

# metos

## CERAMIC HOB RANGE

ARDOX C

TYPE: C4, C6

Accessories

Chef 220

Chef 240

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## Installation and Operation Manual

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Original instructions





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



Because the range is a heated appliance that has hot surfaces during normal use, the following warnings and instructions must be followed in order to avoid burns.

During long-time operation even the frame surrounding the cooking plates gets hot.

The cooking zones are hot a long time after switching them off, although the visible heat radiation has ended.

For safe handling of cookware on the cooking top, always use heat protective gloves.

Do not leave the range on for long periods totally without supervision.

### 2.2 Disposal of the appliance

The destroying of the appliance when its economical lifetime has been reached may be harmful to the environment if not properly handled. Utilization of materials that are reusable is best done by professional personnel specialized in recycling.



## 3. Functional description

### 3.1 Intended use of the appliance

The Ardox C range is intended for preparing different kinds of foodstuffs using cookware.

#### 3.1.1 Prohibited use



Use of the appliance for other purposes than stated above is prohibited.

Preparing food directly on the cooking plate without cookware is prohibited.



The manufacturer of the appliance takes no responsibility for situations that might occur if the warnings and instructions in this manual are neglected.

### 3.2 Operating principle and construction

Depending on the model, the range is equipped with two, four or six cooking zones.

The cooking zones are heated by infrared heaters positioned under the ceramic surface. Each cooking zone is equipped with a stepless power control.

Due to the low mass of the heater and the excellent heat transfer properties of the ceramic surface, the cooking zone reaches the maximum temperature in just a few minutes. Every cooking zone is fitted with a temperature limiter, which controls the heater should the cooking zone accidentally be left on without any load. A green pilot light for every cooking zone indicates that the zone is ON.

In addition to a single range, there are combinations of a range and an oven (Chef 220 or Chef 240). This manual covers the Ardox C range, while Chef 220 and Chef 240 have their own manuals.

## 4. Operation instructions

### 4.1 Before use

#### 4.1.1 Selecting cookware

Cookware made of stainless steel, aluminium and enamelled steel is best suitable for the ceramic range. Enamel based cast iron cookware can be used if handled with extra care.



Cookware made of copper, ceramic and glass is not suitable for use on the ceramic range.

Always use good quality cookware with smooth and flat bases.

To get the best benefit from the range as well as from the cookware observe the following:

- Always lift pans, do not drag.
- Use good quality flat-based cookware.
- Wait for pans to cool before putting them in cold water.
- Always ensure pans have clean, dry bases before use.
- Ensure pan handles are positioned safely and away from heat sources.
- Always use pan lids except when frying.
- Ensure pans match the size of the hotplate or heating area where possible.
- Remember good quality pans retain heat well, so generally only low or medium heat is necessary.



Keep plastic and aluminium foils away from the ceramic surface, because they are labo-rious to remove once melted.

### 4.2 Operation procedures

#### 4.2.1 Using the range



Switch the appliance off if it is damaged or is malfunctioning. Contact authorised service personnel using original spare parts for service of the appliance.



Ranges intended for use aboard ships are equipped with a potrack. Using a range aboard a ship without the potrack is prohibited.

During the installation, a mains switch may have been fitted near the range, often on a wall nearby. Check that the mains switch is in the ON position.

The range is controlled with power regulators and pilot lights.



#### *Operating panel*

1. Pilot light, cooking zone on
2. Power regulator, front zone
3. Power regulator, rear zone



The ceramic range heats up very fast so no preheating is necessary. This feature also makes it possible to switch off the cooking zone immediately when no longer needed. By using the range in this way, energy is saved and a cooler working environment is achieved.

Select the cooking zone according to the pan. The power controls of the cooking zones can be set between 1-6. The green pilot light also turns on.



Start cooking on position 6 and when boiling starts decrease the power as needed. Despite the fact that every cooking zone is fitted with a high temperature limiter the zones should not be left on without pans for longer periods. If the set power of the cooking zone exceeds the heat reception capability of the pan, the temperature limiter automatically adjusts the power as needed.



If there are longer interruptions in the electricity distribution, all power regulators of the range should be set to the 0 position. This should be done in order to prevent unexpected start-up of the range when the electricity distribution is restored.



The ceramic top of the range is very durable in normal usage. If, however, the ceramic top due to an exceptionally strong pointed blow is cracked, use of the range is prohibited until the ceramic top is exchanged.

## 4.3 After use

### 4.3.1 Cleaning



Use of a water hose or pressure cleaning jet is strictly forbidden.

When cleaning the cooking top, remember that it is hot a long time after use.

Cleaning is very easy, if possible spillovers are removed immediately with a damp cloth.



Sugar and mixes containing much sugar must be removed immediately, because later removing is laborious and may leave permanent marks.

Burned spillovers are easy to remove with a scraper delivered with the range. The scraper blade is exchanged by loosening the screw on the scraper shaft. The blade is a regular razor blade.

