*Installation and maintenance manual*
*Manuel d'installation et de maintenance*
*Installations- und Wartungshandbuch*
*Manuale di installazione e di manutenzione*
*Manual de instalación y de mantenimiento*

# DK
# WDK
# SKX

# DN
# WDN
# SCU

**125**
**125V**
**155**
**155V**
**185**
**205**
**255**
**305**
**405M**
**405**
**505**
**605**
**755**
**905**

English | Français | Deutsch | Italiano | Español

12 ↓ 83 kW

12.4 ↓ 83 kW

HFC 407C

## SPLIT SYSTEM AIR CONDITIONNERS
## CENTRALE DE CLIMATISATION SPLITS SYSTEMES
## KLIMATISIERUNGSZENTRALE SPLIT SYSTEM
## CENTRALE DI CONDIZIONAMENTO D'ARIA SPLIT SISTEMA
## CENTRAL DE CLIMATIZACIÓN SPLIT SISTEMA

**IOM DKDN02-N-9GB**
Part number / Code / Teil Nummer / Codice / Código : **3990259GB**
Supersedes / Annule et remplace / Annulliert und ersetzt /
Annulla e sostituisce / Anula y sustituye : **IOM DKDN02-N-8GB**

**INSTALLATION INSTRUCTION** English

NOTICE D'INSTALLATION Français

INSTALLATIONSHANDBUCH Deutsch

ISTRUZIONI INSTALLAZIONE Italiano

INSTRUCCIONES DE INSTALACIÓN Español

# CONTENTS

**POWER SUPPLY MUST BE WITCHED OFF BEFORE STARTING TO WORK IN THE ELECTRIC CONTROL BOX**

## GENERAL RECOMMENDATIONS

Please read the following safety precautions very carefully before installing the unit.

### SAFETY DIRECTIONS

Follow the safety rules in forces when you are working on your appliance.

The installation, commissioning and maintenance of these units should be performed by qualified personnel having a good knowledge of standards and local regulations, as well as experience of this type of equipment.

The unit should be handled using lifting and handling equipment appropriate to the unit's size and weight.

Any wiring produced on site must comply with the corresponding national electrical regulations.

Make sure that the power supply and its frequency are adapted to the required electric current of operation, taking into account specific conditions of the location and the current required for any other appliance connected with the same circuit.

The unit must be EARTHED to avoid any risks caused by insulation defects.

It is forbidden to start any work on the electrical components if water or high humidity is present on the installation site.

### WARNING

Cutoff power supply before starting to work on the appliance.

When making the refrigerant connections, ensure that no impurities are introduced into the pipe work.

**The manufacturer declines any responsibility and the warrantly becomes void if these instructions are not respected.**

If you meet a problem, please call the Technical Department of your area.

If possible, assemble the compulsory or optional accessories before placing the appliance on its final location. (see instructions provided with each accessory).

In order to become fully familiar with the appliance, we suggest to read also our Technical Instructions.

-The information contained in these Instructions are subject to modification without advance notice.

## EQUIPMENT SAFETY DATA

| Safety Data | R407C |
|---|---|
| Toxicity | Low |
| In contact with skin | Liquid splashes or sprays may cause freeze burns. Unlikely to be hazardous by skin absorption.<br>However, R407C may be slightly irritant and, if liquid, it has a strong degreasing effect. Flush contaminated skin areas with running water. If it comes into contact with fabrics, the liquid refrigerant will cause them to freeze and adhere to the skin. Carefully remove the contaminated clothing since it might adhere to the skin and cause freeze burns. Contact a doctor if the affected skin areas are reddened or irritated. |
| In contact with eyes | Vapours have no effect. Liquid splashes or sprays may cause freeze burns. In these cases rinse your eyes with running water or with a solution for eye lavages for at least 10 minutes. Immediately contact a doctor. |
| Ingestion | Very unlikely to occur. If this should be the case, it may cause freeze burns. Never induce vomiting.<br>Keep the patient awake. Make him rinse his mouth with running water and make him drink about 1/4 of a litre. Immediately contact a doctor. |
| Inhalation | R407C: High concentration levels of its vapours in the air can produce an anaesthetic effect, including the loss of consciousness. Particularly severe exposures may cause heart arrhythmia and sometimes prove to be also fatal. |
| | At high concentrations there is a danger of asphyxia due to a reduced oxygen content in the atmosphere. In these cases take the patient to the open air, in a cool place and keep him at rest. Administer oxygen, if required. Apply artificial respiration if breathing has ceased or if it has become irregular. In case of heart failure immediately apply cardiac massage. Immediately contact a doctor. |
| Further Medical Advice | A symptomatic and supportive therapy is generally suitable. A heart sensitisation has been observed in some cases, as a result of exposures to particularly high concentrations. In the presence of catecholamines (such as for example adrenaline) in the blood flow, it has increased the irregularity of the cardiac rhythm and then caused the heart failure. |
| Long-term exposure | R407C: A lifetime study which has been conducted on the effects inhalation may have on rats at 50,000 ppm has shown the onset of benign tumours of the testicle. These remarks suggest that there is no danger for human beings if they are exposed to concentrations below the occupational limits or equal to them. |
| Occupational exposure limits | R407C: Recommended limits: 1,000 ppm v/v<br>8 hours TWA. |
| Stability | R407C: Not specified. |
| Conditions to avoid | Use in the presence of exposed flames, red heat surfaces and high humidity levels. |
| Hazardous reactions | Possibility of violent reactions with sodium, potassium, barium and other alkaline substances.<br>Incompatible materials: magnesium and all the alloys containing over 2% of magnesium. |
| Hazardous decomposition products | R407 C: Halogen acids deriving from thermal decomposition and hydrolysis. |
| General precautions | Avoid the inhalation of high concentrations of vapours. The concentration in the atmosphere shall be kept at the minimum value and anyway below the occupational limits. Since vapours are heavier than air and they tend to stagnate and to build up in closed areas, any opening for ventilation shall be made at the lowest level. |
| Breathing protection | In case of doubt about the actual concentration, wear breathing apparatus. It should be self-contained and approved by the bodies for safety protection. |
| Storage Preservation | Refrigerant containers shall be stored in a cool place, away from fire risk, direct sunlight and all heat sources, such as radiators. The maximum temperature shall never exceed 45°C in the storage place. |
| Protection clothes | Wear boots, safety gloves and glasses or masks for facial protection. |
| Behaviour in case of leaks or escapes | Never forget to wear protection clothes and breathing apparatus. Isolate the source of the leakage, provided that this operation may be performed in safety conditions. Any small quantity of refrigerant which may have escaped in its liquid state may evaporate provided that the room is well ventilated.In case of a large leakage, ventilate the room immediately. Stop the leakage with sand, earth or any suitable absorbing material. Prevent the liquid refrigerant from flowing into drains, sewers, foundations or absorbing wells since its vapours may create an asphyxiating atmosphere. |
| Disposal | The best procedure involves recovery and recycle. If this is not possible, the refrigerant shall be given to a plant which is well equipped to destroy and neutralise any acid and toxic by-product which may derive from its disposal. |
| Combustibility features | R407C: Non flammable in the atmosphere. |
| Containers | If they are exposed to the fire, they shall be constantly cooled down by water sprays.<br>Containers may explode if they are overheated. |
| Behaviour in case of fire | In case of fire wear protection clothes and self-contained breathing apparatus. |

## INSPECTION AND STORAGE

At the time of receiving the equipment carefully cross check all the elements against the shipping documents in order to ensure that all the crates and boxes have been received. Inspect all the units for any visible or hidden damage.

**In the event of shipping damage, write precise details of the damage on the shipper's delivery note and send immediately a registered letter to the shipper within 48 hours, clearly stating the damage caused. Forward a copy of this letter to the manufacturer or their representative.**

Never store or transport the unit upside down. It must be stored indoors, completely protected from rain, snow etc. The unit must not be damaged by changes in the weather (high and low temperatures). Excessively high temperatures (above 60 °C) can harm certain plastic materials and cause permanent damage. Moreover, the performance of certain electrical or electronic components can be impaired.

## CONTENTS OF PACKAGE

1 Indoor or outdoor unit (depending on the model)

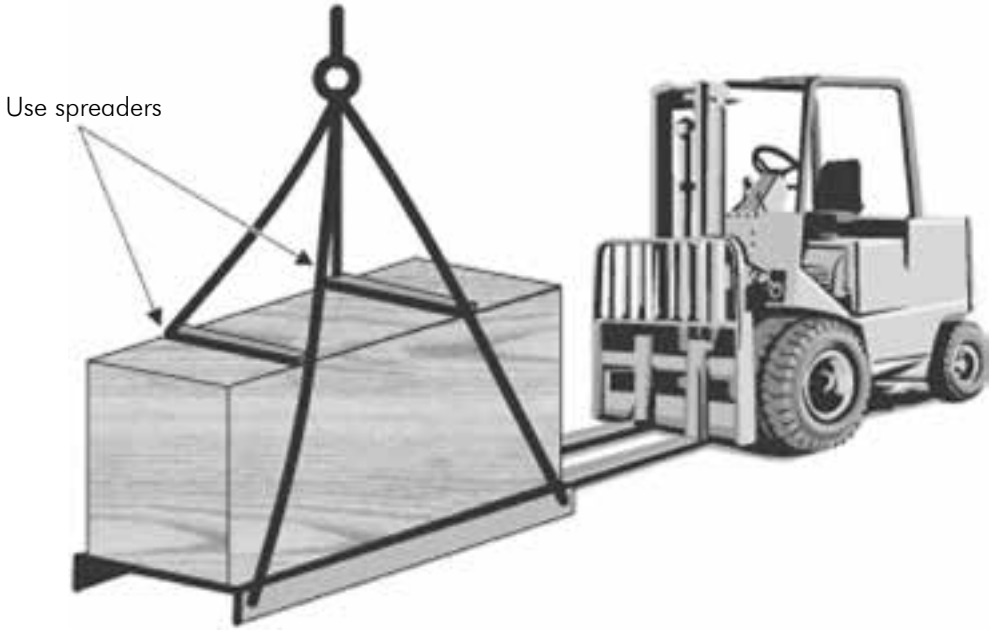
1 Bag of documentation

1 Ambience sensor (with outdoor unit)

## DIMENSIONS

# SEE APPENDIX

## HANDLING METHOD



## NET WEIGHT

### INDOOR UNITS

#### SINGLE CIRCUIT

| Models | | 125V | 125 | 155V | 155 | 185 | 205 | 255 | 305 | 405M |
|---|---|---|---|---|---|---|---|---|---|---|
| outdoor unit | Kg | 69 | 58 | 77 | 65 | 98 | 98 | 100 | 150 | 160 |

#### DUAL CIRCUITS

| Models | | 405 | 505 | 605 | 755 | 905 |
|---|---|---|---|---|---|---|
| outdoor unit | Kg | 160 | 205 | 209 | 266 | 282 |

### OUTDOOR UNITS

#### SINGLE CIRCUIT

| Models | | 125 | 155 | 185 | 205 | 255 | 305 | 405M |
|---|---|---|---|---|---|---|---|---|
| outdoor unit | Kg | 140 | 150 | 164 | 164 | 164 | 187 | 247 |

#### DUAL CIRCUITS

| Models | | 405 | 505 | 605 | 755 | 905 |
|---|---|---|---|---|---|---|
| outdoor unit | Kg | 317 | 378 | 405 | 559 | 592 |

## REFRIGERATION SPECIFICATIONS

### SINGLE CIRCUIT

| Models | | 125 - 125V | 155 - 155V | 185 | 205 | 255 | 305 | 405M |
|---|---|---|---|---|---|---|---|---|
| REFRIGERANT CHARGE | | | | | | | | |
| COOLING ONLY | g | 3030 | 4730 | 5530 | 5910 | 6060 | 8760 | 11550 |
| HEAT PUMP | g | 3200 | 4830 | 5950 | 5910 | 6010 | 8700 | 11550 |
| ADDITIONAL CHARGE | | | | | | | | |
| Connecting pipes 1/2" liquid pipe | g/m | 48 | 50 | / | 125 | 125 | 125 | 125 |
| Connecting pipes 5/8" liquid pipe | g/m | / | / | 55 | / | 210 | 210 | 210 |

### DUAL CIRCUITS

| Models | | 405 | 505 | 605 | 755 | 905 |
|---|---|---|---|---|---|---|
| REFRIGERANT CHARGE | | | | | | |
| COOLING ONLY | g | 2 x 5410 | 2 x 7060 | 2 x 9930 | 2 x 10160 | 2 x 12300 |
| HEAT PUMP | g | 2 x 5160 | 2 x 7110 | 2 x 9430 | 2 x 10160 | 2 x 12300 |
| ADDITIONAL CHARGE | | | | | | |
| Connecting pipes 1/2" liquid pipe | g/m | 125 | 125 | 125 | 125 | 125 |
| Connecting pipes 5/8" liquid pipe | g/m | 210 | 210 | 210 | 210 | 210 |

**NOTE:**

The 125, 155 and 185 units are supplied pre-filled with their refrigerant charge.

The 205, 255, 305, 405M, 405, 505, 605, 755 and 905 units are supplied filled with a nitrogen charge. The installer must fill the system with the stated volume of refrigerant at the time of installation.

The charges are stated for **4m pipe lengths**. For longer pipe lengths, the refrigerant charge must be adjusted in accordance with the details provided.

Refrigerant fluid charge values are given **for information purposes only**. The actual charge required must be adjusted during installation in order to optimise performance.

The products' installation and environment represent vital parameters for their proper operation.

# ELECTRIC SPECIFICATIONS

## SINGLE CIRCUIT

| Models | | 125 | 155 | 185 | 205 | 255 | 305 | 405M |
|---|---|---|---|---|---|---|---|---|
| Power supply 3N ~ 400V - 50Hz | | - | - | - | - | - | - | - |
| Cooling + Ventilation (or thermodynamic heating) | | | | | | | | |
| Maximum current | A | 14 | 17 | 18 | 19 | 21 | 25 | 32 |
| Fuse rating aM | A | 16 | 20 | 25 | 25 | 25 | 32 | 40 |
| Fuse rating ASE/VDE* | A | 16 | 20 | 25 | 25 | 25 | 35 | 35 |
| Total starting current | A | 69.5 | 80 | 106 | 107 | 96 | 133 | 121 |
| Power cable section * | $mm^2$ | 5 G 2.5 | 5 G 2.5 | 5 G 2.5 | 5 G 2.5 | 5 G 4 | 5 G 6 | 5 G 10 |
| UNIT CONNECTIONS | | | | | | | | |
| Maximum current | A | 1.7 | 2.4 | 5 | 2.8 | 2.8 | 3.5 | 4.8 |
| Power cable section | $mm^2$ | 7 G 1.5 | 7 G 1.5 | 4 G 1.5 | 4 G 1.5 | 4 G 1.5 | 4 G 1.5 | 4 G 1.5 |

## DUAL CIRCUITS

| Models | | 405 | 505 | 605 | 755 | 905 |
|---|---|---|---|---|---|---|
| Power supply 3N ~ 400V - 50Hz | | - | - | - | - | - |
| Cooling + Ventilation (or thermodynamic heating) | | | | | | |
| Maximum current | A | 37 | 43 | 50 | 56 | 67 |
| Fuse rating aM | A | 40 | 50 | 63 | 63 | 80 |
| Fuse rating ASE/VDE* | A | 50 | 50 | 63 | 63 | 80 |
| Total starting current | A | 124 | 118 | 159 | 192 | 234 |
| Power cable section * | $mm^2$ | 5 G 10 | 5 G 16 | 5 G 16 | 5 G 25 | 5 G35 |
| UNIT CONNECTIONS | | | | | | |
| Maximum current | A | 4.8 | 6.6 | 6.6 | 8.4 | 11.7 |
| Power cable section | $mm^2$ | 4 G 1.5 | 4 G 1.5 | 4 G 1.5 | 4 G 1.5 | 4 G 2.5 |

**IMPORTANT**

* These values are given for guidance. They must be checked and adjusted according to prevailing standards. They depend on the system installed and the cables used.

A fuse must mandatorily be provided on the system input.

Fuses not supplied

Cables not supplied

## AERAULIC SPECIFICATIONS

### SINGLE CIRCUIT

| Models | 125V | 125 | 155V | 155 | 185 | 205 | 255 | 305 | | 405M | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | PE | GE | PE | GE |
| **Indoor air fan** | | | | | | | | | | | |
| Number of fans | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Type | Centrifugal | | | | | | | | | | |
| Drive type | Direct | | | | | Belt with variable pulley | | | | | |
| Nominal power (kW) | 0.58 | 0.58 | 0.58 | 0.58 | 1.10 | 1.10 | 1.10 | 1.50 | 1.50 | 1.50 | 2.20 |
| Power supply | See electrical connections in appendix | | | | | | | | | | |
| Speed (tr/min) | 1380 | 1350 | 1380 | 1350 | 1200 | 1410 | 1410 | 1420 | 1420 | 1420 | 1390 |
| Nominal air volume ($m^3/h$) | 2100 | | 2850 | | 3500 | 4500 | 4680 | 5760 | | 7560 | |
| **outdoor air fan** | | | | | | | | | | | |
| Number of fans | 1 | | 1 | | 1 | 1 | 1 | 1 | | 1 | |
| Type | Propeller | | | | | | | | | | |
| Number of blades | 5 | | 3 | | 3 | 3 | 3 | 3 | | 7 | |
| Diameter (mm) | 560 | | 610 | | 610 | 610 | 610 | 610 | | 800 | |
| Drive type | Direct | | | | | | | | | | |

### DUAL CIRCUITS

| Models | 405 | | 505 | | 605 | | 755 | 905 |
|---|---|---|---|---|---|---|---|---|
| | PE | GE | PE | GE | PE | GE | | |
| **Indoor air fan** | | | | | | | | |
| Number of fans | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Type | Centrifugal | | | | | | | |
| Drive type | Belt with variable pulley | | | | | | | |
| Nominal power (kW) | 1.50 | 2.20 | 2.20 | 3.00 | 2.20 | 3.00 | 4.00 | 5.50 |
| Power supply | See electrical connections in appendix | | | | | | | |
| Speed (tr/min) | 1420 | 1390 | 1425 | 1430 | 1425 | 1430 | 1435 | 1440 |
| Nominal air volume ($m^3/h$) | 7560 | | 9360 | | 9720 | | 12000 | 14300 |
| **outdoor air fan** | | | | | | | | |
| Number of fans | 2 | | 2 | | 2 | | 2 | 2 |
| Type | Propeller | | | | | | | |
| Number of blades | 3 | | 3 | | 3 | | 7 | 7 |
| Diameter (mm) | 610 | | 610 | | 610 | | 800 | 800 |
| Drive type | Direct | | | | | | | |

## OPERATING LIMITS

| | **125 to 305** | **405M** | **405 to 605** | **755 & 905** |
|---|---|---|---|---|
| **Cooling mode** | | | | |
| Outside temperature min. for standard version | 15°C | -10°C (*) | 15°C | -10°C (*) |
| Outside temperature min. with all seasons kit | -10°C | -10°C (*) | -10°C | -10°C (*) |
| Outside temperature max. | +46°C | +46°C | +46°C | +46°C |
| Interior temperature min. DB/WB (°C) | 21°C / 15°C | 21°C / 15°C | 21°C / 15°C | 21°C / 15°C |
| Interior temperature max. DB/WB (°C) | 32°C / 23°C | 32°C / 23°C | 32°C / 23°C | 32°C / 23°C |
| **Heating mode** | | | | |
| Outside temperature min. | -10°C | -10°C | -10°C | -10°C |
| Outside temperature max. DB (°C) | 19°C | 19°C | 19°C | 19°C |
| Interior temperature max. DB (°C) | 27°C | 27°C | 27°C | 27°C |

The All Seasons kits modulates the outdoor fan speed to enable the machine to operate in Cooling mode at outdoor ambient temperatures as low as -10°C.

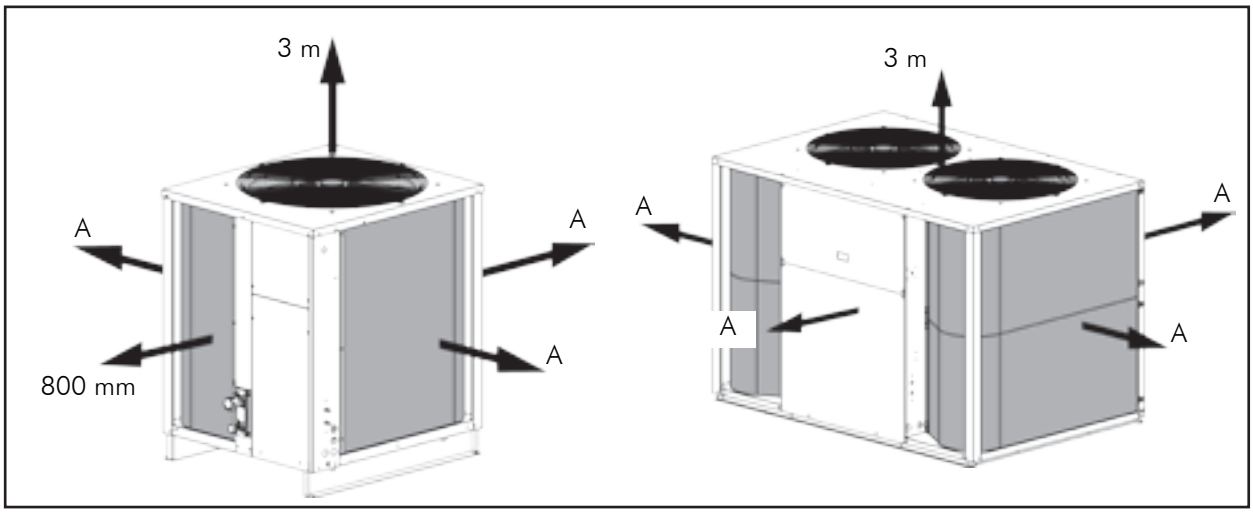
(*): The "All Seasons" kit is available as an option, except on models 405M, 755 and 905 where it is fitted as standard equipment

(DB) Dry Bulb temperature (WB) Wet bulb temperature

# INSTALLATION

## OUTDOOR UNIT

### CLEARANCE




| Minimum free clearance (mm) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Models | 125 | 155 | 185 | 205 | 255 | 305 | 405M | 405 | 505 | 605 | 755 | 905 |
| A | 500 | | | | | | | 800 | | | | |

### LOCATION

The unit must be installed on a stable horizontal base of sufficient strength to support its total operating weight. Vibration isolation devices (e.g. rubber shock absorbing pads) must be fitted between the unit and its load bearing structure.

The unit must not be installed in a location exposed to major roof rainfall drainage and must be above ground level if installed in an area subject to rainwater flooding. The unit must be installed at a height sufficient to ensure proper drainage of de-icing water and to allow any possible ice build-ups to fall off the cooling battery during de-icing cycles.

Minimum recommended height is : 250 mm above ground level.

When locating unit give consideration to, and locate unit as remote as possible from neighbour's sleeping areas to minimise noise.

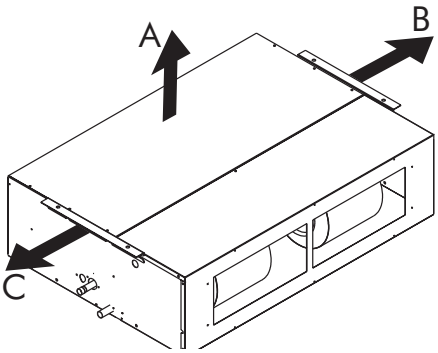
Service and air flow clearances must be allowed as indicated on the unit dimension sheet. It should be noted that major service may require removal of the top panels. Particular attention should be paid to avoiding obstructions to the vertical condensor or air discharge which may result in recirculation of the outdoor air.

In addition to the service clearances noted on the dimension sheet it is essential that provision is made for adequate and safe service access.

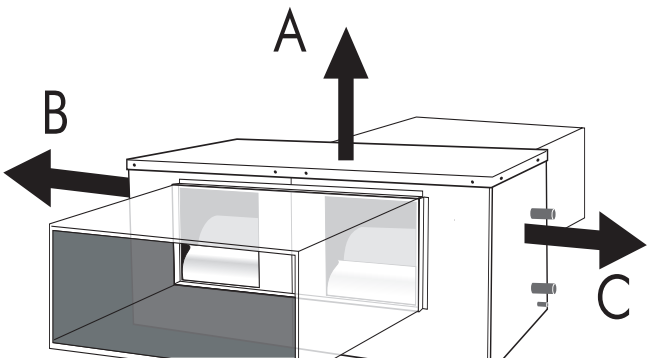
**INDOOR UNIT**

**CLEARANCE**

**125 - 155**
**125V - 155V**




**185 - 205 - 255 - 305 - 405**
**505 - 605 - 755 - 905**

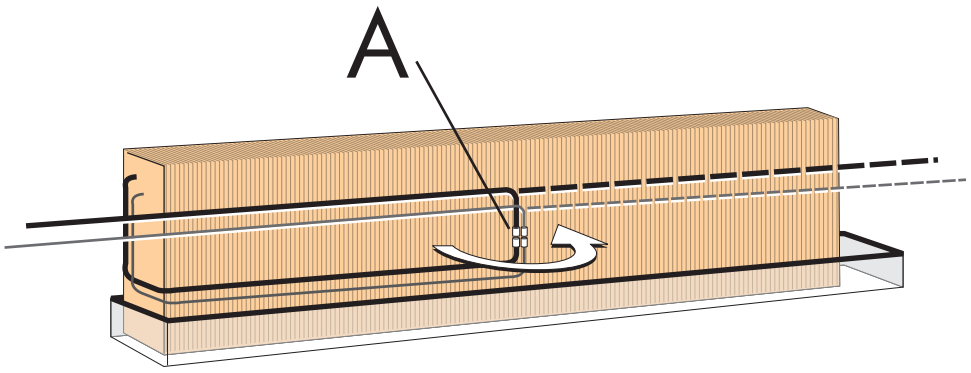



| Minimum free clearance (mm) | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Models | 125 | 125V | 155 | 155V | 185 | 205 | 255 | 305 | 405 | 505 | 605 | 755 | 905 |
| A | 20 | | | | | 200 | | | | | | | |
| B<br>side opposed to the connections | 300 | | | | | | | | | | | | |
| C<br>side connections | 800 | | | | | | | | | | | | |

**CHANGING THE POSITION OF PIPE LINKS ON MODELS 125-155-185-305-405-505-605**

Possibility of refrigerant pipes exiting on either the left or right side.

