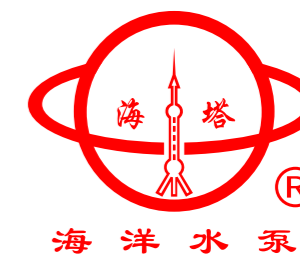
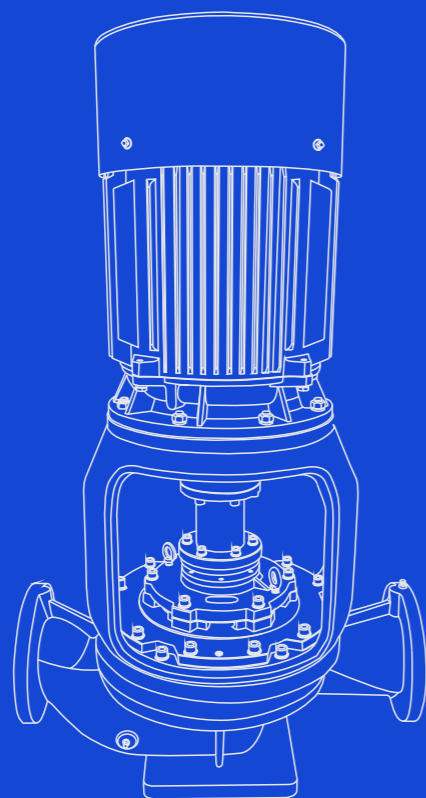
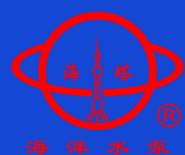


由于我们在不断努力改进产品，我们保留样本数据更改的权利，敬请谅解。



ISGB型  
便拆式管道离心泵  
Detachable pipeline centrifugal pump



Shanghai Sea  
Pump & Valve Mfg Co., Ltd

**上海海洋泵阀制造有限公司**

地址：上海市金山区山阳镇山富东路365号  
电话：(0086)-021-63546554 63803848  
传真：(0086)-021-33550508  
网址：www.sea-pump.com  
邮箱：seapump@foxmail.com

Address: 365 Shanfu East Road, Jinshan District, Shanghai  
TEL: (0086)-021-63546554 63803848  
FAX: (0086)-021-33550508  
WEB: www.sea-pump.com  
E-mail: seapump@foxmail.com

**SEAPUMP**

**上海海洋泵阀制造有限公司**  
SHANGHAI SEA PUMP & VALVE MFG CO.,LTD



## 企业简介 + AOBUTS

上海海洋泵阀制造有限公司是专业从事水泵、生活消防设备及水泵智能控制开发、生产、销售为一体的股份制企业，本公司运用先进的软件开发、设计产品保证了向顾客提供更优质的产品。

“海洋水泵，泵的海洋”，海洋产品在全国各地设有分公司以及售后服务处，产品已应用于工矿企业、城市污水处理、城市供水、石油化工、农业灌溉等行业。本厂资金雄厚，生产设备先进，检测手段完善，并拥有一批高素质的专业人才队伍，同时ISO9001:2015国际质量管理体系的良好动作，为制造出优质、可靠的产品打下坚实基础。

本公司在“以人为本，科技兴业；以诚为用，质量立业；勇于开拓，锐意进取；追求卓越，走向未来”的方针指导下，不断开拓进取创新发展，在长期的实践中形成了一套完整的质量体系，并配备了一支安装调试维护的售后服务队伍。销售网点辐射全国各大城市，产品行销全国各省、市、自治区，并出口东南亚等国。并以一流的产品、一流的服务赢得了国内外广大用户的信赖和好评。本公司以“一切为了顾客的满意”为宗旨，继往开来，与时俱进。服务于人类建设美好家园。

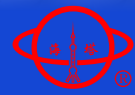
Shanghai HAIYANG pump & valve Co., Ltd. Is a joint-stock enterprises which specializes in the manufacture of water pumps, fire fighting equipment and pumps intelligent controlling production, sales in one. our company uses advanced software to develop and design products to ensure that customers provide better quality products.

" HAIYANG water pumps, pump of the sea", the HAIYANG products throughout the country with more than 30 branch offices as well as after-sales service, products have been used in industrial and mining enterprises, urban sewage treatment, urban water supply, petrochemicals, agriculture and irrigation sectors. Factory with a strong financial background, advanced production equipment and means of improving the detection and has a number of high-quality professional talent, while ISO9001: 2000 international quality management system of good moves, in order to create high-quality, reliable products to lay a solid foundation.

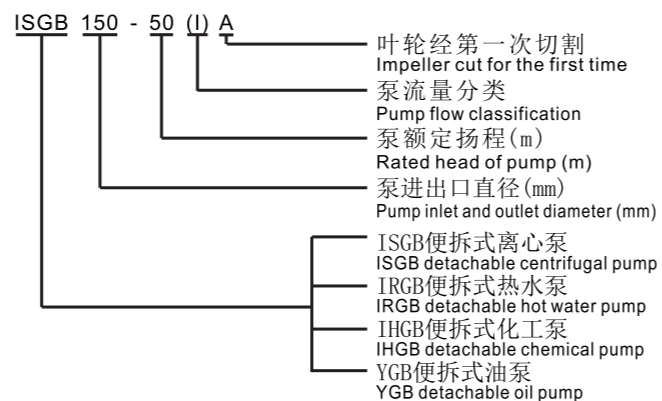
In this "people-oriented, Industrial Science and Technology; to use for Prudential, the quality of establishing themselves; to open up the courage to strive for progress; the pursuit of excellence, into the future" under the guidance of continuous innovation and development to forge ahead in long-term practice of the formation of a complete set of The quality system and is equipped with an installation of the maintenance of after-sales service team. Radiation sales outlets in major cities nationwide, product marketing provinces, municipalities and autonomous regions, and exports in countries such as South-East Asia. And first-class products, first-class service to win customers at home and abroad trust and praise. The Company take "everything for the customer satisfied" as the purpose, advance with the times, in the service of humanity home.

# 目 录 Contents

|           |       |                             |
|-----------|-------|-----------------------------|
| 型号意义      | 01    | Model Meaning               |
| 产品概述      | 01    | Product Overview            |
| 性能范围      | 01    | Performance range           |
| 主要用途      | 01    | Main purpose                |
| 工作条件      | 02    | Working conditions          |
| 结构优点      | 02    | Structural advantages       |
| 安装说明      | 02    | Installation instructions   |
| 结构说明      | 03    | Structure Description       |
| 型谱图       | 04    | Type spectrogram            |
| 安装方式      | 05    | Installation method         |
| 性能参数表     | 06-18 | Performance parameter table |
| 启动与停止     | 19    | Start and stop              |
| 维护与保养     | 19    | Maintenance and upkeep      |
| 故障原因与解决方法 | 20    | Fault causes and solutions  |



### 型号意义 Model Meaning



### 产品概述

ISGB、IRGB型便拆式管道离心泵是在IS型泵、ISG型立式泵的基础上，一方面结合国外先进技术、另一方面根据本公司多年的生产经验和广大用户的宝贵经验，综合开发成功的一种结构新颖、技术领先其它同类产品的便拆立式离心泵。

该系列产品在整体上进行大胆突破设计，泵轴采用独立的支承体，解决了原ISG及ISW型泵加长轴靠电机轴承支承的不足之处，叶轮、泵体采用现代优秀水力模型设计制造，消除立式泵的轴向力及径向力，使泵轴处的轴承和电机轴承仅受微弱的轴向力及径向力，电机采用Y系列标准电机。整台泵采用便拆结构，解决了更换大功率水泵的轴承、机械密封、叶轮等易损件不方便的难题。

该系列泵与国内同类产品相比，具有运转更平稳、使用寿命长、配套更方便、维护保养更轻松等无可代替的优点，是替代ISG型立式泵、IS型离心泵、S型双吸泵等常规离心泵的最理想产品。

### 性能范围

额定流量 $Q_n=4.4\text{m}^3/\text{h}\sim 1450\text{m}^3/\text{h}$ ;  
 额定压力 $P_a=0.125\text{MPa}\sim 1.25\text{MPa}$ (扬程 $12.5\text{m}\sim 125\text{m}$ );  
 转速 $n=2900\text{r}/\text{min}$ 或 $1450\text{r}/\text{min}$ 、 $970\text{r}/\text{min}$ ;  
 泵最大工作压力 $P\leq 1.6\text{MPa}$ ( $P=P_o+P_n$ )  
 ( $P_o$ 为泵进口压力);  
 泵进出口口径 $40\text{mm}\sim 350\text{mm}$

### Overview

ISGB and IRGB detachable pipeline centrifugal pumps are based on IS pumps and ISG vertical pumps. On the one hand, they combine advanced foreign technology, and on the other hand, based on our company's years of production experience and the valuable experience of users, they have successfully developed a new structure and technology leading other similar products of detachable vertical centrifugal pumps.

This series of products has made bold breakthroughs in overall design. The pump shaft adopts an independent support body, solving the shortcomings of the original ISG and ISW pump extended shaft supported by motor bearings. The impeller and pump body are designed and manufactured using modern excellent hydraulic models, eliminating the axial and radial forces of vertical pumps, so that the bearings at the pump shaft and motor bearings are only subjected to weak axial and radial forces. The motor adopts the Y series standard motor. The entire pump adopts a detachable structure, which solves the problem of inconvenient replacement of vulnerable parts such as bearings, mechanical seals, impellers, etc. of high-power water pumps.

Compared with similar domestic products, this series of pumps has irreplaceable advantages such as smoother operation, longer service life, more convenient matching, and easier maintenance. It is a substitute for ISG vertical pumps, IS centrifugal pumps. The most ideal product for conventional centrifugal pumps such as S-type double suction pumps.

### Performance range

Rated flow  $Q_n=4.4\text{m}^3/\text{h}\sim 1450\text{m}^3/\text{h}$ ;  
 Rated pressure  $P_a=0.125\text{MPa}\sim 1.25\text{MPa}$  (head  $12.5\text{m}\sim 125\text{m}$ );  
 Speed  $n=2900\text{r}/\text{min}$  or  $1450\text{r}/\text{min}$ ,  $970\text{r}/\text{min}$ ;  
 The maximum working pressure of the pump  
 $P\leq 1.6\text{MPa}$  ( $P=P_o+P_n$ ) ( $P_o$  is the pump inlet pressure);  
 Pump inlet and outlet diameter  $40\text{mm}\sim 350\text{mm}$

### 主要用途

- (1) ISGB、IRGB型泵用于采暖、卫生用水、冷冻水系统和灌溉装置中的无腐蚀的冷水和热水。
- (2) IHGB、YGB型泵用于石油、化工、冶金、电力、造纸、食品、制药和合成纤维等部门。

### 工作条件

- (1) 介质温度:  $T=-20^\circ\text{C}\sim +120^\circ\text{C}$ ;
- (2) 环境温度:  $T<40^\circ\text{C}$ , 环境湿度不超过95%

### 结构优点

- (1) 泵轴与电机轴采用硬性连接，振动小、噪音低;
- (2) 泵进出口口径相同，能象阀门一样安装在管路的任意位置，且装有底盘，使泵安装简便、稳固;
- (3) 泵轴有独立的支承点，使电机轴承运行可靠;
- (4) 用强制环流的不受转向限制的特殊结构机械密封，运行可靠、寿命长;
- (5) 独特的安装结构大大缩小泵的占地面积，节约建设投资30%~50%;
- (6) 完美的设计确保泵无泄漏、长寿命运行，节约运行管理费40%~70%。

### 安装说明

- 1、安装时管路重量不应加在水泵上，应有各自的支承体，以免使泵变形影响运行性能和寿命。
- 2、为了维修方便和使用安全，在泵的进出口管路上各安装一只调节阀及在泵出口附近安装一只压力表，以保证在额定扬程和流量范围内运行，增长水泵的使用寿命。
- 3、泵用于有吸程场合，应装有底阀，并且进口管路不应有过多弯道，同时不得有漏水、漏气现象。
- 4、安装后拨动泵轴，叶轮不应有磨擦声或卡死现象，否则应将泵拆开检查原因。
- 5、泵的安装方式分为硬性联接和柔性联接两种。

### Main purpose

- (1) ISGB and IRGB pumps are used for non corrosive cold and hot water in heating, sanitary water, chilled water systems, and irrigation systems.
- (2) IHGB and YGB pumps are used in petroleum, chemical, metallurgical, electric power, paper making, food, pharmaceutical and Synthetic fiber sectors. factories and cities.

### Working conditions

- (1) Medium temperature:  $T=-20^\circ\text{C}\sim +120^\circ\text{C}$ ;
- (2) Environmental temperature:  $T<40^\circ\text{C}$ , ambient humidity not exceeding 95%

### Structural advantages

- (1) The pump shaft and motor shaft are hard connected, with low vibration and noise;
- (2) The inlet and outlet diameters of the pump are the same, which can be installed at any position in the pipeline like a valve, and equipped with a chassis, making the pump installation simple and stable;
- (3) The pump shaft has independent support points to ensure reliable operation of the motor bearings;
- (4) A special mechanical seal with forced circulation and no steering restrictions is used, ensuring reliable operation and long service life;
- (5) The unique installation structure greatly reduces the floor area of the pump, saving construction investment by 30%~50%;
- (6) The perfect design ensures that the pump has no leakage and long service life, saving 40% to 70% of operation and management fees.

