



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 37~73cst, Oil cleanliness ISO18/13.

▶ KM5 Series

Design features:

- Advanced disc flow structure design, low speed performance is good.
- Height of volumetric efficiency and automatic compensation for wear
- Joint shaft special design, long service life of the motor.
- Double row cone rolling pin shaft is capable of bearing big radial force which is used in heavy load driving occasions.



Main Specification

displacement (ml/r)		80	100	125	160	200	250	280	305	400	500
flow (LPM)	cont.	75	75	75	75	75	75	75	75	75	75
	int.	85	95	95	115	115	115	115	115	130	130
speed (RPM)	cont.	850	675	552	430	345	276	246	226	183	144
	int.	956	855	700	660	529	423	378	347	308	246
pressure (MPA)	cont.	17.5	17.5	17.5	17.5	17.5	17.5	17.5	15	15	12
	int.	28	28	28	25	25	25	25	21	17	15
torque (N*M)	cont.	178	223	278	356	445	557	592	580	715	720
	int.	286	356	445	509	636	755	779	763	840	860
output power (KW)	cont.	16	18.8	19.5	15.6	15.6	14	14	14	11	9
	int.	20	23.5	23	21	18	17	17	17	13	11

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.

KM5 motor performance data

Continuous working area

Intermittent working area

80ml/r

pressure ΔP (Mpa)

流量 Flow (LPM)	pressure ΔP (Mpa)								
	3.5	7	10	14	17	20.5	24	27.5	30
4	35	75	103	145	176	208	220	230	
	46	42	38	35	30	23	14	2	
8	35	75	105	152	180	216	236	257	300
	97	90	86	83	78	69	60	49	44
16	35	75	105	150	186	217	249	265	310
	195	187	182	178	170	162	148	132	120
24	35	75	105	152	188	222	256	289	315
	284	280	270	263	258	245	232	210	198
32	35	75	103	155	190	230	265	287	320
	388	380	371	360	359	345	328	300	280
45	30	70	101	149	186	228	262	282	330
	538	535	530	518	510	482	470	430	410
60	30	70	97	147	183	229	258	278	325
	720	716	710	679	670	635	599	569	550
75	25	65	95	146	179	221	242	269	320
	899	878	860	856	842	801	756	723	710
85	22	60	90	140	172	218	225		
	956	948	926	905	893	885	852		

100ml/r

pressure ΔP (Mpa)

流量 Flow (LPM)	pressure ΔP (Mpa)								
	3.5	7	10	14	17	21	24	28	30
4	45	89	130	175	208	246			
	33	32	30	24	16	6			
8	46	90	135	180	215	251	278	305	340
	75	72	68	55	53	38	30	16	6
16	46	93	140	185	220	269	295	310	360
	152	150	146	140	128	112	99	82	71
24	46	93	140	188	231	270	305	350	390
	230	225	218	212	201	176	172	150	135
32	42	93	142	186	233	278	310	365	400
	315	310	300	290	275	240	238	225	205
45	40	90	141	190	228	285	340	380	420
	440	435	426	410	400	368	355	340	330
61	35	90	138	185	230	290	330	369	420
	590	582	570	560	538	510	490	475	460
75	35	85	136	178	228	280	315	356	415
	725	716	702	678	660	641	622	603	590
85	32	80	130	176	225	275	307		
	820	815	805	792	778	759	710		
95	24	75	122	169	225	268	310		
	920	918	901	887	869	842	808		

125ml/r

pressure ΔP (Mpa)

torque 225 Nm
speed 852 rpm

流量 Flow (LPM)	pressure ΔP (Mpa)								
	3.5	7	10	14	17	21	24	27.5	30
4	55	115	172	221	280	325	360		
	29	25	21	17	14	10	4		
8	57	115	172	221	285	326	362	410	450
	61	58	52	46	42	40	31	25	16
16	56	116	174	235	295	345	379	446	490
	124	120	116	110	106	99	93	83	72
24	58	118	180	238	302	352	402	476	520
	185	183	176	166	154	149	140	126	110
32	55	120	180	240	312	361	408	480	530
	246	240	235	230	222	218	210	200	182
45	50	115	175	236	310	360	406	470	540
	356	340	335	330	321	311	298	286	275
60	45	113	173	240	300	360	420	470	
	460	455	450	448	445	440	438	436	
75	42	110	170	230	290	345	410	460	
	560	558	555	552	550	548	545	540	
85	40	105	160	230	300	355	415		
	642	640	635	630	628	625	620		
95	32	90	155	220	285	350	400		
	730	727	725	723	720	718	715		

160ml/r

pressure ΔP (Mpa)

流量 Flow (LPM)	pressure ΔP (Mpa)								
	3.5	7	10	14	17	21	24	26	
4	65	131	191	260	318	384	428		
	23	20	19	13	9	3	2		
8	70	135	196	265	335	404	460	530	
	47	45	42	36	36	34	28	22	
16	70	140	208	286	360	440	502	535	
	98	95	91	85	83	78	50	45	
24	74	145	216	293	372	450	521	540	
	145	142	139	128	125	116	107	102	
32	74	150	220	300	373	459	526	545	
	198	196	191	180	182	175	161	158	
45	70	150	221	305	380	458	530		
	282	279	276	265	254	240	236		
60	65	145	210	300	375	455			
	370	368	365	362	360	355			
75	60	135	205	300	375				
	459	456	453	451	449				
85	55	130	200	290	370				
	520	518	516	514	512				
95	50	128	200	290	365				
	580	578	575	572	570				
115	35	120	190	280					
	698	680	670	660					

