

Part number:

076-10176

HYDROMA

HYDRAULICKÉ SYSTÉMY

**HIDROMA
SYSTEMS**

UKŁADY HYDRAULICZNE

HYDROMA

ГИДРАВЛИЧЕСКИЕ СИСТЕМЫ

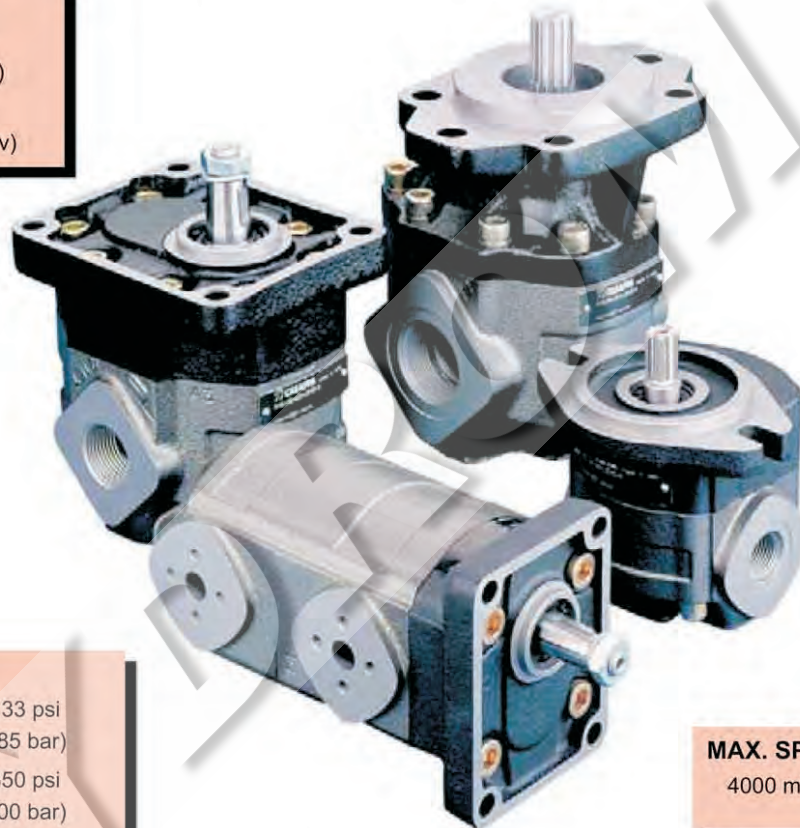
KAPPA®

Hydraulic gear pumps and motors

two piece cast iron housing

DISPLACEMENTS

From	0.30 in ³ /rev (4,95 cm ³ /rev)
To	4.50 in ³ /rev (73,82 cm ³ /rev)



PRESSURE

Max. continuous	4133 psi (285 bar)
Max. intermittent	4350 psi (300 bar)
Max. peak	4785 psi (330 bar)

MAX. SPEED

4000 min⁻¹

- High operating pressures
- High efficiency at high temperature
- Exceptional working life expectancy

KAPPA pump and motor units consist essentially of a housing and a mounting flange in cast iron of superior mechanical specifications. KAPPA is available with mounting flanges and side or rear ports according to SAE and European standard.

The rigidity of assembly and the compact design of KAPPA pumps and motors ensure reliability and high volumetric efficiency also at high operating pressures. Infinite care and attention is taken over the design and construction of each single component, and with quality monitored unceasingly, the result is a consistent, perfectly balanced assembly that guarantees unbroken service under the most arduous operating conditions. KAPPA series is the right choice wherever noise, contamination, non inflammable fluids and size are critical factors. The wide choice of combinations of mounting flanges, shafts and ports ensure to KAPPA series to be applied in a vast range of application.

