上海凯泉

Where there is Kaiquan, there is water!

WQ/EC 系列小型潜水排污泵

WQ/EC Series Small Submersible Sewage Pump

The Flow Channel is Smooth and Not Easy to Block

The channel-type impeller is used to discharge solids and has good anti-winding performance

Unique Mechanical Seal and Bearing Combination

Unique mechanical seal and bearing combination,Short shaft extension and high rigidity

Electric Pump Protection Device

The electric pump is equipped with motor winding overheat protection element and water leakage probe

Mechatronics

Water pump and motor are directly connected into one body, directly into the medium, disassembly, maintenance is convenient, reliable use

Various Installation Methods

There are multiple installation methods, and users can choose flexibly

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

Company Address: No. 4255/4287, Caoan Highway, Jiading District, Shanghai Company
Website: www .Kaiquan.com.cn
Customer Service Hotline:400-002-6600

合肥凯泉电机电泵有限公司
HEFEI KAIQUAN MOTOR AND PUMP CO., LTD.

Company Address: No. 611, Tianshui Road, Xinzhan District, Hefei (the intersection of Dangtu North Road and Tianshui Road)
Fax: 0551-65459127
Company Telephone: 0551-65459133
Customer Service Hotline: 0551-65459293

YB/KAIQUAN WQ/EC-20190716

ISO9001 2015 版国际质量体系认证
ISO9001 Certified(version 2015)

Catalogue

Overview

The WQ/EC small submersible sewage pump newly launched by Shanghai Kaiquan 7.5kW and below has the function of winding overheating and water leakage protection. Absorbing the advantages of similar products at home and abroad, based on years of experience in the use of Kaiquan's products in the market, comprehensive optimization design has been carried out in hydraulic models, mechanical structure and sealing, etc., and the performance of solids discharging and anti-winding is good. High efficiency and energy saving, strong reliability; simplified structure, easier disassembly, maintenance and control, more economical and practical; diverse installation methods, simplified pumping station, and saved investment.

Main Application

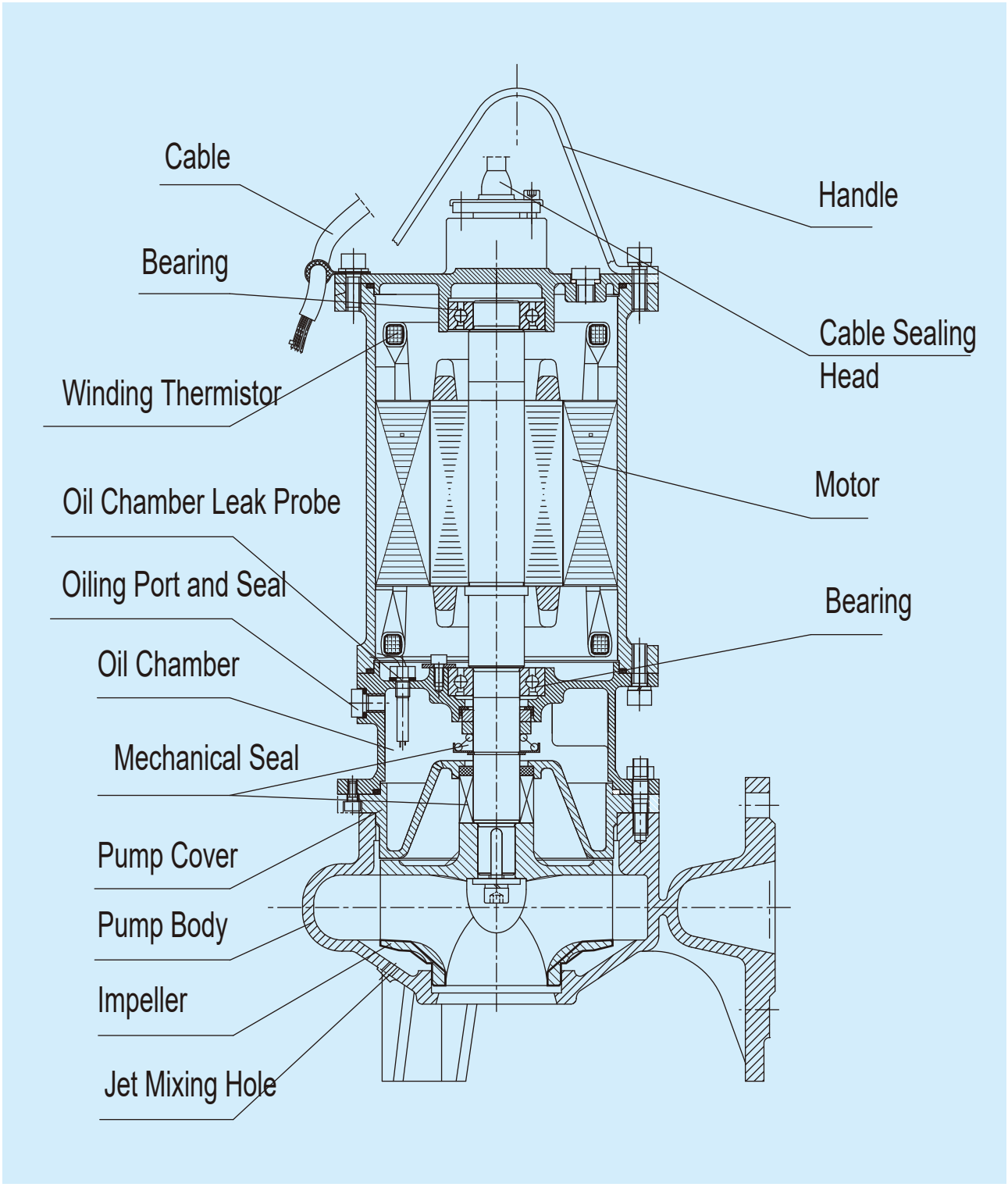
WQ/EC small submersible sewage pump is mainly used in municipal engineering, building construction, industrial sewage and sewage treatment occasions, discharge containing solid and short fiber sewage, waste water, rain water.

Using Conditions

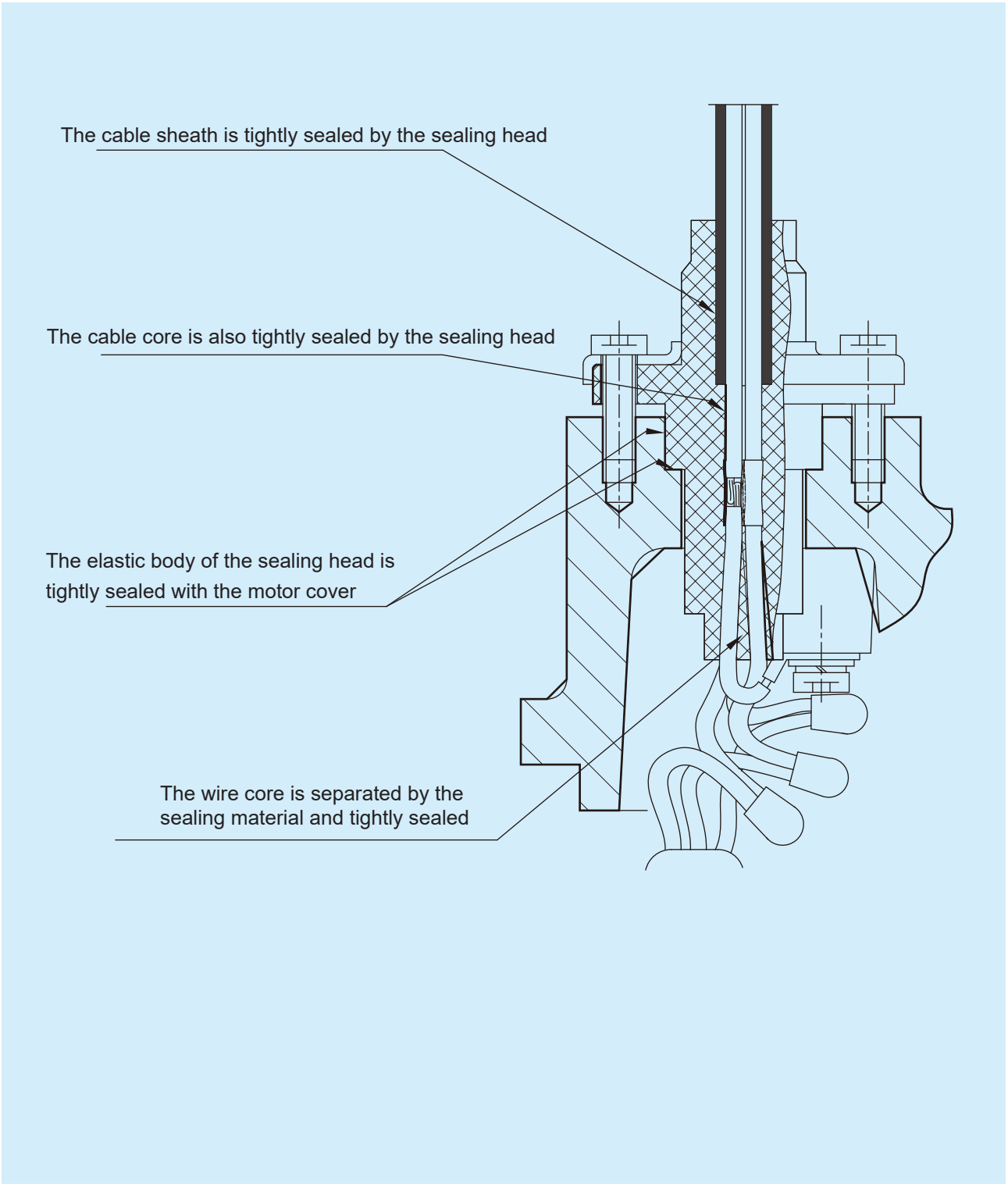
1. The power supply is 380V, three-phase and 50HZ.
2. The temperature of the medium is not more than 40℃, the pH value is 4-10, the density of the medium is less than 1050kg/m³.
3. The lowest liquid level should conform to the installation size diagram with "▽" marked liquid level.
4. Can not be used for strong corrosive and containing strong abrasive solid particles medium.
5. The diameter of the solid material in the medium is not greater than 80% of the minimum flow channel size of the pump. The flow channel size is shown in the "main parameters" of the following pumps. The length of the fiber in the medium is not greater than the discharge diameter of the pump.

Structure Description

Structural Diagram：



The cable sealing head is completely sealed with the cable



Features of WQ/EC Small Submersible Pumps:

1. Selected pump body and impeller

The CAD technology is used to repeatedly modify the design, so that the pump body and impeller are optimally matched, and the fibers and debris are easy to pass without being entangled and blocked. The impeller is strictly balanced, so that the pump has low vibration and stable operation.

2. Highly reliable submersible motor

Specially designed and manufactured submersible motor, the protection level is IP68, the stator winding is F-class insulation, due to the good cooling effect of submersible operation, the actual temperature rise of the winding is low, so the motor is more durable.

The motor dissipates heat through the casing, and the medium can operate reliably and safely as long as the medium submerges half of the height of the motor stator. The more submerged, the more conducive to the cooling of the motor.

The cable is a heavy-duty sewage-resistant rubber-sheathed flexible cable. The cross-section of the cable core is selected for continuous full-load operation at an ambient temperature of 40℃, which is very reliable. The cable is fixed twice on the handle to avoid damage during transportation, installation and use.

3. The motor has tight seals and strict inspections.

1) Seal of the shaft

Two independent single-end mechanical seals are arranged on the pump side and the motor side respectively to form two shaft seals. The leakage is only ten percent of the double-end mechanical seal. One below. The lubricating oil in the oil chamber lubricates and cools the friction pair of the motor side seal. The mechanical seal on the pump side that is in contact with the medium uses a silicon carbide/silicon carbide "hard-to-hard" friction pair, which has high hardness and low friction coefficient, which is not easy to wear and fail; the motor side mechanical seal that is immersed in oil is graphite/carbonized Silicon "soft versus hard" friction pair has a low friction coefficient and is easy to "run-in", and the seal is reliable. The small gap between the impeller and the pump cover can prevent impurities from entering the shaft seal cavity while maintaining good working conditions of the mechanical seal. The rubber parts of the mechanical seal are made of nitrile rubber with excellent oil resistance, and the springs and other structural parts are made of stainless steel.

2) Full sealing of the cable

The cable of WQ/EC pump motor adopts a fully sealed structure with the casting head. The cable sheath, the cable core and the casting head are vulcanized into a whole to ensure that water will not enter the motor cavity through the gap between the cable sheath or the core.But the cable end should not contact water, water into the cable after all, the cable insulation resistance will be seriously reduced and affect the safety.

3) Sealing between parts

The O - ring sealing ring is used as a reliable static seal between the parts.

