

# Content

summary .....	02
application .....	02
operating condition.....	02
structure .....	03
pump model .....	06
pump curves and parameter .....	07
installation version.....	08
pump main parts and its material.....	09
rotation .....	10
cable core marks.....	10
purchasing instruction.....	10
scope of supply.....	10
curves.....	12
new VS old model comparision .....	13
matched control panel selection.....	14
all WQE curves,parameter and installation diameter.....	17

## summary

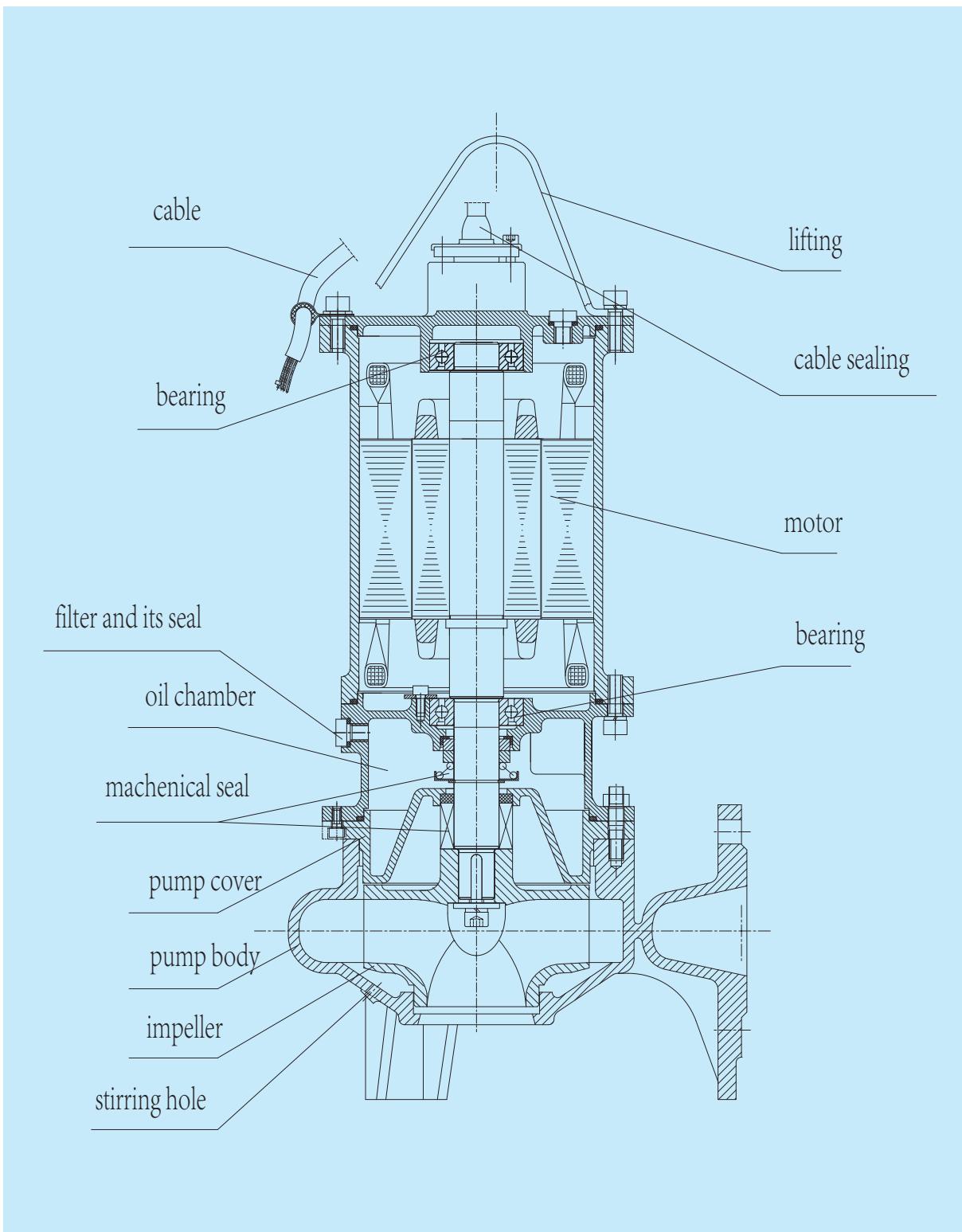
the number sized motor is 7.5KW and below WQE submersible pump is newly launched , Absorbing the advantages of similar products at home and abroad, kaiquan company products in the market over the years of experience in the use of hydraulic model, mechanical structure and sealing aspects of a comprehensive optimization design, and solid and anti-winding performance, high efficiency and energy saving, strong reliability;Simpler structure, easier disassembly, maintenance, more economical and practical;Various installation methods, simplified pump station, and cost saving.

## application

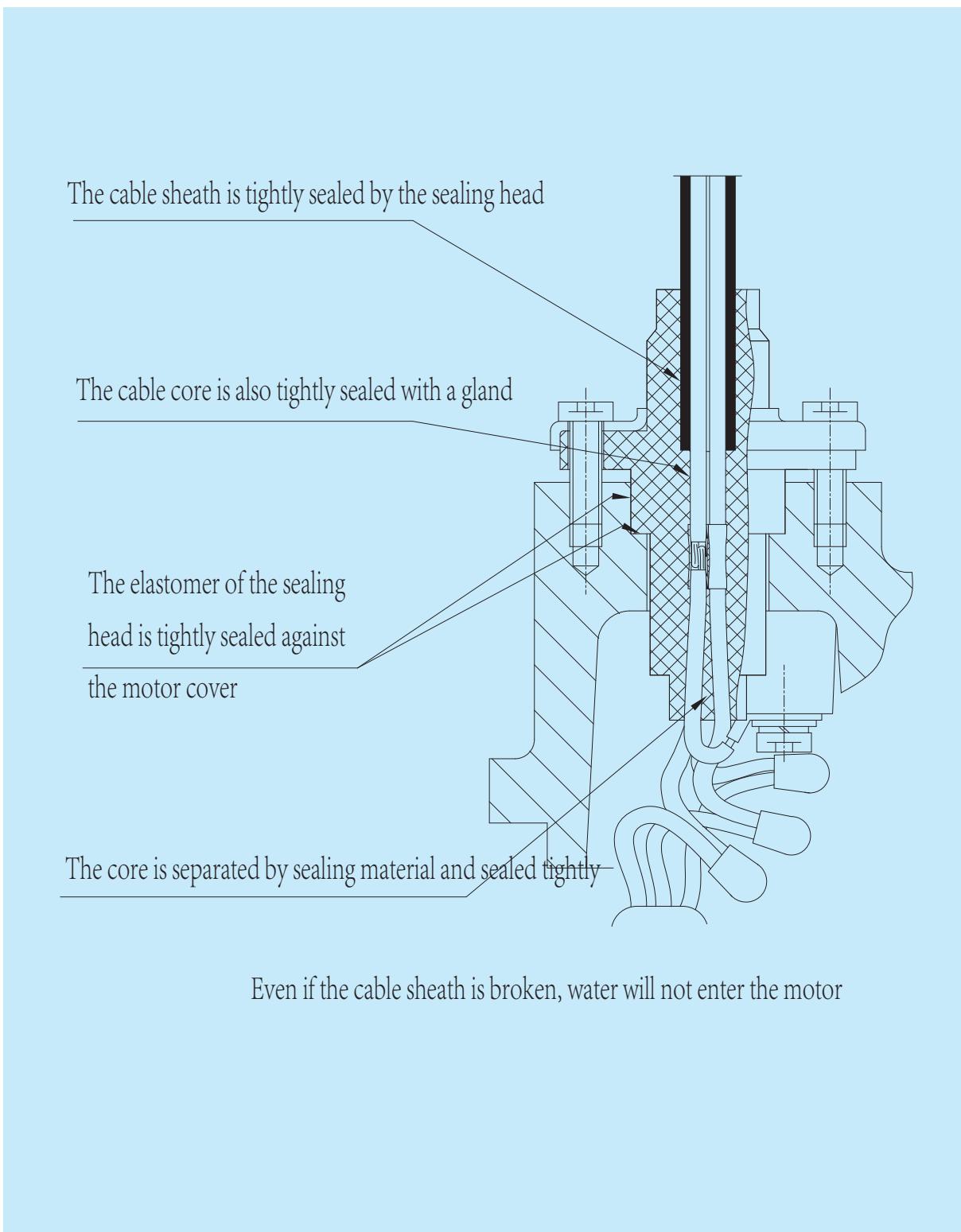
WQ/E small submersible pump is suitable for the following applications:raw water supply, irrigation system, ground water lowing, fountain application and mining dewatering.

## operating condition

- 1、380V, 3 phase, 50hz
- 2、ambient temperature less than **40°C**, PH: 4-10、medium desity $\leqslant$ 1050kg/m<sup>2</sup>。
- 3、lowest installation water level mark as  $\nabla$ 。
- 4、Cannot be used in highly corrosive and abrasive media containing solid particles
- 5、Clean, thin, non-aggressive liquids without solid particles or fibres which is smaller than 80% of the pass through tunnel.

**structure****structure :**

### Cable seal head and cable seal completely :



Benefits of WQ/E small submersible pump :

### 1、 Selected pump body and impeller

CAD technology is used to modify the design repeatedly, so that the pump body and impeller can get the best match, the fiber, debris is easy to pass, not winding plug.Balance analysis is done in the impeller to ensure the small vibration and smooth operation.

### 2、 reliable motor

The submersible motor is designed and manufactured with IP68 protection class and F class insulation stator winding. The motor is more durable due to good cooling effect of submersible operation and low actual temperature rise of winding.

Heat releasing is through the motor case, as long as the medium submerged half of the height of the motor stator, operation is reliable and safe, submerged more the better to the cooling of the motor

Cable for the sewage heavy resistance rubber set soft cable, chosen cable core section is according to 40 °C ambient temperature continuous full load operation which is very reliable.The cable rewinded on the handle to avoid damage during transportation, installation and use.

### 3、 The motor has a tight seal and the inspection is done strictly.

#### 1 ) sealing of the shaft

Two independent single end mechanical seals are arranged on the pump side and the motor side respectively, forming two shaft seals. The leakage is only less than one-tenth of the double end mechanical seals.Lubricating oil in the oil chamber lubricates and cools the friction pairs of the two mechanical seals.The pump side mechanical seal of contact medium adopts silicon carbide/silicon carbide "hard to hard" friction pair, with high hardness and low friction coefficient, not easy to wear and failure;The mechanical seal on the motor side soaked in oil as a whole is made of graphite/silicon carbide "soft to hard" friction pair, with low friction coefficient and easy "run-in", making the seal reliable.Small gap between impeller and pump cover can avoid impurities into the shaft seal cavity, while maintaining good working conditions of mechanical seal.The rubber parts of the mechanical seal are made of butadiene nitrile rubber with excellent oil resistance, and the springs and other structural parts are made of stainless steel.

#### 2 ) sealing between parts

The o-ring is used as a reliable static seal for the connection.

#### 4 ) leak inspection

Parts are qualified by the pressure test before assembly to ensure the sealing of the motor.

