

NESTA PLUS



High output Floor-Standing
Condensing Boiler

280 · 350 · 420 · 570
700 · 840 · 1080 · 1260

AIC introduces the Nesta Plus range of high-efficiency condensing boilers, offering larger outputs suitable for commercial and industrial applications. These meticulously designed boilers come in compact sizes and allow flexible cascade installations. The stainless steel heat exchangers ensure exceptional thermal efficiency and durability, while the high water content enhances operational stability. With an impressive yield efficiency, the Nesta Plus boilers deliver substantial power output while fitting into limited plant room spaces. The boilers are equipped with an advanced control system featuring remote management capabilities, enabling efficient periodic servicing through self-diagnostics. The linear modulation technology ensures maximum efficiency and minimises unnecessary cycling. With its compact design, outstanding performance, and sustainable heating solutions, the Nesta Plus boiler is a reliable choice for high output demand settings.

Nesta Plus

High output Floor-Standing
Condensing Boiler

280 · 350 · 420 · 570
700 · 840 · 1080 · 1260

108 %

Thermal
efficiency

10:1

Wide
modulation ratio

6

Low NOx
burner class

The Nesta Plus floor-standing condensing boiler range, presenting outputs ranging from 280 to 1260 kW, caters to the specific needs of commercial and industrial installations delivering substantial thermal output. At the heart of the Nesta Plus lies the Fire Tube stainless steel heat exchanger, meticulously designed to maximise heat extraction while minimising its physical footprint. The boilers are equipped with a standard electronic controller, adept at managing up to 6 boilers in cascade, efficiently overseeing vital boiler functions, alarms, and facilitating multi-circuit installations when additional accessories are employed. The Nesta Plus system can be entirely managed through an ethernet network or GSM router, bolstered by the optional WEB Server Module. Moreover, the boiler's high water content, capable of accommodating up to 600 litres, ensures operational stability and attains an impressive yield efficiency of 108%.

