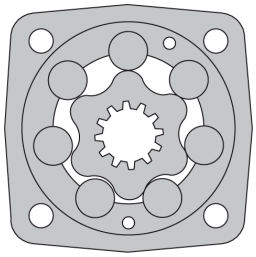
HYDRAULIC MOTORS OSY

OIL FLOW IN DRAIN LINE

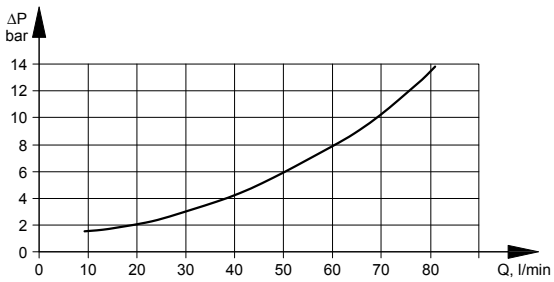
Pressure drop (bar)	Viscosity (mm²/s)	Oil flow in drain line (l/min)
140	20	1,5
	35	1
210	20	3
	35	2



GENERAL

Displacement, (cm³/rev)	159,7 ÷ 397
Max. Speed, (RPM)	470 ÷ 185
Max. Torque, (daNm)	46,1 ÷ 90
Max. Output, (kW)	11 ÷ 19,5
Max. Pressure Drop, (bar)	205 ÷ 160
Max. Oil Flow, (l/min)	75
Min. speed, (RPM)	8 ÷ 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, (mm²/s)	20 ÷ 75
Filtration	ISO code 20/16 (Min. recommended fluid filtration of 25 micron)

PRESSURE LOSSES



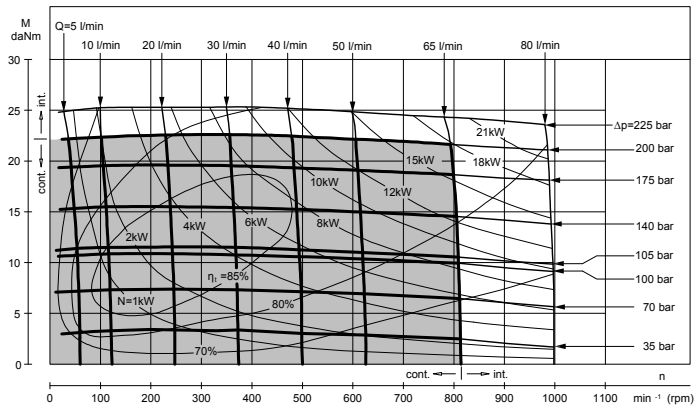
SPECIFICATION DATA

Type				OSY 80	OSY 100	OSY 125	OSY 160	OSY 200	OSY 250	OSY 315	OSY 400	OSY 500
Displacement [cm³/rev.]				80,5	100	125,7	159,7	200	250	314,9	397	500
Max. Speed, [RPM]	**cont.**			810	750	600	470	375	300	240	185	155
	int.			100	900	720	560	450	360	285	225	180
Max. Torque [daNm]	**cont.**			23	29	37	46,1	58,0	72,5	92,2	90,0	105
	int.			26	32	41	51,5	64,5	80,6	96,0	97,0	112
Max. Output [kW]	**cont.**			17	19	19	19,5	19,5	18,5	16	11,0	13
	int.			21	24	24	24,0	24,0	23	17,5	12	14,5
Max. Pressure Drop [bar]	**cont.**			205	205	20,5	205	205	205	205	160	160
	int.			225	225	22,5	225	225	225	220	175	175
Max. Oil Flow [l/min]	**cont.**			65	75	75	75	75	75	75	75	75
	int.			80	90	90	90	90	90	90	90	90
Max. Inlet Pressure, [bar]	**cont.**			225	225	225	225	225	225	225	225	225
	int.			250	250	250	250	250	250	250	250	250
Max. Return Pressure w/o Drain Line or Max. Pressure in Drain Line, [bar]	**cont.**	**0-100**	**RPM**	100	100	100	100	100	100	100	100	100
	cont.	**100-300**	**RPM**	50	50	50	50	50	50	50	50	50
	cont.	**>300**	**RPM**	20	20	20	20	20	-	-	-	-
	int.	**0-max.**	**RPM**	100	100	100	100	100	100	100	100	100
Max. Return Pressure with Drain Line [bar]	**cont.**			140	140	140	140	140	140	140	140	140
	int.			175	175	175	175	175	175	175	175	175
Max. Starting Pressure with Unloaded Shift, [bar]				12	10	10	8	8	8	8	8	8
Min. Starting Torque [daNm]	**at max**	**press.**	**drop cont.**	18	23	29	36,9	46,2	58,0	73,8	72,0	80
	at max	**press.**	**drop int.**	20	25	32	40,5	50,7	63,6	79,2	78,7	85
Min. Speed, [RPM]				12	10	10	8	6	6	5	5	4
Weight, [kg] For rear ports: +0,400 kg	**OSYF**			9,8	10	10,3	10,8	11,2	11,7	12,4	13,3	14,2
	OSYW			10,3	10,5	10,8	11,3	11,7	12,2	12,9	13,8	14,7
	OSYQ			10,2	10,4	10,7	11,2	11,6	12,1	12,8	13,7	14,6

