Short description

Axial piston pump DPVG



The Liebherr axial piston pumps in the DPVG series are designed as swashplates for closed circuits. The variable displacement pumps are available in nominal sizes ranging from 085 to 280. The nominal pressure of the units is 6,527 psi (450 bar) and the maximum pressure is 7,252 psi (500 bar) absolute.

Thanks to a hydrostatic swashplate design, this variable displacement pump stands out with its high reliability and long service life, even under the toughest of conditions.

The hydrostatic swashplate mount is available for the nominal sizes 085, 140, and 280.

The inverse drive with a swivel angle of 22° is very efficient and has a very high power density. The DPVG is available with the common controls.

A through-drive is possible, as is the configuration of two DPVG pumps to form a multi-circuit pump in a tandem layout.

Valid for:

DPVG 085 DPVG 108 DPVG 140

DPVG 165

DPVG 280

Features:

D series Closed circuit

Control types:

Various control types can be selected

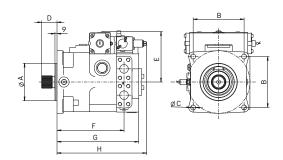
Pressure range:

Nominal pressure $p_N = 6,527 \text{ psi } (450 \text{ bar})$ Maximum pressure $p_{max} = 7,252 \text{ psi } (500 \text{ bar})$



Axial piston pump DPVG





DPVG variable displacement, closed circuit, nominal pressure 6,527 psi (450 bar), maximum pressure 7,252 psi (500 bar)

Nominal size		085	108	140	165	280	
Displacement volume	V_{gmax}	inch³ (cm³)	5.39 (88.4)	6.57 (107.7)	8.56 (140.2)	10.24 (167.8)	17.29 (283.4)
Max. speed	at V_{gmax} , n_{max}	rpm	3,300	3,000	2,850	2,700	2,500
Volume flow	at n_{max} , $q_{\text{v max}}$	US.liq.gal/min (l/min)	77 (291)	85 (323)	106 (400)	120 (453)	187 (709)
Drive power	Δp = 6,237 psi (430 bar), P _{max}	hp (kW)	280 (209)	311 (232)	385 (287)	436 (325)	681 (508)
Drive torque	Δp = 6,237 psi (430 bar), T _{max}	lbf·ft (Nm)	445 (604)	544 (737)	707 (959)	847 (1,149)	1,431 (1,940)

Available controls

EL, EL-DA, ELS-DA, TCE, TCH, ELS, DS, DS-DA, SD, SD-DA, DZH-M-DA

Technical data

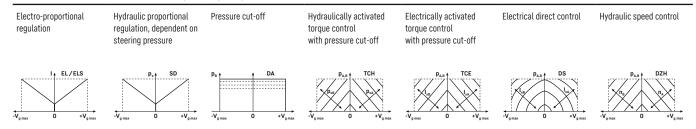
Product dimensions [inch (mm)]*		085	108	140	165	280
Splined shaft profile	DIN 5480	W35 x 2 x 16	W45 x 2 x 21**	W40 x 2 x 18**	W45 x 2 x 21	W55 x 2 x 26
Centering diameter	A, e8 tolerance fit	6.30 (160)	6.00 (152.4)	6.00 (152.4)	7.87 (200)	6.50 (165.1)
Connection diameter, screws	В	5.57 (141.4)	6.36 (161.6)	6.36 (161.6)	6.96 (176.8)	8.84 (224.5)
Fastening holes	C	0.67 (17)	0.83 (21)	0.87 (22)	0.83 (21)	0.87 (22)
Splined shaft length	D	1.97 (50)	2.17 (55)	2.17 (55)	2.36 (60)	2.68 (68)
Height regulation	E	6.22 (158)	7.48 (190)	7.28 (185)	8.07 (205)	8.88 (225.5)
Connection length, SAE, pressure	F	9.04 (229.5)	8.78 (223)	10.26 (260.5)	10.63 (270)	11.63 (295.5)
Length with/without integrated feed pump	G	10.93 / 13.74 (277.5 / 349)	10.55 / 12.42 (268 / 315.5)	12.30 / 14.47 (312.5 / 367.5)	12.68 / 15.00 (322 / 381)	14.17 / - (360 / -)
Total length	Н	13.74 (349)	13.01 (330.5)	14.35 (364.5)	14.11 (358.5)	15.55 (395)
Pressure connections	SAE J518 (6,000 psi)	1"	1"	11/4"	11/4"	11/2"
Leakage oil connections	ISO 9974-1	M26 x 1.5	M33 x 2	M42 x 2	M42 x 2	M42 x 2

^{*} The dimensions can vary depending on the configuration and additional equipment (installation drawing available upon request).

Note

Different mounting flanges are possible (SAE J617a, SAE J744, DIN/ISO 3019-2). With/without integrated feed pump, and an integrated pressure limiting valve for the feed is possible. Through-drive possible for pumps up to the same size.

Control - Other control function combinations possible upon request.



^{**} Further splined shaft dimensions are available on the data sheet.

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Components









Diesel engines

Injection systems

Axial piston hydraulics

Hydraulic cylinders









Large diameter bearings

Gearboxes and rope winches

Electrical machines

Preparation of components











Human-machine interfaces and gateways

Control electronics and sensors

Power electronics

Switchgear

Software

From A to Z, the components division of the Liebherr Group offers a broad range of solutions for mechanical, hydraulic, electric and electronic drive 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 contacts for all product lines are available to customers at Liebherr Component Technologies AG and our regional sales branches.

Liebherr is your partner for joint success: from product idea to development, manufacture and commissioning, right through to customer service solutions, such as preparation of components.

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