If plastic or aluminium foils melt on the ceramic top, they can also be removed with the scraper.

In all cleaning, prefer chemical cleaning methods rather than mechanical rubbing. Use a slightly alkaline detergent (pH 8-10) diluted in water according to instructions when cleaning the surfaces of the range.

### 4.3.2 Other service measures



The appliance does not include any user serviceable parts inside. Service must be left to authorised service personnel.

## 5. Installation

### 5.1 General

The installation of this appliance must be carried out in accordance with the manufacturer's instructions and following local regulations. This installation manual must be used together with the installation drawing of the appliance.



The connection of the appliance to the electrical and water supply must be carried out by qualified persons only.

### 5.2 Transporting and unpacking the range

The best way to move the range is to keep it in its package as long as possible while it also protects the range from outer damage. If it is necessary to unpack the range, possible lifting must be done from the bottom frame using suitable spacers of wood. In order to avoid damages it is not allowed to use the cooking top as a workbench during installation.

### 5.3 Positioning the range



Because the temperature of a cooking zone accidentally forgotten on without a pan may reach even 550°C, it is mandatory to follow local fire safety regulations when installing the range.

The range is positioned in the installation place and adjusted in a horizontal position from the adjustable legs.



When the range is on the correct location and in a horizontal position, it must be bolted to the floor, the land models by the flanges in the rear adjusting legs and the marine models from all four leg flanges.

### 5.4 Electrical connections



Besides the live electrical parts, also look out for possible moving mechanisms inside the appliance, if there is a need for testing during installation and the guards or cover plates are detached.



In order to make eventual future service easier and increase safety, a mains switch must be installed near the appliance. This switch must disconnect the appliance completely from the electrical supply network.

The feed-through for the connection cable is located in the bottom of the range, in the right front corner. In order to make the connection the knobs and the front panel of the range must be removed. The connection terminal is on the right side of the front casing.

## 5.5 Test-run



Acquaint yourself with the user manual of this appliance before testing it. The appliances under the cooking top are provided with their own manuals.

After connecting the cable check the function of the range.

Check that

- every cooking zone heats up and the corresponding pilot light turns on when the zone is switched on with the power regulator
- no wires inside the appliance get jammed before refitting the outer panels.

Refit the outer panels.

## 6. Troubleshooting

If the appliance does not function, check the following:

- Has the appliance been used according to the instructions?
- Are all possibly removable parts refitted?
- Is the mains switch on the appliance or nearby - often on the wall - in the ON position?
- Are the circuit breakers (fuses) of the appliance in the electricity distribution board in working order? Ask an authorised person to check the circuit breakers.

If even this does not help, figure out in advance how to briefly describe the breakdown and contact an authorised service person.





## **8. Technical specifications**

**Main and control circuit diagram T02110 A3**

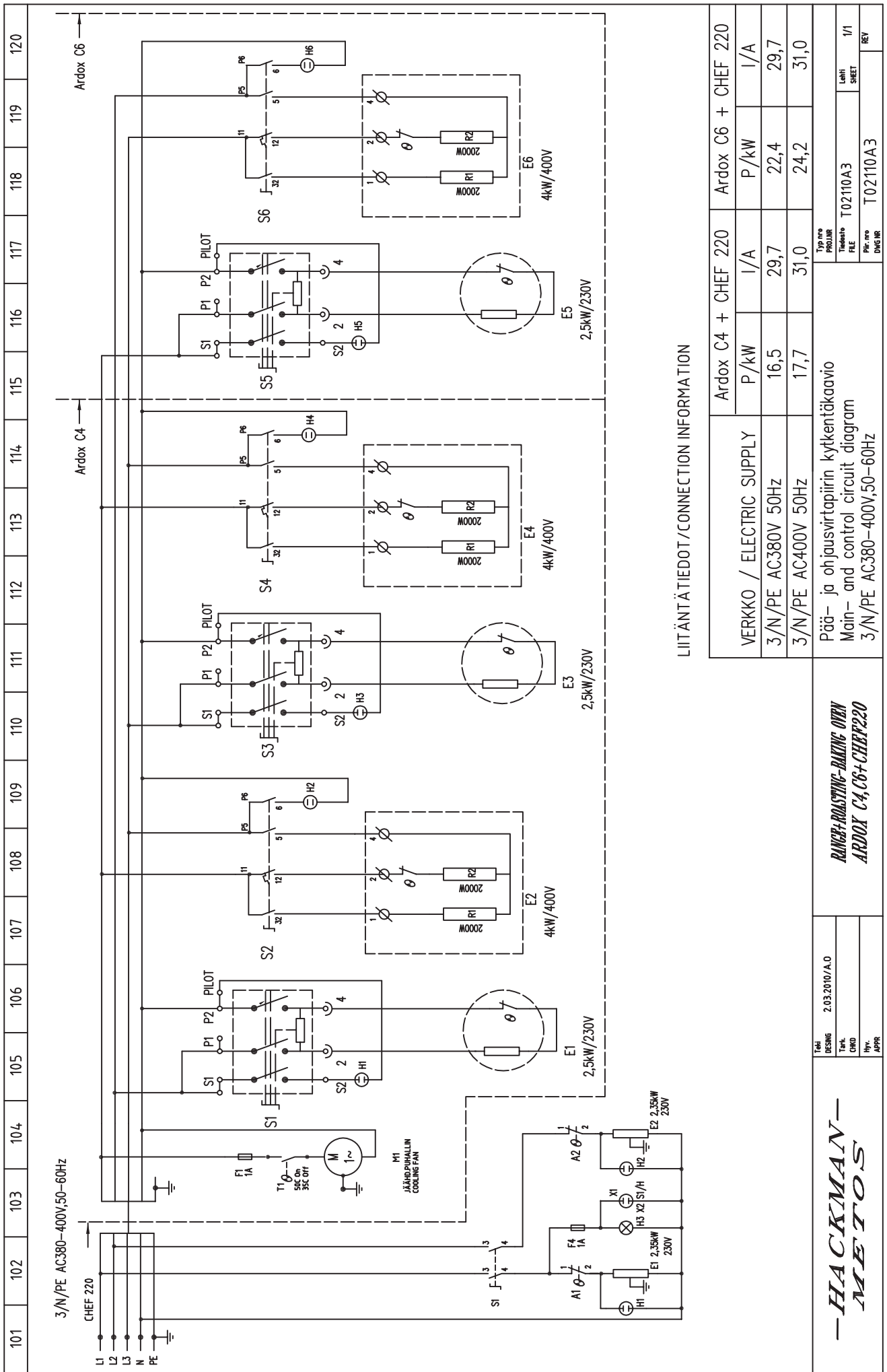
**Main and control circuit diagram T02111 A3**

