

NEW



 **Beretta**

A Carrier Company

WALL-HUNG CONDENSING BOILERS
with stainless steel heat exchanger

EXCLUSIVEX

 **Beretta**



THE RANGE

EXCLUSIVE X, with 7 models (4 combi and 3 'heating only') and output levels from 25 to 40 kW, fully satisfies a multitude of installation needs: from new buildings to renovations, and from stand-alone installation to hybrid application in multi-energy systems. Thanks to the ACC Combustion system, each model self-adapts to various types of gas, meaning that "dedicated" codes for natural gas, LPG and propane-air(*), or gas transformation kits, are no longer needed.

- **EXCLUSIVE X 25 C** (combi model)
- **EXCLUSIVE X 30 C** (combi model)
- **EXCLUSIVE X 35 C** (combi model)
- **EXCLUSIVE X 40 C** (combi model)
- **EXCLUSIVE X 25 R** (heating only model)
- **EXCLUSIVE X 35 R** (heating only model)
- **EXCLUSIVE X 40 R** (heating only model)

(* Propane-air certification for models 25 C and 25 R only.



EXCLUSIVE X, TECHNOLOGY FOR A GREEN LIFESTYLE.

The Beretta R&D laboratories have come up with EXCLUSIVE X, the new condensing boiler that marks another step in the evolution of the EXCLUSIVE range whose very name has always signified the top of the brand's wall-hung selection. The combustion and electronics - the true heart and brain of the boiler - are designed to ensure a product with even higher performance levels and meeting the European environmental sustainability goals. EXCLUSIVE X is the ideal choice for those wanting something more and looking for green solutions.

EXCLUSIVE INNOVATION

The new **stainless steel heat exchanger**, the innovative **electronics with a hybrid function integrated in the boiler**, the lack of external remote controls, and the **ability to process blends of natural gas and hydrogen up to 20%** give EXCLUSIVE X a highly technological profile, ensuring optimum energy savings which in turn means economic benefits for the user.

EXCLUSIVE PERFORMANCE

EXCLUSIVE X is the jewel in Beretta's crown. Thanks to the new optimised plate heat exchanger, the range can reach **DHW performance levels at the top of its category** in terms of efficiency, temperature stability and waiting times. The fine-tuned ACC electronic combustion system continually modulates the amount of fuel supplied, ensuring **efficiency and first class operation in all conditions and minimising harmful emissions**.

EXCLUSIVE BERETTA

The new range sums up **Beretta's advanced research, continuing the brand's best style tradition**. A continuation that stands out in the product design, echoing the forms of the first Beretta boiler models but with a modern twist, and is also evident in the **ease of use** and the **installation flexibility** - two of this brand's distinguishing features that have always been appreciated by the market.



SYSTEM
DISPLAY



STAINLESS STEEL
HEAT EXCHANGER



HYBRID
READY



QUICK AND
STABLE
HOT WATER



FRONT ACCESS
TO COMPONENTS



QUICK
INSTALLATION



UNIVERSAL
INSTALLATION

TECHNOLOGY FOR MAXIMUM EFFICIENCY

A NEW HEART OF STAINLESS STEEL

EXCLUSIVE X is equipped with a new primary heat exchanger in stainless steel, with a **smooth large-section tube** that ensures excellent efficiency and cleanliness over time. Stainless steel is not only **highly resistant to the corrosive action of acid condensate**, but also prevents the internal formation of oxides and other electrochemical phenomena often found with installation in old systems. The **single coil geometry** (water circuit in series) guarantees a constant flow rate in every section of the heat exchanger, and intrinsically prevents clogging. **Front access** facilitates the regular cleaning and maintenance of the combustion chamber.

