

# Technical Data

## Fleet Vertical Boilers - Two High Modules

	Model	F40V-80	F50V-100	F60V-120	F70V-140	F85V-170	F100V-200	F125V-250	F150V-300
Energy	Building Regulations seasonal efficiency gross (%)	97.4	97.4	95.5	95.5	95.5	95.5	95.5	97.4
	Boiler output 50/30°C kW Btu/h x 1000	80 273	100 341	120 409	140 478	170 580	200 682	250 853	300 1024
	Boiler output 80/60°C kW Btu/h x 1000	72.2 246	90.2 308	108.2 369	126.4 431	153.4 523	180.6 616	225.6 770	270.8 924
	Boiler input (gross) Maximum kW Btu/h x 1000	82 280	102.6 350	123 420	143.6 490	174.4 595	205.2 700	256.4 875	307.6 1050
	Boiler input (nett) Maximum kW Btu/h x 1000	73.8 252	92.4 315	110.8 378	129.4 442	157 536	184.8 631	231 788	277.2 946
	Boiler output Minimum 80/60°C kW Btu/h x 1000	7.2 25	9.0 31	10.8 37	12.6 43	15.3 52	17.9 61	21.6 74	26.9 92
Water	Water content (not including headers) litres	8	8	10	10	12	12	14	16
	Design flow rate @ 20°C Δt rise l/s	0.96	1.2	1.44	1.68	2.04	2.38	2.98	3.58
	Residual pump head @ 20°C Δt rise kPa m	2.7 0.27	2.0 0.20	1.4 0.14	0.6 0.06	4.2 0.42	3.4 0.34	2.2 0.22	3.0 0.30
	Maximum water pressure barg	6.0							
Gas	Gas flow rate natural gas (G20) – Maximum m³/h	7.8	9.6	11.6	13.6	16.5	19.4	23.4	29.2
	Gas inlet pressure natural gas (G20) mbar	17.5 Minimum 20.0 Nominal 25.0 Maximum							
Flue	Approx. Flue gas volume @ 15°C, 9.2% CO <sub>2</sub> , N.T.P. m³/h	104	130	156	182	220	260	326	390
	Maximum flue gas temperature °C	65							
	NOx Emission (DAF) European Class 5 mg/kWh	35	35	36	36	37	37	38	39
	Pressure at flue outlet Pa mbar	150 1.5							
Connection	Water flow/return connections	Rp1"						Rp1 <sup>1</sup> / <sub>4</sub> "	
	Gas inlet connections	R <sup>3</sup> / <sub>4</sub> "						R1"	
	Nominal flue manifold diameter (I/D) mm	150							
	Safety valves (pipe tail) mm	22							
	Condensate trap connection(s) (O/D) mm	40							
Electrics	Power consumption – maximum W	320	320	320	320	700	900	700	1200
	Nominal supply voltage	230V 1Ph 50Hz							
	Module current Start Amps Run Amps	0.85 0.35				2.1 1.0			2.4 1.2
	Approx. shipping weight kg	192	192	203	203	214	214	286	297
	Noise emission @ 1m Max dB (A)	56	58	52	54	58	61	63	68



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## Fleet Vertical Boilers - Two High Modules

	Model	F175V-350	F200V-400	F250V-500	F300V-600	F350V-700
Energy	Building Regulations seasonal efficiency gross (%)	95.5	95.5	95.5	95.5	97.4
	Boiler output 50/30°C kW Btu/h x 1000	350 1194	400 1365	500 1706	600 2047	700 2388
	Boiler output 80/60°C kW Btu/h x 1000	316.6 1080	361.8 1234	452.4 1544	542.7 1852	633.2 2160
	Boiler input (gross) Maximum kW Btu/h x 1000	359.7 1227	411.1 1403	513.8 1753	616.6 2104	719.3 2454
	Boiler input (nett) Maximum kW Btu/h x 1000	324.1 1106	370.4 1264	462.8 1579	555.6 1896	648.2 2212
	Boiler output Minimum 80/60°C kW Btu/h x 1000	31.7 108	36.2 124	45.2 154	54.3 185	63.3 216
Water	Water content (not including headers) litres	26	30	34	40	50
	Design flow rate @ 20°C Δt rise l/s	4.2	4.8	6.0	7.2	8.4
	Residual pump head @ 20°C Δt rise kPa m	27 2.7	20 2	14 1.4	42 4.2	34 3.4
	Maximum water pressure barg	6.0				
Gas	Gas flow rate natural gas (G20) – Maximum m³/h	34.2	43.4	48.8	58.6	68.4
	Gas inlet pressure natural gas (G20) mbar	17.5 Minimum 20.0 Nominal 25.0 Maximum				
Flue	Approx. Flue gas volume @ 15°C, 9.2% CO <sub>2</sub> , N.T.P. m³/h	450	520	650	780	900
	Maximum flue gas temperature °C	65				
	NO <sub>x</sub> Emission (DAF) European Class 5 mg/kWh	56	56	47	60	40
	Pressure at flue outlet Pa mbar	150 1.5				
Connection	Water flow/return connections	R1½"			R2"	
	Gas inlet connections	R1"			R1¼"	
	Nominal flue manifold diameter (I/D) mm	200			250	
	Safety valves (pipe tail) mm	22				
	Condensate trap connection(s) (O/D) mm	40				
Electrics	Power consumption – maximum W	1120	1120	1100	1160	3000
	Nominal supply voltage	230V 1Ph 50Hz				
	Module current Start Amps Run Amps	3.5 2.2			3.7 2.5	8.5 6.0
	Approx. shipping weight kg	412	500	614	653	818
	Noise emission @ 1m Max dB (A)	62	62	53	66.5	72

