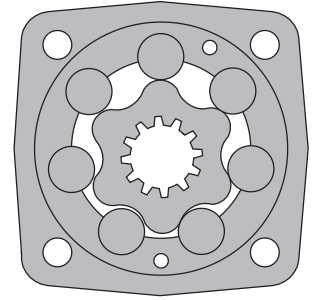


HYDRAULIC MOTORS EPMS



APPLICATION

- » Conveyors;
- » Metal working machines;
- » Machines for agriculture;
- » Road building machines;
- » Mining machinery;
- » Food industries;
- » Special vehicles etc.



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OPTIONS

- » Model- Disc valve, geroler;
- » Flange and wheel mount;
- » Short motor;
- » Motor with Drum Brake;
- » Tacho connection;
- » Side and rear ports
- » Shafts- straight, splined and tapered;
- » Metric and BSPP ports;
- » Other special features.

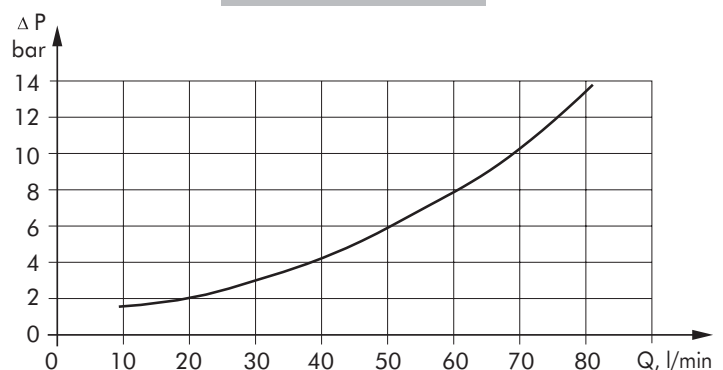
GENERAL

Displacement, [cm ³ /rev.]	80,5 ÷ 711,9
Max. Speed, [RPM]	810 ÷ 105
Max. Torque, [daNm]	23,5 ÷ 58
Max. Output, [kW]	19,5 ÷ 5,4
Max. Pressure Drop, [bar]	200 ÷ 55
Max. Oil Flow, [l/min]	75
Min. Speed, [RPM]	10 ÷ 5
Permissible Shaft Loads, [daN]	P _{rad} = 1500; P _a = 500
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)
140	20	1,5
	35	1
210	20	3
	35	2

Pressure Losses



SPECIFICATION DATA

Type	EPMS 80	EPMS 100	EPMS 125	EPMS 160	EPMS 200	
Displacement [cm³/rev.]	80,5	100	125,7	159,7	200	
Max. Speed, [RPM]	cont.	810	750	600	470	375
	Int.*	1000	900	720	560	450
Max. Torque [daNm]	cont.	23,5	29,2	32	34	40
	Int.*	25,8	32	38	48	50
	peak**	26	32	40	51	65
Max. Output [kW]	cont.	18,2	19,5	17,5	15,5	14
	int.*	22	22,5	21	21	17,5
Max. Pressure Drop [bar]	cont.	200	200	175	175	140
	Int.*	225	225	210	210	175
	peak**	250	250	225	225	225
Max. Oil Flow [l/min]	cont.	65	75	75	75	75
	Int.*	80	90	90	90	90
Max. Inlet Pressure [bar]	cont.	210	210	210	210	210
	Int.*	250	250	250	250	250
	peak**	300	300	300	300	300
Max. Return Pressure without Drain Line or Max. Pressure in Drain Line , [bar]	cont. 0-100 RPM	100	100	100	100	100
	cont. 100-300 RPM	50	50	50	50	50
	cont. >300 RPM	20	20	20	20	20
Max. Return Pressure with Drain Line [bar]	Int.* 0-max. RPM	100	100	100	100	100
	cont.	140	140	140	140	140
	Int.*	175	175	175	175	175
Max. Starting Pressure with Unloaded Shaft, [bar]	peak**	210	210	210	210	210
		12	10	10	8	8
Min. Starting Torque [daNm]	at max. press. drop cont.	16,5	20,5	26	28	33
	at max. press. drop Int.*	19,5	25	31	39	41
Min. Speed***, [RPM]		10	10	8	8	6
Weight, [kg]	EPMS(F) [E]	9,8[10,2]	10[10,4]	10,3[10,7]	10,7[11,1]	11,1[11,5]
	EPMSW [E]	10,3[10,7]	10,5[10,9]	10,8[11,2]	11,2[11,6]	11,6[12]
	EPMSS(Z) [E]	7,8[8,2]	8[8,4]	8,3[8,7]	8,7[9,1]	9,1[9,5]
	EPMSV [E]	5,7[6,1]	5,9[6,3]	6,2[6,6]	6,6[7]	7[7,4]
	EPMSQ [E]	10,2[10,6]	10,4[10,8]	10,7[11,1]	11,1[11,5]	11,5[11,9]
	EPMSB [E]	16,8[17,2]	17,0[17,4]	17,3[17,7]	17,7[18,1]	18,1[18,5]

* 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 5 RPM lower than given, consult factory or your regional manager.

- 1) Intermittent speed and intermittent pressure must not occur simultaneously.
- 2) Recommended filtration is per ISO cleanliness code 20/16. A nominal filtration of 25 micron or better.
- 3) Recommend 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.
- 4) Recommended minimum oil viscosity 13mm²/s at operating temperatures.
- 5) Recommended maximum system operating temperature is 82°C.
- 6) 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		EPMS 250	EPMS 315	EPMS 400	EPMS 475	EPMS 525	EPMS 565
Displacement [cm ³ /rev.]		250	314,9	397	474,6	522,7	564,9
Max. Speed, [RPM]	cont.	300	240	190	160	145	130
	Int.*	360	290	230	190	175	160
Max. Torque [daNm]	cont.	45	54	58	58	58	58
	Int.*	54	63	69	68	69	69
	peak**	69	84	85	84	85	85
Max. Output [kW]	cont.	12,5	11,5	10	8,4	7,6	6,9
	int.*	15	13,5	13	11,3	10,4	9,6
Max. Pressure Drop [bar]	cont.	125	120	100	85	80	75
	Int.*	155	140	120	100	90	85
	peak**	200	185	140	115	105	100
Max. Oil Flow [l/min]	cont.	75	75	75	75	75	75
	Int.*	90	90	90	90	90	90
Max. Inlet Pressure [bar]	cont.	210	210	210	210	210	210
	Int.*	250	250	250	250	250	250
	peak**	300	300	300	300	300	300
Max. Return Pressure without Drain Line or Max. Pressure in Drain Line , [bar]	cont. 0-100 RPM	100	100	100	100	100	100
	cont. 100-300 RPM	50	50	50	50	50	50
	cont. >300 RPM	-	-	-	-	-	-
Max. Return Pressure with Drain Line [bar]	Int.* 0-max. RPM	100	100	100	100	100	100
	cont.	140	140	140	140	140	140
Max. Starting Pressure with Unloaded Shaft, [bar]	Int.*	175	175	175	175	175	175
	peak**	210	210	210	210	210	210
	cont.	8	8	8	8	8	8
Min. Starting Torque [daNm]	at max. press. drop cont.	36	44	47	47	47	47
	at max. press. drop Int.*	44	52	55	55	55	55
Min. Speed***, [RPM]		6	5	5	5	5	5
Weight, [kg]	EPMS(F) [E]	11,6[12]	12,3[12,7]	13,2[13,6]	14[14,4]	14,9[15,3]	14,9[15,3]
	EPMSW [E]	12,1[12,5]	12,8[13,2]	13,7[14,1]	14,5[14,9]	15,4[15,8]	15,4[15,8]
	EPMSS(Z) [E]	9,6[10]	10,3[10,7]	11,2[11,6]	12[12,4]	12,9[13,3]	12,9[13,3]
	EPMSV [E]	7,5[7,9]	8,2[8,6]	9,1[9,5]	9,9[10,3]	10,8[11,2]	10,8[11,2]
	EPMSQ [E]	12[12,4]	12,7[13,1]	13,6[14]	14,4[14,8]	15,3[15,7]	15,3[15,7]
	EPMSB [E]	18,6[19]	19,3[19,7]	20,2[20,6]	21[21,4]	21,9[22,3]	21,9[22,3]

* 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 5 RPM lower than given, consult factory or your regional manager.

- 1) Intermittent speed and intermittent pressure must not occur simultaneously.
- 2) Recommended filtration is per ISO cleanliness code 20/16. A nominal filtration of 25 micron or better.
- 3) Recommend 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.
- 4) Recommended minimum oil viscosity 13mm²/s at operating temperatures.
- 5) Recommended maximum system operating temperature is 82°C.
- 6) To assure optimum motor life fill with fluid prior to loading and run at moderate load and speed for 10-15 minutes.

SPECIFICATION DATA for EPMS...LSV

Low Speed Valve (LSV) "LSV" Series hydraulic motors have been designed to operate with normal pressure drop and to ensure smooth run at low speed (up to 200 min⁻¹), as the best security for operation is guaranteed at frequency of rotation 20 ÷ 50 min⁻¹. They have an increased starting pressure drop and are not recommended for using at pressure less than 40 bars.

Look at specification data for hydraulic motors standard version. The modification concerns only the following parameters : maximum speed , maximum output, maximum Oil flow and maximum starting pressure.

Type		EPMS 80	EPMS 100	EPMS 125	EPMS 160	EPMS 200	EPMS 250	EPMS 315	EPMS 400
Max. Speed, [RPM]	Cont.	200	200	200	200	200	200	200	185
	Int.*	250	250	250	250	250	250	250	225
Max. Output [kW]	Cont.	4,6	6,0	7,4	8,0	8,0	8,8	10,6	9,5
	Int.*	6,5	8,4	10,0	12,2	12,4	13,4	15,0	12,8
Max. Oil Flow [l/min]	Cont.	16	20	25	32	40	50	65	75
	Int.*	20	25	32	40	50	62,5	80	90
Max. Starting Pressure with Unloaded Shaft, [bar]		25	20	20	15	15	15	15	15

SPECIFICATION DATA for EPMS...LL

Low Leakage (LL) "LL" Series hydraulic motors have been designed to operate at the whole standard range of working conditions (pressure drop and frequency of rotation) , but with considerable decreased volumetric losses in the drainage ports. Their main purpose is to operate as series-connected motors in hydraulic systems.

