

Technical data

PELLEMATIC®
SmartXS 10 – 18 kW

ENGLISH



Technical data PELLEMATIC SmartXS 10-18kW

Designation		SmartXS 10	SmartXS 12	SmartXS 14	SmartXS 16	SmartXS 18
Boiler-rated power	kW	10,3	12	14	16	18
Boiler-partial load	kW	3,1	3,1	3,1	3,1	3,1
Energy efficiency class		A++				
Energy efficiency index (EEI)		131	131,2	131,4	131,4	131,5
Seasonal space heating energy efficiency η_s		90	90	90	90	90
Boiler eff. rated power condensation mode	%	101,2	101,1	101,0	101,0	101,0
Boiler eff. partial power condensation mode	%	100,5	100,5	100,5	100,5	100,5
Boiler eff. rated power standard heat. mode	%	95,7	95,6	95,6	95,5	95,4
Boiler eff. partial power standard heat. mode	%	99,8	99,8	99,8	99,8	99,8
Boiler temperature	°C	28 - 90 (controlled by atmospheric conditions)				
Minimum boiler temperature	°C	25				
Minimum return (boiler inlet) temperature	°C	5				
Combustion chamber temperature	°C	400 - 900				
Water area						
Water capacity	l	335				
Cleaning connection	inch	3/4" internal thread				
Feed / return connection \emptyset	inch	1" internal thread				
Feed / return connection \emptyset	DN	25				
Warm/Cold water connection \emptyset	inch	3/4" internal thread				
Water resistance at 10K	mBar	6,5	9,8	13,7	17,5	21,4
Water resistance at 20K	mBar	1,8	2,7	3,7	4,8	5,8
Water content heat exchanger	l	0,8				
Content thermal solar rib pipe heat exchanger	l	0,75				
Freshwater module - max. performance at operating point A	l/min	21				
Operating point A	°C	10-45/60 (cold water temp. - DHW temp. / flow temp.)				
Operating pressure maximum						
Test pressure	Bar	4,6				

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Boiler	Bar	3				
Fresh water module	Bar	6				
Thermal solar rib pipe heat exchanger	Bar	6				
Flue gas area (Flue gas = F.g.)						
Available delivery pressure of fan	mBar	0,05 1)				
F.g. temp. rated power condensation mode	°C	40 - 80				
F.g. temp. partial load condensation mode	°C	40 - 80				
F.g. volume rated power at f.g.tem. condensation mode	kg/h	21,0	23,4	26,2	29,0	31,8
F.g. volume partial load at f.g. tem. condensation mode	kg/h	9,1	9,1	9,1	9,1	9,1
F.g. volume rated power condensation mode	m ³ /h	16,2	18,0	20,1	22,3	24,4
F.g. volume partial load condensation mode	m ³ /h	7,0	7,0	7,0	7,0	7,0
F.g. temp. rated power standard heat. mode	°C	60 - 90				
F.g. temp. partial load standard heat. mode	°C	60 - 90				
F.g. volume rated power at f.g.tem. standard heating mode	kg/h	21,3	25,2	29,9	34,5	39,2
F.g. volume partial load at f.g. tem. standard heating mode	kg/h	7,0	7,0	7,0	7,0	7,0
F.g. volume rated power at AGT standard heating mode	m ³ /h	15,8	18,7	22,1	25,6	29,0
F.g. volume partial load at AGT standard heating mode	m ³ /h	5,2	5,2	5,2	5,2	5,2
Flue gas tube diameter (at the boiler)	mm	132 (interior)				
Connecting height flue	mm	445				
Connecting height condensate drain	mm	230				
Chimney diameter	as per chimney calculation, min. 130mm					
Chimney construction	qualified for condensing, solid fuel, damp resistant, N1 or P1 (depending on chimney calculation)					
Connection pipe	Made off stainless steel, moisture-resistant, condensate-proof, min. 20 Pascal overpressure-tight					
Dimensions						


