

Data Sheet

# H1P 089/100

## Axial Piston Single Pumps

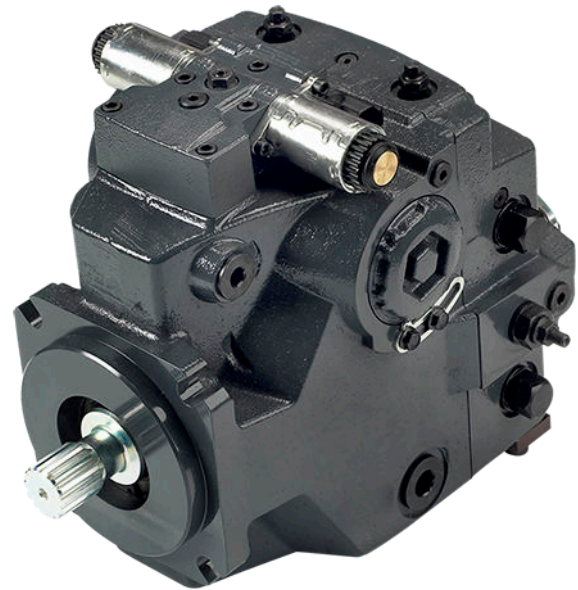


For more than 40 years, Danfoss has been developing state-of-the-art components and systems for mobile machinery used in off-highway operations around the world.

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<sup>®</sup> Compliant. PLUS+1<sup>®</sup> 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)
- Hydraulic Displacement Control (HDC)
- 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<sup>®</sup> Compliant control and sensor options
- Integral filtration available with integrated filter bypass sensors and switch

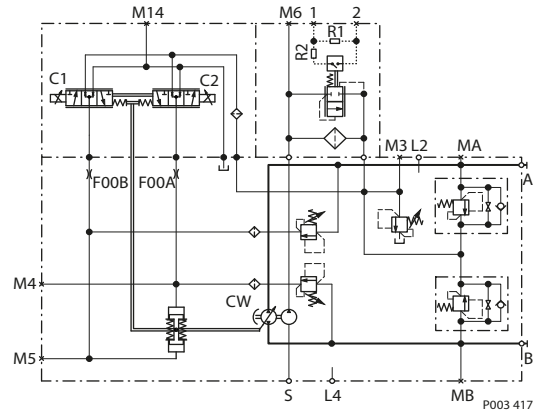
For more information see the H1P 089/100 Axial Piston Single Pumps Technical Information, **BC00000067**.

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

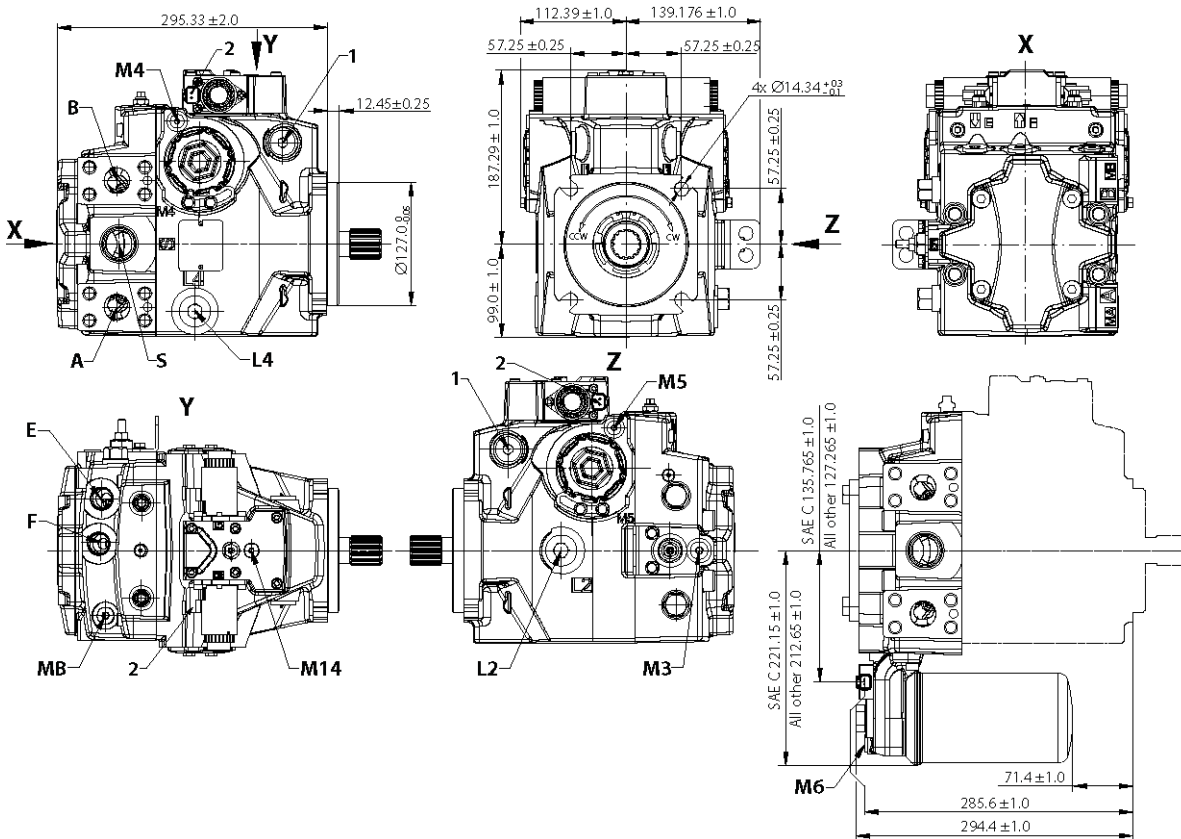
**Technical Specifications**

Parameters		Size 089	Size 100
<b>Displacement</b> cm <sup>3</sup> [in <sup>3</sup> ]		89.2 [5.44]	101.7 [6.21]
<b>Input speed</b> min <sup>-1</sup> (rpm)	Minimum	500	
	Rated	3300	
	Maximum	3800	
<b>System pressure</b> bar [psi]	Max. working*	450 [6528]	
	Maximum	480 [6960]	
	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]		62 [137]	

**Schematic**



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



- A/B** system ports:  $\varnothing 25.4$  mm; M12 x 1.75; 20 min. full thread depth
- MA/MB** (system), **M3, M6** (charge) gauge ports per ISO 11926-1:  $\frac{9}{16}$ -18
- M4, M5** (servo), **M14** (case) gauge ports per ISO 11926-1:  $\frac{7}{16}$ -20
- L2, L4** – Case drain ports per ISO 11926-1:  $1\frac{1}{16}$ -12

- E/F** – Charge filtration ports per ISO 11926-1:  $\frac{7}{8}$ -14
- S** – Charge inlet port per ISO 11926-1:  $1\frac{5}{8}$ -12
- 1** – Case pressure port per ISO 11926-1:  $1\frac{1}{16}$ -12
- 2** – Connector DEUTSCH DT04-2P, to be paint free

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