



致力于打造世界一流的中国传动品牌



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Medium Gear Motor  
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Committed to building a world-class  
transmission brand

经销商  
Distributor



## COMPANY PROFILE

万鑫精工(湖南)有限公司(简称万鑫精工)是集研发、生产、销售、服务于一体的专业化减速电机企业,主要生产高精度减速电机,产品广泛应用于机器人、机床、立体停车库等轻工自动化设备。作为一家专注于减速电机的制造商及智能化全套方案提供商,万鑫精工引入国外先进加工设备,致力于为全球客户提供技术前沿、品质卓越各类减速电机产品,是国内减速电机行业的优质品牌。

为满足国内外客户的需求,全面开启国际化战略布局,万鑫精工立志走“精鑫”强企强国之路,先后引入国内外多名高新技术人才加盟,更加重视现有产品的质量提升以及新产品的研发。在未来的发展中,万鑫精工将继续秉持着“致力于铸就世界一流的传动品牌”的信念与愿景,为助推世界工业智能化发展而奋斗!

WANSHSIN SEIKOU (HUNAN) CO., LTD. (hereafter referred to as "WANSHSIN") is professional gear motor manufacturer integrates R&D, production, sales and service. WANSHSIN mainly manufactures high-precision gear motors which are widely used in robots, machine tools, solid garages and other industrial automation. As a gear motor manufacturer and complete intelligent automation solutions provider, WANSHSIN introduced advanced import processing equipment, adopted advanced technology, to meet the strict high quality requirement for worldwide customers. All efforts made WANSHSIN a reputable and high quality brand in domestic gear motor industry.

To satisfy domestic and foreign customers' requirements, WANSHSIN fully opened the international strategic layout, determined to follow the path of building a strong enterprise for a stronger country, WANSHSIN pays more attention to the quality improvement of current products and development of new products, and successively introduced high-tech talents, both domestic and international. In the future, WANSHSIN will continuously keep the faith that "Committed to building a world-class transmission brand" and strive to the development of the industrial intelligent system of the world.



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GH horizontal single-phase three-phase, aluminum shell(brake) shrink box type gear motor
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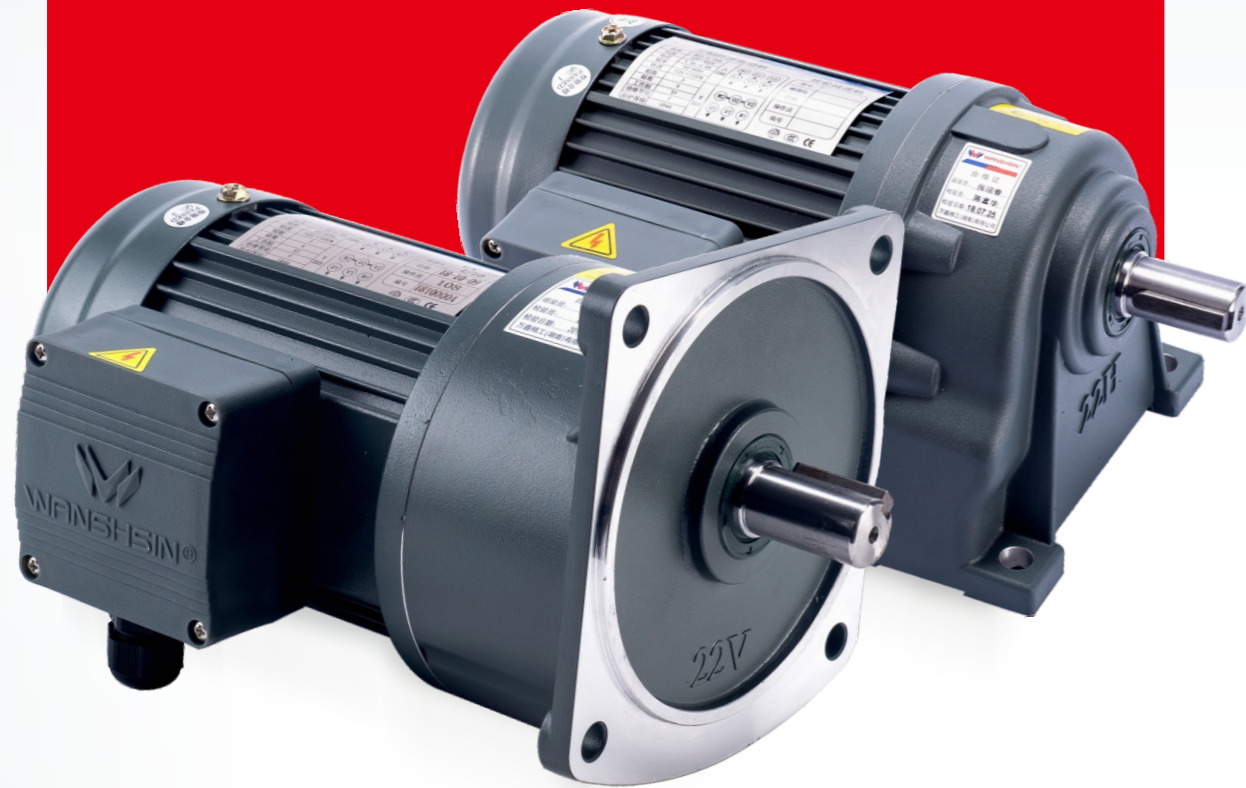
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# MEDIUM GEAR MOTOR

## 中型减速电机



### 订购方式

### SELECTION

#### 型号命名 MODEL NAME

**GH22400W30SBG1LDHO**

1 2 3 4 5 6 7 8 9

#### 1 型号

Model Code

|     |  |
|-----|--|
| GH  | 卧式安装齿轮减速机<br>Horizontal Installation Gear Motor              |
| GV  | 立式安装齿轮减速机<br>Vertical Installation Gear Motor                |
| GHM | 卧式安装直结型齿轮减速机<br>Horizontal Installation Straight Gear Motor  |
| GVM | 立式安装直结型齿轮减速机<br>Vertical Installation Straight Gear Motor    |
| GHD | 卧式安装双轴型齿轮减速机<br>Horizontal Installation Dual Axle Gear Motor |
| GVD | 立式安装双轴型齿轮减速机<br>Vertical Installation Dual Axle Gear Motor   |

#### 2 出力轴 Output shaft

18、22、28、32.....

#### 3 马力 Power

100W-7500W

#### 4 减速比 Ratio: 3、5、10、.....1800

#### 5 马达 Motor

S: 三相马达220V、380V/50、60HZ-three phase  
A: 单相马达110V、220V/50、60HZ-Single phase

#### 6 刹车器 Brake unit

B: 断电刹车器 BRAKE UNIT  
AB: 手释放刹车器 WITH RELEASE BRAKE UNIT  
D: DC24V送电刹车器 DC24V BRAKE

#### 7 依出力轴看配线盒方向

Terminal box position view(from the output shaft direction)

G1: 左方向LEFT(标准型) (STD) G2: 右方向RIGHT  
G3: 上方向UPPER G4: 下方向DOWN

#### 8 入线口方向 Wire inlet

T: 向上TOP B: 向后BACK D: 向下DOWN  
L: 向左LEFT F: 向前FORWARD R: 向右RIGHT

#### 9 透气塞安装位置选定

Breather plug position

|  |   |
|--|---|
| GH机型安装位置<br>GH MODEL INSTALLATION SITE | GV机型安装位置<br>GV MODEL INSTALLATION SITE  |
| H0标准(正立) H3(左侧)<br>H6(倒装) H9(右侧)       | V0标准(正立) V3(顺转90°)<br>V6(顺转180°) V9(逆转90°)<br>HU(轴向上) HD(轴向下) VU(轴向上) VD(轴向下) |

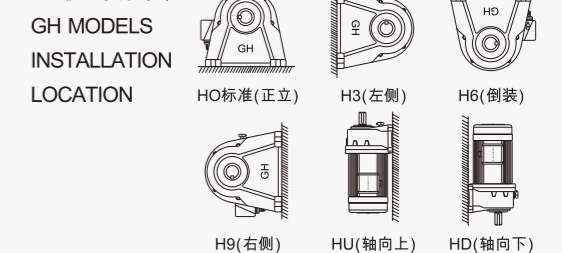
#### 配线盒布线选定 TERMINAL BOX DIRECTION

| TYPE                       | G1-左方向<br>LEFT SIDE | G2-右方向<br>RIGHT SIDE | G3-上方向<br>UPPER SIDE | G4-下方向<br>LOWER SIDE |
|----------------------------|---------------------|----------------------|----------------------|----------------------|
| GH型<br>GH TYPE             |                     |                      |                      |                      |
| GV型<br>GV TYPE             |                     |                      |                      |                      |
| 入线口<br>方向<br>WIRE<br>INLET | LD LT               | RD RT                | TL TR                | DL DR                |
| DIRECTION                  | LF LB               | RF RB                | TF TB                | DF DB                |

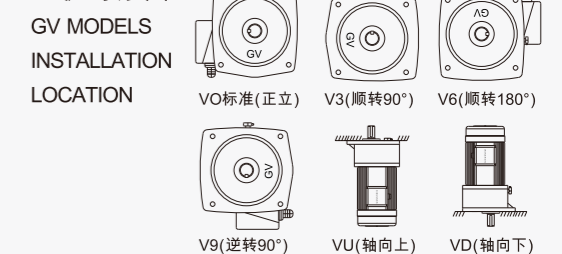
#### 减速机与透气塞安装位置示意图

#### REDUCER AND BREATHER PLUG INSTALLATION

##### GH机型安装位置



##### GV机型安装位置



除标准安装方式外, 其余安装方式均需先告知本公司。  
Except HO installation site ,other installation site should be informed.

## 马达规范 MOTOR SPECIFICATION kW

| ■ 标准马达规范表 STANDARD MOTOR SPECIFICATION |   |   |   |  |
|--|---|---|---|--|
| 项目ITEM                                 | 三相交流马达3-PHASE AC MOTOR  |   | 单相交流马达SINGLE PHASE AC MOTOR             |  |
| 保证等级PROTECTION                         | 全密闭外扇型IP44<br>TOTALLY ENCLOSED FAN COOLED TYPE  |   | 半密闭外扇型<br>SEMI-ENCLOSED FAN COOLED TYPE |  |
| 外壳材质SHELL MATERIAL                     | 0.1-7.5KW   | 铝合金 ALUMINUM                            | 0.1-2.2KW                               | 铝合金 ALUM ALLOY   |
| 启动方式STARTING MODE                      | 全压启动 DIRECT STARTING  |   | 0.1-0.2KW                               | 运转电容启动 CAPACITOR   |
|  |   |   | 0.4-2.2KW                               | 启动电容+运行电容+电子离心开关<br>STARTING CAPACITOR RUNNING CAPACITOR+ELECTRONIC CENTRIFUGAL SWITCH |
| 定格TIMA RATING                          | 连续运转CONTINUOUS OPERATION  |   |   |  |
| 绝缘等级INSULATION                         | F (特殊行业产品除外)  |   |   |  |
| 适用环境ENVIRONMENT                        | 温度: -10°C~+40°C (TEMPERATURE: -10°C~+40°C) 湿度: ≤90% (HUMIDITY: ≤90%)  |   |   |  |
| 适用电压VOLTAGE                            | 50HZ  | 220V,230V,240V,380V,400V,415V,440V      | 50HZ                                    | 110V,115V,200V,220V,230V   |
|  | 60HZ  | 220V,240V,380V,415V,440V,460V,480V,600V | 60HZ                                    | 110V,220V,240V   |
| 适用极数POLE                               | 4P  |   |   |  |
| 输出转速(4P)OUTPUT SPEED(4P)               | 50HZ  | 1360-1430RPM                            | 50HZ                                    | 1340-1400RPM   |
|  | 60HZ  | 1640-1740RPM                            | 60HZ                                    | 1610-1720RPM   |
| 依据标准 STANDARD                          | IEC-34,CNS-10919ACCORDING TOIEC-34,CNS-10919  |   |   |  |
| 海拔 ALTITUDE                            | ≤1000m  |   |   |  |
| 接线盒TERMINAL BOX                        | 根据客户要求,有IP55级铝接线盒、防水型接线盒及不锈钢接线盒<br>WE SUPPLY GRADE IP55 ALUMINUM TERMINAL BOX, WATERPROOF TERMINAL BOX AND STAINLESS TERMINAL BOX |   |   |  |

## ■ 单相电压全负载电流值 SINGLE PHASE FULL LOAD CURRENT A

| 输出马力 OUTPUT POWER | 50HZ |      |      | 60HZ |      |      |
|-------------------|------|------|------|------|------|------|
|                   | 110V | 220V | RPM  | 110V | 220V | RPM  |
| 100W              | 2.80 | 1.40 | 1350 | 2.40 | 1.20 | 1600 |
| 200W              | 3.60 | 1.80 | 1350 | 3.00 | 1.50 | 1600 |
| 400W              | 9.80 | 4.90 | 1350 | 7.80 | 3.90 | 1600 |
| 750W              | 18.2 | 9.10 | 1350 | 12.9 | 6.40 | 1600 |
| 1500W             | 26.0 | 13.0 | 1350 | 23.4 | 11.7 | 1600 |
| 2200W             | 36.0 | 18.0 | 1350 | 30.0 | 15.0 | 1600 |

## ■ 单相马达电容器规格 SINGLE PHASE MOTOR CAPACITOR

| 输出马力 OUTPUT POWER | 单电容型<br>SINGLE-CAPACITOR TYPE |                           | 双电容型DOUBLE-CAPACITOR TYPE  |                           |
|-------------------|-------------------------------|---------------------------|----------------------------|---------------------------|
|                   | 启动电容<br>STARTING CAPACITOR    | 运转电容<br>RUNNING CAPACITOR | 启动电容<br>STARTING CAPACITOR | 运转电容<br>RUNNING CAPACITOR |
| 75W               | 8μF                           | -                         | -                          | -                         |
| 100W              | 12μF-16μF                     | -                         | -                          | -                         |
| 200W              | 14μF-20μF                     | -                         | -                          | -                         |
| 400W              | -                             | 200μF                     | 20μF                       | -                         |
| 750W              | -                             | 400μF                     | 40μF                       | -                         |
| 1500W             | -                             | 400μF                     | 40μF                       | -                         |
| 2200W             | -                             | 500μF                     | 50μF                       | -                         |

## ■ 三相电压全负载电流值 3-PHASE FULL LOAD CURRENT A

| 输出马力 OUTPUT POWER | 50HZ |      |      |      |      | 60HZ |      |      |      |      |
|-------------------|------|------|------|------|------|------|------|------|------|------|
|                   | 220V | 380V | 415V | 440V | RPM  | 230V | 380V | 440V | 460V | RPM  |
| 100W              | 0.87 | 0.50 | 0.32 | 0.30 | 1420 | 0.60 | 0.40 | 0.30 | 0.29 | 1730 |
| 200W              | 1.39 | 0.80 | 0.70 | 0.58 | 1420 | 1.10 | 0.63 | 0.55 | 0.52 | 1730 |
| 400W              | 2.40 | 1.40 | 1.13 | 1.07 | 1420 | 1.90 | 1.10 | 0.95 | 0.91 | 1730 |
| 750W              | 3.80 | 2.20 | 1.94 | 1.84 | 1420 | 3.40 | 1.96 | 1.70 | 1.63 | 1730 |
| 1500W             | 6.90 | 4.00 | 3.94 | 3.30 | 1420 | 6.10 | 3.53 | 3.05 | 2.92 | 1730 |
| 2200W             | 9.50 | 5.50 | 4.74 | 4.47 | 1420 | 8.70 | 5.04 | 4.35 | 4.16 | 1730 |
| 3700W             | 15.9 | 9.20 | 7.34 | 6.93 | 1420 | 13.5 | 7.82 | 6.75 | 6.46 | 1730 |
| 5500W             | 20.8 | 12.0 | -    | -    | 1420 | 20.8 | 12.0 | -    | -    | 1730 |
| 7500W             | 26.0 | 15.0 | -    | -    | 1420 | 23.9 | 13.8 | -    | -    | 1730 |

