



CITY CLASS C-F *from 20 to 40 kW*

**Pure design, technology and
automotive innovation
for your comfort**

Conceived by
GIUGIARO DESIGN

Less

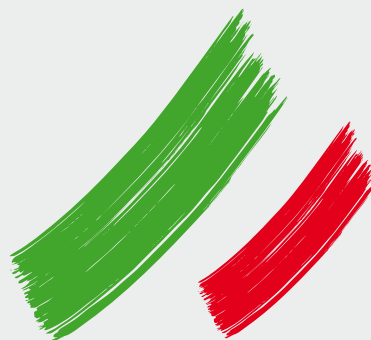


is more.

Compact and elegant





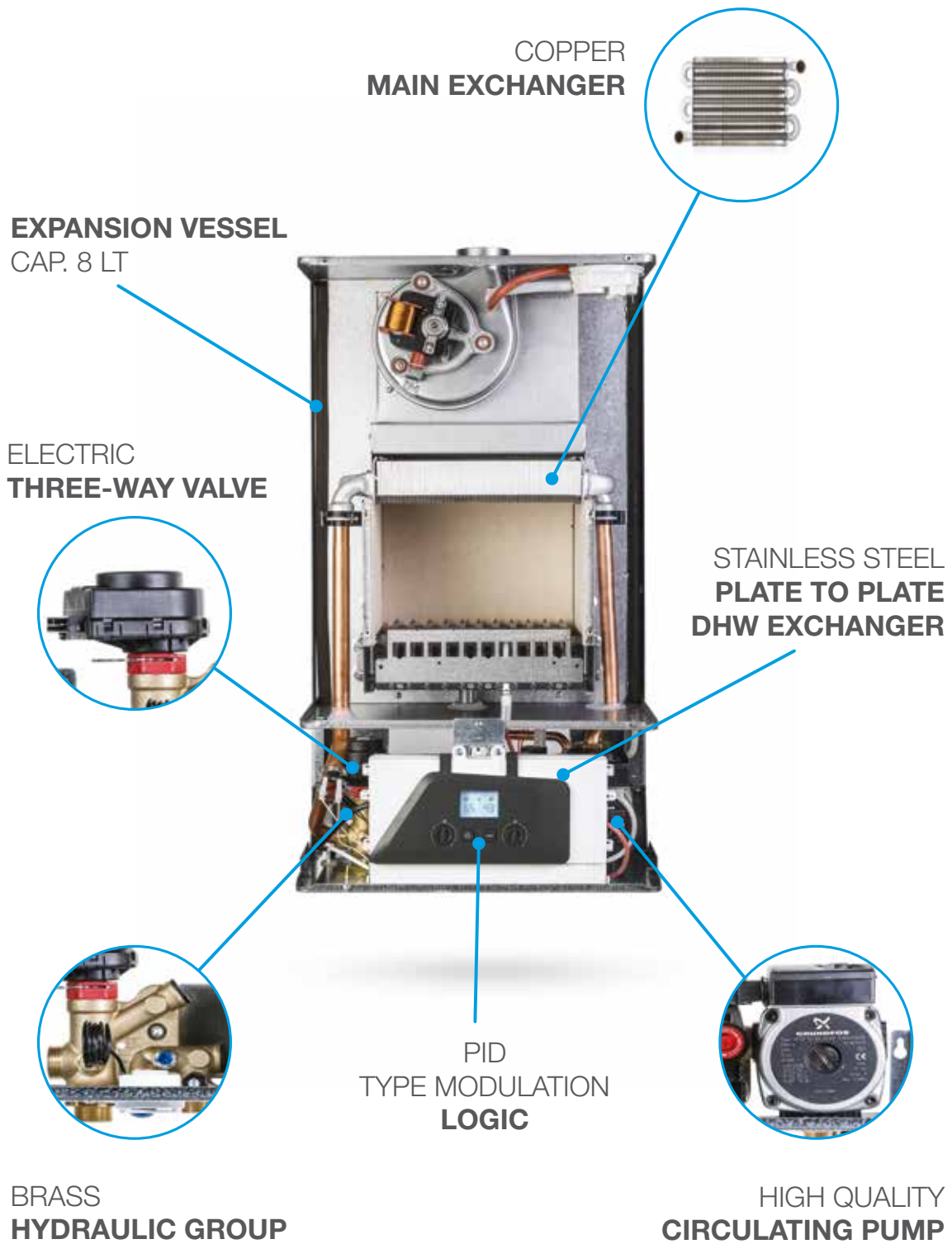


Green Heating Technology

ITALTHERM

- ▶ **Quality components**
Only the best components are used in the Italtherm boilers
- ▶ **Noble materials**
Brass hydraulic group, Stainless Steel DHW exchanger, Copper main exchanger
- ▶ **100% of the products are tested**
All boilers are switched on and subjected to a series of operating tests
- ▶ **100% Made in Italy**
All the production is carried out at Pontenure plants
