



Usage Guide:

1. KM Series Hydraulic Motor is a low speed high torque motor with high power ratio per unit volume.
2. Avoid using the motor at both maximum speed and maximum pressure.
3. Motors can be used in series or parallel. When the back pressure exceeds 5MPa, it is recommended to connect the leakage port.
4. Optimum operating range of the motor : $1/3 \sim 2/3$ cont. operating condition
5. Make sure the motor is filled with hydraulic oil before running.
6. Maximum operating oil temperature : 80°C .
7. The recommended oil : Antiwear hydraulic oil with viscosity of $37 \sim 73$ cst, Oil cleanliness ISO18/13.

▶ KMM SERIES HYDRAULIC MOTOR

The HMM series motor is a miniature spindle speed motor that can be installed and used in a small space. The rotor set with movable needle teeth has compact structure, light weight and large power.

Its characteristics :

- Small volume, high efficiency, high speed, long life.
- Shaft seal stands high pressure, can be used in series and parallel .
- Compact and advanced structure design, large power.



Main Specification

Type		8	12	20	32	40	50
Displacement (ml/r)		8.2	12.9	19.9	31.6	39.8	50.3
Max. flow (LPM)	Cont.	16	20	20	20	20	20
	Int.	20	25	25	25	25	25
Max. speed (RPM)	Cont.	1950	1550	1000	630	500	400
	Int.	2450	1940	1250	800	630	500
Max. pressure (MPa)	Cont.	10	10	10	10	9	7
	Int.	14	14	14	14	14	14
Max. torque (N*m)	Cont.	11	16	25	40	45	46
	Int.	15	23	35	57	70	88

Introductions :

- 1. Maximum intermittent value: The maximum that the motor can operate continuously**
- 2. Intermittent value: The maximum that allows the motor to last 6 seconds in a minute.**
- 3. Avoid operating under the conditions of maximum speed and maximum pressure simultaneously.**
- 4. Optimal operating range of the motor: 1/3 ~ 2/3 continuous operating conditions.**

KMM

Continuous working area

Intermittent working area

Performance Data

KMM-8

Flow (LPM)	pressure ΔP (Mpa)					
	3.5	5	7	10	12	14
2	3	5	8	10	12	14
4	3	5	7	11	13	15
8	3	15	7	11	13	15
12	2	5	7	10	13	15
15		4	7	10	12	14
20		1912	1900	1861	1833	1780
			6	10	11	14
			2395	2350	2328	2281

Torque: 10N.m
Speed: 2350rpm

KMM-12

Flow (LPM)	pressure ΔP (Mpa)					
	3.5	5	7	10	12	14
2	6	8	11	16	19	
4	6	8	12	17	19	23
8	5	8	12	17	20	24
12	5	8	11	16	20	24
15	5	7	11	16	19	23
20	3	7	10	15	19	22
25	2	6	9	14	18	22
	1910	1891	1878	1848	1828	1788

KMM-20

Flow (LPM)	pressure ΔP (Mpa)						
	1.7	3.5	5	7	10	12	14
2	3	9	14	19	26	30	
4	4	9	14	19	26	31	36
8	4	9	13	19	27	31	36
12	3	8	13	18	26	31	37
15	3	8	12	17	25	30	36
20	1	6	11	19	24	29	35
25		4	9	14	23	28	33
		1247	1245	1242	1189	1180	1176

KMM-32

Flow (LPM)	pressure ΔP (Mpa)						
	2	3.5	5	7	10	12	14
2	7	15	21	28	40		
4	7	15	21	29	41	48	57
8	7	15	21	29	41	49	58
12	6	13	20	28	40	48	58
15	4	12	18	27	39	47	57
20	3	10	17	25	37	46	55
25	1	8	15	23	35	43	52
	791	789	787	783	766	753	732

KMM-40

Flow (LPM)	pressure ΔP (Mpa)					
	3	5	7	8.5	10	12
2	16	27	36	44	51	
4	16	27	37	44	52	62
8	15	26	36	44	52	62
12	14	25	35	43	51	62
15	13	24	34	42	50	62
20	10	21	31	39	48	59
25	7	19	29	37	44	56
	622	617	612	607	600	591

