

# MEG 285NM Technical data



|                                    |       |       |
|------------------------------------|-------|-------|
| Frequency                          | Hz    | 60    |
| Continuous Electric Output @ 1.0pf | kWe   | 285   |
| Mechanical Power                   | bhp   | 260   |
| Max Permissible Oil Consumption    | lb/hr | 0.265 |

| Engine Information |              |  |
|--------------------|--------------|--|
| Manufacturer       | MAN          |  |
| Model number       | E 3262 E 302 |  |
| Fuel type          | Natural Gas  |  |
| Aspiration         | Rich         |  |
| Cylinders          | V12          |  |
| Min Methane Number | 80           |  |
| RPM                | 1800         |  |

| Generator Information |                      |
|-----------------------|----------------------|
| Manufacturer          | Stamford             |
| Model Number          | HCI434E              |
| Class - Temp Rise     | Cont. F - 105°F Rise |
| Voltage               | 480                  |
| Phase                 | 3                    |
| Ingress protection    | IP23                 |
| Insulation class      | H                    |

| Energy Balance                             |          |            | 100%      | 75%       | 50%       |
|--------------------------------------------|----------|------------|-----------|-----------|-----------|
| Electrical Power Output @ 1.0PF            | (+/-3%)  | kW         | 285       | 214       | 143       |
| Electric Efficiency (LHV)                  | (+/-5%)  | %          | 36.90%    | 34.80%    | 30.72%    |
| Thermal Efficiency (LHV)                   | (+/-8%)  | %          | 55.00%    | 57.37%    | 60.61%    |
| Combined Efficiency (LHV)                  | (+/-8%)  | %          | 91.90%    | 92.17%    | 91.33%    |
| Fuel Consumption (LHV)                     | (+ 5%)   | BTU/hr     | 2,635,595 | 2,095,934 | 1,582,921 |
| Heat Rate (LHV)                            |          | BTU/kWe-Hr | 9,248     | 9,806     | 11,108    |
| Total Heat Output                          | (+/-10%) | BTU/hr     | 1,449,644 | 1,202,420 | 959,416   |
| Heat from water jacket                     | (+/-8%)  | BTU/hr     | 634,705   | 725,342   | 624,717   |
| Heat from exhaust (cooled to 248°F)        | (+/-8%)  | BTU/hr     | 814,939   | 477,078   | 334,699   |
| Heat from Intercooler                      | (+/-8%)  | BTU/hr     | 0         | 0         | 0         |
| Radiated Output                            | (+/-25%) | BTU/hr     | 53,481    | 33,107    | 25,467    |
| Cooling (absorption chiller single effect) | (+/-8%)  | TONS       | 96.6      | 80.2      | 64.0      |
| Steam Output @ 15 PSIG                     | (+/-8%)  | Lb/hr      | 510       | 389       | 276       |
| Exhaust temperature                        | (+/-20%) | DEG F      | 1,182     | 1,148     | 1,100     |
| Combustion Mass Airflow                    | (+/-5%)  | Lb/hr      | 2,087     | 1,661     | 1,253     |
| Exhaust Mass flow (wet)                    | (+/-10%) | Lb/hr      | 2,209     | 1,758     | 1,326     |
| Exhaust Volume Flow (cooled to 248°F)      | (+/-5%)  | ACFM       | 673       | 535       | 404       |

| Secondary Hot water system           |         |       |
|--------------------------------------|---------|-------|
| Hot water loop flow rate             | 149     | GPM   |
| Hot water loop temperatures (in/out) | 170/190 | DEG F |
| Hot water loop pressure loss         | 3       | PSID  |
| Flange connection size               | 3       | in    |
| Glycol content                       | 0       | %     |

| Electrical Details            |             |
|-------------------------------|-------------|
| Alternator                    | Synchronous |
| Inverter option               | Available   |
| CHP main breaker size         | 600AF/600AT |
| Current per phase @ 1.0Pf     | 328.8A      |
| Alternator efficiency @ 1.0Pf | 95.8%       |
| Current per phase @ 0.8Pf     | 404.2A      |
| Alternator efficiency @ 0.8Pf | 94.2%       |

| Exhaust details            |                      |    |
|----------------------------|----------------------|----|
| Max Allowable backpressure | in H2O               | 16 |
| Flange Type                | ANSI B16.5 Class 150 |    |
| Flange Size                | in                   | 6  |

| Package Emissions |          |     |
|-------------------|----------|-----|
| NO <sub>x</sub>   | g/BHP-hr | 1.0 |
| CO                | g/BHP-hr | 2.0 |
| NMHC              | g/BHP-hr | 0.7 |

| Fuel Gas Details        |                      |      |
|-------------------------|----------------------|------|
| Min/Max Supply pressure | in H2O/PSIG          | 18/5 |
| Flange Type             | ANSI B16.5 Class 150 |      |
| Lower Calorific Value   | BTU/ft <sup>3</sup>  | 905  |
| Flange Size             | in                   | 2    |

| Noise                      |        |
|----------------------------|--------|
| Sound power level @ 3ft    | 65 dBA |
| Sound pressure level @ 3ft | 75 dBA |

\*For octave band frequency please contact Martin Energy Group

| Ventilation details   |      |       |
|-----------------------|------|-------|
| Air flow requirements | ACFM | 6836  |
| Connection size       | in   | 32.75 |

| Package overall dimensions |    |     |
|----------------------------|----|-----|
| Length                     | in | 185 |
| Width                      | in | 65  |
| Height                     | in | 105 |

## Notes

Energy balance data is stated at ISO 3046-1 conditions.  
 Values for part load are estimates only.  
 Noise data stated at free-field conditions.  
 All information detailed is for guidance only and is subject to change without notice due to our commitment to continuous improvement

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 Issue date mm/dd/year