Voltage Frequency Voltage Frequency Voltage Frequency Voltage Frequency Voltage Voltag	Technical Data Sheet 93800050293_V06_en_GB	MTU 12V		mtu	onsite energy
Note missione (dry, 8 % 0, 0)			400		50
Mixture cooler 1st stage water temperature (in) "C	• • • •				
Michael cooler find stage water temperature (in) "C" 40				< 500	
Exhaust gas semperature Special equipment Speci	• • • • • • • • • • • • • • • • • • • •				
Separation Properties Pro	• • • • • • • • • • • • • • • • • • • •				
Special quipment	-	°C			
Aithtude above sea level (· ·			not included	
Combustion air temperature Co				,	
Standard specifications and regulations			100	7	1000
	·				
Electrical Power 3	·	%		30	
Electrical Prower (1/3)	Standard specifications and regulations				
Energy input	Energy balance	%	100	75	50
Thermal culput total 6	Electrical Power ^{2) 3)}	kW	1169	877	585
Thermal output engine (block, lube oil, 1st stage mixture cooler) ⁶¹		kW	2731	2119	1485
Natural gas Sewage gas Se	Thermal output total ⁶⁾	kW	600	453	323
Thermial output mixture cooler 2nd stage 6	Thermal output engine (block, lube oil, 1st stage mixture cooler) 6)	kW	600	453	323
Exhaust heart (120 °C) °0	Thermal output mixture cooler 1st stage ⁶⁾	kW			
Engine power ISO 3046-1	Thermal output mixture cooler 2nd stage ⁶⁾	kW	80	60	44
Generator efficiency or 1 (and 1) (an		kW	(628)	(524)	(385)
Generator efficiency or 1 (and 1) (an		kW	1200	902	605
Total efficiency	Generator efficiency at power factor = 1	%	97.4	97.3	96.7
Power consumption Power	Electrical efficiency 4)		42.8	41.4	39.4
Combustion air / Exhaust gas m² i N./h 4566 3453 2389 Combustion air mass flow kg/h 5896 4459 3059 Exhaust gas volume flow, vet ¹³ m² i N./h 4356 3291 2257 Exhaust gas volume flow, dy ¹¹ m² i N./h 4356 3291 2257 Exhaust gas mass flow, wet kg/h 6997 4617 3170 Exhaust gas mass flow, wet kg/h 6997 4617 3170 Exhaust gas mass flow, wet kg/h 6997 4617 3170 Exhaust gas mass flow, wet kg/h 6997 4617 3170 Exhaust gas mass flow, wet kg/h 6992 4800 502 Reference fuel ** ***		%	87.8	87.5	87.1
Combustion air volume flow 10 mg/m in Mg/m s896 3453 2389 2389 2389 2459 3059 Exhaust gas volume flow, wet 10 mg 1 kJ/h 4717 3572 2452 2452 Exhaust gas volume flow, wet 10 mg 1 kJ/h 4356 3391 2257 2452 2450 2552 2452 2450 2552 2452 2450 2552 2452 2450 2552 2452 2450 2552 2450 2552 2452 2450 2552 24		kW			
Combustion air mass flow kg/h 896 4459 3059 Exhaust gas volume flow, der ¹⁰ m³ i.N./h 4356 3291 2257 Exhaust gas volume flow, der ¹⁰ kg/h 607 451 3170 2257 Exhaust gas mass flow, wet kg/h 607 452 480 502 Exhaust gas mass flow, wet c 452 480 502 Reference fuel ¹⁰ Sevage gas CH ₄ >95 Vol.% 502 Sevage gas CH ₄ >95 Vol.% not applicable not applicable Biogas Reference fuel ¹⁰ not applicable not applicable Landfil gas MZ 70 70 Range of heating value: design / operation range without power derating MZ 70 70 Range of heating value: design / operation range without power derating MZ 70 70 Range of heating value: design / operation range without power derating MZ 70 70 Range of heating value: design / operation range without power derating MZ 70 70 Range of heati					
Exhaust gas volume flow, wet 19 m² i.N./h 4717 5572 2452 Exhaust gas mass flow, wet m² i.N./h 4356 3291 2257 Exhaust gas mass flow, wet kg/h 6097 4617 3170 Exhaust gas mass flow, wet kg/h 6097 4617 3170 Exhaust gas mass flow, wet kg/h 6097 4617 3170 Exhaust gas mass flow, wet kg/h 6097 4617 3170 Exhaust gas watte themerate alter furbocharger c CH_2-95 Vol.% 600 Regregate flow c CH_2-95 Vol.% cont applicable Biogas c not applicable not applicable not applicable Landfill gas W W 70	Combustion air volume flow 1)	m³ i.N./h	4566	3453	2369
