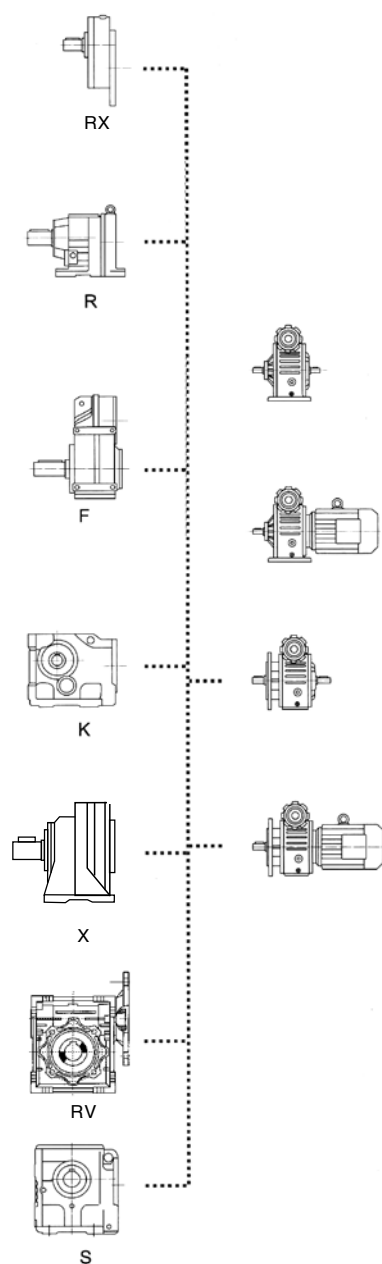
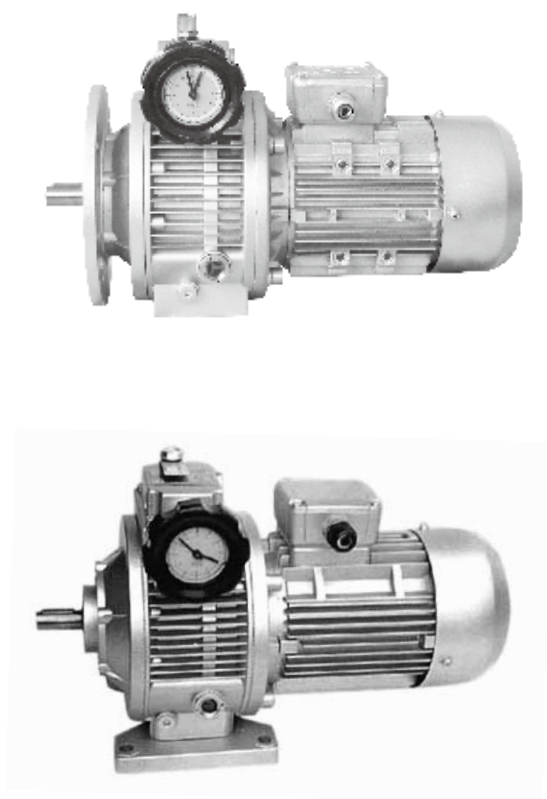
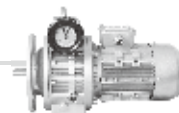


MB系列行星摩擦式机械无级变速机

MB planetary friction mechanical infinite speed variator





1. MB系列行星摩擦式机械无级变速机概述

MB系列行星摩擦式机械无级变速机主要由压紧的主动装置、摩擦传动机构、调速控制机构组成。

变速范围大: 调速范围 $R=5$, 即输出转速可在输入转速的 $1/1.45$ 至 $1/7.25$ 之间任意变化, 适合连续工作, 可以正反转, 能在负载启动及负载中按需要调节速度, 适应工艺参数多边或连续变化的要求。

调速精度高、高强度、同轴结构, 体积小, 重量轻。性能稳定, 在允许负载下, 选定的输出速度恒定。运行平稳、噪声低、寿命长、维修少、操作简单、效率高。

组合能力强: 可与各种减速机直联式组合, 实现小体积、高效率的低、高速无级变速, 因而该机具有良好适应性。

旋转方向: 基本型输入轴与输出轴旋转方向相同; 其它组合型根据传动极数等确认旋转方向。

输入转速: 机座MB07以下不高于2800rpm, 机座大于MB07输入速度不超过1400rpm, 全系列输入转速以不低于750rpm为适宜。

跑合要求: 变速机跑合开始时, 温升可高于正常工作的温升, 当跑合60-80小时后, 温升逐渐降低至正常温升。在跑合期内需经常调速, 以利于长期的稳定使用; 跑合时的高温影响正常和允许的工作条件, 但对部件的使用寿命并无有害影响。

1. MB series planet frictional mechanical infinitely-variable speed drive overview

MB planetary friction mechanical infinite speed variator consists of a compressed driving device, a friction drive mechanism and a speed-regulating control mechanism.

Wide speed-varied range:

speed-regulating range $R=5$, that is, output rotation speed vary times from $1/1.45$ to $1/7.25$ as input rotation rate, adapting to continuous operation, it can rotate positively and versedly, and can regulate speed according to different needs in load start and load state, so as to adapt to needs of varied and continuous technological parameter. High precision of speed-regulation, high strength, coaxial configuration, miniature, light weight, stable performance, under the permissive load, the chosen output speed is constant, the machine runs smoothly, and has the features of low-noise, long service life, lesser maintenance, simple operation and high-efficiency.

High combination ability:

The machine can directly be combined with the reducer. The machine is an efficient infinite speed variator in miniature, so it has a good adaptability.

Rotata direction:

For basic type, direction of rotation of input shaft is the same that of output, depending on number of stage, direction of rotation of other combination may be confirmed.

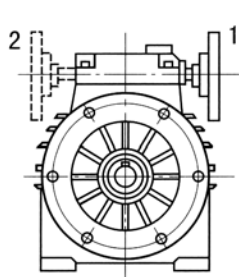
Input speed:

For the machine under MB07 base, its input rotation rate must be not over 2800rpm; for the machine over MB 07 base, its input rotation rate must be not over 1400rpm; input speed of MB series speed variators must be not lower than 750rpm.

Operation required:

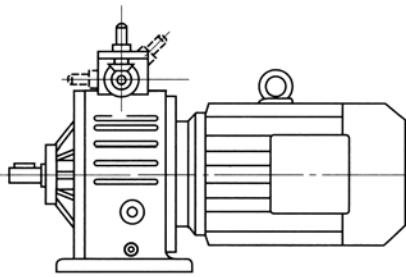
When units begin to operate, its temperature rise to higher than the temperature under normal operation. After operating for 60 or 80 hours, the rise in temperature will lower gradually, when operating, the machine is need of varying ofteh, which conduce to run stably. High temperature will affect the per missive normal work condition when operating, but the service life of its units will not be affected.

2. 变速方式

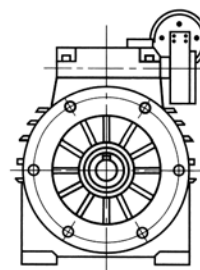
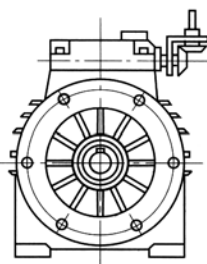


手动调速 Hand control

手轮的1或2位置任意选择
1 or 2 position of hand wheel is freely chosen

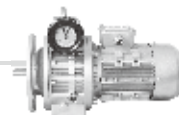


配直角器的手动调速
Speed variator with right-angled device



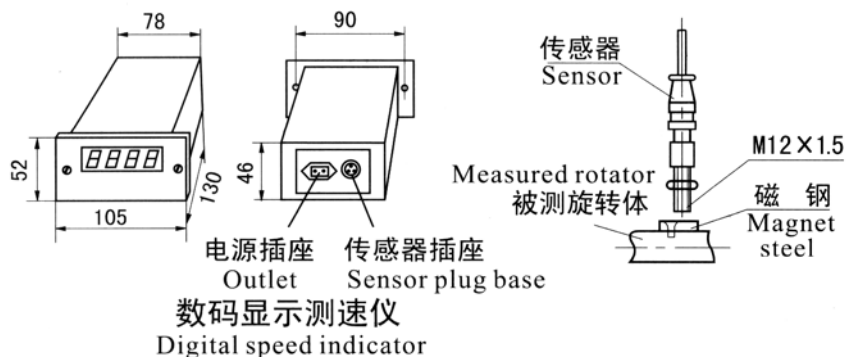
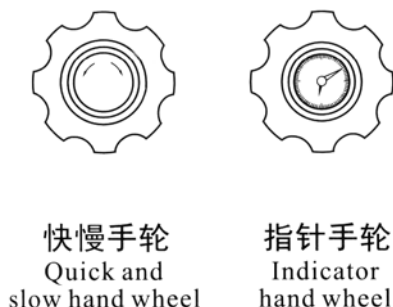
配小电机的电动调速
Electric speed-regulation

2. Speed-regulating mode



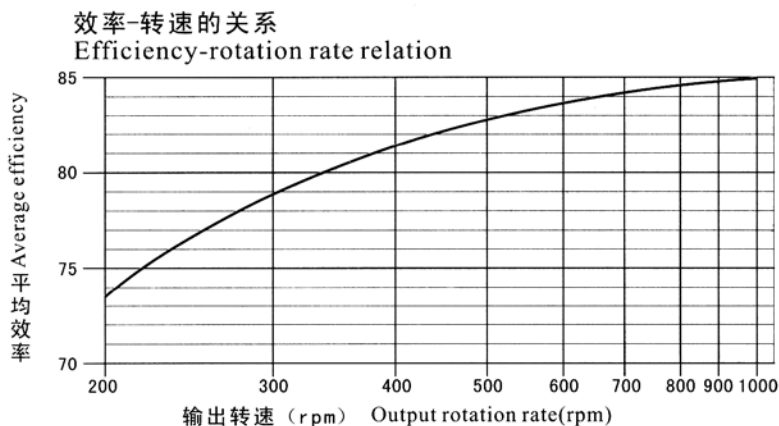
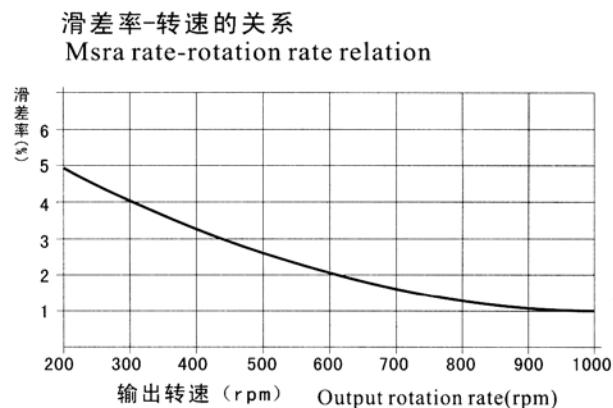
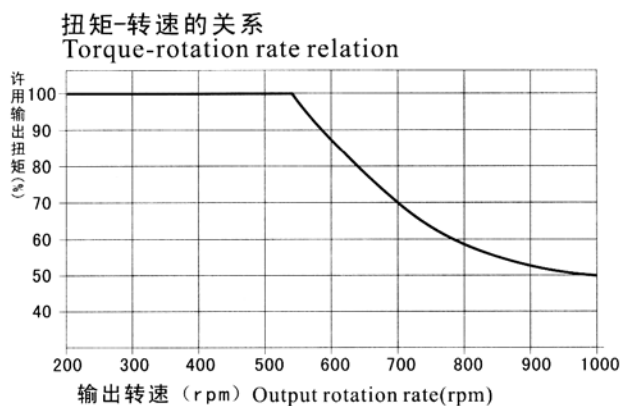
3. 速度表示方法

3. Speed expression



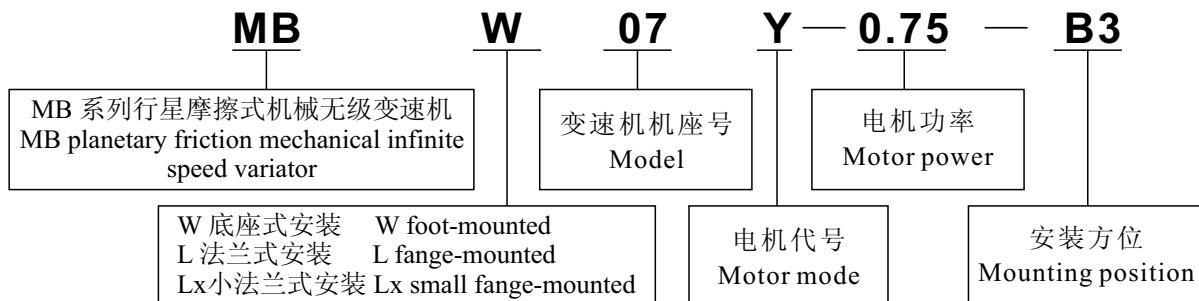
4. 性能曲线

4. Performance curve



5. 型号表示方法

5. Example of MB speed variator expression





6. MB基本型无级变速机

6. MB basic type variable drive

6.1 型号规格表

6.1 Model and specification list

MB变速器配4极电机(1450r/min)的型号规格表

Model and specification list of MB speed variator matched grade 4 motor (rotation rate 1450rpm)

变速器座号 Model				02	04	07		15		40			75		150	
额定功率 Rated power (kW)				0.18	0.37	0.55	0.75	1.1	1.5	2.2	3	4	5.5	7.5	11	15
型号 Type	代号 Code	调速范围 Speed range	减速比 Ratio	输出扭矩Output torque (N · m)												
变速机 Speed variator	MB	1000-200	—	1.5-3	3-6	5-10	6-12	9-18	12-24	18-36	24-48	32-64	45-90	60-120	88-176	118-235

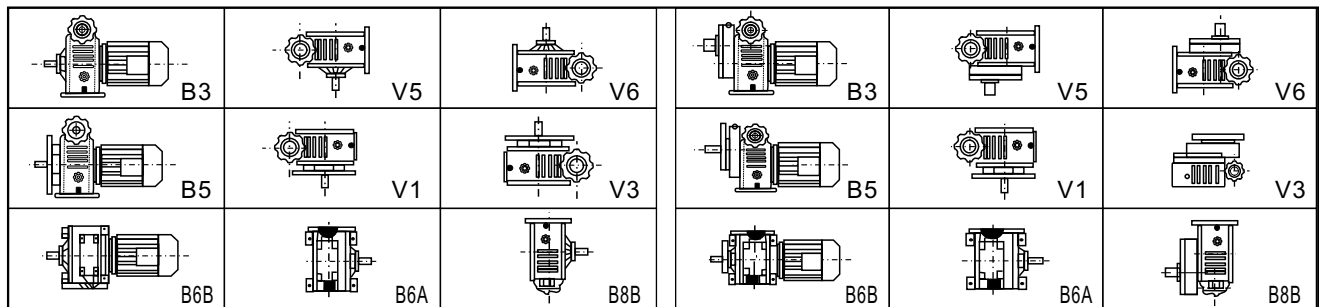
MB变速器配6极电机(960r/min)的型号规格表

Model and specification list of MB speed variator matched grade 6 motor (rotation rate 960rpm)

变速器座号 Model				04	07	15	40		75			150	
额定功率 Rated power (kW)				0.25	0.55	1.1	1.5	2.2	3	4	5.5	7.5	11
型号 Type	代号 Code	调速范围 Speed range	减速比 Ratio	输出扭矩Output torque (N · m)									
变速机 Speed variator	MB	667-135	—	3-6	5-10	9-18	18-36	24-48	45-90	45-90	60-120	88-176	118-235

