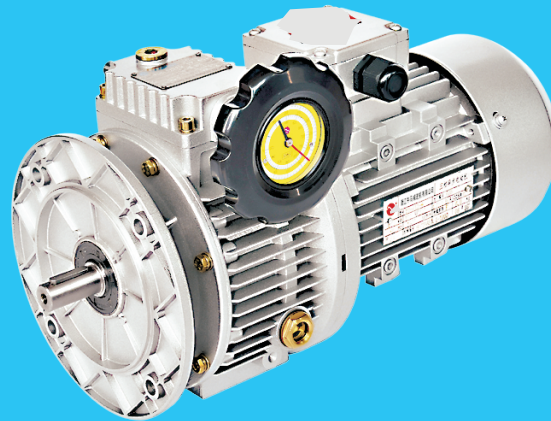
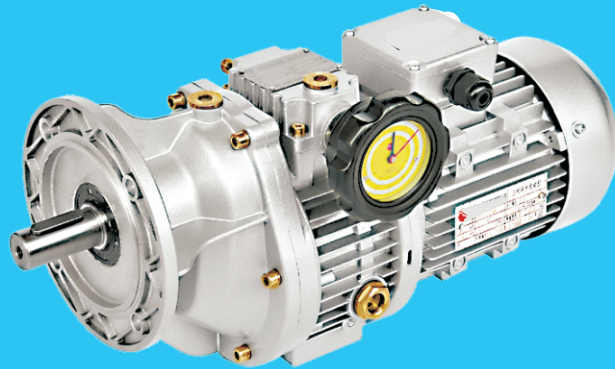


# MB、MBN SERIES

planetary cone-disk variator

MB、MBN 系列行星锥盘无极变速器



# 上海承禹机电设备有限公司

## MB、MBN系列行星锥盘无级变速器 MB、MBN series planetary cone-disk variator

### 概述

行星锥盘无级变速器系采用了国内外先进的技术而设计的。它不仅可广泛地用于食品、制药、塑料、造纸、陶瓷、烟草、印刷等轻工业部门，而且广泛用于机床、石化、冶金等重工部门及交通运输业。它的优点是：

- 1、高强度：在加冲击负载逆转时，本机性能可靠、能精确的传动，无后座力，并有足够的强度。
- 2、变速范围大：变速范围为5，即输出速比可在1:1.45至1:7.25之间任意变化。
- 3、调速精度高：调速精度为0.5~1转。
- 4、性能稳定：本机的传动部件都经过特殊热处理、并经精密加工。接触和润滑良好、运行平稳、噪音低、寿命长。
- 5、结构紧凑，体积小，重量轻。
- 6、组合能力强：本机能与各种减速机组合，实现低速无级变速，因此它具有良好的

### Overview

Planetary cone-disk variator is designed with the advanced know-how of both at home and abroad and can be used for both light-industrial trades, such as food, pharmaceutical, plastic, paper-making, ceramic, tobacco, printing etc., and heavy-industrial trades, such as tool machine, petrochemistry, metallurgy, metallurgy etc., as well as for the trades of communication and transportation. It features as below:

- 1、High strength: when reversely running with an impact load, it is of a reliable performance, able to precisely drive, without a recoil and with a sufficient strength,
- 2、Large range of speed variation: its range of speed variation is 5, i.e. its output speed ratio can be varied between 1:1.45 to 1:25.
- 3、High precision of speed regulation: the precision of speed regulation is 0.5-1 turn.
- 4、Stable performance: its driving parts are meticulously processed with specially heat treatment, resulting in good contact and lubrication, stable running, low noise and long durability.
- 5、Compact structure, small volume and light weight.
- 6、Strong capability to be combined: it is of a good capability to be combined with various reducers to realize low-speed stepless variation.

### 结构与工作原理、润滑油品种

#### 1、行星锥盘无级变速器（见图）

带锥度的太阳轮（12）和压盘（13）被一组碟形弹簧（14）压紧，输入轴（15）与太阳轮用键联接，组成压紧的输入装置。一组带锥度的行星轮（10）内侧夹在压紧的太阳轮和压盘之间，外侧夹在带锥度的定环（11）和调速凸轮（9）之间，当输入装置转动时，由于定环和调速凸轮固定不动，行星轮就沿定环作纯滚动，且绕输入轴作公转，通过行星轮轴及滑动轴承（5）而带动行星架（2）及输出轴（1）转动。调速时转动手轮，由于手轮带动调速螺杆，使平面凸轮相对转动，产生轴向移动，从而均匀改变调速凸轮和固定环之间的间隔，最后改变了行星轮与太阳轮、压盘及固定环、调速凸轮摩擦处的工作半径，实现无级调速。

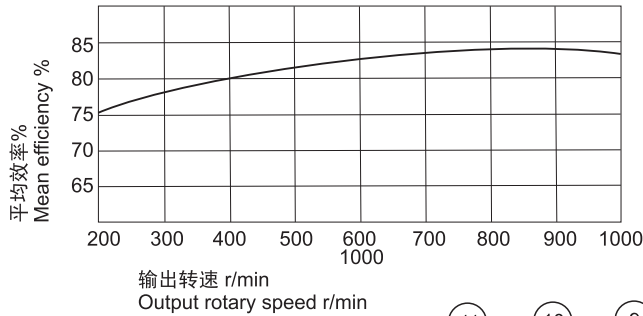
### Structure and working principle

#### 1、Planetary cone-disk variator (see the drawing)

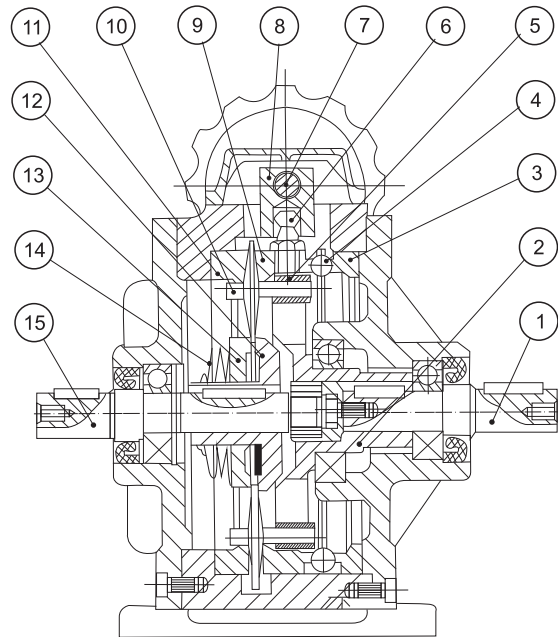
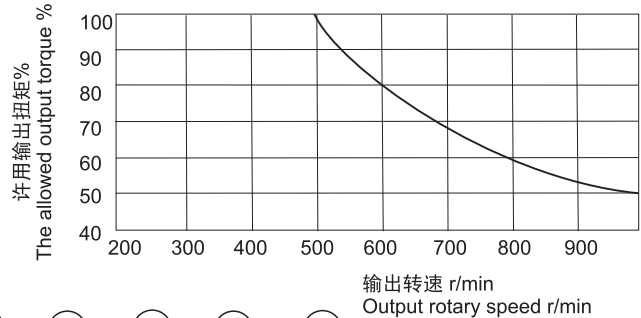
Both solar-wheel with a conicity (12) and press-plate (13) are jammed by a group of butterfly springs (14) and the input shaft (15) is linked with the solar-wheel by a key to form a jammed input device. A group of planetary wheels with a conicity (10), with their inner side clamped in between the jammed solar-wheel and the press-plate and outer side between the fixed ring with a conicity (11) and the speed-regulating cam (9), when the input device turns, roll purely along with the fixed ring due to both fixed ring and speed regulating cam fixed without motion and make revolution round the input shaft to drive both planetary rack (2) and output shaft (1) to run via the planetary-wheel shaft and the slide-block bearing (5). To regulate the speed, turn the handwheel, which drives the speed regulating screw to have the surface cam relatively run to produce axial displacement, and thus to evenly change the space between the speed regulating cam and the fixed ring and, finally, change the working radius at the frictional place of the cam between the planetary-wheel and the solar-wheel and between the press-rack and the fixed ring to realize the stepless speed variation.

性能曲线 Performance curve:

标准型平均效率与输出转速的关系  
Relation between the standard-type's mean efficiency and the output rotary speed



标准型允许输出扭矩与输出转速的关系  
Relation between the allowed output torque of standard-type and the output rotary speed



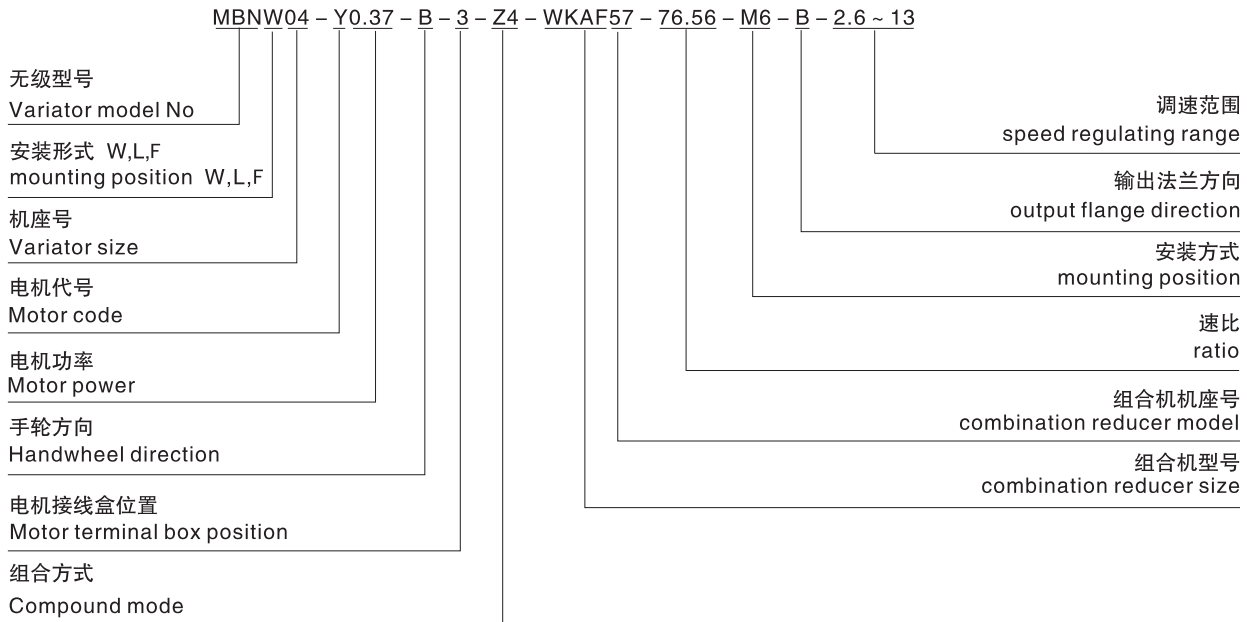
|                                  |                                  |                                    |                             |
|----------------------------------|----------------------------------|------------------------------------|-----------------------------|
| 1、输出轴<br>1.output shaft          | 2、行星架<br>2.planetary rack        | 3、固定平面凸轮<br>3.fixed surfaceam      | 4、平面轴承<br>4.surfacebearing  |
| 5、滑块轴承<br>5.slide-block bearing  | 6、调速柄<br>6.speed-regulting hands | 7、调速螺杆<br>7.speed-regulating screw | 8、调速滑块<br>8.speed-regulatin |
| 9、调速凸轮<br>9.speed-regulating cam | 10、行星轮<br>10.planetary wheel     | 11、定环<br>11.fixed ring             | 12、太阳轮<br>12.solar-wheel    |
| 13、压轮<br>13.press-wheel          | 14、碟形弹簧<br>14.butterfly spring   | 15、输入轴<br>15.input shaft           |                             |

2. 润滑油品 Lubricating oil

|                                   | 润滑油 Lubricant               | Olio sintetice synthetic oil       |
|-----------------------------------|-----------------------------|------------------------------------|
|                                   | 环境温度<br>Ambient Temperature |                                    |
| ISO                               |                             | VG32 VG46                          |
| 国内使用<br>Used in interior          |                             | Ub-1<br>Ub-3                       |
| 国外使用<br>User in foreign Countries | AGIP                        | TRANSMISSON V.E A.T.F.DEXRON FLUID |
|                                   | SHELL                       | A.T.F.DEXRON                       |
|                                   | ESSO                        | A.T.F.DEXRON                       |
|                                   | MOBIL                       | A.T.F.220                          |
|                                   | CASTROL                     | TQ.DEXRON I I                      |
|                                   | BP                          | AUTRAN DX                          |

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标记方式: Model sign:



- 注: ①基本形调速范围为200~1000r/min, 所配电机为四级。  
 ②客户自配电机时, 不标注电机代号和功率及调速范围。  
 ③轴输入时, 在标记后加RZ, 比如: MBN04RZ, MBNF04RZ。

Remark:

- ① When the speed regulating range is 200~1000r/min of basic model, the connecting motor should be 4 pole  
 ② When the motor is provided and connected by customer, it is unnecessary to state the motor code, power and speed regulating range.  
 ③ When it is shaft input, add RZ after the model description. For example: MBN04RZ, MBNF04RZ

1、标记示例: (基本型) Example

MBNW07-Y0.75-A-1-200~1000

MBNW07无级变速器, 卧式安装, 配0.75KW电机, 调速手轮A向, 电机接线盒位置1, 调速范围200~1000r/min  
 MBNW07 variator, horizontal mounting positions, connect with 0.75KW motor, speed regulating handwheel side A, motor terminal box position 1, speed regulating range 200~1000r/min

2、标记示例: (基本型) Example

MBNF07-Y0.75-A-1-200~1000

MBNF07无级变速器, 法兰式输出, 配0.75KW电机, 调速手轮A向, 电机接线盒位置1, 调速范围200~1000r/min  
 MBNF07 variator, flange output, connect with 0.75KW motor, speed regulating handwheel side A, motor terminal box position 1, speed regulating range 200~1000r/min

3、标记示例: (基本型, 客户自配电机) Example (motor provided and connected by customer)

