

SIEMENS	GROUP	GAS	PRODUCT INFORMATION	INDEX
	IC		IC-G-B-24-110	G
	POWER RATING			DATE
				25/01/19
			DEP.	2

GENSET:	SGE-24HM	SPEED:	1800
JACKET WATER TEMPERATURE(°C):	90	FUEL TYPE:	NATURAL GAS
INTERCOOLER WATER TEMP(°C):	55		

SERVICE:	CONTINUOUS	COMPRESSION RATIO:	11,8:1
COOLING SYSTEM:	TWO CIRCUITS	REGULATION:	Electronic
	Oilcooler in main circuit	IGNITION TIMING:	16°
EXHAUST MANIFOLD TYPE:	DRY	MAX. BACK PRESSURE:	450 mmH2O
EMISSIONS:		AMBIENT CONDITIONS ISO 3046/1:	
	NO _x mg/Nm3(8)		Atmospheric pressure (kPa)= 100
	CO mg/Nm3(8)		Ambient temperature (°C)= 25
	NMHC mg/Nm3(8)		Relative humidity (%)= 30
	CH ₄ mg/Nm3(8)		
	CO ₂ kg/h (1)		

POWER RATING (4)		NOMINAL	PARTIAL LOADS			
LOAD			80%	60%	40%	
MECHANICAL POWER	(3, 4, 5)	kWb	522	418	313	209
BMEP		bar	14.5	11.6	8.7	5.8
ELECTRICAL POWER (cosφ 1)	(9)	kWe	501	400	298	195
ELECTRICAL POWER (cosφ 0,8)	(9)	kWe	495	395	294	193
FUEL CONSUMPTION	(1)	kW	1268	1038	810	579
MECHANICAL EFFICIENCY		%	41.2	40.3	38.6	36.1
ELECTRICAL EFFICIENCY (cosφ 1)	(9)	%	39.5	38.5	36.8	33.7
HEAT IN MAIN WATER CIRCUIT	(1)	kW	220	197	179	152
HEAT IN SECONDARY WATER CIRCUIT	(1)	kW	102	66	34	10
HEAT IN CHARGE COOLER	(1)	kW	102	66	34	10
HEAT IN OIL COOLER	(1)	kW	***	***	***	***
HEAT IN EXHAUST GASES (25 °C)	(1)	kW	384	325	258	188
HEAT IN EXHAUST GASES (120°C)	(1)	kW	305	261	209	153
EXHAUST GAS TEMPERATURE	(1)	°C	485	505	523	541
HEAT TO RADIATION	(1)	kW	40	32	26	20

CARBURETION SETTINGS (2)					
O ₂ TO EXHAUST(DRY)(ONLY A REFERENCE)	%	9.2	9.0	8.7	8.4

MASS FLOWS						
INTAKE AIR FLOW	(1)	kg/h	2520	2040	1560	1100
EXHAUST GAS FLOW (WET)	(1)	kg/h	2610	2120	1620	1140

NOTES:
1. ALL VALUES ASUME LHV OF THE GAS. 100% LOAD TOLERANCES: FUEL CONSUMPTION +5%, COOLING CIRCUIT AND EXHAUST GASES ± 8%, RADIATION ±25% EXHAUST TEMPERATURE ±20°C, MASS FLOWS ± 10% (ALSO FOR CO2 FLOW IN EXHAUST).
2. THE ENGINE PERFORMANCE DATA, TIMING ADVANCE AND CARBURETION SETTINGS ARE VALID FOR A GAS THAT FULFILLS THE REQUIREMENTS DEFINED IN IC-G-D-30-001e AND IC-G-D-30-002e
3. NET POWER, MECHANICAL PUMPS NOT INCLUDED.
4. POWERS ARE VALID FOR AMBIENT TEMP.=25°C AND AN ALTITUDE OF =500 m. SEE OTHER CONDITIONS IN PI IC-G-B-00-005
5. OVERLOAD NOT ALLOWED. IT IS NOT RECOMMENDED TO OPERATE BELOW 40% LOAD DURING LONG TIME.
6. THE SPECIFICATIONS AND MATERIALS ARE SUBJECT TO CHANGE WITHOUT NOTIFICATION
7. A ENGINE WITH INLET OR OUTPUT RESTRICTION OVER PUBLISHED LIMITS, OR WITH INADEQUATE MAINTENANCE OR INSTALLATION CAN MODIFY POWER RATING DATA.
8. EMISSIONS ARE CORRECTED TO 5% OF O2. EMISSIONS ACCORDING TO D1 CYCLE IS 8178-4.
9. ALTERNATOR VOLTAGE 480 V
10. ONLY IN PARALLEL TO THE GRID OPERATION

CODE3.5	6/18/2019	Cod.: C-A	Elab:	Prov34	Versión: 9.1/28/01/2019	1/1
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