

0.01 Technical Data (at Biogas)

Data at:				Full load	Partial Load	
Fluel gas LHV		kWh/Nm ³		6		
				100%	75%	50%
Energy input		kW	[2]	3,375	2,604	1,833
Gas volume		Nm ³ /h	*)	563	434	306
Mechanical output		kW	[1]	1,451	1,088	726
Electrical output		kW el.	[4]	1,415	1,06	704
Recoverable thermal output						
~ Intercooler 1st stage		kW		269	146	18
~ Lube oil		kW		158	133	122
~ Jacket water		kW		422	383	343
~ Exhaust gas cooled to 180 °C		kW		582	482	364
Total recoverable thermal output		kW	[5]	1,431	1,144	847
Total output generated		kW total		2,846	2,204	1,551
Heat to be dissipated						
~ Intercooler 2nd stage		kW		54	40	27
~ Lube oil		kW		~	~	~
~ Surface heat	ca.	kW	[7]	9	70	53
~ Balance heat		kW		34	26	18
Spec. fuel consumption of engine		kWh/kWh	[2]	2.33	2.39	2.52
Lube oil consumption	ca.	kg/h	[3]	0,44	~	~
Electrical efficiency		%		40.9%	40.7%	38.4%
Thermal efficiency		%		42.4%	43.9%	46.2%
Total efficiency		%	[6]	84.3%	84.6%	84.6%
Hot water circuit:						
Forward temperature		°C		90,0	86,0	29830,0
Return temperature		°C		70,0	70,0	70,0
Hot water flow rate		m ³ /h		22402,0	22402,0	22402,0

0.01 Technical Data (at Naturalgas)

Data at:				Full load	Partial Load	
Fluel gas LHV		kWh/Nm ³		9,5		
				100%	75%	50%
Energy input		kW	[2]	3,334	2,573	1,811
Gas volume		Nm ³ /h	*)	351	271	191
Mechanical output		kW	[1]	1,451	1,088	726
Electrical output		kW el.	[4]	1,415	1,06	704
Recoverable thermal output						
~ Intercooler 1st stage közbenső levegő hűtő 1. fokozat		kW		289	142	41
~ Lube oil kenőolaj		kW		151	133	121
~ Jacket water vízkabát		kW		400	365	306
~ Exhaust gas cooled to 180 °C		kW		515	540	405
Total recoverable thermal output		kW	[5]	1,355	1,18	873
Total output generated		kW total		2,77	2,24	1,577
Heat to be dissipated						
~ Intercooler 2nd stage		kW		93	75	51

~ Lube oil		kW		~	~	~
~ Surface heat	ca.	kW	[7]	85	67	50
~ Balance heat		kW		33	26	18
Spec. fuel consumption of engine		kWh/kWh	[2]	03.febr	2.36	2.49
Lube oil consumption	ca.	kg/h	[3]	0,44	~	~
Electrical efficiency		%		42.4%	41.2%	38.9%
Thermal efficiency		%		40.6%	45.9%	48.2%
Total efficiency		%	[6]	83.1%	87.1%	87.1%
Hot water circuit:						
Forward temperature		°C		90,0	31868,0	30195,0
Return temperature		°C		70,0	70,0	70,0
Hot water flow rate		m ³ /h		21217,0	21217,0	21217,0