#### 4、Reliable bearing configuration

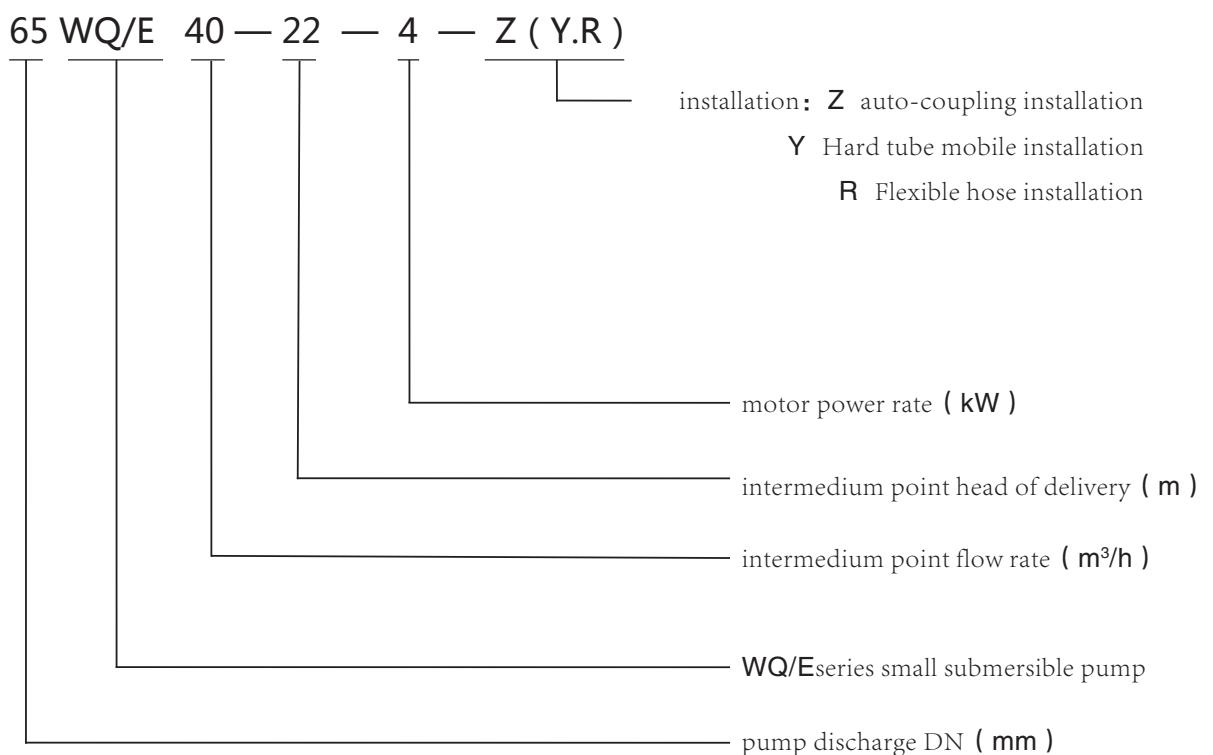
Deep groove ball bearings of famous brand and high quality are selected to ensure the reliable operation of products with sufficient load margin.

#### 5、Jet mixing function

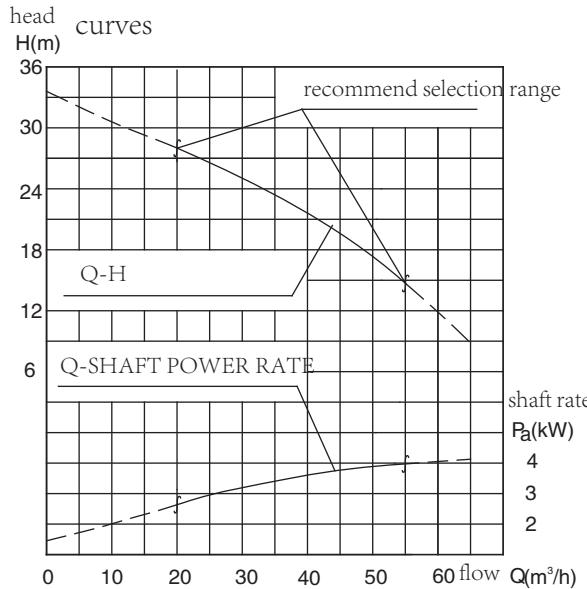
Innovation is to have a Injection stir holes on the pump body, when the pump is running, the pressure inside the pump water jet hole running with a high-speed jet to form strong agitation, the larger range of impurities is suspended by pump suction, hence it does not result in a wide range precipitation, better than mechanical agitation on pump suction entrance point.

### pump model

example :



## installation version



parameter

new model	original model	channel size (mm)	rotation speed (r/min)	pump weight (kg)
65WQ/E40-22-4	65WQ/E248-4	oval 33×40	2890	44
motor rated power (kW)	rated current (A)	motor power rate $\cos \phi$	motor E (%)	locked rotor torque/rated torque
4	8.2	0.87	85.5	2.2

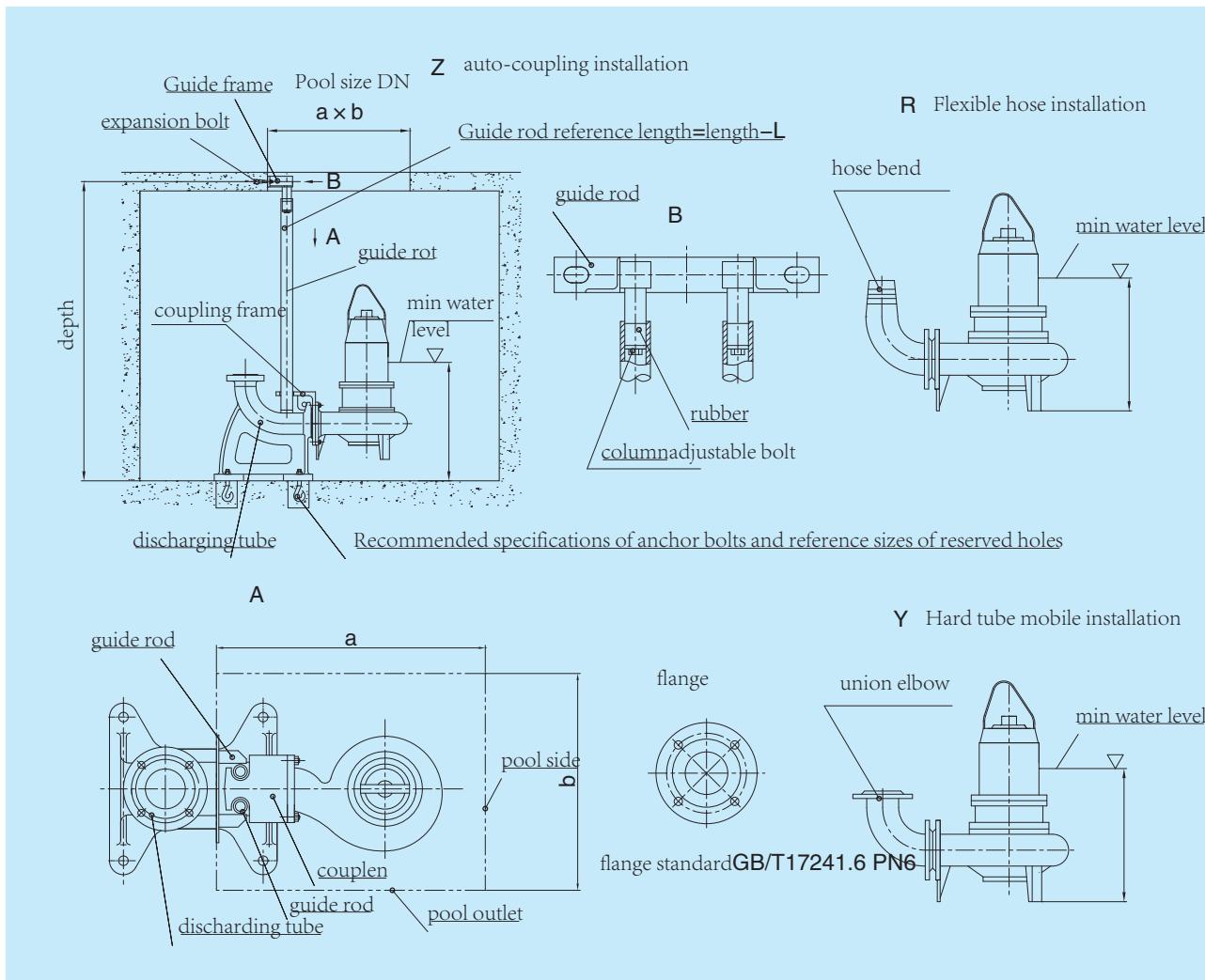
The solid line part of the curve indicates the recommended service range of the pump. The user should carefully calculate the required flow head when selecting the type, so that the selected pump can work within the recommended range.

The diameter of solid in the medium should not be larger than the minimum size of the flow channel, which is recommended to be less than 80% of the minimum size of the flow channel. For example, for the 65WQ/ e40-22-4 pump shown, the diameter of the solid should not be greater than 33 0.8 26 mm.

Pump weight does not include all kinds of installation accessories, such as coupling device, elbow, hose elbow, etc.

## installation version

WQ/E pump has automatic coupling type installation (Z), hose mobile installation (R) and hard pipe mobile installation (Y) three installation methods. Hose-mounted and hard-mounted removable tubes are simple and require no elaboration. The following is an introduction to automatic coupling installation:



Automatic coupling installations do not require conventional fasteners to connect the pump to the pipe. Coupling device only outlet pipe seat, guide rod, guide rod frame, coupling frame these four things. Guide rod only plays a guiding role, not force, with ordinary tap water pipe or steel pipe according to the depth of the pool cut into the required length is ok, so users can prepare. When installation, the outlet pipe seat, guide rod, guide rod frame installed, the coupling frame installed on the pump body, the pump, the coupling frame of the semicircle hole through the guide rod, the pump along the guide rod to the bottom, the coupling frame and the outlet pipe seat alignment buckle. When you need to repair the pump, just put the pump up, the pump and the outlet pipe seat off. This installation method is very convenient for pump maintenance.

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

## Automatic coupling installation related dimensions hose movement installation matching hose dimensions

Units: all except inches **mm**

item\discharge DN	40	50	65		80	100	150	200		
guide rod	1" Tap water pipe /32 3.5 seamless steel pipe					2" /60 × 5				
guide rod length	pool depth -300	pool depth -305	pool depth -425	pool depth -410	pool depth -435	pool depth -540				
Quantity and specification of anchor bolts	4-M16 × 220			4-M20 × 300			4-M24 × 300			
Quantity and specification of expansion bolts	2-M16 × 150									
Size of reserved hole for anchor bolt	80 × 80 × 270				100 × 100 × 350					
Specification for hose bend joints to be used	40-6	50-6	50 × 65-6	65-6	80-6	100-6	150-6	无		
The inner diameter of the hose shall be used for hose movement and installation	64	64	76	76	89	102	152	无		

### pump main parts and its material

parts	pump body,\ impeller、 pump case	motor case	shaft	machanical seal material			
				Motor side friction pair	Pump side friction pair	Springs and structural parts	rubber parts
material	HT200	HT200	2Cr13	Graphite/silicon carbide	Silicon carbide/silicon carbide	stainless steel	nitrile rubber

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

## rotation

see from the pump suction inlet, the impeller for counterclockwise rotation.

## cable core marks

Light blue (U), black (V) and brown (W) are three-phase power lines. The yellow/green wire is the ground wire.

## scope of supply

**1** Please indicate the product name, model, installation form, optional parts, spare parts, etc.

Type selection should take into account the influence of medium weight on power, warmly welcome users to the company's technical department for technical advice.

**2** The standard length of motor cable is 8m. If other length is needed, please note it on the order form.

**3** Complete sets of supplies are supplied in accordance with the installation mode selected by users. Optional parts and spare parts shall be separately ordered by the user.

**4.** Because of the simple design of the coupling device, the guide rod only needs to use ordinary water pipe or steel pipe. We have provided the specification and length calculation method of tap water pipe or steel pipe used as guide rod in the front, users only need to purchase tap water pipe or steel pipe by themselves and cut it into the required length to use, so guide rod is not used as a complete set of supply parts for coupling installation. When the user needs the guide rod provided by our company, he must order and write in the order.

