

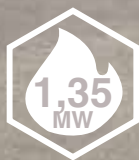
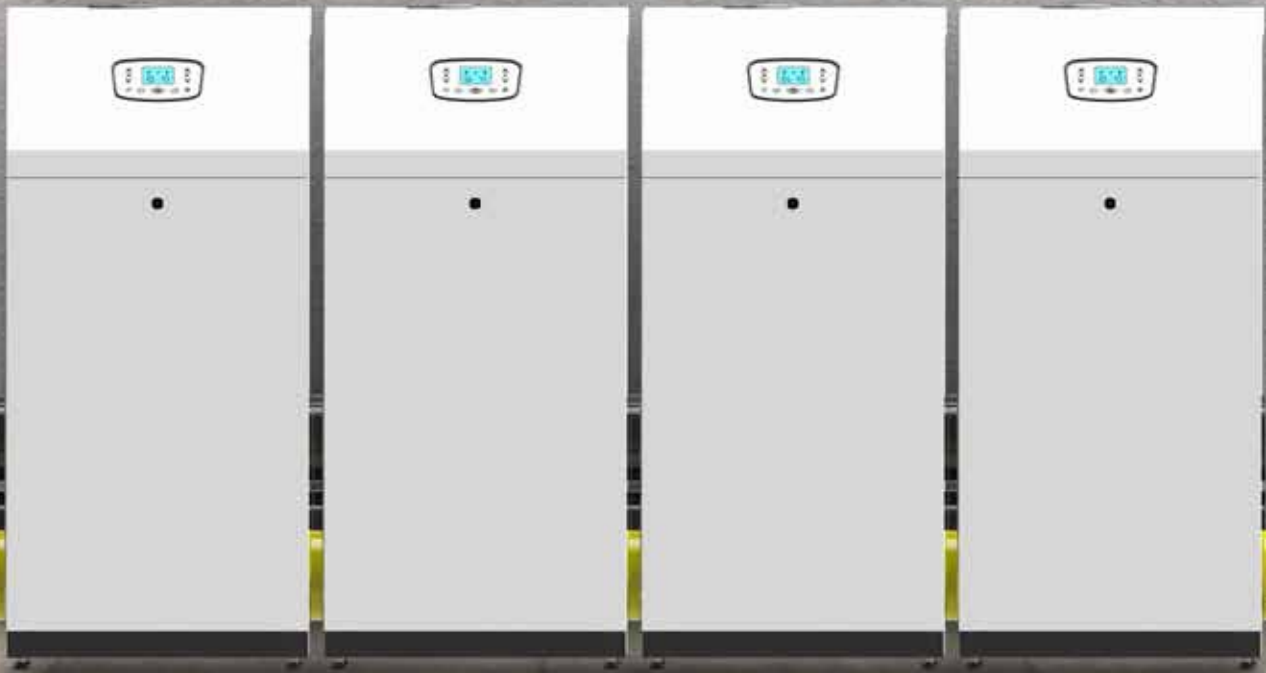
# TIME POWER

THERMAL POWER PLANTS UP TO 1.35 MW





# We aim for the best



power



modulation



installation  
flexibility



remote  
management

## **Power, modulation and control**

A complete range of single or thermal power plants in cascade up to 1.35 MW. The only gas professional boilers on the market with modulation up to 1:119. Discover them in the wall-hung, floor-standing and outdoor versions.



## MADE IN EMILIA ROMAGNA

The company is located in Piacenza, Emilia Romagna region. The manufacturing sector is the region's key strength. Innovation and entrepreneurship spirit are the strong drivers of the region's prosperity, that roots in its 2000 years long history.



## DESIGN

ITALTHERM cares about its product aesthetics. Since 2017 we have been cooperating with the worldwide famous designer Giorgetto Giugiaro, founder of Italdesign Company and creator of the aesthetics of the new Italthem "City" range boilers.



## 100% TESTED AND VERIFIED PRODUCTS

Before being placed on the market, Italthem products must pass a series of tests and checks. These tests are carried out on 100% of the production to guarantee maximum reliability and quality.



## QUALITY COMPONENTS

Only the best components are used to manufacture Italthem boilers. In order to ensure the maximum quality, we have established a long term relationship with a selected number of Italian and European suppliers and we keep on using made to last and resistant materials.

## IMPORTANT INDUSTRIAL SECTOR



Automotive and Motorcycle



Agrifood



Ceramics



Machine tools



Packaging



Health, Wellbeing e Biomedical



Agricultural Machinery



Woodworking Machinery



Nautical



## **ITALTHERM, A GREAT FAMILY WITH AN ITALIAN HEART.**

ITALTHERM was founded on the principles of competence and professionalism, we have 50 years of experience in the field of residential and centralised heating systems.

ITALTHERM is an innovative, dynamic and flexible company capable of completing the entire product cycle: from research, development, design, production and sale, to consultation and customer pre and after sale assistance in Italy and abroad.

## **WE RESPECT THE ENVIRONMENT AND FACE THE CHALLENGES OF THE FUTURE**

ITALTHERM's vision: day by day, year by year, we have developed technological solutions in order to optimize available energy sources, integrating traditional and renewable energies. With a long story in the gas boiler market, Italtherm has opened 2 new divisions for developing and manufacturing heat pump and hybrid technology solutions.

## **ITALTHERM FACTORY**

ITALTHERM's production site has been conceived, designed and built to manage the entire product cycle. It occupies over 40.000 sqm, including 22.000 sqm indoor space. The basis for ITALTHERM's productive system is flexibility and speed. Four production lines with a productive capacity of 120.000 boilers. Each production line is able to independently manage the assembly of a specific model with short set-up time for maximum flexibility. Each phase of production is supervised by highly specialised manpower in order to guarantee the best quality.



Italtherm supports the importer in the various stages that lead to from the design of the system to its configuration, offering a series

## PRESALE

**Technical consultancy:** a team of experts is available to the importer to assist him in the design by offering system diagrams, technical data, drawings in dwg.

**Configurator:** thanks to this innovative tool the importer can design his own heating plant independently, selecting the solution that best suits his needs, completing it with all the accessories and thus immediately obtaining the estimate with the specifications including codes, quantities, accessories, technical drawings both dwg and pdf.

**3D models for BIM design:** the 3D models of the boilers are available on the website [italtherm.it/documentazione](http://italtherm.it/documentazione): by accessing the BIM section you can download the product drawings to be used in Revit and include them in your BIM project (.rfa format). BIM design offers extraordinary competitive advantages: more efficiency and productivity, fewer errors, less costs, greater interoperability, maximum sharing of information, more precise and consistent control of the project.

**Documentation:** on the website [italtherm.it/documentazione](http://italtherm.it/documentazione) you can find everything that the importer may need: technical data sheets, BIM, product brochures, system diagrams and certifications to propose Italtherm thermal plants.



the choice of the most suitable and performing thermal plant:  
of essential services specifically designed for this type of product.

## SALE

**Products always available:** thanks to its production “100% Made in Italy”, Italtherm has a warehouse stocked with all the products and accessories able to quickly satisfy any request from any country in the world.

## AFTER SALE

**Service:** the direct management of this service, not relying on switchboards or external companies, allows Italtherm to guarantee competent and fast answers. A long-experienced team guides the importer in the problem solving phase.

**Spare parts:** Italtherm has a spare parts warehouse dedicated to Power Solutions' products to guarantee the availability of all accessories, components and spare parts ready for shipment to any country in the world.

**Italtherm Power Solutions** is a complete range of high power modular condensing generators designed to satisfy any design intervention: both in new buildings and in the redevelopment of thermal power stations.

The **Italtherm Power Solutions** range and the accessories completing the system have been designed as a modular system based on the plant and design requirements. The peculiar flexibility allows the Time Power wall-hung, floor-standing and outdoor boilers to be installed individually or in cascade in different configurations: in line, front-back self-supporting, outdoor box. All these complete with up to 6 modules for a maximum power of 900 kW and with electronic management capable of managing up to 9 modules for a maximum power of 1.35 MW.





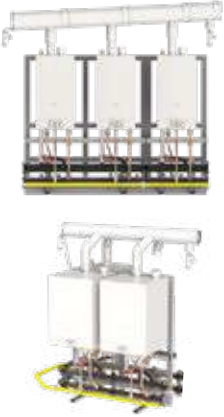







POWER	MODULATION	TIME POWER	TIME POWER FLOOR	TIME POWER BOX
47,5 kW	1:10	50 K		50 K
63 kW	1:10	70 K		70 K
85 kW	1:10	90 K	90 K	90 K
100 kW*	1:9	100 K		100 K
108 kW	1:10	115 K	115 K	115 K
150 kW	1:6	160 K	160 K	160 K

\* only for extra UE Markets

N° Boilers	Boiler models	Modulation	Installation Type		
			WALL-HUNG	FLOOR-STANDING	OUTDOOR
<b>2</b>	95 kW	50 K + 50 K	1:19		
	111 kW	50 K + 70 K	1:22		
	126 kW	70 K + 70 K	1:18		
	170 kW	90 K + 90 K	1:17		
	193 kW	90 K + 115 K	1:20		
	216 kW	115 K + 115 K	1:19		
	235 kW	160 K + 90 K	1:24		
	258 kW	160 K + 115 K	1:23		
	300 kW	160 K + 160 K	1:12		







N° Boilers		Boiler models				
				WALL-HUNG	FLOOR-STANDING	OUTDOOR
<b>3</b>	143 kW	50 K + 50 K + 50 K	1:28			
	158 kW	50 K + 50 K + 70 K	1:31			
	174 kW	50 K + 70 K + 70 K	1:34			
	189 kW	70 K + 70 K + 70 K	1:27			
	255 kW	90 K + 90 K + 90 K	1:26			
	278 kW	90 K + 90 K + 115 K	1:29			
	301 kW	90 K + 115 K + 115 K	1:31			
	320 kW	160 K + 90 K + 90 K	1:33			
	324 kW	115 K + 115 K + 115 K	1:29			
	343 kW	160 K + 115 K + 90 K	1:36			
	366 kW	160 K + 115 K + 115 K	1:34			
	385 kW	160 K + 160 K + 90 K	1:40			
	408 kW	160 K + 160 K + 115 K	1:37			
	450 kW	160 K + 160 K + 160 K	1:18			
<b>4</b>	190 kW	50 K + 50 K + 50 K + 50 K	1:38			
	206 kW	50 K + 50 K + 50 K + 70 K	1:41			
	221 kW	50 K + 50 K + 70 K + 70 K	1:44			
	237 kW	50 K + 70 K + 70 K + 70 K	1:47			
	252 kW	70 K + 70 K + 70 K + 70 K	1:36			
	340 kW	90 K + 90 K + 90 K + 90 K	1:35			
	363 kW	90 K + 90 K + 90 K + 115 K	1:38			
	386 kW	90 K + 90 K + 115 K + 115 K	1:40			
	405 kW	160 K + 90 K + 90 K + 90 K	1:42			
	409 kW	115 K + 115 K + 115 K + 90 K	1:43			
	428 kW	160 K + 115 K + 90 K + 90 K	1:45			
	432 kW	115 K + 115 K + 115 K + 115 K	1:39			
<b>5</b>	666 kW	160 K + 160 K + 160 K + 115 K + 115 K	1:61			
	708 kW	160 K + 160 K + 160 K + 160 K + 115 K	1:65			
	750 kW	60 K + 160 K + 160 K + 160 K + 160 K	1:30			
<b>6</b>	816 kW	160 K + 160 K + 160 K + 160 K + 115 K + 115 K	1:74			
	858 kW	160 K + 160 K + 160 K + 160 K + 160 K + 115 K	1:78			
	900 kW	160 K + 160 K + 160 K + 160 K + 160 K + 160 K	1:36			

# SMART BOILER

Each boiler in the Italtherm Power Solutions range is equipped with advanced electronics, rich in functions for optimizing performance and for complete integration within a heating system: **more than 40 configurable parameters available for optimizing the boiler at each plant!**

## MULTIFUNCTIONAL CONTROL

- Info menu for displaying temperatures, pressure and active requests
- Dynamic management 2 flow temperatures
- Error history menu with dynamic log of the conditions at the time of the anomaly
- Scheduled maintenance function
- Advanced antifreeze function, even in the absence of gas with activation of the circulator
- DHW tank management via sanitary probe or thermostat contact
- Hourly programming of the boiler with 2 different temperature sets
- Anti-legionella programmable and adaptable to the system
- Booster function, useful for forcing the delivery t ° to get the system up and running
- SPA function that temporarily increases the sanitary performance to the maximum performance of the boiler
- Holiday function which deactivates the boiler for the set holiday duration period
- Self-diagnosis system and anomaly signaling on the display
- Scheduled maintenance function and maintenance warning signal
- Predisposition for connection to external probe and / or zone systems
- System water pressure transducer (low heating pressure) with signaling
- Management with optional interface with 0-10V signal in power or temperature

	Heating t° adjustment		DHW t° adjustment
	Power on / off		Timer to maintain t° DHW
<b>info</b>	Operation data control	<b>plus</b>	Preheating: DHW ready im
<b>RESET</b>	Boiler restart		



### SMART REMOTE CONTROL

The smart remote control was designed by Italtherm to communicate with its boilers and to enhance their characteristics: in particular the modulation range. **It can work both as a single boiler control and as an advanced chronothermostat (class V efficiency)**



# ELECTRONICS OF MANAGEMENT

The **cascade control unit** simplifies the management of complex installations with single or cascade generators, thermoregulation and integrations from renewable sources. Designed by Italtherm to communicate directly with the Time Power series boilers, it is equipped with system management schemes software already configured to speed up and facilitate the initial set-up phase.



## CASCADE CONTROL UNIT

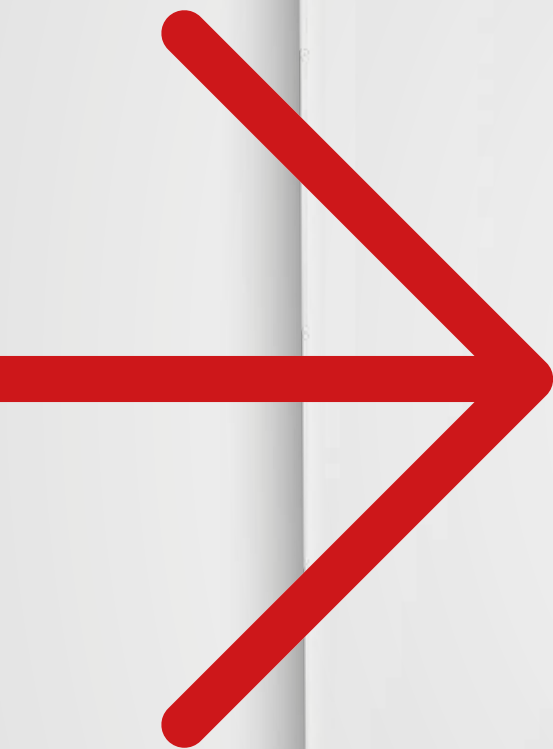
- Control and power management system of generators in cascade (**max 9 for electronic control only**).
- Possibility to completely manage the control unit remotely or via WEB, using the remote management kit.
- Possibility to intervene on all parameters and at all levels for a precise customization of generator / system management to guarantee maximum efficiency and comfort.
- Control of generators based on the temperature difference between the set configured and the value detected on the system (flow balancer / plate exchanger) by the probe
- DHW tank load management, standard or Solar type with double exchanger (dedicated outputs and inputs).
- Complete management of the integration of renewable energy (Solar Thermal) on the production of DHW (dedicated exits and entrances).
- Complete management of max three system zones, of which max 2 mixed, always available, with the possibility of room control for each through a chronothermostat (optional)



TIME POWER

HIGH POWER CONDENSING  
**WALL-HUNG** BOILER





# TIME POWER

**Modulation, power and control  
for maximum energy savings.**



power



modulation



advanced  
electronics



cascade  
configuration







**Time Power high-power condensing boilers are the ideal choice for centralized systems, replacement of thermal power stations and energy upgrading of existing buildings.**

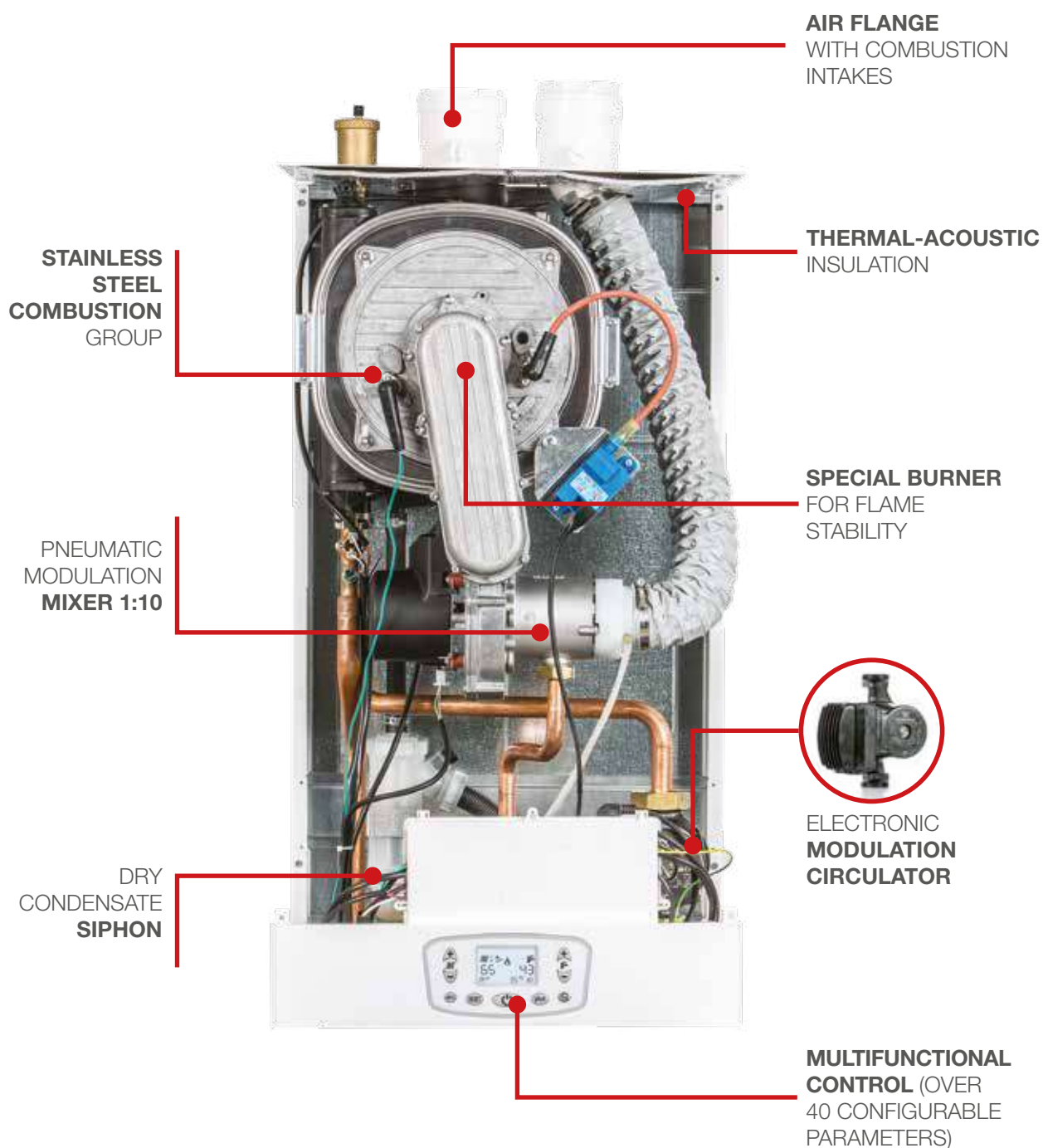
Time Power offers condensing technology with high efficiency, wide modulation range (up to 1:10), equipped with high quality stainless steel exchangers and burners with very low polluting emissions (class 6 NOx) with a geometry that guarantees high stability of flame even at reduced heating powers.

