

Ciao AT

Condensing Wall-Hung Boilers

for systems with radiators



Residential Heating



WITH CONDENSATE NEUTRALIZER DRAWER



Ciao AT, ideal for replacement in systems with radiators

Ciao AT is the innovative condensing boiler specifically designed by Beretta for traditional high temperature systems with radiators, both in new buildings and renovation.

This boiler, featuring room-sealed combustion, is equipped with a heat recovery system on the flue

gases, allowing the achievement of very high efficiency and providing therefore great energy saving. Ciao AT, thanks to the optional condensate neutralizer drawer, where condensate is collected and neutralized, represents the ideal solution in case of replacement in traditional systems with radiators.



TECHNOLOGY

Condensate neutralizer drawer

Ciao AT is supplied with an optional accessory, the condensate neutralizer tray, allowing to collect the condensate and neutralize it. This kit is designed to be wall-hung installed at the bottom of the boiler. The drawer, made in plastic material, held by a metallic structure, is equipped with neutralizing salts and a float switch, that blocks the boiler in case of overfilling. In case of outdoor installation of the boiler, a specific

frost protection down to - 5 °C is available as optional, to be applied to the condensate neutralizer drawer. The frost protection kit for the condensate neutralizer drawer is different from the frost protection kit of the boiler.

In the presence of the condensate neutralizer drawer it is not possible to install the hydraulic connection cover.



KEY:

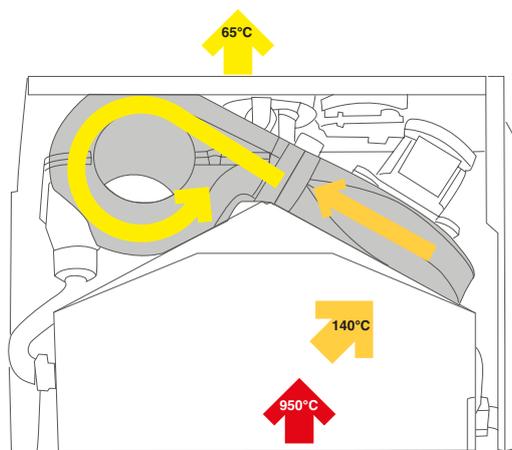
- 1 Condensate neutralizer drawer (complete kit)
- 2 Metallic structure holding the condensate neutralizer drawer
- 3 Condensate neutralizer drawer
- 4 Overfilling float switch for automatic boiler blockage
- 5 Refilling operation of the neutralizing salts
- 6 Neutralizing salts supplied as standard with the condensate neutralizer drawer: 200g (suitable for 1 m³ of condensate)

CONDENSING TECHNOLOGY

The flue gases path

CIAO AT technology features a post heat exchanger that recovers the latent heat of the exhaust flue gases, the same principle on which the condensing boilers work. The post heat exchanger, located at the top left-hand side of the boiler, is directly connected

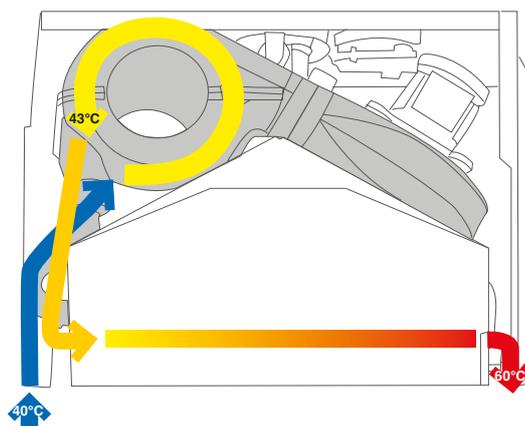
to the fan, that pushes the flue gases into it, before they are finally lost. The temperature difference of the flue gases between inlet $\sim 140^{\circ}\text{C}$ and outlet $\sim 65^{\circ}\text{C}$ from the post heat exchanger is indicative of the heat quantity recovered by it.



The water path

The “return water” from the CH circuit goes before into the post heat exchanger, where it is pre-heated by the heat recovered from the flue gases. Afterwards it goes through the primary heat exchanger, where it receives the further heat necessary to achieve the required flow

temperature. This means the CH water recovers from the exhaust flue gases part of the heat that otherwise would be lost in the atmosphere, translating into less waste and consequently higher saving for the end-user.

