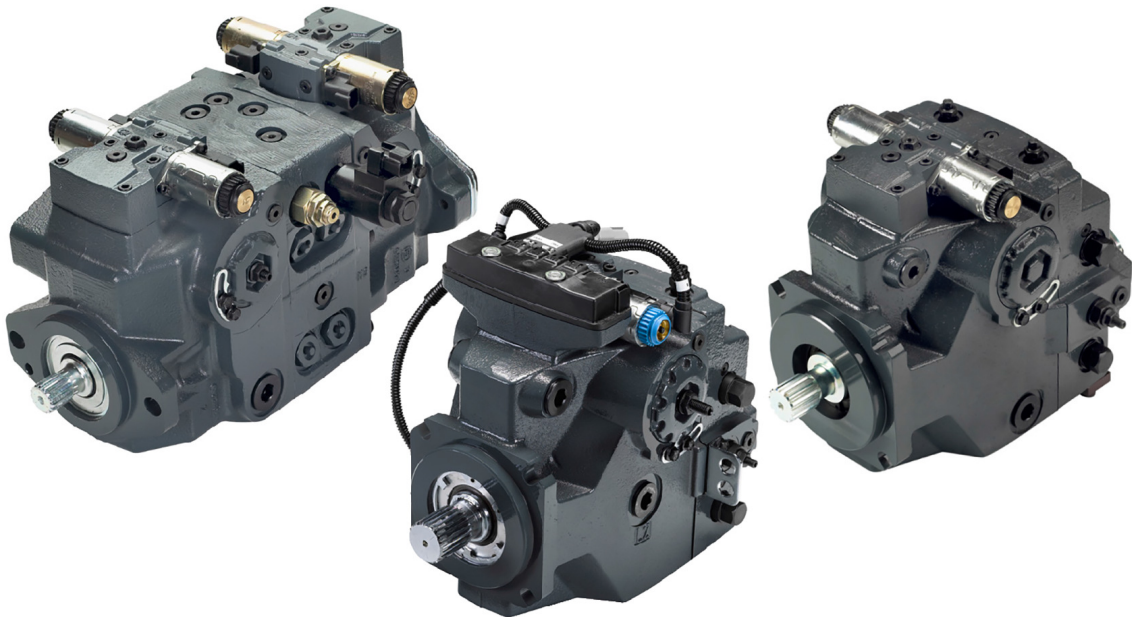


Product Line Overview

# H1 Axial Piston Pumps

Single and Tandem



**Revision history***Table of revisions*

<b>Date</b>	<b>Changed</b>	<b>Rev</b>
February 2022	Added HDC controls and updated control availability for all frames	1001
January 2021	Changed document number from 'AM00000001' and 'L1012919' to 'AM152886484212' and added 280cc information	0904
April 2017	Converted to DITA CMS.	0802
May 2002	First edition	AA

**Contents**

**Technical specifications**

Overview of H1 Pumps Technical Specifications.....4  
Control Options.....4  
H1 Pumps Literature Reference.....5

**Dimensions**

Frame size 045/053 (Single).....6  
Frame size 045/053 (Tandem).....6  
Frame size 060-280 (Single).....7  
H1 pumps dimensions.....7

**Technical specifications**
**Overview of H1 Pumps Technical Specifications**

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

Feature	045	053	060	068	069	078	089	100	115	130	147	165	210	250	280
<b>Displacement cm<sup>3</sup> [in<sup>3</sup>]</b>	45.0 [2.75]	53.8 [3.28]	60.4 [3.69]	68.0 [4.15]	69.2 [4.22]	78.1 [4.77]	89.2 [5.44]	101.7 [6.21]	115.2 [7.03]	130.0 [7.93]	147.2 [8.98]	165.1 [10.08]	211.5 [12.91]	251.7 [15.36]	280.2 [17]
<b>Rated speed, min<sup>-1</sup> (rpm)</b>	3400	3400	3500	3500	3500	3500	3300	3300	3200	3200	3000	3000	2600	2600	2600
<b>Max. speed, min<sup>-1</sup> (rpm)</b>	3500	3500	4000	4000	4000	4000	3800	3800	3400	3400	3100	3100	2800	2800	2800
<b>Max. working pressure, bar [psi]<sup>1)</sup></b>	420 [6092]	380 [5511]	420 [6092]	380 [5511]	450 [6527]	450 [6527]	450 [6527]	450 [6527]	450 [6527]	450 [6527]	450 [6527]	450 [6527]	450 [6527]	450 [6527]	420 [6092]
<b>Max pressure, bar [psi]</b>	450 [6527]	400 [5802]	450 [6527]	400 [5802]	480 [6962]	480 [6962]	480 [6962]	480 [6962]	480 [6962]	480 [6962]	480 [6962]	480 [6962]	480 [6962]	480 [6962]	450 [6527]
<b>Weight dry, kg [lb] (without PTO/filter)</b>	single: 41 [90] tandem: 65 [143]		single: 50 [110] tandem: 96.2 [212]		56 [123]	56 [123]	62 [137]	62 [137]	83 [187]	83 [187]	96 [211]	96 [211]	163 [360]	163 [360]	163 [360]
<b>Mounting flange</b>	SAE B, 2-bolt		SAE C, 4-bolt					SAE D, 4-bolt				SAE E, 4-bolt			

