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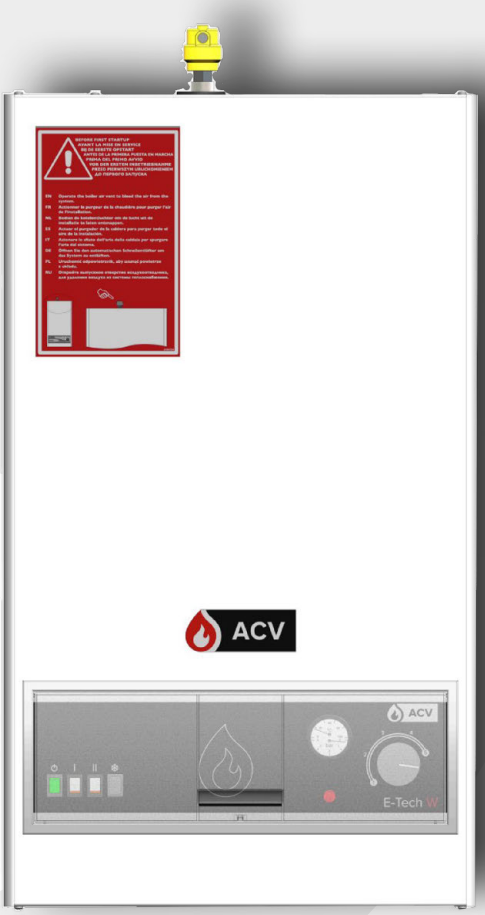
EXCELLENCE IN HOT WATER

E-Tech W

09 - 15 Mono & Tri

09 - 15 - 22 - 28 - 36 Tri

INSTALLATION, OPERATION & MAINTENANCE



Instructions for the User and the Installer

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EN

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We accept no liability should any damage result from the failure to comply with the instructions contained in this technical manual.

This manual contains important information with respect to the installation, the starting up and the maintenance of the appliance.

This manual must be provided to the user, who will read it carefully and keep it in a safe place.

Essential instructions for safety

- It is prohibited to carry out any modifications to the appliance without the manufacturer's prior and written agreement.
- The product must be installed by a qualified engineer, in accordance with applicable local standards and regulations.
- The installation must comply with the instructions contained in this manual and with the standards and regulations applicable to heating systems.
- Failure to comply with the instructions in this manual could result in personal injury or a risk of environmental pollution.
- The manufacturer declines all liability for any damage caused as a result of incorrect installation or in the event of the use of appliances or accessories that are not specified by the manufacturer.

Essential instructions for the correct operation of the appliance

- In order to ensure that the appliance operates correctly, it is essential to have it serviced by a certified installer or maintenance contractor every year.
- In case of anomaly, please call your service engineer.
- Faulty parts may only be replaced by genuine factory parts.

General remarks

- The availability of certain models as well as their accessories may vary according to markets.
- The manufacturer reserves the right to change the technical characteristics and features of its products without prior notice. Please check for an updated version of this manual in the documentation page on the website www.acv.com.
- In spite of the strict quality standards that ACV applies to its appliances during production, inspection and transport, faults may occur. Please immediately notify your approved installer of any faults.

GENERAL SAFETY INSTRUCTIONS FOR ELECTRIC APPLIANCES

BEFORE CARRYING OUT ANY WORK ON THE BOILER, MAKE SURE THAT ALL ELECTRICAL SUPPLIES ARE ISOLATED.

MAKE SURE THAT THE WIRING SYSTEM AND THE POWER INPUT LINES ARE DESIGNED AND INSTALLED BY A REGISTERED COMPANY, IN COMPLIANCE WITH THE APPLICABLE REGULATIONS.

DO NOT STORE ANY FLAMMABLE OR CORROSIVE PRODUCTS, PAINT, SOLVENTS, SALTS, CHLORIDE PRODUCTS AND OTHER DETERGENT PRODUCTS NEAR THE APPLIANCE.

THIS APPLIANCE IS NOT INTENDED FOR USE BY PERSONS (INCLUDING CHILDREN) WITH REDUCED PHYSICAL, SENSORY OR MENTAL CAPABILITIES, OR LACK OF EXPERIENCE AND KNOWLEDGE, UNLESS SUPERVISED OR UNLESS THEY HAVE BEEN GIVEN INSTRUCTIONS CONCERNING THE USE OF THE APPLIANCE BY A PERSON RESPONSIBLE FOR THEIR SAFETY.

CHILDREN SHALL NOT PLAY WITH THE APPLIANCE.

MEANING OF SYMBOLS

Symbols on the packaging

	Fragile
	Keep dry
	Keep standing, up
	Danger of tipping over
	Hand truck or pallet truck required for transport

Symbols on the appliance

	Domestic Hot Water circuit
	Primary circuit
	Electricity

Symbols in the manual

	Essential recommendation for safety (of persons and equipment)
	Essential recommendation for electrical safety (electrical hazard)
	Essential recommendation for the correct operation of the appliance or the system
	General remark
	Safety valve connected to the sewage system
	Connection to the sewage system

WHAT TO CHECK ON A REGULAR BASIS

Essential recommendations for the correct operation of the appliance

- Check regularly that the system water pressure is at least 0,1 MPa (1 bar) when cold. If the pressure drops below 0.05 MPa (0.5 bar), the built-in pressure sensor blocks the appliance until the pressure exceeds 0.08 MPa (0.8 bar).
- If it is required to top up the system to maintain the minimum recommended water pressure, always turn the appliance off and only add small amounts of water at a time. If a large amount of cold water is added in a hot boiler, the appliance can be damaged definitively.
- If the system needs to be refilled repeatedly with water, or if there is water on the floor under the boiler, contact your service engineer.

BOILER MARKING

Location: Bottom panel



The part number (Code) and serial number (S/N) of the appliance are indicated on its rating plate and must be provided to ACV in case of warranty claim. Failure to do so will make the claim void.

USING THE CONTROL PANEL

1 - **ON/OFF switch** - to start and stop the appliance.

2 - **Power level switches** - The control panel is comprised of two switches that allow the user to select the power of the appliance. When only the first switch is pushed in, the power of the boiler is limited to the first stage, i.e. about half the total power. For operation at full power, both switches must be pushed in.

3 - **Location for optional internal clock or controller** - Refer to the manual provided with the accessory.

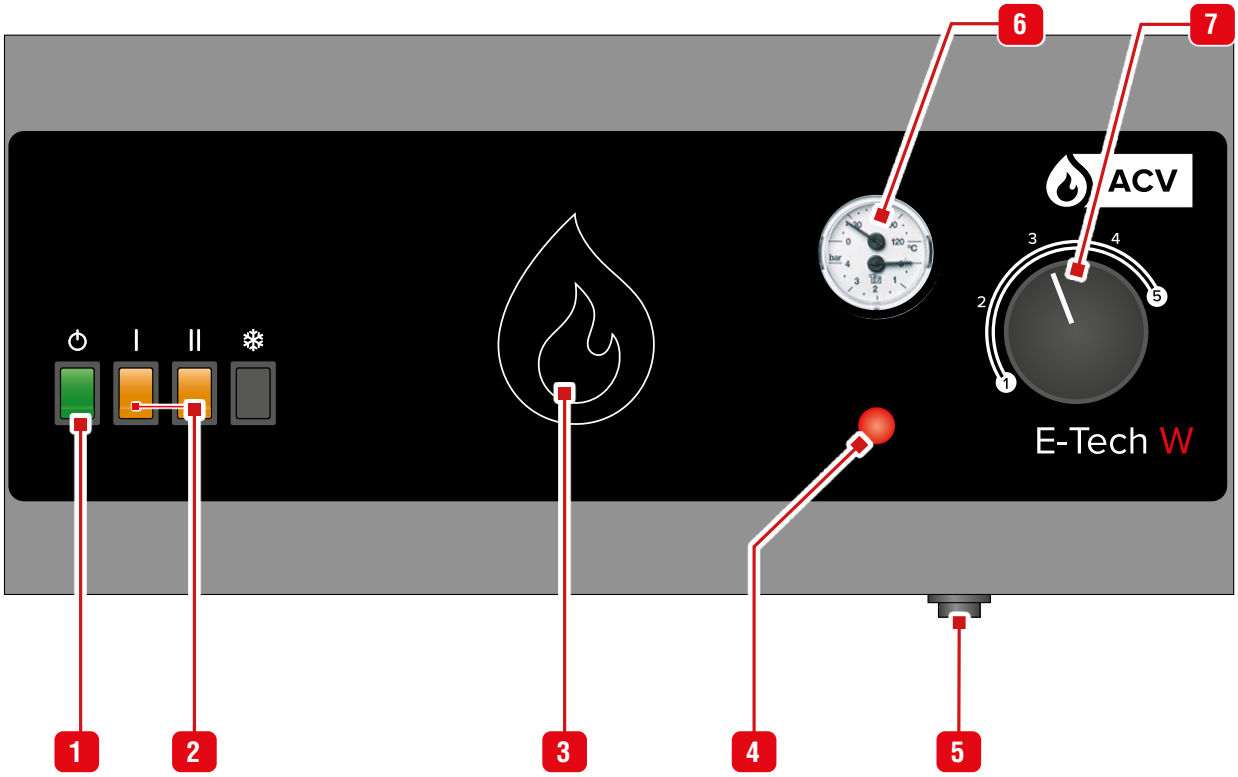
4 - **Indicator light** - The lamp turns on when the safety thermostat is activated or when the water pressure in the boiler is too low.

5 - **Manual reset high limit thermostat** - If the boiler temperature exceeds 103°C, the safety device is activated and the indicator light is turned on. Refer to ***"Resetting the High Limit Safety Thermostat" on page 25*** for the correct reset procedure.

6 - **Combined temperature and pressure gauge** - Allows the direct reading of both temperature and pressure of the boiler primary circuit.

7 - **Control thermostat -** Allows to define the temperature setpoint for the primary circuit. Each number around the dial corresponds to a specific temperature :

1 = 15°C 2 = 30°C 3 = 45°C 4 = 60°C 5 = 80°C



PRODUCT DESCRIPTION

This wall hung electric boiler is available in 7 models, single or three-phase:

- Models 09 and 15 Mono are supplied with 230 V (single phase).
- Models 09, 15, 22, 28 and 36 Tri are supplied with 400 V (three phase).

The maximum power can be adjusted by acting on the terminal bridges.

	Adjustable power	
MODELS	**MIN**	**MAX**
E-Tech W 09 Mono/Tri	5.6 kW	8.4 kW
E-Tech W 15 Mono/Tri	9.6 kW	14.4 kW
E-Tech W 22 Tri	14.4 kW	21.6 kW
E-Tech W 28 Tri	14.4 kW	28.8 kW
E-Tech W 36 Tri	18 kW	36 kW

Casing

The boiler is protected by a steel casing that first undergoes a degreasing and phosphation process before being lacquered and burnt at 220°C.

Heating body

The boiler heat exchanger is constructed from STW 22 steel. It is hydraulically tested under a 0.45 MPa (4.5 bar) pressure (maximum service pressure = 0.3 MPa (3 bar)).

Heating elements

Removable immersed heating elements, constructed from stainless steel Incoloy 800 and mounted from the top of the heating body, provide the heating source for the boiler. Refer to *"Replacing the Heating Elements" on page 26* for more information.

Hydraulic connection

The boiler is suitable for connection to most sealed heating and hot water systems, with a maximum working pressure of 0.3 MPa (3 bar) and a maximum temperature of 87°C.

The boiler is equipped with a primary 10 litre expansion vessel, suitable for a system water content of up to 160 litres. For systems of a larger capacity, it may be necessary to install an additional expansion vessel.

It is also comprised of pressure and temperature sensors, a safety valve, a low water pressure switch, control and high limit thermostats, on/off and power level switches.

A circulating pump is installed at the bottom of the boiler, on the supply side.

The boiler can be used in cascaded systems, allowing greater outputs to be achieved.

Circulating Pump

The E-Tech W boiler is equipped with a new-generation high-efficiency pump that can be set up to meet the system requirements. The pump's LED indicators display the operation mode or the status of the pump, and a pushbutton allows to access the pump settings.



Display of the level of performance (default display)



The first LED is green in normal operation, red in case of problem. The others are always yellow when turned on. When the green LED is flashing, it means that the pump has been stopped by an external signal.

Electrical connection

The boiler requires two different power supply sources, one for the control circuit, and one for the power circuit.

Connection glands for both the main power supply and optional external controls are provided, suitable for single or three phase electrical supply depending on the required boiler output.

An internal 3 amp Magnetic Circuit Breaker is provided to protect the internal control circuit, from which optional controls can be connected e.g. Internal or external timeclock that can be installed in the control panel.

Protection against frost

If the boiler is not in regular daily use during cold periods, it is recommended to fit in a frost-sensing thermostat to prevent the system from freezing.

The boiler is NOT fitted with frost protection. If the boiler is being installed in a position where freezing could take place, then a suitable external frost-sensing thermostat should be fitted.

MAIN CHARACTERISTICS

			E-TECH W
Capacity (primary)		L	13
Primary circuit expansion vessel volume		L	10
Max. service pressure		MPa (bar)	0.3 (3)
Min. service pressure		MPa (bar)	0.08 (0.8)
Max. service temperature		°C	87
Hydraulic pressure drop	E-Tech W • 09 Mono / Tri	mbar	10
	E-Tech W • 15 Mono / Tri	mbar	20
	E-Tech W • 22 Tri	mbar	45
	E-Tech W • 28 Tri	mbar	85
	E-Tech W • 36 Tri	mbar	125
Heating connection		Ø	3/4" [F]
Empty weight		kg	45

QUALITY OF WATER

Reference Parameters

To prevent corrosion and the formation of scale which can damage the appliance and the system, make sure that the following water parameters are complied with:

Heating/Primary Circuit

Parameters	Target values
Acidity	7.0 < pH < 9.5
Hardness*	< 20°fH (11.2°dH) (100 mg/l).
Conductivity	< 750 µS/cm (at 25°C)
Chlorides	< 150 mg/l
Iron	< 0.5 mg/l
Copper	< 0.1 mg/l
Dissolved oxygen	< 0.1 mg/l

* See Reference values in table opposite

MEASURES TO IMPROVE THE QUALITY OF WATER AND PROTECT THE APPLIANCE AND HYDRAULIC CIRCUITS

Prevention for the Heating/Primary circuit

1. Clean the existing circuits before installing a new appliance:
   - Before filling, the system must be cleaned in accordance with EN 14336. Chemical cleaning products may be used.
   - If the circuit is in poor condition, or the cleaning carried out is not effective, or the quantity of water in the installation is large (e.g. cascade), a sealed primary system should be created using hydraulic separation. We also recommend to install a hydrocyclone or system filter on the installation side.
2. Limit the refill frequency/number
   - To check the quantity of water introduced into the system, a water meter can be installed on the primary circuit filling connection.
   - Automatic filling systems are not recommended unless the fill frequency is monitored and the level of scale and corrosion inhibitors remain correct.
   - If your installation requires frequent water refills, make sure your system is free of water leaks.
3. Limit corrosion using inhibitors (in accordance with EN 14868).
4. Limit the presence of oxygen and sludge in the circuit
   - A deaerator (on the appliance supply line) and a dirt-separator (upstream of the appliance) must be installed, in accordance with the equipment manufacturers' specifications.*
   - It is also recommended to use additives that regulate pH and/or inhibit corrosion and scale formation.
   - The additives must be used in accordance with the instructions issued by the manufacturer of the water treatment product.

- Use components that are designed to reduce and limit as much as possible the transfer of oxygen through the walls in the primary circuit. For example, PE pipes with an oxygen barrier.

5. Check water hardness and use softened water
   - A water softener is recommended if the water hardness exceeds 20° fH (11.2° dH) (100 mg/l).
   - Check the water hardness regularly and record the values in the maintenance table.
   - For very hard water, the softener will reduce hardness (by replacing calcium and magnesium with sodium), but the water will still have too high a conductivity. If necessary, de-mineralised water should be used.

Reference Values for Water Hardness

Water hardness	°fH	°dH	mg/l $CaCO_3$
Very soft	0 - 7	0 - 3.9	0 - 70
Soft	7 - 15	3.9 - 8.4	70 - 150
Fairly hard	15 - 25	8.4 - 14	150 - 250
Hard	25 - 42	14 - 23.5	250 - 420
Very hard	> 42	> 23.5	> 420

6. Check the characteristics of water

   Treat the water if the values of the parameters measured are out of tolerance. Refer to parameters on previous page.

7. Use de-mineralised water
   - The use of de-mineralised water is recommended when filling new (or previously cleaned) systems, as it removes the problems associated with the formation of limescale.
   - By eliminating the presence of scale, the associated risks (sludge) are avoided and service life is increased.
   - By definition, de-mineralised water has a very low conductivity. Corrosion kinetics are therefore considerably slowed down.
   - On the other hand, de-mineralised water tends to become acidic (pH < 6). If the pH is too low, it is necessary to use additives to modify the pH and inhibit corrosion.

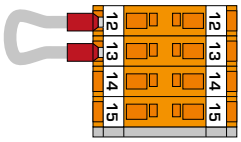
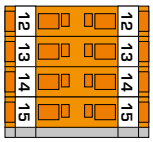
8. If antifreeze is used in the circuit, observe the conditions of use prescribed by the propylene glycol supplier.
   - Consult the manufacturer to determine the compatibility of the antifreeze with the materials of the boiler.
   - Using antifreeze in the primary circuit will reduce heating performance. The higher the antifreeze concentration, the lower the performance.
   - If antifreeze is used in the primary circuit, it is particularly important that it is inhibited. The acidity (pH) of the water should be measured periodically to ensure that there is no gradual acidification.
   - In case of problem of concentration or pH, follow the supplier's recommendations to adjust these parameters in order to avoid damaging the equipment (corrosion or accumulation of sludge).
   - When the primary circuit is used to heat domestic hot water, the antifreeze must comply with public health regulations and be non-toxic. A food-grade propylene glycol is recommended. It should be diluted in the proportions recommended by the supplier, in compliance with local regulations.
   - When using antifreeze is recommended, unless otherwise indicated by the product supplier, the proportion of antifreeze varies between 20% and 50%, in order to protect the plant effectively against corrosion and scaling.
   - To limit the risks, it is necessary to prepare the water/glycol mixture before injecting it into the system.
   - Should the appliance be connected to consumers (e.g. radiators or external water tank), a hydraulic separation is recommended between the heat generator circuit and the consumer circuit using a plate heat exchanger or similar.

9. If the water needs to be softened, check that the water softener is working properly
   - A softener replaces calcium with sodium in the water to limit the formation of limescale. To do this, the softener must periodically regenerate its sodium reserve, using salt brine.
   - When a softener is required to reduce water hardness, its operation must not cause corrosion problems.
   - If the softener is of poor quality, is poorly maintained, suffers a technical breakdown or if a component deteriorates, salt could be released into the circuit. If salt is released back into the system, the chloride level will occasionally rise, creating the risk of corrosion.

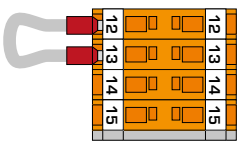
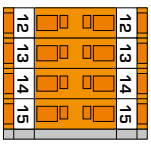
ELECTRICAL CHARACTERISTICS

		E-Tech W			
		09		15	
		Mono	Tri	Mono	Tri
Max Power	kW	8.4	8.4	14.4	14.4
Rated voltage of the power supply	V	230	3 x 400	230	3 x 400
Rated voltage of the control circuit	V	230	230	230	230
Rated frequency	Hz	50	50	50	50
Ohmic resistance of element	Ohm	37.8	37.8	22	22
Heating element type	kW	2 x 1.4	2 x 1.4	2 x 2.4	2 x 2.4
Number of heating elements		3	3	3	3
Electric protection	IP	43	43	43	43

POWER DATA - E-TECH W 09 MONO

		STAGE			CONTROL TERMINALS
		1	2	TOTAL	
Single Phase 8.4 kW (*)					
Terminal L1	(A)	24	12	36	
Terminal N	(A)	24	12	36	
Power	(kW)	5.6	2.8	8.4	
Single Phase 5.6 kW (**)					
Terminal L1	(A)	12	12	24	
Terminal N	(A)	12	12	24	
Power	(kW)	2.8	2.8	5.6	

POWER DATA - E-TECH W 15 MONO

		STAGE			CONTROL TERMINALS
		1	2	TOTAL	
Single Phase 14.4 kW (*)					
Terminal L1	(A)	41.6	20.8	62.4	
Terminal N	(A)	41.6	20.8	62.4	
Power	(kW)	9.6	4.8	14.4	
Single Phase 9.6 kW (**)					
Terminal L1	(A)	20.8	20.8	41.6	
Terminal N	(A)	20.8	20.8	41.6	
Power	(kW)	4.8	4.8	9.6	

☞ **Refer to ML book for Control and Power wiring diagrams**

These values are based on standard supply voltage in Europe, that is 1 x 230V for single phase and 3 x 400 Volt for three phase.

(*) Factory configuration.

(**) Remove bridge between terminals 12 and 13 of control wiring to deactivate the relay.

(***) Remove bridge between terminals 14 and 15 of control wiring to deactivate the relay.

		E-Tech W		
		22 Tri	28 Tri	36 Tri
Max power	kW	21.6	28.8	36
Rated voltage of the power supply	V	3 x 400	3 x 400	3 x 400
Rated voltage of the control circuit	V	230	230	230
Rated frequency	Hz	50	50	50
Ohmic resistance of element	Ohm	22	22	17.6
Heating element type	kW	2 x 2.4	2 x 2.4	2 x 3.0
Number of heating elements		5	6	6
Electric protection	IP	43	43	43

POWER DATA - E-TECH W 09 TRI

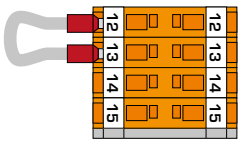
		STAGE		
		1	2	TOTAL
Three Phase 8.4 kW				
Terminal L1	(A)	6	6	12
Terminal L2	(A)	6	6	12
Terminal L3	(A)	6	6	12
Power	(kW)	4.2	4.2	8.4

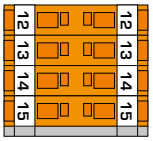
POWER DATA - E-TECH W 15 TRI

		STAGE		
		1	2	TOTAL
Three Phase 14.4 kW				
Terminal L1	(A)	10.4	10.4	20.8
Terminal L2	(A)	10.4	10.4	20.8
Terminal L3	(A)	10.4	10.4	20.8
Power	(kW)	7.2	7.2	14.4

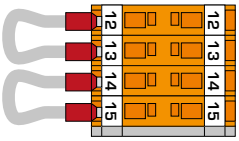
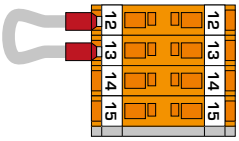
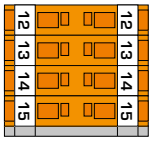
POWER DATA - E-TECH W 22 TRI

		STAGE			CONTROL TERMINALS
		1	2	TOTAL	
Three phase 21.6 kW (*)					
Terminal L1	**(A)**	20.8	10.4	31.2	
Terminal L2	**(A)**	20.8	10.4	31.2	
Terminal L3	**(A)**	20.8	10.4	31.2	
Power	**(kW)**	14.4	7.2	21.6	
Three phase 14.4 kW (**)					
Terminal L1	**(A)**	10.4	10.4	20.8	
Terminal L2	**(A)**	10.4	10.4	20.8	
Terminal L3	**(A)**	10.4	10.4	20.8	
Power	**(kW)**	7.2	7.2	14.4	

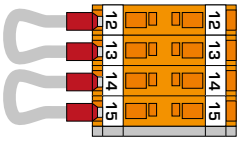
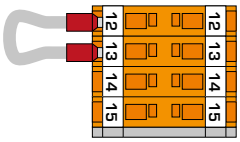
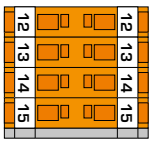




POWER DATA - E-TECH W 28 TRI

		STAGE			CONTROL TERMINALS
		1	2	TOTAL	
Three phase 28.8 kW (*)					
Terminal L1	**(A)**	20.8	20.8	41.6	
Terminal L2	**(A)**	20.8	20.8	41.6	
Terminal L3	**(A)**	20.8	20.8	41.6	
Power	**(kW)**	14.4	14.4	28.8	
Three phase 21.6 kW (***)					
Terminal L1	**(A)**	20.8	10.4	31,2	
Terminal L2	**(A)**	20.8	10.4	31,2	
Terminal L3	**(A)**	20.8	10.4	31,2	
Power	**(kW)**	14.4	7.2	21,6	
Three phase 14.4 kW (****)					
Terminal L1	**(A)**	10.4	10.4	20.8	
Terminal L2	**(A)**	10.4	10.4	20.8	
Terminal L3	**(A)**	10.4	10.4	20.8	
Power	**(kW)**	7.2	7.2	14.4	

POWER DATA - E-TECH W 36 TRI

		STAGE			CONTROL TERMINALS
		1	2	TOTAL	
Three phase 36 kW (*)					
Terminal L1	**(A)**	26	26	52	
Terminal L2	**(A)**	26	26	52	
Terminal L3	**(A)**	26	26	52	
Power	**(kW)**	18	18	36	
Three phase 27 kW (***)					
Terminal L1	**(A)**	26	13	39	
Terminal L2	**(A)**	26	13	39	
Terminal L3	**(A)**	26	13	39	
Power	**(kW)**	18	9	27	
Three phase 18 kW (****)					
Terminal L1	**(A)**	13	13	26	
Terminal L2	**(A)**	13	13	26	
Terminal L3	**(A)**	13	13	26	
Power	**(kW)**	9	9	18	

These values are based on standard supply voltage in Europe, that is 1 x 230V for single phase and 3 x 400 Volt for three phase.

