

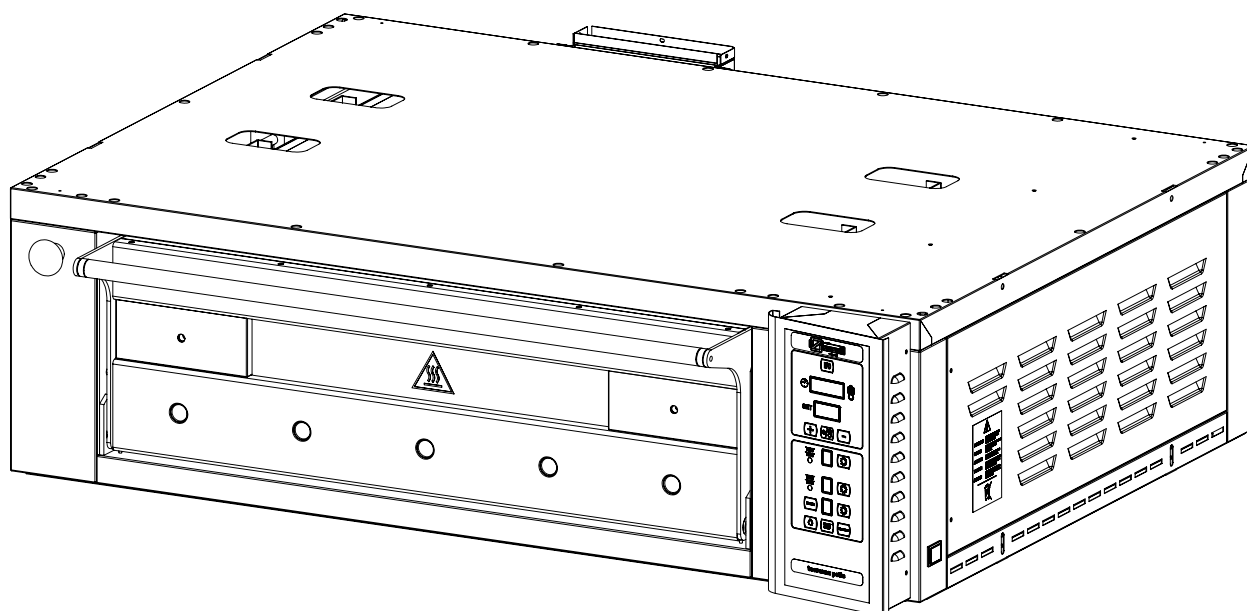
08/2012

Mod: FT4M-18

Production code: T POLIS PW 4 ST/MC18



Diamond
catering equipment



TEOREMA POLIS PW STANDARD

Pastry bread and pizza oven

Installation, use and maintenance manual

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1. PRESENTATION

The modular range of “TEOREMA POLIS PW” ovens represent a new way of thinking about traditional pastry ovens

They are designed and constructed to a high mechanical and electrical standard and made to last.

Specifically, the STANDARD version is an oven with a redesigned housing that keeps the internal components of its predecessor , the TEOREMA POLIS, an oven that has evolved to a high level of proven reliability.

This version has been designed to offer our clients a highly reliable, simple oven but with a new styling. This has given us the opportunity to rethink its structural parts making it even more robust and reliable whilst including all the suggestions for improvements received from our clients over the years.

“TEOREMA POLIS PW” a complete range to satisfy everyone’s needs.

The manufacturer would like to thank you for the preference expressed in your purchasing this product. We can confidently assure you that it is a good choice. Our company has been committed to the manufacture of quality products for many years. We do not believe in making compromises and use the best possible materials.

2. HOW TO USE THIS MANUAL

 The paragraphs marked with this symbol contain indications essential to safety. They must all be read both by installers, the end user and any employees that use the oven. The manufacturer does not assume any responsibility for damage or injury incurred as a result of ignoring the safety criteria outlined in these paragraphs.

 This symbol applied to various points on the oven serves to warn the user of danger: “ATTENTION HOT SURFACES!”.

 This symbol, applied to various points on the oven, serves to warn the user of the presence of a non-insulated “high voltage hazard” inside the oven’s casing, there being enough power to constitute a fire risk or to electrocute a person.

 The paragraphs marked with this symbol contain important information to avoid causing damage to the oven. It is in the users own interest to read these paragraphs carefully.

 It is recommended that this installation, instruction and service manual be kept in close proximity to the equipment so that it can be easily and quickly consulted. The manual must accompany the equipment if it is resold as it cannot be considered complete and safe without it.

Take note of the code and the manual version number shown on the back cover. In the event that this copy is lost or destroyed, you can order another copy using the details mentioned later in the manual.

 This manual is made up of a number of chapters. They should be read in their entirety by both installers and service personnel as well as by the end user to make sure that the equipment is **used safely** and to get the best results from the product.

However, indications are given on the following pages to help consult the various chapters more rapidly.

Chapter 3 Shows what the equipment can be used for and gives the specifications of the oven and all the values that are necessary for choosing the right environment for its installation and use.

This manual should be used as a point of reference to check that the equipment is being used in the way intended and ensure that information concerning the precise value of a given measurement or tolerance of the equipment is available whenever necessary.

Chapter 4 contains all the information needed to install the oven. These are mainly aimed at specialized personnel but should be read by the end user beforehand so as to predispose the environment where the oven will be operated for installation.

Chapter 5 is for reference when the end user needs to find out more about a specific aspect of the control panel. **It is not recommended to use the contents of this chapter alone to learn to use the equipment from scratch.**

Chapter 6 and 7 are intended for the end user who needs to learn how to use the oven. These sections guide the user through the operations necessary for turning on, using and turning off the equipment under conditions of safety. To take advantage of all the possibilities offered by the equipment, the user should make reference to chapter 6.

Chapter 8 supplies all the information necessary for the cleaning of the equipment: all those operations that must be carried out by the user to guarantee that the equipment continues to function under safe conditions to ensure suitable conditions for hygiene and health and continue to get the best results.

Chapter 9 gives information for the periodic operations of maintenance and extraordinary interventions such as repairs or changing parts of the equipment.

This chapter also shows an exploded diagram of the appliance and a list of spare parts to help in ordering and substituting them if they are damaged.

 **These maintenance operations must be carried out by specialized personnel.**

Chapter 10 offers information useful in the event that the oven is not used for a prolonged period.

Chapter 11 facsimile declaration of conformity.

3. SPECIFICATIONS

3.1 Identifying the product

This manual refers to the TEOREMA POLIS PW range of coking units, models: 2/MC18, 2/MC30, 2S/MC18, 3/MC18, 3/MC30, 4/MC18, 4/MC30, 6/MC18, 6/MC30, 6/MC18 SUPER, 6/MC30 SUPER, 8/MC18 and 8/MC30 STANDARD version.

3.2 Conformity to European Directives

The TEOREMA POLIS PW STANDARD version cooking units bear the following obligatory marking:



Guaranteeing their conformity to the following European directives

2004/108/CE electromagnetic compatibility;
2006/95/CE low voltage.

3.3 Use intended for the product

The TEOREMA POLIS PW STANDARD version range of cooking units have been designed for the catering industry baking pastry products and are intended exclusively for professional use by trained personnel in the catering industry.

The operations intended to be carried out with the units during normal use are: the loading and unloading of products from the hob and baking chamber, turning on, regulating and turning off the oven and cleaning of the equipment.

3.4 Technical specifications

The following tables shows the cooking unit's technical specifications.

	2/MC18 (2/MC30)	2S/MC18	3/MC18 (3/MC30)	4/MC18 (4/MC30)	6/MC18 (6/MC30)	Unit of measu rement
Weight	136 (155)	136	179 (207)	200 (230)	275 (310)	Kg
External dimensions	1250x1010x360 (1250x1010x480)	1020x1210x360	1660x1010x360 (1660x1010x480)	1250x1610x360 (1250x1610x480)	1660x1610x360 (1660x1610x480)	mm
Chamber dimensions	830x660x180 (830x660x300)	650x860x180	1240x660x180 (1240x660x300)	830x1260x180 (830x1260x300)	1240x1260x180 (1240x1260x300)	mm
Number of baking pans (cm 60x40)	2	2	3	4	6	n°
Electrical power supply	triphas or triphase + neutral					
Voltage	230 o 400					Vac
Frequency	50 o 60					Hz
Current at 400V 50Hz	8.7	10.5	11.3	17.4	22.6	A
Current at 230V 50Hz	15.1	18	19.6	30.1	39.3	A
Total electrical power	6	6.4	7.8	10	13	kW
Level of protection	IP23					
Electrical connection	cable with 4 or 5 conductors without plug					
Length of cable	2					m
Area of conductor cross section	4 (400V-3N) 4 (230V-3)		4 (400V-3N) 6 (230V-3)	6 (400V-3N) 10 (230V-3)		mm ²
Chamber illumination lamp						
Type	Halogen					
Power	50					W
Baking control						
Temperature Control	Electronic temperature control					
Maximum temperature setting	400					°C
Safety thermostat temperature	500					°C
Power control	Separate for oven top and bottom					
Environmental conditions						
Temperature	0 - 40					°C
Maximum humidity	95% without condensation					

Table 3-1

	6/MC18 SUPER (6/MC30 SUPER)	8/MC18 (8/MC30)	Unit of measu rement
Weight	275 (310)	365 (390)	Kg
External dimensions	1660x1610x360 (1660x1610x480)	1660x1880x360 (1660x1880x480)	mm
Chamber dimensions	1240x1260x180 (1240x1260x300)	1240x1670x180 (1240x1670x300)	mm
Number of baking pans (cm 60x40)	6	8	n°
Electrical power supply	triphas e or triphas e + neutral		
Voltage	230 o 400		Vac
Frequency	50 o 60		Hz
Current at 400V 50Hz	24.6	26.3	A
Current at 230V 50Hz	30	32.7	A
Total electrical power	17	18.2	kW
Level of protection	IP23		
Electrical connection	cable with 4 or 5 conductors without plug		
Length of cable	2		m
Area of conductor cross section	6 (400V-3N) 10 (230V-3)	10 (400V-3N) 10 (230V-3)	mm ²
Chamber illumination lamp			
Type	Halogen		
Power	50		W
Baking control			
Temperature Control	Electronic temperature control		
Maximum temperature setting	400		°C
Safety thermostat temperature	500		°C
Power control	Separate for oven top and bottom		
Environmental conditions			
Temperature	0 - 40		°C
Maximum humidity	95% without condensation		

Table 3-1

4. INSTALLATION



ATTENTION: these installation instructions are for the exclusive use of personnel qualified for the installation and maintenance of electrical and gas equipment conceived for professional use in the foodservice industry and community catering operations. An installation carried out by unqualified persons could cause damage to the oven, to people, animals or property.



ATTENTION: Proceed with the installation according to those norms in force in the country where it is being carried out.

In addition, where it is necessary to carry out modifications or adaptations to the electrical or gas systems of the building in which the oven will be installed, whoever carries out such modifications must certify that the work has been undertaken according to current “best practices”.

4.1 Checking on delivery

Unless otherwise agreed, the products are carefully packaged in a robust structure in wood and with a sheet of nylon bubble wrap giving protection against knocks and humidity during transport. These are consigned to the freight operator in the best of condition.

We recommend, however, that you to check the packaging on arrival for any signs of damage. If damage has occurred, have it noted on the receipt which must be signed by the driver.

Once the equipment has been unpacked, check that it has not suffered damage. Also check that all the disassembled parts are present.

In the event of damage to the equipment and/or missing parts, bear in mind that the freight operator can only accept claims within 15 days of delivery and that the manufacturer cannot be held responsible for damage incurred to its products during their delivery. We are however, available to assist you in presenting your claim.



In the event of damage do not try to use the equipment and consult with professionally qualified personnel.

4.2 Choosing a place for installation

An effective, safe and long lasting functioning of the appliance also depends on the position in which it is installed. For this reason, it is advisable to carefully consider where to install the equipment before it is delivered.

Install the appliance in a dry and easily accessible place both to facilitate its use and to carry out cleaning and maintenance. The area around the equipment must be kept clear. It is particularly important to avoid obstructing the cooling outlets located at the sides of the equipment.