**Installation drawing T02023 A3**

**Installation drawing T02025 A3**

**Installation drawing T02024 A3**

**Installation drawing T02026 A3**



LIITÄNTÄTIEDOT/CONNECTION INFORMATION

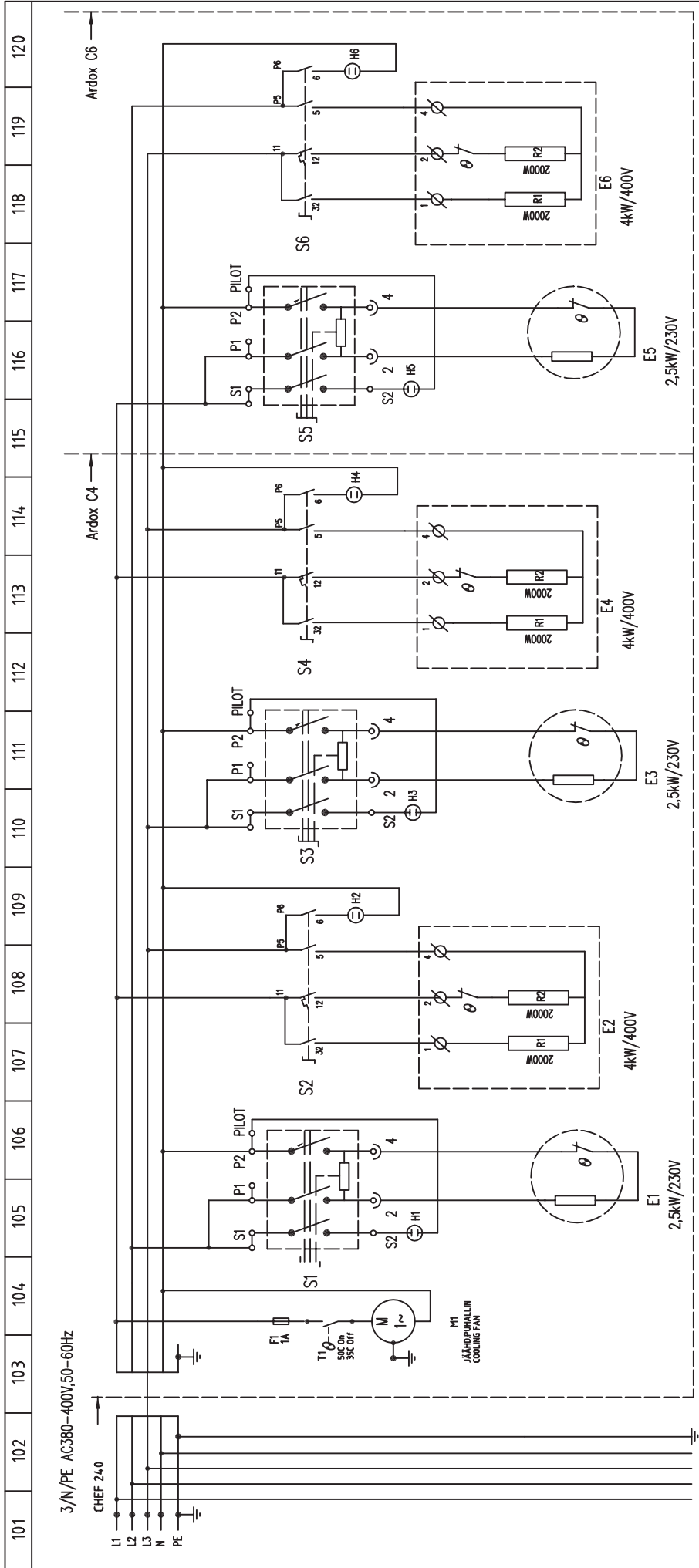
VERKKO / ELECTRIC SUPPLY	Ardox C4 + CHEF 220	Ardox C6 + CHEF 220			
	P/kW	1/A	P/kW	1/A	
	3/N/PE AC380V 50Hz	16,5	29,7	22,4	29,7
3/N/PE AC400V 50Hz	17,7	31,0	24,2	31,0	
Pää- ja ohjauksvirtapiiriin kytkentäkaavio Main- and control circuit diagram			Type no PRODUCER T02110A3		
3/N/PE AC380-400V,50-60Hz			Lehti SHEET 1/1		
			Pit./no DWG NR T02110A3		

