

# Ciao Green

Condensing Wall-Hung Boilers



Residential Heating



## A cost-conscious condensing boiler

CIAO GREEN is one of the condensing boilers with the best price-quality ratio on the market.

### KITCHEN CUPBOARD FIT

715x405x248 mm only! The extremely compact dimensions allow this boiler to be sited almost anywhere in the house.

### CONDENSING HEAT-EXCHANGER

Innovating and compact condensing heat-exchanger, in compliance with the most strictest European directives in terms of energy efficiency and low emissions.

### LOW ENERGY SYNCHRONOUS PUMP

complying with ErP directives in terms of efficiency and energy saving.

### 5:1 MODULATION RATIO

### BUILT-IN CLIMATIC THERMOREGULATION

that can be activated through the external probe, ensuring a high comfort level.

## CIAO GREEN range is ErP compliant

Beretta CIAO 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.



CO<sub>2</sub> 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

**Beretta** **CIAO GREEN**

Seasonal space heating energy efficiency class: **A**

Water heating function energy efficiency class: **A**

Sound power level inside: **YZ dB**

Rated heat output: **YZ kW**

2015 811/2013

**Sound power level inside**

Specifications for each model are detailed on the inside back cover page

**Rated heat output**

Specifications for each model are detailed on the inside 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.

# Ciao Green



 CIAO 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

- COST-CONSCIOUS condensing boiler with 5:1 modulation.
- Low Energy synchronous pump EEl ≤ 0.20.
- Extremely compact dimensions and low lift weight enable a flexible installation almost anywhere in the home.
- The RANGE RATED certification allows to adapt the power of the boiler to the real thermal requests of the installation.
- Easy-to-use control panel featuring a digital display with self-diagnostic function.

- “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.
- Installation 3CEP available with specific flue kit.
- Hydraulic connections, gas and DHW taps available as option.
- CIAO GREEN can be converted to LPG through specific LPG kit (available as option).



Frost protection system



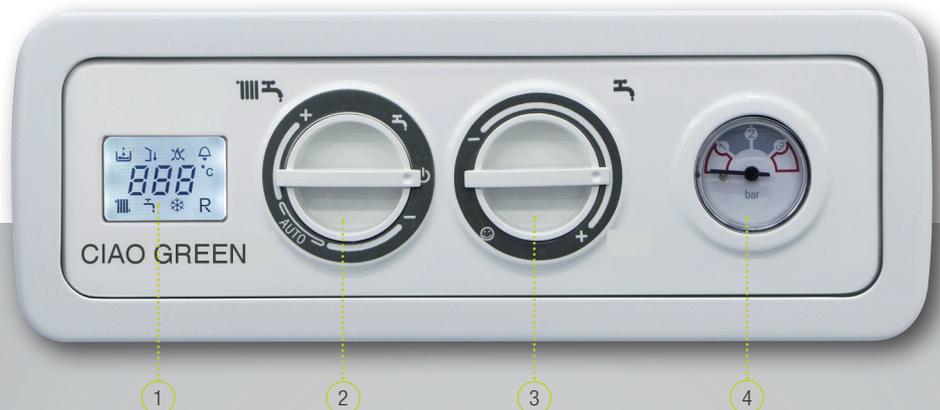
“Survivor” function



Electrical protection IPX5D



Range Rated



## Intuitive and easy-to-use

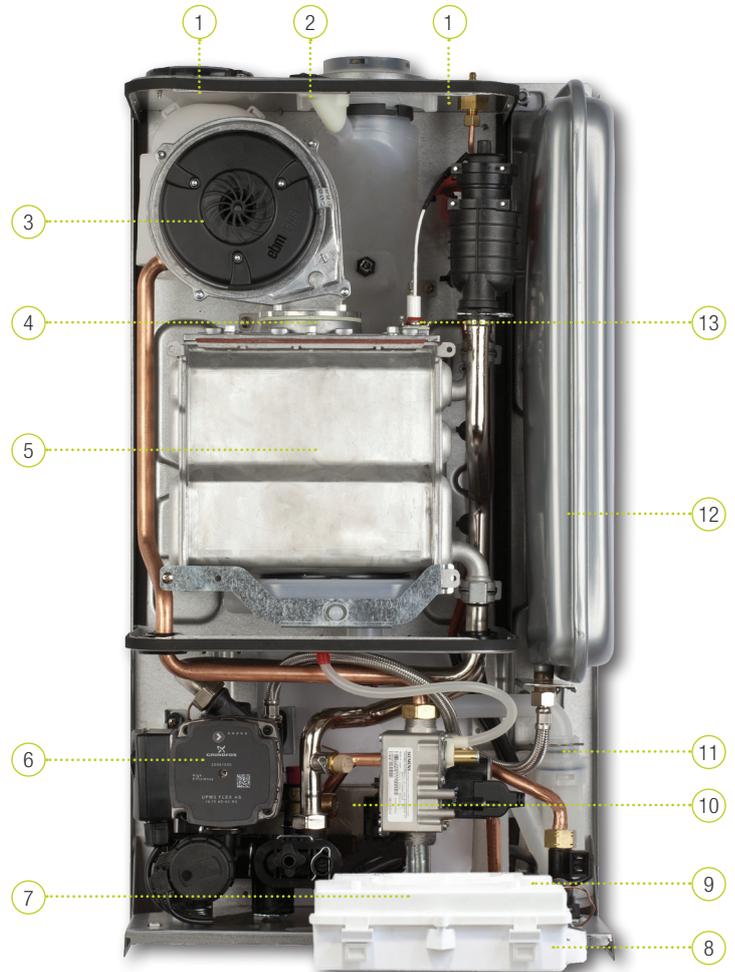
The control panel is the brain of the boiler operation. Intuitive and easy-to-use, CIAO GREEN control panel allows to adjust the boiler parameters and to activate all different functions. It features a backlight digital display with self-diagnostic function. Two ergonomic knobs allow to set the central heating temperature and the DHW temperature and to activate the S.A.R.A. function.

