



BMV系列摆线液压马达 BMV SERIES HYDRAULIC MOTOR

BMV系列摆线液压马达是一种先进的平面配流结构液压马达，该系列马达使用镶柱式转定子付，具有工作压力高，工作效率高，整机高效保持性好，工作寿命长的特点。可在标准结构的基础上根据用户需求进行多功能的变型设计。其特点：

*采用先进的转定子参数设计，启动压力低，效率高并保持性好。

*工作压力高，输出扭矩大。采用圆锥滚子轴承结构，承受轴、径向负荷能力强，使马达可直接驱动工作机构，使用范围扩大。

*先进平面配流结构，使马达配流精度高，磨损后自动补偿功能强，确保高的容积效率、马达长寿命，确保马达转速平稳、负载速度特性平稳。

BMV series motor adapt the advanced Geroler gear set designed with disc distribution flow and high pressure. The unit can be supplied the individual variant in operating multifunction in accordance with requirement of applications.

Characteristic features:

* Advanced manufacturing devices for the Geroler gear set, which use low pressure of start-up, provide smooth and reliable operation and high efficiency.

* The output shaft adapts in tapered roller bearings that permit high axial and radial forces. The case can offer capacities of high pressure and high torque in the wide of applications.

* Advanced design in disc distribution flow, which can automatically compensate in operating with high volume efficiency and long life, provide smooth and reliable operation.

主要技术参数Main Specification

类型Type		BMV BMVE 315	BMV BMVE 400	BMV BMVE 500	BMV BMVE 630	BMV BMVE 800	BMV BMVE 1000
排量Geometric displacement (cm ³ /rev.)		333	419	518	666	801	990
最高转速 Max. speed (rpm)	额定rated	335	270	215	170	140	105
	连续cont.	510	500	400	320	250	200
	断续int.	630	600	480	380	300	240
最大扭矩 Max. torque (N*m)	额定rated	730	1020	1210	1422	1590	2015
	连续cont.	920	1180	1460	1660	1880	2015
	断续int.	1110	1410	1760	1940	2110	2280
	峰值peak	1290	1640	2050	2210	2470	2400
最大输出功率 Max. output (Kw)	连续cont.	38	47	47	40	33	28.6
	断续int.	46	56	56	56	44	40
最高工作压差 Max. pressure drop (Mpa)	额定rated	16	16	16	16	14	14
	连续cont.	20	20	20	18	16	14
	断续int.	24	24	24	21	18	16
	峰值peak	28	28	28	24	21	18
最大流量 Max. flow (L/min)	额定rated	110	110	110	110	110	110
	连续cont.	160	200	200	200	200	200
	断续int.	200	240	240	240	240	240
最高允许进油压力 Max. inlet pressure (L/min)	额定rated	21	21	21	21	21	21
	连续cont.	21	21	21	21	21	21
	断续int.	25	25	25	25	25	25
	峰值peak	30	30	30	30	30	30
重量Weight (kg)		31.8	32.6	33.5	34.9	36.5	38.6

*额定转速、扭矩是指在额定流量、压力下的输出值。

*连续值是指该排量马达可以连续工作的最大值。

*断续值是指该排量马达在1分钟内工作6秒的最大值。

*峰值是指该排量马达在1分钟内工作0.6秒的最大值。

* Continuous pressure :Max. value of operating motor continuously.

* Intermittent pressure :Max. value of operating motor in 6 seconds per minute

* Peak pressure:Max. value of operating motor in 0.6 second per minute.

性能参数 Performance Data

BMV 315 [333cm³/rev.]
压力 Pressure (Mpa)

流量 Flow (L/min)	连续最大 Max.cont 断续最大 Max.int						
	3.5	7	10	14	18	20	24
10	140	294	440	610	742	845	1000
	26	24	23	22	20	17	14
20	153	314	466	636	787	895	1070
	55	54	53	52	51	48	44
50	149	312	465	654	815	935	1112
	145	144	142	140	137	133	127
75	143	304	458	642	816	940	1119
	220	218	215	211	207	202	195
100	136	297	452	636	810	936	1108
	294	292	290	287	283	278	270
125	123	286	442	626	799	921	1093
	368	366	364	361	357	352	345
150	114	275	435	615	788	906	1078
	445	443	441	437	430	422	410
160	107	268	430	608	780	895	1070
	475	473	470	466	460	452	439
200	82	249	412	593	758	871	1047
	596	594	590	584	576	565	544

