BM5 系列
BM5 Series

结构特点

BM5马达是一种端面配流马达。其结构特点：

先进的端面配流设计，低速转动平稳。

先进的轴密封设计，能承受高背压。

先进的配油机构设计，具有磨损自动补偿功能。

双列圆锥滚子轴承设计能够承受较大的径向力。

多种法兰、输出轴等安装连接形式。

Characteristic features:

BM5 motor is a disc valve type gerolor motor.

Advanced design in disc distribution flow, which can provide improved performance at low speed.

Advanced design of shaft seal, which can bear higher pressure.

Advanced distribution mechanism design, which has the automatic compensation function.

Double-rolling bearing design, which permit higher radial loads.

A variety of connection types of flange, output shaft and oil port.

主要性能参数

Main Specification

排量(ml/r) Displacement			80	100	125	160	200	250	305	400	500
流量 (LPM) Flow	最大连续	Cont.	75	75	75	75	75	75	75	75	75
	间断	Int..	85	95	95	115	115	115	115	130	130
转速 (RPM) Speed	最大连续	Cont.	850	675	552	430	345	287	231	178	142
	间断	Int..	956	855	700	660	529	423	347	308	246
压力 (MPa) Pressure	最大连续	Cont.	17.5	17.5	17.5	17.5	17.5	17.5	15	15	12
	间断	Int..	28	28	28	25	25	25	21	175	15
扭矩 (N*m) Torque	最大连续	Cont.	178	223	278	356	445	557	580	715	720
	间断	Int..	285	356	445	509	636	755	763	640	860

1. 最大压力指入口最大压力，连续工作压力指工作压差。
2. 马达不能同时在最高压力和最大转速下工作。
3. 在断续工作条件下，运行时间每分钟不能超过10%。
4. 推荐用68#抗磨液压油，粘度37-73cSt，清洁度IS018/13。
5. 最高工作油温80°。
6. 马达满负荷工作前，应在最高工作压力的40%以下磨合1h。
7. 马达允许最大背压10MPa，但推荐不要超过5MPa，超过时应接外泄油管。

1. Intermittent means the entrance of the maximum pressure; continuous working pressure means the differential pressure.
2. Motor should not work under the highest pressure and the maximum speed.
3. The running time should not exceed 10% under intermittent working conditions.
4. Recommending N68 anti-wear hydraulic oil, viscosity 37-73cSt, cleanliness ISO18/13.
5. The Maximum working temperature is 80°.
6. One hour running time under 40% of maximum working pressure is recommended before full capacity working.
7. The maximum allowable back pressure is 10MPa, but the recommended back pressure should not exceed 5MPa.a leaking pipes is needed when exceeding.

BM5 系列马达性能参数
BM5 Performance Data

□连续工作区 ■间断工作区

BM5–50 50ml/r

流量 Flow (LPM)	压力 △P (Mpa) 3.5	7	10	14	17	21	24	28
4	35 46	75 42	103 38	145 35	176 30	208 23	220 14	245 2
8	35 97	75 90	105 86	152 83	180 78	216 69	236 60	257 49
16	35 195	75 187	105 182	150 178	186 170	217 162	249 148	265 132
24	35 284	75 280	105 270	152 263	188 258	222 245	256 232	289 210
32	35 388	75 380	103 371	155 360	190 359	230 345	265 328	
45	30 538	70 535	101 530	149 518	186 510	228 482	262 470	
60	30 720	70 716	97 710	147 679	183 670	229 635		
75	25 899	65 878	95 860	146 856	179 842	221 801		
85	22 956	60 948	90 926	140 905				

BM5–100 100ml/r

流量 Flow (LPM)	压力 △P (Mpa) 3.5	7	10	14	17	21	24	28
4	45 33	89 32	130 30	175 24	208 16	246 6		
8	46 75	90 72	135 68	180 55	215 53	251 38	278 30	
16	46 152	93 150	140 146	185 140	220 128	269 112	295 99	318 82
24	46 230	93 225	140 218	188 212	231 201	270 176	305 172	356 150
32	42 315	93 310	142 300	186 290	233 275	278 240	310 238	372 225
45	40 440	90 435	141 426	190 410	228 400	285 368	340 355	389 340
60	35 590	90 582	138 570	185 560	230 538	290 510	330 490	
75	35 725	85 716	136 702	178 678	228 660	280 641	315 622	
85	32 820	80 815	130 805	176 792	225 778	275 759		
95	24 920	75 918	122 901	169 887				

BM5–125 125ml/r

流量 Flow (LPM)	压力 △P (Mpa) 3.5	7	10	14	17	21	24	28
4	55 29	115 25	172 21	221 17	280 14	325 10	360 4	
8	57 61	115 58	172 52	221 46	285 42	326 40	362 31	412 25
16	56 124	116 120	174 116	235 110	295 106	345 99	379 93	446 83
24	58 185	118 183	180 176	238 166	302 154	352 149	102 140	486 126
32	55 246	120 240	180 235	240 230	312 222	361 218	408 210	508 200
45	50 356	115 340	175 335	236 330	310 321	360 311	406 298	502 286
60	45 460	113 455	173 450	240 448	300 445	360 440	420 438	470 436
75	42 560	110 558	170 555	230 552	290 550	345 548	410 545	
85		105 640	160 635	230 630	300 628	355 625		
95		90 727	155 725	220 723	285 720			