Exhaust gas volume flow, dry 10 m³ i N/n 4356 3291 2257 Exhaust temperature after turbocharger °C 452 480 502 Reference fuel ** °C 452 480 502 Reference fuel ** CH₄ >95 Vol. % CH₄ >95 Vol. % \$ 0.00 Sewage gas CH₄ >95 Vol. % not applicable on the policable of the					
Exhaust gas mass flow, wet fer turbocharger			4717	3572	2452
Exhaust temperature after turbocharger °C 452 480 502 Reference fuel *** ***********************************		m³ i.N./h	4356	3291	
Reference fuel **) Natural gas CH4 >95 Vol.% Sewage gas not applicable Biogas not applicable Landfill gas mat applicable Fuel requirements **) mot applicable Minimum methane number MZ 70 Range of heating value: design / operation range without power derating kWh/m³ i.N. 10.0 - 10.5 / 8.0 - 11.0 Exhaust gas emissions **** mg/m² i.N. < 500 NOX, stated as NO_ (div, 5 % O₂) mg/m² i.N. < 1000 CO (div, 5 % O₂) mg/m² i.N. < 1000 VOC (div, 5 % O₂) mg/m² i.N. < 1000 VOC (div, 5 % O₂) mg/m² i.N. < 1000 Otto-gas engine, lean burn operation with turbochargin mg/m² i.N. < 12 / V Under of ylinders / configuration 12 / V Engine speed 1/min 1500 s	Exhaust gas mass flow, wet				
Natural gas CH₄ >95 Vol.% Sewage gas not applicable Biogas not applicable Landfill gas not applicable Fuel requirements " W Minimum methane number MZ 70 Range of heating value: design / operation range without power derating MZ 70 Range of heating value: design / operation range without power derating MZ 70 Range of heating value: design / operation range without power derating MZ 70 Range of heating value: design / operation range without power derating MZ 70 Range of heating value: design / operation range without power derating MZ 70 Range of heating value: design / operation range without power derating MZ 400 Col (dy, 5 % 0-2) mg/m³ i.N. < 100		°C	452	480	502
Sewage gas not applicable Biogas not applicable Fuel requirements *** Fuel requirements *** NZ 70 Range of heating value: design / operation range without power derating kWh/m³ i.N. 10.0 - 10.5 / 8.0 - 11.0 Exhaust gas emissions **** *** Nox, stated as NO₂ (dry, 5 % O₂) mg/m³ i.N. < 50 CO (dry, 5 % O₂) mg/m³ i.N. < 50 CO (dry, 5 % O₂) mg/m³ i.N. < 50 Windper of volingers / configuration 12 / v V Engine speed 1 / mm/m³ i.N. 1 / mm/m³ i.N. 1 / v 1 / v 1 / v 1 / v 1 / v 1 / v 1 / v 1 / v 1 / v 1 / v 1 / v 1 / v					
Elogas	-				
Runtle gas					
Minimum methane number				**	
Minimum methane number MZ 70 Range of heating value: design / operation range without power derating kWh/m³ i.N. 10.0 - 10.5 / 8.0 - 11.0 Exhaust gas emissions ⁹¹⁹ mg/m³ i.N. < 500 NOx, stated as NO₂ (dry, 5 % O₂) mg/m³ i.N. < 1000 HCHO (dry, 5 % O₂) mg/m³ i.N. < 60 VOC (dry, 5 % O₂) mg/m³ i.N. < 60 VOC (dry, 5 % O₂) mg/m³ i.N. < 7 V Qtto-gas engine, lean burn operation with turbocharging 12 √ V V V Engine speed 1/min 1500 V P P I I V V I P V V I I V V I I V V I I V V I I V V I I V V I I V V I I V V I I I I I I I I I I I<				not applicable	
Range of heating value: design / operation range without power derating Standard		147		70	
Exhaust gas emissions 918 NOx, stated as NO2 (dry, 5 % O2) mg/m³ i.N. < 1000					
NOx, stated as NO₂ (dry, 5 % O₂) mg/m³ i. N. < 500 CO (dry, 5 % O₂) mg/m³ i. N. < 1000	Range of heating value: design / operation range without power derating	KVVn/m³ I.IV.		10.0 - 10.5 / 8.0 - 11.0	
CO (dry, 5 % O₂) mg/m³ i.N. < 1000 HCHO (dry, 5 % O₂) mg/m³ i.N. < 60			500		
HCHO (dry, 5 % O₂) mg/m³ i.N. < 60 VOC (dry, 5 % O₂) mg/m³ i.N. Otto-gas engine, lean burn operation with turbocharging Number of cylinders / configuration 12 / V Engine type 12V4000L33FN ***					