Available in powers from 50 to 160 kW, it has an exhaustive catalog of accessories for the optimal completion of the thermal power plant: separator kits for micro-bubbles and micro-impurities and hydraulic separator kits (balancers and plate heat exchangers).



# TIME POWER

## The efficient, flexible and compact heating plant





## TECHNICAL FEATURES

**Condensing thermal module for heating with electrical preparation for the combination of a remote boiler, ideal for mixed systems** (high / low temperature). It is characterized by its small size and advanced electronics.

- Combustion group in stainless steel
- Special burner with optimized profile for perfect combustion and flame stability even at low power
- The high modulation ratio 1:10 (1: 6 for mod.160 K) allows to adapt to the actual thermal needs of the building, reducing the number of starts and stops and consequently drastically reducing gas consumption and polluting emissions (Class 6 NOx)
- Very low polluting emissions (Class 6 NOx)
- Methane and LPG operation
- Antifreeze device with electronic probe on the heating
- Advanced antifreeze function even in the absence of gas, with activation of the circulator
- The modulating circulation pump with built-in degasser optimizes the electrical power absorbed according to the thermal demand of the system, or the  $\Delta t$  ° between delivery and return, obtaining significant improvements in the overall efficiency of the heat generator.

# TIME POWER

## Single configuration



**POWER**  
50 kW - 160 kW

**MODULATION**  
up to 1:10

### HYDRAULIC SEPARATORS



HORIZONTAL BALANCERS	Connections
BOILER DELIVERY AND RETURN	1" 1/4
SYSTEM DELIVERY AND RETURN	2"
SUPPORT FOOT (160K)	1" 1/4

BRAZED PLATE EXCHANGERS	
Power (kW)	Connections
55	1"
68	1"
89	1"
114	1"
180	2"



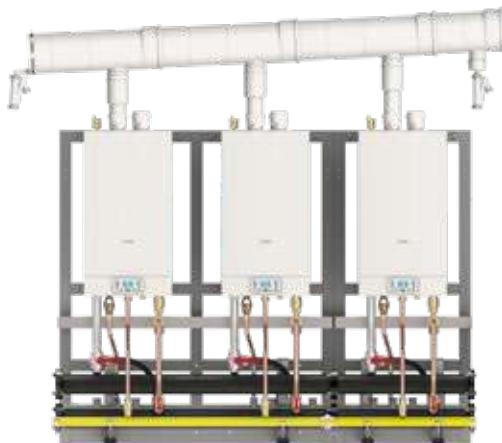
# TIME POWER

## Linear Cascade



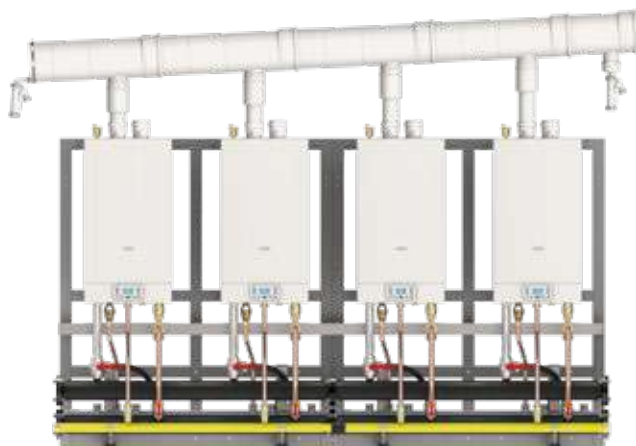
**POWER**  
95 kW - 300 kW

**MODULATION**  
up to 1:24



**POWER**  
143 kW - 450 kW

**MODULATION**  
up to 1:40



**POWER**  
190 kW - 600 kW

**MODULATION**  
up to 1:49

**! UP TO 9 BOILERS WITH POWER UP TO 1.35MW AND MODULATION UP TO 1:119 (ELECTRONIC MANAGEMENT ONLY)**



# TIME POWER

## Front-Back Cascade



**POWER**  
95 kW - 300 kW

**MODULATION**  
up to 1:24



**POWER**  
143 kW - 450 kW

**MODULATION**  
up to 1:40



**POWER**  
190 kW - 600 kW

**MODULATION**  
up to 1:49



**POWER**  
666 kW - 750 kW

**MODULATION**  
up to 1:65



**POWER**  
800 kW - 900 kW

**MODULATION**  
up to 1:78

**! UP TO 9 BOILERS WITH POWER UP TO 1.35MW AND MODULATION UP TO 1:119 (ELECTRONIC MANAGEMENT ONLY)**



# TIME POWER

## Hydraulic separators (up to 450 kW)

### BALANCERS

It is used when the flow rates of the system are higher than those achievable by the boiler and its sizing must take into account the average speed of the fluid both inside the main body and on the connection attachment.



**BALANCER KIT + PIPE KIT**

	Connections (DN)	Max flow rate (mc/h)
< 280 kW	65	18
> 280 kW	100	30

**BALANCER KIT + DIRT SEPARATOR + PIPE KIT**

	Connections (DN)	Max flow rate (mc/h)
< 280 kW	65	18
> 280 kW	100	30

### BRAZED EXCHANGERS

Complete with insulation, thanks to the compactness and installation flexibility, they allow the protection of the boiler body and the durability of the generator. The particular design of the plates allows to obtain high performances in terms of heat exchange and reduced pressure drops.

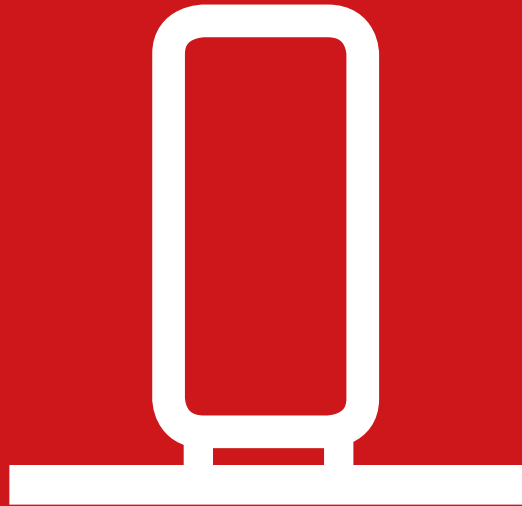


BRAZED EXCHANGER			PRIMARY CIRCULATOR		SECONDARY CIRCULATOR	
Power	Connections	Primary/ Secondary T°	Flow rate m³/h	Pressure drops kPa	Flow rate m³/h	Pressure drops kPa
180 kW	2" G	80-60 / 70-55°C	7.91	14.6	10.51	24
322 kW			14.15	15.8	18.8	27.2
412 kW			18.1	14.3	24.06	25
501 kW			22.01	16	29.25	28

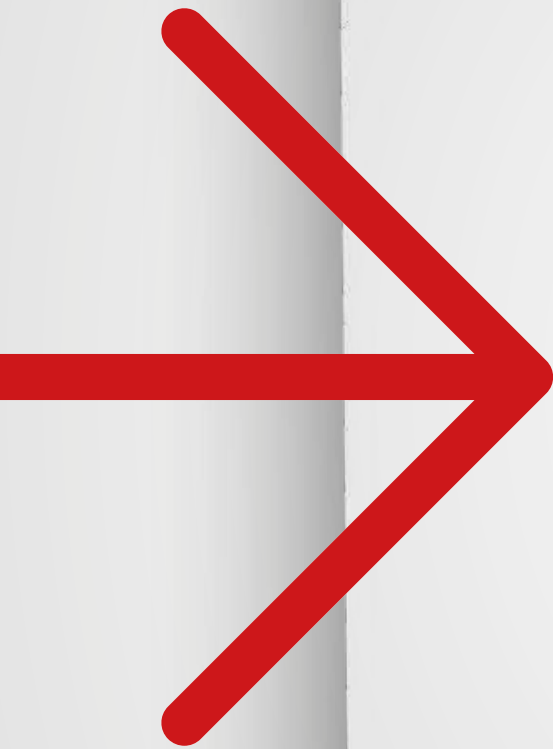
TIME POWER **FLOOR**

HIGH POWER CONDENSING  
**FLOOR-STANDING** BOILER

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# TIME POWER **FLOOR**

**Thermal module with integrated collectors:  
the ideal solution to speed up installation.**



90-160  
kW

power



1:10

modulation



fast  
installation



cascade  
configuration





**Time Power Floor is the most compact and flexible thermal module for thermal power stations on the market.**

Thanks to the pre-assembled hydraulic and gas manifolds, it represents the ideal solution to facilitate the cascade connection of boilers, significantly reducing installation times. The 55 cm width also facilitates access inside the technical rooms.

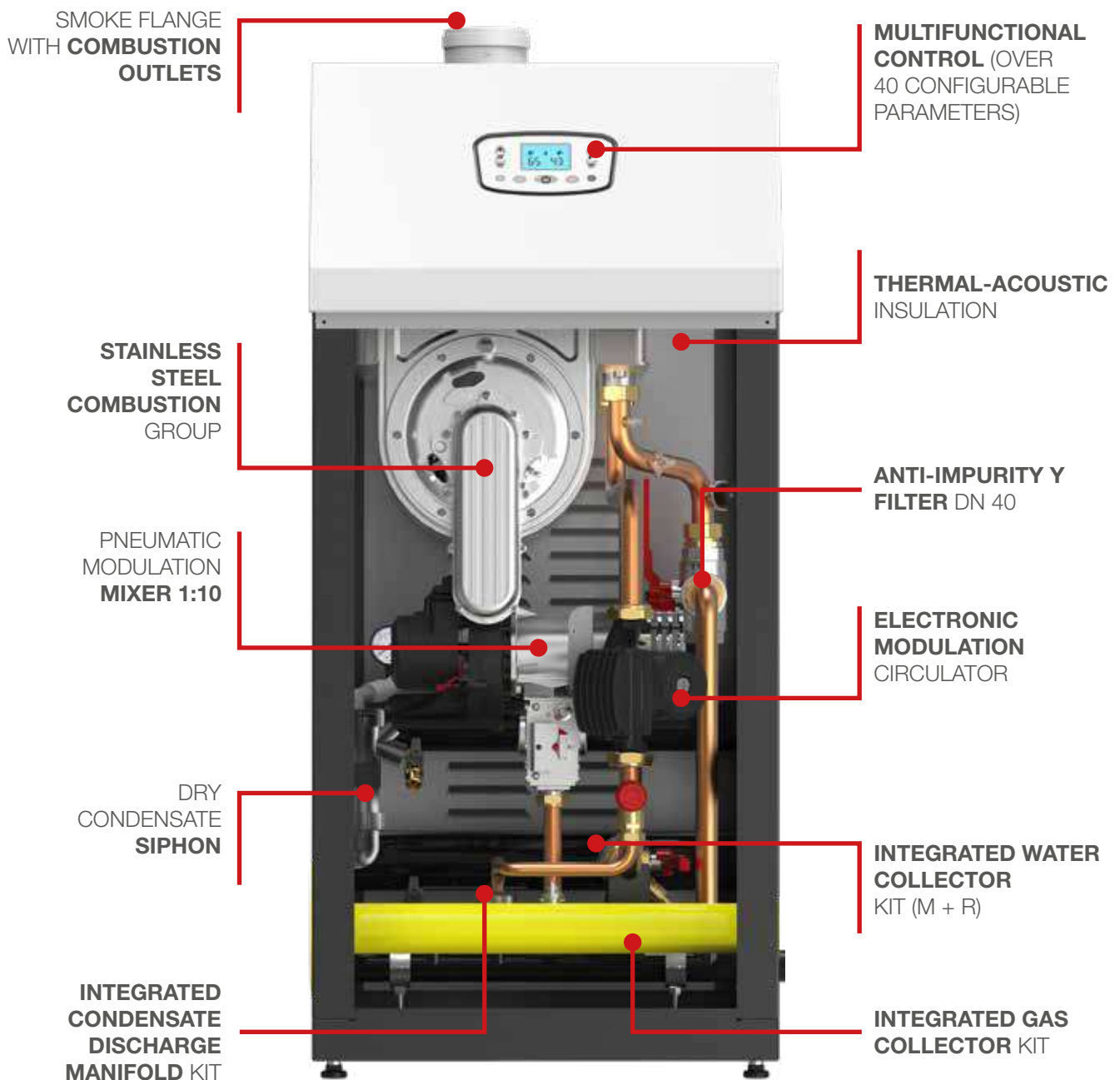
The modular development (up to 4) **allows the creation of a thermal power plant in small spaces**, helping to raise the energy class of real estate in new buildings and supporting the redevelopment proposal of existing thermal power plants: **the optimal solution for the replacement of obsolete stand-alone generators.**

Available in powers from 90 to 160 kW, it has an exhaustive catalog of accessories and hydraulic separators for the optimal completion of the boiler room.



# TIME POWER **FLOOR**

## Maximum accessibility of components





## TECHNICAL FEATURES

### **Pre-assembled condensing high power thermal module ideal for heating systems for civil use**

- Minimum overall dimensions: LxHxP 555x885x1220mm
- Pre-assembled hydraulic and gas manifolds to facilitate the cascade connection of the boilers
- Special burner with optimized profile for perfect combustion and flame stability even at low power
- The high modulation ratio 1: 10 (1: 6permod.160K) allows to adapt to the actual thermal needs of the home, reducing the number of starts and stops and consequently drastically reducing gas consumption and polluting emissions (Class 6 NOx)
- The modulating circulation pump with built-in degasser optimizes the electrical power absorbed according to the thermal demand of the system, or the  $\Delta t$  ° between delivery and return, obtaining significant improvements in the overall efficiency of the heat generator.
- Methane and LPG operation
- Antifreeze device with electronic probe on the heating
- Advanced antifreeze function, even in the absence of gas with activation of the circulator
- Sound-absorbing panels to ensure extremely quiet operation



# TIME POWER **FLOOR**

## Configurations



**POWER**  
95 kW - 160 kW

**MODULATION**  
up to 1:10



**POWER**  
170 kW - 300 kW

**MODULATION**  
up to 1:24



**POWER**  
255 kW - 450 kW

**MODULATION**  
up to 1:40



**POWER**  
340 kW - 600 kW

**MODULATION**  
up to 1:49



# TIME POWER FLOOR

## Hydraulic separators

### BALANCERS

It is used when the system flow rates are higher than those that can be reached by the boiler and its sizing must take into account the average speed of the fluid both inside the main body and on the connection attachments.



**BALANCER KIT + PIPE KIT**

	Connections (DN)	Max flow rate (mc/h)
< 280 kW	65	18
> 280 kW	100	30

**BALANCER KIT + DIRT SEPARATOR + PIPE KIT**

	Connections (DN)	Max flow rate (mc/h)
< 280 kW	65	18
> 280 kW	100	30

### BRAZED EXCHANGERS

Complete with insulation, thanks to the compactness and installation flexibility, they allow the protection of the boiler body and the durability of the generator. The particular design of the plates allows to obtain high performances in terms of heat exchange and reduced pressure drops.