BM5–160 160ml/r

流量 Flow (LPM)	压力 △P (Mpa) 3.5	7	10	14	17	21	24
4	65 23	131 20	191 19	260 13	318 9	384 3	428 2
8	70 47	135 45	196 42	265 36	335 36	404 34	460 28
16	70 98	140 95	208 91	286 85	360 83	440 78	502 50
24	74 145	145 142	216 139	293 128	372 125	450 116	521 107
32	74 198	150 196	220 191	300 180	373 182	459 175	
45	70 282	150 279	221 276	305 265	380 254	458 240	
60	65 370	145 368	210 365	300 362	375 360	455 355	
75	60 459	135 456	205 453	300 451			
85		130 518	200 516				
95		128 578	200 575				
115		120 680					

□连续工作区 ■间断工作区

BM5–200 200ml/r

压力 △P (Mpa)

流量 Flow (LPM)	3.5	7	10	14	17	21	24
4	79 16	160 14	198 12	305 7	370 5	440 2	
8	86 37	165 35	245 34	325 27	420 24	522 20	570 13
16	90 78	175 76	256 75	345 68	438 66	523 60	596 53
24	91 116	180 114	268 113	360 105	448 103	542 98	610 90
32	91 160	185 156	270 154	371 150	460 146	550 136	620 130
45	91 226	186 222	280 219	376 215	466 209	550 202	
60	80 304	186 300	271 293	375 286	465 280	550 272	
75	75 382	176 376	268 370	370 361	460 350		
85	68 425	168 420	260 412	360 408			
95	60 482	160 476	256 470	355 459			
115	44 578	145 570	235 564				

BM5–250 250ml/r

压力 △P (Mpa)

流量 Flow (LPM)	3.5	7	10	14	17	21	24
4	105 13	210 11	312 10	410 6	524 4	630 3	
8	109 29	215 27	320 25	425 21	545 19	650 15	740 12
16	115 63	225 57	336 57	450 52	565 51	676 49	765 46
24	115 94	230 90	342 87	465 81	580 77	690 72	780 66
32	115 129	235 125	356 121	475 115	600 112	706 105	
45	110 183	235 180	356 176	480 170	600 165		
60	95 240	230 236	350 234	470 230	580 220		
75	90 303	215 300	336 296	465 290			
85	80 340	210 336	325 330	455 320			
95	75 385	200 378	320 375				
115	60 463	185 458					

BM5–305 305ml/r

压力 △P (Mpa)

流量 Flow (LPM)	3.5	7	10	14	17	21
4	135 12	260 10	386 9	500 6	610 1	
8	135 25	270 23	390 21	520 19	640 15	768 11
16	140 52	280 50	410 48	545 44	675 40	815 34
24	145 77	290 75	420 72	560 66	700 60	732 56
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			
95	95 307	250 300	359 296			
115	75 366	228 361				