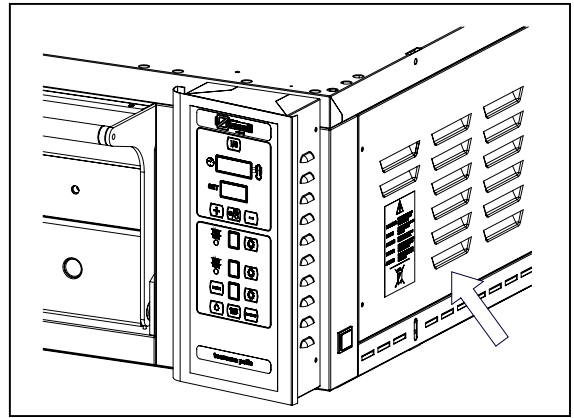


Fig. 4.1

When choosing a place to install the cooking units "TEOREMA POLIS PW", bear in mind that they must be completed with other units in the series: hood, chamber, base.

⚠ The appliance must be installed at least 20cm from the walls of the room or from other equipment so that the ventilation outlets located on the sides of the oven are not obstructed.

Whilst in operation, cooking equipment produces vapor and cooking smells that compromise the integrity of a healthy working environment

In the case of electric ovens, even if it is not obligatory, the installation of an extraction fan and hood is recommended to improve conditions in the working environment and to avoid damage to the ceiling of the area where it is housed caused by hot, oily fumes.

⚠ A check must be made to ensure that the temperature and relative humidity never exceed the maximum and minimum values indicated in the specifications (see paragraph 3.4) even when the oven itself or other ovens in the room are functioning.

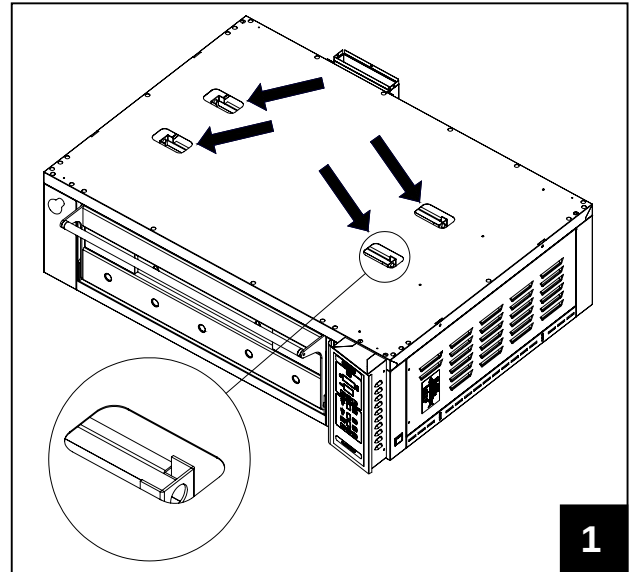
Exceeding these values especially the temperature or the maximum relative humidity can easily and unexpectedly damage electrical equipment creating hazardous situations.

⚠ The manufacturer cannot answer for damage caused by ignoring these abovementioned norms as well as the information in this manual.

4.3 Moving the unit

To unload and transport the unit while it is packed, a pallet truck or a transpallet lifter with a load capacity at least equal to that of the unit should be used, inserting the forks in the spaces provided at the base of the packing.

To transport the module without packing, use ropes or straps (certified as suitable for lifting heavy loads) threaded through the rings on the top of the oven and lift with a fork lift truck (Fig.1).



⊘ DO NOT raise the module by inserting forks or bars inside the cooking chamber because this could cause damage the refractory material at the top of the oven.

⚠ In all situations, to avoid unpredictable movement, be aware of the equipment's centre of mass.

⚠ Take care that children do not play with the packaging materials (e.g., plastic sheeting and Styrofoam): suffocation danger!

4.4 Positioning and mounting the unit

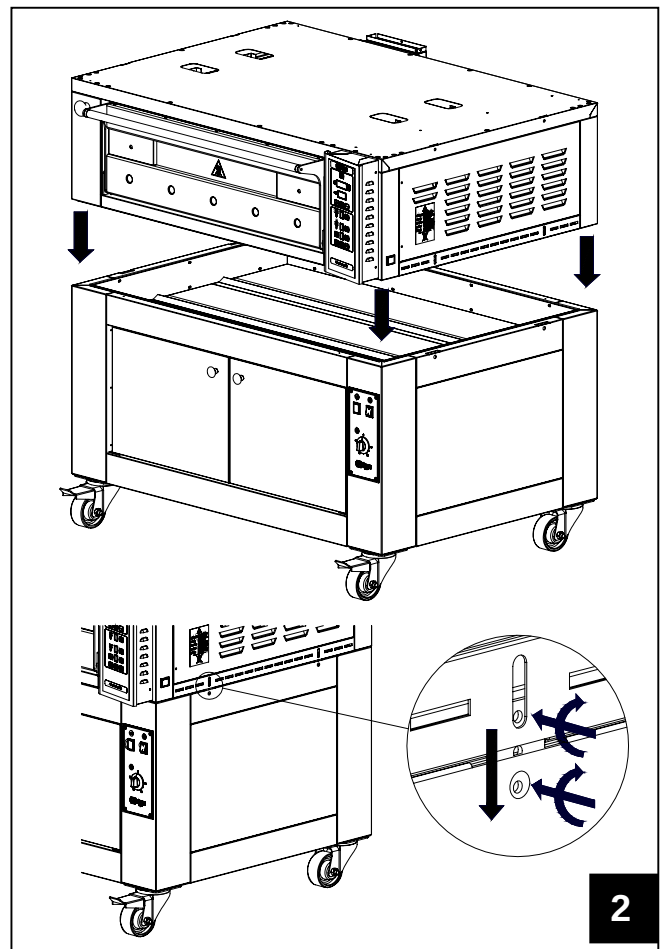
1 - Position the module on the base /cell/other unit, maneuvering it as described at paragraph 4.3 (Fig.2)

2 - Allow the four fixing Flanges on the corners of the oven to drop into position (Fig.2)

3 - Secure with the screws provided (Fig.2)

⚠ NO MORE THAN 3 UNITS SHOULD BE STACKED ONE ON TOP OF THE OTHER

⚠ When one or more units is mounted on top of another, seal the gasket around the vapor exhaust tubes at the back, at the point where they join. Use high temperature resistant silicon for this.



4.5 Electrical connection

⚠ Before making any connection, check that the specifications of the electrical supply to which the equipment must be connected, correspond to the specifications of the power supply required by the apparatus itself (see Tab. 3-1).

⚠ The appliances are supplied with an electric connection with ground/earth cable for connecting the appliance to the power grid according to the supply required (see cap. 3.4 Tab. 3-1).

In compliance with the safety norms in force. **It is obligatory to connect the ground/earth cable (yellow-green) to an earthing system with the same dispersion capacity as the appliance itself. The efficiency of this system must be correctly verified according to the norms in force.**

The power cable must terminate with a plug to connect to the electrical switchgear having a corresponding differential magneto thermal switch.



The equipment is not supplied with a power plug.

The coupling between plug and socket must be such that the earth conductor is connected first and disconnected last and must have the right dimensions for the rated current (see Table 3-1). Plugs and sockets for industrial use of the type CEE17 are suitable or those which satisfy European norm EN 60309.

The thermal circuit breaker must be calibrated to the total rated current and the magnetic circuit breaker calibrated to the rated current (In the case of ovens this is only slightly higher than rated current), while the differential mechanism must be calibrated to the 30 mA current (see Table 3-1).

The electrical socket must be easily accessible and must not require further location after the installation of the equipment. The distance between the equipment and the socket must be sufficient to avoid stretching the power cable



The power cable must never be trapped under the feet or wheels of the equipment



If the Power cable is damaged it must be substituted by customer support or by a qualified service engineer so as to avoid any risk.

The manufacturer does not accept responsibility for damage caused by failure to observe the abovementioned norms.

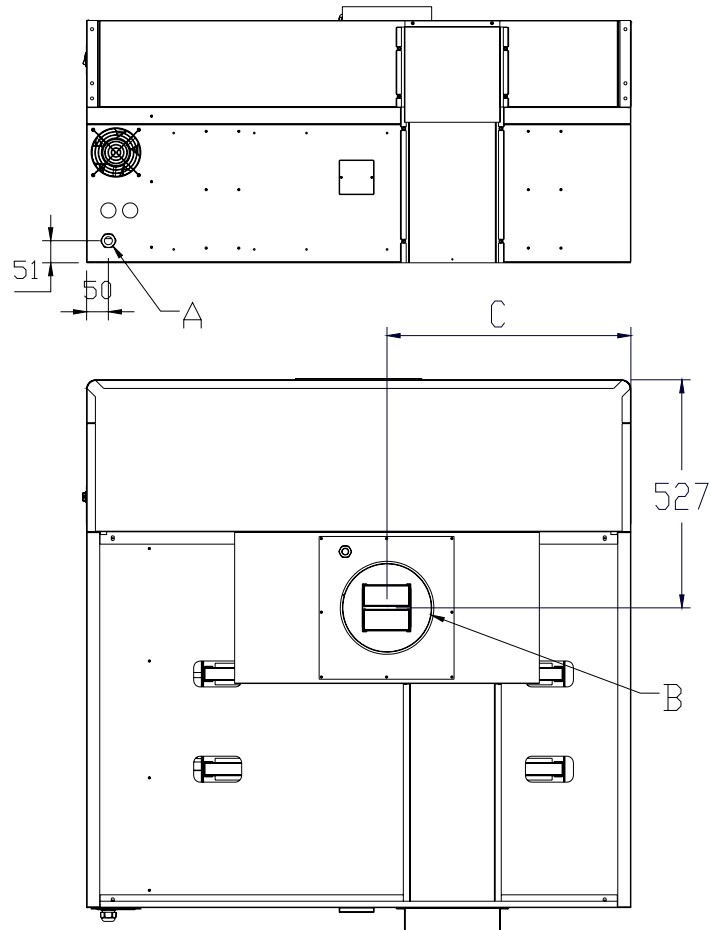
For the position of the electrical power connections, see Fig. 4-2.

4.6 Emissions from cooking appliances



ATTENTION! Proceed with the installation of the oven according to the norms defined by current legislation in the country concerning the installation of this typology of oven so as to guarantee the sustainability of a healthy working environment. For more information it is recommended that specific norms be consulted.

The manufacturer cannot answer for damage caused by ignoring these abovementioned norms as well as the information in this manual.



	C (mm)
2/MC18 - 2/MC30	560
2S/MC18	445
3/MC18 - 3/MC30	764
4/MC18 - 4/MC30	560
6/MC18 - 6/MC30	764
6/MC18 - 6/MC30 SUPER	764
8/MC18 - 8/MC30	764

A= ELECTRICAL POWER INPUT
 B= WATER VAPOUR EXHAUST Ø 200mm

Fig. 4-2 Electrical power connection and water vapour exhaust

4.7 Checking before starting work

After completing installation of the unit a series of checks must be carried out, listed as follows:

- check that the various disassembled parts have been assembled
- check the power cable
- check that the control panel is working
- If present, check that the ventilation hood is working

5. CONTROL PANEL

5.1 Description of controls

Fig. 5.1 shows the control panel with all controls:

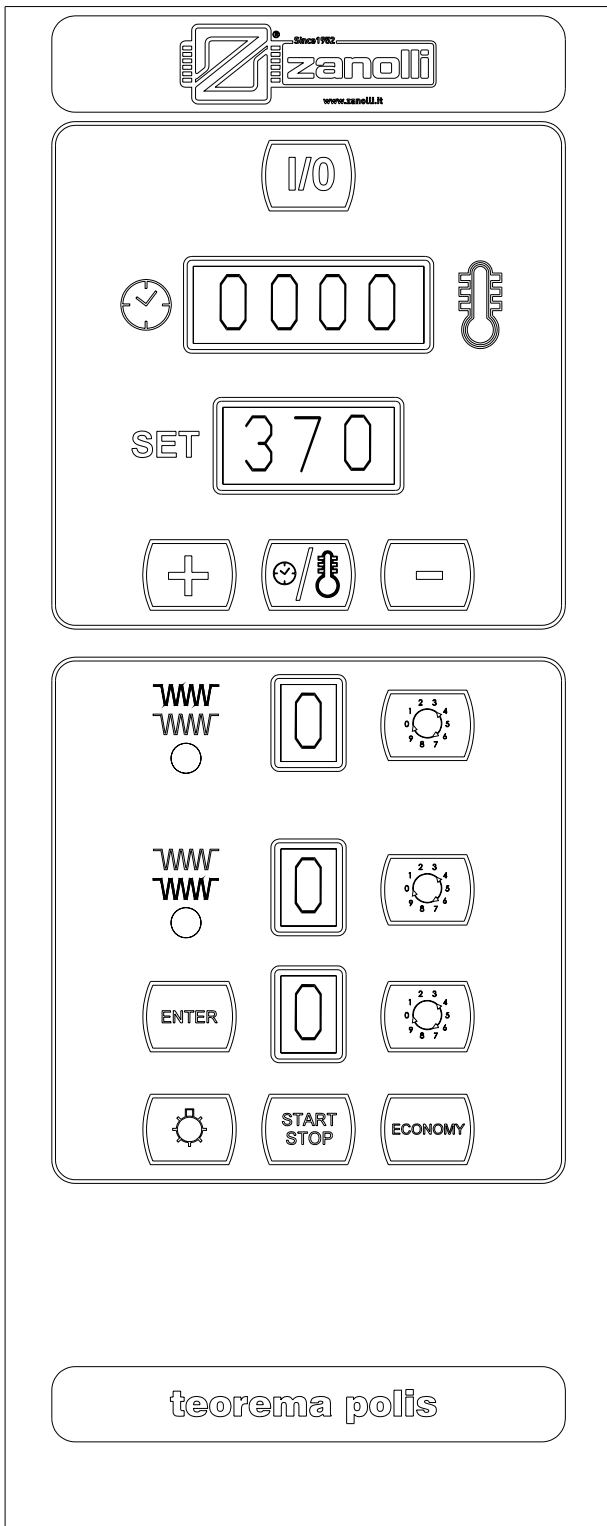


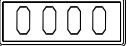
Fig. 5.1 Control panel

- General system on/off button
- Oven temperature and time display
- Set temperature display
- Program setting increase button
- “Timer” - “Oven temperature” – Clock setting” display button -
- Program setting decrease button
- Upper element power setting indicator
- Upper element control display
- Upper element power sequential increase button
- Lower element power setting indicator
- Lower element control display
- Lower element power sequential decrease button
- Timer programming button
- Baking cycle display
- Baking cycle increase button
- Oven light on/off
- Baking start/stop button
- Economy button
- Light switch for suction hood
- Light switch for steam generator

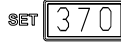
6. FUNCTIONS

6.1 System functional states

6.1.1 Standby on/off button

When on standby the panel is powered but no system function is enabled. The general remote switch is disabled and the message OFF is displayed on the set display  on the control panel along with the current time on the    display with flashing seconds dot (between the second and third figure, 1/2 second on, 1/2 second off).

All buttons on the panel are disabled except for the  button (system on) and the  key, pressure on which will bring the system to clock setting mode (see “programming” section).

Pressing the  button, the system comes on, the last SET temperature programmed is displayed on the set display , and the cycle used prior to switching the oven off is displayed on the  display.

6.2 Settings

6.2.1 Set temperature setting

To set the SET temperature use the  and  buttons until the desired baking temperature appears on the  display.

6.2.2 Upper and lower element setting

Pressing the  buttons varies the time the oven heating elements remain on. Each time the button is pressed increases this value by 1 unit, up to a maximum of 9 units. Further pressure returns the value to 0.

NB. Each unit on the two displays corresponds to 5 seconds element on time. For the remaining units the elements remain off. The total duration of the cycle is 45 seconds.

The on time of the two elements can be varied at any time, even during the baking cycle. The upper elements during the first part of the cycle while the lower ones come on during the second.

For example, setting the upper elements to 6 and the lower ones to 5 gives the following result:

	5	10	15	20	25	30	35	40	45
Upper	ON						OFF		
Lower	OFF				ON				

Note that with this setting, for the first 20 seconds only the upper elements are on, so the oven uses half the total power. Over the next 10 seconds both the upper and power elements are on, with the oven using full power. In the remaining 15 seconds, on the lower elements are on, so the oven once again uses half its available power.

6.2.3 Economy button

Pressing the economy button  sets power values to pre-set levels (upper 5 and lower 3) with the following result:

	5	10	15	20	25	30	35	40	45
Upper	ON					OFF			
Lower	OFF						ON		

Note that with this setting, in the first 25 seconds only the upper elements are on, with the oven using half power. Both elements are off for the following 5 seconds. In the remaining 15 seconds only the lower elements are on and so the oven once again uses only half power. This means that throughout the cycle the oven never uses more than half power and for 5 seconds power consumption is zero.

A similar result can be obtained through manual power settings, if the sum of upper and lower times is less than or at most equal to 9.

6.2.4 Start/Stop button

Pressing the start/stop  button starts the baking cycle according to the previous setting.

6.2.5 Oven light button

Pressing the oven light button  switches on the light in the oven. Press again to switch it off.

6.2.6 Switch for suction hood - Light switch for steam generator

The switch for suction hood control is placed on the side part of the suction hood, on the upper side (Pos.1 of Fig. 6.1).

Push this switch on position "I" to start one of the two motors of the suction hood.

Push this switch on position "II" to start both motors of the suction hood. Push this switch on position "0" to stop it.

On the side part of the control panel, you find the light switch that starts and stops the steam generator, if the oven is equipped with this accessory (see Pos.2 - Fig. 6.1).

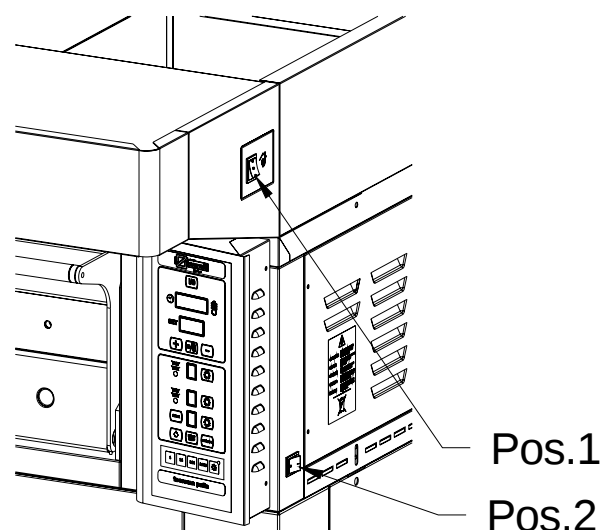


Fig 6.1

6.3 Programming

6.3.1 Clock and day setting

The time and day can only be set with the system on standby, that is to say when the   display "OFF".

Pressing the  key and holding it for 3 seconds displays the time on the    display with the two figures corresponding to the hour flashing.

The correct hour can be set using the  and  keys. To memorise the new hour setting and pass on to setting minutes, press the  key again. The minutes start flashing and can be set in the same way as the hours.

Before pressing  again, set the day of the week using the upper element power sequence button . This displays the number corresponding to the day on the upper element control display . For example:

1=MONDAY
2=TUESDAY
3=WEDNESDAY
4=THURSDAY

5=FRIDAY
6=SATURDAY
7=SUNDAY

Press  again to memorise the new time and day. When set, the dot between hours and minutes begins to flash and the day display disappears.

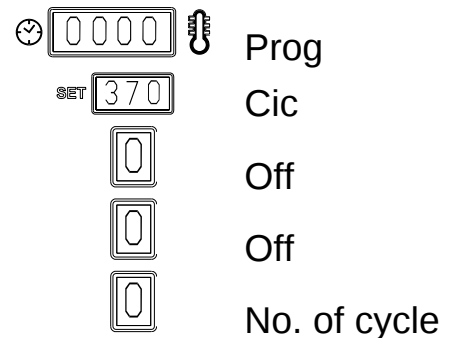
6.3.2 Baking cycle programming

To program the baking cycle the oven must be on. Press the general system on/off button . The message "OFF" disappears from the  display and set temperature is displayed in its place.

In this condition, after selecting the desired cycle using the baking cycle button  and once the desired number for the cycle to memorise appears on the , press the timer programming button  and hold it for at least 3 seconds.

The displays show the following:

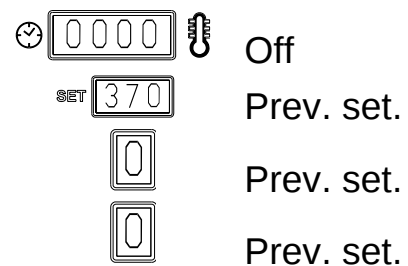
- Oven temperature and time display
- Set temperature display
- Upper element control display
- Lower element control display
- Baking cycle selection display



After 2 seconds, baking parameters can be modified according to needs.

The displays show the following:

- Oven temperature and time display
- Set temperature display
- Upper element control display
- Lower element control display
- Baking cycle selection display  No. of cycle



Parameters that may be modified are:

- 1) Set temperature, by means of the  and  buttons;
- 2) Values corresponding to upper and lower power, by means of the relative controls ,

3) The baking Timer; this parameter can be displayed on the    display by pressing the  button, and subsequently modified by means of the  and  buttons.

If the Set temperature is to be modified the  button should be pressed top display the relative value on the  display. It can be modified by means of the  and  buttons.

Once the required values have been set, the can be memorised by pressing the  button, and the panel returns to its enabled state.

6.3.3 Auto switch-on programming

To program automatic ignition the oven must be on. Press the general system on/off button . The message “OFF” disappears from the  display and set temperature is displayed in its place.

Press the  button and hold it for at least 3 seconds. This displays four horizontal slashes “----” on the    for setting timed ignition. Set the correct hour in the first two spaces using the  and  keys. To memorise the new hour setting and pass on to setting minutes, press the  key again. The minutes start flashing and can be set in the same way as the hours.

Before pressing  again, set the day of the week using the upper element power sequence button . This displays the number corresponding to the day on the upper element control display .

For example:

1=MONDAY
2=TUESDAY
3=WEDNESDAY
4=THURSDAY

5=FRIDAY
6=SATURDAY
7=SUNDAY

Pressing  again memorises the time and day of the week on which the oven will automatically switch on. Once set and memorised, the    returns to displaying the current time and the dot between the hours and minutes flashes. The dot following the minute display remains lit indicating that a time has been set for automatic switch-on.

To permit automatic switch-on the oven must be on standby (system general switch  ON and temperature setting displayed on  display.

To be sure that the system has correctly memorised the setting, check that the dot to the lower right of the    display is on.

6.3.4 Timer setting

While the oven is operating, that is to say when the elements have been enabled by pressing the  button, the timer can be started at any time by means of the  button. The    display shows the timer value in hours and minutes that decreases with the flashing dot between the two figures. The value that appears on the display can be modified using the  and  keys and begins counting 2 seconds after setting.

At the end of the set time an alarm sounds for 10 seconds and the    display shows 4 zeros that flash until the oven is switched off by means of the  button, or the timer function is refreshed by pressing  twice.

While the timer is active either the remaining time or the actual temperature of the oven can be displayed on the    display by pressing .

6.4 Alarms

6.4.1 Over temperature alarm

If due to malfunction the internal temperature of the oven exceeds 400°C the system will immediately stop the current cycle.

The remote general switch is disabled along with all oven functions.

The message “OFF” disappears from the  display and is replaced by the message “ALLO”.

To reset the alarm and reset the system, press .

If the oven is reactivated before temperature has fallen below 400°C the alarm will trigger again.

In any case have the oven checked by a qualified maintenance technician to rectify the cause of the problem before using the oven again.

7. THE USE OF THE OVEN

7.1 Preparations for use

If the equipment has just been installed or has not been for a number of days, before using it for food products, it is necessary to clean it thoroughly in accordance with the indications in chapter 9, to remove residual factory dirt, accumulations of dust or any other substances which could contaminate food products.

Important – Pre-Heating Phase at First Ignition

The components of the brand new oven (refractory stone bottom and metal parts) need to be pre-heated before being used for the first baking.

When the oven is switched on the first time, it is necessary to HEAT IT GRADUALLY IN ABOUT 5-6 HOURS (1°h=100°C - 2-3°h=150°C - 4°h=200°C - 5°h=250°C - 6°h=300°C). The max temperature has to be reached at the end of this pre-heating phase.

This procedure is absolutely necessary to avoid damages to any part of the oven.

7.2 Switching on the control panel

Turn on the  switch : the control panel comes on and settings can be made while the baking chamber is still off.

7.3 Settings

Set the required temperature using the  and  buttons.

Set the power of the heating elements for the oven roof and bedplate with the switch .

7.4 Starting baking

At this stage turn on the  switch and after a short time you will see that the temperature in the baking chamber starts to rise. If you have set the maximum temperature the oven will reach this in 40-45 minutes.

7.5 Loading the oven

 Warning - when the chamber is at its working temperature the glass and metal parts of the door and some of the surrounding sections reach temperatures which are dangerous for the human body. These parts are identified with the symbol , which warns of the risks.

7.6 General indications for good baking

It is not possible to say exact times and temperatures for food products in general given the enormous variations they are subject to.