VOC (dry, 5 % O₂) mg/m³ i.N. Otto-gas engine, lean burn operation with turbocharging Number of cylinders / configuration 12 / V Engine speed 1 / min 1500 Bore mm 170.0 Stroke mm 210.0 Displacement dm³ 57.2 Mean piston speed m/s 10.5 Compression ratio m/s 16.8 BMEP at nominal engine speed min-1 bar 16.8 Lube oil consumption 10.5 Exhaust back pressure min max. after module mbar - mbar 30 - 60 Generator Rating power (temperature rise class F) ¹¹⁾ kVA 1770 Insulation class / temperature rise class F) ¹¹⁾ kVA 1770 Insulation class / temperature rise class F) ¹¹⁾ kVA 1770 Insulation class / temperature rise class F) ¹¹⁾ kVA		<u> </u>			
Otto-gas engine, lean burn operation with turbocharging Number of cylinders / configuration 12 / V Engine type 12/4000L33FN 1500			< 60		
Number of cylinders / configuration 12 / V Engine type 12V4000L33FN 12V4000L33FN Engine speed 11/min 1500 Bore mm 170.0 Stroke mm 210.0 Displacement dm³ 57.2 Mean piston speed m/s 10.5 Compression ratio bar 16.8 BMEP at nominal engine speed min-1 bar 16.8 Lube oil consumption ¹⁰⁾ dm³/h 0.27 Exhaust back pressure min max. after module mbar - mbar 30 - 60 Generator T 8 Rating power (temperature rise class F) ¹¹⁾ kVA 1770 Insulation class / temperature rise class F) ¹²⁾ kVA 1770 Winding pitch 2/3 Protection IP 23 Max. allowable p.f. inductive (overexcited) / capacitive (underexcited) ¹²⁾ 0.8 / 1.0 Voltage tolerance / frequency tolerance % ±5 / ±5 Engine cooling water system 78 / 90		mg/m² i.iv.			
Engine type 12V4000L33FN Engine speed 1/min 1500 Bore mm 170.0 Stroke mm 210.0 Displacement dm³ 57.2 Mean piston speed m/s 10.5 Compression ratio 12.8 BMEP at nominal engine speed min-1 bar 16.8 Lube oil consumption 10) dm³/h 0.27 Exhaust back pressure min max. after module mbar - mbar 30 - 60 Generator Rating power (temperature rise class F) 11) kVA 1770 Rating power (temperature rise class F) ensurance rise class for protection F / F Winding pitch 2/3 Protection IP 23 Max. allowable p.f. inductive (overexcited) / capacitive (underexcited) 22 0.8 / 1.0 Voltage tolerance / frequency tolerance % ±5/±5 Engine cooling water system Coolant temperature (in / out), design °C 78 / 90			12	1	V
Engine speed 1/min 1500 Bore mm 170.0 Stroke mm 210.0 Displacement dm³ 57.2 Mean piston speed m/s 10.5 Compression ratio 10.5 12.8 BMEP at nominal engine speed min-1 bar 16.8 Lube oil consumption (0) dm³/h 0.27 Exhaust back pressure min max. after module mbar - mbar 30 - 60 Generator Rating power (temperature rise class F) (1) kVA 1770 Insulation class / temperature rise class F / F Winding pitch 2/3 Protection IP 23 Max. allowable p.f. inductive (overexcited) / capacitive (underexcited) (2) 0.8 / 1.0 Voltage tolerance / frequency tolerance % ± 5 / ± 5 Engine cooling water system Coolant temperature (in / out), design °C 78 / 90			12	12\/4000L33FN	v
Bore mm 170.0 Stroke mm 210.0 Displacement dm³ 57.2 Mean piston speed m/s 10.5 Compression ratio 12.8 BMEP at nominal engine speed min-1 bar 16.8 Lube oil consumption 100 dm³/h 0.27 Exhaust back pressure min max. after module mbar - mbar 30 - 60 Generator Rating power (temperature rise class F) 110 kVA 1770 Insulation class / temperature rise class F / F Winding pitch 2/3 P Protection IP 23 Max. allowable p.f. inductive (overexcited) / capacitive (underexcited) 12) 0.8 / 1.0 Voltage tolerance / frequency tolerance % ± 5 / ± 5 Engine cooling water system C 78 / 90	_ * - * ·	1/min			
Stroke mm 210.0 Displacement dm³ 57.2 Mean piston speed m/s 10.5 Compression ratio 12.8 BMEP at nominal engine speed min-1 bar 16.8 Lube oil consumption 100 dm³/h 0.27 Exhaust back pressure min max. after module mbar - mbar 30 - 60 Generator Rating power (temperature rise class F) 111 kVA 1770 Insulation class / temperature rise class F / F Winding pitch 2/3 Protection IP 23 Max. allowable p.f. inductive (overexcited) / capacitive (underexcited) 12) 0.8 / 1.0 Voltage tolerance / frequency tolerance % ±5/±5 Engine cooling water system Coolant temperature (in / out), design °C 78/90					
