer to the table page 29 (FW- Reversible - monosplits).*

# FW Cooling only Range - Monosplits

## Water cooled condensing units

> MONOSPLITS

Reduced water consumption (-20% to -40% >> ideal for city-centres

More silent

GWP < 750 with A1 non inflamable gas >> ideal for shopping malls

R513A

Alternative for R407C





| Size | | 09 | 18 | 36 | 50 | 80 |
|---|---|---|---|---|---|---|
| Model | | FW09Q6 | FW18Q6 | FW36Q6 | FW50QY | FW80QY |
| Model code | | WQG102 | WQG104 | WQG106 | WQG108 | WQG110 |
| Rated cooling power (1) | [kW] | 2,5 | 5,0 | 8,5 | 12,5 | 17,0 |
| EER | [-] | 2,31 | 2,52 | 2,33 | 1,96 | 2,58 |
| Power supply | V-Ph-Hz | 230-1-50 | 230-1-50 | 230-1-50 | 400-3-50+N | 400-3-50+N |
| Rated absorbed power | [kW] | 1,1 | 2,0 | 3,7 | 6,4 | 6,6 |
| Rated current | [A] | 4,9 | 9,3 | 18,6 | 11,0 | 11,8 |
| Maximum current | [A] | 6,5 | 12,5 | 20,5 | 11,5 | 13,5 |
| Power supply cable | [mm²] | 3 x 1.5 | 3 x 2.5 | 3 x 4 | 5 x 2.5 | 5 x 2.5 |
| Connection cable (4) | [mm²] | 4 x 1.5 | 4 x 1.5 | 4 x 1.5 | 4 x 1.5 | 4 x 1.5 |
| Dimensions (LxDxH) | [mm] | 600x310x430 | 600x310x430 | 800x360x630 | 864x469x835 | 864x469x835 |
| Weight | [kg] | 31 | 44 | 66 | 121 | 128 |
| Sound pressure (at 1m) | [dB(A)] | 46 | 42 | 45 | 49 | 50 |
| Liquid line - Suction line | [inch] | 1/4"-1/2" | 3/8"-5/8" | 3/8"-3/4" | 3/8"-7/8" | 1/2"-1 1/8" |
| Water connection - Male | [inch] | 1/2" | 1/2" | 3/4" | 3/4" | 3/4" |
| Rated water flow for a T° of +15°C | [L/h] | 70 | 150 | 270 | 360 | 490 |
| Rated water flow for a T° of +30°C (2) | [L/h] | 100 | 250 | 510 | 600 | 890 |
| Maximum water inlet temperature (3) | [°C] | +50 | +50 | +50 | +50 | +50 |

(1) The unit delivers its rated cooling power for a water flow rate, which depends on the water inlet temperature. The table shows the nominal flow rate for water inlet temperatures of +15°C and +30°C.

(2) If the water inlet temperature is higher than +30°C, please contact us.

(3) Proper operation of the equipment is not guaranteed above the maximum water inlet temperature. This can in particular lead to premature wear of the compressor.

(4) The cable types and cross-sections are given for information only and correspond to an installation with LTB indoor units without the electric heating option.

(5) The dimensions are understood to be excluding valves. Make sure to respect the service spaces.

## Options

| | | WITHOUT LPS | WITH LPS |
|---|---|---|---|
| Enhanced noise insulation | WITHOUT | AH | BH |
| | WITH | CH | DH |

Low pressure switch (LPS) : stops the compressor in case of a too low pressure to protect the unit (lack of refrigerant gas, leakage…).

Enhanced noise insulation : Soundproofing with high density absorbent insulation foam to reduce sound pressure.

## Accessories

| Size | | 09 | 18 | 36 | 50 | 80 |
|---|---|---|---|---|---|---|
| Disconnecting switch | Code | SET001YY | | | SET002YY | |
| Water filter | Code | SWT001YY | | SWT002YY | | |
| Water inlet and outlet connection hoses | Code | SWT004YY | | SWT005YY | | |

Disconnecting switch : makes it possible to mechanically separate the condensing unit from its electrical supply. It allows locking in the open position.

Water filter : Stainless steel PN16 sieve filter, to be connected to the water inlet of the condensing unit.

# Water-cooled condensation, information and precautions

*Water-cooled condensation is used for the FW, CMHE, CMCE and CMVE ranges . The unit can be connected either to a water loop, to drawn water or to lost water. Precautions are necessary for proper operation of a water-cooled condensation installation.*

## > Reversible Models / Heating function

*FW, CMHE and CMCE ranges are proposed as cooling only as well as reversible models. In heating mode, the calories are drawn from a flow of water and are injected in the air of the room.*

***Warning! Please note that reversible models can only be connected to a closed water loop.***

*Indeed, the water flow must be guaranteed to avoid freezing up of the plate heat exchanger of the unit and the breakage that would result.*

*When there is no water loop available and it is therefore not possible to install a reversible unit, it is possible to have an electrical heating function with resistor. This option is available for cassette type and ducted type indoor units (see pages 36 and 37), as well as for CMHE and CMCE monobloc air conditioners.*

## > Safety and Protections

*For safety and equipment protection, the water-cooled condensing units include the following devices.*

| | Cooling only models | Reversible models | Function | Reset |
|---|---|---|---|---|
| Pressostatic water valve | yes | no | Limitates the water flow rate to the minimum necessary in order to save water and protect the compressor. | Not applicable |
| Pressostat HP | yes | | If HP is too high: compressor cut-out for security of the equipment and for protecting the compressor. | Manual |
| Water flow controller | no | yes | Differential pressure switch. In heating mode, in case of too low water flow rate, it activates the reversing valve to switch to cooling mode and avoid the freezing of the plate heat exchanger. | Automatic |
| Anti frost thermostat (water flow) | no | yes | In heating mode, it activates the reversing valve to switch to cooling mode and avoid the freezing of the plate heat exchanger. | Manual |
| Low Pressure Switch (LPS) | Option (1) | | Compressor cut-out if LP is too low in order to protect the compressor. | Automatic (1) |

*(1) For the CMVE range, the LPS pressure switch is a standard feature and it resets manually. For the other models, the LPS pressure switch is an option and it resets automatically.*

## > Water inlet temperature and flow rate

*The proper operation of a water-cooled condensing unit depends on the quality of the heat exchange between the refrigerant fluid and water to evacuate calories (cooling mode) or draw calories (heating mode).*

***The water inlet temperature and flow rate are essential parameters** for the proper operation of the installation. Indeed, the water flow and the water inlet temperature must be adapted to one another. The water inlet temperature must also be within the specified operating range (T° min / T° max).*

*For example, in cooling mode, a temperature too high or a water flow too low flow will not allow sufficient heat dissipation. The unit will then not be able to operate properly and may possibly stop with a HP cut-out.*

*The tables below summarize the conditions leading to a malfunction of the unit or a lockout:*

## > Cooling-only Models

| Mode | Water inlet temperature | | Water flow rate | Trouble |
|---|---|---|---|---|
| Cooling | a bit too high | or | a bit too low | Delivered power lower than rated power |
| Cooling | too high | or | too low | Lockout (HP cut-out) |

