

EVO S

40 - 150kW



Condensing boiler with stainless steel heat exchanger technology.

Features

- > Brand new robust stainless steel heat exchanger
- > 5 year warranty* (T&Cs apply)
- > NOx class 6 for all models
- > 5:1 turndown
- > New compact design
- > Large product range up to 150kW
- > 6 bar max operating pressure (80kW and above)
- > Cascade ability of up to 900kW (exceptions apply)
- > Full suite of cascade accessories available
- > 2022 Part L compliant
- > Full range of hydraulic separation options available
- > New pump modulation controls built into boiler software

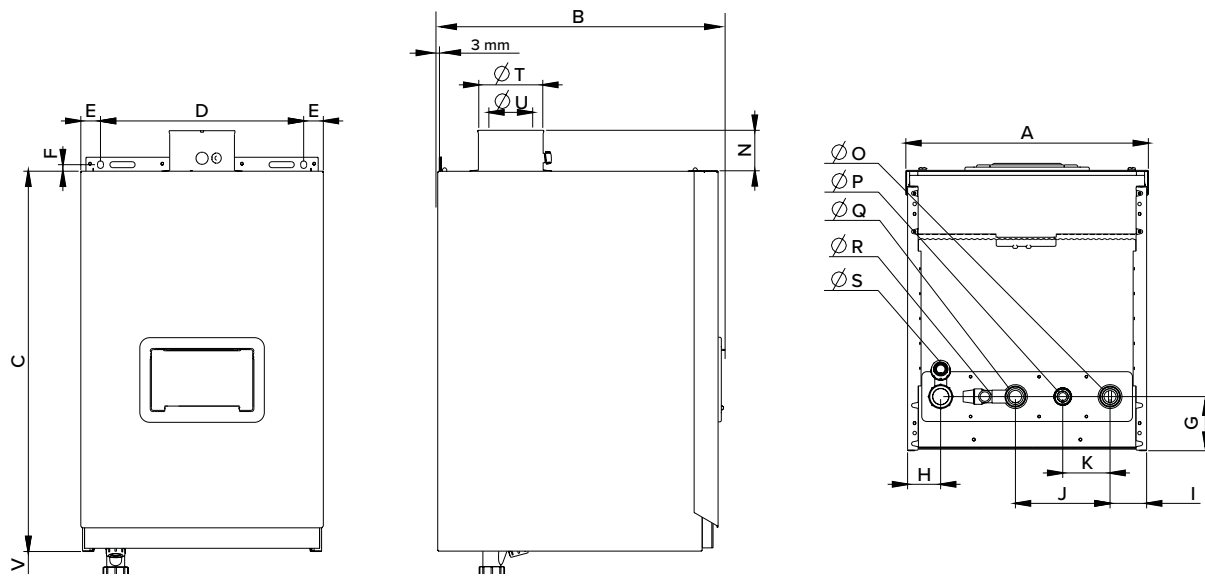
EVO S								
	Unit	40kW	60kW	70kW	80kW	100kW	120kW	150kW
Part Number		100008264200	100008264300	100008265900	100008264400	100008264500	100008264600	100008264700
Performance								
Nominal heat input Q _n	kW	40	55	69.9	80	96	120	145
Minimum heat input Q _{min}	kW	8	11	14	19.2	19.2	24	29
Modulation		5:1	5:1	5:1	4:1	5:1	5:1	5:1
Nominal output P _n (80/60)	kW	38.8	53.4	67.8	77.8	93.4	116.8	141.1
Nominal output (50/30)	kW	42.2	58	73.6	84.4	101.3	127.8	154.5
Max total cascade output (80/60)	kW	155	214	271	467	560	584	847
Thermal efficiency - 100% GCV	%	97.2	97.2	97.1	97.4	97.4	97.4	97.4
Thermal efficiency - 30% NCV	%	108.4	108.2	108.3	108.3	108.3	108.3	108.6
Part L 2022 seasonal efficiency	%	97.6	97.4	97.5	97.5	97.5	97.5	97.8
Seasonal space heating efficiency (ErP)	%	92	92	92	92	92	92	93
Space heating energy efficiency class		A	A	A	n/a	n/a	n/a	n/a
Standing loss	W	52	54	56	63	63	72	69

