



|              |     |                     |       |
|--------------|-----|---------------------|-------|
| GROUP        | GAS | PRODUCT INFORMATION | INDEX |
| IC           |     | IC-G-B-42-062       |       |
| POWER RATING |     | DATE                |       |
|              |     | 31/08/2017          |       |
|              |     | DEP.                | 2     |

**GENSET:** **SGE-42HM** **SPEED:** **1500**

**JACKET WATER TEMPERATURE (°C):** 90 **FUEL TYPE:** **NATURAL GAS**  
**INTERCOOLER WATER TEMP (°C)** 55

|                        |                               |                                |                   |
|------------------------|-------------------------------|--------------------------------|-------------------|
| APPLICATION            | <b>CONTINUOUS</b>             | COMPRESSION RATIO:             | <b>11,9:1</b>     |
| COOLING SYSTEM:        | <b>TWO CIRCUITS</b>           | REGULATION:                    | <b>Electronic</b> |
|                        | <b>TWO STAGE IC</b>           | IGNITION TIMING:               | <b>16°</b>        |
| EXHAUST MANIFOLD TYPE: | <b>DRY</b>                    | MAX. BACK PRESSURE:            | <b>450 mmH2O</b>  |
| EMISSIONS:             |                               | AMBIENT CONDITIONS ISO 3046/1: |                   |
|                        | NOX mg/Nm3(8) <b>1000</b>     | Atmospheric pressure (kPa)=    | <b>100</b>        |
|                        | CO mg/Nm3(8) <b>&lt;1000</b>  | Ambient temperature (°C)=      | <b>25</b>         |
|                        | NMHC mg/Nm3(8) <b>&lt;300</b> | Relative humidity (%)=         | <b>30</b>         |
|                        | CH4 mg/Nm3(8) <b>&lt;1600</b> |                                |                   |
|                        | CO2 kg/h (1) <b>475</b>       |                                |                   |

**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  | 605  | 401  |
| ELECTRICAL POWER (cosφ 0,8)         | kWe | 1000 | 801  | 601  | 399  |
| FUEL CONSUMPTION (1)                | kW  | 2377 | 1945 | 1508 | 1057 |
| MECHANICAL EFFICIENCY               | %   | 43,8 | 42,8 | 41,4 | 39,4 |
| ELECTRICAL EFFICIENCY (COSφ 1)      | %   | 42,5 | 41,6 | 40,1 | 37,9 |
| HEAT IN MAIN WATER CIRCUIT (1)      | kW  | 442  | 349  | 267  | 173  |
| HEAT IN SECONDARY WATER CIRCUIT (1) | kW  | 184  | 163  | 139  | 121  |
| HEAT IN CHARGE COOLER (1)           | kW  | 64   | 51   | 36   | 25   |
| HEAT IN OIL COOLER (1)              | kW  | 120  | 112  | 103  | 96   |
| HEAT IN EXHAUST GASES (25 °C) (1)   | kW  | 643  | 545  | 434  | 315  |
| HEAT IN EXHAUST GASES (120 °C) (1)  | kW  | 493  | 423  | 341  | 252  |
| EXHAUST GAS TEMPERATURE (1)         | °C  | 431  | 450  | 469  | 499  |
| HEAT TO RADIATION (1)               | kW  | 68   | 56   | 44   | 32   |

**CARBURETION SETTINGS (2)**

|                                      |   |     |     |     |     |
|--------------------------------------|---|-----|-----|-----|-----|
| O2 TO EXHAUST(DRY)(ONLY A REFERENCE) | % | 9,4 | 9,3 | 9,1 | 8,7 |
|--------------------------------------|---|-----|-----|-----|-----|

**MASS FLOWS**

|                            |      |      |      |      |      |
|----------------------------|------|------|------|------|------|
| INTAKE AIR FLOW (1)        | kg/h | 4780 | 3860 | 2940 | 2000 |
| EXHAUST GAS FLOW (WET) (1) | kg/h | 4950 | 4010 | 3050 | 2080 |

**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
- VALID IN ISLAND OPERATION