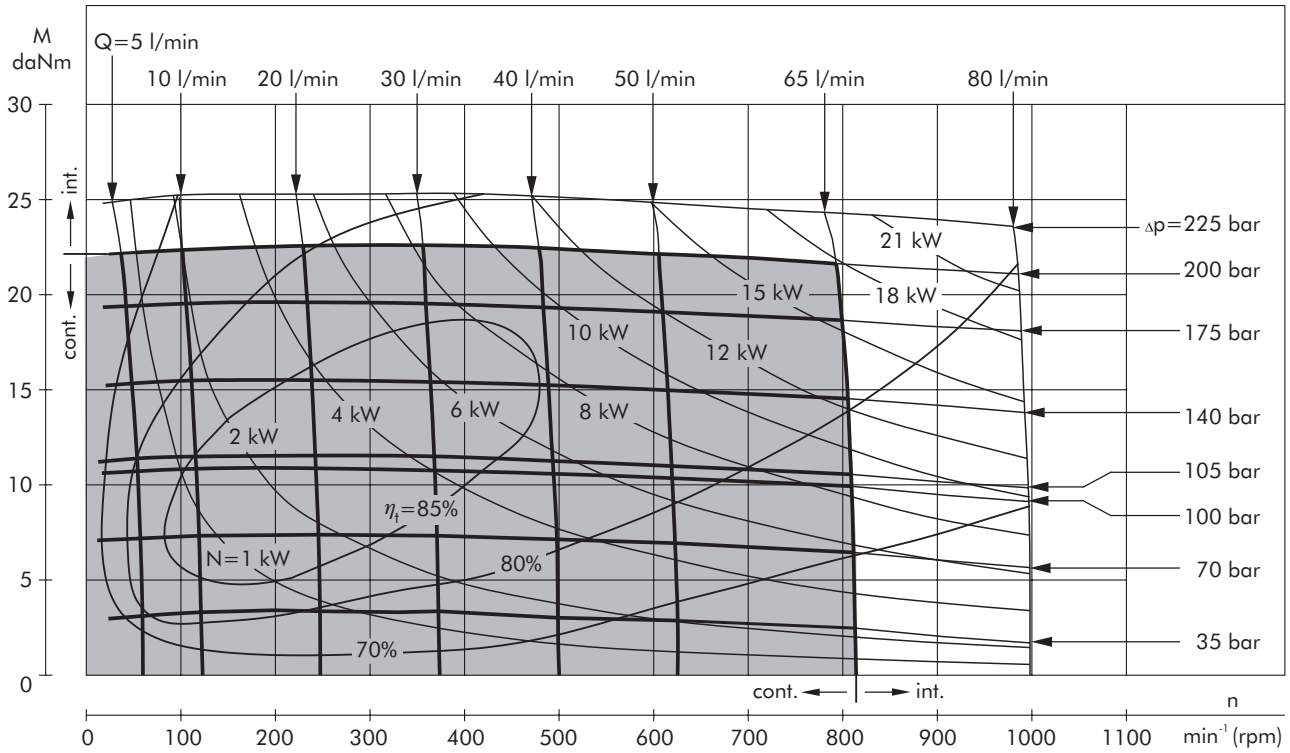
For this version is permissible decreasing of the maximal torque with up to 5% (at middle speed) and up to 10% (at high speed) in comparison to the standard versions of motors.

Look at specification data for hydraulic motors standard version. The modification concerns only the parameters: maximum torque, maximum output, minimum starting torque.

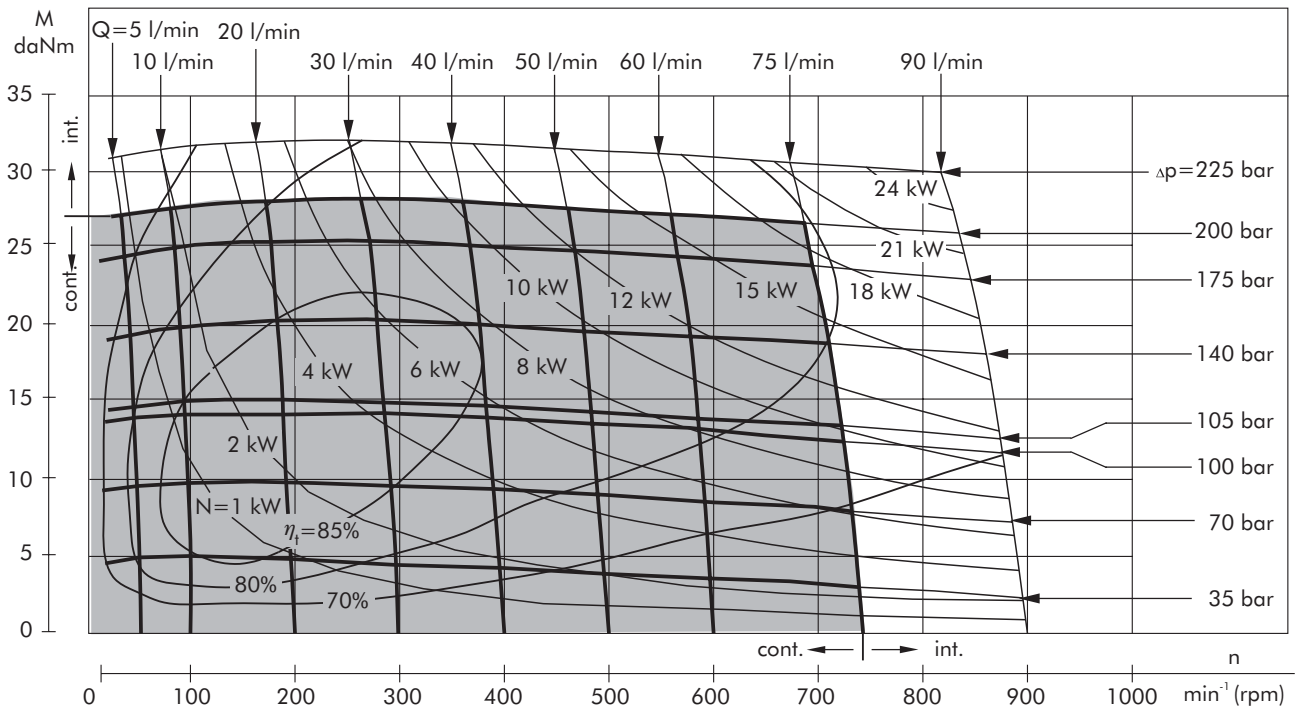
Type		EPMS 80	EPMS 100	EPMS 125	EPMS 160	EPMS 200	EPMS 250	EPMS 315	EPMS 400
Max. Torque [daNm]	Cont.	22,9	28,5	36,4	33,2	39,0	43,8	52,6	56,5
	Int.*	25,2	31,1	39,6	46,8	48,8	52,6	61,4	67,2
Max. Output [kW]	Cont.	17,8	19,3	19,3	14,8	13,3	11,8	10,9	9,5
	Int.*	19,3	21,3	21,4	20,0	16,6	14,2	12,8	12,3
Min. Starting Torque [daNm]	Cont.	18,7	23,2	29,6	27,3	32,2	35,1	43,0	45,8
	Int.*	20,3	25,9	32,3	38,0	40,0	43,0	50,7	53,6

FUNCTION DIAGRAMS

EPMS 80



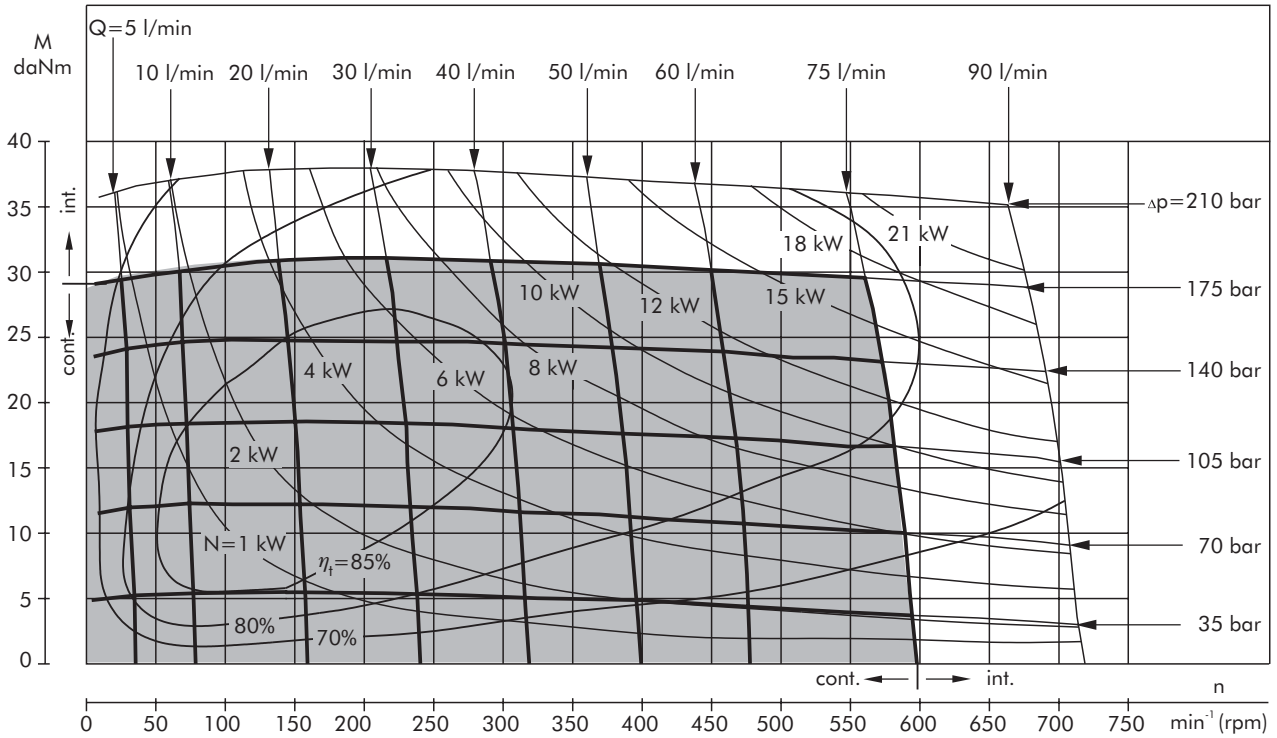
EPMS 100



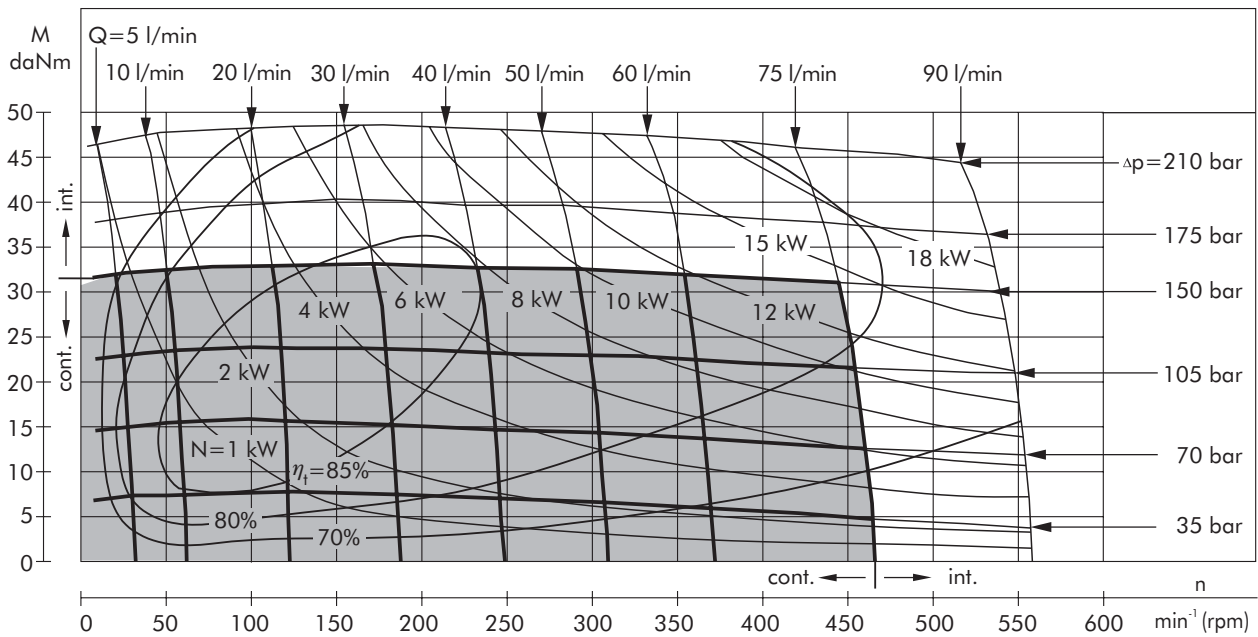
The function diagrams data was collected at back pressure 5 ÷ 10 bar and oil with viscosity of 32 mm²/s at 50° C.

