

Quadra Green

Condensing Wall-Hung Boilers



Residential Heating



A condensing range designed to enable any replacement or new installation

NEW CONNECTIONS

New DIN connections to facilitate any replacement or new installation in buildings with the same configuration.

LINEAR AND COMPACT DESIGN FOR A FLEXIBLE INSTALLATION

A linear and compact design, coupled with low lift weight, enable a flexible installation of the boiler almost anywhere in the home.

LOW ENERGY SYNCHRONOUS PUMP ($EEI \leq 0,20$)

complying with ErP Directive in terms of efficiency and energy savings.

5:1 MODULATION RATIO

QUADRA GREEN range is ErP compliant

Beretta QUADRA GREEN range complies with the European ErP regulations, which came into force on 26.09.2015.

From that date onwards, a new energy labelling was implemented for appliances and systems producing heating and domestic hot water and a series of efficiency and emissions constraints automatically excluded the less performing classes of appliances. The new ErP regulations aim to help the EU countries to reach by 2020 the “20-20-20” target, meaning a 20% reduction of gas emissions; a 20% increase in the use of renewable energies; a 20% reduction in global energy consumptions.



CO₂ reduction



renewable
energies



energy
consumptions

Space heating function

Seasonal space heating
energy efficiency class:
A (on all models)

Water heating function

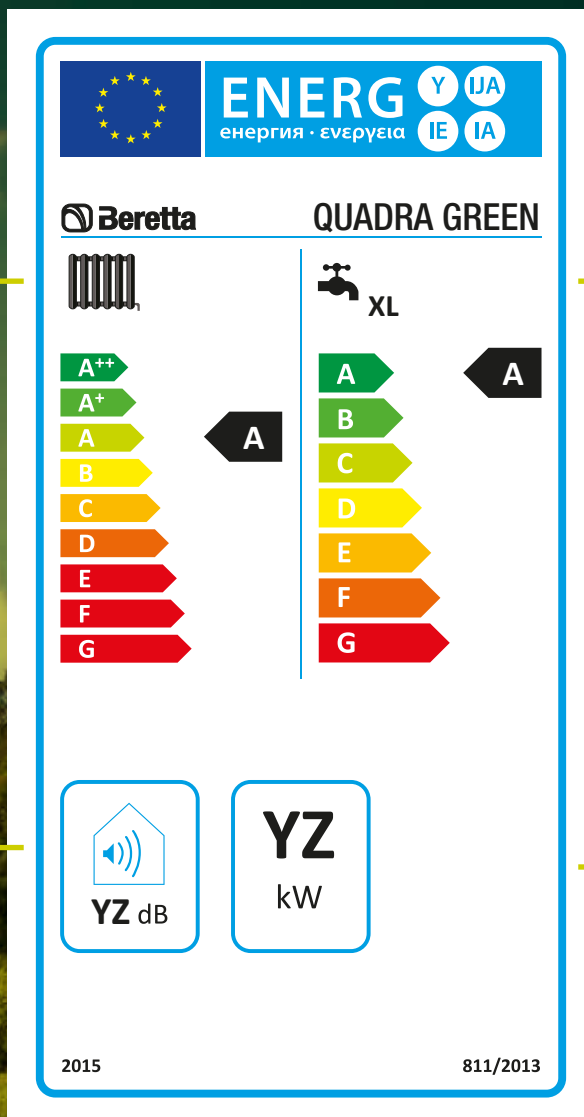
This section refers only to
combi models:
- Load profile: XL
- Energy Efficiency Class: A

Sound power level indoors

Specifications for each
model are detailed on
the back cover page

Rated heat output

Specifications for each
model are detailed on
the back cover page



Saving energy, saving money

The new energy labelling, that according to the ErP directive was implemented in September 2015 for appliances and systems producing heating and domestic hot water, means that all boilers and heating systems are labelled in the same way as "white goods", like washing machines and refrigerators. The energy labelling enables the end-users to make realistic comparisons among different products. By choosing high efficiency products, the end-users can lower their energy bills, helping to safeguard the environment.

