



水泵行业全产业链整合研发与制造集团
The complete integration of R&Dt with manufacturing within
the pump industrial chain



WQ系列小型立式污水污物潜水电泵

WQ Seris Small Vertical Submersible Sewage Pump

50Hz



上海天泉泵业集团有限公司

SHANGHAI TIANQUAN PUMP GROUP CO., LTD.

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销售服务热线：400-166-8686

注：本公司保留对产品设计更改权利，个别尺寸如有变动恕不事前通知。
Note: our Co. reserves the right to modify the product design so as to
change some of the dimensions without a prior notice.

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企业简介 Introduction

上海天泉泵业集团有限公司成立于上世纪八十年代末，经过三十多年的市场磨练，现已发展成为国内领先的集研究、生产、销售各类水泵、智慧成套供水设备以及电气控制系统的大型现代化集团企业。

天泉集团旗下已拥有一个产品研发中心以及铸造厂、水泵厂、压力容器厂、电机厂四大工业生产基地。集团注册资金一亿元，总资产人民币14.5亿元，总占地面积四十余万平方米，总部位于上海市青浦区。

天泉集团先后获得多项专业认证及荣誉，包括三大管理体系认证、中国著名品牌、中国水泵行业十大品牌、企业信用AAA级、中国工程建设推荐产品、政府采购优秀供应商、绿色环保首选品牌、无负压产品节水节能认证、中国二次供水行业首选品牌、上海消防协会会员以及多项实用新型专利。

Shanghai Tianquan Pump Group Co, Ltd. was founded in the late 1990s, and after 30-year development, has developed into a state-certified high-tech enterprise in China. We are a leading professional industrial pump solution provider and specialized in the research and production of industrial pumps, submersible motors, and electrical control systems.

With a registered capital of 100 million RMB and total assets of 1.45 billion yuan, the group covers a total area of more than 550,000 square meters and is headquartered in Qingpu District, Shanghai. The company now has four factories, which are located in Shanghai, Anhui, and Jiangsu provinces: Shanghai factory has one research center and focuses on pump assembling and testing; the Anhui factory focuses on casting and motor research and manufacturing; the Jiangsu factory focuses on the water pressure tank

The group currently has more than 2,000 sets of advanced domestic and imported production and testing equipment, such as a large pump testing center, trilinear-coordinates measuring instrument, impeller dynamic balance meter, laser rapid prototyping meter, malfunction blasting machine, automatic welding machine, large vertical lathe, large grinding machine, and CNC machine tools, etc.



▲ 上海天泉集团总部 Shanghai Tianquan Pump Group Headquarters

▼ 广德正富生产基地 Guangde Zhengfu production base



企业简介 Introduction

天泉集团极其注重技术力量的储备和生产设备的更新改造，目前拥有国家Ⅱ级标准水泵测试中心、五轴联动加工中心、大型镗床、大型立式车床、全自动数控多孔钻床、自动氩弧焊机、机械无箱造型机、全自动机械化压机、全自动阴极电泳线、全自动下线流水线以及动静平衡测量仪等国内外先进的生产测量设备，保证了每一台产品的出厂品质。集团建有完善的销售服务网络，在全国设有80余家分支机构，拥有1800多人的专业销售团队，为广大用户提供了优质的售前、售中和售后服务。

技术创新是企业发展的源动力，天泉集团拥有一支由行业技术专家、中高级工程师和专业技术人才组成的30余人的精干技术团队，引入世界先进的CFD流体力学专业内流场分析、SOLIDWORKS、Pro/E等研究设计软件系统，拥有国家各项专利15项。目前公司每年投入销售总额的5%以上，用于技术创新和新产品研发。

天泉凭借合理的价格以及优良的服务，深受用户青睐，畅销全国34个省、市、自治区，并出口中东、东南亚等地区。产品广泛应用于建筑、消防、环保、给排水、暖通、石油、化工、冶金、造纸、电力、医药等领域。截止目前，已经成功的为碧桂园集团、绿地集团、顶新（国际）集团、三星电机、伊利集团、中国石化、东风汽车、上海外高桥保税区、京张高铁、清华大学等提供优良的产品与服务，屡次荣获优秀供应商称号。

The company has 4 categories industrial pumps, covering more than 3000 models. We only research and develop energy-saving product conform to Chinese energy conservative standard. About 50% of pump models are equipped with lower motor power compare with national counterparts. Our featured products are circulating pumps, submersible sewage pumps, fire-fighting pump and water

supply pump and are widely used in construction, environmental protection, HVAC, chemical industry, water supply and drainage, paper making, power plant, medical making and other fields.

Due to our whole industry chain production layout and energy-saving product principle, our products are featured with competitive price, energy-saving and reliable quality. Up to now, Tianquan products are selling well in 34 provinces national wide, and exported to the Middle East, Southeast Asia, and Eastern Europe.

We are strive to be the most influential manufacturer with energy-saving product in the industrial pump area. Hope we can bring you good quality product and be your best pump solution partner.



