6M33
PowerKit ESP/PRP/DCP/COP Diesel Engine
### ESP/PRP/DCP/COP Diesel Engine

**6M33**

- **Bore & Stroke (mm):** 150 x 185
- **Displacement (L):** 19.6
- **N° of Cylinders:** 6
- **Cylinders Arrangement:** In line
- **Fuel System:** High Pressure Common Rail / Mechanical
- **Governor (Gov.):** ECU / Electronic
- **Aspiration (Asp.):** Turbocharged & air-to-air cooled

### Customer benefits

- Warranty terms – 2 yrs unlimited hrs, 4 yrs/800h ESP
- 50°C Cooling package standard with low derating
- Low fuel consumption across the range
- Extended mean time between overhauls (MTBO)

### Diesel Engine Models

#### Gross Engine Output

<table>
<thead>
<tr>
<th>Diesel Engine Models</th>
<th>ESP</th>
<th>PRP</th>
<th>DCP</th>
<th>ESP</th>
<th>PRP</th>
<th>DCP</th>
</tr>
</thead>
<tbody>
<tr>
<td>6M33G2D0/S</td>
<td>633</td>
<td>575</td>
<td>-</td>
<td>572</td>
<td>715</td>
<td>520</td>
</tr>
<tr>
<td>6M33G750/S</td>
<td>670</td>
<td>610</td>
<td>-</td>
<td>650</td>
<td>750</td>
<td>544</td>
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<tr>
<td>6M33G6D0/S</td>
<td>725</td>
<td>675</td>
<td>675</td>
<td>660</td>
<td>825</td>
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<tr>
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<td>575</td>
<td>-</td>
<td>575</td>
<td>719</td>
<td>520</td>
</tr>
<tr>
<td>6M33G600/6</td>
<td>670</td>
<td>610</td>
<td>-</td>
<td>600</td>
<td>750</td>
<td>550</td>
</tr>
<tr>
<td>6M33G633/6</td>
<td>710</td>
<td>645</td>
<td>-</td>
<td>633</td>
<td>791</td>
<td>575</td>
</tr>
<tr>
<td>6M33G6D0/S</td>
<td>740</td>
<td>670</td>
<td>670</td>
<td>660</td>
<td>825</td>
<td>600</td>
</tr>
</tbody>
</table>

#### Typical Generator Output

<table>
<thead>
<tr>
<th>Diesel Engine Models</th>
<th>RPM</th>
<th>Asp.</th>
<th>Gov.</th>
</tr>
</thead>
<tbody>
<tr>
<td>6M33G2D0/S</td>
<td>1500 T/A-A ECU</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6M33G750/S</td>
<td>1500 T/A-A ELEC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6M33G6D0/S</td>
<td>1500 T/A-A ECU</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6M33G2D0/S</td>
<td>1800 T/A-A ECU</td>
<td></td>
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<tr>
<td>6M33G6D0/S</td>
<td>1800 T/A-A ECU</td>
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</tr>
</tbody>
</table>

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*Please note that models ending with S are switchable engines*
### 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
- Separate cast iron cylinder heads with 4 valves
- 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**
- Radiator and hoses supplied separately
- Thermostatically-controlled system with belt driven coolant pump and pusher fan

**Lubrication system**
- Full flow screw able oil filters
- Lube oil purifier with replaceable cartridge (not included for ECU engines)
- Water cooled lube oil cooler

**Fuel system**
- In line fuel injection pump with flanged electronic governor, for engines with electronic governor
- High pressure Common Rail injection system, for engines with ECU
- Duplex fine filter and water separation filter assembly with transparent cup for better efficiency
- Electric fuel priming pump integrated in the filters support

**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 Vdc electric starter motor and battery charging alternator
- LOP + HWT sensors

**Flywheel and housing**
- SAE 1 flywheel housing and 14" flywheel
Ratings definitions

Emergency Standby Power (ESP)
Emergency Standby Power is the maximum power available for a varying load for the duration of a main power network failure. The average load factor over 24 hours of operation should not exceed 70% of the engine’s ESP power rating. Typical operational hours of the engine is 200 hours per year, with a maximum usage of 500 hours per year. This includes an annual maximum of 25 hours per year at the ESP power rating. No overload capability is allowed. The engine is not to be used for sustained utility paralleling applications.

Data Centre Power (DCP)
Data Centre Power is defined as being the maximum power which a generating set is capable of delivering while supplying a variable or continuous electrical load and during unlimited run hours. Depending on the sites to supply and the availability of reliable utility, the generating set manufacturer is responsible to define what power level he is able to supply to fulfill that requirement including hardware or software or maintenance plan adaptation.

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.

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.