Key Features & Benefits

Self-cleaning flue ways

Internal circuit piping in welded stainless steel

Low pressure drop

Compact dimensions

Reduced maintenance

Stainless steel heat exchanger

Lifting points for transportation and positioning

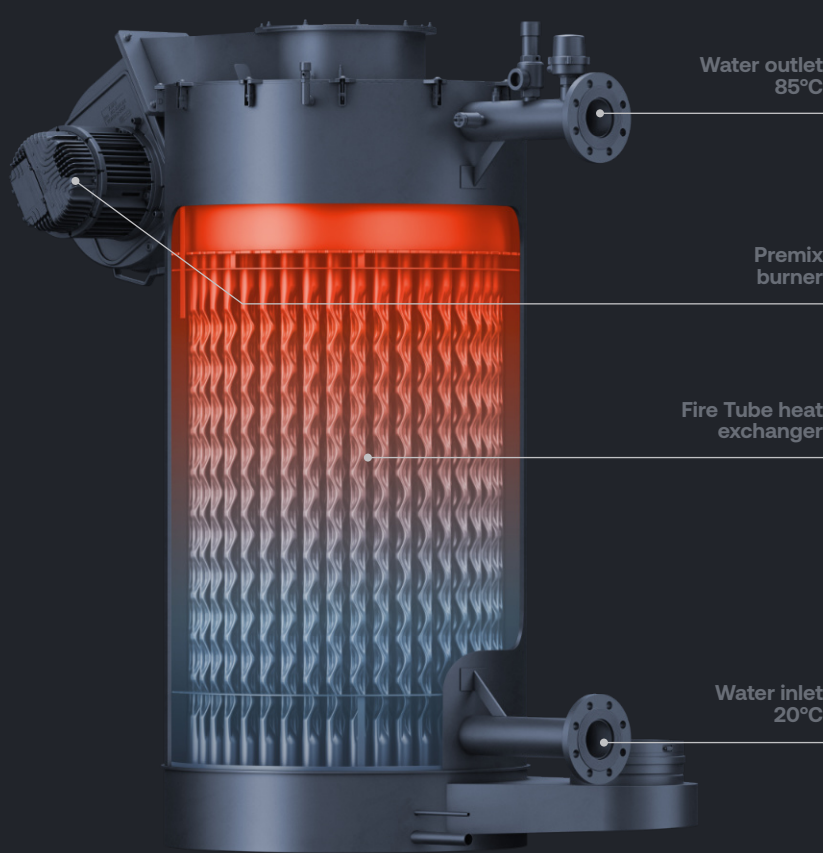


Fire Tube

The Nesta Plus boilers feature a tried and tested Fire Tube design heat exchanger, known for its efficacy and reliability. Comprised entirely of stainless steel, these heat exchangers excel in thermal efficiency, durability, and resistance to corrosion. The ingenious fire tube stainless steel heat exchanger efficiently extracts maximum heat in a compact form. Its corrosion-resistant surface guarantees uninterrupted condensing efficiency, leading to reduced maintenance costs and an extended product lifespan.

The Fire Tube design of the Nesta Plus heat exchanger is a hallmark of our product, a market-proven technology that has been manufactured and distributed globally for many years. Our dedication to innovation and advancement in design has resulted in the creation of one of the most efficient boilers in its class, a testament to our unwavering commitment to excellence.

The geometry of Nesta Plus heat exchanger and flue gas pipes are engineered to provide ample heat exchange surface area and water capacity, ensuring high efficiency and optimal condensation, as well as stability in temperature. The outcome of these design considerations result in a device that is marked by exceptional efficiency, durability, and reliability, offering users peace of mind and confidence in its performance.



Low maintenance and long life

The Fire Tube exchanger is self-cleaning thanks to the condensates that run from the top to the bottom of the vertical flue pipes. In this way they keep the internal surface of the pipes clean, guaranteeing constant high performance over time and considerably limiting maintenance interventions.

Very high performance

The completely immersed flue gas tubes of the Fire Tube exchanger, with their exclusive design with high heat transfer coefficient between water and flue gasses, ensures an optimal counter-current exchange over the entire length of the exchanger. This particular design allows AIC condensing boilers to reach very high efficiency, without the risk of oxidation.

Max. Operating pressure

6 bar

Energy class

A

Quiet operation

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Parameters

Resistance to corrosion and oxidisation
Self-cleaning flue ways
Internal circuit piping in welded stainless steel
Low pressure drop
Reduced maintenance

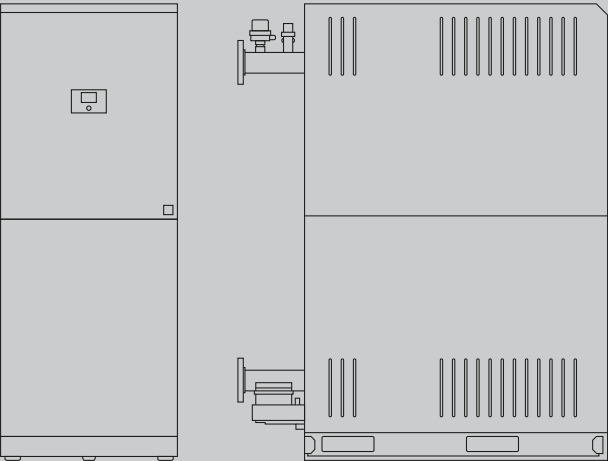
Heating efficiency 80/60°C

Nesta Plus 280 FSW	97,3–97,9%	Nesta Plus 700 FSW	97,1–97,6%
Nesta Plus 350 FSW	97,3- 97,8%	Nesta Plus 840 FSW	97,1–97,7%
Nesta Plus 420 FSW	97,2–97,7%	Nesta Plus 1080 FSW	97,7–97,4%
Nesta Plus 570 FSW	97,4–97,8%	Nesta Plus 1260 FSW	97,7–97,4%

Design

The Nesta Plus exemplifies a design that combines functionality and aesthetics seamlessly. Crafted with meticulous attention to detail and using premium materials, this boiler boasts a compact footprint, allowing for easy installation in various settings. Its quiet operation ensures minimal user disturbance.

The Nesta Plus features a minimalist and elegant design, characterized by clean lines and a timeless aesthetic, enabling it to effortlessly blend into any interior decor. In a commitment to excellence and environmental responsibility, the heat exchanger is constructed entirely of recyclable stainless



Characteristics

- Floor-standing
- Adaptable to various applications
- Sleek design
- Stainless steel heat exchanger
- Premium materials



100% Stainless steel

Years Warranty Heat Exchanger

10

Years Warranty Boiler

5

*Subject to conditions



Applications

With its exceptional thermal output and compact design, the Nesta Plus is a preferred choice for a wide range of commercial and industrial applications.