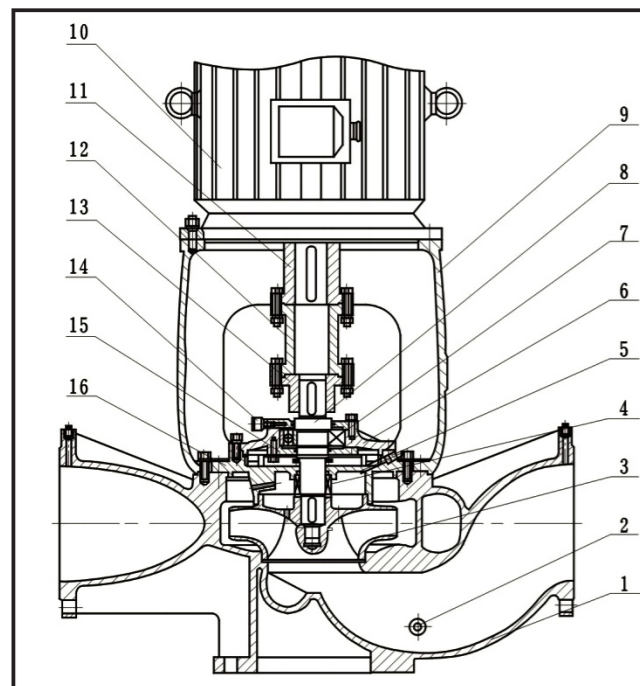
### Installation instructions

1. During installation, the weight of the pipeline should not be added to the water pump, and each support body should be provided to avoid deformation of the pump and affecting its operational performance and lifespan.
2. For the convenience of maintenance and safety of use, a regulating valve is installed on the inlet and outlet pipelines of the pump, and a pressure gauge is installed near the pump outlet to ensure operation within the rated head and flow range and increase the service life of the water pump.
3. The pump should be equipped with a bottom valve when used in situations with suction lift, and the inlet pipeline should not have too many bends, and there should be no water or air leakage.
4. After installation, move the pump shaft, and there should be no friction or jamming on the impeller. Otherwise, the pump should be disassembled to check the cause.
5. The installation methods of pumps are divided into two types: hard connection and flexible connection.



### 结构说明

### Structure description



| 序号<br>No. | 名称<br>name              | 序号<br>No. | 名称<br>name                     |
|-----------|-------------------------|-----------|--------------------------------|
| 1         | 泵体<br>pump body         | 9         | 支架<br>support                  |
| 2         | 放水塞<br>Drain plug       | 10        | 电机<br>electrical machinery     |
| 3         | 叶轮<br>impeller          | 11        | 电机联轴器<br>Motor coupling        |
| 4         | 机械密封<br>mechanical seal | 12        | 中间联轴器<br>Intermediate coupling |
| 5         | 放气阀<br>Vent valve       | 13        | 泵联轴器<br>Pump coupling          |
| 6         | 轴承体<br>Bearing body     | 14        | 油杯<br>Oil cup                  |
| 7         | 轴承<br>bearing           | 15        | 轴承压盖<br>bearing gland          |
| 8         | 泵轴<br>Pump shaft        | 16        | 泵盖<br>pump cover               |

**泵体:**管道连接形式的螺旋形泵壳，采用现代最优秀水力模型设计制造，法兰符合GB4216.5.并带有Rp1/4或Rp3/8测压口。

**Pump body:** Spiral pump casing with pipeline connection, designed and manufactured using the best modern hydraulic model, with flanges in accordance with GB4216.5. It is equipped with Rp1/4 or Rp3/8 pressure taps.

**叶轮:**闭式销件叶轮，优秀的水力样刑和特殊的结构保证架的效率，可靠地消除集的轴向力。

**Impeller:** Closed pin impeller with excellent hydraulic sample and special structural guarantee frame, effectively and reliably eliminating axial force.

**机械密封:**用千水温150C以下争保养，并不受转向限制，特殊的设计保证动环的补偿件和率封性。

**Mechanical seal:** It is maintained with a water temperature below 150C and is not limited by steering. The special design ensures the compensation and sealing performance of the dynamic ring.

**泵轴:**优化设计的泵轴和联轴器融为一体，缩减传动轴的尺寸，使泵更安全可靠地运行，并且使整台泵的体积减小。

**Pump shaft:** The optimized design integrates the pump shaft and coupling, reducing the size of the transmission shaft, making the pump operate more safely and reliably, and reducing the volume of the entire pump.

**泵轴承:**采用进口NTN或NSK精密轴承,噪音低、寿命长。

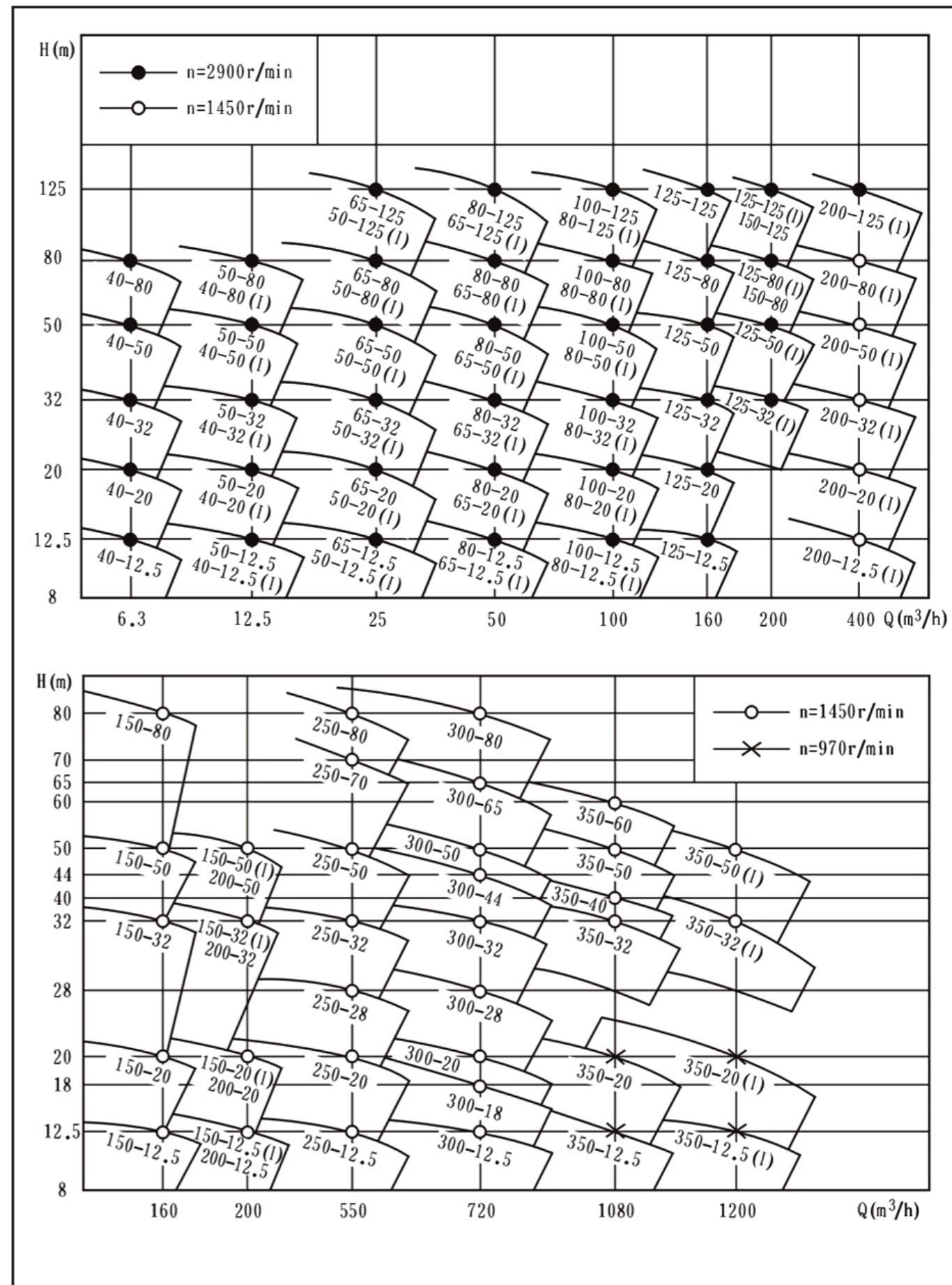
**Pump bearings:** Imported NTN or NSK precision bearings are used, with low noise and long service life.

**电机:**Y或Y2系列鼠笼式交流电机，型式:B5型。使用标准通用电机，维护、保养方便、快捷，大功率配有轴承润滑保养注油孔装置。

**Motor:** Y or Y2 series squirrel cage AC motor, type: B5 type. Using standard universal motors, maintenance and upkeep are convenient and fast, and high-power bearings are equipped with lubrication and maintenance oil injection holes.

### 型谱图

### Type spectrogram





### 安装方式

### Installation method

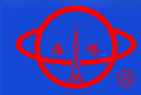
| 配联接板加隔震器安装<br>Installation with connecting plate and isolator |                                   | 配联接板加隔震垫安装<br>Installation with connecting plate and isolation pad |  |
|---|-----------------------------------|--|--|
|   |                                   |  |  |
| 1   | 进口阀门<br>Imported valve            | 5  | 进口直管取压段<br>Inlet straight pipe pressure section  |
| 2   | 进口挠性接头<br>Imported flexible joint | 6  | 联接板<br>gusset                                    |
| 3   | 进口弯头<br>inlet-elbow               | 7  | 隔震器\隔震垫<br>Isolator\Isolation pad                |
| 4   | 进口压力表<br>Inlet pressure gauge     | 8  | 出口直管取压段<br>Outlet straight pipe pressure section |
|   |                                   | 9  | 出口压力表<br>Outlet pressure gauge                   |
|   |                                   | 10   | 出口弯管<br>Outlet elbow                             |
|   |                                   | 11   | 出口挠性接头<br>Outlet flexible joint                  |
|   |                                   | 12   | 出口阀门<br>Outlet valve                             |

| 配联接板安装<br>Installation of connecting plate |                                   | 直接安装<br>Direct mount |  |
|--|-----------------------------------|----------------------|--|
|  |                                   |                      |  |
| 1  | 进口阀门<br>Imported valve            | 5                    | 进口直管取压段<br>Inlet straight pipe pressure section  |
| 2  | 进口挠性接头<br>Imported flexible joint | 6                    | 联接板<br>gusset                                    |
| 3  | 进口弯头<br>inlet-elbow               | 7                    | 出口直管取压段<br>Outlet straight pipe pressure section |
| 4  | 进口压力表<br>Inlet pressure gauge     | 8                    | 出口压力表<br>Outlet pressure gauge                   |
|  |                                   | 9                    | 出口弯管<br>Outlet elbow                             |
|  |                                   | 10                   | 出口挠性接头<br>Outlet flexible joint                  |
|  |                                   | 11                   | 出口阀门<br>Outlet valve                             |

