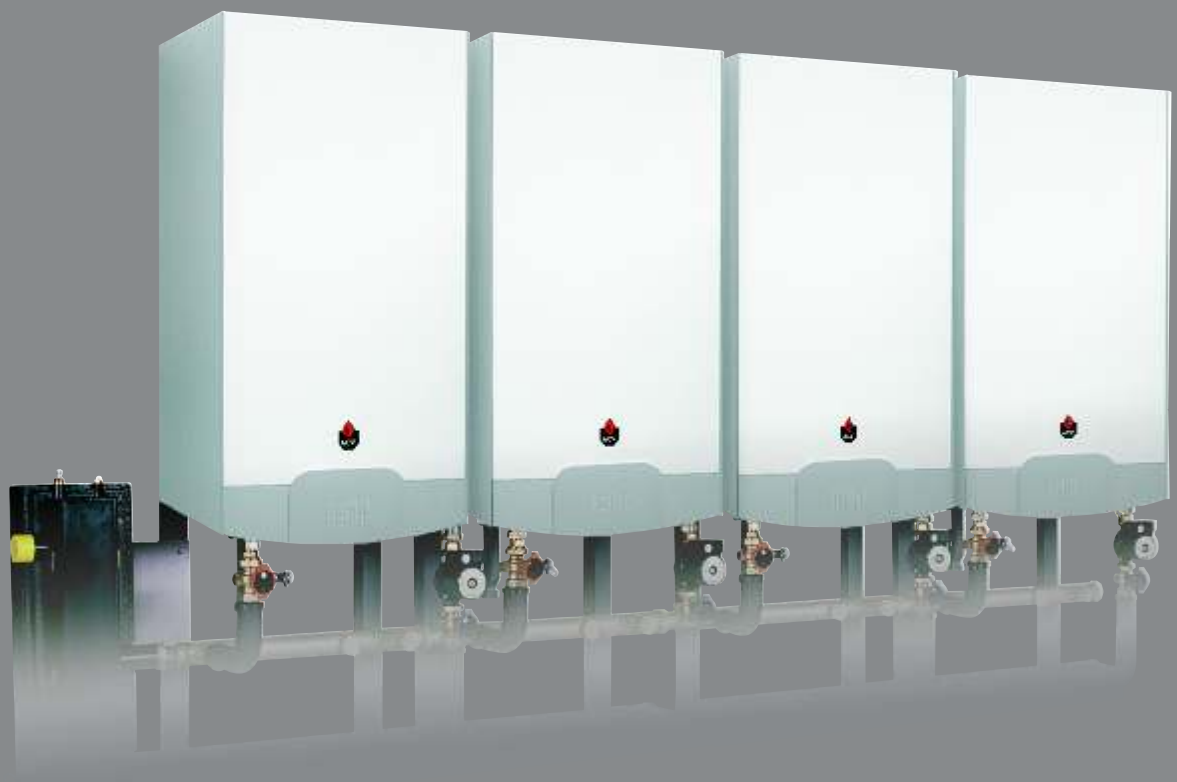
PRESTIGE
TECHNICAL



ACV

excellence in hot water

A place for the cd containing all the diagrams presented in this book. Diagrams are in AutoCad format.

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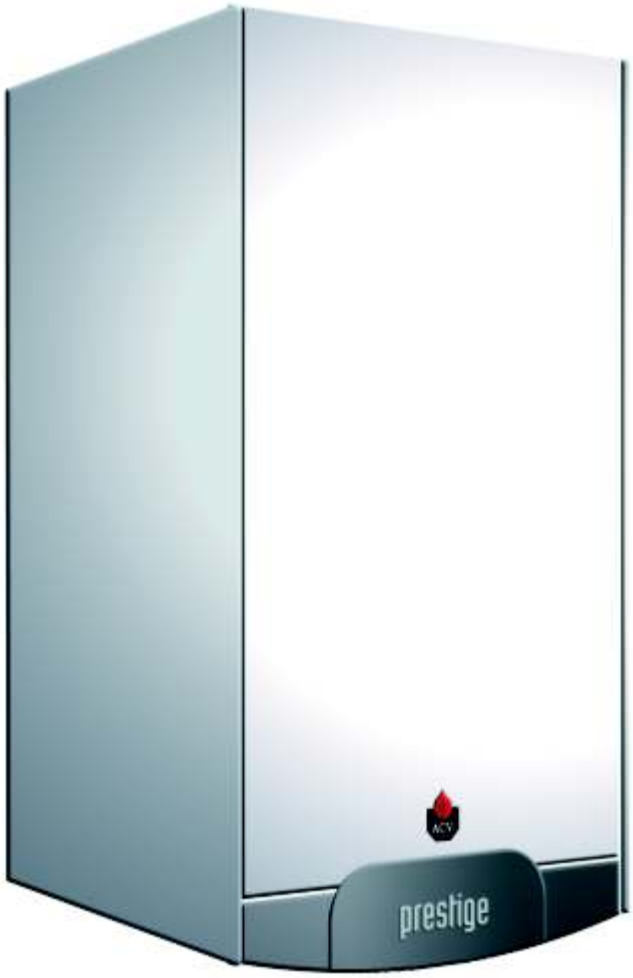
INTRODUCTION



Excellent resistance to corrosion and very economic, quite operation.

Prestige is a wall-mounted gas condensing boiler with very high efficiency. At the heart of the Prestige is a new, specially designed stainless steel heat exchanger, developed after intensive research and laboratory testing. Designed using ACV's 80 years experience in the manufacture of heating and hot water products. Stainless steel offers very high resistance to corrosion eighter from water or condensed combustion gases. In this unique construction combustion gases pass downwards through the heat exchanger tubes, making maximum use of the energy available from the combustion process. Moreover, as the condensate runs down the heat exchanger tubes, it cleans any traces of combustion residue, this ensures that the boiler continues to function at maximum efficiency throughout its life.

The Prestige burner can operate for both natural gas and propane, they are very quite with low NOx emission. An integrated weather dependent regulator controls the burner power which increases boiler efficiency and reduces gas consumption. The boilers are very compact and lightweight. Can be connected in cascade to increase output or installed together with HeatMaster® or ACV tank-in-tank for hot water production. Prestige can fulfill the needs of both the individual and highly specialised user.

HEAT EXCHANGER

EXCELLENT RESISTANCE TO CORROSION

Stainless steel offers a high resistance to corrosion from the internal primary water which could contain system additives and impurities. It is also resistant to the acidity of condensate which forms in the flue ways, and even to the presence of sulfpher traces in natural gas or propane.

HIGH EFFICIENCY

The stainless steel heat exchanger flue tubes are designed to reach an optimal heat exchange over their entire length. The Prestige maintain an exceptional continuous output throuhout the life of the boiler, since no oxidation occurs in the heat exchanger. Furthermore the fuel consumption of the boiler is improved thanks to the reduced pressure loss in the flue tubes.

LIGHTWEIGHT

Due to the exceptional corrosion resistant properties of stainless steel, an equivalent aluminium heat exchanger would be much thicker and therefore much heavier than the stainless steel heat exchanger of the Prestige.

LOW MAINTENANCE

The stainless steel heat exchanger of the Prestige is self - cleaning, as the condensate runs down the exchanger tubes it cleans any possible traces of combustion residue. This ensures that the boiler continues to function at maximum efficiency throughout its life, and therefore maintenance requirements for the heat exchanger are reduced.

STABLE BOILER TEMPERATURE CONTROL

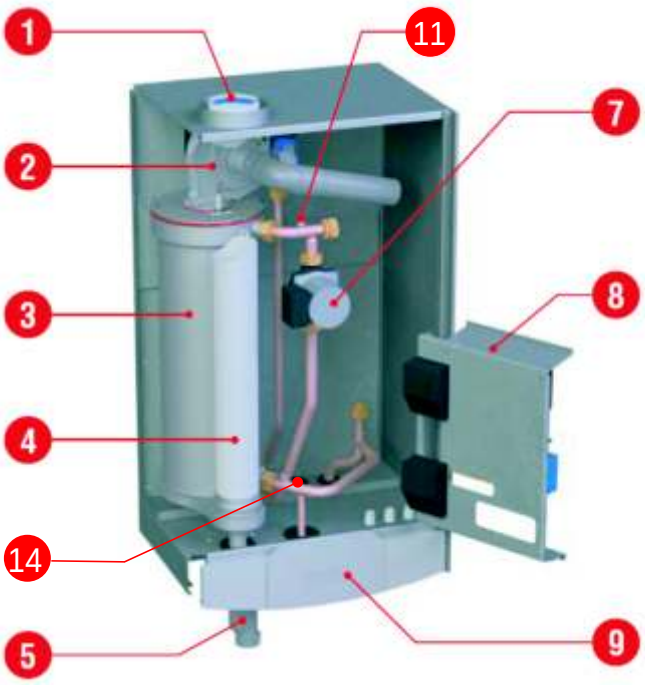
Most boilers use a water tube for the combustion process, however the stainless steel heat exchanger of the Prestige has flue tubes running through the sealed water jacket. This increases the volume of water in the system, the benefit is that it allows stable temperature control of the boiler and minimizes the risk of overheating due to varying water flow rates.

Special construction of the heat exchanger allows better heat exchange from combustion gases to the water

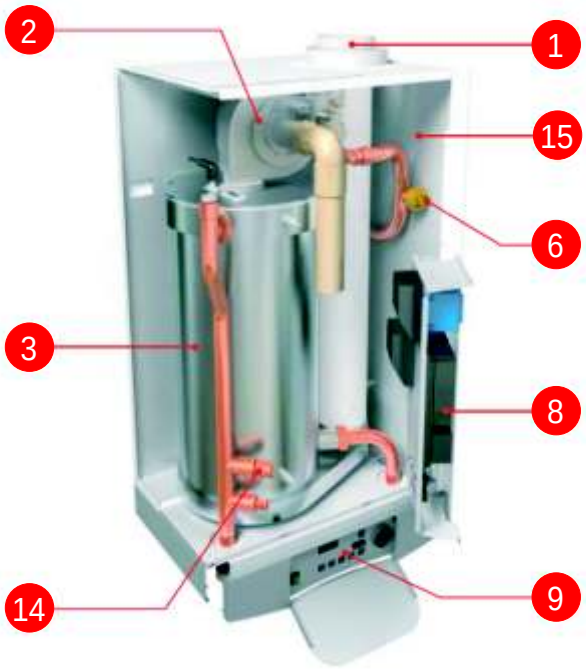
DESCRIPTION

CONSTRUCTION

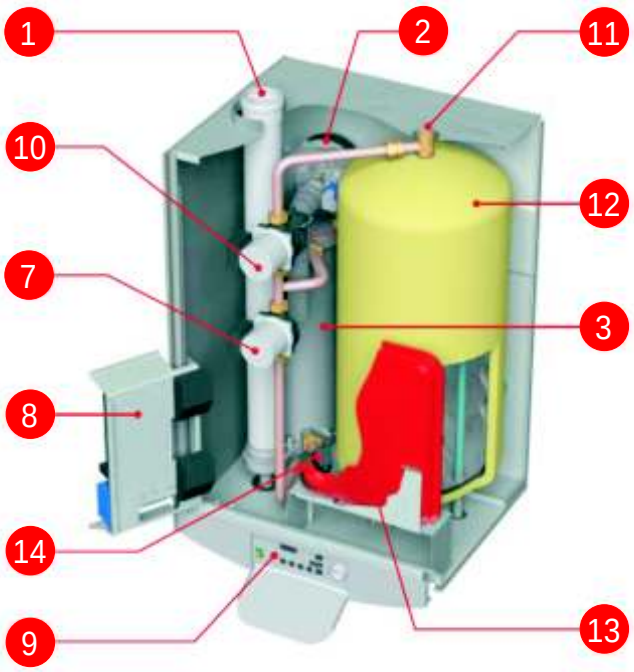
PRESTIGE SOLO **24 - 32**



50 - 75 - 120



PRESTIGE EXCELLENCE



LEGEND:

1. Chimney connection
2. Burner
3. Stainless steel heat exchanger
4. Flue tubes
5. Condensate trap
6. Low gas pressure switch
7. CH primary pump
8. Electrical plate
9. Control panel
10. Hot water primary pump
11. Air vent
12. Stainless steel hot water tank
13. Expansion vessel
14. Low pressure water switch
15. Casing

WORKING PRINCIPLE

CONDENSATION

During natural gas or propane combustion, CO2 and water vapour is created. The temperature of combustion gases that leave a non-condensing boiler can be more than 150°C, which means that during stable boiler operation, water vapour will not condese. These combustion gases are hot, and this heat is lost to the atmosphere.

The Prestige is a condensing boiler, which means that the water vapour from combustion gases will condense and this heat will be recovered. Condensing boilers convert latent vapour energy contained in flue gases back to water, exploiting its thermal energy and therefore reducing fuel consumption.

This is how the standard output of a condensing boiler reaches 109% measured on the combustion gas LHV (Low Heating Value), which immiediately translates into an energy saving of 25-30% compared to a traditional system.

Contrary to traditional boilers, a condensing boiler not only uses the heat produced in combustion but also converts the latent heat of the vapour.

The Prestige features incredibly low emissions of nitrogen oxygen (NOx) and carbon monoxide (CO): emissions are 30% lower than the most stringent environment protection standards.

OPERATION

Working principle

Pre-mixed gas and air is blown by the fan to the burner head, where it ignites on the burner tube. The number of fan revolutions are regulated to allow for fluent power modulation of the burner. The flue gases pass downwards through the flue tubes of the heat exchanger and in the lower part the water vapour from flue gases is condensed, the condensate flows down to the trap below the boiler.
Special construction of the flue tubes allows for efficient heat exchange to the water, when the condensate flows down through the heat exchanger, it cleans it automatically. The primary water is pumped across the heat exchanger, in the Prestige 24-32 these pumps are located under the front casing.
The Prestige Excellence is also equipped with a 54 litre cylinder for hot water production. The cylinder is made using ACV tank-in-tank system. You know all the advantages of ACV tank-in-tank system ...

Boiler management

Boiler operation is managed by the MCBA. The control manages all the gas burner and boiler functions, including its safety parameters and flame modulation, as well as monitoring and controlling the water temperature (outlet/inlet) and the combustion gases. It can also work as a weather dependent regulator when the outside temperature sensor is connected.

With the MCBA you can also regulate a DHW tank or with further enhacements control multiple heating circuits and communicate with other boilers and controls.

TECHNICAL CHARACTERISTICS

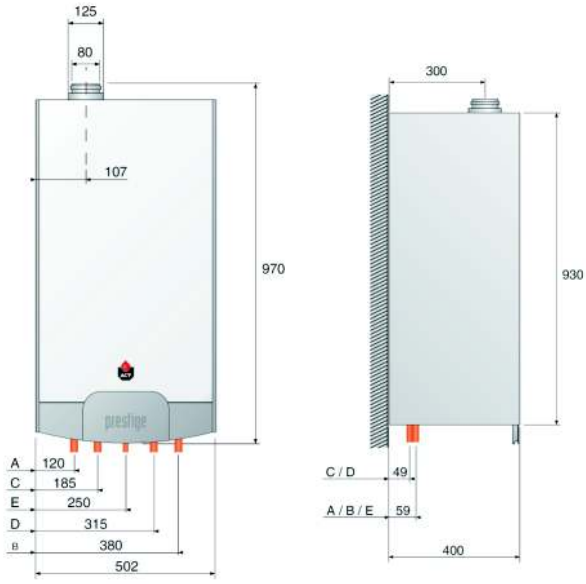
TECHNICAL DATA

		Prestige Solo 24	Prestige Excellence 24	Prestige Solo 32
Fuel	Type	G20, G31	G20, G31	G20, G31
Input min/max	kW	5,9/24*	5,9/24*	5,9/32*
Output min/max	kW	5,8/23,4*	5,8/23,4*	5,8/31,0*
Efficiency 30% (EN677)	%	109	109	109
Flue - max. pressure drop	max Pa	130	130	130
CO_2 in combustion gases	%	max 9,3*	max 9,3*	max 9,3*
Max NOx emission	mg/kWh	66*	66*	66*
Max CO emission	mg/kWh	45/20*	52/20*	45/20*
G20 gas flow rate	m^3/h	2,5	2,5	3,4
G31 gas flow rate	m^3/h	0,98**	0,98**	1,3**
Weight	kg	48	92	48
Heating circuits				
Heating connections		1”	1”	1”
Hot water connections		-	3/4”	-
Max. operating temperature	^0C	90	90	90
Total capacity	litr	8	70	8
Boiler water capacity	litr	8	16	8
Hot water tank capacity	litr	-	54	-
Capacity of the expansion vessel		-	1x12 litr	-
Max. operating pressure heating/hot water	bar	3/-	3/10	3/-
Hot water peak flow Dt=30^{0}C	l/min	-	17,5	-
Hot water peak flow Dt=25^{0}C	l/min	-	21,0	-
Electrical connection				
Supply voltage	V/Hz	230/50	230/50	230/50
Maximum absorbed electrical power	A	0,8	0,8	0,8
Class	IP	30	30	30

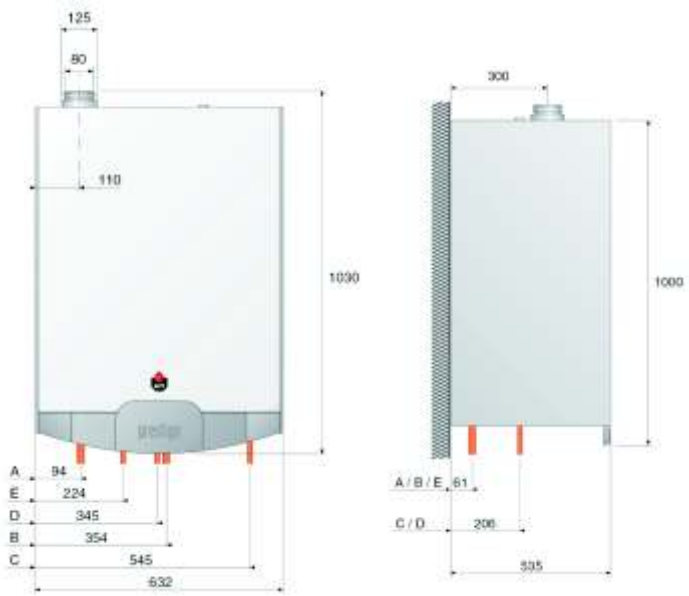
[*] gaz G20 values
**] Prestige with propane has P in the name

DIMENSIONS

PRESTIGE SOLO 24 - 32



PRESTIGE EXCELLENCE 24 - 32

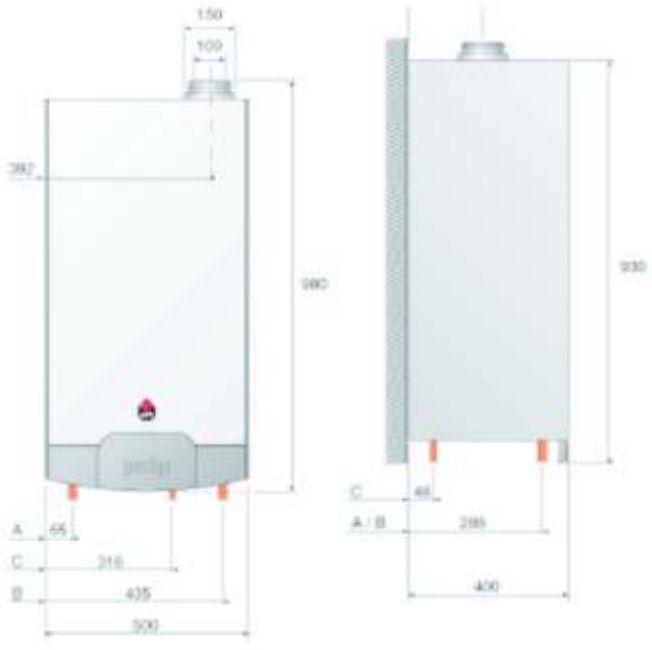


TECHNICAL DATA

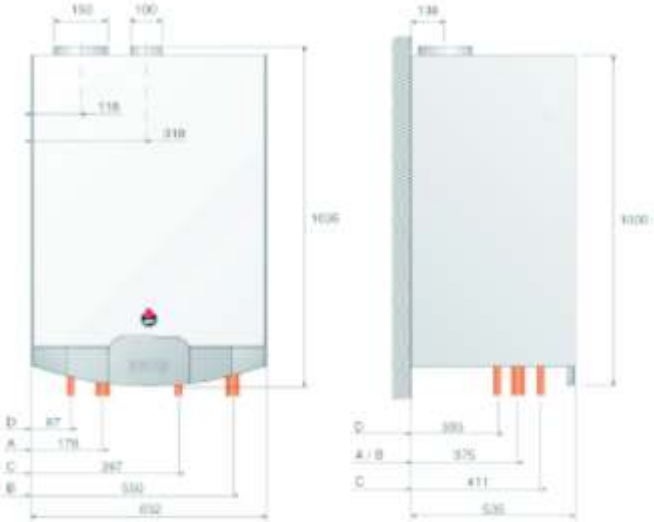
Prestige Excellence 32	Prestige Solo 50	Prestige Solo 75	Prestige Solo 120		
G20, G31	G20, G31	G20, G31	G20, G31	Type	Fuel
5,9/32*	15/49,9*	18,3/72*	45/80-126*	kW	Input min/max
5,8/31,0*	14,7/48,4*	17,9/69,9*	36,3/78,1-116,6*	kW	Output min/max
109	107,8	107,8		%	Efficiency 30% (EN677)
130	150	150	150	max Pa	Flue - max. pressure drop
max 9,3*	max 9,4*	max 9,4*	max 9,5*	%	CO_2 in combustion gases
66*	66*	62*	47*	mg/kWh	Max NOx emission
52/20*	45/20*	52/20*	106/*	mg/kWh	Max CO emission
3,4	5,3	7,6	12,7	m^3/h	G20 gas flow rate
1,3**	2,0**	2,8**	5,1**	m^3/h	G31 gas flow rate
92	58	58	83	kg	Weight
					Heating circuits
1”	1 1/4”	1 1/4”	1 1/2”		Heating connections
3/4”	-	-	-		Hot water connections
90	90	90	90	^0C	Max. operating temperature
70	20	17	28	litr	Total capacity
16	20	17	28	litr	Boiler water capacity
54	-	-	-	litr	Hot water tank capacity
1x12 litr	-	-	-		Capacity of the expansion vessel
3/10	4/-	4/-	4/-	bar	Max. operating pressure heating/hot water
22,4	-	-	-	l/min	Hot water peak flow Dt=30^{0}C
27,0	-	-	-	l/min	Hot water peak flow Dt=25^{0}C
					Electrical connection
230/50	230/50	230/50	230/50	V/Hz	Supply voltage
0,8	1,1	1,1	1,1	A	Maximum absorbed electrical power
30	30	30	30	IP	Class

