

# User manual

## Fryer ADV

Type Code ADF-21



**FKI Fast Food Teknik a/s**

Version 15.0

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# 1 Introduction

## **Original user instructions**

These instructions are FKI Fast Food Teknik's original instructions for appliance FRYER ADV.

## **The purpose of these instructions**

These instructions are intended to ensure the correct installation, use, handling and maintenance of FRYER ADV.



**Important! Read these instructions carefully before use and keep them safe for later use.**

## **Storage of these instructions**

You must retain these instructions and make sure that they are easily accessible to users and service technicians.

## **Understanding these instructions**

It is the responsibility of the Appliance's owner to ensure that anyone who will be operating, servicing, maintaining or repairing FRYER ADV has read these instructions and, by way of minimum, the sections that are of relevance to the work they will perform.

Anyone who will be operating, servicing, maintaining or repairing FRYER ADV is required to look up any relevant information in these instructions.

## 1.1 General

### 1.1.1 Appliance description

Fryer ADV is an easily programmable fryer that is easy to operate and maintain. Fryer ADV has deep oil vats, so removable splash covers are not required. The powerful heating elements and electronic temperature sensor heat the frying oil very quickly. Fryer ADV is easy to clean. Fryer oil temperature is shown on a display that can be programmed with up to six fry times. An automatic raise/lower system is an optional upgrade.

### 1.1.2 Manufacturer

FKI Fast Food Teknik a/s  
Byghøjvej 5, Verninge  
DK-5690 Tommerup  
www.fki.dk

### 1.1.3 Appliance label



Type code: ADF-21

### 1.1.4 Technical specifications and power consumption

#### 1.1.4.1 Dimensions and weight

Description		Vat	Dimensions (BxDxH)	Weight
FRYER ADV	SINGLE TABLE	16L	352x655x370	32 kg
FRYER ADV	SINGLE TABLE SPL	2x10L	470x655x370	41 kg
FRYER ADV	DOUBLE TABLE	2 x 16L	705x655x370	60 kg
FRYER ADV	SINGLE FLOOR	16L	352x655x880	44 kg
FRYER ADV	SINGLE FLOOR SPL	2x10L	470x655x880	57 kg
FRYER ADV	DOUBLE FLOOR	2 x 16L	705x655x880	99 kg
FRYER ADV	SF470	1x16L	470x655x880	57 kg

#### 1.1.4.2 Power

Description		Vat	Voltage	Power	Current	Min. fuse rating for installation
FRYER ADV	SINGLE FLOOR	16L	400V	9kW	13.0A	16A
FRYER ADV	SINGLE FLOOR	16L	3x230V	9kW	22.6A	25A
FRYER ADV	SINGLE FLOOR	16L	400V	15kW	21.6A	25A
FRYER ADV	SINGLE FLOOR	16L	3x230V	15kW	37.6A	40A
FRYER ADV	SINGLE FLOOR	16L	400V	21kW	30.3A	32A
FRYER ADV	SINGLE FLOOR SPL	2x10L	400V	10kW	21.6A	25A
FRYER ADV	SINGLE FLOOR SPL	2x10L	3x230V	10kW	37.6A	40A
FRYER ADV	SINGLE FLOOR SPL	2x10L	400V	14kW	30.3A	32A
FRYER ADV	DOUBLE FLOOR	2x16L	400V	2x9kW	13.0A	2x16A
FRYER ADV	DOUBLE FLOOR	2x16L	3x230V	2x9kW	22.6A	2x25A
FRYER ADV	DOUBLE FLOOR	2x16L	400V	2x15kW	21.6A	2x25A
FRYER ADV	DOUBLE FLOOR	2x16L	3x230V	2x15kW	37.6A	2x40A
FRYER ADV	DOUBLE FLOOR	2x16L	400V	2x21kW	30.3A	2x32A
FRYER ADV	SF470	1x16L	400V	15kW	37,6A	40A

*\*Actual measured result can be expected to be lower.*



The appliance should be connected to its own circuit.

#### 1.1.4.3 Intended use

The fryer is intended for deep frying in oil/fat of defrosted and frozen products that are suitable for deep frying.

The fryer must never be used for purposes other than deep frying food.

#### 1.1.5 Modification

FRYER ADV must **never** be modified or serviced by unauthorised persons. In the event of non-compliance, FKI Fast Food Teknik a/s waives any and all liability.

## 2 Safety

### General

Read these safety instructions before using the appliance. Keep them near to the appliance for later reference. These instructions and the appliance itself are provided with important safety information that must always be read and observed at all times. FKI Fast Food Teknik a/s disclaims any and all liability for non-compliance with these safety instructions, for inappropriate use of the appliance or the use of incorrect settings.

Fryer ADV has an electronic user interface with the option of programming with a touch-sensitive screen and running daily programs using push buttons for tactile feedback. Precise adjustment using an electronic controller. Also with USB port to quickly program multiple machines.

FRYER ADV is designed for continual deep frying of various food products. The appliance can also be used for other foods that are suitable for frying. To determine optimum temperature and time, a test fry is always recommended before commencing series production. Note that the nature of the food (thickness, temperature, surface, etc.) will affect the frying result.

When running, the appliance must be continually monitored by staff who have been trained and instructed in how to use it.

### 2.1 Personal safety equipment



It is recommended that gloves and goggles are worn when working with the fryer and when emptying the vats as the fryer has hot surfaces and hot grease can be dangerous.

### 2.2 Potential hazards



Surfaces on the fryer's tabletop and vats are hot and must not be touched when switched on.



Therefore, be careful not to touch them while operating the fryer.

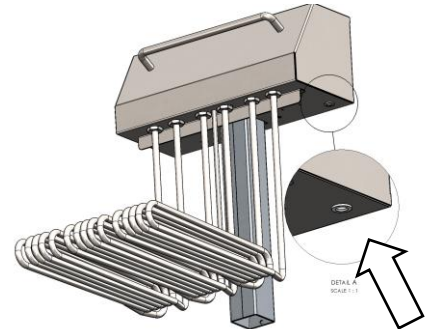
During operation, only the buttons and the touch screen on the front may be touched. The food for preparation should be placed in the basket when it is in the basket retainer. The basket should then be carefully lowered into the oil.

Avoid touching the fryer's hot surfaces.

## 2.3 Safety measures, integrated



The heating section has an integrated magnetic contact to cut power to the heating elements if the heating section is removed from the top panel. The electronic control system is fitted with an acoustic alarm that will activate when temperatures exceeding 200°C are registered.

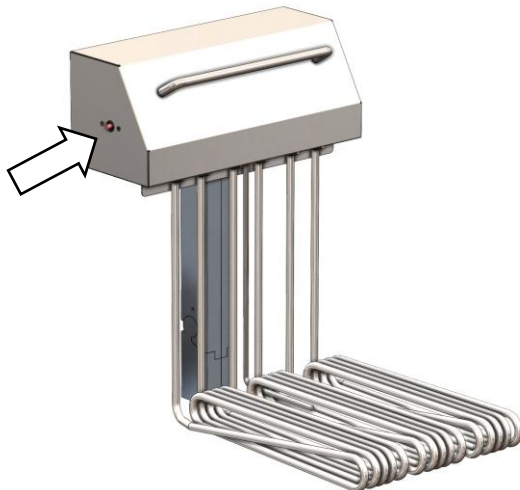


## 2.4 Safety functions



The heating section has an integrated safety thermostat that will cut power to the heating elements if temperatures exceed 230°C. The thermostat can be reset and connected once the temperature has fallen. To reset the thermostat, press the red button next to the heating section. The electronic control system has a fuse to protect the control system against overload. The fuse is located under the front panel with the display.

**We recommend that the fryer is serviced to find out why the safety thermostat was triggered.**



## 2.5 Who may use the appliance



This appliance is not intended for use by children! Neither should it be used by persons with reduced physical or mental capacity, or who lack appropriate experience and knowledge unless they have been trained or instructed in the use of the appliance by someone with responsibility for their safety.

## 2.6 Transport/installation/fixation

### 2.6.1 Transport

The fryer is delivered secured to a transport pallet and should only be transported in the same way if moved.

When lifting the appliance into position, lift carefully from the transport pallet by lifting at the front edge of the table top, allowing it to be carefully rolled into position.

**WARNING: Do not lift the appliance at the heating sections.**



Moving and setting up the appliance must be performed by two or more people due to RISK of injury!

Wear protective gloves and safety footwear during unpacking and installation.  
Cut hazard.

## 2.6.2 Installation

The appliance must be connected to the mains by an authorised electrician.

The fryer must always be connected to ground. Depending on variant, the fryer should be connected to either 400V 3N~ or 230V 3~ via an approved supply isolator. Note that each heat section requires a separate connection.

As standard, floor models are supplied with front legs and fixed wheels at the rear. Space should be left in front of the fryer so it can be pulled away from the wall when cleaning or performing maintenance tasks.



The fryer must be connected by an authorised electrician and connected to an RCCB circuit breaker.

See diagram for correct connection:



**WARNING: This appliance must be earthed. Failure to do so may cause electric shock and serious injury.**



The appliance must be acclimatised before use. It should therefore not be started up until eight hours have elapsed.



The power supply must be able to be disconnected, either by unplugging or by means of a freely accessible multi-pole switch located before the power outlet in accordance with applicable electricity regulations. **The appliance must be grounded in accordance with national safety standards for electrical appliances.**



Do not use extension cords or multi-socket outlets. After installation is completed there must be no direct access to the electrical components. Never touch the appliance if you are wet or have bare feet. Do not use this appliance if the power cord or plug is damaged, if the appliance is not working properly, if it is damaged or if it has been dropped on the floor.



Any replacement of the power cord must be performed by an authorised technician to avoid the risk of personal injury – RISK of electric shock. Only use oil-resistant cables!

### 2.6.3 Fixation



The appliance does not need to be secured. It is equipped with wheels and/or adjustable legs to ensure stable and easy installation.

## 2.7 Operation

The appliance must be supervised during use and must be switched off at its main switch if left.



FRYER ADV is intended for food preparation only. **Never fill the appliance with oil or fat when it is switched on. Oil/fat can ignite if it contacts the heating elements. It can also produce intense smoke.**

## 2.8 Cleaning/maintenance



**CLEANING AND MAINTENANCE WARNING:** Check that the appliance is set to the cleaning program before performing daily cleaning or maintenance tasks. Do not use products that contain acid as they may damage the surface of the appliance.



Never use steam/foam cleaners due to RISK of electric shock.

## 2.9 Servicing



**WARNING:** The appliance has two supply connections, which must both be disconnected before starting service work on the appliance.



The appliance must always be switched off and disconnected from the power source before commencing repair work.

## 3 Operation

### 3.1 Before first use



Before start-up, remove all packaging and protective plastic from the fryer and dispose of it in accordance with currently applicable regulations (see section 6.1). Carefully read section 2 about safety before connecting the fryer.



Before start-up, clean the appliance as shown in section 0.

### 3.2 Filling with oil





**Turn the fryer off. Never fill the appliance with oil or fat when it is switched on. Oil/fat can ignite if it contacts the heating elements. It can also produce intense smoke.**

Remove the basket. Now fill the fryer with oil/fat to the correct volume. The fryer must never be switched on unless oil has been filled at least to the minimum level indicator on the inner side of the vat (at the rear).

### 3.3 Quick start instructions

Before start-up, read section 4.2 under “cleaning”.

Press the cog icon  to program the fryer and adjust temperature settings. (see section 3.5 about programming).

Press start  on the display and wait 30 minutes for the fryer to heat up and become ready for use.

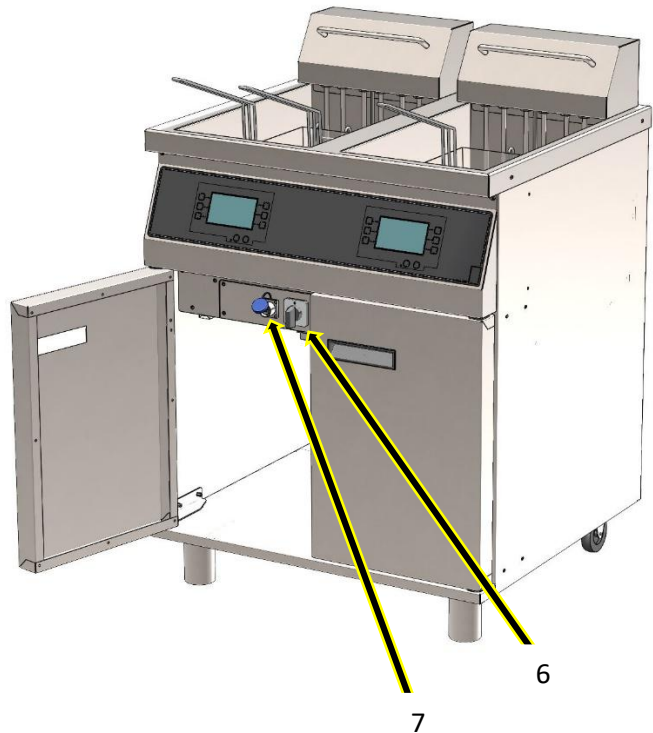
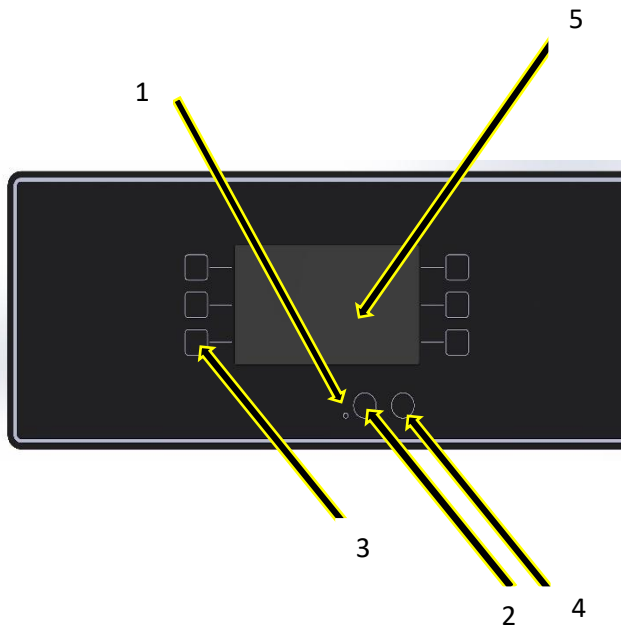
The appliance must not be operated unattended.





Remember to use personal safety equipment, see 2.1

### 3.4 Start-up

Explanation of the FRYER ADV user interface:



No.	Description
1.	Light
2.	Start
3.	Program buttons
4.	Settings
5.	Screen
6.	Switch
7.	USB port max. 4GB

Turn the switch (6) behind the front door and the light (1) on the front of the appliance will turn on. Press  to turn on the appliance or press  to configure the appliance.

FRYER ADV is supplied with the following factory settings:

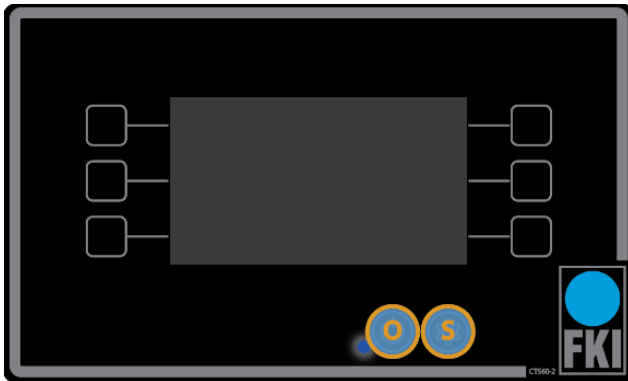
Temperature: 170°C

Frying time: 2:40 minutes

Factory settings can be reloaded by creating a blank text file on a USB dongle named "factory.txt" and load the file under USB settings.

After use, always switch the appliance off at the main switch (6).

## 3.5 Programming

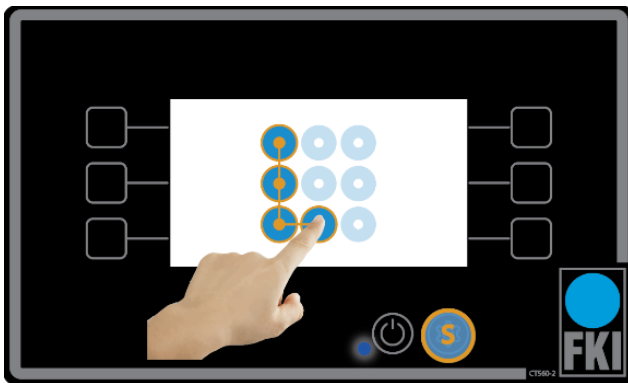


### Standby

Press **O** to enter daily operation, see section 0 (during operation only the buttons can be used, not the screen).

Press **S** to go to settings, see section 3.5.1 (in “settings” the touch screen is used instead of the buttons. Here only the “S” button works).

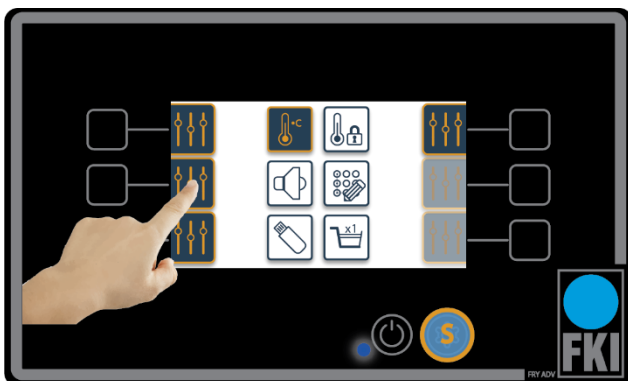
### 3.5.1 Setting the individual programs



### Access control

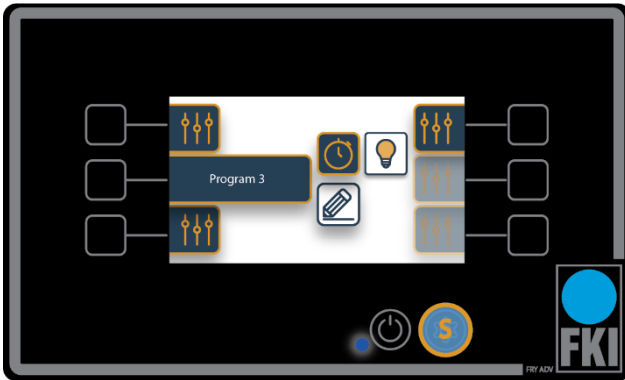
Entering the settings menu requires entry of a default password, which is shown here on the screen. This can be changed in “password setting” or you can deactivate it. We recommend, however, that password is always enabled. Forgotten passwords can be reset to the factory setting as follows:

1. Create a blank text file on a USB dongle named "pinreset.txt"
2. Press **S** to enter *standby* mode.
3. Insert the USB dongle into the corresponding USB port.
4. Press **S** to return to *access control*. The password is now reset and is as shown in the picture.



### Home screen

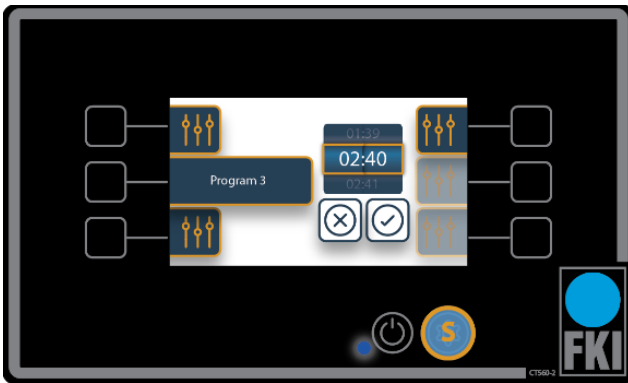
This picture shows the home screen in the settings menu. To set one of the six programs, press  $\uparrow\downarrow$  next to the program you want to configure.



### Program settings submenu

Program 3 is selected. It is now possible to set fry time and program name. Pressing the light bulb icon allows you to deactivate the program if it is not required (settings are stored even if the program is deactivated).

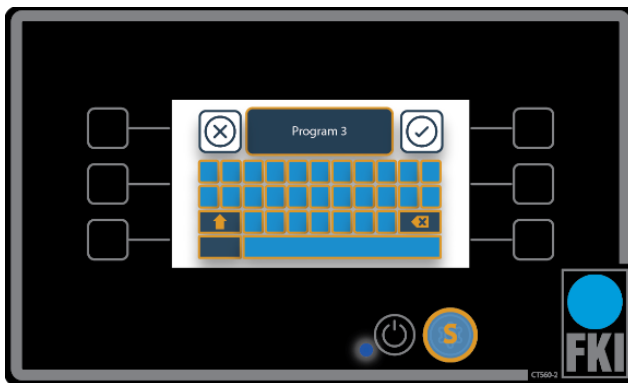
When set for single basket use all six programmes are available. When set for twin basket use the right and left side of the display are dedicated to their respective baskets, so there are only three programmes per basket.



### Time setting

Here fry time for Program 3 is selected. When you have selected the correct time, approve it and you will then return to the previous screen.

If a program time setting is 00:00, the timer will function as a *stopwatch* and will count upwards from zero seconds.









### Edit program name

Here, the program name is selected. Enter the name you want to use and approve.

### 3.5.2 Settings that apply to all programs

Explanation of symbols for this section:

	Temperature
	Temperature Operating zone
	Sound
	Password
	USB port
	Switch between single and twin basket setting

### 3.5.3 Temperature and operating zone configuration



#### Temperature


If you press “temperature setting” on the home screen, this screen will appear.


Here, you have the option to set the oil temperature, approve the set temperature, and return to the *home screen*.




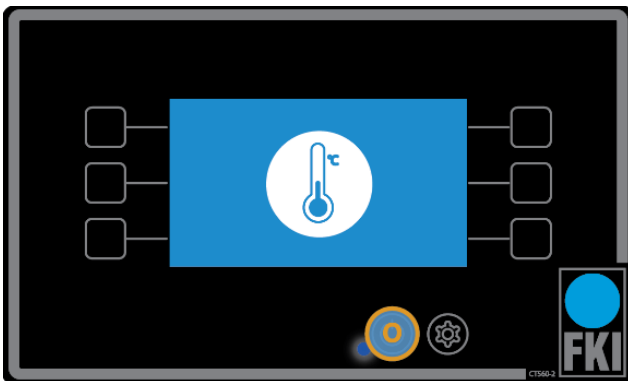
### Operating zone temperature

This picture shows the screen that will appear if you tap this icon

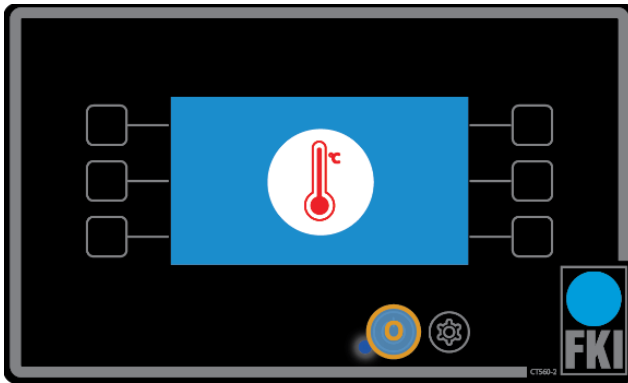
Here you have the option to select a temperature range to ensure that the appliance always fries to perfection. When temperature is outside the selected range, the screen will lock until it is ready again .

The following two pictures show what is displayed on the screen if the appliance is too hot or not hot enough. This option can be changed to show a colour indication in the main menu as to whether the oil in the tub is too hot or too cold .

This allows the user to ignore the warning. It is also possible to completely remove this indication .



Screen if the appliance is not hot enough.



Screen if the appliance is too hot.

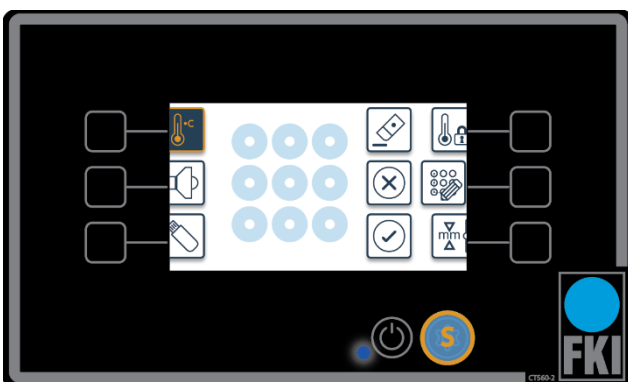
### 3.5.4 Setting the sound



#### Sound

When adjusting the sound settings, it is possible to set the volume as a percentage, and a time for how long the notification should sound when the program is completed.