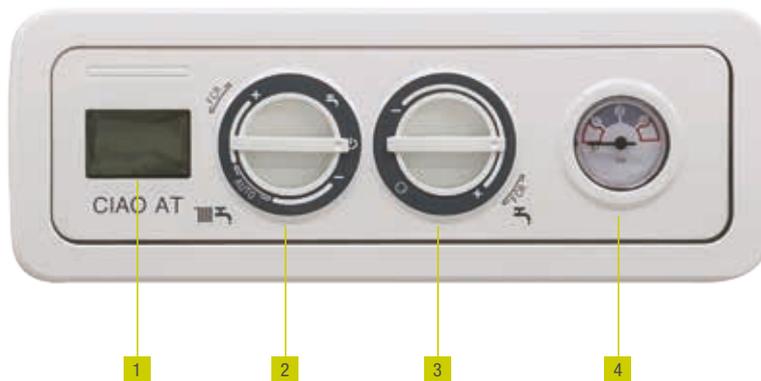


TECNOLOGY AND CONTROL

Intuitive and easy-to-use

Ciao AT features an intuitive and easy-to-use control panel, allowing to adjust the boiler parameters and to activate all different functions. A backlight digital display, with self-diagnostic function, provides the

end-user immediately with all information about the boiler status. Two ergonomic knobs allow to set the central heating temperature and the DHW temperature and to activate the S.A.R.A. function.

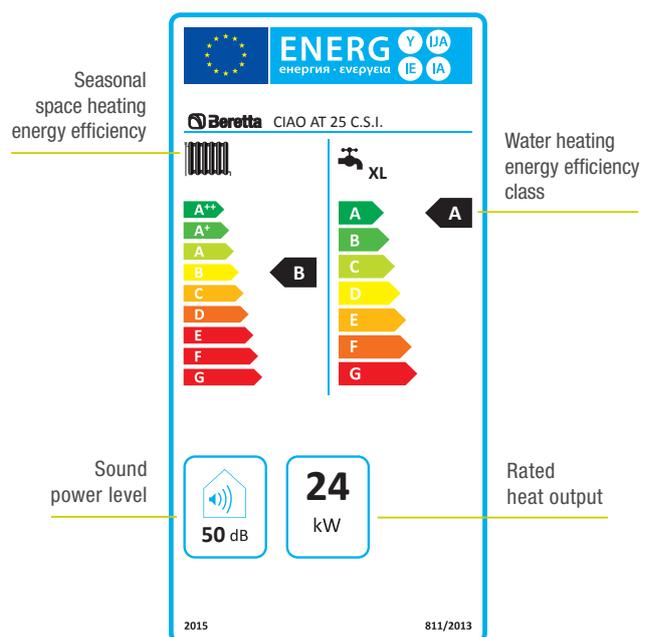


KEY:

- 1 Backlight digital display
- 2 On/Off/Summer/Winter/Reset/Heating temperature/"S.A.R.A. function" selector
- 3 Domestic hot water temperature and Pre-heating activation selector
- 4 Hydrometer

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.



Note: The values in this label refer to CIAO AT 25 C.S.I. Specifications for each model are detailed at page 11.