## 输出扭矩表 OUTPUT TORQUE DIAGRAM KG-M

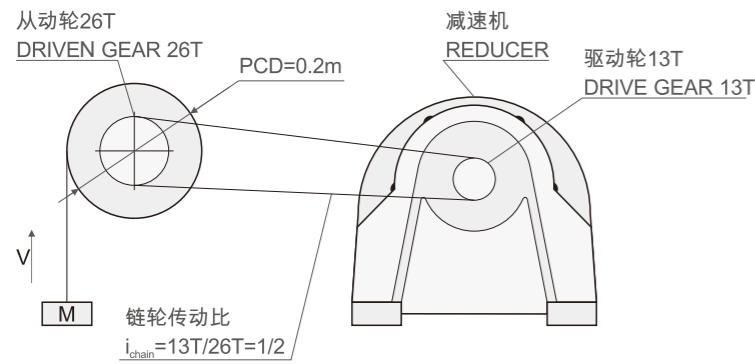
### ■ 标准型 NORMAL TYPE

| 减速比<br>RATIO | 输出转速<br>OUTPUT<br>RPM |     | 输出扭矩OUTPUT TORQUE |      |       |      |       |      |        |      |       |      |       |      |       |       |       |       |       |       |
|--------------|-----------------------|-----|-------------------|------|-------|------|-------|------|--------|------|-------|------|-------|------|-------|-------|-------|-------|-------|-------|
|              |                       |     | 0.1KW             |      | 0.2KW |      | 0.4KW |      | 0.75KW |      | 1.5KW |      | 2.2KW |      | 3.7KW |       | 5.5KW |       | 7.5KW |       |
|              |                       |     | 50HZ              | 60HZ | 50HZ  | 60HZ | 50HZ  | 60HZ | 50HZ   | 60HZ | 50HZ  | 60HZ | 50HZ  | 60HZ | 50HZ  | 60HZ  | 50HZ  | 60HZ  | 50HZ  | 60HZ  |
| 3            | 465                   | 570 | 0.19              | 0.16 | 0.37  | 0.31 | 0.70  | 0.60 | 1.30   | 1.10 | 2.60  | 2.20 | 3.80  | 3.20 | 6.00  | 5.50  | 9.8   | 9     | 13.4  | 10.9  |
| 5            | 300                   | 360 | 0.31              | 0.26 | 0.62  | 0.52 | 1.20  | 1.00 | 2.20   | 1.90 | 4.50  | 3.80 | 6.72  | 5.60 | 11.0  | 10.1  | 16.4  | 13.3  | 22.4  | 18.2  |
| 10           | 150                   | 180 | 0.62              | 0.52 | 1.24  | 1.04 | 2.40  | 2.00 | 4.50   | 3.80 | 9.10  | 7.60 | 13.7  | 11.2 | 22.0  | 20.0  | 32.9  | 26.7  | 44.8  | 36.4  |
| 15           | 100                   | 120 | 0.91              | 0.76 | 1.80  | 1.50 | 3.60  | 3.00 | 6.80   | 5.70 | 13.5  | 11.3 | 20.1  | 16.8 | 32.6  | 29.8  | 50.3  | 40    | 67.3  | 54.6  |
| 20           | 75                    | 90  | 1.20              | 1.00 | 2.40  | 2.00 | 4.80  | 4.00 | 9.00   | 7.50 | 18.1  | 15.1 | 26.8  | 22.4 | 43.6  | 36.0  | 65.8  | 53.4  | 89.7  | 72.8  |
| 25           | 60                    | 72  | 1.40              | 1.20 | 3.00  | 2.50 | 6.00  | 5.00 | 11.2   | 9.40 | 22.6  | 18.9 | 33.6  | 28.0 | 53.9  | 49.5  | 82.3  | 66.7  | 122.2 | 91    |
| 30           | 50                    | 60  | 1.80              | 1.50 | 3.60  | 3.00 | 7.30  | 6.00 | 13.5   | 11.3 | 27.1  | 22.6 | 40.3  | 33.6 | 64.7  | 58.8  | 98.7  | 80.1  | 134.6 | 109.2 |
| 40           | 37                    | 45  | 2.20              | 1.90 | 4.60  | 3.90 | 9.30  | 7.80 | 17.5   | 14.6 | 34.9  | 29.1 | 52.0  | 43.4 | 86.3  | 78.4  | 131   | 106.8 | 179.5 | 145.6 |
| 45           | 33                    | 40  | 2.70              | 2.20 | 5.40  | 4.40 | 10.9  | 9.10 | 20.6   | 17.0 | 41.4  | 34.0 | 59.8  | 49.6 | 98.5  | 81.7  | 148.1 | 120.1 | 202   | 163.8 |
| 50           | 30                    | 36  | 2.80              | 2.40 | 5.70  | 4.80 | 11.6  | 9.70 | 21.9   | 18.3 | 43.6  | 36.4 | 65.1  | 54.3 | 107   | 97.0  | 164.4 | 133.5 | 244.4 | 182   |
| 60           | 25                    | 30  | 3.40              | 2.90 | 6.90  | 5.80 | 13.9  | 11.6 | 26.2   | 21.9 | 52.4  | 43.7 | 78.1  | 65.1 | 127   | 115   | 197.5 | 160.2 | 269.3 | 218.5 |
| 70           | 21                    | 25  | 4.30              | 3.60 | 8.00  | 6.80 | 16.2  | 13.5 | 31.5   | 26.3 | 62.4  | 52.0 | 92.5  | 77.1 | 155   | 125.7 | 230.4 | 180.9 |       |       |
| 80           | 19                    | 23  | 4.80              | 4.00 | 9.20  | 7.70 | 18.4  | 15.4 | 35.5   | 29.6 | 70.8  | 59.0 | 105   | 87.5 | 177.1 | 143.7 | 263.3 | 213.6 |       |       |
| 90           | 17                    | 20  | 5.20              | 4.40 | 10.3  | 8.60 | 20.7  | 17.3 | 39.3   | 32.8 | 77.1  | 64.3 | 113   | 94.3 | 199.3 | 161.6 | 296.3 | 240.3 |       |       |
| 100          | 15                    | 18  | 5.80              | 4.90 | 11.5  | 9.60 | 23.0  | 19.2 | 43.2   | 36.0 | 83.7  | 69.8 | 126   | 105  | 221.5 | 179.6 | 329.2 | 267   |       |       |
| 120          | 12                    | 15  | 6.90              | 5.80 | 13.8  | 11.5 | 27.7  | 23.1 | 51.8   | 43.2 | 101   | 83.7 | 150   | 145  | 265.7 | 215.5 |       |       |       |       |
| 140          | 11                    | 13  | 8.00              | 6.70 | 16.0  | 13.4 | 32.0  | 26.7 | 59.7   | 49.8 | 116   | 96.8 |       |      |       |       |       |       |       |       |
| 160          | 9                     | 11  | 9.10              | 7.60 | 18.3  | 15.3 | 36.3  | 30.3 | 68.0   | 56.7 | 132   | 110  |       |      |       |       |       |       |       |       |
| 180          | 8                     | 10  | 10.3              | 8.60 | 20.7  | 17.3 | 40.8  | 34.0 | 76.8   | 64.0 | 148   | 123  |       |      |       |       |       |       |       |       |
| 200          | 7                     | 9   | 11.6              | 9.70 | 22.9  | 19.1 | 43.2  | 36.0 | 82.8   | 69.0 |       |      |       |      |       |       |       |       |       |       |



## 减速机之选定范例

### EXAMPLE OF THE GEAR MOTOR SELECTED



搬运物总重量: M=300KG  
Total weight of load: M=300KG

搬送速度: V=9.5m/min  
Speed: V=9.5m/min

链传动效率:  $\eta_1=1$   
Chain transmission efficiency:  $\eta_1=1$

减速机传动效率:  $\eta_2=0.9$   
Reducer transmission efficiency:  $\eta_2=0.9$

运转时间: 2小时/日  
Operation time: 2h/d

启动次数: 1回/分, 中冲击  
Times of starting: 1 time/min, medium impact

使用电源: 三相220V, 50HZ  
Power: 3-phase 220V, 50HZ

|                         | 注意事项 CAUTIONS   | 计算 CALCULATION   |
|-------------------------|---|--|
| 减速机<br>REDUCTION RATIO  | 由输入轴回转数及输出轴回转数来选定减速机<br>Reduction ratio should be decided by input shaft revolutions and output shaft revolutions.  |  |
|                         | 1、先求出输送带滚轮回转数 ( N1 )<br>Find conveyor wheel revolutions(N1)<br>$N1 = \text{搬送速度} / (\text{滚轮直径} \times \pi)$<br>$N1 = \text{speed} / (\text{PCD} \times \pi)$   | 1、 $N1 = V / (\text{PCD} \times \pi)$<br>$= 9.5 / (0.2 \times 3.14) = 15 \text{r/min}$   |
|                         | 2、再求出减速机出力轴回转数 ( N2 )<br>Find reducer output shaft revolutions ( N2 )<br>$N2 = N1 / \text{链轮齿数减速比}$<br>$N2 = N1 / i_{\text{chain}}$   | 2、 $N2 = N1 / \text{链轮传动比}$<br>$N2 = N1 / i_{\text{chain}}$<br>$= 15 / (1/2) = 30 \text{r/min}$  |
|                         | 3、以三相机50Hz的马达计算减速机<br>Calculate reduction ratio of 3-phase motor with frequency of 60Hz<br>$i = \text{出力轴回转数} / \text{输入轴回转数 (电机转速)}$<br>$i = \text{Output shaft revolutions} / \text{input shaft revolutions (Motor revolutions)}$ | 3、 $i = \text{出力轴回转数} / \text{输入轴回转数}$<br>$i = \text{Output shaft revolutions} / \text{input shaft revolutions}$<br>$= 30 / 1500 = 1/50$ |
| 扭力<br>TORQUE            | 决定减速机后, 由使用机械工作条件计算减速机出力轴扭矩<br>After reduction ratio is decided, torque of the reducers output shaft can be found according to mechanical conditions.   |  |
|                         | 1、先算出输送带滚轮之扭力 ( T1 )<br>Firstly find torque(T1)of conveyance wheel ratio<br>$T1 = (M \times \text{PCD}) / 2$  | 1、 $T1 = M \times \text{PCD} / 2$<br>$= 300 \times 0.2 / 2$<br>$= 30 \text{kg.m}$  |
|                         | 2、再换算成减速机出力轴所需扭力 ( N2 )<br>Then find the torque(T2) of the output shaft of reducer<br>$T2 = (T1 \cdot i_{\text{chain}}) / (\eta_1 \cdot \eta_2)$  | 2、 $T2 = (T1 \cdot i_{\text{chain}}) / (\eta_1 \cdot \eta_2)$<br>$= (30 \cdot 0.5) / (1 \cdot 0.9)$<br>$= 16.7 \text{kg.m}$              |
| 负荷条件<br>LOAD CONDITIONS | 1、根据运转条件算出修正后的扭力 ( T3 )<br>Find the adjusted torque(T3) according to operation conditions<br>$T3 = T2 \cdot K$ 系数K(无冲击时K=1, 冲击越大, K值越大)<br>Coef.K(No impact K=1, The larger impact, The larger K value)                             | 1、 $T3 = T2 \cdot K$<br>$= 16.7 \cdot 1$<br>$= 16.7 \text{kg.m}$   |
| 马力<br>HORSE POWER       | 1、最后算成马力 ( Hp )<br>$\text{Hp} = (T3 \cdot N_2) / 716.2$   | 1、 $\text{Hp} = (T3 \cdot N_2) / 716.2$<br>$= (16.7 \cdot 30) / 716.2$<br>$= 0.7 \text{hp} \dots \dots (3/4 \text{hp})$                  |

按以上参数, 得出减速机的减速比为 1/50, 扭力为 16.7Kg.m, 参照齿轮减速机性能表, 对比得出选用减速机为 550W。

In accordance with the parameter, the reduction ratio of the reducer is 1/50, torque is 16.7kg.m. By reference to the performance table, we can find the power for reducer selected is 550W.

### 摩擦系数表 FRICTION FACTOR

|               |      |
|---------------|------|
| 链轮 SPROCKET   | 1.00 |
| 齿轮 GEAR       | 1.25 |
| 三角皮带 V BELT   | 1.50 |
| 平皮带 FLAT BELT | 2.50 |

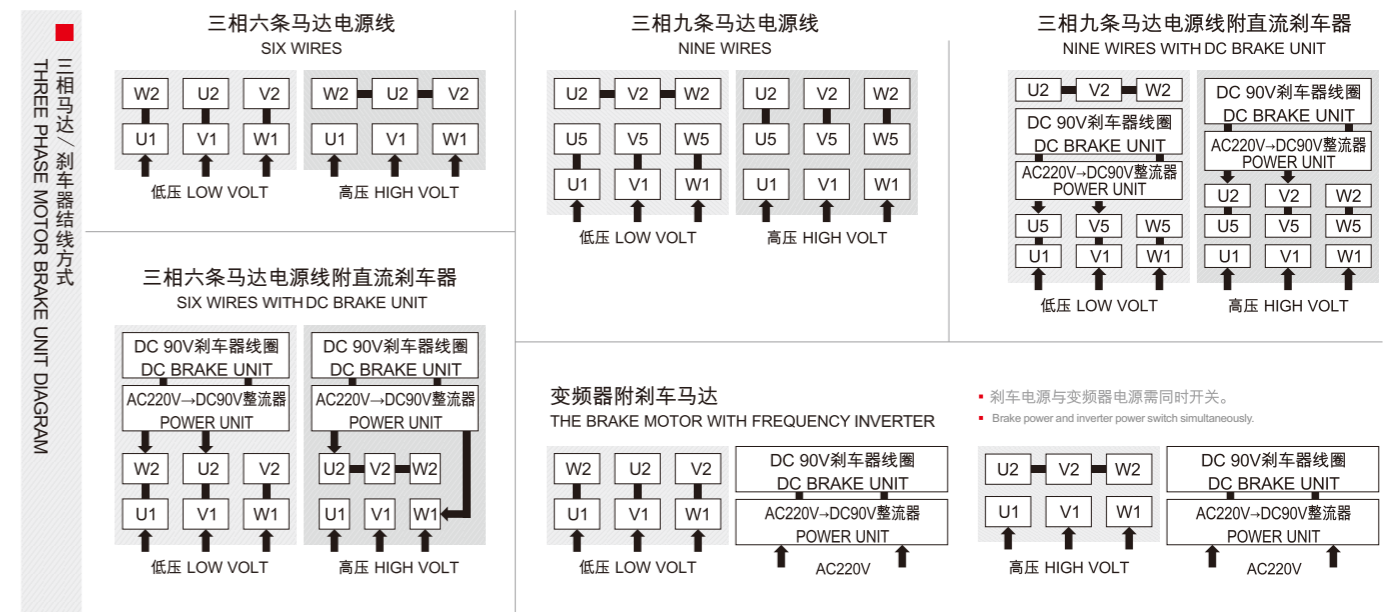
### 常用公式表 FREQUENTLY USED FORMULA

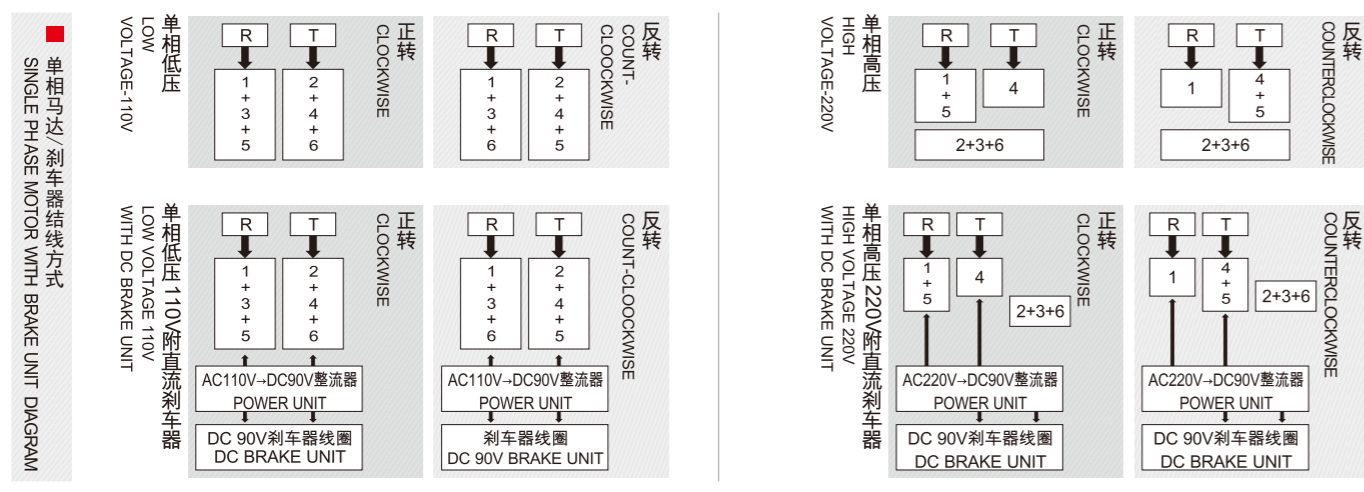
| 预知的条件 INTENDED CONDITIONS | 已知的条件 KNOWN CONDITIONS | 公式 FORMULA                                 |
|---------------------------|------------------------|--|
| 扭力 TORQUE                 | T1                     | $T = F \times R$ (kgf-m)                   |
| 扭力 TORQUE                 | T2                     | $T = (716 \times \text{Hp}) / N$ (kgf-m)   |
| 扭力 TORQUE                 | T3                     | $T = (974 \times \text{Kw}) / N$ (kgf-m)   |
| 马力 HORSE TORQUE           | Hp                     | $\text{Hp} = (T \times N) / 716.2$ (马力)    |
| 动力 POWER                  | Kw                     | $\text{Kw} = (T \times N) / 974$ (千瓦)      |
| 马力 HORSE TORQUE           | Hp                     | $\text{Hp} = (F \times V) / 75$ (马力)       |
| 动力 POWER                  | Kw                     | $\text{Kw} = (F \times V) / 102$ (千瓦)      |
| 速度 VELOCITY               | V                      | $V = (\pi \times D \times N) / 60$ (m/sec) |
| 减速比 REDUCTION RATIO       | i                      | $i = N1 / N2$                              |

