



## Introductory word

The Belgian family enterprise FRIGRO, founded in 1980, is well known in the cooling world, as a reliable partner for the realisation of your cooling, acclimatisation and insulation projects. Together with various Congolese partners, FRIGRO is able to provide you with our expertise, installation and a stock of goods, available locally in the market.

Frigro can offer you solutions adapted for your market: freezing units (ready to plug), cold rooms powered by solar energy, custom projects, supplier of refrigeration components, ...

For further information, please visit our website [www.coolinginafrica.com](http://www.coolinginafrica.com)

Bert Decuyper  
Koen Decuyper

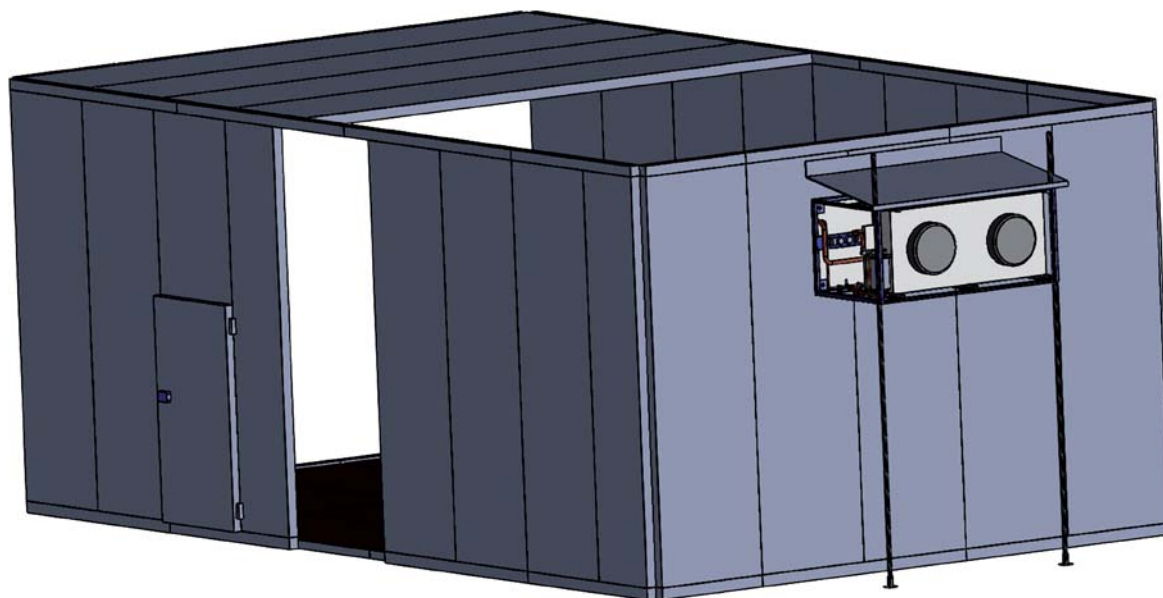


**FRIGRO**

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[www.froidenafrique.com](http://www.froidenafrique.com) • [www.coolinginafrica.com](http://www.coolinginafrica.com)