MBNW07-A-1

MBNW07无级变速器, 卧式安装, 客户自配电机, 调速手轮A向, 电机接线盒位置1

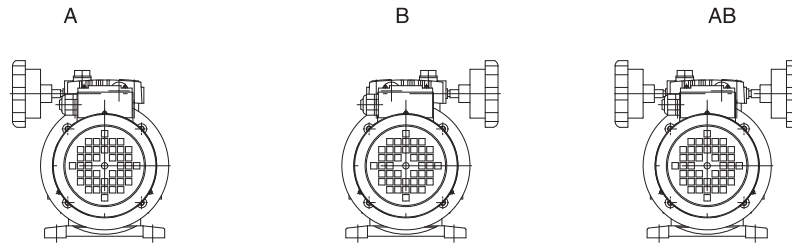
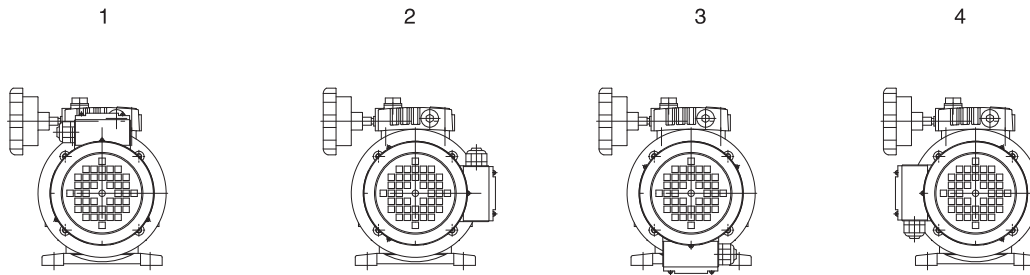
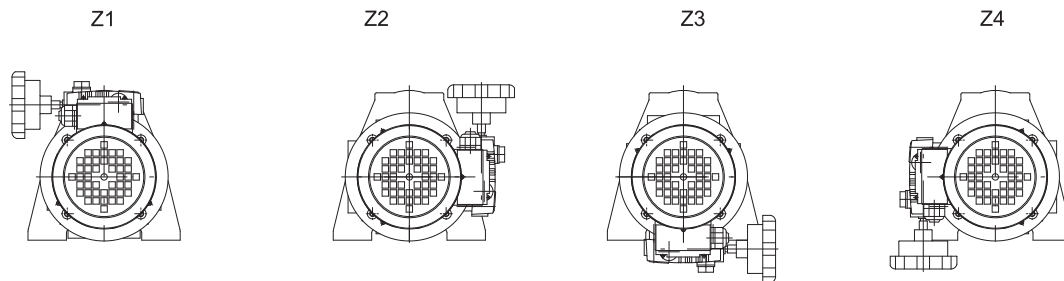
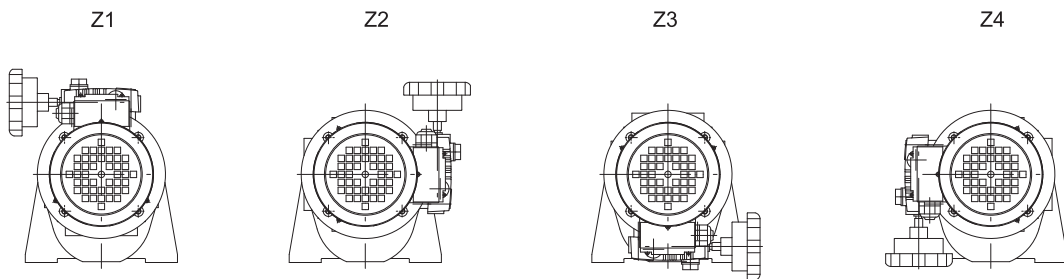
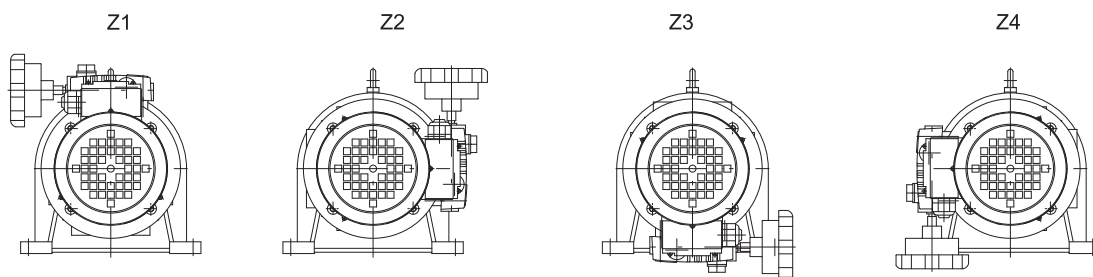
MBNW07 variator, horizontal mounting positions, motor provided and connected by customer, speed regulating handwheel side A

4、标记示例: (基本型, 法兰式输出, 轴输入) Example (flange output, shaft input)

MBNF07RZ-A-1

MBNF07无级变速器, 法兰式输出, 轴输入, 调速手轮A向, 电机接线盒位置1

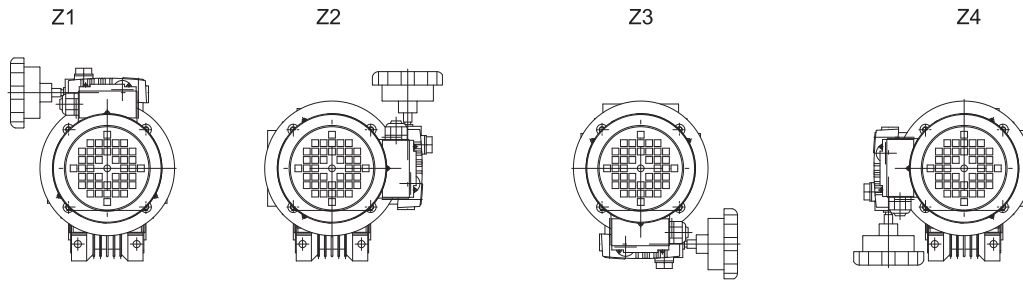
MBNF07 variator, flange output, shaft input, speed regulating handwheel side A

**调速手轮方向**      **Speed regulating handwheel direction**

**电机接线盒位置**      **Motor terminal box position**

**Mb无级与单级齿轮组合方式**      **Compound mode of MB variator and single-stage gear**

**Mb无级与两级齿轮组合方式**      **Compound mode of MB variator and double-stage gear**

**Mb无级与摆线组合方式**      **Compound mode of MB variator and cycloid reducer**


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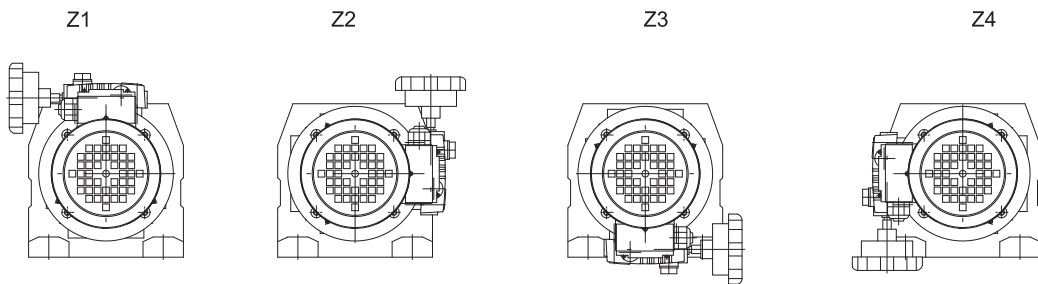
MB无级与NMRV系列组合方式

Compound mode of MB variator and NMRV series reducer



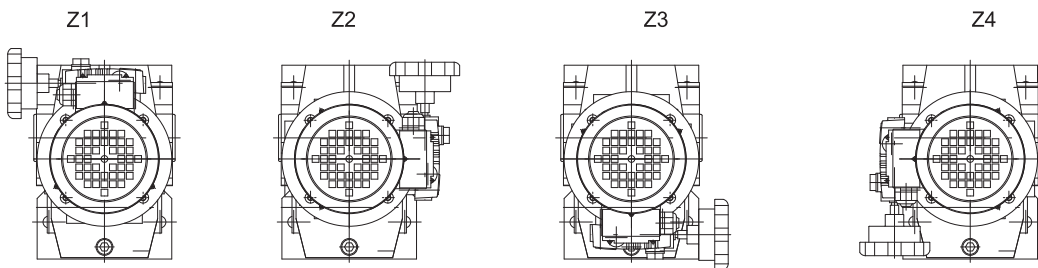
MB无级与WR系列组合方式

Compound mode of MB variator and WR series reducer



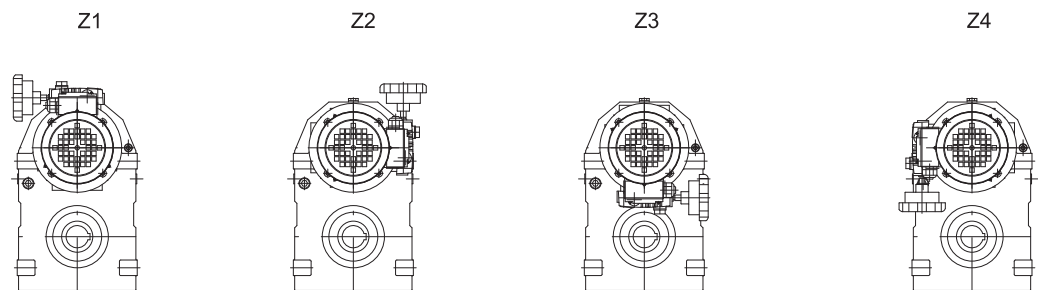
MB无级与WK系列组合方式

Compound mode of MB variator and WK series reducer



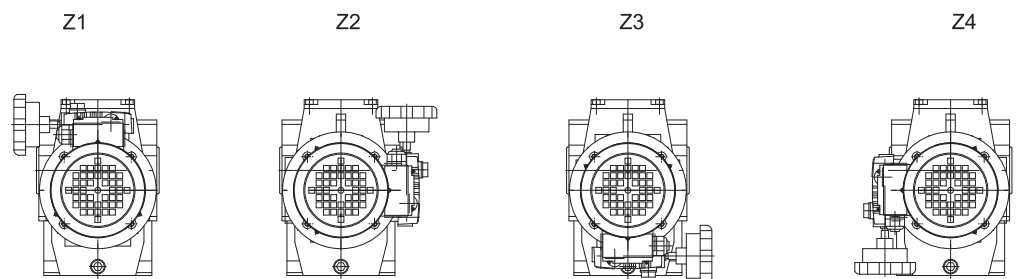
MB无级与WF系列组合方式

Compound mode of MB variator and WF series reducer

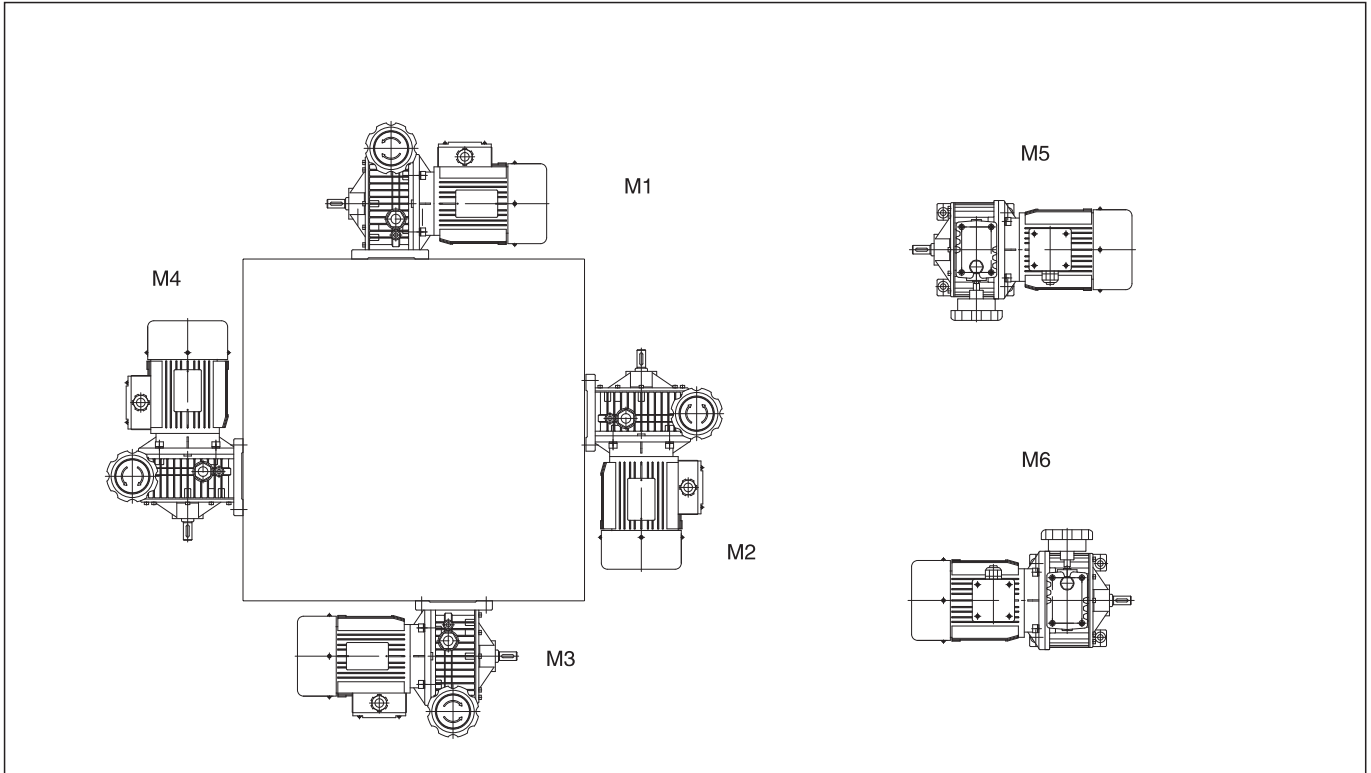


MB无级与WS系列组合方式

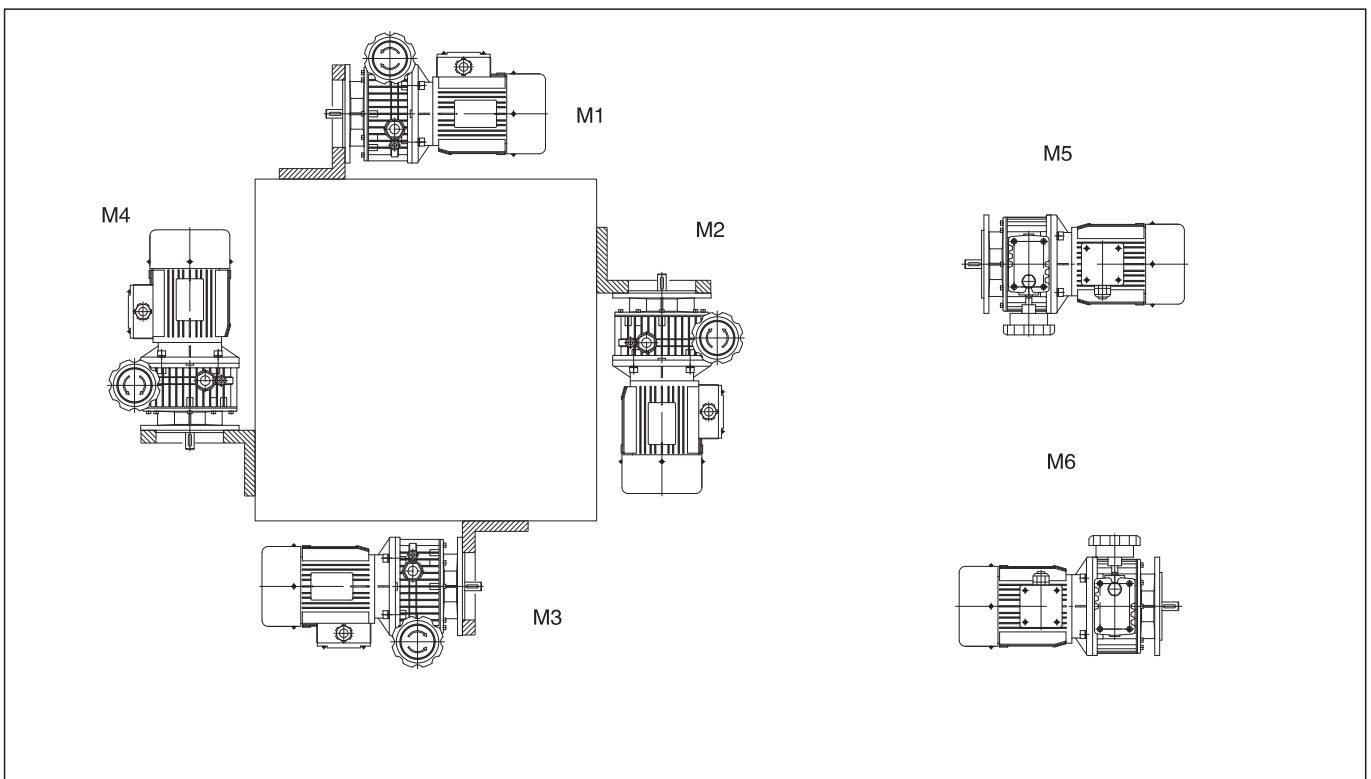
Compound mode of MB variator and WS series reducer



