

metos

Bakery Oven

Metos Minirotor 70R, 100R

4560690, 4560692

Installation and Operation Manual



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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.

2. Safety

2.1 How to operate the oven safely

An oven is a warming device, which heats up when used. For this reason, please observe the following instructions to avoid risk of burns.



- During long-time operation even the edges of the oven door become hot.
- Use oven gloves when handling hot ovenware and baking plates.
- Watch out for discharging steam when opening the oven door.
- Do not leave the oven on for long periods totally without supervision.
- Liquid products should be cautiously taken out of the oven, because hot liquid may cause scalds.

2.2 Disposal of the oven

Once the oven has reached the end of its useful life, it must be disposed of in compliance with local rules and regulations. The best way of dealing with or recycling any substances, which potentially have an adverse impact on the environment, is to dispose of them through a proper problem waste company.



The crossed-out wheeled bin means that within the European Union the product must be taken to separate collection at the product end-of life. This applies to your device but also to any enhancements marked with this symbol. Do not dispose of these products as unsorted municipal waste.

3. Functional description

3.1 Intended use of the appliance

These ovens are convection ovens with rotating racks intended for baking bakery products.

Use of the oven for any purpose other than that mentioned above is prohibited.

The manufacturer shall not be held liable for any situations, which may arise from failure to comply with the warnings and instructions given in this manual.

3.2 Operation principle



The oven is a convection oven dimensioned for 450x600 mm baking plates. On request a rack for 400x600 can be supplied.



Heating elements heat up the air in the oven chamber. A fan generates the necessary air circulation. The fan sucks the heated air and blows it through the nozzle wall into the oven chamber and through the suction wall back to the heating elements.

The necessary air humidity is generated by spraying water onto the steel mass, which has been heated by means of air circulation. Water vaporizes and steam is conveyed along with air circulation through the nozzle wall into the oven chamber.

The baking process in short:

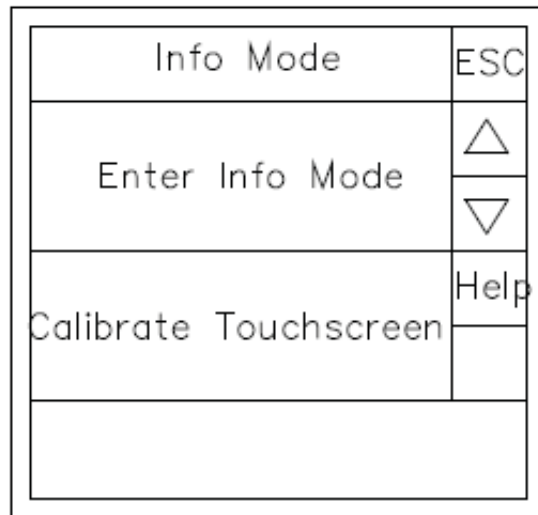
1. Press the start-button, the baking time starts running. If the steam time is set to 0, jump ahead to "4"
2. The steaming time starts and last for the set time (normally 10 - 25 sec.), the fan and the rotation stops.
3. The steaming ends and is followed by a one minute compensation time (the compensation time can not be changed).
4. The compensation time ends and the fan and the rotation starts.
5. The steam exhaust valve opens before the end of the baking according to the set time (normally 1 - 3 minutes).
6. The baking time ends and the buzzer sounds.

4. Operation instructions

4.1 General

When operating the control unit, keep the oven door closed.

If the buttons are pressed for longer than 4...5 seconds, the logic will be disturbed and the below menu will be displayed.



Exit the menu by pressing Esc-button.

4.2 Selection of the language

Non baking mode.

Select Recipe baking (recipe 0) and press button F4 for five seconds.

The following menu will be displayed.

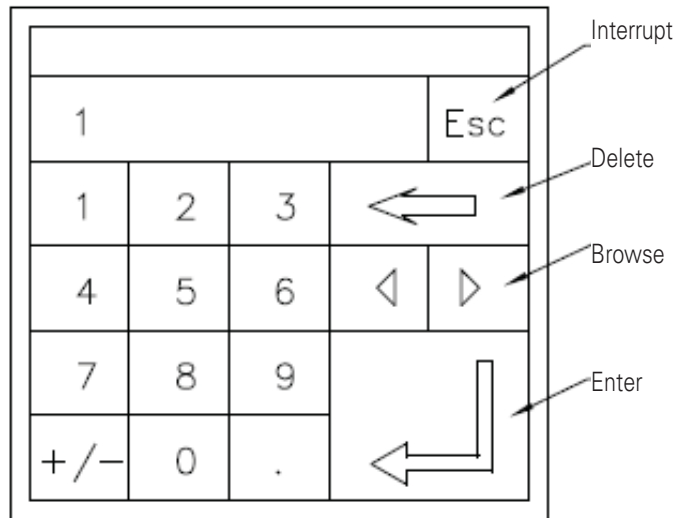
Press number button.

The menu below will appear.



Press number button

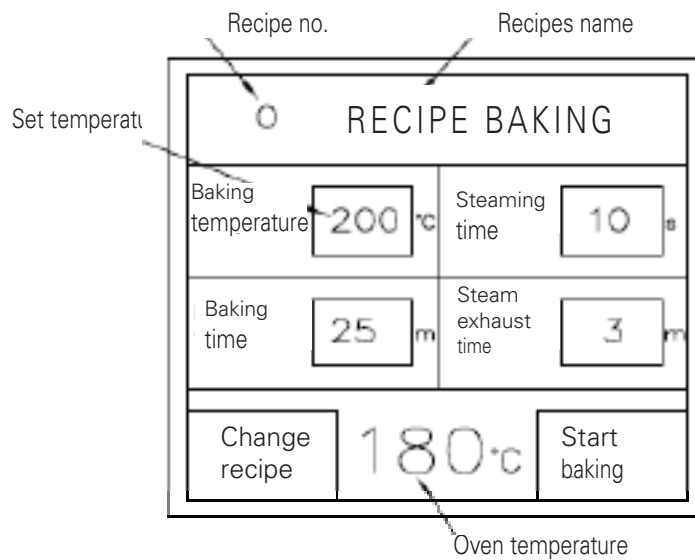
The following many is displayed



Select language with number buttons and press Enter.
 The view will change back to the previous menu.
 Exit menu by pressing Ready button.