200ml/r

pressure ΔP (Mpa)

流量 Flow (LPM)	pressure ΔP (Mpa)								
	3.5	7	10	14	17	21	24	26	
4	79	160	198	305	370	440	490	520	
	16	14	12	7	5	2	1	1	
8	86	165	245	325	420	522	600	610	
	37	35	34	27	24	20	14	12	
16	90	175	256	345	438	523	620	635	
	78	76	75	68	66	60	53	46	
24	91	180	268	360	448	542	626	650	
	116	114	113	105	103	98	90	83	
32	91	185	270	371	460	550	636	660	
	160	156	154	150	146	136	130	120	
45	91	186	280	376	466	550			
	226	222	219	215	209	202			
60	80	186	271	375	465	550			
	304	300	293	286	280	272			
75	75	176	268	370	460				
	382	376	370	361	350				
85	68	168	260	360	458				
	425	420	412	408	400				
95	60	160	256	355	445				
	482	476	470	459	449				
115	44	145	235	330					
	578	570	564	549					

250ml/r

pressure ΔP (Mpa)

流量 Flow (LPM)	pressure ΔP (Mpa)								
	3.5	7	10	14	17	20	24	26	
4	105	210	312	410	524	615	715		
	13	11	10	6	4	3	1		
8	109	215	320	425	545	620	740	785	
	29	27	25	21	19	15	12	10	
16	115	225	336	450	565	640	760	815	
	63	57	57	52	51	49	46	44	
24	115	230	342	465	580	650	780		
	94	90	87	81	77	72	66		
32	115	235	356	475	600	636			
	129	125	121	115	112	105			
45	110	235	356	480	600				
	183	180	176	170	165				
60	95	230	350	470	580				
	240	236	234	230	220				
75	90	215	336	465					
	303	300	296	290					
85	80	210	325	455					
	340	336	330	320					
95	75	200	320	445					
	385	378	375	365					
115	60	185	305	428					
	463	458	456	448					

KM5 motor performance data

□ Continuous working area

■ Intermittent working area

280ml/r

pressure

ΔP (Mpa)

3.5	7	10	14	17	20	24
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流量 Flow (LPM)

4	124 13	239 11	354 10	459 7	560 1		
8	124 27	248 25	358 23	477 21	588 16	680 12	800 8
16	129 57	257 55	376 52	500 48	620 44	712 37	840 30
24	133 84	266 82	386 78	514 72	643 65	660 61	780 56
32	133 113	271 111	393 109	528 99	652 93		
45	129 160	271 157	390 155	532 145	661 135		
60	115 213	258 207	388 202	523 192			
75	101 265	243 257	375 253	514 240			
85	95 300	237 295	351 289	496 283			
95	87 335	230 327	330 323	461 316			
115	69 399	209 393	314 390				

305ml/r

pressure

ΔP (Mpa)

3.5	7	10	14	17	20	24
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流量 Flow (LPM)

4	135 12	260 10	386 9	500 6	610 1		
8	135 25	270 23	390 21	520 19	640 15	720 11	870 8
16	140 52	280 50	410 48	545 44	675 40	775 34	929 29
24	145 77	290 75	420 72	560 66	700 60	680 56	840 50
32	145 104	295 102	428 100	575 91	710 85		
45	140 147	295 144	425 142	580 133	720 124		
60	125 195	281 190	423 185	570 176			
75	110 243	265 236	408 232	560 220			
85	104 275	258 271	382 265	540 260			
95	95 307	250 300	359 296	502 290			
115	75 366	228 361	342 358				

400ml/r

pressure

ΔP (Mpa)

3.5	7	10	14	16	17	20
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流量 Flow (LPM)

4	175 9	350 8	496 7	665 6	780 4		
8	180 19	360 18	510 17	695 14	830 11	890 8	990 8
16	190 39	375 37	542 36	730 34	800 29	910 25	995 25
24	190 58	385 56	550 54	750 50	814 46	900 40	1000 40
32	190 80	390 78	560 74	765 70			
45	190 113	390 112	560 108	755 102			
60	180 150	380 148	542 144				
75	165 188	370 186	532 180				
85	154 211	358 210	522 208				
95	140 238	340 236	512 232				
115	120 288	320 284	498 278				

500ml/r

pressure

ΔP (Mpa)

3.5	7	10	12	14	17
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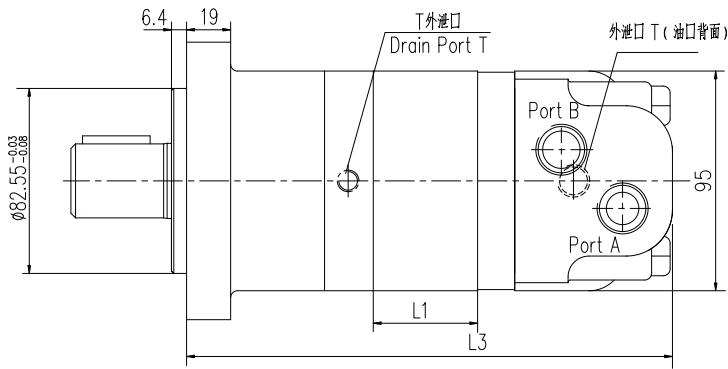
流量 Flow (LPM)