<sup>1)</sup> Applied pressures above maximum working pressure requires Danfoss application approval.

**Control Options**
*Control availability*

Control type	045/053 tandem	045/053 single	060/068	069/078	089/100	115/130	147/165	210/250/280
EDC	●	●	●	●	●	●	●	●
MDC	●	●	●	●	●	●	●	●
HDC	●	●	●	●	●	●	●	●
FNR	●	●	●	●	●	●	●	●
NFPE	●	●	●	●	●	●	●	●
FDC	●	●	●	●	●	●	●	●
AC	●	●	●	●	●	●	●	●

For more information, see <https://www.danfoss.com> or *H1 Pumps Literature Reference* on page 5.

**Technical specifications**
**H1 Pumps Literature Reference**
*Available literature for H1 Pumps*

<b>Title</b>	<b>Literature Type</b>	<b>Number</b>
H1 Axial Piston Pumps, Single and Tandem	Product Line Overview	AM152886484212
H1 Axial Piston Pumps, Single and Tandem	Basic Information	BC152886483968
H1T 045/053/060/068 Axial Piston Tandem Pumps	Technical Information	BC152886483958
H1P 045/053 Axial Piston Single Pumps	Technical Information	BC152886483105
H1P 060/068 Axial Piston Single Pumps	Technical Information	BC152886483241
H1P 069/078 Axial Piston Single Pumps	Technical Information	BC152886483133
H1P 089/100 Axial Piston Single Pumps	Technical Information	BC152886482765
H1P 115/130 Axial Piston Single Pumps	Technical Information	BC152886483053
H1P 147/165 Axial Piston Single Pumps	Technical Information	BC152886482989
H1P 210/25/280 Axial Piston Single Pumps	Technical Information	BC152986484463
H1P 045/053/060/068 Axial Piston Single Pumps	Service Manual	AX152886481964
H1T 045/053/060/068 Axial Piston Tandem Pumps	Service Manual	AX152886481761
H1P 069–280 Axial Piston Single Pumps	Service Manual	AX152886482551

[Data sheets for all pump sizes are available.](#)

