H1 Axial Piston Pumps
Single and Tandem
## Revision history

### Table of revisions

<table>
<thead>
<tr>
<th>Date</th>
<th>Changed</th>
<th>Rev</th>
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<tr>
<td>April 2017</td>
<td>Converted to DITA CMS.</td>
<td>0802</td>
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<tr>
<td>May 2002</td>
<td>First edition</td>
<td>AA</td>
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**Technical specifications**

**Overview of H1 pumps technical specifications**

The table below shows the available range of H1 pumps as of this printing, with their respective speed, pressure, weight and mounting flange:

<table>
<thead>
<tr>
<th>Feature</th>
<th>045</th>
<th>053</th>
<th>060</th>
<th>068</th>
<th>069</th>
<th>078</th>
<th>089</th>
<th>100</th>
<th>115</th>
<th>130</th>
<th>147</th>
<th>165</th>
<th>210</th>
<th>250</th>
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<tbody>
<tr>
<td><strong>Displacement cm³ [in³]</strong></td>
<td>45.0</td>
<td>53.8</td>
<td>60.4</td>
<td>68.0</td>
<td>69.2</td>
<td>78.1</td>
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<td>101.7</td>
<td>115.2</td>
<td>130.0</td>
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<td>165.1</td>
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<tr>
<td><strong>Rated speed min⁻¹ (rpm)</strong></td>
<td>3400</td>
<td>3400</td>
<td>3500</td>
<td>3500</td>
<td>3500</td>
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<td>3300</td>
<td>3200</td>
<td>3000</td>
<td>3000</td>
<td>2600</td>
<td>2600</td>
<td></td>
<td></td>
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<tr>
<td><strong>Max speed min⁻¹ (rpm)</strong></td>
<td>3500</td>
<td>3500</td>
<td>4000</td>
<td>4000</td>
<td>4000</td>
<td>3800</td>
<td>3800</td>
<td>3400</td>
<td>3100</td>
<td>3100</td>
<td>2800</td>
<td>2800</td>
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<tr>
<td>Mounting flange</td>
<td>SAE B 2-bolt</td>
<td>SAE B 2-bolt</td>
<td>SAE C 4-bolt</td>
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<td>SAE C 4-bolt</td>
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<td>SAE C 4-bolt</td>
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<td>SAE E 4-bolt</td>
<td>SAE E 4-bolt</td>
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1) Applied pressures above maximum working pressure requires Danfoss application approval.

**Control options**

<table>
<thead>
<tr>
<th>Size</th>
<th>045/053</th>
<th>045/053</th>
<th>060/068</th>
<th>069/078</th>
<th>089/100</th>
<th>115/130</th>
<th>147/165</th>
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<tr>
<td>EDC</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
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<td>●</td>
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<td>MDC</td>
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<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
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<tr>
<td>FNR</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>–</td>
</tr>
<tr>
<td>NFPE</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>–</td>
</tr>
<tr>
<td>FDC</td>
<td>–</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
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<tr>
<td>AC</td>
<td>–</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
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For more details go to the website [http://www.powersolutions.danfoss.com/literature/](http://www.powersolutions.danfoss.com/literature/) or see [H1 pumps literature reference](http://www.powersolutions.danfoss.com/literature/) on page 5.
Available literature for H1 Pumps

