

Technical data

PELLEMATIC®
downstream Condensing
heat exchanger 36 - 56 kW

ENGLISH



Technical data

Information according to ecodesign EU regulation 2015/1189

Model designation	Pellematic			
	PESK 41	PESK 49	PESK 55	PESK 64
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)	128	130	132	135
Seasonal performance factor for room heating in condensing mode η_{son} (based on upper heating value)	91	93	94	96
Seasonal space heating energy efficiency η_s (based on upper heating value)	88	90	91	93
Delivered useful heat at nominal heat power P_n [kW]	41	49	55	64
Delivered useful heat at 30 % of the nominal heat power P_p [kW]	12	15	17	19
Fuel efficiency at nominal heat output η_n (based on upper heating value) [%]	91	93	94	96
Fuel efficiency at 30% of the nominal heat power η_p (based on upper heating value) [%]	91	93	94	96
Fuel				
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 $e_{l_{max}}$ [W]	114			
Auxiliary power consumption at 30 % of nominal heat power $e_{l_{min}}$ [W]	39			
Standby auxiliary power consumption P_{SB} [W]	7			

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Water area				
Water capacity	135 + 24	135 + 24	135 + 24	135 + 24
Water supply/return - dimensions	2	2	2	2
Water supply/return - dimensions	50	50	50	50
Water resistance at 10K	90	107	123	145
Water resistance at 20K	43	46	48	53
Boiler temperature	65 - 90			
Boiler input temperature minimum	55			
Operating pressure maximum	3			
Test pressure	4,6			
Flue gas area				
Fire vault temperature	500 - 900			
Rated power / partial power - Need of draught	0,05			
Flue gas temp ra pow/pa load	45 - 80 40 - 80			
F.g. volume rated power at f.g. tem.	97,5	105,8	113,2	121,1
F.g. volume partial load at f.g. tem.	31	33	34,9	39
F.g. volume rated power at AGT	75	81,2	87,1	93,2
F.g. volume partial load at AGT	24	25,7	27,1	30,2
Flue gas tube diameter (boiler)	182,5	182,5	182,5	182,5
Chimney diameter	as per chimney calculation, EN 13384-1, min. 180			
Chimney construction	qualified for condensing - solid fuel - damp resistant- qualified for negative draft (N1), pressure tight up to 0,2mbar			
Weight				
Overall Weight packing included	780			
Overall Weight	734			
Boiler Body Weight	330			
Internal ash pan volume	30			
External ash box volume	25			
Electrical Components				
Connection value - Suction system				
Main Drive	40			
Drive Motor	250 / 370			
Suction Turbine	1400			
Combustion Air Blower	62			
Flue gas fan	72			
Electrical Ignition	250			
Cleaning Motor	40			
Motor External Ash Box	40			

Model designation	Pellematic
Motor Burner plate cleaning system	40
Flame Return Gate	5
Protection class	IP20

Note:

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



Author

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