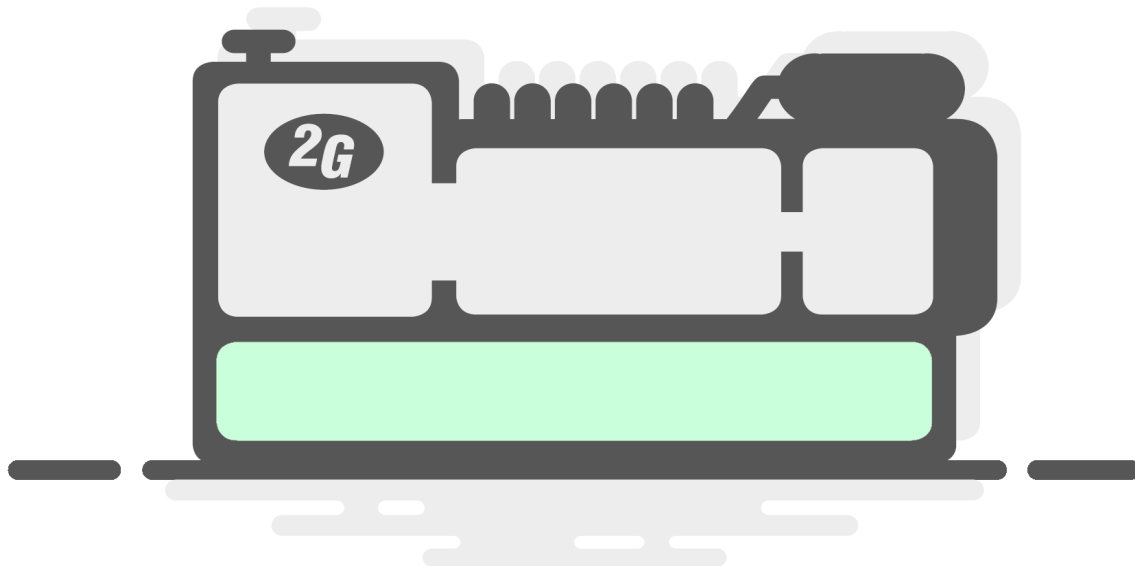

Productportfolio CHP 2G

60Hz - 480V / 600V

NG / BG / H2



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Natural Gas $\lambda > 1$ (lean burn)	3
Biogas	7
Natural Gas $\lambda = 1$ (rich burn)	11
Hydrogen	13
Appendix	15

Data without guarantee, applicable is always the current data sheet ("TSP"). Other configurations on request.

Product name	Variant	Minimum methane number (MN)	Electrical power [kW]	Useful thermal power [kW]	Fuel consumption [kW]	Efficiency electrical	Efficiency thermal	Efficiency combined (el. + th.)
Natural Gas								
60 Hz / 480 V (NO_x < 500 mg/Nm³@5 % O₂ / < 1,0 g/bhp-hr)								
agenitor 404 NG	bt80-1	80	100	121	270	36,9%	45,0%	81,9%
agenitor 404 NG	ct80-1	80	160	178	403	39,7%	44,3%	84,0%
agenitor 406 NG	ct80-1	80	250	285	616	40,6%	46,2%	86,8%
agenitor 408 NG	ct80-1	80	360	397	881	40,9%	45,1%	86,0%
agenitor 412 NG	ct70-1	70	450	511	1119	40,2%	45,6%	85,8%
avus 500plus NG	ct80-1	80	550	627	1356	40,6%	46,3%	86,8%
avus 1000plus NG	ct80-1	-	-	-	-	-	-	-
avus 500b	D805	75	635	808	1626	39,0%	49,7%	88,7%
avus 800a	D805	75	847	1077	2168	39,1%	49,7%	88,7%
avus 800b	B85	75	851	971	2066	41,2%	47,0%	88,2%
avus 800e	L64 FNER	80	997	1087	2324	42,9%	46,8%	89,7%
avus 1000a	D805	75	1062	1351	2710	39,2%	49,9%	89,0%
avus 1000b	B85	75	1141	1295	2754	41,4%	47,0%	88,5%
avus 1200e	L64 FNER	80	1506	1560	3428	43,9%	46,1%	90,0%
avus 1500b	B85	75	1429	1618	3443	41,5%	47,0%	88,5%
avus 1600e	L64 FNER	80	2014	2168	4650	43,3%	46,6%	90,0%
avus 2000a	J01	80	1990	1880	4424	45,0%	42,5%	87,5%
avus 2000b 1)	J01	80	2656	2498	5886	45,1%	42,4%	87,6%
avus 2000e	L64 FNER	80	2516	3139	5813	43,3%	46,7%	90,1%
avus 3000a 1)	J01	80	3329	3143	7373	45,2%	42,6%	87,8%