4	225 6	440 5	430 5			
8	235 14	460 12	715 10	790 11	900 10	1017 8
16	240 30	480 28	720 26	835 25	950 24	1020 18
24	240 45	485 43	725 40	845 39	930 36	1025 32
32	240 60	490 58	730 55	855 52	925 50	
45	225 88	480 87	560 86	730 85		
60	210 117	465 115	715 114			
75	190 142	445 140	445 138			
85	175 161	435 159	685 156			
95	165 182	420 179	675 176			
115	125 230	385 277	510 224			

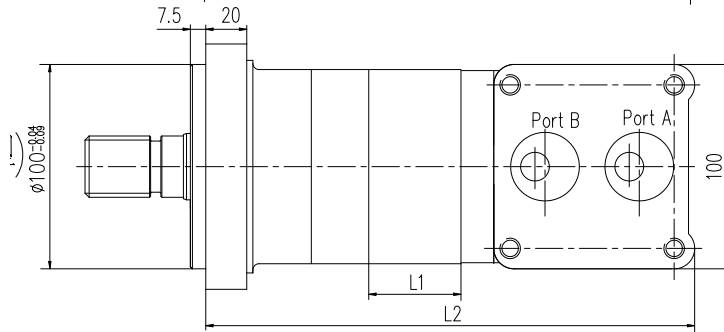
The data in the table are tested under the condition of 68# antiwear hydraulic oil and 50°C oil temperature. The results of different motors are slightly different.

KM5 series motor dimension

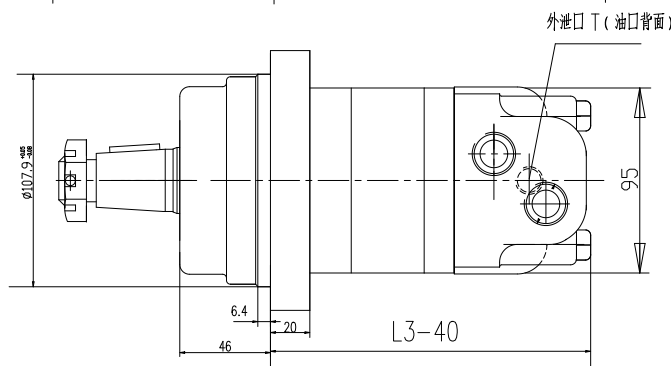
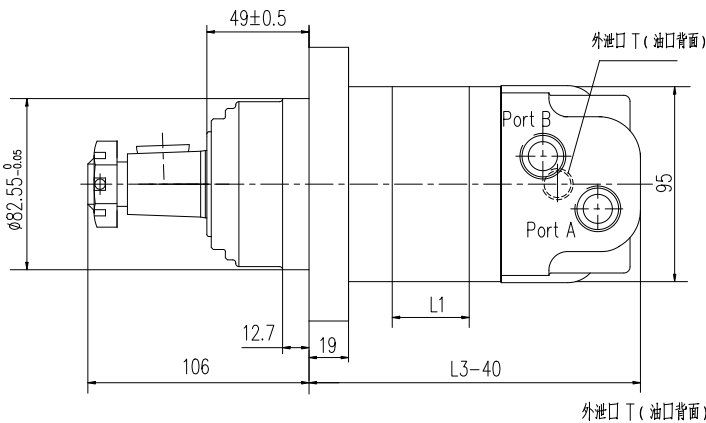
Type A
standard