4) Tightness inspection

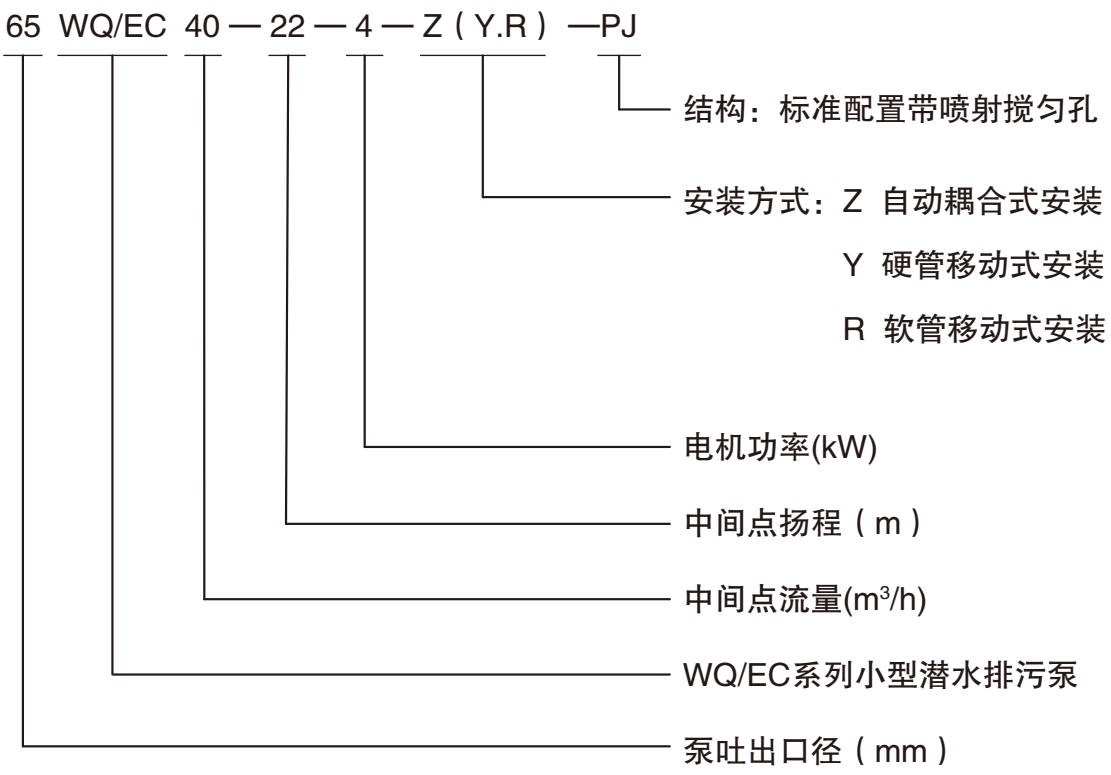
The parts can only be assembled after passing the pressure test. Each pump is subjected to strict air pressure test during and after the assembly to ensure the tightness of the motor.

4. Reliable bearing configuration
Selects the famous brand high quality deep groove ball bearing, all has the sufficient load margin, ensures the product reliable operation.
5. Spray stirring function
In the pump body to open a jet agitating hole, when the pump is running, the pressure water in the pump through the jet hole to form a high-speed jet flow for strong mixing, so that a larger range of impurities suspended up, the pump is sucked back to go, so that in a larger range will not form a sink
Lake, than only in the pump inlet mechanical stirring is more superior.
6. Protective device
The motor windings are equipped with overheat protection elements, when the winding temperature exceeds the specified temperature, the overheat protection elements through the electric control cabinet to make the "overheat" indicator light and automatically stop. Remind the operator to check and find out why the motor is overheating. After the winding temperature drops, the overheat protection element will reset automatically, and the motor will resume to the starting state, but in the fault row that causes the winding to overheat
Do not turn it on except before.
Leakage probe is installed in the oil chamber. When the impeller side mechanical seal is damaged and the water in the leakage oil chamber reaches a certain degree, the two electrodes of the leakage probe conduct through the electric control cabinet to issue an alarm signal (indicating light) to remind the operator to check the mechanical seal or replace the oil in the oil chamber in time.
For power 5.5KW and 7.5KW, water leakage probe is installed in the lower chamber of the motor. When the mechanical seal on the side of the motor fails, the oil or water in the oil chamber enters the inner cavity of the motor through the bearing chamber. The leakage probe installed in the lower cavity of the motor sends an alarm signal through the electric control cabinet (the leakage indicator light is on) and makes the pump stop running automatically, reminding the operator to repair the pump.

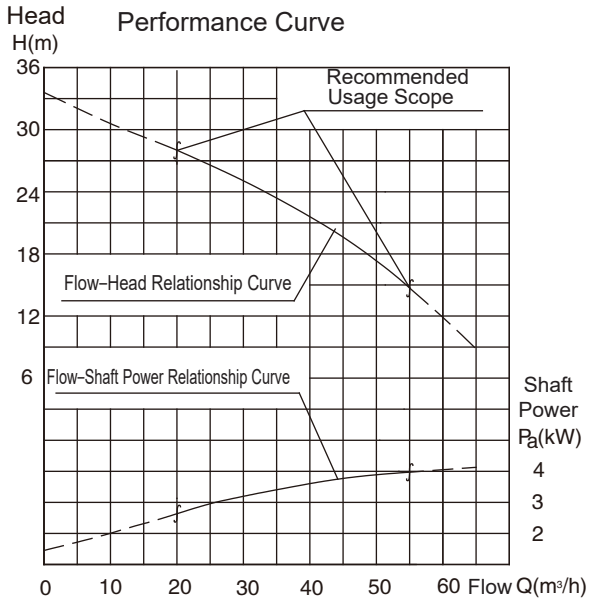
泵内安装电机保护元件一览表：

<table>
<tr><th>功　率
（kW）</th><th>油室
漏水探头</th><th>绕组
热敏元件</th><th>电机下腔
漏水探头</th></tr>
<tr><td>≤4</td><td rowspan="2">油室水含量超限时使电控柜亮灯报警并停泵而且报警</td><td rowspan="2">绕组过热时使电控柜亮灯报警而且停泵</td><td>无</td></tr>
<tr><td>5.5，7.5</td><td>电机腔进水时使电控柜亮灯报警而且停泵</td></tr>
</table>

Pump Model Description



Explanation of Pump Performance Curve and Main Parameters



Main Parameter

New Model	Original Model	Flow Channel Dimension (mm)	Rotation Speed (r/min)	Weight (kg)
65WQ/EC40–22–4	65WQ/EC248–4	Oval 33×40	2890	44
Rated Motor Power (kW)	Rated Current (A)	Motor Power Factor cos φ	Motor Efficiency(%)	Block Torque / Rated Torque
4	8.2	0.87	85.5	2.2

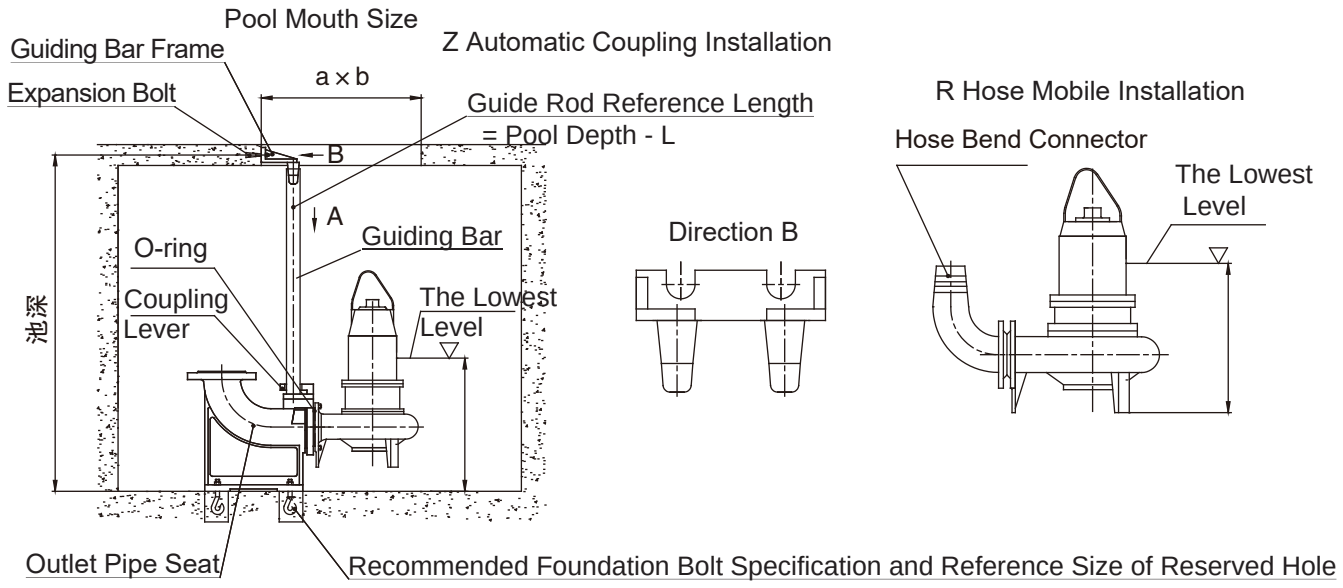
图上曲线的实线部分表示泵的推荐使用范围。用户在选型时应仔细地核算需要的流量扬程，使所选的泵能在推荐使用范围内工作。

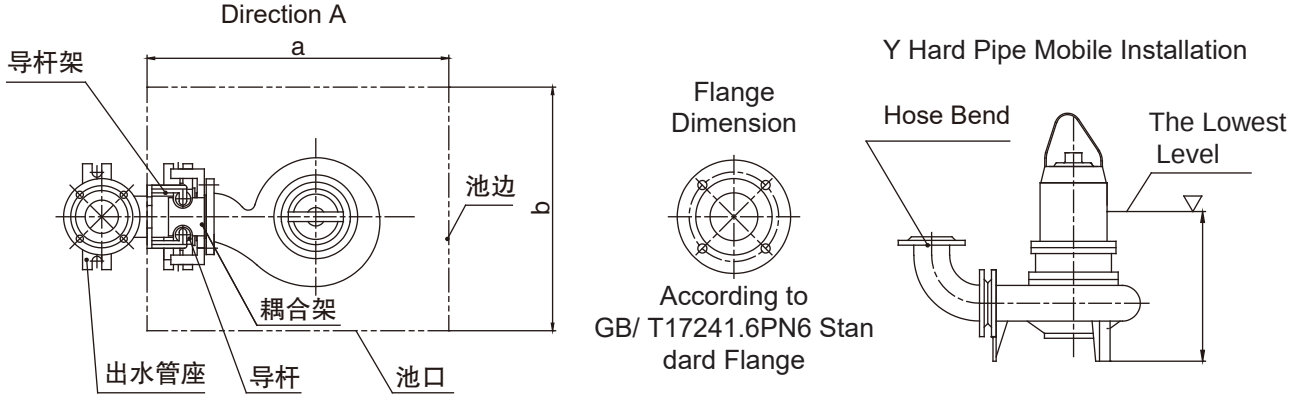
介质中固形物的直径不应大于流道的最小尺寸，推荐为流道最小尺寸的80%以下。例如，对图示的65WQ/EC40–22–4型泵，固形物的直径不应大于33×0.8≈26毫米。

泵重不包括各种安装方式的附件，如耦合装置、弯管接头、软管弯接头等。

Installation Methods

WQ/EC型泵有自动耦合式安装（Z）、软管移动式安装（R）和硬管移动式安装（Y）三种安装方式。软管移动安装和硬管移动安装很简单，无须详述。下面对自动耦合式安装作一介绍：





The automatic coupling installation does not require the use of conventional fasteners to connect the pump to the pipe. Coupling device only outlet pipe seat, guide rod, guide rod frame, coupling frame these four parts. Guide rod only plays a guiding role, no force, with ordinary water pipe or steel pipe according to the depth of the pool cut into the required length can be, so the user can provide. When installing, the outlet pipe seat, guide rod and guide rod frame are installed, the coupling frame is installed on the pump body, the pump is lifted, the semicircle orifice on the coupling frame is inserted into the guide rod, the pump is slipped down along the guide rod to the end, the coupling frame will be aligned with the outlet pipe seat buckle. When the pump needs to be repaired, just lift the pump up and the pump is disengaged from the outlet pipe seat.This installation is very convenient for pump maintenance.

