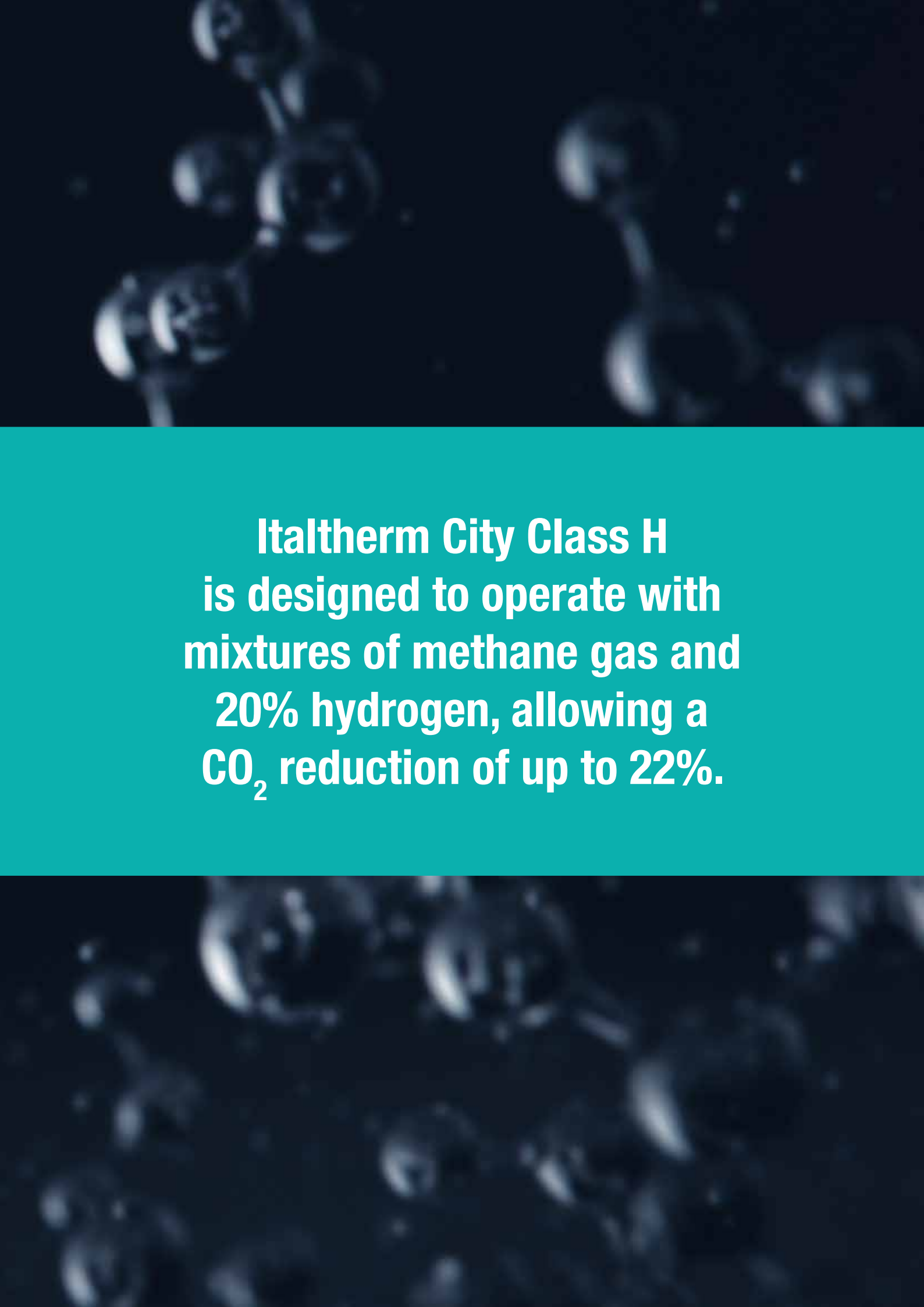


CITY CLASS H





HYDROGEN
20% READY

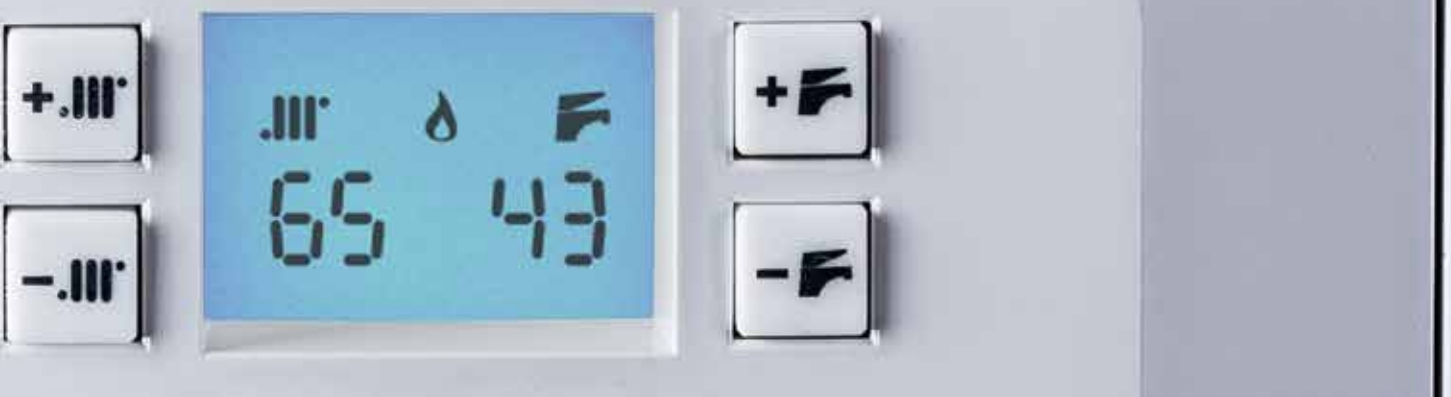
The background of the entire image features a dark, blue-toned molecular structure, possibly representing a hydrocarbon or a similar chemical compound, with glowing white and light blue spheres connected by lines. This structure is visible in the top and bottom portions of the image, framing a central teal-colored band.

**Italtherm City Class H
is designed to operate with
mixtures of methane gas and
20% hydrogen, allowing a
CO₂ reduction of up to 22%.**

Giugiaro

design.