- ▶ **Great Know-how**
50 years of experience in the HVAC sector





NATURAL draught



- Ultra compact sizes (W=400 H=700 D=300)
- Easy to be installed
- Designed to allow an easy maintenance
- User friendly controls



24 C



28 C

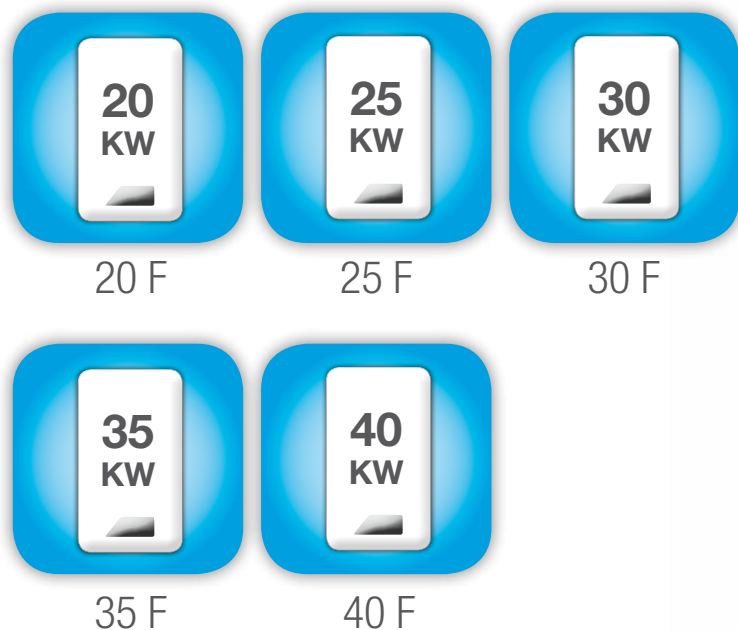
► Hydraulic fitting kit

Thanks to this kit, it is possible to easily connect the boiler to the system. It is equipped with 1 gas cock, four hydraulic fitting pipes (DHW and CH), 1 water cock and all the relevant fittings.



FORCED draught

- Adjustable CH heat power output
- Anti-freeze function on both DHW and CH sides
- Filter on boiler water inlet

