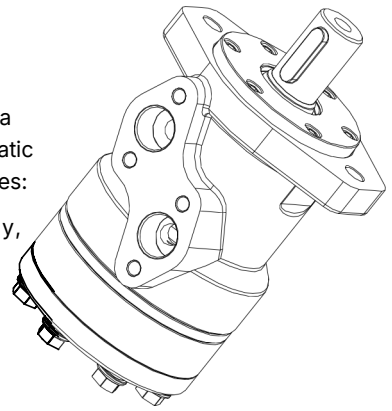
BM2 Series

BM2 Series
Orbital Hydraulic Motor

Professional hydraulic components for
mobile machinery and industrial systems.

Category: Orbital Hydraulic Motors
Application:
Mobile Machinery / Industrial Hydraulic Systems

BM2 Series Orbital Hydraulic Motor



BM2 Series Orbital Hydraulic Motor is a shaft-distribution hydraulic motor. This series uses a column-mounted gerotor pair and has a structure that operates under high pressure with automatic compensation, giving the complete motor good efficiency retention and long service life. Features:

*Advanced gerotor parameter design provides low starting pressure, high efficiency, good efficiency retention, and smooth operation.

*High-pressure shaft seal withstands higher back pressure and allows series or parallel operation.

*Special drive shaft structure design provides long motor service life.

*Special distribution system parameter design can meet low-noise requirements.

*The motor has a compact structure and is easy to install.

Main Technical Parameters

Type		BM2 BM2H BMRWN 25	BM2 BM2H BMRWN 40	BM2 BM2H BMRWN 50	BM2 BM2H BMRWN 63	BM2 BM2H BMRWN 80	BMR2 BM2H BMRWN 100	BM2 BM2H BMRWN 125	BM2 BM2H BMRWN 160	BM2 BM2H BMRWN 200	BM2 BM2H BMRWN 250	BM2 BM2H BMRWN 315	BM2 BM2H BMRW 400	BM2 BM2H BMRWN 500
Actual Displacement (cm^3/rev.)		25	39.4	49	62.7	78.7	97.3	122.7	158	194.6	244	306.3	393.3	489.4
Max. Speed (rpm)	Rated	1300	985	790	615	670	542	430	330	265	216	172	134	108
	Continuous	1550	1100	990	780	743	598	476	375	310	238	190	148	119
	Intermittent	1780	1380	1210	947	940	763	605	470	385	304	242	189	152
Max. Torque (N.m)	Rated	42	75	94	120	150	186	235	320	330	337	348	433	540
	Continuous	42	75	94	120	190	238	300	380	450	520	531	597	740
	Intermittent	58	91	120	153	220	272	343	430	500	588	665	712	860
	Peak	71	112	145	186	233	289	365	460	560	660	810	856	960
Max. Output Power （KW）	Continuous	5.5	8.5	9.5	15	12.5	13	12.5	12.5	11	10	9	7.5	7.5
	Intermittent	7	9.8	11.2	17	15	15	14.5	14	13	12	10	9	9
Max. Working Pressure Difference (MPa)	Rated	12.5	14	14	14	14	14	14	14	12	11	8.5	8.5	8.5
	Continuous	12.5	14	14	14	17.5	17.5	17.5	17.5	17.5	17.5	13.5	11.5	11.5
	Intermittent	16.5	16.5	17.5	17.5	20	20	20	20	20	20	17.5	15	13
	Peak	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	21	17.5	15
Max. Flow (L/min)	Rated	35	40	40	40	55	55	55	55	55	55	55	55	55
	Continuous	40	45	50	50	60	60	60	60	60	60	60	60	60
	Intermittent	45	55	60	60	75	75	75	75	75	55	75	75	75

*Rated speed and torque refer to output values under rated flow and pressure.

*Continuous values refer to the maximum values at which this displacement motor can operate continuously.

*Intermittent values refer to the maximum values at which this displacement motor operates for 6 seconds within 1 minute.

*Peak values refer to the maximum values at which this displacement motor operates for 0.6 seconds within 1 minute.

Performance Parameters

BM2-25 [25cm3/rev.]

Pressure (MPa)

Flow (L/min)	2	3	5	7	9	10	12.5 Max. Continuous	14.0 Max. Intermittent	16.5
4	7 151	11 144	17 132	25 152	32 102	34 83			
8	6 300	14 288	17 271	25 252	32 227	35 215	44 193	49 173	57 155
15	5.5 580	9.5 565	16 547	25 526	31 501	35 470	44 458	50 435	57 395
20	4 777	9 765	15 746	24 720	.30 695	35 665	44 648	50 626	57 593
30	4 1166	8 1150	14 1123	22 1100	29 1068	32 1040	44 1015	48 1000	55 962
35 (Max. Continuous)	4 1360	8 1340	14 1310	22 1281	29 1246	32 1212	43 1184	48 1165	55 1122
40	3.5 1572	8 1555	13 1540	21 1520	28 1500	31 1480	42 1455	47 1417	55 1378
45 (Max. Intermittent)	3 1771	7 1750	11 1719	20 1685	27 1656	30 1625	41 1584	45 1540	53 1470

BM2-40 [39 .4cm3/rev.]

Pressure (MPa)

Flow (L/min)	2	3	5	7	9	10	12.5 Max. Continuous	14.0 Max. Intermittent	16.5
4	11 96	17 91	27 84	40 73	50 65	53 55			
8	10 190	16 182	27 171	40 160	51 144	55 136	69 122	78 110	91 99
15	9 393	15 358	25 347	39 333	49 318	56 298	70 290	79 276	90 250
20	7 493	14 485	24 473	38 457	48 441	55 422	70 411	79 397	90 376
30	7 740	13 729	23 712	35 697	46 678	51 660	69 644	77 634	87 610
40 (Max. Continuous)	5.5 998	12 987	21 977	33 965	45 952	49 939	67 924	74 899	86 874
45	4 1124	11 1110	19 1090	32 1069	44 1050	48 1030	65 1005	72 977	84 932
55 (Max. Intermittent)		9 1370	16 1350	29 1325	38 1297	44 1267	60 1239	67 1214	79 1187

BM2-50 [49cm3/rev.]

Pressure (MPa)

Flow (L/min)	5	7	9	10	12	14 Max. Continuous	16 Max. Intermittent	17.5
5	35 93	45 84	61 76	67 73	77 69	88 46		
10	36 186	46 178	62 166	69 162	80 153	95 136	108 118	120 97
15	35 283	49 277	63 269	73 261	88 250	100 230	109 211	123 185
20	34.5 377	47 375	61 365	69 361	83 346	96 330	109 302	126 270
30	33 576	44 569	60 561	67 554	80 542	95 531	108 500	126 465
40	30 760	41 758	58 753	66 750	79 738	92 724	106 700	122 670
45	29.5 856	40 853	57 849	65 845	78 835	90 815	105 796	121 770
50 (Max. Continuous)	26 950	37 940	53 925	60 906	73 880	85 852	99 832	114 801
60 (Max. Intermittent)	20 1138	33 1124	48 1100	56 1075	69 1056	81 1028	95 1006	109 970

Continuous / Intermittent

BM2-63 [62.7cm³/rev.]

Pressure (MPa)

Flow (L/min)	5	7	9	10	12	14 Max. Continuous	16 Max. Intermittent	17.5
5	44 84	58 67	76 61	85 61	99 57	113 55		
10	45 149	59 135	77 133	83 130	97 125	110 120		
15	44 224	60 220	75 218	81 215	99 213	108 210	128 207	
20	42 298	55 295	76 292	81 286	93 280	104 276	125 270	140 265
30	40 447	53 440	73 334	82 330	91 326	100 320	123 315	135 310
40	38 596	52 593	72 585	80 580	85 572	95 568	115 560	130 550
45 (Max. Continuous)	35 671	48 665	70 660	77 654	80 650	95 642	110 634	128 624
50	31 745	45 740	65 735	73 730	75 725	90 720	105 715	120 710
60 (Max. Intermittent)	27 942	42 938	58 933	70 928	90 923	112 916	136 910	158 902

Torque (N•m) 70
Speed (rpm) 928

Performance Parameters

BM2-80 [78.7cm3/rev.]

Pressure (MPa) — Max. Continuous: 14, 16; Max. Intermittent: 17.5, 20

Flow (L/min)	5	7	9	10	12	14	16	17.5	20
5	50 / 59	64 / 56	88 / 50	108 / 44	133 / 38				
10	54 / 118	77 / 113	99 / 106	108 / 97	129 / 86	150 / 79	173 / 56		
20	57 / 238	78.0 / 234	102 / 227	111 / 216	134 / 203	155 / 190	177 / 178	196 / 154	225 / 135
30	54 / 360	75 / 352	100 / 340	108 / 332	131 / 316	152 / 302	176 / 290	195 / 274	223 / 250
40	48 / 480	73 / 470	96 / 458	105 / 445	127 / 430	148 / 418	172 / 403	190 / 388	220 / 359
50	42 / 604	70 / 595	93 / 582	102 / 570	124 / 556	147 / 540	170 / 521	188 / 504	218 / 487
Max. Continuous 60	37 / 726	66 / 715	89 / 704	98 / 692	121 / 678	144 / 663	166 / 647	184 / 622	213 / 594
Max. Intermittent 70	32 / 845	60 / 834	83 / 820	95 / 802	116 / 789	140 / 767	160 / 754	177 / 730	208 / 705
75	21 / 910	50 / 895	78 / 881	90 / 867	111 / 852	135 / 830	154 / 806	171 / 787	200 / 756

BM2-100 [97.3cm3/rev.]