FUNCTION DIAGRAMS

EPMS 125



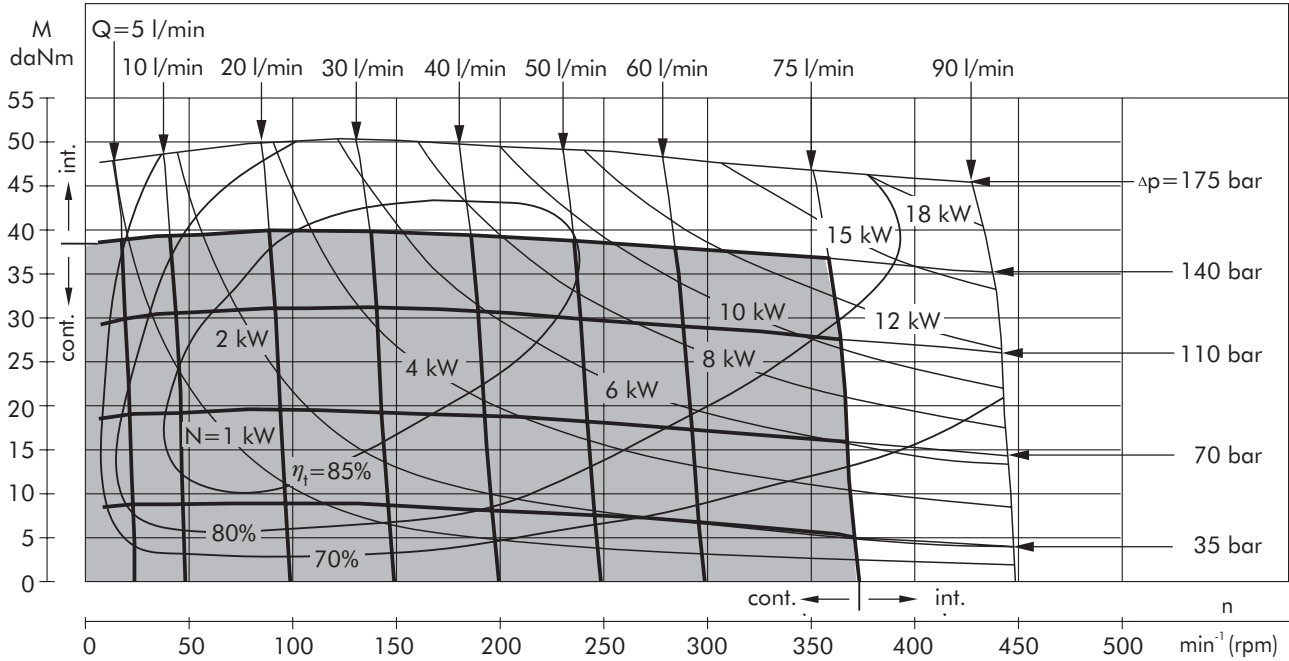
EPMS 160



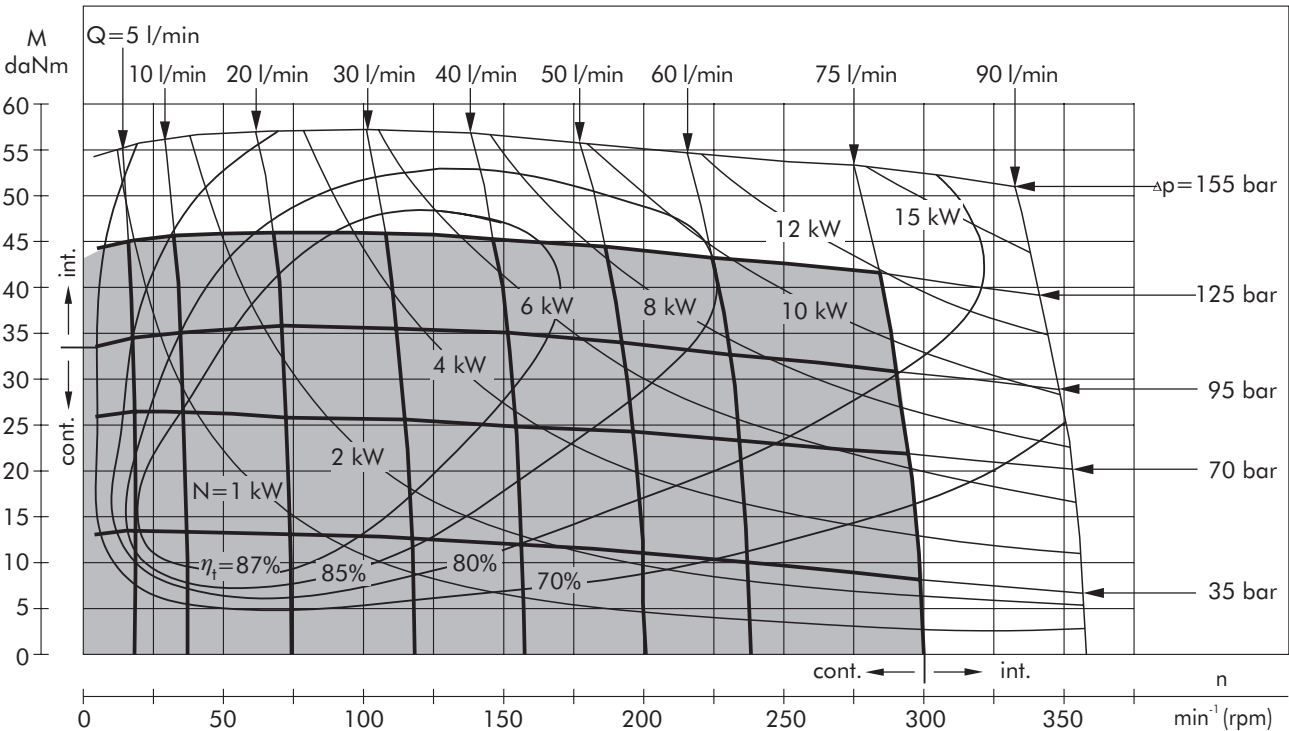
The function diagrams data was collected at back pressure $5 \div 10$ bar and oil with viscosity of $32 \text{ mm}^2/\text{s}$ at 50° C .

