

## Data Sheet

# D1 High Power Open Circuit Pumps

## 130/145/193/260 cm<sup>3</sup>

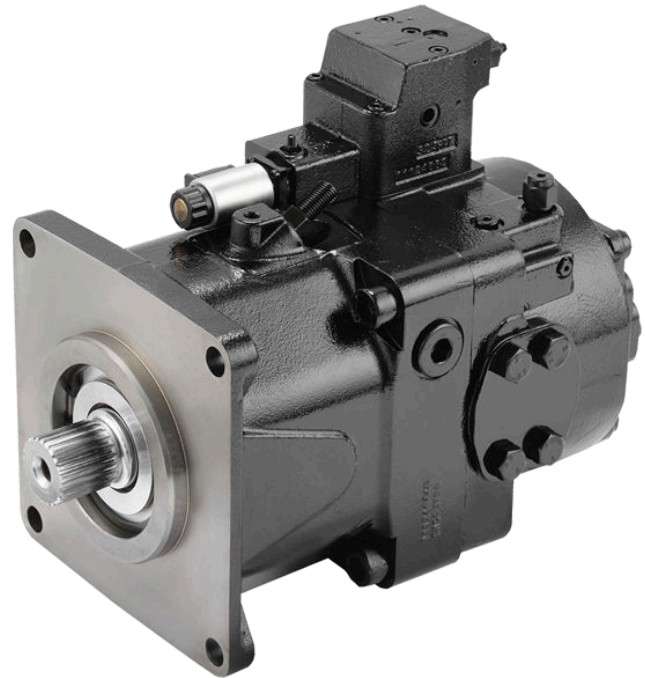


For more than 40 years, Danfoss has been developing state-of-the-art components and systems for mobile machinery used in off-highway operations around the world. We have become a preferred supplier by offering the best of what really matters: The hardware inside your vehicle application.

D1 - our new generation of servo-controlled high power open circuit pump. It is designed for quality and reliability and offers a wide variety of control options, greater total efficiency, and easy installation

The D1 pump is well suited for heavy duty applications: Concrete machinery, Mining machinery, Crane, Drilling machinery, Marine and Off-shore machinery, etc.

The D1 is 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

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

#### Control options

- TPE2/TPE5 : Mechanical power control + Pressure compensated control + Electric displacement control
- TPSN : Mechanical power control + Pressure compensated control + Load sensing control
- ENSN : Electric power control + Load sensing control
- NPSN : Pressure compensated control + Load sensing control

- NPNN : Pressure compensated control
- TPH1 : Mechanical power control + Pressure compensated control + Hydraulic displacement control
- NNES : Electric displacement control + Load sensing control

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

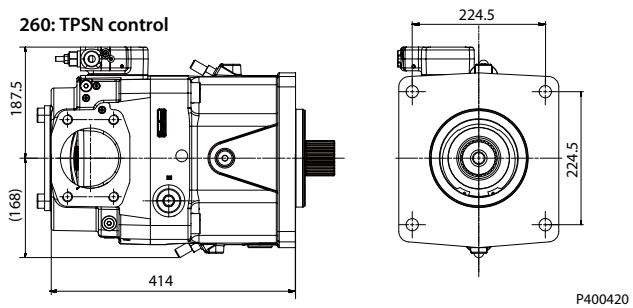
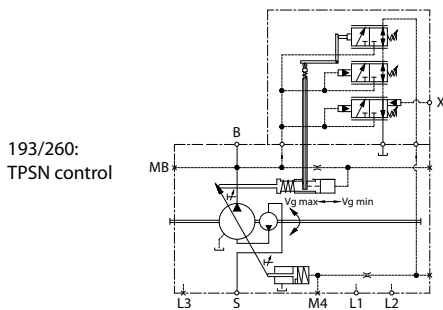
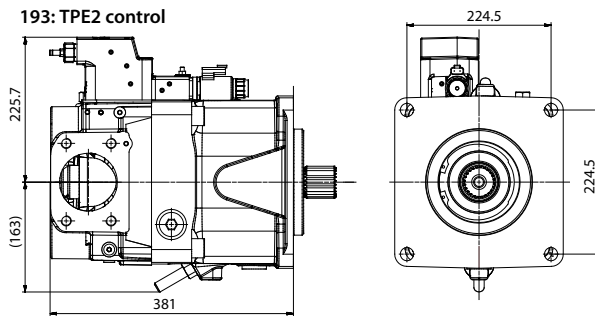
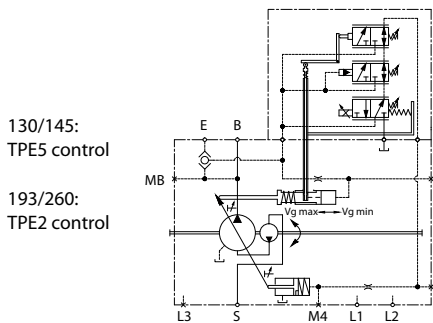
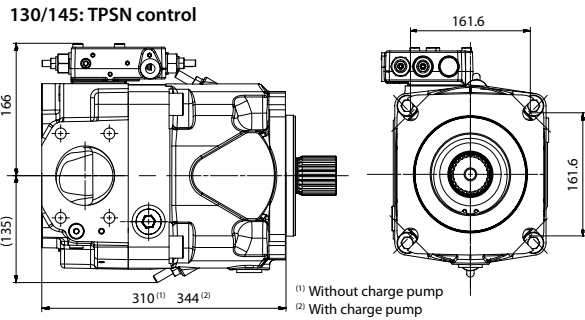
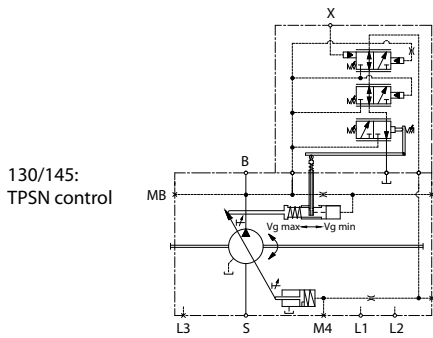
**Technical Specifications**

Features		Unit	130/145 (W/O Charge Pump)	130/145 (W/ Charge Pump)	193 (W/ Charge Pump)	260 (W/ Charge Pump)
Displacement		cm <sup>3</sup>	130/145	130/145	193	260
Weight (approx.)		kg	68	74	106	141
Input Speed	Rated	min <sup>-1</sup>	2200	2500	2500	2300
	Max.		2500	2500	2500	2300
Theoretical Flow		l/min	273/319	325/363	483	598
System Pressure	Max. Working Pressure*	bar	350	350	350	350
	Max. Pressure		400	400	400	400
Inlet Pressure (Abs)	Min.	bar	0.8	0.6	0.6	0.6
	Max.	bar	30	2	2	2
Case Pressure (Abs)	Max.	bar	2	2	2	2

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

**Schematics/Dimensions (mm)**

For other controls. please see D1 Technical Information, L1426007



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