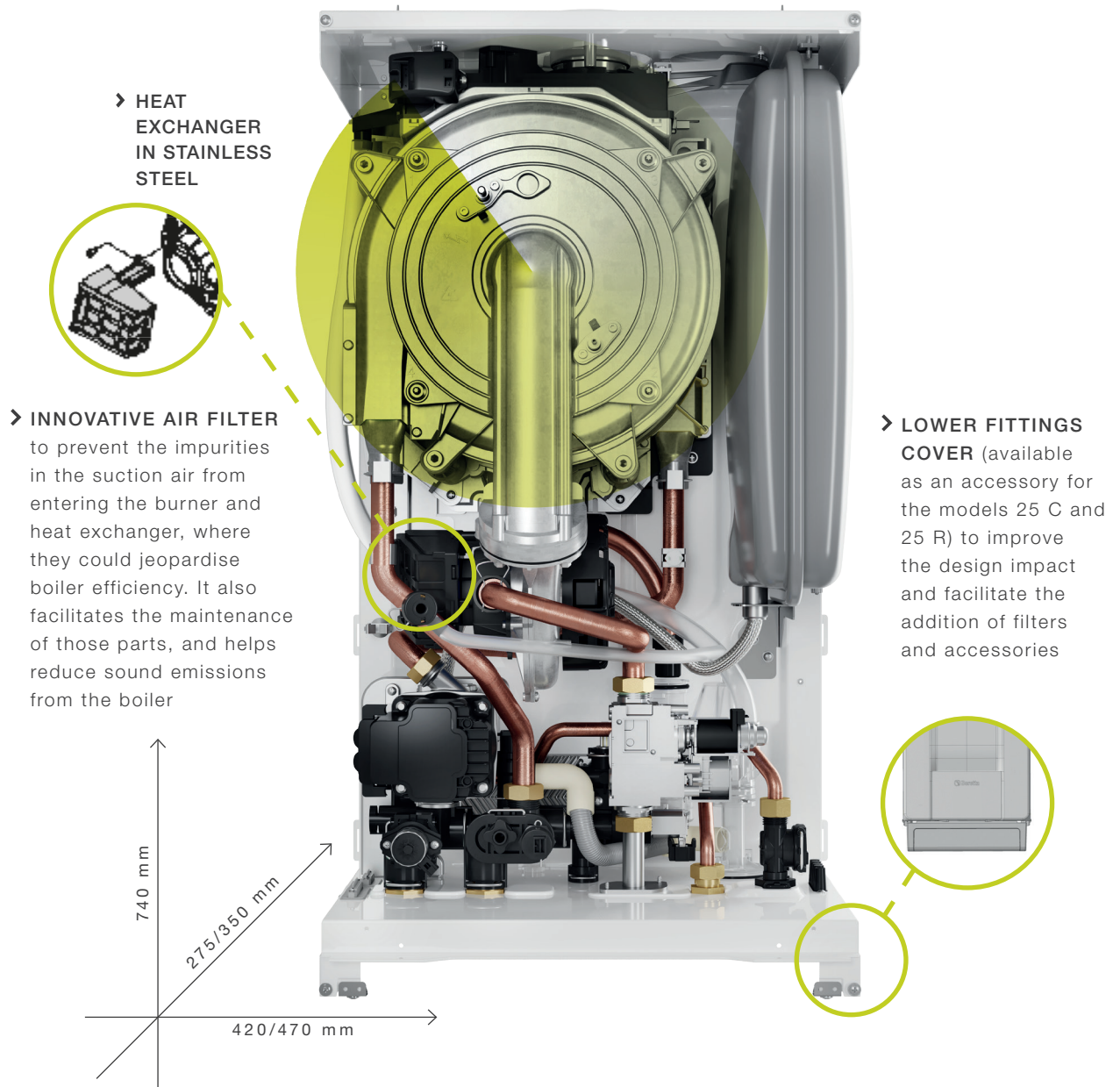


ACTIVE COMBUSTION CONTROL

The ACC system developed by Beretta for EXCLUSIVE X guarantees excellent levels of operation, efficiency and low emissions in all conditions. Using a flame ionisation current detection sensor, allowing the electronics to continuously vary the amount of fuel injected, the **system keeps the air/gas mixture constantly at optimum values across the whole dispensed output modulation field** (constant CO₂ value). Thanks to the sophisticated ACC system, combustion is self-regulated to eliminate the need for any calibration and the boiler can work with various gas compositions. Special attention is paid to CO emissions, with a self-diagnosis function that intervenes on the burner before the legally permitted threshold is exceeded.