## scope of supply

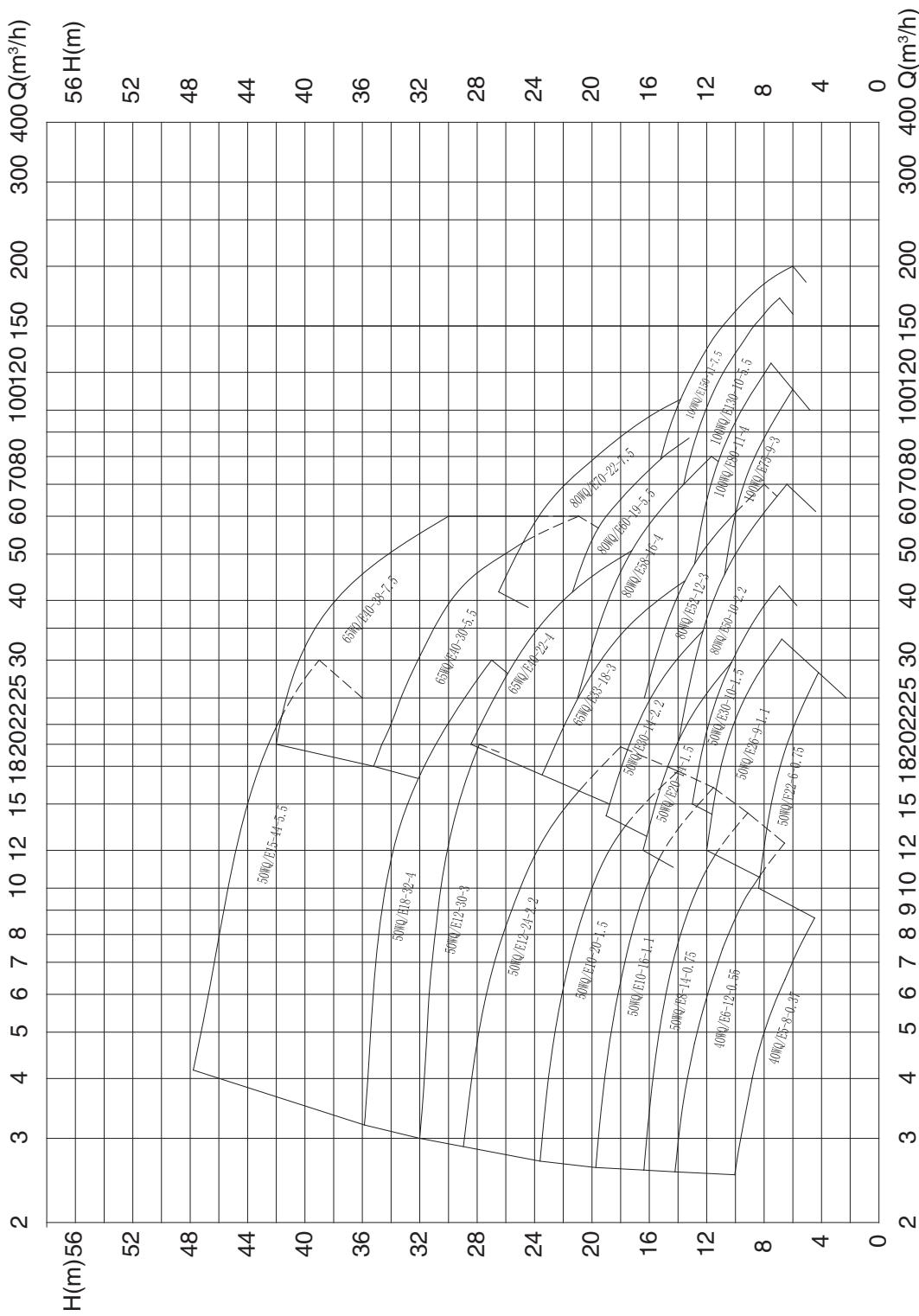
installation method	Package of supplies	optional pick		parts
Portable hose installation	Main pump, hose elbow (one for each pump)	soft pipe	Electronic control device, terminal box, gate (butterfly) valve, check valve, steel wire rope and rope clip or chain rope for hanging pump, sewage gate (customized), hoist (customized), rectangular gate (customized)	impeller bearing machanical seal O ring Impeller fasteners
Remove the hard tube mounting	Main pump, elbow joint (one for each pump)			
Automatic coupling installation	Main pump, automatic coupling device (one set for each pump)	guide rod foundation bolt expansion bolt		

## parts model:

	0.37、0.55	0.75、1.1	1.5、2.2	3	4	5.5、7.5
rotation	2P	2P	2P	4P	2P	2P
cable core	YVC4 × 1			YVC4 × 1.5		
upper bearing	6202-2Z	6203-2Z	6205-2Z	6206-2Z	6206-2Z	6306-2Z/C3
down bearing	6203-2Z	6204-2Z	6205-2Z	6206-2Z	6206-2Z	3307-2Z/C3
pump side mechanical seal	FU1/16-G60 Q1Q1PGG	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	FD-35-G60 AQ1PGG	
O ring	1-112×3.55 1-122×3.55 1-10×2.65	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
	O RING material is oil resistant					
impeller fasten parts	nut M8 spring washer 8 flat washer 8	M10 × 1.25 spring washer 10 impeller plate WQB07-01A	bolt M8 × 25 spring washer 8 impeller plate WQB07-10	nut M10 × 25 spring washer 10 impeller plate WQB07-16	bolt M10 × 30 spring washer 10 impeller plate WQB07-02B	

The nuts, screws and spring washers are made of stainless steel and the impeller pressing plate is made of Q235

# curves



## WQ/E new VS old model parameter

serial no	new model	old model	diameter	flow rate	head	rotation speed	matched power rate	max pass through partical	weight
			mm	m <sup>3</sup> /h	m	r/min	kw	mm	kg
1	40WQ/E5-8-0.37	40WQ/E264-0.37	40	5	8	2825	0.37	15	18
2	40WQ/E6-12-0.55	40WQ/E265-0.55	40	6	12	2825	0.55	15	20
3	50WQ/E8-14-0.75	50WQ/E256-0.75	50	8	14	2825	0.75	15	22
4	50WQ/E10-16-1.1	50WQ/E257-1.1	50	10	16	2825	1.1	15	23
5	50WQ/E22-6-0.75	50WQ/E240-0.75	50	22	6	2825	0.75	21	22
6	50WQ/E26-9-1.1	50WQ/E249-1.1	50	26	9	2825	1.1	21	23
7	50WQ/E10-20-1.5	50WQ/E258-1.5	50	10	20	2840	1.5	14	26
8	50WQ/E12-24-2.2	50WQ/E259-2.2	50	12	24	2840	2.2	14	30
9	50WQ/E30-10-1.5	50WQ/E241-1.5	50	30	10	2840	1.5	25	29
10	50WQ/E20-14-1.5	50WQ/E242-1.5	50	20	14	2840	1.5	24	26
11	50WQ/E30-14-2.2	50WQ/E243-2.2	50	30	14	2840	2.2	28	32
12	50WQ/E12-30-3	50WQ/E254-3	50	12	30	2880	3	21	40
13	50WQ/E18-32-4	50WQ/E255-4	50	18	32	2890	4	21	42
14	50WQ/E15-44-5.5	50WQ/E262-5.5	50	15	44	2920	5.5	20	64.5
15	65WQ/E33-18-3	65WQ/E251-3	65	33	18	2880	3	26	42
16	65WQ/E40-22-4	65WQ/E248-4	65	40	22	2890	4	26	44
17	65WQ/E40-30-5.5	65WQ/E245-5.5	65	40	30	2920	5.5	26	63
18	65WQ/E40-38-7.5	65WQ/E250-7.5	65	40	38	2920	7.5	26	73
19	80WQ/E50-10-2.2	80WQ/E244-2.2	80	50	10	2840	2.2	28	35
20	80WQ/E52-12-3	80WQ/E261-3	80	52	12	2880	3	32	44
21	80WQ/E58-16-4	80WQ/E260-4	80	58	16	2890	4	32	45
22	80WQ/E60-19-5.5	80WQ/E252-5.5	80	60	19	2920	5.5	31	64.5
23	80WQ/E70-22-7.5	80WQ/E246-7.5	80	70	22	2920	7.5	31	73
24	100WQ/E75-9-3	100WQ/E477-3	100	75	9	1420	3	48	61
25	100WQ/E80-11-4	100WQ/E472-4	100	80	11	1440	4	48	65
26	100WQ/E130-10-5.5	100WQ/E473-5.5	100	130	10	1440	5.5	51	101
27	100WQ/E150-11-7.5	100WQ/E478-7.5	100	150	11	1440	7.5	51	113

## matched cabinet product

### 1.control panel summary

The kqk-e type control cabinet of this series of submersible sewage pump is an economical, safe and reliable automatic control system with simple maintenance.The control cabinet is equipped with low voltage electrical appliances and liquid level sensors of famous brands at home and abroad, with protection functions such as short circuit, missing phase and overload.The control cabinet can be controlled by common relay or panel controller, and equipped with float level switch, water level electrode and other level sensors. Under the unattended condition, the water pump can be started and stopped automatically according to the level.In addition to the single control products, all the products with the control of the main and standby pumps have the function of self-closing the faulty pump and automatic input of the standby pump.Two and three pump control cabinet can achieve automatic alternating or cycle operation, to achieve the running time of each pump is equal.

General configuration of the control cabinet components are mainly tianzheng, zhengtai, delixi and other well-known domestic brands;The high-end control cabinet components mainly include schneider, Siemens, ABB and other internationally renowned brands.For the control cabinet with one and two controls, if the panel controller scheme is adopted, the size of the cabinet is 400 300 200 (height width thickness).

### 2.Control cabinet model name method

KQK / T - 2 Ac E - 3 - 001

Other auxiliary functions: interface reservation, etc

Motor power: 3kW

Control features: e-submersible pump (no protective signal line)

Main and standby pump operation mode: Ac- automatic alternation or circulation

As-Timing alternation or cycle

H-Manually select the main and standby pumps

Control the number of pumps: two

Main components: T- general - G- top - grade

Kaiquan electric control cabinet code

### 3. Matching control cabinet model selection

**table 1 :**

Supporting WQ/E pump (one control one)				
serial no.	power rate (kW)	Model of control cabinet		cabinet size (height × width h × thickness)
		cost saving configuration	high-end configuration	
1	0.37	KQK/T-1E-0.37	KQK/G-1E-0.37	400 × 300 × 200
2	0.55	KQK/T-1E-0.55	KQK/G-1E-0.55	400 × 300 × 200
3	0.75	KQK/T-1E-0.75	KQK/G-1E-0.75	400 × 300 × 200
4	1.1	KQK/T-1E-1.1	KQK/G-1E-1.1	400 × 300 × 200
5	1.5	KQK/T-1E-1.5	KQK/G-1E-1.5	400 × 300 × 200
6	2.2	KQK/T-1E-2.2	KQK/G-1E-2.2	400 × 300 × 200
7	3	KQK/T-1E-3	KQK/G-1E-3	400 × 300 × 200
8	4	KQK/T-1E-4	KQK/G-1E-4	400 × 300 × 200
9	5.5	KQK/T-1E-5.5	KQK/G-1E-5.5	400 × 300 × 200
10	7.5	KQK/T-1E-7.5	KQK/G-1E-7.5	400 × 300 × 200

**table 2 :**

Supporting WQ/E pump (one control one)				
serial no.	power rate (kW)	power rate		cabinet size (height × width h × thickness)
		cost saving configuration	high-end configuration	
1	0.37	KQK/T-2AcE-0.37	KQK/G-2AcE-0.37	500 × 400 × 200
2	0.55	KQK/T-2AcE-0.55	KQK/G-2AcE-0.55	500 × 400 × 200
3	0.75	KQK/T-2AcE-0.75	KQK/G-2AcE-0.75	500 × 400 × 200
4	1.1	KQK/T-2AcE-1.1	KQK/G-2AcE-1.1	500 × 400 × 200
5	1.5	KQK/T-2AcE-1.5	KQK/G-2AcE-1.5	500 × 400 × 200
6	2.2	KQK/T-2AcE-2.2	KQK/G-2AcE-2.2	500 × 400 × 200
7	3	KQK/T-2AcE-3	KQK/G-2AcE-3	500 × 400 × 200
8	4	KQK/T-2AcE-4	KQK/G-2AcE-4	500 × 400 × 200
9	5.5	KQK/T-2AcE-5.5	KQK/G-2AcE-5.5	500 × 400 × 200
10	7.5	KQK/T-2AcE-7.5	KQK/G-2AcE-7.5	500 × 400 × 200