Displacement dm³ 57.2 Mean piston speed m/s 10.5 Compression ratio 12.8 BMEP at nominal engine speed min-1 bar 16.8 Lube oil consumption ¹⁰⁾ dm³/h 0.27 Exhaust back pressure min max. after module mbar - mbar 30 - 60 Generator Rating power (temperature rise class F) ¹¹⁾ kVA 1770 Insulation class / temperature rise class F / F Winding pitch 2/3 Protection IP 23 Max. allowable p.f. inductive (overexcited) / capacitive (underexcited) ¹²⁾ 0.8 / 1.0 Voltage tolerance / frequency tolerance % ± 5 / ± 5 Engine cooling water system Coolant temperature (in / out), design °C 78 / 90					
Mean piston speed m/s 10.5 Compression ratio 12.8 BMEP at nominal engine speed min-1 bar 16.8 Lube oil consumption 100 dm³/h 0.27 Exhaust back pressure min max. after module mbar - mbar 30 - 60 Generator Rating power (temperature rise class F) 111 kVA 1770 Insulation class / temperature rise class F / F Winding pitch 2/3 Protection IP 23 Max. allowable p.f. inductive (overexcited) / capacitive (underexcited) 12 0.8 / 1.0 Voltage tolerance / frequency tolerance % ±5 / ±5 Engine cooling water system Coolant temperature (in / out), design °C 78 / 90					
Compression ratio 12.8 BMEP at nominal engine speed min-1 bar 16.8 Lube oil consumption 100 dm³/h 0.27 Exhaust back pressure min max. after module mbar - mbar 30 - 60 Generator Rating power (temperature rise class F) 110 kVA 1770 Insulation class / temperature rise class F / F Winding pitch 2/3 Protection IP 23 Max. allowable p.f. inductive (overexcited) / capacitive (underexcited) 120 0.8 / 1.0 Voltage tolerance / frequency tolerance % ±5 / ±5 Engine cooling water system Coolant temperature (in / out), design °C 78 / 90	<u> </u>				
BMEP at nominal engine speed min-1 bar 16.8 Lube oil consumption 100 dm³/h 0.27 Exhaust back pressure min max. after module mbar - mbar 30 - 60 Generator Rating power (temperature rise class F) 110 kVA 1770 Insulation class / temperature rise class F / F Winding pitch 2/3 Protection IP 23 Max. allowable p.f. inductive (overexcited) / capacitive (underexcited) 12) 0.8 / 1.0 Voltage tolerance / frequency tolerance % ± 5 / ± 5 Engine cooling water system Coolant temperature (in / out), design °C 78 / 90		111/5			
Lube oil consumption 10) dm³/h 0.27 Exhaust back pressure min max. after module mbar - mbar 30 - 60 Generator Rating power (temperature rise class F) 11) kVA 1770 Insulation class / temperature rise class F / F Winding pitch F/F Winding pitch 1P 23 Max. allowable p.f. inductive (overexcited) / capacitive (underexcited) 12) 0.8 / 1.0 Voltage tolerance / frequency tolerance % ±5/±5 Engine cooling water system Coolant temperature (in / out), design °C 78 / 90	•	har	16.8	12.0	
Exhaust back pressure min max. after module mbar - mbar 30 - 60 Generator Rating power (temperature rise class F) 11) kVA 1770 Insulation class / temperature rise class F / F Winding pitch 2/3 Protection IP 23 Max. allowable p.f. inductive (overexcited) / capacitive (underexcited) 12) 0.8 / 1.0 Voltage tolerance / frequency tolerance % ±5/±5 Engine cooling water system Coolant temperature (in / out), design °C 78 / 90					
Generator Rating power (temperature rise class F) 11) kVA 1770 Insulation class / temperature rise class F / F Winding pitch 2/3 Protection IP 23 Max. allowable p.f. inductive (overexcited) / capacitive (underexcited) 12) 0.8 / 1.0 Voltage tolerance / frequency tolerance % $\pm 5/\pm 5$ Engine cooling water system Coolant temperature (in / out), design °C 78 / 90			0.21	30 - 60	
Rating power (temperature rise class F) 11) kVA 11770 Insulation class / temperature rise class F / F Winding pitch 2/3 Protection IP 23 Max. allowable p.f. inductive (overexcited) / capacitive (underexcited) 12) 0.8 / 1.0 Voltage tolerance / frequency tolerance % ±5/±5 Engine cooling water system Coolant temperature (in / out), design °C 78 / 90		ai iiibai			