TECHNOLOGY

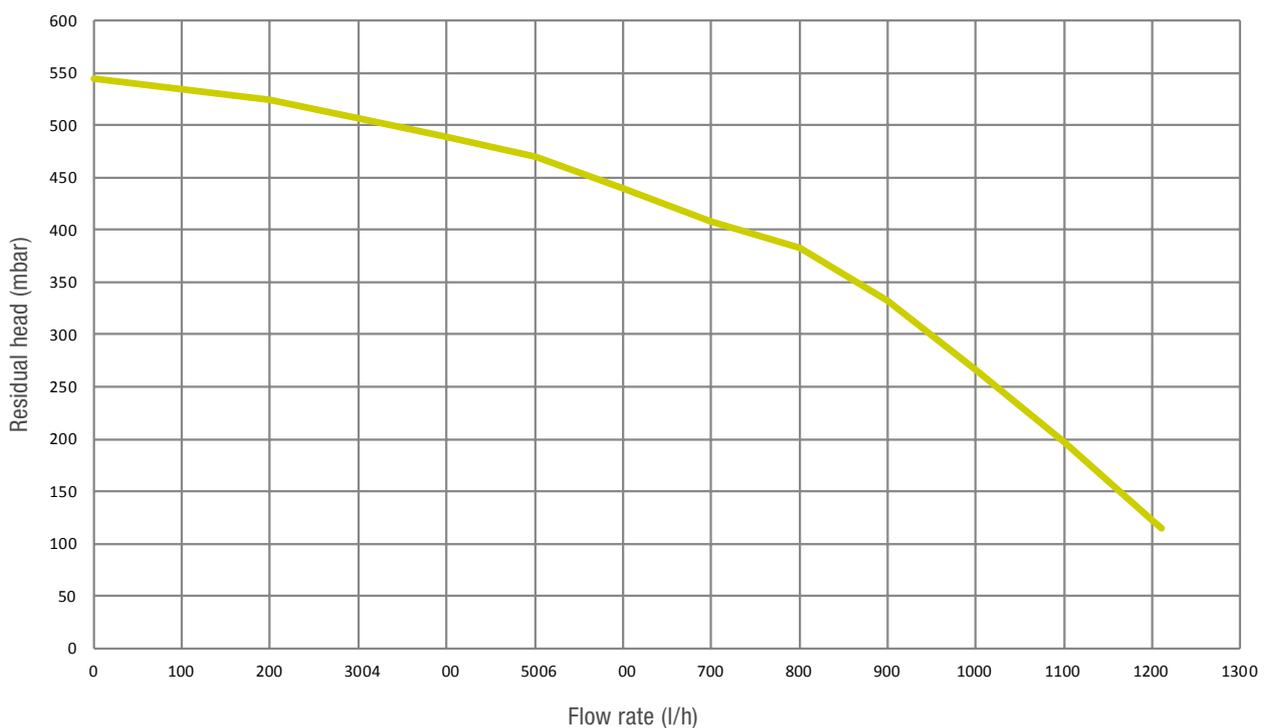
Low Energy pump: optimized efficiency, low consumption

Ciao AT features a new Low Energy synchronous pump, complying with the ErP Directive. Thanks to this new technology, the electric motor of the

pump offers an Energy Efficiency Index lower than 0,20, translating into dramatically reduced electrical consumption.



6 METRES RESIDUAL HEAD



TECHNOLOGY AND CONTROL

Post heat exchanger in aluminium with pre-heating function

Condensate neutralizer drawer (as option)

Low Energy synchronous pump with anti-blocking cycles function

3-ways valves with anti-blocking cycles function

Control board with self-diagnostic function and frost protection system

Electrical protection IPX5D

Built-in climatic thermoregulation that can be activated through the external probe (as option)

Condensate drain syphon

DHW plate heat exchanger with pre-heating function

By-pass on Central Heating

Flue gas analysis test point

Condensate Reduction Function (FRC)



TECNOLOGY AND CONTROL

CIAO AT and BeSMART

Ciao AT is fully compatible with BeSMART, the new thermostat by Beretta to control your home heating also from your Smartphone or Tablet. With BeSMART App, programming your thermostat has never been so simple and intuitive. Using the latest “smart” technology, BeSMART will surprise you with its ease of use and installation.

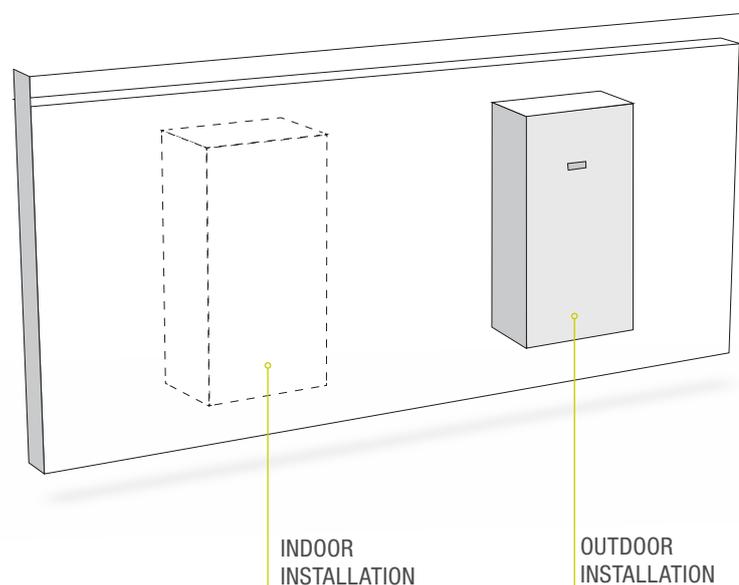
With Ciao AT and BeSMART you can enjoy the greatest degree of connectivity, thanks to the Beretta OTBus communication: you can view your boiler’s operating conditions, alerts, parameters, home and outdoor temperature and much more. You can also reset your boiler when needed. And if you are not interested in the home comfort management via Smartphone or Tablet, you can use BeSMART also as a traditional thermostat, wired or wireless (RF communication).

