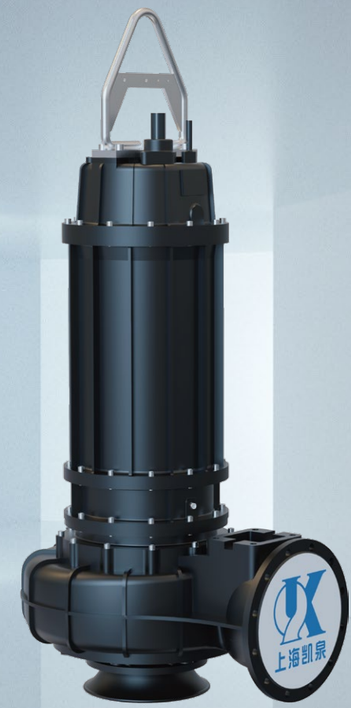
凯泉
KAIQUAN

The way of good water benefits all things

WQ(30KW及以上)
物联网智慧潜水排污泵

WQ (30kW and above)
IOT Intelligent Submersible Sewage Pump

- Intelligent Cloud Monitoring(30kW and Above)
  Real-time data collection and transmission to the smart cloud platform for remote monitoring
- None Overload Hydraulic Design
  Stable operation, and the off load condition will not exceed power
- General Design
  Modular design of water pump, standardized design of motor, high general purpose
- High Reliability
  Short shaft extension, self cleaning technology of machine seal, double cable sealing
- High Configuration
  Standard SKF Bearing, Burgmannn mechanical seal, H-class motor insulated impeller,casing cover wear-resistant ductile iron



上海凯泉泵业(集团)有限公司
SHANGHAI KAIQUAN PUMP (GROUP) CO., LTD.

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YB/KQ WQ-2022/09

Kaiquan and SKF Strategic Cooperation

SKF is rooted in China, Kaiquan goes to the World!

Kaiquan became the first company in the world to allow the use of SKF Equipped trademarks on equipment!

Shanghai Kaiquan is a large-scale integrated pump industry group integrating design/production/sales of pumps, water supply equipment and pump control equipment, and is a leading enterprise in China's pump industry. The group has more than 7,000 employees, including more than 1,200 engineering and technical personnel, mainly composed of well-known pump experts and professors, doctoral masters, middle and senior engineers, forming an echelon talent structure with innovative thinking. In Shanghai, Zhejiang, Hebei, Liaoning, Anhui and other provinces and cities have 7 enterprises, 5 industrial parks. Shanghai Kaiquan Group has won many honors such as "China Contract-abiding and Credit-abiding Enterprise", "National Advanced Private Enterprise in Social Security and Employment", "China Science and Technology Innovation Enterprise", "Top 100 Enterprises in China Machinery Industry", "Top 10 Enterprises in China's Energy Equipment", "National Advanced Collective in Machinery Industry", "Shanghai High-tech Enterprise", "Shanghai Quality Gold Award", "Shanghai Top 100 Science and Technology Enterprise" and so on. Products serve in construction (including heat and air conditioning), municipal, nuclear power, thermal power, petrochemical, large water conservancy and other fields.

The SKF Group is constantly working to reduce friction and make machinery and equipment run faster, last longer, be more environmentally friendly and safer. With an efficient and sustainable business philosophy, the SKF Group is a leading global supplier of products, solutions and services for rolling bearings, seals, mechatronics, services and lubrication systems. Services include technical support, maintenance services, condition monitoring, asset efficiency optimization, engineering consulting and training.

Today, SKF has more than 130 production sites around the world, sales companies in more than 130 countries and more than 17,000 dealer stores, providing customers around the world with customized solutions and products that meet global quality standards.

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Product Overview

The WQ (30kW and above) IOT intelligent submersible sewage pump developed by Shanghai Kaiquan has followed the advent of the Internet of Things era and created and realized the "Internet of Things +" the pump" design, integrating IOT technology, realizes online detection, fault pre-alarm, remote monitoring, energy efficiency management, life cycle maintenance, equipment operation maintenance and management of equipment. The product implements GB/T24674-2021 "submersible sewage water electric pump" national standard. Independent research and development of innovative no-overload hydraulic model, is a true sense of the full head without overload submersible water pump.

At the same time, in the mechanical structure, sealing, online monitoring, intelligent control and other aspects of the comprehensive optimization design, so that with higher configuration, better hydraulic performance, stronger generality, better reliability.

Kaiquan WQ (30kW and above) IOT intelligent submersible sewage pump as an integral part of Kaiquan smart products, the purpose is for users Provide professional diagnostic services to help enterprises improve the efficiency of inspection, maintain diagnosis, avoid latent crises, and reduce production and operating costs. The IOT smart submersible sewage pump can be connected to the automation control system in the area, and the matching external cabinet can reduce the investment of enterprises to a certain extent. Combined with the monitoring of Kaiquan smart cloud platform, remote control, real-time monitoring and on duty.

Main Applications

Mainly used in sewage treatment plants, municipal sewage lifting pump stations, waterworks, water conservancy drainage and irrigation, water diversion engineering, integrated pumping stations, etc., to discharge sewage, wastewater and rainwater containing solids and fibers.

Usage Conditions

1) The medium temperature shall not exceed 40 ℃, the medium density shall be ≤ 1050 kg/m3, and the PH value shall be within the range of 4~10.
2) The liquid level of the pump during operation must not be lower than the "▽" dimension in the installation dimension drawing.
3) The standard material of the main parts of the pump is gray cast iron and ductile iron, which cannot be used to pump media with strong corrosiveness or strong abrasive solid particles. The impeller can be equipped with 2Cr13, 304, 316 and other materials;
4) The diameter of the solid in the medium shall be no more than the maximum length of the flow passage. See "WQ (30kW and above) Intelligent Submersible Sewage Pump Performance Parameter Table" for the specific length of the solid.
5) The degree of fiber in the medium should be less than the discharge diameter of the pump.

Features and Advantages of WQ (30kW and Above) IOT Smart Submersible Sewage Pump

1. IOT Network pump, intelligent control cabinet, cloud remote monitoring

The pump has a built-in intelligent digital acquisition module (KQCJ01), which provides data such as winding temperature, bearing temperature, oil chamber leakage, motor cavity leakage, junction box cavity leakage and water Pump vibration value real-time acquisition. Full direction monitoring of pump operation, and can be carried out through the smart control cabinet real-time data display, alarm or shutdown of the automotive operation. At the same time, you can log in to the Shanghai Kaiquan Smart Cloud remote monitoring operation and maintenance platform to carry out monitoring and maintenance operations.

2. Unique overload design and sewage treatment pump innovation technology

Innovative high-efficiency no-overload hydraulic model design concept, while taking into account the sewage pump energy design through the energy of the result. Completely solve the worries of the operation of the pump.

No overload hydraulic model technical features, the maximum power point appears in the high efficiency zone, smooth operation, no vibration.

Impeller passing energy: The impeller has undergone a large amount of CFD research analysis and testing, so that the impeller blade and the solid through the energy force to achieve the best balance, the unique design of the flow passage components ensures the passage of solids and the resistance of fibers to entanglement.

3. Unique sealing design of the pump ensures long-term reliable operation of the pump

In addition to the cable seal at the outlet of the motor, the internal lead wire is provided with additional lead wire seals at the upper end cover of the motor, and two cable seals are provided to ensure that the stator cavity is not damaged by water.

4. Mechanical seal self-clean technology

Two single end mechanical seals are installed in series. Special spiral grooves or gaps are used at the pump cover to prevent solid particles from depositing to the pump side mechanical seal so as to achieve the cleaning function of the mechanical seal and prolong the service life of the mechanical seal.

5. Short shaft extension design

The short shaft extension design can significantly eliminate the deviation error of the shaft. Reduce the pump weight and vibration, and prolong the service life of mechanical seals and bearings.

6. Submersible motor reliability design

The insulation grade of the motor is Class H, and the maximum allowable temperature is 180 ℃, which is qualitatively improved compared with Class F. The motor can withstand a higher temperature and is more durable. The dynamic seal adopts Shanghai Bergman mechanical seal, and the pump head mechanical seal is made of silicon carbide to tungsten carbide, providing the most wear-resistant energy. The mechanical seal design makes the service life of the pump head 15000 hours. The bearing is designed according to the minimum service life of 100000 hours to ensure the normal operation of the pump.

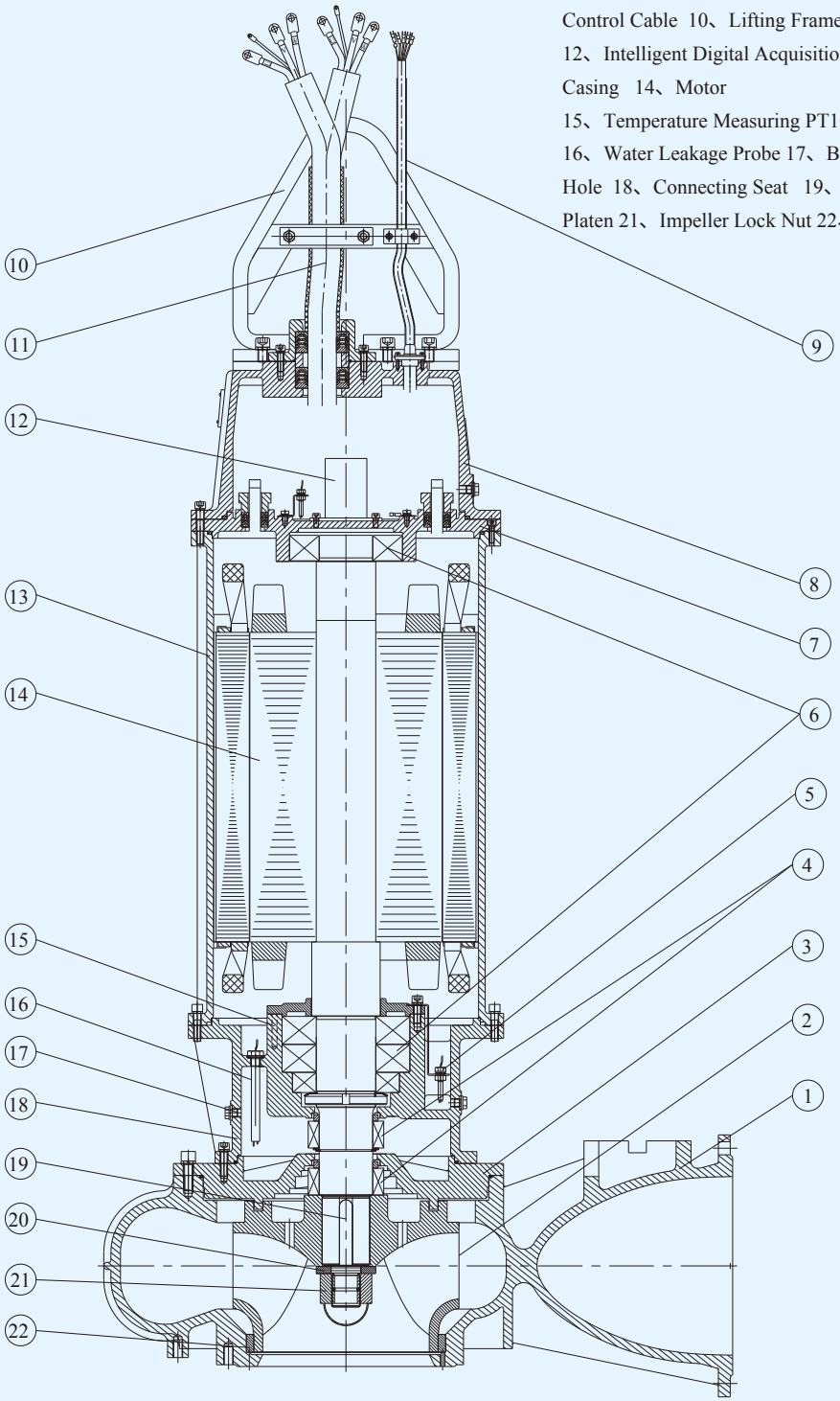
7. Universal pump installation design

The installation methods are diversified. The dynamic coupling installation is adopted. The pump is connected with the outlet pipe socket of the coupling device through the outlet pipe socket of the coupling device, instead of conventional fasteners. When the pump is connected with the outlet pipe socket and disconnected, simply put down and lift the pump along the guide rod to save time.

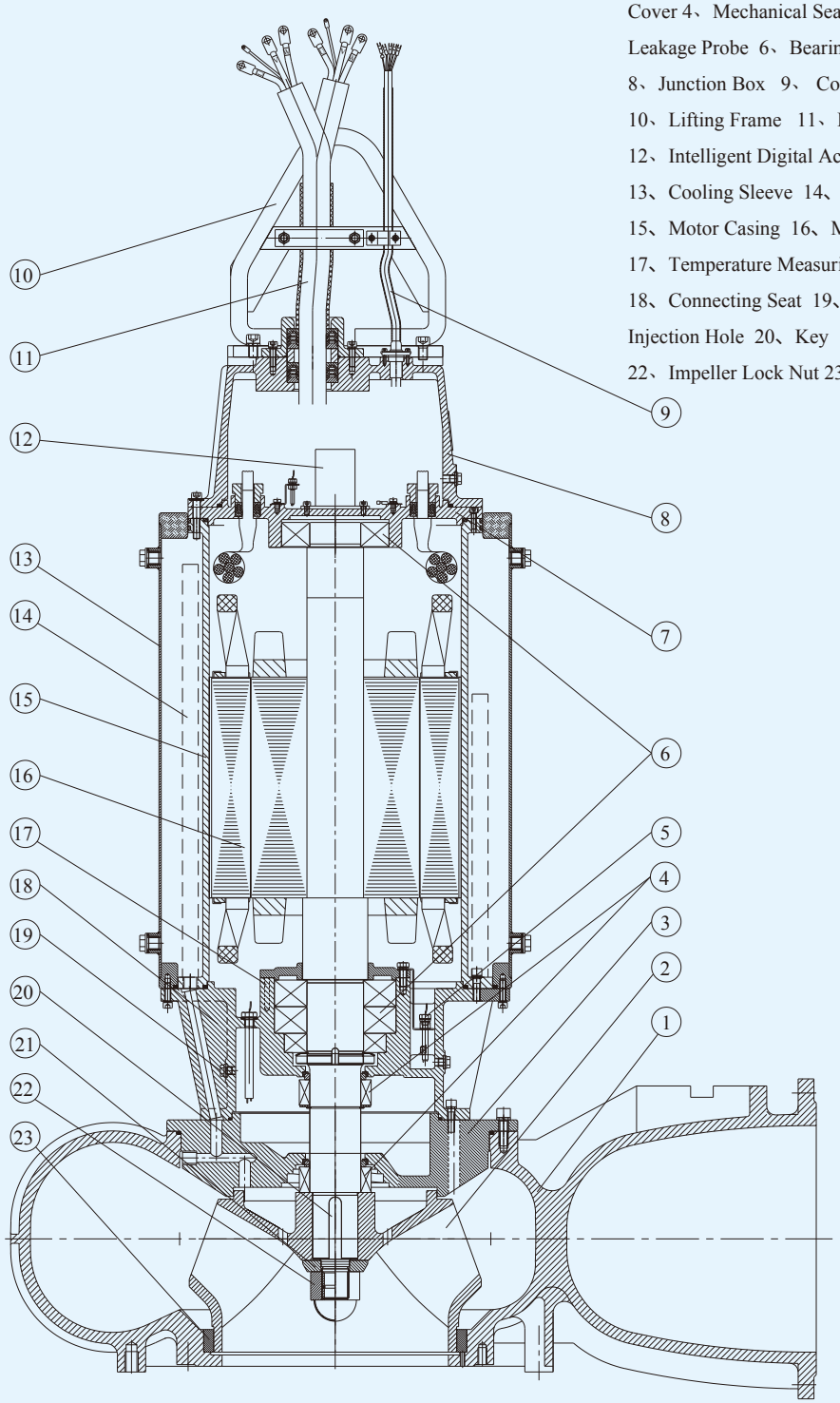
Structure Description of WQ (30kW and Above) IOT Smart Submersible Sewage Pump

Structure Description

1、Pump Casing 2、Impeller 3、Pump Cover
4、Mechanical Seal 5、Water Leakage Probe
6、Bearing 7、Upper Cover 8、Junction Box 9、Control Cable 10、Lifting Frame 11、Power Cable
12、Intelligent Digital Acquisition Module 13、Motor Casing 14、Motor
15、Temperature Measuring PT100
16、Water Leakage Probe 17、Bolt and Water Injection Hole 18、Connecting Seat 19、Key 20、Impeller Platen 21、Impeller Lock Nut 22、Sealing Ring



Structure Description with cooling sleeve



1、Pump Casing 2、Impeller 3、Pump Cover 4、Mechanical Seal 5、Water Leakage Probe 6、Bearing 7、Upper Cover 8、Junction Box 9、 Control Cable 10、Lifting Frame 11、Power Cable 12、Intelligent Digital Acquisition Module 13、Cooling Sleeve 14、Cooling Water Pipe 15、Motor Casing 16、Motor 17、Temperature Measuring PT100 18、Connecting Seat 19、Plug and Oil Injection Hole 20、Key 21、Impeller Platen 22、Impeller Lock Nut 23、Sealing Ring

Technical Specifications

Casing Impeller

CFD technology is adopted to optimize the design, wide outlet impeller with high efficiency and no overload, no overload hydraulic design and the best balance of high throughput, wide flow channel and the best dirt throughput. Impeller has undergone rigorous dynamic balance testing, thus minimizing vibration and maximizing the life of bearings and mechanical seals.

Casing Cover

Self-cleaning technology is adopted, and the pump cover is provided with an annular spiral groove structure. When the medium particles rotate at the pump cover, they are thrown outwards by centrifugal force, which can prevent the particles from gathering in the sealed cavity and achieve the self-cleaning effect of the mechanical seal.

Electrical Machinery

Specially designed and manufactured submersible motor, the protection grade is IP68, the stator winding is H-class insulation, the insulation material's limit working temperature is 180℃, and the winding is embedded with winding temperature measurement PT100, which is protected by electric control cabinet.

Cooling of motor

The motor is cooled by the pumped medium through the cooling fins on the stator shell, and the medium needs to submerge the motor. The lowest pump stop position should not be lower than the installation size.

The liquid level marked "▽" in the figure.

The electric pump can be specially equipped with a motor cooling system to cool the motor. The cooling medium flows between the stator housing and the cooling sleeve. The cooling medium can be pumped medium or external cooling water. Cooling with pumped medium is different from cooling with external cooling water, and the cooling channel is different. Therefore, when users want to install a cooling system, they should specify in the order whether to use pumped medium or external cooling water for cooling. When the cooling medium is a pumped medium, the structure of the pump can prevent large particles from passing through the cooling channel. After long-term operation, small particles may form in the sleeve, which can be washed by connecting the pipe joint on the cooling sleeve with washing liquid.

Mechanical Seal

Bogman mechanical seal is adopted, and friction pair materials with low friction coefficient and wear resistance are selected for mechanical seal. Rubber parts are oil-resistant nitrile rubber, and metal parts are stainless steel. The mechanical seal on the side of the medium adopts silicon carbide/tungsten carbide pairing, and the self-cleaning mechanical seal technology of the spiral structure of the pump cover is matched. The designed service life of the mechanical seal is 15,000 hours.

OilChamber

32# anti-wear hydraulic oil is used as the oil in the oil chamber, and the implementation standard is GB11118.1-2011. Besides lubricating the mechanical seal, the oil chamber can also take away the heat of the bearing, and the oil chamber also has additional safety function of preventing liquid from penetrating. A water leakage probe is installed in the oil room. When the medium on the pump side leaks into the oil room, the water leakage probe will alarm the pump through the electric control cabinet to remind the operator to check and repair.

Add oil until the oil overflows from the oil injection hole, and ensure that a certain volume of air is left in the oil chamber, so that the pressure in the oil chamber will not rise greatly after the oil temperature rises, thus avoiding excessive wear or leakage of the mechanical seal.

Bearing

The whole system adopts imported SKF bearings as standard, and the upper bearings are deep groove ball bearings or cylindrical roller bearings, which are used to bear radial forces. The lower bearing is used to bear radial force and axial force. Depending on the magnitude of radial force and axial force, some pumps are designed as a double-row contact ball bearing, and some are a pair of contact ball bearings plus a cylindrical roller bearing, all of which have sufficient load margin. The designed service life of the bearing is 100,000 hours, and it is lubricated with 3# lithium grease.

Electric Cable Sealing of Motor

The heavy rubber sheathed flexible cable with sewage resistance is selected for the cable, which has excellent mechanical strength and oil stain resistance. The cross-sectional area and current-carrying capacity of the cable are selected according to the condition of long-term continuous operation at ambient temperature of 40. Therefore, under the usual conditions of use, the current-carrying capacity of the cable has sufficient margin and its life is longer.

The cable gland presses the cable sealing ring, so that the cable can be reliably sealed with the wiring cavity. Fix the cable to prevent it from pulling off. It is easier to identify and connect cables by using color marks and digital marks of cables. There are grounding signs and grounding fasteners in the wiring cavity of the motor and the electric control cabinet, and the cables are strictly grounded, safe and reliable.

During the assembly process, the wiring cavity, motor cavity and oil chamber cavity of each pump should be strictly sealed to ensure that the motor cavity, including wiring cavity and oil chamber cavity, are reliably sealed.

Intelligent acquisition system

The water pump is equipped with intelligent digital acquisition module as standard, which can collect the temperature rise of motor winding, bearing, vibration value of water pump, leakage of motor cavity, leakage of oil chamber cavity and leakage of junction box cavity. At the same time, it is equipped with an intelligent control cabinet, which is equipped with an early warning communication controller to realize the real-time display and monitoring of the pump state and the early warning of faults. When users bring their own electric cabinet, they need a signal acquisition box.

Description of protection device

Platinum thermal resistance PT100

Platinum thermal resistance PT100 is installed at two places in the water pump, one is embedded in the stator winding of the motor, and the other is installed at the bearing. The display screen of the electric control cabinet displays real-time data. When the winding temperature or bearing temperature rises to the set value under the abnormal running condition of the water pump, the "overheating of winding" or "overheating of bearing" indicator of the control cabinet lights up and automatically stops the motor, reminding the operator to check and find out the cause of overheating of the motor.

When the fault temperature drops, the motor will return to the bootable state.

Water leakage probe

The water leakage probe is used as oil chamber and motor chamber for detection.

The leakage probe in the oil chamber is referred to as oil probe for short. When the mechanical seal on the impeller side is damaged and the water in the leaking oil chamber reaches a certain level, the two electrodes of the leaking probe are conducted, and an alarm signal (indicator light is on) is sent out through the electric control cabinet to remind the operator to check the mechanical seal or replace the oil in the oil chamber in time.

The leakage probe in the motor cavity is called water probe for short. It is installed in the cavity at the lower side of the motor cavity and beside the bearing, and the cavity has holes communicated with the bearing chamber. When the mechanical seal at the motor side fails, the oil in the oil chamber enters the cavity through the bearing chamber, or the water entering the motor flows into the cavity, which will make the two electrodes of the water leakage probe conduct, send out an alarm signal (indicator light) through the electric control cabinet and make the pump stop running automatically, reminding the operator to overhaul the pump.

Lifting device

The lifting frame of the pump is made of 304 material, and at the same time, it is designed with a large space, which is convenient for the hook to hang in, making the lifting convenient and durable.

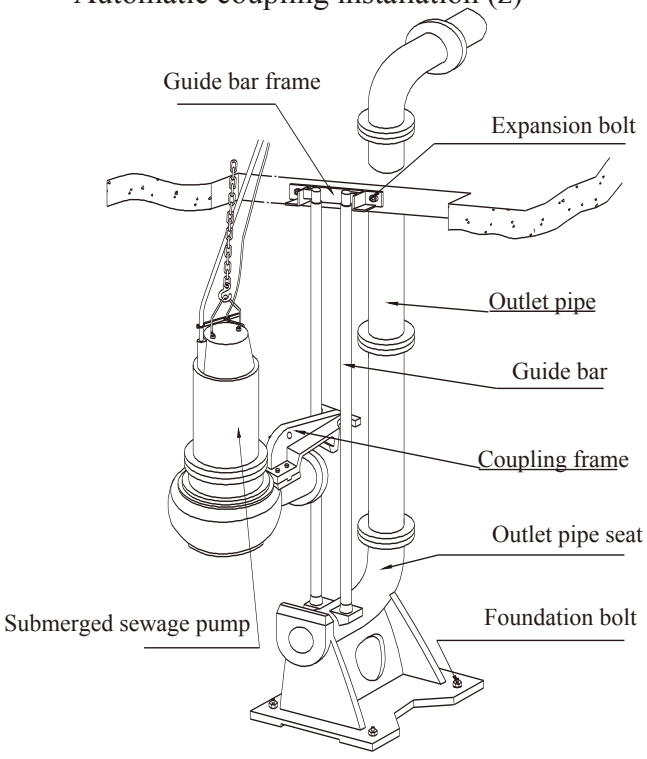
Main Parts Material

NO.	Name		Material
1	Impeller, Casing cover		QT500
2	Casing, \Casing, Terminal Block and Connecting Seat		HT250
3	Shaft		2Cr13/3Cr13
4	Sealing Ring		HT250
5	Motor insulation		180℃ Class h insulation
6	Bearing Brand		SKF
7	Mechanical Seal	Brand	Burgmann
		Side friction pair of motor	Graphite/Silicon carbide
		Pump side friction pair	Silicon carbide/Tungsten carbide
8	O ring		Nitrile 40
9	Cable sealing ring		

Installation Methods

There are automatic coupling installation (Z), fixed base installation (P) and fixed base installation (F) for WQ Internet of Things smart submersible sewage pump. No matter which installation method, it is very simple. They are introduced separately below.

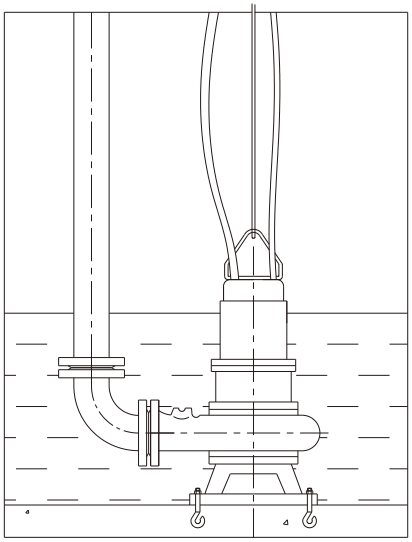
Automatic coupling installation (z)



Automatic coupling installation is actually the use of coupling devices to connect pumps and pipes. With the coupling device, the pump and the water outlet pipeline are independent of each other and must be connected with conventional fasteners, so it is very easy to connect and disconnect the pump and the water outlet pipeline. The coupling device is actually very simple. There are only four things: the outlet pipe seat, the guide rod, the guide rod frame and the coupling frame. The guide rod only plays a guiding role and is not stressed. It is ok to use ordinary water pipes or steel pipes. Users can bring their own, and it can be easily cut into the required length according to the depth of the pool. During installation, install the outlet pipe seat, guide rod and guide rod bracket, mount the coupling bracket on the pump body, lift the pump, insert the semicircular orifice on the coupling bracket into the guide rod, and slide the pump to the bottom along the guide rod. The coupling bracket will fasten the pump body with the outlet pipe seat, and at the same time, the outlet of the pump body and the inlet of the outlet pipe seat will be automatically aligned, and the flange end face will be automatically attached. When you need to repair the pump, you only need to lift the pump up, and the pump body and outlet pipe seat will be disconnected. This installation method is really worry-free, labor-saving and trouble-saving.

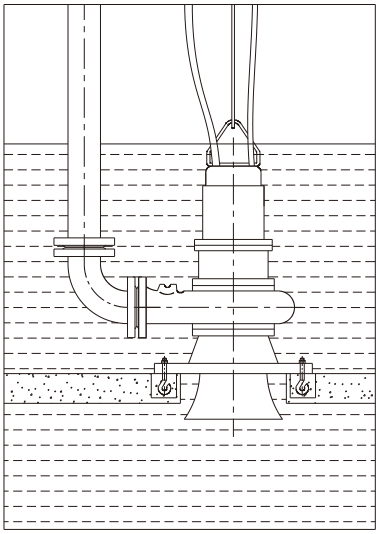
Because the coupling device and the pump are relatively independent, if your pump station needs to change to a low-lift or high-lift pump with the same caliber due to the change of circumstances, you can still use the original coupling device.

Fixed base installation (P)

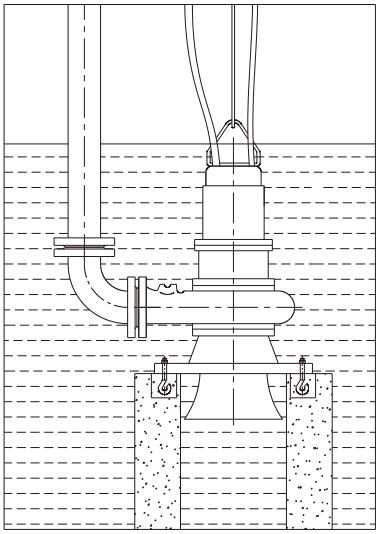


P

Fixed base installation (F)



F

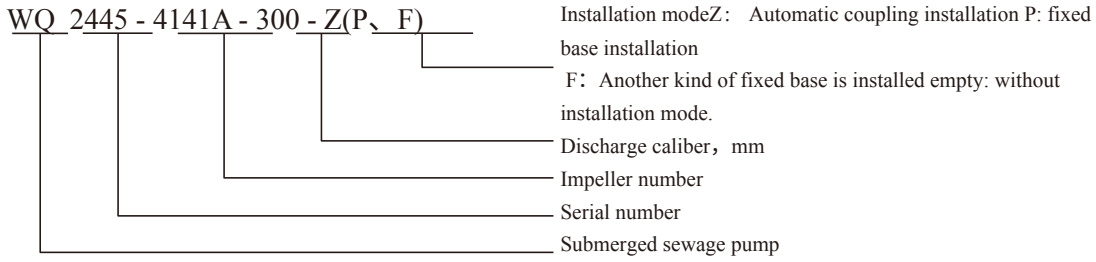


F

Fix the supporting base on the foundation and connect the water outlet pipe to run. The base needs to be fixed with ground bolts.

Technical Specifications

Model description



The last two or three digits of the impeller number are the serial number, and the previous digits represent the motor series. For example, the "4" of 4141A represents the 4-stage motor, 141 is the serial number, and A and B after the digits represent the cutting impeller. Another example is "10" of 1054, which indicates a 10-stage motor, and 54 is the sequence number.

Rated voltage and rated frequency

The rated voltage of the motor is 380V and the rated frequency is 50Hz.

Wiring method

Connection method of motor winding lead wire:

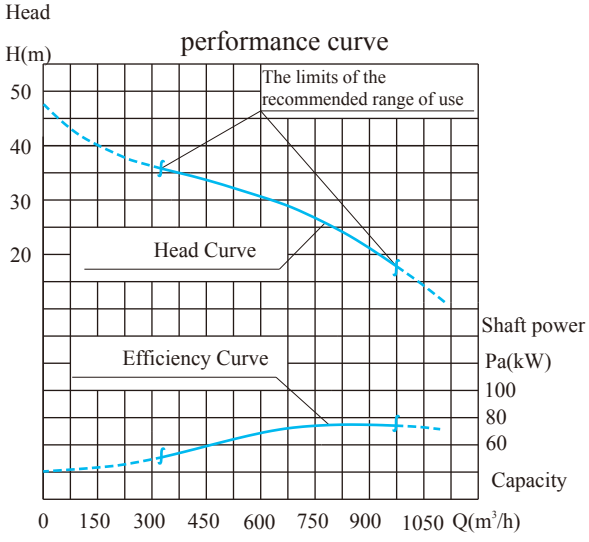
55kW and below are connected by triangle (△) . When the pump leaves the factory, the wiring cavity has been connected according to this. According to the field situation, direct start, auto-coupling voltage reduction start or external electronic soft starter start can be adopted.

For 75kW or above, the six lead wires of the winding are directly connected and led out by the six power cores of the two main cables, and the outer triangle (△) connection is used to connect the winding, which is suitable for self-coupling step-down startup or external electronic soft starter startup. Six power line cores can also be correspondingly connected with six copper bars of the control cabinet, which is suitable for star delta start-up.

Direction of rotation

From the pump suction, the impeller rotates counterclockwise.

Description of performance curve and main parameters



Main parameter

Discharge caliber 250mm

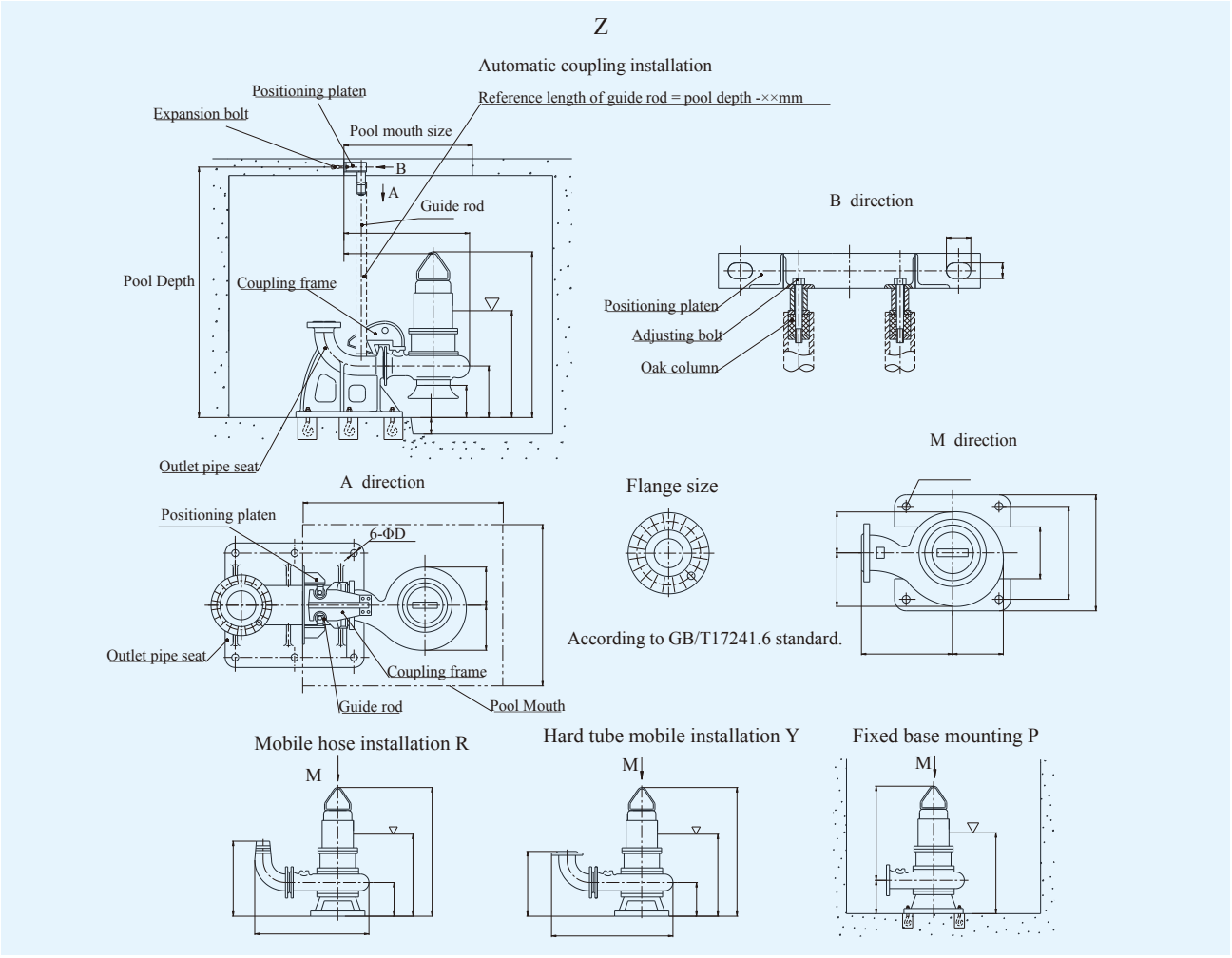
New Model	Original Model	Runner size (mm)	Rotational Speed (r/min)	Pump weight (kg)
WQ2368-4149-250		138	1485	850
Motor Rated Power (kW)	Rating Current (A)	Motor Power Factor COSΦ	Motor Efficiency (%)	Locked Torque/ Rated Torque
75	139	0.87	94	2.2

The solid line part of the graph indicates the recommended application range of the pump. When the shaft power increases to a certain value, it will not increase. No-overload pumps generally have no danger of overload, and even if there is a little overload occasionally, there is a limit. Therefore, the motor of such pumps is safe when used at any flow rate. However, it's better to use it within the recommended range, because the pump efficiency is higher and it's more economical to use it within the recommended range. However, when the flow rate is less than the left limit, the efficiency of the unit is very low, resulting in large radial force, leading to key rolling and shaft breaking. When the flow rate is greater than the right limit, the pump will cause vibration, noise and other problems.