Insulation class / temperature rise class F / F Winding pitch Protection Aux. allowable p.f. inductive (overexcited) / capacitive (underexcited) 12) Max. allowable p.f. inductive (overexcited) / capacitive (underexcited) 12) O.8 / 1.0 Voltage tolerance / frequency tolerance Figine cooling water system Coolant temperature (in / out), design C 78 / 90		kVA		1770	
Winding pitch $2/3$ Protection IP 23 Max. allowable p.f. inductive (overexcited) / capacitive (underexcited) 12 $0.8 / 1.0$ Voltage tolerance / frequency tolerance % $\pm 5 / \pm 5$ Engine cooling water system Coolant temperature (in / out), design °C $78 / 90$					
Protection IP 23 Max. allowable p.f. inductive (overexcited) / capacitive (underexcited) $^{12)}$ 0.8 / 1.0 Voltage tolerance / frequency tolerance % $\pm 5/\pm 5$ Engine cooling water system Coolant temperature (in / out), design °C 78 / 90					
Max. allowable p.f. inductive (overexcited) / capacitive (underexcited) $^{12)}$ 0.8 / 1.0 Voltage tolerance / frequency tolerance $^{\prime}$ % $\pm 5 / \pm 5$ Engine cooling water system Coolant temperature (in / out), design $^{\circ}$ C 78 / 90	Protection				
Voltage tolerance / frequency tolerance % $\pm 5/\pm 5$ Engine cooling water system Coolant temperature (in / out), design °C 78 / 90					
Coolant temperature (in / out), design °C 78 / 90		%			
	Engine cooling water system				
Coolant flow rate, constant ^{13) 14)}					
Coolant now rate, constant	Coolant flow rate, constant ^{13) 14)}	m³/h	46.6		
Pressure drop, design ¹⁴⁾ Cv value ^{13) 15)} bar / m³/h 1.98 / 33.6		bar / m³/h	1.98	· · · · · · · · · · · · · · · · · · ·	33.6
Max. operation pressure (coolant before engine) bar 6.0		bar		6.0	
Exhaust gas heat exchanger (EGHE)					
Exhaust gas temperature (out) °C					
Coolant temperature (in / out), design °C	Coolant temperature (in / out), design	-			
Coolant volumetric flow, constant ^{13) 14)} m³/h	Coolant volumetric flow, constant (4) (4)				
Pressure drop, design ¹⁴⁾ Cv value ^{13) 15)} kPa / m³/h /					
Min. coolant flow rate / min. operation gauge pressure m³/h / bar /					
Max. operation pressure (coolant water) bar	ivian. operation pressure (coolant water)	Dal			

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93800050293 V06 en GB		GG12V4		mtv energi			
Mixture cooler 1st stage, external		GG 12V4	OUOAI				
• .		°C					
Coolant temperature (in / out), design Coolant volumetric flow, design, constant 13) 14)							
	Cv value 13) 15)	m³/h			/		
Pressure drop, design 14)	CV value ", ",	bar / m³/h			<u>/</u>		
Min. coolant flow rate / min. operation gauge pressure		m³/h / bar			/		
Max. operation pressure before mixture cooler		bar					
Mixture cooler 2nd stage, external							
Coolant temperature (in / out), design		°C	40 / 42.9				
Coolant volumetric flow, design, constant 13) 14)	48) 45)	m³/h	25.7				
Pressure drop, design 14)	Cv value 13) 15)	bar / m³/h	0.24		/	53.7	
Max. operation pressure before mixture cooler		bar			6		
Heating circuit interface							
Engine coolant temperature (in / out), design		°C					
Heating water temperature (in / out), design		°C					
Heating water flow rate, design 14) 16)		m³/h					
Pressure drop, design 14)	Cv value 15) 16)	bar / m³/h			/		
Max. operation gauge pressure (heating water)		bar					
Room ventilation							
Genset ventilation heat 17)		kW		F	55		
Inlet air temperature: (min./design/max.)		°C			25 / 30		
Min. engine room temperature (min./design/max.)		<u>c</u>			5		
Max. temperature difference ventilation air (in / out)		С К			20		
Min. supply air volume flow rate (combustion + ventilation)	19)				000		
Gearbox		m° i.iv./n	100		' 5	50	