BeSMART is available as an optional accessory. For further information about BeSMART and its possible configurations, please refer to Beretta International Catalogue (section “smart systems”), or visit the site www.berettaboilers.com.



Flexible installation

Ciao AT, with an IP5XD degree of protection, has been specifically designed to be installed also outdoor in partially protected or recessed places, thanks to the specific accessories (lower and upper cover kit) 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, the lower cover is needed for a higher protection.

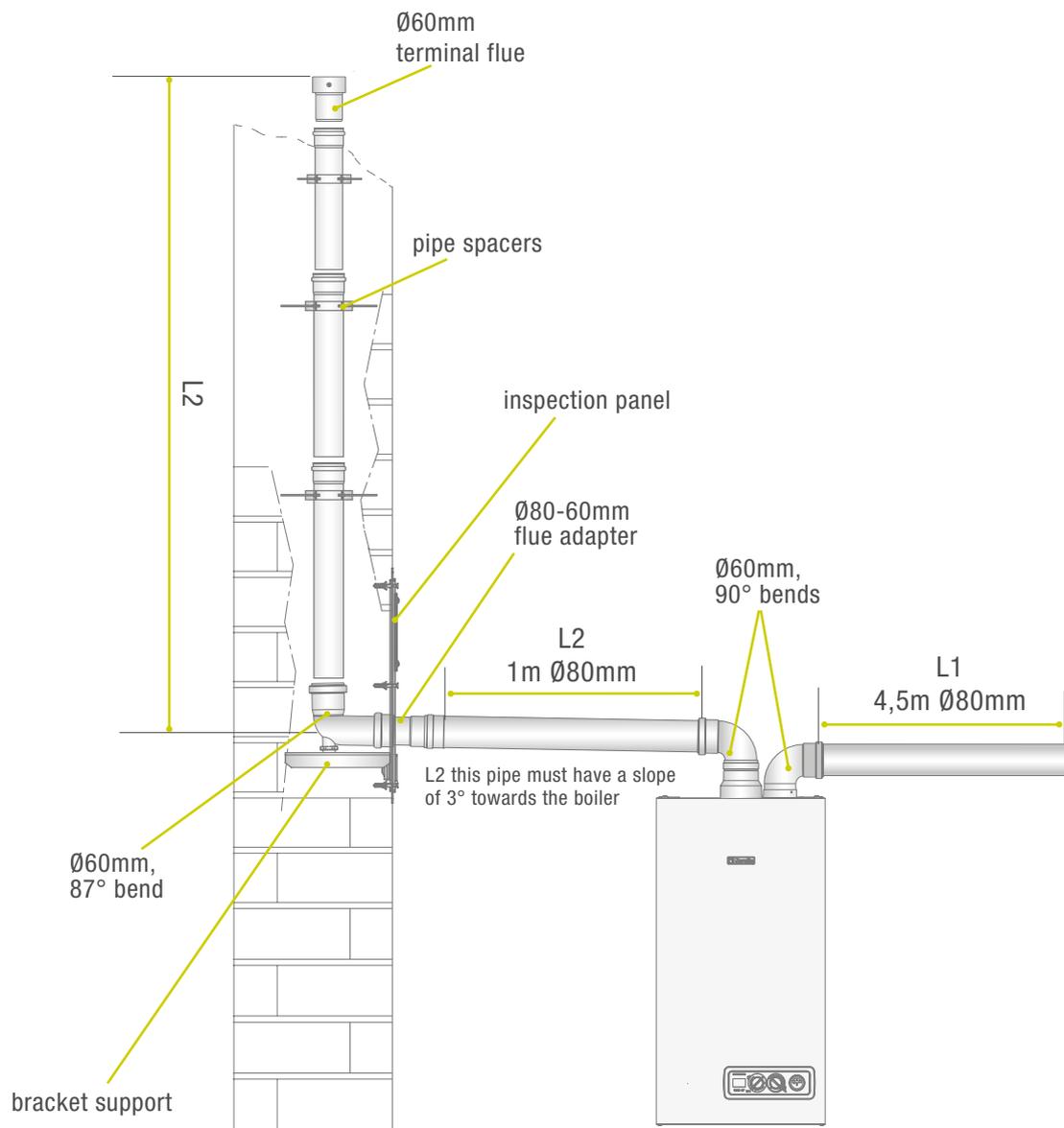


Ø60 mm FLUE OPTIONS FOR INSIDE-CHIMNEY INSTALLATION

