

# MEG 725 NS Technical Data

| Engine Information           |                 |               |
|------------------------------|-----------------|---------------|
| Siemens Engine ID            |                 | IC-G-B-56-199 |
| Model Number                 |                 | SGE-56SL      |
| RPM                          |                 | 1200          |
| Fuel Type                    |                 | Natural gas   |
| Aspiration & NO <sub>x</sub> | <i>g/bhp-hr</i> | Lean, 0.5     |
| Supply Fuel Pressure         | <i>psi</i>      | 3-5           |

| Generator Information    |            |        |
|--------------------------|------------|--------|
| Newage Model             |            | PI736D |
| 105°C rise NEMA-F rating | <i>kWe</i> | 852    |
| KVA                      |            | 729    |
| Voltage                  |            | 480    |
| Frequency                | <i>Hz</i>  | 60     |
| Power Factor             |            | 1.0    |

| Engine Performance |                  | Unit       | 100%      | 75%       | 50%       |
|--------------------|------------------|------------|-----------|-----------|-----------|
| Electrical Power   |                  | kWe        | 729       | 545       | 361       |
| Mechanical Power   |                  | bHP        | 1,006     | 755       | 503       |
| Exhaust Flow       |                  | lb/h       | 9,100     | 6,940     | 4,749     |
| Exhaust Temp       |                  | °F         | 653       | 677       | 709       |
| Heat to Radiation  | <i>(Ambient)</i> | BTU/h      | 109,200   | 98,940    | 88,740    |
| Fuel Consumption   | <i>(LHV)</i>     | BTU/h      | 6,537,994 | 4,995,545 | 3,464,161 |
| Fuel Consumption   | <i>(LHV)</i>     | BTU/bHP-hr | 6,499     | 6,621     | 6,887     |
| Fuel Consumption   | <i>(LHV)</i>     | BTU/kWh    | 8,973     | 9,161     | 9,597     |

| Energy Balance                 |              |       |           |           |           |
|--------------------------------|--------------|-------|-----------|-----------|-----------|
| Total Primary Heat Recovered   |              | BTU/h | 3,246,643 | 2,567,104 | 1,915,996 |
| Total Secondary Heat Recovered |              | BTU/h | 0         | 0         | 0         |
| Total Steam Recovered          |              | BTU/h | 0         | 0         | 0         |
| Total Heat Recovered           |              | BTU/h | 3,246,643 | 2,567,104 | 1,915,996 |
| Electrical Efficiency          | <i>(LHV)</i> | %     | 38.03%    | 37.25%    | 35.55%    |
| Thermal Efficiency             | <i>(LHV)</i> | %     | 49.66%    | 51.39%    | 55.31%    |
| Total Efficiency               | <i>(LHV)</i> | %     | 87.68%    | 88.64%    | 90.86%    |

| Primary Circuit <i>Water</i> |  |     |     |     |     |
|------------------------------|--|-----|-----|-----|-----|
| Process Water Flow           |  | GPM | 333 | 263 | 197 |
| Process Water Temp Inlet     |  | °F  | 170 | 170 | 170 |
| Process Water Temp Outlet    |  | °F  | 190 | 190 | 190 |

| Secondary Circuit <i>None</i> |  |     |   |   |   |
|-------------------------------|--|-----|---|---|---|
| Secondary Water Flow          |  | GPM | 0 | 0 | 0 |
| Secondary Water Temp Inlet    |  | °F  | 0 | 0 | 0 |
| Secondary Water Temp Outlet   |  | °F  | 0 | 0 | 0 |

| Steam Production |  |      |     |     |     |
|------------------|--|------|-----|-----|-----|
| Steam Produced   |  | lb/h | N/A | N/A | N/A |

| Engine HT Circuit <i>50% Ethylene glycol</i> |                         |       |           |           |           |
|--|-------------------------|-------|-----------|-----------|-----------|
| Jacket Water Heat                            |                         | BTU/h | 2,262,000 | 1,770,900 | 1,328,331 |
| Exhaust Heat                                 | <i>cooled to 248 °F</i> | BTU/h | 984,643   | 796,204   | 587,665   |
| Oil Cooler Heat                              |                         | BTU/h | 0         | 0         | 0         |
| HT Radiator Rejection                        |                         | BTU/h | 0         | 0         | 0         |
| Jacket Water Temp Inlet                      |                         | °F    | 177       | 181       | 184       |
| Jacket Water Temp Outlet                     |                         | °F    | 194       | 194       | 194       |
| Jacket Water Flowrate                        |                         | GPM   | 308       | 308       | 308       |

| Engine LT Circuit <i>50% Ethylene glycol</i> |  |       |          |          |         |
|--|--|-------|----------|----------|---------|
| Intercooler Heat                             |  | BTU/h | 163,800  | 106,650  | 54,719  |
| LT Radiator Rejection                        |  | BTU/h | -163,800 | -106,650 | -54,719 |
| Intercooler Water Temp Inlet                 |  | °F    | 128      | 129      | 130     |
| Intercooler Water Temp Outlet                |  | °F    | 131      | 131      | 131     |
| Intercooler Water Flowrate                   |  | GPM   | 120      | 120      | 120     |

| Radiator Specifications | % Oversize | Capacity BTU/h | Ambient | Altitude | Voltage |
|-------------------------|------------|----------------|---------|----------|---------|
| HT Radiator             | 10         | 2,488,200      | 105 °F  | 1,000 ft | 480     |
| LT Radiator             | 25         | 204,750        |         |          |         |

### Notes

Energy balance data is stated at ISO 3046-1 conditions

MEGpro v4.0.9.13

**Issue Date**  
7/13/2018