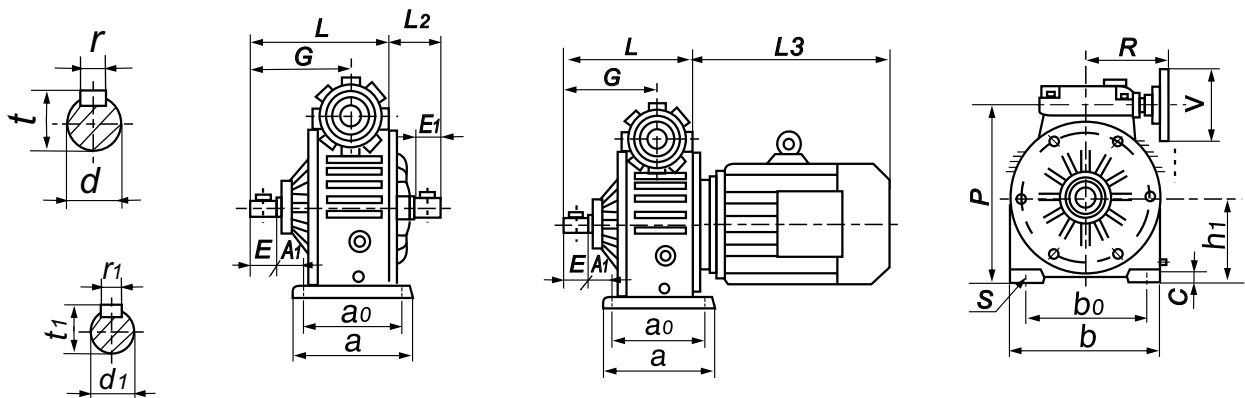
6.2 安装方位和尺寸图表

6.2 Mounting position and dimension sheets



7.3 安装方位及尺寸图表

7.3 Mounting position and dimension sheets

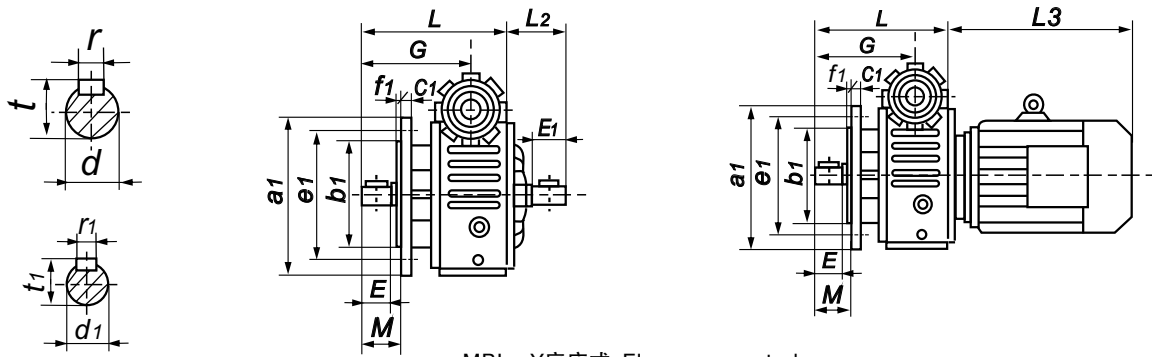


MBW...Y底座式 Foot-mounted

型号	A1	a	a0	b	b0	c	d	d1	E	E1	G	h1	L	L2	P	R	r	r1	S	t	t1	V
MB02	18	125	105	146	110	13	14	14	30	25	99	75	130	65	162	105	5	5	9	16	16	100
MB04	30	135	105	160	120	15	14	14	30	30	112	90	145	76	188	118	5	5	10	16	16	100
MB07	33	150	125	190	160	15	20	19	40	30	125	106	177	63	217	126	6	6	12	22.5	21.5	100
MB15	50	165	140	230	180	18	25	24	50	40	157	125	223	91	248	135	8	8	12	28	27	100
MB40	25	270	230	300	245	20	30	24	60	50	195	150	268	119	300	166	8	8	14	33	27	100
MB75	33	290	250	365	315	30	35	32	70	60	201	200	319	148	392	194	10	10	18	38	35	164
MB150	50	415	350	480	350	34	50	40	110	82	314	224	456	136	488	265	14	12	20	53.5	43	230

注：电机尺寸参照第204页。

Note: For Motor details, see page 204.



MBL...Y底座式 Flange-mounted

型号	a ₁	b ₁	C ₁	d	d ₁	E	E ₁	e ₁	f ₁	G	L	L ₂	M	P	R	r	r	S ₁	t	t ₁	V
MB02	160(140)	110(95)	12	14	14	30	25	130(115)	3.5(3)	99	130	65	30	162	105	5	5	10	16	16	100
MB04	200(160)	130(110)	12	14	14	30	30	165(130)	3.5(3.5)	112	145	76	30	188	118	5	5	12(10)	16	16	100
MB07	200	130	12	20	19	40	30	165	3.5	125	177	63	40	217	126	6	6	12	22.5	21.5	100
MB15	250(200)	180(130)	16	25	24	50	40	215(165)	4(3.5)	157	223	91	50	248	135	8	8	15(12)	28	27	100
MB40	300(250)	230(180)	16	30	24	60	50	265(215)	4(4)	195	268	119	60	300	166	8	8	15	33	27	100
MB75	350(300)	250(230)	20	35	32	70	60	300(265)	5(4)	201	319	148	70	392	194	10	10	19(15)	38	35	164
MB150	450	350	28	50	40	110	82	400	5	314	456	136	110	488	265	14	12	19	53.5	43	230

注：电机尺寸参照第204页。

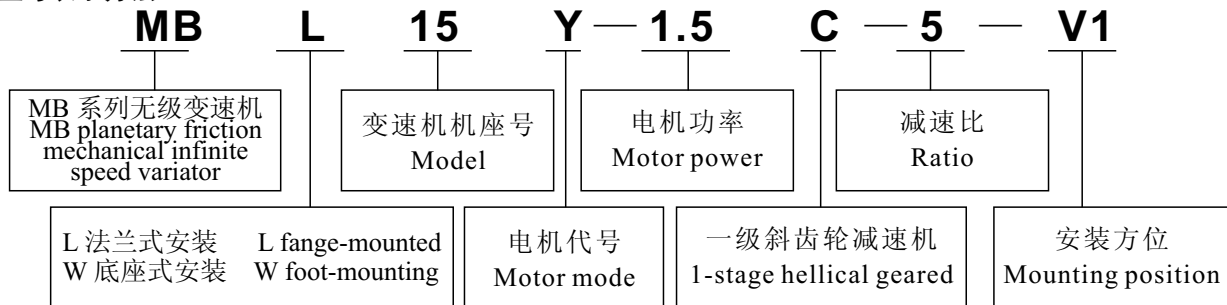
Note: For Motor details, see page 204.

7. MB-C 无级变速机带一级齿轮型

7. MB speed variator combine with C series gear

7.1 型号表示方法

7.1 Example of MB speed variator with grade 1 gear expression



7.2 MB-C变速器配4极电机(1450r/min)的型号规格表

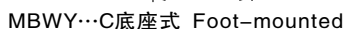
Model and specification list of MB-C speed variator with grade 1 gear matched grade 4 motor (rotation rate 1450rpm)

变速机座号 Model		02	04	07		15		40			75		150	
额定功率 Rated power (kW)		0.18	0.37	0.55	0.75	1.1	1.5	2.2	3	4	5.5	7.5	11	15
调速范围 Speed range	减速比 Ratio	输出扭矩Output torque (N · m)												
2000-400	1/2					4.2-8.4	5.5-11	8.6-17	11-22	15-30	21-42	28-57	41-83	56-112
1500-300	2/3					5.6-11	7.5-15	11-22	15-30	20-40	28-57	38-57	55-111	74-149
500-100	2	2.9-5.7	5.7-11	9.5-19	11.5-23	17-34	22-45	34-68	46-91	61-121	86-171	114-228	167-334	248-496
400-80	2.5	3.5-7	7-14	12-24	14-28	21-42	28-56	43-85	57-114	76-152	107-214	142-284	209-418	280-560
300-60	3.3	4.6-9.3	9.3-18.6	15.5-31	18.6-37	28-56	37-74	56-111	75-150	99-198	140-279	186-372	275-551	370-740
200-40	5	6.2-12.5	12.5-25	21.7-43.5	26-52	39.5-79	52.6-105	73-146	97-195	130-260	194-387	258-516	418-836	560-1121

MB-C变速器配6极电机(960r/min)的型号规格表

Model and specification list of MB-C speed variator matched grade 6 motor (rotation rate 960rpm)

变速机座号 Model		04	07	15	40		75			150	
额定功率 Rated power (kW)		0.25	0.55	1.1	1.5	2.2	3	4	5.5	7.5	11
调速范围 Speed range	减速比 Ratio	输出扭矩Output torque (N · m)									
135-27	5	12.5-25	26-52	52.6-105	73-146	109-218	160-320	213-426	260-520	430-860	56-1121



Technical drawings of the motor showing front, side, and top views with dimension labels.

MBLY...C底座式 Flange-mounted

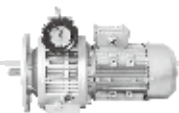
Technical drawings of the 1000 series gear pump showing front, side, and end views with dimensions:

- Front View (Left):** Shows the pump's profile with dimensions r , t , d , r_1 , t_1 , and d_1 .
- Side View (Middle):** Shows the pump's side profile with dimensions L , G , L_2 , E_1 , A_1 , E , a_0 , and a .
- End View (Right):** Shows the pump's end profile with dimensions R , V , P , h_1 , C , b_0 , b , and S .

MBW2Y...C底座式 Foot-mounted

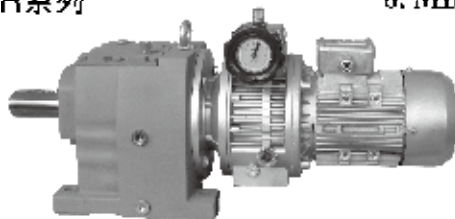
注：电机尺寸参照第204页。

Note: For Motor details, see page 204.



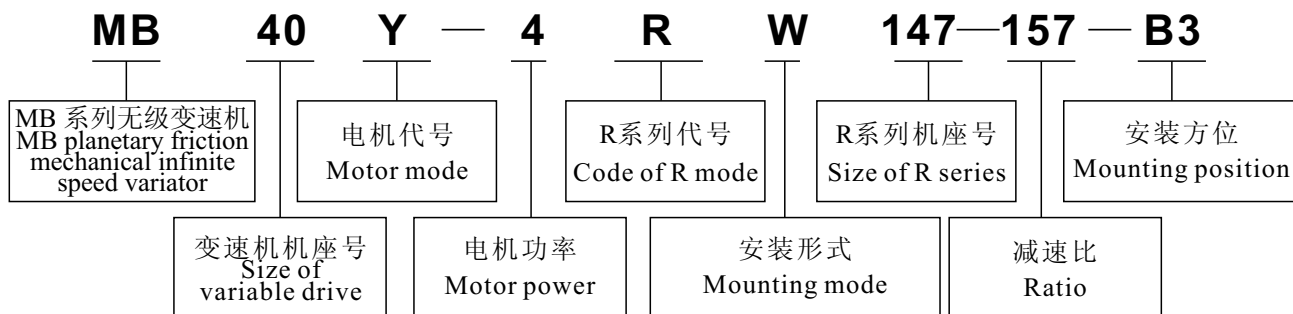
8. MB-R 无级变速机配R系列

8. MB-R Speed variator combine with R series gear



8.1 型号表示方法

8.1 Example of MB speed variator with grade 1 gear expression



8.2 选型方法

例：选输出转速范围3.5~0.7rpm,所需恒扭矩
4000N·m,均匀负载，每天运行8小时，即 $f_s=1.00$ ，
 $M_{amin} \geq M_s \cdot f_s = 4000N \cdot m \times 1.00 = 4000N \cdot m$ ，
根据型号规格表选功率2.2kW，机座号MB40，减
速比286，输出扭矩4376-8752N·m，
即 $M_{amin} = 4376N \cdot m > 4000N \cdot m$ ，
根据组合表MB40型可配R137/R77、R147/R77、
R167/R97，查R系列MN2表，确认R137/R77，
 $MN2 = 6600N \cdot m > 4000N \cdot m$ ，即确认型号
MBW40Y-2.2R137/77-286

注:客户若选型时有疑问，请向本公司咨询，以便
协助选型。

8.2 Selection sample

Example: Output speed of 3.5-0.7rpm, required con-
stant torque of 4000Nm, uniform load, operating for
10 hours per day, that is, useful factor $f_s=1$, output
torque of MB-R is $M_{amin} \geq M_s \cdot f_s = 4000N \cdot m \times$
 $1.00 = 4000Nm$, according to model and specification
list, so select MB40, motor power of 2.2kW, ratio of
286, required output torque of 4376-8752Nm, that is,
 $M_{amin} = 4376N \cdot m > 4000N \cdot m$ ，
after looking up in MB-R combination table, this
shows MB40 may combine with R137/R77、
R147/R77 and R167/R97. After looking up in R/R se-
ries transmission capacity table, affirm the combina-
tion is R137/R77 and permissive torque is
 $MN2 = 6600Nm > 4000Nm$ ， when ratio is 286, Model
is expressed: MBW40Y-2.2R137/77-286

8.3 MB-R组合表

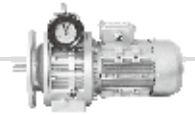
8.3 MB-R combination table

MB机座号 Size of MB	MB02	MB04	MB07	MB15	MB40	MB75	MB150
可配R机座号 MB series may combine with R series	R37 R47 R67	R37 R47 R67 R77 R87	R47 R67 R77 R87 R97	R47 R67 R77 R87 R97 R107	R77 R87 R97 R107 R137 R147	R87 R97 R107 R137 R147 R167	R107 R137 R147 R167
可配R/R机座号 MB series may combine with R/R series	R67/R37 R77/R37 R87/R47 R97/R67 R107/R77	R77/R37 R87/R47 R97/R67 R107/R77 R137/R77	R87/R47 R97/R67 R107/R77 R137/R77 R147/R77 R167/R97	R97/R67 R107/R77 R137/R77 R147/R77 R167/R97	R137/R77 R147/R77 R167/R97	R147/R77 R167/R97	