RANGER-ROASTING-BAKING OVEN  
ARDOX C4,C6+CHEF220

DATE	2.03.2010/A.O
DESIGN	
TECH.	
CHKD	
APPV.	

**HACKMAN-METOS**

Main and control circuit diagram T02110 A3



Liitäntä Chef240 kytkentäkaaviossa S000113D3  
 Connection Chef240 to wiring diagram S00113D3  
 AC1 7,5kW/230V AC3 0,1kW ; 0,3A

LIITÄNTÄTIEDOT/CONNECTION INFORMATION

VERKKO / ELECTRIC SUPPLY	Ardox C4 + CHEF 240	Ardox C6 + CHEF 240
	P/kW	I/A
	3/N/PE AC380V 50Hz	18,7
3/N/PE AC400V 50Hz	20,5	27,0
P/kW		31,7
I/A		30,3
P/kW		24,6
I/A		31,7

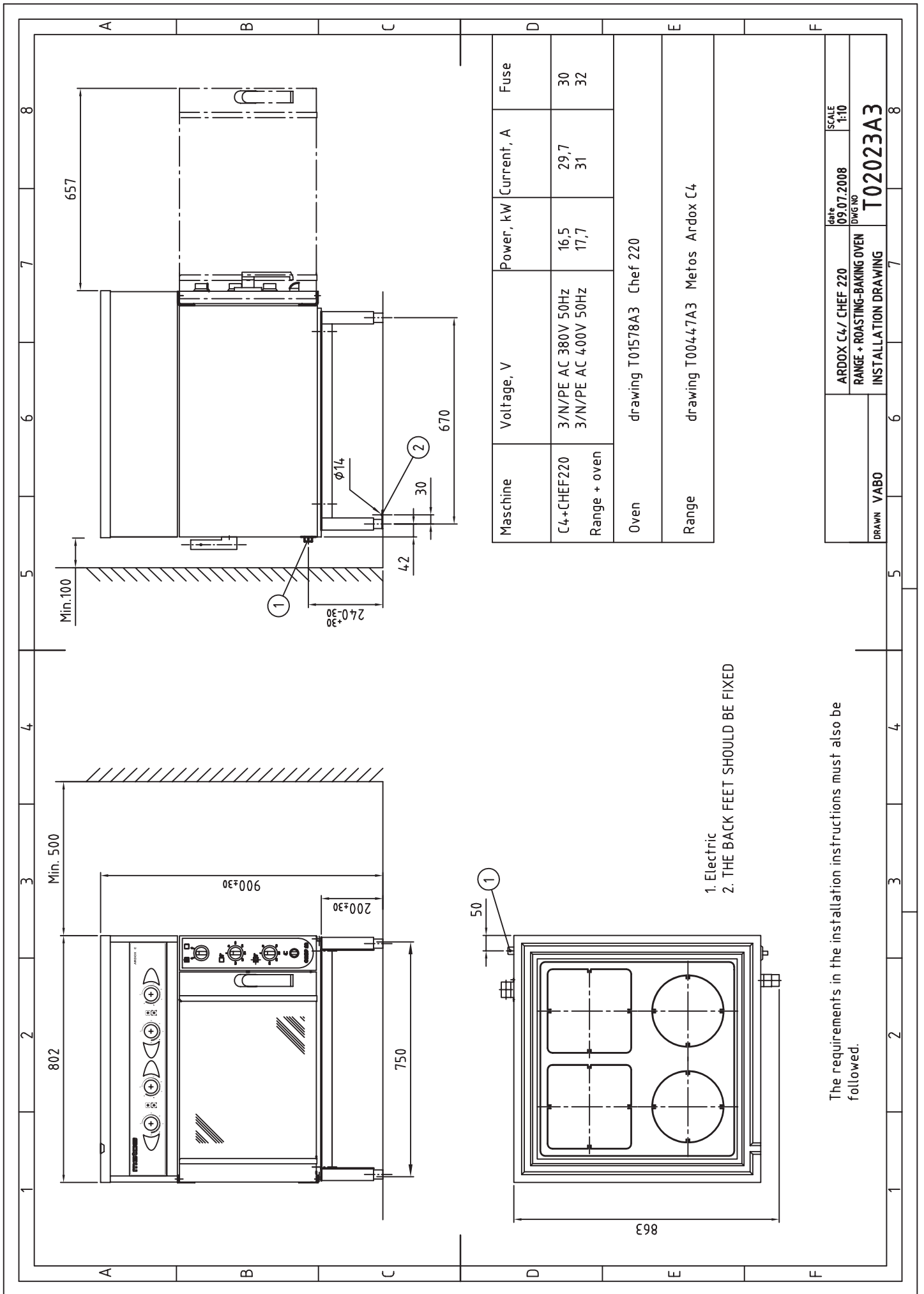
Pää- ja ohjauvirtapiirin kytkentäkaavio  
 Main- and control circuit diagram  
 3/N/PE AC380-400V,50-60Hz