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

Related Dimensions for Automatic Coupling Installation Hose Dimensions for Mobile Installation

Unit: mm except for inches

Project \ Pump Discharge Diameter	50	65	80	100	150	200
Guiding bar	1 "Water Pipe /32×3.5 Seamless Steel Tube				2″ /60×5	
Guiding bar length	Deep Pool-255	Deep Pool-268	Deep Pool-303	Deep Pool-353	Deep Pool-435	Deep Pool-540
Quantity and specification of foundation bolts	4-M16×220		4-M20×300			4-M24×300
Quantity and specification of expansion bolts	2-M16×150 I					
Foundation bolts reserved hole dimension	80×80×270		100×100×350			
Specification for hose bend joints to be fitted	50-6	50×65-6	65-6	80-6	100-6	150-6	none
The inner diameter of the hose when the hose is installed	64	76	76	89	102	152	none

Main Part Materials of the Pump

Parts	Impeller, Underneath Pump Cover	Motor Crashing	Shaft	Mechanical Seal Material			
				Motor Side Mechanical Seal Friction Pair	Pump Side Mechanical Seal Friction Pair	Springs and Structural Parts	Rubber Parts
Material	HT200	HT200	2Cr13	Silicon Carbide	Silicon Carbide Tungsten Carbide	Stainless Steel	Nitrile Rubber

Note: if the user requires to make the main parts into ductile iron or other materials, such as 2Cr13, 304, etc., and has other special requirements, please contact the sewage pump research group of the technical department

Rotation Direction

从泵吸入口看，叶轮为逆时针旋转。

The Mark of the Cable Core

浅蓝（U）、黑（V）、棕（W）为三相动力线。

黄/绿双色线（11）为接地线及信号公共线。

白色（14）为定子绕组热敏电阻信号线。

紫色（12）为油室漏水探头信号线。

粉红色（13）为电机内腔下漏水探头信号线（仅5.5kW及7.5kW）。

Order Instructions

1、订货时应注明产品名称、型号、安装形式、选购件、备件等。

选型时应考虑到介质重度对功率的影响，热忱欢迎用户向本公司技术部门咨询技术问题。

2、电机电缆长度标准配置为5m，可以选配以5m一个长度单位增加（如10m、15m……），选配的电缆长度订货时应说明并在订单上注明。

3、成套供货件是按用户选定的安装方式配套供货。选购件、备件须用户另外订购。

4、由于耦合装置的简洁设计，导杆只须用一般的自来水管或钢管。我们在前面已经提供了用作导杆的自来水管或钢管的规格及长度计算方法，用户只需自行购置自来水管或钢管，切成需要的长度就可以使用了，所以导杆不作为耦合安装时的成套供货件。用户需要由我公司提供导杆时，须另外订购并写入订单。

Supply Scope

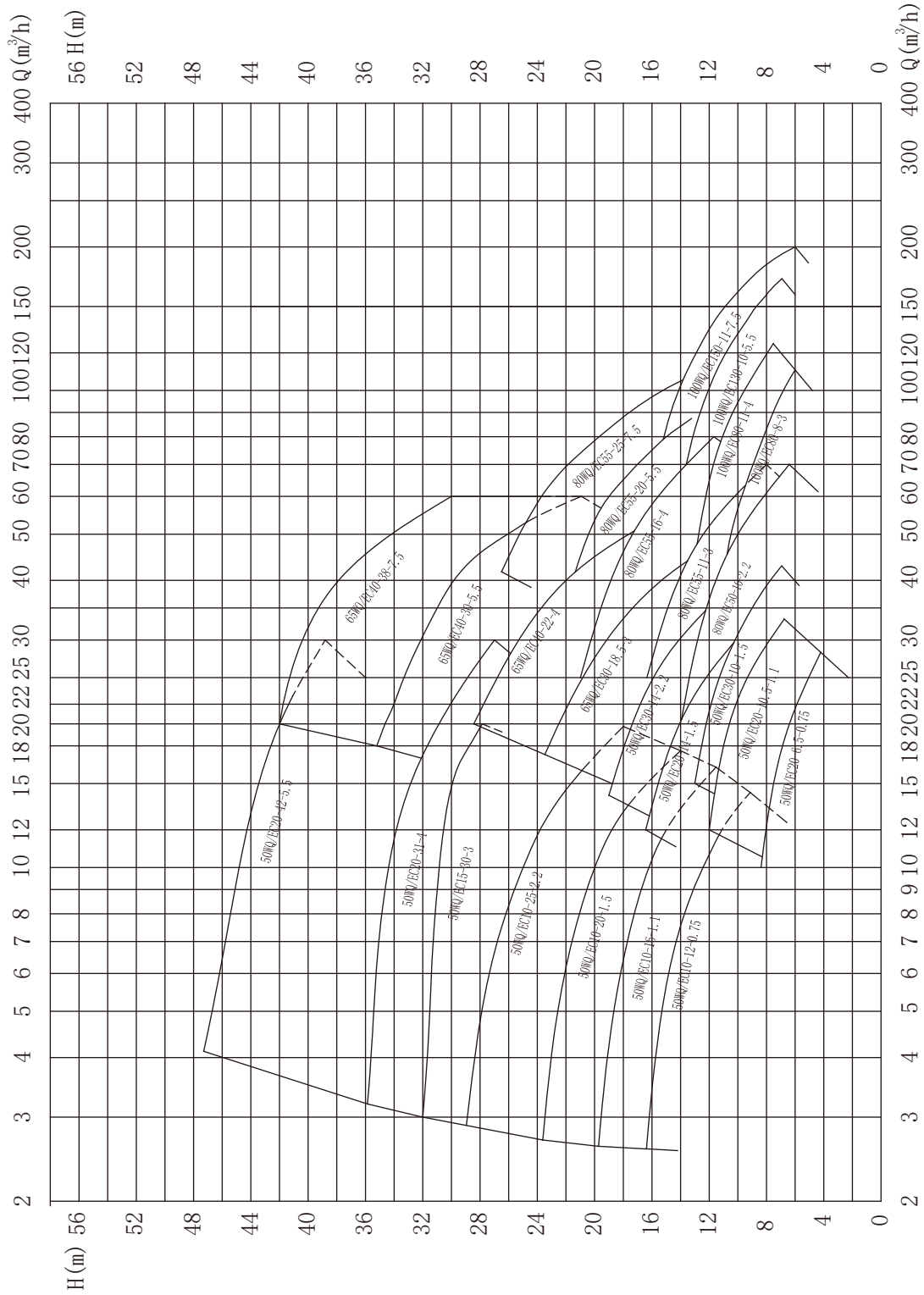
Installation Method	Complete Supply	Options		Spare Parts
Mobile hose installation	Main pump, hose bend connector (one for each pump)	Hose	Electric control device, terminal box, gate (butterfly) valve, check valve, wire rope and rope clip or chain for lifting pump, grille (custom), hoist (custom), rectangular gate (custom)	Impeller Bearing Mechanical seal O-ring Impeller fastener
Mobile hard pipe installation	Main pump, bend joint (one for each pump)			
Automatic coupling installation	Main pump, automatic coupling device (one set for each pump)	Guiding rod Foundation bolt Expansion bolt		

Spare Parts Specification and Model List

Power	0.75、1.1	1.5、2.2	3		4		5.5、7.5	
Motor Pole Number	2P	2P	2P	4P	2P	4P	2P	4P
Cable Type	YVC7×1		YVC3×1.5+4×1				YVC3×2.5+4×1.5	
Upper Bearing	6203–2Z	6205–2Z	6206–2Z				6306–2Z/C3	
Lower Bearing	6204–2Z	6205–2Z	6206–2Z				3307–2Z/C3	
Pump Side Mechanical Seal	FU1/20–G60 Q1Q1PGG	FU1/25–G60 Q1Q1PGG	FU1/30–G60 Q1Q1PGG				FU1/35–G60 Q1Q1PGG	
Motor Side Mechanical Seal	FD–20–G60 AQ1PGG	FD–25–G60 AQ1PGG	FD–30–G60 AQ1PGG				FD–35–G60 AQ1PGG	
O-ring Seal for Each Pump	1–106×3.55 2–122×3.55 2–10×2.65	1–122×3.55 2–132×3.55 2–10×2.65	1–155×3.55 2–160×3.55 2–10×2.65	1–155×3.55 2–160×3.55 2–10×2.65	1–155×3.55 2–160×3.55 2–10×2.65	1–155×3.55 2–180×3.55 2–10×2.65	1–200×5.3 2–180×3.55 2–10×2.65	
	The O-ring is made of oil-resistant rubber							
Impeller Fastener	The O-ring is made of oil-resistant lemon glue Nut M10 x 1.25 Spring washer 10 Impeller pressure plate WQB07-01A	Screw the M8 x 25 Spring washer 8 Impeller pressure plate WQB07-10	Screw M10 x 25 Spring washer 10 Impeller pressure plate WQB07-16				Screw M10 x 30 Spring washer 10 Impeller pressure plate WQB07-02B	

Comprehensive Characteristic Curve Charts

WQ/EC Miniature Submersible Pump Comprehensive Characteristic Curve Charts



WQ/EC New and Old Model Comparison Table and Performance Parameter Table

No.	New Model	Original Model	Diameter	Flow	Head	Speed	Matching Power	Maximum Pass Particle	Weight
			mm	m^3/h	m	r/min	kw	mm	kg
1	50WQ/EC10-12-0.75	50WQ/EC256-0.75	50	10	12	2825	0.75	15	22
2	50WQ/EC10-16-1.1	50WQ/EC257-1.1	50	10	16	2825	1.1	15	23
3	50WQ/EC10-20-1.5	50WQ/EC258-1.5	50	10	20	2840	1.5	14	26
4	50WQ/EC10-25-2.2	50WQ/EC259-2.2	50	10	25	2840	2.2	14	30
5	50WQ/EC15-30-3	50WQ/EC254-3	50	15	30	2880	3	21	40
6	50WQ/EC20-6.5-0.75	50WQ/EC240-0.75	50	20	6.5	2825	0.75	21	22
7	50WQ/EC20-10.5-1.1	50WQ/EC249-1.1	50	20	10.5	2825	1.1	21	23
8	50WQ/EC20-14-1.5	50WQ/EC242-1.5	50	20	14	2840	1.5	24	26
9	50WQ/EC20-31-4	50WQ/EC255-4	50	20	31	2890	4	21	42
10	50WQ/EC20-42-5.5	50WQ/EC262-5.5	50	20	42	2920	5.5	20	64.5
11	50WQ/EC30-10-1.5	50WQ/EC241-1.5	50	30	10	2840	1.5	25	29
12	50WQ/EC30-14-2.2	50WQ/EC243-2.2	50	30	14	2840	2.2	28	32
13	65WQ/EC30-18.5-3	65WQ/EC251-3	65	30	18.5	2880	3	26	42
14	65WQ/EC40-22-4	65WQ/EC248-4	65	40	22	2890	4	26	44
15	65WQ/EC40-30-5.5	65WQ/EC245-5.5	65	40	30	2920	5.5	26	63
16	65WQ/EC40-38-7.5	65WQ/EC250-7.5	65	40	38	2920	7.5	26	73
17	80WQ/EC50-10-2.2	80WQ/EC244-2.2	80	50	10	2840	2.2	28	35
18	80WQ/EC55-11-3	80WQ/EC261-3	80	55	11	2880	3	32	44
19	80WQ/EC55-16-4	80WQ/EC260-4	80	55	16	2890	4	32	45
20	80WQ/EC55-20-5.5	80WQ/EC252-5.5	80	55	20	2920	5.5	31	64.5
21	80WQ/EC55-25-7.5	80WQ/EC246-7.5	80	55	25	2920	7.5	31	73
22	100WQ/EC80-8-3	100WQ/EC477-3	100	80	8	1420	3	48	61
23	100WQ/EC80-11-4	100WQ/EC472-4	100	80	11	1440	4	48	65
24	100WQ/EC130-10-5.5	100WQ/EC473-5.5	100	130	10	1440	5.5	51	101
25	100WQ/EC150-11-7.5	100WQ/EC478-7.5	100	150	11	1440	7.5	51	113

Supporting Control Cabinet Products

1. Overview of control cabinet products

This series of submersible sewage pump supporting KQK-B electric control cabinet is an economical, safe and reliable, easy to maintain automatic control system. With oil chamber water inlet, motor cavity water inlet, winding overheating and other protection functions. When the motor enters water or the winding overheats, the fault light of the control cabinet will light up to alarm and stop the pump.

The control cabinet is made of low-voltage electrical appliances and liquid level sensors of well-known brands at home and abroad, with protection functions such as short circuit, phase loss and overload. The control cabinet can be controlled by ordinary relay or panel controller, and equipped with liquid level sensors such as floating ball level switch and water level electrode. In the case of unwatched, it can automatically control the start and stop of the pump according to the level of the liquid. In addition to single control products, all the products with main and spare pump control have the function of shutting down the fault pump by itself and putting in the spare pump automatically. The control cabinet of two pumps and three pumps can realize automatic alternating or circulating operation, so as to realize the equal running time of each pump.

The control cabinet components of the general configuration are mainly famous domestic brands such as Tianzheng, Zhengtai, Delixi, etc. High-grade control cabinet components are mainly Schneider, Siemens, ABB and other international well-known brands. For the one-control two-control cabinet, if the panel controller scheme is adopted, the size of the box is 400×300×200 (height × width × thickness).