Compact and elegant





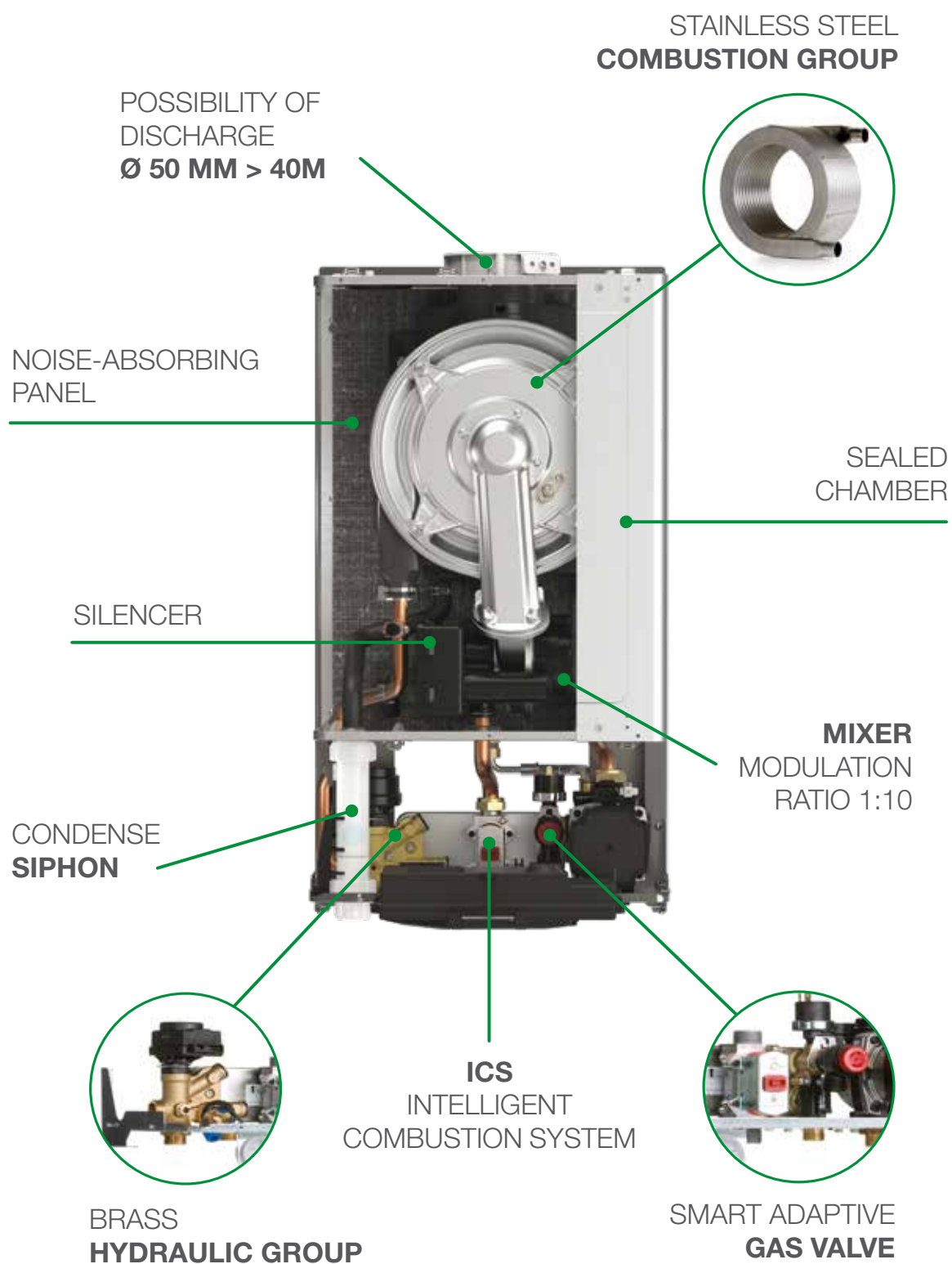
Super

high sound proofing and noise
absorbing technology

A photograph of a field of yellow buttercup flowers. The foreground shows several thin green stems with small yellow flowers in focus. The background is a soft, out-of-focus field of similar flowers, creating a bokeh effect with warm, golden light. The overall mood is peaceful and serene.

silent.









City Class H ensures the highest safety standards in the market thanks to the **double sealing of the combustion group**.

The **double sealed chamber**, further increasing the level of safety, improves the acoustic performance of City Class H inside the home, thanks to **silencer** air-box which significantly reduces the air intake.

Within this aim, Italtherm R&D, has decided to coat the City Class H combustion chamber with a material having **high sound proofing and noise absorbing properties**.

City Class H has thus reached the lowest noise levels in the market, to the benefit of comfort.





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 Class H has **better thermal efficiency, better resistance to limescale and plant dirty stuff**, making the City Class H 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 Class H a smart boiler, controlling, adjusting and fitting itself 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 Class H is a particularly efficient boiler:

- **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)

Thanks to the **adaptive gas** function, the City Class H can operate with all types of gas without requiring the replacement of the nozzles (the boiler is supplied with a single product code). Finally, City Class H has been designed to work with methane gas mixtures and **20% hydrogen**, also allowing a reduction of CO₂ up to 22%.







Italtherm keeps using the **brass** on its hydraulic units to ensure maximum reliability and robustness of its products. Our **brass hydraulic group** is equipped with:

- **high efficiency pump**
- **three-way valve**
- **bypass**
- **filling-in tap**
- **one-way valve**
- **flow regulator**
- **NTC DHW probe**





you can control it!