It is particularly well-suited for installations in schools, hospitals, office complexes, hotels, leisure centers, care homes, and other settings where space is limited, but a high thermal output is required. The versatility of the Nesta Plus allows for both standalone unit installation and integration into cascade systems, providing flexibility and meeting the diverse needs of different environments.

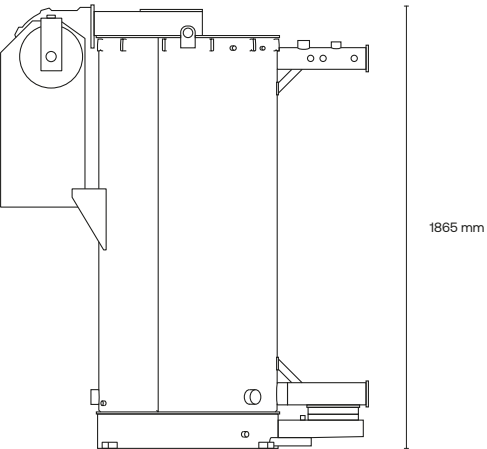
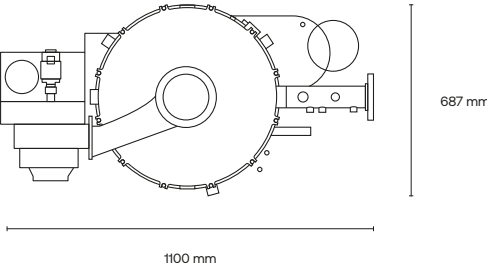
280–1260 kW

Hotels
Schools
Sports complexes
Nurseries
Gymnasiums
Hairdressing salons
Restaurants
Clinics
Industrial changing rooms
Medium / large residential
Carwashes
Commercial applications

High water content and compact dimensions

Setting itself apart from other boilers in its class, the Nesta Plus is characterized by its high water content design. This unique feature ensures maximum thermal output while maintaining compact appliance dimensions.

The carefully calculated ratio between internal water and flue volumes optimises energy extraction while guaranteeing temperature stability and balanced operation. The higher water content minimises the risk of overheating and ensures low pressure drop in both water and flue gas elements, resulting in efficient and reliable performance.



