

Short description

Axial piston motor DMFA



The Liebherr axial piston motors in the DMFA series are designed as swashplates for open and closed circuits and were specially developed for use in mobile machinery in harsh environments.

The inverse drive with a swivel angle of 22° is very efficient and has a very high power density, making it ideal for applications that require a constant displacement to hydraulic motor.

The flange-mounted constant motors are available in nominal size 355. The nominal pressure of the units is 5,802 psi (400 bar) and the maximum pressure is 6,527 psi (450 bar) absolute.

The optional through-drive can be used for mounting a brake or tandem motor.

Speed sensor or preparation for speed sensor available on request.

Valid for:

DMFA 355 involute gear hub profile

Features:

Axial piston motor (constant)

D series

Open and closed circuit

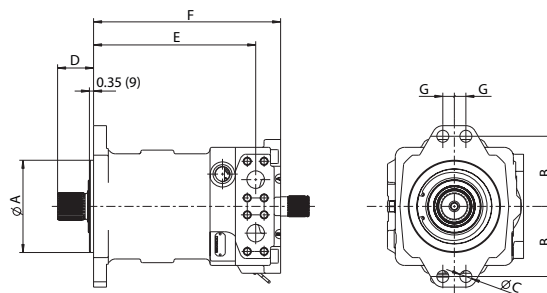
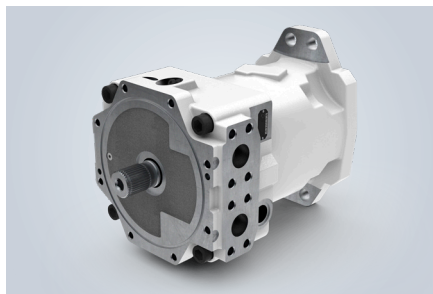
Pressure range:

Nominal pressure $p_N = 5,802$ psi (400 bar)

Maximum pressure $p_{max} = 6,527$ psi (450 bar)

LIEBHERR

Axial piston motor DMFA



DMFA constant displacement, open and closed circuits, nominal pressure 5,802 psi (400 bar), maximum pressure 6,527 psi (450 bar)

Nominal size		355	
Displacement to hydraulic motor	$V_{g \max}$	inch ³ (cm ³)	21.70 (355.6)
Max. speed	at $V_{g \max}$ and $\Delta p = 5,511$ psi (380 bar), n_{\max}	rpm	2,400
Displacement flow to hydraulic motor	at n_{\max} , $Q_{v \max}$	US.liq.gal/min (l/min)	225 (853)
Output power	$\Delta p = 5,511$ psi (380 bar), P_{\max}	hp (kW)	725 (541)
Output torque	$\Delta p = 5,511$ psi (380 bar), T_{\max}	lbf-ft (Nm)	1,585 (2,149)

Technical data

Product dimensions [inch (mm)]*		355	
Splined shaft profile (internal gear)	DIN 5480 involute gear hub profile	W60 x 2 x 28	
Centering diameter	A, h8 tolerance fit	7.87 (200)	
Connection diameter, screws	B	6.93 (176)	
Fastening holes	C	1.02 (26)	
Splined shaft length	D	3.07 (78)	
Connection length, SAE pressure flange	E	13.84 (351.5)	
Total length	F	17.07 (433.5)	
Connection spacing	G	2.36 (60)	
Pressure connection	SAE J518 (6,000 psi) / ISO	1 1/2"	
Leakage oil connection	ISO 9974-1	M33 x 2	

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

Note:

Flushing valve integrated in the connecting plate.

An external brake valve can be attached to the SAE connection.

An external Liebherr multi-disc brake can be attached (special flange with continuous driving shaft).

Type code

DMFA		355	/		00	1	W			A				
1.	2.	3.		4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.

1. Motor type

D series / motor / fixed / flange-mounted

DMFA

2. Type of circuit

Open

0

Closed

6

3. Nominal size

355



4. Residual displacement $V_{g\min}$

Enter value in inch^3/rev (cm^3/rev)



5. Control

Without control



00

6. Design



1

7. Direction of rotation (viewed towards the drive shaft)

Alternating



W

8. Mounting flange (other mounting flanges upon request)

DIN / ISO 3019-2



31...

Special flange



51...

9. Shaft end

Splined shaft DIN 5480



1

Splined shaft ANSI B92.1a



2

Parallel key shaft DIN 6885 (pattern A)



3

10. Connections

ISO 6162-2 / SAE J518-2, high-pressure connection 6,000 psi



A

11. Accessories

Without add-on parts



0

Multi-disk brake



L

12. Through drive

No through drive



0

Special through-drive



K

13. Valve

Flushing, closed circuit



SO

Flushing, open circuit with high-pressure limitation



MH

14. Sensors

Without sensor



0

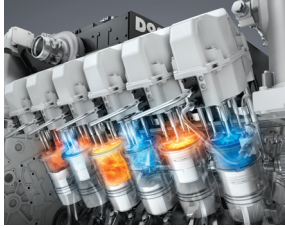
With speed sensor



D

■ Available □ On request - Not available

Components



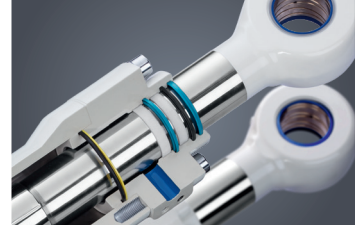
Diesel engines



Injection systems



Axial piston hydraulics



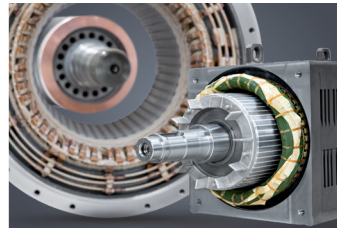
Hydraulic cylinders



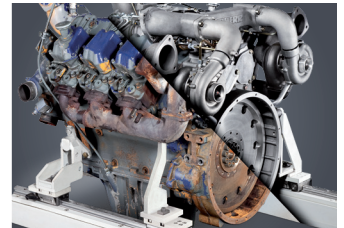
Large diameter bearings



Gearboxes and rope winches



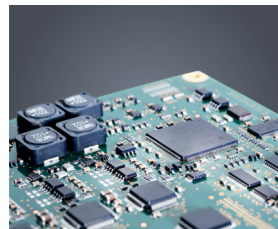
Electrical machines



Preparation of components



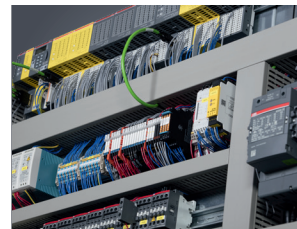
Human-machine interfaces and gateways



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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