**RANGE+CONVECTION OVEN**  
**ARDOX C4,C6+CHEF240**

DESIGN	2.03.2010/A.0
TEK.	
KHO	
HYV.	
APPR	

**-HACKMAN-**  
**MEIOS**

Typ. no	T02111A3
Prod. nr	T02111A3
Rev.	1/1
Doc. nr	T02111A3



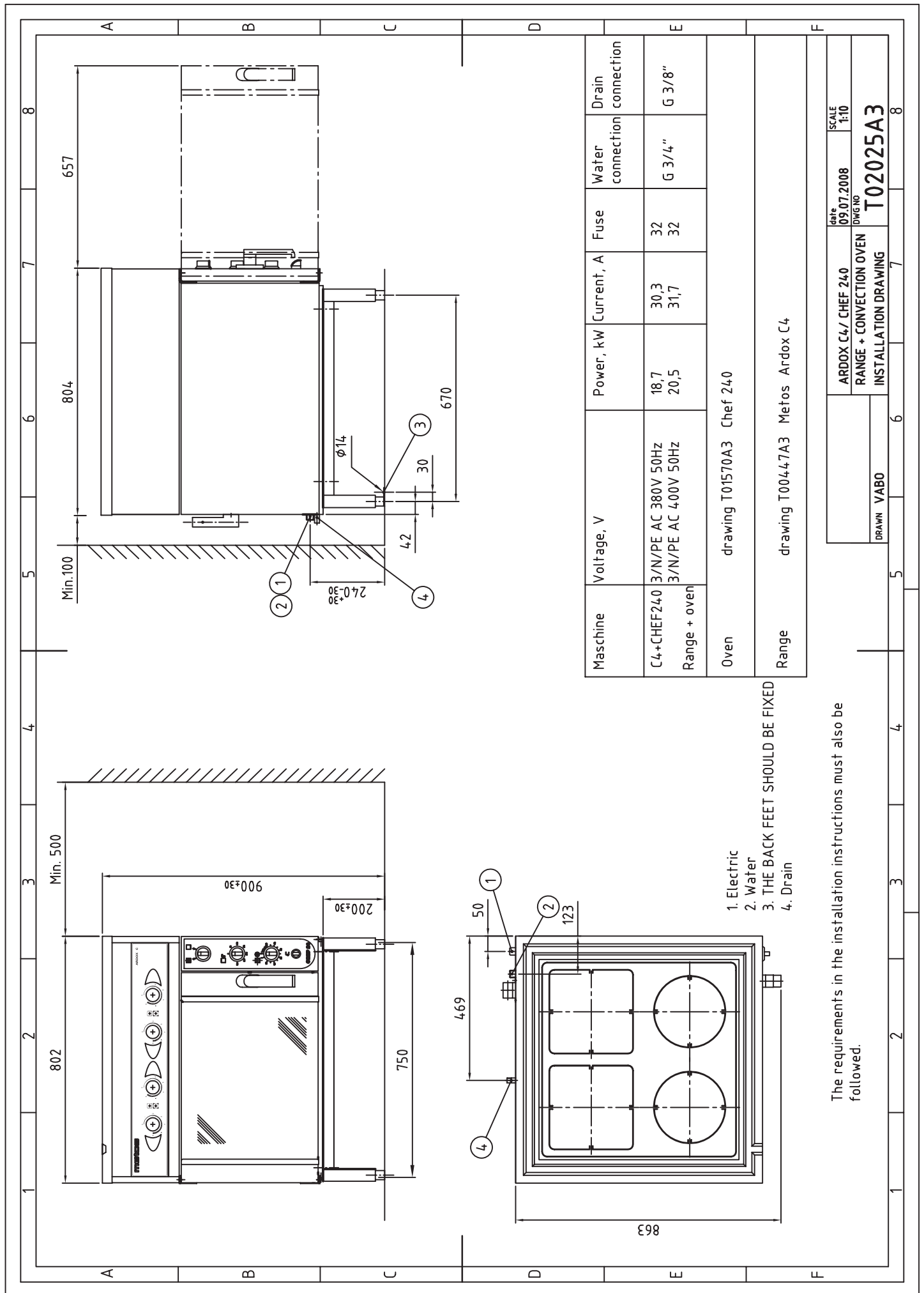
Maschine	Voltage, V	Power, kW	Current, A	Fuse
C4+CHEF220	3/N/PE AC 380V 50Hz	16,5	29,7	30
Range + oven	3/N/PE AC 400V 50Hz	17,7	31	32
Oven	drawing T01578A3	Chef 220		
Range	drawing T00447A3	Metos Ardox C4		