(*) Factory configuration.

(**) Remove bridge between terminals 12 and 13 of control wiring to deactivate the relay.

(***) Remove bridge between terminals 14 and 15 of control wiring to deactivate the relay.

(****) Remove bridges between terminals 12 and 13, and 14 and 15 of control wiring to deactivate the relay.

SAFETY INSTRUCTIONS FOR THE INSTALLATION

General remarks

- The connections (electrical, hydraulic) must be carried out in accordance with current applicable standards and regulations.

Essential recommendations for the correct operation of the appliance

- The boiler must be installed in a dry and protected area, with an ambient temperature comprised bewtween 0°C and 45°C.
- Install the appliance to ensure easy access at all times.
- Make sure to install a pressure reducing valve set at 4.5 bar if the mains supply pressure is in excess of 6 bar.

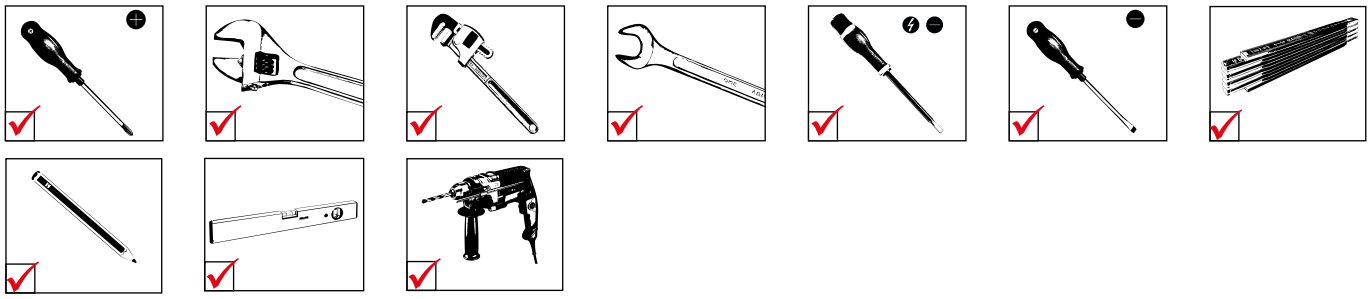
Essential recommendations for safety

- Install the boiler on a base made of non-combustible materials.
- Do not use or store any flammable, explosive or corrosive products, such as paint, solvents, salts, chloride products and other detergent products near the appliance
- This appliance is not constructed for installation in zone 3.

Essential recommendations for the electrical safety

- Only an approved installer is authorized to carry out the electrical connections.
- The appliance must be connected to the earth.
- Install a 2-way switch and a fuse or circuit breaker of the recommended rating outside the appliance, so as to be able to shut power down when servicing the appliance or before performing any operation on it.
- Isolate the external electrical supply of the appliance before performing any operation on the electrical circuit.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless supervised or unless they have been given instruction concerning the use of the appliance by a person responsible for their safety.

TOOLS REQUIRED FOR THE INSTALLATION



PACKAGE CONTENTS

The E-Tech W boilers are delivered assembled and packaged.

At product reception and after removal of packaging, check the package contents and that the appliance is free of damages.

- One E-Tech W boiler
- Installation, Operation and Maintenance Instructions
- A wall mounting kit

HANDLING INSTRUCTIONS

- **The weight of this boiler is 36Kg, which could present a risk of injury. Ask for help to lift it or handle it, or use an appropriate lifting means.**
- **Bring the appliance as close as possible to the installation location before removing the packaging.**

REMOVING THE BOILER FROM THE PACKAGING

Before lifting the boiler from the packaging, ensure that the installation area is clear and that there are no obstacles making the installation difficult or unsafe.

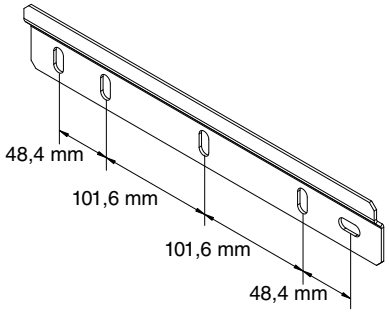
1. Open the box and remove the cardboard packaging.
2. Remove the protection pieces and discard in accordance with applicable local regulations.
3. With help from another person, lift the boiler from the packaging holding the lipped front edges of the side panels.

Do not lift or carry the boiler using the automatic air vent installed at the top and the pump at the bottom.

BOILER INSTALLATION ON THE WALL

- **The boiler must be mounted on a non flammable support.**
- **Make sure to level the bracket at installation.**

1. Observing the distances below, drill 2 holes of 14mm x 100mm.
2. Using the provided hardware, attach the bracket to the wall, making sure the bracket is level.
3. Hang the boiler on the bracket.



REMOVAL AND INSTALLATION OF THE ACCESS PANELS

Set-up conditions

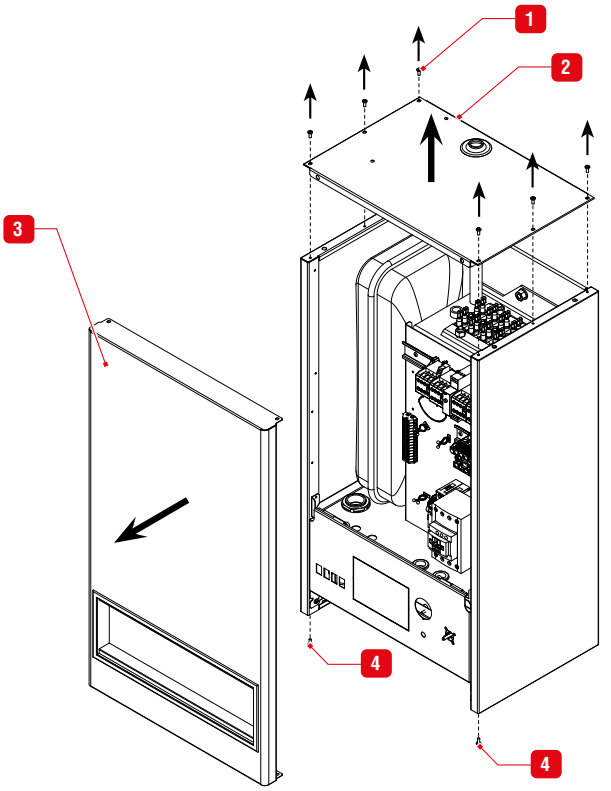
- Boiler shut down using the ON/OFF switch
- External power supply isolated (through the external electrical box)
- Boiler cooled down (if it was in operation)

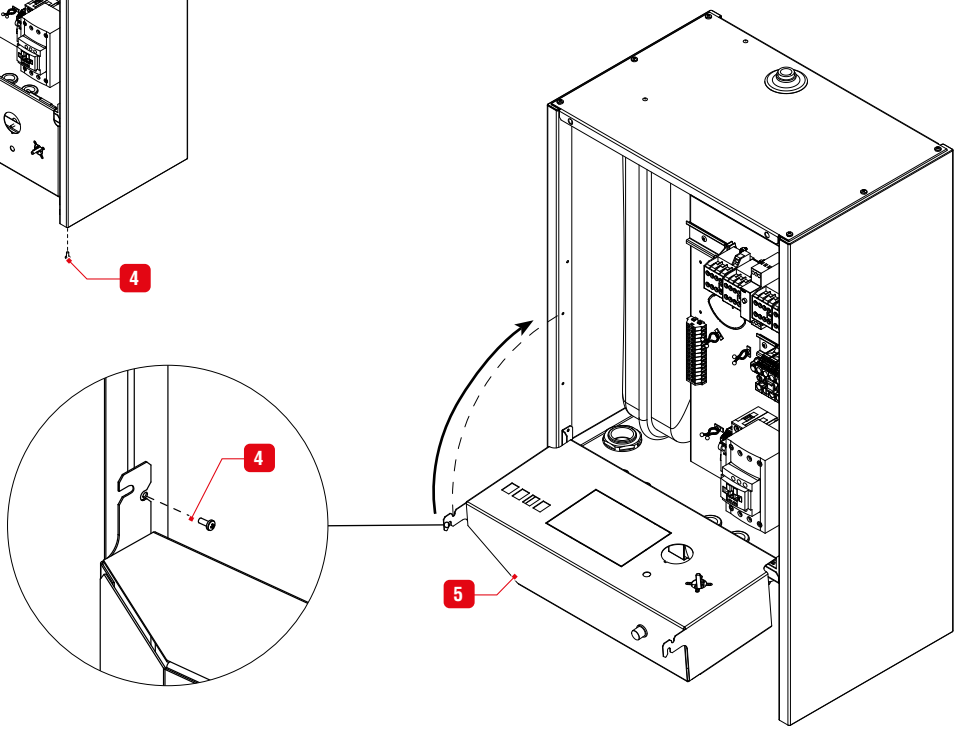
Procedure

1. If the boiler was in operation or filled with water:
   - Isolate the heating circuit through the isolating valve.
   - Drain the boiler. See *"Draining the Boiler" on page 24*.
2. Remove the automatic air vent located at the top of the boiler. Retain for reinstallation.
3. Release six screws (1). Retain for reinstallation.
4. Remove the front panel (3) and top cover (2).
5. To get access to the control panel wiring:
   - Release two screws (4) from the bottom of the control panel (5). Retain for reinstallation.
   - Rotate the control panel 180° upwards.
   - Block the control panel in position using one of the two retained screws (4).
6. Perform the procedure in the reverse order for panel reinstallation.

Follow-on tasks

- Restart the boiler as required, refer to *"Starting the boiler" on page 23*.





RECOMMENDATIONS FOR THE HYDRAULIC INSTALLATION

- Thoroughly rinse the system before connecting the boiler
- Water treatment is recommended to prevent corrosion and the formation of scale in the boiler and piping.
- If the boiler is to be installed in an existing system, ACV recommends using a cleaning agent in the systems.
- After connecting the hydraulic circuit, check the absence of leaks.

HEATING CONNECTION

Make sure to install isolating valves on the system heating circuit, so as to be able to drain the boiler, without draining the whole system.

Typical system - high temperature

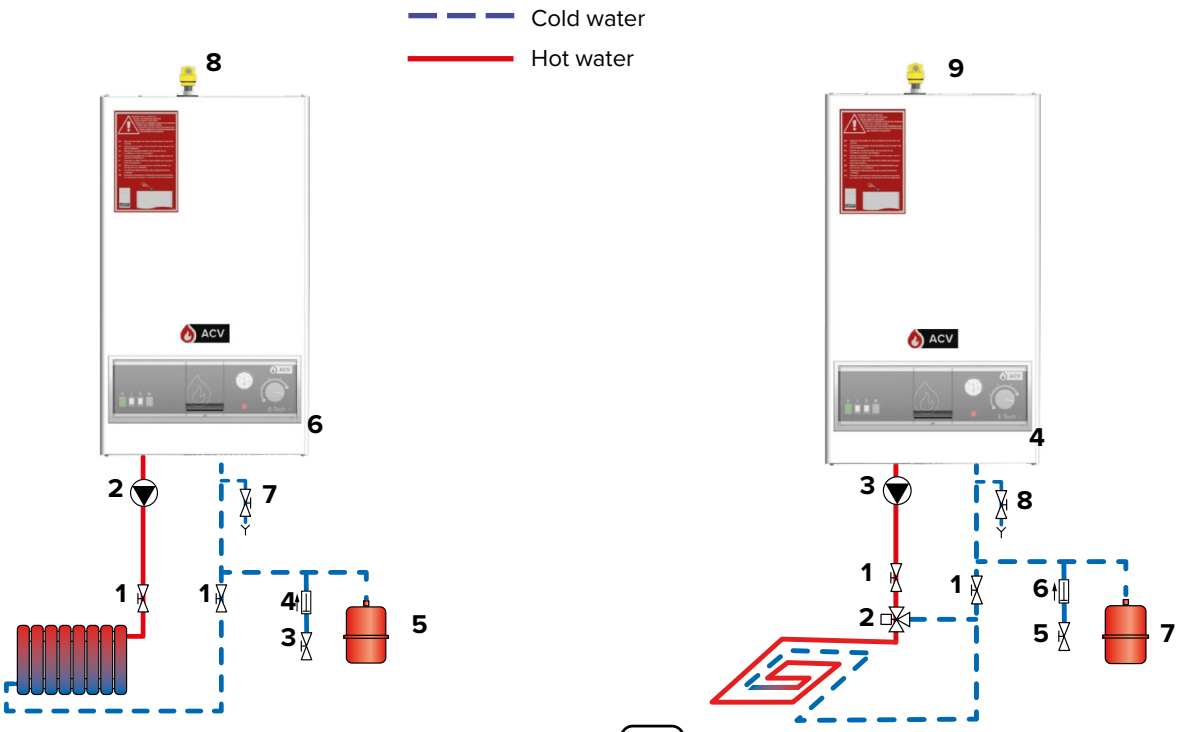
KEY

1. Isolation valve
2. Circulating pump (built-in)
3. Filling valve
4. Check valve
5. Expansion vessel (built-in, for a 160L circuit)
6. Safety valve (built-in)
7. Draining valve
8. Automatic air vent (built-in)

Typical system - low temperature

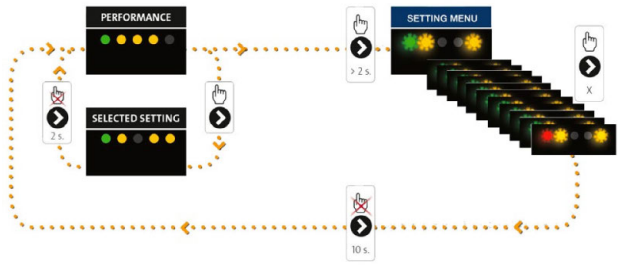
KEY

1. Isolation valve
2. 3-way mixing valve
3. Circulating pump (built-in)
4. Filling valve
5. Check valve
6. Expansion vessel (built-in, for a 160L circuit)
7. Safety valve (built-in)
8. Draining valve
9. Automatic air vent (built-in)



In the case of a floor heating system, make sure that the pomp is set to the "Constant pressure" mode.

PUMP SET-UP



- Depressing shortly the button allows to display the current set-up (operation mode)
- Depressing the button for more than 2 sec. gives access to the setting mode See table below for the available operation modes.
- After 10 sec. without action, the "Performance" mode is back.

Available Operation Modes

	LED 1	LED 2	LED 3	LED 4	LED 5
Proportional pressure	**Green**	**O**			
Constant pressure	Green		**O**		
Constant curve	Green	O	O		
Curve 1					
Curve 2				O	
Curve 3				**O**	**O**
Curve 4/Auto					O

By default, the pump is set to the "Porportional Pressure" mode / Curve 3 (See symbols in bold in the table).

Proportional pressure:

Default mode, applicable to most heating systems. Pressure increases and decreases according to the heat demands. Three preset curves are available, from the lowest to the highest. The AutoAdapt curve allows the pump to operate with the best efficiency for the type of system. This is the preferred mode for two-pipe systems, with thermostatic valves and long piping (high pressure drop).

Constant pressure:

Pressure is kept constant whether there is a heat demand or not. This is the typical mode for floor-heating systems or one-pipe systems with low pressure drop.

Constant curve:

The circulation pump works according to a constant curve, which is the standard operation for a pump. The pump will then run following the max curve when demand is high, e.g. in the case of DHW priority, and according to the min curve when demand is low (night mode).



Once the set-up is completed, the pump can be locked to prevent any accidental change. Press the button for more than 10 secondes and all the LED will light (except the red one) and blink for 1 second to indicate that the lock is on. Proceed the same way to unlock.

SAFETY INSTRUCTIONS FOR THE ELECTRICAL INSTALLATION

- Electrical connections must be carried out by a qualified technician, in accordance with regulations applicable to electrical systems.
- Make sure that the boiler is connected to the earth.
- As far as the power input to the boiler is concerned, the installation must comply with standard EN 60364-1 that define the applicable levels of insulation, and with all provisions applicable to installation conditions.
- For protection against electrical hazard, it is always recommended to install a differential cut-out device (Ground Fault Isolator) on the power supply circuit, upstream of the boiler.
- The control circuit is protected by a 3A magnetic circuit breaker.
- The default electrical safeties integrated in the boiler protect the internal parts of the boiler.
- Any additional electrical safety device must be installed outside the boiler.
- For protection against overheating, it is advisable to place an external positive safety power cut-out, controlled by the boiler safety thermostat.

SIZING THE SUPPLY WIRES

The supply wires are sized depending of the type and current of the Magnetic Circuit Breaker (MCB), the latter being sized according to the nominal current of the boiler.

The admissible current of the supply wires depends on the ambient temperature, the section and length of the wires, the wires insulation, the wires assembly, the type of installation and the environment.

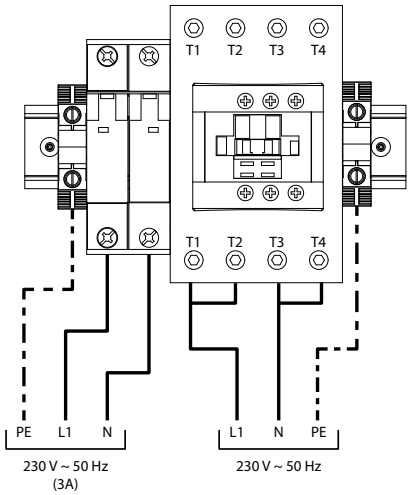
The following values are provided for information, considering an ambient temperature of 30°C and a maximal length of 5 meters. In all the cases, the installation must be performed in accordance with the applicable Wiring Regulations.

Nominal section (mm)	Nominal current of the MCB (A)
1.5	16
2.5	25
4	32
6	40
10	63
16	80

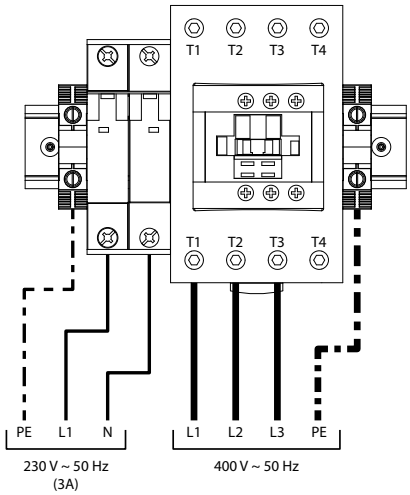
CONNECTING THE POWER SUPPLY

- This appliance must be permanently connected to fixed wiring and must be earthed.
- The wiring must be carried out by a competent person and in accordance with the current IEE Wiring Regulations.

