

SIEMENS	GROUP	GAS	PRODUCT INFORMATION	INDEX
	IC		IC-G-B-42-009	C
	POWER RATING			DATE 17/11/17

GENSET:	SGE-42HM	SPEED:	1800
JACKET WATER TEMPERATURE(°C):	90	FUEL TYPE:	NATURAL GAS
INTERCOOLER WATER TEMP(°C):	55		

SERVICE:	CONTINUOUS	COMPRESSION RATIO:	11,9:1
COOLING SYSTEM:	TWO CIRCUITS	REGULATION:	Electronic
EXHAUST MANIFOLD TYPE:	TWO STAGE IC	IGNITION TIMING:	18º
EMISSIONS:	DRY	MAX. BACK PRESSURE:	450 mmH2O
	NO _x mg/Nm3(8)	500	AMBIENT CONDITIONS ISO 3046/1:
	CO mg/Nm3(8)	<1100	Atmospheric pressure (kPa)=
	NMHC mg/Nm3(8)	<350	Ambient temperature (°C)=
	CH ₄ mg/Nm3(8)	<1600	Relative humidity (%)=
	CO ₂ kg/h (1)	499	

POWER RATING (4)		NOMINAL	PARTIAL LOADS		
LOAD	%	100%	80%	60%	40%
MECHANICAL POWER	(3, 4, 5) kWb	1040	832	624	416
BMEP	bar	16.5	13.2	9.9	6.6
ELECTRICAL POWER (cosφ 1)	(9) kWe	1007	805	601	395
ELECTRICAL POWER (cosφ 0,8)	(9) kWe	997	798	597	393
FUEL CONSUMPTION	(1) kW	2498	2058	1601	1141
MECHANICAL EFFICIENCY	%	41.6	40.4	39.0	36.5
ELECTRICAL EFFICIENCY (cosφ 1)	(9) %	40.3	39.1	37.5	34.6
HEAT IN MAIN WATER CIRCUIT	(1) kW	492	399	307	228
HEAT IN SECONDARY WATER CIRCUIT	(1) kW	175	152	129	98
HEAT IN CHARGE COOLER	(1) kW	62	49	36	25
HEAT IN OIL COOLER	(1) kW	113	103	93	73
HEAT IN EXHAUST GASES (25 °C)	(1) kW	721	617	495	364
HEAT IN EXHAUST GASES (120°C)	(1) kW	562	487	396	295
EXHAUST GAS TEMPERATURE	(1) °C	455	476	500	532
HEAT TO RADIATION	(1) kW	70	58	46	35

CARBURETION SETTINGS (2)		NOMINAL	80%	60%	40%
O ₂ TO EXHAUST(DRY)(ONLY A REFERENCE)	%	9.6	9.5	9.2	8.9

MASS FLOWS		NOMINAL	80%	60%	40%
INTAKE AIR FLOW	(1) kg/h	5060	4120	3140	2160
EXHAUST GAS FLOW (WET)	(1) kg/h	5240	4280	3260	2240

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. VALID IN ISLAND OPERATION

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