1. Electric
2. THE BACK FEET SHOULD BE FIXED

The requirements in the installation instructions must also be followed.

DRAWN VABO	ARDOX C4/ CHEF 220	date 09.07.2008	SCALE 1:10
	RANGE + ROASTING-BAKING OVEN	DWG NO	T02023A3
INSTALLATION DRAWING			

Installation drawing T02023 A3

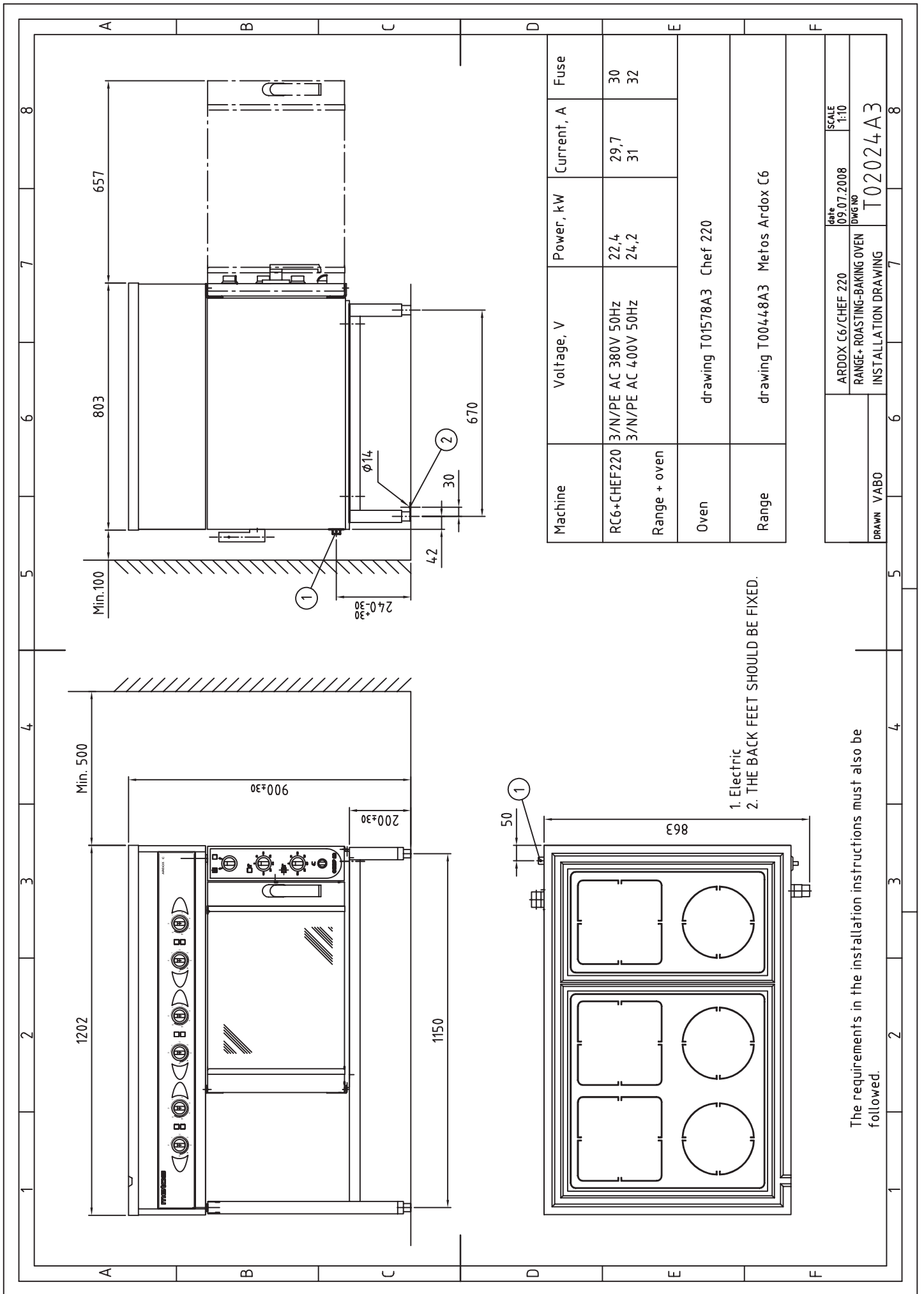


1. Electric
2. Water
3. THE BACK FEET SHOULD BE FIXED
4. Drain

The requirements in the installation instructions must also be followed.

DRAWN VABO	ARDOX C4/ CHEF 240	date 09.07.2008	SCALE 1:10
	RANGE + CONVECTION OVEN	DWG NO	T02025A3