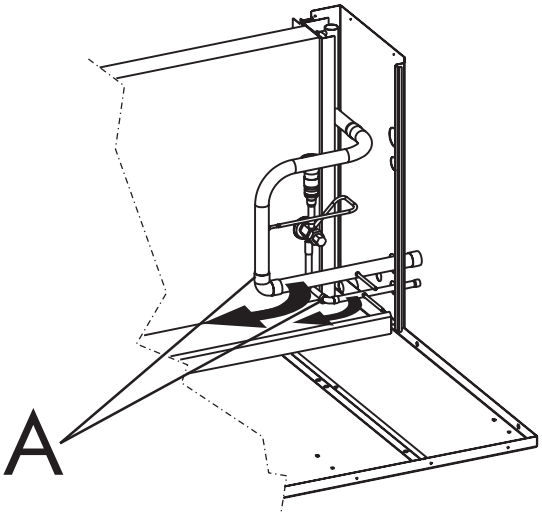
125 - 155 - 185




For the refrigerant pipes, break the brazing on the Gas and Liquid pipes at the level of Rep. **A** and re-weld the pipes in the required configuration.

In the event of making a change to the position of the links, the free clearances around the unit must be reviewed in accordance with the data on the above chart.

305 - 405M - 405 - 505 - 605

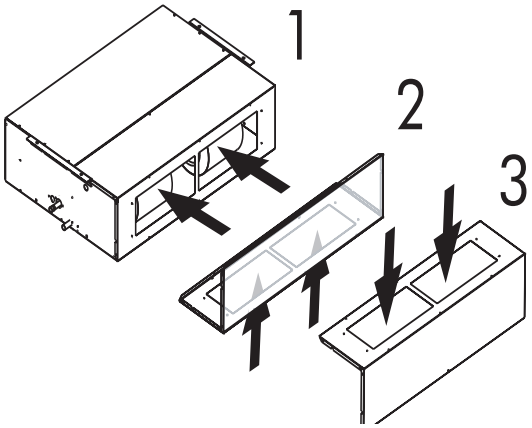



For the refrigerant pipes, break the brazing on the Gas and Liquid pipes at the level of Rep. **A** and re-weld the pipes in the required configuration.

**125V - 155V UNIT INSTALLATION CONFIGURATION**

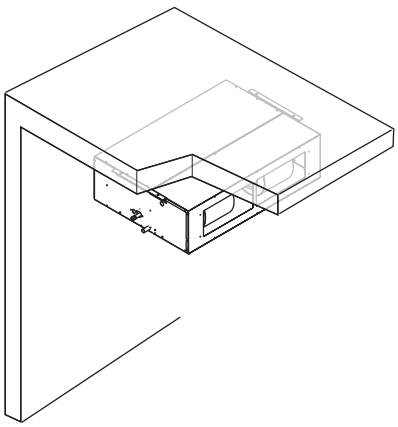
Select the appropriate configuration for the inlet panel and the mounting angle brackets before installing the unit.

This unit can be configured for air inlet from the rear (1), from above (2), or below (3).

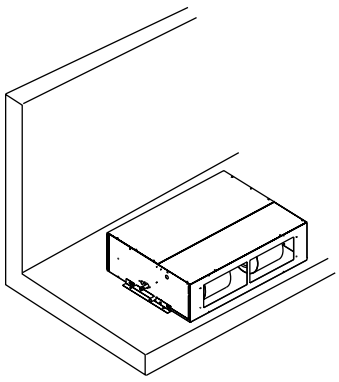



Then select the mounting location for positioning the mounting angle brackets:

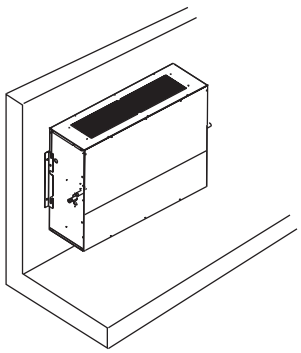
Ceiling mounting



Floor mounting



Wall mounting



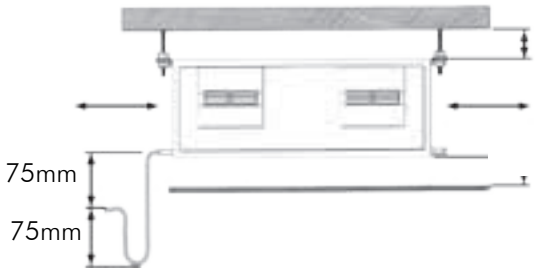
## INDOOR UNIT LOCATION

**WARNING :**

Indoor units are supplied with a charge of dry nitrogen at 40 Psi.

The indoor unit is designed for installation in a suspended ceiling, supported by 4 anchoring points that enable it to be attached and levelled.

The unit must not be located in zones containing, smoke, odours or dust that would clog the intake filters, reduce system performance and have a negative effect on the treated air quality.




As illustrated on the diagram, the siphon to be made on site (30 mm minimum) is located on the condensate evacuation pipe, in order to guarantee drainage when the indoor fan is in operation.

Lift the unit up to install the condensate evacuation pipe siphons.

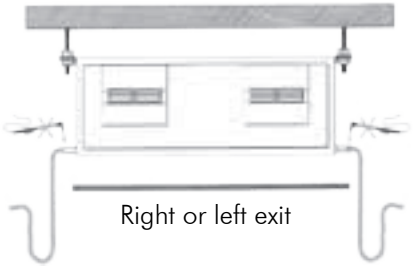
Evacuation orifice : **Ø 5/8"** (125 / 185)

Evacuation orifice : **Ø 7/8"** (205 / 255)

Evacuation orifice : **Ø 1"** (305 à 905)

**WARNING :**

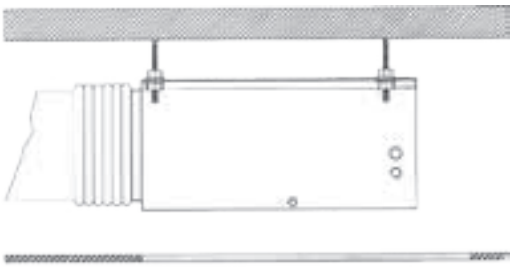
Never braze the condensate evacuation pipe to the unit's outlet connectors.




It is advisable to install a flexible sleeve on the duct to prevent any noise from being transmitted to the treated air side.

NB

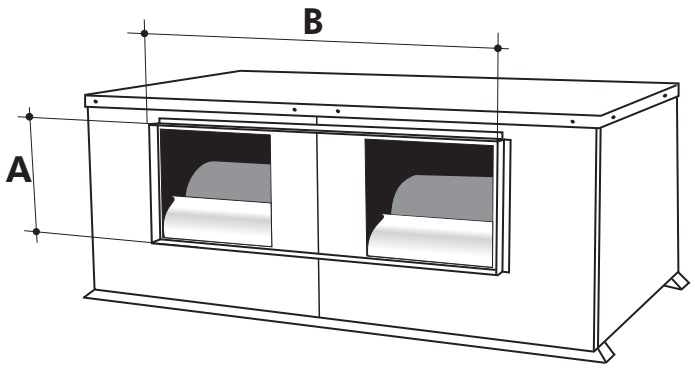
In the case of the indoor unit being installed in a zone with high relative humidity, additional unit insulation should be provided to protect the unit against risks of condensation.



Unit access hatch

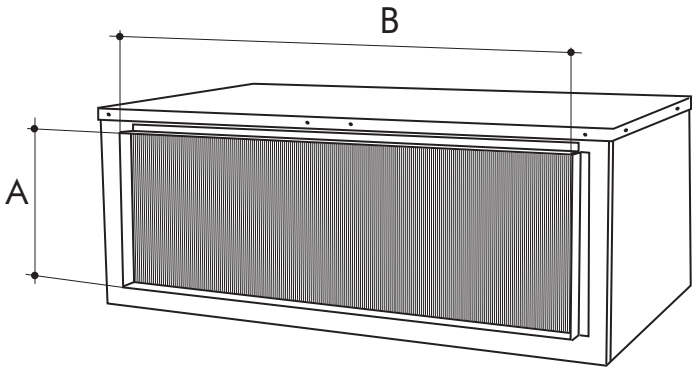
**DUCT ENTRY DIMENSIONS**
**AIR DISTRIBUTION**

| | A | B |
|---|---|---|
| 125V | 306 | 871 |
| 125 | 290 | 1100 |
| 155V | 306 | 1031 |
| 155 | 290 | 1300 |
| 185 | 350 | 1300 |
| 205 / 255 | 350 | 1302 |
| 305 / 405 | 382 | 1159 |
| 505 / 605 | 421 | 1382 |
| 755 | 448 | 1098 |
| 905 | 448 | 1098 |




**AIR INTAKE**

| | A | B |
|---|---|---|
| 125V | 321 | 858 |
| 125 | 340 | 1150 |
| 155V | 321 | 1016 |
| 155 | 340 | 1350 |
| 185 | 350 | 1300 |
| 205 / 255 | 350 | 1302 |
| 305 / 405 | 559 | 1505 |
| 505 / 605 | 601 | 1969 |
| 755 | 662 | 2002 |
| 905 | 812 | 2002 |




In the case of an installation with a filter box (option) take account of the thickness of the box for the duct entry: ~ 100 mm.

The duct network must be sized by a qualified air conditioning engineer in compliance with industry rules and best practices. The engineer must ensure that the network is compatible with the unit's aeraulic characteristics (refer to § "FLOW/ AVAILABLE STATIC PRESSURE")

**FLOW/ AVAILABLE STATIC PRESSURE**

The chart below provides the available static pressure ranges on the blowing side of the indoor units in relation to nominal flows.

| | | 125V | 125 | 155V | 155 | 185 | 205 | 255 |
|---|---|---|---|---|---|---|---|---|
| Nominal airflow ($m^3/h$) | | 2100 | | 2850 | | 3500 | 4500 | 4680 |
| min/max Ps (Pa) | PE | 93/172 | 51/122 | 16/74 | 10/62 | 20/108 | 63/165 | 10/159 |
| | GE | - | - | - | - | - | - | - |

| | | 305 | 405 | 505 | 605 | 755 | 905 |
|---|---|---|---|---|---|---|---|
| Nominal airflow ($m^3/h$) | | 5760 | 7560 | 9360 | 9720 | 12000 | 14300 |
| min/max Ps (Pa) | PE | 11/81 | 0/68 | 58/159 | 109/165 | 109/283 | 95/375 |
| | GE | 47/141 | 22/137 | 304/477 | 185/276 | - | - |

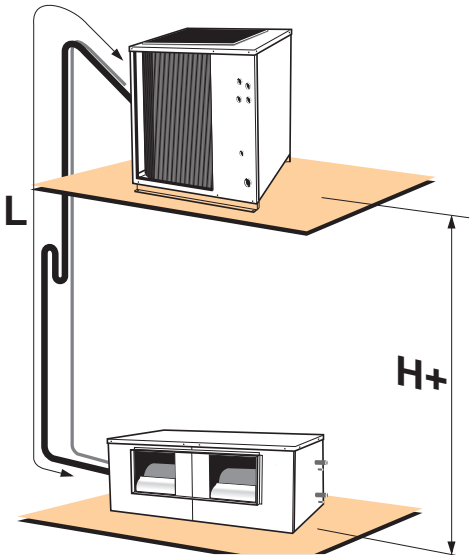
For units from 125 to 185 inclusive, flow / static pressure adjustment is achieved via the electrical connection. For other units, this adjustment is made with the aid of a variable pulley. **When adjusting this pulley, it is important to ensure that the belt is positioned properly. The pulleys / belt assembly must be aligned perfectly and the belt tensioned in accordance with best practices.**

Refer to the Appendices for the units' electrical diagrams and the aeraulic characteristics in relation to fan speed settings.

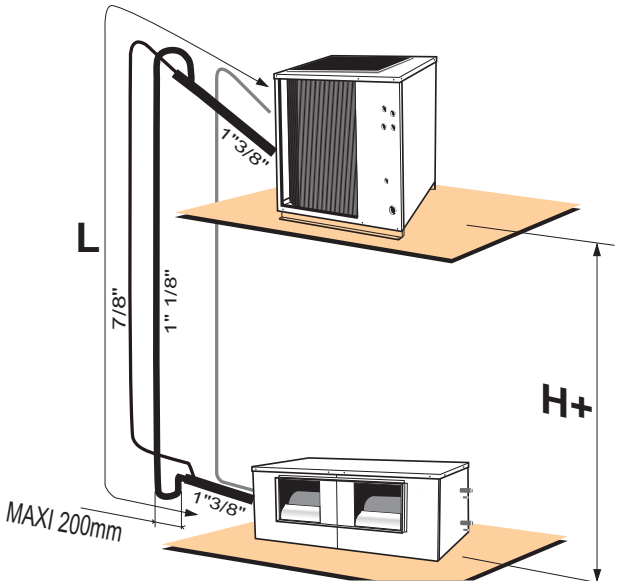
# REFRIGERANT CONNECTIONS

## POSITION OF THE UNITS

### OUTDOOR UNIT AT A HIGHER LEVEL

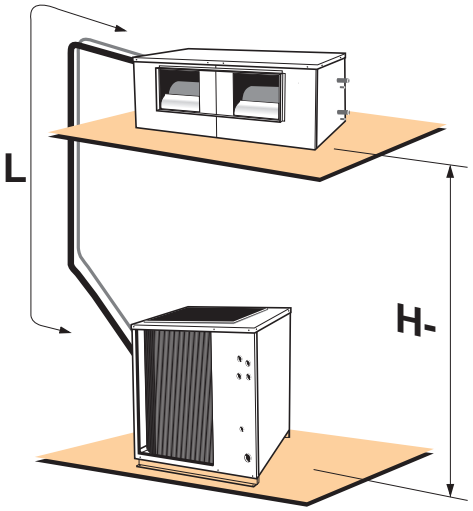


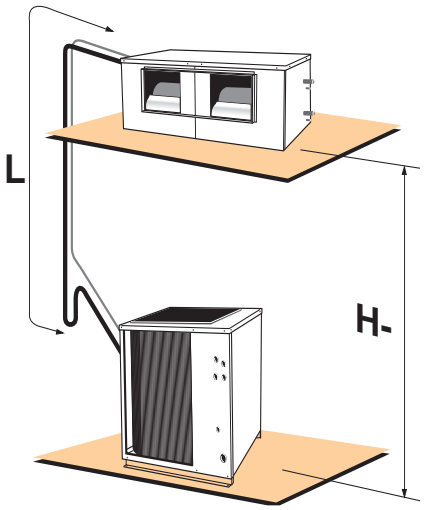

**405M**




Install a siphon on the Gas pipe every 5 m

### OUTDOOR UNIT AT A LOWER LEVEL



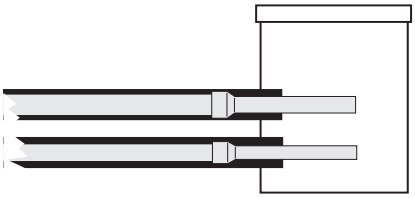

The pipe links should have a minimum slope of 1/250 towards the outdoor unit.

On **HEAT PUMP MODELS ONLY** install a siphon at the foot of the column (Gas pipe) for this installation configuration.

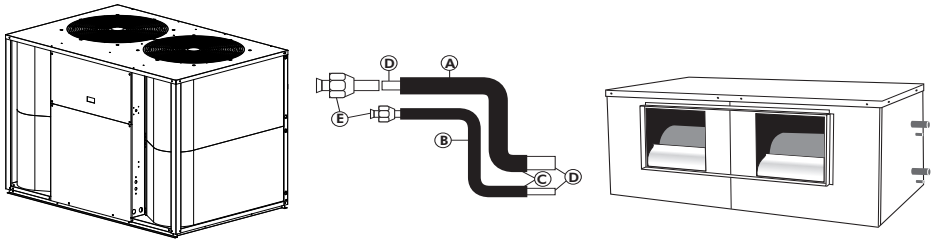
| Models | 125 - 125V<br>155 - 155V<br>185 | | 405M | | 205 - 255 - 305<br>405 - 505 - 605<br>755 - 905 | |
|---|---|---|---|---|---|---|
| | ❄ ☀ | ❄ | ❄ ☀ | ❄ | ❄ ☀ | ❄ |
| H+ maxi | 50 m | 50 m | 10 m | 10 m | 15 m | 25 m |
| H- maxi | 50 m | 50 m | 10 m | 15 m | 15 m | 15 m |
| Maximum length | 50 m | 50 m | 30 m | 30 m | 30 m | 30 m |

## REGRIGERANT LINES

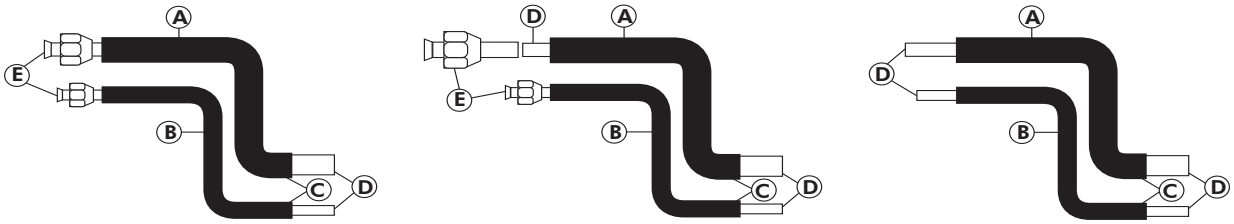
**PIPE INSULATION TO GO INSIDE THE UNIT**



### PRINCIPLE




### CONNECTING PIPES




**1** **2** **3**

**A** "Gaz" pipe

**B** "Vapour" pipe

**C** Pipe insulation (6 mm minimum)

**D** End to be brazed

**E** Flare connector

| MODELS | OUTDOOR UNIT Ø CONNECTOR | | INDOOR UNIT Ø CONNECTOR | | TYPE | QUANTITY | CONNECTING PIPES Ø CONNECTOR | | |
|---|---|---|---|---|---|---|---|---|---|
| | GAZ | LIQUID | GAZ | LIQUID | | | | GAZ | LIQUIDE |
| 125 - 125V | 3/4" | 1/2" | 3/4" | 1/2" | 1 | 1 | length < 50m | 3/4" | 1/2" |
| 155 - 155V | 3/4" | 1/2" | 7/8" | 1/2" | 2 | 1 | length < 50m | 7/8" | 1/2" |
| 185 | 3/4" | 5/8" | 7/8" | 5/8" | 2 | 1 | length < 50m | 7/8" | 5/8" |
| 205 | 1" 1/8" | 5/8" | 1" 1/8" | 1/2" | 3 | 1 | length < 30m | 1" 1/8" | 1/2" |
| 255 | 1" 1/8" | 5/8" | 1" 1/8" | 1/2" | 3 | 1 | length < 20m | 1" 1/8" | 1/2" |
| | | | | | | | length > 20m | 1" 3/8" | 5/8" |
| | | | | | | | vertical connections > 20m | 1" 1/8" | 5/8" |
| 305 | 1" 1/8" | 5/8" | 7/8" | 5/8" | 3 | 1 | length < 10m | 1" 1/8" | 1/2" |
| | | | | | | | length > 10m | 1" 3/8" | 5/8" |
| | | | | | | | vertical connections > 10m | 1" 1/8" | 5/8" |
| 405M | 1" 3/8" | 5/8" | 1" 3/8" | 5/8" | 3 | 1 | length < 30m | 1" 3/8" | 5/8" |
| | | | | | | | vertical connections | SEE P15 diagram | |
| 405 | 7/8" | 5/8" | 7/8" | 1/2" | 3 | 2 | length < 30m | 1" 1/8" | 1/2" |
| 505 | 7/8" | 5/8" | 7/8" | 1/2" | 3 | 2 | length < 20m | 1" 1/8" | 1/2" |
| | | | | | | | length > 20m | 1" 3/8" | 5/8" |
| | | | | | | | vertical connections > 20m | 1" 1/8" | 5/8" |
| 605 | 1" 1/8" | 5/8" | 1" 1/8" | 1/2" | 3 | 2 | length < 10m | 1" 1/8" | 1/2" |
| | | | | | | | length > 10m | 1" 3/8" | 5/8" |
| | | | | | | | vertical connections > 10m | 1" 1/8" | 5/8" |
| 755 | 1" 3/8" | 5/8" | 1" 3/8" | 5/8" | 3 | 2 | length < 30m | 1" 3/8" | 5/8" |
| 905 | 1" 3/8" | 5/8" | 1" 3/8" | 5/8" | 3 | 2 | length < 30m | 1" 3/8" | 5/8" |

## PIPES TO BE MADE ON SITE

Pipe links installation, system tightness testing and filling and draining the refrigerant charge must be performed by a qualified air conditioning engineer in compliance with industry rules and best practices (brazing, vacuum draining, filling, etc...).

Only use new, clean and dry refrigeration quality copper pipe of an appropriated diameter.

When installing the gas and liquid pipe links between the outdoor unit and the indoor unit, care must be taken to avoid contact with any hot surfaces such as hot water pipes, boilers, chimneys etc...

Refrigerant fluid conduits must be as short and as straight as possible to ensure operation at maximum efficiency.

The bending radius of the pipes should be equal to or more than 3,5 times de outside diameter of the pipe.

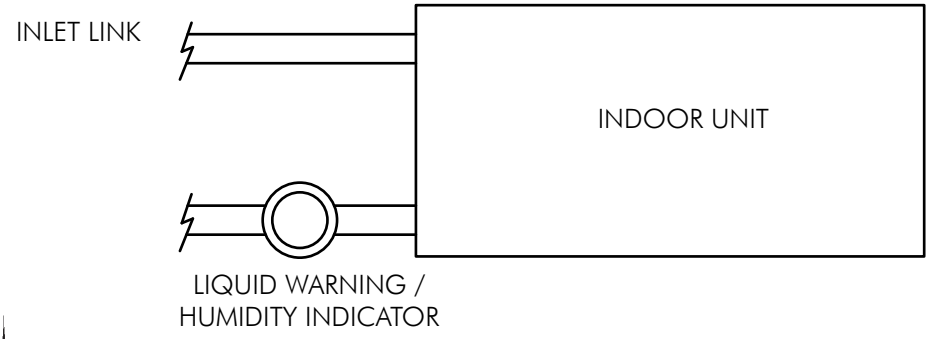
Do not bend the pipes consecutively more than three times and do not make more than 12 bends over the complete length of the link..

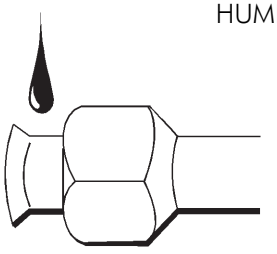
## ASSEMBLY PROCEDURE

In certain outdoor units, the pipe links are attached at the level of the brazing connection points in order to avoid damage during transport. If this is the case, the attachments should be removed when making the pipe connections between the indoor and outdoor units.

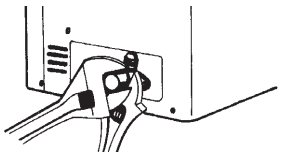
For certain machines, the liquid inspection glass is supplied separate to the unit. In this case, the liquid inspection glass must be located just before the indoor unit as shown on the following diagram:

The liquid inspection glass is an important item and its proper location is vital. The information provided is indispensable when filling the system with refrigerant fluid and also for ensuring that the humidity level in the circuit is below the critical level that could lead to damage to certain refrigeration components. Therefore, the liquid seen through the inspection glass must always remain green (humidity level below 60 ppm).



To obtain the right tightening, cover the surface with cooling oil.



The use of a counter wrench is required to tighten the valves.

The values of the tightening torque are shown in the table below.

| PIPE Ø | TIGHTENING TORQUE |
|---|---|
| 1/4'''' | 15-20 Nm |
| 3/8'''' | 30-35 Nm |
| 1/2'''' | 50-54 Nm |
| 5/8'''' | 70-75 Nm |
| 7/8'''' | 90-95 Nm |

## SYSTEM PUMP DOWN

The 125, 155 and 185 outdoor units are supplied pre-filled with their refrigerant fluid charges. It is necessary to pump down the piping as well as the indoor unit and to conduct a leakage test before opening the Flare valves. Follow the instructions below for vacuum draining and leakage detection. Adjust the refrigerant charge accordingly (refer to § refrigeration specifications) for pipe lengths other than stated on the unit's Maker's Plate,.

The 205, 255, 305, 405M, 405, 505, 605, 755 and 905 units are supplied filled with nitrogen. It is imperative to drain the nitrogen charge, then vacuum drain the entire system and finally check for the absence of leaks prior to proceeding with filling the system with refrigerant fluid.

**In no event should the compressor be used to pump dow the system. It is not designed for this usage and serious damage may result.**

A vacuum pump must be used for system pump down. Connect the pump to the service taps on either side of the compressor.

Start the vacuum pump and let it run until the pressure level in the system is below 10-1 mbar, as this pressure is sufficiently low to remove humidity.

If this pressure level cannot be achieved, check the capacity of the pump and the entire system for any possible leakages.