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Combustion								
Minimum gas pressure (NG)	mbar	17	17	17	17	17	17	17
Minimum gas pressure (LPG)	mbar	25	25	25	25	25	25	N/A
Gas flow rate at Pn (15°C) (NG)	m³/h	4.2	5.8	7.4	8.5	10.2	12.7	15.3
Gas flow rate at Pn (15°C) (LPG)	m³/h	1.64	2.25	2.86	3.27	3.93	4.91	N/A
NOx Emissions according to EN 15502-1 (Gross)	mg/kWh	36	39	39	39	39	39	39
NOx class		6	6	6	6	6	6	6
Hydraulic								
Flow rate at nominal heat input Qn	m³/h	1.72	2.36	3	4.16	4.3	5.16	6.23
Flow rate at minimum heat input Qmin	m³/h	0.57	1.15	1.15	2.3	2.3	3	3.44
Maximum operating pressure	bar	4	4	4	6	6	6	6
Minimum operating pressure	bar	1	1	1	1	1	1	1
Maximum operating temperature	°C	85	85	85	85	85	85	85
Water content	L	3	4	4.5	8	7.5	9.5	11
Sound power at Pmax Lw	dB(A)	50	59	60.2	64.7	64.7	64.9	59.2
System Hydraulic Info (NG & LPG)								
Hydraulic resistance (ΔT 11 °C)	mbar	1539	1560	1890	1043	1457	1648	2278
Flow rate (ΔT 11 °C)	l/min	52	71.4	90.9	103.9	129.9	155.8	188.3
Hydraulic resistance (ΔT 15 °C)	mbar	821	837	842	577	794	881	1223
Flow rate (ΔT 15 °C)	l/min	38.1	52.4	66.7	76.2	95.2	114.3	138.1
Hydraulic resistance (ΔT 20 °C)	mbar	459	470	520	318	449	515	701
Flow rate (ΔT 20 °C)	l/min	28.6	39.3	50	57.1	71.4	85.7	103.6
Hydraulic resistance (ΔT 25 °C)	mbar	223	305	306	203	287	335	441
Flow rate (ΔT 25 °C)	l/min	22.9	31.4	40	45.7	57.1	68.6	82.9
Max system temp differential	°C	35*			30*			

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Flue								
C = Concentric Flue, B = Open Flue								
Approved flue systems		B23, B23P, C13, C33	B23, B23P, C13, C33	B23, B23P, C13, C33	B23, B23P, C13, C33	B23, B23P, C13, C33	B23, B23P, C13, C33	B23, B23P, C13, C33
Flue size		80/125	80/125	80/125	100/150	100/150	100/150	100/150
Concentric flue system max length (NG)	m	15	10	10	10	10	8	6
Concentric flue system max length (LPG)	m	15	10	10	10	10	8	n/a
Vertical concentric flue system (C33) min length (LPG)	m	n/a	n/a	n/a	1m	1m	n/a	n/a
Max allowable nozzle pressure open flue (80/60) NG	Pa	150	170	185	120	165	190	190
Max allowable nozzle pressure open flue (50/30) NG	Pa	126	145	145	153	153	157	170
Max allowable nozzle pressure open flue (80/60) LPG	Pa	145	175	175	120	165	190	n/a
Max allowable nozzle pressure open flue (50/30) LPG	Pa	125	155	155	100	145	170	n/a
Flue gas mass flow rate (80/60) NG	g/s	18.6	25.6	32.5	37.2	44.7	55.8	67.5
Flue gas mass flow rate (50/30) NG	g/s	16.8	23.1	29.3	33.6	40.3	50.3	60.8
Flue gas mass flow rate (80/60) LPG	g/s	17.8	24.5	31.2	35.7	42.8	53.5	n/a
Flue gas mass flow rate (50/30) LPG	g/s	18.9	25.9	32.9	37.7	45.2	57.1	n/a
Electric								
Electrical supply		230V - 50Hz	230V - 50Hz	230V - 50Hz	230V - 50Hz	230V - 50Hz	230V - 50Hz	230V - 50Hz
Power consumption at Qn	kW	0.067	0.107	0.121	0.094	0.143	0.233	0.26
Power consumption in standby mode	kW	0.004	0.004	0.004	0.004	0.004	0.003	0.003
Physical								
Dry weight	kg	45	51	55	77	77	81	100
Gas supply connection		G 1"	G 1"	G 1"	G 1"	G 1"	G 1"	G 1"
Flow/Return connections		G 1 1/4"	G 1 1/4"	G 1 1/4"	G 1 1/4"	G 1 1/4"	G 1 1/4"	G 1 1/4"
Clearances - front of boiler (service clearance)	mm	800						
Clearances - boiler to wall	mm	250						
Clearances - above boiler casing (B23/B23P flue)	mm	393			289			
Clearances - above boiler casing (C13 flue)	mm	290			325			
Clearances - above boiler casing (C33 flue)	mm	145			145			

* For information relating to flow rates and hydraulic resistance, please get in touch with ACV Technical Support

Dimensions



Dimensions	Label	Unit	35 - 70 kW	80 - 150 kW
Boiler (Overall Dimensions)				
Boiler width	A	mm	487	487
Boiler depth	B	mm	577	668
Boiler height	C	mm	764	895
Boiler Rigging Points				
Fixing centers	D	mm	408	408
Distance of fixings to side of boiler	E	mm	36	36
Fixing point centers above top of boiler casing	F	mm	17	17
Connections On The Bottom Of The Boiler				
Centre of connections to rear of boiler	G	mm	108.5	108.5
Centre of siphon outlet to side casing	H	mm	66.5	65.5
Centre of return connection from casing side	I	mm	73.5	74.5
Centres between flow and return connections	J	mm	190	190
Centres between gas inlet and return connection	K	mm	95	95
Flue Gas Connection				
Centre of flue from side	L	mm	240	240
Centre of flue from rear	M	mm	146.5	123
Flue connection socket height	N	mm	83	83

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