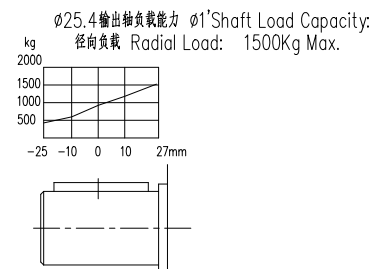
Type B
Connect the reversing valve type



Type C
Wheel type



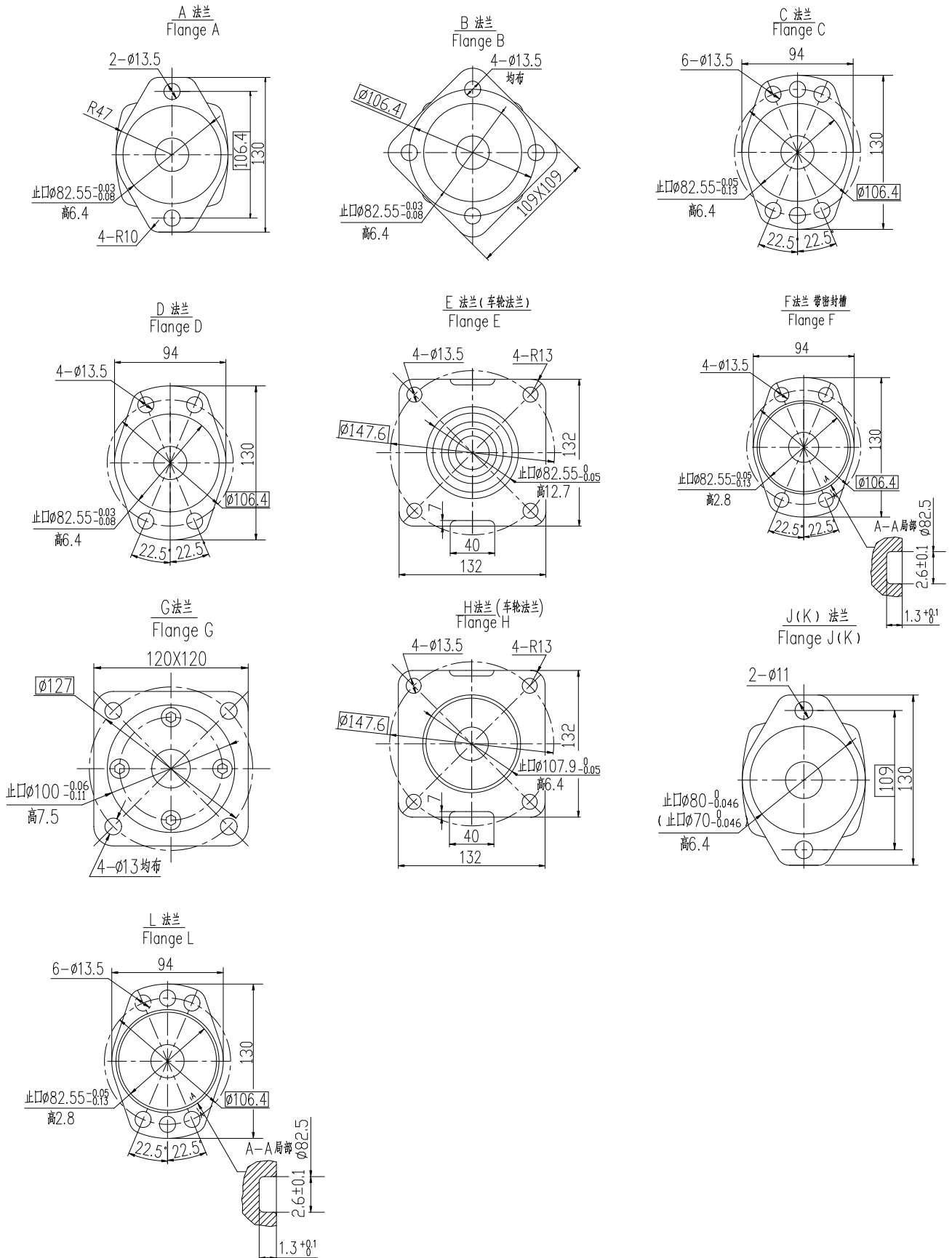
排量(ml/r)	80	100	125	160	200	250	280	305	400	500
L1	15	18.5	23	29	36	45	51.2	56	72	90
L2	208	212	216.5	222.5	229.5	238.5	245	249.5	265.5	283.5
L3	180	183.5	188	194	201	210	216	221	237	255



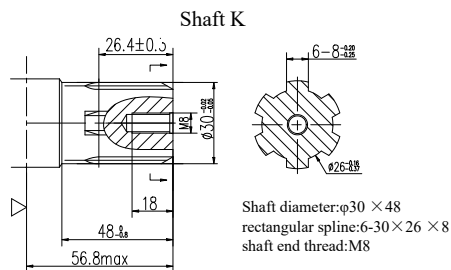
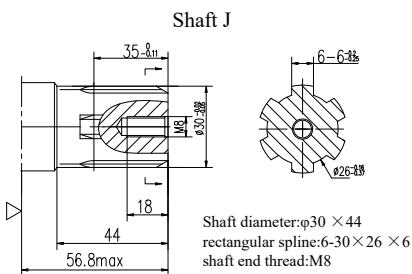
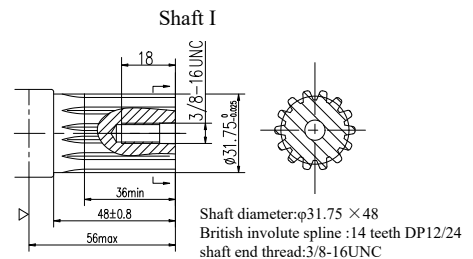
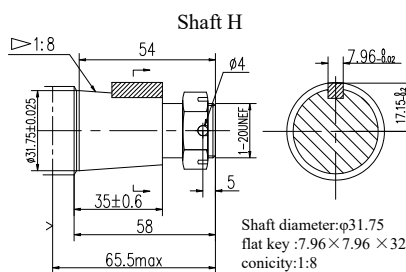
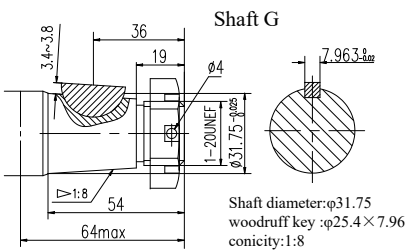
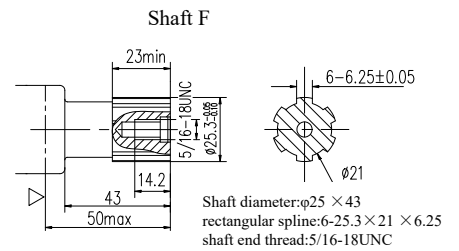
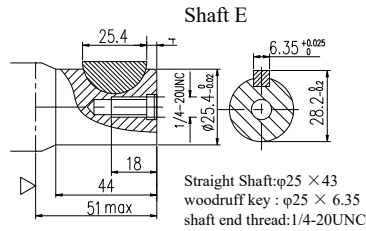
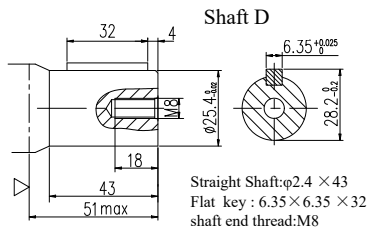
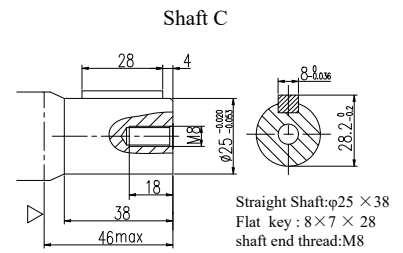
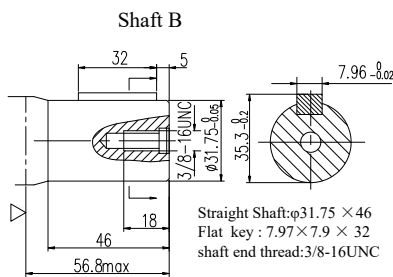
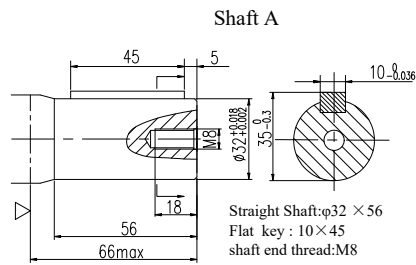
马达标准转向：
面对输出轴轴端，A油口进油，马达顺时针旋转。