Refer to "WQ(30kW and above) Internet of Things Intelligent Submersible Sewage Pump Performance Parameter Table" for the maximum size of solid.

The pump weight does not include accessories of various installation methods, such as coupling device, base, elbow joint, hose elbow joint, etc.

Description of installation dimension drawing



1.All guide brackets can be fixed with M16×150Ⅰ expansion bolts. Expansion bolts are easy to buy, you can bring your own or order from our company.

Function of rubber column on the guide bar: Tighten the adjusting bolt of rubber column, which can make the rubber column hold the inner hole of the guide bar tightly, make the guide bar stable, and avoid the vibration of the guide bar.

2.The length of the guide rod should be calculated according to the "pool depth" shown in the figure. See table 1 for information about guide rods.

3.The pump without inlet bell pipe is coupled and installed, and the bottom of the pool is made flat. The length of the outlet pipe seat can ensure that the suction inlet of the pump has enough height to the bottom of the pool, so that the pump has good suction conditions. Therefore, it is not necessary to make a concrete boss for the outlet pipe seat, which can save troubles in construction.

Pumps with inlet bell pipes are coupled for installation. In order to ensure that the bell pipes have enough height to the bottom of the pool, concrete bosses with certain strength should be made for the outlet pipe seats. We give the minimum height of the bosses in the installation dimension diagram of each pump.

4.▽ indicates the lowest liquid level of water pump operation. The running liquid level of the pump should be higher than the minimum liquid level. If possible, it is best to completely submerge the pump, so that the motor can be fully cooled. The lowest liquid level can be controlled by the float switch. Our special electric control cabinets for submersible sewage pumps are liquid level control type, all equipped with a certain number of floating ball switches.

5.The installed pump, hose elbow or elbow joint shall be provided by our company. See Table 2 for the inner diameter of the applicable hose for pumps of various calibers when installing the movable hose.

6.The same type of pump, fixed base installation and mobile base installation are the same, and the shape and size of the base are shown in the M-direction view.

7.The flange size indicates the discharge flange and outlet pipe seat flange of the pump. The flange dimensions shall comply with GB/T17241.6-2008/XG1-2011 standard.

Schedule 1 Specifications and dimensions of pump guide rod

Pump discharge diameter (mm)	Guide bar (GB/T17395-2008) Water pipe/seamless steel pipe	Reference length of guide rod = (pool depth-L) 15mm The following are L sizes.
50	1″/ 32×3.5	300
65		305
80		425
100		410
150	2″/ 60×5	435
200		540
250		630
300	3″/ 89×5	655
350		900
400		900
500		935
600		985
700		1150
800		1150
900		1320
1000		1320

Schedule 2 Hoses for pumps

Pump discharge diameter (mm)	50		65	80	100	150
Specification of the hose elbow used	50-6	50×65-6	65-6	80-6	100-6	150-6
With the inner diameter of the hose (mm)	64	76	76	89	102	152

Schedule 3 Anchor bolts for self-coupling installation of outlet pipe seat

Pump discharge diameter (mm).	Anchor bolt（GB/T799-1988）		
	Specification	Quantity	The reserved hole reference size is length× width× depth (mm)
50	M16×220	4	80×80×270
65			
80	M20×300		100×100×350
100			
150			
200	M24×300		
250	M30×400		160×160×450
300			
350		6	
400			
500	M36×500		160×160×550
600			
700	M42×700		200×200×750
800			
900	M48×800		230×230×900
1000		8	

Schedule 4 Anchor bolts installed on fixed base of pump

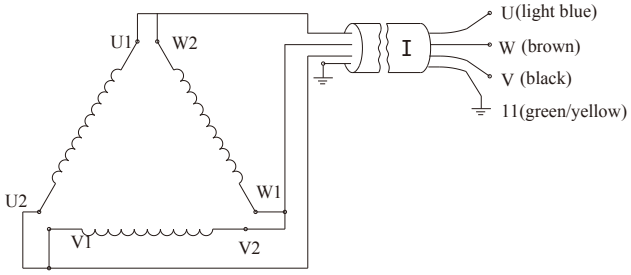
Base aperture	Anchor bolt（GB/T799—1988）	
	Specification	Reference size of reserved hole
		Length× width× depth (mm)
Φ18、Φ20	M16×220	80×80×270
Φ25、Φ26	M20×300	100×100×350
Φ30	M24×300	
Φ36、Φ40	M30×400	130×130×450
Φ46、Φ48	M36×500	160×160×550
Φ52	M42×700	200×200×750
Φ56	M48×800	230×230×900

Schedule 5 Coupling weight table

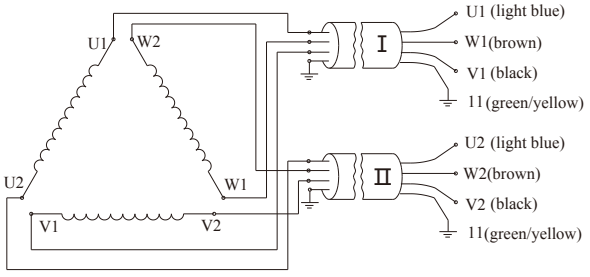
Pump caliber（mm）	Coupling device		
	Outlet pipe seat(kg)	Coupling frame(kg)	Guide rod
50	21.5	6	2.45kg/m
65	27.5	7.1	
80	41.3	8.1	
100	37	9.3	
150	74.3	20	6.78kg/m
200	106	24	
250	167	46	
300	270	64	10.36kg/m
350	442	106	
400	439	106	
500	610	114	
600	807	153	
700	2461	264	
800	3589	382	
900	4610	557	
1000	5400	685	

Standard wiring diagram of main and control cables of WQ(30kW and above) Internet of Things intelligent submersible sewage pump

Wiring diagram of 30-55kW stator lead and main cable (i.e. inner triangle connection)

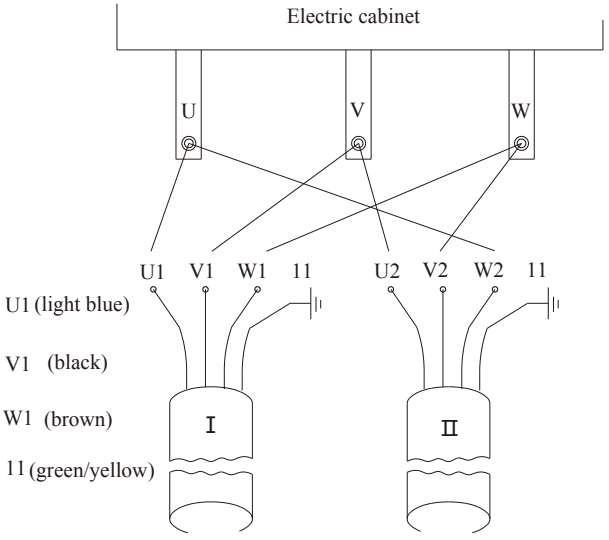


Wiring diagram of 75-315kW stator lead and main cable (i.e. external triangle connection)



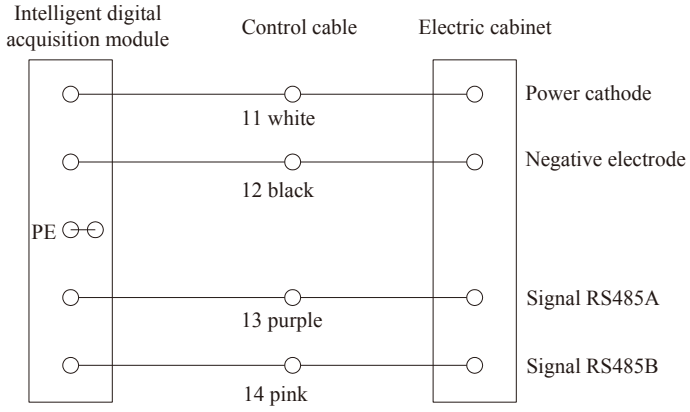
Wiring mode of 75-315kW sewage pump and on-site control cabinet external triangular wiring(standard configuration)

Standard wiring mode of sewage pump: electric pump and triangle wiring outside control cabinet.



Judgment method: any two phases of U, V and W of the same main cable are disconnected, that is, the two cables of the water pump and the control cabinet are connected by external triangle.

Schematic diagram of standard control line wiring



Product introduction and selection of special electric cabinet for WQ(30kW and above) Internet of Things intelligent submersible sewage pump

Selection of KQK-CJX Drainage Pump Intelligent Signal Collection Box and KQK-B(Z2) Series Control Cabinet

Overview

WQ(30kW and above) series submersible sewage pumps have built-in intelligent digital acquisition module to collect leakage, temperature, vibration and other data, which can realize real-time display, monitoring and fault early warning of the pump status by cooperating with the intelligent signal acquisition box or intelligent control cabinet of the drainage pump on site. Through real-time monitoring data, diagnostic engineers browse and analyze regularly, and timely realize comprehensive monitoring coverage of the unit through various forms such as Kaiquan Smart Cloud Platform operation and maintenance system, real-time SMS push and mobile APP push.

When the WQ(30kW and above) series submersible sewage pump is abnormal, the diagnosis service engineer will analyze the abnormal situation, contact the customer in time, and conduct in-depth analysis and feedback based on the actual situation on the spot. With the cooperation of the customer, the diagnosis service engineer will provide the abnormal handling opinions and keep tracking the abnormal situation until the problem is solved.

According to the unit status data, unit life cycle, fault mechanism, fault range, etc., experts from different professions and departments are gathered for analysis and diagnosis. Through the remote monitoring of WQ(30kW and above) intelligent submersible sewage pump in the Internet of Things, it can sensitively sense the change of unit state, start the service program early and quickly, and provide scientific service decisions. Provide users with professional, targeted, scientific and efficient services.

KQK-CJX1-WQ Ordinary Drainage Pump Intelligent Signal Acquisition box

KQK-CJX1-WQ Outdoor Drainage Pump Intelligent Signal Acquisition box

When the start-stop control cabinet and signal acquisition cabinet of WQ(30kW and above) Internet of Things intelligent submersible sewage pump are set independently, the signal acquisition must be matched with Kaiquan professional intelligent signal acquisition box of sewage pump. KK-CJX1 (2)-WQ intelligent signal collection box of drainage pump is a high-tech multifunctional condition monitoring and protection device specially designed for WQ(30kW and above) Internet of Things submersible sewage pump. It adopts intelligent digital instruments, which has incomparable advantages over traditional online monitoring instruments. The terminal box is suitable for online monitoring and protection of Kaiquan diving intelligent sewage pump and other products.

Pump intelligent signal acquisition box can continuously measure and monitor process parameters related to safety, such as water leakage, winding temperature, bearing temperature, bearing vibration, etc. It is standard to add power instruments to collect electrical parameters, including collecting electrical parameters such as pump voltage and current. By using this acquisition terminal, the abnormal state of the water pump can be identified in time, and the safe and reliable operation of the equipment can be ensured. It is of great practical significance to understand the running state of the unit and diagnose the common mechanical faults at an early stage.

Function

1、It is displayed in Chinese with backlit color LCD screen, with various display modes such as bar chart, trend curve, numbers, etc. The picture is rich and intuitive, which can simultaneously display various information such as pump group information, acquisition time, channel name, sensor status, channel alarm status, etc.

2、 It is composed of box frame, instruments, man-machine interface, programmable controller and communication module. The system can be equipped with power instruments, which can measure three-phase voltage, current, power, frequency and energy consumption. PLC has the input and output ports of switching value and four analog input channels.

3、The configuration is flexible, and the range, sensitivity, alarm value, alarm delay time, alarm logic and zero position of any channel can be directly set by the user through the Chinese menu on the screen, which is convenient and quick.

4、The system has built-in self-test and channel self-test functions to ensure that the relay will not malfunction when the system fails or the sensor circuit fails.

5、Built-in large-capacity memory card interface with power-down protection ensures enough storage space and saves the trouble of frequently backing up data. Data can be backed up conveniently through USB interface and network communication interface, which is conducive to the establishment of equipment documentation and provides a powerful analysis means for accidents.

6、Through the trend analysis, accident recall, statistical analysis and other functions of cloud platform, the maximum value, minimum value, average value, alarm times and cumulative alarm time of any channel in a certain period of time can be conveniently calculated.

7、It can provide very flexible state network, serial port connection (RS232/RS485) and USB interface, adopt standard communication protocol, and can easily exchange data with other systems to form a remote state monitoring network.

8、It can accept variable input from eddy current sensor, speed sensor, acceleration sensor, temperature sensor, pressure transmitter and other standard signals.

9、The pump intelligent signal acquisition box provides independent alarm relay output, and the alarm logic and alarm action delay time can be set by software.

The passive contact signal output can be used for the alarm and shutdown control of pump control cabinet supplied by the third party.

Technical parameters

1、Display mode: 7-inch true color touch screen display
2、Measuring range: measuring range of vibration channel Intensity: 0-20mm/s
Temperature:-40-120℃
3、Measurement accuracy: 0.5 grade.
Linear error ≤1%FS (full scale)
4、Input mode: RS485 input signal
5、Output mode： Passive contact, load capacity DC24V/2A or AC250V/5A
6、E nvironmental temperature:-20℃-65℃ (relative humidity: ≤90%)
7、Power supply:AC220V/50Hz±10%
8、Installation method: wall-mounted type
9、Dimensions: 600×400×200mm (length× width× thickness)

Wisdom module

Intelligent digital acquisition module (KQCJ01) integrated in the motor;

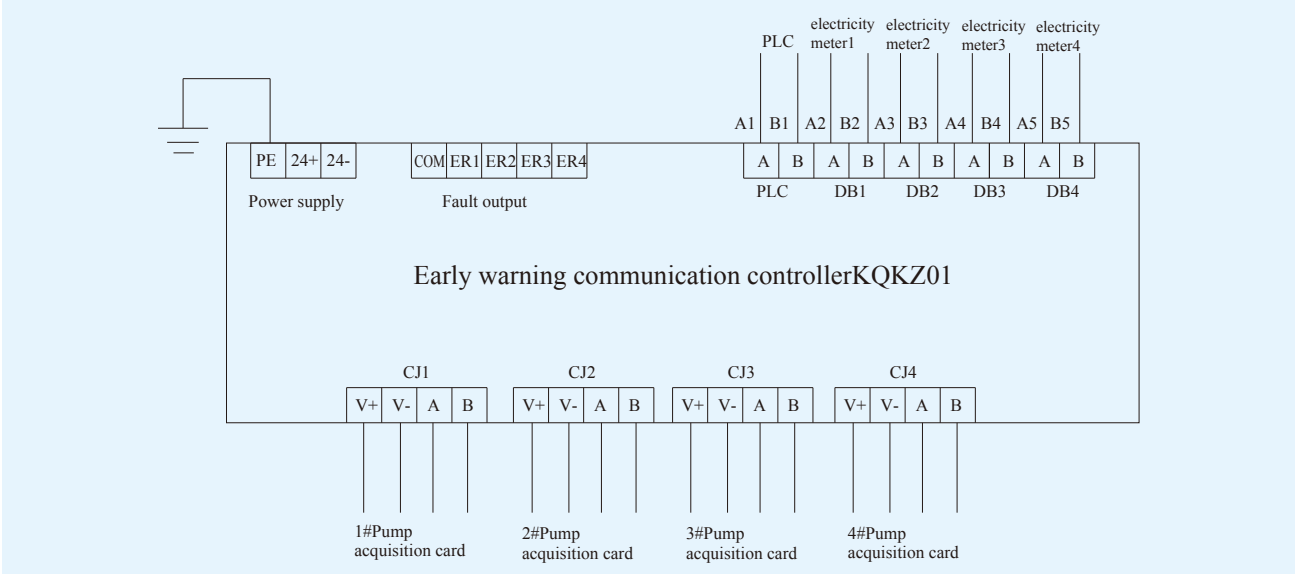
The intelligent digital acquisition module is internally provided with an intelligent digital acquisition module; It can collect the values of water pump winding temperature, bearing temperature, oil chamber leakage, motor chamber leakage, junction box leakage and water pump vibration.

The intelligent acquisition module adopts industrial ARM processor, high-precision low-temperature drift component design, high-precision industrial ADC, low leakage and high reliability tantalum capacitor and solid capacitor. Adopt the most advanced anti-interference design, and can withstand level 4 EMC interference. Oil leakage, motor cavity leakage and wiring cavity leakage, digital acquisition with optocoupler isolation is adopted to meet the requirements of high reliability and stability. PT100 temperature acquisition adopts photoelectric isolation technology to improve anti-interference ability.

Intelligent control cabinet has built-in warning communication controller (KQKZ01):

Built-in RTC real-time clock, ferroelectric memory, 4G full Netcom module; RS485 communication interface with independent isolated power supply is specially used for supplying power and communication to the acquisition module; Isolated RS485 communication is specially used to collect data of watt-hour meter; The isolated RS485 communicates with MHI touch screen and PLC respectively.

The communication controller adopts industrial ARM processor, high-precision low-temperature drift component design, isolation voltage 3000V design, tantalum capacitor and solid capacitor with low leakage and high reliability.



Introduction and selection of KQK-B(Z2) series electric cabinet for WQ(30kW and above) Internet of Things intelligent submersible sewage pump.

The KQK-B(Z2) control cabinet for WQ(30kW and above) Internet of Things intelligent submersible sewage pump is an economical, safe, reliable and easy-to-maintain automatic control system. Low-voltage electrical appliances and liquid level sensors of well-known brands at home and abroad are selected in the control cabinet, which has protection functions such as short circuit, phase loss, overload, vibration parameters, temperature change, water leakage in motor chamber, water leakage in oil chamber and overheating of winding. The control cabinet can be equipped with various liquid level sensors such as floating ball liquid level switch, input type or ultrasonic wave, and can automatically control the start and stop of water pump according to the liquid level when unattended. Except for single-control products, all products controlled by main and standby pumps have the function that the faulty pump will shut down automatically and the standby pump will be put into operation automatically. Two, three and four pump control cabinets can automatically stop or circulate, so as to achieve equal running time of each pump.

General control cabinets are mainly domestic famous brands such as Tianzheng, Zhengtai and Delixi. High-grade control cabinet components are mainly international famous brands such as Schneider, Siemens and ABB.

Model naming method of KQK-B(Z2) control cabinet for WQ(30kW and above) Internet of Things intelligent submersible sewage pump

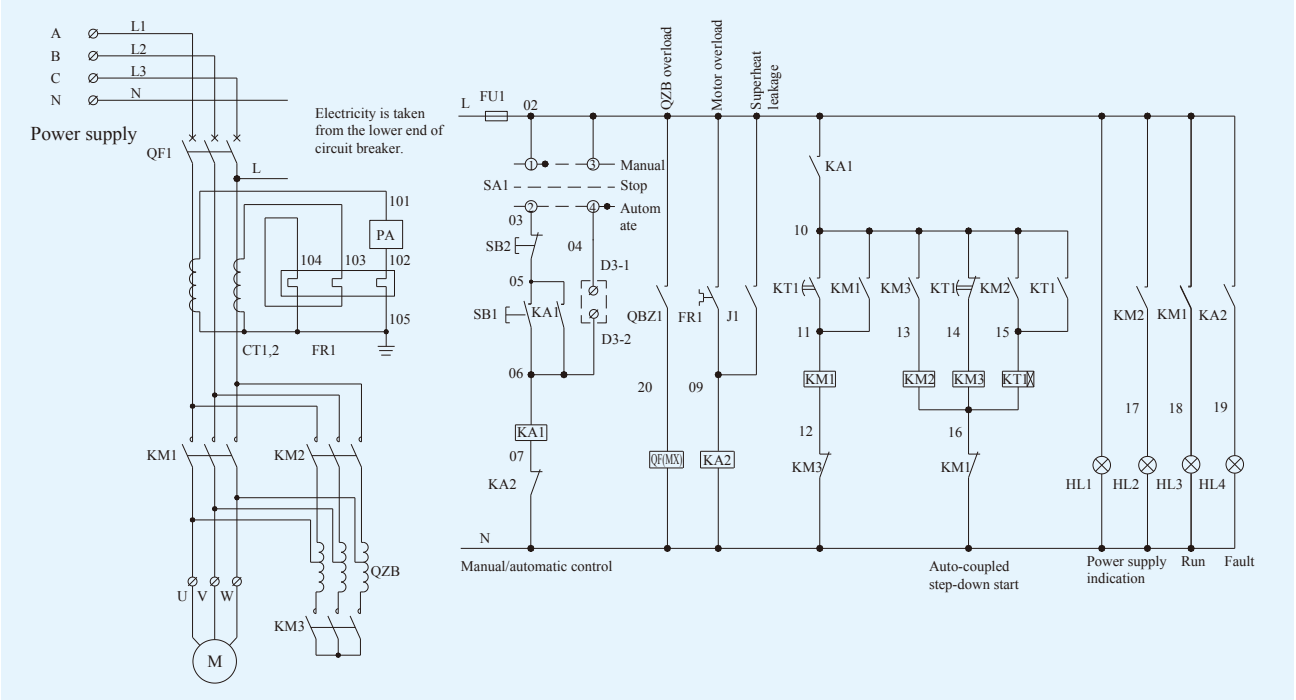
KQK / T - 2AC B - JYZ - 55 - Z2

- Represents the second generation intelligent control cabinet.
- Matching power: 55kW
- Starting mode: JYZ: self-coupling step-down starting, R: electronic soft-start sewage pump
- Control cabinet: Type B
- Control the number of water pumps and automatic alternate control: 1,2AC, 3AC
- Main device configuration: T universal accessories G high-grade configuration
- KQ code of electric cabinet: KQK

Selection and description of KQK-B(Z2) control cabinet for WQ(30kW and above) Internet of Things intelligent submersible sewage pump

Auto-coupled step-down start

It refers to the use of autotransformer to reduce the starting voltage applied to the stator winding of the motor when the motor starts. After the motor is started, the motor is separated from the autotransformer, so as to operate normally under full voltage.



Different taps of autotransformer can be selected according to allowable starting current and required starting torque to realize step-down starting, and the motor stator winding can be used regardless of Y or Δ connection.

The following table lists the control cabinet model and box size selected for the self-coupling step-down start-up of the intelligent submersible sewage pump of WQ(30kW and above) Internet of Things.

WQ(30kW and above) Internet of Things Smart Submersible Sewage Pump (one control one)-Self-coupling step-down start

No.	Power (kW)	Pole number	Current (A)	Smart control cabinet model		Box size (length× width× thickness)	Weight (kg)
				General configuration	High-grade configuration		
1	30	2poles	56	KQK/T-1B-JYZ-30Z2	KQK/G-1B-JYZ-30Z2	1600×600×400	130
2		4poles	58				
3		6poles	58				
4		8poles	63				
5	37	2poles	68	KQK/T-1B-JYZ-37Z2	KQK/G-1B-JYZ-37Z2	1600×600×400	130
6		4poles	70				
7		6poles	71				
8		8poles	78				
9	45	4poles	85	KQK/T-1B-JYZ-45Z2	KQK/G-1B-JYZ-45Z2	1600×600×400	140
10		6poles	86				
11		8poles	95				
12	55	4poles	103	KQK/T-1B-JYZ-55Z2	KQK/G-1B-JYZ-55Z2	1600×600×400	140
13		6poles	105				
14		8poles	115				
15	75	4poles	140	KQK/T-1B-JYZ-75Z2	KQK/G-1B-JYZ-75Z2	1600×600×400	150
16		6poles	142				
17		8poles	150				
18		10poles	163	KQK/T-1B-JYZ-90Z2	KQK/G-1B-JYZ-90Z2	1700×700×500	150
19	90	4poles	167	KQK/T-1B-JYZ-90Z2	KQK/G-1B-JYZ-90Z2	1700×700×500	150
20		6poles	170				
21		8poles	180				
22		10poles	191				
23	110	4poles	203	KQK/T--1B-JYZ-110Z2	KQK/G--1B-JYZ-110Z2	1700×700×500	160
24		6poles	207				
25		8poles	220				
26		10poles	231				
27	132	4poles	243	KQK/T--1B-JYZ-132Z2	KQK/G--1B-JYZ-132Z2	2200×800×600	200
28		6poles	246				
29		8poles	265	KQK/T--1B-JYZ-160Z2	KQK/G--1B-JYZ-160Z2	2200×800×600	220
30		10poles	276				
31	160	4poles	294	KQK/T--1B-JYZ-160Z2	KQK/G--1B-JYZ-160Z2	2200×800×600	220
32		6poles	291				
33		8poles	318	KQK/T--1B-JYZ-200Z2	KQK/G--1B-JYZ-200Z2	2200×800×600	250
34		10poles	333				

WQ(30kW and above) intelligent submersible sewage pump of Internet of Things (one control two)-self-coupling step-down starting

No.	Power (kW)	Pole number	Current (A)	Smart control cabinet model		Box size (length× width× thickness)	Weight (kg)
				General configuration	High-grade configuration		
1	30	2poles	56	KQK/T-2ACB-JYZ-30Z2	KQK/G-2ACB-JYZ-30Z2	1700×700×500	170
2		4poles	58				
3		6poles	58				
4		8poles	63				
5	37	2poles	68	KQK/T-2ACB-JYZ-37Z2	KQK/G-2ACB-JYZ-37Z2	1700×700×500	170
6		4poles	70				
7		6poles	71				
8		8poles	78				
9	45	4poles	85	KQK/T-2ACB-JYZ-45Z2	KQK/G-2ACB-JYZ-45Z2	1700×700×500	180
10		6poles	86				
11		8poles	95				
12	55	4poles	103	KQK/T-2ACB-JYZ-55Z2	KQK/G-2ACB-JYZ-55Z2	1700×700×500	180
13		6poles	105				
14		8poles	115				
15	75	4poles	140	KQK/T-2ACB-JYZ-75Z2	KQK/G-2ACB-JYZ-75Z2	1800×800×500	195
16		6poles	142				
17		8poles	150				
18		10poles	163	KQK/T-2ACB-JYZ-90Z2	KQK/G-2ACB-JYZ-90Z2	1800×800×500	195
19	90	4poles	167	KQK/T-2ACB-JYZ-90Z2	KQK/G-2ACB-JYZ-90Z2	1800×800×500	195
20		6poles	170				
21		8poles	180				
22		10poles	191				
23	110	4poles	203	KQK/T-2ACB-JYZ-110Z2	KQK/G-2ACB-JYZ-110Z2	2000×800×600	210
24		6poles	207				
25		8poles	220				
26		10poles	231				
27	132	4poles	243	KQK/T-2ACB-JYZ-132Z2	KQK/G-2ACB-JYZ-132Z2	2200×1000×600	260
28		6poles	246				
29		8poles	265	KQK/T-2ACB-JYZ-160Z2	KQK/G-2ACB-JYZ-160Z2	2200×1000×600	260
30		10poles	276				
31	160	4poles	294	KQK/T-2ACB-JYZ-160Z2	KQK/G-2ACB-JYZ-160Z2	2200×1000×600	285
32		6poles	291				
33		8poles	318	KQK/T-2ACB-JYZ-200Z2	KQK/G-2ACB-JYZ-200Z2	2200×1000×600	285
34		10poles	333				

WQ(30kW and above) Internet of Things Smart Submersible Sewage Pump (one control three)-Self-coupling step-down start

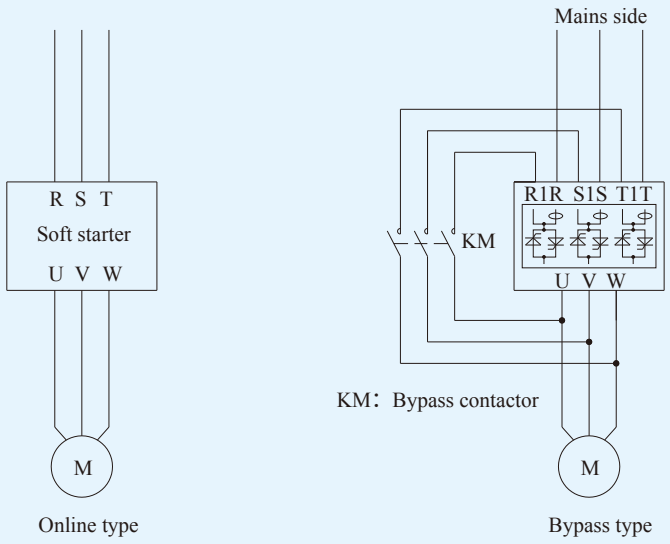
No.	Power (kW)	Pole number	Current (A)	Smart control cabinet model		Box size (length× width× thickness)	Weight (kg)
				General configuration	High-grade configuration		
1	30	2poles	56	KQK/T-3ACB-JYZ-30Z2	KQK/G-3ACB-JYZ-30Z2	1800×800×500	230
2		4poles	58				
3		6poles	58				
4		8poles	63				
5	37	2poles	68	KQK/T-3ACB-JYZ-37Z2	KQK/G-3ACB-JYZ-37Z2	1800×800×500	230
6		4poles	70				
7		6poles	71				
8		8poles	78				
9	45	4poles	85	KQK/T-3ACB-JYZ-45Z2	KQK/G-3ACB-JYZ-45Z2	1800×800×500	240
10		6poles	86				
11		8poles	95				
12	55	4poles	103	KQK/T-3ACB-JYZ-55Z2	KQK/G-3ACB-JYZ-55Z2	1800×800×500	240
13		6poles	105				
14		8poles	115				
15	75	4poles	140	KQK/T-3ACB-JYZ-75Z2	KQK/G-3ACB-JYZ-75Z2	2200×1000×600	260
16		6poles	142				
17		8poles	150				
18		10poles	163	KQK/T-3ACB-JYZ-90Z2	KQK/G-3ACB-JYZ-90Z2	2200×1000×600	260
19	90	4poles	167	KQK/T-3ACB-JYZ-90Z2	KQK/G-3ACB-JYZ-90Z2	2200×1000×600	260
20		6poles	170				
21		8poles	180				
22		10poles	191				
23	110	4poles	203	KQK/T-3ACB-JYZ-110Z2	KQK/G-3ACB-JYZ-110Z2	2200×1000×600	285
24		6poles	207				
25		8poles	220				
26		10poles	231				
27	132	4poles	243	KQK/T-3ACB-JYZ-132Z2	KQK/G-3ACB-JYZ-132Z2	2200×1000×600	350
28		6poles	246				
29		8poles	265	KQK/T-3ACB-JYZ-160Z2	KQK/G-3ACB-JYZ-160Z2	2200×1000×600	350
30		10poles	276				
31	160	4poles	294	KQK/T-3ACB-JYZ-160Z2	KQK/G-3ACB-JYZ-160Z2	2200×1000×600	385
32		6poles	291				
33		8poles	318	KQK/T-3ACB-JYZ-200Z2	KQK/G-3ACB-JYZ-200Z2	2200×1000×600	385
34		10poles	333				

WQ(30kW and above) Internet of Things Smart Submersible Sewage Pump (one control four)-Self-coupling step-down start

No.	Power (kW)	Pole number	Current (A)	Smart control cabinet model		Box size (length× width× thickness)	Weight (kg)
				General configuration	High-grade configuration		
1	30	2poles	56	KQK/T-4ACB-JYZ-30Z2	KQK/G-4ACB-JYZ-30Z2	2000×800×600	280
2		4poles	58				
3		6poles	58				
4		8poles	63				
5	37	2poles	68	KQK/T-4ACB-JYZ-37Z2	KQK/G-4ACB-JYZ-37Z2	2000×800×600	280
6		4poles	70				
7		6poles	71				
8		8poles	78				
9	45	4poles	85	KQK/T-4ACB-JYZ-45Z2	KQK/G-4ACB-JYZ-45Z2	2200×800×600	300
10		6poles	86				
11		8poles	95				
12	55	4poles	103	KQK/T-4ACB-JYZ-55Z2	KQK/G-4ACB-JYZ-55Z2	2200×800×600	300
13		6poles	105				
14		8poles	115				
15	75	4poles	140	KQK/T-4ACB-JYZ-75Z2	KQK/G-4ACB-JYZ-75Z2	2200×1000×600	310
16		6poles	142				
17		8poles	150				
18		10poles	163	KQK/T-4ACB-JYZ-90Z	KQK/G-4ACB-JYZ-90Z2	2200×1000×600	310
19	90	4poles	167	KQK/T-4ACB-JYZ-90Z2	KQK/G-4ACB-JYZ-90Z2	2200×1000×600	320
20		6poles	170				
21		8poles	180				
22		10poles	191				
23	110	4poles	203	KQK/T-4ACB-JYZ-110Z2	KQK/G-4ACB-JYZ-110Z2	2200×1200×600	330
24		6poles	207				
25		8poles	220				
26		10poles	231				
27	132	4poles	243	KQK/T-4ACB-JYZ-132Z2	KQK/G-4ACB-JYZ-132Z2	2200×1200×600	370
28		6poles	246				
29		8poles	265	KQK/T-4ACB-JYZ-160Z2	KQK/G-4ACB-JYZ-160Z2	2200×1200×600	410
30		10poles	276				
31	160	4poles	294	KQK/T-4ACB-JYZ-160Z2	KQK/G-4ACB-JYZ-160Z2	2200×1200×600	410
32		6poles	291				
33		8poles	318	KQK/T-4ACB-JYZ-200Z2	KQK/G-4ACB-JYZ-200Z2	2200×1000×600	410
34		10poles	333				

Electronic soft start

The soft starter connected in series between the power supply and the controlled motor controls the conduction of the internal semiconductor (thyristor), so that the input voltage of the motor gradually rises from zero with a preset functional relationship until the start-up is finished, and gives the motor full voltage. The voltage is gradually increased from zero to the rated voltage, so that the starting current of the motor in the starting process is changed from uncontrollable overload impact current in the past to controllable, and the starting current can be adjusted according to the needs.



During the whole starting process, the motor can be started smoothly without impact torque, and various parameters in the starting process, such as current limiting value and starting time, can be adjusted according to the characteristics of motor load. Soft stop can also be realized. As the semiconductor converter technology is adopted, higher harmonics will be generated, which will pollute the power grid.

The following table lists the control cabinet models and box sizes selected for the electronic soft start of the intelligent submersible sewage pump for WQ(30kW and above) Internet of Things.

