



Technical Data Sheet		GB763N6			
93800050001_V04_US	with engine	8V4000L62			
Fuel		Natural gas			
Voltage / Frequency		480 V		60 Hz	
Heating water temperatur (in/out)	°F	/			
NOx emissions (dry) ¹⁾	g/bhp-hr	< 1			
Intercooler 2nd stage temperatur (in)	°F	104			
Exhaust gas temperature after heat exchanger	°F				
Electrical power COP, parallel to grid acc. ISO 8528-1	%	100	75	50	
Electrical power PRP, prime power acc. ISO 8528-5 G1	%				100
Energy balance					
Electrical power ^{2) 3)}	kWe	763	568	374	
Energy input ^{5) 7)}	kBTU/hr	6431	4990	3501	
Thermal output total ⁴⁾	kBTU/hr	1482	1137	796	
Thermal output engine (block, lube oil, 1st stage intercooler) ⁴⁾	kBTU/hr	1482	1137	796	
	kBTU/hr				
Thermal output 2nd stage intercooler ⁴⁾	kBTU/hr	157	123	89	
Engine power ISO 3046-1 ³⁾	bhp	1073	805	536	
Generator efficiency at power factor = 1	%	96.4	96	95.1	
Electrical efficiency ^{5) 6)}	%	40.5	38.9	36.4	
Total efficiency	%	63.5	61.7	59.2	
CHP Coefficient					
Power consumption ¹⁵⁾					
Combustion air / Exhaust gas					
Combustion air volume flow ¹⁾	ft ³ /min	1809	1381	946	
Combustion air mass flow	lb/hr	8750	6678	4575	
Exhaust gas volume flow, wet ¹⁾	ft ³ /min	1905	1456	998	
Exhaust gas volume flow, dry ¹⁾	ft ³ /min	1702	1297	888	
Exhaust gas mass flow, wet	lb/hr	9054	6914	4740	
Exhaust temperature after turbocharger	°F	864	903	941	
Reference fuel					
Natural gas		CH ₄ > 95 Vol. %			
Sewage gas		not applicable			
Biogas		not applicable			
Landfill gas		not applicable			
CO ₂ / CH ₄ volume ratio					
Minimum methane number	MN	70			
Range of heating value: design / operation range	BTU/ft ³	966.2 / 773.0 - 1111.1			
Exhaust gas emissions ^{6) 7)}					
NOx, stated as NO ₂ (dry)	g/bhp-hr	< 1			
CO (dry)	g/bhp-hr	< 2			
HCHO (dry) ⁷⁾	g/bhp-hr				
VOC (dry)	g/bhp-hr	< 0.7			
Otto-gas engine, lean burn operation with turbocharging					
Number of cylinders / configuration		8 V			
Engine typ		8V4000L62			
Engine speed	rpm	1511			
Bore	in	6.7			
Stroke	in	8.3			
Displacement	in ³	2327			
Mean piston speed	ft/sec	34.7			
Compression ratio		12.8			
BMEP at nominal engine speed min-1	psi	241.7			
Lube oil consumption ⁸⁾	gal/hr	0.075			
Max. exhaust back pressure after engine	in H ₂ O	24.11			
Generator					
Rating power (F)	kVA	1083			
Max. allowable p.f. inductive (overexcited) / capacitive (underexcited) ¹⁶⁾		0.8 / 1			
Voltage tolerance / frequency tolerance	%	± 5 / ± 5			
Max. ambient temperature	°F	104			
Max. installation altitude	ft	3281			
Engine cooling water system					
Coolant temperature (in/out)	°F	172 / 194			
Coolant flow rate ⁹⁾	gal/min	145.29	@	13.1	psi delta p
CVs value (Block, lubeoil and 1st stage) ¹⁰⁾		40.1			
Max. operation pressure (coolant before engine)	psi	87			
Exhaust gas heat exchanger (EGHE)					
Exhaust gas temperature (out)	°F				
Coolant temperature (in/out)	°F				
Coolant volumetric flow ⁹⁾	gal/min		@		psi delta p
CVs value ¹⁰⁾					
Max. operation pressure (coolant water)	psi				

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Oilcooler, external					
Coolant temperature (in/out)					
Coolant volumetric flow ⁹⁾			@		psi delta p
CV-Value ¹⁰⁾					
Max. operation pressure					
Intercooler 2nd stage, external					
Coolant temperature (in/out)	°F	104 / 109.4			