▼ 自动定子嵌线流水线 Automatic stator line embedding pipeline



▲ 智慧云监控中心 Smart cloud monitoring center

▲ 供水设备生产车间 Water supply equipment production workshop



▶ 电控柜生产车间
Electric control cabinet
production workshop

▲ 铸件仓库
Casting
workshop

◀ 排污泵装配流水线
Assembly line of
submersible sewage
pump

生产实力 Production Capability



研发

Research and development

30人精干专业团队，国内一流专家和高级技术人员组成，获得国家各项专利15项。

先进的CFD流体力学专业内流场分析软件系统，不断升级水力模型。

TQ has a capable professional team of 30 people, domestic first-class experts and senior technical personnel, and has obtained 15 national patents.

Advanced CDF fluid mechanics major internal flow field analysis software system, constantly upgrade the hydraulic model.



铸造

Casting

行业内极少数拥有自主铸造生产能力，采用先进覆膜砂芯工艺，拥有5台百万级的机械无箱造型机，告别传统人工，生产效率高，铸件品质和精度大大优于同类产品。

Very few in our industry have independent casting production capacity, using advanced coated sand core process, has 5 million-level mechanical boxless modeling machine, farewell to the traditional labor, high production efficiency, casting quality and precision is much better than similar products.



电机

Motor

拥有电机全套自主生产线，是行业内知名电机及电机部件供应商。

拥有全自动机械化压机、自动定子嵌线机、高速冲床等先进的加工装备，自动流水线装配，电机质量可靠，性价比高。

With a full set motor independent production line, it is a well-known motor and motor parts supplier in the industry. With automatic mechanized press, automatic stator wiring machine, high-speed punch and other advanced processing equipment, automatic line assembly, reliable motor quality, cost-effective.



加工

Machining

装备了4台国外进口高精度五轴联动加工中心，以及数十台（套）精密数控加工设备，确保零部件加工的高精度、高效率；

采用模块化、流水线生产模式，大大提升生产效率，保障品质稳定。

Equipped with 4 sets of foreign imported high-precision five-axis linkage machining center, as well as dozens of sets (units) of precision CNC machining equipment, to ensure the high precision and high efficiency of parts processing;

Adopt modular and assembly line production mode to greatly improve production efficiency and ensure quality stability.



涂刷和装配

Shelling-out and assembling

采用电泳工艺处理，表面坚硬、镀层致密牢固、抗腐耐磨。

装配工序规范合理，装配人员均经过长期严格的专业培训。

Using electrophoresis process, the surface is hard, dense and firm, corrosion and wear resistance.

The assembly process is standardized and reasonable, and the assembly personnel have undergone long-term and strict professional training.



检测

Check and test

拥有国家II级水泵综合性能测试台、光谱测试仪、动平衡机等检测设备。

专业的品控团队严格执行“三检”要求，每项来料必检，每道工序抽检，每台出厂必检，层层把关产品质量，产品合格率保持在98%以上。

It has the national water pump comprehensive performance test bench, spectrum tester, dynamic balance machine and other testing equipment. The professional quality control team strictly implements the requirements of "three inspections", every incoming material must be inspected, every process is inspected, every pump must be inspected, the product quality is checked layer by layer, and the qualified rate of products is maintained above 98%.

▼ 五轴联动加工中心 Five-axis linkage machining center



▼ 机械无箱造型 Mechanical box-free shape



▼ 电泳自动线 Electrophoresis automatic line



▼ 成品电机装配流水线 Assembly line of finished motor



▼ 国家级综合性能测试台 National comprehensive performance test bench



▼ 动平衡测试机 Dynamic balance test machine



产品概述

Product overview

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系列产品技术特色简述

上海天泉按照GB/T24674-2021《污水污物潜水电泵》最新标准，并在充分调研国内外生产厂家和市场及深度总结老产品使用中存在的各种问题基础上研发的量大面积的改进型WQ系列污水污物潜水电泵，分为≤7.5kW小型污水污物潜水电泵和≥11kW标准智能型污水污物潜水电泵两个子系列，系列规划性能更加合理满足市场需求，采用了最先进的水力优化设计，兼顾了高效、抗缠绕、大通流、更优的通用性、更好的可靠性，并且配置更适合市政建设、污水处理厂、工业排污等实际需要，泵组结构和安装更简化，拆装、维护、控制更容易，使客户降低采购成本且节省投资。

WQ系列污水污物潜水电泵的叶轮根据具体性能参数和几何尺寸设计为宽出口闭式双流道、双叶片或多叶片离心式，未包含旋流式和轴流式叶轮，泵体为宽蜗壳单蜗壳灰铁或球墨铸铁。

