

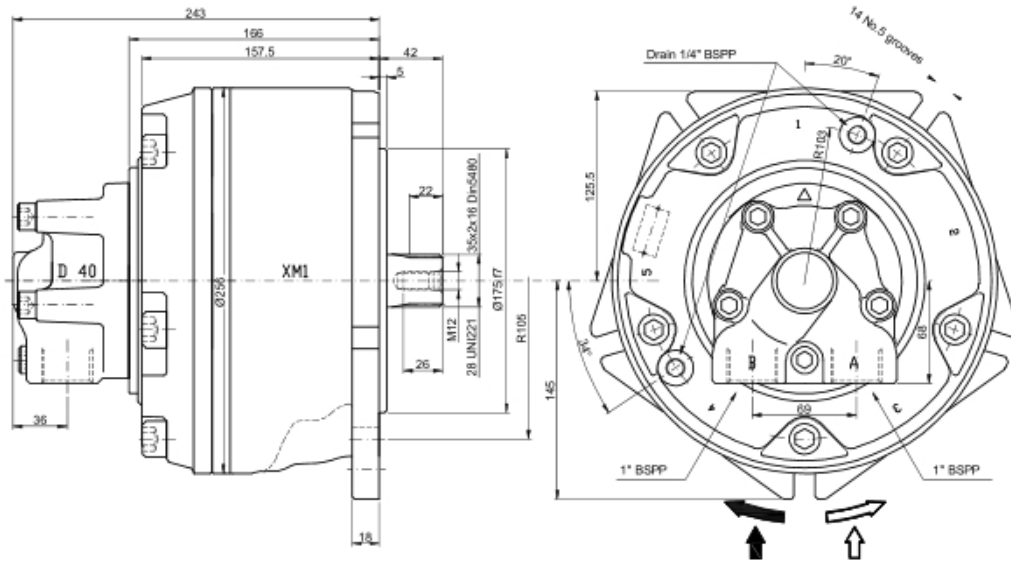
Nominal displacement 150 175 200 250 280 300 340 400 450 500

Displacement	cm ³ /rev	154	172	201	243	278	314	340	394	452	499
Spec. Torque	Nm/bar	2.40	2.68	3.13	3.79	4.33	4.90	5.31	6.14	7.05	7.78
Press. rating ¹⁾	bar	250	250	250	250	250	250	250	250	230	210
Peak press.	bar	380	380	380	380	350	350	340	330	300	250
Cont. speed ²⁾	rpm	900	700	650	500	450	450	430	370	320	290
Max. speed ²⁾	rpm	1300	1100	1000	800	700	700	670	575	500	450
Peak power	kW	59	59	59	59	59	59	59	59	59	59
Peak power	HP	80	80	80	80	80	80	80	80	80	80

Approx. weight **g** 45
 Approx. oil capacity **lt** 1
 Max casing pressure ³ **1 bar cont., 5 bar peak**

Note:

- 1) Continuous or average working pressure should be chosen in function of bearing lifetime. Consult SAI technical department for lifetime calculation.
- 2) Speed limitation with optional low speed distributors (eg.D31) cont. 250 rpm, max. 500 rpm.
- 3) For higher case pressure please consult SAI Tech.Dept.



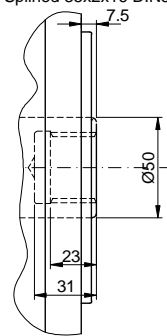
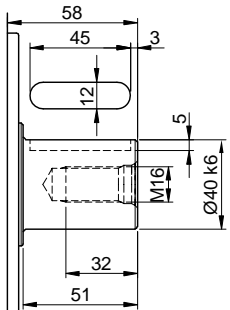
SHAFTS