WQ(30kW and above) intelligent submersible sewage pump of Internet of Things (one control one)-electronic soft start							
No.	Power (kW)	Pole number	Current (A)	Smart control cabinet model		Box size (length× width× thickness)	Weight (kg)
				General configuration	High-grade configuration		
1	30	2poles	56	KQK/T-1B-R1-30Z2	KQK/G-1B-R1-30Z2	1700×700×500	75
2		4poles	58				
3		6poles	58				
4		8poles	63				
5	37	2poles	68	KQK/T-1B-R1-37Z2	KQK/G-1B-R1-37Z2	1700×700×500	75
6		4poles	70				
7		6poles	71				
8		8poles	78				
9	45	4poles	85	KQK/T-1B-R1-45Z2	KQK/G-1B-R1-45Z2	1700×700×500	85
10		6poles	86				
11		8poles	95				
12	55	4poles	103	KQK/T-1B-R1-55Z2	KQK/G-1B-R1-55Z2	1700×700×500	85
13		6poles	105				
14		8poles	115				
15	75	4poles	140	KQK/T-1B-R1-75Z2	KQK/G-1B-R1-75Z2	1700×700×500	90
16		6poles	142				
17		8poles	150				
18		10poles	163	KQK/T-1B-R1-90Z2	KQK/G-1B-R1-90Z2	2000×800×600	100
19	90	4poles	167	KQK/T-1B-R1-90Z2	KQK/G-1B-R1-90Z2	2000×800×600	100
20		6poles	170				
21		8poles	180				
22		10poles	191				
23	110	4poles	203	KQK/T-1B-R1-110Z2	KQK/G-1B-R1-110Z2	2000×800×600	100
24		6poles	207				
25		8poles	220				
26		10poles	231				
27	132	4poles	243	KQK/T-1B-R1-132Z2	KQK/G-1B-R1-132Z2	2000×800×600	120
28		6poles	246				
29		8poles	265	KQK/T-1B-R1-160Z2	KQK/G-1B-R1-160Z2	2000×800×600	130
30		10poles	276				
31	160	4poles	294	KQK/T-1B-R1-160Z2	KQK/G-1B-R1-160Z2	2000×800×600	130
32		6poles	291				
33		8poles	318	KQK/T-1B-R1-200Z2	KQK/G-1B-R1-200Z2	2200×800×600	150
34		10poles	333				
35	185	4poles	340	KQK/T-1B-R1-200Z2	KQK/G-1B-R1-200Z2	2200×800×600	150
36		6poles	337				
37		8poles	362				
38		10poles	386				
39		12poles	392				
40	200	4poles	363	KQK/T-1B-R1-200Z2	KQK/G-1B-R1-200Z2	2200×800×600	150
41		6poles	370				
42		8poles	390				
43		12poles	438	KQK/T-1B-R1-250Z2	KQK/G-1B-R1-250Z2	2200×800×600	170
44	220	4poles	396	KQK/T-1B-R1-250Z2	KQK/G-1B-R1-250Z2	2200×800×600	170
45		6poles	399				
46		8poles	446				
47		12poles	479				
48	250	4poles	450	KQK/T-1B-R1-250Z2	KQK/G-1B-R1-250Z2	2200×800×600	170
49		6poles	454				
50		8poles	504	KQK/T-1B-R1-335Z2	KQK/G-1B-R1-335Z2	2200×800×600	200
51		12poles	550				
52	280	4poles	497	KQK/T-1B-R1-335Z2	KQK/G-1B-R1-335Z2	2200×800×600	200
53		6poles	508	KQK/T-1B-R1-335Z2	KQK/G-1B-R1-335Z2	2200×800×600	200
54		8poles	562				
55		12poles	616				
56	315	8poles	632	KQK/T-1B-R1-335Z2	KQK/G-1B-R1-335Z2	2200×800×600	200
57		12poles	684	—	—	—	

WQ(30kW and above) Internet of Things Smart Submersible Sewage Pump (One Control Two)-Electronic Soft Start							
No.	Power (kW)	Pole number	Power (kW)	Smart control cabinet model		Box size (length× width× thickness)	Weight (kg)
				General configuration	High-grade configuration		
1	30	2poles	56	KQK/T-2ACB-R2-30Z2	KQK/G-2ACB-R2-30Z2	1800×800×500	105
2		4poles	58				
3		6poles	58				
4		8poles	63				
5	37	2poles	68	KQK/T-2ACB-R2-37Z2	KQK/G-2ACB-R2-37Z2	1800×800×500	105
6		4poles	70				
7		6poles	71				
8		8poles	78				
9	45	4poles	85	KQK/T-2ACB-R2-45Z2	KQK/G-2ACB-R2-45Z2	1800×800×500	120
10		6poles	86				
11		8poles	95				
12	55	4poles	103	KQK/T-2ACB-R2-55Z2	KQK/G-2ACB-R2-55Z2	1800×800×500	120
13		6poles	105				
14		8poles	115				
15	75	4poles	140	KQK/T-2ACB-R2-75Z2	KQK/G-2ACB-R2-75Z2	1800×800×500	125
16		6poles	142				
17		8poles	150				
18		10poles	163	KQK/T-2ACB-R2-90Z2	KQK/G-2ACB-R2-90Z2	2200×1000×600	140
19	90	4poles	167	KQK/T-2ACB-R2-90Z2	KQK/G-2ACB-R2-90Z2	2200×1000×600	140
20		6poles	170				
21		8poles	180				
22		10poles	191				
23	110	4poles	203	KQK/T-2ACB-R2-110Z2	KQK/G-2ACB-R2-110Z2	2200×1000×600	140
24		6poles	207				
25		8poles	220				
26		10poles	231				
27	132	4poles	243	KQK/T-2ACB-R2-132Z2	KQK/G-2ACB-R2-132Z2	2200×1000×600	170
28		6poles	246				
29		8poles	265	KQK/T-2ACB-R2-160Z2	KQK/G-2ACB-R2-160Z2	2200×1000×600	180
30		10poles	276				
31	160	4poles	294	KQK/T-2ACB-R2-160Z2	KQK/G-2ACB-R2-160Z2	2200×1000×600	180
32		6poles	291				
33		8poles	318	KQK/T-2ACB-R2-200Z2	KQK/G-2ACB-R2-200Z2	2200×1000×600	210
34		10poles	333				
35	185	4poles	340	KQK/T-2ACB-R2-200Z2	KQK/G-2ACB-R2-200Z2	2200×1000×600	210
36		6poles	337				
37		8poles	362				
38		10poles	386				
39		12poles	392				
40	200	4poles	363	KQK/T-2ACB-R2-200Z2	KQK/G-2ACB-R2-200Z2	2200×1000×600	210
41		6poles	370				
42		8poles	390				
43		12poles	438	KQK/T-2ACB-R2-250Z2	KQK/G-2ACB-R2-250Z2	2200×1000×600	240
44	220	4poles	396	KQK/T-2ACB-R2-250Z2	KQK/G-2ACB-R2-250Z2	2200×1000×600	240
45		6poles	399				
46		8poles	446				
47		12poles	479				
48	250	4poles	450	KQK/T-2ACB-R2-250Z2	KQK/G-2ACB-R2-250Z2	2200×1000×600	240
49		6poles	454				
50		8poles	504	KQK/T-2ACB-R2-335Z2	KQK/G-2ACB-R2-335Z2	2200×1000×600	280
51		12poles	550				
52	280	4poles	497	KQK/T-2ACB-R2-335Z2	KQK/G-2ACB-R2-335Z2	2200×1000×600	280
53		6poles	508				
54		8poles	562				
55		12poles	616				
56	315	8poles	632	—	—	—	—
57		12poles	684	—	—	—	—

WQ(30kW and above) intelligent submersible sewage pump of Internet of Things (one control three)-electronic soft start							
No.	Power (kW)	Pole number	Current (A)	Smart control cabinet model		Box size (length× width× thickness)	Weight (kg)
				General configuration	High-grade configuration		
1	30	2poles	56	KQK/T-3ACB-R3-30Z2	KQK/G-3ACB-R3-30Z2	1800×800×500	145
2		4poles	58				
3		6poles	58				
4		8poles	63				
5	37	2poles	68	KQK/T-3ACB-R3-37Z2	KQK/G-3ACB-R3-37Z2	1800×800×500	145
6		4poles	70				
7		6poles	71				
8		8poles	78				
9	45	4poles	85	KQK/T-3ACB-R3-45Z2	KQK/G-3ACB-R3-45Z2	2000×800×600	170
10		6poles	86				
11		8poles	95				
12	55	4poles	103	KQK/T-3ACB-R3-55Z2	KQK/G-3ACB-R3-55Z2	2000×800×600	170
13		6poles	105				
14		8poles	115				
15	75	4poles	140	KQK/T-3ACB-R3-75Z2	KQK/G-3ACB-R3-75Z2	2000×800×600	175
16		6poles	142				
17		8poles	150				
18		10poles	163	KQK/T-3ACB-R3-90Z2	KQK/G-3ACB-R3-90Z2	2200×(1000+800)×600	235
19	90	4poles	167	KQK/T-3ACB-R3-90Z2	KQK/G-3ACB-R3-90Z2	2200×(1000+800)×600	235
20		6poles	170				
21		8poles	180				
22		10poles	191				
23	110	4poles	203	KQK/T-3ACB-R3-110Z2	KQK/G-3ACB-R3-110Z2	2200×(1000+800)×600	235
24		6poles	207				
25		8poles	220				
26		10poles	231				
27	132	4poles	243	KQK/T-3ACB-R3-132Z2	KQK/G-3ACB-R3-132Z2	2200×(1000+800)×600	290
28		6poles	246				
29		8poles	265	KQK/T-3ACB-R3-160Z2	KQK/G-3ACB-R3-160Z2	——	——
30		10poles	276				
31	160	4poles	294	KQK/T-3ACB-R3-160Z2	KQK/G-3ACB-R3-160Z2	——	——
32		6poles	291				
33		8poles	318	KQK/T-3ACB-R3-200Z2	KQK/G-3ACB-R3-200Z2	——	——
34		10poles	333				
35	185	4poles	340	KQK/T-3ACB-R3-200Z2	KQK/G-3ACB-R3-200Z2	——	——
36		6poles	337				
37		8poles	362				
38		10poles	386				
39		12poles	392				
40	200	4poles	363	KQK/T-3ACB-R3-200Z2	KQK/G-3ACB-R3-200Z2	——	——
41		6poles	370				
42		8poles	390				
43		12poles	438	KQK/T-3ACB-R3-250Z2	KQK/G-3ACB-R3-250Z2	——	
44	220	4poles	396	KQK/T-3ACB-R3-250Z2	KQK/G-3ACB-R3-250Z2	——	——
45		6poles	399				
46		8poles	446	KQK/T-3ACB-R3-250Z2	KQK/G-3ACB-R3-250Z2	——	
47		12poles	479				
48	250	4poles	450	KQK/T-3ACB-R3-250Z2	KQK/G-3ACB-R3-250Z	——	
49		6poles	454				
50		8poles	504	KQK/T-3ACB-R3-335Z2	KQK/G-3ACB-R3-335Z2	——	——
51		12poles	550				
52	280	4poles	497	KQK/T-3ACB-R3-335Z2	KQK/G-3ACB-R3-335Z2	——	——
53		6poles	508				
54		8poles	562				
55		12poles	616				
56	315	8poles	632	——	——	——	——
57		12poles	684	——	——	——	——

WQ(30kW and above) intelligent submersible sewage pump of Internet of Things (one control four)-electronic soft start							
No.	Power (kW)	Pole number	Current (A)	Smart control cabinet model		Box size (length× width× thickness)	Weight (kg)
				General configuration	High-grade configuration		
1	30	2poles	56	KQK/T-3ACB-R3-30Z2	KQK/G-3ACB-R3-30Z2	2200×1000×600	210
2		4poles	58				
3		6poles	58				
4		8poles	63				
5	37	2poles	68	KQK/T-3ACB-R3-37Z2	KQK/G-3ACB-R3-37Z2	2200×1000×600	215
6		4poles	70				
7		6poles	71				
8		8poles	78				
9	45	4poles	85	KQK/T-3ACB-R3-45Z2	KQK/G-3ACB-R3-45Z2	2200×1000×600	220
10		6poles	86				
11		8poles	95				
12	55	4poles	103	KQK/T-3ACB-R3-55Z2	KQK/G-3ACB-R3-55Z2	2200×1000×600	235
13		6poles	105				
14		8poles	115				
15	75	4poles	140	KQK/T-3ACB-R3-75Z2	KQK/G-3ACB-R3-75Z2	2200×(1000+1000)×600	255
16		6poles	142				
17		8poles	150				
18		10poles	163	KQK/T-3ACB-R3-90Z2	KQK/G-3ACB-R3-90Z2	2200×(1000+1000)×600	285
19	90	4poles	167	KQK/T-3ACB-R3-90Z2	KQK/G-3ACB-R3-90Z2	2200×(1000+1000)×600	285
20		6poles	170				
21		8poles	180				
22		10poles	191				
23	110	4poles	203	KQK/T-3ACB-R3-110Z2	KQK/G-3ACB-R3-110Z2	2200×(1000+1000)×600	310
24		6poles	207				
25		8poles	220				
26		10poles	231				
27	132	4poles	243	KQK/T-3ACB-R3-132Z2	KQK/G-3ACB-R3-132Z2	2200×(1000+1000)×600	320
28		6poles	246				
29		8poles	265	KQK/T-3ACB-R3-160Z2	KQK/G-3ACB-R3-160Z2	——	——
30		10poles	276				
31	160	4poles	294	KQK/T-3ACB-R3-160Z2	KQK/G-3ACB-R3-160Z2	——	——
32		6poles	291				
33		8poles	318	KQK/T-3ACB-R3-200Z2	KQK/G-3ACB-R3-200Z2	——	——
34		10poles	333				
35	185	4poles	340	KQK/T-3ACB-R3-200Z2	KQK/G-3ACB-R3-200Z2	——	——
36		6poles	337				
37		8poles	362				
38		10poles	386				
39		12poles	392				
40	200	4poles	363	KQK/T-3ACB-R3-200Z2	KQK/G-3ACB-R3-200Z2	——	——
41		6poles	370				
42		8poles	390				
43		12poles	438	KQK/T-3ACB-R3-250Z2	KQK/G-3ACB-R3-250Z2	——	
44	220	4poles	396	KQK/T-3ACB-R3-250Z2	KQK/G-3ACB-R3-250Z2	——	——
45		6poles	399				
46		8poles	446	KQK/T-3ACB-R3-250Z2	KQK/G-3ACB-R3-250Z2	——	
47		12poles	479				
48	250	4poles	450	KQK/T-3ACB-R3-250Z2	KQK/G-3ACB-R3-250Z2	——	
49		6poles	454				
50		8poles	504	KQK/T-3ACB-R3-335Z2	KQK/G-3ACB-R3-335Z2	——	——
51		12poles	550				
52	280	4poles	497	KQK/T-3ACB-R3-335Z2	KQK/G-3ACB-R3-335Z2	——	——
53		6poles	508				
54		8poles	562				
55		12poles	616				
56	315	8poles	632	——	——	——	——
57		12poles	684	——	——	——	——

Electronic soft start selection instructions

The power of mainstream low-voltage electrical appliances (mainly AC contactors) above 110kW is divided into 132kW, 160kW, 200kW, 250kW and 335kW, and the corresponding contactor current values are 250A, 300A, 400A, 500A and 630A respectively. There are no 185kW, 220kW, 280kW and 315kW power gears.

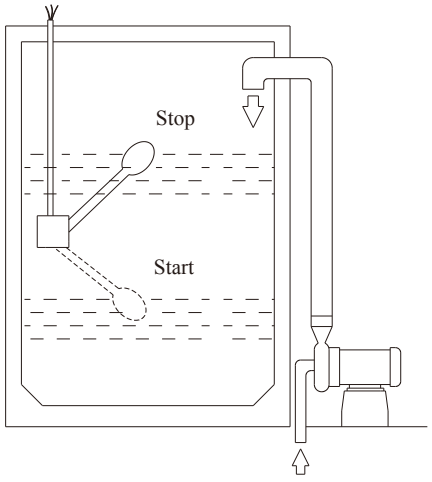
The low-voltage electrical appliance of the control cabinet is selected according to its actual current. In actual time, the control cabinet models of 185kW, 220kW, 280kW and 315kW pumps may be 200kW, 250kW and 355kW.

(Liquid level) Introduction of float switch, terminal box, threading pipe and cable model

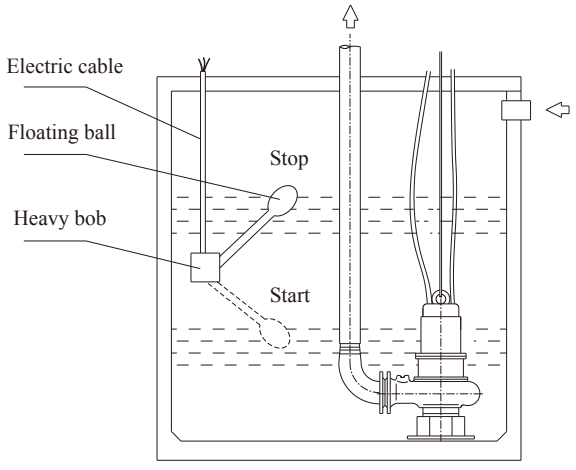
Floating ball switch (liquid level)

Schematic diagram of float switch (liquid level)

Used for water supply



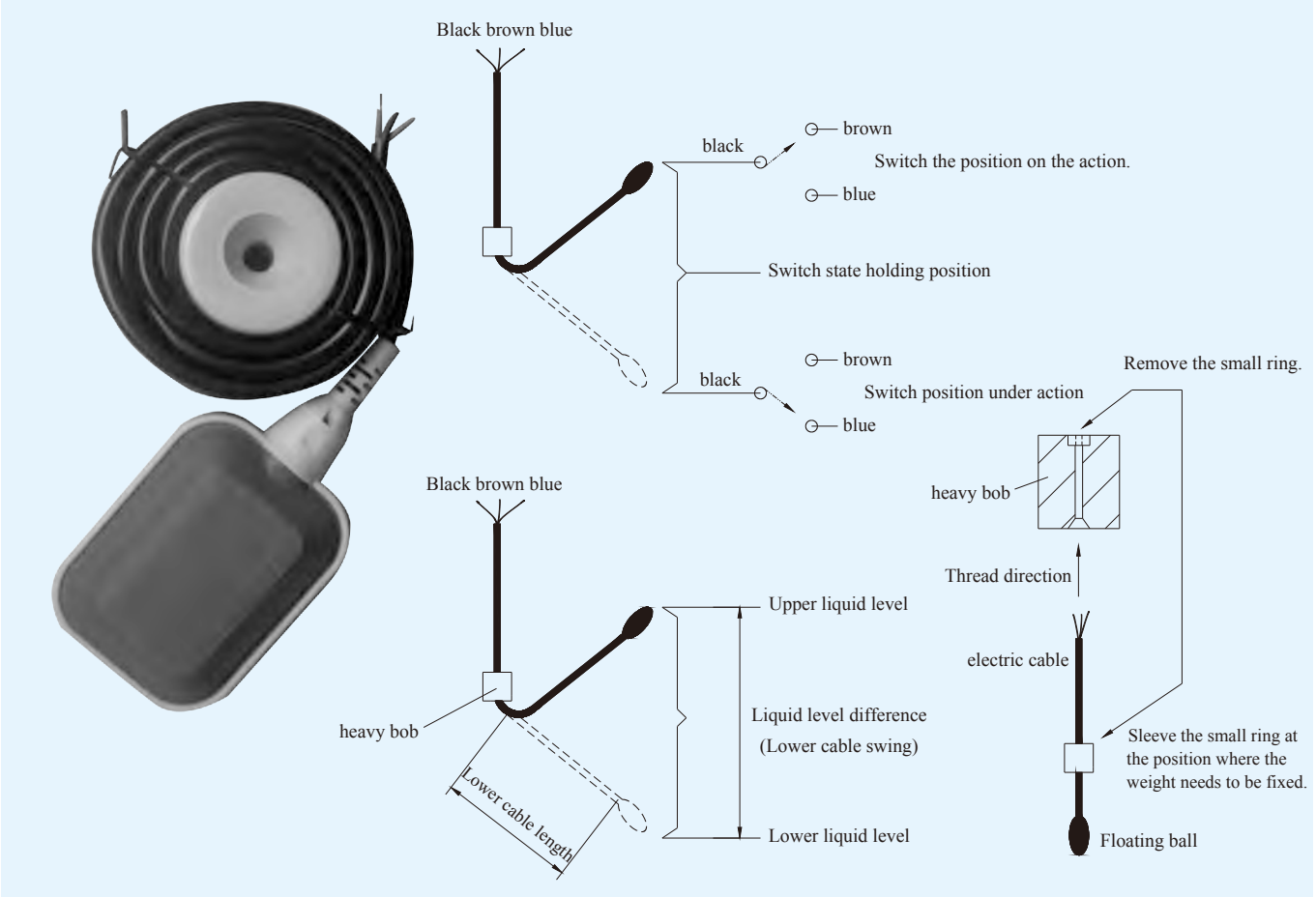
Used for drainage.



The minimum liquid level is marked on the sample and instruction of submersible sewage pump. "▽" is the liquid level where the stator part of the motor is half submerged by the medium.

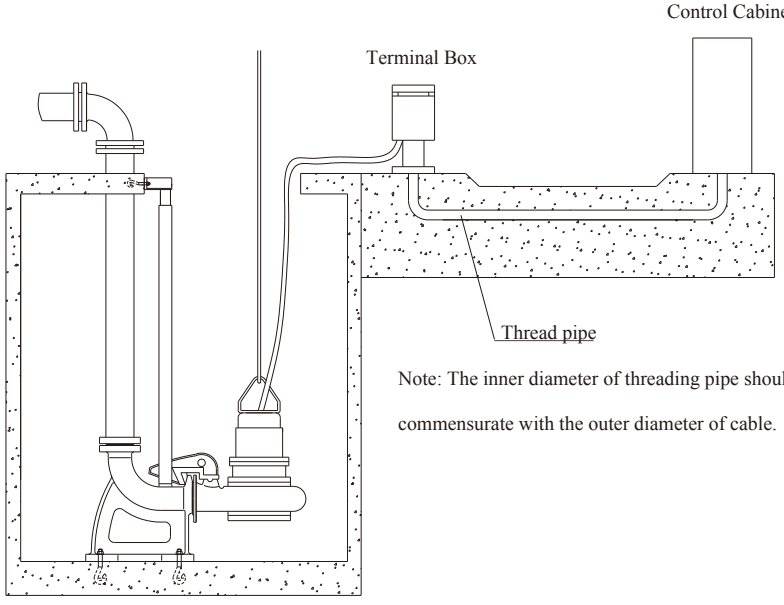
The liquid level float switch is used when the electric control cabinet is in the automatic position.

Wiring and setting of liquid level float switch: the cable of liquid level float switch has three cores: black, brown and blue. When the floating ball floats, the internal contact of the floating ball connects the black and brown cores and disconnects the black and blue cores; On the contrary, when the floating ball droops, the internal contact connects the black and blue cores and disconnects the black and brown cores. When the floating ball is in the middle position, the internal switch is the original state holding position, and only when it reaches the floating and drooping position shown in the figure, the internal switch will switch its action. On drainage occasions, connect the black and brown cores into the electric control cabinet, and the blue core must be bandaged and insulated; For water supply, connect the black and blue cores to the electric control cabinet, and the brown core must be wrapped and insulated. If a floating ball switch is used to control the two liquid levels of starting and stopping the pump, the position of the heavy hammer on the cable can be adjusted, and the liquid level difference between starting and closing the pump can be determined. Therefore, in principle, a floating ball switch can realize a set of upper and lower liquid level control of starting and stopping the pump. However, if the liquid level difference is large, the length of the swing arm of the floating ball will increase, and the dead weight of the cable from the heavy hammer to the floating ball will affect the precision of liquid level control. Therefore, the special electric control cabinet of the submersible sewage pump of our company is equipped with the floating ball switch as follows: for the main pump or the large pump, two floating ball switches are used to control the starting and stopping liquid levels respectively; For small pumps or extra-high water level standby pumps, a float switch is used to control the two liquid levels of pump start and pump stop. Users can also order float switches from us when they need more than the specified number of float switches or do not order our special electric control cabinet for submersible sewage pumps.



Terminal box and threading pipe

When the electric cabinet is far away from the pump room, a terminal box can be set. Terminal box is optional.



Note: The inner diameter of threading pipe should be commensurate with the outer diameter of cable.

This figure is only schematic and does not represent the design specification. Matters related to the design and safety of pumping stations should be handled according to relevant standards and specifications.

When a threading pipe is required (the threading pipe is provided by the user), the inner diameter of the threading pipe should be determined according to the outer diameter of the cable.

WQ(30kW and above) Internet of Things Smart Submersible Sewage Pump Cable Model and Size Table

WQ(30kW and above) series submersible sewage pump cable model and size table						
No.	Seat No.	Motor Model	Main cable	Control cable	Outside diameter of single main cable /mm	Outside diameter of control cable /mm
1	Y290	WQ/Z30-2P	1 root YCW3×16+1×6	YVCP4×1.5 electric cable	28	13.5
2		WQ/Z37-2P				
3		WQ/Z30-4P				
4		WQ/Z37-4P				
5		WQ/Z45-4P	1 root YCW3×25+1×10		33	
6		WQ/Z55-4P				
7	Y368	WQ/Z75-4P	2 roots YCW3×25+1×10		33	
8		WQ/Z90-4P				
9		WQ/Z30-6P	1 root YCW3×16+1×6		28	
10		WQ/Z37-6P				
11		WQ/Z45-6P	1 root YCW3×25+1×10		33	
12		WQ/Z55-6P	1 root YCW3×35+1×10		38	
13		WQ/Z30-8P	1 root YCW3×16+1×6		28	
14		WQ/Z37-8P				
15		WQ/Z45-8P	1 root YCW3×25+1×10		33	
16		WQ/Z55-8P	1 root YCW3×35+1×10		38	
17	Y445	WQ/Z110-4P	2 roots YCW3×50+1×16		43	
18		WQ/Z132-4P				
19		WQ/Z160-4P	2 roots YCW3×70+1×25		48	
20		WQ/Z75-6P	2 roots YCW3×25+1×10		33	
21		WQ/Z90-6P	2 roots YCW3×35+1×10		38	
22		WQ/Z110-6P	2 roots YCW3×50+1×16		43	
23		WQ/Z132-6P				
24	Y520	WQ/Z185-4P	2 roots YCW3×70+1×25		48	
25		WQ/Z200-4P	2 roots YCW3×95+1×35		54	
26		WQ/Z220-4P				
27		WQ/Z250-4P				
28		WQ/Z280-4P	2 roots YCW3×120+1×35		57	
29		WQ/Z160-6P	2 roots YCW3×70+1×25		48	
30		WQ/Z185-6P				
31		WQ/Z200-6P	2 roots YCW3×95+1×35		54	
32		WQ/Z75-8P	2 roots YCW3×25+1×10		33	
33		WQ/Z90-8P	2 roots YCW3×35+1×10		38	
34		WQ/Z110-8P	2 roots YCW3×50+1×16		43	
35		WQ/Z132-8P				
36		WQ/Z160-8P	2 roots YCW3×70+1×25		48	
37		WQ/Z75-10P	2 roots YCW3×25+1×10		33	
38		WQ/Z90-10P	2 roots YCW3×35+1×10		38	
39		WQ/Z110-10P	2 roots YCW3×50+1×16		43	
40		WQ/Z132-10P				
41	Y590	WQ/Z220-6P	2 roots YCW3×95+1×35		54	
42		WQ/Z250-6P				
43		WQ/Z280-6P	2 roots YCW3×120+1×35		57	
44		WQ/Z185-8P	2 roots YCW3×70+1×25		48	
45		WQ/Z200-8P	2 roots YCW3×95+1×35		54	
46		WQ/Z220-8P				
47		WQ/Z250-8P				
48		WQ/Z280-8P	2 roots YCW3×120+1×35		57	
49		WQ/Z315-8P	2 roots YCW3×150+1×50		63	

Order description of WQ(30kW and above) intelligent submersible sewage pump for Internet of Things

In order to make the pump you choose more applicable, you are warmly welcome to consult the technical department of our company for technical problems.

1、When ordering, please indicate: serial number, impeller number, material of flow-through parts, installation method and discharge diameter.

2、The installation method of water pump is subject to the installation drawing on the sample.

3、Because of the excellent design of the coupling frame in the coupling device, the guide rod only needs ordinary water pipe or steel pipe. We have provided the specification and length calculation method of the tap water pipe or steel pipe used as guide rod in the sample. Users only need to purchase the tap water pipe or steel pipe by themselves and cut it into the required length to use it, so the guide rod is not included in the coupling device.

4、This series of pumps are not equipped with motor cooling system. If cooling sleeve is required, it is a special order and the delivery time is extended.

5、Standard configuration, motor cable is provided by 10m. When users need other lengths, they should indicate them on the order.

6、Complete sets of supply parts are supplied according to the installation method selected by the user.

7、**When the intelligent control cabinet of KQ is not purchased, the intelligent signal collection box of drainage pump must be purchased to collect the sensor data of sewage pump and transmit it to the intelligent cloud platform of KQ to realize remote monitoring, otherwise the intelligent function of remote monitoring cannot be realized. If KQ intelligent control cabinet is purchased, there is no need to purchase intelligent signal acquisition box of drainage pump.**

8、Parts and spare parts users need to order separately.

9、Rigid mobile pipe installation Y, each pump provides a complete set of elbow joints; Mobile hose installation R, each pump is supplied with a hose elbow. When the installed pump needs more than one elbow joint or hose elbow joint, it must be ordered separately.

10、The diameters of elbows are: 50, 65, 80, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600.

11、The diameters of elbow joints are: 50 (with 64 hoses), 50×65 (with 76 hoses), 65 (with 76 hoses), 80 (with 89 hoses), 100 (with 102 hoses) and 150 (with 152 hoses).

12、The cone is optional, and its diameters at both ends are: 50×65, 50×80, 65×80, 80×100, 100×150, 150×200, 200×250, 250×300, 300×350 and 350×400. The taper pipe installed on the discharge pipe should be used for diffusion, not contraction.

When the taper pipe and elbow joint on the discharge pipeline are connected to each other, the diameter of the elbow joint should be the same as that of the big end of the taper pipe, that is, the principle of "spreading before turning" should be followed, so that the pipeline loss is less than that of "turning before spreading".

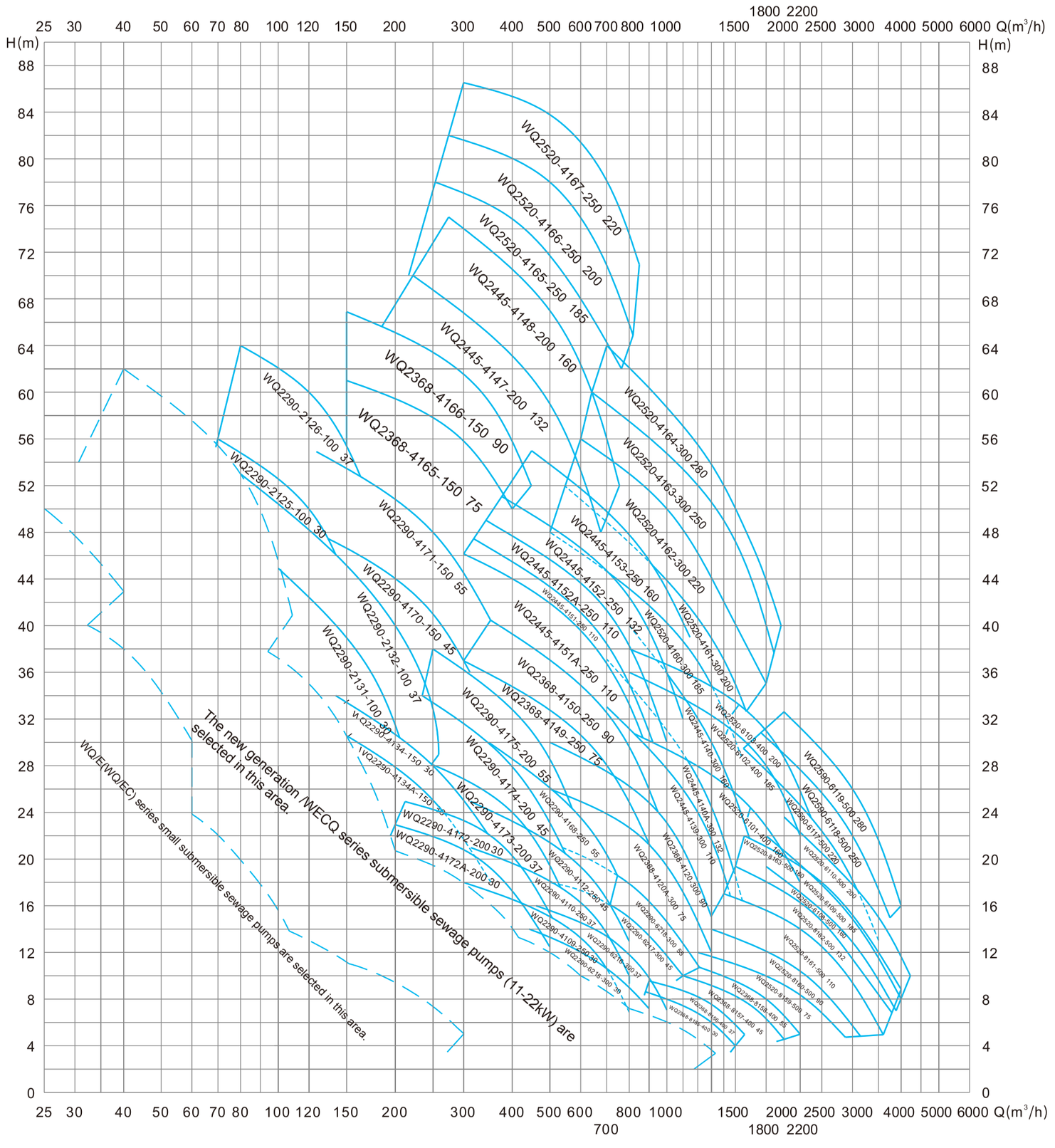
13、If the diameter of the outlet pipe of the coupled pump is larger than that of the pump, a tapered pipe can be installed on the outlet pipe seat, and the diameter of the small end of the tapered pipe should be the same as that of the outlet pipe seat, that is, the diameter of the pump.

14、The specifications, nominal pressures and dimensions of elbows, hose bends and cones can be found in the "Appendix Description" at the end of the sample.