8.4 R系列MN2值表(N·m)

8.4 R series MN2 Table(N·m)

TYPE	R37	R47	R57	R67	R77	R87	R97	R107	R137	R147	R167
N·m	130	300	450	505	685	1290	2430	3580	6600	10800	14800



8.5 MB-R、MB-R/R型号规格表

8.5 Model and specification list of MB-R and MB-R/R speed variator

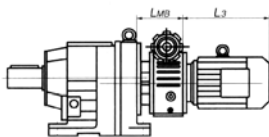
Type	02	04	07		15		40			75		150	
输入功率(kW) Input power	0.18	0.37	0.55	0.75	1.1	1.5	2.2	3	4	5.5	7.5	11	15
调速范围(r/min) Speed range	iN	输出扭矩Output torque (N · m)											
200-40	5	7-14	14-29	24-48	29-58	43-86	58-115	86-173	115-230	154-307	216-432	288-576	422-845
164-33	6.1	9-18	18-35	29-58	35-70	53-105	70-141	105-211	141-281	187-375	264-527	351-703	515-1031
147-29.4	6.8	10-20	20-39	33-65	39-78	59-118	78-157	118-235	157-313	209-418	294-588	392-783	574-1149
130-26.0	7.7	11-22	22-44	37-74	44-89	67-133	89-177	133-266	177-353	237-473	333-665	444-887	650-1301
115-23.0	8.7	13-25	25-50	42-84	50-100	75-150	100-200	150-301	200-401	267-535	376-752	501-1002	735-1470
93-18.7	10.7	15-31	31-62	51-103	62-123	92-185	123-247	185-370	247-493	329-657	462-924	616-1233	904-1808
83-16.5	12.1	17-35	35-70	58-116	70-139	105-209	139-279	209-418	279-558	372-743	523-1045	697-1394	1022-2044
74-14.7	13.6	20-39	39-79	65-131	78-157	118-235	157-313	235-470	313-627	418-836	588-1175	783-1567	1149-2298
66-13.2	15.1	22-43	43-87	72-145	87-174	130-261	174-348	261-522	348-696	464-928	652-1305	870-1740	1276-2551
59-11.8	17	24-49	49-98	82-163	98-196	147-294	196-392	294-588	392-783	522-1044	734-1469	979-1958	1436-2872
53-10.6	18.9	27-54	54-109	91-181	109-218	163-327	218-435	327-653	435-871	581-1161	816-1633	1089-2177	1597-3193
48-9.6	20.8	30-60	60-120	100-200	120-240	180-359	240-479	359-719	479-958	639-1278	899-1797	1198-2396	1757-3514
40-8.1	24.8	36-71	71-143	119-238	143-286	214-429	286-571	429-857	571-1143	762-1524	1071-2143	1428-2857	2095-4190
37-7.4	27.2	38-77	77-153	128-256	153-307	230-460	307-614	460-920	614-1227	818-1636	1151-2301	1534-3068	2250-4500
30.2-6.0	33.1	47-93	93-187	156-311	187-373	280-560	373-747	560-1120	747-1493	996-1991	1400-2800	1869-3734	2738-5476
26.9-5.4	37.2	52-105	105-210	175-350	210-420	315-629	420-839	629-1259	839-1678	1119-2338	1574-3147	2098-4196	3077-6154
23.7-4.7	42.2	60-119	119-238	198-397	238-476	357-714	476-952	714-1428	952-1904	1269-2539	1785-3570	2380-4760	3491-6982
21.0-4.2	47.6	67-134	134-268	224-447	268-537	403-805	537-1074	805-1611	1074-2148	1432-2864	2013-4027	2685-5369	3937-7875
18.9-3.8	53	75-149	149-299	249-498	299-598	448-897	598-1196	897-1794	1196-2391	1594-3188	2242-4484	2989-5978	4384-8768
16.8-3.4	59.7	84-168	168-337	281-561	337-673	505-1010	673-1347	1010-2020	1347-2694	1796-3592	2525-5051	3367-6734	4938-9877
15.0-3.0	66.6	94-188	188-376	313-626	376-751	563-1127	751-1502	1127-2254	1502-3005	2003-4007	2817-5634	3756-7512	5509-11018
13.4-2.68	74.7	105-211	211-421	351-702	421-843	632-1264	843-1685	1264-2528	1685-3370	2247-4494	3160-6320	4213-8426	6179-12358
11.8-2.37	84.5	119-238	238-477	397-794	477-953	715-1430	953-1906	1430-2859	1906-3813	2542-5084	3574-7149	4766-9532	6990-13980
10.6-2.12	94.4	133-266	266-532	444-887	532-1065	799-1597	1065-2130	1597-3194	2130-4259	2840-5679	3993-7986	5324-10648	7809-15618
9.6-1.92	104	147-293	293-587	489-978	587-1173	880-1760	1173-2346	1760-3519	2346-4692	3128-6257	4399-8798	5866-11731	8603-17206
8.7-1.74	115	162-324	324-649	541-1081	649-1297	973-1946	1297-2594	1946-3892	2594-5189	3459-6918	4865-9729	6486-12972	9513-19026
7.3-1.46	137	193-386	386-773	644-1288	773-1545	1159-2318	1545-3091	2318-4636	3091-6181	4121-8242	5795-11590	7727-15454	11333-22665
6.4-1.27	157	221-443	443-885	738-1476	885-1771	1328-2656	1771-3542	2656-5313	3542-7084	4723-9445	6641-13282	8855-17710	12987-25974
5.9-1.18	170	240-479	479-959	799-1598	959-1918	1438-2876	1918-3835	2876-5753	3835-7670	5114-10227	7191-14382	9588-19176	-
5.2-1.04	192	271-541	541-1083	902-1805	1083-2166	1624-3249	2166-4332	3249-6497	4332-8663	5775-11551	8122-16243	10829-21658	-
4.4-0.88	227	289-579	579-1158	965-1930	1158-2315	1737-3473	2315-4631	3473-6946	4631-9262	6174-12349	8683-17366	11577-23154	-
4.0-0.79	253	323-645	645-1290	1075-2151	1290-2581	1935-3871	2581-5161	3871-7742	5161-10322	6882-13763	9677-19355	12903-25806	-
3.5-0.70	286	365-729	729-1459	1216-2431	1459-2917	2188-4376	2917-5834	4376-8752	5834-11669	7779-15558	10940-21879	-	-
3.1-0.62	324	413-826	826-1652	1377-2754	1652-3305	2479-4957	3305-6610	4957-9914	6610-13219	8881-17626	12393-24786	-	-
2.5-0.50	398	507-1015	1015-2030	1692-3383	2030-4060	3045-6089	4060-8119	6089-12179	8119-16238	10826-21651	-	-	-
2.22-0.44	450	574-1148	1148-2295	1913-3825	2295-4590	3443-6885	4590-9180	6885-13770	9180-18360	12240-24480	-	-	-
1.98-0.40	506	645-1290	1290-2581	2151-4301	2581-5161	3871-7742	5161-10322	7742-15484	10322-20645	13763-27526	-	-	-
1.78-0.36	562	717-1433	1433-2866	2389-4777	2866-5732	4299-8599	5732-11465	8599-17191	11465-22930	-	-	-	-
1.58-0.32	632	806-1612	1612-3223	2686-5372	3223-6446	4835-9670	6446-12893	9670-19339	12893-25786	-	-	-	-
1.42-0.28	703	896-1793	1793-3585	2988-5976	3585-7171	5378-10756	7171-14341	10756-21512	-	-	-	-	-
1.29-0.26	774	987-1974	1974-3947	3290-6579	3947-7895	5921-11842	7895-15790	11842-23684	-	-	-	-	-
1.08-0.22	923	1177-2354	2354-4707	3923-7846	4707-9415	7061-14122	9415-18829	-	-	-	-	-	-
0.99-0.20	1012	1290-2581	2581-5161	4301-8602	5161-10322	7742-15484	10322-20645	-	-	-	-	-	-
0.81-0.16	1231	1570-3139	3139-6278	5232-10464	6278-12556	9417-18834	12556-25112	-	-	-	-	-	-
0.72-0.14	1384	1765-3529	3529-7058	5882-11764	7058-14117	10588-21175	-	-	-	-	-	-	-
0.64-0.13	1570	2002-4004	4004-8007	6673-13345	8007-16014	12011-24021	-	-	-	-	-	-	-

注: 更低的输出转速范围请查R系列的减速比即可。

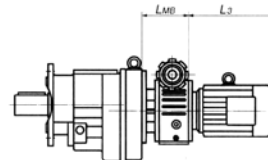
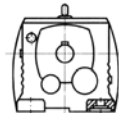
Note: Lower output speed, please look up ratio of R/R.

8.6 尺寸图表

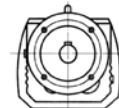
8.6 Dimension sheets



MBY-RW



MBY-RF



机座号 Size of MB	02	04	07	15	40	75	150
LMB	99	115	137	173	208	249	346

注: 减速器的安装尺寸和安装方位参照R系列, L3尺寸查电机尺寸。

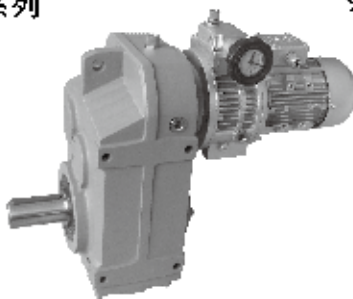
Note: For mounting dimension and position, please refer to R series.

For dimension of L3, please refer to that of motor.



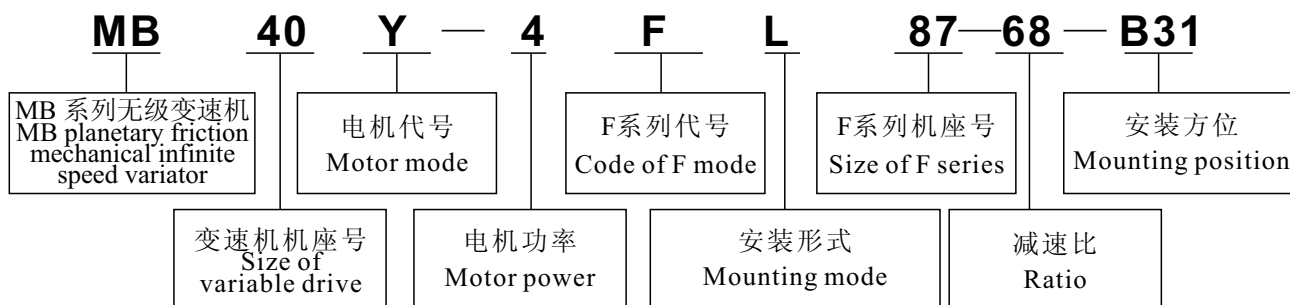
9. MB-F 无级变速机配F系列

9. MB-F Speed variator combine with F series gear



9.1 型号表示方法

9.1 Example of MB speed variator with grade F gear expression



9.2 选型方法

例：选输出转速范围29.4~5.9rpm, 即减速比34, 所需恒扭矩 $300\text{N} \cdot \text{m}$, 使用系数1.25, 即 $M_{\text{amin}} \geq M_s \cdot f_s = 300\text{N} \cdot \text{m} \times 1.25 = 375\text{N} \cdot \text{m}$, 根据型号规格表选功率1.5kW, 机座号MB15, 根据组合表MB15型可配F67、F77、F87、F97, 查F系列MN2表, F67型的MN2= $680\text{N} \cdot \text{m} > 375\text{N} \cdot \text{m}$, 需法兰向下安装, 单项实心轴, 即确认型号MBW15Y-1.5FF67-34-V1

注:客户若选型时有疑问, 请向本公司咨询, 以便协助选型。

9.2 Selection sample

Example: Output speed of 29.4-5.9rpm, that is, ratio of 34, required constant torque of 300Nm, useful factor $f_s = 1.25$, output torque of MB-F, $M_{\text{amin}} \geq M_s \cdot f_s = 300\text{N} \cdot \text{m} \times 1.25 = 375\text{Nm}$, according to model and specification list, choose MB15, motor power of 1.5kW, after looking up in MB-F combination table, this shows MB15 type may combine with F67、F77、F87 and F97. After looking up in F series transmission capacity table, affirm permissive torque of F67 is $MN2 = 680\text{Nm} > 375\text{Nm}$, when ratio is 34, required level foot-mounted, single extend solid shaft, Model is expressed: MBW15Y-1.5FF67-34-V1

9.3 MB-F组合表

9.3 MB-F combination table

MB机座号 Size of MB	MB02	MB04	MB07	MB15	MB40	MB75	MB150
可配F机座号 MB series may combine with F series	F37 F47 F67	F37 F47 F67 F77	F37 F47 F67 F77 F87	F67 F77 F87 F97	F87 F97 F107 F127	F97 F107 F127 F157	F107 F127 F157
可配F/R机座号 MB series may combine with F/R series	F67/R37 F77/R37 F87/R47 F97/R67	F77/R37 F87/R47 F97/R67 F107/R77	F87/R47 F97/R67 F107/R77 F127/R77 F157/R97	F97/R67 F107/R77 F127/R77 F127/R87 F157/R97	F107/R77 F127/R77 F157/R97	F157/R97	

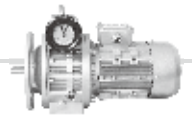
9.4 F系列MN2值表(N·m)

9.4 F series MN2 Table(N·m)

TYPE	F37	F47	F67	F77	F87	F97	R107	F127	F157
N·m	166	330	680	1250	2500	3580	6400	10000	15000

MN2为减速机额定许用输出扭矩。

MN2 is the reducer rated permissible output shaft.



