

# metos

## FREEZER

PROFF AFNT  
PROFF AFGN  
PROFF AFGR

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### Installation and Operation Manual

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S/N:

Rev.: 2.1

4209455, 4209456, 4209460, 4209461, 4209474, 4209475, 4209476



Dear Customer,

Congratulations on deciding to choose a Metos appliance for your kitchen activities. You made an excellent choice. We will do our best to make you a satisfied Metos customer like thousands of customers we have around the world.

Please read this manual carefully. You will learn correct, safe and efficient working methods in order to get the best possible benefit from the appliance. The instructions and hints in this manual will give you a quick and easy start, and you will soon note how nice it is to use the Metos equipment.

All rights are reserved for technical changes.

You will find the main technical data on the rating plate fixed to the equipment. When you need service or technical help, please let us know the serial number shown on the rating plate. This will make it easier to provide you with correct service.

For your convenience, space is provided below for you to record your local Metos service contact information.

METOS TEAM

Metos service phone number:.....

Contact person:.....



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# 1. General

Carefully read the instructions in this manual as they contain important information regarding proper, efficient and safe installation, use and maintenance of the appliance.

Keep this manual in a safe place for eventual use by other operators of the appliance.

The installation of this appliance must be carried out in accordance with the manufacturer's instructions and following local regulations. The connection of the appliance to the electric and water supply must be carried out by qualified persons only.

Persons using this appliance should be specifically trained in its operation.

Switch off the appliance in case of failure or malfunction. The periodical function checks requested in the manual must be carried out according to the instructions. Have the appliance serviced by a technically qualified person authorized by the manufacturer and using original spare parts.

Not complying with the above may put the safety of the appliance in danger.

## 1.1 Symbols used in the manual



This symbol informs about a situation where a safety risk might be at hand. Given instructions are mandatory in order to prevent injury.



This symbol informs about the right way to perform in order to prevent bad results, appliance damage or hazardous situations.



This symbol informs about recommendations and hints that help to get the best performance out of the appliance.

## 1.2 Symbols used on the appliance



This symbol on a part informs about electrical terminals behind the part. The removal of the part must be carried out by qualified persons only.

## 1.3 Checking the relationship of the appliance and the manual

The rating plate of the appliance indicates the serial number of the appliance. If the manuals are missing, it is possible to order new ones from the manufacturer or the local representative. When ordering new manuals it is essential to quote the serial number shown on the rating plate.

## 2. Safety

### 2.1 Safe use of the appliance



For safe use of the appliance, observe the following safety instructions:

- When moving or servicing the appliance, always switch it off at the power supply.
- While cleaning the appliance, be cautious not to allow the electrical devices to come into contact with water. Spraying water on the inside and outside surfaces of the appliance is forbidden.
- Do not open more than one drawer at a time to prevent the centre of gravity shifting and causing the appliance to overturn.
- Exposing the appliance to the rain is forbidden.

If the appliance is not used for a long time, it should be switched off at the power supply, cleaned and wiped dry on the inside.

### 2.2 Disposal of the appliance

The refrigerated equipment contains parts and components, the disposal of which requires special treatment. Contact local authorities to obtain instructions on how to dispose of the appliance.



## 3. Functional description

### 3.1 Intended use of the appliance

The appliance is designed for storage of frozen foodstuffs in serving lines, restaurants and kitchens.



Placing unfrozen products in the appliance may cause them to spoil. This also burdens the refrigeration unit and can lead to malfunction of the appliance.

### 3.2 Use for other purposes



Use of the appliance for any other purposes is prohibited.

Consult the manufacturer in case you intend to use the appliance for other purposes than stated in this manual.

## 4. Operation instructions

### 4.1 Use

Place products into drawers in GN containers to reach the best possible cooling effect.



The products must not rise above the GN container's top edge, as this will prevent air circulation. Also leave an air gap at the rear part of the refrigerated compartment.

Do not store foodstuffs in open containers, but cover them with lids or plastic foil. This helps to keep the evaporator free of ice and prevents foodstuffs from drying.

Watch the internal temperature of the unit daily. Always keep the products in good order. Do not store spoiled food in the unit.

### 4.2 After use

#### 4.2.1 Defrosting

Defrosting takes place automatically four times per 24 hours (preset).

#### 4.2.2 Cleaning

##### **Daily**

Clean and dry possible splashes from the drawers and internal walls daily.