4.4 Start up

Turn the main switch into the position 1. The oven will start in a few seconds. The display will show the following menu (last in use)

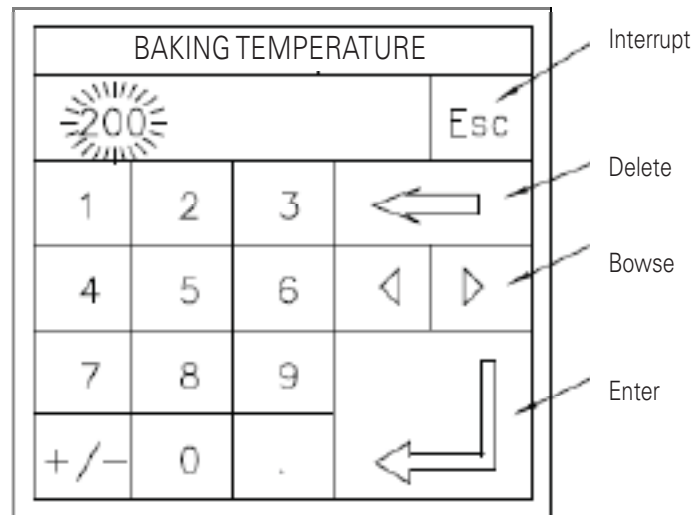


Oven heats up to the temperature last used. (in above case up to 200°C)

4.5 Timed baking (Program 0)

Changing of the baking parameters.

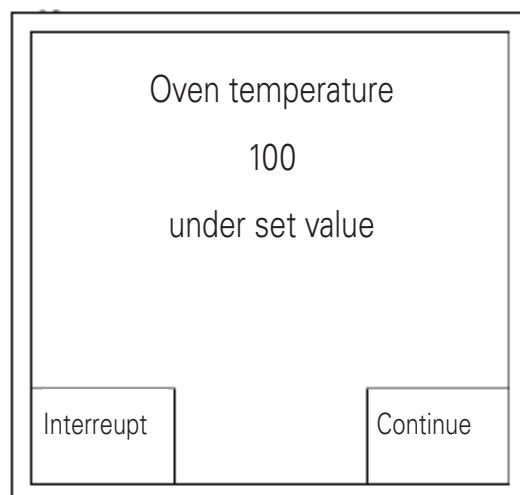
Select the parameter you wish to change, by pressing corresponding field in the gray touch panel. For example by pressing baking temperature 200°C, the following menu will be displayed.



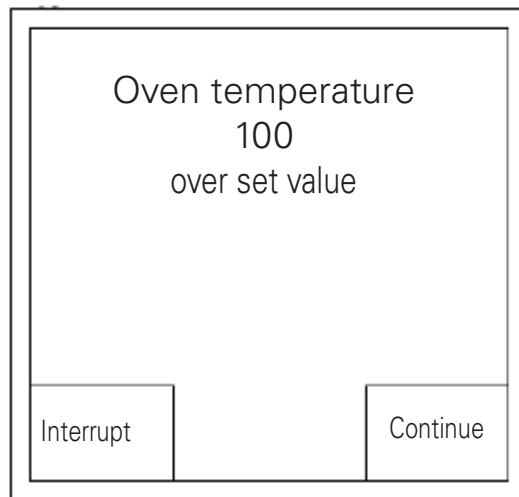
Set the new baking temperature by pressing number buttons. Confirm setting by pressing Enter. In case you want to interrupt setting, press Esc button. The display will return into the previous menu.

Start baking by pressing the Start baking button.

If oven's actual temperature differs more than 100 degrees from the set value. The following messages are displayed.



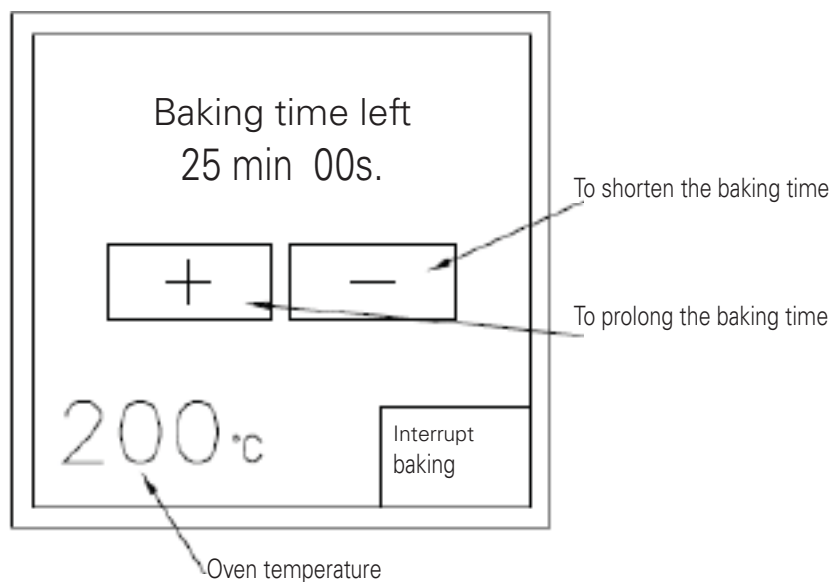
or



If you want to start baking, press Continue. If you want to wait till temperature reaches the set value, press Interrupt

When the set temperature reached, the buzzer will sound for 10 seconds.