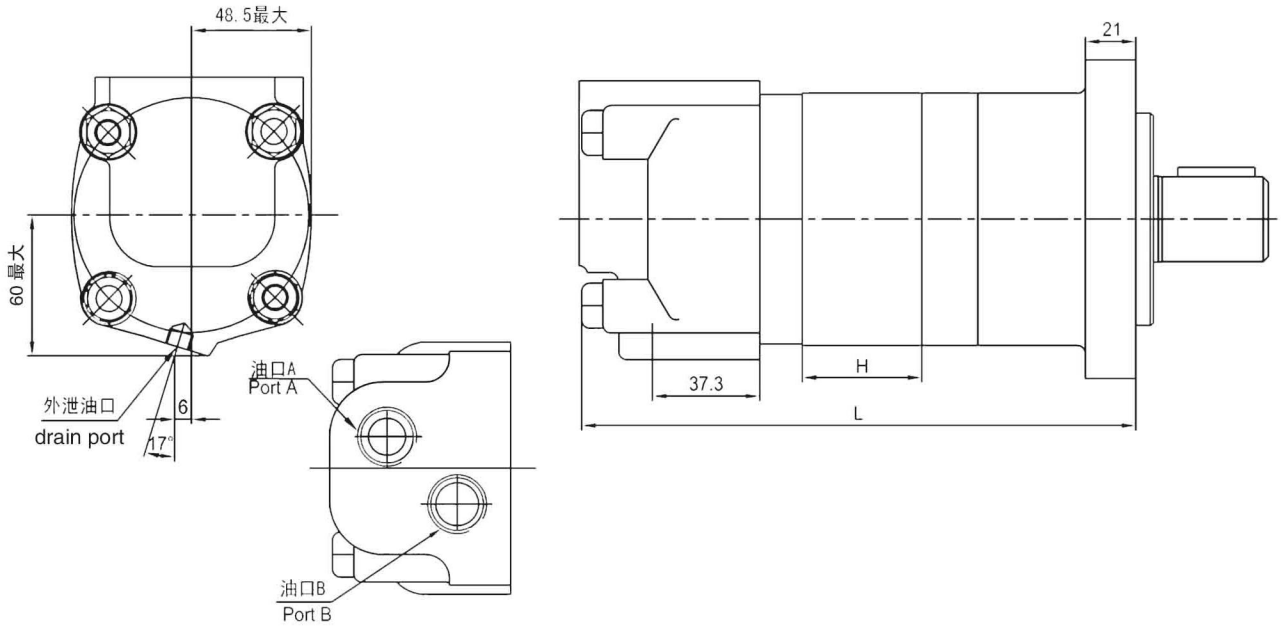
BM5–400 400ml/r

压力 △P (Mpa)

流量 Flow (LPM)	3.5	7	10	14	17	
4	175 9	350 8	496 7	665 6	820 4	
8	180 19	360 18	510 17	695 14	830 11	
16	190 39	375 37	542 36	730 34	866 29	
24	190 58	385 56	550 54	750 50	880 46	
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				
115	120 288					

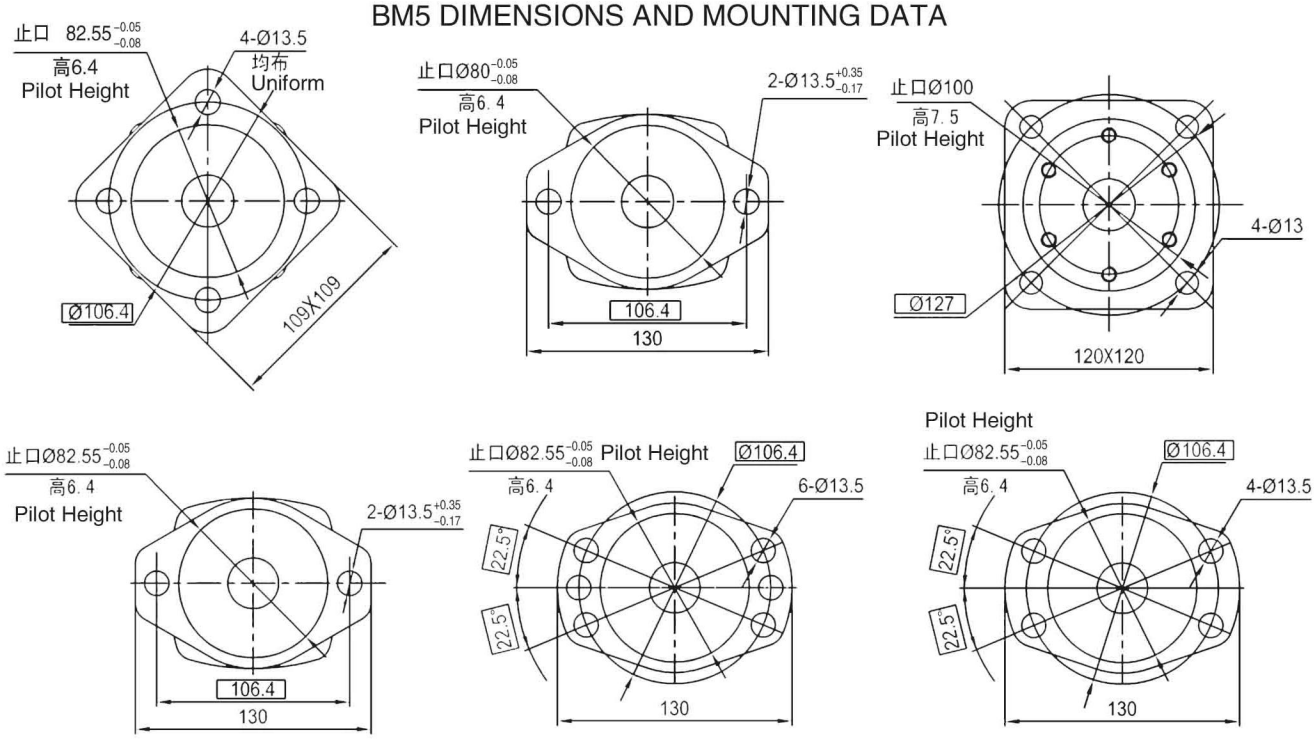
BM5 系列连接尺寸外形图

BM5 DIMENSIONS AND MOUNTING DATA



BM5 法兰连接尺寸

BM5 DIMENSIONS AND MOUNTING DATA

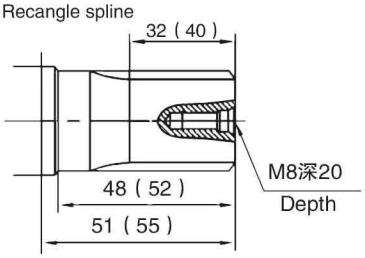


排量 Displacement	80	100	125	160	200	250	305	400	500
H	14.5	18	22.5	29	35.5	44.5	55.5	72	86.5
L	179.5	183	187.5	194	200.5	209.5	220.5	237	251.5

