

BMP Series

Low Speed High Torque Hydraulic Motors



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The BMP Low Speed High Torque Gerotor Motors are available with displacements from 36 - 500cc/rev.

They are very compact & efficient in design with high pressure seals.

The BMP's have a continuous speed range of 7~1500rpm and continuous torque up to 385Nm, depending on displacement.

We offer various shaft and mounting options with standard BSPP Ports and an optional case drain.



The BMP range of motors come standard with needle bearings. These needle bearings allow a higher permissible radial load and reduce the risk of metal binding.

Applications commonly include:

- Augers
- Harvesters
- Seeders
- Conveyors
- Industrial Sweepers
- Machine Tools
- Rail Equipment
- Forestry
- Concrete Equipment
- Lawn Mowers
- Marine
- Anchors
- Winches
- Many more

Replaces: OMP, MP, WP, MGP/GMP, BGE

Max. Operating Pressure MPa		Speed Range rpm	Max. Output Power kW
Continuous	Intermittent		
14	17.5	7~1500	11

Specifications

		BMP36	BMP50	BMP80	BMP100	BMP125	BMP160	BMP200	BMP250	BMP315	BMP400	BMP500
Displacement (cm ³ /rev)		36	51.7	77.7	96.2	120.2	157.2	194.5	240.3	314.5	389.5	486.5
Max Speed (rpm)	Cont	1500	1150	770	615	490	383	310	250	192	155	120
	Int	1650	1450	960	770	615	475	385	310	240	190	150
Max Torque (Nm)	Cont	55	100	146	182	236	302	360	380	375	360	385
	Int	76	128	186	227	290	370	440	460	555	525	560
	Peak	96	148	218	264	360	434	540	550	650	680	680
Max Output (kW)	Cont	8.0	10.0	10.0	11.0	10.0	10.0	10.0	8.5	7.0	6.0	5.0
	Int	11.5	12.0	12.0	13.0	12.0	12.0	12.0	10.5	8.5	7.0	6.0
Max Pressure Drop (MPa)	Cont	12.5	14	14	14	14	14	14	11	9	7	6
	Int	16.5	17.5	17.5	17.5	17.5	17.5	17.5	14	14	10.5	9
	Peak	22.5	22.5	22.5	22.5	22.5	22.5	22.5	18	16	14	12
Max Flow (L/min)	Cont	55	60	60	60	60	60	60	60	60	60	60
	Int	60	75	75	75	75	75	75	75	75	75	75
Weight (Kg)		5.6	5.6	5.7	5.9	6.0	6.2	6.4	6.7	6.9	7.4	8



Adl: sales@timalco.com.au
 Mel: vicsales@timalco.com.au

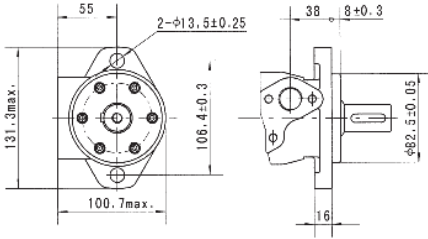


Adl: 08 8262 4333
 Mel: 03 9738 2040

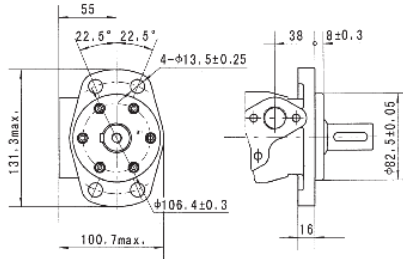


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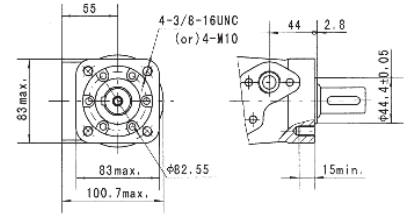
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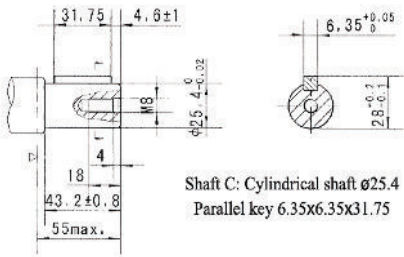
2 Standard SAE 2 Bolt Mount