Start baking by pressing Start baking button. The following menu will be displayed:



After the baking time has expired, the buzzer will give an intermittent sound.

In case you wish to continue baking, press + button. One press adds baking time by 1 minute.

By pressing - button, you can shorten the baking time.

Baking time can be prolonged or shortened also during the baking session.

Baking can be stopped or interrupted by pressing Interrupt.

4.6 Recipe baking

Select the recipe by pressing Change recipe. The following menu will be displayed.

Recipe no.		Recipes name	
1	RYE BREAD		
Baking temperature	260 °C	Steaming time	0 s
Baking time	25 m	Steam exhaust time	3 m
Change recipe	↑	↓	Take in use

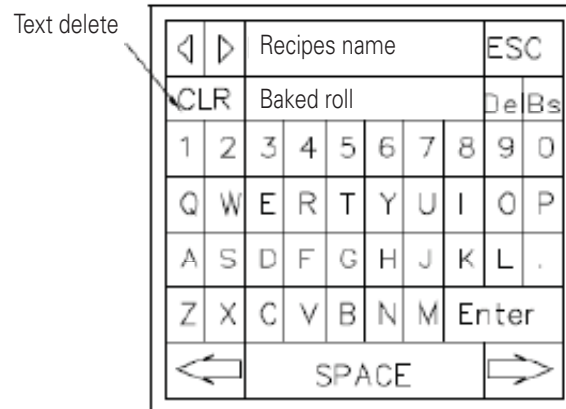
The recipe can be selected either by using up or down buttons or pressing Recipe's number. Then press Take in use-button and start baking by pressing Start baking-button.

Recipes setting and changing

Select the recipe you wish to change or a free recipe place by using down/up or numer button. Press Change recipe button and the following menu will be displayed

0	TIMED BAKING		
Baking temperature	200 °C	Steaming time	10 s
Baking time	25 m	Steam exhaust time	3 m
Delete changes			Save changes

For naming the recipe, press Recipes name-button.
The following menu will be displayed.



Name the new recipe or change the old name. Press Enter.

Set rest of the parameters as instructed in chapter Recipe baking and save settings by pressing Save changes button. In case you do not want to save the changes, press Delete changes button.

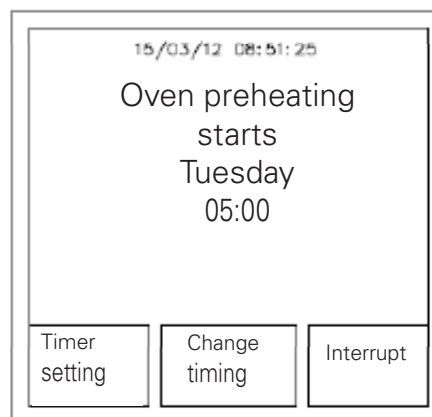
Press Take in use-button and start baking.

When baking has ended turn main switch to 0 position.

4.6 Preheating with week timer

Press Start baking button for two seconds in non baking mode with the door shut.

The following menu is displayed.



If timing is correct, don't make any changes. Turn main switch to position 1. Oven will start as timed.

In case you want to change oven from Stand-by into the baking mode, open the door or press Interrupt button. If in one hour after preheating started the door has not been opened or Interrupt button has not been pressed, the preheating will be stopped and it will start again according to next set preheating start time.

The oven will preheat to the temperature last used in baking.

In case you want to change preheating time setting, press Change timing-button and the following menu is displayed.

Sunday	10:30	Off	
Monday	05:00	On	
Tuesday	05:00	On	
Wednesday	05:00	On	
Thursday	05:00	On	
Friday	05:00	On	Ready
Saturday	07:00	On	

Selected the wanted weekday and the time which you want to change by pressing the grey button in question and the the following menu is displayed.

Sunday hh			
10			Esc
1	2	3	←
4	5	6	◀ ▶
7	8	9	↵
+/-	0	.	

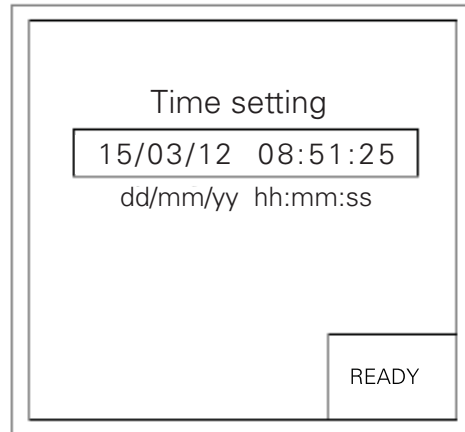
Set the new time by using the numer buttons and confirm by pressing Enter.

Choose whether the preheating mode is used in the selected day by pressing Not in use or In use button.

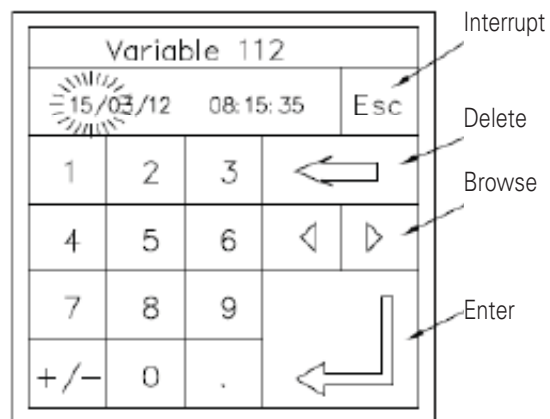
4.7 Setting of the logic timer

Set oven in Preheating mode (se previous chapter)

Press Timing button for two seconds, the following menu will be displayed.