DIMENSIONS

PRESTIGE SOLO 50 - 75



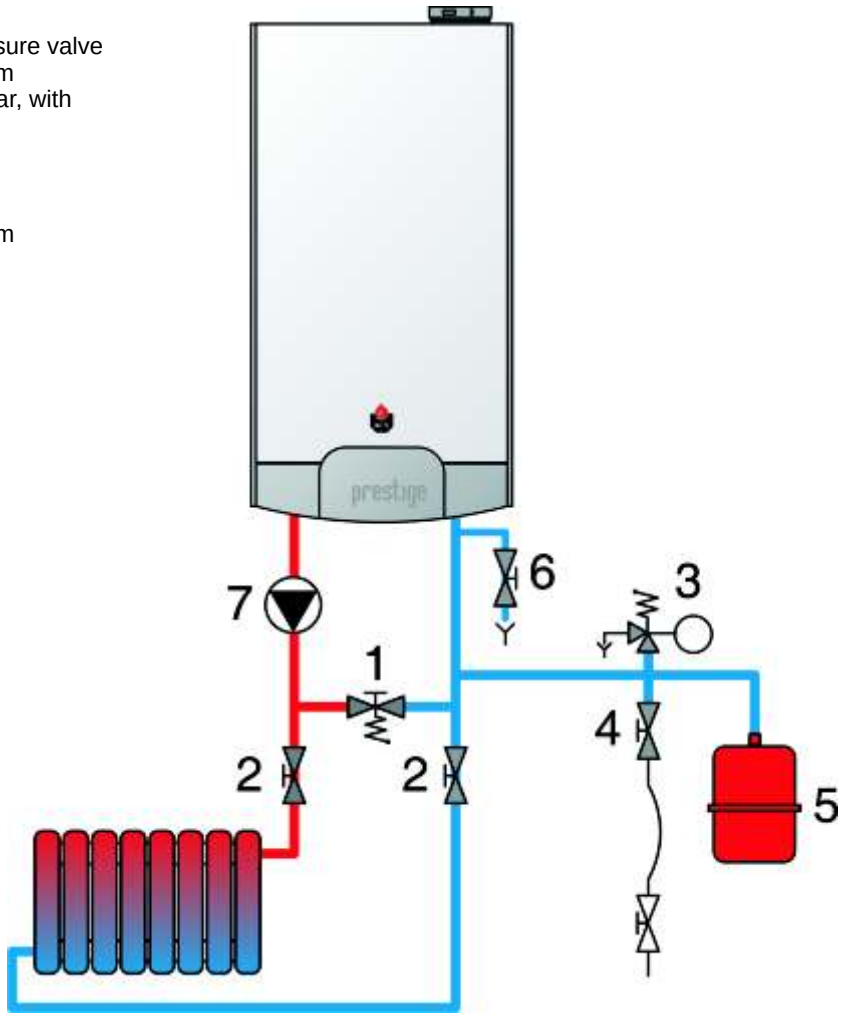
PRESTIGE SOLO 120



CONNECTIONS

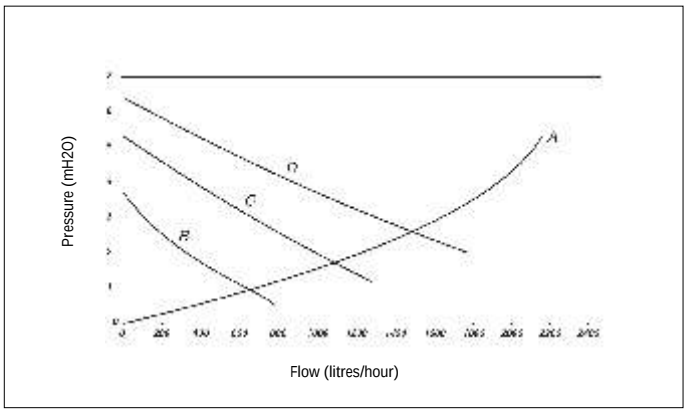
HEATING CONNECTIONS

1. By-pass with differential pressure valve
2. Isolating valve, heating system
3. Safety valve calibrated to 3 bar, with pressure gauge
4. System filling valve
5. Expansion vessel
6. Drain cock
7. Loading pump, heating system



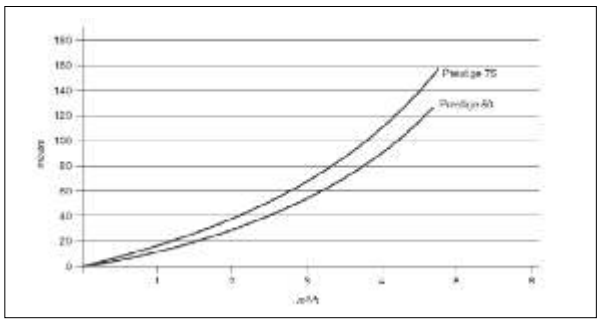
DIAGRAMS OF PRESSURE DROP - HEATING SIDE

PRESTIGE 24 - 32 SOLO

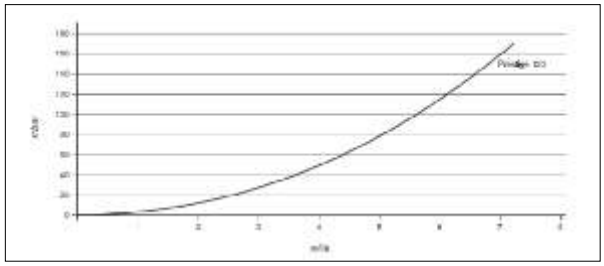


A = pressure drop of the boiler
B = pressure available circulator on 1
C = pressure available circulator on 2
D = pressure available circulator on 3

PRESTIGE 50 - 75 SOLO

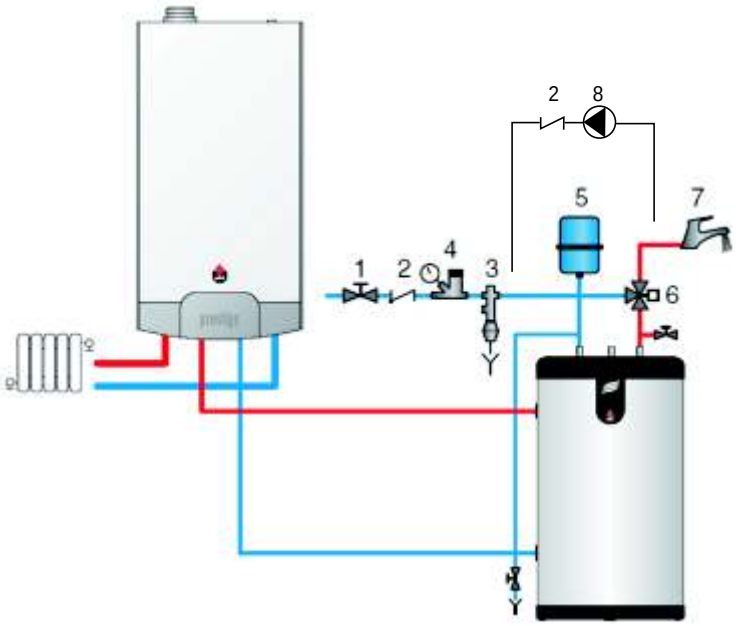


PRESTIGE 120 SOLO

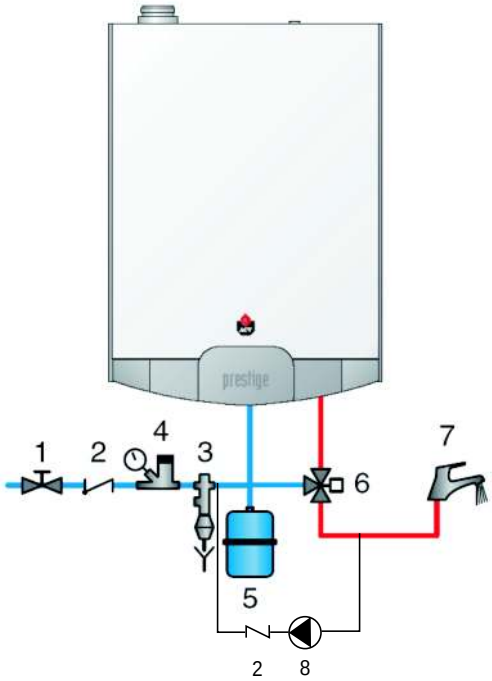


DOMESTIC HOT WATER CONNECTIONS

PRESTIGE SOLO

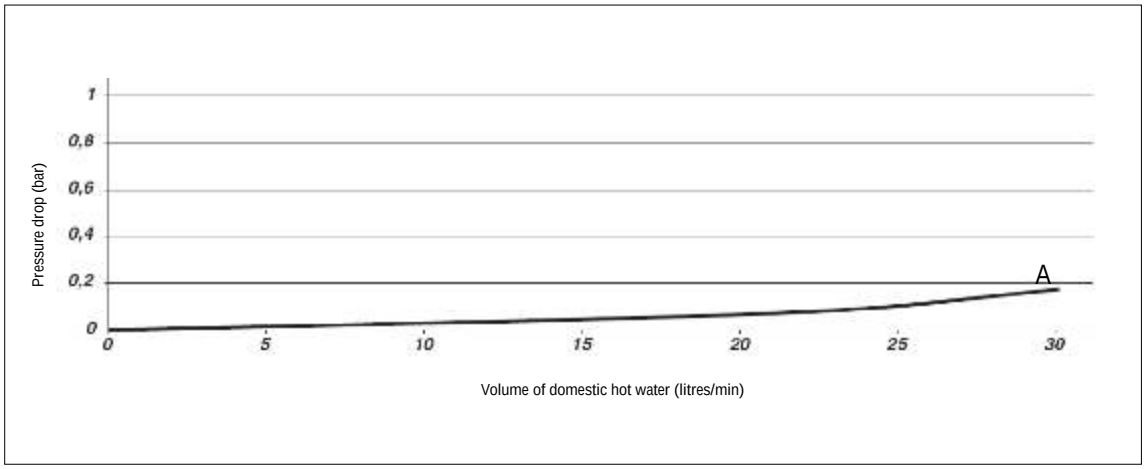


PRESTIGE EXCELLENCE



1. Isolating valve
2. Non-return valve
3. Safety valve
4. Pressure reducing valve (4 bar)
5. Expansion vessel
6. Thermostating mixing valve
7. Hot outlet
8. Circulating pump

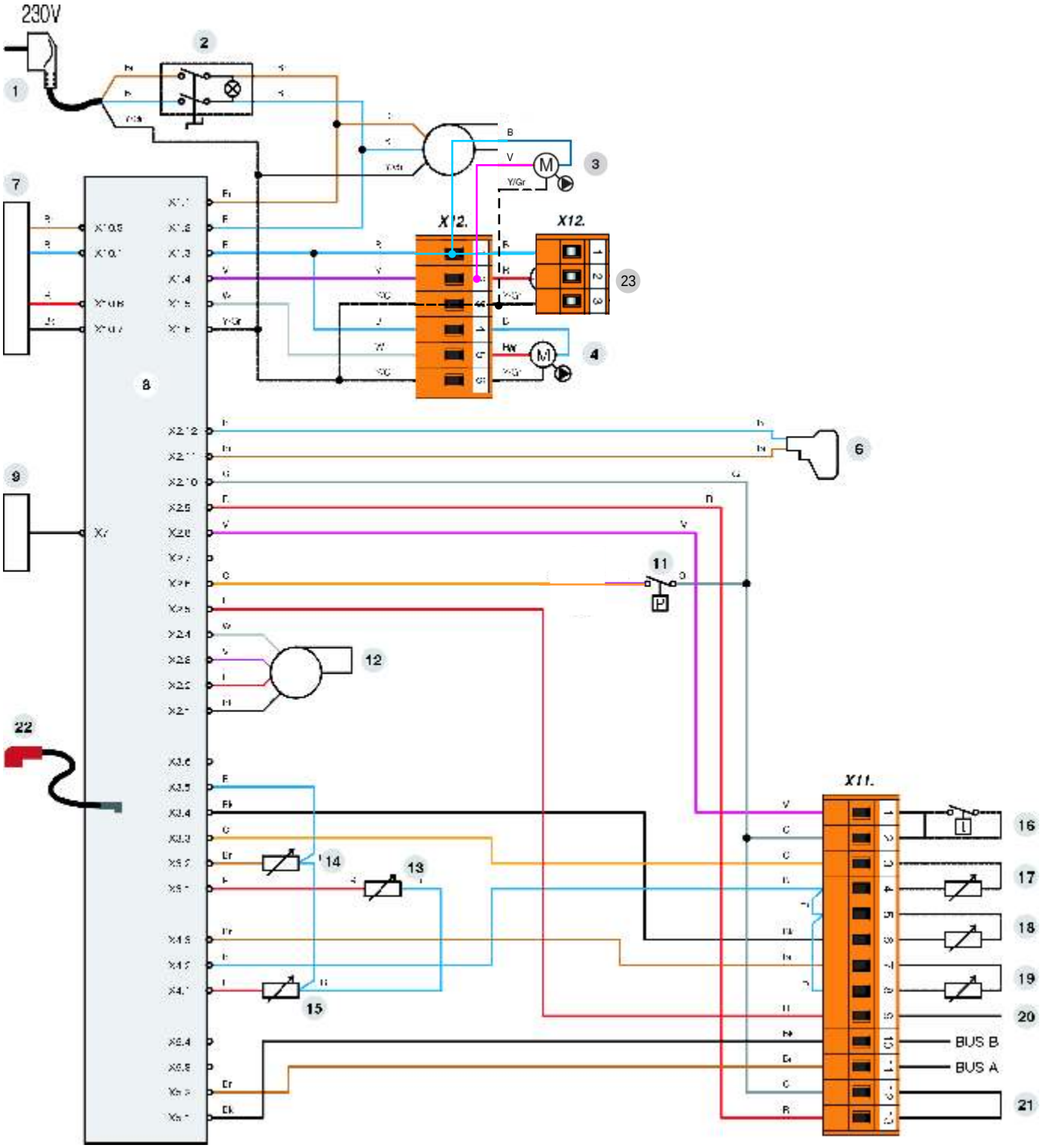
DIAGRAMS OF PRESSURE DROP - DOMESTIC HOT WATER SIDE



A = pressure drop on the domestic hot water side - Prestige Excellence

CONNECTIONS

WIRING DIAGRAM - PRESTIGE 24 - 32



1. 230V connection cord
2. On/off switch
3. Heating pump
4. Hot water pump - Excellence (Solo - option)
5. Burner
6. Gas valve
7. Transformer 230V-24V
8. MCBA
9. Screen
11. Water pressure switch
12. Burner connection
13. NTC1 flow sensor
14. NTC2 return sensor
15. NTC5 flue gas temperature sensor
16. Room thermostat (option)
17. NTC3 hot water sensor - Excellence (Solo - option)
18. NTC4 outdoor temperature sensor (option)
19. NTC6 second circuit sensor (option)
20. Zero volt of 24V circuit
21. External safety thermostat (RAM-option)
22. HT lead for ignition electrode
23. Heating pump connection of the direct circuit (2 heating circuits)

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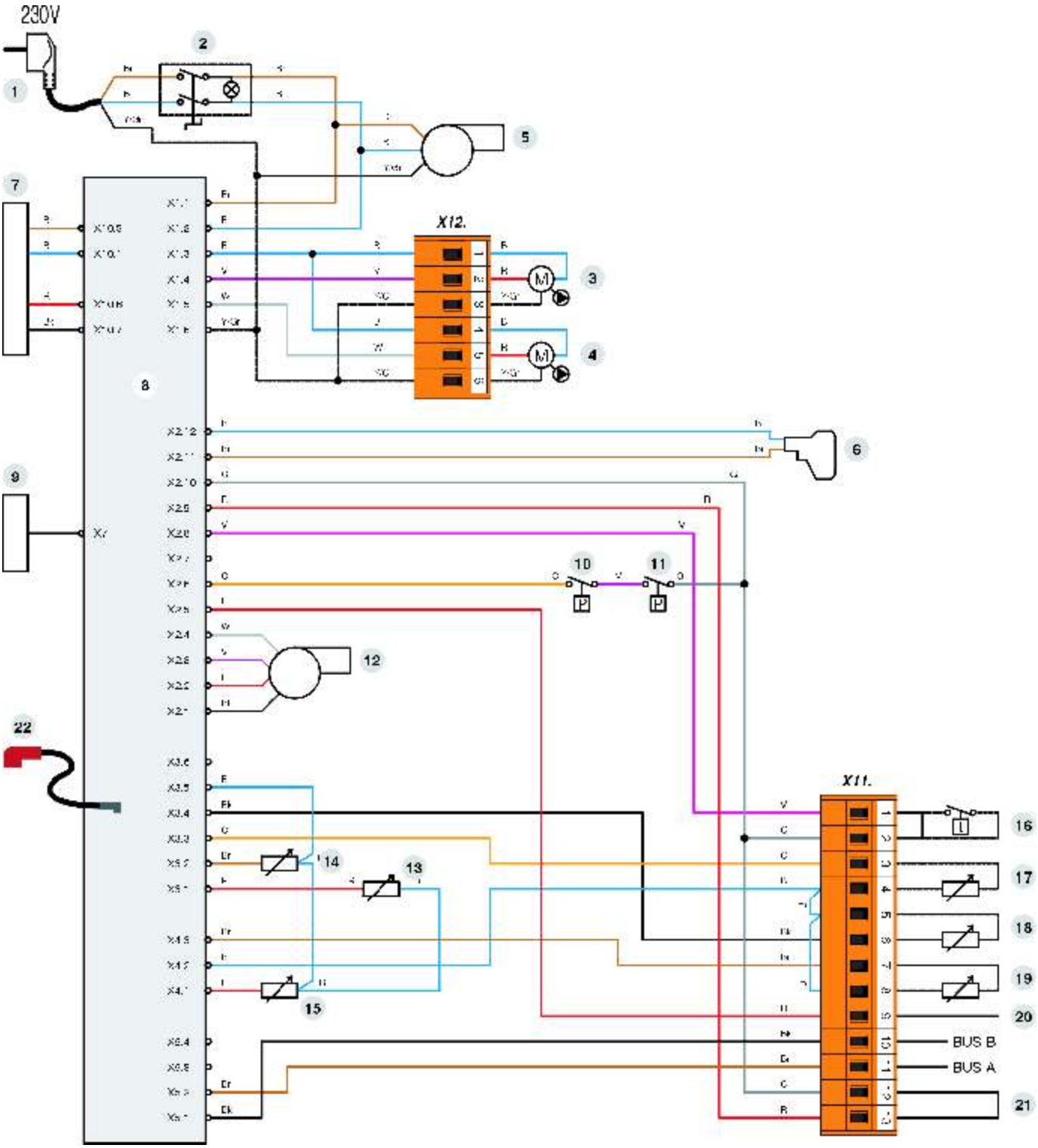
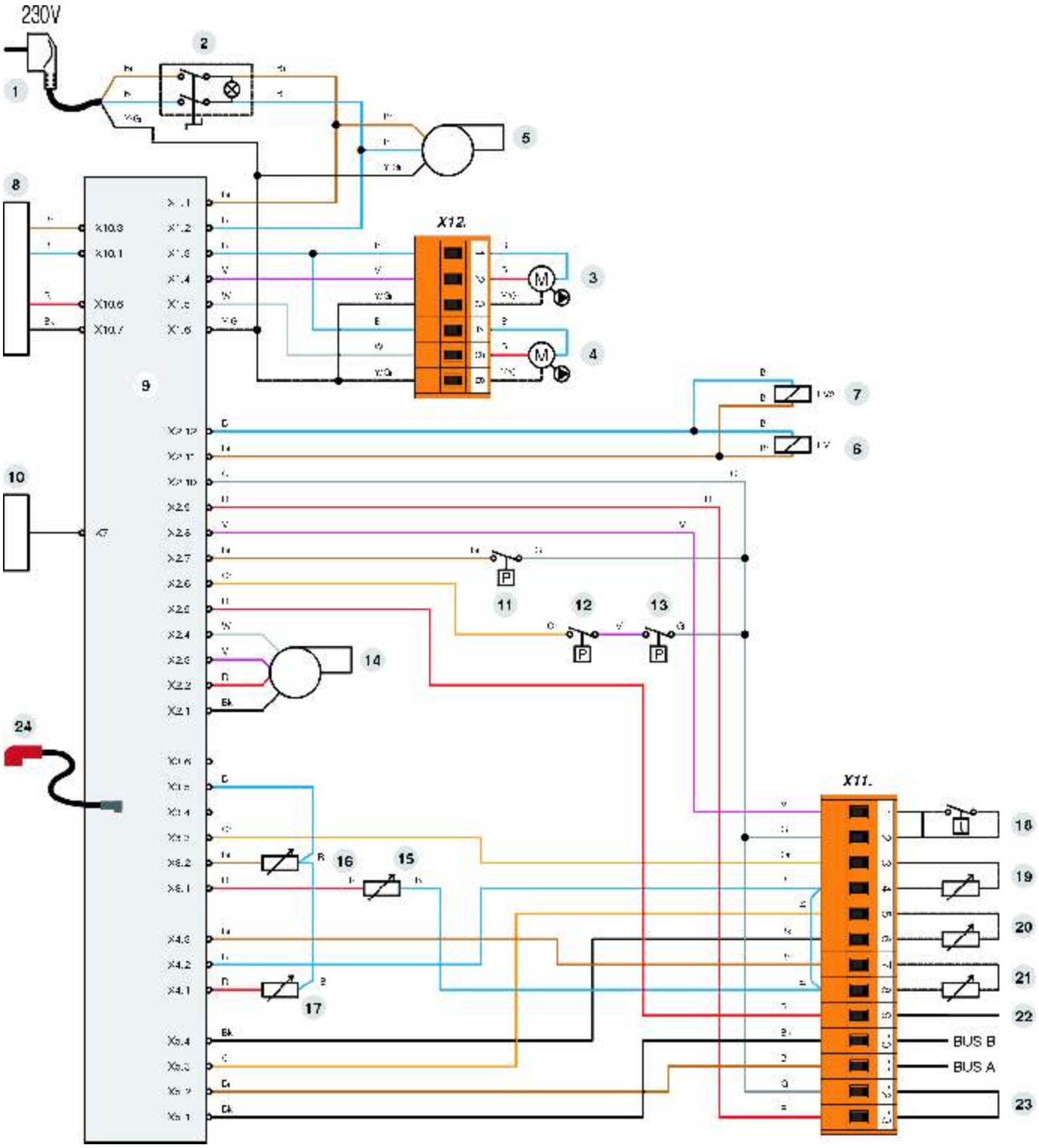
WIRING DIAGRAM - PRESTIGE 50 - 75