Quadra Green



QUADRA GREEN range fully complies with the European ErP regulations:



seasonal space heating energy efficiency class



water heating energy efficiency class and water heating load profile

- QUADRA GREEN is a wall-hung condensing boiler with compact dimensions and low lift weight which enable a flexible installation almost anywhere in the home.
- Low Energy synchronous pump ($EEL \leq 0.20$), positioned on the right side of the boiler (frontal view).
- The RANGE RATED certification allows to adapt the power of the boiler to the real thermal requests of the installation.
- Stylish and easy-to-use control panel.
- NEW DIN connections, to enable an easy installation both as a replacement or in new buildings with the same configuration.

- “Survivor” function in DHW mode, allowing the boiler, in the event of failure of the DHW NTC probe, to continue to operate.
- Reduced waiting time for DHW supply thanks to pre-heating function.
- Built-in climatic thermoregulation that can be activated through the external probe (as option) for a high comfort level inside the house.
- S.A.R.A. system: automatic temperature control in heating mode.
- Electrical protection IPX5D.
- Suitable for the connection with remote control panel Beretta (available as option).
- Installation 3CEP through specific flue kit.
- Hydraulic connections, gas and DHW taps available as option.
- Dedicated flue options in PP.
- QUADRA GREEN can be converted to LPG through specific LPG kit (available as option).



Frost protection system



Electrical protection IPX5D



Low Energy synchronous pump



Range Rated



“Survivor” function



Linear design, easy-to-use controls

QUADRA GREEN range, characterized by a linear and stylish design, is provided with a simple and easy-to-use control panel that allows to easily adjust the boiler parameters and activate all different functions.

A white backlight digital display, thanks to the easy-to-read symbols, and three LEDs, signal in a clear way boiler operation status and diagnostics codes. Two easy-to-use knobs allow to set the central heating temperature and the DHW temperature and to activate the S.A.R.A. function.



① 3 diagnostic LEDs

② White backlight digital display

③ On/Off/Summer/Winter/Reset/Heating temperature

③a “S.A.R.A. function” selector

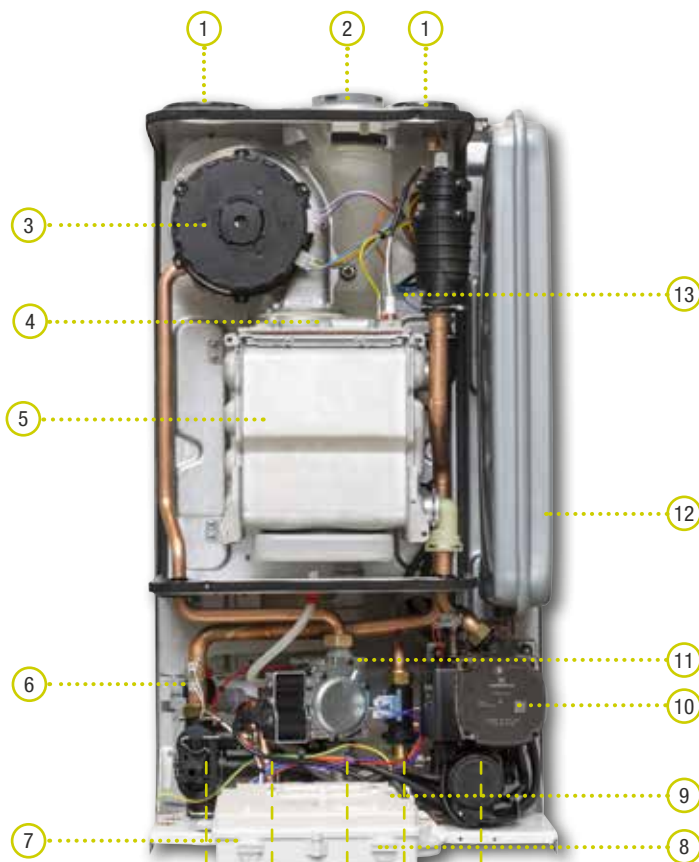
④ C.S.I. model: DHW temperature selector/ Pre-heating activation selector or chimney sweeper function

