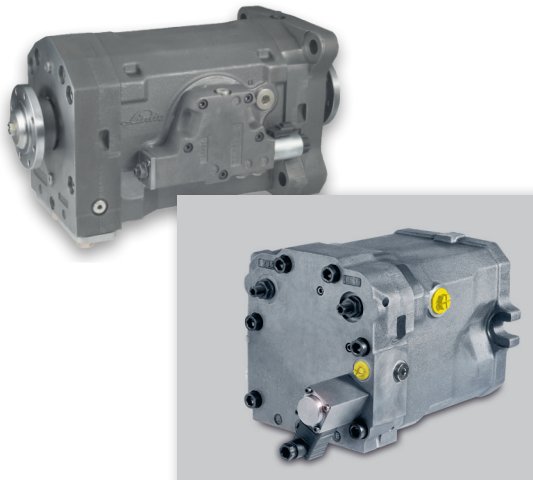# Open & Closed Circuit.
Variable Displacement Motor. **HMV-02.**

Standard hydraulic motors at low speeds in their starting phase cannot generate the necessary torque. Therefore, the power of the fast spinning hydraulic motors has to be reduced by means of several step gearboxes down to the speed needed on the wheel. Somewhat higher windage losses and poorer mechanical efficiency are benevolently accepted in this context. Quite the opposite holds true for the motors by Linde Hydraulics: The motors of the Series 02 are capable of transmitting the required torque even at low speed and make it possible to start smoothly and sensitively.

Design characteristics

— Axial piston motor in swashplate design
— Optimized starting and low speed behaviour
— Swivelling to 0 cc/rev
— Hydrostatic plain bearing of the swashplate

Product advantages

— PTO through-drive motor
— Jerk-free low speed
— Large conversion range
— Extremely high angular acceleration possible

General technical data

HMV-02			55	75	105	135	165	210	280	105 D	165 D
Nominal size											
Displacement	Max. displacement	cc/rev	54.7	75.9	105	135.6	165.6	210	281.9	210	331.2
Speed	Max. operating speed at V_{max}	rpm	4300	3800	3700	3200	3100	2700	2400	3300	2900
	Max. speed at V_{max}*	rpm	4400	4100	3800	3500	3400	3000	2700	3400	3100
	Max. operating speed at V_{min}	rpm	4700	4400	4100	3700	3500	3200	2900	4100	3500
	Max. speed at V_{min}*	rpm	5300	5000	4700	4000	3900	3500	3200	4400	3700
Pressure	Nominal pressure	bar	450	450	450	450	450	450	450	450	450
	Max. pressure**	bar	500	500	500	500	500	500	500	500	500
	Max. housing pressure	bar	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Torque	Output torque (Δp=430 bar and Vmax)	Nm	374	519	719	928	1133	1438	1929	1437	2267
Corner power	(Vmax x nmax at Vmin x Δp 430 bar)	kW	184	239	309	360	415	482	586	677	878
Weight	approx. (without oil)	kg	28	32	42	56	76	101	146	98	149

Customer interfaces

Control options

	Proportional	2-Position	default= Vmin	default= Vmax	Pressure override	Pressure side selection
Electro-hydraulic	✔	✔	✔	✔	✔	✔
Hydraulic	✔	✔		✔	✔	

Sensors

	Speed
	✔

Flanges

	2 hole	4 hole
SAE C	✔	
SAE D	✔	
SAE E		✔

Shafts****

	ISO 3019-1 (SAE J 744) ANSI B92.1-1970	Compagnion flange SAE J 1946 Typ A	DIN 5480
	✔	✔	✔

Through drive

Only for nominal sizes 105, 135, 165, 210, 280, 105D, 165D
✔

Ports****

	ISO 61622 Radial	ISO 61622 Axial	ISO 6149 – 1
Work ports	✔	✔	
Threaded ports			✔

* highest transient speed, that can temporarily occur | ** highest transient pressure, that can temporarily occur | **** Availability depends on nominal size