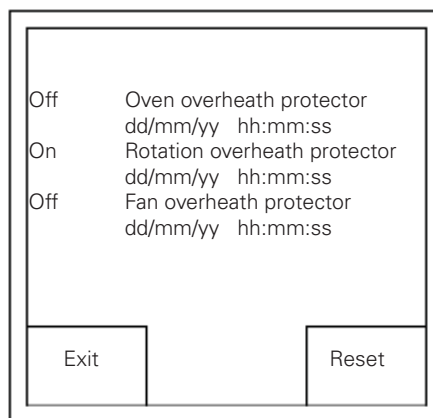
Press Date/Time button and the following menu is displayed.



Change date and time then press Enter. By pressing Ready-button the oven will return into the pre-heating mode.

4.8 Malfunction

In case the oven is overheated, the heat protector of the fan and the rotating motor will break and the buzzer will give an intermittent sound and the following menu will be displayed.



In this example the overheath protector of the rotating moter has broken. The reason for this have to be solved and then the protector can be reset. For this call service.

5. Cleaning



Use of a water hose or pressure washer to clean the oven is forbidden.

Before cleaning the oven, please remember that it remains hot for a long time after use. The oven gets cold faster, if the door is opened.

When the oven has cooled down, clean the oven.

The oven is an electrical appliance. This means that there are restrictions regarding cleaning the oven with water. Both inner and outer surfaces of the oven may only be wiped off with a damp cloth. Particularly, avoid excessive use of water when cleaning the outer surfaces of the oven near the vent holes

The turntable rack can be removed from the oven before cleaning by turning it so that the sheet metal back-stopper is towards the oven door and slightly lifting it upwards, so that the guiding pin heads come loose from the fixing holes. After that, pull the turntable rack out of the oven.

The outer oven glass can be removed by pushing it in its slots way from the door handle. This way you can access all the glass surfaces for cleaning. Remember to put the rubber pieces between the glass and the door when assembling the glass back.

6. Installation



This appliance may be connected to the mains electricity and water supply by qualified persons only.

It is important to install the oven in a horizontal position and that the minimum distances to other appliances and walls are according to drawing in the chapter 8.1.

6.1 Steam exhaust from the steam hood

It is recommended that the steam exhaust is connected to the air exhaust system on the premises via a grease filter or alternatively under a steam hood together with other appliances. It is important to leave an adequate space between the oven and the grease filter so that the steam cools down enough

6.2 Steam exhaust from inside the baking chamber

The steam from the baking chamber is conducted to the air exhaust system on the premises via a grease filter. It is important to leave an adequate space between the oven and the grease filter so that the steam cools down enough.

Alternatively the oven can be placed under a steam hood together with other appliances

6.3 Water connection

The appliance must be connected to the cold water supply.

Use heat resistant materials for the connection.

6.4 Drain connection

The drain pipe should be made of metal (Ø15mm). It must be installed with a sufficient slope towards the floor drain. A plastic pipe must not be used. If there is no floor drain available near the oven, the drain water is led into a shallow trough. The trough should be placed so that it can be easily emptied.

Not that the water coming from the drain connection is HOT. Danger of burns.

6.5 Electrical connection

To facilitate future maintenance and to increase safety, install a separate mains switch near the appliance. This switch must disconnect the appliance completely from the electrical supply network.

After the electrical connections have been made, the rotation direction of the motors must be checked.

An arrow indicates the direction of clockwise rotation of the motor.

The oven has been tested at the factory at a temperature of 280°C and most of the "new oven" smell has vanished. It is, however, recommended to leave the oven on for a couple of hours before baking the first time. At the same time it is convenient to also heat up the new bakery plates.

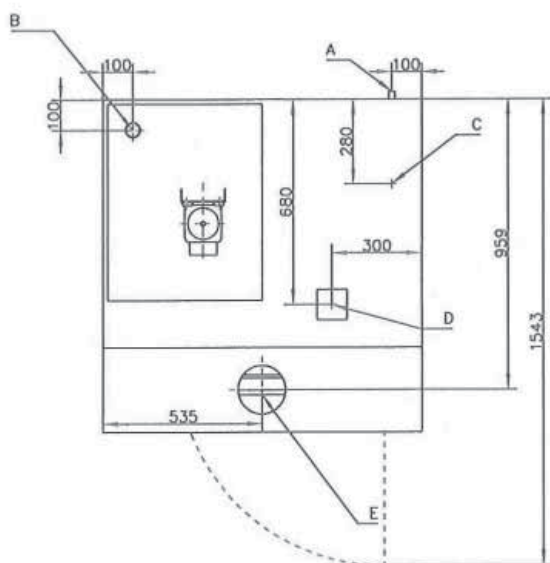
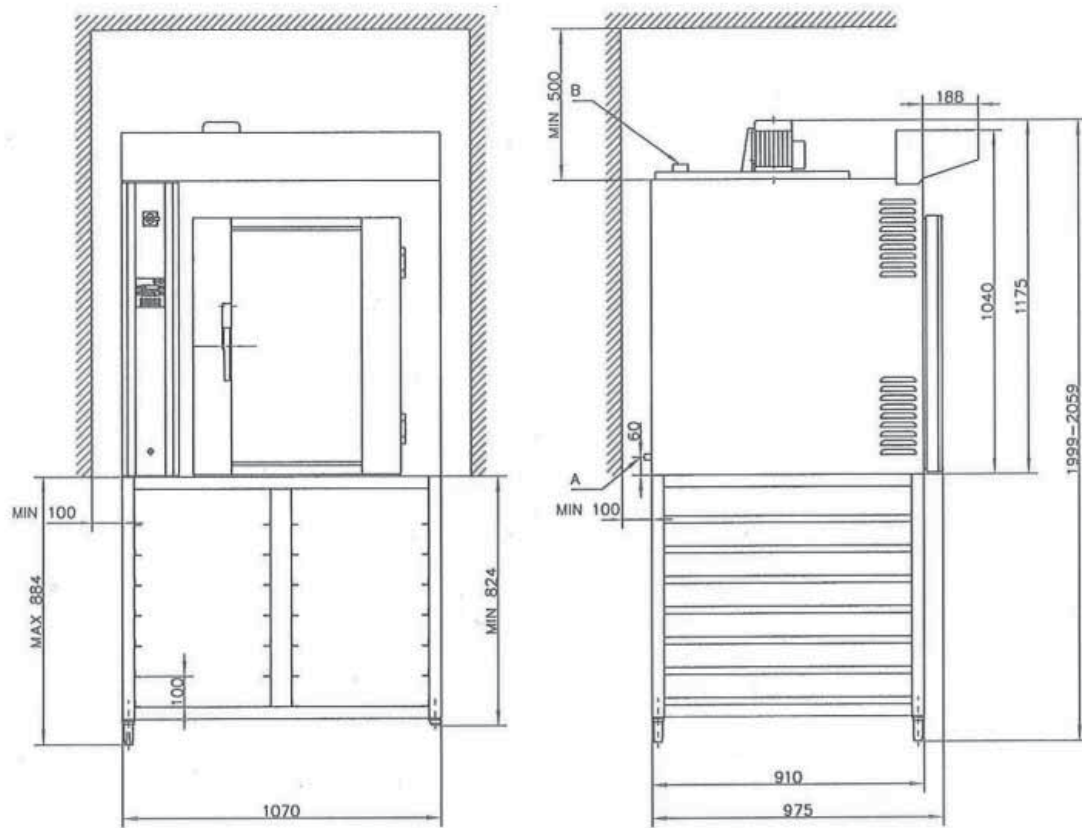
7. Spare parts