Standard Direction of The Motor Rotation:
CW-----When A Port pressurized, Viewed From the Shaft End.

KM5 connection dimension ---Mounting Flange

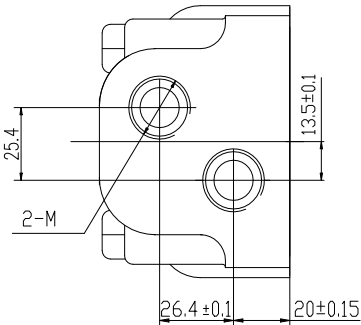


KM5 connection dimension ---output shaft

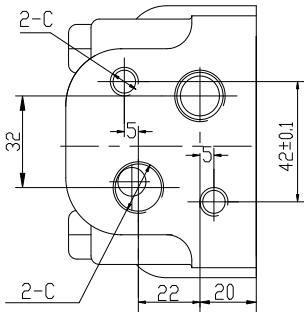


KM5 connection dimension ---oil port

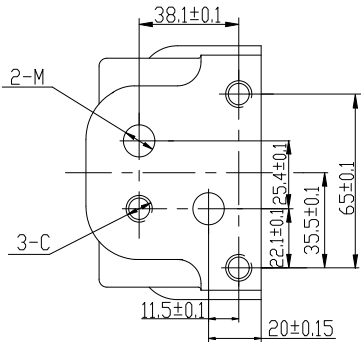
Oil port A



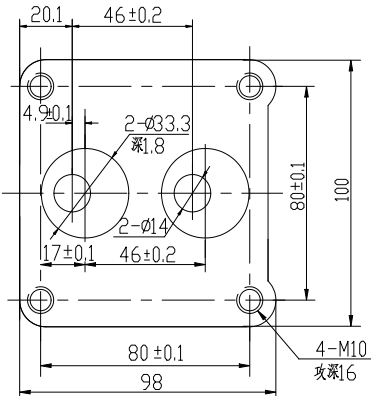
Oil port B



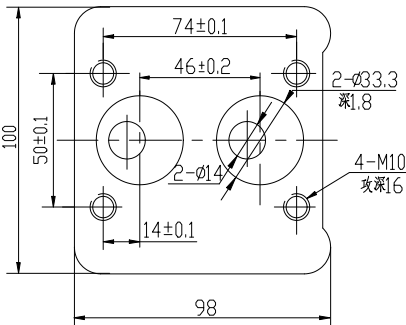
Oil port C



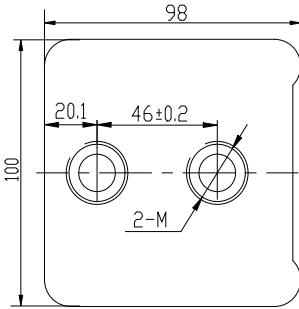
Oil port D



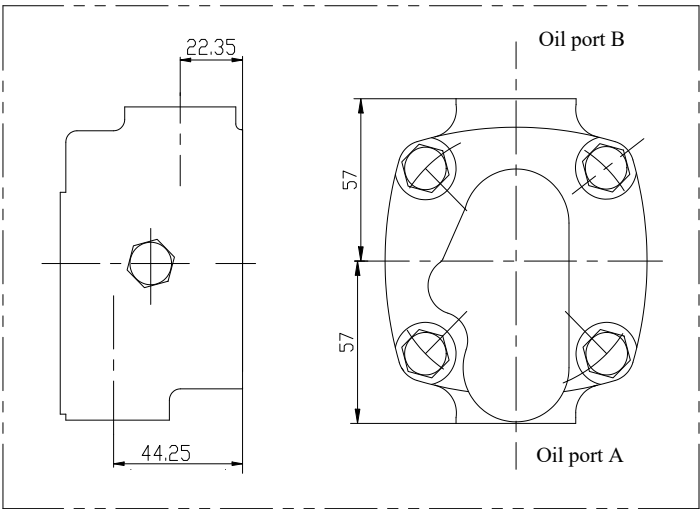
Oil port E



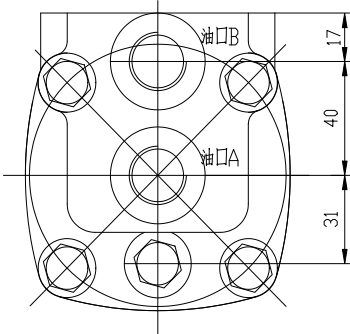
Oil port F



Oil port G



Oil port H



KM5 (8 code form)