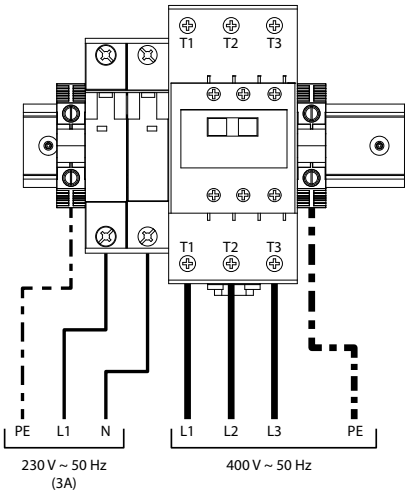
E-Tech W 09 - 15 Mono



E-Tech W 09 - 15 - 22 - 28 Tri



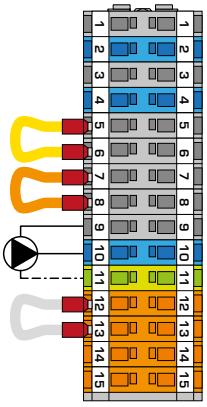
E-Tech W 36 Tri



CONNECTING THE ELECTRICAL ACCESSORIES

Models :
- **E-Tech W 09 - 15 Mono**
- **E-Tech W 22 Tri**

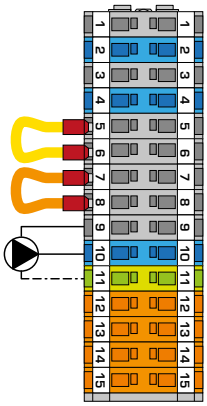
1-2 : Time clock or controller supply (optional)
3-4 : DHW kit (optional)
5-6 : Stop Bridge or time clock switch control (optional)
7-8 : Room thermostat (optional)
9-10-11 : Heating pump
12-13 : Relay K3 deactivated



TB1

Models : E-Tech W 09 - 15 Tri

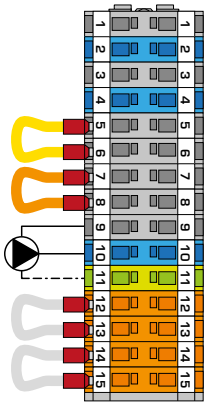
1-2 : Time clock or controller supply (optional)
3-4 : DHW kit (optional)
5-6 : Stop Bridge or time clock switch control (optional)
7-8 : Room thermostat (optional)
9-10-11 : Heating pump



TB1

Models : E-Tech W 28 - 36 kW Tri

1-2 : Time clock or controller supply (optional)
3-4 : DHW kit (optional)
5-6 : Stop Bridge or time clock switch control (optional)
7-8 : Room thermostat (optional)
9-10-11 : Heating pump
12-13 : Relay K3 deactivated
14-15 : Relay K4 deactivated



TB1

CONFIGURATIONS

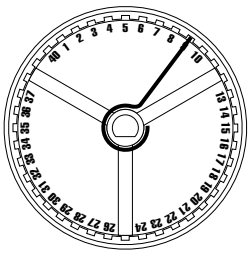
CH Connection

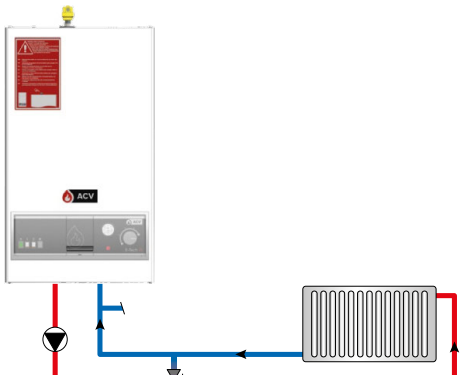
Limiting the maximum temperature setpoint

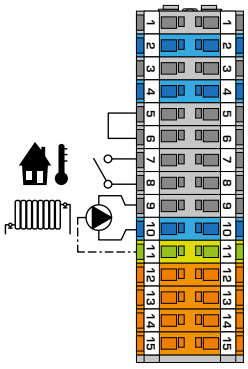
Factory setting
0 - 87°C



Floor heating
0 - 50°C





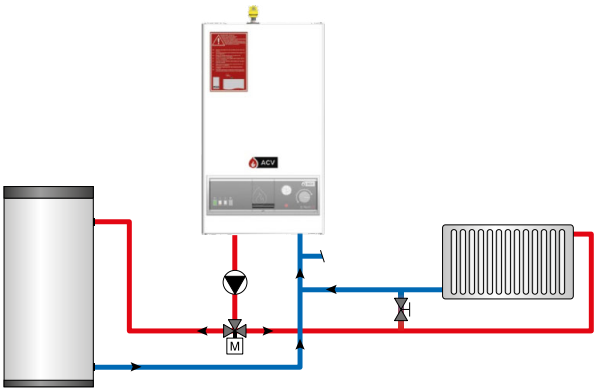


CH + DHW Connection: “Y” PLAN - See page 20

Limiting the maximum temperature setpoint

60 - 87°C



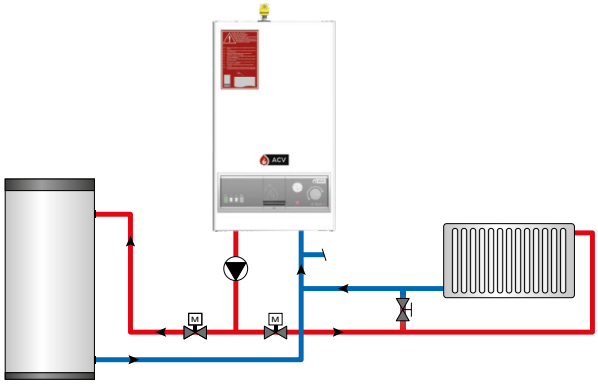


CH + DHW Connection: “S” PLAN - See page 21

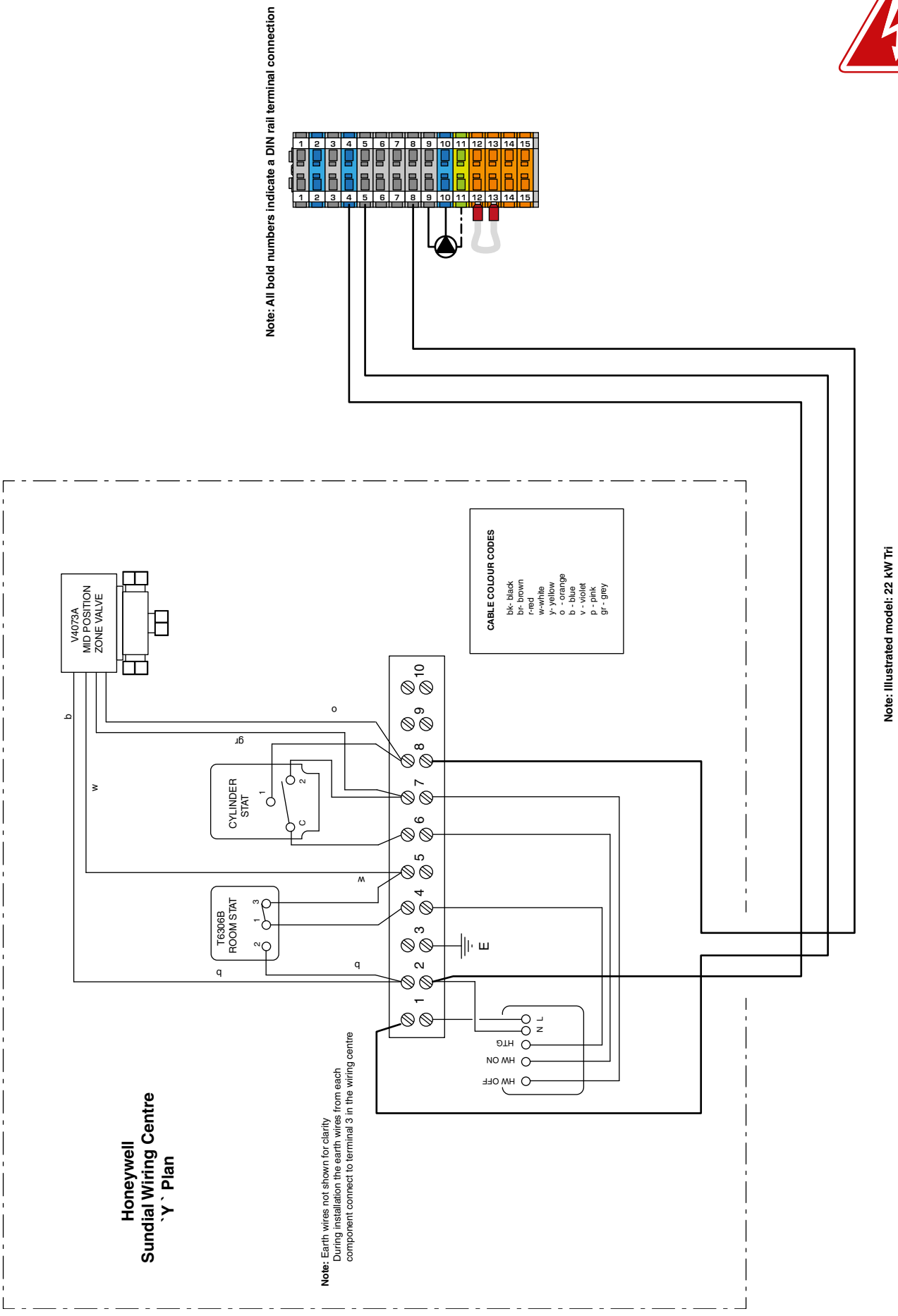
Limiting the maximum adjustable temperature

60 - 87°C

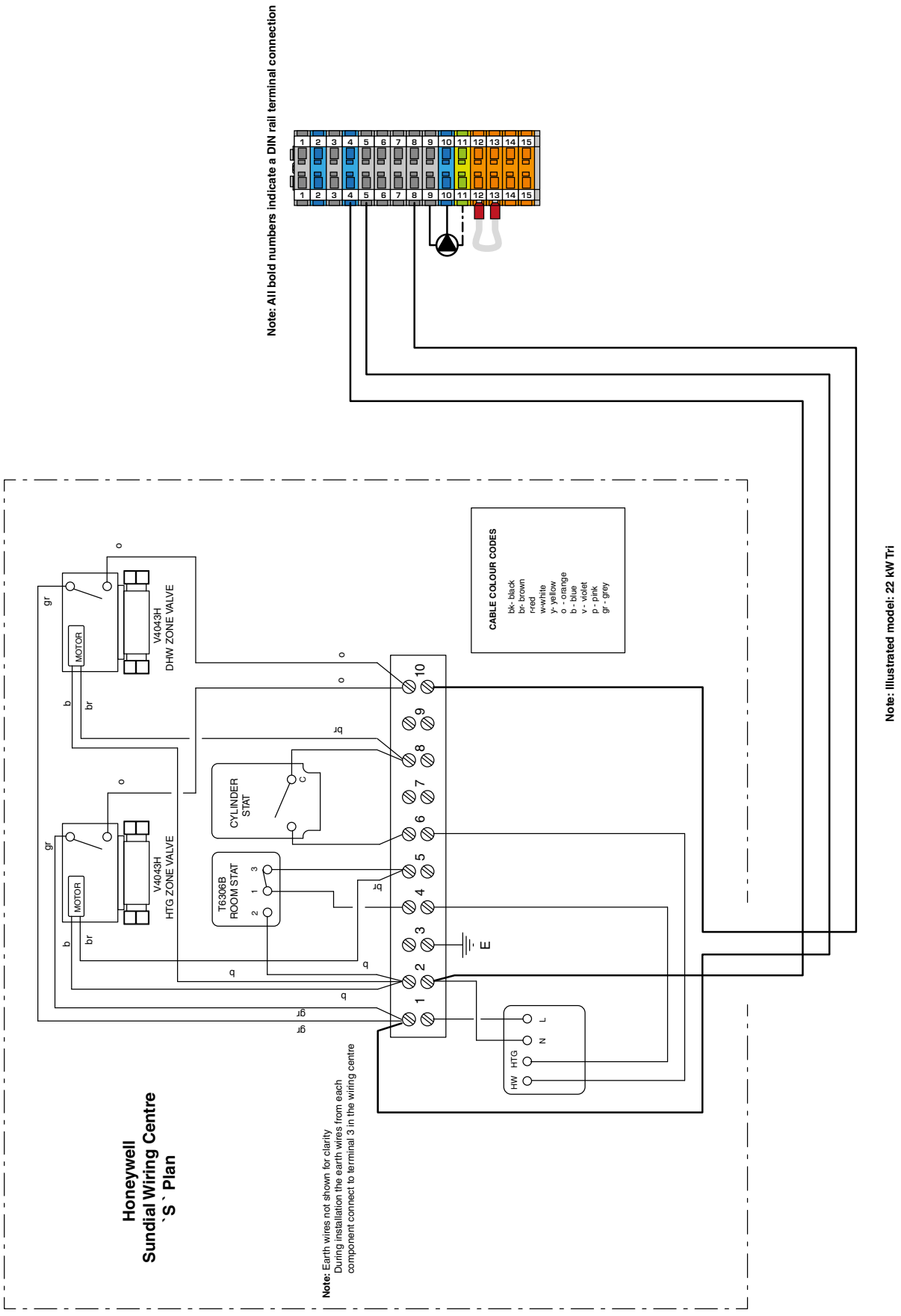




HONEYWELL SUNDIAL WIRING DIAGRAM : Y PLAN



HONEYWELL SUNDIAL WIRING DIAGRAM : S PLAN



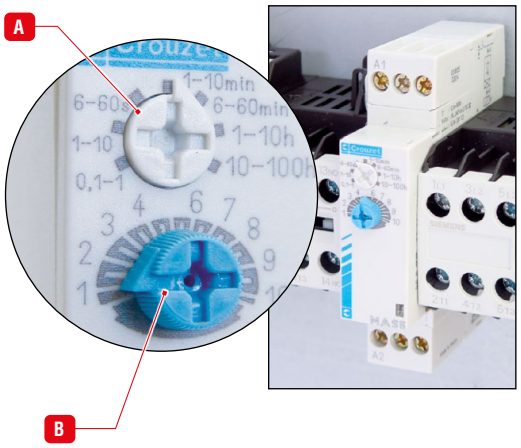
CHECKS AND SETUP BEFORE START UP

Set-up conditions

- External power supply isolated

Procedure

1. Remove the boiler front panel, refer to *"Removal and Installation of the Access Panels" on page 14*.
2. Set the internal MCB to OFF (See ML book).
3. Check all electrical connections for tightness.
4. Ensure all internal relays, contactors, etc. are secure on the DIN rails.
5. Set all the control panel control switches to OFF.
6. Check the power stage delay timer settings:
   - Adjustment screw (**A**) is factory set to the "1 to 10 min." position which is the optimum setting for the boiler. The timer can be adjusted from 0.1 sec. to 10 hours.
   - Adjustment screw (**B**) is used to set the DELAY ON time of the following stage contactors, the available settings are in 1 minute increments if A is set to 1 to 10 minutes.
   - This function is particularly useful in areas where gradual switching of electrical load is required and the resulting maximum demand kept to a minimum. The timers add to the flexibility of the installation but must be optimised by a qualified engineer. The nominal setting is "1".
7. Set the control thermostat to the desired temperature.



FILLING THE SYSTEM

If the system is fitted with an external hot water tank, first put the DHW circuit under pressure before pressurizing the heating (primary) circuit. Refer to the hot water preparation tank manual for more information.

Set-up conditions

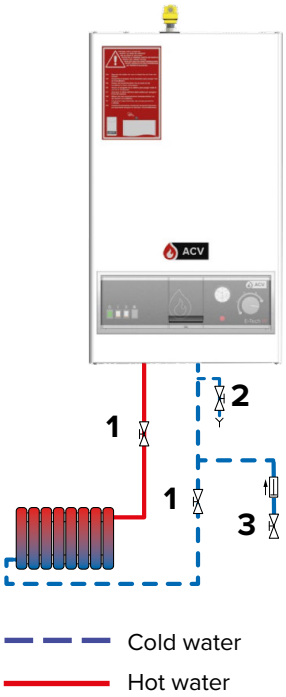
- External power supply isolated
- DHW circuit (if any) under pressure

Filling procedure

1. Open the isolating valves (**1**).
2. Make sure that the drain valve (**2**) is tightly closed.
3. Open the filling valve (**3**).
4. Make sure the air vent is open, as required.
5. Once the system is bled from air, bring the pressure to the static pressure between 0.15 and 0.2 MPa (1.5 bar and 2 bar).
6. Close the filling valve (**3**)

Follow-on tasks

- Check there is no leak.



STARTING THE BOILER

Set-up conditions

- Hydraulic and electric connections made
- External power supply isolated
- Boiler filled and pressurised

Procedure

Before starting the boiler, make sure that the air is bled from the heating circuit using the automatic air vent located at the top of the boiler. Note that the black dust cap on the air vent should be left loose to allow the auto vent to function.



1. Place all the switches (**1** & **2**) of the control panel to OFF.
2. Set the internal MCB to ON (See ML book).
3. Install the boiler front panel, refer to *"Removal and Installation of the Access Panels" on page 14*.
4. Provide power supply to boiler through the external electrical box.
5. Turn the boiler on using the ON/OFF switch (**1**).
6. After a few minutes of operation of the circulating pump, check the circuit pressure on the boiler manometer (3).
7. If necessary, place the ON/OFF switch (**1**) to OFF, bleed the air from the circuit and top-up the circuit with water to reach the minimum pressure of 0.1 MPa (1 bar), then turn the boiler ON again.
8. If necessary, perform any additional set-up of the pump, according to the type of system. Refer to *"Pump Set-up" on page 16*.
9. Switch on the power levels switch stage 1, the first stage contactors will energise.
10. Switch on the power levels switch stage 2, after a short delay the second stage contactors will energise.
11. The boiler temperature will now rise as indicated by the combined temperature and pressure gauge (**3**).
12. The temperature will continue to rise until the control thermostat temperature setting is reached then the boiler will switch off.
13. Set timeclock (if fitted) and/or external controls to desired boiler operating on/off times.

Follow-on Task(s)

1. Remove the red sticker from the front face of the boiler.

After several days of operation, re-check all electrical and hydraulic connections for tightness, as well as the system operating pressure. Correct and adjust as necessary.

RECOMMENDATIONS FOR THE BOILER MAINTENANCE

Essential recommendations for the electrical safety

- Before opening the boiler for maintenance, turn off the boiler by pushing on the ON/OFF master switch.
- Isolate the external power supply of the appliance before performing any operation, unless it is required to take measurements or perform system setup.

Essential recommendations for safety

- Water flowing out of the drain valve may be extremely hot and could cause severe scalding.
- Do not use solvents to clean any of the components. The components could be damaged, resulting in unreliable or unsafe operation.

Essential recommendations for the correct operation of the appliance

- It is recommended to have the boiler serviced at least once a year or every 1,500 hours by a qualified technician, preferably at the start of the heating season. More frequent servicing may be required depending on boiler use. Please consult your installer for advice.
- The boiler maintenance will be carried out by a qualified engineer, and the defective parts may only be replaced by genuine factory parts.
- Make sure to replace any gaskets or seals on the removed components before reinstalling them.
- To ensure maximum efficiency and reliability of the unit, it is recommended that the end-user perform the periodic checks mentioned in the Safety section of this manual.
- Control the tightness of the hydraulic circuit connections.

BOILER SHUT-DOWN FOR MAINTENANCE

1. Switch the boiler off using the ON/OFF master switch
2. Isolate the external power supply.

DRAINING THE BOILER

Set-up conditions

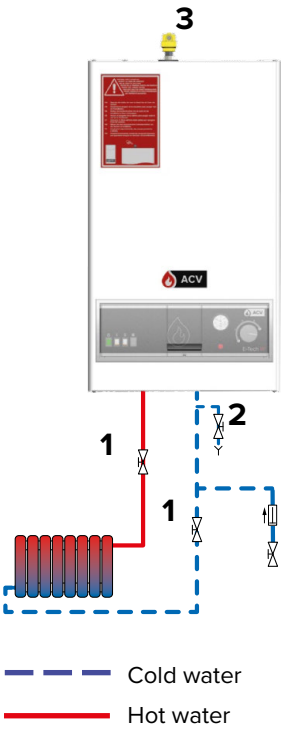
- Boiler shut down through the ON/OFF switch
- External power supply isolated (through the external electrical box)
- Boiler cooled down (if it was in operation)

Procedure

1. Close the heating circuit isolating valves (1)
2. Open the draining valve (2) and allow the water to flow to the drain
3. Actuate the automatic air vent (3).

Follow-on Task(s)

None



Before carrying out any work on the system ensure that the boiler is cool and all electrical supplies are isolated.

BOILER MAINTENANCE

Set-up conditions

- Boiler shut down through the ON/OFF switch
- External power supply isolated (through the external electrical box)
- Boiler cooled down (if it was in operation)

Procedure

1. Remove the top panel and front face of the boiler. Refer to *"Removal and Installation of the Access Panels" on page 14*.
2. Perform a visual inspection of the boiler looking out for signs of water leakage from joints, expansion vessel, and the area around the elements on top of the boiler.
3. Perform a visual inspection of all wiring and cables in the boiler casing, checking for signs of overheating or burning.
4. Check all push-on electrical connectors for tightness and good connection to the relative components.
5. Using an appropriate screwdriver, check all electrical terminals on DIN rails and on all components for tightness.
6. Check the settings on the internal timers in accordance with *"Checks and setup before start up" on page 22*.

Follow-on task(s)

7. Replace the heating elements if necessary. See *"Replacing the Heating Elements" on page 26.*
8. Restart the boiler, refer to *"Starting the boiler" on page 23*.

CHECKING THE SAFETY DEVICES

9. Check the correct operation of:
   - the thermostats.
   - the safety valve(s).
   - the automatic air vent.

RESETTING THE HIGH LIMIT SAFETY THERMOSTAT

Set-up conditions

- Boiler shut down through the ON/OFF switch
- External power supply isolated (through the external electrical box)
- Boiler cooled down (if it was in operation)

Procedure

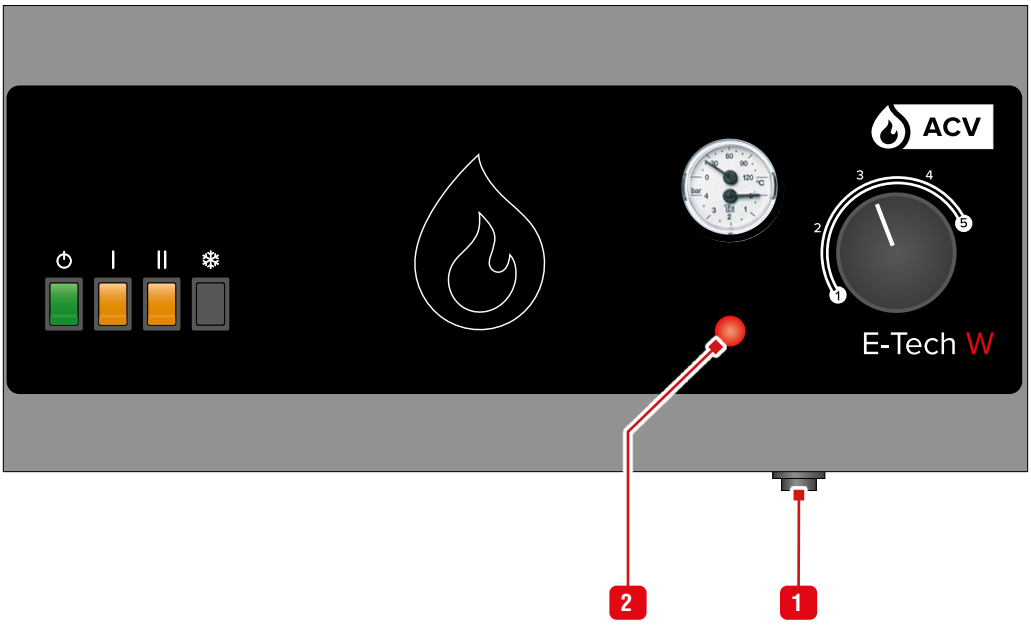
1. Unscrew and remove the safety thermostat (1) cover, at the bottom of the boiler.
2. Push on the safety thermostat (**1**) to reset it. A “click” sound should be heard.

In case no “click” sound is heard, the safety device is not the cause of the shut-off. Troubleshooting should be performed by a qualified service engineer.

3. Reinstall the safety thermostat cover.

Follow-on task(s)

1. Activate electrical power through the external electrical box
2. Turn the boiler on using the ON/OFF switch.
3. Make sure that the indicator light (**2**) is off.



REPLACING THE HEATING ELEMENTS

Set-up conditions

- Boiler shut down through the ON/OFF switch
- External power supply isolated (through the external electrical box)
- Boiler cooled down (if it was in operation)
- Top cover removed (see *"Removal and Installation of the Access Panels" on page 14*).