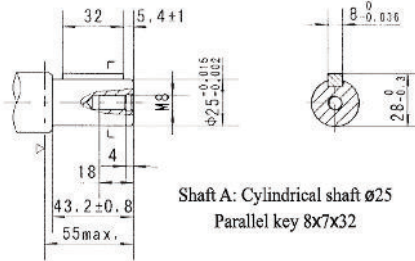
4 SAE A 4 Bolt Magneto Mount



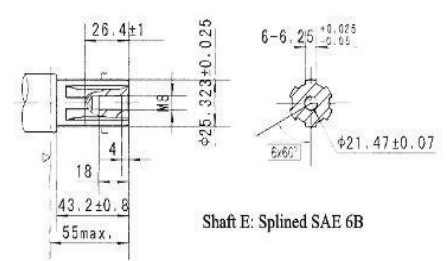
H5 4 Bolt Square Mount



C 1" Keyed Shaft



A 25mm Keyed Shaft



E 6B 1" Splined Shaft



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 Mel: vicsales@timalco.com.au



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 Mel: 03 9738 2040



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Performance Data

cont.
 int.

BMP36 [36cm³/rev]

Pressure MPa		Max. Cont							Max. Int	
		3	6	7	8	10	11	12.5	16.5	
Flow L/min	8	13 214	25 205	29 200	34 194	43 187	48 179			
	15	13 406	25 398	29 391	34 383	43 374	48 366	56 353	75 324	
	20	13 541	24 534	29 528	34 521	43 513	48 500	56 486	76 458	
	30	12 814	24 804	29 792	34 778	43 763	48 749	56 726	76 701	
	35	12 952	23 944	28 930	34 913	43 897	48 879	56 858	76 833	
	40	12 1090	23 1078	28 1064	32 1048	41 1024	47 998	55 977	75 943	
	45	11 1232	22 1218	26 1196	32 1175	41 1149	46 1118	54 1080	74 1044	
	Max. Cont	55	6 1505	15 1494	22 1480	28 1466	37 1438	44 1406	52 1367	71 1309
Max. Int	60	3 1650	11 1640	18 1626	20 1603	30 1571	38 1536	49 1502	67 1446	

BMP50 [51.7cm³/rev]

Pressure MPa		Max. Cont						Max. Int	
		3	6	8	10	12.5	14	16	17.5
Flow L/min	8	20 151	41 134	56 115	69 90	89 56	95 42		
	15	19 286	40 274	56 261	71 243	91 204	100 182	112 139	120 102
	20	18 382	39 373	55 361	71 348	92 318	101 309	117 287	128 251
	30	17 573	38 568	55 558	71 535	91 503	98 488	116 462	124 440
	35	17 670	38 661	54 652	69 640	89 606	98 589	117 562	124 548
	45	14 863	36 858	53 849	67 837	88 807	98 788	114 764	123 746
	55	12 1055	33 1042	50 1028	65 1010	85 979	96 963	111 947	121 920
	Max. Cont	60	10 1150	32 1143	47 1126	64 1111	83 1079	94 1065	108 1043
Max. Int	75	6 1440	25 1430	42 1416	56 1395	76 1367	87 1351	101 1335	112 1312

BMP80 [77.7cm³/rev]