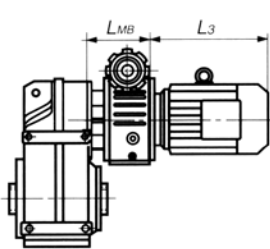
9.5 MB-F、MB-F/R型号规格表

9.5 Model and specification list of MB-F and MB-F/R speed variator

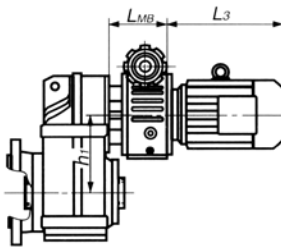
Type		02	04	07		15		40			75		150	
输入功率(kW) Input power		0.18	0.37	0.55	0.75	1.1	1.5	2.2	3	4	5.5	7.5	11	15
调速范围(r/min) Speed range	iN	输出扭矩Output torque (N · m)												
232.6-46.5	4.3	6.2-12.4	12.4-25	21-41	25-50	37-74	50-99	74-149	99-198	132-264	186-372	248-495	363-727	487-970
192.3-38.5	5.2	7.49-15.0	15.0-30	25-50	30-60	45-90	60-120	90-180	120-240	160-319	225-449	300-599	439-879	589-1173
172.4-34.5	5.8	8.4-16.7	16.7-33	28-56	33-67	50-100	67-134	100-200	134-267	178-356	251-501	334-668	490-980	657-1308
151.5-30.3	6.6	9.5-19	19-38	32-63	38-76	57-114	76-152	114-228	152-304	203-406	285-570	380-760	558-1115	748-1489
135.4-27.0	7.4	10.7-21	21-43	36-71	43-85	64-128	85-170	128-256	170-341	227-455	320-639	426-852	625-1250	838-1669
120.5-24.1	8.3	12-24	24-48	40-80	48-96	72-143	96-191	143-287	191-382	255-510	359-717	478-956	701-1402	940-1872
109.9-22.0	9.1	13.1-26	26-52	44-87	52-105	79-157	105-210	157-314	210-419	280-559	393-786	524-1048	769-1538	1031-2053
92.6-18.5	10.8	15.6-31	31-62	52-104	62-124	93-187	124-249	187-373	249-498	332-664	467-933	622-1244	912-1825	1223-2436
80.7-16.1	12.4	17.9-36	36-71	60-119	71-143	107-214	143-286	214-429	286-571	381-762	536-1071	714-1428	1048-2095	1405-2797
72.5-14.5	13.8	19.9-40	40-79	66-132	79-159	119-238	159-318	238-477	318-636	424-848	596-1192	795-1590	1166-2332	1563-3113
64.5-12.9	15.5	22-45	45-89	74-149	89-179	134-268	179-357	268-536	357-714	476-952	670-1339	893-1786	1309-2619	1756-3497
57.5-11.5	17.4	25-50	50-100	84-167	100-200	150-301	200-401	301-601	401-802	535-1069	752-1503	1002-2004	1470-2940	1971-3925
51.3-10.3	19.5	28-56	56-112	94-187	112-225	168-337	225-449	337-674	449-899	599-1198	842-1685	1123-2246	1647-3295	2209-4399
47.4-9.5	21.1	30-61	61-122	101-203	122-243	182-365	243-486	365-729	486-972	648-1296	912-1823	1215-2431	1783-3565	2390-4760
39.5-7.9	25.3	36-73	73-146	121-243	146-291	219-437	291-583	437-874	583-1166	777-1554	1093-2186	1457-2915	2137-4275	2866-5708
35-7.1	28.2	40-80	80-159	133-265	159-318	239-477	318-636	477-954	636-1272	848-1697	1193-2386	1590-3181	2333-4665	3128-6229
29.4-5.9	34	48-96	96-192	160-320	192-384	288-575	384-767	575-1151	767-1534	1023-2045	1438-2876	1918-3835	2771-5511	3771-7511
26.1-5.2	38.3	54-108	108-216	180-360	216-432	324-648	432-864	648-1296	864-1728	1152-2304	1620-3240	2160-4320	3168-6336	4248-8460
22.9-4.6	43.6	61-123	123-246	205-410	246-492	369-738	492-984	738-1475	984-1967	1311-2623	1844-3689	2459-4918	3607-7213	4836-9631
20.5-4.1	48.7	69-137	137-275	229-458	275-549	412-824	549-1099	824-1648	1099-2197	1465-2930	2060-4120	2747-5493	4028-8057	5402-10758
18.3-3.7	54.5	77-154	154-307	256-512	307-615	461-922	615-1230	922-1844	1230-2459	1639-3279	2305-4611	3074-6148	4508-9016	6045-12039
16.5-3.3	60.5	85-171	171-341	284-569	341-682	512-1024	682-1365	1024-2047	1365-2730	1820-3640	2559-5118	3412-6824	5005-10009	6711-13364
14.7-2.9	67.8	86-191	191-382	319-637	382-765	574-1147	765-1530	1147-2294	1530-3059	2039-4079	2868-5736	3824-7648	5608-11217	7520-14977
13.0-2.6	77	109-217	217-434	362-724	434-869	651-1303	869-1737	1303-2606	1737-3474	2316-4632	3257-6514	4343-8686	6369-12739	8541-17009
11.6-2.32	86.1	121-243	243-486	405-809	486-971	728-1457	971-1942	1457-2914	1942-3885	2590-5180	3642-7284	4856-9712	7122-14244	9550-19091
10.4-2.07	96.4	136-272	272-544	453-906	544-1087	816-1631	1087-2175	1631-3262	2175-4350	2900-5799	4078-8155	5437-10874	7974-15948	10693-21295
9.3-1.87	107	151-302	302-603	503-1006	603-1207	905-1810	1207-2414	1810-3621	2414-4828	3219-6437	4526-9052	6035-12070	8851-17702	11868-23636
8.5-1.69	118	166-333	333-666	555-1109	666-1331	998-1997	1331-2662	1997-3993	2662-5324	3549-7099	4991-9983	6655-13310	9761-19522	13089-26066
7.1-1.42	141	199-398	398-795	663-1325	795-1590	1193-2386	1590-3181	2386-4771	3181-6362	4241-8483	5964-11929	7952-15905	11664-23327	-
6.2-1.24	161	227-454	454-908	757-1513	908-1816	1362-2724	1816-3632	2724-5448	3632-7264	4843-9686	6810-13621	9080-18161	13318-26636	-
5.8-1.16	173	244-488	488-976	813-1626	976-1951	1464-2927	1951-3903	2927-5854	3903-7806	5204-10408	7318-14936	9757-19514	-	-
5.1-1.01	198	279-558	558-1117	931-1861	1117-2233	1675-3350	2233-4497	3350-6700	4467-8934	5956-11912	8375-16751	11167-22334	-	-
4.3-0.85	234	298-597	597-1193	995-1989	1193-2387	1790-3580	2387-4774	3580-7160	4774-9547	6365-12730	8951-17901	11934-23868	-	-
3.8-0.77	260	332-663	663-1326	1105-2210	1326-2652	1989-3978	2652-5304	3978-7956	5304-10608	7072-14144	9945-19890	13260-26520	-	-
3.4-0.68	295	376-752	752-1505	1254-2508	1505-3009	2257-4514	3009-6018	4514-9027	6018-12036	8024-16048	11284-22568	-	-	-
3.0-0.60	333	425-849	849-1698	1415-2831	1698-3397	2547-5095	3397-6793	5095-10190	6793-13586	9058-18115	12737-25475	-	-	-
2.44-0.49	410	523-1046	1046-2091	1743-3485	2091-4182	3137-6273	4182-8364	6273-12546	8364-16728	11152-22304	-	-	-	-
2.16-0.43	463	590-1181	1181-2361	1968-3936	2361-4723	3542-7084	4723-9445	7084-14168	9445-18890	12594-25187	-	-	-	-
1.92-0.38	521	664-1329	1329-2657	2214-4429	2657-5314	3986-7971	5314-10628	7971-15943	10628-21257	-	-	-	-	-
1.73-0.35	578	737-1474	1474-2948	2457-4913	2948-5896	4422-8843	5896-11791	8843-17687	11791-23582	-	-	-	-	-
1.38-0.28	724	923-1846	1846-3692	3077-6154	3692-7385	5539-11077	7385-14770	11077-22154	-	-	-	-	-	-
1.25-0.25	797	1016-2032	2032-4065	3387-6775	4065-8129	6097-12194	8129-16259	12197-24388	-	-	-	-	-	-
1.05-0.21	950	1211-2423	2423-4845	4038-8075	4845-9690	7268-14535	9690-19380	-	-	-	-	-	-	-
0.96-0.16	1042	1329-2657	2657-5314	4429-8857	5314-10628	7971-15943	10628-21287	-	-	-	-	-	-	-
0.79-0.15	1268	1617-3233	3233-6467	5389-10778	6167-12394	9700-19400	12394-25867	-	-	-	-	-	-	-
0.70-0.14	1425	1817-3634	3634-7268	6056-12113	7268-14535	10901-21803	-	-	-	-	-	-	-	-

9.6 尺寸图表

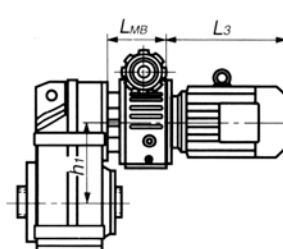
9.6 Dimension sheets



MBY-FW



MBY-FL



MBY-FA

备注: 其它F系列外形图, 详见F系列。

Note: Outline dimension of other's, please refer to F series.

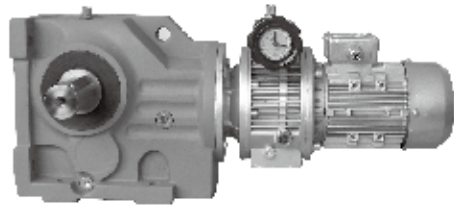
机座号 Size of MB	02	04	07	15	40	75	150
LMB	99	115	137	173	208	249	346

注: 减速器的安装尺寸和安装方位参照F系列, L3尺寸查电机尺寸。
Note: For mounting dimension and position, please refer to F series.
For dimension of L3, please refer to that of motor.

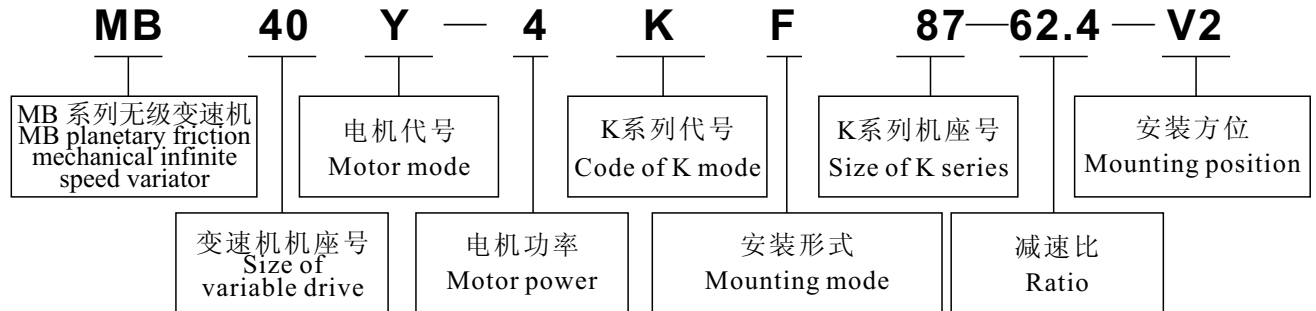


10. MB-K 无级变速机配F系列

MB-K Speed variator combine with K series gear



10.1 型号表示方法



10.1 Example of MB speed variator with grade F gear expression

10.2 选型方法

例：

1. 选输出转速范围16~3.2rpm, 所需恒扭矩 420N·m, 使用系数 $f_s=1.25$, 即减速比 $i_N=62.4$, $M_{amin} \geq M_s \cdot f_s = 420N \cdot m \times 1.25 = 525N \cdot m$, 根据型号规格表选功率1.1kW, 机座号MB15, 即 $M_{amin}=528N \cdot m > 525N \cdot m$, 根据组合表MB15型可配K47、K67、K87、K97, 查K系列MN2表, K67型的MN2=680N·m > 525N·m 即可。

2. 若以上其它要求不变, 转速6rpm以下需 420N·m, 转速6rpm至16rpm, 扭矩逐渐小至 250N·m, 校对负载变化曲线与无极变速机的扭矩-速度曲线, 若可以无级可选MB07, 电机 0.75kW, 由于 $M_{amin} \geq 525N \cdot m$, K系列还需选 k67。

10.2 Selection sample

Example:

1. Output speed of 16-3.2rpm, required constant torque of 420Nm, useful factor $f_s=1.25$, that is, ratio of 62.4, output torque of MB-K, $M_{amin} \geq M_s \cdot f_s = 420N \cdot m \times 1.25 = 525Nm$, according to model and specification list, select MB15, motor power 1.1kW, so, $M_{amin}=528N \cdot m > 525N \cdot m$, after looking up in MB-K combination table, this shows MB15 may combine with K47、K67、K77、K87and K97. After looking up in K series transmission capacity table, affirm permissive torque of K67 is $MN2=680Nm > 525Nm$ when ratio is 62.4.

2. If ther requirements are the same above requirement, when output speed is less than 6 rpm, output torque is 420Nm; as the speed is added from 6 to 16, the reducer reduce the torque to 250 gradually, checking torque rotation rate relation table, select MB07, because of $M_{amin} \geq 525Nm$, select K67 yet.

注:客户若选型时有疑问, 请向本公司咨询, 以便协助选型。

10.3 MB-K组合表

MB机座号 Size of MB	MB02	MB04	MB07	MB15	MB40	MB75	MB150
可配K机座号 MB series may combine with K series	K37 K47 K67	K37 K47 K67 K77	K37 K47 K67 K77 K87	K47 K67 K77 K87 K97	K77 K87 K97 K107 K127	K87 K97 K107 K127 K157	K107 K127 K157 K167 K187
可配K/R机座号 MB series may combine with K/R series	K67/R37 K77/R37 K87/R47 K97/R67 K107/R77	K67/R37 K77/R37 K87/R47 K97/R67 K107/R77 K127/R87	K77/R37 K87/R47 K97/R67 K107/R77 K127/R77 K127/R87 K157/R97 K167/R97 K167/R107	K87/R47 K97/R67 K107/R77 K127/R77 K127/R87 K157/R97 K167/R97 K167/R107 K187/R107	K107/R77 K127/R77 K127/R87 K157/R97 K167/R97 K167/R107 K187/R107	K127/R87 K157/R97 K167/R97 K167/R107 K187/R107	K157/R97 K167/R107 K187/R107

10.3 MB-K combination table

10.4 K系列MN2值表(N·m)

TYPE	K37	K47	K67	K77	K87	K97	K107	K127	K157	K167	K187
N·m	160	330	680	1300	2250	3580	6660	10800	15000	26600	42000

10.4 K series MN2 Table(N·m)



10.5 MB-K、MB-K/R型号规格表

10.5 Model and specification list of MB-K and MB-K/R speed variator

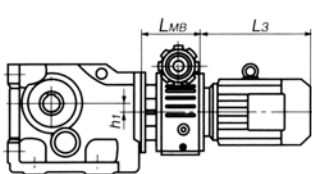
Type	02	04	07		15		40			75		150	
输入功率(kW) Input power	0.18	0.37	0.55	0.75	1.1	1.5	2.2	3	4	5.5	7.5	11	15
调速范围(r/min) Speed range	iN	输出扭矩Output torque (N · m)											
123-24.7	8.1	11-23	23-46	38-76	46-91	69-137	91-183	137-274	183-365	244-487	343-685	457-914	670-1340
102-20.4	9.8	14-28	28-55	46-82	55-111	83-166	111-221	166-332	221-442	295-590	415-829	553-1105	811-1621
91-18.2	11	16-31	31-62	52-103	62-124	93-186	124-248	186-372	248-496	331-662	465-931	620-1241	910-1820
80-16.0	12.5	18-35	35-71	59-118	71-141	106-212	141-282	212-423	282-564	376-752	529-1058	705-1410	1034-2068
70-14.0	14.3	20-40	40-81	67-134	81-161	121-242	161-323	242-484	323-645	430-860	605-1210	807-1613	1183-2366
58-11.7	17.1	24-48	48-96	80-161	96-193	145-289	193-386	289-579	386-772	514-1029	723-1447	964-1929	1415-2829
53-10.5	19	27-54	54-107	89-179	107-214	161-321	214-429	321-643	429-857	572-1143	804-1607	1072-2143	1572-3143
45-9.1	22	31-62	62-124	103-207	124-248	183-372	248-496	372-744	496-993	662-1324	931-1861	1241-2482	1820-3640
40-8.0	25	35-71	71-141	118-235	141-282	212-423	282-564	423-846	564-1128	752-1504	1058-2115	1410-2820	2068-4136
36-7.2	27.9	39-79	79-157	131-262	157-315	236-472	315-629	472-944	629-1259	839-1678	1180-2360	1574-3147	2308-4616
32-6.5	30.9	44-87	87-174	145-290	174-349	261-523	349-697	523-1046	697-1394	929-1859	1307-2614	1743-3486	2556-5112
28.0-5.6	35.7	50-101	101-201	168-336	201-403	302-604	403-805	604-1208	805-1611	1074-2148	1510-3020	2013-4027	2953-5906
23.1-4.6	43.2	61-122	122-244	203-406	244-487	365-731	487-975	731-1462	975-1949	1299-2599	1827-3655	2436-4873	3574-7147
20.0-4.0	50	71-141	141-282	235-470	282-564	423-846	564-1128	846-1692	1128-2256	1504-3008	2115-4230	2820-5640	4136-8272
18.0-3.6	55.5	78-157	157-313	261-522	313-626	470-939	626-1252	939-1878	1252-2504	1669-3339	2348-4695	3130-6260	4591-9182
16.0-3.2	62.4	88-176	176-352	293-587	352-704	528-1056	704-1408	1056-2112	1408-2815	1877-3754	2640-5279	3519-7039	5162-10323
14.3-2.9	70.1	99-198	198-395	329-659	395-791	593-1186	791-1581	1186-2372	1581-3163	2109-4217	2965-5930	3954-7907	5799-11597
12.9-2.6	77.7	110-219	219-438	365-730	438-876	657-1315	876-1753	1315-2629	1753-3506	2337-4674	3287-6573	4382-8765	6427-12855
11.6-2.33	85.9	121-242	242-484	404-807	484-969	727-1453	969-1938	1453-2907	1938-3876	2584-5168	3634-7267	4896-9792	7106-14211
9.8-1.96	102	144-288	288-575	479-959	575-1151	863-1726	1151-2301	1726-3452	2301-4602	3068-6136	4315-8629	5753-11506	8437-16875
8.5-1.71	117	165-330	330-660	550-1100	660-1320	990-1980	1320-2640	1980-3959	2640-5279	3519-7039	4949-9898	6599-13198	9678-19356
7.9-1.59	126	178-355	355-711	592-1184	711-1421	1066-2132	1421-2843	2132-4264	2843-5685	3790-7580	5330-10660	7106-14213	10723-20845
7.0-1.40	143	202-403	403-807	672-1344	807-1613	1210-2420	1613-3226	2420-4839	3226-6452	4301-8603	6049-12098	8065-16130	11829-23658
6.8-1.37	146	186-372	372-745	621-1241	745-1489	1117-2234	1489-2978	2234-4468	2978-5957	3971-7942	5585-11169	7446-14892	10921-21842
9.1-1.21	165	210-421	421-842	701-1403	842-1683	1262-2525	1683-3366	2525-5049	3366-6732	4488-8976	6311-12623	8415-16830	12342-24684
4.9-0.99	203	259-518	518-1035	863-1726	1035-2071	1553-3106	2071-4141	3106-6212	4141-8282	5522-1103	7765-15530	10353-20706	15184-30369
4.3-0.87	230	293-587	587-1173	978-1955	1173-2346	1760-3519	2346-4692	3519-7038	4692-9384	6256-12512	8798-17595	11730-23460	17204-34408
3.9-0.78	258	329-658	658-1316	1097-2193	1316-2632	1974-3947	2632-5263	3947-7898	5263-10526	7018-14035	9669-19337	13158-26316	19298-38597
3.5-0.70	287	366-732	732-1464	1220-2440	1464-2927	2196-4391	2927-5855	4391-8782	5855-11710	7806-15613	10978-21956	14637-29274	21468-42935
3.1-0.62	323	412-824	824-1647	1373-2746	1647-3295	2471-4942	3295-6589	4942-9884	6589-13178	8786-17571	12355-24710	16473-32946	24160-48321
2.9-0.59	340	434-867	867-1734	1445-2890	1734-3468	2601-5202	3468-6936	5202-10404	6936-13872	9248-18496	13005-26010	17340-34680	25432-50864
2.6-0.52	385	491-982	982-1964	1636-3273	1964-3927	2945-5891	3927-7854	5891-11781	7854-15708	10472-20944	14726-29453	19635-39270	28798-57596
2.30-0.46	435	555-1109	1109-2219	1849-3698	2219-4437	3328-6656	4437-8874	6656-13311	8874-17748	11832-23664	16639-33278	22185-44370	32538-65076
1.87-0.37	535	682-1364	1364-2729	2274-4548	2729-5457	4093-8186	5457-10914	8186-16371	10914-21828	14552-29104	20464-40928	27285-54570	40018-80036
1.64-0.33	605	771-1543	1543-3086	2571-5143	3086-6171	4628-9257	6171-12342	9257-18504	12342-24684	16456-32912	23141-46283	30855-61710	-
1.47-0.29	680	867-1734	1734-3468	2890-5780	3468-6936	5202-10404	6936-13872	10404-20808	13872-27744	18496-36992	26010-52020	34680-69360	-
1.32-0.26	755	963-1925	1925-3851	3209-6418	3851-7701	5776-11552	7701-15402	11552-23103	15402-30804	20536-41072	28879-57758	38505-77010	-
1.18-0.24	850	1084-2168	2168-4335	3613-7225	4335-8670	6503-13005	8670-17340	13005-26010	17340-34680	23120-46240	32513-65025	43350-86700	-
1.06-0.21	945	1205-2410	2410-4820	4016-8033	4820-9639	7229-14459	9639-19278	14459-28917	19278-38556	25704-51408	36146-72293	-	-
0.96-0.19	1040	1326-2652	2652-5304	4420-8840	5304-10608	7956-15912	10608-21216	15912-31824	21216-42432	28288-56576	39780-79560	-	-
0.81-0.16	1240	1581-3162	3162-6324	5270-10540	6324-12648	9486-18972	12648-25296	18972-37944	25296-50592	33728-67456	-	-	-
0.74-0.15	1360	1734-3468	3468-6936	5780-11560	6936-13872	10404-20808	13872-27744	20808-41616	27744-55488	36992-73984	-	-	-
0.60-0.12	1655	2110-4220	4220-8441	7034-14068	8441-16881	12661-25322	16881-33762	25322-50643	33762-67524	45016-90032	-	-	-
0.54-0.11	1860	2372-4743	4743-9486	7905-15810	9486-18972	14229-28458	18972-37944	28458-56916	37944-75888	-	-	-	-
0.47-0.09	2110	2690-5381	5381-10761	8968-17935	10761-21522	16142-32283	21522-43044	32283-64566	43044-86088	-	-	-	-
0.42-0.08	2380	3035-6069	6069-12138	10115-20230	12138-24276	18207-36414	24276-48552	36414-72828	-	-	-	-	-

