**12M33 Biogas Engine**

**Customer benefits**

- Low emission standard, lean burn technology resulting in lower NOx emissions
- High transient and block load capabilities
- Full duty cycle capability, from prime to continuous power
- Low energy fuel capability (landfill & biogas)
- Electronically controlled high efficiency engines

<table>
<thead>
<tr>
<th>Model</th>
<th>Speed (RPM)</th>
<th>Gross Engine Output</th>
<th>Typical Generator Output</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>COP</td>
<td>PRP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>kWm</td>
<td>kW</td>
</tr>
<tr>
<td>12M33G10B0/5</td>
<td>1500</td>
<td>748</td>
<td>880</td>
</tr>
<tr>
<td>12M33G10B0/6</td>
<td>1800</td>
<td>816</td>
<td>960</td>
</tr>
</tbody>
</table>

**Standard Equipment**

**Engine and block**
- Cast iron cylinder block with inspection door per cylinder
- Cast iron cylinder liners, wet type and replaceable valves guides and seats
- Hardened steel forged crankshaft with induction hardened journals, crank pins and radius
- Lube oil cooled light alloy pistons with high performance piston rings

**Cooling System**
- Thermostatically-controlled system with belt driven coolant pump

**Lubrication system**
- Full flow screwable oil filters
- Lube oil purifier with replaceable cartridge
- Water cooled lube oil cooler

**Fuel system**
- Low pressure gas supply - open chamber combustion
- Optimum performance and efficient use of fuel for COP, CHP and PRP applications

**Air intake and exhaust system**
- Top mounted turbocharger optimized for gen-set application
- Special rear mounted air filter with restriction indicator
- Exhaust manifold and turbocharger shield for heat isolating

**Electrical System**
- 24 V DC electric starter motor and battery charging alternator
- Low oil pressure & high water temperature sensors

**Flywheel and housing**
- SAE 0 flywheel housing and 18” flywheel
Dimensions and dry weight (mm/kg)

<table>
<thead>
<tr>
<th>Gas Engine</th>
<th>Speed</th>
<th>Dimensions and dry weights excluding radiator</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RPM</td>
<td>L</td>
</tr>
<tr>
<td>12M33G10B0/5</td>
<td>1500</td>
<td>2789</td>
</tr>
<tr>
<td>12M33G10B0/6</td>
<td>1800</td>
<td>2789</td>
</tr>
</tbody>
</table>

Ratings definitions

**Continuous Power (COP)**
Continuous Power is the maximum power available for an unlimited period of use at a constant load factor. No overload capability is allowed.

**Unlimited Prime Rated Power (PRP)**
Prime Power is the maximum power available for unlimited hours of usage in a variable load application. The average load factor should not exceed 70% of the engine’s PRP power rating during any 24 hour period. An overload capability of 10% is available, however, this is limited to 1 hour within every 12 hour period.

1) All ratings are based on operating conditions under ISO 8528-1, ISO 3046, DIN6271. Performance tolerance of ±5%.
2) Test conditions: 100 kPa, 25°C air inlet temperature, relative humidity of 30%, with fuel density 0.84 kg/L. Derating may be required for conditions outside these; please contact the factory for details.
3) Power output curves are based on the engine operating with fuel system, water pump and lubricating oil pump, not included are battery charging alternator, fan and optional equipment.