MBW无级变速机安装方式 Mounting position of MBW variator

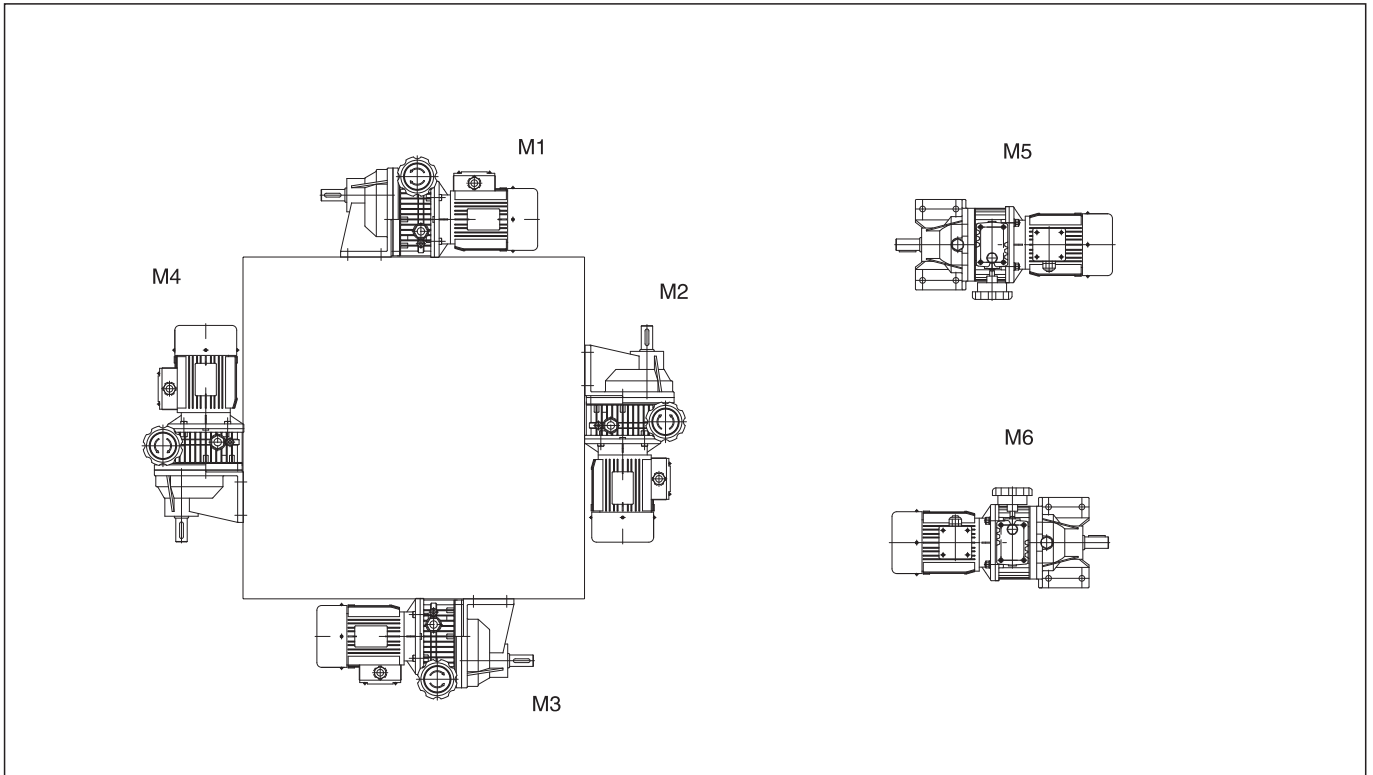


MBF无级变速机安装方式 Mounting position of MBF variator

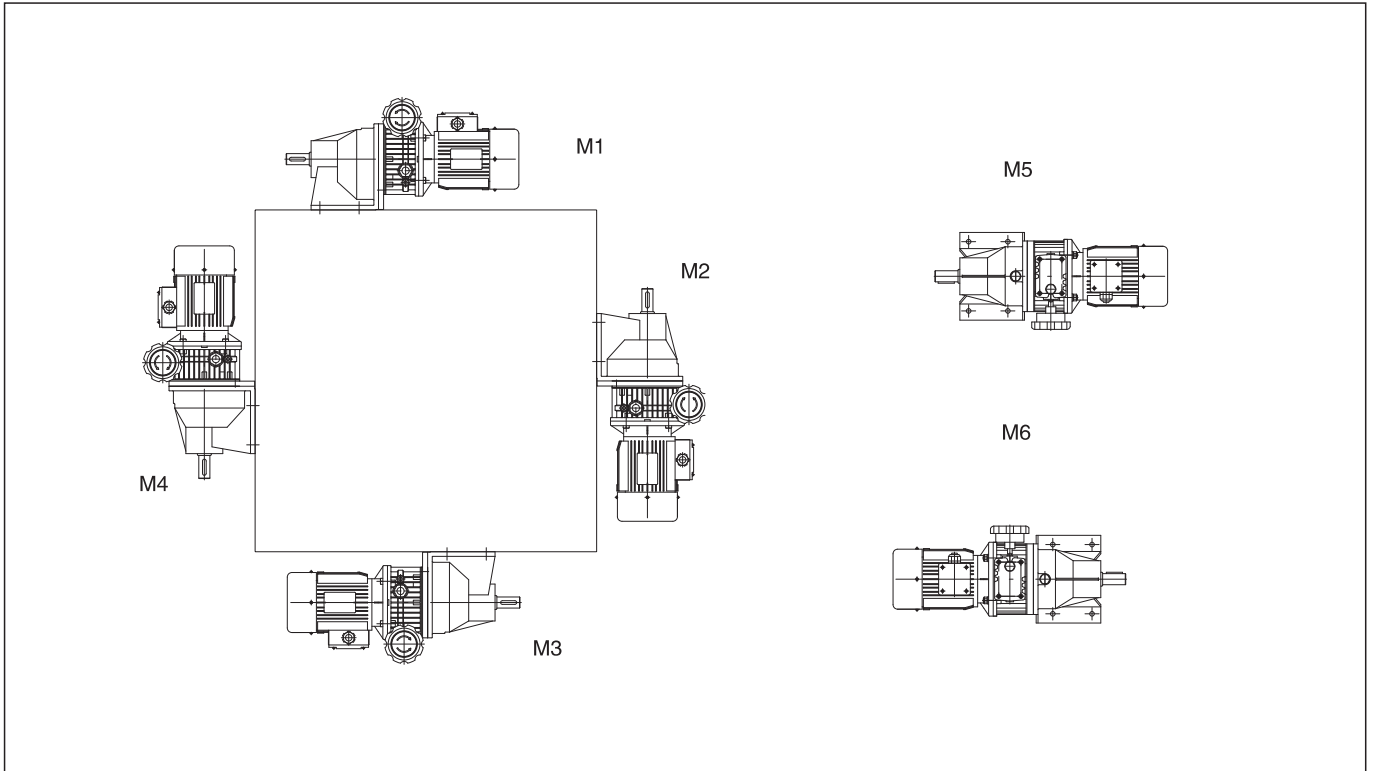


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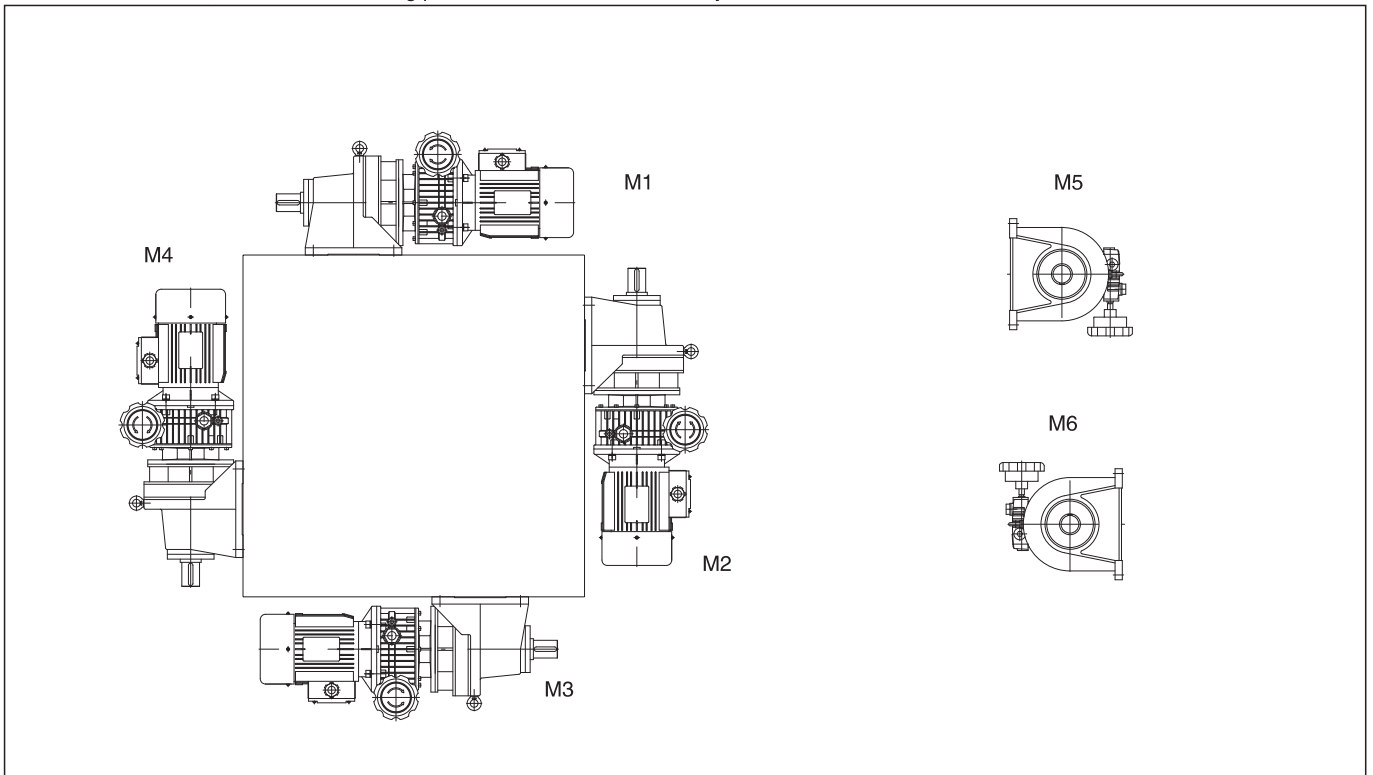
MB无级与单级齿轮组合安装方式 Mounting position of MB variator and single-stage gear



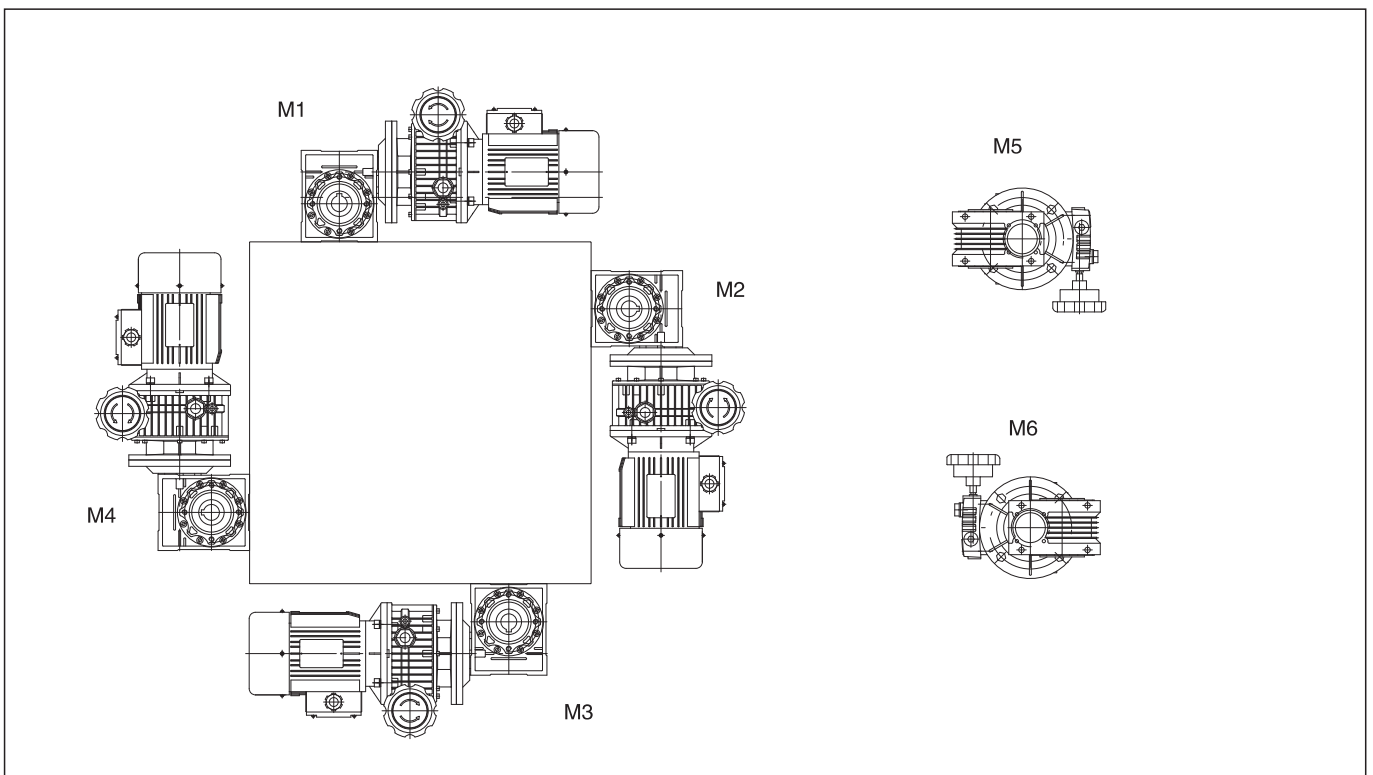
MB无级与两级齿轮组合安装方式 Mounting position of MB variator and double-stage gear



MB无级与摆线组合安装方式      Mounting position of MB variator and cycloid reducer



MB无级与NMRV系列组合安装方式      Mounting position of MB variator and NMRV series reducer



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## 技术参数及选型范围

### Technical data and model selection range

| 变速机型号MB、MBN<br>Variator model MB、MBN                                 |                           |   | 02                                    | 04      | 07      |         | 15      |         | 22      | 40      |          | 55       | 75        |
|--|---------------------------|---|---------------------------------------|---------|---------|---------|---------|---------|---------|---------|----------|----------|-----------|
| 额定输入功率 (KW)<br>Rated input power(KW)                                 |                           |   | 0.18                                  | 0.37    | 0.55    | 0.75    | 1.1     | 1.5     | 2.2     | 3       | 4        | 5.5      | 7.5       |
| 输入转速 r/min<br>Input speed r/min                                      |                           |   | 1500r/min                             |         |         |         |         |         |         |         |          |          |           |
| 变速机及其组合型<br>Variator and combined type                               | 传动比<br>Transmission ratio | 变速范围<br>(r/min)<br>Range of speed variation | 许用输出扭矩 (N.m)<br>Allowed output torque |         |         |         |         |         |         |         |          |          |           |
| 基本型<br>the basic type  |                           | 200~1000                                    | 3~1.5                                 | 6~3     | 10~5    | 12~6    | 18~9    | 24~12   | 36~18   | 48~24   | 64~32    | 90~45    | 118~59    |
| 变速机<br>带一级齿轮减速<br>Variator with<br>single stage gear<br>deceleration | 2.5                       | 80~400                                      | 7.4~3.5                               | 15~7.3  | 20~9.8  | 29~15   | 39~20   | 59~29   | 88~44   | 118~59  | 157~78   | 216~108  | 294~147   |
|  | 3.3                       | 60~300                                      | 10~4.7                                | 20~9.5  | 32~15.5 | 38~19   | 58~28   | 78~36   | 118~56  | 158~79  | 212~106  | 298~149  | 398~199   |
|  | 5                         | 40~200                                      | 15~7                                  | 30~15   | 45~22   | 60~30   | 88~43   | 118~59  | 176~88  | 235~118 | 314~157  | 441~220  | 558~279   |
| 变速机<br>带二级齿轮减速<br>Variator with<br>Double stage gear<br>deceleration | 8                         | 25~125                                      | 20~10                                 | 40~20   | 68~34   | 80~40   | 120~60  | 160~80  | 243~122 | 324~162 | 432~216  | 605~302  | 795~398   |
|  | 11                        | 18~90                                       | 28~14                                 | 56~28   | 90~45   | 108~54  | 160~80  | 218~108 | 324~162 | 432~216 | 576~288  | 810~405  | 1060~530  |
|  | 13.3                      | 15~75                                       | 34~17                                 | 68~34   | 112~56  | 136~68  | 200~100 | 270~135 | 408~203 | 540~270 | 720~360  | 1012~506 | 1325~662  |
|  | 16.6                      | 12~60                                       | 42~21                                 | 84~42   | 140~70  | 168~84  | 250~125 | 334~167 | 502~251 | 670~335 | 892~446  | 1256~628 | 1643~822  |
|  | 20                        | 10~50                                       | 50~25                                 | 106~53  | 140~70  | 140~96  | 285~142 | 388~194 | 602~302 | 824~412 | 1110~550 | 1512~756 | 2062~1031 |
| 配X2摆线减速机<br>Equipped with<br>X2cycloidal<br>reducer                  | 11                        | 18~90                                       | 31~16                                 | 65~32   | 98~44   | 132~66  | 150~96  |         |         |         |          |          |           |
|  | 17                        | 12~58                                       | 49~25                                 | 98~49   | 147~74  | 150~98  | 150~    |         |         |         |          |          |           |
|  | 23                        | 8~43  | 65~32                                 | 137~67  | 150~98  | 150~137 |         |         |         |         |          |          |           |
|  | 29                        | 7~34  | 83~41                                 | 150~84  | 150~126 |         |         |         |         |         |          |          |           |
|  | 35                        | 6~28  | 98~49                                 | 150~103 |         |         |         |         |         |         |          |          |           |
|  | 43                        | 4.5~23                                      | 118~59                                | 150~125 |         |         |         |         |         |         |          |          |           |
| 配X3摆线减速机<br>Equipped with<br>X3cycloidal<br>reducer                  | 11                        |   |                                       |         |         |         | 196~98  | 250~130 |         |         |          |          |           |
|  | 17                        | 12~58                                       | 51~25                                 | 102~51  | 170~88  | 196~98  | 250~147 | 250~200 |         |         |          |          |           |
|  | 23                        | 8~43  | 69~34                                 | 138~69  | 196~98  | 250~137 | 250~196 |         |         |         |          |          |           |
|  | 29                        | 7~34  | 87~43                                 | 176~84  | 250~125 | 250~172 |         |         |         |         |          |          |           |
|  | 35                        | 6~28  | 105~52                                | 206~103 | 250~125 | 250~206 |         |         |         |         |          |          |           |
|  | 43                        | 4.5~23                                      | 129~64                                | 250~125 | 250~186 |         |         |         |         |         |          |          |           |
|  | 59                        | 3.5~17                                      | 177~88                                | 250~167 | 250~    |         |         |         |         |         |          |          |           |
|  | 71                        | 2.8~14                                      | 213~106                               | 250~206 |         |         |         |         |         |         |          |          |           |
| 配X4摆线减速机<br>Equipped with<br>X4cycloidal<br>reducer                  | 11                        | 18~90                                       |                                       |         |         |         |         |         |         |         |          |          |           |
|  | 17                        | 12~58                                       |                                       |         |         |         |         |         |         |         |          |          |           |
|  | 23                        | 8~43  |                                       |         |         | 276~138 | 392~196 | 420~272 |         |         |          |          |           |
|  | 29                        | 7~34  |                                       |         |         | 352~172 | 420~253 | 420~343 |         |         |          |          |           |
|  | 35                        | 6~28  |                                       |         | 340~152 | 412~206 | 420~304 | 420~    |         |         |          |          |           |
|  | 43                        | 4.5~23                                      |                                       |         | 372~186 | 420~250 | 420~372 | 420~    |         |         |          |          |           |
|  | 59                        | 3.5~17                                      |                                       | 333~167 | 420~253 | 420~343 | 420     |         |         |         |          |          |           |
|  | 71                        | 2.8~14                                      | 213~106                               | 412~206 | 420~304 | 420~    |         |         |         |         |          |          |           |
|  | 87                        | 2.3~11.5                                    | 261~130                               | 420~261 | 420~    |         |         |         |         |         |          |          |           |
|  |                           |   |                                       |         |         |         |         |         |         |         |          |          |           |