注: 更低的输出转速范围请查K/R系列的减速比即可。

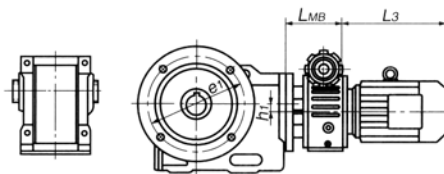
Note: Lower output speed, please look up ratio of K/R.

10.6 尺寸图表

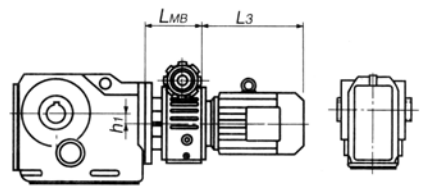
10.6 Dimension sheets



MBY-KW



MBY-KL



MBY-KA

备注: 其它K系列外形图, 详见K系列。

Note: Outline dimension of other's, please refer to K series.

机座号 Size of MB	02	04	07	15	40	75	150
LMB	99	115	137	173	208	249	346

注: 减速器的安装尺寸和安装方位参照K系列, L3尺寸查电机尺寸。

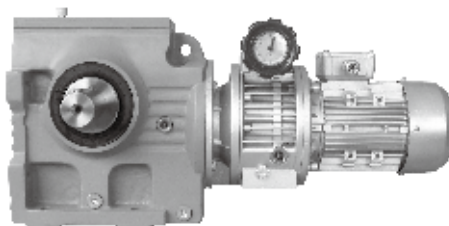
Note: For mounting dimension and position, please refer to K series.

For dimension of L3, please refer to that of motor.



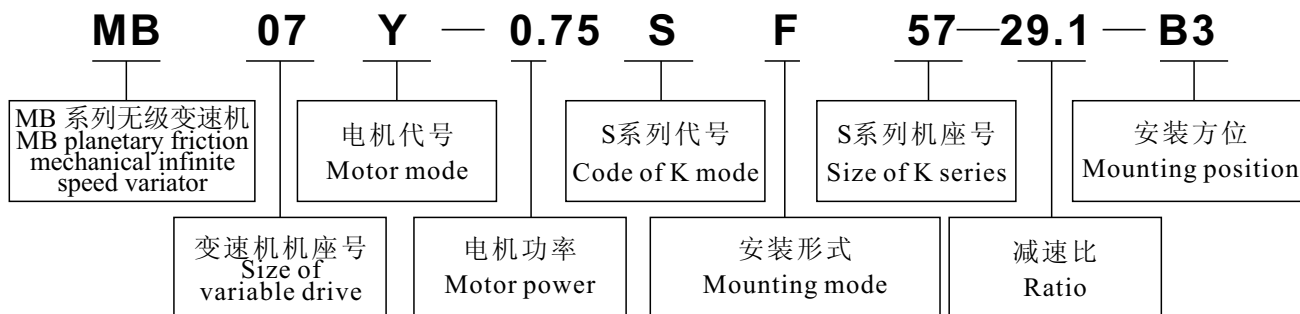
11. MB-S 无级变速机配S系列

11. MB-S Speed variator combine with S series gear



11.1 型号表示方法

11.1 Example of MB speed variator with grade F gear expression



11.2 选型方法

例：选输出转速范围9.1~1.82rpm，即减速比
 $i_N=110$ ，所需恒扭矩 $500N \cdot m$ ，均匀负载，每天运行8小时，环境温度 $40^\circ C$ ，即确认使用系数 $f_s=1.00$ ， $f_t=1.5$ ，
 $M_{amin} \geq M_s \cdot f_s = 500N \cdot m \times 1.00 = 500N \cdot m$ ，
 根据MB-S型号规格表，无级可选MB15型，功率1.1kW，
 即 $M_{amin}=614N \cdot m > 500N \cdot m$ ，
 确认蜗轮减速机的
 $MN2 \geq M_s \cdot f_s \cdot f_t = 500 \times 1.00 \times 1.5 = 725N \cdot m$ ，
 根据组合表MB15型可配S67、S77、S87、S97，
 查S系列MN2表，选S77型，
 即 $MN2=940N \cdot m > 725N \cdot m$ ，
 要求法兰面安装，B52安装，A向实心轴，
 则型号为MB15Y-1.1SF77-110-A-B52

11.2 Selection sample

Example: Output speed 9.1-1.82rpm, that is, ratio 110, required constant torque of 500Nm, uniform load, operating for 8 hours per day, ambient temperature $40^\circ C$, that is, useful factor $f_s=1.00$, $f_t=1.5$,
 $M_{amin} \geq M_s \cdot f_s = 500N \cdot m \times 1.00 = 500Nm$, according to model and specification list, choose MB15, motor power 1.1kW, so
 $M_{amin}=614N \cdot m > 500N \cdot m$, affirm rated permissible ooutput torque of worm geared:
 $MN2 \geq M_s \cdot f_s \cdot f_t = 500 \times 1.00 \times 1.5 = 725Nm$, after looking up in MB-S combination table, this shows MB15 may combine with S67、S77、S87 and S97, and checking S series transmission capacity table, when ratio is 110, combine with S77, $MN2=940Nm > 725Nm$, required flange-mounted, mounting mode B52 A direction solid solid shfat, Model is expressed: MB15Y-1.1SF77-110-A-B52

11.3 MB-S组合表

11.3 MB-S combination table

MB机座号 Size of MB	MB02	MB04	MB07	MB15	MB40	MB75
可配S机座号 MB series may combine with S series	S37 S47 S57 S67 S77	S37 S47 S57 S67 S77 S87	S67 S77 S87 S97	S67 S77 S87 S97	S77 S87 S97	S97

11.4 S系列MN2值表(N·m)

11.4 S series MN2 Table(N·m)

TYPE	S37	S47	S57	S67	S77	S87	S97
N·m	79	140	245	435	1055	1895	3330



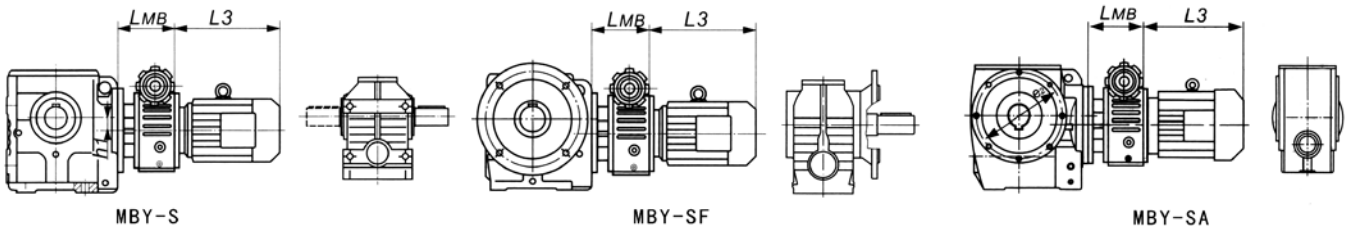
11.5 MB-S型号规格表

11.5 Model and specification list of MB-S speed variator

Type		02	04	07		15		40			75		150	
输入功率(kW) Input power		0.18	0.37	0.55	0.75	1.1	1.5	2.2	3	4	5.5	7.5	11	15
调速范围(r/min) Speed range	iN	输出扭矩Output torque (N · m)												
42-8.4	23.8	27-55	55-110	92-183	110-220	165-330	220-440	330-660	440-880	586-1173	825-1649	1100-2199	1613-3225	2162-4307
34-6.9	29.1	34-67	67-134	112-224	134-269	202-403	269-538	403-807	538-1076	717-1434	1008-2017	1344-2689	1972-3944	2644-5266
31-6.1	32.6	38-75	75-151	126-251	151-301	226-452	301-602	452-904	602-1205	803-1607	1130-2259	1506-3012	2209-4418	2962-5899
27.1-5.4	36.9	43-85	85-170	142-284	170-341	256-511	341-682	511-1023	682-1364	909-1818	1279-2557	1705-3410	2500-5001	3353-6677
24.3-4.9	41.1	47-95	95-190	158-316	190-380	285-570	380-760	570-1139	760-1519	1013-2025	1424-2848	1899-3498	2785-5570	3734-7437
21.5-4.3	46.5	54-107	107-215	179-358	215-430	322-644	430-859	644-1289	859-1719	1146-2292	1611-3222	2148-4297	3151-6302	4225-8414
19.5-3.9	51.3	59-119	119-237	198-395	237-474	356-711	474-948	711-1422	948-1896	1264-2528	1778-3555	2370-4740	3476-6952	4661-9283
17.4-3.5	57.5	66-133	133-266	221-443	266-531	398-797	531-1063	797-1594	1063-2125	1417-2834	1992-3985	2657-5313	3896-7792	5224-10405
14.7-2.9	67.8	78-157	158-313	261-522	313-626	470-940	626-1253	940-1879	1253-2506	1671-3341	2349-4699	3132-6265	4594-9188	-
13.6-2.7	73.7	69-137	137-274	228-457	274-548	411-822	548-1097	822-1645	1097-2193	1462-2924	2056-4112	2742-5483	4021-8042	-
11.5-2.29	87.3	81-162	162-325	271-541	325-650	487-974	650-1299	974-1949	1299-2598	1732-3464	2436-4871	3248-6495	4763-9526	-
10.2-2.03	98.5	92-183	183-366	305-611	366-733	550-1099	733-1466	1099-2199	1466-2931	1954-3908	2748-5496	3664-7328	-	-
9.1-1.82	110	102-205	205-409	341-682	409-818	614-1228	818-1637	1228-2455	1637-3274	2182-4365	3069-6138	4092-8184	-	-
8.1-1.63	123	114-229	229-458	381-763	458-915	686-1373	915-1830	1373-2745	1830-3660	2440-4881	3432-6863	4576-9151	-	-
7.2-1.44	139	129-259	259-517	431-862	517-1034	776-1551	1034-2068	1551-3102	2068-4137	2758-5516	3878-7756	5171-10342	-	-
6.5-1.30	154	143-286	286-573	477-955	573-1146	859-1719	1146-2292	1719-3437	2292-4583	3055-6111	4297-8593	-	-	-
5.7-1.14	175	163-326	326-651	543-1085	651-1302	977-1953	1302-2604	1953-3906	2604-5208	3472-6944	4883-9765	-	-	-
4.9-0.99	203	189-378	378-755	629-1259	755-1510	1133-2265	1510-3021	2265-4531	3021-6041	4028-8055	5664-11327	-	-	-
4.4-0.87	229	213-426	426-852	710-1420	852-1704	1278-2556	1704-3408	2556-5111	3408-6815	4543-9087	-	-	-	-
4.0-0.79	252	234-469	469-937	781-1562	937-1875	1406-2812	1875-3750	2812-5625	3750-7500	5000-9999	-	-	-	-
3.5-0.71	283	263-526	526-1053	877-1755	1053-2106	1579-3158	2106-4211	3158-6317	4211-8422	5615-11229	-	-	-	-
3.1-0.62	324	301-603	603-1205	1004-2009	1205-2411	1808-3616	2411-4821	3616-7232	4812-9642	-	-	-	-	-

11.6 尺寸图表

11.6 Dimension sheets

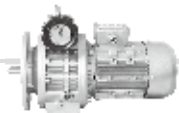


备注: 其它S系列外形图, 详见S系列。

Note: Outline dimension of other's, please refer to S series.

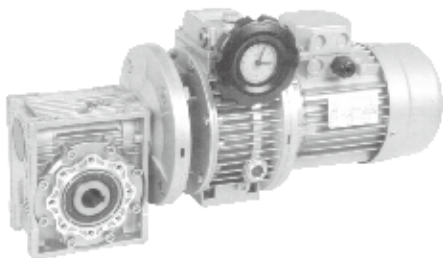
机座号 Size of MB	02	04	07	15	40	75	150
LMB	99	115	137	173	208	249	346

注: 减速器的安装尺寸和安装方位参照S系列, L3尺寸查电机尺寸。
Note: For mounting dimension and position, please refer to S series.
For dimension of L3, please refer to that of motor.