1. 230V connection cord
2. On/off switch
3. Heating pump
4. Hot water pump (option)
5. Burner
6. Gas valve
7. Transformer 230V-24V
8. MCBA
9. Screen
10. Gas pressure switch
11. Water pressure switch
12. Burner modulation
13. NTC1 flow sensor
14. NTC2 return sensor
15. NTC5 flue gas temperature sensor
16. Room thermostat (option)
17. NTC3 hot water sensor (option)
18. NTC4 outdoor temperature sensor (option)
19. NTC6 second circuit sensor (option)
20. Zero volt of 24V circiut
21. External safety thermostat (RAM-option)
22. HT lead for ignition electrode

CONNECTIONS

WIRING DIAGRAM - PRESTIGE 120



1. 230V connection cord
2. On/off switch
3. Heating pump
4. Hot water pump
5. Burner
6. Gas valve 1
7. Gas valve 2
8. Transformer 230V-24V
9. MCBA
10. Screen
11. Air pressure switch
12. Gas pressure switch
13. Water pressure switch
14. Burner modulation
15. NTC1 flow sensor
16. NTC2 return sensor
17. NTC5 flue gas temperature sensor
18. Room thermostat (option)
19. NTC3 hot water sensor (option)
20. NTC4 outdoor temperature sensor (option)
21. NTC6 second circuit sensor (option)
22. Zero volt of 24V circuit
23. External safety thermostat (RAM-option)
24. HT lead for ignition electrode

CHIMNEY CONNECTIONS

B$_{23}$ - connection to an exhaust duct venting the combustion products outside of the installation area, with the combustion air being drawn directly from this area.

B$_{23P}$ - connection to an exhaust system of the combustion products designed to operate with positive pressure.

C$_{13}$ - appliance connection with a horizotal balanced flue/onlet air ducts to outside atmosphere.

C$_{33}$ - appliance connection with a vertical balanced flue/inlet air ducts to outside atmosphere.

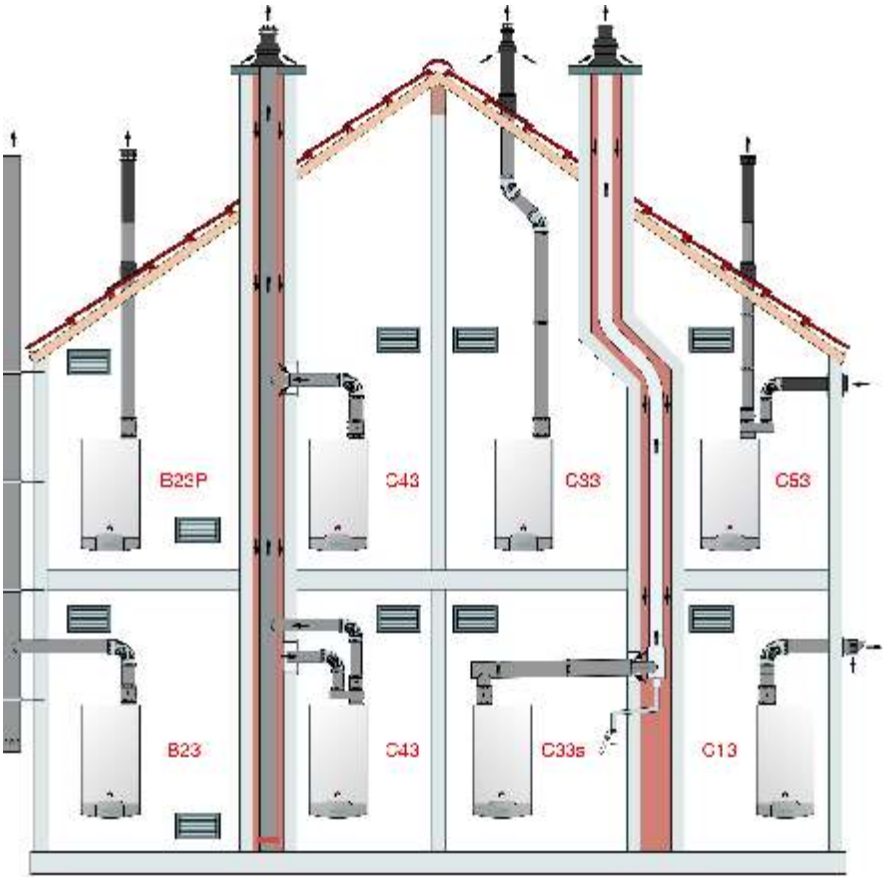
C$_{33S}$- connection with an individual system of which the exhaust duct for the combustion products is installed in an exhaust pipe that is part of the building. The appliance, the exhaust duct and the terminal units are certified as an assembly that cannot be dissociated.

C$_{43}$ - connection by two ducts to a collective duct system serving more than one appliance; this system of collective ducts features two ducts connected to a terminal unit that simultaneously intakes fresh combustion air and discharges the combustion products outside through openings that are either concentric or close enough together to be subjected to similar wind conditions. “U” duct system.

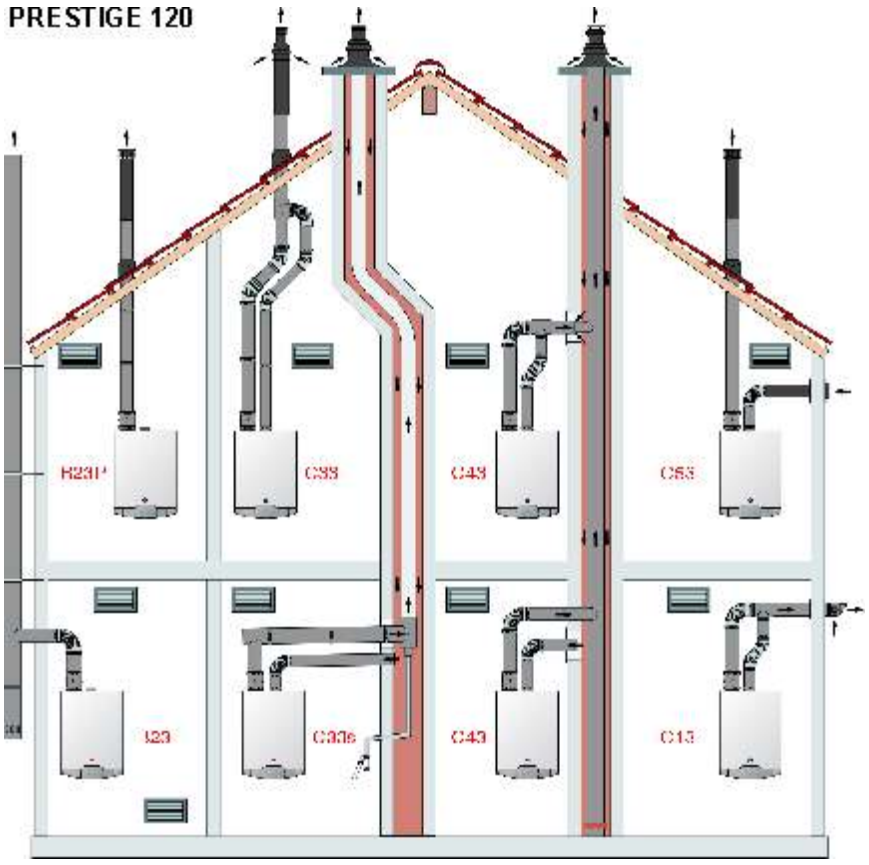
C$_{53}$- appliance connection to an non balanced flue/inlet air ducted system.

Note: maximum flow resistance is shown in the technical manual for the boiler.

PRESTIGE 24 - 32 - 50 - 75



PRESTIGE 120



BURNER, REGULATOR, CASCADES

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BURNER

THE INTELIGENT ACV BURNER

The innovative gas premix burner in the Prestige has been designed to provide high efficiency and clean combustion. Premix technology makes it possible to perfectly mix gas and air before combustion, in all operating conditions and to guarantee optimal efficiency with no hazardous emissions. In addition, the burner modulates from about 25% to 100% of nominal capacity to adapt power continously to the current heat requirement: operating cycles are longer, resulting in less starts and stops, less harmful emissions, less maintenance and longer lifetime of the burner. Moreover, the burner head is covered with a metalic fibre engineered both to withstand high thermal loads and to reach near perfect radiant combustion mode at low load.

ECONOMIC OPERATION

The Prestige Solo is equipped with an inlet temperature sensor, an outlet temperature sensor and a flue gas temperature sensor. In addition the Prestige Excellence is equipped with a hot water temperature sensor. All the sensor information is transmitted to the MCBA that will precisely adapt the power of the burner for the most efficient operation possible.

QUIET OPERATION OF THE PREMIX BURNER

ACV has adopted BG 2000 M burners for Prestige boilers. This is a safe and quiet air/gas premix burner that limits polluting emissions (NOx and CO) to incredibly low levels. Although thoroughly modern, the ACV BG 2000 M burner uses proven technology and widely distributed standard components.
The casing of the Prestige is made from insulated steel that completely encloses the burner, guaranteeing extremely quiet operation. Also, the heat emitted by the heat exchanger is absorbed into the combustion air, which improves efficiency and prevents heat radiation.

REGULATOR ACV MCBA

Prestige is equipped with an integrated MicroproCessor Burner Automate (MCBA) that controls the safety-functions of the boiler and offers a wide band of built-in temperature controls, which can be selected and adapted through a number of parameters, with different access levels (end-user, service engineer, ...)
If an outside sensor is connected to the MCBA it becomes a complete weather-dependent control, with the possibility of having night set-back if an external clock is used.
An outside sensor connected to the MCBA will determine the basic flow temperature. If the room thermostat contact remains closed for a longer period, the flow temperature setting will be increased by 10°C until the desired room temperature is achieved. In this way an auto-adaptive heating curve is achieved which combines the advantages of a fast heat-up curve with the temperature stability of a standard weather-dependent control.

CASCADE OF BOILERS

EXCELLENT REASONS TO INSTALL A CASCADE

Efficiency: a cascade system allows modulation of the heating power, from the minimum output of one boiler up to the maximum output of all the boilers. Which, in the case of a four-boiler cascade, gives a modulation ratio of 16:1.
Back up: the ACV cascade controllers optimise the potential of the available boilers, if one of the boilers fail, the controller simply adjust the power of the remaining boilers to compensate.
Easy commissioning: one, two, three or four boilers, the commissioning procedure is the same, simple and easy when undertaken by a qualified engineer.
Easy maintenance: any one boiler in a cascade can be serviced and maintained easily whilst the other boilers are operational. This enables the servicing to be carried out at any time of the year and not just during the traditional summer shut down period.
A wide spectrum of modulation reduces number of starts in comparision to a single more powerful boiler, as a result less fuel is used. The electrical energy used to transport heating water by the boilers is also reduced as the main regulator decides how many boilers need to operate and how many pumps are required.

BALANCED HEADER

To connect one or more boilers with one or more heating circuits, the balanced header can be installed. It removes the most frequent causes of faults in heating systems and allows for stable operation without need to balance the flow. Boiler or heating circuit pump start/stop has no effect on other devices or regulation systems. This configuration makes the operation of the whole system very flexible, because the volume of the water in heating generators is not in direct conjunction with the water volume in heating circuits. For correct operation of the balanced header at maximum power consumption, the flow of the water in primary (boilers) circuit has to be at a higer level than the flow in the secondary (heating) circuits.
In addition, the balanced header also operates as a trap. Sediment from the heating circuits falls to the lowest part of the header and cannot contaminate the boilers.

SAMPLES OF INSTALLATIONS

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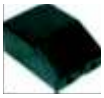
LEGEND

PICTURE	CODE	NAME	MARK
	10800018	**ROOM THERMOSTAT ACV 22** Installed inside the building on the wall. Controls room set temperature. Operates with MCBA. Connected to the boiler terminals 1-2 instead of the bridge.	A
	5476G003	**HOT WATER SENSOR NTC 3** Senses the temperature in the external hot water tank. Controls set temperature. Connected to the boiler terminals 3-4	B
	10510100	**OUTSIDE TEMPERATURE SENSOR NTC 4 (AF 120)** Installed on the external wall of the building. Controls outside temperature and regulates boiler operation. Connected to the MCBA terminals 5-6.	C
	537D3040	**CONTACT SENSOR NTC 6** Installed on the outlet of controlled circuit. Allows weather dependent regulation. Connected to the boiler terminals 7-8.	D
	10510900	**CONTACT SENSOR RAM 5109** Installed on the outlet of the floor heating circuit, to protect pipe work overheating. Connected to the boiler terminals 12-13.	E
	10800095	**AM 3 - 11 MODULE** Controls the second heating circuit - communicates directly with the MCBA. Operates with room thermostat.	F
	10800119	**ZMC -1 MODULE** Controls the second heating circuit - alarm contact - operates only in cojunction with the Room Unit RSC. Needs RMCI installed directly in MCBA.	G
	10800034	**ROOM UNIT RSC** Room regulator, controls heating and hot water production, installed inside of the building on the wall. Supplied with outside temperature sensor. Allows heating curve regulation, room and hot water temperature. Displays all temperatures. Connected to the terminals 10-11 of the boiler terminal block.	H
	10800030	**CONTROL UNIT** Regulates one or more boiler (cascade of max 8 boilers) Prestige with modulating burners. Allows control of 3 heating circuits (2 mixed, 1without mixer) and hot water production. Equipped with 2 outputs and 3 programmable inputs, allowing solar system and solid fuel boiler regulation. Installed in the wall mounting socket.	I
	10800121	**WALL MOUNTING SOCKET FOR THE CONTROL UNIT**	J
	10800057	**INSTALLER TERMINAL BLOCKS FOR THE CONTROL UNIT**	K
	10800036	**CLIP-IN INTERFACE RMCI** Installed directly in the MCBA. Enables communication between the boiler MCBA, the Room Unit and the Control Unit.	L

SAMPLES OF INSTALLATIONS

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excellence in hot water

LEGEND

PICTURE	CODE	NAME	MARK
	10800108	**OUTSIDE TEMPERATURE SENSOR AF 200** Installed on the oustide north wall of the building. Operates with Control Unit. Connected to terminals 26-23 of Control Unit terminal block.	M
	10800044	**POCKET SENSOR KVT** Installed in the hot water tanks and in the balanced header. Connected to the Control Unit.	N
	10800045	**CONTACT SENSOR VF 202** Installed on the outlet of the mixed heating circuit. Operates with the ZMC-1 module and the Control Unit.	O
	10800120	**ROOM TEMPERATURE SENSOR RFF** Operates with the Control Unit. Can be mounted on every heating circuit. Connected to Control Unit terminals 24-25.	P
	10800056	**ZONE UNIT RS** Shows internal temperature and allows for remote control of 1 heating circuit. Communicates with the Control Unit. For 3 heating circuits - max 3 Zone Units. Allows correction of the heating curve, temperatures and shows information from installed sensors. Connected to the Control Unit terminals 24-25.	R
	002202	**SOLAR SENSOR PT 1000** Installed in the solar collector. Controls temperature of the solar system. Co-operates with the Control Unit that regulates the solar system pump group. Connected to the Control Unit terminals 34-23.	S
	10800104	**COLLECTOR 2 CIRCUITS DN 32** Installed directly under the boiler. Allows connection of 2 heating circuits. Internal regulation of the by-pass allows it to become a balanced header.	T
	10800105	**COLLECTOR 3 CIRCUITS DN 32** Installed directly under the boiler. Allows connection of 3 heating circuits. Internal regulation of the by-pass allows it to become a balanced header.	U
	10800142	**CONNECTION KIT DN 32 TO THE MANIFOLD** Includes: two flexible 1 1/2” hoses and 1 1/4” reduction fittings.	V
	10800107	**HIGH TEMPERATURE KIT DN 32** Installed to the collector under the boiler. Supplies high temperature circuit or water tank primaries. Includes: 1 circulation pump, 2 isolating valves, check valve, 2 thermometers.	W
	10800106	**LOW TEMPERATURE KIT DN 32** Installed to the collector under the boiler. Supplies low temperature circuit and controls its temperature. Includes: 1 circulation pump, 2 isolating valves, check valve, 2 thermometers and the 3-way valve with the integrated by-pass.	X
	10800019	**SERVOMOTOR SQK 349** Installed on the 3-way mixing valve of the low temperature kit. Controls the temperature of the low temperature circuit.	Y