Water content

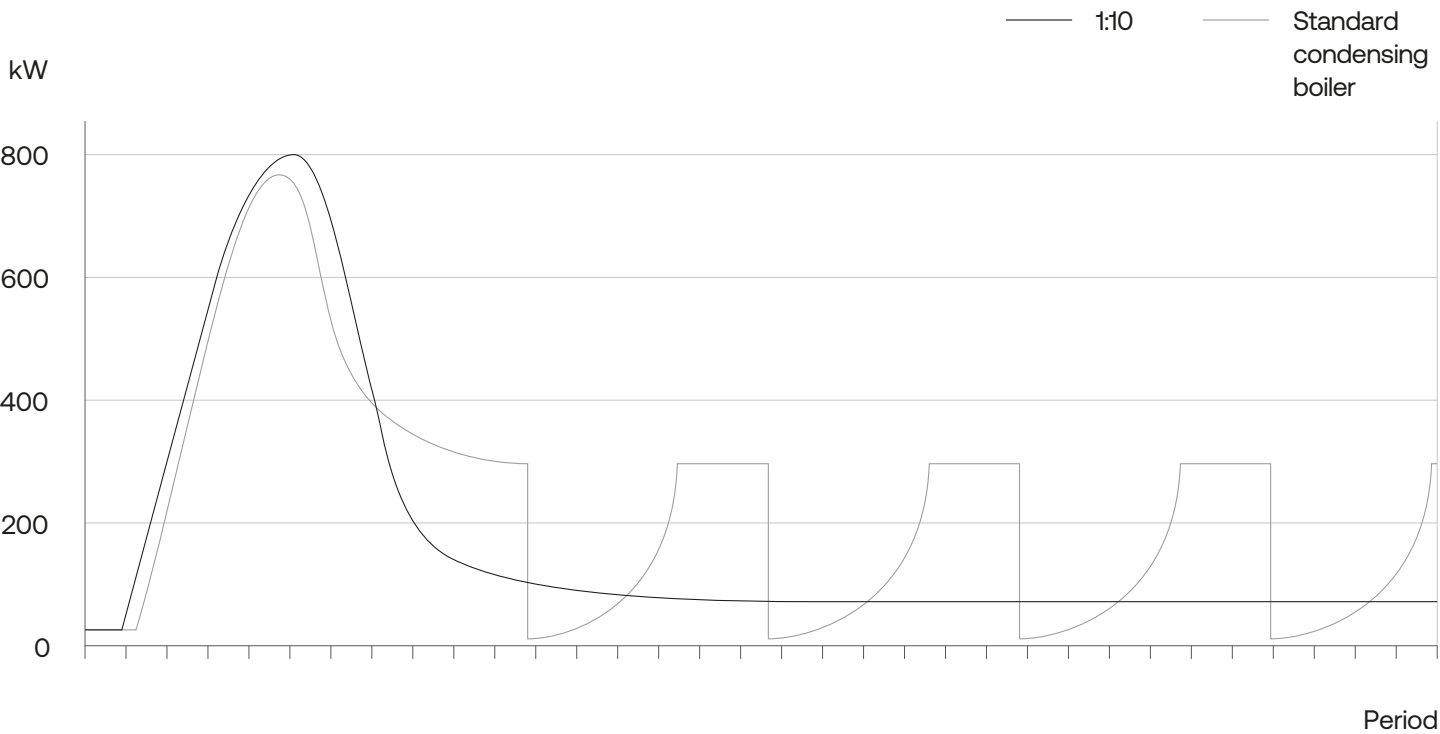
Nesta Plus 280 FSW	291 ltr
Nesta Plus 350 FSW	291 ltr
Nesta Plus 420 FSW	390 ltr
Nesta Plus 570 FSW	444 ltr
Nesta Plus 700 FSW	563 ltr
Nesta Plus 840 FSW	563 ltr
Nesta Plus 1080 FSW	600 ltr
Nesta Plus 1260 FSW	600 ltr



High modulation for optimal operational efficiency

The Nesta Plus boasts an impressive modulation range, making it a leader in operational efficiency. With a modulation ratio of 10:1, it delivers high seasonal returns and significant gas consumption savings.

Its linear modulation technology caters to higher output plant rooms, ensuring the boiler consistently operates at maximum efficiency while minimising boiler cycling. This cutting-edge technology is not only effective in new generation heating systems but also facilitates the replacement of older boilers in existing buildings, providing a seamless upgrade.



The Nesta Plus incorporates advanced connectivity features, enabling remote boiler management for enhanced control and convenience.

Through web server connectivity, the Nesta Plus offers seamless remote management capabilities, allowing efficient monitoring and control of the boiler. The integrated control system provides valuable self-diagnostics, optimising periodic servicing and assisting engineers in identifying and addressing issues. With its connectivity options, the Nesta Plus simplifies system management and ensures optimal performance.