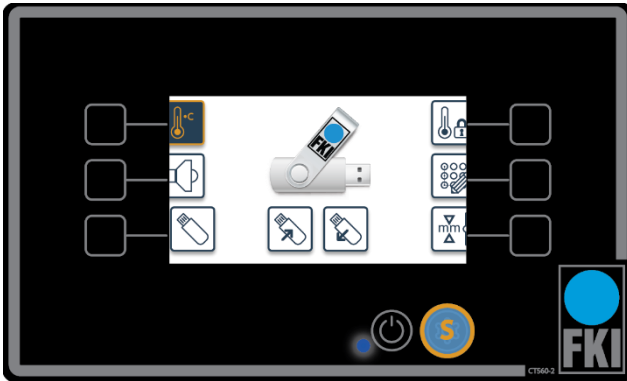
### 3.5.5 Password setting



#### Password

Here, you have the option to change the password that is required to enter the settings menu, or deactivate the password completely. Deactivate the password by entering an empty password and clicking "OK".

## USB dongle

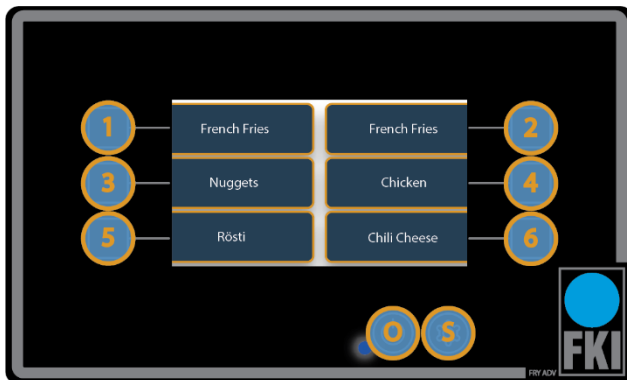


### USB port

The USB port allows you to upload programs or save them externally. The icon only becomes active when a USB dongle is inserted. The top USB port is for the left screen and the lower one is for the right screen. The capacity of the USB dongle must not exceed 4GB.

NB! If the USB dongle contains a settings file and the dongle is read or written, the settings will be overwritten without asking for permission.

## 3.6 Operation



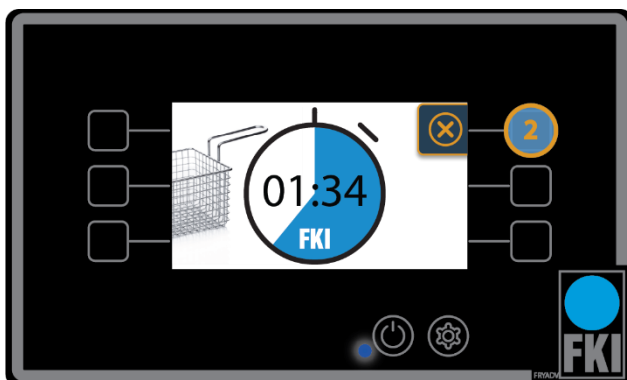
### Home screen

This is the home screen during operation.

Press 1-6 to start a program.

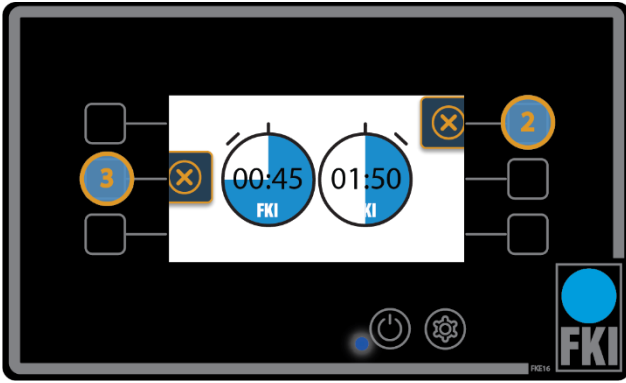
Press **O** to switch off or go into *standby*.

Press and hold **S** for 3 seconds to display a graph of the temperature over the last 3.5 hours.



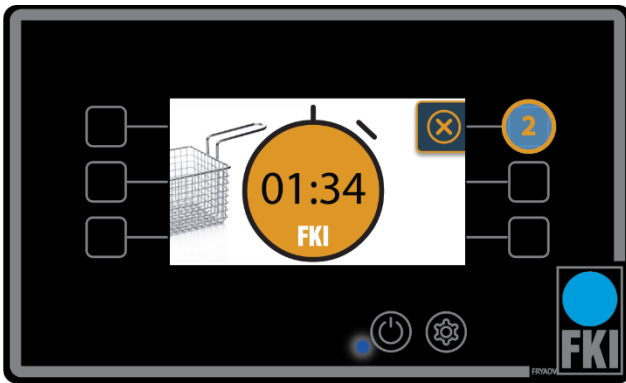
### Program active

If program 1-6 is selected on the home screen, this screen will appear. Here, program 2 is selected. This displays time remaining. If you want to stop frying before the set time has expired, press the selected program (here, program 2) and you will return to the *home screen*.



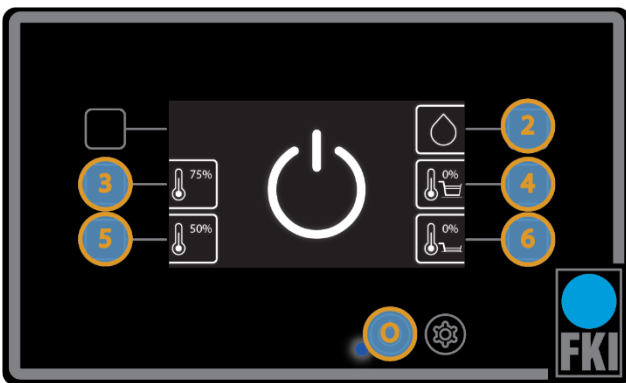
**With twin baskets**

When using twin baskets, this screen will appear if two baskets are active at the same time.



**Timer**

This image shows the timer function that operates if time is set to 00:00 in a program and is not adjusted. This is typically used to determine the ideal frying time for a particular food product.

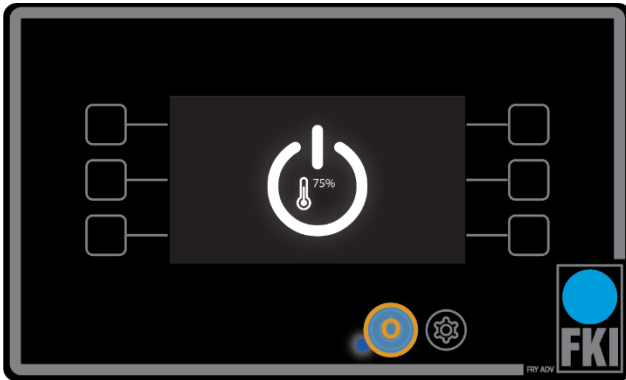


**Shutdown**

If **O** is pressed on the home screen, you will see this screen, from where you can enter energy saving mode for reduced power consumption, using buttons 3 and 5.

Programs 4 and 6 switch off the appliance when the baskets are in raised or lowered position, respectively. If no selection is made, the appliance will enter *standby* after 15 seconds with baskets lowered.

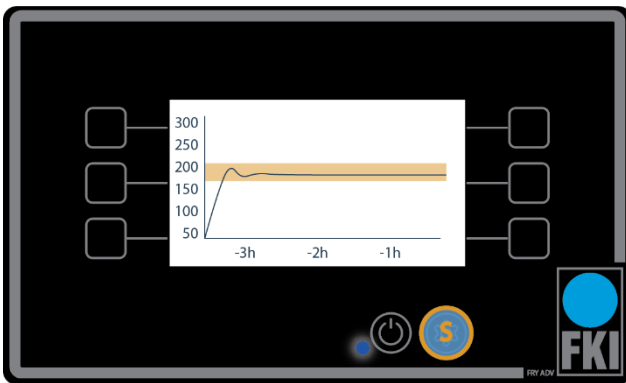
enter *standby* after 15 seconds with baskets lowered.



**Energy-saving mode**

Here, 75 % heat is selected.

To return to the home screen, press **O**.

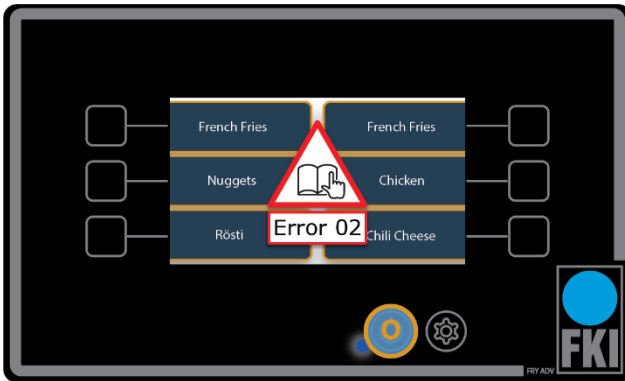


**Temperature graph**

If **S** is held down on the *home screen* for three seconds, this image will appear for about 10 seconds before the screen automatically returns to the *home screen*. The temperature graph shows the temperature for the last 3.5 hours, as well as the current temperature.

If you want to leave this prematurely then press **S**.

### 3.7 Error codes



#### Error codes

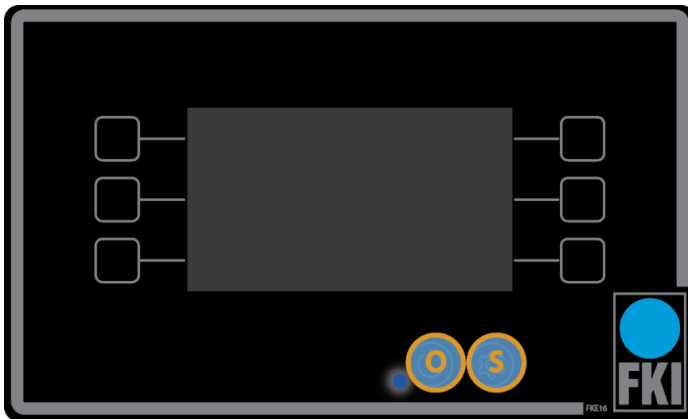
In the event of a fault in the appliance, an error message like those shown here will appear. Find the error code in the below chart and try to rectify the error or contact service.

ERROR CODE	ERROR	CAUSE	REMEDY	SW version
01	Communication error	Graphical user interface does not respond to control print.	Turn off the power for 10 seconds using the switch on the side of the appliance. If the error persists, contact service.	0.3.0000 ->
02	No status report	The control print does not deliver status reports to the graphical user interface.	Turn off the power for 10 seconds using the switch on the side of the appliance. If the error persists, contact service.	0.3.0000 ->
11	Oil overheated	The solid state relay may have short-circuited.	Contact service.	0.3.0000 ->
13	Temperature sensor error	The measured values are either too high.	Contact service.	0.3.0000 ->
15	Temperature sensor error	The measured values are either too high related to expected values.	The environment is either too cold or the sensor is short-circuited. If sensor is short-circuited, service must be contacted.	0.3.0000 ->
20	Motor 1 overloaded	The motor is worn or there is too much friction on the lever.	Try cleaning the appliance's moving parts. If the error persists, contact service.	0.3.0000 ->
21	Motor 2 overloaded	The motor is worn or there is too much friction on the lever.	Try cleaning the appliance's moving parts. If the error persists, contact service.	0.3.0000 ->

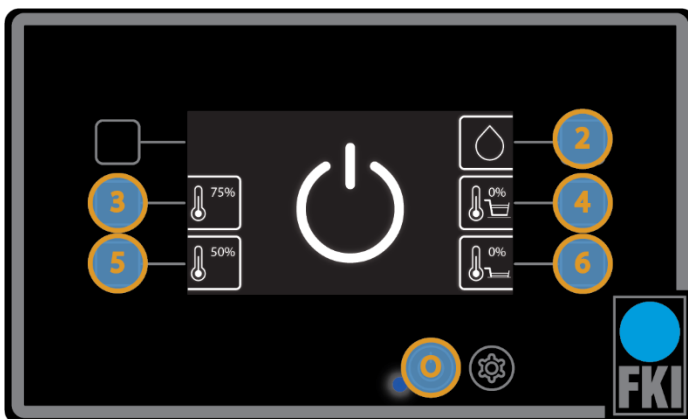
### 3.8 Operation of oil cleaning system Fryer ADV (optional product)

The oil cleaning program can be accessed in two ways.

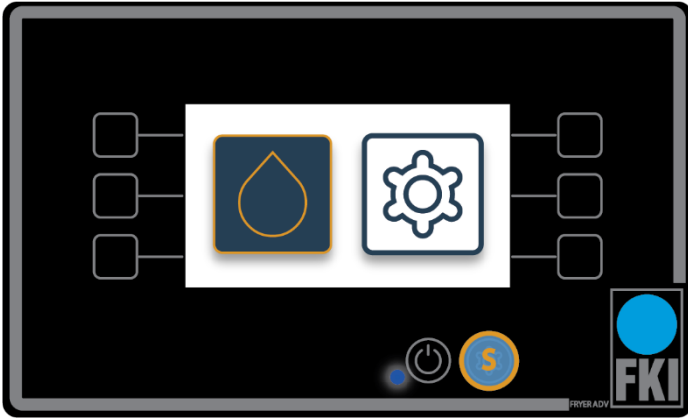
1. From off mode, press the setting button "S." After this, select the clean program symbolized by a drop.
2. From active mode, press the off button "O." Then select the cleaning program symbolized by a drop in the upper right corner "2."



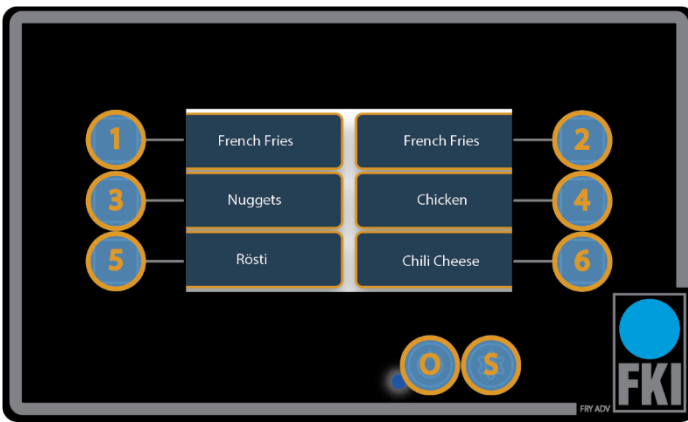
Screenshot in off mode



Screenshot after pressing setting button "S" as stated above



Screenshot Active mode



Screenshot with program examples

### 3.8.1 Programming oil cleaning

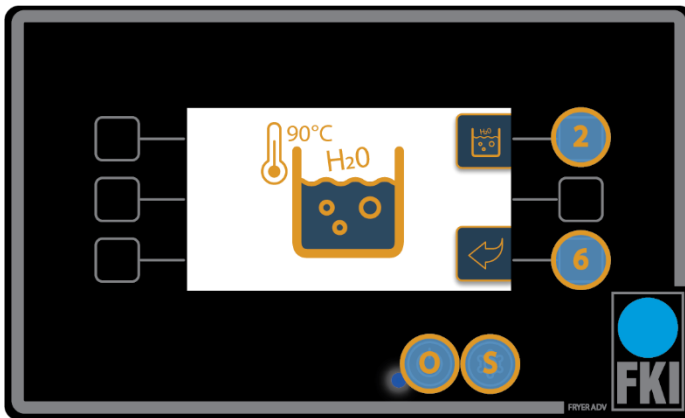
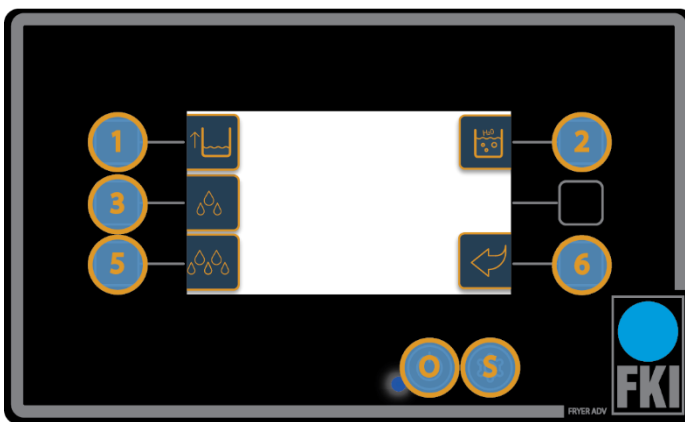
There are 4 different programs.


Key "1" is intended for refilling and lasts 1½ minutes.


Key "3" is a short program where the pump runs for 3 minutes

Key "5" is a longer program where the pump runs for 10 minutes.

Key "2" is a program for "Boil out" Here, the set point temperature will be set to 90°C, and the option is to clean the tub and heat-elements with hot water and soap. **Warning! Water must not be led through the pump but must be drained into a separate container after cleaning! Before using Boil out, the tub must be completely drained of oil. When the boil out is finished, the tub must be completely drained of cleaning water and dried completely before refilling with oil.**

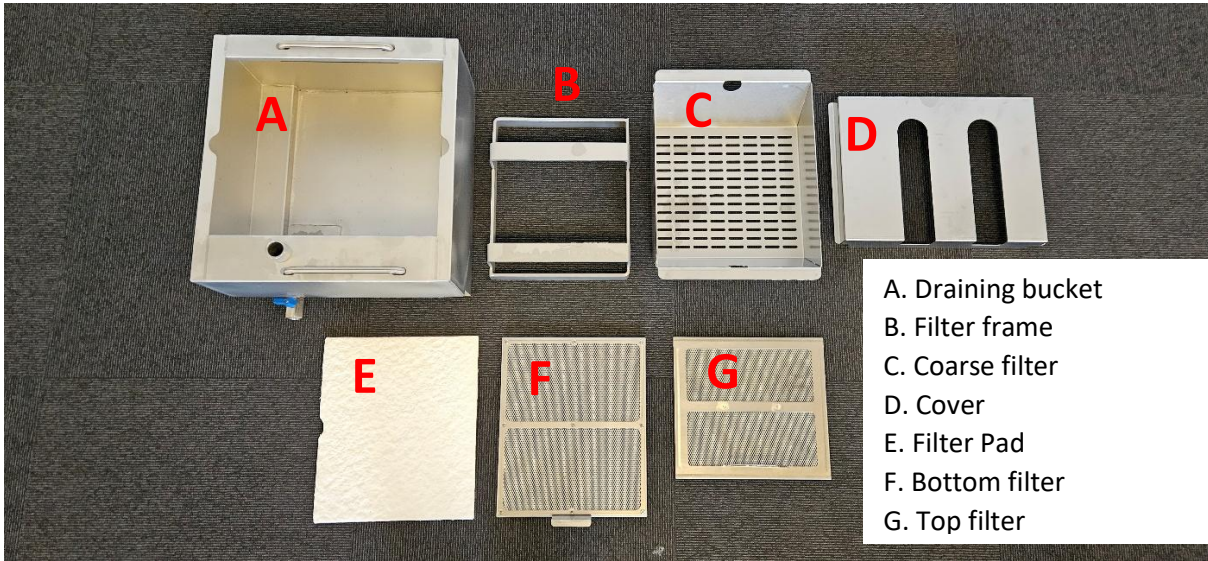


 **WARNING** "Remember to drain the tub completely of water and soap after cleaning and dry afterwards." There must be no water left in the tank when refilling with oil.

 **WARNING** "It is strictly forbidden to use the oil pump during "Boil out" Water must not be passed through the pump! And must be drained into a separate container!"

When the program is finished and the oil is in the tub, you can press key "6", after which the fryer goes into active mode. If you want to switch off the machine, press the "O" key.

### 3.8.2 Preparation of the filter system



Filter PAD (E) must be changed as needed. Estimated consumption 1-3 pcs. per week depending on the fryer's operation time. (Filter package with 50 pcs. item number 04-21068)

1. Place the bottom filter (F) in the draining bucket (A) as shown in fig. 1

2. Then place the Filter PAD (E) as shown in fig. 2

3. Place the frame for filter (B) fig. 3

4. Fit coarse filter (C) fig. 4

5. Place the top filter (G) in the coarse filter as shown in fig. 5

6. Place the Cover (D) fig. 6



Figure 1



Figure 2



Figure 3



Figure 4



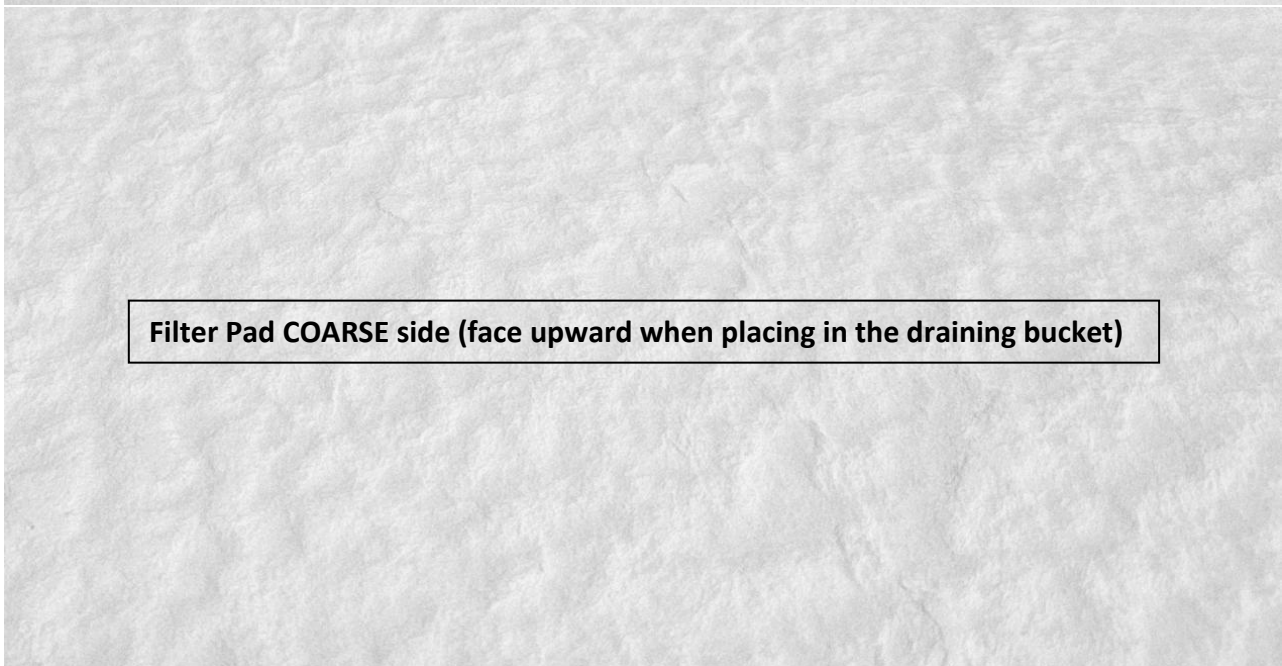
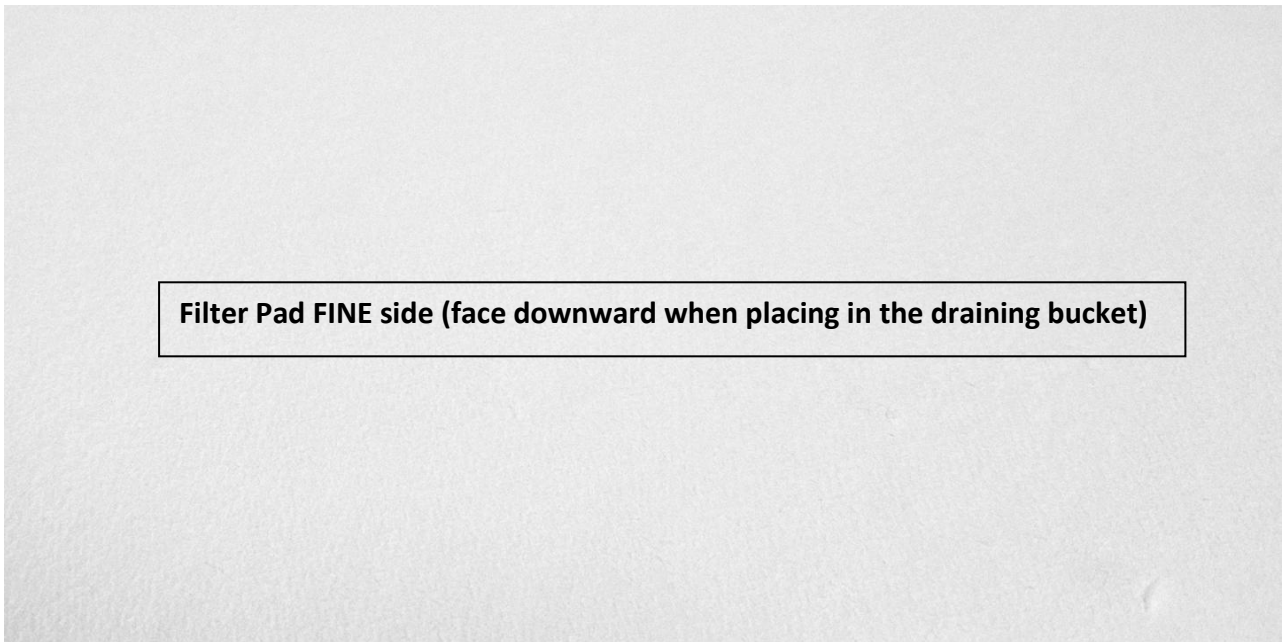
Figure 5



Figure 6

Correct placing of the Filter Pad.