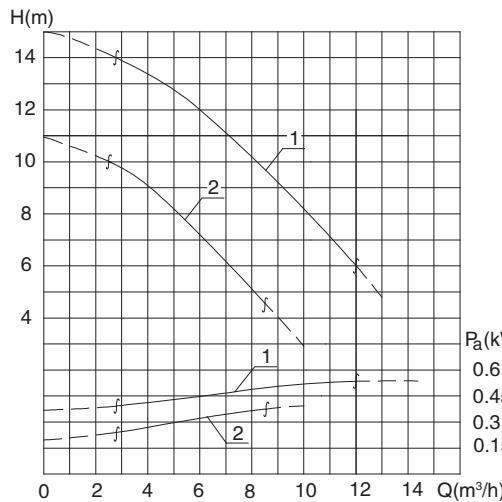
**table 3 :**

Supporting WQ/E pump (one control one)				
serial no.	power rate (kW)	power rate		cabinet size (height × width × thickness)
		cost saving configuration	high-end configuration	
1	0.37	KQK/T-3AcE-0.37	KQK/G-3AcE-0.37	700 × 500 × 200
2	0.55	KQK/T-3AcE-0.55	KQK/G-3AcE-0.55	700 × 500 × 200
3	0.75	KQK/T-3AcE-0.75	KQK/G-3AcE-0.75	700 × 500 × 200
4	1.1	KQK/T-3AcE-1.1	KQK/G-3AcE-1.1	700 × 500 × 200
5	1.5	KQK/T-3AcE-1.5	KQK/G-3AcE-1.5	700 × 500 × 200
6	2.2	KQK/T-3AcE-2.2	KQK/G-3AcE-2.2	700 × 500 × 200
7	3	KQK/T-3AcE-3	KQK/G-3AcE-3	700 × 500 × 200
8	4	KQK/T-3AcE-4	KQK/G-3AcE-4	700 × 500 × 200
9	5.5	KQK/T-3AcE-5.5	KQK/G-3AcE-5.5	700 × 500 × 200
10	7.5	KQK/T-3AcE-7.5	KQK/G-3AcE-7.5	700 × 500 × 200

## pump curves, parameter and installation

40WQ/E6-12-0.55 40WQ/E5-8-0.37

curves



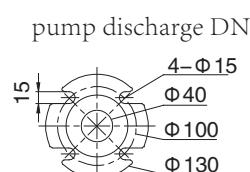
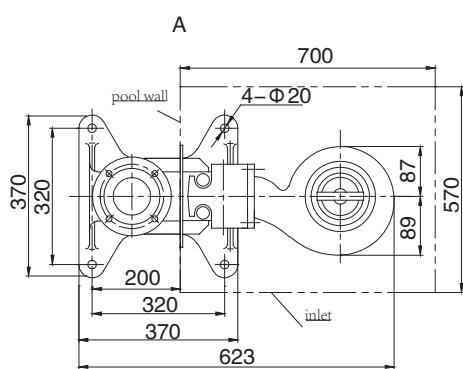
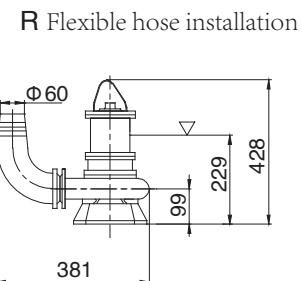
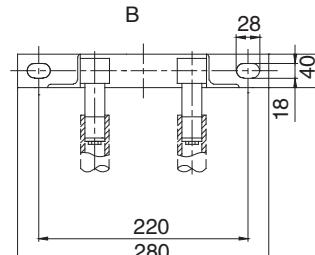
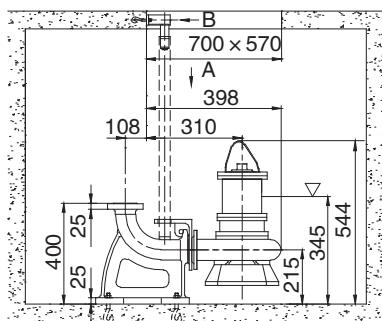
parameter

dischargeDN 40mm

SERIAL NO	new model	old model	pass through channel (mm)	rotation (r/min)	weight (kg)
1	40WQ/E6-12-0.55	40WQ/E265-0.55	oval 19×29	2825	20
2	40WQ/E5-8-0.37	40WQ/E264-0.37	oval 19×29	2825	18
serial no	motor rated power (kW)	rated current (A)	motor power cos φ	motor efficiency (%)	locked motor torque/
1	0.55	1.4	0.84	73	2.2
2	0.37	1	0.82	70	2.2
	Q-H	small flow rate	intermedium	big flow rate	
1	m³/h-m	2.8-14	6-12	12-6	
2		2.5-10	5-8	8.5-4.5	

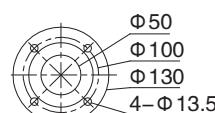
installation chart

Z auto-coupling



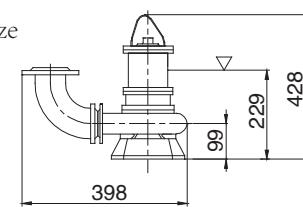
flange is GB/T17241.6 PN6 standard

Outlet pipe seat, elbow flange size



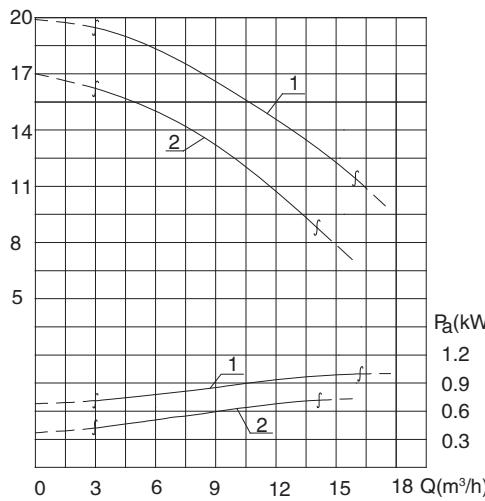
flange GB/T17241.6 PN6 standard

Y Hard tube mobile installation



## 50WQ/E10-16-1.1 50WQ/E8-14-0.75

curvesH(m)



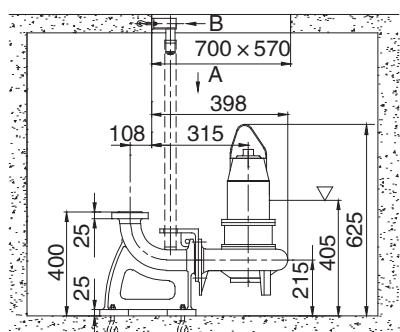
main parameter

dischargeDN 50mm

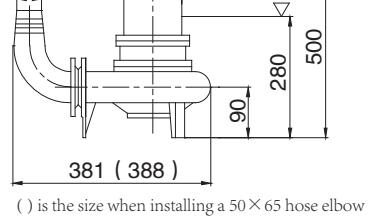
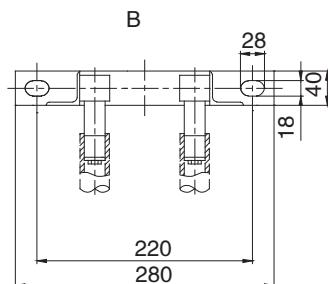
serial no	new model	old model	chanell size (mm)	rotation (r/min)	weight (kg)
1	50WQ/E10-16-1.1	50WQ/E257-1.1	oval 19×24	2825	23
2	50WQ/E8-14-0.75	50WQ/E256-0.75	oval 19×24	2825	22
serial no	motor rated power(kW)	rated current (A)	motor power cos φ	motor efficiency (%)	torque/rated torque
1	1.1	2.5	0.86	77	2.2
2	0.75	1.8	0.84	75	2.2
	Q-H	small flow rate	intermedium	large flow rate	
1	m³/h—m	3-19.5	10-16	16-11.5	
2		3-16	8-14	14-9	

installation chart

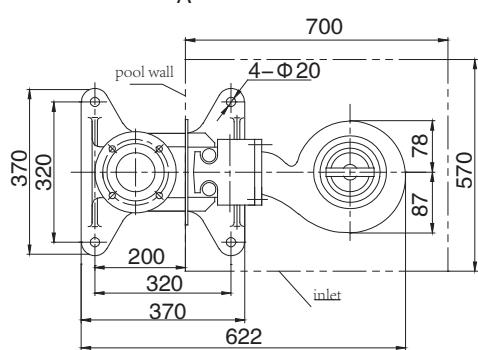
Z auto coupling installation



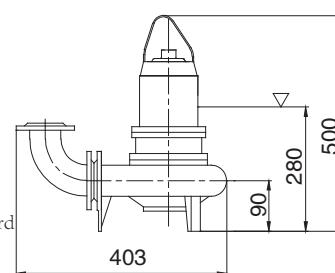
R soft pipemobile installation



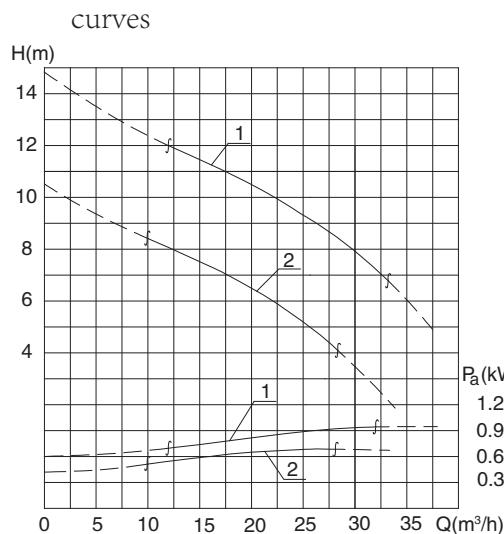
A



Y Hard tube mobile installation



50WQ/E26-9-1.1 50WQ/E22-6-0.75



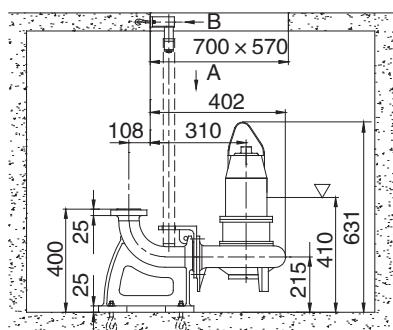
main parameter

discharge DN **50mm**

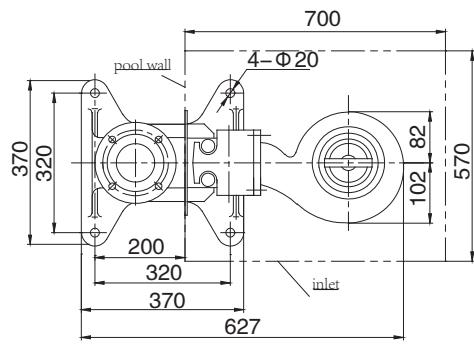
serial no	new model	old model	channel size (mm)	rotation (r/min)	weight (kg)
1	50WQ/E26-9-1.1	50WQ/E249-1.1	oval $36 \times 27$	2825	23
2	50WQ/E22-6-0.75	50WQ/E240-0.75	oval $36 \times 27$	2825	22
serial no	motor rated power (kW)	rated current (A)	motor rated $\cos \phi$	motor efficiency (%)	torque/rated torque
1	1.1	2.5	0.86	77	2.2
2	0.75	1.8	0.83	75	2.2
	Q-H	small flow rate	medium	large flow rate	
1	$m^3/h-m$	12-12	26-9	33-6.8	
2		10-8.4	22-6	28-4.1	

## installation chart

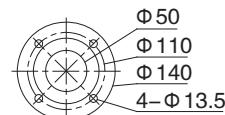
## Z auto-coupling installation



A 向

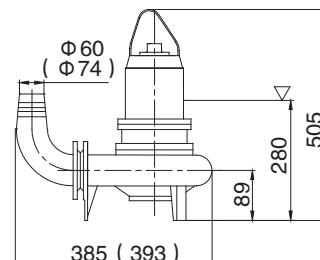


flange size



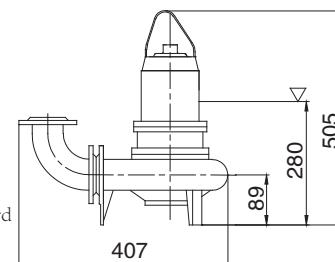
flange is GB/T17241.6 PN6 standard

## R soft tube mobile installation



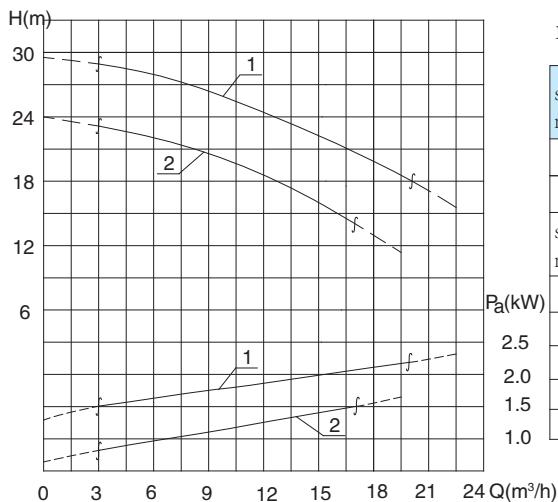
( ) is the size when installing a 50×65 hose elbow