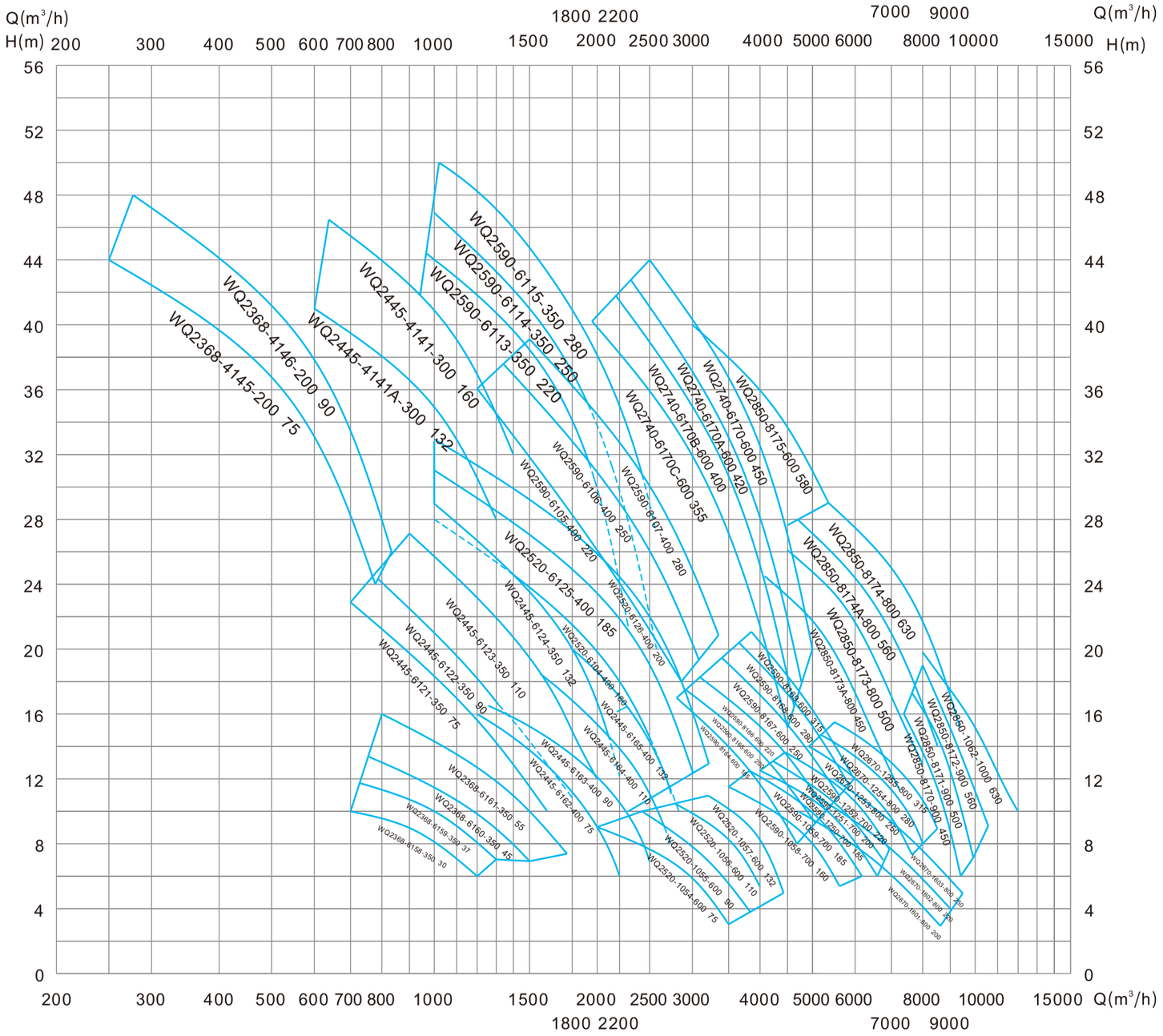
WQ(30kW and above) Internet of Things Smart Submersible Sewage Pump Supply List

Supply selection / Installation mode / Supply model			Wet installation				
			Automatic coupling installation Z	Fixed base installation P	Mobile hose installation R	Hard tube mobile installation Y	Single pump
Complete set of supply parts	Main pump (10m cable length)		✔	✔	✔	✔	✔
	Automatic coupling device	Outlet pipe seat	✔				
		Coupling frame	✔				
		Positioning platen	✔				
	Base			✔	✔	✔	
	Elbow+connecting accessories					✔	
	Hose elbow+connecting accessories				✔		
Necessary piece	Guide rod		✔				
	Expansion bolt		✔				
	Foundation bolt		✔	✔			
	Intelligent control cabinet (including signal acquisition function)		✔	✔	✔	✔	✔
	Pump intelligent signal acquisition box		When buying Kaiquan intelligent control cabinet, you must buy intelligent signal acquisition box of drainage pump.				
Optional parts	Elbow+connecting accessories			✔			
	Hose elbow+connecting accessories			✔			
	Stainless steel lifting rope and rope clamp for pump		✔	✔	✔	✔	✔
	Chain and shackle for lifting pump		✔	✔	✔	✔	✔
	Taper Pipe		✔	✔		✔	✔
	Companion flange		✔	✔		✔	✔
Optional spare parts	Impeller		✔	✔	✔	✔	✔
	Bearing		✔	✔	✔	✔	✔
	Mechanical seal		✔	✔	✔	✔	✔
	O sealing ring		✔	✔	✔	✔	✔
	Sealing ring		✔	✔	✔	✔	✔

WQ(30kW and above) Smart Submersible Sewage Pump Type Spectrum of Internet of Things Part 1



WQ(30kW and above) Smart Submersible Sewage Pump Type Spectrum of Internet of Things Part 2



Description of spectrogram:

1. In order to make the type spectrum neat, the type spectrum diagram lists the approximate range of some models, and can be used for preliminary selection. However, the complete pump curve and parameters must refer to the single performance curve diagram introduced later.

2. The WQ/E and WQ/EC series in the figure can be found in the samples of WQ/E series small submersible sewage pump and WQ/EC series small submersible sewage pump.

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WQ(30kW and above) Internet of Things Smart Submersible Sewage Pump Performance Parameter Table

No.	Type	Bore mm	Design flow m^3/h	Design head m	Rotational Speed r/min	Matching power kW	Passing through the largest particle mm	Weight kg
1	WQ2290-2125-100	100	120	50	2945	30	40	360
2	WQ2290-2126-100		135	56	2945	37	40	380
3	WQ2290-2131-100	100	165	39	2945	30	40	365
4	WQ2290-2132-100		185	42	2945	37	40	385
5	WQ2290-4135B-150	150	160	38	1470	30	62	435
6	WQ2290-4135A-150		160	40	1470	30	62	440
7	WQ2290-4135-150		160	42	1470	30	62	445
8	WQ2290-4134A-150	150	250	26	1470	30	60	440
9	WQ2290-4134-150		250	28	1475	30	60	445
10	WQ2290-4136-150		250	30	1475	37	60	460
11	WQ2290-4170-150	150	220	45	1475	45	60	520
12	WQ2290-4171-150		245	48	1475	55	60	550
13	WQ2368-4165-150	150	295	56	1485	75	60	790
14	WQ2368-4166-150		330	60	1485	90	60	820
15	WQ2290-4172A-200	200	330	20	1470	30	90	475
16	WQ2290-4172-200		360	22	1470	30	90	480
17	WQ2290-4173-200		400	24	1470	37	90	500
18	WQ2290-4174-200		400	28	1470	45	90	530
19	WQ2290-4175-200		440	31	1470	55	90	560
20	WQ2368-4145-200	200	600	33	1485	75	80	780
21	WQ2368-4146-200		570	39	1485	90	80	810
22	WQ2445-4147A-200	200	450	55	1485	110	80	1310
23	WQ2445-4147-200	200	480	60	1485	132	80	1400
24	WQ2445-4148-200		520	67	1485	160	80	1500
25	WQ2290-4109-250	250	650	12	1470	30	100	500
26	WQ2290-4110-250		650	15	1470	37	100	520
27	WQ2290-4112-250		650	18	1470	45	100	550
28	WQ2290-4168-250		650	22	1470	55	100	580
29	WQ2368-4149-250	250	600	30	1485	75	100	850
30	WQ2368-4150-250		600	34	1485	90	100	880
31	WQ2445-4151A-250	250	600	40	1485	110	100	1200
32	WQ2445-4151-250		650	40	1485	110	100	1205

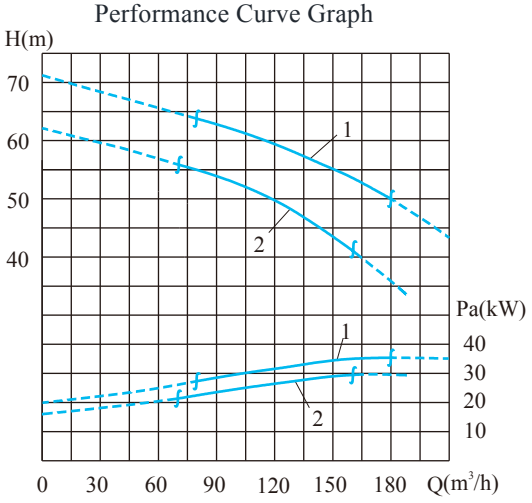
No.	Type	Bore mm	Design flow m^3/h	Design head m	Rotational Speed r/min	Matching power kW	Passing through the largest particle mm	Weight kg
33	WQ2445-4152A-250	250	675	42	1485	110	100	1210
34	WQ2445-4152-250		770	43	1485	132	100	1300
35	WQ2445-4153-250	250	880	46	1485	160	100	1400
36	WQ2520-4165-250		550	70	1485	185	60	1850
37	WQ2520-4166-250		600	75	1485	200	60	1900
38	WQ2520-4167-250		650	80	1485	220	60	2000
39	WQ2290-6215-300	300	700	11	980	30	100	700
40	WQ2290-6216-300		750	13	980	37	100	720
41	WQ2290-6217-300		800	15	980	45	100	770
42	WQ2290-6218-300		900	17	980	55	100	800
43	WQ2368-4120A-300	300	930	20	1485	75	120	870
44	WQ2368-4120-300		950	24	1485	90	120	900
45	WQ2368-4121-300	300	1000	22	1485	90	120	902
46	WQ2445-4139-300	300	1200	24	1485	110	120	1430
47	WQ2445-4140A-300		1200	27	1485	132	120	1500
48	WQ2445-4140-300		1300	30	1485	160	120	1600
49	WQ2445-4141A-300	300	1000	35	1485	132	120	1520
50	WQ2445-4141-300		1050	40	1485	160	120	1615
51	WQ2520-4160-300	300	1200	37	1485	185	80	2000
52	WQ2520-4161-300		1400	37	1485	200	80	2050
53	WQ2520-4162-300		1400	42	1485	220	80	2150
54	WQ2520-4163-300		1400	49	1485	250	80	2300
55	WQ2520-4164-300		1400	52	1485	280	80	2500
56	WQ2368-6158-350	350	900	9	980	30	91	850
57	WQ2368-6159-350		1200	8	980	37	91	880
58	WQ2368-6160-350		1200	10	980	45	91	920
59	WQ2368-6161-350		1300	12	980	55	91	960
60	WQ2445-6121-350	350	1150	16	990	75	105	1570
61	WQ2445-6122-350		1400	15	990	90	105	1600
62	WQ2445-6123-350		1750	16	990	110	105	1650
63	WQ2445-6124-350		1800	20	990	132	105	1700
64	WQ2590-6113-350	350	1600	38	990	220	140	3200

No.	Type	Bore mm	Design flow m^3/h	Design head m	Rotational Speed r/min	Matching power kW	Passing through the largest particle mm	Weight kg
65	WQ2590-6114-350	350	1600	40	990	250	140	3300
66	WQ2590-6115-350		1900	40	990	280	140	3400
67	WQ2368-8155-400	400	1300	6	735	30	80	1180
68	WQ2368-8156-400		1350	7	735	37	80	1200
69	WQ2368-8157-400		1500	8	735	45	80	1250
70	WQ2368-8158-400		1500	10	735	55	80	1300
71	WQ2445-6162-400	400	1650	13	990	75	110	1730
72	WQ2445-6163-400		1800	13	990	90	110	1750
73	WQ2445-6164-400		2100	14	990	110	110	1800
74	WQ2445-6165-400		2400	15	990	132	110	1850
75	WQ2520-6101-400	400	1600	25	990	160	130	2320
76	WQ2520-6102-400		1800	28	990	185	130	2360
77	WQ2520-6103-400		1800	31	990	200	130	2400
78	WQ2520-6104-400	400	2200	18	990	160	130	2340
79	WQ2520-6125-400		2400	20	990	185	130	2380
80	WQ2520-6126-400		2500	22	990	200	130	2420
81	WQ2590-6105-400	400	2250	23	990	220	150	3830
82	WQ2590-6106-400		2500	26	990	250	150	3900
83	WQ2590-6107-400		2500	30	990	280	150	4000
84	WQ2520-8159-500	500	2300	8	735	75	140	2820
85	WQ2520-8160-500		2300	10	735	90	140	2860
86	WQ2520-8161-500		2900	10	735	110	140	2900
87	WQ2520-8162-500		3000	11	745	132	140	2940
88	WQ2520-8163-500		3300	13	745	160	140	3000
89	WQ2520-6108-500	500	3000	13	990	160	130	2920
90	WQ2520-6109-500		3050	15	990	185	130	2960
91	WQ2520-6110-500		3050	18	990	200	130	3000
92	WQ2590-6117-500	500	2800	20	990	220	150	4150
93	WQ2590-6118-500		2900	22	990	250	150	4210
94	WQ2590-6119-500		3000	26	990	280	150	4300
95	WQ2520-1054-600	600	3000	6	590	75	160	4570
96	WQ2520-1055-600		3200	7	590	90	160	4610

No.	Type	Bore mm	Design flow m^3/h	Design head m	Rotational Speed r/min	Matching power kW	Passing through the largest particle mm	Weight kg
97	WQ2520-1056-600	600	3600	8	590	110	160	4670
98	WQ2520-1057-600		3800	9	590	132	160	4730
99	WQ2740-6170C-600	600	3200	30	980	355	100	5800
100	WQ2740-6170B-600		3400	32	980	400	100	6000
101	WQ2740-6170A-600		3600	33	980	420	100	6200
102	WQ2740-6170-600		3600	36	980	450	100	6300
103	WQ2850-8175-600	600	4200	35	745	580	100	9800
104	WQ2590-8164-600	600	3900	12	745	185	150	4200
105	WQ2590-8165-600		4100	13	745	200	150	4350
106	WQ2590-8166-600		4300	14	745	220	150	4470
107	WQ2590-8167-600		4600	15	745	250	150	4550
108	WQ2590-8168-600		4800	16	745	280	150	4620
109	WQ2590-8169-600		5000	16	745	315	150	4800
110	WQ2590-1058-700	700	5000	8	590	160	170	6200
111	WQ2590-1059-700		5000	10	590	185	170	6500
112	WQ2590-1250-700	700	5400	10	495	185	176	6800
113	WQ2590-1251-700		5700	10	495	200	176	7100
114	WQ2590-1252-700		6000	10	495	220	176	7400
115	WQ2670-1601-800	800	6500	7	370	200	240	8000
116	WQ2670-1602-800		6800	8	370	220	240	8300
117	WQ2670-1603-800		7200	9	370	250	240	8500
118	WQ2650-1253-800	800	6500	11	495	250	200	8000
119	WQ2650-1254-800		6900	12	495	280	200	8400
120	WQ2650-1255-800		7300	12	495	315	200	8800
121	WQ2850-8173A-800	800	5500	20	745	450	220	8000
122	WQ2850-8173-800		6000	22	745	500	220	8200
123	WQ2850-8174A-800		6500	23	745	560	220	8500
124	WQ2850-8174-800		7200	25	745	630	220	8700
125	WQ2850-8170-900	900	8400	12	745	450	200	9100
126	WQ2850-8171-900		8500	15	745	500	200	9300
127	WQ2850-8172-900		9000	15	745	560	200	9600
128	WQ2850-1062-1000	1000	10000	15	590	630	250	10500

Performance curves, main parameters and installation dimensions of WQ(30kW and above) series submersible sewage pumps

Performance Curve Graph



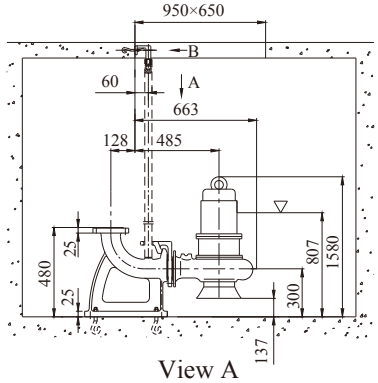
Main Parameter

Outlet Caliber 100mm

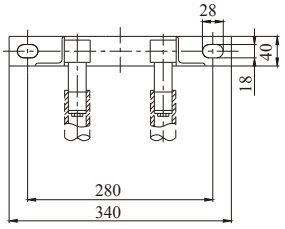
No.	Model		Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2290-2126-100		48	2945	420
2	WQ2290-2125-100		48	2945	400
No.	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	37	68	0.89	92.5	2.2
2	30	56	0.89	92	2.1

Installation Dimension Diagram

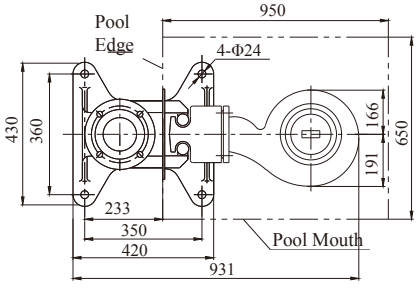
Z Automatic Coupling Installation



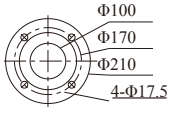
View B



View A



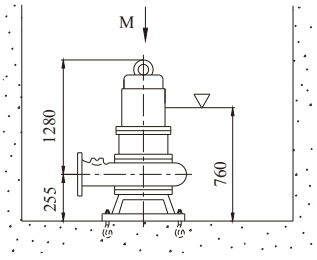
Flange Dimension



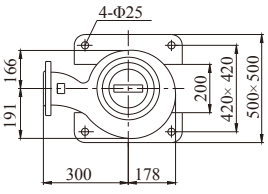
According to
GB/T17241.6PN6 Standard Flange

P

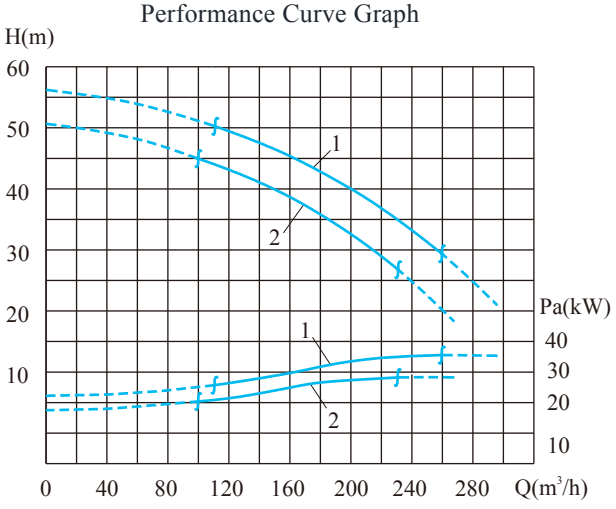
Fixed Base Installation



View M



Performance Curve Graph



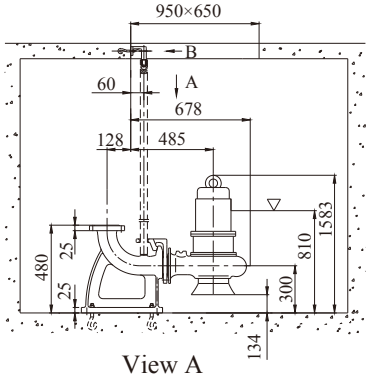
Main Parameter

Outlet Caliber 100mm

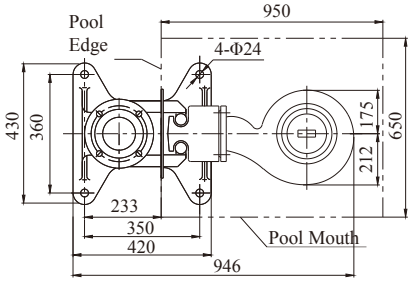
No.	Model		Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2290-2132-100		48	2945	430
2	WQ2290-2131-100		48	2945	410
No.	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	37	68	0.89	92.5	2.2
2	30	56	0.89	92	2.1

Installation Dimension Diagram

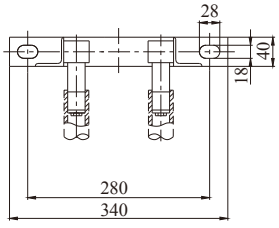
Z Automatic Coupling Installation



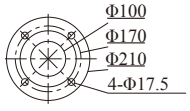
View A



View B

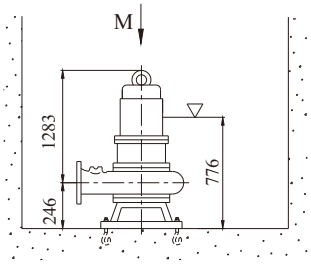


Flange Dimension

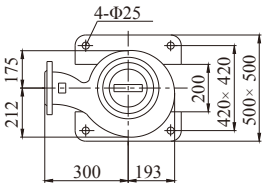


According to GB/T17241.6PN6 Standard Flange

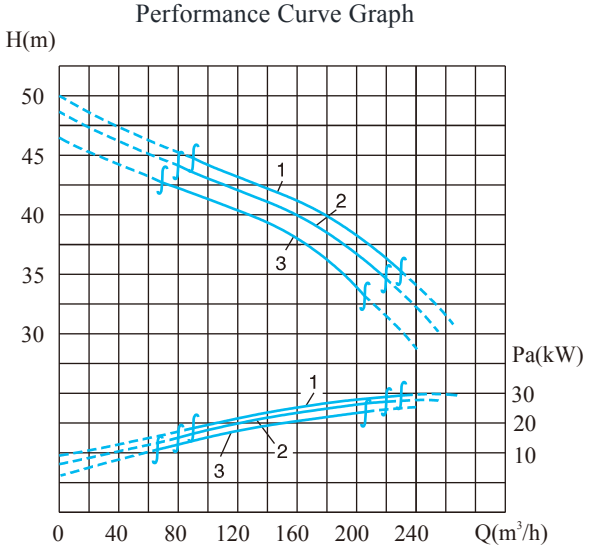
P Fixed Base Installation



View M



Performance Curve Graph



Main Parameter

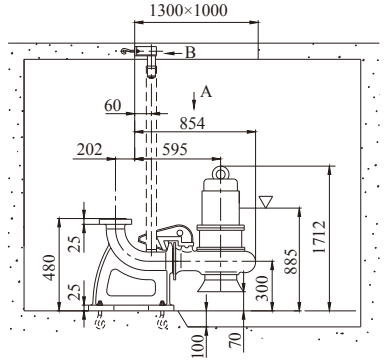
Outlet Caliber 100mm

No.	Model	Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2290-4135-150	89	1470	445
2	WQ2290-4135A-150	89	1470	440
3	WQ2290-4135B-150	89	1470	435

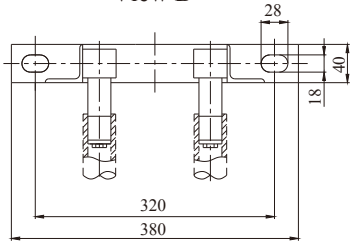
No.	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	30	57	0.87	92.3	2.2
2	30	57	0.87	92.3	2.2
3	30	57	0.87	92.3	2.2

Installation Dimension Diagram

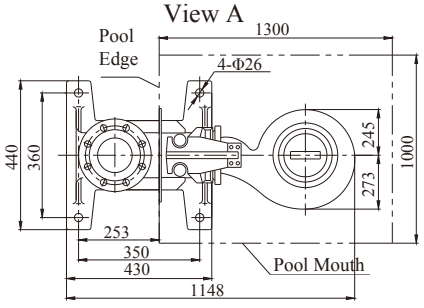
Z Automatic Coupling Installation



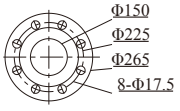
View B



View A



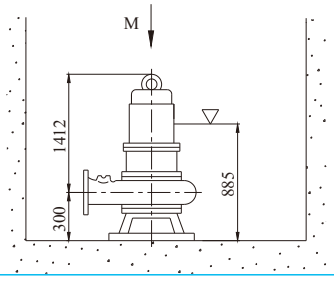
Flange Dimension



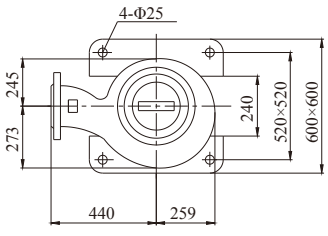
According to
GB/T17241.6PN6 Standard Flange

P

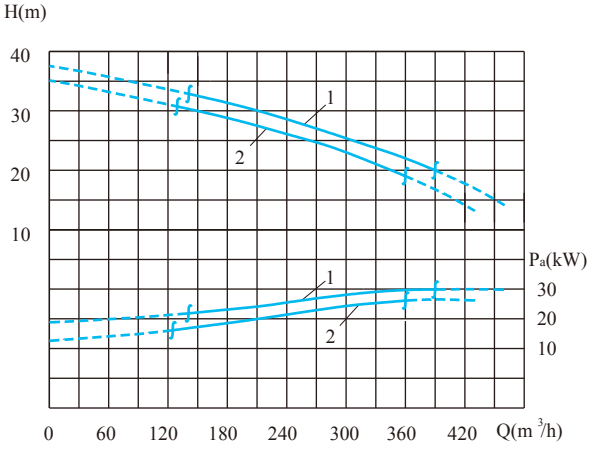
Fixed Base Installation



View M



Performance Curve Graph



Main Parameter

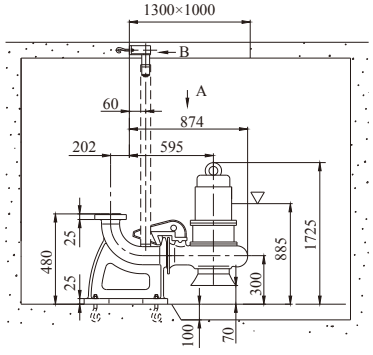
Outlet Caliber 150mm

No.	Model	Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2290-4134-150	76	1475	445
2	WQ2290-4134A-150	76	1475	440

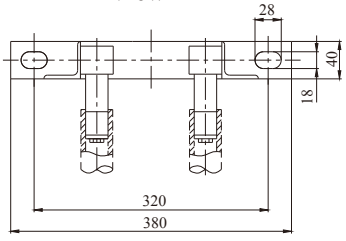
No.	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	30	57	0.87	92.3	2.2
2	30	57	0.87	92.3	2.2

Installation Dimension Diagram

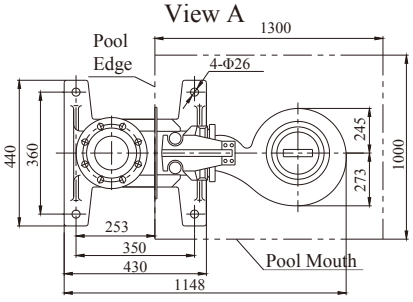
Z Automatic Coupling Installation



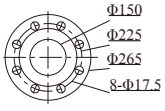
View B



View A

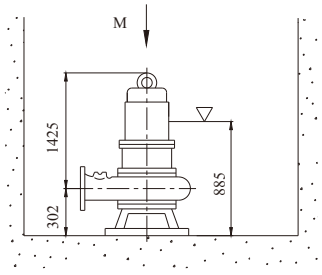


Flange Dimension

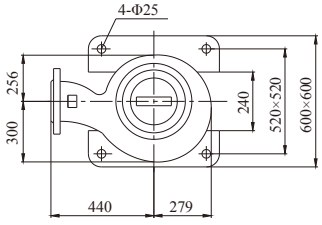


According to
GB/T17241.6PN6 Standard Flange

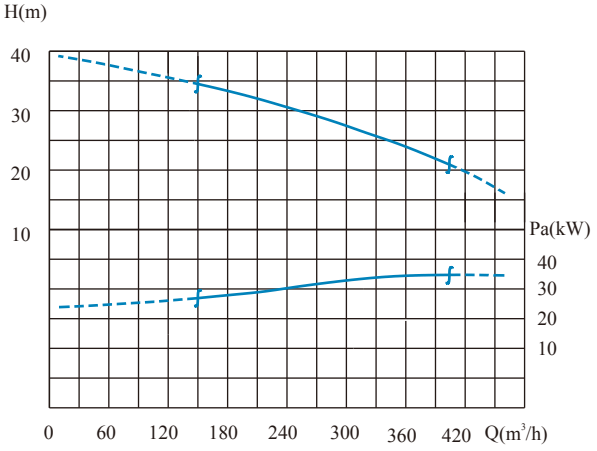
P Fixed Base Installation



View M



Performance Curve Graph

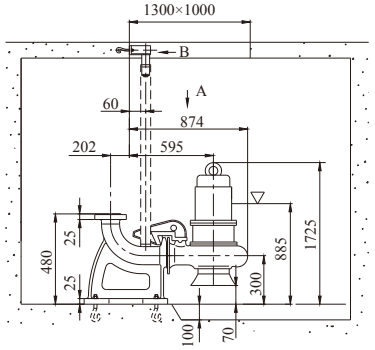


Main Parameter

Outlet Caliber 150mm

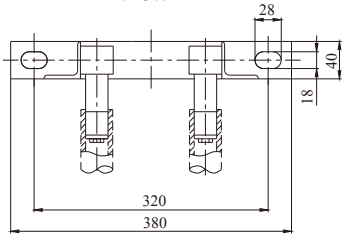
No.	Model		Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2290-4136-150		76	1475	460
No.	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	37	70	0.87	92.7	2.2

Installation Dimension Diagram

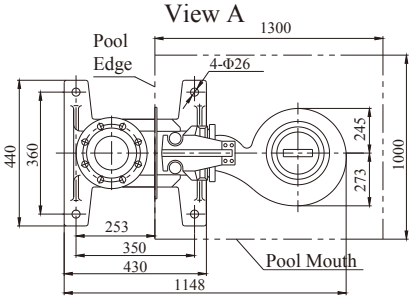


Z Automatic Coupling Installation

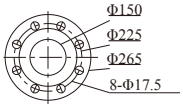
View B



View A

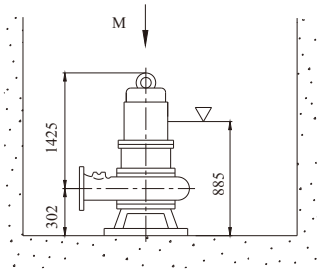


Flange Dimension

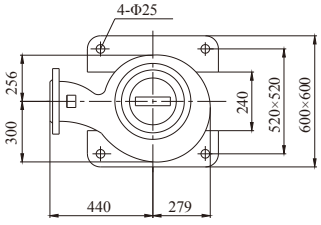


According to
GB/T17241.6PN6 Standard Flange

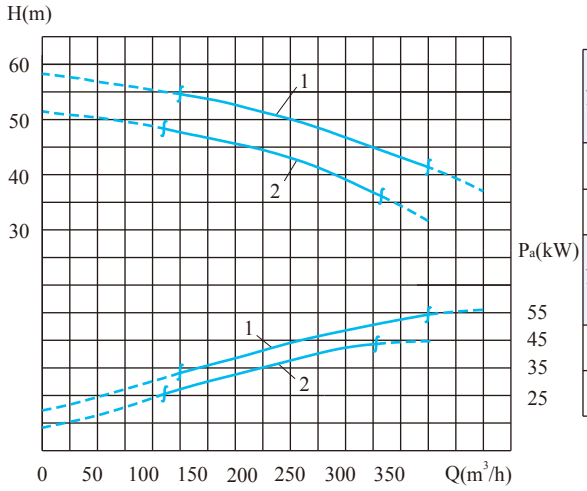
P
Fixed Base Installation



View M



Performance Curve Graph



Main Parameter

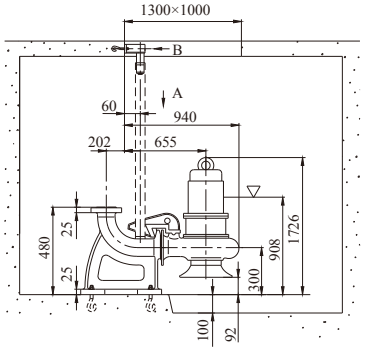
Outlet Caliber 150mm

No.	Model	Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2290-4171-150	76	1475	550
2	WQ2290-4170-150	76	1475	520

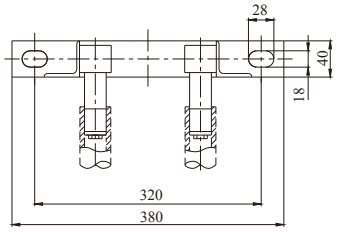
No.	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	55	102	0.88	93.5	2.2
2	45	84	0.88	93.1	2.2

Installation Dimension Diagram

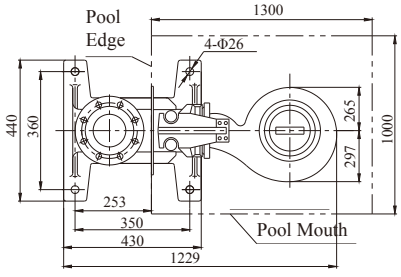
Z Automatic Coupling Installation



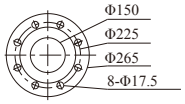
View B



View A

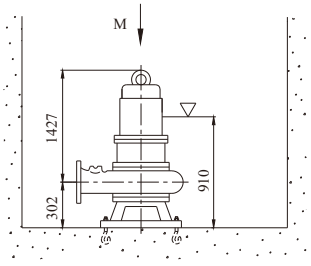


Flange Dimension

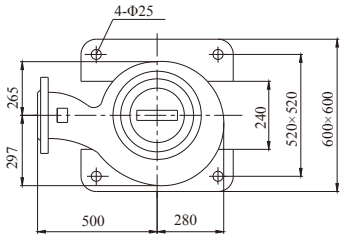


According to
GB/T17241.6PN6 Standard Flange

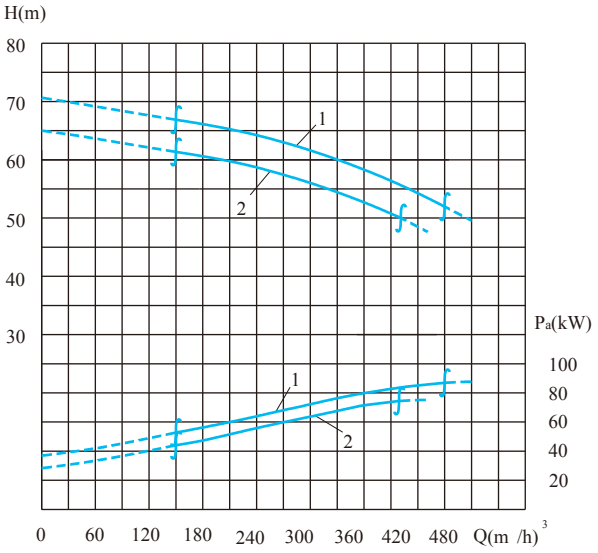
P
Fixed Base Installation



View M



Performance Curve Graph



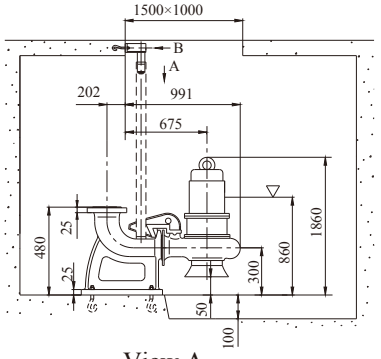
Main Parameter

Outlet Caliber 150mm

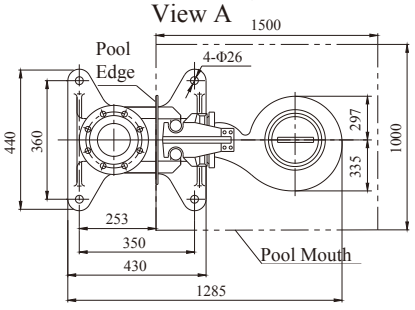
No.	Model		Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2368-4166-150		82	1485	820
2	WQ2368-4165-150		82	1485	790
No.	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	90	167	0.87	94.2	2.2
2	75	140	0.87	94	2.2

Installation Dimension Diagram

Z Automatic Coupling Installation

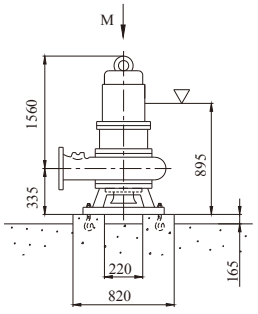


View A

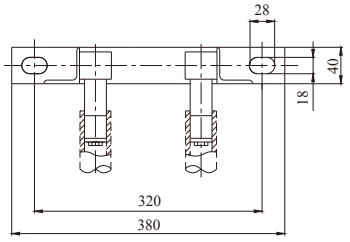


P

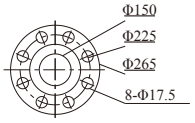
Fixed Base Installation



View B

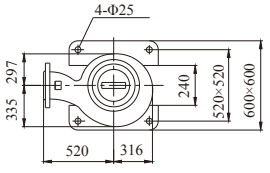


Flange Dimension

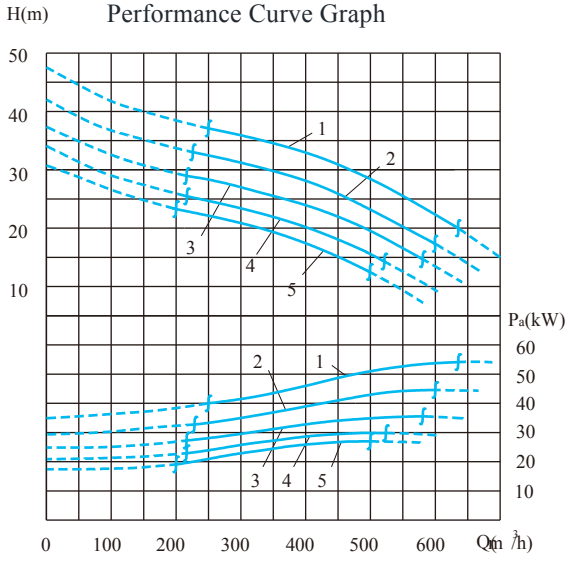


According to GB/T17241.6PN6 Standard Flange

View M



Performance Curve Graph



Main Parameter

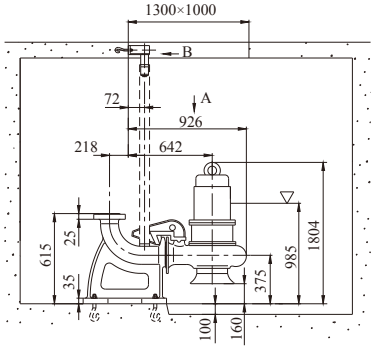
Outlet Caliber 200mm

No.	Model	Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2290-4175-200	113	1470	560
2	WQ2290-4174-200	113	1470	530
3	WQ2290-4173-200	113	1470	500
4	WQ2290-4172-200	113	1470	480
5	WQ2290-4172A-200	113	1470	475