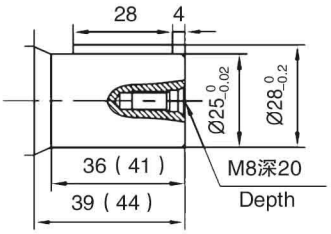
BM5 系列输出轴连接尺寸

BM5 DIMENSIONS AND MOUNTING DATA

矩形花键6D–Ø30 × 26 × 6
Recangle spline



Ø25直轴平键8
Parrallel



32直轴平键10
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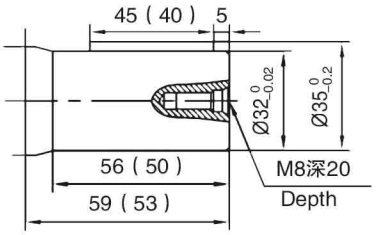
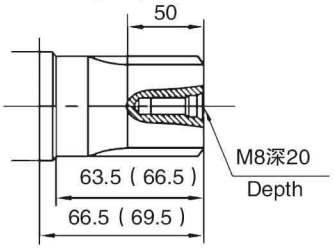
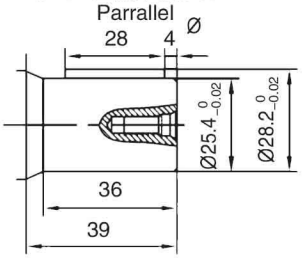


矩形花键6D–Ø30 × 26 × 6
Recangle spline



Ø25.4直轴平键6.35
Parrallel



Ø30直轴平键8
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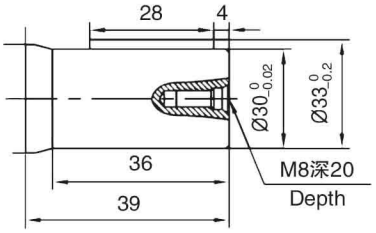
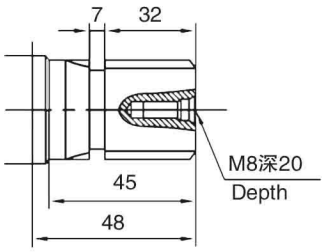
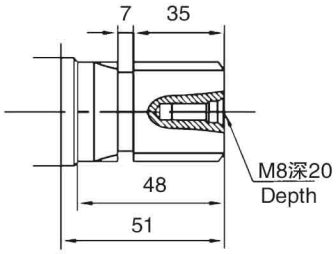


矩形花键6D–Ø30 × 26 × 6
Recangle spline



矩形花键6D–Ø30 × 26 × 8
Recangle spline



Ø30直轴平键10
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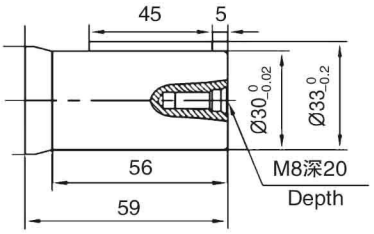
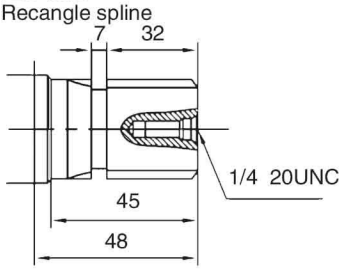
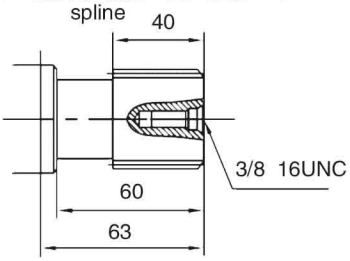


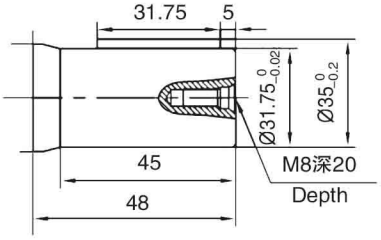
矩形花键6D–Ø25.3 × 21.3 × 6.25
Recangle spline