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Product name	Variant	Minimum methane number (MN)	Electrical power [kW]	Useful thermal power [kW]	Fuel consumption [kW]	Efficiency electrical	Efficiency thermal	Efficiency combined (el. + th.)
Natural Gas								
60 Hz / 480 V (NO_x < 250 mg/Nm³@5 % O₂ / < 0,5 g/bhp-hr)								
agenitor 404 NG	bt80-1	80	100	125	278	35,9%	44,9%	81,0%
agenitor 404 NG	ct80-1	80	160	183	414	38,5%	44,2%	82,7%
agenitor 406 NG	ct80-1	80	250	292	634	39,4%	46,0%	85,4%
agenitor 408 NG	ct80-1	80	360	407	906	39,7%	44,9%	84,6%
agenitor 412 NG	ct70-1	70	450	525	1151	39,1%	45,6%	84,7%
avus 500plus NG	ct80-1	80	550	641	1395	39,4%	46,0%	85,4%
avus 1000plus NG	ct80-1	-	-	-	-	-	-	-
avus 500b	*	*	*	*	*	*	*	*
avus 800a	*	*	*	*	*	*	*	*
avus 800b	*	*	*	*	*	*	*	*
avus 800e	L64 FNER	*	*	*	*	*	*	*
avus 1000a	*	*	*	*	*	*	*	*
avus 1000b	*	*	*	*	*	*	*	*
avus 1200e	L64 FNER	*	*	*	*	*	*	*
avus 1500b	*	*	*	*	*	*	*	*
avus 1600e	L64 FNER	80	2014	2299	4835	41,7%	47,6%	89,3%
avus 2000a	J02	80	1990	1908	4535	43,9%	42,1%	86,0%
avus 2000b 1)	*	*	*	*	*	*	*	*
avus 2000e	L64 FNER	*	*	*	*	*	*	*
avus 3000a 1)	*	*	*	*	*	*	*	*

Data without guarantee, applicable is always the current data sheet ("TSP"). Other configurations on request.

Product name	Variant	Minimum methane number (MN)	Electrical power [kW]	Useful thermal power [kW]	Fuel consumption [kW]	Efficiency electrical	Efficiency thermal	Efficiency combined (el. + th.)
Natural Gas								
60 Hz / 600 V (NO_x < 500 mg/Nm³@5 %)								
agenitor 404 NG	bt80-1	80	100	122	271	36,9%	45,0%	81,9%
agenitor 404 NG	ct80-1	80	160	179	403	39,7%	44,3%	84,0%
agenitor 406 NG	ct80-1	80	250	285	616	40,6%	46,2%	86,8%
agenitor 408 NG	ct80-1	80	360	395	875	41,1%	45,2%	86,3%
agenitor 412 NG	ct70-1	70	450	510	1119	40,2%	45,6%	85,8%
avus 500plus NG	ct80-1	80	550	624	1351	40,7%	46,2%	86,9%
avus 1000plus NG	ct80-1	-	-	-	-	-	-	-
avus 500b	*	*	*	*	*	*	*	*
avus 800a	*	*	*	*	*	*	*	*
avus 800b	*	*	*	*	*	*	*	*
avus 800e	L64 FNER	*	*	*	*	*	*	*
avus 1000a	*	*	*	*	*	*	*	*
avus 1000b	*	*	*	*	*	*	*	*
avus 1200e	L64 FNER	*	*	*	*	*	*	*
avus 1500b	*	*	*	*	*	*	*	*
avus 1600e	L64 FNER	*	*	*	*	*	*	*
avus 2000a	*	*	*	*	*	*	*	*
avus 2000b 1)	*	*	*	*	*	*	*	*
avus 2000e	L64 FNER	*	*	*	*	*	*	*
avus 3000a 1)	*	*	*	*	*	*	*	*