连续最大 Max.cont
断续最大 Max.int

BMV 400 [419cm³/rev.]
压力 Pressure (Mpa)

流量 Flow (L/min)	连续最大 Max.cont 断续最大 Max.int						
	3.5	7	10	14	18	20	24
10	183	385	568	776	968	1101	1292
	20	20	19	18	17	16	14
20	196	398	590	815	1010	1152	1346
	44	44	43	42	40	39	37
50	200	402	603	842	1040	1186	1430
	114	113	113	112	110	108	103
75	195	394	596	838	1043	1188	1432
	175	173	170	166	163	1579	152
100	172	385	593	827	1036	1184	1425
	236	235	233	231	227	223	215
125	167	374	583	816	1021	1177	1413
	296	294	291	288	282	275	268
150	158	361	559	801	1008	1165	1390
	355	354	352	349	344	335	324
175	143	346	553	784	989	1145	1377
	416	414	411	407	403	396	388
200	118	331	536	770	969	1128	1356
	475	473	469	463	455	448	439
240	82	301	506	740	943	1104	1332
	571	569	565	548	539	530	520

连续最大 Max.cont
断续最大 Max.int

BMV 500 [518cm³/rev.]
压力 Pressure (Mpa)

流量 Flow (L/min)	连续最大 Max.cont 断续最大 Max.int						
	3.5	7	10	14	18	20	24
10	242	468	696	959	1190	1353	1607
	17	17	16	16	15	13	11
20	245	501	738	1003	1232	1394	1658
	36	35	35	34	33	32	29
50	240	500	758	1025	1270	1449	1743
	93	92	91	90	88	85	80
75	233	498	752	1030	1288	1475	1766
	140	139	137	135	132	127	120
100	228	491	748	1026	1289	1472	1760
	189	187	185	182	178	173	166
125	220	483	742	1014	1280	1460	1745
	237	236	234	231	227	223	216
150	201	465	723	1008	1250	1429	1736
	287	286	284	281	276	270	260
175	182	446	711	997	1238	1406	1715
	335	334	332	329	325	320	310
200	161	423	676	974	1218	1385	1697
	384	383	381	378	374	366	354
240	120	378	622	921	1172	1340	1650
	461	459	457	454	450	444	432

连续最大 Max.cont
断续最大 Max.int

BMV 630 [666cm³/rev.]
压力 Pressure (Mpa)

流量 Flow (L/min)	连续最大 Max.cont 断续最大 Max.int						
	3.5	6	9	12	15	18	21
10	280	522	812	1100	1268	1549	1784
	14	13	13	12	12	11	10
20	288	552	839	1101	1315	1607	1864
	28	28	27	27	26	24	22
50	289	555	868	1137	1364	1682	1956
	72	72	71	69	68	66	62
75	270	548	863	1120	1352	1680	1964
	109	108	106	104	102	99	94
100	264	538	856	1093	1350	1674	1965
	146	145	143	141	138	135	130
125	251	516	837	1071	1336	1659	1950
	184	183	181	179	177	173	168
150	240	495	817	1063	1330	1650	1928
	221	220	219	217	215	212	205
175	210	485	796	1052	1300	1636	1908
	259	258	257	254	250	246	241
200	182	469	751	1018	1280	1611	1883
	297	297	295	293	290	284	273
240	130	416	712	978	1237	1563	1835
	358	357	355	351	346	340	332

连续最大 Max.cont
断续最大 Max.int

扭矩 Torque (N·m) 1340
转速 Speed (rpm) 444

连续 cont.
断续 int.