##### **Weekly**

Units with refrigerated bottle basin:

- Switch off the power at the main switch.
- Lift the bottle grate up and wipe the basin with a damp cloth.
- Make sure that the drain tap is open.

NOTE. Never spray the unit with water. The evaporator tray will fill up causing water to drip onto the floor.

**Twice a year**

Clean the unit thoroughly twice a year by washing the shelves and cleaning other internal parts carefully.

Fat and dust should be cleaned from the condenser at least two times a year. Use a soft brush or a vacuum cleaner. (Not models with remote cooling.)



Before cleaning the condenser, switch the appliance off at the power supply by unplugging the electric cable from the socket.

**4.2.3 Service procedures by authorised service personnel**

All other maintenance procedures than those mentioned above should be carried out by authorised service personnel.

## 5. Installation

### 5.1 Operating conditions

The appliance is designed for operation at temperatures of +10°C to + 25°C.

The appliance should not be placed in a location exposed to heavy thermal load. Positioning cold furnishings close to bain-maries and ovens should be avoided.

### 5.2 Transport and storage

The appliance should be transported to the installation site in its transport package. Do not remove packing until in the immediate vicinity of the installation place. The appliance should be transported in an upright position.

The appliance is made of polished stainless steel that can easily get scratches in site conditions. Therefore, the appliance should be delivered to the installation site at a later stage of construction work. It is forbidden to use the appliance as an installation base.



The appliance should not be stored outdoors, not even in its transport package.

In case the appliance has been stored in a non-heated location so that its temperature and particularly the temperature of the machinery has fallen below 0°C, the appliance should be kept in room temperature until the machinery temperature is at least 10°C. Starting the cold machinery may damage the compressor.

### 5.3 Unpacking the appliance

Remove white foils protecting the stainless steel walls cautiously to avoid the surfaces getting scratched.

### 5.4 Installation

The appliance is supplied with adjustable legs. With the help of the adjustable legs the appliance is positioned in a horizontal position as accurately as possible. At the same time it should be ensured that the appliance rests evenly on all legs. If adjustment is not performed with great care, the door and locks may not work properly.

## 5.5 Cleaning

Clean the interior and exterior of the appliance before taking it into use. Neutral or slightly alkaline cleaning agents can be used.

## 5.6 Electrical connections

Connect the appliance to the power supply with an earthed socket, using a connection cable supplied (230V, 1-phase). If the appliance is fitted with a condensing unit, wait about 3 hours before start-up to allow the oil level to set after transportation.

## 5.7 Start-up

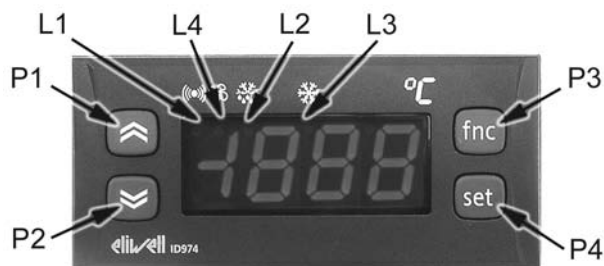
Switch the appliance on using the main switch on the control panel.

Make sure the digits on the display light up. The digits indicate the actual temperature inside the unit. The thermostat has been set to  $-20^{\circ}\text{C}$  at the factory. Allow the temperature to reach this value before use. If you want to change the temperature setting, see Chapter "Adjustment instructions".

## 6. Adjustment instructions

### 6.1 Thermostat operation

The microprocessor-based control unit contains a series of parameters to control the freezer functions. Each refrigeration unit has been pre-programmed at the factory. The user can carry out two programming functions: setting the temperature and starting a manual defrost cycle.



*Thermostat ID 974*

#### 6.1.1 Buttons

Press P4 twice to display the set value. Use P1 and P2 to change this value.

To start a manual defrost cycle, press and hold down P1 for about 5 seconds. LED L2 will flash.

#### 6.1.2 LED indicator lights

LED L1 on indicates that an alarm has occurred; flashing, indicates that an alarm has been silenced.

LED L2 on indicates that a defrost cycle is in progress; flashing, indicates that a manual defrost cycle is in progress.

LED L3 on indicates that the compressor is on; flashing, indicates that there is a delay, a safety delay or a compressor switch-on block.

LED L4 indicates that the fan is on.