Data without guarantee, applicable is always the current data sheet ("TSP"). Other configurations on request.

Product name	Variant	Minimum methane number (MN)	Electrical power [kW]	Useful thermal power [kW]	Fuel consumption [kW]	Efficiency electrical	Efficiency thermal	Efficiency combined (el. + th.)
Natural Gas								
60 Hz / 600 V (NO_x < 250 mg/Nm³@5 % O₂)								
agenitor 404 NG	bt80-1	80	100	126	279	35,9%	45,1%	81,0%
agenitor 404 NG	ct80-1	80	160	183	415	38,5%	44,2%	82,7%
agenitor 406 NG	ct80-1	80	250	292	634	39,4%	46,0%	85,4%
agenitor 408 NG	ct80-1	80	360	405	901	40,0%	44,9%	84,9%
agenitor 412 NG	ct70-1	70	450	525	1151	19,1%	45,6%	84,7%
avus 500plus NG	ct80-1	80	550	638	1390	39,6%	45,9%	85,5%
avus 1000plus NG	ct80-1	-	-	-	-	-	-	-
avus 500b	*	*	*	*	*	*	*	*
avus 800a	*	*	*	*	*	*	*	*
avus 800b	*	*	*	*	*	*	*	*
avus 800e	L64 FNER	*	*	*	*	*	*	*
avus 1000a	*	*	*	*	*	*	*	*
avus 1000b	*	*	*	*	*	*	*	*
avus 1200e	L64 FNER	*	*	*	*	*	*	*
avus 1500b	*	*	*	*	*	*	*	*
avus 1600e	L64 FNER	*	*	*	*	*	*	*
avus 2000a	*	*	*	*	*	*	*	*
avus 2000b 1)	*	*	*	*	*	*	*	*
avus 2000e	L64 FNER	*	*	*	*	*	*	*
avus 3000a 1)	*	*	*	*	*	*	*	*

Data without guarantee, applicable is always the current data sheet ("TSP"). Other configurations on request.

Product name	Variant	Minimum methane number (MN)	Electrical power [kW]	Useful thermal power [kW]	Fuel consumption [kW]	Efficiency electrical	Efficiency thermal	Efficiency combined (el. + th.)
Biogas								
60 Hz / 480 V (NO_x < 500 mg/Nm³@5 % O₂ / < 1,0 g/bhp-hr)								
g-box 50plus	asl135-1	0	0	0	0	0,0%	0,0%	0,0%
g-box 50plus	asr135-1	0	0	0	0	0,0%	0,0%	0,0%
agenitor 404 BG	at135-1	135	80	100	227	35,2%	44,1%	79,3%
agenitor 404 BG	bt135-1	135	100	118	270	37,0%	44,0%	81,0%
agenitor 404 BG	ct135-1	135	169	170	403	39,7%	42,0%	81,7%
agenitor 406 BG	ct135-B-1	135	275	273	664	41,4%	41,1%	82,5%
agenitor 408 BG	ct135-B-1	135	400	404	971	41,2%	41,6%	82,8%
agenitor 412 BG	ct135-B-1	135	500	517	1244	40,2%	41,6%	81,8%
avus 500plus BG	ct135-B-1	135	600	595	1466	40,9%	40,6%	81,5%
avus 416plus BG	ct135-0	135	800	800	1917	41,7%	41,7%	83,4%
avus 1000plus BG	ct135-0	135	1000	954	2430	41,1%	39,3%	80,4%
avus 500b	D825	117	635	770	1650	38,5%	46,7%	85,1%
avus 800a	D825	117	847	1027	2200	38,5%	46,7%	85,2%
avus 800b	B81	117	851	948	2117	40,2%	44,8%	85,0%
avus 800e	L64	64	997	750	1155	48,2%	41,7%	89,9%
avus 1000a	D825	117	1062	1281	2751	38,6%	46,6%	85,2%
avus 1000b	B81	117	1141	1263	2823	40,4%	44,7%	85,2%
avus 1500b	B81	117	1429	1580	3529	40,5%	44,8%	85,3%
avus 1600 e	L64	64	2015	2755	4751	4800,0%	42,4%	90,4%
avus 2000a	*	*	*	*	*	*	*	*
avus 2000b 1)	*	*	*	*	*	*	*	*
avus 2000 e	L64	64	2520	3210	5945	47,8%	42,4%	90,2%
avus 3000a 1)	*	*	*	*	*	*	*	*