Pressure MPa		Max. Cont						Max. Int	
		3	6	8	10	12.5	14	16	17.5
Flow L/min	8	32 97	62 87	85 74	104 55	129 33	144 22		
	15	32 186	63 181	84 170	107 154	126 132	144 118	165 86	
	20	31 251	63 243	84 236	107 225	132 207	146 196	168 178	185 155
	30	31 381	62 379	83 368	106 355	131 332	146 316	168 285	186 263
	35	30 443	59 435	81 426	102 415	130 397	144 383	167 361	185 342
	45	25 570	58 564	79 554	100 543	126 526	142 509	165 483	182 458
	55	23 696	57 685	78 672	97 656	124 643	140 630	161 602	179 579
	Max. Cont	60	20 761	53 753	75 744	94 736	120 720	137 706	160 681
Max. Int	75	14 948	44 940	67 931	87 920	112 906	151 890	169 871	169 854

BMP100 [96.2cm³/rev]

Pressure MPa		Max. Cont						Max. Int	
		3	6	8	10	12.5	14	16	17.5
Flow L/min	8	40 81	77 75	105 69	130 57	161 36	180 24		
	15	39 152	77 149	106 145	130 140	160 122	180 103	208 81	
	20	36 204	74 200	104 195	128 190	161 177	179 166	205 148	227 133
	30	33 308	72 304	103 298	125 290	160 280	177 268	203 255	225 231
	35	30 360	70 352	98 343	122 331	159 320	176 306	202 294	224 275
	45	29 462	67 458	95 451	118 443	155 433	174 419	200 402	220 383
	55	25 566	64 558	93 549	116 540	152 529	170 515	198 498	217 478
	Max. Cont	60	22 618	60 611	91 601	114 589	149 580	167 570	194 558
Max. Int	75	15 771	54 763	83 755	106 744	141 735	160 724	186 708	205 693

Torque Nm
 Speed rpm



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Performance Data

cont.
 int.

BMP125 [120.2cm³/rev]

Pressure MPa

Max.
Cont

Max.
Int

	3	6	8	10	12.5	14	16	17.5	
Flow L/min	8	51 63	98 60	137 55	168 47	208 28	236 15		
	15	51 121	101 116	138 110	168 102	209 89	236 73	267 48	
	20	48 162	98 158	135 153	167 148	211 137	237 128	269 109	290 94
	30	46 243	96 239	132 234	164 227	209 216	232 202	264 189	287 176
	35	42 284	92 279	130 274	160 269	206 259	229 247	260 231	284 222
	45	37 370	89 362	125 355	157 348	201 340	224 327	261 310	281 296
	55	33 452	84 446	122 438	152 431	196 420	218 412	252 402	275 384
	Max. Cont	29 490	78 482	117 475	146 468	191 459	215 448	248 439	272 427
Max. Int	18 615	66 606	107 598	133 586	179 575	202 563	236 549	260 528	

BMP160 [157.2cm³/rev]

Pressure MPa

Max.
Cont

Max.
Int

	3	6	8	10	12.5	14	16	17.5	
Flow L/min	8	62 49	120 48	170 46	212 42	263 26	290 14		
	15	60 93	122 91	172 88	215 85	264 76	294 68	340 48	
	20	57 125	120 123	170 120	214 117	262 110	290 106	340 92	371 81
	30	53 187	115 184	164 181	206 178	259 175	288 168	335 155	368 139
	35	49 220	110 216	160 213	202 209	255 205	284 202	328 192	362 176
	45	44 283	102 280	154 276	196 272	248 267	278 260	321 250	358 238
	55	40 345	99 342	148 340	191 336	243 331	272 328	316 320	351 303
	Max. Cont	33 377	94 374	144 371	188 367	236 363	267 359	308 353	345 342
Max. Int	19 473	80 469	124 465	170 459	216 453	252 447	296 440	325 424	

BMP200 [194.5cm³/rev]

