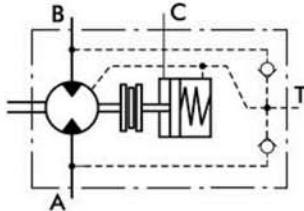
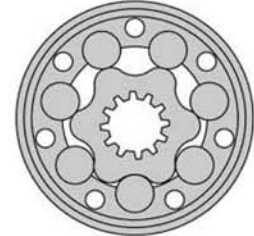


B/EPRM Series Integral Hydraulic Motor Brake



APPLICATION

- » Conveyors
- » Feeding mechanism of robots and manipulators
- » Metal working machines
- » Textile machines
- » Machines for agriculture
- » Food industries
- » Mining machinery etc.



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OPTIONS

- » Model- Spool valve, roll-gerotor;
- » Fully integrated friction disk brake;
- » Side port;
- » Shaft - straight;
- » BSPP ports.

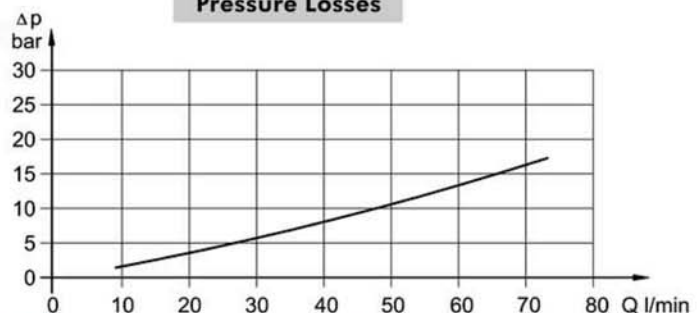
GENERAL

Displacement, [cm ³ /rev.]	80,3 ÷ 397
Max. Speed, [RPM]	150 ÷ 500
Max. Torque, [daNm]	19,5 ÷ 55
Max. Output, [kW]	2,2 ÷ 16
Max. Pressure Drop, [bar]	45 ÷ 175
Max. Oil Flow, [l/min]	40 ÷ 60
Min. Speed, [RPM]	10
Permissible Shaft Loads, [daN]	P _a = 200
Pressure fluid	Mineral based- HLP(DIN 51524) or HM(ISO 6743/4)
Temperature range, [°C]	-30 ÷ 90
Optimal Viscosity range, [mm ² /s]	20 ÷ 75
Filtration	ISO code 20/16 (Min. recommended fluid filtration of 25 micron)

Oil flow in drain line

Pressure drop (bar)	Viscosity (mm ² /s)	Oil flow in drain line (l/min)
100	20	2,5
	35	1,8
140	20	3,5
	35	2,8

Pressure Losses



SPECIFICATION DATA

Type	B/EPRM 80	B/EPRM 100	B/EPRM 125	B/EPRM 160 C	B/EPRM 160 CB	B/EPRM 200 C	B/EPRM 200 CB
Displacement, cm. ³ /rev.	80,3	99,8	125,7	159,6		199,8	
Max. Speed, [min ⁻¹]	Cont.	500	500	475		300	
	Int.*	600	600	600		470	
Max. Torque [daNm]	Cont.	19,5	24	30	30	39	45
	Int.*	22	28	34	39	43	50
	Peak**	27	32	37	46	46	56
Max. Output [kW]	Cont.	16,6	18,6	12,5	10	11,5	11
	Int.*	16	16	14,5	12,5	14	13
Max. Pressure Drop, [bar]	Cont.	175	175	175	135	175	105
	Int.*	200	200	200	175	200	145
	Peak**	225	225	225	225	225	225
Max. Oil Flow [l/min]	Cont.	40	50	60	60		60
	Int.*	48	60	75	75		75
Max. Inlet Pressure [bar]	Cont.	175					
	Int.*	200					
	Peak**	225					
Max. Starting Pressure [bar]	10	10	9	7		5	
Min. Starting Torque, [daNm]	At max.press.dropCont	15	20	25	24	32	26
	At max.press.dropInt.*	17	23	28	32	37	33
Min. Speed***, [min ⁻¹]	10	10	10	10	10	10	10
Static Torque of Brake, [daNm]	55						
Min. Brake Release Pressure****, [bar]	21						
Max. Opening Pressure, [bar]	200						
Weight, [kg]	11,0	11,2	11,4	11,6	11,7	12,2	12,3

* Intermittent operation: the permissible values may occur for max. 10% of every minute.