ADVANTAGES OF THE ACC SYSTEM

- › **SELF-ADAPTABILITY** OF THE SYSTEM TO THE GAS TYPE AND COMPOSITION (ALSO INSTANTANEOUS); GAS TRANSFORMATION KITS NO LONGER NECESSARY
- › **NO MECHANICAL CALIBRATION** OR MANUAL COMBUSTION INTERVENTIONS NEEDED ON THE BOILER
- › **MAINTENANCE OF THE STOICHIOMETRIC RATIO**; CONSTANT AIR/GAS RATIO IN ALL CONDITIONS
- › **CONTINUOUS CONTROL OF EMISSIONS** TO RESPECT THE REGULATORY LIMITS
- › **OPTIMISED GAS SAVINGS** COMPARED WITH TRADITIONAL SYSTEMS, THANKS TO THE MAINTENANCE OF CONSTANT EFFICIENCY LEVELS DESPITE OUTPUT MODULATION
- › **SELF-LEARNING**: OPTIMISED EFFICIENCY AND RELIABILITY OVER TIME, THANKS TO SELF-LEARNING WITH COMPENSATION BY THE ACC SYSTEM



- > ERP EFFICIENCY 94% (*)
- > **LOW POLLUTING EMISSIONS: CLASS 6** (UNI EN 15502)
- > MODULATION UP TO 1:8
- > 10 L EXPANSION VESSEL (**)
- > **INNOVATIVE AIR FILTER**
- > **ELECTRIC PROTECTION LEVEL IPX5D**
- > **TEMPLATE SUPPLIED**
- > **LOW-CONSUMPTION MODULATING CIRCULATOR** (EEI ≤ 0.20), FACTORY SET WITH A 7-METRE DISCHARGE HEAD BEND
- > **SEMI-AUTOMATIC SYSTEM LOADING**
- > **NEW ROUNDED DESIGN** ON MODELS 30 - 35 KW
- > **LPG CONVERSION** SELECTED WITH ELECTRONIC PARAMETER

(*) Apart from 25 kW models, with ERP efficiency 93% - (**) Apart from 25 kW models, with 9-litre expansion vessel

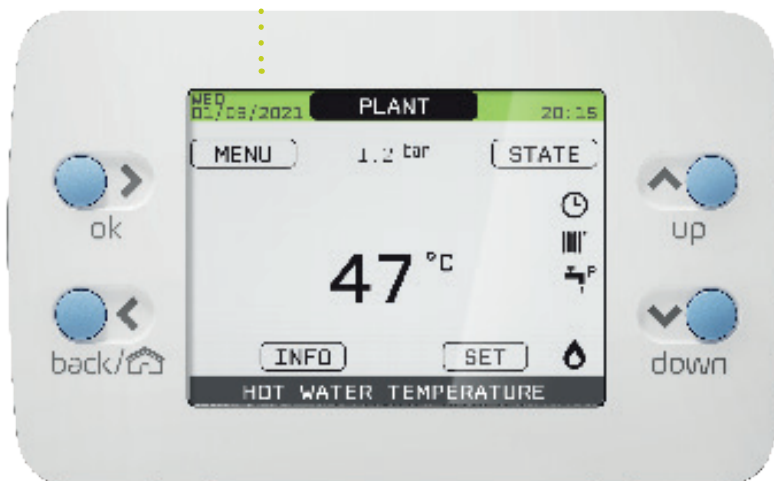
NEW COLOUR DISPLAY

EXCLUSIVE X has a new, advanced interface that is the intelligent heart of the **boiler's hybrid system**. The new range is, in fact, HYBRID READY. This means it can directly manage multi-energy systems via the boiler interface, without any external remote control.

The new interface, with its elegant covering door with the Beretta logo, is characterised by a **backlit LCD colour display** that communicates with users and/or installers by means of text and icons. Display navigation is **simple and intuitive thanks to the 4 buttons** that lead the user to all the settings and parameter values of the boiler and system. The innovative profile is completed with advanced **self-diagnosis** and the EXCLUSIVE X functions that can be activated via the interface.