<table>
<thead>
<tr>
<th>Title</th>
<th>Literature Type</th>
<th>Order number</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 Axial Piston Pumps, Single and Tandem</td>
<td>Product Line Overview</td>
<td>L1012919</td>
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<tr>
<td>H1 Axial Piston Pumps, Single and Tandem</td>
<td>Basic Information</td>
<td>11062168</td>
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<tr>
<td>H1 Axial Piston Tandem Pumps, Size 045/053</td>
<td>Technical Information</td>
<td>11063345</td>
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<tr>
<td>H1 Axial Piston Single Pumps, Size 045/053</td>
<td>Technical Information</td>
<td>11063344</td>
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<tr>
<td>H1 Axial Piston Single Pumps, Size 060/068</td>
<td>Technical Information</td>
<td>11071685</td>
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<tr>
<td>H1 Axial Piston Single Pumps, Size 089/100</td>
<td>Technical Information</td>
<td>11069970</td>
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<tr>
<td>H1 Axial Piston Single Pumps, Size 115/130</td>
<td>Technical Information</td>
<td>11063346</td>
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<tr>
<td>H1 Axial Piston Single Pumps, Size 147/165</td>
<td>Technical Information</td>
<td>11063347</td>
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<tr>
<td>H1 Axial Piston Single Pumps, Size 210/250</td>
<td>Technical Information</td>
<td>L1208737</td>
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<tr>
<td>H1 Axial Piston Single Pumps, Size 045/053</td>
<td>Service Manual</td>
<td>S20L0958</td>
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<tr>
<td>H1 Axial Piston Tandem Pumps, Size 045/053</td>
<td>Service Manual</td>
<td>S20L0928</td>
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<td>H1 Axial Piston Single Pumps, Size 069–165</td>
<td>Service Manual</td>
<td>S20L0848</td>
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Data sheets for all pump sizes are available.

Further available literature

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<tr>
<th>Title</th>
<th>Literature Type</th>
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<tr>
<td>H1 Pump Electrical Displacement Control (EDC)</td>
<td>Electrical Installation</td>
<td>11022744</td>
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<tr>
<td>H1 Pump 3-position Electric Control (FNR)</td>
<td>Electrical Installation</td>
<td>11025001</td>
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<tr>
<td>H1 Pump Non-Feedback Prop. Electric (NFPE)</td>
<td>Electrical Installation</td>
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<tr>
<td>H1 Pump Automotive Control (AC)</td>
<td>Technical Information</td>
<td>L1223856</td>
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<tr>
<td>H1 Automotive on PLUS+1 for MC024</td>
<td>Technical Information</td>
<td>L1120636</td>
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<tr>
<td>Speed and Temperature Sensor</td>
<td>Technical Information</td>
<td>11046759</td>
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<tr>
<td>Pressure Sensor</td>
<td>Technical Information</td>
<td>L1007019</td>
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<tr>
<td>External Remote Charge Pressure Filter</td>
<td>Technical Information</td>
<td>11064579</td>
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<tr>
<td>Design Guideline for Hydraulic Fluid Cleanliness</td>
<td>Technical Information</td>
<td>S20L0467</td>
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Please see [http://www.powersolutions.danfoss.com/literature/](http://www.powersolutions.danfoss.com/literature/)
Product Line Overview
H1 Axial Piston Pumps, Single and Tandem

Dimensions

Frame size 045/053 (Single)

Frame size 045/053 (Tandem)

Frame size 060-250 (Single)
## Dimensions

### H1 pumps dimensions

<table>
<thead>
<tr>
<th>Size</th>
<th>L</th>
<th>B1</th>
<th>B2</th>
<th>H1</th>
<th>H2</th>
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</thead>
<tbody>
<tr>
<td>045/053 Single</td>
<td>238.2</td>
<td>103.0</td>
<td>129.7</td>
<td>173.3</td>
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<tr>
<td>045/053 Tandem</td>
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<td>103.0</td>
<td>129.7</td>
<td>173.3</td>
<td>87.0</td>
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<tr>
<td>060/068</td>
<td>255.9</td>
<td>106.0</td>
<td>135.5</td>
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<td>069/078</td>
<td>278.3</td>
<td>108.9</td>
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<td>178.9</td>
<td>95.0</td>
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<td>089/100</td>
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<tr>
<td>115/130</td>
<td>316.9</td>
<td>121.9</td>
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<td>147/165</td>
<td>333.3</td>
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<td>418.9</td>
<td>155.0</td>
<td>172.2</td>
<td>245.0</td>
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