2. Control cabinet model naming method

KQK / T – 2 Ac B – 3 – 001

- 001 — Other auxiliary functions: interface reservation, etc
- 3 — Motor power: 3KW
- B — Control features: B - submersible pump (with protective signal line)
- Ac — Operation mode of main and spare pump:
  AC - automatic alternate shield ring
  As - alternates or circulates for a certain time
  H - manual selection of main and backup pumps
- 2 — Control the number of pumps: two sets
- T — Main component configuration:
  T - General type G - High grade type
- KQK — Kaiquan electric control cabinet code

3. Model Selection of Supporting Control Cabinet

Table1

Supporting WQ/EC Pump (One Control One)				
No.	Power (kW)	Control Cabinet Mode		Cabinet Dimension (Height × Width × Thickness)
		General Configuration	High Grade Configuration	
1	0.75	KQK/T–1B–0.75	KQK/G–1B–0.75	400 × 300 × 200
2	1.1	KQK/T–1B–1.1	KQK/G–1B–1.1	400 × 300 × 200
3	1.5	KQK/T–1B–1.5	KQK/G–1B–1.5	400 × 300 × 200
4	2.2	KQK/T–1B–2.2	KQK/G–1B–2.2	400 × 300 × 200
5	3	KQK/T–1B–3	KQK/G–1B–3	400 × 300 × 200
6	4	KQK/T–1B–4	KQK/G–1B–4	400 × 300 × 200
7	5.5	KQK/T–1B–5.5	KQK/G–1B–5.5	400 × 300 × 200
8	7.5	KQK/T–1B–7.5	KQK/G–1B–7.5	400 × 300 × 200
9	5.5	KQK/T–1B–5.5	KQK/G–1B–5.5	400 × 300 × 200
10	7.5	KQK/T–1B–7.5	KQK/G–1B–7.5	400 × 300 × 200

Table2

Supporting WQ/EC Pump (One Control Two)				
No.	Power (kW)	Control Cabinet Mode		Cabinet Dimension (Height × Width × Thickness)
		General Configuration	High Grade Configuration	
1	0.75	KQK/T–2AcB–0.75	KQK/G–2AcB–0.75	500 × 400 × 200
2	1.1	KQK/T–2AcB–1.1	KQK/G–2AcB–1.1	500 × 400 × 200
3	1.5	KQK/T–2AcB–1.5	KQK/G–2AcB–1.5	500 × 400 × 200
4	2.2	KQK/T–2AcB–2.2	KQK/G–2AcB–2.2	500 × 400 × 200
5	3	KQK/T–2AcB–3	KQK/G–2AcB–3	500 × 400 × 200
6	4	KQK/T–2AcB–4	KQK/G–2AcB–4	500 × 400 × 200
7	5.5	KQK/T–2AcB–5.5	KQK/G–2AcB–5.5	500 × 400 × 200
8	7.5	KQK/T–2AcB–7.5	KQK/G–2AcB–7.5	500 × 400 × 200
9	5.5	KQK/T–2AcB–5.5	KQK/G–2AcB–5.5	500 × 400 × 200
10	7.5	KQK/T–2AcB–7.5	KQK/G–2AcB–7.5	500 × 400 × 200

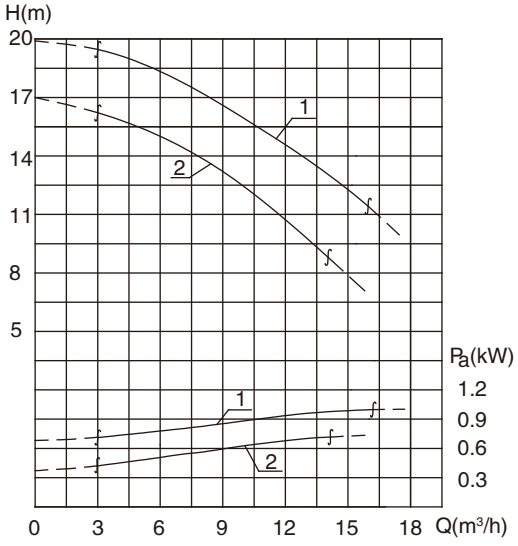
Table3

Supporting WQ/EC Pump (One Control Three)				
No.	Power (kW)	Control Cabinet Mode		Cabinet Dimension (Height × Width × Thickness)
		General Configuration	High Grade Configuration	
1	0.75	KQK/T–3AcB–0.75	KQK/G–3AcB–0.75	800 × 600 × 200
2	1.1	KQK/T–3AcB–1.1	KQK/G–3AcB–1.1	800 × 600 × 200
3	1.5	KQK/T–3AcB–1.5	KQK/G–3AcB–1.5	800 × 600 × 200
4	2.2	KQK/T–3AcB–2.2	KQK/G–3AcB–2.2	800 × 600 × 200
5	3	KQK/T–3AcB–3	KQK/G–3AcB–3	800 × 600 × 200
6	4	KQK/T–3AcB–4	KQK/G–3AcB–4	800 × 600 × 200
7	5.5	KQK/T–3AcB–5.5	KQK/G–3AcB–5.5	800 × 600 × 200
8	7.5	KQK/T–3AcB–7.5	KQK/G–3AcB–7.5	800 × 600 × 200
9	5.5	KQK/T–3AcB–5.5	KQK/G–3AcB–5.5	700 × 500 × 200
10	7.5	KQK/T–3AcB–7.5	KQK/G–3AcB–7.5	700 × 500 × 200

Performance Curves, Main Parameters and Installation Dimension Diagrams of Each Pump

50WQ/EC10–16–1.1　50WQ/EC10–12–0.75

Performance Curve Graph

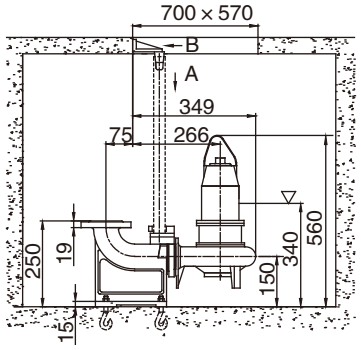


Main Parameter　　Outlet Diameter 50mm

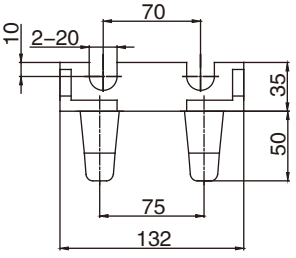
New Model	Original Model	Flow Channel Dimension (mm)	Rotation Speed (r/min)	Weight (kg)
50WQ/EC10–16–1.1	50WQ/EC257–1.1	Oval 19×24	2825	23
50WQ/EC10–12–0.75	50WQ/EC256–0.75	Oval 19×24	2825	22
Rated Motor Power (kW)	Rated Current (A)	Motor Power Factor cos φ	Motor Efficiency(%)	Block Torque / Rated Torque
1.1	2.5	0.86	77	2.2
0.75	1.8	0.84	75	2.2
Flow–Head	Small Flow Point	Middle Flow Point	Huge Flow Point	
m^3/h—m	3–19.5	10–16	16–11.5	
	3–16	10–12	14–9	

Installation Dimension Diagram

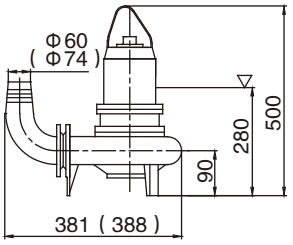
Z Automatic Coupling Installation



Direction B

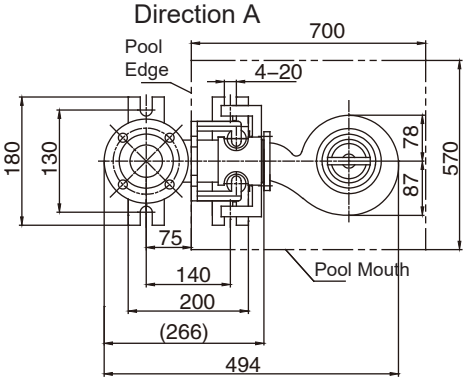


R Hose Mobile Installation

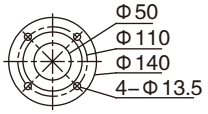


( ) Inside is the size when installing a 50×65 hose bend connector

Direction A

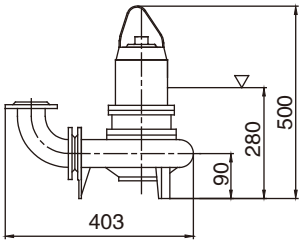


Flange Dimension



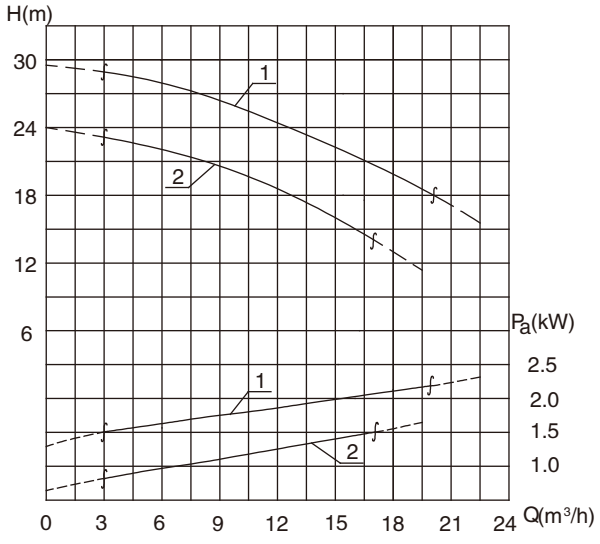
According to GB/T17241.6PN6 Standard Flange

Y Hard Pipe Mobile Installation



50WQ/EC10–25–2.2　50WQ/EC10–20–1.5

Performance Curve Graph



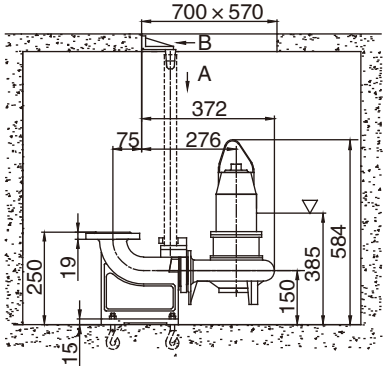
Main Parameter

Outlet Diameter 50mm

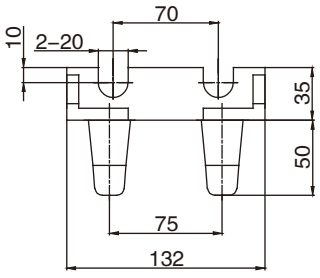
New Model	Original Model	Flow Channel Dimension (mm)	Rotation Speed (r/min)	Weight (kg)
50WQ/EC10–25–2.2	50WQ/EC259–2.2	Oval 36×27	2840	30
50WQ/EC10–20–1.5	50WQ/EC258–1.5	Oval 36×27	2840	26
Rated Motor Power (kW)	Rated Current (A)	Motor Power Factor cos φ	Motor Efficiency(%)	Block Torque / Rated Torque
2.2	4.7	0.86	82	2.2
1.5	3.4	0.85	78	2.2
Flow–Head	Small Flow Point	Middle Flow Point	Huge Flow Point	
m^3/h—m	3–29	10–25	20–18	
	3–23	10–20	17–14	

Installation Dimension Diagram

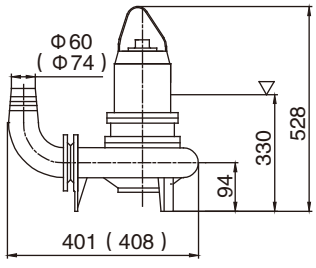
Z Automatic Coupling Installation



Direction B

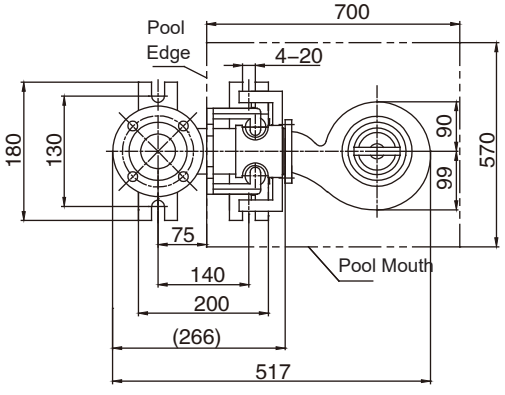


R Hose Mobile Installation

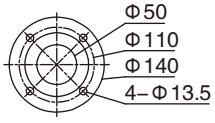


( ) Inside is the size when installing a 50×65 hose bend connector

Direction A

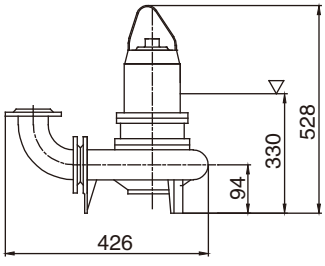


Flange Dimension



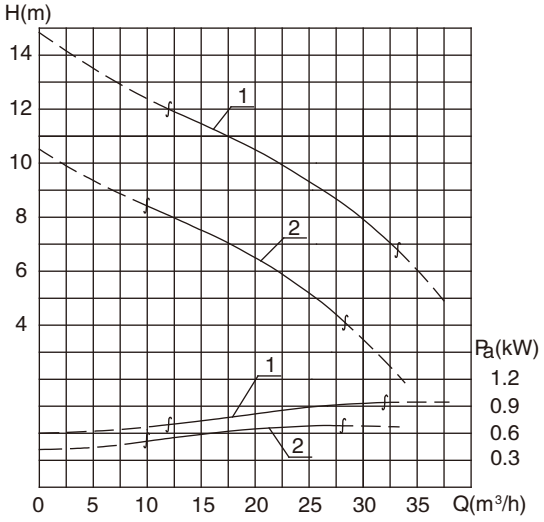
According to GB/T17241.6PN6 Standard Flange