本系列未含带清洁功能的半开式双叶片叶轮和切割刀盘及高洛铸铁或沉淀硬化不锈钢等材料的配套泵，如用户需要这类泵，天泉另行提供相关资料。

用途

- 市政、自来水厂、污水提升泵站
- 环保
- 污水处理
- 轻工
- 化工
- 矿山
- 石油
- 水利、引水工程、一体化泵站
- 冶金

Brief description of technical features of series products

Shanghai Tianquan, according to the latest standard of GB / T24674-2021, And in the full investigation of domestic and foreign manufacturers and markets and in-depth summary of various problems existing in the use of old products on the basis of research and development of a large range of improved WQ series sewage submersible pump, It is divided into two sub-series: ≤7.5kW small sewage submersible pump, and ≥11kW standard intelligent sewage submersible pump, Series of planning performance is more reasonable to meet the market demand, Using a state-of-the-art hydraulic optimization design, Taking into account the high efficiency, anti-winding, chase flow, better versatility, better reliability, And the configuration is more suitable for municipal construction, sewage treatment plants, industrial sewage and other actual needs, Simpsimplified construction and installation, Easier to disassemble, maintain, control, For customers to reduce procurement costs and save investment.

The impeller of Wpump is designed as wide outlet closed double flow channel, double blade or multi-blade centrifugal type according to specific performance parameters and geometric size, without cyclone and axial flow impeller. The pump body is single volute gray iron or ductile cast iron in wide worm chamber.

This series does not contain semi-open double blade impeller, cutting cutter head and high pump, cast iron or precipitated hardened stainless steel. If the user needs this kind of pump, Tianquan will provide relevant information separately.

Application

- City planning, waterworks, Sewage lifting pump station
- Environmental protection
- Sewage treatment
- Light industry
- Chemical industry
- Hacienda
- Petroleum
- Water conservancy, diversion works, Integrated pumping station
- Metallurgy