KAPPA 30 GENERAL DATA MOTORS

KM 30

Motor type	Displacement	Max. pressure			Max. speed	Min. speed
		p_1	p_2	p_3		
	in ³ /rev (cm ³ /rev)	psi (bar)			min ⁻¹	
KM 30•27	1.63 (26,7)	4060 (280)	4350 (300)	4495 (310)	3000	350
KM 30•34	2.11 (34,56)	3770 (260)	4060 (280)	4350 (300)	3000	350
KM 30•38	2.40 (39,27)	3770 (260)	4060 (280)	4350 (300)	3000	350
KM 30•43	2.68 (43,98)	3625 (250)	3915 (270)	4205 (290)	3000	350
KM 30•51	3.16 (51,83)	3335 (230)	3625 (250)	3915 (270)	2500	350
KM 30•56	3.45 (56,54)	3118 (215)	3408 (235)	3698 (255)	2500	350
KM 30•61	3.74 (61,26)	2900 (200)	3190 (220)	3480 (240)	2500	350
KM 30•73	4.50 (73,82)	2610 (180)	2900 (200)	3190 (220)	2500	350

 p_1 = Max. continuous pressure p_2 = Max. intermittent pressure p_3 = Max. peak pressure

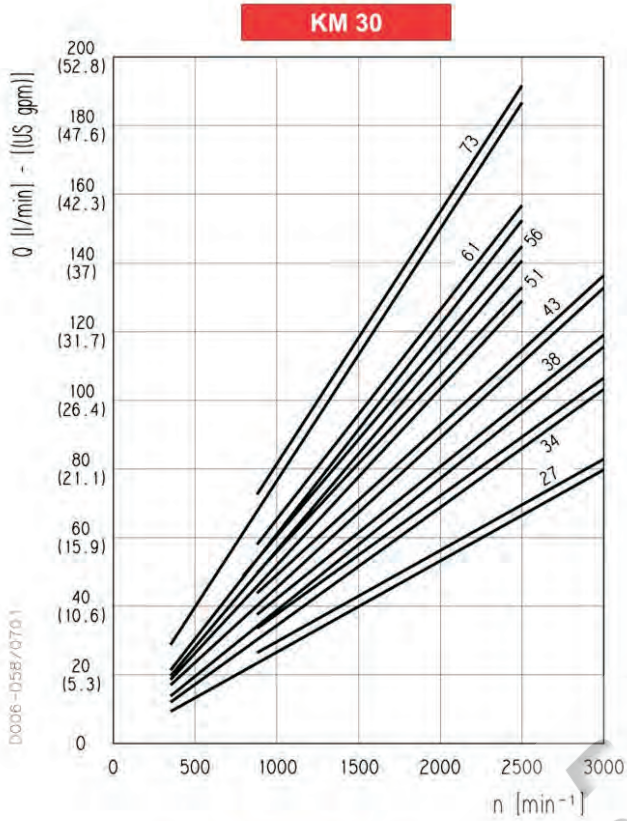
The values in the table refer to unidirectional motors.

Reversible motors max pressures are 15% lower than those shown in table.

For different working conditions please consult our sales department.