## Frigro Export: a complete solution...



Cold room



Unit ready to plug



Lighting

**WWW.COOLINGINAFRICA.COM**

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## AFRIGRO

**Freezing unit - ready to plug**

*25 m<sup>3</sup> - 250 m<sup>3</sup>*

**Adapted to the needs of your local market!**

- High ambient temperature
- High humidity
- Suitable for local power grids



## UNIT DESCRIPTION

### GENERAL

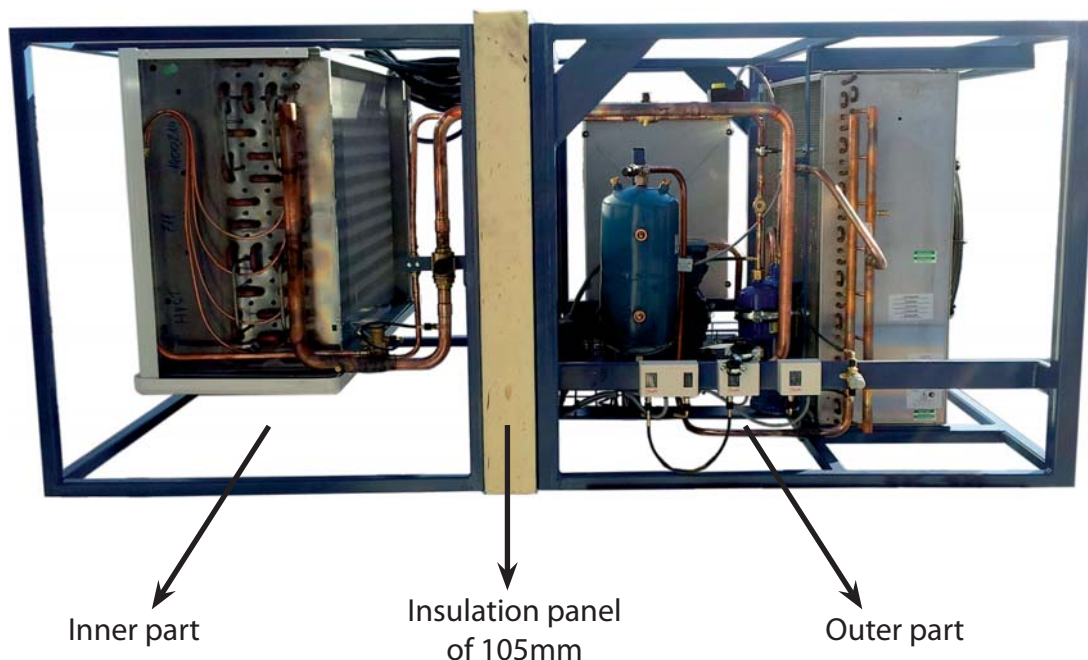
**FRIGRO**



- Freezing unit (-18 à -22°C).
- Unit constructed specific to suit for African needs.
- Cold room of 25 - 250m<sup>3</sup>, insulated with polyurethane with a thickness of 100mm (or 200mm when polystyrene and bricks are used) + insulated floor.
- The unit is constructed in a modular way. Each component can be selected to maintain the African conditions: high temperature and humidity, power outages, ...

#### Optional:

The unit can be disassembled to mount as a split-version.



#### Four standard types:

- AFRIGRO 025N: for rooms of 25 m<sup>3</sup>.
- AFRIGRO 050N: for rooms of 50 m<sup>3</sup>.
- AFRIGRO 100N: for rooms of 100 m<sup>3</sup>.
- AFRIGRO 250N: for rooms of 250 m<sup>3</sup>.

Other variants available on request.



AFRIGRO 100N



AFRIGRO 250N

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## UNIT DESCRIPTION

AFRIGRO 025N - 250N



AFRIGRO 100N



AFRIGRO 250N

## Description of the inner part



- Full steel frame, painted RAL 5000.
- Roller evaporator with 500mm fans and 7mm fin spacing.
- Complete with Danfoss expansion valve and Castel ball valves.
- Panel with polyurethane of 105mm, between the inner and outer part.
- Electric defrost.
- Heating cable, water discharge.

## Description of the outer part



- Semi-hermetic Bock compressor - *preferred label* (other labels available on request: Bitzer or Copeland).
- Oil separator with reservoir and return towards the compressor crankcase.
- Air condenser Alfa Laval or Searle, dimensioned for tropical conditions.
- Fluid reservoir filled with 6kg R404A, with sight glass to monitor the liquid levels.
- Filter drier and solenoid valve.



## Electrical cabinet with verifications of the grid: phase, voltage rotation



Equipped with:

- Overload relays for compressor and fans.
- Clock for mechanical defrost.
- Indication of alarms or functions:
  - high pressure,
  - compressor protection,
  - defrost or freezing,
  - protection of evaporator fans,
  - protection of condenser fans.
- Mechanical thermostat + digital display for temperature indication (Dixell thermometer without regulation functions).
- Button for manual defrost.