### 性能参数表

### Performance parameter table

| 序号<br>Serial NO. | 型号<br>Model number | 流量 Flow             |                      | 扬程<br>Head<br>m      | 效率<br>Efficiency<br>η (%) | 转速<br>Speed<br>r/min | 电机功率<br>Motor power<br>kW | 必需汽蚀余量<br>Required cavitation allowance<br>(NPSH)r(m) |
|------------------|--------------------|---------------------|----------------------|----------------------|---------------------------|----------------------|---------------------------|---|
|                  |                    | m <sup>3</sup> /h   | L/s                  |                      |                           |                      |                           |   |
| 001              | 40-12.5            | 4.4<br>6.3<br>8.3   | 1.22<br>1.75<br>2.31 | 13.2<br>12.5<br>11.3 | 48<br>54<br>53            | 2900                 | 0.75                      | 2.3   |
| 002              | 40-12.5A           | 3.9<br>5.6<br>7.4   | 1.08<br>1.56<br>2.06 | 10.6<br>10<br>9      | 52                        | 2900                 | 0.75                      | 2.3   |
| 003              | 40-20              | 4.4<br>6.3<br>8.3   | 1.22<br>1.75<br>2.31 | 21<br>20<br>18       | 41<br>46<br>43            | 2900                 | 1.1                       | 2.3   |
| 004              | 40-20A             | 3.9<br>5.6<br>7.4   | 1.08<br>1.56<br>2.06 | 17.6<br>16<br>14.4   | 40<br>45<br>41            | 2900                 | 0.75                      | 2.3   |
| 005              | 40-32              | 4.4<br>6.3<br>8.3   | 1.22<br>1.75<br>2.31 | 33<br>32<br>30       | 35<br>40<br>40            | 2900                 | 2.2                       | 2.3   |
| 006              | 40-32A             | 4.1<br>5.9<br>7.8   | 1.14<br>1.64<br>2.17 | 29<br>28<br>26.3     | 34<br>39<br>36            | 2900                 | 1.5                       | 2.3   |
| 007              | 40-32B             | 3.8<br>5.5<br>7.2   | 1.06<br>1.53<br>2.00 | 25.5<br>24<br>22.5   | 34<br>38<br>37            | 2900                 | 1.1                       | 2.3   |
| 008              | 40-50              | 4.4<br>6.3<br>8.3   | 1.22<br>1.75<br>2.31 | 51<br>50<br>48       | 26<br>33<br>32            | 2900                 | 4.0                       | 2.3   |
| 009              | 40-50A             | 4.1<br>5.9<br>7.8   | 1.14<br>1.64<br>2.17 | 45<br>44<br>42       | 20<br>31<br>30            | 2900                 | 3.0                       | 2.3   |
| 010              | 40-50B             | 3.7<br>5.3<br>7.0   | 1.03<br>1.47<br>1.94 | 38<br>36<br>34.5     | 29                        | 2900                 | 2.2                       | 2.3   |
| 011              | 40-80              | 4.4<br>6.3<br>8.3   | 1.22<br>1.75<br>2.31 | 82<br>80<br>74       | 24<br>28<br>28            | 2900                 | 7.5                       | 2.3   |
| 012              | 40-80A             | 4.1<br>5.9<br>7.8   | 1.14<br>1.64<br>2.17 | 72<br>70<br>65       | 24<br>28<br>27            | 2900                 | 5.5                       | 2.3   |
| 013              | 40-80B             | 3.8<br>5.5<br>7.2   | 1.06<br>1.53<br>2.00 | 61.5<br>60<br>56     | 23<br>27<br>26            | 2900                 | 5.5                       | 2.3   |
| 014              | 40-12.5(I)         | 8.8<br>12.5<br>16.3 | 2.44<br>3.47<br>4.53 | 13.2<br>12.5<br>11.3 | 55<br>62<br>60            | 2900                 | 1.1                       | 2.3   |
| 015              | 40-12.5(I)A        | 8<br>11<br>14.5     | 2.22<br>3.05<br>4.03 | 10.6<br>10<br>9      | 60                        | 2900                 | 0.75                      | 2.3   |
| 016              | 40-20(I)           | 8.8<br>12.5<br>16.3 | 2.44<br>3.47<br>4.53 | 21.5<br>20<br>17.8   | 49<br>58<br>57            | 2900                 | 1.5                       | 2.3   |
| 017              | 40-20(I)A          | 8<br>11<br>14.5     | 2.22<br>3.05<br>4.03 | 17<br>16<br>14       | 57                        | 2900                 | 1.1                       | 2.3   |
| 018              | 40-32(I)           | 8.8<br>12.5<br>16.3 | 2.44<br>3.47<br>4.53 | 33<br>32<br>30       | 45<br>52<br>51            | 2900                 | 3.0                       | 2.3   |
| 019              | 40-32(I)A          | 8.2<br>11.7<br>15.2 | 2.28<br>3.25<br>4.22 | 29<br>28<br>26       | 44<br>51<br>50            | 2900                 | 2.2                       | 2.3   |
| 020              | 40-32(I)B          | 7.3<br>10.4<br>13.5 | 2.38<br>2.89<br>3.75 | 26<br>24<br>20       | 50                        | 2900                 | 1.5                       | 2.3   |
| 021              | 40-50(I)           | 8.8<br>12.5<br>16.3 | 2.44<br>3.47<br>4.53 | 51.2<br>50<br>48     | 38<br>46<br>46            | 2900                 | 5.5                       | 2.3   |
| 022              | 40-50(I)A          | 8.3<br>11.7<br>15.3 | 2.31<br>3.25<br>4.25 | 45<br>44<br>42       | 37<br>46<br>45            | 2900                 | 4.0                       | 2.3   |
| 023              | 40-50(I)B          | 7.5<br>10.6<br>13.8 | 2.08<br>2.94<br>3.83 | 37<br>36<br>34       | 40                        | 2900                 | 3.0                       | 2.3   |
| 024              | 40-80(I)           | 8.8<br>12.5<br>16.3 | 2.44<br>3.47<br>4.53 | 81.2<br>80<br>77.5   | 31<br>38<br>40            | 2900                 | 11.0                      | 2.3   |



性能参数表

Performance parameter table

| 序号<br>Serial NO. | 型号<br>Model number | 流量 Flow              |                      | 扬程<br>Head<br>m      | 效率<br>Efficiency<br>η (%) | 转速<br>Speed<br>r/min | 电机功率<br>Motor power<br>kW | 必需汽蚀余量<br>Required cavitation allowance<br>(NPSH)r(m) |
|------------------|--------------------|----------------------|----------------------|----------------------|---------------------------|----------------------|---------------------------|---|
|                  |                    | m/h                  | L/s                  |                      |                           |                      |                           |   |
| 025              | 40-80(I)A          | 8.2<br>11.6<br>15.2  | 2.28<br>3.22<br>4.22 | 71<br>70<br>68       | 38                        | 2900                 | 7.5                       | 2.3   |
| 026              | 40-80(I)B          | 7.6<br>10.8<br>14    | 2.11<br>3.0<br>3.89  | 61.4<br>60<br>58     | 37                        | 2900                 | 7.5                       | 2.3   |
| 027              | 40-80(I)C          | 7.1<br>10.1<br>13.1  | 1.97<br>2.87<br>3.64 | 53.2<br>52<br>50.4   | 36                        | 2900                 | 5.5                       | 2.3   |
| 028              | 50-12.5            | 8.8<br>12.5<br>16.3  | 2.44<br>3.47<br>4.53 | 13.6<br>12.5<br>11.3 | 55<br>62<br>60            | 2900                 | 1.1                       | 2.3   |
| 029              | 50-12.5A           | 8<br>11<br>14.5      | 2.22<br>3.05<br>4.03 | 11<br>10<br>9        | 60                        | 2900                 | 0.75                      | 2.3   |
| 030              | 50-20              | 8.8<br>12.5<br>16.3  | 2.44<br>3.47<br>4.53 | 21.5<br>20<br>17.8   | 49<br>58<br>57            | 2900                 | 1.5                       | 2.3   |
| 031              | 50-20A             | 8<br>11<br>14.5      | 2.22<br>3.05<br>4.03 | 17<br>16<br>14       | 57                        | 2900                 | 1.1                       | 2.3   |
| 032              | 50-32              | 8.8<br>12.5<br>16.3  | 2.44<br>3.47<br>4.53 | 33<br>32<br>30       | 45<br>52<br>51            | 2900                 | 3.0                       | 2.3   |
| 033              | 50-32A             | 8.2<br>11.7<br>15.2  | 2.28<br>3.25<br>4.22 | 29<br>28<br>26       | 44<br>51<br>50            | 2900                 | 2.2                       | 2.3   |
| 034              | 50-32B             | 7.3<br>10.4<br>13.5  | 2.38<br>2.89<br>3.75 | 23<br>22<br>20.5     | 50                        | 2900                 | 1.5                       | 2.3   |
| 035              | 50-50              | 8.8<br>12.5<br>16.3  | 2.44<br>3.47<br>4.53 | 52<br>50<br>48       | 38<br>46<br>46            | 2900                 | 5.5                       | 2.3   |
| 036              | 50-50A             | 8.3<br>11.7<br>15.3  | 2.31<br>3.25<br>4.25 | 45.8<br>44<br>42     | 37<br>45<br>45            | 2900                 | 4.0                       | 2.3   |
| 037              | 50-50B             | 7.5<br>10.6<br>13.8  | 2.08<br>2.94<br>3.83 | 40<br>38<br>35       | 44                        | 2900                 | 3.0                       | 2.3   |
| 038              | 50-80              | 8.8<br>12.5<br>16.3  | 2.44<br>3.47<br>4.53 | 82<br>80<br>77.5     | 29<br>38<br>40            | 2900                 | 11.0                      | 2.3   |
| 039              | 50-80A             | 8.2<br>11.6<br>15.2  | 2.28<br>3.22<br>4.22 | 71.5<br>70<br>68     | 29<br>38<br>41            | 2900                 | 7.5                       | 2.3   |
| 040              | 50-80B             | 7.6<br>10.8<br>14    | 2.11<br>3.0<br>3.89  | 61.5<br>60<br>58     | 27.5<br>37<br>40          | 2900                 | 7.5                       | 2.3   |
| 041              | 50-80C             | 7.1<br>10.0<br>13.1  | 1.97<br>2.78<br>3.64 | 53.2<br>52<br>50.4   | 27<br>36<br>39            | 2900                 | 5.5                       | 2.3   |
| 042              | 50-12.5(I)         | 17.5<br>25<br>32.5   | 4.86<br>6.94<br>9.03 | 13.7<br>12.5<br>10.5 | 67<br>69<br>69            | 2900                 | 1.5                       | 2.5   |
| 043              | 50-12.5(I)A        | 15.6<br>22.3<br>29   | 4.3<br>6.19<br>8.1   | 11<br>10<br>8.4      | 65<br>67<br>68            | 2900                 | 1.1                       | 2.5   |
| 044              | 50-20(I)           | 17.5<br>25<br>32.5   | 4.86<br>6.94<br>9.03 | 21.5<br>20<br>18     | 60<br>68<br>67            | 2900                 | 3.0                       | 2.5   |
| 045              | 50-20(I)A          | 15.6<br>22.3<br>29   | 4.33<br>6.49<br>8.1  | 17.5<br>16<br>13.6   | 58<br>66<br>65            | 2900                 | 2.2                       | 2.5   |
| 046              | 50-32(I)           | 17.5<br>25<br>32.5   | 4.86<br>6.94<br>9.03 | 34.4<br>32<br>27.5   | 55<br>63<br>60            | 2900                 | 4.0                       | 2.5   |
| 047              | 50-32(I)A          | 16.4<br>23.4<br>30.4 | 4.56<br>6.5<br>8.44  | 30<br>28<br>24       | 54<br>62<br>59            | 2900                 | 4.0                       | 2.5   |
| 048              | 50-32(I)B          | 15.0<br>21.6<br>28   | 4.17<br>6.0<br>7.78  | 26<br>24<br>20.6     | 61                        | 2900                 | 3.0                       | 2.5   |

性能参数表

Performance parameter table

| 序号<br>Serial NO. | 型号<br>Model number | 流量 Flow              |                      | 扬程<br>Head<br>m      | 效率<br>Efficiency<br>η (%) | 转速<br>Speed<br>r/min | 电机功率<br>Motor power<br>kW | 必需汽蚀余量<br>Required cavitation allowance<br>(NPSH)r(m) |
|------------------|--------------------|----------------------|----------------------|----------------------|---------------------------|----------------------|---------------------------|---|
|                  |                    | m/h                  | L/s                  |                      |                           |                      |                           |   |
| 049              | 50-50(I)           | 17.5<br>25<br>32.5   | 4.86<br>6.94<br>9.03 | 52.7<br>50<br>45.5   | 49<br>58<br>59            | 2900                 | 7.5                       | 2.5   |
| 050              | 50-50(I)A          | 16.4<br>23.4<br>30.5 | 4.56<br>6.53<br>8.47 | 46.4<br>44<br>40     | 48<br>57<br>58            | 2900                 | 7.5                       | 2.5   |
| 051              | 50-50(I)B          | 15.2<br>21.8<br>28.3 | 4.22<br>6.06<br>7.86 | 40.5<br>38<br>34.5   | 55                        | 2900                 | 5.5                       | 2.5   |
| 052              | 50-80(I)           | 17.5<br>25<br>32.5   | 4.86<br>6.94<br>9.03 | 82<br>80<br>76.5     | 39<br>50<br>52            | 2900                 | 15.0                      | 2.5   |
| 053              | 50-80(I)A          | 16.4<br>23.4<br>30.5 | 4.56<br>6.5<br>8.47  | 71.5<br>70<br>67     | 39<br>51<br>52            | 2900                 | 11.0                      | 2.5   |
| 054              | 50-80(I)B          | 15<br>21.6<br>28     | 4.17<br>6.0<br>7.78  | 61<br>60<br>58       | 38<br>50<br>54            | 2900                 | 11.0                      | 2.5   |
| 055              | 50-125(I)          | 17.3<br>25<br>32.5   | 4.6<br>6.94<br>9.03  | 128<br>125<br>122    | 31<br>40<br>44            | 2900                 | 30.0                      | 2.5   |
| 056              | 50-125(I)A         | 16.6<br>23.7<br>31   | 4.61<br>6.58<br>8.6  | 115<br>113<br>110    | 30<br>40<br>44            | 2900                 | 22.0                      | 2.5   |
| 057              | 50-125(I)B         | 15.7<br>22.5<br>29.2 | 4.36<br>6.25<br>8.0  | 103<br>101<br>98     | 39                        | 2900                 | 18.5                      | 2.5   |
| 058              | 50-125(I)C         | 14.4<br>20.6<br>26.8 | 4.0<br>5.72<br>7.44  | 86<br>85<br>83       | 38                        | 2900                 | 15.0                      | 2.5   |
| 059              | 65-12.5            | 17.5<br>25<br>32.5   | 4.86<br>6.94<br>9.03 | 13.7<br>12.5<br>10.5 | 67<br>69<br>69            | 2900                 | 1.5                       | 2.5   |
| 060              | 65-12.5A           | 15.6<br>22.3<br>29   | 4.3<br>6.19<br>8.1   | 11<br>10<br>8.4      | 65<br>67<br>68            | 2900                 | 1.1                       | 2.5   |
| 061              | 65-20              | 17.5<br>25<br>32.5   | 4.86<br>6.94<br>9.03 | 22<br>20<br>18       | 60<br>68<br>67            | 2900                 | 3.0                       | 2.5   |
| 062              | 65-20A             | 15.6<br>22.3<br>29   | 4.33<br>6.19<br>8.1  | 17.5<br>16<br>14.4   | 58<br>66<br>65            | 2900                 | 2.2                       | 2.5   |
| 063              | 65-32              | 17.5<br>25<br>32.5   | 4.86<br>6.94<br>9.03 | 34.4<br>32<br>27.5   | 54<br>63<br>60            | 2900                 | 4.0                       | 2.5   |
| 064              | 65-32A             | 16.4<br>23.4<br>30.1 | 4.56<br>6.5<br>8.44  | 30<br>28<br>24.5     | 54<br>62<br>59            | 2900                 | 4.0                       | 2.5   |
| 065              | 65-32B             | 15<br>21.6<br>28     | 4.17<br>6.0<br>7.78  | 26<br>24<br>21       | 51<br>61<br>60            | 2900                 | 3.0                       | 2.5   |
| 066              | 65-50              | 17.5<br>25<br>32.5   | 4.86<br>6.94<br>9.03 | 52.7<br>50<br>45.5   | 49<br>58<br>59            | 2900                 | 7.5                       | 2.5   |
| 067              | 65-50A             | 16.4<br>23.4<br>30.5 | 4.56<br>6.53<br>8.47 | 46.4<br>44<br>40     | 48<br>57<br>58            | 2900                 | 7.5                       | 2.5   |
| 068              | 65-50B             | 15.2<br>21.8<br>28.3 | 4.22<br>6.06<br>7.86 | 40.5<br>38<br>34     | 55                        | 2900                 | 5.5                       | 2.5   |
| 069              | 65-80              | 17.5<br>25<br>32.5   | 4.86<br>6.94<br>9.03 | 82<br>80<br>76.5     | 39<br>50<br>52            | 2900                 | 15.0                      | 2.5   |
| 070              | 65-80A             | 16.4<br>23.4<br>30.5 | 4.56<br>6.5<br>8.47  | 71.5<br>70<br>67     | 39<br>50<br>52            | 2900                 | 11.0                      | 2.5   |
| 071              | 65-80B             | 15<br>21.6<br>28     | 4.17<br>6.0<br>7.78  | 61<br>60<br>58       | 38<br>49<br>54            | 2900                 | 11.0                      | 2.5   |
| 072              | 65-125             | 17.5<br>25<br>32.5   | 4.86<br>6.94<br>9.03 | 127<br>125<br>122    | 32<br>40<br>44            | 2900                 | 30.0                      | 2.5   |