			100		J	30	
Efficiency		%	-		-	-	
Starter battery					2 /		
Nominal voltage / power / capacity required		V / kW / Ah		24 /	9 /		
Filling quantities							
_ube oil for engine		dm³			20		
Coolant in engine		dm³		2	00		
Coolant in mixture cooler		dm³		2	20		
Heating water for plate heat exchanger 20)		dm³					
Lube oil for gearbox		dm³					
Gas regulation line							
Nominal size / gas pressure min max.		DN / mbar - mbar	80		/	170 - 250	
Engine sound level 21) (1 meter distance, free field) +3 (dB(A) for total A-weighted	d level tolerance					
Frequency		Hz	63	125	250	500	
Sound pressure level		dB	78.1	86.0	88.4	93.6	
Frequency		Hz	1000	2000	4000	8000	
Sound pressure level		dB	92.3	89.8	87.9	98.1	
ooana procede tever		Lin dB	101.2	00.0	00		
Sum of pressure levels		dB A	100.4				
Sound power level		dB	119.7				
Undampened exhaust noise ²¹⁾ (1 meter distance to outl	ot within 00° froe field)			•			
Frequency	et within 30 , nee neid) +	З db(A) for total A-weighted Hz	63	125	250	500	
. ,							
Sound pressure level		dB	113.8	115.7	113.1	105.7	
Frequency		Hz	1000	2000	4000	8000	
Sound pressure level		dB	97.7	94.7	90.3	86.3	
		Lin dB	119.3				
Sum of pressure levels		dB A	107.9				
Sound power level		dB	120.5				
Dimensions (aggregate)							
ength		mm		~ 4	700		
Vidth		mm		~ 2			
Height		mm			300		
Gross weight (dry weight)		kg			(~ 12000)		
Power derating				12000			
Altitude				enecific to	the project		
					the project		
Combustion air temperature			specific to the project				
Mixture cooler coolant temperature (in)			specific to the project				
Methane number				specific to the project			
Boundary conditions and consumables							
Systems and consumables have to conform to the following actua	I company standards:			A00	1067		
 Normal cubic meter at 1013 mbar and T = 273 K 							

- Systems and consumables have to conform to the following actual company standards: 1) Normal cubic meter at 1013 mbar and T = 273 K
- 2) Prime power operation will be designed specific to the project
- 3) Generator gross power at nominal voltage, power factor = 1 and nominal frequency
- 4) According to ISO 3046 (+ 5 % tolerance), using reference fuel used at nominal voltage, power factor = 1 and nominal frequency
- 5) Emission values during grid parallel operation
- 6) Thermal output at layout temperature; tolerance +/- 8 %
- 7) Power consumption of all electrical consumers which are mounted at the module / genset
- 8) Deviations from the layout parameters respectively the reference fuel can have influence on the obtained efficiency and exhaust emissions
- 9) Functional capability
- 10) Reference value at nominal load (without amount of oil exchange)
- 11) Genset max. 1000 m height of location and max. 40 °C intake air temperature; else power derating
- 12) Max. allowable cos phi at nominal power (view of producer)
- Stated values for cooling fluid composition 65% water and 35% glycol, adaption for use of other cooling fluid composition necessary The system design must consider the tolerance.
- 14) Pressure loss at reference flow rate
- 15) The Cv value declares the volumetric flow in m³/h at a pressure drop of 1 bar. Min. and max. flow rate limits are defined.
- 16) Stated values for pure water, adaption for other cooling fluid composition necessary
- 17) Only generator- and surface losses
- 18) Frost-free conditions must be guaranteed
- 19) Amount of ventilation air must be adapted to the gas safety concept
- 20) Assemblies including pipe work
- 21) All sound pressure levels at nominal load
- 22) Max. admissible cos phi depending on voltage in accordance with the requirements of the BDEW Mittelspannungsrichtlinie (German Medium Voltage Directive)

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