## > Reversible Models

| Mode | Water inlet temperature | | Water flow rate | Trouble |
|---|---|---|---|---|
| Cooling | a bit too high | or | a bit too low | Delivered power lower than rated power |
| Cooling | too high | or | too low | Lockout (HP cut-out) |
| Cooling | too low | or | too high | Premature wear of the compressor |
| Heating | a bit too low | or | a bit too low | Delivered power lower than rated power |
| Heating | too low | or | too low | Lockout (antifreeze thermostat or flow switch) or premature wear of the compressor |
| Heating | too high | or | too high | Lockout (HP cut-out) or premature wear of the compressor |

*The "cooling only" models are designed to operate properly when supplied with city water, assuming a temperature around +15°C and a water pressure around 4 bar, with a large tolerance around these values .*

*However, when used on a water loop (cooling-only or reversible models), it is essential to check the loop water temperature (summer and winter) and guaranteed flow rate with the operator of the loop. Refer to the tables to know the temperature and flow conditions to be met. Contact us to check that these data are compatible with the unit.*

***Warning! For reversible models, it is necessary to install a device for measuring and adjusting the feeding water flow for each machine.***

## > Specific maintenance

*When used with lost water, it is necessary to periodically check the proper functioning of the pressure valve so as to prevent from a malfunction resulting from the deposit of limescale with a risk of an excessive water consumption. For very hard water, it is recommended to install a device to soften water.*

## > Useful to know

***We can adapt the units to higher or lower loop temperatures than those rated in the catalog. Do not hesitate to contact us.***

***We also carry out trisplit reversible water-cooled condensing units upon request. Please, contact us.***



# Indoor Units

## Wall mounted , Consoles, Cassettes, Ducted


Indoor Units - Wall mounted units ..... p. 36

Indoor Units - Floor mounted or Ceiling Consoles ..... p. 37

Indoor Units - Cassettes ..... p. 38

Indoor Units - Ducted ..... p. 39



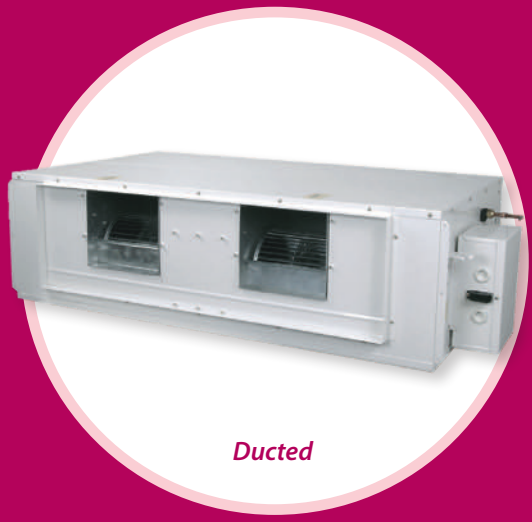

Wall mounted units



Floor mounted / Ceiling Consoles



Cassettes



Ducted

# Indoor units

## Wall mounted units

**Discrete backlit display** (conceable)

### Characteristics

- Infrared remote control
- 3-speed fan
- Daily scheduling
- Backlit display (conceable)
- Compatible with R407C, R410A and R513A refrigerants
- Module "LTB Connect" non compatible with these wall mounted units



### Wall mounted units can be used :

- For cooling only (with a cooling-only condensing unit)
- For cooling + thermodynamic heating (with a reversible condensing unit)






| | | | | | |
|---|---|---|---|---|---|
| Part number | | UMS301WA | UMS302WA | UMS303WA | UMS304WA |
| Model | | MI07-09 | MI14 | MI18 | MI24 |
| Cooling power (1) | [kW] | 2 à 2,5 | 3,3 | 5 | 7 |
| Heating power (1) (2) | [kW] | 2,6 à 3,2 | 4 | 6 | 8 |
| Power supply | V-Ph-Hz | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 |
| Rated absorbed power | [W] | 40 | 40 | 61 | 96 |
| Rated current | [A] | 0,2 | 0,2 | 0,3 | 0,5 |
| Air flow (HS) | [m3/h] | 600 | 620 | 950 | 1200 |
| Sound pressure at 1m (LS) | [dB(A)] | 34 | 34 | 38 | 43 |
| Dimensions (LxDxH) | [mm] | 765x205x280 | 830x205x280 | 930x230x330 | 1100x230x330 |
| Net weight | [kg] | 8 | 8,5 | 12,5 | 14,5 |
| Liquid line<br>Suction line | [inch] | 1/4" - 3/8" | 1/4" - 1/2" | 1/4" - 1/2" | 3/8" - 5/8" (3) |

(1) Performances given for an air intake temperature of +27°C / 50% RH in cooling mode, +20°C in heating mode
(2) The mentioned heating power is for use with a reversible condensing unit.
(3) Unit delivered with an adapter for 3/8" - 5/8" connection, IU side.

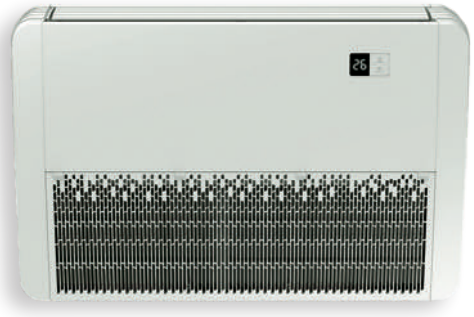
**The indoor units are associated with the condensing units of the same size (ex: MI18 with FW18 or FA18)**

# Indoor units

## Floor mounted/CeilingConsoles

### Characteristics

- Floor mounted or under ceiling installed
- Infrared remote control
- 3-speed fan
- Daily scheduling
- Compatible with R407C, R410A and R513A refrigerants



### Consoles can be used :

- for cooling only (with a cooling-only condensing unit
- for cooling + thermodynamic heating (with a reversible condensing unit

| | |  | |  |
|---|---|---|---|---|
| **Part number** | | **UCS101WA** | **UCS102WA** | **UCS103WA** |
| **Model** | | **CI14-18** | **CI24** | **CI36** |
| **Cooling power (1)** | [kW] | 3,3 à 5 | 7 | 8,8 |
| **Heating power (1) (2)** | [kW] | 3,85 à 5,85 | 7,6 | 9,37 |
| **Power supply** | V-Ph-Hz | 230-1-50 | 230-1-50 | 230-1-50 |
| **Rated absorbed power** | [W] | 59 | 59 | 110 |
| **Rated current** | [A] | 0,60 | 0,60 | 1,70 |
| **Air flow (HS)** | [m3/h] | 1200 | 1200 | 1500 |
| **Sound pressure at 1m (LS)** | [dB(A)] | 48 | 48 | 52 |
| **Dimensions (LxDxh)** | [mm] | 1050x235x675 | 1050x235x675 | 1300x235x675 |
| **Net weight** | [kg] | 25 | 26,5 | 32 |
| **Liquid line - suction line** | [inch] | 1/4" - 1/2" | 3/8" - 5/8" | 3/8" - 3/4" |

(1) Performances given for an air intake temperature of +27°C / 50% RH in cooling mode, +20°C in heating mode.

(2) The mentioned heating power is for use with a reversible condensing unit.

