

GROUP	GAS	PRODUCT INFORMATION	INDEX
IC		IC-G-B-56-168	C1
POWER RATING		DATE	
		17/11/2016	
		DEP.	2

GENSET:	SGE-56SL	SPEED:	1500
JACKET WATER TEMPERATURE (°C):	90	FUEL TYPE:	NATURAL GAS
INTERCOOLER WATER TEMP (°C)	40		
APPLICATION	CONTINUOUS	COMPRESSION RATIO:	12,3:1
COOLING SYSTEM:	TWO CIRCUITS	REGULATION:	Electronic
	TWO STAGE IC	IGNITION TIMING:	15°
EXHAUST MANIFOLD TYPE:	WATER COOLED	MAX. BACK PRESSURE:	450 mmH2O
EMISSIONS:		AMBIENT CONDITIONS ISO 3046/1:	
	NOX mg/Nm3(8) 500	Atmospheric pressure (kPa)=	100
	CO mg/Nm3(8) <800	Ambient temperature (°C)=	25
	NMHC mg/Nm3(8) <300	Relative humidity (%)=	30
	CH4 mg/Nm3(8) <1200		
	CO2 kg/h (1) 522		

POWER RATING (4)			NOMINAL	PARTIAL LOADS		
LOAD		%	100%	80%	60%	40%
MECHANICAL POWER (3,4,5)	kWb		1030	824	618	412
BMEP	bar		14,7	11,8	8,8	5,9
ELECTRICAL POWER (cosφ 1)	kWe		1001	801	600	397
ELECTRICAL POWER (cosφ 0,8)	kWe		990	793	596	395
FUEL CONSUMPTION (1)	kW		2575	2115	1678	1222
MECHANICAL EFFICIENCY	%		40,0	39,0	36,8	33,7
ELECTRICAL EFFICIENCY (COSφ 1)	%		38,9	37,9	35,8	32,5
HEAT IN MAIN WATER CIRCUIT (1)	kW		739	606	492	381
HEAT IN SECONDARY WATER CIRCUIT (1)	kW		174	157	142	111
HEAT IN CHARGE COOLER (1)	kW		71	59	48	27
HEAT IN OIL COOLER (1)	kW		103	98	94	84
HEAT IN EXHAUST GASES (25 °C) (1)	kW		597	498	401	298
HEAT IN EXHAUST GASES (120 °C) (1)	kW		444	373	302	226
EXHAUST GAS TEMPERATURE (1)	°C		396	404	412	422
HEAT TO RADIATION (1)	kW		35	30	25	20
CARBURETION SETTINGS (2)						
O2 TO EXHAUST(DRY)(ONLY A REFERENCE)	%		8,8	8,6	8,4	8,1
MASS FLOWS						
INTAKE AIR FLOW (1)	kg/h		4840	3950	3120	2250
EXHAUST GAS FLOW (WET) (1)	kg/h		5030	4100	3240	2340

NOTES

- 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).
- 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
- NET POWER, MECHANICAL PUMPS NOT INCLUDED.
- POWERS ARE VALID FOR AMBIENT TEMP.=25°C AND AN ALTITUDE OF =500 m. SEE OTHER CONDITIONS IN PI IC-G-B-00-001
- OVERLOAD NOT ALLOWED. IT IS NOT RECOMMENDED TO OPERATE BELOW 40% LOAD DURING LONG TIME.
- THE SPECIFICATIONS AND MATERIALS ARE SUBJECT TO CHANGE WITHOUT NOTIFICATION
- A ENGINE WITH INLET OR OUTPUT RESTRICTION OVER PUBLISHED LIMITS, OR WITH INADEQUATE MAINTENANCE OR INSTALLATION CAN MODIFY POWER RATING DATA.
- EMISSIONS ARE CORRECTED TO 5% OF O2. EMISSIONS ACCORDING TO D1 CYCLE IS 8178-4. (0°C and 1013 mbar)
- ALTERNATOR VOLTAGE 400 V