BRAZED EXCHANGER			PRIMARY CIRCULATOR		SECONDARY CIRCULATOR	
Power	Connections	Primary/ Secondary T°	Flow rate m <sup>3</sup> /h	Pressure losses kPa	Flow rate m <sup>3</sup> /h	Pressure losses kPa
180 kW	2" G	80-60 / 70-55°C	7.91	14.6	10.51	24
322 kW			14.15	15.8	18.8	27.2
412 kW			18.1	14.3	24.06	25
501 kW			22.01	16	29.25	28

TIME POWER **BOX**

HIGH POWER CONDENSING  
**OUTDOOR** BOILER

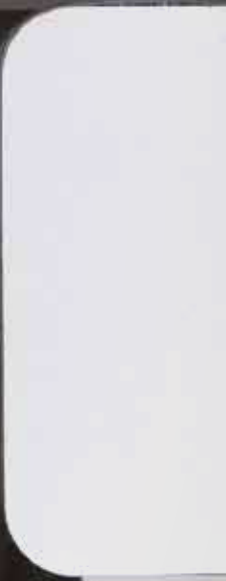
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VITALTHERM

VITALTHERM



# TIME POWER **BOX**

**Modular box: the ideal solution for transferring the thermal plant to the outside.**



power



modulation



outdoor  
version



cascade  
configuration



**The modular box system was designed to facilitate the redevelopment of thermal power plants in difficult contexts** where the cost of adapting the installation sites is relevant or where the intervention would not be possible otherwise. In fact, **thanks to self-supporting modular boxes the control unit can be positioned on the roof, in the center of an open space or leaning against an external wall.**

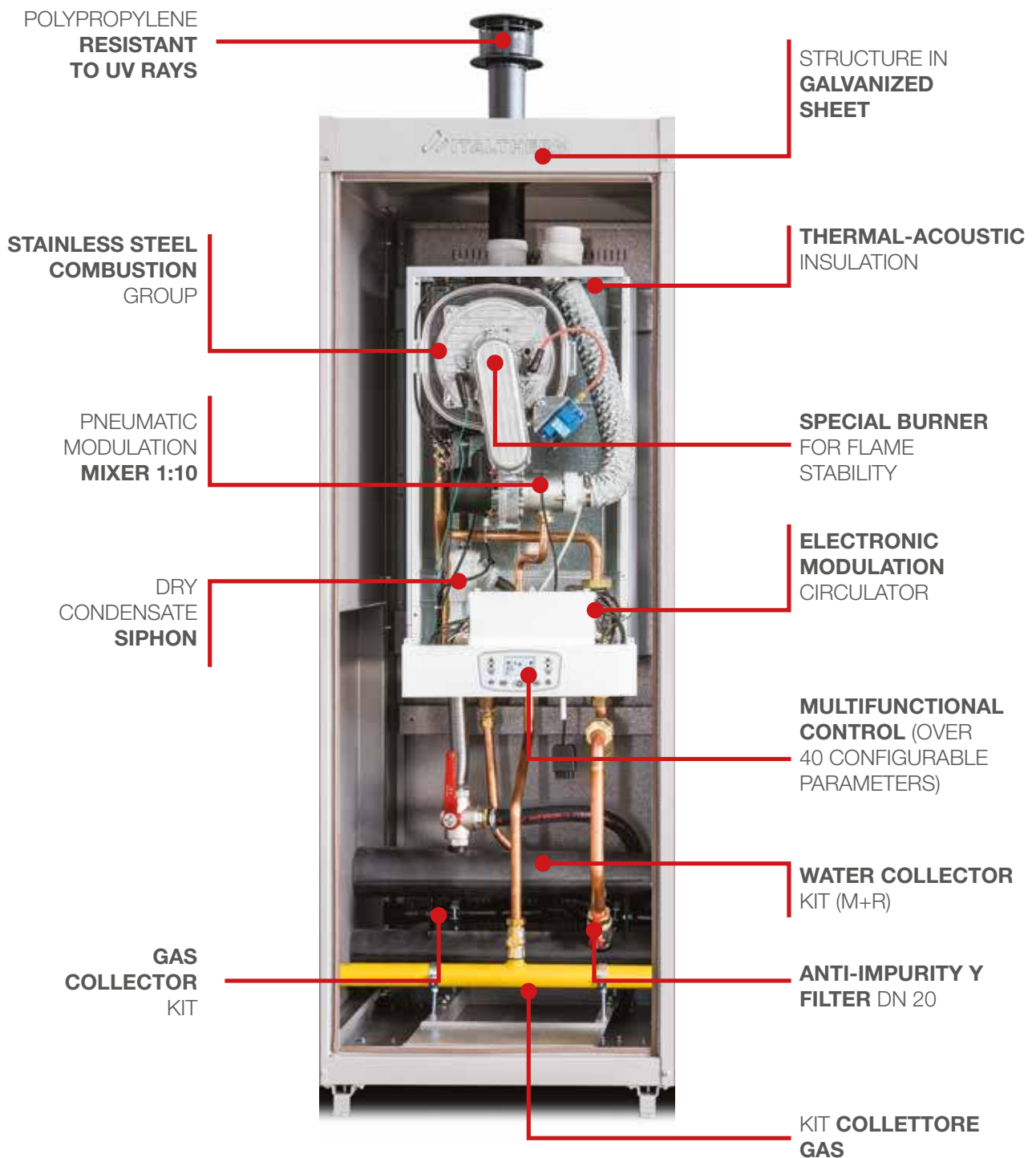
It can be installed individually or in cascade up to 600 kW with modulation up to 1:49.

Each condensing wall-hung generator Time Power model is installed inside the box together with its accessories , in order to ensure maximum safety in the configurations of the generators and avoid heat loss.

Available in powers from 50 to 600 kW, it has an exhaustive catalogue of accessories and hydraulic separators for the optimal completion of the boiler room.

# TIME POWER **BOX**

## Modular box: the ideal solution for transferring the thermal plant to the outside.





## TECHNICAL FEATURES

**All the models in the Time Power range are designed to be installed in a technical cabinet designed for outdoor installation**

- Technical containment cabinet in high quality galvanized sheet with side panels complete with pre-perforations for connection to the heating system and gas line on the right or left.
- UV-resistant polypropylene flue terminal
- Easy and quick to assemble, it considerably reduces the cascade installation time.
- Extremely compact dimensions: it takes up only 0.64mq.
- Internal structure designed to support the boiler and all the components of the cascade system
- 180 ° folding front door with removable lock and quick release hinges.
- Ventilation grids with anti-water infiltration system ensure safety and durability.
- Tilted top cover, to avoid stagnation of water or foliage deposits.
- Adjustable feet with ground fixing system for greater stability.

# TIME POWER **BOX**

## Configurations



**POWER**  
50 kW - 160 kW

**MODULATION**  
up to 1:10



**POWER**  
95 kW - 300 kW

**MODULATION**  
up to 1:24



**POWER**  
143 kW - 450 kW

**MODULATION**  
up to 1:40



**POWER**  
190 kW - 600 kW

**MODULATION**  
up to 1:49

**! UP TO 9 BOILERS WITH POWER UP TO 1.35MW AND MODULATION UP TO 1:119 (ELECTRONIC MANAGEMENT ONLY)**

# TIME POWER BOX

## Hydraulic separators

Time Power Box can also be combined with hydraulic separators, but housed inside of service cabinets.

### SINGLE



**WITH  
BALANCER  
POWER**  
50 kW - 115 kW



**WITH  
EXCHANGER  
POWER**  
50 kW - 160 kW

### CASCADE

#### BALANCER

It is used when the flow rates of the system are higher than those reachable by the boiler and its sizing must consider the average speed of the fluid both inside the main body and on the connection attachments.



Balancer



Balancer +  
Dirt separator  
+ INAIL Kit



Balancer  
+ Circulator



Balancer  
+ Dirt separator  
+ Circulator

#### BRAZED EXCHANGERS

The configurations in the external box can be combined with the same plate heat exchanger kits provided for indoor installations with 2 separate kits for connection to the right or to the left.



Exchanger

BRAZED EXCHANGER			PRIMARY CIRCULATOR		SECONDARY CIRCULATOR	
Power	Connections	Primary/ Secondary T°	Flow Rate m³/h	Pressure drops kPa	Flow Rate m³/h	Pressure drops kPa
180 kW	2" G	80-60 / 70-55°C	7.91	14.6	10.51	24
322 kW			14.15	15.8	18.8	27.2
412 kW			18.1	14.3	24.06	25
501 kW			22.01	16	29.25	28

#### GRUNDFOS CIRCULATOR

<b>Max head</b>	15 m (with 15 m³ / h residual flow rate)
<b>Max flow rate</b>	55 m³ / h (with 3 m residual head)

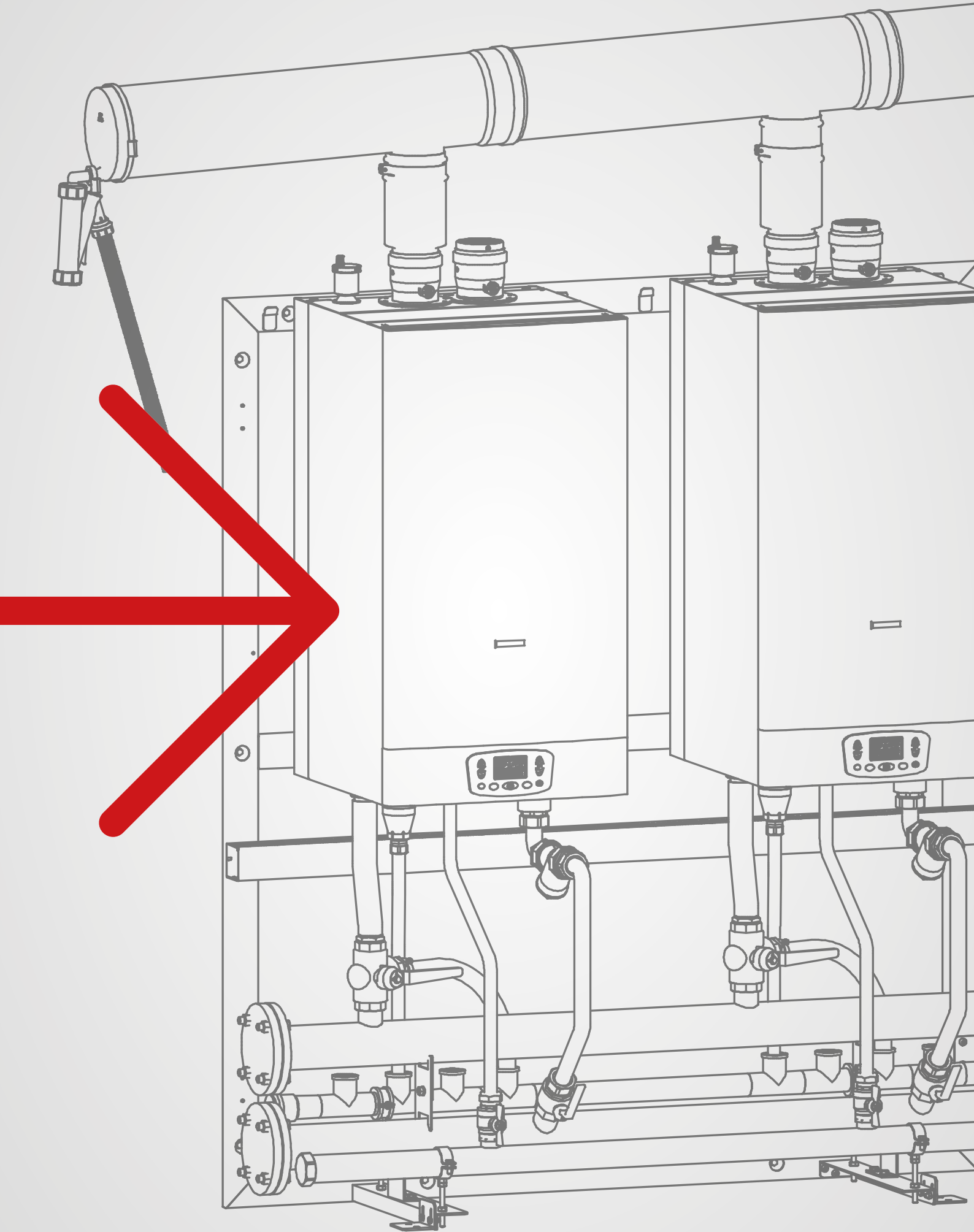


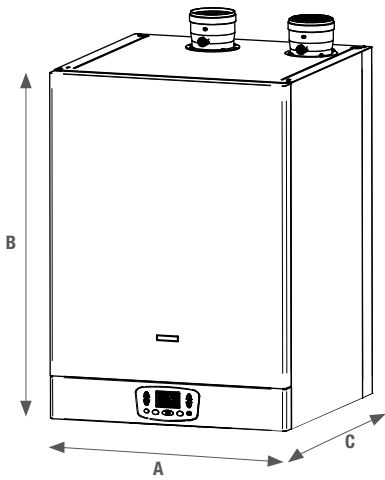
Exchanger  
+ Circulator

- DIMENSIONS
- PLANT

- 
- DIAGRAMS CIRCULATORS HEADS
  - TECHNICAL DATA

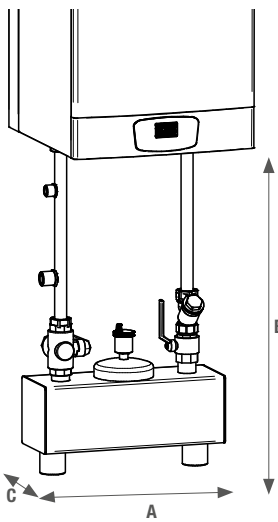






Configurations	A	B	C
47,5 kW 50 K	450	837	475
63 kW 70 K			
85 kW 90 K	600	837	620
100 kW 100 K			
108 kW 115 K	600	837	725
150 kW 160 K			

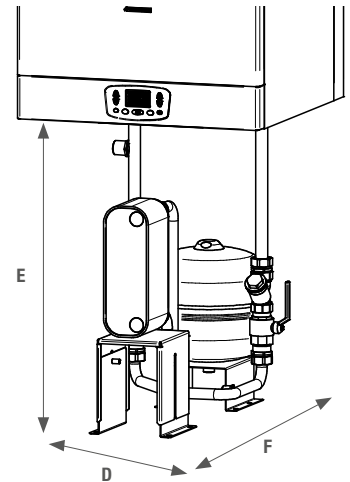
**WITH BALANCER**



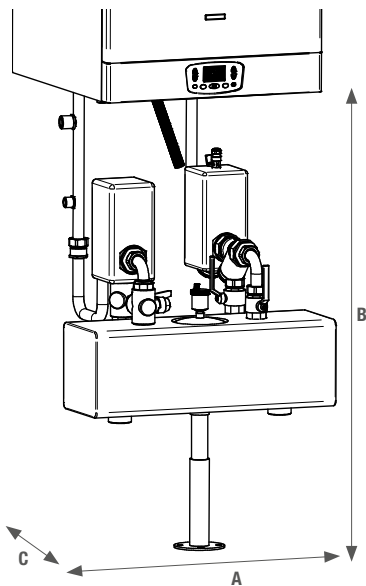
Configurations	A	B	C
35 kW 50 K-SP	653	1064	307
47,5 kW 50 K			
63 kW 70 K			
85 kW 90 K			
108 kW 115 K			

Configurations	D	E	F
35 kW 50 K-SP	547	726	712
47,5 kW 50 K			
63 kW 70 K			
85 kW 90 K			
108 kW 115 K			

**WITH EXCHANGER**



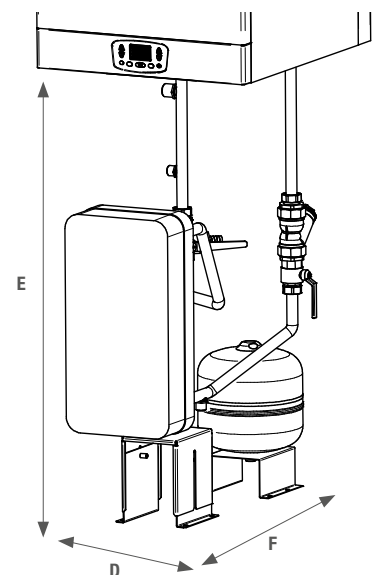
**WITH BALANCER**

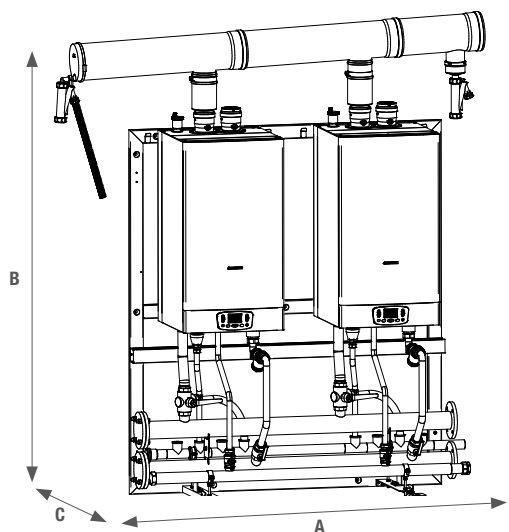



Configurations	A	B	C
150 kW 160 K	670	1182	622

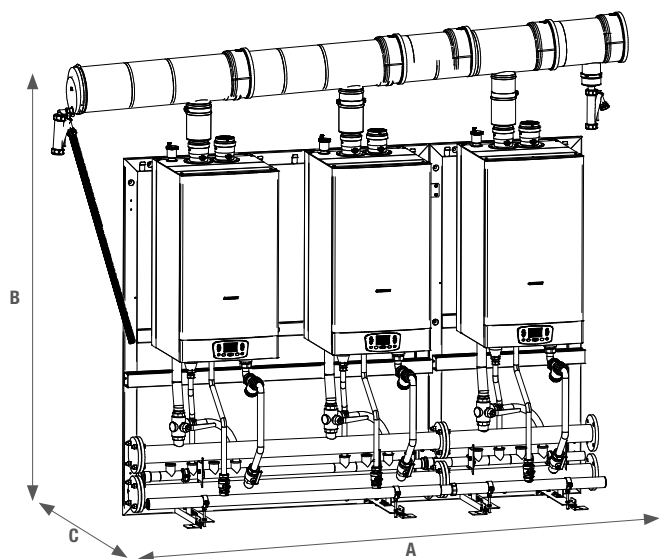
Configurations	D	E	F
108 kW 160 K-SP	547	1176	715
150 kW 160 K			