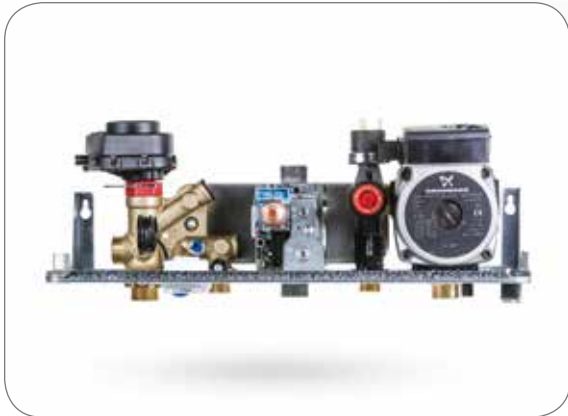
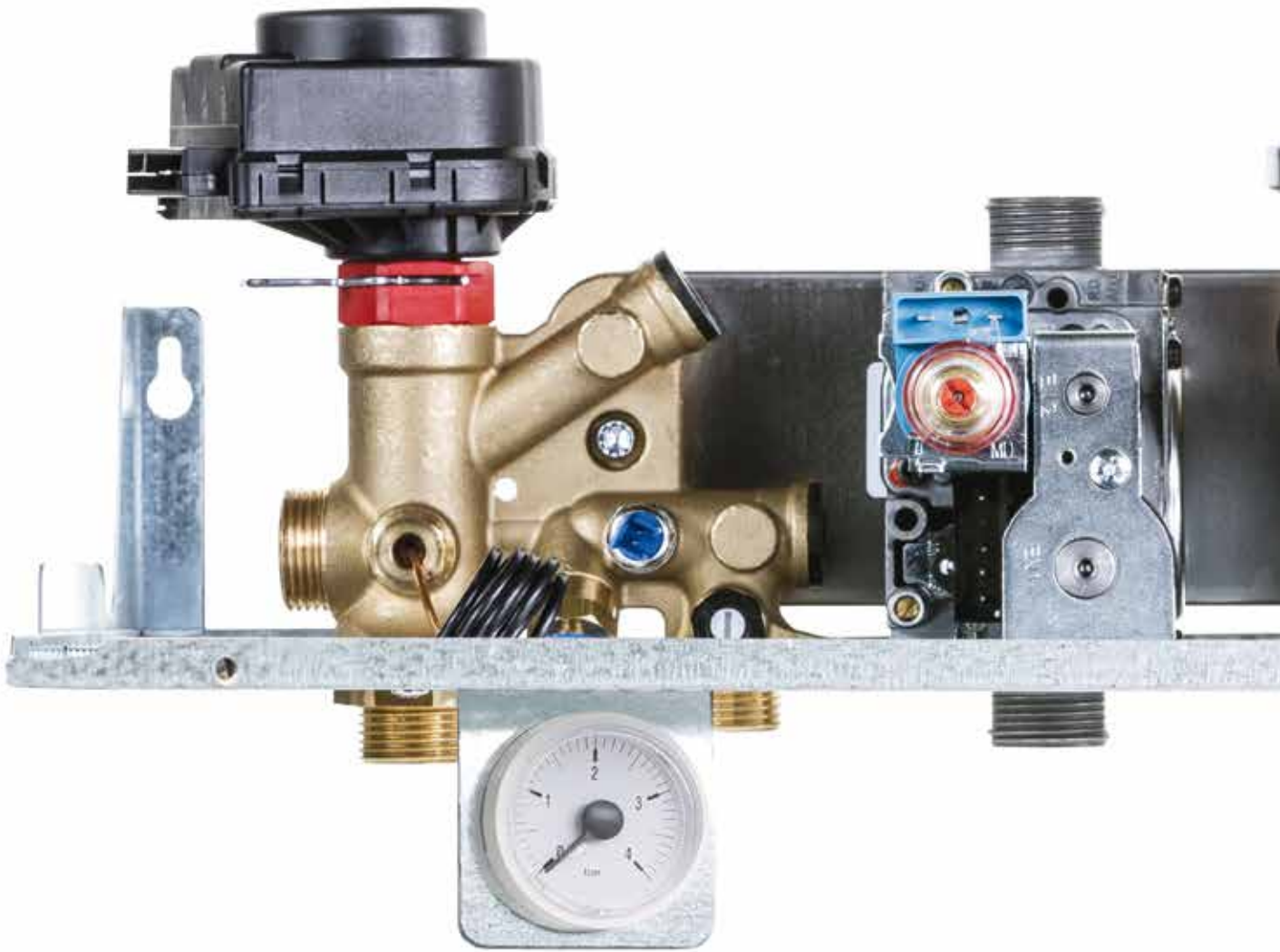


accessories

► Steel boiler frame

It gives the advantage to save time during the boiler installation by giving a precise layout of the connections.