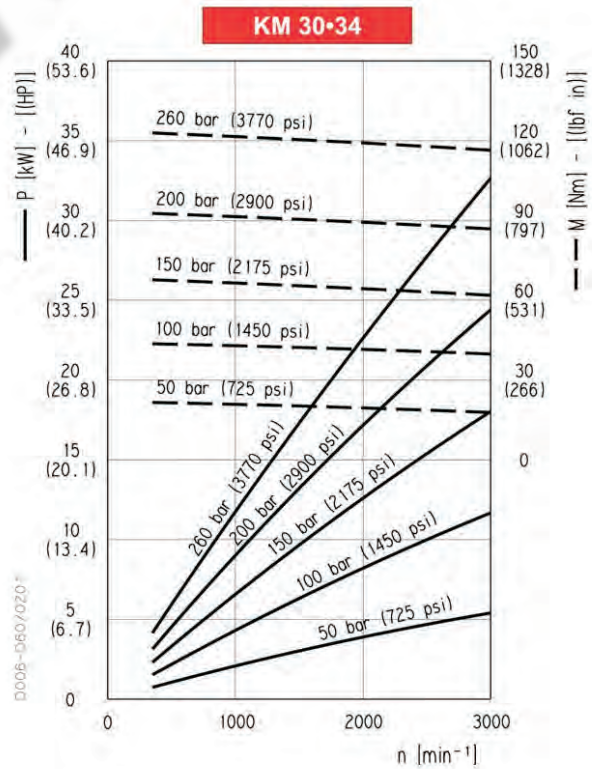
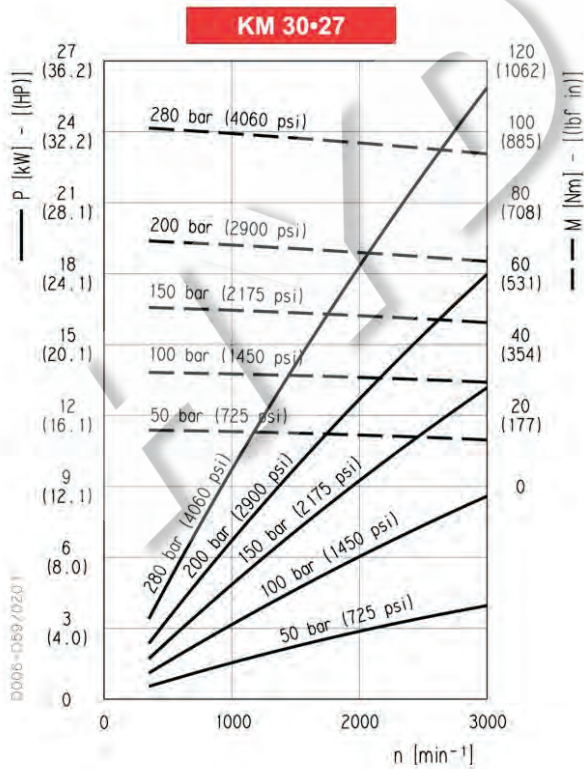
KAPPA 30 GEAR MOTORS PERFORMANCE CURVES

KM 30



Each curve has been obtained at 122 °F (50 °C), using oil with viscosity 168 SSU (36 cSt) at 104 °F (40 °C) and at these pressures:

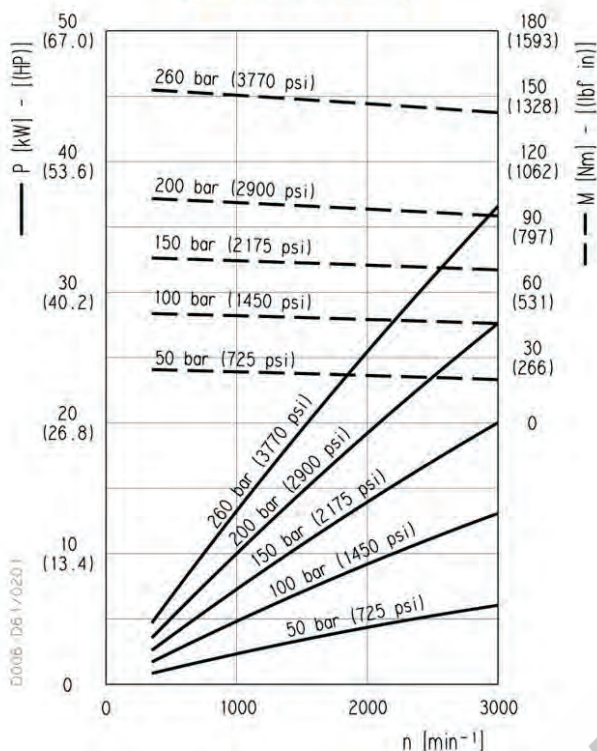
- KM 30•27 290-4060 psi (20-280 bar)
- KM 30•34 290-3770 psi (20-260 bar)
- KM 30•38 290-3770 psi (20-260 bar)
- KM 30•43 290-3625 psi (20-250 bar)
- KM 30•51 290-3335 psi (20-230 bar)
- KM 30•56 290-3118 psi (20-215 bar)
- KM 30•61 290-2900 psi (20-200 bar)
- KM 30•73 290-2610 psi (20-180 bar)