** Peak load: the permissible values may occur for max. 1% of every minute.

*** For speeds of 10 RPM or lower, consult factory or your regional manager.

**** Motor-brakes must always have a drain line. The brake release pressure is the difference between the pressure in the brake release line and the pressure in the drain line.

- Intermittent speed and intermittent pressure drop must not occur simultaneously.
- Recommended filtration is per ISO cleanliness code 20/16. A nominal filtration of 25 micron or better.
- Recommended using a premium quality, anti-wear type mineral based hydraulic oil HLP(DIN51524) or HM (ISO 6743/4). If using synthetic fluids consult the factory for alternative seal materials.
- Recommended minimum oil viscosity 13 mm²/s at operating temperatures.
- Recommended maximum system operating temperature is 82°C.
- To assure optimum motor life fill with fluid prior to loading and run at moderate load and speed for 10-15 minutes.

SPECIFICATION DATA (continued)

Type		B-EPRM 250 C	B-EPRM 250 CB	B-EPRM 315 C	B-EPRM 315 CB	B-EPRM 400 C	B-EPRM 400 CB
Displacement, cm. ³ /rev.		250,1		315,7		397	
Max. Speed, [min ⁻¹]	Cont.	240		190		150	
	Int.*	300		240		190	
Max. Torque [daNm]	Cont.	30	54	30	55	30	55
	Int.*	39	57	42	57	43	57
	Peak**	60	71	61	71	60	70
Max. Output [kW]	Cont.	6.2	10	4,5	9	2,2	7
	Int.*	9.5	11	7,5	10	5,6	8,7
Max. Pressure Drop, [bar]	Cont.	85	175	65	135	45	105
	Int.*	115	185	90	145	75	115
	Peak**	200	225	150	180	120	140
Max. Oil Flow [l/min]	Cont.	60					
	Int.*	75					
Max. Inlet Pressure [bar]	Cont.	175					
	Int.*	200					
	Peak**	225					
Max. Starting Pressure [bar]		5		5		5	
Min. Starting Torque, [daNm]	At max.press.drop Cont	24	50	26	50	24	44
	At max.press.drop Int.*	31	51,5	35	51,8	38	50
Min. Speed***, [min ⁻¹]		10	10	10	10	10	10
Static Torque of Brake, [daNm]		55					
Min. Brake Release Pressure****, [bar]		21					
Max. Opening Pressure, [bar]		200					
Weight, [kg]		12,6	12,7	13,3	13,4	14	14,1

Intermittent operation: the permissible values may occur for max. 10% of every minute.

* Peak load: the permissible values may occur for max. 1% of every minute.

** For speeds of 10 RPM or lower, consult factory or your regional manager.

*** Motor-brakes must always have a drain line. The brake release pressure is the difference between the pressure in the brake release line and the pressure in the drain line.

. Intermittent speed and intermittent pressure drop must not occur simultaneously.

i. Recommended filtration is per ISO cleanliness code 20/16. A nominal filtration of 25 micron or better.

