Voltage Frequency Voltage Frequency Voltage Frequency Voltage Frequency Voltage Voltag	Technical Data Sheet 93800050452_V07_en_GB	MTU 16V4000 GS GG16V4000A1		mu onsite energy		
Michael cooler 15td stage water temperature (m)	• • •		6300		50	
Michate cooler fast stage water temperature (in)	• • • •					
Meture converted religionators (n) "C "A3 "C "A16 "C "C "A16 "C "C "C "C "C "C "C "		•		< 500		
Catalytic convers	. ,					
Catalytic Converter Special equipment Sp	• • • • • • • • • • • • • • • • • • • •					
Special equipment	· ·	°C				
Aŭstude above sea level	•			not included		
Contact contact programme Co 25 Contact Contac			400			
Secretary Secr			100	•	1000	
	·					
Electrical Power		%		30		
Electrical Power 100	, ,					
Energy in price Section Sectio	· ·					
Themsin dupty total a "Good pilotic", luth oil, 1st stage mixture cooler) 1	Electrical Power 2/3/					
Teman adupt negine (block, this oil, 1st stage mixture cooler) ** 18 may *						
Thermal culput mixture cooler 1st stage						
Thermal purplum influstric cooler 2nd stage 6	Thermal duput engine (block, labe oil, 13t stage mixture cooler)		965	708	477	
Ethous the aid (120°C) 6						
Engine power SQ 3046-1						
Secretary efficiency at power factor = 1			. ,			
Electrical efficiency						
Total efficiency						
Power consumption Power consumption Power combustion air volume flow Power combustion P	·					
Combustion air / Exhaust gas m² i N.h 7748 5841 4002 Combustion air mass flow kgh 10006 7543 5168 Exhaust gas volume flow, vot ¹¹ m² i N.h 8002 6036 4138 Exhaust gas volume flow, vot ¹¹ m² i N.h 7406 5579 3819 Exhaust gas mass flow wet kgh 1034 7801 5349 Exhaust temperature after turbocharger "C 416 449 483 Exhaust gas central control of the properature after turbocharger "C 100			85.9	გე.ყ	00.1	
Controlution air volume flow, or Controlution air mass flow mP1 I.M.h 7748 5941 4002 Controlution air mass flow mP1 I.M.h 8002 6036 4138 Erhaust gas volume flow, vet mP1 I.M.h 7406 5579 3819 Erhaust gas mass flow, wet kgh 10342 7801 5349 Erhaust gas mass flow, wet "C 416 449 483 Erhaust gas mass flow, wet "C 416 449 483 Reference fuel "C 416 449 483 Reger gas "C 16 49 483 Bloogs "C "CRL, 295 Vol.%" 100		KVV				
Combustion air mass flow	<u> </u>	m3 i NI /h	77/10	59/1	4002	
Enhance gas volume flow, wet 10 mg 1 km/h 2 mg 1 km/h 2 mg 1 kg/h 1 0042 6036 mg 18 mg						
Enhance gas as solive flow, dy "1" Mr 10M, 10042 700 3819 Enhance gas ans slow, wet Cerebrature after turbocharger "C 416 449 433 Reference fuel? "C 416 449 483 Reference fuel? "C C						
Ehabaust tages mass flow, well kg/h 10342 7801 549 Technaust temperature after turbocharger "C 416 449 438 Erbanust temperature after turbocharger "C 416 449 438 Exhaust Langer Sag "CHL, 95 Vol." "CHL, 95 Vol." Total applicable Total policible Biogage "CHL, 95 Vol." "Interpretation of the policible Total applicable Total policible T						
Exhalst temperature after furbocharger "C 416 449 483 Reference fuel P Exhalt agas CHI, 968 Vol.% Sexuage gas Blogas Chi, 968 Vol.3 Change gas Change gas <td></td> <td></td> <td></td> <td></td> <td></td>						
Reference fuel ** Sewage gas						
Sewage gas			410	110	100	
Sewage gas				CH ₄ >95 Vol.%		
Engans						
Landflill gas						
Fuel requirements						
Range of heating values design / operation range without power derating kWh/m³ i.N. 10.0 - 10.5 / 8.0 - 11.0 Exhaust gas emissions ³89 mg/m³ i.N. < 500				· ·		
No. stated as No. (dry, 5 % O.)	Minimum methane number	MN		80		