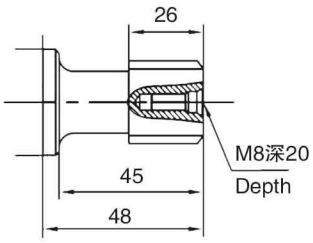
12/24渐开线花键14齿直径Ø1.25
spline



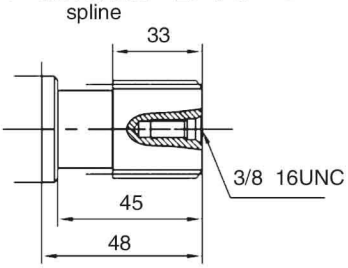
Ø1.25直轴平键7.96
Parrallel



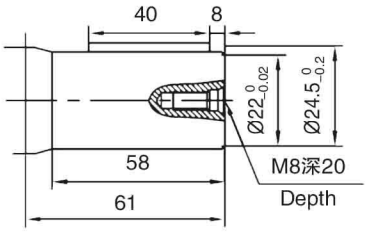
矩形花键6D–Ø25 × 21.5 × 6
Recangle spline



12/24渐开线花键14齿直径Ø1.25
spline

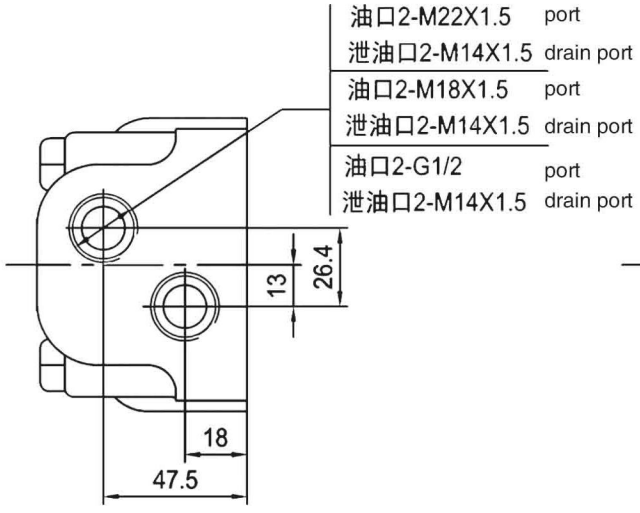


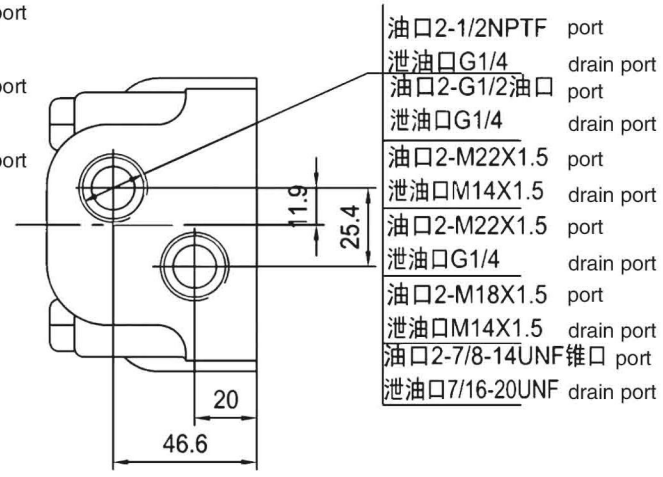
Ø22直轴平键6
Parrallel

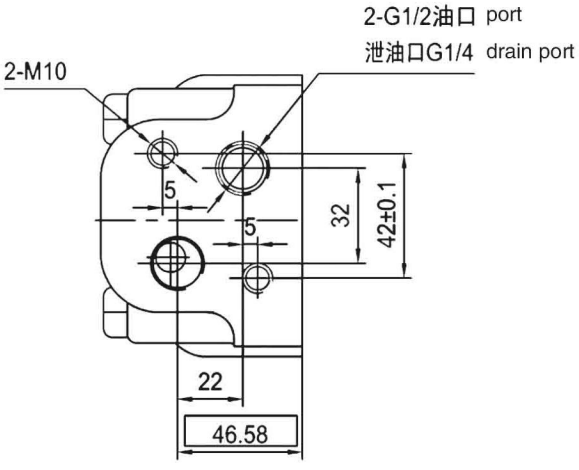


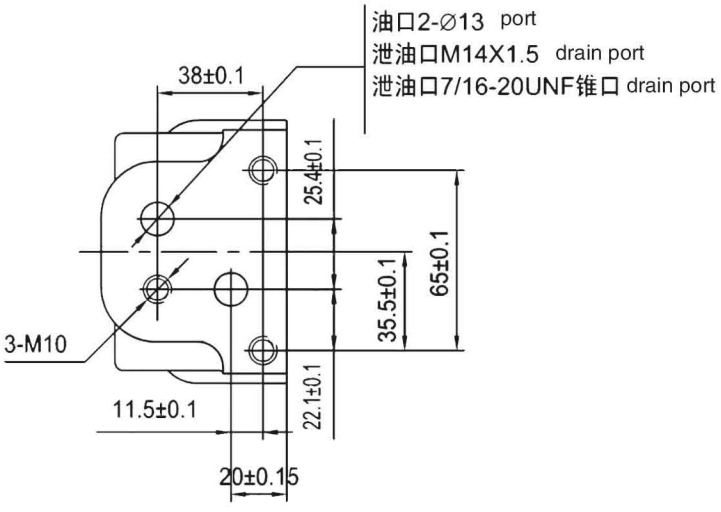
BM5 系列油口连接尺寸

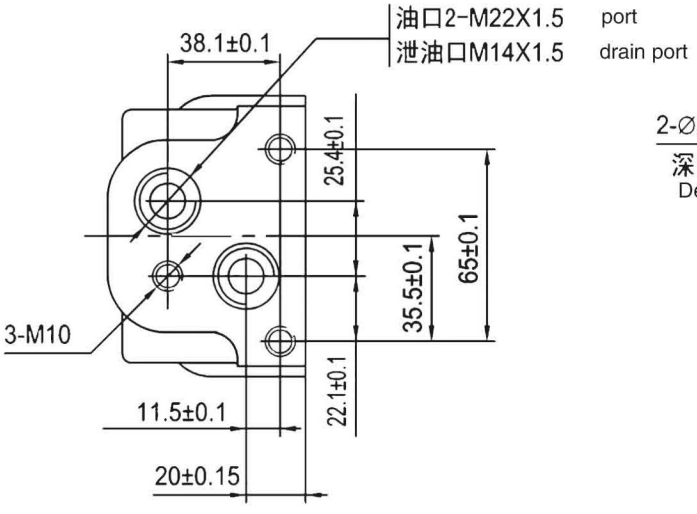
BM5 DIMENSIONS AND MOUNTING DATA

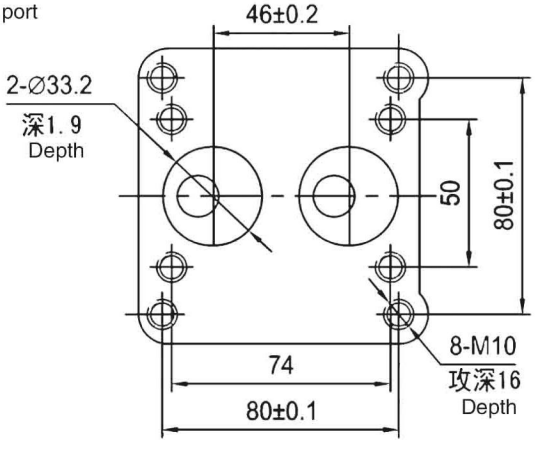












BM5 订货信息

产品特征			排量/编号								
法兰	输出轴	油口	80	100	125	160	200	250	305	400	500
四孔法兰 109×109;止口 φ82.55	φ25×36 P8 M8	M22×1.5;泄油口M14×1.5	151-0111	151-0112	151-0113	151-0114	151-0115	151-0116	151-0117	151-0118	151-0119
两孔菱形法兰;止口 φ82.55	φ32×56 P10 M8	M22×1.5;泄油口M14×1.5	151-0121	151-0122	151-0123	151-0124	151-0125	151-0126	151-0127	151-0128	151-0129
	φ25×36 P8 M8	G1/2;外泄口G1/4	151-0141	151-0142	151-0143	151-0144	151-0145	151-0146	151-0147	151-0148	151-0149
四孔法兰 109×109;止口 φ85	φ25×36 P8 M8	G1/2;外泄口G1/4	151-0191	151-0192	151-0193	151-0194	151-0195	151-0196	151-0197	151-0198	151-0199
四孔法兰 109×109;止口 φ82.55	φ32×56 P10 M8	G1/2;外泄口G1/4 ΣM10	151-0241	151-0242	151-0243	151-0244	151-0245	151-0246	151-0247	151-0248	151-0249
两孔菱形法兰;止口 φ82.55	φ32×56 P10 M8	G1/2;外泄口G1/4 ΣM10	151-0301	151-0302	151-0303	151-0304	151-0305	151-0306	151-0307	151-0308	151-0309