**WITH EXCHANGER**

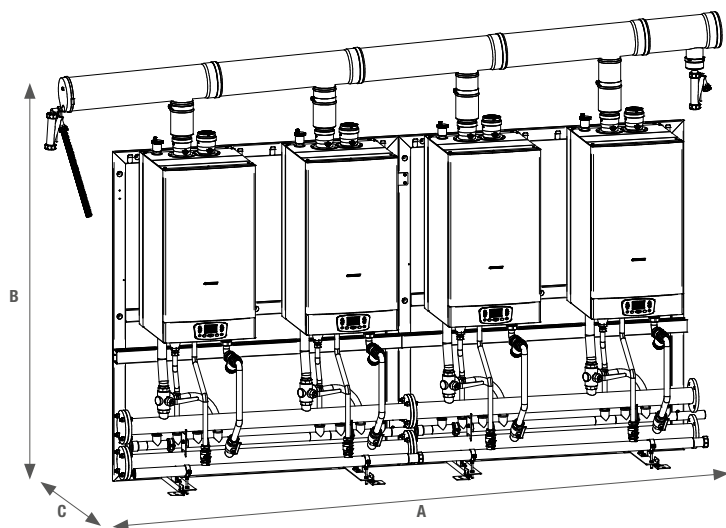





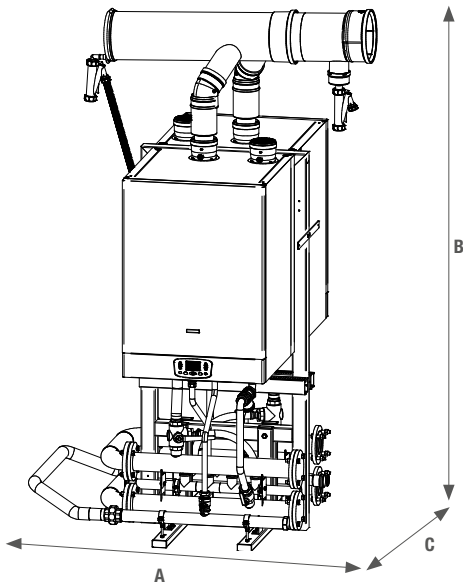
	Configurations	A	B	C
95 kW	50 K + 50 K	1910	2029	493
111 kW	50 K + 70 K			
126 kW	70 K + 70 K			
170 kW	90 K + 90 K	2104	2064	633
193 kW	90 K + 115 K			
216 kW	115 K + 115 K			
235 kW	160 K + 90 K			
258 kW	160 K + 115 K			725
300 kW	160 K + 160 K			



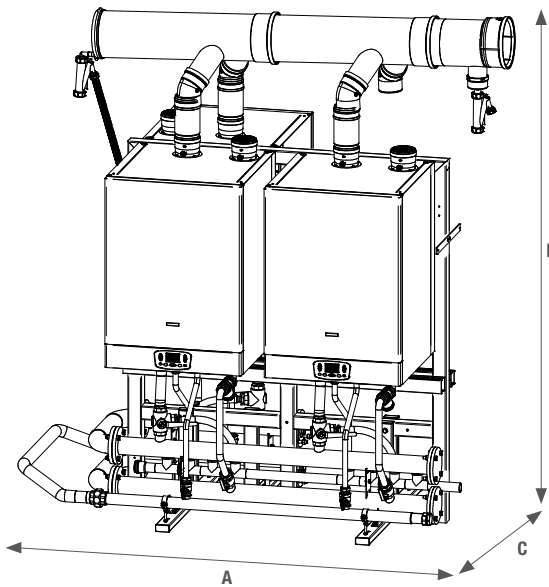
	Configurations	A	B	C
143 kW	50 K + 50 K + 50 K	2612	2060	493
158 kW	50 K + 50 K + 70 K			
174 kW	50 K + 70 K + 70 K			
189 kW	70 K + 70 K + 70 K			
255 kW	90 K + 90 K + 90 K	2804	2095	633
278 kW	90 K + 90 K + 115 K			
301 kW	90 K + 115 K + 115 K			
320 kW	160 K + 90 K + 90 K			725
324 kW	115 K + 115 K + 115 K			
343 kW	160 K + 115 K + 90 K			
366 kW	160 K + 115 K + 115 K			
385 kW	160 K + 160 K + 90 K			
408 kW	160 K + 160 K + 115 K		725	
450 kW	160 K + 160 K + 160 K			



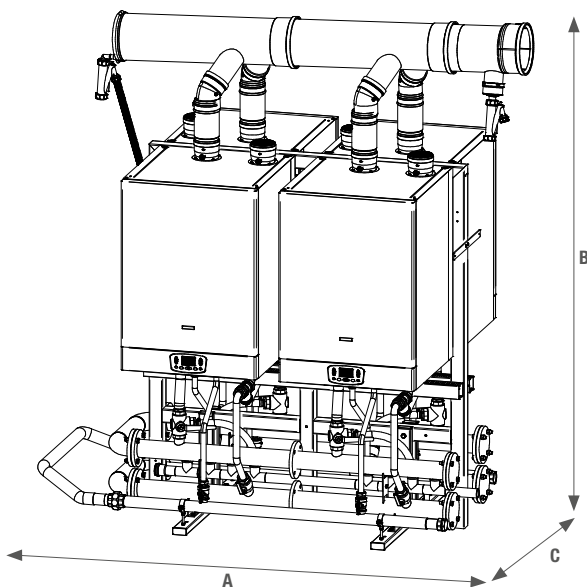
	Configurations	A	B	C
190 kW	50 K + 50 K + 50 K + 50 K	3310	2125	493
206 kW	50 K + 50 K + 50 K + 70 K			
221 kW	50 K + 50 K + 70 K + 70 K			
237 kW	50 K + 70 K + 70 K + 70 K			
252 kW	70 K + 70 K + 70 K + 70 K	3504	2196	633
340 kW	90 K + 90 K + 90 K + 90 K			
363 kW	90 K + 90 K + 90 K + 115 K			
386 kW	90 K + 90 K + 115 K + 115 K			
405 kW	160 K + 90 K + 90 K + 90 K			725
409 kW	115 K + 115 K + 115 K + 90 K			
428 kW	160 K + 115 K + 90 K + 90 K		2196	
432 kW	115 K + 115 K + 115 K + 115 K			
470 kW	115 K + 115 K + 160 K + 160 K			
535 kW	115 K + 160 K + 160 K + 160 K			
600 kW	160 K + 160 K + 160 K + 160 K			



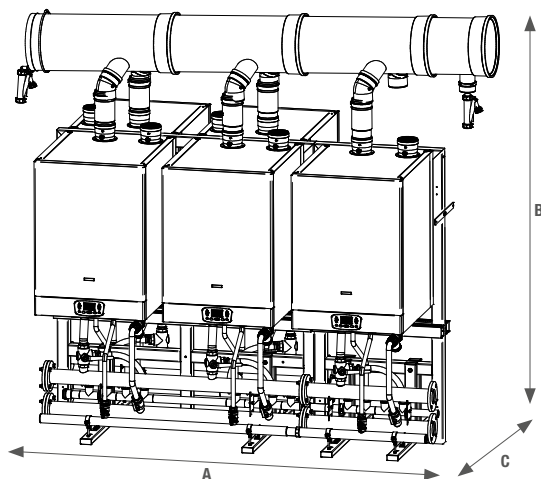
🔥	Configurations	A	B	C
95 kW	50 K + 50 K	1385	2214	1006
111 kW	50 K + 70 K			
126 kW	70 K + 70 K			
170 kW	90 K + 90 K			
193 kW	90 K + 115 K			1390
216 kW	115 K + 115 K			
235 kW	160 K + 90 K			
258 kW	160 K + 115 K			
300 kW	160 K + 160 K			




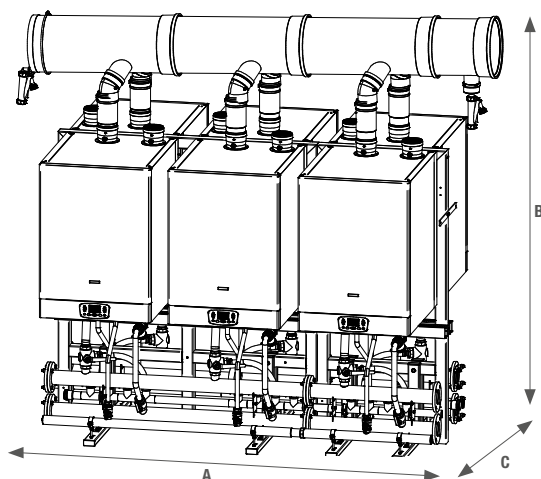
🔥	Configurations	A	B	C	
143 kW	50 K + 50 K + 50 K	2085	2245	1006	
158 kW	50 K + 50 K + 70 K				
174 kW	50 K + 70 K + 70 K				
189 kW	70 K + 70 K + 70 K				
255 kW	90 K + 90 K + 90 K			1280	
278 kW	90 K + 90 K + 115 K				
301 kW	90 K + 115 K + 115 K				
320 kW	160 K + 90 K + 90 K				
324 kW	115 K + 115 K + 115 K			1390	
343 kW	160 K + 115 K + 90 K				
366 kW	160 K + 115 K + 115 K				
385 kW	160 K + 160 K + 90 K				
408 kW	160 K + 160 K + 115 K				
450 kW	160 K + 160 K + 160 K				




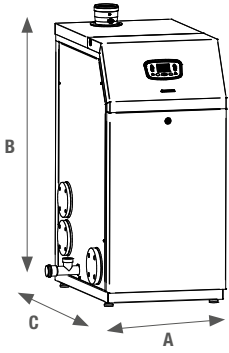
🔥	Configurations	A	B	C
190 kW	50 K + 50 K + 50 K + 50 K	2085	2245	1006
206 kW	50 K + 50 K + 50 K + 70 K			
221 kW	50 K + 50 K + 70 K + 70 K			
237 kW	50 K + 70 K + 70 K + 70 K			
252 kW	70 K + 70 K + 70 K + 70 K			1280
340 kW	90 K + 90 K + 90 K + 90 K			
363 kW	90 K + 90 K + 90 K + 115 K			
386 kW	90 K + 90 K + 115 K + 115 K			
405 kW	160 K + 90 K + 90 K + 90 K			1390
409 kW	160 K + 115 K + 90 K + 90 K			
428 kW	115 K + 115 K + 115 K + 90 K			
432 kW	115 K + 115 K + 115 K + 115 K			
470 kW	115 K + 115 K + 160 K + 160 K			1496
535 kW	115 K + 160 K + 160 K + 160 K			
600 kW	160 K + 160 K + 160 K + 160 K			




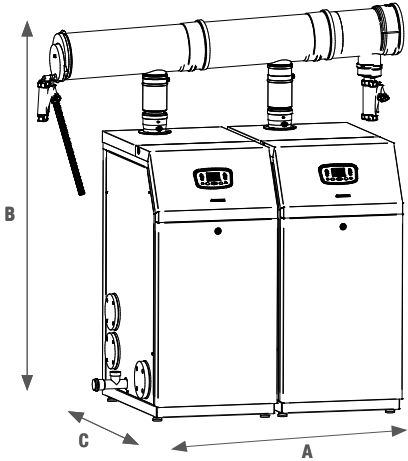
	Configurations	A	B	C
666 kW	160 K + 160 K + 160 K + 115 K + 115 K	2587	2333	1496
708 kW	160 K + 160 K + 160 K + 160 K + 115 K			
750 kW	60 K + 160 K + 160 K + 160 K + 160 K			




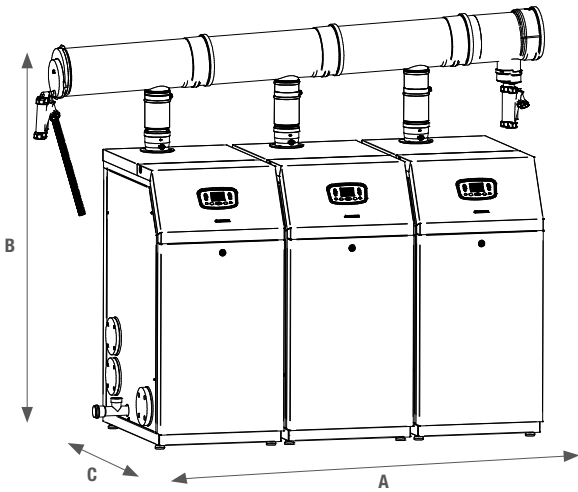
	Configurations	A	B	C
816 kW	160 K + 160 K + 160 K + 160 K + 115 K + 115 K	2587	2333	1496
858 kW	160 K + 160 K + 160 K + 160 K + 160 K + 115 K			
900 kW	160 K + 160 K + 160 K + 160 K + 160 K + 160 K			




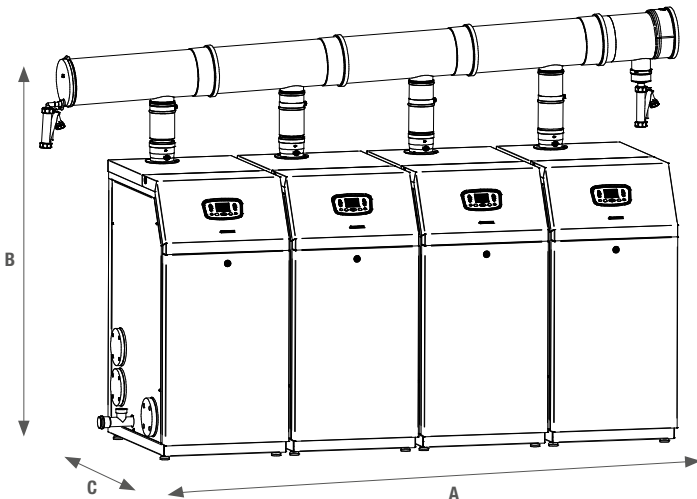
	Configurations	A	B	C
85 kW	90 K	555	1296	885
115 kW	115 K			
150 kW	160 K			




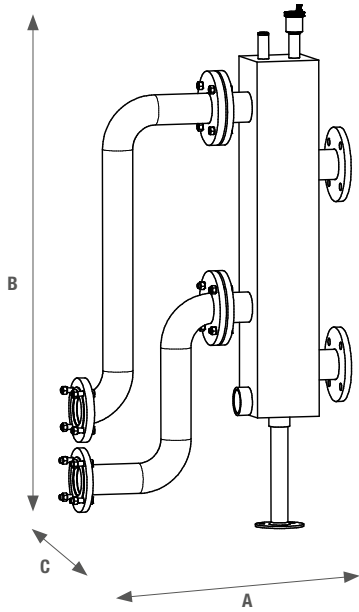
	Configurations	A	B	C
170 kW	90 K + 90 K	1673	1689	885
193 kW	90 K + 115 K			
216 kW	115 K + 115 K			
235 kW	160 K + 90 K			
258 kW	160 K + 115 K			
300 kW	160 K + 160 K			



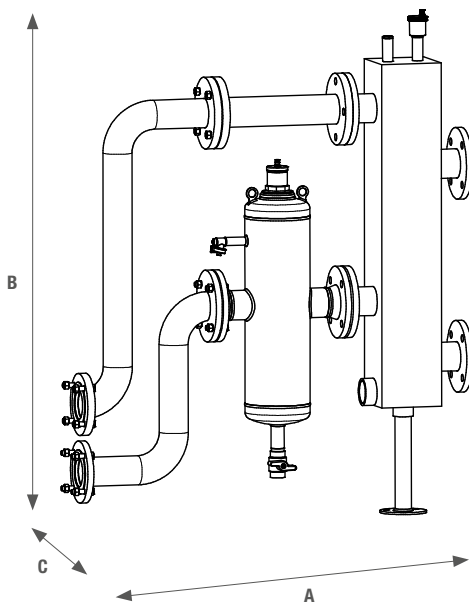
	Configurations	A	B	C
255 kW	90 K + 90 K + 90 K	2255	1714	885
278 kW	90 K + 90 K + 115 K			
301 kW	90 K + 115 K + 115 K			
320 kW	160 K + 90 K + 90 K			
324 kW	115 K + 115 K + 115 K			
343 kW	160 K + 115 K + 90 K			
366 kW	160 K + 115 K + 115 K			
385 kW	160 K + 160 K + 90 K			
408 kW	160 K + 160 K + 115 K			
450 kW	160 K + 160 K + 160 K			