### 符号说明表 CODE DETAILS

|                         |                               |                                  |
|-------------------------|-------------------------------|----------------------------------|
| V=速度 SPEED(M/MIN)       | $\eta$ =效率 EFFICIENCY(%)      | 1INCH=2.54CM                     |
| i=减速比 RATIO             | N=出力轴转速(PRM)                  | 1FOOT=12INCH                     |
| 输出扭力(KG-M)OUTPUT TORQUE | D=滚轮直径(MM) ROLLER DIAMETER    | 1KW=1000W 1KW=1.34HP             |
| 连接系数 CONNECTING FACTOR  | R=滚轮直径半径(MM) ROLLER RADIUS    | 1KG-M=7.233FT-LB 1KG-M=86.8IN-LB |
| 荷重系数 SERVICE FACTOR     | KW1(HP1)=输入马力 INPUT CAPACITY  | 1KG=2.2LB 1LB=0.4536KG           |
| 荷重(KG) LOAD             | KW2(HP2)=输出马力 OUTPUT CAPACITY | 1CM=10MM 1CM=0.3937INCH          |

## 连接方式 CONNECTION MODE



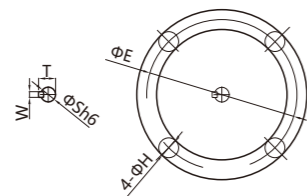
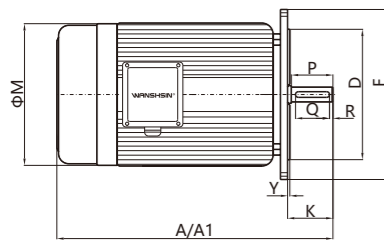


尺寸表

DIMENSIONS(MM)

1 立式三相标准IEC铝壳(刹车)马达  
VERTICAL THREE-PHASE STANDARD IEC ALUMINUM (BRAKE) MOTOR

| 输出马达 OUTPUT POWER | A   | A1  | D   | E   | F   | H    | K  | M   | P  | Q  | R | S  | T    | W  | Y   | 重量KG |
|-------------------|-----|-----|-----|-----|-----|------|----|-----|----|----|---|----|------|----|-----|------|
| 200W 1/4HP        | 232 | 236 | 95  | 115 | 140 | 10   | 23 | 127 | 20 | 10 | 2 | 11 | 12.5 | 4  | 3   | 5.5  |
| 400W 1/2HP        | 250 | 254 | 110 | 130 | 160 | 10   | 30 | 127 | 27 | 14 | 2 | 14 | 16   | 5  | 3   | 6.9  |
| 750W 1HP          | 297 | 297 | 130 | 165 | 200 | 12   | 40 | 159 | 39 | 25 | 2 | 19 | 21.5 | 6  | 3   | 10.6 |
| 1500W 2HP         | 350 | 370 | 130 | 165 | 200 | 12   | 50 | 190 | 50 | 32 | 3 | 24 | 27   | 8  | 3.5 | 16.5 |
| 2200W 3HP         | 384 | 410 | 180 | 215 | 250 | 14.5 | 60 | 220 | 60 | 40 | 3 | 28 | 31   | 8  | 4   | 28   |
| 3700W 5HP         | 400 | 426 | 180 | 215 | 250 | 14.5 | 60 | 220 | 60 | 40 | 3 | 28 | 31   | 8  | 4   | 34.5 |
| 5500W 7.5HP       | 471 | 471 | 230 | 265 | 300 | 15   | 80 | 250 | 80 | 60 | 4 | 38 | 41.5 | 10 | 4   | 45   |
| 7500W 10HP        | 511 | 511 | 230 | 265 | 300 | 15   | 80 | 250 | 80 | 60 | 4 | 38 | 41.5 | 10 | 4   | 55   |

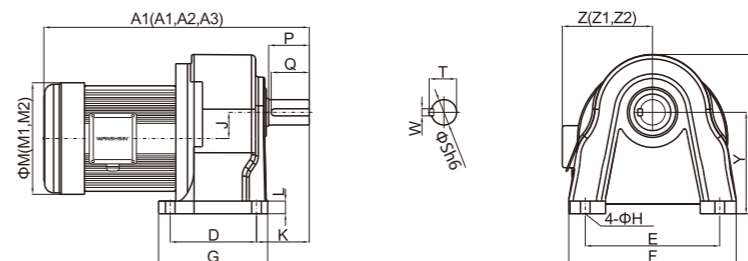


- A1为三相带刹车马达尺寸。
- A1 is the size of the three-phase motor with brake.

2 GH卧式附三相、单相铝壳(刹车)齿轮减速马达  
GH HORIZONTAL SINGLE-PHASE THREE-PHASE ALUMINUM SHELL (BRAKE) GEAR MOTOR

| 马力HP-4P     | 减速比 RATIO | 本体 CODE | 型号 SHAFT DIAMETER | A1  | A2  | A3  | D   | E   | F   | G   | H  | L  | J    | K   | M1  | M2  | X   | Y     | Z1  | Z2  | 重量KG |
|-------------|-----------|---------|-------------------|-----|-----|-----|-----|-----|-----|-----|----|----|------|-----|-----|-----|-----|-------|-----|-----|------|
| 100W 1/8HP  | 3-50      | 1#      | 18                | 253 | 273 | 257 | 40  | 110 | 135 | 65  | 9  | 10 | 16   | 45  | 127 | 127 | 132 | 88.5  | 116 | 116 | 5.3  |
|             | 60-200    | 2#      | 22                | 287 | 307 | 291 | 65  | 130 | 163 | 90  | 11 | 15 | 18.2 | 56  | 127 | 127 | 152 | 97.5  | 116 | 116 | 6.9  |
| 200W 1/4HP  | 3-10      | 1#      | 18                | 273 | 293 | 277 | 40  | 110 | 135 | 65  | 9  | 10 | 16   | 45  | 127 | 127 | 132 | 88.5  | 116 | 116 | 6.7  |
|             | 15-90     | 2#      | 22                | 307 | 327 | 311 | 65  | 130 | 163 | 90  | 11 | 15 | 18.2 | 56  | 127 | 127 | 152 | 97.5  | 116 | 116 | 8.6  |
|             | 100-200   | 3#      | 28                | 333 | 353 | 337 | 90  | 140 | 180 | 122 | 11 | 15 | 20.8 | 65  | 127 | 127 | 180 | 116   | 116 | 116 | 11   |
| 400W 1/2HP  | 3-10      | 2#      | 22                | 327 | 346 | 331 | 65  | 130 | 163 | 90  | 11 | 15 | 18.2 | 56  | 127 | 159 | 152 | 97.5  | 116 | 133 | 11   |
|             | 15-90     | 3#      | 28                | 353 | 372 | 357 | 90  | 140 | 180 | 122 | 11 | 15 | 20.8 | 65  | 127 | 159 | 180 | 116   | 116 | 133 | 14   |
|             | 100-200   | 4#      | 32                | 388 | 407 | 392 | 130 | 170 | 215 | 160 | 13 | 25 | 30.2 | 76  | 127 | 159 | 210 | 138.5 | 116 | 133 | 19.6 |
| 750W 1HP    | 3-25      | 3#      | 28                | 382 | 415 | 382 | 90  | 140 | 180 | 122 | 11 | 15 | 20.8 | 65  | 159 | 190 | 180 | 116   | 133 | 145 | 15   |
|             | 30-120    | 4#      | 32                | 417 | 449 | 417 | 130 | 170 | 215 | 160 | 13 | 25 | 30.2 | 76  | 159 | 190 | 210 | 138.5 | 133 | 145 | 21.6 |
|             | 130-200   | 5#      | 40                | 444 | 476 | 444 | 150 | 210 | 260 | 185 | 15 | 25 | 42.2 | 80  | 159 | 190 | 248 | 160   | 133 | 145 | 42   |
| 1500W 2HP   | 4-25      | 4#      | 32                | 449 | 470 | 470 | 130 | 170 | 215 | 160 | 13 | 25 | 30.2 | 76  | 190 |     | 210 | 138.5 | 145 |     | 27.6 |
|             | 30-120    | 5#      | 40                | 476 | 497 | 497 | 150 | 210 | 260 | 185 | 15 | 25 | 42.2 | 80  | 190 |     | 248 | 160   | 145 |     | 47   |
|             | 130-200   | 6#      | 50                | 517 | 538 | 538 | 170 | 265 | 330 | 220 | 19 | 30 | 51.7 | 104 | 190 |     | 315 | 200   | 145 |     | 52   |
| 2200W 3HP   | 3-60      | 5#      | 40                | 482 | 508 | 508 | 150 | 210 | 260 | 185 | 15 | 25 | 42.2 | 80  | 217 |     | 248 | 160   | 153 |     | 48   |
|             | 70-200    | 6#      | 50                | 523 | 549 | 549 | 170 | 265 | 330 | 220 | 19 | 30 | 51.7 | 104 | 217 |     | 315 | 200   | 153 |     | 55   |
| 3700W 5HP   | 3-10      | 5#      | 40                | 498 | 524 | 524 | 150 | 210 | 260 | 185 | 15 | 25 | 42.2 | 80  | 217 |     | 248 | 160   | 153 |     | 50   |
|             | 15-180    | 6#      | 50                | 539 | 565 | 565 | 170 | 265 | 330 | 220 | 19 | 30 | 51.7 | 104 | 217 |     | 315 | 200   | 153 |     | 57   |
| 5500W 7.5HP | 5-10      | 7#      | 45                | 545 | 585 | 585 | 200 | 250 | 310 | 235 | 15 | 30 | 42.2 | 93  | 250 |     | 265 | 175   | 178 |     | 78   |
|             | 11-30     | 8#      | 50                | 579 | 619 | 619 | 170 | 265 | 330 | 220 | 19 | 30 | 51.7 | 104 | 250 |     | 315 | 200   | 178 |     | 88   |
|             | 31-60     | 8#      | 50                | 579 | 619 | 619 | 170 | 265 | 330 | 220 | 19 | 30 | 51.7 | 104 | 250 |     | 315 | 200   | 178 |     | 90   |
| 7500W 10HP  | 61-100    | 8#      | 60                | 589 | 629 | 629 | 170 | 265 | 330 | 220 | 19 | 30 | 51.7 | 115 | 250 |     | 315 | 200   | 178 |     | 93   |
|             | 5-10      | 8#      | 50                | 619 | 659 | 659 | 170 | 265 | 330 | 220 | 19 | 30 | 51.7 | 104 | 250 |     | 315 | 200   | 178 |     | 99   |
|             | 11-30     | 8#      | 60                | 629 | 669 | 669 | 170 | 265 | 330 | 220 | 19 | 30 | 51.7 | 115 | 250 |     | 315 | 200   | 178 |     | 103  |
|             | 31-60     | 8#      | 60                | 629 | 669 | 669 | 170 | 265 | 330 | 220 | 19 | 30 | 51.7 | 115 | 250 |     | 315 | 200   | 178 |     | 110  |

| 出力轴尺寸 OUTPUT SHAFT SIZE | 出力轴SHAFT |    | 键槽KEYWAY |    |          | 键KEY |
|-------------------------|----------|----|----------|----|----------|------|
|                         | Sh6      | P  | W        | T  | Q        | SPEC |
| Φ18                     | 30       | 5  | 20       | 25 | 5×5×25   |      |
| Φ22                     | 40       | 7  | 25       | 35 | 7×7×35   |      |
| Φ28                     | 45       | 7  | 31       | 40 | 7×7×40   |      |
| Φ32                     | 55       | 10 | 35.5     | 50 | 10×8×50  |      |
| Φ40                     | 65       | 10 | 43.5     | 60 | 10×8×60  |      |
| Φ45                     | 75       | 12 | 48.5     | 70 | 12×8×70  |      |
| Φ50                     | 80       | 14 | 54       | 75 | 14×9×75  |      |
| Φ60                     | 90       | 15 | 63.5     | 85 | 15×10×85 |      |



- A1、M1、Z1为三相马达尺寸。
- A2、M2、Z2为单相马达尺寸。
- A3为三相带刹车马达尺寸。
- A1、M1、Z1 are the sizes of three-phase motors.
- A2、M2、Z2 are the sizes of single-phase motors.
- A3 is the size of three-phase motors with brakes.

### 3 GV立式附三相、单相铝壳(刹车)齿轮减速马达

GV VERTICAL SINGLE-PHASE THREE-PHASE,VERTICAL ALUMINUM SHELL(BRAKE)GEAR MOTOR

| 马力HP-4P     | 减速比 RATIO | 本体 CODE | 型号 SHAFT DIAMETER | A1  | A2  | A3  | D   | E   | F   | G   | H  | L  | J    | K    | M1  | M2  | Y   | Z1  | Z2  | 重量KG |
|-------------|-----------|---------|-------------------|-----|-----|-----|-----|-----|-----|-----|----|----|------|------|-----|-----|-----|-----|-----|------|
| 100W 1/8HP  | 3-50      | 1#      | *18               | 253 | 273 | 257 | 50  | 140 | 120 | 120 | 9  | 12 | 16   | 38   | 127 | 127 | 5   | 116 | 116 | 5.3  |
|             | 60-200    | 2#      | 22                | 287 | 307 | 291 | 148 | 185 | 170 | 156 | 11 | 12 | 18.2 | 49   | 127 | 127 | 3.5 | 116 | 116 | 6.9  |
|             | 60-200    | 2#      | *22               | 287 | 307 | 291 | 55  | 170 | 146 | 146 | 11 | 12 | 18.2 | 49   | 127 | 127 | 3.5 | 116 | 116 | 6.7  |
| 200W 1/4HP  | 3-10      | 1#      | *18               | 273 | 293 | 277 | 50  | 140 | 120 | 120 | 9  | 12 | 16   | 38   | 127 | 127 | 5   | 116 | 116 | 6.9  |
|             | 15-90     | 2#      | 22                | 307 | 327 | 331 | 148 | 185 | 170 | 156 | 11 | 12 | 18.2 | 49   | 127 | 127 | 3.5 | 116 | 116 | 8.6  |
|             | 15-90     | 2#      | *22               | 307 | 327 | 311 | 55  | 170 | 146 | 146 | 11 | 12 | 18.2 | 49   | 127 | 127 | 3.5 | 116 | 116 | 8.6  |
| 400W 1/2HP  | 3-10      | 2#      | 22                | 327 | 346 | 331 | 148 | 185 | 170 | 156 | 11 | 12 | 18.2 | 49   | 127 | 159 | 3.5 | 116 | 133 | 11   |
|             | 3-10      | 2#      | *22               | 327 | 346 | 331 | 55  | 170 | 146 | 146 | 11 | 12 | 18.2 | 49   | 127 | 127 | 3.5 | 116 | 133 | 11   |
|             | 15-90     | 3#      | 28                | 353 | 372 | 357 | 170 | 220 | 195 | 180 | 11 | 15 | 20.8 | 57   | 127 | 159 | 4   | 116 | 133 | 14   |
|             | 100-200   | 4#      | 32                | 388 | 407 | 392 | 185 | 255 | 237 | 215 | 13 | 17 | 30.2 | 67   | 127 | 159 | 4   | 116 | 133 | 19.4 |
| 750W 1HP    | 3-25      | 3#      | 28                | 382 | 415 | 382 | 170 | 220 | 195 | 180 | 11 | 15 | 20.8 | 57   | 159 | 190 | 4   | 133 | 145 | 15   |
|             | 30-120    | 4#      | 32                | 417 | 449 | 417 | 185 | 255 | 237 | 215 | 13 | 17 | 30.2 | 67   | 159 | 190 | 4   | 133 | 145 | 21.4 |
|             | 130-200   | 5#      | 40                | 444 | 476 | 444 | 230 | 310 | 300 | 275 | 15 | 20 | 42.2 | 79   | 159 | 190 | 5   | 133 | 145 | 42   |
| 1500W 2HP   | 4-25      | 4#      | 32                | 449 | 470 | 470 | 185 | 255 | 237 | 215 | 13 | 17 | 30.2 | 67   | 190 |     | 4   | 145 |     | 27.4 |
|             | 30-120    | 5#      | 40                | 476 | 497 | 497 | 230 | 310 | 300 | 275 | 15 | 20 | 42.2 | 79   | 190 |     | 5   | 145 |     | 47   |
|             | 130-200   | 6#      | 50                | 517 | 538 | 538 | 280 | 390 | 360 | 330 | 19 | 20 | 51.7 | 90   | 190 |     | 5   | 145 |     | 52   |
| 2200W 3HP   | 3-60      | 5#      | 40                | 482 | 508 | 508 | 230 | 310 | 300 | 275 | 15 | 20 | 42.2 | 79   | 217 |     | 5   | 153 |     | 48   |
|             | 70-200    | 6#      | 50                | 523 | 549 | 549 | 280 | 390 | 360 | 330 | 19 | 20 | 51.7 | 90   | 217 |     | 5   | 153 |     | 55   |
| 3700W 5HP   | 3-10      | 5#      | 40                | 498 | 524 | 524 | 230 | 310 | 300 | 275 | 15 | 20 | 42.2 | 79   | 217 |     | 5   | 153 |     | 50   |
|             | 15-180    | 6#      | 50                | 539 | 565 | 565 | 280 | 390 | 360 | 330 | 19 | 20 | 51.7 | 90   | 217 |     | 5   | 153 |     | 57   |
| 5500W 7.5HP | 3-10      | 7#      | 45                | 555 | 555 | 555 | 230 | 345 | 312 | 290 | 19 | 25 | 42.2 | 88.5 | 252 |     | 5   | 183 |     | 78   |