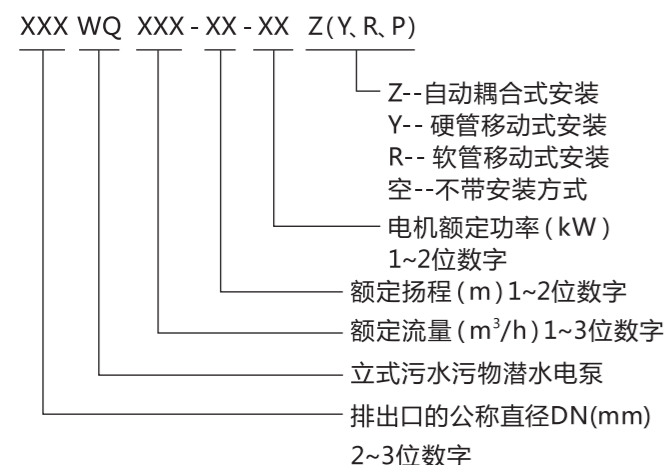
产品概述

Product overview

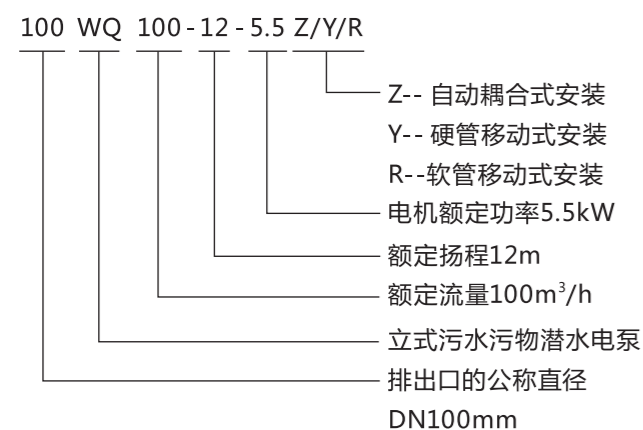
输送介质

- 生活雨水、污水、污物
- 工业废水
- 泥浆
- 灰渣
- 粮食
- 鱼虾
- 流程中含有固体颗粒悬浮物和纤维状悬浮物的液体

型号说明



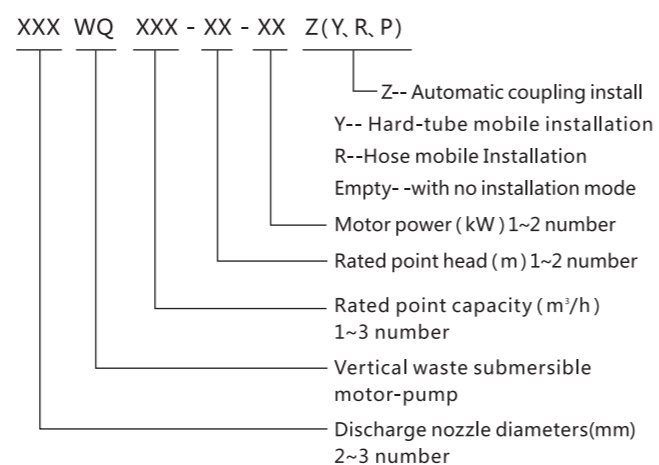
型号示例



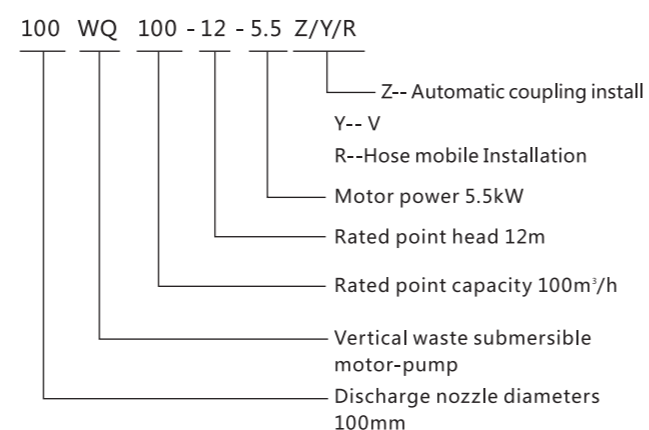
Medium

- Domestic rainwater, sewage, sewage
- Industrial waste water
- Mud
- Ash
- Foodstuff
- Fishes and shrimps
- Fluid containing solid particles and fibrous suspension

Type Definition



Model example



使用条件

Operation conditions

电源

- 380V、50Hz、三相

介质

- ≤40°C、PH=4~10、ρ≤1050kg/m³
- 不能用于强腐蚀性和含强腐蚀性固体颗粒的液体
- 固体物直径≤80%最小流道尺寸（详见后面各泵的“主要参数”）
- 纤维长度≤排出口径

最低液位

- 应符合安装尺寸图中“▽”标记以上

Electrical source

- 380V、50Hz、3-phase

Medium

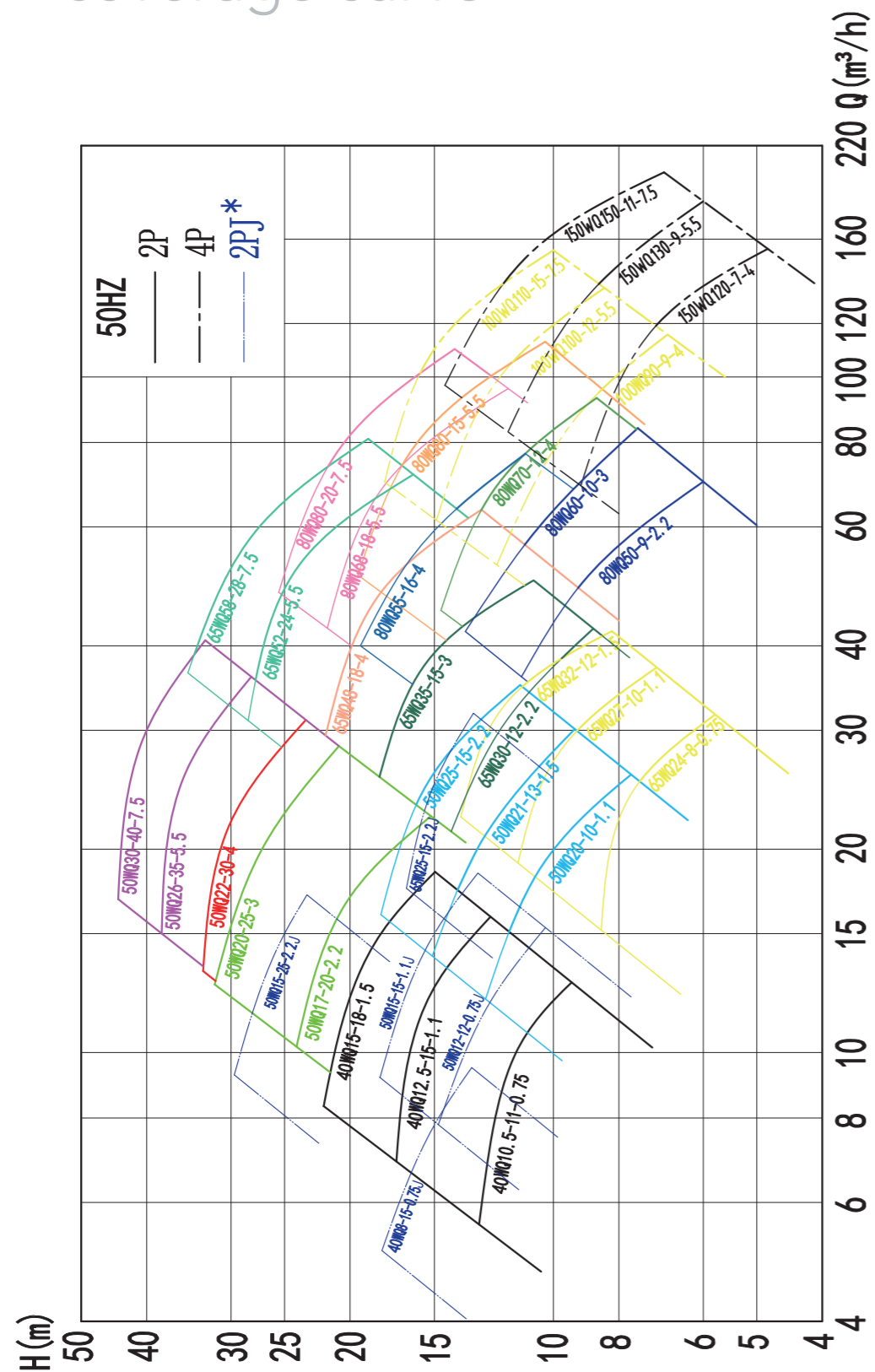
- ≤40°C, PH=4~10, ρ≤1050kg/m³
- Should not be used for highly corrosive and liquids containing highly corrosive solid particles
- 80% min. Flow size (see “main parameters” for subsequent pumps)
- Fiber length less than discharge diameter

