Data Sheet

H1-The new Generation of Hydrostatics
250 cm³ Bent Axis Variable Motor

For more than 40 years, Danfoss has been developing state-of-the-art components and systems for mobile machinery used in off-highway operations around the world.

We have become a preferred supplier by offering the best of what really matters: The hardware inside your vehicle application.

H1 - our new generation of servo-controlled hydrostatic pumps and bent axis variable motors is no exception.

The H1 product is built around an advanced control and available in a wide range of displacements. It is designed for quality and reliability and offers expanded functionality, greater total efficiency, and easy installation.

All H1 control and sensor options are PLUS+1® Compliant. PLUS+1® allows you to rapidly develop and customize electronic machine control. It opens up the future by combining machine controls and diagnostics in an integrated operating network.

Features

- **Designed for quality and reliability**
  - Proven and optimized 9 piston rotating group
  - Single piece housing
  - Electric components with IP67 & IP69K rating

- **Installation and packaging benefits**
  - Optimized for shortest length
  - Standardized connector interface
  - Integrated loop flushing device
  - Radial or axial high pressure ports

- **Wide range of controls**
  - Electric Two-position Control
  - Electric Proportional Control
  - Hydraulic Two-position Control
  - Hydraulic Proportional Control
  - Pressure Compensator Override
  - Proportional Pressure Compensator Override
  - Brake Pressure Defeat option
  - Common controls across the entire motor family
  - PLUS+1® Compliant control and sensor options

- **Expanded functionality**
  - Zero degree capability together with a high performance 32 degree maximum angle
  - Enhanced control functions with proportional controls de-energized at minimum or maximum displacement
  - Optional integrated speed sensor with
    - Dual redundant speed sensing
    - Direction indication
    - Temperature sensing
    - Wire fault detection

- **Greater total efficiency**
  - Minimized losses
  - Improved at high flow conditions
**Technical specifications**

### Physical Properties

<table>
<thead>
<tr>
<th>Features</th>
<th>Units</th>
<th>Size 250</th>
</tr>
</thead>
<tbody>
<tr>
<td>Displacement</td>
<td>cm³</td>
<td>250 [15.25]</td>
</tr>
<tr>
<td>Weight (with Electric Proportional Control)</td>
<td>kg</td>
<td>87.7 [193]</td>
</tr>
</tbody>
</table>

### Operating Parameters

<table>
<thead>
<tr>
<th>Output Speed min-1 [rpm]</th>
<th>Rated at max. displacement</th>
<th>2200</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>at min. displacement (6°)</td>
<td>3650</td>
</tr>
<tr>
<td></td>
<td>at 0° displacement</td>
<td>4050</td>
</tr>
<tr>
<td>Maximum</td>
<td>at max. displacement</td>
<td>2800</td>
</tr>
<tr>
<td></td>
<td>at min. displacement (6°)</td>
<td>4500</td>
</tr>
<tr>
<td></td>
<td>at 0° displacement</td>
<td>4900</td>
</tr>
</tbody>
</table>

| System Pressure bar [psi] | Working | 450 [6527] |
|                          | Maximum | 480 [6960] |
|                          | Min. low loop | 7.5 [109] |

<table>
<thead>
<tr>
<th>Case Pressure bar [psi]</th>
<th>Maximum</th>
<th>5 [73]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Minimum</td>
<td>0.3 [4]</td>
</tr>
</tbody>
</table>

### Installation Drawings

**SAE ISO 3019/1 with Electric Proportional Control (de-energized = max. displacement)**

**SAE ISO 3019/1 with Electric Proportional Control (de-energized = min. displacement)**

**SAE ISO 3019/1 with Electric Two-Position Control (de-energized = min. displacement)**

**Pressure Compensator Override, Brake Pressure Defeat**

---

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without changes being necessary in specifications already agreed.

All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.