R.S.I. model: DHW temperature selector/chimney sweeper function

⑤ Hydrometer

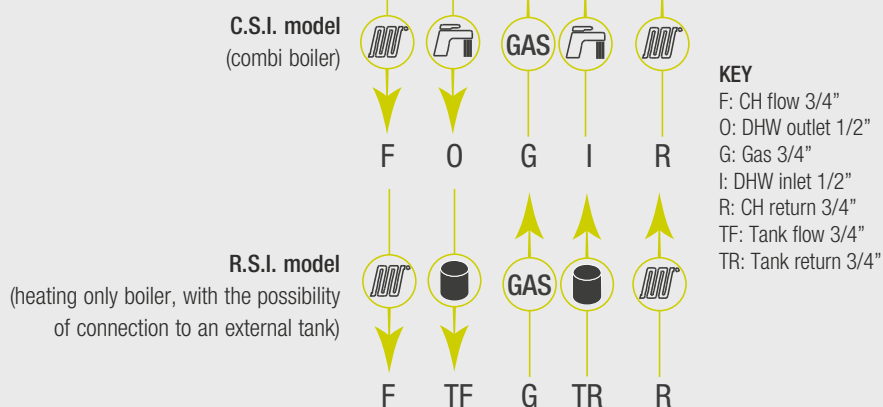
A range designed to provide high performance

- ① Double air inlet for twin system
- ② Flue gas analysis
- ③ Premix (fan and Mixer)
- ④ Burner
- ⑤ Condensing heat-exchanger made of aluminium alloy
- ⑥ Condensate drain trap
- ⑦ Electronic board with frost protection
- ⑧ IPX5D electrical protection
- ⑨ Climatic thermoregulation (outdoor probe as option)
- ⑩ Low Energy synchronous pump (EEI ≤ 0.20)
- ⑪ DHW plate heat-exchanger in stainless steel (C.S.I. model)
- ⑫ Expansion vessel (8 litres)
- ⑬ Ignition and detection electrodes



New configuration with DIN connections

The new QUADRA GREEN models, thanks to the configuration with DIN hydraulic connections, represent the ideal solution for an easy and quick installation, both in case of replacement and of new buildings with the same configuration.



Condensing heat-exchanger

The innovative and compact condensing heat-exchanger of QUADRA GREEN, made of an aluminium alloy, is assembled through a brazing manufacturing process in a controlled atmosphere. The aluminium alloy, besides allowing a more uniform heat distribution, offers high

resistance to corrosion to the benefit of a longer life of the component. Aluminium is also characterised by lightness, excellent thermal transfer, mechanical properties, reliability and recyclability. The condensing heat-exchanger allows to

recover a large part of the latent heat of the gas flues, reducing in this way much of the heat losses. The premix burner optimizes the combustion mixture while reducing NOx emissions to a minimum.

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S.A.R.A. system: comfort and saving

All the models in the QUADRA GREEN range are equipped with the Beretta patented S.A.R.A. system (Automatic Temperature Control), which can be enabled by moving the temperature control knob of the central heating circuit to the dedicated sector (between 55°C and 65°C). The S.A.R.A. system achieves the best compromise between the average temperature of the radiators and the quickness in reaching the required room temperature, while providing energy and money saving.

When there is a demand for heating, the appliance will automatically raise the heating flow temperature twice by 5°C every 20 minutes, in order to heat the home more quickly. When the heating request has been satisfied (see diagram), the appliance will switch off automatically till the next heating request. At that point the boiler will start again at the previously set flow temperature.

