

Wessex ModuMax mk3 technical data

Models WM147/147H, WM147/294V, WM147/441V, WM196/196H, WM196/392V, WM196/588V, WM254/254H, WM254/508V, WM258/762V
147, 196 and 254kW modules

Wessex ModuMax mk3 boiler model		Units	147/147H	147/294V	147/441V	196/196H	196/392V	196/588V	254/254H	254/508V	254/762V	
No. of modules			1	2	3	1	2	3	1	2	3	
Energy	Building regulations Part L seasonal efficiency	% gross	94.8	94.8	94.8	93.9	93.9	93.9	95.0	95.0	95.0	
	BS EN 15502 seasonal efficiency	% gross	95.2	95.2	95.2	94.1	94.1	94.1	95.3	95.3	95.3	
	Boiler output 80/60°C, NG & LPG	kW	142.8	285.6	428.4	191.6	383.2	574.8	239.8	479.6	719.4	
	Boiler output 50/30°C, NG & LPG	kW	147.4	294.8	442.2	196.3	392.6	588.9	254.4	508.7	763.1	
	Boiler input (gross) - maximum, NG	kW	163	326	489	219	428.7	657	275	550	825	
	Boiler input (gross) - maximum, LPG	kW	159.5	319.1	478.6	214.4	428.7	643.1	269.2	538.3	807.5	
	Boiler input (nett) - maximum, NG & LPG	kW	146.8	293.6	440.3	197.2	394.4	591.6	247.6	495.3	742.9	
	Boiler output - minimum 80/60°C, NG & LPG	kW	28.7	28.7	28.7	38.6	38.6	38.6	48.4	48.4	48.4	
Water	Water content	litres	22	44	66	22	44	66	22	44	66	
	System design flow rate @ 40°C ΔT rise	l/s	0.9	1.8	2.7	1.2	2.4	3.6	1.5	3	4.5	
	Water side pressure loss @ 40°C ΔT rise	mbar	36	36	36	62	62	62	100	100	100	
	System design flow rate @ 30°C ΔT rise	l/s	1.2	2.4	3.6	1.6	3.2	4.8	2	4	6	
	Water side pressure loss @ 30°C ΔT rise	mbar	60	60	60	120	120	120	180	180	180	
	System design flow rate @ 20°C ΔT rise	l/s	1.8	3.6	5.4	2.4	4.8	7.2	3	6	9	
	Water side pressure loss @ 20°C ΔT rise	mbar	145	145	145	246	246	246	395	395	395	
	System design flow rate @ 11°C ΔT rise	l/s	3.3	6.6	9.9	4.3	8.6	12.9	5.4	10.8	16.2	
	Water side pressure loss @ 11°C ΔT rise	mbar	500	500	500	850	850	850	1300	1300	1300	
	Minimum water pressure	barg	Dependent on differential temperature – see page 25									
	Maximum water pressure	barg	10	10	10	10	10	10	10	10	10	
	Maximum flow temperature setting	°C	90	90	90	90	90	90	90	90	90	
Gas	Gas flow rate, NG (G20) - maximum	m³/hr	16	32	48	21.4	42.8	64.2	27.9	55.8	83.7	
	Gas flow rate, LPG (G31) - maximum	m³/hr	6	12	18	8.1	16.2	24.3	10.1	20.2	30.3	
	Nominal inlet pressure, NG (LPG) - maximum	mbar	20 (37)	20 (37)	20 (37)	20 (37)	20 (37)	20 (37)	20 (37)	20 (37)	20 (37)	
	Maximum gas inlet pressure NG (LPG)	mbar	25 (45)	25 (45)	25 (45)	25 (45)	25 (45)	25 (45)	25 (45)	25 (45)	25 (45)	
Flue	Approx. flue gas volume @ 15°C, 8.75-9.25% CO ₂	m³/hr	214	428	642	279	558	837	354	708	1062	
	Maximum flue gas temperature @ 80/60°C	°C	78	78	78	83	83	83	82	82	82	
	Pressure at boiler flue connection	Pa	150	150	150	150	150	150	150	150	150	
		mbar	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	
	Dry NOx emission (0% excess oxygen, dry air free) - NG	mg/kWh	37.7	37.7	37.7	39.9	39.9	39.9	38.8	38.8	38.8	
Dry NOx emission (0% excess oxygen, dry air free) - LPG	mg/kWh	69.3	69.3	69.3	68.6	68.6	68.6	39.9	39.9	39.9		
Connection	Water flow/return connections	inches	G2½" male	G2½" male	G2½" male	G2½" male	G2½" male	G2½" male	G2½" male	G2½" male	G2½" male	
	Gas inlet connection pipe thread size	inches	R1¼" male	R1¼" male	R1¼" male	R1¼" male	R1¼" male	R1¼" male	R1¼" male	R1¼" male	R1¼" male	
	Nominal flue diameter (I/D)	mm	150	250	250	150	250	250	150	250	250	
	Condensate trap connection(s) (O/D)	mm	32	32	32	32	32	32	32	32	32	
Electrics	Electrical supply		230V	230V	230V	230V	230V	230V	230V	230V	230V	
			1Ph	1Ph	1Ph	1Ph	1Ph	1Ph	1Ph	1Ph	1Ph	
			50Hz	50Hz	50Hz	50Hz	50Hz	50Hz	50Hz	50Hz	50Hz	
	Power consumption - maximum boiler modulation	W	240	480	720	240	480	720	240	480	720	
Start current (per module)	Amp	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3		
Run current (per module)	Amp	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05		
Approx shipping weight	kg	226	452	678	226	452	678	226	452	678		
Noise emission @1m @maximum modulation	Max dB (A)	65	65	65	65	65	65	65	65	65		
Noise emission @1m @minimum modulation	Min dB (A)	47	47	47	47	47	47	47	47	47		