四孔法兰 109×109;止口 φ80	φ25×36 P8 M8	M22×1.5;泄油口M14×1.5	151-0421	151-0422	151-0423	151-0424	151-0425	151-0426	151-0427	151-0428	151-0429
四孔法兰 109×109;止口 φ82.55	φ32×56 P10 M8	M22×1.5;泄油口M14×1.5	151-0441	151-0442	151-0443	151-0444	151-0445	151-0446	151-0447	151-0448	151-0449
四孔法兰 109×109;止口 φ82.55	φ25×36 P8 M8	G1/2;外泄口G1/4	151-0511	151-0512	151-0513	151-0514	151-0515	151-0516	151-0517	151-0518	151-0519
四孔菱形法兰;止口 φ82.55	φ32×56 P10 M8	M22×1.5;泄油口M14×1.5	151-0611	151-0612	151-0613	151-0614	151-0615	151-0616	151-0617	151-0618	151-0619
两孔菱形法兰;止口 φ82.55	45 6D-30×26×6 M8	M22×1.5;无泄油口	151-1071	151-1072	151-1073	151-1074	151-1075	151-1076	151-1077	151-1078	151-1079
		M22×1.5;泄油口M14×1.5	151-1101	151-1102	151-1103	151-1104	151-1105	151-1106	151-1107	151-1108	151-1109
四孔法兰 109×109;止口 φ82.55	45 6D-30×26×6 M8	M22×1.5;泄油口M14×1.5	151-1281	151-1282	151-1283	151-1284	151-1285	151-1286	151-1287	151-1288	151-1289
	渐开线花键轴 14齿m=2	G1/2;外泄口G1/4 ΣM10	151-2031	151-3032	151-2033	151-2034	151-2035	151-2036	151-2037	151-2038	151-2039
大方法兰，止口 φ100	6D-30×26×8	板式连接;2504	152-1021	152-1022	152-1023	152-1024	152-1025	152-1026	152-1027	152-1028	152-1029
两孔菱形法兰;止口 φ82.55	45 6D-30×26×6 M8	M22×1.5;泄油口M14×1.5	154-1031	154-1032	154-1033	154-1034	154-1035	154-1036	154-1037	154-1038	154-1039
四孔法兰 109×109;止口 φ82.55	45 6D-30×26×6 M8	M22×1.5;泄油口M14×1.5	154-1041	154-1042	154-1043	154-1044	154-1045	154-1046	154-1047	154-1048	154-1049
长方法兰;止口 φ85;	45 6D-25×21.5×6 M8	板式连接;2504	158-1011	158-1012	158-1013	158-1014	158-1015	158-1016	158-1017	158-1018	158-1019