INSTALLATION DRAWING			

Installation drawing T02025 A3



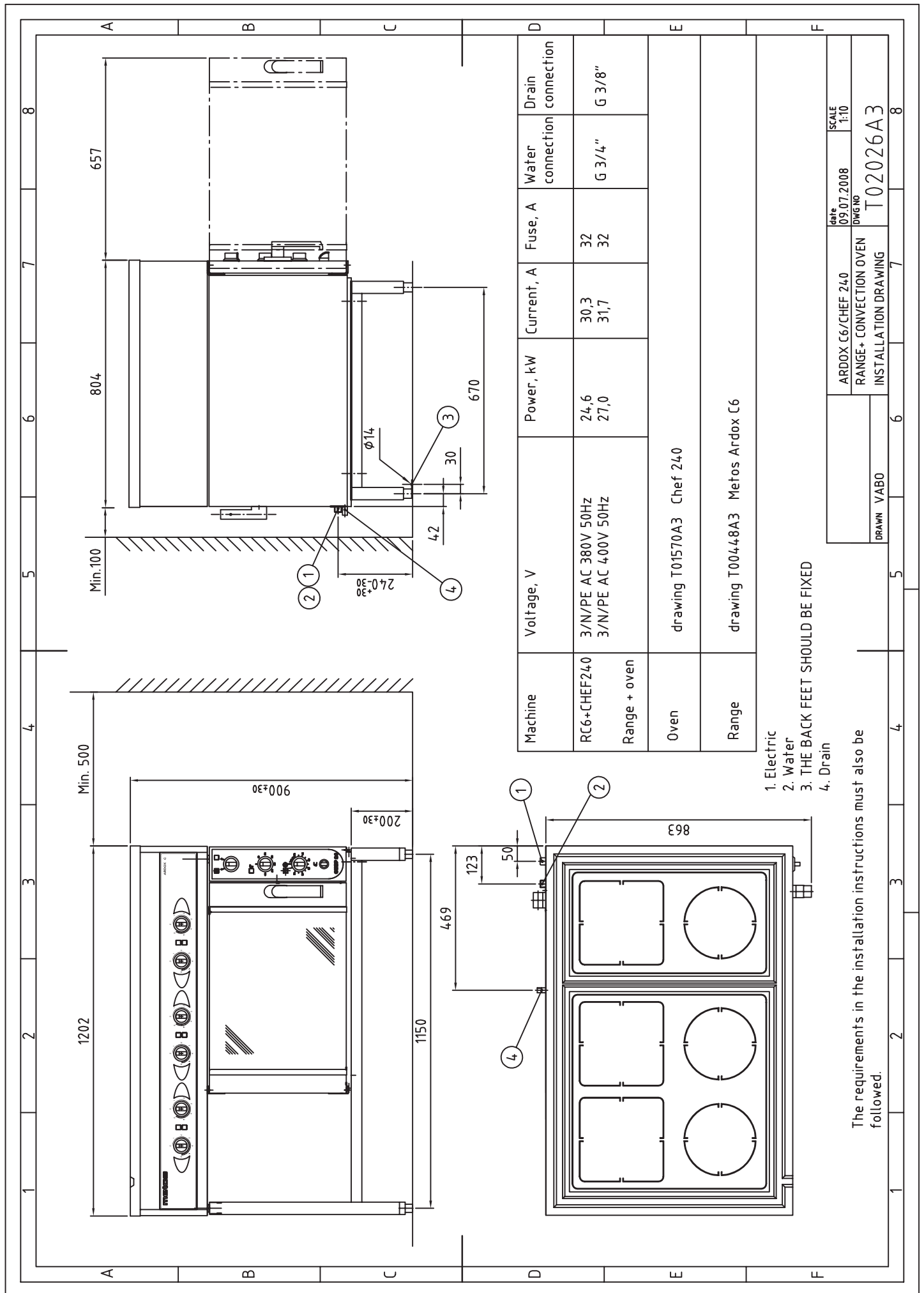
Machine	Voltage, V	Power, kW	Current, A	Fuse
RC6+CHEF220	3/N/PE AC 380V 50Hz	22,4	29,7	30
Range + oven	3/N/PE AC 400V 50Hz	24,2	31	32
Oven	drawing T01578A3 Chef 220			
Range	drawing T00448A3 Metos Ardox C6			

DRAWN VABO	ARDOX C6/CHEF 220	date 09.07.2008	SCALE 1:10
	RANGE+ ROASTING-BAKING OVEN	DWG NO	T02024A3
INSTALLATION DRAWING			

1. Electric
2. THE BACK FEET SHOULD BE FIXED.

The requirements in the installation instructions must also be followed.