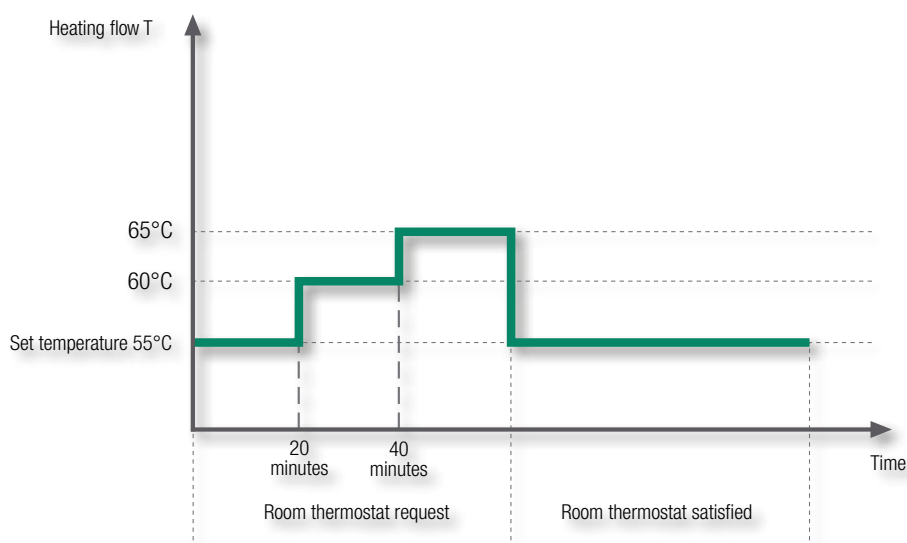


Range rated

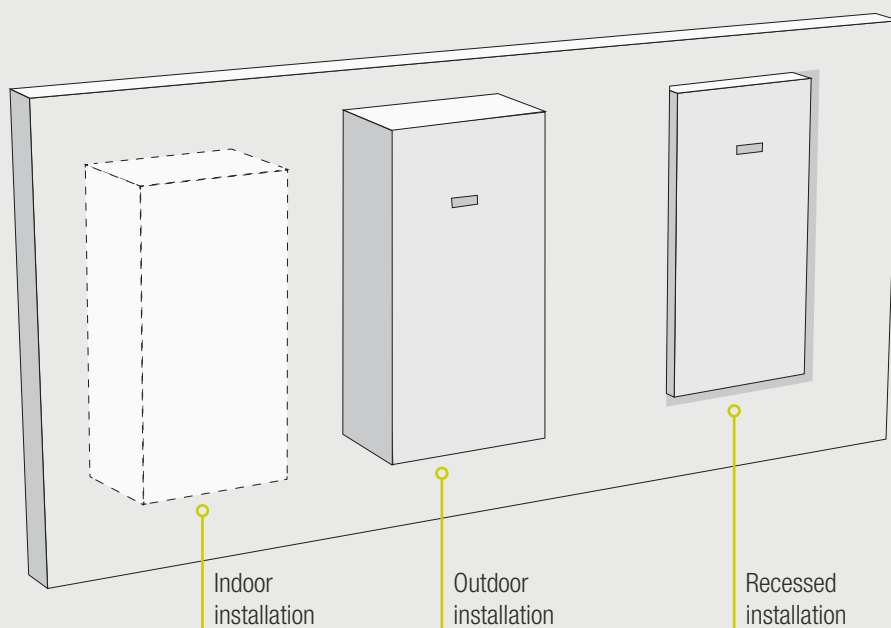
The term “Range Rated” identifies a product certified at different levels of heat input and provided with a special feature allowing to precisely adapt the maximum power of the boiler to the thermal needs of the central heating system.

With QUADRA GREEN Beretta offers the possibility to set the power of your boiler according to the real energy requests of the building through a simple operation during the installation. The fan revolutions number (r.p.m.) will only have to be adjusted and the new set power will be written on a label on the boiler.

Thanks to the “Range Rated” certification, QUADRA GREEN operation can be optimized, avoiding any gas waste and reducing wear and tear on boiler components.



A boiler for a versatile installation



QUADRA GREEN has been specifically designed to be installed also outdoor in partially protected or recessed places, thanks to the specific accessories and to the frost protection system down to 0°C.