As regards in particular pastry products and similar the cooking time and the temperature depend on the shape and thickness of the dough and the quantities of the ingredients added to it.

We therefore advise that a few test runs are made, especially if you have never worked with this model of oven before, starting out with a temperature of 250° C and keeping in mind the following points:

- 1) Generally with lower temperatures a better quality and more digestible product is obtained, the oven is not subjected to particular stresses and lasts longer, though the cooking times become longer;
- 2) With higher temperatures it is more difficult to obtain even baking but the baking times are reduced;
- 3) Just after loading the oven, a fall in the temperature of the oven of as much as 20-30 ° C is normal. This should not be considered a limitation of the oven but as a useful indication that at the beginning of baking the water in the raw dough is evaporating and taking up a large quantity of heat. It is, however, always possible to set a higher temperature so that the oven reaches the desired temperature on loading. In any case if the oven is used within the limits of its maximum capacity the temperature will start to rise again towards the end of the baking time;
- 4) The oven has a maximum production capacity expressed **indicatively** in the characteristics in Kg of product per hour (chapter 3.) . If this production capacity is exceeded the temperature of the baking chamber will fall even beyond 20-30°C.
In such a case the excess quality should be removed and you should wait until the desired temperature has returned before any further loading.

- 5) If you keep the steam outlet valve completely closed, the steam comes out under the loading door and the products (in particular in the case of pizzas) may remain too moist. If you open the valve completely the products dry out too much and the oven has a lower yield. When cooking pizzas you should therefore try opening the valve to a third.

7.7 Switching off

At the end of each working day switch off the  switch.
During long periods of idleness (e.g. closures for holidays) it is advisable to switch off the main switch on the electrical feed panel.

7.8 Cleaning

 At the end of each working day (or more frequently, if possible) it is necessary to carefully clean the cooking surface and all the parts of the oven which come into contact with the food being cooked to avoid that any food substances go off and contaminate either the working environment or later products to be cooked.

Cleaning is to be carried out in accordance with the instructions in chapter 8.

8. CLEANING

 At the end of each working day (or more frequently if possible) it is necessary to carefully clean the cooking surface and all the parts of the oven which come into contact with the food being cooked to avoid that any food substances go off and contaminate either the working environment or later products to be cooked

 Before cleaning is carried out, the oven should be turned off and at room temperature with the oven disconnected from the mains electricity supply by means of the mains switch on the switchgear.

8.1 Cleaning the exposed parts

 The tempered glass parts are particularly sensitive to sudden variations in temperature that can cause them to crack into tiny fragments. **Do not handle glass parts and do not bring them into contact with water until they have cooled down to room temperature.**

 It is not recommended to use abrasive tools (abrasive sponges or similar) because over time they take the shine off the stainless steel parts and high impact glass. The best idea is to wash the various removable parts before food residues have had time to dry up.

8.2 Cleaning the parts made from ceramic refractory material

To remove cooking residue from surfaces made from ceramic refractory material, use a brush. If residue is stuck to these surfaces, prise them off gently with a spatula.

 Do not use any form of liquid especially detergent because the refractory material is porous and it cannot be rinsed to remove residue that comes into contact with these surfaces.

 Do not use clearing tools which are too pointed or abrasive because the refractory material is fragile and could easily chip or even break.

8.3 Cleaning the oven's cooking chamber

To clean the aluminum coated sheet steel cooking chamber, use a soft moistened sponge and if needs be a weak non abrasive detergent, making sure not to let any cleaning liquids drip onto the ceramic refractory material.

If there is a consistent amount of fat deposited on the surfaces remove them first using a spatula.



Do not use abrasive or corrosive detergents because these will cause the stainless steel to become opaque and will, quite quickly, remove the protective layer of aluminum coated sheet steel, at which point it will start to rust.



Do not direct jets of water onto the equipment for clearing as these can penetrate through to and damage the electrical system with the consequent risk of electrocution and the equipment starting up unexpectedly.

8.4 Cleaning external surfaces

To clean the external surfaces made from either stainless steel or painted sheet metal as well as the control panel, use a soft moistened sponge and if needs be a weak non abrasive detergent.



Do not use abrasive or corrosive detergents because these will cause the stainless steel to become opaque and eventually remove the painted surface of sheet metal parts at which point they will start to rust.



Do not direct jets of water onto the equipment for clearing as these can penetrate through to and damage the electrical system with the consequent risk of electrocution and the equipment starting up unexpectedly.

9. MAINTAINANCE

⚠ ATTENTION: these maintenance instructions are to be used exclusively by personnel qualified to install and maintain electrical and gas appliances. Maintenance work carried out by non qualified personnel could cause damage to the oven, to persons, animals or property.

⚠ To carry out repairs and routine checks it will be necessary, in most cases, to remove the safety panel. This gives access to parts conducting electricity. **Before removing any protective housing ensure that the plug supplying current to the cooking unit is disconnected from the electrical system. Put the plug to one side in a place where the service engineer can easily ensure that it has been unplugged during the entire duration of any work carried out with any safety covers removed.**

9.1 Changing the halogen lamp

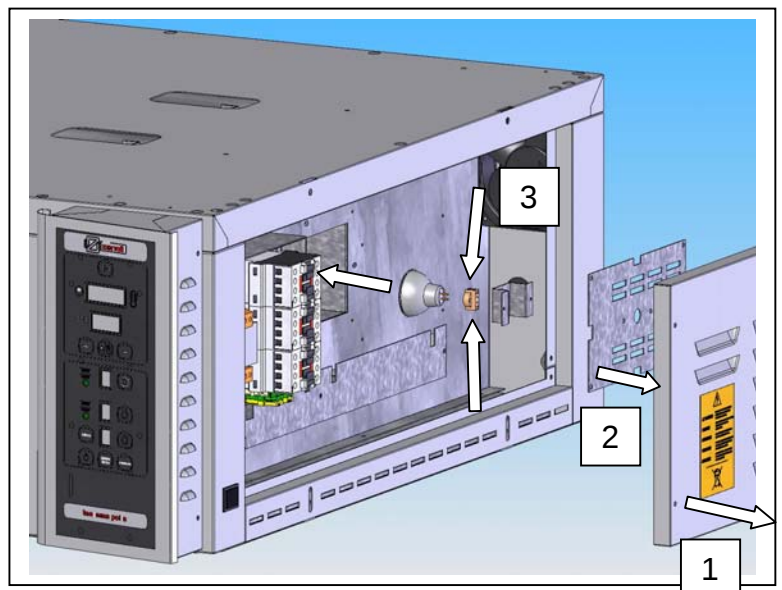
⚠ Remove the plug from the mains power supply

⚠ The lamp housing is in an area of the oven without insulation. This causes the housing cover heat up considerably while the oven is functioning

Consequently the lamp should only be replaced while the oven is cold or whilst wearing protective gloves.

To change the halogen lamp in the baking chamber, it is necessary to carry out the following steps:

- 1** - Remove the right hand panel unscrewing the 4 self tapping screws to access the electrical system.
- 2** - Remove the light housing cover unscrewing the 4 self tapping screws.
- 3** - Unscrew the 2 screws that fix the lamp to its holder using a flat headed screwdriver and pull it out, substituting the lamp with one of the same type.
- 4** - Reassemble all of the components in reverse sequence as described above



9.2 Wiring diagram

Figs. 9-1 Fig. 9-2 Fig. 9-3 Fig. 9-4 Fig. 9-5 Fig. 9-6 Fig. 9-7 show the 400V 3-N, 230V 3 and 230 1-N wiring diagrams.

9.3 Adapting to different voltages of power supply

 Attention! To adapt the appliance for functioning with supply voltages different from those shown on the label indicating its initial configuration, it is necessary to carry out three modifications:

1. rewiring the connections to the elements;
2. Substitution of the power cable with one having a suitable diameter for the new amperage (see Fig.9-1 Fig.9-4 Fig.9-5 Fig. 9-6 Fig. 9-7);
3. rewiring the supply to the control panel (see Fig.9-1 Fig.9-4 Fig.9-5 Fig. 9-6 Fig. 9-7)
4. Removing the old label and applying a new one.

Carry out all four modifications with care and attention. Only in this way can the appliance be considered safe

9.3.1 Rewiring the connections to the elements

Remove the plug from the mains supply switchgear. Remove the protective housing from the power panel. Disconnect all the element wires from the contactors and reconnect them according to the voltage, (see Fig.9-2 Fig.9-3 Fig.9-4 Fig.9-5 Fig. 9-6 Fig. 9-7).

9.3.2 Applying the new label

Remove the old label from the plate at the back of the appliance. Clean the surface with a cloth and a dab of petrol and apply the new label.

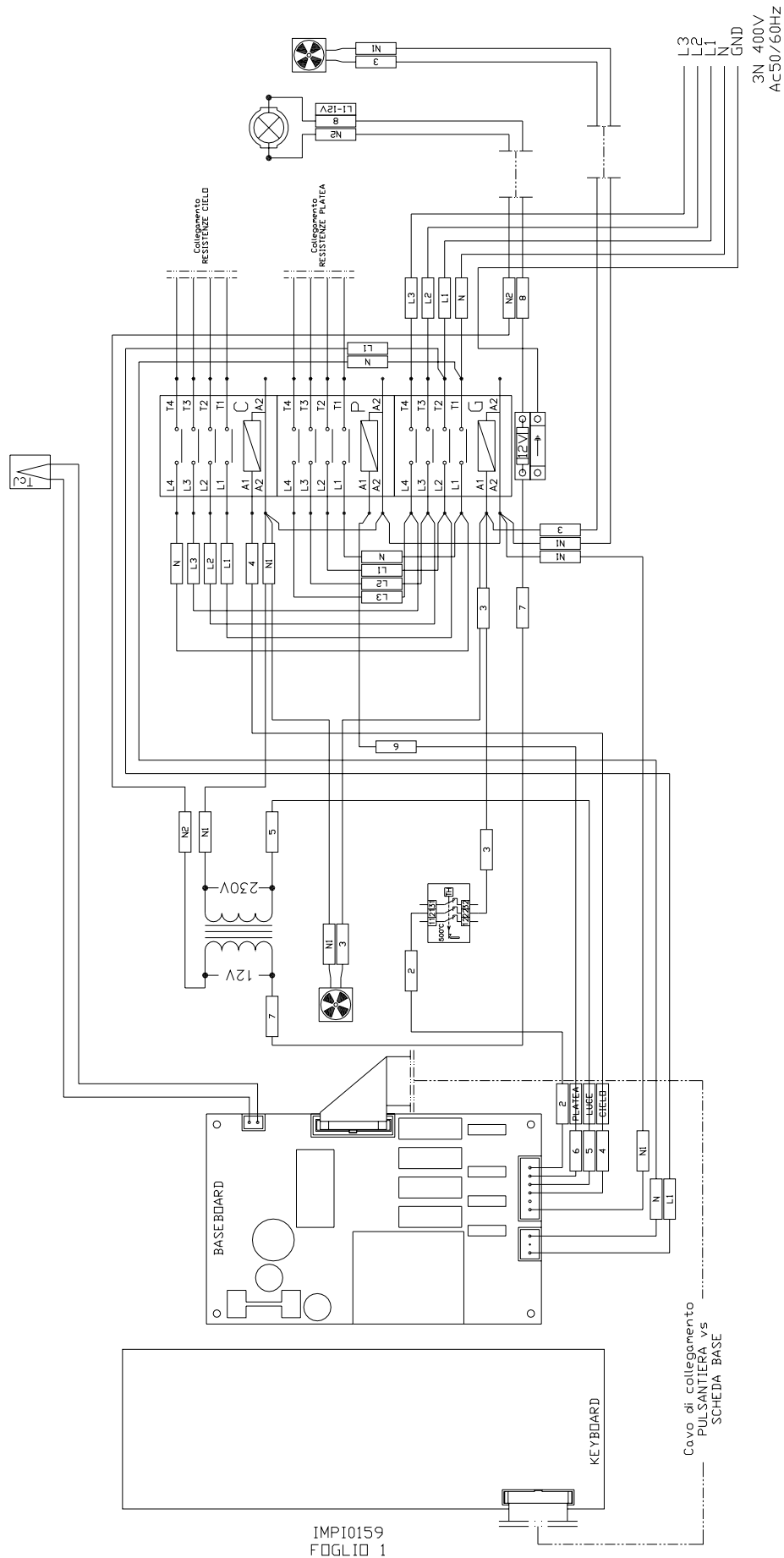


Fig. 9-1 400V 3-N Wiring diagram (auxiliary connection)

