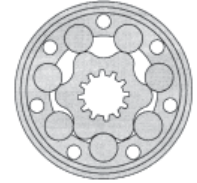




FLUID COMPONENTS, INC.

Hydraulic Motor Model BMRSZ

The BMRSZ series advanced **ROLORTORC™** gear set, shaft distribution flow, hydraulic motor is a compact, low noise, high efficient high torque low speed design. The **ROLORTORC™** gear set also affords a reliable smooth start up at low pressure. BMRSZ motors are available with optional radial needle bearings (by special order) for side load applications.



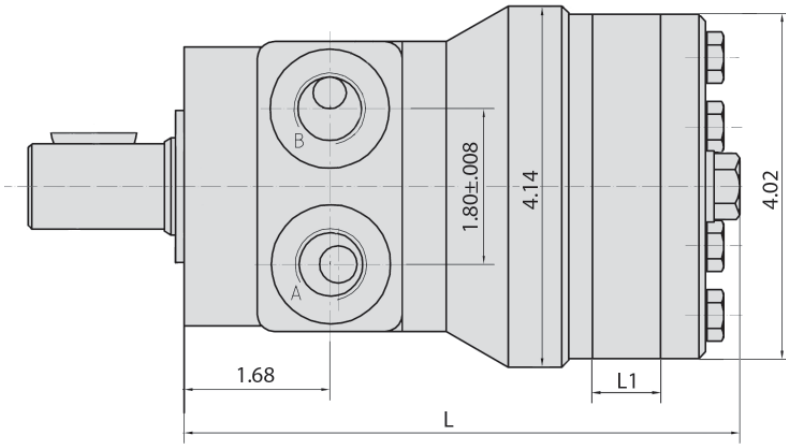
The low weight advanced construction design is manufactured in accordance with the requirements of ISO 9000-2000 quality system.

Technical Specifications

MODEL		BMRS 50	BMRS 80	BMRS 100	BMRS 125	BMRS 160	BMRS 200	BMRS 250	BMRS 315	BMRS 400
Displacement <i>in³/rev</i> <i>(cm³/rev)</i>		3.15 (51.7)	4.91 (80.5)	6.13 (100.5)	7.71 (126.3)	9.81 (160.8)	12.26 (200.9)	15.41 (252.6)	19.62 (321.5)	24.53 (401.9)
Max Speed <i>(rpm)</i>		775	750	600	475	375	300	240	190	160
Max Torque <i>in•lb^f</i>	Cont	823	1345	1717	2098	2744	3266	3363	3363	3363
	Int.	1044	1673	2089	2620	3346	3983	4160	4160	4160
Max Differential <i>psi</i>	Cont	2031	2031	2031	2031	2031	2031	1595	1305	1015
	Int.	2538	2538	2538	2538	2538	2538	2031	1595	1305
Max Flow <i>(gpm)</i>		10.57	15.85	15.85	15.85	15.85	15.85	15.85	15.85	15.85
Weight <i>(lbs)</i>		14.33	15.21	15.43	16.09	16.53	17.64	18.74	19.84	24.25

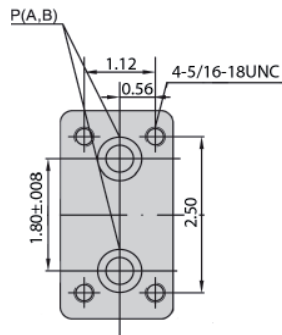
Continuous = maximum of continuous operation. Intermittent = maximum operating range for 6 seconds per minute

BMRSZ Installation Data



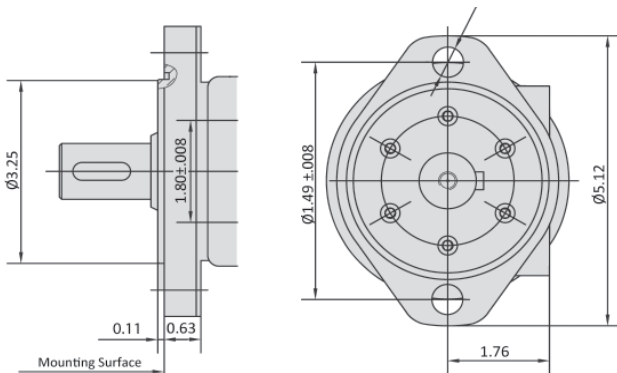
MODEL	L	L1
BMRSZ 50	5.94"	.35"
BMRSZ 80	6.14"	.55"
BMRSZ 100	6.28"	.69"
BMRSZ 125	6.46"	.87"
BMRSZ 160	6.69"	1.10"
BMRSZ 200	6.97"	1.38"
BMRSZ 250	7.32"	1.73"
BMRSZ 315	7.80"	2.21"
BMRSZ 400	8.35"	2.76"