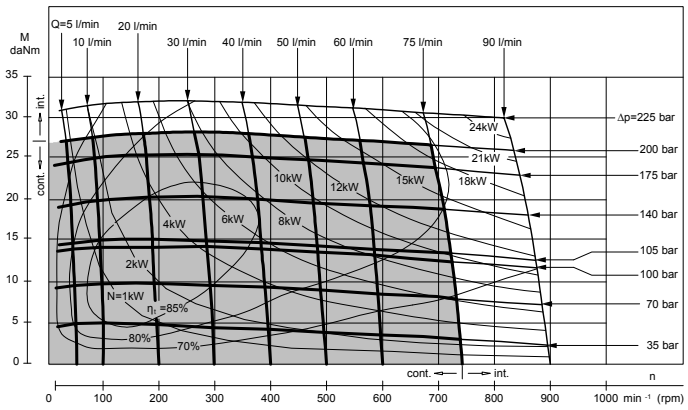
Intermittent operation: the permissible values may occur for max. 10% of every minute.
For speeds of 5 RPM lower than given, consult factory or your regional manager.

FUNCTION DIAGRAMS

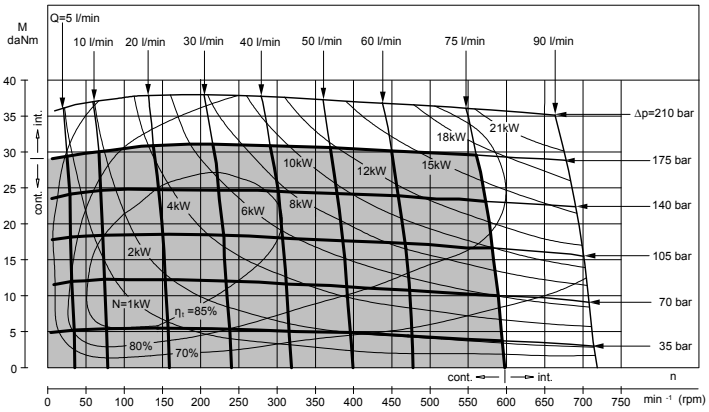
OS 80



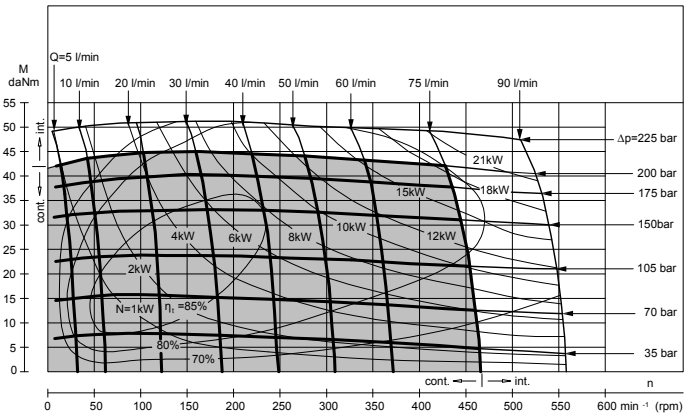
OS 100