Pressure (MPa) — Max. Continuous: 14, 16; Max. Intermittent: 17.5, 20

Flow (L/min)	5	7	9	10	12	14	16	17.5	20
5	63 / 47	88 / 44	114 / 40	129 / 36	149 / 28				
10	65 / 97	91 / 94	119 / 90	132 / 85	151 / 77	179 / 60	202 / 44		
20	62 / 198	90 / 194	117 / 188	130 / 181	148 / 173	177 / 165	200 / 157	227 / 146	261 / 124
30	60 / 300	88 / 295	114 / 288	127 / 279	146 / 270	176 / 258	199 / 248	224 / 235	257 / 217
40	54 / 403	84 / 396	111 / 382	124 / 372	145 / 362	176 / 348	198 / 335	222 / 329	255 / 311
Max. Continuous 50	46 / 505	75 / 500	105 / 493	117 / 482	143 / 470	175 / 456	195 / 440	217 / 424	248 / 408
60	36 / 608	67 / 600	100 / 587	114 / 574	137 / 560	170 / 548	190 / 534	210 / 524	240 / 501
Max. Intermittent 70	30 / 710	62 / 702	95 / 692	112 / 679	134 / 658	168 / 656	188 / 645	205 / 635	235 / 608
75	22 / 763	55 / 755	89 / 744	106 / 728	130 / 714	162 / 700	183 / 681	200 / 665	229 / 648

BM2-125 [122 .7cm3/rev.]

Pressure (MPa) — Max. Continuous: 14, 16; Max. Intermittent: 17.5, 20

Flow (L/min)	5	7	9	10	12	14	16	17.5	20
5	73 / 37	106 / 32	140 / 26	161 / 20	183 / 13				
10	81 / 76	114 / 73	150 / 62	170 / 50	195 / 37	220 / 26	244 / 20		
20	79 / 158	113 / 156	147 / 153	168 / 149	193 / 143	222 / 132	250 / 121	283 / 108	320 / 76
30	76 / 239	112 / 236	145 / 232	165 / 226	191 / 212	220 / 208	248 / 190	281 / 174	317 / 142
40	69 / 320	110 / 318	143 / 314	162 / 309	189 / 303	218 / 290	247 / 280	280 / 261	315 / 226
Max. Continuous 50	60 / 403	101 / 400	138 / 396	159 / 392	188 / 383	215 / 373	245 / 357	277 / 340	311 / 303
60	50 / 484	94 / 480	131 / 476	154 / 472	184 / 464	212 / 442	241 / 425	272 / 413	309 / 365
Max. Intermittent 70	39 / 565	87 / 562	125 / 558	150 / 553	180 / 548	207 / 539	233 / 527	268 / 504	302 / 446
75	31 / 607	76 / 604	121 / 599	143 / 591	174 / 580	200 / 566	226 / 551	253 / 539	289 / 497

BM2-160 [158cm3/rev.]

Pressure · (MPa) — Max. Continuous: 14, 16; Max. Intermittent: 17.5, 20

Flow (L/min)	5	7	9	10	12	14	16	17.5	20
5	104 / 26	146 / 23	190 / 20	210 / 16	245 / 10				
10	107 / 59	150 / 56	195 / 50	216 / 45	250 / 37	290 / 30	335 / 22		
20	102 / 121	151 / 118	198 / 115	220 / 113	257 / 108	298 / 102	342 / 97	370 / 90	420 / 78
30	97 / 184	146 / 178	190 / 173	217 / 170	256 / 164	295 / 155	340 / 143	368 / 128	416 / 103
40	89 / 246	140 / 241	185 / 235	210 / 228	252 / 220	290 / 210	335 / 194	363 / 177	412 / 150
Max. Continuous 50	72 / 310	128 / 307	179 / 300	202 / 295	244 / 287	284 / 278	327 / 262	358 / 247	409 / 210
60	60 / 374	116 / 367	170 / 359	198 / 354	240 / 346	279 / 338	321 / 323	352 / 306	400 / 265
Max. Intermittent 70	49 / 437	107 / 430	164 / 421	193 / 415	233 / 403	271 / 393	309 / 381	344 / 365	390 / 318
75	36 / 472	98 / 463	152 / 450	185 / 441	226 / 431	265 / 420	300 / 405	334 / 389	379 / 365

Torque (N•m) 226
Speed (rpm) 431

Legend: Continuous (white) / Intermittent (grey)

Performance Parameters

BM2-200 [194.6cm3/rev.]

Max. Continuous | Max. Intermittent

Flow (L/min)	Pressure (MPa) 5	7	9	10	12	14	16	17.5	20
	5	132 24	181 22	238 18	262 13	310 10				
	10	135 49	186 47	240 45	264 43	315 38	356 33	403 24		
	20	131 99	183 97	238 94	260 92	314 88	358 83	404 74	438 64	498 56
	30	126 149	178 147	233 144	254 141	311 135	355 126	402 113	431 105	486 91
	40	112 200	169 197	228 194	250 191	307 185	352 174	400 160	426 151	477 127
	50	95 252	156 249	221 246	246 243	300 238	350 228	398 212	421 194	470 161
Max. Continuous	60	78 304	145 301	213 298	238 294	289 286	342 276	386 262	412 243	459 218
	70	67 355	135 353	206 349	228 340	277 329	336 316	375 300	408 288	453 257
Max. Intermittent	75	58 382	125 379	197 373	220 362	270 350	321 337	360 322	398 312	442 278

BM2-250 [244cm3/rev.]

Max. Continuous | Max. Intermittent

Flow (L/min)	Pressure (MPa) 5	7	9	10	12	14	16	17.5	20
	5	168 18	234 17	293 15	329 12	392 10				
	10	171 38	237 36	298 32	331 29	394 24	447 19	505 11		
	20	168 78	235 76	296 75	327 73	393 68	446 60	500 55	537 52	612 44
	30	156 118	226 115	293 112	319 110	385 104	440 95	497 87	529 80	598 67
	40	138 160	215 158	289 156	317 153	381 148	430 137	493 125	525 114	594 94
	50	119 200	200 197	278 194	311 181	370 175	424 166	484 155	515 145	477 120
Max. Continuous	60	99 242	185 239	270 236	302 233	357 226	410 213	470 197	495 188	556 161
	70	85 284	171 280	254 277	290 273	343 262	402 251	461 235	479 217	539 180
Max. Intermittent	75	60 305	160 302	246 298	277 294	334 285	397 273	456 259	468 245	522 219

BM2-315 [306.3cm3/rev.]

Max. Continuous | Max. Intermittent

Flow (L/min)	Pressure (MPa) 5	7	9	10	12	14	16	17.5
	5	207 13.5	291 11.5						
	10	210 29	294 28	369 26	407 25	471 22	531 18	600 13	
	20	207 62	292 61	366 59	403 57	468 54	530 51	598 47	637 44
	30	197 94	285 92	362 89	398 87	463 84	523 81	591 75	631 69
	40	189 126	277 124	355 121	395 116	460 110	520 104	587 97	627 88
	50	170 160	260 156	343 152	379 145	445 136	507 124	576 113	622 104
Max. Continuous	60	156 192	237 188	327 183	361 178	430 169	493 157	565 145	606 139
	70	138 225	227 221	312 215	345 208	415 197	475 185	542 172	592 164
Max. Intermittent	75	120 240	204 236	292 230	327 224	402 216	464 207	524 190	561 177

BM2-400 [393.3cm3/rev.]

Max. Continuous | Max. Intermittent

Flow (L/min)	Pressure (MPa) 3	4.5	5.5	6.5	8	10	12.5	14
	5	158 12	239 10						
	10	162 23	243 22	293 22	347 20	419 18	512 16	631 15	689 12
	20	155 48	239 47	289 46	342 45	414 43	505 40	625 37	680 31
	30	146 74	222 73	282 72	337 71	410 69	498 65	622 61	672 48
	40	130 100	219 98	276 96	330 94	405 92	492 89	611 85	655 68
	50	108 124	193 122	250 120	311 117	388 114	469 111	601 108	627 93
Max. Continuous	60	93 149	172 147	226 145	290 144	373 140	458 134	583 126	619 117
	70	93 174	154 173	206 173	266 170	351 168	438 163	563 155	598 144
Max. Intermittent	75	58 189	129 188	188 187	248 152	330 183	421 179	540 172	583 164