## Y hard tube mobile installatin



50WQ/E12-24-2.2 50WQ/E10-20-1.5

curves



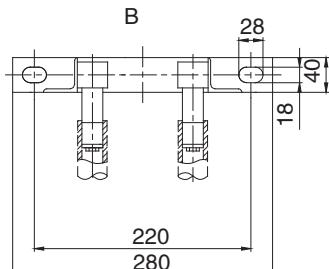
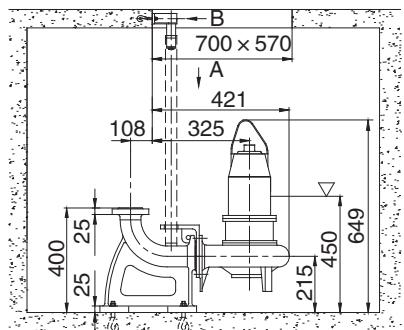
main parametre

dischargeDN 50mm

serial no	new model	old model	channel (mm)	rotation (r/min)	weight (kg)
1	50WQ/E12-24-2.2	50WQ/E259-2.2	oval 18 x 21	2840	30
2	50WQ/E10-20-1.5	50WQ/E258-1.5	oval 18 x 21	2840	26
serial no	motor rated power(kW)	rated current (A)	motor efficiency	encoder efficiency	torque/rated torque
1	2.2	4.7	0.86	82	2.2
2	1.5	3.4	0.85	78	2.2
	Q-H	small flow rate	medium	big flow rate	
1	$m^3/h-m$	3-29	12-24	20-18	
2		3-23	10-20	17-14	

## installation chart

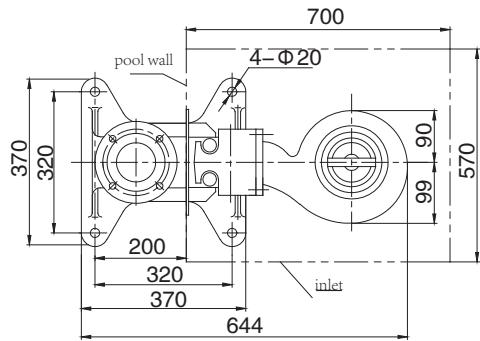
Z auto-coupling



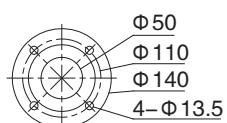
#### R soft tube mobile installation

( ) is the size when installing a  $50 \times 65$  hose elbow

A 向

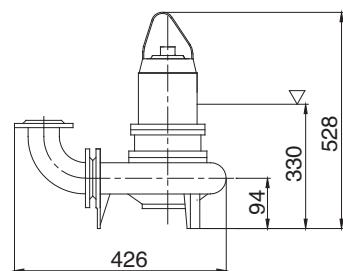


flange DN



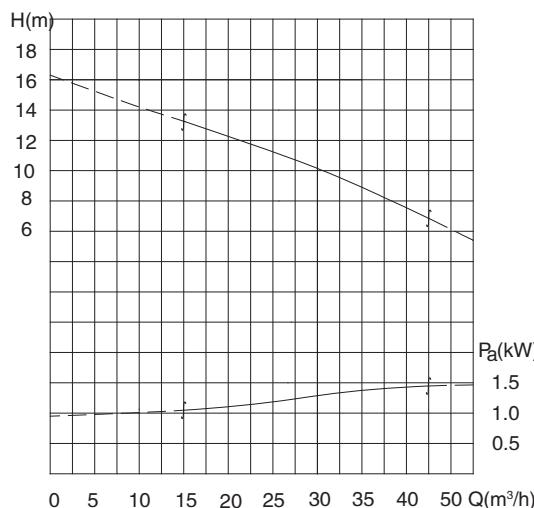
flange is GB/T17241.6 PN6 standard

#### Y hard tube mobile installation



## 50WQ/E30-10-1.5

curves



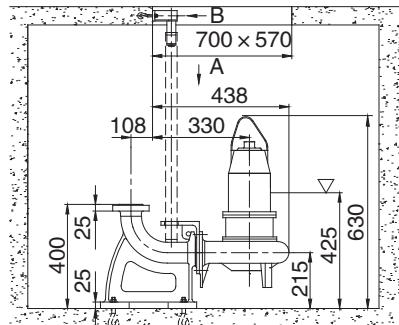
main parameter

discharge DN **50mm**

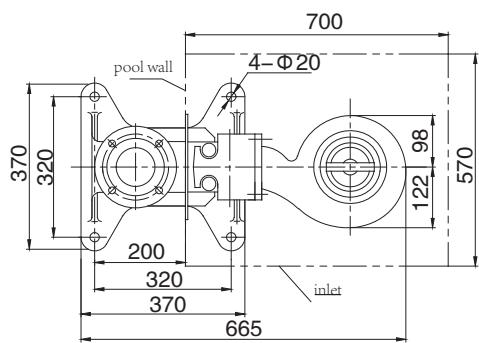
new model	old model	channel (mm)	rotation (r/min)	weight (kg)
50WQ/E30-10-1.5	50WQ/E241-1.5	oval 43×32	2840	29
motor rated power(kW)	rated current (A)	motor efficiency	motor efficiency (%)	torque/rated torque
1.5	3.4	0.85	78	2.2
Q-H	small flow rate	medium	large demium	
m³/h-m	15-13.2	30-10	42.5-7	

installation chart

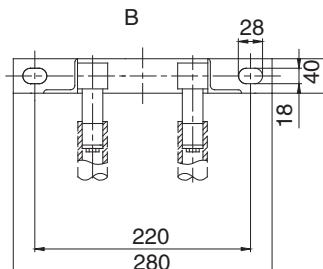
Z auto-coupling installation



A

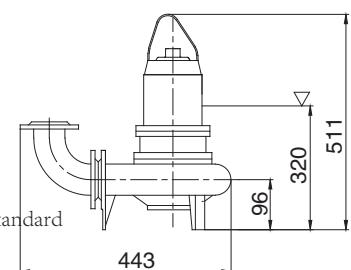
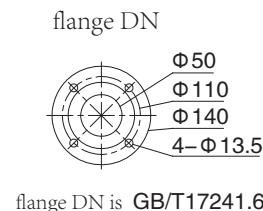


R soft installation



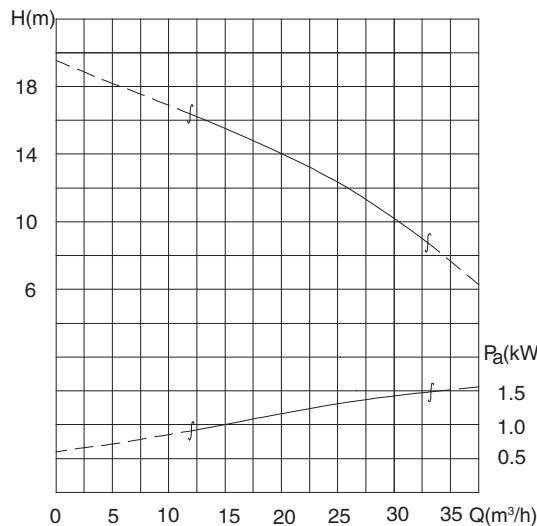
( ) is the size when installing a 50×65 hose elbow

Y hard tube mobile installation



## 50WQ/E20-14-1.5

curves



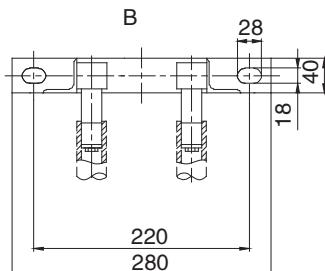
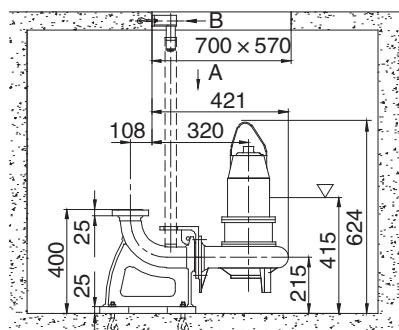
### main parameter

discharge DN 50mm

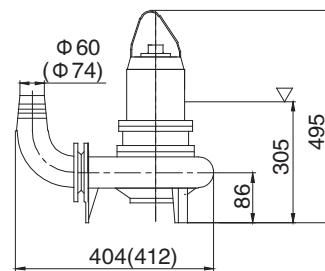
new model	old model	channel (mm)	rotation (r/min)	weight (kg)
50WQ/E20-14-1.5	50WQ/E242-1.5	oval 31×39	2840	26
motor rated power(kW)	rated current (A)	motor E $\cos \phi$	motor e (%)	torque/rated torque
1.5	3.4	0.85	78	2.2
Q-H	small flow rate	medium	large flow rate	
$m^3/h-m$	12-16	20-14	33-8.6	

### installation chart

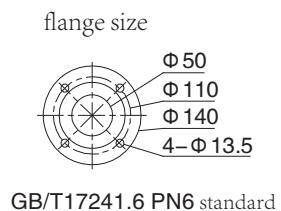
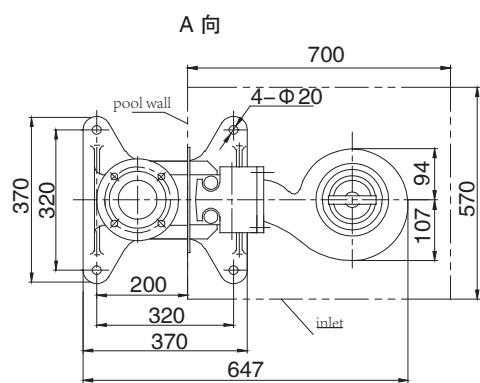
Z auto-coupling



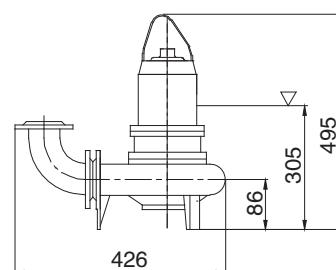
R soft tube mobile installation



( ) is the size when installing 50×65 elbow

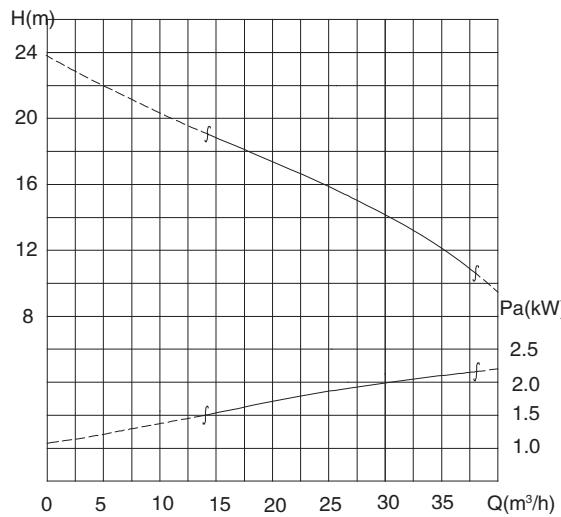


Y hard tube mibile installation



## 50WQ/E30-14-2.2

curves



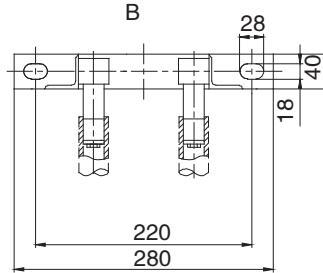
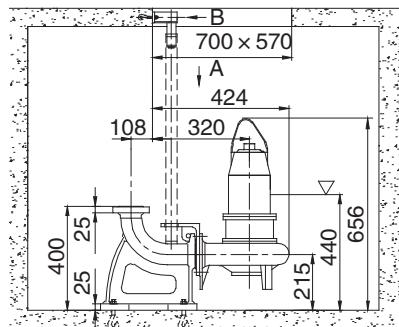
parameter