Removal Procedure

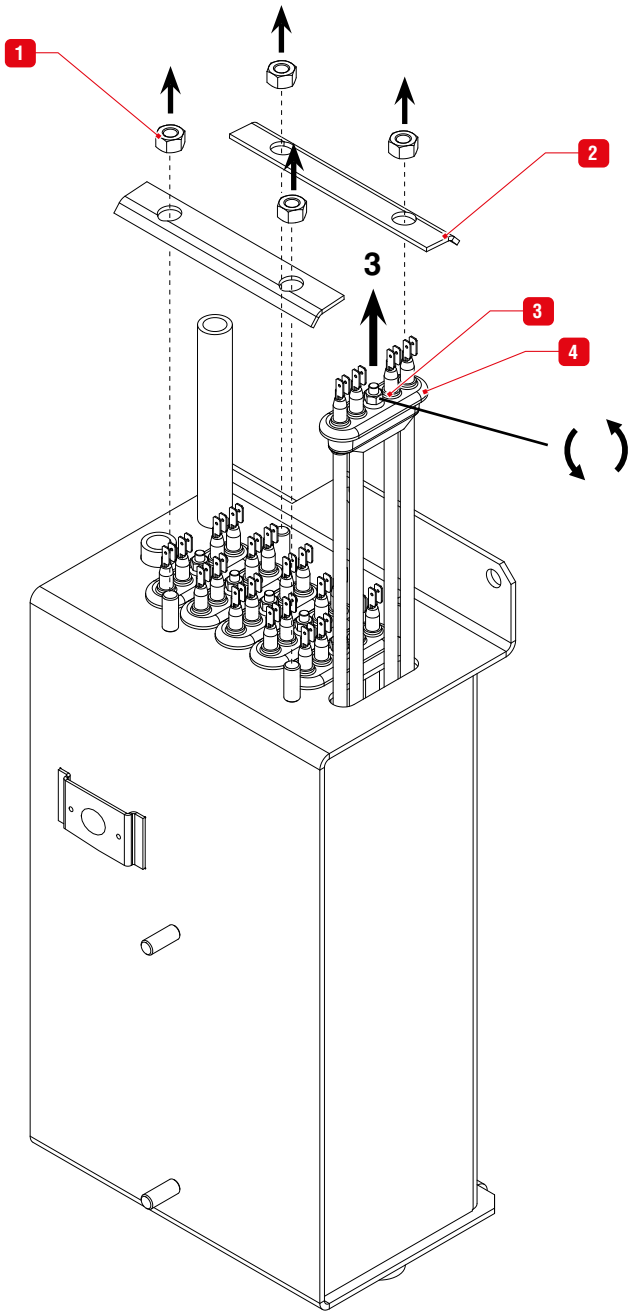
1. Release four nuts (1). Retain for reinstallation.
2. Remove two holders (2). Retain for reinstallation.
3. Release the center nut (3) of the heating element (4) to be removed.
4. Remove heating element (4). Clean or discard it as required.

Installation Procedure

1. Install the clean/new heating element (4) in position. Do not tighten the center nut (3) at this stage.
2. Install two holders (2) and tighten with two retained nuts (1).
3. Tighten the center nut (3) of the heating element (4).

Follow-on Task(s)

1. Check that all nuts are tight.
2. Reinstall the top cover. Refer to *"Removal and Installation of the Access Panels" on page 14*.
3. Restart the boiler as required, refer to *"Starting the boiler" on page 23*.



TROUBLESHOOTING THE PUMP

ALARM STATUS	
 Blocking	Pump rotor blocked; wait for the pump to restart or mechanically unblock the shaft with a screwdriver.
 Voltage too low	Supply voltage too low; check the supply voltage.
 Electrical failure	The pump has stopped because of a lack of voltage supply or a serious failure; check the supply voltage or replace the pump, as required.

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Groupe Atlantic Manufacturing Belgium
Rue Henry Becquerel, 1
7180 Seneffe
Belgium

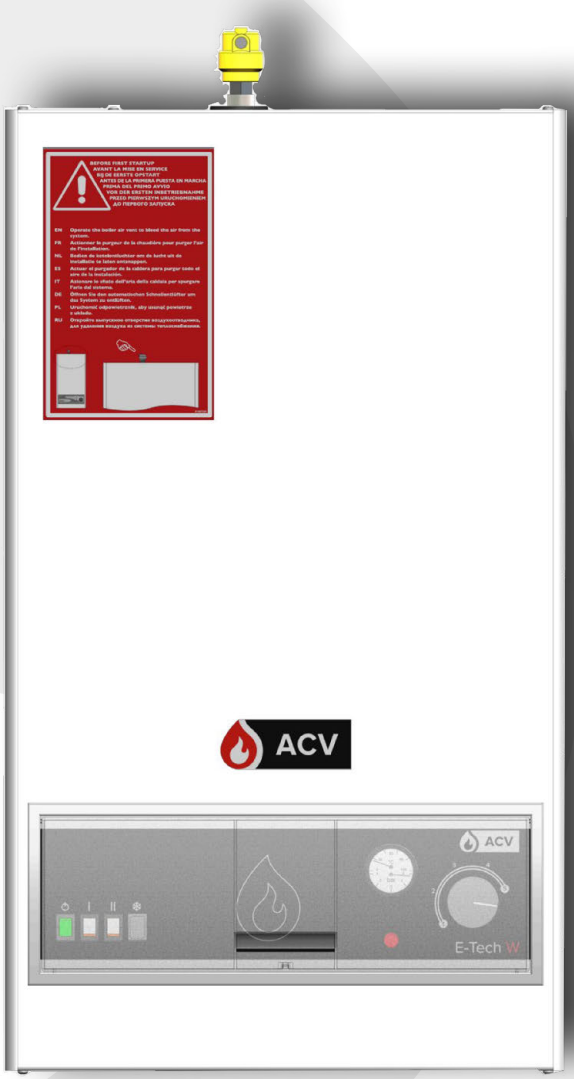
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EXCELLENCE IN HOT WATER

E-Tech W

09 - 15 Mono

09 - 15 - 22 - 28 - 36 Tri



 3

 4

E-Tech W 09 Mono 4

E-Tech W 15 Mono 8

E-Tech W 09 - 15 Tri 12

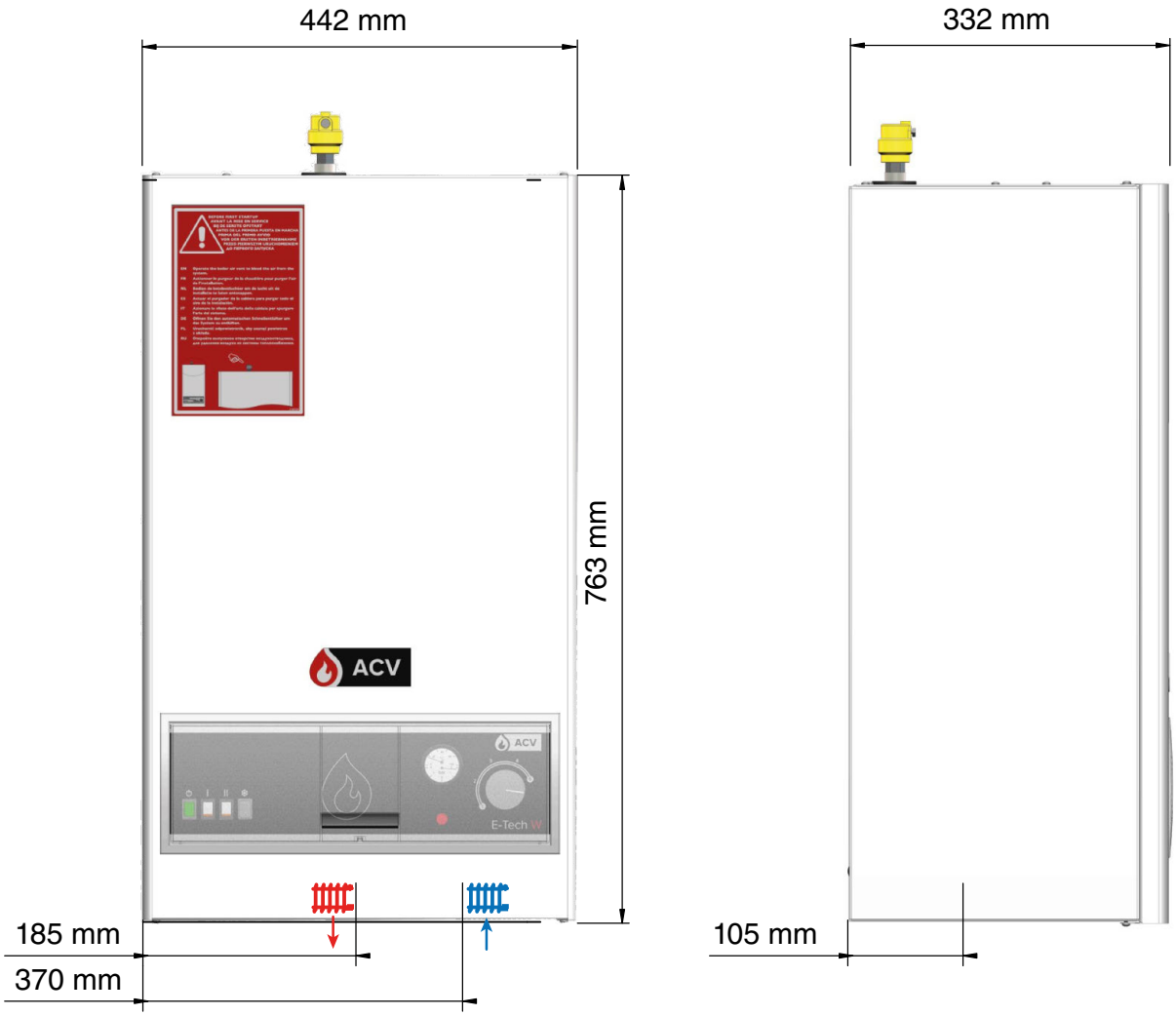
E-Tech W 22 Tri 16

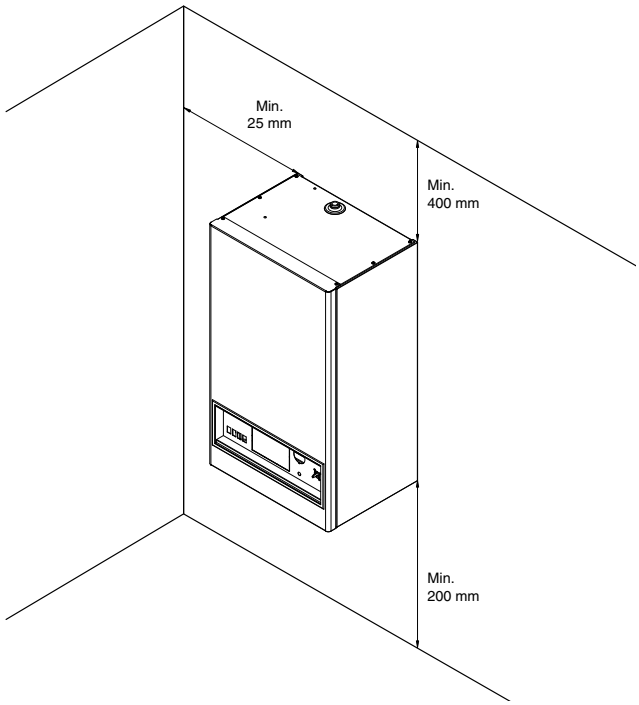
E-Tech W 28 Tri 20

E-Tech W 36 Tri 24

 28

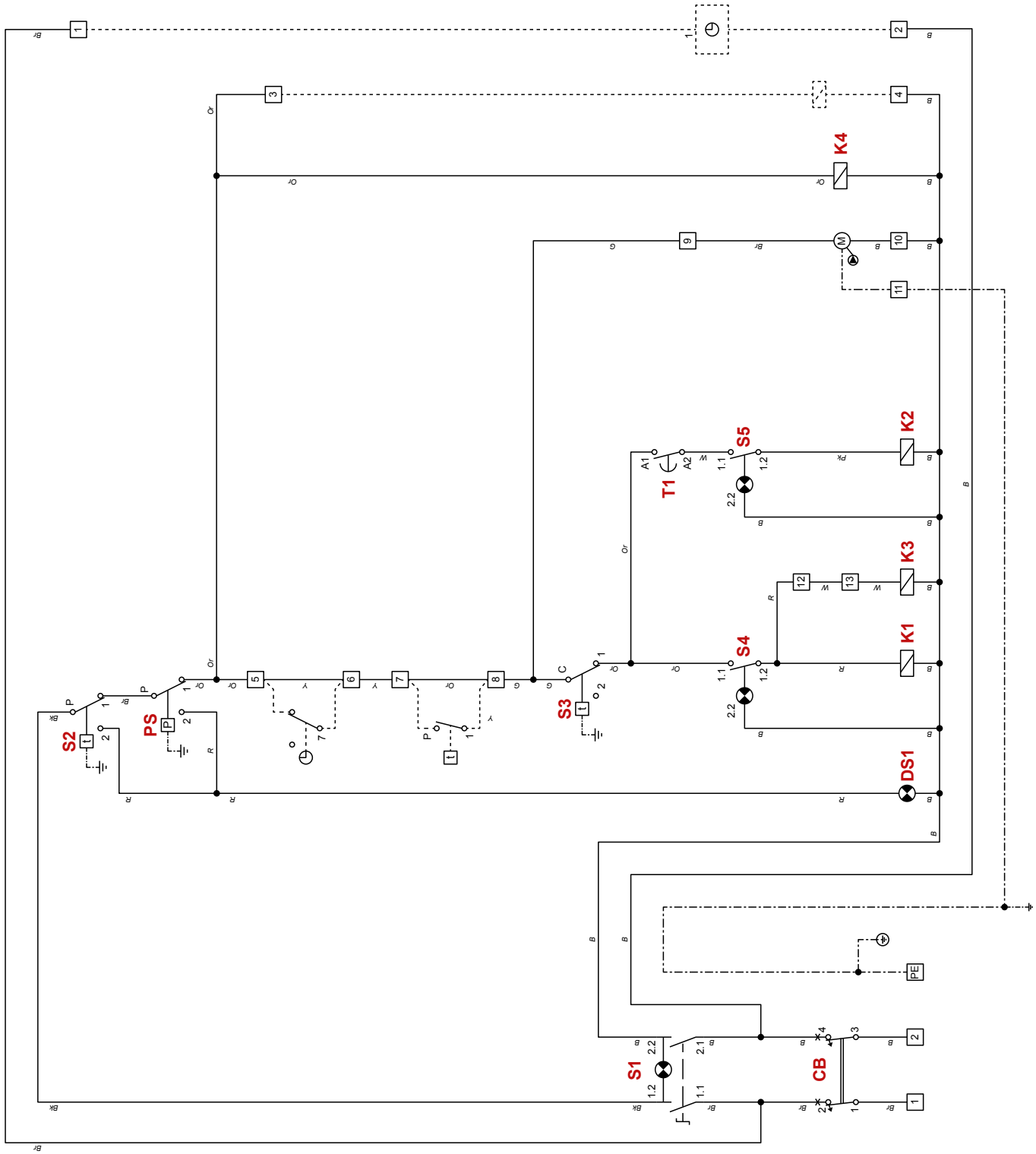
	Dimensions - Afstanden - Dimensiones - Dimensioni - Abmessungen - Wymiary - Габаритные размеры
	Wiring diagrams - Schémas électriques - Elektrische schema's - Diagramas de cableado - schema elettrico - schematy połączeń - схемы подключения
	Information - Informatie - Informaciones - Informazioni - Informationen - Informacje - Информация
MONO	Single phase - monophasé - Eenfasig - Monofasico - Monofase - Wechselstrom - Jedno-fazowe - однофазный ток
TRI	Three phase - Triphasé - Driefasig - Trifasico - Trifase - Drehstrom - Trójfazowy - трехфазный ток


442 mm
332 mm
763 mm
ACV
185 mm
370 mm
105 mm


Min.
25 mm
Min.
400 mm
Min.
200 mm

E-TECH W 09 MONO

Control - Commande - Besturing - Mando - Comando - Kontrol - regulacja - регулирование



B : Blue - Bleu - Blauw - Azul - Blu - Blau - Niebieski - Голубой

Bk : Black - Noir - Zwart - Negro - Nero - Schwarz - Czarny - Черный

Br : Brown - Brun - Bruin - Marrón - Marrone - Braun - Brązowy - Коричневый

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R : Red - Rouge - Rood - Rojo - Rosso - Rot - Czerwony - Красный

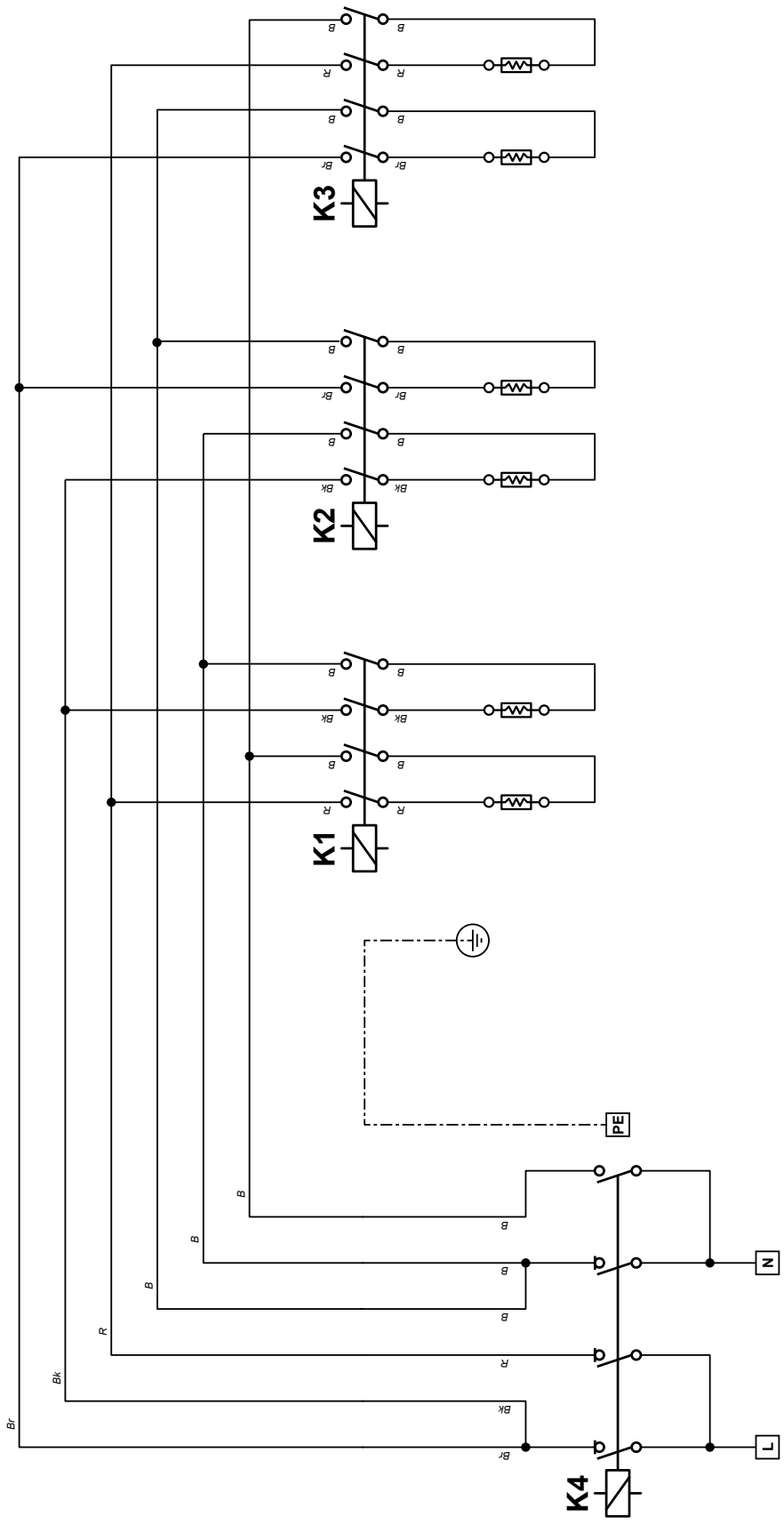
W : White - Blanc - Wit - Blanco - Bianco - Weiß - Biały - Белый

Y : Yellow - Jaune - Geel - Amarillo - Gallo - Gelb - Żółty - Желтый

CB	Circuit breaker - Disjoncteur - Magnetothermische Schakelaar - Disyuntor magnetotérmico - Interruttore magnetotermico generale ON/OFF - Sicherung - Bezpiecznik obwodu regulacji - Цепь управления
S1	ON/OFF switch + lamp - Interrupteur ON/OFF + lampe - ON/OFF- schakelaar + lampje - Interruptor ON/OFF + luz - Interruttore luminoso ON/OFF - ON/OFF-Schalter + Leuchte - ON/OFF zał/wyłącznik + lampa - Переключатель ВКЛ/ВЫКЛ + лампы
S2	Manual reset safety thermostat [103°C] - Thermostat de sécurité à réarmement manuel [103°C] - Veiligheidsthermostaat met handmatige herinschakeling [103°C] - Termostato de seguridad de rearme manual [103°C] - Termostato di sicurezza a riarmo manuale [103°C] - Manuell entriegelbares Sicherheitsthermostat [103°C] - Termostat bezpieczeństwa z ręcznym odblokowaniem [103°C] - Защитный термостат с ручным перезапуском [103°C]
PS	Low-water pressure switch - Pressostat de sécurité manque d'eau - Veiligheidsdrukschakelaar watergebrek - Presostato de seguridad en caso de falta de agua - Pressostato di sicurezza mancanza acqua - Wassermangelsicherung - Czujnik ciśnienia wody - Реле минимального давления
DS1	Alarm - Signal de mise en sécurité - Alarm - Alarma - Allarme - Alarm - Alarm - Сигнализация
S3	Control thermostat - Thermostat de commande - Regelthermostaat - Termostato de mando - Termostato di comando - Einstellthermostat - Termostat kotłowy - Регулировочный термостат
S4	Power switch level 1 + lamp - Commutateur de puissance 1er étage + lampe - Vermogenschakelaar 1 + lampje - Interruptor del primer nivel + luz - Interruttore luminoso del primo livello di potenza - Stufenschalter 1 + Leuchte - Przełącznik poziomu mocy 1 + lampa - Переключатель уровня мощности - ступень1 + лампы
K1	Power relay 1 - level 1 - Relais de puissance 1 - étage 1 - Vermogensrelais 1 - trap 1 - Relé de potencia 1 - nivel 1 - Relè di potenza 1 - livello 1 - Leistung Relais 1 - Stufe 1 - Przekaźnik mocy 1 - poziom 1 - Силовое реле 1 - ступень 1
K3	Power relay 2 - level 1 - Relais de puissance 2 - étage 1 - Vermogensrelais 2 - trap 1 - Relé de potencia 2 - nivel 1 - Relè di potenza 2 - livello 1 - Leistung Relais 2 - Stufe 1 - Przekaźnik mocy 2 - poziom 1 - Силовое реле 2 - ступень 1
T1	Timer - Temporisateur - Timer - Temporizador - Temporizzatore - Zeitschalter - Przekaźnik czasowy - Реле времени включения второй ступени
S5	Power switch level 2 + lamp - Commutateur de puissance 2ème étage + lampe - Vermogenschakelaar 2 + lampje - Interruptor del segundo nivel + luz - Interruttore luminoso del secondo livello di potenza - Stufenschalter 2 + Leuchte - Przełącznik poziomu mocy 2 + lampa - Переключатель уровня мощности - ступень2 + лампы
K2	Power relay 1 - level 2 - Relais de puissance 1 - étage 2 - Vermogensrelais 1 - trap 2 - Relé de potencia 1 - nivel 2 - Relè di potenza 1 - livello 2 - Leistung Relais 1 - Stufe 2 - Przekaźnik mocy 1 - poziom 2 - Силовое реле 1 - ступень 2
K4	Safety switch - Contacteur de sécurité - Veiligheidscontact - Contactor de seguridad - Contattore di sicurezza - Sicherheitsrelais - Przekaźnik główny - Отключающее электромагнитное реле
1-2	Time clock or controller supply (optional) - Alimentation électrique pour un régulateur ou un programmateur journalier optionnel - Voedingsspanning voor Schakelklok of externeregeling (optioneel) - Alimentación eléctrica para optimizador o regulador (opcional) - Alimentazione elettrica per un regolatore o per un orologio per programmazione giornaliera (in opzione) - Strom Versorgung für Schaltuhr oder Regler (Optional) - Zasilanie z zegara czasowego (opcja) - Перемычка или таймер часов работы (опция)
3-4	DHW kit (optional) - Kit sanitaire (en option) - Sanitaire kit (optioneel) - Kit sanitario (opcional) - Kit sanitario (opzionale) - Sanitärer Satz (Optional) - Zestaw CWU (opcja) - ГВС комплект (опция)
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9-10-11	Heating pump - Pompe chauffage - Warmtepomp - Circulador de calefacción - Circolatore di riscaldamento - Heizpumpe - Pompa kotła - Насос котла
12-13	Relay K3 deactivated - Relais K3 désactivé - Desactivering van relais K3 - Descarga del relé K3 - Esclusione del relè K3 - Abschaltung Relais K3 - Mostek przekaźnika K3 - Перемычка ограничения мощности