### Accessory

| Model | CI14-18 | CI24 | CI36 |
|---|---|---|---|
| "LTB Connect" Module | TAD001YY | | |

**LTB Connect Module** : allows remote control and savings by programming.

**The indoor units are associated with the condensing units of the same size (ex: CI24 with FW24 or FA24)**

# Indoor Units

## Cassettes

### Characteristics

- Infrared remote control
- 3-speed fan
- Daily scheduling
- Compatible with R407C and R410A fluids
- Condensate lift pump included



### Cassettes can be used:

- For cooling only (with a cooling-only condensing unit)
- For cooling + thermodynamic heating (with a reversible condensing unit)
- For cooling + Electrical heating with resistor (with a cooling only condensing unit)





| Part number | | UKS001WA | UKS002WA | UKS003WA | UKS004WA |
|---|---|---|---|---|---|
| Model | | KI14-18S (600*600) | KI14-18 (900*900) | KI24-36 (900*900) | KI40-50 (900*900) |
| Rated cooling power (1) | [kW] | 3,3 à 5 | 3,3 à 5 | 7 à 8,8 | 9,5 à 12,3 |
| Rated heating power (1) (2) | [kW] | 3,85 à 5,85 | 3,85 à 5,85 | 7,6 à 9,37 | 10,3 à 13,4 |
| Electrical power supply | V-Ph-Hz | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 |
| Rated absorbed electrical power | [W] | 30 | 30 | 35 | 60 |
| Rated current | [A] | 0,40 | 0,40 | 0,45 | 0,60 |
| Air flow (HS) | [m3/h] | 700 | 850 | 1200 | 1600 |
| Sound pressure at 1m (LS) | [dB(A)] | 43 | 41 | 48 | 49 |
| Embedding dimensions (LxDxh) | [mm] | 580x580x275 | 850x850x240 | 850x850x240 | 850x850x280 |
| Panel dimensions (LxDxh) | [mm] | 650x650x30 | 950x950x45 | 950x950x45 | 950x950x45 |
| Net weight | [kg] | 28 | 33 | 33 | 36 |
| Liquid line - Suction line | [inch] | 1/4" - 1/2" | 1/4" - 1/2" | 3/8" - 5/8" | 1/2" - 3/4" |

(1) Rated performance is given for a sucked air temperature of +27°C / 50% RH in cooling mode and +20°C in heating mode.

(2) Rated heating power when used with a LTB reversible condensing unit.

### Cassettes with "Electrical heating" option

| Part number : Cassettes with electrical heating, associated with a condensing group WITH LP Switch OPTION | | - | UKS002WG | UKS003WG | UKS004WG |
|---|---|---|---|---|---|
| Part number : Cassettes with electrical heating, associated with a condensing group WITHOUT LP Switch OPTION | | - | UKS002WE | UKS003WE | UKS004WE |
| Model | | KI14-18S (600*600) | KI14-18 (900*900) | KI24-36 (900*900) | KI40-50 (900*900) |
| Heating power (electrical heating) | [kW] | - | 1,4 | 2,1 | 2,1 |
| Rated current | [A] | - | 6,4 | 9,5 | 9,5 |

The other data are identical to those of the model without electrical heating (see table above).

Warning: cassettes with electrical heating are turned to electromechanical control. Flaps movement and infrared controller are disabled. The control becomes a wired remote controller.

**The indoor units are associated with the condensing units of the same size (ex: KI14-18 with FW18 or with FA18 or with FW14 ...)**

# Indoor Units

## Ducted

### Characteristics

- Wired remote control with temperature sensor
- Possibility to control with an infrared remote control (on demand)
- 3-speed fan
- Low noise level
- Daily scheduling
- Compatible with R407C and R410A fluids



### Ducted units can be used:

- For cooling only (with a cooling-only condensing unit)
- For cooling + thermodynamic heating (with a reversible condensing unit)
- For cooling + Electrical heating with resistor (with a cooling only condensing unit)







| Part number | | UGS101WA | UGS102WA | UGS201WA | UGS202WA | UGS204WA | UGS301WA | UGS302WA |
|---|---|---|---|---|---|---|---|---|
| Model | | GI07-09/30Pa | GI14-18/30Pa | GI14-18/75Pa | GI24/75Pa | GI36-40/75Pa | GI36-40/150Pa | GI50-64-80/150Pa |
| Rated cooling power (1) | [kW] | 2 à 2,5 | 3,3 à 5 | 3,3 à 5 | 7 | 8,8 à 9,5 | 8,8 à 9,5 | 12,3 à 17,5 |
| Rated heating power (1) (2) | [kW] | 2,6 à 3,2 | 3,85 à 5,85 | 3,85 à 5,85 | 7,6 | 9,67 à 10,3 | 9,67 à 10,3 | 13,4 à 18,7 |
| Electrical power supply | V-Ph-Hz | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 |
| Rated absorbed electrical power | [W] | 40 | 60 | 90 | 120 | 180 | 350 | 500 |
| Rated current | [A] | 0,45 | 0,60 | 0,95 | 1,44 | 2,04 | 3,60 | 5,75 |
| Air flow LS/MS/HS | [m3/h] | 425/459/510 | 867/937/1020 | 816/918/1020 | 1122/1241/1360 | 1513/1785/2040 | 1649/1836/2040 | 2482/2754/3060 |
| Sound pressure at 1m ducted - LS/MS/HS | [dB(A)] | 35/36/37 | 35/37/39 | 27/38/40 | 38/40/42 | 39/40/42 | 50/59/64 | 57/63/67 |
| Dimensions (LxDxh) | [mm] | 665x440x212 | 930x470x215 | 1020x580x290 | 1130x490x240 | 1340x580x290 | 1205x730x370 | 1425x730x370 |
| Net weight | [kg] | 20 | 27 | 27 | 34 | 51 | 53 | 62 |
| Liquid line - Suction line | [inch] | 1/4" - 3/8" | 1/4" - 1/2" | 1/4" - 1/2" | 3/8" - 5/8" | 3/8" - 3/4" | 3/8" - 3/4" | 3/8" - 7/8" |

(1) Rated performance is given for a sucked air temperature of +27°C / 50% RH in cooling mode and +20°C in heating mode

(2) Rated heating power when used with a LTB reversible condensing unit.

### Ducted units with "Electrical heating" option

| Part number | | UGS101WB | UGS102WB | UGS201WB | UGS202WB | UGS204WB | UGS301WB | UGS302WB |
|---|---|---|---|---|---|---|---|---|
| Model | | GI07-09/30Pa | GI14-18/30Pa | GI14-18/75Pa | GI24/75Pa | GI36-40/75Pa | GI36-40/150Pa | GI50-64-80/150Pa |
| Heating power (electrical heating) | [kW] | 2 | 2 | 2 | 4 | 6 | 4 | 6 |
| Electrical power supply | V-Ph-Hz | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 |
| Rated current | [A] | 9,2 | 9,2 | 10,5 | 19,8 | 29,5 | 22 | 33,5 |

The other data are identical to those of the model without electrical heating (see table above).

*The installation must ensure with an aeraulic study that the available pressure of the selected unit (30 Pa, 75 Pa or 150 Pa) is adapted to the pressure drop of the suction duct, the discharge duct and the grids, in order to meet the rated airflow. For silent installation, it is recommended to use isophonic air ducts to absorb the noise blown by the fan.*

*The indoor units are associated with the condensing units of the same size (ex: GI24/75Pa with FW24 or with FA24)*

# Low temperature range

Low T°

## Applications

**Cellars, florists, chocolatiers, food preparation rooms, garbage rooms, mortuary rooms,...**

## Characteristics

- **Set temperature with a LTB low temperature indoor unit: from +8°C to +21°C**

## Condensing units

### FHBT

*The condensing unit to be installed outside the building.*



Direct expansion

**Characteristics**

- *LP- and HP switch*
- *Condensing regulation*
- *Connections & flare valves incl.*

**Product benefits**

- *Low noise level*
- *Easy to install*
- *ON/OFF: easy to maintain*

### FWBT

The unit is to be installed inside the building. The calories are evacuated in a water flow.