Continuous

Intermittent

Torque (N•m) 330
Speed (rpm) 183

Performance Parameters

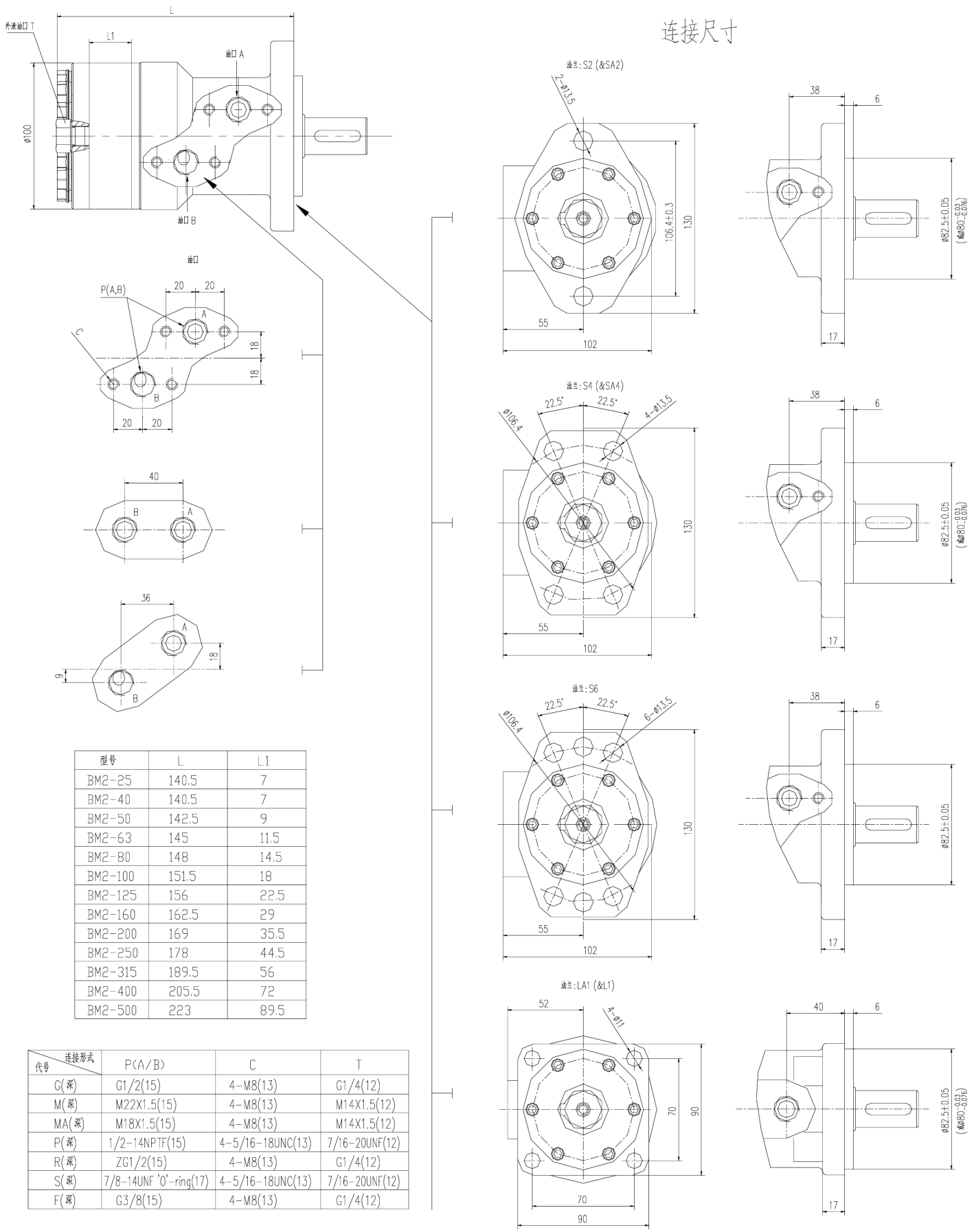
BM2-500 [489.4cm³/rev.]

Flow (L/min)	Pressure (MPa) 3	4.5	6	8	10	Max. Continuous 12	Max. Intermittent 13
5	196 9	298 8					
10	201 19	303 18	399 16	521 15	638 13	754 12	796 9
20	192 38	298 37	393 36	515 34	629 32	746 30	786 25
30	182 59	275 58	387 57	510 55	619 52	742 49	777 39
40	161 80	272 79	379 75	504 74	612 71	730 68	756 54
50	134 99	240 98	357 94	482 92	583 89	718 86	724 74
Max. Continuous 60	115 120	214 118	333 115	464 113	570 107	697 101	715 94
70	115 140	191 139	305 137	437 135	545 131	672 124	691 115
Max. Intermittent 75	72 152	160 151	285 149	410 147	523 144	645 138	673 132

Torque (N•m) 523
Speed (rpm) 144

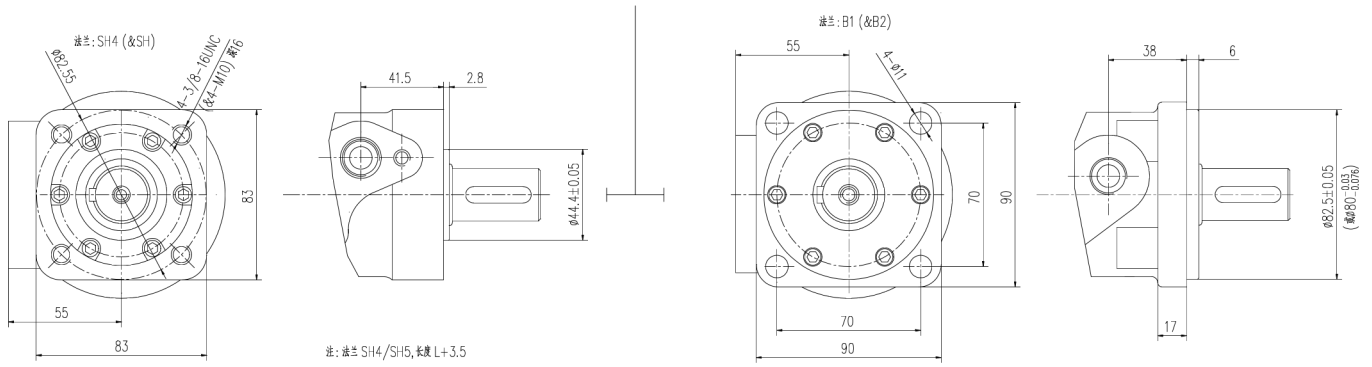
Continuous / Intermittent

BM2 Mounting and Connection Dimensions

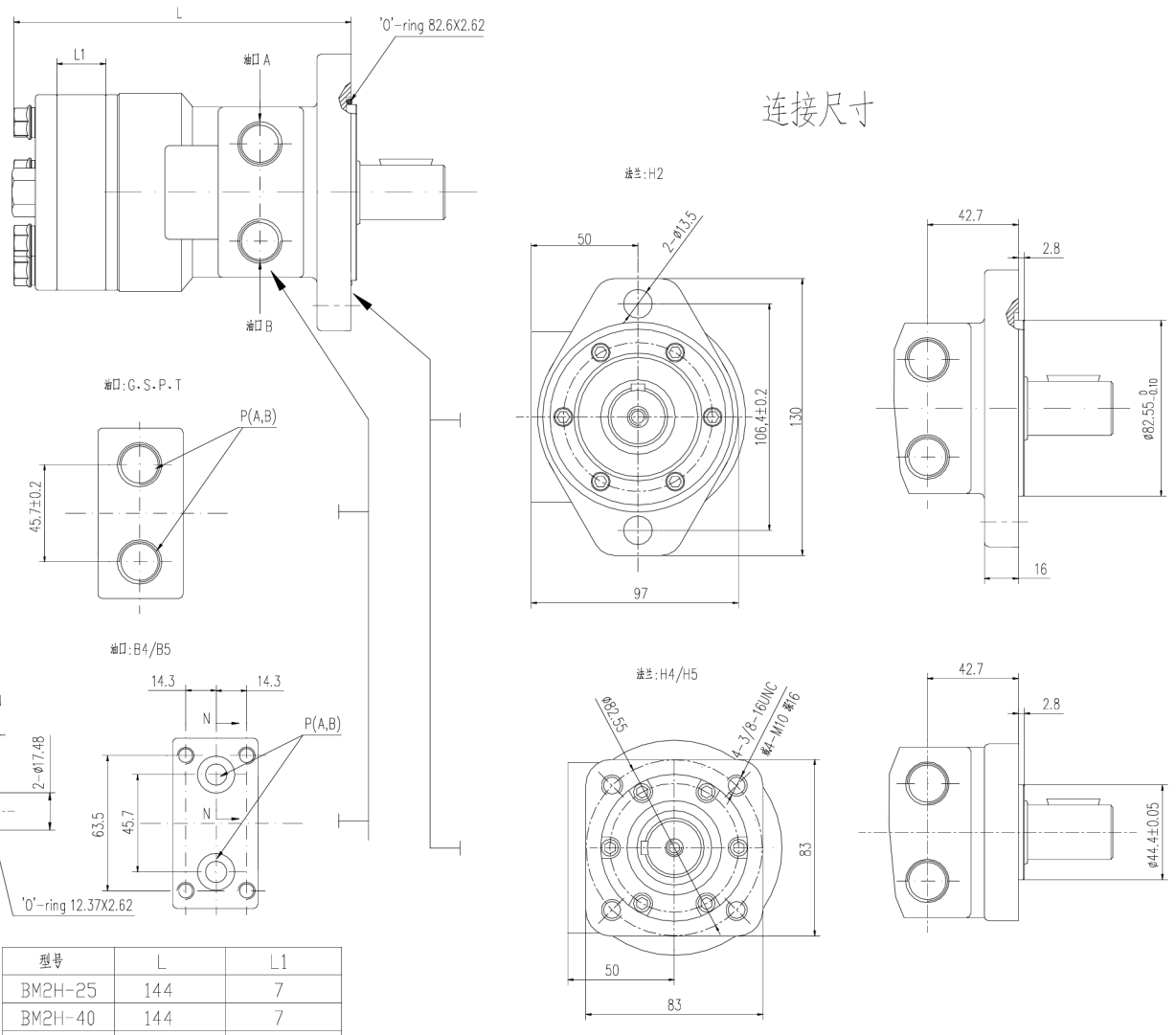


型号	L	L1
BM2-25	140.5	7
BM2-40	140.5	7
BM2-50	142.5	9
BM2-63	145	11.5
BM2-80	148	14.5
BM2-100	151.5	18
BM2-125	156	22.5
BM2-160	162.5	29
BM2-200	169	35.5
BM2-250	178	44.5
BM2-315	189.5	56
BM2-400	205.5	72
BM2-500	223	89.5

代号 \ 连接形式	P(A/B)	C	T
G(深)	G1/2(15)	4-M8(13)	G1/4(12)
M(深)	M22X1.5(15)	4-M8(13)	M14X1.5(12)
MA(深)	M18X1.5(15)	4-M8(13)	M14X1.5(12)
P(深)	1/2-14NPTF(15)	4-5/16-18UNC(13)	7/16-20UNF(12)
R(深)	ZG1/2(15)	4-M8(13)	G1/4(12)
S(深)	7/8-14UNF "O"-ring(17)	4-5/16-18UNC(13)	7/16-20UNF(12)
F(深)	G3/8(15)	4-M8(13)	G1/4(12)



