



Technical Data

Wessex ModuMax Condensing Boilers - Performance and General Data

	Module Size		WM 100c			WM 120c			WM 150c		
	Model	No of modules	/100 1	/200 2	/300 3	/120 1	/240 2	/360 3	/150 1	/300 2	/450 3
Energy	Building regulations seasonal efficiency (%)gross		91.2			91.4			91.7		
	Boiler output 80/60°C	kW	98	195	293	117	234	351	143	287	430
		Btu/h x 1000	333	665	998	399	798	1197	489	978	1467
	Boiler output 50/30°C	kW	100	200	300	120	240	360	150	300	450
		Btu/h x 1000	341	682	1023	409	819	1228	512	1024	1535
	Boiler input (gross) Maximum	kW	109	218	327	133	266	399	163	326	490
Btu/h x 1000		372	743	1115	454	908	1361	557	1114	1671	
Boiler input (nett) Maximum	kW	98	196	294	120	240	360	147	294	441	
	Btu/h x 1000	334	669	1003	409	819	1228	501	1003	1504	
Boiler output Minimum 80/60°C	kW	20			23			30			
	Btu/h x 1000	68			80			102			
Water	Water content (not including headers) litres		16	32	48	16	32	48	22	44	66
	Minimum flow rate @ 20°C Δt rise l/s		1.2	2.4	3.6	1.4	2.8	4.2	1.8	3.6	5.4
	Water side pressure loss @ 20°C Δt rise mbar		20			27			145		
	System design flow rate @ 11°C Δt rise l/s		2.2	4.4	6.6	2.6	5.2	7.8	3.3	6.6	9.9
	Water side pressure loss @ 11°C Δt rise mbar		61			91			500		
	Maximum water pressure barg					10					
Gas	Gas flow rate natural gas (G20) - Maximum m ³ /h		11	22	33	12.7	25.4	38.1	16.5	33	49.5
	Nominal gas inlet pressure natural gas (G20) mbar		20								
	Maximum gas inlet pressure natural gas (G20) mbar		25								
Flue	Approx. flue gas volume @ 15°C, 9.1% CO ₂ , N.T.P m ³ /h		143	286	429	160	320	480	214	428	642
	Maximum flue gas temperature °C		83			83			78		
	NO _x Emission (DAF) European Class 5 mg/kWh		35			37			36		
	Pressure at flue outlet	Pa	150			89					
mbar		1.5			0.89						
Connection	Water flow/return connections		G1 ¹ / ₂ "M						G2 ¹ / ₂ "M		
	Gas inlet connection pipe thread size		R1"						R1 ¹ / ₄ "		
	Nominal flue diameter (I/D) mm		100	180	180	100	180	180	150	250	250
	Condensate trap connection(s) (O/D) mm		32								
Electrics	Power consumption - maximum W		170	340	510	170	340	510	250	500	750
	Nominal supply voltage		230V 1PH 50Hz								
	Module start current	Start Amps	1.2						1.3		
Run Amps		0.8						0.9			
Approx. shipping weight	kg		180	355	540	180	355	540	226	452	678
	Noise emission @ 1m	Max dB (A)	60						65		
		Min dB (A)	47						47		