FUNCTION DIAGRAMS

EPMS 200



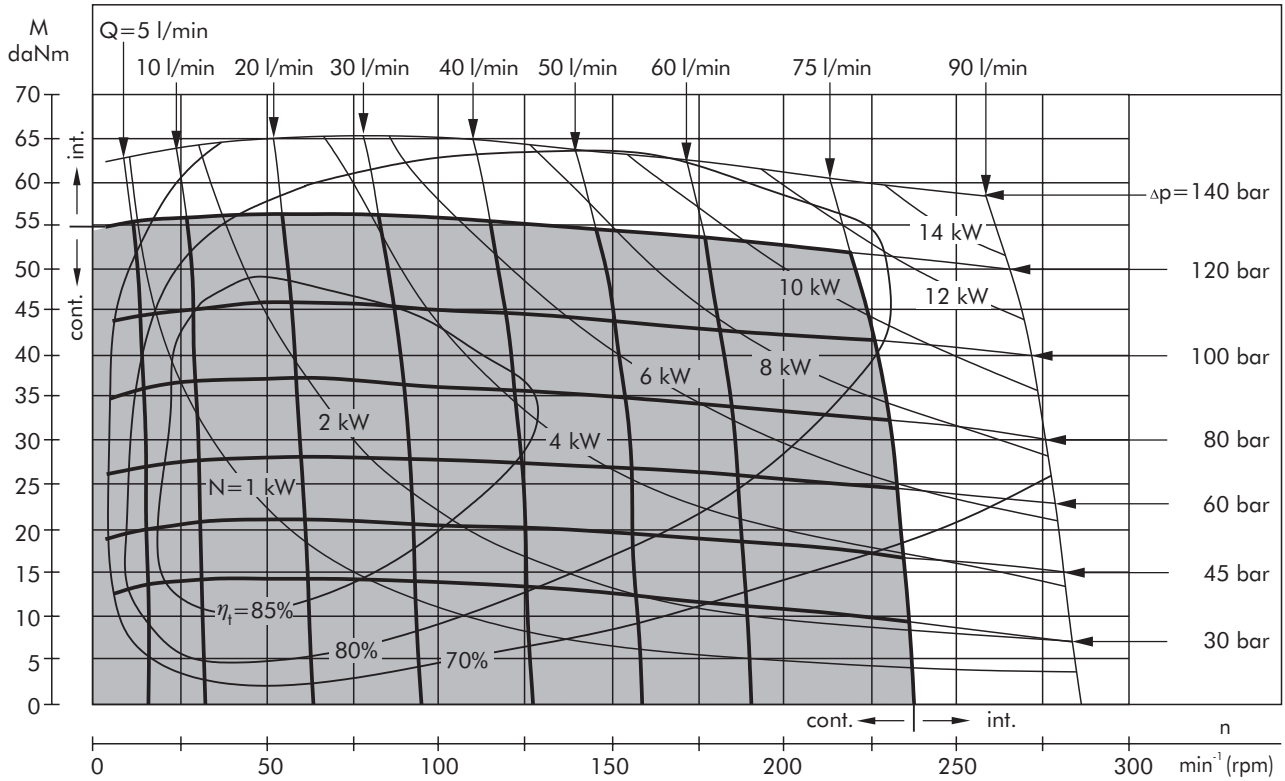
EPMS 250



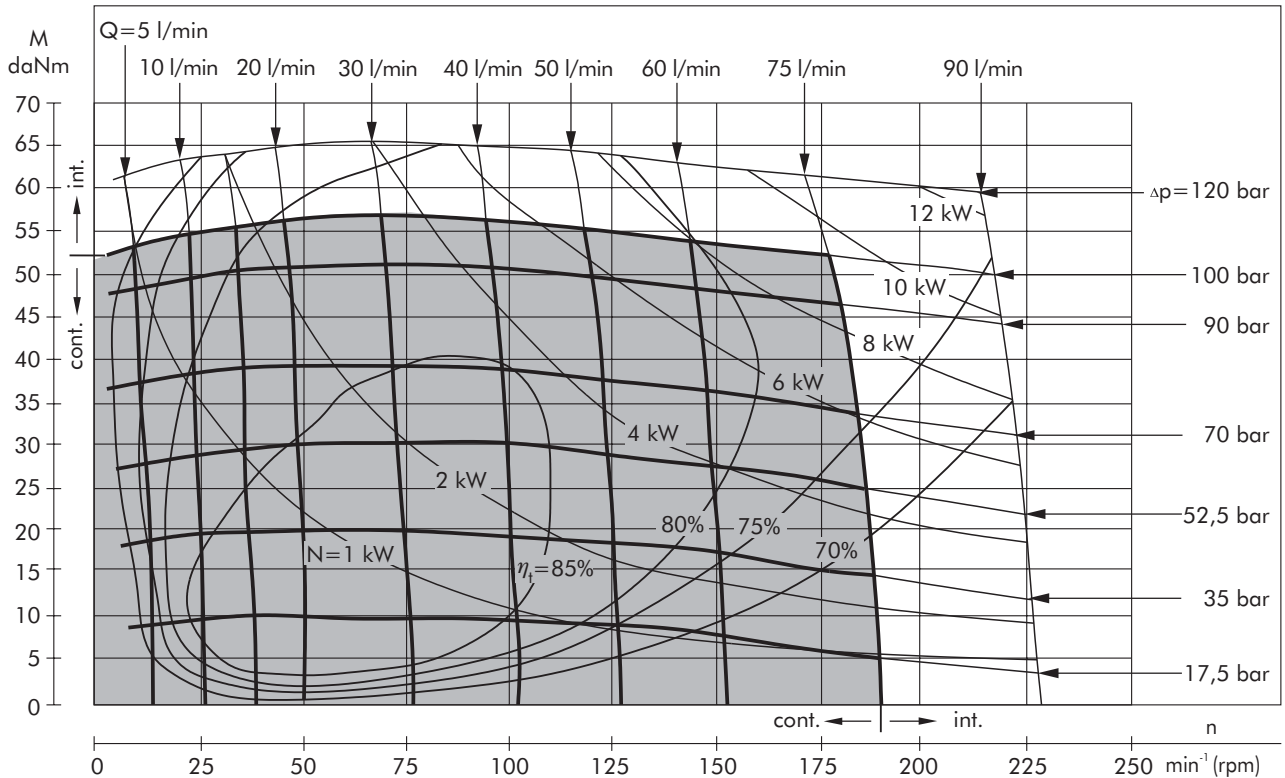
The function diagrams data was collected at back pressure $5 \div 10$ bar and oil with viscosity of $32 \text{ mm}^2/\text{s}$ at 50°C .

FUNCTION DIAGRAMS

EPMS 315

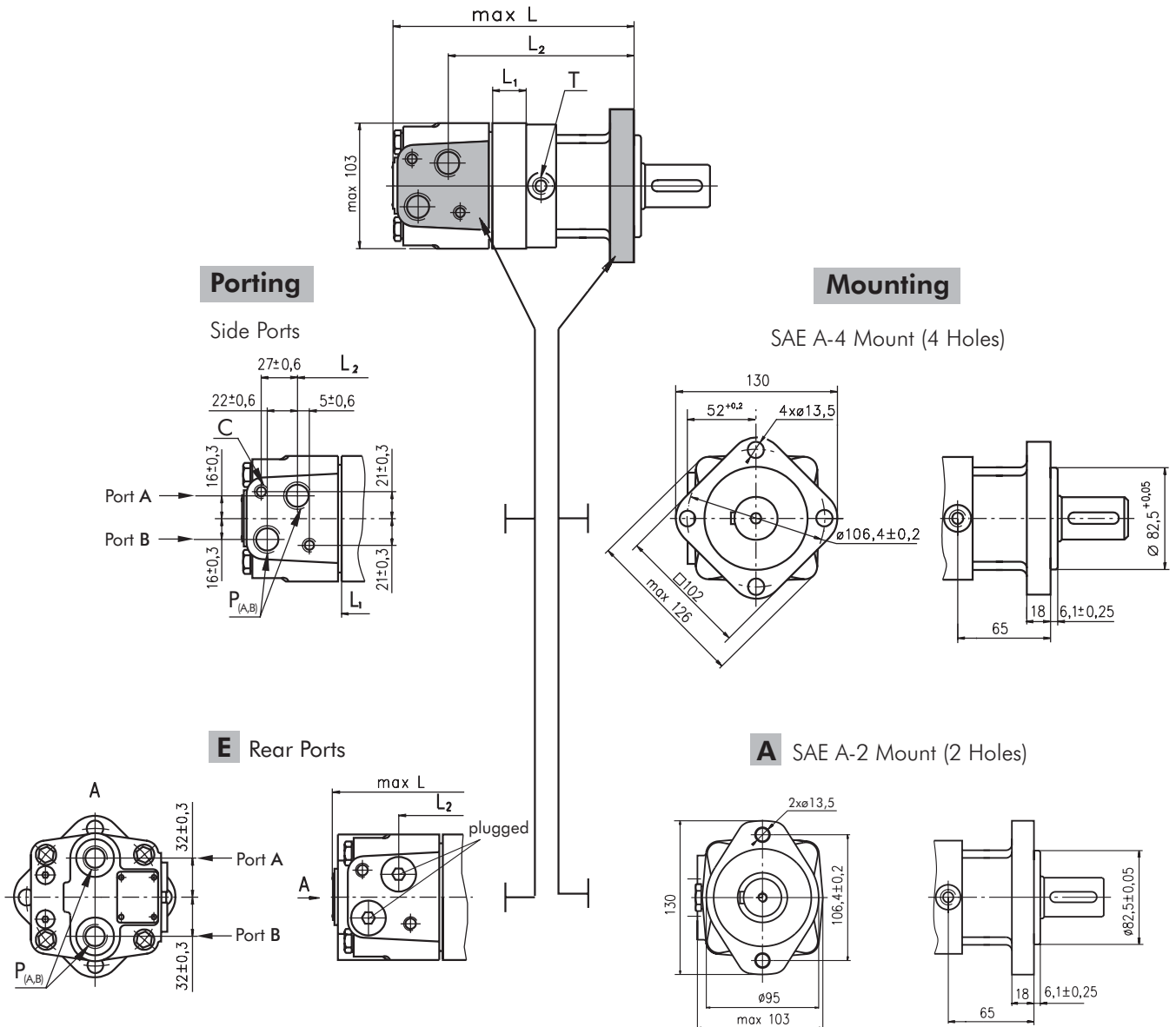


EPMS 400



The function diagrams data was collected at back pressure 5÷10 bar and oil with viscosity of 32 mm²/s at 50° C.

DIMENSIONS AND MOUNTING DATA



C: 2xM10-12 mm depth
P_(A,B): 2xG1/2 or 2xM22x1,5-15 mm depth
T: G 1/4 or M14x1,5- 12 mm depth (plugged)

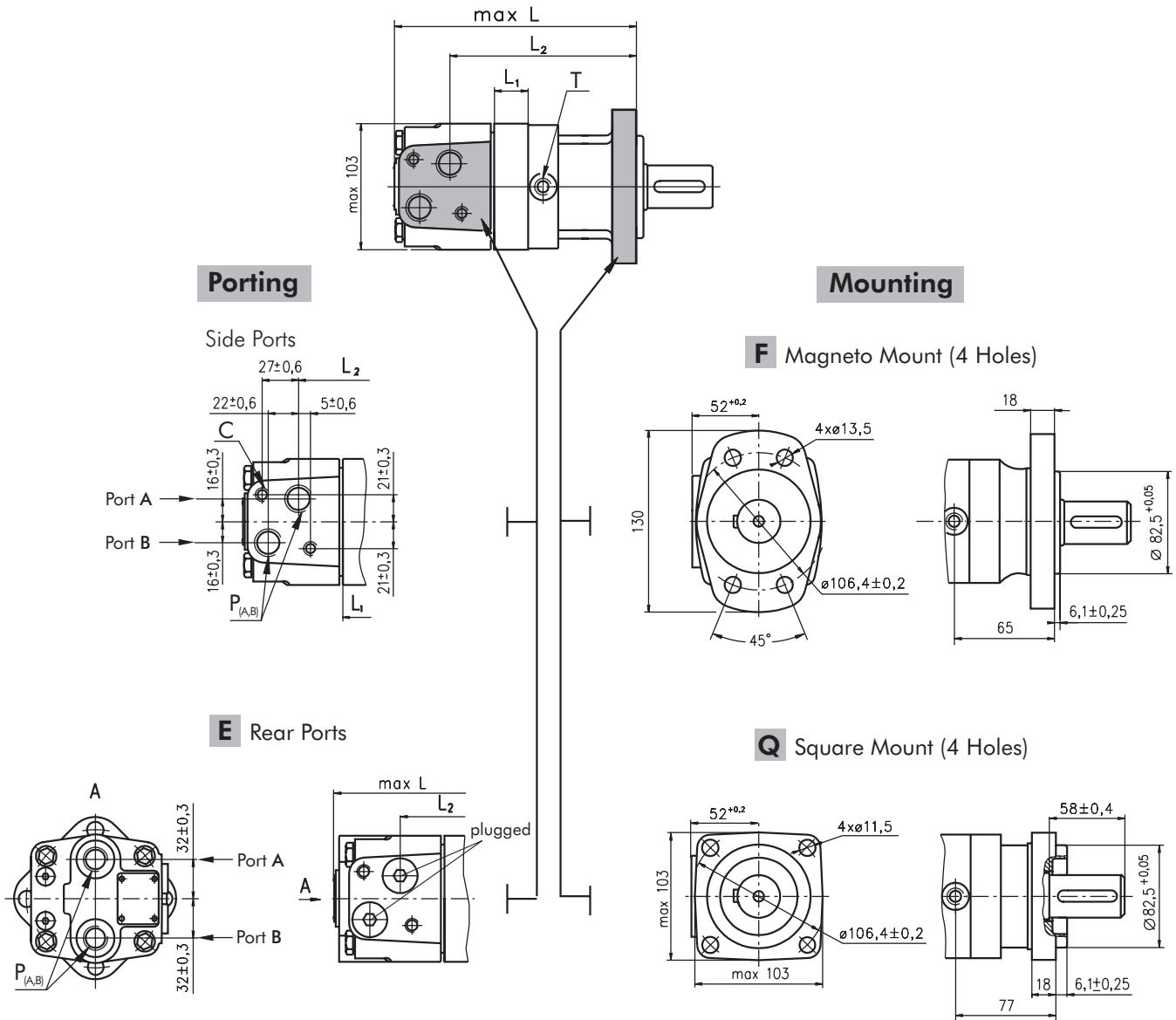
Standard Rotation
 Viewed from Shaft End
 Port A Pressurized - CW
 Port B Pressurized - CCW

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

Type	L, mm	L ₂ , mm	Type	L, mm	*L ₁ , mm
EPMS(A) 80	166	121	EPMS(A)E 80	173	11
EPMS(A) 100	169	125	EPMS(A)E 100	177	14,4
EPMS(A) 125	174	129	EPMS(A)E 125	181	18,8
EPMS(A) 160	180	135	EPMS(A)E 160	187	24,8
EPMS(A) 200	187	142	EPMS(A)E 200	194	31,8
EPMS(A) 250	195	151	EPMS(A)E 250	203	40,5
EPMS(A) 315	207	162	EPMS(A)E 315	214	51,8
EPMS(A) 400	221	176	EPMS(A)E 400	228	66,4
EPMS(A) 475	235	190	EPMS(A)E 475	242	79,6
EPMS(A) 565	250	206	EPMS(A)E 565	257	95,3
EPMS(A) 715	276	231	EPMS(A)E 715	283	121,2

* The width of the gerolor is 3 mm greater than L₁.