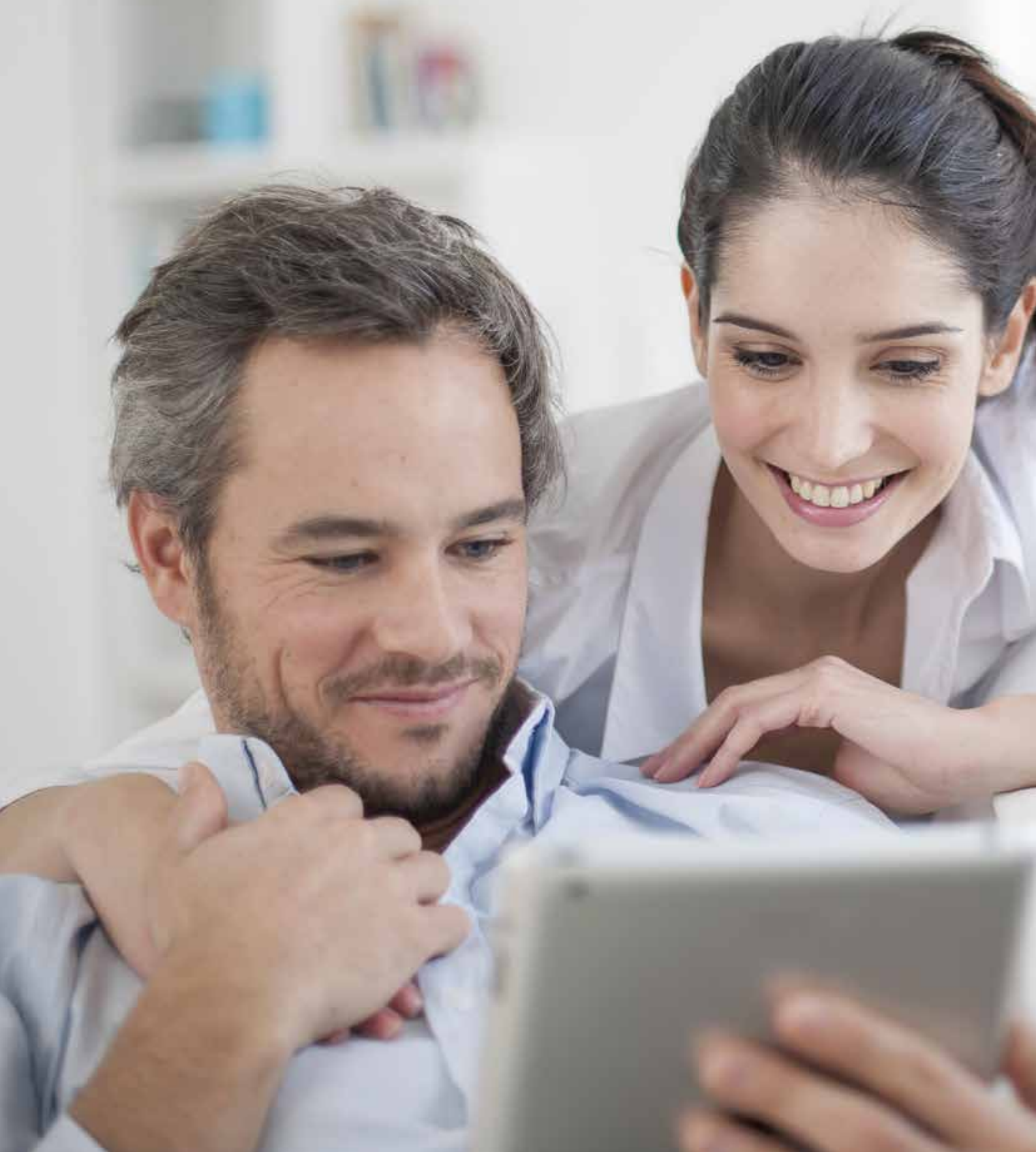


Italtherm keeps using the **brass** on its hydraulic units to ensure maximum reliability and robustness of its products.

