

# Technical data

PELLEMATIC® Compact  
10 – 18 kW

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ENGLISH

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# Technical data

Information according to ecodesign EU regulation 2015/1189

Model designation	Pellematic Compact				
	PES 210	PES 212	PES 214	PES 216	PES 218
Manufacturer and contact details	ÖkoFEN Forschungs- und Entwicklungs Ges.m.b.H., Gewerbepark 1, 4133 Niederkappel, Austria				
Heat-up mode	Automatically				
Condensing boiler	no				
Solid fuel boiler with cogeneration system	no				
Combined heater	no				
Energy efficiency class	A+				
Energy efficiency index (EEI)	123				
Seasonal performance factor for room heating in condensing mode $\eta_{son}$ (based on upper heating value)	88	88	88	87	87
Seasonal space heating energy efficiency $\eta_s$ (based on upper heating value)	85	85	85	84	84
Delivered useful heat at nominal heat power $P_n$ [kW]	10	12	14	16	18
Delivered useful heat at 30 % of the nominal heat power $P_p$ [kW]	3	4	4	5	5
<b>Fuel</b>	<b>Pellets made of 100% natural wood according to EN ISO 17225-2, class A1</b>				
Colorific value [kWh/kg]	$\geq 4,6$				
Bulk density [kg/m <sup>3</sup> ]	$\geq 600$				
Water content [weight %]	$\leq 10$				
Ash parts [weight %]	$\leq 0,7$				
Length [mm]	$\leq 40$				
Diameter [mm]	$6 \pm 1$				
<b>Annual space heating emissions</b>					
PM [mg/m <sup>3</sup> ]	< 40				
OGC [mg/m <sup>3</sup> ]	< 20				
CO [mg/m <sup>3</sup> ]	< 500				
NO [mg/m <sup>3</sup> ]	< 200				
<b>Auxiliary power consumption</b>					
Auxiliary power consumption at nominal heat power $e_{l_{max}}$ [W]	25,9	33,0	40,1	47,2	54,2
Auxiliary power consumption at 30 % of nominal heat power $e_{l_{min}}$ [W]	14,8	16,0	17,3	18,5	19,7
Standby auxiliary power consumption $P_{SB}$ [W]	7				

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<b>Water area</b>					
Water capacity [litres]	69				
Feed / return connection union nut Ø [inch]	1				
Feed / return connection union nut Ø [DN]	25				
Water resistance at 10K [mBar]	44	79	114	185	277
Water resistance at 20K [mBar]	11	20	29	46	69
Boiler temperature [°C]	60 - 90				
Minimum boiler temperature [°C]	60				
Minimum return (boiler inlet) temperature [°C]	30				
Operating pressure maximum [Bar]	3				
Test pressure [Bar]	4,6				
<b>Flue gas area</b> (Flue gas = F.g.)					
Draft min and max power	0,05				
Combustion chamber temperature [°C]					
F.g. temp. rated power standard heat. mode [°C]	55 - 140				
F.g. temp. partial load standard heat. mode [°C]	55 - 140				
F.g. volume rated power at f.g.tem. standard heating mode. [m <sup>3</sup> /h]	13,9	17,2	20,6	23,5	26,1
F.g. volume partial load at f.g. tem. standard heating mode. [m <sup>3</sup> /h]	5,1	5,6	6,2	6,7	7,7
Flue gas tube diameter (at the boiler) [mm]	129 (exterior)				
Chimney diameter	as per chimney calculation				
Chimney construction	qualified for condensing, solid fuel, damp resistant, N1 or P1 (depending on chimney calculation)				
<b>Weight</b>					
Weight of boiler packaged on pallet with wooden frame [kg]	338				
Weight of boiler with casing, hopper and burner [kg]	294				
Weight of boiler without casing, hopper and burner [kg]	160				
Ash capacity ash box [kg]	6				
Volume hopper [kg]	32				
<b>Electrical Components</b>					
Connection value	230 VAC, 50 Hz, 16 A				
Main Drive [W]	40				
Power consumption max. [W]	1760				
Drive Motor [W]	250 / 370				
Flue gas fan [W]	9 - 120				
Electrical Ignition - [W]	250				

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Cleaning Motor [W]	40				
Protection class	IP20				

**Note:**

Further technical data and results of the type test available on request from your ÖkoFEN contact.