NOX. stated as NO_1 (dry, 5 % O_2) mg/m³ i.N.	Range of heating value: design / operation range without power derating	kWh/m³ i.N.		10.0 - 10.5 / 8.0 - 11.0		
CO (dry, 5 % O₂) mg/m³ i.N. < 1000						
HCHO (dry, 5 % O ₂)		mg/m³ i.N.	< 500			
VOC (dry, 5 % O₂) mg/m³ i.N. Otto-gas engine, lean burn operation with turbocharging Sumber of cylinders / configuration 16 / V Engine type 160 / V Engine speed 170.0 Bore mm 170.0 Stroke mm 210.0 Displacement dm² 16.3 - V Mean piston speed m/s 10.5 - V						
Number of cylinders / configuration 16 / N Engine type 16V4000L64 16V4000L64 Engine speed 1/min 1500 Bore mm 170.0 Stroke mm 210.0 Displacement dm³ 76.3 Wean piston speed dm³ 10.5 Compression ratio m/s 11.0 BMEP at nominal engine speed min-1 bar 21.8 Lube oil consumption ¹⁰ dm³/h 0.35 Exhaust back pressure min max. after module mbar - mbar 30 - 60 Exhaust back pressure min max. after module mbar - mbar 3255 Exhaust back pressure rise class F) ¹¹ kVA 3255 Insulation class / temperature rise class F) ¹² kVA 3255 Insulation class / temperature rise class F) ¹³ kVA 3255 Insulation class / temperature rise class F) ¹⁴ kVA 3255 Insulation class / temperature rise class F) ¹⁵ kVA 3255 Insulation class / temperature rise class F) ¹⁶ mb/r 19 - 2			< 102			
Number of cylinders / configuration 16 / V Engine type 1//min 1500 ————————————————————————————————————		mg/m³ i.N.				
Engine type 16V4000L64 Engine speed 1/min 1500 Bore mm 170.0 Stroke mm 210.0 Displacement dm³ 76.3 Mean piston speed m/s 10.5 Compression ratio bar 21.8 Lube oil consumption ¹⁰⁰ dm³/h 0.35 Exhaust back pressure min max. after module mbar - mbar 30 - 60 Generator mbar - mbar 32.55 Insulation class / temperature rise class F) ¹¹⁾ kVA 3255 Insulation class / temperature rise class F) ¹¹⁰ kVA 3255 Insulation class / temperature rise class F / F Vivinding pitch 2/3 2/3 Protection IP 23 4 Max. allowable p.f. inductive (overexcited) / capacitive (underexcited) ¹²⁹ 0.8 / 0.95 4 Voltage tolerance / frequency tolerance % ±10 / ±5 5 Engine cooling water system °C 78 / 90 4 Coolant temperature (n / out), design °C 78 /						
Engine speed	, ,		16	/	V	
Bore mm 170.0 Stroke mm 210.0 Displacement dm³ 76.3 Mean piston speed m/s 10.5 Compression ratio m/s 114.0 BMEP at nominal engine speed min-1 bar 21.8 Lube oil consumption ¹⁰⁾ dm³/h 0.35 Exhaust back pressure min max. after module mbar - mbar 30 - 60 Generator w/A 3255 Rating power (temperature rise class F) ¹¹⁾ kVA 3255 Insulation class / temperature rise class F) respective (see class						
Stroke mm 210.0 Displacement dm³ 76.3 Mean piston speed m/s 10.5 Compression ratio 14.0 BMEP at nominal engine speed min-1 bar 21.8 Lube oil consumption ¹⁰ dm³/h 0.35 Exhaust back pressure min max. after module mbar - mbar 30 - 60 Generator Rating power (temperature rise class F) ¹¹ kVA 3255 Insulation class / temperature rise class F) ¹² kVA 3255 Insulation class / temperature rise class (temperature rise class f) ¹² 2/3 Protection P23 1923 Max. allowable p.f. inductive (overexcited) / capacitive (underexcited) ¹² 0.8 / 0.95 Voltage tolerance / frequency tolerance % ±10/±5 Engine cooling water system Coolant temperature (in / out), design °C 78 / 90 Coolant temperature (in/out), design °C 78 / 90 Expanser of cop, design ¹⁴ Cv value ^{13) 15)} bar / m³/h 74.9 Exhaust gas temperat						
Displacement dm³ 76.3						