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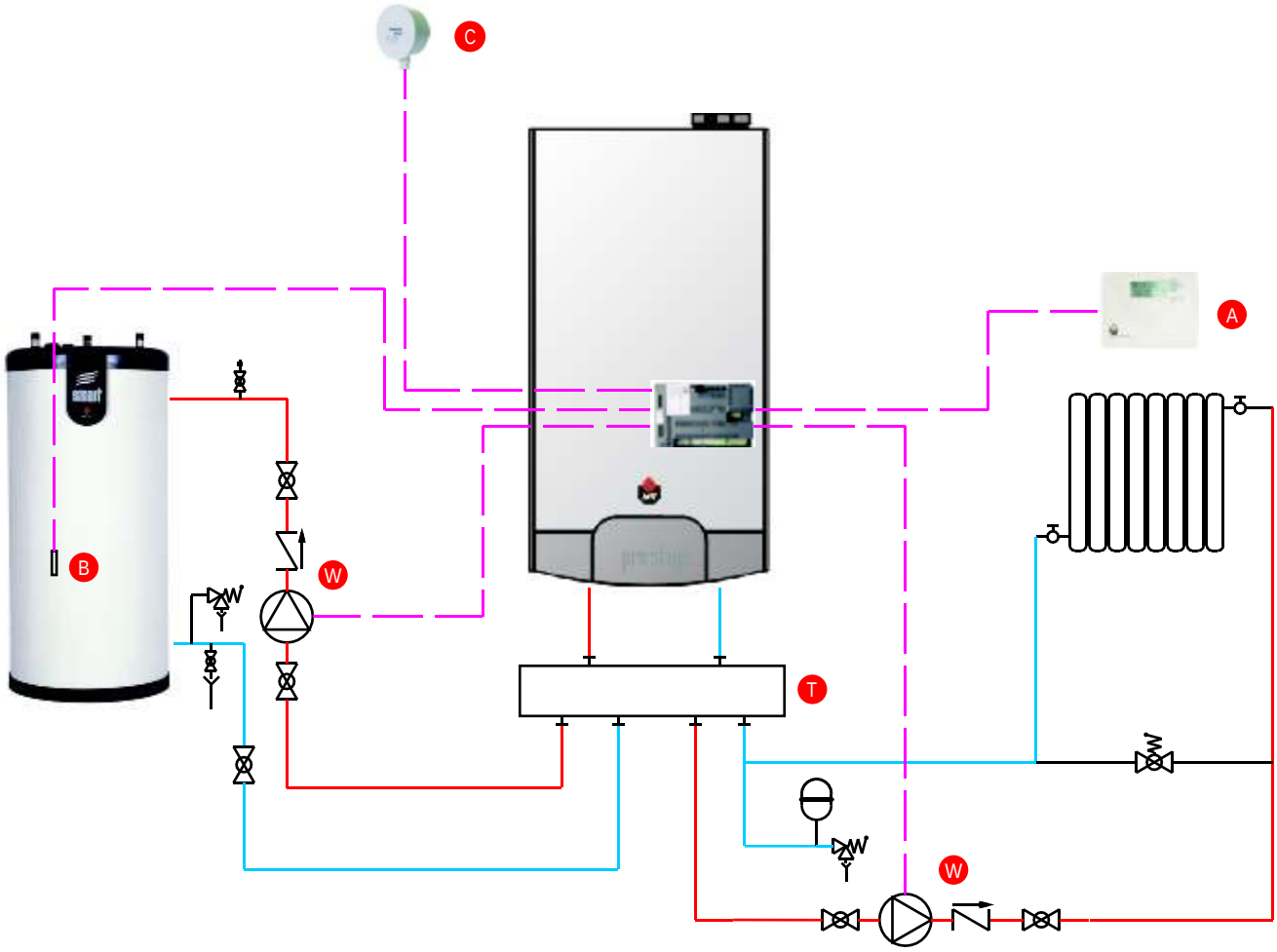
PICTURE	CODE	NAME	MARK
	10800161 10800162	**BALANCED HEADER DN 80** **BALANCED HEADER DN 100** Three functions in one device: air separator, hydraulic separator and dirt tap. Removes the most frequent causes of faults in heating systems. Includes flange connections, automatic air vent, sludge cock, temperature sensor tube and EPP insulation.	X1
	10800167	**KIT COLLECTOR DN 80 FOR 2 BOILERS** Two connections (flow and return) with isolating valves and pumps. Allows for quick installation of 2 boilers in cascade. Possible extenstion.	X2
	10800168	**KIT COLLECTOR DN 80 FOR 3 BOILERS** Two connections (flow and return) with isolating valves and pumps. Allows for quick installation of 3 boilers in cascade. Possible extenstion.	X3
	10800171	**CONNECTION KIT BOILER - COLLECTOR DN 80** Couplings DN 32 (L=100 and 135 mm) with unions and gaskets to connect boiler with the collector kit.	X4
	10800172	**CONNECTION KIT BOILER - COLLECTOR DN 100** Couplings DN 32 (L=170 and 320 mm) with unions and gaskets to connect boiler with the collector kit.	X5
	10800169 10800170	**FLOOR COLLECTOR SUPPORT CASCADE DN 80** **FLOOR COLLECTOR SUPPORT CASCADE DN 100**	X6
	10800164	**ADAPTOR KIT DN 80 - DN 100** Adaptor to connect the collector kit DN 80 to the balanced header DN 100.	X7

SAMPLES OF INSTALLATIONS

SCHEME 1:

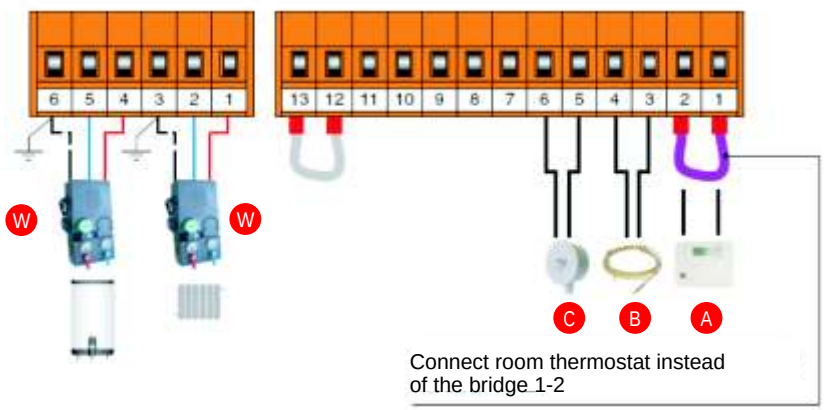
PRESTIGE 50 - 75 SOLO FOR 1 HEATING CIRCUIT AND HOT WATER PRODUCTION, WEATHER DEPENDENT REGULATION BY THE BOILER MCBA AND THE ROOM THERMOSTAT.



List of elements

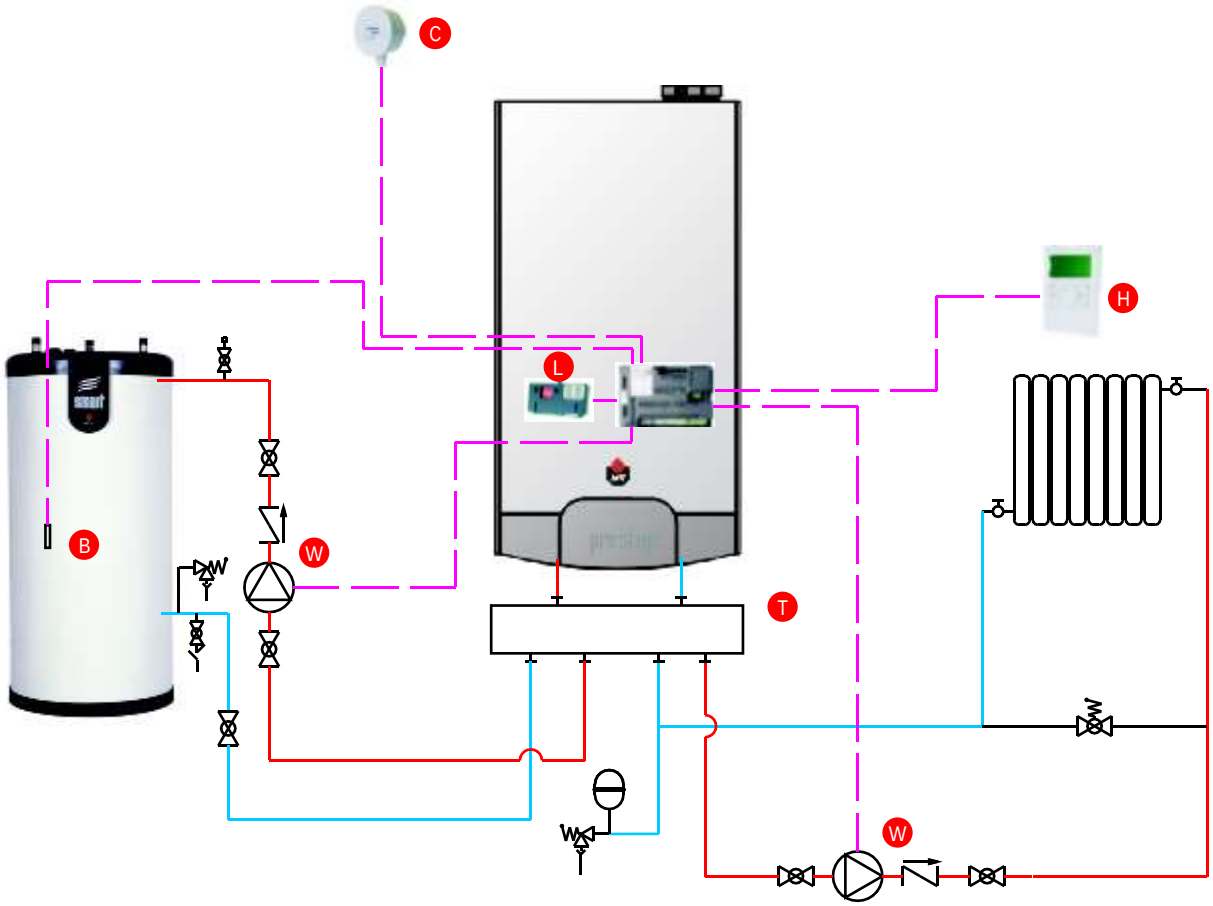
Mark	Code	Name of the element	Quantity
A	10800018	Room thermostat	1
B	5476G003	Hot water sensor NTC 3	1
C	10510100	Outside temperature sensor NTC 4	1
T	10800104	Collector 2 circuits DN 32	1
W	10800107	High temperature kit DN 32	2
V	10800142	Connection kit DN 32 to the manifold	1

Electrical connection schematic



SCHEME 2:

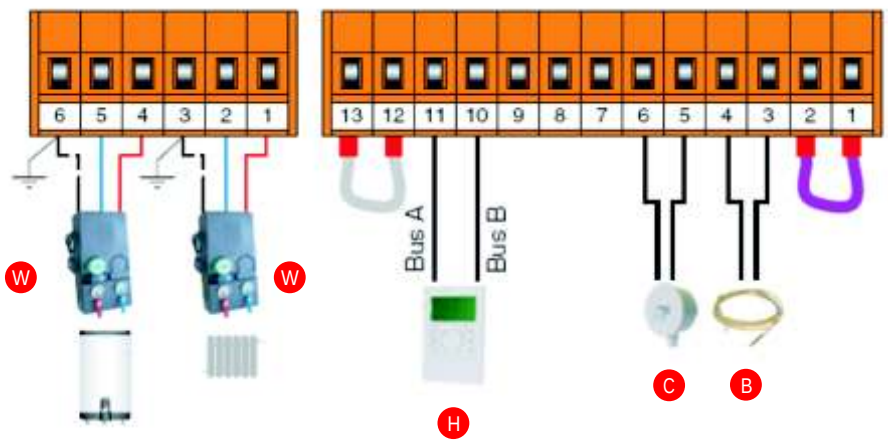
PRESTIGE 50 - 75 SOLO FOR 1 HEATING CIRCUIT AND HOT WATER PRODUCTION, WEATHER DEPENDENT REGULATION BY THE BOILER MCBA AND THE ROOM UNIT



List of elements

Mark	Code	Name of the element	Quantity
B	5476G003	Hot water sensor NTC 3	1
C	10510100	Outside temperature sensor NTC 4 (AF 120)	1
H	10800034	Room Unit	1
L	10800036	Clip-in interface RMCI	1
T	10800104	Collector 2 circuits DN 32	1
W	10800107	High temperature kit DN 32	2
V	10800142	Connection kit DN 32 to the manifold	1

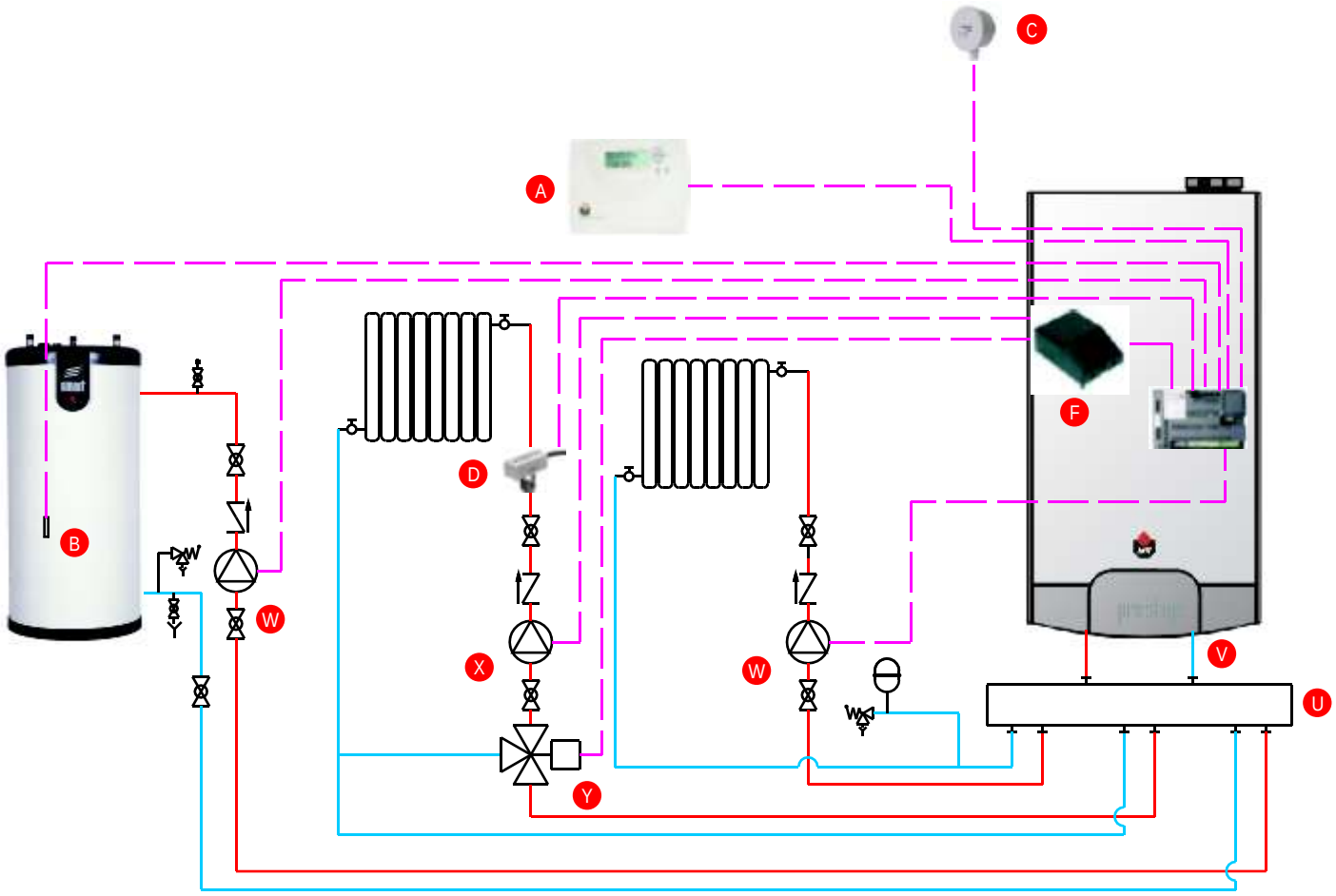
Electrical connection schematic



SAMPLES OF INSTALLATIONS

SCHEME 3:

PRESTIGE 50 - 75 SOLO FOR 2 HEATING CIRCUITS AND HOT WATER PRODUCTION, REGULATED BY THE BOILER MCBA AND THE AM 3-11 MODULE



List of elements

Mark	Code	Name of the element	Quantity
A	10800018	Room thermostat	1
B	5476G003	Hot water sensor NTC 3	1
C	10510100	Outside temperature sensor NTC 4 (AF 120)	1
D	537D3040	Contact sensor NTC 6	1
E	10510900	Contact sensor RAM 5109 (for floor heating)	1
F	10800095	AM 3-11 module	1
U	10800105	Collector 3 circuits DN 32	1
W	10800107	High temperature kit DN 32	2
X	10800106	Low temperature kit DN 32	1
V	10800142	Connection kit DN 32 to the manifold	1
Y	10800019	Servomotor SQK 349	1

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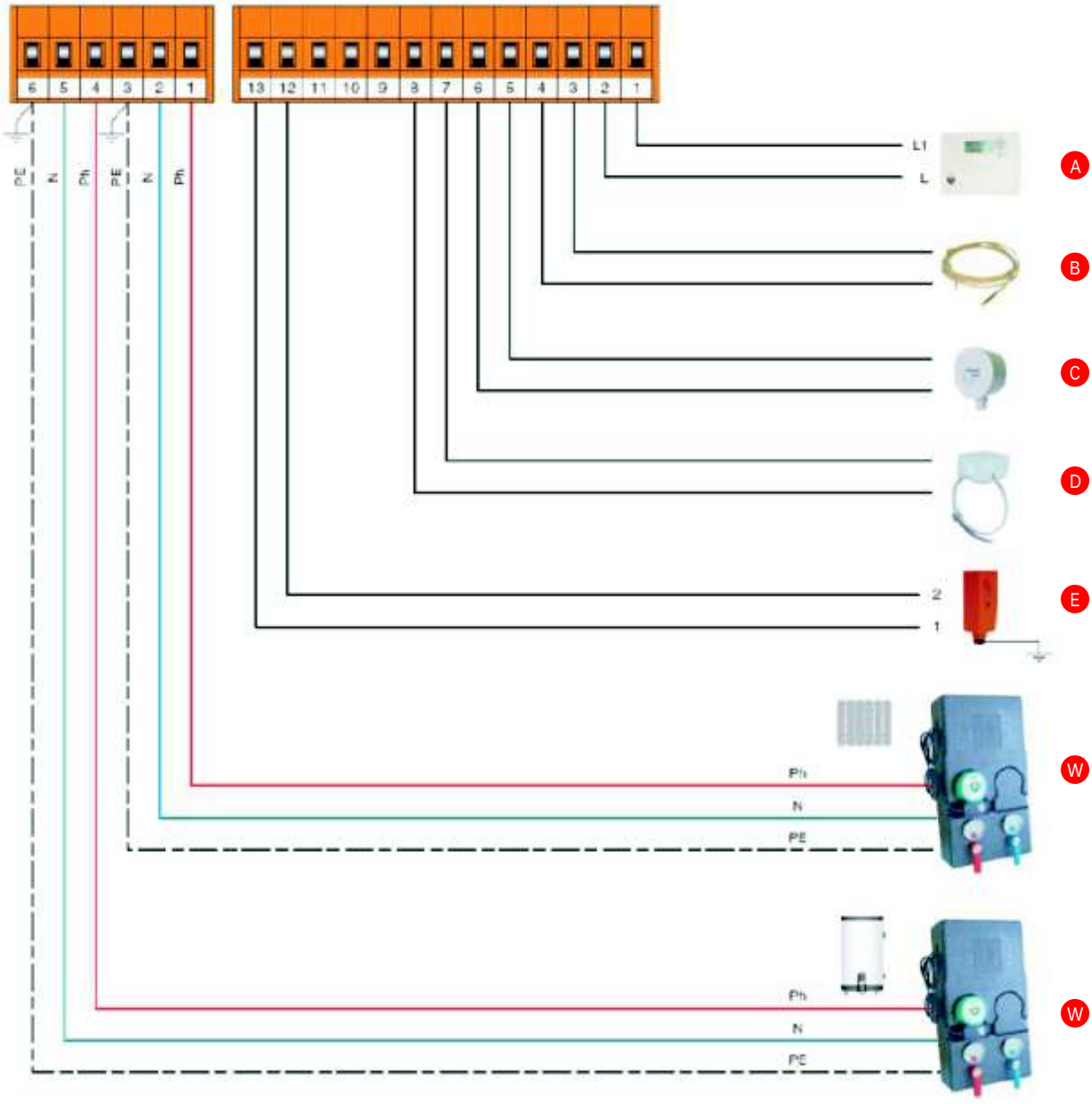
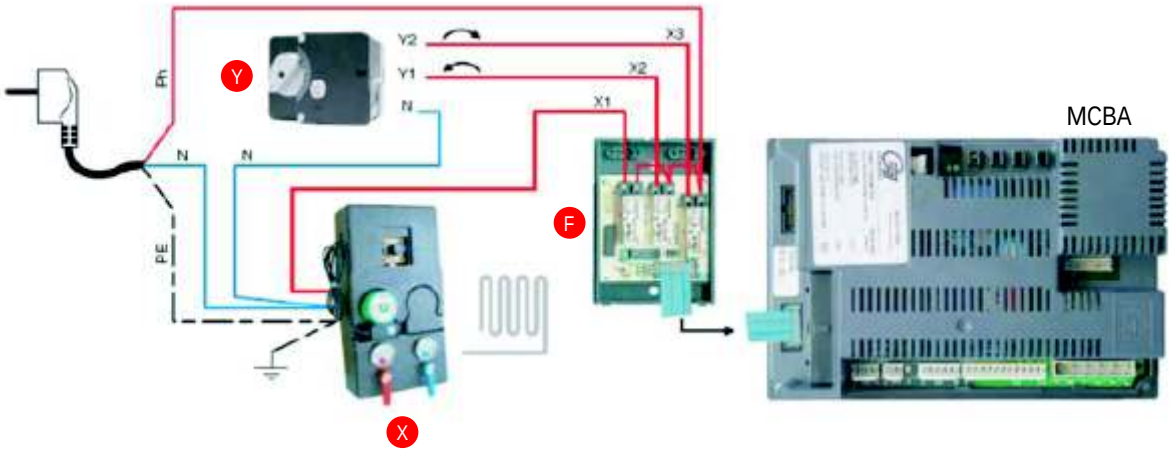
Electrical schematic