性能参数 Performance Data

BMV 800 [801cm³/rev.]
压力 Pressure (Mpa)

流量 Flow (L/min)	连续最大 Max.cont							断续最大 Max.int							
	2.5	5	8	10	13	16	18	2.5	5	8	10	13	16	18	
10	278	565	830	1095	1405	1712	1915	11	10	10	9	8	8	7	
20	282	571	845	1150	1456	1783	1994	23	22	22	21	20	18	16	
50	288	582	856	1162	1463	1790	2001	60	59	57	56	54	52	48	
75	269	580	855	1165	1465	1786	1993	91	90	89	87	84	81	77	
100	251	566	840	1140	1448	1767	1985	122	121	120	118	115	111	105	
125	242	535	824	1118	1427	1739	1976	153	152	150	147	143	139	133	
150	236	526	808	1102	1401	1714	1959	185	183	181	178	174	169	163	
175	215	504	793	1079	1377	1698	1936	216	214	212	209	206	203	196	
连续最大 Max.cont	200	197	468	765	1063	1362	1681	1913	247	245	243	240	237	232	225
断续最大 Max.int	240	118	388	713	1020	1318	1637	1838	297	296	295	293	288	283	277

□ 连续cont.
■ 断续int.

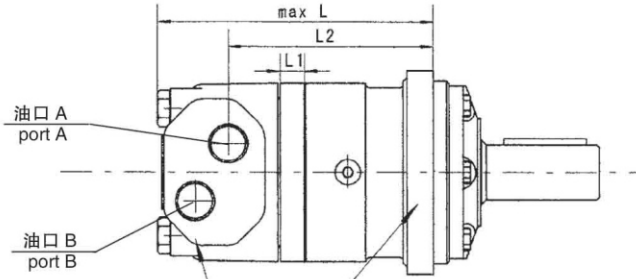
BMV 1000 [990cm³/rev.]
压力 Pressure (Mpa)

流量 Flow (L/min)	连续最大 Max.cont						断续最大 Max.int						
	2.5	5	7	10	14	16	2.5	5	7	10	14	16	
10	312	640	971	1400	1978	2259	9	9	9	8	7	6	
20	320	648	978	1410	1980	2270	28	27	26	25	23	21	
50	326	655	992	1422	2015	2280	47	46	45	43	41	38	
75	318	642	987	1425	2003	2276	72	71	70	68	66	63	
100	309	634	983	1418	1994	2243	98	97	95	93	90	86	
125	303	624	975	1409	1988	2224	123	122	120	117	114	110	
150	278	602	961	1368	1963	2208	149	148	146	144	140	133	
175	264	580	946	1338	1925	2159	174	172	170	166	162	155	
连续最大 Max.cont	200	230	556	912	1300	1891	2105	199	196	193	190	185	178
断续最大 Max.int	240	166	513	867	1267	1825	2034	240	237	233	229	225	218

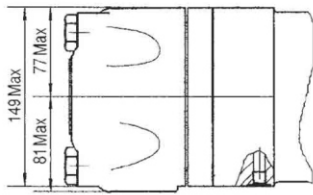
扭矩 Torque (N·m) 1825
转速 Speed (rpm) 225

BMV 安装连接尺寸

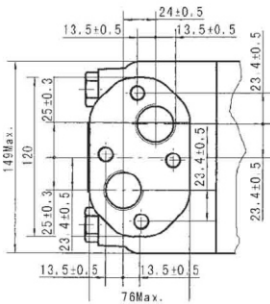
BMV DIMENSIONS AND MOUNTING DATA



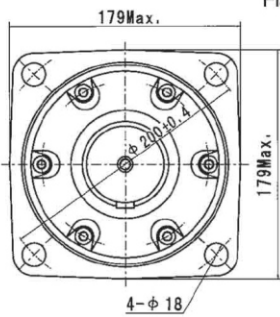
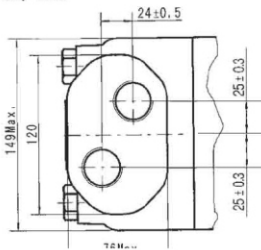
型号 Model	L	L1	L2
BMV315	217	20	161.5
BMV400	224	27	168.5
BMV500	232	35	176.5
BMV630	244	47	188.5
BMV800	255	58	199.5
BMV1000	271	74	215.5