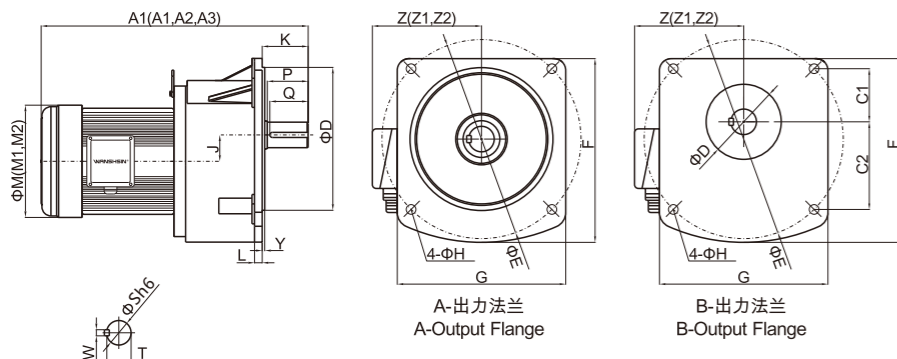
| 出力轴尺寸 OUTPUT SHAFT SIZE | 出力轴SHAFT |    | 键槽KEYWAY |    |   | 键KEY    |
|-------------------------|----------|----|----------|----|---|---------|
|                         | Sh6      | P  | W        | T  | Q | SPEC    |
| Φ18                     | 30       | 5  | 20       | 25 |   | 5×5×25  |
| Φ22                     | 40       | 7  | 25       | 35 |   | 7×7×35  |
| Φ28                     | 45       | 7  | 31       | 40 |   | 7×7×40  |
| Φ32                     | 55       | 10 | 35.5     | 50 |   | 10×8×50 |
| Φ40                     | 65       | 10 | 43.5     | 60 |   | 10×8×60 |
| Φ45                     | 75       | 12 | 48.8     | 70 |   | 12×8×70 |
| Φ50                     | 80       | 14 | 54       | 75 |   | 14×9×75 |

备注 NOTE :  
 1、1#本体 (型号为18) C1为33.5, C2为65.5  
 1# Ontology ( Models for 18 )  
 C1 is 33.5, C2 is 65.5  
 2、2#本体 (型号为22) C1为40, C2为80  
 2# Ontology ( Models for 22 )  
 C1 is 40, C2 is 80



- A1、M1、Z1为三相马达尺寸。
- A2、M2、Z2为单相马达尺寸。
- A3为三相带刹车马达尺寸。
- A1、M1、Z1 are the sizes of three-phase motors.
- A2、M2、Z2 are the sizes of single-phase motors.
- A3 is the size of three-phase motors with brakes.

• \*属于B型号出力法兰。

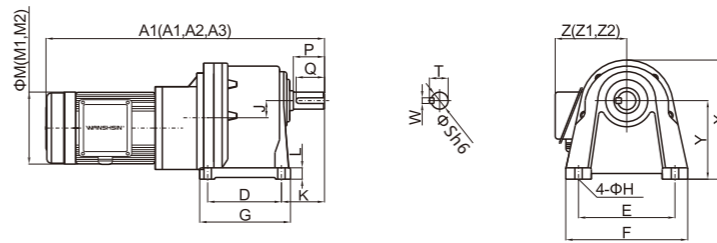


### 4 GH卧式高速比附三相、单相铝壳(刹车)齿轮减速马达

GH HORIZONTAL HIGH-SPEED RATIO SINGLE-PHASE THREE-PHASE,ALUMINUM SHELL(BRAKE)GEAR MOTOR

| 马力HP-4P    | 减速比 RATIO | 本体 CODE | 型号 SHAFT DIAMETER | A1  | A2  | A3  | D   | E   | F   | G   | H  | L  | J    | K   | M1  | M2  | X   | Y     | Z1  | Z2  | 重量KG |
|------------|-----------|---------|-------------------|-----|-----|-----|-----|-----|-----|-----|----|----|------|-----|-----|-----|-----|-------|-----|-----|------|
| 100W 1/8HP | 250-1800  | 1#+3#   | 28                | 390 | 410 | 394 | 90  | 140 | 180 | 120 | 11 | 15 | 20.8 | 65  | 127 | 127 | 180 | 116   | 116 | 116 | 13.2 |
| 200W 1/4HP | 250-1800  | 2#+4#   | 32                | 471 | 491 | 475 | 130 | 170 | 215 | 160 | 13 | 20 | 30.2 | 76  | 127 | 127 | 210 | 138.5 | 116 | 116 | 23.2 |
| 400W 1/2HP | 250-1800  | 3#+5#   | 40                | 532 | 551 | 536 | 150 | 210 | 260 | 185 | 15 | 23 | 42.2 | 80  | 127 | 159 | 248 | 160   | 116 | 133 | 49   |
| 750W 1HP   | 250-1800  | 3#+6#   | 50                | 602 | 635 | 602 | 170 | 265 | 330 | 220 | 19 | 25 | 51.7 | 104 | 159 | 190 | 315 | 200   | 133 | 145 | 59   |

| 出力轴尺寸 OUTPUT SHAFT | 出力轴SHAFT |    | 键槽KEYWAY |    |   | 键KEY    |
|--------------------|----------|----|----------|----|---|---------|
|                    | Sh6      | P  | W        | T  | Q | SPEC    |
| Φ28                | 45       | 7  | 31       | 40 |   | 7×7×40  |
| Φ32                | 55       | 10 | 35.5     | 50 |   | 10×8×50 |
| Φ40                | 65       | 10 | 43.5     | 60 |   | 10×8×60 |
| Φ50                | 80       | 14 | 54       | 75 |   | 14×9×75 |



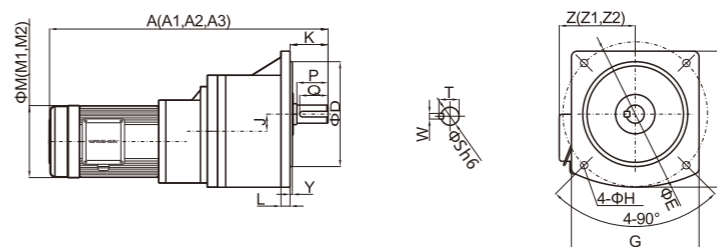
- A1、M1、Z1为三相马达尺寸。
- A2、M2、Z2为单相马达尺寸。
- A3为三相带刹车马达尺寸。
- A1、M1、Z1 are the sizes of three-phase motors.
- A2、M2、Z2 are the sizes of single-phase motors.

### 5 GV立式高速比附三相、单相铝壳(刹车)齿轮减速马达

GV VERTICAL HIGH-SPEED RATIO SINGLE-PHASE THREE-PHASE,ALUMINUM SHELL(BRAKE)GEAR MOTOR

| 马力HP-4P    | 减速比 RATIO | 本体 CODE | 型号 SHAFT DIAMETER | A1  | A2  | A3  | D   | E   | F   | G   | H  | L  | J    | K  | M1  | M2  | Y | Z1  | Z2  | 重量KG |
|------------|-----------|---------|-------------------|-----|-----|-----|-----|-----|-----|-----|----|----|------|----|-----|-----|---|-----|-----|------|
| 100W 1/8HP | 250-1800  | 1#+3#   | 28                | 390 | 410 | 394 | 170 | 220 | 195 | 180 | 11 | 15 | 20.8 | 57 | 127 | 127 | 4 | 116 | 116 | 13.2 |
| 200W 1/4HP | 250-1800  | 2#+4#   | 32                | 471 | 491 | 475 | 185 | 255 | 237 | 215 | 13 | 15 | 30.2 | 67 | 127 | 127 | 4 | 116 | 116 | 23   |
| 400W 1/2HP | 250-1800  | 3#+5#   | 40                | 532 | 551 | 536 | 230 | 310 | 300 | 275 | 15 | 20 | 42.2 | 79 | 127 | 159 | 5 | 116 | 133 | 49   |
| 750W 1HP   | 250-1800  | 3#+6#   | 50                | 602 | 635 | 602 | 280 | 390 | 360 | 330 | 19 | 20 | 51.7 | 90 | 159 | 190 | 5 | 133 | 145 | 59   |

| 出力轴尺寸 OUTPUT SHAFT SIZE | 出力轴SHAFT |    | 键槽KEYWAY |    |   | 键KEY    |
|-------------------------|----------|----|----------|----|---|---------|
|                         | Sh6      | P  | W        | T  | Q | SPEC    |
| Φ28                     | 30       | 7  | 31       | 40 |   | 7×7×40  |
| Φ32                     | 55       | 10 | 35.5     | 50 |   | 10×8×50 |
| Φ40                     | 65       | 10 | 43.5     | 60 |   | 10×8×60 |
| Φ50                     | 80       | 14 | 54       | 75 |   | 14×9×75 |



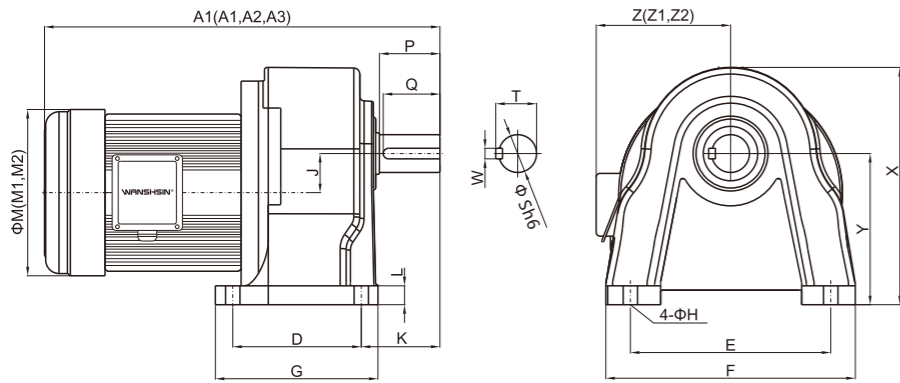
- A1、M1、Z1为三相马达尺寸。
- A2、M2、Z2为单相马达尺寸。
- A3为三相带刹车马达尺寸。
- A1、M1、Z1 are the sizes of three-phase motors.
- A2、M2、Z2 are the sizes of single-phase motors.

### 6 GH卧式附三相、单相铝壳(刹车)缩框型齿轮减速马达

GH HORIZONTAL WITH SINGLE-PHASE THREE-PHASE,ALUMINUM SHELL(BRAKE)SHRINK BOX TYPE GEAR MOTOR

| 马力HP-4P    | 减速比 RATIO | 本体 CODE | 型号 SHAFT DIAMETER | A1  | A2  | A3  | D   | E   | F   | G   | H  | L  | J    | K  | M1  | M2  | X   | Y     | Z1  | Z2  | 重量KG |
|------------|-----------|---------|-------------------|-----|-----|-----|-----|-----|-----|-----|----|----|------|----|-----|-----|-----|-------|-----|-----|------|
| 100W 1/8HP | 50-200    | 1#      | 18                | 253 | 273 | 257 | 40  | 110 | 135 | 65  | 9  | 10 | 16   | 45 | 127 | 127 | 132 | 88.5  | 116 | 116 | 5.3  |
|            | 15-90     | 1#      | 18                | 273 | 293 | 277 | 40  | 110 | 135 | 65  | 9  | 10 | 16   | 45 | 127 | 127 | 132 | 88.5  | 116 | 116 | 5.3  |
| 200W 1/4HP | 100-200   | 2#      | 22                | 307 | 327 | 311 | 65  | 130 | 163 | 90  | 11 | 15 | 18.2 | 56 | 127 | 127 | 152 | 97.5  | 116 | 116 | 6.9  |
|            | 3-10      | 1#      | 18                | 293 | 310 | 297 | 40  | 110 | 135 | 65  | 9  | 10 | 16   | 45 | 127 | 159 | 132 | 88.5  | 116 | 133 | 6.7  |
| 400W 1/2HP | 15-90     | 2#      | 22                | 327 | 346 | 331 | 65  | 130 | 163 | 90  | 11 | 15 | 18.2 | 56 | 127 | 159 | 152 | 97.5  | 116 | 133 | 8.6  |
|            | 100-200   | 3#      | 28                | 353 | 372 | 357 | 90  | 140 | 180 | 122 | 11 | 15 | 20.8 | 65 | 127 | 159 | 180 | 116   | 116 | 133 | 11   |
| 750W 1HP   | 3-25      | 2#      | 22                | 356 | 390 | 356 | 65  | 130 | 163 | 90  | 11 | 15 | 18.2 | 56 | 159 | 190 | 152 | 97.5  | 133 | 145 | 11   |
|            | 130-200   | 4#      | 32                | 417 | 449 | 417 | 130 | 170 | 215 | 160 | 13 | 25 | 30.2 | 76 | 159 | 190 | 210 | 138.5 | 133 | 145 | 19.6 |
| 1500W 2HP  | 4-25      | 3#      | 28                | 415 | 436 | 415 | 90  | 140 | 180 | 122 | 11 | 15 | 20.8 | 65 | 190 | 190 | 180 | 116   | 145 |     | 15   |
|            | 30-120    | 4#      | 32                | 449 | 470 | 449 | 130 | 170 | 215 | 160 | 13 | 25 | 30.2 | 76 | 190 | 190 | 210 | 138.5 | 145 |     | 21.6 |
| 2200W 3HP  | 130-200   | 5#      | 40                | 476 | 497 | 476 | 150 | 210 | 260 | 185 | 15 | 25 | 42.2 | 80 | 190 | 190 | 248 | 160   | 145 |     | 42   |
|            | 3-60      | 4#      | 32                | 455 | 481 | 455 | 130 | 170 | 215 | 160 | 13 | 25 | 30.2 | 76 | 190 | 190 | 210 | 138.5 | 153 |     | 27.6 |
| 3700W 5HP  | 70-140    | 5#      | 40                | 482 | 508 | 482 | 150 | 210 | 260 | 185 | 15 | 25 | 42.2 | 80 | 217 | 217 | 248 | 160   | 153 |     | 47   |
|            | 30-140    | 5#      | 40                | 498 | 524 | 498 | 150 | 210 | 260 | 185 | 15 | 25 | 42.2 | 80 | 217 | 217 | 248 | 160   | 153 |     | 52   |

| 出力轴尺寸 OUTPUT SHAFT SIZE | 出力轴SHAFT |   | 键槽KEYWAY |      |    | 键KEY    |
|-------------------------|----------|---|----------|------|----|---------|
|                         | Sh6      | P | W        | T    | Q  | SPEC    |
| Φ18                     | 30       |   | 5        | 20   | 25 | 5×5×25  |
| Φ22                     | 40       |   | 7        | 25   | 35 | 7×7×35  |
| Φ28                     | 45       |   | 7        | 31   | 40 | 7×7×40  |
| Φ32                     | 55       |   | 10       | 35.5 | 50 | 10×8×50 |
| Φ40                     | 65       |   | 10       | 43.5 | 60 | 10×8×60 |



- A1、M1、Z1为三相马达尺寸。
- A2、M2、Z2为单相马达尺寸。
- A3为三相带刹车马达尺寸。
- A1、M1、Z1 are the sizes of three-phase motors.
- A2、M2、Z2 are the sizes of single-phase motors.
- A3 is the size of three-phase motors with brakes.
- 请选用标准框号齿轮减速马达，如特殊原因需选择缩框型
- Please select standard gear motor,if for some particular application,you need to select the shrink box type.