## 7. Troubleshooting

In case the appliance does not function as expected, review the following list of problems:

- Has the fuse broken?
- Is the display active?
- Is the red indicator light illuminating below the “comp” sign?
- Is the compressor running?
- Is a defrost cycle in progress? During defrost the red indicator light illuminates below the “def” sign. Wait until the defrost cycle is finished and the temperature starts to decrease.
- Is the evaporator free of ice after defrost?
- Make sure that the compressor air inlet is not blocked. The compressor requires good air circulation.

In case the appliance does not function despite these checks, contact the nearest Metos service. Remember to mention the serial number of the appliance shown on the rating plate. The rating plate is located close to the cooling unit.





## **8. Technical specifications**

**Connection diagram**

**Connection diagram, remote cooling**

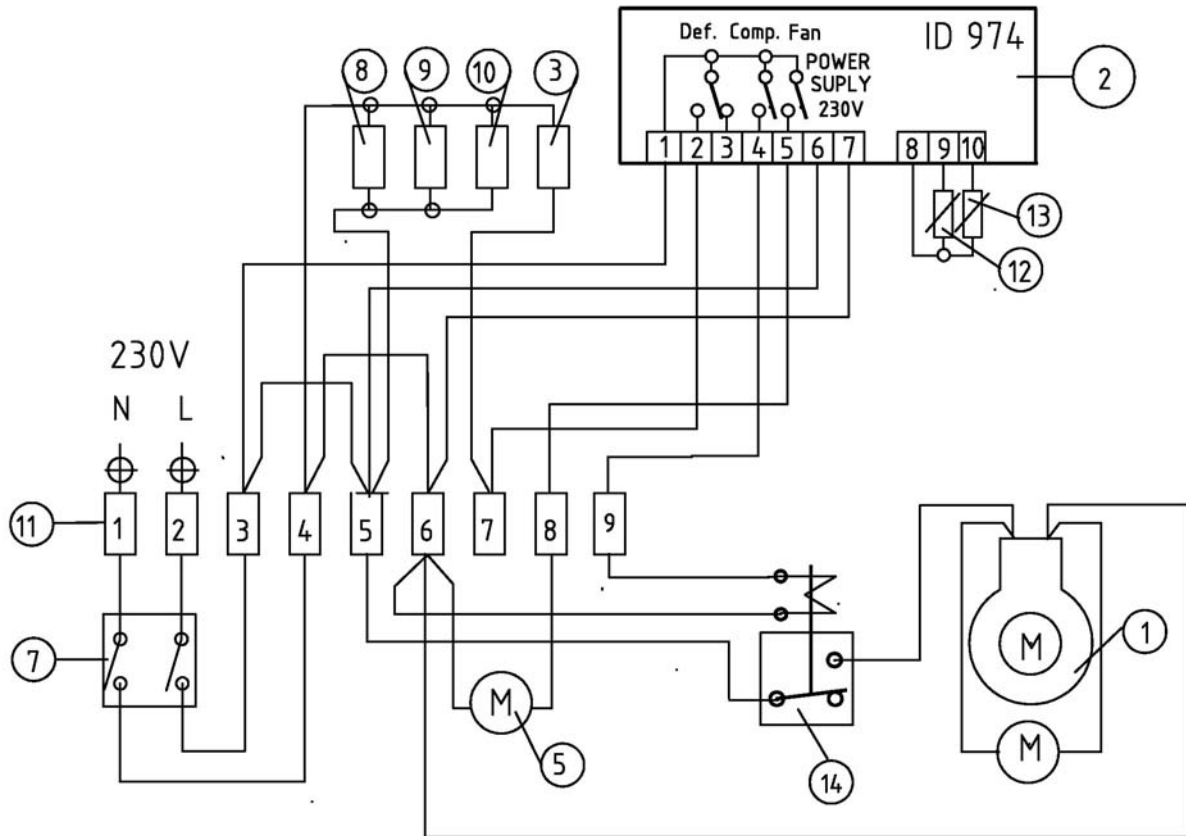
**Installation drawing AFNT-1200**

**Installation drawing AFGN-1200**

**Installation drawing AFGN-1600**

## Technical specifications

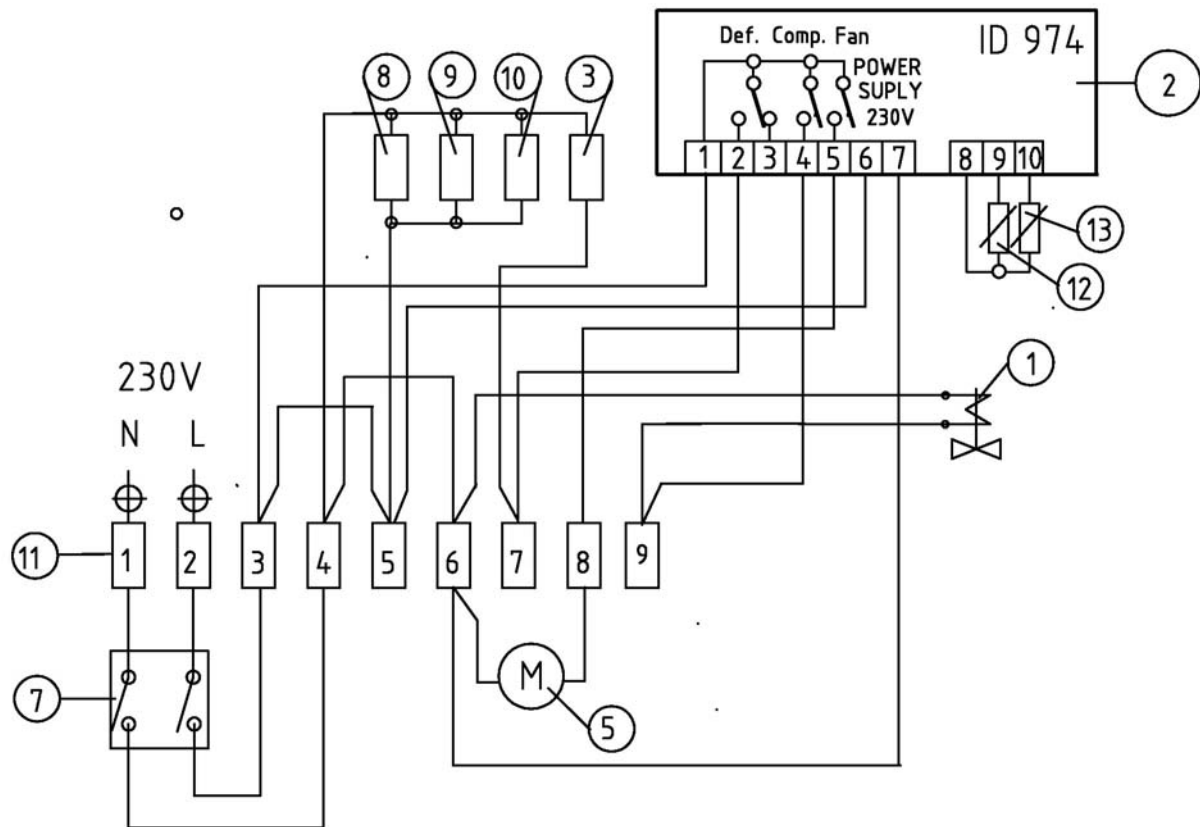
Connection diagram



|    |                                 |                          |                                   |
|----|---------------------------------|--------------------------|-----------------------------------|
| 1  | Condensing unit                 | Kylaggregat              | Kylmäkompressori                  |
| 2  | Electronic control device       | Elektronisk styrenhet    | Elektroninen ohjausyksikkö        |
| 3  | Defrost heat element 230V       | Avfrostningselement 230V | Sulatusvastus 230V                |
| 5  | Fan for evaporator              | Förångarfläkt            | Höyrystimen puhallin              |
| 7  | Switch                          | Brytare                  | Kytkin                            |
| 8  | Discharge heat element 230V     | Avloppsvärme 230V        | Lämpölanka (poistoputki) 230V     |
| 9  | Gasket heat element 230V        | Karmvärme 230V           | Lämmitysvastus (ovitiiviste) 230V |
| 10 | Defrost water heat element 230V | Tövattenelement 230V     | Vastus (haihdutus) 230V           |
| 11 | Terminal block                  | Kopplingsplint           | Liitinrima                        |
| 12 | Probe for defrost               | Sensor avfrostning       | Anturi sulatukselle               |
| 13 | Probe for thermostat            | Sensor temperaturvisning | Anturi termostaatille             |
| 14 | Relay                           | Starthjälsrelä           | Apurele                           |