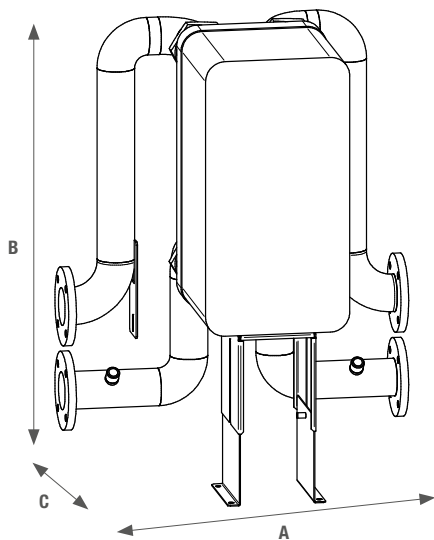
	Configurations	A	B	C
340 kW	90 K + 90 K + 90 K + 90 K	2835	1745	885
363 kW	90 K + 90 K + 90 K + 115 K			
386 kW	90 K + 90 K + 115 K + 115 K			
405 kW	160 K + 90 K + 90 K + 90 K			
409 kW	115 K + 115 K + 115 K + 90 K			
428 kW	160 K + 115 K + 90 K + 90 K			
432 kW	115 K + 115 K + 115 K + 115 K			
470 kW	115 K + 115 K + 160 K + 160 K			
535 kW	115 K + 160 K + 160 K + 160 K			
600 kW	160 K + 160 K + 160 K + 160 K			



	A	B	C
<b>Balancer kit &lt; 280 kW</b>	680	1300	185
Flanged connections <b>DN65</b> maximum flow rate 18 mc/h			
<b>Balancer kit &gt; 280 kW</b>	740	1470	250
Flanged connections <b>DN100</b> maximum flow rate 30 mc/h			

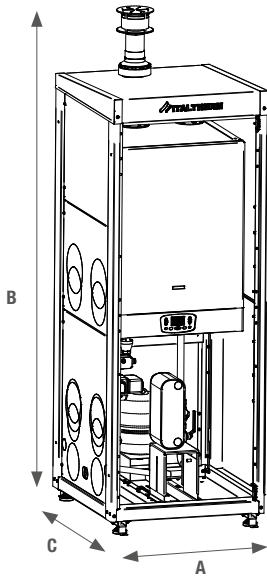


	A	B	C
<b>Balancing kit + dirt separator &lt; 280 kW</b>	1030	1300	185
Flanged connections <b>DN65</b> maximum flow rate 18 mc/h			
<b>Balancing kit + dirt separator &gt; 280 kW</b>	1210	1470	250
Flanged connections <b>DN100</b> maximum flow rate 30 mc/h			



	A	B	C
<b>Plate heat exchanger 180-412 kW</b>	786	927	560
<b>Plate heat exchanger da 501 kW</b>	786	927	610

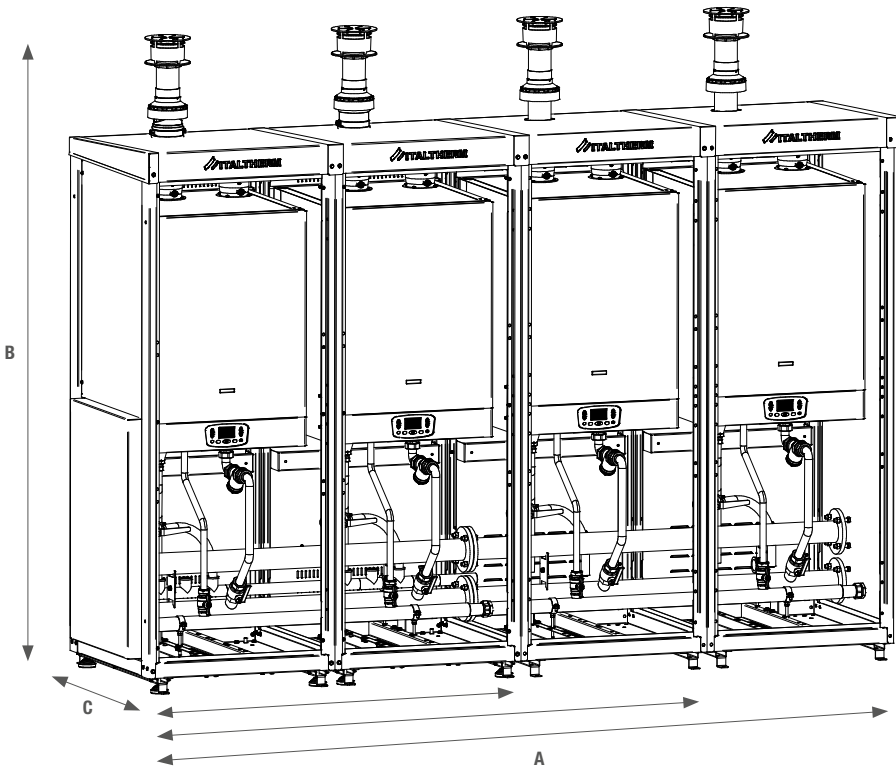
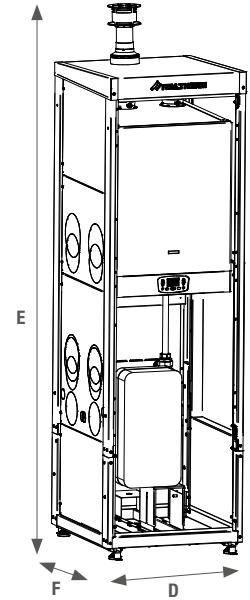
WITH EXCHANGER



Configurations	A	B	C
47,5 kW 50 K	702	2242	810
63 kW 70 K			
85 kW 90 K			
100 kW 100 K			
108 kW 115 K			