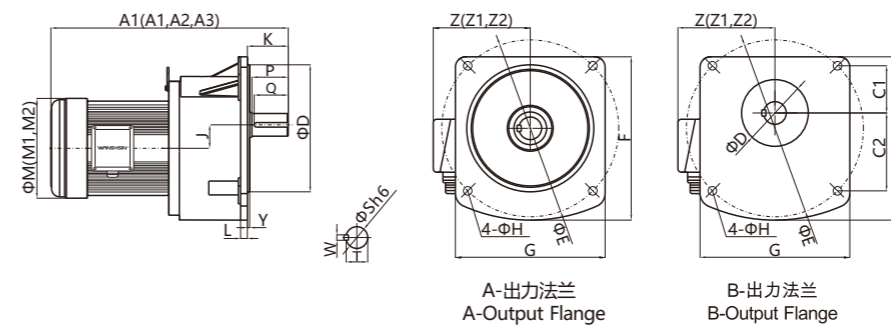
### 7 GV立式附三相、单相铝壳(刹车)缩框型齿轮减速马达

GV VERTICAL SINGLE-PHASE THREE-PHASE,VERTICAL ALUMINUM SHELL(BRAKE)SHRINKABLE GEAR MOTOR

| 马力HP-4P    | 减速比 RATIO | 本体 CODE | 型号 SHAFT DIAMETER | A1  | A2  | A3  | D   | E   | F   | G   | H  | L    | J    | K  | M1  | M2  | Y   | Z1  | Z2  | 重量KG |
|------------|-----------|---------|-------------------|-----|-----|-----|-----|-----|-----|-----|----|------|------|----|-----|-----|-----|-----|-----|------|
| 100W 1/8HP | 50-200    | 1#      | *18               | 253 | 273 | 257 | 50  | 140 | 120 | 120 | 9  | 12   | 16   | 38 | 127 | 127 | 5   | 116 | 116 | 5.3  |
|            | 15-90     | 1#      | *18               | 273 | 293 | 277 | 50  | 140 | 120 | 120 | 9  | 12   | 16   | 38 | 127 | 127 | 5   | 116 | 116 | 5.3  |
| 200W 1/4HP | 100-200   | 2#      | 22                | 307 | 327 | 311 | 148 | 185 | 170 | 156 | 11 | 12   | 18.2 | 49 | 127 | 127 | 3.5 | 116 | 116 | 6.9  |
|            | 3-10      | 1#      | *18               | 293 | 310 | 297 | 50  | 140 | 120 | 120 | 9  | 12.8 | 16   | 38 | 127 | 159 | 5   | 116 | 133 | 6.7  |
| 400W 1/2HP | 15-90     | 2#      | 22                | 327 | 346 | 331 | 148 | 185 | 170 | 156 | 11 | 12.8 | 18.2 | 49 | 127 | 159 | 3.5 | 116 | 133 | 8.6  |
|            | 100-200   | 3#      | 28                | 353 | 372 | 357 | 170 | 220 | 195 | 180 | 11 | 15   | 20.8 | 57 | 127 | 159 | 4   | 116 | 133 | 11   |
| 750W 1HP   | 3-25      | 2#      | 22                | 355 | 395 | 355 | 55  | 170 | 146 | 146 | 11 | 12   | 18.2 | 49 | 159 | 190 | 3.5 | 133 | 145 | 11   |
|            | 30-120    | 3#      | 28                | 382 | 415 | 382 | 170 | 220 | 195 | 180 | 11 | 15   | 20.8 | 57 | 159 | 190 | 4   | 133 | 145 | 14   |
| 1500W 2HP  | 130-200   | 4#      | 32                | 417 | 449 | 417 | 185 | 255 | 237 | 215 | 13 | 17   | 30.2 | 67 | 159 | 190 | 4   | 133 | 145 | 19.4 |
|            | 4-25      | 3#      | 28                | 415 | 436 | 415 | 90  | 140 | 180 | 122 | 11 | 15   | 20.8 | 65 | 190 | 190 | 4   | 145 |     | 15   |
| 2200W 3HP  | 30-120    | 4#      | 32                | 449 | 470 | 449 | 130 | 170 | 215 | 160 | 13 | 17   | 30.2 | 67 | 190 | 190 | 4   | 145 |     | 21.4 |
|            | 130-200   | 5#      | 40                | 476 | 497 | 476 | 150 | 210 | 260 | 185 | 15 | 20   | 42.2 | 79 | 190 | 190 | 5   | 145 |     | 42   |
| 3700W 5HP  | 3-60      | 4#      | 32                | 455 | 481 | 455 | 130 | 170 | 215 | 160 | 13 | 25   | 30.2 | 76 | 190 | 190 | 4   | 153 |     | 27.4 |
|            | 70-140    | 5#      | 40                | 482 | 508 | 482 | 150 | 210 | 260 | 185 | 15 | 20   | 42.2 | 79 | 217 | 217 | 5   | 153 |     | 47   |

| 出力轴尺寸 OUTPUT SHAFT SIZE | 出力轴SHAFT |   | 键槽KEYWAY |      |    | 键KEY    |
|-------------------------|----------|---|----------|------|----|---------|
|                         | Sh6      | P | W        | T    | Q  | SPEC    |
| Φ18                     | 30       |   | 5        | 20   | 25 | 5×5×25  |
| Φ22                     | 40       |   | 7        | 25   | 35 | 7×7×35  |
| Φ28                     | 45       |   | 7        | 31   | 40 | 7×7×40  |
| Φ32                     | 55       |   | 10       | 35.5 | 50 | 10×8×50 |
| Φ40                     | 65       |   | 10       | 43.5 | 60 | 10×8×60 |

- 备注 NOTE :
- 1、1#本体 ( 型号为 18 ) C1为33.5 , C2为65.5  
1# Ontology ( Models for 18 )  
C1 is 33.5 , C2 is 65.5
  - 2、2#本体 ( 型号为 22 ) C1为40 , C2为80  
2# Ontology ( Models for 22 )  
C1 is 40 , C2 is 80



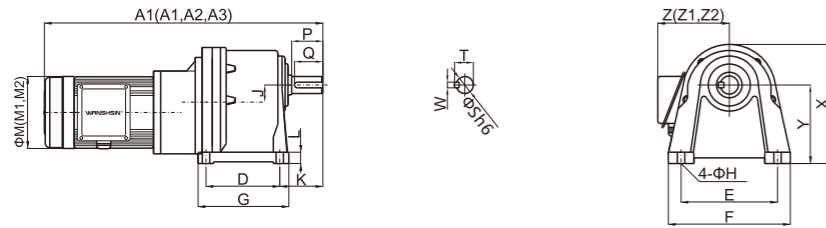
- A1、M1、Z1为三相马达尺寸。
- A2、M2、Z2为单相马达尺寸。
- A3为三相带刹车马达尺寸。
- A1、M1、Z1 are the sizes of three-phase motors.
- A2、M2、Z2 are the sizes of single-phase motors.
- A3 is the size of three-phase motors with brakes.
- \*属于B型号出力法兰。
- 请选用标准框号齿轮减速马达，如特殊原因需选择缩框型
- Please select standard gear motor,for special cases, select shrinkable gear motor.



**8 GH卧式高速比附三相、单相铝壳（刹车）缩框型齿轮减速马达**  
GH HORIZONTAL HIGH-SPEED RATIO SINGLE-PHASE THREE-PHASE,ALUMINUM SHELL(BRAKE)SHRINKABLE GEAR MOTOR

| 马力HP-4P    | 减速比 RATIO | 本体 CODE | 型号 SHAFT DIAMETER | A1  | A2  | A3  | D   | E   | F   | G   | H  | L  | J    | K  | M1  | M2  | X   | Y     | Z1  | Z2  | 重量KG |
|------------|-----------|---------|-------------------|-----|-----|-----|-----|-----|-----|-----|----|----|------|----|-----|-----|-----|-------|-----|-----|------|
| 100W 1/8HP | 250-1800  | 1#+2#   | 22                | 365 | 385 | 369 | 65  | 130 | 163 | 90  | 11 | 15 | 18.2 | 56 | 127 | 127 | 152 | 97.5  | 116 | 116 | 13.2 |
| 200W 1/4HP | 250-1800  | 1#+3#   | 28                | 410 | 430 | 414 | 90  | 140 | 180 | 122 | 11 | 15 | 20.8 | 65 | 127 | 127 | 180 | 116   | 116 | 116 | 29.6 |
| 400W 1/2HP | 250-1800  | 2#+4#   | 32                | 491 | 510 | 495 | 130 | 170 | 215 | 160 | 13 | 25 | 30.2 | 76 | 127 | 159 | 210 | 138.5 | 116 | 133 | 42.6 |
| 750W 1HP   | 250-1800  | 3#+5#   | 40                | 561 | 594 | 561 | 150 | 210 | 260 | 185 | 15 | 25 | 42.2 | 80 | 159 | 190 | 248 | 160   | 133 | 145 | 59   |

| 出力轴尺寸 OUTPUT SHAFT SIZE | 出力轴 SHAFT | 键槽 KEYWAY |    |      | 键 KEY |         |
|-------------------------|-----------|-----------|----|------|-------|---------|
|                         | Sh6       | P         | W  | T    | Q     | SPEC    |
|                         | Φ22       | 40        | 7  | 25   | 35    | 7×7×35  |
|                         | Φ28       | 45        | 7  | 31   | 40    | 7×7×40  |
|                         | Φ32       | 55        | 10 | 35.5 | 50    | 10×8×50 |
|                         | Φ40       | 65        | 10 | 43.5 | 60    | 10×8×60 |

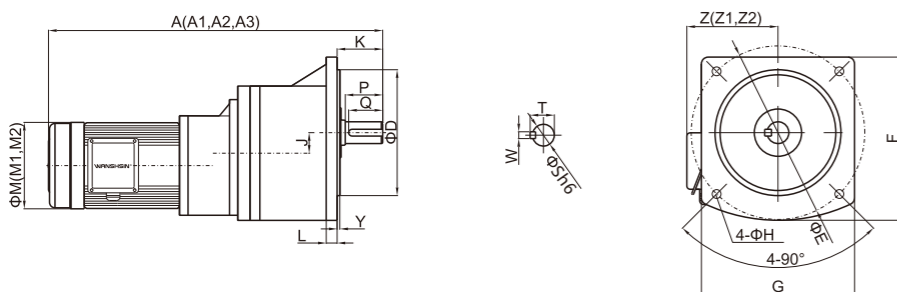


- A1、M1、Z1为三相马达尺寸。
- A2、M2、Z2为单相马达尺寸。
- A3为三相带刹车马达尺寸。
- A1、M1、Z1 are the sizes of three-phase motors.
- A2、M2、Z2 are the sizes of single-phase motors.
- 请选用标准框号齿轮减速马达，如特殊原因需选择缩框型
- Please select standard gear motor, for special cases, select shrinkable gear motor.

**9 GV立式高速比附三相、单相铝壳（刹车）缩框型齿轮减速马达**  
GV VERTICAL HIGH-SPEED RATIO SINGLE-PHASE THREE-PHASE,ALUMINUM SHELL(BRAKE)SHRINKABLE GEAR MOTOR

| 马力HP-4P    | 减速比 RATIO | 本体 CODE | 型号 SHAFT DIAMETER | A1  | A2  | A3  | D   | E   | F   | G   | H  | L  | J    | K  | M1  | M2  | Y   | Z1  | Z2  | 重量KG |
|------------|-----------|---------|-------------------|-----|-----|-----|-----|-----|-----|-----|----|----|------|----|-----|-----|-----|-----|-----|------|
| 100W 1/8HP | 250-1800  | 1#+2#   | 22                | 364 | 384 | 368 | 148 | 185 | 170 | 156 | 11 | 12 | 18.2 | 49 | 127 | 127 | 3.5 | 116 | 116 | 13.2 |
| 200W 1/4HP | 250-1800  | 1#+3#   | 28                | 410 | 430 | 414 | 170 | 220 | 195 | 180 | 11 | 15 | 20.8 | 57 | 127 | 127 | 4   | 116 | 116 | 29.6 |
| 400W 1/2HP | 250-1800  | 2#+4#   | 32                | 491 | 510 | 495 | 185 | 255 | 237 | 215 | 13 | 17 | 30.2 | 67 | 127 | 159 | 4   | 116 | 133 | 42.4 |
| 750W 1HP   | 250-1800  | 3#+5#   | 40                | 561 | 594 | 561 | 230 | 310 | 300 | 275 | 15 | 20 | 42.2 | 79 | 159 | 190 | 4   | 133 | 145 | 59   |

| 出力轴尺寸 OUTPUT SHAFT SIZE | 出力轴 SHAFT | 键槽 KEYWAY |    |      | 键 KEY |         |
|-------------------------|-----------|-----------|----|------|-------|---------|
|                         | Sh6       | P         | W  | T    | Q     | SPEC    |
|                         | Φ22       | 40        | 7  | 25   | 35    | 7×7×35  |
|                         | Φ28       | 45        | 7  | 31   | 40    | 7×7×40  |
|                         | Φ32       | 55        | 10 | 35.5 | 50    | 10×8×50 |
|                         | Φ40       | 65        | 10 | 43.5 | 60    | 10×8×60 |



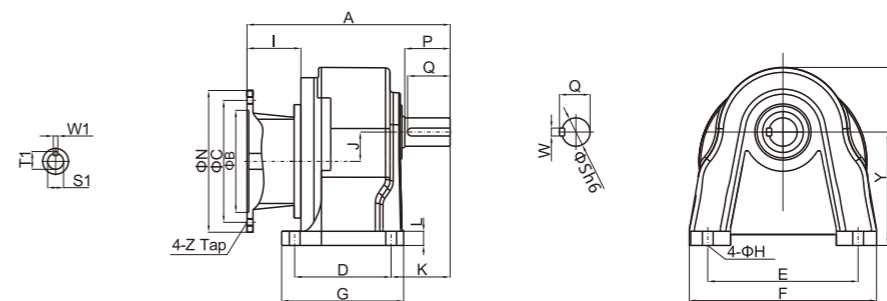
- A1、M1、Z1为三相马达尺寸。
- A2、M2、Z2为单相马达尺寸。
- A3为三相带刹车马达尺寸。
- A1、M1、Z1 are the sizes of three-phase motors.
- A2、M2、Z2 are the sizes of single-phase motors.
- 请选用标准框号齿轮减速马达，如特殊原因需选择缩框型
- Please select standard gear motor, for special cases, select shrinkable gear motor.

**10 GHM卧式直结型齿轮减速机**  
GHM HORIZONTAL STRAIGHT GEAR BOX

| 马力HP-4P    | 减速比 GEAR RATIO | 型号 TYPE | A   | B   | C   | D   | E   | F   | G   | H  | I    | J    | K   | L  | N   | X   | Y     | Z   | 重量KG |
|------------|----------------|---------|-----|-----|-----|-----|-----|-----|-----|----|------|------|-----|----|-----|-----|-------|-----|------|
| 200W 1/4HP | 3-10           | 18      | 153 | 95  | 115 | 40  | 110 | 135 | 65  | 9  | 52.5 | 16   | 45  | 10 | 140 | 132 | 88.5  | M8  | 4    |
|            | 15-90          | 22      | 188 | 95  | 115 | 65  | 130 | 159 | 90  | 11 | 52.5 | 18.2 | 56  | 15 | 140 | 152 | 97.5  | M8  | 6    |
|            | 100-200        | 28      | 216 | 95  | 115 | 90  | 140 | 180 | 122 | 11 | 52.5 | 20.8 | 65  | 15 | 140 | 180 | 116   | M8  | 8    |
| 400W 1/2HP | 3-10           | 22      | 188 | 110 | 130 | 65  | 130 | 160 | 90  | 11 | 52.5 | 18.2 | 56  | 15 | 158 | 152 | 97.5  | M8  | 6    |
|            | 15-90          | 28      | 216 | 110 | 130 | 90  | 140 | 180 | 122 | 11 | 52.5 | 20.8 | 65  | 15 | 158 | 180 | 116   | M8  | 8    |
| 750W 1HP   | 3-25           | 28      | 250 | 130 | 165 | 90  | 140 | 180 | 122 | 11 | 90.8 | 20.8 | 66  | 15 | 198 | 180 | 116   | M10 | 11   |
|            | 30-120         | 32      | 288 | 130 | 165 | 130 | 170 | 215 | 160 | 13 | 90.8 | 30.2 | 76  | 25 | 198 | 210 | 138.5 | M10 | 19.6 |
|            | 125-200        | 40      | 313 | 130 | 165 | 150 | 210 | 260 | 185 | 15 | 90.8 | 42.2 | 85  | 25 | 198 | 248 | 160   | M10 | 38   |
| 1500W 2HP  | 3-25           | 32      | 288 | 130 | 165 | 130 | 170 | 215 | 160 | 13 | 90.8 | 30.2 | 76  | 25 | 198 | 210 | 138.5 | M10 | 19.6 |
|            | 30-120         | 40      | 313 | 130 | 165 | 150 | 210 | 260 | 185 | 15 | 90.8 | 42.2 | 85  | 25 | 198 | 248 | 160   | M10 | 39   |
| 2200W 3HP  | 3-60           | 40      | 320 | 180 | 215 | 150 | 210 | 260 | 185 | 15 | 95   | 42.2 | 85  | 25 | 250 | 248 | 160   | M12 | 40   |
|            | 70-120         | 50      | 360 | 180 | 215 | 170 | 265 | 330 | 220 | 18 | 95   | 51.7 | 104 | 30 | 250 | 315 | 200   | M12 | 45   |
| 3700W 5HP  | 3-25           | 40      | 320 | 180 | 215 | 150 | 210 | 260 | 185 | 15 | 95   | 42.2 | 85  | 25 | 250 | 248 | 160   | M12 | 50   |
|            | 30-80          | 50      | 360 | 180 | 215 | 170 | 265 | 330 | 220 | 18 | 95   | 51.7 | 104 | 30 | 250 | 315 | 200   | M12 | 55   |

| 输入轴尺寸 INPUT SHAFT SIZE | 马力KW  | 输入轴 SHAFT 键槽 KEYWAY |    |      |
|------------------------|-------|---------------------|----|------|
|                        |       | S1                  | W1 | T1   |
|                        | 1/4HP | Φ11                 | 4  | 12.8 |
|                        | 1/2HP | Φ14                 | 5  | 16.3 |
|                        | 1HP   | Φ19                 | 6  | 21.8 |
|                        | 2HP   | Φ24                 | 8  | 27.3 |
|                        | 3HP   | Φ28                 | 8  | 31.3 |
|                        | 5HP   | Φ28                 | 8  | 31.3 |

| 出力轴尺寸 OUTPUT SHAFT SIZE | 出力轴 SHAFT | 键槽 KEYWAY |    |      | 键 KEY |         |
|-------------------------|-----------|-----------|----|------|-------|---------|
|                         |           | Sh6       | P  | W    |       | T       |
|                         | Φ18       | 30        | 5  | 20   | 25    | 5×5×25  |
|                         | Φ22       | 40        | 7  | 25   | 35    | 7×7×35  |
|                         | Φ28       | 45        | 7  | 31   | 40    | 7×7×40  |
|                         | Φ32       | 55        | 10 | 35.5 | 50    | 10×8×50 |
|                         | Φ40       | 65        | 10 | 43.5 | 60    | 10×8×60 |
|                         | Φ50       | 80        | 14 | 54   | 75    | 14×9×75 |