DIMENSIONS AND MOUNTING DATA



C: 2xM10-12 mm depth

P_(A,B): 2xG1/2 or 2xM22x1,5-15 mm depth

T: G 1/4 or M14x1,5- 12 mm depth (plugged)

Standard Rotation

Viewed from Shaft End

Port A Pressurized - CW

Port B Pressurized - CCW

Reverse Rotation

Viewed from Shaft End

Port A Pressurized - CCW

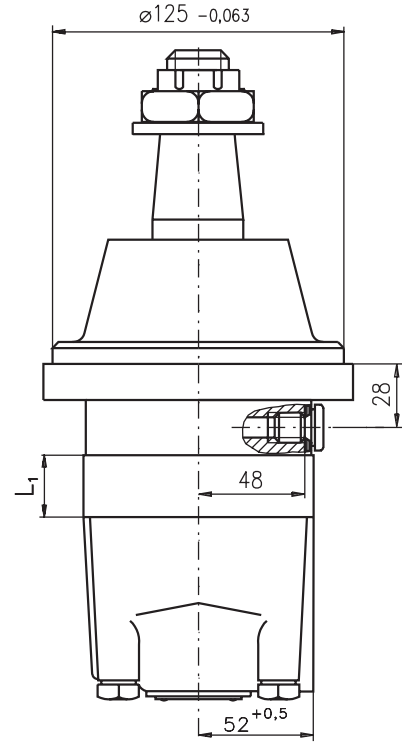
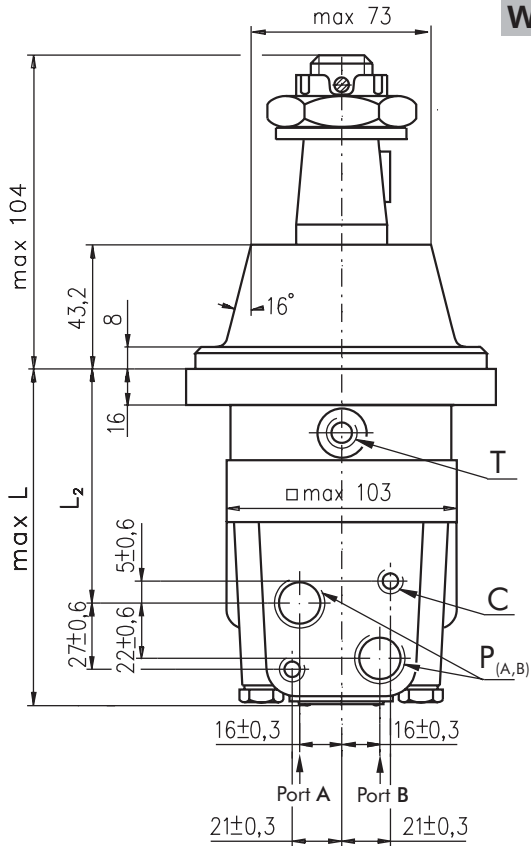
Port B Pressurized - CW

Type	L ₁ , mm	L ₂ , mm	Type	L ₁ , mm	L ₂ , mm	Type	L ₁ , mm	Type	L ₁ , mm	*L ₁ , mm
EPMSF 80	166	121	EPMSQ 80	177	133	EPMSFE 80	173	EPMSQE 80	185	11
EPMSF 100	169	125	EPMSQ 100	181	137	EPMSFE 100	177	EPMSQE 100	189	14,4
EPMSF 125	174	129	EPMSQ 125	185	141	EPMSFE 125	181	EPMSQE 125	193	18,8
EPMSF 160	180	135	EPMSQ 160	191	147	EPMSFE 160	187	EPMSQE 160	199	24,8
EPMSF 200	187	142	EPMSQ 200	198	154	EPMSFE 200	194	EPMSQE 200	206	31,8
EPMSF 250	195	151	EPMSQ 250	207	163	EPMSFE 250	203	EPMSQE 250	215	40,5
EPMSF 315	207	162	EPMSQ 315	218	174	EPMSFE 315	214	EPMSQE 315	226	51,8
EPMSF 400	221	176	EPMSQ 400	233	189	EPMSFE 400	228	EPMSQE 400	241	66,4
EPMSF 475	235	190	EPMSQ 475	245	202	EPMSFE 475	242	EPMSQE 475	254	79,6
EPMSF 565	250	206	EPMSQ 565	261	217	EPMSFE 565	257	EPMSQE 565	269	95,3
EPMSF 715	276	231	EPMSQ 715	287	243	EPMSFE 715	283	EPMSQE 715	295	121,2

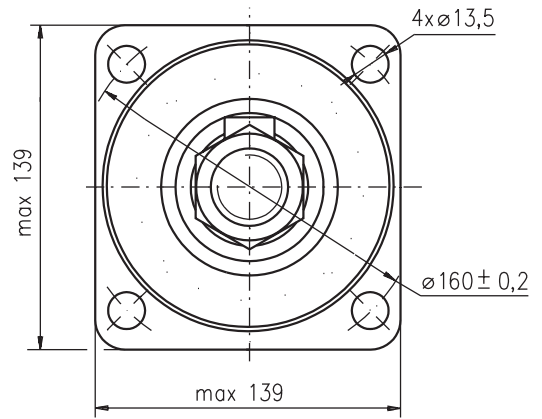
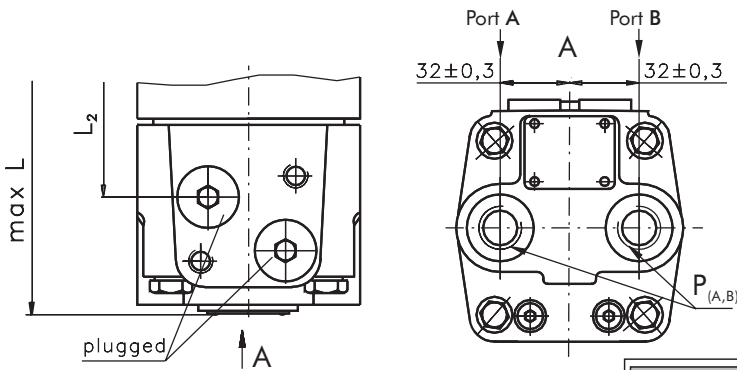
* The width of the gerolor is 3 mm greater than L₁.

DIMENSIONS AND MOUNTING DATA - EPMSW

W Wheel Mount



E Rear Port



C: 2xM10-12 mm depth
P_(A,B): 2xG1/2 or 2xM22x1,5-15 mm depth
T: G ¼ or M14x1,5 - 12 mm depth(plugged)

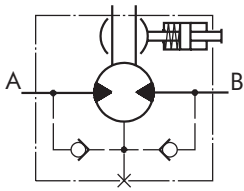
Standard Rotation
 Viewed from Shaft End
 Port A Pressurized - CW
 Port B Pressurized - CCW

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

Type	L, mm	*L ₁ , mm	L ₂ , mm	Type	L, mm
EPMSW 80	127	11,0	84	EPMSWE 80	138
EPMSW100	131	14,4	88	EPMSWE 100	142
EPMSW 125	135	18,8	92	EPMSWE 125	146
EPMSW 160	141	24,8	98	EPMSWE 160	152
EPMSW 200	148	31,8	105	EPMSWE 200	159
EPMSW 250	157	40,5	114	EPMSWE 250	168
EPMSW 315	168	51,8	125	EPMSWE 315	179
EPMSW 400	182	66,4	140	EPMSWE 400	194
EPMSW 475	196	79,6	153	EPMSWE 475	207
EPMSW 565	211	95,3	168	EPMSWE 565	222
EPMSW 715	237	121,2	194	EPMSWE 715	248

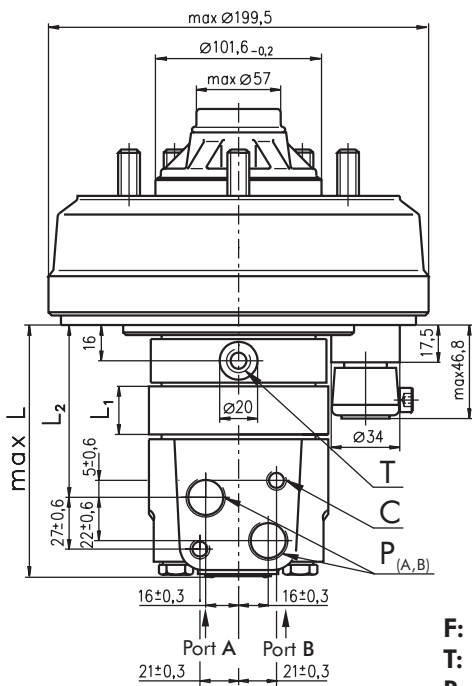
* The width of the gerolor is 3 mm greater than L₁.

