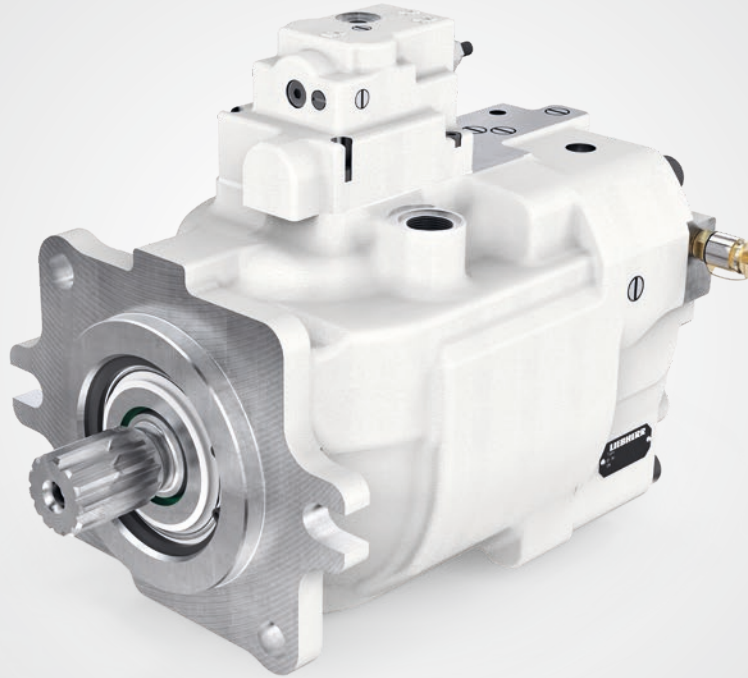


Short Description

Variable Pumps DPVO



The Liebherr axial piston pump DPVO series is developed for the open circuit in swash plate design.

These variable displacement pumps are available in nominal sizes ranging from 108 to 215. The nominal pressure of the units is 400 bar and the maximum pressure is 450 bar absolute.

The open circuit pumps with inverted piston design were especially developed for high pressure applications.

They impress with a 22° swivel angle and high compressive strength as well as a 100 percent through-drive capability. The DPVO series is available with a variety of hydraulic and electric controls.

In nominal size 215, the variable displacement pump is also available with impeller. This achieves a higher selfsuction speed and a higher displacement.

Valid for:

DPVO 108
DPVO 140
DPVO 165
DPVO 215

Features:

Series D
Open circuit

Regulator types:

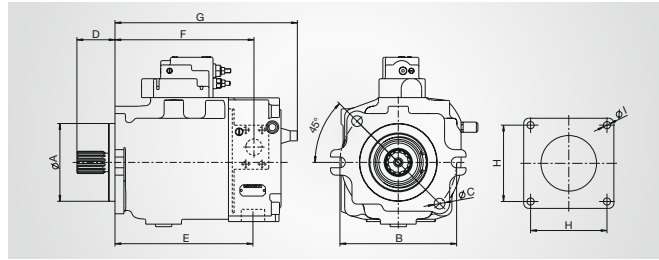
Various regulator types can be selected

Pressure range:

Nominal pressure $p_{HD_N} = 400$ bar
Maximum pressure $p_{HD_{max}} = 450$ bar

Technical Data

Series D: variable displacement pump DPVO



DPVO

variable displacement, open circuit, nominal pressure 400 bar, maximum pressure 450 bar

Nominal size		108	140	165	215	215 impeller
Displacement	$V_{g \max}$ [cm ³]	107.7	140.2	167.8	216.6	216.6
Max. speed*	at $V_{g \max}$, n_{\max} [rpm]	2,100	2,100	2,100	2,000	2,600
Volumetric flow	at n_{\max} , $Q_{v \max}$ [l/min]	226	294	352	433	563
Drive power	$\Delta p = 400$ bar, P_{\max} [kW]	151	196	235	289	375
Drive torque	$\Delta p = 400$ bar, T_{\max} [Nm]	685	892	1,067	1,378	1,378
Max. through drive torque	[Nm]	1,265	1,830	1,950	1,810	2,200
Available controls		LU, EL-DA, EL-LS, LR-LS, LR-SD-DA, LS-DA				