KM5	1	2	3	4	5	6	7	8
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pos 1		2		3		4		5		6		7		8	
configuration		displacement (ml/r)		flange & front edge (mm)		shaft & key (mm)		rear housing		oil port		oil port surface thread		drain port	
A	standard	A	80	A	rhombus flange, 2- ϕ 13.5 center distance 106.4, front edge ϕ 82.5X6.4	A	cylinder axis: ϕ 32X56, flat key:10X8X45, shaft end thread:M8	A	refer to graphic	A	2-M22X1.5	A	no	A	no
B	Connect the reversing valve	B	100	B	square flange 109X109, 4- ϕ 13.5 reference circle ϕ 106.4, front edge ϕ 82.5X6.4	B	cylinder axis: ϕ 31.75X46, flat key:7.963X7.963X32, shaft end thread:3/8-16UNC	B	refer to graphic	B	2-G1/2	B	2-M10	B	M14X1.5
C	wheel motor	C	125	C	6 holes rhombus flange, 6- ϕ 13.5 reference circle ϕ 106.4, front edge ϕ 82.5X6.4	C	cylinder axis: ϕ 25X38, flat key:8X7X28, shaft end thread: M8	C	refer to graphic	C	2-1/2-14NPTF	C	2-3/8-16UNC	C	G1/4
		D	160	D	4 holes rhombus flange, 4- ϕ 13.5 reference circle ϕ 106.4, front edge ϕ 82.5X6.4	D	cylinder axis: ϕ 25.4X43, flat key:6.35X6.35X32, shaft end thread:M8	D	refer to graphic	D	2-7/8-14UNF SAE	D	3-M10	D	7/16-20UNF
		E	200	E	Wheel square flange 132X132, 4- ϕ 13.5 reference circle ϕ 147.6, front edge ϕ 82.5X12.7	E	cylinder axis: ϕ 25.4X44, woodruff key: ϕ 25.4X6.35, shaft end thread: 1/4-20UNC	E	refer to graphic	E	2- ϕ 12	E	3-3/8-16UNC	E	M10X1
		F	250	F	4 holes rhombus flange, 4- ϕ 13.5 reference circle ϕ 106.4, front edge ϕ 82.55X2.8, with seal groove	F	rectangle spline: ϕ 25.3X43, 6D-25.3X21.5X6.25, shaft end thread:5/16-18UNC	F	refer to graphic	F	2-1-1/16-12UN	F			
		G	280	G	square flange 120X120, 4- ϕ 13 reference circle ϕ 127, front edge ϕ 100X7.5	G	conical shaft: ϕ 31.75, woodruff key: ϕ 25.4X7.963, shaft end thread:1-20UNEF, conicity 1:8	G	oil port run from opposite directions	G	2- ϕ 14	G			
		H	305	H	Wheel square flange 132X132, 4- ϕ 13.5 reference circle ϕ 147.6, front edge ϕ 107.9X6.4	H	conical shaft: ϕ 31.75, shaft end thread:1-20UNEF, flat key: 7.96X7.96X32, conicity 1:8	H	refer to graphic						
		I	400	J	rhombus flange, 2- ϕ 11 reference circle ϕ 109, front edge ϕ 80X6.4	I	involute spline: ϕ 31.75X48, 14teeth, DP12/24, shaft end thread:3/8-16UNC								
		J	500	K	rhombus flange, 2- ϕ 11 reference circle ϕ 109, front edge ϕ 70X6.4	J	rectangle spline: ϕ 30X44, 6-30X26X6, shaft end thread:M8								
				L	6 holes rhombus flange, 6- ϕ 13.5 reference circle ϕ 106.4, front edge ϕ 82.55X2.8, with seal groove	K	rectangle spline: ϕ 30X48, 6-30X26X8, shaft end thread:M8								

KM5 Ordering Information

Ordering Instruction : 15* - 1021

series code

Specification number

- 150 big square flange, to reversing valve oil port surface
- 151 rhombus flange, small square flange standard thread oil port
- 152 big square flange, standard thread oil port
- 153 no bearing, standard thread oil port