B Motor with Brum Brake

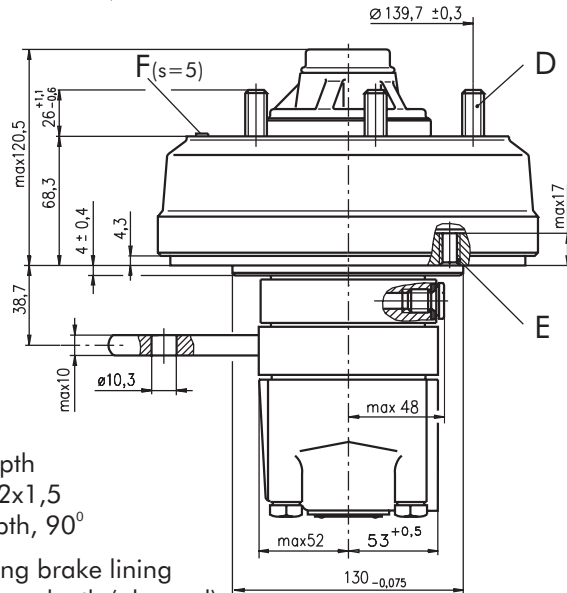
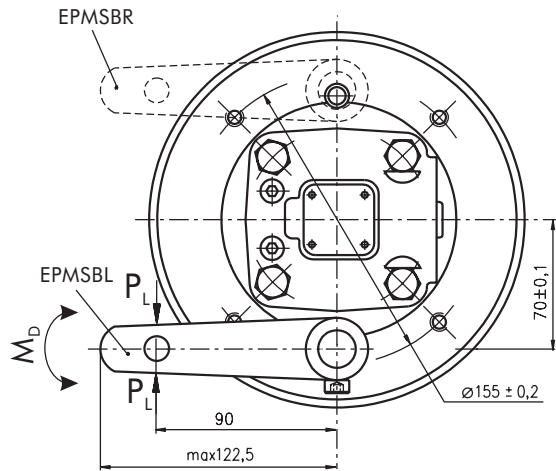


Actuating the brake level, the brake shaft is turned. The rectangular shape of the inner part of this shaft forces the brake pads to be pressed against the brake drum. This brakes the wheel or the winch drum.

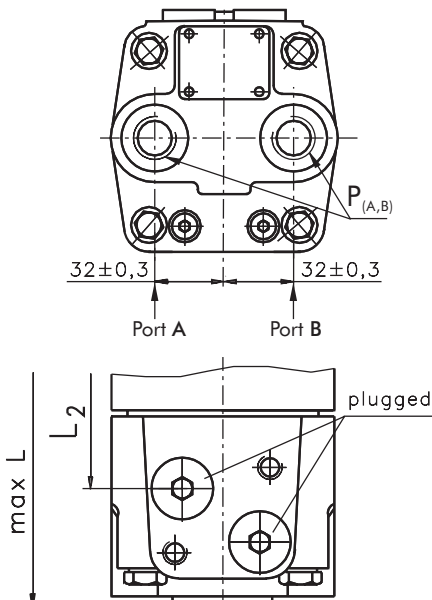
Releasing the level, the springs pull it and the brake pads back to the initial position. The motor output shaft is released. Minimum angle adjustment is 10°. It can be adjusted by dismounting the level. Depending on the application You can choose the actuating direction of the brake level. The rod connection actuating the brake should be capable of moving at last 25 mm from neutral to extreme position.



- C:** 2xM10-12 mm depth
- D:** Wheel bolts 5xM12x1,5
- E:** 4xM12; 17mm depth, 90°
- F:** Inspection hole for checking brake lining
- T:** G 1/4 or M14x1,5 - 12 mm depth (plugged)
- P_(A,B):** 2xG1/2 or 2xM22x1,5-15 mm depth



E Rear Port



Type	L, mm	*L ₁ , mm	L ₂ , mm	Type	L, mm
EPMSB 80	117	11,0	71	EPMSBE 80	127
EPMSB 100	120	14,4	74	EPMSBE 100	130
EPMSB 125	124	18,8	79	EPMSBE 125	134
EPMSB 160	130	24,8	85	EPMSBE 160	140
EPMSB 200	137	31,8	92	EPMSBE 200	147
EPMSB 250	146	40,5	107	EPMSBE 250	156
EPMSB 315	157	51,8	112	EPMSBE 315	167
EPMSB 400	172	66,4	127	EPMSBE 400	182
EPMSB 475	186	79,6	140	EPMSBE 475	196
EPMSB 565	201	95,3	155	EPMSBE 565	211
EPMSB 715	227	121,2	181	EPMSBE 715	237

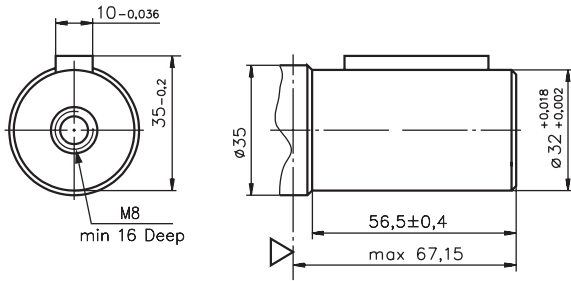
* The width of gerolor is 3 mm greater than L₁.

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

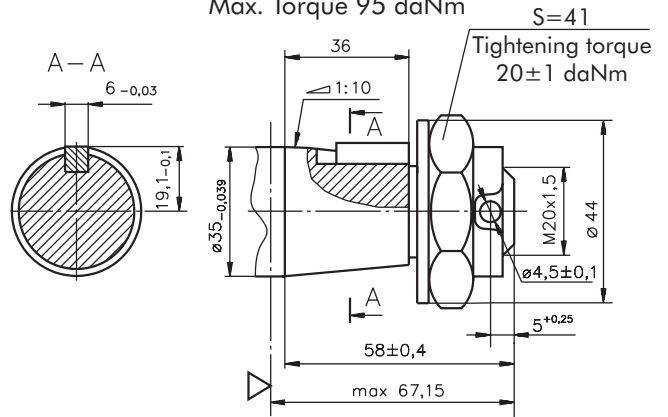
Reverse Rotation
Viewed from Shaft End
Port A Pressurized - CCW
Port B Pressurized - CW

SHAFT EXTENSIONS

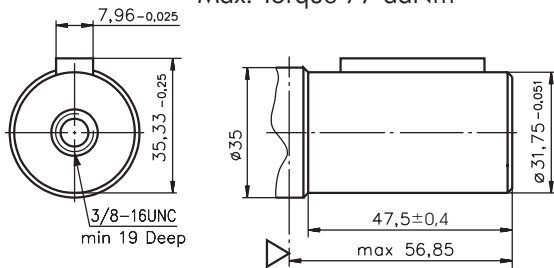
C - $\varnothing 32$ straight, Parallel key A10x8x45 DIN 6885
Max. Torque 77 daNm



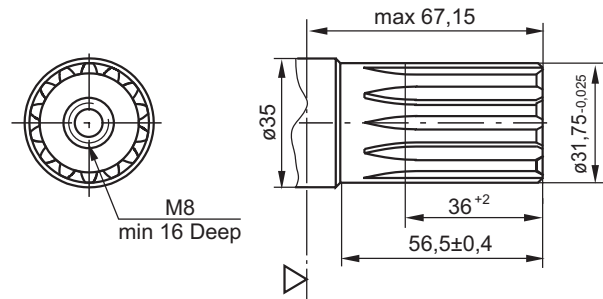
K - tapered 1:10, Parallel key B6x6x20 DIN 6885
Max. Torque 95 daNm



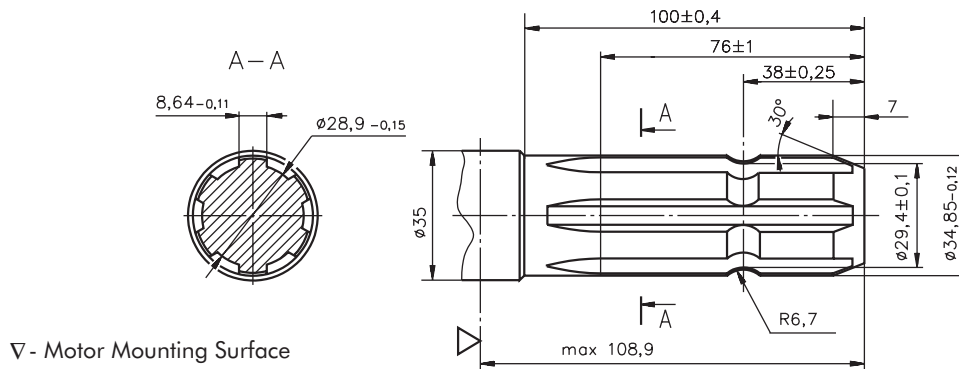
CO - $\varnothing 1\frac{1}{4}$ " straight, Parallel key $\frac{5}{16}$ "x $\frac{5}{16}$ "x $1\frac{1}{4}$ "BS46
Max. Torque 77 daNm



SH - $\varnothing 1\frac{1}{4}$ " splined 14T, DP12/24 ANSI B92.1-1976
Max. Torque 95 daNm