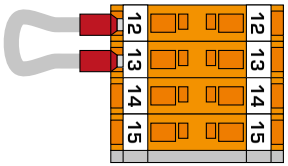
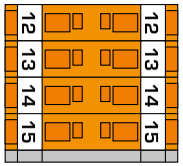
E-TECH W 09 MONO

Power - Puissance - Vermogen - Potencia - Potenza - Leistung - Zasilania - Силовая часть



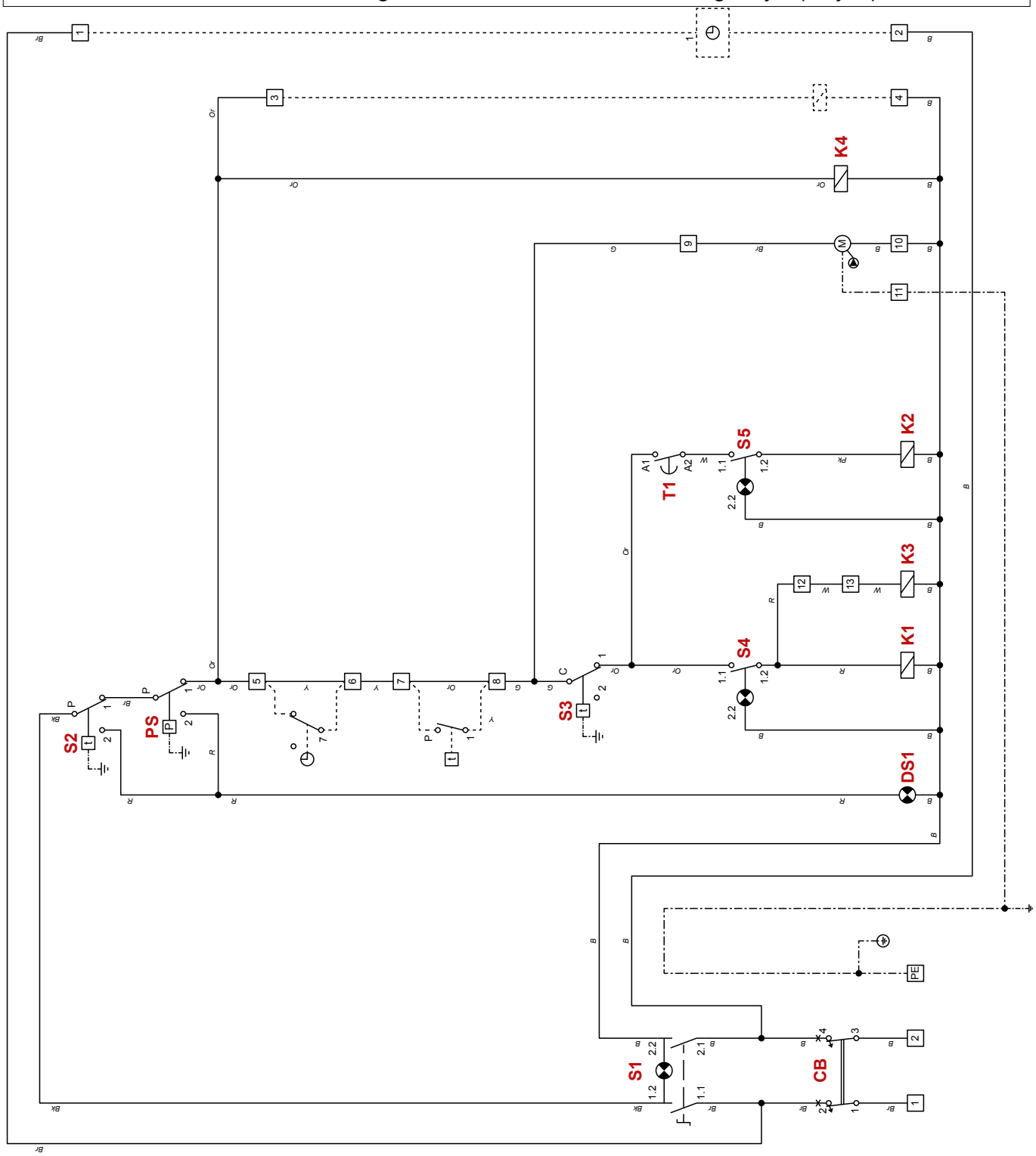
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K1	Power relay 1 - level 1 - Relais de puissance 1 - étage 1 - Vermogensrelais 1 - trap 1 - Relé de potencia 1 - nivel 1 - Relè di potenza 1 - livello 1 - Leistung Relais 1 - Stufe 1 - Przekaźnik mocy 1 - poziom 1 - Силовое реле 1 - ступень 1
K2	Power relay 1 - level 2 - Relais de puissance 1 - étage 2 - Vermogensrelais 1 - trap 2 - Relé de potencia 1 - nivel 2 - Relè di potenza 1 - livello 2 - Leistung Relais 1 - Stufe 2 - Przekaźnik mocy 1 - poziom 2 - Силовое реле 1 - ступень 2
K3	Power relay 2 - level 1 - Relais de puissance 2 - étage 1 - Vermogensrelais 2 - trap 1 - Relé de potencia 2 - nivel 1 - Relè di potenza 2 - livello 1 - Leistung Relais 2 - Stufe 1 - Przekaźnik mocy 2 - poziom 1 - Силовое реле 2 - ступень 1
K4	Safety switch - Contacteur de sécurité - Veiligheidscontact - Contactor de seguridad - Contattore di sicurezza - Sicherheitsrelais - Przekaźnik główny - Отключающее электромагнитное реле

E-Tech W 09		8.4 kW	5.6 kW
Mono	TB1		

E-TECH W 15 MONO

Control - Commande - Besturing - Mando - Comando - Kontrol - regulacja - регулирование



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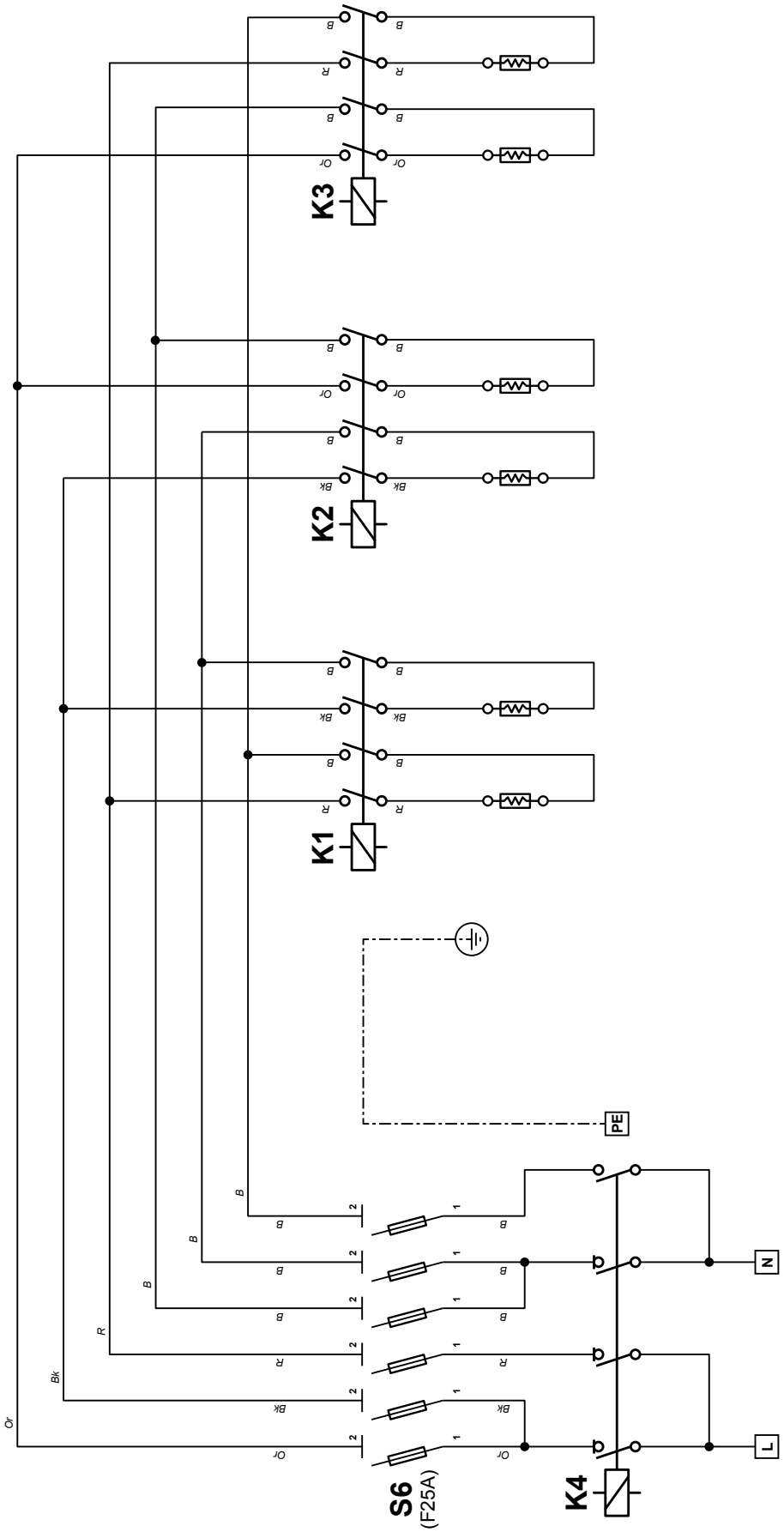
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K3	Power relay 2 - level 1 - Relais de puissance 2 - étage 1 - Vermogensrelais 2 - trap 1 - Relé de potencia 2 - nivel 1 - Relè di potenza 2 - livello 1 - Leistung Relais 2 - Stufe 1 - Przekaźnik mocy 2 - poziom 1 - Силовое реле 2 - ступень 1
T1	Timer - Temporisateur - Timer - Temporizador - Temporizzatore - Zeitschalter - Przekaźnik czasowy - Реле времени включения второй ступени
S5	Power switch level 2 + lamp - Commutateur de puissance 2éme étage + lampe - Vermogenschakelaar 2 + lampje - Interruptor del segundo nivel + luz - Interruttore luminoso del secondo livello di potenza - Stufenschalter 2 + Leuchte - Przełącznik poziomu mocy 2 + lampa - Переключатель уровня мощности - ступень2 + лампы
K2	Power relay 1 - level 2 - Relais de puissance 1 - étage 2 - Vermogensrelais 1 - trap 2 - Relé de potencia 1 - nivel 2 - Relè di potenza 1 - livello 2 - Leistung Relais 1 - Stufe 2 - Przekaźnik mocy 1 - poziom 2 - Силовое реле 1 - ступень 2
K4	Safety switch - Contacteur de sécurité - Veiligheidscontact - Contactor de seguridad - Contattore di sicurezza - Sicherheitsrelais - Przekaźnik główny - Отключающее электромагнитное реле
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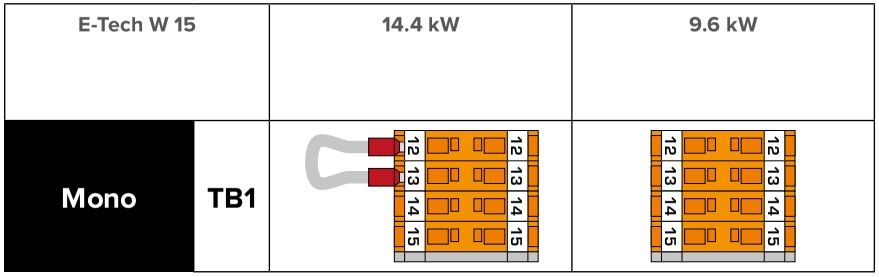
E-TECH W 15 MONO

Power - Puissance - Vermogen - Potencia - Potenza - Leistung - Zasilania - Силовая часть



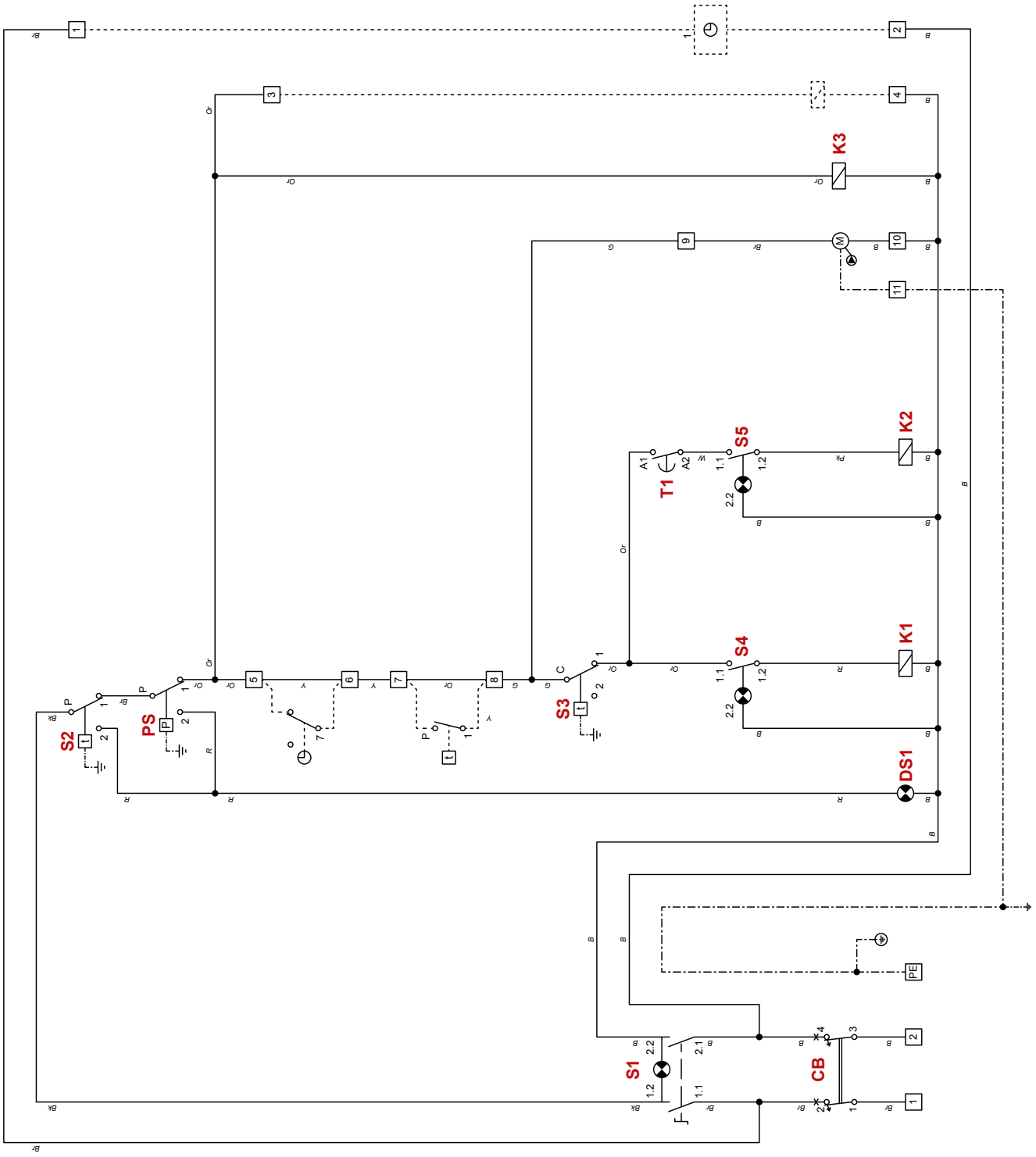
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S6	Power terminals with 25A fuse - Bornier de puissance avec fusible 25A - Vermogensklemmen met zekering van 25A - Bornes de potencia con fusible 25A - Morsettiera di potenza con fusibili di 25A - Leistungsklemmen mit Sicherung 25A - Zaciski zasilania z zabezpieczeniem 25A - Клеммная колодка силовой цепи с предохранителями 25A
K1	Power relay 1 - level 1 - Relais de puissance 1 - étage 1 - Vermogensrelais 1 - trap 1 - Relé de potencia 1 - nivel 1 - Relè di potenza 1 - livello 1 - Leistung Relais 1 - Stufe 1 - Przekaźnik mocy 1 - poziom 1 - Силовое реле 1 - ступень 1
K2	Power relay 1 - level 2 - Relais de puissance 1 - étage 2 - Vermogensrelais 1 - trap 2 - Relé de potencia 1 - nivel 2 - Relè di potenza 1 - livello 2 - Leistung Relais 1 - Stufe 2 - Przekaźnik mocy 1 - poziom 2 - Силовое реле 1 - ступень 2
K3	Power relay 2 - level 1 - Relais de puissance 2 - étage 1 - Vermogensrelais 2 - trap 1 - Relé de potencia 2 - nivel 1 - Relè di potenza 2 - livello 1 - Leistung Relais 2 - Stufe 1 - Przekaźnik mocy 2 - poziom 1 - Силовое реле 2 - ступень 1
K4	Safety switch - Contacteur de sécurité - Veiligheidscontact - Contactor de seguridad - Contattore di sicurezza - Sicherheitsrelais - Przekaźnik główny - Отключающее электромагнитное реле



E-TECH W 09 - 15 TRI

Control - Commande - Besturing - Mando - Comando - Kontrol - regulacja - регулирование



B : Blue - Bleu - Blauw - Azul - Blu - Blau - Niebieski - Голубой

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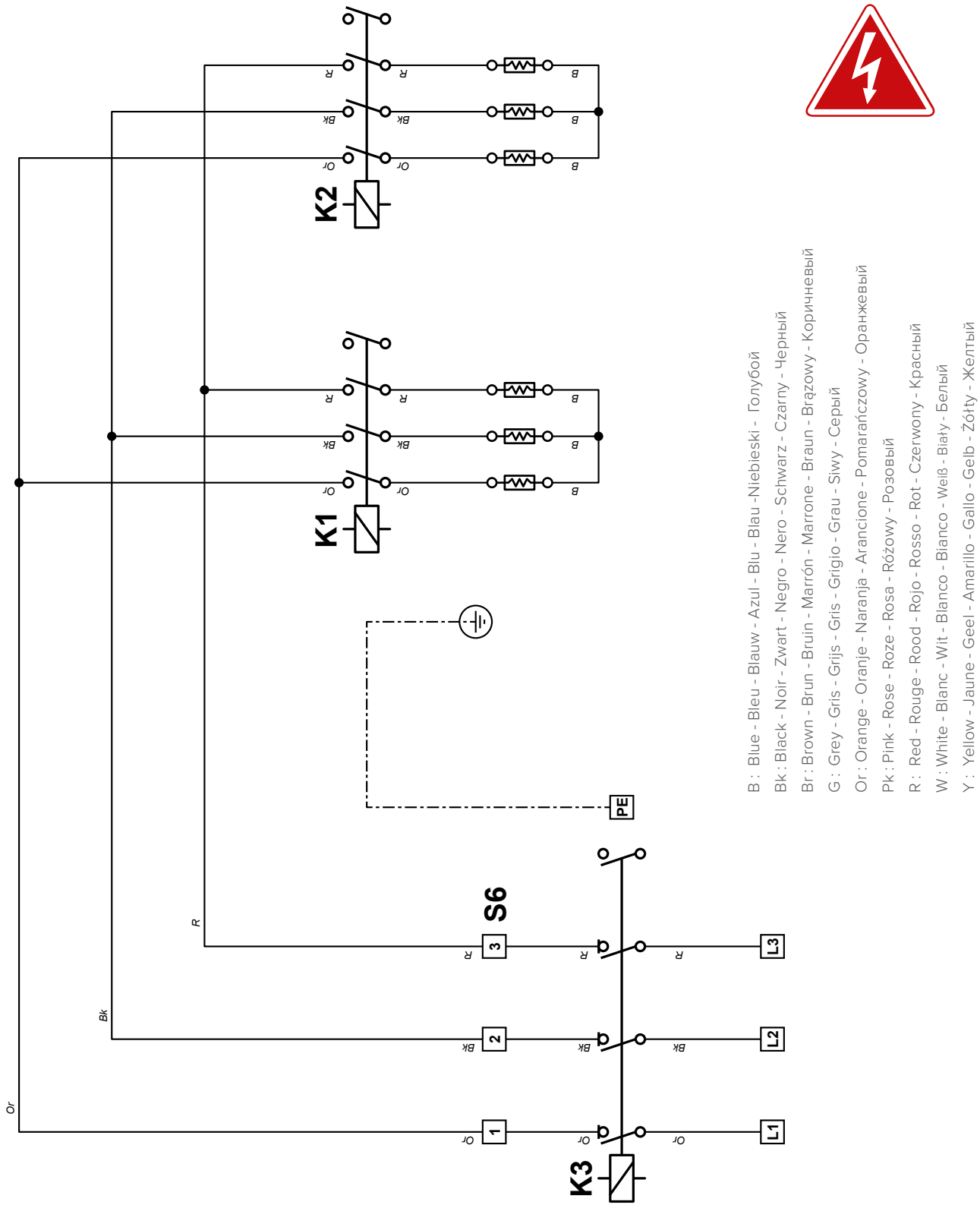
W : White - Blanc - Wit - Blanco - Bianco - Weiß - Biały - Белый