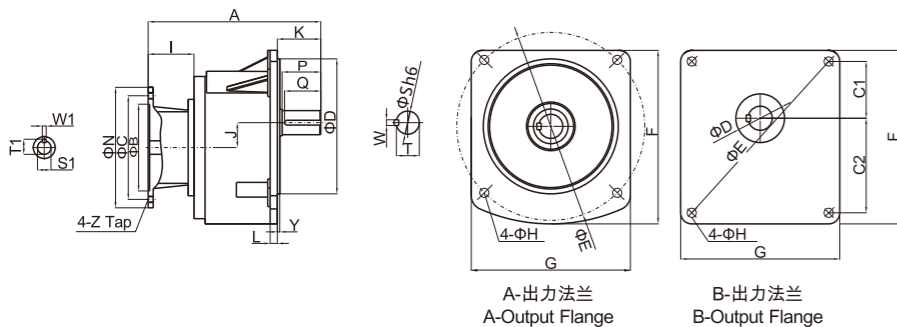
- 配合IEC马达为主。
- Available for IEC motor.

| 11 GVM立式直结型齿轮减速机<br>GVM VERTICAL STRAIGHT GEAR BOX |                   |            |     |     |     |     |     |     |     |    |      |      |    |    |     |     |     | 重量KG |
|--|-------------------|------------|-----|-----|-----|-----|-----|-----|-----|----|------|------|----|----|-----|-----|-----|------|
| 马力HP-4P  | 减速比<br>GEAR RATIO | 型号<br>TYPE | A   | B   | C   | D   | E   | F   | G   | H  | I    | J    | K  | L  | N   | Y   | Z   |      |
| 200W 1/4HP   | 3-10              | *18        | 153 | 95  | 115 | 50  | 140 | 120 | 120 | 9  | 52.5 | 16   | 38 | 12 | 140 | 5   | M8  | 4    |
|  | 15-90             | 22         | 188 | 95  | 115 | 148 | 185 | 170 | 156 | 11 | 52.5 | 18.2 | 49 | 12 | 140 | 3.5 | M8  | 6    |
| 400W 1/2HP   | 15-90             | *22        | 188 | 95  | 115 | 55  | 170 | 146 | 146 | 11 | 52.5 | 18.2 | 49 | 12 | 140 | 3.5 | M8  | 6    |
|  | 100-200           | 28         | 216 | 95  | 115 | 170 | 220 | 195 | 180 | 11 | 52.5 | 20.8 | 57 | 15 | 140 | 4   | M8  | 8    |
| 750W 1HP   | 3-10              | 22         | 188 | 110 | 130 | 148 | 185 | 170 | 156 | 11 | 52.5 | 18.2 | 49 | 12 | 158 | 3.5 | M8  | 6    |
|  | 3-10              | *22        | 188 | 110 | 130 | 55  | 170 | 146 | 146 | 11 | 52.5 | 18.2 | 49 | 12 | 158 | 3.5 | M8  | 6    |
|  | 15-90             | 28         | 216 | 110 | 130 | 170 | 220 | 195 | 180 | 11 | 52.5 | 20.8 | 57 | 15 | 158 | 4   | M8  | 8    |
| 1500W 2HP  | 3-25              | 28         | 250 | 130 | 165 | 170 | 220 | 195 | 180 | 11 | 90.8 | 20.8 | 57 | 15 | 198 | 4   | M10 | 11   |
|  | 30-120            | 32         | 288 | 130 | 165 | 185 | 255 | 237 | 215 | 13 | 90.8 | 30.2 | 67 | 17 | 198 | 5   | M10 | 19.6 |
|  | 125-200           | 40         | 313 | 130 | 165 | 230 | 310 | 300 | 275 | 15 | 90.8 | 42.2 | 79 | 20 | 198 | 4   | M10 | 38   |
| 2200W 3HP  | 3-25              | 32         | 288 | 130 | 165 | 185 | 255 | 237 | 215 | 13 | 90.8 | 30.2 | 67 | 17 | 198 | 5   | M10 | 19.6 |
|  | 30-120            | 40         | 313 | 130 | 165 | 230 | 310 | 300 | 275 | 15 | 90.8 | 42.2 | 79 | 20 | 198 | 5   | M10 | 39   |
| 3700W 5HP  | 3-60              | 40         | 320 | 180 | 215 | 230 | 310 | 300 | 275 | 15 | 95   | 42.2 | 79 | 20 | 250 | 5   | M12 | 39   |
|  | 70-120            | 50         | 360 | 180 | 215 | 280 | 390 | 360 | 330 | 19 | 95   | 51.7 | 90 | 20 | 250 | 5   | M12 | 44   |
| 2200W 3HP  | 3-25              | 40         | 320 | 180 | 215 | 230 | 310 | 300 | 275 | 15 | 95   | 42.2 | 79 | 20 | 250 | 5   | M12 | 55   |
|  | 30-80             | 50         | 360 | 180 | 215 | 280 | 390 | 360 | 330 | 19 | 95   | 51.7 | 90 | 20 | 250 | 5   | M12 | 60   |

| 输入轴尺寸 INPUT SHAFT SIZE | 马力KW  | 输入轴SHAFT |    | 键槽KEYWAY |  |
|------------------------|-------|----------|----|----------|--|
|                        |       | S1       | W1 | T1       |  |
|                        | 1/4HP | Φ11      | 4  | 12.8     |  |
|                        | 1/2HP | Φ14      | 5  | 16.3     |  |
|                        | 1HP   | Φ19      | 6  | 21.8     |  |
|                        | 2HP   | Φ24      | 8  | 27.3     |  |
|                        | 3HP   | Φ28      | 8  | 31.3     |  |
|                        | 5HP   | Φ28      | 8  | 31.3     |  |

| 输出轴尺寸 OUTPUT SHAFT SIZE | 输出轴SHAFT |    | 键槽KEYWAY |      |    | 键KEY    |
|-------------------------|----------|----|----------|------|----|---------|
|                         | Sh6      | P  | W        | T    | Q  | SPEC    |
|                         | Φ18      | 30 | 5        | 20   | 25 | 5×5×25  |
|                         | Φ22      | 40 | 7        | 25   | 35 | 7×7×35  |
|                         | Φ28      | 45 | 7        | 31   | 40 | 7×7×40  |
|                         | Φ32      | 55 | 10       | 35.5 | 50 | 10×8×50 |
|                         | Φ40      | 65 | 10       | 43.5 | 60 | 10×8×60 |
|                         | Φ50      | 80 | 14       | 54   | 75 | 14×9×75 |

备注 NOTE :  
 1、1#本体 ( 型号为18 ) C1为33.5, C2为65.5  
 1# Ontology ( Models for 18 )  
 C1 is 33.5, C2 is 65.5  
 2、2#本体 ( 型号为22 ) C1为40, C2为80  
 2# Ontology ( Models for 22 )  
 C1 is 40, C2 is 80

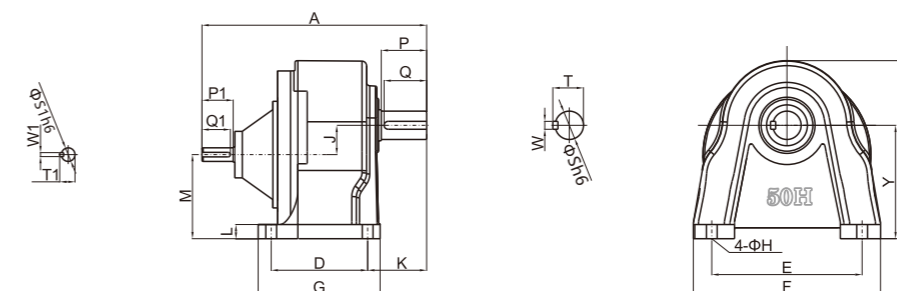


- 配合IEC马达为主。
- Available for IEC motor.
- \*属于B型号输出法兰。
- \*Belong to B type output flange.

| 12 GHD卧式双轴型齿轮减速机<br>GHD HORIZONTAL TYPE DUAL AXIS GEAR BOX |              |                      |     |     |     |     |     |    |      |     |    |       |     |       |      |  |  | 重量KG |
|--|--------------|----------------------|-----|-----|-----|-----|-----|----|------|-----|----|-------|-----|-------|------|--|--|------|
| 马力HP-4P  | 减速比<br>RATIO | 型号<br>SHAFT DIAMETER | A   | D   | E   | F   | G   | H  | J    | K   | L  | M     | X   | Y     |      |  |  |      |
| 100W 1/8HP   | 3-50         | 18                   | 168 | 40  | 110 | 135 | 65  | 9  | 16   | 45  | 10 | 72.5  | 132 | 88.5  | 3    |  |  |      |
|  | 60-200       | 22                   | 200 | 65  | 130 | 160 | 90  | 11 | 18.2 | 56  | 15 | 80    | 152 | 97.5  | 4    |  |  |      |
| 200W 1/4HP   | 3-10         | 18                   | 168 | 40  | 110 | 135 | 65  | 9  | 16   | 45  | 10 | 72.5  | 132 | 88.5  | 3    |  |  |      |
|  | 15-90        | 22                   | 200 | 65  | 130 | 160 | 90  | 11 | 18.2 | 56  | 15 | 80    | 152 | 97.5  | 5    |  |  |      |
| 400W 1/2HP   | 100-200      | 28                   | 258 | 90  | 140 | 180 | 120 | 11 | 20.8 | 65  | 15 | 95.2  | 180 | 116   | 7    |  |  |      |
|  | 3-10         | 22                   | 207 | 65  | 130 | 160 | 90  | 11 | 18.2 | 56  | 15 | 80    | 152 | 97.5  | 6    |  |  |      |
|  | 15-90        | 28                   | 263 | 90  | 140 | 180 | 120 | 11 | 20.8 | 65  | 15 | 95.2  | 180 | 116   | 7    |  |  |      |
| 750W 1HP   | 100-200      | 32                   | 300 | 130 | 170 | 215 | 160 | 13 | 30.2 | 76  | 25 | 108.5 | 210 | 138.5 | 12.6 |  |  |      |
|  | 3-25         | 28                   | 269 | 90  | 140 | 180 | 120 | 11 | 20.8 | 65  | 15 | 95.2  | 180 | 116   | 7    |  |  |      |
|  | 30-120       | 32                   | 310 | 130 | 170 | 215 | 160 | 13 | 30.2 | 76  | 25 | 108.5 | 210 | 138.5 | 14.6 |  |  |      |
| 1500W 2HP  | 125-200      | 40                   | 336 | 150 | 210 | 260 | 185 | 15 | 42.2 | 80  | 25 | 117.8 | 248 | 160   | 35   |  |  |      |
|  | 3-25         | 32                   | 320 | 130 | 170 | 215 | 160 | 13 | 30.2 | 76  | 25 | 108.5 | 210 | 138.5 | 14.6 |  |  |      |
|  | 30-120       | 40                   | 350 | 150 | 210 | 260 | 185 | 15 | 42.2 | 80  | 25 | 117.8 | 248 | 160   | 35   |  |  |      |
| 2200W 3HP  | 3-60         | 40                   | 360 | 150 | 210 | 260 | 185 | 15 | 42.2 | 80  | 25 | 117.8 | 248 | 160   | 35   |  |  |      |
|  | 70-120       | 50                   | 410 | 170 | 265 | 330 | 220 | 19 | 51.7 | 104 | 30 | 148.6 | 315 | 200   | 43   |  |  |      |
| 3700W 5HP  | 3-25         | 40                   | 360 | 150 | 210 | 260 | 185 | 15 | 42.2 | 80  | 25 | 117.8 | 248 | 160   | 35   |  |  |      |
|  | 30-80        | 50                   | 410 | 170 | 265 | 330 | 220 | 19 | 51.7 | 104 | 30 | 148.6 | 315 | 200   | 43   |  |  |      |

| 输入轴尺寸 INPUT SHAFT SIZE | 输入轴SHAFT |      | 键槽KEYWAY |    |      | 键KEY |        |
|------------------------|----------|------|----------|----|------|------|--------|
|                        | KW       | S1h6 | P1       | W1 | T1   | Q1   | SPEC   |
|                        | 0.1/0.2  | 14   | 30       | 5  | 16   | 26   | 5×5×25 |
|                        | 0.4      | 14   | 30       | 5  | 16   | 26   | 5×5×25 |
|                        | 0.75     | 19   | 40       | 6  | 21.5 | 35   | 6×6×35 |
|                        | 1.5      | 24   | 50       | 8  | 27   | 45   | 8×7×45 |
|                        | 2.2      | 28   | 60       | 8  | 31   | 50   | 8×7×50 |
|                        | 3.7      | 28   | 60       | 8  | 31   | 50   | 8×7×50 |

| 输出轴尺寸 OUTPUT SHAFT SIZE | 输出轴SHAFT |    | 键槽KEYWAY |      |    | 键KEY    |
|-------------------------|----------|----|----------|------|----|---------|
|                         | Sh6      | P  | W        | T    | Q  | SPEC    |
|                         | Φ18      | 30 | 5        | 20   | 25 | 5×5×25  |
|                         | Φ22      | 40 | 7        | 25   | 35 | 7×7×35  |
|                         | Φ28      | 45 | 7        | 31   | 40 | 7×7×40  |
|                         | Φ32      | 55 | 10       | 35.5 | 50 | 10×8×50 |
|                         | Φ40      | 65 | 10       | 43.5 | 60 | 10×8×60 |
|                         | Φ50      | 80 | 14       | 54   | 75 | 14×9×75 |