Min. Liquid level

- It shall be above the “▽” mark in the installation dimension drawing

产品型谱图

Product hydraulic coverage curve



注：*——J为专配窄叶轮泵
Note: *——J is a special narrow impeller pump

规格表

Specification table

WQ小型排污泵 (0.75-7.5kW/380V 50Hz) 规格表 注：*—— $\rho=1050\text{kg/m}^3$
WQ small-sized (0.75-7.5kW/380V 50Hz) waste submersible motor-pump specification table Note:*—— $\rho=1050\text{kg/m}^3$

序号 No.	型号 Type	流量 Flow (m^3/h)	扬程 Head (m)	转速 Speed (r/min)	泵效率 Pump efficiency (%)	电机效率 Motor efficiency (%)	泵组效率 Pump unit efficiency (%)	轴功率* Shaft Power* (kW)	电机 功率 motor Power (kW)	颗粒最大 直径 Max. Dia.of particle (mm)	重量 Weight (kg)
1	40WQ8-15-0.75J	5.6	16.8	2825	44.0	75.0	33.0	0.612	0.75	12	21
		8.0	14.8		51.5	75.0	38.6	0.658			
		10.4	12.3		49.0	75.0	36.8	0.747			
2	40WQ10.5-11-0.75	6.3	12.7	2825	37.0	75.0	27.8	0.619	0.75	17	20
		10.5	11.0		46.0	75.0	34.5	0.718			
		14.0	8.5		45.0	75.0	33.8	0.757			
3	40WQ12.5-15-1.1	7.5	17.0	2830	41.0	77.0	31.6	0.890	1.1	17	21
		12.5	15.0		53.7	77.0	41.3	0.999			
		17.5	11.2		51.0	77.0	39.3	1.100			
4	40WQ15-18-1.5	9.0	21.6	2840	48.00	78.0	37.4	1.159	1.5	17	24
		15.0	18.0		56.00	78.0	43.7	1.380			
		21.0	13.0		52.00	78.0	40.6	1.502			
5	50WQ12-12-0.75J	8.4	13.6	2830	49.2	77.0	37.9	0.664	0.75	20	26
		12	11.7		55.6	77.0	42.8	0.723			
		15.6	9.6		57.5	77.0	44.3	0.745			
6	50WQ15-15-1.1J	10.5	16.5	2830	53.2	77.0	41.0	0.932	1.1	20	27
		15	14.6		58.0	77.0	44.7	1.080			
		19.5	11		55.6	77.0	42.8	1.104			
7	50WQ20-10-1.1	12	12.6	2830	40.0	77.0	30.8	1.082	1.1	26	27
		20	10		49.5	77.0	38.1	1.156			
		26	7.6		52.5	77.0	40.4	1.077			
8	50WQ21-13-1.5	13	14.4	2840	42.0	78.0	32.8	1.275	1.5	26	29
		21	12.6		51.0	78.0	39.8	1.484			
		28	10		54.0	78.0	42.1	1.484			
9	50WQ25-15-2.2	16.0	18.0	2880	51.0	82.0	41.8	1.616	2.2	26	33
		26.0	15.0		56.0	82.0	45.9	1.993			
		35.0	11.2		51.0	82.0	41.8	2.199			
10	50WQ15-25-2.2J	10.5	28.0	2840	46.00	82.0	37.7	1.829	2.2	18	34
		15.0	25.0		56.00	82.0	45.9	1.916			
		19.5	21.4		55.00	82.0	45.1	2.171			
11	50WQ17-20-2.2	10.2	24.0	2840	48.0	82.0	39.4	1.459	2.2	23	34
		17.0	20.0		55.0	82.0	45.1	1.769			
		23.8	14.0		52.0	82.0	42.6	1.833			
12	50WQ20-25-3	12.0	29.0	2880	48.0	82.0	39.4	2.445	3	23	37
		20.0	27.0		55.0	82.0	45.1	2.711			
		28.0	19.0		52.0	82.0	42.6	3.024			