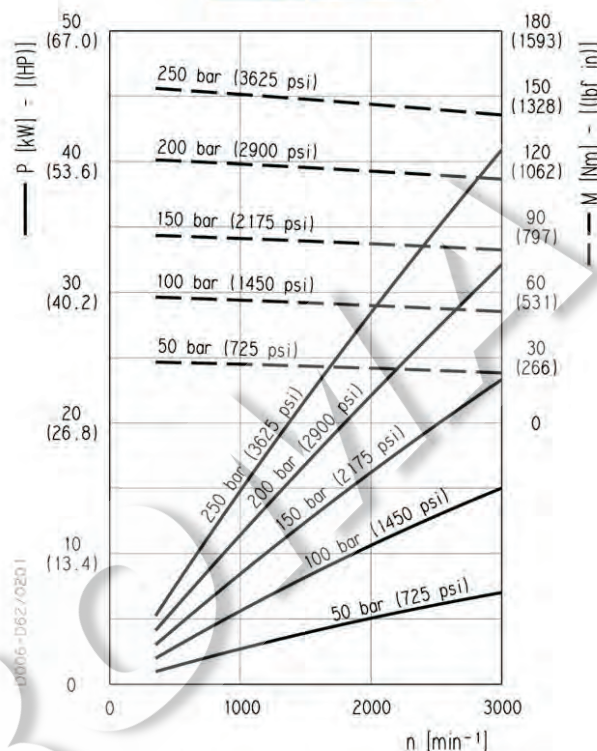
KAPPA 30 GEAR MOTORS PERFORMANCE CURVES

KM 30

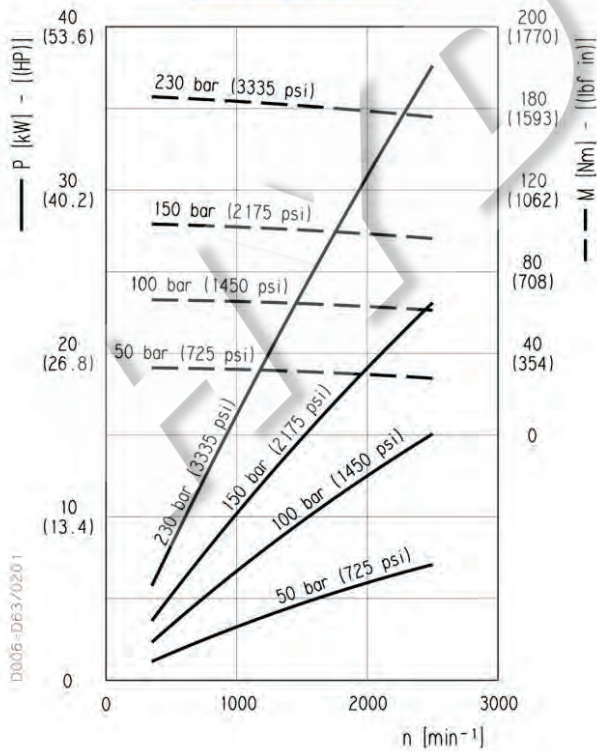
KM 30•38



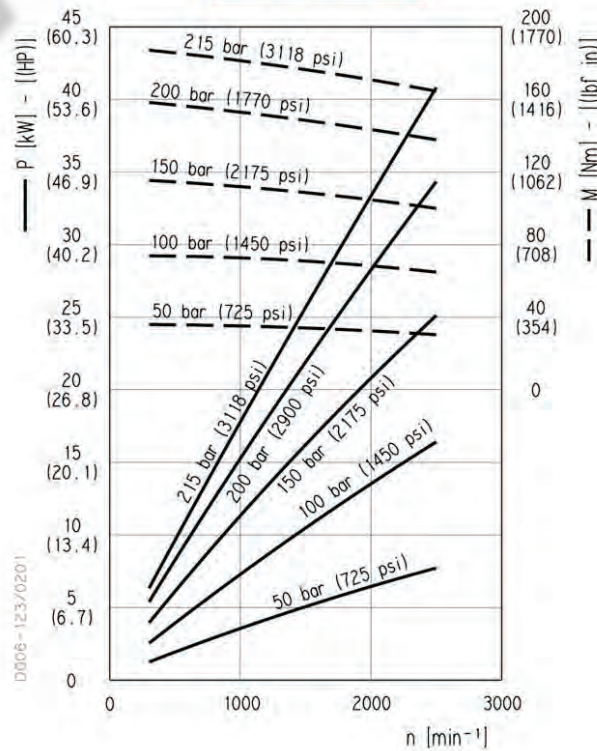
KM 30•43



KM 30•51



KM 30•56