Y Hard Pipe Mobile Installation



50WQ/EC20–10.5–1.1　50WQ/EC20–6.5–0.75

Performance Curve Graph



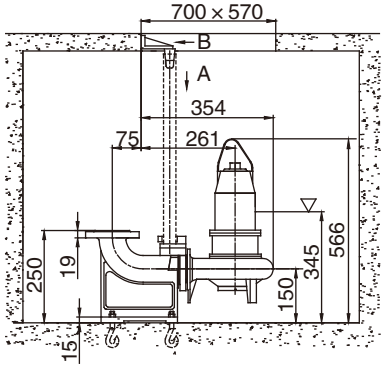
Main Parameter

Outlet Diameter 50mm

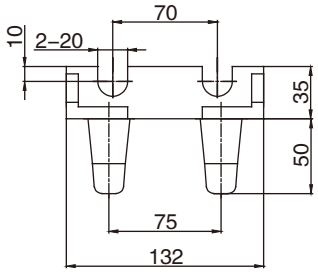
New Model	Original Model	Flow Channel Dimension (mm)	Rotation Speed (r/min)	Weight (kg)
50WQ/EC20–10.5–1.1	50WQ/EC249–1.1	Oval 36×27	2825	23
50WQ/EC20–6.5–0.75	50WQ/EC240–0.75	Oval 36×27	2825	22
Rated Motor Power (kW)	Rated Current (A)	Motor Power Factor cos φ	Motor Efficiency(%)	Block Torque / Rated Torque
1.1	2.5	0.86	77	2.2
0.75	1.8	0.83	75	2.2
Flow–Head	Small Flow Point	Middle Flow Point	Huge Flow Point	
m^3/h—m	12–12	20–10.5	33–6.8	
	10–8.4	20–6.5	28–4.1	

Installation Dimension Diagram

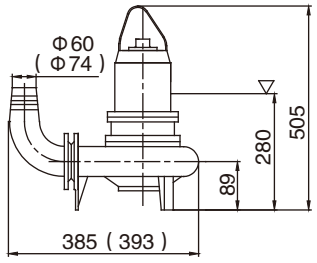
Z Automatic Coupling Installation



Direction B

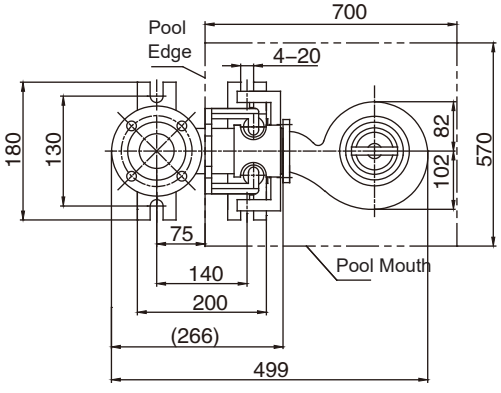


R Hose Mobile Installation

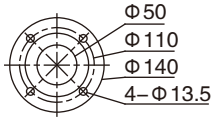


( ) Inside is the size when installing a 50×65 hose bend connector

Direction A

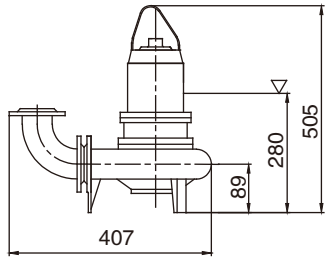


Flange Dimension



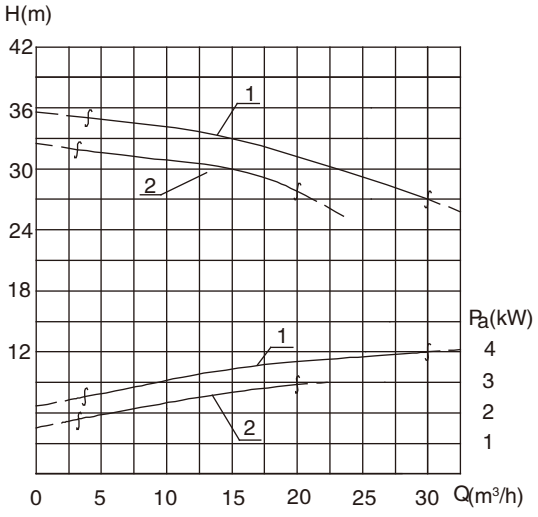
According to GB/T17241.6PN6 Standard Flange

Y Hard Pipe Mobile Installation



50WQ/EC20–31–4　50WQ/EC15–30–3

Performance Curve Graph



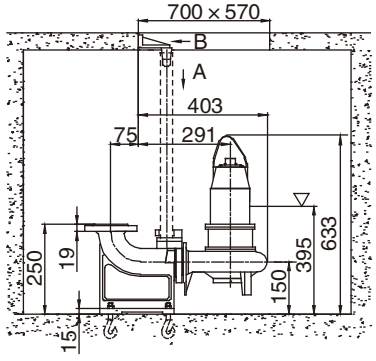
Main Parameter

Outlet Diameter 50mm

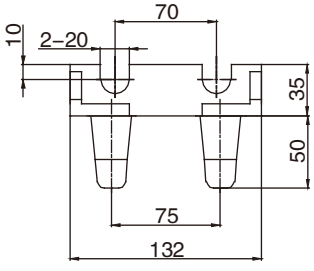
New Model	Original Model	Flow Channel Dimension (mm)	Rotation Speed (r/min)	Weight (kg)
50WQ/EC20–31–4	50WQ/EC255–4	Oval 26.5×34	2890	42
50WQ/EC15–30–3	50WQ/EC254–3	Oval 26.5×34	2880	40
Rated Motor Power (kW)	Rated Current (A)	Motor Power Factor cos ϕ	Motor Efficiency(%)	Block Torque / Rated Torque
4	8.2	0.87	85.5	2.2
3	6.4	0.87	82	2.2
Flow–Head	Small Flow Point	Middle Flow Point	Huge Flow Point	
m^3/h—m	4–35	20–31	30–27	
	4–32	15–30	20–28	

Installation Dimension Diagram

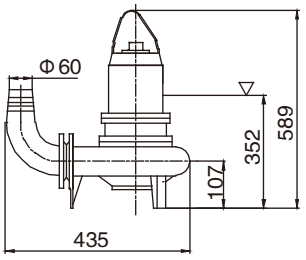
Z Automatic Coupling Installation



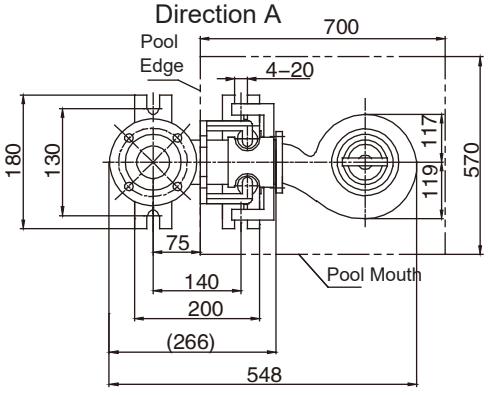
Direction B



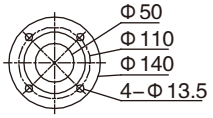
R Hose Mobile Installation



Direction A

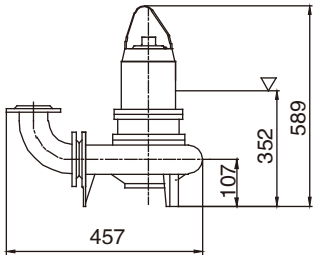


Flange Dimension



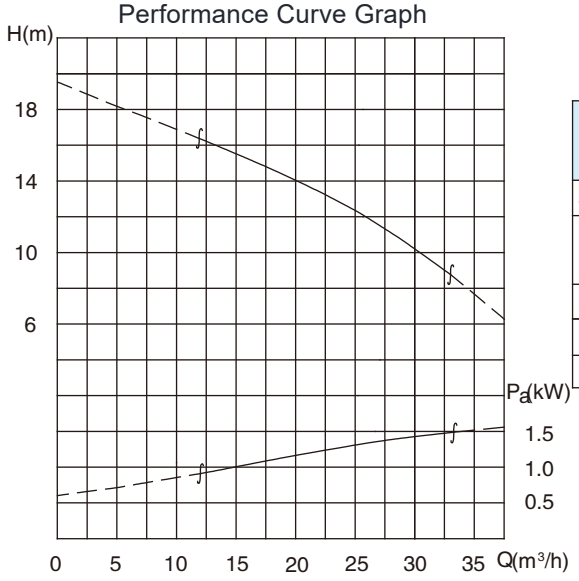
According to GB/T17241.6PN6 Standard Flange

Y Hard Pipe Mobile Installation



50WQ/EC20–14–1.5

Performance Curve Graph



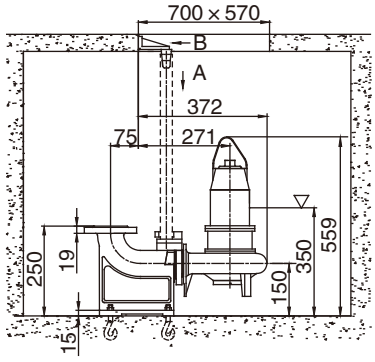
Main Parameter

Outlet Diameter 50mm

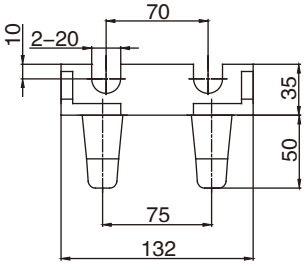
New Model	Original Model	Flow Channel Dimension (mm)	Rotation Speed (r/min)	Weight (kg)
50WQ/EC20–14–1.5	50WQ/EC242–1.5	Oval 31×39	2840	26
Rated Motor Power (kW)	Rated Current (A)	Motor Power Factor cos ϕ	Motor Efficiency(%)	Rated Torque Block Torque /
1.5	3.4	0.85	78	2.2
Flow–Head	Small Flow Point	Middle Flow Point	Huge Flow Point	
m³/h—m	12–16	20–14	33–8.6	

Installation Dimension Diagram

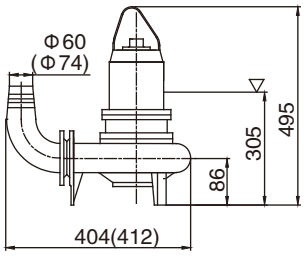
Z Automatic Coupling Installation



Direction B

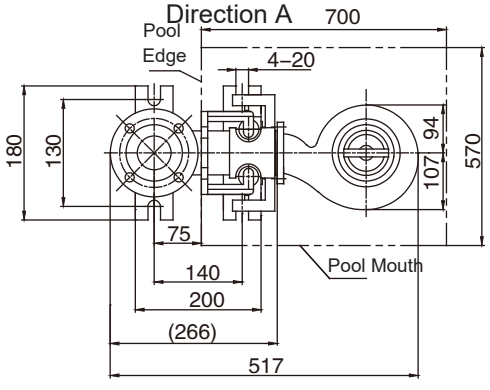


R Hose Mobile Installation

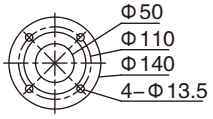


( ) Inside is the size when installing a 50×65 hose bend connector

Direction A

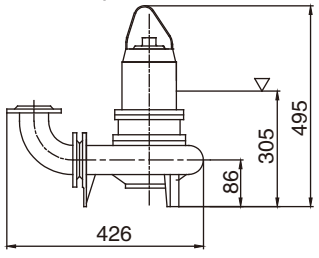


Flange Dimension



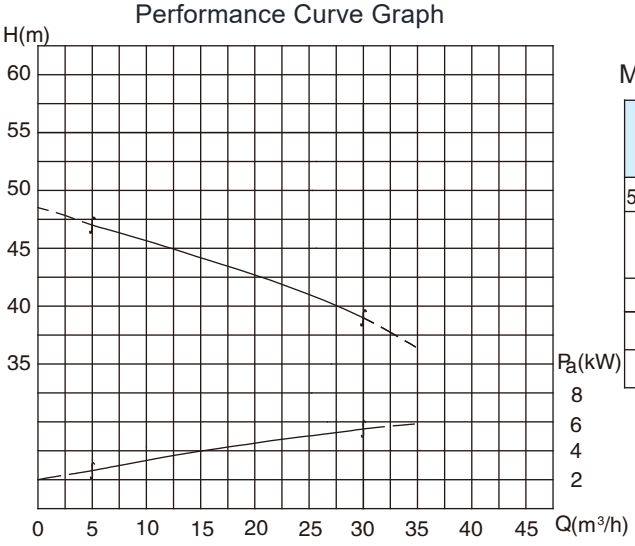
According to GB/T17241.6PN6 Standard Flange