Technical Data

Product dimensions (mm)**		108	140	165	215	215 impeller
Splined shaft profile	DIN 5480 Tol. G	W40 x 2 x 18	W45 x 2 x 21	W45 x 2 x 21	W50 x 2 x 24	W50 x 2 x 24
Centering diameter	A	152.4	152.4	152.4	165.1	165.1
Screw connecting diameter	B	228.6	228.6	228.6	-	-
Fastening bores	C	M16	M16	M16	-	-
Splined shaft length	D	60	66	63.7	65	65
SAE connection length, suction side	E	233	257	270.3	315	335
SAE connection length, pressure side	F	238	257	270.3	311	319
Overall length	G	323	344	357.3	405	398
Connection pitch	H	-	-	-	224.5	224.5
Fastening bores	I	-	-	-	M20	M20
Pressure port	SAE J518 (6,000 psi)	1"	1 1/4"	1 1/4"	1 1/2"	1 1/2"
Suction port	SAE J518 (500 psi)	2 1/2"	3"	3"	3 1/2"	3 1/2"
Oil leakage port	ISO 9974-1	M26 x 1.5	M26 x 1.5	M26 x 1.5	M33 x 2	M33 x 2

* For nominal sizes 108 and 140, a high speed version, max. speed at $V_{g \max} = 2,300$ rpm, is available. Values upon request.

** Dimensions may vary according to configuration and additional equipment (installation drawing on request).

Note:

Various mounting flanges are possible (SAE J617a, SAE J744, DIN/ISO 3019-2). Integrated gear pump for control circuit oil is possible. Through-drive for pumps up to the same size as the installed pump is possible.

Control/regulation Other control function combinations available on request.

Electric proportional adjustment (positive or negative characteristic curve)

Hydraulic adjustment proportional to control pressure (positive or negative characteristic curve)

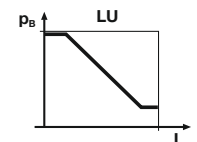
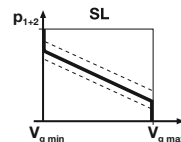
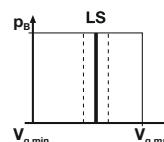
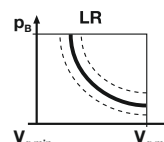
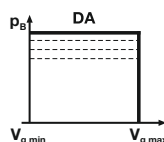
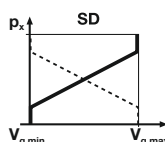
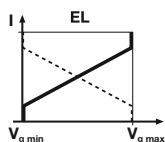
Pressure control or pressure cut-off

Hyperbolic power regulation

Load Sensing

Cumulative power regulation

Fan drive regulation

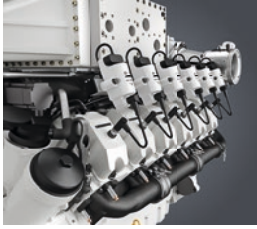


Type code for DPVO pumps

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- Available
- On request
- Not available

Liebherr Components



Gas engines



Diesel engines



Fuel injection systems



Axial piston hydraulics



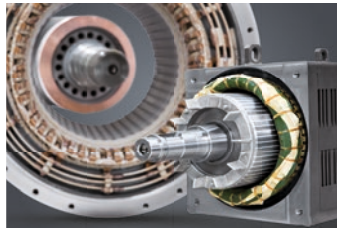
Hydraulic cylinders



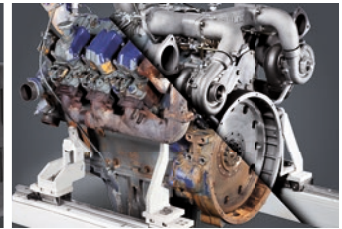
Slewing bearings



Gearboxes and winches



Electric machines



Remanufacturing



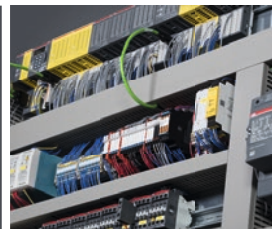
Human-machine interfaces
and gateways



Control electronics and
sensor technology



Power electronics



Control cabinets



Software

From A to Z – the components division of the Liebherr Group offers a broad range of solutions in the area of mechanical, hydraulic, electric and electronic drive system and control technology. The efficient components and systems are produced at a total of ten production sites around the world to the highest standards of quality. Central contact persons for all product lines are available to our customers at Liebherr-

Components AG and the regional sales and distribution branches.

Liebherr is your partner for joint success: from the product idea to development, manufacture and commissioning right through to customer service solutions like remanufacturing.

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