Mean piston speed m/s 10.5 Compression ratio 14.0 BMEP at nominal engine speed min-1 bar 21.8 Lube oil consumption ¹⁰⁾ dm³/h 0.35 Exhaust back pressure min max. after module mbar - mbar 30 - 60 Generator Rating power (temperature rise class F) ¹¹) kVA 3255 Insulation class / temperature rise class S F / F Winding pitch 2/3 2/3 Protection IP 23 Max. allowable p.f. inductive (overexcited) / capacitive (underexcited) ¹² 0.8 / 0.95 Voltage tolerance / frequency tolerance % ±10 / ±5 Engine cooling water system Coolant temperature (in / out), design °C 78 / 90 Coolant temperature (in/ out), design °C 78 / 90 Exhaust gas temperature (coolant before engine) bar / m³/h 7.4 43.2 Max. aperature (out) °C °C Coolant temperature (out) 6.0 • Exhaust gas temperature (out) °C °C						
Compression ratio 14.0 BMEP at nominal engine speed min-1 bar anyly 21.8 Lube oil consumption ¹⁰⁾ dm³/h 0.35 Exhaust back pressure min max. after module mbar - mbar 30 - 60 Generator Rating power (temperature rise class F) ¹¹⁾ kVA 3255 Insulation class / temperature rise class F) ¹¹⁾ kVA 3255 Winding pitch 2/3 Protection 1P 23 Max. allowable p.f. inductive (overcited) / capacitive (underexcited) ¹²⁾ 0.8 / 0.95 Voltage tolerance / frequency tolerance % ± 10 / ± 5 Engine cooling water system Coolant temperature (in / out), design °C 78 / 90 Coolant temperature (in / out), design °C 78 / 90 Pressure drop, design ¹⁴⁾ Cv value ^{13) 15)} bar / m³/h 3.11 / 43.2 Max spa heat exchanger (EGHE) Exhaust gas temperature (out) °C °C Coolant temperature (in / out), design °C	·					
BMEP at nominal engine speed min-1 bar 21.8 Lube oil consumption 100 dm³/h 0.35 Exhaust back pressure min - max. after module mbar - mbar 30 - 60 Generator FARTING power (temperature rise class F) 110 kVA 3255 Insulation class / temperature rise class F / F F Winding pitch 2/3 2/3 Protection IP 23 3 Max. allowable p.f. inductive (overexcited) / capacitive (underexcited) 120 0.8 / 0.95 4 Voltage tolerance / frequency tolerance % ± 10 / ± 5 Engine cooling water system Coolant temperature (in / out), design °C 78 / 90 Coolant flow rate, constant 130 14) m³/h 74.9 43.2 Max. operation pressure (coolant before engine) bar / m³/h 74.9 43.2 Max. operation pressure (coolant before engine) bar / m³/h 74.9 43.2 Exhaust gas temperature (out) °C 76.0 76.0 76.0 76.0 76.0 76.0 76.0 76.0 76.0 76.0 76.0 76.0 <td></td> <td>m/s</td> <td></td> <td></td> <td></td>		m/s				
Lube oil consumption 101 dm3/h 0.35 Exhaust back pressure min max. after module mbar - mbar 30 - 60 Generator Rating power (temperature rise class F) 111 kVA 3255 Insulation class / temperature rise class F / F Winding pitch 2/3 Protection IP 23 Max. allowable p.f. inductive (overexcited) / capacitive (underexcited) 121 0.8 / 0.95 Voltage tolerance / frequency tolerance % ± 10 / ± 5 Engine cooling water system Coolant temperature (in / out), design °C 78 / 90 Coolant temperature (in / out), design °C 78 / 90 Coolant temperature (coolant before engine) bar / m³/h 74.9 Pressure drop, design 141 Cv value 130 150 bar / m³/h 3.11 / 43.2 Max. operation pressure (coolant before engine) bar / m³/h 3.11 / 43.2 Exhaust gas temperature (in / out), design °C Coolant rowspan="2">Coolant rowspan="2">Coolant volumetric flow, constant 130 141 m³/h F/F Exhaust gas temperature (in / out), design °C Coo	•	L	24.0	14.0		
Exhaust back pressure min max. after module mbar - mbar 30 - 60 Generator Rating power (temperature rise class F) ¹¹⁾ kVA 3255 Insulation class / temperature rise class F / F Y Winding pitch 2/3 Protection IP 23 Max. allowable p.f. inductive (overexcited) / capacitive (underexcited) ¹²⁾ 0.8 / 0.95 V Voltage tolerance / frequency tolerance % ± 10 / ± 5 ***********************************						