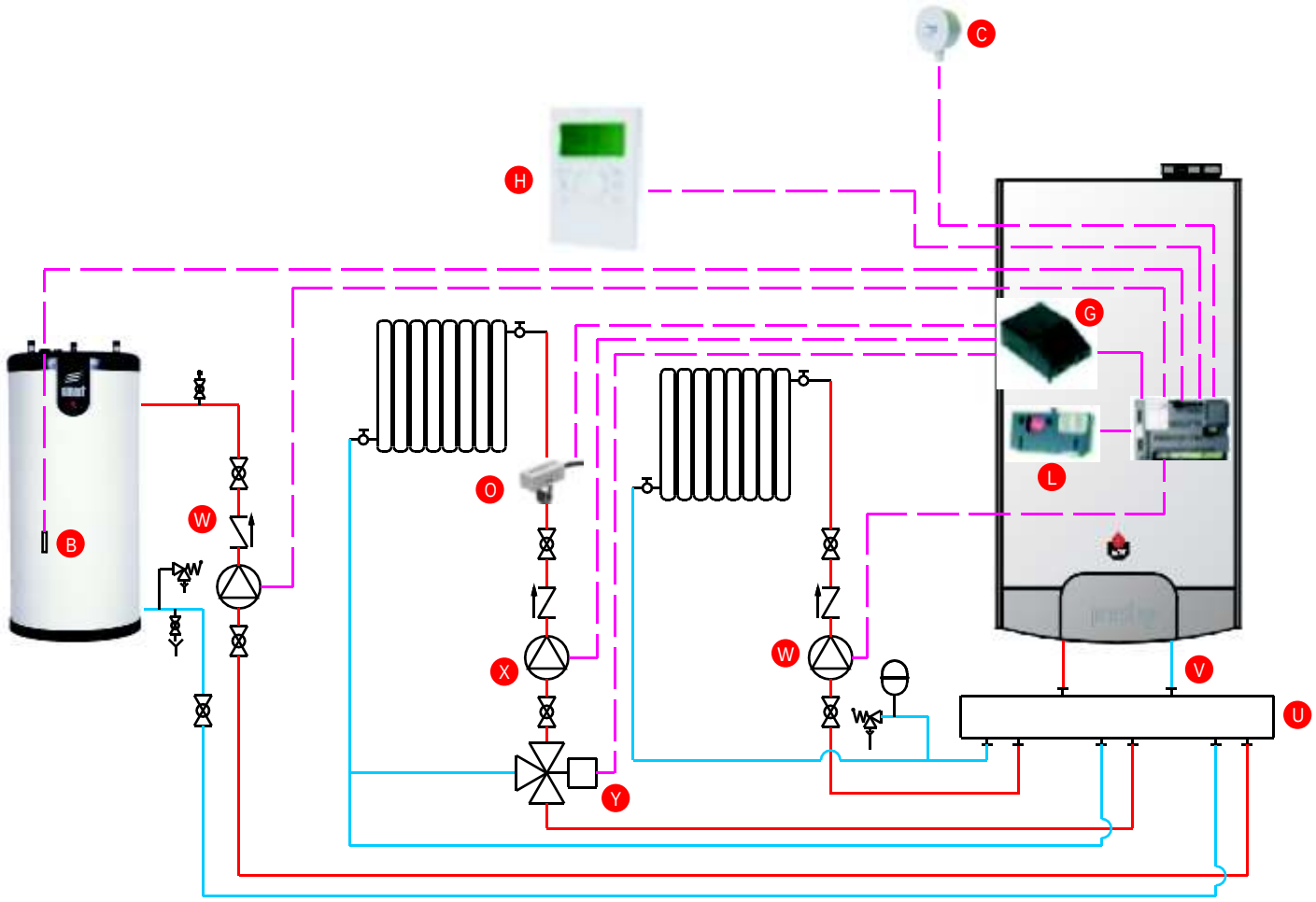
AM 3-11 module and low temperature kit



SAMPLES OF INSTALLATIONS

SCHEME 4:

PRESTIGE 50 - 75 SOLO FOR 2 HEATING CIRCUITS AND HOT WATER PRODUCTION, REGULATED BY THE BOILER AUTOMATE MCBA AND THE ZMC-1 MODULE



List of elements

Mark	Code	Name of the element	Quantity
B	5476G003	Hot water sensor NTC 3	1
C	10510100	Outside temperature sensor NTC 4 (AF 120)	1
E	10510900	Contact sensor RAM 5109 (for floor heating)	1
G	10800119	ZMC - 1 module	1
H	10800034	Room Unit	1
L	10800036	Clip-in interface RMCI	1
O	10800045	Contact sensor VF 202	1
U	10800105	Collector 3 circuits DN 32	1
V	10800142	Connection kit DN 32 to the manifold	1
W	10800107	High temperature kit DN 32	2
X	10800106	Low temperature kit DN 32	1
Y	10800019	Servomotor SQK 349	1

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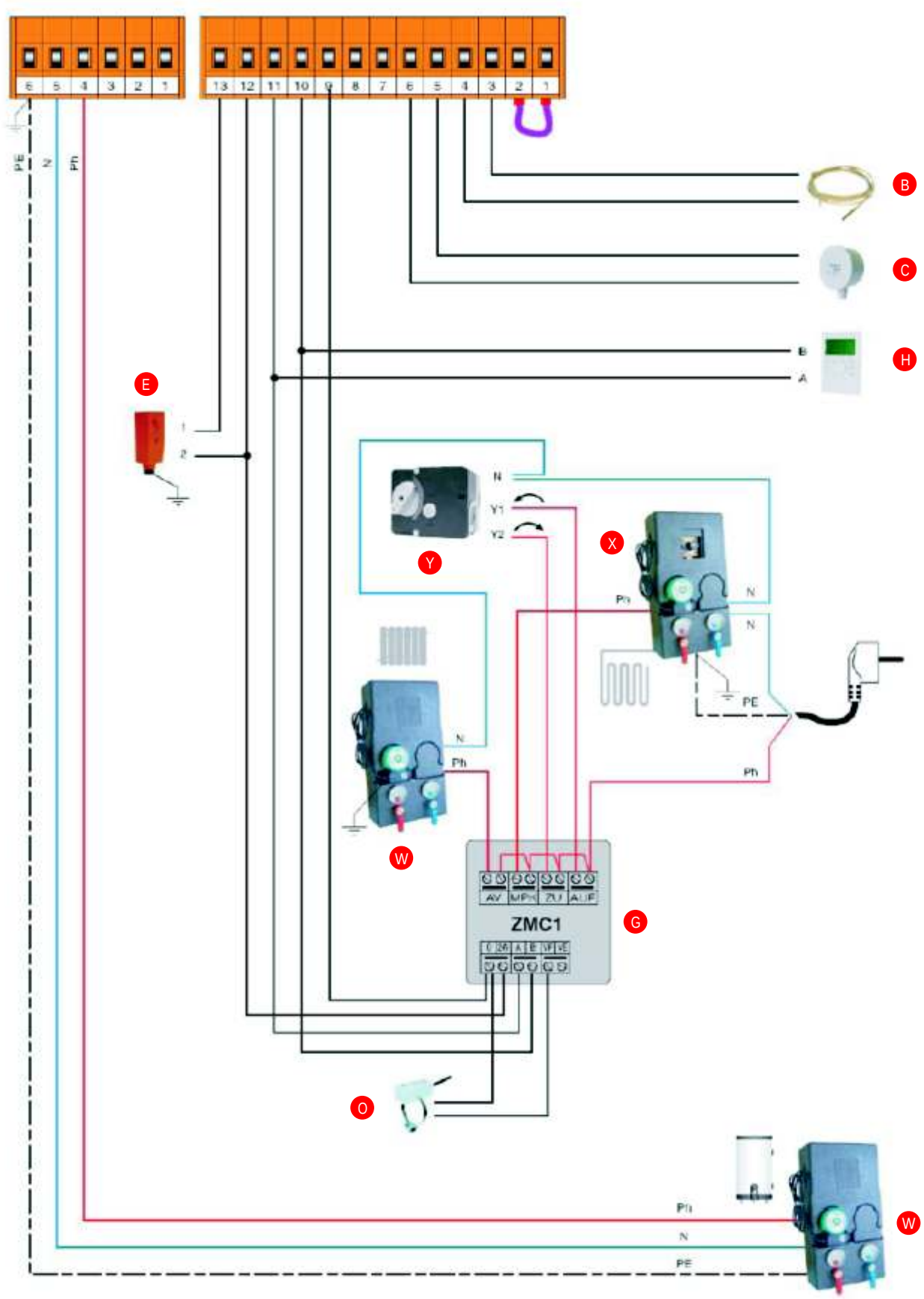
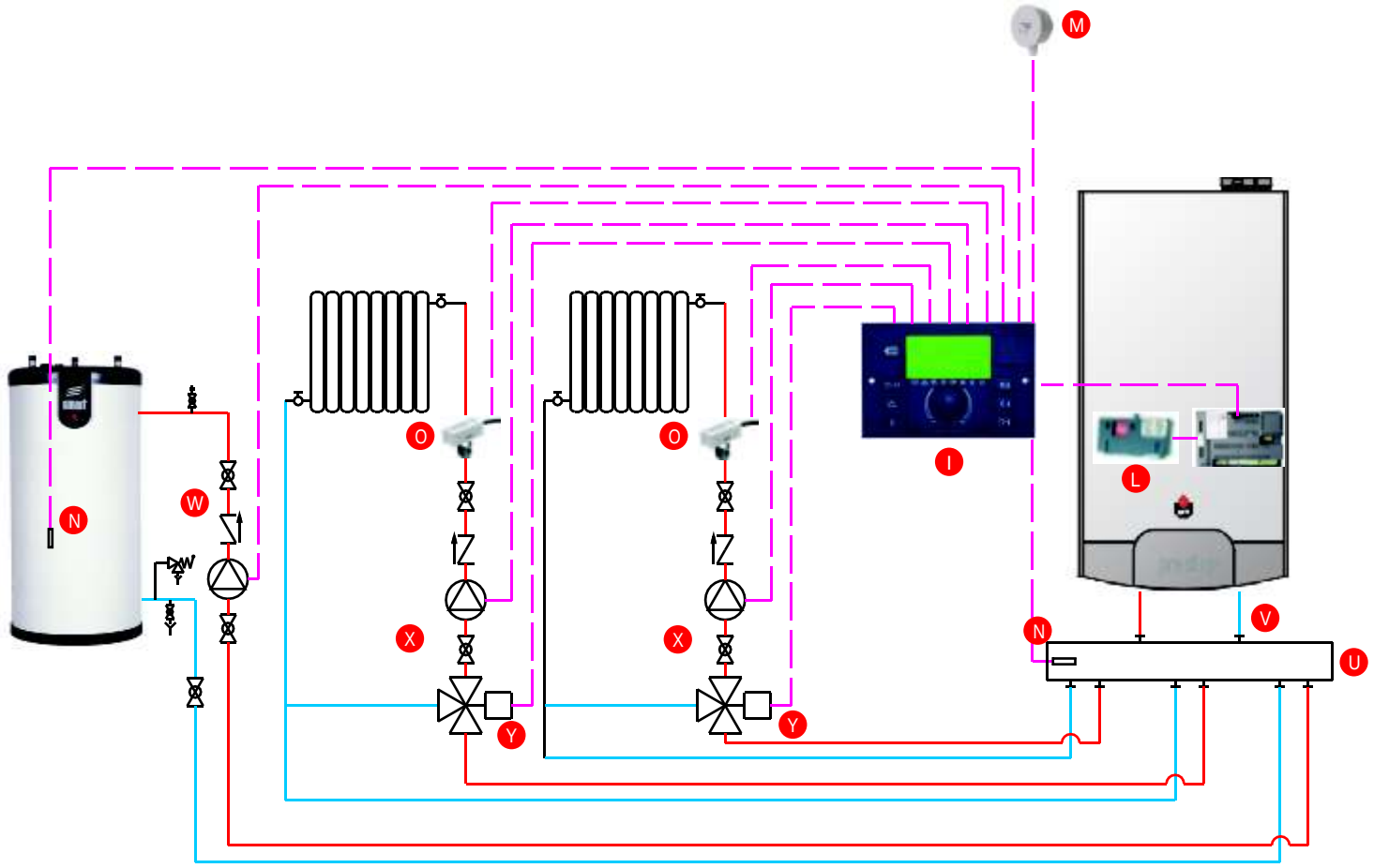
Electrical schematic



SAMPLES OF INSTALLATIONS

SCHEME 5:

PRESTIGE 50 - 75 SOLO FOR 2 HEATING CIRCUITS AND HOT WATER PRODUCTION, REGULATED BY THE CONTROL UNIT.



List of elements

Mark	Code	Name of the element	Quantity
I	10800030	Control Unit	1
J	10800121	Wall mounting socket for the Control Unit	1
L	10800036	Clip-in interface RMCI	1
M	10800108	Outside temperature sensor AF 200	1
N	10800044	Pocket sensor KVT	2
O	10800045	Contact sensor VF 202	2
P	10800120	Room temperature sensor RFF	0 (max 2)
		or	
R	10800056	Zone Unit	0 (max 2)
U	10800105	Collector 3 circuits DN 32	1
V	10800142	Connection kit DN 32 to the manifold	1
W	10800107	High temperature kit DN 32	1
X	10800106	Low temperature kit DN 32	2
Y	10800019	Servomotor SQK 349	2

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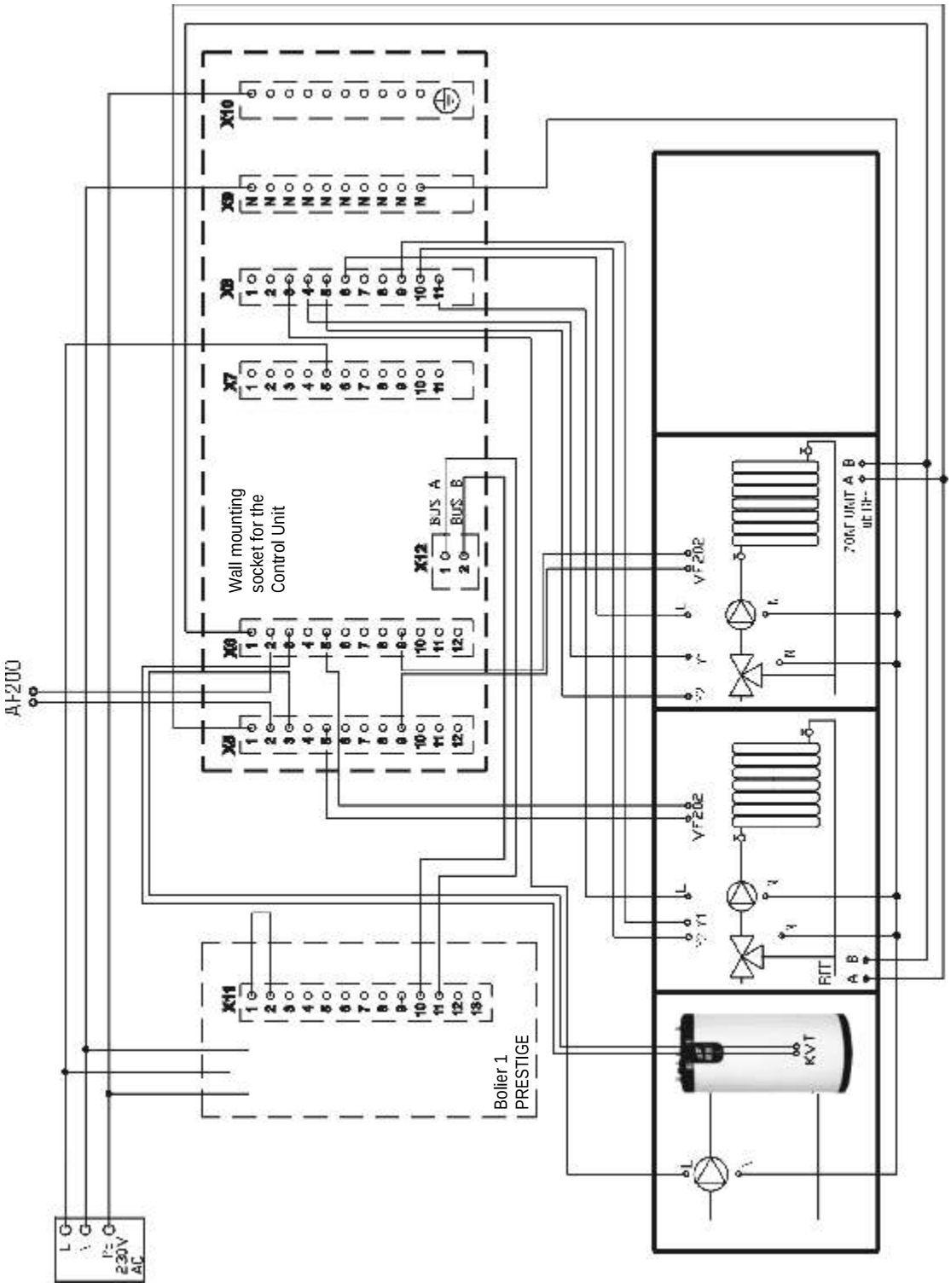
Electrical schematic



SAMPLES OF INSTALLATIONS

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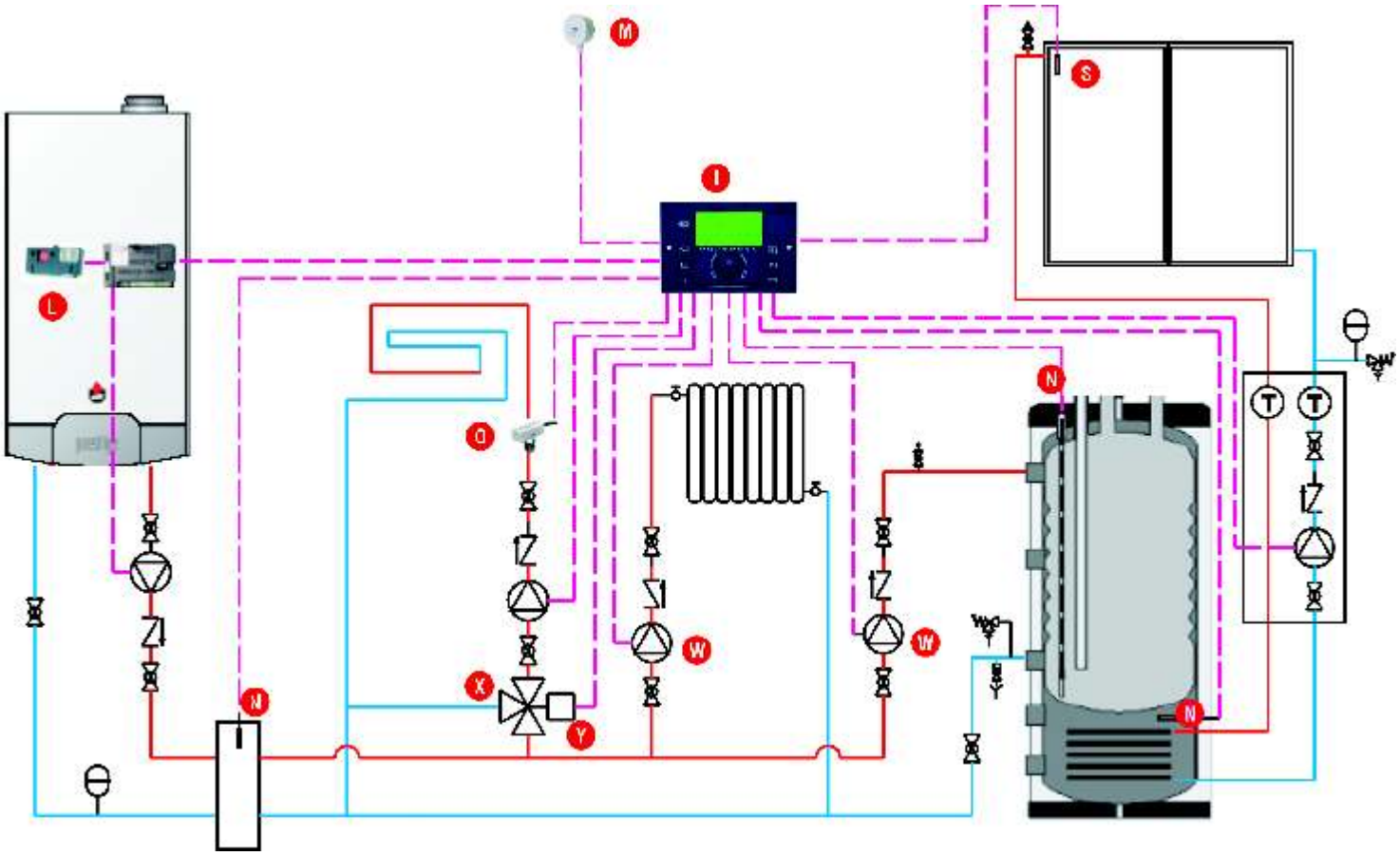
SCHEME 6:

PRESTIGE 50 - 75 - 120 SOLO WITH SOLAR SYSTEM AND SLME CYLINDER FOR 2 HEATING CIRCUITS AND HOT WATER PRODUCTION, REGULATED BY THE CONTROL UNIT



List of elements

Mark	Code	Name of the element	Quantity
I	10800030	Control Unit	1
J	10800121	Wall mountig socket for the Control Unit	1
L	10800036	Clip-in interface RMCI	1
M	10800108	Outside temperature sensor AF 200	1
N	10800044	Pocket sensor KVT	3
O	10800045	Contact sensor VF 202	1
P	10800120	Room temperature sensor RFF	0 (max 2)
		or	
R	10800056	Zone Unit	0 (max 2)
S	002202	Solar sensor PT 1000	1
W	10800107	High temperature kit DN 32	2
X	10800106	Low temperature kit DN 32	1
Y	10800019	Servomotor SQK 349	1

Balanced header has to be sized separately - according to the flow and power of the installation.