性能参数表

Performance parameter table

| 序号<br>Serial NO. | 型号<br>Model number | 流量 Flow              |                      | 扬程<br>Head<br>m    | 效率<br>Efficiency<br>η (%) | 转速<br>Speed<br>r/min | 电机功率<br>Motor power<br>kW | 必需汽蚀余量<br>Required cavitation allowance<br>(NPSH)r(m) |
|------------------|--------------------|----------------------|----------------------|--------------------|---------------------------|----------------------|---------------------------|---|
|                  |                    | m/h                  | L/s                  |                    |                           |                      |                           |   |
| 073              | 65-125A            | 16.6<br>23.7<br>31   | 4.61<br>6.58<br>8.6  | 115<br>113<br>110  | 32<br>40<br>44            | 2900                 | 22.0                      | 2.5   |
| 074              | 65-125B            | 15.7<br>22.5<br>29.2 | 4.36<br>6.25<br>8.0  | 103<br>101<br>98   | 39                        | 2900                 | 18.5                      | 2.5   |
| 075              | 65-125C            | 14.4<br>20.6<br>26.8 | 4.0<br>5.72<br>7.44  | 86<br>85<br>83     | 38                        | 2900                 | 15.0                      | 2.5   |
| 076              | 65-12.5(I)         | 35<br>50<br>65       | 9.72<br>13.9<br>18.1 | 13.8<br>12.5<br>10 | 67<br>73<br>70            | 2900                 | 3.0                       | 3.0   |
| 077              | 65-12.5(I)A        | 31.3<br>44.7<br>58   | 8.7<br>12.4<br>16.1  | 11<br>10<br>8      | 66<br>72<br>69            | 2900                 | 2.2                       | 3.0   |
| 078              | 65-20(I)           | 35<br>50<br>65       | 9.72<br>13.9<br>18.1 | 22<br>20<br>17     | 67<br>72.5<br>70          | 2900                 | 5.5                       | 3.0   |
| 079              | 65-20(I)A          | 31.3<br>45<br>58     | 8.7<br>12.5<br>16.1  | 17.5<br>16<br>13.6 | 60<br>71<br>69            | 2900                 | 4.0                       | 3.0   |
| 080              | 65-32(I)           | 35<br>50<br>65       | 9.72<br>13.9<br>18.1 | 35<br>32<br>28     | 63<br>71<br>70            | 2900                 | 7.5                       | 3.0   |
| 081              | 65-32(I)A          | 32.7<br>46.7<br>61   | 9.1<br>13.0<br>16.9  | 30.6<br>28<br>25   | 62<br>70<br>69            | 2900                 | 7.5                       | 3.0   |
| 082              | 65-32(I)B          | 30.0<br>43.3<br>56.3 | 8.4<br>12.0<br>15.6  | 26<br>24<br>21     | 69                        | 2900                 | 5.5                       | 3.0   |
| 083              | 65-50(I)           | 35<br>50<br>65       | 9.72<br>13.9<br>18.1 | 53.5<br>50<br>46   | 55<br>67<br>68            | 2900                 | 15.0                      | 3.0   |
| 084              | 65-50(I)A          | 32.8<br>47<br>61     | 9.1<br>13.1<br>16.9  | 47<br>44<br>40     | 54<br>66<br>67            | 2900                 | 11.0                      | 3.0   |
| 085              | 65-50(I)B          | 30.5<br>43.5<br>56.6 | 8.5<br>12.1<br>15.7  | 40.6<br>38<br>33.4 | 65                        | 2900                 | 7.5                       | 3.0   |
| 086              | 65-80(I)           | 35<br>50<br>65       | 9.7<br>13.9<br>18.1  | 83<br>80<br>72     | 52<br>59<br>60            | 2900                 | 22.0                      | 3.0   |
| 087              | 65-80(I)A          | 32.5<br>46.7<br>61   | 9.0<br>13.0<br>16.9  | 73<br>70<br>63     | 52<br>59<br>60            | 2900                 | 18.5                      | 3.0   |
| 088              | 65-80(I)B          | 30<br>43.3<br>56     | 8.3<br>12.0<br>15.6  | 63<br>60<br>54     | 58                        | 2900                 | 15.0                      | 3.0   |
| 089              | 65-125(I)          | 35<br>50<br>65       | 9.72<br>13.9<br>18.1 | 128<br>125<br>121  | 44<br>54<br>57            | 2900                 | 37.0                      | 3.0   |
| 090              | 65-125(I)A         | 32.5<br>46.5<br>60.5 | 9.0<br>12.9<br>16.8  | 116<br>113<br>110  | 43<br>54<br>57            | 2900                 | 30.3                      | 3.0   |
| 091              | 65-125(I)B         | 31<br>44.5<br>58     | 8.6<br>12.4<br>16.1  | 103<br>101<br>97   | 40<br>53<br>56            | 2900                 | 30.3                      | 3.0   |
| 092              | 65-125(I)C         | 29<br>41<br>53.6     | 8.1<br>11.4<br>14.9  | 87<br>85<br>83     | 39<br>51<br>55            | 2900                 | 22.0                      | 3.0   |
| 093              | 80-12.5            | 35<br>50<br>65       | 9.72<br>13.9<br>18.1 | 13.8<br>12.5<br>10 | 67<br>73<br>70            | 2900                 | 3.0                       | 3.0   |
| 094              | 80-12.5A           | 31.36<br>44.7<br>58  | 8.7<br>12.5<br>16.1  | 11<br>10<br>8      | 66<br>72<br>69            | 2900                 | 2.2                       | 3.0   |
| 095              | 80-20              | 35<br>50<br>65       | 9.72<br>13.9<br>18.1 | 22<br>20<br>17     | 67<br>72.5<br>70          | 2900                 | 5.5                       | 3.0   |
| 096              | 80-20A             | 31.3<br>45<br>58     | 8.7<br>12.5<br>16.1  | 17.5<br>16<br>13.6 | 66<br>71<br>69            | 2900                 | 4.0                       | 3.0   |

性能参数表

Performance parameter table

| 序号<br>Serial NO. | 型号<br>Model number | 流量 Flow               |                      | 扬程<br>Head<br>m    | 效率<br>Efficiency<br>η (%) | 转速<br>Speed<br>r/min | 电机功率<br>Motor power<br>kW | 必需汽蚀余量<br>Required cavitation allowance<br>(NPSH)r(m) |
|------------------|--------------------|-----------------------|----------------------|--------------------|---------------------------|----------------------|---------------------------|---|
|                  |                    | m/h                   | L/s                  |                    |                           |                      |                           |   |
| 097              | 80-32              | 35<br>50<br>65        | 9.72<br>13.9<br>18.1 | 35<br>32<br>28     | 63<br>71<br>70            | 2900                 | 7.5                       | 3.0   |
| 098              | 80-32A             | 32.7<br>46.7<br>61    | 9.1<br>13.0<br>16.9  | 30.6<br>28<br>25   | 62<br>70<br>69            | 2900                 | 7.5                       | 3.0   |
| 099              | 80-32B             | 30.3<br>43.3<br>56.3  | 8.4<br>12.0<br>15.6  | 27<br>24<br>20     | 69                        | 2900                 | 5.5                       | 3.0   |
| 100              | 80-50              | 35<br>50<br>65        | 9.72<br>13.9<br>18.1 | 53.3<br>50<br>46   | 55<br>67<br>68            | 2900                 | 15.0                      | 3.0   |
| 101              | 80-50A             | 32.8<br>47<br>61      | 9.1<br>13.1<br>16.9  | 47<br>44<br>40     | 54<br>66<br>67            | 2900                 | 11.0                      | 3.0   |
| 102              | 80-50B             | 30.5<br>43.5<br>56.6  | 8.5<br>12.1<br>15.7  | 40.6<br>38<br>33.4 | 53<br>65<br>67            | 2900                 | 7.5                       | 3.0   |
| 103              | 80-80              | 35<br>50<br>65        | 9.72<br>13.9<br>18.1 | 83<br>80<br>72     | 52<br>59<br>60            | 2900                 | 22.0                      | 3.0   |
| 104              | 80-80A             | 32.5<br>46.7<br>61    | 9.0<br>13.0<br>16.9  | 73<br>70<br>64     | 52<br>59<br>60            | 2900                 | 18.5                      | 3.0   |
| 105              | 80-80B             | 30<br>43.3<br>56      | 8.3<br>12.0<br>15.6  | 63<br>60<br>54     | 58                        | 2900                 | 15.0                      | 3.0   |
| 106              | 80-125             | 35<br>50<br>65        | 9.72<br>13.9<br>18.1 | 128<br>125<br>122  | 43<br>54<br>57            | 2900                 | 37.0                      | 3.0   |
| 107              | 80-125A            | 32.5<br>46.5<br>60.5  | 9<br>12.9<br>16.8    | 116<br>113<br>110  | 42<br>53<br>56            | 2900                 | 30.3                      | 3.0   |
| 108              | 80-125B            | 31<br>44.5<br>58      | 8.6<br>12.4<br>16.1  | 103<br>101<br>97   | 53                        | 2900                 | 30.3                      | 3.0   |
| 109              | 80-125C            | 29<br>41<br>53.6      | 8.1<br>11.4<br>14.9  | 98<br>85<br>83     | 51                        | 2900                 | 22.0                      | 3.0   |
| 110              | 80-12.5(I)         | 70<br>100<br>130      | 19.4<br>27.8<br>36.1 | 13.6<br>12.5<br>11 | 66<br>76<br>75            | 2900                 | 5.5                       | 4.5   |
| 111              | 80-12.5(I)A        | 62.6<br>89<br>116     | 17.4<br>24.7<br>32.2 | 11<br>10<br>8.8    | 64<br>74<br>74            | 2900                 | 4.0                       | 4.5   |
| 112              | 80-20(I)           | 70<br>100<br>130      | 19.4<br>27.8<br>36.1 | 23.5<br>20<br>14   | 70<br>76<br>72            | 2900                 | 11.0                      | 4.5   |
| 113              | 80-20(I)A          | 62.6<br>89<br>116     | 17.4<br>24.7<br>32.2 | 19<br>16<br>11     | 68<br>74<br>65            | 2900                 | 7.5                       | 4.5   |
| 114              | 80-32(I)           | 70<br>100<br>130      | 19.4<br>27.8<br>36.1 | 36.5<br>32<br>24   | 70<br>76<br>65            | 2900                 | 15.0                      | 4.5   |
| 115              | 80-32(I)A          | 65.4<br>93.5<br>121.6 | 18.2<br>26.0<br>33.8 | 32<br>28<br>21     | 68<br>74<br>67            | 2900                 | 11.0                      | 4.5   |
| 116              | 80-32(I)B          | 60.6<br>86.6<br>112.5 | 16.8<br>24.1<br>31.3 | 27<br>24<br>18     | 72                        | 2900                 | 11.0                      | 4.5   |
| 117              | 80-50(I)           | 70<br>100<br>130      | 19.4<br>27.8<br>36.1 | 54<br>50<br>42     | 65<br>74<br>73            | 2900                 | 22.0                      | 4.0   |
| 118              | 80-50(I)A          | 65.4<br>93.5<br>121.6 | 18.2<br>26.0<br>33.8 | 47.5<br>44<br>39   | 64<br>73<br>72            | 2900                 | 18.5                      | 4.0   |
| 119              | 80-50(I)B          | 61<br>87<br>113       | 16.9<br>24.2<br>31.4 | 41<br>38<br>32     | 71                        | 2900                 | 15.0                      | 4.0   |
| 120              | 80-80(I)           | 70<br>100<br>130      | 19.4<br>27.8<br>36.1 | 87<br>80<br>68     | 62<br>69<br>68            | 2900                 | 37.0                      | 4.0   |