When the system has been pumped down, allow it to remain at this level of vacuum for a period of 12 hours. If no significant rise in pressure occurs, the system is ready to be filled with the refrigerant charge.

The bottle of refrigerant must be connected to the HP service tap on the liquid pipe. A dryer placed as near as possible to the service tap on the liquid pipe must be used when charging the refrigerant . In the case of R407C, ensure that the charge is filled in liquid form. The vacuum created in the indoor and outdoor units causes a considerable quantity of refrigerant to enter the system.

The charges are indicated (refer to § refrigeration specifications) for 4 metre pipe lengths between the indoor and outdoor units and are provided for information purposes only. The filling operation must continue until 80% to 90% of the indicated charge has entered the system (corrected for pipe lengths other than 4 metres).

Start the system. The outdoor and indoor temperatures should be as close as possible to actual operating conditions. Continue to add refrigerant until the refrigerant passing under the liquid inspection glass is "clear". In this event, the refrigerant is entirely in liquid form. Allow the system to operate for about one hour to reach a stable operating regime.

If necessary, adjust the refrigerant charge in relation to the information provided by the liquid inspection glass and the measurement of the subcooler temperature. This value is equal to the saturated liquid temperature in relation to the condensing pressure (refer to the R22 and R407C refrigerant characteristics charts) less the condenser outlet temperature (liquid line temperature measured with the aid of a thermocouple). The subcooler temperature value must be between 4°C and 8°C. If bubbles can be seen in the liquid through the liquid inspection glass, refrigerant needs to be added. A subcooler temperature above 8°C is a sign of overfilling and in this case, refrigerant must be drained from the system.

R407C refrigerant characteristics

| Absolute pressure (bar) | Saturated liquid temperature (°C) | Saturated vapour temperature (°C) | Absolute pressure (bar) | Saturated liquid temperature (°C) | Saturated vapour temperature (°C) | Absolute pressure (bar) | Saturated liquid temperature (°C) | Saturated vapour temperature (°C) |
|---|---|---|---|---|---|---|---|---|
| 1,0 | -44,1 | -37,0 | 10,5 | 20,5 | 26,0 | 20,0 | 45,7 | 50,3 |
| 1,5 | -35,3 | -28,4 | 11,0 | 22,2 | 27,7 | 20,5 | 46,8 | 51,3 |
| 2,0 | -28,5 | -21,8 | 11,5 | 23,8 | 29,2 | 21,0 | 47,8 | 52,3 |
| 2,5 | -23,0 | -16,3 | 12,0 | 25,4 | 30,8 | 21,5 | 48,8 | 53,3 |
| 3,0 | -18,3 | -11,7 | 12,5 | 26,9 | 32,2 | 22,0 | 49,8 | 54,2 |
| 3,5 | -14,1 | -7,6 | 13,0 | 28,4 | 33,7 | 22,5 | 50,8 | 55,2 |
| 4,0 | -10,4 | -4,0 | 13,5 | 29,8 | 35,1 | 23,0 | 51,7 | 56,1 |
| 4,5 | -7,0 | -0,7 | 14,0 | 31,2 | 36,4 | 23,5 | 52,7 | 57,0 |
| 5,0 | -3,9 | 2,3 | 14,5 | 32,6 | 37,7 | 24,0 | 53,6 | 57,9 |
| 5,5 | -1,0 | 5,2 | 15,0 | 33,9 | 39,0 | 24,5 | 54,5 | 58,7 |
| 6,0 | 1,7 | 7,8 | 15,5 | 35,2 | 40,3 | 25,0 | 55,5 | 59,6 |
| 6,5 | 4,2 | 10,3 | 16,0 | 36,5 | 41,5 | 25,5 | 56,3 | 60,4 |
| 7,0 | 6,6 | 12,6 | 16,5 | 37,7 | 42,7 | 26,0 | 57,2 | 61,3 |
| 7,5 | 8,9 | 14,8 | 17,0 | 38,9 | 43,8 | 26,5 | 58,1 | 62,1 |
| 8,0 | 11,0 | 16,9 | 17,5 | 40,1 | 45,0 | 27,0 | 58,9 | 62,9 |
| 8,5 | 13,1 | 18,9 | 18,0 | 41,3 | 46,1 | 27,5 | 59,8 | 63,7 |
| 9,0 | 15,1 | 20,8 | 18,5 | 42,4 | 47,2 | 28,0 | 60,6 | 64,5 |
| 9,5 | 16,9 | 22,6 | 19,0 | 43,5 | 48,2 | 28,5 | 61,4 | 65,2 |
| 10,0 | 18,8 | 24,3 | 19,5 | 44,6 | 49,3 | 29,0 | 62,3 | 66,0 |

## WIRING DIAGRAM AND LEGEND

### WIRING DIAGRAM

# SEE APPENDIX

### LEGEND

## N 708

| | | |
|---|---|---|
| SE : 3025 | models125 / 155 | 3-N 400V+/-10% 50Hz |
| SE : 3072 | model 185 | 3-N 400V+/-10% 50Hz |
| SE : 3033 | models 205 / 255 | 3-Phase 400/230 V+/-10% 50Hz |
| SE : 3034 | model 305 | 3-Phase 400/230 V+/-10% 50Hz |
| SE : 3498 | models 405M CONTROL | 1-Phase 230 V+/-10% 50Hz |
| SE : 3497 | model 405M POWER | 3-Phase 400/230 V+/-10% 50Hz |
| SE : 3035 | models 405 / 505 CONTROL | 1-Phase 230 V+/-10% 50Hz |
| SE : 3036 | models 605 CONTROL | 1-Phase 230 V+/-10% 50Hz |
| SE : 3037 | models 405 / 505 / 605 POWER | 3-Phase 400/230 V+/-10% 50Hz |
| SE : 3496 | models 755 / 905 CONTROL | 1-Phase 230 V+/-10% 50Hz |
| SE : 3495 | models 755 / 905 POWER | 3-Phase 400/230 V+/-10% 50Hz |

### POWER CIRCUIT

Voltage: 400 V~ + Neutral + Earth

On terminals P-E - L1 – L2 - L3 of the Q1 mains supply switch on the outdoor unit.

This supply comes from a general fuse holder FFG supplied by the installer, in accordance with electric specifications.

The electrical installation and wiring of this unit must comply with local electrical installation standards.

The Q2 mains supply switch for the indoor unit shall be fitted on site by the installer. It must be located adjacent to the unit.

**TABLE 1:**

| Models | Rating of Q2 (minimum characteristics) |
|---|---|
| 125 | I th = 10 A Pdc =20 A |
| 155 | I th = 10 A Pdc =20 A |
| 185 | I th = 10 A Pdc =20 A |
| 205 | I th = 10 A Pdc =20 A |
| 255 | I th = 10 A Pdc =20 A |
| 305 | I th = 10 A Pdc =25 A |
| 405M | I th = 10 A Pdc =30 A |
| 405 | I th = 10 A Pdc =30 A |
| 505 | I th = 10 A Pdc =50 A |
| 605 | I th = 10 A Pdc =50 A |
| 755 | I th = 10 A Pdc =50 A |
| 905 | I th = 10 A Pdc =50 A |

## ELECTRICAL DIAGRAM ABREVIATIONS

### COMPRESSOR / SAFETIES CIRCUITS

K1 : M1 compressor contactor

K2 : M2 compressor contactor (1)

FT1/FT2: compressor M1/M2 thermal relay

KA1 : order and cutted phase controller for "SCROLL" compressor (according to models)

LP1 : Low pressure pressostat (automatic reset)

LP2 : Low pressure pressostat (automatic reset) (1)

HP1 : High pressure pressostat (automatic reset)

HP2 : High pressure pressostat (automatic reset) (1)

R1 : Sump heating resistance

R2 : Sump heating resistance (2)

FF7 : Cut-out switch

M1 : Compressor

M2 : Compressor (2)

RV1 : Cycle reversal valve (Heat pump model)

RV2 : Cycle reversal valve (Heat pump model) (2)

RT : Anti-frost thermostat (option)

ICT : Indoor coil temperature sensor (option)

OCT : Outdoor coil temperature sensor

OCT2: Outdoor coil temperature sensor (1)

SM1 : Remote ON/OFF switch (not supplied) (disconnect the shunt SHM on the circuit board)

X : Terminal block

PCB : Controller board

T1 : PCB's transformer

Note1: depending on model.

Note 2: Only models with 2 compressors

### FAN MOTORS & THEIR EQUIPMENT

MO1 : Outdoor unit fan motor. (See table 2)

MO2 : Outdoor unit fan motor. (1) (See table 2)

CO1 : MO1 motor condenser (1)

CO2 : MO2 motor condenser (1)

FO1 : Safeties of motor MO1 (1) (automatic reset)

FO2 : Safeties of motor MO2 (1) (automatic reset)

FT3 : MI3 motor thermal relay or cut-out switch(1)

K3 : MI3 contactor (1)

MI3 : Indoor unit motor

C3 : Condenser MI3 (single phase model)

Note 1 :depending on model.

### ALL SEASONS KIT

ACS1/ACS2 : Three phase frequency regulator

S1/S2 : Pressure transducer

KA2/KA3 : Heat pump mode signal relay (Heat pump models)

KO1/KO2 : "ON/OFF" relay

**TABLE 2:**

| Outdoor unit | Fan low speed | Capacitor value |
|---|---|---|
| 125/155/255/305 | white wire | 12 $\mu$F |
| 185/205 | red wire | 12 $\mu$F |
| 405/505/605/755/905 | red wire | 10 $\mu$F |

**INDOOR FAN MOTOR THERMAL RELAY RANGE AND SETTINGS (CLASSE AC3)**

**SINGLE CIRCUIT**

| Model | | 125 | 155 | 185 | 205 | 255 | 305 | 405M |
|---|---|---|---|---|---|---|---|---|
| overload relay setting | | | | | | | | |
| FT3 | Range | / | / | 6A | 2.6 –3.7A | 2.6-3.7A | 2.6-3.7A | 2.5-4A |
| | Adjustment | | | | 2.8A | 2.8A | 3.5A | 4A |
| AC3 Contactor | | | | | | | | |
| K1 | | 12A | 12A | 18A | 18A | 25A | 25A | 18A |
| K2 | | - | - | - | - | - | - | 18A |
| K3 | | | | 6A | 9A | 9A | 9A | 9A |

**DUAL CIRCUITS**

| Model | | 405 | 505 | 605 | 755 | 905 |
|---|---|---|---|---|---|---|
| overload relay setting | | | | | | |
| FT1/FT2 | Range | / | / | / | 16-24A | 23-32A |
| | Adjustment | | | | 24A | 32A |
| FT3 | Range | 2.5-4A | 6-10A | 6-10A | 6-10A | 9-14A |
| | Adjustment | 4A | 6.6A | 6.6A | 9A | 12A |
| AC3 Contactor | | | | | | |
| K1 | | 25A | 25A | 25A | 25A | 32A |
| K2 | | 25A | 25A | 25A | 25A | 32A |
| K3 | | 9A | 9A | 9A | 9A | 12A |

**PRESSOSTAT SETTINGS**

LP1 : Low pressure fixed setting 50kPa 0.5bar

LP2 : Low pressure fixed setting 50kPa 0.5bar (depending on model)

HP1 : High pressure fixed setting 2920kPa 29,2bar (423,7PSI)

HP2 : High pressure fixed setting 2920kPa 29,2bar (423,7PSI) (depending on model)

**COLOUR CODE**

| | | | | | |
|---|---|---|---|---|---|
| BK | : Black | WH | : White | BU | : Blue |
| OG | : Orange | RD | : Red | GY | : Grey |
| GNYE | : Green/Yellows | VT | : Violet | BN | : Brown |

## ELECTRICAL CONNECTIONS

As standard, these units are equipped with a local switch acting as a mains supply terminal block.

**This switch can be padlocked.**

A trip switch or a fuse holder (not supplied) must be installed upstream of the unit, in accordance with the wiring diagram, refer to the electrical specifications

Model

125 - 155 - 185 - 205 - 255 - 305 - 405M

Press to unclip and remove the local switch from the electrical board.


3N~400V- 50HZ

Use a POZIDRIV M 3.5, Z screwdriver for connecting the wires.

Model

405 - 505 - 605 - 755


Maximum tightening torque

Mod 125 155 185 205 255 305 405M

2,1Nm

Mod 405 - 505 - 605 - 755

4Nm

3N~400V- 50 HZ


Maximum tightening torque

Mod 905

6Nm

Use a key for hexagonal socket screws of 4mm for connecting the wires.

**VERY IMPORTANT:**

**3N~400V-50HZ+ ⏚**

The outdoor unit is equipped as standard with a phase sequence and cut-out controller located in the electrical box.

**THIS PRODUCT IS EQUIPPED WITH A PHASE SEQUENCE CONTROLLER. THE LED's INDICATE THE FOLLOWING CONDITIONS:**

**Green LED = 1**

**Yellow LED =1**

Low voltage supply

The compressor rotation direction is correct

**Green LED = 1**

**Yellow LED =0**

Phase inversion or phase absent (L1)

The compressor and the fans do not start.

**Green LED = 0**

**Yellow LED =0**

Phase absent (L2 or L3)

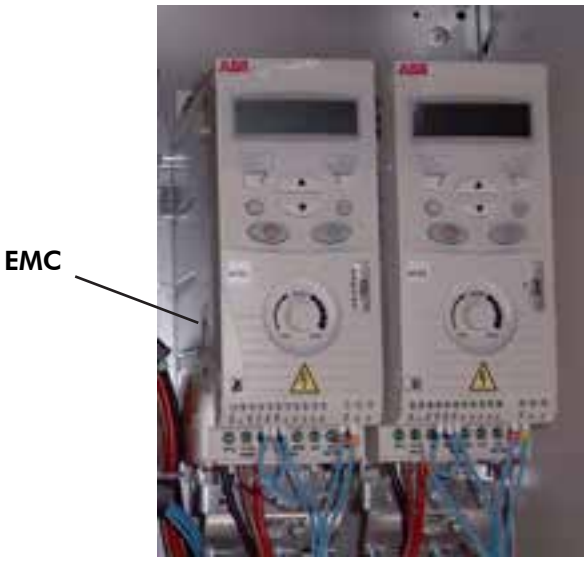
the compressor and the fans do not start.

**FREQUENCY DRIVE**

This equipment is installed on external units 405M, 755 and 905.

**WARNING**

**FREQUENCY DRIVE**

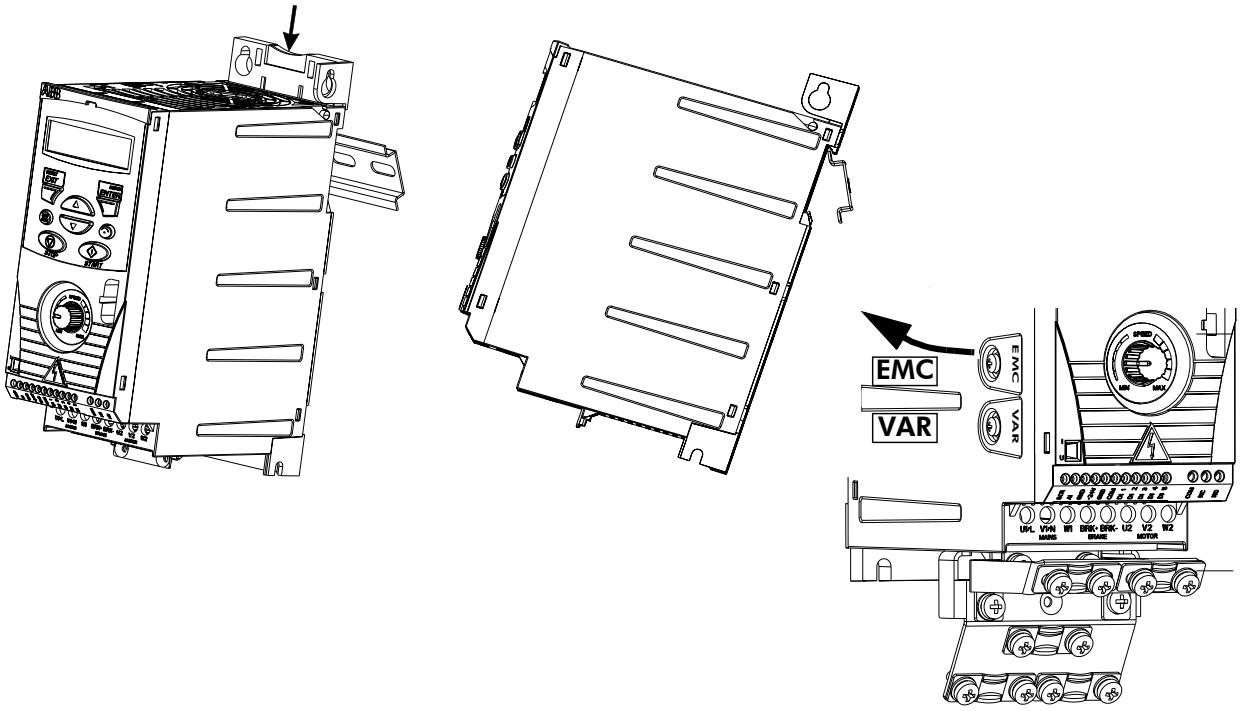



When the building power supply is of an IT (ungrounded) type or corner grounded TN type, disconnect the internal EMC filter by removing the screw at EMC.

WARNING! If a drive whose EMC filter is not disconnected is installed on an IT system [an ungrounded power system or a high resistance-grounded (over 30 ohms) power system], the system will be connected to earth potential through the EMC filter capacitors of the drive. This may cause danger or damage the drive.

If a drive whose EMC filter is not disconnected is installed on a corner grounded TN system, the drive will be damaged.

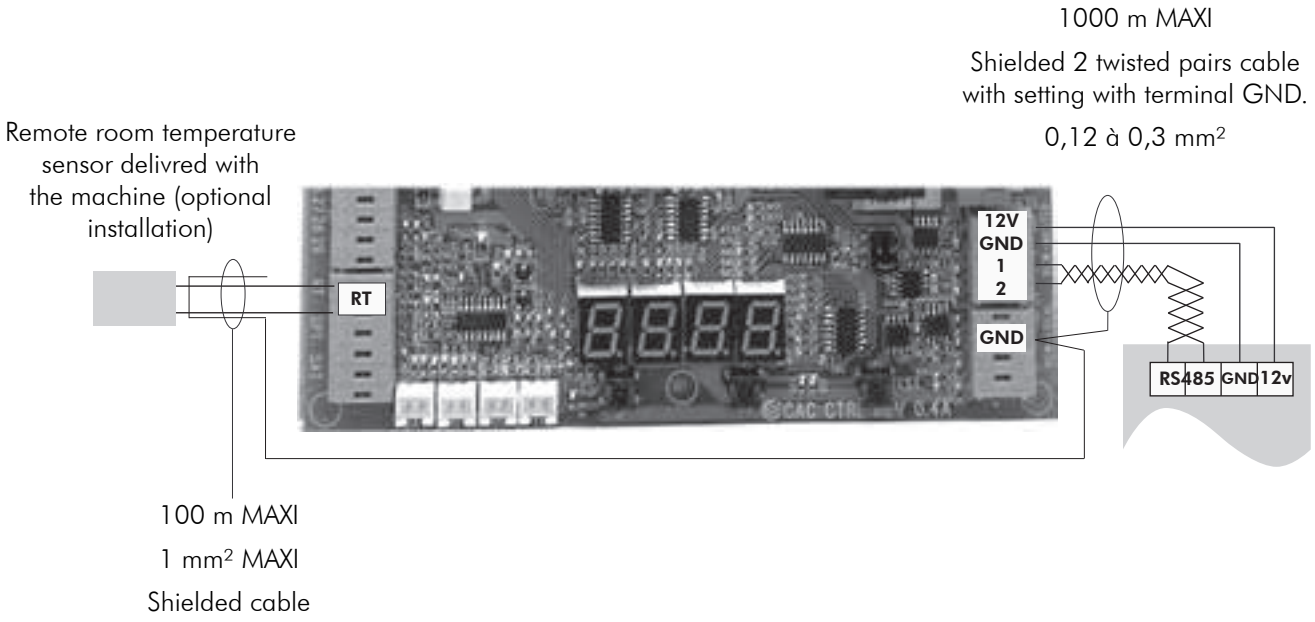
Press the release lever on top of the drive.



**CONNECTION OF OUDOOR AND INDOOR UNITS**

# SEE APPENDIX

**CONNECTION OF RCW2 + REMOTE ROOM TEMPERATURE**




IF the RT sensor is not used, the RCW2 must be configured in Zone 1 with the local temperature function activated.

## FINAL TASKS

Place the plugs back on the valves and check that they are properly tightened.

If needed, fix the cables and the pipes on the wall with clamping collars.

Operate the air conditioner in the presence of the user and explain all functions.

Show him how to remove, clean and place back the filters.

## IN-WARRANTY RETURN MATERIAL PROCEDURE

Material must not be returned without permission of our After Sales Department.

To return the material, contact your nearest sales office and ask for a "return voucher". This return voucher shall be sent out with the returned material and shall contain all necessary information concerning the problem encountered.

The return of the part does not constitute an order for replacement. Therefore, a purchase order must be entered through your nearest distributor or regional sales office. The order should include part name, part number, model number and serial number of the unit involved.

Following our personal inspection of the returned part, and if it is determined that the failure is due to faulty material or workmanship, and in warranty, credit will be issued on customer's purchase order. All parts shall be returned to our factory, transportation charges prepaid.

## SERVICE AND SPARE PARTS ORDER

The model number, the confirmation number and the unit serial number indicated on the name plate must be provided whenever service works or spare parts are ordered.

For any spare part order, indicate the date of unit installation and date of failure. Use the part number provided by our service spare parts, if it not available, provide full description of the part required.

## SERVICING

### ROUTINE SERVICING

To ensure the correct operation of the installation, it is necessary to have preventive maintenance of the indoor and outdoor units carried out by qualified personnel.

### GENERAL INSTALLATION

Carry out a visual inspection of the complete installation in service.

Check the general cleanness of the installation, and check that the condensate evacuations are not blocked, particularly on the indoor unit, before the summer season.

Check the condition of the tray.

### OUTDOOR UNIT

#### COILS

Clean the heat exchanger using a special product for aluminium-copper heat exchangers, and rinse with water. Do not use hot water or steam, as this could cause the pressure of the coolant to increase.

Check that the surface of the aluminium fins of the heat exchanger is not damaged by impacts or scratches, and clean with an appropriate tool if necessary.

#### ELECTRICAL SECTION

Check that the main power supply cable is not damaged or altered in such a way as to affect the insulation

Check that the interconnecting cables between the two units are not damaged or altered, and that they are correctly connected.

Check the earth connection.

### INDOOR UNIT

In order for the installation to operate correctly, it is essential to regularly clean the air filter located in the intake of the indoor unit.

When clogged, the filter reduces the air flow through the heat exchanger of the indoor unit, which in turn reduces the efficiency of the installation and inhibits the cooling of the fan motor.

Check the cleanness of the indoor heat exchanger.