Characteristics

Integration of the WEB Server Module*

Flexible and intuitive management system

Manage up to 3 direct or mixed circuits*

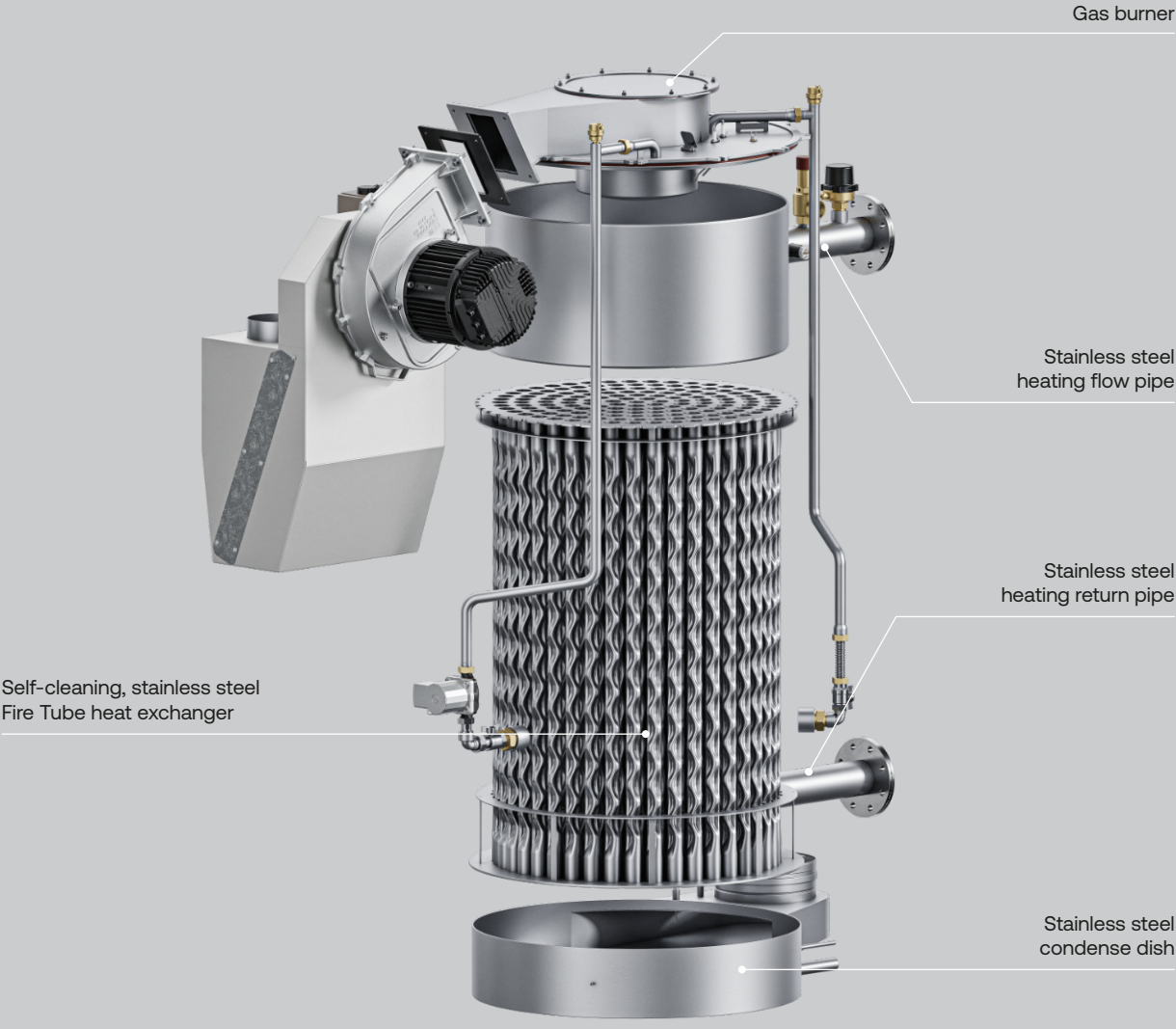
One circuit for DHW production*

Manage up to 6 boilers in cascade

GSM router or ethernet network

*Option or with additional accessories

Construction



Specification NP 280–570 FSW

Performance			NP 280 FSW	NP 350 FSW	NP 420 FSW	NP 570 FSW
Heat input (net)	G20 / G25 / G20Y20 ⁽¹⁾	kW	44,0–265,0	48,0–325,0	59,0–401,2	90,0–530,0
	G31	kW	66,0–265,0	80,0–325,0	99,0–401,2	124,0–530,0
Heat output at 80/60 °C	G20 / G25 / G20Y20 ⁽¹⁾	kW	42,8–259,5	46,7–317,7	57,3–392,0	87,6–518,0
	G31	kW	64,0–258,0	77,8–317,1	96,5–391,5	120,0–515,0
Heat output at 50/30 °C	G20 / G25 / G20Y20 ⁽¹⁾	kW	47,7–283,6	52,0–346,3	63,8–431,7	97,1–562,8
	G31	kW	70,0–276,8	85,0–338,3	105,5–421,0	132,0–556,0

Efficiency			NP 280 FSW	NP 350 FSW	NP 420 FSW	NP 570 FSW
Heating efficiency 80/60 °C	G20	%	97,3–97,9	97,3–97,8	97,2–97,7	97,4–97,8
Heating efficiency 50/30 °C	G20	%	108,4–107,0	108,4–106,6	108,2–107,6	107,9–106,2
Useful efficiency at 30% (return 30 °C)	G20	%	108,7	108,7	108,4	109,0
Seasonal efficiency	G20	%	93	93	93	93