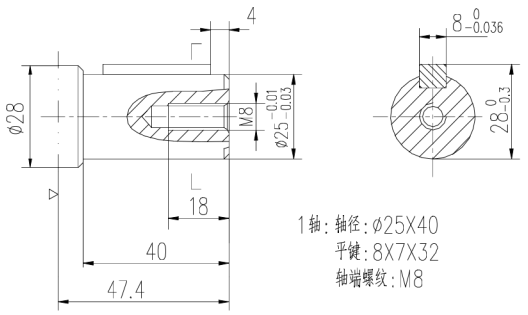
BM2H Mounting and Connection Dimensions



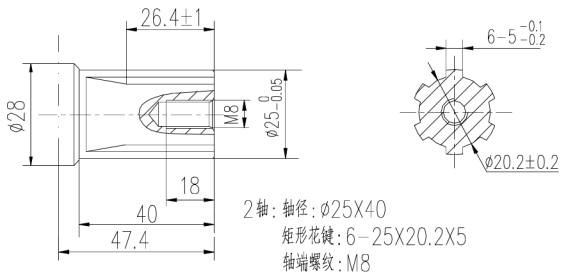
型号	L	L1
BM2H-25	144	7
BM2H-40	144	7
BM2H-50	146	9
BM2H-63	148.5	11.5
BM2H-80	151.5	14.5
BM2H-100	155	18
BM2H-125	159.5	22.5
BM2H-160	166	29
BM2H-200	172.5	35.5
BM2H-250	181.5	44.5
BM2H-315	193	56
BM2H-400	209	72
BM2H-500	226.5	89.5

代号 \ 连接形式	P(A/B)	C	T
G(深)	G1/2(15)	/	G1/4(12)
S(深)	7/8-14UNF 'O'-ring(17)	/	7/16-20UNF(12)
P(深)	1/2-14NPTF(15)	/	7/16-20UNF(12)
T(深)	3/4-16UNF 'O'-ring(15)	/	7/16-20UNF(12)
B4(深)	Ø10	4-5/16-18UNC(13)	7/16-20UNF(12)
B5(深)	Ø10	4-M8(13)	G1/4(12)

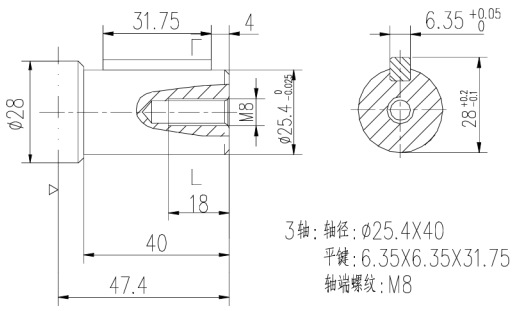
BM2/BM2H Shaft Extension Dimensions



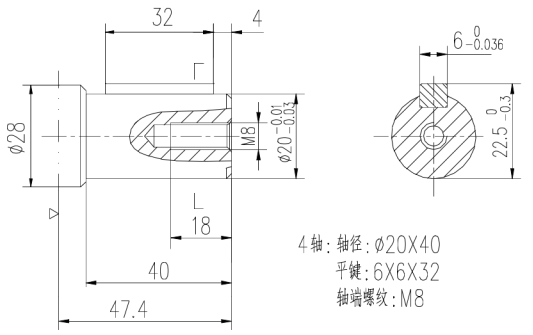
1轴：轴径：ø25X40
平键：8X7X32
轴端螺纹：M8



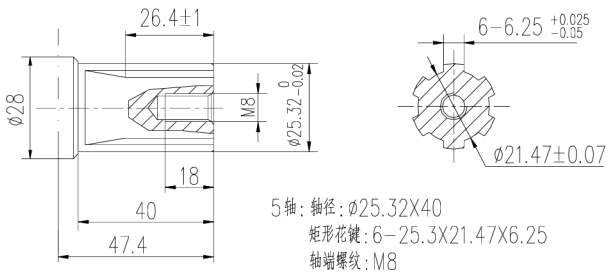
2轴：轴径：ø25X40
矩形花键：6-25X20.2X5
轴端螺纹：M8



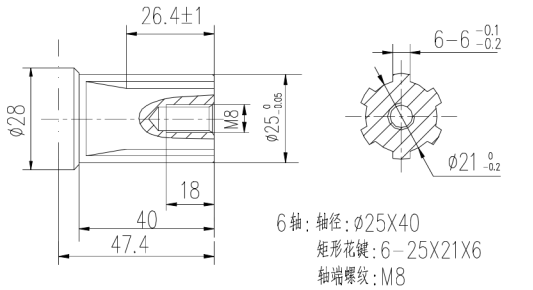
3轴：轴径：ø25.4X40
平键：6.35X6.35X31.75
轴端螺纹：M8



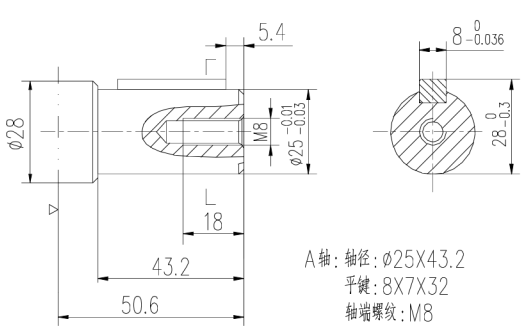
4轴：轴径：ø20X40
平键：6X6X32
轴端螺纹：M8



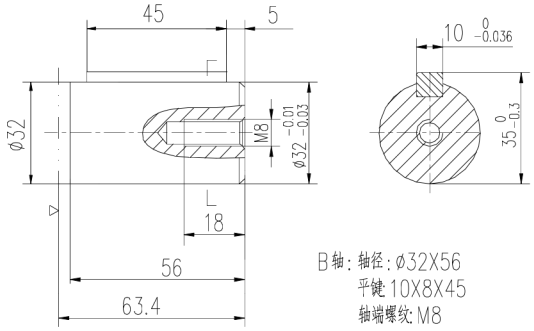
5轴：轴径：ø25.32X40
矩形花键：6-25.3X21.47X6.25
轴端螺纹：M8



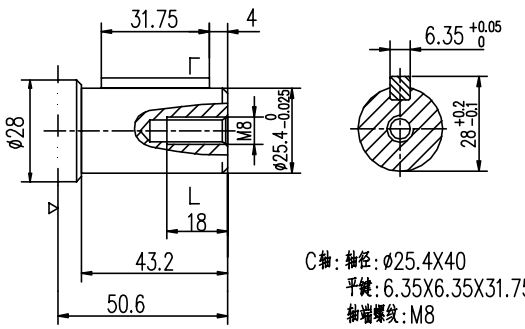
6轴：轴径：ø25X40
矩形花键：6-25X21X6
轴端螺纹：M8



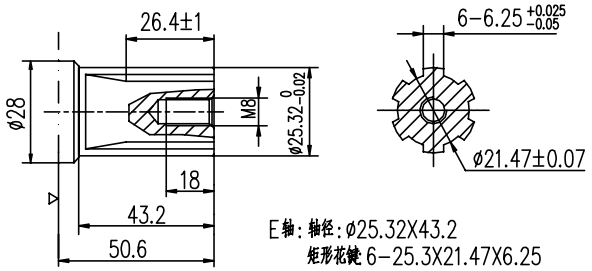
A轴：轴径：ø25X43.2
平键：8X7X32
轴端螺纹：M8



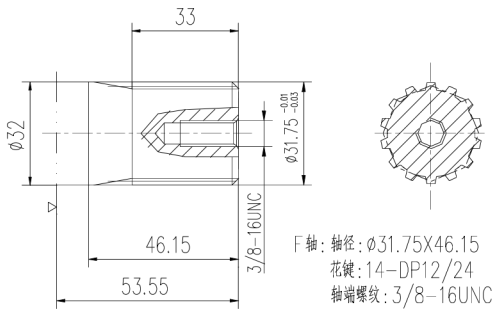
B轴：轴径：ø32X56
平键：10X8X45
轴端螺纹：M8



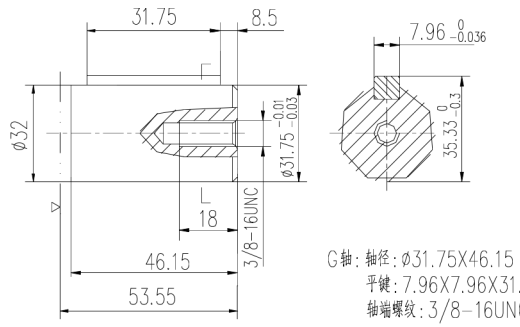
C轴：轴径：ø25.4X40
平键：6.35X6.35X31.75
轴端螺纹：M8



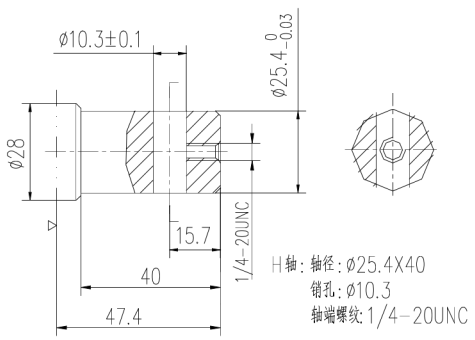
E轴：轴径：ø25.32X43.2
矩形花键：6-25.3X21.47X6.25
轴端螺纹：M8



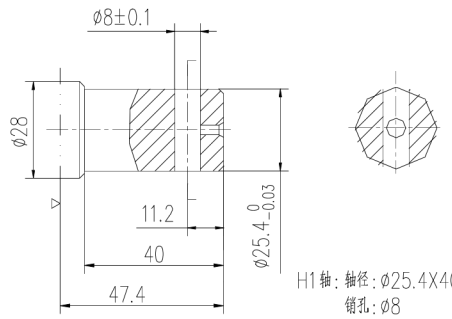
F轴：轴径：ø31.75X46.15
花键：14-DP12/24
轴端螺纹：3/8-16UNC