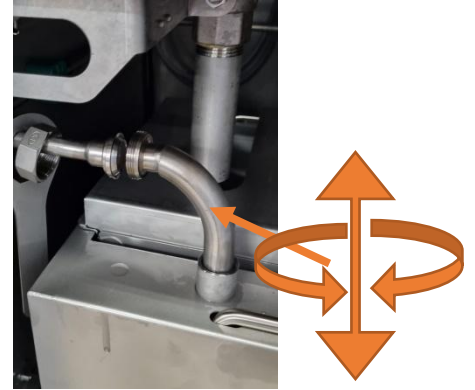
There is a coarse side and a fine side on the filter pad. The coarse side must face upward when it is placed in the draining bucket, and the fine side must face downward.



1. When the preparation of the filter system has been completed (points 1-6), place the draining bucket in the fryer. See fig. 7 Position the drain pan, so that the flange and connecting pipe fit together. See fig. 8. The pipe, which is mounted in the draining bucket, can be adjusted, as shown in fig. Fig. 8
2. Mount the sleeve on the connection pipe and tighten carefully, using the supplied spanner. See Fig. 9



Figure 7



Figuer 8



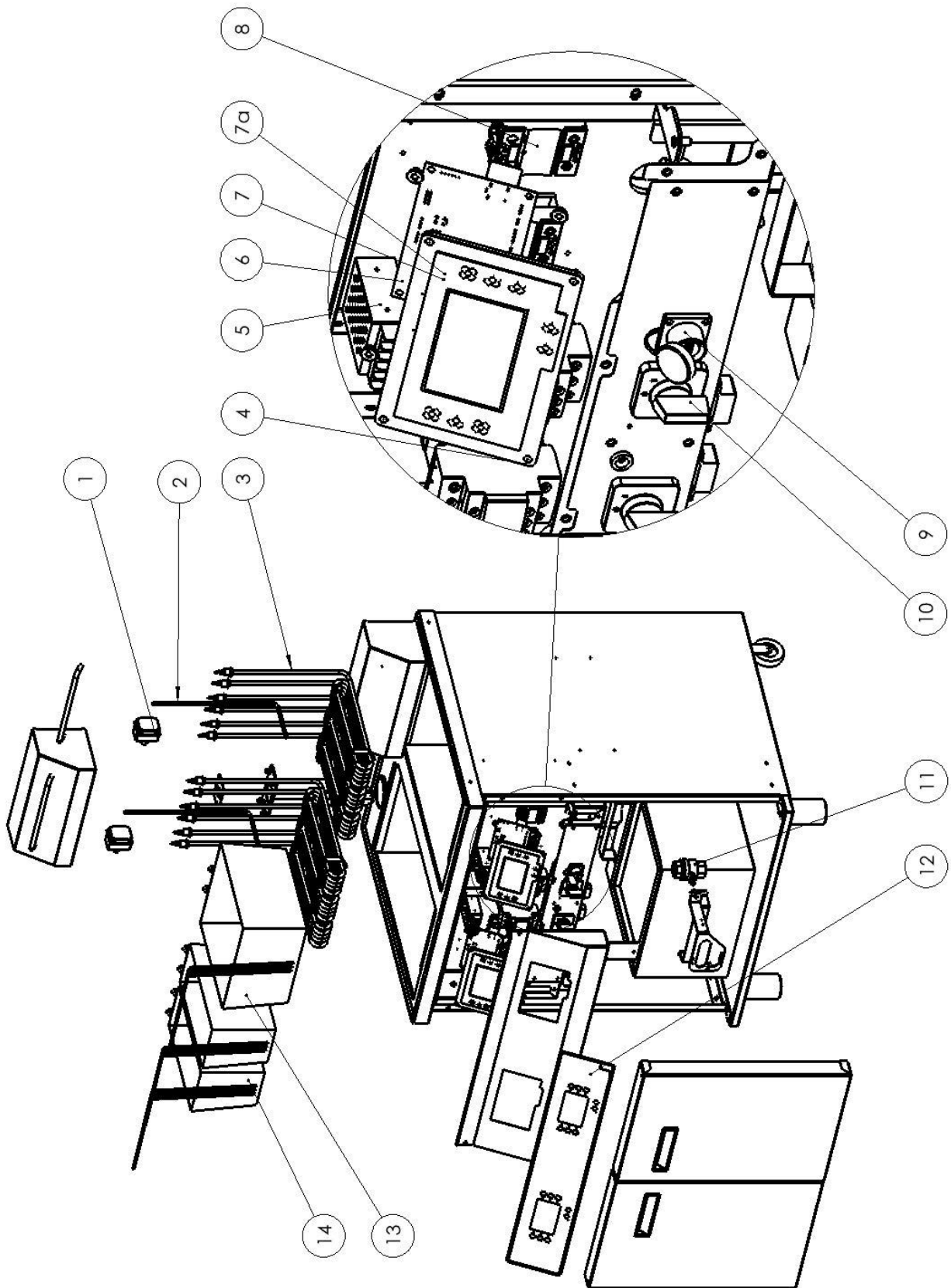
Figure 9

The system is now prepared for cleaning the oil. Relating to programming see section 3.8.1 in the instruction manual.

## IMPORTANT!!!!!!!

When changing the filter! Always ensure that there are no food residues or dirt in the draining bucket. Before inserting a new filter, the draining bucket must be washed and rinsed thoroughly. Open the ball valve on the draining bucket and flush the system with clean water. Once the draining bucket has been cleaned of dirt and thoroughly rinsed with clean water, a new filter can be inserted. Follow the instructions 1-6

### 3.9 Spare parts



### 3.9.1 Spare parts list

#### Fryer ADV 400V 3N~

POS	PRODUCT NUMBER	QTY			DESCRIPTION
		Double	Single	Single Split	
1	72-03615	2	1	2	THERMOSTAT LIMITER
2	83-10002	2	1	2	SENSOR PT 100
3	84-00056	6	3	-	Heating element 3 kW, 400V
3	84-00061	6	3	2	Heating element 5 kW, 400V
3	84-00072	6	3	2	Heating element 7 kW, 400V
4	83-41000 (10kW)	2	1	1	Contactora B&J 2NO 40A AC1 230VAC
4	83-41001 (9kW)	2	1	1	Contactora LC1D9P7 9A 230VAC
4	83-41003 (15kW)	2	1	1	Contactora LC1D25P7 25A 230VAC
4	83-41004 (21kW)	2	1	1	Contactora LC1D32P7 32A 230VAC
4	****72-07020	2	1	-	Contactora LC1D25BD 25A 24VDC
4	****72-07027	-	-	2	Contactora LP1K0901BD 9A 24VDC
5	72-07013	2	1	1	POWER SUPPLY 240VAC / 24VDC 130W
6	72-08003	2	1	2	Controller CTL
7	72-08000	2	1	2	Controller GUI FRYER ADV
7a	*****72-08001	2	-	-	Controller GUI FRYER ADV + OIL CLEAN
8	72-00152	4	2	2	SSR 3,5-32VDC 24-510VAC 95A
9	72-07015	2	1	2	USB DONGLE LP-24-USB3.0-S01
10	83-41013	2	1	1	Switch, 4-POLE telux 50A
11	***84-00622	2	1	2	BALL VALVE 1" M/M MS
11	****84-00058	2	1	2	BALL VALVE 3/4" M. T-GREB
12	72-05511	1	-	-	FILM FOR TOUCH SCREEN FRYER ADV DF/DT
12	72-05513	-	1	-	FILM FOR TOUCH SCREEN FRYER ADV SF/ST
12	72-05514	-	-	1	FOLIE FOR TOUCH SKÆRM FRYER ADV SF/ST Split
13	84-00070	1	1	-	FRY BASKET 1/1 FKE16-
14	84-00071	2	2	2	FRY BASKET 1/2 FKE16-

\* either 2 ½ baskets or 1 1/1 basket per vat

\*\* Applies only to automatic raise/lowering system variants

\*\*\*Floormodels

\*\*\*\*Counter Top models

\*\*\*\*\*FRYER ADV + OIL CLEAN

### Fryer ADV 230V 3~

POS	VARE NUMMER	STK	STK	STK	BENÆVNELSE
		Double	Single	Single Split	
1	72-03615	2	1	2	THERMOSTAT LIMITER
2	83-10002	2	1	2	SENSOR PT 100
3	84-00057	6	3	-	Heat element 3 kW 230V
3	84-00062	6	3	2	Heat element 5 kW 230V
4	83-41000 (10kW)	2	1	1	CONTACTOR B&J 2NO 40A AC1 230VAC
4	83-41003 (9kW)	2	1	1	CONTACTOR LC1D25P7 25A 230VAC
4	83-41004 (15kW)	2	1	1	CONTACTOR LC1D32P7 32A 230VAC
4	****72-07020	2	1	-	Contactor LC1D25BD 25A 24VDC
4	****72-07027	-	-	2	Contactor LP1K0901BD 9A 24VDC
5	72-07013	2	1	1	Power supply 240VAC / 24VDC 130W
6	72-08003	2	1	2	Controller CTL
7	72-08000	2	1	2	Controller GUI FRYER ADV
7a	*****72-08001	2	-	-	Controller GUI FRYER ADV + OIL CLEAN
8	72-00152	4	2	2	SSR 3,5-32VDC 24-510VAC 95A
9	72-07015	2	1	2	USB DONGLE LP-24-USB3.0-S01
10	83-41013	2	1	1	Switch 4-POL telux 50A centermontage
11	***84-00622	2	1	2	Ball valve 1" M/M MS
11	****84-00058	2	1	2	Ball valve 3/4" M. T-GREB
12	72-05511	1	-	-	Protection for TOUCH SCREEN FRYER DF/DT
12	72-05513	-	1	-	Protection for TOUCH SCREEN FRYER SF/ST
12	72-05514	-	-	1	Protection for TOUCH SCREEN FRYER ADV SF/ST Split
13	84-00070	1	1*	-	FRY BASKET 1/1 FKE16-
14	84-00071	2	2*	2	FRY BASKET 1/2 FKE16-

\* either 2 ½ baskets or 1 1/1 basket per vat

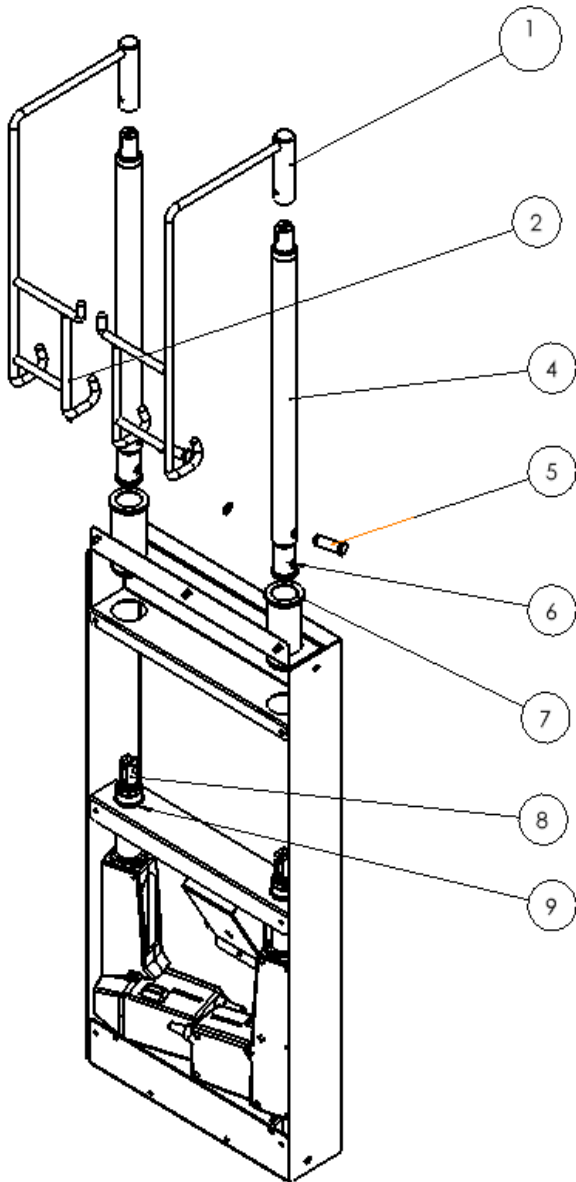
\*\* Applies only to automatic raise/lowering system variants

\*\*\*Floormodels

\*\*\*\*Counter Top models

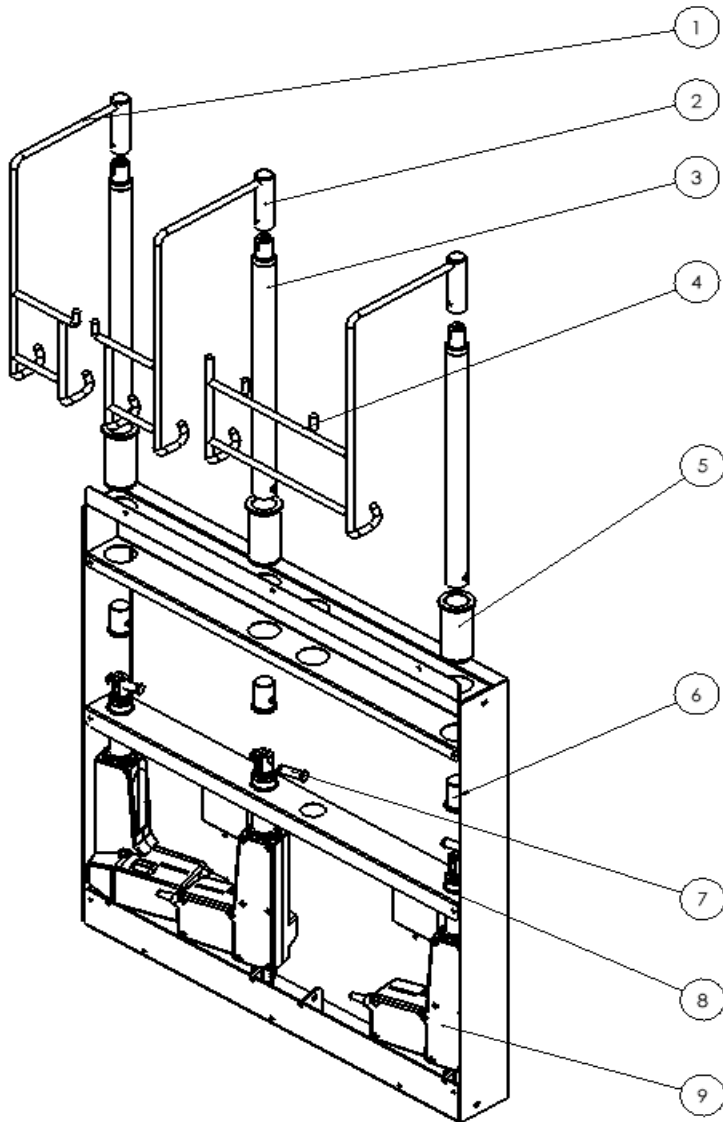
\*\*\*\*\*FRYER ADV + OIL CLEAN

### 3.9.2 Spare parts list Automatic Raise/lowering for Fryer ADV SF



POS	Item no.	pcs	Description
1	84-00320	1	SUSPENSION FOR ½ BASKET RIGHT
2	84-00323	1	SUSPENSION FOR ½ BASKET LEFT
3	*84-00330	1	SUSPENSION FOR 1/1 BASKET
4	84-25044	2	LIFTING BAR FOR H/S
5	84-25048	2	Lock bolt for actuator H/S
6	84-25046	2	Socket for galvanic isolation H/S
7	84-25043	2	CONTROL HOUSING FOR ACTUATOR H/S
8	83-10076	2	ACTUATOR FRYER ADV RAISE/LOWER
9	84-00461	2	HOUSING FOR ACTUATOR H/S
	*Alterna- tive		

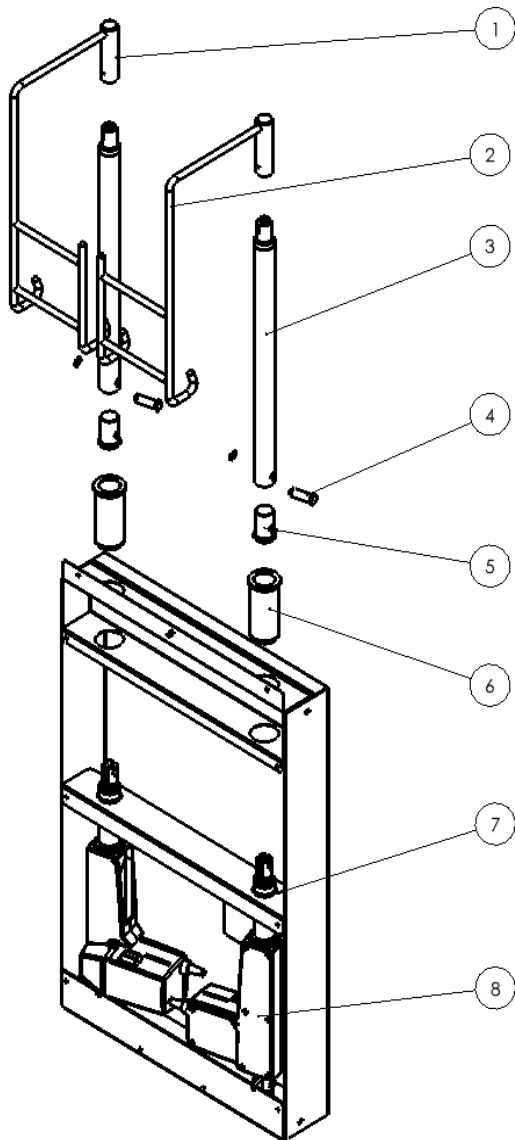
### 3.9.3 Spare parts list Automatic Raise/lowering for Fryer ADV DF



POS	Item no.	Pcs.	Description
1	84-00323	1	SUSPENSION FOR ½ BASKET LEFT
2	84-00320	1	SUSPENSION FOR ½ BASKET RIGHT
3	84-25044	3	LIFTING BAR FOR H/S
4	84-00330	1	SUSPENSION FOR 1/1 BASKET
5	84-25043	3	CONTROL BOX FOR ACTUATOR H/S
6	84-25046	3	Socket for galvanic isolation
7	84-25048	3	Lock bolt for actuator H/S
8	84-00461	3	HOUSING FOR ACTUATOR H/S
9	83-10076	3	ACTUATOR FRYER ADV RAISE/LOWER

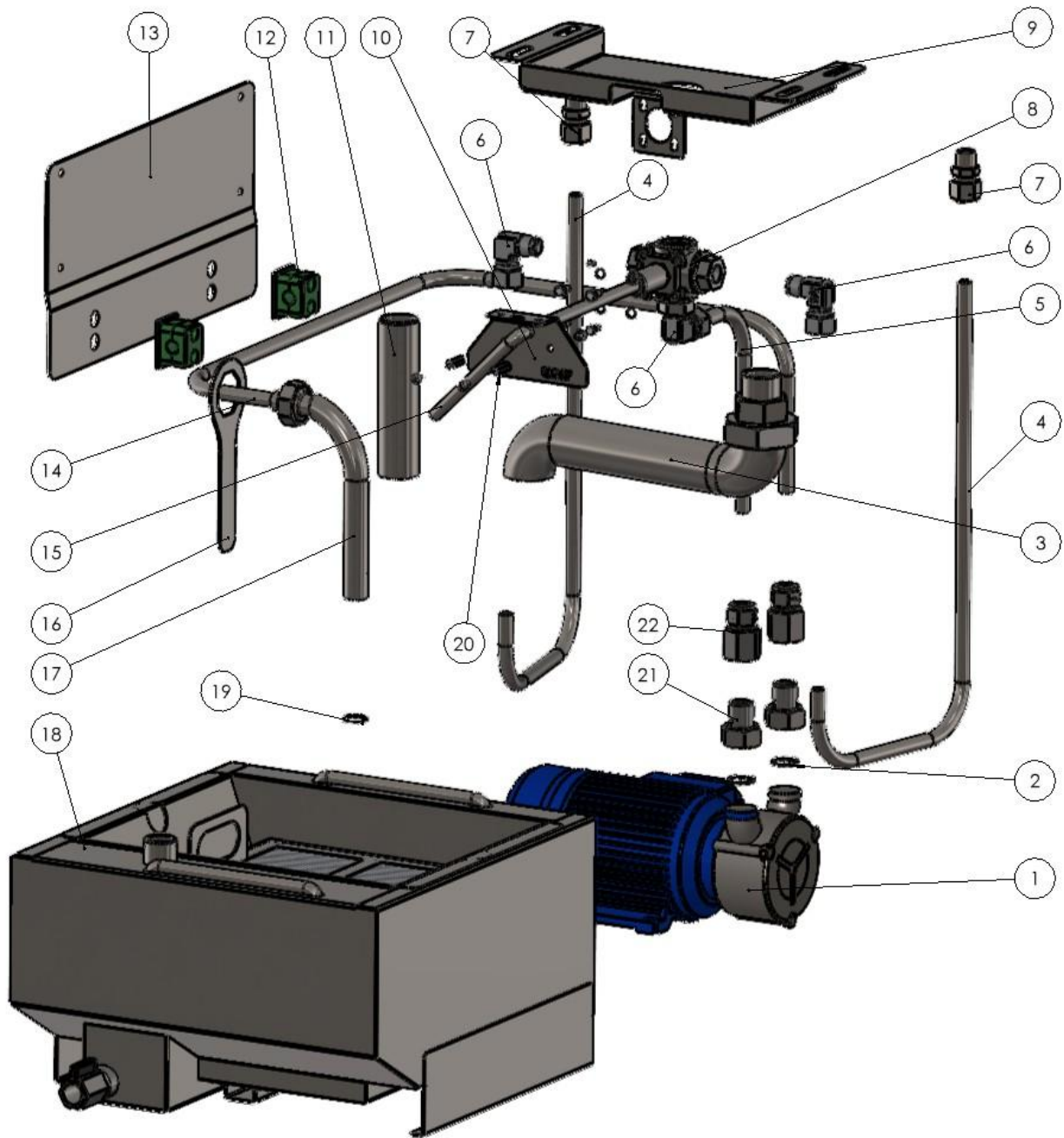
number depends on configuration and baskets

### 3.9.4 Spare parts list Automatic Raise/lowering for Fryer ADV SFS



POS	Item no	pcs	Description
1	84-25126	1	SUSPENSION F ½ BASKET, LEFT FRYER ADV SPLIT
2	84-25127	1	SUSPENSION F ½ BASKET, RIGHT FRYER ADV SPLIT
3	84-25044	2	LIFTING BAR FOR H/S
4	84-25048	2	Lock bolt for actuator H/S
5	84-25046	2	Socket for galvanic isolation H/S
6	84-25043	2	CONTROL HOUSING FOR ACTUATOR H/S
7	84-00461	2	HOUSING FOR ACTUATOR H/S
8	83-10076	2	AKTUATOR FRYER ADV HÆV/SÆNK