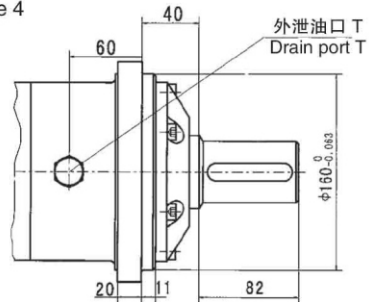
油口 Porting
D、M、D1



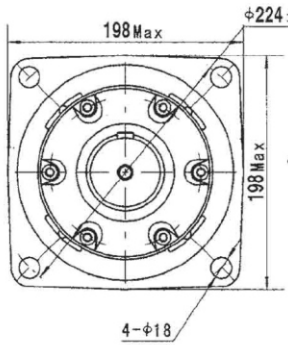
油口 Porting
S、G、M5



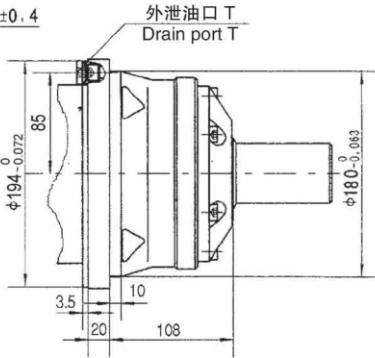
4 法兰
Flange 4



W 法兰
Flange W



外泄油口 T
Drain port T



型号 Model	L	L1	L2
BMVW315	148.5	20	93.5
BMVW400	155.5	27	100.5
BMVW500	163.5	35	108.5
BMVW630	175.5	47	120.5
BMVW800	186.5	58	131.5
BMVW1000	202.5	74	147.5

注：转定子厚度为：L1+7。
Note: The thickness of the stator and rotor is the dimension of L1adding on 7mm

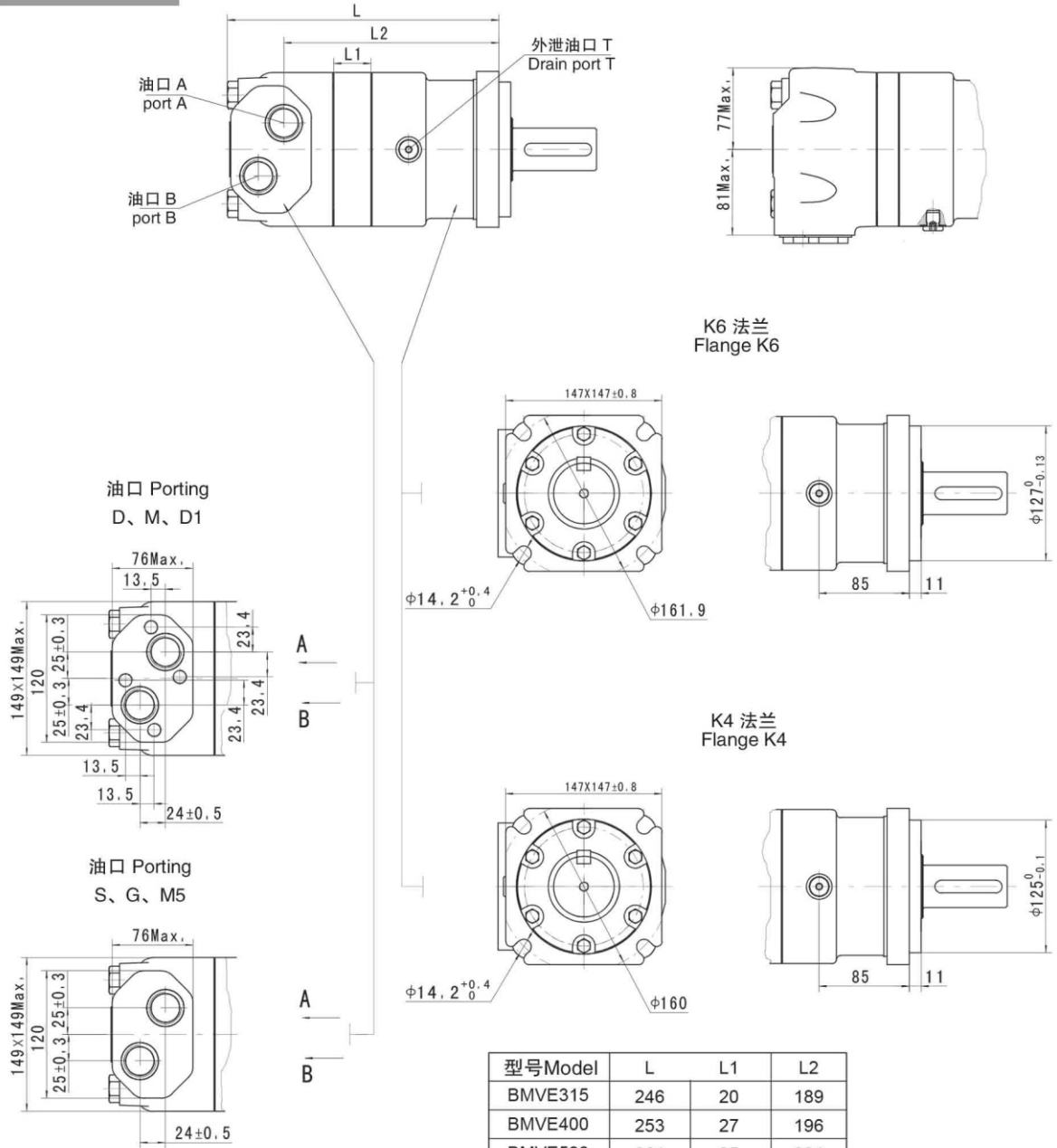
内容 Content 连接形式 Mounting	代号 Code					
	D (深depth)	M (深depth)	S (深depth)	G (深depth)	M5 (深depth)	D1 (深depth)
P(A,B)	G1 (18)	M33 x 2 (18)	1-5/16-12UN(18)	G1 (18)	M33 x 2 (18)	G3/4(18)
T	G1/4 (12)	M14 x 1.5 (12)	9/16-18UNF(12)	G1/4 (12)	M14 x 1.5 (12)	G1/4 (12)
C	4-M12 (12)	4-M12 (12)	--	--	--	4-M12 (12)