Manifold Mount

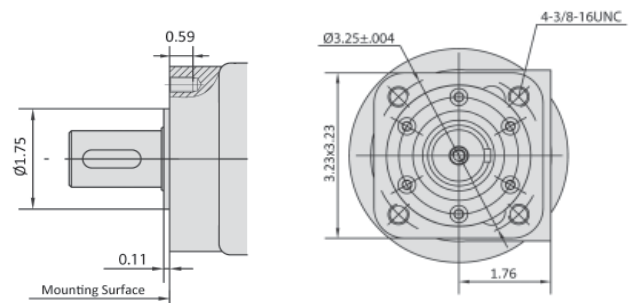


Ports	Ports (A, B)	Drain (T)
SAE	7/8 - 14UNF (depth 0.59)	7/16 - 20UNF (depth 0.47)
NPT	NPTF1/2 (depth 0.59)	7/16 - 20UNF (depth 0.47)
Manifold	Ø0.43 (depth 0.59)	7/16 - 20UNF (depth 0.47)

H2 - SAE "A" 2-Bolt

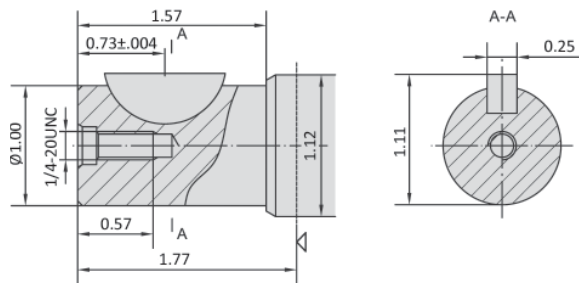


H4 - 4-Bolt

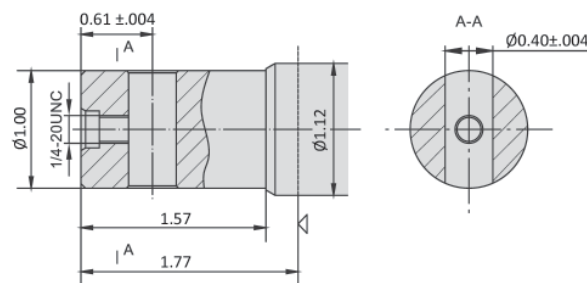


BMRSZ Drive Shaft Data

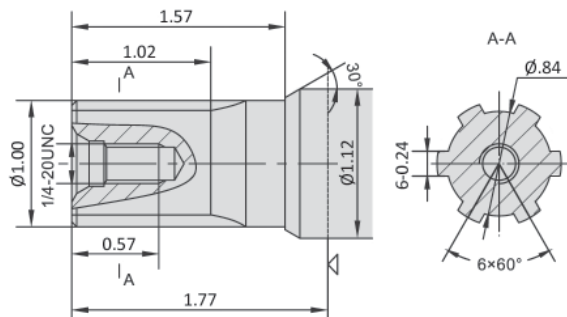
K - 1" Woodruff Key



H - 1" Parallel .40 Dia. Cross Hole



S - SAE 6B Spline



Ordering Example:

Model Displacement Flange Drive Shaft Ports
BMRSZ - 250 H4 - K - S

Model	Displacement	Mounting Flange	Drive Shaft	Port Size
BMRSZ	50 (3.15)	H2 = SAE "A" 2-Bolt	K = 1" Woodruff Key	P = 1/2 NPTF
	80 (4.91)	H4 = 4-Bolt	S = SAE 6B Spline	S = 7/8 -14 SAE
	100 (6.13)		H = 1" Parallel .40 dia.	F = Manifold
	125 (7.71)		Cross Hole	
	160 (9.81)			
	200 (12.26)			
	250 (15.41)			
	315 (19.62)			
	400 (24.53)			

Seal kits for BMRSZ Motors are available for purchase. Order seal kit using item description: "BMRSZ Seal Kit".

