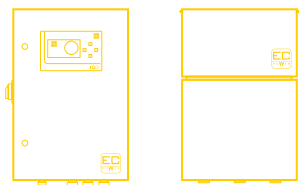
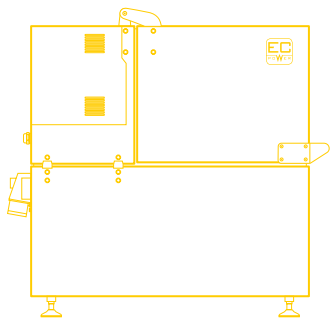
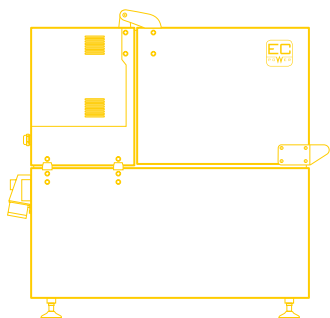


A+++



A+++



XRGI[®] 9

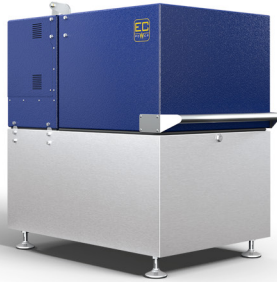
TECHNICAL DATA

TECHNICAL DATA FOR THE XRGI® 9

Product data sheet in accordance with Regulation (EU) No. 811/2013; 813/2013, Dated 26.09.2019



A+++



The XRGI® is a combined heat and power plant (CHP) that works on the principle of cogeneration.

An XRGI® system consists of three main components – the Power Unit, Q-Heat Distributor and the iQ-Control Panel.

In addition, you can also extend your XRGI® system with a storage tank with a capacity of 500, 800 or 1,000 litres for optimum operation.

ORDERING DATA

Supplier's name or trademark	EC POWER	
Supplier's model identifier	XRGI® 9 without condensing technology¹	XRGI® 9 with condensing technology¹
Article number	X090001	X090001+K000104
Modules	Power Unit, iQ10-Control Panel, Q20-Heat Distributor	Power Unit, iQ10-Control Panel, Q20-Heat Distributor + Condensing and exhaust gas heat exchanger BW4+

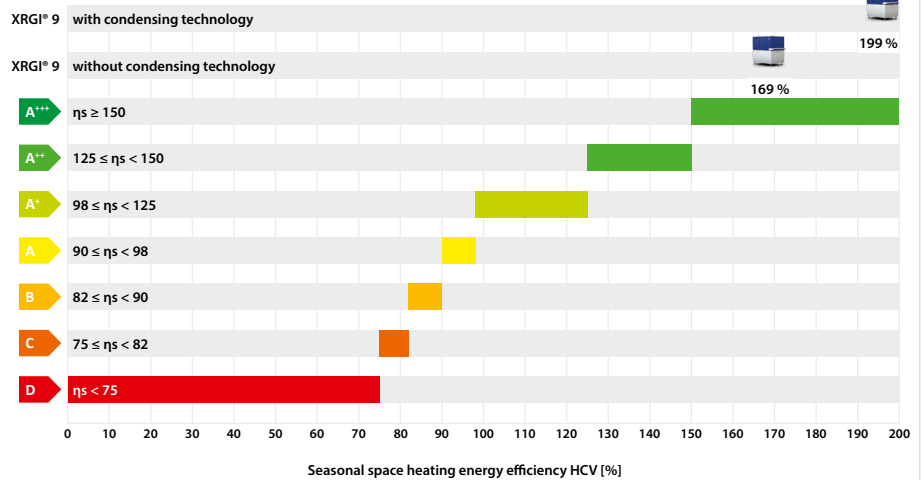
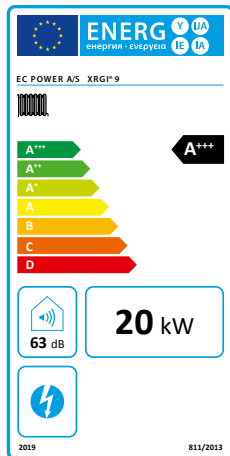
ErP-LABEL DATA²

Seasonal space heating energy efficiency class	A+++	A+++
Rated heat output P_{rated}	20 kW	23 kW
Seasonal space heating energy efficiency; HCV ³ η_s	169 %	199 %
Sound power level, indoors L_{WA}	63 dB	63 dB
Electrical efficiency; in accordance with heating value LCV ³ $\eta_{el\ CHP100+SUP\ 0}$	29 %	29 %
All special precautions to be taken during assembly, installation or service	Refer to Commissioning and Service Manual	Refer to Commissioning and Service Manual

¹ Return temperatures as per EN 50465 2015 7.6.1: Without condensing technology 47 °C, with condensing technology 30 °C.