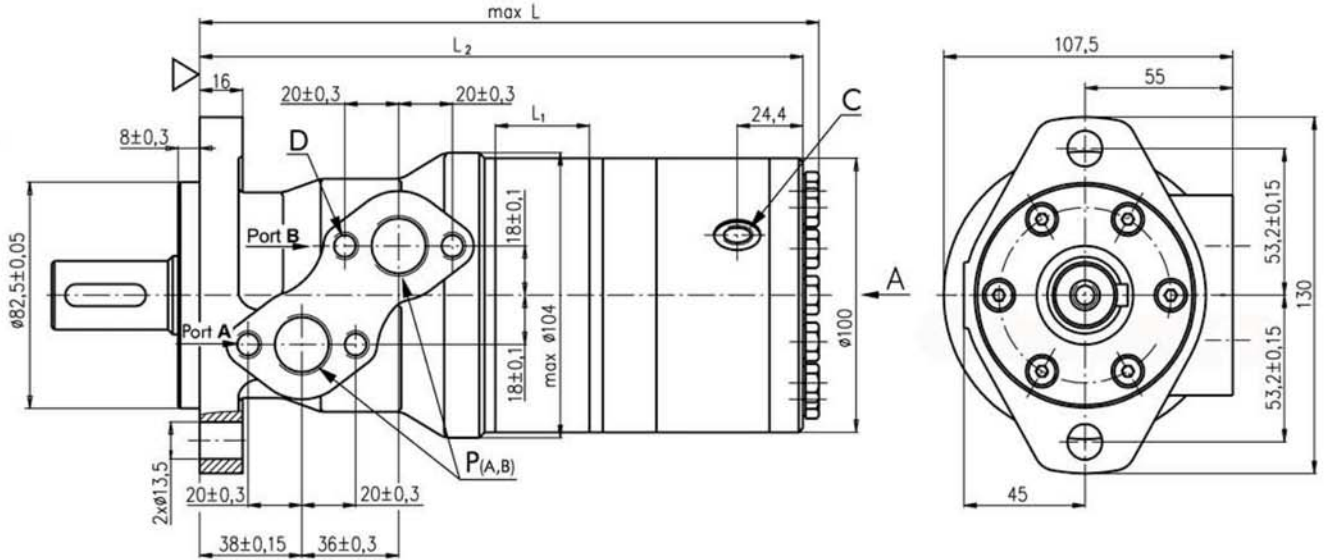
i. Recommended using a premium quality, anti-wear type mineral based hydraulic oil HLP(DIN51524) or HM (ISO 6743/4).
If using synthetic fluids consult the factory for alternative seal materials.

. Recommended minimum oil viscosity 13 mm²/s at operating temperatures.

i. Recommended maximum system operating temperature is 82°C.

i. To assure optimum motor life fill with fluid prior to loading and run at moderate load and speed for 10-15 minutes.

OUTLINE DIMENSIONS REFERENCE

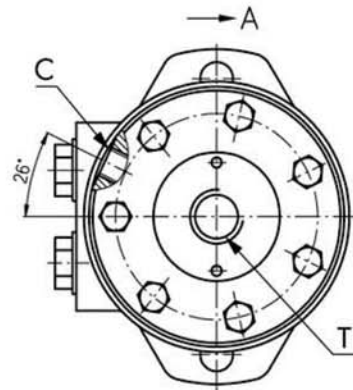


- D** : 4xM8 - 13 mm depth
- C** : G1/4 - 12 mm depth
- P_(A, B)** : 2xG1/2 - 15 mm depth
- T** : G1/4 - 10 mm depth

Type	L ₁ , mm	L ₂ , mm	L _{max} , mm
B/EPRM 80	14,0	205,5	213,5
B/EPRM 100	17,4	209,0	217,0
B/EPRM 125	21,8	213,5	221,5
B/EPRM 160	27,8	219,5	227,5
B/EPRM 200	34,8	226,5	234,5
B/EPRM 250	43,5	235,0	243,0
B/EPRM 315	54,8	246,5	254,5
B/EPRM 400	69,4	261,0	269,0

Standard Rotation
Viewed from Shaft End
Port A Pressurized - CW
Port B Pressurized - CCW

Reverse Rotation
Viewed from Shaft End
Port A Pressurized - CCW
Port B Pressurized - CW

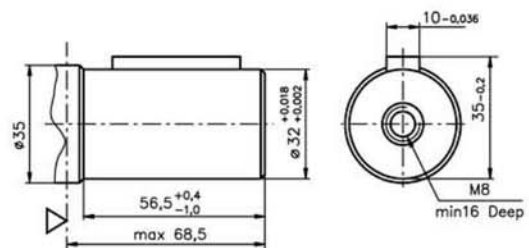
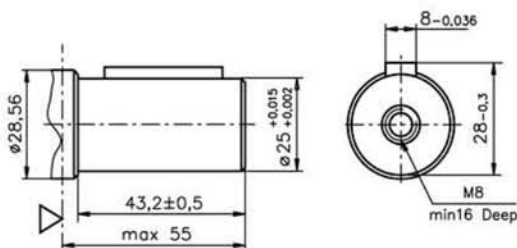