- › **HOURLY PROGRAMMING**
HEATING CAN BE PROGRAMMED BY THE HOUR AND FOR SINGLE AREAS
- › **SMART SYSTEM LOADING**
AUTONOMOUS LOADING ACTIVATION, IN ABSOLUTE SAFETY
- › **SYSTEM PRESSURE**
VALUE SHOWN ON THE DISPLAY
- › **TIME**
ALSO SHOWN AS A SCREENSAVER
- › **PRE-HEATING**
ACTIVATION OF DHW PRE-HEATING
- › **SCHEDULED MAINTENANCE**
INTELLIGENT SYSTEM THAT WARNS THE USER WHEN BOILER MAINTENANCE IS DUE

New **COLOUR BAR** using 4 colours to indicate the boiler operating status and/or any faults



- | | |
|---|---|
| <ul style="list-style-type: none"> Normal operation Lockout faults that require the intervention of the Technical Assistance Centre | <ul style="list-style-type: none"> Faults that can be solved by the user The system is ready to handle any requests. No operation in progress, or faults detected |
|---|---|

THE EFFICIENT CHOICE OF ENERGY SOURCES



EXCLUSIVE X is HYBRID READY.

The range was created as a fundamental element of the HYBRID READY selection of products that make up the **hybrid technology system conceived and developed in the Beretta research labs.**

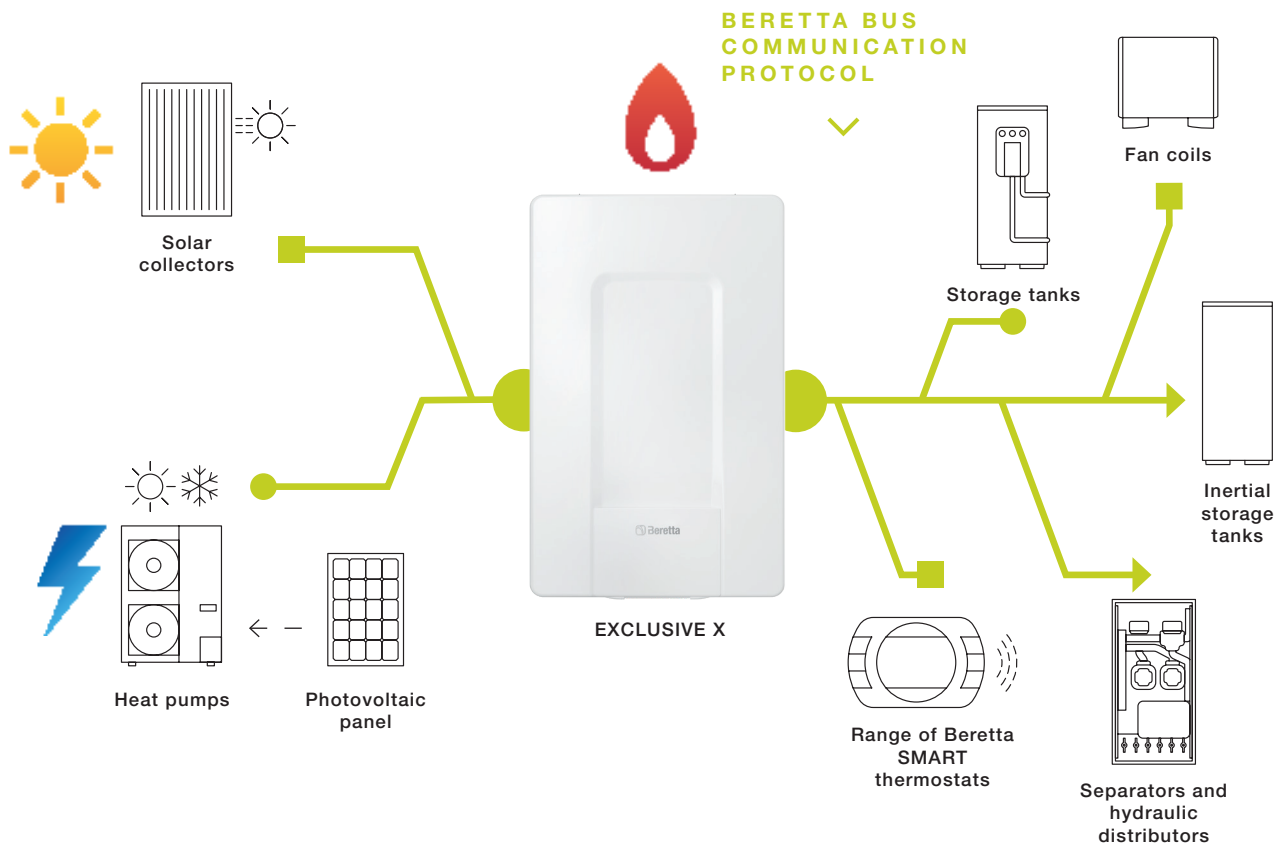
This system, designed to meet current and future needs to add and control different energy sources (gas/electricity/renewable), also includes the most innovative energy accumulation and distribution methods.