Pressure MPa

Max.
Cont

Max.
Int

	3	6	8	10	12.5	14	16	17.5	
Flow L/min	8	79 40	164 39	207 38	250 35	320 28	360 22		
	15	78 76	162 75	205 74	250 71	322 66	361 61	410 51	
	20	76 100	158 98	203 97	247 95	320 92	358 89	403 73	422 57
	30	70 151	153 149	200 147	245 145	315 142	350 139	398 131	417 120
	35	66 177	149 175	194 173	232 171	297 168	343 166	386 160	415 149
	45	63 228	146 226	190 224	230 221	294 218	340 215	383 210	410 198
	55	54 280	140 278	181 276	224 274	286 271	334 269	371 263	400 250
	Max. Cont	38 304	127 302	164 300	212 297	270 294	325 291	356 286	395 272
Max. Int	22 382	96 378	145 374	192 371	235 368	293 364	321 360	367 350	

BMP250 [240.3cm³/rev]

Pressure MPa

Max.
Cont

Max.
Int

	3	6	8	10	12.5	14	16	17.5	
Flow L/min	8	96 30	190 28	268 24	326 21	403 11			
	15	98 60	194 58	270 54	327 50	405 40	450 30	510 12	
	20	92 82	188 80	267 77	325 76	405 69	456 64	514 52	565 38
	30	85 123	180 120	259 118	320 114	400 106	448 98	513 87	561 76
	35	77 143	176 141	252 139	311 135	389 128	436 122	504 112	557 101
	45	70 185	168 182	243 178	300 174	377 168	428 161	495 152	543 139
	55	63 226	159 223	237 218	290 213	369 209	417 202	483 193	531 185
	Max. Cont	60 248	150 246	228 243	280 239	358 233	407 226	473 215	520 207
Max. Int	34 309	128 306	202 302	264 297	342 292	387 286	448 278	488 264	

Torque Nm
 Speed rpm



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 Mel: vicsales@timalco.com.au



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Performance Data

□ cont.
 ■ int.

BMP315 [314.5cm³/rev]

Pressure MPa

Max. Cont Max. Int

	3	5	7	9	10	12.5	14	
Flow L/min	8	123 25	215 23	292 21	368 17	405 11		
	15	118 47	211 46	287 44	367 40	404 28	495 21	568 10
	20	110 62	205 61	278 60	360 57	395 46	237 40	566 36
	30	101 94	196 93	271 91	349 88	388 76	490 68	565 65
	35	96 109	188 107	264 106	341 104	382 96	478 89	557 84
	45	89 141	180 140	254 138	337 135	372 127	468 120	553 115
	55	76 173	166 172	239 170	325 167	362 160	457 152	548 143
	Max. Cont	60	65 188	154 186	227 184	308 182	348 178	443 172
Max. Int	75	40 236	120 234	201 232	279 228	323 226	418 223	497 214

BMP400 [389.5cm³/rev]

Pressure MPa

Max. Cont Max. Int

	3	4.5	5.5	6.5	8	10	12.5	
Flow L/min	8	166 20	232 19	287 18	340 16	418 12		
	15	165 38	228 36	277 35	337 33	417 31	496 27	612 21
	20	162 50	223 49	273 49	331 48	413 45	495 41	608 35
	30	154 76	216 75	266 74	318 73	405 71	486 67	600 60
	35	146 88	210 87	256 87	312 86	395 83	480 80	588 75
	45	132 114	197 113	243 112	300 110	383 108	464 106	576 99
	55	117 139	184 137	227 136	283 135	363 135	450 132	552 123
	Max. Cont	60	102 153	163 152	215 150	272 148	347 146	436 143
Max. Int	75	53 191	128 189	182 187	234 185	318 183	391 180	484 176

BMP500 [486.5cm³/rev]