Y Hard Pipe Mobile Installation



50WQ/EC20–42–5.5

Performance Curve Graph



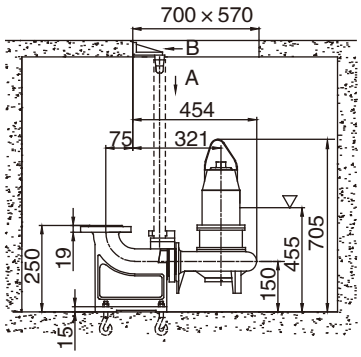
Main Parameter

Outlet Diameter 50mm

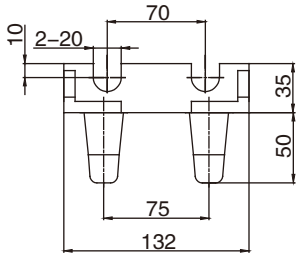
New Model	Original Model	Flow Channel Dimension (mm)	Rotation Speed (r/min)	Weight (kg)
50WQ/EC20–42–5.5	50WQ/EC262–5.5	Oval 26×39	2920	64.5
Rated Motor Power (kW)	Rated Current (A)	Motor Power Factor cos φ	Motor Efficiency(%)	Rated Torque Block Torque
5.5	11.1	0.88	85.5	2.0
Flow–Head	Small Flow Point	Middle Flow Point	Huge Flow Point	
m³/h—m	5–47	20–42	30–39	

Installation Dimension Diagram

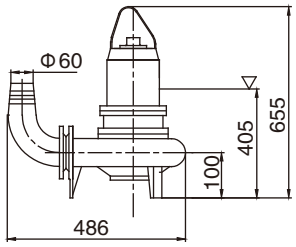
Z Automatic Coupling Installation



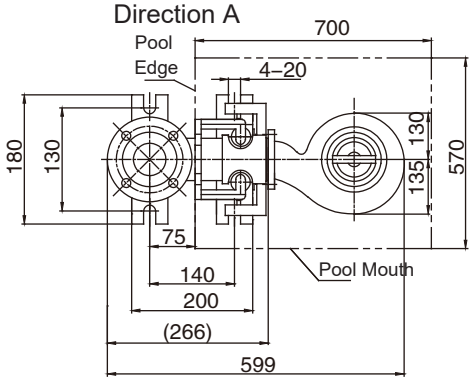
Direction B



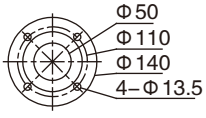
R Hose Mobile Installation



Direction A

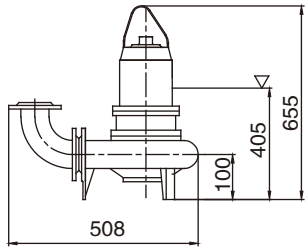


Flange Dimension



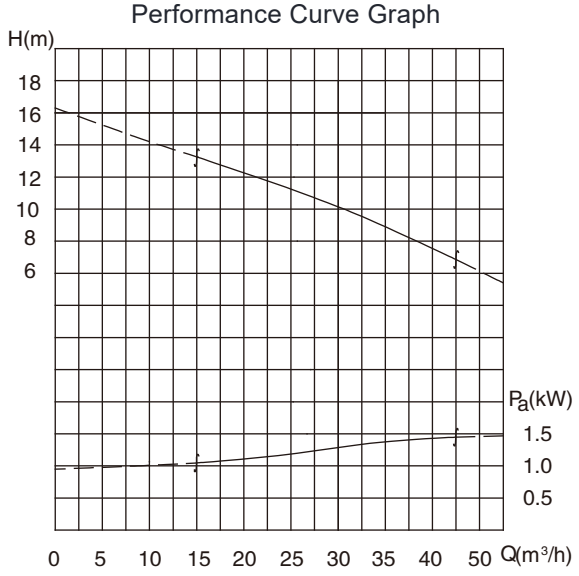
According to GB/T17241.6PN6 Standard Flange

Y Hard Pipe Mobile Installation



50WQ/EC30–10–1.5

Performance Curve Graph



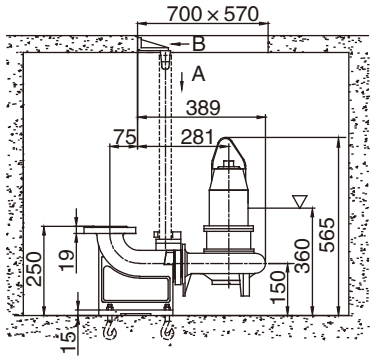
Main Parameter

Outlet Diameter 50mm

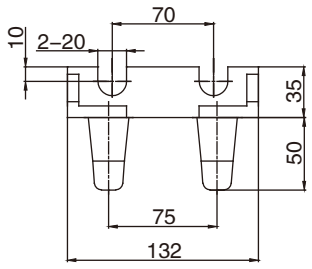
New Model	Original Model	Flow Channel Dimension (mm)	Rotation Speed (r/min)	Weight (kg)
50WQ/EC30–10–1.5	50WQ/EC241–1.5	Oval 43×32	2840	29
Rated Motor Power (kW)	Rated Current (A)	Motor Power Factor cos ϕ	Motor Efficiency(%)	Rated Torque Block Torque /
1.5	3.4	0.85	78	2.2
Flow–Head	Small Flow Point	Middle Flow Point	Huge Flow Point	
m³/h—m	15–13.2	30–10	42.5–7	

Installation Dimension Diagram

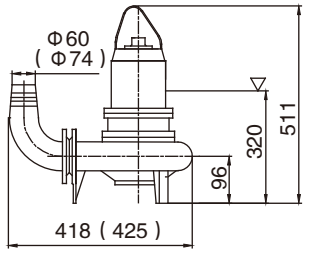
Z Automatic Coupling Installation



Direction B

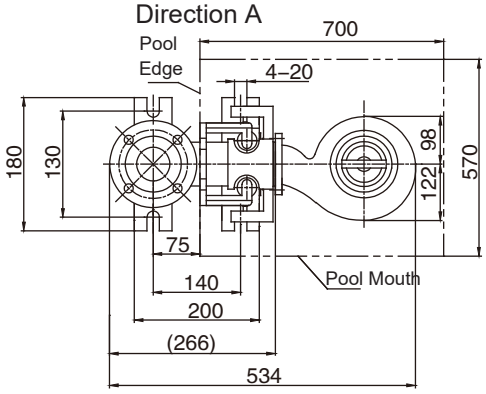


R Hose Mobile Installation

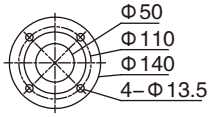


( ) Inside is the size when installing a 50×65 hose bend connector

Direction A

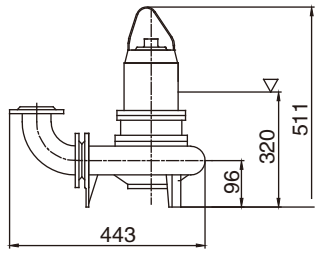


Flange Dimension



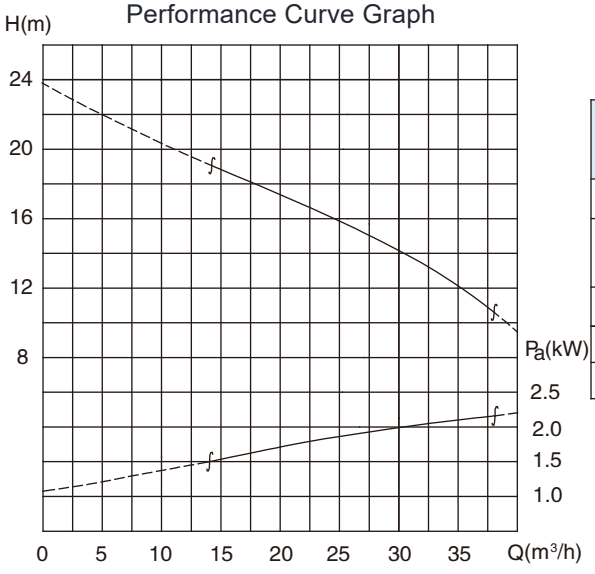
According to GB/T17241.6PN6 Standard Flange

Y Hard Pipe Mobile Installation



50WQ/EC30–14–2.2

Performance Curve Graph



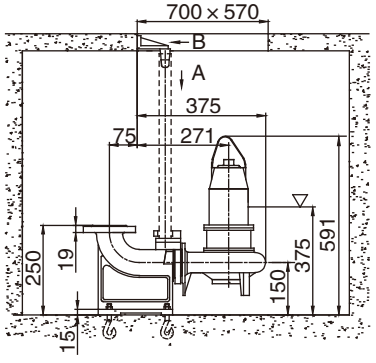
Main Parameter

Outlet Diameter 50mm

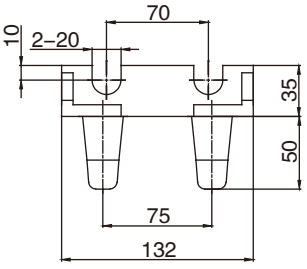
New Model	Original Model	Flow Channel Dimension (mm)	Rotation Speed (r/min)	Weight (kg)
50WQ/EC30–14–2.2	50WQ/EC243–2.2	Oval 36×38	2840	32
Rated Motor Power (kW)	Rated Current (A)	Motor Power Factor cos ϕ	Motor Efficiency(%)	Rated Torque Block Torque /
2.2	4.7	0.86	82	2.2
Flow–Head	Small Flow Point	Middle Flow Point	Huge Flow Point	
m³/h—m	14–19	30–14	38–10.6	

Installation Dimension Diagram

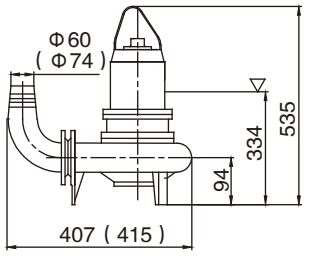
Z Automatic Coupling Installation



Direction B

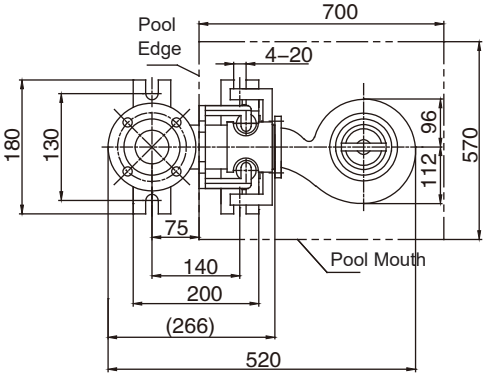


R Hose Mobile Installation

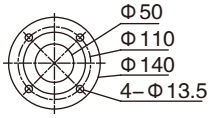


( ) Inside is the size when installing a 50×65 hose bend connector

Direction A

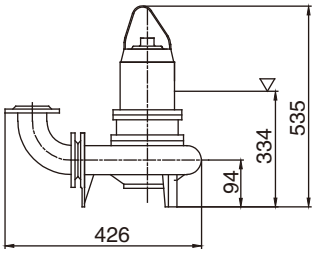


Flange Dimension



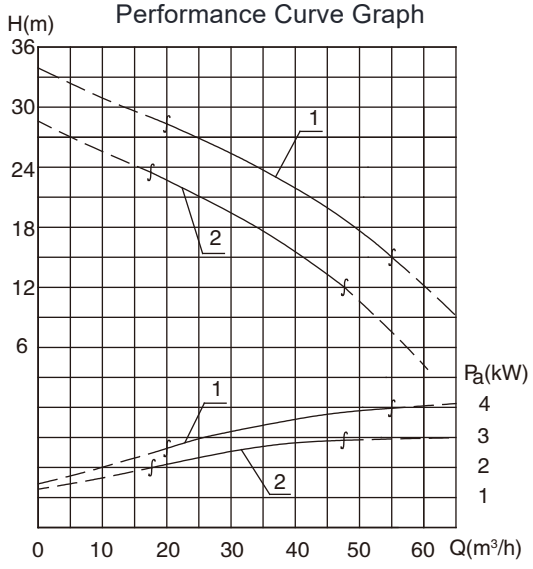
According to GB/T17241.6PN6 Standard Flange

Y Hard Pipe Mobile Installation



65WQ/EC40–22–4　65WQ/EC30–18.5–3

Performance Curve Graph

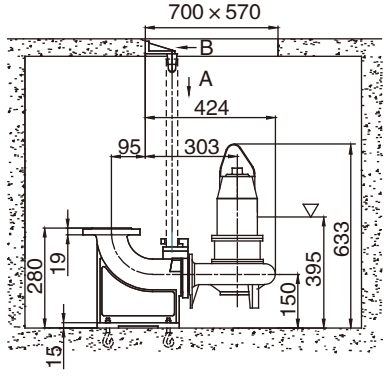


Main Parameter　　Outlet Diameter 65mm

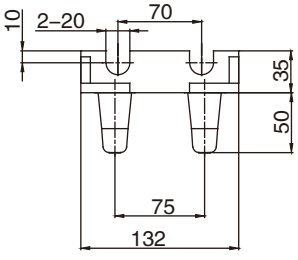
New Model	Original Model	Flow Channel Dimension (mm)	Rotation Speed (r/min)	Weight (kg)
65WQ/EC40–22–4	65WQ/EC248–4	Oval 33×40	2890	44
65WQ/EC30–18.5–3	65WQ/EC251–3	Oval 33×40	2880	42
Rated Motor Power (kW)	Rated Current (A)	Motor Power Factor cos ϕ	Motor Efficiency(%)	Rated Torque Block Torque /
4	8.2	0.87	85.5	2.2
3	6.4	0.87	82	2.2
Flow–Head	Small Flow Point	Middle Flow Point	Huge Flow Point	
m^3/h—m	20–28.4	40–22	55–15	
	17.5–23.5	30–18.5	47.5–12	

