

SIEMENS	GROUP	GAS	PRODUCT INFORMATION	INDEX
	IC		IC-G-B-56-076	D
	POWER RATING			DATE 17/11/16

GENSET:	SGE-56HM	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)=	100
	NMHC mg/Nm3(8) <350	Ambient temperature (°C)=	25
	CH ₄ mg/Nm3(8) <1600	Relative humidity (%)=	30
	CO ₂ kg/h (1) 651		

POWER RATING (4)		NOMINAL	PARTIAL LOADS		
LOAD	%	100%	80%	60%	40%
MECHANICAL POWER (3, 4, 5)	kWb	1350	1080	810	540
BMEP	bar	16.1	12.9	9.6	6.4
ELECTRICAL POWER (cosφ 1)	kWe (9)	1305	1043	778	513
ELECTRICAL POWER (cosφ 0,8)	kWe (9)	1292	1034	773	510
FUEL CONSUMPTION	kW (1)	3259	2663	2086	1479
MECHANICAL EFFICIENCY	%	41.4	40.6	38.8	36.5
ELECTRICAL EFFICIENCY (cosφ 1)	% (9)	40.0	39.2	37.3	34.7
HEAT IN MAIN WATER CIRCUIT	kW (1)	610	479	378	266
HEAT IN SECONDARY WATER CIRCUIT	kW (1)	233	203	172	150
HEAT IN CHARGE COOLER	kW (1)	86	64	45	33
HEAT IN OIL COOLER	kW (1)	147	139	127	117
HEAT IN EXHAUST GASES (25 °C)	kW (1)	982	837	676	484
HEAT IN EXHAUST GASES (120°C)	kW (1)	773	667	546	393
EXHAUST GAS TEMPERATURE	°C (1)	470	492	516	530
HEAT TO RADIATION	kW (1)	84	64	50	39

CARBURETION SETTINGS (2)					
O ₂ TO EXHAUST(DRY)(ONLY A REFERENCE)	%	9.5	9.3	9.2	8.7

MASS FLOWS					
INTAKE AIR FLOW	kg/h (1)	6660	5410	4150	2890
EXHAUST GAS FLOW (WET)	kg/h (1)	6900	5600	4310	3000

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