BMRSZ 50 3.15 in³/rev (51.7 cm³/rev)										
Pressure (psi →)	725	1015	1305	1450	1740	2031 <i>Max Cont.</i>	2321	2538 <i>Max Int.</i>		
FLOW	(gpm ↓)	Torque (in·lbf) Speed Specification								
	1.32	301	389	513	575	664	779			
		94 rpm	85 rpm	77 rpm	77 rpm	72 rpm	50 rpm			
	2.64	310	398	540	602	699	832	947	1053	
		188 rpm	179 rpm	167 rpm	163 rpm	154 rpm	137 rpm	119 rpm	98 rpm	
	3.96	301	425	549	637	770	885	956	1080	
		285 rpm	279 rpm	271 rpm	263 rpm	252 rpm	232 rpm	213 rpm	187 rpm	
	5.28	301	407	531	602	726	841	965	1106	
		379 rpm	377 rpm	367 rpm	363 rpm	348 rpm	332 rpm	304 rpm	272 rpm	
	7.93	283	381	522	584	699	832	947	1071	
		578 rpm	571 rpm	563 rpm	556 rpm	544 rpm	533 rpm	502 rpm	467 rpm	
	10.57 <i>Max Cont.</i>	266	354	505	575	690	805	929	1062	
		762 rpm	760 rpm	755 rpm	752 rpm	740 rpm	726 rpm	702 rpm	672 rpm	
	11.89	257	345	496	566	682	788	921	1062	
		858 rpm	855 rpm	851 rpm	847 rpm	837 rpm	817 rpm	798 rpm	772 rpm	
	13.21 <i>Max Int.</i>	221	319	460	522	637	743	867	1000	
952 rpm		942 rpm	927 rpm	908 rpm	882 rpm	854 rpm	834 rpm	803 rpm		

BMRSZ 80 4.91 in³/rev (80.5 cm³/rev)										
Pressure (psi →)	725	1015	1305	1450	1740	2031 <i>Max Cont.</i>	2321	2538 <i>Max Int.</i>		
FLOW	(gpm ↓)	Torque (in·lbf) Speed Specification								
	1.32	425	513	743	938	1142				
		61 rpm	58 rpm	52 rpm	46 rpm	40 rpm				
	2.64	443	655	850	938	1115	1283	1505		
		122 rpm	116 rpm	112 rpm	108 rpm	106 rpm	99 rpm	60 rpm		
	5.28	478	673	885	965	1159	1345	1540	1708	
		243 rpm	239 rpm	231 rpm	219 rpm	206 rpm	192 rpm	176 rpm	152 rpm	
	7.93	443	637	850	921	1133	1310	1522	1691	
		362 rpm	358 rpm	356 rpm	350 rpm	349 rpm	335 rpm	325 rpm	300 rpm	
	10.57	398	620	841	921	1106	1292	1514	1664	
		484 rpm	480 rpm	478 rpm	476 rpm	470 rpm	468 rpm	440 rpm	438 rpm	
	13.21	363	602	805	894	1080	1283	1487	1646	
		610 rpm	608 rpm	606 rpm	603 rpm	600 rpm	598 rpm	550 rpm	520 rpm	
	15.85 <i>Max Cont.</i>	310	575	779	850	1062	1257	1452	1611	
		726 rpm	723 rpm	720 rpm	718 rpm	710 rpm	700 rpm	698 rpm	680 rpm	
	18.49	266	513	717	823	1009	1204	1398	1549	
845 rpm		834 rpm	820 rpm	802 rpm	789 rpm	767 rpm	754 rpm	730 rpm		
19.82 <i>Max Int.</i>	168	425	673	779	956	1168	1337	1487		
	910 rpm	895 rpm	881 rpm	867 rpm	852 rpm	830 rpm	806 rpm	787 rpm		