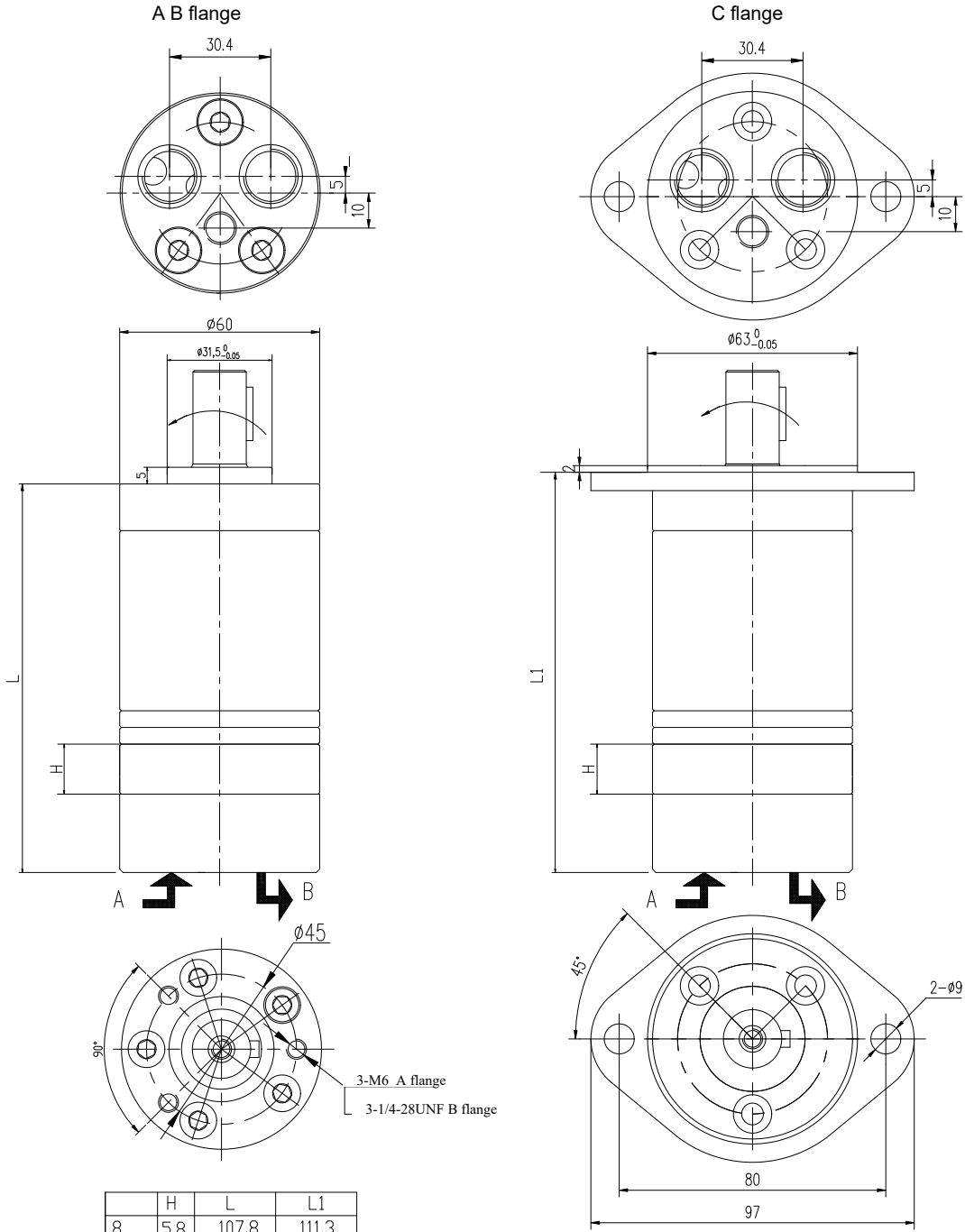
KMM-50

Flow (LPM)	pressure ΔP (Mpa)				
	1.5	3	5	7	10
2	11	23	36	50	
4	11	22	36	50	70
8	11	21	35	50	71
12	11	20	33	49	71
15	10	18	32	47	69
20	8	14	29	44	64
25	4	10	25	40	59
	498	496	494	490	484

The data in the table are tested under the condition of 68# antiwear hydraulic oil and 50°C oil temperature. The results of different motors are slightly different.