EXCLUSIVE X was designed with system intelligence

integrated in the boiler, REC 10CH, the mind that constantly manages and controls the hybrid system to ensure optimum comfort in an efficient and effective manner at all times. The **Beretta hybrid stands out for its modular approach to the multi-energy world and can evolve over time, adding new components that enhance its overall efficiency. (*)**

GENERATION

ACCUMULATION AND DISTRIBUTION



(*) For the selection of Beretta hybrid system components, refer to the latest update of the Beretta Price List Catalogue and/or contact your local sales agent.

EXCLUSIVE X LOOKS TO THE FUTURE

EXCLUSIVE X was created today, but thinking of the generations of tomorrow.

The new range is already designed to work with blends of natural gas and hydrogen (up to 20%) in line with environmental sustainability goals and the decarbonisation process launched by the European Union.

HYDROGEN IS THE SUSTAINABLE ENERGY SOURCE OF THE FUTURE

- Available in huge quantities
- Produced with low-impact, sustainable methods from renewable sources such as wind, photovoltaic and biomass
- Reduction of polluting emissions in the percentage of its use
- A real opportunity for change - to begin the decarbonisation process, fight global climate change and improve the quality of air and life

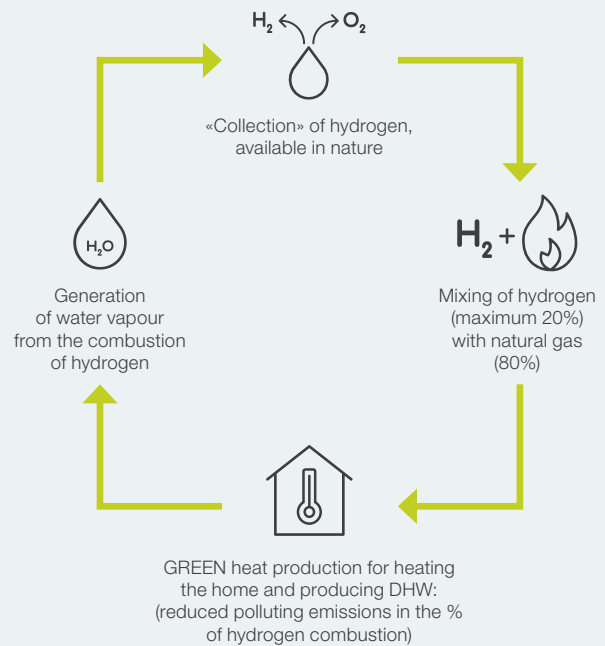