Direct expansion

**Characteristics**

- *Pressostatic water valve included as standard*

**Product benefits**

- *No outdoor unit*
- *No grid on the facade of the building*
- *Easy to install*
- ON/OFF: easy to maintain

***Ideal in city centres and shopping malls***

### FABT

The unit is to be installed inside the building. The outside air is led to the unit by ducts to evacuate the calories.



Direct expansion

**Characteristics**

- *Centrifugal fan with high static pressure*

**Product benefits**

- *No outdoor unit*
- *Interchangeable air in- and outlet (cf. p.17).*
- *ON/OFF: easy to maintain*
- *Easy access for maintenance through removable panels.*

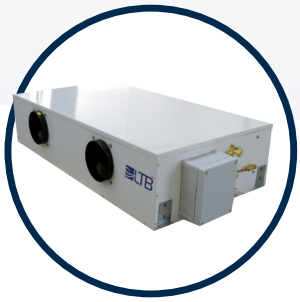
***Ideal in city centres and shopping malls***

## Indoor units

### CLBT - Ceiling mounted indoor unit



### GIBT - Ducted indoor unit



### MIBT - Wall mounted indoor unit



### CIBT - Console indoor unit



# FHBT - Low temperature

*Axial fan condensing units*

Low T°

R410A





| Size | | 14 | 18 | 36 | 50 |
|---|---|---|---|---|---|
| Model | | FHBT14Q6 | FHBT18Q6 | FHBT36Q6 | FHBT50Q6 |
| Model code | | HBH111BB | HBH112BB | HBH113BB | HBH114BB |
| Rated cooling power (1) | [kW] | 2,5 | 3,5 | 5,0 | 6,5 |
| Power supply | V-Ph-Hz | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 |
| Rated current | [A] | 5,5 | 7,2 | 10,2 | 13,0 |
| Maximum current | [A] | 10 | 10 | 16 | 20 |
| Power supply cable | [mm²] | 3 x 2,5 | 3 x 2,5 | 3 x 2,5 | 3 x 4,0 |
| Connection cable | [mm²] | 4 x 1,5 | 4 x 1,5 | 4 x 1,5 | 4 x 1,5 |
| Dimensions (LxDxH) | [mm] | 720x250x610 | 720x250x610 | 800x320x765 | 800x320x765 |
| Weight | [kg] | 32 | 42 | 60 | 64 |
| Liquid line - Suction line | [inch] | 1/4"-1/2" | 1/4"-5/8" | 3/8" - 5/8" | 3/8"-3/4" |

*(1) for an outdoor temperature at +27°C*
*Condensation regulation and LP pressure switch included in all models.*
*The performances indicated above are for use with a LTB low temperature indoor unit.*

## Association with indoor units

| Size | - | 14 | 18 | 36 | 50 |
|---|---|---|---|---|---|
| CLBT | Cf. p.60 | • | • | • | • |
| GIBT | Cf. p.61 | • | • | • | |
| MIBT | Cf. p.62 | • | • | | |
| CIBT | Cf. p.62 | • | • | • | |

**Refrigerant connections**
- Max length: 20 m
- Max height difference: 5 m
- Units delivered without refrigerant (with nitrogen)

*The nominal powers indicated are total powers and are for indoor air (inlet to the indoor unit) at +13°C / 70% RH.*

*As a reminder, the power available to cool the air (sensible power) is equal to the total power minus the power absorbed by the condensation of the humidity in the air (condensates).*

# FWBT - Low temperature

## Water-cooled condensing units - NEO

R407C





| Size | | 14 | 18 | 36 |
|---|---|---|---|---|
| Model | | FWBT14Q6 | FWBT18Q6 | FWBT36Q6 |
| Model code | | WBF103 | WBF104 | WBF106 |
| Rated cooling power (1) | [kW] | 2,5 | 3,5 | 5,0 |
| Power supply | V-Ph-Hz | 230-1-50 | 230-1-50 | 230-1-50 |
| Rated current | [A] | 5,7 | 8,5 | 13,2 |
| Maximum current | [A] | 6,6 | 8,8 | 14,6 |
| Power supply cable | [mm²] | 3 x 1,5 | 3 x 2,5 | 3 x 4,0 |
| Connection cable (4) | [mm²] | 4 x 1,5 | 4 x 1,5 | 4 x 1,5 |
| Dimensions (LxDxH) | [mm] | 600x310x430 | 600x310x430 | 600x360x630 |
| Weight | [kg] | 37 | 41 | 55 |
| Sound pressure (at 1m) | [dB(A)] | 47 | 48 | 49 |
| Liquid line - Suction line | [inch] | 1/4"-1/2" | 1/4"-1/2" | 3/8"-5/8" |
| Water connection | [inch] | 1/2" | 1/2" | 3/4" |
| Rated water flow for a T° of +15°C | [L/h] | 120 | 180 | 430 |
| Rated water flow for a T° of +30°C (2) | [L/h] | 240 | 420 | 2000 |
| Maximum water inlet T° (3) | [°C] | +47 | +45 | +42 |

(1) The unit delivers its rated cooling power for a water flow rate, which depends on the water inlet temperature. The table indicates the rated flow for a water inlet T° of +15°C and +30°C.
(2) If the water inlet temperature is higher than +30°C, please contact us.
(3) Proper operation of the equipment is not guaranteed above the maximum water inlet temperature. This can in particular lead to premature wear of the compressor.
(4) The cable types and -sections are given for information only and correspond to an installation with LTB indoor units without the electric heating option.
The performances indicated above are for use with an LTB low temperature indoor unit.

## Options

| | | SANS Pressostat BP | AVEC Pressostat BP |
|---|---|---|---|
| Enhanced noise insulation | SANS | AH | BH |
| | AVEC | CH | DH |

- Low pressure switch (LPS) : stops the compressor in case of a too low pressure to protect the unit (lack of refrigerant gas, leakage…).
- Enhanced noise insulation : Soundproofing with high density absorbent insulation foam to reduce sound pressure

## Accessories

| Size | | 14 | 18 | 36 |
|---|---|---|---|---|
| Disconnecting switch | Code | SET001YY | | |
| Water filter | Code | SWT001YY | | SWT002YY |
| Connection hoses for water inlet/outlet | Code | SWT004YY | | SWT005YY |

**Disconnecting switch :** makes it possible to mechanically separate the condensing unit from its electrical supply. It allows locking in the open position.
**Water filter :** stainless steel PN16 sieve filter, to be connected to the water inlet of the condensing unit.

## Association with indoor units

| Taille | | 14 | 18 | 36 |
|---|---|---|---|---|
| CLBT | Cf. p.60 | • | • | • |
| GIBT | Cf. p.61 | • | • | • |
| MIBT | Cf. p.62 | • | • | |
| CIBT | Cf. p.62 | • | • | • |

### Build your PART NUMBER (P/N)

| W | B | F | 1 | 0 | 3 | B | H |
|---|---|---|---|---|---|---|---|

MODEL code 6 characters — OPTIONS Pack 2 characters

**Don't forget to order the accessories you may need!**

### Refrigerant connections

- Max length: 20 m
- Max height difference: 5 m
- Preloaded for 4 m of refrigerant lines.