² The values were rounded in accordance with the requirements governing product data sheets by Regulation (EU) No. 811/2013; 813/2013.

³ HCV = higher calorific value, LCV = lower calorific value



OUTPUT

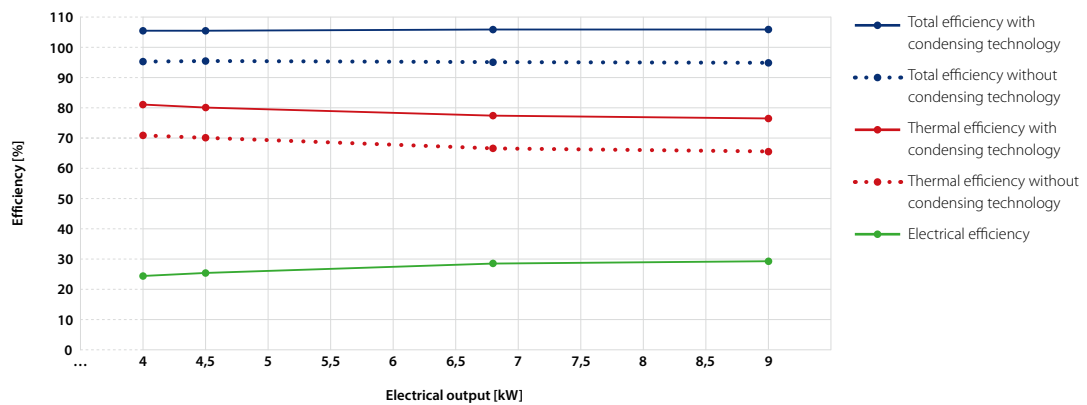
XRGI® system		XRGI® 9 without condensing technology ¹			XRGI® 9 with condensing technology ¹		
Power modulation*		50 %	75 %	100 %	50 %	75 %	100 %
Electrical output, modulating*	kW	4.5	6.8	9.0	4.5	6.8	9.0
Thermal output, modulating*	kW	12.4	15.7	20.1	14.2	18.4	23.3
Power consumption, gas in accordance with LCV ²	kW	17.7	23.7	30.7	17.7	23.7	30.5
Electrical own demand, production	kW	0.100			0.100		
Electrical own demand, stand-by	kW	0.039			0.039		

EFFICIENCIES & OPERATING PARAMETERS

Power modulation*		50 %	75 %	100 %	50 %	75 %	100 %
Electrical efficiency	in accordance with LCV ²	25.4	28.5	29.3	25.4	28.5	29.4
Thermal efficiency	in accordance with LCV ²	70.1	66.5	65.6	80.1	77.4	76.5
Total efficiency	in accordance with LCV ²	95.5	95.1	94.9	105.5	105.9	105.9
Seasonal space heating energy efficiency in operating mode ^{3,4}	η_{son}	174			204		