HYDROGEN
READY
20%

THE CYCLE OF HYDROGEN USE

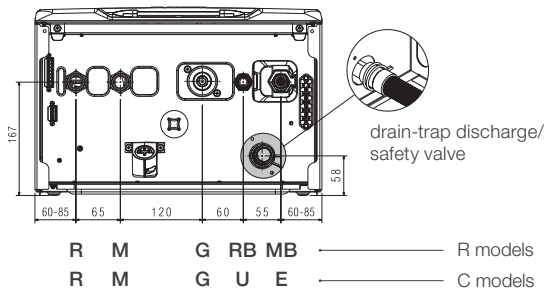
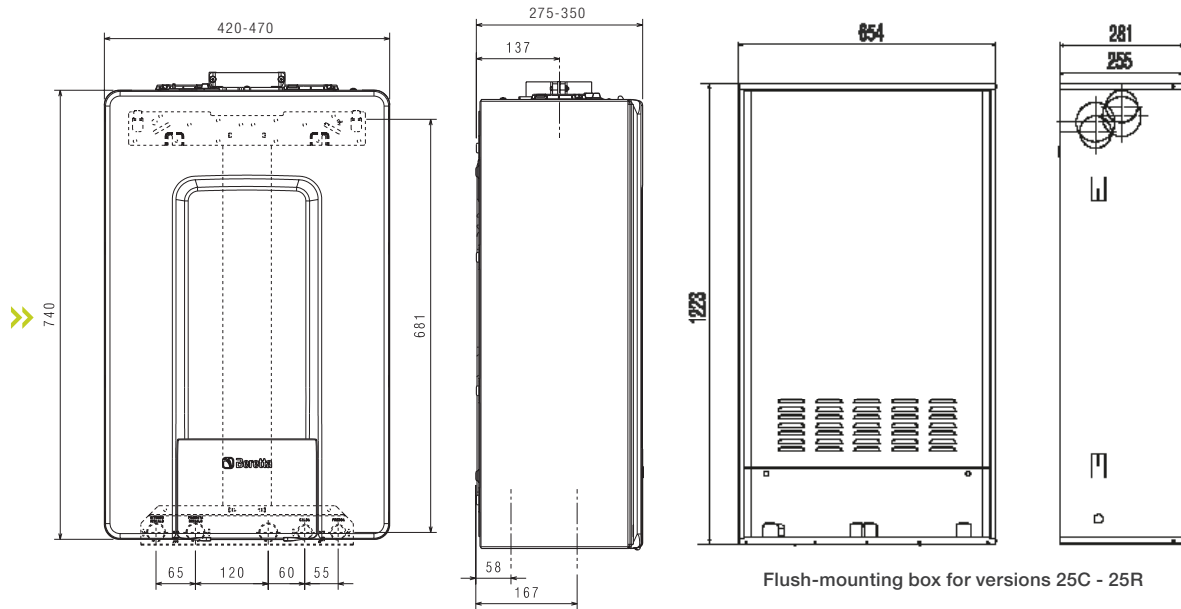
Hydrogen is a safe, clean gas, available in huge quantities in nature.

Mixed with natural gas (to a maximum ratio of 20:80%), hydrogen allows the generation of heat and domestic hot water, helping to minimise polluting emissions. Water vapour is generated from the combustion of oxygen and hydrogen, in the quantity of the latter: in practice, the hydrogen turns back into its most common original source, water, and is returned to nature.



TECHNICAL FEATURES

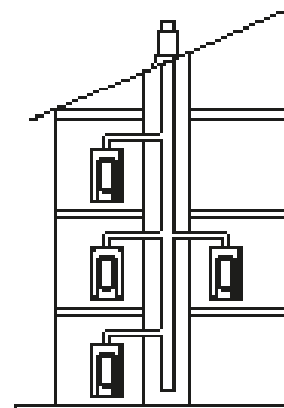
TECHNICAL DRAWINGS



>> **EXCLUSIVE X DIMENSIONS**
 Height (common to all models): 740
 Depth: 275 (25 kW) / 350 (30-35-40 kW)
 Width: 420 (25 kW) / 470 (30-35-40 kW)

PRESSURISED COLLECTIVE FLUE CHIMNEYS

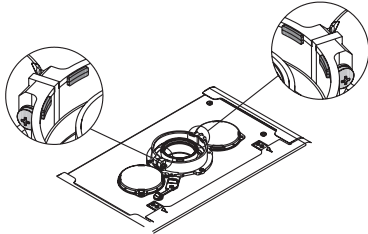
EXCLUSIVE X is fitted as standard with a non-return valve (check valve) for flue gases, for pressurized collective flue chimneys (installation according to UNI 7129 of 2015). C10 type-approval (previously 3CEp type-approval) only permits installation in pressurized collective flue chimneys when natural gas is used.



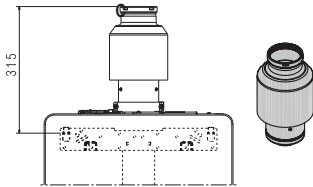
E DCW INLET
 U DHW OUTLET
 G GAS
 STORAGE TANK FLOW
 MB
 STORAGE TANK RETURN
 RB
 M FLOW
 R RETURN