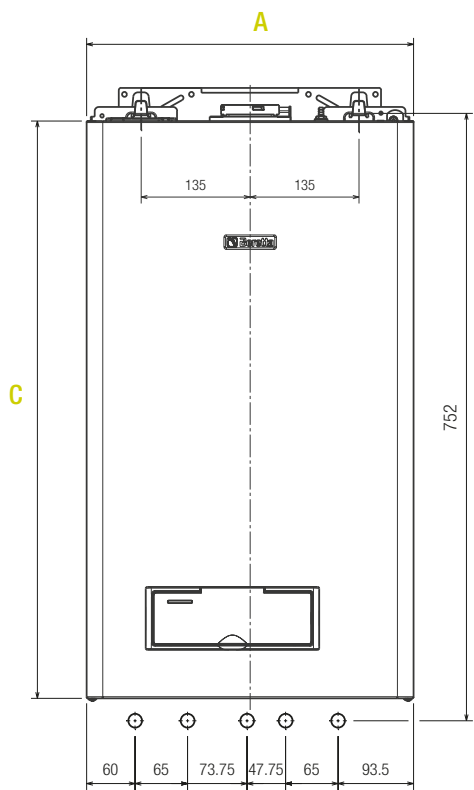
In case of colder temperatures, it is possible to extend the protection down to -10°C by using the frost protection kit.

In case of outdoor installation of the boiler, not recessed in a box or in a wall, the lower cover is needed for a higher protection.

Technical drawings

KEY:

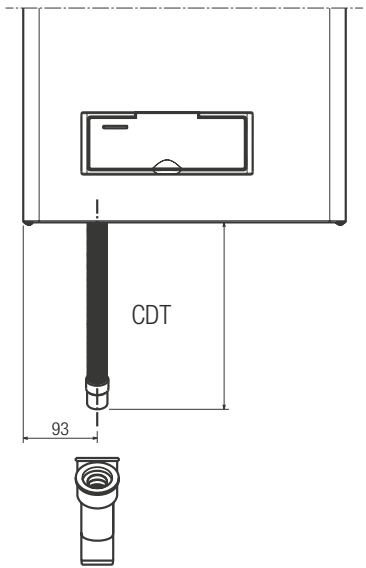
System: Flow F/Gas G/Return R
Domestic water: Outlet O/Inlet I
Tank: Tank flow TF/Tank return TR
CDT: condensate drain trap



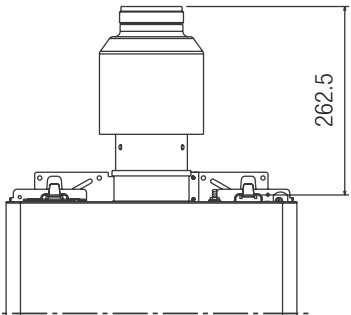
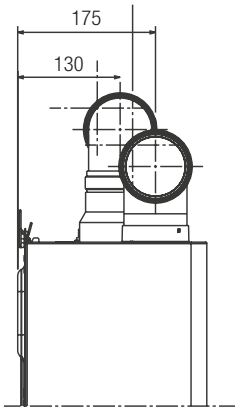
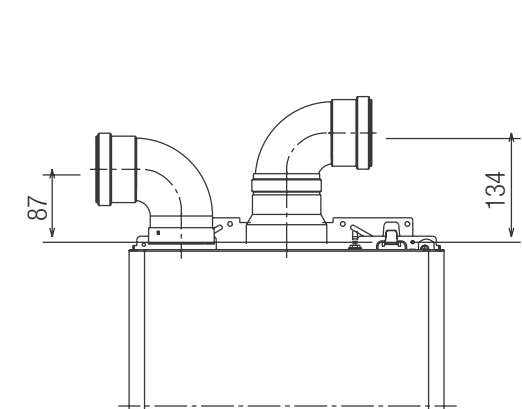
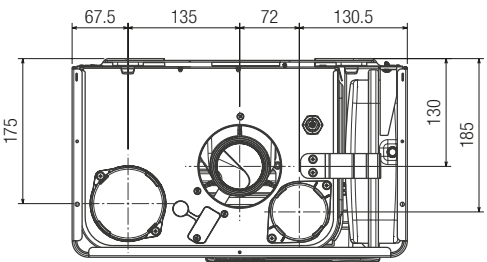
New configuration
with DIN hydraulic
connections

F 3/4" O 1/2" G 3/4" I 1/2" R 3/4" C.S.I. model

F 3/4" TF 3/4" G 3/4" TR 3/4" R 3/4" R.S.I. model with
possibility of connection
to external tank



View from above



	A	B	C	weight
25 C.S.I.	405	250	715	28
25 R.S.I.	405	250	715	27
30 C.S.I.	405	250	715	29

For all flueing configurations please refer to the current local and national rules.