技术参数及选型范围  
Technical data and model selection range

| 变速器型号MB、MBN<br>Variator model MB、MBN                   |                           |   | 02                                    | 04   | 07      |          | 15       |          | 22        | 40        |           | 55        | 75        |            |
|--|---------------------------|---|---------------------------------------|------|---------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|------------|
| 额定输入功率 (KW)<br>Rated input power (KW)                  |                           |   | 0.18                                  | 0.37 | 0.55    | 0.75     | 1.1      | 1.5      | 2.2       | 3         | 4         | 5.5       | 7.5       |            |
| 输入转速 r/min<br>Input speed r/min                        |                           |   | 1500r/min                             |      |         |          |          |          |           |           |           |           |           |            |
| 变速器及其组合型<br>Variator and combined type                 | 传动比<br>Transmission ratio | 变速范围<br>(r/min)<br>Range of speed variation | 许用输出扭矩 (N.m)<br>Allowed output torque |      |         |          |          |          |           |           |           |           |           |            |
| 配X5摆线减速机<br>Equipped with<br>X5 cycloidal<br>reducer   | 11                        | 18~90                                       |                                       |      |         |          |          |          |           |           | 529-260   | 686-343   | 960-475   | 1150-652   |
|  | 17                        | 12~58                                       |                                       |      |         |          |          |          | 588-294   | 804-402   | 1078-539  | 1150-740  | 1150-1010 |            |
|  | 23                        | 8~43  |                                       |      |         |          |          | 549-274  | 804-400   | 1098-544  | 1150-725  | 1150-1000 |           |            |
|  | 29                        | 7~34  |                                       |      |         |          | 510-253  | 686-343  | 1010-505  | 1150-686  | 1150-921  |           |           |            |
|  | 35                        | 6~28  |                                       |      |         |          | 608-304  | 833-416  | 1150-613  | 1150-838  | 1150-1112 |           |           |            |
|  | 43                        | 4.5~23                                      |                                       |      |         | 510-255  | 745-372  | 1019-510 | 1150-745  | 1150-1019 |           |           |           |            |
|  | 59                        | 3.5~17                                      |                                       |      | 506-253 | 686-343  | 1009-504 | 1150-686 | 1150      |           |           |           |           |            |
|  | 71                        | 2.8~14                                      |                                       |      | 608-304 | 833-417  | 1150-613 | 1150-838 |           |           |           |           |           |            |
|  | 87                        | 2.3~11.5                                    |                                       |      | 745-372 | 1019-510 | 1150-745 | 1150-    |           |           |           |           |           |            |
| 配X6摆线减速机<br>Equipped with<br>X6 cycloidal<br>reducer   | 11                        | 18~90                                       |                                       |      |         |          |          |          |           |           |           |           |           | 1300-650   |
|  | 17                        | 12~58                                       |                                       |      |         |          |          |          |           |           |           |           | 1490-745  | 202-1010   |
|  | 23                        | 8~43  |                                       |      |         |          |          |          |           |           | 1450-725  | 2200-1000 | 2200-1362 |            |
|  | 29                        | 7~34  |                                       |      |         |          |          |          |           | 1372-686  | 1842-725  | 2200-1117 | 2200-1725 |            |
|  | 35                        | 6~28  |                                       |      |         |          |          |          | 1225-613  | 1676-838  | 2200-1117 | 2200-1534 | 2200-2029 |            |
|  | 43                        | 4.5~23                                      |                                       |      |         |          |          |          | 1490-745  | 2038-1019 | 2200-1352 | 2200-1862 |           |            |
|  | 59                        | 3.5~17                                      |                                       |      |         |          |          |          | 1421-686  | 2019-1009 | 2200-1372 | 2200-1838 |           |            |
|  | 71                        | 2.8~14                                      |                                       |      |         |          |          | 1225-613 | 1676-838  | 2200-1230 | 2200-1676 |           |           |            |
|  | 87                        | 2.3~11.5                                    |                                       |      |         |          |          | 1490-745 | 2038-1019 | 2200-1495 | 2200-2038 |           |           |            |
| 配X8摆线减速机<br>Equipped with<br>X8 cycloidal<br>reducer   | 23                        | 8~43  |                                       |      |         |          |          |          |           |           |           |           |           | 2724-1362  |
|  | 29                        | 7~34  |                                       |      |         |          |          |          |           |           |           |           | 2528-1264 | 3450-1725  |
|  | 35                        | 6~28  |                                       |      |         |          |          |          |           |           | 2750-1352 | 3070-1534 | 4185-2029 |            |
|  | 43                        | 4.5~23                                      |                                       |      |         |          |          |          |           | 2744-1372 | 3675-1837 | 3724-1862 | 4600-2548 |            |
|  | 59                        | 3.5~17                                      |                                       |      |         |          |          |          | 2460-1230 | 3352-1676 | 4496-2234 | 4600-2582 | 4600-3450 |            |
|  | 71                        | 2.8~14                                      |                                       |      |         |          |          |          | 2989-1495 | 4077-2038 | 4600-2720 | 4600-3027 | 4300-4190 |            |
|  | 87                        | 2.3~11.5                                    |                                       |      |         |          |          |          |           |           |           | 4600-3744 | 4600-     |            |
| 配X9摆线减速机<br>Equipped with<br>X9 cycloidal<br>reducer   | 43                        | 4.5~23                                      |                                       |      |         |          |          |          |           |           |           |           |           | 5096-2548  |
|  | 59                        | 3.5~17                                      |                                       |      |         |          |          |          |           |           |           |           | 5057-2528 | 6899-3449  |
|  | 71                        | 2.8~14                                      |                                       |      |         |          |          |          |           |           |           |           | 6145-3072 | 7100-4190  |
|  | 87                        | 2.3~11.5                                    |                                       |      |         |          |          |          |           |           |           | 5439-2720 | 7100-3744 | 7100-5096  |
| 配X10摆线减速机<br>Equipped with<br>X10 cycloidal<br>reducer | 71                        | 2.8~14                                      |                                       |      |         |          |          |          |           |           |           |           |           | 8379-4390  |
|  | 87                        | 2.3~11.5                                    |                                       |      |         |          |          |          |           |           |           |           | 7100-3714 | 10192-5096 |
|  |                           |   |                                       |      |         |          |          |          |           |           |           |           |           |            |

MB、MBN SERIES

# 上海承禹机电设备有限公司

## 技术参数及选型范围

### Technical data and model selection range

| 变通机型号MB、MBN<br>Variator model MB、MBN                   |                           |   | 02                                    | 04       | 07        |           | 15        |           | 22        | 40        |           | 55        | 75  |
|--|---------------------------|---|---------------------------------------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----|
| 额定输入功率 (KW)<br>Rated input power(KW)                   |                           |   | 0.18                                  | 0.37     | 0.55      | 0.75      | 1.1       | 1.5       | 2.2       | 3         | 4         | 5.5       | 7.5 |
| 输入转速 r/min<br>Input speed r/min                        |                           |   | 1500r/min                             |          |           |           |           |           |           |           |           |           |     |
| 变通机及其组合型<br>Variator and combined type                 | 传动比<br>Transmission ratio | 变速范围<br>(r/min)<br>Range of speed variation | 许用输出扭矩 (N.m)<br>Allowed output torque |          |           |           |           |           |           |           |           |           |     |
| 配×32摆线减速机<br>Equipped with<br>×32 cycloidal<br>reducer | 121                       | 1.6-8                                       |                                       | 250      |           |           |           |           |           |           |           |           |     |
|  | 187                       | 1-5   |                                       | 250      |           |           |           |           |           |           |           |           |     |
|  | 289                       | 0.7-3.5                                     |                                       | 250      |           |           |           |           |           |           |           |           |     |
| 配×42摆线减速机<br>Equipped with<br>×42 cycloidal<br>reducer | 121                       | 1.6-8                                       |                                       | 500-300  | 500-447   |           |           |           |           |           |           |           |     |
|  | 187                       | 1-5   |                                       | 500-480  | 500       |           |           |           |           |           |           |           |     |
|  | 289                       | 0.7-3.5                                     |                                       | 500      | 500       |           |           |           |           |           |           |           |     |
|  | 319                       | 0.6-3                                       |                                       | 500      |           |           |           |           |           |           |           |           |     |
| 配×53摆线减速机<br>Equipped with<br>×53 cycloidal<br>reducer | 121                       | 1.6-8                                       |                                       | 600-300  | 897-447   | 1000-610  | 1000-890  | 1000      |           |           |           |           |     |
|  | 187                       | 1-5   |                                       | 960-480  | 1000-715  | 1000-975  | 1000      |           |           |           |           |           |     |
|  | 289                       | 0.7-3.5                                     |                                       | 1000-687 | 1000      | 1000      |           |           |           |           |           |           |     |
|  | 319                       | 0.6-3                                       |                                       | 1000-800 |           |           |           |           |           |           |           |           |     |
|  | 473                       | 0.42-2.1                                    |                                       | 1000     |           |           |           |           |           |           |           |           |     |
| 配×63摆线减速机<br>Equipped with<br>×63 cycloidal<br>reducer | 121                       | 1.6-8                                       |                                       |          | 894-447   | 1220-610  | 1780-890  | 2000-1220 |           |           |           |           |     |
|  | 187                       | 1-5   |                                       |          | 1430-715  | 1950-975  | 2000-1430 | 2000-1950 |           |           |           |           |     |
|  | 289                       | 0.7-3.5                                     |                                       |          | 2000-1020 | 2000-1400 | 2000      | 2000      |           |           |           |           |     |
|  | 319                       | 0.6-3                                       |                                       |          | 2000-1190 | 2000-1920 |           |           |           |           |           |           |     |
|  | 473                       | 0.42-2.1                                    |                                       |          | 2000-1700 | 2000      |           |           |           |           |           |           |     |
|  | 595                       | 0.34-1.68                                   |                                       |          | 2000      |           |           |           |           |           |           |           |     |
| 配×84摆线减速机<br>Equipped with<br>×84 cycloidal<br>reducer | 121                       | 1.6-8                                       |                                       |          |           |           | 1780-890  | 2440-1220 | 3580-1790 | 4500-2440 |           |           |     |
|  | 187                       | 1-5   |                                       |          |           |           | 2860-1430 | 3900-1950 | 4500-2860 | 4500-3900 |           |           |     |
|  | 289                       | 0.7-3.5                                     |                                       |          |           |           | 4080-2040 | 4500-2780 | 4500-4080 | 4500      |           |           |     |
|  | 319                       | 0.6-3                                       |                                       |          |           |           | 4500-2380 | 4500-3250 | 4500      |           |           |           |     |
|  | 473                       | 0.42-2.1                                    |                                       |          | 3400-1700 |           | 4500-3400 | 4500      |           |           |           |           |     |
|  | 595                       | 0.34-1.68                                   |                                       |          | 4260-2130 | 4500-2320 | 4500-4250 |           |           |           |           |           |     |
|  | 731                       | 0.27-1.37                                   |                                       |          | 4500-2610 | 4500-2900 | 4500      |           |           |           |           |           |     |
|  | 841                       | 0.24-1.18                                   |                                       |          | 4500-3030 | 4500-3555 |           |           |           |           |           |           |     |
|  | 1003                      | 0.2-1                                       |                                       |          | 4500-3570 | 4500-4130 |           |           |           |           |           |           |     |
|  | 1505                      | 0.13-0.66                                   |                                       |          | 4500      |           |           |           |           |           |           |           |     |
| 配×85摆线减速机<br>Equipped with<br>×85 cycloidal<br>reducer | 121                       | 1.6-8                                       |                                       |          |           |           |           |           | 3580-1790 | 4500-2440 | 4500-3250 | 4500-4470 |     |
|  | 187                       | 1-5   |                                       |          |           |           | 2860-1430 | 3900-1950 | 4500-2860 | 4500-3900 | 4500      |           |     |
|  | 289                       | 0.7-3.5                                     |                                       |          |           |           | 4080-2040 | 4500-2785 | 4500-4080 | 4500      |           |           |     |
|  | 319                       | 0.6-3                                       |                                       |          |           |           | 4500-2380 | 4500-3250 | 4500      |           |           |           |     |
|  | 391                       | 0.51-2.55                                   |                                       |          |           |           | 4500-2680 | 4500-3820 |           |           |           |           |     |
|  | 595                       | 0.34-1.68                                   |                                       |          | 4260-2130 | 4500-2900 | 4500-3280 | 4500      |           |           |           |           |     |
|  | 731                       | 0.27-1.37                                   |                                       |          | 4500-2610 | 4500-3655 | 4500      |           |           |           |           |           |     |
|  | 841                       | 0.24-1.18                                   |                                       |          | 4500-3030 | 4500-4130 |           |           |           |           |           |           |     |
|  | 1003                      | 0.2-1                                       |                                       |          | 4500-3570 |           |           |           |           |           |           |           |     |
|  | 1505                      | 0.13-0.66                                   |                                       |          | 4500      |           |           |           |           |           |           |           |     |