---

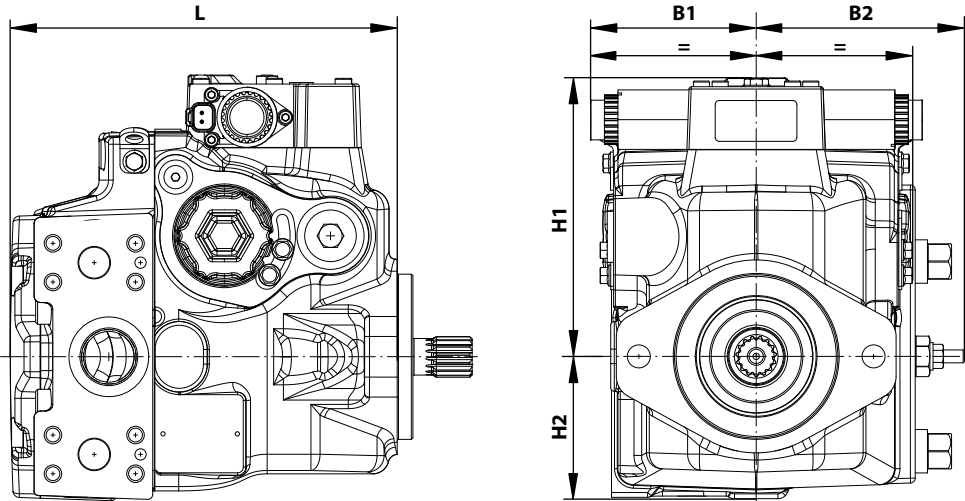
*Further available literature*

<b>Title</b>	<b>Literature Type</b>	<b>Number</b>
H1 Pump Electrical Displacement Control (EDC)	Electrical Installation	BC152886483648
H1 Pump 3-position Electric Control (FNR)	Electrical Installation	BC152886483708
H1 Pump Non-Feedback Prop. Electric Control (NFPE)	Electrical Installation	BC152886483538
H1 Pump Automotive Control (AC)	Technical Information	BC152986482596
H1 Automotive on PLUS+1 for MC024	Technical Information	BC152986484456
Speed and Temperature Sensor	Technical Information	BC152886482203
Pressure Sensor	Technical Information	BC152886484429
External Remote Charge Pressure Filter	Technical Information	BC152886484487
Design Guideline for Hydraulic Fluid Cleanliness	Technical Information	BC152886482150
Hydraulic Fluids and Lubricants	Technical Information	BC152886484524