SPLINE DATA

Parallel keyed Ø40

Splined 28 UNI 221

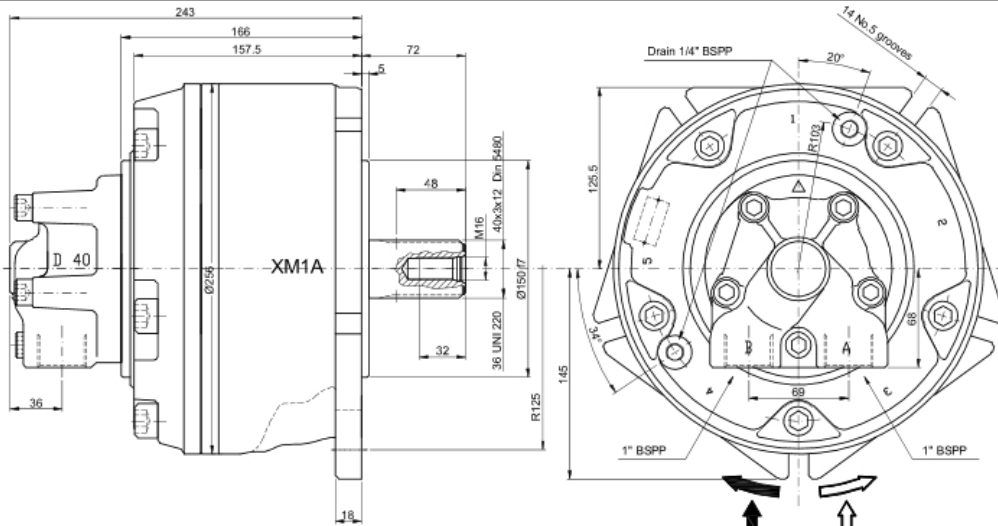
Splined 35x2x16 DIN5480



35x2x16 DIN 5480				28 UNI 221 (6-28-34 DIN 5463)			
d0	Ø32			d1	Ø28	$\begin{matrix} +0.021 \\ 0 \end{matrix}$	H7
d1	Ø35	$\begin{matrix} +0.52 \\ 0 \end{matrix}$	H14	d2	Ø34.1	$\begin{matrix} +0.16 \\ 0 \end{matrix}$	H11
d2	Ø31	$\begin{matrix} +0.16 \\ 0 \end{matrix}$	H11	A	7	$\begin{matrix} +0.028 \\ +0.013 \end{matrix}$	F7
A	Ø3.5			d3	Ø28	$\begin{matrix} -0.007 \\ -0.020 \end{matrix}$	g6
da	Ø27.711		H11	d4	Ø34	$\begin{matrix} -0.065 \\ -0.160 \end{matrix}$	h14
d3	Ø34.6	$\begin{matrix} 0 \\ -0.16 \end{matrix}$	h11	B	7	$\begin{matrix} -0.013 \\ -0.028 \end{matrix}$	f7
d4	Ø30.6	$\begin{matrix} 0 \\ -0.52 \end{matrix}$	h14				
B	Ø4						
db	Ø39		f8				

SHAFTS

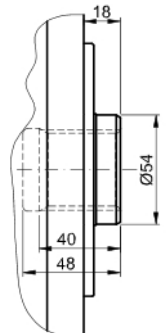
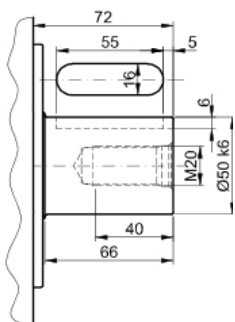
SPLINE DATA