规格表

Specification table

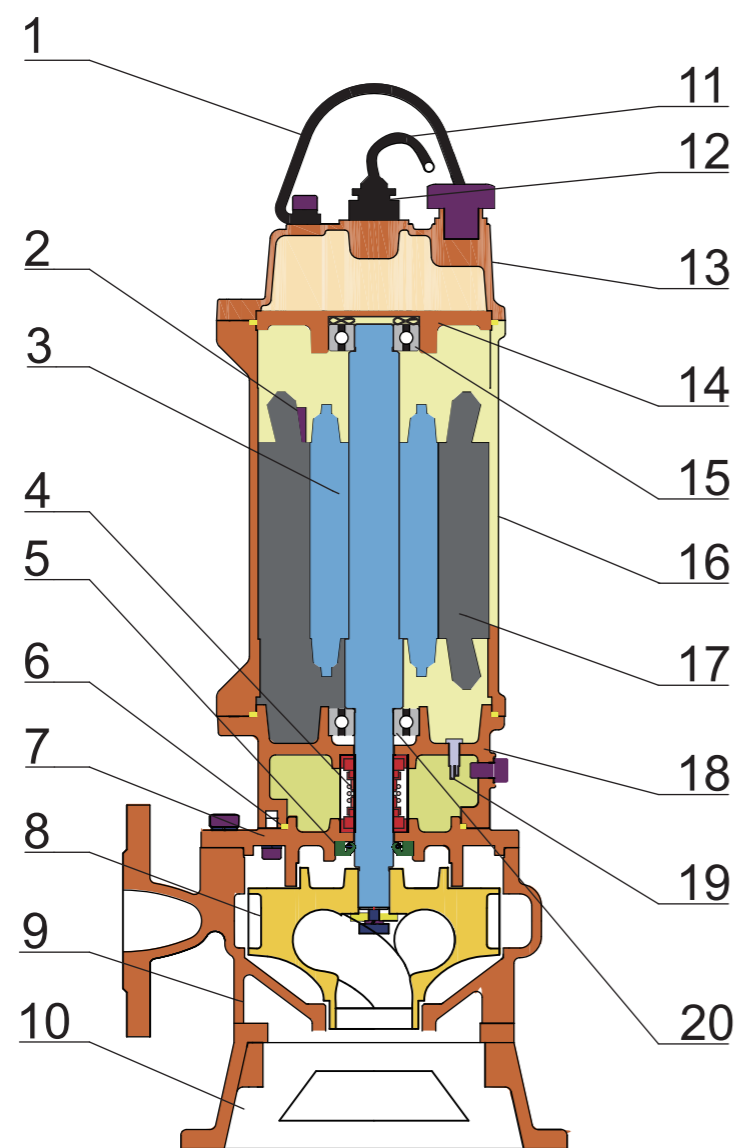
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13	50WQ22-30-4	13.2	33.0	2890	48.0	85.5	41.0	2.597	4	26	50
		22.0	30.0		55.0	85.5	47.0	3.434			
		30.9	23.4		52.0	85.5	44.5	3.976			
14	50WQ26-35-5.5	15.0	38.0	2920	48.0	85.5	41.0	3.398	5.5	26	64
		26.0	35.0		55.0	85.5	47.0	4.734			
		36.0	28.0		53.0	85.5	45.3	5.442			
15	50WQ30-40-7.5	18.0	44.0	2920	47.0	86.2	40.5	4.822	7.5	26	70
		30.0	40.0		55.0	86.2	47.4	6.243			
		42.0	32.0		52.0	86.2	44.8	7.395			
16	65WQ24-8-0.75	15.0	8.5	2830	51.00	77.0	39.3	0.715	0.75	23	21
		24.0	7.7		69.00	77.0	53.1	0.766			
		30.0	6.0		68.00	77.0	52.4	0.757			
17	65WQ27-10-1.1	16.0	11.6	2830	50.00	77.0	38.5	1.062	1.1	23	23
		27.0	10.0		71.00	77.0	54.7	1.088			
		38.0	6.8		70.00	77.0	53.9	1.056			
18	65WQ32-12-1.5	20.0	14.0	2840	58.00	78.0	45.2	1.381	1.5	23	26
		32.0	12.0		75.40	78.0	58.8	1.457			
		45.0	7.0		61.00	78.0	47.6	1.478			
19	65WQ25-15-2.2J	17.5	16.5	2840	44.00	82.0	36.1	1.878	2.2	21	34
		25.0	15.0		56.00	82.0	45.9	1.916			
		32.5	13.2		58.00	82.0	47.6	2.116			
20	65WQ30-12-2.2	18.0	15.0	2840	45.00	82.0	36.9	1.717	2.2	27	34
		30.0	12.0		60.00	82.0	49.2	1.717			
		42.0	9.0		50.00	82.0	41.0	2.163			
21	65WQ35-15-3	26.0	18.0	2880	46.00	82.0	37.7	2.911	3	27	40
		37.5	15.5		60.00	82.0	49.2	2.772			
		50.0	10.7		50.00	82.0	41.0	3.062			
22	65WQ48-18-4	28	22.0	2890	56.0	85.5	47.9	3.15	4	30	45
		48	18.0		64.0	85.5	54.7	3.86			
		68	11.4		56.0	85.5	47.9	3.96			
23	65WQ52-24-5.5	31	28.3	2920	58.0	85.5	49.6	4.33	5.5	30	64
		52	24.0		68.0	85.5	58.1	5.25			
		70	16.8		61.9	85.5	52.9	5.44			
24	65WQ58-28-7.5	35	35.3	2920	60.0	86.2	51.7	5.86	7.5	30	71
		58	28.0		67.0	86.2	57.8	6.94			
		81	18.8		60.0	86.2	51.7	7.26			