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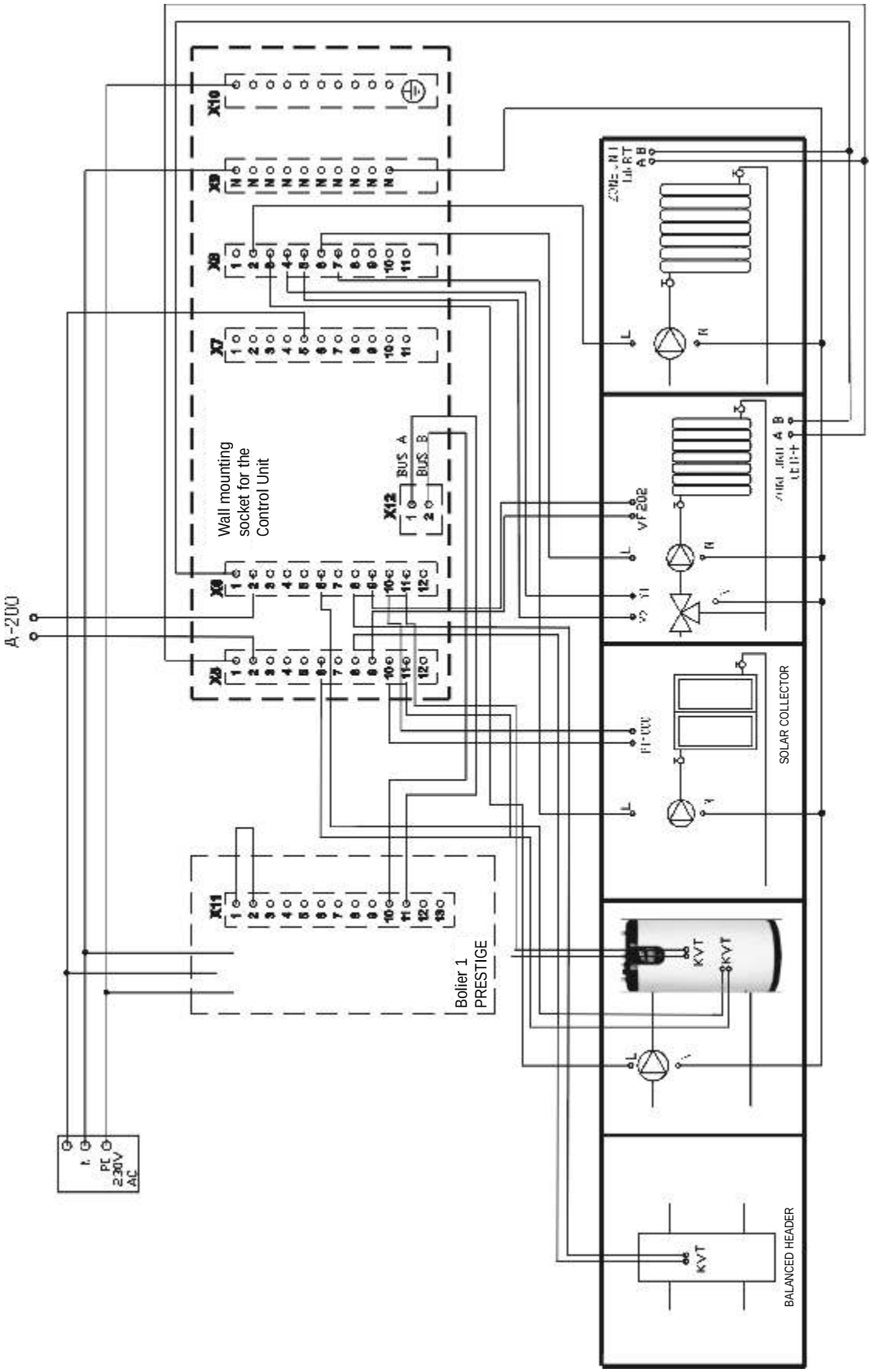
Electrical schematic



SAMPLES OF INSTALLATIONS

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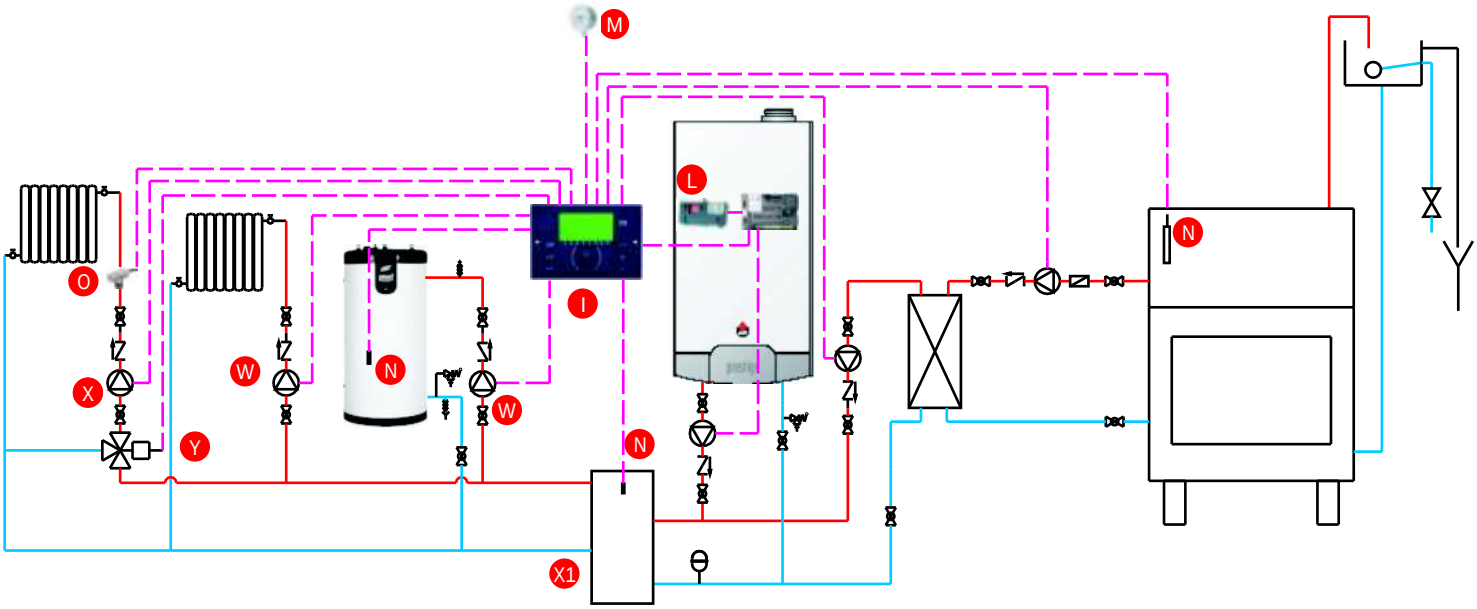
SCHEME 7:

PRESTIGE 50 - 75 - 120 SOLO WITH SOLID FUEL BOILER FOR 2 HEATING CIRCUITS AND HOT WATER PRODUCTION, REGULATED BY THE CONTROL UNIT



List of elements

Mark	Code	Name of the element	Quantity
I	10800030	Control Unit	1
J	10800121	Wall mounting socket for the Control Unit	1
L	10800036	Clip-in interface RMCI	1
M	10800108	Outside temperature sensor AF 200	1
N	10800044	Pocket sensor KVT	3
O	10800045	Contact sensor VF 202	1
P	10800120	Room temperature sensor RFF	0 (max 2)
		or	
R	10800056	Zone Unit	0 (max 2)
W	10800107	High temperature kit DN 32	2
X	10800106	Low temperature kit DN 32	1
X1	10800161	Balanced header DN 80	1
Y	10800019	Servomotor SQK 349	1

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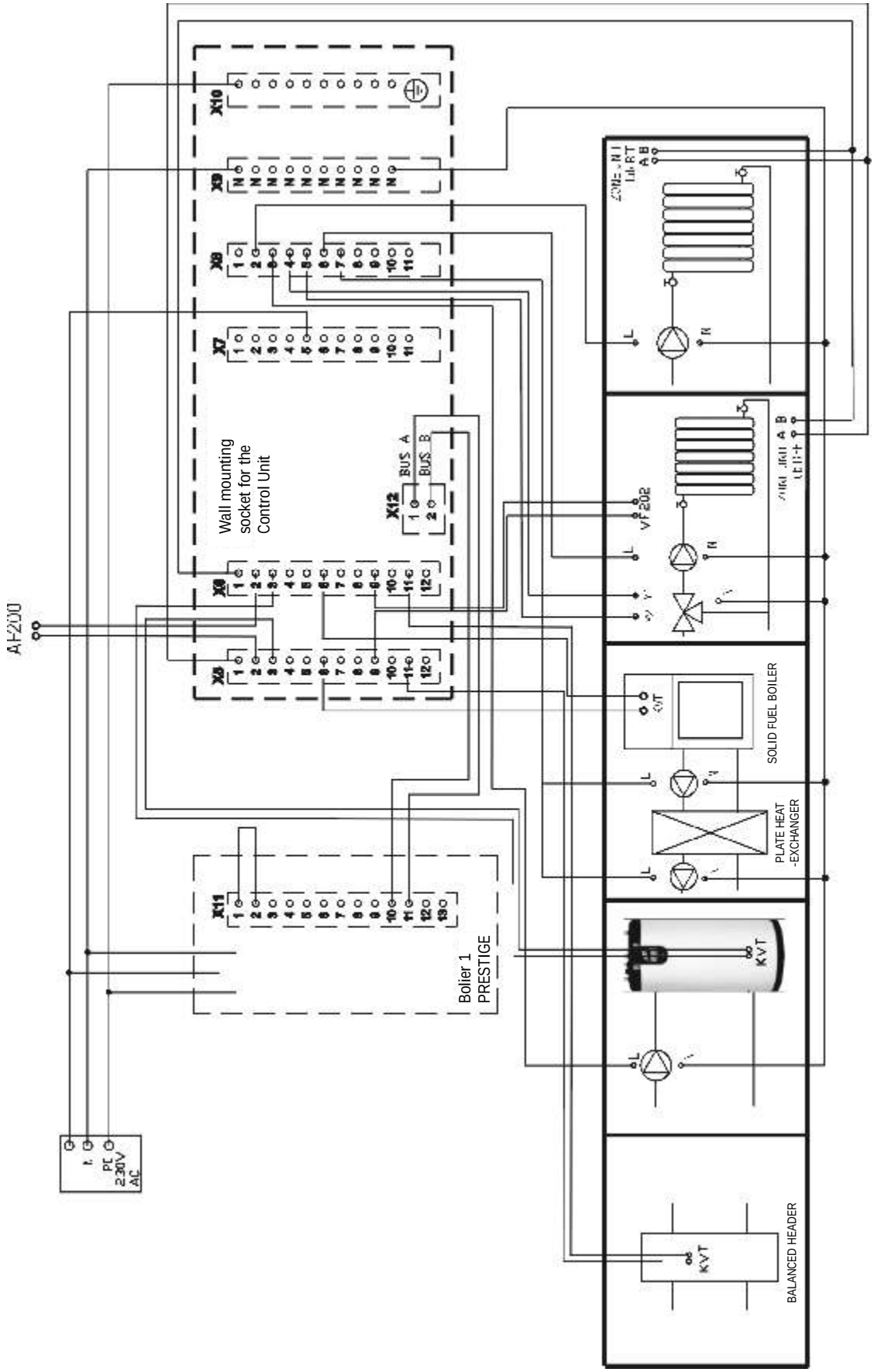
Electrical schematic



SAMPLES OF INSTALLATIONS

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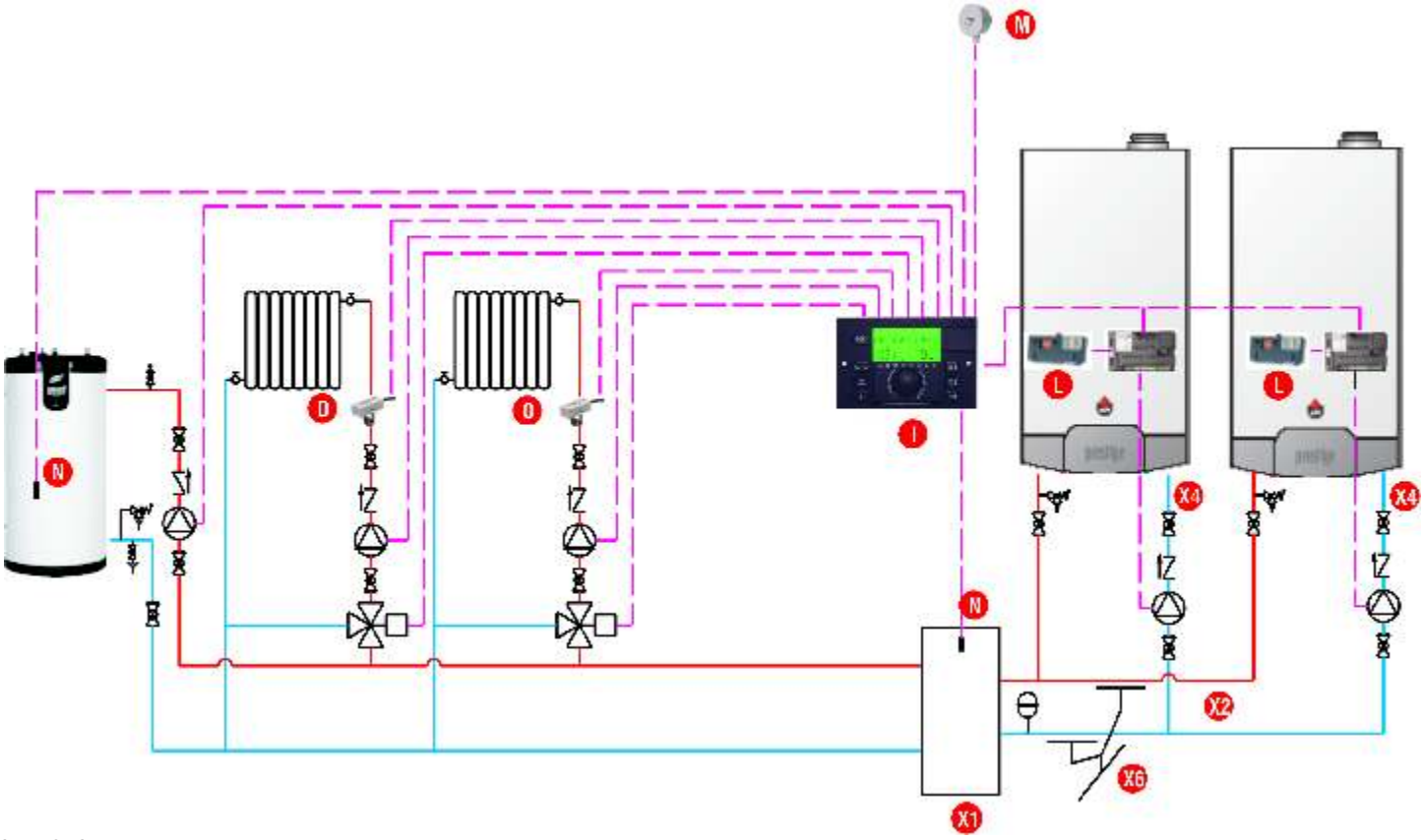
SCHEME 8:

CASCADE OF 2 PRESTIGE 50 - 75 - 120 SOLO FOR 2 HEATING CIRCUITS AND HOT WATER PRODUCTION, REGULATED BY THE CONTROL UNIT



List of elements

Mark	Code	Name of the element	Quantity
I	10800030	Control Unit	1
J	10800121	Wall mounting socket for the Control Unit	1
L	10800036	Clip-in interface RMCI	2
M	10800108	Outside temperature sensor AF 200	1
N	10800044	Pocket sensor KVT	2
O	10800045	Contact sensor VF 202	2
P	10800120	Room temperature sensor RFF	0 (max 2)
		or	
R	10800056	Zone Unit	0 (max 2)
X1	10800161	Balanced header DN 80	1
X2	10800167	Kit collector DN 80 for 2 boilers	1
X4	10800171	Connection kit boiler - collector DN 80	2
X6	10800169	Floor collector support cascade DN 80	1

High and low temperature kits have to be sized separately according to the flow and power of the installation.

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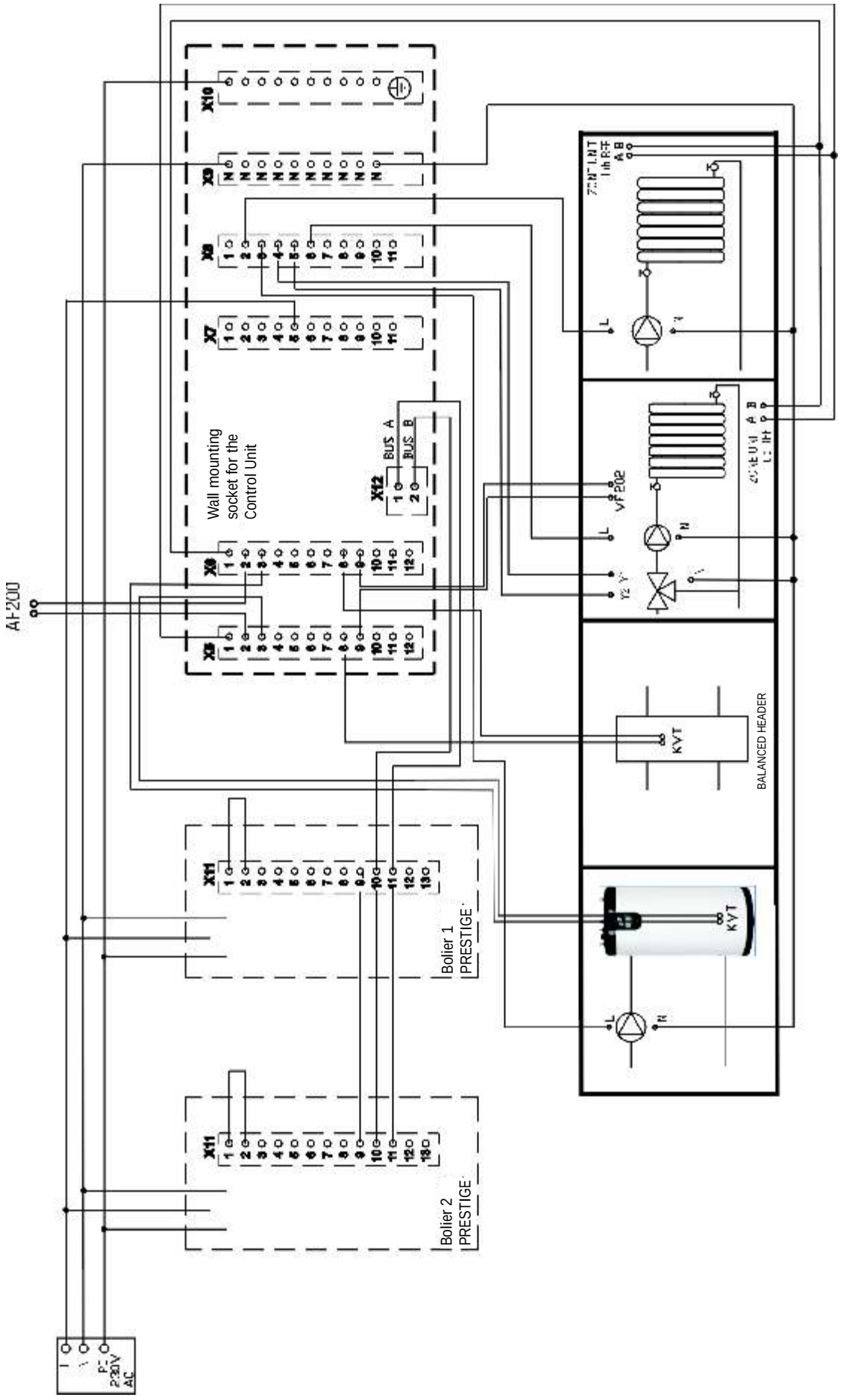
Electrical schematic



SAMPLES OF INSTALLATIONS

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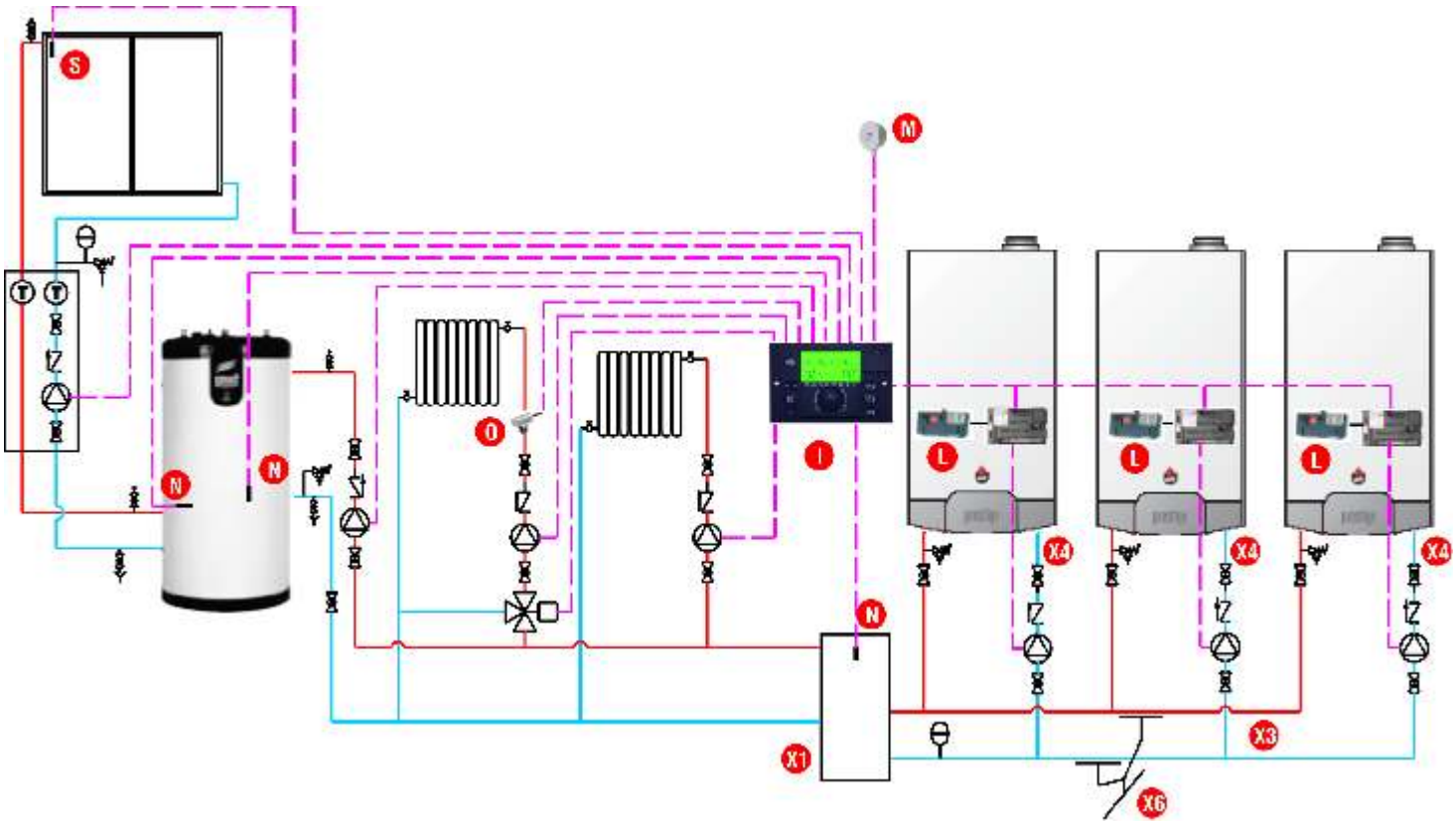
SCHEME 9:

CASCADE OF 3 PRESTIGE 50 - 75 - 120 SOLO WITH SOLAR SYSTEM FOR 2 HEATING CIRCUITS AND HOT WATER PRODUCTION BY SLME CYLINDER, REGULATED BY THE CONTROL UNIT.