技术参数及选型范围  
Technical data and model selection range

| 变电机型号MB、MBN<br>Variator model MB、MBN                     |                           |   | 02                                    | 04         | 07         |           | 15         |            | 22          | 40         |            | 55          | 75         |
|--|---------------------------|---|---------------------------------------|------------|------------|-----------|------------|------------|-------------|------------|------------|-------------|------------|
| 额定输入功率 (KW)<br>Rated input power(KW)                     |                           |   | 0.18                                  | 0.37       | 0.55       | 0.75      | 1.1        | 1.5        | 2.2         | 3          | 4          | 5.5         | 7.5        |
| 输入转速 r/min<br>Input speed r/min                          |                           |   | 1500r/min                             |            |            |           |            |            |             |            |            |             |            |
| 变电机及其组合型<br>Variator and combined type                   | 传动比<br>Transmission ratio | 变速范围<br>(r/min)<br>Range of speed variation | 许用输出扭矩 (N.m)<br>Allowed output torque |            |            |           |            |            |             |            |            |             |            |
| 配X95摆线减速机<br>Equipped with<br>X95 cycloidal<br>reducer   | 121                       | 1.6~8                                       |                                       |            |            |           |            |            | 3580~1790   | 4800~2440  | 6500~3250  | 8940~4470   | 9000~6100  |
|  | 187                       | 1~5   |                                       |            |            |           |            |            | 5720~2860   | 7800~3900  | 9000~5200  | 9000~7150   |            |
|  | 289                       | 0.7~.35                                     |                                       |            |            |           | 4080~2040  | 5570~2785  | 8160~4080   | 9000~5570  | 9000~7425  | 9000        |            |
|  | 319                       | 0.6~3                                       |                                       |            |            |           | 4760~2380  | 6500~3250  | 9000~4760   | 9000~6500  | 9000~8660  |             |            |
|  | 473                       | 0.42~2.1                                    |                                       |            |            |           | 6800~3400  | 9000~4640  | 9000~6806   | 9000       | 9000       |             |            |
|  | 595                       | 0.34~1.68                                   |                                       |            |            |           | 8500~4250  | 9000~5800  | 9000~8510   |            |            |             |            |
|  | 731                       | 0.27~1.37                                   |                                       |            |            |           | 9000~5220  | 9000~7100  | 9000        |            |            |             |            |
|  | 841                       | 0.24~1.18                                   |                                       |            | 6060~3030  | 8260~4130 | 9000~6060  | 9000~8260  |             |            |            |             |            |
|  | 1003                      | 0.2~1                                       |                                       |            | 7140~3570  | 9000~4870 | 9000~7150  | 9000       |             |            |            |             |            |
| 1505   | 0.13~0.66                 |   |                                       | 9000~5415  | 9000~7380  | 9000      |            |            |             |            |            |             |            |
| 配X106摆线减速机<br>Equipped with<br>X106 cycloidal<br>reducer | 121                       | 1.6~8                                       |                                       |            |            |           |            |            |             |            |            | 8970~4470   | 12000~6100 |
|  | 187                       | 1~5   |                                       |            |            |           |            |            | 5720~2860   | 7800~3900  | 10400~5200 | 12000~7150  | 12000~9750 |
|  | 289                       | 0.7~3.5                                     |                                       |            |            |           |            |            | 8160~4080   | 11140~5570 | 12000~7425 | 12000~10210 | 12000      |
|  | 319                       | 0.6~3                                       |                                       |            |            |           |            |            | 9520~4760   | 12000~6500 | 12000~8660 | 12000       |            |
|  | 473                       | 0.42~2.1                                    |                                       |            |            |           |            |            | 12000~6806  | 12000~9280 | 12000      |             |            |
|  | 595                       | 0.34~1.68                                   |                                       |            |            |           | 8500~4250  | 1160~5800  | 12000~8510  | 12000      |            |             |            |
|  | 731                       | 0.27~1.37                                   |                                       |            |            |           | 10440~5220 | 12000~7110 | 12000~10435 |            |            |             |            |
|  | 841                       | 0.24~1.18                                   |                                       |            |            |           | 12000~6060 | 12000~8260 | 12000       |            |            |             |            |
|  | 1003                      | 0.2~1                                       |                                       |            |            |           | 12000~7050 | 12000~9745 |             |            |            |             |            |
| 1501   | 0.13~0.66                 |   |                                       | 10830~5415 | 12000~7380 | 12000     | 12000      |            |             |            |            |             |            |

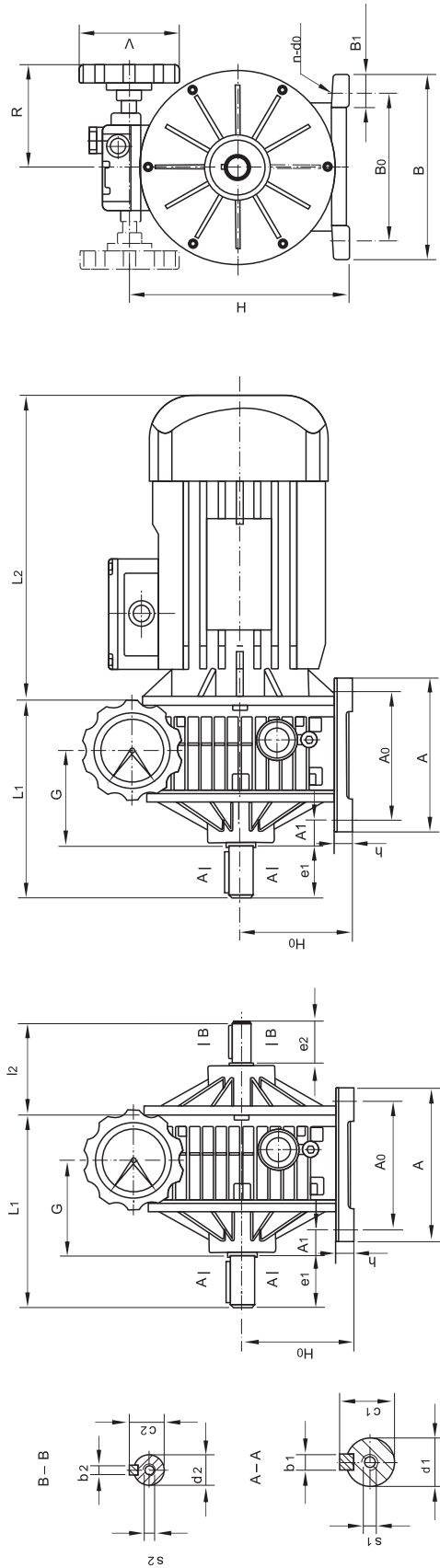
国内外各型无级变电机对照表  
Comparative table of variators model domestically

| 本公司<br>This company | MBN02     | MBN04     | MBN07     |          |          |        |          |          |
|---------------------|-----------|-----------|-----------|----------|----------|--------|----------|----------|
|                     |           |           |           | MB 15    | MB 22    | MB 40  | MB 55    | MB 75    |
| 日本<br>Japan         | D002      | D004      | D007      | D015     | D022     | D037   | D055     | D075     |
| 德国<br>Germany       | 02        | 03        | 04        | 05       | 06       | 07     | 08       | 08       |
| 意大利<br>Italy        | TK/02     | TK/05     | TK/10     | TK/20    | TK/30    | TK/40  | TK/100   | TK/100   |
| 其他<br>Others        | JWB-X0.25 | JWB-X0.37 | JWB-X0.75 | JWB-X1.5 | JWB-X2.2 | JWB-X4 | JWB-X5.5 | JWB-X7.5 |
|                     | UD003     | UD004     | UD007     | UD015    |          |        |          |          |

国内各型无级摆线减速机对照表  
Comparative table of various cycloidal reducer model domestically

|  |     |     |     |     |     |    |     |     |     |
|--|-----|-----|-----|-----|-----|----|-----|-----|-----|
| 天津<br>Tianjin                                | X2  | X3  | X4  | X5  | X6  | X7 | X8  | X9  | X10 |
| 江门<br>Jiangmen                               | XJ0 | XJ1 | XJ2 | XJ3 | XJ4 |    | XJ5 | XJ6 |     |
| 化工部<br>Ministry of Chemical Industry         | B1  | B1  | B2  | B3  | B4  |    | B5  | B5  |     |
| 机械部<br>Ministry of Machine-Building Industry | B15 | B15 | B18 | B22 | B27 |    | B33 | B39 | B45 |

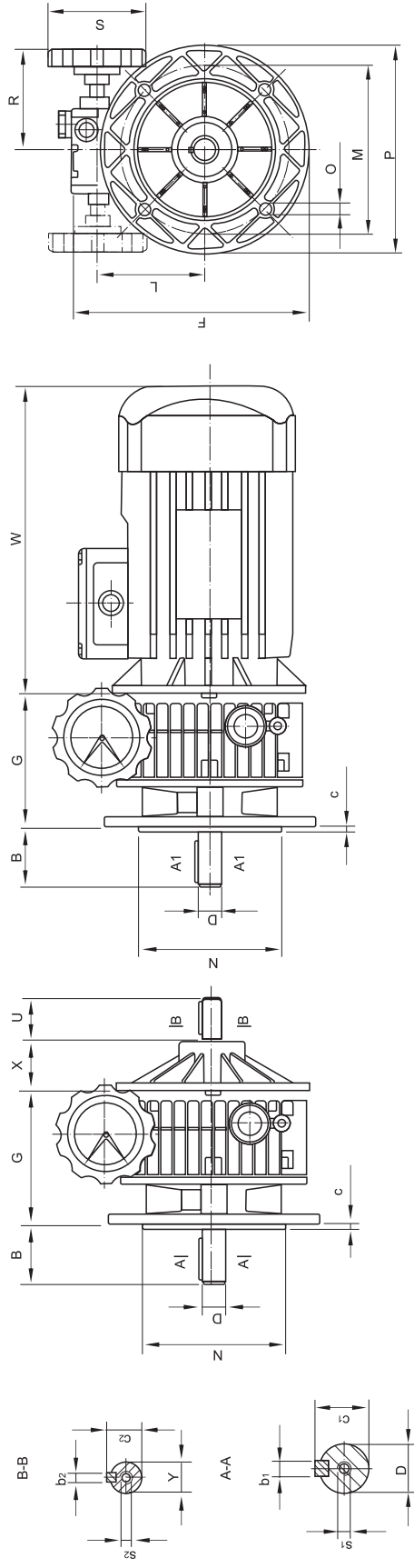
# 上海承禹机电设备有限公司



MBN系列基本型甲板卧式外形及安装尺寸  
Overall and installation dimensions of horizontal installation in MBN basic series

| 机座号<br>Frame-size | 中心高<br>Central height |     | 安装尺寸<br>Installation dimension |     |   |    |       |    | 输出轴<br>Output shaft |    |    |       |    |      | 输入轴<br>Input shaft |     |    |     |    |      | 外形尺寸<br>Overall dimensions |    |     |     |     |       |     |
|-------------------|-----------------------|-----|--------------------------------|-----|---|----|-------|----|---------------------|----|----|-------|----|------|--------------------|-----|----|-----|----|------|----------------------------|----|-----|-----|-----|-------|-----|
|                   | H0                    | A0  | A1                             | B0  | n | d0 | d1    | b1 | c1                  | e1 | s1 | d2    | b2 | c2   | e2                 | l2  | s2 | A   | h  | G    | B                          | B1 | H   | R   | V   | L1    | L2  |
| 02                | 75                    | 105 | 13.5                           | 110 |   | 9  | 11js6 | 4  | 12.5                | 23 | M6 | 11js6 | 4  | 12.5 | 23                 | 74  | M6 | 125 | 13 | 66   | 145                        | 25 | 147 | 110 |     | 135   | 227 |
| 04                | 90                    |     | 20                             | 120 | 4 | 9  | 14js6 | 5  | 16                  | 30 |    | 14js6 | 5  | 16   | 30                 | 79  |    | 125 | 15 | 73   | 150                        | 27 | 179 | 110 | 85  | 140   | 245 |
| 07                | 106                   |     | 28                             | 160 |   | 10 | 19js6 | 6  | 21.5                | 40 | M6 | 19js6 | 6  | 21.5 | 40                 | 110 | M6 | 150 | 13 | 84.5 | 190                        | 28 | 213 | 115 | 110 | 178.5 | 250 |

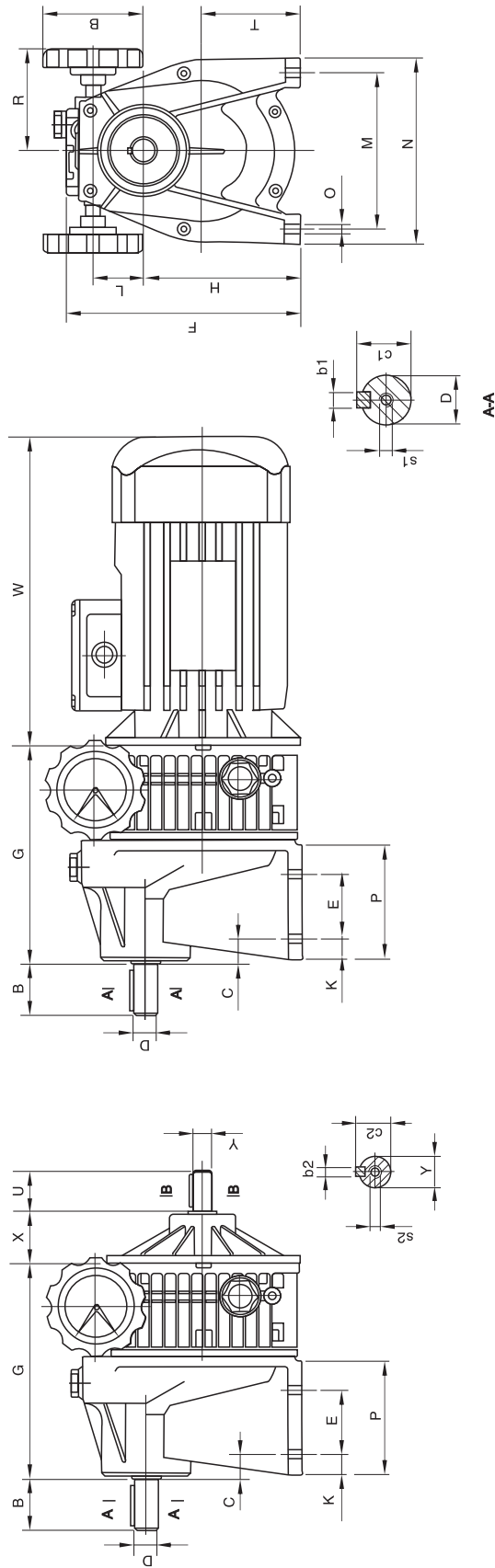
02、04、07可供铝合金箱体  
02、04、07 available Al-alloy box



MBN系列基本型法兰立式安装尺寸  
 Overall and installation dimensions of vertical installation in MBN basic series

| 机座号<br>Frame size | 外形及安装尺寸<br>Overall and installation dimensions |     |            |     |       |            |     |     |     |    |     |     |     |    |    |     |    |      |    |    |      |    |
|-------------------|--|-----|------------|-----|-------|------------|-----|-----|-----|----|-----|-----|-----|----|----|-----|----|------|----|----|------|----|
|                   | B  | C   | D<br>(js6) | F   | G     | Y<br>(js6) | L   | M   | N   | O  | P   | R   | S   | U  | x  | w   | b1 | c1   | s1 | b2 | c2   | s2 |
| 02                | 23   |     | 11         | 181 | 112.5 | 11         | 77  | 112 | 95  | 9  | 140 | 110 | 85  | 23 | 51 | 227 | 4  | 12.5 | M6 | 4  | 12.5 | M6 |
| 04                | 30   | 3.5 | 14         | 203 | 110   | 14         | 89  | 130 | 110 | 9  | 160 | 110 | 85  | 30 | 49 | 245 | 5  | 16   | M6 | 5  | 16   | M6 |
| 07                | 40   |     | 19         | 240 | 139   | 19         | 107 | 165 | 130 | 11 | 200 | 115 | 110 | 40 | 70 | 250 | 6  | 21.5 | M6 | 6  | 21.5 | M6 |