Technical data

C Combi model (CH + DHW)

R Heating Only model

S Room-sealed

I Ionisation flame control



ENERGY LABELLING SPECIFICATIONS (according to ErP regulations)

		QUADRA GREEN 25 C.S.I.	QUADRA GREEN 25 R.S.I.**	QUADRA GREEN 30 C.S.I.
Seasonal space heating energy efficiency class		A	A	A
Water heating energy efficiency class		A	-	A
Declared load profile		XL	-	XL
Rated heat output	kW	20	20	24
Sound power level inside	dB	53	53	56
Seasonal space heating energy efficiency	%	93	93	93
AUXILIARY ELECTRICITY CONSUMPTION				
At full load	W	29,0	29,0	38,0
At part load	W	12,6	12,6	15,3
In Stand-by mode	W	5,6	5,6	5,6

OTHER SPECIFICATIONS

CH nominal heat input	kW	20,00	20,00	25,00
CH nominal heat output (80°-60° C)	kW	19,50	19,50	24,45
CH nominal heat output (50°-30° C)	kW	20,84	20,84	26,23
CH minimum heat input	kW	5,00	5,00	6,00
CH minimum heat output (80°-60° C)	kW	4,91	4,91	5,90
CH minimum heat output (50°-30° C)	kW	5,36	5,36	6,40
DHW nominal input	kW	25,00	25,00	29,00
DHW maximum output*	kW	25,00	25,00	29,00
DHW minimum input	kW	5,00	5,00	6,00
DHW minimum output*	kW	5,00	5,00	6,00
Efficiency at max nominal output (80°-60° C)	%	97,5	97,5	97,8
Efficiency at min output (80°-60° C)	%	98,1	98,1	98,3
Efficiency at partial load 30% (47°C return)	%	102,2	102,2	102,0
Efficiency at max nominal output (50°-30° C)	%	104,2	104,2	104,9
Efficiency at min output (50°-30° C)	%	107,2	107,2	106,7
Efficiency at partial load 30% (30°C return)	%	108,9	108,9	108,4
NOx class		5	5	5
Electrical protection	IP	X5D	X5D	X5D
Power supply	V/Hz	230/50	230/50	230/50
Max power consumption CH / DHW	W	69 / 83	69 / -	78 / 90

CENTRAL HEATING

Maximum pressure - temperature	bar - °C	3 - 90	3 - 90	3 - 90
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DHW

Maximum - minimum pressure	bar	6 - 0,15	-	6 - 0,15
DHW production $\Delta T=25^{\circ}\text{C} / 30^{\circ}\text{C} / 35^{\circ}\text{C}$	l/min	14,3 / 11,9 / 10,2	-	16,6 / 13,9 / 11,9
Adjustable hot water temperature range	°C	37 - 60	-	37 - 60

CONNECTIONS

CH flow - return/Gas	Ø	3/4"	3/4"	3/4"
DHW** inlet - outlet	Ø	1/2"	(3/4")	1/2"

FLUE PIPES AND AIR INTAKE

Max length (including 90° bend) for concentric 60-100mm	m	5,85	5,85	4,85
Max length for concentric 80-125mm	m	15,3	15,3	12,8
Max length for twin 80+80mm	m	45+45	45+45	40+40

GAS

Certified gas types		II2H3P / II2E3P	II2H3P / II2E3P	II2H3P / II2E3P
Available gas versions		NG, LPG***	NG, LPG***	NG, LPG***

* average among the different functioning conditions in DHW

** values of DHW function are to be considered only in case of connection with an external tank

*** LPG version available with conversion kit (supplied as standard)

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