BMVE 安装连接尺寸

BMVE DIMENSIONS AND MOUNTING DATA



型号 Model	L	L1	L2
BMVE315	246	20	189
BMVE400	253	27	196
BMVE500	261	35	204
BMVE630	273	47	216
BMVE800	284	58	227
BMVE1000	300	74	243

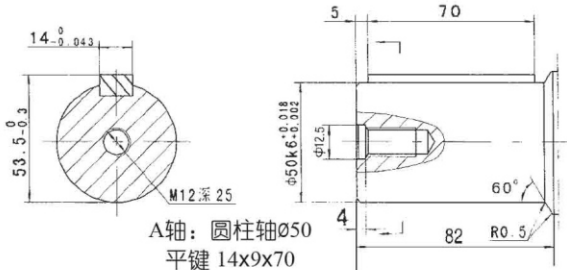
注：转子厚度为：L1+7。
Note: The thickness of the stator and rotor is the dimension of L1adding on 7mm

内容 Content 连接形式 Mounting	代号 Code					
	D (深depth)	M (深depth)	S (深depth)	G (深depth)	M5 (深depth)	D1 (深depth)
P(A,B)	G1 (18)	M33 x 2 (18)	1-5/16-12UN(18)	G1 (18)	M33 x 2 (18)	G3/4(18)
T	G1/4 (12)	M14 x 1.5 (12)	9/16-18UNF(12)	G1/4 (12)	M14 x 1.5 (12)	G1/4(12)
C	4-M12 (12)	4-M12 (12)	--	--	--	4xM12(12)