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Product name	Variant	Minimum methane number (MN)	Electrical power [kW]	Useful thermal power [kW]	Fuel consumption [kW]	Efficiency electrical	Efficiency thermal	Efficiency combined (el. + th.)
Biogas								
60 Hz / 480 V (NO_x < 250 mg/Nm³@5 % O₂ / < 0,5 g/bhp-hr)								
g-box 50plus	asl135-1	0	0	0	0	0,0%	0,0%	0,0%
g-box 50plus	asr135-1	0	0	0	0	0,0%	0,0%	0,0%
agenitor 404 BG	at135-1	135	80	103	234	34,2%	44,0%	78,2%
agenitor 404 BG	bt135-1	135	100	122	278	36,0%	43,9%	79,9%
agenitor 404 BG	ct135-1	135	160	173	415	38,5%	41,8%	80,3%
agenitor 406 BG	ct135-B-1	*	*	*	*	*	*	*
agenitor 408 BG	ct135-B-1	*	*	*	*	*	*	*
agenitor 412 BG	ct135-B-1	*	*	*	*	*	*	*
avus 500plus BG	ct135-B-1	*	*	*	*	*	*	*
avus 416plus BG	ct135-0	135	800	800	1917	41,7%	41,7%	83,4%
avus 1000plus BG	ct135-0	135	1000	986	2548	39,2%	38,7%	77,9%
avus 500b	*	*	*	*	*	*	*	*
avus 800a	*	*	*	*	*	*	*	*
avus 800b	*	*	*	*	*	*	*	*
avus 800e	*	*	*	*	*	*	*	*
avus 1000a	*	*	*	*	*	*	*	*
avus 1000b	*	*	*	*	*	*	*	*
avus 1500b	*	*	*	*	*	*	*	*
avus 1600 e	*	*	*	*	*	*	*	*
avus 2000a	*	*	*	*	*	*	*	*
avus 2000b 1)	*	*	*	*	*	*	*	*
avus 2000 e	*	*	*	*	*	*	*	*
avus 3000a 1)	*	*	*	*	*	*	*	*

Data without guarantee, applicable is always the current data sheet ("TSP"). Other configurations on request.