BM5 Ordering Information

Feature			Displacement/No								
Flange	Shaft	Oil port	80	100	125	160	200	250	305	400	500
Square flange; 109×109; Pilot:φ82.55	φ25×36 P8 M8	M22×1.5;Drain Port:M14×1.5	151-0111	151-0112	151-0113	151-0114	151-0115	151-0116	151-0117	151-0118	151-0119
Rhomb flange; Pilot:φ82.55	φ32×56 P10 M8	M22×1.5;Drain Port:M14×1.5	151-0121	151-0122	151-0123	151-0124	151-0125	151-0126	151-0127	151-0128	151-0129
	φ25×36 P8 M8	G1/2;Drain Port:G1/4	151-0141	151-0142	151-0143	151-0144	151-0145	151-0146	151-0147	151-0148	151-0149
Square flange; 109×109; Pilot:φ85	φ25×36 P8 M8	G1/2;Drain Port:G1/4	151-0191	151-0192	151-0193	151-0194	151-0195	151-0196	151-0197	151-0198	151-0199
Square flange ;109×109; Pilot:φ82.55	φ32×56 P10 M8	G1/2;Drain Port:G1/4 ΣM10	151-0241	151-0242	151-0243	151-0244	151-0245	151-0246	151-0247	151-0248	151-0249
Rhomb flange; Pilot:φ82.55	φ32×56 P10 M8	G1/2;Drain Port:G1/4 ΣM10	151-0301	151-0302	151-0303	151-0304	151-0305	151-0306	151-0307	151-0308	151-0309
Square flange; 109×109; Pilot:φ80	φ25×36 P8 M8	M22×1.5;Drain Port:M14×1.5	151-0421	151-0422	151-0423	151-0424	151-0425	151-0426	151-0427	151-0428	151-0429
Square flange; 109×109; Pilot:φ82.55	φ32×56 P10 M8	M22×1.5;Drain Port:M14×1.5	151-0441	151-0442	151-0443	151-0444	151-0445	151-0446	151-0447	151-0448	151-0449
Square flange; 109×109; Pilot:φ82.55	φ25×36 P8 M8	G1/2;Drain Port:G1/4	151-0511	151-0512	151-0513	151-0514	151-0515	151-0516	151-0517	151-0518	151-0519
Rhomb flange; Pilot:φ82.55	φ32×56 P10 M8	M22×1.5;Drain Port:M14×1.5	151-0611	151-0612	151-0613	151-0614	151-0615	151-0616	151-0617	151-0618	151-0619
Rhomb flange; Pilot:φ82.55	45 6D-30×26×6 M8	M22×1.5;	151-1071	151-1072	151-1073	151-1074	151-1075	151-1076	151-1077	151-1078	151-1079
		M22×1.5;Drain Port:M14×1.5	151-1101	151-1102	151-1103	151-1104	151-1105	151-1106	151-1107	151-1108	151-1109
Square flange; 109×109; Pilot:φ82.55	45 6D-30×26×6 M8	M22×1.5;Drain Port:M14×1.5	151-1281	151-1282	151-1283	151-1284	151-1285	151-1286	151-1287	151-1288	151-1289
	Spline:14 m=2	G1/2;Drain Port:G1/4 ΣM10	151-2031	151-3032	151-2033	151-2034	151-2035	151-2036	151-2037	151-2038	151-2039
Square flange; Pilot:φ100	6D-30×25×8	Plate-connection:2504	152-1021	152-1022	152-1023	152-1024	152-1025	152-1026	152-1027	152-1028	152-1029
Rhomb flange; Pilot:φ82.55	45 6D-30×26×6 M8	M22×1.5;Drain Port:M14×1.5	154-1031	154-1032	154-1033	154-1034	154-1035	154-1036	154-1037	154-1038	154-1039
Square flange; 109×109; Pilot:φ82.55	45 6D-30×26×6 M8	M22×1.5;Drain Port:M14×1.5	154-1041	154-1042	154-1043	154-1044	154-1045	154-1046	154-1047	154-1048	154-1049
Square flange; Pilot:φ85;	45 6D-25×21.5×6 M8	Plate-connection:2504	158-1011	158-1012	158-1013	158-1014	158-1015	158-1016	158-1017	158-1018	158-1019