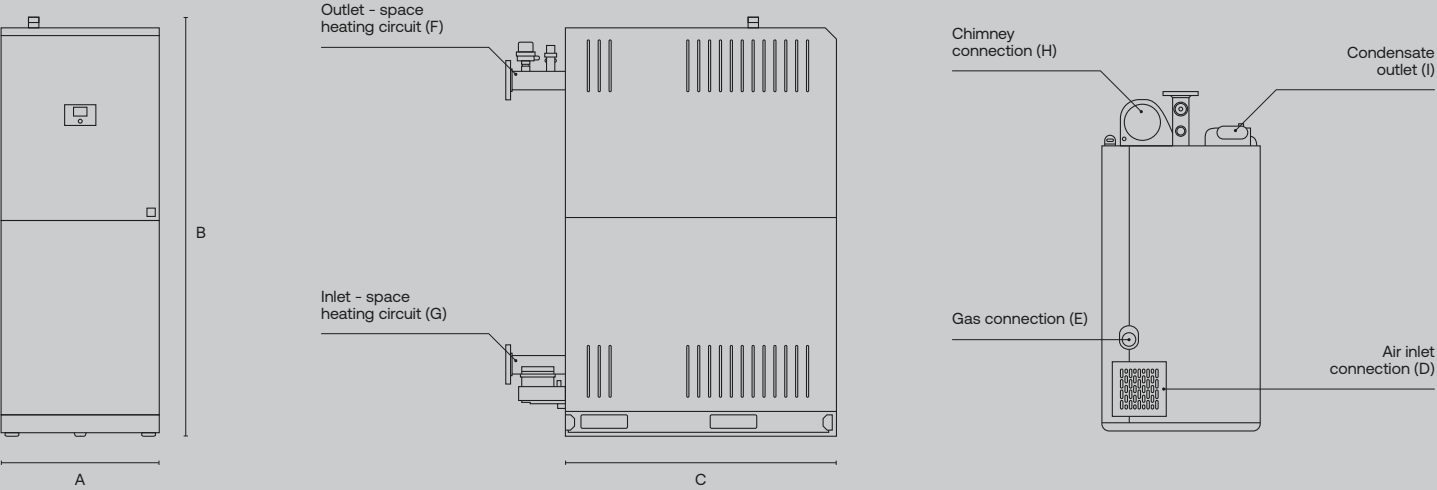
General			NP 280 FSW	NP 350 FSW	NP 420 FSW	NP 570 FSW
Energy consumption	W		641	818	845	1040
Supply voltage / frequency	V/Hz		230/50	230/50	230/50	230/50
Protection class	IP		X4D	X4D	X4D	X4D
Capacity	l		291	291	390	444
Min operating pressure	bar		0,8	0,8	0,8	0,8
Max operating pressure	bar		6	6	6	6
Max boiler supply temperature	°C		90	90	90	90

Gas appliance category			I2E(S), I2E, I2H, I2ELL, I2HS, I2N, I2EK, I3P, I2E(R), II2E3P, II2E(S)3P, II2EK3P, II2H3P, II2L3P, II2E+3P, II2E(R)3P, II2Esi3P, II2Er3P, IIELL3P			
Gas type			G20, G20Y20 ⁽¹⁾ , G25, G25.1, G25.3, G31			
Chimney type(s)			B23, B23P, C43, C53, C63, C83			
CO emission (0% O ₂)		mg/kWh	20,4	27,9	24,7	17,2
Gas flow rate	G20 ⁽²⁾	m³/h	4,5–27,8	5,0–33,4	6,3–41,6	9,2–54,8
	G25 ⁽²⁾	m³/h	5,5–32,0	6,2–38,9	8,4–47,0	11,6–60,6
	G20Y20 ^{(1),(2)}	m³/h	5,2–30,9	5,6–38,3	7,2–49,2	10,6–62,7
	G31 ⁽²⁾	m³/h	2,7–11,1	3,3–13,3	3,7–15,0	5,1–20,7
NOx class			6	6	6	6
NOx emission		mg/kWh	39,2	36,6	30,0	24,0

(1) Up to 20 vol. % hydrogen.
(2) 15 °C, 1.013,25 mbar, dry gas.