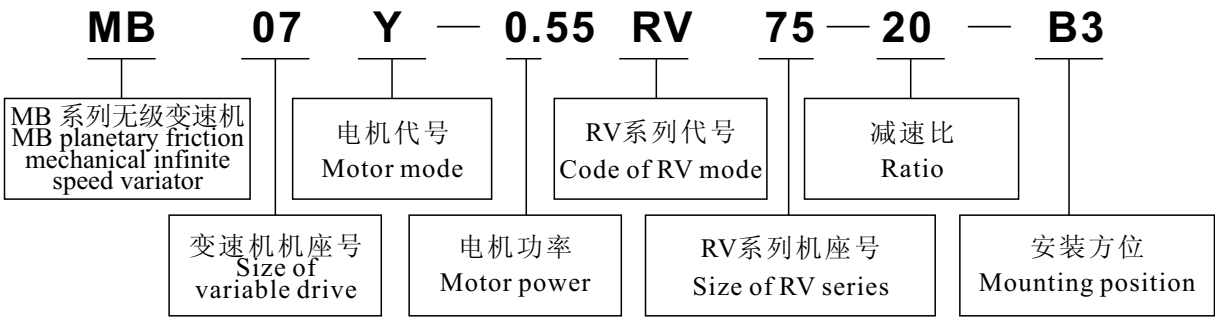
12. MB-RV 无级变速机配RV系列

12. MB-RV Speed variator combine with RV series gear



12.1 型号表示方法

12.1 Example of MB speed variator with grade RV gear expression

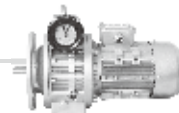


12.3 型号规格表

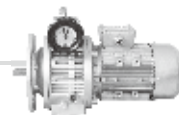
12.3 Mode and specification list of MV-RV speed variator

MB			02	04
输入功率 (kW) (1400r/min)			0.18	0.37
RV	i	n2r/min	M2Nm	M2Nm
40	7.5	128.7–25.7	9–18	
	10	96.5–19.3	12–24	
	15	64.4–13	17–37	
	20	48–9.7	22–43	
	25	38.6–7.7	27–52	
	30	32.2–6.4	31–60	
	40	24–4.8	38–73	
	50	19.3–3.9	46–88	19–38
50	7.5	128.7–25.7		26–50
	10	96.5–19.3		37–71
	15	64.4–13		47–91
	20	48–9.7		57–110
	25	38.6–7.7		65–125
	30	32.2–6.4		79–153
	40	24–4.8	38–74	94–182
	50	19.3–3.9	46–88	
	60	16–3.2	51–98	
	80	12–2.4	64–124	
	100	9.7–1.9	72–140	

MB			04	07		15	
输入功率 (kW) (1400r/min)			0.37	0.55	0.75	1.1	1.5
RV	i	n2r/min	M2Nm	M2Nm	M2Nm	M2Nm	M2Nm
63	7.5	128.7–25.7		29–56	39–77		
	10	96.5–19.3		38–74	52–102		
	15	64.4–13		55–107	75–146		
	20	48–9.7		72–139	99–190		
	25	38.6–7.7		87–167	118–229		
	30	32.2–6.4	84–162	98–191	134–260		
	40	24–4.8	99–191	125–241	171–328		
	50	19.3–3.9	110–212	147–284	200–387		
	60	16–3.2	142–273	164–315			
	100	12–2.4	152–295				
75	7.5	9.7–1.9					
	10	128.7–25.7				58–114	80–156
	15	96.5–19.3				78–151	107–206
	20	64.4–13				113–219	155–299
	25	48–9.7				147–282	200–385
	30	38.6–7.7				178–344	243–469
	40	32.2–6.4				203–392	277–535
	50	24–4.8					
	60	16–3.2					
	80	12–2.4					

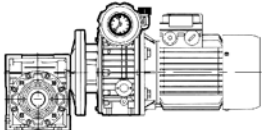
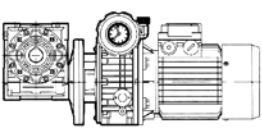
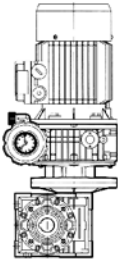
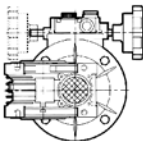
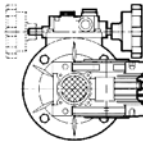
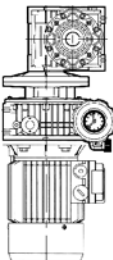


MB			02	04	07		15		22	40	
输入功率 (kW) (1400r/min)			0.18	0.37	0.55	0.75	1.1	1.5	2.2	3	4
RV	i	n2r/min	M ₂ Nm	M2Nm	M2Nm	M2Nm	M2Nm	M2Nm	M2Nm	M2Nm	M2Nm
75	50	19.3-3.9		103-199	153-297	209-405					
	60	16-3.2		115-222	172-330	234-451					
	80	12-2.4		149-287	222-427						
	100	9.7-1.9		164-318							
90	7.5	128.7-25.7					60-116	81-158			
	10	96.5-19.3					79-153	108-209			
	15	64.4-13					115-222	156-303			
	20	48-9.7					150-289	205-394			
	25	38.6-7.7					182-353	243-481			
	30	32.2-6.4					208-403	284-549			
	40	24-4.8			134-258	183-352	269-516	367-704			
	50	19.3-3.9			160-310	219-422	321-620	437-845			
	60	16-3.2			183-351	249-479					
	80	12-2.4			233-447	318-610					
	100	9.7-1.9			261-508	357-692					
110	7.5	128.7-25.7							119-232	162-317	216-422
	10	96.5-19.3							158-306	216-418	288-557
	15	64.4-13							230-444	313-606	418-808
	20	48-9.7							308-592	415-798	554-1064
	25	38.6-7.7					187-361	249-493	374-726	511-986	681-1315
	30	32.2-6.4					213-413	291-563	427-826	583-1127	
	40	24-4.8					279-537	381-732	559-1074	763-1465	
	50	19.3-3.9					334-645	456-880			
	60	16-3.2					381-733	521-1000			
	80	12-2.4					195-950				
	100	9.7-1.9					559-1085				
130	7.5	128.7-25.7								164-320	216-422
	10	96.5-19.3								216-418	288-557
	15	64.4-13								317-627	418-808
	20	48-9.7								420-808	561-1077
	25	38.6-7.7							374-723	511-1010	681-1315
	30	32.2-6.4							427-826	583-1127	778-1503
	40	24-4.8						381-732	559-1074	763-1465	1017-1954
	50	19.3-3.9						456-880	669-1291	912-1761	
	60	16-3.2						521-1000	764-1467		
	80	12-2.4						685-1315	1004-1929		
	100	9.7-1.9						774-1503	1136-2204		



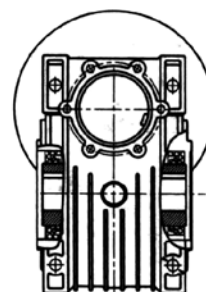
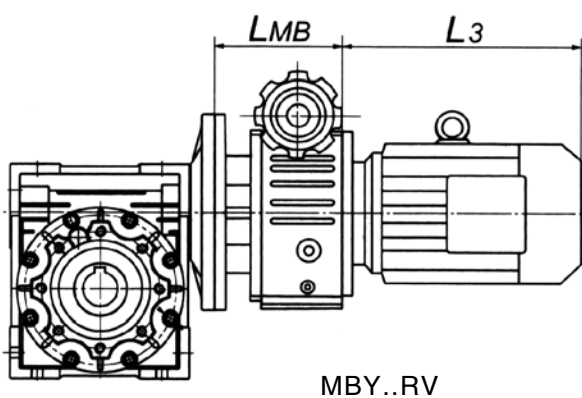
12.4 安装方位和尺寸图表

12.4 Mounting position and dimension sheets

 B3	 B8	 V5
 B6	 B7	 V6

尺寸图

Dimension



备注: 其它RV系列外形图, 详见RV系列。

Note: Outline dimension of other's, please refer to RV series.

机座号 Size of MB	02	04	07	15	22	40
LMB	99	115	137	173	208	208

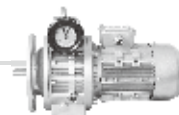
注: 减速器的安装尺寸和安装方位参照S系列, L3尺寸查电机尺寸。

Note: For mounting dimension and position, please refer to S series.

For dimension of L3, please refer to that of motor.



变速机型号			02	04	07		15		22	40		55	75	150	
输入功率 (kW)			0.18	0.37	0.55	0.75	1.1	1.5	2.2	3	4	5.5	7.5	11	15
输入转速			1500r/min												
变减速 机组合	传动比	变速 范围	许用输出扭矩(N·m)												
MB X5	9	22-111								389-197	518-259				
	11	18-90								475-238	643-317				
	17	11.5-58							550-275	734-376	979-490				
	23	8.5-43						496-248	745-373	994-497	1000-662				
	29	7-34					470-236	626-313	994-497	1000-626	1000-835				
	35	6-28					567-284	759-378	1000-626	1000-756	1000				
	43	4.5-23				464-232	697-348	928-464	1000-756	1000					
	59	3.5-17			530-265	637-318	956-478	1000-637	1000						
	71	2.8-14			638-319	766-383	1000-575	1000-766							
	87	2.3-11.5			783-319	940-470	1000-705	1000							
MB X6	9	22-111										729-365	972-486		
	11	18-90										891-446	1188-594		
	17	11.5-58										1377-689	1836-918		
	23	8.5-43									1325-662	1863-932	2000-1242		
	29	7-34							940-470	1253-626	1570-835	2000-1013	2000-1566		
	35	6-28							1134-567	1512-756	2000-1008	2000-1175	2000-1890		
	43	4.5-23							1393-697	1858-929	2000-1238	2000-1448	2000		
	59	3.5-17						1274-637	1912-656	2000-1274	2000-1354	2000			
	71	2.8-14					1150-575	1532-766	2000-1150	2000-1532	2000-1699				
	87	2.3-11.5					1409-705	1879-940	2000	2000					
MB X8	9	22-111												1452-712	1908-955
	11	18-90												1742-917	9326-1166
	17	11.5-58												2962-1346	3595-1805
	23	8.5-43											2484-1242	3634-1821	4864-2442
	29	7-34										2347-1175	2700-1350	4500-2296	4500-3079
	35	6-28										2835-1418	3132-1566	4500-2772	4500-3717
	43	4.5-23									2477-1238	3483-1742	3780-1890	4500-3405	
	59	3.5-17								2549-1274	3398-1699	3807-1904	4500-3186	4500	
	71	2.8-14							2300-1150	3064-1532	4090-2045	4500-2390	4500-3834		
	87	2.3-11.5							2819-1409	3758-1879	4500-2506	4500-2876	4500		
MB X9	11	18-90												1742-871	2326-1168
	17	11.5-58												2962-1346	3595-1805
	23	8.5-43												3643-1821	4864-2442
	29	7-43												4593-2296	6133-3079
	35	6-28										2835-1418	780-1890	5544-2772	7100-3717
	43	4.6-23										3483-1742	4604-2322	6811-3405	7100-4566
	59	3.4-17										4779-2390	7100-3186	7100-4627	7100-6266
	71	2.8-14									4090-2045	5751-2876	7100-3834	7100-5632	7100
	87	2.3-11.5									5011-2506	7047-3524	7100	7100	

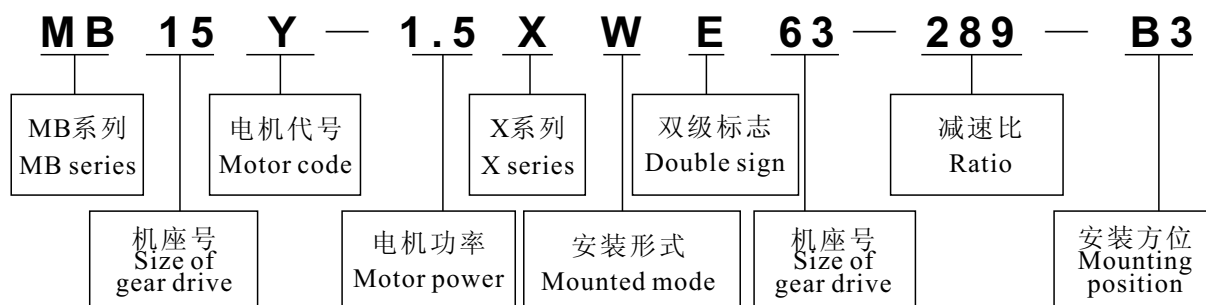
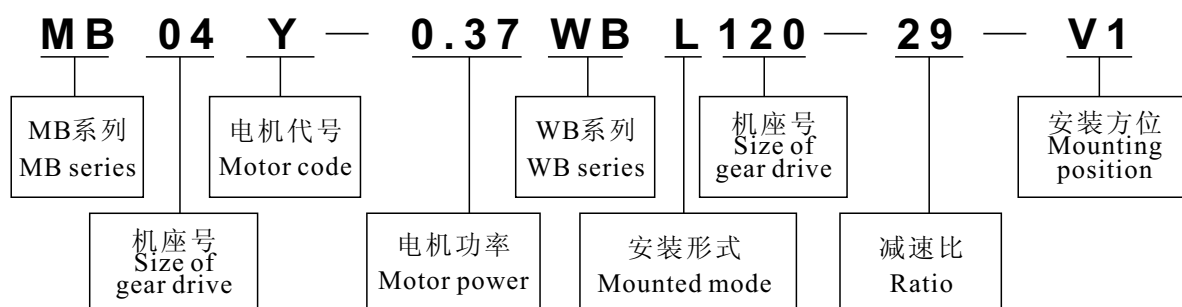
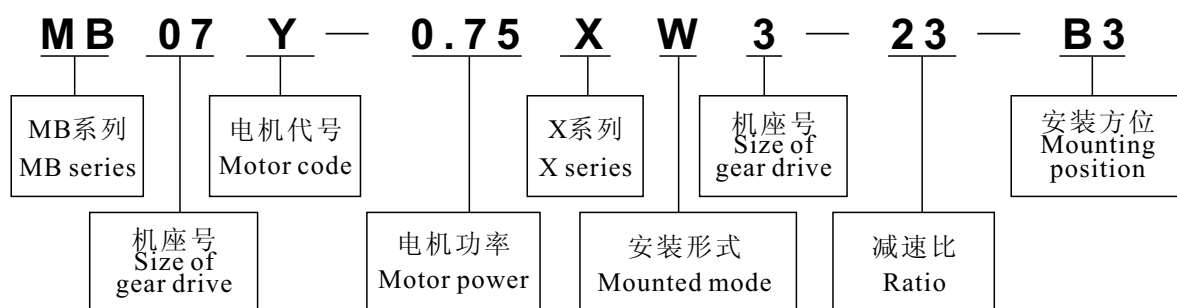


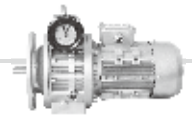
13. MB-X(WB) 无级变速机配X(WB)系列

13. MB-X(WB) Speed variator combine with X(WB) series gear

13.1 型号表示方法

13.1 Example of MB speed variator with grade X(WB) gear expression

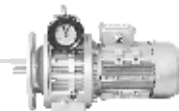




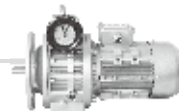
13.2. 选型参数表

13.2. Type selection parameter table

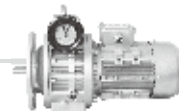
变速机型号			02	04	07		15		22	40		55	75	150	
输入功率 (kW)			0.18	0.37	0.55	0.75	1.1	1.5	2.2	3	4	5.5	7.5	11	15
输入转速			1500r/min												
变减速 机组合	传动比	变速 范围	许用输出扭矩(N·m)												
MB WB100	9	22-111													
	11	18-90	24-12	48-24											
	17	11.5-58	30-15	60-30											
	23	8.5-43	46-23	92-46											
	29	7-34	62-31	120-62											
	35	6-28	78-39	120-95											
	43	4.5-23	94-47	120											
	59	3.5-17	116-58	120	81-41	97-49									
MB MB X2WB120	9	22-111	120-77	48-24	99-50	119-59									
	11	18-90		60-30	150-77	150-59									
	17	11.5-58		92-46	150-77	150-124									
	23	8.5-43		134-62	150-104	150-135									
	29	7-34		150-78	150-113	150									
	35	6-28		150-95	150-131										
	43	4.5-23		150-116	150										
	59	3.5-17		150											
	71	2.8-14													
MB MB X3WB150	9	22-111			81-41	97-49	146-73	194-97							
	11	18-90			99-50	119-59	178-89	238-119							
	17	11.5-58			153-77	184-92	250-138	250-184							
	23	8.5-43			207-104	248-124	250-186	250							
	29	7-34			250-131	250-157	250-203								
	35	6-28			250-157	250-189	250-236								
	43	4.5-23			250-194	250-232	250								
	59	3.5-17			250	250									
	71	2.8-14													
MB X4	9	22-111					146-73	194-97	293-146						
	11	18-90					178-89	238-119	356-178						
	17	11.5-58					275-138	347-184	500-275						
	23	8.5-43				248-124	373-186	500-248	500-373						
	29	7-43			251-131	313-157	470-236	500-270	500-405						
	35	6-28			314-157	378-189	500-284	500-313	500-470						
	43	4.6-23			387-194	464-232	500-348	500-378							
	59	3.4-17			423-212	500-318	500-381	500							
	71	2.8-14			500-265	500-383	500								
	87	2.3-11.5			500-319	500									



