

Technical data

PELLEMATIC® Condens
10 - 18 kW

ENGLISH



Technical data

Information according to ecodesign EU regulation 2015/1189

Model designation	Pellematic Condens				
	10	12	14	16	18
Manufacturer and contact details	ÖkoFEN Forschungs- und Entwicklungs Ges.m.b.H., Gewerbepark 1, 4133 Niederkappel, Austria				
Heat-up mode	Automatically				
Condensing boiler	yes				
Solid fuel boiler with cogeneration system	no				
Combined heater	no				
Energy efficiency class	A++				
Energy efficiency index (EEI)	130	131	131	131	131
Seasonal performance factor for room heating in condensing mode η_{son} (based on upper heating value)	93	93	93	93	93
Seasonal space heating energy efficiency η_s (based on upper heating value)	90	90	90	90	90
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	3,6	4,2	4,8	5,4
Fuel efficiency at nominal heat output η_n (based on upper heating value) [%]	96				
Fuel efficiency at 30% of the nominal heat power η_p (based on upper heating value) [%]	93				
Fuel	Pellets made of 100% natural wood according to EN ISO 17225-2, class A1				
Colorific value [kWh/kg]	$\geq 4,6$				
Bulk density [kg/m^3]	≥ 600				
Water content [weight %]	≤ 10				
Ash parts [weight %]	$\leq 0,7$				
Length [mm]	≤ 40				
Diameter [mm]	6 ± 1				
Annual space heating emissions					
PM [mg/m^3]	< 40				
OGC [mg/m^3]	< 20				
CO [mg/m^3]	< 500				
NO [mg/m^3]	< 200				
Auxiliary power consumption					
Auxiliary power consumption at nominal heat power e_{lmax} [W]	23,7	29,7	35,6	41,6	47,5

Model designation	Pellematic Condens				
	10	12	14	16	18
Auxiliary power consumption at 30 % of nominal heat power $e_{l_{min}}$ [W]	14,9				
Standby auxiliary power consumption P_{SB} [W]	7				

Model designation	Pellematic Condens				
	10	12	14	16	18
Water area					
Water capacity [litres]	72				
Flow / return connection union nut Ø [inch]	1				
Flow / return connection union nut Ø [DN]	25				
Water resistance at 10K [mBar]	6,7	10,4	14,1	17,8	21,5
Water resistance at 20K [mBar]	1,9	2,9	3,8	4,8	5,7
Boiler temperature [°C]	28 - 85				
Minimum boiler temperature [°C]	25				
Minimum return (boiler inlet) temperature [°C]	5				
Operating pressure maximum [Bar]	3				
Test pressure [Bar]	4,6				
Flue gas area (Flue gas = F.g.)					
Available delivery pressure of fan [mBar]	0,05 ¹⁾				
Combustion chamber temperature [°C]	400 – 870				
F.g. temp. rated power condensation mode [°C]	40 - 80				
F.g. temp. rated power standard heat. mode [°C]	60 – 90				
F.g. temp. partial load condensation mode [°C]	40 - 80				
F.g. temp. partial load standard heat. mode [°C]	60 – 90				
F.g. volume rated power at f.g.tem. condensation mode [kg/h]	18,9	21,9	24,8	27,8	30,7
F.g. vol. rated power at f.g.tem. standard heating mode [kg/h]	18,8	23,3	27,8	31,8	35,3
F.g. vol. partial load at f.g. tem. condens. mode [kg/h]	5,7	6,8	8	9,1	10,3
F.g. vol. partial load at f.g. tem. standard heating mode [kg/h]	6,8	7,6	8,3	9,2	10,3
F.g. vol. rated power at AGT condens. mode [m ³ /h]	14,5	16,8	19,1	21,3	23,6
F.g. vol. rated power at AGT standard heating mode [m ³ /h]	13,8	17,1	20,4	23,3	25,9
F.g. vol. partial load at AGT condens. mode [m ³ /h]	4,4	5,2	6,1	7	7,8
F.g. vol. partial load at AGT standard heating mode [m ³ /h]	5,0	5,6	6,1	6,8	7,6
Flue gas tube diameter (at the boiler) [mm]	132 (interior)				
Chimney diameter	as per chimney calculation				
Chimney construction	qualified for condensing, solid fuel, damp resistant, N1 or P1 (depending on chimney calculation)				
Weight					
Overall Weight [kg]	294				

Model designation	Pellematic Condens				
	10	12	14	16	18
Ash capacity ash box [kg]	6				
Volume hopper [kg]	32				
Electrical Components					
Connection value	230 VAC, 50Hz, 16A				
Main Drive [W]	40				
Drive Motor [W]	250 / 370				
Flue gas fan [W]	9 - 120W				
Electrical Ignition - [W]	250				
Cleaning Motor [W]	40				
Protection class	IP20				

Note:

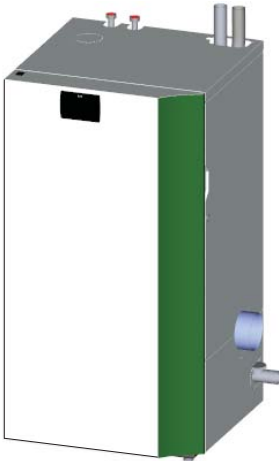


Further technical data and results of the type test available on request from your ÖkoFEN contact.