product features			displacement/serial number									
flange	output shaft	oil port	80	100	125	160	200	250	305	400	500	280
Big square flange120X120 front edge Φ100	Φ30shaft, flat key8 shaft end threadM8	gasket-mounting 4-M10	150-0081	-0082	-0083	-0084	-0085	-0086	-0087	-0088	-0089	-0080
Big square flange120X120 front edge Φ100	Shaft 6D-30X26X8 shaft end threadM8	gasket-mounting 4-M10	150-1021	-1022	-1023	-1024	-1025	-1026	-1027	-1028	-1029	-1020
rhombus flange, front edge Φ82.55	Φ25shaft, flat key8 shaft end threadM8	M22X1.5drain port M14X1.5	151-0021	-0022	-0023	-0024	-0025	-0026	-0027	-0028	-0029	-0020
small square flange 109X109 front edge Φ82.55	Φ32shaft, flat key10 shaft end threadM8	M22X1.5drain port M14X1.5	151-0041	-0042	-0043	-0044	-0045	-0046	-0047	-0048	-0049	-0040
4 holes rhombus flange, with seal groove, 短 front edge Φ82.55	Φ31.75X46shaft, flat key7.963 shaftend3/8-16UNC	7/8-14UNFdrain port7/16-20UNF	151-0051	-0052	-0053	-0054	-0055	-0056	-0057	-0058	-0059	-0050
small square flange109X109 front edge Φ82.55	Φ31.75X46shaft flat key7.963 shaftend3/8-16UNC	7/8-14UNF drain port 7/16-20UNF	151-0061	-0062	-0063	-0064	-0065	-0066	-0067	-0068	-0069	-0060
rhombus flange, front edge Φ82.55	Φ25shaft, flat key8 shaft end thread M8	G1/2" drain portG1/4"	151-0081	-0082	-0083	-0084	-0085	-0086	-0087	-0088	-0089	-0080
small square flange109X109 front edge Φ82.55	Φ30shaft, flat key8 shaft end threadM8	M22X1.5, drain portM14X1.5	151-0091	-0092	-0093	-0094	-0095	-0096	-0097	-0098	-0099	-0090
small square flange 109X109 front edge Φ82.55	Φ32shaft, flat key10 shaft end threadM8	ZG1/2 ZG1/4	151-0151	-0152	-0153	-0154	-0155	-0156	-0157	-0158	-0159	-0150
rhombus flange, front edge Φ82.55	Φ25.4shaft, flat key6.35 shaft end threadM8	G1/2 drain portG1/4	151-0161	-0162	-0126	-0164	-0165	-0166	-0167	-0168	-0169	-0160
small square flange109X109 front edge Φ82.55	Φ32shaft, flat key10 shaft end threadM8	G1/2", 2-M10 drain port G1/4"	151-0391	-0392	-0396	-0394	-0395	-0396	-0397	-0398	-0399	-0390
small square flange109X109 front edge Φ82.55	Φ32shaft, flat key10 shaft end threadM8	G1/2", drain portG1/4"	151-0411	-0412	-0413	-0414	-0415	-0416	-0417	-0418	-0419	-0410
small square flange109X109 front edge Φ80	Φ25shaft, flat key8 shaft end threadM8	M18X1.5, 2-M10 drain port G1/4"	151-0431	-0432	-0433	-0434	-0435	-0436	-0437	-0438	-0439	-0430

rhombus flange, front edge Φ82.55	Φ25shaft, flat key8 shaft end threadM8	oil portΦ12 3-M10上阀 泄M14X1.5	151-0591	-0592	-0593	-0594	-0595	-0596	-0597	-0598	-0599	-0590
rhombus flange, front edge Φ82.55	Φ31.75shaft, open flat key7.96 shaft end thread3/8	7/8-14UNF (countersink) drain port7/16-20UNF	151-0701	-0702	-0703	-0704	-0705	-0706	-0707	-0708	-0709	-0700
rhombus flange, front edge Φ82.55	Φ25.4shaft, woodruff key25.4X6.35shaft end thread1/4-20UNC	7/8-14UNF drain port7/16-20UNC	151-0721	-0722	-0723	-0724	-0725	-0726	-0727	-0728	-0729	-0720
4 holes rhombus flange, front edge Φ82.55	Φ32shaft, flat key10 shaft end threadM8	2-G1/2", drain port G1/4"	151-0731	-0732	-0733	-0734	-0735	-0736	-0737	-0738	-0739	-0730
4 holes rhombus flange, front edge Φ82.55	Φ31.75shaft, flat key7.96 shaft end threadM8	2-G1/2", drain port G1/4"	151-0741	-0742	-0743	-0744	-0745	-0746	-0747	-0748	-0749	-0740
rhombus flange, front edge Φ82.55	shaft6D-30X26X6 shaft end threadM8	M22X1.5 drain port M14X1.5	151-1031	-1032	-1033	-1034	-1035	-1036	-1037	-1038	-1039	-1030
rhombus flange, front edge Φ82.55	shaft6D-30X26X6 shaft end threadM8 spindle nose length58.5	M22X1.5 drain port M14X1.5	151-1041	-1042	-1043	-1044	-1045	-1046	-1047	-1048	-1049	-1040
4 holes rhombus flange, front edge Φ82.55	6D-25.3X21X6.2 shaft end thread : 5/16-18UNC	PT1/2" drain port PT1/4"	151-1051	-1052	-1053	-1054	-1055	-1056	-1057	-1058	-1059	-1050
square flange109X109 front edge φ80	6D-30X26X6 shaft end threadM8	M22X1.5 drain port M14X1.5	151-1101	-1102	-1103	-1104	-1105	-1106	-1107	-1108	-1109	-1100
small square flange109X109 front edge Φ82.55	14teeth, DP=12/24 shaft end thread : no Shaf extension: 50	2-G1/2", drain port G1/4"	151-2061	-2062	-2063	-2064	-2065	-2066	-2067	-2068	-2069	-2060
Big square flange120X120 front edge φ100	Φ32shaft, flat key10 shaft end threadM8	M20X1.5 drain port M14X1.5	152-0061	-0062	-0063	-0064	-0065	-0066	-0067	-0068	-0069	-0060
Big square flange120X120 front edge φ100	Φ30shaft, flat key8 shaft end threadM8	M22X1.5	152-0081	-0082	-0083	-0084	-0085	-0086	-0087	-0088	-0089	-0080
Big square flange120X120 front edge φ100	Φ32shaft, flat key10 shaft end threadM8	M22X1.5 drain port M14X1.5	152-0091	-0092	-0093	-0094	-0095	-0096	-0097	-0098	-0099	-0090
Big square flange120X120 front edge φ100	shaft6D-30X26X8 shaft end threadM8	M22X1.5 drain port M14X1.5	152-1001	-1002	-1003	-1004	-1005	-1006	-1007	-1008	-1009	-1000
Big square flange120X120 front edge φ100	shaft6 D-30X26X6 shaft end threadM8	M22X1.5 drain portM14X1.5	152-1031	-1032	-1033	-1034	-1035	-1036	-1037	-1038	-1039	-1030
Big square flange119×119 front edge φ101.5	nooutput shaft	M22X1.5 drain port M14X1.5	153-3001	-3002	-3003	-3004	-3005	-3006	-3007	-3008	-3009	-3000
roundflange4-Φ11 front edge φ100	nooutput shaft	oil port2-G1/2 drain port G1/4 2-M10	153-3011	-3012	-3013	-3014	-3015	-3016	-3017	-3018	-3019	-3010