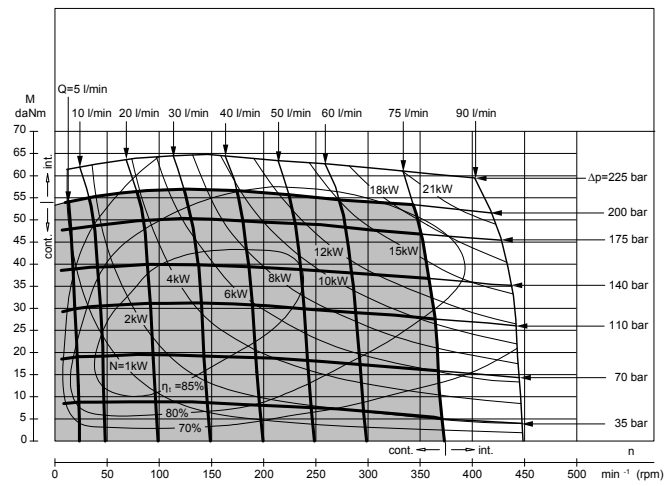
OS 125



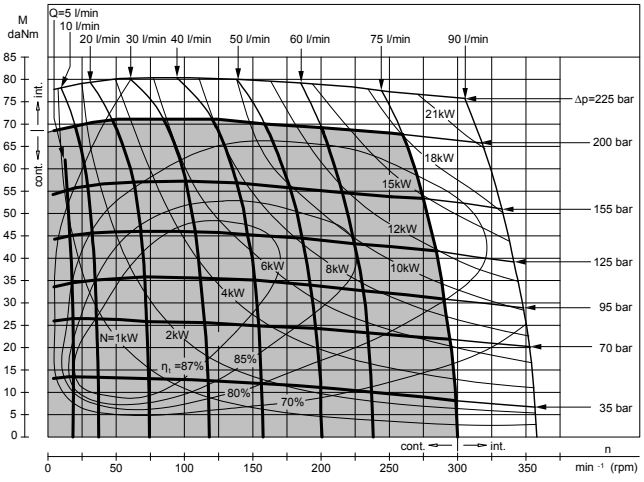
OSY 160



OSY 200



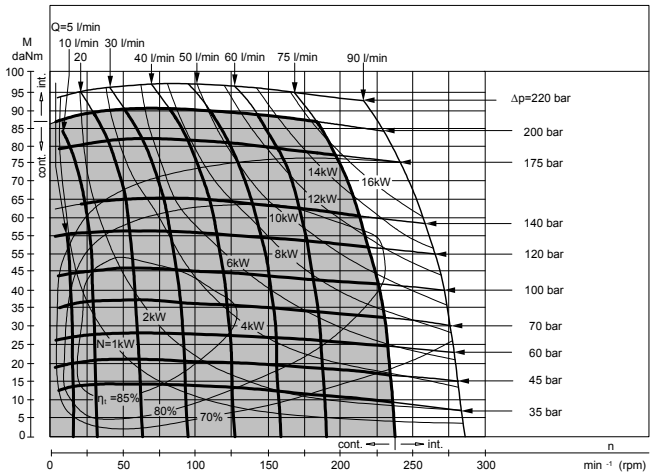
OSY 250



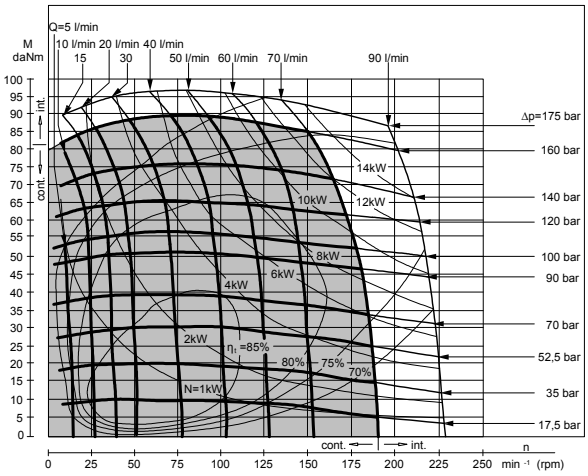
The function diagrams data was collected at back pressure 5 ÷ 10 bar
and oil with viscosity of 32 mm²/s at 50° C.