# Technical Data

## Fleet Vertical Boilers - Three High Modules

	Model	F40V-120	F50V-150	F60V-180	F70V-210	F85V-255	F100V-300	F125V-375	F150V-450	
Energy	Building Regulations seasonal efficiency gross (%)	97.4	97.4	95.5	95.5	95.5	95.5	95.5	97.4	
	Boiler output 50/30°C kW Btu/h x 1000	120 409	150 512	180 614	210 717	255 870	300 1024	375 1280	450 1535	
	Boiler output 80/60°C kW Btu/h x 1000	108.3 370	135.3 462	162.3 554	189.6 647	230.1 785	270.9 924	338.4 1155	406.2 1386	
	Boiler input (gross) Maximum kW Btu/h x 1000	123 420	153.9 525	184.5 630	215.4 735	261.6 893	307.8 1050	384.6 1312	461.4 1574	
	Boiler input (nett) Maximum kW Btu/h x 1000	110.7 378	138.6 473	166.2 567	194.1 662	235.5 804	277.2 946	346.5 1182	415.8 1419	
	Boiler output Minimum 80/60°C kW Btu/h x 1000	7.2 25	9.0 31	10.8 37	12.6 43	15.3 52	17.9 61	21.6 74	26.9 92	
Water	Water content (not including headers) litres	12	12	15	15	18	18	21	24	
	Design flow rate @ 20°C Δt rise l/s	1.44	1.8	2.16	2.52	3.06	3.57	4.47	5.37	
	Residual pump head @ 20°C Δt rise kPa m	2.7 0.27	2.0 0.20	1.4 0.14	0.6 0.06	4.2 0.42	3.4 0.34	2.2 0.22	3.0 0.30	
	Maximum water pressure barg	6.0								
Gas	Gas flow rate natural gas (G20) – Maximum m³/h	11.7	14.4	17.4	20.4	24.75	29.1	35.1	43.8	
	Gas inlet pressure natural gas (G20) mbar	17.5 Minimum 20.0 Nominal 25.0 Maximum								
Flue	Approx. Flue gas volume @ 15°C, 9.2% CO <sub>2</sub> , N.T.P. m³/h	156	195	234	273	330	390	489	585	
	Maximum flue gas temperature °C	65								
	NOx Emission (DAF) European Class 5 mg/kWh	35	35	36	36	37	37	38	39	
	Pressure at flue outlet Pa mbar	150 1.5								
Connection	Water flow/return connections	Rp1 "						Rp1 1/4"		
	Gas inlet connections	R3/4 "						R1 "		
	Nominal flue manifold diameter (I/D) mm	150						200		
	Safety valves (pipe tail) mm	22								
	Condensate trap connection(s) (O/D) mm	40								
Electrics	Power consumption – maximum W	480	480	480	480	1050	1350	1050	1800	
	Nominal supply voltage	230V 1Ph 50Hz								
	Module current Start Amps Run Amps	0.85 0.35				2.1 1.0			2.4 1.2	
	Approx. shipping weight kg	294	294	305	305	316	316	427	438	
	Noise emission @ 1m Max dB (A)	56	58	52	54	58	61	63	68	



# Technical Data

## Fleet Vertical Boilers - Three High Modules

	Model	F175V-525	F200V-600	F250V-750	F300V-900	F350V-1050
Energy	Building Regulations seasonal efficiency gross (%)	95.5	95.5	95.5	95.5	97.4
	Boiler output 50/30°C kW Btu/h x 1000	525 1791	600 2047	750 2559	900 3071	1050 3583
	Boiler output 80/60°C kW Btu/h x 1000	474.9 1620	542.7 1852	678.6 2315	814.2 2778	949.8 3241
	Boiler input (gross) Maximum kW Btu/h x 1000	539.5 1841	616.6 2104	770.7 2630	924.9 3156	1079 3682
	Boiler input (nett) Maximum kW Btu/h x 1000	486.1 1659	555.6 1896	694.2 2369	833.4 2844	972.3 3317
	Boiler output Minimum 80/60°C kW Btu/h x 1000	31.7 108	36.2 124	45.2 154	54.3 185	63.3 216
Water	Water content (not including headers) litres	39	45	51	60	75
	Design flow rate @ 20°C Δt rise l/s	6.3	7.2	9.0	10.8	12.6
	Residual pump head @ 20°C Δt rise kPa m	27 2.7	20 2	14 1.4	42 4.2	34 3.4
	Maximum water pressure barg	6.0				
Gas	Gas flow rate natural gas (G20) – Maximum m³/h	51.3	65.1	73.2	87.9	102.6
	Gas inlet pressure natural gas (G20) mbar	17.5 Minimum 20.0 Nominal 25.0 Maximum				
Flue	Approx. Flue gas volume @ 15°C, 9.2% CO <sub>2</sub> , N.T.P. m³/h	675	780	975	1170	1350
	Maximum flue gas temperature °C	65				
	NO <sub>x</sub> Emission (DAF) European Class 5 mg/kWh	56	56	47	60	40
	Pressure at flue outlet Pa mbar	150 1.5				
Connection	Water flow/return connections	R1½"			R2"	
	Gas inlet connections	R1"			R1¼"	
	Nominal flue manifold diameter (I/D) mm	200			250	
	Safety valves (pipe tail) mm	22				
	Condensate trap connection(s) (O/D) mm	40				
Electrics	Power consumption – maximum W	1680	1680	1650	1740	4500
	Nominal supply voltage	230V 1Ph 50Hz				
	Module current Start Amps Run Amps	3.5 2.2			3.7 2.5	8.5 6
Approx. shipping weight kg		440	554	610	738	908
	Noise emission @ 1m Max dB (A)	62	62	53	66.5	72