



CITY OPEN - CITY BOX *from 25 to 35 kW*

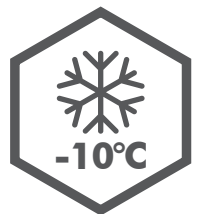
**Technology and automotive innovation,
resistance to sun, rain, frost and salt**



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Born to resist





FLUE FLANGE
WITH PRESSURE
SPOTS

STAINLESS STEEL
COMBUSTION
GROUP

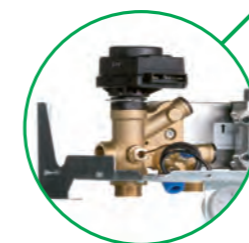
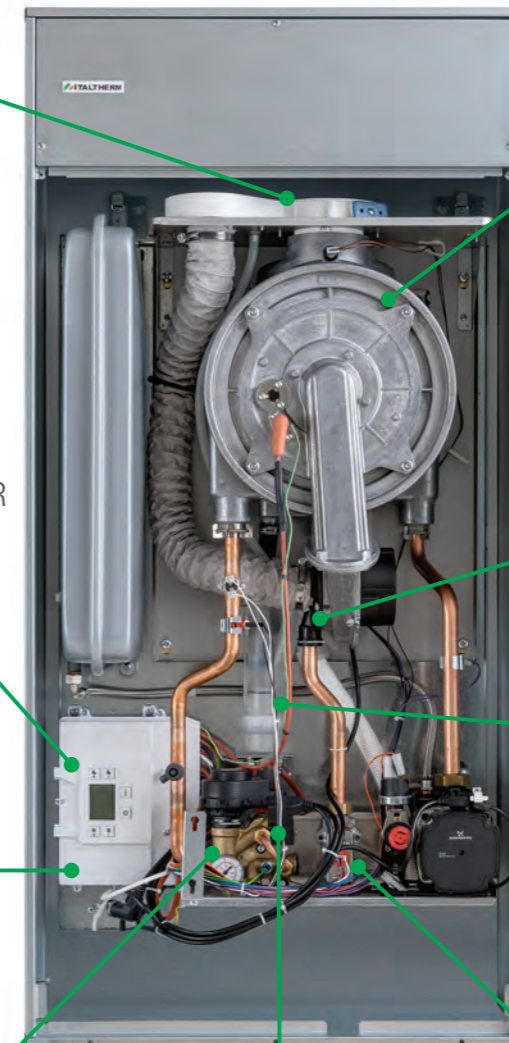


CONTROLS
INSIDE THE BOILER
(FOR SERVICE)