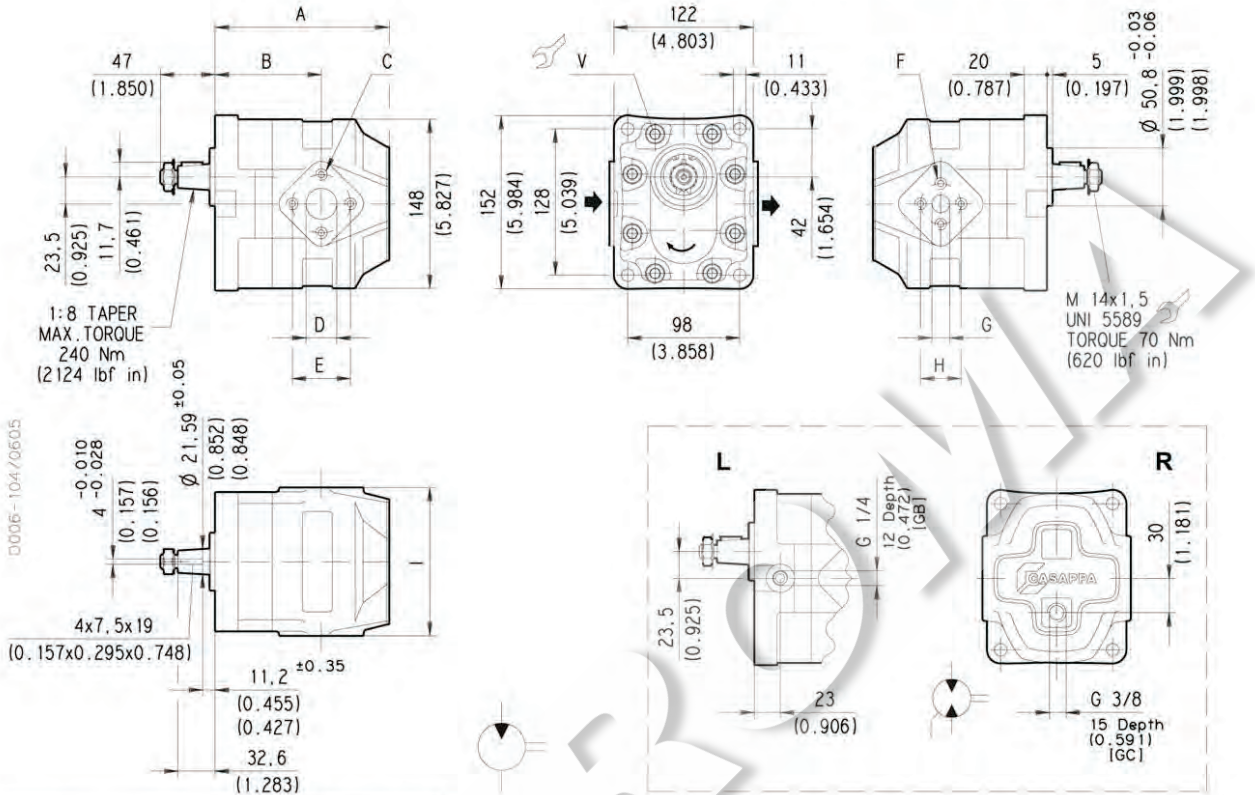


KAPPA 30

HYDRAULIC GEAR MOTORS EUROPEAN STANDARD

83 E3

EUROPEAN FLANGED PORTS - 4 Bolts
Metric thread ISO 60° conforms to ISO/R 262



D0006-104/0605

V Screws tightening torque Nm (lbf in)