**CAUTION**

**BEFORE CARRYING OUT ANY OPERATION ON THE EQUIPMENT, CHECK THAT THE ELECTRICAL POWER SUPPLY IS SWITCHED OFF AND THAT IT CANNOT BE SWITCHED ON INADVERTENTLY.**

**IT IS RECOMMENDED THAT THE LOCAL SWITCH BE PADLOCKED**

# APPENDIX
# ANNEXE
# ANLAGE
# ALLEGATO
# ANEXO

# APPENDIX



# ANNEXE



# ANLAGE



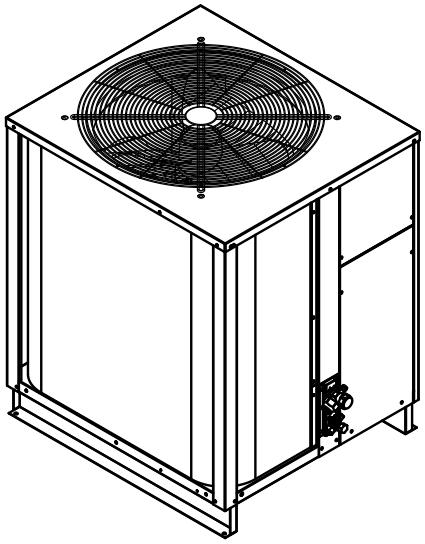
# ALLEGATO

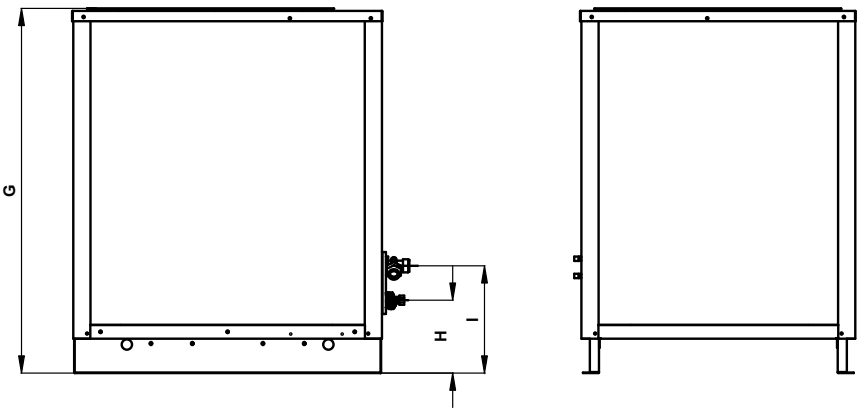


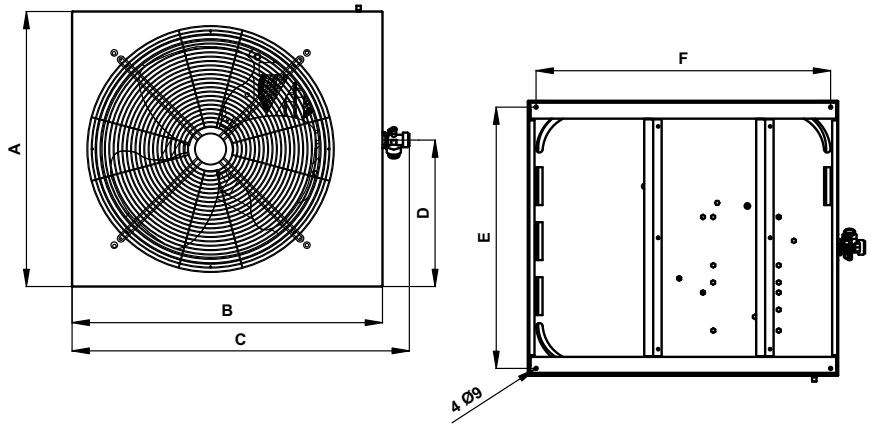
# ANEXO

## DIMENSIONS OUTDOOR UNITS
## DIMENSIONS UNITES EXTERIEURES
## ABMESSUNGEN
## DIMENSIONI
## DIMENSIONES

**125 - 155**

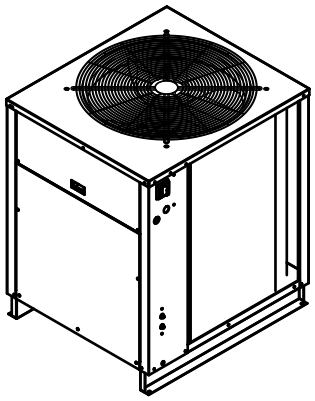


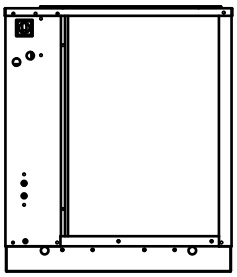


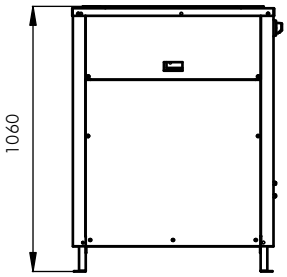



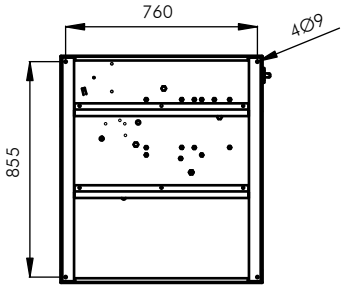

| | A | B | C | D | E | F | G | H | I |
|---|---|---|---|---|---|---|---|---|---|
| 125 | 746 | 746 | 823 | 440 | 707 | 699 | 909 | 212 | 313 |
| 155 | 800 | 900 | 980 | 426 | 760 | 855 | 1060 | 212 | 312 |

**185 - 205 - 255**

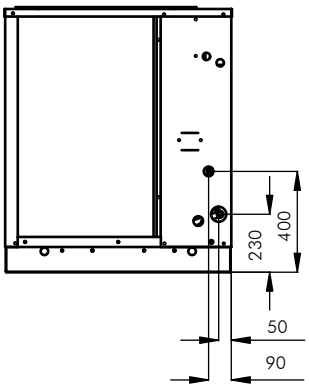




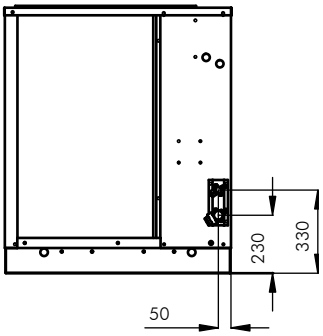


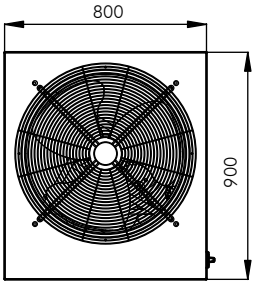



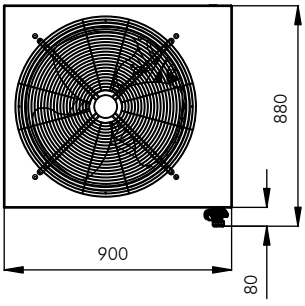

205 - 255



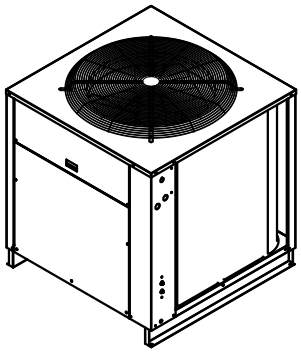

185

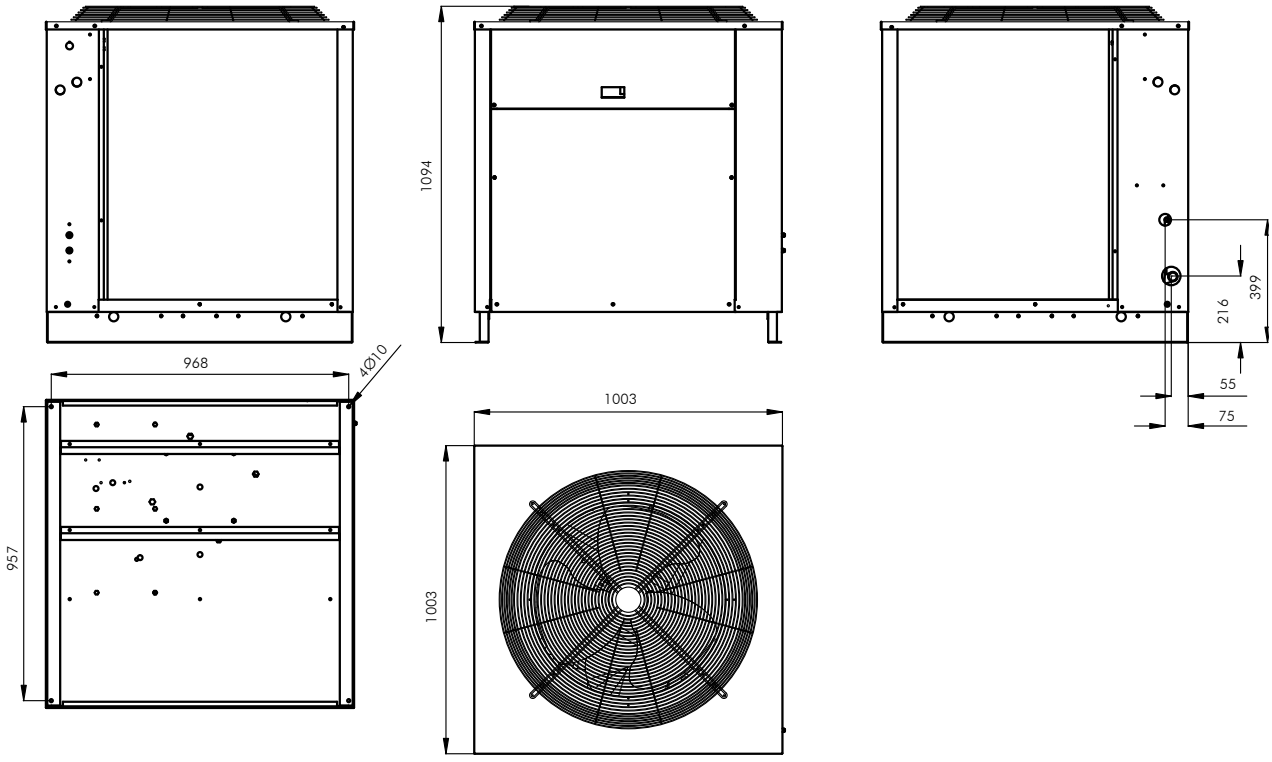


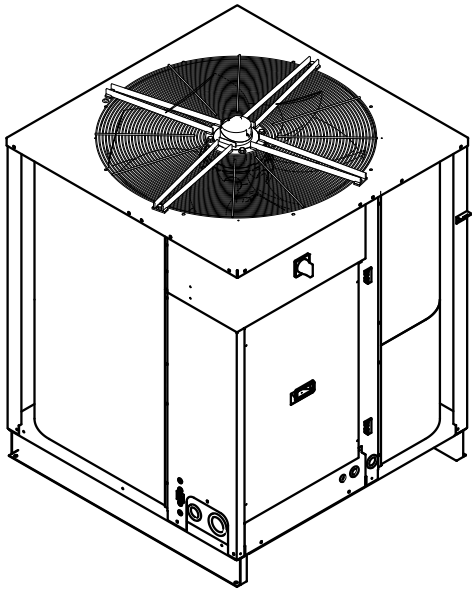



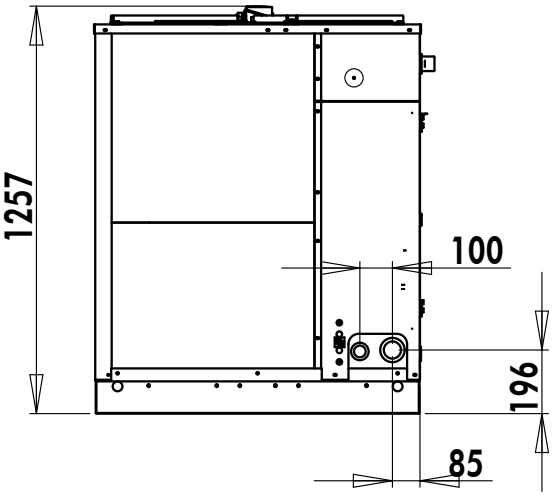
**305**

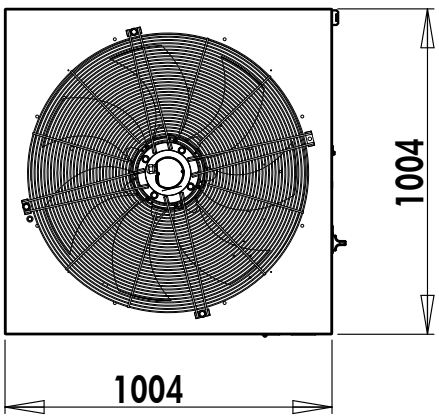


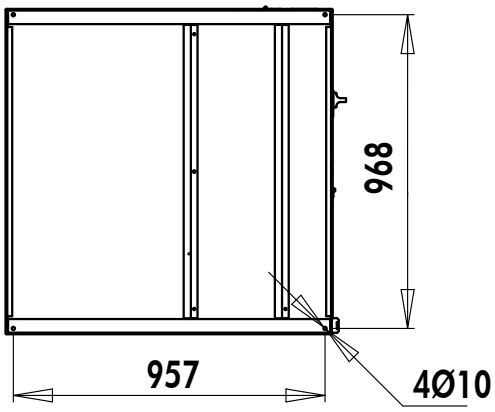


**405M**

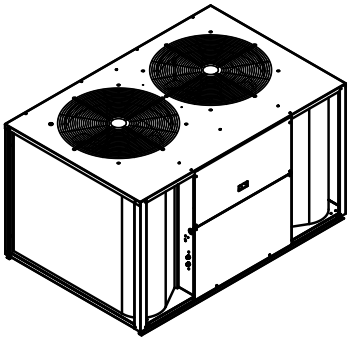


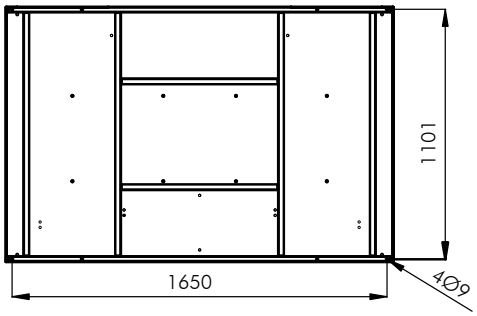


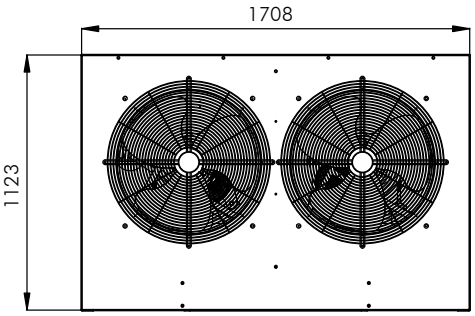



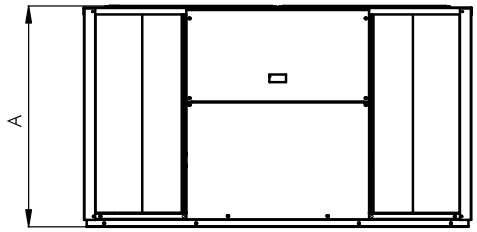



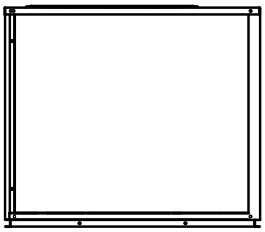
**405 - 505 - 605**



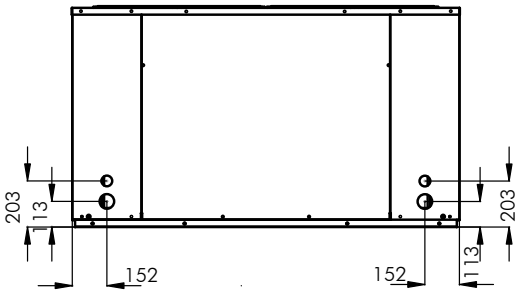


| | 405 | 505 | 605 |
|---|---|---|---|
| A | 972 | 1171 | 1171 |

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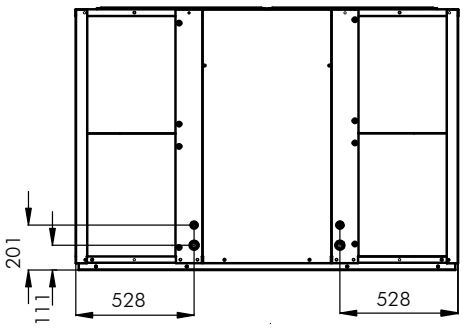
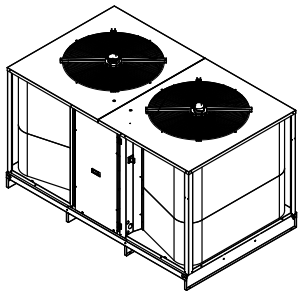
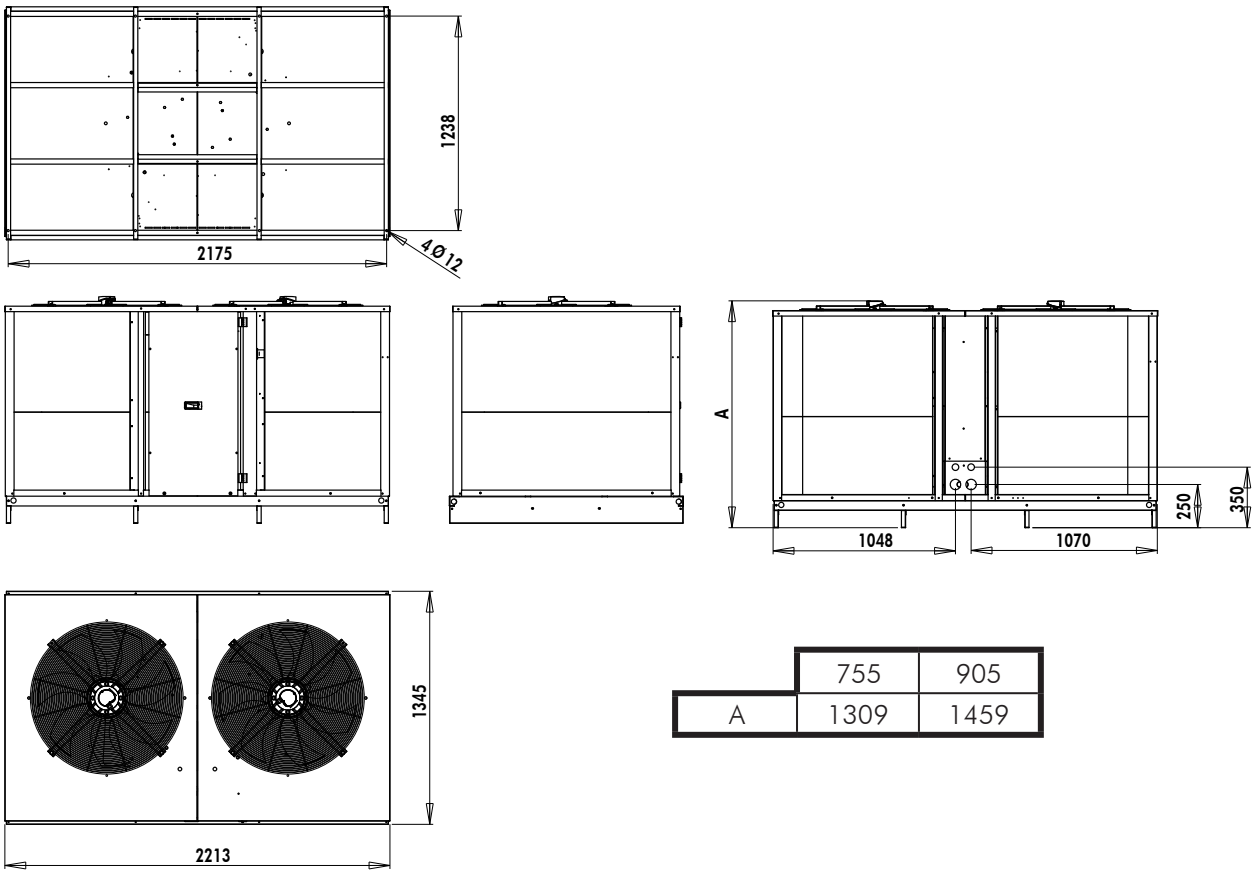



**505 - 605**

**755 - 905**

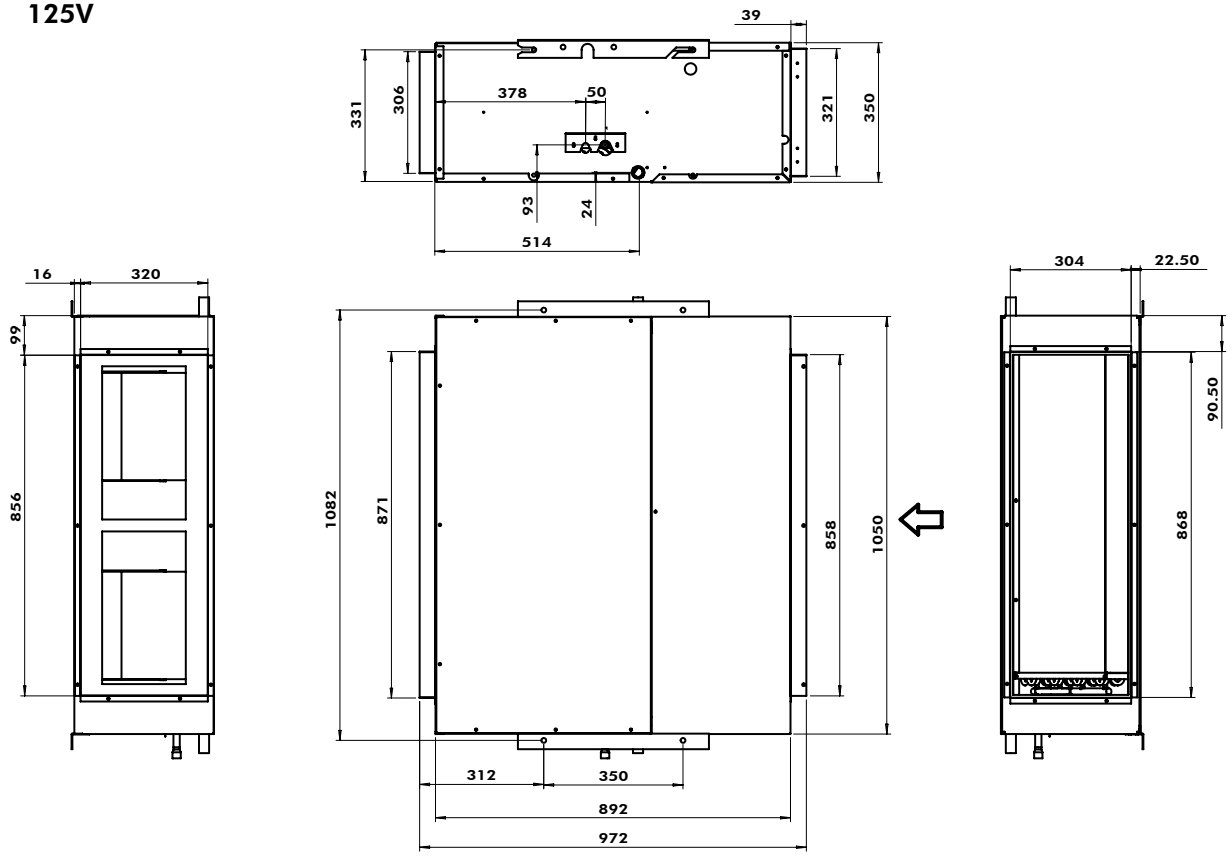




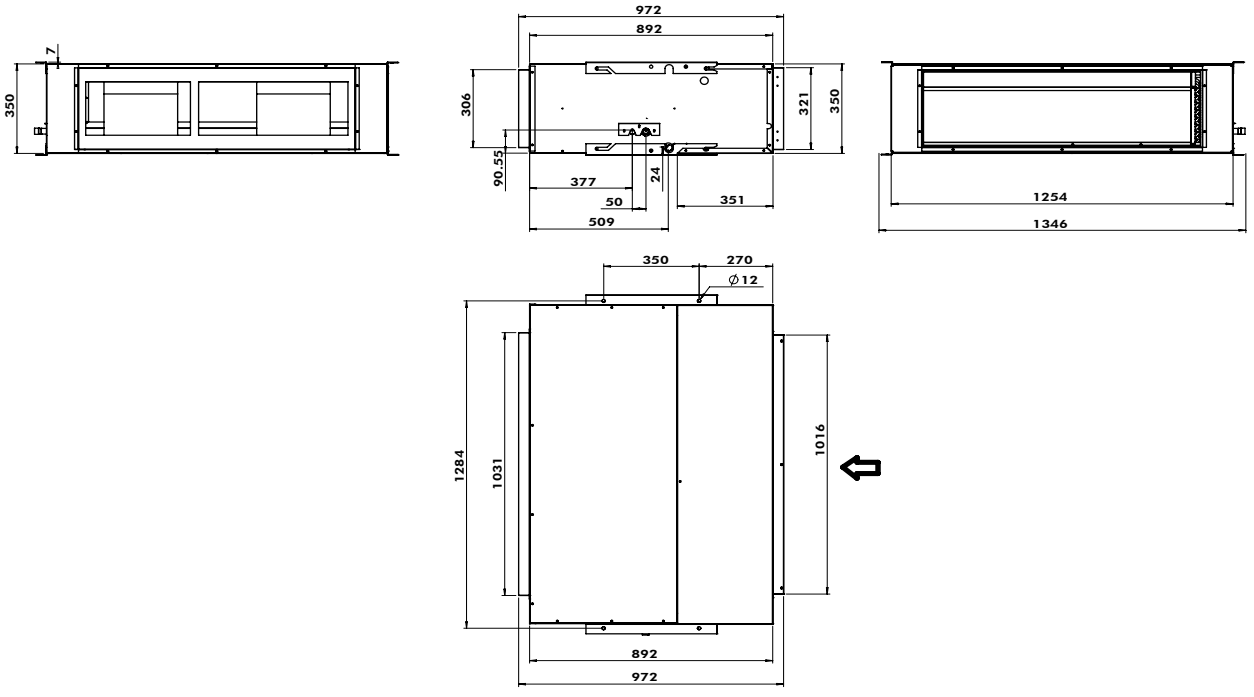

| | 755 | 905 |
|---|---|---|
| A | 1309 | 1459 |

## DIMENSIONS INDOOR UNITS
## DIMENSIONS UNITES INTERIEURES
## ABMESSUNGEN
## DIMENSIONI
## DIMENSIONES

### 125V

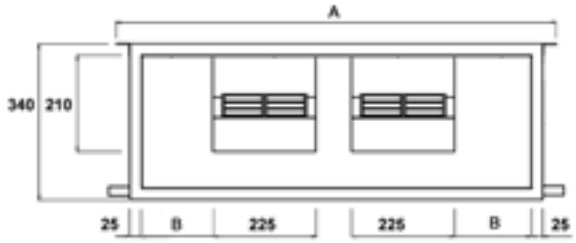


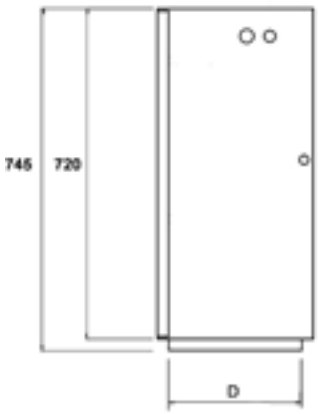

### 155V

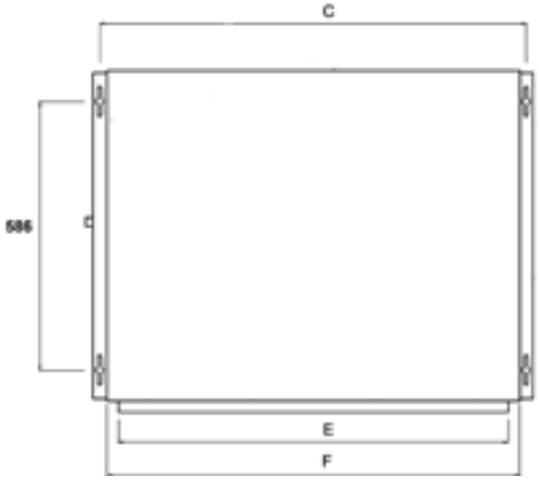


**125 - 155**

| | 125 | 155 |
|---|---|---|
| A | 1210 | 1410 |
| B | 190 | 290 |
| C | 1180 | 1380 |
| D | 290 | 290 |
| E | 1100 | 1300 |
| F | 1150 | 1350 |