MIXER
MODULATION
RATIO 1:10

ICS
INTELLIGENT
COMBUSTION
SYSTEM

CONDENSE
SIPHON



BRASS
HYDRAULIC GROUP

AUTOMATIC FILLING
VALVE



SMART ADAPTIVE
GAS VALVE



INTELLIGENT REMOTE CONTROL AS STANDARD



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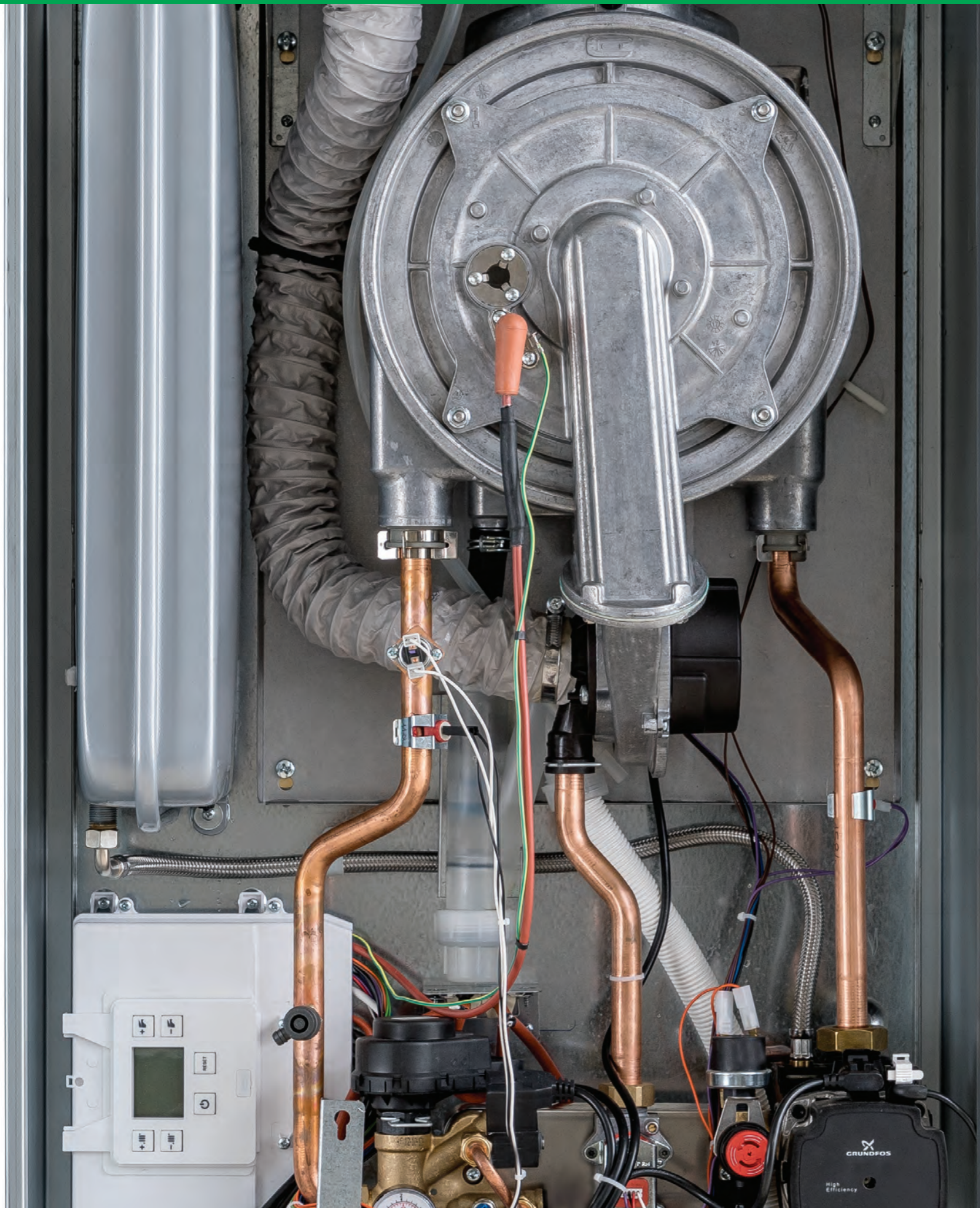
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the engine



Italtherm has designed and developed a **new stainless steel heat exchanger** with extra wide water passages: the inner section of the coils has been increased by 4 times in comparison to the market standards.

Thanks to the new heat exchanger, the City Open and the City Box have **better thermal efficiency, better resistance to limescale and plant dirty stuff**, making the ideal even when replacing boilers on pre-existing plants; In addition, the single coil design of the new exchanger guarantees high flow rates, low hydraulic load losses, easier cleaning and maintenance.



Italtherm has designed and developed the **ICS - Intelligent Combustion System** - a system making the City Open and the City Box smart boilers, the only boilers controlling and adjusting themselves independently.

The **ICS - Intelligent Combustion System** - controls the combustion values and adjusts the gas flow rate in order to always get the correct air / gas ratio, thus obtaining:

- **reduction of the gas consumption**
- **lower CO/CO₂ emissions**
- **less installation time** (there are no manual rules to run)

The City Open and the City Box are definitely efficient boilers allowing:

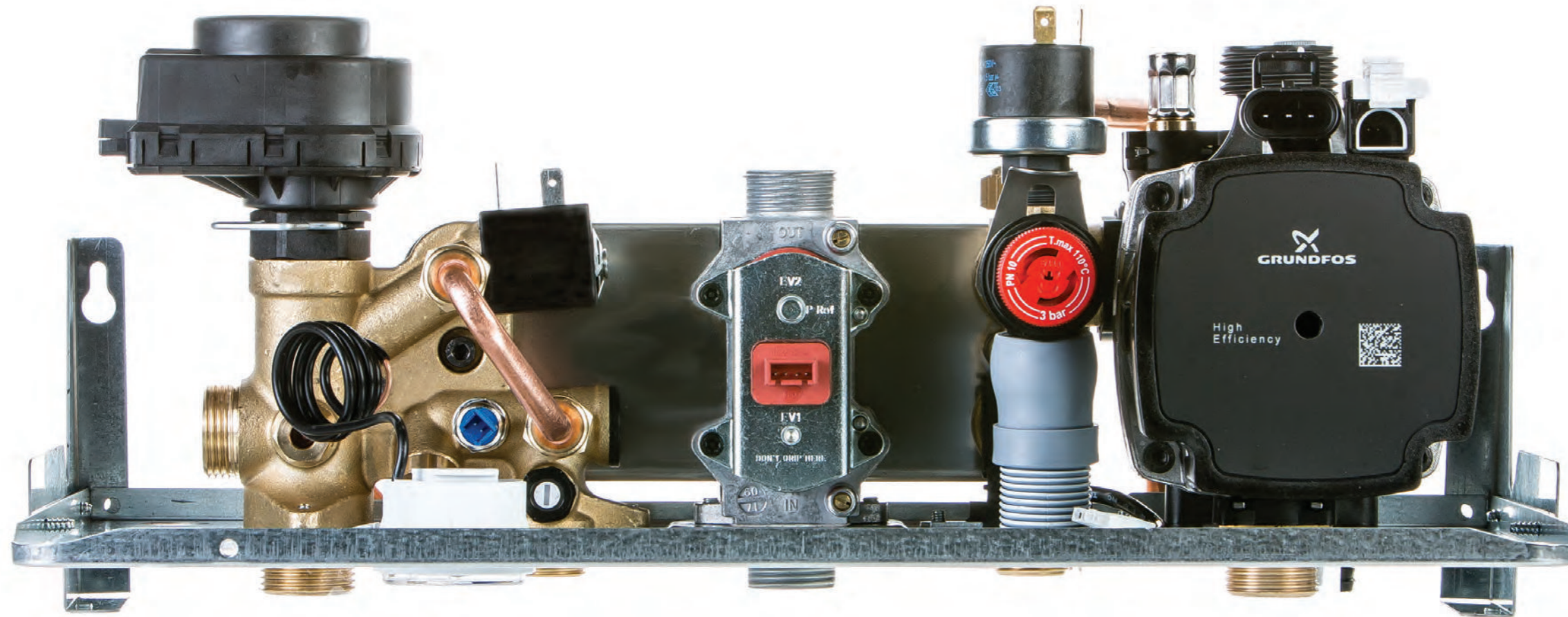
- **modulation ratio 1:10**
- **Always optimum ignition** (the system is self-tuning to operating conditions)
- **Perfect combustion** (getting a longer boiler life for an increasingly reliable product)
- **Reduction of on/off cycles** (increasing efficiency and reducing boiler noise)

Finally, thanks to the **adaptive gas function**, the City Open and the City Box can operate with all types of gas without requiring the replacement of the nozzles (the boilers are supplied with a single product code).



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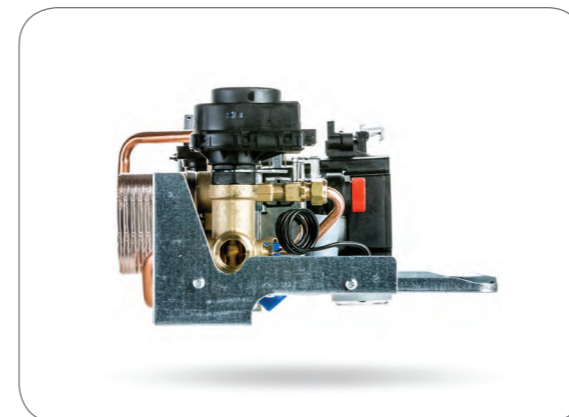
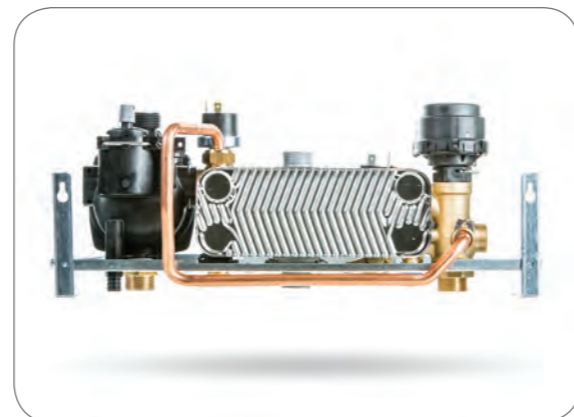
quality and efficiency



Italtherm keeps using the brass on its hydraulic units to ensure maximum reliability and robustness of its products.

The new **brass hydraulic group*** is equipped with:

- **Automatic filling valve**
- **three-way valve**
- **external bypass**
- **insulated stainless steel plate heat exchanger**
- **one-way valve**
- **flow regulator**
- **NTC DHW probe**





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you can control it!