Generator Rating power (temperature rise class F) **1111111111111111111111111111111111			0.35	20 60		
Rating power (temperature rise class F) 11) kVA 3255 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 / 0.95 Voltage tolerance / frequency tolerance % ± 10 / ± 5 Engine cooling water system Coolant temperature (in / out), design °C 78 / 90 Coolant flow rate, constant 13) 14) 74.9 Pressure drop, design 14) Cv value 13) 15) bar / m³/h 3.11 / 43.2 Max. operation pressure (coolant before engine) bar 6.0 Exhaust gas temperature (out) °C Coolant temperature (in / out), design °C Coolant temperature (in / out), design 6.0 Exhaust gas temperature (out) °C Coolant temperature (out) °C Coolant temperature (in / out), design °C Coolant volumetric flow, constant 13) 14)	<u> </u>	mbar - mbar		30 - 60		
Insulation class / temperature rise class		I// A		2255		
Winding pitch 2/3 Protection IP 23 Max. allowable p.f. inductive (overexcited) / capacitive (underexcited) ¹²⁾ 0.8 / 0.95 Voltage tolerance / frequency tolerance % ± 10 / ± 5 Engine cooling water system Coolant temperature (in / out), design °C 78 / 90 Coolant temperature (in / out), design °C 78 / 90 Coolant flow rate, constant ^{13) 14)} Cv value ^{13) 15)} bar / m³/h 74.9 Pressure drop, design ¹⁴⁾ Cv value ^{13) 15)} bar / m³/h 3.11 / 43.2 Max. operation pressure (coolant before engine) bar 6.0 Exhaust gas heat exchanger (EGHE) Exhaust gas temperature (out) °C Coolant temperature (in / out), design °C Coolant temperature (in / out), design °C Coolant volumetric flow, constant ^{13) 14)} m³/h Pressure drop, design ¹⁴⁾ Cv value ^{13) 15)} kPa / m³/h / Min. coolant flow rate / min. operation gauge pressure m³/h / bar /		KVA				
Protection						
Max. allowable p.f. inductive (overexcited) / capacitive (underexcited) 12) 0.8 / 0.95 Voltage tolerance / frequency tolerance % ± 10 / ± 5 Engine cooling water system Coolant temperature (in / out), design °C 78 / 90 Coolant flow rate, constant 15) 14) m³/h 74.9 74.9 Pressure drop, design 14) Cv value 13) 15) bar / m³/h 3.11 / 43.2 Max. operation pressure (coolant before engine) bar 6.0 6.0 Exhaust gas heat exchanger (EGHE) Exhaust gas temperature (out) °C Coolant temperature (out), design °C Coolant tolumetric flow, constant 13) 14) m³/h m³/h Fressure drop, design 14) Cv value 13) 15) kPa / m³/h / Min. coolant flow rate / min. operation gauge pressure m³/h / bar / /						
Voltage tolerance / frequency tolerance % ± 10 / ± 5 Engine cooling water system Colant femperature (in / out), design °C 78 / 90 Coolant flow rate, constant 130 / 40. m³/h 74.9 74.9 Pressure drop, design 140 Cv value 130 / 150 bar / m³/h 3.11 / 43.2 Max. operation pressure (coolant before engine) bar 6.0 Exhaust gas heat exchanger (EGHE) Exhaust gas temperature (out) °C C Coolant temperature (in / out), design °C Coolant volumetric flow, constant 130 / 140 m³/h m³/h / Pressure drop, design 140 Cv value 130 / 150 kPa / m³/h / Min. coolant flow rate / min. operation gauge pressure m³/h / bar /						
Engine cooling water system Coolant temperature (in / out), design Coolant flow rate, constant 13) 14) Pressure drop, design 14) Max. operation pressure (coolant before engine) Exhaust gas temperature (out) Coolant temperature (in / out), design °C Coolant temperature (out) °C Coolant temperature (in / out), design °C Coolant volumetric flow, constant 13) 14) Pressure drop, design 14) Cv value 13) 15) KPa / m³/h Min. coolant flow rate / min. operation gauge pressure Results gas temperature (in / out), design Cv value 13) 15) KPa / m³/h / bar / Min. coolant flow rate / min. operation gauge pressure		%				