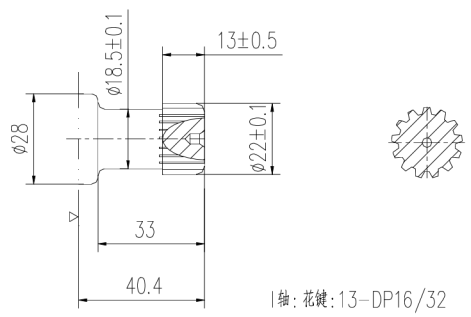
G轴：轴径：ø31.75X46.15
平键：7.96X7.96X31.75
轴端螺纹：3/8-16UNC



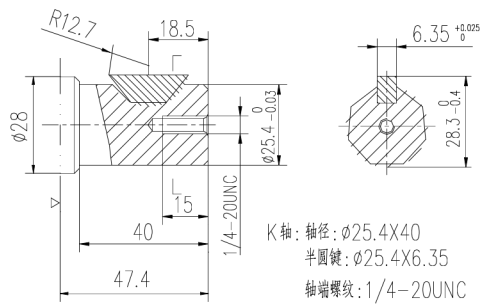
H轴：轴径：ø25.4X40
销孔：ø10.3
轴端螺纹：1/4-20UNC



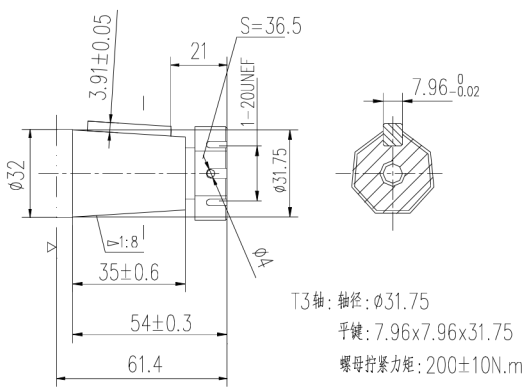
H1轴：轴径：ø25.4X40
销孔：ø8



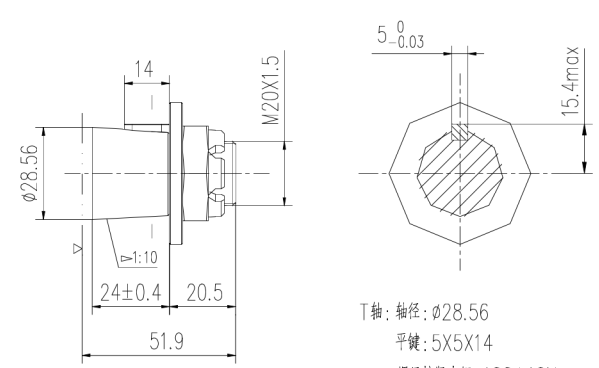
I轴：花键：13-DP16/32



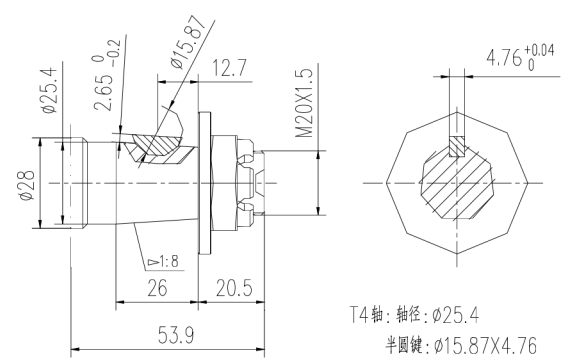
K轴：轴径：ø25.4X40
半圆键：ø25.4X6.35
轴端螺纹：1/4-20UNC



T3轴：轴径：ø31.75
平键：7.96x7.96x31.75
螺母拧紧力矩：200±10N.m



T轴：轴径：ø28.56
平键：5X5X14
螺母拧紧力矩：100±10N.m

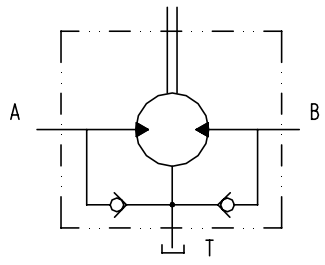


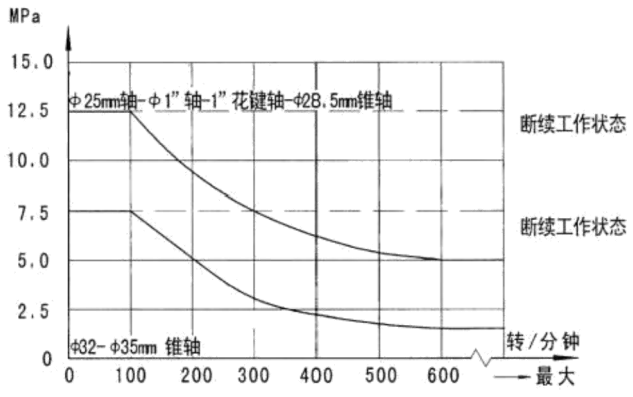
T4轴：轴径：ø25.4
半圆键：ø15.87X4.76
螺母拧紧力矩：100±10N.m

BM2H型马达轴端到法兰面的距离减去 3.2mm

BM2 / BM2H Series Orbital Hydraulic Motor

Allowable Pressure on Output Shaft Seal

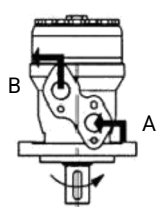




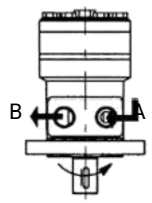
When used without an external drain line, the pressure on the output shaft seal is slightly higher than the pressure in the return line. When an external drain line is used, the pressure on the output shaft seal is the same as the pressure in the drain line.

Output Shaft Rotation Direction

Facing the motor shaft extension, when port A is supplied with high-pressure oil, the output shaft rotates clockwise; otherwise, it rotates counterclockwise.

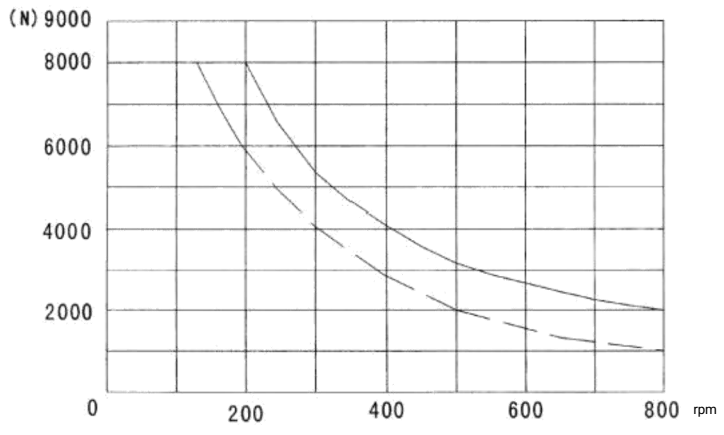


BM2



BM2 H

Radial Load on Output Shaft

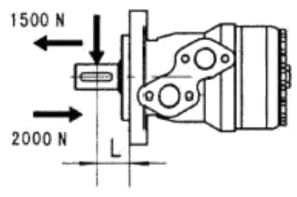


Shaft head diameter φ25 and φ1" (φ25.4); shaft head diameter φ32

$$F_r = \frac{800}{n} \cdot \frac{250000}{95+L} \text{ N}$$

Fr = Radial Force (N)
L = Distance (mm)
n = Speed (rpm)

Diamond Flange L=30mm;
Square Flange L=24mm



Drain Port Leakage Flow

The following table lists the maximum drain port leakage flow of the standard motor when the drain return line pressure is lower than 0.5 to 1 MPa.

Working Pressure Difference (MPa)	Oil Kinematic Viscosity (mm²/s)	Drain Port Leakage Flow (L/min)
10	20	2.5
	35	1.8
14	20	3.5
	35	2.8