- ① backlight digital display
- ② On/Off/Summer/Winter/Reset/Heating temperature/“S.A.R.A. function” selector

- ③ Domestic hot water temperature/Pre-heating activation selector
- ④ 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 Low Energy synchronous pump  $EEL \leq 0.20$
- ⑦ Electronic board with frost protection
- ⑧ IPX5D electrical protection
- ⑨ Climatic thermoregulation (outdoor probe as option)
- ⑩ DHW plate heat-exchanger in stainless-steel
- ⑪ Condensate drain trap
- ⑫ Expansion vessel (8 litres)
- ⑬ Ignition and detection electrodes



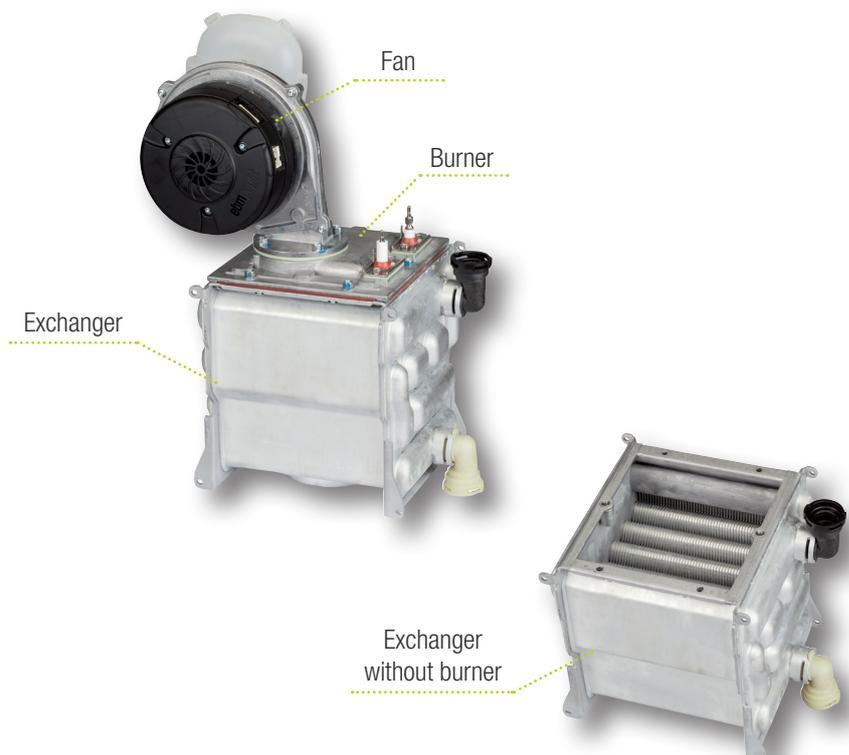
## Condensing heat-exchanger

The innovative and compact condensing heat-exchanger of CIAO 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.



# Ciao Green

## Range rated



The term "Range Rated" identifies a product homologated 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.