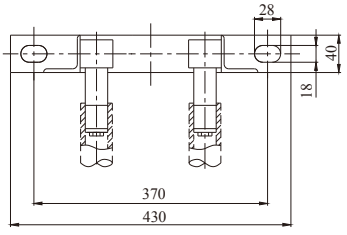
No.	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	55	102	0.88	93.5	2.2
2	45	84	0.88	93.1	2.2
3	37	70	0.87	92.7	2.2
4	30	57	0.87	92.3	2.2
5	30	57	0.87	92.3	2.2

Installation Dimension Diagram

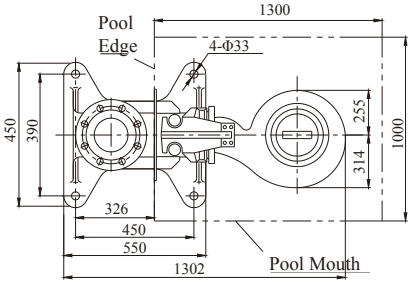
Z Automatic Coupling Installation



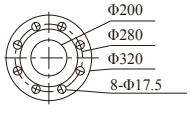
View B



View A

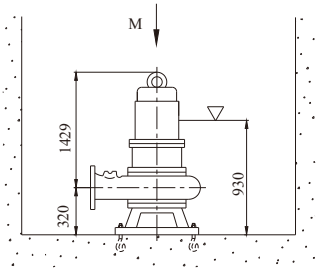


Flange Dimension

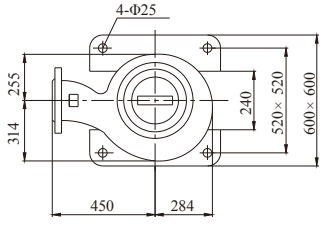


According to
GB/T17241.6PN6 Standard Flange

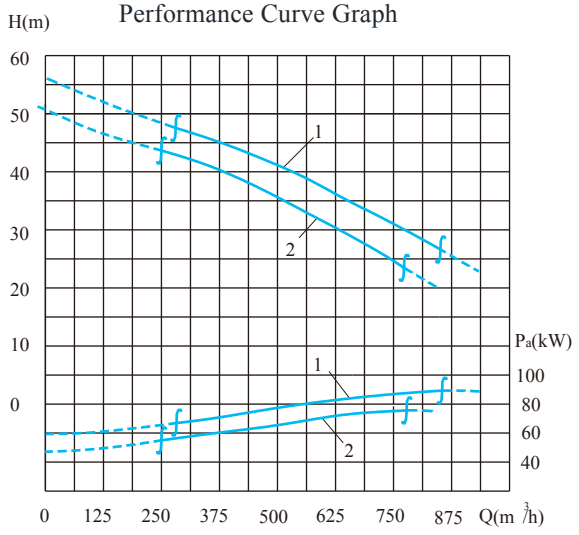
P
Fixed Base Installation



View M



Performance Curve Graph



Main Parameter

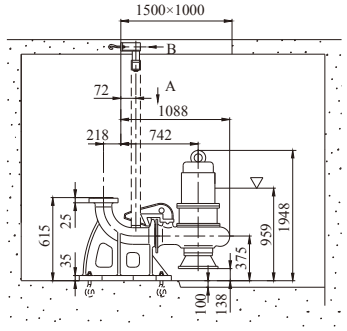
Outlet Caliber 200mm

No.	Model	Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2368-4146-200	96	1485	810
2	WQ2368-4145-200	96	1485	780

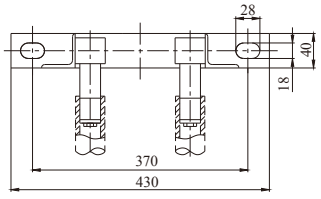
No.	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	90	167	0.87	94.2	2.2
2	75	140	0.87	94	2.2

Installation Dimension Diagram

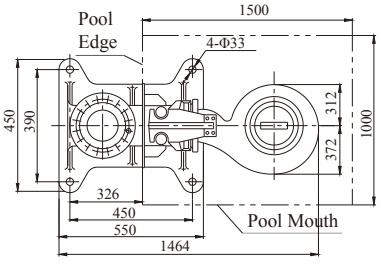
Z Automatic Coupling Installation



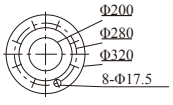
View B



View A



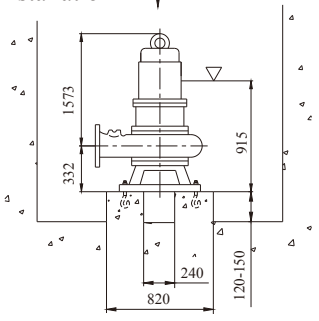
Flange Dimension



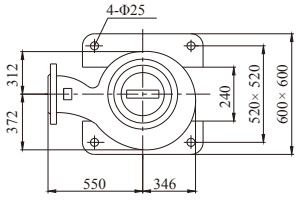
According to
GB/T17241.6PN6 Standard Flange

P

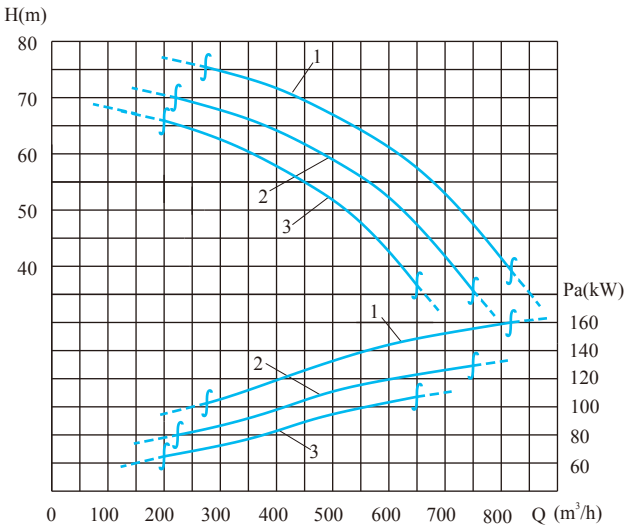
Fixed Base Installation



View M



Performance Curve Graph



Main Parameter

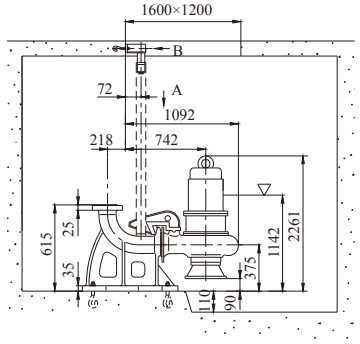
Outlet Caliber 200mm

No.	Model	Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2445-4148-200	96	1485	1500
2	WQ2445-4147-200	96	1485	1400
3	WQ2445-4147A-200	96	1485	1310

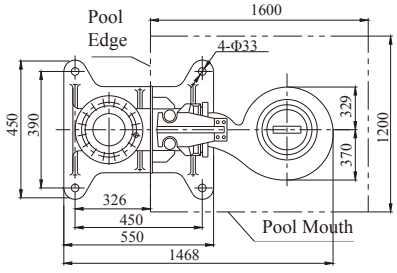
No.	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	160	294	0.87	94.9	2.2
2	132	243	0.87	94.7	2.2
3	110	203	0.87	94.5	2.2

Installation Dimension Diagram

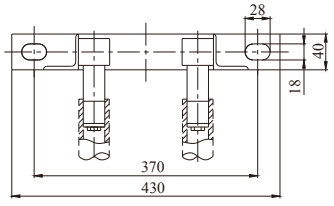
Z Automatic Coupling Installation



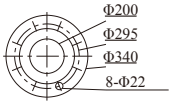
View A



View B

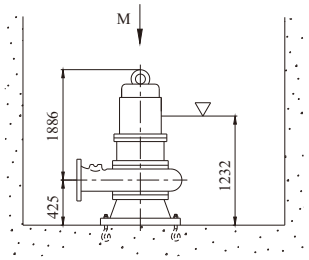


Flange Dimension

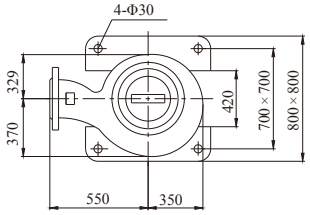


According to
GB/T17241.6PN6 Standard Flange

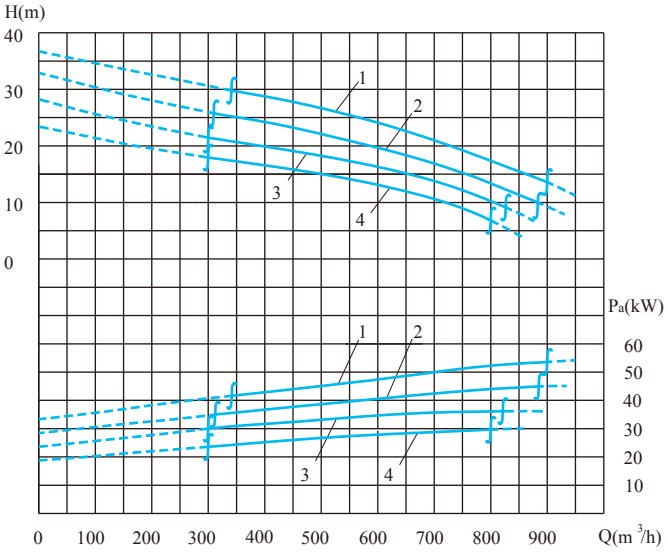
P Fixed Base Installation



View M



Performance Curve Graph



Main Parameter

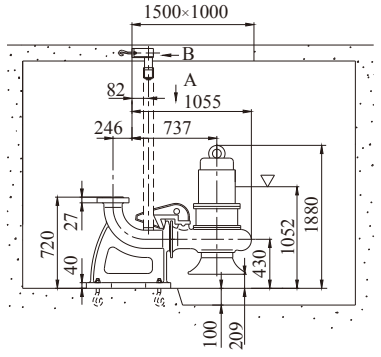
Outlet Caliber 250mm

No.	Model	Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2290-4168-250	130	1470	580
2	WQ2290-4112-250	130	1470	550
3	WQ2290-4110-250	130	1470	520
4	WQ2290-4109-250	130	1470	500

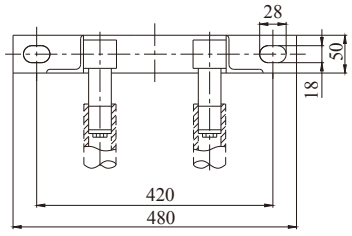
No.	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	55	102	0.88	93.5	2.2
2	45	84	0.88	93.1	2.2
3	37	70	0.87	92.7	2.2
4	30	57	0.87	92.3	2.2

Installation Dimension Diagram

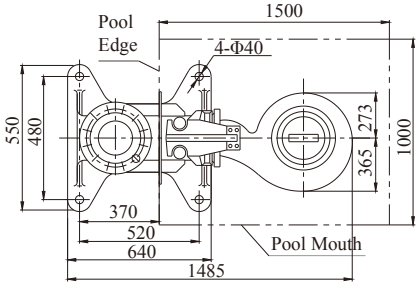
Z Automatic Coupling Installation



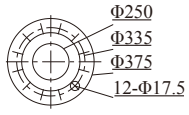
View B



View A



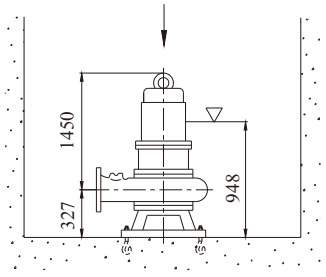
Flange Dimension



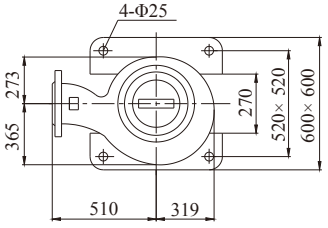
According to
GB/T17241.6PN6 Standard Flange

P

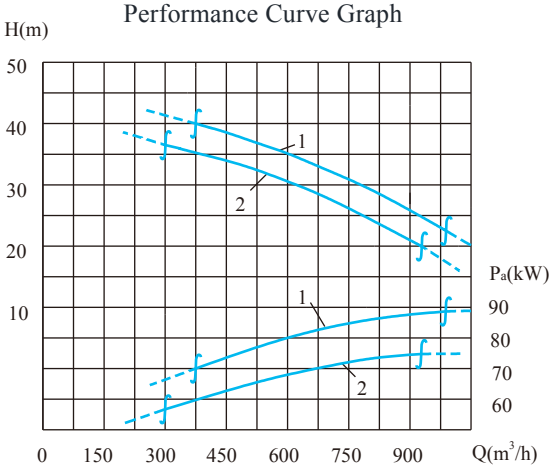
Fixed Base Installation M



View M



Performance Curve Graph



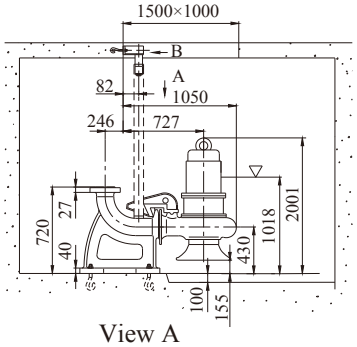
Main Parameter

Outlet Caliber 250mm

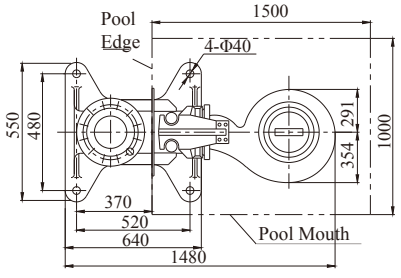
No.	Model		Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2368-4150-250		138	1485	880
2	WQ2368-4149-250		138	1485	850
No.	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	90	167	0.87	94.2	2.2
2	75	140	0.87	94	2.2

Installation Dimension Diagram

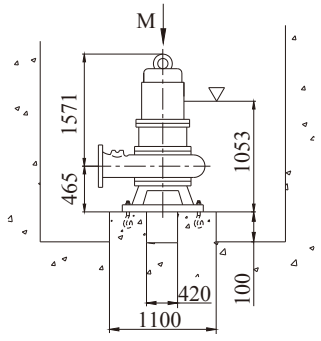
Z Automatic Coupling Installation



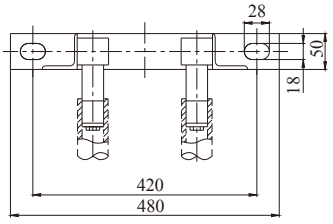
View A



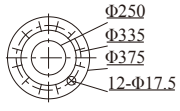
P Fixed Base Installation



View B

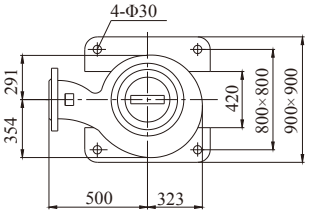


Flange Dimension

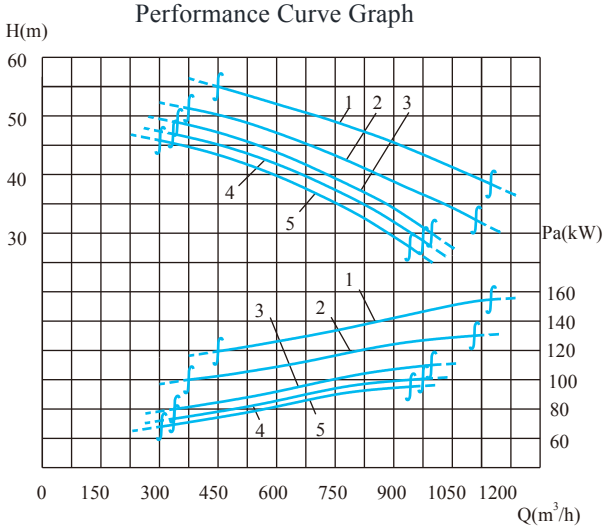


According to GB/T17241.6PN6 Standard Flange

View M



Performance Curve Graph



Main Parameter

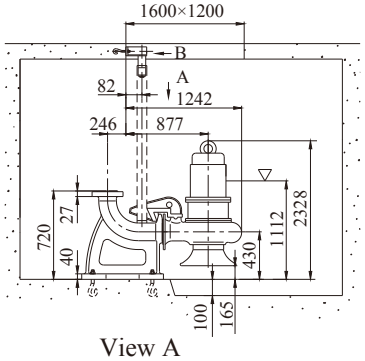
Outlet Caliber 250mm

No.	Model	Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2445-4153-250	110	1485	1400
2	WQ2445-4152-250	110	1485	1300
3	WQ2445-4152A-250	110	1485	1210
4	WQ2445-4151-250	110	1485	1205
5	WQ2445-4151A-250	110	1485	1200

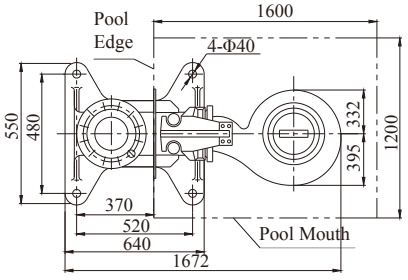
No.	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	160	294	0.87	94.9	2.1
2	132	243	0.87	94.7	2.2
3	110	203	0.87	94.5	2.2
4	110	203	0.87	94.5	2.2
5	110	203	0.87	94.5	2.2

Installation Dimension Diagram

Z Automatic Coupling Installation

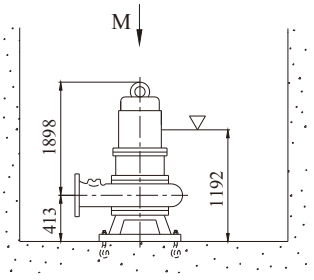


View A

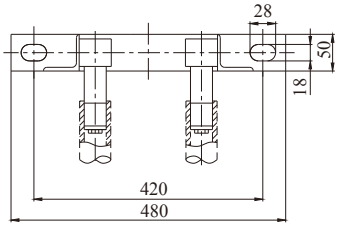


P

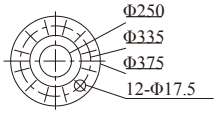
Fixed Base Installation



View B

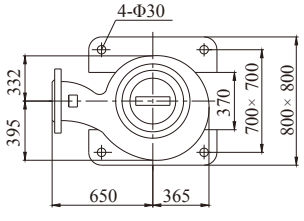


Flange Dimension

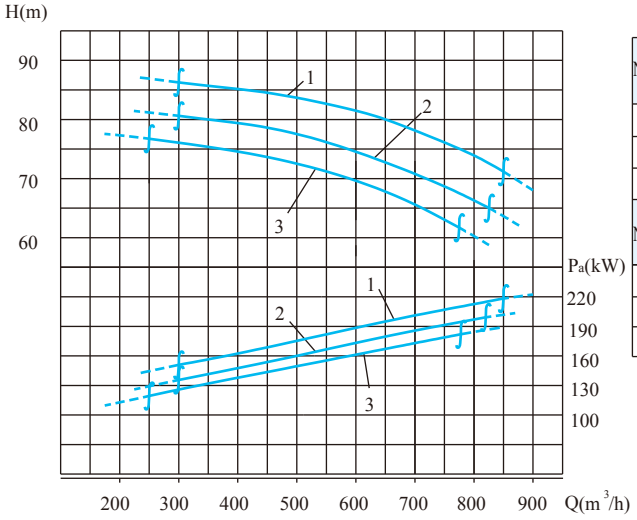


According to
GB/T17241.6PN6 Standard Flange

View M



Performance Curve Graph



Main Parameter

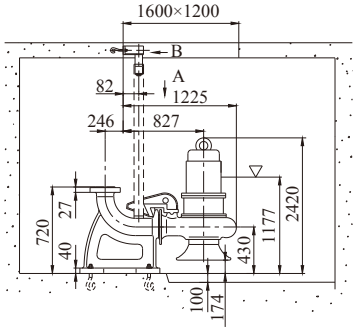
Outlet Caliber 250mm

No.	Model	Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2520-4167-250	138	1485	2000
2	WQ2520-4166-250	138	1485	1900
3	WQ2520-4165-250	138	1485	1850

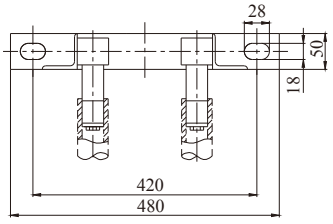
No.	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	220	395	0.89	95.1	2.2
2	200	363	0.88	95.1	2.2
3	185	340	0.87	95	2.1

Installation Dimension Diagram

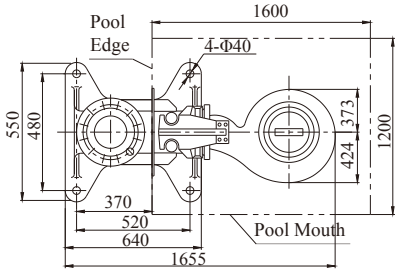
Z Automatic Coupling Installation



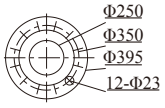
View B



View A

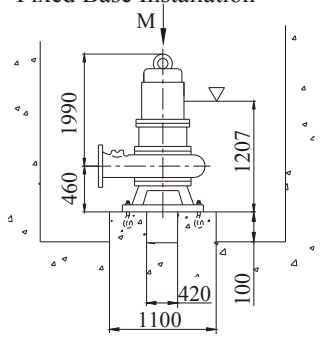


Flange Dimension

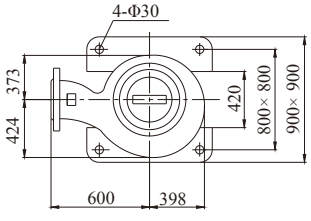


According to
GB/T17241.6PN6 Standard Flange

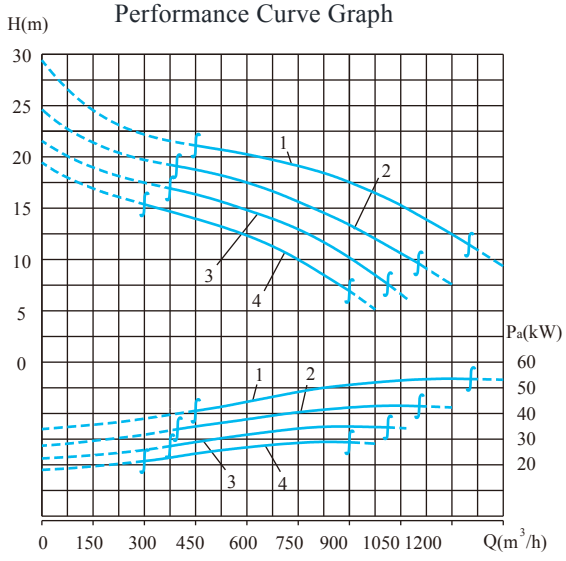
P
Fixed Base Installation



View M



Performance Curve Graph



Main Parameter

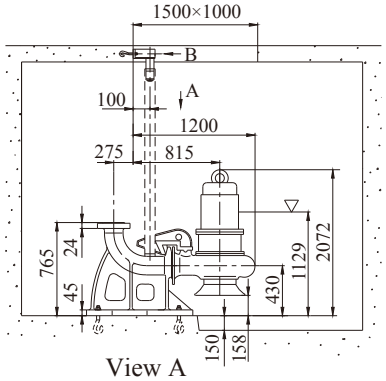
Outlet Caliber 150mm

No	Model	Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2290-6218-300	149×136	980	800
2	WQ2290-6217-300	149×136	980	770
3	WQ2290-6216-300	149×136	980	720
4	WQ2290-6215-300	149×136	980	700

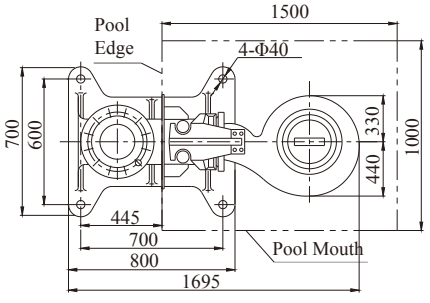
No	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	55	104	0.87	93.1	2.3
2	45	85	0.87	92.7	2.3
3	37	71	0.86	92.2	2.3
4	30	58	0.85	91.7	2.1

Installation Dimension Diagram

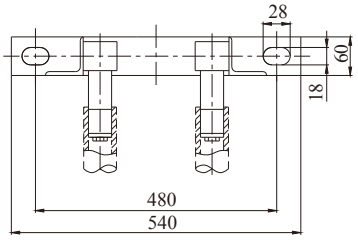
Z Automatic Coupling Installation



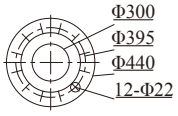
View A



View B

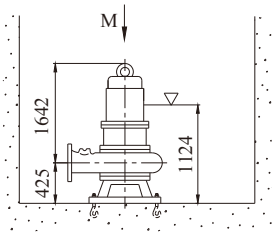


Flange Dimension

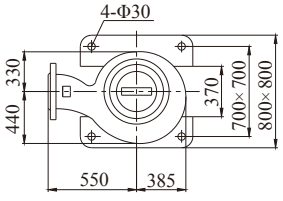


According to GB/T17241.6PN6 Standard Flange

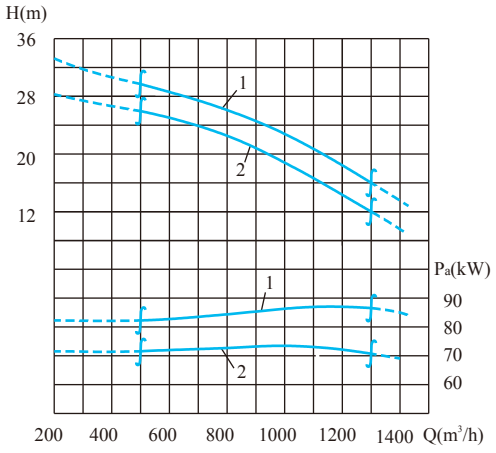
P Fixed Base Installation



View M



Performance Curve Graph



Main Parameter

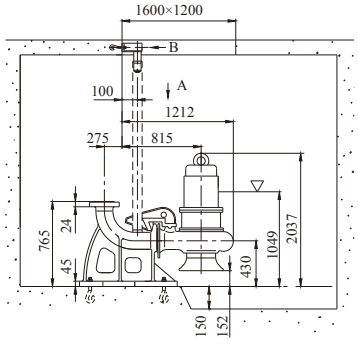
Outlet Caliber 300mm

No.	Model	Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2368-4120-300	157	1485	900
2	WQ2368-4120A-300	157	1485	870

No.	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	90	167	0.87	94.2	2.2
2	75	140	0.87	94	2.2

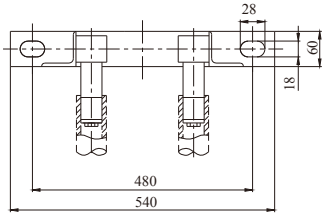
Installation Dimension Diagram

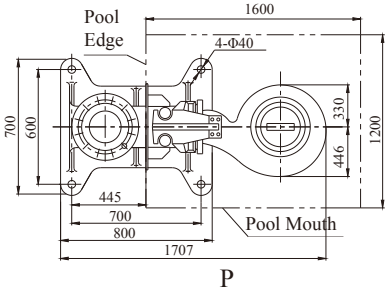
Z Automatic Coupling Installation



View A

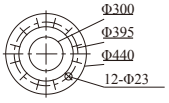
View B





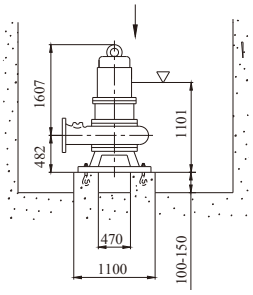
P

Flange Dimension

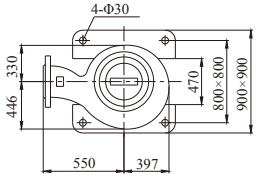


According to
GB/T17241.6PN6 Standard Flange

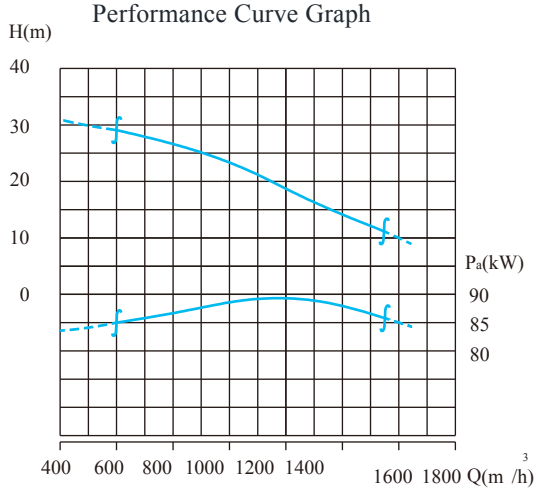
Fixed Base Installation M



View M



Performance Curve Graph



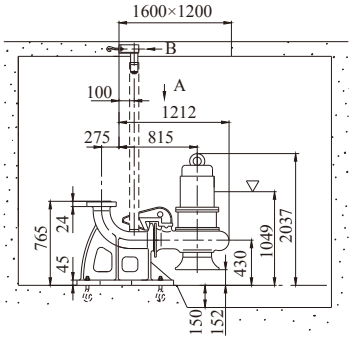
Main Parameter

Outlet Caliber 300mm

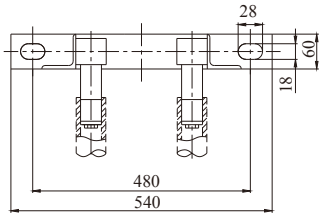
Model		Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
WQ2368-4121-300		157	1485	902
Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
90	167	0.87	94.2	2.2

Installation Dimension Diagram

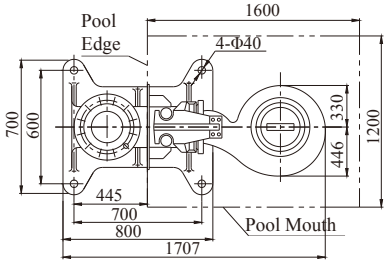
Z Automatic Coupling Installation



View A



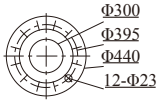
View B



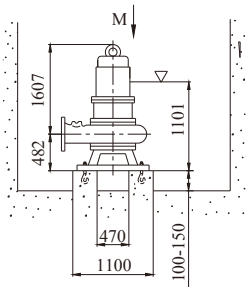
P

Fixed Base Installation

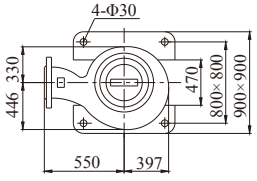
Flange Dimension



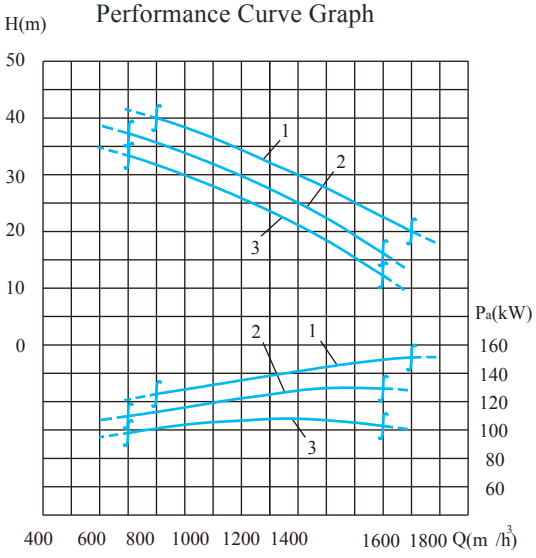
According to
GB/T17241.6PN6 Standard Flange



View M



Performance Curve Graph



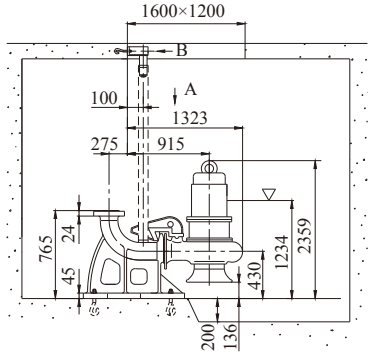
Main Parameter

Outlet Caliber 300mm

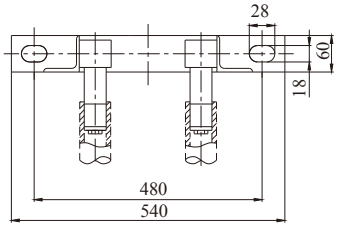
No.	Model		Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2445-4140-300		128	1485	1600
2	WQ2445-4140A-300		128	1485	1500
3	WQ2445-4139-300		128	1485	1430
No.	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	160	294	0.87	94.9	2.1
2	132	243	0.87	94.7	2.1
3	110	203	0.87	94.5	2.2

Installation Dimension Diagram

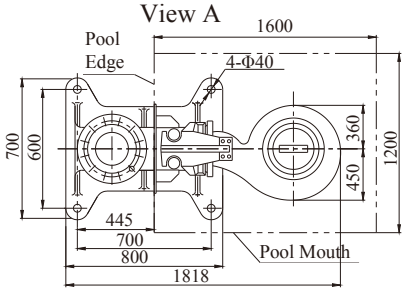
Z Automatic Coupling Installation



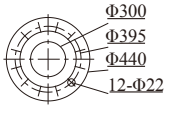
View B



View A



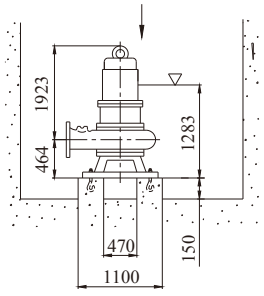
Flange Dimension



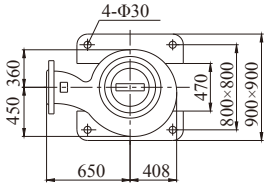
According to
GB/T17241.6PN6 Standard Flange

P

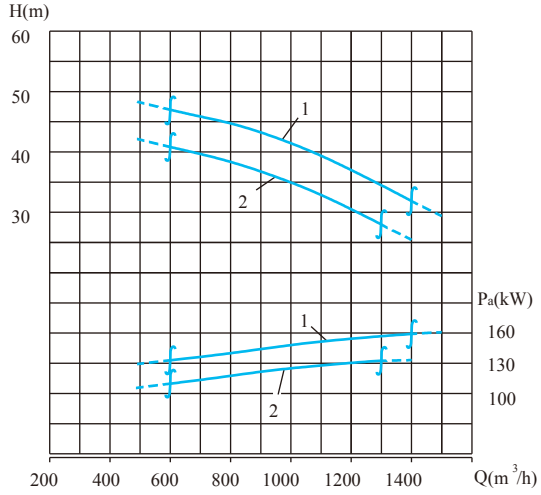
Fixed Base Installation M



View M



Performance Curve Graph



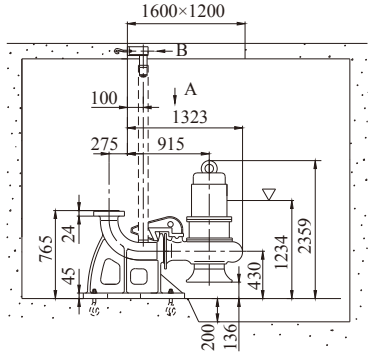
Main Parameter

Outlet Caliber 300mm

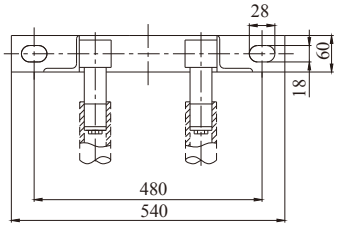
No.	Model		Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2445-4141-300		128	1485	1615
2	WQ2445-4141A-300		128	1485	1520
No.	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	160	294	0.87	94.9	2.1
2	132	243	0.87	94.7	2.2