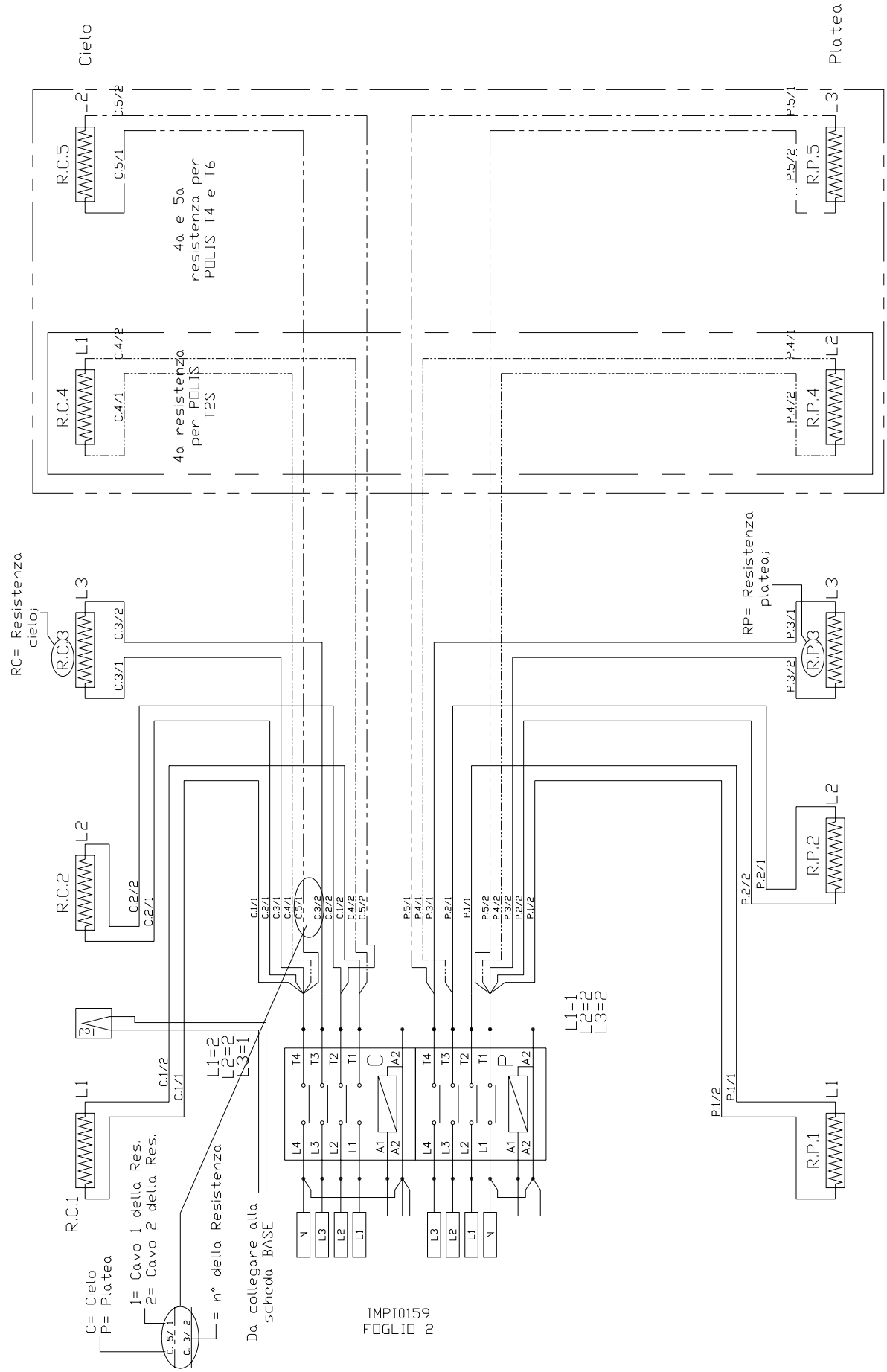


Fig. 9-2 400V 3-N Wiring diagram (power connection)

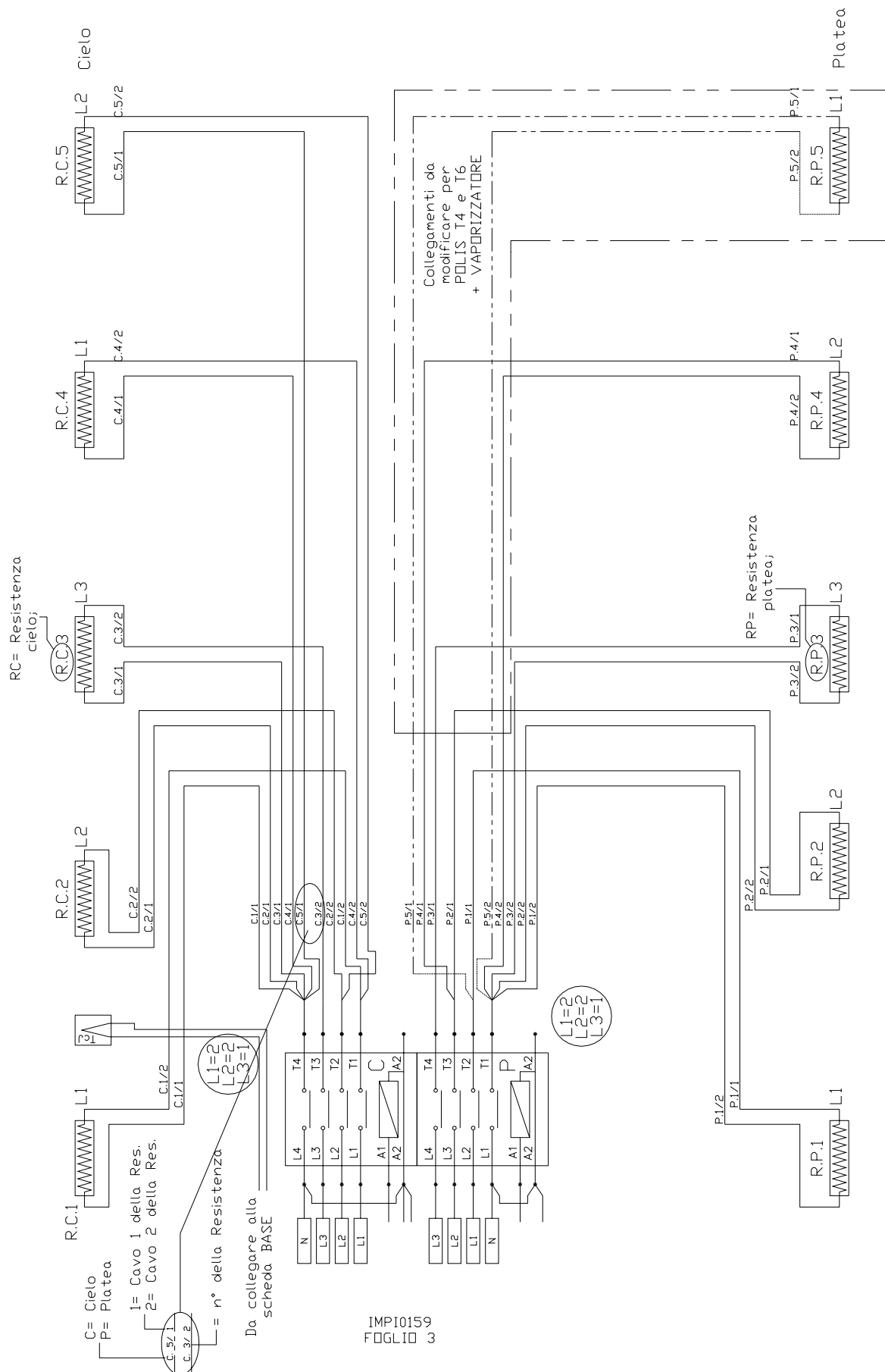


Fig. 9-3 400V 3-N Wiring diagram (Connection of the elements if humidifier is installed on Teorema Polis Pw, models 4 and 6)

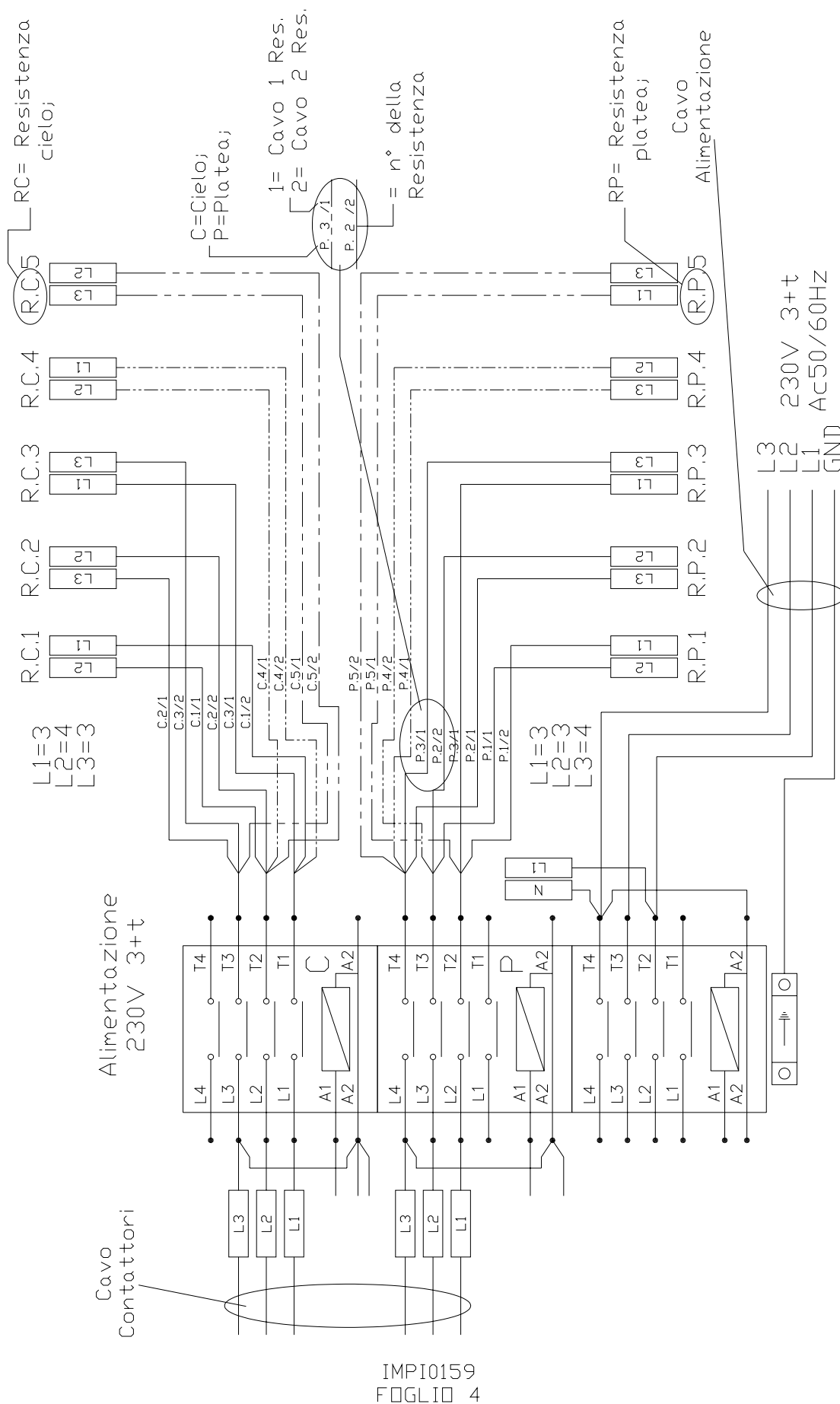


Fig. 9-4 230V 3 wiring diagram (power connection)