1. INTELLIGENT REMOTE CONTROL



2. APP END-USER

compact as no other



	Model	City Class H 25 K	City Class H 30 K	City Class H 35 K	City Class H 15 KR	City Class H 25 KR	City Class H 35 KR
	Gas type	G20	G20	G20	G20	G20	G20
Max heat input Qn	kW	25.0	30.0	33.2	30.0	25.0	33.2
Max heat input Heating	kW	21.0	25.0	28.0	15.0	21.0	28.0
Min heat input Qr	kW	2.6	2.6	3.5	2.6	2.6	3.5
Max heat output 60°/80°C *	kW	20.3	24.0	26.3	14.4	20.3	26.3
Min heat output 60°/80°C *	kW	2.4	2.4	3.2	2.4	2.4	3.2
Max heat output 30°/50°C *	kW	22.1	26.1	29.0	15.8	22.1	29.0
Min heat output 30°/50°C *	kW	2.7	2.7	3.7	2.7	2.7	3.7
NOx Class		6					
EFFICIENCY							
Nominal efficiency (NCV) at 60°/80°C *	%	95.9	95.9	95.2	95.9	95.9	95.2
Nominal efficiency (NCV) at 30°/50°C *	%	105.8	105.4	105.1	105.4	105.8	105.1
Efficiency at 30% Qa (NCV) at 30°C	%	106.2	106.0	106.9	106.0	106.2	106.9
* 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 ranges (min÷max) • secondary zone	°C	20÷80					
Expansion vessel	l	8	8	10	8	8	10
Expansion vessel pre-load pressure	bar	1	1	1	1	1	1
Loss of water switch pressure on / off	bar	0.4 / 0.9 (±0.2)	0.4 / 0.9 (±0.2)	0.4 / 0.9 (±0.2)	0.4 / 0.9 (±0.2)	0.4 / 0.9 (±0.2)	0.4 / 0.9 (±0.2)
Max working pressure	bar	3	3	3	3	3	3
Max temperature	°C	90	90	90	90	90	90
Antifreeze function temperature on / off	°C	5 / 30	5 / 30	5 / 30	5 / 30	5 / 30	5 / 30
DOMESTIC HOT WATER							
Flow rate at ΔT 25°C	l/min	15.1	18.1	20.0	-	-	-
Flow rate at ΔT 30°C	l/min	12.6	15.1	16.7	-	-	-
Min DHW flow (for DHW activation)	l/min	2.0	2.0	2.0	-	-	-
Min DHW pressure (for DHW activation)	bar	0.2	0.2	0.2	-	-	-
Max DHW pressure inlet	bar	6	6	6	-	-	-
DHW range temperature (min÷max)	°C	30÷55	30÷55	30÷55	30÷60	30÷60	30÷60
ELECTRICAL DATA							
Voltage / Frequency (nominal voltage)	V / Hz	220÷240/50 (230V)	220÷240/50 (230V)	220÷240/50 (230V)	220÷240/50 (230V)	220÷240/50 (230V)	220÷240/50 (230V)
Power consumption	W	75	90	107	90	75	107
Protection level		IP X5D	IP X5D	IP X5D	IP X5D	IP X5D	IP X5D
DIMENSIONS							
Width - Height - Depth	mm	400 X 700 X 324					
Weight	kg	28.5	28.7	34.0	28.1	28.5	33.5
CONNECTIONS							
Hydraulic and gas connections	l/min	see the technical sheet					
Coaxial Ø 60/100 mm max length (inlet / outlet)	m	10	10	10	10	10	10
Split Ø 80 mm max length (inlet / outlet)	m	60	60	98	60	60	98
Split Ø 60 mm max length (inlet / outlet)	m	18	18	38	18	18	38
GAS PRESSURE INLET							
Nominal pressure	mbar	20	20	20	20	20	20
Inlet pressure (min÷max)	mbar	17 ÷ 25	17 ÷ 25	17 ÷ 25	17 ÷ 25	17 ÷ 25	17 ÷ 25
ErP DATA SHEET							
DHW declared load profile		XL	XL	XXL	-	-	-
Seasonal heating energy efficiency class		A	A	A	A	A	A
DHW energy efficiency class		A	A	A	-	-	-
Seasonal Space Heating Energy Efficiency (GCV)	(η _s) %	91	90	91	90	91	91
Sound power level, indoors	db	50	51	52	47	50	52







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