Installation Dimension Diagram

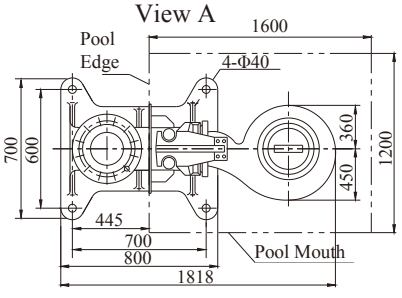
Z Automatic Coupling Installation



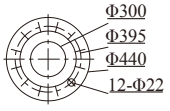
View B



View A



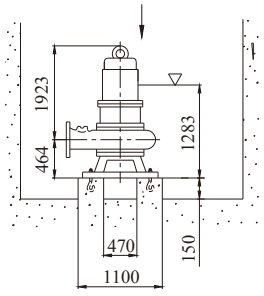
Flange Dimension



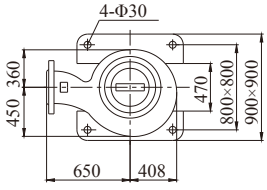
According to
GB/T17241.6PN6 Standard Flange

P

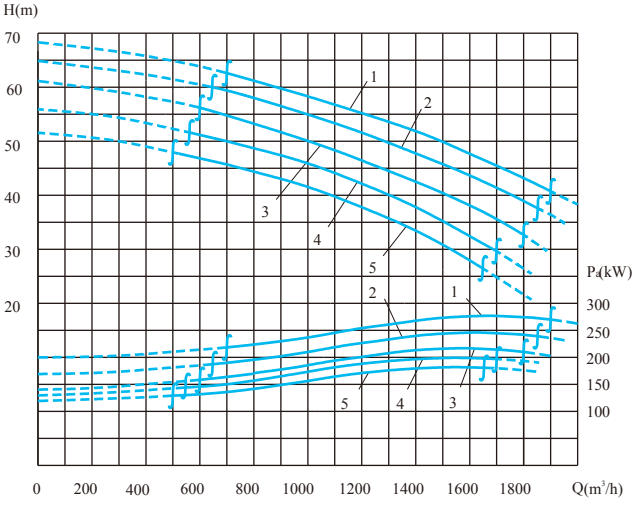
Fixed Base Installation M



View M



Performance Curve Graph



Main Parameter

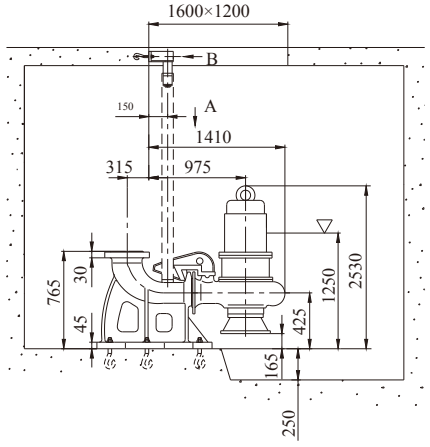
Outlet Caliber 300mm

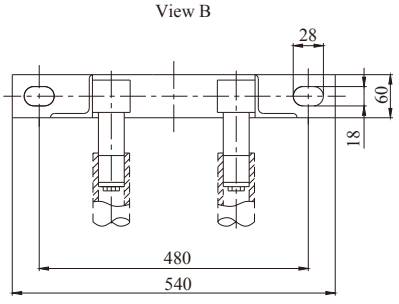
No.	Model	Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2520-4164-300	74	1485	2500
2	WQ2520-4163-300	74	1485	2300
3	WQ2520-4162-300	74	1485	2150
4	WQ2520-4161-300	74	1485	2050
5	WQ2520-4160-300	74	1485	2000

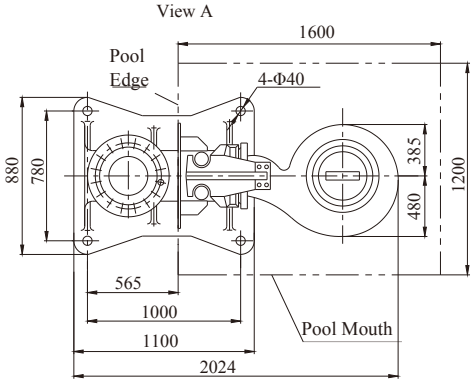
No.	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	280	497	0.90	95.1	2.2
2	250	449	0.89	95.1	2.2
3	220	395	0.89	95.1	2.2
4	200	363	0.88	95.1	2.2
5	185	340	0.87	95	2.1

Installation Dimension Diagram

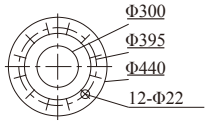
Z Automatic Coupling Installation







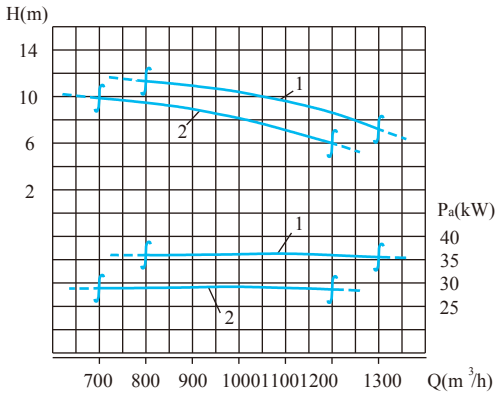
Flange Dimension



According to
GB/T17241.6PN6 Standard Flange

Note: The coupling equipment of this pump cannot be interchanged with other 300 caliber pumps.

Performance Curve Graph



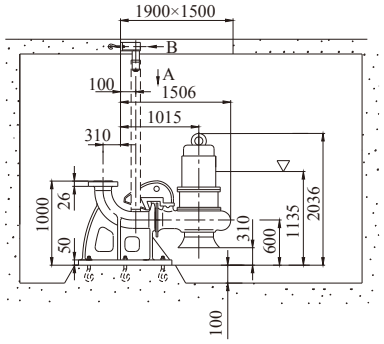
Main Parameter

Outlet Caliber 350mm

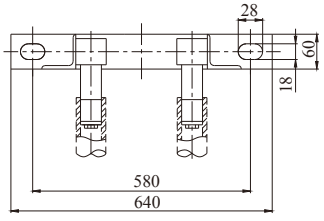
No.	Model		Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2368-6159-350		114	980	880
2	WQ2368-6158-350		114	980	850
No.	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	37	71	0.86	92.2	2.3
2	30	58	0.85	91.7	2.1

Installation Dimension Diagram

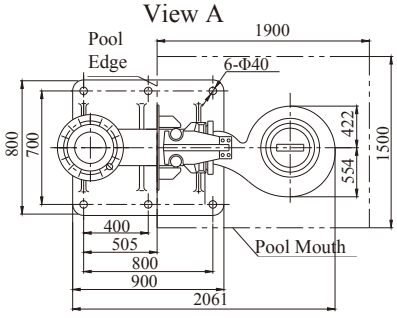
Z Automatic Coupling Installation



View B

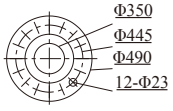


View A



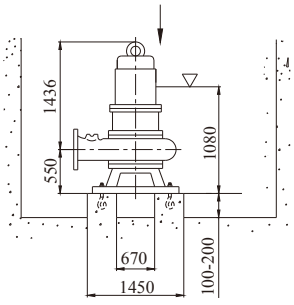
P

Flange Dimension

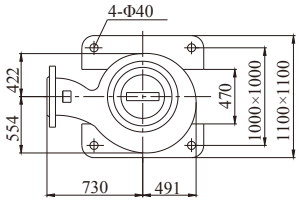


According to
GB/T17241.6PN6 Standard Flange

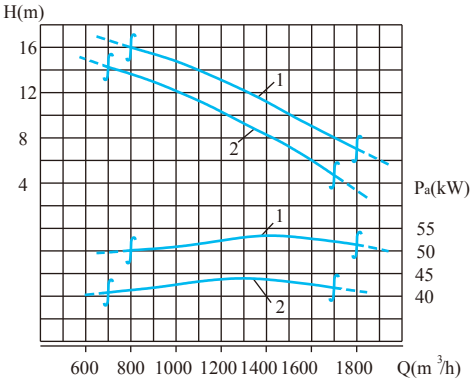
Fixed Base Installation M



View M



Performance Curve Graph



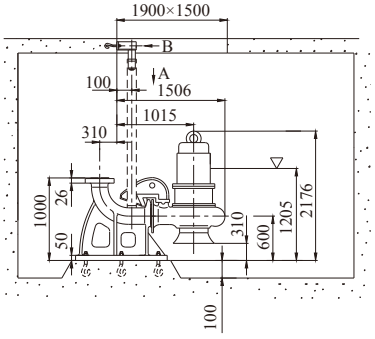
Main Parameter

Outlet Caliber 350mm

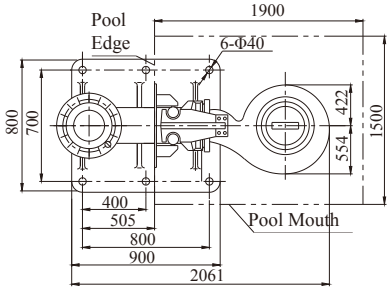
No.	Model		Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2368-6161-350		114	980	960
2	WQ2368-6160-350		114	980	920
No.	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	55	104	0.87	93.1	2.3
2	45	85	0.87	92.7	2.3

Installation Dimension Diagram

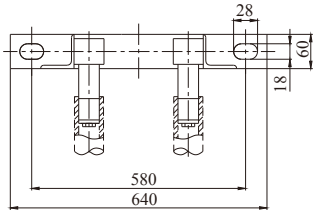
Z Automatic Coupling Installation



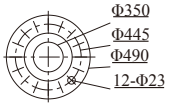
View A



View B



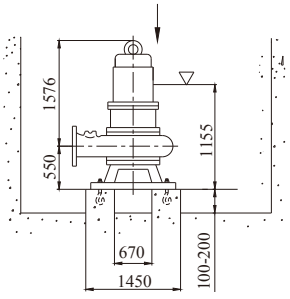
Flange Dimension



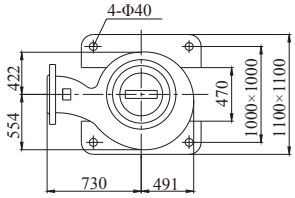
According to GB/T17241.6PN6 Standard Flange

P

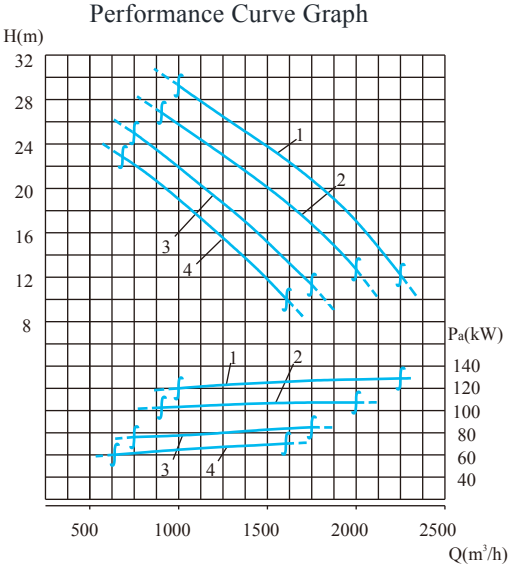
Fixed Base Installation M



View M



Performance Curve Graph



Main Parameter

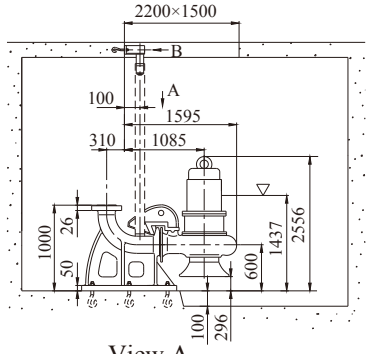
Outlet Caliber 350mm

No.	Model	Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2445-6124-350	130	990	1700
2	WQ2445-6123-350	130	990	1650
3	WQ2445-6122-350	130	990	1600
4	WQ2445-6121-350	130	990	1570

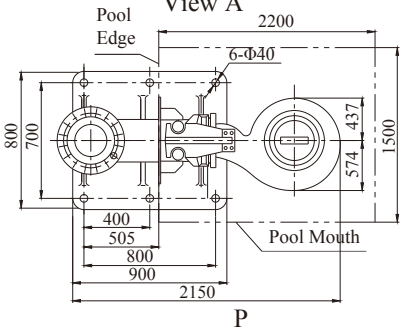
No.	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	132	246	0.86	94.6	2.1
2	110	206	0.86	94.3	2.1
3	90	170	0.86	94	2.0
4	75	142	0.86	93.7	2.0

Installation Dimension Diagram

Z Automatic Coupling Installation

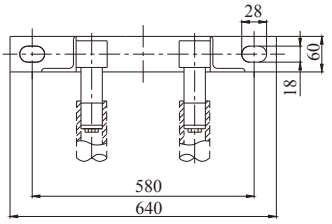


View A

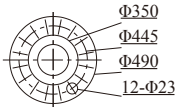


P

View B

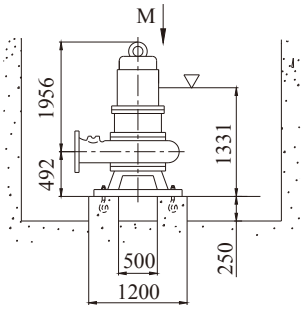


Flange Dimension

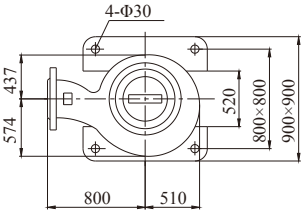


According to GB/T17241.6PN6 Standard Flange

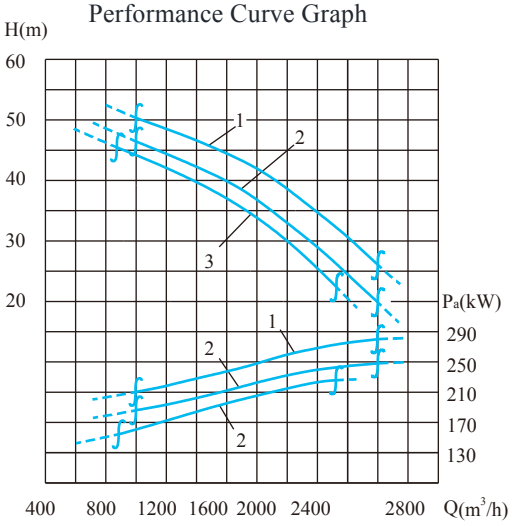
Fixed Base Installation



View M



Performance Curve Graph



Main Parameter

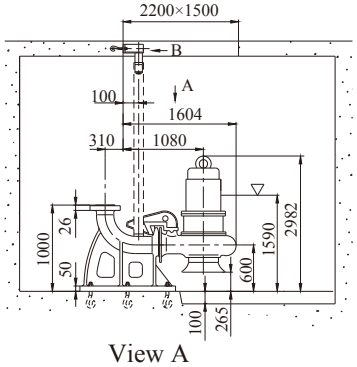
Outlet Caliber 350mm

No.	Model	Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2590-6115-350	169	990	3400
2	WQ2590-6114-350	169	990	3300
3	WQ2590-6113-350	169	990	3200

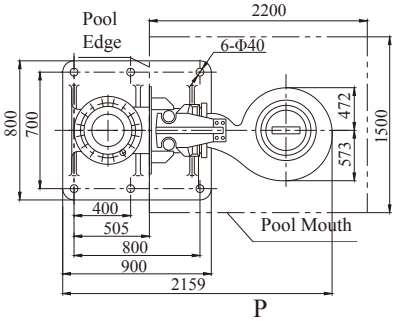
No.	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	280	508	0.88	95	1.5
2	250	454	0.88	95	1.45
3	220	399	0.88	95	1.52

Installation Dimension Diagram

Z Automatic Coupling Installation

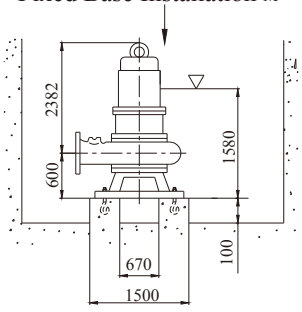


View A

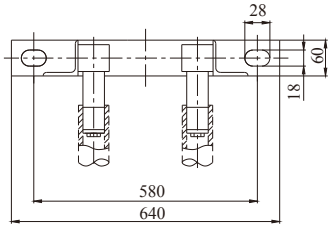


P

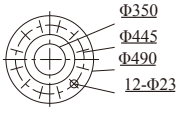
Fixed Base Installation M



View B

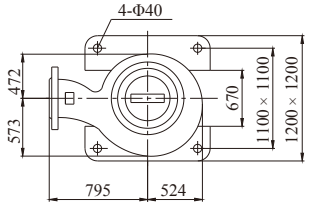


Flange Dimension

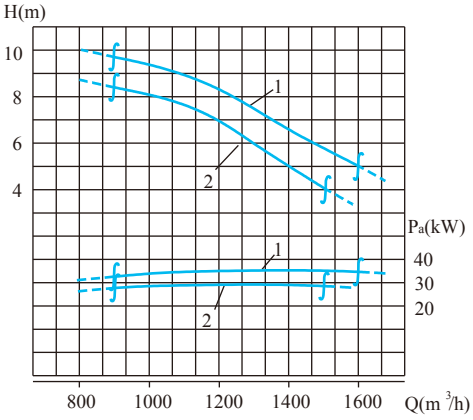


According to
GB/T17241.6PN6 Standard Flange

View M



Performance Curve Graph



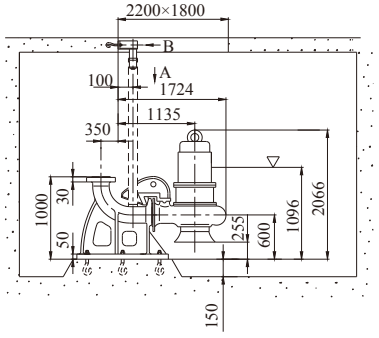
Main Parameter

Outlet Caliber 400mm

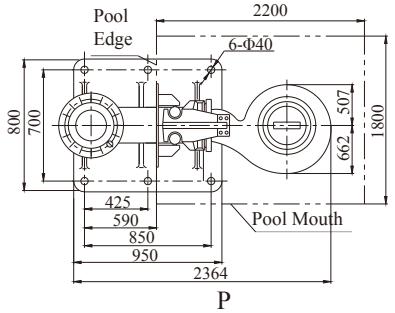
No.	Model		Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2368-8156-400		104	735	1200
2	WQ2368-8155-400		104	735	1180
No.	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	37	78	0.79	90.5	2.0
2	30	63	0.8	89.5	1.9

Installation Dimension Diagram

Z Automatic Coupling Installation



View A



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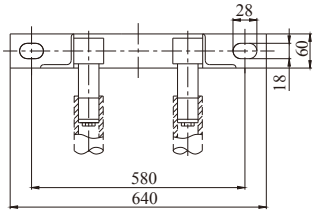
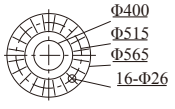
View B

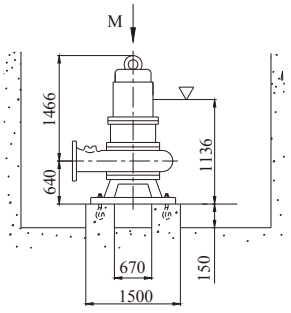


Flange Dimension

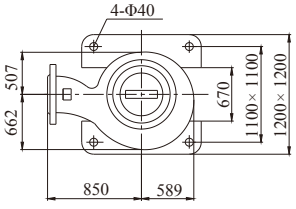


According to
GB/T17241.6PN6 Standard Flange

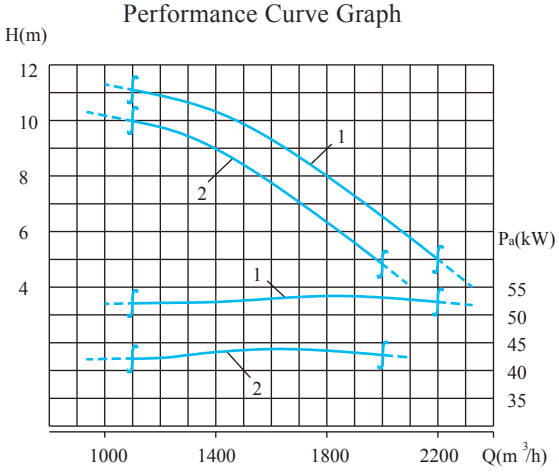
Fixed Base Installation



View M



Performance Curve Graph



Main Parameter

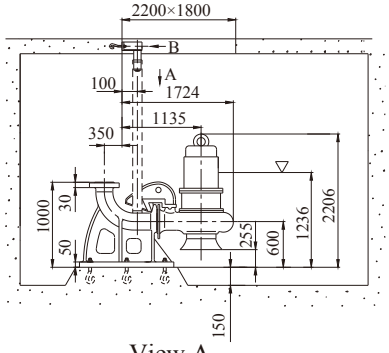
Outlet Caliber 400mm

No.	Model	Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2368-8158-400	104	735	1300
2	WQ2368-8157-400	104	735	1250

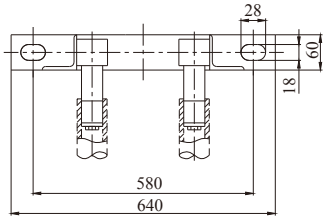
No.	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	55	115	0.82	92.7	1.8
2	45	94	0.8	91.5	2.0

Installation Dimension Diagram

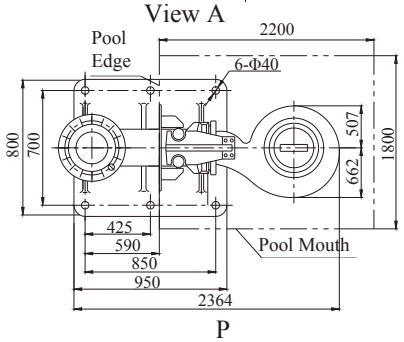
Z Automatic Coupling Installation



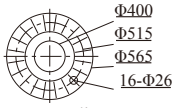
View B



View A



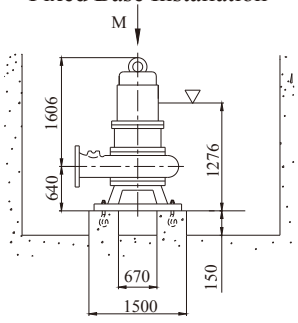
Flange Dimension



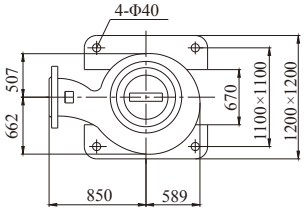
According to
GB/T17241.6PN6 Standard Flange

P

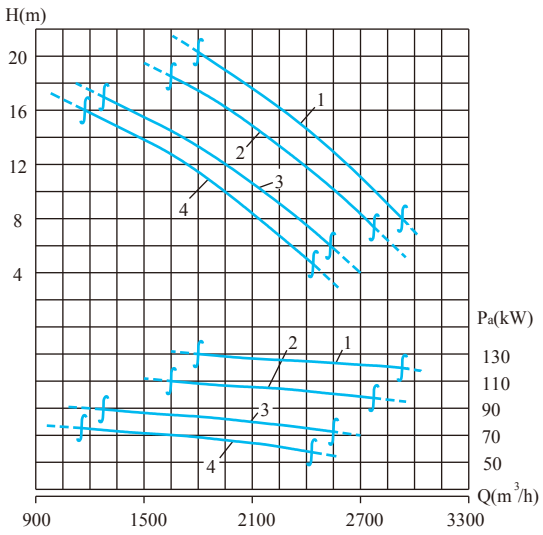
Fixed Base Installation



View M



Performance Curve Graph



Main Parameter

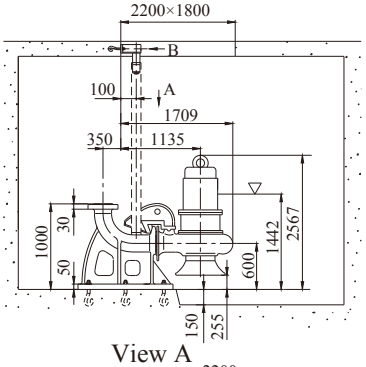
Outlet Caliber 400mm

No.	Model	Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2445-6165-400	125	990	1850
2	WQ2445-6164-400	120	990	1800
3	WQ2445-6163-400	118	990	1750
4	WQ2445-6162-400	115	990	1730

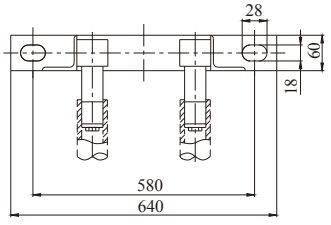
No.	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	132	246	0.86	94.6	2.1
2	110	206	0.86	94.3	2.1
3	90	170	0.86	94	2.0
4	75	142	0.86	93.7	2.0

Installation Dimension Diagram

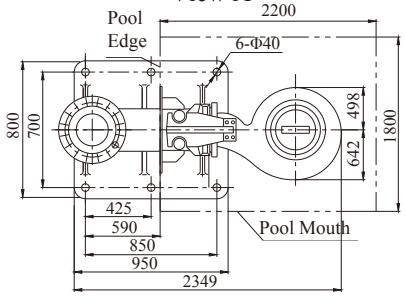
Z Automatic Coupling Installation



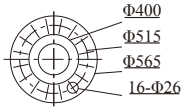
View B



View A

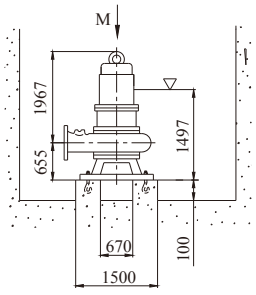


Flange Dimension

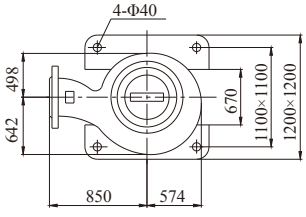


According to
GB/T17241.6PN6 Standard Flange

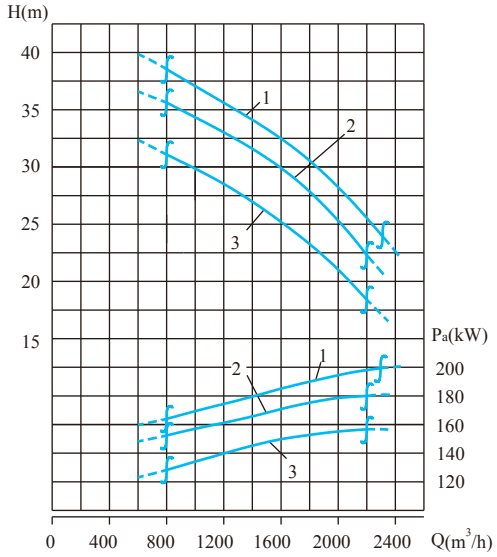
P
Fixed Base Installation



View M



Performance Curve Graph



Main Parameter

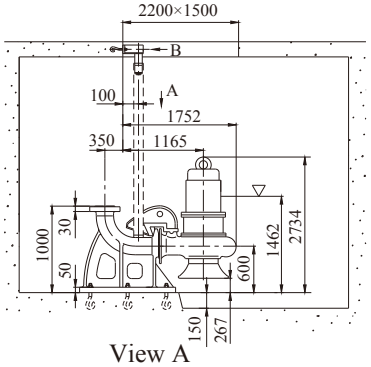
Outlet Caliber 400mm

No.	Model	Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2520-6103-400	163	990	2400
2	WQ2520-6102-400	163	990	2360
3	WQ2520-6101-400	163	990	2320

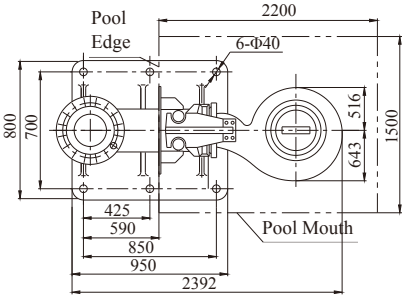
No.	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	200	370	0.88	95	2.0
2	185	337	0.88	94.9	2.0
3	160	291	0.88	94.8	2.0

Installation Dimension Diagram

Z Automatic Coupling Installation



View A



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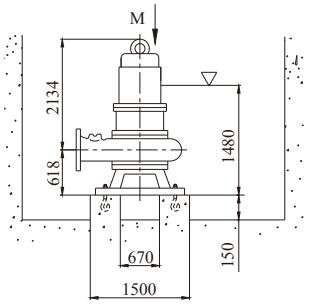
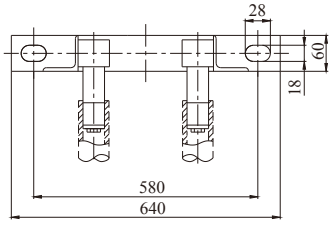
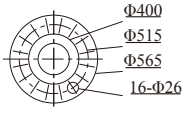
Fixed Base Installation



View B

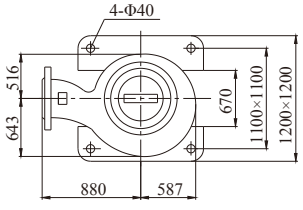


Flange Dimension

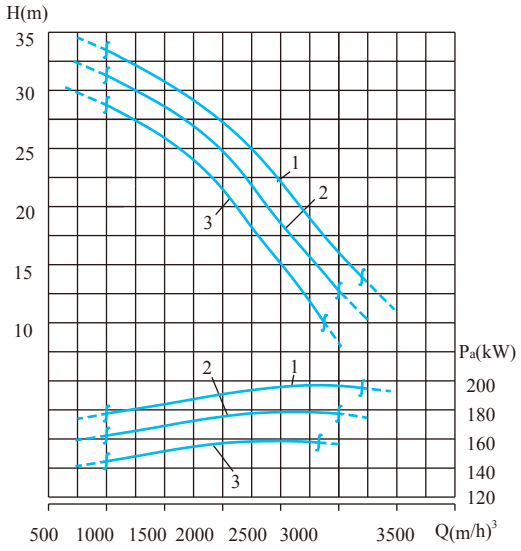


According to
GB/T17241.6PN6 Standard Flange

View M



Performance Curve Graph



Main Parameter

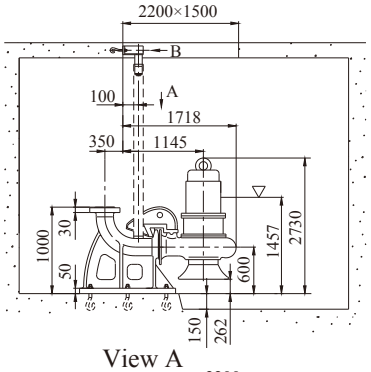
Outlet Caliber 400mm

No.	Model	Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2520-6126-400	163	990	2420
2	WQ2520-6125-400	163	990	2380
3	WQ2520-6104-400	163	990	2340

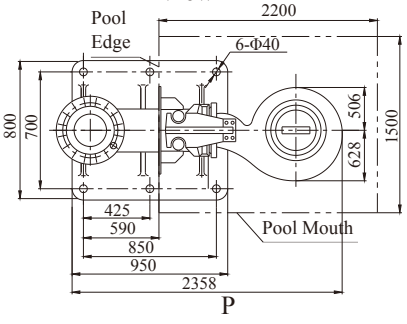
No.	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	200	370	0.88	95	2.0
2	185	337	0.88	94.9	2.0
3	160	291	0.88	94.8	2.0

Installation Dimension Diagram

Z Automatic Coupling Installation

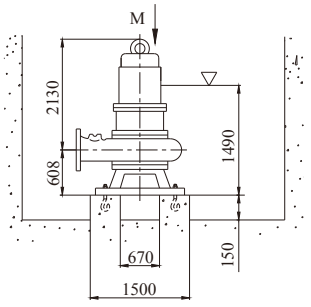


View A

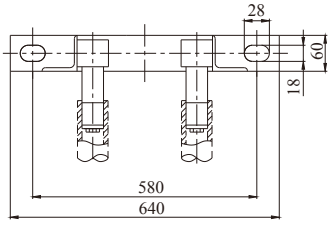


P

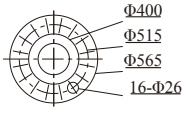
Fixed Base Installation



View B

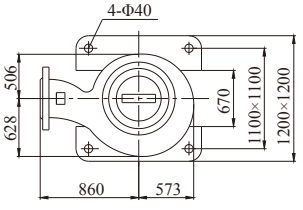


Flange Dimension

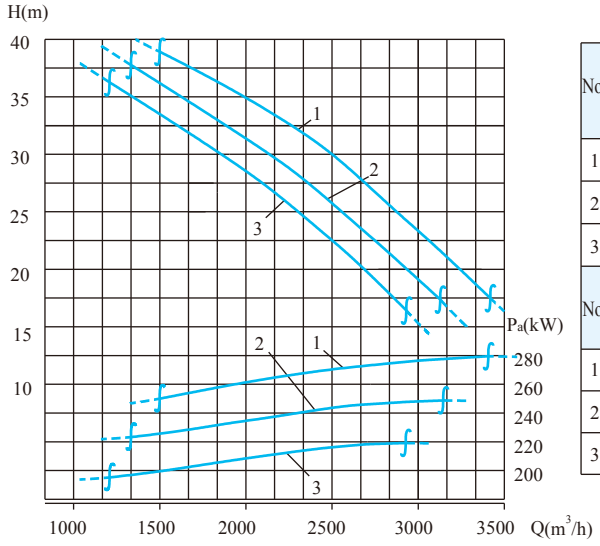


According to
GB/T17241.6PN6 Standard Flange

View M



Performance Curve Graph



Main Parameter

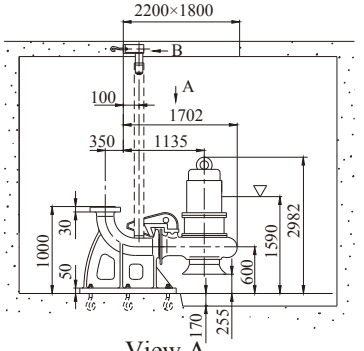
Outlet Caliber 400mm

No.	Model	Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2590-6107-400	190	990	4000
2	WQ2590-6106-400	190	990	3900
3	WQ2590-6105-400	190	990	3830

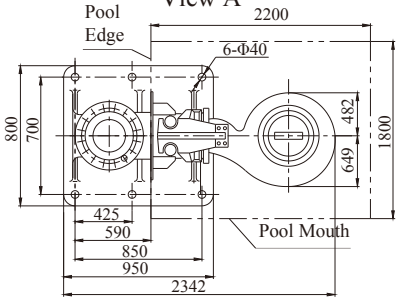
No.	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	280	508	0.88	95	1.5
2	250	454	0.88	95	1.45
3	220	399	0.88	95	1.52