Dimensions		NP 280 FSW	NP 350 FSW	NP 420 FSW	NP 570 FSW
Width (A)	mm	762	762	762	865
Height (B)	mm	2020	2020	2020	2020
Depth (C)	mm	1306	1306	1306	1556
Empty weight	kg	549	549	624	728

Connections		NP 280 FSW	NP 350 FSW	NP 420 FSW	NP 570 FSW
Air inlet connection (D)	mm	150	150	150	250
Gas connection (E)	inch	G 1½"	G 1½"	G 1½"	Flange DN 65 Class PN 6
Outlet - space heating circuit (F)		Flange DN80 Class PN16	Flange DN80 Class PN16	Flange DN80 Class PN16	Flange DN80 Class PN16
Inlet - space heating circuit (G)		Flange DN80 Class PN16	Flange DN80 Class PN16	Flange DN80 Class PN16	Flange DN80 Class PN16
Chimney connection (H)	mm	180	180	200	200
Condensate outlet (I)	mm	26,7	26,7	26,7	26,7



Specification NP 700–1260 FSW

Performance			NP 700 FSW	NP 840 FSW	NP 1080 FSW	NP 1260 FSW
Heat input (net)	G20 / G25 / G20Y20 ⁽¹⁾	kW	104,0-660,0	107,8-792,0	167,0-1020,0	185,0-1190,0
	G31	kW	155,0-660,0	197,0-792,0	255,0-1020,0	301,0-1190,0
Heat output at 80/60 °C	G20 / G25 / G20Y20 ⁽¹⁾	kW	101,0-644,4	104,7-773,8	163,0-993,5	180,7-1158,7
	G31	kW	150,8-645,1	190,9-771,8	249,6-996,5	294,7-1162,6
Heat output at 50/30 °C	G20 / G25 / G20Y20 ⁽¹⁾	kW	112,2-702,6	116,6-835,6	179,4-1082,8	199,0-1258,4
	G31	kW	165,2-693,2	210,0-818,1	271,1-1051,6	310,3-1226,9

Efficiency			NP 700 FSW	NP 840 FSW	NP 1080 FSW	NP 1260 FSW
Heating efficiency 80/60 °C	G20	%	97,1-97,6	97,1-97,7	97,7-97,4	97,7-97,4
Heating efficiency 50/30 °C	G20	%	107,8-106,5	108,2-105,5	107,5-106,2	107,6-105,8
Useful efficiency at 30% (return 30 °C)	G20	%	108,4	108,5	108,1	108
Seasonal efficiency	G20	%	93	93	93	93

General			NP 700 FSW	NP 840 FSW	NP 1080 FSW	NP 1260 FSW
Energy consumption	W		1366	2068	2924	3966
Supply voltage / frequency	V/Hz		230/50	3x400/50	3x400/50	3x400/50
Protection class	IP		X4D	X4D	X4D	X4D
Capacity	l		563	563	600	600
Min operating pressure	bar		0,8	0,8	0,8	0,8
Max operating pressure	bar		6	6	6	6
Max boiler supply temperature	°C		90	90	90	90

Gas appliance category			I2E(S), I2E, I2H, I2ELL, I2HS, I2N, I2EK, I3P, I2E(R), II2E3P, II2E(S)3P, II2EK3P, II2H3P, II2L3P, II2E+3P, II2E(R)3P, II2Esi3P, II2Er3P, IIELL3P			
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Gas type			G20, G20Y20 ⁽¹⁾ , G25, G25.1, G25.3, G31			
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Chimney type(s)			B23, B23P, C43, C53, C63, C83			
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CO emission (0% O ₂)		mg/kWh	18,3	21,5	21,5	21,5
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Gas flow rate	G20 ⁽²⁾	m³/h	10,5-68,0	10,6-77,8	17,5-106,6	19,2-123,6
	G25 ⁽²⁾	m³/h	13,0-79,1	13,1-90,5	21,0-126,2	23,0-143,4
	G20Y20 ^{(1),(2)}	m³/h	12,6-75,8	12,8-93,0	20,2-117,5	22,1-143,9
	G31 ⁽²⁾	m³/h	6,3-26,8	7,6-31,0	10,4-41,3	12,4-48,1