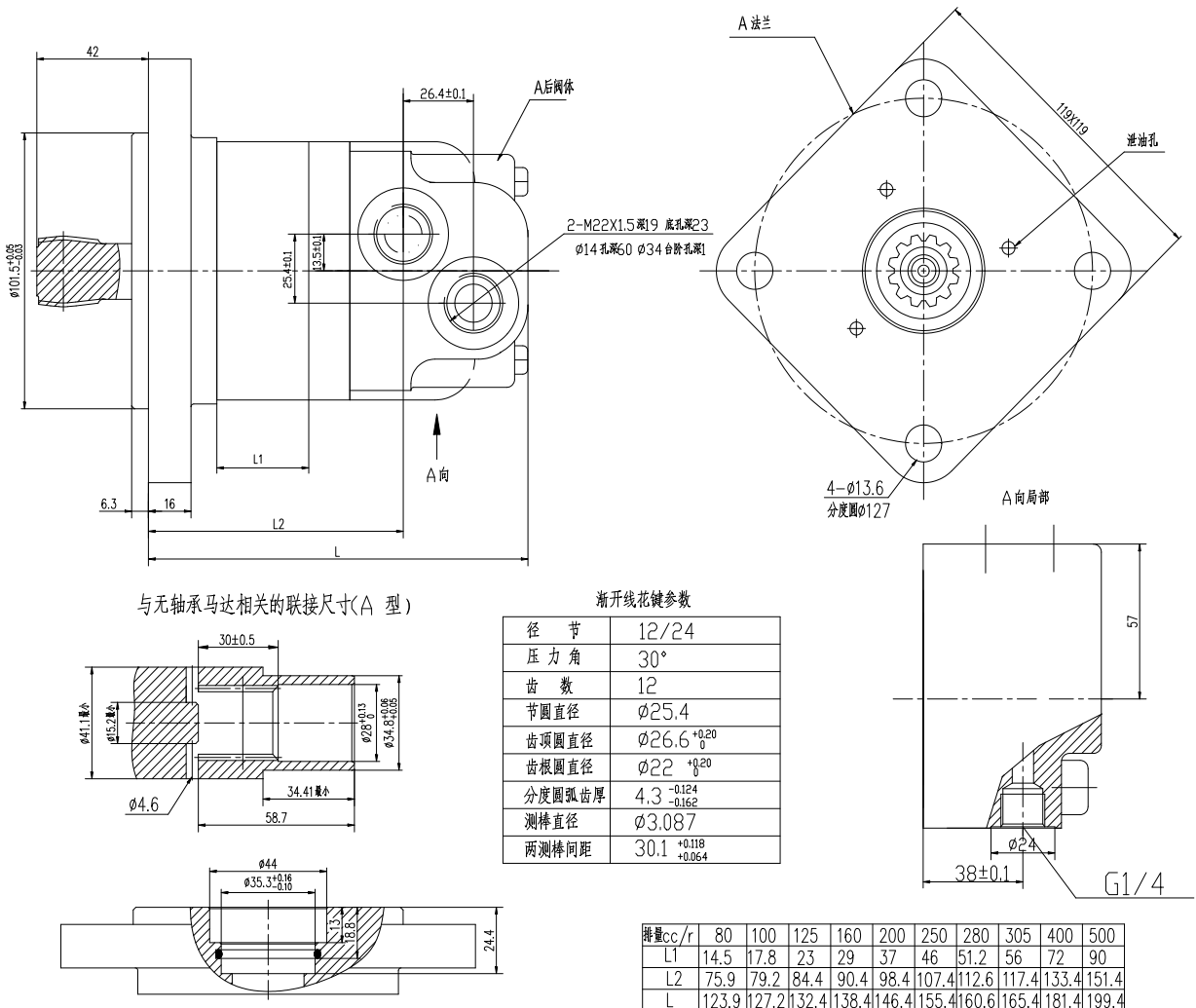
► KM5S Series

Design features:

- Advanced flow plate design at low speed.
- Provides better performance.
- The valve automatically compensates for wear, volume efficiency high.



KM5S connection dimension ---configuration



KM5S (8 code form) Ordering Information

KM5S	1	2	3	4	5	6	7	8
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pos 1		2		3		4		5		6		7		8	
configur ation		displace ment (ml/r)		Flange & front edge (mm)		spline shaft connecting format		rear housing		oil port		oil port surface external connect thread		drain port	
A	refer to graphi c		The same to BM5	A	square flange 119X119, 4- φ13.5 reference circle φ127 , f ront edge φ101.5X6.4	A	refer to graphic	A	refe r to grap hic	A	2- M22X1.5	A	no	A	no
B	refer to graphi c			B	Round flange4- φ11 reference circle φ125 front edge φ100 X6	B	refer to graphic	B	refe r to grap hic	B	2-G1/2	B	2-M10	B	M14X 1.5
								C	refe r to grap hic	C	2-φ12	C	2-3/8- 16UNC	C	G1/4
														D	7/16 - 20UN F