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	Module Size	WM 200c			WM 250c			
		Model No of modules	/200 1	/400 2	/600 3	/250 1	/500 2	/750 3
Energy	Building regulations seasonal efficiency (%) gross	91.1			91.7			
	Boiler output 80/60°C	kW Btu/h x 1000	194 663	389 1327	583 1990	246 839	493 1682	739 2521
	Boiler output 50/30°C	kW Btu/h x 1000	200 681	400 1361	600 2042	250 853	500 1706	750 2559
	Boiler input (gross) Maximum	kW Btu/h x 1000	219 749	439 1497	659 2246	275 938	550 1877	825 2815
	Boiler input (nett) Maximum	kW Btu/h x 1000	198 674	395 1348	593 2022	248 845	495 1689	743 2534
	Boiler output Minimum 80/60°C	kW Btu/h x 1000	40 136			49 168		
Water	Water content (not including headers)	litres	22	44	66	22	44	66
	Minimum flow rate @ 20°C Δt rise	l/s	2.4	4.8	7.2	3.0	6.0	9.0
	Water side pressure loss @ 20°C Δt rise	mbar	246			395		
	System design flow rate @ 11°C Δt rise	l/s	4.3	8.6	12.9	5.4	10.8	16.2
	Water side pressure loss @ 11°C Δt rise	mbar	850			1300		
	Maximum water pressure	barg	10					
Gas	Gas flow rate natural gas (G20) - Maximum	m³/h	21.4	42.8	64.2	27.9	55.8	83.7
	Nominal gas inlet pressure natural gas (G20)	mbar	20					
	Maximum gas inlet pressure natural gas (G20)	mbar	25					
Flue	Approx. flue gas volume @ 15°C, 9.1% CO ₂ , N.T.P	m³/h	279	558	837	354	708	1062
	Maximum flue gas temperature	°C	83			82		
	NO _x Emission (DAF) European Class 5	mg/kWh	36			39		
	Pressure at flue outlet	Pa mbar	90 0.9			150 1.5		
Connection	Water flow/return connections		G2½" M					
	Gas inlet connection pipe thread size		R1¼" M					
	Nominal flue diameter (I/D)	mm	150	250	250	150	250	250
	Condensate trap connection(s) (O/D)	mm	32					
Electrics	Power consumption - maximum	W	250	500	750	250	500	750
	Nominal supply voltage		230V 1PH 50HZ					
	Module start current	Start Amps Run Amps	1.3 0.9					
	Approx. shipping weight	kg	226	452	678	226	452	678
	Noise emission @ 1m	Max dB (A) Min dB (A)	65 47					



Technical Data

Wessex ModuMax High Efficiency Boilers - Performance and General Data

Module Size		WM 110he			WM 160he			WM 220he			
Model		/110	/220	/330	/160	/320	/480	/220	/440	/660	
No of modules		1	2	3	1	2	3	1	2	3	
Energy	Building regulations seasonal efficiency (%)gross	87.3			86.7			86.6			
	Boiler output 80/60°C	kW	110	220	330	160	320	480	220	440	660
		Btu/h x 1000	375	757	1126	546	1092	1638	750	1501	2252
	Boiler input (gross) Maximum	kW	125	250	375	190	380	569	262	524	787
		Btu/h x 1000	427	853	1280	648	1295	1943	894	1788	2685
Energy	Boiler input (nett) Maximum	kW	113	225	338	171	342	513	236	472	708
		Btu/h x 1000	384	768	1152	583	1166	1749	805	1610	2416
Energy	Boiler output Minimum 80/60°C	kW	22			32			44		
		Btu/h x 1000	73			109			150		
Water	Water content (not including headers)	litres	14	28	42	17	34	51	17	34	51
	Minimum flow rate @ 20°C Δt rise	l/s	1.3	2.6	3.9	1.9	3.8	5.7	2.6	5.2	7.8
	Water side pressure loss @ 20°C Δt rise	mbar	25			144			190		
	System design flow rate @ 11°C Δt rise	l/s	2.3	4.6	6.9	3.4	6.8	10.2	4.8	9.6	14.4
	Water side pressure loss @ 11°C Δt rise	mbar	86			487			595		
	Maximum water pressure	barg	10								
Gas	Gas flow rate natural gas (G20) - Maximum	m³/h	11.9	23.8	35.7	18.4	36.8	55.2	25	50	75
	Nominal gas inlet pressure natural gas (G20)	mbar	20								
	Maximum gas inlet pressure natural gas (G20)	mbar	25								
Flue	Approx. flue gas volume @ 15°C, 9.1% CO ₂ , N.T.P	m³/h	161	322	483	239	478	717	321	642	963
	Maximum flue gas temperature	°C	129			118			129		
	NO _x Emission (DAF) European Class 5	mg/kWh	38			34			39		
	Pressure at flue outlet	Pa	150			142			150		
	mbar	1.5			1.42			1.5			
Connection	Water flow/return connections		G1½" M			G2½" M					
	Gas inlet connection pipe thread size		R1" M			R1¼" M					
	Nominal flue diameter (I/D)	mm	100	180	180	150	250	250	150	250	250
	Condensate trap connection(s) (O/D)	mm	32								
Electrics	Power consumption - maximum	W	170	340	510	250	500	750	250	500	750
	Nominal supply voltage		230V 1PH 50Hz								
	Module start current	Start Amps	1.2			1.3					
	Run Amps	0.8			0.9						
General	Approx. shipping weight	kg	175	345	515	220	440	660	220	440	660
	Noise emission @ 1m	Max dB (A)	60			65					
	Min dB (A)	47			47						