性能参数表

Performance parameter table

| 序号<br>Serial NO. | 型号<br>Model number | 流量 Flow               |                      | 扬程<br>Head<br>m    | 效率<br>Efficiency<br>η (%) | 转速<br>Speed<br>r/min | 电机功率<br>Motor power<br>kW | 必需汽蚀余量<br>Required cavitation allowance<br>(NPSH)r(m) |
|------------------|--------------------|-----------------------|----------------------|--------------------|---------------------------|----------------------|---------------------------|---|
|                  |                    | m/h                   | L/s                  |                    |                           |                      |                           |   |
| 121              | 80-80(I)A          | 65.4<br>93.5<br>121.6 | 18.2<br>26.0<br>33.8 | 76<br>70<br>59.5   | 61<br>68<br>67            | 2900                 | 30.0                      | 4.0   |
| 122              | 80-80(I)B          | 61<br>87<br>113       | 16.9<br>24.2<br>31.4 | 65<br>60<br>51     | 66                        | 2900                 | 30.0                      | 4.0   |
| 123              | 80-125(I)          | 70<br>100<br>130      | 19.4<br>27.8<br>36.1 | 132<br>125<br>114  | 55<br>66<br>67            | 2900                 | 75.0                      | 4.0   |
| 124              | 80-125(I)A         | 66.5<br>95<br>123.6   | 18.5<br>26.4<br>34.3 | 119<br>113<br>104  | 55<br>66<br>67            | 2900                 | 55.0                      | 4.0   |
| 125              | 80-125(I)B         | 63<br>90<br>117       | 17.5<br>25<br>32.5   | 106.6<br>101<br>92 | 65                        | 2900                 | 45.0                      | 4.0   |
| 126              | 80-125(I)C         | 58<br>82<br>107       | 16.1<br>22.8<br>29.7 | 90<br>85<br>76     | 63                        | 2900                 | 37.0                      | 4.0   |
| 127              | 100-12.5           | 70<br>100<br>130      | 19.4<br>27.8<br>36.1 | 13.6<br>12.5<br>11 | 66<br>76<br>75            | 2900                 | 5.5                       | 4.5   |
| 128              | 100-12.5A          | 62.6<br>89<br>116     | 17.4<br>24.7<br>32.2 | 11<br>10<br>8.8    | 64<br>74<br>74            | 2900                 | 4.0                       | 4.5   |
| 129              | 100-20             | 70<br>100<br>130      | 19.4<br>27.8<br>36.1 | 23.5<br>20<br>14   | 70<br>76<br>65            | 2900                 | 11.0                      | 4.5   |
| 130              | 100-20A            | 62.6<br>89<br>116     | 17.4<br>24.7<br>32.2 | 19<br>16<br>11     | 68<br>74<br>63            | 2900                 | 7.5                       | 4.5   |
| 131              | 100-32             | 70<br>100<br>130      | 19.4<br>27.8<br>36.1 | 36.5<br>32<br>24   | 70<br>76<br>65            | 2900                 | 15.0                      | 4.5   |
| 132              | 100-32A            | 65.4<br>93.5<br>121.6 | 18.2<br>26.0<br>33.8 | 32<br>28<br>21     | 68<br>74<br>67            | 2900                 | 11.0                      | 4.5   |
| 133              | 100-32B            | 60.6<br>86.6<br>112.5 | 16.8<br>24.1<br>31.3 | 27<br>24<br>18     | 72                        | 2900                 | 11.0                      | 4.5   |
| 134              | 100-50             | 70<br>100<br>130      | 19.4<br>27.8<br>36.1 | 54<br>50<br>42     | 65<br>74<br>73            | 2900                 | 22.0                      | 4.0   |
| 135              | 100-50A            | 65.4<br>93.5<br>121.6 | 18.2<br>26.0<br>33.8 | 47.5<br>44<br>37   | 64<br>73<br>72            | 2900                 | 18.5                      | 4.0   |
| 136              | 100-50B            | 61<br>87<br>113       | 16.9<br>24.2<br>31.4 | 41<br>38<br>34     | 71                        | 2900                 | 15.0                      | 4.0   |
| 137              | 100-80             | 70<br>100<br>130      | 19.4<br>27.8<br>36.1 | 87<br>80<br>68     | 62<br>69<br>68            | 2900                 | 37.0                      | 4.0   |
| 138              | 100-80A            | 65.4<br>93.5<br>121.6 | 18.2<br>26.0<br>33.8 | 76<br>70<br>59.5   | 61<br>68<br>67            | 2900                 | 30.0                      | 4.0   |
| 139              | 100-80B            | 61<br>87<br>113       | 16.9<br>24.2<br>31.4 | 65<br>60<br>51     | 67                        | 2900                 | 30.0                      | 4.0   |
| 140              | 100-125            | 70<br>100<br>130      | 19.4<br>27.8<br>36.1 | 132<br>125<br>114  | 55<br>66<br>67            | 2900                 | 75.0                      | 4.0   |
| 141              | 100-125A           | 66.5<br>95<br>123.6   | 18.5<br>26.4<br>34.3 | 119<br>113<br>104  | 55<br>66<br>67            | 2900                 | 55.0                      | 4.0   |
| 142              | 100-125B           | 63<br>90<br>117       | 17.5<br>25<br>32.5   | 106.6<br>101<br>92 | 65                        | 2900                 | 45.0                      | 4.0   |
| 143              | 100-125C           | 58<br>82<br>107       | 16.1<br>22.8<br>29.7 | 90<br>85<br>76     | 63                        | 2900                 | 37.0                      | 4.0   |
| 144              | 125-12.5           | 96<br>16<br>192       | 26.7<br>44.4<br>53.3 | 13<br>12.5<br>12   | 78<br>82<br>84            | 2900                 | 11.0                      | 4.0   |

性能参数表

Performance parameter table

| 序号<br>Serial NO. | 型号<br>Model number | 流量 Flow            |                      | 扬程<br>Head<br>m      | 效率<br>Efficiency<br>η (%) | 转速<br>Speed<br>r/min | 电机功率<br>Motor power<br>kW | 必需汽蚀余量<br>Required cavitation allowance<br>(NPSH)r(m) |
|------------------|--------------------|--------------------|----------------------|----------------------|---------------------------|----------------------|---------------------------|---|
|                  |                    | m/h                | L/s                  |                      |                           |                      |                           |   |
| 145              | 125-12.5A          | 86<br>143<br>172   | 23.9<br>39.7<br>47.8 | 10.4<br>10<br>9.6    | 77                        | 2900                 | 7.5                       | 4.0   |
| 146              | 125-20             | 96<br>160<br>192   | 26.7<br>44.4<br>53.3 | 22.6<br>20<br>17     | 76<br>80<br>78            | 2900                 | 15.0                      | 4.0   |
| 147              | 125-20A            | 86<br>143<br>172   | 23.9<br>39.7<br>47.8 | 18<br>16<br>13.6     | 73<br>77<br>75            | 2900                 | 11.0                      | 4.0   |
| 148              | 125-32             | 96<br>160<br>192   | 26.7<br>44.4<br>53.3 | 36<br>32<br>28       | 78                        | 2900                 | 22.0                      | 4.0   |
| 149              | 125-32A            | 90<br>150<br>180   | 25<br>41.7<br>50     | 31.5<br>28<br>24.5   | 76                        | 2900                 | 18.5                      | 4.0   |
| 150              | 125-32B            | 83<br>138<br>166   | 21.7<br>38.3<br>46.1 | 27<br>24<br>21       | 73                        | 2900                 | 15.0                      | 4.0   |
| 151              | 125-50             | 96<br>160<br>192   | 26.7<br>44.4<br>53.3 | 55<br>50<br>46       | 69<br>79<br>78            | 2900                 | 37.0                      | 5.0   |
| 152              | 125-50A            | 90<br>150<br>180   | 25<br>41.7<br>50     | 48.4<br>44<br>40.5   | 64<br>74<br>73            | 2900                 | 30.0                      | 5.0   |
| 153              | 125-50B            | 83<br>138<br>166   | 21.7<br>38.3<br>46.1 | 41.3<br>37.5<br>34.5 | 72                        | 2900                 | 22.0                      | 5.0   |
| 154              | 125-80             | 96<br>160<br>192   | 26.7<br>44.4<br>53.3 | 87<br>80<br>73       | 65<br>77<br>74            | 2900                 | 55.0                      | 4.5   |
| 155              | 125-80A            | 90<br>150<br>180   | 25<br>41.7<br>50     | 76<br>70<br>64       | 74                        | 2900                 | 45.0                      | 4.5   |
| 156              | 125-80B            | 83<br>138<br>166   | 21.7<br>38.3<br>46.1 | 65<br>60<br>55       | 73                        | 2900                 | 37.0                      | 4.5   |
| 157              | 125-125            | 96<br>160<br>192   | 26.7<br>44.7<br>53.3 | 133<br>125<br>119    | 70<br>72<br>68            | 2900                 | 90.0                      | 4.5   |
| 158              | 125-125A           | 90<br>150<br>180   | 25<br>41.7<br>50     | 117<br>110<br>104.6  | 65<br>70<br>71            | 2900                 | 75.0                      | 4.5   |
| 159              | 125-125B           | 86<br>143<br>172   | 23.8<br>39.7<br>47.8 | 106.4<br>100<br>95.2 | 65<br>69<br>66            | 2900                 | 75.0                      | 4.5   |
| 160              | 125-125C           | 80.5<br>134<br>161 | 22.4<br>37.2<br>44.7 | 96<br>88<br>86       | 68                        | 2900                 | 55.0                      | 4.5   |
| 161              | 125-32(I)          | 120<br>200<br>240  | 33.3<br>55.6<br>66.7 | 35<br>32<br>28       | 64<br>76<br>75            | 2900                 | 30.0                      | 4.5   |
| 162              | 125-32(I)A         | 112<br>187<br>224  | 31.1<br>51.9<br>62.2 | 31.5<br>28<br>24     | 63<br>75<br>75            | 2900                 | 22.0                      | 4.5   |
| 163              | 125-50(I)          | 120<br>200<br>240  | 33.3<br>55.6<br>66.7 | 55<br>50<br>46       | 63<br>74<br>73            | 2900                 | 45.0                      | 4.5   |
| 164              | 125-50(I)A         | 112<br>187<br>224  | 31.1<br>51.9<br>62.2 | 48.4<br>44<br>40     | 62<br>73<br>73            | 2900                 | 37.0                      | 4.5   |
| 165              | 125-50(I)B         | 104<br>173<br>208  | 28.9<br>48.1<br>57.8 | 41<br>37<br>34.5     | 61<br>72<br>73            | 2900                 | 30.0                      | 4.5   |
| 166              | 125-80(I)          | 120<br>200<br>240  | 33.3<br>55.6<br>66.7 | 87<br>80<br>72       | 65<br>76<br>74            | 2900                 | 75.0                      | 4.5   |
| 167              | 125-80(I)A         | 112<br>187<br>224  | 31.1<br>51.9<br>62.2 | 76<br>70<br>63       | 64<br>75<br>73            | 2900                 | 55.0                      | 4.5   |
| 168              | 125-80(I)B         | 104<br>173<br>208  | 28.9<br>48.1<br>57.8 | 65<br>60<br>54       | 63<br>74<br>72            | 2900                 | 45.0                      | 4.5   |