### 3.9.5 Spare parts list oil cleaning system (Double Floor)

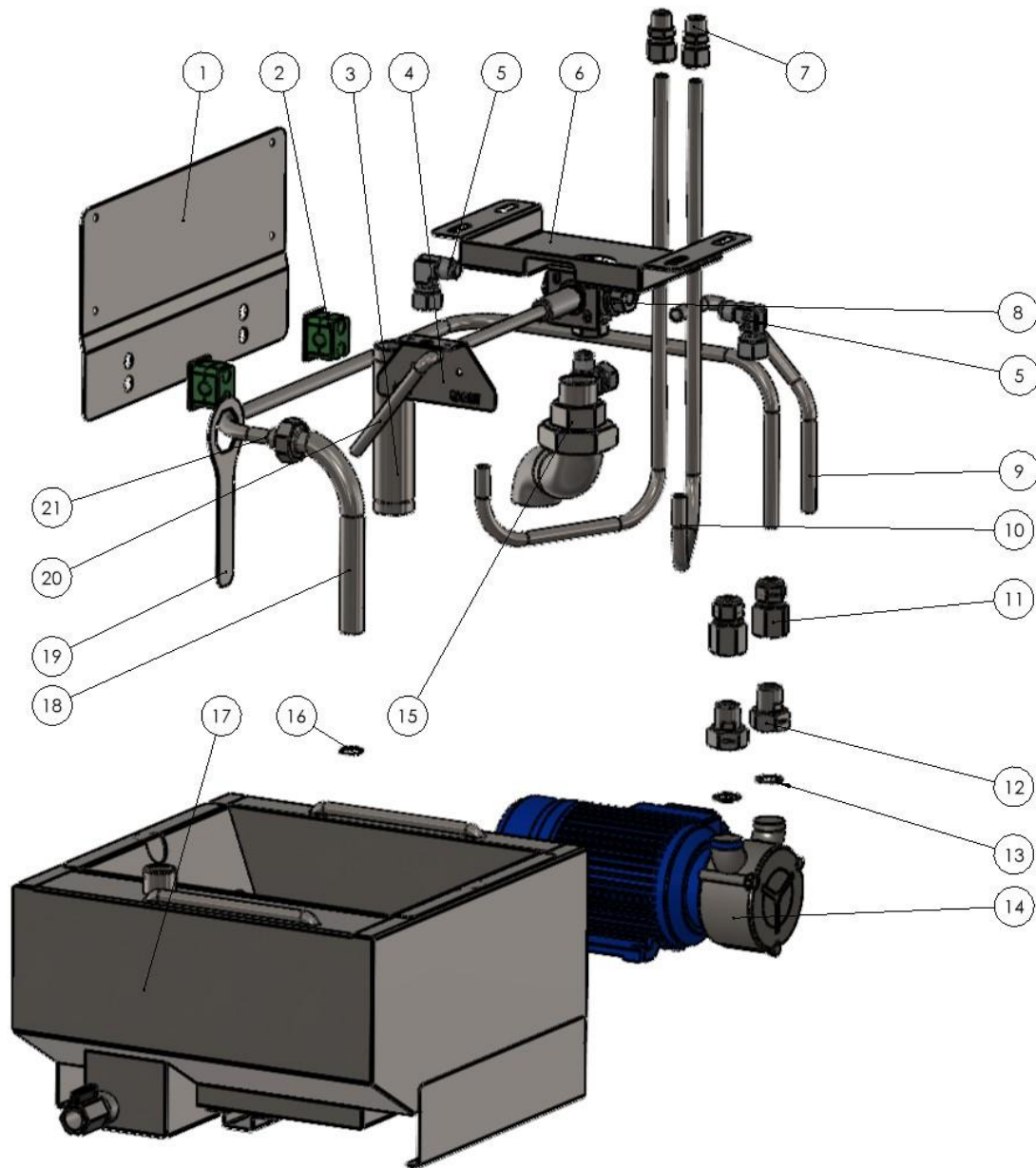


POS	ITEM NUMBER	QTY	DESCRIPTION
1	74-00082	1	PUMP EP NEOS 3/4 (0.22KW/230V)
2	84-00644	2	TEFLON GASKET Ø24X17X2 JTRU15
3	15-00041	1	COMPLETE DRAIN PIPE FOR OIL CLEANING
4	84-25242	2	PIPE BETWEEN 3-WAY VALVE AND FRYER TANK
5	84-25241	1	PIPE BETWEEN PUMP AND FRYER TANK
6	84-00634	3	COMPRESSION FITTING 90° Ø12X3/8 STAINLESS STEEL
7	84-00621	2	COMPRESSION FITTING MALE NIPPLE Ø12X3/8 STAINLESS STEEL
8	84-00637	1	BALL VALVE 3-WAY G3/8" L-PORT STAINLESS STEEL
9	84-25166	1	BRACKET FOR 3-WAY VALVE
10	84-25162	1	BRACKET FOR HANDLE FOR 3-WAY VALVE

11	84-00630	1	WELD NIPPLE G1"X135MM
12	84-00613	2	PIPE HOLDER 316F Ø12
13	84-25158	1	BRACKET FOR PIPE HOLDER
14	84-25200	1	PIPE SYSTEM BETWEEN FILTER AND PUMP
15	84-25165	1	COMPLETE HANDLE FOR FRYER OIL CLEANING
16	84-25202	1	WRENCH FOR UNION NUT
17	84-25204	1	COMPLETE PIPE BETWEEN DRAIN BUCKET AND PIPE SYSTEM
18	84-25183	1	DRAIN BUCKET OIL CLEANING FILTER PAD SYSTEM
19	84-00039	1	O-RING Ø19.6X2.4 FPM75 FK-B
20	78-43006	2	SPACER M4X20 FZB BN3319
21	84-00642	2	UNION M/F BSP 316L MFP15G
22	84-00643	2	COMPRESSION COUPLING Ø12-1/2" 316 UF1215

Filter package with 50 pcs. item number 04-21068

### 3.9.6 Spare parts list oil cleaning system (SPLIT)

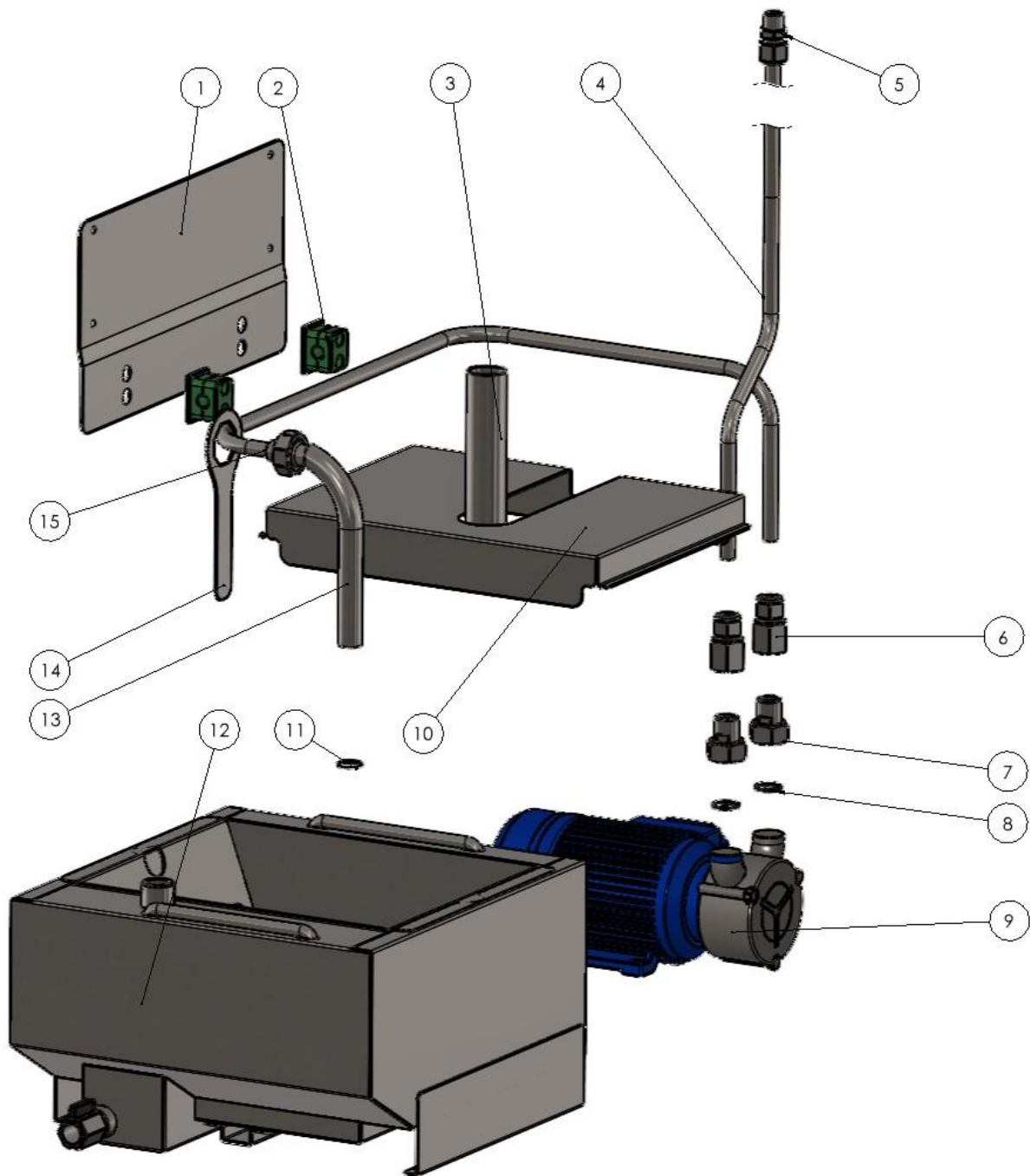


POS	ITEM NUMBER	QTY	DESCRIPTION
1	84-25158	1	BRACKET FOR PIPE HOLDER
2	84-00613	2	PIPE HOLDER 316F Ø12
3	84-00630	2	WELD NIPPLE G1"X135MM
4	84-25162	1	BRACKET FOR HANDLE FOR 3-WAY VALVE
5	84-00634	3	COMPRESSION FITTING 90° Ø12X3/8 STAINLESS STEEL
6	84-25212	1	BRACKET FOR 3-WAY VALVE SPLIT
7	84-00621	2	COMPRESSION FITTING MALE NIPPLE Ø12X3/8 STAINLESS STEEL
8	84-00637	1	BALL VALVE 3-WAY G3/8" L-PORT STAINLESS STEEL
9	84-25244	1	PIPE FOR PUMP / 3-WAY VALVE FRYER ADV SPLIT
10	84-25242	2	PIPE BETWEEN 3-WAY VALVE AND FRYER TANK
11	84-00643	2	COMPRESSION COUPLING Ø12-1/2" 316 UF1215
12	84-00642	2	UNION M/F BSP 316L MFP15G
13	84-00644	2	TEFLON GASKET Ø24X17X2 JTRU15
14	74-00082	1	PUMP EP NEOS 3/4 (0.22KW/230V)

15	84-25211	1	DRAIN PIPE FOR OIL CLEANING SPLIT
16	84-00039	1	O-RING Ø19.6X2.4 FPM75 FK-B
17	84-25183	1	DRAIN BUCKET OIL CLEANING FILTER PAD SYSTEM
18	84-25204	1	COMPLETE PIPE BETWEEN DRAIN BUCKET AND PIPE SYSTEM
19	84-25202	1	WRENCH FOR UNION NUT
20	84-25165	1	COMPLETE HANDLE FOR FRYER OIL CLEANING
21	84-25210	1	PIPE SYSTEM BETWEEN FILTER AND PUMP

Filter package with 50 pcs. item number 04-21068

### 3.9.7 Spare parts list oil cleaning system (470)

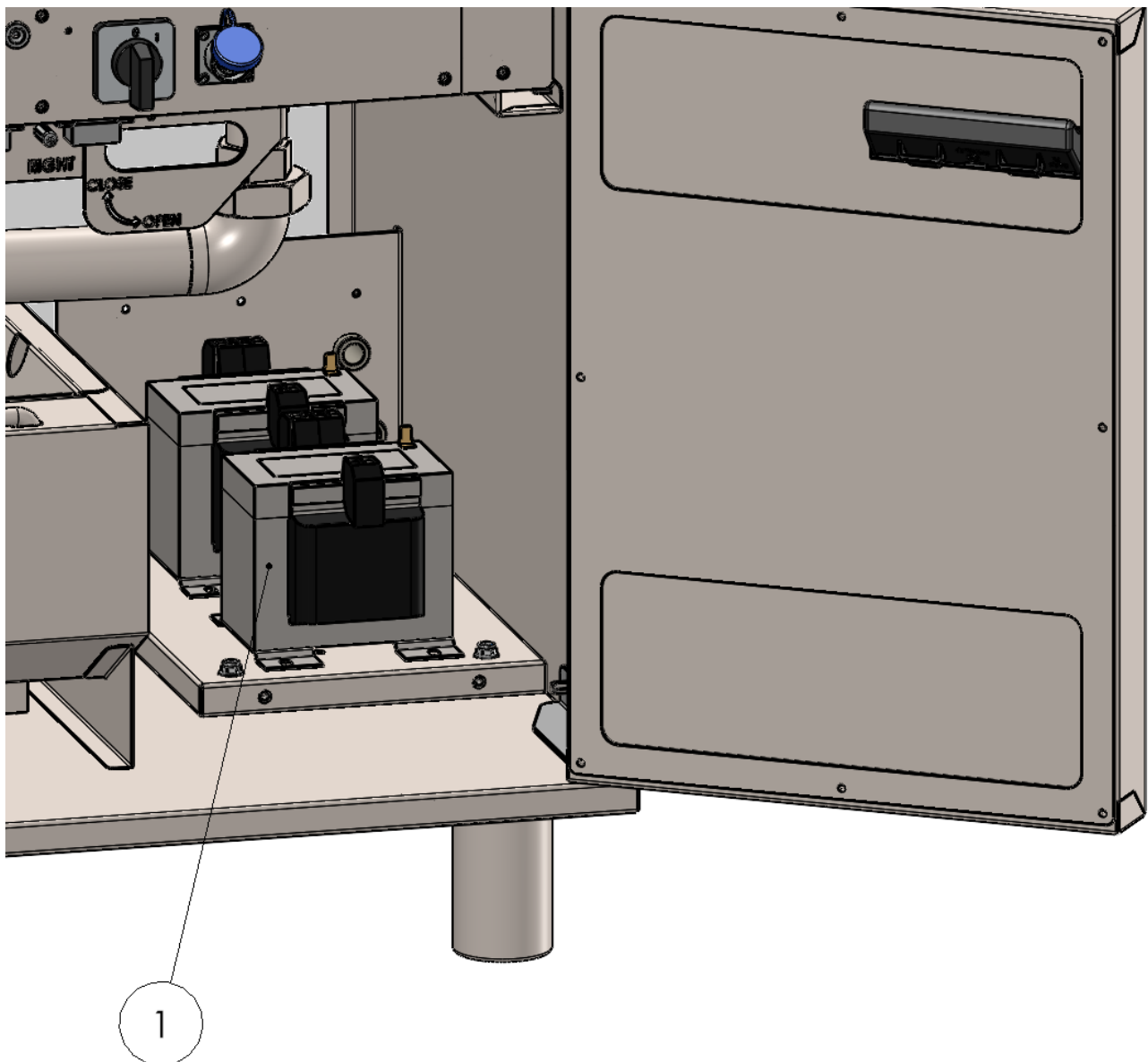


POS	ITEM NUMBER	QTY	DESCRIPTION
1	84-25158	1	BRACKET FOR PIPE HOLDER
2	84-00613	2	PIPE HOLDER 316F Ø12
3	84-00630	1	WELD NIPPLE G1"X135MM
4	84-25238	1	PIPE BETWEEN TANK AND PUMP FRYER ADV SF 430
5	84-00621	1	COMPRESSION FITTING MALE NIPPLE Ø12X3/8 STAINLESS STEEL
6	84-00643	2	COMPRESSION COUPLING Ø12-1/2" 316 UF1215
7	84-00642	2	UNION M/F BSP 316L MFP15G
8	84-00644	2	TEFLON GASKET Ø24X17X2 JTRU15
9	74-00082	1	PUMP EP NEOS 3/4 (0.22KW/230V)

10	84-25239	1	LID FOR OIL CLEANING FILTER PAD FRYER ADV SF 430 OILCLEAN
11	84-00039	1	O-RING Ø19.6X2.4 FPM75 FK-B
12	84-25183	1	DRAIN BUCKET OIL CLEANING FILTER PAD SYSTEM
13	84-25204	1	COMPLETE PIPE BETWEEN DRAIN BUCKET AND PIPE SYSTEM
14	84-25202	1	WRENCH FOR UNION NUT
15	84-25210	1	PIPE SYSTEM BETWEEN FILTER AND PUMP

Filter package with 50 pcs. item number 04-21068

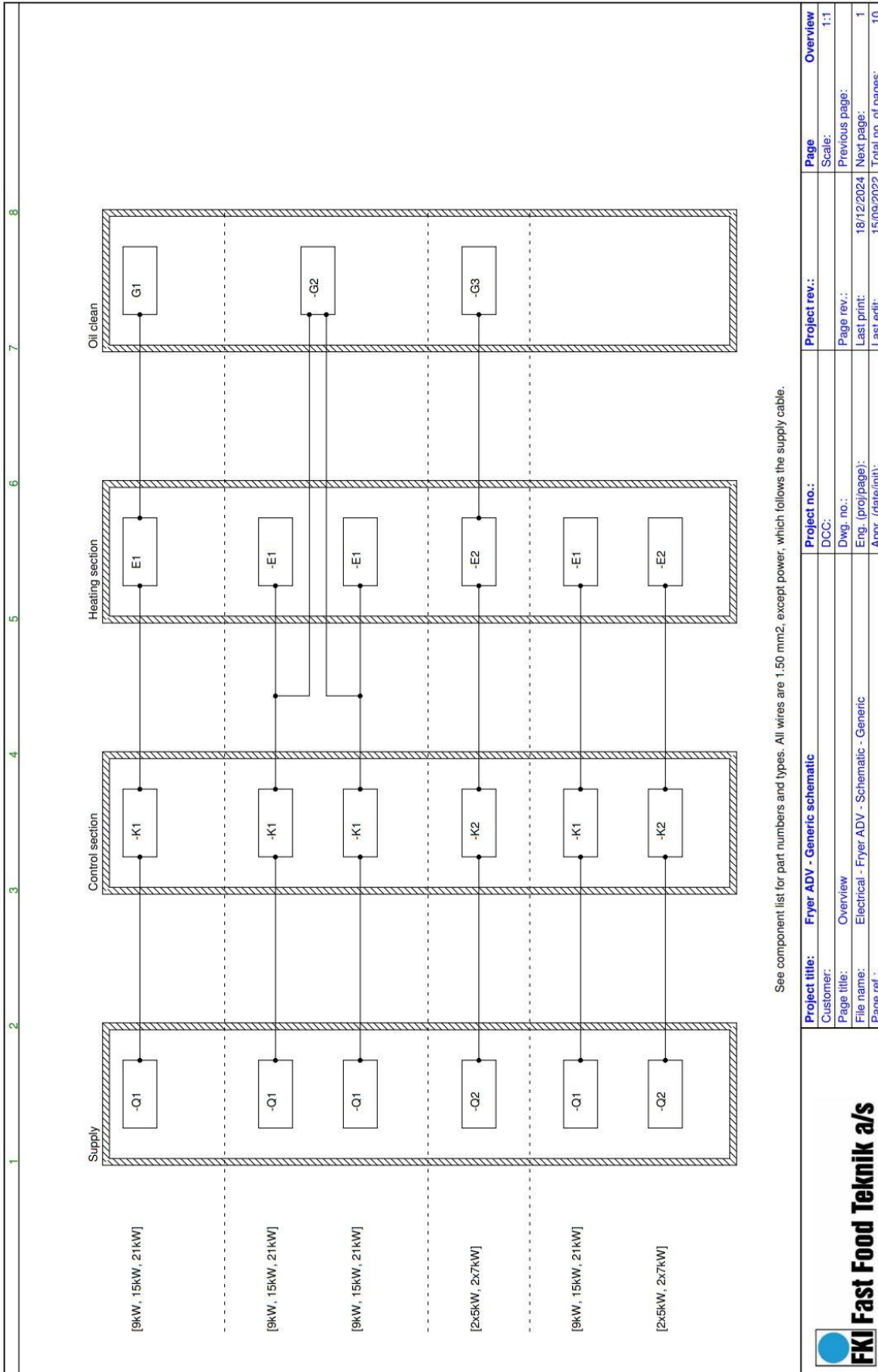
### 3.9.8 IT-system



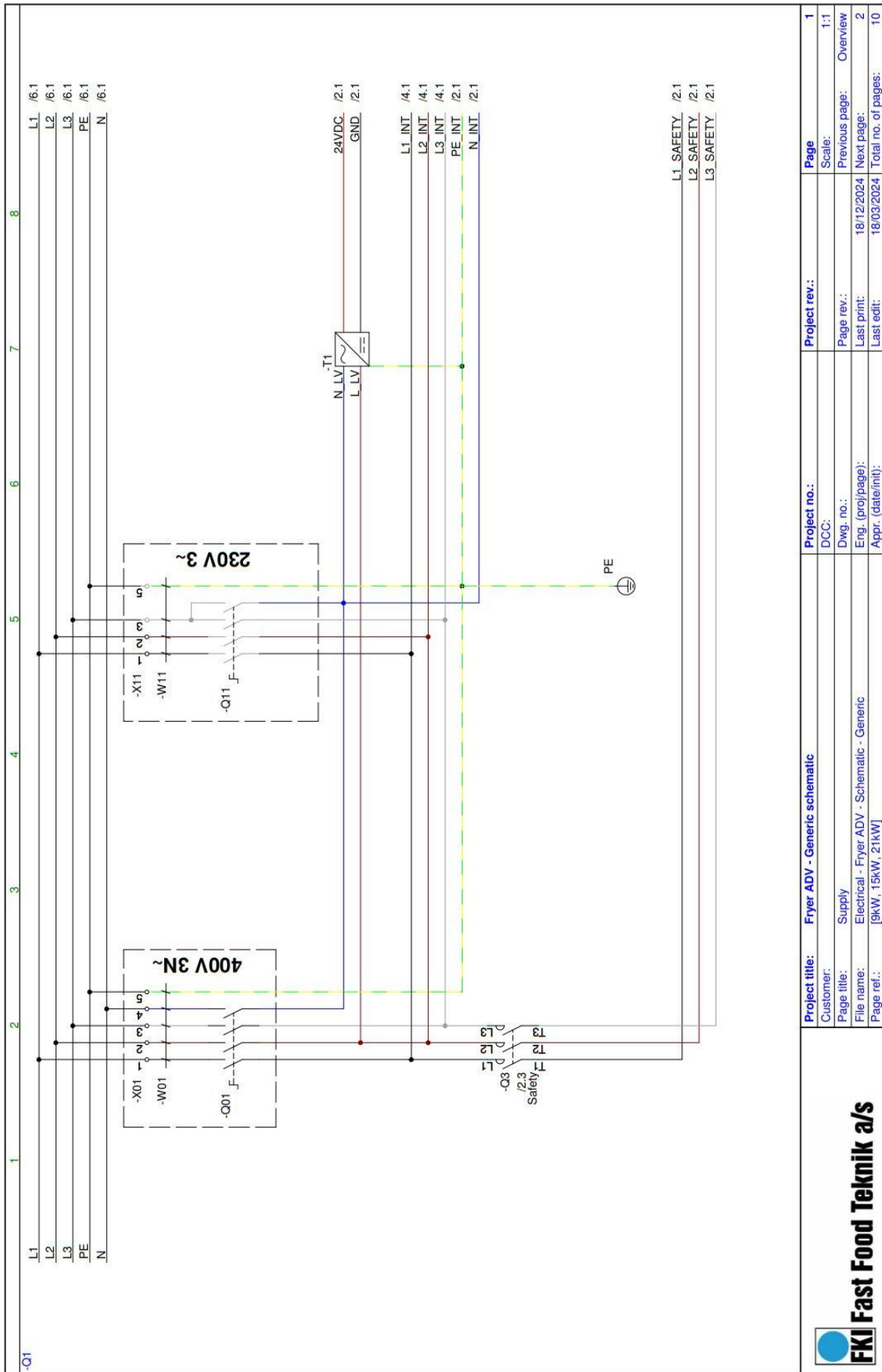
POS.	Pcs.	Varenummer	Description	System
1	2	83-10013	TRAFO 440/230V STE100/4/23	IT SYSTEM
1	2	72-07036	TRAFO 440/230V STE500/4/23	IT SYSTEM w. oilcleaning
2 page 28	2	83-09999	Sencor PT100 KL B Ø6X115/300 90° 3L 2,0 M	IT SYSTEM with/without oil- cleaning
	2	84-41014	Contactora B&J aux 1NO+1NC R25, R40, R63	IT SYSTEM with/without oil- cleaning