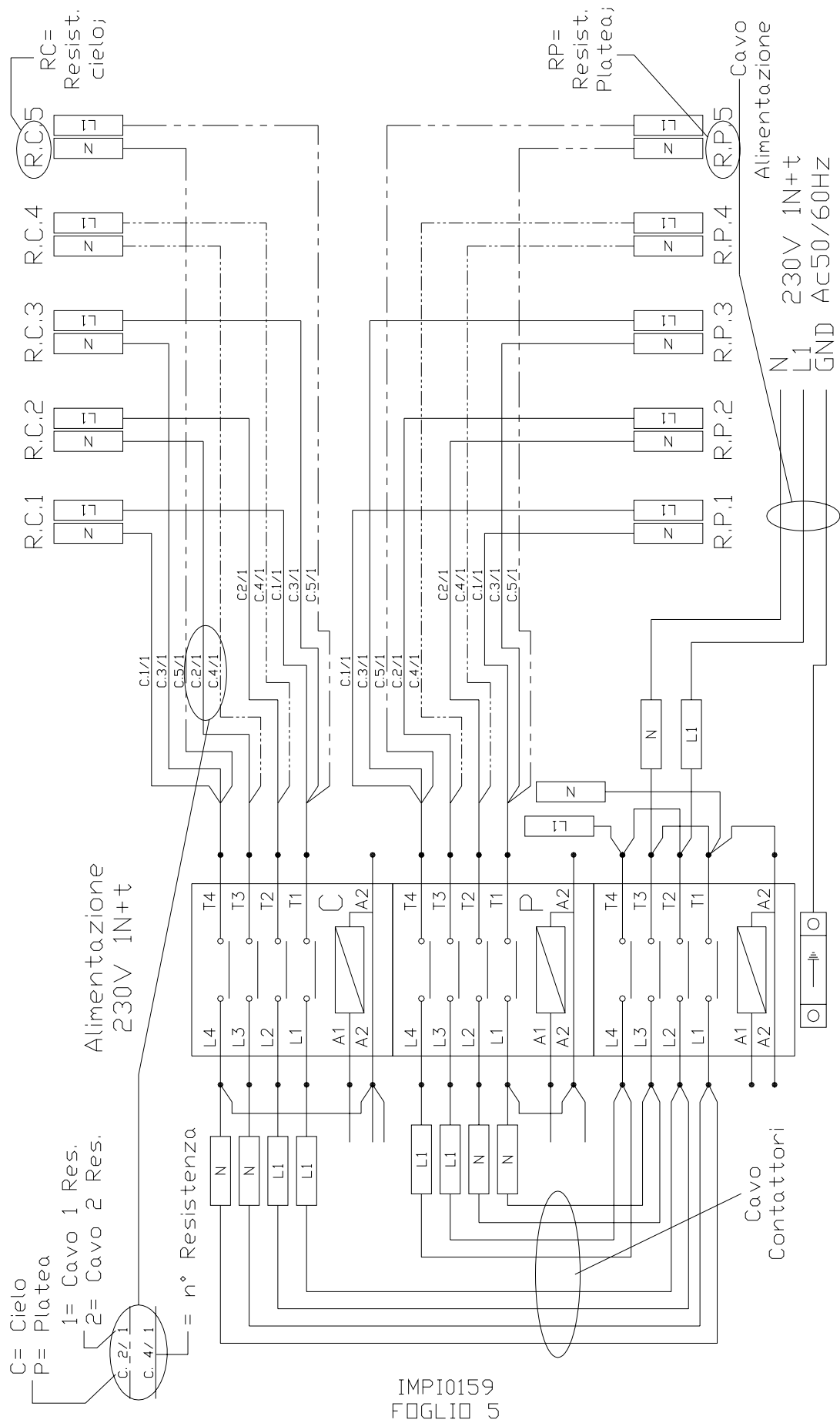


Fig. 9-5 230V 1-N wiring diagram (power connection)

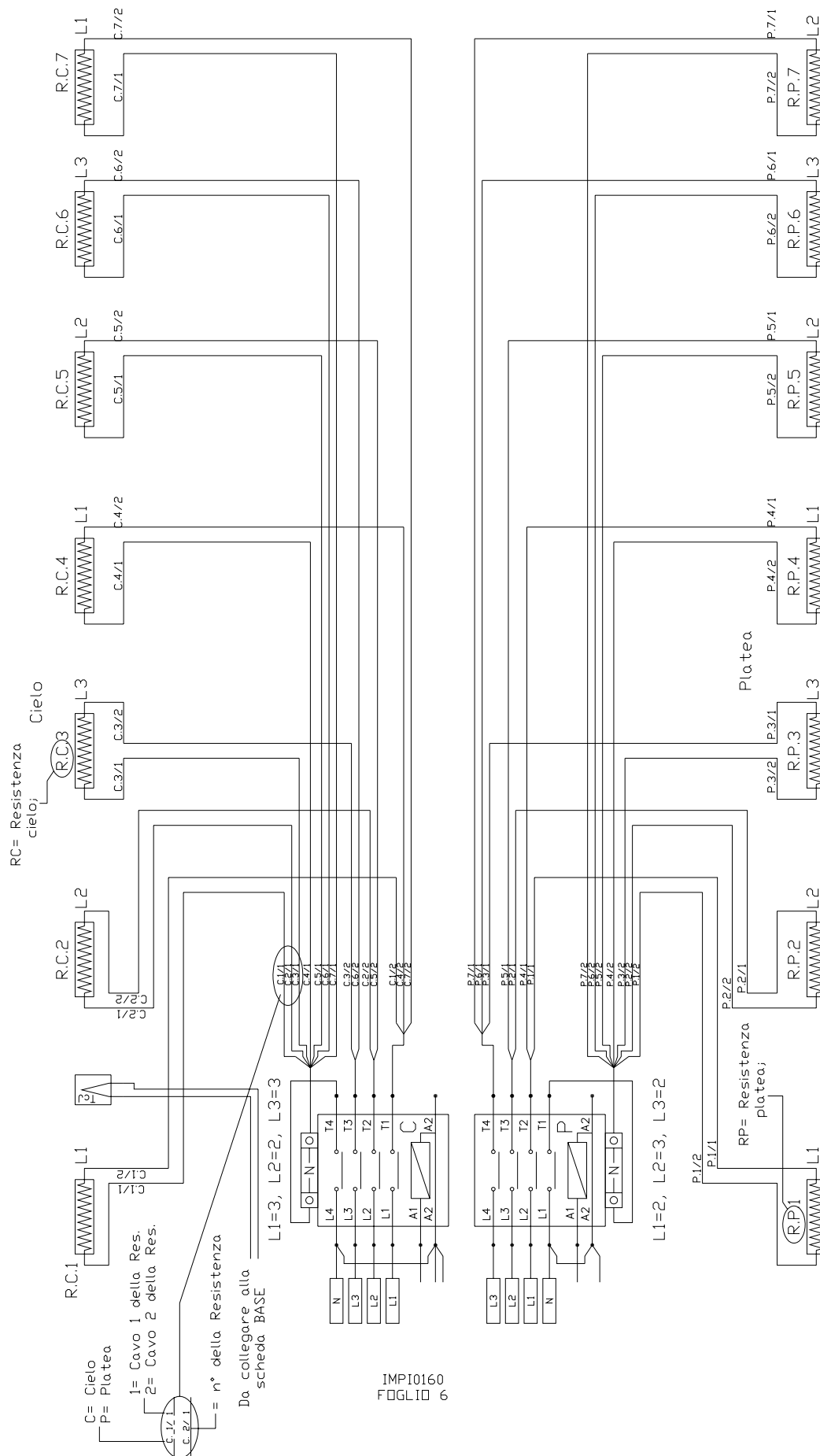


Fig. 9-6 400V 3-N Wiring diagram only for Teorema Polis Pw model 8 (power connection)

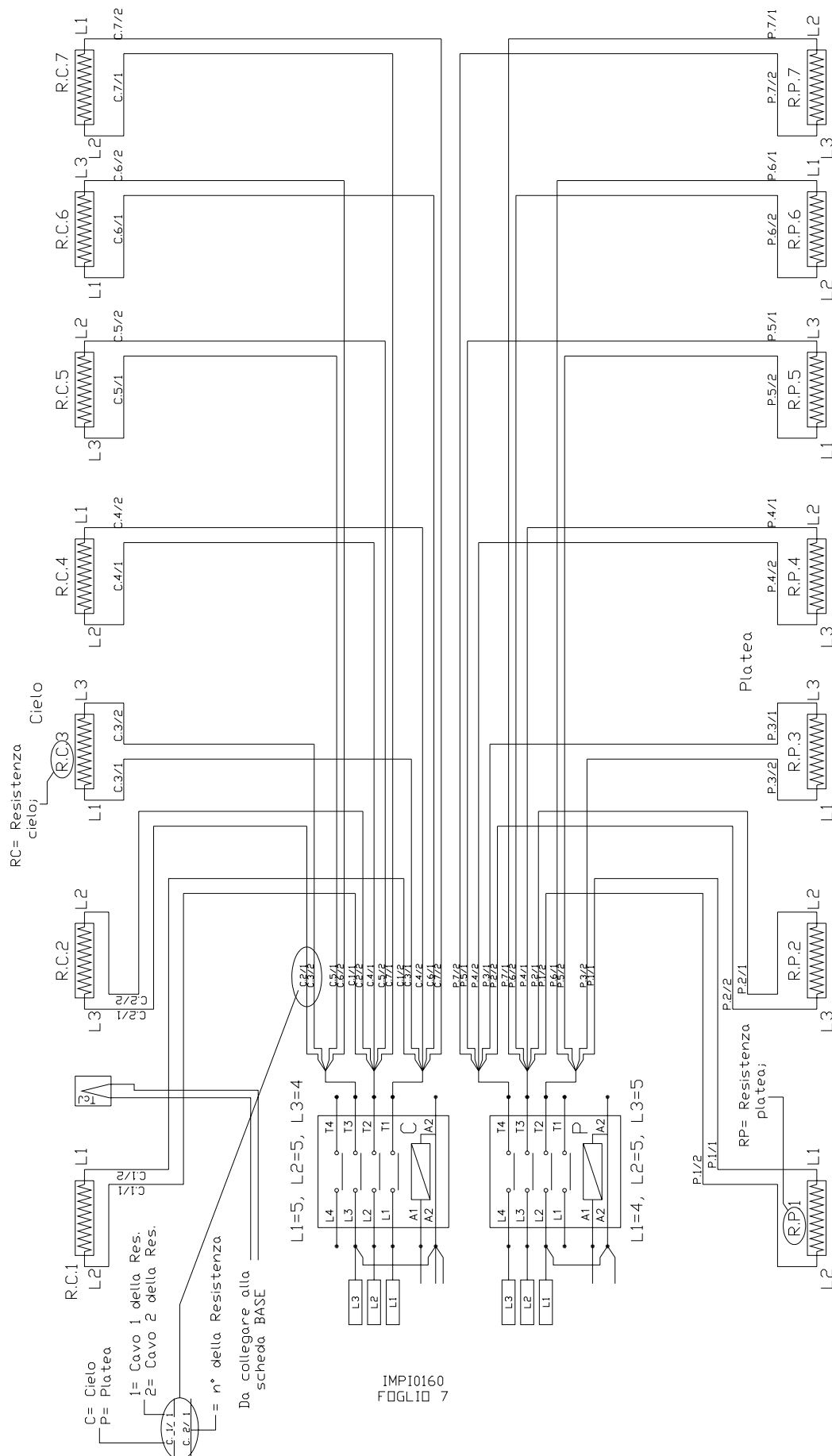


Fig. 9-7 230V 3 Wiring diagram only for Teorema Polis Pw model 8 (power connection)

9.4 Exploded diagrams and list of replacement parts

To make it easier to find the cause of the problem and replace broken parts here is a list of spare parts and exploded drawings of the oven with reference to each listed part.

For more complex interventions and in the event of breakdowns please contact us.