Ordering Information

1	2	3	4	5	6	7	8
BM2							

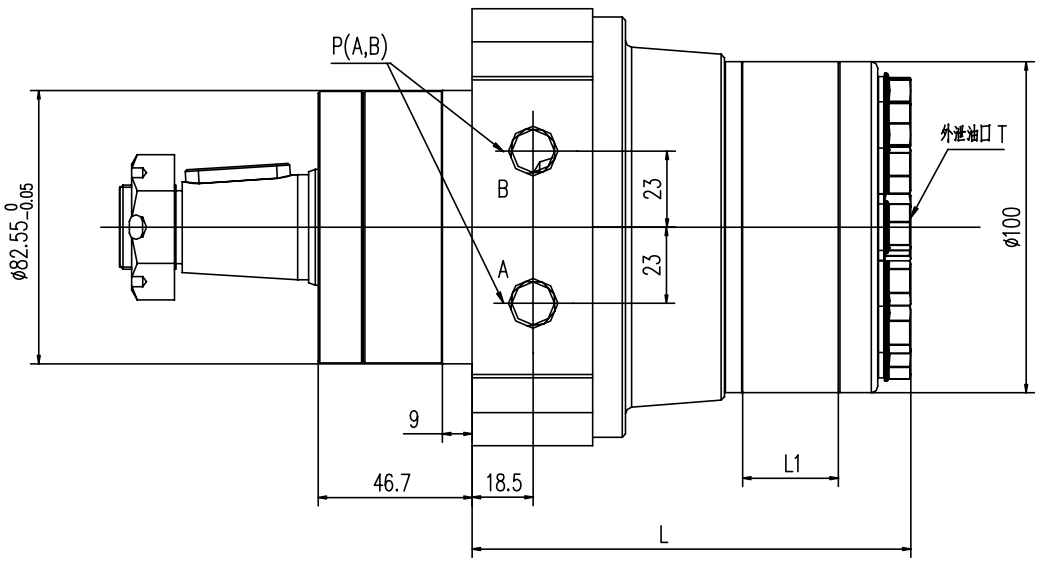
POS.1	2	3		4		5		6		7		8	
Structure Code	Displacement	Flange / Pilot		Shaft Extension		Oil Port / Drain Port		Rotation Direction		Paint Option		Special Function	
BM2	40	S2	2-φ13.5Diamond Flange, Pilotφ82.5x6	1	Straight Shaftφ25, Parallel Key8x7x32,Length40	G	G1/2,G1/4,Subplate4-M8	None	Standard	00	Unpainted	None	Standard
	50	SA2	2-φ13.5Diamond Flange, Pilotφ80x6 4-φ13.5Diamond Flange, Pilotφ82.5x6	2	Straight-sided Spline Shaft6-25x20.2x5, Length40	M	M22x1.5,M14x1.5,Subplate4-M8	R	Reverse	None	Blue Paint	H	High-Pressure Shaft Seal
	63	S4	4-φ13.5Diamond Flange, Pilotφ80x6	3	Straight Shaftφ25.4, Parallel Key6.35x6.35x31.75 (M8),Length40	MA	M18x1.5,M14x1.5,Subplate4-M8			B	Black Paint		
	80	SA4	6-φ13.5Diamond Flange, Pilotφ82.5x6	4	Straight Shaftφ20, Parallel Key6x6x32,Length40	R	ZG1/2,G1/4,Subplate4-M8			S	Silver Gray Paint		
	100	S6	4-3/8-16UNCSquare Flange, Pilotφ44.4x2.8	5	Straight-sided Spline Shaft6-25.32x21.47x6.25, Length40	S	7/8-14UNF 'O'-ring,7/16-20UNF,Subplate4-5/16-18UNC						
	125	SH4	**Note: Type S Oil Port**	6	Straight-sided Spline Shaft6-25x21x6, Length40	P	1/2-14NPTF,7/16-20UNF,Subplate4-5/16-18UNC						
	160			20	Straight-sided Spline Shaft6-30x26x6, Grooved, Length40, M8	F	G3/8, Drain Port G1/4, Subplate 4-M8						
	200	L1	4-φ11Square Flange, Pilotφ80x6	P2	Straight Shaftφ30, Parallel Key8x7x32,Length43								
	250	LA1	4-φ11Square Flange, Pilotφ82.55x6	A	Straight Shaftφ25, Parallel Key8x7x32,Length43.2		**Note: For L and B series codes (straight port and angled port), the flange/pilot housing and port surface have no subplate mounting thread.**						
	315			B	Straight Shaftφ32, Parallel Key10x8x45,Length56								
	400		**Note: Type L Oil Port (Straight Port)**	C	Straight Shaftφ25.4, Parallel Key6.35x6.35x31.75,Length43.2								
	500	B1	4-φ11Square Flange, Pilotφ82.55x6	E	Straight-sided Spline Shaft6-25.32x21.47x6.25, Length43.2,M8								
		B2	4-φ11Square Flange, Pilotφ80x6	F	Shaft Diameter Φ31.75, Length 46.15, Imperial Spline 14-DP12/24, 3/8-16UNC								
			Note: Type B port (angled port).	G	Straight Shaftφ31.75, Parallel Key7.96x7.96x31.75,Length46								
				T3	Tapered Shaftφ31.75, Taper1:8, Taper Length35, Parallel Key7.96x7.96x31.75								

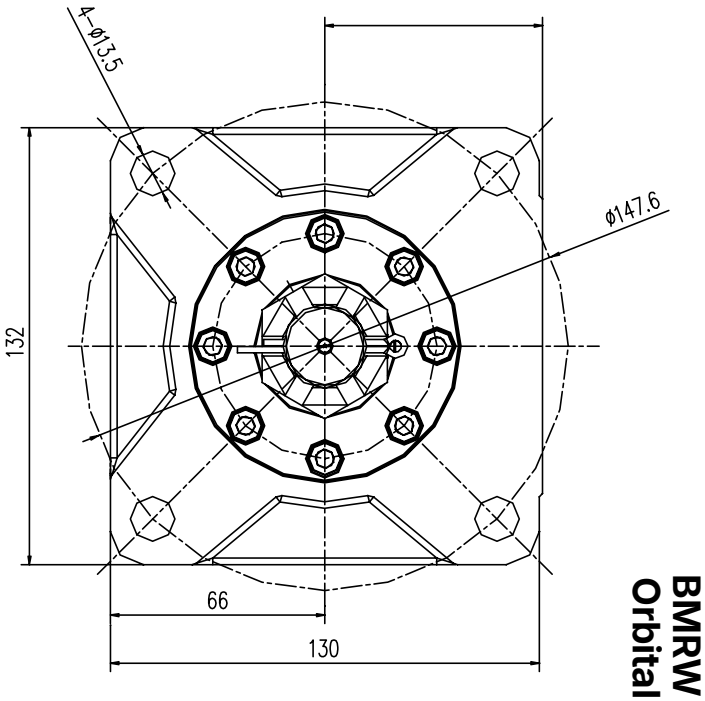
1	2	3	4	5	6	7	8	
BM2H								

POS.1	2	3		4		5		6		7		8	
Structure Code	Displacement	Flange / Pilot		Shaft Extension		Oil Port / Drain Port		Rotation Direction		Paint Option		Special Function	
BM2H **(Side Port)**	25	H2	2-φ13.5Diamond Flange, Pilotφ82.5x2.8	1	Straight Shaftφ25, Parallel Key8x7x32,Length40,M8	G	G1/2,G1/4	None	Standard	00	Unpainted	None	Standard
	40	H4	4-3/8-16UNCSquare Flange, Pilotφ44.4x2.8 4-M10Square Flange, Pilotφ44.4x2.8	2	Straight-sided Spline Shaft6-25x20.2x5, Length40,M8	S	7/8-14UNF 'O'-ring,7/16-20UNF	R	Reverse	None	BluePaint	H	High-Pressure Shaft Seal
	50	H5		3	Straight Shaftφ25.4, Parallel Key6.35x6.35x31.75,Length40,M8	P	1/2-14NPTF,7/16-20UNF			B	Black Paint		
	63			4	Straight Shaftφ20, Parallel Key6x6x32,Length40,M8	T	3/4-16UNF 'O'-ring,7/16-20UNF			S	Silver Gray Paint		
	80			5	Straight-sided Spline Shaft6-25.32x21.47x6.25, Length40,M8	B4	φ10,7/16-20UNF,Subplate4-5/16-18UNC						
	100			6	Straight-sided Spline Shaft6-25x21x6, Length40,M8	B5	φ10,G1/4,Subplate4-M8						
	125			P2	Straight Shaftφ30, Parallel Key8x7x32,Length43,M8	M1	M18x1.5,M10x1						
	160			A	Straight Shaftφ25, Parallel Key8x7x32,Length43.2,M8	R	ZG1/2,G1/4						
	200			B	Straight Shaftφ32, Parallel Key10x8x45,Length56,M8								
	250			C	Straight Shaftφ25.4, Parallel Key6.35x6.35x31.75,Length43.2,M8								
	315			E	Straight-sided Spline Shaft6-25.32x21.47x6.25, Length43.2,M8								
	400			F	Shaft Diameter Φ31.75, Length 46.15, Imperial Spline 14-DP12/24, 3/8-16UNC								
	500			G	Straight Shaftφ31.75, Parallel Key7.96x7.96x31.75,Length46, 3/8-16UNC Straight Shaftφ25.4, Woodruff Key25.4x6.35,Length40,1/4-20UNC								
				K									
				T3	Tapered Shaftφ31.75, Taper1:8, Taper Length35, Parallel Key7.96x7.96x31.75								

Note: When using the ordering information, select the codes for motor structure, displacement, mounting flange, shaft extension, inlet/outlet ports, etc. from the colored positions on the left and write them to us in the above format. If the selected specification is not listed above or special requirements are needed, please contact us.

BMRW Orbital Hydraulic Motor





型号	L	L1
BMRW-50	113	9
BMRW-80	118.5	14.5
BMRW-100	122	18
BMRW-125	126.5	22.5
BMRW-160	133	29
BMRW-200	139.5	35.5
BMRW-250	148.5	44.5
BMRW-315	160	56
BMRW-400	176	72
BMRW-500	193.5	89.5

Note: Motor rotation direction is the same as BM2H.

连接形式 / 代号	P(A/B)	T
G(深)	G1/2(15)	G1/4(12)
S(深)	7/8-14UNF 'O'-ring(17)	7/16-20UNF(12)
M(深)	M22X1.5(15)	M14X1.5(12)
P(深)	1/2-14NPTF(15)	7/16-20UNF(12)

Ordering Information

	1	2	3	4	5	6	7	8
	BMRW							

POS.1R	2	3		4		5		6		7		8	
Structure Code	Displacement	Flange / Pilot		Shaft Extension		Oil Port / Drain Port		Rotation Direction		Paint Option		Special Function	
BMRW (Wheel Motor)	50	None	4-φ13.5Wheel Flange, Pilotφ82.5x9	T1	Tapered Shaftφ35, Taper1:10, Taper Length36, Parallel Key6X6X20,Parallel to Axis	G	G1/2,G1/4	None	Standard	00	Unpainted	None	Standard
	80					M	M22x1.5,M14x1.5	R	Reverse	None	BluePaint	H	High-Pressure Shaft Seal
	100			T3	Tapered Shaftφ31.75, Taper1:8, Taper Length35, Parallel Key7 .96x7 .96x31.75, Parallel to Taper	S	7/8-14UNF 'O'-ring,7/16-20UNF 1/2-			B	BlackPaint		
	125			B	Straight Shaftφ32,Length56, Parallel Key10x8x45	P	14NPTF,7/16-20UNF			S	Silver Gray Paint		
	160			F	Involute Spline Shaftφ31.75,Length46, 14-DP12/24								
	200			FD	Involute Spline Shaftφ31.75,Length56, 14-DP12/24								
	250			G	Straight Shaftφ31.75, Length46, Parallel Key7 .96x7 .96x31.75								
	315												
	400												
	500												

BM2ZF Orbital Hydraulic Motor

BM2ZF Series built-in brake orbital hydraulic motor is a hydraulic motor with a mechanical device added inside the BM2 Series shaft-distribution orbital hydraulic motor to provide braking function. This series has the following performance features:

*Advanced gerotor parameter design provides low starting pressure, high efficiency, good efficiency retention, and smooth operation.