BMV

BMV 安装连接尺寸

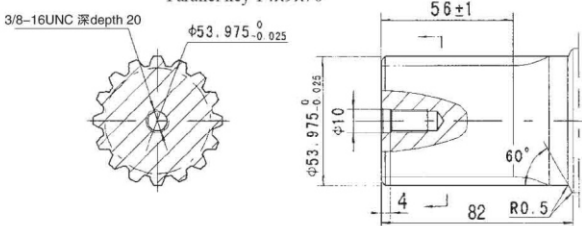
BMV DIMENSIONS AND MOUNTING DATA



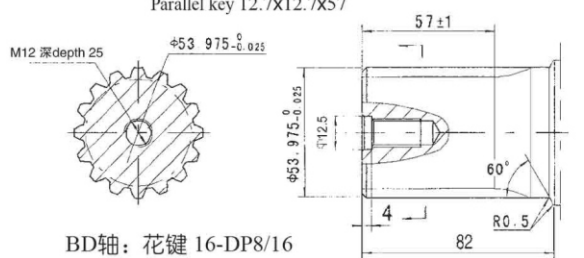
A轴: 圆柱轴Ø50
平键 14x9x70
Shaft A: Cylindrical shaft Ø50
Parallel key 14x9x70



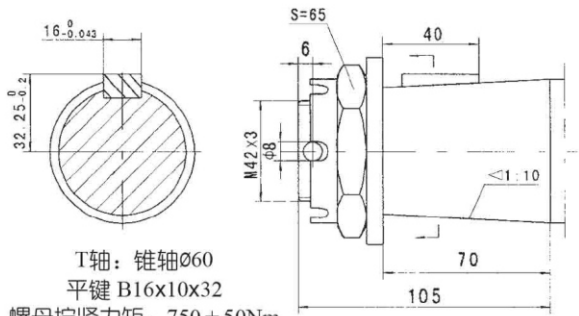
C轴: 圆柱轴Ø57.15
平键 12.7x12.7x57
Shaft C: Cylindrical shaft Ø57.15
Parallel key 12.7x12.7x57



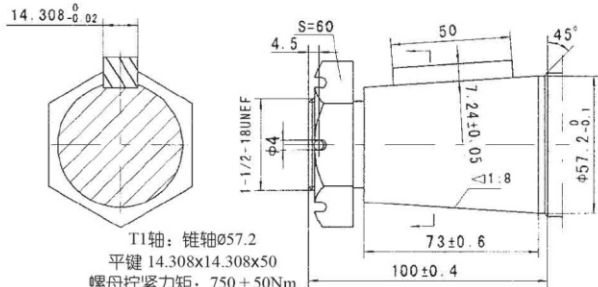
B轴: 花键 16-DP8/16
Shaft B: Splined key 16-DP8/16



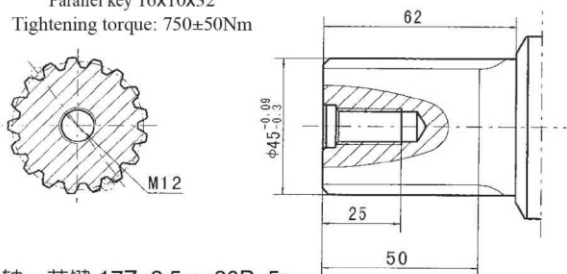
BD轴: 花键 16-DP8/16
Shaft BD: Splined key 16-DP8/16



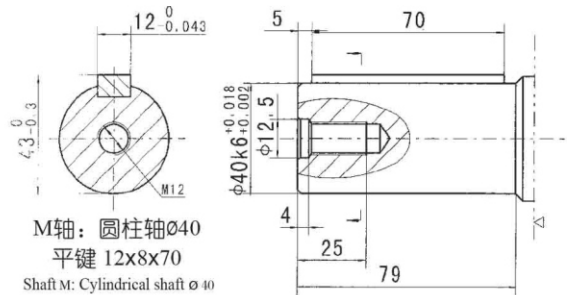
T轴: 锥轴Ø60
平键 B16x10x32
螺母拧紧力矩: 750 ± 50Nm
Shaft T: Cone-shaft Ø60
Parallel key 16x10x32
Tightening torque: 750 ± 50Nm