Installation Dimension Diagram

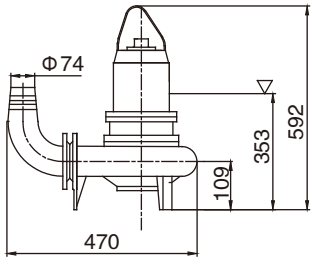
Z Automatic Coupling Installation



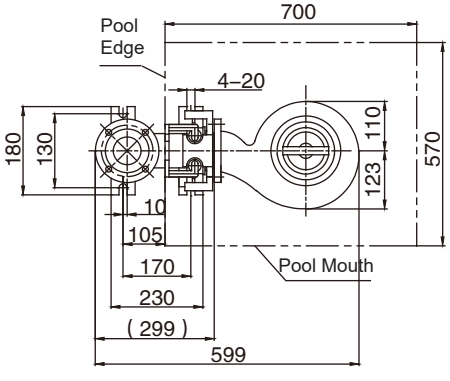
Direction B



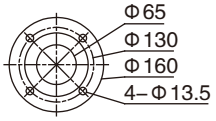
R Hose Mobile Installation



Direction A

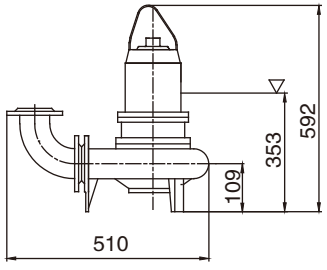


Flange Dimension



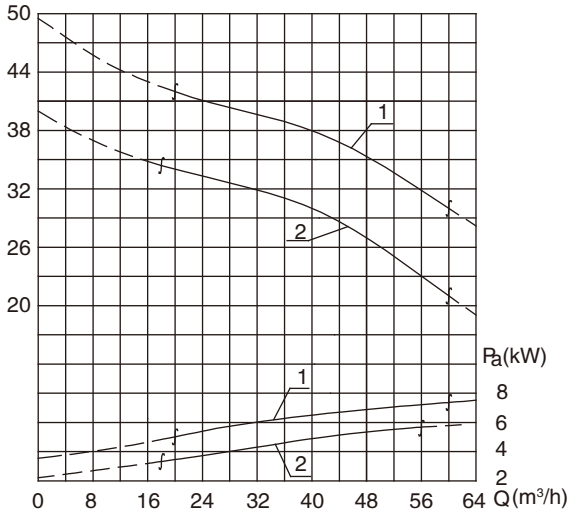
According to GB/T17241.6PN6 Standard Flange

Y Hard Pipe Mobile Installation



65WQ/EC40–38–7.5　65WQ/EC40–30–5.5

Performance Curve Graph



Main Parameter　　Outlet Diameter 65mm

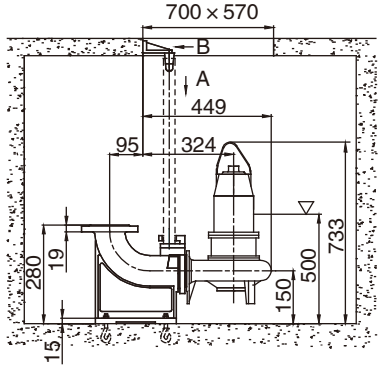
New Model	Original Model	Flow Channel Dimension (mm)	Rotation Speed (r/min)	Weight (kg)
65WQ/EC40–38–7.5	65WQ/EC250–7.5	Oval 33×40	2920	73
65WQ/EC40–30–5.5	65WQ/EC245–5.5	Oval 33×40	2920	63

Rated Motor Power (kW)	Rated Current (A)	Motor Power Factor cos φ	Motor Efficiency(%)	Rated Torque Block Torque /
7.5	15	0.88	86.2	2.0
5.5	11.1	0.88	85.5	2.0

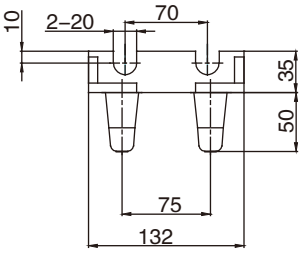
Flow–Head	Small Flow Point	Middle Flow Point	Huge Flow Point
m³/h—m	20–42	40–38	60–30
	18–35	40–30	60–21

Installation Dimension Diagram

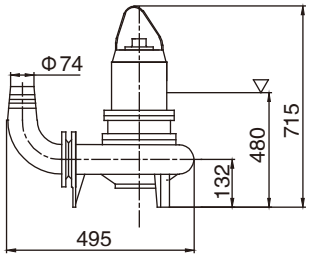
Z Automatic Coupling Installation



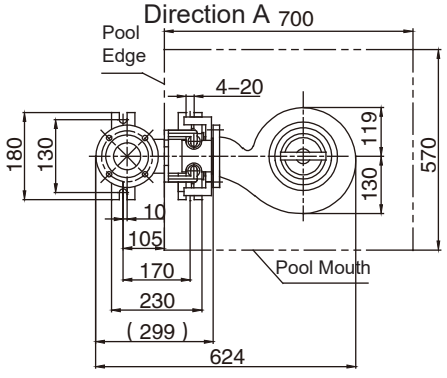
Direction B



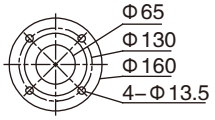
R Hose Mobile Installation



Direction A

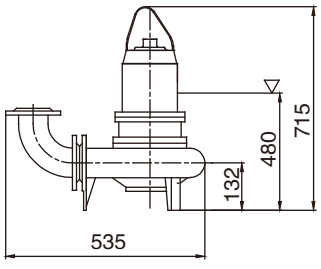


Flange Dimension



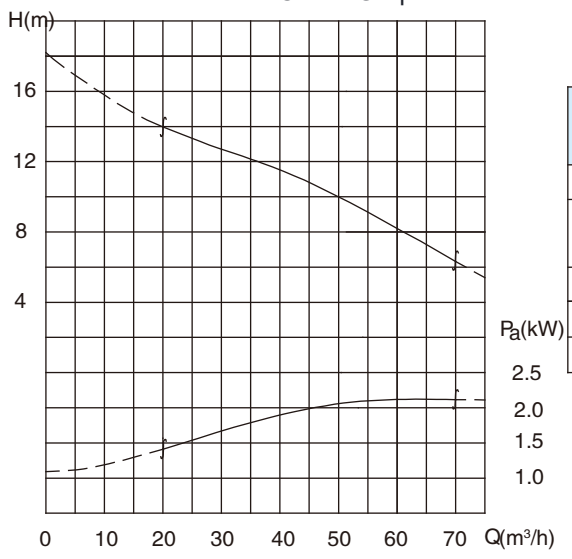
According to GB/T17241.6PN6 Standard Flange

Y Hard Pipe Mobile Installation



80WQ/EC50–10–2.2

Performance Curve Graph



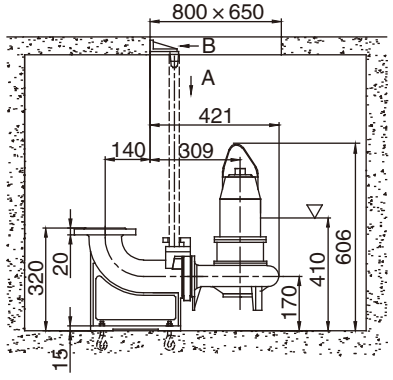
Main Parameter

Outlet Diameter 80mm

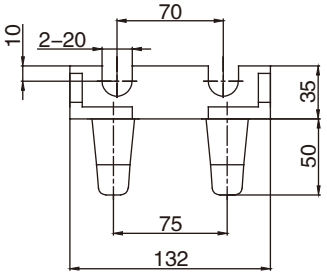
New Model	Original Model	Flow Channel Dimension (mm)	Rotation Speed (r/min)	Weight (kg)
80WQ/EC50–10–2.2	80WQ/EC244–2.2	Oval 48×36	2840	35
Rated Motor Power (kW)	Rated Current (A)	Motor Power Factor cos ϕ	Motor Efficiency(%)	Rated Torque Block Torque /
2.2	4.7	0.86	82	2.2
Flow–Head	Small Flow Point	Middle Flow Point	Huge Flow Point	
m³/h—m	20–14	50–10	70–6.3	

Installation Dimension Diagram

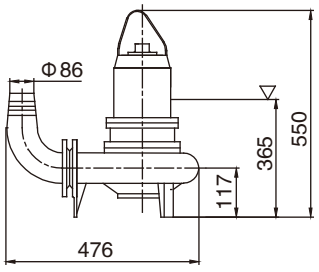
Z Automatic Coupling Installation



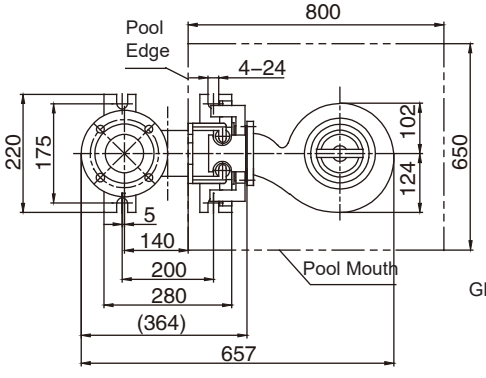
Direction B



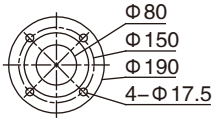
R Hose Mobile Installation



Direction A

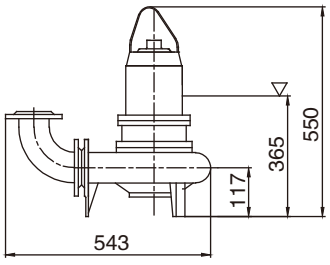


Flange Dimension



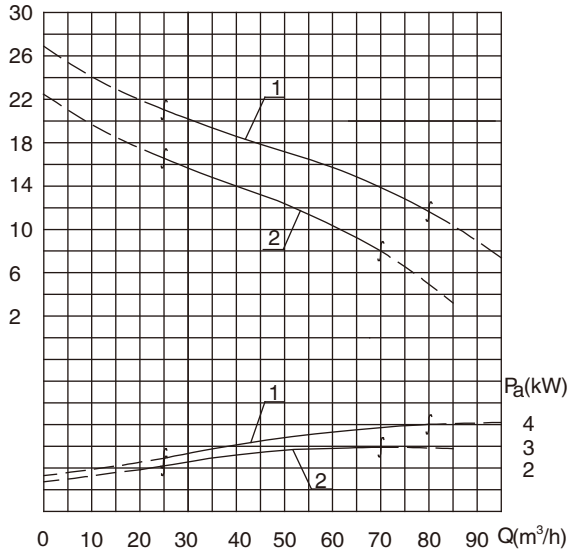
According to GB/T17241.6PN6 Standard Flange

Y Hard Pipe Mobile Installation



80WQ/EC55–16–4　80WQ/EC55–11–3

Performance Curve Graph

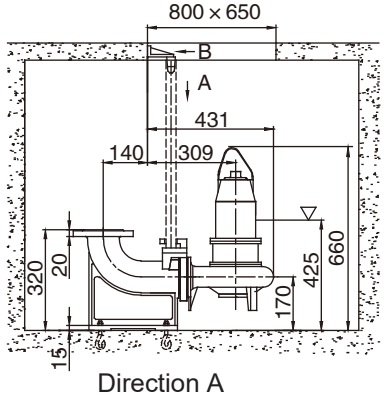


Main Parameter　　Outlet Diameter 80mm

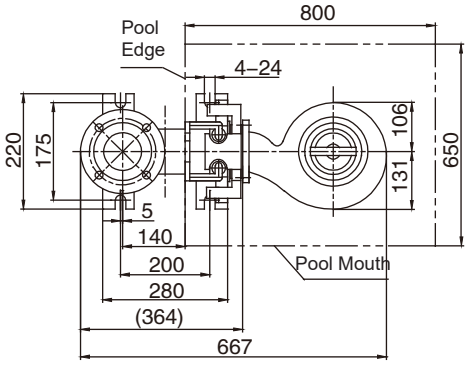
New Model	Original Model	Flow Channel Dimension (mm)	Rotation Speed (r/min)	Weight (kg)
80WQ/EC55–16–4	80WQ/EC260–4	Oval 45×40	2890	45
80WQ/EC55–11–3	80WQ/EC261–3	Oval 45×40	2880	44
Rated Motor Power (kW)	Rated Current (A)	Motor Power Factor cos ϕ	Motor Efficiency(%)	Rated Torque Block Torque /
4	8.2	0.87	85.5	2.2
3	6.4	0.87	82	2.2
Flow–Head	Small Flow Point	Middle Flow Point	Huge Flow Point	
m³/h—m	25–21	55–16	80–11.7	
	25–16.3	55–11	70–8	

