

SIEMENS	GROUP	GAS	PRODUCT INFORMATION	INDEX
	IC		IC-G-B-42-055	1
	POWER RATING			DATE
			20/12/16	
			DEP.	2

GENSET:	SGE-42 HM	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
EXHAUST MANIFOLD TYPE:	TWO STAGE IC / Oilcooler in main circuit	IGNITION TIMING:	18°
EMISSIONS:	DRY	MAX. BACK PRESSURE:	450 mmH2O
	NO_x mg/Nm3(8) 500	AMBIENT CONDITIONS ISO 3046/1:	
	CO mg/Nm3(8) <1000	Atmospheric pressure (kPa)=	100
	NMHC mg/Nm3(8) <300	Ambient temperature (°C)=	25
	CH₄ mg/Nm3 (8) <1600	Relative humidity (%)=	30
	CO₂ kg/h (1) 470		

POWER RATING (4)			NOMINAL	PARTIAL LOADS		
LOAD		%	100%	80%	60%	40%
MECHANICAL POWER	(3, 4, 5)	kWb	1040	832	624	416
BMEP		bar	19,8	15,8	11,9	7,9
ELECTRICAL POWER (cosφ 1)		kWe	1011	809	606	401
ELECTRICAL POWER (cosφ 0,8)		kWe	1000	801	601	399
FUEL CONSUMPTION	(1)	kW	2351	1919	1492	1055
MECHANICAL EFFICIENCY		%	44,2	43,4	41,8	39,4
ELECTRICAL EFFICIENCY (cosφ 1)		%	43,0	42,2	40,6	38,0
HEAT IN MAIN WATER CIRCUIT	(1)	kW	550	451	364	272
HEAT IN SECONDARY WATER CIRCUIT	(1)	kW	63	49	35	23
HEAT IN CHARGE COOLER	(1)	kW	63	49	35	23
HEAT IN OIL COOLER	(1)	kW	***	***	***	***
HEAT IN EXHAUST GASES (25 °C)	(1)	kW	628	529	423	309
HEAT IN EXHAUST GASES (120°C)	(1)	kW	477	408	330	246
EXHAUST GAS TEMPERATURE	(1)	°C	422	440	459	490
HEAT TO RADIATION	(1)	kW	70	58	46	35
CARBURETION SETTINGS (2)						
O ₂ TO EXHAUST(DRY)(ONLY A REFERENCE)		%	9,8	9,7	9,5	9,1
MASS FLOWS						
INTAKE AIR FLOW	(1)	kg/h	4770	3850	2940	2000
EXHAUST GAS FLOW (WET)	(1)	kg/h	4940	3990	3050	2080

NOTES:
1. 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 OF METHANE NUMBER >80 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
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 400 V
10. ONLY IN PARALLEL TO THE NET OPERATION

CODES	20-3-2017	Cod.: C-A	Elab:	cli02	Versión: 35/30/11/2016	1/1
--------------	-----------	-----------	-------	-------	------------------------	-----