Up to 17 metres with Ø60 inside-chimney flues!

With Ciao AT, the inside-chimney installation is possible also for the most "difficult" flues, thanks to the certification for Ø60mm flues, in addition to the Ø80mm, traditionally suitable for inside-chimney installation.

The main Ø60mm flue options are available in the Beretta International Catalogue, while the detailed indications for the maximum flue lengths, that are different according to the power of the boiler, can be found in the installer manual.

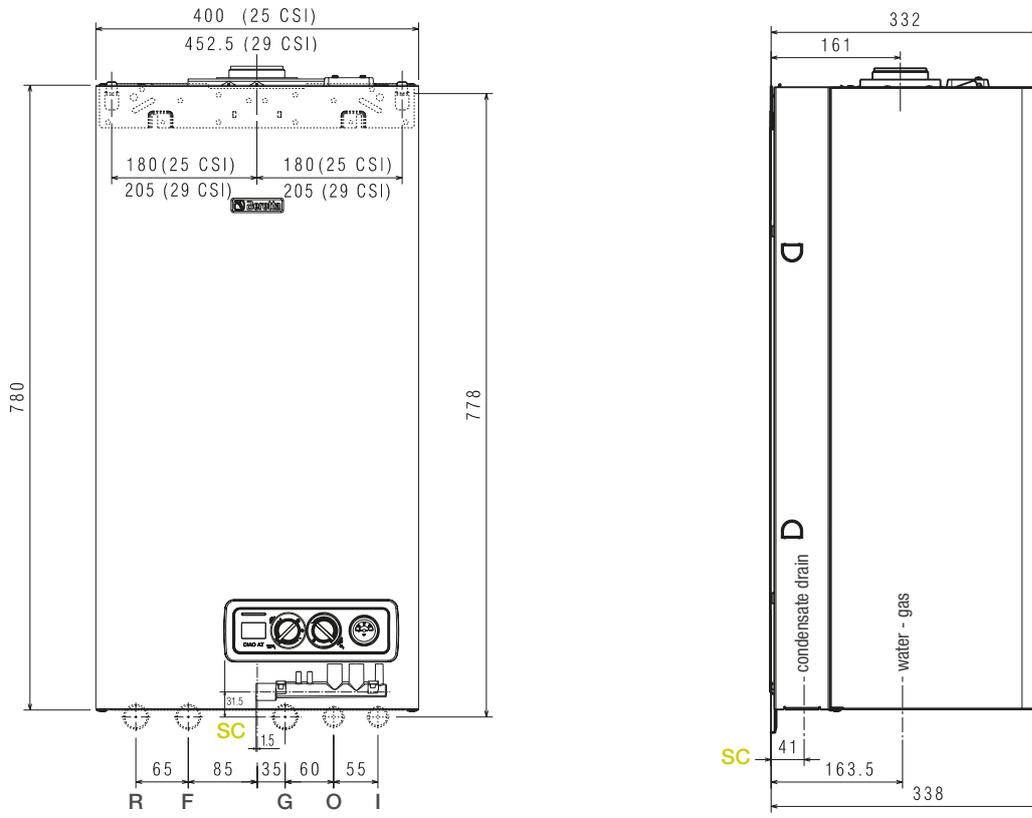


This scheme has only an indication purpose.
For all flueing configurations please refer to the current local and national rules concerning design and installation.