性能参数表

Performance parameter table

| 序号<br>Serial NO. | 型号<br>Model number | 流量 Flow           |                      | 扬程<br>Head<br>m      | 效率<br>Efficiency<br>η (%) | 转速<br>Speed<br>r/min | 电机功率<br>Motor power<br>kW | 必需汽蚀余量<br>Required cavitation allowance<br>(NPSH)r(m) |
|------------------|--------------------|-------------------|----------------------|----------------------|---------------------------|----------------------|---------------------------|---|
|                  |                    | m/h               | L/s                  |                      |                           |                      |                           |   |
| 169              | 125-125(I)         | 120<br>200<br>240 | 33.3<br>55.6<br>66.7 | 133<br>125<br>120    | 58<br>73<br>75            | 2900                 | 110.0                     | 4.5   |
| 170              | 125-125(I)A        | 112<br>187<br>224 | 31.1<br>51.9<br>62.2 | 116<br>110<br>105    | 57<br>73<br>74            | 2900                 | 90.0                      | 4.5   |
| 171              | 125-125(I)B        | 104<br>173<br>208 | 28.9<br>48.1<br>57.8 | 100<br>95<br>91      | 55<br>70<br>72            | 2900                 | 75.0                      | 4.5   |
| 172              | 150-12.5           | 112<br>160<br>208 | 31.1<br>44.4<br>57.8 | 13.5<br>12.5<br>10   | 60<br>72<br>66            | 1450                 | 11.0                      | 3.5   |
| 173              | 150-12.5A          | 98<br>140<br>182  | 27.2<br>39<br>50.6   | 11<br>10<br>8.5      | 68<br>70<br>71            | 1450                 | 7.5                       | 3.5   |
| 174              | 150-20             | 112<br>160<br>208 | 31.1<br>44.4<br>57.8 | 23.5<br>20<br>14     | 66<br>71<br>66            | 1450                 | 15.0                      | 3.5   |
| 175              | 150-20A            | 98<br>140<br>182  | 27.2<br>39<br>50.6   | 19<br>17<br>11       | 65<br>70<br>66            | 1450                 | 11.0                      | 3.5   |
| 176              | 150-20B            | 84<br>120<br>156  | 23.3<br>33.3<br>43.3 | 15.5<br>14<br>10     | 62<br>70<br>68            | 1450                 | 7.5                       | 3.5   |
| 177              | 150-32             | 112<br>160<br>208 | 31.1<br>44.4<br>57.8 | 33<br>32<br>28       | 62<br>70<br>80            | 1450                 | 22.0                      | 3.5   |
| 178              | 150-32A            | 98<br>140<br>182  | 27.2<br>39<br>50.6   | 29<br>28<br>26.6     | 60<br>71<br>80            | 1450                 | 18.5                      | 3.5   |
| 179              | 150-32B            | 84<br>120<br>156  | 23.3<br>33.3<br>43.3 | 25<br>24<br>22.5     | 66<br>71<br>70            | 1450                 | 15.0                      | 3.5   |
| 180              | 150-50             | 112<br>160<br>208 | 31.1<br>44.4<br>57.8 | 52<br>50<br>42       | 60<br>72<br>80            | 1450                 | 37.0                      | 3.5   |
| 181              | 150-50A            | 98<br>140<br>182  | 27.2<br>39<br>50.6   | 46<br>44<br>39       | 60<br>70<br>80            | 1450                 | 30.0                      | 3.5   |
| 182              | 150-50B            | 84<br>120<br>156  | 23.3<br>33.3<br>43.3 | 41<br>38<br>30       | 66<br>70<br>73            | 1450                 | 22.0                      | 3.5   |
| 183              | 150-80             | 112<br>160<br>208 | 31.1<br>44.4<br>57.8 | 83<br>80<br>75       | 67<br>72<br>69            | 1450                 | 55.0                      | 3.5   |
| 184              | 150-80A            | 98<br>140<br>182  | 27.2<br>39<br>50.6   | 73<br>70<br>66       | 65<br>70<br>67            | 1450                 | 45.0                      | 3.5   |
| 185              | 150-80B            | 84<br>120<br>156  | 23.3<br>33.3<br>43.3 | 65<br>60<br>56       | 62<br>67<br>65            | 1450                 | 37.0                      | 3.5   |
| 186              | 150-80             | 120<br>200<br>240 | 33.3<br>55.6<br>66.7 | 87<br>80<br>72       | 65<br>76<br>74            | 2900                 | 75.0                      | 4.2   |
| 187              | 150-80A            | 112<br>187<br>224 | 31.1<br>51.9<br>62.2 | 76<br>70<br>63       | 64<br>75<br>73            | 2900                 | 55.0                      | 4.2   |
| 188              | 150-80B            | 104<br>173<br>208 | 28.9<br>48.1<br>57.8 | 65<br>60<br>54       | 63<br>74<br>72            | 2900                 | 45.0                      | 4.2   |
| 189              | 150-125            | 120<br>200<br>240 | 33.3<br>55.6<br>66.7 | 133<br>125<br>120    | 58<br>73<br>75            | 2900                 | 110.0                     | 4.5   |
| 190              | 150-125A           | 112<br>187<br>224 | 31.1<br>51.9<br>62.2 | 116<br>110<br>105    | 57<br>72<br>74            | 2900                 | 90.0                      | 4.5   |
| 191              | 150-125B           | 104<br>173<br>208 | 28.9<br>48.1<br>57.8 | 100<br>95<br>91      | 55<br>70<br>72            | 2900                 | 75.0                      | 4.5   |
| 192              | 150-12.5(I)        | 140<br>200<br>260 | 38.9<br>55.6<br>72.2 | 13.8<br>12.5<br>10.6 | 68<br>78<br>78            | 1450                 | 15.0                      | 3.0   |

性能参数表

Performance parameter table

| 序号<br>Serial NO. | 型号<br>Model number | 流量 Flow             |                      | 扬程<br>Head<br>m      | 效率<br>Efficiency<br>η (%) | 转速<br>Speed<br>r/min | 电机功率<br>Motor power<br>kW | 必需汽蚀余量<br>Required cavitation allowance<br>(NPSH)r(m) |
|------------------|--------------------|---------------------|----------------------|----------------------|---------------------------|----------------------|---------------------------|---|
|                  |                    | m/h                 | L/s                  |                      |                           |                      |                           |   |
| 193              | 150-12.5(I)A       | 125<br>179<br>233   | 34.7<br>49.7<br>64.6 | 11<br>10<br>8.5      | 66<br>76<br>76            | 1450                 | 11.0                      | 3.0   |
| 194              | 150-20(I)          | 140<br>200<br>260   | 38.9<br>55.6<br>72.2 | 21.8<br>20<br>17     | 73<br>79<br>77            | 1450                 | 18.5                      | 3.0   |
| 195              | 150-20(I)A         | 129<br>184<br>240   | 35.8<br>51.2<br>66.7 | 18.5<br>17<br>14.4   | 72<br>78<br>76            | 1450                 | 15.0                      | 3.0   |
| 196              | 150-20(I)B         | 117<br>167<br>217.5 | 32.5<br>46.4<br>60.4 | 15.2<br>14<br>12     | 71<br>76<br>74            | 1450                 | 11.0                      | 3.5   |
| 197              | 150-32(I)          | 140<br>200<br>260   | 38.9<br>55.6<br>72.2 | 33.8<br>32<br>28     | 70<br>78<br>73            | 1450                 | 30.0                      | 3.5   |
| 198              | 150-32(I)A         | 131<br>187<br>243   | 36.4<br>51.9<br>67.5 | 29.5<br>28<br>24.5   | 69<br>77<br>77            | 1450                 | 22.0                      | 3.5   |
| 199              | 150-32(I)B         | 121<br>173<br>225   | 33.6<br>48.1<br>62.5 | 25<br>24<br>21       | 69<br>76<br>74            | 1450                 | 18.5                      | 3.5   |
| 200              | 150-50(I)          | 140<br>200<br>260   | 38.9<br>55.6<br>72.2 | 53<br>50<br>44       | 68<br>75<br>71            | 1450                 | 45.0                      | 3.5   |
| 201              | 150-50(I)A         | 131<br>187<br>243   | 36.4<br>51.9<br>67.5 | 46.6<br>44<br>38.3   | 67<br>74<br>70            | 1450                 | 37.0                      | 3.5   |
| 202              | 150-50(I)B         | 122<br>174<br>226.5 | 33.9<br>48.3<br>62.9 | 40.5<br>38<br>33     | 66<br>73<br>69            | 1450                 | 30.0                      | 3.5   |
| 203              | 150-50(I)C         | 112<br>160<br>208   | 31.1<br>44.4<br>57.8 | 34<br>32<br>28       | 71                        | 1450                 | 22.0                      | 3.5   |
| 204              | 150-80(I)          | 140<br>200<br>260   | 38.9<br>55.6<br>72.2 | 84<br>80<br>75       | 62<br>69<br>67            | 1450                 | 75.0                      | 3.5   |
| 205              | 150-80(I)A         | 131<br>187<br>243   | 36.4<br>51.9<br>67.5 | 73<br>70.5<br>66     | 61<br>68<br>66            | 1450                 | 75.0                      | 3.5   |
| 206              | 150-80(I)B         | 122<br>174<br>226.5 | 33.9<br>48.3<br>62.9 | 65<br>62<br>58       | 60<br>66<br>64            | 1450                 | 55.0                      | 3.5   |
| 207              | 150-80(I)C         | 112<br>160<br>208   | 31.1<br>44.4<br>57.8 | 56.5<br>54.5<br>51   | 58<br>64<br>62            | 1450                 | 45.0                      | 3.5   |
| 208              | 200-12.5           | 140<br>200<br>260   | 38.9<br>55.6<br>72.2 | 13.8<br>12.5<br>10.8 | 68<br>78<br>78            | 1450                 | 15.0                      | 3.0   |
| 209              | 200-12.5A          | 125<br>179<br>233   | 34.7<br>49.7<br>64.6 | 11<br>10<br>8.5      | 66<br>76<br>76            | 1450                 | 11.0                      | 3.0   |
| 210              | 200-20             | 140<br>200<br>260   | 38.9<br>55.6<br>72.2 | 21.8<br>20<br>17     | 73<br>79<br>77            | 1450                 | 18.5                      | 3.0   |
| 211              | 200-20A            | 129<br>187<br>240   | 35.8<br>51.2<br>66.7 | 18.5<br>17<br>14.4   | 72<br>78<br>76            | 1450                 | 15.0                      | 3.0   |
| 212              | 200-20B            | 117<br>167<br>217.5 | 32.5<br>46.4<br>60.4 | 15.2<br>14<br>12     | 71<br>76<br>74            | 1450                 | 11.0                      | 3.0   |
| 213              | 200-32             | 140<br>200<br>260   | 38.9<br>55.6<br>72.2 | 33.8<br>32<br>28     | 70<br>78<br>78            | 1450                 | 30.0                      | 3.5   |
| 214              | 200-32A            | 131<br>187<br>243   | 36.4<br>51.9<br>67.5 | 29.5<br>27<br>24.5   | 69<br>77<br>78            | 1450                 | 22.0                      | 3.5   |
| 215              | 200-32B            | 121<br>173<br>225   | 33.6<br>48.1<br>62.5 | 25<br>24<br>21       | 69<br>76<br>73            | 1450                 | 18.5                      | 3.5   |
| 216              | 200-50             | 140<br>200<br>260   | 38.9<br>55.6<br>72.2 | 53<br>50<br>44       | 68<br>75<br>71            | 1450                 | 45.0                      | 3.5   |



性能参数表

Performance parameter table

| 序号<br>Serial NO. | 型号<br>Model number | 流量 Flow             |                         | 扬程<br>Head<br>m      | 效率<br>Efficiency<br>η (%) | 转速<br>Speed<br>r/min | 电机功率<br>Motor power<br>kW | 必需汽蚀余量<br>Required cavitation allowance<br>(NPSH)r(m) |
|------------------|--------------------|---------------------|-------------------------|----------------------|---------------------------|----------------------|---------------------------|---|
|                  |                    | m/h                 | L/s                     |                      |                           |                      |                           |   |
| 217              | 200-50A            | 131<br>187<br>243   | 36.4<br>51.9<br>67.5    | 46.6<br>44<br>38.3   | 67<br>74<br>70            | 1450                 | 37.0                      | 3.5   |
| 218              | 200-50B            | 122<br>174<br>226.5 | 33.9<br>48.3<br>62.9    | 40.5<br>38<br>33     | 73                        | 1450                 | 30.0                      | 3.5   |
| 219              | 200-50C            | 112<br>160<br>208   | 31.1<br>44.4<br>57.8    | 34<br>32<br>28       | 71                        | 1450                 | 22.0                      | 3.5   |
| 220              | 200-12.5(I)        | 280<br>400<br>520   | 77.8<br>111.1<br>144    | 13.4<br>12.5<br>10.5 | 70<br>80<br>79            | 1450                 | 22.0                      | 4.0   |
| 221              | 200-12.5(I)A       | 250<br>358<br>465   | 69.4<br>99.4<br>129.2   | 10.7<br>10<br>8.5    | 68<br>78<br>77            | 1450                 | 18.5                      | 4.0   |
| 222              | 200-20(I)          | 280<br>400<br>520   | 77.8<br>111.1<br>144    | 22.2<br>20<br>14     | 75<br>80<br>72            | 1450                 | 30.0                      | 4.0   |
| 223              | 200-20(I)A         | 250<br>358<br>465   | 69.4<br>99.4<br>129.2   | 19<br>17<br>13       | 73<br>78<br>70            | 1450                 | 22.0                      | 4.0   |
| 224              | 200-20(I)B         | 226<br>322<br>419   | 62.8<br>89.4<br>116.4   | 15.5<br>14<br>10     | 70<br>75<br>73            | 1450                 | 18.5                      | 4.0   |
| 225              | 200-32(I)          | 280<br>400<br>520   | 77.8<br>111.1<br>144    | 36<br>32<br>26       | 73<br>80<br>75            | 1450                 | 55.0                      | 4.0   |
| 226              | 200-32(I)A         | 262<br>374<br>486   | 72.8<br>103.9<br>135    | 31.5<br>28<br>23     | 72<br>79<br>74            | 1450                 | 45.0                      | 4.0   |
| 227              | 200-32(I)B         | 242<br>346<br>450   | 67.2<br>96.1<br>125     | 27.5<br>24<br>18.5   | 78                        | 1450                 | 37.0                      | 4.0   |
| 228              | 200-50(I)          | 280<br>400<br>520   | 77.8<br>111.1<br>144    | 54.5<br>50<br>39     | 75<br>81<br>77            | 1450                 | 75.0                      | 4.0   |
| 229              | 200-50(I)A         | 262<br>352<br>486   | 72.8<br>103.9<br>135    | 48<br>44<br>35       | 73<br>80<br>75            | 1450                 | 75.0                      | 4.0   |
| 230              | 200-50(I)B         | 242<br>346<br>450   | 67.2<br>96.1<br>125     | 42<br>38<br>29.6     | 72<br>78<br>74            | 1450                 | 55.0                      | 4.0   |
| 231              | 200-50(I)C         | 224<br>320<br>416   | 62.2<br>88.9<br>115.6   | 34.9<br>32<br>25     | 70<br>76<br>72            | 1450                 | 45.0                      | 4.0   |
| 232              | 200-80(I)          | 280<br>400<br>520   | 77.8<br>111.1<br>144    | 87<br>80<br>72       | 73<br>80<br>77            | 1450                 | 132.0                     | 5.0   |
| 233              | 200-80(I)A         | 262<br>374<br>486   | 72.8<br>103.9<br>135    | 76<br>70<br>63       | 72<br>79<br>76            | 1450                 | 110.0                     | 5.0   |
| 234              | 200-80(I)B         | 242<br>346<br>450   | 67.2<br>96.1<br>125     | 65<br>60<br>54       | 71<br>78<br>75            | 1450                 | 90.0                      | 5.0   |
| 235              | 200-80(I)C         | 224<br>320<br>416   | 62.2<br>88.9<br>115.6   | 62<br>56<br>48       | 70<br>76<br>74            | 1450                 | 75.0                      | 4.0   |
| 236              | 200-125(I)         | 280<br>400<br>520   | 77.8<br>111.1<br>144.4  | 135<br>125<br>104    | 79                        | 1450                 | 200.0                     | 4.0   |
| 237              | 200-125(I)A        | 256<br>352<br>448   | 71.1<br>97.8<br>124     | 120<br>112<br>88     | 78                        | 1450                 | 200.0                     | 4.0   |
| 238              | 200-125(I)B        | 224<br>320<br>416   | 62.2<br>88.9<br>115.6   | 104<br>96<br>72      | 77                        | 1450                 | 132.0                     | 4.0   |
| 239              | 250-12.5           | 400<br>650<br>670   | 111.1<br>152.8<br>186.1 | 13.5<br>12.5<br>11   | 78<br>82<br>78            | 1450                 | 30.0                      | 4.0   |
| 240              | 250-12.5A          | 368<br>506<br>607   | 102.2<br>140.6<br>168.7 | 11.6<br>10.8<br>9.5  | 74<br>80<br>76            | 1450                 | 22.0                      | 5.0   |