List of elements

Mark	Code	Name of the element	Quantity
I	10800030	Control Unit	1
J	10800121	Wall mounting socket for the Control Unit	1
L	10800036	Clip-in interface RMCI	3
M	10800108	Outside temperature sensor AF 200	1
N	10800044	Pocket sensor KVT	3
O	10800045	Contact sensor VF 202	1
P	10800120	Room temperature sensor RFF	0 (max 2)
		or	
R	10800056	Zone Unit	0 (max 2)
S	002202	Solar system PT 1000	1
X1	10800161	Balanced header DN 80	1
X3	10800168	Kit collector DN 80 for 3 boilers	1
X4	10800171	Connection kit boiler - collector DN 80	3
X6	10800169	Floor collector support cascade DN 80	1

High and low temperature kits have to be sized separately according to the flow and power of the installation.

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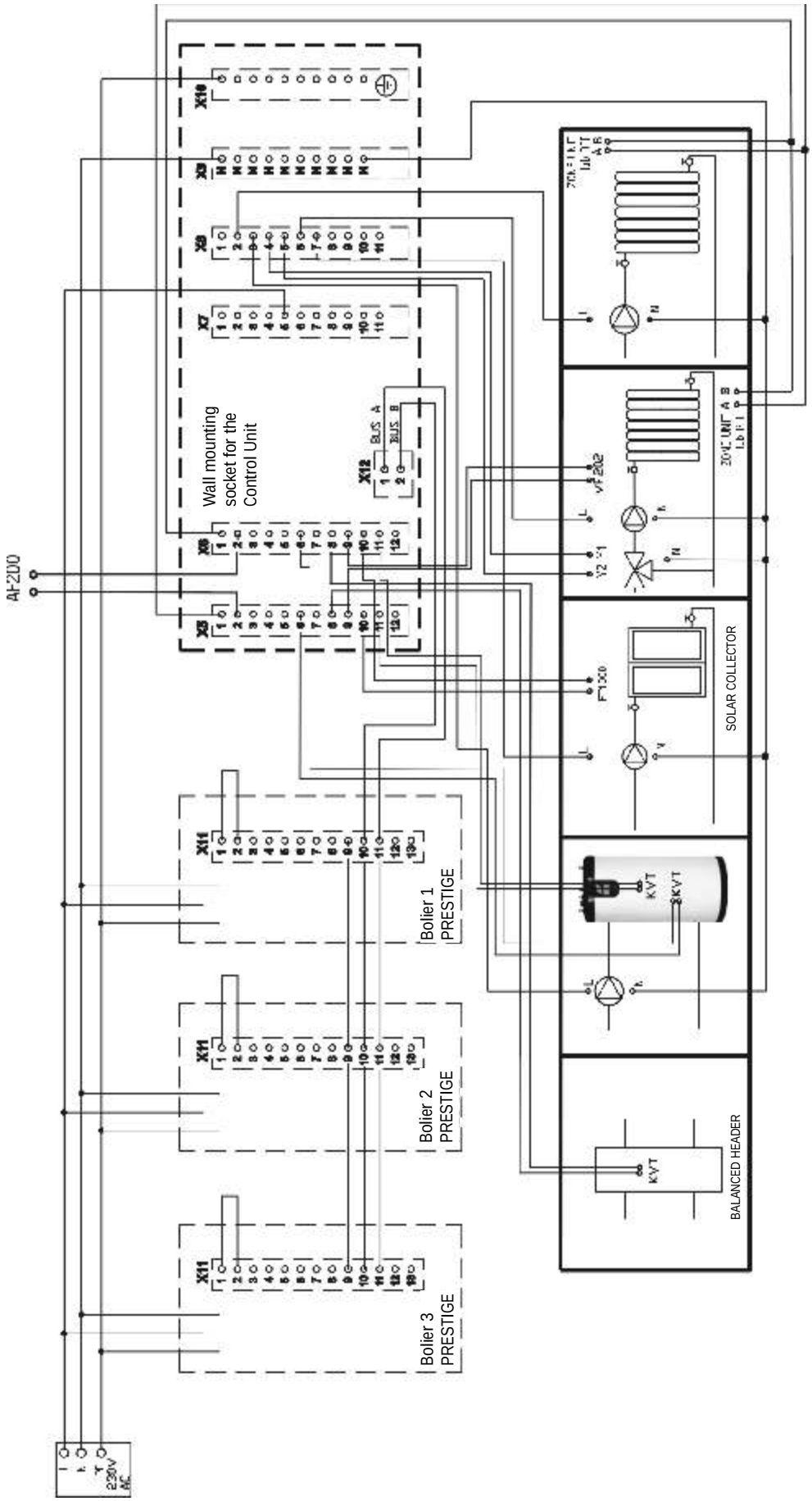
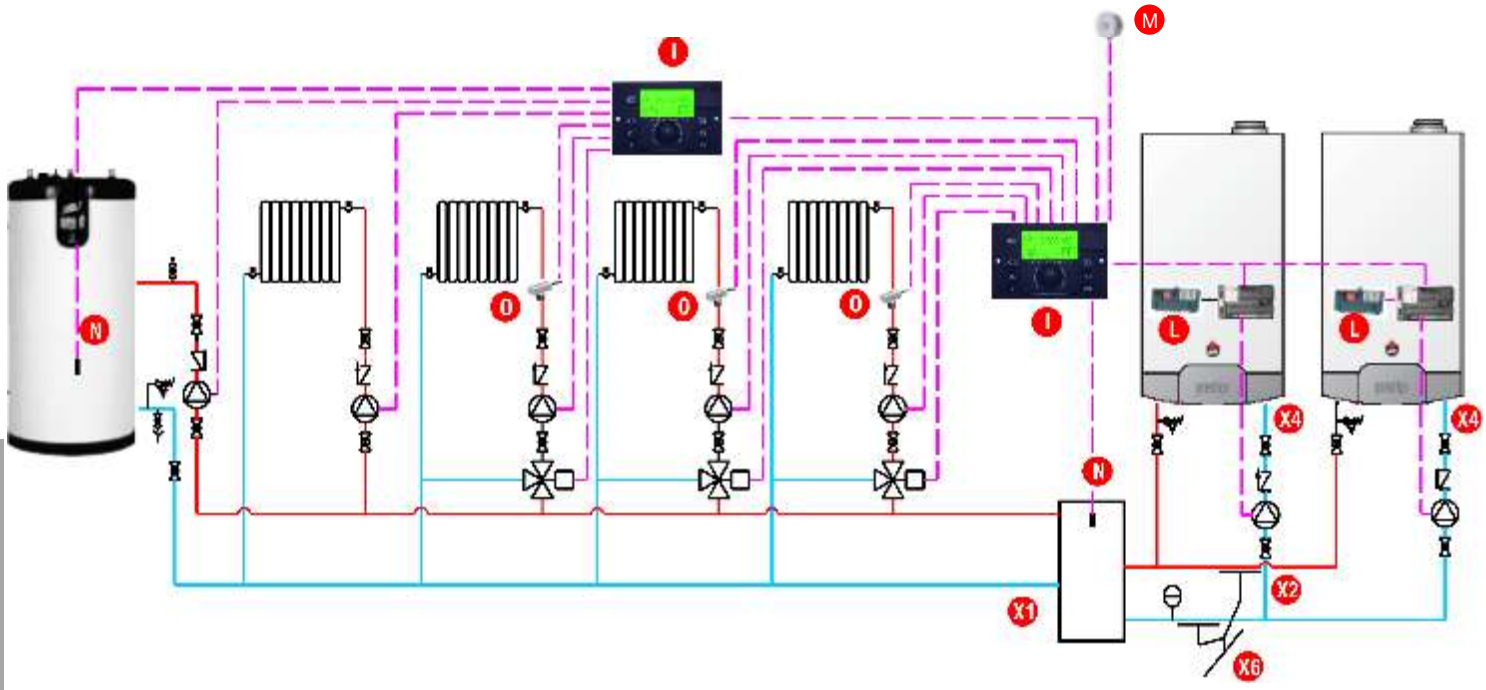
Electrical schematic



SAMPLES OF INSTALLATIONS

SCHEME 10:

CASCADE OF 2 PRESTIGE 50 - 75 - 120 SOLO FOR 4 HEATING CIRCUITS AND HOT WATER PRODUCTION, REGULATED BY 2 CONTROL UNITS.



List of elements

Mark	Code	Name of the element	Quantity
I	10800030	Control Unit	2
J	10800121	Wall mountig socket for the Control Unit	2
L	10800036	Clip-in interface RMCI	2
M	10800108	Outside temperature sensor AF 200	1
N	10800044	Pocket sensor KVT	2
O	10800045	Contact sensor VF 202	3
P	10800120	Room temperature sensor RFF	0 (max 4)
		or	
R	10800056	Zone Unit	0 (max 4)
X1	10800161	Balanced header DN 80	1
X2	10800167	Kit collector for 2 boilers DN 80	1
X4	10800171	Connection kit boiler - collector DN 80	2
X6	10800169	Floor collector support cascade DN 80	1

High and low temperature kits have to be sized separately according to the flow and power of the installation.

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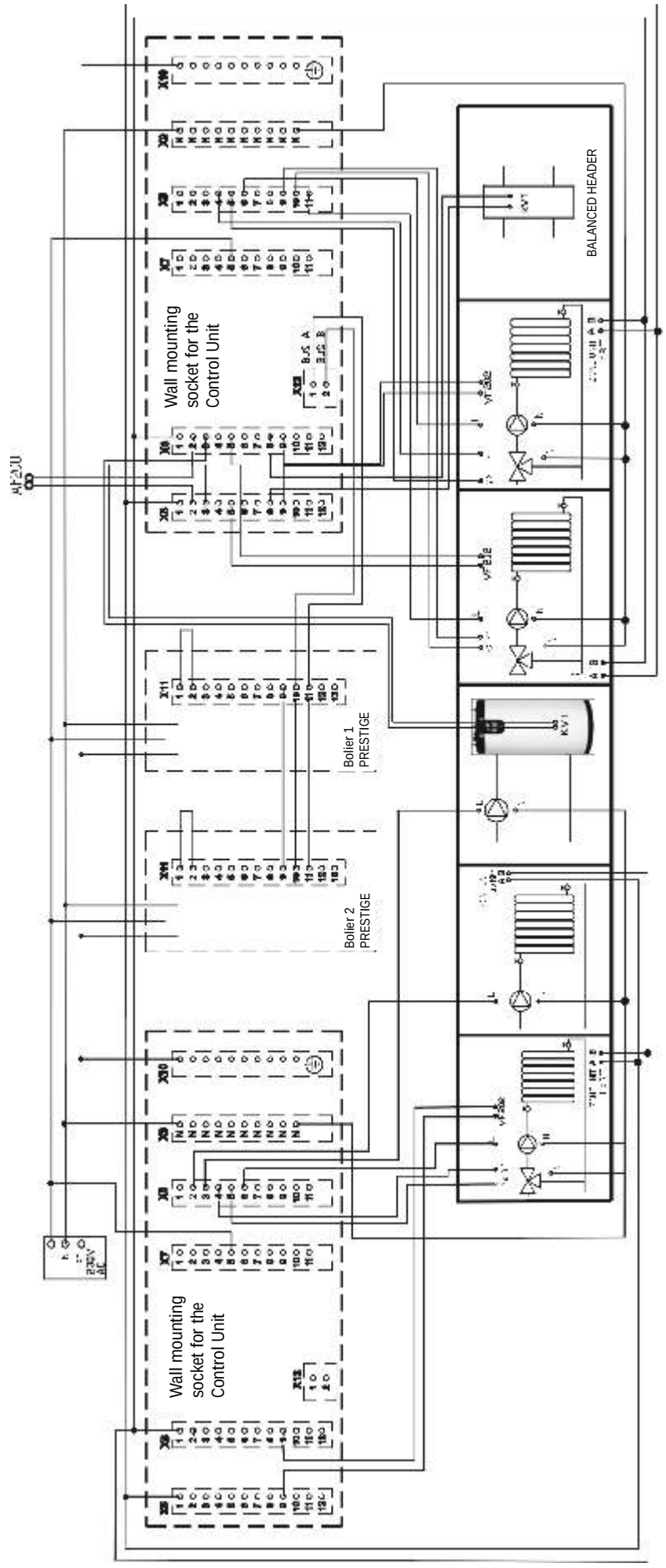
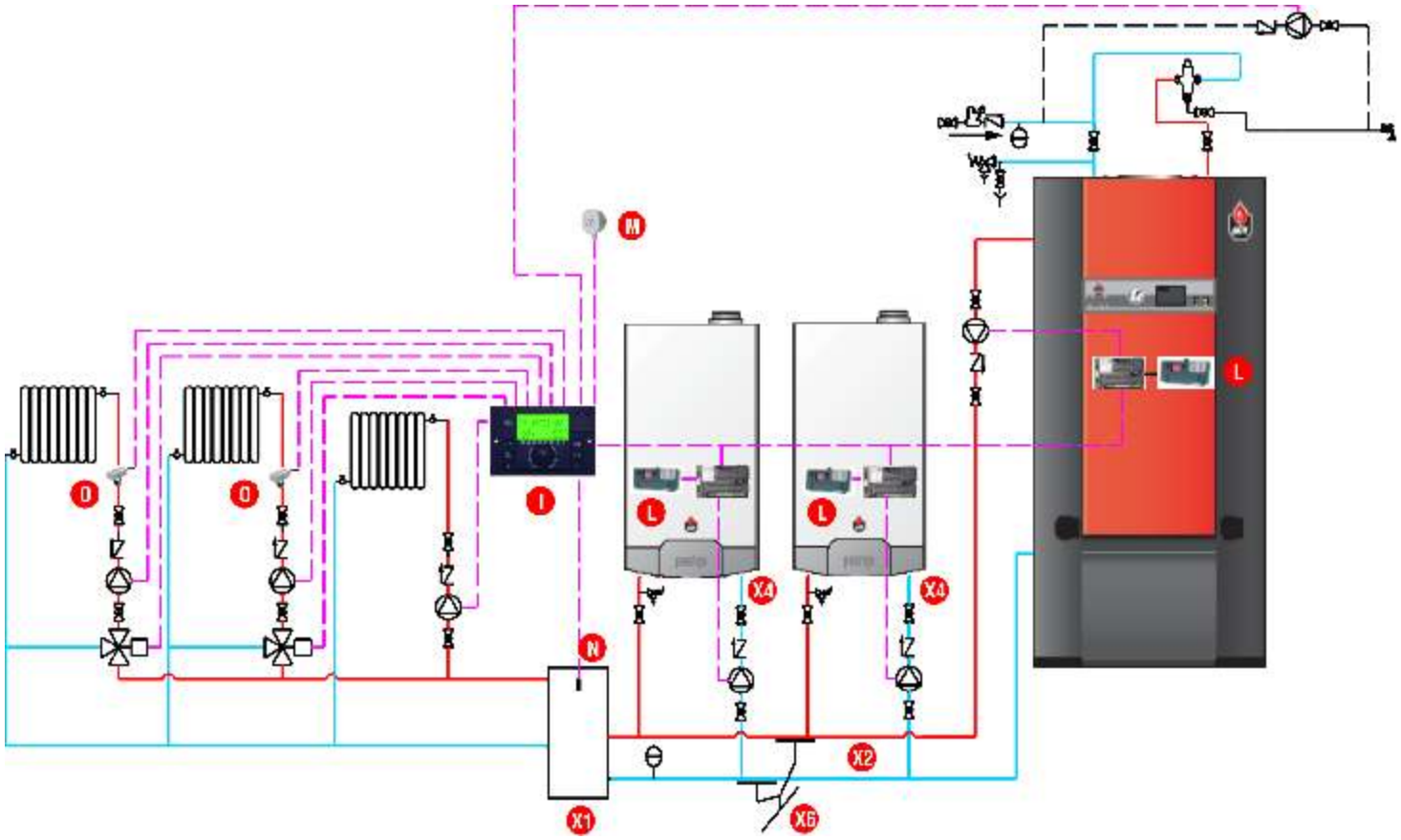
Electrical schematic



SAMPLES OF INSTALLATIONS

SCHEME 11:

CASCADE OF 2 PRESTIGE 50 - 75 - 120 SOLO WITH HEAMASTER 201 (HOT WATER PRODUCTION) FOR 3 HEATING CIRCUITS, REGULATED BY THE CONTROL UNIT.