WQ小型排污泵 (0.75-7.5kW/380V 50Hz) 规格表 注: *—— $\rho=1050\text{kg/m}^3$											
WQ small-sized (0.75-7.5kW/380V 50Hz) waste submersible motor-pump specification table Note:*—— $\rho=1050\text{kg/m}^3$											
序号 No.	型号 Type	流量 Flow (m^3/h)	扬程 Head (m)	转速 Speed (r/min)	泵效率 Pump efficiency (%)	电机效率 Motor efficiency (%)	泵组效率 Pump unit efficiency (%)	轴功率* Shaft Power* (kW)	电机 功率 motor Power (kW)	颗粒最大 直径 Max. Dia.of particle (mm)	重量 Weight (kg)
25	80WQ50-9-2.2	30	12.2	2840	50.0	82.0	39.5	2.09	2.2	24	37
		50	9.0		61.6	82.0	49.0	2.09			
		70	6.0		58.0	82.0	46.1	2.07			
26	80WQ60-10-3	42	13.5	2880	53.0	82.0	42.0	3.06	3	24	43
		60	10.5		60.5	82.0	48.1	2.98			
		84	7.5		62.0	82.0	49.3	2.91			
27	80WQ70-12-4	42	15.0	2890	58	85.5	49.6	3.108	4	34	65
		70	12.0		70	85.5	59.9	3.434			
		98	8.0		64	85.5	54.7	3.505			
28	80WQ80-15-5.5	48	18.0	2920	58	85.5	49.6	4.262	5.5	34	73
		80	15.0		70	85.5	59.9	4.905			
		112	10.9		64	85.5	54.7	5.458			
29	80WQ55-16-4	40.0	19.3	2890	56.6	85.5	47.0	3.903	4	34	52
		55.0	16.0		66.0	85.5	58.1	3.815			
		77.0	11.0		62.4	85.5	50.4	3.884			
30	80WQ68-18-5.5	41.0	21.8	2920	59.0	85.5	47.0	4.335	5.5	34	60
		68.0	18.0		69.0	85.5	58.1	5.076			
		95.0	11.9		61.5	85.5	50.4	5.260			
31	80WQ80-20-7.5	48.0	25.5	2920	61.0	86.2	47.4	5.741	7.5	34	72
		80.0	20.4		69.6	86.2	58.6	6.709			
		110.0	14.0		61.0	86.2	50.9	7.223			
32	100WQ90-9-4	54.0	12.0	1440	55	84.5	46.5	3.37	4	58	80
		90.0	9.0		68	84.5	57.5	3.41			
		126.0	6.0		59	84.5	49.9	3.67			
33	100WQ100-12-5.5	60.0	15.0	1440	55	85.5	47.0	4.68	5.5	58	103
		100.0	12.0		68	85.5	58.1	5.05			
		140.0	8.0		59	85.5	50.4	5.43			
34	100WQ110-15-7.5	66.0	18.0	1440	55	87.0	47.9	6.18	7.5	58	115
		110.0	15.0		68	87.0	59.2	6.94			
		154.0	10.0		59	87.0	51.3	7.47			
35	150WQ120-7-4	72.0	9.0	1440	54	84.5	45.6	3.43	4	54	85
		120.0	7.0		68	84.5	57.5	3.53			
		168.0	4.0		55	84.5	46.5	3.50			
36	150WQ130-9-5.5	78.0	12.0	1440	60	85.5	51.3	4.46	5.5	54	108
		130.0	9.0		70	85.5	59.9	4.78			
		182.0	6.0		60	85.5	51.3	5.21			
37	150WQ150-11-7.5	90.0	15.0	1440	66	87.0	57.4	5.85	7.5	54	120
		150.0	11.0		71	87.0	61.8	6.65			
		210.0	6.2		50	87.0	43.5	7.45			