Installation Dimension Diagram

Z Automatic Coupling Installation

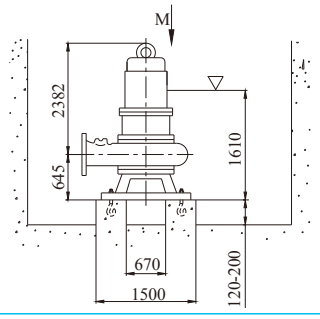


View A

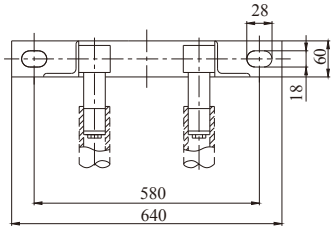


P

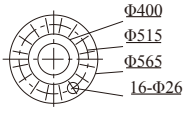
Fixed Base Installation



View B

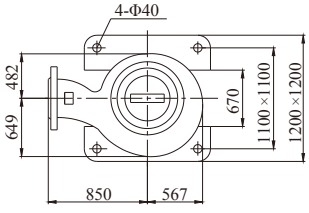


Flange Dimension

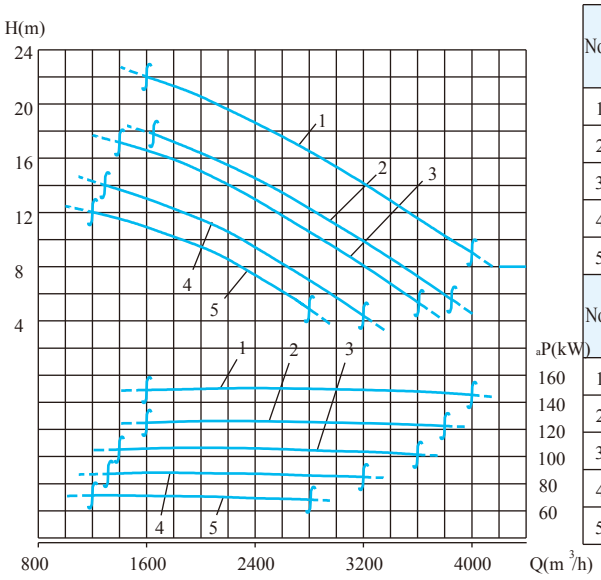


According to
GB/T17241.6PN6 Standard Flange

View M



Performance Curve Graph



Main Parameter

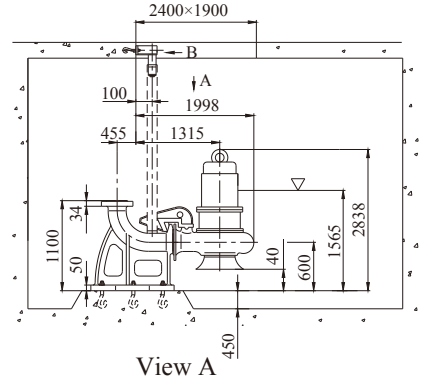
Outlet Caliber 500mm

No.	Model	Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2520-8163-500	174	745	3000
2	WQ2520-8162-500	174	745	2940
3	WQ2520-8161-500	174	735	2900
4	WQ2520-8160-500	174	735	2860
5	WQ2520-8159-500	174	735	2820

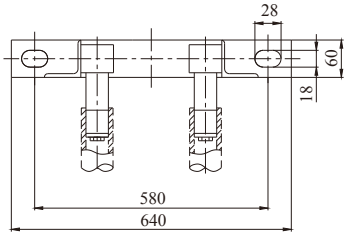
No.	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	160	318	0.81	94.6	1.9
2	132	263	0.81	94.4	1.9
3	110	220	0.81	94	1.9
4	90	178	0.82	93.7	1.8
5	75	149	0.82	93.4	1.8

Installation Dimension Diagram

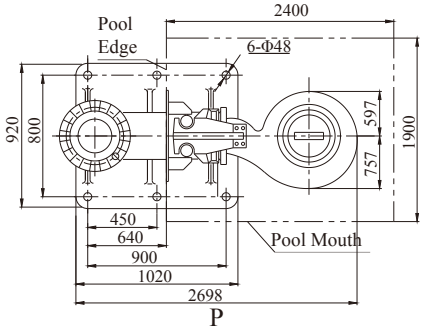
Z Automatic Coupling Installation



View B

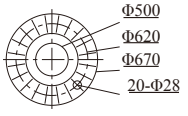


View A



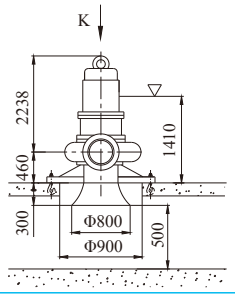
P

Flange Dimension

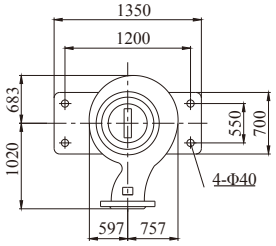


According to
GB/T17241.6PN6 Standard Flange

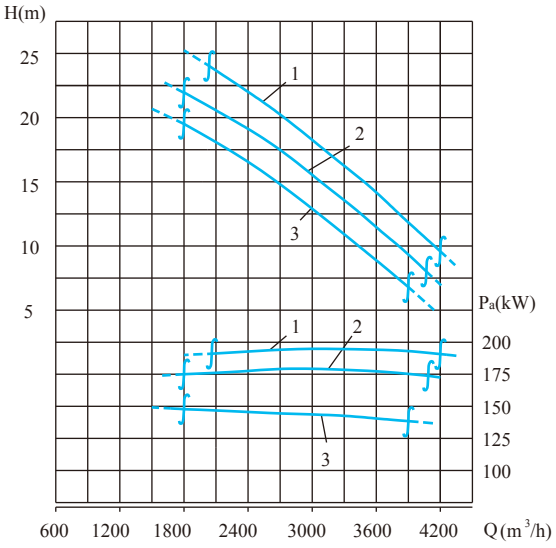
Fixed Base Installation



View M



Performance Curve Graph



Main Parameter

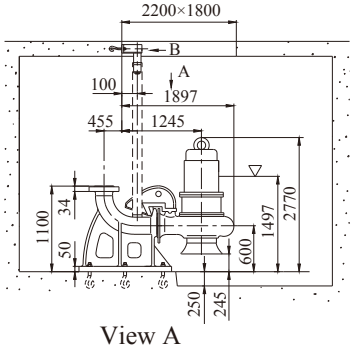
Outlet Caliber 500mm

No.	Model	Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2520-6110-500	163	990	3000
2	WQ2520-6109-500	163	990	2960
3	WQ2520-6108-500	163	990	2920

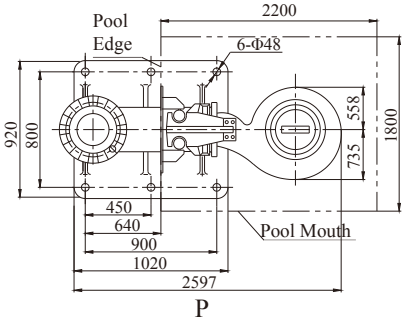
No.	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	200	370	0.88	95	2.0
2	185	337	0.88	94.9	2.0
3	160	291	0.88	94.8	2.0

Installation Dimension Diagram

Z Automatic Coupling Installation



View A



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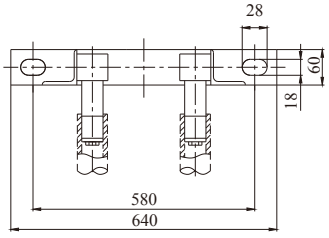
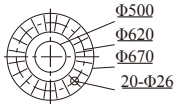
View B

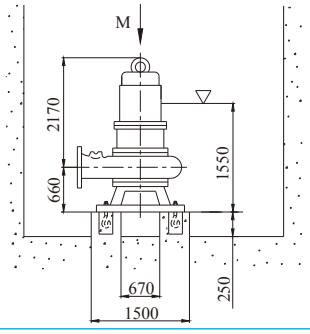


Flange Dimension

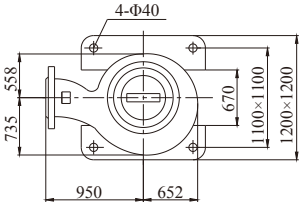


According to GB/T17241.6PN6 Standard Flange

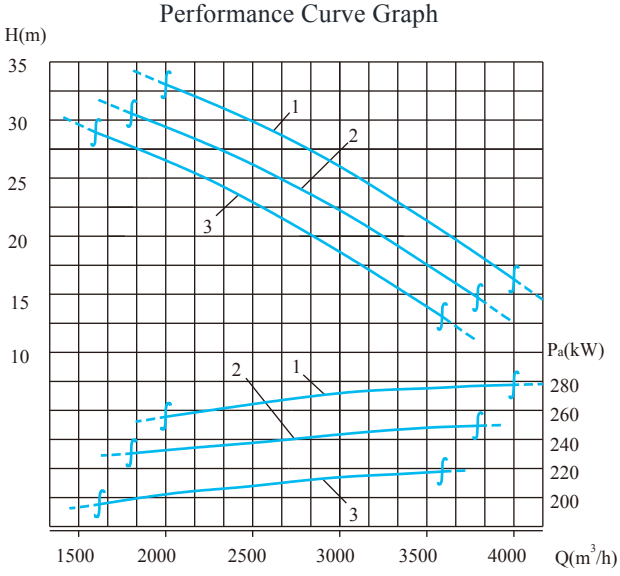
Fixed Base Installation



View M



Performance Curve Graph



Main Parameter

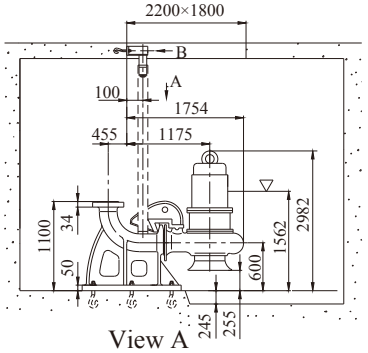
Outlet Caliber 500mm

No.	Model	Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2590-6119-500	190	990	4300
2	WQ2590-6118-500	190	990	4210
3	WQ2590-6117-500	190	990	4150

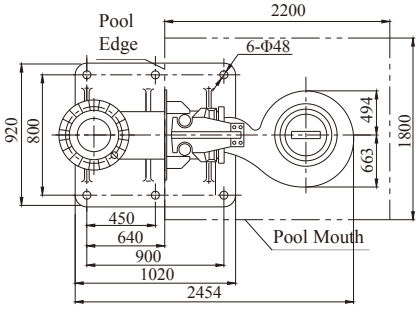
No.	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	280	508	0.88	95	1.5
2	250	454	0.88	95	1.45
3	220	399	0.88	95	1.52

Installation Dimension Diagram

Z Automatic Coupling Installation

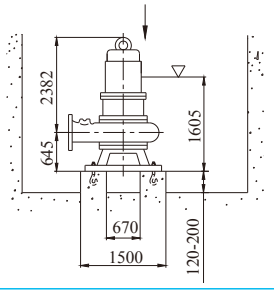


View A

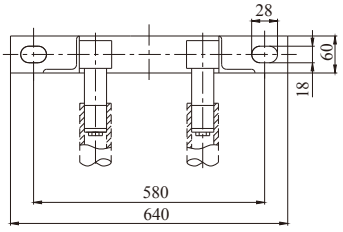


P

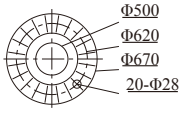
Fixed Base Installation M



View B

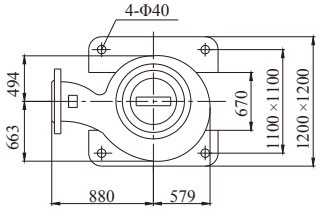


Flange Dimension

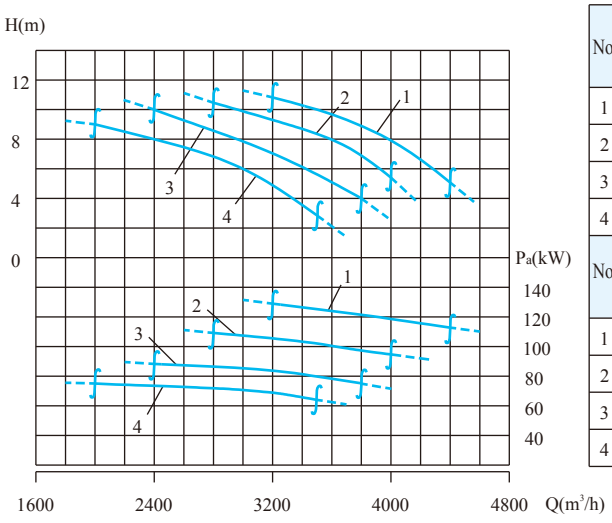


According to GB/T17241.6PN6 Standard Flange

View M



Performance Curve Graph



Main Parameter

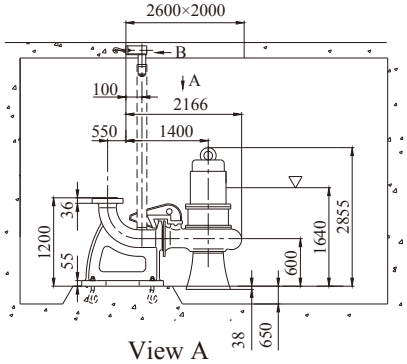
Outlet Caliber 600mm

No.	Model	Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2520-1057-600	200	590	4730
2	WQ2520-1056-600	200	590	4670
3	WQ2520-1055-600	200	590	4610
4	WQ2520-1054-600	200	590	4570

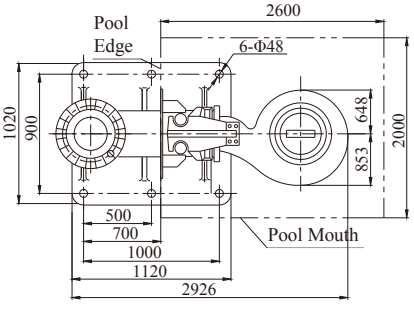
No.	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	132	276	0.77	94.2	1.3
2	110	231	0.77	93.7	1.3
3	90	191	0.77	93.4	1.5
4	75	160	0.77	93	1.5

Installation Dimension Diagram

Z Automatic Coupling Installation

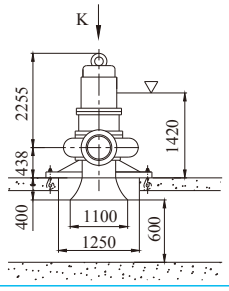


View A

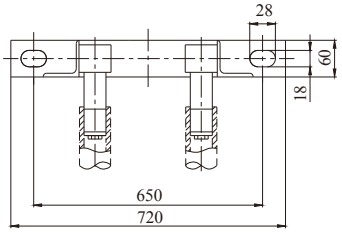


P

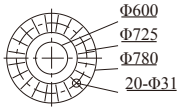
Fixed Base Installation



View B

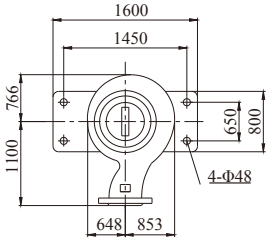


Flange Dimension

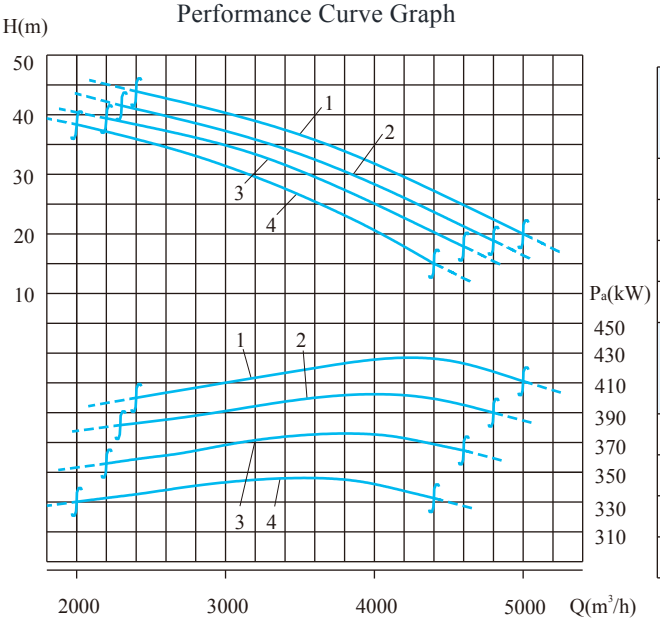


According to GB/T17241.6PN6 Standard Flange

View M



Performance Curve Graph



Main Parameter

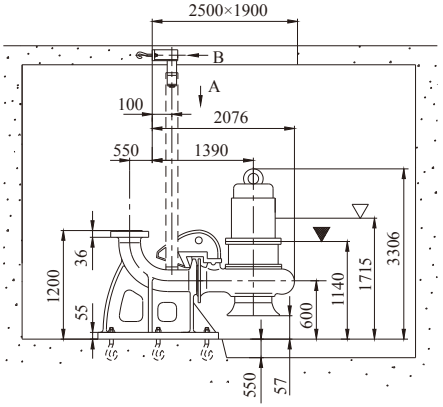
Outlet Caliber 600mm

No.	Model	Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2740-6170-600	125	980	6300
2	WQ2740-6170A-600	128	980	6200
3	WQ2740-6170B-600	130	980	6000
4	WQ2740-6170C-600	130	980	5800

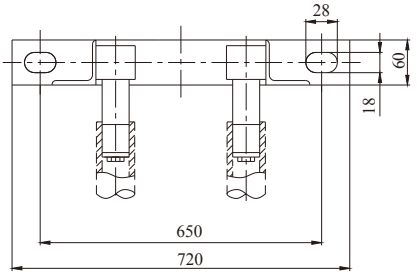
No.	Rated Motor Power (k W)
1	450
2	420
3	400
4	355

Installation Dimension Diagram

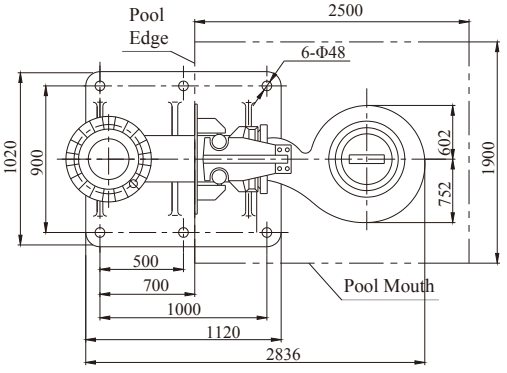
Z Automatic Coupling Installation



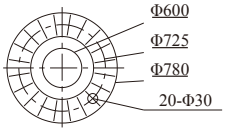
View B



View A

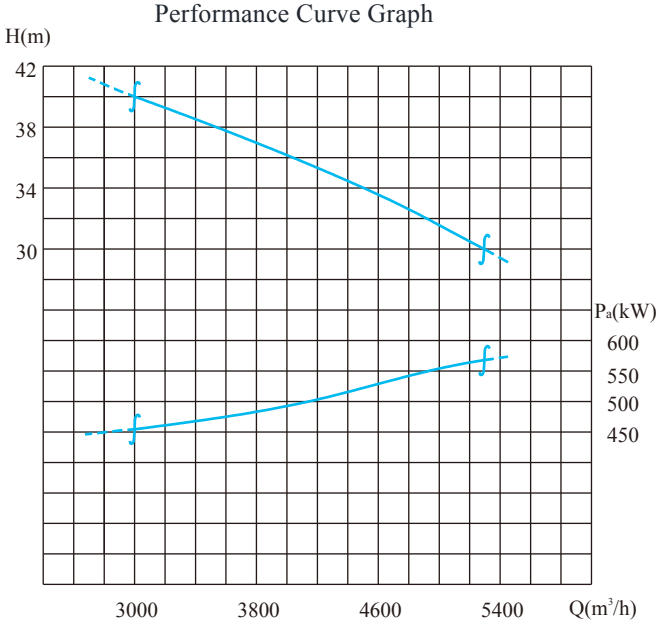


Flange Dimension



According to
GB/T17241.6PN10 Standard Flange

Performance Curve Graph



Main Parameter

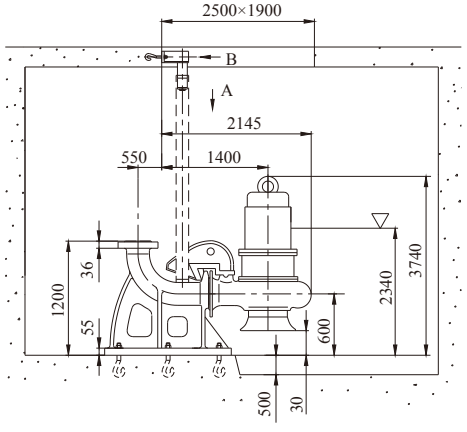
Outlet Caliber 600mm

No.	Model	Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2850-8175-600	140	745	7500

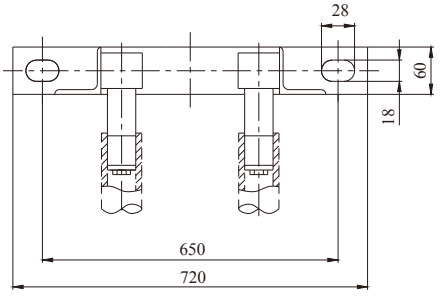
No.	Rated Motor Power (k W)
1	580

Installation Dimension Diagram

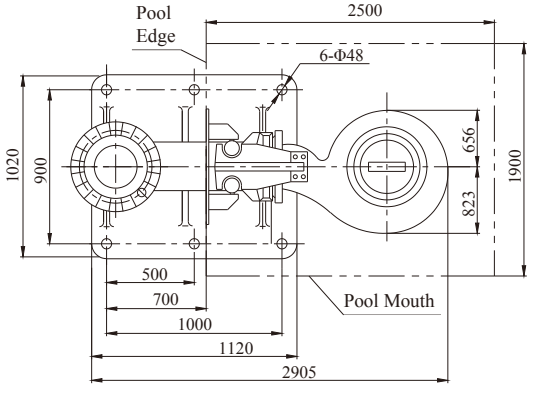
Z Automatic Coupling Installation



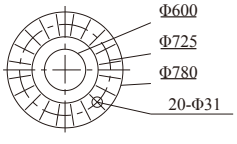
View B



View A

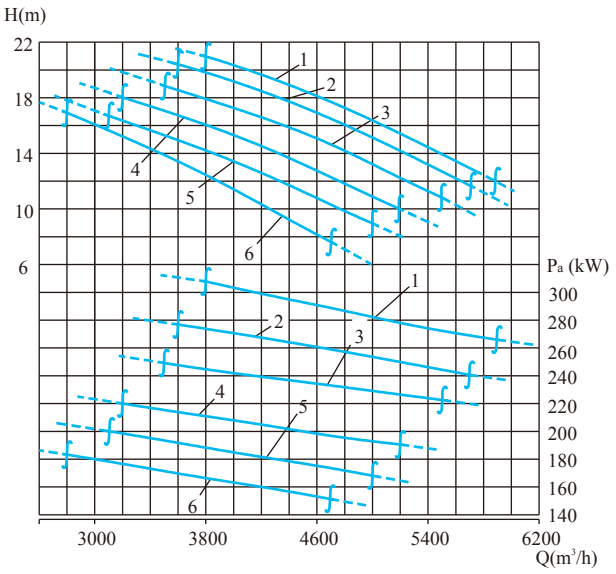


Flange Dimension



According to
GB/T17241.6PN10 Standard Flange

Performance Curve Graph



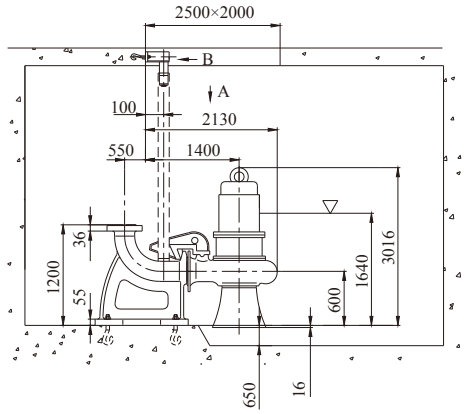
Main Parameter

Outlet Caliber 600mm

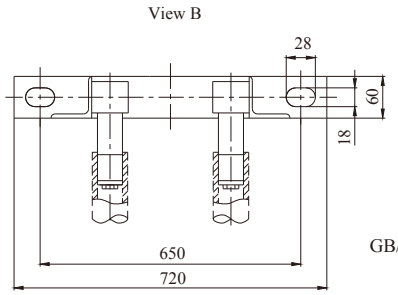
No.	Model	Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2590-8169-600	190	745	4800
2	WQ2590-8168-600	190	745	4620
3	WQ2590-8167-600	190	745	4550
4	WQ2590-8166-600	190	745	4470
5	WQ2590-8165-600	190	745	4350
6	WQ2590-8164-600	190	745	4200

No.	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	315	608	0.83	94.9	1.0
2	280	541	0.83	94.9	1.0
3	250	483	0.83	94.9	1.0
4	220	425	0.83	94.9	1.0
5	200	390	0.82	94.9	1.9
6	185	362	0.82	94.8	1.9

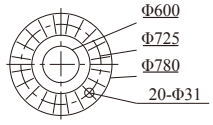
Installation Dimension Diagram



Z Automatic Coupling Installation

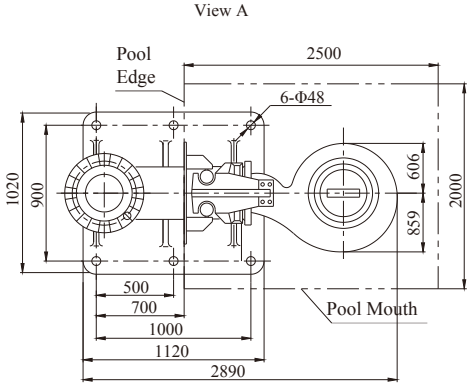


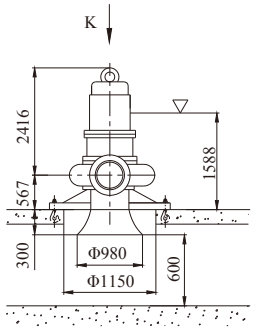
Flange Dimension

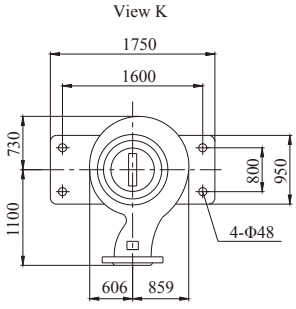


According to GB/T17241.6PN10 Standard Flange

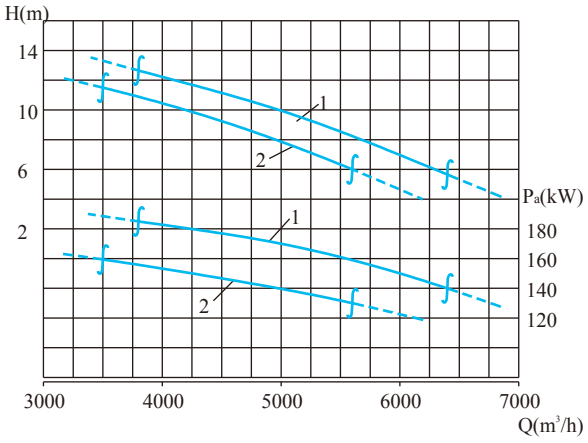
Fixed Base Installation(F)







Performance Curve Graph



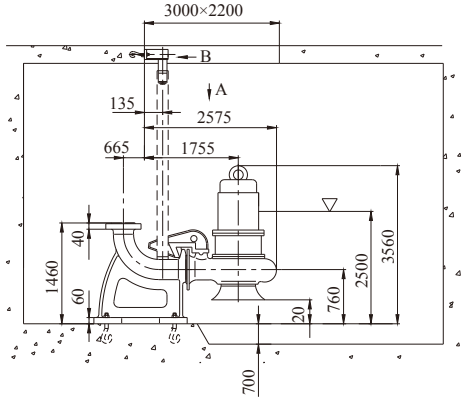
Main Parameter

Outlet Caliber 700mm

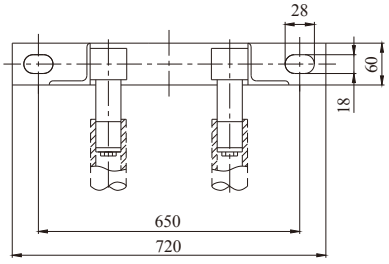
No.	Model		Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2590-1059-700		215	590	6500
2	WQ2590-1058-700		215	590	6200
No.	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	185	386	0.77	94.6	1.54
2	160	334	0.77	94.4	1.3

Installation Dimension Diagram

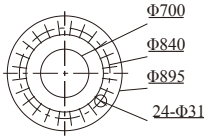
Z Automatic Coupling Installation



View B

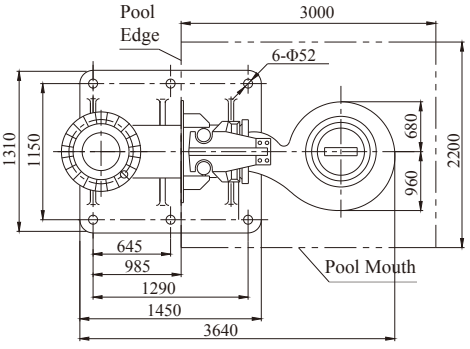


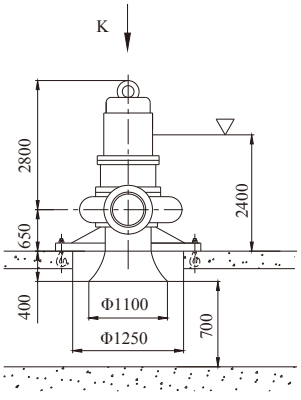
Flange Dimension



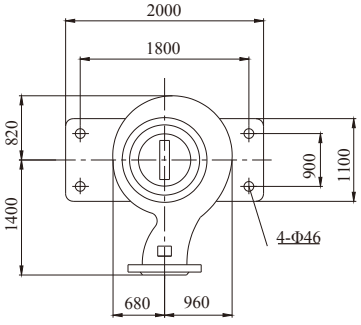
According to GB/T17241.6PN10 Standard Flange

Fixed Base Installation(F)

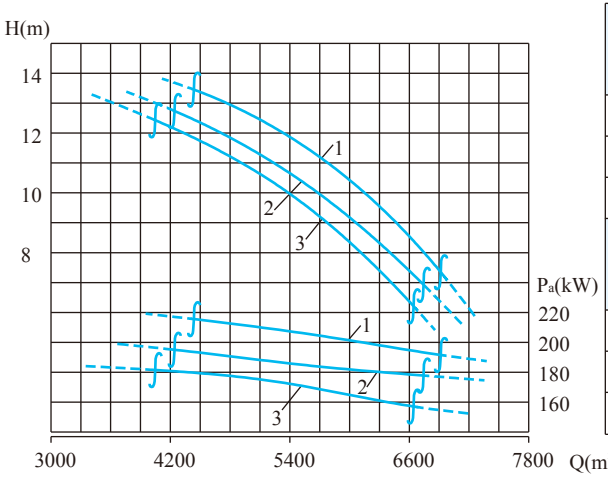




View K



Performance Curve Graph



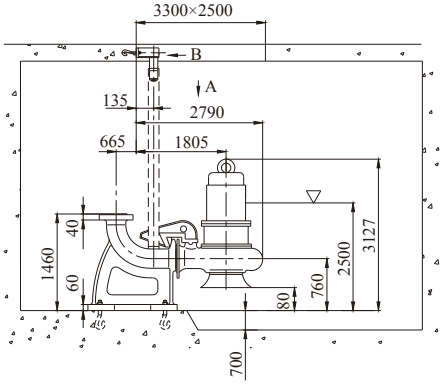
Main Parameter

Outlet Caliber 700mm

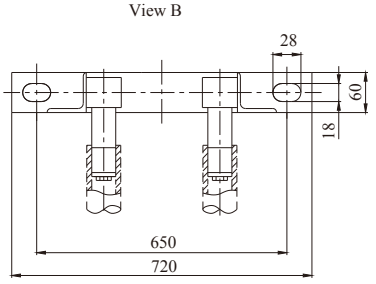
No.	Model	Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2590-1252-700	220	495	7400
2	WQ2590-1251-700	220	495	7100
3	WQ2590-1250-700	220	490	6800

No.	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	220	478	0.74	94.6	0.8
2	200	434	0.74	94.6	0.8
3	185	392	0.76	94.4	1.0

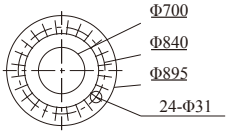
Installation Dimension Diagram



Z Automatic Coupling Installation

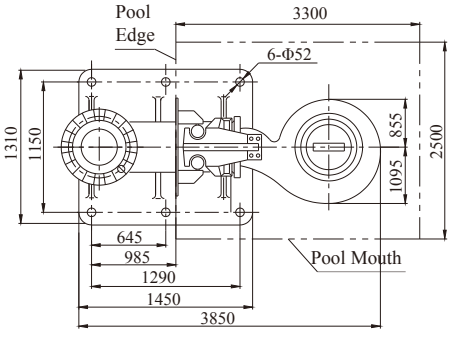


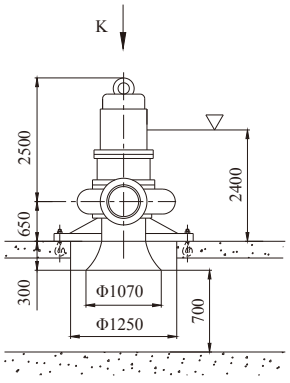
Flange Dimension

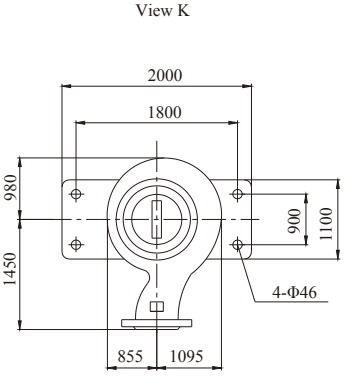


According to
GB/T17241.6PN10 Standard Flange

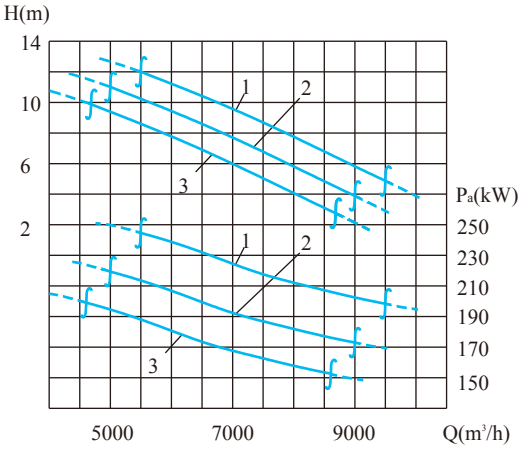
Fixed Base Installation(F)







Performance Curve Graph



Main Parameter

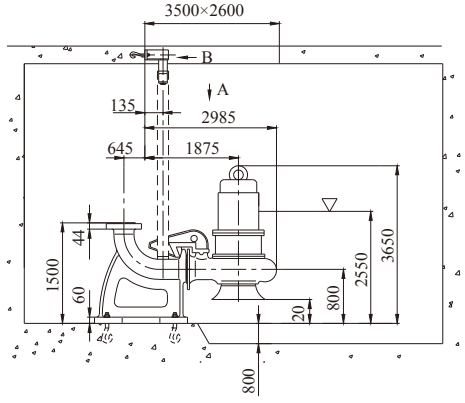
Outlet Caliber 800mm

No.	Model	Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2670-1603-800	310	370	8500
2	WQ2670-1602-800	310	370	8300
3	WQ2670-1601-800	310	370	8000

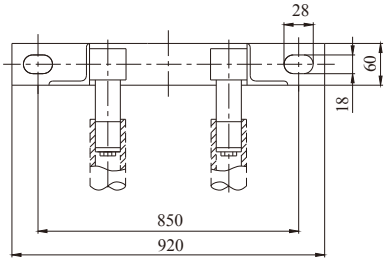
No.	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	250	620	0.65	94.3	0.8
2	220	537	0.65	94.3	0.8
3	200	489	0.65	94.3	0.8