70 ±7 (558 ÷ 682)

Motor type	A	B	C	D	E	F	G	H	I
	mm (in)	mm (in)	mm (in)	mm (in)	mm (in)	mm (in)	mm (in)	mm (in)	mm (in)
KM 30•27	133 (5.236)	85 (3.346)	M 10 Depth 17 (0.669)	27 (1.063)	51 (2.008)	M 8 Depth 17 (0.669)	19 (0.748)	40 (1.575)	130 (5.118)
KM 30•34	138 (5.433)	90 (3.543)							
KM 30•38	141 (5.551)	93 (3.661)							
KM 30•43	144 (5.669)	96 (3.780)							
KM 30•51	149 (5.866)	93 (3.661)							
KM 30•56	152 (5.984)	97 (3.819)							
KM 30•61	155 (6.102)	100 (3.937)	M 12 Depth 17 (0.669)	33 (1.299)	62 (2.441)	M 10 Depth 17 (0.669)	27 (1.063)	51 (2.008)	135 (5.315)
KM 30•73	163 (6.417)	108 (4.252)							

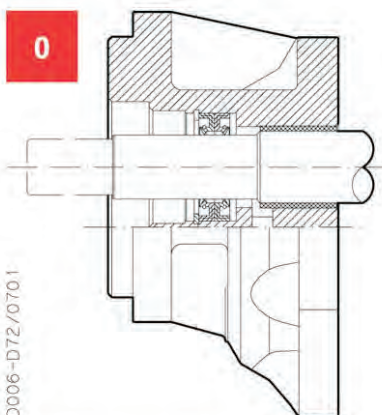
Rotation: S=left - D=right - L=reversible side drain - R=reversible rear drain - B=reversible internal drain

How to order:

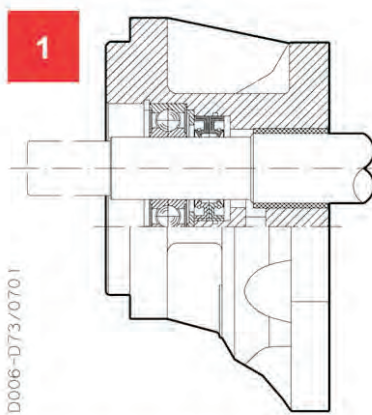
KM 30•27 S0-83 E3-L EB/ED-N

KAPPA 30 SAE VERSION

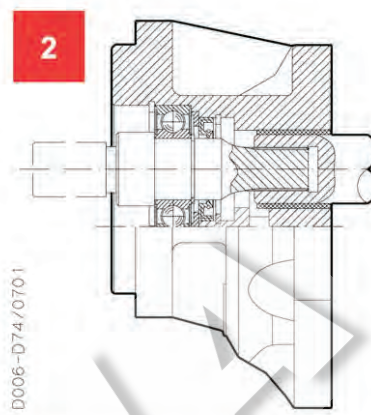
SAE



Version for applications without radial and axial load on the drive shaft.



Version for applications with low radial load and without axial load on the drive shaft.



Special version with independent shaft for applications with low radial load and without axial load on the drive shaft.