KMM series motor dimension

A type: Oil port at rear end

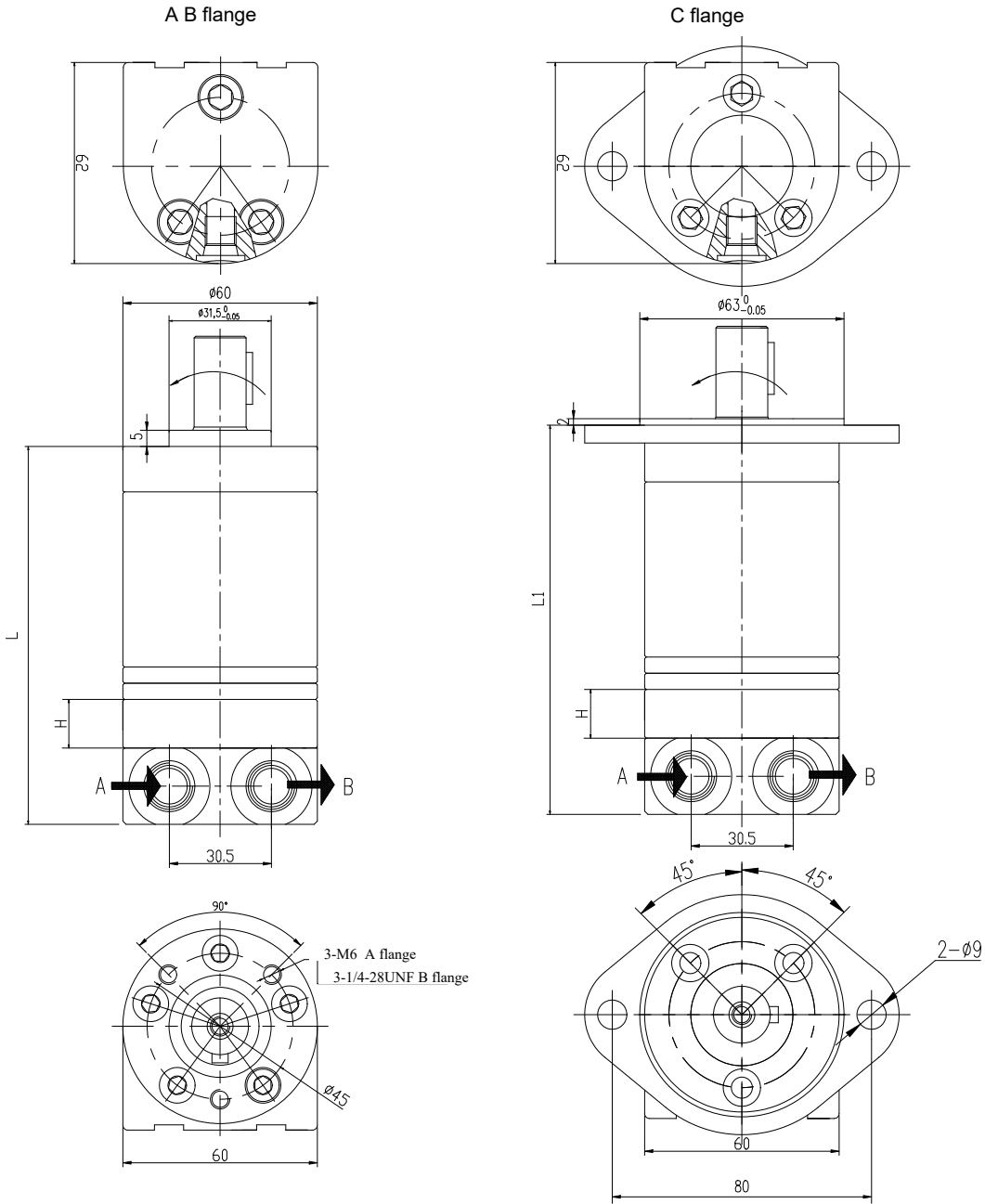


	H	L	L1
8	5.8	107.8	111.3
12	9	111	114.5
20	14.5	116.5	120
32	23	121	124.5
40	29	131	134.5
50	37	139	142.5

The rotate direction of the output shaft: standard
 When facing the direction of the motor output shaft,
 when the oil inlet of A is high pressure, the output
 shaft rotates clockwise; Otherwise, it rotates
 counterclockwise.

KMM series motor dimension

B type: Oil port at side



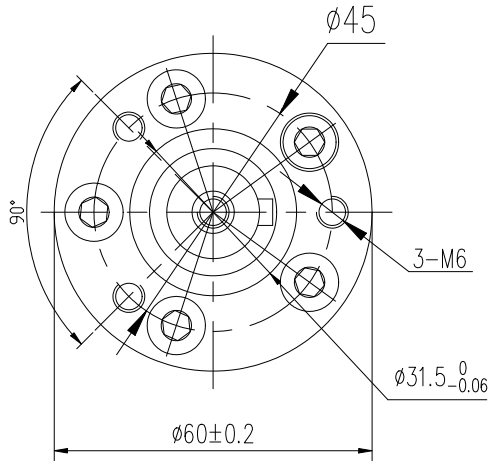
	H	L	L1
8	5.8	107.8	111.3
12	9	111	114.5
20	14.5	116.5	120
32	23	121	124.5
40	29	131	134.5
50	37	139	142.5

The rotate direction of the output shaft: standard
 When facing the direction of the motor output shaft,
 when the oil inlet of A is high pressure, the output
 shaft rotates clockwise; Otherwise, it rotates
 counterclockwise.

