

CHP - Natural gas and Biogas Specifications



Shenton Group range of CHP engines,
The sole UK distributor for Tedom

CHP Engine	Elec output	Heat output	Nominal Flow Rate	Nitrous Oxide (NOx) at 5% O ₂	Carbon Monoxide (CO) at 5% O ₂	Elec efficiency (Net)
	kW	kW	L/MIN	mg/Nm ³	mg/Nm ³	%
Micro 20 ST	20	43.3	30	50	150	30.0
Micro 30 ST	30	58.1	42	50	150	32.4
Micro 50 ST	50	88.5	66	50	150	34.2
Cento 70 ST	70	109	78	50	150	34.3
Cento 80 ST	85	141	102	50	150	33.7
Cento 80	81	120	90	500	650	35.1
Cento 100 ST	104	166	120	50	150	34.7
Cento 100	104	142	102	500	650	36.9
Cento 120 ST	124	182	132	50	150	36.6
Cento 120	125	177	132	500	650	36.4
Cento 130 ST	133	191	138	50	150	37.8
Cento 160	164	209	150	500	650	37.8
Cento 180	184	218	156	500	650	39.2
Cento 200	200	237	174	500	650	39.2
Cento 210	210	248	180	500	300	39.7
Flexi 260 ST	260	370	264	50	150	38.0
Flexi 350	354	423	306	500	600	40.0
Flexi 430	430	578	414	250	300	37.0
Flexi 530	528	626	450	250	300	39.3
Quanto 600	600	644	468	250	650	42.0
Quanto 800	800	862	618	250	650	42.3
Quanto 1000	999	1102	792	250	650	42.0
Quanto 1200	1200	1245	894	250	650	42.6
Quanto 1600	1560	1650	1188	250	650	42.2
Quanto 2000	2000	2073	1488	250	650	42.6
Quanto 2300	2300	2276	1632	250	650	43.8
Micro 20	20	41.3	30	500	250	29.7
Micro 30	30	59	42	500	250	30.9
Micro 50	44	78.7	54	500	250	32.6
Cento 80	83	121	90	500	650	35.0
Cento 100	106	143	102	500	650	36.4
Cento 120	124	165	120	500	650	36.9
Cento 160	166	206	150	500	650	37.8
Cento 180	182	211	156	500	650	39.1
Cento 200	200	230	168	500	650	39.2
Cento 210	210	222	162	500	650	40.4
Flexi 350	354	376	270	500	650	40.1
Flexi 430	430	520	372	500	650	39.4
Flexi 530	528	603	432	500	650	40.2
Quanto 600	600	573	414	500	1100	42.7
Quanto 800	800	752	540	500	1100	43.1
Quanto 1000	999	1036	744	500	1100	42.6
Quanto 1200	1200	1195	858	500	1100	43.0
Quanto 1600	1560	1572	1128	500	1100	42.6
Quanto 2000	2000	2013	1446	500	1100	43.0
Quanto 2300	2300	2168	1554	500	1100	43.4

Elec efficiency (Gross)	Heat efficiency (Net)	Heat efficiency (Gross)	Fuel input (Net)	Fuel input (Gross)	Gas consumption
%	%	%	kW	kW	m ³ /hour
27.06	64.9	58.59	66.7	73.90	7.1
29.27	62.8	56.69	92.5	102.49	9.8
30.91	60.6	54.71	146	161.77	15.5
30.97	53.4	48.22	204	226.03	21.6
30.44	56.1	50.50	252	279.22	26.7
31.65	52.2	46.88	231	255.95	24.4
31.29	55.3	49.94	300	332.40	31.7
33.28	50.5	45.45	282	312.46	29.8
33.01	53.6	48.45	339	375.61	35.8
32.89	51.7	46.57	343	380.04	36.3
34.10	54.2	48.97	352	390.02	37
34.10	48.2	43.46	434	480.87	45.9
35.41	46.5	41.95	469	519.65	49.7
35.39	46.5	41.94	510	565.08	54
35.83	46.9	42.31	529	586.13	56
34.26	54.0	48.75	685	758.98	73
36.14	47.9	43.19	884	979.47	94
33.37	49.7	44.85	1163	1288.60	123
49.90	46.6	42.10	1342	1486.94	142
37.95	45.1	40.73	1427	1581.12	151
38.22	45.6	41.18	1889	2093.01	200
37.88	46.3	41.79	2380	2637.04	252
38.43	44.2	39.87	2818	3122.34	298
38.09	44.6	40.29	3696	4095.17	391
38.49	44.2	39.89	4690	5196.52	497
39.51	43.3	39.10	5254	5821.43	556
N/A	61.4	N/A	67.3	N/A	10.4
N/A	60.8	N/A	97.1	N/A	15
N/A	58.3	N/A	134.7	N/A	20.8
N/A	50.9	N/A	237	N/A	36.5
N/A	49.2	N/A	291	N/A	44.7
N/A	49.2	N/A	336	N/A	51.7
N/A	46.9	N/A	439	N/A	67.5
N/A	45.4	N/A	465	N/A	71.5
N/A	45.1	N/A	510	N/A	78.4
N/A	42.8	N/A	519	N/A	80
N/A	42.6	N/A	882	N/A	148
N/A	47.7	N/A	1090	N/A	183
N/A	45.9	N/A	1313	N/A	220
N/A	40.8	N/A	1405	N/A	217
N/A	40.5	N/A	1856	N/A	287
N/A	44.2	N/A	2345	N/A	363
N/A	42.8	N/A	2793	N/A	432
N/A	42.9	N/A	3663	N/A	567
N/A	43.3	N/A	4650	N/A	719
N/A	40.9	N/A	5303	N/A	820

DATA IS SUBJECT TO CHANGE
To ensure data accuracy please visit: shentongroup.co.uk/products/combined-heat-power/

Updated: 23/09/21

Please Note:

- Catalyst type - 3 way on ST models. Oxidative on all other models*
- Technical data based on operating conditions of 100kPa air pressure, 25°C air temperature and at 30% relative humidity for natural gas engines
- Natural gas consumption based on standard conditions of 15°C, 101.325kPa
- Biogas consumption based on standard conditions of 0°C, 101,325 kPa and nominal Methane content of 65%
- Calorific value of natural gas used in fuel input/ consumption figures is 34MJ/m³*
- Calorific value of Biogas used in fuel input/ consumption figures is 23.4ML/Nm³
- Conversion factor used to calculate from Net to Gross is 1.108 (natural gas only)