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|----------------|---------------------|------------|----------------------|-------------------------|
| SIEMENS | GROUP | GAS | PRODUCT INFORMATION | INDEX |
| | IC | | IC-G-B-56-171 | E |
| | POWER RATING | | | DATE 21/02/18 |

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|--------------------------------------|-----------------|-------------------|--------------------|
| GENSET: | SGE-56SL | SPEED: | 1800 |
| JACKET WATER TEMPERATURE(°C): | 90 | FUEL TYPE: | NATURAL GAS |
| INTERCOOLER WATER TEMP(°C): | 55 | | |

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|------------------------|---|--------------------------------|-------------------|
| SERVICE: | CONTINUOUS | COMPRESSION RATIO: | 12,3:1 |
| COOLING SYSTEM: | TWO CIRCUITS | REGULATION: | Electronic |
| EXHAUST MANIFOLD TYPE: | TWO STAGE IC | IGNITION TIMING: | 16° |
| EMISSIONS: | WATER COOLED | MAX. BACK PRESSURE: | 450 mmH2O |
| | NO _x mg/Nm3(8) 225 | AMBIENT CONDITIONS ISO 3046/1: | |
| | CO mg/Nm3(8) <800 | Atmospheric pressure (kPa)= | 100 |
| | NMHC mg/Nm3(8) <350 | Ambient temperature (°C)= | 25 |
| | CH ₄ mg/Nm3(8) <1400 | Relative humidity (%)= | 30 |
| | CO ₂ kg/h (1) 588 | | |

| POWER RATING (4) | | NOMINAL | PARTIAL LOADS | | |
|-------------------------------------|-----|-------------|---------------|------|------|
| LOAD | % | 100% | 80% | 60% | 40% |
| MECHANICAL POWER (3, 4, 5) | kWb | 1067 | 854 | 640 | 427 |
| BMEP | bar | 12.7 | 10.2 | 7.6 | 5.1 |
| ELECTRICAL POWER (cosφ 1) | kWe | 1030 | 822 | 613 | 404 |
| ELECTRICAL POWER (cosφ 0,8) | kWe | 1018 | 815 | 609 | 402 |
| FUEL CONSUMPTION (1) | kW | 2900 | 2357 | 1853 | 1358 |
| MECHANICAL EFFICIENCY | % | 36.8 | 36.2 | 34.5 | 31.4 |
| ELECTRICAL EFFICIENCY (cosφ 1) | % | 35.5 | 34.9 | 33.1 | 29.7 |
| HEAT IN MAIN WATER CIRCUIT (1) | kW | 858 | 689 | 544 | 424 |
| HEAT IN SECONDARY WATER CIRCUIT (1) | kW | 158 | 141 | 129 | 109 |
| HEAT IN CHARGE COOLER (1) | kW | 53 | 40 | 33 | 21 |
| HEAT IN OIL COOLER (1) | kW | 105 | 101 | 96 | 88 |
| HEAT IN EXHAUST GASES (25 °C) (1) | kW | 778 | 640 | 513 | 376 |
| HEAT IN EXHAUST GASES (120°C) (1) | kW | 597 | 494 | 400 | 295 |
| EXHAUST GAS TEMPERATURE (1) | °C | 433 | 442 | 455 | 468 |
| HEAT TO RADIATION (1) | kW | 39 | 33 | 27 | 22 |

| CARBURETION SETTINGS (2) | | | | | |
|--|---|-----|-----|-----|------|
| O ₂ TO EXHAUST(DRY)(ONLY A REFERENCE) | % | 9.5 | 9.3 | 9.1 | 87.9 |
| | | | | | |

| MASS FLOWS | | | | | |
|----------------------------|------|------|------|------|------|
| INTAKE AIR FLOW (1) | kg/h | 5740 | 4630 | 3590 | 2550 |
| EXHAUST GAS FLOW (WET) (1) | kg/h | 5960 | 4800 | 3730 | 2650 |
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| 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 AT 100% LOAD |
| 9. ALTERNATOR VOLTAGE 480 V |
| 10. ONLY IN PARALLEL TO THE GRID OPERATION |

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