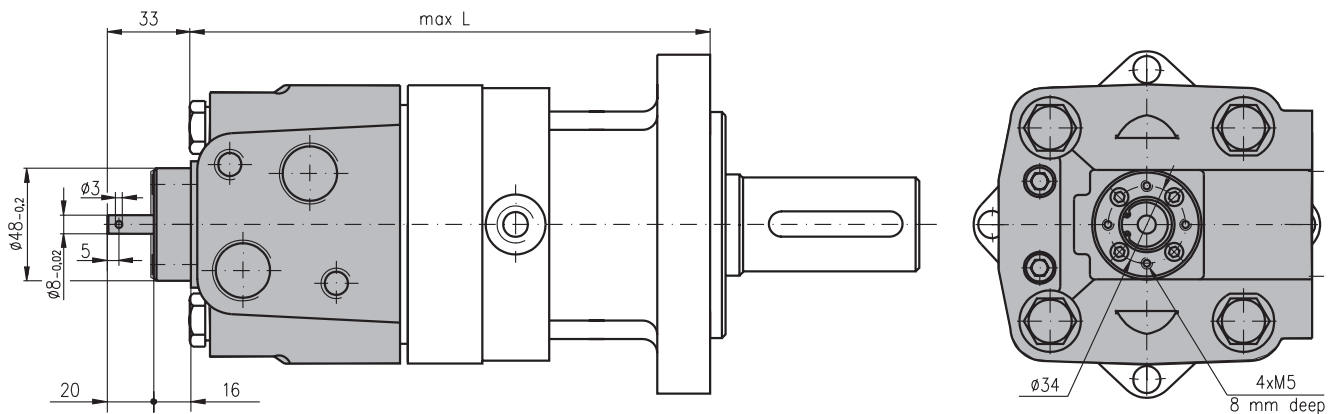


SL - $\varnothing 34,85$ p.t.o. DIN 9611 Form 1
Max. Torque 77 daNm



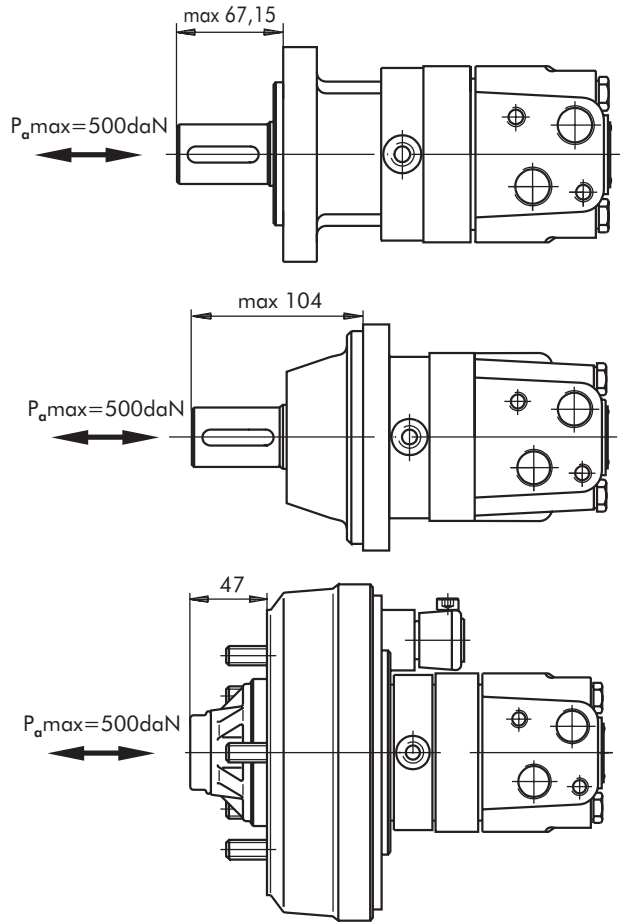
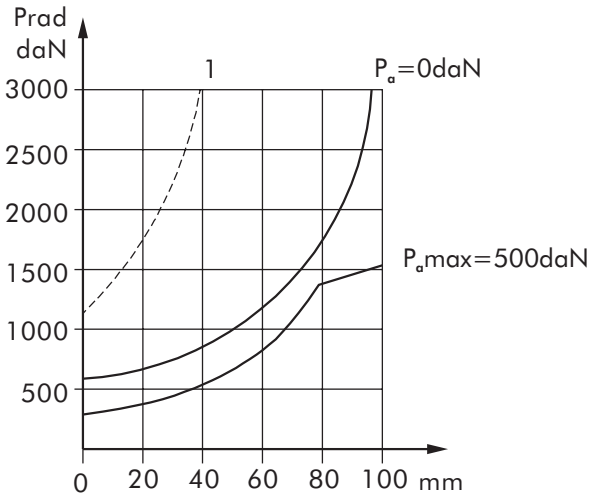
▽ - Motor Mounting Surface

MOTORS WITH TACHO CONNECTION

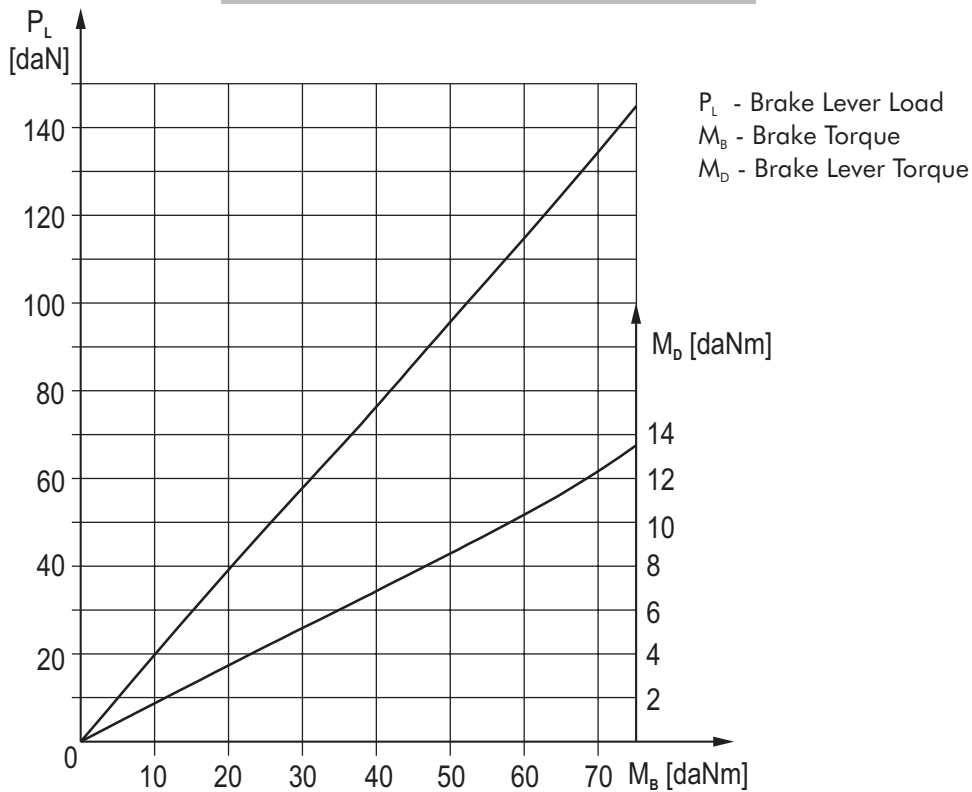


PERMISSIBLE SHAFT LOADS

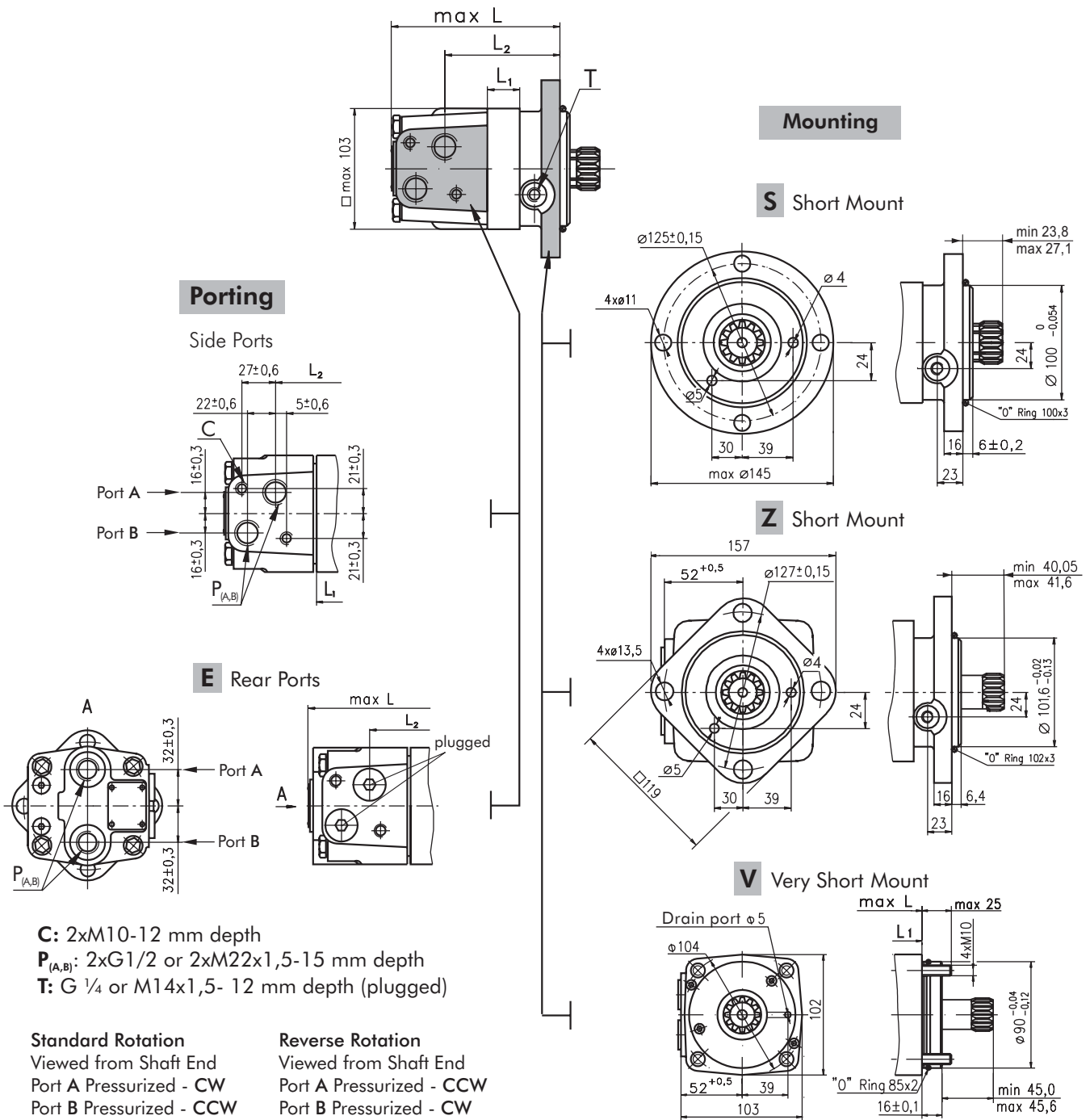
The output shaft runs in tapered bearings that permit high axial and radial forces. Curve "1" shows max. radial shaft load. Any shaft load exceeding the values quoted in the curve will seriously reduce motor life. The two other curves apply to a B10 bearing life of 3000 hours at 200 RPM.



FUNCTION DIAGRAM EPMSB



DIMENSIONS AND MOUNTING DATA -EPMS, EPMSV and EPMSZ

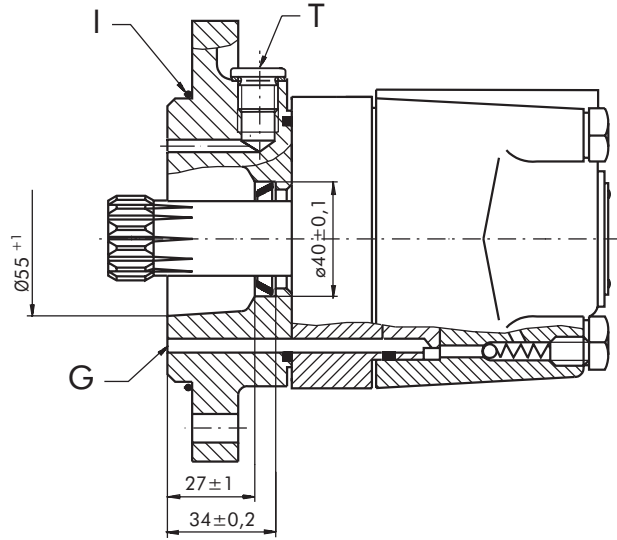
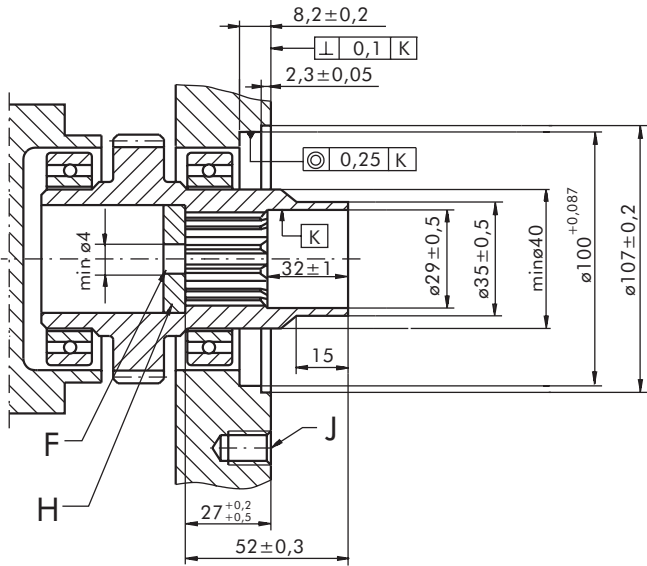