Configurations	D	E	F
150 kW 160 K	702	2695	810

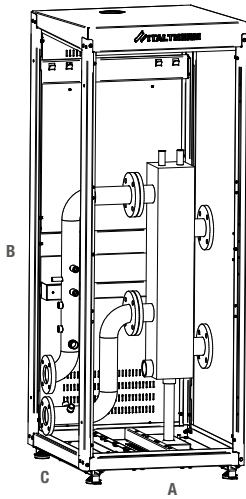
WITH EXCHANGER



	A	B	C
2 BOX	1402	2242	810
3 BOX	2102	2242	810
4 BOX	2802	2242	810



**WITH BALANCER**

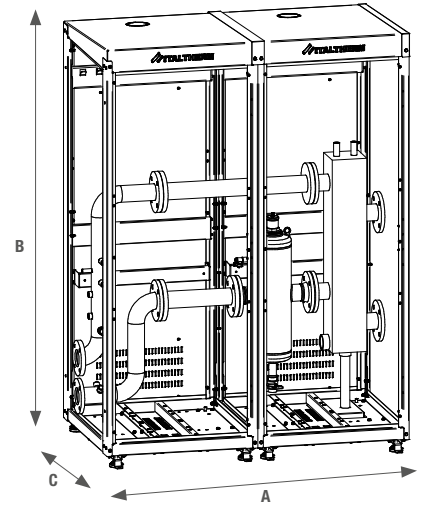


A	B	C
702	1925	810

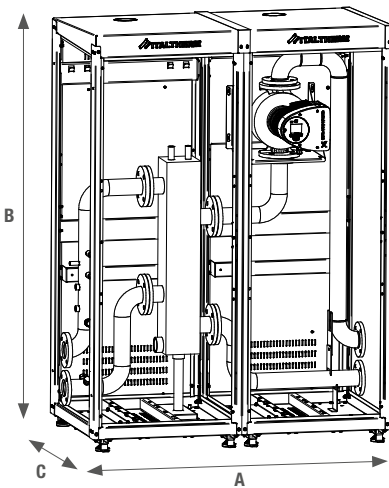
  

A	B	C
1402	1925	810

**WITH BALANCER + DIRT SEPARATOR**



**WITH BALANCER + CIRCULATOR**

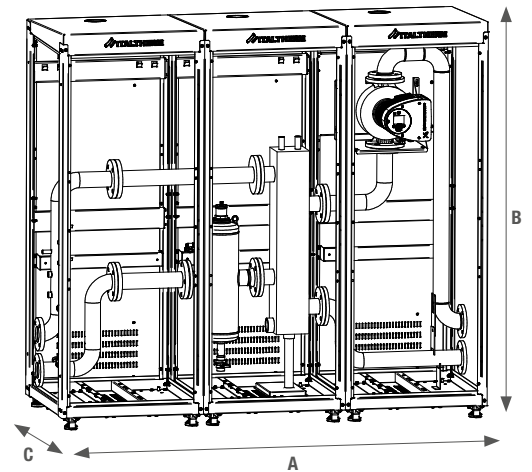


A	B	C
1402	1925	810

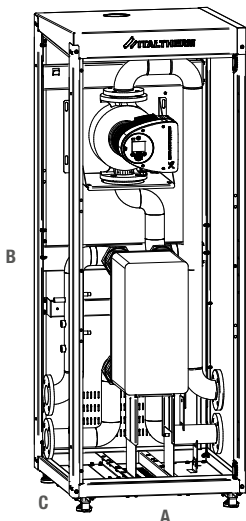
  

A	B	C
2102	1925	810

**WITH BALANCER + DIRT SEPARATOR + CIRCULATOR**

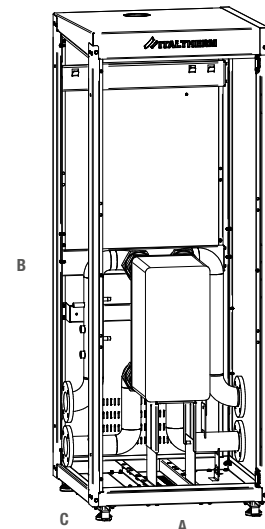


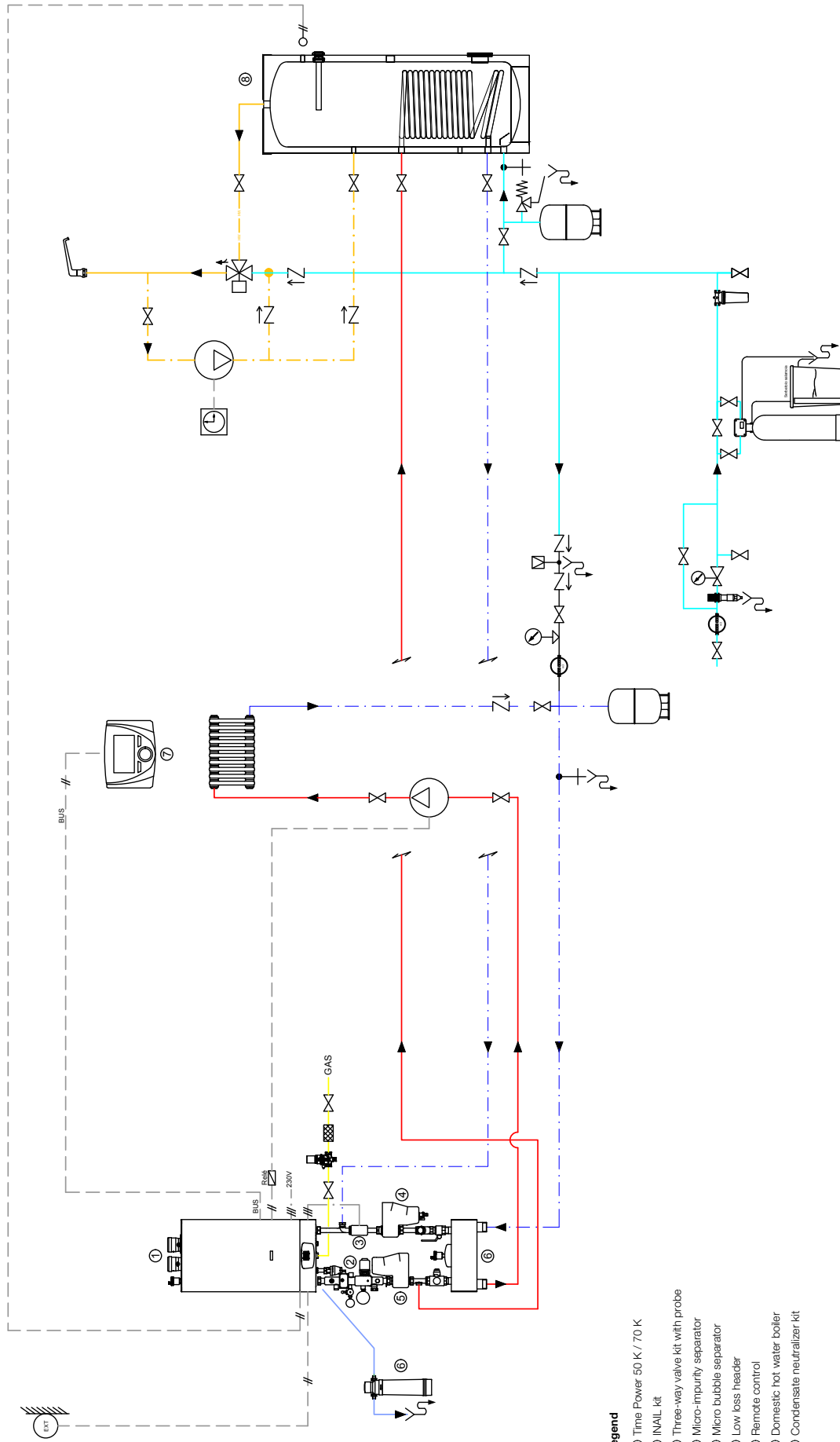
**WITH EXCHANGER**



A	B	C
702	1925	810

**WITH EXCHANGER + CIRCULATOR**

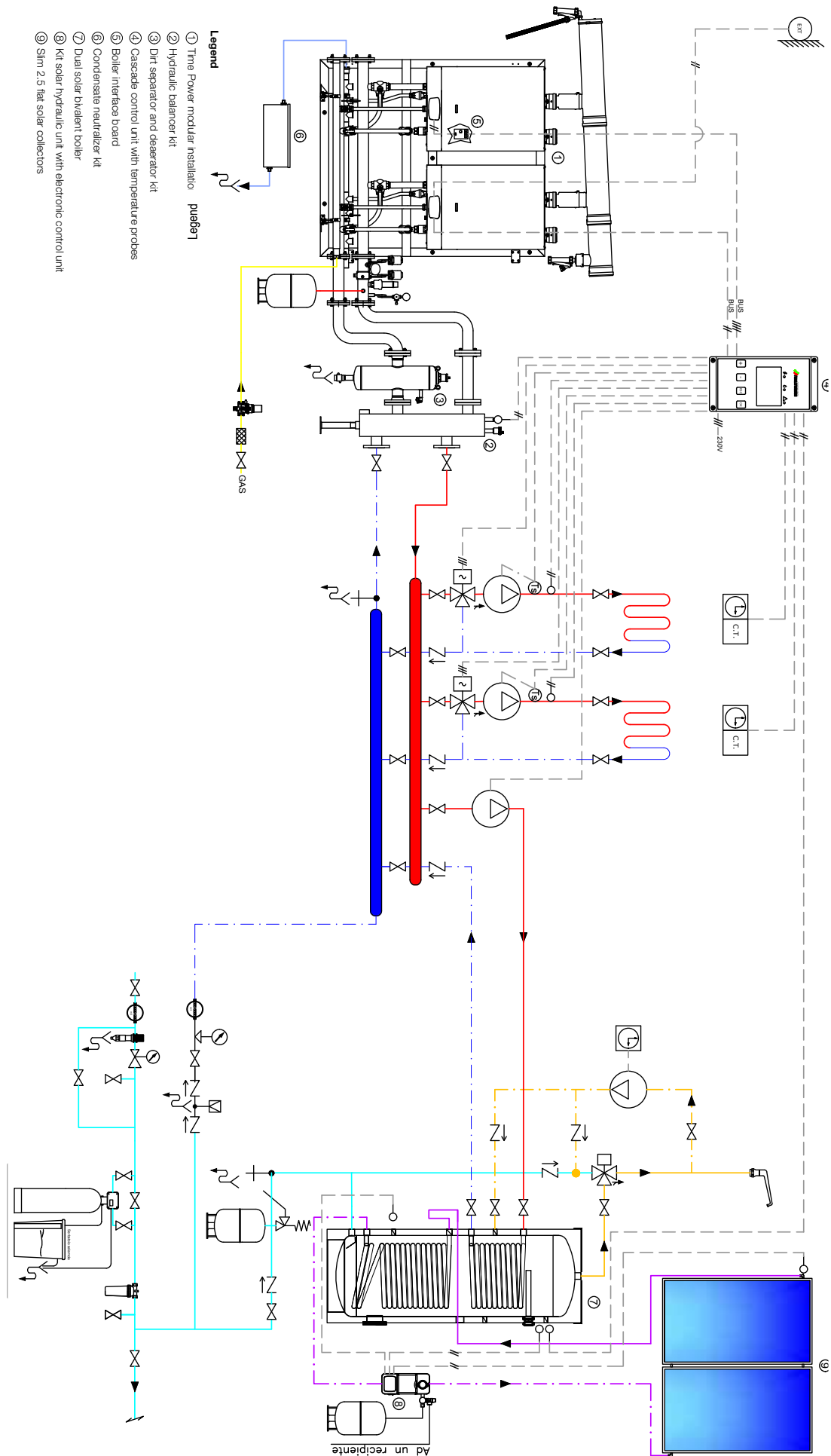




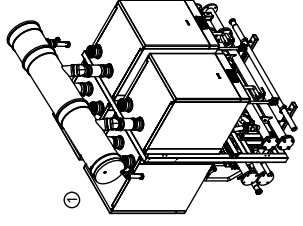
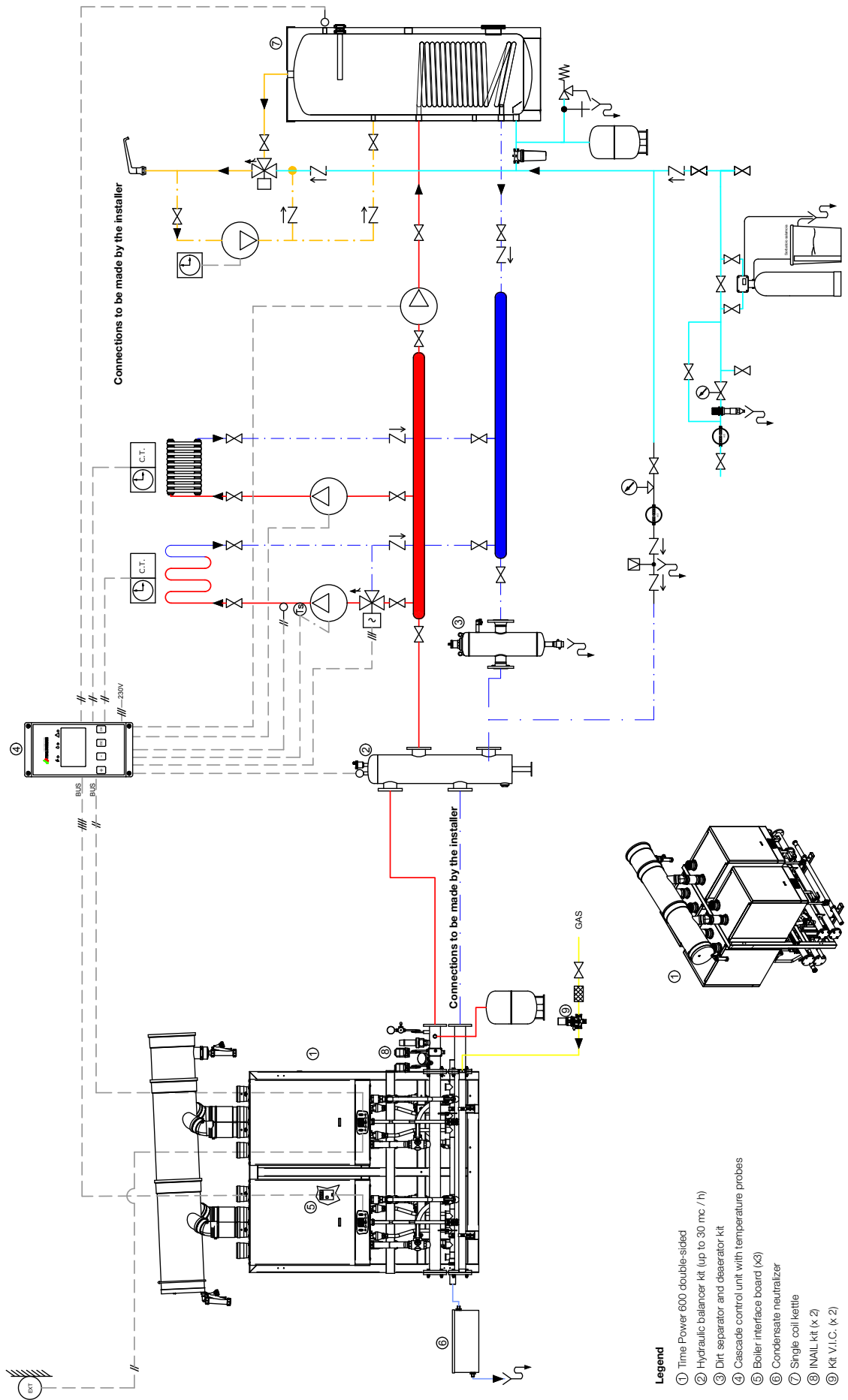
**Legend**

- ① Time Power 50 K / 70 K
- ② INALL kit
- ③ Three-way valve kit with probe
- ④ Micro-impurity separator
- ⑤ Micro bubble separator
- ⑥ Low bus header
- ⑦ Remote control
- ⑧ Domestic hot water boiler
- ⑨ Condensate neutralizer kit

*Non-executive principle scheme and not substituting a technical design.*

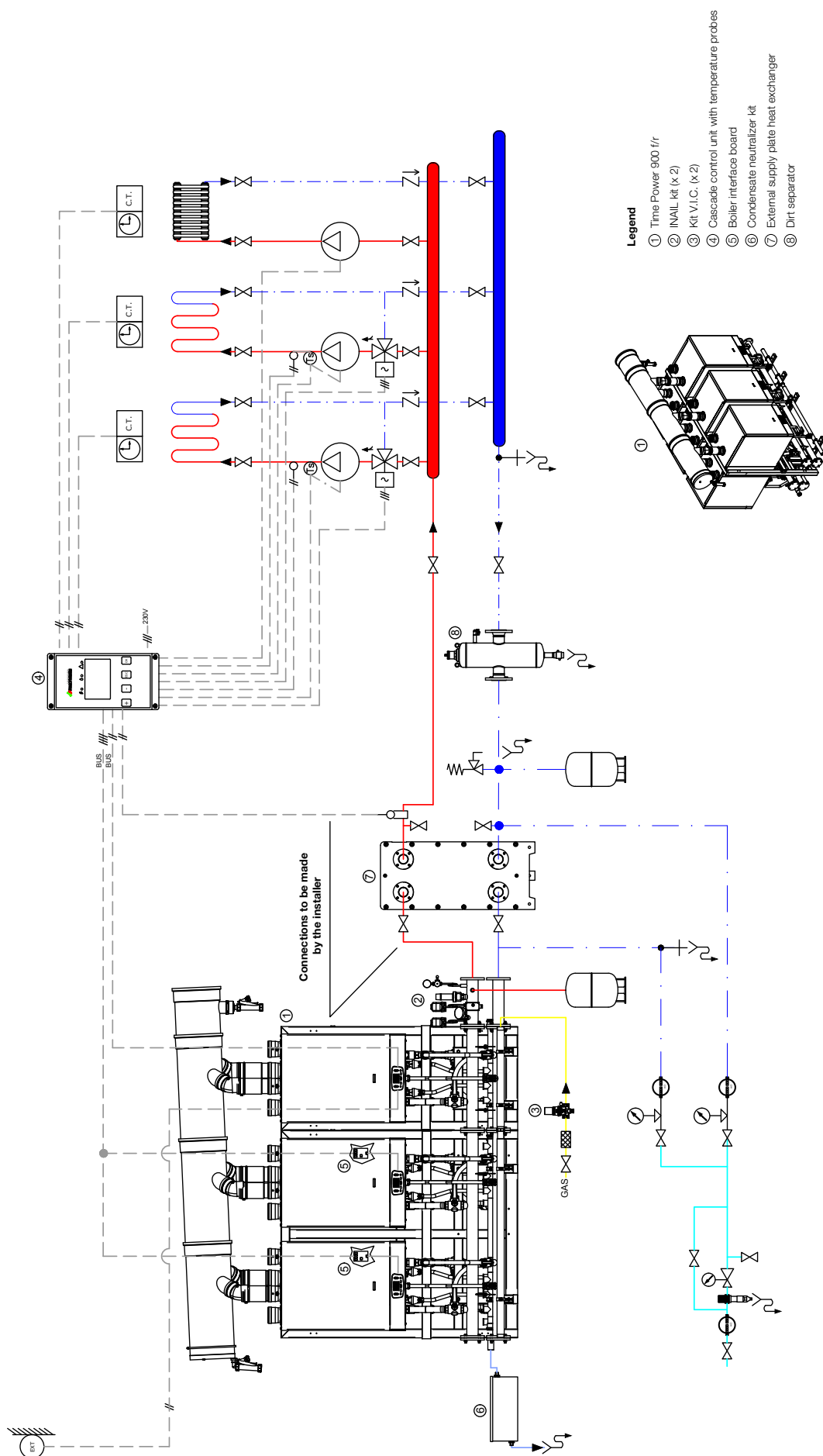


*Non-executive principle scheme and not substituting a technical design.*



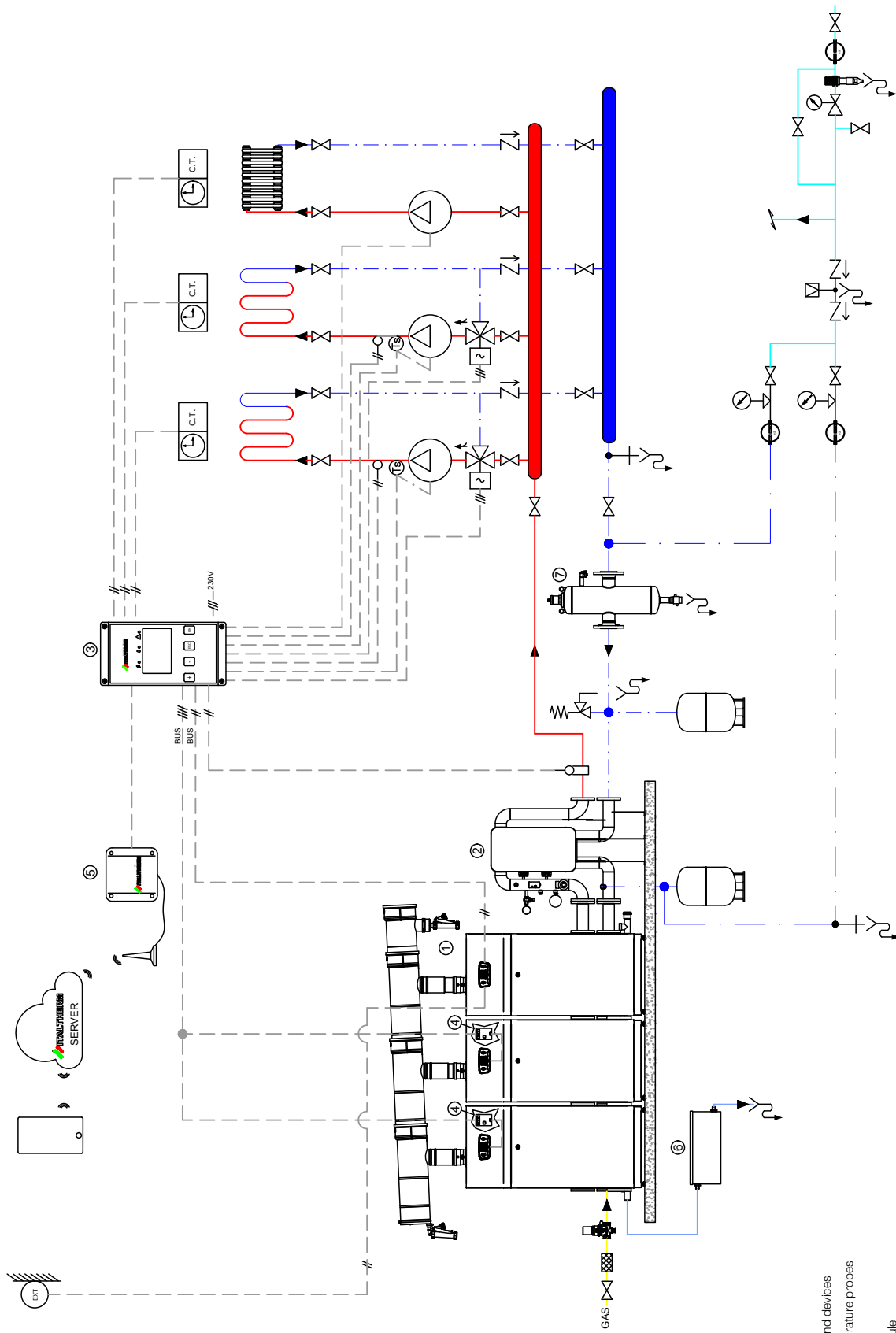
- Legend**
- ① Time Power 600 double-sided
  - ② Hydraulic balancer kit (up to 30 mc /h)
  - ③ Dirt separator and deaerator kit
  - ④ Cascade control unit with temperature probes
  - ⑤ Boiler interface board (x3)
  - ⑥ Condensate neutralizer
  - ⑦ Single coil kettle
  - ⑧ INAIL kit (x 2)
  - ⑨ Kit V.I.C. (x 2)

*Non-executive principle scheme and not substituting a technical design.*



*Non-executive principle scheme and not substituting a technical design.*

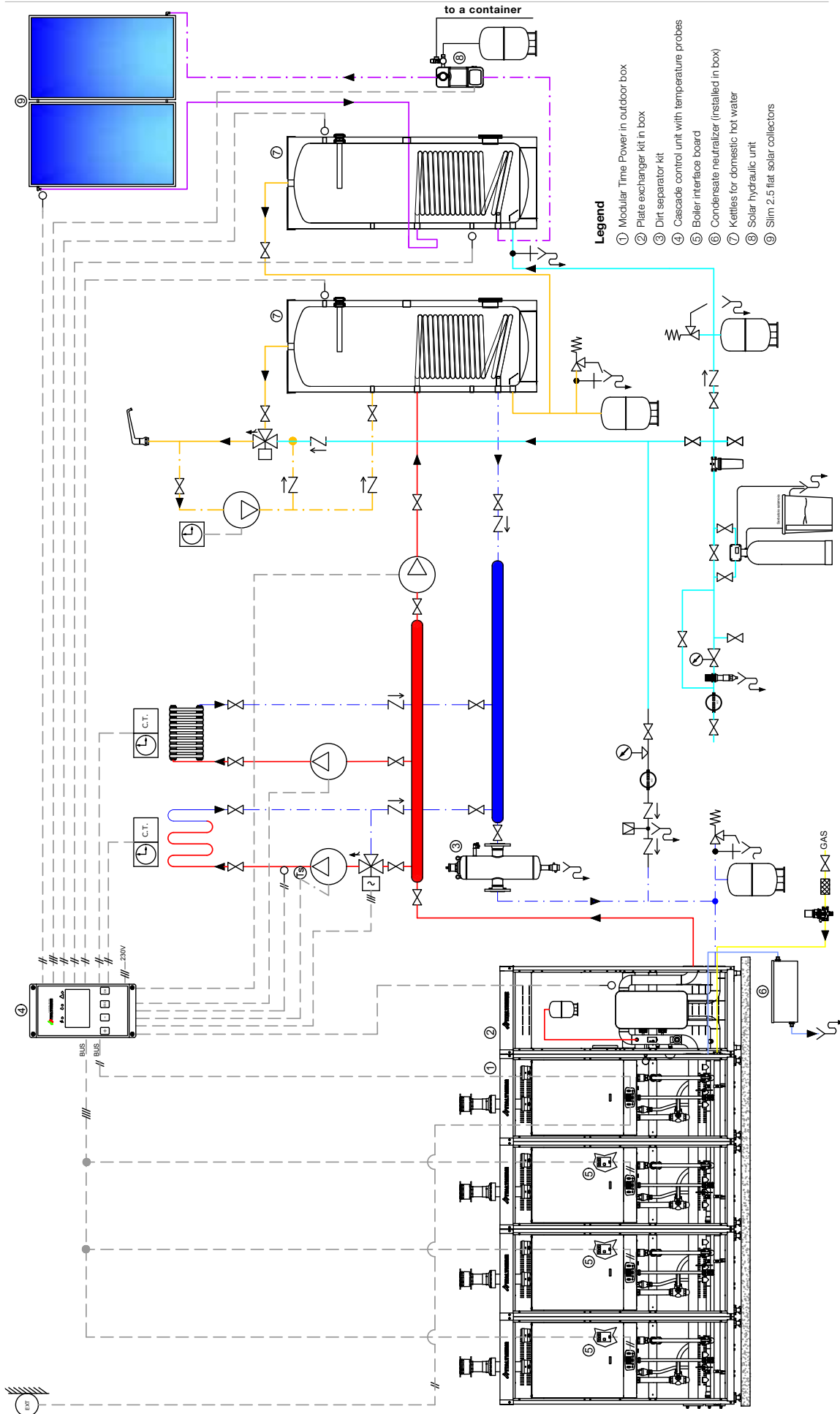




### Legend

- ① Time floor modular installation
- ② Exchanger kit with INAIL pipes and devices
- ③ Cascade control unit with temperature probes
- ④ Boiler interface boards
- ⑤ GSM remote management module
- ⑥ Condensate neutralizer-kit
- ⑦ Dirt separator kit

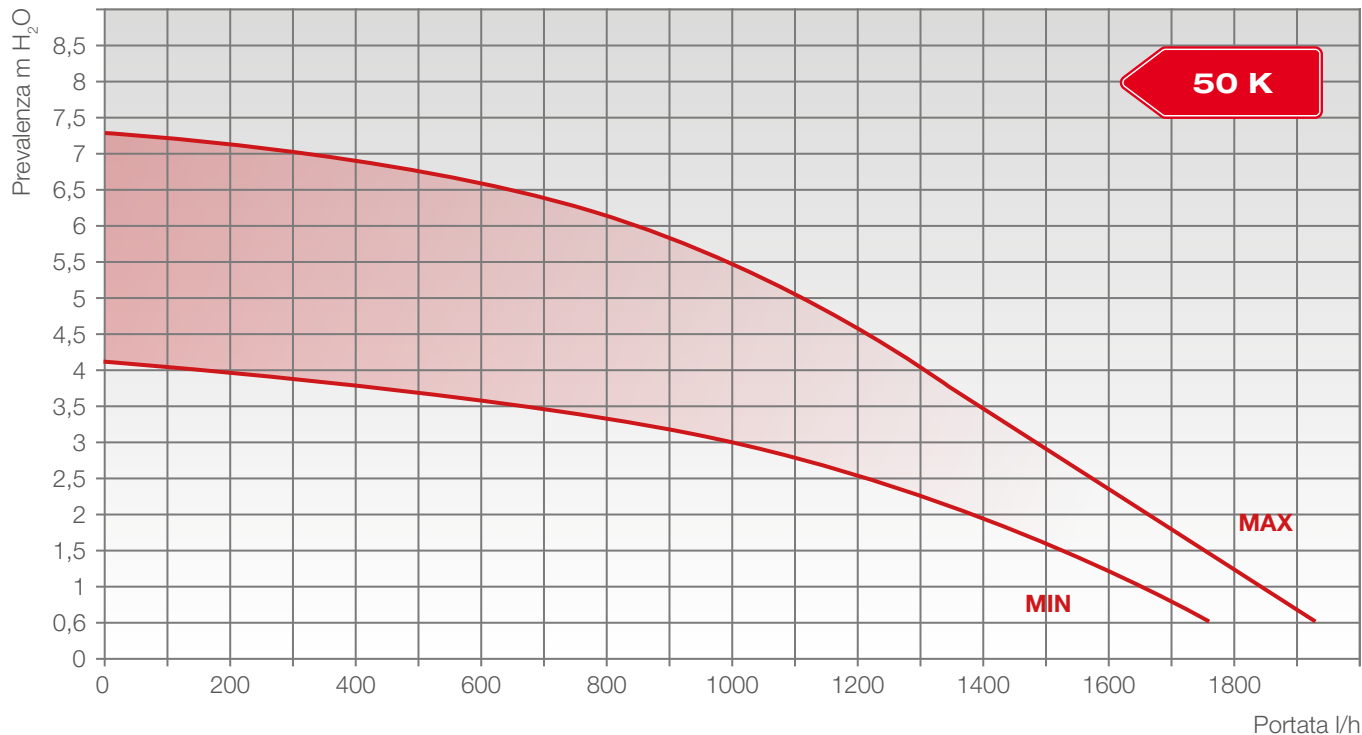
Non-executive principle scheme and not substituting a technical design.