BMRSZ 100		6.13 in ³ /rev (100.5 cm ³ /rev)								
Pressure (psi →)		725	1015	1305	1450	1740	2031 <i>Max Cont.</i>	2321	2538 <i>Max Int.</i>	
FLOW	(gpm ↓)	Torque (in·lbf) Speed Specification								
	1.32	566	797	1044	1186	1363				
		49 rpm	48 rpm	46 rpm	42 rpm	38 rpm				
	2.64	575	823	1080	1186	1372	1620	1859		
		96 rpm	94 rpm	93 rpm	91 rpm	80 rpm	60 rpm	48 rpm		
	5.28	549	823	1071	1195	1354	1629	1841	2089	
		192 rpm	188 rpm	184 rpm	178 rpm	171 rpm	168 rpm	158 rpm	146 rpm	
	7.93	540	797	1044	1151	1328	1593	1770	2053	
		296 rpm	294 rpm	290 rpm	290 rpm	288 rpm	282 rpm	270 rpm	258 rpm	
	10.57	487	761	1018	1115	1292	1602	1823	2018	
		387 rpm	380 rpm	369 rpm	361 rpm	356 rpm	348 rpm	338 rpm	320 rpm	
	13.21	407	682	956	1071	1292	1602	1770	1956	
		484 rpm	479 rpm	472 rpm	463 rpm	452 rpm	445 rpm	428 rpm	410 rpm	
	15.85 <i>Max Cont.</i>	301	549	867	974	1204	1505	1646	1761	
		583 rpm	567 rpm	569 rpm	555 rpm	540 rpm	536 rpm	528 rpm	516 rpm	
	18.49	266	558	859	974	1221	1505	1682	1859	
		680 rpm	672 rpm	662 rpm	650 rpm	640 rpm	635 rpm	620 rpm	606 rpm	
	19.82 <i>Max Int.</i>	177	478	797	938	1151	1460	1664	1770	
728 rpm		720 rpm	710 rpm	695 rpm	681 rpm	667 rpm	650 rpm	634 rpm		

BMRSZ 125		7.71 in ³ /rev (126.3 cm ³ /rev)								
Pressure (psi →)		725	1015	1305	1450	1740	2031 <i>Max Cont.</i>	2321	2538 <i>Max Int.</i>	
FLOW	(gpm ↓)	Torque (in·lbf) Speed Specification								
	1.32	655	938	1239	1443					
		37 rpm	32 rpm	27 rpm	21 rpm					
	2.64	717	1009	1345	1522	1770	1947	2213		
		78 rpm	77 rpm	74 rpm	59 rpm	45 rpm	29 rpm	20 rpm		
	5.28	708	1009	1328	1505	1770	1956	2248	2584	
		157 rpm	156 rpm	154 rpm	151 rpm	146 rpm	142 rpm	120 rpm	114 rpm	
	7.93	690	991	1319	1496	1752	1947	2230	2567	
		232 rpm	230 rpm	228 rpm	222 rpm	220 rpm	218 rpm	199 rpm	170 rpm	
	10.57	682	982	1301	1487	1735	1930	2213	2549	
		312 rpm	311 rpm	307 rpm	300 rpm	298 rpm	284 rpm	270 rpm	252 rpm	
	13.21	549	929	1266	1460	1726	1974	2248	2540	
		391 rpm	388 rpm	384 rpm	380 rpm	372 rpm	362 rpm	346 rpm	330 rpm	
	15.85 <i>Max Cont.</i>	460	867	1204	1416	1691	1947	2213	2496	
		470 rpm	468 rpm	464 rpm	459 rpm	448 rpm	434 rpm	412 rpm	405 rpm	
	18.49	363	797	1151	1381	1655	1903	2142	2461	
		548 rpm	544 rpm	540 rpm	541 rpm	538 rpm	535 rpm	530 rpm	496 rpm	
	19.82 <i>Max Int.</i>	283	699	1115	1310	1593	1841	2071	2319	
586 rpm		583 rpm	578 rpm	570 rpm	560 rpm	546 rpm	532 rpm	520 rpm		