# 4 Electrical diagram

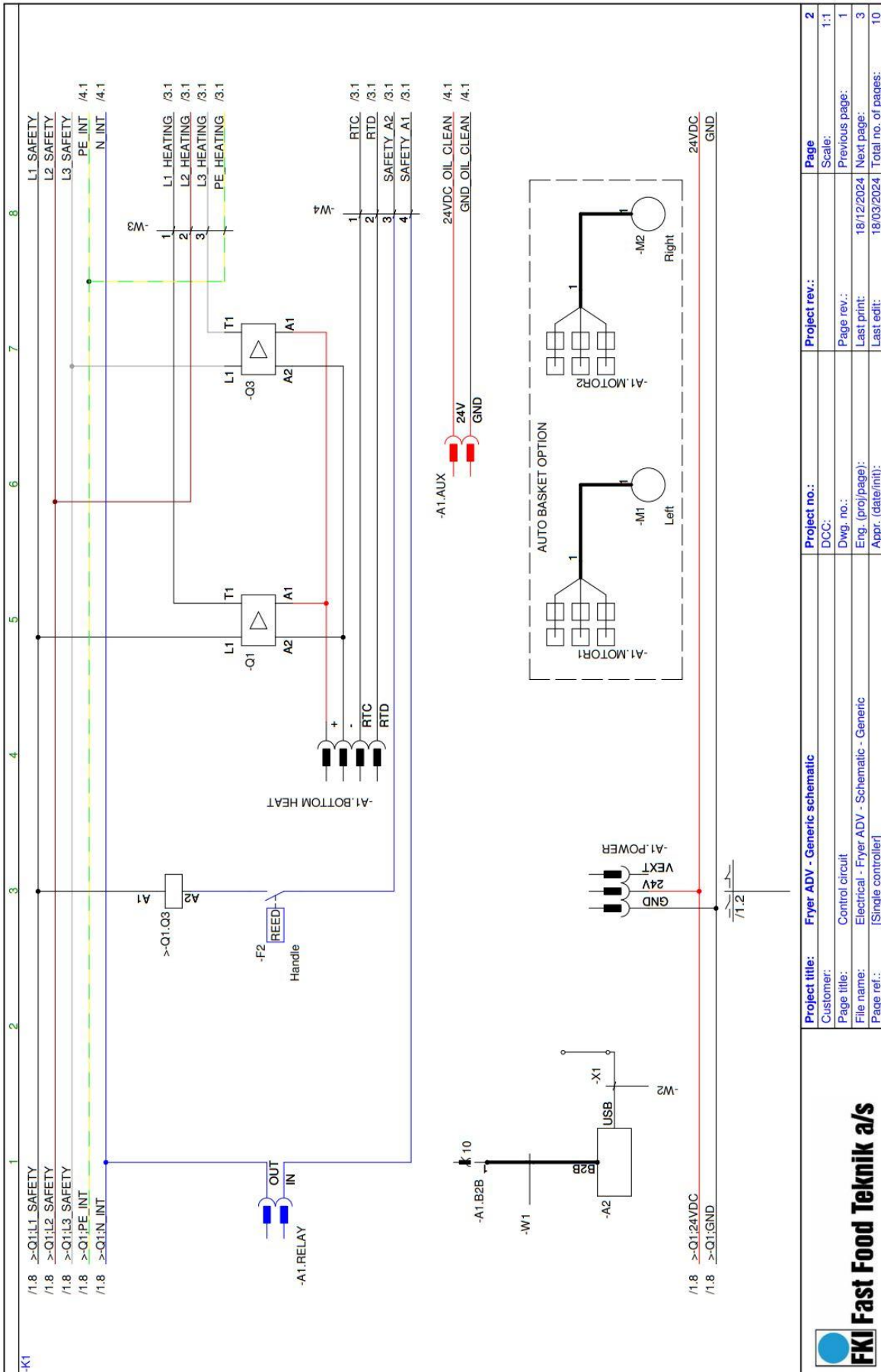
## 4.1.1 Fryer ADV 400V 3N~ / Fryer ADV 230V 3~ (Overview)



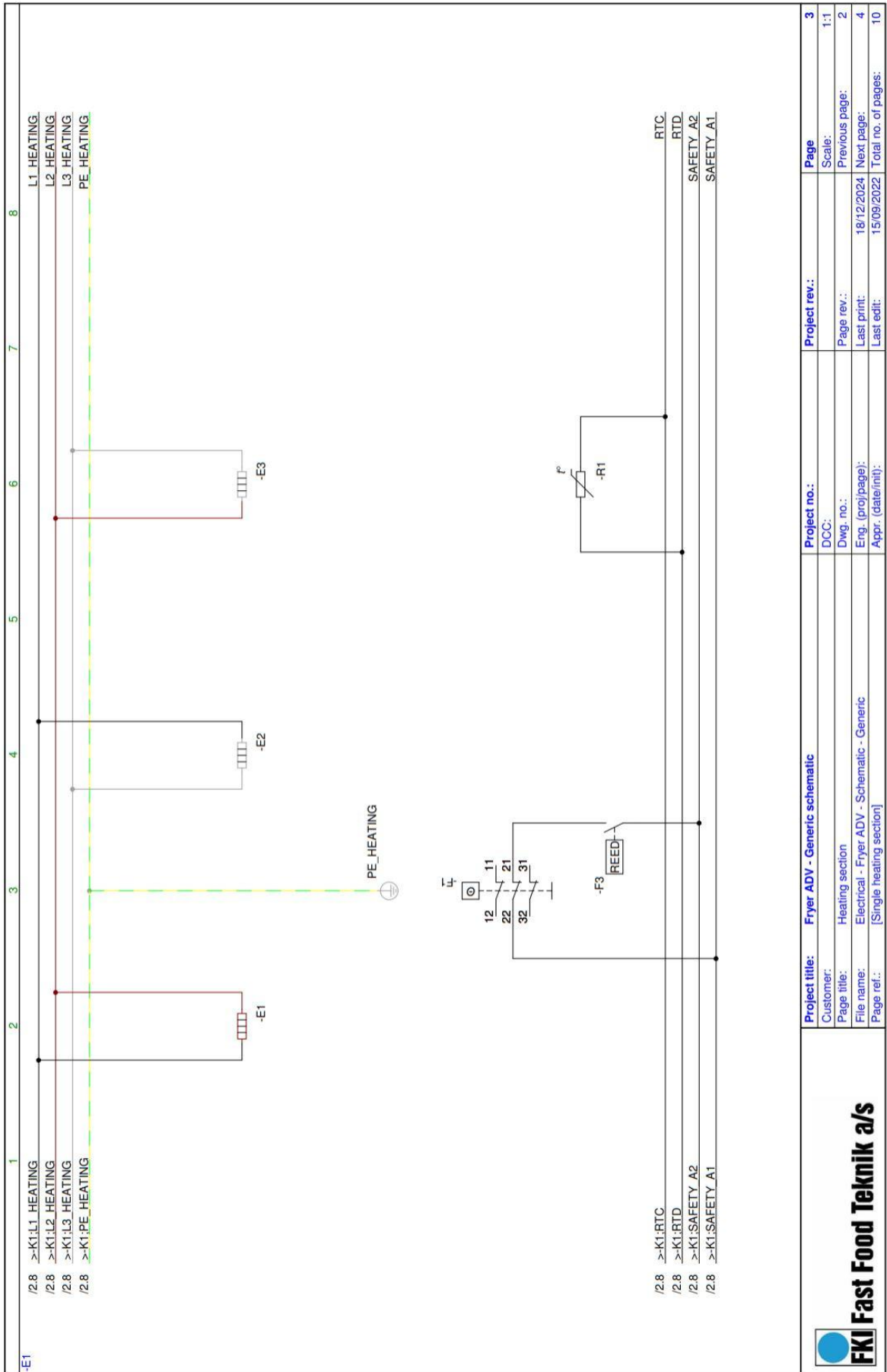
4.1.2 9kW, 15kW, 21kW



### 4.1.3 Single controller

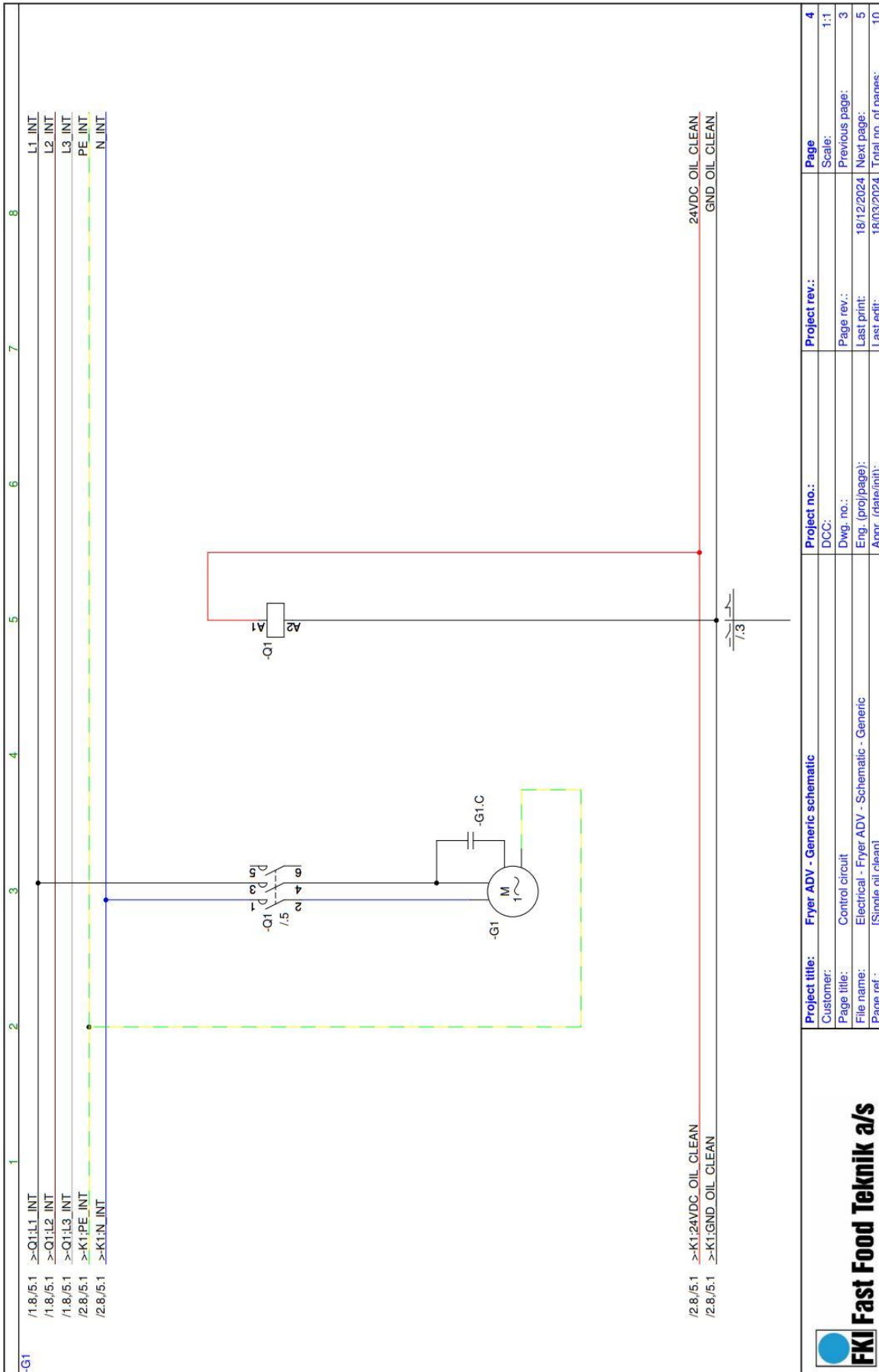


### 4.1.4 Heating section



<b>Project title:</b> Fryer ADV - Generic schematic		<b>Project no.:</b>	<b>Project rev.:</b>	<b>Page</b>
<b>Customer:</b>	DCC:			<b>Scale:</b>
<b>Page title:</b>	Dwg. no.:			1:1
<b>File name:</b>	Eng. (proj/page):			Previous page: 2
<b>Page ref.:</b>	Appr. (date/init):			Next page: 4
				Total no. of pages: 10

### 4.1.5 Single oil clean

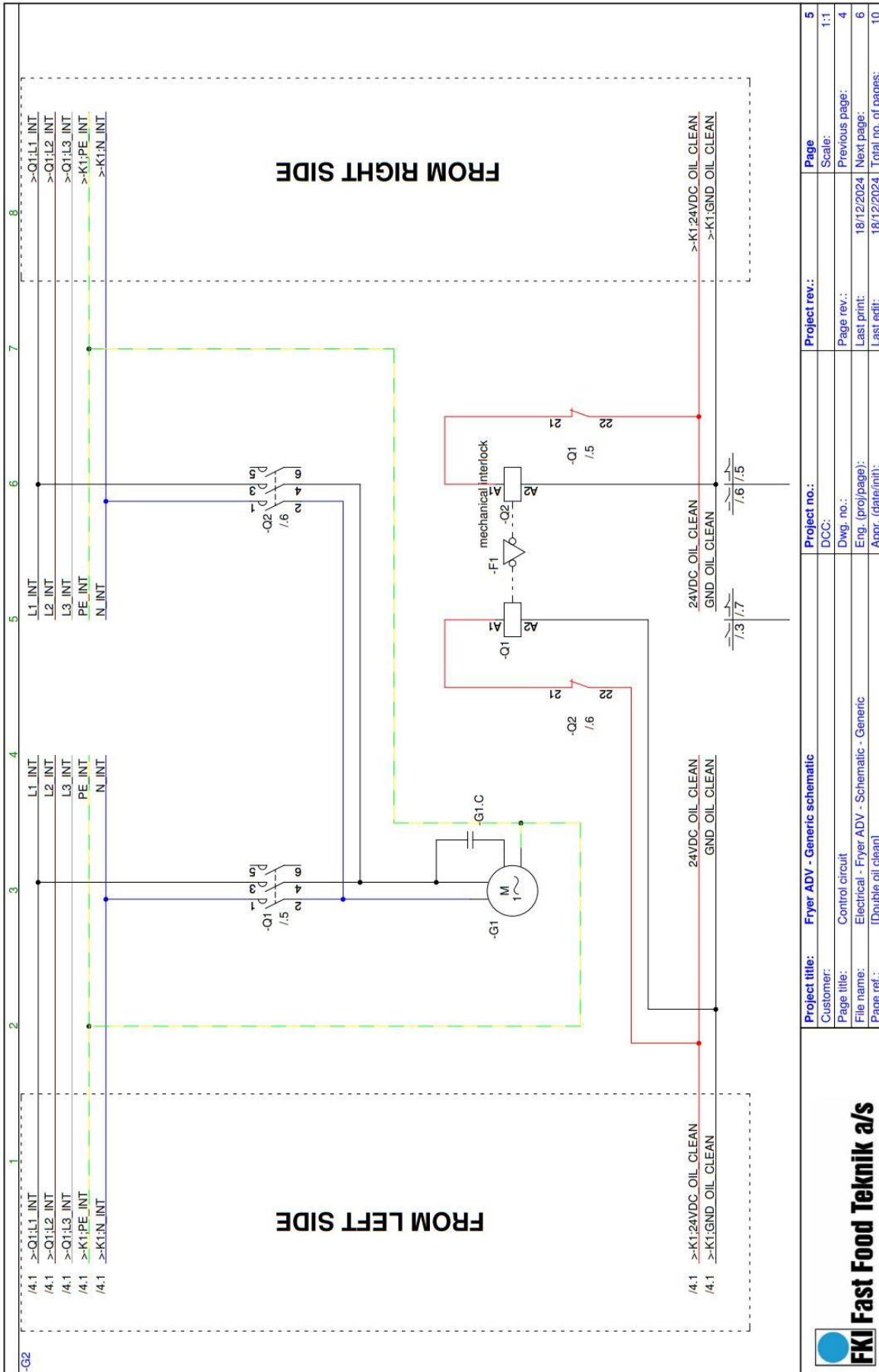


<b>Project title:</b> Fryer ADV - Generic schematic	<b>Project no.:</b>	<b>Project rev.:</b>	<b>Page</b>
<b>Customer:</b>	DCC:		<b>Scale:</b>
<b>Page title:</b> Control circuit	<b>Dwg. no.:</b>	<b>Page rev.:</b>	<b>Previous page:</b>
<b>File name:</b> Electrical - Fryer ADV - Schematic - Generic	<b>Eng. (proj/page):</b>	<b>Last print:</b>	<b>Next page:</b>
<b>Page ref.:</b> [Single oil clean]	<b>Appr. (date/init):</b>	<b>Last edit:</b>	<b>Total no. of pages:</b>
			<b>4</b>
			<b>1:1</b>
			<b>3</b>
			<b>5</b>
			<b>10</b>



**FKI Fast Food Teknik a/s**

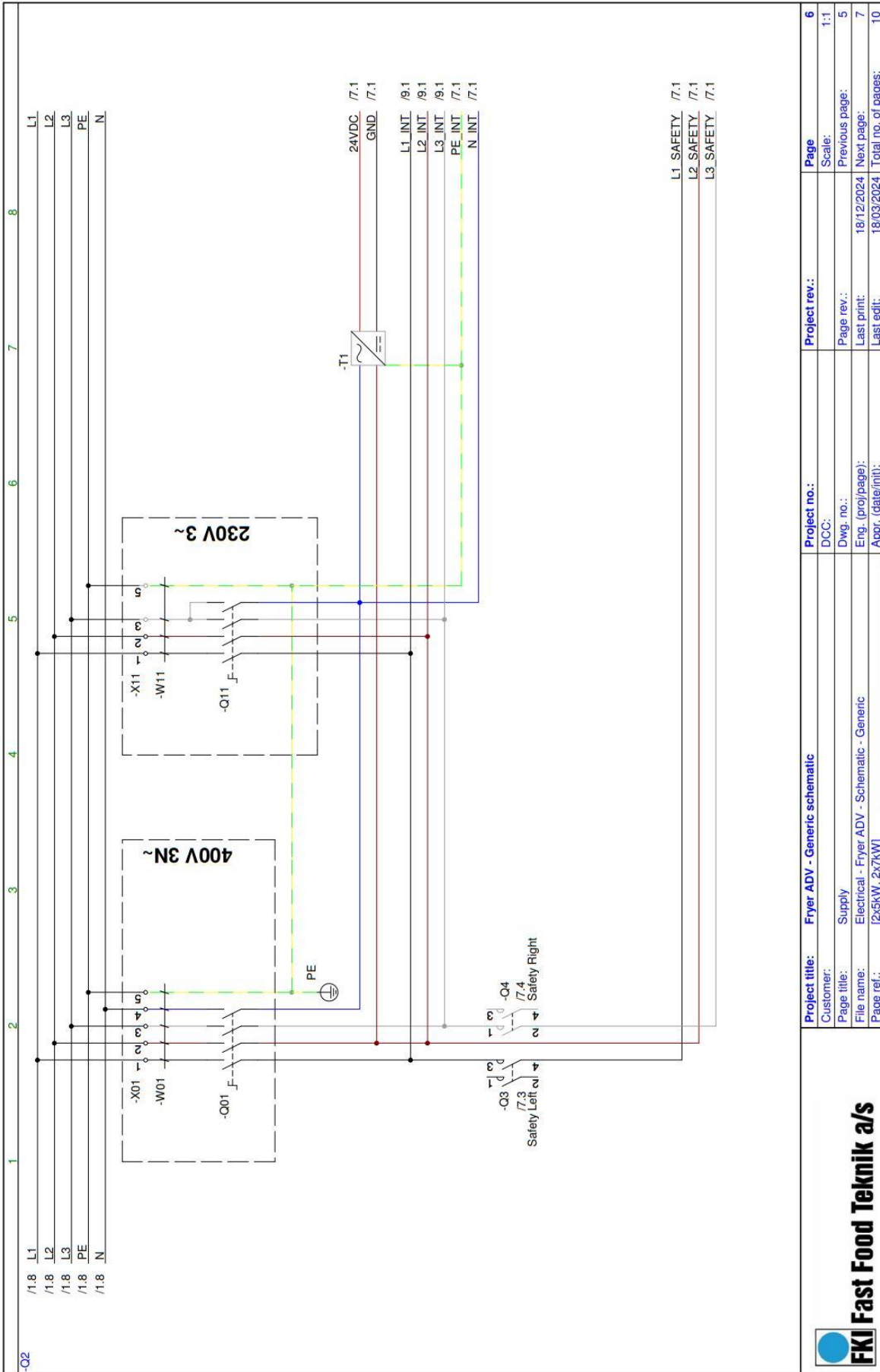
4.1.6 Double oil clean



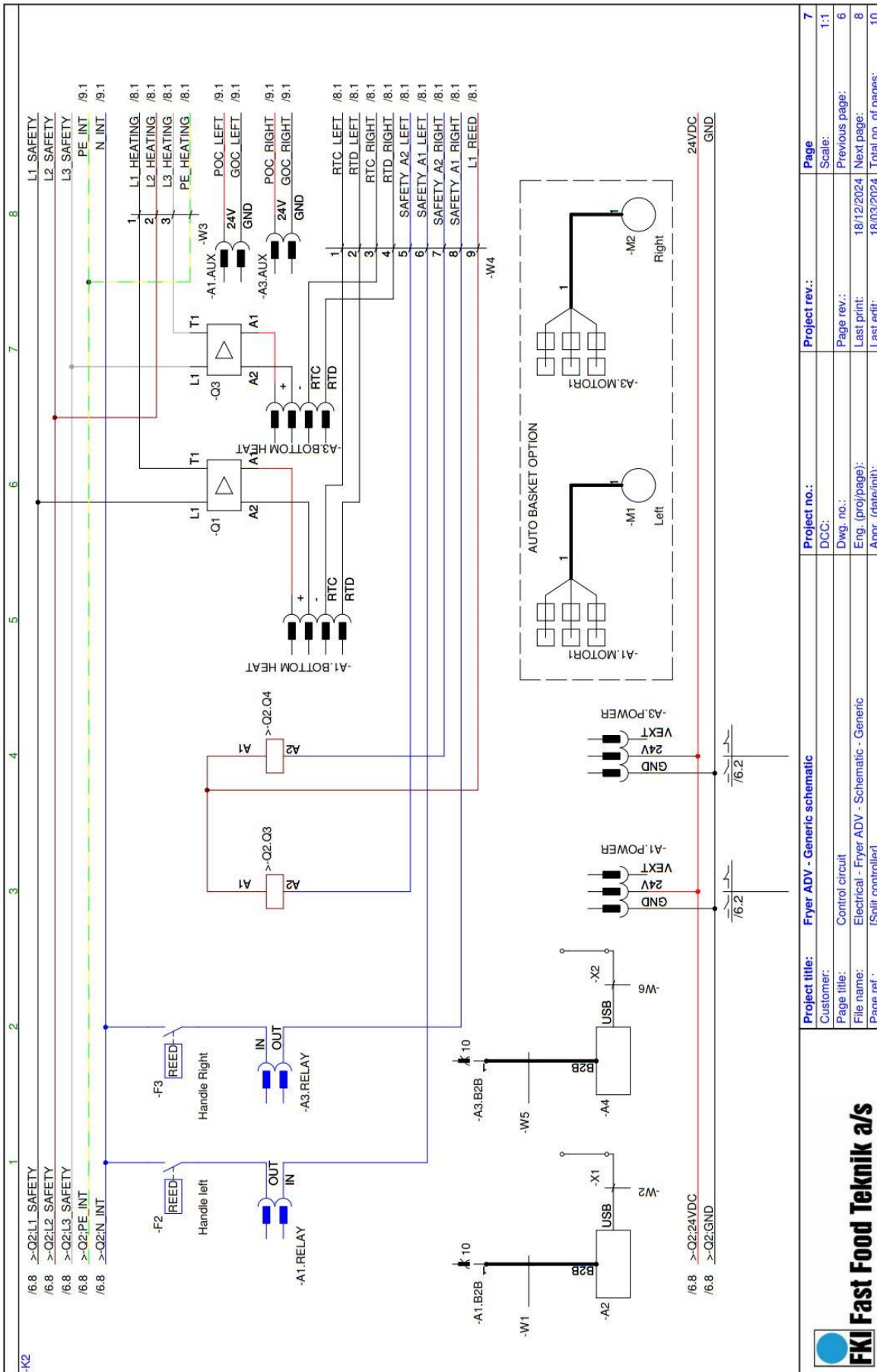
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<b>Customer:</b> Fryer ADV - Generic schematic	<b>DCC:</b>		<b>Scale:</b> 1:1
<b>Page title:</b> Control circuit	<b>Dwg. no.:</b>	<b>Page rev.:</b>	<b>Previous page:</b> 4
<b>File name:</b> Electrical - Fryer ADV - Schematic - Generic	<b>Eng. (proj/page):</b>	<b>Last print:</b> 18/12/2024	<b>Next page:</b> 6
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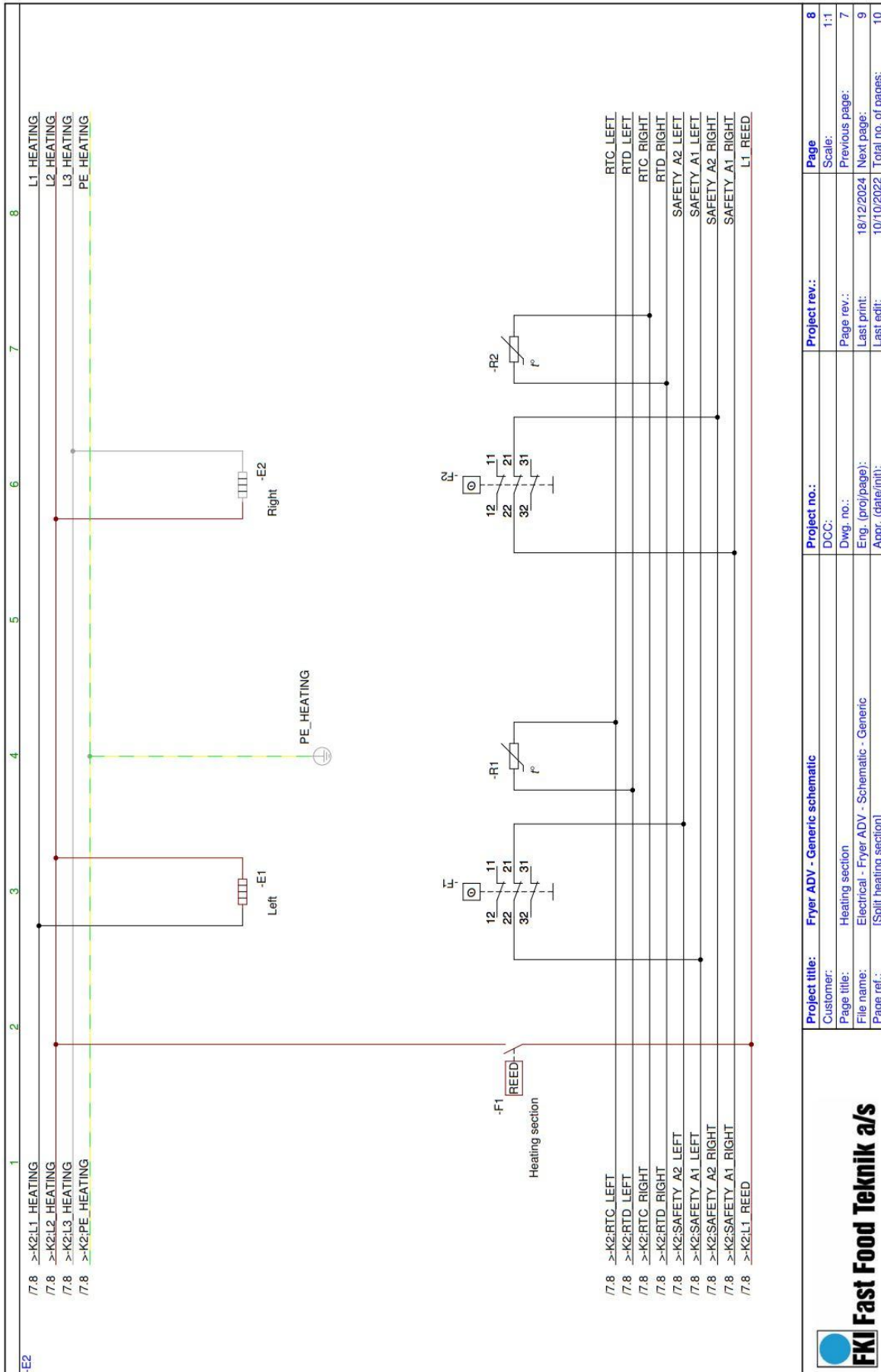
4.1.7 2x5kW, 2x7kW