*Non-executive principle scheme and not substituting a technical design.*

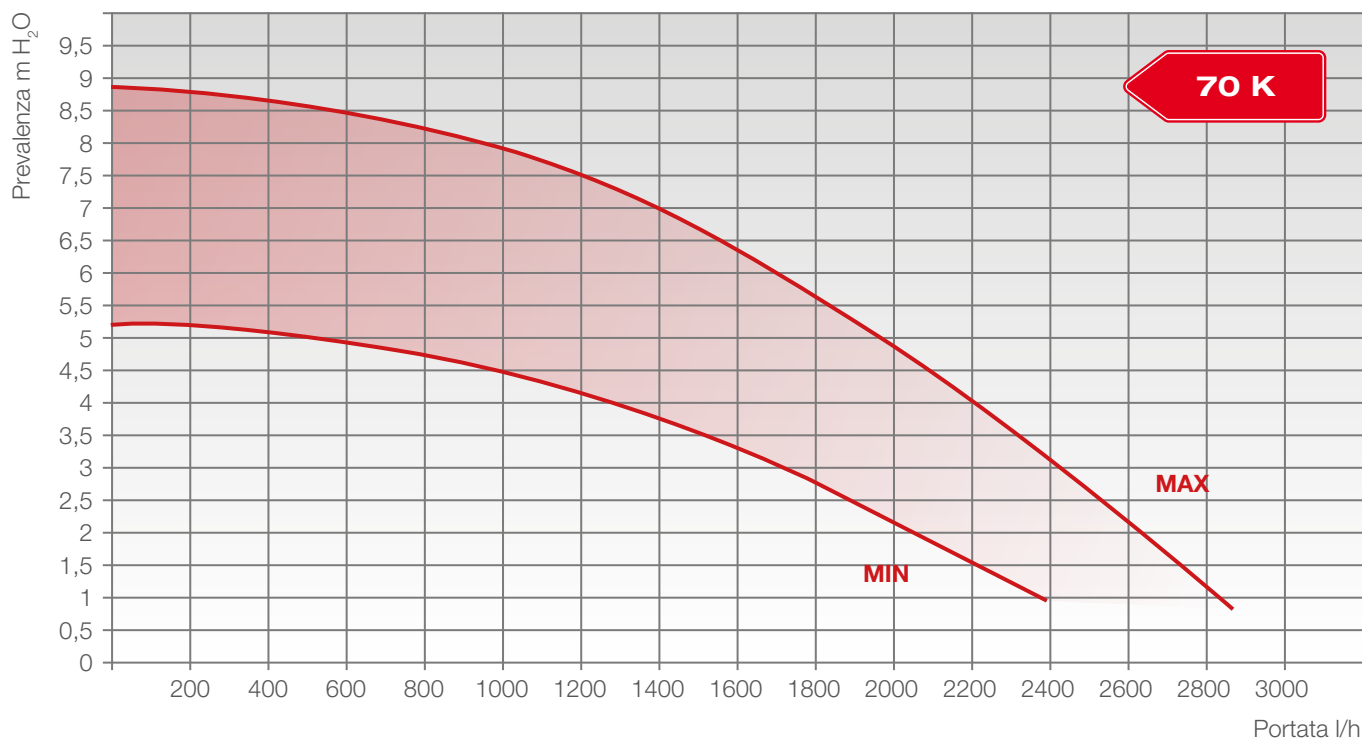
ERP ready electronic variable speed circulator  
(curves referring to max. and min. speeds)

50 K



ERP ready electronic variable speed circulator  
(curves referring to max. and min. speeds)

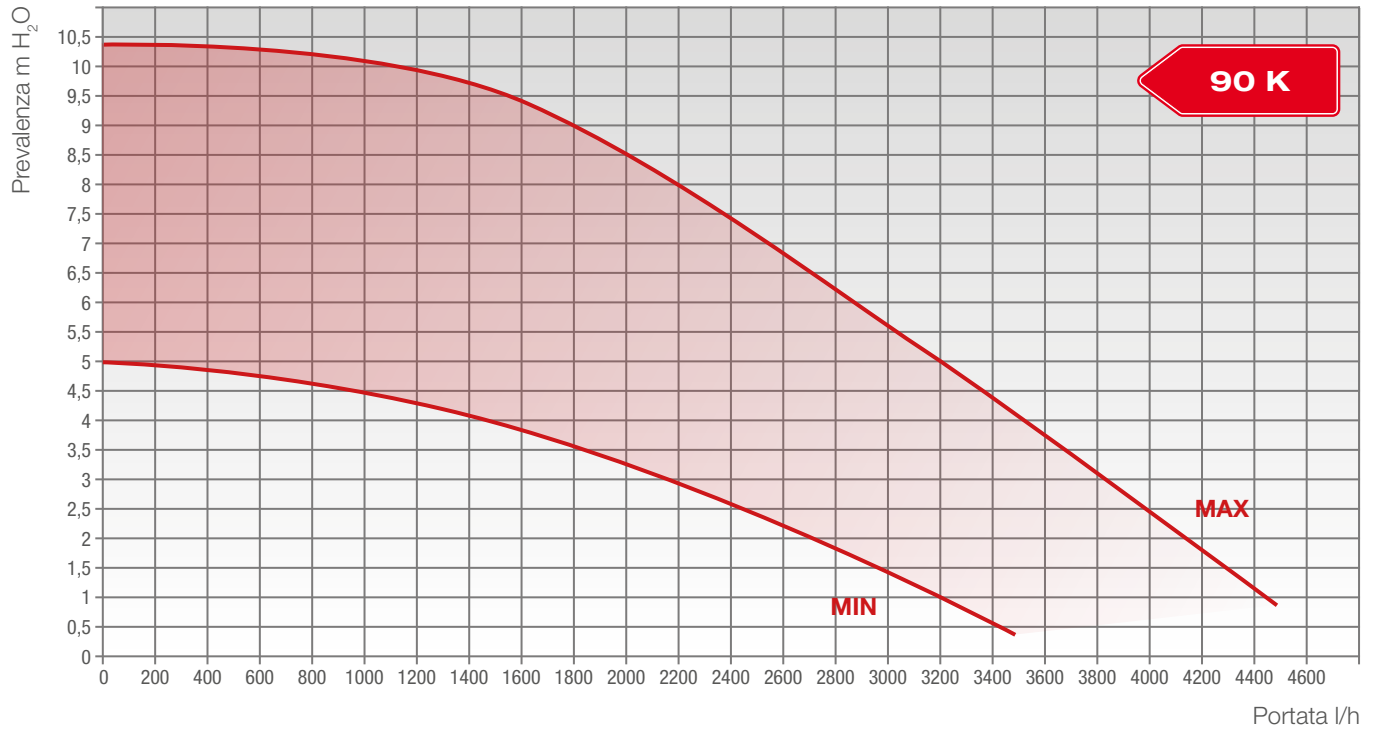
70 K



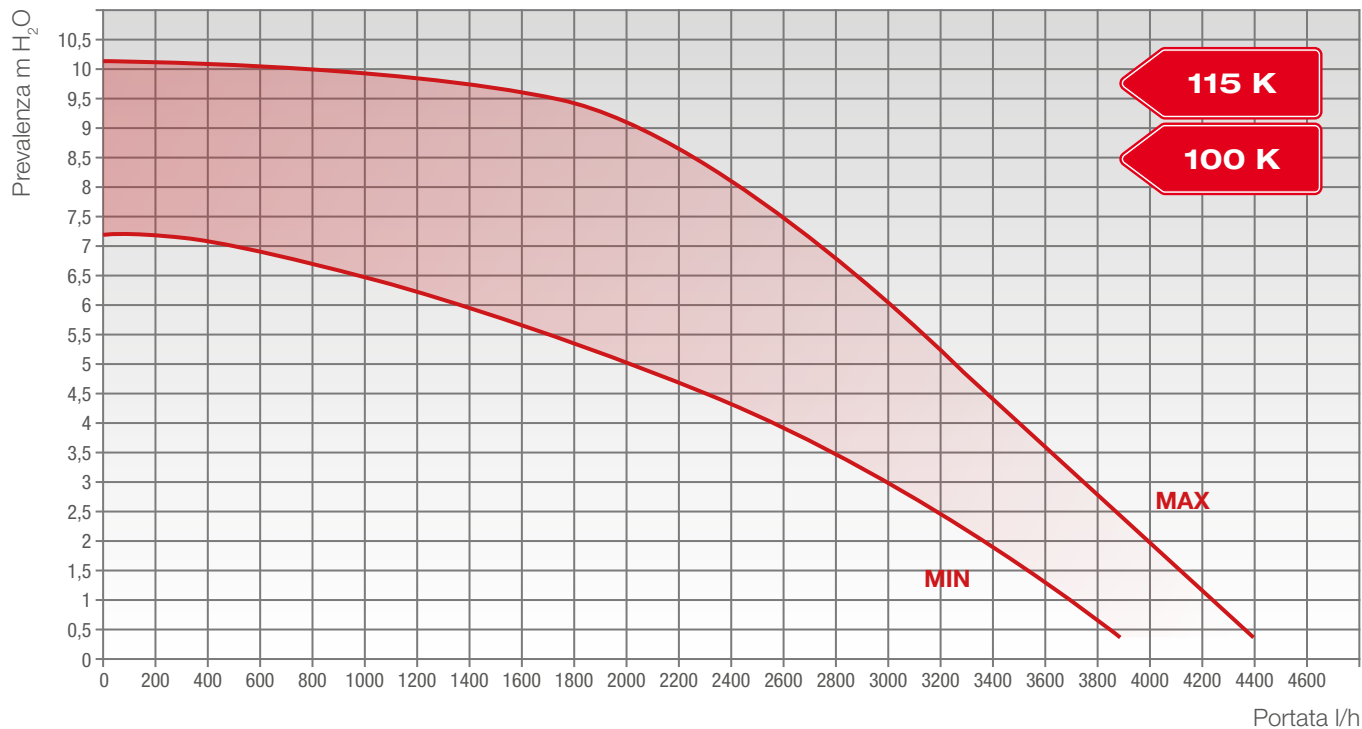


ERP ready electronic variable speed circulator  
(curves referring to max. and min. speeds)

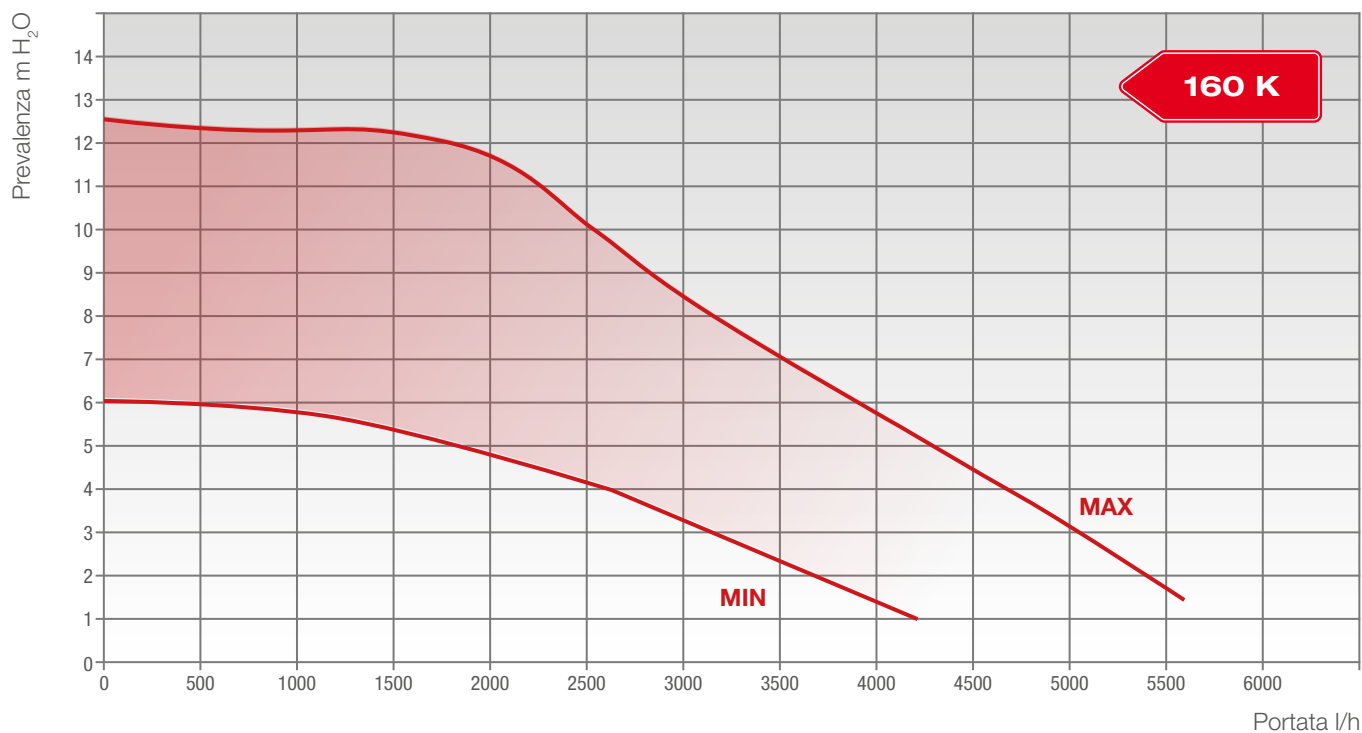
90 K



ERP ready electronic variable speed circulator  
 (curves referring to max. and min. speeds)  
**100 K • 115 K**



ERP ready electronic variable speed circulator  
 (curves referring to max. and min. speeds)  
**160 K**



