

GROUP	GAS	PRODUCT INFORMATION	INDEX
IC		IC-G-B-56-332	B
POWER RATING		DATE	
		21/08/2020	
		DEP.	2

GENSET:	SGE-56HM	SPEED:	1500
JACKET WATER TEMPERATURE (°C):	90	FUEL TYPE:	NATURAL GAS
INTERCOOLER WATER TEMP (°C)	55		

APPLICATION	CONTINUOUS	COMPRESSION RATIO:	11,9:1
COOLING SYSTEM:	TWO CIRCUITS	REGULATION:	Electronic
	TWO STAGE IC	IGNITION TIMING:	18°
EXHAUST MANIFOLD TYPE:	DRY	MAX. BACK PRESSURE:	450 mmH2O
EMISSIONS:		AMBIENT CONDITIONS ISO 3046/1:	
	NOX mg/Nm3(8)	1000	Atmospheric pressure (kPa)= 100
	CO mg/Nm3(8)	<1000	Ambient temperature (°C)= 25
	NMHC mg/Nm3(8)	<450	Relative humidity (%)= 30
	CH4 mg/Nm3(8)	<2200	
	CO2 kg/h (1)	619	

POWER RATING (4)			NOMINAL	PARTIAL LOADS		
LOAD		%	100%	80%	60%	40%
MECHANICAL POWER (3,4,5)	kWb		1350	1080	810	540
BMEP	bar		19,3	15,4	11,6	7,7
ELECTRICAL POWER (cosφ 1)	kWe		1315	1053	789	523
ELECTRICAL POWER (cosφ 0,8)	kWe		1299	1042	782	519
FUEL CONSUMPTION (1)	kW		3099	2517	1935	1346
MECHANICAL EFFICIENCY	%		43,6	42,9	41,9	40,1
ELECTRICAL EFFICIENCY (COSφ 1)	%		42,4	41,8	40,8	38,9
HEAT IN MAIN WATER CIRCUIT (1)	kW		578	433	303	172
HEAT IN SECONDARY WATER CIRCUIT (1)	kW		232	199	176	150
HEAT IN CHARGE COOLER (1)	kW		90	66	51	37
HEAT IN OIL COOLER (1)	kW		142	133	125	113
HEAT IN EXHAUST GASES (25 °C) (1)	kW		838	713	564	414
HEAT IN EXHAUST GASES (120 °C) (1)	kW		639	551	442	331
EXHAUST GAS TEMPERATURE (1)	°C		424	444	464	496
HEAT TO RADIATION (1)	kW		101	92	82	70

CARBURETION SETTINGS (2)						
O2 TO EXHAUST(DRY)(ONLY A REFERENCE)		%	9,7	9,6	9,4	9,2

MASS FLOWS						
INTAKE AIR FLOW (1)		kg/h	6340	5140	3870	2650
EXHAUST GAS FLOW (WET) (1)		kg/h	6570	5320	4020	2750

- 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-00-005
 - 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. EMSSIONS ACCORDING TO D1 CYCLE IS 8178-4. (0°C and 1013 mbar)
 - ALTERNATOR VOLTAGE 400 V
 - OPERATING VALUES IN PARALLEL NETWORK APPLICATIONS. LOAD ACCEPTANCE FOR ISLAND OPERATION ACORDING TO IC-G-B-00-012.