## Mounting



- Brackets are provided for mounting the unit on the cold room.
- Support legs are carrying the remaining weight of the unit.
- Before inserting the unit in the cold room, one must prepare a hole with following dimensions:
  - For AFRIGRO 025N: **TO BE DETERMINED**
  - For AFRIGRO 050N: **TO BE DETERMINED**
  - For AFRIGRO 100N: 1660mm width and 970mm height.
  - For AFRIGRO 250N: 2220mm width and 1020mm height.

IMPORTANT:

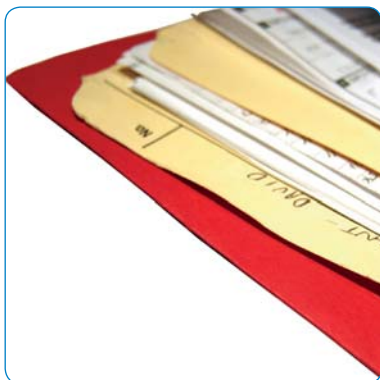
Please consult the mounting instructions and the installation instruction video on our website: [www.frigro.be/export](http://www.frigro.be/export)

## Electrical needs



- The unit is ready to plug 3 x 380 V + N.
- Quick connect plug with 5 meters cable is included.
- **AFRIGRO 025N**  
**TO BE DETERMINED**
- **AFRIGRO 050N**  
**TO BE DETERMINED**
- **AFRIGRO 100N**  
To set the unit in operation, one needs an electric grid or a generator that can deliver 20 kVA on start-up and 6 kVA once in route.
- **AFRIGRO 250N**  
To set the unit in operation, one needs an electric grid or a generator that can deliver 40 kVA on start-up and 12 kVA once in route.

## Attestation



- Tested and approved by Frigo Belgium, compete with the test report and a list of spare parts.

## Options: generators - protection - cables



- Roofing and anti-theft protection (grids).
- Extension for the cable with the quick connection plug.
- AFRIGRO 025N: **TO BE DETERMINED**
- AFRIGRO 050N: **TO BE DETERMINED**
- AFRIGRO 100N: Generator that can support 20 kVA approved by Frigo.
- AFRIGRO 250N: Generator that can support 40 kVA approved by Frigo.

## Packaging, weight and volume



### AFRIGRO 100N

- Units are packed in wooden export cases: 2220 x 1740 x 1120mm (W x D x H).
- Weight: +- 605 kg / unit.
- Units can be stacked by two in a container (maximum ten units in a 40ft container).
- Dimensions of the unit unpacked: 2100 x 1640 x 950mm (W x D x H).

### AFRIGRO 250N

- Units are packed in wooden export cases: 2190 x 2320 x 1180mm (W x D x H).
- Weight: +- 890 kg / unit.
- Units can be stacked by two in a container (maximum ten units in a 40ft container).
- Dimensions of the unit unpacked: 2000 x 2200 x 1000mm (W x D x H).



### Used construction equipment, compressors and generators

Machinery Resale, from Belgium, is a leading supplier of used construction equipment and provides low-cost alternatives for those who are in need of building site machinery: second hand compressors, wheel loaders, generators, excavators... Virtually anything you can think of. With more than 1000 machines in stock and a worldwide delivery service, Machinery Resale lives up to its status of premium supplier of used machinery.

Visit our website for more information:  
[www.machineryresale.be](http://www.machineryresale.be)





