HMV-02 D Variable displacement double motor





This new axial piston motor has been developed by Linde Hydraulics to achieve maximum speeds higher than conventional swash plate designs. Additionally, a large displacement volume in a compact design means wider transmission speed ranges, normally achieved with modular transmissions, are possible. The HMV-02 D is about 30 % lighter than a motor combined with transfer gear box, and has a smaller footprint.

The increased power density was achieved through the innovative design of two in-line swash plate rotating groups in a "face-to-face" arrangement. As a result, only one control is needed to adjust the displacement volume of the two motors. The inner lateral forces are compensated so that only one drive shaft and two (instead of four) bearings are required for both rotating groups.

Design Characteristics

- >> Axial piston double motor in swashplate design for high pressure open and closed circuit systems
- >> Two rotating groups in face-to-face arrangement with common control
- >> PTO through-drive motor
- >> Positive control (default=Vmin)

Advantages

- >> High power density
- >> High starting torque
- >> High speed capability
- >> Compact dimensions
- >> Low weight
- >> Increased average efficiency

General technical data

Nominal size		
Displacement	Maximum displacement	cc/rev
Speed	Max. operating speed at Vmax	rpm
	Maximum speed at Vmax ¹	rpm
	Max. operating speed at Vmin	rpm
	Maximum speed at Vmin ¹	rpm
Pressure	Nominal pressure	bar
	Maximum pressure ²	bar
	Max. housing pressure	bar
Torque	Output torque at Δp= 430 bar and Vmax	Nm
Corner power (theoretical)		kW
Weight (without oil) approx.		kg

105	165
210	331.2
3300	2900
3400	3100
4100	3500
4400	3700
450	450
500	500
2.5	2.5
1437	2267
677	878
98	149

¹ highest transient speed, that can temporarily occur

¹ highest transient pressure, that can temporarily occur

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Customer interfaces

Shafts

- >> Nominal size 105
 - ANSI B92.1, 16/32 23 teeth (coupling flange optional)
- >> Nominal size 165
 - ANSI B92.1, 16/32 27 teeth (coupling flange optional)
- >> More shafts upon request

Flanges

- >> Nominal size 105
 - 4-hole (customized)Ø 152,4 / 200 mm
- >> Nominal size 165
 - 4-hole ISO 3019-1 Ø 165,1 / 224,5 mm
- >> More flanges upon request

Ports

- >> Nominal size 105
 - radial working ports, size 32
- >> Nominal size 165
 - radial working ports, size 38
- >> More ports upon request

Application examples



Category

150 kW 180 kW 200 kW 50 kW 60 kW 150 kW

Equipment

A 1 x HPV 135-02 E2

1 x HMV 165-02 D E6

C 1 x iCon

Equipment

Category

A 1 x HPV 55-02 E2 B 1 x HMV 105-02 D E6

c 1 x iCon

Linde Hydraulics GmbH & Co. KG

Wailandtstraße 13 63741 Aschaffenburg Fon +49 6021 150 00 Email info@linde-hydraulics.com Web http://www.linde-hydraulics.com