## Technical specifications

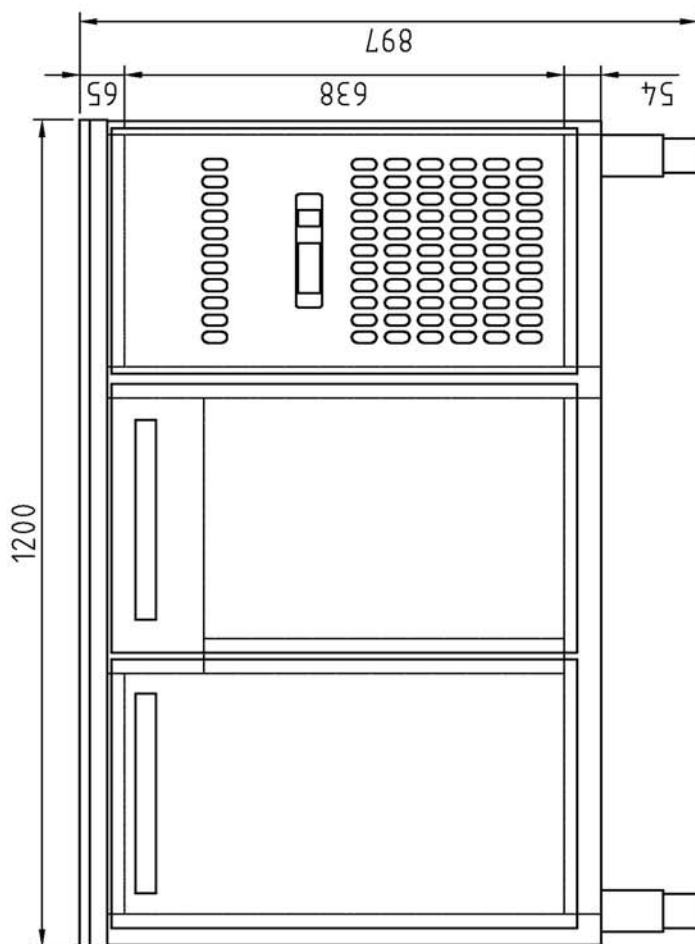
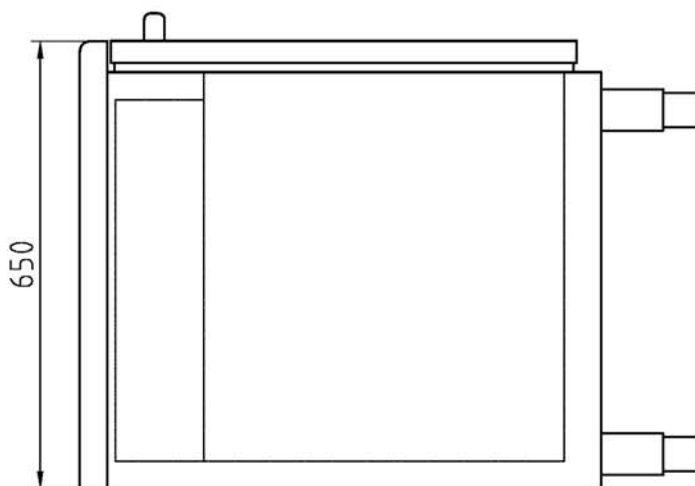
Connection diagram, remote cooling




|    |                                 |                          |                                   |
|----|---------------------------------|--------------------------|-----------------------------------|
| 1  | Solenoid valve                  | Magnetventil             | Magneettiventtiili                |
| 2  | Electronic control device       | Elektronisk styrenhet    | Elektroninen ohjausyksikkö        |
| 3  | Defrost heat element 230V       | Avfrostningselement 230V | Sulatusvastus 230V                |
| 5  | Fan for evaporator              | Förångarfläkt            | Höyrystimen puhallin              |
| 7  | Switch                          | Brytare                  | Kytkin                            |
| 8  | Discharge heat element 230V     | Avloppsvärme 230V        | Lämpölanka (poistoputki) 230V     |
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| 11 | Terminal block                  | Kopplingsplint           | Liitinrima                        |
| 12 | Probe for defrost               | Sensor avfrostning       | Anturi sulatukselle               |
| 13 | Probe for thermostat            | Sensor temperturvisning  | Anturi termostaatille             |

Denna ritning får EJ utan vårt medgivande kopieras. Den får ej heller delgivas annan eller eljest obehörigen användas. Överträdelse härav beivras med stöd av gällande lag. ACCONA INDUSTRIER AB.