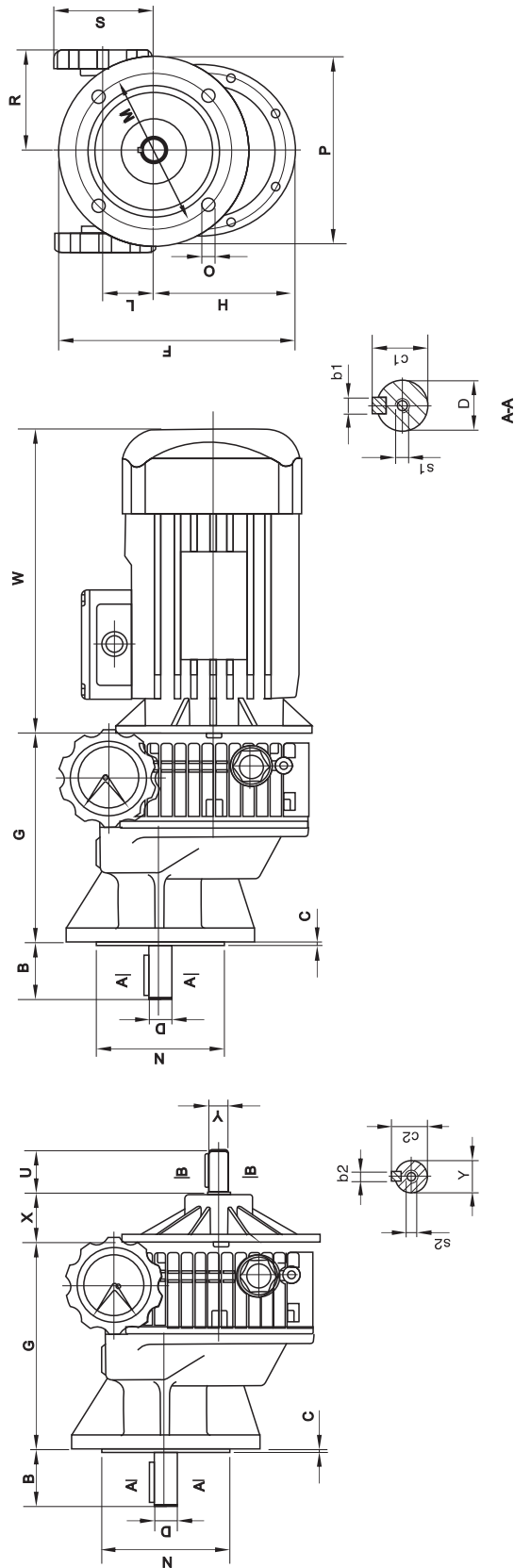
02、04、07可供铝合金箱体  
 02、04、07 available Al-alloy box



MBN系列-C单级卧式齿轮减速机组合外形及安装尺寸  
Overall and installation dimensions of horizontal combination to MBN-C combines single-stage gear reducer

| 机座号<br>Frame size | 外形及安装尺寸<br>Overall and installation dimensions |    |         |    |     |     |     |         |    |     |     |      |     |     |     |    |    |    |     |    |    |      |    |    |      |    |
|-------------------|--|----|---------|----|-----|-----|-----|---------|----|-----|-----|------|-----|-----|-----|----|----|----|-----|----|----|------|----|----|------|----|
|                   | B  | C  | D (js6) | E  | F   | G   | H   | Y (js6) | L  | M   | N   | O    | P   | R   | S   | T  | U  | X  | W   | K  | b1 | c1   | s1 | b2 | c2   | s2 |
| 02-C              | 40   | 18 | 19      | 45 | 167 | 180 | 108 | 11      | 35 | 105 | 130 | 9    | 80  | 110 | 85  | 66 | 23 | 51 | 227 | 16 | 6  | 21.5 | M6 | 4  | 12.5 | M6 |
| 04-C              | 50   | 6  | 24      | 70 | 193 | 188 | 130 | 14      | 39 | 150 | 190 | 10.5 | 105 | 110 | 85  | 79 | 30 | 49 | 245 | 15 | 8  | 27   | M8 | 5  | 16   | M6 |
| 07-C              | 60   | 7  | 28      | 70 | 228 | 225 | 160 | 19      | 45 | 165 | 210 | 12   | 130 | 115 | 110 | 99 | 40 | 70 | 250 | 25 | 8  | 31   | M8 | 6  | 21.5 | M6 |

02、04、07可供铝合金箱体  
02、04、07 available Al-alloy box

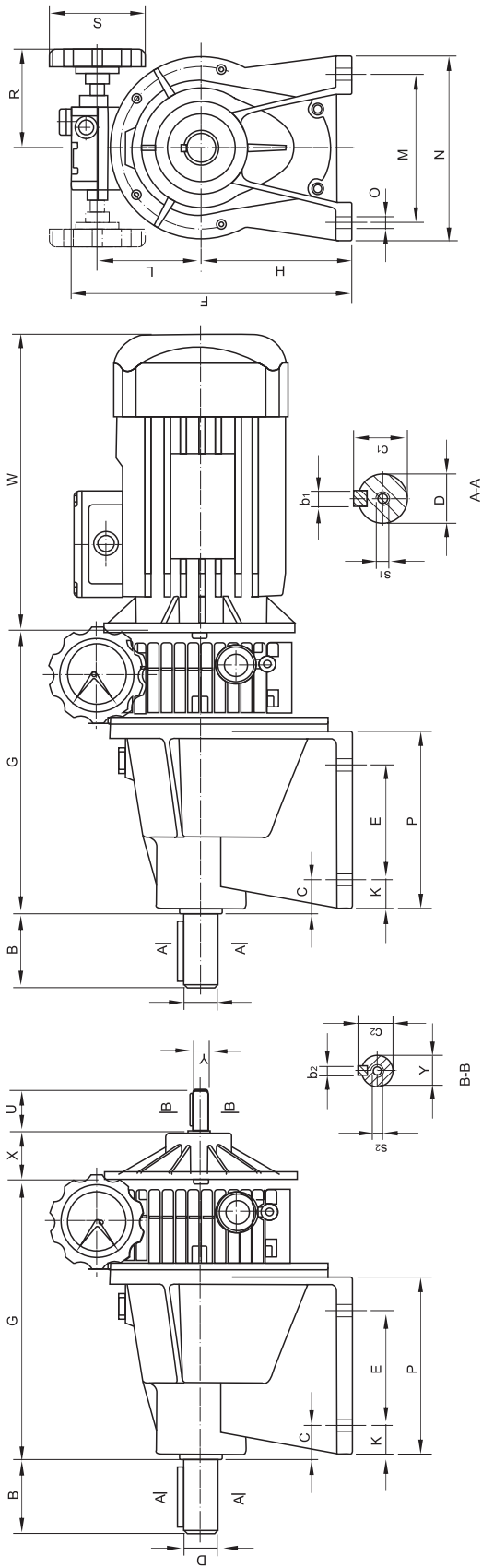


MBN系列-C单级立式齿轮减速机组外形及安装尺寸  
 Overall and installation dimensions of vertical combination to MBN-C combines single-stage gear reducer

| 机座号<br>Frame size |    | 外形及安装尺寸<br>Overall and installation dimensions |    |            |     |     |    |            |     |     |      |     |     |     |    |    |     |   |      |    |    |      |    |
|-------------------|----|--|----|------------|-----|-----|----|------------|-----|-----|------|-----|-----|-----|----|----|-----|---|------|----|----|------|----|
|                   |    | B  | C  | D<br>(js6) | F   | G   | H  | Y<br>(js6) | L   | M   | N    | O   | P   | R   | S  | U  | X   | W | b1   | c1 | s1 | b2   | c2 |
| 02-C              | 40 | 3  | 19 | 182        | 180 | 112 | 11 | 35         | 115 | 95  | 9    | 140 | 110 | 85  | 23 | 51 | 227 | 6 | 21.5 | M6 | 4  | 12.5 | M6 |
| 04-C              | 50 | 4  | 24 | 211        | 188 | 131 | 14 | 39         | 130 | 110 | 10.5 | 160 | 110 | 85  | 30 | 49 | 245 | 8 | 27   | M8 | 5  | 16   | M6 |
| 07-C              | 60 | 4  | 28 | 261        | 225 | 161 | 19 | 45         | 165 | 130 | 13   | 200 | 115 | 110 | 40 | 70 | 250 | 8 | 31   | M8 | 6  | 21.5 | M6 |

02、04、07可供铝合金箱体  
 02、04、07 available Al-alloy box

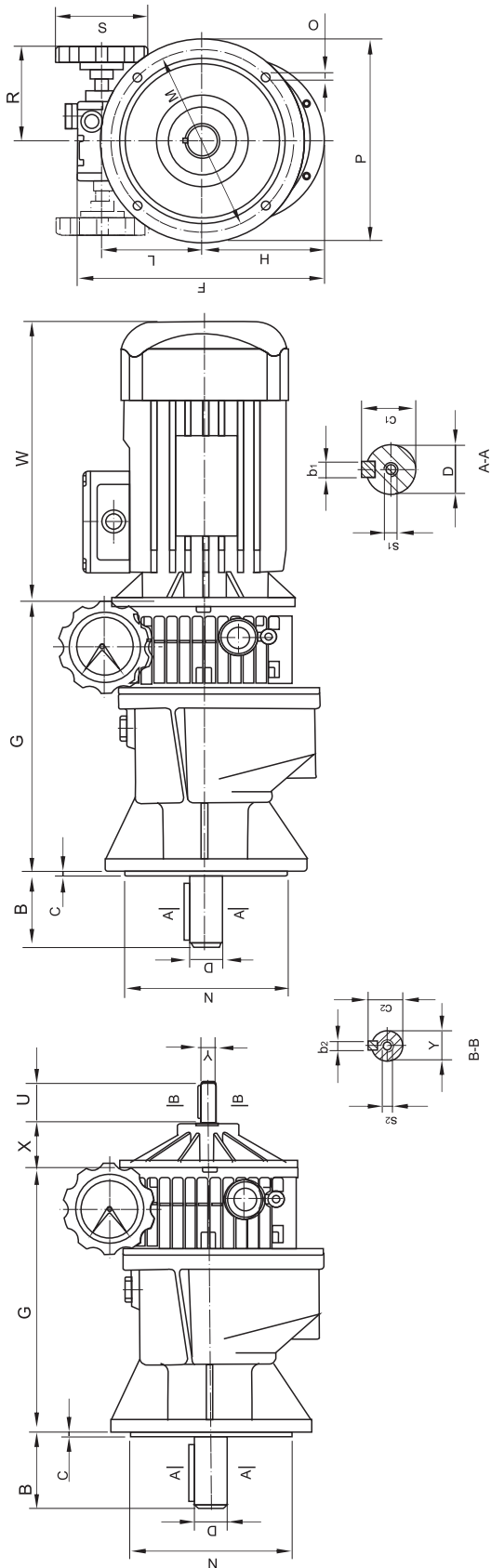
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MB、MBN系列-2C二级立式齿轮减速机组合外形及安装尺寸  
Overall and installation dimensions of horizontal combination to MB, MBN-2C combines double-stage gear reducer

| 机座号<br>Frame size | 外形及安装尺寸<br>Overall and installation dimensions |    |            |     |     |     |     |            |     |     |     |      |     |     |     |    | s2 |     |    |    |      |     |    |      |     |
|-------------------|--|----|------------|-----|-----|-----|-----|------------|-----|-----|-----|------|-----|-----|-----|----|----|-----|----|----|------|-----|----|------|-----|
|                   | B  | C  | D<br>(js6) | E   | F   | G   | H   | Y<br>(js6) | L   | M   | N   | O    | P   | R   | S   | U  |    | X   | W  | K  | b1   | c1  | s1 | b2   | c2  |
| MBN02-2C          | 40   | 27 | 19         | 70  | 206 | 226 | 105 | 11         | 77  | 105 | 130 | 9    | 120 | 110 | 85  | 23 | 51 | 227 | 21 | 6  | 21.5 | M6  | 4  | 12.5 | M6  |
| MBN04-2C          | 55   | 25 | 28         | 85  | 224 | 239 | 110 | 14         | 90  | 150 | 190 | 10.5 | 140 | 110 | 85  | 30 | 49 | 245 | 19 | 8  | 31   | M8  | 5  | 16   | M6  |
| MBN07-2C          | 65   | 26 | 32         | 106 | 281 | 276 | 152 | 19         | 106 | 174 | 212 | 13   | 161 | 115 | 110 | 40 | 70 | 250 | 23 | 10 | 35   | M10 | 6  | 21.5 | M6  |
| MB15-2C           | 70   | 27 | 38         | 130 |     | 332 | 172 | 24         | 121 | 200 | 250 | 14   | 185 | 135 | 110 | 40 | 51 | 285 | 25 | 10 | 41   | M10 | 8  | 27   | M8  |
| MB22-2C           | 110  | 43 | 55         | 180 |     | 447 | 235 | 24         | 150 | 250 | 320 | 18   | 266 | 166 | 110 | 50 | 69 | 320 | 34 | 16 | 59   | M12 | 8  | 31   | M8  |
| MB40-2C           | 110  | 43 | 55         | 180 |     | 447 | 235 | 24         | 150 | 250 | 320 | 18   | 266 | 166 | 110 | 50 | 69 | 340 | 34 | 16 | 59   | M12 | 8  | 31   | M8  |
| MB55-2C           | 140  | 48 | 70         | 250 |     | 565 | 280 | 38         | 192 | 300 | 380 | 21   | 344 | 182 | 110 | 60 | 49 | 395 | 38 | 20 | 74.5 | M16 | 10 | 41   | M10 |
| MB75-2C           | 140  | 48 | 70         | 250 |     | 565 | 280 | 38         | 192 | 300 | 380 | 21   | 344 | 182 | 110 | 60 | 49 | 435 | 38 | 20 | 74.5 | M16 | 10 | 41   | M10 |

02、04、07可供铝合金箱体  
02、04、07 available Al-alloy box

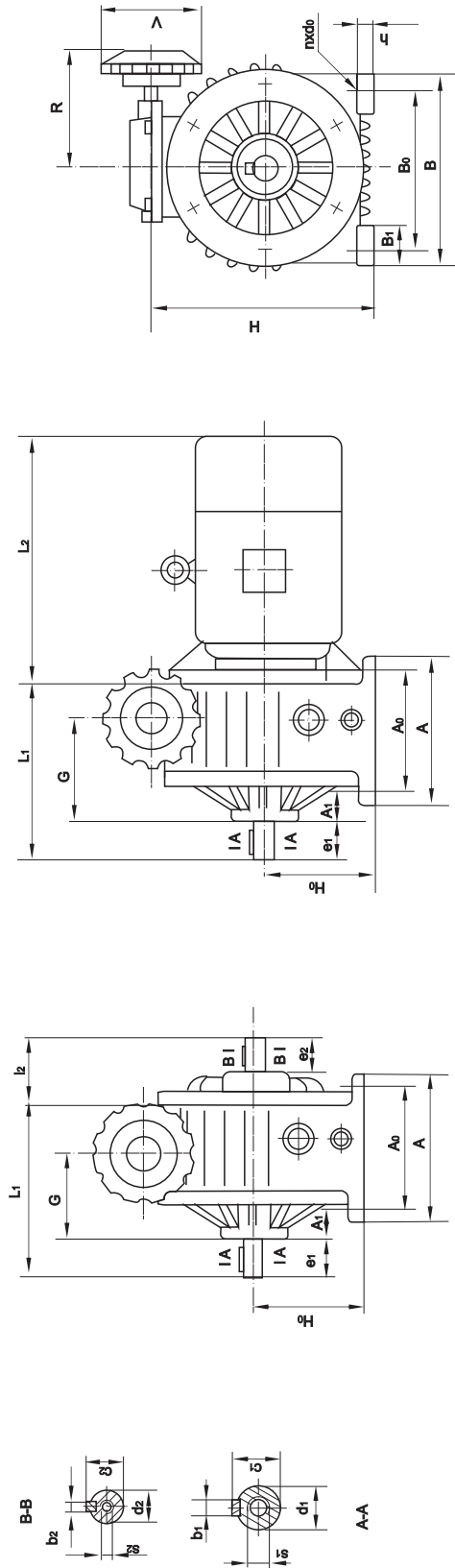


MB、MBN系列-2C二级卧式齿轮减速机组合外形及安装尺寸  
 Overall and installation dimensionsof horizontal combination to MB,MBN-2C combines double-stage gear reducer

| 机座号<br>Frame size | 外形及安装尺寸<br>Overall and installation dimensions |   |            |     |            |     |     |     |      |     |     |     |    |    |     |                |                |                |                |                |                |
|-------------------|--|---|------------|-----|------------|-----|-----|-----|------|-----|-----|-----|----|----|-----|----------------|----------------|----------------|----------------|----------------|----------------|
|                   | B  | C | D<br>(js6) | G   | Y<br>(js6) | L   | M   | N   | O    | P   | R   | S   | U  | X  | W   | b <sub>1</sub> | c <sub>1</sub> | s <sub>1</sub> | b <sub>2</sub> | c <sub>2</sub> | s <sub>2</sub> |
| MBN02-2C          | 40   | 3 | 19         | 226 | 11         | 77  | 115 | 95  | 9    | 140 | 110 | 85  | 23 | 51 | 227 | 6              | 21.5           | M6             | 4              | 12.5           | M6             |
| MBN04-2C          | 55   | 4 | 28         | 239 | 14         | 90  | 130 | 110 | 10.5 | 160 | 110 | 85  | 30 | 49 | 245 | 8              | 31             | M8             | 5              | 16             | M6             |
| MBN07-2C          | 65   | 4 | 32         |     | 19         | 106 | 165 | 130 | 12.5 | 200 | 115 | 110 | 40 | 70 | 250 | 10             | 35             | M10            | 6              | 21.5           | M6             |
| MB15-2C           | 70   | 5 | 38         |     | 24         | 121 | 215 | 180 | 14.5 | 250 | 135 | 110 | 40 | 51 | 285 | 10             | 41             | M10            | 8              | 27             | M8             |
| MB22-2C           | 110  | 5 | 55         |     | 24         | 151 | 265 | 230 | 14.5 | 300 | 166 | 110 | 50 | 69 | 320 | 16             | 59             | M12            | 8              | 31             | M8             |
| MB40-2C           | 110  | 5 | 55         |     | 24         | 151 | 265 | 230 | 14.5 | 300 | 166 | 110 | 50 | 69 | 340 | 16             | 59             | M12            | 8              | 31             | M8             |
| MB55-2C           | 140  | 5 | 70         |     | 38         | 192 | 300 | 250 | 18   | 350 | 182 | 110 | 60 | 49 | 395 | 20             | 74.5           | M16            | 10             | 41             | M10            |
| MB75-2C           | 140  | 5 | 70         |     | 38         | 192 | 300 | 250 | 18   | 350 | 182 | 110 | 60 | 49 | 435 | 20             | 74.5           | M16            | 10             | 41             | M10            |