Wessex ModuMax mk2 technical data

Models WM97/97H, WM 97/194V, WM97/291V, WM116/116H, WM116/232V, WM116/348V
97 and 116kW modules

	Wessex ModuMax mk3 boiler model	Units	97/97H	97/194V	97/291V	116/116H	116/232V	116/348V	
	No. of modules		1	2	3	1	2	3	
Energy	Building regulations Part L seasonal efficiency	% gross	94.9	94.9	94.9	93.1	93.1	93.1	
	BS EN 15502 seasonal efficiency	% gross	95.2	95.2	95.2	93.4	93.4	93.4	
	Boiler output 80/60°C, NG & LPG	kW	95.7	191.4	287.1	115.2	230.4	345.6	
	Boiler output 50/30°C, NG & LPG	kW	97.2	194.4	291.6	116.2	232.5	348.7	
	Boiler input (gross) - maximum, NG	kW	109	218	327	133	266	399	
	Boiler input (gross) - maximum, LPG	kW	106.7	213.4	320.1	130.2	260.4	390.5	
	Boiler input (net) - maximum, NG & LPG	kW	98.2	196.4	294.6	119.8	239.6	359.4	
	Boiler output - minimum 80/60°C, NG & LPG	kW	19.1	19.1	19.1	23.5	23.5	23.5	
Water	Water content	litres	16	32	48	16	32	48	
	System design flow rate @ 40°C ΔT rise	l/s	0.6	1.2	1.8	0.7	1.4	2.1	
	Water side pressure loss @ 40°C ΔT rise	mbar	5	5	5	7	7	7	
	System design flow rate @ 30°C ΔT rise	l/s	0.8	1.6	2.4	1	2	3	
	Water side pressure loss @ 30°C ΔT rise	mbar	9	9	9	14	14	14	
	System design flow rate @ 20°C ΔT rise	l/s	1.2	2.4	3.6	1.4	2.8	4.2	
	Water side pressure loss @ 20°C ΔT rise	mbar	20	20	20	27	27	27	
	System design flow rate @ 11°C ΔT rise	l/s	2.2	4.4	6.6	2.6	5.2	7.8	
	Water side pressure loss @ 11°C ΔT rise	mbar	61	61	61	91	91	91	
	Minimum water pressure	barg	Dependent on differential temperature – see page 25						
	Maximum water pressure	barg	10	10	10	10	10	10	
Maximum flow temperature setting	°C	90	90	90	90	90	90		
Gas	Gas flow rate, NG (G20) - maximum	m³/hr	10.8	21.6	32.4	12.7	25.4	38.1	
	Gas flow rate, LPG (G31) - maximum	m³/hr	4	8	12	5	10	15	
	Nominal inlet pressure, NG (LPG) - maximum	mbar	20 (37)	20 (37)	20 (37)	20 (37)	20 (37)	20 (37)	
	Maximum gas inlet pressure NG (LPG)	mbar	25 (45)	25 (45)	25 (45)	25 (45)	25 (45)	25 (45)	
Flue	Approx. flue gas volume @ 15°C, 8.75-9.25% CO ₂	m³/hr	143	286	429	160	320	480	
	Maximum flue gas temperature @ 80/60°C	°C	83	83	83	83	83	83	
	Pressure at boiler flue connection	Pa	150	150	150	150	150	150	
		mbar	1.5	1.5	1.5	1.5	1.5	1.5	
	Dry NOx emission (0% excess oxygen, dry air free) - NG	mg/kWh	39.8	39.8	39.8	34.3	34.3	34.3	
Dry NOx emission (0% excess oxygen, dry air free) - LPG	mg/kWh	42	42	42	57.3	57.3	57.3		
Connection	Water flow/return connections	inches	G1½" male	G1½" male	G1½" male	G1½" male	G1½" male	G1½" male	
	Gas inlet connection pipe thread size	inches	R1" male	R1" male	R1" male	R1" male	R1" male	R1" male	
	Nominal flue diameter (I/D)	mm	100	180	180	100	180	180	
	Condensate trap connection(s) (O/D)	mm	32	32	32	32	32	32	
Electrics	Electrical supply		230V 1Ph 50Hz	230V 1Ph 50Hz	230V 1Ph 50Hz	230V 1Ph 50Hz	230V 1Ph 50Hz	230V 1Ph 50Hz	
	Power consumption - maximum boiler modulation	W	166	332	498	166	332	498	
	Start current (per module)	Amp	1.2	1.2	1.2	1.2	1.2	1.2	
	Run current (per module)	Amp	0.72	0.72	0.72	0.72	0.72	0.72	
Approx shipping weight	kg	180	355	540	180	355	540		
Noise emission @1m @maximum modulation	Max dB (A)	60	60	60	60	60	60		
Noise emission @1m @minimum modulation	Min dB (A)	47	47	47	47	47	47		