Always mention the oven type and serial number when asking for technical assistance or when ordering spare parts. The type and serial number can be found on the rating plate.

8. Technical specifications

8.1 Installation drawings

Minirotor 70R



A. Drain connection R1/2"

B. Steam exhaust connection from the oven chamber \varnothing 50mm

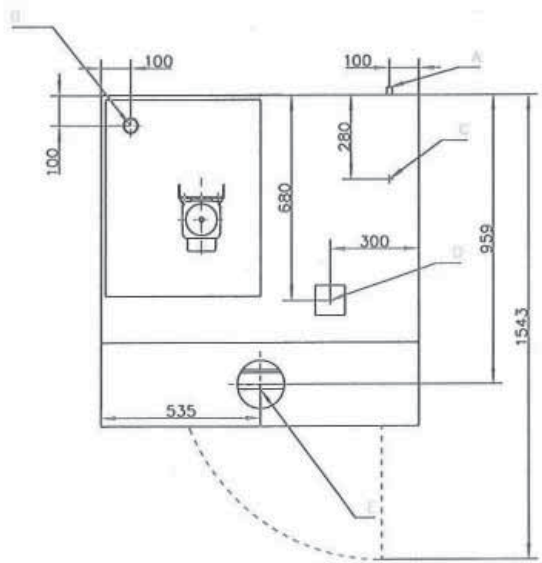
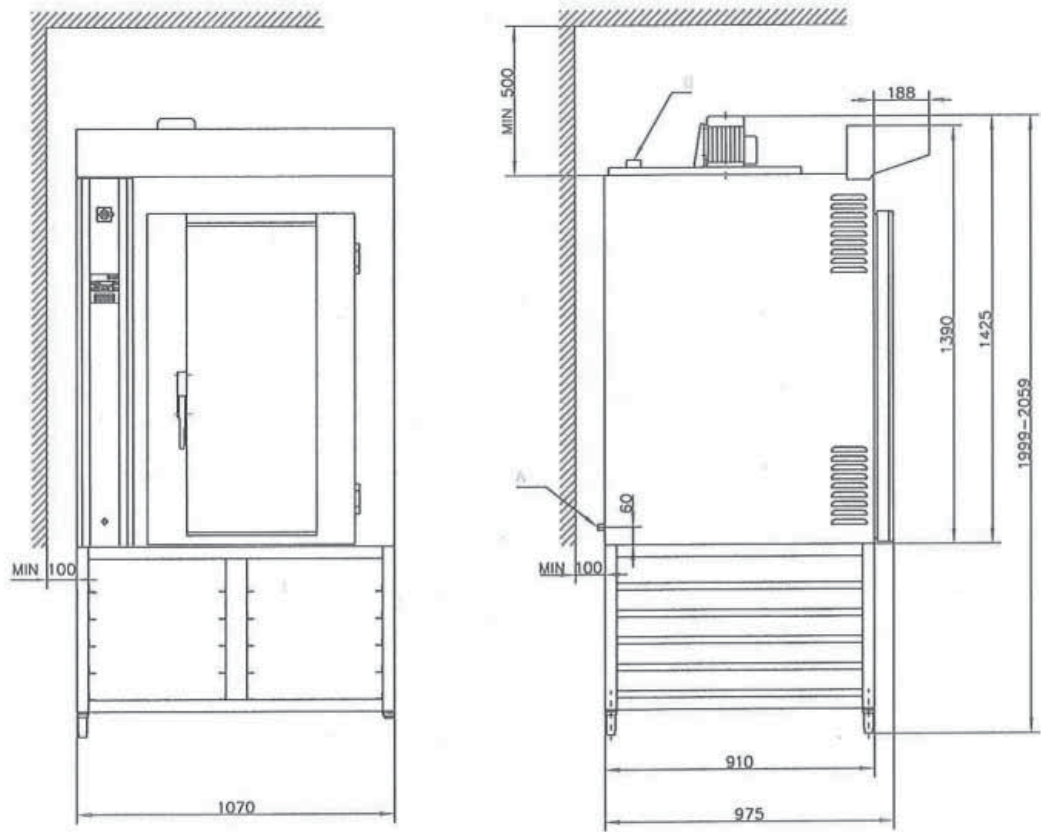
C. Water connection R3/4"

