

**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® 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)
- 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**.

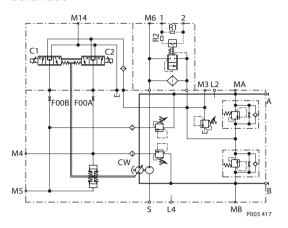
Comprehensive technical literature is online at www.danfoss.com



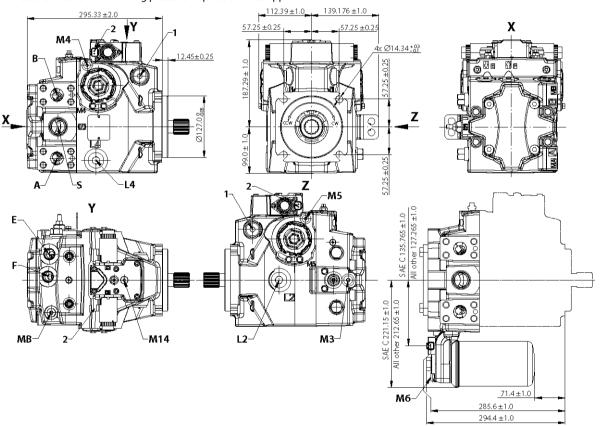
## **Technical Specifications**

Parameters		Size 089	Size 100
Displacement cm <sup>3</sup> [in <sup>3</sup> ]		89.2 [5.44]	101.7 [6.21]
Input speed min <sup>-1</sup> (rpm)	Minimum	500	
	Rated	3300	
	Maximum	3800	
System pressure bar [psi]	Max. working*	450 [6528]	
	Maximum	480 [6960]	
	Min. low loop	10 [145]	
Case pressure bar [psi]	Rated	3.0 [44.0]	
	Maximum	5.0 [73.0]	
Weight (without PTO and filter), kg [lb]		62 [137]	

#### Schematic



<sup>\*</sup> Pressures above max. working pressure requires Danfoss approval.



**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:  $\frac{9}{16}$ –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: 15/8-12

**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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