### 4.1.8 Split controller

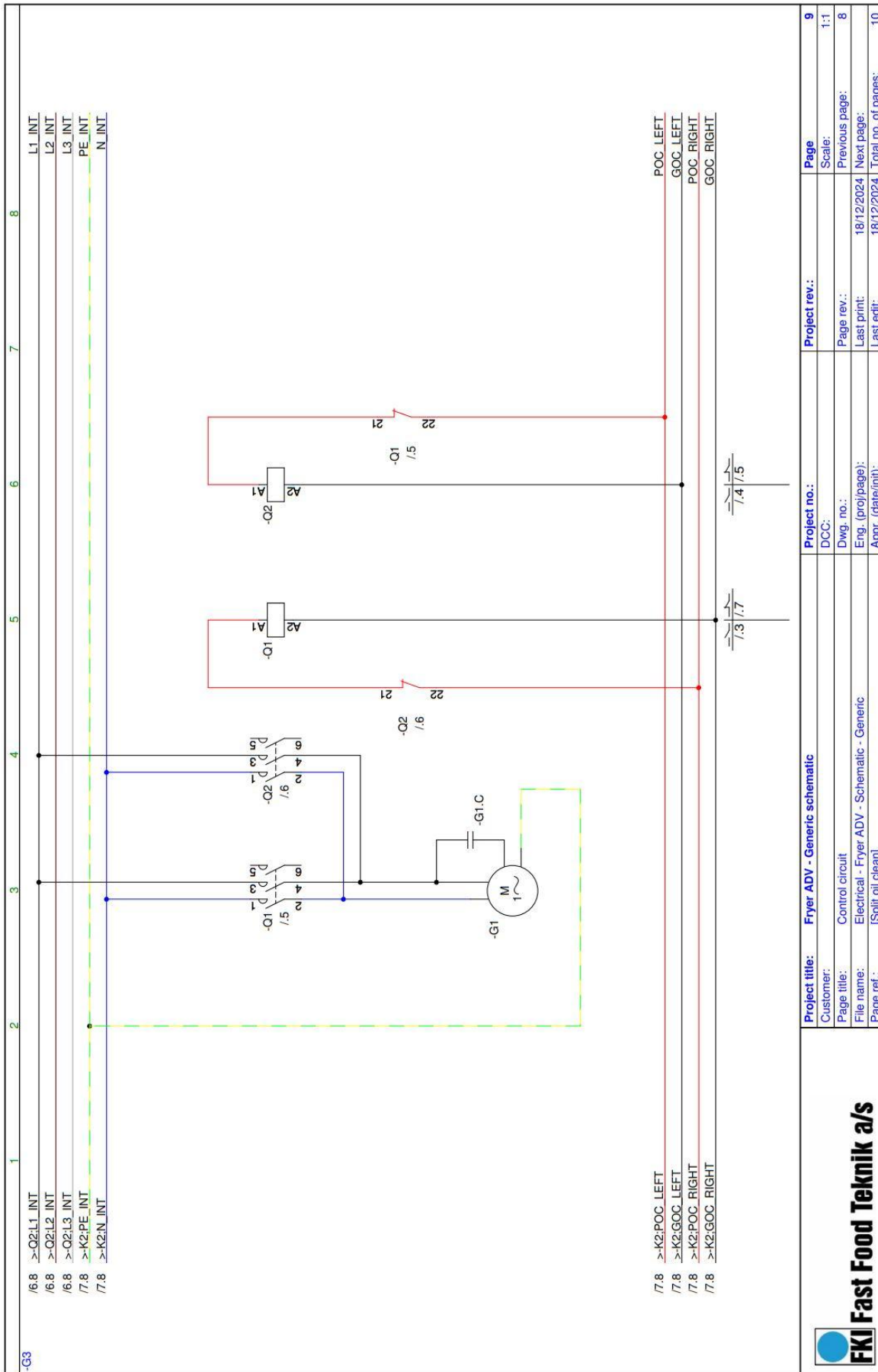


### 4.1.9 Split heating section



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Customer:	Fryer ADV - Generic schematic
Page title:	Heating section
File name:	Electrical - Fryer ADV - Schematic - Generic
Page ref.:	[Split heating section]
Project no.:	DCG:
Dwg. no.:	
Eng. (proj/page):	18/12/2024
Appr. (date/init):	10/10/2022
Project rev.:	
Scale:	1:1
Page no.:	7
Previous page:	
Next page:	9
Last edit:	
Total no. of pages:	10

4.1.10 Split oil clean



- 1 /6.8 >-Q2:L1\_INT
- 2 /6.8 >-Q2:L2\_INT
- 3 /6.8 >-Q2:L3\_INT
- 4 /7.8 >-K2:PE\_INT
- 5 /7.8 >-K2:N\_INT
- 6 L1\_INT
- 7 L2\_INT
- 8 L3\_INT
- PE\_INT
- N\_INT

- 7.8 >-K2:POC\_LEFT
- 7.8 >-K2:GOC\_LEFT
- 7.8 >-K2:POC\_RIGHT
- 7.8 >-K2:GOC\_RIGHT

<b>Project title:</b> Fryer ADV - Generic schematic	<b>Project no.:</b>	<b>Project rev.:</b>	<b>Page:</b> 9
<b>Customer:</b>	<b>DCC:</b>		<b>Scale:</b> 1:1
<b>Page title:</b> Control circuit	<b>Dwg. no.:</b>	<b>Page rev.:</b>	<b>Previous page:</b> 8
<b>File name:</b> Electrical - Fryer ADV - Schematic - Generic	<b>Eng. (proj/page):</b>	<b>Last print:</b> 18/12/2024	<b>Next page:</b>
<b>Page ref.:</b> [Split oil clean]	<b>Appr. (date/init):</b>	<b>Last edit:</b> 18/12/2024	<b>Total no. of pages:</b> 10



## 4.1.11 Component overview Fryer ADV 400V 3N~

14-08-2023

### Fryer ADV 400V 3N~

Function	Component	9kW	15kW	21kW	10kW	14kW
Main Switch	.O01	M1CH (20A) 83-41011	N33F (50A) 83-41013	N33F (50A) 83-41013	N33F (50A) 83-41013	N33F (50A) 83-41013
Safety contactor	.O3	LCD08P7 83-41001	LCD08P7 83-41008	LCD08P7 83-41004	R40-20-230 83-41000	R40-20-230 83-41000
Safety contactor	.O4				R40-20-230 83-41000	R40-20-230 83-41000
Power Supply	.T1	ECS130US24 72-07013	ECS130US24 72-07013	ECS130US24 72-07013	ECS130US24 72-07013	ECS130US24 72-07013
Supply plug	.X01	Customer specific	Customer specific	Customer specific	Customer specific	Customer specific
Supply cable	.W01	5G1.5 / 3.5m 72-08672	5G2.5 / 3.5m 72-03674	5G4.0 / 3.5m 72-03545	5G2.5 / 3.5m 72-03674	5G4.0 / 3.5m 72-03545

Function	Component	9kW	15kW	21kW	10kW	14kW
Heating element	.E1	3kW / 400V 84-00056	5kW / 400V 84-00061	7kW / 400V 84-00072	5kW / 400V 84-00061	7kW / 400V 84-00072
Heating element	.E2	3kW / 400V 84-00056	5kW / 400V 84-00061	7kW / 400V 84-00072	5kW / 400V 84-00061	7kW / 400V 84-00072
Heating element	.E3	3kW / 400V 84-00056	5kW / 400V 84-00061	7kW / 400V 84-00072	5kW / 400V 84-00061	7kW / 400V 84-00072
PT100 sensor	.R1	83-10002	83-10002	83-10002	83-10002	83-10002
PT100 sensor	.R2				83-10002	83-10002
Safety thermostat	.F1	55.33542.070 72-03615	55.33542.070 72-03615	55.33542.070 72-03615	55.33542.070 72-03615	55.33542.070 72-03615
Safety thermostat	.F2				55.33542.070 72-03615	55.33542.070 72-03615
Reed re lay	.F3	MS-228M-6-4 72-00022	MS-228M-6-4 72-00022	MS-228M-6-4 72-00022	MS-228M-6-4 72-00022	MS-228M-6-4 72-00022

Function	Component	.G1	.G2	.G3
Latch contactor	.Q1	LCD25B0 72-07020	LCD25B0 72-07020	LP1K0901B0 72-07027
Latch contactor	.Q2		LCD25B0 72-07020	LP1K0901B0 72-07027
Mechanical interlock	.F1		LAD9V2 83-41007	
Pump	.G1	EP NEOS 3/4 74-00082	EP NEOS 3/4 74-00082	EP NEOS 3/4 74-00082

Plugs per Control Card	Component	Part no.
Power Supply	.POWER	72-07003
SSR and PT100	.BOTTOM HEAT	72-07004
Oil Clean	.AUX	72-07000
Contactors control	.RELAY	72-07001

\*72-08001: if oil clean is installed

Function	Component	.K1	.K2
Control Card	.A1	CTL Print 72-08003	CTL Print 72-08003
Control Card	.A3		CTL Print 72-08003
Graphical Interface	.A2	GUI PRINT 72-08000*	GUI PRINT 72-08000*
Graphical Interface	.A4		GUI PRINT 72-08000*
Motor left	.M1	LA31 83-10803	LA31 83-10803
Motor right	.M2	LA31 83-10803	LA31 83-10803
Latch SSR L1	.Q1	3.5-32VDC 95A 72-00152	3.5-32VDC 95A 72-00152
Latch SSR L3	.Q3	3.5-32VDC 95A 72-00152	3.5-32VDC 95A 72-00152
Board to board connector	.W1	HCS5 5" 72-07011	HCS5 5" 72-07011
USB cable	.W2		72-07029
Power cable	.W3	1.8m As supply cable	2.2m As supply cable
Signal cable	.W4	46G0.75 / 1.8m	10G0.75 / 2.2m
Board to board connector	.W5		HCS5 5" 72-07011
USB cable	.W6		72-07014
USB connector	.X1	LP-24-USB-P01 72-07015	LP-24-USB-P01 72-07015
USB connector	.X2		LP-24-USB-P01 72-07015
Reed re lay	.F2	MS-228M-6-4 72-00022	MS-228M-6-4 72-00022
Reed re lay	.F3		MS-228M-6-4 72-00022

## 4.1.12 Component overview Fryer ADV 230V 3~

14-08-2023

### Fryer ADV 230V 3~

Function	Component	9kW	15kW	10kW
Main Switch	.Q11	N33F (50A) 83-41013	N33F (50A) 83-41013	N33F (50A) 83-41013
Safety contactor	.Q3	LC1D32P7 83-41003	R40-30-230 83-41004	R40-30-230 83-41000
Safety contactor	.Q4			R40-20-230 83-41000
Power Supply	.T1	EC5130US24 72-07013	EC5130US24 72-07013	EC5130US24 72-07013
Supply plug	.X11	Customer specific	Customer specific	Customer specific
Supply cable	.W11	4G2.5 / 3.5m 72-03528	4G6.0 / 3.5m 72-03530	4G6.0 / 3.5m 72-03530

Function	Component	9kW	15kW	10kW
Heating element	.E1	3kW / 230V 84-00057	5kW / 230V 84-00062	5kW / 230V 84-00062
Heating element	.E2	3kW / 230V 84-00057	5kW / 230V 84-00062	5kW / 230V 84-00062
Heating element	.E3	3kW / 230V 84-00057	5kW / 230V 84-00062	
PT100 sensor	.R1	83-10002	83-10002	83-10002
PT100 sensor	.R2			83-10002
Safety thermostat	.F1	55.33542.070 72-03615	55.33542.070 72-03615	55.33542.070 72-03615
Safety thermostat	.F2			55.33542.070 72-03615
Reed relay	.F3	MS-228M-6-4 72-00022	MS-228M-6-4 72-00022	MS-228M-6-4 72-00022

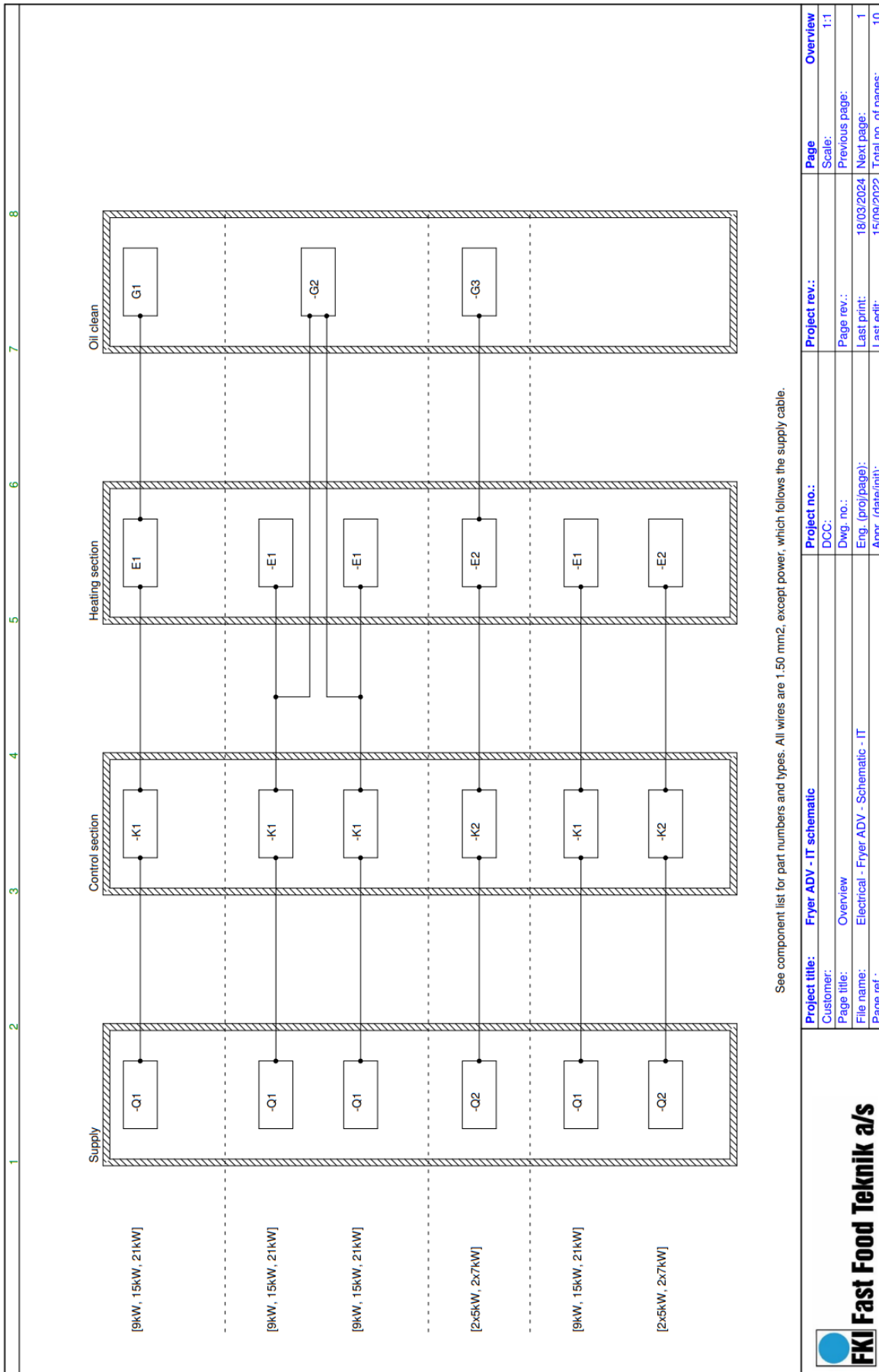
Function	Component	.G1	.G2	.G3
Latch contactor	.Q1	LC1D25BD 72-07020	LC1D25BD 72-07020	LP1K0901BD 72-07027
Latch contactor	.Q2		LC1D25BD 72-07020	LP1K0901BD 72-07027
Mechanical interlock	.F1		LAD9V2 83-41007	
Pump	.G1	EP NEOS 3/4 74-00082	EP NEOS 3/4 74-00082	EP NEOS 3/4 74-00082

Plugs per Control Card	Component	Part no.
Power Supply	.POWER	72-07003
SSR and PT100	.BOTTOM HEAT	72-07004
Oil Clean	.AUX	72-07000
Contacteur control	.RELAY	72-07001

Function	Component	.K1	.K2
Control card	.A1	CTL Print 72-08003	CTL Print 72-08003
Control card	.A3		CTL Print 72-08003
Graphical interface	.A2	GUI PRINT 72-08000*	GUI PRINT 72-08000*
Graphical interface	.A4		GUI PRINT 72-08000*
Motor left	.M1	LA31 83-10803	LA31 83-10803
Motor right	.M2	LA31 83-10803	LA31 83-10803
Latch SSR L1	.O1	3.5-32VDC 95A 72-00152	3.5-32VDC 95A 72-00152
Latch SSR L3	.O3	3.5-32VDC 95A 72-00152	3.5-32VDC 95A 72-00152
Board to board connector	.W1	HCSID 5"	HCSID 5"
USB cable	.W2		72-07011
Power cable	.W3	72-07029 1.8m	72-07029 2.2m
Signal cable	.W4	As supply cable 46G/75 / 1.8m	As supply cable 10G/75 / 2.2m
Board to board connector	.W5		HCSID 5"
USB cable	.W6		72-07011
USB connector	.X1	LP-24-USB-P01 72-07015	LP-24-USB-P01 72-07015
USB connector	.X2		LP-24-USB-P01 72-07015
Reed relay	.F2	MS-228M-6-4 72-00022	MS-228M-6-4 72-00022
Reed relay	.F3		MS-228M-6-4 72-00022

