

## Data Sheet

**H1P 147/165**

## Axial Piston Single Pumps



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

**Installation and packaging benefits**

- Length optimized pump
- Minimum one clean side
- Higher corner HP / package size ratio
- Standardized connector interface

**Expanded functionality**

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

For more information see the H1P 147/165 Axial Piston Single Pumps Technical Information, **BC00000061**.

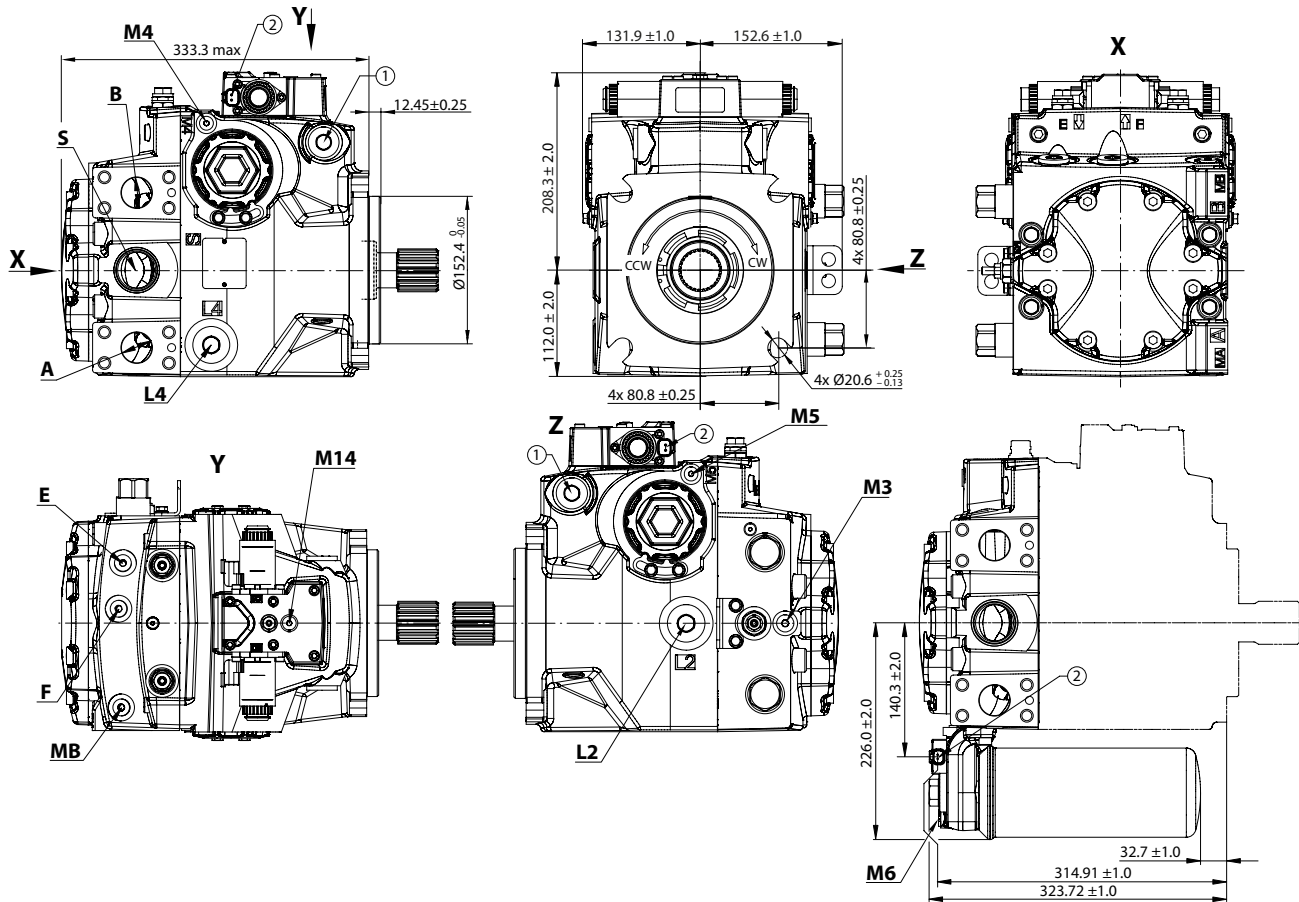
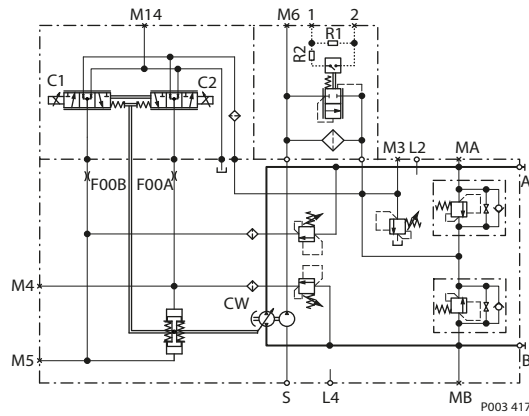
Comprehensive technical literature is online at [www.danfoss.com](http://www.danfoss.com)

## Technical Specifications

Parameters		Size 147	Size 165
<b>Displacement</b> cm <sup>3</sup> [in <sup>3</sup> ]		147.2 [8.98]	165.1 [10.08]
<b>Input speed</b> min <sup>-1</sup> (rpm)	Minimum	500	
	Rated	3000	
	Maximum	3100	
<b>System pressure</b> bar [psi]	Max. working*	450 [6527]	
	Maximum	480 [6962]	
	Min. low loop	10 [145]	
<b>Case pressure</b> bar [psi]	Rated	3.0 [44.0]	
	Maximum	5.0 [73.0]	
<b>Weight</b> (without PTO and filter), kg [lb]		96 [211]	

\* Pressures above max. working pressure requires Danfoss approval.

## Schematic



**A/B** system ports: Ø31.5 mm; M12 x 1.75; 20 min. full thread depth;  
Recommended screw in depth 1.5 x thread dia

**MA/MB** (system), **M3, M6** (charge) gauge ports per ISO 11926-1: 9/16-18

**M4, M5** (servo), **M14** (case) gauge ports per ISO 11926-1: 7/16-20

**1** – Case pressure port per ISO 11926-1: 1 1/16-12

**L2, L4** – Case drain ports per ISO 11926-1: 1 5/16-12

**S** – Charge inlet port per ISO 11926-1: 1 5/8-12

**2** – Connector DEUTSCH DT04-2P, to be paint free