## Notes on bringing the unit into the building

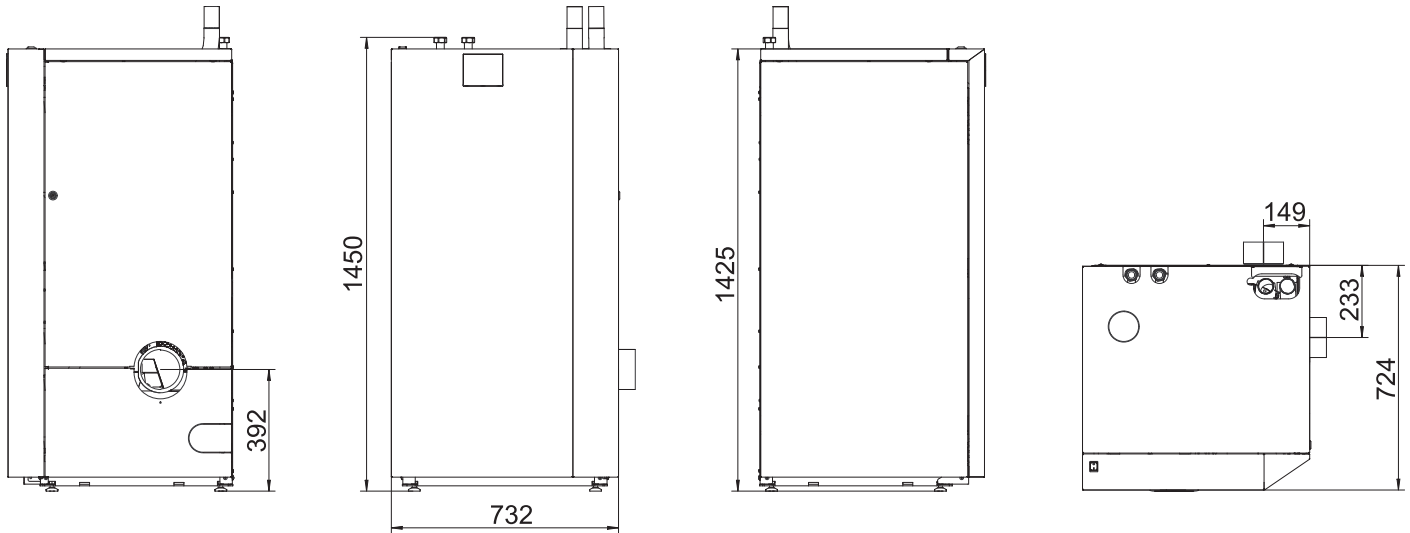
Before bringing the unit into the building, check the dimensions of all doors to ensure that the boiler has sufficient clearance and can be set up properly.

### Minimum door width - max. unit dimension

Pellematic Compact	70 cm
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<p>Door width &gt; 73cm</p>  <p>Dismantling of components not necessary</p>	<p>Door width &gt; 69cm</p>  <p>Dismantle casing</p>	<p>Door width &gt; 40cm</p>  <p>“Dismantle all”</p>
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## Boiler dimensions



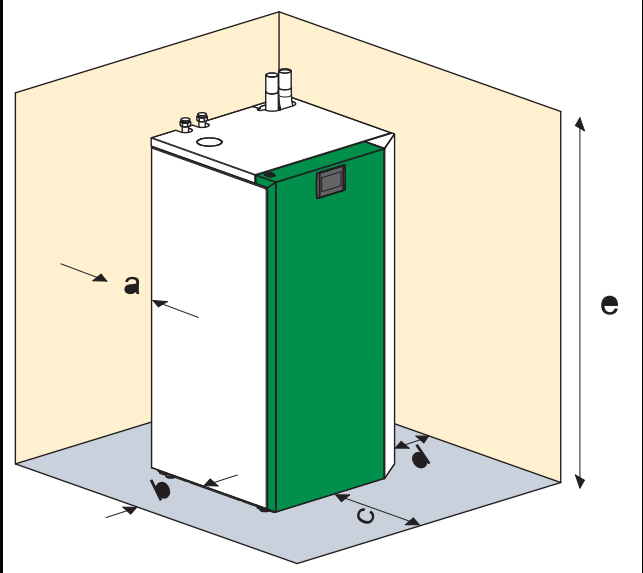
## Boiler Weight

Boiler size	Pellematic Compact
Weight of boiler packaged on pallet with wooden frame - kg	338
Weight of boiler with casing, hopper and burner - kg	294
Weight of boiler without casing, hopper and burner - kg	160

## 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.**

 The diagram shows a white boiler with a green front panel installed in a room. Dimension 'a' is the clearance from the left wall to the boiler's side. Dimension 'b' is the clearance from the right wall to the boiler's side. Dimension 'c' is the clearance from the front wall to the boiler's front. Dimension 'd' is the clearance from the left wall to the burner area on the side. Dimension 'e' is the minimum ceiling height. Arrows point from the labels to the respective dimensions.	<b>a</b>	Min. clearance of flue gas connection from wall or part of building	40 mm
	<b>b</b>	Min. clearance of side of boiler from wall or part of building	40 mm
	<b>c</b>	Min. clearance of front of boiler from wall or part of building	750 mm
	<b>d</b>	Min. clearance of side of burner from wall or part of building	550 mm
	<b>e</b>	Minimum ceiling height	1800 mm
<b>Note:</b> Legislation in your country must be observed!			



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