Product name	Variant	Minimum methane number (MN)	Electrical power [kW]	Useful thermal power [kW]	Fuel consumption [kW]	Efficiency electrical	Efficiency thermal	Efficiency combined (el. + th.)
Biogas								
60 Hz / 600 V (NO_x < 500 mg/Nm³@5 %)								
g-box 50plus	asl135-1		0	0	0	0,0%	0,0%	0,0%
g-box 50plus	asr135-1		0	0	0	0,0%	0,0%	0,0%
agenitor 404 BG	at135-1	135	80	100	227	35,2%	44,1%	79,3%
agenitor 404 BG	bt135-1	135	100	119	270	37,1%	44,0%	81,1%
agenitor 404 BG	ct135-1	135	160	170	403	39,7%	42,0%	81,7%
agenitor 406 BG	ct135-B-1	135	275	273	664	41,4%	41,1%	82,6%
agenitor 408 BG	ct135-B-1	135	400	409	986	40,6%	41,5%	82,0%
agenitor 412 BG	ct135-B-1	135	500	518	1244	40,2%	41,6%	81,8%
avus 500plus BG	ct135-B-1	135	600	596	1469	40,8%	40,6%	81,6%
avus 416plus BG	ct135-0	135	800	802	1922	41,6%	41,7%	83,3%
avus 1000plus BG	ct135-0	135	1000	955	2430	41,1%	39,3%	80,4%
avus 500b	*	*	*	*	*	*	*	*
avus 800a	*	*	*	*	*	*	*	*
avus 800b	*	*	*	*	*	*	*	*
avus 800e	*	*	*	*	*	*	*	*
avus 1000a	*	*	*	*	*	*	*	*
avus 1000b	*	*	*	*	*	*	*	*
avus 1500b	*	*	*	*	*	*	*	*
avus 1600 e	*	*	*	*	*	*	*	*
avus 2000a	*	*	*	*	*	*	*	*
avus 2000b 1)	*	*	*	*	*	*	*	*
avus 2000 e	*	*	*	*	*	*	*	*
avus 3000a 1)	*	*	*	*	*	*	*	*

Data without guarantee, applicable is always the current data sheet ("TSP"). Other configurations on request.

Product name	Variant	Minimum methane number (MN)	Electrical power [kW]	Useful thermal power [kW]	Fuel consumption [kW]	Efficiency electrical	Efficiency thermal	Efficiency combined (el. + th.)
Biogas								
60 Hz / 600 V (NO_x < 250 mg/Nm³@5 % O₂)								
g-box 50plus	asl135-1	0	0	0	0	0,0%	0,0%	0,0%
g-box 50plus	asr135-1	0	0	0	0	0,0%	0,0%	0,0%
agenitor 404 BG	at135-1	135	80	103	234	34,2%	44,0%	78,2%
agenitor 404 BG	bt135-1	135	100	122	277	36,1%	43,9%	80,0%
agenitor 404 BG	ct135-1	135	160	173	415	38,5%	41,8%	80,3%
agenitor 406 BG	ct135-B-1	*	*	*	*	*	*	*
agenitor 408 BG	ct135-B-1	*	*	*	*	*	*	*
agenitor 412 BG	ct135-B-1	*	*	*	*	*	*	*
avus 500plus BG	ct135-B-1	*	*	*	*	*	*	*
avus 416plus BG	ct135-0	135	800	802	1922	41,6%	41,7%	83,3%
avus 1000plus BG	ct135-0	135	1000	986	2548	39,7%	38,7%	77,9%
avus 500b	*	*	*	*	*	*	*	*
avus 800a	*	*	*	*	*	*	*	*
avus 800b	*	*	*	*	*	*	*	*
avus 800e	*	*	*	*	*	*	*	*
avus 1000a	*	*	*	*	*	*	*	*
avus 1000b	*	*	*	*	*	*	*	*
avus 1500b	*	*	*	*	*	*	*	*
avus 1600 e	*	*	*	*	*	*	*	*
avus 2000a	*	*	*	*	*	*	*	*
avus 2000b 1)	*	*	*	*	*	*	*	*
avus 2000 e	*	*	*	*	*	*	*	*
avus 3000a 1)	*	*	*	*	*	*	*	*

Data without guarantee, applicable is always the current data sheet ("TSP"). Other configurations on request.