\*72-08001: if oil clean is installed

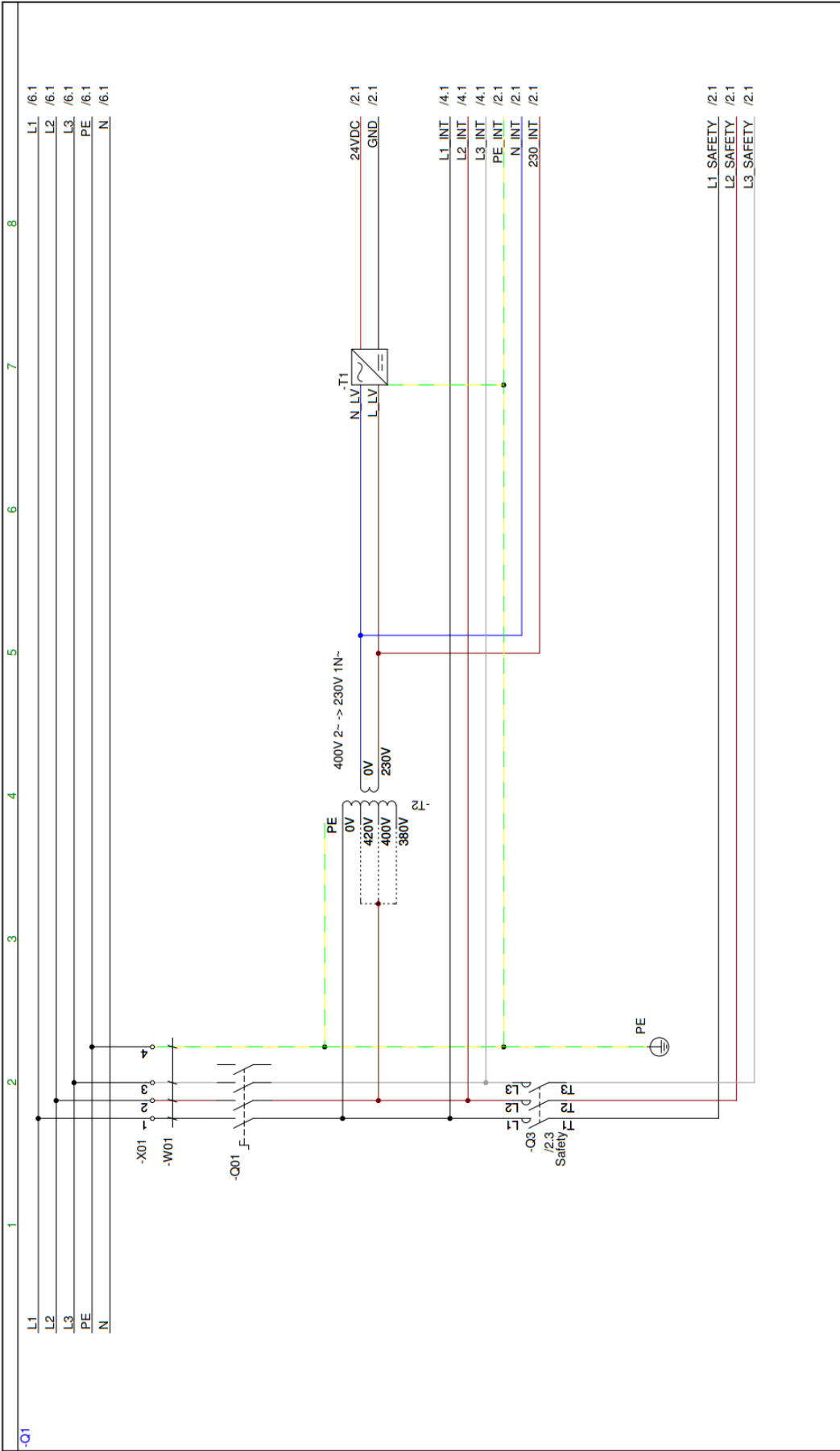
4.1.13 IT System 400V 3~



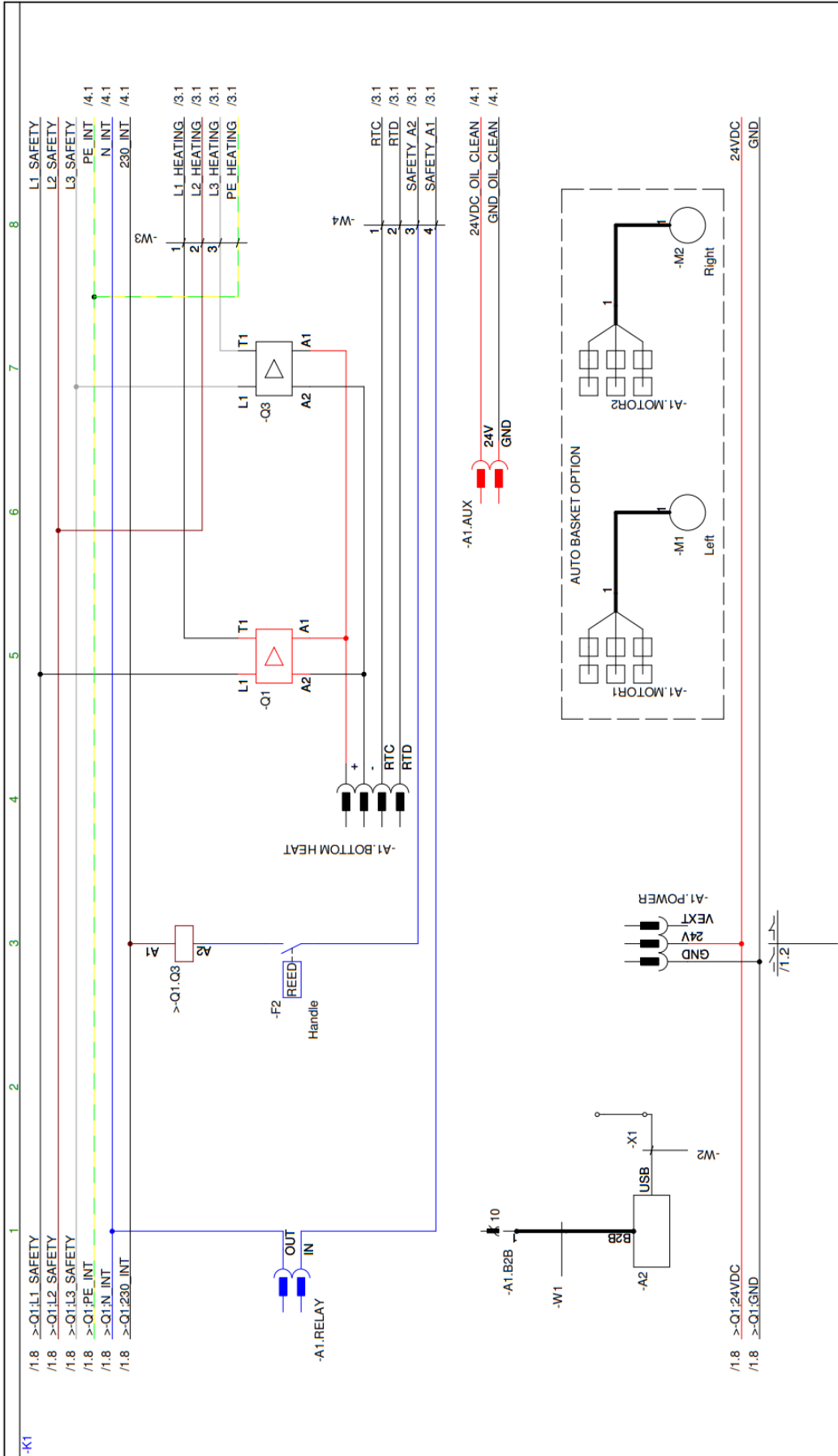
See component list for part numbers and types. All wires are 1.50 mm<sup>2</sup>, except power, which follows the supply cable.

Project title: Fryer ADV - IT schematic		Project no.:	Project rev.:	Page	Overview
Customer:	Fryer ADV	DCC:	Scale:	1:1	
Page title:	Overview	Dwg. no.:	Page rev.:	Previous page:	
File name:	Electrical - Fryer ADV - Schematic - IT	Eng. (proj/page):	Last print:	18/03/2024	Next page:
Page ref.:		Appr. (date/init):	Last edit:	15/09/2022	Total no. of pages:
					10



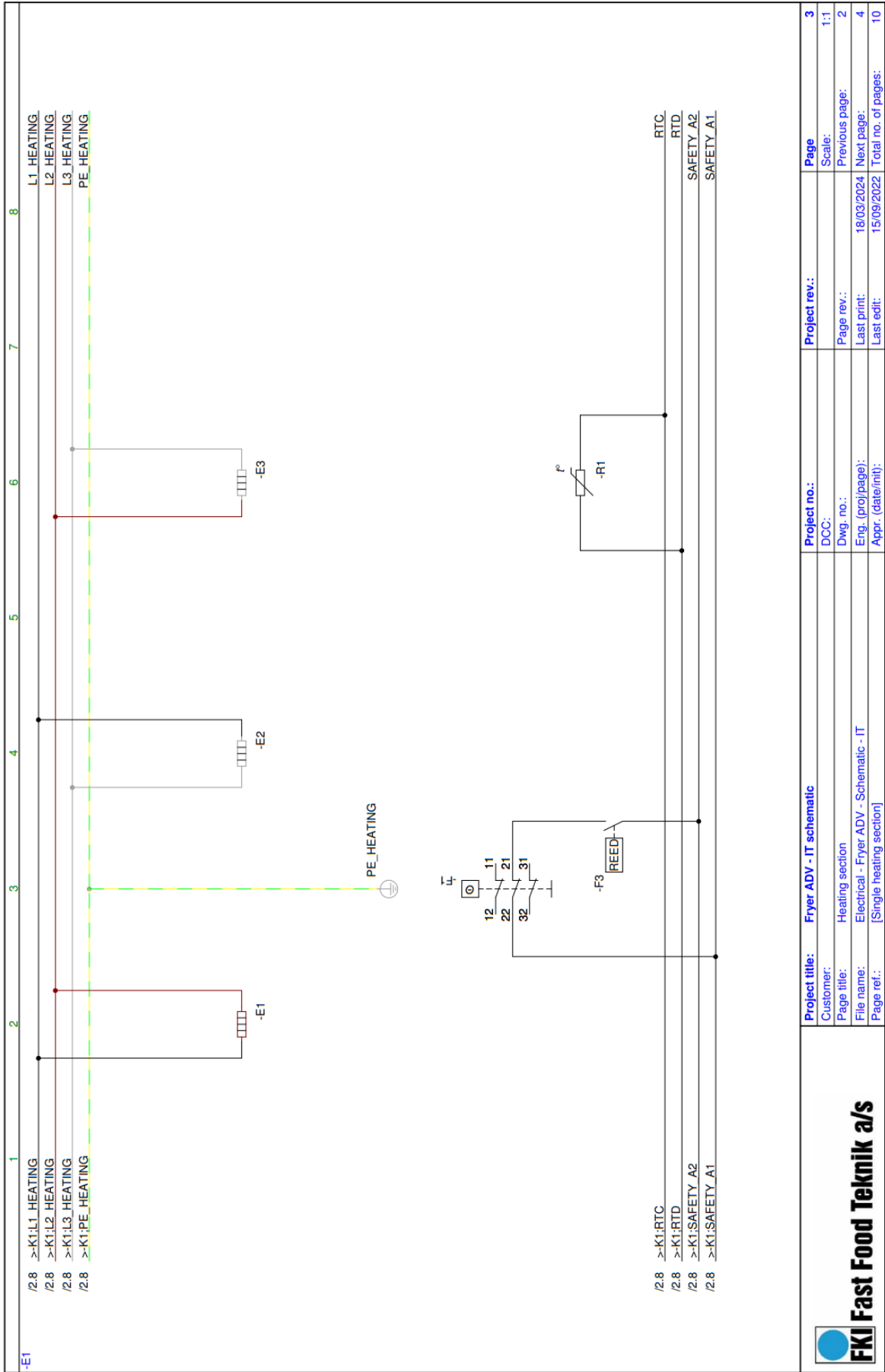


<b>FKI Fast Food Teknik a/s</b>		<b>Project title:</b> Fryer ADV - IT schematic	<b>Project no.:</b>	<b>Project rev.:</b>	<b>Page</b>
<b>Customer:</b> Supply	<b>Page title:</b> Electrical - Fryer ADV - Schematic - IT	<b>DCC:</b>			<b>Scale:</b> 1:1
<b>File name:</b> [9kW, 15kW, 21kW]		<b>Eng. (proj/page):</b>			<b>Previous page:</b> Overview
<b>Page ref.:</b>		<b>Appr. (date/int):</b>			<b>Last print:</b> 18/03/2024
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					<b>Last edit:</b> 18/03/2024
					<b>Total no. of pages:</b> 10



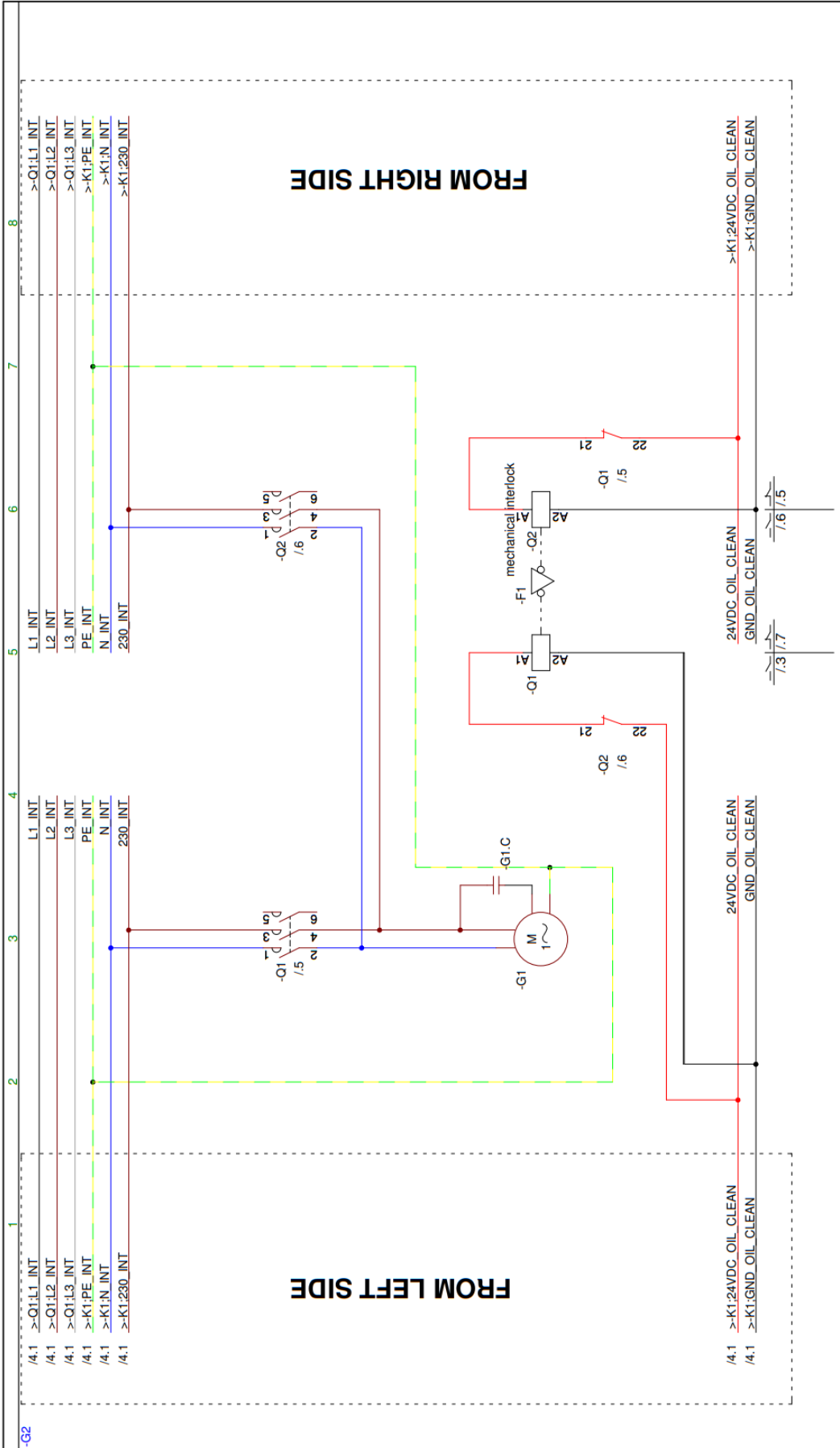
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<b>Customer:</b> Control circuit	<b>DCC:</b>		<b>Scale:</b>
<b>Page title:</b> Electrical - Fryer ADV - Schematic - IT	<b>Dwg. no.:</b>		<b>1:1</b>
<b>File name:</b> [Single controller]	<b>Eng. (proj/page):</b>	<b>18/03/2024</b>	<b>Next page:</b>
<b>Page ref.:</b>	<b>Appr. (date/mt):</b>	<b>18/03/2024</b>	<b>Last print:</b>
			<b>Last edit:</b>
			<b>Total no. of pages:</b>
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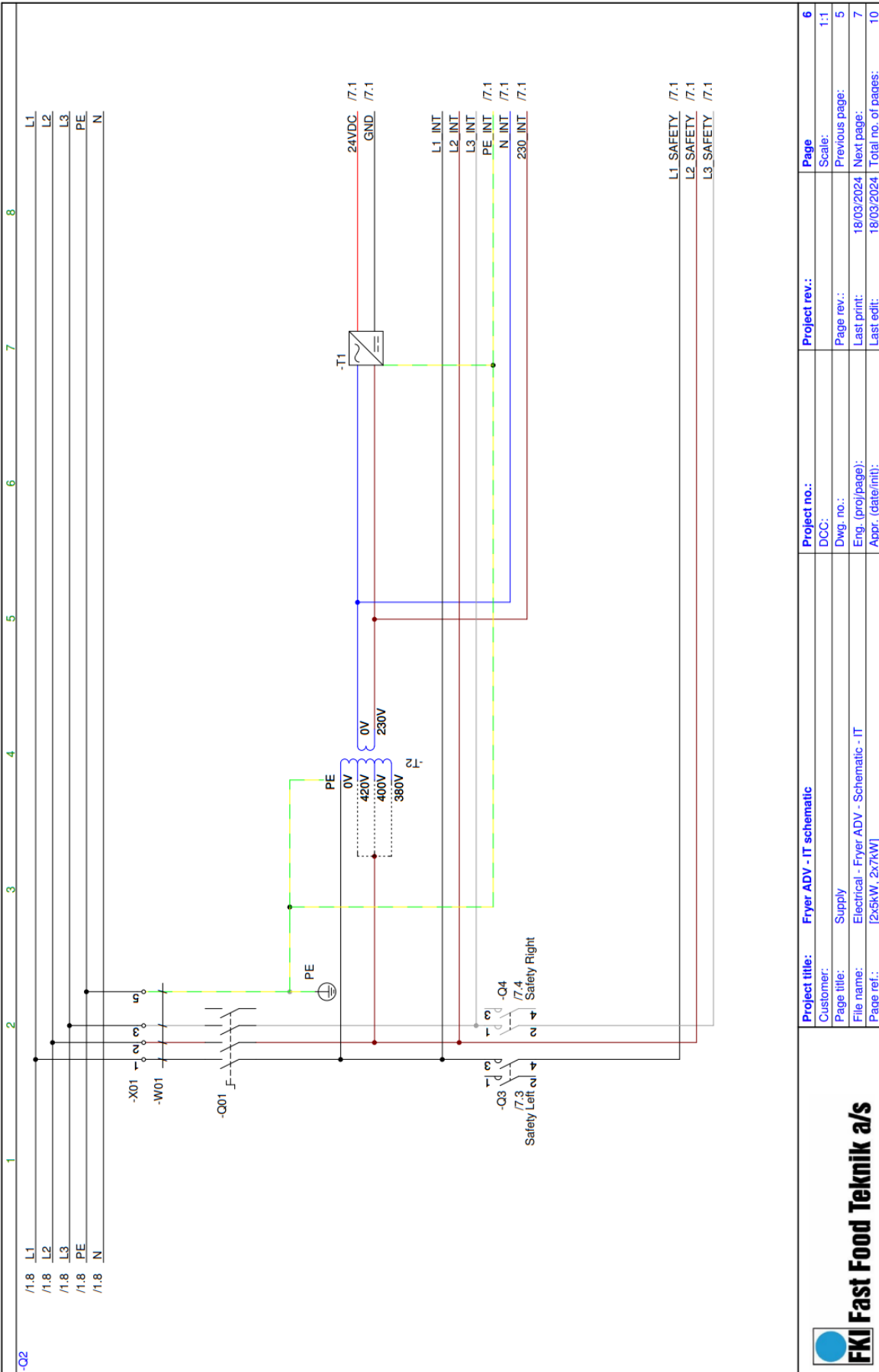
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**Customer:**  
**Page title:** Heating section  
**File name:** Electrical - Fryer ADV - Schematic - IT  
**Page ref.:** [Single heating section]

Project no.:	Project rev.:	Page
DCC:		Scale: 1:1
Dwg. no.:		Previous page: 2
Eng. (proj/page):	18/03/2024	Next page: 4
Appr. (date/init):	15/09/2022	Total no. of pages: 10



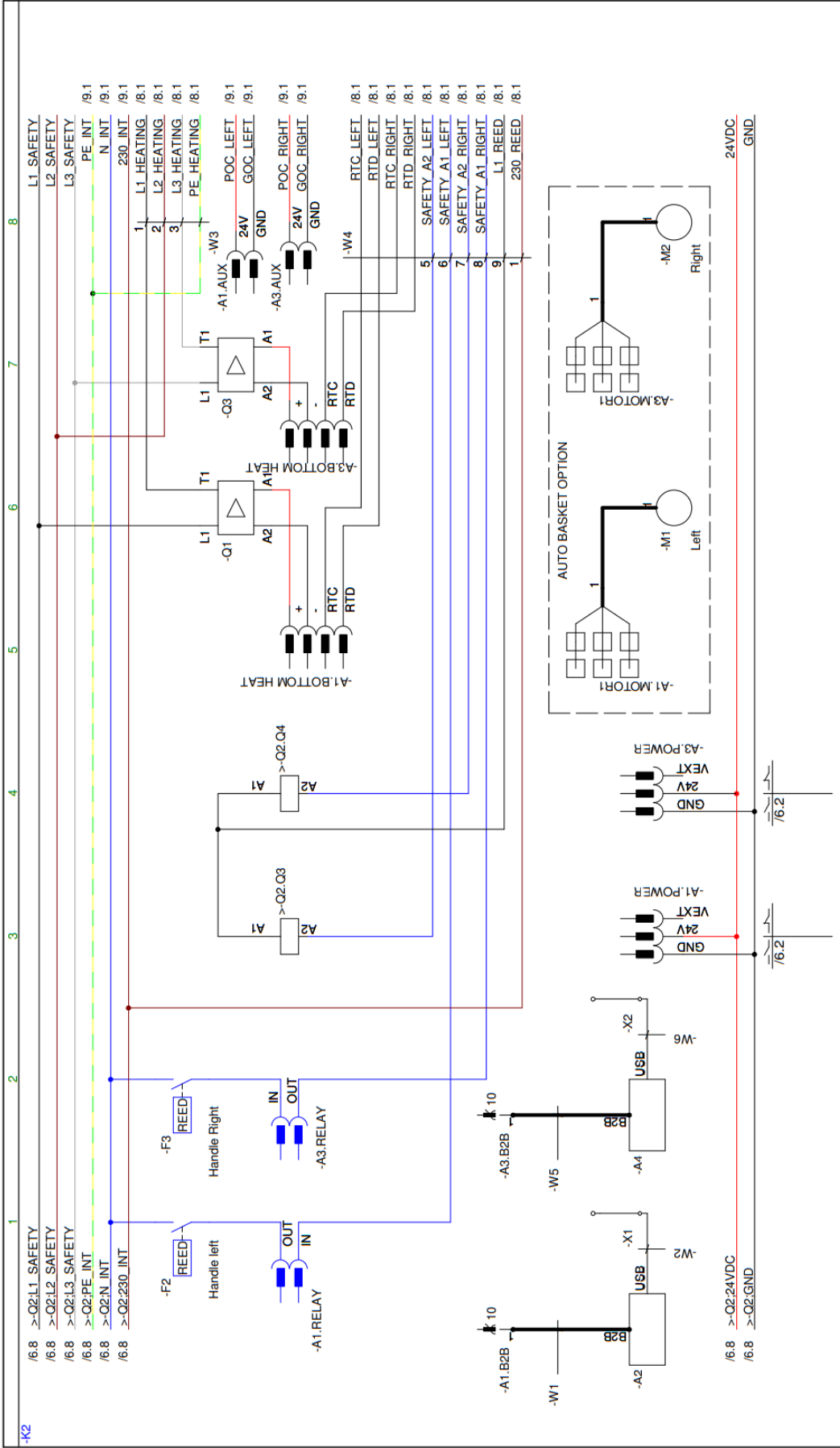
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<b>Page title:</b> Electrical - Fryer ADV - Schematic - IT	<b>Eng. (proj/page):</b>	<b>Page rev.:</b>	<b>Previous page:</b> 4
<b>File name:</b> [Double oil clean]	<b>18/03/2024</b>	<b>Last print:</b>	<b>Next page:</b> 6
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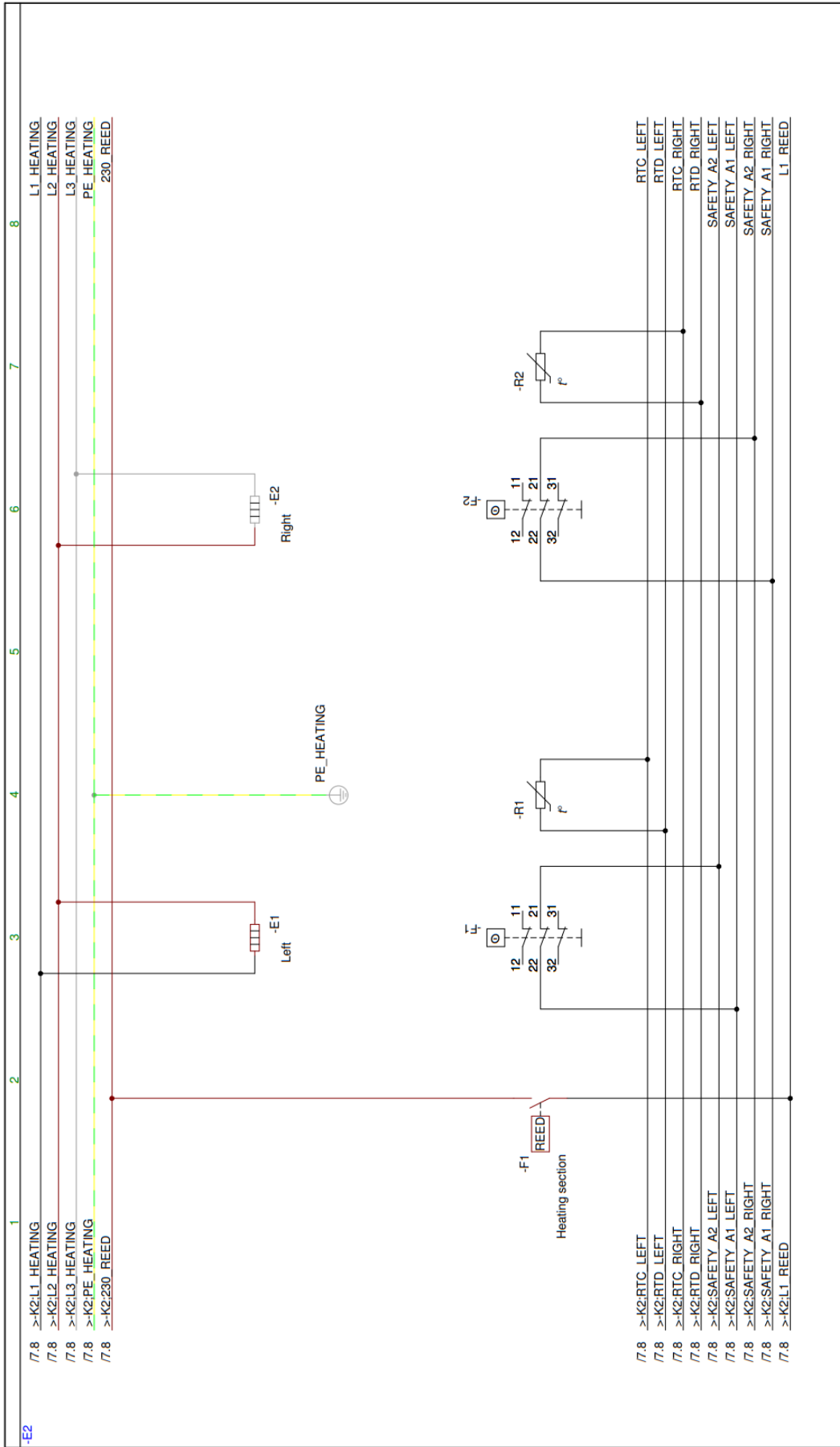
<b>Project title:</b> Fryer ADV - IT schematic		<b>Project no.:</b>	<b>Project rev.:</b>	<b>Page</b>
<b>Customer:</b>	Supply	DCC:		Scale:
<b>Page title:</b>	Electrical - Fryer ADV - Schematic - IT	Dwg. no.:		1:1
<b>File name:</b>	[2x5KW, 2x7KW]	Eng. (proj/page):	18/03/2024	Previous page:
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				Total no. of pages:
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<b>Project title:</b> Fryer ADV - IT schematic		<b>Project no.:</b>	<b>Project rev.:</b>	<b>Page</b>
<b>Customer:</b>	DCC:			<b>Scale:</b>
<b>Page title:</b> Control circuit	<b>Dwg. no.:</b>			<b>Previous page:</b>
<b>File name:</b> Electrical - Fryer ADV - Schematic - IT	<b>Eng. (proj/page):</b>	18/03/2024	18/03/2024	<b>Next page:</b>
<b>Page ref.:</b> [Split controller]	<b>Appr. (date/init):</b>			<b>Last page:</b>
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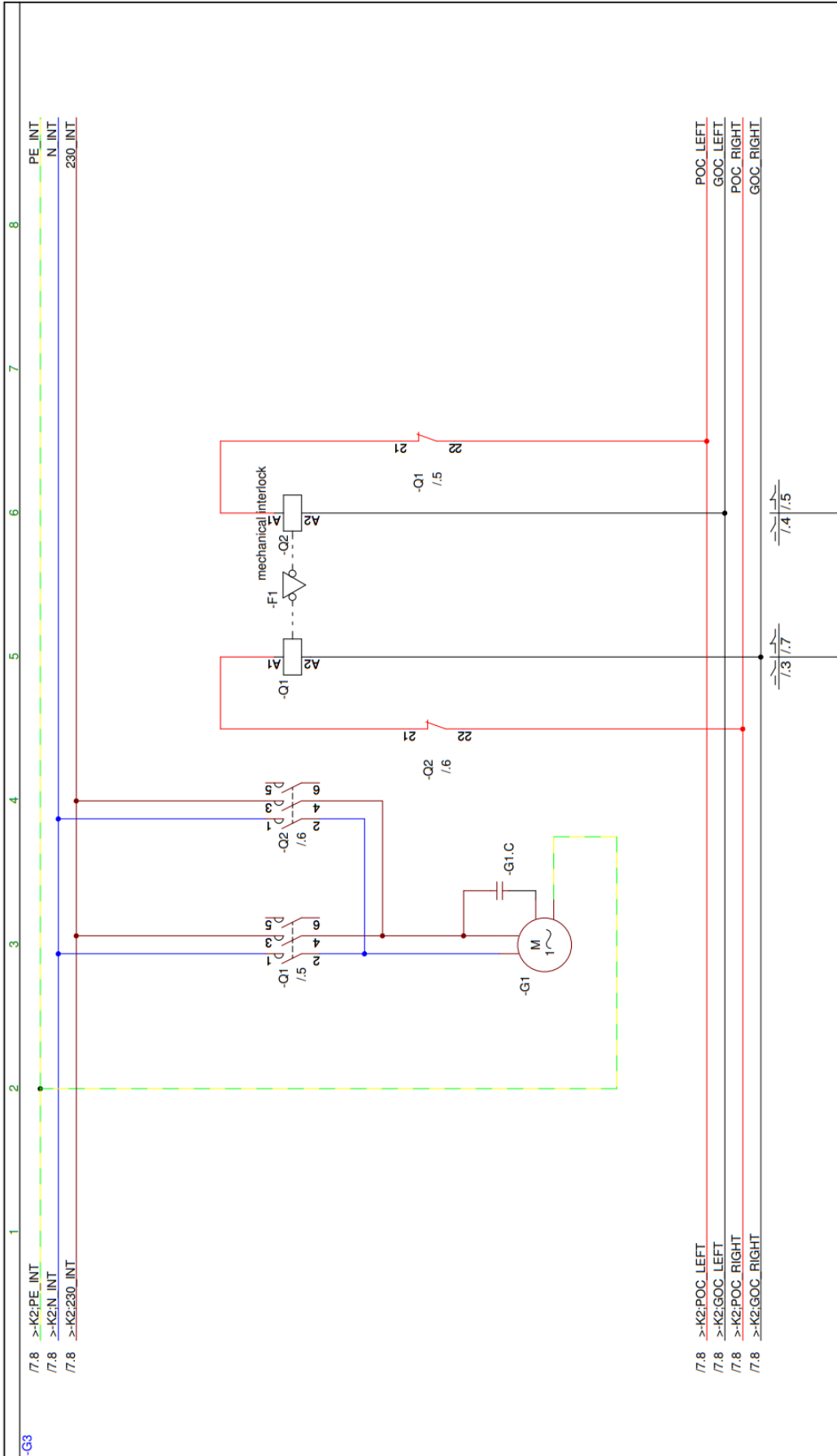




