

SIEMENS	GROUP	GAS	PRODUCT INFORMATION	INDEX
	IC		IC-G-B-48-107	D1
	POWER RATING			DATE
			DEF.	2

GENSET:	SGE-48SL	SPEED:	1800
JACKET WATER TEMPERATURE(°C):	90	FUEL TYPE:	NATURAL GAS
INTERCOOLER WATER TEMP(°C):	55		

SERVICE:	CONTINUOUS	COMPRESSION RATIO:	11,6:1
COOLING SYSTEM:	TWO CIRCUITS	REGULATION:	Electronic
EXHAUST MANIFOLD TYPE:	TWO STAGE IC	IGNITION TIMING:	12°
EMISSIONS:	DRY	MAX. BACK PRESSURE:	450 mmH2O
	NO _x mg/Nm3(8) 450	AMBIENT CONDITIONS ISO 3046/1:	
	CO mg/Nm3(8) <1000	Atmospheric pressure (kPa)=	100
	NMHC mg/Nm3(8) <300	Ambient temperature (°C)=	25
	CH ₄ mg/Nm3(8) <1200	Relative humidity (%)=	30
	CO ₂ kg/h (1) 484		

POWER RATING (4)		NOMINAL	PARTIAL LOADS		
LOAD	%	100%	80%	60%	40%
MECHANICAL POWER (3, 4, 5)	kWb	906	725	544	362
BMEP	bar	12.6	10.1	7.6	5.0
ELECTRICAL POWER (cosφ 1) (9)	kWe	874	696	519	340
ELECTRICAL POWER (cosφ 0,8) (9)	kWe	865	691	516	338
FUEL CONSUMPTION (1)	kW	2386	1959	1533	1116
MECHANICAL EFFICIENCY	%	38.0	37.0	35.5	32.4
ELECTRICAL EFFICIENCY (cosφ 1) (9)	%	36.6	35.5	33.9	30.5
HEAT IN MAIN WATER CIRCUIT (1)	kW	466	377	300	244
HEAT IN SECONDARY WATER CIRCUIT (1)	kW	159	151	133	101
HEAT IN CHARGE COOLER (1)	kW	54	48	38	17
HEAT IN OIL COOLER (1)	kW	105	103	95	84
HEAT IN EXHAUST GASES (25 °C) (1)	kW	819	673	527	386
HEAT IN EXHAUST GASES (120°C) (1)	kW	672	555	436	320
EXHAUST GAS TEMPERATURE (1)	°C	555	565	575	585
HEAT TO RADIATION (1)	kW	36	33	29	23

CARBURETION SETTINGS (2)					
O ₂ TO EXHAUST(DRY)(ONLY A REFERENCE)	%	8.3	8.2	8.0	7.8

MASS FLOWS					
INTAKE AIR FLOW (1)	kg/h	4660	3750	2880	2070
EXHAUST GAS FLOW (WET) (1)	kg/h	4830	3900	2990	2150

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-00-001					
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					

CODE3	5/27/2019	Cod.: C-A	Elab:	Prov34	Versión: 9.1/28/01/2019	1/1
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