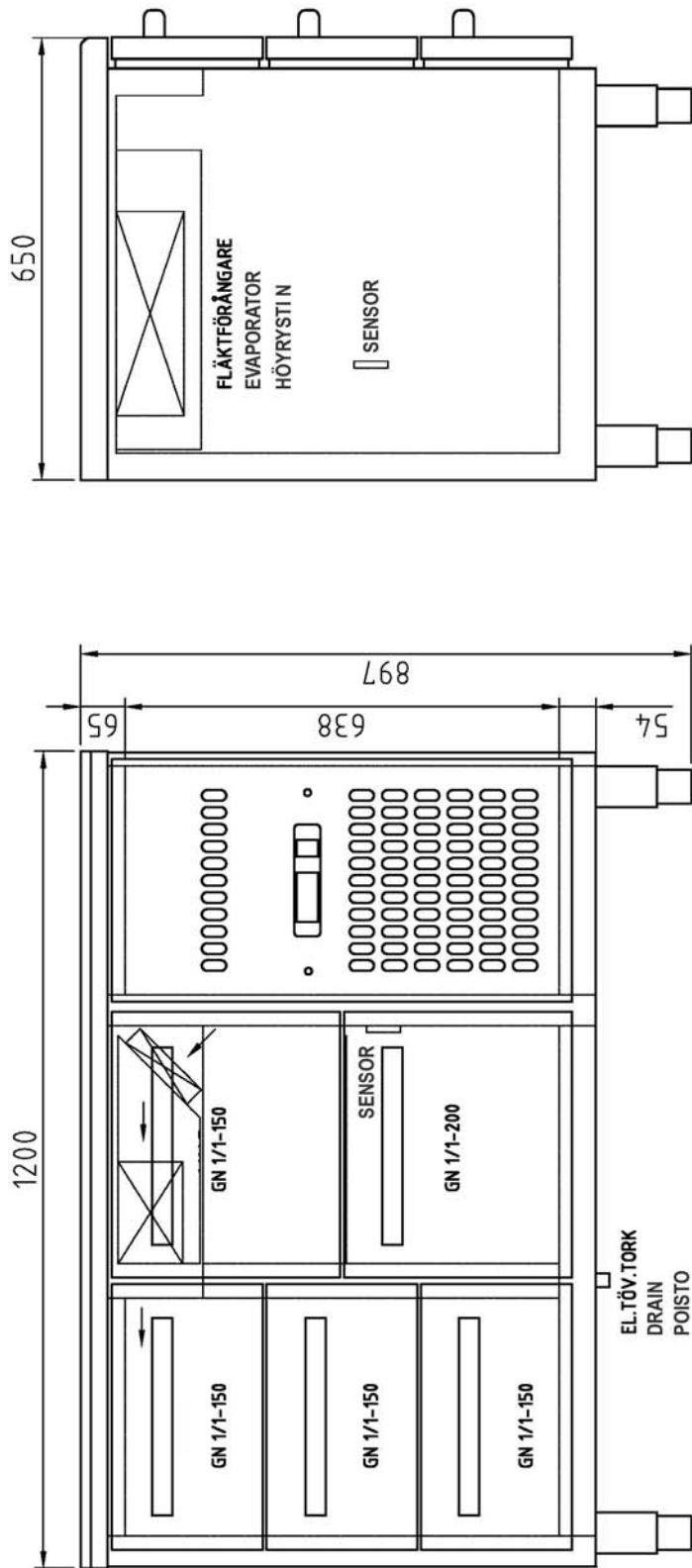
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| Material  | ○ | Vikt kg. | Ritad<br>KG                                | Godkänd | Skala<br>1.10      | Datum<br>040122 |
|  ACCONA<br>Accona Industrier AB<br>Tel +46 570 388 70 Fax +46 570 388 91 |   |          | Detalj<br><b>AFNT-1200</b><br>1200x650x900 |         | Ritn.nr.<br>851278 |                 |
|   |   |          |  |         |                    | Ä.litt.         |

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|  | ○        | KG    |           | 1.10    | 04.02.09 |
| Detalj<br><b>AFGN-1200</b><br>1200 X 650 X 900                                 |          |       | Riftn.nr. | Ä.liff. |          |
| <b>ACCONA</b><br>Accona Industrier AB<br>Tel +46 570 388 70 Fax +46 570 388 91 |          |       | 851286    |         |          |