discharge DN 50mm

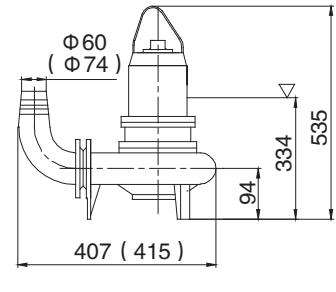
new model	old model	channel size (mm)	rotation (r/min)	weight (kg)
50WQ/E30-14-2.2	50WQ/E243-2.2	ovl 36×38	2840	32
motor rated power(kW)	rated current (A)	motor rated cos φ	motor E (%)	torque/rated torque
2.2	4.7	0.86	82	2.2
Q-H	small flow rate	medium	large	
m³/h-m	14-19	30-14	38-10.6	

installation chart

Z auto-coupling installation

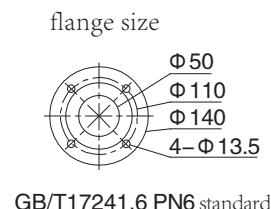
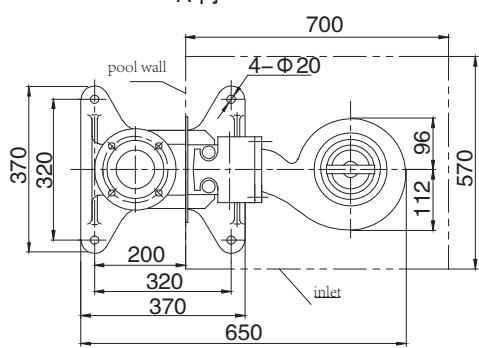


R soft tube mobile installation

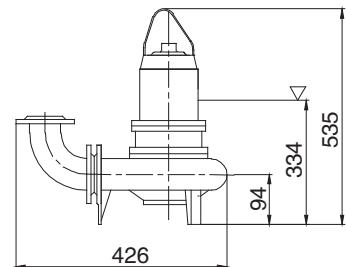


( ) is the size when installing a 50 × 65 elbow

A 向

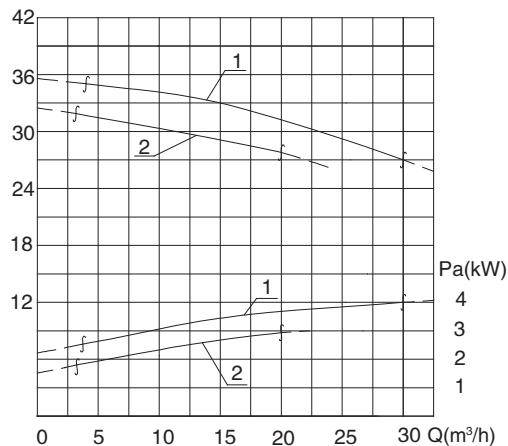


Y hard tube installation



## 50WQ/E18-32-4 50WQ/E12-30-3

curves H(m)



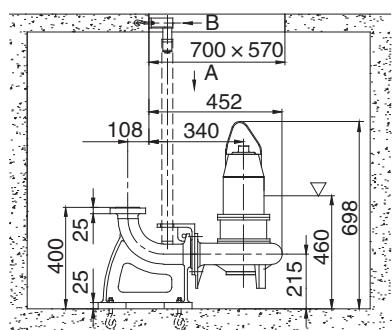
parameter

discharge DN 50mm

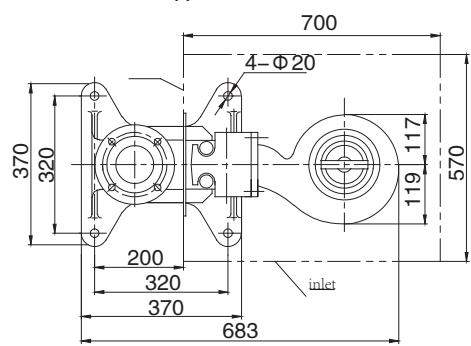
serial no	new model	old model	channel size (mm)	rotation (r/min)	weight (kg)
1 50WQ/E18-32-4	50WQ/E255-4	oval 26.5 × 34	2890	42	
2 50WQ/E12-30-3	50WQ/E254-3	oval 26.5 × 34	2880	40	
serial motor rated no	rated current (A)	motor power cos φ	motor E (%)	torque/rated torque	
1 4	8.2	0.87	85.5	2.2	
2 3	6.4	0.87	82	2.2	
Q-H	small flow rate	medium	large		
1 m³/h—m	4-35	18-32	30-27		
2	4-32	12-30	20-28		

### installation

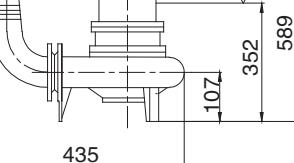
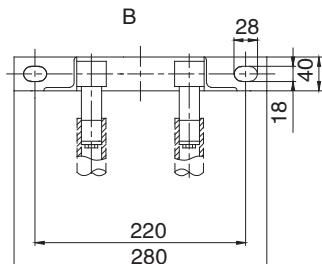
Z auto-coupling installation



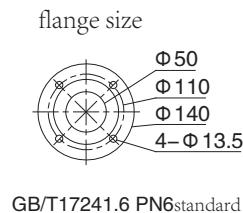
A



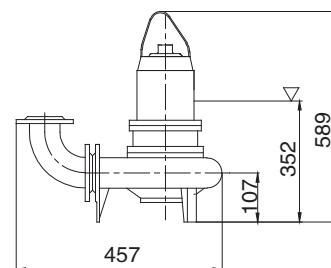
R soft tube installation



Y hard tube mobile installation

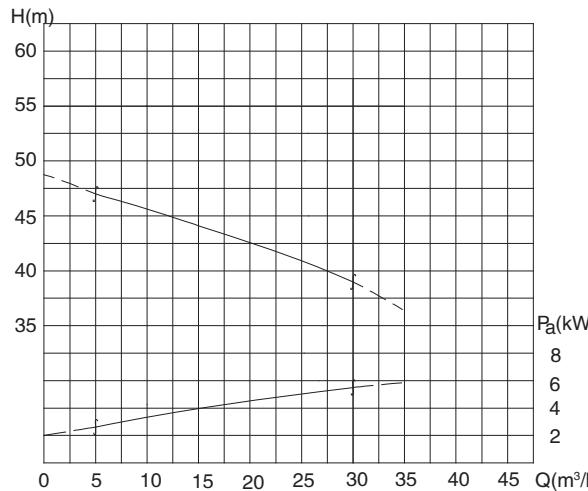


GB/T17241.6 PN6 standard



50WQ/E15-44-5.5

curves

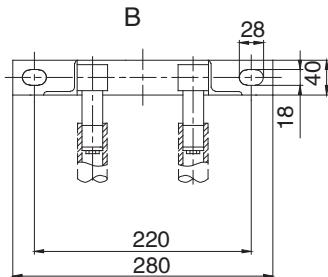
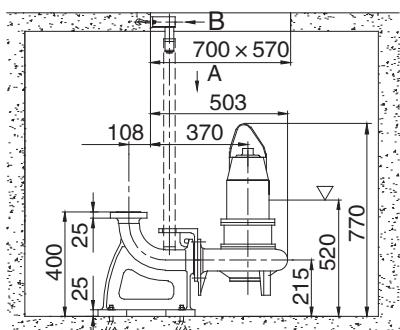


discharge DN 50mm

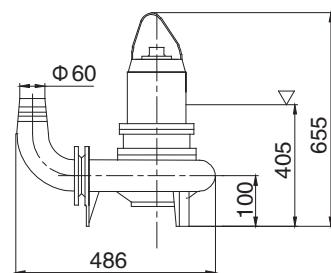
new model	old model	channel size (mm)	rotation (r/min)	weight (kg)
50WQ/E15-44-5.5	50WQ/E262-5.5	oval 26 x 39	2920	64.5
motor rated power (kW)	rated current (A)	motor power $\cos \phi$	motor E (%)	torque/rated torque
5.5	11.1	0.88	85.5	2.0
Q-H	small flow rate	medium	large flow rate	
m <sup>3</sup> /h—m	5—47	15—44	30—39	

## installation

## Z auto-coupling



#### R soft tube mobile installation



Technical drawing A provides dimensions for a pool edge structure. The overall width is 700 mm. The left side has a height of 370 mm and a vertical section height of 320 mm. The right side features a circular base with an outer diameter of 135 mm and an inner diameter of 130 mm. The bottom part has a total width of 739 mm, with segments of 370 mm, 320 mm, and 200 mm. Labels include "pool edge", "4-Φ20", and "池口".

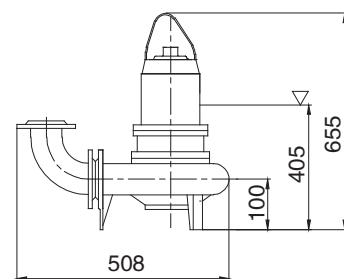
flange size

$\Phi 50$

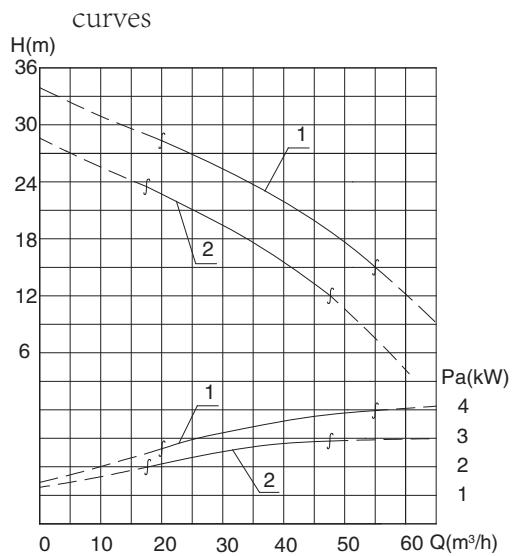
$\Phi 110$

$\Phi 140$

4- $\Phi 13.5$



## 65WQ/E40-22-4 65WQ/E33-18-3



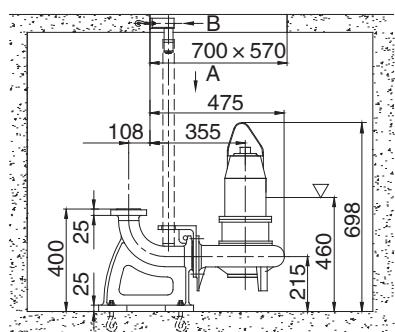
parameter

discharge DN 65mm

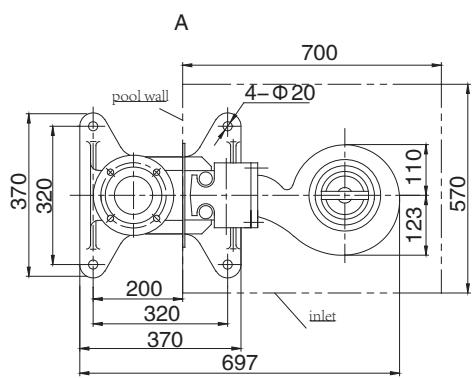
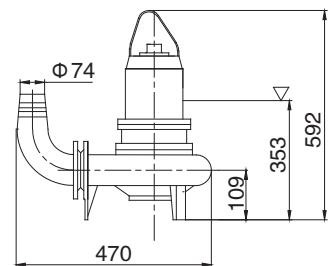
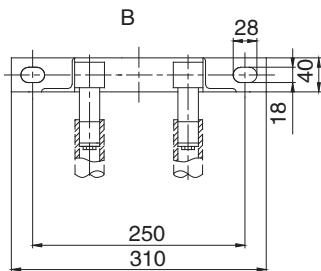
serial no	new model	old model	channel size (mm)	rotation (r/min)	weight (kg)
1	65WQ/E40-22-4	65WQ/E248-4	oval 33×40	2890	44
2	65WQ/E33-18-3	65WQ/E251-3	oval 33×40	2880	42
serial motor rated no	motor rated power (kW)	rated current (A)	motor power cos φ	motor E (%)	torque/rated torque
1	4	8.2	0.87	85.5	2.2
2	3	6.4	0.87	82	2.2
	Q-H	samll flow rate	medium	large flow rate	
1	m³/h—m	20-28.4	40-22	55-15	
2		17.5-23.5	33-18	47.5-12	

installation chart

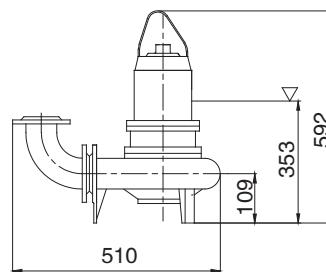
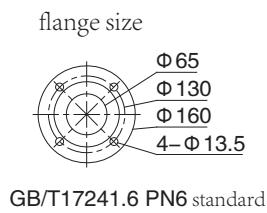
Z auto-coupling installation