Product Line Overview  
**H1 Axial Piston Pumps, Single and Tandem**

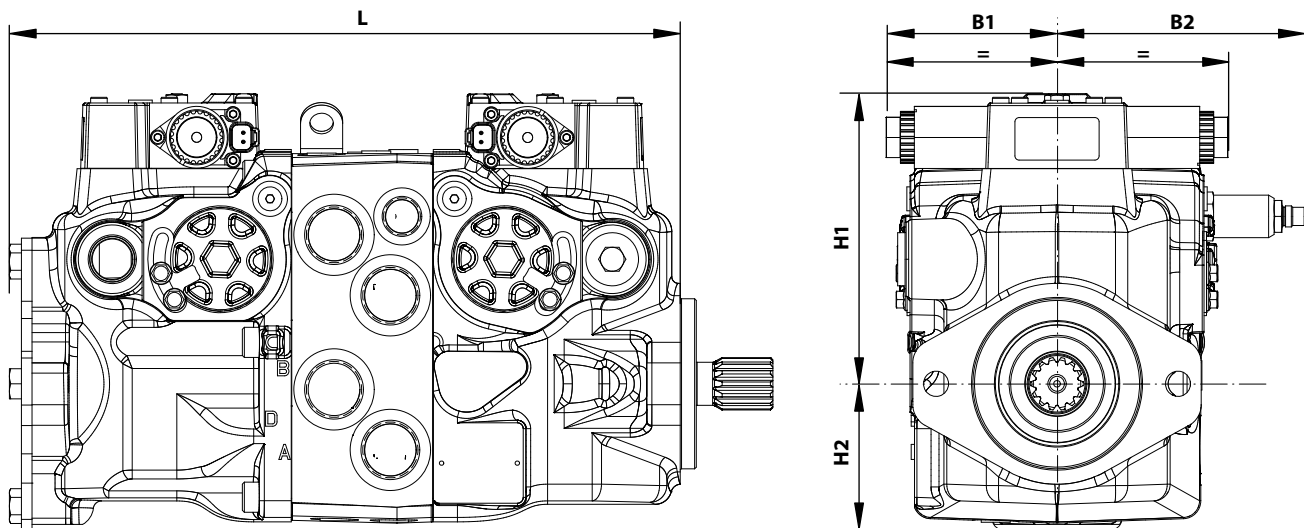
**Dimensions**

**Frame size 045/053 (Single)**



P301 270

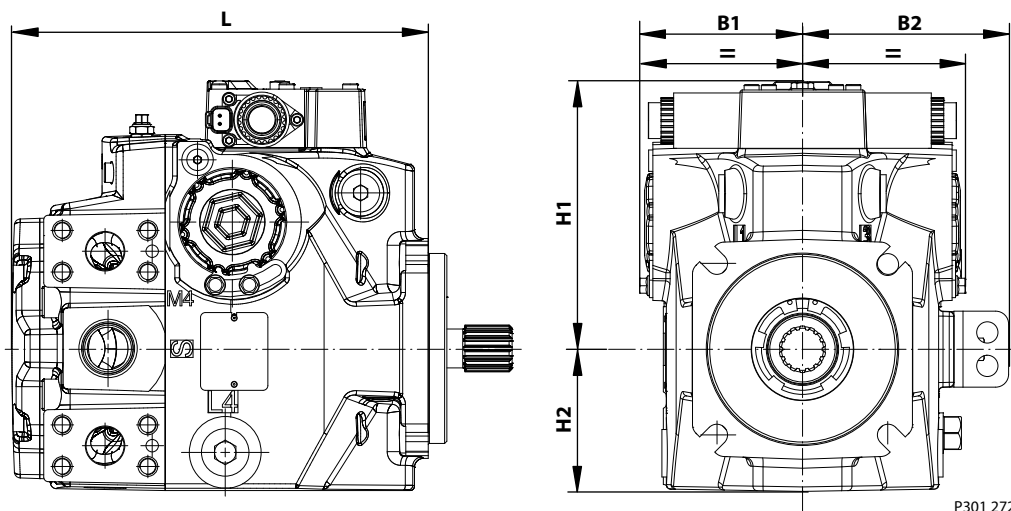
**Frame size 045/053 (Tandem)**



P301 271

**Dimensions**

**Frame size 060-280 (Single)**



P301 272

**H1 pumps dimensions**

*Dimensions (mm)*

Size	L	B1	B2	H1	H2
<b>045/053 Single</b>	238.2	103.0	129.7	173.3	88.5
<b>045/053 Tandem</b>	405.0	103.0	129.7	173.3	87.0
<b>060/068</b>	255.9	106.0	135.5	173.9	99.4
<b>069/078</b>	278.3	108.9	138.2	178.9	95.0
<b>089/100</b>	295.3	112.4	139.2	187.3	99.0
<b>115/130</b>	316.9	121.9	148.1	204.3	110.0
<b>147/165</b>	333.3	131.9	152.6	208.3	112.0
<b>210/250/280</b>	418.9	155.0	172.2	245.0	136.0

**Products we offer:**

- Cartridge valves
- DCV directional control valves
- Electric converters
- Electric machines
- Electric motors
- Gear motors
- Gear pumps
- Hydraulic integrated circuits (HICs)
- Hydrostatic motors
- Hydrostatic pumps
- Orbital motors
- controllers
- displays
- joysticks and pedals
- operator interfaces
- sensors
- software
- software services, support and training
- Position controls and sensors
- PVG proportional valves
- Steering components and systems
- Telematics

**Danfoss Power Solutions** is a global manufacturer and supplier of high-quality hydraulic and electric components. We specialize in providing state-of-the-art technology and solutions that excel in the harsh operating conditions of the mobile off-highway market as well as the marine sector. Building on our extensive applications expertise, we work closely with you to ensure exceptional performance for a broad range of applications. We help you and other customers around the world speed up system development, reduce costs and bring vehicles and vessels to market faster.

Danfoss Power Solutions – your strongest partner in mobile hydraulics and mobile electrification.

**Go to [www.danfoss.com](http://www.danfoss.com) for further product information.**

We offer you expert worldwide support for ensuring the best possible solutions for outstanding performance. And with an extensive network of Global Service Partners, we also provide you with comprehensive global service for all of our components.

Local address:

**Hydro-Gear**

[www.hydro-gear.com](http://www.hydro-gear.com)

**Daikin-Sauer-Danfoss**

[www.daikin-sauer-danfoss.com](http://www.daikin-sauer-danfoss.com)

**Danfoss  
Power Solutions (US) Company**  
2800 East 13th Street  
Ames, IA 50010, USA  
Phone: +1 515 239 6000

**Danfoss  
Power Solutions GmbH & Co. OHG**  
Krokamp 35  
D-24539 Neumünster, Germany  
Phone: +49 4321 871 0

**Danfoss  
Power Solutions ApS**  
Nordborgvej 81  
DK-6430 Nordborg, Denmark  
Phone: +45 7488 2222

**Danfoss  
Power Solutions Trading  
(Shanghai) Co., Ltd.**  
Building #22, No. 1000 Jin Hai Rd  
Jin Qiao, Pudong New District  
Shanghai, China 201206  
Phone: +86 21 2080 6201

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 subsequent 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.