D Electrical connection 400V 3N 50Hz 20kW 28,6A

E. Steam exhaust connection from the steam hood \varnothing 160mm

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Minirotor 100R

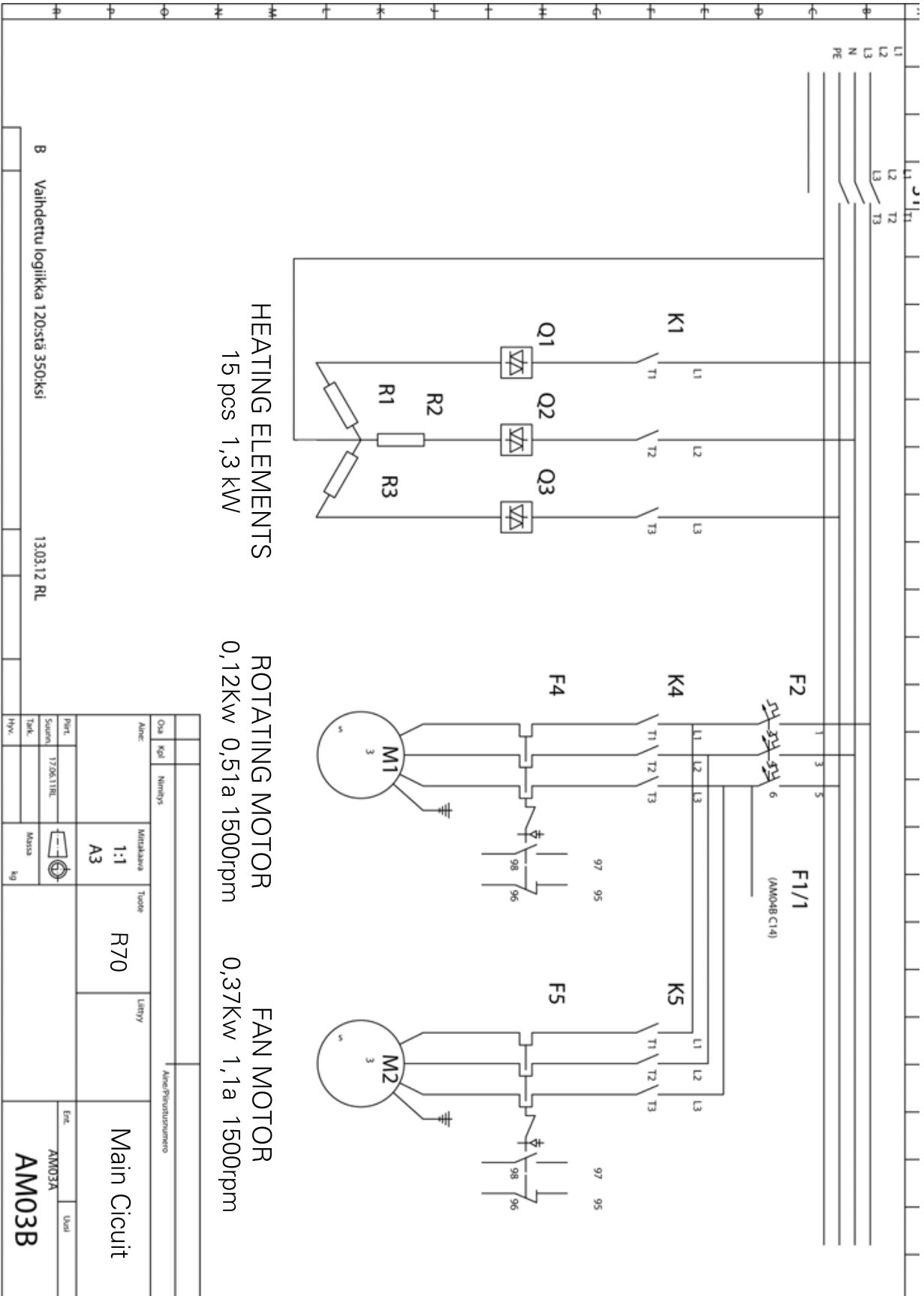


- A. Drain connection R1/2"
- B. Steam exhaust connection from the oven chamber Ø50mm
- C. Water connection R3/4"
- D Electrical connection 400V 3N 50Hz 28kW 44A
- E. Steam exhaust connection from the steam hood dia.160 mm.