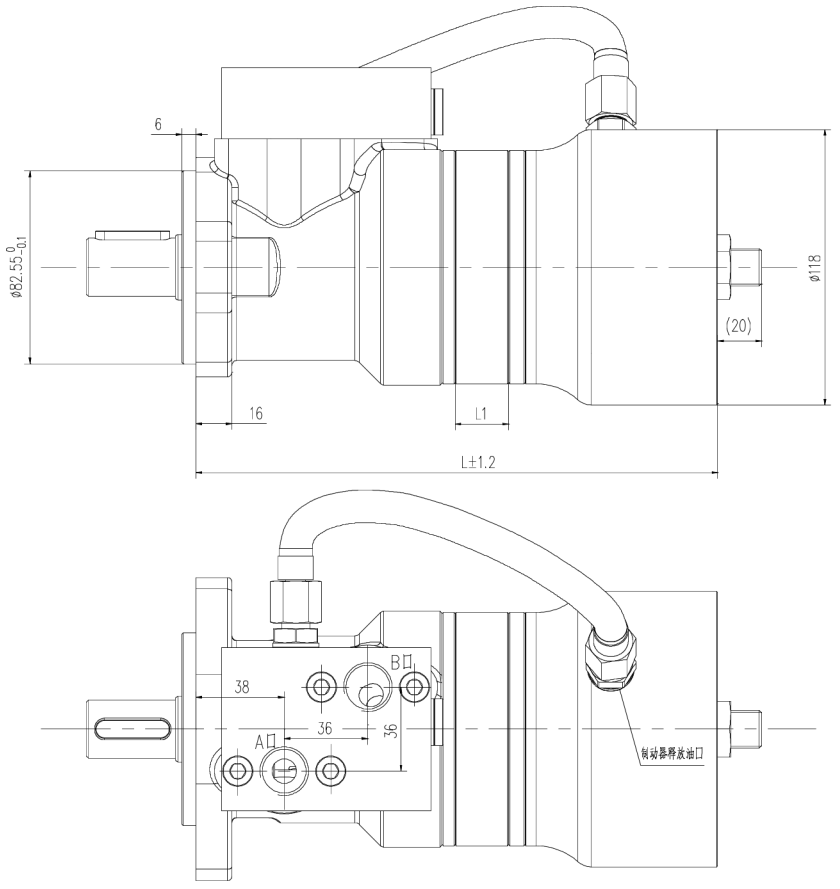
*High-pressure shaft seal can be used; the motor is only allowed for single use and not for series connection.

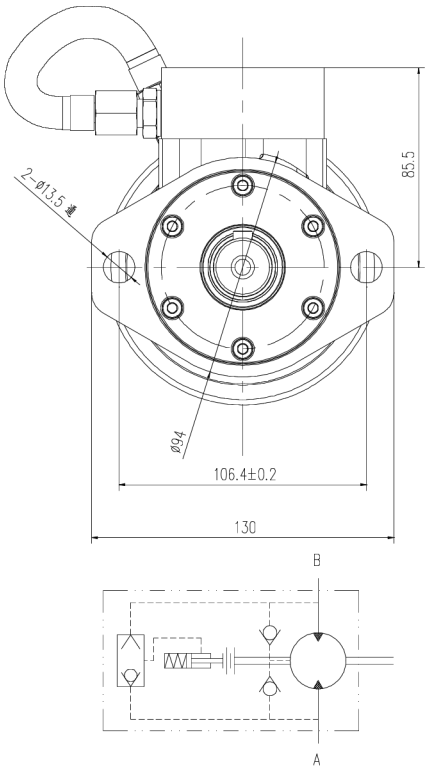
*Special drive shaft design provides long motor service life.

*Special system parameter design can meet low-noise requirements.

*The port surface connects with a matching shuttle valve, with compact structure and easy installation.

*The built-in brake is compact, has high braking force, and is convenient for integrated use.





代号 \ 连接形式	P(A/B)
A(深)	G1/2(15)
D(深)	M22X1.5(15)

型号	BM2ZF-80	100	125	160	200	250	315	400
L1	14.5	18	22.5	29	35.5	44.5	56	72
L	216	219.5	224	230.5	237	246	257.5	273.5

*The built-in brake is a normally closed full-disc static brake. Notes for use are as follows:

When the motor is operating, the brake release port pressure must be greater than 2.2 MPa; after the motor stops in braking state, the brake release port pressure must be less than

1.7 MPa, preferably 0 MPa. Therefore, note that the back pressure of the oil circuit where the brake is located should preferably be 0 MPa during use.

Ordering Information

1	2	3	4	5	6	7	8
BM2ZF –	☐	– ☐	– ☐	– ☐	– ☐	– ☐	– ☐

POS.1	2	3		4		5		6		7		8	
Structure Code	Displacement	Flange / Pilot		Shaft Extension		Oil Port		Rotation Direction		Paint Option		Special Function	
BM2ZF (Brake Motor Connected with Shuttle Valve)	80	S2	2-φ13.5Diamond Flange, Pilotφ82.5x6 4-φ13.5Diamond Flange, Pilotφ82.5x6	A	Straight Shaftφ25, Parallel Key8x7x32,Length43.2	A	G1/2	None	Standard	00	Unpainted	None	Standard
	100	S4		B	Straight Shaftφ32, Parallel Key10x8x45,Length56	D	M22x1.5	R	Reverse	None	Blue Paint		
	125			C	Straight Shaftφ25.4, Parallel Key6.35x6.35x31.75,Length43.2					B	Black Paint		
	160			E	Straight-sided Spline Shaft6-25.32x21 .47x6.25, Length43.2					S	Silver Gray Paint		
	200												
	250												
	315												
	400												

Oil port thread is the matching connection thread for the shuttle valve.

Shaft extension type is the same as BM2 shaft extension dimensions.

BM2ZS Orbital Hydraulic Motor

BM2ZS Series built-in brake orbital hydraulic motor is an orbital hydraulic motor with a mechanical device added inside the BM2 Series shaft-distribution orbital hydraulic motor to provide braking function. This series has the following performance features:

*Advanced gerotor parameter design provides low starting pressure, high efficiency, good efficiency retention, and smooth operation.

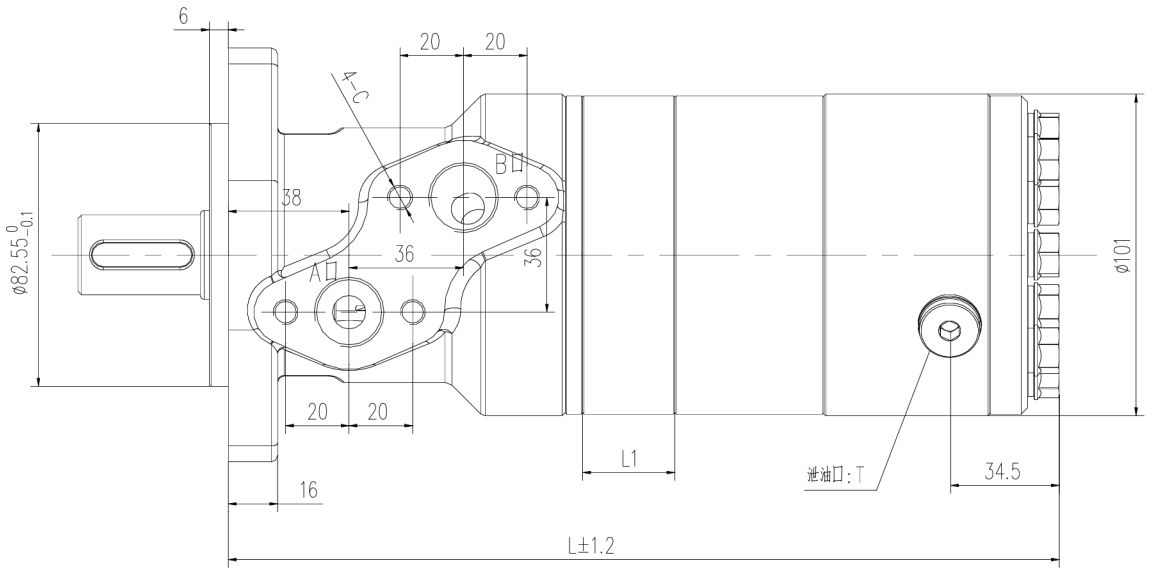
*High-pressure shaft seal can be used; the motor is only allowed for single use and not for series connection.