The nominal powers indicated are total powers and are for indoor air (inlet to the indoor unit) at +13°C / 70% RH.
As a reminder, the power available to cool the air (sensible power) is equal to the total power minus the power absorbed by the condensation of humidity in the air (condensates).

# FABT - Low Temperature

## Centrifugal fan condensing units

R410A





| Size | | 14 | 18 | 36 |
|---|---|---|---|---|
| Model | | FABT14Q6 | FABT18Q6 | FABT36Q6 |
| Model code | | ABH102 | ABH103 | ABH105 |
| Rated cooling power | [kW] | 2,5 | 3,5 | 5,0 |
| Power supply | V-Ph-Hz | 230-1-50 | 230-1-50 | 230-1-50 |
| Rated current | [A] | 6,4 | 10,5 | 19,8 |
| Maximum current | [A] | 8,2 | 12,5 | 28,0 |
| Power supply cable | [mm²] | 3 x 2,5 | 3 x 2,5 | 3 x 6,0 |
| Connection cable (2) | [mm²] | 5 x 1,5 | 5 x 1,5 | 5 x 1,5 |
| Air flow | [m3/h] | 1400 | 2100 | 2600 |
| Static pressure available without filter / with filter | [Pa] | 170 / 110 | 210 / 120 | 230 / 160 |
| Dimensions (LxDxH) (1) | [mm] | 1120x630x450 | 1120x630x450 | 1520x900x550 |
| Weight | [kg] | 74 | 79 | 143 |
| Dimensions air outlet (LxH) | [mm] | 245 x 230 | 310 x 270 | 320 x 350 |
| Dimensions air inlet (LxH) | [mm] | 410 x 360 | 410 x 360 | 465 x 465 |
| Liquid line - Suction line | [inch] | 1/4"-1/2" | 1/4"-1/2" | 3/8"-5/8" |

(1) Dimensions excluding electrical box.
(2) The cable types and -sections are given for information only and correspond to an installation with LTB indoor units without the electric heating option.
The condensing unit delivers the nominal cooling power for a flow rate equal to the nominal air flow rate at a T° of +35°C. The outside air entering the unit must be at a T° of +40°C maximum and +20°C minimum. The "Winter start" option allows the air conditioning to operate with outside air temperatures below +20°C. This option is recommended for Low Temperature applications. Refer to pages 9 (functional diagram) and 17 (Information and precautions) for the implementation of centrifugal condensing units.
The performances indicated above are for use with an LTB low temperature indoor unit.

## Options

| | | WITHOUT enhanced noise insulation | | WITH enhanced noise insulation | |
|---|---|---|---|---|---|
| | | WITHOUT LPS | WITH LPS | WITHOUT LPS | WITH LPS |
| Winter start option | WITHOUT | AA | BA | CA | DA |
| | WITH | AB | BB | CB | DB |

Low pressure switch (LPS) : stops the compressor in case of a too low pressure to protect the unit (lack of refrigerant gas, leakage…)
Enhanced noise insulation : Soundproofing with high density absorbent insulation foam to reduce sound pressure.
Condensation control ("winter start kit"): allows operation in cooling mode with a low outside temperature (from +20°C down to -5°C), protecting the unit against excessive cooling of the condenser.

## Accessories

| Size | | 14 | 18 | 36 |
|---|---|---|---|---|
| Disconnecting switch | Code | SET003YY | | |
| Air filter and bracket | Code | SAT002YY | | SAT003YY |
| Mounting brackets | Code | SMT008YY | | SMT009YY |

**Disconnecting switch :** makes it possible to mechanically separate the condensing unit from its electrical supply. It allows locking in the open position.
**Air filter and bracket :** G3 filter to be placed at the condensing unit inlet to limit coil clogging (recommended see p. 17).
**Mounting brackets :** brackets to be fixed on the condensing unit allowing it to be suspended by threaded rods.

## Association with indoor units

| Size | | 14 | 18 | 36 |
|---|---|---|---|---|
| CLBT | Cf. p.60 | • | • | • |
| GIBT | Cf. p.61 | • | • | • |
| MIBT | Cf. p.62 | • | • | |
| CIBT | Cf. p.62 | • | • | • |

### Build your PART NUMBER (P/N)

| W | B | F | 1 | 0 | 3 | B | H |
|---|---|---|---|---|---|---|---|

MODEL code 6 characters — OPTIONS pack 2 characters

Don't forget to order the accessories you may need!

### Refrigerant connections

- Max length: 20 m
- Max height difference: 5 m
- Preloaded for 4 m of refrigerant lines.

The nominal powers indicated are total powers and are for indoor air (inlet to the indoor unit) at +13°C / 70% RH.
As a reminder, the power available to cool the air (sensible power) is equal to the total power minus the power absorbed by the condensation of humidity in the air (condensates).

# CLBT - Ceiling mounted indoor units
## Indoor units
## Low temperature

Low T°

### Characteristics

- Set temperature: from +8°C to +21°C
- Electrical heating (option)
- Control with digital display on the front

### Product benefits

- Stainless steel casing
- Electronic regulation
- Ceiling and wall mounting possible







| | | | | | |
|---|---|---|---|---|---|
| Size | | 14 | 18 | 36 | 50 |
| Model | | CLBT14 | CLBT18 | CLBT36 | CLBT50 |
| Model code for association with FHBT R410A | | UPB005WA | UPB006WA | UPB007WA | UPB008WA |
| Model code for association with FWBT or FABT | | UPB005TA | UPB006TA | UPB007TA | UPB008TA |
| Cooling power (1) | [kW] | 2,5 | 3,5 | 5,0 | 6,5 |
| Power supply | V-Ph-Hz | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 |
| Rated current | [A] | 0,6 | 0,7 | 0,8 | 0,9 |
| Air flow | [m3/h] | 1836 | 1620 | 1620 | 2520 |
| Sound pressure at 2 m | [dB(A)] | 61 | 57 | 57 | 59 |
| Dimensions (LxDxH) | [mm] | 805x475x450 | 805x475x450 | 805x475x450 | 865x525x525 |
| Net weight | [kg] | 25 | 27 | 27 | 40 |
| Liquid line - Suction line | [inch] | 1/4"-1/2" | 1/4"-5/8" | 3/8"-5/8" | 3/8"-3/4" |

(1) Performances given for an air intake temperature of +13°C/70% RH.

### Ceiling mounted units with electrical heating option

| Size | | 14 | 18 | 36 | 50 |
|---|---|---|---|---|---|
| Model code for association with FHBT R410A | | UPB005WB | UPB006WB | UPB007WB | UPB008WB |
| Model code for association with FWBT or FABT | | UPB005TB | UPB006TB | UPB007TB | UPB008TB |
| Heating power (electrical) | [kW] | 1,5 | 1,5 | 1,5 | 1,5 |
| Power supply | V-Ph-Hz | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 |
| Rated current | [A] | 7,0 | 7,0 | 7,0 | 7,0 |

The other characteristics are identical to those of the versions without the electric heating option.