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|---|----------|----------|----------|-------|-------|
| <p>The drawing shows two views of the AFGN-1600 machine. The front view (top) shows a control panel with a display of 16 zeros, a numeric keypad, and several buttons. Below the panel are three GN 1/1-150 drawers and two GN 1/1-200 drawers. A sensor is located between the drawers. On the right side, there are ports labeled 'EL.TÖV.TORK DRAIN POISTO'. The overall width is 1600 mm. The side view (bottom) shows the machine's profile with a height of 650 mm. Labels include 'FLÄKTFÖRÅNGARE', 'EVAPORATOR', 'HÖYRYSTIN', and 'SENSOR'.</p> |          |          |          |       |       |
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Installation drawing AFGN-1600

Päiväys/Datum/ Date

Me / Vi / We

Valmistajan nimi / Tillverkarens namn / Manufacturer's name

ACCONA INDUSTRIER AB

Osoite / Adress / Address

Söderborgsvägen 32  
671 95 KLÄSSBOL  
SWEDEN

vakuutamme yksinomaan omalla vastuullamme, että seuraava tuote:

försäkrar helt på eget ansvar att följande produkt:

declare under our sole responsibility that the product:

Nimi, tyyppi tai malli / Namn, typ eller modell / Name, type or model

JÄÄKAAPPIEN, PAKASTEKAAPPIEN, PAKASTUSKAAPPI, JÄÄDYTYSKAAPPII  
KYLKÄP, FRYSSKÄP, NEDKYLN.- O. AVSVALN-SKÄP, INFRYSN.- O, KOMBISKÄP  
REFRIGERATOR, FREEZER, BLASTCHILLER, BLASTFREEZER AND COMBI.  
KYLÄNKAR, REFRIGERATED COUNTERSC, CA, F, FA, SC, SF, CM, CMA, C/C, CA/CA, C/CM, CA/CMA, C/F, CA/FA, C/P, C/Pri, HCRI, MMC,  
MMF, Cfi, ABNT, AFNT, AFGN, AFGR, AFCKBM, ACKBBM, ACM, ACHBM, ACKBSM, ACKHM, ACKHM,  
ACKGMjohon tämä vakuutus liittyy, on (mikäli asiankuluu) seuraavan standardin (seuraavien standardien) tai muun normatiivisen  
asiakirjan (muiden normatiivisten asiakirjojen) vaatimusten mukainen  
till vilken denna försäkran hör, uppfyller (vid behov) kraven i följande standard (standarder) eller annat (andra) normativa  
dokument

to which this declaration relates is in conformity with (if necessary) the following standard(s) or other normative document(s)

Tunnus, vuosiluku tai julkaisupäivä / Beteckning, årtal eller publiceringsdatum / Designation or number, year or date of issue

LÅGSPÄNNINGSDIREKTIV 73/23/EEC  
LOW VOLTAGE DIRECTIVE 73/23/EEC  
EMC-DIREKTIV 89/336/EEC. Provat av EMC SERVICES, MÖLNDAL, Sverige  
EMC-DIRECTIVE 89/336/EEC. Tested by EMC SERVICES, MÖLNDAL, Swedenja noudattaa (mikäli asiankuluu) seuraavan direktiivin (seuraavien direktiivien) määräyksiä  
och följer (vid krav) följande direktivs bestämmelser

and in conformity with (if necessary) orders of following directive(s)

SS-EN 50081-1, SS-EN 50081-2, SS-EN 50082-1, SS-EN50082-2, SS-ENV 50140,  
SS-EN 55022, SS-ENV050141, SS-EN 61000-4-2, SS-EN 61000-4 SAMT SS-ENV 50204  
89/392/EEC, 91/368EEC, 93/44 EEC AND 93/68EEC.

Vakuutuksen antopaikka ja päivä / Utfärdad på ort och datum / Place and date of issue

KLÄSSBOL 2003-06-30

Valtuutetun henkilön nimi, nimikirjoitus ja asema / Bemyndigad persons namn, namnteckning och befattning / Name, signature and title of  
authorized personBENGT NYSTRÖM   
TEKNISK CHEF TECHNICAL MANAGER

Tämä lomake perustuu standardiin SFS-EN 45014 (2. painos, 1993).

Denna blankett är baserad på standard SFS-EN 45014 (2. upplagan, 1993).

This form is based on standard SFS-EN 45014 (2nd edition, 1993).