TECHNICAL SPECIFICATIONS	U. M.	Time Power 50 K		Time Power 70 K		Time Power 90 K		Time Power 100 K		Time Power 115SP		Time Power 160 K	
		G20	G31	G20	G31	G20	G31	G20	G31	G20	G31	G20	G31
EC Certificate		0476 CQ 1281		0476 CQ 1281		0476 CQ 1281		0476 CQ 1281		0476 CQ 1281		0476 CQ 1281	
Category		II2H3P		II2H3P		II2H3P		II2H3P		II2H3P		II2H3P	
Type													
Operation temperature (min÷max)	°C	0 ÷ +60		0 ÷ +60		0 ÷ +60		0 ÷ +60		0 ÷ +60		0 ÷ +60	
Maximum Thermal Input Qn	kW	47.5	47.5	63.0	63.0	85.0	85.0	95.0	95.0	108.0	108.0	150.0	150.0
Minimum Thermal Input Qr	kW	5.0	6.0	7.0	8.0	9.5	10.0	11.0	11.0	11.0	12.0	25.0	25.0
Maximum Thermal Output 60°/80°C *	kW	46.0	46.0	61.1	61.1	82.4	82.4	92.2	92.2	104.9	104.9	144.6	144.6
Minimum Thermal Output 60°/80°C *	kW	4.7	5.6	6.6	6.6	9.0	9.5	10.5	11.4	23.8	23.8	23.8	23.8
Maximum Thermal Output 30°/50°C *	kW	49.2	49.2	65.6	65.6	89.3	89.3	99.80	99.80	113.5	113.5	157.50	157.50
Minimum Thermal Output 30°/50°C *	kW	5.2	6.2	7.3	7.3	9.8	10.3	11.4	11.4	11.4	12.4	27.0	27.0
NO <sub>x</sub> Class		6	6	6	6	6	6	6	6	6	6	6	6
Correct CO 0% O <sub>2</sub> (at Qn)	ppm	157.3	146.3	146.0	172.9	152.6	133.0	194.1	194.1	176.1	166.3	176.1	141.0
CO <sub>2</sub> (at Qn)	%	9.3	10.3	9.2	10.3	9.2	10.30	9.1	9.1	9.3	10.30	9.3	10.2
Condensate quantity at Qn (at 30°/50°C *)	l/h	4.4	4.4	6.5	6.5	9.3	9.3	12.4	12.4	12.4	12.4	18.40	18.40
Condensate quantity at Qr (at 30°/50°C *)	l/h	0.6	0.6	0.7	0.7	1.1	1.1	1.3	1.3	1.3	1.3	2.90	2.90
Condensate pH value	pH	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
Fume temperature (at Qn)	°C	83.0	83.0	82.0	82.0	71.9	71.9	76.0	76.0	75.0	75.0	79.7	62.3
Fume mass flow (at 60/80°C at Qn)	kg/h	75.95	77.87	101.78	103.28	137.32	137.57	154.59	154.59	170.48	174.79	240.63	249.01
<b>MEASURED EFFICIENCY</b>													
Nominal efficiency (NCV) at 60°/80°C *	%	96.1		97.1		97.3		97.1		97.2		97.8	
Nominal efficiency (NCV) at 30°/50°C *	%	103.5		104.1		105.0		105.1		105.1		105.0	
Efficiency at 30% load Qa (NCV) at 30°/50°C *	%	106.7		107.2		109.1		109.1		109.1		109.3	
* return temperature / delivery temperature; NCV = Net Calorific Value (=HI)													
<b>HEATING DATA</b>													
Temperature selection range (min÷max) in main area, with range at normal / low temperature	°C	35÷78 / 20÷45											
Temperature selection range (min÷max) secondary area	°C	20÷78											
Characteristics of water (or of thermal fluid) of heating system (* = if there are aluminium parts along the heating system)	°f pH	5 ÷ 15 °f pH 7.5 ÷ 9.5 (7.5 ÷ 8.5 *)											
Expansion tank	l	none (to foresee on the system, by the installer)											
Maximum working pressure	bar	3		3		4.5		4.5		4.5		4.5	
Boiler water content	l	3.5		4.0		9.0		11.5		11.5		14.0	
Max temperature	°C	95		95		95		95		95		95	
Boiler anti-freeze function temperature on / off	°C	5 / 30		5 / 30		5 / 30		5 / 30		5 / 30		5 / 30	
<b>DOMESTIC WATER DATA</b>													
Temperature selection range (min÷max)	°C	30÷60		30÷60		30÷60		30÷60		30÷60		30÷60	
<b>ELECTRIC CHARACTERISTICS</b>													
Voltage/Frequency (rated voltage)	V / Hz	220÷240 / 50 (230V)		220÷240 / 50 (230V)		220÷240 / 50 (230V)		220÷240 / 50 (230V)		220÷240 / 50 (230V)		220÷240 / 50 (230V)	
Power (max)	W	145		190		255		315		315		480	
Protection rating		IP X5D		IP X5D		IP X5D		IP X5D		IP X5D		IP X5D	
<b>DIMENSIONAL CHARACTERISTICS</b>													
Weight net / gross	kg	39.4 / 43.5		45.8 / 49.9		86.7 / 92.4		91.5 / 97.2		91.5 / 97.2		108.3 / 114.4	
<b>CONNECTIONS</b>													
Min÷max fan residual head	Pa	25 ÷ 180		50 ÷ 280		10 ÷ 150		15 ÷ 165		15 ÷ 165		25 ÷ 190	
<b>GAS POWER SUPPLY PRESSURES</b>													
Rated pressure	mbar	20	37	20	37	20	37	20	37	20	37	20	37
Pressure at input (min÷max)	mbar	17÷25	35÷40	17÷25	35÷40	17÷25	35÷40	17÷25	35÷40	17÷25	35÷40	17÷25	35÷40
Number of nozzles (Mixer group)		2	2	2	2	2	2	2	2	2	2	—	—
Diameter of nozzles (Mixer group) *=open/close	mm/100	460	345	740 / 570 *	470	640 / 560 *	480 / 440 *	640	520	640	520	—	—
<b>GAS CONSUMPTION</b>													
at Qn	m³/h	5.02		6.66		8.99		10.40		11.42		15.86	
	kg/h	3.68		4.88		6.59		7.62		8.37		11.63	
at Qr	m³/h	0.53		0.74		1.00		1.16		1.16		2.64	
	kg/h	0.47		0.62		0.78		0.91		0.93		1.94	

# ErP data

**Note:** models with power greater than 70 K are exempt from the obligation of the product energy label, pursuant to the ErP regulation in force.

## Product sheet - EU 811/2013

Product fiche - EU 811/2013	Symbol	Unit	Models:		Time Power	Time Power	Time Power	Time Power	Time Power	Time Power
			50 K	70 K	90 K	100 K	115 K	160 K		
			Value	Value	Value	Value	Value	Value	Value	Value
Declared load profile DHW			XXL	XXL	—	—	—	—	—	—
Seasonal energy efficiency for space heating			<b>A</b>	<b>A</b>	—	—	—	—	—	—
Energy efficiency for water heating			<b>B</b>	<b>B</b>	—	—	—	—	—	—
Rated heat output	$P_{\text{nominale}}$	kW	46	61	82	—	105	145		
Annual energy consumption	$Q_{\text{HE}}$	GJ	80	106	142	—	179	258		
Annual electricity consumption	AEC	kWh	—	—	—	—	—	—		
Annual fuel consumption	AFC	GJ	—	—	—	—	—	—		
Seasonal space heating energy efficiency (GCV)	$\eta_s$	%	91	92	—	—	—	—		
Water heating energy efficiency (GCV)	$\eta_{\text{wh}}$	%	75	75	—	—	—	—		
Sound power level, indoors	$L_{\text{WA}}$	dB	60	60	60	—	60	60		

GCV = Gross Calorific Value (=Hs)

## ErP data - EU 813/2013

ErP Data - EU 813/2013	Symbol	Unit	Models:		Time Power	Time Power	Time Power	Time Power	Time Power	Time Power
			50 K	70 K	90 K	100 K	115 K	160 K		
			Value	Value	Value	Value	Value	Value	Value	Value
Condensing boiler			YES / NO	YES	YES	YES	YES	YES	YES	YES
Combination heater			YES / NO	NO	NO	NO	NO	NO	NO	NO
B1 boiler			YES / NO	NO	NO	NO	NO	NO	NO	NO
Cogeneration space heater			YES / NO	NO	NO	NO	NO	NO	NO	NO
Low-temperature (**) boiler			YES / NO	NO	NO	NO	NO	NO	NO	NO
ErP space heating	Rated heat output	$P_{\text{nominale}}$	kW	46	61	82	—	105	145	
	Useful heat output at rated heat output and high-temperature regime (*)	$P_4$	kW	46.0	61.0	82.4	—	104.9	144.6	
	Useful heat output at 30% at rated heat output and low-temperature regime (**)	$P_1$	kW	15.2	20.3	27.8	—	35.3	49.2	
	Seasonal space heating energy efficiency (GCV)	$\eta_s$	%	91	92	—	—	—	—	
	Useful efficiency at rated heat output and high-temperature regime (*) (GCV)	$\eta_4$	%	86.5	87.4	87.6	—	87.5	88.0	
	Useful efficiency at 30% of rated heat output and low-temperature regime (**)	$\eta_1$	%	96.1	96.5	98.2	—	98.2	98.4	
ErP DHW	Declared load profile			XXL	XXL	—	—	—	—	
	Water heating energy efficiency (GCV)	$\eta_{\text{wh}}$	%	75	75	—	—	—	—	
	Daily electricity consumption	$Q_{\text{elec}}$	kWh	—	—	—	—	—	—	
	Daily fuel consumption	$Q_{\text{fuel}}$	kWh	—	—	—	—	—	—	
Auxiliary electricity consumption	At full load	elmax	kW	0.079	0.079	0.112	—	0.168	0.295	
	At part load	elmin	kW	0.022	0.022	0.022	—	0.032	0.032	
	In standby mode	$P_{\text{SB}}$	kW	0.004	0.005	0.005	—	0.005	0.005	
Other items	Standby heat loss	$P_{\text{stby}}$	kW	0.078	0.080	0.100	—	0.104	0.117	
	Ignition burner power consumption	$P_{\text{ign}}$	kW	0	0	0	0	0	0	
	Sound power level, indoors	$L_{\text{WA}}$	dB	60	60	60	—	60	60	
	Emissions of nitrogen oxides	$\text{NO}_x$	mg/kWh	22.5	28.8	44.1	—	29.7	45.0	

(\*) High-temperature regime means: 60 °C return temperature at heater inlet and 80 °C feed temperature at heater outlet.

(\*\*) Low temperature means: for condensing boilers 30 °C, for low-temperature boilers 37 °C and for other heaters 50 °C return temperature (at heater inlet).

GCV = Gross Calorific Value (=Hs)

TECHNICAL SPECIFICATIONS Reference gas	U. M.	Time Power Floor 90 K		Time Power Floor 115 K		Time Power Floor 160 K	
		G20	G31	G20	G31	G20	G31
EC Certificate		0476 CQ 1281		0476 CQ 1281		0476 CQ 1281	
Category		I2H3P		I2H3P		I2H3P	
Type		B23P - C13 - C33 - C43 - C53 - C63 - C83 - C93					
Operation temperature (min÷max)	°C	0 ÷ +60		0 ÷ +60		0 ÷ +60	
Maximum Thermal Input Qn	kW	85.0	85.0	108.0	108.0	150.0	150.0
Minimum Thermal Input Qr	kW	9.5	10.0	11.0	12.0	25.0	25.0
Maximum Thermal Output 60°/80°C *	kW	82.4	82.4	104.9	104.9	144.6	144.6
Minimum Thermal Output 60°/80°C *	kW	9.0	9.5	10.5	11.4	23.8	23.8
Maximum Thermal Output 30°/50°C *	kW	89.3	89.3	113.5	113.5	157.50	157.50
Minimum Thermal Output 30°/50°C *	kW	9.8	10.3	11.4	12.4	27.0	27.0
NO <sub>x</sub> Class		6	6	6	6	6	6
Correct CO 0% O <sub>2</sub> (at Qn)	ppm	152.6	133.0	176.1	166.3	176.1	141.0
CO <sub>2</sub> (at Qn)	%	9.2	10.30	9.3	10.30	9.3	10.2
Condensate quantity at Qn (at 30°/50°C *)	l/h	9.3	9.3	12.4	12.4	18.40	18.40
Condensate quantity at Qr (at 30°/50°C *)	l/h	1.1	1.1	1.3	1.3	2.90	2.90
Condensate pH value	pH	2.8	2.8	2.8	2.8	2.8	2.8
Fume temperature (at Qn)	°C	71.9	71.9	75.0	75.0	79.7	79.7
Fume mass flow (at 60/80°C at Qn)	kg/h	137.32	137.57	170.48	174.79	240.63	249.01
<b>MEASURED EFFICIENCY</b>							
Nominal efficiency (NCV) at 60°/80°C *	%	97.3		97.2		97.8	
Nominal efficiency (NCV) at 30°/50°C *	%	105.0		105.1		105.0	
Efficiency at 30% load Qa (NCV) at 30°/50°C *	%	109.1		109.1		109.3	
* return temperature / delivery temperature; NCV = Net Calorific Value (=Hi)							
<b>HEATING DATA</b>							
Temperature selection range (min÷max) <i>in main area, with range at normal / low temperature</i>	°C	35÷78 / 25÷45					
Temperature selection range (min÷max) <i>secondary area</i>	°C	25÷78					
Characteristics of water (or of thermal fluid) of heating system <i>(* = if there are aluminium parts along the heating system)</i>	°f pH	5 ÷ 15 °f pH 7.5 ÷ 9.5 (7.5 ÷ 8.5 *)					
Expansion tank	l	nessuno (da prevedere sull'impianto, a cura dell'installatore)					
Maximum working pressure	bar	6		6		6	
Boiler water content	l	13.5		16.0		18.5	
Max temperature	°C	95		95		95	
Boiler anti-freeze function temperature on / off	°C	5 / 30		5 / 30		5 / 30	
<b>DOMESTIC WATER DATA</b>							
Temperature selection range (min÷max)	°C	30÷60		30÷60		30÷60	
<b>ELECTRIC CHARACTERISTICS</b>							
Voltage/Frequency (rated voltage)	V / Hz	220÷240 / 50 (230V)		220÷240 / 50 (230V)		220÷240 / 50 (230V)	
Power (max)	W	260		315		480	
Protection rating		IP X5D		IP X5D		IP X5D	
<b>DIMENSIONAL CHARACTERISTICS</b>							
Weight net / gross	kg	132.7 / 156.3		140.2 / 163.8		155.0 / 178.6	
<b>CONNECTIONS</b>							
Min÷max fan residual head	Pa	10 ÷ 150		15 ÷ 165		25 ÷ 190	
<b>GAS POWER SUPPLY PRESSURES</b>							
Rated pressure	mbar	20	37	20	37	20	37
Pressure at input (min÷max)	mbar	17÷25	35÷40	17÷25	35÷40	17÷25	35÷40
Number of nozzles (Mixer group)		2	2	2	2	n.d.	n.d.
Diameter of nozzles (Mixer group) <i>*=open/close</i>	mm/100	640 / 560 *	480 / 440 *	640	520	n.d.	n.d.
<b>GAS CONSUMPTION</b>							
at Qn	m <sup>3</sup> /h	8.99		11.42		15.86	
	kg/h	6.59		8.37		11.63	
at Qr	m <sup>3</sup> /h	1.00		1.16		2.64	
	kg/h	0.78		0.93		1.94	



# ErP data

**Note:** the models with power higher than 70 K are exempt from the obligation of the product energy label, pursuant to ErP regulation in force.

## Product sheet - EU 811/2013

Product fiche - EU 811/2013	Models:		Time Power Floor 90 K	Time Power Floor 115 K	Time Power Floor 160 K
	Symbol	Unit	Value	Value	Value
Declared load profile DHW			—	—	—
Seasonal energy efficiency for space heating			—	—	—
Energy efficiency for water heating			—	—	—
Rated heat output	$P_{\text{nominale}}$	kW	—	—	—
Annual energy consumption	$Q_{\text{HE}}$	GJ	82	105	145
Annual electricity consumption	AEC	kWh	142	179	261
Annual fuel consumption	AFC	GJ	—	—	—
Seasonal space heating energy efficiency (GCV)	$\eta_s$	%	—	—	—
Water heating energy efficiency (GCV)	$\eta_{\text{wh}}$	%	—	—	—
Sound power level, indoors	$L_{\text{WA}}$	dB	60	60	60

GCV = Gross Calorific Value (=Hs)

## ErP data - EU 813/2013

Dati ErP - EU 813/2013	Modelli:		Time Power Floor 90 K	Time Power Floor 115 K	Time Power Floor 160 K	
	Symbol	Unit	Value	Value	Value	
Condensing boiler		YES / NO	YES	YES	YES	
Combination heater		YES / NO	NO	NO	NO	
B1 boiler		YES / NO	NO	NO	NO	
Cogeneration space heater		YES / NO	NO	NO	NO	
Low-temperature (**) boiler		YES / NO	NO	NO	NO	
ErP space heating	Rated heat output	$P_{\text{nominale}}$	kW	82	105	145
	Useful heat output at rated heat output and high-temperature regime (*)	$P_4$	kW	81.9	104.9	144.6
	Useful heat output at 30% at rated heat output and low-temperature regime (**)	$P_1$	kW	27.8	35.3	49.2
	Seasonal space heating energy efficiency (GCV)	$\eta_s$	%	—	—	—
	Useful efficiency at rated heat output and high-temperature regime (*) (GCV)	$\eta_4$	%	87.6	87.5	88.1
	Useful efficiency at 30% of rated heat output and low-temperature regime (**)	$\eta_1$	%	98.2	98.2	98.4
ErP DHW	Declared load profile			—	—	—
	Water heating energy efficiency (GCV)	$\eta_{\text{wh}}$	%	—	—	—
	Daily electricity consumption	$Q_{\text{elec}}$	kWh	—	—	—
	Daily fuel consumption	$Q_{\text{fuel}}$	kWh	—	—	—
Auxiliary electricity consumption	At full load	$e_{\text{imax}}$	kW	0.112	0.168	0.295
	At part load	$e_{\text{imin}}$	kW	0.022	0.022	0.032
	In standby mode	$P_{\text{sb}}$	kW	0.143	0.005	0.162
Other items	Standby heat loss	$P_{\text{stby}}$	kW	0.143	0.149	0.162
	Ignition burner power consumption	$P_{\text{ign}}$	kW	0	0	0
	Sound power level, indoors	$L_{\text{WA}}$	dB	60	60	60
	Emissions of nitrogen oxides	$\text{NO}_x$	mg/kWh	33.0	27.9	45.1

(\*) **High-temperature regime means:** 60 °C return temperature at heater inlet and 80 °C feed temperature at heater outlet.

(\*\*) **Low temperature means:** for condensing boilers 30 °C, for low-temperature boilers 37 °C and for other heaters 50 °C return temperature (at heater inlet).

GCV = Gross Calorific Value (=Hs)





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