# AFRiGRO - installation instructions

Freezing unit - ready to plug

$25\text{ m}^3 - 250\text{ m}^3$

**Adapted to the needs of your local market!**

- High ambient temperature
- High humidity
- Suitable for local power grids





## PREPARATION

### STEP 1: UNPACK THE UNIT

#### 1. Remove the front.



#### 2. Remove the cover.



#### 3. Attach the four hooks.



#### 4. Remove the two side panels.



#### 5. Detach the unit.



#### 6. Attach the mounting system.

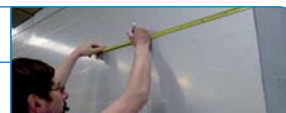


#### 7. Now one can lift the unit.

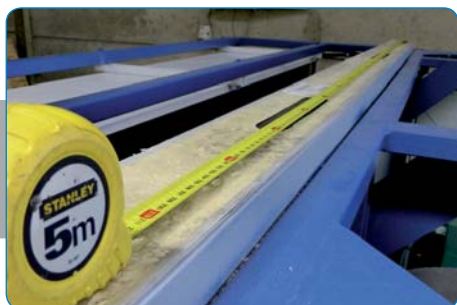


## PREPARATION

### STEP 2: MAKE A HOLE IN THE COLD ROOM



1. Measure the insulation panel of the unit.



2. Indicate the measures on the cold room.



3. Make the hole in the cold room.



## ASSEMBLY

### STEP 1: INSERT THE UNIT IN THE ROOM



1. Place the unit in front of the hole.



2. Insert the unit with caution.



3. The panels are in the correct place.







## ASSEMBLY

### STEP 2: MOUNT THE SUPPORT LEGS

#### 1. Insert the four legs.



#### 2. Fix the legs with bolts.



## ASSEMBLY

### STEP 3: FIX THE BRACKETS TO THE UNIT

#### 1. Place the brackets next the unit



#### 2. Fix the brackets (left and right).



## ASSEMBLY

### STEP 4: FIX THE BRACKETS TO THE COLD ROOM

#### 1. Fix the two brackets to the cold room



#### 2. Brackets are fixed to the unit & cold room



## ASSEMBLY

### STEP 5: COMPLETE THE INSTALLATION



#### 1. The unit is supporting on its legs.



#### 2. Insulate the hole with PU foam.



## PLUG THE UNIT

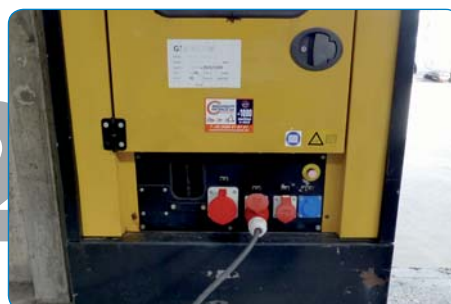
### DIFFERENT WAYS



#### 1. On the grid.



#### 2. On a generator.



## OPERATION

### UNIT START UP



#### 1. Start the unit.



#### 2. Place your products in the cold room.







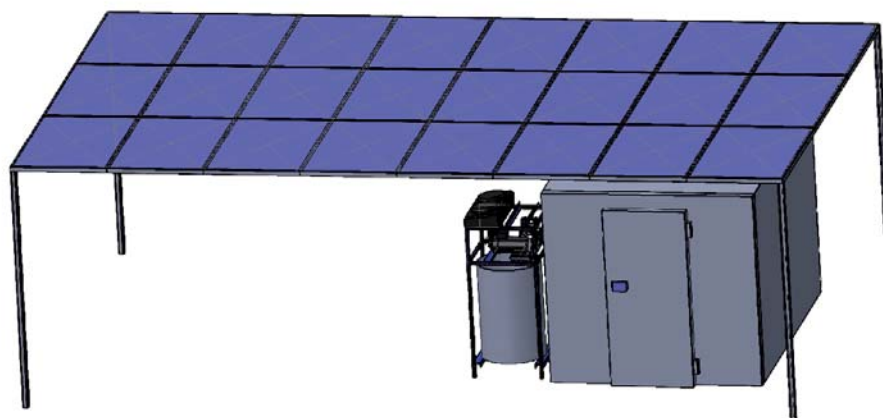


# FRIGRO EXPORT



Discover all the export solutions on:  
[www.coolinginafrica.com](http://www.coolinginafrica.com)

- Freezing/cooling unit - ready to plug.
- Cold room powered by solar energy.
- Custom projects.
- Supplier of refrigeration components.



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