Coolant temperature (in / out), design Coolant flow rate, constant m³/h 74.9 Pressure drop, design Cv value m³/h 3.11 / 43.2 Max. operation pressure (coolant before engine) bar 6.0 Exhaust gas heat exchanger (EGHE) Exhaust gas temperature (out) °C Coolant temperature (in / out), design °C Coolant temperature (in / out), design m³/h Pressure drop, design Cv value m³/h Pressure drop, design Min. coolant flow rate / min. operation gauge pressure "C 78 / 90 A3.9 A3.11 / 43.2 A3.2 A3.2		70		± 10/±0		
Coolant flow rate, constant 13/14) m³/h 74.9 Pressure drop, design 14/9 Cv value 13/15) bar / m³/h 3.11 / 43.2 Max. operation pressure (coolant before engine) bar 6.0 Exhaust gas heat exchanger (EGHE) °C Exhaust gas temperature (out) °C Coolant temperature (in / out), design °C Coolant volumetric flow, constant 13/14/9 m³/h Pressure drop, design 14/9 Cv value 13/15/9 kPa / m³/h / Min. coolant flow rate / min. operation gauge pressure m³/h / bar /		°C	78 / 90			
Pressure drop, design ¹⁴⁾ Cv value ^{13) 15)} bar / m³/h 3.11 / 43.2 Max. operation pressure (coolant before engine) bar 6.0 Exhaust gas heat exchanger (EGHE) *** *** Exhaust gas temperature (out) °C *** Coolant temperature (in / out), design °C *** Coolant volumetric flow, constant ^{13) 14)} m³/h *** Pressure drop, design ¹⁴⁾ Cv value ^{13) 15)} kPa / m³/h / Min. coolant flow rate / min. operation gauge pressure m³/h / bar /	Coolant flow rate, constant 13) 14)					
Max. operation pressure (coolant before engine) Exhaust gas heat exchanger (EGHE) Exhaust gas temperature (out) Coolant temperature (in / out), design Coolant volumetric flow, constant (13) 14) Pressure drop, design (14) Min. coolant flow rate / min. operation gauge pressure bar 6.0 °C Coolant temperature (in / out), design (14) Cv value (13) 15) kPa / m³/h / bar / (14)	Pressure drop, design ¹⁴⁾ Cv value ^{13) 15)}			1	43.2	
Exhaust gas heat exchanger (EGHE) Exhaust gas temperature (out) Coolant temperature (in / out), design °C Coolant volumetric flow, constant ^{13) 14)} Pressure drop, design ¹⁴⁾ Cv value ^{13) 15)} KPa / m³/h / bar / Min. coolant flow rate / min. operation gauge pressure m³/h / bar /				· · · · · · · · · · · · · · · · · · ·		
Exhaust gas temperature (out) Coolant temperature (in / out), design °C Coolant volumetric flow, constant ^{13) 14)} Pressure drop, design ¹⁴⁾ Cv value ^{13) 15)} KPa / m³/h / bar / Min. coolant flow rate / min. operation gauge pressure						
Coolant temperature (in / out), design °C Coolant volumetric flow, constant ^{13) 14)} m³/h Pressure drop, design ¹⁴⁾ Cv value ^{13) 15)} kPa / m³/h / bar / Min. coolant flow rate / min. operation gauge pressure m³/h / bar /		°C				
Coolant volumetric flow, constant ^{13) 14)} Pressure drop, design ¹⁴⁾ Cv value ^{13) 15)} KPa / m³/h / bar / Min. coolant flow rate / min. operation gauge pressure m³/h / bar / m³/h / bar	Coolant temperature (in / out), design					
Pressure drop, design $^{14)}$ Cv value $^{13)15)}$ kPa / m³/h / Min. coolant flow rate / min. operation gauge pressure $^{13)15}$ kPa / m³/h / bar /	Coolant volumetric flow, constant 13) 14)					
Min. coolant flow rate / min. operation gauge pressure m³/h / bar /	Pressure drop, design ¹⁴⁾ Cv value ^{13) 15)}			/		
Max. operation pressure (coolant water) bar		m³/h / bar		1		
	Max. operation pressure (coolant water)	bar				