N°	Description	Code				
		2/MC18	2S/MC18	3/MC18	4/MC18	6/MC18
1	EXTERNAL DOOR	PORT0310	PORT0366	PORT0328	PORT0310	PORT0328
2	DOOR GLASS	CRIS0025	CRIS0026	CRIS0028	CRIS0025	CRIS0028
3	DOOR GLASS HOLDER	PORT0309	PORT0370	PORT0319	PORT0309	PORT0319
4	LEFT STAFF	SUPP0206	SUPP0206	SUPP0206	SUPP0206	SUPP0206
5	TUBE STRAP	MANI0057	MANI0092	MANI0058	MANI0057	MANI0058
6	DOOR FRAME	PORT0307	PORT0368	PORT0324	PORT0307	PORT0324
7	VAPOUR VENT KNOB	MANI0009	MANI0009	MANI0009	MANI0009	MANI0009
8	BUTTERFLY VALVE CONTROL ROD	ASTA0022	ASTA0024	ASTA0022	ASTA0020	ASTA0020
9	REFRACTORY COOKING SURFACE	REFR0023	REFR0022	REFR0023	REFR0024	REFR0024
10	BUTTERFLY VALVE COMMAND REGISTER	CARP0248	CARP0248	CARP0248	CARP0248	CARP0248
11	LEFT SIDE LOWER PANEL	FIAN0381	FIAN0448	FIAN0381	FIAN0357	FIAN0357
12	LEFT SIDE PANEL	FIAN0377	FIAN0449	FIAN0377	FIAN0363	FIAN0363
13	OVEN TOP	FIAN0373	FIAN0452	FIAN0374		
	FRONT OVEN TOP				FIAN0359	FIAN0390
	BACK OVEN TOP				FIAN0361	FIAN0389
14	BACK	FIAN0364	FIAN0453	FIAN0382	FIAN0364	FIAN0382
15	CHIMNEY	TUBO0164	TUBO0164	TUBO0164	TUBO0164	TUBO0164
16	RIGHT SIDE LOWER PANEL	FIAN0380	FIAN0447	FIAN0380	FIAN0358	FIAN0358
17	RIGHT SIDE	FIAN0375	FIAN0450	FIAN0375	FIAN0362	FIAN0362
18	LAMP HOLDER SUPPORT STAFF	CARP1553	CARP1553	CARP1553	CARP1553	CARP1553
19	TWO PRONGED LAMP HOLDER	LAMP0021	LAMP0021	LAMP0021	LAMP0021	LAMP0021
20	HALOGEN LAMP	LAMP0020	LAMP0020	LAMP0020	LAMP0020	LAMP0020
21	LIGHT GLASS	CRIS0006	CRIS0006	CRIS0006	CRIS0006	CRIS0006
22	GLASS HOLDER SUPPORT	CARP1551	CARP1551	CARP1551	CARP1551	CARP1551
23	GLASS HOLDER	CARP1550	CARP1550	CARP1550	CARP1550	CARP1550
24	ELECTRICAL COMPONENTS SUPPORT	SUPP0344	SUPP0344	SUPP0344	SUPP0344	SUPP0344
25	COOLING FAN SUPPORT	SUPP0341	SUPP0341	SUPP0341	SUPP0341	SUPP0341
26	CONTROL PANEL SUPPORT	SUPP0339	SUPP0339	SUPP0339	SUPP0339	SUPP0339
27	CONTROL PANEL	CART0259	CART0259	CART0259	CART0259	CART0259
28	BACK ELEMENT	RESI0051	RESI0035	RESI0052	RESI0051	RESI0052
29	FRONT ELEMENT	RESI0068	RESI0035	RESI0069	RESI0068	RESI0069
30	RIGHT STAFF	SUPP0207	SUPP0207	SUPP0207	SUPP0207	SUPP0207
31	BUSH	BOCC0006	BOCC0006	BOCC0006	BOCC0006	BOCC0006
32	RIGHT DOOR SPRING	SPRI0010	SPRI0010	SPRI0010	SPRI0010	SPRI0010
33	LEFT DOOR SPRING	SPRI0009	SPRI0009	SPRI0009	SPRI0009	SPRI0009

Tab. 9.1 List of spare parts

N°	Description	Code	
		6/MC18 SUPER	8/MC18
1	EXTERNAL DOOR	PORT0328	PORT0328
2	DOOR GLASS	CRIS0028	CRIS0028
3	DOOR GLASS HOLDER	PORT0319	PORT0319
4	LEFT STAFF	SUPP0206	SUPP0206
5	TUBE STRAP	MANI0058	MANI0058
6	DOOR FRAME	PORT0324	PORT0324
7	VAPOUR VENT KNOB	MANI0009	MANI0009
8	BUTTERFLY VALVE CONTROL ROD	ASTA0020	ASTA0025
9	REFRACTORY COOKING SURFACE	REFR0024	REFR00 ???
10	BUTTERFLY VALVE COMMAND REGISTER	CARP0248	CARP0248
11	LEFT SIDE LOWER PANEL	FIAN0357	FIAN0477
12	LEFT SIDE PANEL	FIAN0363	FIAN0480
13	OVEN TOP		
	FRONT OVEN TOP	FIAN0390	FIAN0484
	BACK OVEN TOP	FIAN0389	FIAN0483
14	BACK	FIAN0382	FIAN0382
15	CHIMNEY	TUBO0164	TUBO0164
16	RIGHT SIDE LOWER PANEL	FIAN0358	FIAN0478
17	RIGHT SIDE	FIAN0362	FIAN0479
18	LAMP HOLDER SUPPORT STAFF	CARP1553	CARP1553
19	TWO PRONGED LAMP HOLDER	LAMP0021	LAMP0021
20	HALOGEN LAMP	LAMP0020	LAMP0020
21	LIGHT GLASS	CRIS0006	CRIS0006
22	GLASS HOLDER SUPPORT	CARP1551	CARP1551
23	GLASS HOLDER	CARP1550	CARP1550
24	ELECTRICAL COMPONENTS SUPPORT	SUPP0344	SUPP0344
25	COOLING FAN SUPPORT	SUPP0341	SUPP0341
26	CONTROL PANEL SUPPORT	SUPP0339	SUPP0339
27	CONTROL PANEL	CART0259	CART0259
28	BACK ELEMENT	RESI0071	RESI0052
29	FRONT ELEMENT	RESI0137	RESI0069
30	RIGHT STAFF	SUPP0207	SUPP0207
31	BUSH	BOCC0006	BOCC0006
32	RIGHT DOOR SPRING	SPRI0010	SPRI0010
33	LEFT DOOR SPRING	SPRI0009	SPRI0009

Tab. 9.2 List of spare parts

N°	Description	Code			
		2/MC30	3/MC30	4/MC30	6/MC30
1	EXTERNAL DOOR	PORT0316	PORT0329	PORT0316	PORT0329
2	DOOR GLASS	CRIS0025	CRIS0028	CRIS0025	CRIS0028
3	DOOR GLASS HOLDER	PORT0309	PORT0319	PORT0309	PORT0319
4	LEFT STAFF	SUPP0027	SUPP0027	SUPP0027	SUPP0027
5	TUBE STRAP	MANI0057	MANI0058	MANI0057	MANI0058
6	DOOR FRAME	PORT0315	PORT0325	PORT0315	PORT0325
7	VAPOUR VENT KNOB	MANI0009	MANI0009	MANI0009	MANI0009
8	BUTTERFLY VALVE CONTROL ROD	ASTA0022	ASTA0022	ASTA0020	ASTA0020
9	REFRACTORY COOKING SURFACE	REFR0023	REFR0023	REFR0024	REFR0024
10	BUTTERFLY VALVE COMMAND REGISTER	CARP0248	CARP0248	CARP0248	CARP0248
11	LEFT SIDE LOWER PANEL	FIAN0381	FIAN0381	FIAN0357	FIAN0357
12	LEFT SIDE PANEL	FIAN0378	FIAN0378	FIAN0369	FIAN0369
13	OVEN TOP	FIAN0373	FIAN0374		
	FRONT OVEN TOP			FIAN0359	FIAN0390
	BACK OVEN TOP			FIAN0361	FIAN0389
14	BACK	FIAN0365	FIAN0386	FIAN0365	FIAN0386
15	CHIMNEY	TUBO0166	TUBO0166	TUBO0166	TUBO0166
16	RIGHT SIDE LOWER PANEL	FIAN0380	FIAN0380	FIAN0358	FIAN0358
17	RIGHT SIDE	FIAN0376	FIAN0376	FIAN0368	FIAN0368
18	LAMP HOLDER SUPPORT STAFF	CARP1553	CARP1553	CARP1553	CARP1553
19	TWO PRONGED LAMP HOLDER	LAMP0021	LAMP0021	LAMP0021	LAMP0021
20	HALOGEN LAMP	LAMP0020	LAMP0020	LAMP0020	LAMP0020
21	LIGHT GLASS	CRIS0006	CRIS0006	CRIS0006	CRIS0006
22	GLASS HOLDER SUPPORT	CARP1551	CARP1551	CARP1551	CARP1551
23	GLASS HOLDER	CARP1550	CARP1550	CARP1550	CARP1550
24	ELECTRICAL COMPONENTS SUPPORT	SUPP0344	SUPP0344	SUPP0344	SUPP0344
25	COOLING FAN SUPPORT	SUPP0341	SUPP0341	SUPP0341	SUPP0341
26	CONTROL PANEL SUPPORT	SUPP0340	SUPP0340	SUPP0340	SUPP0340
27	CONTROL PANEL	CART0260	CART0260	CART0260	CART0260
28	BACK ELEMENT	RESI0051	RESI0052	RESI0051	RESI0052
29	FRONT ELEMENT	RESI0068	RESI0069	RESI0068	RESI0069
30	RIGHT STAFF	SUPP0028	SUPP0028	SUPP0028	SUPP0028
31	BUSH	BOCC0006	BOCC0006	BOCC0006	BOCC0006
32	RIGHT DOOR SPRING	SPRI0010	SPRI0010	SPRI0010	SPRI0010
33	LEFT DOOR SPRING	SPRI0009	SPRI0009	SPRI0009	SPRI0009

Tab. 9.3 List of spare parts

N°	Description	Code	
		6/MC30 SUPER	8/MC30
1	EXTERNAL DOOR	PORT0329	PORT0329
2	DOOR GLASS	CRIS0028	CRIS0028
3	DOOR GLASS HOLDER	PORT0319	PORT0319
4	LEFT STAFF	SUPP0027	SUPP0027
5	TUBE STRAP	MANI0058	MANI0058
6	DOOR FRAME	PORT0325	PORT0325
7	VAPOUR VENT KNOB	MANI0009	MANI0009
8	BUTTERFLY VALVE CONTROL ROD	ASTA0020	ASTA0025
9	REFRACTORY COOKING SURFACE	REFR0024	REFR00 ???
10	BUTTERFLY VALVE COMMAND REGISTER	CARP0248	CARP0248
11	LEFT SIDE LOWER PANEL	FIAN0357	FIAN0477
12	LEFT SIDE PANEL	FIAN0369	FIAN0486
13	OVEN TOP		
	FRONT OVEN TOP	FIAN0390	FIAN0484
	BACK OVEN TOP	FIAN0389	FIAN0483
14	BACK	FIAN0386	FIAN0386
15	CHIMNEY	TUBO0166	TUBO0166
16	RIGHT SIDE LOWER PANEL	FIAN0358	FIAN0478
17	RIGHT SIDE	FIAN0368	FIAN0485
18	LAMP HOLDER SUPPORT STAFF	CARP1553	CARP1553
19	TWO PRONGED LAMP HOLDER	LAMP0021	LAMP0021
20	HALOGEN LAMP	LAMP0020	LAMP0020
21	LIGHT GLASS	CRIS0006	CRIS0006
22	GLASS HOLDER SUPPORT	CARP1551	CARP1551
23	GLASS HOLDER	CARP1550	CARP1550
24	ELECTRICAL COMPONENTS SUPPORT	SUPP0344	SUPP0344
25	COOLING FAN SUPPORT	SUPP0341	SUPP0341
26	CONTROL PANEL SUPPORT	SUPP0340	SUPP0340
27	CONTROL PANEL	CART0260	CART0260
28	BACK ELEMENT	RESI0071	RESI0052
29	FRONT ELEMENT	RESI0137	RESI0069
30	RIGHT STAFF	SUPP0028	SUPP0028
31	BUSH	BOCC0006	BOCC0006
32	RIGHT DOOR SPRING	SPRI0010	SPRI0010
33	LEFT DOOR SPRING	SPRI0009	SPRI0009