Y : Yellow - Jaune - Geel - Amarillo - Gallo - Gelb - Żółty - Желтый

CB	Circuit breaker - Disjoncteur - Magnetothermische Schakelaar - Disyuntor magnetotérmico - Interruttore magnetotermico generale ON/OFF - Sicherung - Bezpiecznik obwodu regulacji - Цепь управления
S1	ON/OFF switch + lamp - Interrupteur ON/OFF + lampe - ON/OFF- schakelaar + lampje - Interruptor ON/OFF + luz - Interruttore luminoso ON/OFF - ON/OFF-Schalter + Leuchte - ON/OFF zał/wyłącznik + lampa - Переключатель ВКЛ/ВЫКЛ + лампы
S2	Manual reset safety thermostat [103°C] - Thermostat de sécurité à réarmement manuel [103°C] - Veiligheidsthermostaat met handmatige herinschakeling [103°C] - Termostato de seguridad de rearme manual [103°C] - Termostato di sicurezza a riarmo manuale [103°C] - Manuell entriegelbares Sicherheitsthermostat [103°C] - Termostat bezpieczeństwa z ręcznym odblokowaniem [103°C] - Защитный термостат с ручным перезапуском [103°C]
PS	Low-water pressure switch - Pressostat de sécurité manque d'eau - Veiligheidsdrukschakelaar watergebrek - Presostato de seguridad en caso de falta de agua - Pressostato di sicurezza mancanza acqua - Wassermangelsicherung - Czujnik ciśnienia wody - Реле минимального давления
DS1	Alarm - Signal de mise en sécurité - Alarm - Alarma - Allarme - Alarm - Alarm - Сигнализация
S3	Control thermostat - Thermostat de commande - Regelthermostaat - Termostato de mando - Termostato di comando - Einstellthermostat - Termostat kotłowy - Регулировочный термостат
S4	Power switch level 1 + lamp - Commutateur de puissance 1er étage + lampe - Vermogenschakelaar 1 + lampje - Interruptor del primer nivel + luz - Interruttore luminoso del primo livello di potenza - Stufenschalter 1 + Leuchte - Przełącznik poziomu mocy 1 + lampa - Переключатель уровня мощности - ступень1 + лампы
K1	Power relay 1 - level 1 - Relais de puissance 1 - étage 1 - Vermogensrelais 1 - trap 1 - Relé de potencia 1 - nivel 1 - Relè di potenza 1 - livello 1 - Leistung Relais 1 - Stufe 1 - Przekaźnik mocy 1 - poziom 1 - Силовое реле 1 - ступень 1
T1	Timer - Temporisateur - Timer - Temporizador - Temporizzatore - Zeitschalter - Przekaźnik czasowy - Реле времени включения второй ступени
S5	Power switch level 2 + lamp - Commutateur de puissance 2^{éme} étage + lampe - Vermogenschakelaar 2 + lampje - Interruptor del segundo nivel + luz - Interruttore luminoso del secondo livello di potenza - Stufenschalter 2 + Leuchte - Przełącznik poziomu mocy 2 + lampa - Переключатель уровня мощности - ступень2 + лампы
K2	Power relay 1 - level 2 - Relais de puissance 1 - étage 2 - Vermogensrelais 1 - trap 2 - Relé de potencia 1 - nivel 2 - Relè di potenza 1 - livello 2 - Leistung Relais 1 - Stufe 2 - Przekaźnik mocy 1 - poziom 2 - Силовое реле 1 - ступень 2
K3	Safety switch - Contacteur de sécurité - Veiligheidscontact - Contactor de seguridad - Contattore di sicurezza - Sicherheitsrelais - Przekaźnik główny - Отключающее электромагнитное реле
1-2	Time clock or controller supply (optional) - Alimentation électrique pour un régulateur ou un programmateur journalier optionnel - Voedingsspanning voor Schakelklok of externeregeling (optioneel) - Alimentación eléctrica para optimizador o regulador (opcional) - Alimentazione elettrica per un regolatore o per un orologio per programmazione giornaliera (in opzione) - Strom Versorgung für Schaltuhr oder Regler (Optional) - Zasilanie z zegara czasowego (opcja) - Перемычка или таймер часов работы (опция)
3-4	DHW kit (optional) - Kit sanitaire (en option) - Sanitaire kit (optioneel) - Kit sanitario (opcional) - Kit sanitario (opzionale) - Sanitärer Satz (Optional) - Zestaw CWU (opcja) - ГВС комплект (опция)
5-6	Stop Bridge or time clock switch control (optional) - Pont d'arrêt général ou commande du programmateur journalier optionnel - Aansluiting Schakelklok of regeling (optioneel) - Puente de parada general o interruptor del optimizador (opcional) - Ponte di arresto generale o comando di un orologio per programmazione giornaliera (in opzione) - Schaltuhr oder Regler Eingang (Optional) - Mostek wyłączający lub wyłącznik czasowy (opcja) - Перемычка или таймер часов работы (опция)
7-8	Room thermostat (optional) - Thermostat d'ambiance (en option) - Omgevingsthermostaat (optioneel) - Termostato de ambiente (opcional) - Termostato ambiente (opzionale) - Raumthermostat (Optional) - Termostat pokojowy (opcja) - Комнатный термостат (опция)
9-10-11	Heating pump - Pompe chauffage - Warmtepomp - Circulador de calefacción - Circolatore di riscaldamento - Heizpumpe - Pompa kotła - Насос котла

E-TECH W 09 - 15 TRI

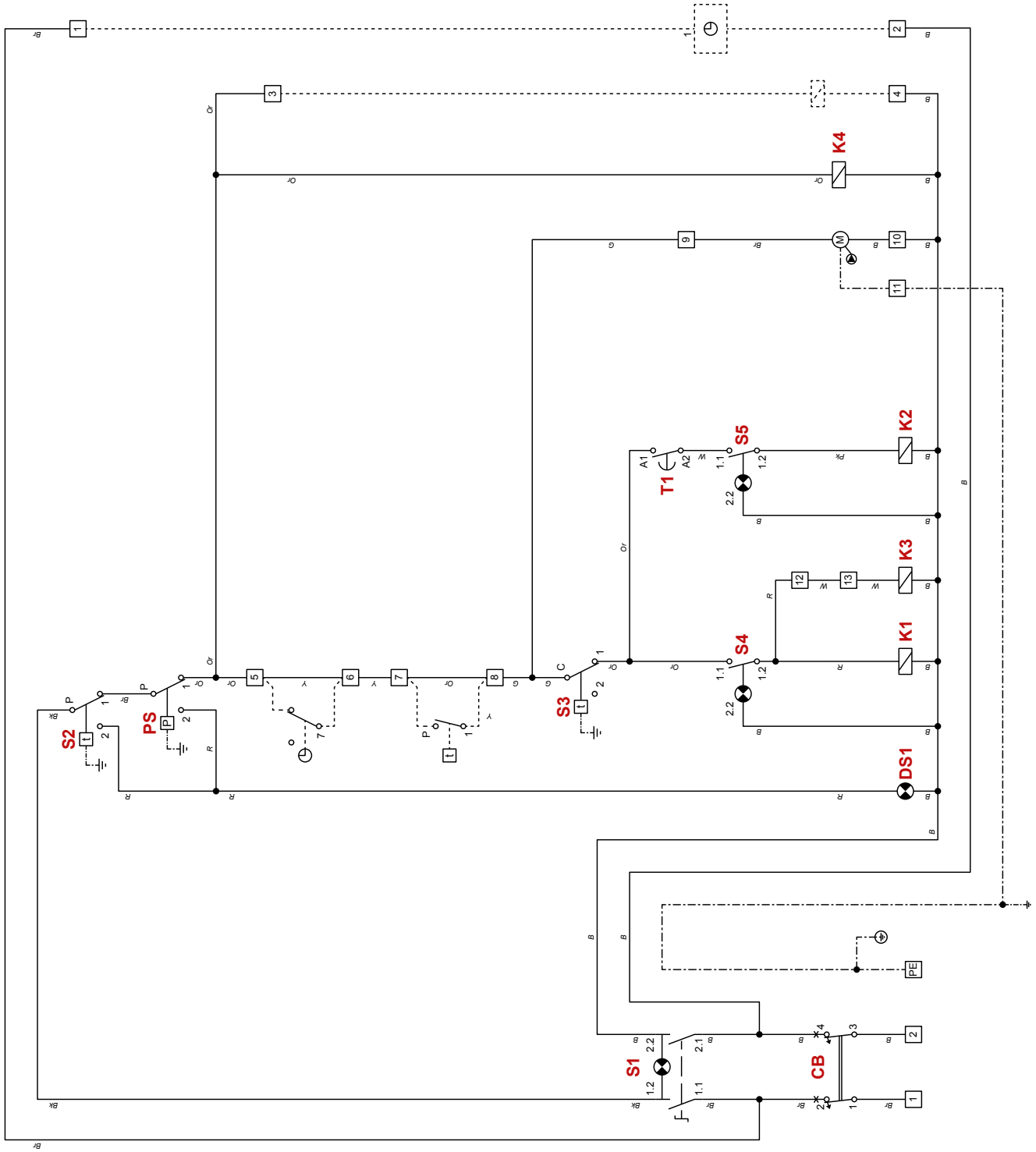
Power - Puissance - Vermogen - Potencia - Potenza - Leistung - Zasilania - Силовая часть



S6	Power terminals with 25A fuse - Bornier de puissance avec fusible 25A - Vermogensklemmen met zekering van 25A - Bornes de potencia con fusible 25A - Morsettiera di potenza con fusibili di 25A - Leistungsklemmen mit Sicherung 25A - Zaciski zasilania z zabezpieczeniem 25A - Клеммная колодка силовой цепи с предохранителями 25A
K1	Power relay 1 - level 1 - Relais de puissance 1 - étage 1 - Vermogensrelais 1 - trap 1 - Relé de potencia 1 - nivel 1 - Relè di potenza 1 - livello 1 - Leistung Relais 1 - Stufe 1 - Przekaźnik mocy 1 - poziom 1 - Силовое реле 1 - ступень 1
K2	Power relay 1 - level 2 - Relais de puissance 1 - étage 2 - Vermogensrelais 1 - trap 2 - Relé de potencia 1 - nivel 2 - Relè di potenza 1 - livello 2 - Leistung Relais 1 - Stufe 2 - Przekaźnik mocy 1 - poziom 2 - Силовое реле 1 - ступень 2
K3	Safety switch - Contacteur de sécurité - Veiligheidscontact - Contactor de seguridad - Contattore di sicurezza - Sicherheitsrelais - Przekaźnik główny - Отключающее электромагнитное реле

E-TECH W 22 TRI

Control - Commande - Besturing - Mando - Comando - Kontrol - regulacja - регулирование



B : Blue - Bleu - Blauw - Azul - Blu - Blau -Niebieski - Голубой

Bk : Black - Noir - Zwart - Negro - Nero - Schwarz - Czarny - Черный

Br : Brown - Brun - Bruin - Marrón - Marrone - Braun - Brązowy - Коричневый

G : Grey - Gris - Grijs - Grijs - Gris - Grigio - Grau - Siwy - Серый

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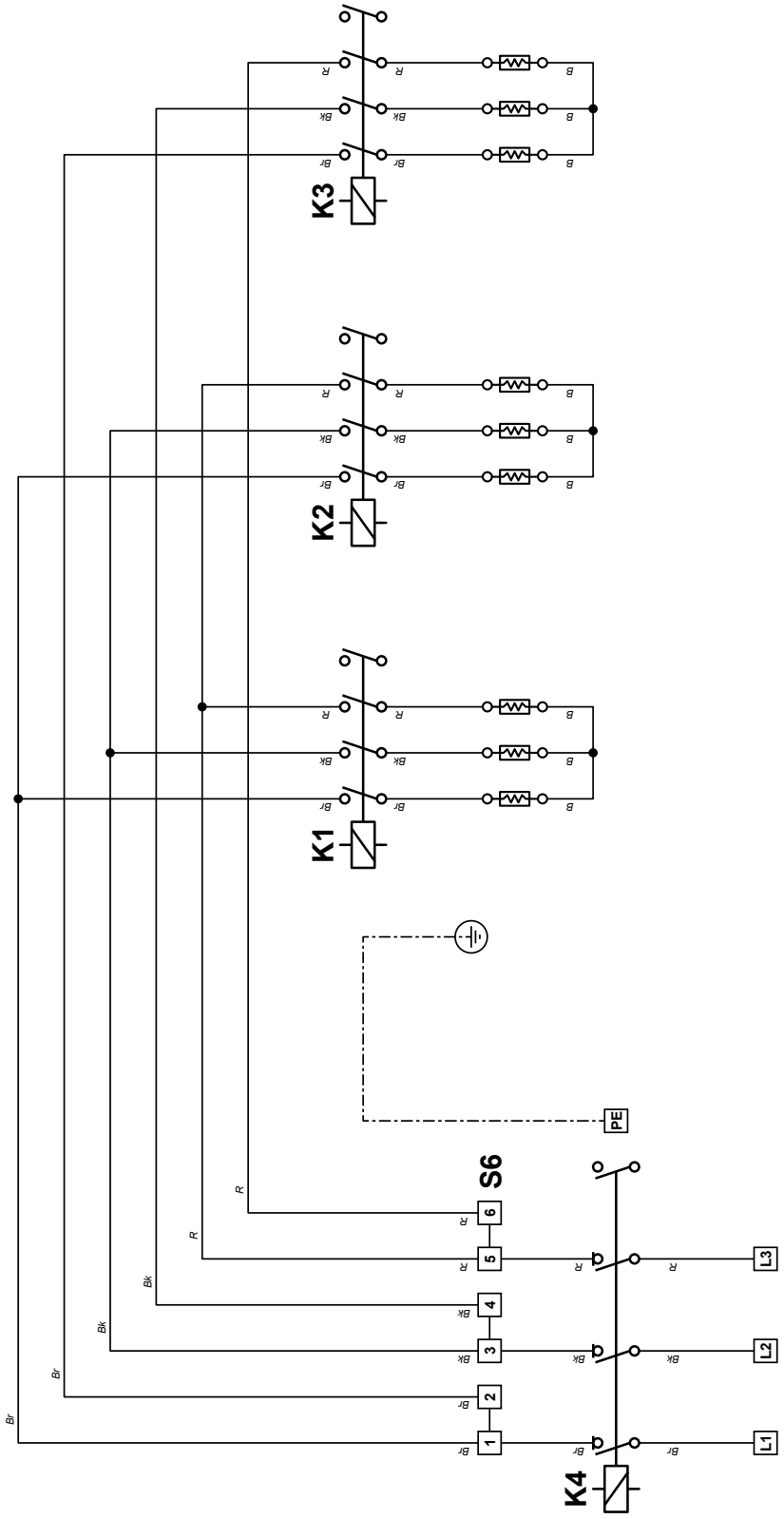
R : Red - Rouge - Rood - Rojo - Rosso - Rot - Czerwony - Красный

W : White - Blanc - Wit - Blanco - Bianco - Weiß - Biały - Белый

Y : Yellow - Jaune - Geel - Amarillo - Gallo - Gelb - Żółty - Желтый

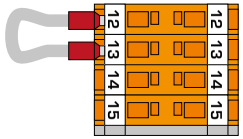
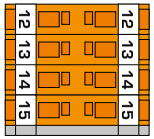
CB	Circuit breaker - Disjoncteur - Magnetothermische Schakelaar - Disyuntor magnetotérmico - Interruttore magnetotermico generale ON/OFF - Sicherung - Bezpiecznik obwodu regulacji - Цепь управления
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DS1	Alarm - Signal de mise en sécurité - Alarm - Alarma - Allarme - Alarm - Alarm - Сигнализация
S3	Control thermostat - Thermostat de commande - Regelthermostaat - Termostato de mando - Termostato di comando - Einstellthermostat - Termostat kotłowy - Регулировочный термостат
S4	Power switch level 1 + lamp - Commutateur de puissance 1er étage + lampe - Vermogenschakelaar 1 + lampje - Interruptor del primer nivel + luz - Interruttore luminoso del primo livello di potenza - Stufenschalter 1 + Leuchte - Przełącznik poziomu mocy 1 + lampa - Переключатель уровня мощности - ступень1 + лампы
K1	Power relay 1 - level 1 - Relais de puissance 1 - étage 1 - Vermogensrelais 1 - trap 1 - Relé de potencia 1 - nivel 1 - Relè di potenza 1 - livello 1 - Leistung Relais 1 - Stufe 1 - Przekaźnik mocy 1 - poziom 1 - Силовое реле 1 - ступень 1
K3	Power relay 2 - level 1 - Relais de puissance 2 - étage 1 - Vermogensrelais 2 - trap 1 - Relé de potencia 2 - nivel 1 - Relè di potenza 2 - livello 1 - Leistung Relais 2 - Stufe 1 - Przekaźnik mocy 2 - poziom 1 - Силовое реле 2 - ступень 1
T1	Timer - Temporisateur - Timer - Temporizador - Temporizzatore - Zeitschalter - Przekaźnik czasowy - Реле времени включения второй ступени
S5	Power switch level 2 + lamp - Commutateur de puissance 2ème étage + lampe - Vermogenschakelaar 2 + lampje - Interruptor del segundo nivel + luz - Interruttore luminoso del secondo livello di potenza - Stufenschalter 2 + Leuchte - Przełącznik poziomu mocy 2 + lampa - Переключатель уровня мощности - ступень2 + лампы
K2	Power relay 1 - level 2 - Relais de puissance 1 - étage 2 - Vermogensrelais 1 - trap 2 - Relé de potencia 1 - nivel 2 - Relè di potenza 1 - livello 2 - Leistung Relais 1 - Stufe 2 - Przekaźnik mocy 1 - poziom 2 - Силовое реле 1 - ступень 2
K4	Safety switch - Contacteur de sécurité - Veiligheidscontact - Contactor de seguridad - Contattore di sicurezza - Sicherheitsrelais - Przekaźnik główny - Отключающее электромагнитное реле
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7-8	Room thermostat (optional) - Thermostat d'ambiance (en option) - Omgevingsthermostaat (optioneel) - Termostato de ambiente (opcional) - Termostato ambiente (opzionale) - Raumthermostat (Optional) - Termostat pokojowy (opcja) - Комнатный термостат (опция)
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12-13	Relay K3 deactivated - Relais K3 désactivé - Desactivering van relais K3 - Descarga del relé K3 - Esclusione del relè K3 - Abschaltung Relais K3 - Mostek przekaźnika K3 - Перемычка ограничения мощности

Power - Puissance - Vermogen - Potencia - Potenza - Leistung - Zasilania - Силовая часть



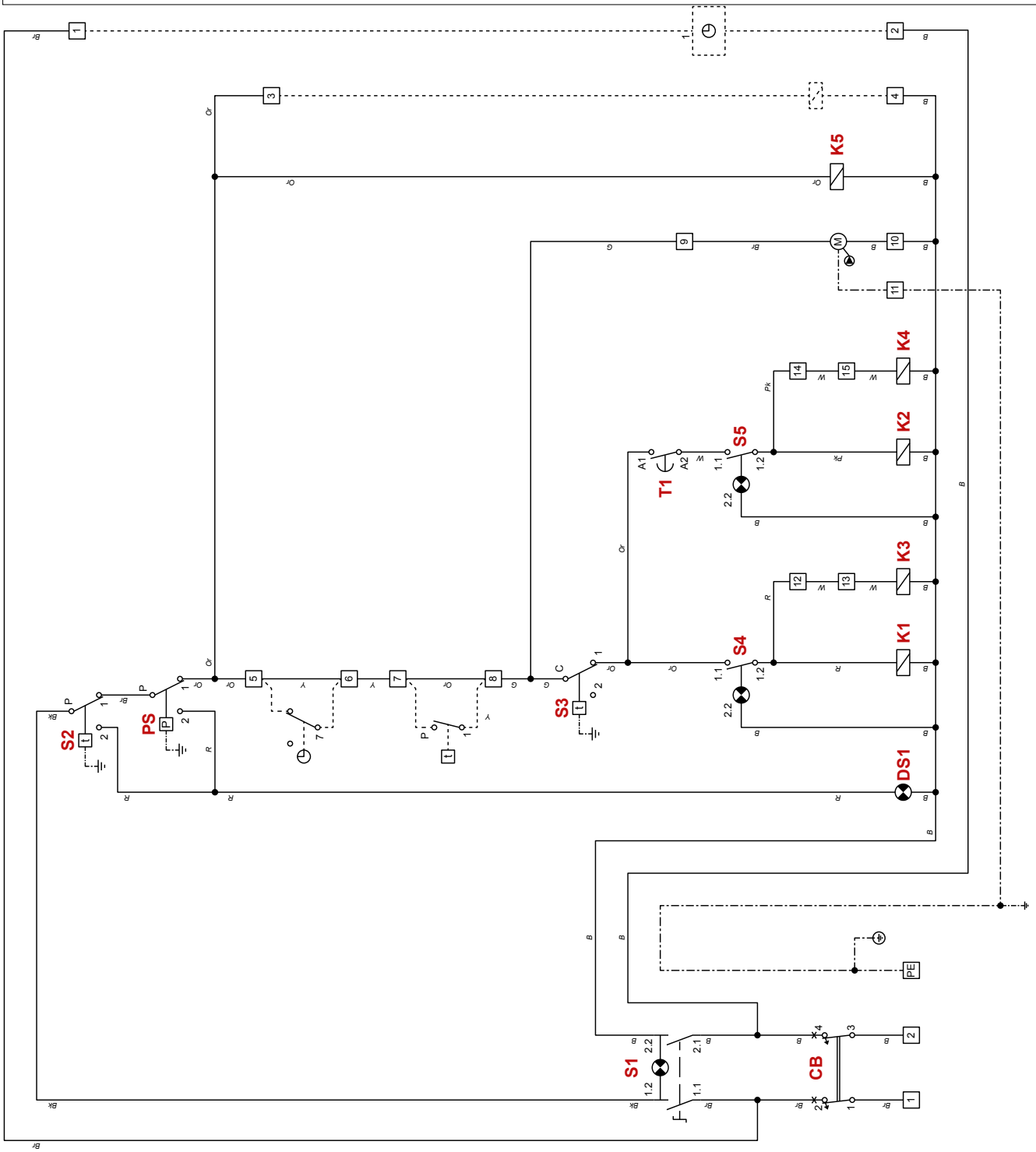
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K1	Power relay 1 - level 1 - Relais de puissance 1 - étage 1 - Vermogensrelais 1 - trap 1 - Relé de potencia 1 - nivel 1 - Relè di potenza 1 - livello 1 - Leistung Relais 1 - Stufe 1 - Przekaźnik mocy 1 - poziom 1 - Силовое реле 1 - ступень 1
K2	Power relay 1 - level 2 - Relais de puissance 1 - étage 2 - Vermogensrelais 1 - trap 2 - Relé de potencia 1 - nivel 2 - Relè di potenza 1 - livello 2 - Leistung Relais 1 - Stufe 2 - Przekaźnik mocy 1 - poziom 2 - Силовое реле 1 - ступень 2
K3	Power relay 2 - level 1 - Relais de puissance 2 - étage 1 - Vermogensrelais 2 - trap 1 - Relé de potencia 2 - nivel 1 - Relè di potenza 2 - livello 1 - Leistung Relais 2 - Stufe 1 - Przekaźnik mocy 2 - poziom 1 - Силовое реле 2 - ступень 1
K4	Safety switch - Contacteur de sécurité - Veiligheidscontact - Contactor de seguridad - Contattore di sicurezza - Sicherheitsrelais - Przekaźnik główny - Отключающее электромагнитное реле

E-Tech W 22		21.6 kW	14.4 kW
Tri Phase	TB1		

E-TECH W 28 TRI

Control - Commande - Besturing - Mando - Comando - Kontrol - regulacja - регулирование