变速机型号			02	04	07		15		22	40		55	75	150	
输入功率 (kW)			0.18	0.37	0.55	0.75	1.1	1.5	2.2	3	4	5.5	7.5	11	15
输入转速			1500r/min												
变减速 机组合	传动比	变速 范围	许用输出扭矩(N·m)												
MB X5	9	22-111								389-197	518-259				
	11	18-90								475-238	643-317				
	17	11.5-58							550-275	734-376	979-490				
	23	8.5-43						496-248	745-373	994-497	1000-662				
	29	7-34					470-236	626-313	994-497	1000-626	1000-835				
	35	6-28					567-284	759-378	1000-626	1000-756	1000				
	43	4.5-23				464-232	697-348	928-464	1000-756	1000					
	59	3.5-17			530-265	637-318	956-478	1000-637	1000						
	71	2.8-14			638-319	766-383	1000-575	1000-766							
	87	2.3-11.5			783-319	940-470	1000-705	1000							
MB X6	9	22-111										729-365	972-486		
	11	18-90										891-446	1188-594		
	17	11.5-58										1377-689	1836-918		
	23	8.5-43									1325-662	1863-932	2000-1242		
	29	7-34							940-470	1253-626	1570-835	2000-1013	2000-1566		
	35	6-28							1134-567	1512-756	2000-1008	2000-1175	2000-1890		
	43	4.5-23							1393-697	1858-929	2000-1238	2000-1448	2000		
	59	3.5-17						1274-637	1912-656	2000-1274	2000-1354	2000			
	71	2.8-14					1150-575	1532-766	2000-1150	2000-1532	2000-1699				
	87	2.3-11.5					1409-705	1879-940	2000	2000					
MB X8	9	22-111												1452-712	1908-955
	11	18-90												1742-917	9326-1166
	17	11.5-58												2962-1346	3595-1805
	23	8.5-43											2484-1242	3634-1821	4864-2442
	29	7-34										2347-1175	2700-1350	4500-2296	4500-3079
	35	6-28										2835-1418	3132-1566	4500-2772	4500-3717
	43	4.5-23									2477-1238	3483-1742	3780-1890	4500-3405	
	59	3.5-17								2549-1274	3398-1699	3807-1904	4500-3186	4500	
	71	2.8-14							2300-1150	3064-1532	4090-2045	4500-2390	4500-3834		
	87	2.3-11.5							2819-1409	3758-1879	4500-2506	4500-2876	4500		
MB X9	11	18-90												1742-871	2326-1168
	17	11.5-58												2962-1346	3595-1805
	23	8.5-43												3643-1821	4864-2442
	29	7-43												4593-2296	6133-3079
	35	6-28										2835-1418	780-1890	5544-2772	7100-3717
	43	4.6-23										3483-1742	4604-2322	6811-3405	7100-4566
	59	3.4-17										4779-2390	7100-3186	7100-4627	7100-6266
	71	2.8-14									4090-2045	5751-2876	7100-3834	7100-5632	7100
	87	2.3-11.5									5011-2506	7047-3524	7100	7100	



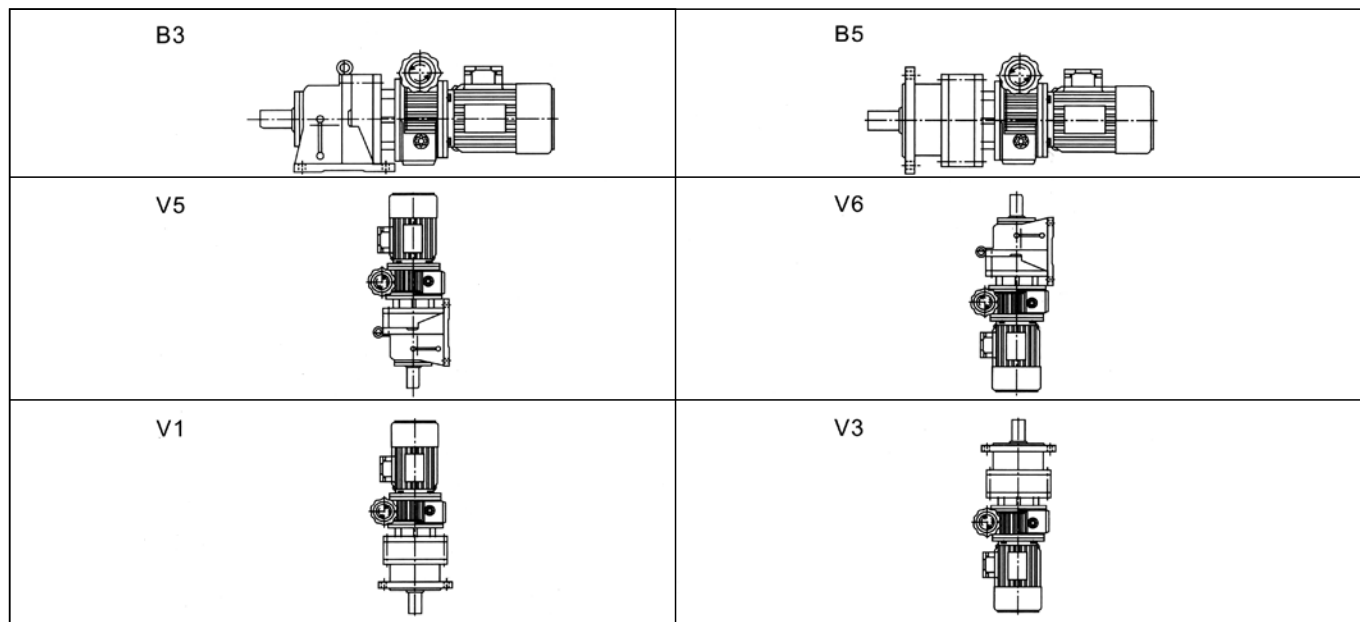
变速机型号			02	04	07		15		22	40		55	75	150	
输入功率 (kW)			0.18	0.37	0.55	0.75	1.1	1.5	2.2	3	4	5.5	7.5	11	15
输入转速			1500r/min												
变减速 机组合	传动比	变速 范围	许用输出扭矩(N·m)												
MB X10	17	11.5-58												4437-2218	5385-2692
	23	8.5-43												6003-3001	7286-3643
	29	7-34											7569-3784	7569-3784	9187-4593
	35	6-28											9135-4567	9135-4567	11088-5544
	43	4.5-23										6811-3405	9094-4566	11223-5644	12000-6811
	59	3.5-17										9345-4672	12000-6265	12000-7699	12000-9345
	71	2.8-14									7668-3834	1246-5623	12000-7540	12000-9265	12000
	87	2.3-11.5									9396-4698	2000-6890	12000-9239	12000	
MB X11	17	11.5-58													5385-2692
	23	8.5-43													7286-3643
	29	7-34												7569-3784	9187-4593
	35	6-28											7402-3717	9135-1567	11088-5544
	43	4.5-23											9094-4566	11223-5611	13622-5311
	59	3.5-17										9345-4672	12478-6265	15398-7699	18961-9345
	71	2.8-14									7668-3834	11246-5623	15016-7540	18561-9265	20000-11246
	87	2.3-11.5									1176-5880	13780-6890	18400-9239	20000-11353	
MB X42	121	8.25-1.65			500-297	500									
	187	5.35-1.07			500-456	500									
	289	3.45-0.69			500	500									
	319	3.1-0.6			500										
MB X53	121	8.25-1.65				990-495	1000-594	1000							
	187	5.35-1.07				1000-760	1000	1000							
	289	3.45-0.69				1000	1000								
	319	3.1-0.6				1000	1000								
	473	2.1-0.42				1000									
MB X63	121	8.25-1.65				990-495	1188-594	1782-891	2000-1188						
	187	5.35-1.07				1520-760	1824-912	2000-1368	2000-1824						
	289	3.45-0.69				2000-175	2000-1416	2000	2000						
	319	3.1-0.6				2000-1290	2000-1548	2000							
	473	2.1-0.42				2000	2000								
	595	2-0.4				2000									
MB X84	121	8.25-1.65						1782-891	2376-1188	3564-1762					
	187	5.35-1.07						2736-1368	3676-1824	4500-2736					
	289	3.45-0.69					2820-1416	4230-2115	4500-2820	4500					
	319	3.1-0.6					2096-1548	4500-2322	4500-3096	4500					
	473	2.1-0.42				3840-1920	4500-2394	4500-3456	4500						
	595	2-0.4				4500-2410	4500-2892	4500	4500						
	731	1.35-0.27				4500-2965	4500-3558	4500							
	841	1.15-0.23					4500								
	1003	1-0.2					4500								



变速机型号			02	04	07		15		22	40		55	75	150	
输入功率 (kW)			0.18	0.37	0.55	0.75	1.1	1.5	2.2	3	4	5.5	7.5	11	15
输入转速			1500r/min												
变减速 机组合	传动比	变速 范围	许用输出扭矩(N·m)												
MB X95	121	8.25-1.65							3564-1782	4704-2352	6272-3136				
	187	5.35-1.07						3676-1824	5472-2736	7100-3648	7100-4832				
	289	3.45-0.69					4230-2115	5640-2820	7100-4230	7100-5640	7100				
	319	3.1-0.6					4644-2322	6192-3096	7100-4644	7100-6192					
	473	2.1-0.42					6912-3456	4608-9216	7100	7100					
	595	2-0.4					7100-4338	7100-5784	7100						
	731	1.35-0.27			6810-3405	7100-3558	7100-5337	7100							
	841	1.15-0.23			7100-4065	7100-4092	7100-6129								
	1003	1-0.2			7100-6772	7100-4878	7100								
	1505	0.13-0.66				7100									
MB X106	121	8.25-1.65								4704-2352	6722-3136	8820-4410	11761-5880		
	187	5.35-1.07							5472-2736	7296-3648	9664-4832	12000-6840	12000-9120		
	289	3.45-0.69							8476-4230	11280-5640	12000-7520	12000-10404	12000		
	319	3.1-0.6						6192-3096	9288-4644	12000-6192	12000-8256	12000			
	473	2.1-0.42					6912-3456	9216-4608	12000-6912	12000-9216	12000				
	595	2-0.4					8676-4338	11568-5784	12000-8676	12000-11424					
	731	1.35-0.27					10674-5337	12000-7116	12000-10526	12000					
	841	1.15-0.23					12000-6129	12000-8184	12000						
	1003	1-0.2					12000-7313	12000-9756							
	1505	0.13-0.66					12000-10636	12000							
MB X117	121	8.25-1.65									6272-2316	3820-4410	11761-5880	17248-824	2000
	187	5.35-1.07								7296-3648	9664-4832	13680-6840	18240-9120	20000-13165	2000
	289	3.45-0.69								11280-5640	15040-7520	20000-10404	20000-13872	20000	
	319	3.1-0.6							9288-4644	12384-6192	16512-8256	20000-11484	20000-15312		
	473	2.1-0.42							13824-6912	18432-9216	20000-12109	20000-17018	20000		
	595	2-0.4							17352-8678	20000-11424	20000-15232	20000			
	731	1.35-0.27							20000-10526	20000-14035	20000-18713				
	841	1.15-0.23							20000-12110	20000-16147	20000				
	1003	1-0.2							20000-14440	20000					
	1505	0.13-0.66							20000						

13.3 安装方位和尺寸图表

安装方位

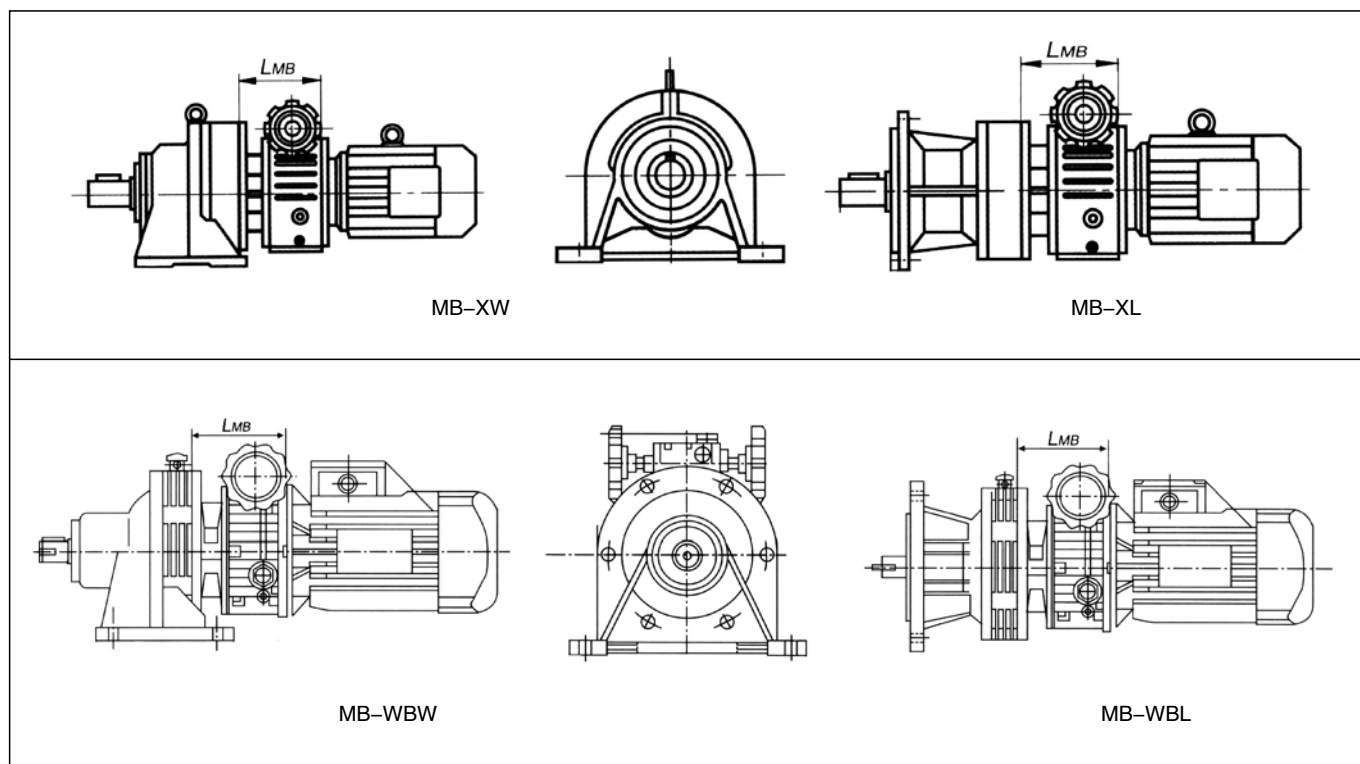


13.3 Mounting position and dimension sheets

Mounting position

尺寸图表

Dimension sheets



注: 减速器的安装尺寸和安装方位参照S系列, L3尺寸查电机尺寸。
 Note: For mounting dimension and position, please refer to S series.
 For dimension of L3, please refer to that of motor.