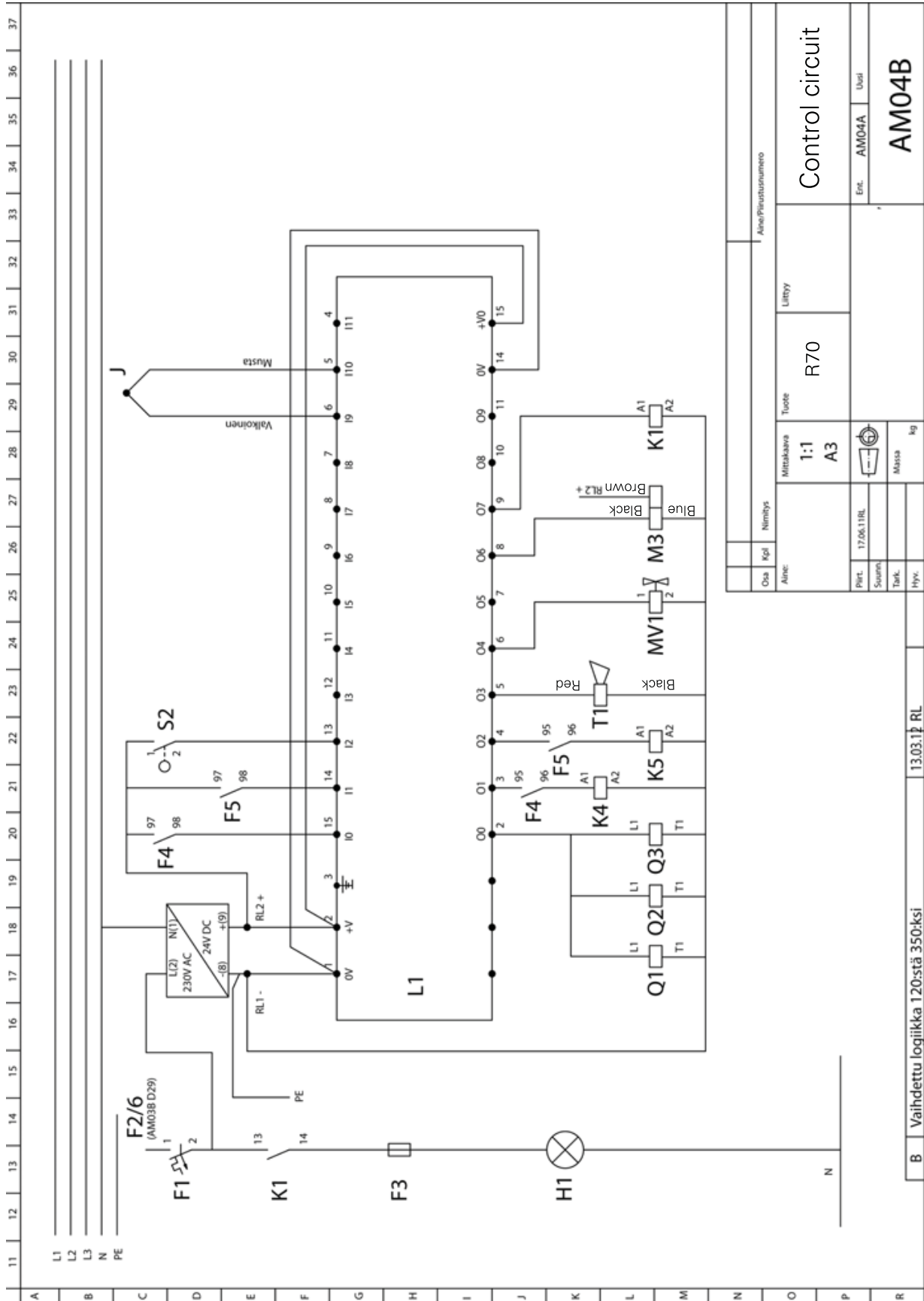
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8.2 Wiring diagrams

Minirotor 70R Main circuit



Minirotor 70R Control circuit

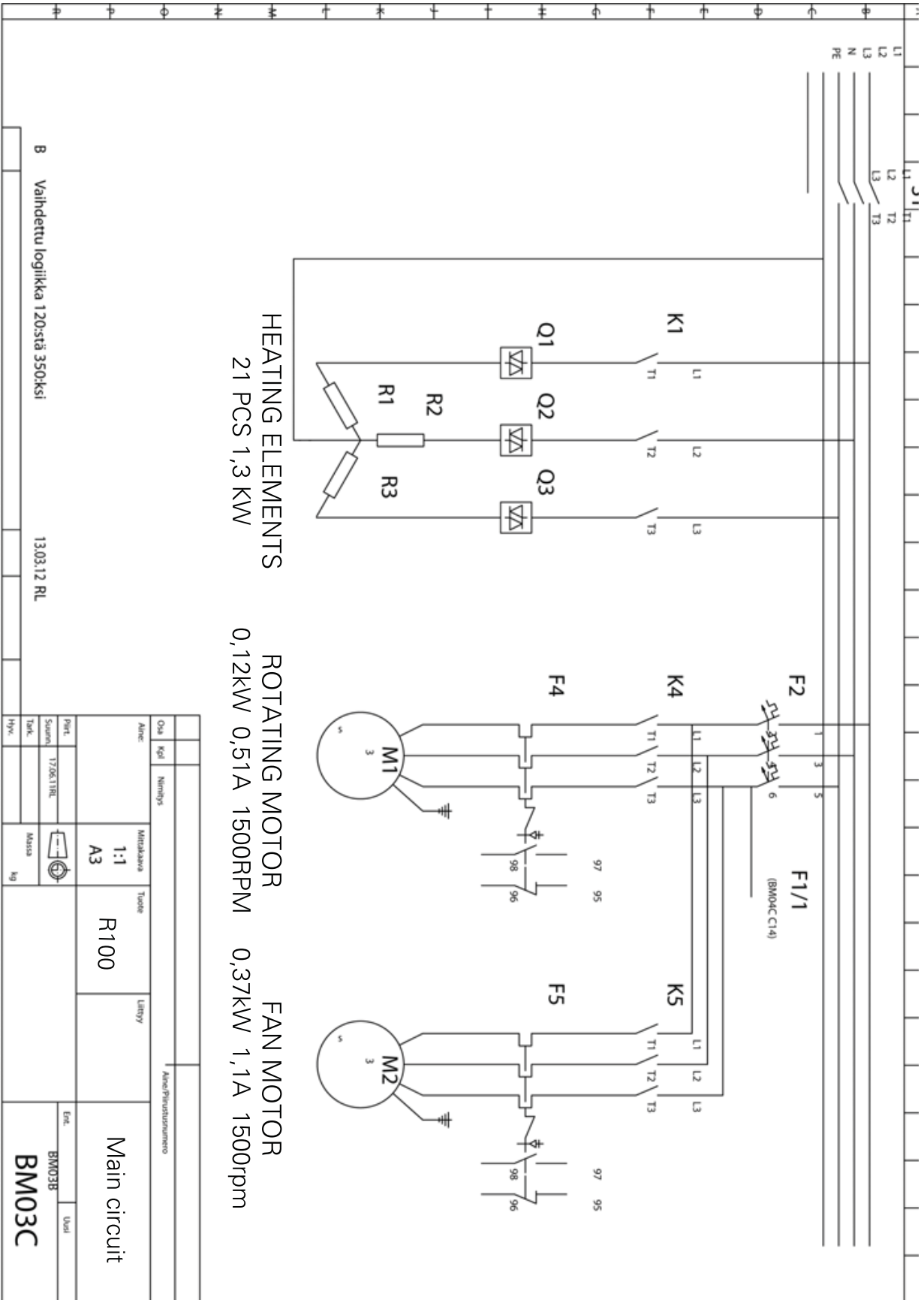


Aine		Aine/Piirustusnumero	
Osa	Kpl	Nimitys	Litty
Mittakaava		Tuote	R70
1:1			
A3			
Part.	17.06.11RL		
Suunn.			
Tark.			
Hv.			
Materiaali		Materiaali	
kg		kg	