**Low Temperature Indoor Units can be combined with condensing units of the corresponding size (eg : CLBT18 with FHBT18, FWBT18 or FABT18)**

# GIBT - Ducted indoor units
## Indoor units
## Low temperature

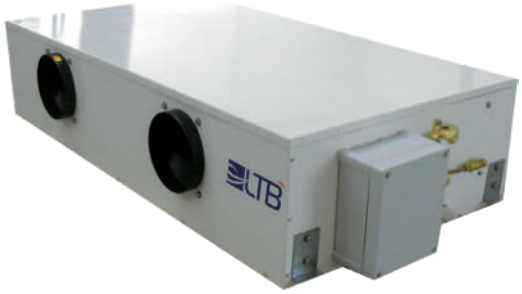
Low T°

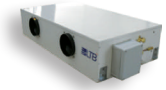
### Characteristics

- Set temperature: from +8°C to +21°C
- Wired remote control
- Electrical heating (option)
- Fan flow adjustment potentiometer to adjust it to the air duct network.

### Product benefits

- Low height
- Low noise level
- Discreet (integration in the false ceiling)
- High static pressure available





| | | | | |
|---|---|---|---|---|
| Size | | 14 | 18 | 36 |
| Model | | GIBT14 | GIBT18 | GIBT36 |
| Model code for association with FHBT R410A | | UGB001WA | UGB002WA | UGB003WA |
| Model code for association with FWBT or FABT | | UGB001TA | UGB002TA | UGB003TA |
| Cooling power (1) | [kW] | 2,5 | 3,5 | 5,0 |
| Power supply | V-Ph-Hz | 230-1-50 | 230-1-50 | 230-1-50 |
| Available pressure | [Pa] | 400 | 350 | 250 |
| Rated absorbed power | [W] | 230 | 230 | 460 |
| Rated current | [A] | 1,8 | 1,8 | 3,6 |
| Air flow | [m3/h] | 400 | 600 | 1000 |
| Sound pressure at 1 m | [dB(A)] | 40 | 44 | 50 |
| Dimensions (LxDxH) | [mm] | 1103x604x252 | 1103x604x252 | 1103x604x252 |
| Net weight | [kg] | 30 | 30 | 30 |
| Liquid line - Suction line | [inch] | 1/4" / 1/2" | 1/4" / 1/2" | 3/8"-5/8" |

(1) Performances given for an air intake temperature of +13°C/70% RH.

### Ducted indoor units with electrical heating option

| | | | | |
|---|---|---|---|---|
| Size | | 14 | 18 | 36 |
| Model code for association with FHBT R410A | | UGB001WB | UGB002WB | UGB003WB |
| Model code for association with FWBT or FABT | | UGB001TB | UGB002TB | UGB003TB |
| Heating power (electrical) | [kW] | 2 | 2 | 2 |
| Power supply | V-Ph-Hz | 230-1-50 | 230-1-50 | 230-1-50 |
| Rated current | [A] | 11 | 11 | 13 |

The other characteristics are identical to those of the versions without the electric heating option.

**Low Temperature Indoor Units can be combined with condensing units of the corresponding size (eg : GIBT14 with FHBT14, FWBT14 or FABT14)**

# MIBT - Wall mounted indoor units

## Indoor units
## Low temperature

Low T°

### Characteristics

- Compatible with FHBT, FWBT and FABT
- Electromechanical regulation
- Wired remote control (included)
- 1 fan speed
- Set temperature: from +8°C to +21°C



| | |  |  |
|---|---|---|---|
| Size | | 14 | 18 |
| Model | | MIBT14-D20 | MIBT18-D20 |
| Model code for association with FHBT R410A | | UMB302WA | UMB303WA |
| Model code for association with FWBT or FABT | | UMB302TA | UMB303TA |
| Cooling power (1) | [kW] | 2,5 | 3,5 |
| Power supply | V-Ph-Hz | 230-1-50 | 230-1-50 |
| Rated absorbed power | [W] | 61 | 96 |
| Rated current | [A] | 0,3 | 0,5 |
| Air flow | [m3/h] | 950 | 1200 |
| Sound pressure at 1 m | [dB(A)] | 38 | 43 |
| Dimensions (LxDxH) | [mm] | 930 x 230 x 330 | 1100 x 230 x 330 |
| Net weight | [kg] | 12,5 | 14,5 |
| Liquid line - Suction line | [inch] | 1/4"-5/8" (2) | 1/4"-5/8" |

(1) Performances given for an air intake temperature of +13°C/70% RH.
(2) Unit delivered with an adapter for 1/4"-1/2" connection on the IU side.

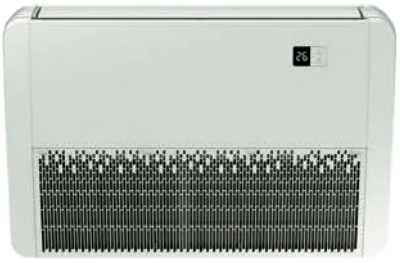
**Low Temperature Indoor Units can be combined with condensing units of the corresponding size (eg: MIBT18 with FHBT18, FWBT18 or FABT18)**

# CIBT - Console indoor units
## Indoor units
## Low temperature

Low T°

### Characteristics

- Set temperature: from +8°C to +21°C
- Can be wall- or ceiling mounted
- Compatible with FHBT, FWBT and FABT
- Wired remote control (included)
- 3 vitesses de ventilation
- Electromechanical regulation