**1. INTELLIGENT REMOTE CONTROL
AS STANDARD**



2. APP END-USER*



3. TELEMETRY SERVICE*

**optional*



MODEL		City Open 25 K	City Open 35 K	City Box 25 K	City Box 25 K
Gas type		G20	G20	G20	G20
Max heat input Qn	<i>kW</i>	25.0	33.2	25.0	33.2
Max heat input Heating	<i>kW</i>	20.0	28.0	20.0	28.0
Min heat input Qr	<i>kW</i>	2.5	3.5	2.5	3.5
Max heat output 60°/80°C *	<i>kW</i>	19.4	27.4	19.4	27.4
Min heat output 60°/80°C *	<i>kW</i>	2.4	3.3	2.4	3.3
Max heat output 30°/50°C *	<i>kW</i>	21.0	29.5	21.0	29.5
Min heat output 30°/50°C *	<i>kW</i>	2.7	3.7	2.7	3.7
NOx Class		6	6	6	6
EFFICIENCY					
Nominal efficiency (NCV) at 60°/80°C *	%	96.1	96.2	96.1	96.2
Nominal efficiency (NCV) at 30°/50°C *	%	105.1	106.4	105.1	106.4
Efficiency at 30% Qa (NCV) at 30°C	%	106.4	106.7	106.4	106.7
* return temperature / flow temperature; NCV = Net Calorific Value (= Hi) • Note: the data were detected with horizontal coaxial flue kit = 1 meter					
HEATING					
Temperature ranges (min÷max) • main zone	°C	35÷80 / 20÷45			
Temperature range (min÷max) • secondary zone	°C	20÷80			
Expansion vessel	<i>l</i>	8	10	8	10
Expansion vessel pre-load pressure	<i>bar</i>	1	1	1	1
Loss of water switch pressure on / off	<i>bar</i>	0.5 / 1.2 (±0.2)	0.5 / 1.2 (±0.2)	0.5 / 1.2 (±0.2)	0.5 / 1.2 (±0.2)
Max working pressure	<i>bar</i>	3	3	3	3
Max temperature	°C	90	90	90	90
Antifreeze function temperature on / off	°C	5 / 30	5 / 30	5 / 30	5 / 30
Antifreeze resistences temperature on / off	°C	5 / 16	5 / 16	5 / 16	5 / 16
DOMESTIC HOT WATER					
Flow rate at ΔT 25°C	<i>l/min</i>	14.8	18.7	14.8	18.7
Flow rate at ΔT 30°C	<i>l/min</i>	12.0	16.0	12.0	16.0
Min DHW flow (for DHW activation)	<i>l/min</i>	2.8	2.8	2.8	2.8
Min DHW pressure (for DHW activation)	<i>bar</i>	0.2	0.2	0.2	0.2
Max DHW pressure inlet	<i>bar</i>	6	6	6	6
DHW range temperature (min÷max)	°C	30÷55	30÷55	30÷55	30÷55
ELECTRICAL DATA					
Voltage / Frequency (nominal voltage)	<i>V / Hz</i>	220÷240 / 50 (230V)	220÷240 / 50 (230V)	220÷240 / 50 (230V)	220÷240 / 50 (230V)
Power consumption	<i>W</i>	73	86	73	86
Antifreeze resistences power	<i>W</i>	38	38	38	38
Protection level		IP X5D	IP X5D	IP X5D	IP X5D
DIMENSIONS					
Width - Height - Depth	<i>mm</i>	520X850X240		550X1140X250	
Boiler's weight (net-gross)	<i>kg</i>	28.4 / 30.8	34.2 / 36.6	27.6 / 31.1	33.4 / 36.9
Inwall box's weight (net-gross)	<i>kg</i>	-	-	13.9 / 14.4	13.9 / 14.4
CONNECTIONS					
Hydraulic and gas connections		see the technical sheet			
Coaxial Ø 60/100 mm max length (inlet / outlet)	<i>m</i>	10	8	10	8
Split Ø 80 mm max length (inlet / outlet)	<i>m</i>	54	50	54	50
Split Ø 60 mm max length (inlet / outlet)	<i>m</i>	16	16	16	16
GAS PRESSURE INLET					
Nominal pressure	<i>mbar</i>	20	20	20	20
Inlet pressure (min÷max)	<i>mbar</i>	17 ÷ 25	17 ÷ 25	17 ÷ 25	17 ÷ 25
ErP DATA SHEET					
DHW declared load profile		XL	XXL	XL	XXL
Seasonal heating energy efficiency class		A	A	A	A
DHW energy efficiency class		A	B	A	B
Seasonal Space Heating Energy Efficiency (GCV)	η_s %	91	91	91	91



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