Installation drawing T02024 A3



ARDOX C6/CHEF 240	date	SCALE
RANGE + CONVECTION OVEN	09.07.2008	1:10
INSTALLATION DRAWING	DWG NO	T02026A3

DRAWN VABO

Installation drawing T02026 A3

## Technical specifications

Item	Model	Type	Access- sory	Specification
Outer dimensions WxDxH	C	4		800x800x900 mm
Outer dimensions WxDxH	C	6		1200x800x900 mm
Cooking top dimensions WxD	C	4		650x650 mm
Cooking top dimensions WxD	C	6		347x650 mm, 650x650 mm
Cooking zones	C	4		2x ø230mm, 2x270x270mm
Cooking zones	C	6		3x ø230mm, 3x270x270mm
Power regulation	C			Stepless power regulator, pilot light for each zone
Material	C			Ceramic cooking hob. All outer surfaces of stainless steel
Weight with package	C	4		Approx. 95 kg
Weight with package	C	4	22	Approx. 145 kg
Weight with package	C	4	24	Approx. 155kg
Weight with package	C	6		Approx. 140 kg
Weight with package	C	6	22	Approx. 190 kg
Weight with package	C	6	24	Approx. 200 kg
Weight without package	C	4		Approx. 60 kg
Weight without package	C	4	22	Approx. 110 kg
Weight without package	C	4	24	Approx. 120 kg
Weight without package	C	6		Approx. 85 kg
Weight without package	C	6	22	Approx. 135 kg
Weight without package	C	6	24	Approx. 145 kg
Package dimensions WxDxH	C	4		860x920x1050 mm
Package dimensions WxDxH	C	6		1260x920x1050 mm
Electrical connection				See installation drawings
Operation conditions				Normal commercial kitchen conditions, temp.over 0°C

C=ARDOX C

4=C4, 6=C6

22=Chef 220, 24=Chef 240

A=3/N/PE~400/230V 50Hz, G=3/N/PE~415/240V 50Hz, H=3/PE~230V 50Hz, I=3/PE~220V 60Hz



Valmistajan nimi / Tillverkarens namn / Manufacturer's name

METOS AS

Osoite / Adress / Address

VALUKOJA 16  
11415 TALLINN  
ESTONIA

Vakuuttaa, että seuraava tuote / Försäkrar att följande produkt / Declare that the following product

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

Liesi / Spis / Range ARDOX -sarja / serien / series

Mallit / Modeller / Models :

C2, C4, C6, C4/H, C6/H, C4/Chef 220, C4/Chef 240, C6/Chef 220, C6/Chef 240

on seuraavien direktiivien asiaankuuluvien säännösten mukainen / överensstämmer med tillämpliga bestämmelser i följande direktiv / is in conformity with the relevant provisions of the following directives

MD 2006/42/EC, LVD 2006/95/EC, EMC 2004/108/EC, RoHS 2002/95/EC, WEEE2002/96/EC

ja lisäksi vakuuttaa, että seuraavia yhdenmukaistettuja standardeja (tai niiden osia/kohtia) on sovellettu / och försäkrar dessutom att följande harmoniserade standarder (eller delar/paragrafer) har använts / and furthermore declares that the following harmonised standards (or parts/clauses) have been used

EN ISO 12100-1, EN ISO 12100-2

ja lisäksi vakuuttaa, että seuraavia muita standardeja (tai niiden osia/kohtia) on sovellettu / och försäkrar dessutom att följande andra standarder (eller delar/paragrafer) har använts / and furthermore we declare that the following other standards (or parts/clauses) have been used

EN 60204-1, EN 60335-1, EN 60335-2-36, EN 60335-2-42

Alla mainittu henkilö on valtuutettu kokoamaan teknisen tiedoston / Nedan nämnda person är bemyndigad att sammanställa den tekniska dokumentfilen / The person mentioned below is authorized to compile the technical file

Valeri Bogoslovstev

Metos AS, Valukoja 16, 11415 Tallinn, Estonia

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

Tallinn 22/3/2010

Valtuutetun henkilön nimi ja asema / Bemyndigad persons namn och befattning / Name and title of authorized person

Andres Kirstein – Managing Director

Jaan Muru – Production Manager