性能参数表

Performance parameter table

| 序号<br>Serial NO. | 型号<br>Model number | 流量 Flow           |                         | 扬程<br>Head<br>m      | 效率<br>Efficiency<br>η (%) | 转速<br>Speed<br>r/min | 电机功率<br>Motor power<br>kW | 必需汽蚀余量<br>Required cavitation allowance<br>(NPSH)r(m) |
|------------------|--------------------|-------------------|-------------------------|----------------------|---------------------------|----------------------|---------------------------|---|
|                  |                    | m/h               | L/s                     |                      |                           |                      |                           |   |
| 241              | 250-20             | 400<br>550<br>670 | 111.1<br>152.8<br>186.1 | 22.5<br>20<br>16     | 78<br>82<br>84            | 1450                 | 45.0                      | 5.0   |
| 242              | 250-20A            | 368<br>506<br>607 | 102.2<br>140.6<br>168.7 | 19.5<br>17<br>14.6   | 80                        | 1450                 | 37.0                      | 5.0   |
| 243              | 250-32             | 400<br>550<br>670 | 111.1<br>152.8<br>186.1 | 36<br>32<br>26       | 77<br>80<br>81            | 1450                 | 75.0                      | 5.0   |
| 244              | 250-32A            | 368<br>506<br>607 | 102.2<br>140.6<br>168.7 | 31.5<br>28<br>23     | 78                        | 1450                 | 55.0                      | 5.0   |
| 245              | 250-32B            | 339<br>466<br>559 | 94<br>129.3<br>155.2    | 26.5<br>25<br>20     | 76                        | 1450                 | 45.0                      | 5.0   |
| 246              | 250-50             | 400<br>550<br>670 | 111.1<br>152.8<br>186.1 | 54.5<br>50<br>39     | 69<br>76<br>72            | 1450                 | 110.0                     | 5.0   |
| 247              | 250-50A            | 368<br>506<br>607 | 102.2<br>140.6<br>168.7 | 48<br>44<br>35.5     | 68<br>74<br>70            | 1450                 | 90.0                      | 5.0   |
| 248              | 250-50B            | 339<br>466<br>559 | 94<br>129.3<br>155.2    | 43<br>39.5<br>32.5   | 66<br>72<br>68            | 1450                 | 75.0                      | 5.0   |
| 249              | 250-50C            | 311<br>428<br>514 | 86.5<br>119<br>142.8    | 38<br>35<br>28       | 63<br>69<br>65            | 1450                 | 75.0                      | 5.0   |
| 250              | 250-70             | 400<br>550<br>670 | 111.1<br>152.8<br>186.1 | 76<br>70<br>63       | 75<br>76<br>78            | 1450                 | 160.0                     | 5.0   |
| 251              | 250-70A            | 368<br>506<br>607 | 102.2<br>140.6<br>168.7 | 65<br>60<br>54       | 74<br>75<br>77            | 1450                 | 132.0                     | 5.0   |
| 252              | 250-70B            | 339<br>466<br>559 | 94<br>129.3<br>155.2    | 55<br>50<br>42       | 73<br>74<br>74            | 1450                 | 90.0                      | 5.0   |
| 253              | 250-70C            | 311<br>428<br>514 | 86.5<br>119<br>142.8    | 49.5<br>44<br>38     | 71<br>72<br>73            | 1450                 | 75.0                      | 5.0   |
| 254              | 250-80             | 500<br>550<br>670 | 111.1<br>152.8<br>186.1 | 84<br>80<br>70       | 73<br>77<br>75            | 1450                 | 200.0                     | 5.0   |
| 255              | 250-80A            | 368<br>506<br>670 | 102.2<br>140.6<br>168.7 | 75<br>71<br>62.5     | 72<br>75<br>74            | 1450                 | 160.0                     | 5.0   |
| 256              | 250-80B            | 339<br>466<br>559 | 94<br>126.3<br>155.2    | 66.5<br>63.5<br>55.5 | 70<br>73<br>72            | 1450                 | 132.0                     | 5.0   |
| 257              | 250-80C            | 311<br>428<br>514 | 86.5<br>119<br>142.8    | 58<br>55<br>48.5     | 69<br>71<br>70            | 1450                 | 110.0                     | 5.0   |
| 258              | 300-12.5           | 500<br>720<br>860 | 138.9<br>200<br>238.9   | 13.5<br>12.5<br>10.5 | 78<br>83<br>78            | 1450                 | 37.0                      | 5.0   |
| 259              | 300-12.5A          | 460<br>662<br>791 | 127.8<br>184<br>219.8   | 12<br>11<br>9.3      | 77<br>82<br>77            | 1450                 | 30.0                      | 5.0   |
| 260              | 300-18             | 480<br>720<br>900 | 133.3<br>200<br>250     | 20<br>18<br>15.5     | 77<br>81<br>74            | 1450                 | 55.0                      | 5.0   |
| 261              | 300-18A            | 438<br>607<br>821 | 121.7<br>182.5<br>228.1 | 16.5<br>15<br>13     | 75<br>79<br>72            | 1450                 | 45.0                      | 5.0   |
| 262              | 300-18B            | 400<br>600<br>750 | 111.1<br>167.0<br>208.3 | 14<br>12.5<br>11     | 73<br>77<br>70            | 1450                 | 37.0                      | 5.0   |
| 263              | 300-20             | 500<br>720<br>900 | 138.9<br>200<br>250     | 23<br>20<br>16       | 80<br>83<br>84            | 1450                 | 55.0                      | 5.0   |
| 264              | 300-20A            | 460<br>662<br>791 | 127.8<br>184<br>219.8   | 20.2<br>17.5<br>14.2 | 81                        | 1450                 | 45.0                      | 5.0   |



性能参数表

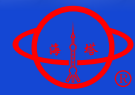
Performance parameter table

| 序号<br>Serial NO. | 型号<br>Model number | 流量 Flow             |                         | 扬程<br>Head<br>m    | 效率<br>Efficiency<br>η (%) | 转速<br>Speed<br>r/min | 电机功率<br>Motor power<br>kW | 必需汽蚀余量<br>Required cavitation allowance<br>(NPSH)r(m) |
|------------------|--------------------|---------------------|-------------------------|--------------------|---------------------------|----------------------|---------------------------|---|
|                  |                    | m/h                 | L/s                     |                    |                           |                      |                           |   |
| 265              | 300-28             | 480<br>720<br>900   | 133.3<br>200<br>250     | 31<br>28<br>25     | 77<br>81<br>77            | 1450                 | 75.0                      | 5.0   |
| 266              | 300-28A            | 444<br>666<br>833   | 123.3<br>185<br>231.4   | 26.5<br>24<br>21.5 | 76<br>80<br>76            | 1450                 | 75.0                      | 5.0   |
| 267              | 300-28B            | 415<br>623<br>779   | 115.3<br>173.1<br>216.4 | 23<br>21<br>18.5   | 79                        | 1450                 | 55.0                      | 5.0   |
| 268              | 300-32             | 500<br>720<br>900   | 138.9<br>200<br>250     | 36<br>32<br>26     | 79<br>82.5<br>84          | 1450                 | 90.0                      | 5.0   |
| 269              | 300-32A            | 460<br>662<br>791   | 127.8<br>184<br>219.8   | 30.5<br>28<br>23.5 | 74<br>80<br>74            | 1450                 | 75.0                      | 5.0   |
| 270              | 300-32B            | 423<br>609<br>728   | 117.6<br>169.3<br>202.2 | 25.5<br>23.5<br>20 | 72<br>78<br>73            | 1450                 | 55.0                      | 5.0   |
| 271              | 300-44             | 480<br>720<br>900   | 133.3<br>200<br>250     | 48<br>44<br>34     | 76<br>84<br>82            | 1450                 | 132.0                     | 5.0   |
| 272              | 300-44A            | 444<br>666<br>833   | 123.3<br>185<br>231.4   | 41.4<br>38<br>30   | 80                        | 1450                 | 110.0                     | 5.0   |
| 273              | 300-44B            | 409<br>614<br>767   | 113.6<br>170.6<br>213.1 | 35<br>32<br>25     | 78                        | 1450                 | 90.0                      | 5.0   |
| 274              | 300-50             | 500<br>720<br>900   | 138.9<br>200<br>250     | 54.5<br>50<br>42   | 75<br>80<br>78            | 1450                 | 132.0                     | 5.5   |
| 275              | 300-50A            | 460<br>662<br>791   | 127.8<br>184<br>219.8   | 47<br>44<br>36.5   | 74<br>79<br>77            | 1450                 | 110.0                     | 5.5   |
| 276              | 300-50B            | 423<br>609<br>728   | 117.6<br>169.3<br>202.2 | 41<br>38<br>32     | 72<br>77<br>75            | 1450                 | 90.0                      | 5.5   |
| 277              | 300-50C            | 389<br>561<br>670   | 108.2<br>155.7<br>186   | 35.5<br>33<br>27.5 | 69<br>74<br>72            | 1450                 | 75.0                      | 5.5   |
| 278              | 300-65             | 500<br>720<br>900   | 138.9<br>200<br>250     | 76<br>65<br>58     | 75<br>81<br>82            | 1450                 | 200.0                     | 5.5   |
| 279              | 300-65A            | 460<br>662<br>791   | 127.8<br>184<br>219.8   | 60<br>55<br>49     | 74<br>80<br>81            | 1450                 | 160.0                     | 5.5   |
| 280              | 300-65B            | 423<br>609<br>728   | 117.6<br>169.3<br>202.2 | 49<br>45<br>35     | 73<br>79<br>80            | 1450                 | 110.0                     | 5.5   |
| 281              | 300-65C            | 389<br>561<br>670   | 108.2<br>155.7<br>186   | 42<br>38<br>30     | 72<br>78<br>79            | 1450                 | 90.0                      | 5.5   |
| 282              | 300-80             | 500<br>720<br>900   | 138.9<br>200<br>250     | 84<br>80<br>72     | 74<br>80<br>75            | 1450                 | 250.0                     | 5.5   |
| 283              | 300-80A            | 460<br>662<br>791   | 127.8<br>184<br>219.8   | 74<br>70.5<br>63.5 | 73<br>79<br>74            | 1450                 | 200.0                     | 5.5   |
| 284              | 300-80B            | 423<br>609<br>728   | 117.6<br>169.3<br>202.2 | 65<br>62<br>56     | 71<br>77<br>72            | 1450                 | 160.0                     | 5.5   |
| 285              | 300-80C            | 389<br>561<br>670   | 108.2<br>155.7<br>186   | 57<br>54.5<br>49   | 68<br>75<br>70            | 1450                 | 132.0                     | 5.5   |
| 286              | 350-12.5           | 718<br>1080<br>1345 | 199.4<br>300<br>373.6   | 15<br>12.5<br>1    | 75<br>83<br>81            | 1450                 | 55.0                      | 5.5   |
| 287              | 350-12.5A          | 663<br>995<br>1245  | 184.2<br>276.4<br>345.8 | 12<br>10<br>8.5    | 72<br>81<br>79            | 1450                 | 45.0                      | 5.5   |
| 288              | 350-20             | 718<br>1080<br>1345 | 199.4<br>300<br>373.6   | 23.5<br>20<br>18   | 76<br>82<br>80            | 1450                 | 90.0                      | 5.5   |