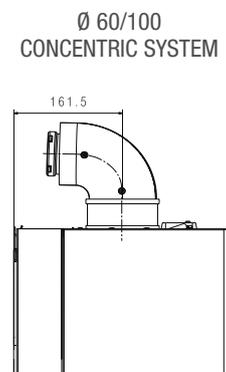
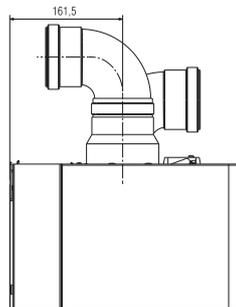
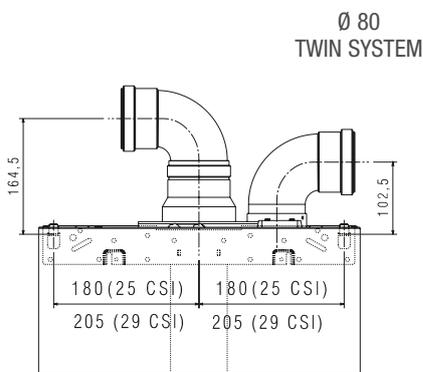
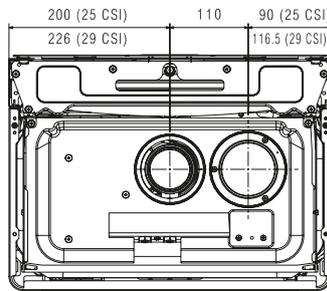
KEY: SYSTEM

- L1** 1 piece of 90° bend + 4,5 linear metres
- L2** 1 piece of 90° bend + 1 linear metre
- L3** Ciao AT 25 (max 17m); Ciao AT 29 (max 5m)

TECHNICAL DRAWINGS



VIEW FROM ABOVE



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

KEY: CENTRAL HEATING

R Return **F** Flow **G** Gas

DHW

O Outlet **I** Inlet **SC** Condensate drain

TECHNICAL DATA

FEATURES and MODELS		CIAO AT 25 C.S.I.	CIAO AT 29 C.S.I.
Product order code		20113788	20113789
Boiler function		combi boiler	combi boiler
 ENERGY LABELLING SPECIFICATIONS (according to ErP regulations)			
Seasonal space heating energy efficiency class		B	B
Water heating energy efficiency class		A	A
Declared load profile		XL	XL
Rated heat output	kW	24	28
Sound level power inside	dB	50	50
Seasonal space heating energy efficiency	%	86	86
AUXILIARY ELECTRICITY CONSUMPTION			
At full load	W	90,0	75,0
At part. load	W	28,4	23,9
In Stand-by mode	W	2,0	2,0
OTHER SPECIFICATIONS			
CH nominal heat input (Hi)	kW	25,00	29,00
CH nominal heat output (80°-60° C)	kW	24,35	28,30
CH nominal heat output (50°-30° C)	kW	25,90	29,93
CH minimum heat input (Hi)	kW	15,00	15,00
CH minimum heat output (80°-60° C)	kW	14,25	14,28
CH minimum heat output (50°-30° C)	kW	14,85	14,75
DHW nominal input (Hi)	kW	25,00	29,00
DHW maximum output*	kW	25,00	29,00
DHW minimum input (Hi)	kW	9,50	9,90
DHW minimum output*	kW	9,50	9,90
Efficiency at max nominal output (80°-60° C)	%	97,4	97,6
Efficiency at min output (80°-60° C)	%	95,0	95,2
Efficiency at partial load 30% (47°C return)	%	95,2	95,8
Efficiency at max nominal output (50°-30° C)	%	103,6	103,2
Efficiency at min output (50°-30° C)	%	99,0	98,3
Efficiency at partial load 30% (30°C return)	%	100,1	99,5
NOx class		2	2
Max power consumption CH-DHW	W	129	114
Circulator electric power consumption (1000 l/h)	W	39	39
Electrical protection	IP	X5D	X5D
CENTRAL HEATING			
Maximum pressure - temperature	bar - °C	3 - 90	3 - 90
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"
DHW inlet - outlet	Ø	1/2"	1/2"
FLUE PIPES AND AIR INTAKE			
Max length (including 90° bend) for concentric 60-100mm	m	4,5	4,0
Max length for concentric 80-125mm	m	11,0	9,0
Max length for twin 80+80mm	m	20+20	12+12
GAS			
Available gas versions		NG, LPG**	NG, LPG**

* average among the different functioning conditions in DHW

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

KEY:

C Combi model (CH + DHW)

S Room-sealed

I Electronic ignition and ionisation flame control



SCAN AND DISCOVER
Ciao AT

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