R soft tube mobile installation

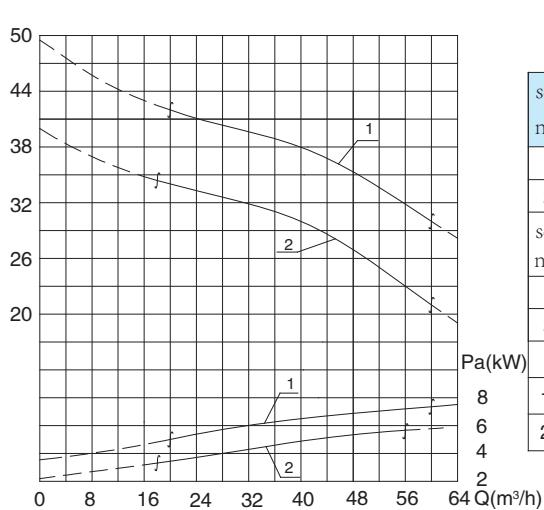


Y hard tube mobile installation



## 65WQ/E40-38-7.5 65WQ/E40-30-5.5

curves H(m)



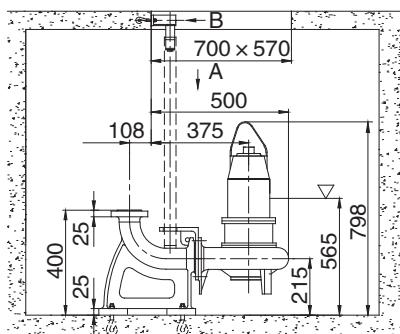
main parameter

discharge DN 65mm

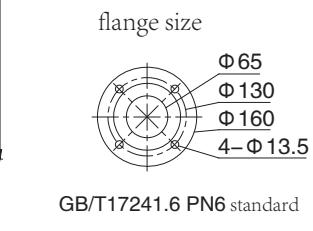
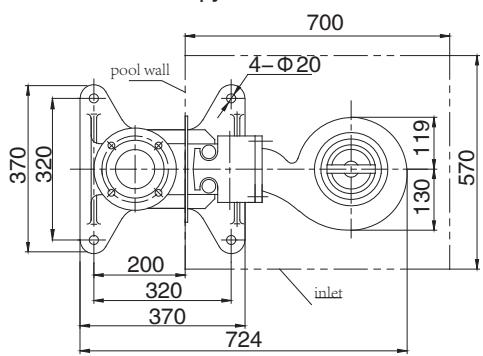
serial no.	new model	old model	channel size (mm)	rotation (r/min)	weight (kg)
1	65WQ/E40-38-7.5	65WQ/E250-7.5	oval 33 x 40	2920	73
2	65WQ/E40-30-5.5	65WQ/E245-5.5	oval 33 x 40	2920	63
motor rated power (kW)	rated current (A)	motor power cos φ	motor E (%)	torque/rated torque (%)	
1	7.5	15	0.88	86.2	2.0
2	5.5	11.1	0.88	85.5	2.0
Pa(kW)	Q-H	small flow rate	medium	large flow rate	
8	m³/h-m	20-42	40-38	60-30	
6		18-35	40-30	60-21	
2					

installation chart

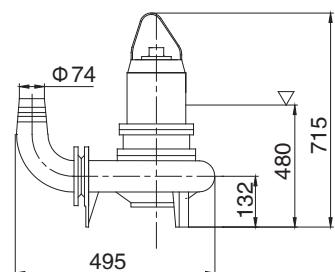
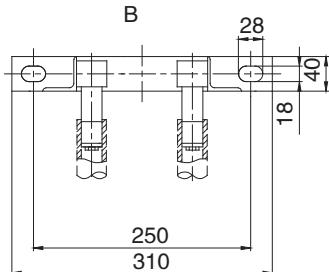
Z auto-coupling installation



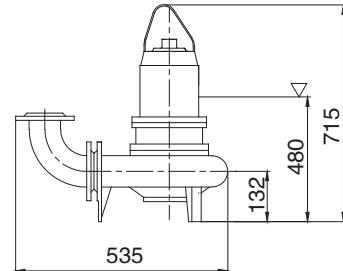
A 向



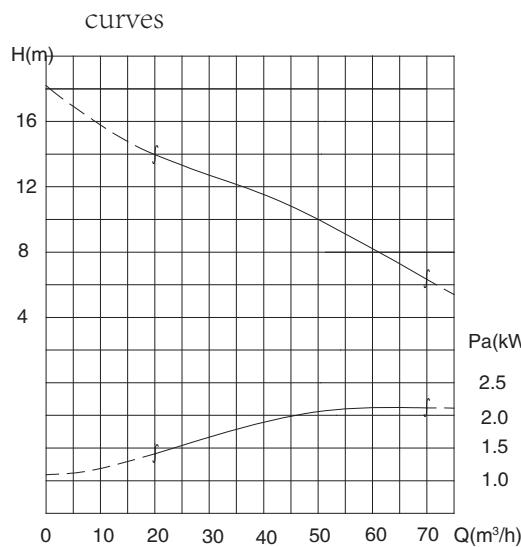
R soft tube mobile installation



Y hard tube mobile installation



## 80WQ/E50-10-2.2



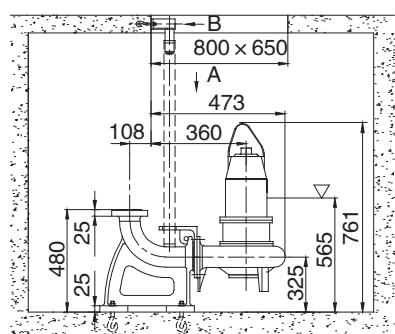
main parameter

discharge DN 80mm

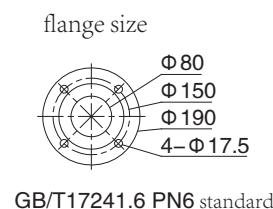
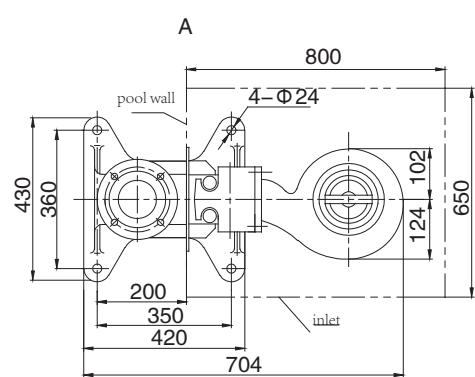
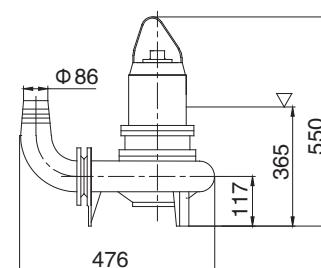
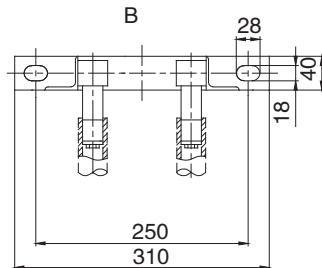
	new model	old model	channel size (mm)	rotation (r/min)	weight (kg)
Pa(kW)	80WQ/E50-10-2.2	80WQ/E244-2.2	oval 48×36	2840	35
motor rated power(kW)	2.2	4.7	motor power E cos φ	motor E (%)	torque/rated torque
Q-H	small flow rate	medium		big flow rate	
m³/h—m	20-14	50-10		70-6.3	

installation chart

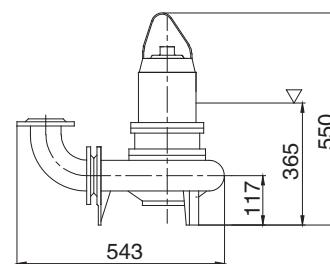
Z auto-coupling installation



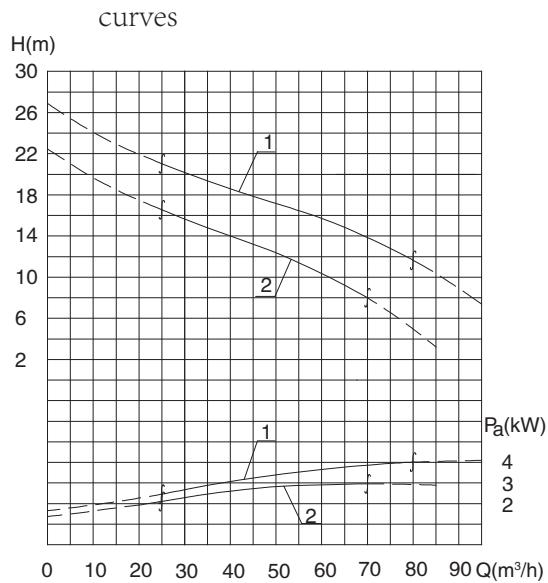
R soft tube installation



Y hard tube mobile installation tube



80WQ/E58-16-4 80WQ/E52-12-3



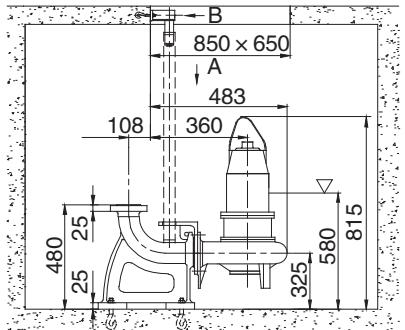
main parameter

discharge DN 80mm

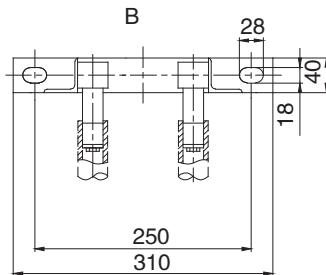
serial no	new model	old model	channel size (mm)	rotation (r/min)	weight (kg)
1	80WQ/E58-16-4	80WQ/E260-4	oval 45 x 40	2890	45
2	80WQ/E52-12-3	80WQ/E261-3	oval 45 x 40	2880	44
serial no	motor rated power (kW)	rated current (A)	motor power $\cos \phi$	motor efficiency (%)	torque/rated torque
1	4	8.2	0.87	85.5	2.2
2	3	6.4	0.87	82	2.2
	Q-H	small flow rate	medium	large flow rate	
1	$m^3/h - m$	25-21	58-16	80-11.7	
2		25-16.3	52-12	70-8	