机座号 Size of MB	02	04	07	15	22	40	75	150
LMB	99	115	137	173	208	208	249	450



电 机

MOTOR

1. 电机按标准供货，若指定或高于此标准必须说明。

Y 普通三相异步电动机：

电压380V，频率50Hz（其它电压、频率需注明）

防护等级：IP44或IP54（指定IP54、IP55、
IP56、IP65等需注明）

绝缘等级：B或F（指定F等需注明）

制动电机的制动器电压：380V或220V（指定
电压或其它电压需注明）

防爆电机防爆等级：B II CT4（其它等级需注明）

变频电机频率范围：C-50Hz (0-60Hz、0-120Hz
或指定的范围需提出）

电机的噪声、电流、频率、功率因素、额定
转矩等项目按国家标准。

1. motor is provided depending on national standard, please state if requiring appointed or higher standard motor.

Y series common tri-phase asynchronous motor:

voltage:380V, frequency:50Hz (other voltage, frequency need be stated)

Corrosion protection levels: IP54 or IP55 (Appointed IP54, IP55, IP56, IP65 etc. require to be stated)

Insulation levels: B and F (Appointed F etc. need be stated)

Brake voltage of brake motor: 380V or 220V

(Appointed voltage or other voltage need be stated)

Explosion protection levels of explosion-proof motor:
B II CT4 (Other levels need be stated)

Variable frequency rang of variable frequency motor:
0-50Hz (0-60Hz, 0-120Hz or appointed rang need be stated)

Noise, current, efficiency, power factor, rated torque etc should accord with national standard.

2. 以下要求及附件需另行说明：

*制动电机配手释放装置

*电机的热传感器

*不带风冷或强制风冷

*配旋转编码器

*防水、防潮、防尘的要求

2 Need specify additional about below requirement and accessories:

* Brake motor is equipped with manual operation release device

* Thermal sensor of motor

* Not installing cooling or forced cooling

* Equipped with rotation coder

* Waterproof, dampproof, dustproof, requirement

3. 电机代号

四极三相异步电动机代号—Y(六极代号—Y6、
八极代号—Y8、二极代号—Y2，下同)

制动电机代号—YEJ

防爆电机代号—YB

变频电机代号—YP

多速电机代号—YD

变频制动代号—YPEJ

直流电机代号—YZ

其它电机代号另咨询。

3 Motor code:

4 electrodes tri-phase asynchronous motor's name code is Y. (Code of 6 electrodes is Y6, that of 8 electrodes is Y8, that of 2 electrodes is Y2, under motors is the same)

Code of brake motor is YEJ

Code of explosion-proof motor is YB

Code of variable frequency motor is YP

Code of multi-speed motor is YD

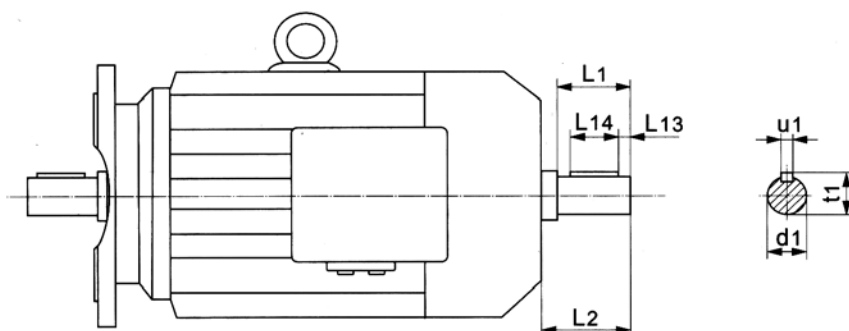
Code of brake and variable frequency motor is YPEJ

Code of direct current electrical motor is YZ

Please consultate with BOLI for other motor.

4. 电机双出轴

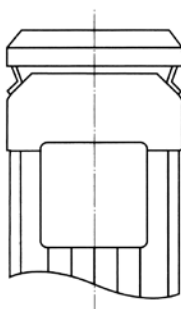
4. Double extension output shaft of motor



	63	71	80	90/100	112	132S	132M	160L	180	200-225
d1	11	11	14	19	24	28	38	42	48	55
L1	23	23	30	40	50	60	80	110	110	110
L2	27	25	31	42	55	65	85	115	115	115
L13	3.5	1	4	4	5	5	5	10	10	10
L14	16	20	22	32	40	50	70	70	80	90
t1	12.5	12.5	16	21.5	27	31	41	45	51.5	59
u1	4	4	5	6	8	8	10	12	14	16

5. 电机配室外防护罩

5. Motor is equipped with outdoor shield



6. 电机接线盒未注明位置一般以0° 供货

6. In general, motor junction box's atation is at 0° when supplying



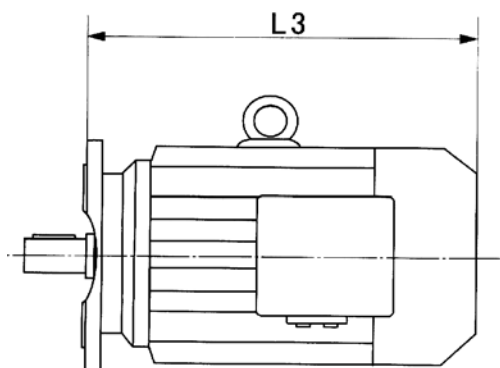
7. 以下只对Y、Y2的额定转速、外形长度尺寸提供一般说明。由于购买厂家不同，和配齿轮箱时法兰缩小，有时尺寸会有些变化，此处不标，其它例如直流、伺服、起重冶金高转差率电机及其它特种电机另行咨询。

7 Boli offer specification for rated speed, outline, length dimension of Y series and Y2 series, because some dimension vary with motor manufacturer and unit's flange, we don't label some dimension. Please consult with Boli for DC motor, servo-motor crane metallurgy high revolution slip motor and other special motors.

8. 电机功率和转速、重量、长度尺寸表

8. Table of power, speed weight and length dimension

	2极(2electrodes)		4极(4electrodes)		6极(6electrodes)		8极(8electrodes)		m (kg)					L3 (mm)			
	Pm(kW)	nm(r pm)	Pm(kW)	nm(r pm)	Pm(kW)	nm(r pm)	Pm(kW)	nm(r pm)	Y (变频)	Y	YB	YEJ	YP	Y	YB	YEJ	YP
63	0.18	2720	0.12	1310					5.5				11	227	270	328	
	0.25	2720	0.18	1310					6		15		12				
71	0.37	2740	0.25	1330	0.18	850			6.5	10	16	12	14	245	285	345	
	0.55	2740	0.37	1330	0.25	850			7.5	10.50	16	13	15				
80	0.75	2845	0.55	1390	0.37	885	0.18	645	10	15	31	20	16	250	290	350	310
	1.1	2845	0.75	1390	0.55	885	0.25	645	11	16	32	21	17				
90s	1.5	2840	1.1	1390	0.75	910	0.37	670	16	20	35	27	23	265	310	370	320
90l	2.2	2840	1.5	1390	1.1	910	0.55	670	20	23	39	31	28	290	335	395	345
100	3	2860	2.2	1410	1.5	920	0.75	680						320	370	420	370
			3	1410			1.1	680									
112M	4	2880	4	1440	2.2	935	1.5	690		46	67	60	43	340	400	450	390
132S	5.5	2900	5.5	1440	3	960	2.2	705		60	93	85	63	395	430	505	450
	7.5	2900															
132M			7.5	1440	4	960	3	705		73	105	98	75	435	470	545	490
					5.5	965											
160M			11	1460	7.5	970	4	720		115	150	143	116	495	545	610	550
							5.5	720									
160L			15	1460						135	169	165	136	540	585	655	595
180M			18.5	1470	11	970	7.5	720		172	205	203	169	560	620	715	740
180L			22	1470	15	970	11	730		185	222	216	183	600	640	765	790
200			30	1470	18.5	970	15	730		253	300	296	236	665	695	790	850
					22	970											
225S			37	1480			18.5	730		300	360	370	291	680	705	860	910
225M			45	1480	30	980	22	730		335	390	405	327	705	730	890	940
250			55	1480	37	980	30	730		420	530	498	393	795	795		1060
280S			75	1480	45	980	37	740		560	660	633	520	870	870		1160
280M			90	1480	55	980	45	740		670	785	723	610	920	920		1260
315S			110	1480	75	980				920	1000	1150	950	1100	1100		1330
315M			132	1480	90	980				1050	1100	1230	1030	1180	1180		1380
315L			160	1480	110	980				1160	1100	1320	1100	1270	1270		1450
			200	1487	132	980				1240	1600	1420	1200				





安装、使用、润滑说明

Specification about installation, use and lubrication

1. 安装

1.1 底座式安装，应校准中心线标高，联轴器连接时，应校准两轴的同轴度；柔性联接时浮动量不超过联轴器的允许范围，刚性联接时必须保证各安装联接的形位公差；长轴联接还需轴的足够刚度。

1.2 法兰式安装，凸肩（或凹肩）应配合良好，以免错位。法兰式安装并配空心轴联接时，特别应保证联接的形位公差。

1.3 扭力臂安装，主动的空心轴与被动轴应配合良好，被动轴的浮动或设备振动应小于弹性块允许的范围，力臂应固定并锁紧。

1.4 输出轴加装联轴器、皮带轮、齿轮、链轮等时，请勿重击，应用输出轴外端螺孔，压入联接件。皮带轮、齿轮、链轮、搅拌式还需考虑径向力。

1.5 空心轴与实心轴联接时（配合公差H7/h6），应涂防锈油。

1.6 准备刚性好的基础或牢固的台架来安装传动设备，同时也需充分考虑即使加上最大载荷也不至于改变装配好后各部件的位置。

1.7 安装升降机时，台架面上的孔，在满足丝杆能方便通过的前提下，应尽可能小。

1.8 安装螺栓一般情况下采用8.8级，如果高温或振动冲击等情况，请打圆柱销以免松动。

2. 使用

2.1 在使用前，变速机和减速机应加入指定的润滑油。

2.2 减速机和无级变速器工作环境温度不超过40摄氏度，温升低于40摄氏度。

2.3 MB无级变速器出厂时，调速限位螺钉已经调整在极限位置，不得任意调整，以免损坏零件。

2.4 MB无级变速器必须在开机情况下方可调速，否则会损坏零件。

2.5 减速机、无级变速器应在许用转矩范围内使用，超扭矩使用应在输出轴上装安全装置，以免减速机损坏。

2.6 各种减速机、无级变速器适用于连续运转，并允许正反两向运转。

2.7 若出现安装方位变动，一般情况下调换油镜、油塞、通气帽即可。

1. Installation

1.1 Foot-mounted gear units, centre line elevation should be calibrated. When shaft is fixed with coupling, the axiality of two shafts shouldn't be over the permissive range of coupling, and when is fixed joint, please must ensure shape position tolerance; Shaft need enough rigidity, when long shaft connect with reducer.

1.2 Flange-mounted, Flange should be adapted well to avoid displacing. Please ensure specially figarational and positional tolerance of connection parts when reducer is flange-mounted with hollow output shaft.

1.3 Torque arm-mounted, drive hollow shaft and driven shaft should be fitted well, arm of force should be fixed and locked tightly.

1.4 When the output shaft is fixed with coupling, pulley, chain etc., Please don't strike the output shaft heavily, into the outer screw hole of the output shaft. For belt pulley wheel, gear, chain wheel and pug mill output, need consider radial force.

1.5 When hollow shaft connect with solid shaft(fit tolerance H7/h6), user should daub rust-proof oil on the shaft.

1.6 User should prepare nice rigidity groundor fast supporter for installing transmission equipment, and need consider adequately fixed location of every component can't change if reducer carry maximum.

1.7 When user install jack, these hole in supporter is small as soon as possiblyl under the condition of meeting screw cover and screw cover and screw can pass conveniently.

1.8 In general, mounted bolt is 8.8 grade, if there is high temperature or vibration or shock etc., please install columnar pin to avoid loosening.

2. Use

2.1 The steepless variator and reducer must be lubricated by appointed lubricant before they are used.

2.2 Operating environmental temperature of reducer and variator shouldn't be over 40℃, temperature rise is less than 40℃.

2.3 The speed-regulating limited position screw of the varetor has been put at the limited position. Since it left the factory it can't be regulated wilfully.

2.4 MB varitor must be regulated under operating condition, or its units will be damaged.

2.5 The reducer and varitor shouldn't be used over the rated torque, otherwise the output shaft should be fixed with safety device, in order to avoid the damage of units.

2.6 All kinds of reducers and variators are suitable for both positive and reverse rotation.

2.7 When the installation position is changed, in general, the oil tag, bleeder and oilair cap should be changed.



3. 润滑

3.1 MB无级变速器必须使用ub-1或ub-3牵引液，MB系列无级变速器属摩擦式无级变速器，牵引液具有牵引、润滑和良好的散热作用，所以在任何情况下，要确保牵引液按油标定量提供。

注意：MB无级变速器不可使用机油、齿轮油等润滑油。不使用牵引液会造成无级变速器输出扭矩减少或损坏。

3.2 MB-C变速器的一级齿轮部出厂时已加入免维护3#锂基润滑脂。

3.3 R系列铝合金蜗轮箱出厂时已加入免维护00#钙基润滑脂。

3.4 齿轮箱采用极压工业齿轮油130-160EP，蜗轮减速机采用7EP.8EP.7COMP.8COMP.N680润滑油，或按下表采用润滑油。

3.5 各种润滑油或规定专用油，平时要按油标位置供油，并要求使用的更换时间为：

变速器专用油：2000小时

齿轮油：8000小时

3. Lubrication

3.1 MB variator must be lubricated by Ub-1 or Ub-3 traction liquid, MB series variator belong to frictional stepless variator, traction liquid assumes action of traction, lubrication and heat elimination, so in any case, the traction liquid should be offered based on oil tag.

Attention:

MB stepless variator can't be lubricated by use engine oil, gear oil etc., if lubrication isn't use traction liquid, the variator will damaged of lead to export torque decreasing.

3.2 Before consignment, 1-stage gear part of MB-C series reducers have been put into maintenance-free 3# lithium based grease lubrication.

3.3 Before consignment, R series worm gear units of cast aluminium box have been provided maintenance-free 0# calcium based grease lubrication.

3.4 Gearbox is lubricated by extreme pressure industrial gear oil 130-160EP, worm gear units is lubricated by 7 EP, 8EP, 7COMP, 8COMP and N680 lubrication, or lubrication below table:

3.5 All kinds of lubricant or special oil must be offered on oil tag, and must be replaced duly.

Oil of variator: 2000 hours

Gear oil: 8000 hours

系列 Series	环境温度 (ET) °C				ISO粘度与 NLGI相应	中国 China	ESSO	Mobil	SHELL
	-50	0	+50	+100					
R.K. F.T. X. WB. HB. GH.	-25		+80		VG220			Mobil Glycoyle 30	Shell fivela OMB
	0	+40			VG220	130-160EP	SPARTAN EP 220	Mobilgear 630	Shell omala O220
	-15	+25			VG150 VG100	110-130EP	SPARTAN EP 150	Mobilgear 629	Shell Omala Oi 100
	-30	+10			VG68-46 VG32		ESSOATF D-21611	Mobil D.T.E.15M	Shell Tellus Oi T 32
	-20		+60		VG22 VG15		UNIVIS J 13	Mobil D.T.E.11M	Shell Tellus Oi T 15
RV.S	-45	0			VG680	60-100EP		Mobil Glycoyle HE 680	
	0	+40			VG680	N680	SPARTAN EP 680	Mobilgear 636	Shell Omala Oi 680
	-15	+25			VG220		SPARTAN EP 220	Mobilgear 630	Shell Omala Oi 220
	-20	+10			VG150 VG100	M460	SPARTAN EP 150	Mobil D.T.E.18M	Shell Omala Oi 100
	-25	+10			VG220			Mobil Glycoyle 30	
MB	-45	-20			VG22 VG15		UNIVIS J 13	Mobil D.T.E.11M	Shell Tellus Oi T 15
	-20	+40				牵引液 Tracting liquid	Ub-3	美国孟 山都无 级变速 机油 (American San totrac40 #50 +)	