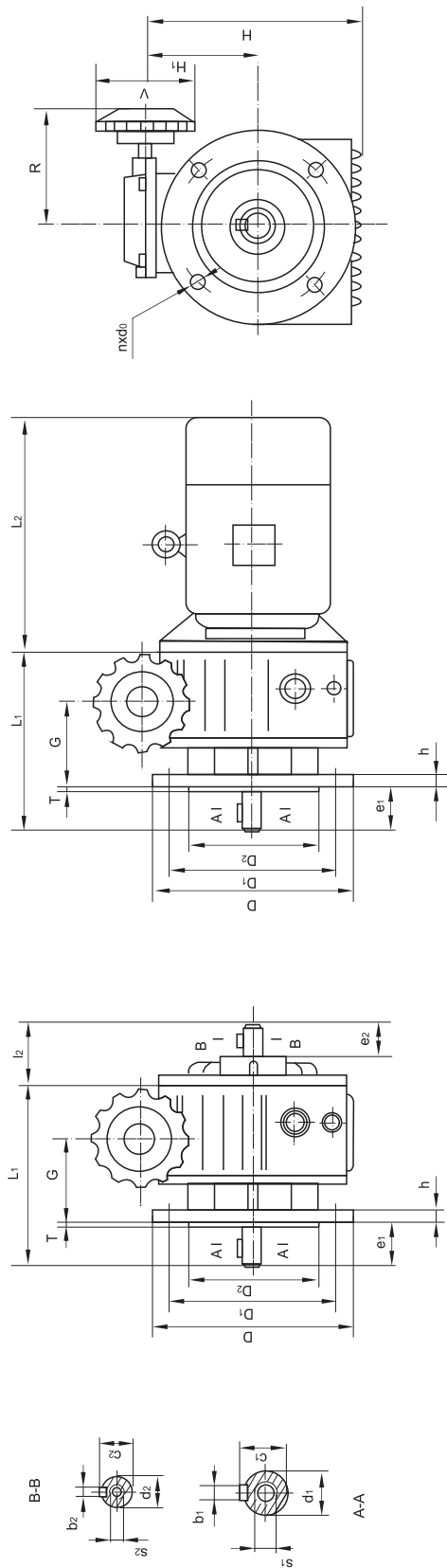
02、04、07可供铝合金箱体  
 02、04、07 available Al-alloy box

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MB 系列基本型甲卧式外形及安装尺寸  
Overall and installation dimensions of horizontal installation to MB basic series

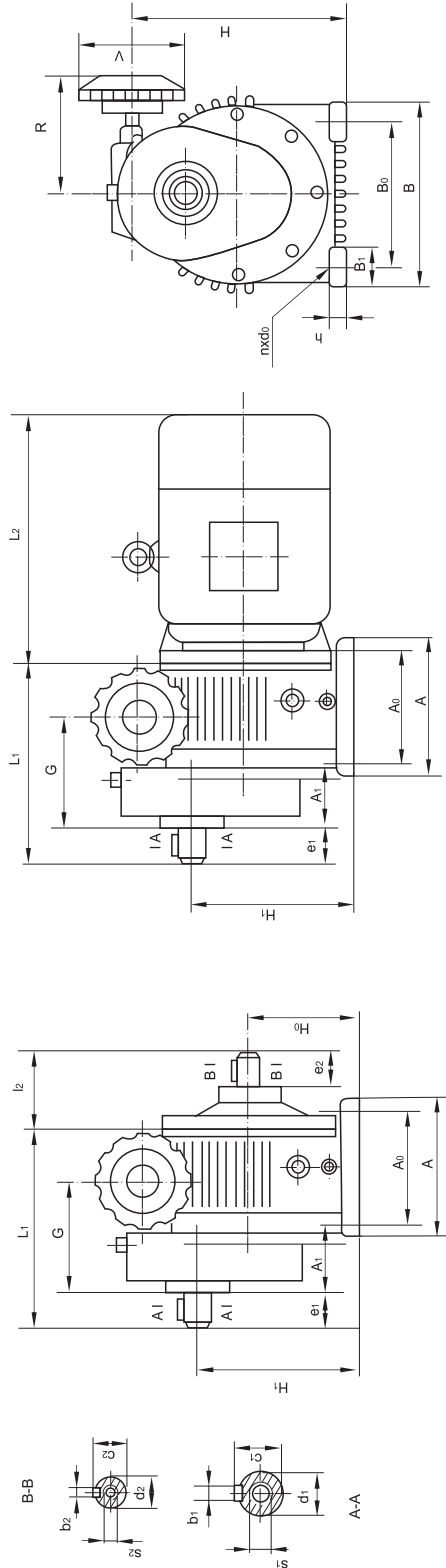
| 机座号<br>Frame<br>Size | 安装尺寸<br>Installation dimensions |     |    |     |   |    | 输出轴<br>Output shaft |    |    |    |     |       | 输入轴<br>Input shaft |    |    |     |     |       | 外形尺寸<br>Overall dimensions |     |     |     |     |     |     |     |     |
|----------------------|---------------------------------|-----|----|-----|---|----|---------------------|----|----|----|-----|-------|--------------------|----|----|-----|-----|-------|----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|
|                      | H0                              | A0  | A1 | B0  | n | d0 | d1                  | b1 | c1 | e1 | s1  | d2    | b2                 | c2 | e2 | l2  | s2  | A     | h                          | G   | B   | B1  | H   | R   | V   | L1  | L2  |
| 15                   | 125                             | 140 | 50 | 180 | 4 | 12 | 25js6               | 8  | 28 | 50 | M8  | 24js6 | 8                  | 27 | 40 | 91  | M8  | 165   | 18                         | 107 | 230 | 50  | 246 | 135 | 110 | 223 | 285 |
| 22                   | 150                             | 230 | 25 | 245 |   | 14 | 30js6               |    | 33 | 60 |     |       |                    |    | 60 | 70  |     | 32js6 | 10                         | 35  | 50  | 119 | M10 | 270 |     | 25  | 131 |
| 40                   |                                 |     |    |     |   | 18 | 35js6               | 10 | 38 | 70 | M10 | 32js6 | 10                 | 35 | 60 | 109 | M10 | 290   | 30                         | 131 | 365 | 70  | 392 | 194 | 319 | 395 |     |
| 75                   |                                 |     |    |     |   |    |                     |    |    |    |     |       |                    |    |    |     |     |       |                            |     |     |     |     |     |     |     | 435 |



MB 系列基本型法兰式外形及安装尺寸  
 Overall and installation dimensions of vertical installation to MB basic series

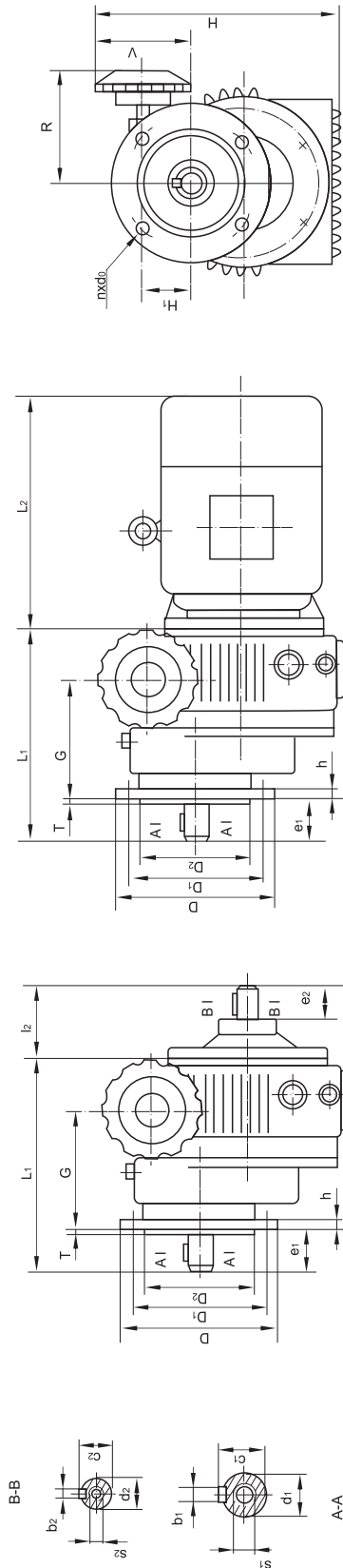
| 机座号<br>Frame<br>Size | 安装尺寸<br>Installation dimensions |     |   |   |    |       | 输出轴<br>Output shaft |    |    |     |       |    | 输入轴<br>Input shaft |    |     |     |     |    | 外形尺寸<br>Overall dimensions |     |     |     |     |     |     |
|----------------------|---------------------------------|-----|---|---|----|-------|---------------------|----|----|-----|-------|----|--------------------|----|-----|-----|-----|----|----------------------------|-----|-----|-----|-----|-----|-----|
|                      | D1                              | D2  | T | n | d0 |       | d1                  | b1 | c1 | e1  | s1    | d2 | b2                 | c2 | e2  | l2  | s2  | D  | h                          | G   | H   | H1  | R   | V   | L1  |
| 15                   | 215                             | 180 | 4 | 4 | 15 | 25js6 | 8                   | 28 | 50 | MB  | 24js6 | 8  | 27                 | 40 | 91  | M8  | 250 | 16 | 107                        | 246 | 121 | 135 | 110 | 223 | 285 |
| 22                   | 265                             | 230 | 4 | 4 | 15 | 30js6 | 8                   | 33 | 60 | MB  | 24js6 | 8  | 27                 | 50 | 119 | M8  | 300 | 16 | 131                        | 300 | 150 | 166 | 110 | 268 | 320 |
| 40                   | 300                             | 250 | 5 | 4 | 19 | 35js6 | 10                  | 38 | 70 | M10 | 32js6 | 10 | 35                 | 60 | 109 | M10 | 350 | 20 | 131                        | 392 | 192 | 194 |     | 319 | 395 |
| 75                   | 300                             | 250 | 5 | 4 | 19 | 35js6 | 10                  | 38 | 70 | M10 | 32js6 | 10 | 35                 | 60 | 109 | M10 | 350 | 20 | 131                        | 392 | 192 | 194 |     | 319 | 435 |

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MB 系列一级齿轮型甲板卧式外形及安装尺寸  
Overall and installation dimensions of horizontal combination to MB combines single-stage gear reducer

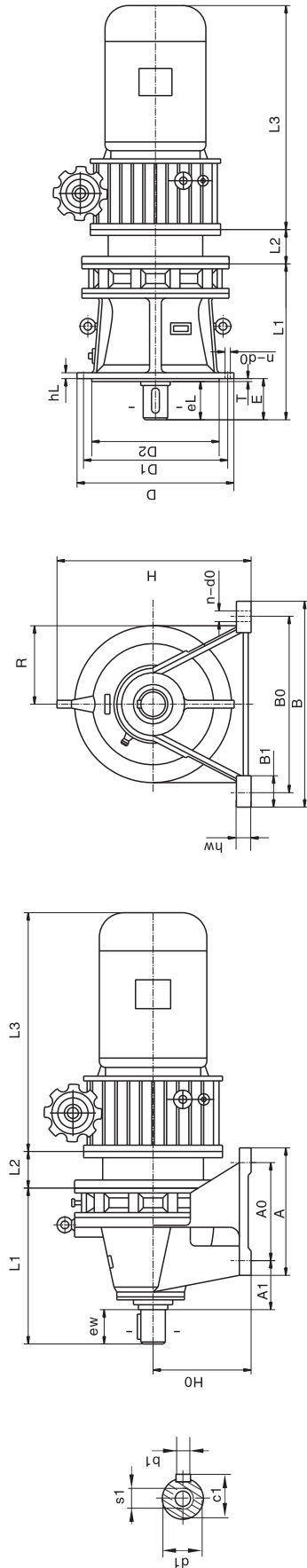
| 机座号<br>Frame<br>Size | 中心高<br>Central<br>height |     |     |     | 安装尺寸<br>Installation dimensions |    |    |    |       | 输出轴<br>Output shaft |      |    |     |       | 输入轴<br>Input shaft |    |    |     |     | 外形尺寸<br>Overall dimensions |     |    |     |     |    |     |     |     |     |     |  |
|----------------------|--------------------------|-----|-----|-----|---------------------------------|----|----|----|-------|---------------------|------|----|-----|-------|--------------------|----|----|-----|-----|----------------------------|-----|----|-----|-----|----|-----|-----|-----|-----|-----|--|
|                      | H0                       | H1  | A0  | A1  | B0                              | A1 | B0 | n  | d0    | d1                  | b1   | c1 | e1  | s1    | d2                 | b2 | c2 | e2  | i2  | s2                         | A   | h  | G   | B   | B1 | H   | R   | V   | L1  | L2  |  |
| 15                   | 125                      | 190 | 140 | 78  | 180                             |    |    | 12 | 30js6 | 8                   | 33   | 45 | M8  |       |                    |    | 40 | 91  |     |                            | 165 | 18 | 133 | 230 | 50 | 246 | 135 |     | 245 | 285 |  |
| 22                   | 150                      | 230 | 230 | 58  | 245                             |    | 4  | 14 | 40k6  | 12                  | 43   | 60 | M10 | 24js6 | 8                  | 27 | 50 | 119 | M8  |                            | 270 | 25 | 170 | 300 | 55 | 300 | 168 | 110 | 306 | 320 |  |
| 40                   |                          |     |     |     |                                 |    |    |    |       |                     |      |    |     | 32js6 | 10                 | 35 | 60 | 109 | M10 |                            | 290 | 30 | 255 | 365 | 70 | 392 | 194 |     | 455 | 340 |  |
| 55                   | 200                      | 320 | 250 | 157 | 315                             |    |    | 18 | 50k6  | 14                  | 53.5 | 82 |     |       |                    |    |    |     |     |                            |     |    |     |     |    |     |     |     |     |     |  |
| 75                   |                          |     |     |     |                                 |    |    |    |       |                     |      |    |     |       |                    |    |    |     |     |                            |     |    |     |     |    |     |     |     |     |     |  |