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Technical Data Shees MTU 1604/4000 GS GG164/40000A1							
Note Pressure does Press	Technical Data Sheet	MTU 16V				d onsite	
Coolant volume(in fow), design	93800050452_V07_en_GB	GG16V4				v energy	
Covalua founmentine flow, design, constant (1914)	Mixture cooler 1st stage, external						
Pressure drop, design 16	Coolant temperature (in / out), design		°C				
Pressure drop, design 1-0	Coolant volumetric flow, design, constant 13) 14)		m³/h				
Min. coplant flow rate / min. operation gauge pressure Max. operation pressure before mixture cooler Mixture cooler 2nd stage, external Coolant temperature (in / out), design (10 out), desi	Pressure drop, design ¹⁴⁾	Cv value 13) 15)	bar / m³/h		,	/	
Mixture cooler 2nd stage, external Coolant tromporture (in / out), design Co dant from probability (design, constant from 1914) Covalue from 1914 Covalue f	Min. coolant flow rate / min. operation gauge pressure		m³/h / bar		,	/	
Coolant unemperature (in / out), design, constant ^{131 40}) "Rh (Nat) ad 3 al 3	Max. operation pressure before mixture cooler		bar				
Coolant volumetric flow, design, constant **3**4**	Mixture cooler 2nd stage, external						
Pressure drop, design ¹⁴	Coolant temperature (in / out), design		°C	43 / 46.5			
Pressure drop, design 1	Coolant volumetric flow, design, constant 13) 14)		m³/h	34.3			
Max. operation pressure before mixture cooler Meating circuit interface Fedinic coolant temperature (in / out), design "C" "C" "C" "Heating water temperature (in / out), design "C" "C" "P"		Cv value 13) 15)	bar / m³/h	0.36	,	/	58.4
Figure coolant temperature (in / out), design 10 (or obs) 10 (or	Max. operation pressure before mixture cooler		bar		6	5	
Heating water temperature (in / out), design "C Heating water flow rate, design \$\frac{1}{10} \text{ (in value \$\frac{1}{1	Heating circuit interface						
Heating water flow rate, design 140 160	Engine coolant temperature (in / out), design		°C				
Pressure drop, design fel	Heating water temperature (in / out), design		°C				
Max operation gauge pressure (heating water) bar Room ventilation heat ¹¹¹ kW 12s Genset ventilation heat ¹¹¹ RW 20 25 / 30 Inter air temperature (min/design/max.) °C 20 / 25 / 30 Min. engine room temperature ¹¹¹ °C 15 Max. temperature difference ventilation air (in / out) K 20 Min. suphy air volume flow rate (combustion + ventilation) ¹¹¹ RX 100 7 Gearbox % 100 7 100 1 Efficiency % 100 7 2 1 2 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 1 2 1 1 2 1 2 1 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 2 2 1 2 2 <th< td=""><td>Heating water flow rate, design 14) 16)</td><td></td><td>m³/h</td><td></td><td></td><td></td><td></td></th<>	Heating water flow rate, design 14) 16)		m³/h				
Max operation gauge pressure (heating water) bar Room ventilation heat ¹¹¹ kW 12s Genset ventilation heat ¹¹¹ RW 20 25 / 30 Inter air temperature (min/design/max.) °C 20 / 25 / 30 Min. engine room temperature ¹¹¹ °C 15 Max. temperature difference ventilation air (in / out) K 20 Min. suphy air volume flow rate (combustion + ventilation) ¹¹¹ RX 100 7 Gearbox % 100 7 100 1 Efficiency % 100 7 2 1 2 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 1 2 1 1 2 1 2 1 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 2 2 1 2 2 <th< td=""><td>Pressure drop, design ¹⁴⁾</td><td>Cv value 15) 16)</td><td>bar / m³/h</td><td></td><td>,</td><td>/</td><td></td></th<>	Pressure drop, design ¹⁴⁾	Cv value 15) 16)	bar / m³/h		,	/	
Room evinitation kW 128 Genset ventilation heat ¹¹¹⟩ kW 128 Inlet air temperature: (min./design/max.) °C 20 / 25 / 30 Min. engine room temperature: ¹¹¹ °C 15 Max. temperature difference ventilation air (in / out) K 20 Min. supply air volume flow rate (combustion + ventilation) ¹¹² m³ i.N./h 26000 Fefficiency % 100 75 Efficiency % 10 24 / 2 x 9 / - Fifficiency WW / Ah 24 / 2 x 9 / - State batters Lube oil for engine dm³ 250 Coolant in engine dm³ 250 Coolant in mixture cooler dm³ 27 Heating water for plate heat exchanger ²²²⟩ dm³ 2 Coolant in mixture cooler dm³ 7 Heating water for plate heat exchanger ²²²⟩ dm³ 7 Foreguancy BX 84 9 5 Sound pressure level dB 84.8 9.5 90.0	Max. operation gauge pressure (heating water)		bar				
Puleta air temperature: (min./design/max.) Min. engine room temperature (min. engine room t							