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Width - overall	mm	1040				
Height - overall	mm	1820				
Height - filling unit (handfilling)	mm	1480				
Depth - overall	mm	850				
Maximum unit dimension	mm	695				
Tilted height	mm	1680				
Weight						
Gross weight without attachments, not packed;	kg	160				
Pellets capacity hopper	kg	32				
Ash capacity ash box	kg	6				
Electrical Components						
Connection value		230VAC / 50Hz / 16A / 1930W				
Standby power	W	7				
Main Drive	W	40				
Drive Motor	W	250/370				
Vacuum turbine	W	1400				
Flue gas fan	W	120				
Electrical Ignition	W	250				
Cleaning Motor	W	40				
Motor de-ashing system	W	40				
Motor hopper	W	25				
Insulation						
Cleading		Special woll with glass fiber coating 0,035W/mK, 100mm				
Fuel	Pellets made of 100% natural wood according to EN ISO 17225-2, class A1					
Colorific value	MJ/kg	≥ 16,5				
Colorific value	kWh/kg	≥ 4,6				
Bulk density	kg/m ³	≥ 600				
Water content	weight %	≤ 10				
Ash parts	weight %	≤ 0,7				
Length	mm	≤ 40				
Diameter	mm	6 ±1				

Notes on bringing the unit into the building

If an **upright, ground-level** transport of the Pellematic Smart XS to the installation location is not possible with a width of 85cm, certain components must be removed. This reduces the transport dimensions and weight and permits practicable transport to the installation location. You need several persons for transport to the installation location.

Minimum door width — max. unit dimension

Before bringing the unit into the building, check the dimensions of all doors to ensure that the boiler has sufficient clearance and can be set up properly.

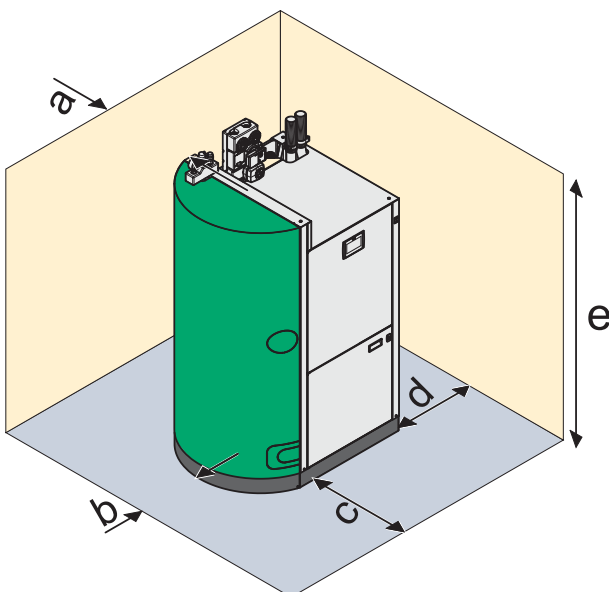
<p>Smart XS fully equipped, not packed, without water</p>  <p>Width SmartXS 85 cm Weight Smart XS 445 kg</p>	<p>Smart XS without casing, fresh water module and air hose</p>  <p>Width SmartXS 76 cm Weight Smart XS 368 kg</p>	<p>Smart XS without casing, fresh water module, air hose, combustion chamber door and ashbox</p>  <p>Width SmartXS 69,5 cm Weight Smart XS 357 kg</p>
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In order to reduce weight to **293 kg**, burner and hopper may also be dismantled.

Minimum clearance dimensions required

Note:

To install the heating system properly and ensure economical operation, you need to make sure that minimum clearance dimensions indicated below are observed when setting up the boiler. **In addition, make sure that legislation in your country is complied with relating to the minimum clearance of the flue gas tube.**



a	Min. clearance of flue gas connection from wall or part of building	100 mm
b	Min. clearance of side of boiler from wall or part of building	40 mm
c	Min. clearance of front of boiler from wall or part of building	630 mm
d	Min. clearance of side of burner from wall or part of building	550 mm
e	Minimum ceiling height	1850 mm

Note:

Legislation in your country must be observed!



Author

ÖkoFEN Forschungs- &
EntwicklungsgesmbH
A-4133 Niederkappel, Gewerbepark 1
Tel.: +43 (0) 72 86 / 74 50
Fax.: +43 (0) 72 86 / 74 50 - 10
E-Mail: oekofen@pelletsheizung.at
www.oekofen.com

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