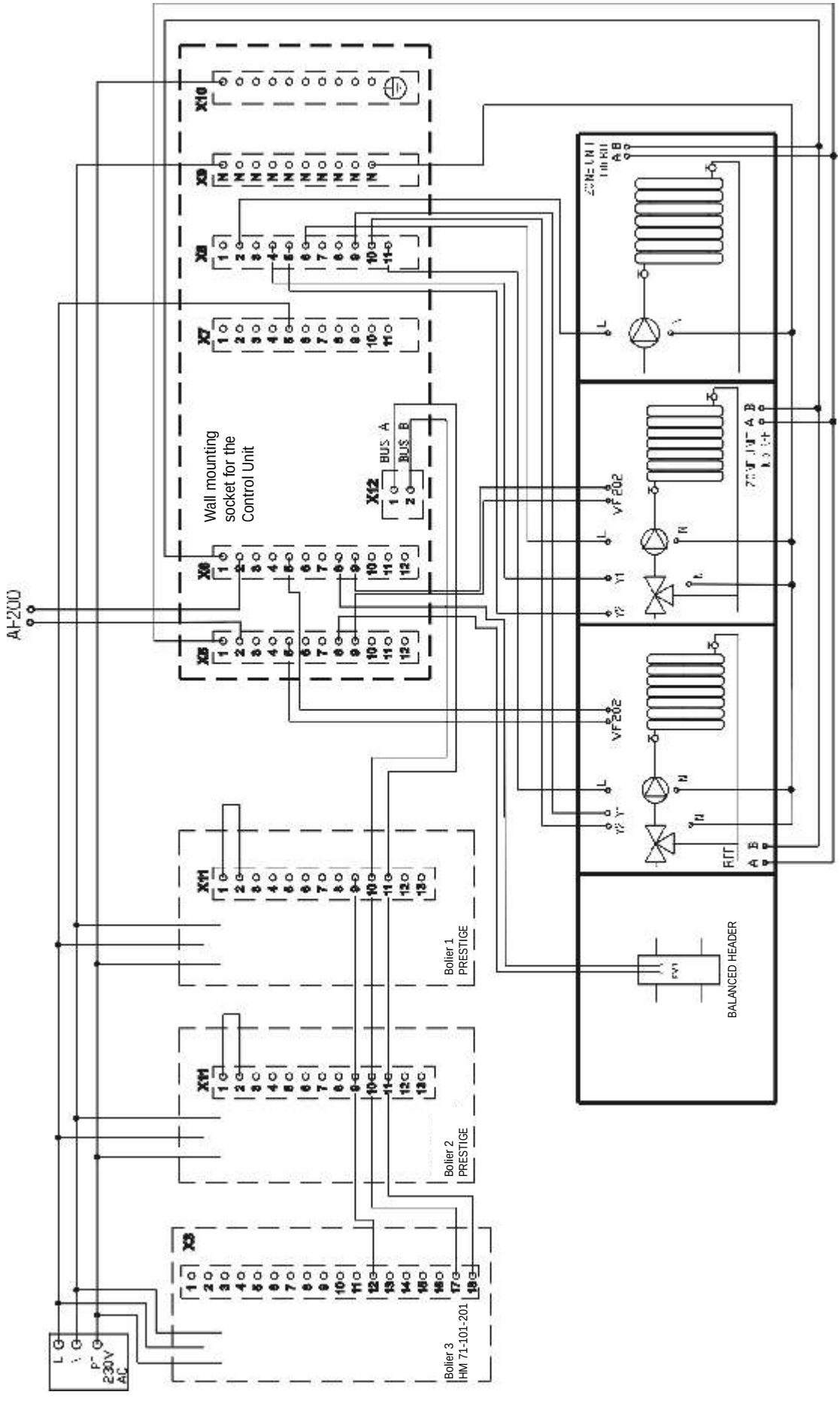
List of elements

Mark	Code	Name of the element	Quantity
I	10800030	Control Unit	1
J	10800121	Wall mounting socket for the Control Unit	1
L	10800036	Clip-in interface RMCI	3
M	10800108	Outside temperature sensor AF 200	1
N	10800044	Pocket sensor KVT	1
O	10800045	Contact sensor VF 202	2
X1	10800161	Balanced header DN 80	1
X2	10800167	Kit collector DN 80 for 2 boilers	1
X4	10800171	Connection kit boiler - collector DN 80	2
X6	10800169	Floor collector support cascade DN 80	1

High and low temperature kits have to be sized separately according to the flow and power of the installation.

excellence in hot water

Electrical schematic

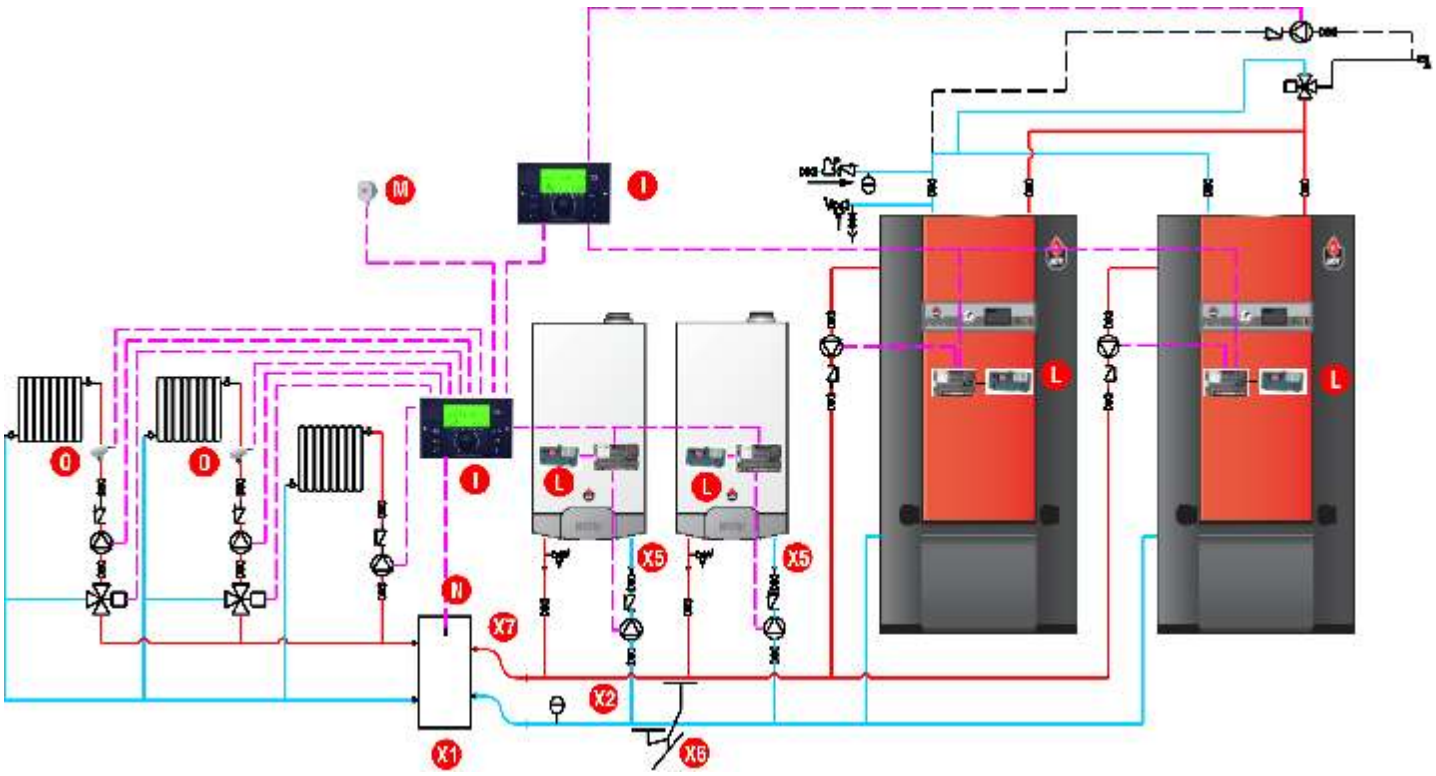


SAMPLES OF INSTALLATIONS

excellence in hot water

SCHEME 12:

CASCADE OF 2 PRESTIGE 50 - 75 - 120 SOLO WITH CASCADE OF 2 HEAMASTER 201 (HOT WATER PRODUCTION) FOR 3 HEATING CIRCUITS, REGULATED BY 2 CONTROL UNIT.



List of elements

Mark	Code	Name of the element	Quantity
I	10800030	Control Unit	2
J	10800121	Wall mounting socket for the Control Unit	2
L	10800036	Clip-in interface RMCI	4
M	10800108	Outside temperature sensor AF 200	1
N	10800044	Pocket sensor KVT	1
O	10800045	Contact sensor VF 202	2
X1	10800162	Balanced header DN 100	1
X2	10800167	Kit collector DN 80 for 2 boilers	1
X5	10800172	Connection kit boiler - collector DN 100	2
X6	10800170	Floor collector support cascade DN 100	1
X7	10800164	Adaptor kit DN 80 - DN 100	1

High and low temperature kits have to be sized separately according to the flow and power of the installation.

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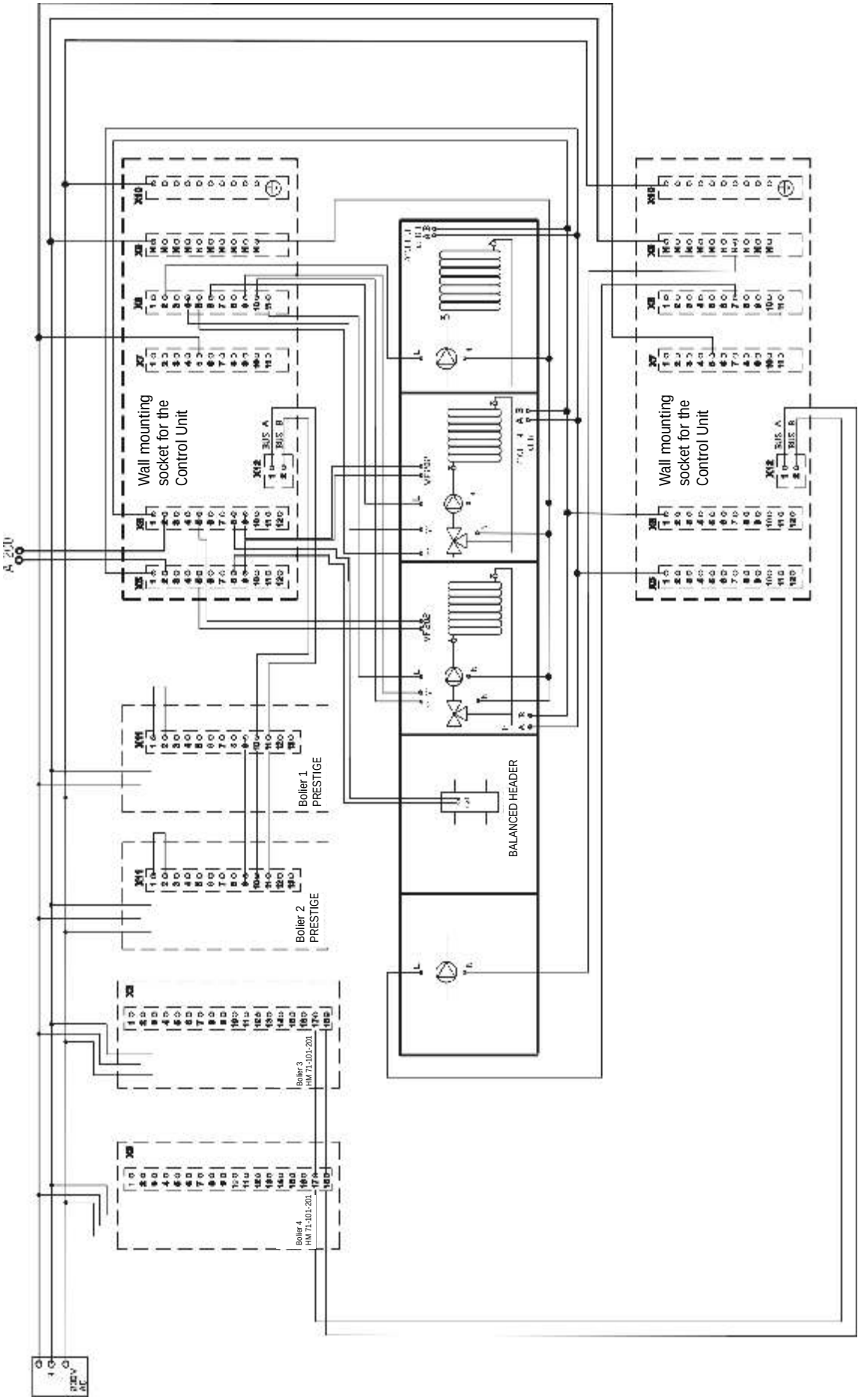
Electrical schematic

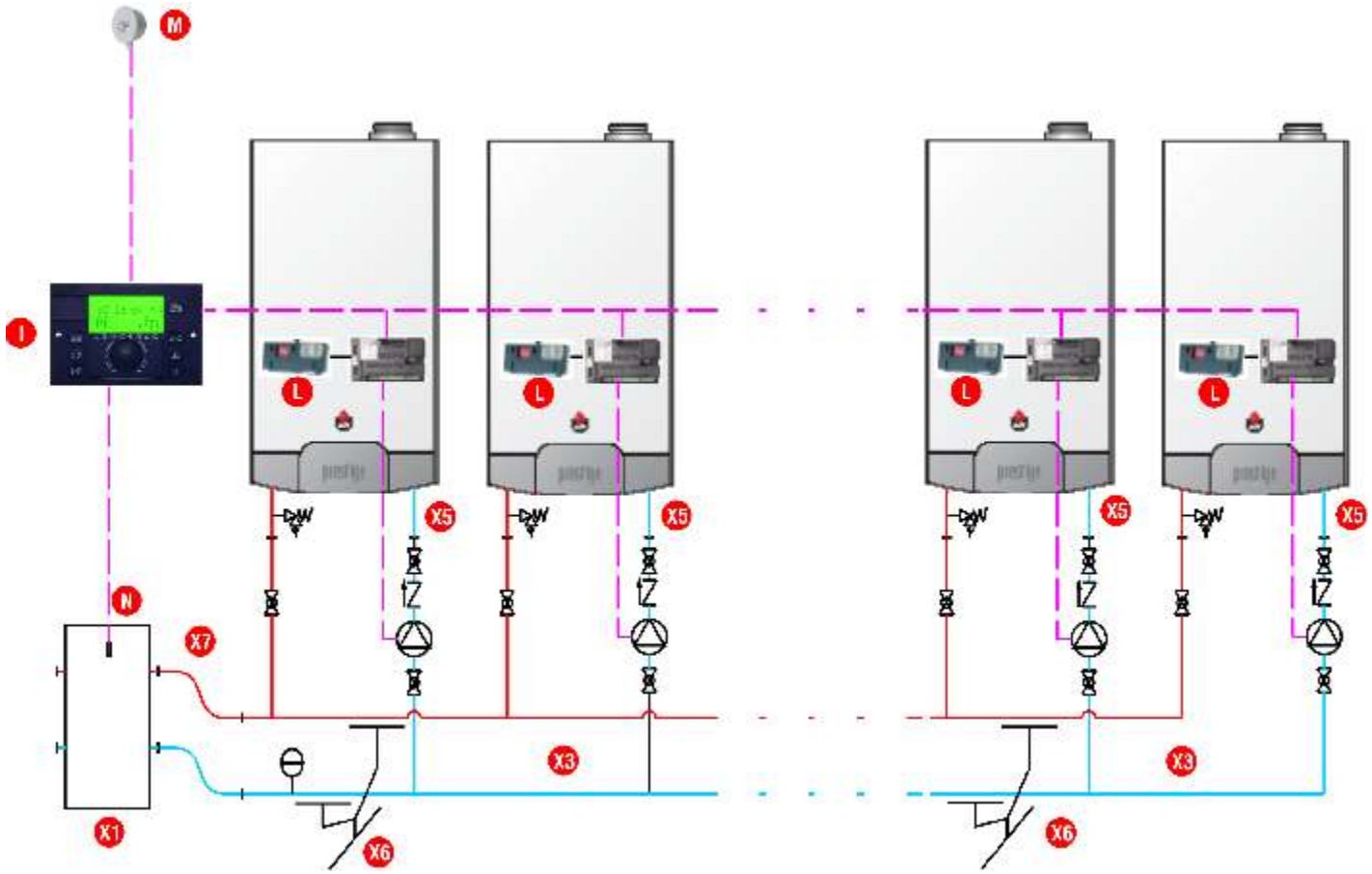


SAMPLES OF INSTALLATIONS

excellence in hot water

SCHEME 13:

CASCADE OF 8 PRESTIGE 50 - 75 - 120 SOLO, REGULATED BY THE CONTROL UNIT.



List of elements

Mark	Code	Name of the element	Quantity
I	10800030	Control Unit	1
J	10800121	Wall mounting socket for the Control Unit	1
L	10800036	Clip-in interface RMCI	8
M	10800108	Outside temperature sensor AF 200	1
N	10800044	Pocket sensor KVT	1
X1	10800162	Balanced header DN 100	1
X2	10800167	Kit collector DN 80 for 2 boilers	1
X3	10800168	Kit collector DN 80 for 3 boilers	2
X5	10800172	Connection kit boiler - collector DN 100	8
X6	10800170	Floor collector support cascade DN 100	3
X7	10800164	Adaptor kit DN 80 - DN 100	1

High and low temperature kits have to be sized separately according to the flow and power of the installation.

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ELEMENTS OF THE CASCADES - PRESTIGE 50

		NR OF BOILERS IN THE CASCADE						
		2	3	4	5	6	7	8
CODE	NAME OF THE ELEMENT	PCS	PCS	PCS	PCS	PCS	PCS	PCS
10800030	Control Unit	1x	1x	1x	1x	1x	1x	1x
10800036	Clip-in interface RMCI	2x	3x	4x	5x	6x	7x	8x
10800121	Wall mounting socket for the Control Unit	1x	1x	1x	1x	1x	1x	1x
10800161	Balanced header DN 80 < 480 kW	1x	1x	1x	1x	1x	1x	1x
10800167	Kit collector DN 80 for 2 boilers	1x	/	2x	1x	/	2x	1x
10800168	Kit collector DN 80 for 3 boilers	/	1x	/	1x	2x	1x	2x
10800171	Connection kit boiler - collecot DN 80	2x	3x	4x	5x	6x	7x	8x
10800169	Floor collector support cascade DN 80	1x	1x	2x	2x	2x	3x	3x

ELEMENTS OF THE CASCADES - PRESTIGE 75

		NR OF BOILERS IN THE CASCADE						
		2	3	4	5	6	7	8
CODE	NAME OF THE ELEMENT	PCS	PCS	PCS	PCS	PCS	PCS	PCS
10800030	Control Unit	1x	1x	1x	1x	1x	1x	1x
10800036	Clip-in interface RMCI	2x	3x	4x	5x	6x	7x	8x
10800121	Wall mounting socket Control Unit	1x	1x	1x	1x	1x	1x	1x
10800161	Balanced header DN 80 < 480 kW	1x	1x	1x	1x	1x	/	/
10800162	Balanced header DN 100 > 480 kW	/	/	/	/	/	1x	1x
10800167	Kit collector DN 80 for 2 boilers	1x	/	2x	1x	/	2x	1x
10800168	Kit collector DN 80 for 3 boilers	/	1x	/	1x	2x	1x	2x
10800171	Connection kit boiler - collector DN 80	2x	3x	4x	5x	6x	/	/
10800172	Connection kit boiler - collector DN 100	/	/	/	/	/	7x	8x
10800164	Adaptor kit DN 80 - DN 100	/	/	/	/	/	1x	1x
10800169	Floor collector support cascade DN 80	1x	1x	2x	2x	2x	/	/
10800170	Floor collectr support cascade DN 100	/	/	/	/	/	3x	3x

ELEMENTS OF THE CASCADES- PRESTIGE 120

		NR OF BOILERS IN THE CASCADE						
		2	3	4	5	6	7	8
CODE	NAME OF THE ELEMENT	PCS	PCS	PCS	PCS	PCS	PCS	PCS
10800030	Control Unit	1x	1x	1x	1x	1x	1x	1x
10800036	Clip-in interface RMCI	2x	3x	4x	5x	6x	7x	8x
10800121	Wall mounting socket for the Control Unit	1x	1x	1x	1x	1x	1x	1x
10800161	Balanced header DN 80 < 480 kW	1x	1x	1x	/	/	/	/
10800162	Balanced header DN 100 > 480 kW	/	/	/	1x	1x	1x	1x
10800167	Kit collector DN 80 for 2 boilers	1x	/	2x	1x	/	2x	1x
10800168	Kit collector DN 80 for 3 boilers	/	1x	/	1x	2x	1x	2x
10800171	Connection kit boiler - collector DN 80	2x	3x	4x	/	/	/	/
10800172	Connection kit boiler - collector DN 100	/	/	/	5x	6x	7x	8x
10800164	Adaptor kit DN 80 - DN 100	/	/	/	1x	1x	1x	1x
10800169	Floor collector support cascade DN 80	1x	1x	2x	/	/	/	/
10800170	Floor collector support cascade DN 100	/	/	/	2x	2x	3x	3x

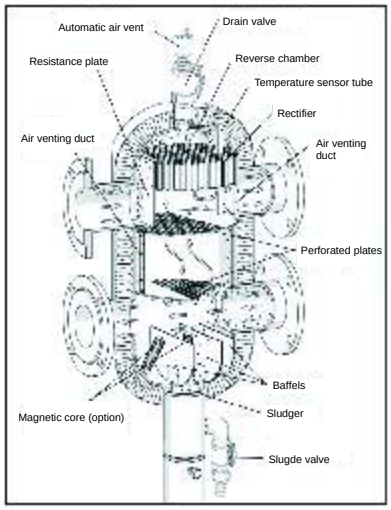
SAMPLES OF INSTALLATIONS

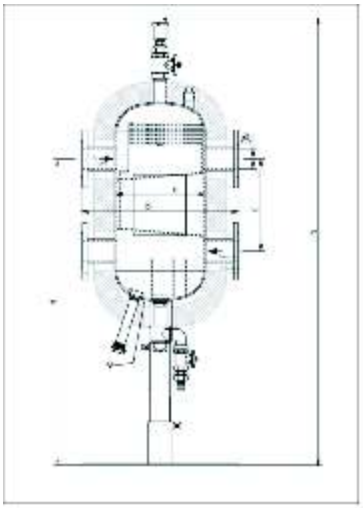
BALANCED HEADER

Removes the most frequent causes of faults in heating systems. Three functions in one device: air separator, hydraulic separator, dirt trap (with option of magnetic separator).

Sludge chamber mounted at the bottom with 4 x 1" sockets for magnetic cartidges. Automatic air vent with isolation valve, temperature sensor tube 3/4" in the top, rinsing valve 1" mounted in the top and in the bottom. Insulation max. temperature 130°C.

Max operation pressure: 6 bar
Max temperature 110°C

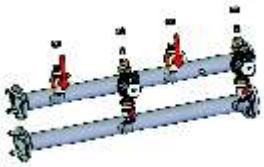




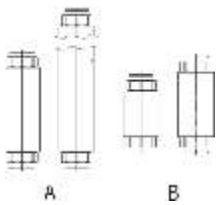
DIMENSIONS		DN 80	DN 100
a	mm	220	300
b	mm	382	500
c	mm	225	340
d	mm	700-1100	900-1300
h	mm	1000-1400	1250-1650

CASCADE'S CONNECTION KITS

Adaptor to connect kit collector DN 80 to the balanced header DN 100. Including gaskets and screws.



Collectors DN 80 to connect 2 or 3 boilers in the cascade system.
Collector equipped with flange connections, isolation valves, non-return valves, reductions 1 1/2" x 1 1/4" and pumps Wilo Star RS 30/7, 12 UHR.
These collectors allow assembly of cascades of 4, 5, 6, 7 or 8 boilers (see table "Elements of the casades").



Connection kits boiler - collector

A - DN 32, 2 x 1 1/2" GW, L = 170 / 320 mm
B - DN 32, 2 z 1 1/2" GW, L = 100 / 135 mm

NOTES

NOTES

Thanks to its state-of-art technology, ACV offers reliable, powerful, cost effective and environment friendly solutions for most demanding applications in Domestic Hot Water for both commercial and residential users.

ACV has become a world leader distributing engineered products in more than 40 countries over 5 continents.

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