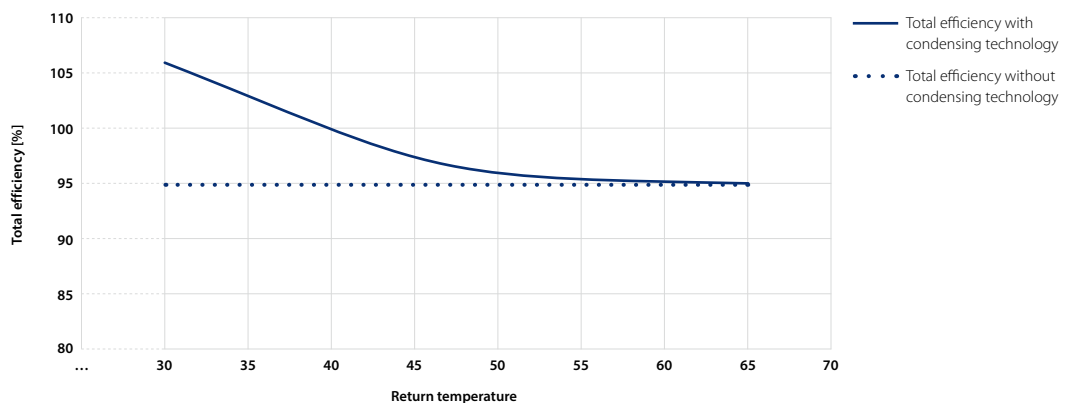
POWER MODULATION

Continuous modulation of 4 – 9 kW in power-controlled mode



TOTAL EFFICIENCY AT FULL LOAD

XRGI® 9 total efficiency / return temperature



* Continuous modulation in power-controlled mode

¹ Return temperatures as per EN 50465 2015 7.6.1: Without condensing technology 47 °C, with condensing technology 30 °C.

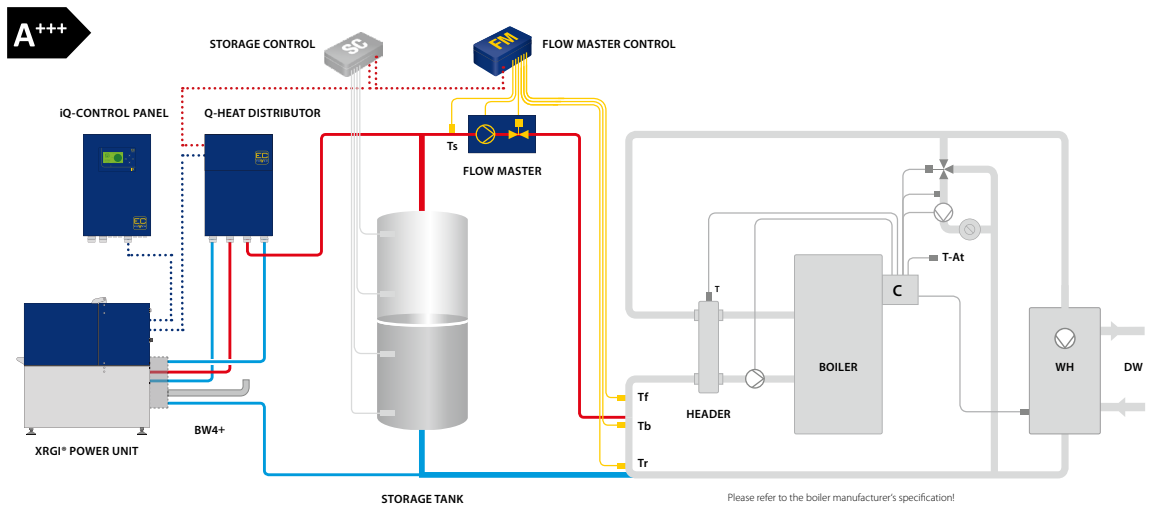
² LCV = lower calorific value

³ This values are based on independent, certified and authorised inspection bodies. Test reports are available upon request.

⁴ Efficiency at rated heat output as per the delegated Commission Regulation (EU) No. 811/2013; 813/2013

HYDRAULIC INTEGRATION

Principle circuit diagram: Series circuit with injection – boiler with header



More principle circuit diagrams and information can be found in the EC POWER „Hydraulic Solutions“.

NOTE:

If products from other companies are used in the system in addition to EC Power products, EC POWER assumes no liability for the accuracy of the energy efficiency class calculation for the entire system.

XRGi® system		XRGi® 9 without condensing technology ¹	XRGi® 9 with condensing technology ¹
Flow temperature, constant	°C	~ 80	~ 80
Return temperature, variable	°C	5-70	5-70

FUELS	Natural gas (all qualities), propane, butane	yes	yes
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EXHAUST GAS		50 %	75 %	100 %	50 %	75 %	100 %
Power modulation*							
Max. exhaust gas temperature	°C	-	-	100	-	-	90
Condensate	kg/h	-	-	-	2.3	3.1	3.8
Emissions (Test data at max. output)	CO < 70	mg/Nm ³			31		
	NOx, pond, HCV ^{2,3} < 240	mg/kWh			25		

SOUND	Sound pressure level at a distance of up to 1 m (based on surroundings)	dB(A)	49
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POWER CONNECTION	Voltage, 3 phases + N + Earth	V	400
	Frequency	Hz	50

