

Short Description

Variable Plug-In Motors CMVE



The Liebherr axial piston motor CMVE series is developed for the open circuit in swash plate design. The variable plug-in motors are available in nominal sizes ranging from 85 to 165 cm³. The nominal pressure is 380 bar and maximum pressure 400 bar.

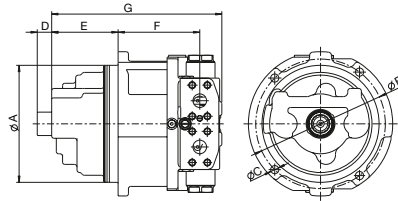
Special Features of the CMVE:

The travel motor with hydraulic two point control is a very compact drive unit due to integrated design of mounting brake and brake valve.

Speed sensor or preparation for speed sensor are available on request.

Technical Data

Series C: CMVE variable displacement plug-in motor



CMVE

variable displacement, open and closed circuit, nominal pressure 380 bar, maximum pressure 400

Nominal size		85	108	135	165
Displacement	$V_{g \max}$ [cm ³]	85.2	108	135.7	165.9
Max. speed	at $V_{g \max}$ and $\Delta p = 360$ bar, n_{\max} [rpm]	3,900	3,470	3,250	3,000
Max. speed	at $V_g / V_{g \max} = 0.65$ and $\Delta p = 200$ bar, n_{\max} [rpm]	5,000	4,500	4,550	4,200
Flow	at n_{\max} , $q_{v \max}$ [l/min]	332	375	441	498
Output power	$\Delta p = 360$ bar, P_{\max} [kW]	199	225	265	299
Output torque	$\Delta p = 360$ bar, T_{\max} [Nm]	488	619	778	951
Available controls		ZH, DA			

Technical Data

Product dimensions (mm)*		85	108	135	165
Splined shaft profile (internal gear)	DIN 5480 Tol. 9H/9g	W32 x 1.25 x 24	N35 x 2 x 16	W40 x 2 x 18	N40 x 2 x 18
Centering diameter	A fit h8	200	215	226	240
Screw connection diameter	B	222**	238**	248**	265**
Fastening bores	C	13	15	15	17
Splined shaft length	D	24.5	26.5	31.5	37.5
Insertion length	E	117	122	132	137
Connection length, SAE flanges	F	135	150	160	182
Overall length	G	303	312.5	332.5	374
Pressure ports	SAE J518 (6,000 psi) / ISO	M33x2	1"	1"	1 1/4"
Oil leakage port	ISO 9974-1	M26 x 1.5	M26 x 1.5	M26 x 1.5	M26 x 1.5

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

** 4-hole special attachment flange.

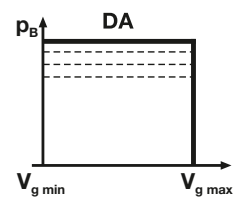
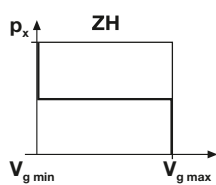
Note:

Integrated brake valve with automatic brake release, flushing, pressure limiting valves and internal multi-disk brake. This motor is mainly intended for installation in a mechanical travel drive.

Control / regulation

Hydraulic two point control

Pressure control or pressure cut-off

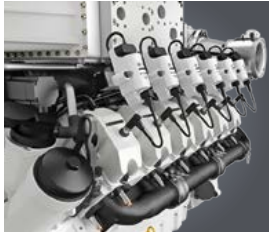


Type code for CMVE motors

CMVE					0	/																			
Motor type																									
Variable displacement plug-in motor, series C															CMVE										
Circuit type																									
Open															0										
Nominal size																									
															85	108	135	165							
Minimum displacement (Other values on request)																									
$V_{g\ min} = 38,6\ cm^3$															•	-	-	-							
$V_{g\ min} = 44,9\ cm^3$															•	-	-	-							
$V_{g\ min} = 50,25\ cm^3$															•	-	-	-							
$V_{g\ min} = 53,9\ cm^3$															•	-	-	-							
$V_{g\ min} = 65\ cm^3$															-	•	-	-							
$V_{g\ min} = 75\ cm^3$															-	•	-	-							
$V_{g\ min} = 79\ cm^3$															-	-	-	•							
$V_{g\ min} = 81\ cm^3$															-	-	•	-							
$V_{g\ min} = 106\ cm^3$															-	-	-	•							
$V_{g\ min} = 117\ cm^3$															-	-	-	•							
Control / regulation																									
Hydraulic two point control															•	•	•	•		ZH					
Pressure control or pressure cut-off															•	-	-	-		DH					
Design																									
																				1					
Direction of rotation (looking at input shaft)																									
Right															-	-	-	-		R					
Left															-	-	-	-		L					
Alternating															•	•	•	•		W					
Mounting flange																									
Non-standard flange															•	•	•	•		51...					
Shaft end																									
Splined shaft DIN 5480															•	•	•	•		1					
Splined shaft SAE J744															○	○	○	○		2					
Connections																									
High-pressure ports: SAE (6,000 PSI)															-	•	•	•		A					
Oil leakage and control pressure ports: metric (DIN 3852)																									
High-pressure ports: SAE (3,000 PSI)															○	○	○	○		B					
Oil leakage and control pressure ports: metric (DIN 3852)																									
All ports: metric thread															•	-	-	-		C					
Additional equipment																									
No attachment															○	○	○	○		0					
Multi-disc brakes															•	•	•	•		L					
Through-drive																									
Without through-drive (closed)															•	•	•	•		0					
Non-standard through-drive															-	-	-	-		K					
Valve																									
None															○	○	○	○		0					
High pressure relief valve															○	○	○	○		OH					
Hydraulically adjustable high pressure relief valve															○	○	○	○		OX					
Flushing for open circuit															○	○	○	○		MO					
Flushing for open circuit with high pressure relief valve															○	○	○	○		MH					
Resuction valve with high pressure relief valve															○	○	○	○		NH					
Resuction valve with hydraulically adjustable high pressure relief valve															○	○	○	○		NX					
High pressure relief valve with brake valve															•	•	•	•		BH					
Sensor																									
None															•	•	•	•		0					
With speed sensor															○	○	○	○		D					
With swash plate angle sensor															○	○	○	○		W					
With pressure sensor															○	○	○	○		P					

- Verfügbar
- Auf Anfrage
- Nicht Verfügbar

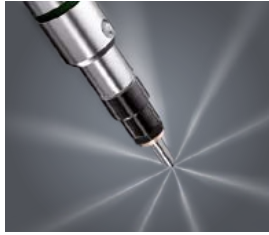
Liebherr Components



Gas engines



Diesel engines



Fuel injection systems



Axial piston hydraulics



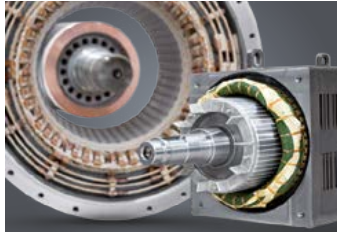
Hydraulic cylinders



Large diameter bearings



Gearboxes and winches



Electric machines



Remanufacturing



Human machine interfaces



Control electronics



Power electronics



Switchgear



Software

From A to Z, the components monitoring of the Liebherr Group offers a broad spectrum 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 customers outside the Liebherr Group 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 series production and remanufacturing.

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