13 GVD立式双轴齿轮减速机  
GVD VERTICAL DUAL AXIS GEAR BOX

| 马力HP-4P    | 减速比 RATIO | 型号 SHAFT DIAMETER | A   | D   | E   | F   | G   | H  | J    | K  | L  | Y   | 重量KG |
|------------|-----------|-------------------|-----|-----|-----|-----|-----|----|------|----|----|-----|------|
| 100W 1/8HP | 3-50      | *18               | 168 | 50  | 140 | 120 | 120 | 9  | 16   | 38 | 12 | 5   | 3    |
|            | 60-200    | 22                | 200 | 148 | 185 | 170 | 156 | 11 | 18.2 | 49 | 12 | 3.5 | 4    |
|            | 60-200    | *22               | 200 | 55  | 170 | 146 | 146 | 11 | 18.2 | 49 | 12 | 3.5 | 4    |
| 200W 1/4HP | 3-10      | *18               | 168 | 50  | 140 | 120 | 120 | 9  | 16   | 38 | 12 | 5   | 3    |
|            | 15-90     | 22                | 200 | 148 | 185 | 170 | 156 | 11 | 18.2 | 49 | 12 | 3.5 | 5    |
|            | 15-90     | *22               | 200 | 55  | 170 | 146 | 146 | 11 | 18.2 | 49 | 12 | 3.5 | 4    |
| 400W 1/2HP | 3-10      | 22                | 207 | 148 | 185 | 170 | 156 | 11 | 18.2 | 49 | 12 | 3.5 | 6    |
|            | 3-10      | *22               | 200 | 55  | 170 | 146 | 146 | 11 | 18.2 | 49 | 12 | 3.5 | 4    |
|            | 15-90     | 28                | 263 | 170 | 220 | 195 | 180 | 11 | 20.8 | 57 | 15 | 4   | 7    |
| 750W 1HP   | 3-25      | 28                | 268 | 170 | 220 | 195 | 180 | 11 | 20.8 | 57 | 15 | 4   | 7    |
|            | 30-120    | 32                | 310 | 185 | 255 | 237 | 215 | 13 | 30.2 | 67 | 17 | 4   | 14.4 |
|            | 125-200   | 40                | 336 | 230 | 310 | 300 | 275 | 15 | 20.8 | 79 | 20 | 5   | 35   |
| 1500W 2HP  | 3-25      | 32                | 320 | 185 | 255 | 237 | 215 | 13 | 30.2 | 67 | 17 | 4   | 14.4 |
|            | 30-120    | 40                | 350 | 230 | 310 | 300 | 275 | 15 | 42.2 | 79 | 20 | 5   | 35   |
| 2200W 3HP  | 3-60      | 40                | 360 | 230 | 310 | 300 | 275 | 15 | 42.2 | 79 | 20 | 5   | 35   |
|            | 70-120    | 50                | 400 | 280 | 390 | 360 | 330 | 19 | 51.7 | 90 | 20 | 5   | 43   |
| 3700W 5HP  | 3-25      | 40                | 360 | 230 | 310 | 300 | 275 | 15 | 42.2 | 79 | 20 | 5   | 35   |
|            | 30-80     | 50                | 400 | 280 | 390 | 360 | 330 | 19 | 51.7 | 90 | 20 | 5   | 43   |

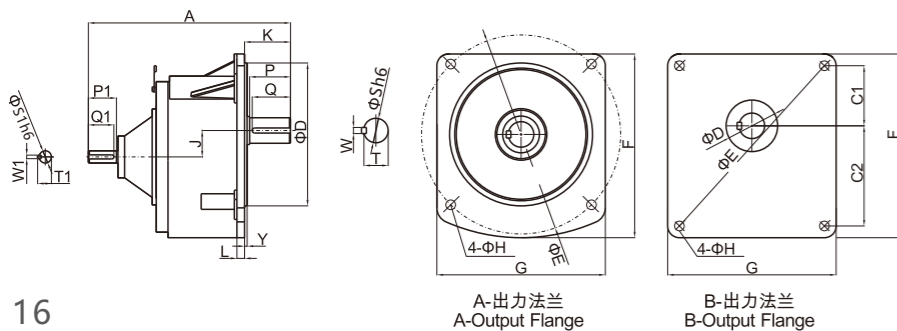
| 输入轴尺寸 INPUT SHAFT SIZE | 输入轴 SHAFT |      |    | 键槽 KEYWAY |    |        | 键 KEY  |
|------------------------|-----------|------|----|-----------|----|--------|--------|
|                        | KW        | S1h6 | P1 | W1        | T1 | Q1     | SPEC   |
| 0.1/0.2                | 14        | 30   | 5  | 16        | 26 | 5×5×25 | 5×5×25 |
| 0.4                    | 14        | 30   | 5  | 16        | 26 | 5×5×25 | 5×5×25 |
| 0.75                   | 19        | 40   | 6  | 21.5      | 35 | 6×6×35 | 6×6×35 |
| 1.5                    | 24        | 50   | 8  | 27        | 45 | 8×7×45 | 8×7×45 |
| 2.2                    | 28        | 55   | 8  | 31        | 50 | 8×7×50 | 8×7×50 |

| 输出轴尺寸 OUTPUT SHAFT SIZE | 输出轴 SHAFT |    |      | 键槽 KEYWAY |         |         | 键 KEY |
|-------------------------|-----------|----|------|-----------|---------|---------|-------|
|                         | Sh6       | P  | W    | T         | Q       | SPEC    |       |
| Φ18                     | 30        | 5  | 20   | 25        | 5×5×25  | 5×5×25  |       |
| Φ22                     | 40        | 7  | 25   | 35        | 7×7×35  | 7×7×35  |       |
| Φ28                     | 45        | 7  | 31   | 40        | 7×7×40  | 7×7×40  |       |
| Φ32                     | 55        | 10 | 35.5 | 50        | 10×8×50 | 10×8×50 |       |
| Φ40                     | 65        | 10 | 43.5 | 60        | 10×8×60 | 10×8×60 |       |
| Φ50                     | 80        | 14 | 54   | 75        | 14×9×75 | 14×9×75 |       |

备注 NOTE :  
1、1#本体 (型号为18) C1为33.5, C2为65.5  
1# Ontology ( Models for 18 )  
C1 is 33.5, C2 is 65.5  
2、2#本体 (型号为22) C1为40, C2为80  
2# Ontology ( Models for 22 )  
C1 is 40, C2 is 80

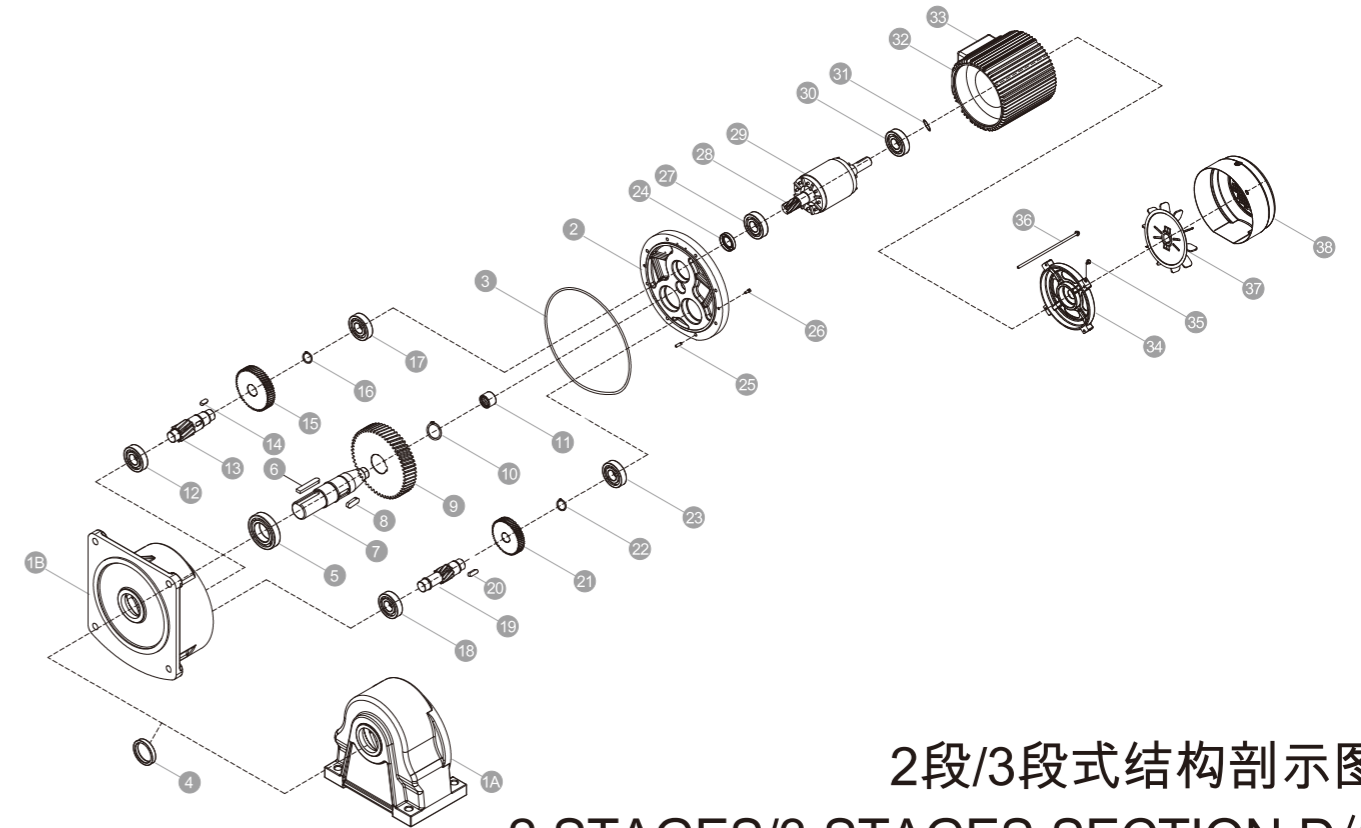


\*属于B型出力法兰。  
\*Belong to B type output flange.



零件剖面图

DETAIL SECTIONAL VIEW



2段/3段式结构剖示图

2 STAGES/3 STAGES SECTION D/A

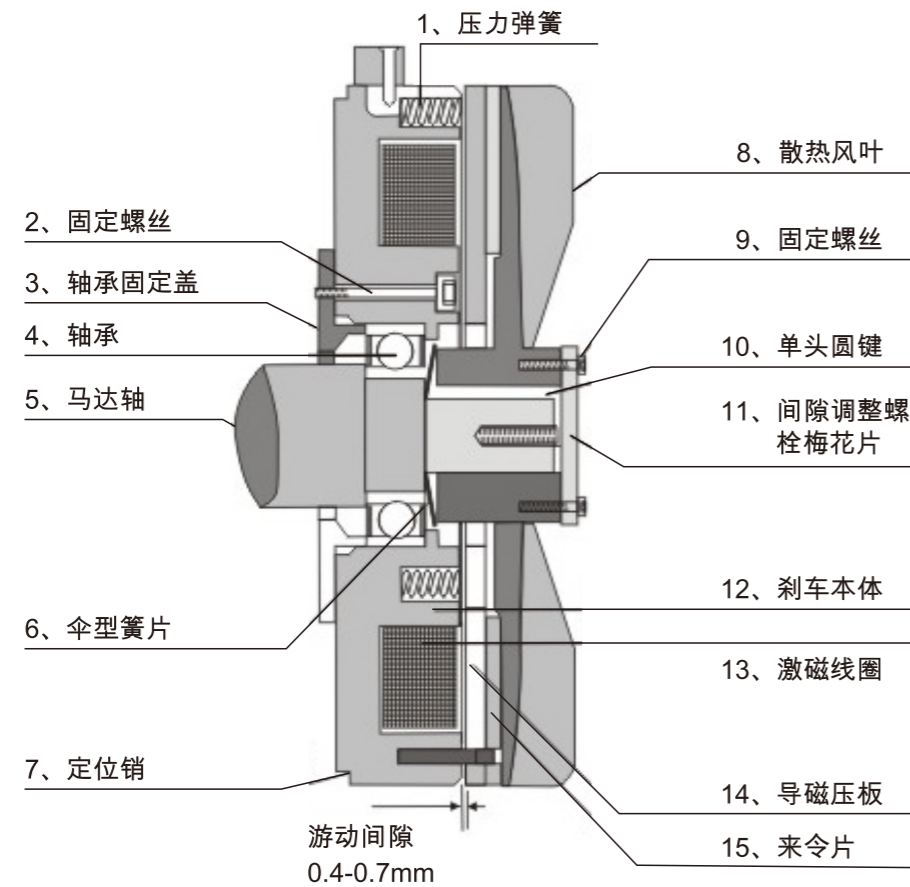
- |   |                                       |                                 |
|---|---------------------------------------|---------------------------------|
| 1A 卧式本体<br>HORIZONTAL BODY                    | 13 二段小齿轴<br>PINION-2 STAGES           | 26 内六角螺丝<br>HEX-HEAD SCREW      |
| 1B 立式本体<br>VERTICAL BODY                      | 14 二段小齿键<br>KEY-2 STAGES              | 27 马达轴轴承<br>BEARING-MOTOR SHAFT |
| 2 齿轮箱盖<br>GEARBOX COVER                       | 15 二段大齿轮<br>GEAR-2 STAGES             | 28 马达齿轴<br>MOTOR SHAFT          |
| 3 O型环<br>O-RING                               | 16 C-扣环<br>SNAP RING                  | 29 转子<br>ROTOR                  |
| 4 出力轴油封<br>OILSEAL-OUTPUT SHAFT               | 17 二段齿轮轴轴承<br>BEARING-2RDSTAGE PINION | 30 马达轴轴承<br>BEARING-MOTOR SHAFT |
| 5 出力轴轴承<br>BEARING-OUTRUT SHAFT               | 18 一段齿轴轴承<br>BEARING-1NDSTAGE PINION  | 31 波浪弹簧<br>WAVE SPRING          |
| 6 出力轴键<br>KEY-OUTPUT SHAFT                    | 19 一段齿轴<br>PINON-1 STAGES             | 32 线圈总成<br>COILASSEMBLY         |
| 7 出力轴<br>OUTPUT SHAFT                         | 20 一段小齿轴键<br>KEY-1 STAGES             | 33 接线盒<br>WIRE BOX              |
| 8 三段小齿轴键<br>KEY- 3 STAGES                     | 21 一段大齿轮<br>GEAR-1 STAGES             | 34 马达后盖<br>REAR COVER-MOTOR     |
| 9 三段大齿轮<br>GEAR-3 STAGES                      | 22 C-扣环<br>SNAP RING                  | 35 风罩螺丝<br>SCREW-FAN COVER      |
| 10 C-扣环<br>SNAP RING                          | 23 一段齿轴轴承<br>BEARING-1RDSTA           | 36 马达螺丝<br>BOLT-MOTOR           |
| 11 出力轴滚针轴承<br>THE OUTPUT SHAFT NEEDLE BEARING | 24 入侧油封<br>OIL SEAL-MOTOR SHAFT       | 37 风叶<br>FAN                    |
| 12 二段齿轴轴承<br>BEARING-2 STAGES                 | 25 定位销<br>PIN                         | 38 风罩<br>FAN COVER-MOTOR        |



## 刹车零件分解图

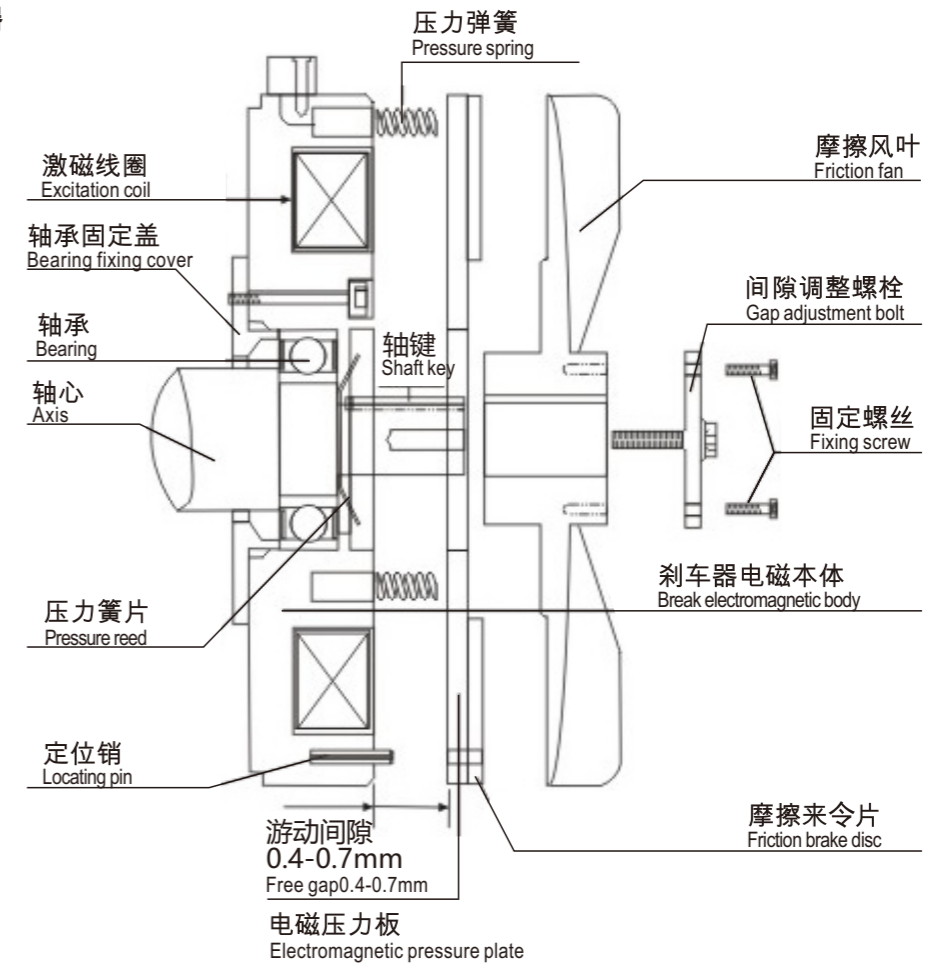
### BRAKE UNIT SECTION DIAGRAM

短型安全刹车器



### SHORT SAFETY BRAKE

短型安全刹车器



- 1 压力弹簧  
PRESSURE SPRING
- 2 固定螺丝  
FIXED SCREW
- 3 轴承固定盖  
FIXED BEARING PLATE
- 4 轴承  
BEARING
- 5 马达轴  
MOTOR SHAFT

- 6 伞型簧片  
DISC SPRING
- 7 定位销  
FIXED PIN
- 8 散热风叶  
FAN
- 9 固定螺丝  
FIXED SCREW
- 10 固定键  
KEY

- 11 调整螺栓  
GAP ADJUSTMENT BOLT
- 12 刹车本体  
BRAKE HOUSING
- 13 激磁线圈  
BRAKE COIL
- 14 导磁压板  
FRICTION PLATE
- 15 来令片  
FRICTION BRAKE  
BRAKE DISC

### 刹车间隙调整 ADJUST BRAKE CLEARANCE



间隙调整螺栓正面图  
Front view of  
gap adjusting bolt

- 1、请先移除固定螺丝  
Please remove the fixing screw first.
- 2、每向右调整一格，其间距缩小0.07-0.10mm  
Each space is adjusted to the right, and the spacing is reduced by 0.07-0.10mm.