TECHNICAL FEATURES AND DATA

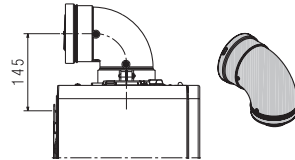
FLUE OPTIONS



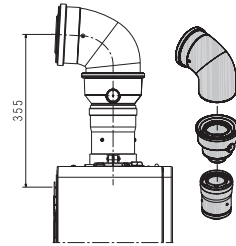
- FLANGE INSTALLED AS STANDARD
- QUICK INSTALLATION WITHOUT THE NEED FOR AN EXTERNAL COLLAR
- BOILER DEPARTURE WITH BERETTA SPECIFIC FLUE OPTIONS



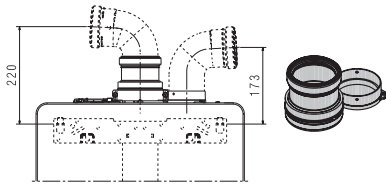
FLUE TYPE
B23P_B53P



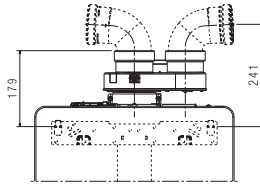
CONCENTRIC FLUE
Ø 60-100 mm



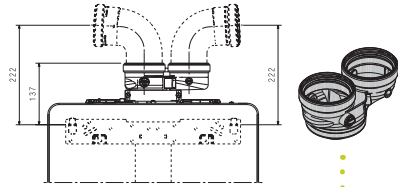
CONCENTRIC FLUE
Ø 80-125 mm



TWIN FLUE
Ø 80-80 mm



TWIN FLUE
Ø 80-80 mm



TWIN FLUE
Ø 80-80 mm

- NEW
- COMPACT
- ADAPTOR

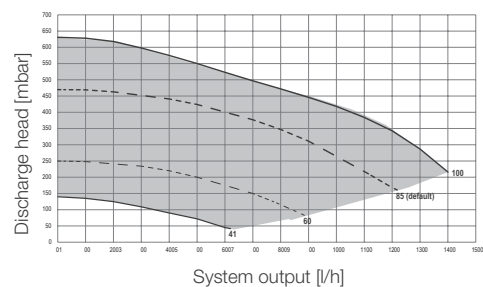
HIGH-EFFICIENCY MODULATING CIRCULATOR

The boiler is equipped with a high-efficiency modulating circulator, already hydraulically and electrically connected and factory-set with a 7-metre head. The modulating circulator function, active in heating mode, offers 3 control modes that can be selected by the installer on the basis of the situations and the type of system:

- circulator at variable speed with proportional mode
- circulator at variable speed with constant ΔT mode
- circulator at maximum fixed speed

The boiler also has an **anti-blocking system** that launches an operating cycle after 24 hours of rest, in any operating status.

CIRCULATOR SET
AT 7 METRES





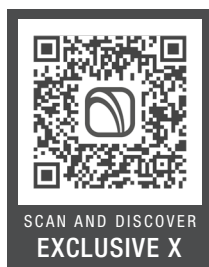
ENERGY LABEL SPECIFICATIONS
(in accordance with the ErP Directive)

