6F21
Common rail diesel engine, 2-stage turbocharging
Customer benefits

Genuine marine design - our engine is designed specifically for marine applications with marine components, such as individual cylinder heads that make maintenance easy even in the smallest of engine rooms.

Continuous compact power - best in class for power output at P3 & P4 and co-leader at P5 rating and best in class for power density throughout all 3 duty ratings.

Global environment care - low exhaust emissions at any running cycle.

Latest safe technology - including as a standard, double wall HP pipes and a protected rail, with fuel leak sensor, and also marine approved components and monitoring systems.

Rated power - Fuel consumption

<table>
<thead>
<tr>
<th>Duty</th>
<th>Kw</th>
<th>Hp</th>
<th>rpm</th>
<th>Fuel consumption g/kWh</th>
<th>l/h</th>
<th>IMO</th>
</tr>
</thead>
<tbody>
<tr>
<td>P3</td>
<td>599</td>
<td>815</td>
<td>2300</td>
<td>220</td>
<td>155</td>
<td>II</td>
</tr>
<tr>
<td>P4</td>
<td>662</td>
<td>900</td>
<td>2300</td>
<td>223</td>
<td>174</td>
<td>II</td>
</tr>
<tr>
<td>P5</td>
<td>735</td>
<td>1000</td>
<td>2300</td>
<td>228</td>
<td>197</td>
<td>II</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Application</th>
<th>P3</th>
<th>P4</th>
<th>P5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine load variations</td>
<td>intermittent</td>
<td>light</td>
<td>high performance</td>
</tr>
<tr>
<td>Average engine load factor</td>
<td>60%</td>
<td>60%</td>
<td>60%</td>
</tr>
<tr>
<td>Annual working time</td>
<td>1000 to 3000h</td>
<td>less than 1500h</td>
<td>500h</td>
</tr>
<tr>
<td>Time at full load</td>
<td>2h each 12h</td>
<td>1h each 12h</td>
<td>1h each 12h</td>
</tr>
</tbody>
</table>

Power definition

(Standard ISO 3046/1 - 1995 (F))

Reference conditions

<table>
<thead>
<tr>
<th>Condition</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambient temperature</td>
<td>25°C / 77°F</td>
</tr>
<tr>
<td>Barometric pressure</td>
<td>100 kPa</td>
</tr>
<tr>
<td>Relative humidity</td>
<td>30%R</td>
</tr>
<tr>
<td>Raw water temperature</td>
<td>25°C / 77°F</td>
</tr>
</tbody>
</table>

Fuel oil

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative density</td>
<td>0.840 ± 0.005</td>
</tr>
<tr>
<td>Lower calorific power</td>
<td>42 700 kJ/kg</td>
</tr>
<tr>
<td>Consumption tolerances</td>
<td>0 ± 5%</td>
</tr>
<tr>
<td>Inlet limit temperature</td>
<td>35°C / 95°F</td>
</tr>
</tbody>
</table>

Our ratings also comply with classification societies maximum temperature definition without power derating.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambient temperature</td>
<td>45°C / 113°F</td>
</tr>
<tr>
<td>Raw water temperature</td>
<td>32°C / 90°F</td>
</tr>
</tbody>
</table>

Number of cylinders  | 6             |
Bore and stroke      | 127 x 165 mm   |
Total displacement    | 12.5 L        |
Engine rotation       | Counterclockwise|
Idle speed            | 700rpm         |
Flywheel housing      | SAE 1          |
Flywheel              | SAE 14"        |
Standard equipment

**Cooling system**
- Two-stage cooling circuit with built-in HT thermostatic valve
- Integrated fresh water expansion tank
- High efficiency tubular heat exchanger
- Gear driven centrifugal raw water pump
- Self priming raw water pump with bronze impeller

**Lubrication system**
- Full flow lube oil filters duplex type
- Fresh water cooled lube oil heat exchanger

**Fuel system**
- Common-rail electronic injection
- High pressure pump with shielded high pressure injection rail and pipes
- Fuel oil filter duplex type
- External fuel pre-filter with water separator

**Intake air and exhaust system**
- Double flow raw water cooled intake air heat exchanger module
- High efficiency dry turbocharger with ball bearing technology
- Two Stage Turbocharging system

**Electrical system**
- Voltage: 24V DC insulated
- Electrical starter
- 190A battery alternator

**Optional equipment**
- Rigid mounting
- Water injection exhaust
- Closed circuit venting
- SAE A Live PTO
- Front PTO 1000N.m
- Cabin heating connections
- Fresh water pre-heater 120V & 240V
- Gearbox oil draining
- GOC adj. raw water connection
Common rail diesel engine, 2-stage turbocharging

Performance - P5

6F21 P5 735@2300 - Torque

6F21 P5 735@2300 - Power

6F21 P5 735@2300 - BSFC (g/kWh)

6F21 P5 735@2300 - BSFC (L/H)

Performance - P4

6F21 P4 662@2300 - Torque

6F21 P4 662@2300 - Power

6F21 P4 662@2300 - BSFC (g/kWh)

6F21 P4 662@2300 - BSFC (L/H)

Performance - P3

6F21 P3 588@2300 - Torque

6F21 P3 588@2300 - Power

6F21 P3 588@2300 - BSFC (g/kWh)

6F21 P3 588@2300 - BSFC (L/H)