Notes on bringing the unit into the building

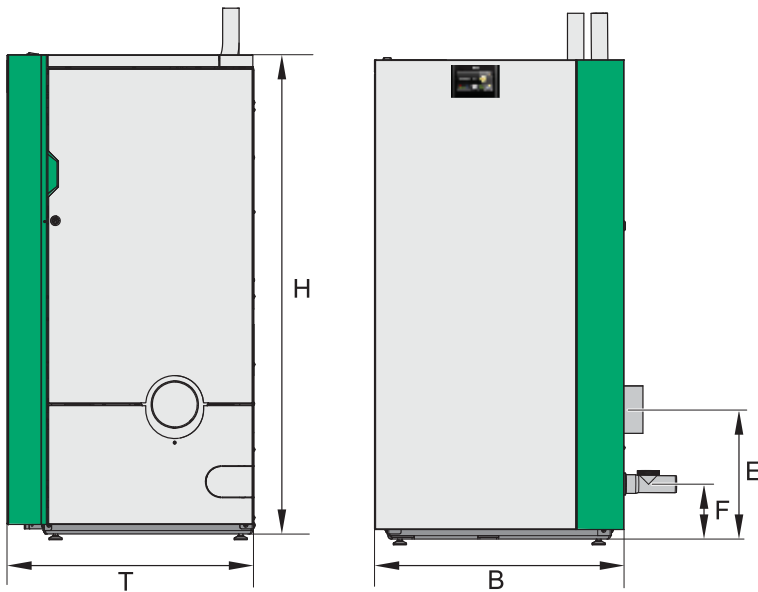
Before bringing the unit into the building, check the dimensions of all doors to ensure that the boiler has sufficient clearance and can be set up properly.

Minimum door width – max. unit dimension

PE Condens	10kW – 18kW	660 mm
------------	-------------	--------

<p>Door width > 73cm</p>  <p>Dismantling of components not necessary</p>	<p>Door width > 66cm</p>  <p>Dismantle casing</p>	<p>Door width > 40cm</p>  <p>“Dismantle all”</p>
--	---	--

Boiler dimensions



Boiler size	Pellematic Condens				
	10	12	14	16	18
T – Depth of boiler casing – mm	724				
H – Height of boiler casing – mm	1408				
B – Overall width of pellet boiler –mm	732				
E – Height of flue gas tube connection – mm	375				
F – Condensate drain connecting height – mm	158				

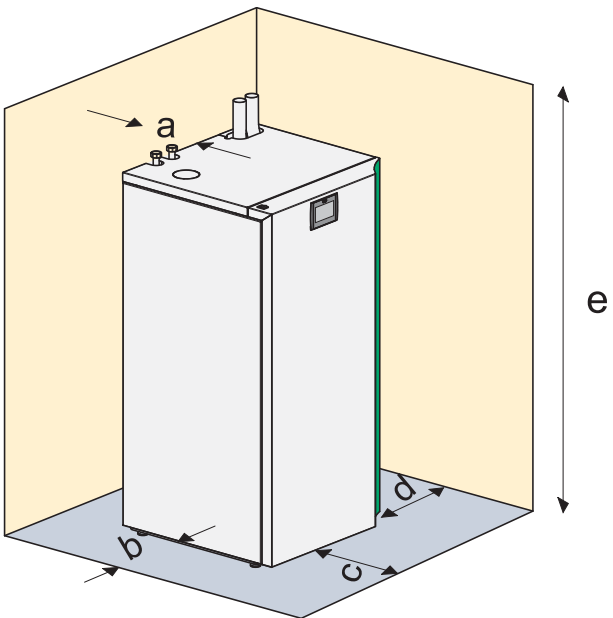
Boiler Weight

Boiler size	Pellematic Condens				
	10	12	14	16	18
Weight of boiler packaged on pallet with wooden frame - kg	340				
Weight of boiler with casing, hopper and burner - kg	290				
Weight of boiler without casing, hopper and burner - kg	185				

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	40 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	750 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

© by ÖkoFEN Forschungs- und EntwicklungsgesmbH
Subject to modifications