Data Sheet

H1-The new Generation of Hydrostatics
160 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

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Technical Specifications

Physical Properties

<table>
<thead>
<tr>
<th>Features</th>
<th>Units</th>
<th>Size 160</th>
</tr>
</thead>
<tbody>
<tr>
<td>Displacement</td>
<td>cm³</td>
<td>160</td>
</tr>
<tr>
<td>Weight (with Electric Proportional Control)</td>
<td>kg</td>
<td>61.9</td>
</tr>
<tr>
<td>SAE ISO 3019/1</td>
<td></td>
<td>59.3</td>
</tr>
<tr>
<td>DIN ISO 3019/2</td>
<td></td>
<td>54.7</td>
</tr>
</tbody>
</table>

Operating Parameters

| System Pressure bar [psi] | Rated at max. displacement | 2600 |
|                          | at min. displacement (6°) | 4250 |
|                          | at 0° displacement | 4750 |
|                          | Maximum at max. displacement | 3300 |
|                          | at min. displacement (6°) | 5250 |
|                          | at 0° displacement | 5750 |
| Case Pressure bar [psi]   | Rated | 3        |
|                          | Maximum | 5        |
|                          | Minimum | 0.3      |

Installation Drawings

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

DIN ISO 3019/2 with Electric Proportional Control (de-energized = min. displacement)

Schematic (example)

Electric Proportional Control
(de-energized = max. displacement)

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