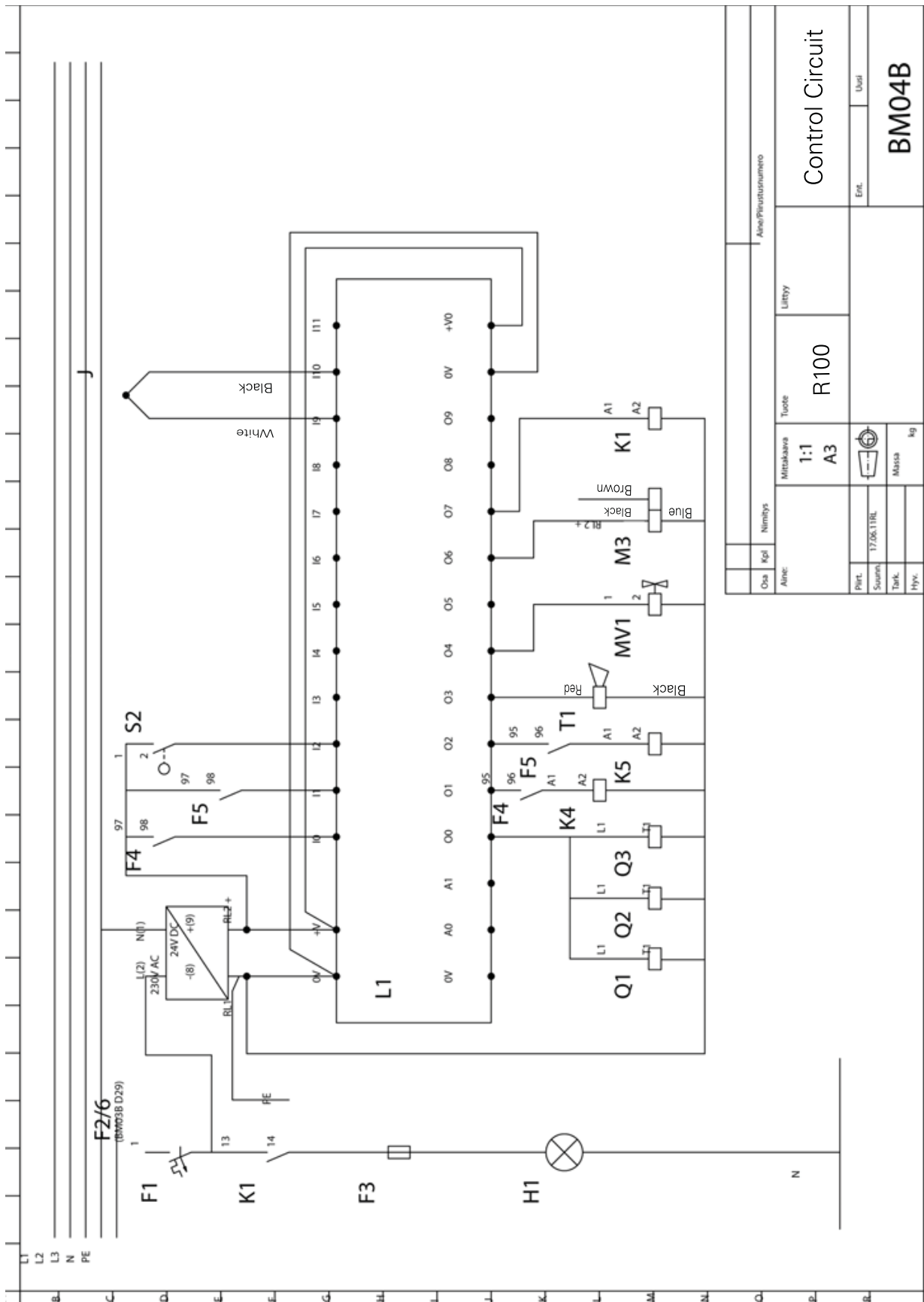
Aine		Aine/Piirustusnumero	
Osa	Kpl	Nimitys	Litty
Mittakaava		Tuote	R70
1:1			
A3			
Part.	17.06.11RL		
Suunn.			
Tark.			
Hv.			
Materiaali		Materiaali	
kg		kg	

B	Vaihdettu logiikka 120:stä 350:ksi	13.03.12 RL
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Minirotor 100R Main circuit



Minirotor 100R Control circuit



**EY -VAATIMUSTENMUKAISUUSVAKUUTUS
EU -FÖRSÄKRAN OM ÖVERENSSTÄMMELSE
EU -DECLARATION OF CONFORMITY**

Valmistajan nimi / Tillverkarens namn / Manufacturer's name

RIMKO OY

Osoite / Adress / Address

05460 HYVINKÄÄ
FINLAND

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

Minirotor 70R
Minirotor 100R
LUKO 1PE

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

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

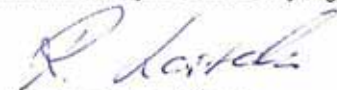
EN60335-1:2002-2006, EN50366:2003-2006
EN55014-1:2006, EN61000-3-2:2006, EN6100-3-11:2000, EN55014-2:1997+A1:2001

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

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

Hyvinkää 01.04.2011

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


Risto Laitala – Director

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