MB 系列带一级齿型法兰式外形及安装尺寸  
 Overall and installation dimensions of vertical combination to MB combines single-stage gear reducer

| 机座号<br>Frame<br>Size | 安装尺寸<br>Installation dimensions |     |   |   |    | 输出轴<br>Output shaft |    |      |    |     | 输入轴<br>Input shaft |    |    |    |     | 外形尺寸<br>Overall dimensions |     |    |     |     |     |     |     |     |     |
|----------------------|---------------------------------|-----|---|---|----|---------------------|----|------|----|-----|--------------------|----|----|----|-----|----------------------------|-----|----|-----|-----|-----|-----|-----|-----|-----|
|                      | D1                              | D2  | T | n | d0 | d1                  | b1 | c1   | e1 | s1  | d2                 | b2 | c2 | e2 | l2  | s2                         | D   | h  | G   | H   | H1  | R   | V   | L1  | L2  |
| 15                   | 165                             | 130 | 4 | 4 | 15 | 30js6               | 8  | 33   | 45 | M8  | 24js6              | 8  | 27 | 40 | 91  | M8                         | 200 | 16 | 155 | 246 | 56  | 135 | 110 | 266 | 285 |
| 22                   | 215                             | 180 |   |   |    | 40js6               | 12 | 43   | 60 | M10 |                    |    |    | 50 | 119 |                            | 250 |    | 300 | 70  | 337 | 320 |     |     |     |
| 40                   | 265                             | 230 | 5 | 5 | 15 | 50js6               | 14 | 53.5 | 82 | M10 | 32js6              | 10 | 35 | 60 | 109 | M10                        | 300 | 20 | 255 | 392 | 72  | 194 | 455 | 395 | 435 |
| 75                   |                                 |     |   |   |    | 50js6               | 14 | 53.5 | 82 |     | 32js6              | 10 | 35 | 60 | 109 | M10                        | 300 | 20 | 255 | 392 | 72  | 194 |     | 455 | 395 |

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MB/MBN无级变速机配单级摆线减速机外形及安装尺寸  
Overall and installation dimensions of MB, MBN variators equipped with single-stage cycloidal reducer

| 机座号<br>Frame Size | 安装尺寸 (W)<br>Installation dimensions (W) |     |     |    |     |     |     |    |    |    | 安装尺寸 (L)<br>Installation dimensions (L) |    |      |     |     |     | 输出轴<br>Output shaft |    |    |     |     |     |     |     |    |    | 外型尺寸<br>Overall dimensions |  |  |  |  |  |  |  |  |  |
|-------------------|---|-----|-----|----|-----|-----|-----|----|----|----|---|----|------|-----|-----|-----|---------------------|----|----|-----|-----|-----|-----|-----|----|----|----------------------------|--|--|--|--|--|--|--|--|--|
|                   | A1                                      | A0  | B0  | n  | d0  | D1  | D2  | E  | T  | n  | d0                                      | d1 | b1   | c1  | ew  | eL  | s1                  | A  | hw | h1  | B   | H   | B1  | D   | L1 | L2 | L3                         |  |  |  |  |  |  |  |  |  |
| X2                | 66                                      | 90  | 180 | 12 | 160 | 130 | 42  | 3  |    |    | 25h6                                    | 8  | 28   | 35  | 35  | M8  | 120                 | 15 | 12 | 210 | 175 | 45  | 180 | 157 |    |    |                            |  |  |  |  |  |  |  |  |  |
| X3                | 96                                      | 100 | 250 | 16 | 200 | 170 | 50  | 4  | 6  | 12 | 35h6                                    | 10 | 38   | 35  | 45  |     | 150                 | 20 | 15 | 290 | 278 | 55  | 230 | 193 |    |    |                            |  |  |  |  |  |  |  |  |  |
| X4                | 95                                      | 145 | 290 | 4  | 230 | 200 | 79  | 4  |    |    | 45h6                                    | 14 | 48.5 | 74  | 63  | M10 | 195                 | 22 |    | 330 | 309 | 65  | 260 | 240 |    |    |                            |  |  |  |  |  |  |  |  |  |
| X5                | 115                                     | 150 | 370 | 18 | 310 | 270 | 92  | 4  |    |    | 55h6                                    | 16 | 59   | 91  | 79  |     | 260                 | 25 | 20 | 410 | 356 | 75  | 340 | 311 |    |    |                            |  |  |  |  |  |  |  |  |  |
| X6                | 36                                      | 275 | 380 | 22 | 360 | 316 | 92  | 5  | 8  | 16 | 65h6                                    | 18 | 69   | 89  | 80  | M12 | 335                 | 30 | 22 | 430 | 425 |     | 400 | 354 |    |    |                            |  |  |  |  |  |  |  |  |  |
| X8                | 35                                      | 380 | 480 |    | 450 | 400 | 112 | 6  |    | 18 | 90h6                                    | 25 | 95   | 120 | 110 | M16 | 440                 | 35 | 30 | 530 | 529 |     | 490 | 447 |    |    |                            |  |  |  |  |  |  |  |  |  |
| X9                | 44                                      | 480 | 560 | 6  | 520 | 455 | 170 | 8  | 12 | 22 | 100h6                                   |    | 106  | 142 | 129 | M20 | 560                 | 40 | 35 | 620 | 614 | 120 | 580 | 552 |    |    |                            |  |  |  |  |  |  |  |  |  |
| X10               | 80                                      | 500 | 630 | 30 | 590 | 520 | 174 | 10 |    |    | 110h6                                   |    | 116  | 150 | 140 | M24 | 600                 | 45 | 40 | 690 | 706 |     | 650 | 612 |    |    |                            |  |  |  |  |  |  |  |  |  |

按所配无级  
变速机决定  
Up to the  
equipped  
motor



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## 机型号，电机的选择及温升

1. 准确选择机型核心的依据是使选用的电机---变速机组与预计要求的负载和成本相适应。在某种情况下,可能由于缺乏预见或者由于过载,而选取不够大的组件,引起故障和失败,反之选取过份功率大的传动系统,意味着消耗的资源增加,一旦被驱动工作机的功率和扭矩已经确定,下一个步骤就是估计载荷的性质,存在的惯性和冲击载荷,如果有的话,载荷类型(见表就好确定,因而可相应地选取机型号).

| 工作情况                   | K    |
|------------------------|------|
| 均与负载,连续负载,经常旋转,无惯性     | 1    |
| 中等冲击负荷,脉动载荷,经常反转,中等惯性  | 1.3  |
| 中等冲击负荷,脉动载荷,经常反转,很大的惯性 | 1.5  |
| 严重的冲击负荷,脉动载荷,很大的惯性     | 1.75 |

十分合适的变速机是指能够承受很大的过载能力,如果变速机平稳的工作,并精确地与所需的负载相称。尽管如此,也必须考虑到特殊的和不经常的工作情况。有了定载荷类型的参考表,驱动机械需要的功率应乘以所选定的工作情况系数K。

2. 电动机: 采用三相异步, 全封闭, 外部通风, 笼式转子的标准电动机, 外壳防护为IP54, 即防尘, 防溅(欧洲标准--与我国Y系列电机标准一样)。绝缘等级为B级。电机轴直接与变速机联接必需装有油封。起动频率, 允许每分钟最高起动次数为5次, 更高的起动频率对变速机的使用寿命有不利影响。

3. 温升: 变速机用四极电机时, 此时, 部件在跑合(空车运转)开始时, 温升高于正常工作的温升, 约高于环境温度40-45℃, 当跑合运转60-80小时后, 温升逐渐降低, 此后, 温度高于环境温度20℃. 并保持稳定的温升。变速机用二极电机时, 跑合的持续时间和影响基本与四极电机一样。然而, 在这种情况下, 跑合时高的温升影响正常允许的工作条件, 但对部件的使用寿命无有害影响。

## Selection guide

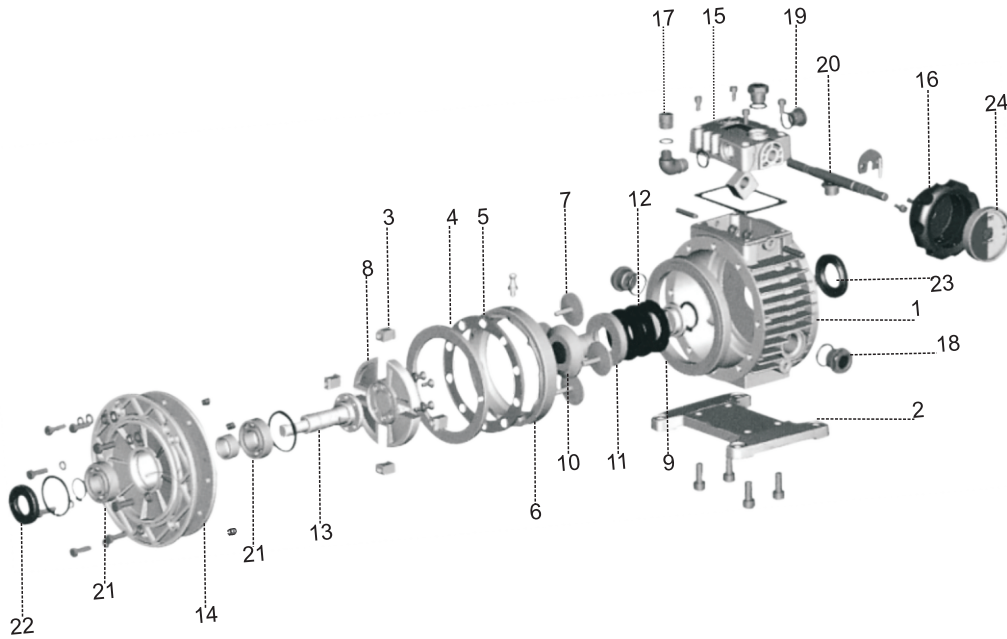
1. The core base is the selection which must be fit for the load and cost to the combination. perhaps the load is unexpected or too big. it makes combination damaged other side, if the power of combination is too big, it means wasting resource, if the power and torque is known, we should estimate the character of load, so choose the accurate safe factor "K" to combination.

| Working condition   | K    |
|---|------|
| Single, stable, continue, rotating and no inertia           | 1    |
| Plusating, middle shock load, often reverse, middle inertia | 1.3  |
| Plusating, middle shock load, often reverse, hard inertia   | 1.5  |
| Hard shock load, often reverse, hard inertia                | 1.75 |

Choose safe factor "K" accurately to count the combination power.

2. Electric motor: three-phase, asynchronous, protect grade Ip54, insulation grade B. Electric motor must be equipped with oil seal when it is connected directly with variator. it starts less than five times every minutes, or its life will be reduced.

3. The temperature will drop after 60-80 hour running when variator equipped with four-pole electric motor runs at first time and it will remain stable. if variator is equipped with two-pole electric motor, the temperature will drop after 80-100 hours running, later, it will remain stable, this process is harmless to variator's life.

**MB、MBN系列行星锥盘无极变速器**  
**MB、MBN SERIES Planetary cone-disk variator**
**结构示意图 Structural Demonstration**


| 序号 | 名称   |
|----|------|
| 1  | 通气螺塞 |
| 2  | 调速盖  |
| 3  | 调速丝杆 |
| 4  | 调速手柄 |
| 5  | 油封   |
| 6  | 油镜   |
| 7  | 箱体   |
| 8  | 定环   |

| 序号 | 名称     |
|----|--------|
| 9  | 蝶形弹簧   |
| 10 | 压轮     |
| 11 | 行星轮    |
| 12 | 恒轮     |
| 13 | 调速凸轮   |
| 14 | 平面轴承   |
| 15 | 固定平面凸轮 |
| 16 | 滑动轴承   |

| 序号 | 名称   |
|----|------|
| 17 | 转臂   |
| 18 | 输出轴  |
| 19 | 轴承   |
| 20 | 形密封圈 |
| 21 | 输出法兰 |
| 22 | 轴承   |
| 23 | 油封   |

| No. | Name                     |
|-----|--------------------------|
| 1   | Breather vent            |
| 2   | Speed control cover      |
| 3   | speed control lead screw |
| 4   | speed control handwheel  |
| 5   | oil seal                 |
| 6   | oil mirror               |
| 7   | tank                     |
| 8   | fixed ring               |

| No. | Name                 |
|-----|----------------------|
| 9   | butterfly spring     |
| 10  | press wheel          |
| 11  | planetary wheel      |
| 12  | constant wheel       |
| 13  | speed-regulating cam |
| 14  | surface bearing      |
| 15  | fixed cam            |
| 16  | slide-block bearing  |

| No. | Name             |
|-----|------------------|
| 17  | torque           |
| 18  | output shaft     |
| 19  | bearing          |
| 20  | o-type seal ring |
| 21  | output flange    |
| 22  | bearing          |
| 23  | oil seal         |

# 上海承禹机电设备有限公司

## 减(变)速机订货须知

- 1、主机名称: \_\_\_\_\_
  - 2、减速机在主机中的作用\_\_\_\_\_
  - 3、使用环境条件: 温度\_\_\_\_\_摄氏度
  - 4、每天运转时间\_\_\_\_\_
  - 5、电机类型 \_\_\_\_\_功率\_\_\_\_\_千瓦; 电压\_\_\_\_\_伏特; 输入转速\_\_\_\_\_转/分; 频率\_\_\_\_\_赫兹
  - 6、传动比\_\_\_\_\_; 输出轴转速\_\_\_\_\_转/分
  - 7、减速机所承受载荷(转矩)\_\_\_\_\_N.m
  - 8、减速机型号规格(按型号表示示例填写)\_\_\_\_\_
  - 9、减速机与电动机连接方式\_\_\_\_\_
  - 10、所需台数\_\_\_\_\_, 希望供货时间\_\_\_\_\_年\_\_\_\_\_月\_\_\_\_\_日
  - 11、用户在订货时, 双方需要签定全国同一格式文本合同, 签定生效后, 双方务必按《中华人民共和国合同法》中有关条款规定执行。
  - 12、在签定合同前, 必须仔细阅读了解本书中的各产品性能, 使用范围特点, 各种机型的型号表示方法, 包括机型号安装方式、是否带电机、减速比、电机功率、扭矩力等相关内容。直接配电机的产品, 除注明电机功率外, 还要务必注明机种类, 相数(电机)极数(转数)如没有注明一律按三相四极交流电机出厂。
  - 13、用户在订货时尽量选取我公司的型号、规格、如特殊减速比、变速比、特殊电机可特殊订货, 我分司可为用户特殊设计制造。
  - 14、本书所例的各项技术数据及其他, 可供用户参考使用, 如有技术改进, 恕不另行通知。
- 注: a、选择带无级变速器的机型, 为充分显示本机型的优良特性, 常用转速应选择在变速范围中间值。  
b、订货时请选择本目录内的标准产品, 如有特殊要求请在合同上详细说明。

## Notices in speed reducer (speed changer) procurement

- 1、Main unit name: \_\_\_\_\_
- 2、Purpose of speed reducer in main unit
- 3、Operating conditions: Temperature \_\_\_\_\_ °C
- 4、Working time every day \_\_\_\_\_.
- 5、Motor type \_\_\_\_\_; Power \_\_\_\_\_ KW; Voltage \_\_\_\_\_ V; Input rotating speed \_\_\_\_\_ r/min; Frequency \_\_\_\_\_ HZ
- 6、Transmission ratio \_\_\_\_\_; Output spindle rotation speed \_\_\_\_\_ r/min
- 7、Maximum (torque) load allowed on speed reducer \_\_\_\_\_ N.m
- 8、Type of speed reducer (fill in types as specified) \_\_\_\_\_
- 9、Coupling method between speed reducer and motor \_\_\_\_\_
- 10、Quantity required \_\_\_\_\_. Expeded delivery date \_\_\_ year \_\_\_ month \_\_\_ day.
- 11、When a user places an order, the two parties shall sign a national uniform-pattern contract, which comes into effect after being signed, and the two parties shall implement according to relevant provisions in Contract Law of the People's Republic of China.
- 12、Before signing a contract, please read all technical parameters, application range and expression of types, including installation patterns, motors attached or not, speed reduction ratio, motor power, torque and so on. To products directly coupled with motors, besides motor power, motor type, phase number (motor) and stage number (rotation number) shall be specified, otherwise, we will provide 3-phase & 4-stage AC motors for all.
- 13、Users shall try to select the types manufactured by our compant, Special orders are available for special speed reduction ratio, transmisson ratio and motors, and our company can design and manufacture for users.
- 14、All technical parameters and other information in this document ate for users' reference, and we will not otherwise when any technical improvements ate made.

Note: a. When selecting the machine model with stepless speed variator, in order to fully represent the excellent properties of this model of machine, generally, the rotary speed shall be the middle calue within the speed cariation range.

b. When ordering, please try to select the standard products in the catalogue. If there is any special requirement, please notify it in the contract.