

ÖkoFEN

# Technical data

PELLEMATIC®  
PE(S) 10 — 56 kW

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ENGLISH

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# Technical data

Information according to ecodesign EU regulation 2015/1189

Model designation	Pellematic								
	10	12	15	20	25	32	36	48	56
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)	114	114	115	116	117	118	118	119	119
Seasonal performance factor for room heating in condensing mode $\eta_{son}$ (based on upper heating value)	83	83	83	83	84	84	84	84	84
Seasonal space heating energy efficiency $\eta_s$ (based on upper heating value)	80	80	80	80	81	81	81	81	81
Delivered useful heat at nominal heat power $P_n$ [kW]	10	12	15	20	25	32	36	48	56
Delivered useful heat at 30 % of the nominal heat power $P_p$ [kW]	3	3	5	6	8	10	11	15	17
<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 $e_{lmax}$ [W]	120								
Auxiliary power consumption at 30 % of nominal heat power $e_{lmin}$ [W]	36								
Standby auxiliary power consumption $P_{SB}$ [W]	7								

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<b>Water area</b>									
Water capacity [litres]	64	64	64	64	104	104	135	135	135
Water supply/return Ø [inch]	1	1	1	1	5/4	5/4	2	2	2
Water supply/return Ø [DN]	25	25	25	25	32	32	50	50	50
Water resistance at 10K [mBar]	54,7	95,2	150	172	178	186	38,9	51,9	60,5
Water resistance at 20K [mBar]	14,0	24,2	38	44	46	49	10,4	13,9	16,2
Boiler temperature [°C]	65-90								
Boiler input temp. minimum [°C]	55								
Operating pressure maximum [Bar]	3								
Test pressure [Bar]	4,6								
<b>Flue gas area (Flue gas = F.g.)</b>									
Fire vault temperature [°C]	800-1100								
Need of draught rated power [mBar]	0,08								
Need of draught partial load [mBar]	0,03								
Flue gas temp. rated power [°C]	160								
Flue gas temp. partial load [°C]	100								
F.g. volume rated power at f.g.tem. [kg/h]	20,3	24,2	30,4	39,2	48,0	60,4	69,0	94,7	111,9
F.g. volume partial load at f.g. tem. [kg/h]	6,4	7,9	10,3	14,6	19,0	25,2	27,3	33,4	37,6
F.g. volume rated power at AGT [m <sup>3</sup> /h]	15,6	18,6	23,4	30,2	37,0	46,5	53,1	72,8	85,8
F.g. volume partial load at AGT [m <sup>3</sup> /h]	4,9	6,1	8,0	11,2	14,6	19,4	21,0	25,7	28,9
Flue gas tube diameter [mm]	130	130	130	130	150	150	180	180	180
Chimney diameter	as per chimney calculation								
Chimney construction	Steel or ceramic lined, damp resistant								
<b>Fuel</b>	<b>Pellets made of 100% natural wood according to EN ISO 17225-2, class A1</b>								
Colorific value [MJ/kg]	≥ 16,5								
Colorific value [kWh/kg]	≥ 4,6								
Bulk density [kg/m <sup>3</sup> ]	≥ 600								
Water content [weight %]	≤ 10								
Ash parts [weight %]	≤ 0,7								
Length [mm]	≤ 40								
Diameter [mm]	6 ±1								
<b>Weight</b>									

Model designation	Pellematic								
	10	12	15	20	25	32	36	48	56
Overall Weight packing included [kg]	385				470			650	
Overall Weight [kg]	350				430			605	
Boiler Body Weight [kg]	240				300			422	
Internal ash pan volume [kg]	25				30			30	
External ash box volume [kg]	25								
Volume hopper [kg]	42				56			67	
<b>Electrical Components</b>									
Connection value	<b>230 VAC, 50Hz, 16A</b>								
Main Drive [W]	40								
Drive Motor [W]	250 / 370								
Suction Turbine [W]	1400								
Combustion Air Blower [W]	62						83		
Flue gas fan [W]	25						32		
Electrical Ignition [W]	250								
Cleaning Motor [W]	40								
Motor External Ash Box [W]	40								
Motor Burner plate cleaning system [W]	40								
Flame Return Gate [W]	5								
Protection class	IP20								

**Note:**

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

## Required space

Dimensions in mm	PES 10	PES 12	PES 15	PES 20	PES 25	PES 32	PES 36	PES 48	PES 56
<b>B</b> - overall width of boiler	1130	1130	1130	1130	1186	1186	1333	1333	1333
<b>C</b> - width of boiler casing	700	700	700	700	756	756	1289	1289	1289
<b>H</b> - height of boiler casing	1090	1090	1090	1090	1290	1290	1490	1490	1490
<b>D</b> - height of pellet suction system	1392	1392	1392	1392	1592	1592	1851	1851	1851
<b>F</b> - height of suction system filling unit	302	302	302	302	302	302	361	361	361
<b>T</b> - depth of boiler casing	814	814	814	814	870	870	982	982	982
<b>V</b> - depth of burner casing	508	508	508	508	508	508	548	548	548
<b>E</b> - flue gas tube connection height	645	645	645	645	844	844	1040	1040	1040
<b>A</b> - height of inlet/return	905	905	905	905	1110	1110	1320	1320	1320
<b>R</b> - diameter of flue gas tube	130	130	130	130	150	150	180	180	180

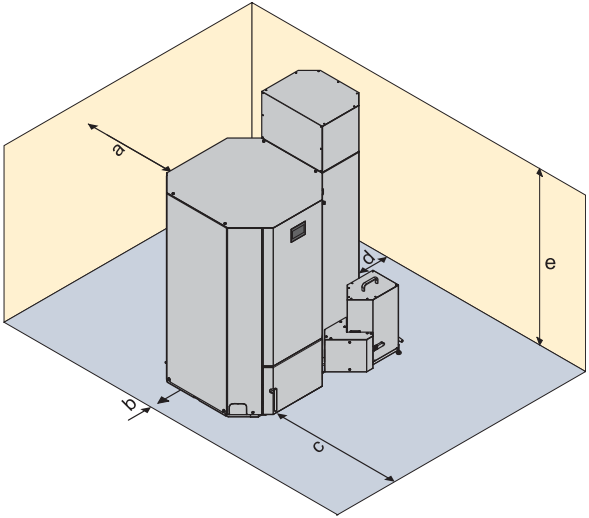
## Boiler Weight

Dimensions in kg	PES 10	PES 12	PES 15	PES 20	PES 25	PES 32	PES 36	PES 48	PES 56
Overall Weight packing included	385	385	385	385	470	470	650	650	650
Overall Weight	350	350	350	350	430	430	605	605	605
Boiler Body Weight	230	230	230	230	300	300	422	422	422

## 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.**

	<b>a</b>	Min. clearance of flue gas connection from wall or part of building	450 mm
	<b>b</b>	Min. clearance of side of boiler from wall or part of building	50 mm
	<b>c</b>	Min. clearance of front of boiler from wall or part of building	700 mm
	<b>d</b>	Min. clearance of side of burner from wall or part of building	300 mm
	<b>e</b>	Minimum ceiling height	2000 mm
<b>Note:</b> Legislation in your country must be observed!			



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