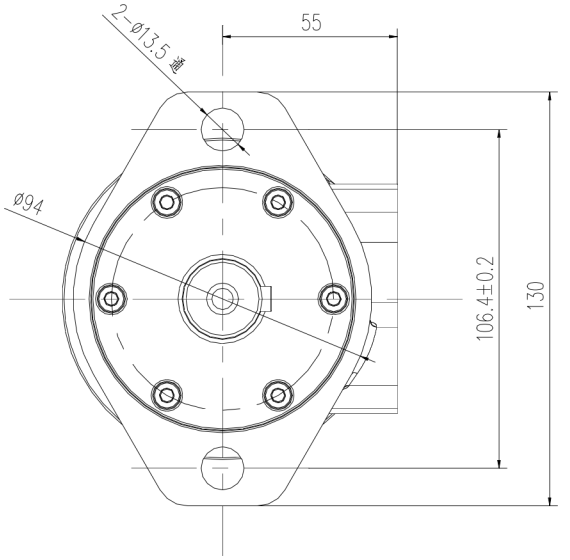
*Special drive shaft design provides long motor service life.

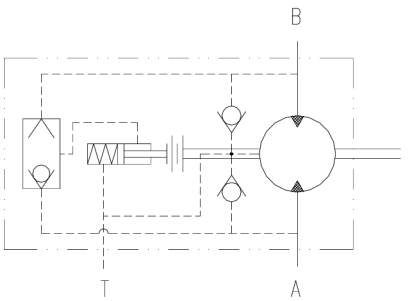
*Special system parameter design can meet low-noise requirements.

*The motor has a built-in shuttle valve, with compact structure and easy installation.

*The built-in brake is compact, has high braking force, and is convenient for integrated use.







连接形式 / 代号	P(A/B)	4-C	T
A(深)	G1/2(15)	M8(13)	G1/4(12)
D(深)	M22X1.5(15)	M8(13)	M14X1.5(12)

型号	BM2ZS-80	100	125	160	200	250	315	400
L1	14.5	18	22.5	29	35.5	44.5	56	72
L	247	250.5	255	261.5	268	277	288.5	304.5

*The built-in brake is a normally closed full-disc static brake. Notes: when the motor is operating, port T must be connected to the return line to the tank; the initial pressure for motor start must be greater than 2.2 MPa. After the motor stops in braking state, the internal residual pressure must be less than 1.7 MPa, preferably 0 MPa. Therefore, note that the brake circuit back pressure should preferably be 0 MPa.

Ordering Information

1	2	3	4	5	6	7	8
BM2ZS	–	–	–	–	–	–	–	–

POS.1	2	3		4		5		6		7		8	
Structure Code	Displacement	Flange / Pilot		Shaft Extension		Oil Port / Drain Port		Rotation Direction		Paint Option		Special Function	
BM2ZS (Integral Shuttle Valve Brake Motor)	80	S2	2-φ13.5Diamond Flange, Pilotφ82.5x6	A	Straight Shaftφ25, Parallel Key8x7x32,Length43.2	A	G1/2,G1/4,Subplate4-M8	None	Standard	00	Unpainted	None	Standard
	100	S4	4-φ13.5Diamond Flange, Pilotφ82.5x6	B	Straight Shaftφ32, Parallel Key10x8x45,Length56	D	M22x1 .5,M14x1 .5,Subplate4-M8	R	Reverse	None	Blue Paint	H	High-Pressure Shaft Seal
	125	L1	4-φ11Square Flange, Pilotφ80x6	C	Straight Shaftφ25.4, Parallel Key6					B	Black Paint		
	160			E	.35x6.35x31.75,Length43.2 Straight-sided Spline Shaft6-25.32x21 .47x6.25, Length43.2		Note: L and B series codes (straight port and angled port) flange/pilot housing, port surface no subplate mounting thread.			S	Silver Gray Paint		
	200												
	250												
	315												
	400												

BM2ZY Orbital Hydraulic Motor

BM2ZY Series built-in brake orbital hydraulic motor is a hydraulic motor with a mechanical device added inside the BM2 Series shaft-distribution orbital hydraulic motor to provide braking function. This series has the following performance features:

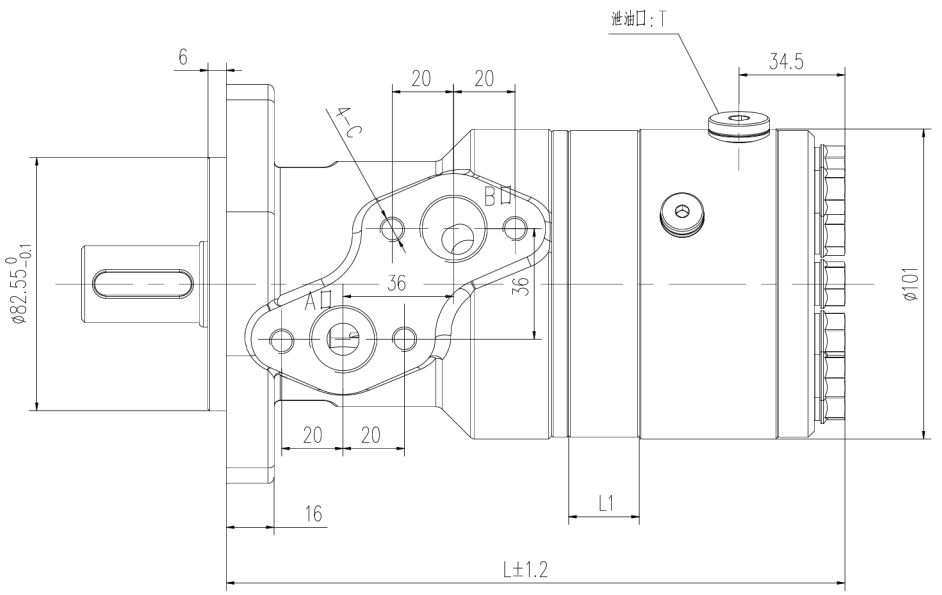
*Advanced gerotor parameter design provides low starting pressure, high efficiency, good efficiency retention, and smooth operation.

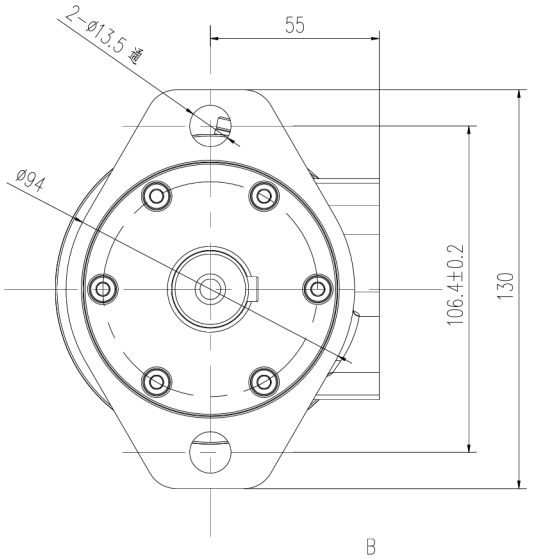
*High-pressure shaft seal can be used; the motor is only allowed for single use and not for series connection.

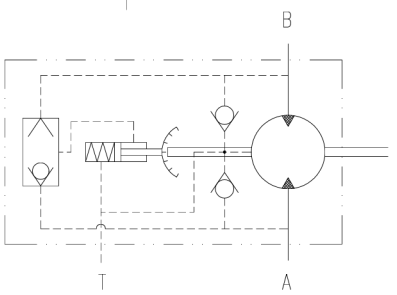
*Special coupling design ensures reliable motor operation.

*The built-in brake features point braking, with 6 braking points in one motor revolution. When stopping is required, the motor may rotate up to 60° before braking; it cannot stop rotation at any time and cannot be used for precise positioning.

*The motor has a built-in shuttle valve, featuring compact size and easy installation.







代号 \ 连接形式	P(A/B)	4-C	T
A(深)	G1/2(15)	M8(13)	G1/4(12)
D(深)	M22X1.5(15)	M8(13)	M14X1.5(12)

型号	BM2ZY-80	100	125	160	200	250	315	400
L1	14.5	18	22.5	29	35.5	44.5	56	72
L	193	196.5	201	207.5	214	223	234.5	250.5

*The built-in brake is a normally closed point-braking static brake. Notes for use are as follows:

When the motor is operating, port T must be connected to the return line to the tank; the initial pressure for motor start must be greater than 2.4 MPa. After the motor stops in braking state, the internal residual pressure must be less than 1.7 MPa, preferably 0 MPa. Therefore, note that the brake circuit back pressure should preferably be 0 MPa.

Ordering Information

1	2	3	4	5	6	7	8
BM2ZY							

POS.1	2	3		4		5		6		7		8	
Structure Code	Displacement	Flange / Pilot		Shaft Extension		Oil Port / Drain Port		Rotation Direction		Paint Option		Special Function	
BM2ZY (Six-Point Brake Motor)	80	S2	2-φ13.5Diamond Flange, Pilotφ82.5x6	A	Straight Shaft φ25,Length43.2, Parallel Key8x7x32	A	G1/2,G1/4,Subplate4-M8	None	Standard	00	Unpainted	None	Standard
	100	S4	4-φ13.5Diamond Flange, Pilotφ82.5x6 4-φ11Square Flange, Pilotφ80x6	B	Straight Shaft φ32, Parallel Key10x8x45,Length56	D	M22x1.5,M14x1.5,Subplate4-M8	R	Reverse	None	Blue Paint		
	125	L1		C	Straight Shaft φ25.4, Parallel Key6.35x6.35x31.75,Length43.2 Straight-sided Spline					B	Black Paint		
	160			E	Shaft6-25.32x21.47x6.25, Length43.2					S	Silver Gray Paint		
	200						Note: L and B series codes (straight port and angled port) flange/pilot housing, port surface no subplate mounting thread.						
	250												
	315												
	400												

CONTACT
YUNLINK HYDRAULICS

For product selection, quotation and OEM/ODM inquiries, please contact us.

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Hebei Province, China

WHEN SENDING AN INQUIRY, PLEASE INCLUDE:

1. Product model
2. Thread size / connection type
3. Required pressure and flow rate
4. Quantity
5. Application or equipment model