Parallel keyed Ø50

Splined 40x3x12 DIN5480

Splined 36 UNI 220

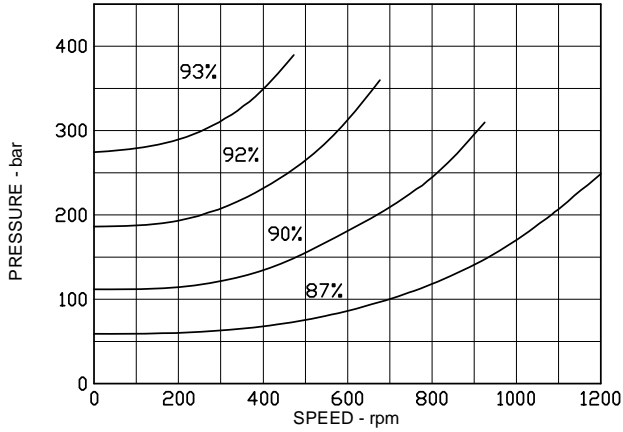


40x3x12 DIN 5480				36 UNI 220 (DIN 5462)			
d0	Ø36			d1	Ø36	$\begin{matrix} +0.025 \\ 0 \end{matrix}$	H7
d1	Ø40	$\begin{matrix} +0.62 \\ 0 \end{matrix}$	H14	d2	Ø40	$\begin{matrix} +0.16 \\ 0 \end{matrix}$	H11
d2	Ø34	$\begin{matrix} +0.16 \\ 0 \end{matrix}$	H11	A	7	$\begin{matrix} +0.028 \\ +0.013 \end{matrix}$	F7
A	Ø5.25			d3	Ø36	$\begin{matrix} -0.009 \\ -0.025 \end{matrix}$	g6
da	Ø28.964		H11	d4	Ø40	$\begin{matrix} -0.065 \\ -0.160 \end{matrix}$	h14
d3	Ø39.4	$\begin{matrix} 0 \\ -0.16 \end{matrix}$	h11	B	7	$\begin{matrix} -0.013 \\ -0.028 \end{matrix}$	f7
d4	Ø33.4	$\begin{matrix} 0 \\ -0.62 \end{matrix}$	h14				
B	Ø6						
db	Ø45.989		f8				

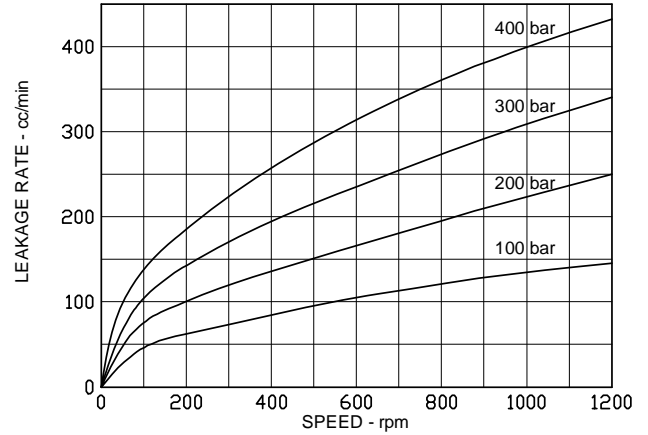
PERFORMANCES

The graphs indicate the typical performance characteristics of the 300 cc motor operating with mineral oil with viscosity 40 cSt at 50 °C.

