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

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

IPX5

-10°C

Green Heating Technology

ITALTHERM

Born to resist

IPX5

-10°C

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City Open - City Box

STAINLESS STEEL
COMBUSTION GROUP

POSSIBILITY OF DISCHARGE
Ø 50 MM > 40m

CONTROLS
INSIDE THE BOILER
(FOR SERVICE)

MIXER
MODULATION
RATIO 1:10

ICS
INTELLIGENT
COMBUSTION
SYSTEM

CONDENSE
SIPHON

AUTOMATIC FILLING
VALVE

BRASS
HYDRAULIC GROUP

SMART ADAPTIVE
GAS VALVE

INTELLIGENT REMOTE CONTROL AS STANDARD

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.

They check, adjust, fit

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/CO_2 emissions**
- **less installation time** (there are no manual rules to run)

The City Open and the City Box are definetely 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).

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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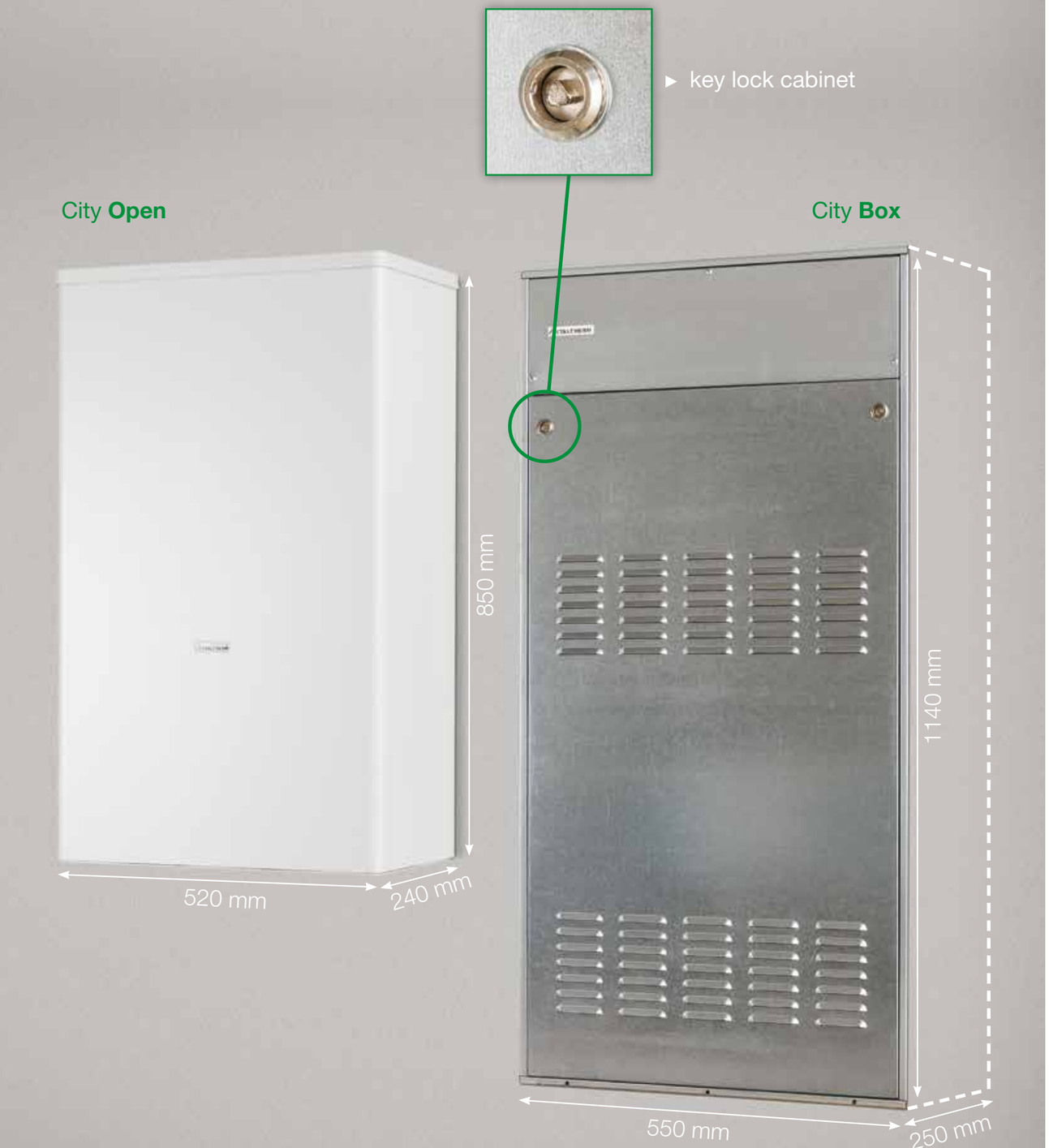
you can control it!

1. INTELLIGENT REMOTE CONTROL
AS STANDARD

2. APP END-USER

Maximum comfort, minimum space



technical data

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	kW	25.0	33.2	25.0	33.2
Max heat input Heating	kW	20.0	28.0	20.0	28.0
Min heat input Qr	kW	2.5	3.5	2.5	3.5
Max heat output 60°/80°C *	kW	19.4	27.4	19.4	27.4
Min heat output 60°/80°C *	kW	2.4	3.3	2.4	3.3
Max heat output 30°/50°C *	kW	21.0	29.5	21.0	29.5
Min heat output 30°/50°C *	kW	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 range (min÷max) • main zone	°C	35÷80 / 20÷45			
Temperature range (min÷max) • secondary zone	°C	20÷80			
Expansion vessel	l	8	10	8	10
Expansion vessel pre-load pressure	bar	1	1	1	1
Loss of water switch pressure on / off	bar	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	bar	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	l/min	14.8	18.7	14.8	18.7
Flow rate at ΔT 30°C	l/min	12.0	16.0	12.0	16.0
Min DHW flow (for DHW activation)	l/min	2.8	2.8	2.8	2.8
Min DHW pressure (for DHW activation)	bar	0.2	0.2	0.2	0.2
Max DHW pressure inlet	bar	6	6	6	6
DHW range temperature (min÷max)	°C	30÷55	30÷55	30÷55	30÷55
ELECTRICAL DATA					
Voltage / Frequency (nominal voltage)	V / Hz	220÷240 / 50 (230V)	220÷240 / 50 (230V)	220÷240 / 50 (230V)	220÷240 / 50 (230V)
Power consumption	W	73	86	73	86
Antifreeze resistences power	W	38	38	38	38
Protection level		IP X5D	IP X5D	IP X5D	IP X5D
DIMENSIONS					
Width - Height - Depth	mm	520X850X240		550X1140X250	
Boiler's weight (net-gross)	kg	28.4 / 30.8	34.2 / 36.6	27.6 / 31.1	33.4 / 36.9
Inwall box's weight (net-gross)	kg	-	-	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)	m	10	8	10	8
Split Ø 80 mm max length (inlet / outlet)	m	54	50	54	50
Split Ø 60 mm max length (inlet / outlet)	m	16	16	16	16
GAS PRESSURE INLET					
Nominal pressure	mbar	20	20	20	20
Inlet pressure (min÷max)	mbar	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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