Tab. 9.4 List of spare parts

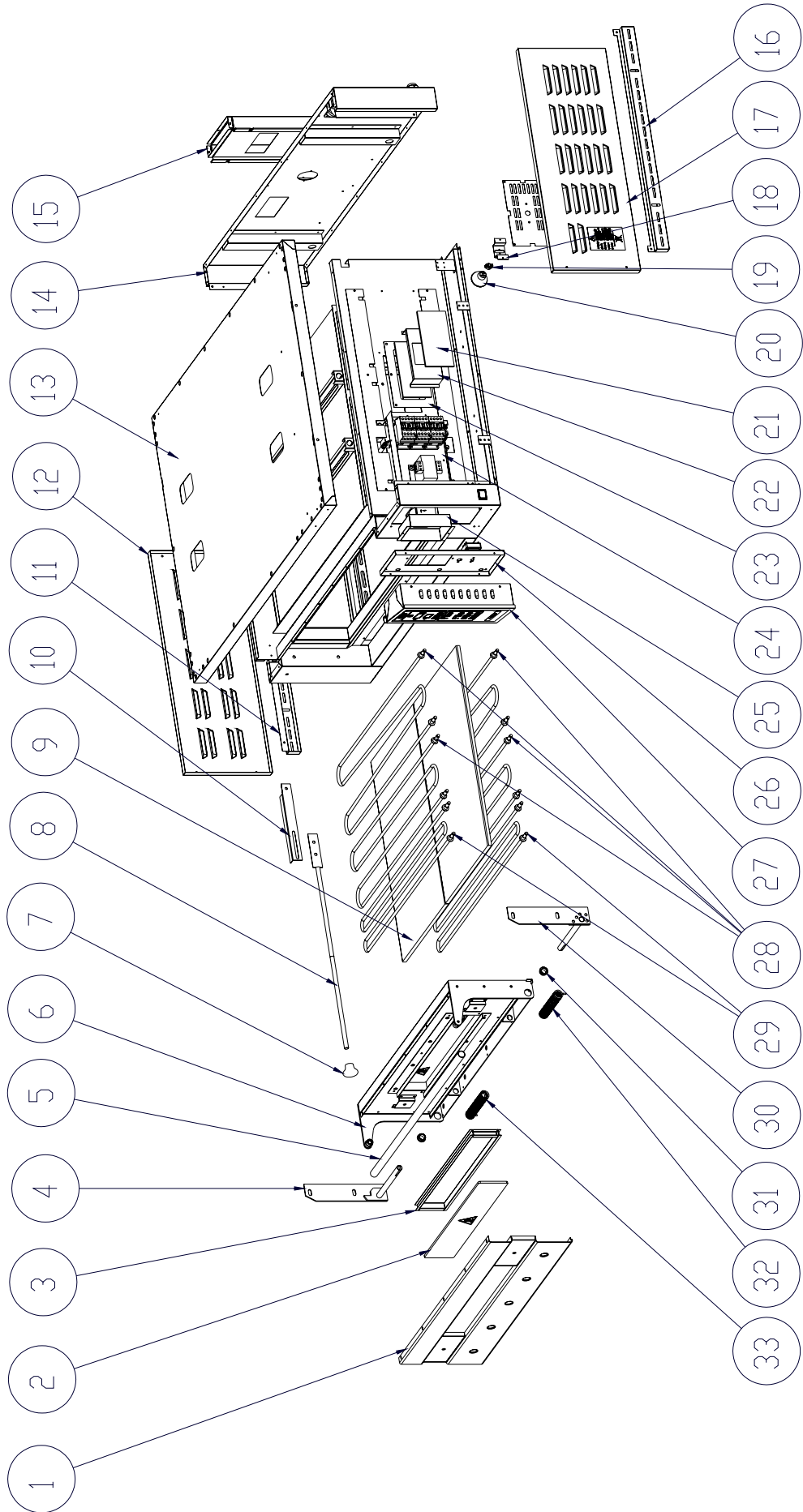


Fig. 9-8 Exploded view

ELECTRICAL COMPONENTS

TERM0020
Probe FE-COST.

ELET0144
Trasformer

VENT0024
Cooling fan

ELET0432
32A control switch

TERM0005
500°C security thermostat

ELET0440
4 mmq fuse clip
ELET0204
Fuse

ELET0462
10 mmq earth clip

ELET0148
Base board

ELET0149
Push-bottom panel

INTE0010 (only with vaporiser)
Green luminous bip switch 0-1

PANN0275
Adhesive membrane

ELET0138 (only with vaporiser)
Steaming unit keyboard

VENT0012
Cooling fan

VENT0013
Cooling fan protection grill

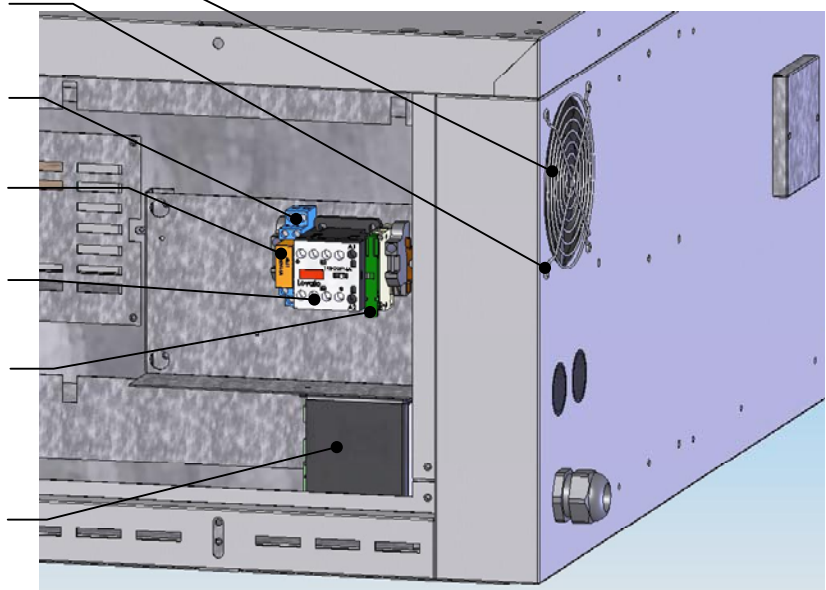
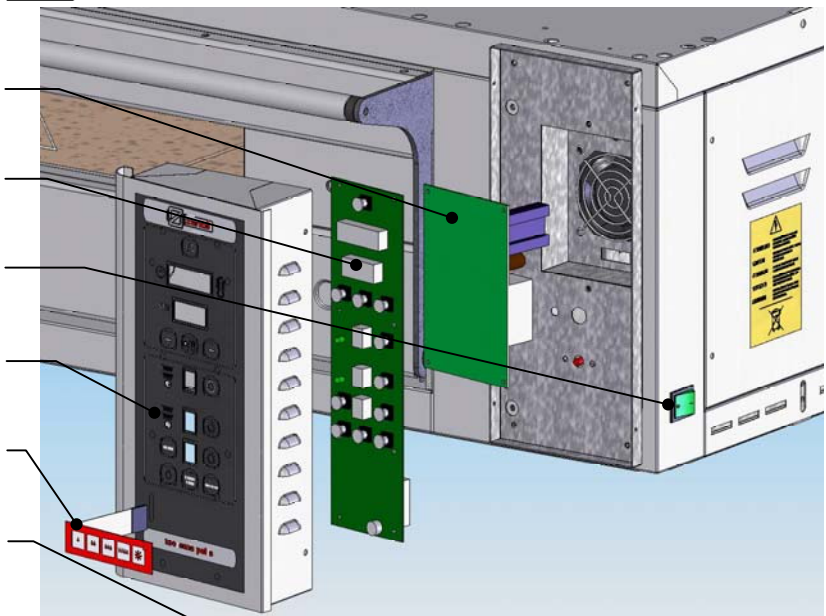
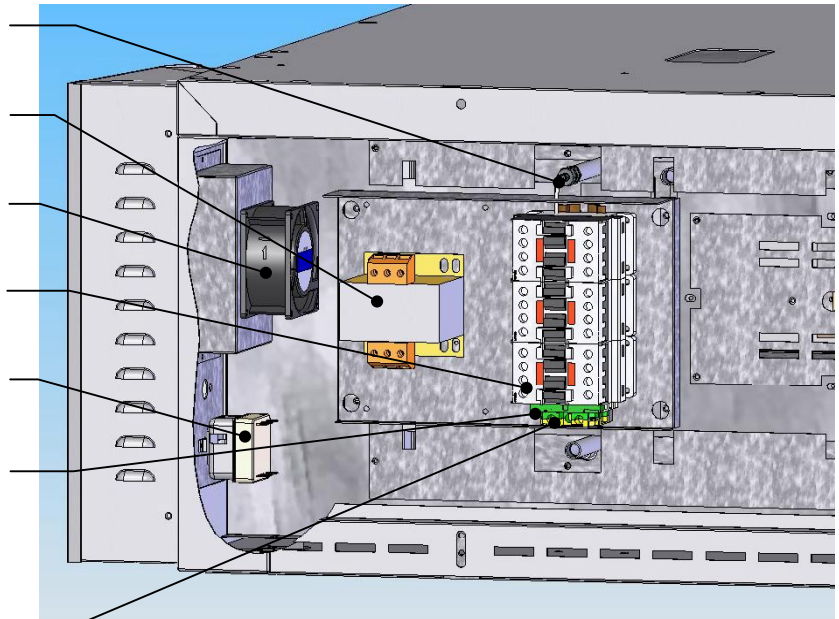
ELET0457 (only with vaporiser)
relay block

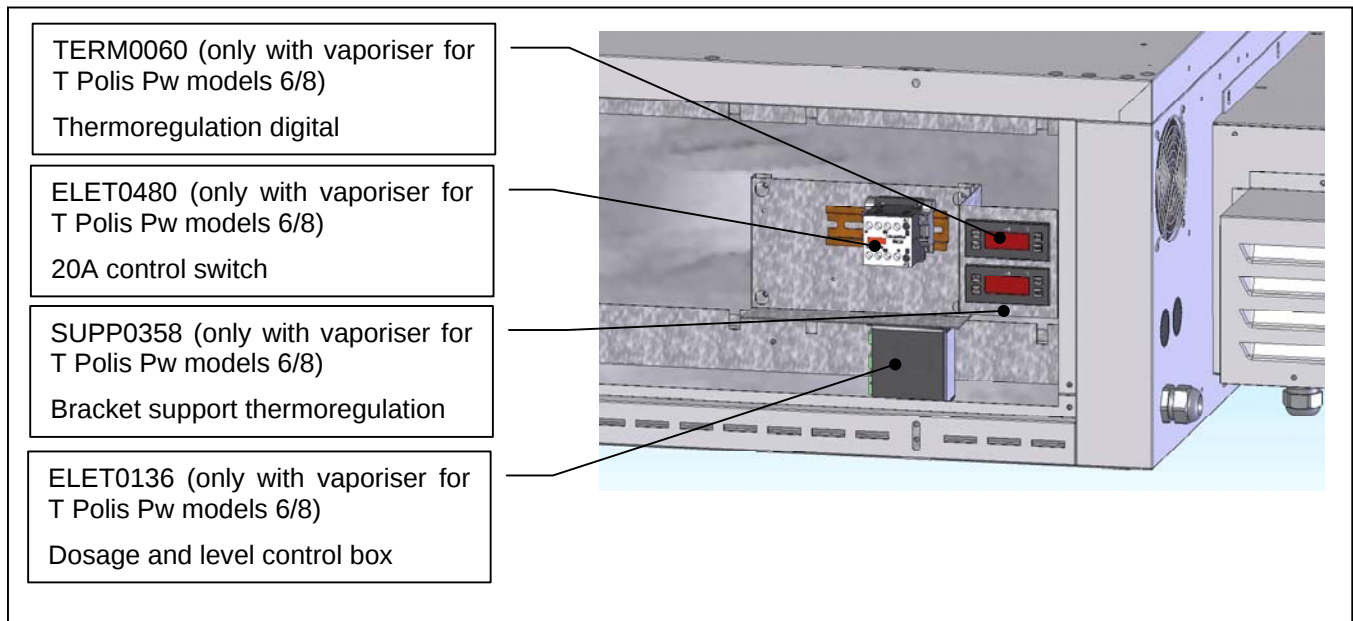
ELET0456 (only with vaporiser)
16A relay

ELET0480 (only with vaporiser)
20A control switch

ELET0440 (only with vaporiser)
4 mmq fuse clip
ELET0204 (only with vaporiser)
Fuse

ELET0533 (only with vaporiser)
Dosage and level control box





10. DECOMISSIONING AND DEMOLITION

Before decommissioning, disconnect the electrical supply and any other connections before proceeding to move the unit by a suitable means such as a forklift truck, hoist, etc. The ovens are composed of the following materials: stainless steel, varnished sheet steel, aluminum coated sheet steel, glass, ceramic material, rock wool and electrical parts.



Source separation for recycling. This product must not be disposed of together with normal domestic waste. Depending on local standards and conditions, services for collecting separated waste of RAEE may be available at centers provided by the local council.

11. DECLARATION OF CONFORMITY



DECLARATION OF CONFORMITY

We: Dr. ZANOLLI s.r.l. via Casa Quindici, 22
37066 Caselle di Sommacampagna VR
declare under our sole responsibility that the equipment:

Manufactured by Dr. ZANOLLI s.r.l.

Model

Serial number

Year of construction

is in conformity with the following European Directives:

- Electromagnetic Compatibility Directive 2004/108/CE
- Low Tension Directive 2006/95/CE

and with the compulsory regulations of the Directives.

Caselle di Sommacampagna

Dr. Zanolli s.r.l.
Tester

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