Min. engine room temperature difference ventilation air (in / out) °C 15 Max. temperature difference ventilation air (in / out) K 20 Min. supply air volume flow rate (combustion + ventilation) "in / h 26000 Gearbox % 100 75 Efficiency % 100 75 Efficiency % 100 24 / 2 x 9 / ~ Starter battery V/ kW / Ah 24 / 2 x 9 / ~ Very Plining quantities Briting quantities 3 24 / 2 x 9 / ~ Lube oil for engine dm³ 250 20 Coolant in engine dm³ 270 20 Coolant in mixture cooler dm³ 25 25 Lube oil for gearbox dm³ 25 25 Gas regulation line Moriant size / gas pressure min max. DN / mbar - mbar 100 / Frequency Hz 63 125 250 Sound pressure level dB 84.8 90.5 90.0 Sound pressure levels dB 100 200	Genset ventilation heat 17)		kW		12	28	
Min. engine room temperature difference ventilation air (in / out) °C 15 Max. temperature difference ventilation air (in / out) K 20 Min. supply air volume flow rate (combustion + ventilation) m³ i.N./h 26000 Gearbox % 100 75 Efficiency % 100 75 Efficiency % 100 24 / 2 x 9 / ~ Starter battery Use of for engine dm³ 24 / 2 x 9 / ~ Use of for engine dm³ 250 Coolant in engine dm³ 250 Coolant in engine dm³ 250 Coolant in engine dm³ 25 Coolant in engine dm³ 25 Coolant in engine dm³ 25 Use off or engine dm³ 25 Use off or greatox dm³ 25 Gas regulation line 20 7 Nominal size / gas pressure min max. DN / mbar - mbar 100 / Engine sound level 63 81.25			°C		20 / 2	5 / 30	
Min. supply air volume flow rate (combustion + ventilation) 19 m³ i.N./h 26000 Gearbox % 100 75 Efficiency % 10 2 Starter battery Nominal voltage / power / capacity required V/W / Ah 24 / 2 x 9 / Filling quantities Lube oil for engine dm³ 250 Coolant in engine dm³ 250 Coolant in engine dm³ 250 Coolant in insture cooler dm³ 250 Heating water for plate heat exchanger 200 dm³ 250 Lube oil for gearbox dm³ 250 Gas regulation line dm³ 250 Suminal size / gas pressure min max. DN / mbar - mbar 100 1 Engine sound level* 21 (I meter distance, free field) +3 dB(A) for total A-weighted level Frequency dB 84.8 90.5 90.0 Sound pressure level dB 92.5 91.8 99.2 Sum of pressure levels dB 104.4 1 1 <t< td=""><td></td><td></td><td>°C</td><td></td><td></td><td></td><td></td></t<>			°C				
Min. supply air volume flow rate (combustion + ventilation) 19 m³ i.N./h 26000 Gearbox % 100 75 Efficiency % 10 2 Starter battery Nominal voltage / power / capacity required V / W / W / M 24 / 2 x 9 / · · · Filling quadretites Lube oil for engine dm³ 250 Coolant in engine dm³ 250 Coolant in engine dm³ 250 Coolant in insture cooler dm³ 250 Heating water for plate heat exchanger 200 dm³ 250 Lube oil for gearbox dm³ 250 Geas regulation line dm³ 100 √ Engine sound level 201 (I meter distance, free field) +3 dB(A) for total A-weighted level 100 100 √ Engine sound level 201 (I meter distance, free field) +3 dB(A) for total A-weighted level 100 84.8 90.5 90.0 Sound pressure level dB 94.8 90.5 90.0 Sound pressure levels dB 104.8 104.8 104.8			K				
Geatbox % 100 75 Efficiency % • • Starter battery Nominal voltage / power / capacity required V / kW / Ah 24 / 2 x 9 / • • Filling quantities U / kW / Ah 24 / 2 x 9 / • • Lube oil for engine dm³ 250 Coolant in engine dm³ 270 Coolant in mixture cooler dm³ 25 Heating water for plate heat exchanger ²0⟩ dm³ 25 Lube oil for gearbox dm³ 0 25 Cas regulation line Nominal size / gas pressure min max. DN / mbar - mbar 100 √ Engine sound level ²¹¹ (1 meter distance, free field) +3 dB(A) for total A-weighted level toterace Frequency Hz 63 125 250 Sound pressure level dB 92.5 91.8 99.2 Sound pressure level dB 104.8 92.5 91.8 99.2 Sound pressure level dB 104.8 124.1 14 14 14 14		on) ¹⁹⁾	m³ i.N./h		260	000	
Starter battery Nominal voltage / power / capacity required V / kW / Ah 24 / 2 x 9 / x 9 / x 9 / x 9 / x 8 / x 9 / x 9 / x 8 / x 9 / x 9 / x 8 / x 9 / x 8 / x 9 / x 8 / x 9 / x 8 / x 8 / x 9 / x 8 / x 8 / x 9 / x 9 / x 8 / x 8 / x 8 / x 8 / x 9 / x 8 / x		i '		100	7	5	50
Starter battery Nominal voltage / power / capacity required V / kW / Ah 24 / 2 x 9 / x	Efficiency		%	-			-
Filling quantities							
Filling quantities Lube oil for engine dm³ 250 Coolant in engine dm³ 270 Coolant in mixture cooler dm³ 25 Heating water for plate heat exchanger ²⁰⁾ dm³ 25 Lube oil for gearbox dm³ 3 Fee gualation line By more and level ²⁰⁾ (I meter distance, free field) +3 dB(A) for total A-weighted level rance 86 125 250 Frequency B 63 125 250 Sound pressure level dB 84.8 90.5 90.0 Frequency Hz 100 200 400 Frequency dB 84.8 90.5 90.0 Sound pressure level dB 104.8 90.5 90.0 Sum of pressure level dB A 104.4 100 200 400 Sum of pressure levels dB A 104.4 104 104 104 104 104 104 104 104 104 104 104 <td>Nominal voltage / power / capacity required</td> <td></td> <td>V / kW / Ah</td> <td></td> <td>24 / 2</td> <td>x 9 /</td> <td></td>	Nominal voltage / power / capacity required		V / kW / Ah		24 / 2	x 9 /	