Type	L, mm	L ₂ , mm	Type	L, mm	L ₂ , mm	Type	L, mm	Type	L, mm	*L ₁ , mm
EPMS(Z) 80	123	80	EPMSV 80	89	49	EPMS(Z)E 80	134	EPMSVE 80	97	11
EPMS(Z) 100	127	84	EPMSV 100	92	52,5	EPMS(Z)E 100	138	EPMSVE 100	100	14,4
EPMS(Z) 125	131	87	EPMSV 125	97	57	EPMS(Z)E 125	141	EPMSVE 125	105	18,8
EPMS(Z) 160	137	93	EPMSV 160	103	63	EPMS(Z)E 160	147	EPMSVE 160	111	24,8
EPMS(Z) 200	144	100	EPMSV 200	110	70	EPMS(Z)E 200	154	EPMSVE 200	118	31,8
EPMS(Z) 250	153	109	EPMSV 250	118	78,5	EPMS(Z)E 250	163	EPMSVE 250	126	40,5
EPMS(Z) 315	164	120	EPMSV 315	130	90	EPMS(Z)E 315	174	EPMSVE 315	138	51,8
EPMS(Z) 400	179	135	EPMSV 400	144	105	EPMS(Z)E 400	189	EPMSVE 400	153	66,4
EPMS(Z) 475	192	149	EPMSV 475	158	118	EPMS(Z)E 475	203	EPMSVE 475	166	79,6
EPMS(Z) 565	207	164	EPMSV 565	173	133	EPMS(Z)E 565	218	EPMSVE 565	181	95,3
EPMS(Z) 715	233	190	EPMSV 715	199	159	EPMS(Z)E 715	244	EPMSVE 715	207	121,2

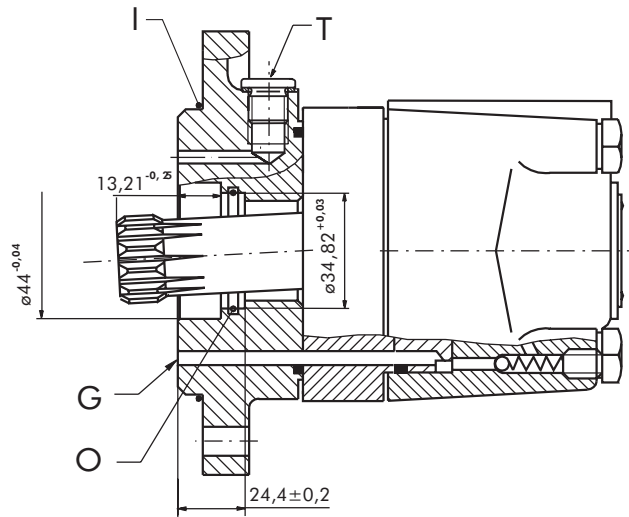
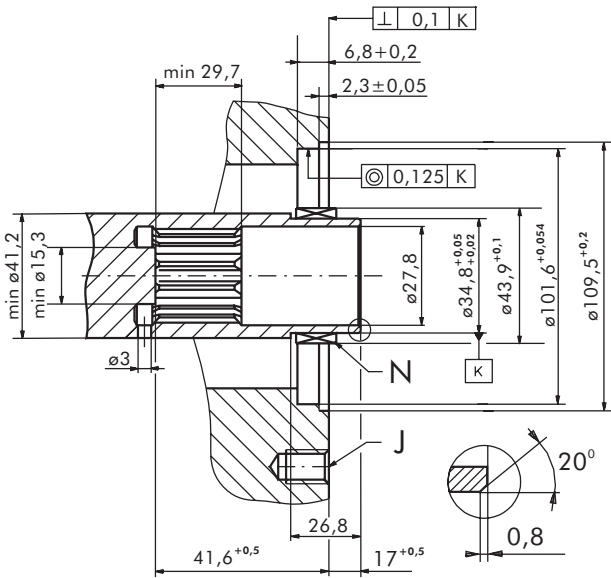
* The width of the gerolor is 3 mm greater than L₁.

DIMENSIONS OF THE ATTACHED COMPONENT

For EPMS



For EPMSZ

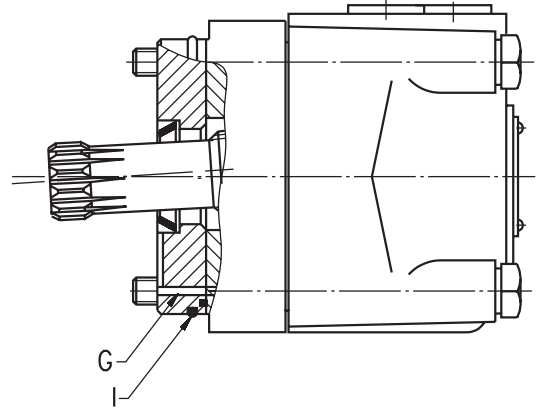
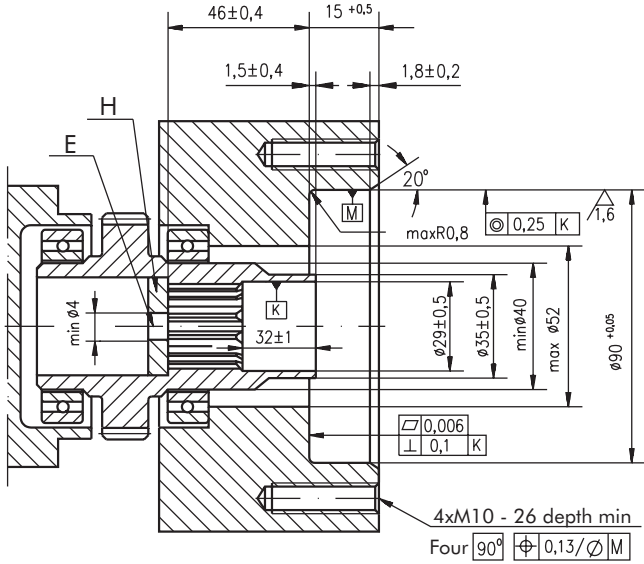


- F:** Oil circulation hole
- G:** Internal drain channel
- H:** Hardened stop plate
- I:** O- Ring 100x3mm (for EPMS) or 102x3mm (for EPMSZ)

- J:** 4xM10-16 mm depth (for EPMS) or 4xM12-20 mm depth (for EPMSZ), 90°
- N:** Needle bearing 1 3/8" x 1 3/4"
- O:** O- Ring 34,5x3mm
- T:** Drain connection G1/4 or M14x1,5

DIMENSIONS OF THE ATTACHED COMPONENT (continued)

For EPMSV



E: External drain channel
G: Internal drain channel

H: Hardened stop plate
I: O- Ring 85x2mm

DRAIN CONNECTION

A drain line ought to be used when pressure in the return line can exceed the permissible pressure. It can be connected:

- For EPMS(Z) at the drain port of the motor;
- For EPMSV at the drain connection of the attached component. The maximum pressure in the drain line is limited by the attached component and its shaft seal.

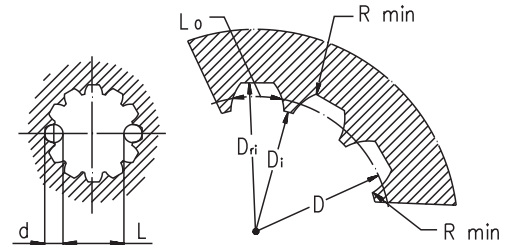
The drain line must be possible for oil to flow freely between motor and attached component and must be led to the tank. The maximum pressure in the drain line is limited by the attached component and its seal.

INTERNAL SPLINE DATA FOR THE ATTACHED COMPONENT

Standard ANSI B92.1-1976, class 5
[$m=2.1166$; corrected $x.m=+0,8$]

Fillet Root Side Fit		mm
Number of Teeth	z	12
Diametral Pitch	DP	12/24
Pressure Angle		30°
Pitch Dia.	D	25,4
Major Dia.	D _{ri}	28,0 _{-0,1}
Minor Dia.	D _i	23,0 ^{+0,033}
Space Width [Circular]	L _o	4,308±0,020
Fillet Radius	R _{min}	0,2
Max. Measurement between Pin	L	17,62 ^{+0,15}
Pin Dia.	d	4,835±0,001

Above are when hardened



Hardening Specification:
HRC 60±2
Effective case depth (HRC 52) 0,7±0,2 mm
Material 20 MoCr4 DIN 17210 or better

ORDER CODE

	1	2	3	4	5	6	7	8	9	10	11
E P M S											

Pos. 1 - Mounting Flange

- omit - SAE A mount, four holes
- A** - SAE A mount, two holes
- F** - Magneto mount, four holes
- Q** - Square mount, four holes
- B** - Motor with drum brake
- S** - Short mount
- V** - Very short mount
- W** - Wheel mount
- Z** - Short mount, with place for needle bearing

Pos. 2 - Port type

- omit - Side ports
- E** - Rear ports

Pos. 3 - Displacement code

- 80** - 80,5 [cm³/rev]
- 100** - 100,0 [cm³/rev]
- 125** - 125,7 [cm³/rev]
- 160** - 159,7 [cm³/rev]
- 200** - 200,0 [cm³/rev]
- 250** - 250,0 [cm³/rev]
- 315** - 314,9 [cm³/rev]
- 400** - 397,0 [cm³/rev]
- 475** - 474,6 [cm³/rev] (w/o Function diagram)
- 525** - 522,7 [cm³/rev] (w/o Function diagram)
- 565** - 564,9 [cm³/rev] (w/o Function diagram)

Pos. 4 - Shaft Extensions*

- C** - ø32 straight, Parallel key A10x8x45 DIN6885
- CO** - ø1¼" straight, Parallel key ⁵/₁₆"x⁵/₁₆"x1¼" BS46
- K** - ø35 tapered 1:10, Parallel key B6x6x20 DIN6885
- SL** - ø34,85 p.t.o. DIN 9611 Form 1
- SH** - ø1¼" splined 14T ANSI B92.1-1976

Pos. 5 - Ports

- omit - BSPP (ISO 228)
- M** - Metric (ISO 262)

Pos. 6 - Actuating Direction**

- R** - Right
- L** - Left

Pos. 7 - Speed Monitoring

- omit - none
- T** - with tacho connection (only for side ports)

Pos. 8 - Special Features (see Specification data-page 63)

- omit - none
- LL** - Low Leakage
- LSV** - Low Speed Valve

Pos. 9 - Rotation

- omit - Standard Rotation
- R** - Reverse Rotation

Pos. 10 - Option (Paint)***

- omit - no Paint
- P** - Painted
- PC** - Corrosion Protected Paint

Pos. 11 - Design Series

- omit - Factory specified

NOTES:

- * The permissible output torque for shafts must be not exceeded!
- ** Only for EPMSB
- *** Color at customer's request.

The hydraulic motors are mangano-phosphatized as standard.