Installation Dimension Diagram

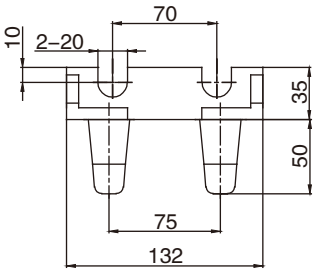
Z Automatic Coupling Installation



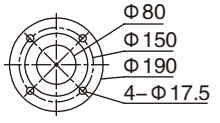
Direction A



Direction B

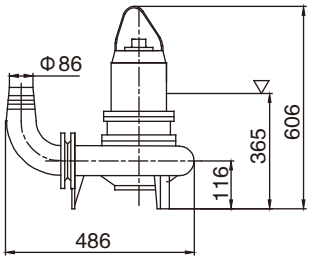


Flange Dimension

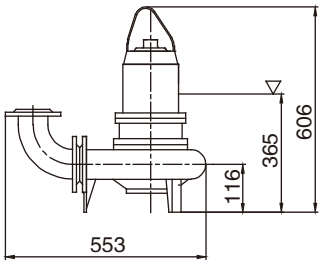


According to GB/T17241.6PN6 Standard Flange

R Hose Mobile Installation

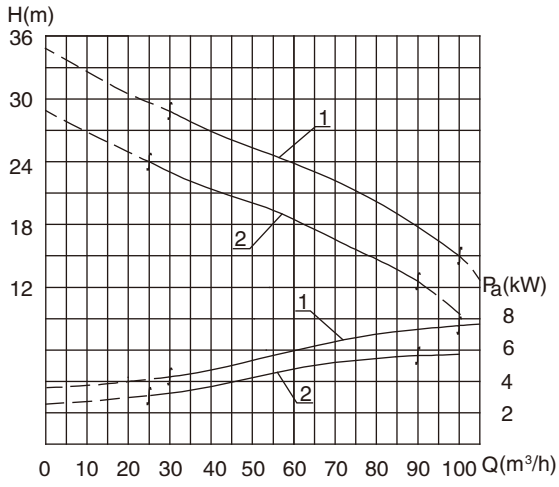


Y Hard Pipe Mobile Installation



80WQ/EC55–25–7.5　80WQ/EC55–20–5.5

Performance Curve Graph

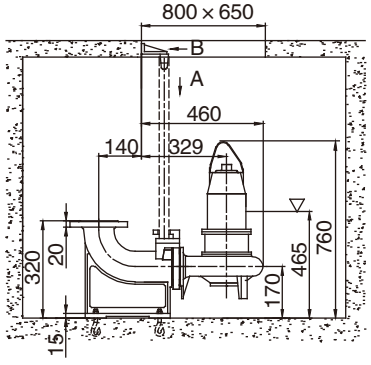


Main Parameter　　Outlet Diameter 80mm

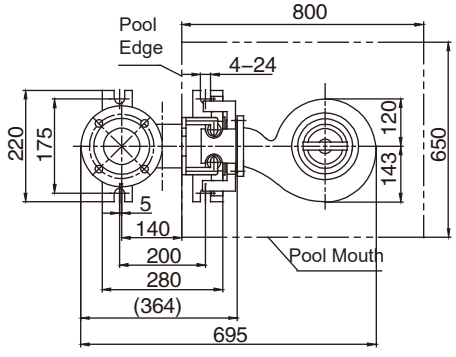
New Model	Original Model	Flow Channel Dimension (mm)	Rotation Speed (r/min)	Weight (kg)
80WQ/EC55–25–7.5	80WQ/EC246–7.5	Oval 49×39	2920	73
80WQ/EC55–20–5.5	80WQ/EC252–5.5	Oval 49×39	2920	64.5
Rated Motor Power (kW)	Rated Current (A)	Motor Power Factor cos ϕ	Motor Efficiency(%)	Rated Torque Block Torque /
7.5	15	0.88	86.2	2.0
5.5	11.1	0.88	85.5	2.0
Flow–Head	Small Flow Point	Middle Flow Point	Huge Flow Point	
m^3/h—m	30–29	55–25	100–15	
	25–24	55–20	90–13	

Installation Dimension Diagram

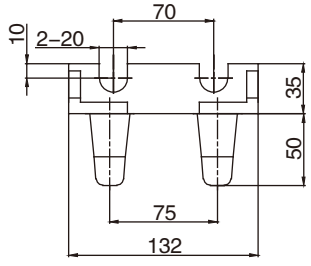
Z Automatic Coupling Installation



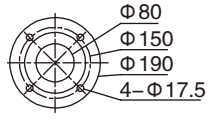
Direction A



Direction B

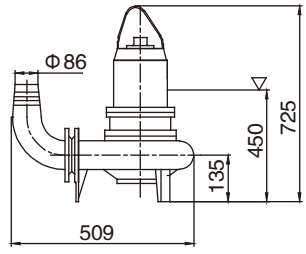


Flange Dimension

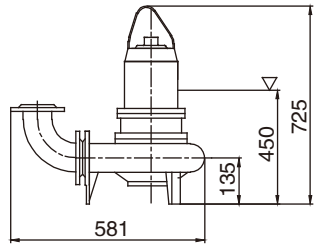


According to GB/T17241.6PN6 Standard Flange

R Hose Mobile Installation

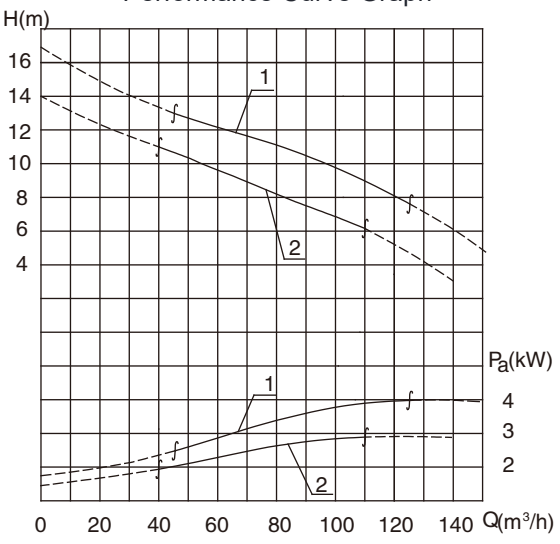


Y Hard Pipe Mobile Installation



100WQ/EC80–11–4　100WQ/EC80–8–3

Performance Curve Graph



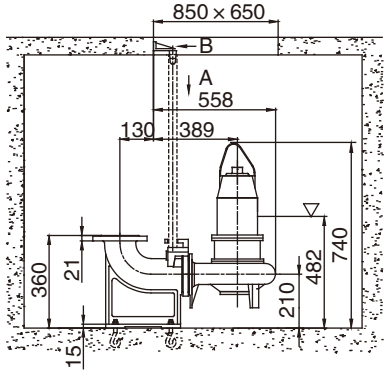
Main Parameter

Outlet Diameter 100mm

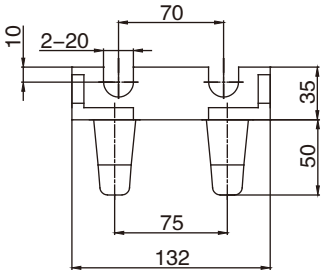
New Model	Original Model	Flow Channel Dimension (mm)	Rotation Speed (r/min)	Weight (kg)
100WQ/EC80–11–4	100WQ/EC472–4	Oval 61×63	1440	65
100WQ/EC80–8–3	100WQ/EC477–3	Oval 61×63	1420	61
Rated Motor Power (kW)	Rated Current (A)	Motor Power Factor cos ϕ	Motor Efficiency(%)	Rated Torque Block Torque /
4	8.8	0.82	84.5	2.2
3	6.8	0.81	82.5	2.2
Flow–Head	Small Flow Point	Middle Flow Point	Huge Flow Point	
m^3/h—m	45–13	80–11	125–7.6	
	40–11	80–8	110–6.1	

Installation Dimension Diagram

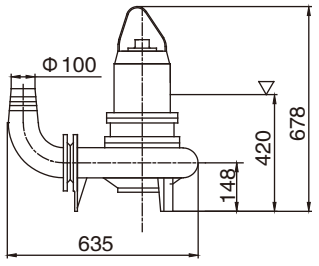
Z Automatic Coupling Installation



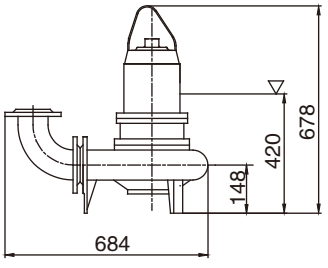
Direction B



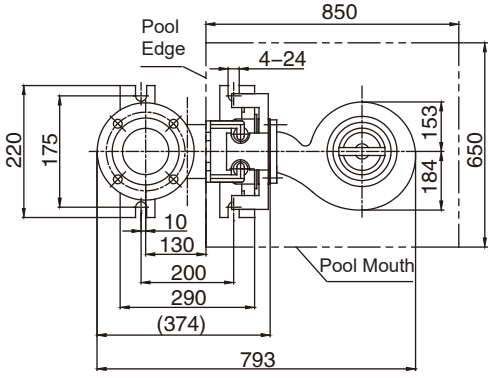
R Hose Mobile Installation



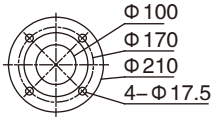
Y Hard Pipe Mobile Installation



Direction A



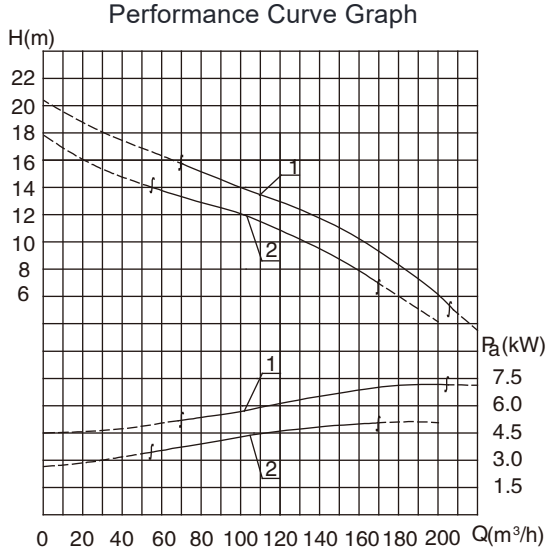
Flange Dimension



According to GB/T17241.6PN6 Standard Flange

100WQ/EC150–11–7.5　100WQ/EC130–10–5.5

Performance Curve Graph



Main Parameter

Outlet Diameter 100mm

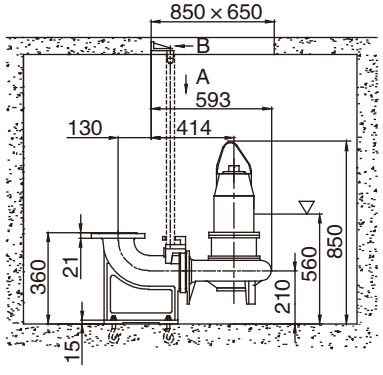
New Model	Original Model	Flow Channel Dimension (mm)	Rotation Speed (r/min)	Weight (kg)
100WQ/EC150–11–7.5	100WQ/EC478–7.5	Oval 72×64	1440	113
100WQ/EC130–10–5.5	100WQ/EC473–5.5	Oval 72×64	1440	101

Rated Motor Power (kW)	Rated Current (A)	Motor Power Factor cos φ	Motor Efficiency(%)	Rated Torque Block Torque /
7.5	15.4	0.85	87	2.2
5.5	11.6	0.84	85.5	2.2

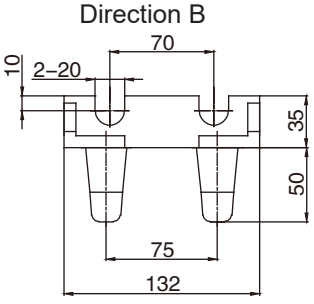
Flow–Head	Small Flow Point	Middle Flow Point	Huge Flow Point
m³/h—m	70–16	150–11	200–6
	55–14	130–10	170–7

Installation Dimension Diagram

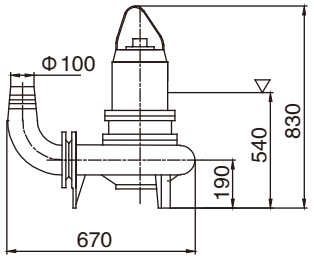
Z Automatic Coupling Installation



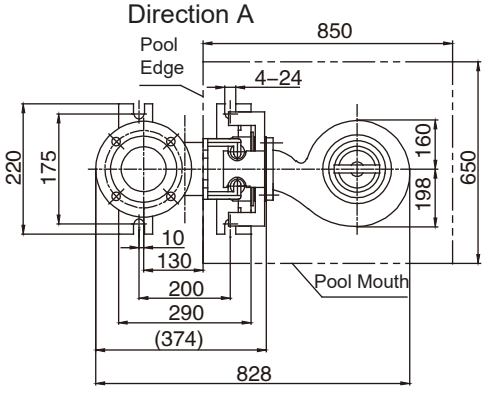
Direction B



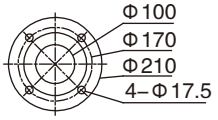
R Hose Mobile Installation



Direction A



Flange Dimension



According to GB/T17241.6PN6 Standard Flange

Y Hard Pipe Mobile Installation