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ENGINEERING **Tomorrow**



Data Sheet

H1 Bent Axis Variable Motor Size 110cm³

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.

H1 - our new generation of servo-controlled hydrostatic pumps and bent axis variable motors is no exception.

The H1 product 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.

Wide range of controls

- Electric Two-position Control
- Electric Proportional Control
- Hydraulic Two-position Control
- Hydraulic Proportional Control
- Pressure Compensator Override
- Proportional Pressure Compensator Override
- Brake Pressure Defeat option
- Common controls across the entire motor family
- PLUS+1[®] Compliant control and sensor options

Expanded functionality

- Zero degree capability together with a high performance 32 degree maximum angle
- Enhanced control functions with proportional controls de-energized at minimum or maximum displacement
- · Optional integrated speed sensor with
 - Dual redundant speed sensing
 - Direction indication
 - Temperature sensing
 - Wire fault detection

Comprehensive technical literature online at *powersolutions.danfoss.com*

Features

Designed for quality and reliability

- Proven and optimized 9 piston rotating group
- Single piece housing
- Electric components with IP67 & IP69K rating

Installation and packaging benefits

- Optimized for shortest length
- Standardized connector interface
- · Integrated loop flushing device
- · Radial or axial high pressure ports

Greater total efficiency

- Minimized losses
- · Improved at high flow conditions

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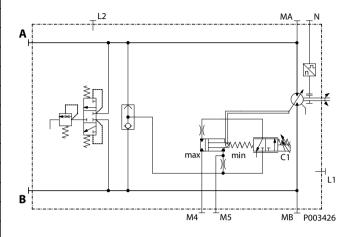


Technical specifications

Weight SAE ISO 3019/1 48.8 kg [108 lb] DIN ISO 3019/2 45.0 kg [99 lb] Output speed rated Max. displacement 2900 min ⁻¹ (rpm) Min. displacement (6°) 4800 min ⁻¹ (rpm) 0° displacement 5350 min ⁻¹ (rpm) Max. output speed Max. displacement 3700 min ⁻¹ (rpm) Min. displacement (6°) 5950 min ⁻¹ (rpm) 0° displacement 6500 min ⁻¹ (rpm) System pressure Working 450 bar [6527 psi]			
Output speed rated Max. displacement 2900 min ⁻¹ (rpm) Min. displacement (6°) 4800 min ⁻¹ (rpm) 0° displacement 5350 min ⁻¹ (rpm) Max. output speed Max. displacement 3700 min ⁻¹ (rpm) Min. displacement (6°) 5950 min ⁻¹ (rpm) 0° displacement 6500 min ⁻¹ (rpm)	Weight	SAE ISO 3019/1	48.8 kg [108 lb]
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0° displacement 5350 min ⁻¹ (rpm) Max. output speed Max. displacement 3700 min ⁻¹ (rpm) Min. displacement (6°) 5950 min ⁻¹ (rpm) 0° displacement 6500 min ⁻¹ (rpm)	Output speed rated	Max. displacement	2900 min ⁻¹ (rpm)
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0° displacement 6500 min ⁻¹ (rpm)	Max. output speed	Max. displacement	3700 min ⁻¹ (rpm)
, , , , , , , , , , , , , , , , , , , ,		Min. displacement (6°)	5950 min ⁻¹ (rpm)
System pressure Working 450 bar [6527 psi]		0° displacement	6500 min ⁻¹ (rpm)
	System pressure	Working	450 bar [6527 psi]
Maximum 480 bar [6960 psi]		Maximum	480 bar [6960 psi]
Min. low loop 7.5 bar [109 psi]		Min. low loop	7.5 bar [109 psi]
Case pressure Rated 3 bar [44 psi]	Case pressure	Rated	3 bar [44 psi]
Max. 5 bar [73 psi]		Max.	5 bar [73 psi]
Min. 0.3 bar [4 psi]		Min.	0.3 bar [4 psi]

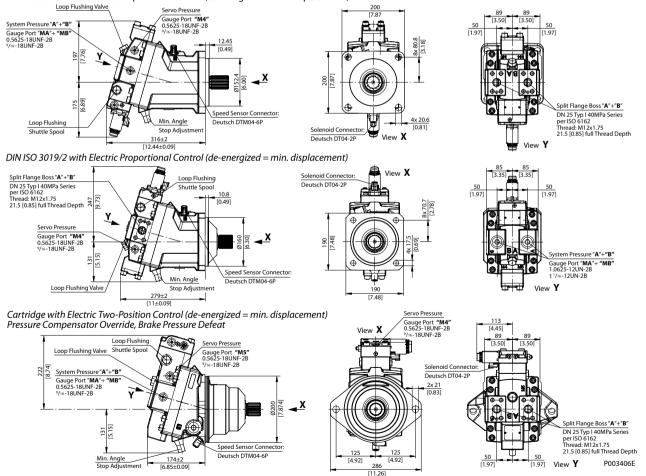
Schematic

H1B with Electric Proportional Control (De-energized = max. displacement)



Dimensions

SAE ISO 3019/1 with Electric Proportional Control (de-energized = max. displacement)



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