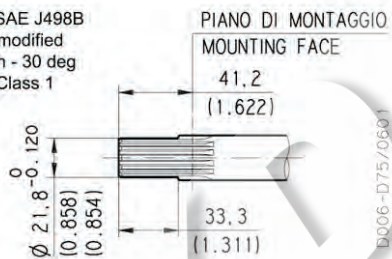
KAPPA 30 END DRIVE SHAFTS

SAE

SAE "B" SPLINE

04

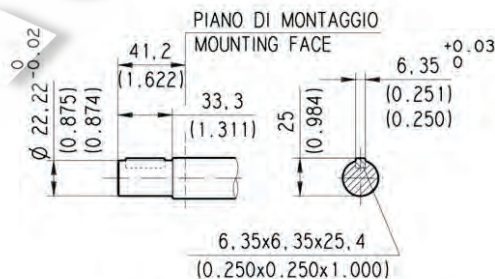
Ext. Involute Spline SAE J498B with major diameter modified 13 teeth - 16/32 Pitch - 30 deg Flat Root - Side fit - Class 1



MAX 2921 lbf in (330 Nm) ◆

SAE "B" STRAIGHT

32

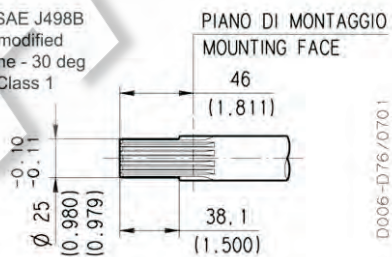


MAX 1770 lbf in (200 Nm) ◆

SAE "BB" SPLINE

05

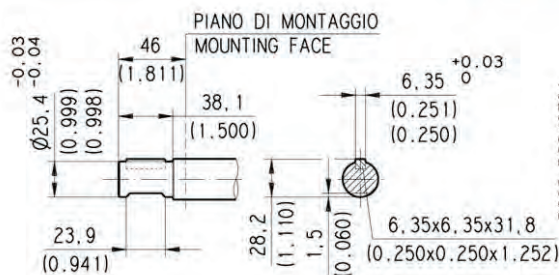
Ext. Involute Spline SAE J498B with major diameter modified 15 teeth - 16/32 Spline - 30 deg Flat Root - Side fit - Class 1



MAX 4426 lbf in (500 Nm) ◆

SAE "BB" STRAIGHT

33



MAX 2478 lbf in (280 Nm) ◆

◆ For "2" version whichever end shaft, the max. torque applicable is M= 1505 lbf in (170 Nm)

HOW TO ORDER SINGLE MOTORS

1	2	3	4	5	6	7	8
Motor type	Rotation	Version	Drive shaft	Mounting flange	Ports position	Ports IN/OUT	Seals
KM30-27	S	0	04	S3	L	OF/OD	N

1 Motor Type		CODE
in ³ /rev	(cm ³ /rev)	
1.63	26,7	KM 30-27
2.11	34,56	KM 30-34
2.40	39,27	KM 30-38
2.68	43,98	KM 30-43
3.16	51,83	KM 30-51
3.45	56,54	KM 30-56
3.74	61,26	KM 30-61
4.50	73,82	KM 30-73

2 Rotation	CODE
Left	S
Right	D
Reversible	R
Reversible with internal drain	B

3 Version	CODE
Without outboard bearing	0
With outboard bearing	1
With outboard bearing and indep. shaft	2

4 Drive shaft	CODE
SAE "B" spline (13 teeth)	04
SAE "B" straight	32
SAE "BB" spline (15 teeth)	05
SAE "BB" straight	33

5 Mounting flange	CODE
SAE "B" 2-4 holes	S3

CODE	Ports position	6
L	Side	

CODE	Ports IN/OUT	7
SAE STRAIGHT THREAD PORTS (ODT)		
Side	Motor type	
OD/OF	KM 30-27	
OD/OF	KM 30-34	
OF/OG	KM 30-38	
OF/OG	KM 30-43	
OF/OG	KM 30-51	
OG/OH	KM 30-56	
OG/OH	KM 30-61	
OG/OH	KM 30-73	

CODE	Seals (a)	8
N	Buna N (standard) - no code	
N-H	Buna with high back pressure shaft seals	
V	Viton	
N Bz	Buna N and Bronze thrust plates	
V Bz	Viton and Bronze thrust plates	

(a) Choose the seals according to the temperature shown on page 2

ORDER EXAMPLE

Standard motor KM 30-27 S0 - 04 S3 - L OD/OF - N

Special version motor KM 30-27 S2 - 32 S3 - L OD/OF - V Bz