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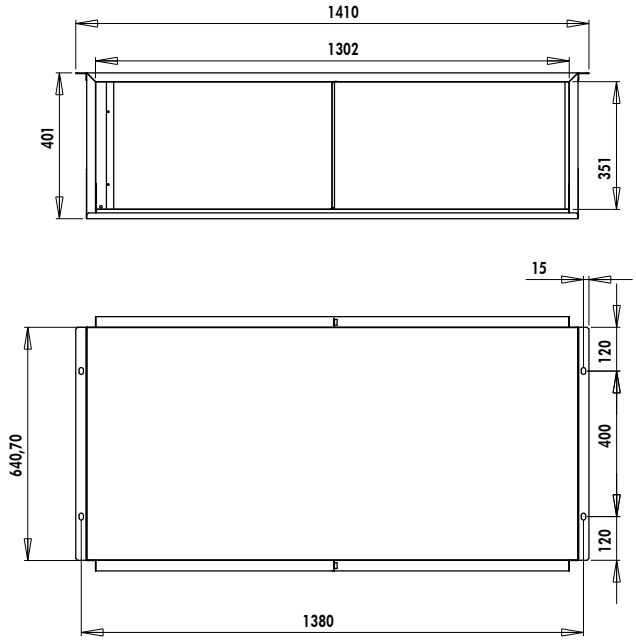
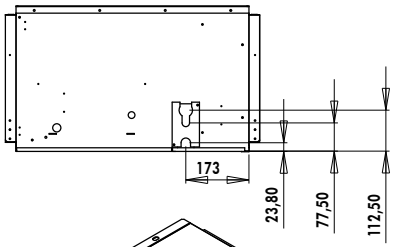
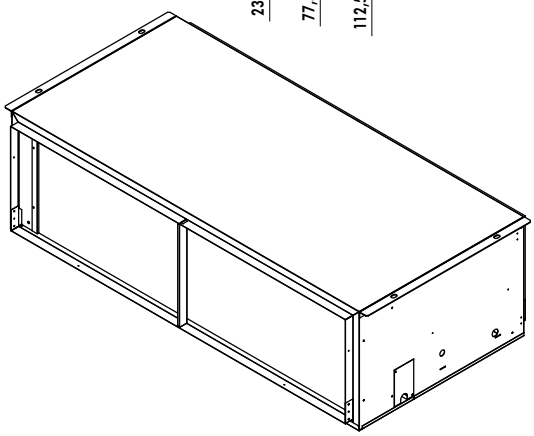
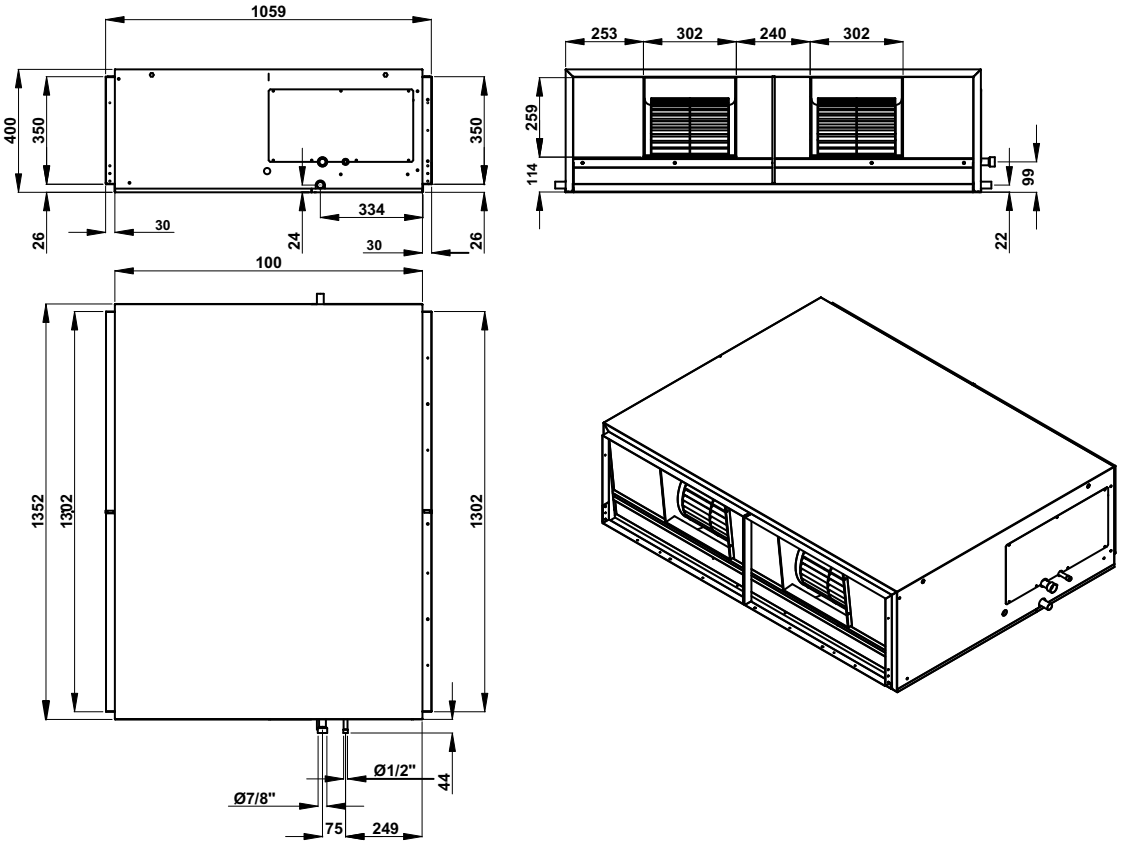


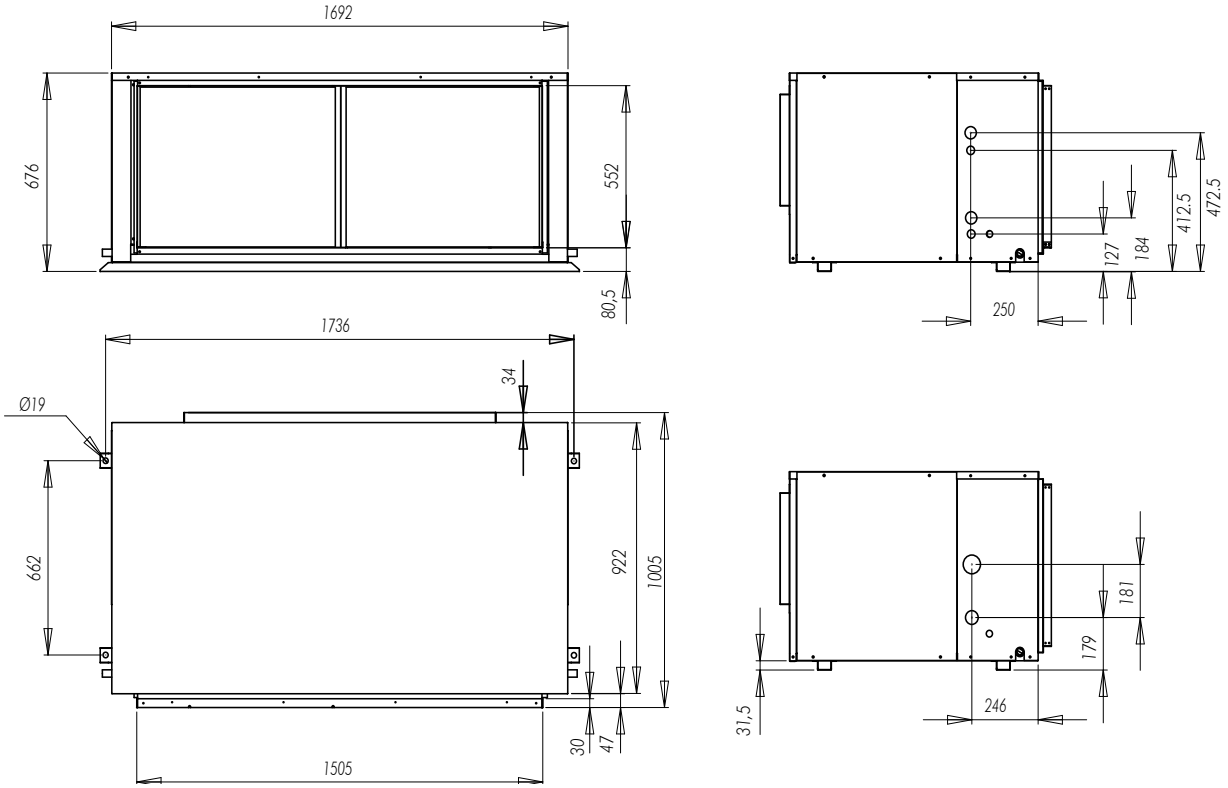



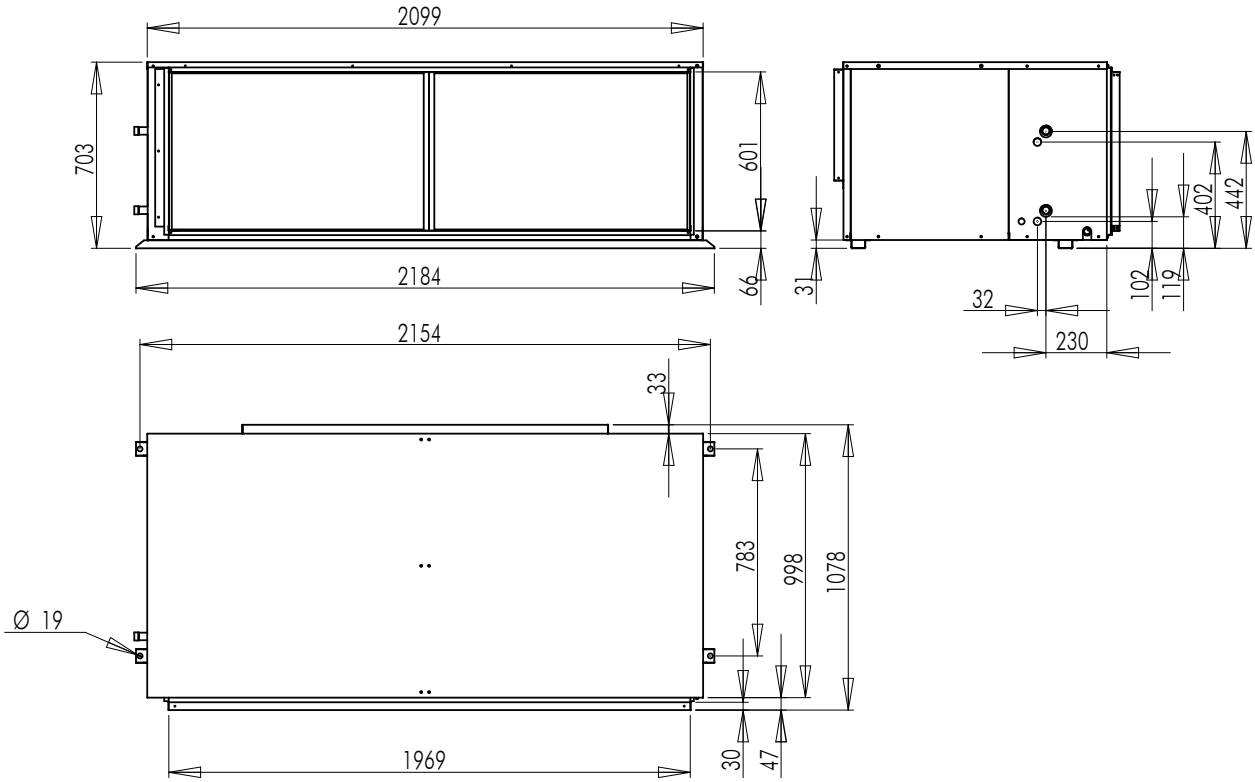
**205 - 255**



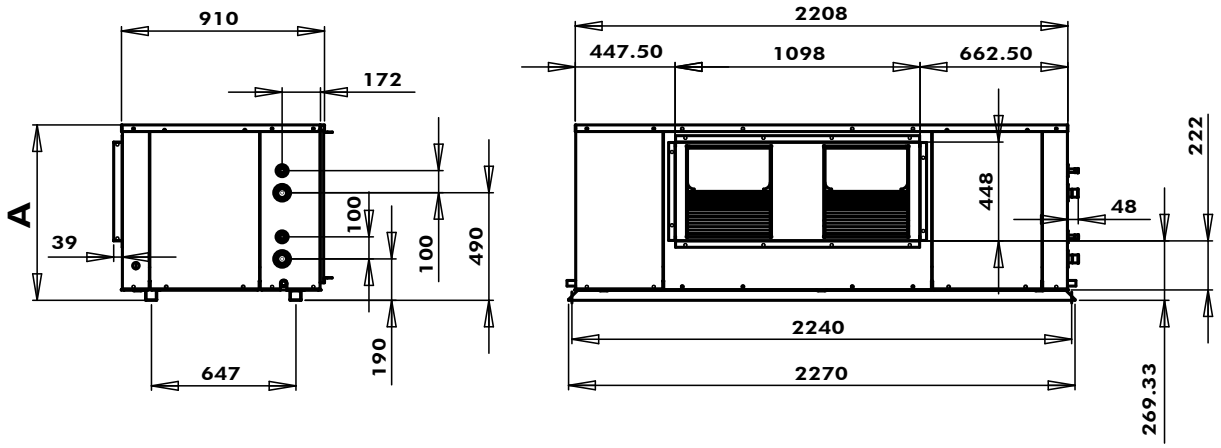

**305 - 405**

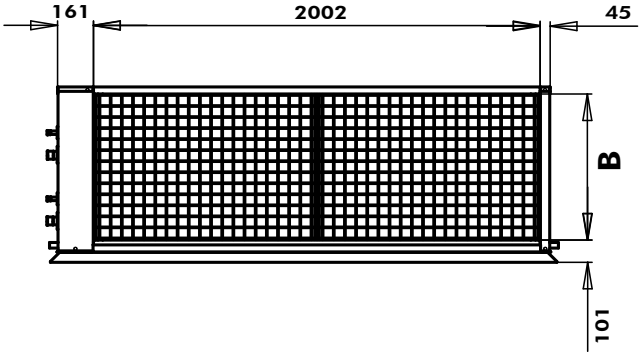


**505 - 605**




**755 - 905**




| | 755 | 905 |
|---|---|---|
| A | 795 | 945 |
| B | 662 | 812 |

## WIRING DIAGRAM

## SCHEMAS ELECTRIQUES

## STROMLAUFPLANS

## SCHEMA ELETRICO

## ESQUEMA ELECTRICO

**TAKE CARE!**

Thesse wiring diagrams are correct at the time of publication. Manufacturing changes can lead to modifications. Always refer to the diagram supplied with the product.

**ATTENTION**

Ces schémas sont corrects au moment de la publication. Les variantes en fabrication peuvent entraîner des modifications. Reportez-vous toujours au schéma livré avec le produit.

**ACHTUNG!**

Diese Stromlaufplans sind zum Zeitpunkt der Veröffentlichung gültig. In Herstellung befindliche Varianten können Änderungen mit sich bringen. In jedem Fall den mit dem Produkt gelieferten Stromlaufplan hinzuziehen.

**ATTENZIONE !**

Questi schemi sono corretti al momento della pubblicazione. Le varianti apportate nel corso della fabbricazione possono comportare modifiche. Far sempre riferimento allo schema fornito con il prodotto.

**ATENCIÓN !**

Esto esquemas son correctos en el momento de la publicación. Pero las variantes en la fabricación pueden ser motivo de modificaciones. Remítase siempre al esquema entregado con el producto.

**POWER SUPPLY MUST BE SWITCHED OFF BEFORE STARTING TO WORK IN THE ELECTRIC CONTROL BOXES!**

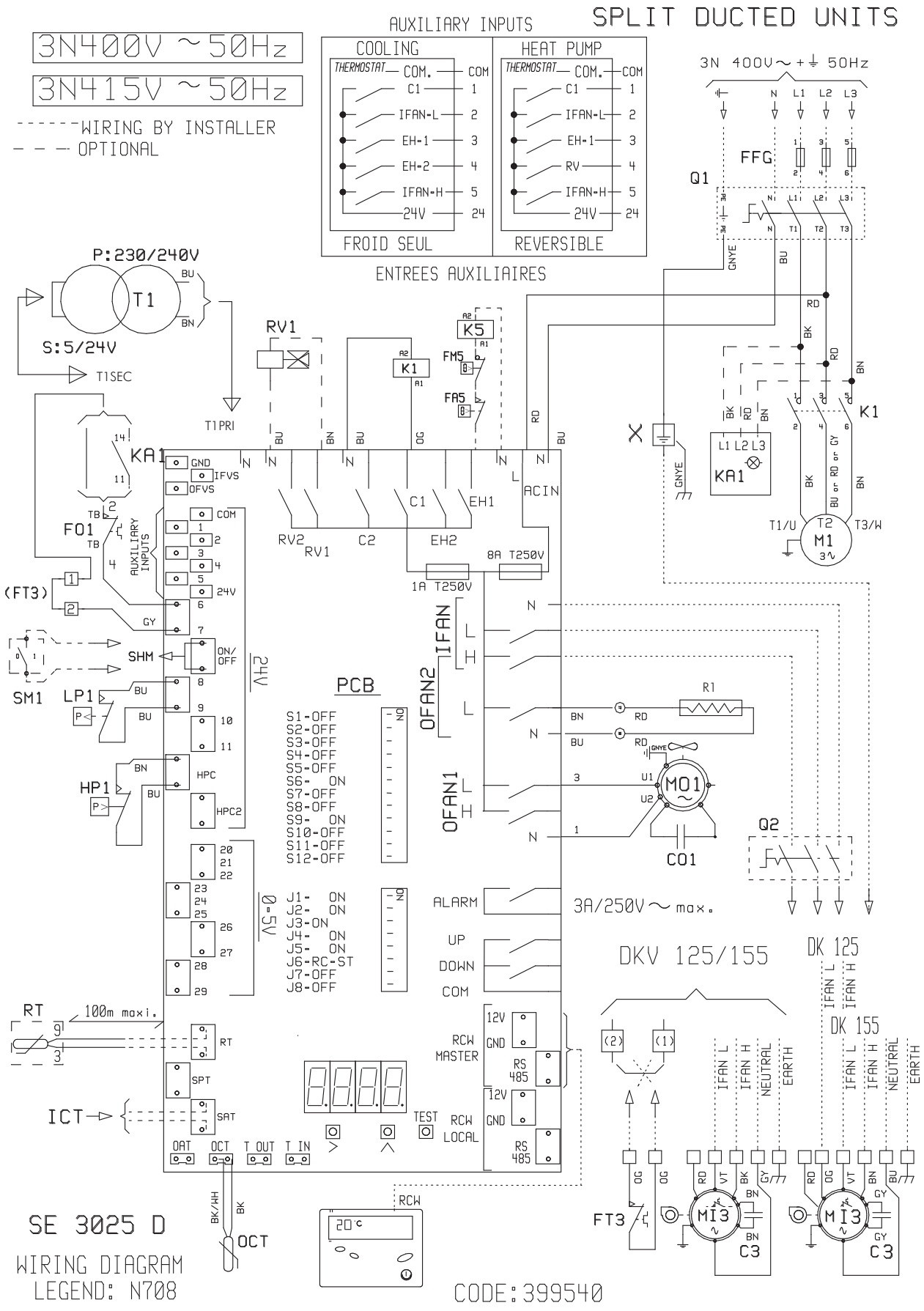
**MISE HORS TENSION OBLIGATOIRE AVANT TOUTE INTERVENTION DANS LES BOITIERS ELECTRIQUES.**

**VOR JEDEM EINGRIFF AN DEN ANSCHLUßKÄSTEN UNBEDINGT DAS GERÄT ABSCHALTEN!**

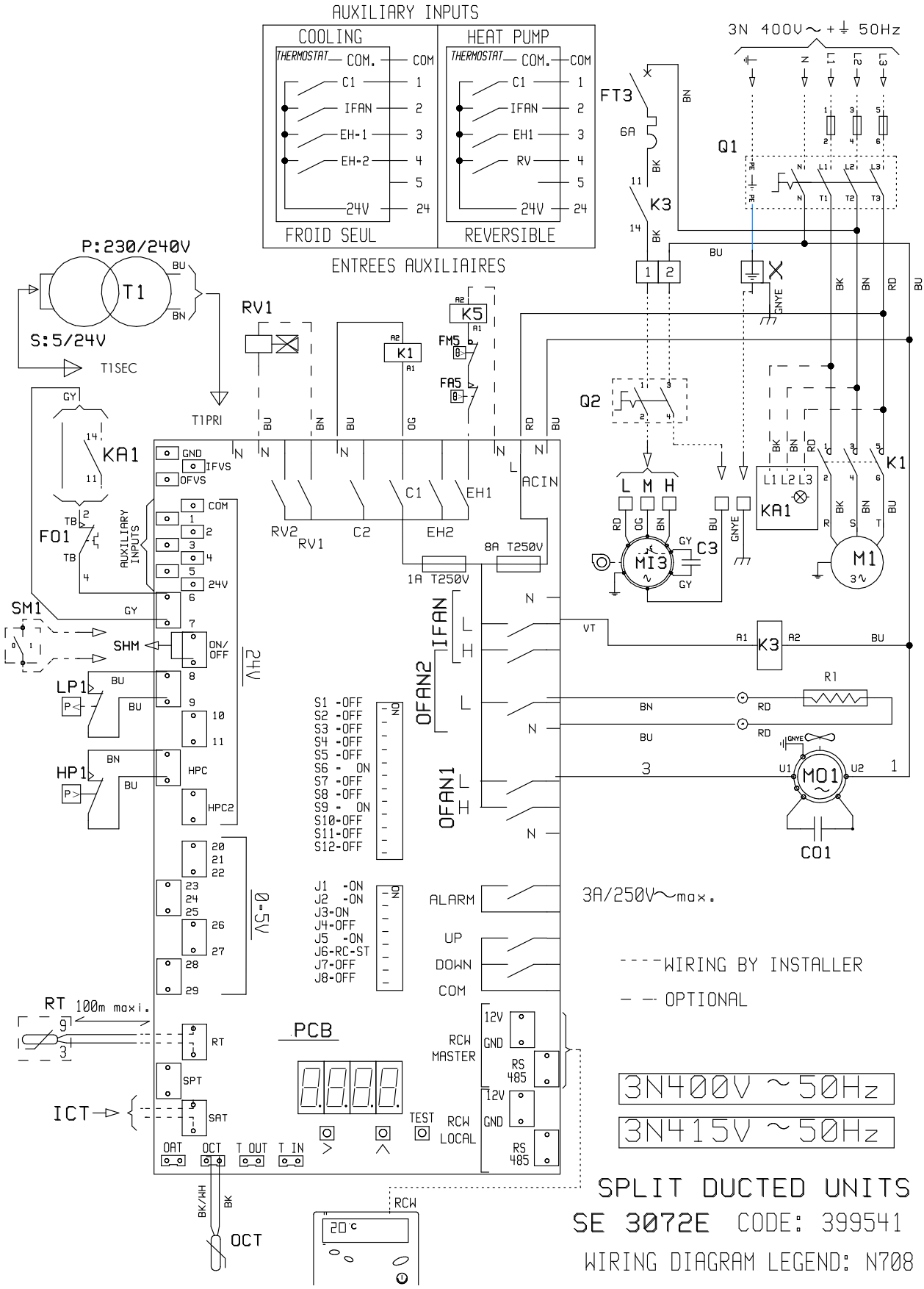
**PRIMA DI OGNI INTERVENTO SULLE CASSETTE ELETTRICHE ESCLUDERE TASSATIVAMENTE L'ALIMENTAZIONE !**