Coolant volumetric flow ⁹⁾	gal/min	74.85	@	7.252	psi delta p
CVs value ¹⁰⁾				27.8	
Max. operation pressure in front of intercooler	psi			87	
Plate heat exchanger					
Coolant temperature (in/out)	°F				
Heating water temperature (in/out)	°F	/			
Heating water volumetric flow ⁹⁾	gal/min		@		psi delta p
CVs value ¹⁰⁾					
Max. operation pressure (heating water)	psi				
Space ventilation					
Genset ventilation heat ¹¹⁾	kBTU/hr	264			
Combustion air temperature: (min./design/max.)	°F			68 / 77 / 86	
Min. engine room temperature ¹²⁾	°F			59	
Max. temperature difference ventilation air (in/out)	°F			36	
Min. ventilation air flow in (combustion+ventilation) ¹³⁾	ft ³ /min			8126	
Gearbox					
Gear ratio				1.191	
Thermal output gearbox (watercooled)	kBTU/hr			34	
Efficiency		98.88	98.66	98.19	
Filling quantities					
Lube oil for engine	gal			42.27	
Coolant for engine	gal			35.66	
Coolant for intercooler	gal			3.96	
Heating water for plate heat exchanger	gal				
Engine sound level ¹⁴⁾ (1 meter distance, free field)					
Frequency	Hz	63	125	250	500
Sound pressure level	dB	70.7	80.4	83.4	80.8
Frequency	Hz	1000	2000	4000	8000
Sound pressure level	dB	81.9	81.8	88.3	93.6
Sum of pressure levels	Lin dB	99.2			
	dB A	98.1			
Sound power level	dB A	117.2			
Undampened exhaust noise (1 meter distance to outlet within 90°, free field)					
Frequency	Hz	63	125	250	500
Sound pressure level	dB	97.1	110.0	102.2	97.7
Frequency	Hz	1000	2000	4000	8000
Sound pressure level	dB	90.6	88.2	85.4	75.8
Sum of pressure levels	Lin dB	118.7			
	dB A	106.0			
Sound power level	dB A	118.2			
Dimensions					
Length	in			197	
Width	in			79	
Height	in			96	
Gross weight / dry weight	lb			26455 / 25728	
Power derating					
Altitude					
Combustion air temperature					
Intercooler 2nd stage temperature (in)					
Methane number					
Boundary conditions and consumables					
<p>1) Normal ft3 at p = 14.696 psi und T = 32 °F</p> <p>2) Generator gross power at nominal voltage, power factor = 1 and nominal frequency</p> <p>3) At standard reference conditions (ISO 3046-1); atmospheric pressure: 14.5 psi; air temperature: 77 °F; rel. air humidity 30 %</p> <p>4) Thermal output at layout temperature; tolerance +/- 8 %</p> <p>5) According to ISO 3046 (+ 5 % tolerance), using reference fuel used at nominal voltage, power factor = 1 and nominal frequency</p> <p>6) Deviations from the layout parameters respectively the reference fuel can have influence to the obtained efficiency and exhaust emissions</p> <p>7) Emission values during system parallel operation - where required with Oxcat</p> <p>8) Reference value at nominal load (without amount of oil exchange)</p> <p>9) Stated values for pure water, adaption for other cooling fluid composition necessary</p> <p>10) The CVs value declares the volumetric flow in gal/min at a pressure drop of 1 psi</p> <p>11) Only generator- and surface losses</p> <p>12) Frost-free conditions must be guaranteed</p> <p>13) Amount of ventilation air must be adapted to the gas safety concept</p> <p>14) All sound pressure levels at nominal load COP</p> <p>15) Power consumption of all electrical consumer, which are mounted at the module / aggregate</p> <p>16) Max. allowable cos phi at nominal power (view of producer)</p>					