## 故障排除

### TROUBLE SHOOTING

#### 直流刹车器故障排除 TROUBLE SHOOTING FOR DC BRAKE UNIT

| 不良原因<br>DEFECTIVE REASON     | 原因分析<br>POSSIBLE ANALYSIS       | 解决方式<br>SOLUTION METHOD         |
|------------------------------|---------------------------------|---------------------------------|
| 刹车器不动作<br>NO ACTION OF BRAKE | 未供电源<br>NO POWER SUPPLY         | 供应电源<br>SUPPLY POWER            |
|                              | 来令片磨损<br>BRAKE DISC WORN OUT    | 换新来令片<br>USE NEW BRAKE DISC     |
|                              | 间隙过大<br>LARGE CLEARANCE         | 调整间隙<br>ADJUST CLEARANCE        |
|                              | 电源电压不足<br>LOW VOLTA             | 提供正确电压<br>USE CORRECT VOLTAGE   |
|                              | 电源供应器损坏<br>POWER SUPPLY DAMAGE  | 电源供应器换新<br>USE NEW POWOR SUPPLY |
|                              | 异物入侵<br>DIRTY INSIDE            | 清洁零件<br>CLEAN PARTS             |
|                              | 使用电压错误<br>WRONG VOLTAGE         | 使用正确电压<br>CORRECT VOLTAGE       |
|                              | 接线脱落<br>CONNECT WIRE LOST       | 重新接线<br>RE-CONNECT WIRE         |
|                              | 来令片卡死<br>BRAKE DISC LOCKED      | 清洁零件<br>CLEAN PARTS             |
| 刹车移动<br>OVER STOP OF BRAKE   | 煞车线圈烧毁<br>BRAKE COIL BURNED-OUT | 更换刹车线圈<br>USE NEW BRAKE COLL    |
|                              | 来令片磨损<br>BRAKE DISC WORN OUT    | 换新来令片<br>USE NEW BRAKE DISC     |
|                              | 间隙过大<br>LARGE CLEARANCE         | 调整间隙<br>ADJUST CLEARANCE        |
|                              | 来令片沾染油渣<br>SURFACE W/OIL        | 清洁来令片<br>CLEAN BRAKE DISC       |
|                              | 负载过大<br>OVER LOADING            | 重新设计<br>RE-DESIGN BRAKE UNIT    |
|                              | 煞车表面歪斜<br>DISC SURFACE TWIST    | 更换零件<br>USE NEW PARTS           |
|                              | 下降重量过大<br>HUGE MOMENTUM         | 机构重新设计<br>SYSTEM RE-DESIGN      |
|                              | 选用机型错误<br>SELECT WRONG TYPE     | 选用正确机型<br>RE-SELECT UNIT        |
|                              | 环境温度过高<br>HIGH TEMPERATURE      | 改善环境温度<br>ADJUST TEMPERATURE    |

#### 减速机故障排除 GEAR MOTOR TROUBLE SHOOTING

| 不良原因<br>DEFECTIVE REASON               | 原因分析<br>POSSIBLE ANALYSIS        | 解决方式<br>SOLUTIONG METHOD     |                                    |                                     |
|--|----------------------------------|------------------------------|------------------------------------|-------------------------------------|
| 噪音<br>NOISE                            | 齿轮敲击声<br>KNOCKING                | 齿轮表面受伤<br>HURT GEAR SURFACE  | 更换受伤齿轮组<br>REPLACE GEAR SFT        |                                     |
|  | 连续性杂音<br>CONTINUALLY             | 培林损坏<br>BAD BEARING          | 更换损坏培林<br>REPLACE BEARING          |                                     |
|  | 周期性杂音<br>PERIODICALLY            | 异物附着齿面<br>PARTICLE INSIDE    | 检查齿轮齿面<br>CHECK GEAR               |                                     |
|  | 嘶嘶声<br>NEIGH                     | 油量不足<br>LACK OF LUBRICANT    | 添加润滑油<br>FILL WITH LUB-OIL         |                                     |
|  | 断续性杂音<br>INTERMITTENTLY          | 润滑油不洁<br>DIRTY LUBRICANT     | 更换新润滑油<br>REPLACE LUBRICANT        |                                     |
|  | 震动<br>VIBRATING                  | 固定底座振动<br>MOUNTING BASE M    | 安装平面歪斜<br>BAD SURFACE MOUNTIN      | 重新调整固定底座<br>E-ADJUST MOUNTING BASE  |
| 出力轴振动<br>OUTPUT SHAFT MOVING           |                                  | 培林损坏<br>BEARING BROKEN       | 更换损坏培林<br>REPLACE WOUNDED BRARING  |                                     |
| 内部齿轮零件振动<br>INSIDE GEAR PARTS MOVEMENT |                                  | 齿轮受伤<br>GEAR WOUNDED         | 更换受伤齿轮<br>REPLACE WOUNDED BEARING  |                                     |
| 本体振动<br>HOUSING VIBRATING              |                                  | 齿轮组安装不良<br>BAD GEAR ASSEMBLY | 重新调整齿轮组<br>RE-ADJUST GEAR SET      |                                     |
| 漏油<br>LEAKAGE                          |                                  | 油封漏油<br>OIL SEAL LEAKAGE     | 油封硬化<br>OIL SEAL TOO HARDEN        | 更换损坏油封<br>REPLACE WOUNDED OIL SEAL  |
|  |                                  | 本体漏油<br>HOUSING LEAKAGE      | 本体有砂孔<br>HOUSING HAD SAND HOLE     | 更换砂孔本体<br>REPLACE SAND HOLE HOUSING |
|  | 结合面漏油<br>CONNECT SURFAXE LEAKAGE | O-型环损坏<br>O-RINGBR           | 更换损坏O-型环<br>REPLACE WOUNDED O-RING |                                     |
| 过热<br>OVER-HEAHING                     | 油封<br>BAD OIL SEAL               | 油封太紧<br>OIL SEAL TOO TIGHT   | 更换太紧油封<br>REPLACE TIGHTEN OIL SEAL |                                     |
|  | 本体过热<br>HOUSING TOO HEAT         | 过负载<br>OVER LOAD RUNNING     | 重新计算负载马力<br>RE-CALAULATE LOADING   |                                     |
|  | 缺润滑油<br>LESS LUBRICANT           | 油量不足<br>LACK OF LUBRICANT    | 加入润滑油<br>FILL WITH LUBRICANT       |                                     |
|  | 马达过热<br>MOTOR TOO HEAT           | 马达不良<br>DEFECTIVE MOTOR      | 更换新马达<br>REPLACE NEW MOTOR         |                                     |



## 齿轮减速马达使用说明书

### INSTRUCTIONS FOR GEAR MOTOR

欢迎选用万鑫公司系列齿轮减速马达(减速机)。使用前请参照此说明书进行相关安装。

Welcome to choose Wanshin series gear reducer motors (reducers). Please refer to these instructions before installation and using.

#### 1 使用前 Before using

- 1、请检查产品型号、电机功率、电机额定电压、安装方式、减速比及出力轴尺寸是否符合您的要求,如有不符,请及时与您的经销商联系,以便及时处理。
- 2、在减速箱上有胶栓的减速马达(减速机)需将胶栓上面黄色的小胶栓拔掉,否则经长时间连续运行后有漏油的危险。
- 1、Please check if the product type, motor power, motor rated voltage, installation, reduction ratio and size of output bearing meet your requirements; if not, please contact your dealer for timely processing.
- 2、For the gear reducer motors (reducers) with plastic plugs in the gearboxes, pull out the yellow small plastic plugs, or else the oil may spill after long hours of running.

#### 2 使用环境 Environment of use

- 1、请勿在爆炸性环境、易燃性气体环境、腐蚀性环境以及漏水的环境使用此减速马达。
- 2、请勿强行弯曲、拉扯或夹住电源、电缆线和电机导线。
- 3、电机安装完成后,必须使用接地线良好接地,接地线位置位于接线盒上面。
- 4、安装、连接、检查等须由专业技术人员进行。
- 5、安装环境须干燥且通风良好,周围温度-5°C~40°C之间,异常高温或低温时需特别注明。
- 6、齿轮减速马达需安装在平整且坚固的底座上。
- 1、Do not use the gear reducer motor in the environment with explosives, flammable gas, corrosion, or water leaks.
- 2、Do not forcibly bend, pull or pinch the power supply, cables and motor wires.
- 3、When the motor is installed, it must be grounded properly with a ground wire, which is located on the junction box.
- 4、Installation, connection and inspection must be carried out by professional technicians.
- 5、The installation environment must be dry and well ventilated, the ambient temperature should be -5°C ~40°C, and extreme
- 6、The gear reducer motor should be installed on a flat and solid base.

#### 3 安装 Installation

- 1、当使用联轴器连接输出轴时,须安装固定且务必使两轴平行,底座需以安装孔径相适应的螺栓进行安装,确保齿轮减速马达紧密牢固。
- 2、所有安装在出力轴上的装备必须轻装于轴上,勿使用铁锤及其它钝器等敲击出力轴,避免因安装过紧而引起的轴承损坏。
- 3、滑轮、链轮或齿轮在装配时尽量靠近出力轴承以减少弯曲应力。应使用不超过出力轴直径6倍的链轮、皮带轮等与出轴连接。使用时请配合H7公差使用,避免使用中发出异常噪音及轴面受损。
- 4、安装完成后,可以在出力轴表面涂上适当的防锈油或防锈漆以保护出力轴避免生锈。
- 5、根据电源电压,选择适合的接线方式接好电机线盒内引线,并且必须接地线。接线盒内接错线会导致电机烧毁。要根据电机铭牌上额定电流,建议按5A/mm<sup>2</sup>的电流密度选择合适尺寸电缆线给电机供电。
- 6、使用变频器给带刹车功能的齿轮减速马达供电时,需将刹车线(黄色)单独提供交流220V供电,供电应与齿轮减速马达供电同步。
- 7、齿轮减速马达齿轮箱内已经加注好合适的润滑油,使用前请勿再加润滑油。正常使用超过10000小时后,可加放适合的0号润滑油。
- 8、安装完成后,再次检查齿轮减速马达安装面是否平整,确保不能有物品顶到电机,否则会造成电机烧毁。
- 1、When the output bearing is connected with the coupler, it must be fixed and the two shafts must be parallel, the base should be installed with the bolts of appropriate aperture, and ensure that gear reducer motor is fixed tightly and securely.
- 2、All the equipment installed on the output bearing must be installed lightly; do not knock the output bearing with a hammer or other blunt objects to prevent bearing damage caused by tight installation.
- 3、The pulleys, sprockets and gears should be installed as close as possible to the output bearing to reduce bending stress. Connect to the output bearing through sprocket or belt pulley with a diameter no more than 6 times of the output bearing. Please use in combination with H7 tolerance to avoid noise and damage to the bearing surface.
- 4、After installation, coated suitable anti-rust oil or paint on the surface of the output bearing to avoid rusting.
- 5、Select the proper wiring method to connect the lead wire in the motor connecting junction box with ground wiring according to the power voltage. Wrong wiring of the box will lead to damage of the motor. According to the rated current on the nameplate of the motor, it is recommended to select the wire of proper size for power supply based on the current density of 5A/mm<sup>2</sup>.
- 6、When the gear reducer motor with brake function is powered by frequency converter, the brake line (yellow) should be provided with AC 220V power supply separately, and the power supply should be synchronized with the gear reducer motor.
- 7、The gearbox of the gear reducer motor has been filled with appropriate lubricating oil, and it isn't required to add lubricating before use. After normal use for 10,000 hours, add 0# lubricating oil.
- 8、After installation, check again if the mounting surface of gear reducer motor is flat, and ensure that no objects prop the motor, or else it will cause motor burn.

#### 4 使用中 In use

- 1、使用中电源电压变动超过10%时,有可能烧毁电机,同时伴有出力扭力降低或异常。
- 2、电机超负荷运行时有可能烧毁,请在运行初次测试电机电流是否在额定电流值内。
- 3、电机即使在正常运行状态,有时表面温度也会有超过70°C的现象。电机运转时,若有靠近电机的可能,请制作“高温注意”图标并贴于电机显眼处。
- 4、电机反转时,单相电机按接线图进行调整。三相电机只需要将电源线中两相对调即可。
- 1、If the variation of the supply voltage in use exceeds 10%, the motor might be damaged, accompanied by reduced or abnormal output torque.
- 2、The motor running overload may be burnt. Before running for the first time, test if the motor current is within the rated range.
- 3、Even if the motor is in normal operation state, the surface temperature may also exceed 70°C. If it is possible to approach the motor when the motor is running, please affix a "HOT" mark on a conspicuous place on the motor.
- 4、When the motor is running reversely, adjust single-phase motor according to the wiring diagram. For three-phase motors, just exchange two phases of the power cable.

#### 5 保养与检查 Maintenance and inspection

做一般定期检查时,请注意需注意以下几点:

- 1、温度上升  
齿轮减速马达为F级绝缘,全密闭外扇构造,所以马达表面温度比周围高50°C左右亦属正常。如果温度高于以上时,必须停机检查。(因素:马达或传动系统负载异常)
- 2、刹车马达来令片因长时间使用会有磨损,请依据刹车间隙值进行调整。
- 3、异常振动、噪音  
正常情况,本机几乎没有振动噪音。若有某些安装异常使用,会产生振动噪音,所以请特别留意。(当空载噪音值在70dB/1M以下时,是被容许的。)
- 4、马达通风口有时会积聚脏物妨碍通风,所有请清除马达外部,以确保马达正常运行温度。
- 5、定期检查时,请以500V电阻测量马达绕组之绝缘阻抗,确保其1MΩ以上,以避免漏电之危险。Please pay attention to the following points during the general periodical inspection:  
1、Temperature rise  
The gear motor of Grade F insulation, is a fully enclosed outer fan structure, it is normal that the temperature of the motor is about 50°C higher than the ambient temperature. When the temperature exceeds 50°C, the machine must be stopped for inspection. (factor: abnormal load of motor or transmission system)  
2、As the lining of the motor abrades due to long-term use, please adjust it according to the brake clearance.  
3、Abnormal vibration and noise  
There is almost no noise in normal situations. If there is abnormal installation, it will vibrate with noise, so please pay attention to it. (It is tolerable when the idling noise level is below 70dB/1M.)  
4、The dirt and dust always cumulate at the vent of the motor to obstruct the ventilation, so please clean the outer part of the motor to ensure its normal operation temperature.  
5、Please test the insulating resistance of the motor winding with 500V resistance in periodical inspection to ensure it reaches above 1MΩ to prevent the leakage of electricity.

#### 6 故障处理与咨询 Troubleshooting and consultation

- 1、发生故障时先对照目录的故障排除表进行处理,不能自行处理的,请联系当地经销商解决。
- 2、本机故障,换用零部件或咨询时,请将铭牌上的参数确认后再进行联系:型式(TYPE)马力(OUTPUT)减速比(RATIO)制造编号(NO.)等
- 1、Deal with the fault according to the Troubleshooting Table at first. If it cannot be tackled by yourself, please contact your local distributor for help.
- 2、When changing parts or consulting about the malfunction of the machine, please confirm the parameters on the nameplate before contact: Type, Output, Ratio, No. etc.

#### 7 质保 Warranty

- 1、缩框型号齿轮减速马达仅电机线圈部分保修一年,齿轮箱部分不保修。如果因齿轮箱损坏而造成线圈部分烧毁,我司将收取维修成本费用。
- 2、标准框号齿轮减速马达出厂后,保修一年。如因客户拆装或所带负载原因损坏,我司将收取维修成本费用。
- 1、The frame-shrinking gear reducer motor only has the warranty for its motor winding but not for the gear box. If the coil is partly burned due to the damage of the gear box, we shall claim the maintenance cost.
- 2、The standard frame type gear reducer motor has one year warranty after leaving the factory. If it is damaged due to customer's disassembly or the load cause, we will claim the maintenance cost.