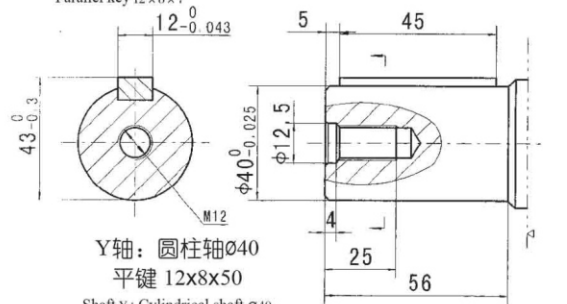
T1轴: 锥轴Ø57.2
平键 14.308x14.308x50
螺母拧紧力矩: 750 ± 50Nm
Shaft T1: Cone-shaft Ø57.2
Parallel key 14.308x14.308x50
Tightening torque: 750 ± 50Nm



Q轴: 花键 17Zx2.5m x 30Px5e



M轴: 圆柱轴Ø40
平键 12x8x70
Shaft M: Cylindrical shaft Ø40
Parallel key 12x8x70



Y轴: 圆柱轴Ø40
平键 12x8x50
Shaft Y: Cylindrical shaft Ø40
Parallel key 12x8x50



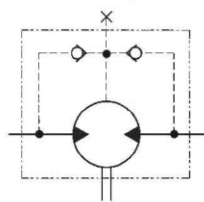


BMV 系列摆线液压马达

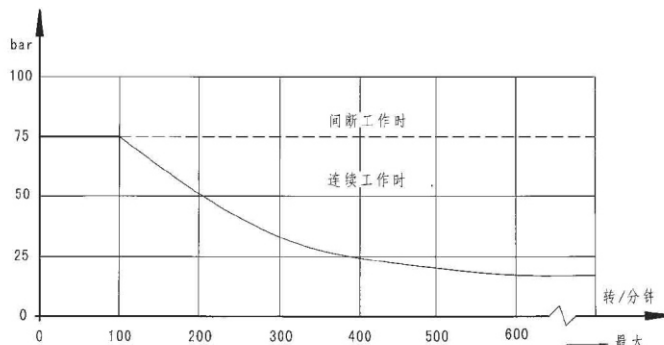
BMV Series Hydraulic Motor

输出轴密封圈允许承受的压力

Permissible shaft seal pressure



马达原理图
motor illustrative diagram



在无外泄油管的使用中，输出轴密封圈上的压力微高于回油管路中的压力。

当使用外泄油管时，输出轴密封圈上的压力则与外泄油管路中的压力相同。

In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When

applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

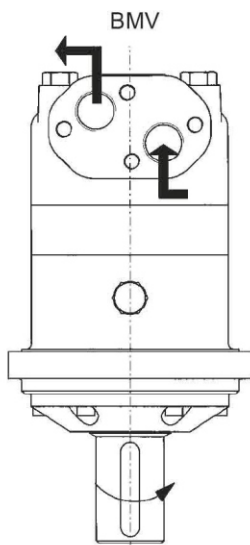
输出轴的旋转方向：标准

Standard direction of shaft rotation:

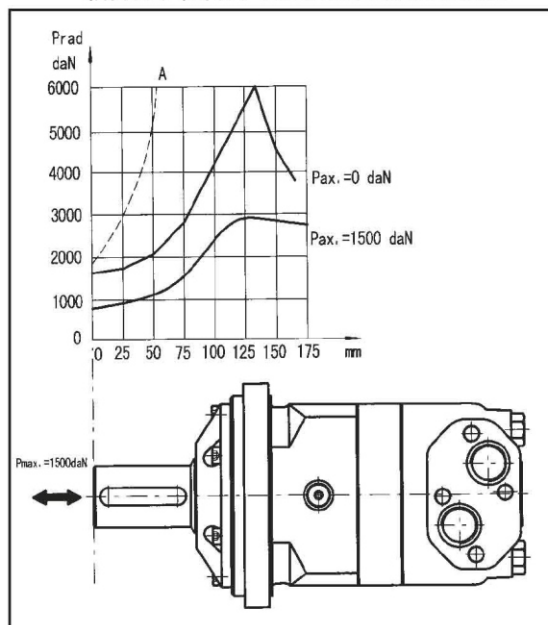
Standard

当面对马达轴伸方向，A油口为高压油时，输出轴顺时针方向旋转；反之，则逆时针方向旋转。

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



轴向力、径向力 Axial and Radial forces



A曲线为最大径向力负荷，推荐用户在保证轴承寿命B10（在200rpm，3000h运转下），可使用粗线以下轴向、径向负荷。

The output shaft runs in tapered bearings that permit high axial and radial forces, Curve "A" shows max radial shaft load, Any shaft loads exceeding the values quoted in the curve will involve a risk of breakage, The two other curves apply to a B10 bearing life of 3000 hours at 200 RPM.

