

ENGINEERING
TOMORROW

Danfoss

Your trusted partner for power source

D1 Series - The new generation of servo-controlled high power open circuit piston pump

Your
**LOCAL
GLOBAL**
Partner

We specialize in providing
state-of-the-art technology and
solutions for your application





Developed and designed with global expertise;
Locally served to provide best in class support of your
machinery development and manufacturing;
Responsive and flexible supply chain;
Multiple solutions to meet your needs.

Reliable power

Superior performance, efficiency and benefit with
Danfoss D1 pump.

The Danfoss D1 pump is a high performance variable
axial piston pump, designed primarily for open circuit
hydraulic system used in heavy duty applications.

The D1 pump has grown with Danfoss global
expertise and understanding of customer businesses.
Today, our proven technology goes into customized
open circuit solutions with maximum user experience
like reliability, energy saving and performance.

***Your trusted partner with Danfoss
for complete hydraulic system solutions***



A clear vision of the product development

In D1 pump commitments to the entire hydraulic business, we will continue to expand our product and option portfolio, this includes pump sizes, and product options.

Danfoss Application Development Center

Time to market and machine optimization are always critical factors in the industry today. We want to help you minimize the risk associated with product development and partner with you to fulfill your customer value proposition. Our Application Development Center (ADCs) enable us to develop, test, probe, prove and demonstrate real D1 pump solution that you can experience first hand.

*Nordborg – Denmark,
Ames – USA,
Haiyan – China*

Power your power
Your trusted partner
for power sources

D1 Series

High Power Open Circuit Axial Piston Pump

available:

Size 145

Size 193

Size 260



D1 Pump Technical Specifications

Features		Unit	145 (Without Charge Pump)	193 (With Charge Pump)	260 (With Charge Pump)
Displacement		cm ³	145	193	260
Weight (approx)		kg	68	106	141
Input Speed	Rated	min ⁻¹	2200	2500	2300
	Max.		2500	2500	2300
Theoretical Flow		l/min	319	483	598
System Pressure	Max. Working Pressure*	bar	350	350	350
	Max. Pressure		400	400	400
Inlet Pressure (Abs)	Min.	bar	0.8	0.6	0.6
	Max.		30	2	2
Case Pressure (Abs)	Max.	bar	2	2	2

* Applied pressure above maximum working pressure requires Danfoss application approval.

Designed for **quality** and **reliability**

- Proven and optimized 9 piston rotating group
- Angled bore cylinderblock design improves self-priming capability
- The spherical valve plate and cylinderblock surface provide stable cylinderblock rotation, thus achieve high efficiency

Installation and **packaging** benefits

- Mainstream installation
- Standardized connector interface
- High power density

Expanded functionality

- Integral charge pump allows the pump to run with higher speed
- PLUS+1® compliant control
- Full power through drive capability
- The electric displacement control features with manual override function for diagnosis

Control options

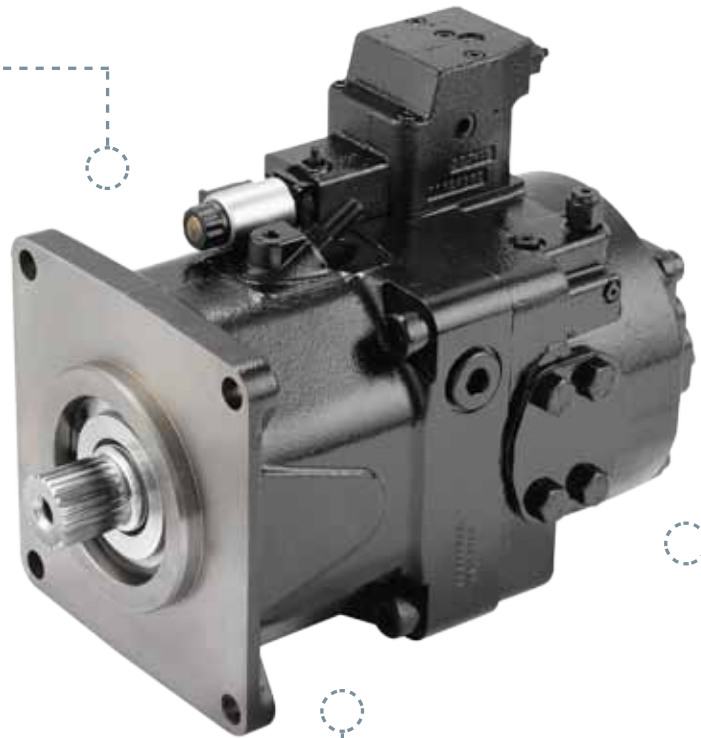
- TPE2 :
Power Control + Pressure compensated control + Electric displacement control
- TPSN :
Power control + Pressure compensated control + Load sensing control

DESIGN
PUMP
FEATURES

D1 Series

High Power Open Circuit
Axial Piston Pump

Crane



Drilling





Concrete pump



Oil Machine

Marine



About Danfoss Power Solutions

Danfoss Power Solutions is a global manufacturer and supplier of high-quality hydraulic and electronic components. We specialize in providing state-of-the-art technology and solutions that excel in the harsh operating conditions of the mobile off-highway market. Building on our extensive applications expertise, we work closely with you to ensure exceptional performance for a broad range of off-highway vehicles. We help OEMs around the world speed up system development, reduce costs, and bring vehicles to market faster.

Danfoss Power Solutions — your strongest partner in mobile hydraulics.

Products we offer:

- Bent Axis Motors
- Closed Circuit Axial Piston Pumps and Motors
- Displays
- Electrohydraulic Power Steering
- Electrohydraulics
- Hydraulic Power Steering
- Integrated Systems
- Joysticks and Control Handles
- Microcontrollers and Software
- Open Circuit Axial Piston Pumps
- Orbital Motors
- PLUS+1® GUIDE
- Proportional Valves
- Sensors
- Steering
- Transit Mixer Drives

Wherever off-highway vehicles are at work, so is Danfoss Power Solutions. We offer you expert worldwide support for ensuring the best possible solutions for outstanding performance. And with an extensive network of Global Service Partners, we also provide you with comprehensive global service for all of our components.

Go to powersolutions.danfoss.com for further product information.

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