The MAN 51/60DF runs on either liquid or gaseous fuels and allows you to switch seamlessly from liquid to gas and vice versa during operation, giving you all the benefits of high fuel flexibility. Benefitting from the excellent robustness and reliability of its predecessors, the MAN 51/60DF also ensures low emissions and high efficiency.

**Benefits at a glance**

- Performance settings: high power and high efficiency
- Start and stop in gas mode
- Fuel and operational flexibility with HFO, diesel, natural gas, biogas
- Optimized variants for tropical conditions
- High single cycle efficiency
## MAN 51/60DF

### High efficiency and high power

#### Dimensions

<table>
<thead>
<tr>
<th>Cyl. No.</th>
<th>6L</th>
<th>12V</th>
<th>18V</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>8,464 mm (333.2 in)</td>
<td>9,970 mm (392.5 in)</td>
<td>13,489 mm (531.1 in)</td>
</tr>
<tr>
<td>H</td>
<td>5,807 mm (228.6 in)</td>
<td>6,450 mm (253.9 in)</td>
<td>6,450 mm (253.9 in)</td>
</tr>
<tr>
<td>W</td>
<td>3,156 mm (124.3 in)</td>
<td>4,884 mm (192.3 in)</td>
<td>4,884 mm (192.3 in)</td>
</tr>
<tr>
<td>Engine weight</td>
<td>171.6 t (378,313 lb)</td>
<td>293.8 t (647,718 lb)</td>
<td>416.8 t (918,887 lb)</td>
</tr>
</tbody>
</table>

#### Output

<table>
<thead>
<tr>
<th>Cyl. No.</th>
<th>6L</th>
<th>12V</th>
<th>18V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output mech.</td>
<td>High efficiency</td>
<td>High power</td>
<td>High efficiency</td>
</tr>
<tr>
<td>kW</td>
<td>6,300</td>
<td>6,900</td>
<td>12,600</td>
</tr>
<tr>
<td>Speed (rpm)</td>
<td>500/514</td>
<td>500/514</td>
<td>500/514</td>
</tr>
<tr>
<td>Frequency (Hz)</td>
<td>50/60</td>
<td>50/60</td>
<td>50/60</td>
</tr>
</tbody>
</table>


### Engine features

#### General data
- Engine cycle: four-stroke
- No. of cylinders: 6L, 12V, 18V
- Bore: 510 mm/20.08 in
- Stroke: 600 mm/23.62 in

#### Engine automation and control
- MAN SaCoS one safety and control system on engine, developed in-house at MAN

#### Turbocharging system
- High efficiency constant pressure
- MAN TCA series exhaust gas turbocharging system
- Individual engine/turbocharger optimization matching

#### Fuel & gas system
- Common rail pilot fuel injection system
- Robust conventional injection system
- Individual cylinder low pressure gas admission system (5 bar(g) / 72,5189 psi at inlet of gas valve unit)

#### Starting system
- Starting air valves within cylinder head

#### Applications
- Areas with non-constant gas supply
- Installations that are to be operated with gas at a later date
- Areas with highly volatile fuel prices

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All data provided in this document is non-binding. This data serves informational purposes only and is not guaranteed in any way. Depending on the subsequent specific individual projects, the relevant data may be subject to changes and will be assessed and determined individually for each project. This will depend on the particular characteristics of each individual project, especially specific site and operational conditions. Copyright © MAN Energy Solutions. D2366631-N1 Printed in Germany GGKM-AUG-20052

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