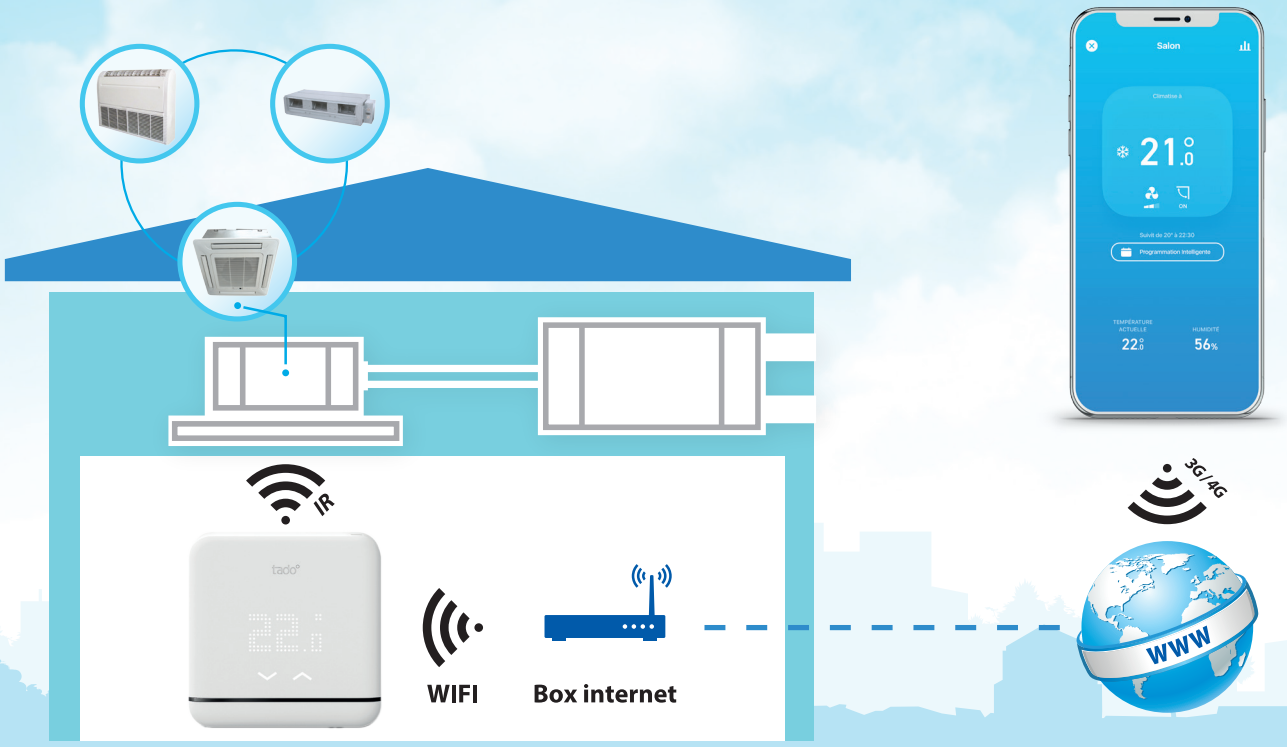


| | | | |
|---|---|---|---|
| Size | | 14-18 | 36 |
| Model | | CIBT14-18 | CIBT36 |
| Model code for association with FHBT R410A | | UCB101WA | UCB103WA |
| Model code for association with FWBT or FABT | | UCB101TA | UCB103TA |
| Cooling power (1) | [kW] | 2,5 à 3,5 | 5 |
| Power supply | V-Ph-Hz | 230-1-50 | 230-1-50 |
| Rated absorbed power | [W] | 65 | 100 |
| Rated current | [A] | 0,60 | 1,50 |
| Air flow (HS) | [m3/h] | 1200 | 1500 |
| Sound pressure at 1 m (LS) | [dB(A)] | 47 | 52 |
| Dimensions (LxDxH) | [mm] | 1050x235x675 | 1300x235x675 |
| Net weight | [kg] | 25 | 32 |
| Liquid line - Suction line | [inch] | 1/4"-1/2" | 3/8"-3/4" |

(1)Performances given for an air intake temperature of +13°C/70% RH.

**Low Temperature Indoor Units can be combined with condensing units of the corresponding size (eg : CIBT36 with FHBT36, FWBT36 or FABT36)**

# LTB Connect by tado°




## CONTROL remotely

*Know in real time and remotely the temperature and hygrometry of the room*

## MANAGE remotely

*Remotely change the temperature setpoint, the fan speed and the heating- / cooling mode.*

## SAVE MONEY by programming

*Program temperature and ventilation setpoints and save money.*
*Eg: cut off the air conditioning when the room is empty.*

- *Compatible with cassettes, consoles, ducted- and wall mounted units (model codes UMS1.. and UMS2...).*

  *Not compatible with wall mounted units UMS3... and cassettes with electical heating.*
- *1 TADO per room*

***Le spécialiste de la climatisation sans unité extérieure***

LTB Air Conditioning

# After-sales service procedure for warranty claims

***Our warranty is 2 years for groups and indoor units.***
***It remains 1 year for spare parts. Our warranty covers parts and repairs in our factory (cf. T&Cs article 7).***

***Our after-sales service procedure for the parts warranty is as follows:***

- *Order by the customer of the valued spare part, specifying that it is a request under warranty.*
- *Opening of an after-sales service file by LTB and communication to the customer of the after-sales service file number and a pre-filled return form.*
- *Delivery of the spare part by LTB. The corresponding BL will be the subject of an invoice at the end of the month.*
- *Customer returns defective part accompanied by the return form (which specifies the after-sales service file number).*
- *Expertise of the part to decide on the taking under guarantee.*
- *If the warranty claim is accepted, have issued by LTB the amount invoiced (spare part and postage).*

***We also repair machines under warranty***
*(case of repairs or diagnostics too complex to be carried out on site).*
*You return the defective machine to us, we analyze the defects and we decide on the warranty.*
*If necessary, we will restore it to working order and return it to you free of charge if it is taken under warranty.*

# General sales conditions

## ARTICLE 1 / ORDERS

*By accepting our proposals, one also accepts without any reserves the present sales conditions which will prevail over any contrary stipulation figuring on the buyer's purchase orders, his general purchase conditions or any document from the latter. The fact of not receiving these general sales conditions in the customer's mother language does not exempt their application. LTB reserves itself the right to change or amend the present general sales conditions without personally informing the customer and without giving the possibility to the latter of claiming any compensation.All orders, even those taken by our agents or representatives, do not engage us until written acceptance from us.Apart from any contrary stipulation from us, our proposals and quotations are valid during a period of one month following their delivery.On receipt of our order confirmation, in absence of any written comment from the customer within 24 hours, the order will be considered as firm and definitive by LTB according to the conditions specified in the order confirmation.For any order cancelled within 3 working days after receipt of the order confirmation, LTB reserves the right to invoice 20 % of the total amount of the original order, free of tax.When the goods have to be delivered to controlling offices or institutions, the price request must be accompanied by the conditions of the contract, clauses and conditions to which we have to subscribe. This is mentioned on the quotation. Reception and attendance fees are always chargeable to the customer. The analysis and documents delivered to our customer remain our property. Study fees are determined during the establishment of the quotation.*

*PRICE: According to the legislation, our prices are indicated excluding taxes and mention is made on our prices and quotes of the current VAT rate.*

*Our prices are deemed to be firm for a period of validity specified on the estimate. We reserve the right, unless otherwise agreed by us, to modify our prices according to the evolution of the prices of our suppliers. The minimum billing amount is €75 excluding VAT.*

## *ARTICLE 2 / DELIVERY*

*All deliveries are subject to the company manager signing the account opening document and sending LTB the original of this document and all the documents requested in the appendix.*

*On any order whose value excluding taxes is less than or equal to €45,735, the shipping costs are entirely the responsibility of the buyer regardless of the place of delivery. If the delivery arrangements are changed, we reserve the right to charge any additional costs that may result. Special packaging or express shipments requested by the recipient remain entirely the responsibility of the latter.*

*Delivery is deemed to have been made in the seller's factories or stores.*

*The goods travel at the risk and peril of the recipient even in the event of free delivery.*

## *ARTICLE 3 / CLAUSE DE RESERVE DE PROPRIETE*

*PROPRETY RESERVE CLAUSE. In application to the law n°80-335 of the 12th of May 1980, the goods sold by us legally remain our property until the complete and final payment of the total sums due by the customer.*

## *ARTICLE 4 / PAYMENT CONDITIONS*

*All sales to merchants are considered as processed and payable at Clohars-Carnoët (France), without possible derogation from this jurisdiction clause and regardless of the method of payment, the place of promise and delivery.*

*Our invoices are payable in cash or on customary reference, by transfer within thirty days of the periodic invoicing date and without discount. Non-payment of an invoice on its due date automatically accrues interest on the basis of 1.5 times the local bank base rate plus 2 points from the due date; its recovery by legal means entails an increase of 15% of the principal claimed. In addition, a fixed compensation of €40 for recovery costs, subject to additional compensation, is due to the creditor in the event of late payment (Law No. 2012-387 – Decree No. 2012-1115).*

*When payment by draft is agreed, it is understood that the non-payment of an item on its due date entails the immediate payment of the sums remaining due, even if they are the subject of drafts accepted at later dates.*

*In the event of non-payment of an invoice, we reserve the right to suspend the delivery of all current or future orders as well as the payment conditions granted in article 4 of the customer file completed at the time of the request. account opening.*

*We reserve the right to resolve, as of right and without formality, the sale of our equipment in the event of non-payment in full of any due date of the price, eight days after formal notice remained unsuccessful sent by registered letter with acknowledgment of receipt. containing a reminder of the said termination clause*