性能参数表

Performance parameter table

| 序号<br>Serial NO. | 型号<br>Model number | 流量 Flow              |                         | 扬程<br>Head<br>m      | 效率<br>Efficiency<br>η (%) | 转速<br>Speed<br>r/min | 电机功率<br>Motor power<br>kW | 必需汽蚀余量<br>Required cavitation allowance<br>(NPSH)r(m) |
|------------------|--------------------|----------------------|-------------------------|----------------------|---------------------------|----------------------|---------------------------|---|
|                  |                    | m/h                  | L/s                     |                      |                           |                      |                           |   |
| 289              | 350-20A            | 663<br>995<br>1245   | 184.2<br>276.4<br>345.8 | 20<br>17<br>15       | 74<br>80<br>78            | 1450                 | 75.0                      | 5.5   |
| 290              | 350-20B            | 620<br>931<br>1165   | 172.2<br>258.6<br>323.6 | 17.5<br>15<br>13     | 71<br>78<br>77            | 1450                 | 55.0                      | 5.5   |
| 291              | 350-32             | 718<br>1080<br>1345  | 199.4<br>300<br>373.6   | 36.4<br>32<br>28.5   | 79<br>83<br>78            | 1450                 | 132.0                     | 5.5   |
| 292              | 350-32A            | 663<br>995<br>1245   | 184.2<br>276.4<br>345.6 | 30.5<br>27<br>25     | 74<br>81<br>76            | 1450                 | 110.0                     | 5.5   |
| 293              | 350-32B            | 620<br>931<br>1165   | 172.2<br>258.6<br>323.6 | 26.5<br>24<br>21     | 73<br>79<br>75            | 1450                 | 90.0                      | 5.5   |
| 294              | 350-40             | 718<br>1080<br>1345  | 199.4<br>300<br>373.6   | 44.6<br>40<br>34.6   | 82                        | 1450                 | 160.0                     | 5.5   |
| 295              | 350-40A            | 642<br>965<br>1200   | 178.3<br>268.1<br>344.2 | 35.7<br>32<br>27.7   | 80                        | 1450                 | 132.0                     | 5.5   |
| 296              | 350-40B            | 600<br>900<br>1121   | 166.7<br>250<br>311.4   | 31.2<br>28.2<br>24.6 | 78                        | 1450                 | 110.0                     | 5.5   |
| 297              | 350-50             | 718<br>1080<br>1345  | 199.4<br>300<br>373.6   | 54.7<br>50<br>44.2   | 78<br>83<br>77            | 1450                 | 200.0                     | 5.5   |
| 298              | 350-50A            | 663<br>995<br>1245   | 184.2<br>276.4<br>345.8 | 48.3<br>44<br>36.8   | 77<br>81<br>76            | 1450                 | 160.0                     | 5.5   |
| 299              | 350-50B            | 620<br>931<br>1165   | 172.2<br>258.6<br>323.6 | 42.5<br>38<br>32.3   | 79                        | 1450                 | 132.0                     | 5.5   |
| 300              | 350-60             | 718<br>1080<br>1345  | 199.4<br>300<br>373.6   | 64.8<br>60<br>55     | 82                        | 1450                 | 250.0                     | 5.5   |
| 301              | 350-60A            | 663<br>995<br>124    | 184.2<br>276.4<br>345.8 | 59.2<br>54<br>48     | 80                        | 1450                 | 200.0                     | 5.5   |
| 302              | 350-60B            | 620<br>931<br>1165   | 172.2<br>258.6<br>323.6 | 51.3<br>46.9<br>41.3 | 78                        | 1450                 | 160.0                     | 5.5   |
| 303              | 350-12.5(I)        | 1000<br>1200<br>1450 | 277.8<br>333.3<br>402.8 | 13.5<br>12.5<br>10.5 | 76<br>80<br>77            | 1450                 | 55.0                      | 6.0   |
| 304              | 350-125(I)A        | 900<br>1080<br>1300  | 250<br>300<br>361       | 11.5<br>10.5<br>9    | 76<br>80<br>76            | 1450                 | 45.0                      | 6.0   |
| 305              | 350-20(I)          | 1000<br>1200<br>1450 | 277.8<br>333.3<br>402.8 | 23<br>20<br>16       | 76<br>80<br>76            | 1450                 | 90.0                      | 6.0   |
| 306              | 350-20(I)A         | 900<br>1080<br>1300  | 250<br>300<br>361       | 19<br>17<br>14       | 73<br>78<br>74            | 1450                 | 75.0                      | 6.0   |
| 307              | 350-32(I)          | 1000<br>1200<br>1450 | 277.8<br>333.3<br>402.8 | 36<br>32<br>26       | 74<br>78<br>75            | 1450                 | 160.0                     | 6.0   |
| 308              | 350-32(I)A         | 900<br>1080<br>1300  | 250<br>300<br>361       | 31.5<br>28<br>23     | 72<br>76<br>73            | 1450                 | 132.0                     | 6.0   |
| 309              | 350-32(I)B         | 745<br>985<br>1182   | 207<br>273<br>328       | 27<br>25<br>20       | 71<br>75<br>72            | 1450                 | 110.0                     | 6.0   |
| 310              | 350-50(I)          | 1000<br>1200<br>1450 | 277.8<br>333.3<br>402.8 | 55<br>50<br>43       | 70<br>74<br>72            | 1450                 | 250.0                     | 6.0   |
| 311              | 350-50(I)A         | 900<br>1080<br>1300  | 250<br>300<br>361       | 47.5<br>44<br>38     | 68<br>72<br>70            | 1450                 | 200.0                     | 6.0   |
| 312              | 350-50(I)B         | 745<br>985<br>1182   | 207<br>273<br>328       | 42<br>38.5<br>34     | 60<br>70<br>68            | 1450                 | 160.0                     | 6.0   |



### 起车与停车

#### (一)起车前准备

- 1、用手拨转泵轴或泵联轴器，叶轮应无卡磨现象，转动灵活。
- 2、打开进口阀门，打开排气阀使液体充满整个泵腔，然后关闭排气阀。
- 3、用手盘动泵轴以使润滑液进入机械密封端面。
- 4、点动电机，确定转向是否正确。

#### (二)起车与运行

- 1、全开进口阀门，关闭吐出管路阀门。
- 2、接通电源，当泵达到正常转速后，再逐渐打开吐出管路上代门，并调节到所需工况。
- 3、注意观察仪表读数，检查轴封泄漏情况，正常时机械密封泄漏量≤3滴/分，检查电机、轴承外温升≤70℃如果发现异常情况，应及时处理。

#### (三)停车

- 1、逐渐关闭吐出管路阀门，切断电源。
- 2、关闭进口阀门。
- 3、环境温度低于0℃，应将泵内液体放尽，以免冻裂。
- 4、如长期停用，应将泵拆卸清洗，包装保管。

### 泵的维护与保养

#### (一)运行中的维护与保养

- 1、进水管路必须高度密封。
- 2、禁止泵在汽蚀状态下长期运行。
- 3、禁止泵在大流量运行时，电机超电流长期运行。
- 4、定时检查泵运行时电流值不得超过电机额定电流。
- 5、泵在运行过程中应有专人看管，以免发生意外。
- 6、泵每运行500小时应对轴承进行加油。电机功率大于11KW配有加油装置，可用高压油枪直接注入，以保证轴承润滑优良。
- 7、泵进行长期运行后，由于机械磨损，使机组噪声及振动增大时，应停车检查，必要时可更换易损零件及轴承，机组大修期一般为一年。

#### (二)机械密封维护与保养

- 1 机械密封润滑应清洁无固体颗粒。
- 2 严禁机械密封在干磨情况下工作。
- 3 起车前应盘动泵(电机)几圈，以免突然起车造成密封环断裂损坏。

### Starting and stopping

#### (1)Preparation before starting

1. Rotate the pump shaft or pump coupling by hand, and the impeller should be free of jamming and flexible in rotation.
2. Open the inlet valve, open the exhaust valve to fill the entire pump chamber with liquid, and then close the exhaust valve.
3. Rotate the pump shaft by hand to allow lubricant to enter the mechanical seal face. 4. Inch the motor to determine if the steering is correct.

#### (2)Starting and Running

1. Fully open the inlet valve and close the discharge pipeline valve.
2. Connect the power supply, and when the pump reaches normal speed, gradually open the upper valve of the discharge pipeline and adjust it to the required working condition.
3. Pay attention to the reading of the instrument and check the leakage of the shaft seal. Under normal circumstances, the leakage rate of the mechanical seal is ≤ 3 drops/minute. Check that the external temperature rise of the motor and bearing is ≤70℃. If any abnormalities are found, they should be dealt with in a timely manner.

#### (3) Parking

1. Gradually close the discharge pipeline valve and cut off the power supply.
2. Close the inlet valve.
3. If the ambient temperature is below 0℃, the liquid inside the pump should be drained to avoid freezing and cracking.
4. If the pump is not used for a long time, it should be disassembled, cleaned, packaged, and stored.

### Maintenance and upkeep of pumps

#### (1)Maintenance and upkeep during operation

1. The inlet pipeline must be highly sealed.
2. It is prohibited to operate the pump for a long time under cavitation conditions.
3. It is prohibited to operate the pump for a long time with excessive motor current during high flow operation.
4. Regularly check that the current value during pump operation should not exceed the rated current of the motor.
5. The pump should be supervised by a dedicated person during operation to avoid accidents.
6. The bearings should be lubricated every 500 hours of pump operation. The motor with a power greater than 11KW is equipped with a refueling device, which can be directly injected with a high-pressure oil gun to ensure excellent bearing lubrication.
7. After long-term operation of the pump, if the noise and vibration of the unit increase due to dry mechanical wear, it should be stopped for inspection. If necessary, vulnerable parts and bearings can be replaced. The overhaul period of the unit is generally one year.

#### (2)Maintenance and upkeep of mechanical seals

1. The lubrication of mechanical seals should be clean and free of solid particles.
2. It is strictly prohibited for mechanical seals to work under dry grinding conditions.
3. Before starting, the pump (motor) should be turned a few times to prevent sudden starting from causing damage to the sealing ring.

### 故障和解决方法

### Faults and solutions

| 故障 failure                                       | 原因 Cause  | 解决方法 resolvent  |
|--|---|---|
| 水泵不出水<br>The water pump does not discharge water | a. 进出口阀门未打开，进出管路阻塞，叶轮流道阻塞。<br>b. 电机运行方向不对，电机缺相。<br>c. 吸入管漏气。<br>d. 泵没灌满液体，泵腔内有空气。<br>e. 进口供水不足，吸程过高，底阀漏水。<br>f. 管路阻力过大。<br>a. The inlet and outlet valves are not open, the inlet and outlet pipelines are blocked, and the impeller flow passage is blocked.<br>b. The motor is running in the wrong direction and is out of phase.<br>c. Air leakage in the suction pipe.<br>d. The pump is not filled with liquid and there is air in the pump chamber.<br>e. The imported water supply is insufficient, the suction head is too high, and the bottom valve is leaking.<br>f. Excessive pipeline resistance. | a. 检查，去除阻塞物。<br>b. 调整电机方向，紧固电机接线。<br>c. 拧紧各密封面，排除空气。<br>d. 打开泵上盖或打开排气阀，排尽空气。<br>e. 停机检查、调整(并网自来水管和带吸程使用易出现此现象)。<br>f. 减少管路弯道，重新选泵。<br>a. Check and remove blockages.<br>b. Adjust the motor direction and tighten the motor wiring.<br>c. Tighten each sealing surface to remove air.<br>d. Open the pump cover or open the exhaust valve to exhaust all air<br>e. Shutdown inspection and adjustment (this phenomenon is easy to occur when using grid connected water pipes and suction pipes).<br>f. Reduce pipeline bends and reselect pumps. |
| 流量不够<br>Insufficient flow                        | a. 先按1.原因检查。<br>b. 管道、叶轮流道部分阻塞，水垢沉积、阀门开度不足。<br>c. 电压偏低，转速不符合要求。<br>d. 叶轮磨损。<br>a. First, check the cause according to 1.<br>b. The pipeline and impeller flow channels are partially blocked, with scale deposition and insufficient valve opening.<br>c. The voltage is low and the speed does not meet the requirements.<br>d. Impeller wear.   | a. 先按1.排除。<br>b. 去除阻塞物，重新调整阀门开度。<br>c. 稳压。<br>d. 更换叶轮。<br>a. First, press 1. Exclude.<br>b. Remove the obstruction and readjust the valve opening.<br>c. Stable voltage.<br>d. Replace the impeller.  |
| 功率过大<br>Excessive power                          | a. 超过额定流量使用。<br>b. 吸程过高。<br>c. 泵轴承磨损。<br>d. 泵选型不当。<br>a. Exceeding the rated flow rate for use.<br>b. The suction head is too high.<br>c. The pump bearings are worn.<br>d. Improper pump selection.  | a. 调节流量关小出口阀门。<br>b. 降低吸程。<br>c. 更换轴承。<br>d. 重新选泵。<br>a. Adjust the flow rate and turn down the outlet valve.<br>b. Reduce suction head.<br>c. Replace the bearings.<br>d. Select a new pump.   |
| 杂音振动<br>Noise vibration                          | a. 管路支撑不稳。<br>b. 液体混有气体。<br>c. 产生汽蚀。<br>d. 轴承损坏。<br>e. 电机超载发热运行。<br>a. The pipeline support is unstable.<br>b. Liquid mixed with gas.<br>c. Produce cavitation.<br>d. Bearing damage.<br>e. The motor operates under overload and heat generation.  | a. 稳固管路。<br>b. 提高吸入压力、排气。<br>c. 降低真空度。<br>d. 更换轴承。<br>e. 调整按5。<br>a. Secure the pipeline.<br>b. Increase suction pressure and exhaust.<br>c. Reduce the vacuum level.<br>d. Replace the bearings.<br>e. Adjust by pressing 5.   |
| 电机发热<br>Motor heating                            | a. 流量过大，超载运行。<br>b. 碰擦。<br>c. 电机轴承损坏。<br>d. 电压偏低。<br>a. Excessive flow and overload operation.<br>b. Rubbing.<br>c. The motor bearing is damaged.<br>d. The voltage is low.   | a. 关小出口阀。<br>b. 检查排除。<br>c. 更换轴承。<br>d. 稳压。<br>a. Turn down the outlet valve.<br>b. Check and eliminate.<br>c. Replace the bearings.<br>d. Stable voltage.  |
| 水泵漏水<br>Water pump leakage                       | a. 机械密封磨损。<br>b. 泵体有砂孔或破裂。<br>c. 密封面不平整。<br>d. 安装螺栓松懈。<br>a. Mechanical seal wear.<br>b. The pump body has sand holes or cracks.<br>c. The sealing surface is uneven.<br>d. The installation bolts are loose.   | a. 更换。<br>b. 焊补或更换。<br>c. 修整。<br>d. 紧固。<br>a. Replace.<br>b. Weld repair or replacement.<br>c. Trimming.<br>d. Tighten.   |