## installation chart

## Z auto-coupling installation chart



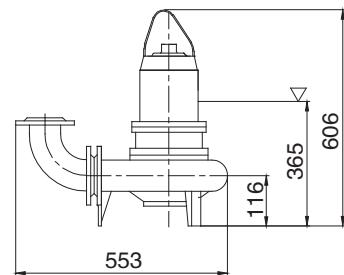
## R soft tube mobile installation



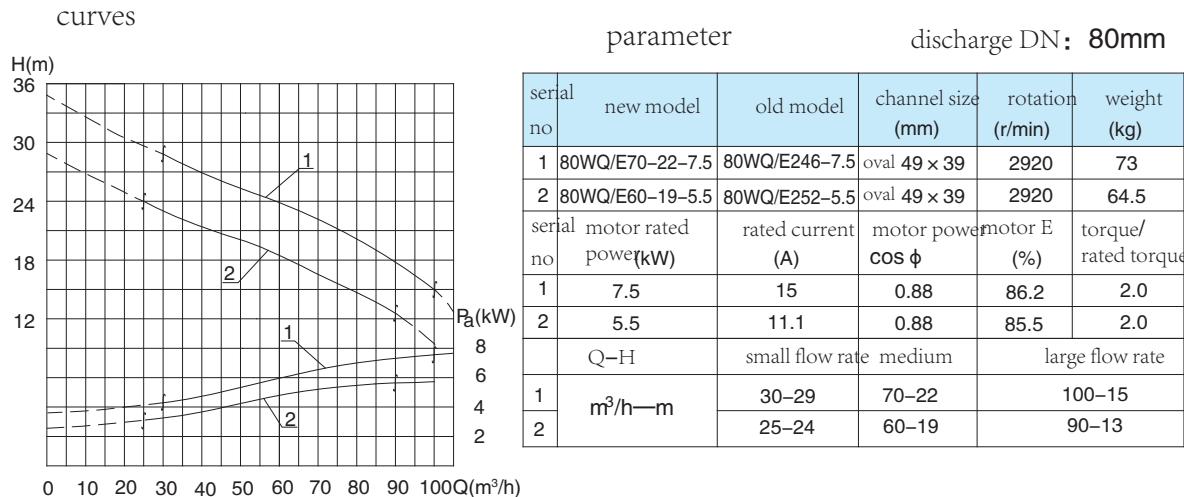
This technical drawing shows a side view of a pump unit assembly labeled 'A'. The drawing includes various dimensions: total height 430, distance from base to center of top flange 360, width 200, distance from base to bottom flange 350, distance from base to center of bottom flange 420, total width at the base 709, and a central vertical dimension of 850. At the top, there is a note '4-Φ24' indicating four holes. On the right side, there is a note '131 106' and a label '池口' (pool opening). The drawing also shows internal components like a gear assembly and a shaft.

The diagram shows a circular cross-section of a flange with concentric features. The outermost circle is labeled  $\Phi 80$ . Inside it, another circle is labeled  $\Phi 150$ . Further inward, a third circle is labeled  $\Phi 190$ . The innermost features consist of four smaller circles, each labeled  $\Phi 17.5$ , arranged in a square pattern.

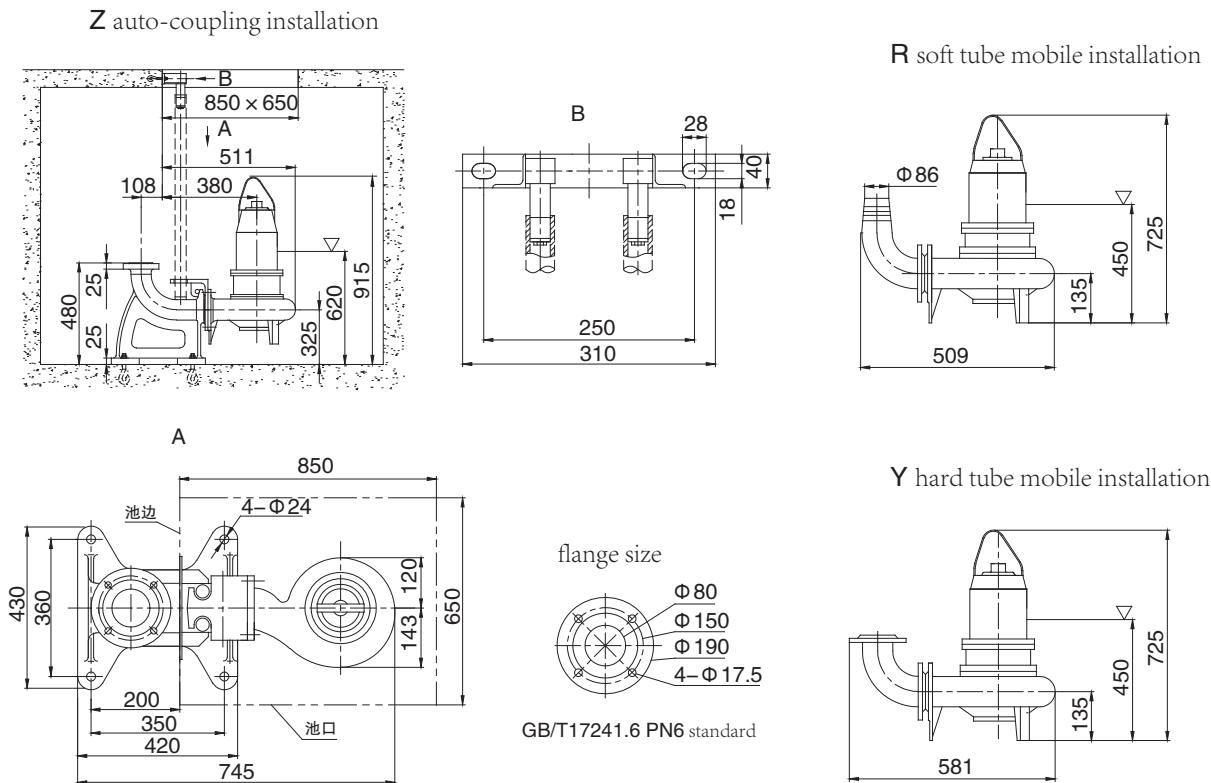
## Y hard tube mobile installation



## 80WQ/E70-22-7.5 80WQ/E60-19-5.5

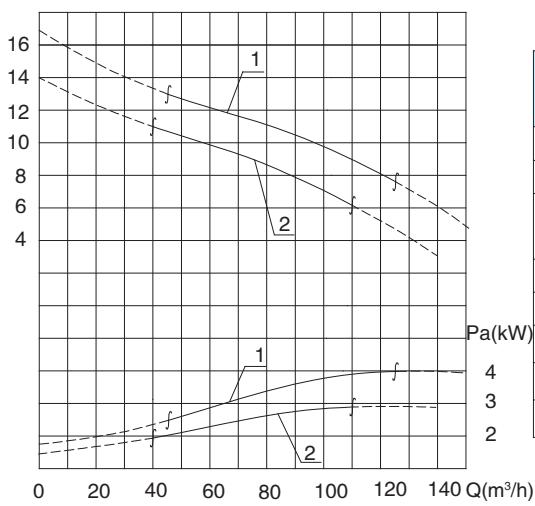


installation chart



100WQ/E80-11-4 100WQ/E75-9-3

curvesH(m)



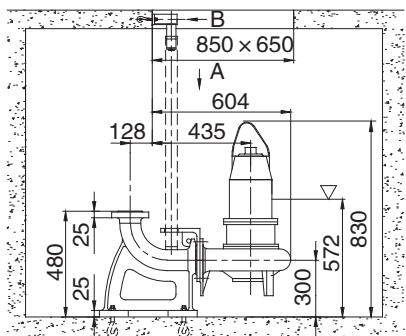
main parameter

discharge DN 100mm

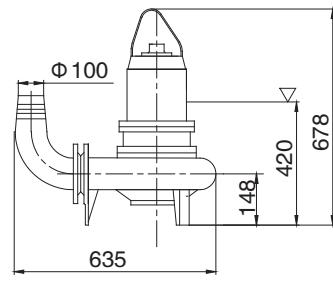
serial no	new model	old model	channel size (mm)	rotation (r/min)	weight (kg)
1	100WQ/E80-11-4	100WQ/E472-4	oval 61 x 63	1440	65
2	100WQ/E75-9-3	100WQ/E477-3	oval 61 x 63	1420	61
serial no	motor rated power (kW)	rated current (A)	motor power $\cos \phi$	motor E (%)	torque/rated torque
1	4	8.8	0.82	84.5	2.2
2	3	6.8	0.81	82.5	2.2
	Q-H	small flow rate	medium	large flow rate	
1	$m^3/h-m$	45-13	80-11	125-7.6	
2		40-11	75-9	110-6.1	

## installation chart

## Z auto-coupling installation



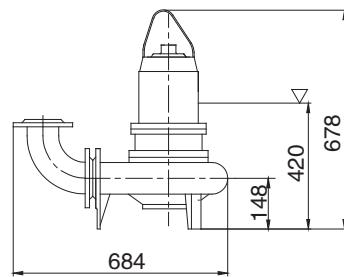
## R soft tube installation



Technical drawing of a pump unit assembly labeled 'A'. The drawing shows a central vertical shaft with various mechanical parts. Key dimensions are indicated: height from base to top center is 850; width of the main housing is 420; total width at the bottom is 872; distance from the bottom to the inlet is 350; distance from the bottom to the center of the left support is 233; height of the left support is 360; height of the right support is 184; height of the right side wall is 153; and there are four holes labeled '4-Φ24' near the top. Labels include 'pool wall' pointing to the left side, 'inlet' pointing to the bottom right, and 'A' at the top center.

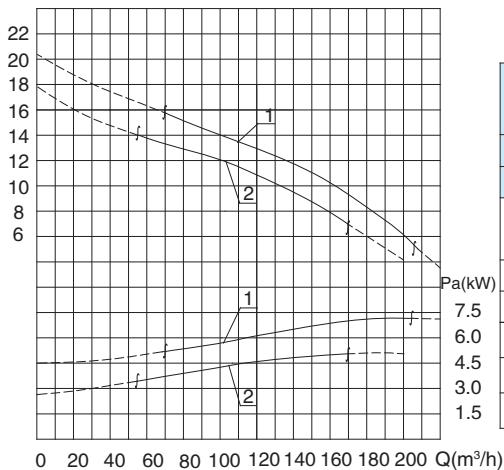
GB/T17241.6 PN6 standard

#### Y hard tube mobile installation



## 100WQ/E150-11-7.5 100WQ/E130-10-5.5

curves H(m)



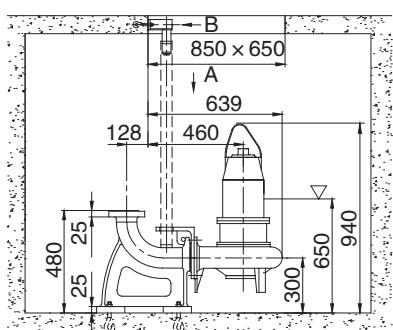
parameter

discharge DN: 100mm

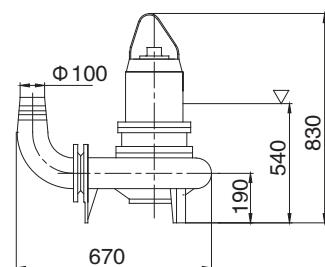
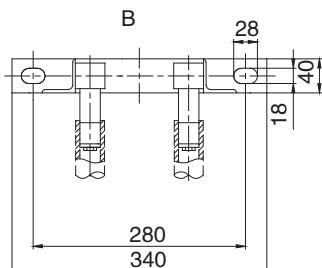
serial no	new model	old model	channel size (mm)	rotation (r/min)	weight (kg)
1	100WQ/E150-11-7.5	100WQ/E478-7.5	oval 72×64	1440	113
2	100WQ/E130-10-5.5	100WQ/E473-5.5	oval 72×64	1440	101
serial no	motor rated power(kW)	rated current (A)	motor power cos φ	motor E (%)	torque/rated torque
1	7.5	15.4	0.85	87	2.2
2	5.5	11.6	0.84	85.5	2.2
	Q-H	small flow rate	medium	large flow rate	
1	m³/h—m	70-16	150-11	200-6	
2		55-14	130-10	170-7	

installation chart

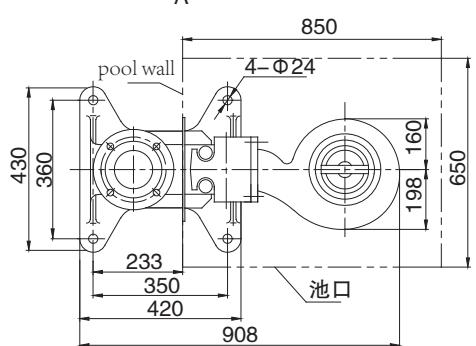
Z auto-coupling installation



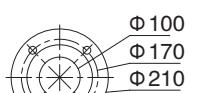
R soft tube installation



A



flange size



GB/T17241.6 PN6 standard

Y hard tube mobile installation