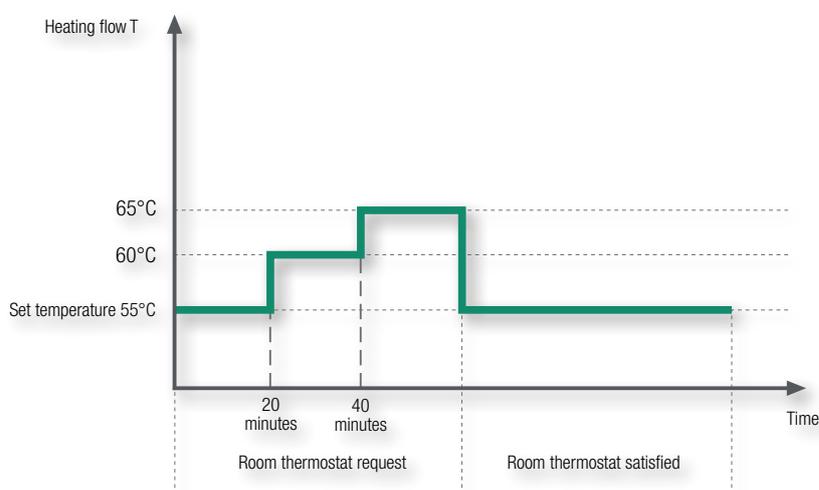
With CIAO GREEN, Beretta offers the possibility to set the power of your boiler according to the real energy requests of the building through a simple operation during the installation. The fan revolutions number (r.p.m.) will only have to be adjusted and the new set power will be written on a label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

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

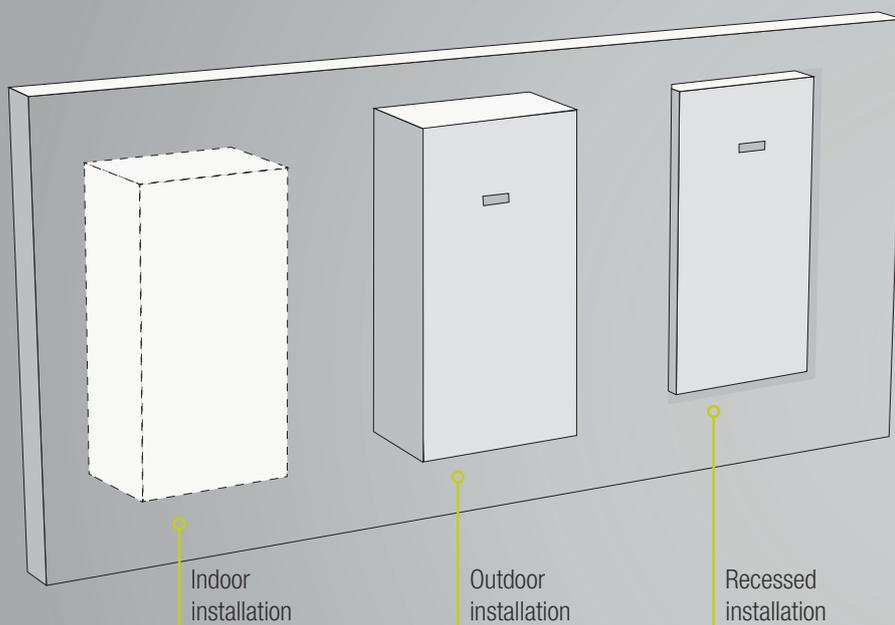
## S.A.R.A. system: comfort and saving

All the models in the CIAO 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 "AUTO" 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.



## A boiler for a versatile installation



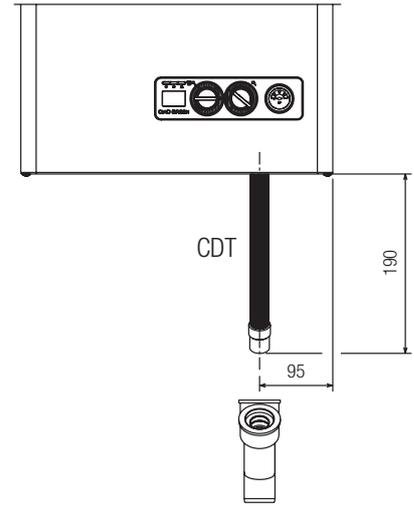
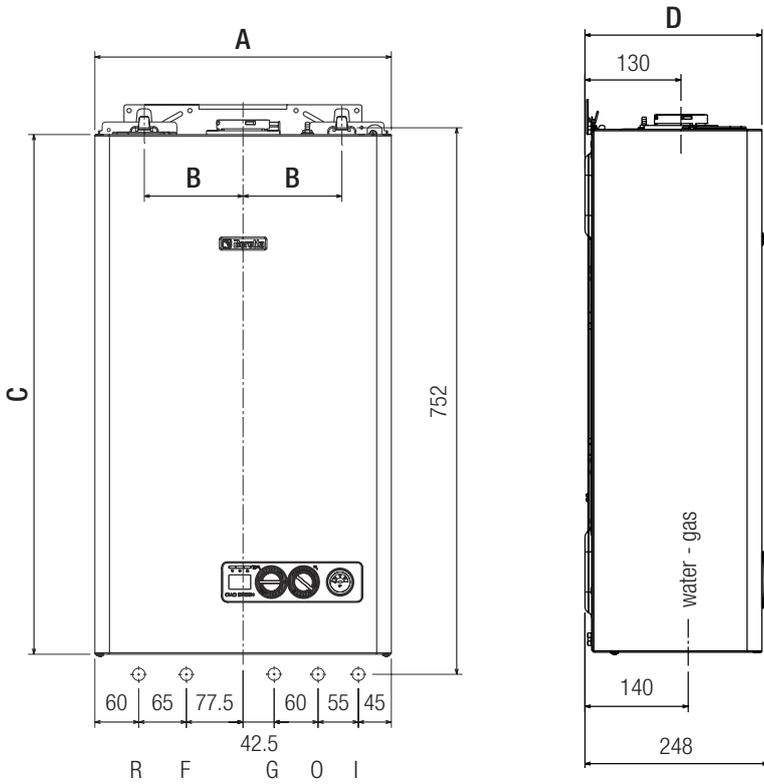
CIAO GREEN has been specifically designed to be installed also outdoor in partially protected or recessed places, thanks to the specific accessories and to the frost protection system down to 0°C.