FUNCTION DIAGRAMS

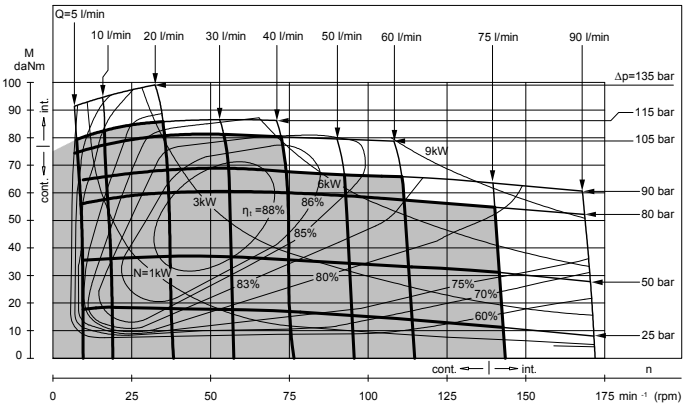
OSY 315



OSY 400

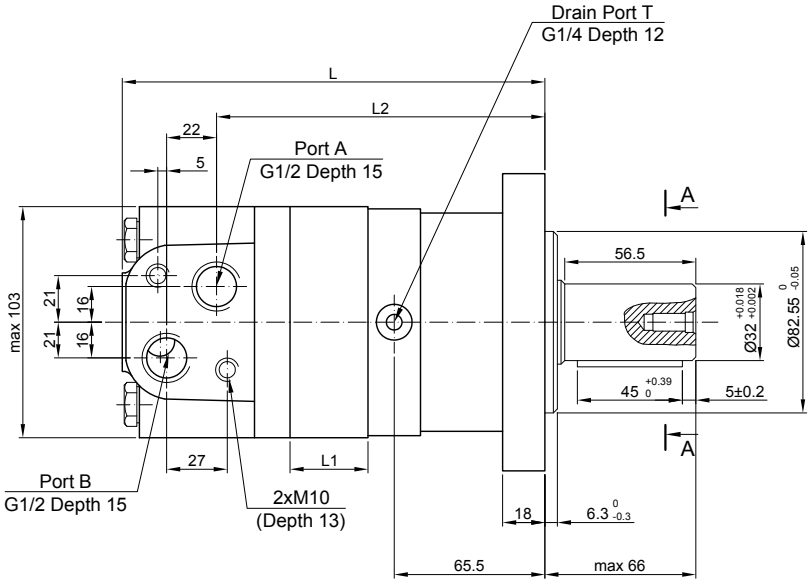


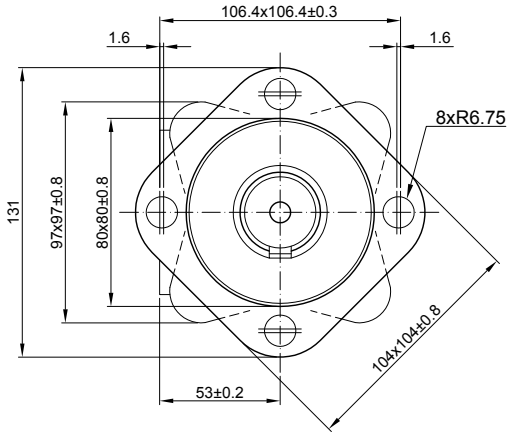
OS 500

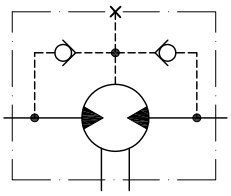


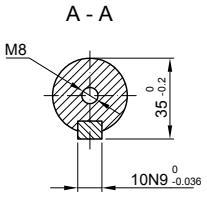
The function diagrams data was collected at back pressure 5 ÷ 10 bar
and oil with viscosity of 32 mm²/s at 50° C.

DIMENSIONS OF THE ATTACHED COMPONENT









Type	L , mm	L1 , mm	L2 , mm
OSY 80	170	16	126,5
OSY 100	174	20	130,5
OSY 125	179	25	135,5
OSY 160	182	27	137,5
OSY 200	189	34	144,5
OSY 250	197	42	152,5
OSY 315	209	54	164,5
OSY 400	224	69	179,5
OSY 500	238	83	193,5

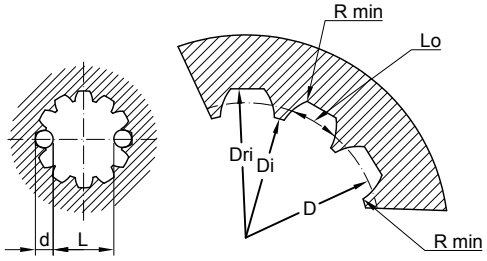
Direction of shaft rotation: Standard
When facing shaft end of motor, shaft to rotate:
Clockwise when port "A" is pressurized.
Counter-clockwise when port "B" is pressurized.
Painted: Black

INTERNAL SPLINE DATA FOR THE ATTACHED COMPONENT

Standard 12 DP 10/20 ANSI B92.1-1976, class 5
[m=2.54; corrected x.m=+0,4]

Fillet Root Side Fit		mm
Number of Teeth	z	12
Diametral Pitch	DP	10 / 20
Pressure Angle		30°
Pitch Dia.	D	30,48
Major Dia.	Dri	$33,2^{+0,4}$
Minor Dia.	Di	$27,8^{+0,1}$
Space Width [Circular]	Lo	$4,45^{+0,071}$
Fillet Radius	Rmin	0,2
Max. Measurement between Pin	L	$22,72^{+0,17}$
Pin Dia.	d	5±0,001

Above are when hardened



Hardering 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
OSY								

1	Mounting Flange
omit	SAE A mount, four holes
A	SAE A mount, two holes
F	Magneto mount, four holes
W	Wheel mount

2	Port type
omit	Side ports
E	Rear ports

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]
500	500,0 [cm³/rev]

4	Shaft Extensions
C	ø32 straight, Parallel key A10x8x45 DIN6885
K	ø35 tapered 1:10, Parallel key B6x6x20 DIN6885
SL	ø34,85 p.t.o. DIN 9611 Form 1
SH	ø1 1/4" splined 14T ANSI B92.1 - 1976

5	Ports
omit	BSPP (ISO 228)
M	Metric (ISO 262)

6	Rotation
omit	Standard Rotation
R	Reverse Rotation

7	Option (Paint)
omit	no paint
P	Painted
PC	Corrosion Protected Paint

8	Design Series
omit	Factory specified