**PUESTA FUERA DE TNESIÓN OBLIGATORIA ANTES DE CUALQUIER INTERVENCIÓN EN LAS CAJAS ELÉCTRICAS!**

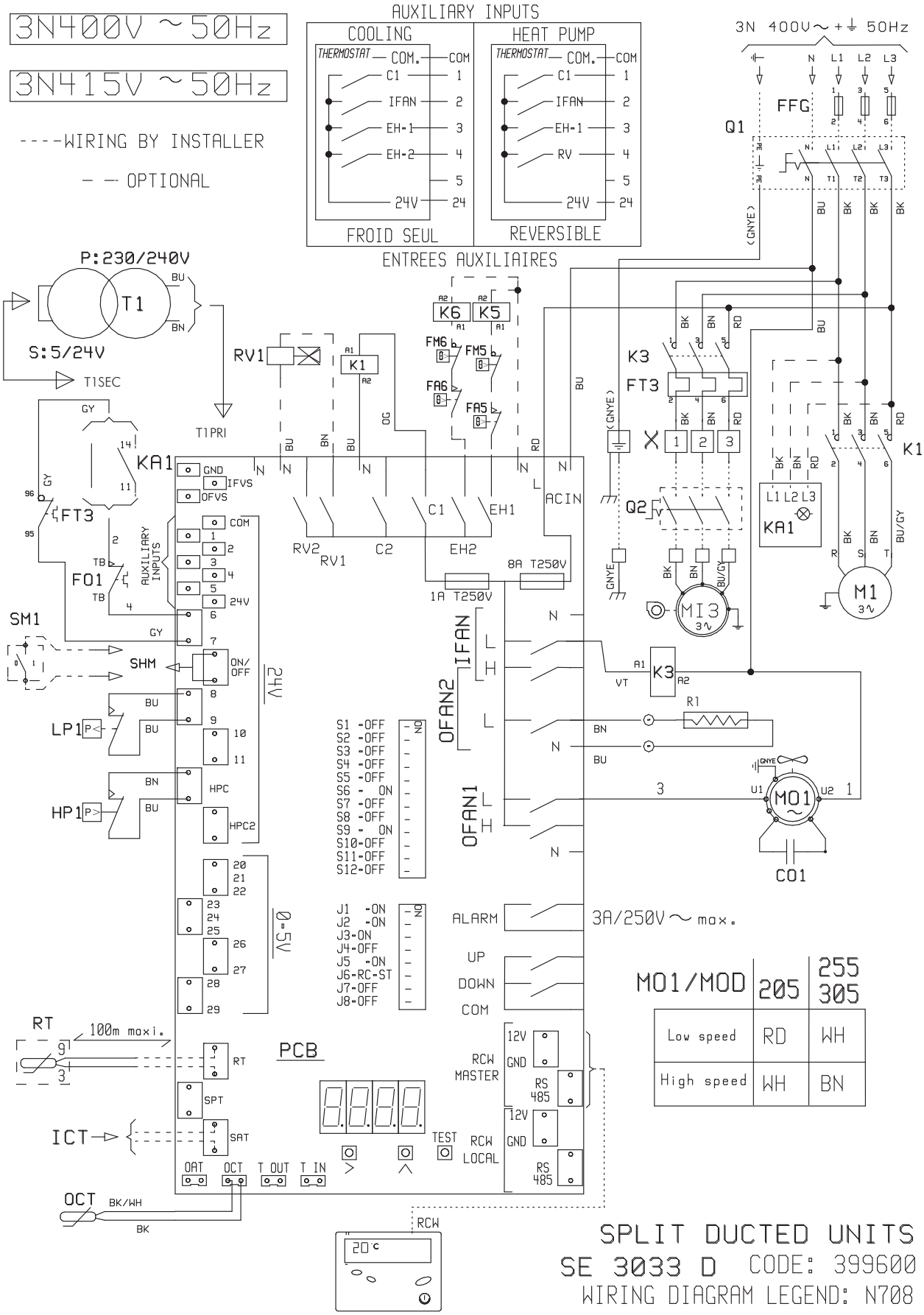
**125 - 155**


SPLIT DUCTED UNITS
3N400V ~50Hz
3N415V ~50Hz
------WIRING BY INSTALLER
– – – OPTIONAL
AUXILIARY INPUTS
COOLING
HEAT PUMP
THERMOSTAT
COM.
C1
IFAN-L
EH-1
EH-2
RV
IFAN-H
24V
FROID SEUL
REVERSIBLE
ENTREES AUXILIAIRES
3N 400V~ + ⏚ 50Hz
P:230/240V
S:5/24V
T1SEC
T1PRI
T1
RV1
K1
K5
FM5
FA5
KA1
FFG
Q1
K1
ACIN
C1
EH1
RV2
C2
EH2
RV1
8A T250V
1A T250V
FO1
AUXILIARY INPUTS
(FT3)
SHM
SM1
LP1
HP1
HPC
HPC2
PCB
S1-OFF
S2-OFF
S3-OFF
S4-OFF
S5-OFF
S6- ON
S7-OFF
S8-OFF
S9- ON
S10-OFF
S11-OFF
S12-OFF
J1- ON
J2- ON
J3-ON
J4- ON
J5- ON
J6-RC-ST
J7-OFF
J8-OFF
IFAN
OFAN2
OFAN1
R1
MO1
CO1
Q2
3A/250V~ max.
ALARM
UP
DOWN
COM
RCW MASTER
RCW LOCAL
RS 485
TEST
RT
100m maxi.
SPT
SAT
ICT
OAT
OCT
T OUT
T IN
SE 3025 D
WIRING DIAGRAM
LEGEND: N708
CODE:399540
DKV 125/155
DK 125
DK 155
IFAN L
IFAN H
NEUTRAL
EARTH
FT3
MI3
C3

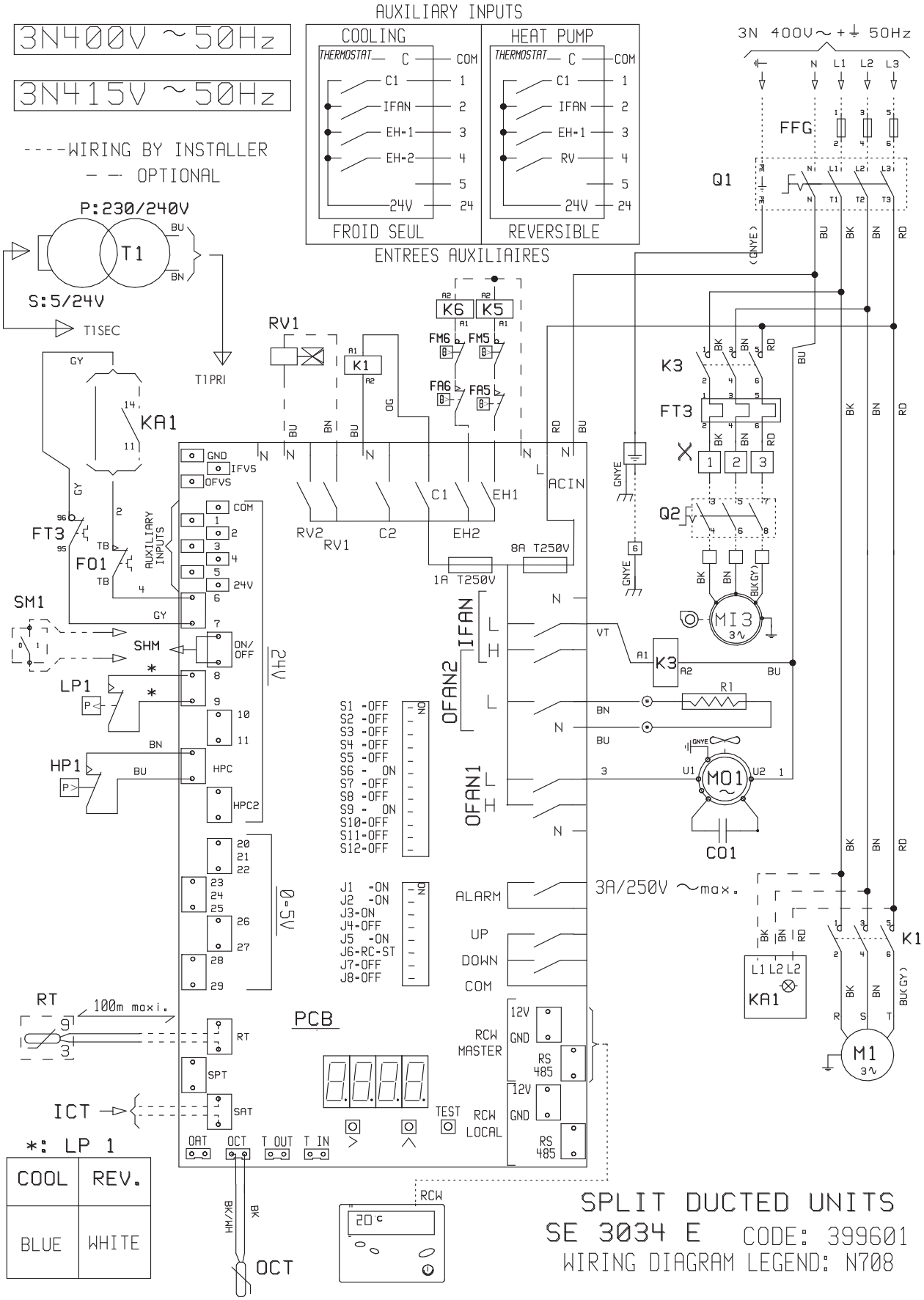
185


AUXILIARY INPUTS
COOLING
HEAT PUMP
THERMOSTAT
COM.
C1
IFAN
EH-1
EH-2
EH1
RV
24V
FROID SEUL
REVERSIBLE
ENTREES AUXILIAIRES
3N 400V~ + ⏚ 50Hz
P:230/240V
S:5/24V
T1
T1SEC
T1PRI
RV1
K5
K1
FM5
FA5
FT3
6A
Q1
K3
Q2
KA1
FO1
SM1
SHM
LP1
HP1
HPC
HPC2
GND
IFVS
OFVS
COM
24V
ON/OFF
AUXILIARY INPUTS
ACIN
RV2
C2
EH2
8A T250V
1A T250V
IFAN
OFAN2
OFAN1
S1 -OFF
S2 -OFF
S3 -OFF
S4 -OFF
S5 -OFF
S6 - ON
S7 -OFF
S8 -OFF
S9 - ON
S10-OFF
S11-OFF
S12-OFF
J1 -ON
J2 -ON
J3-ON
J4-OFF
J5 -ON
J6-RC-ST
J7-OFF
J8-OFF
ALARM
UP
DOWN
COM
3A/250V~max.
L M H
MI3
C3
KA1
M1
MQ1
C01
R1
RT 100m maxi.
SPT
SAT
ICT
PCB
TEST
RCW MASTER
RCW LOCAL
12V
GND
RS 485
OAT
OCT
T OUT
T IN
BK/WH
RCW
20°C
----WIRING BY INSTALLER
— — OPTIONAL
3N400V ~50Hz
3N415V ~50Hz
SPLIT DUCTED UNITS
SE 3072E CODE: 399541
WIRING DIAGRAM LEGEND: N708

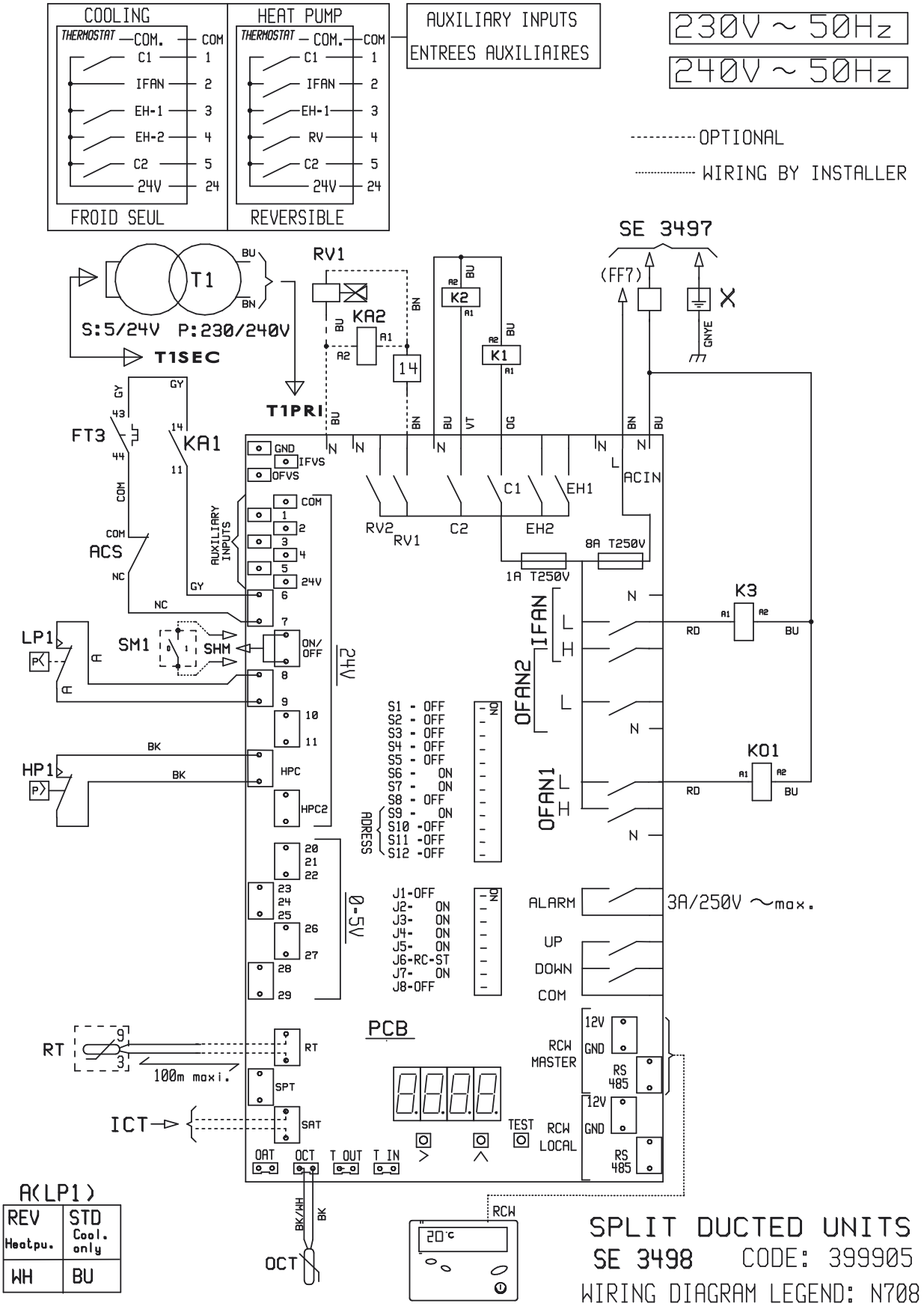
**205 - 255**


3N400V ~50Hz
3N415V ~50Hz
----WIRING BY INSTALLER
— — OPTIONAL
AUXILIARY INPUTS
COOLING
HEAT PUMP
THERMOSTAT
COM.
C1
IFAN
EH-1
EH-2
RV
24V
FROID SEUL
REVERSIBLE
ENTREES AUXILIAIRES
3N 400V~ + ⏚ 50Hz
P:230/240V
S:5/24V
T1SEC
T1PRI
RV1
K1
K6
K5
FM6
FM5
FA6
FA5
K3
FT3
Q1
FFG
KA1
GND
IFVS
OFVS
COM
AUXILIARY INPUTS
FO1
SM1
SHM
ON/OFF
24V
LP1
HP1
HPC
HPC2
RV2
C2
EH2
C1
EH1
ACIN
8A T250V
1A T250V
IFAN
OFAN2
OFAN1
Q2
MI3
M1
K1
KA1
R1
MO1
CO1
S1 -OFF
S2 -OFF
S3 -OFF
S4 -OFF
S5 -OFF
S6 - ON
S7 -OFF
S8 -OFF
S9 - ON
S10-OFF
S11-OFF
S12-OFF
J1 -ON
J2 -ON
J3-ON
J4-OFF
J5 -ON
J6-RC-ST
J7-OFF
J8-OFF
ALARM
3A/250V~ max.
UP
DOWN
COM
RT
100m maxi.
PCB
SPT
SAT
ICT
OCT
BK/WH
BK
OAT
OCT
T OUT
T IN
TEST
RCW LOCAL
RCW MASTER
12V
GND
RS 485
RCW
20°C
MO1/MOD
205
255 305
Low speed
RD
WH
High speed
WH
BN
SPLIT DUCTED UNITS
SE 3033 D CODE: 399600
WIRING DIAGRAM LEGEND: N708

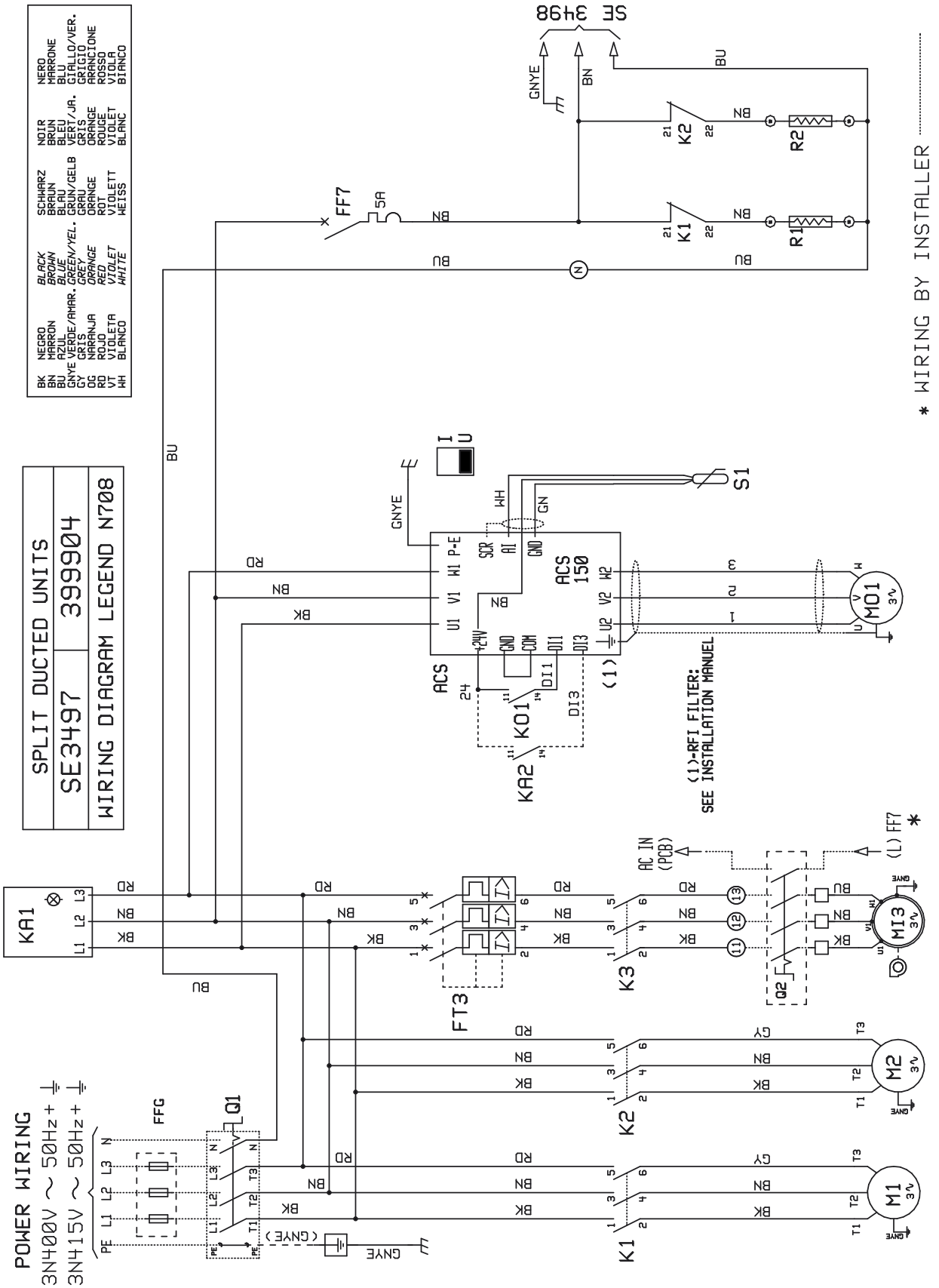
305


3N400V ~50Hz
3N415V ~50Hz
----WIRING BY INSTALLER
— — OPTIONAL
AUXILIARY INPUTS
COOLING
HEAT PUMP
THERMOSTAT
C
COM
C1
IFAN
EH-1
EH-2
RV
24V
FROID SEUL
REVERSIBLE
ENTREES AUXILIAIRES
3N 400V~ + ⏚ 50Hz
N L1 L2 L3
FFG
Q1
P:230/240V
S:5/24V
T1
T1SEC
T1PRI
KA1
RV1
K1
K6
K5
FM6
FM5
FA6
FA5
K3
FT3
Q2
GNYE
ACIN
C1
EH1
RV2
C2
EH2
8A T250V
1A T250V
FO1
SM1
SHM
LP1
HP1
HPC
HPC2
GND
IFVS
OFVS
AUXILIARY INPUTS
24V
ON/OFF
IFAN
OFAN2
OFAN1
S1 -OFF
S2 -OFF
S3 -OFF
S4 -OFF
S5 -OFF
S6 - ON
S7 -OFF
S8 -OFF
S9 - ON
S10-OFF
S11-OFF
S12-OFF
J1 -ON
J2 -ON
J3-ON
J4-OFF
J5 -ON
J6-RC-ST
J7-OFF
J8-OFF
ALARM
UP
DOWN
COM
3A/250V ~max.
MI3
MO1
CO1
M1
K1
KA1
RT
100m maxi.
SPT
SAT
ICT
PCB
TEST
RCW LOCAL
RCW MASTER
12V
GND
RS 485
OAT
OCT
T OUT
T IN
OCT
RCW
*: LP 1
COOL
REV.
BLUE
WHITE
SPLIT DUCTED UNITS
SE 3034 E CODE: 399601
WIRING DIAGRAM LEGEND: N708

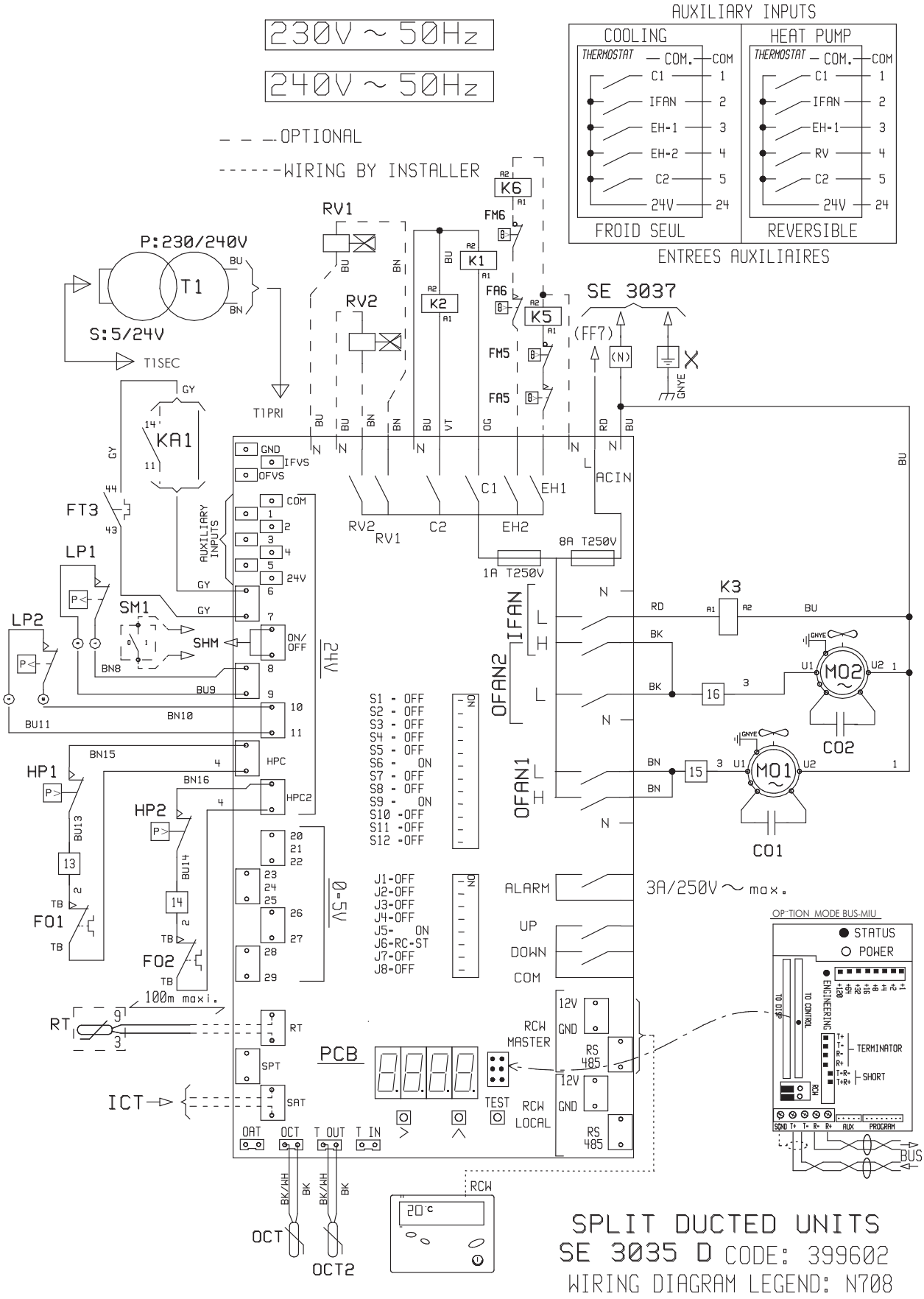
**405M CONTROL**



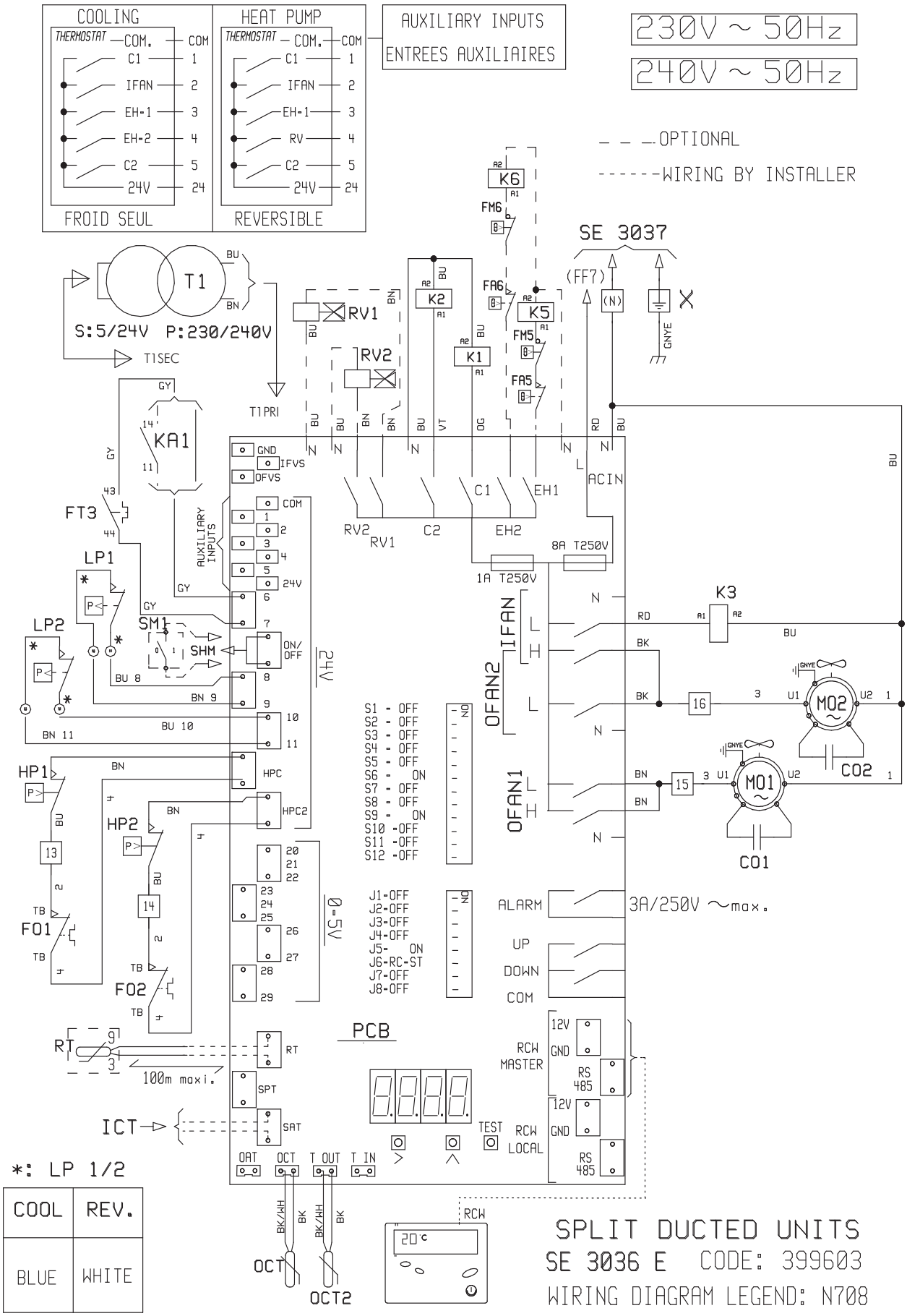
**405M POWER**


SPLIT DUCTED UNITS
SE3497
399904
WIRING DIAGRAM LEGEND N708
SE 3498
* WIRING BY INSTALLER
(1)-RFI FILTER:
SEE INSTALLATION MANUEL
POWER WIRING
3N400V ~ 50Hz +
3N415V ~ 50Hz +
ACS 150
ACS
KA1
KA2
K01
K1
K2
K3
FT3
FF7
FFG
Q1
Q2
R1
R2
S1
M01
M1
M2
M13
AC IN (PCB)
(L) FF7
BK NEGRO BLACK SCHWARZ NOIR NERO
BN MARRON BROWN BRAUN BRUN MARRONE
BU AZUL BLUE BLAU BLEU BLU
GNYE VERDE/AMARR. GREEN/YEL. GRUN/GELB VERT/JA. GIALLO/VER.
GY GRIS GREY GRAU GRIS GRIGIO
OG NARANJA ORANGE ORANGE ORANGE ARANCIONE
RD ROJO RED ROT ROUGE ROSSO
VT VIOLETA VIOLET VIOLETT VIOLET VIOLA
WH BLANCO WHITE WEISS BLANC BIANCO