BMRSZ 160										
9.81 in ³ /rev (160.8 cm ³ /rev)										
Pressure (psi →)	725	1015	1305	1450	1740	2031 <i>Max Cont.</i>	2321	2538 <i>Max Int.</i>		
FLOW	(gpm ↓)	Torque (in·lbf) Speed Specification								
	1.32	885	1257	1664	1832					
		29 rpm	26 rpm	21 rpm	19 rpm					
	2.64	921	1292	1691	1868	2168	2496	2921		
		62 rpm	60 rpm	58 rpm	49 rpm	45 rpm	32 rpm	25 rpm		
	5.28	903	1310	1717	1930	2222	2567	2992	3257	
		124 rpm	120 rpm	118 rpm	114 rpm	109 rpm	104 rpm	99 rpm	94 rpm	
	7.93	850	1248	1646	1903	2195	2549	2965	3222	
		183 rpm	181 rpm	179 rpm	176 rpm	166 rpm	158 rpm	144 rpm	132 rpm	
	10.57	770	1204	1593	1823	2195	2531	2921	3169	
		246 rpm	242 rpm	240 rpm	235 rpm	231 rpm	219 rpm	200 rpm	155 rpm	
	13.21	620	1115	1522	1752	2107	2461	2832	3098	
		309 rpm	307 rpm	300 rpm	295 rpm	287 rpm	278 rpm	262 rpm	247 rpm	
	15.85 <i>Max Cont.</i>	513	982	1487	1691	2053	2399	2762	3027	
		371 rpm	367 rpm	359 rpm	354 rpm	346 rpm	338 rpm	323 rpm	306 rpm	
	18.49	416	921	1416	1682	2018	2363	2664	2992	
		435 rpm	430 rpm	421 rpm	415 rpm	403 rpm	393 rpm	381 rpm	365 rpm	
	19.82 <i>Max Int.</i>	301	805	1328	1593	1956	2310	2576	2903	
470 rpm		463 rpm	450 rpm	441 rpm	431 rpm	420 rpm	405 rpm	389 rpm		

BMRSZ 200										
12.26 in ³ /rev (200.9 cm ³ /rev)										
Pressure (psi →)	725	1015	1305	1450	1740	2031 <i>Max Cont.</i>	2321	2538 <i>Max Int.</i>		
FLOW	(gpm ↓)	Torque (in·lbf) Speed Specification								
	1.32	1142	1558	2036	2266					
		24 rpm	22 rpm	18 rpm	13 rpm					
	2.64	1177	1611	2089	2310	2744	3116	3540		
		49 rpm	47 rpm	45 rpm	43 rpm	38 rpm	33 rpm	24 rpm		
	5.28	1159	1602	2053	2266	2726	3133	3540	3815	
		99 rpm	97 rpm	94 rpm	92 rpm	88 rpm	83 rpm	74 rpm	64 rpm	
	7.93	1115	1558	2646	2230	2726	3124	3540	381	
		149 rpm	147 rpm	144 rpm	141 rpm	135 rpm	126 rpm	113 rpm	105 rpm	
	10.57	991	1487	1983	2195	2691	3098	3478	3744	
		200 rpm	197 rpm	194 rpm	191 rpm	185 rpm	174 rpm	160 rpm	151 rpm	
	13.21	832	1363	1947	2151	2602	3036	3399	3664	
		252 rpm	249 rpm	246 rpm	243 rpm	238 rpm	228 rpm	212 rpm	194 rpm	
	15.85 <i>Max Cont.</i>	690	1275	1885	2089	2540	3000	3381	3629	
		304 rpm	301 rpm	298 rpm	294 rpm	286 rpm	276 rpm	262 rpm	243 rpm	
	18.49	593	1195	1823	2018	2452	2974	3319	3611	
		355 rpm	353 rpm	349 rpm	340 rpm	329 rpm	316 rpm	300 rpm	288 rpm	
	19.82 <i>Max Int.</i>	513	1106	1744	1947	2390	2841	3186	3523	
382 rpm		379 rpm	373 rpm	362 rpm	350 rpm	337 rpm	322 rpm	312 rpm		