▽ - Motor Mounting Surface

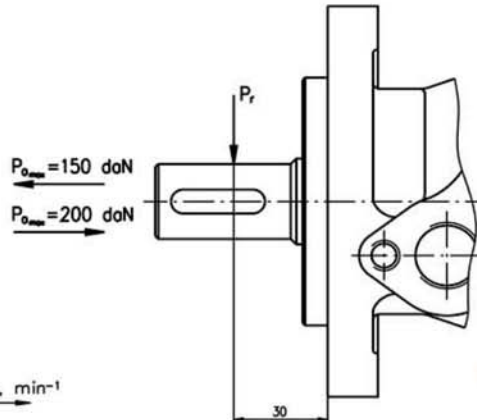
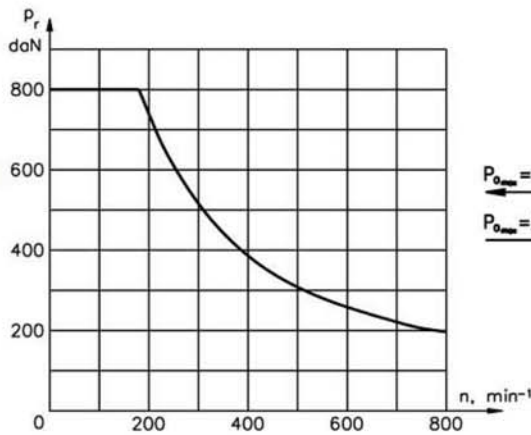
SHAFT EXTENSIONS

C - Ø25 straight, Parallel key A8x7x32 DIN 6885
Max. Torque 34 daNm

CB - Ø32 straight, Parallel key A10x8x45 DIN 6885
Max. Torque 77 daNm



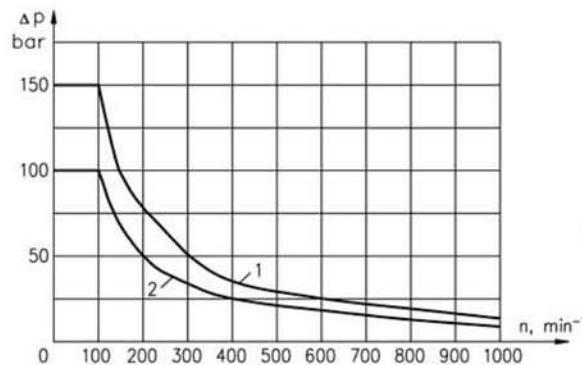
PERMISSIBLE SHAFT LOADS



For Rotation speed $n \geq 200 \text{ min}^{-1}$
and distance $L \neq 30 \text{ mm}$
the radial load could be
calculated by

$$P_r = \frac{800}{n} \times \frac{25\,000}{95+L}, \text{ daN}$$

MAX. PERMISSIBLE SHAFT SEAL PRESSURE



1: Drawing for "C" shaft
2: Drawing for "CB" shaft

ORDER CODE

	1	2	3	4
B/EPRM				

Pos. 1 - Displacement code

80	- 80,3 [cm ³ /rev]
100	- 99,8 [cm ³ /rev]
125	- 125,7 [cm ³ /rev]
160	- 159,6 [cm ³ /rev]
200	- 199,8 [cm ³ /rev]
250	- 250,1 [cm ³ /rev]
315	- 315,7 [cm ³ /rev]
400	- 397,0 [cm ³ /rev]

Pos. 2 - Shaft Extensions*

C	- ø25 straight, Parallel key A8x7x32 DIN 6885
CB	- ø32 straight, Parallel key A10x8x45 DIN 6885

Pos. 3 - Special Features (see page 53)

Pos. 4 - Design Series

omit - Factory specified

NOTES:

* The permissible output torque for shafts must be not exceeded!

The hydraulic motors are mangano phosphatized as standard.