Pressure MPa

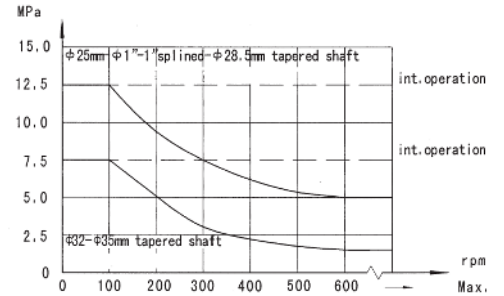
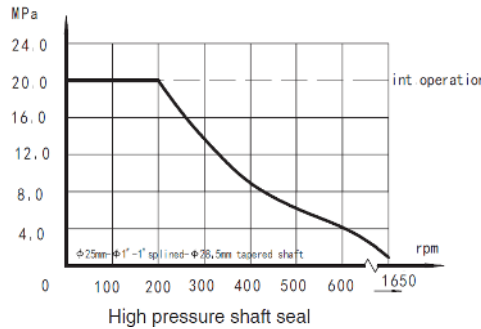
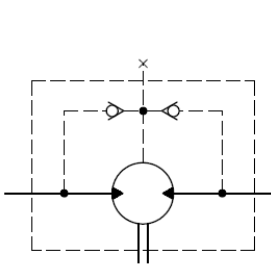
Max. Cont

Max. Int

	1.5	3	4.5	6	7	8	9	
Flow L/min	4	96 7	194 6	285 4				
	8	98 15	201 15	304 14	391 14	443 12	512 9	574 7
	15	96 30	192 30	284 29	380 28	421 26	496 23	550 22
	20	96 40	191 40	280 40	372 39	418 37	493 33	546 31
	30	91 61	185 60	272 60	360 58	412 56	486 53	541 50
	40	86 81	172 80	261 80	343 79	408 76	480 73	538 70
	50	78 102	160 101	241 100	332 98	391 96	466 93	528 90
	Max. Cont	60	66 122	134 121	213 120	305 119	371 117	438 114
Max. Int	75	52 143	111 142	189 141	292 139	344 137	418 135	475 131
		35 153	83 152	154 151	241 150	312 149	389 147	448 144

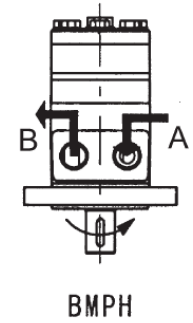
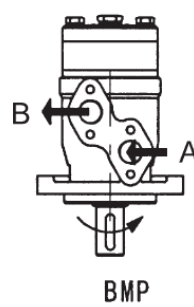
Torque Nm
 Speed rpm

Permissible Shaft Seal Pressure



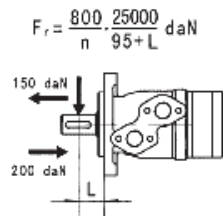
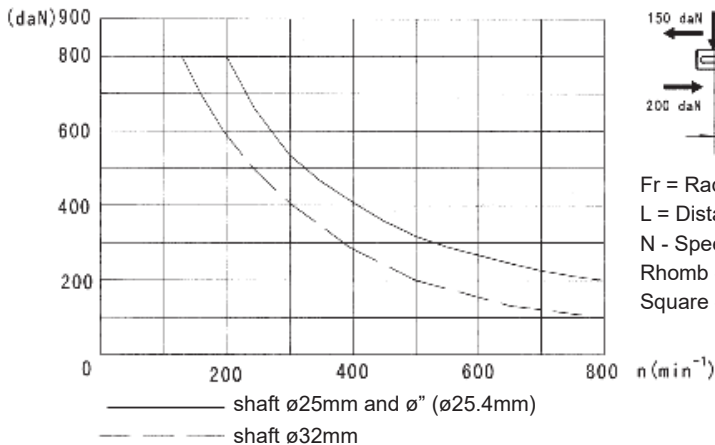
Direction of Shaft Rotation: Standard

When facing shaft end of motor, shaft to rotate:
 - Clockwise when port "A" is pressurized.
 - Counter-clockwise when port "B" is pressurized.



Status of the shaft's radial force

(Standard motor with journal bearing)



Oil Flow in Drain Line

The table shows the Max. oil flow in the drain line at a return pressure less than 0.5-1MPa.

Pressure Drop (MPa)	Viscosity (mm ² /s)	Oil flow in the drain line (L/min)
10	20	2.5
	35	1.8
14	20	3.5
	35	2.8