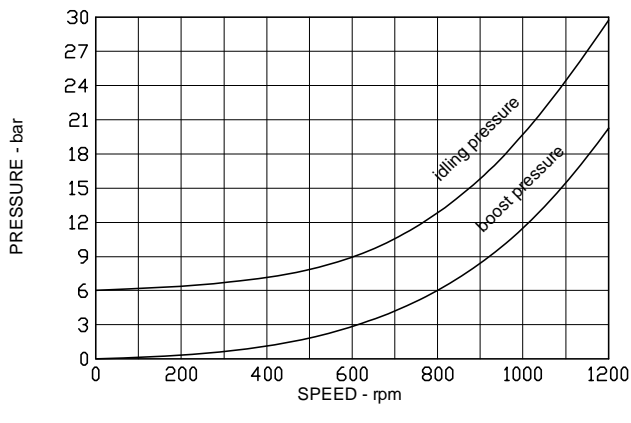
MECHANICAL EFFICIENCY



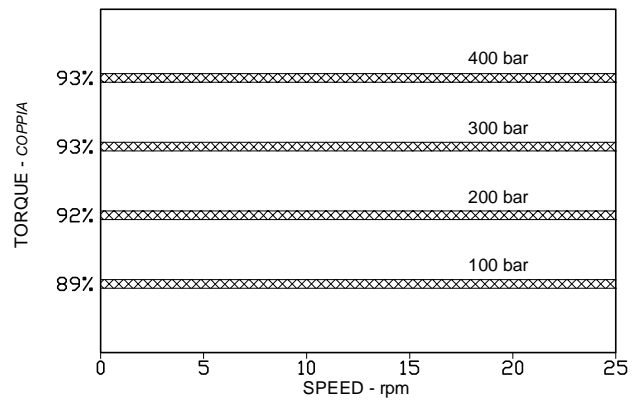
VOLUMETRIC EFFICIENCY



IDLING AND BOOST PRESSURE

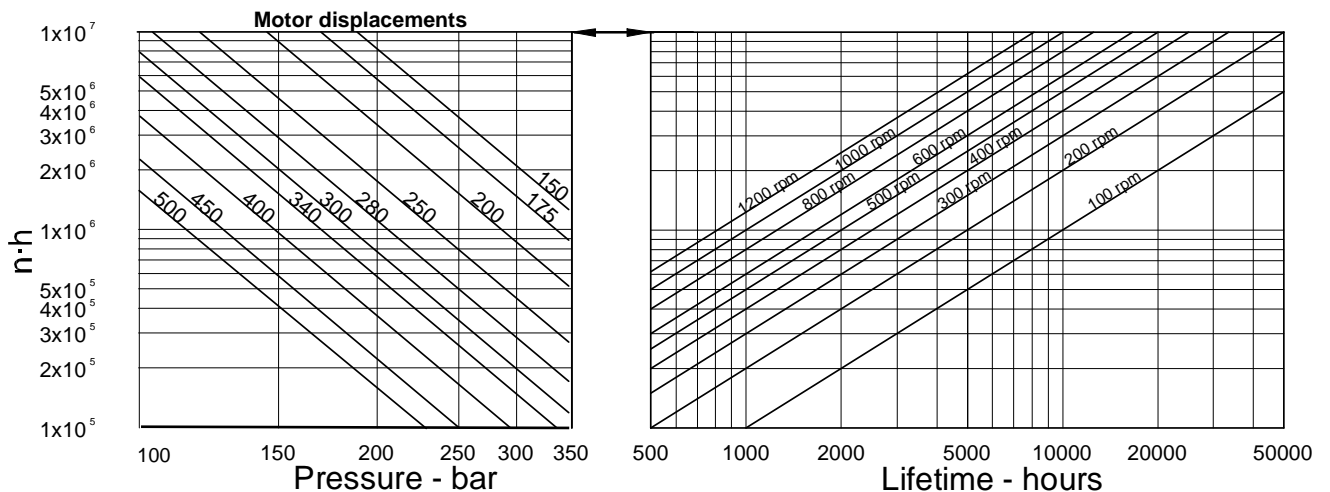


STARTING AND LOW SPEED TORQUE



BEARING LIFETIME

The graph refers to the motor with standard spherical roller bearings



ORDER CODES

XM1 / XM1A - ① ② ③ ④ + ⑤ ⑥ ; ⑦ ⑧

1. Nominal displacement - see motor spec. table.

2. Shaft options:

7 = male 35-2-16 DIN 5480 (std)

1 = male 28 UNI 221

9* = female 35-2-16 DIN 5480

9A = female 40-3-12 DIN 5480

3 = female 28 UNI 221

8* = cylindrical keyed Ø40x58

8A = cylindrical keyed Ø50x72

(* not available on XM1A)

3. Bearings:

spherical roller bearings

4. Other options:

U = without shaft seal

A = high pressure shaft seal

(5 bar cont., 15 bar peak)

SV = stainless steel shaft sleeve

corr. protect. for shaft seal

V = Viton seals

I = case press. relief valve 3 bar

5. Distributor code:

D40 *standard*

6. Tachometer:

K = predisposed for tachometer

J = with tachometer coupling

7. Shaft rotation*: standard motors are supplied with clockwise rotation (viewed from shaft end) with flowin port A, out port B

R = clockwise rotation

L = anti-clockwise rotation

(* viewed from the shaft end side)

8. Distributor cover orientation*:

No code = DM1 position

DM.... = other positions