型号编号–BM5系列马达
Type number—BM5 series motors

1	2	3	4	5	6	7	8
BM5							

位置　1　BM5系列马达
Position　BM5　series motors
位置　2　排量CC/R
Position　displacement
1、80
2、100
3、125
4、160
5、200
6、250
7、305
8、400
9、500
位置　3　法兰和止口
Position　Flange and pilot
A、2孔菱形法兰，止口 ϕ 70x6.4mm
2 bolt Rhomb–flange，pilot ϕ 70x6.4mm
B、2孔菱形法兰，止口 ϕ 80x6.4mm
2 bolt Rhomb–flange，pilot ϕ 80x6.4mm
C、 2孔菱形法兰，止口 ϕ 82.55 x6.4mm
2 bolt Rhomb–flange，pilot ϕ 82.55 × 6.4mm
D、2孔菱形法兰，止口 ϕ 100x6.4mm
2 bolt Rhomb–flange，pilot ϕ 100x6.4mm
E、4孔方形法兰，止口 ϕ 80x6.4mm
4 bolt Square flange，pilot ϕ 80x6.4mm
F、4孔方形法兰，止口 ϕ 82. 55 x6.4mm
4 bolt Square flange，pilot ϕ 82.55x6.4mm
G、4孔方形法兰，止口 ϕ 85 x6.4mm
4 bolt Square flange，pilot ϕ 85x6.4mm
H、4孔方形法兰，止口 ϕ 100x7.5mm
4 bolt Square flange，pilot ϕ 100x7.5mm
I、4孔菱形法兰，止口 ϕ 82.55 x6.4mm
4 bolt Rhomb–flange， pilot ϕ 82.55x6.4mm
J、4孔长方形法兰，止口 ϕ 85 x6.4mm
4 bolt Square flange， pilot ϕ 85x6.4mm
K、4孔方形法兰，止口 ϕ 107 x6.4mm
4 bolt Square flange， pilot ϕ 107x6.4mm
L、6孔菱形法兰，止口 ϕ 82.55 x6.4mm
6 bolt Rhomb–flange，pilot ϕ 82.55x6.4mm
位置　4　输出轴
Position　shaft
1、ϕ 25直轴，平键8x7x32
ϕ 25 straight shaft，flat key 8x7x32
2、ϕ 22直轴，平键7.96x7.96x40
ϕ 30 straight shaft，flat key 7.96x7.96x40
3、ϕ 25直轴，平键8x7x28
ϕ 25 straight shaft，flat key 8x7x28
4、ϕ 30直轴，平键8x7x28
ϕ 30 straight shaft， flat key 8x7x28
5、ϕ 30直轴，平键10x8x45
ϕ 30 straight shaft， flat key 10x8x45
6、ϕ 32直轴，平键10x8x40
ϕ 32 straight shaft，flat key 10x8x40
7、ϕ 32直釉，平键10x8x45
ϕ 32 straight shaft，flat key 10x8x45
8、 ϕ 25. 4直轴，平键6.35x6.3x28
ϕ 25. 4 straight shaft，flat key 6.35x6.3x28
9、 矩形花键轴6D–30x26x6
Splined shaft 6D–30x26x6
10、矩形花键轴6D–30x26x8
Splined shaft 6D–30x26x8
11、渐开线花键轴12/24DP　14齿
Splined shaft 12/24DP　14 tooth
位置　5　油口
Position　oil port
A、 G1/2　　B、M22x1.5
C、 1/2NPTF　　D、ZG1/2
E、M18x1.5　　F、M20x1.5
G、7/8–14UNF　H、 ϕ 13
I、M27x2　　J、G3/4
位置　6　泄油口
Position　drain port
1、无　　2、M14x1.5
3、G1/4　　4、7/1 6–20UNF
5、ZG1/4
位置　7　喷漆颜色
Position paint color
A、银灰漆　　silver paint
B、蓝漆　　blue
C、亚光黑漆　　black
D、不喷漆　　no paint
位置　8　旋向
Position　rotation direction
A、标准
standard
B、 反向
opposite