B : Blue - Bleu - Blauw - Azul - Blu - Blau -Niebieski - Голубой

Bk : Black - Noir - Zwart - Negro - Nero - Schwarz - Czarny - Черный

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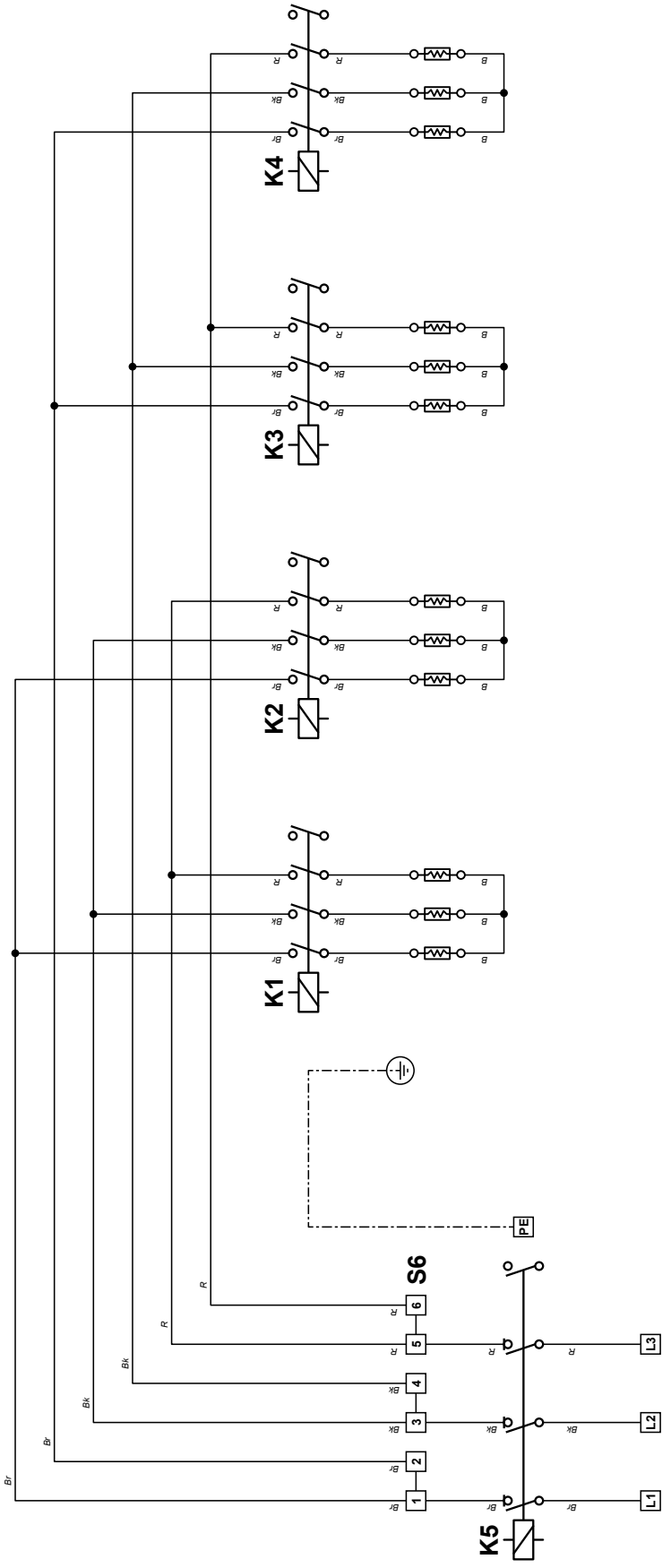
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CB	Circuit breaker - Disjoncteur - Magnetothermische Schakelaar - Disyuntor magnetotérmico - Interruttore magnetotermico generale ON/OFF - Sicherung - Bezpiecznik obwodu regulacji - Цепь управления
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S4	Power switch level 1 + lamp - Commutateur de puissance 1er étage + lampe - Vermogenschakelaar 1 + lampje - Interruptor del primer nivel + luz - Interruttore luminoso del primo livello di potenza - Stufenschalter 1 + Leuchte - Przełącznik poziomu mocy 1 + lampa - Переключатель уровня мощности - ступень1 + лампы
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K3	Power relay 2 - level 1 - Relais de puissance 2 - étage 1 - Vermogensrelais 2 - trap 1 - Relé de potencia 2 - nivel 1 - Relè di potenza 2 - livello 1 - Leistung Relais 2 - Stufe 1 - Przekaźnik mocy 2 - poziom 1 - Силовое реле 2 - ступень 1
T1	Timer - Temporisateur - Timer - Temporizador - Temporizzatore - Zeitschalter - Przekaźnik czasowy - Реле времени включения второй ступени
S5	Power switch level 2 + lamp - Commutateur de puissance 2éme étage + lampe - Vermogenschakelaar 2 + lampje - Interruptor del segundo nivel + luz - Interruttore luminoso del secondo livello di potenza - Stufenschalter 2 + Leuchte - Przełącznik poziomu mocy 2 + lampa - Переключатель уровня мощности - ступень2 + лампы
K2	Power relay 1 - level 2 - Relais de puissance 1 - étage 2 - Vermogensrelais 1 - trap 2 - Relé de potencia 1 - nivel 2 - Relè di potenza 1 - livello 2 - Leistung Relais 1 - Stufe 2 - Przekaźnik mocy 1 - poziom 2 - Силовое реле 1 - ступень 2
K4	Power relay 2 - level 2 - Relais de puissance 2 - étage 2 - Vermogensrelais 2 - trap 2 - Relé de potencia 2 - nivel 2 - Relè di potenza 2 - livello 2 - Leistung Relais 2 - Stufe 2 - Przekaźnik mocy 2 - poziom 2 - Силовое реле 2 - ступень 2
K5	Safety switch - Contacteur de sécurité - Veiligheidscontact - Contactor de seguridad - Contattore di sicurezza - Sicherheitsrelais - Przekaźnik główny - Отключающее электромагнитное реле
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5-6	Stop Bridge or time clock switch control (optional) - Pont d'arrêt général ou commande du programmateur journalier optionnel - Aansluiting Schakelklok of regeling (optioneel) - Puente de parada general o interruptor del optimizador (opcional) - Ponte di arresto generale o comando di un orologio per programmazione giornaliera (in opzione) - Schaltuhr oder Regler Eingang (Optional) - Mostek wyłączający lub wyłącznik czasowy (opcja) - Перемычка или таймер часов работы (опция)
7-8	Room thermostat (optional) - Thermostat d'ambiance (en option) - Omgevingsthermostaat (optioneel) - Termostato de ambiente (opcional) - Termostato ambiente (opzionale) - Raumthermostat (Optional) - Termostat pokojowy (opcja) - Комнатный термостат (опция)
9-10-11	Heating pump - Pompe chauffage - Warmtepomp - Circulador de calefacción - Circolatore di riscaldamento - Heizpumpe - Pompa kotła - Насос котла
12-13	Relay K3 deactivated - Relais K3 désactivé - Desactivering van relais K3 - Descarga del relé K3 - Esclusione del relè K3 - Abschaltung Relais K3 - Mostek przekaźnika K3 - Перемычка ограничения мощности
14-15	Relay K4 deactivated - Relais K4 désactivé - Desactivering van relais K4 - Descarga del relé K4 - Esclusione del relè K4 - Abschaltung Relais K4 - Mostek przekaźnika K4 - Перемычка ограничения мощности

E-TECH W 28 TRI

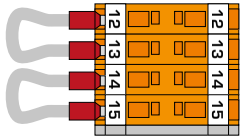
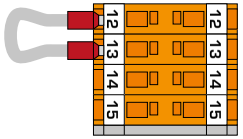
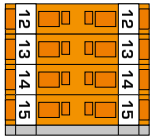
Power - Puissance - Vermogen - Potencia - Potenza - Leistung - Zasilania - Силовая часть





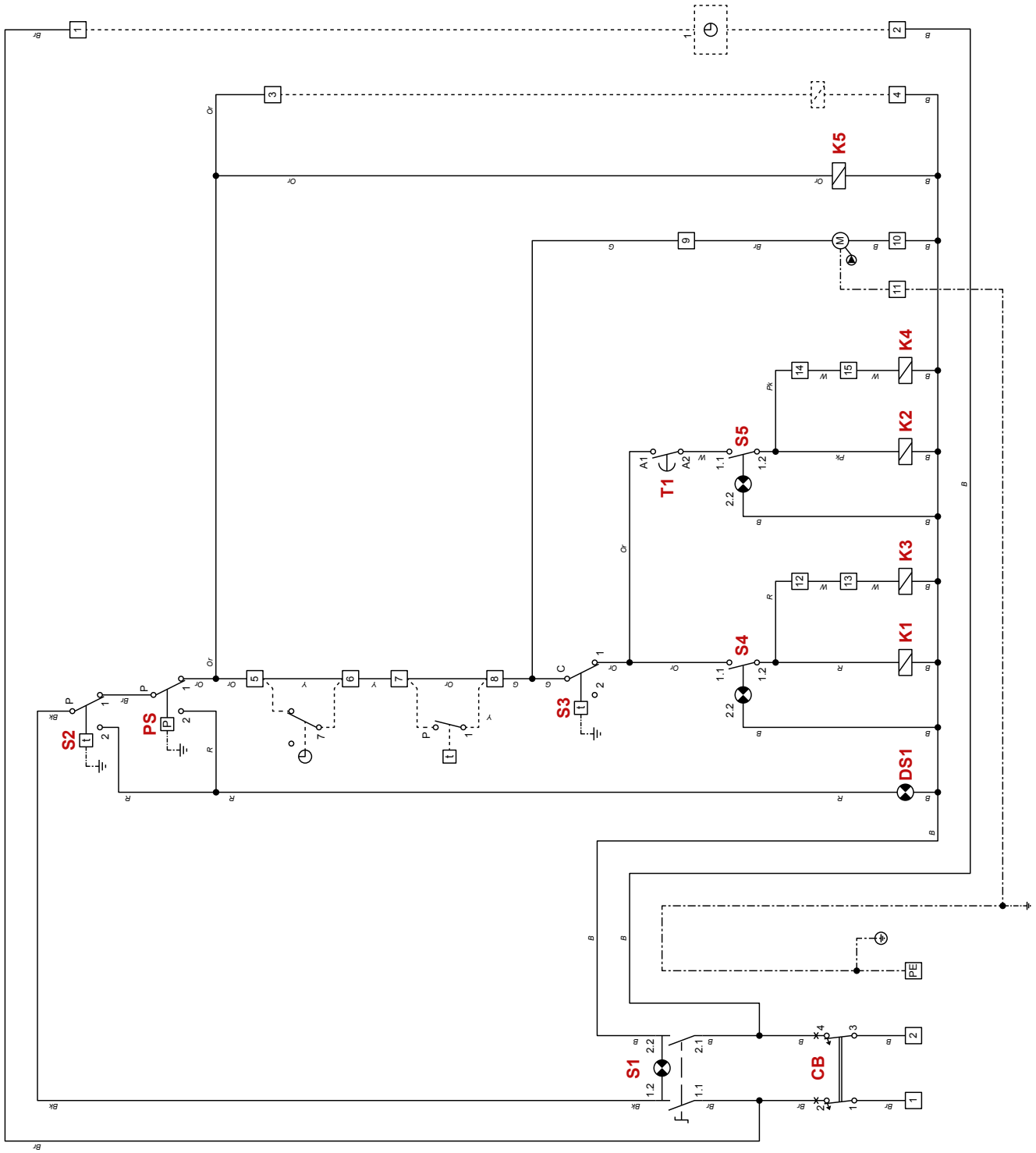
B : Blue - Bleu - Blauw - Azul - Blu - Blau -Niebieski - Голубой
Bk : Black - Noir - Zwart - Negro - Nero - Schwarz - Czarny - Черный
Br : Brown - Brun - Bruin - Marrón - Marrone - Braun - Brązowy - Коричневый
G : Grey - Gris - Grijs - Gris - Grigio - Grau - Siwy - Серый
Or : Orange - Oranje - Naranja - Arancione - Pomarańczowy - Оранжевый
Pk : Pink - Rose - Roze - Rosa - Różowy - Розовый
R : Red - Rouge - Rood - Rojo - Rosso - Rot - Czerwony - Красный
W : White - Blanc - Wit - Blanco - Bianco - Weiß - Biały - Белый
Y : Yellow - Jaune - Geel - Amarillo - Gallo - Gelb - Żółty - Желтый

S6	Power terminals with 25A fuse - Bornier de puissance avec fusible 25A - Vermogensklemmen met zekering van 25A - Bornes de potencia con fusible 25A - Morsettiera di potenza con fusibili di 25A - Leistungsklemmen mit Sicherung 25A - Zaciski zasilania z zabezpieczeniem 25A - Клеммная колодка силовой цепи с предохранителями 25A
K1	Power relay 1 - level 1 - Relais de puissance 1 - étage 1 - Vermogensrelais 1 - trap 1 - Relé de potencia 1 - nivel 1 - Relè di potenza 1 - livello 1 - Leistung Relais 1 - Stufe 1 - Przekaźnik mocy 1 - poziom 1 - Силовое реле 1 - ступень 1
K2	Power relay 1 - level 2 - Relais de puissance 1 - étage 2 - Vermogensrelais 1 - trap 2 - Relé de potencia 1 - nivel 2 - Relè di potenza 1 - livello 2 - Leistung Relais 1 - Stufe 2 - Przekaźnik mocy 1 - poziom 2 - Силовое реле 1 - ступень 2
K3	Power relay 2 - level 1 - Relais de puissance 2 - étage 1 - Vermogensrelais 2 - trap 1 - Relé de potencia 2 - nivel 1 - Relè di potenza 2 - livello 1 - Leistung Relais 2 - Stufe 1 - Przekaźnik mocy 2 - poziom 1 - Силовое реле 2 - ступень 1
K4	Power relay 2 - level 2 - Relais de puissance 2 - étage 2 - Vermogensrelais 2 - trap 2 - Relé de potencia 2 - nivel 2 - Relè di potenza 2 - livello 2 - Leistung Relais 2 - Stufe 2 - Przekaźnik mocy 2 - poziom 2 - Силовое реле 2 - ступень 2
K5	Safety switch - Contacteur de sécurité - Veiligheidscontact - Contactor de seguridad - Contattore di sicurezza - Sicherheitsrelais - Przekaźnik główny - Отключающее электромагнитное реле

E-Tech W 28		28.8 kW	21.6 kW	14.4 kW
Tri Phase	TB1			

E-TECH W 36 TRI

Control - Commande - Besturing - Mando - Comando - Kontrol - regulacja - регулирование



B : Blue - Bleu - Blauw - Azul - Blu - Blau - Niebieski - Голубой

Bk : Black - Noir - Zwart - Negro - Nero - Schwarz - Czarny - Черный

Br : Brown - Brun - Bruin - Marrón - Marrone - Braun - Brązowy - Коричневый

G : Grey - Gris - Grijs - Gris - Grigio - Grau - Siwy - Серый

Or : Orange - Oranje - Naranja - Arancione - Pomarańczowy - Оранжевый

Pk : Pink - Rose - Roze - Roze - Rosa - Różowy - Розовый

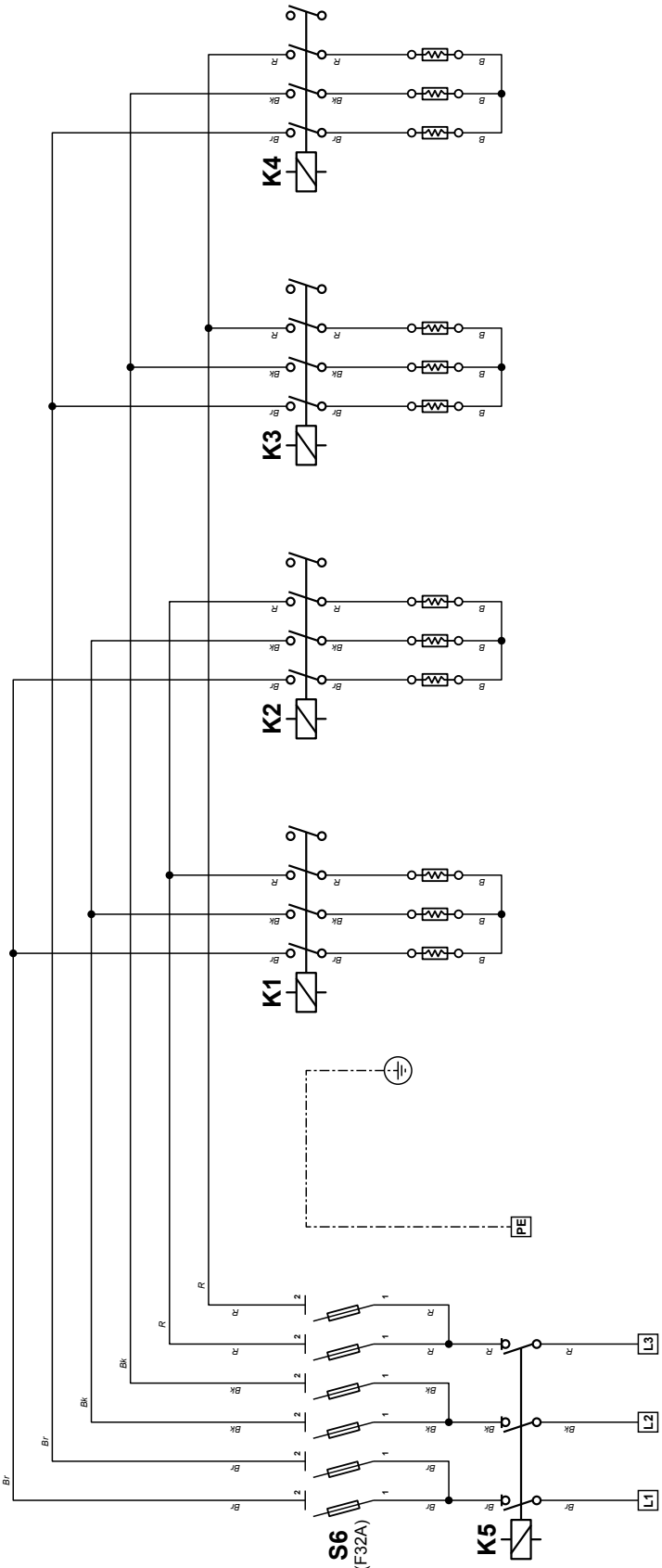
R : Red - Rouge - Rood - Rojo - Rosso - Rot - Czerwony - Красный

W : White - Blanc - Wit - Blanco - Bianco - Weiß - Biały - Белый

Y : Yellow - Jaune - Geel - Amarillo - Gallo - Gelb - Żółty - Желтый

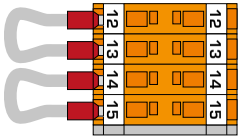
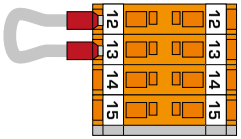
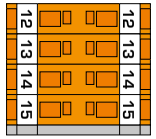
CB	Circuit breaker - Disjoncteur - Magnetothermische Schakelaar - Disyuntor magnetotérmico - Interruttore magnetotermico generale ON/OFF - Sicherung - Bezpiecznik obwodu regulacji - Цепь управления
S1	ON/OFF switch + lamp - Interrupteur ON/OFF + lampe - ON/OFF- schakelaar + lampje - Interruptor ON/OFF + luz - Interruttore luminoso ON/OFF - ON/OFF-Schalter + Leuchte - ON/OFF zał/wyłącznik + lampa - Переключатель ВКЛ/ВЫКЛ + лампы
S2	Manual reset safety thermostat [103°C] - Thermostat de sécurité à réarmement manuel [103°C] - Veiligheidsthermostaat met handmatige herinschakeling [103°C] - Termostato de seguridad de rearme manual [103°C] - Termostato di sicurezza a riarmo manuale [103°C] - Manuell entriegelbares Sicherheitsthermostat [103°C] - Termostat bezpieczeństwa z ręcznym odblokowaniem [103°C] - Защитный термостат с ручным перезапуском [103°C]
PS	Low-water pressure switch - Pressostat de sécurité manque d'eau - Veiligheidsdrukschakelaar watergebrek - Presostato de seguridad en caso de falta de agua - Pressostato di sicurezza mancanza acqua - Wassermangelsicherung - Czujnik ciśnienia wody - Реле минимального давления
DS1	Alarm - Signal de mise en sécurité - Alarm - Alarma - Allarme - Alarm - Alarm - Сигнализация
S3	Control thermostat - Thermostat de commande - Regelthermostaat - Termostato de mando - Termostato di comando - Einstellthermostat - Termostat kotłowy - Регулировочный термостат
S4	Power switch level 1 + lamp - Commutateur de puissance 1er étage + lampe - Vermogenschakelaar 1 + lampje - Interruptor del primer nivel + luz - Interruttore luminoso del primo livello di potenza - Stufenschalter 1 + Leuchte - Przełącznik poziomu mocy 1 + lampa - Переключатель уровня мощности - ступень1 + лампы
K1	Power relay 1 - level 1 - Relais de puissance 1 - étage 1 - Vermogensrelais 1 - trap 1 - Relé de potencia 1 - nivel 1 - Relè di potenza 1 - livello 1 - Leistung Relais 1 - Stufe 1 - Przekaźnik mocy 1 - poziom 1 - Силовое реле 1 - ступень 1
K3	Power relay 2 - level 1 - Relais de puissance 2 - étage 1 - Vermogensrelais 2 - trap 1 - Relé de potencia 2 - nivel 1 - Relè di potenza 2 - livello 1 - Leistung Relais 2 - Stufe 1 - Przekaźnik mocy 2 - poziom 1 - Силовое реле 2 - ступень 1
T1	Timer - Temporisateur - Timer - Temporizador - Temporizzatore - Zeitschalter - Przekaźnik czasowy - Реле времени включения второй ступени
S5	Power switch level 2 + lamp - Commutateur de puissance 2éme étage + lampe - Vermogenschakelaar 2 + lampje - Interruptor del segundo nivel + luz - Interruttore luminoso del secondo livello di potenza - Stufenschalter 2 + Leuchte - Przełącznik poziomu mocy 2 + lampa - Переключатель уровня мощности - ступень2 + лампы
K2	Power relay 1 - level 2 - Relais de puissance 1 - étage 2 - Vermogensrelais 1 - trap 2 - Relé de potencia 1 - nivel 2 - Relè di potenza 1 - livello 2 - Leistung Relais 1 - Stufe 2 - Przekaźnik mocy 1 - poziom 2 - Силовое реле 1 - ступень 2
K4	Power relay 2 - level 2 - Relais de puissance 2 - étage 2 - Vermogensrelais 2 - trap 2 - Relé de potencia 2 - nivel 2 - Relè di potenza 2 - livello 2 - Leistung Relais 2 - Stufe 2 - Przekaźnik mocy 2 - poziom 2 - Силовое реле 2 - ступень 2
K5	Safety switch - Contacteur de sécurité - Veiligheidscontact - Contactor de seguridad - Contattore di sicurezza - Sicherheitsrelais - Przekaźnik główny - Отключающее электромагнитное реле
1-2	Time clock or controller supply (optional) - Alimentation électrique pour un régulateur ou un programmateur journalier optionnel - Voedingsspanning voor Schakelklok of externeregeling (optioneel) - Alimentación eléctrica para optimizador o regulador (opcional) - Alimentazione elettrica per un regolatore o per un orologio per programmazione giornaliera (in opzione) - Strom Versorgung für Schaltuhr oder Regler (Optional) - Zasilanie z zegara czasowego (opcja) - Перемычка или таймер часов работы (опция)
3-4	DHW kit (optional) - Kit sanitaire (en option) - Sanitaire kit (optioneel) - Kit sanitario (opcional) - Kit sanitario (opzionale) - Sanitärer Satz (Optional) - Zestaw CWU (opcja) - ГВС комплект (опция)
5-6	Stop Bridge or time clock switch control (optional) - Pont d'arrêt général ou commande du programmateur journalier optionnel - Aansluiting Schakelklok of regeling (optioneel) - Puente de parada general o interruptor del optimizador (opcional) - Ponte di arresto generale o comando di un orologio per programmazione giornaliera (in opzione) - Schaltuhr oder Regler Eingang (Optional) - Mostek wyłączający lub wyłącznik czasowy (opcja) - Перемычка или таймер часов работы (опция)
7-8	Room thermostat (optional) - Thermostat d'ambiance (en option) - Omgevingsthermostaat (optioneel) - Termostato de ambiente (opcional) - Termostato ambiente (opzionale) - Raumthermostat (Optional) - Termostat pokojowy (opcja) - Комнатный термостат (опция)
9-10-11	Heating pump - Pompe chauffage - Warmtepomp - Circulador de calefacción - Circolatore di riscaldamento - Heizpumpe - Pompa kotła - Насос котла
12-13	Relay K3 deactivated - Relais K3 désactivé - Desactivering van relais K3 - Descarga del relé K3 - Esclusione del relè K3 - Abschaltung Relais K3 - Mostek przekaźnika K3 - Перемычка ограничения мощности
14-15	Relay K4 deactivated - Relais K4 désactivé - Desactivering van relais K4 - Descarga del relé K4 - Esclusione del relè K4 - Abschaltung Relais K4 - Mostek przekaźnika K4 - Перемычка ограничения мощности