		UoM	EXCLUSIVEX 25C	EXCLUSIVEX 30C	EXCLUSIVEX 35C	EXCLUSIVEX 40C	EXCLUSIVEX 25R(*)	EXCLUSIVEX 35R(*)	EXCLUSIVEX 40R(*)
Boiler order code (supply NG)			20187794	20187795	20187796	20187798	20187800	20187797	20187799
Seasonal space heating energy efficiency class			A	A	A	A	A	A	A
Water heating energy efficiency class			A	A	A	A	-	-	-
Rated heat output	pnominal	kW	20	24	31	31	20	31	31
Seasonal space heating energy efficiency	η_s	%	93	94	94	94	93	94	94
USEFUL HEAT OUTPUT									
At rated heat output, high-temperature regime (**)	P4	kW	19.5	24.4	31.2	31,2	19.5	31.2	31,2
At 30% of rated heat output and low-temperature regime (***)	P1	kW	6.5	8.2	10.5	10,5	6.5	10.5	10,5
USEFUL EFFICIENCY									
At rated heat output, high-temperature regime (**)	η_4	%	87.8	88	87.9	87,9	87.8	87.9	87,9
At 30% of rated heat output and low-temperature regime (***)	η_1	%	98.3	98.6	98.6	98,6	98.3	98.6	98,6
Useful efficiency 30% Pn max (G20)		%	109.1	109.5	109.5	109,5	109.1	109.5	109,5
AUXILIARY ELECTRICITY CONSUMPTION									
At full load	elmax	W	27	32	49	49	27	49	49
At part load	elmin	W	13	13	13	13	13	13	13
In standby mode	PSB	W	3	3	3	3	3	3	3
OTHER PARAMETERS									
Standby heat losses	Pstby	W	30.2	26	26	26	30.2	26	26
Pilot flame energy consumption	Pign	W	-	-	-	-	-	-	-
Annual energy consumption	QHE	GJ	60	75	96	96	60	96	96
Sound power level indoors	LWA	dB	50	50	54	54	50	54	54
NOx emissions	NOx	mg/kWh	46	35	38	38	46	38	38
FOR COMBINATION HEATERS									
Declared load profile			XL	XL	XL	XL	-	-	-
DHW energy efficiency	η_{wh}	%	86	85	85	85	-	-	-
Daily electricity consumption	Qelec	kWh	0.155	0.141	0.157	0,157	-	-	-
Daily fuel consumption	Qfuel	kWh	22,482	22,942	22,986	22,986	-	-	-
Annual electricity consumption	AEC	kWh	34	31	34	34	-	-	-
Annual fuel consumption	AFC	GJ	17	17	17	17	-	-	-
OTHER SPECIFICATIONS									
CH heat input (max-min)		kW	20 - 3.6	25 - 4.9	32 - 4.9	32 - 4,9	20 - 3.6	32 - 4.9	32 - 4,9
DHW heat nominal input (max-min)		kW	25 - 3.6	30 - 4.9	34.6 - 4.9	40 - 4,9	25 - 3.6	34.6 - 4.9	40 - 4,9
Nominal heat output (80°/60°)		kW	19.5	24.43	31.23	31,23	19.5	31.23	31,23
Nominal heat output (50°/30°)		kW	21.32	26.88	34.37	34,37	21.32	34.37	34,37
Power supply voltage	V - Hz		230 - 50	230 - 50	230 - 50	230 - 50	230 - 50	230 - 50	230 - 50
Degree of protection	IP		X5D	X5D	X5D	X5D	X5D	X5D	X5D
NOx class			6	6	6	6	6	6	6
CH									
Max pressure-temperature		bar-°C	3 - 90	3 - 90	3 - 90	3 - 90	3- 90	3- 90	3 - 90
Pump: max available head (flow rate 1000 l/h)		mbar	410	410	410	410	410	410	410
Membrane expansion tank		l	9	10	10	10	9	10	10
DHW									
Max pressure		bar	8	8	8	8	-	-	-
DHW production at $\Delta T = 25^\circ\text{C} / 30^\circ\text{C} / 35^\circ\text{C}$		l/min	15.1-12.5-10.8	18.1-15.1-12.9	20.8-17.4-14.9	24,1-20,-17,2	-	-	-
DHW minimum flow rate		l/min	2	2	2	2	-	-	-
HYDRAULIC AND GAS CONNECTIONS									
CH flow - return / Gas inlet		\varnothing	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
DHW inlet - outlet / DHW tank flow - return		\varnothing	1/2"	1/2"	1/2"	1/2"	3/4"	3/4"	3/4"
GAS									
Inlet gas pressure (G20-G31)		mbar	20 - 37	20 - 37	20 - 37	20 - 37	20 - 37	20 - 37	20 - 37
DIMENSIONS, WEIGHT									
Boiler dimensions (HxWxD)		mm	740x275x420	740x350x470	740x350x470	740x350x470	740x275x420	740x350x470	740x350x470
Net weight		kg	35	40	40	40	34	39	39
FLUE OPTIONS AND LENGTHS									
Max length for concentric flue (\varnothing 60-100 mm)		m	10	6	6	6	10	6	6
Max length for twin flue (\varnothing 80+80 mm)		m	60 + 60	33 + 33	35 + 35	28 + 28	60 + 60	35 + 35	28 + 28

(*) The "heating only" models are equipped with a 3-way valve. No filling tap is used.

(**) High-temperature: 60°C on boiler return and 80°C on delivery.

(***) Low-temperature: 30°C of return temperature for condensing boilers, 37°C for low-temperature boilers, 50°C for other heating appliances.



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