*The goods sold remain our property until full payment of their price. In case of return of the equipment to us, the deposits already paid remain acquired by us as damages (law n ° 80-335 of May 12, 1980). This clause is an integral part of our conditions of sale and subordinates any delivery of equipment. For certain materials, we reserve the right to require the payment of a deposit upon ordering.*

## *ARTICLE 5 / LEAD TIME*

*In any case, compliance with the delivery time is subject to the buyer being up to date with his obligations to us.*

*Delivery times are indicative. Delays cannot give rise to damages. Our contractual obligations are suspended automatically and without formality and our liability is released in the event of the occurrence of events such as any work stoppages, lockouts, accidents or delays, fires or accidents, breakage of equipment (in our premises or at our suppliers), war, riot, requisition, act of the prince, authoritarian reduction of imports, delay in the transport of goods, as well as in the event of the occurrence of any circumstance beyond our control and that of our suppliers occurring after conclusion of the contract and preventing performance under normal conditions.*

## *ARTICLE 6 / LITIGATION*

*In the event of differences relating to the interpretation or execution of these conditions, the Commercial Court of Quimper will have sole jurisdiction, even in the event of a warranty claim, multiple defenders and notwithstanding any clause to the contrary.*

## *ARTICLE 7 / WARRANTY*

*Condensing units and indoor units ordered to LTB as from 1st January 2017 will receive a 2-year warranty from the date of invoice, provided that the fitting is properly done by a qualified fitter. The buyer is responsible for the fitting and commissioning, even if the information, advice and drawings have been given by LTB.*

*The warranty remains 1 year for spare parts.*

*The warranty is strictly limited to the replacement in our factory of components recognized as defective by L.T.B. the mounting and dismantling fees, transport fees and different taxes always remain chargeable to the buyer.*

*The warranty is assured when a maintenance contract is signed between the user and a qualified maintenance company.*

*Are excluded from the warranty: air filters, V-belts, fuses, plastic components and any repairs due to bad use of our units, bad connections, lack of maintenance, use of inappropriate water for water condensing machines ... We cannot be held responsible for any incident which ensue from them.*

*The warranty benefit would be automatically suspended if the payment terms were not observed by the buyer, or in case of any payment delay or payment incident.*

*The supply of replacement parts on warranty does not extend the initial duration of the warranty*

*This supply is associated to a due form order. At reception of this order, the replacement part will be supplied. The defective component has to*

*imperatively be sent back to us under for weeks carriage paid, for expertise. In case of refusal of warranty or if the defective part is not returned in due time, the replacement part will be invoiced.*

## *ARTICLE 8 / RECEIPT OF GOODS.*

*Upon receipt of the package, unpack the equipment in front of the carrier, who cannot oppose it.*

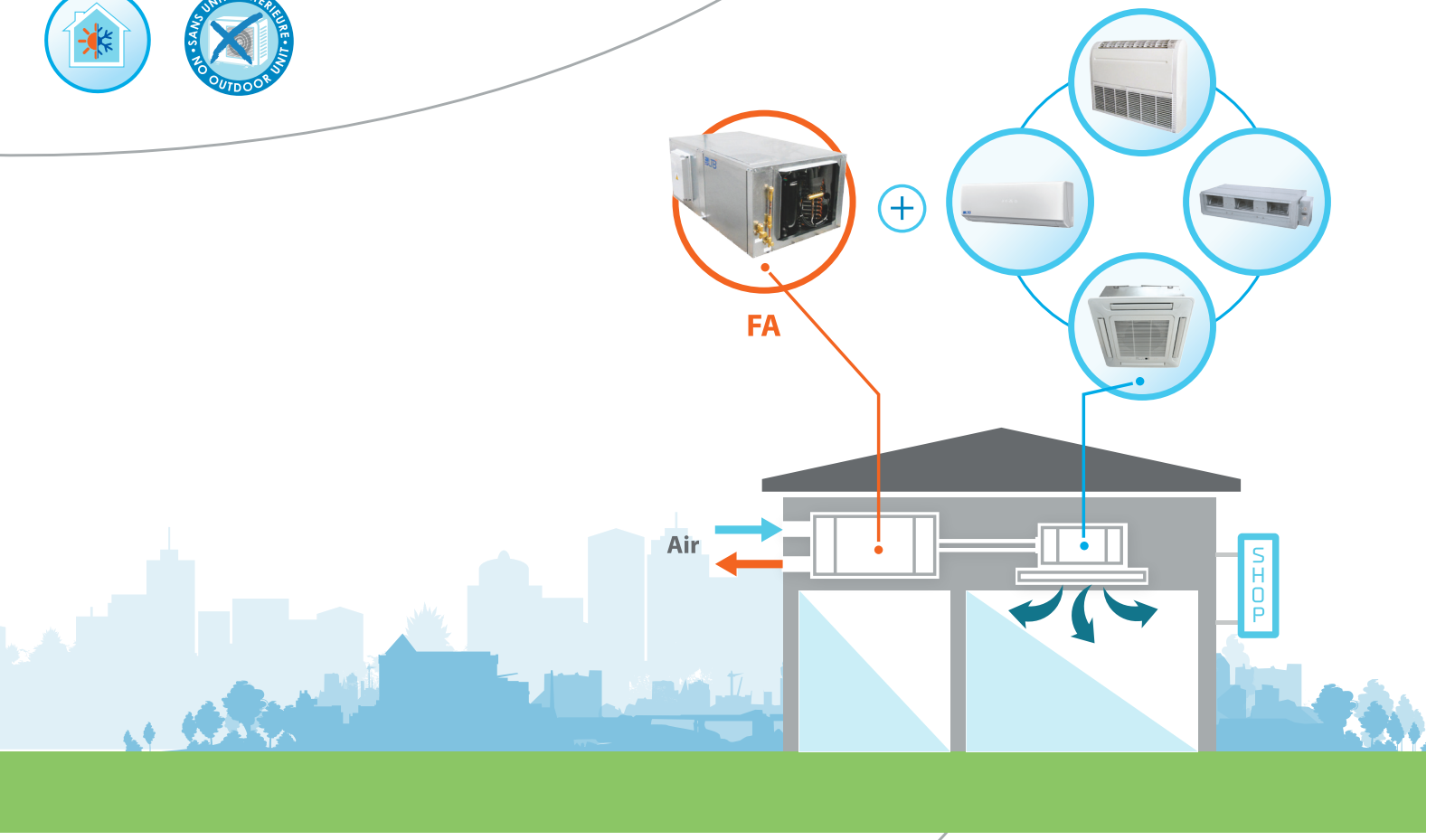
*In the event of damage, make reservations on the receipt from the carrier, reservations specifying the nature and the damage, confirm these reservations to the carrier within 48 hours by registered letter with recorded delivery and send a copy of this letter to the seller.*

## *ARTICLE 9 / DATA PROCESSING AND RIGHTS*

*In application of law n° 78-17 of January 6, 1978 relating to data processing, files and rights, each customer has the rights of opposition (art. 26 of the law), access (art. 34 to 38 of the law) and rectification (art. 36 of the law) of the data concerning him provided by him within the framework of the opening of his account.*

# *Centrifugal-fan Split-systems*

*direct expansion*




# *Water-condensing Split-systems*

*direct expansion*




*we also offer*
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