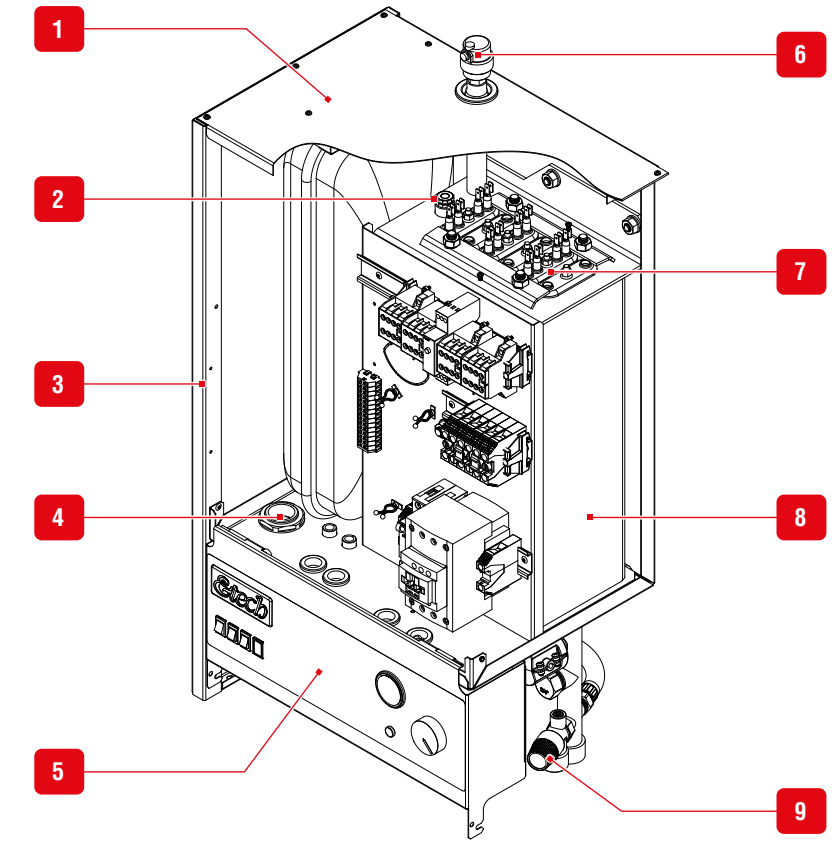
Power - Puissance - Vermogen - Potencia - Potenza - Leistung - Zasilania - Силовая часть

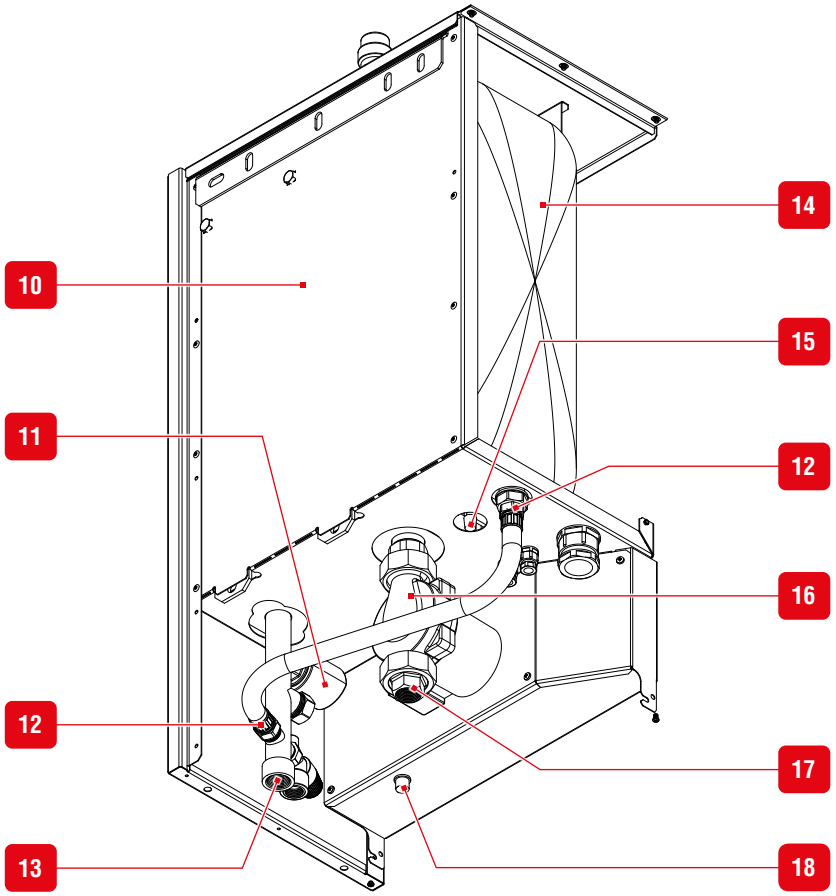


B : Blue - Bleu - Blauw - Azul - Blu - Blau -Niebieski - Голубой
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Y : Yellow - Jaune - Geel - Amarillo - Gallo - Gelb - Żółty - Желтый

S6	Power terminals with 25A fuse - Bornier de puissance avec fusible 25A - Vermogensklemmen met zekering van 25A - Bornes de potencia con fusible 25A - Morsettiera di potenza con fusibili di 25A - Leistungsklemmen mit Sicherung 25A - Zaciski zasilania z zabezpieczeniem 25A - Клеммная колодка силовой цепи с предохранителями 25A
K1	Power relay 1 - level 1 - Relais de puissance 1 - étage 1 - Vermogensrelais 1 - trap 1 - Relé de potencia 1 - nivel 1 - Relè di potenza 1 - livello 1 - Leistung Relais 1 - Stufe 1 - Przekaźnik mocy 1 - poziom 1 - Силовое реле 1 - ступень 1
K2	Power relay 1 - level 2 - Relais de puissance 1 - étage 2 - Vermogensrelais 1 - trap 2 - Relé de potencia 1 - nivel 2 - Relè di potenza 1 - livello 2 - Leistung Relais 1 - Stufe 2 - Przekaźnik mocy 1 - poziom 2 - Силовое реле 1 - ступень 2
K3	Power relay 2 - level 1 - Relais de puissance 2 - étage 1 - Vermogensrelais 2 - trap 1 - Relé de potencia 2 - nivel 1 - Relè di potenza 2 - livello 1 - Leistung Relais 2 - Stufe 1 - Przekaźnik mocy 2 - poziom 1 - Силовое реле 2 - ступень 1
K4	Power relay 2 - level 2 - Relais de puissance 2 - étage 2 - Vermogensrelais 2 - trap 2 - Relé de potencia 2 - nivel 2 - Relè di potenza 2 - livello 2 - Leistung Relais 2 - Stufe 2 - Przekaźnik mocy 2 - poziom 2 - Силовое реле 2 - ступень 2
K5	Safety switch - Contacteur de sécurité - Veiligheidscontact - Contactor de seguridad - Contattore di sicurezza - Sicherheitsrelais - Przekaźnik główny - Отключающее электромагнитное реле

E-Tech W 36		36 kW	27 kW	18 kW
Tri Phase	TB1			


1
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EN

1. Top cover
2. Dry well
3. Side panel
4. Power supply cable gland
5. Control panel
6. Automatic air vent
7. Heating elements
8. Heating body
9. Safety valve
10. Rear panel
11. Low water safety switch
12. Expansion vessel connection
13. Heating return
14. Expansion vessel
15. Expansion vessel valve
16. Circulating pump
17. Heating supply
18. Manual reset high limit thermostat

FR

1. Couvercle supérieur
2. Doigt de gant
3. Jaquette latérale
4. Presse-étoupe d'alimentation
5. Tableau de commande
6. Purgeur automatique
7. Éléments électriques
8. Corps de chauffe
9. Soupape de sécurité
10. Panneau arrière
11. Pressostat de sécurité manque d'eau
12. Raccordement du vase d'expansion
13. Retour chauffage
14. Vase d'expansion
15. Soupape du vase d'expansion
16. Circulateur
17. Départ chauffage
18. Thermostat de sécurité manuel

NL

1. Bovenkap
2. Voelerhuls
3. Zijommanteling
4. Fitting voor voedingskabel
5. Bedieningspaneel
6. Automatische ontluchter
7. Elektrische elementen
8. Ketellichaam
9. Veiligheidsklep
10. Achterpaneel
11. Veiligheidsdrukschakelaar watergebrek
12. Aansluiting van het expansievat
13. Terugvoer verwarming
14. Expansievat
15. Ventiel van het expansievat
16. Circulatiepomp
17. Aanvoer verwarming
18. Veiligheidsthermostaat met handmatige herinschakeling

DE

1. Obere Abdeckung
2. Tauchhülse
3. Seitliche Verkleidung
4. Kabeldurchführung für Versorgungsanschluss
5. Schaltfeld
6. Automatischer Entlüfter
7. Anschlussfahnen Elektro- Heizstäbe
8. Kesselkörper
9. Sicherheitsventil
10. Hintere Verkleidung
11. Wassermangelsicherung
12. Anschluss Ausdehnungsgefäß
13. Heizungsrücklauf
14. Ausdehnungsgefäß
15. Ventil Ausdehnungsgefäß
16. Pumpe
17. Heizungsvorlauf
18. Manuell entriegelbares Sicherheitsthermostat

ES

1. Tapa superior
2. Vaina
3. Envolvente lateral
4. Prensaestopa de alimentación
5. Panel de mandos
6. Purgador automático
7. Elementos eléctricos
8. Cuerpo de calefacción
9. Válvula de seguridad
10. Panel posterior
11. Presostato de seguridad en caso de falta de agua
12. Conexión del vaso de expansión
13. Retorno de calefacción
14. Vaso de expansión
15. Válvula del vaso de expansión
16. Circulador
17. Salida de calefacción
18. Termostato de seguridad manual

IT

1. Mantello superiore
2. Pozzetto portasonda
3. Mantello laterale
4. Pressacavo per l'alimentazione
5. Pannello di comando
6. Sfiato automatico
7. Resistenze elettriche
8. Corpo caldaia
9. Valvola di sicurezza
10. Pannello posteriore
11. Pressostato di sicurezza mancanza acqua
12. Attacco vaso di espansione
13. Ritorno riscaldamento
14. Vaso di espansione
15. Valvola del vaso di espansione
16. Circolatore
17. Mandata riscaldamento
18. Tasto di riarmo manuale del termostato di sicurezza

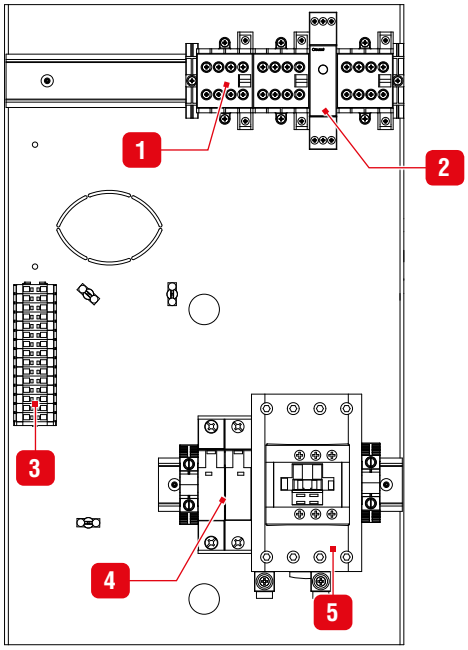
PL

1. Pokrywa
2. Mosiężna tuleja pomiarowa
3. Panel boczny
4. Dławik kablowy
5. Panel sterowniczy
6. Odpowietrznik automatyczny
7. Elementy grzejne
8. Korpus
9. Zawór bezpieczeństwa
10. Tylna obudowa
11. Presostat ciśnienia wody
12. Podłączenie naczynia przeponowego
13. Powrót wody c.o.
14. Naczynie przeponowe
15. Zawór poduszki gazowej naczynia przeponowego
16. Pompa obiegowa
17. Zasilanie c.o.
18. Termostat bezpieczeństwa z ręcznym odblokowaniem

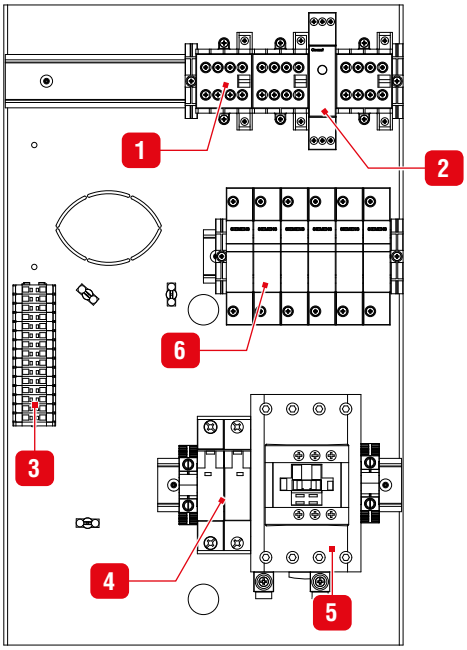
RU

1. Панель верхняя
2. Гильза термостата
3. Панель боковая
4. Кабельный ввод
5. Панель управления
6. Автоматический воздухоотводчик
7. Нагревательные элементы
8. Тело котла
9. Предохранительный клапан
10. Панель задняя
11. Реле минимального давления теплоносителя
12. Присоединение расширительного бака
13. Возвратная линия теплоносителя
14. Расширительный бак
15. Клапан расширительного бака
16. Циркуляционный насос
17. Подающая линия теплоносителя
18. Предохранительный термостат с ручным перезапуском

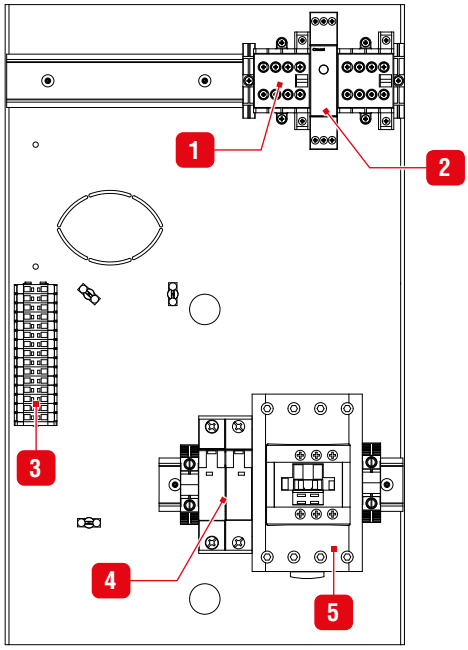
E-Tech W 09 Mono



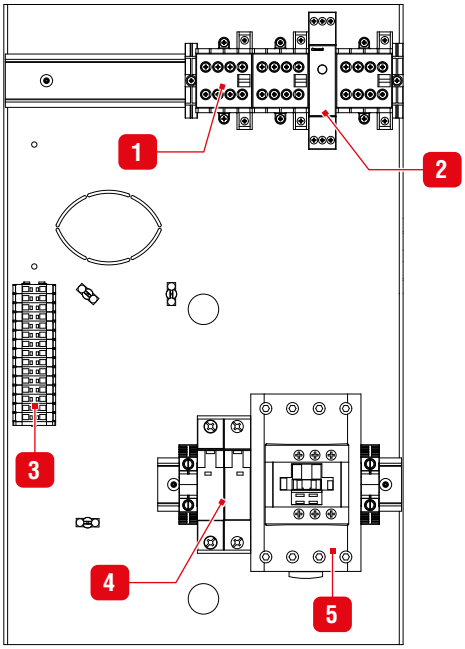
E-Tech W 15 Mono



E-Tech W 09 - 15 Tri



E-Tech W 22 Tri



EN

1. Relay
2. Timer
3. Control terminal strip
4. Safety switch
5. Power terminals with 25A or 32A fuse

FR

1. Contacteur
2. Temporisateur
3. Bornier de commande
4. Disjoncteur magnéto-thermique
5. Contacteur de sécurité
6. Bornier de puissance avec fusible de 25A ou 32A

NL

1. Aansluitcontacten
2. Timer
3. Besturingsklemmen
4. Magnetothermische schakelaar
5. Veiligheidsrelais
6. Vermogensklemmen met zekering van 25A of 32A

DE

1. Zeitrelais
2. Zeitschalter
3. Steuerklemmen
4. Sicherung
5. Sicherheitsrelais
6. Leistungsklemmen mit Sicherung 25A oder 32A

ES

1. Contactor
2. Temporizador
3. Bornes de mando
4. Disyuntor magnetotérmico
5. Contactor de seguridad
6. Bornes de potencia con fusible 25A o 32A

IT

1. Relè di potenza
2. Temporizzatore
3. Morsettiera di comando
4. Interruttore magnetotermico generale ON/OFF
5. Contattore di sicurezza
6. Morsettiera di potenza con fusibili di 25A o 32A

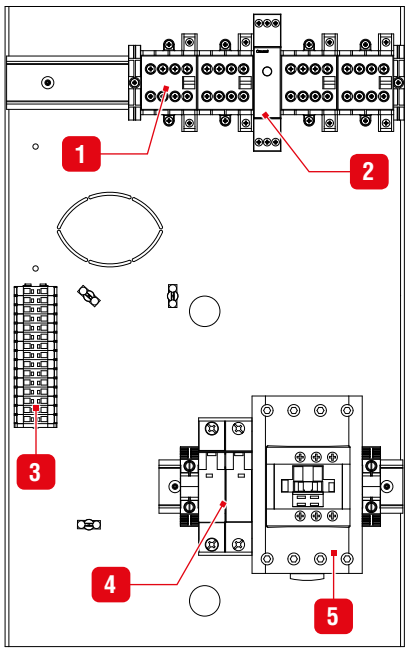
PL

1. Styczniki
2. Przekaźnik czasowy
3. Listwa zaciskowa obwodu sterowania
4. Bezpiecznik obwodu regulacji
5. Przekaźnik główny
6. Zaciski zasilania z zabezpieczeniem 25A lub 32A

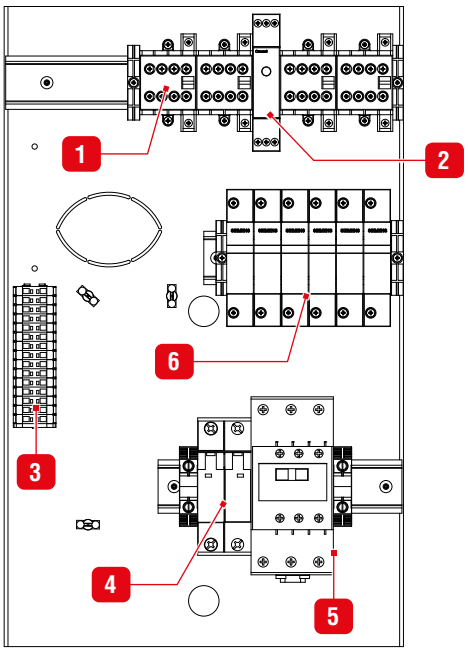
RU

1. Электромагнитное реле
2. Реле задержки времени включения 2-ой ступени
3. Клеммная колодка цепи управления
4. Автоматические выключатели
5. Отключающее электромагнитное реле
6. Клеммная колодка силовой цепи с предохранителями 25A или 32A

E-Tech W 28 Tri



E-Tech W 36 Tri



ACV

ACV EXCELLENCE IN HOT WATER A BRAND OF GROUPE ATLANTIC

CE

EU DECLARATION OF CONFORMITY

Product type:	**Electric boiler**
Name and address of manufacturer:	**Groupe Atlantic Manufacturing Belgium** **Rue Henry Becquerel, 1** **7180 Seneffe** **Belgium**

This declaration of conformity is issued under the sole responsibility of the manufacturer.

Model:	**E-Tech W 9 Mono** **E-Tech W 15 Mono** **E-Tech W 9 Tri** **E-Tech W 15 Tri** **E-Tech W 22 Tri** **E-Tech W 28 Tri** **E-Tech W 36 Tri**

We declare hereby that the appliances specified above are conform to the following Regulations/Directives:

Directives	Description	Date
2014/35/EU	Voltage Limits Directive	26.02.2014
2014/30/EU	Electromagnetic Compatibility Directive	26.02.2014

Relevant harmonised standards :

EN 60335-1

EN 60335-2-35

Signed for and on behalf of
Groupe Atlantic Manufacturing Belgium

Seneffe, 01/01/2024

Date

R&D Director
Céline Coupain

DECLARATION OF CONFORMITY TO STANDARDS

Product type:	**Electric Boiler**
Name and address of manufacturer:	**Groupe Atlantic Manufacturing Belgium** **Rue Henry Becquerel, 1** **7180 Seneffe** **Belgium**

This declaration of conformity is issued under the sole responsibility of the manufacturer.

Models:	**E-Tech W 09 Mono V15** **E-Tech W 15 Mono V15** **E-Tech W 09 Tri V15** **E-Tech W 15 Tri V15** **E-Tech W 22 Tri V15** **E-Tech W 28 Tri V15** **E-Tech W 36 Tri V15** **E-Tech P 57** **E-Tech P 115** **E-Tech P 144** **E-Tech P 201** **E-Tech P 259** **E-Tech S 160 Mono V15** **E-Tech S 160 Tri V15** **E-Tech S 240 Tri V15**

We declare hereby that the appliances specified above is conform to the following directive:

Arrêté du Ministre de l'industrie, du commerce, de l'investissement et de l'économie numérique n° 2573-14 du 29 ramadan 1436 (16 juillet 2015) relatif au matériel électrique destiné à être employé dans certaines limites de tension

BO N° 6403 du 12 octobre 2015

Signed for and on behalf of
Groupe Atlantic Manufacturing Belgium

Seneffe, 01/01/2024

R&D Director
Céline Coupain

Product Fiche: E-Tech W

Referring to EU Commission Delegated Regulation No 811/2013

Supplier: **Groupe Atlantic Manufacturing Belgium** Rue Henry Becquerel, 1 - 7180 Seneffe (Belgium)

ACV model	**E-TECH W 09 Mono/Tri**	**E-TECH W 15 Mono/Tri**	**E-TECH W 22 Tri**	**E-TECH W 28 Tri**	**E-TECH W 36 Tri**
Seasonal space heating energy efficiency class	D	D	D	D	D
Rated heat output	8.4 kW	14.4 kW	21.6 kW	28.8 kW	36.0 kW
Seasonal space heating efficiency	37%	37%	37%	37%	37%
Annual energy consumption for space heating	18,385 kWh	31,363 kWh	46,936 kWh	62,512 kWh	78,075 kWh
Sound power level indoors LWA:	15 dB	15 dB	15 dB	15 dB	15 dB

Specific precautions when assembled, installed and maintained:

See installation and maintenance manual for instructions on Installation and maintenance of the product

ACV A BRAND OF GROUPE ATLANTIC

www.acv.com

Groupe Atlantic Manufacturing Belgium
Rue Henry Becquerel, 1
7180 Seneffe
Belgium