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

- pump ON/OFF
- 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



BK type*

*Black-Knobs**
**Italtherm standard control panel*



BB type

Black-Buttons



WK type

White-Knobs



WB type

White-Buttons

		Model											
		24 C	28 C	20 F	25 F	30 F	35 F	40 F	20 FR	25 FR	30 FR	35 FR	
Gas type		G20	G20	G20	G20	G20	G20	G20	G20	G20	G20	G20	
Class		II _{2H3+}											
Type		B11/BS			B22 - C12 - C32 - C42 - C52 - C62 - C82 - C92								
Working temperature range (min÷max)	°C	0 ÷ +60	0 ÷ +60	0 ÷ +60	0 ÷ +60	0 ÷ +60	0 ÷ +60	0 ÷ +60	0 ÷ +60	0 ÷ +60	0 ÷ +60	0 ÷ +60	
Max heat input	kW	25.7	28.3	21.0	25.7	30.0	34.5	39.5	21.0	25.7	30.0	34.5	
Min heat input	kW	10.0	12.0	9.5	10	12.0	13.6	14.0	9.5	10	12.0	13.6	
Max heat output	kW	23.3	25.5	19.5	24	28.2	32.4	36.6	19.5	24	28.2	32.4	
Min heat output	kW	8.6	10.0	8.1	8.5	10.2	11.7	12.0	8.1	8.5	10.2	11.7	
NO_x Class		2	2	2	2	2	2	3	2	2	2	2	
CO at 0% O₂ (Qn)	ppm	53.9	77.8	69.7	91.1	84.8	85.2	78	69.7	91.1	84.8	85.2	
CO₂ at nominal input	%	5.0	4.7	5.5	7.2	7.5	6.9	7.5	5.5	7.2	7.5	6.9	
Flue temperature (Qn)	°C	108.0	110.0	118	119	122	118	132	118	119	122	118	
Flue mass flow rate (Qn)	kg/h	75.24	87.70	53.7	51.9	58.02	71.45	75.18	53.04	51.90	57.65	71.00	
EFFICIENCY													
Nominal efficiency	%	90.5	90.1	92.7	93.3	94.0	94.0	89.9	92.7	93.3	94.0	94.0	
Efficiency at 30% load	%	88.9	88.6	90.5	91.0	91.5	92.0	87	90.5	91.0	91.5	92.0	
HEATING													
Temperature selection range (min÷max)	°C	35÷80	35÷80	35÷80	35÷80	35÷80	35÷80	35÷80	35÷80	35÷80	35÷80	35÷80	
Expansion vessel	l	8	8	8	8	8	10	10	8	8	8	10	
Expansion vessel pre-loading pressure	bar	1	1	1	1	1	1	1	1	1	1	1	
Loss of water pressure switch off / on pressure	bar	0.4 / 0.9 (±0.2) To allow the correct system filling, the pressure of the domestic water should be higher than the ON value of the pressure switch											
Max working pressure	bar	3	3	3	3	3	3	3	3	3	3	3	
Max system temperature	°C	85	85	85	85	85	85	85	85	85	85	85	
HOT WATER													
Flow rate at 25°C temp. rise	l/min	13.3	14.6	11.2	13.7	16.0	18.6	20.3	-	-	-	-	
Flow rate at 30°C temp. rise	l/min	11.1	12.2	9.3	11.5	13.5	15.5	17	-	-	-	-	
Min water flow (for the DHW function activation)	l/min	2.8	2.8	2.8	2.8	2.8	2.8	2.8	-	-	-	-	
Min supply pressure (for the DHW function activation)	bar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	-	-	-	-	
Max supply pressure	bar	6	6	6	6	6	6	6	-	-	-	-	
Temperature selection range (min÷max)	°C	35÷55	35÷55	35÷55	35÷55	35÷55	35÷55	35÷55	35÷60	35÷60	35÷60	35÷60	
ELECTRICAL DATA													
Voltage / frequency (nominal voltage)	V/Hz	220÷240 / 50 (230V)											
Power consumption	W	75	95	103	103	132	145	144	103	103	132	145	
Level of protection		IP X4D	IP X4D	IP X5D	IP X5D	IP X5D	IP X5D	IP X5D	IP X5D	IP X5D	IP X5D	IP X5D	
DIMENSIONS													
Width - Height - Depth	mm	400x700x324											
Weight	kg	27	27.6	30.4	30.6	31.6	35.8	36.5	27.5	29.7	30.0	34.5	
CONNECTIONS													
Hydraulic and gas connections		see technical sheet											
Flue: types and diameters		see technical sheet											
Split Ø 80 mm max length (inlet + outlet)	m	-	-	14	14	8	10	8	14	14	8	10-	
Coaxial Ø 60/100 mm max length (inlet / outlet)	m	-	-	4	4	3	3	2	4	4	3	3	
GAS SUPPLY PRESSURE													
Nominal pressure	mbar	20	20	20	20	20	20	20	20	20	20	20	
Inlet pressure (min÷max)	mbar	17 ÷ 25	17 ÷ 25	17 ÷ 25	17 ÷ 25	17 ÷ 25	17 ÷ 25	17 ÷ 25	17 ÷ 25	17 ÷ 25	17 ÷ 25	17 ÷ 25	
Injectors number		13	13	9	11	13	15	15	9	11	13	15	
Injectors diameter	mm ¹⁰⁰	125	125	130	130	130	130	132	130	130	130	130	
GAS CONSUMPTION													
Qmax	m ³ /h	2.72	2.99	2.22	2.72	3.17	3.65	4.18	2.22	2.72	3.17	3.65	
Qmin	m ³ /h	1.06	1.27	1.00	1.06	1.27	1.44	1.48	1.00	1.06	1.27	1.44	



www.italtherm.it