**405 - 505 CONTROL**

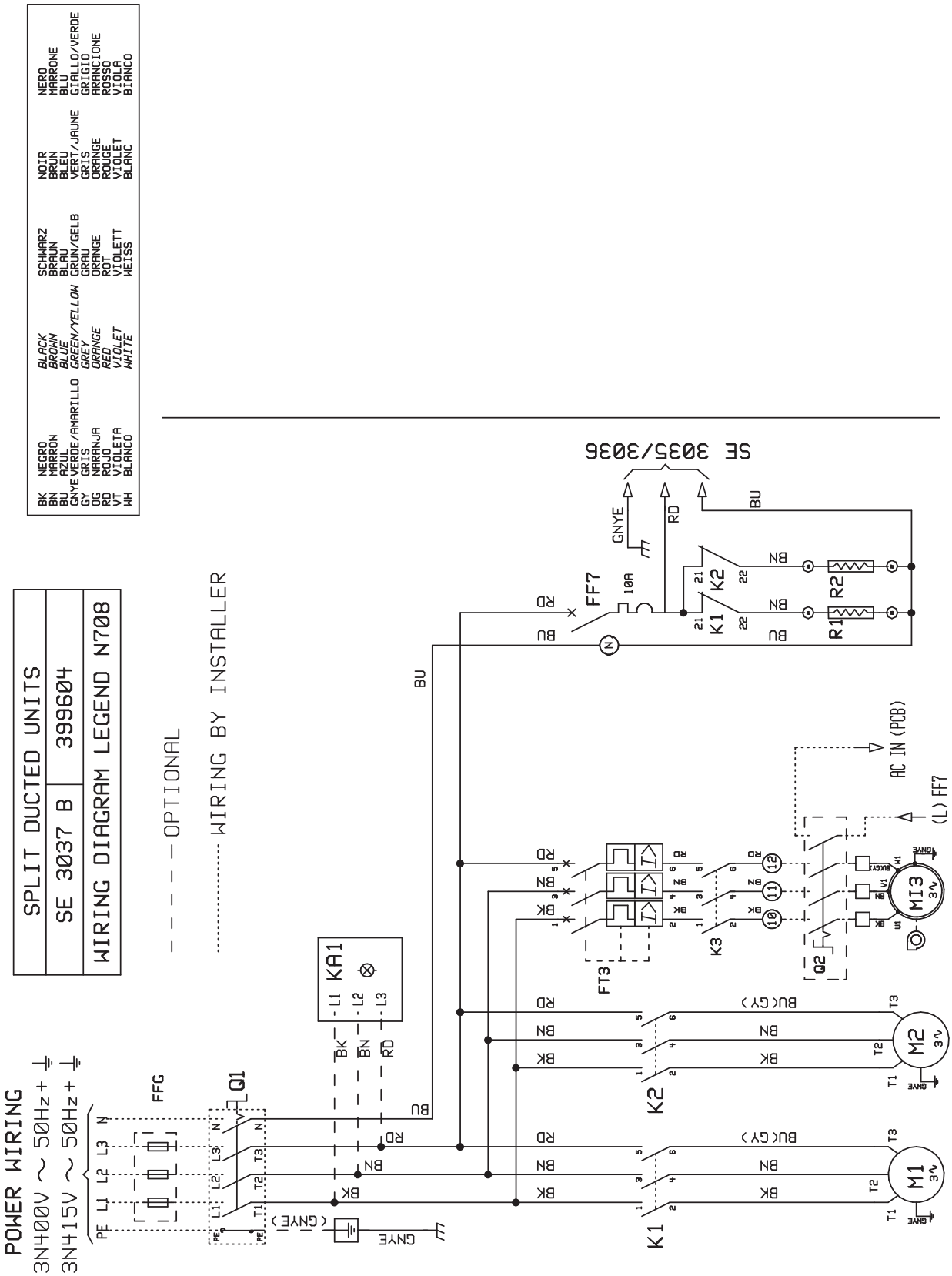


**605 CONTROL**

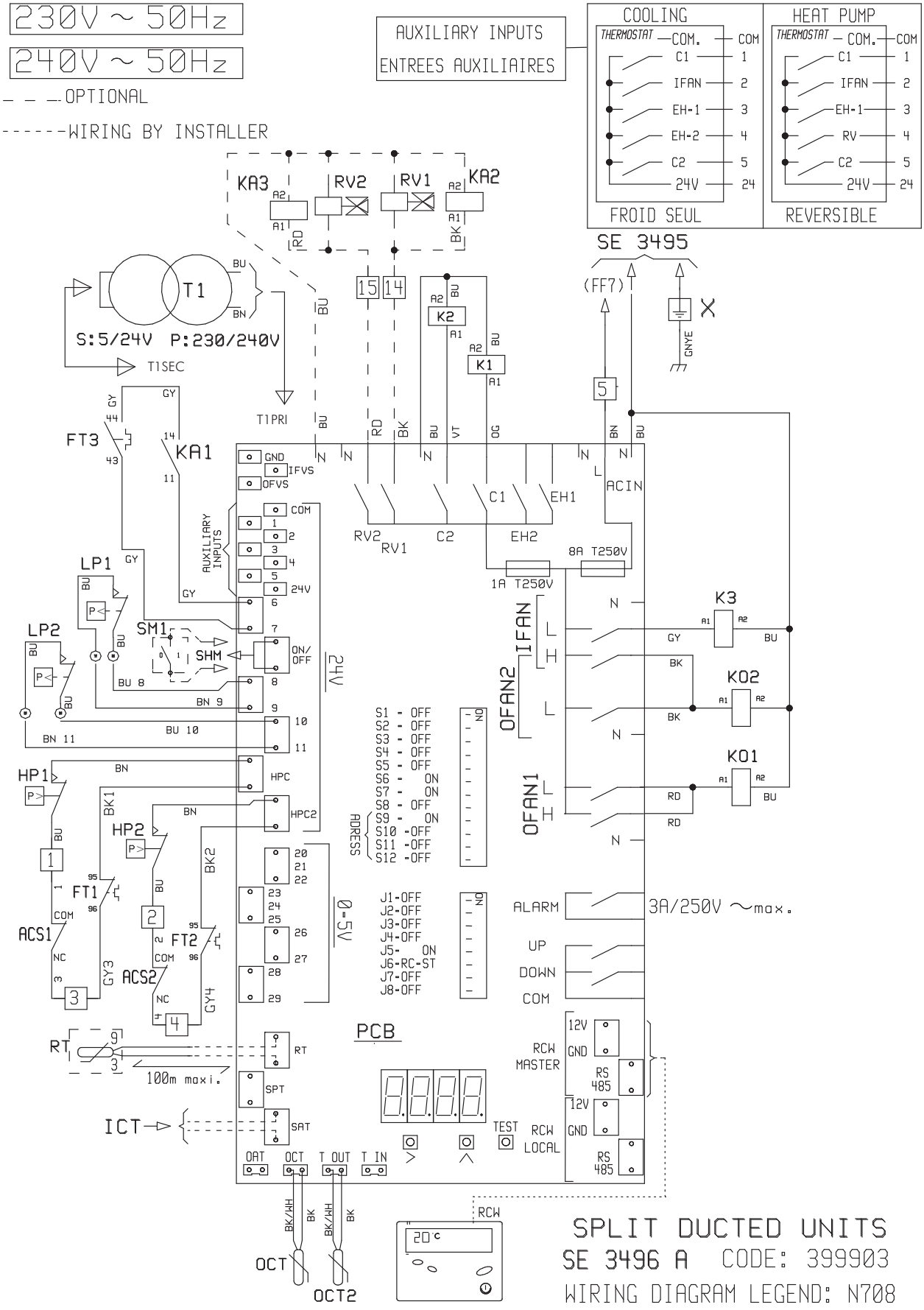



SPLIT DUCTED UNITS
SE 3036 E CODE: 399603
WIRING DIAGRAM LEGEND: N708

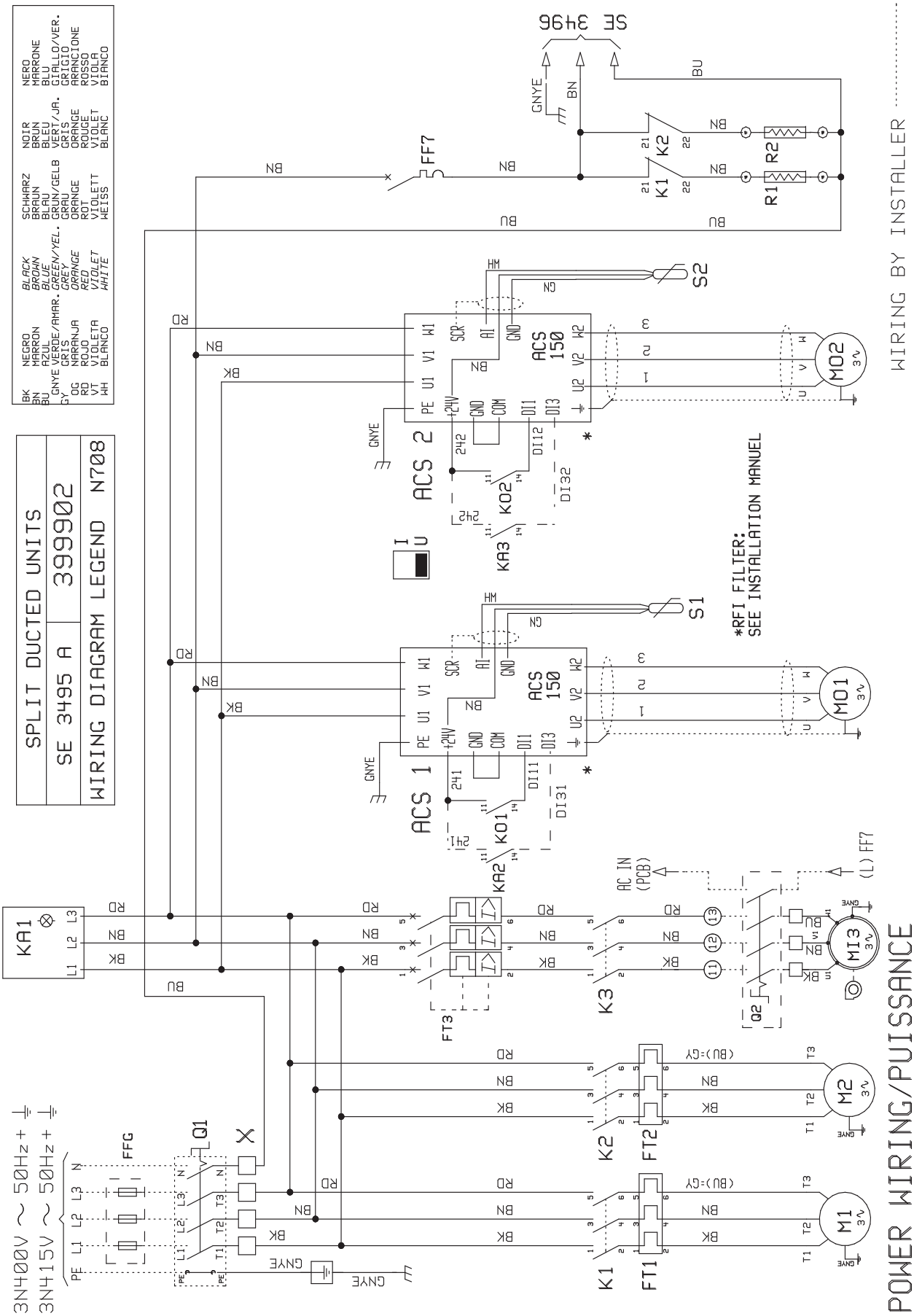
**405 - 505 - 605 POWER**



**755 - 905CONTROL**



**755 - 905 POWER**



## ELECTRICAL CONNECTIONS
## RACCORDEMENT ELECTRIQUE
## ELEKTRISCHER ANSCHLUSS
## COLLEGAMENTO ELETTRICO
## CONEXIONES ELÉCTRICAS

Comply with the marking on the terminal block when making electrical connections, including the mains supply connection (neutral, earth, etc.).

Respecter le raccordement des liaisons électriques y compris l'alimentation secteur (phase, neutre, terre, etc...) par rapport au repérage du bornier.

Den Anschluss der elektrischen Verbindungen einschließlich Netzanschluss (Phase, Mittelleiter, Erdleiter usw.) gemäß den Markierungen auf der Klemmenleiste berücksichtigen.

Rispettare l'allacciatura dei collegamenti elettrici compresa l'alimentazione rete (fase, neutro, terra, ecc…) rispetto alla marcatura della morsettiera.

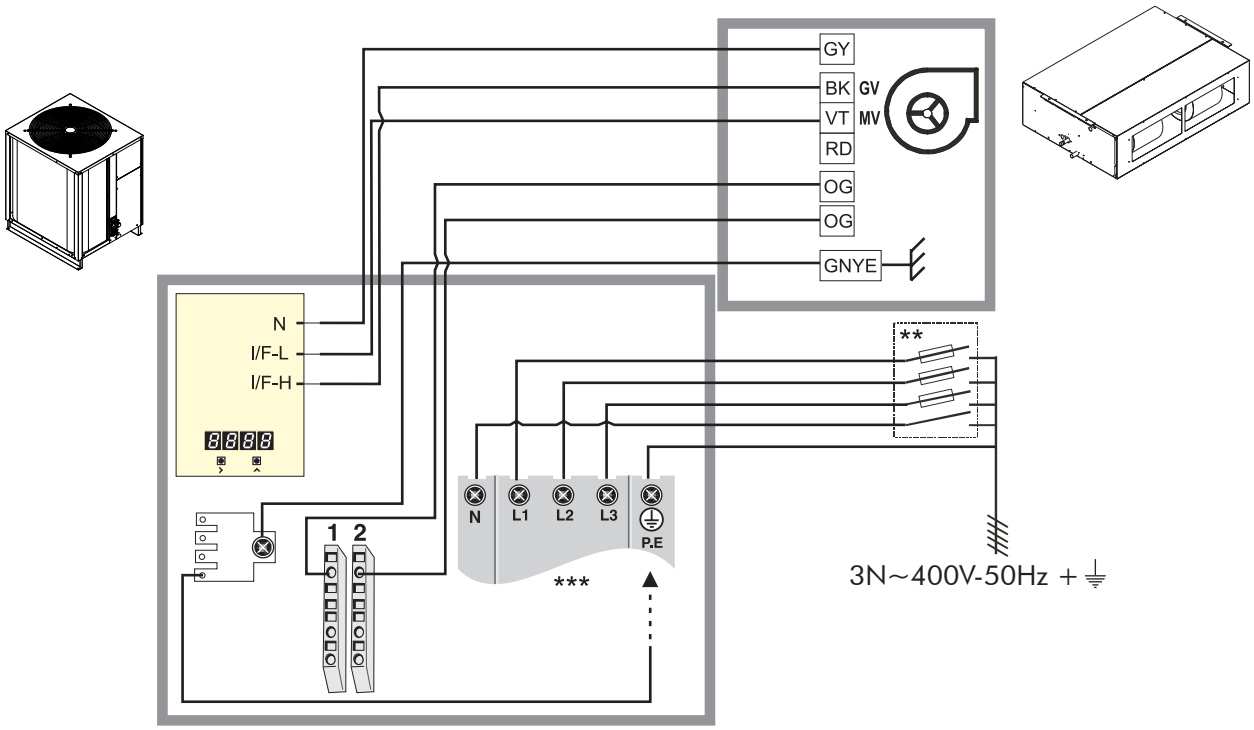
Efectuar las conexiones eléctricas, incluyendo la alimentación de la red (fase, neutro, tierra, etc.) según indica el marcado de la placa de bornes.

** Electrical protection to be during installation
Protection électrique à prévoir lors de l'installation
Elektrischer Schutz bei der Installation vorzusehen
Protezione elettrica da prevederre durante l'installazione
Protectión electrica que se debe prever durante la instalación

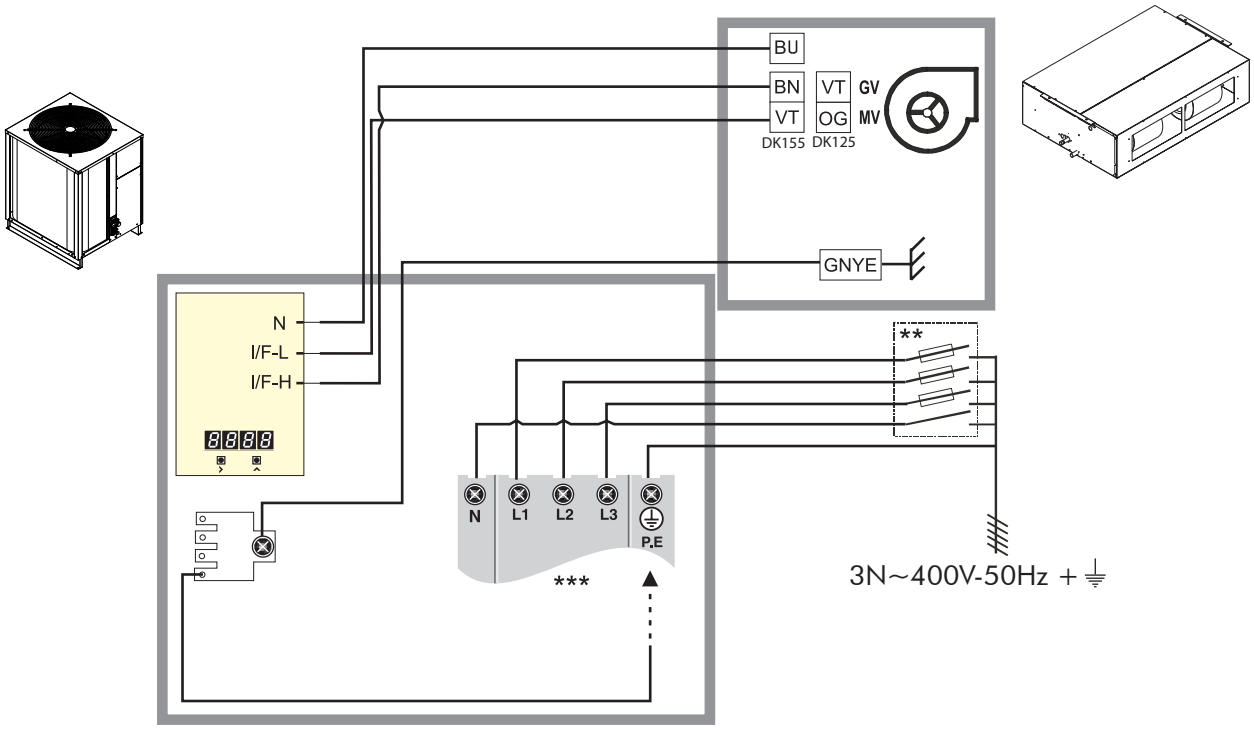
*** Connection to the local switch
Raccordement sur l'interrupteur de proximité
Anschluss an Näherungsschalter
Collegamento all'interruttore di prossimità
Conexión en el interruptor de proximidad