NOx class			6	6	6	6
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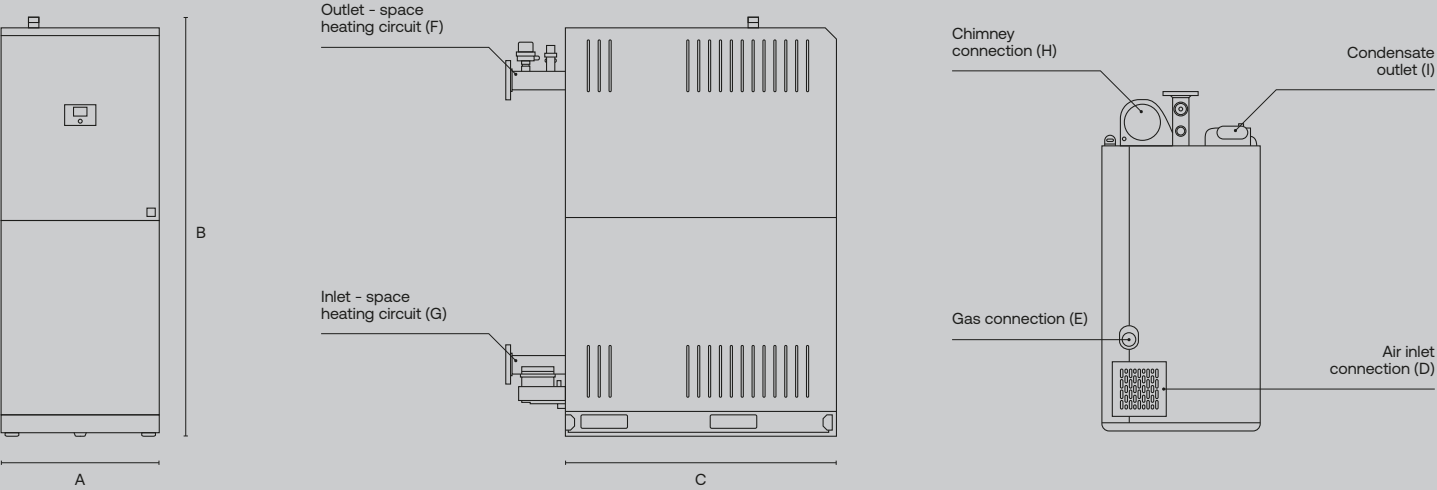
NOx emission			mg/kWh	36,2	29	39,7	24
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(1) Up to 20 vol. % hydrogen.

(2) 15 °C, 1.013,25 mbar, dry gas.

Dimensions		NP 700 FSW	NP 840 FSW	NP 1080 FSW	NP 1260 FSW
Width (A)	mm	865	865	1132	1132
Height (B)	mm	2020	2020	2076	2076
Depth (C)	mm	1556	1556	1806	1806
Empty weight	kg	887	897	1158	1250

Connections		NP 700 FSW	NP 840 FSW	NP 1080 FSW	NP 1260 FSW
Air inlet connection (D)	mm	250	250	300	300
Gas connection (E)		Flange DN 65 Class PN 6	Flange DN 65 Class PN 6	Flange DN 80 Class PN 16	Flange DN 80 Class PN 16
Outlet - space heating circuit (F)		Flange DN80 Class PN16	Flange DN80 Class PN16	Flange DN150 Class PN16	Flange DN150 Class PN16
Inlet - space heating circuit (G)		Flange DN80 Class PN16	Flange DN80 Class PN16	Flange DN150 Class PN16	Flange DN150 Class PN16
Chimney connection (H)	mm	250	250	300	300
Condensate outlet (I)	mm	26,7	26,7	33,4	33,4



Advanced Industrial Components

AIC, founded in 2001, is a renowned specialist in designing and manufacturing stainless steel and titanium heat exchangers. With top-quality products and advanced production processes, we excel in complex heat transfer projects. AIC Europe, established in 2018, delivers innovative heating solutions and exceptional service through its subsidiaries across Europe. Our continuous investment and research focus on reducing emissions, maximizing energy savings, and providing high eco-comfort performance in heating and hot water.

1000 Employees

35% Planning and Management
65% Production and Logistics

33.900 m²

Production facilities
in Poland

14

Commercial branches in Europe,
North America and Asia