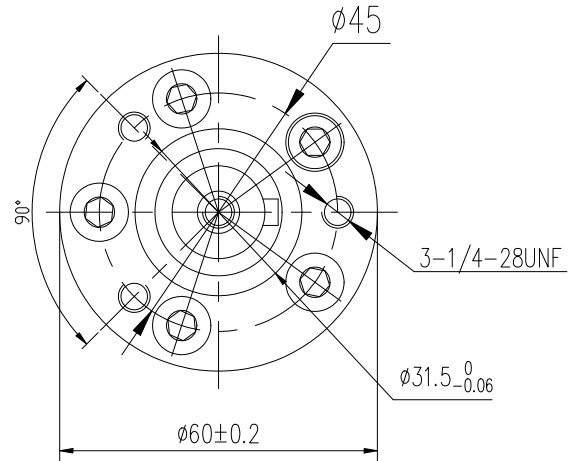
KMM connection dimension

Mounting Flange

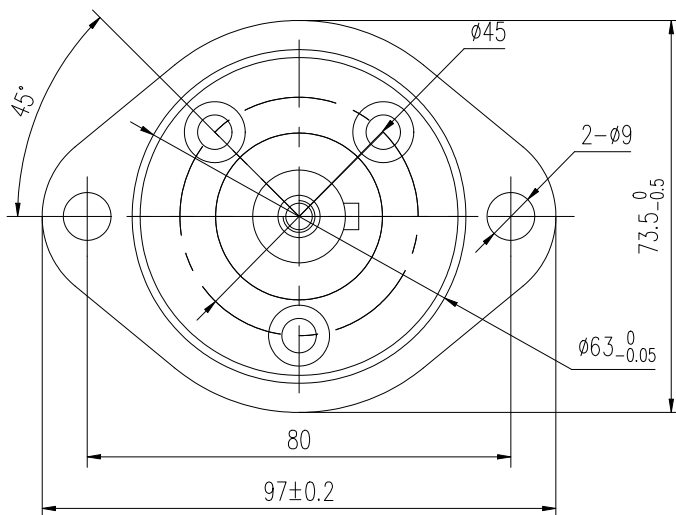
A flange



B flange



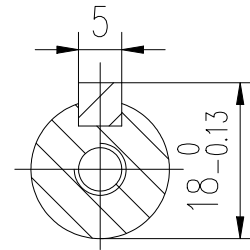
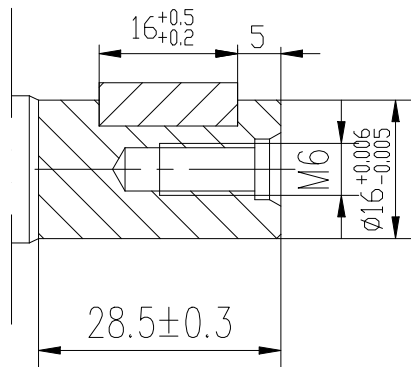
C flange



KMM connection dimension

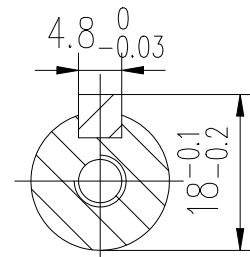
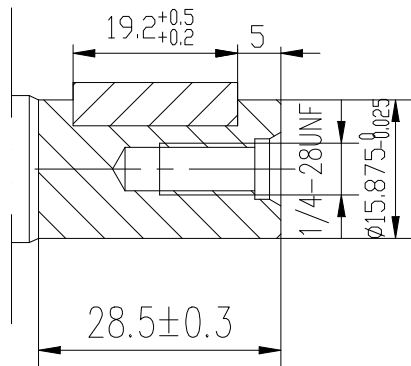
Output shaft

A shaft



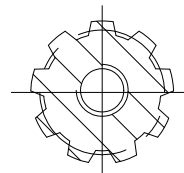
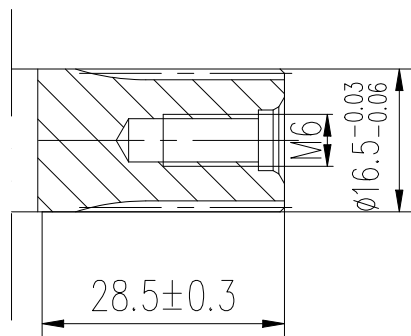
Diameter: $\phi 16 \times 28.5$
 Flat key: $5 \times 5 \times 16$
 shaft end thread: M6

B shaft



Diameter: $\phi 15.875 \times 28.5$
 Flat key: $4.8 \times 4.8 \times 19.2$
 shaft end thread: 1/4-28UNF

C shaft



Involute spline shaft: B17 \times 14
 DIN5482

KMM Ordering Code (8 Code Form)

KMM	1	2	3	4	5	6	7
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pos 1		2		3		4		5		6		7	
configuration		Displacement (ml/r)		flange& front edge (mm)		shaft & key (mm)		Oil port		Oil orifice external thread		special requirements	
A	The oil port is in the back	A	8	A	Circle flange,3-M6 reference circle \varnothing 45, front edge \varnothing 31.5X5	A	Straight shaft; \varnothing 16X28.5 Flap key:5x5x16 shaft end thread:M6	A	2-G3/8	A	no	A	no
B	the oil port is on the side	B	12.5	B	Circle flange,3-1/4-28UNF reference circle \varnothing 45, front edge \varnothing 31.5X5	B	straight shaft; \varnothing 15.875X28.5, Flap key:4.8x4.8x19.35, shaft end thread:1/4-28UNF	B	9/16-18UNF	B	G1/8	B	
		C	16	C	Two holes rhombus ,2- \varnothing 9 center distance80, front edge \varnothing 63X2	C	involute serration : B17x14 DIN5482, shaft end thread:M6			C	3/8-24UNF	C	
		D	20										
		E	32										
		F	40										
		G	50										