SERVICE	Service interval (operating hours)	Hours	10,000
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DIMENSIONS AND WEIGHT		XRGi® 9 Power Unit	Q20-Heat Distributor	iQ10-Control Panel
Dimensions, W x H x D	mm	640 x 960 x 930	400 x 600 x 195	400 x 600 x 210
Footprint	m ²	0.59	wall mounted	wall mounted
Weight	kg	440	25	30

* Continuous modulation in power-controlled mode
¹ Return temperatures as per EN 50465 2015 7.6.1: Without condensing technology 47 °C, with condensing technology 30 °C.
² as per the delegated Commission Regulation (EU) No. 811/2013; 813/2013
³ HCV = higher calorific value
 Deviations in values depend on the ambient and operating conditions, tolerance +/- 5 %.
 Subject to technical modifications, deviations from design and errors.

TECHNICAL DATA FOR THE XRGI® 9 WITH FLOW MASTER

(Temperature control, Class II = 2 %)

Product data sheet in accordance with Regulation (EU) No. 811/2013; 813/2013, Dated 26.09.2019

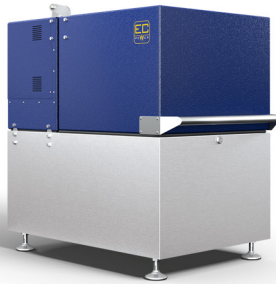


Q20 IQ10 FM



Figure shows FM type 350

A+++



The Flow Master including Flow Master Control regulates the supply of heat from the XRGI® and from the storage tank to the consumer network. This technology enables a significantly higher heat output to be temporarily made available to the consumer side. This allows peaks of heat demand to be handled by the XRGI®, thereby extending its service life and increasing electricity production.

The 4 models can deliver a heat output of 50, 150, 250 or 350 at a ΔT of 20 K.

ORDERING DATA

Supplier's name or trademark	EC POWER			
Supplier's model identifier	XRGI® 9 without condensing technology¹		XRGI® 9 with condensing technology¹	
Article number	X090001		X090001+K000104	
Modules	Power Unit, IQ10-Control Panel, Q20-Heat Distributor		Power Unit, IQ10-Control Panel, Q20-Heat Distributor + Condensing and exhaust gas heat exchanger BW4+	
Supplier's model identifier	Flow Master including Flow Master Control			
FM-type (Temperature control, Class II = 2 %)	FM 50	FM 150	FM 250	FM 350
Article number	17D1130	17D1131	17D1132	17D1133

ErP-LABEL DATA²

Seasonal space heating energy efficiency class of package	A+++	A+++
Seasonal space heating energy efficiency of package	171 %	201 %

¹ Return temperatures as per EN 50465 2015 7.6.1: Without condensing technology 47 °C, with condensing technology 30 °C.

² The values were rounded in accordance with the requirements governing product data sheets by Regulation (EU) No. 811/2013; 813/2013.

The energy efficiency of the package of products provided for in this fiche may not correspond to its actual energy efficiency once installed in a building, as this efficiency is influenced by further factors such as heat loss in the distribution system and the dimensioning of the products in relation to building size and characteristics.

Seasonal space heating energy efficiency of the space heater with cogeneration **169 %**

Temperature control **2 %**

From fiche of temperature control

Class I = 1 %, Class II = 2 %, Class III = 1,5 %, Class IV = 2 %, Class V = 3 %, Class VI = 4 %, Class VII = 3,5 %, Class VIII = 5 % ,

Supplementary boiler **3 %**

From fiche of boiler

Seasonal space heating energy efficiency in %

('I' - 'II') x 'III' = - **3 %**

Solar contribution (From fiche of solar device) **4 %**

Collector size (in m²) Tank volume (in m³) Collector efficiency (in %) Tank rating A* = 0,95, A = 0,91, B = 0,86, C = 0,83, D-G = 0,81

('III' x [] + 'IV' x []) x 0,7 x ([] / 100) x [] = + **4 %**

Seasonal space heating energy efficiency of package **171 %**

Seasonal space heating energy efficiency class of package

A+++ (≥ 150 %) **A++** (≥ 125 %) **A+** (≥ 98 %) **A** (≥ 90 %) **B** (≥ 82 %) **C** (≥ 75 %) **D** (≥ 36 %) **E** (≥ 34 %) **F** (≥ 30 %) **G** (< 30 %)



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XRGI[®] 9

TECHNICAL DATA