Installation Dimension Diagram

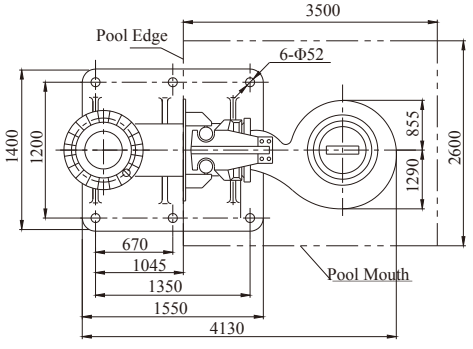
Z Automatic Coupling Installation



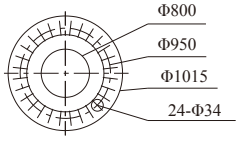
View B



View A

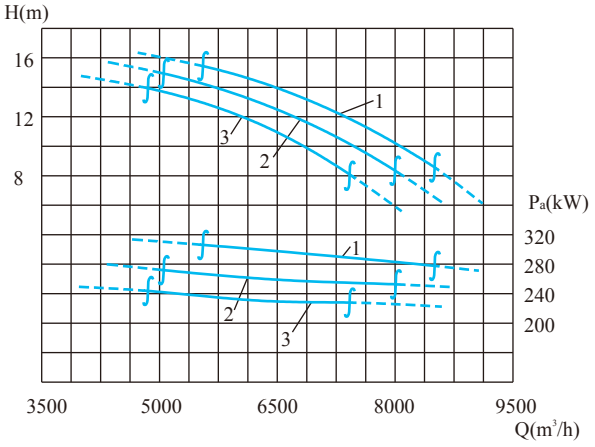


Flange Dimension



According to
GB/T17241.6PN10 Standard Flange

Performance Curve Graph



Main Parameter

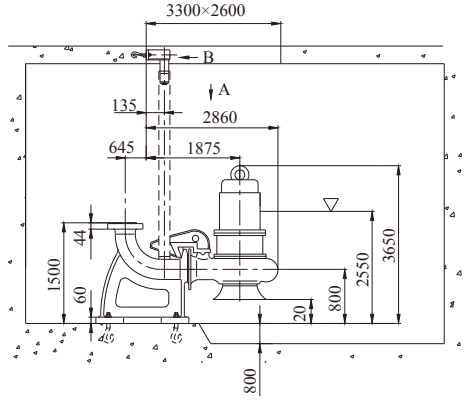
Outlet Caliber 800mm

No.	Model	Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2670-1255-800	250	495	8800
2	WQ2670-1254-800	250	495	8400
3	WQ2670-1253-800	250	495	8000

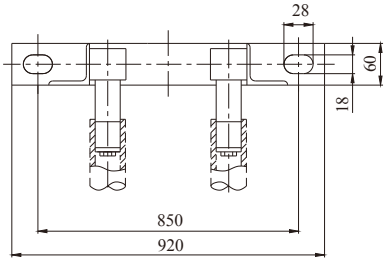
No.	Rated Motor Power (k W)	Rated Current (A)	Motor Power Factor COSφ	Motor Efficiency(%)	Locked Torque/ Rated Torque
1	315	684	0.74	94.6	0.8
2	280	616	0.73	94.6	0.8
3	250	550	0.73	94.6	0.8

Installation Dimension Diagram

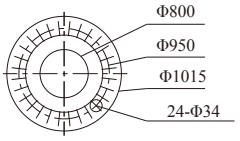
Z Automatic Coupling Installation



View B



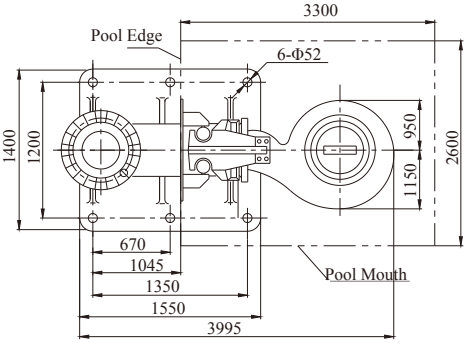
Flange Dimension



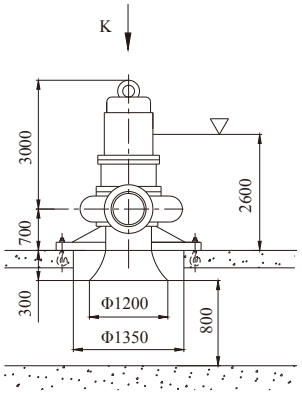
According to
GB/T17241.6PN10 Standard Flange

Fixed Base Installation(F)

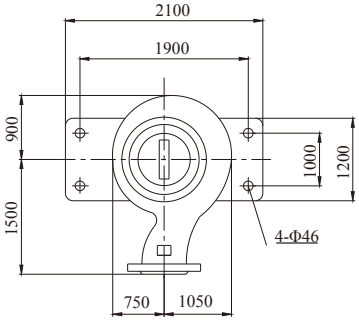
View A



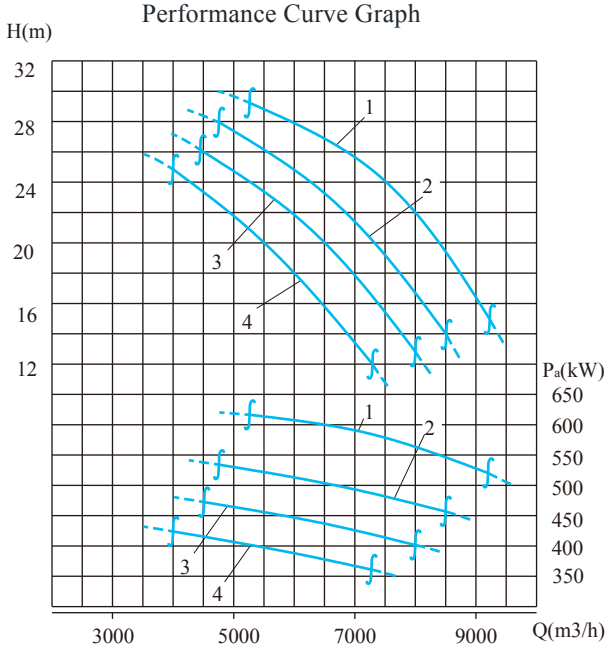
K



View K



Performance Curve Graph



Main Parameter

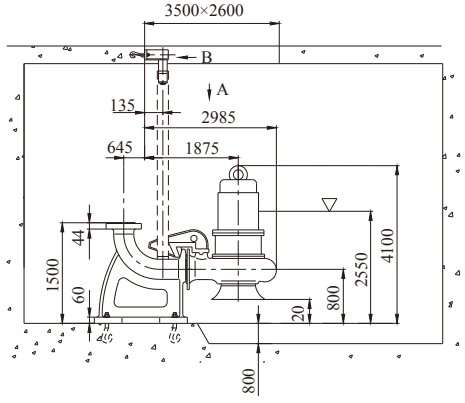
Outlet Caliber 800mm

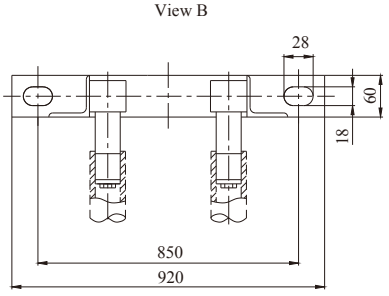
No.	Model	Flow Passage Dimension (mm)	Revolution Speed (r/min)	Weight (kg)
1	WQ2850-8174-800	275	745	8700
2	WQ2850-8174A-800	275	745	8500
3	WQ2850-8173-800	275	745	8200
4	WQ2850-8173A-800	275	745	8000

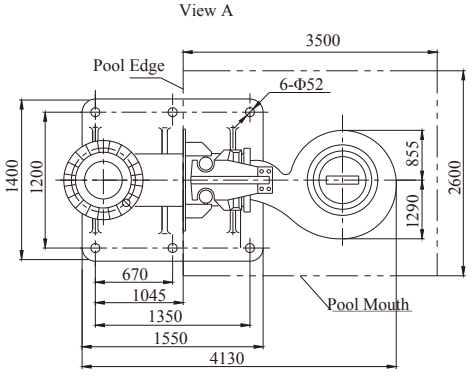
No.	Rated Motor Power (k W)
1	630
2	560
3	500
4	450

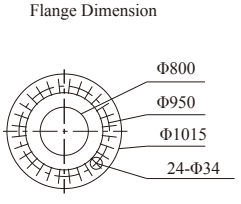
Installation Dimension Diagram

Z Automatic Coupling Installation



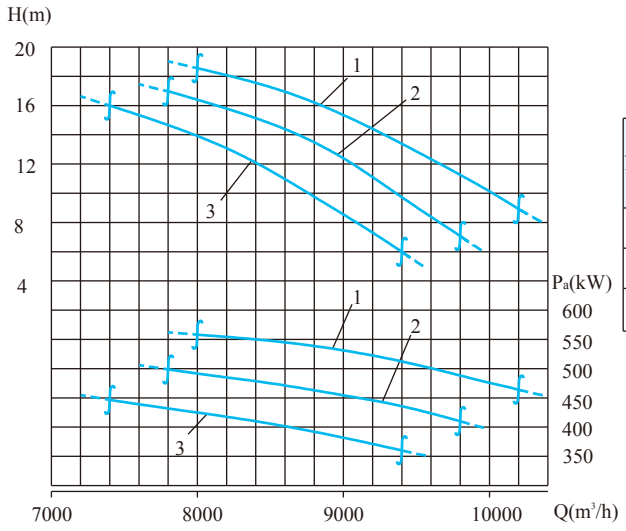






According to
GB/T17241.6PN10 Standard Flange

Performance Curve Graph

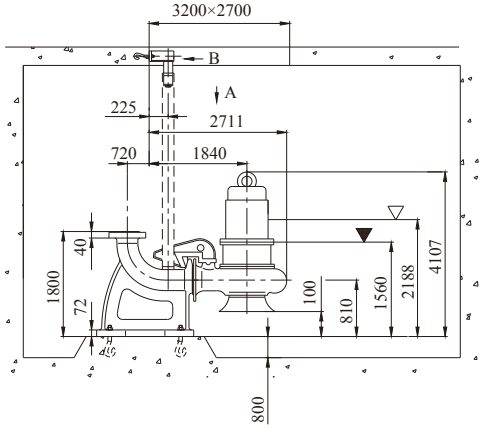


Main Parameter

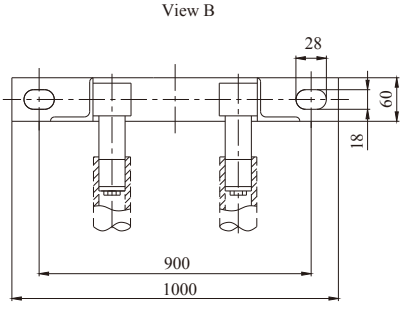
Outlet Caliber 900mm

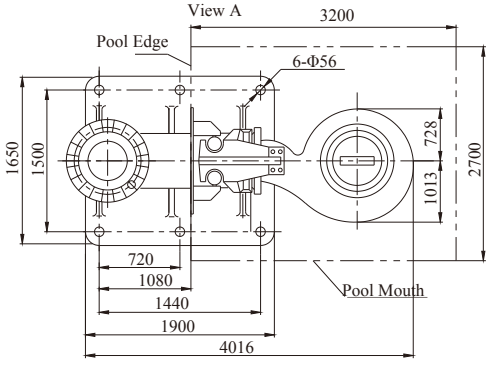
No.	Model	Flow Passage Dimension (mm)	Rated Motor Power (k W)	Revolution Speed (r/min)	Weight (kg)
1	WQ2850-8172-900	258	560	745	9600
2	WQ2850-8171-900	263	500	745	9300
3	WQ2850-8170-900	267	450	745	9100

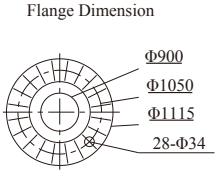
Installation Dimension Diagram



Z Automatic Coupling Installation

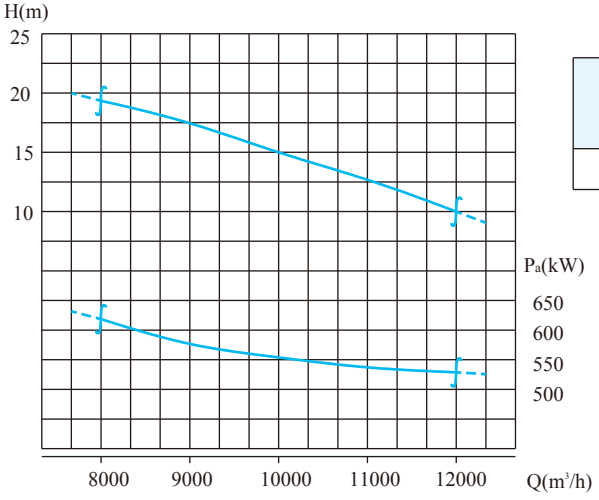






According to
GB/T17241.6PN10 Standard Flange

Performance Curve Graph



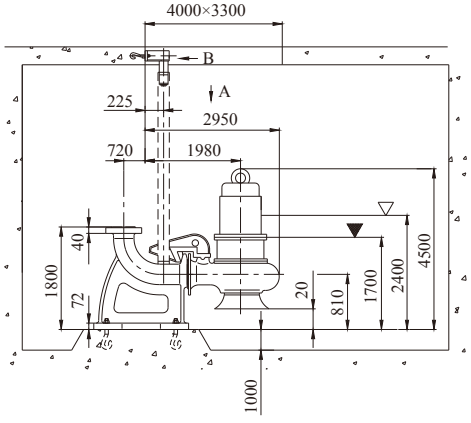
Main Parameter

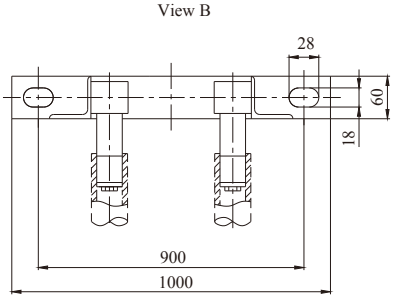
Outlet Caliber 1000mm

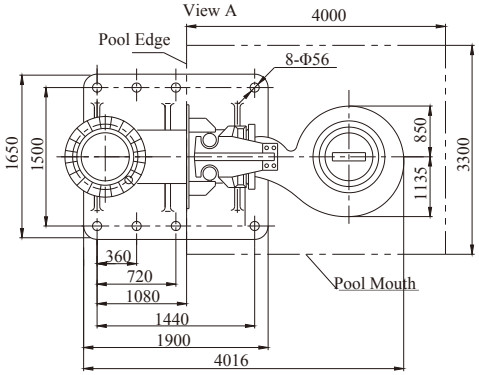
Model	Flow Passage Dimension (mm)	Rated Motor Power (k W)	Revolution Speed (r/min)	Weight (kg)
WQ2850-1062-1000	313	630	590	10500

Installation Dimension Diagram

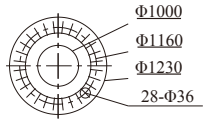
Z Automatic Coupling Installation







Outlet Flange Dimension



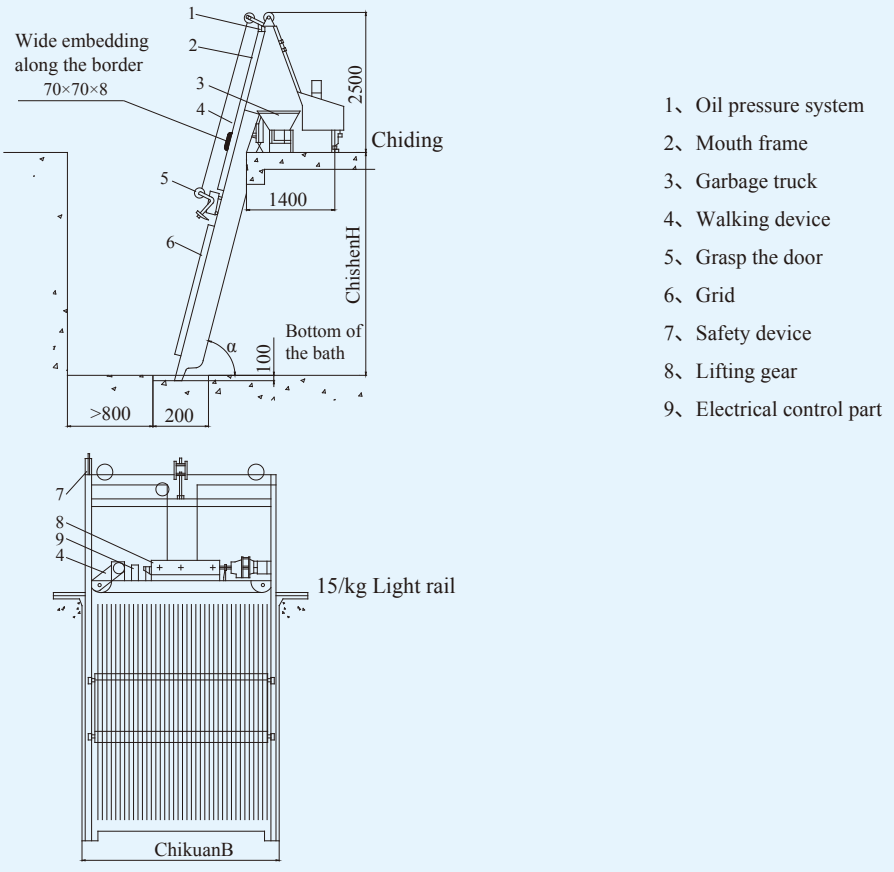
According to
GB/T17241.6PN10 Standard Flange

Attachment description

Trash rack

Depending on the scale of the pumping station, there are various series of automatic decontamination (removing impurities on the barrier) for users to choose from, and the size needs to be determined on site.

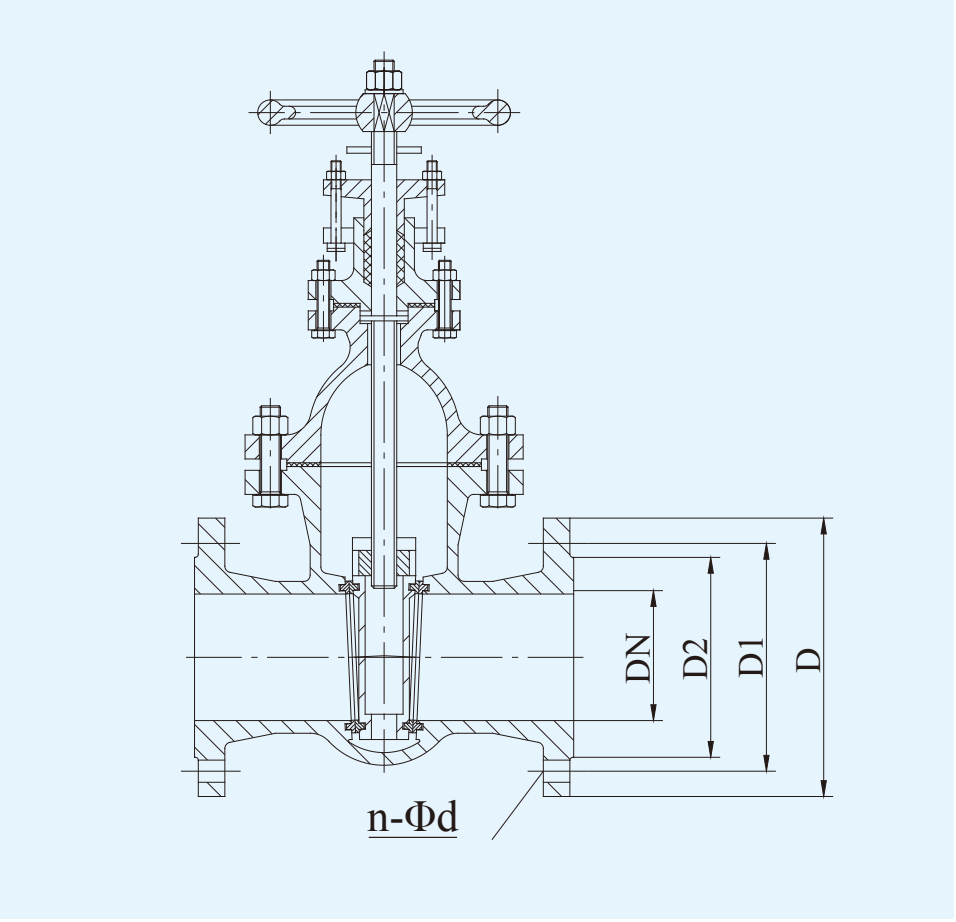
Grid decontamination machine below



Main specifications and technical parameters

Type	Grid width(mm)	Derrick(m)	Gate-gate spacing(mm)	Installation angle	Power
GS GSE -1000	1000	2-12	20-1000	60°-70° Electricity can be used for 90° under special circumstances.	Lifting motor1.1-1.5kW Control motor0.75kW Walking motor0.8/0.4kW (two-speed)
GS GSE -1250	1250				
GS GSE -1500	1500				
GS GSE -1750	1750				
GS GSE -2000	2000				

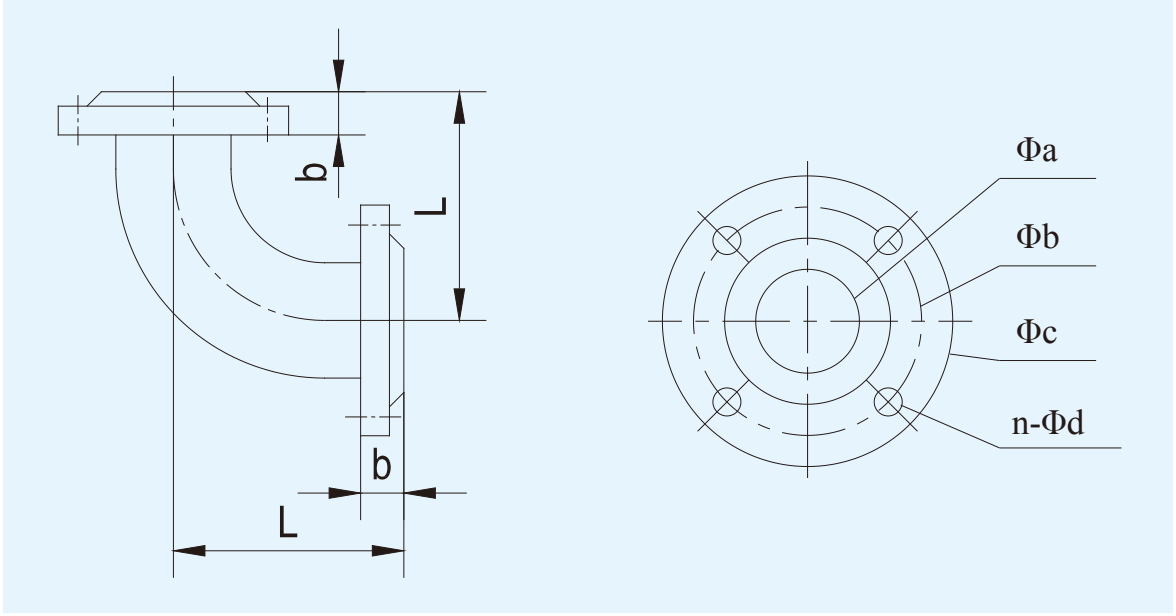
Valve



Nominal pressure	Nominal diameterDN (mm)	Measurement(mm)			
		D	D1	D2	n-Φd
1.0 (Mpa)	50	165	125	102	4-Φ18
	65	185	145	122	4-Φ18
	80	200	160	133	8-Φ18
	100	220	180	158	8-Φ18
	125	250	210	184	8-Φ18
	150	285	240	212	8-Φ22
	200	340	295	268	8-Φ22
	250	395	350	320	12-Φ22
	300	445	400	370	12-Φ22
	350	505	460	430	16-Φ22
	400	565	515	482	16-φ26
	450	615	565	532	20-Φ26
	500	670	620	585	20-Φ26
	600	780	725	685	20-Φ30
	700	895	840	794	24-Φ30
	800	1015	950	901	24-Φ33
	900	1115	1050	1001	28-Φ33

Corner joint

(Our company can provide users with two kinds of elbow joints, one with a nominal flange pressure of 0.6MPa and the other with a nominal flange pressure of 1.0MPa, which are suitable for direct connection with the discharge flange of submersible sewage pump body, and can also be connected with other pipeline flanges with the same caliber and nominal pressure. Users can choose according to the actual flange size (DN,PN value). To avoid confusion, please write down the elbow joint specification when ordering)



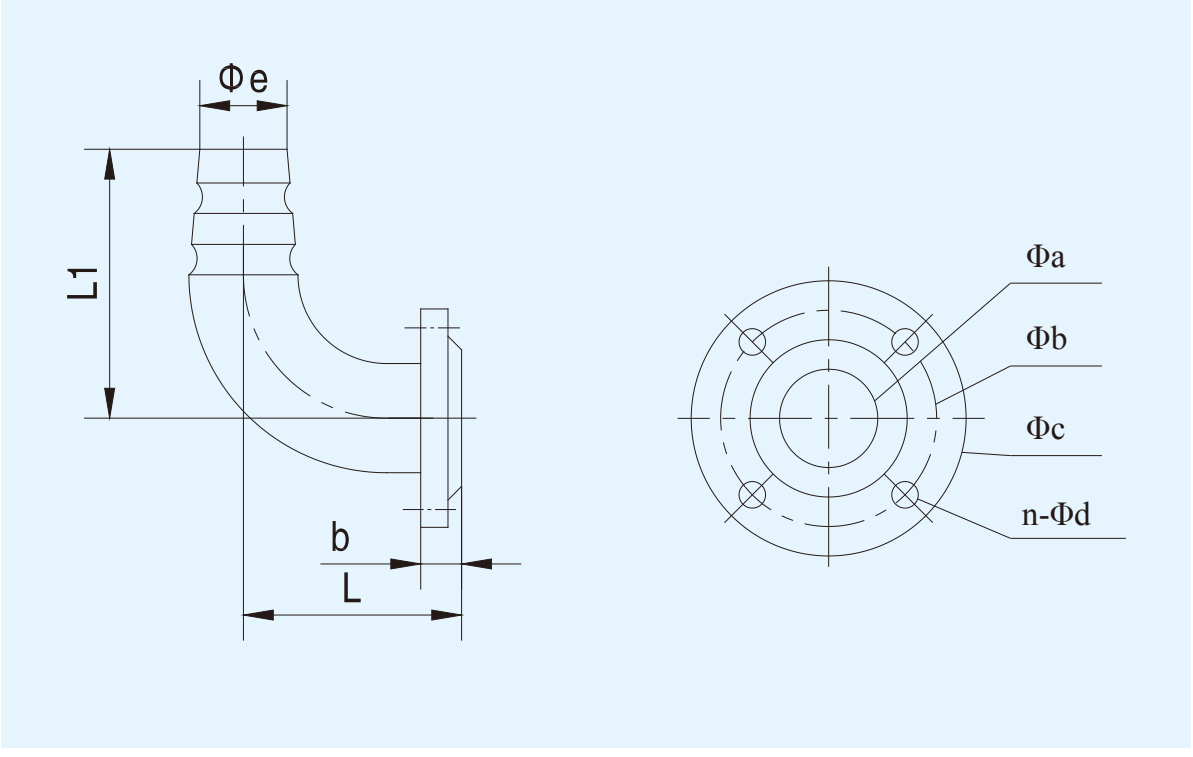
Elbow joint with nominal flange pressure inch consistent with pump body flange

Specification of elbow pipe	Φ a	Φ b	Φ c	n- Φ d	b	Flange standard	L
50-6	50	110	140	4-13.5	16	According to GB /T17241.6 PN6 (0.6MPa) standard	105
65-6	65	130	160	4-13.5	16		130
80-6	80	150	190	4-17.5	18		155
100-6	100	170	210	4-17.5	18		160
150-6	150	225	265	8-17.5	20		220
200-6	200	280	320	8-17.5	22		270
250-6	250	335	375	12-17.5	24		320
300-6	300	395	440	12-22	24		370
350-6	350	445	490	12-22	26		420
400-10	400	515	565	16-26	32	According to GB /T17241.6 PN10 (1.0MPa) standard	460
450-10	450	565	615	20-26	32		500
500-10	500	620	670	20-26	34		540
550-10	550	675	730	20-30	35		590
600-10	600	725	780	20-30	36		640

Elbow joint with diameter of 50-350 and nominal flange pressure of PN10(1.0MPa)

Specification of elbow pipe	Φ a	Φ b	Φ c	n- Φ d	b	Flange standard	L
50-10	50	125	165	4- 17.5	20	According to GB/T17241.6 PN10(1.0MPa) standard	140
65-10	65	145	185	4- 17.5	20		160
80-10	80	160	200	8- 17.5	22		180
100-10	100	180	220	8- 17.5	24		200
150-10	150	240	285	8- 22	26		230
200-10	200	295	340	8- 22	28		280
250-10	250	350	395	12- 22	28		330
300-10	300	400	445	12- 22	28		380
350-10	350	460	505	16- 22	30		440

Hose bend joint



Size table of hose elbow (the flange diameter and nominal pressure of hose elbow are the same as those of pump body flange)

Hose bending specification	Φ a	Φb	Φc	n-Φd	b	Flange standard	L	L1	Φe	With the inside diameter Φ of the hose
50-6	50	110	140	4-13.5	16	According to GB/T17241.6 PN6(0.6MPa) standard	120	140	60	64
50×65-6	50	110	140	4-13.5	16		120	140	74	76
65-6	65	130	160	4-13.5	16		130	160	74	76
80-6	80	150	190	4-17.5	18		135	190	86	89
100-6	100	170	210	4-17.5	18		160	240	100	102
150-6	150	225	265	8-17.5	20		220	320	150	152

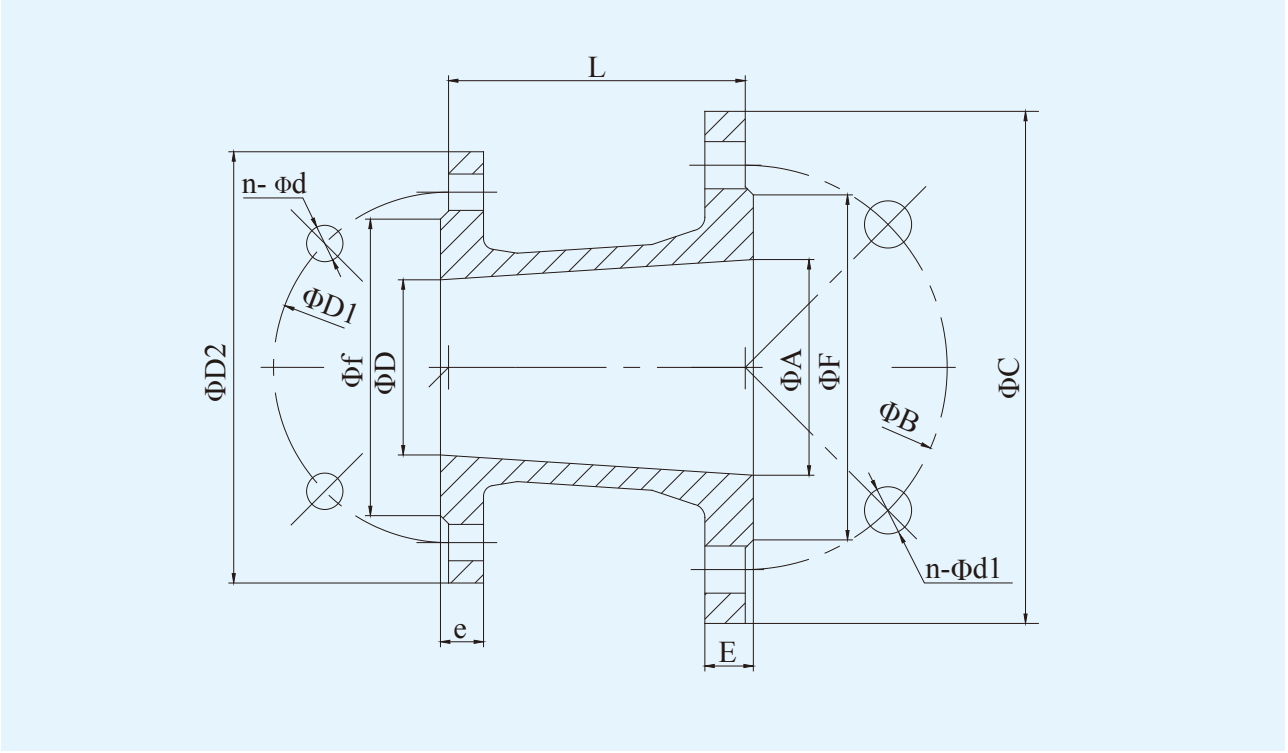
Note: 1. The Φ a of the hose elbow is the same as the pump caliber, but the inner diameter of the matched hose is different from the pump caliber.

2.50-6 or 50×65-6 hose elbow can be selected for 50-caliber pump.

3.When ordering, please write down the specification of hose elbow.

Taper Pipe

(Our company can provide users with two kinds of taper pipes, one with a nominal flange pressure of 0.6MPa and the other with a nominal flange pressure of 1.0MPa, which are suitable for direct connection with the discharge flange of submersible sewage pump body, the suction end flange of suction elbow in dry installation and the outlet flange of outlet pipe seat in self-coupling installation, and can also be connected with other pipeline flanges with the same caliber and nominal pressure. Users can choose according to the actual flange size (DN,PN value). To avoid confusion, please write down the specification of taper pipe when ordering)



Cone pipe specification	ΦD	Φ D1	ΦD2	n-Φd	Φ f	e	ΦA	ΦB	ΦC	n-Φd1	Φ F	E	L
50×65-6	50	110	140	4-13.5	90	16	65	130	160	4-13.5	110	16	100
50×80-6	50	110	140	4-13.5	90	16	80	150	190	4-17.5	128	18	150
65×80-6	65	130	160	4-13.5	110	16	80	150	190	4-17.5	128	18	100
80×100-6	80	150	190	4-17.5	128	18	100	170	210	4-17.5	148	18	150
100×150-6	100	170	210	4-17.5	148	18	150	225	265	8-17.5	202	20	250
150×200-6	150	225	265	8-17.5	202	20	200	280	320	8-17.5	258	22	250
200×250-6	200	280	320	8-17.5	258	22	250	335	375	12-17.5	312	24	230
250×300-6	250	335	375	12-17.5	312	24	300	395	440	12-22	365	24	240
300×350-6	300	395	440	12-22	365	24	350	445	490	12-22	415	26	250
(350-6)× (400-10)	350	445	490	12-22	415	26	400	515	565	16-26	482	32	250
400×450-10	400	515	565	16-26	482	32	450	565	615	20-26	532	32	250
450×500-10	450	565	615	20-26	532	32	500	620	670	20-26	585	34	250
500×600-10	500	620	670	20-26	585	34	600	725	780	20-30	685	36	600

Tapered pipe with diameter ≤350 and nominal flange pressure of PN10

Cone pipe specification	ΦD	Φ D1	ΦD2	n-Φd	Φ f	e	ΦA	ΦB	ΦC	n -Φd1	Φ F	E	L
50×65-10	50	125	165	4-17.5	102	20	65	145	185	4-17.5	122	20	150
50×80-10	50	125	165	4-17.5	102	20	80	160	200	8-17.5	133	22	150
65×80-10	65	145	185	4-17.5	122	20	80	160	200	8-17.5	133	22	150
80×100-10	80	160	200	8-17.5	133	22	100	180	220	8-17.5	158	24	150
100×150-10	100	180	220	8-17.5	158	24	150	240	285	8-22	212	26	250
150×200-10	150	240	285	8-22	212	26	200	295	340	8-22	268	28	250
200×250-10	200	295	340	8-22	268	28	250	350	395	12-22	320	28	250
250×300-10	250	350	395	12-22	320	28	300	400	445	12-22	370	28	250
300×350-10	300	400	445	12-22	370	28	350	460	505	16-22	430	30	250
350×400-10	350	460	505	16-22	430	30	400	515	565	16-26	482	32	250