Product name	Variant	Minimum methane number (MIN)	Electrical power [kW]	Useful thermal power [kW]	Fuel consumption [kW]	Efficiency electrical	Efficiency thermal	Efficiency combined (el. + th.)
Natural Gas								
60 Hz / 480V (up to 50mg/Nm³ / 0,1 g/bhp-hr NOx possible, depending on the catalyst)								
g-box 50plus	as70-4	80	60	127	175	34,3%	72,4%	106,8%
patruus 160 NG	as80-1	80	160	244	443	36,1%	55,1%	91,2%
patruus 285 NG	as80-1	80	285	428	769	37,0%	55,7%	92,7%
aura 404 NG	bt70-4	70	100	162	284	35,3%	57,2%	92,5%
aura 406 NG	bt70-1	70	170	285	473	35,9%	60,2%	96,1%
aura 408 NG	bt70-1	70	280	438	755	37,1%	58,0%	95,0%
aura 412 NG	bt70-1	70	420	655	1129	37,2%	58,0%	95,2%

Data without guarantee, applicable is always the current data sheet ("TSP"). Other configurations on request.

Product name	Variant	Minimum methane number (MN)	Electrical power [kW]	Useful thermal power [kW]	Fuel consumption [kW]	Efficiency electrical	Efficiency thermal	Efficiency combined (el. + th.)
Natural Gas								
60 Hz / 600V (up to 50mg Nox possible, depending on the catalyst)								
g-box 50plus	as70-4	80	60	127	175	34,3%	72,4%	106,8%
patruus 160 NG	as80-1	80	160	244	443	36,1%	55,1%	91,2%
patruus 285 NG	as80-1	80	285	428	769	37,0%	55,7%	92,7%
aura 404 NG	bt70-4	70	100	162	284	35,3%	57,2%	92,5%
aura 406 NG	bt70-1	70	170	285	473	35,9%	60,2%	96,1%
aura 408 NG	bt70-1		280	438	0	75500,0%	37,1%	58,0%
aura 412 NG	bt70-1		420	655	0	113000,0%	37,2%	58,0%

Data without guarantee, applicable is always the current data sheet ("TSP"). Other configurations on request.

Product name	Variant	Minimum methane number (MIN)	Electrical power [kW]	Useful thermal power [kW]	Fuel consumption [kW]	Efficiency electrical	Efficiency thermal	Efficiency combined (el. + th.)
Hydrogen								
60 Hz / 480 V (NO_x < 500 mg/Nm³@5 % O₂ / < 1,0 g/bhp-hr)								
agenitor 404c	ct0-0	0	115	135	306	37,5%	44,0%	81,6%
agenitor 406	ct0-0	0	170	190	454	37,4%	41,9%	79,4%
agenitor 408	ct0-0	0	240	261	622	38,2%	42,0%	80,6%
agenitor 412	ct0-0	0	360	386	921	39,1%	41,9%	81,0%
avus 416plus	ct0-0	0	600	598	1505	39,9%	39,7%	79,6%
avus 1000plus	ct0-0	0	650	687	1649	39,4%	41,7%	81,1%

Data without guarantee, applicable is always the current data sheet ("TSP"). Other configurations on request.