**125 - 155**

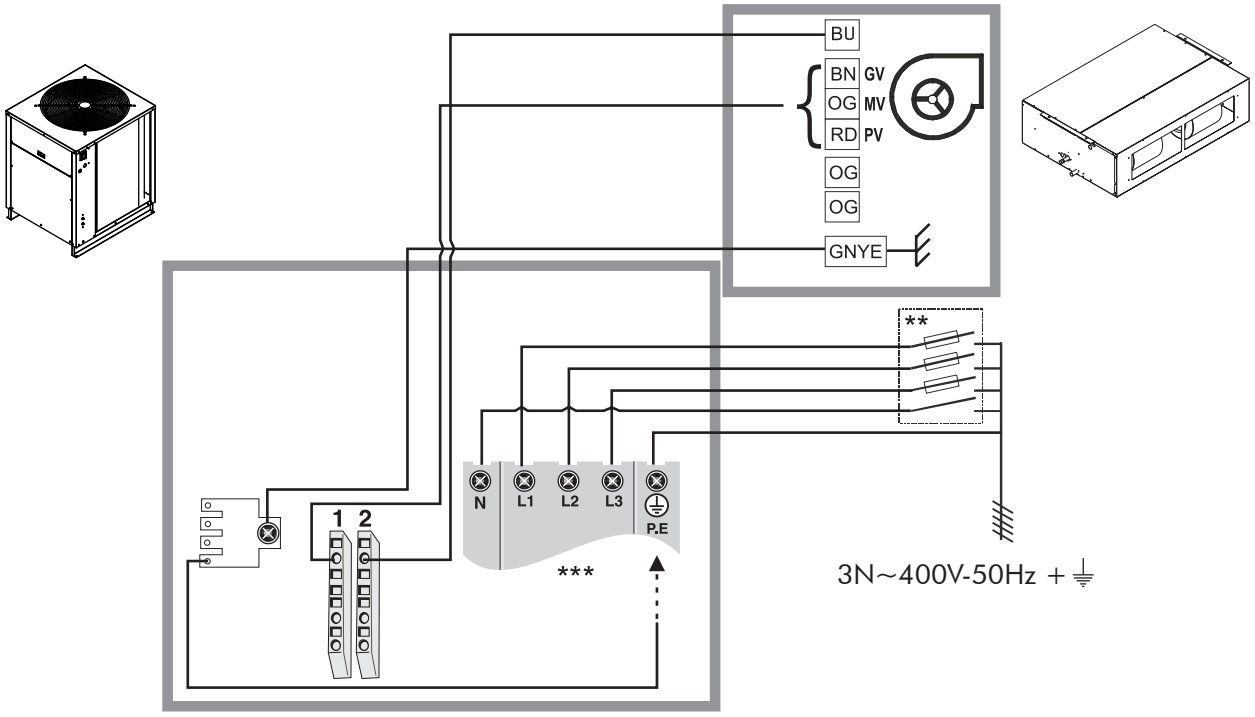
**DK-V125/155**



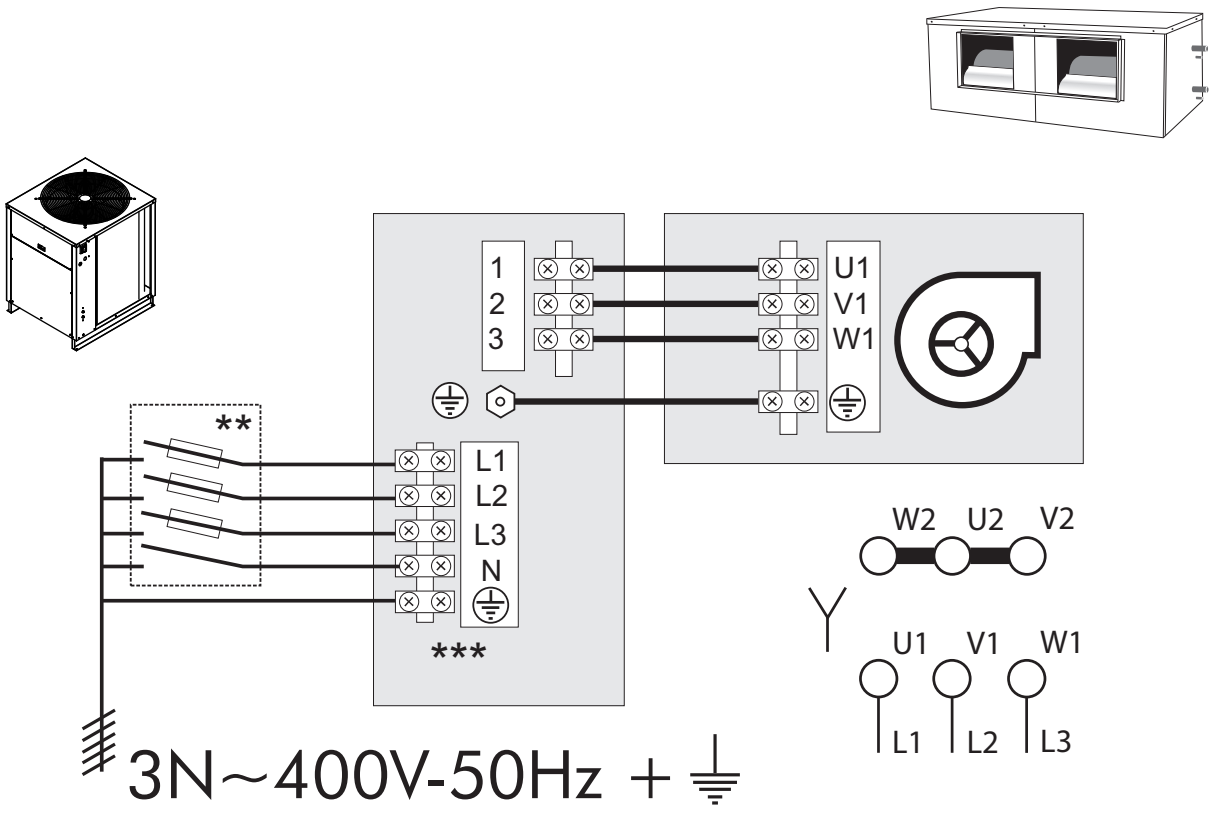

**DK125/155**



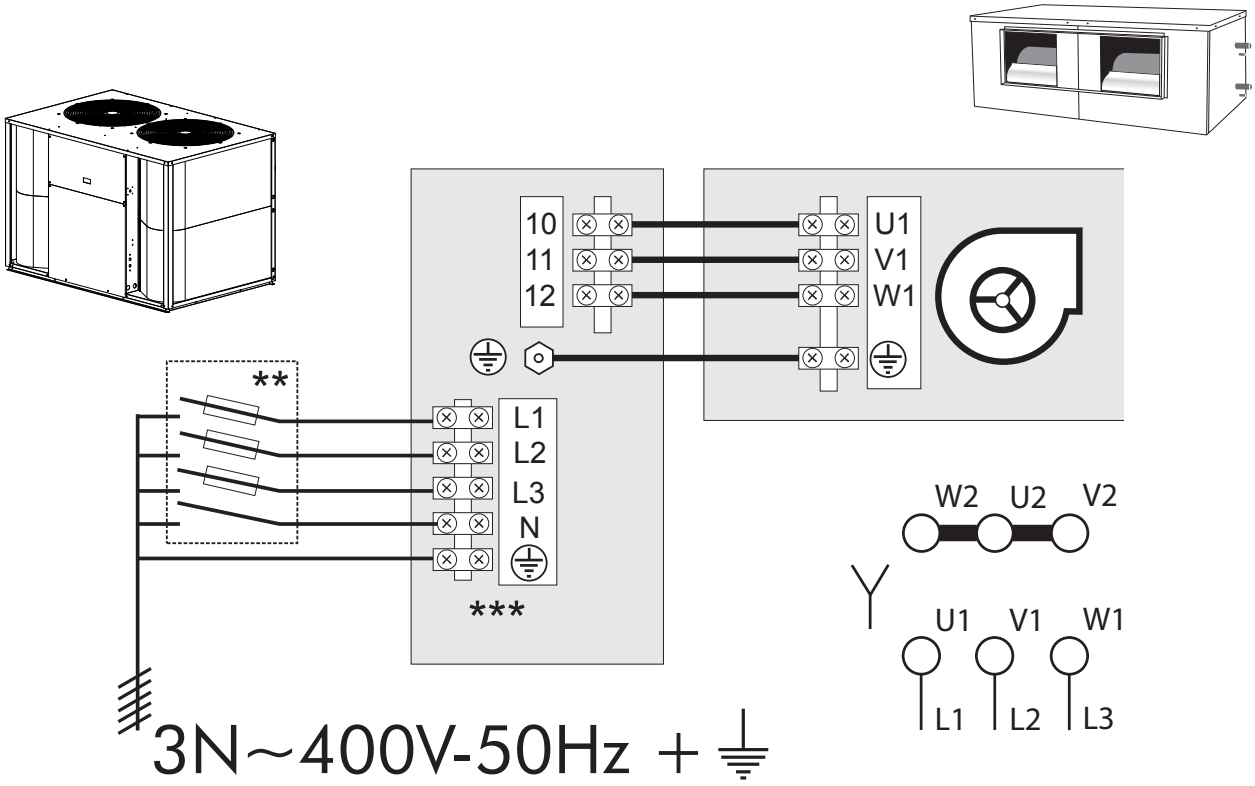
**185**



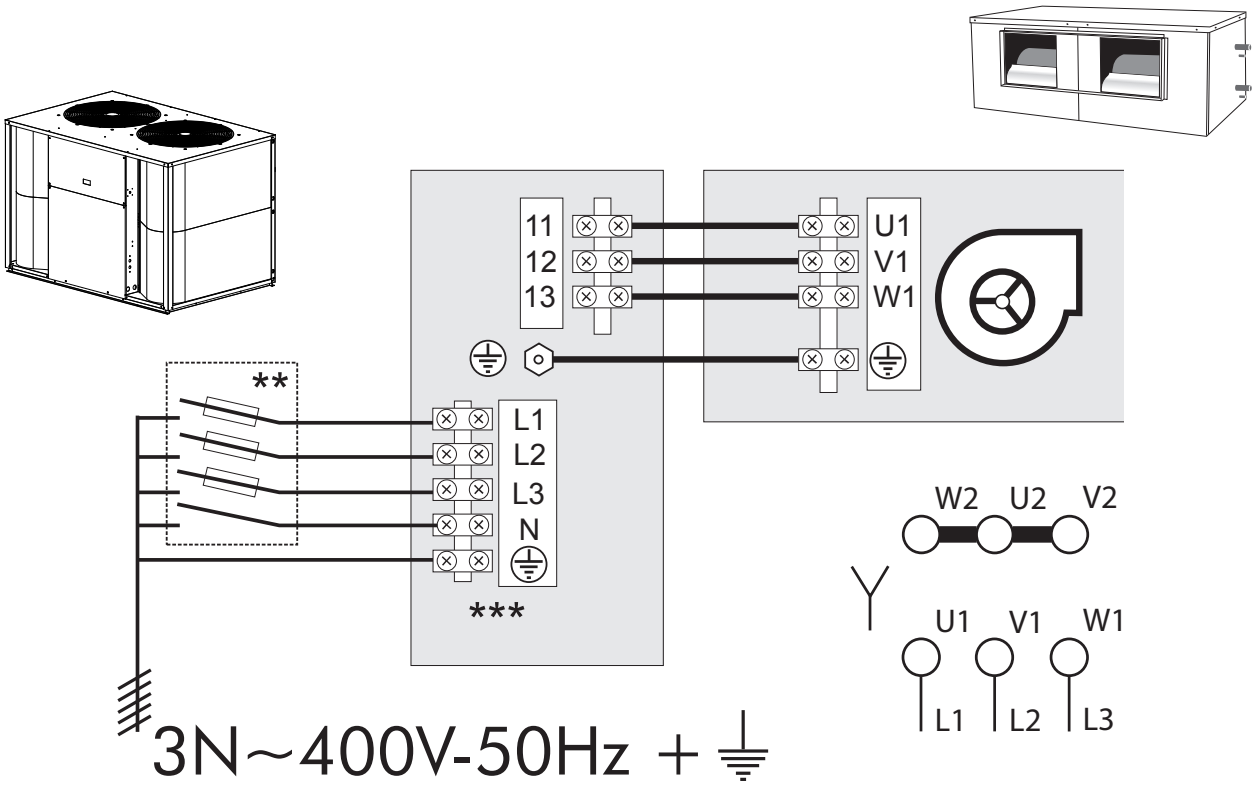

**205 - 255 - 305**



**405 - 505 - 605**




**405M - 755 - 905**



## AERAULIC ADJUSTMENT
## CARACTÉRISTIQUES AÉRAULIQUES
## REGELUNG DES LÜFTERSYSTEMS
## REGOLAZIONE DEL SISTEMA DI TRATTAMENTO DELL'ARIA
## AJUSTE DEL SISTEMA AEROLICO

| **125** | | Air flow / Débit d'air / Luftmenge / Porta d'aria / Caudal de aire ($m^3/h$) | | | | |
|---|---|---|---|---|---|---|
| | | 1700 | 1900 | **2100** | 2300 | 2500 |
| Ps (Pa) | GV | 162 | 142 | **122** | 97 | 70 |
| | MV | 142 | 120 | **96** | 68 | 37 |
| | PV | 115 | 85 | **51** | 12 | - |

| **125V** | | Air flow / Débit d'air / Luftmenge / Porta d'aria / Caudal de aire ($m^3/h$) | | | | |
|---|---|---|---|---|---|---|
| | | 1600 | 1850 | **2100** | 2250 | 2400 |
| Ps (Pa) | GV | 218 | 198 | **172** | 156 | 138 |
| | MV | 198 | 172 | **142** | 123 | 100 |
| | PV | 167 | 131 | **93** | 68 | 40 |

Supplied without an inlet air filter as standard equipment.
Livré de série sans filtre à air à l'aspiration.
Serienmäßig ohne Luftfilter am Ansaug geliefert.

Fornito di serie senza filtro dell'aria all'aspirazione.
Entregado de serie sin filtro de aire en la aspiración.

| **155** | | Air flow / Débit d'air / Luftmenge / Porta d'aria / Caudal de aire ($m^3/h$) | | | | |
|---|---|---|---|---|---|---|
| | | 2300 | 2575 | **2850** | 2975 | 3100 |
| Ps (Pa) | GV | 130 | 98 | **62** | 45 | 28 |
| | MV | 98 | 57 | **10** | - | - |

| **155V** | | Air flow / Débit d'air / Luftmenge / Porta d'aria / Caudal de aire ($m^3/h$) | | | | |
|---|---|---|---|---|---|---|
| | | 2100 | 2475 | **2850** | 3000 | 3150 |
| Ps (Pa) | GV | 148 | 111 | **74** | 60 | 41 |
| | MV | 115 | 68 | **16** | - | - |

Supplied without an inlet air filter as standard equipment.
Livré de série sans filtre à air à l'aspiration.
Serienmäßig ohne Luftfilter am Ansaug geliefert.

Fornito di serie senza filtro dell'aria all'aspirazione.
Entregado de serie sin filtro de aire en la aspiración.

| **185** | | Air flow / Débit d'air / Luftmenge / Porta d'aria / Caudal de aire ($m^3/h$) | | | | |
|---|---|---|---|---|---|---|
| | | 2800 | 3150 | **3500** | 3700 | 3900 |
| Ps (Pa) | GV | 197 | 155 | **108** | 77 | 45 |
| | MV | 140 | 85 | **20** | - | - |

| **205** | | Air flow / Débit d'air / Luftmenge / Porta d'aria / Caudal de aire ($m^3/h$) | | | | |
|---|---|---|---|---|---|---|
| | | 3600 | 4050 | **4500** | 4750 | 5000 |
| Ps (Pa) | 0 | 212 | 190 | **165** | 143 | 126 |
| | 1tr | 182 | 159 | **131** | 109 | 91 |
| | 2tr | 152 | 127 | **97** | 74 | 55 |
| | 3tr | 122 | 96 | **63** | 40 | 20 |

| **255** | | Air flow / Débit d'air / Luftmenge / Porta d'aria / Caudal de aire ($m^3/h$) | | | | |
|---|---|---|---|---|---|---|
| | | 3800 | 4240 | **4680** | 4890 | 5100 |
| Ps (Pa) | 0 | 213 | 190 | **159** | 140 | 120 |
| | 1tr | 180 | 154 | **122** | 102 | 82 |
| | 2tr | 147 | 118 | **85** | 64 | 44 |
| | 3tr | 113 | 82 | **47** | 25 | 5 |
| | 4tr | 80 | 46 | **10** | - | - |

| **305 PE** | | Air flow / Débit d'air / Luftmenge / Porta d'aria / Caudal de aire ($m^3/h$) | | | | |
|---|---|---|---|---|---|---|
| | | 4600 | 5180 | **5760** | 6030 | 6300 |
| Ps (Pa) | 0 | 123 | 102 | **81** | 67 | 56 |
| | 1tr | 105 | 83 | **61** | 47 | 35 |
| | 2tr | 87 | 64 | **41** | 26 | 14 |
| | $3^{1/2}$tr | 60 | 36 | **11** | - | - |

| **305 GE** | | Air flow / Débit d'air / Luftmenge / Porta d'aria / Caudal de aire ($m^3/h$) | | | | |
|---|---|---|---|---|---|---|
| | | 4600 | 5180 | **5760** | 6030 | 6300 |
| Ps (Pa) | 0 | 186 | 164 | **141** | 127 | 115 |
| | 1tr | 160 | 137 | **114** | 100 | 88 |
| | 2tr | 133 | 110 | **87** | 74 | 62 |
| | $3^{1/2}$tr | 94 | 70 | **47** | 34 | 22 |

| **405 PE** | | Air flow / Débit d'air / Luftmenge / Porta d'aria / Caudal de aire ($m^3/h$) | | | | |
|---|---|---|---|---|---|---|
| | | 6000 | 6780 | **7560** | 7880 | 8200 |
| Ps (Pa) | 0 | 138 | 108 | **68** | 45 | 23 |
| | 1tr | 111 | 74 | **27** | 1 | - |
| | 2tr | 83 | 41 | **-** | - | - |

| **405 GE** | | Air flow / Débit d'air / Luftmenge / Porta d'aria / Caudal de aire ($m^3/h$) | | | | |
|---|---|---|---|---|---|---|
| | | 6000 | 6780 | **7560** | 7880 | 8200 |
| Ps (Pa) | 0 | 178 | 158 | **137** | 121 | 107 |
| | 1tr | 151 | 128 | **99** | 78 | 59 |
| | 2tr | 125 | 99 | **60** | 35 | 12 |
| | 3tr | 98 | 69 | **22** | - | - |

| **505 PE** | | Air flow / Débit d'air / Luftmenge / Porta d'aria / Caudal de aire ($m^3/h$) | | | | |
|---|---|---|---|---|---|---|
| | | 7500 | 8430 | **9360** | 9830 | 10300 |
| Ps (Pa) | 0 | 188 | 175 | **159** | 147 | 132 |
| | 1tr | 166 | 151 | **134** | 121 | 106 |
| | 2tr | 144 | 128 | **109** | 95 | 80 |
| | 4tr | 99 | 80 | **58** | 43 | 27 |

| **505 GE** | | Air flow / Débit d'air / Luftmenge / Porta d'aria / Caudal de aire ($m^3/h$) | | | | |
|---|---|---|---|---|---|---|
| | | 7500 | 8430 | **9360** | 9830 | 10300 |
| Ps (Pa) | 0 | 525 | 497 | **477** | 462 | 449 |
| | 1tr | 474 | 448 | **428** | 414 | 401 |
| | 2tr | 423 | 398 | **378** | 365 | 352 |
| | $3^{1/2}$tr | 347 | 324 | **304** | 293 | 280 |

| **605 PE** | | Air flow / Débit d'air / Luftmenge / Porta d'aria / Caudal de aire ($m^3/h$) | | | | |
|---|---|---|---|---|---|---|
| | | 7780 | 8750 | **9720** | 10360 | 11000 |
| Ps (Pa) | 0 | 200 | 183 | **165** | 150 | 133 |
| | 1tr | 188 | 170 | **151** | 135 | 118 |
| | 2tr | 177 | 157 | **137** | 120 | 103 |
| | 4tr | 153 | 131 | **109** | 90 | 72 |

| **605 GE** | | Air flow / Débit d'air / Luftmenge / Porta d'aria / Caudal de aire ($m^3/h$) | | | | |
|---|---|---|---|---|---|---|
| | | 7780 | 8750 | **9720** | 10360 | 11000 |
| Ps (Pa) | 0 | 318 | 297 | **276** | 259 | 243 |
| | 1tr | 296 | 275 | **253** | 236 | 219 |
| | 2tr | 275 | 252 | **231** | 213 | 195 |
| | 4tr | 231 | 207 | **185** | 167 | 147 |

| **755** | | Air flow / Débit d'air / Luftmenge / Porta d'aria / Caudal de aire ($m^3/h$) | | | | |
|---|---|---|---|---|---|---|
| | | 9600 | 10800 | **12000** | 12600 | 13200 |
| Ps (Pa) | 0 | 330 | 316 | **283** | 261 | 233 |
| | 1tr | 292 | 274 | **240** | 217 | 189 |
| | 2tr | 254 | 233 | **196** | 172 | 144 |
| | 4tr | 178 | 149 | **109** | 83 | 55 |

| **905** | | Air flow / Débit d'air / Luftmenge / Porta d'aria / Caudal de aire ($m^3/h$) | | | | |
|---|---|---|---|---|---|---|
| | | 11440 | 12870 | **14300** | 15015 | 15730 |
| Ps (Pa) | 0 | 460 | 420 | **375** | 350 | 320 |
| | 1tr | 395 | 349 | **298** | 270 | 240 |
| | 2tr | 330 | 278 | **220** | 190 | 160 |
| | 4tr | 190 | 146 | **95** | 68 | 37 |

# EC Compliance declaration

**Under our own responsibility, we declare that the product designated in this manual comply with the provisions of the EEC directives listed hereafter and with the national legislation into which these directives have been transposed.**

# Déclaration CE de conformité

**Nous déclarons sous notre responsabilité que les produits désignés dans la présente notice sont conformes aux dispositions des directives CEE énoncées ci- après et aux législations nationales les transposant.**

# EG-Konformitätserklärung

**Wir erklarën in eigener Verantwortung, das die in der vorliegenden Beschreibung angegebenen Produkte den Bestimungen der nachstehend erwähnten EG-Richtlinien und den nationalen Gesetzesvorschriffen entsprechen, in denen diese Richtinien umgesetz sind.**

# Dichiarazione CE di conformità

**Dichiariamo, assurmendone la responsasabilità, che i prodotti descritti nel presente manuale sono conformi alle disposizioni delle direttive CEE di cui sott e alle lagislazionni nazionali che li recepiscono**

# Declaración CE de conformidad

**Declaramos, bajo nuestra responsabilidad, que los productos designados en este manual son conformes a las disposiciones de las directivas CEE enunuciadas a continuacion, asi como a las legislaciones nacionales que las contemplan.**

**DK/WDK/SKX 125-125V-155-155V-185-205-255-305-405-505-605-755-905**
**DN//WDN/SCU 125-155-185-205-255-305-405M-405-505-605-755-905**

**MACHINERY DIRECTIVE 2006 / 42 / EEC**
**LOW VOLTAGE DIRECTIVE (DBT) 2006 / 95 / EEC**
**ELECTROMAGNETIC COMPATIBILITY DIRECTIVE 2004 / 108 / EEC**
**PRESSURISE EQUIPMENT DIRECTIVE (DESP) 97 / 23 / EEC**
**MODULE A CATEGORY I:DK/WDK/SKX AND DN/WDN/SCU 125 TO 205 AND 405**
**SUB-MODULE A1 CATEGORY II: DN/WDN/SCU 255 TO 305 AND 405M TO 905**
**NOTIFIED BODY: TÜV RHEINLAND – 62 BIS, AVENUE HENRI GINOUX – 92120 MONTROUGE - FRANCE.**
**THE PRODUCTS ARE PROVIDED WITH CE 0035 MARKING OF CONFORMITY**

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**DIRECTIVE MACHINES 2006 / 42 / C.E.E.**
**DIRECTIVE BASSE TENSION (DBT) 2006 / 95 / C.E.E.**
**DIRECTIVE COMPATIBILITE ELECTROMAGNETIQUE 2004 / 108 / C.E.E.**
**DIRECTIVE DES EQUIPEMENTS SOUS PRESSION (DESP) 97 / 23 C.E.E.**
**MODULE A CATEGORIE I : DK/WDK/SKX ET DN/WDN/SCU 125 A 205 ET 405**
**SOUS-MODULE A1 CATEGORIE II : DN/WDN/SCU 255 A 305 ET 405M A 905**
**AVEC SURVEILLANCE PAR LE TUV RHEINLAND 62 BIS, AVENUE HENRI GINOUX – 92120 MONTROUGE - FRANCE.**
**LES PRODUITS SONT FOURNIS AVEC LE MARQUAGE DE CONFORMITE CE 0035**

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**RICHTLINIE MASCHINEN 2006 / 42 / EG**
**RICHTLINIE NIERDERSPANNUNG (DBT) 2006 / 95 / EG**
**RICHTLINIE ELEKTROMAGNETISHE VERTRÄGLICHKEIT 2004 / 108 / EG**
**RICHTLINIE FÜR AUSRÜSTUNGEN UNTER DRUCK (DESP) 97 / 23 / EG**
**MODUL A, KATEGORIE I : DK/WDK/SKX UND DN/WDN/SCU 125 BIS 205 UND 405**
**UNTER MODUL A1, KATEGORIE II : DN/WDN/SCU 255 BIS 305 UND 405M BIS 905**
**MIT KONTROLLE DURCH DEN TUV RHEINLAND 62 BIS, AVENUE HENRI GINOUX – 92120 MONTROUGE - FRANCE.**
**DIE PRODUKTE WERDEN MIT DER MARKIERUNG CONFORMITE CE 0035 GELIEFERT.**

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**DIRETTIVA MACHINE 2006 / 42 / CEE**
**DIRETTIVA BASSA TENSIONE (DBT) 2006 / 95 / CEE**
**DIRETTIVA COMPATIBILITA ELETTROMAGNATICA 2004 / 108 / CEE**
**DIRETTIVA DEGLI IMPIANTI SOTTO PRESSIONE (DESP) 97 / 23 / CEE**
**MODULO A, CATEGORIA I : DK/WDK/SKX E DN/WDN/SCU 125 - 205 E 405**
**SOTTOMODULO A1, CATEGORIA II : DN/WDN/SCU 255 - 305 E 405M - 905**
**CON SUPERVISION POR EL TUV RHEINLAND 62 BIS, AVENUE HENRI GINOUX – 92120 MONTROUGE - FRANCE.**
**I PRODOTTI SONO FORNITI CON LA MARCATURA DI CONFORMITE CE 0035.**

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**DIRECTIVA MAQUIAS 2006 / 42 / CEE**
**DIRECTIVA BAJA TENSION (DBT) 2006 / 95 / CEE**
**DIRECTIVA COMPATIBILIDAD ELECTROMAGNETICA 2004 / 108 / CEE**
**DIRECTIVA DE LOS EQUIPOS A PRESION (DESP) 97 / 23 / CEE**
**MODULO A, CATEGORIA I : DK/WDK/SKX Y DN/WDN/SCU 125 A 205 Y 405**
**BAJA MODULO A1, CATEGORIA II : DN/WDN/SCU 255 A 305 Y 405M A 905**
**CON SORVEGLIANZA DAL TUV RHEINLAND 62 BIS, AVENUE HENRI GINOUX – 92120 MONTROUGE - FRANCE.**
**LOS PRODUCTOS SE PROPORCIONAN CON EL MARCADO DE CONFOR CE 0035.**

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**And that the following paragraphs of the harmonised standards have been applied.**
**Et que les paragraphes suivants les normes harmonisées ont été appliqués.**
**Und dass die folgenden Paragraphen der vereinheitlichten Normen Angewandt wurden.**
**E che sono stati applicati i seguenti paragraphi delle norme armonnizzate.**
**Y que se han aplicado los siguientes apartados de las normas armonizadas.**

**EN 60 335-1**
**EN 61 000-6-1**
**EN 61 000-3-12**
**EN 60 335-2-40**
**EN 61 000-6-3**
**EN 378**
**EN 61 000-3-11**

A Tillières sur Avre
27570 - FRANCE
Le: 15/07/2010
Sébastien Blard
Quality Manager
AIRWELL Industrie France

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