



# H1P 069/078 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)
- 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 069/078 Axial Piston Single Pumps Technical Information, **BC00000058**.

Comprehensive technical literature is online at www.danfoss.com



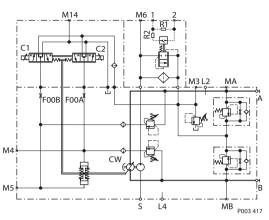




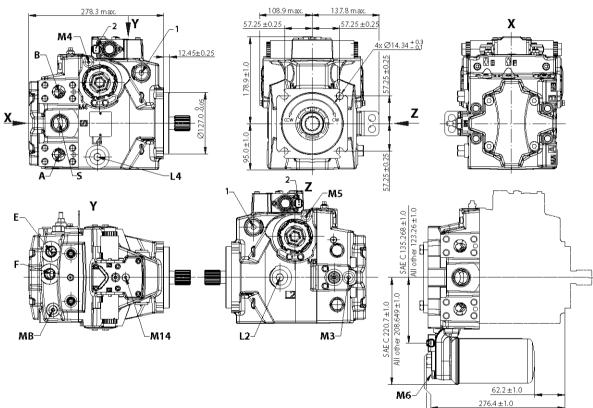
## **Technical Specifications**

Schematic

Parameters Displacement cm <sup>3</sup> [in <sup>3</sup> ]		Size 069	Size 078
		69.2 [4.22]	78.1 [4.77]
<b>Input speed</b> min <sup>-1</sup> (rpm)	Minimum	500	
	Rated	3500	
	Maximum	4000	
<b>System pressure</b> bar [psi]	Max. working*	450 [6527]	
	Maximum	480 [6962]	
	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]		56 [123]	



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



**A/B** system ports: Ø25.4 – 450 bar, Split flange boss ISO 6162; M1 2x 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<sup>1</sup>/<sub>16</sub>-12

- E/F Charge filtration ports per ISO 11926-1:  $^{7}\!\!/_{\!8}\text{--}14$
- $\boldsymbol{S}$  Charge inlet port per ISO 11926-1:  $15^{/}_{16}\text{--}12$

 $285.0 \pm 1.0$ 

- 1 Case pressure port per ISO 11926-1:  $^{7}\!\!/_{8}\!-\!14$
- 2 Connector DEUTSCH DT04-2P, to be paint free

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