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File name:	[Split heating section]	Eng. (proj/page):	18/03/2024	Last print:	7
Page ref.:		Appr. (date/init):	18/03/2024	Last edit:	9
				Total no. of pages:	10



**FKI Fast Food Teknik a/s**



7.8 >-K2,POC\_LEFT  
 7.8 >-K2,GOC\_LEFT  
 7.8 >-K2,POC\_RIGHT  
 7.8 >-K2,GOC\_RIGHT

POC\_LEFT  
 GOC\_LEFT  
 POC\_RIGHT  
 GOC\_RIGHT

<b>Project title:</b> Fryer ADV - IT schematic	<b>Project no.:</b>	<b>Project rev.:</b>	<b>Page</b>
<b>Customer:</b> DCC:			9
<b>Page title:</b> Control circuit	<b>Dwg. no.:</b>	<b>Page rev.:</b>	Scale: 1:1
<b>File name:</b> Electrical - Fryer ADV - Schematic - IT	<b>Eng. (proj/page):</b>	<b>Last print:</b>	Previous page: 8
<b>Page ref.:</b> [Split oil clean]	<b>Appr. (date/init):</b>	<b>Last edit:</b>	18/03/2024 Next page: 18/03/2024 Total no. of pages: 10



## 4.1.1 Component overview IT System 400V 3~

30-11-2023

### Fryer ADV 400V 3~

Function	Component	9kW	15kW	21kW	10kW	14kW
Main Switch	.001	M10H (20A) 83-41011	N33F (50A) 83-41013	N33F (50A) 83-41013	N33F (50A) 83-41013	N33F (50A) 83-41013
Safety contactor	.03	LC1D09P7 83-41001	LC1D25P7 83-41003	LC1D25P7 83-41004	R40-20-230 83-41000	R40-20-230 83-41000
Safety contactor	.04				R40-20-230 83-41000	R40-20-230 83-41000
Safety aux. contactor	.03				RH11 83-41014	RH11 83-41014
Safety aux. contactor	.04				RH11 83-41014	RH11 83-41014
Power Supply	.T1	ECS130US24 72-07013	ECS130US24 72-07013	ECS130US24 72-07013	ECS130US24 72-07013	ECS130US24 72-07013
Transformer 240V/24V Without oil clean	.T2	380->230 83-10013	380->230 83-10013	380->230 83-10013	380->230 83-10013	380->230 83-10013
Transformer 240V/24V With oil clean	.T2	380->230 72-07036	380->230 72-07036	380->230 72-07036	380->230 72-07036	380->230 72-07036
Supply plug	.X01	Customer specific	Customer specific	Customer specific	Customer specific	Customer specific
Supply cable	.W01	4G1.5 / 3.5m 72-03672	4G2.5 / 3.5m 72-03674	4G4.0 / 3.5m 72-03545	4G2.5 / 3.5m 72-03674	4G4.0 / 3.5m 72-03545

Function	Component	9kW	15kW	21kW	10kW	14kW
Heating element	.E1	3kW / 400V 84-00056	5kW / 400V 84-00061	7kW / 400V 84-00072	5kW / 400V 84-00061	7kW / 400V 84-00072
Heating element	.E2	3kW / 400V 84-00056	5kW / 400V 84-00061	7kW / 400V 84-00072	5kW / 400V 84-00061	7kW / 400V 84-00072
Heating element	.E3	3kW / 400V 84-00056	5kW / 400V 84-00061	7kW / 400V 84-00072		
PT100 sensor	.R1	83-09999	83-09999	83-09999	83-09999	83-09999
PT100 sensor	.R2				83-09999	83-09999
Safety thermostat	.F1	55.33542.070 72-03615	55.33542.070 72-03615	55.33542.070 72-03615	55.33542.070 72-03615	55.33542.070 72-03615
Safety thermostat	.F2				55.33542.070 72-03615	55.33542.070 72-03615
Reed relay	.F3	M5-228M-6-4 72-00022	M5-228M-6-4 72-00022	M5-228M-6-4 72-00022	M5-228M-6-4 72-00022	M5-228M-6-4 72-00022

Function	Component	.G1	.G2	.G3
Latch contactor	.01	LC1D25BD 72-07020	LC1D25BD 72-07020	LP1K090180 72-07027
Latch contactor	.02		LC1D25BD 72-07020	LP1K090180 72-07027
Mechanical interlock	.F1		LA09V2 83-41007	
Pump	.G1	EP NEOS 3/4 74-00082	EP NEOS 3/4 74-00082	EP NEOS 3/4 74-00082

Function	Component	.K1	.K2
Control card	.A1	CTL Print 72-08003	CTL Print 72-08003
Control card	.A3		CTL Print 72-08003
Graphical interface	.A2	GUI PRINT 72-08000*	GUI PRINT 72-08000*
Graphical interface	.A4		GUI PRINT 72-08000*
Motor left	.M1	LA31 83-10809	LA31 83-10809
Motor right	.M2	LA31 83-10809	LA31 83-10809
Latch SSR L1	.Q1	3,5-32VDC 95A 72-00152	3,5-32VDC 95A 72-00152
Latch SSR L3	.Q3	3,5-32VDC 95A 72-00152	3,5-32VDC 95A 72-00152
Board to board connector	.W1	HCS5° 72-07011	HCS5° 72-07011
USB cable	.W2		72-07029
Power cable	.W3	1.8m	2.2m
Signal cable	.W4	As supply cable 4G0.75 / 1.8m	As supply cable 10G0.75 / 2.2m
Board to board connector	.W5		HCS5° 72-07011
USB cable	.W6		72-07014
USB connector	.X1	LP-24-USB-P01 72-07015	LP-24-USB-P01 72-07015
USB connector	.X2		LP-24-USB-P01 72-07015
Reed relay	.F2	M5-228M-6-4 72-00022	M5-228M-6-4 72-00022
Reed relay	.F3		M5-228M-6-4 72-00022

\*72-08001 if oil clean is installed

Plugs per Control Card	Component	Part no.
Power Supply	.POWER	72-07003
SSR and PT100	.BOTTOM HEAT	72-07004
Oil clean	.AUX	72-07000
Contactor control	.RELAY	72-07001

## Cleaning

### 4.2 General

Before using the appliance for the first time, wipe all surfaces that will be in contact with food with a damp cloth. Do not use cleaning products that contain acid.

### 4.3 Cleaning during operation

Make sure that the tabletop, front and other surfaces are clean at all times. Wipe with a slightly damp cloth.



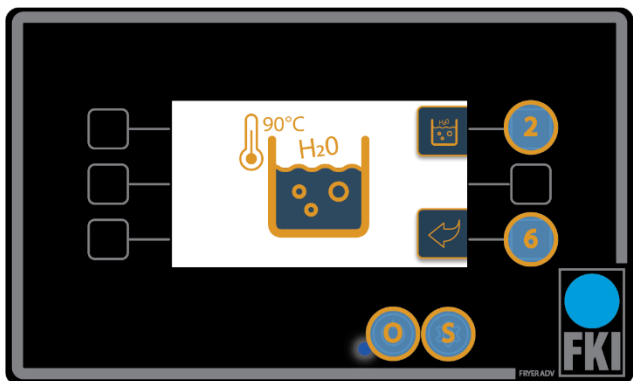
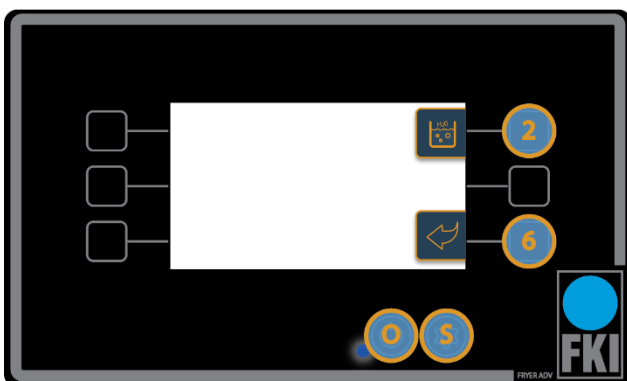
Remember to use personal safety equipment, see 2.1

### 4.4 Daily cleaning

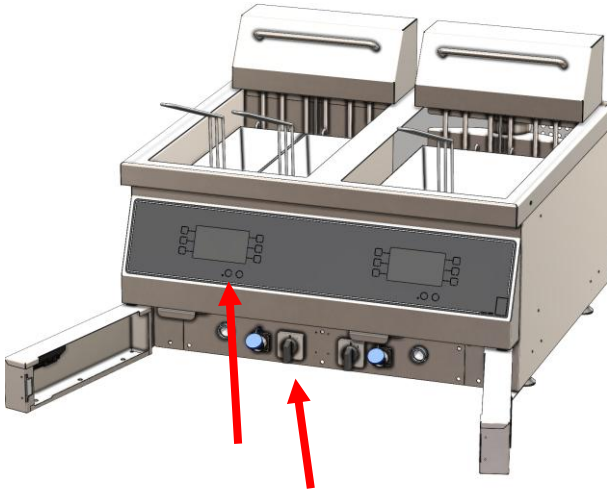
The fryer should be cleaned daily.

The fryer is equipped with a "Boil out" function.

**Drain oil from the tub and fill with cleaning water.** Key "2" is a program for "Boil out", the set point temperature will be set to 90°C, and the option is to clean the vessel and possibly heaters with hot water and soap. **Warning!** Before using Boil out, the tub must be completely drained, no oil left. When the Boil out is finished, press the "O" key and the fryer is switched off. The tub must be completely drained of cleaning water and dried completely before refilling with oil.



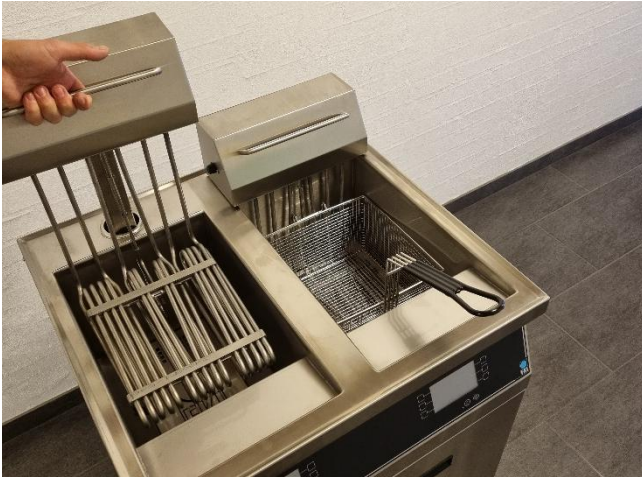
**WARNING!** After cleaning with Boil out, remember to drain the tub from water and soap and dry afterwards. There must be no water in the tub when refilling with oil.



Switch the fryer off and allow to cool. For automatic raise/lowering fryers, standby will then activate and the baskets will lower. Open the drain tap and allow the oil to run into the drain tub.



Remove baskets and mounting (where applicable) from the fryer.



Raise the heating section and tip it backwards.



Allow the heating section to be supported on the retainer.



*Cleaning products must not be used on surfaces that come into contact with food. If this is unavoidable, rinse very thoroughly with clean water.*



Wipe down the heating section with a damp cloth.



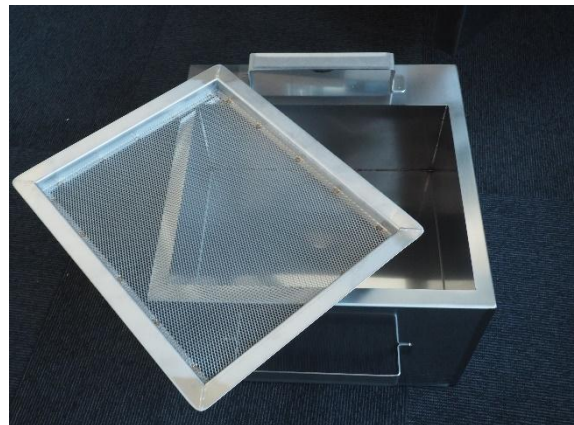
Exercise particular caution in the area near the magnetic contact. Regular cleaning is particularly important here.



Carefully wipe the front section and the display with a damp cloth.



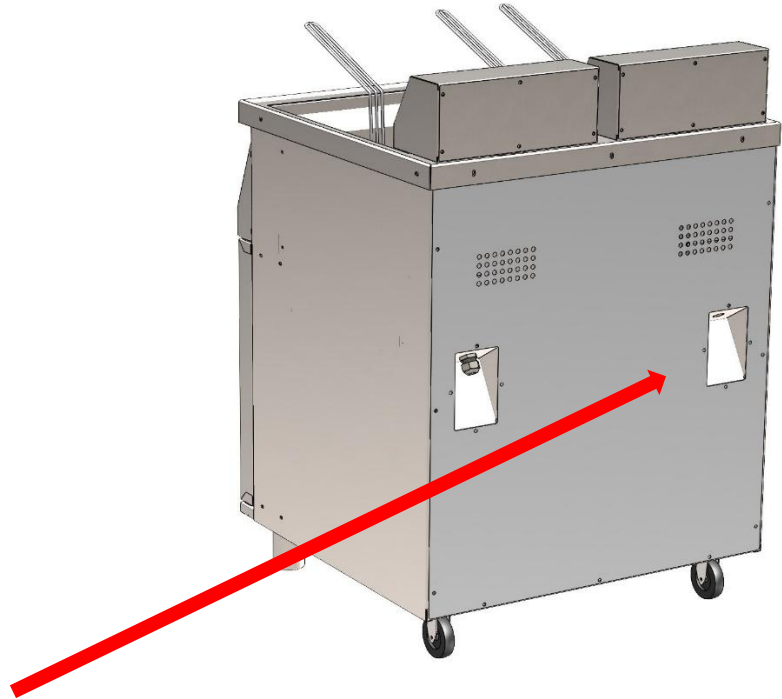
Place the heating section and basket back in position.



Clean the filter and drain tub.

## 5 Service

Find out if it is possible to correct the fault by following the instructions in the troubleshooting chart. If not, contact your dealer or [www.fki.dk](http://www.fki.dk) for assistance.



When contacting service for assistance, please have the following information ready:

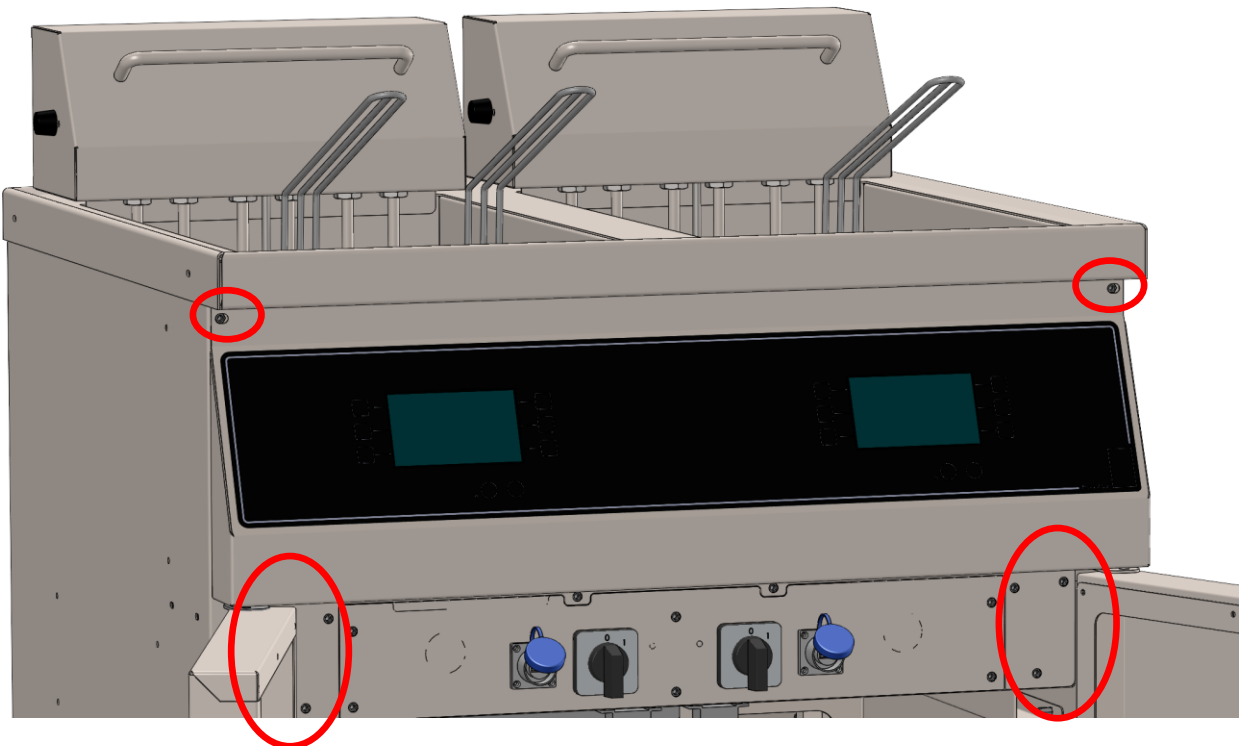
- Sequential serial number located on the back of the appliance.
- Type and model name are in the same position.

The machine plate is on the back of the appliance (see picture).



Before commencing repair work, the appliance must always be switched off and disconnected from the power source. Both diodes on the front must have gone out before accessing electrical components.

To make it easy to service the FRYER ADV, most electrical parts are mounted in a closed system behind the front panel. Remove the front section using the screws that become visible when the doors are opened (shown in red below). Because of the displays in the front, exercise caution after removing the screws. It is advisable to place the front section on its front, with the front side facing the top of the doors (only applicable to twin vat/2 door models). This allows access to all the control components.



After completing service work on the FRYER ADV, check and reattach all cables, making sure that they are secured and will not be trapped.

## 6 Disposal

### 6.1 Packaging

The packaging should not be left in the environment but should be disposed of in accordance with local regulations.

### 6.2 When the appliance is no longer required

FRYER ADV is labelled with a recycling symbol in accordance with Danish Executive Order 148 of 8 February 2018 (Electronic Waste Executive Order/Elektronikaffaldsbekendtgørelsen). WEEE2 directive 2012/19/EU

This means that you must dispose of it in accordance with your municipality's regulations, e.g. in a container set up for this purpose at the municipality's recycling centre when the appliance is worn out.



## 7 EU DECLARATION OF CONFORMITY



EU DoC ID: FKI 012  
Verninge, 13. december 2021

# EU DECLARATION OF CONFORMITY

We FKI Fast Food Teknik a/s declares under our sole responsibility that the product Fryer Advanced with

Type Code.:  
**ADF-21**

are in conformity with the following directive(s), standard(s) or other normative document(s), provided that the products are used in accordance with our instructions.

Directives	Standards
Machine Directive 2006/42/EC	EN 12100:2010 EN 60335-1:2012 + AC:2014 + A11:2014 EN 60335-2-37:2002
Electromagnetic Compatibility Directive 2014/30/EU	EN 55014-1:2006 + A1:2009 + A2:2011 EN 55014-2:1997 + A1:2001 + A2:2008
WEEE Directive 2012/19/EU RoHS Directive 2011/65/EU	
Regulations	Standards
Food Contact Materials 1935/2004 Good Manufacturing Practice 2023/2006	N/A

Date 13/12-2021	Issued by  Søren Poulsen - Managing Director
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FKI Fast Food Teknik a/s only vouches for the correctness of the English version of this declaration. In the event of the declaration being translated into any other language, the translator concerned shall be liable for the correctness of the translation.

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