外泄油口的外泄流量

右表所列为标准配置马达当外泄回油管压力低于0.5至1Mpa下外泄油口最大外泄流量

Oil leakage flow of drain port
The table below shows the Standard configured motor's maximum oil leakage flow of drain port when the drain return line pressure is lower than 0.5 to 1 mpa

工作压差 Operating pressure difference (Mpa)	油液运动粘度 Oil movement viscosity (mm ² /S)	外泄油口外泄流量 Leakage flow of drain port (L/min.)
10	20	2.5
	35	1.5
14	20	5
	35	3

订货信息 Order Information

BMV

Pos.1	2	3	4	5	6	7	8
结构代码	排量	法兰、止口	轴伸	油口、外泄口	旋向工况	油漆选项	特殊功能
无	315 400 500 630 800 1000	4 4-Ø18 方法兰 Ø200, 止口 Ø160×11 W 4-Ø18 车轮法兰 Ø224, 止口 Ø180×10	A Ø50 轴, 平键 14×9×70	D G1 板式 4×M12, G1/4 M M33×2 板式 4×M12, M14×1.5 S 1-5/16-12UN, 9/16-18UNF G G1, G1/4 M5 M33×2, M14×1.5 D1 G3/4 板式 4×M12, G1/4	无	00 无 B S	不油漆 蓝漆 黑漆 银灰漆
			BD Ø53.975 轴, 花键 16-DP8/16				
			B Ø53.975 轴, 花键 16-DP8/16				
			C Ø57.15 轴, 平键 12.7×12.7×57.15				
			T Ø60 轴, 平键 B16×10×32				
			T1 Ø57.2 轴, 平键 14.308×14.308×50.8				
E	1000	K6 4-Ø14.2 方法兰 Ø162, 止口 Ø127×11 K4 4-Ø14.2 方法兰 Ø160, 止口 Ø125×11	Q Ø45 轴, 花键 17Z×2.5×30P×5e	R	标准 反向	无	常规
			M M型Ø40 轴, 平键 12×8×70				
			Y Y型Ø40 轴, 平键 12×8×45				

注：用户在使用订货信息时，将马达结构、排量、安装法兰、轴伸、进出油口等信息，选择左面作色部位的代号按上面格式的代号写给我们即可。若所选规格不在上述表中或特殊要求，请与我们联系。

BMV

Pos.1	2	3	4	5	6	7	8
Code	Displacement	Flange	Output shaft	Ports and drain port	Rotation direction	Paint	Unusually function
Omit	315 400 500 630 800 1000	4 4-Ø18 Square-flange Ø200, pilot Ø160×11 W 4-Ø18 Wheel-flange Ø224, pilot Ø180×10	A Shaft Ø50, parallel key 14×9×70	D G1 Manifold 4×M12, G1/4 M M33×2 Manifold 4×M12, M14×1.5 S 1-5/16-12UN, 9/16-18UNF G G1, G1/4 M5 M33×2, M14×1.5 S1 7/16-20UNF(12)	Omit Standard R Opposite	00 Omit B S	No paint Blue Black Silver grey
			BD Shaft Ø53.975, splined key 16-DP8/16				
			B Shaft Ø53.975, splined key 16-DP8/16				
			C Shaft Ø57.15, parallel key 12.7×12.7×57.15				
			T Cone shaft Ø60, parallel key 16×10×32				
			T1 Cone shaft Ø57.2, parallel key 14.308×14.308×50.8				

Note: When the table is used, please fill the code of left rows in dash area and give us, which the code information is consists of construction, displacement, mounting flange, output shaft and ports. If the specification is not in the table or you have specific requirements, please contact us.

B M V