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.

The H1 range 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**
- One design concept
- Single piece swash plate

**Wide range of controls**
- Electro-hydraulic controls:
  - Electrical Displacement Control (EDC)
  - Forward-Neutral-Reverse (FNR)
  - Non-Feedback Proportional Electric (NFPE)
- Automotive Control (AC)
- Fan Drive Control (FDC)
- Manual Displacement Control (MDC)
- Common control across entire family

**Greater total efficiency**
- Minimized control losses
- Improved charge circuit
- Lower control pressure for less power consumption

**Expanded functionality**
- PLUS+1® Compliant control and sensor options
- Integral filtration available with integrated filter bypass sensors and switch

**Installation and packaging benefits**
- Length optimized pump
- Minimum one clean side
- Higher corner HP / package size ratio
- Standardized connector interface

For more information see the H1P 089/100 Axial Piston Single Pumps Technical Information, BC00000067.

Comprehensive technical literature is online at www.danfoss.com
### Technical Specifications

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Size 089</th>
<th>Size 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Displacement cm³ [in³]</td>
<td>89.2 [5.44]</td>
<td>101.7 [6.21]</td>
</tr>
<tr>
<td><strong>Input speed</strong> min⁻¹ (rpm)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimum</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>Rated</td>
<td>3300</td>
<td></td>
</tr>
<tr>
<td>Maximum</td>
<td>3800</td>
<td></td>
</tr>
<tr>
<td><strong>System pressure</strong> bar [psi]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. working*</td>
<td>450 [6528]</td>
<td></td>
</tr>
<tr>
<td>Maximum</td>
<td>480 [6960]</td>
<td></td>
</tr>
<tr>
<td>Min. low loop</td>
<td>10 [145]</td>
<td></td>
</tr>
<tr>
<td><strong>Case pressure</strong> bar [psi]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rated</td>
<td>3.0 [44.0]</td>
<td></td>
</tr>
<tr>
<td>Maximum</td>
<td>5.0 [73.0]</td>
<td></td>
</tr>
<tr>
<td>Weight (without PTO and filter), kg [lb]</td>
<td>62 [137]</td>
<td></td>
</tr>
</tbody>
</table>

* Pressures above max. working pressure requires Danfoss approval.

### Schematic

- **A/B system ports**: Ø25.4 mm; M12 x 1.75; 20 min. full thread depth
- **MA/MB** (system), **M3, M6** (charge) gauge ports per ISO 11926-1: 1/16–18
- **M4, M5** (servo), **M14** (case) gauge ports per ISO 11926-1: 7/16–20
- **L2, L4** – Case drain ports per ISO 11926-1: 1/16–12
- **E/F** – Charge filtration ports per ISO 11926-1: 7/8–12
- **S** – Charge inlet port per ISO 11926-1: 1/8–12
- **1** – Case pressure port per ISO 11926-1: 1/16–12
- **2** – Connector DEUTSCH DT04-2P, to be paint free

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