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

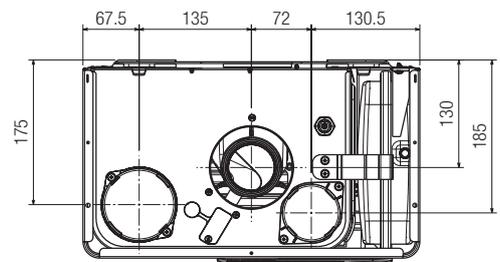
In case of outdoor installation of the boiler, not recessed in a box or in a wall, the lower cover is needed for a higher protection.

# Technical drawings

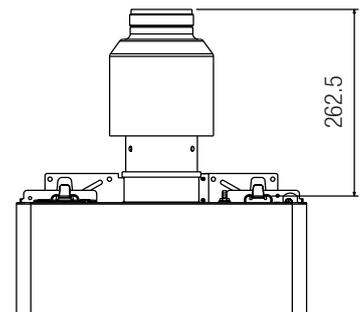
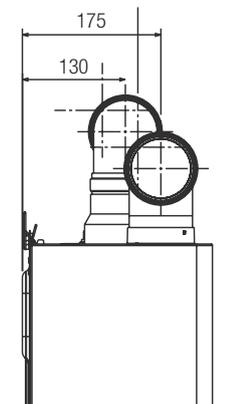
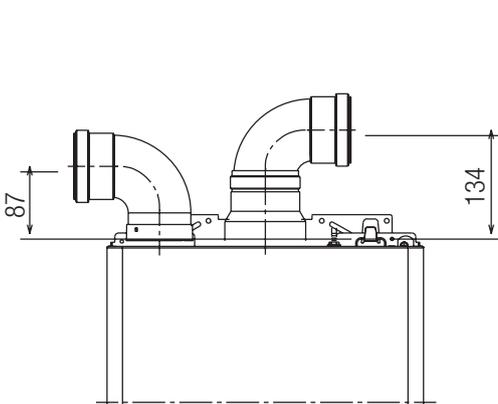
KEY:  
 System: Return R/ Flow F/ Gas G  
 Domestic water: Inlet I/ Outlet O  
 CDT: condensate drain trap



View from above



	Net weight	A	B	C	D
CIAO GREEN 25 C.S.I.	27	405	135	715	250
CIAO GREEN 29 C.S.I.	28	405	135	715	250
CIAO GREEN 25 R.S.I.	28	405	135	715	250



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



## ENERGY LABELLING SPECIFICATIONS (according to ErP regulations)

		CIAO GREEN 25 C.S.I.	CIAO GREEN 29 C.S.I.	CIAO GREEN 25 R.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	24	20
Sound level power inside	dB	53	56	53
Seasonal space heating energy efficiency	%	93	93	93
<b>AUXILIARY ELECTRICITY CONSUMPTION</b>				
At full load	W	29,0	38,0	29,0
At part load	W	10,4	13,1	10,4
In Stand-by mode	W	2,4	2,4	2,4

## OTHER SPECIFICATIONS

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

## 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 $\Delta T=25^{\circ}C$	l/min	14,3	16,6	-
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"	1/2"	-

## FLUE PIPES AND AIR INTAKE

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

## GAS

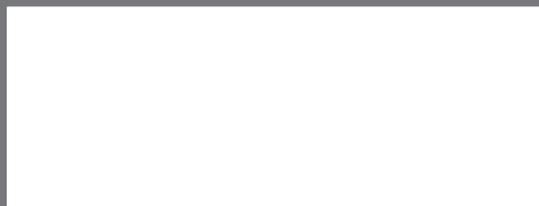
Certified gas types		II2H3P/II2E3P	II2H3P/II2E3P	II2H3P/II2E3P
Available gas versions		NG, LPG	NG, LPG***	NG, LPG***

\* 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 option)

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