BMRSZ 250		15.41 in ³ /rev (252.6 cm ³ /rev)						
Pressure (psi →)	725	1015	1305	1450	1595 <i>Max Cont.</i>	1740	2031 <i>Max Int.</i>	
F L O W	(gpm ↓)	Torque (in·lbf) Speed Specification						
	1.32	1522	2124	2655	2992	3116		
		20 rpm	19 rpm	18 rpm	16 rpm	15 rpm		
	2.64	1531	2142	2726	3009	3107	3585	4089
		42 rpm	38 rpm	36 rpm	33 rpm	33 rpm	28 rpm	22 rpm
	5.28	1505	2107	2664	3000	3098	3558	4071
		79 rpm	77 rpm	75 rpm	72 rpm	71 rpm	69 rpm	61 rpm
	7.93	1416	2045	2638	2921	3071	3523	4027
		117 rpm	114 rpm	111 rpm	109 rpm	108 rpm	103 rpm	95 rpm
	10.57	1248	1956	2638	2894	3027	3487	3939
		157 rpm	155 rpm	153 rpm	150 rpm	148 rpm	146 rpm	135 rpm
	13.21	1080	1823	2540	2841	2939	3381	3877
		196 rpm	193 rpm	190 rpm	177 rpm	175 rpm	170 rpm	163 rpm
	15.85 <i>Max Cont.</i>	894	1682	2461	2762	2903	3266	3753
236 rpm		233 rpm	230 rpm	227 rpm	225 rpm	221 rpm	208 rpm	
18.49	761	1558	2319	2638	2673	3124	3682	
	276 rpm	273 rpm	270 rpm	266 rpm	264 rpm	255 rpm	245 rpm	
19.82 <i>Max Int.</i>	531	1443	2248	2531	2576	3054	3629	
	297 rpm	294 rpm	290 rpm	286 rpm	282 rpm	277 rpm	266 rpm	

BMRSZ 315		19.62 in ³ /rev (321.5 cm ³ /rev)					
Pressure (psi →)	435	725	1015	1305 <i>Max Cont.</i>	1450	1595 <i>Max Int.</i>	
F L O W	(gpm ↓)	Torque (in·lbf) Speed Specification					
	1.32	974	1761				
		14 rpm	12 rpm				
	2.64	956	1682	2407	3186	3540	3992
		31 rpm	30 rpm	29 rpm	28 rpm	26 rpm	25 rpm
	5.28	974	1735	2469	3151	3523	3965
		61 rpm	60 rpm	59 rpm	57 rpm	55 rpm	53 rpm
	7.93	938	1646	2390	3142	3452	3912
		91 rpm	90 rpm	89 rpm	86 rpm	84 rpm	82 rpm
	10.57	885	1584	2319	3098	3381	3859
		123 rpm	122 rpm	120 rpm	117 rpm	112 rpm	110 rpm
	13.21	814	1496	2230	3027	3301	3824
		154 rpm	153 rpm	151 rpm	147 rpm	140 rpm	136 rpm
	15.85 <i>Max Cont.</i>	761	1407	2133	3000	3266	3788
185 rpm		184 rpm	182 rpm	177 rpm	172 rpm	170 rpm	
18.49	682	1292	2080	2868	3027	3647	
	217 rpm	216 rpm	213 rpm	208 rpm	201 rpm	200 rpm	
19.82 <i>Max Int.</i>	584	1168	1876	2682	2939	3558	
	232 rpm	231 rpm	228 rpm	222 rpm	216 rpm	214 rpm	

BMRSZ 400		24.53 in ³ /rev (401.9 cm ³ /rev)					
Pressure (psi →)		435	580	870	1015 <i>Max Cont.</i>	1160	1305 <i>Max Int.</i>
F L O W	(gpm ↓)	Torque (in•lbf) Speed Specification					
	1.32	1345					
		12 rpm					
	2.64	1363	1814	2726	3089		
		24 rpm	21 rpm	18 rpm	17 rpm		
	5.28	1328	1779	2673	3009	3470	3903
		49 rpm	48 rpm	47 rpm	46 rpm	44 rpm	41 rpm
	7.93	1292	1752	2620	2930	3425	3877
		73 rpm	74 rpm	73 rpm	72 rpm	70 rpm	67 rpm
	10.57	1239	1691	2567	2841	3372	3726
		98 rpm	97 rpm	96 rpm	95 rpm	94 rpm	92 rpm
	13.21	1168	1611	2487	2788	3328	3558
		122 rpm	121 rpm	118 rpm	115 rpm	112 rpm	110 rpm
	15.85 <i>Max Cont.</i>	1133	1558	2407	2762	3204	3443
146 rpm		145 rpm	143 rpm	140 rpm	138 rpm	132 rpm	
18.49	974	1514	2292	2664	3018	3355	
	170 rpm	168 rpm	166 rpm	162 rpm	160 rpm	154 rpm	
19.82 <i>Max Int.</i>	867	1434	2053	2584	2832	3151	
	182 rpm	180 rpm	178 rpm	176 rpm	174 rpm	170 rpm	