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Coolant in mixture cooler dm³ 25 Heating water for plate heat exchanger ²⁰⁾ dm³ Use oil for gearbox dm³ Use oil for gearbox dm³ Use oil for gearbox Use oil for for gearbox Use oil for for gearbox Use oil for			dm³		27	70	
Lube oil for gearbox dm³ Gas regulation line Nominal size / gas pressure min max. DN / mbar - mbar 100 / Engine sound level ²¹⁾ (1 meter distance, free field) +3 dB(A) for total A-weighted level tolerance Hz 63 125 250 Sound pressure level dB 84.8 90.5 90.0 Frequency Hz 1000 2000 4000 Sound pressure level dB 92.5 91.8 99.2 Lin dB 104.8 104.8 99.2 99.2 Sum of pressure levels dB A 104.4 <td>· · · · · · · · · · · · · · · · · · ·</td> <td></td> <td>dm³</td> <td></td> <td>2</td> <td>:5</td> <td></td>	· · · · · · · · · · · · · · · · · · ·		dm ³		2	:5	
Lube oil for gearbox dm³ Gas regulation line Nominal size / gas pressure min max. DN / mbar - mbar 100 / Engine sound level ²¹⁾ (1 meter distance, free field) +3 dB(A) for total A-weighted level tolerance Hz 63 125 250 Sound pressure level dB 84.8 90.5 90.0 Frequency Hz 1000 2000 4000 Sound pressure level dB 92.5 91.8 99.2 Lin dB 104.8 104.8 99.2 99.2 Sum of pressure levels dB A 104.4 <td>Heating water for plate heat exchanger 20)</td> <td></td> <td>dm³</td> <td></td> <td></td> <td></td> <td></td>	Heating water for plate heat exchanger 20)		dm ³				
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Frequency Hz 1000 2000 4000 Sound pressure level dB 92.5 91.8 99.2 Lin dB 104.8 104.8 104.4 <t< td=""><td>_ ' '</td><td></td><td></td><td></td><td></td><td></td><td>93.0</td></t<>	_ ' '						93.0
Sound pressure level dB 92.5 91.8 99.2 Lin dB 104.8 104.8 104.4							8000
Sum of pressure levels Lin dB 104.8 Sound power level dB A 104.4 Undampened exhaust noise ²¹⁾ (1 meter distance to outlet within 90°, free field) +3 dB(A) for total A-weighted level tolerance Frequency Hz 63 125 250 Sound pressure level dB 113.8 121.5 110.9 Frequency Hz 1000 2000 4000 Sound pressure level dB 99.5 98.7 95.3 Sum of pressure levels dB A 110.0	· · ·		dB				101.4
Sum of pressure levels dB A 104.4 Sound power level dB 124.1 Undampened exhaust noise 21) (1 meter distance to outlet within 90°, free field) +3 dB(A) for total A-weighted level tolerance Example 100 cm 125	Country production to to				55		
Sound power level dB 124.1 Undampened exhaust noise 21) (1 meter distance to outlet within 90°, free field) +3 dB(A) for total A-weighted level tolerance 125 250 Frequency Hz 63 125 250 Sound pressure level dB 113.8 121.5 110.9 Frequency Hz 1000 2000 4000 Sound pressure level dB 99.5 98.7 95.3 Lin dB 122.7 Sum of pressure levels dB A 110.0	Sum of pressure levels						
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Frequency Hz 63 125 250 Sound pressure level dB 113.8 121.5 110.9 Frequency Hz 1000 2000 4000 Sound pressure level dB 99.5 98.7 95.3 Lin dB 122.7 Sum of pressure levels dB A 110.0		outlet within 90°, free field) +3			e		
Sound pressure level dB 113.8 121.5 110.9 Frequency Hz 1000 2000 4000 Sound pressure level dB 99.5 98.7 95.3 Lin dB 122.7 Sum of pressure levels dB A 110.0	•	Tanana da , maa malay 10	` '			250	500
Frequency Hz 1000 2000 4000 Sound pressure level dB 99.5 98.7 95.3 Lin dB 122.7 Sum of pressure levels dB A 110.0	· ·						107.3
Sound pressure level dB 99.5 98.7 95.3 Lin dB 122.7 Sum of pressure levels dB A 110.0							8000
Lin dB 122.7 Sum of pressure levels dB A 110.0	· · ·						82.5
Sum of pressure levels dB A 110.0	Oduna pressure level				30.1	33.3	02.3
	Sum of pressure levels						
	·						
Dimensions (aggregate)			UD	122.9			

mm

mm

mm

kg

- 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 %
- 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

Lenath

Width

Height

Gross weight (dry weight)

Combustion air temperature

Mixture cooler coolant temperature (in)

Boundary conditions and consumables

Power derating
Altitude

Methane number

- 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)
- 13) 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)

EDAM / EDAT

~ 5900

~ 2100

~ 2300 ~ 19750 (~ 19000)

specific to the project

specific to the project

specific to the project

specific to the project

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