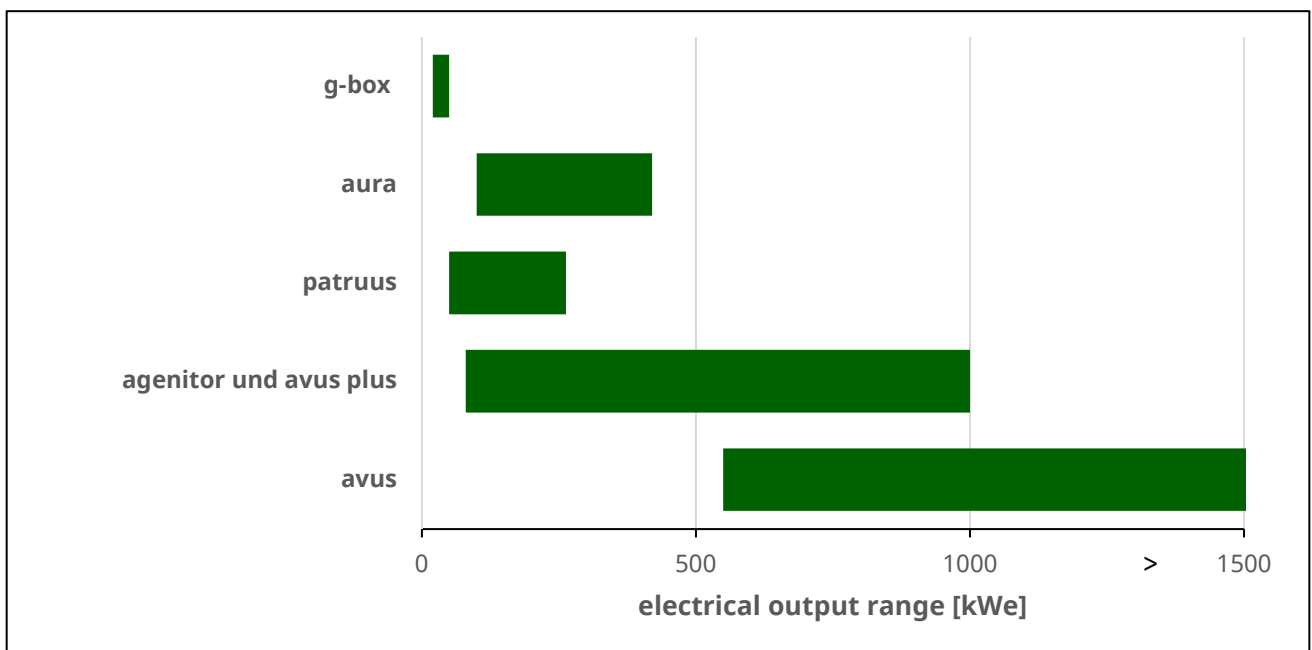
Product name	Variant	Minimum methane number (MN)	Electrical power [kW]	Useful thermal power [kW]	Fuel consumption [kW]	Efficiency electrical	Efficiency thermal	Efficiency combined (el. + th.)
Hydrogen								
60 Hz / 600 V (NO_x < 500 mg/Nm³@5 %)								
agenitor 404c	ct0-0	*	*	*	*	*	*	*
agenitor 406	ct0-0	*	*	*	*	*	*	*
agenitor 408	ct0-0	*	*	*	*	*	*	*
agenitor 412	ct0-0	*	*	*	*	*	*	*
avus 416plus	ct0-0	*	*	*	*	*	*	*
avus 1000plus	ct0-0	*	*	*	*	*	*	*

Variant intercooler	
a	without intercooler
b	single-stage intercooler (no low temperature circuit)
c	two-stage intercooler
Turbocharging	
t	turbocharged engine
s	natural aspirated engine
Methane number ²	
22	Minimum methane number at nominal full load ³ and standard reference conditions (=>TSP)
70	Minimum methane number at nominal full load ³ and standard reference conditions (=>TSP)
80	Minimum methane number at nominal full load ³ and standard reference conditions (=>TSP)
130	Minimum methane number at nominal full load ³ and standard reference conditions (=>TSP)
135	Minimum methane number at nominal full load ³ and standard reference conditions (=>TSP)
Heat extraction variant	
-0	70/90 °C, exhaust gas heat exchanger in engine circuit, only avus 416plus and avus 1000plus
-1	70/90 °C, exhaust gas heat exchanger in heating circuit
-2	75/max. supply temperature according to TSP, exhaust gas heat exchanger in heating circuit
-4	caloric value heat exchanger "onboard"
-5	70/83 °C, without exhaust gas exchanger
	EGHE "outside", x designates the heat extraction variant (-0 to -5),
-x.5	e.g. -1.5: 70/90°C, exhaust gas heat exchanger in heating circuit "outside" of genset

Overview is not valid for avus a-e series

² Methane number not applicable for fuels with higher hydrogen content, the Methane Number assigned to these fuels is 0.

³ according to full load at 50Hz



Plants >1000kW electrical power available for low and medium voltage grid.