泵组结构说明

Pump unit structure instruction

主剖面图 Main section diagram



泵材质说明 Material instruction

序号 Item No.	零部件 Part name	材料 Material	标准 Standard	应用 Application
1	提手 Handle	镀锌钢板 Galvanised steel plate		标配 Standard configuration
		不锈钢板 Stainless steel plate		选配 Optional
2	绕组过热保护器	/		≤3kW 标配 ≤3kW Standard configuration
3	电机转子部件 Motor rotor parts	/		标配 Standard configuration
4	机械密封 Mechanical seal	动环旋转的 Rotary ring	SiC/C	WM208型双端面、大弹簧、橡胶波纹管机械密封20/25/30 WM 208 double end surface, large spring, rubber bellows mechanical seal 20/25/30
		静环 Stationary ring	SiC	
		弹簧 Spring	弹簧钢 Spring steel	
		波纹管 bellows	丁晴橡胶 NBR	
5	骨架油封 Skeleton oil seal	/	GB/T13871.1-2007	标配 Standard configuration
6	O形圈 O-ring	NBR	GB/T3452.1-2005	泵端 Pump end
		EPDM		电机端 Motor end
7	泵盖 Pump casing cover	铸铁 Iron casting HT250	GB/T9439-2010	标配 Standard configuration
8	叶轮 Impeller	铸铁 Iron casting HT250	GB/T9439-2010	标配 Standard configuration
		17-4PH (oCr17Ni4Cu4Nb)	GB/T1220-2007	选配 Optional
9	泵体 Pump casing	铸铁 HT250 Iron casting HT250	GB/T9439-2010	PN6 标配 PN6 Standard configuration
		球墨铸铁 Nodular cast iron QT500	GB1348-2019	选配 Optional
10	底座 Pedestal	铸铁 HT200 Iron casting HT200	GB/T9439-2010	标配 Standard configuration
11	电缆 Electric cable	/		6m长 Length 6m
12	电缆密封头 Cable sealing head	/		标配 Standard configuration
13	电机盖 Motor cover	HT200	GB/T9439-2010	标配 Standard configuration
14	上轴承座 Upper bearing seat	HT200	GB/T9439-2010	标配 Standard configuration
15	上轴承 Upper bearing	/		C&U(标配 Standard configuration) / NSK、SKF、FAG(选配 Optional)
16	电机筒体 Motor cylinder	HT200	GB/T9439-2010	标配 Standard configuration
		304		选配 Optional
17	电机定子部件 Motor stator parts	/		标配 Standard configuration
18	油室 Oil chamber	HT200	GB/T9439-2010	标配 Standard configuration
19	油水探头 Oil and water probe	/		选配, 外购 Optional, Outsource
20	下轴承 lower bearing	/		C&U(标配 Standard configuration) / NSK、SKF、FAG(选配 Optional)

主要特点

Main features

小型污水污物潜水电泵泵组主要特点

● 总体结构合理、成熟

潜水电泵为立式机泵直联泵组，采用专用特殊潜水电机在顶部，泵在下部，泵送介质从底部轴向吸入、流经叶轮增压、再经泵体侧向排出口、最后经弯管及直管排出。叶轮通过内六角螺钉固定在电机轴伸上；泵体、泵盖共同组成承压边界；泵腔与油室之间设置旋转轴唇形密封圈和双端面、大弹簧、橡胶波纹管机械密封，叶轮与泵盖之间设置很小的径向间隙防止污物进入唇形密封圈工作区域从而保证了其使用寿命，2个摩擦副动、静环采用碳化硅对碳化硅“硬对硬”整体浸在油室的润滑油中，不易失效；零件之间连接处采用O形圈作为可靠的静密封。

● 优化的水力设计

泵叶轮主要采用双流道CAD优化设计及CFD分析，个别采用经试验验证无堵塞且性能优于双流道式的后掠式双叶片叶轮，泵效率及泵组效率均远高于GB/T24674-2021污水污物潜水电泵所规定的指标，高效节能的同时兼顾了固体物或长纤维物的通过性及抗缠绕性；Q-H曲线相对较陡、Q-P曲线较平坦，实现了无过载设计目标。

● 高可靠性的潜水电机

标配WQD三相异步交流电机
B5或V1型式（机座号80~112L）
绝缘等级：F级
防护等级：IP68

电机上部轴承均为深沟球轴承，下部除7.5kW-4p采用双列向心球轴承外，其它型号也均为NSK深沟球轴承，负载裕度充分采用耐污水重型橡胶套软电缆，线芯截面满足在40°C环境下满载连续运行，且完全密封，无论电缆护套还是线芯绝缘破损，水都不会进入电机使其烧毁，电缆在提手上进行二次固定，避免运输、安装和使用过程中的损坏。

● 电缆线芯标志

蓝（U）、黑（V）、棕（W）为三相三相动力线，单根黄、绿双色线为接地线。

● 泵组设有可靠的密封和严格的检验

- 轴的密封
- 骨架油封+双端面机封
- 电缆的全密封
- 采用带铸头和护套的全密封与电缆线芯一体化结构
- 零部件之间的密封
- 各零件之间配合处用O形圈静密封
- 密封性试验
- 承压件水压试验，电机气压试验

● 叶轮更好的动平衡，泵运行更加平稳、可靠

● 泵体、泵盖、油室铸件经过电泳处理或涂漆改善耐腐蚀性能

● 旋转方向：从电机顶部向下看均为顺时针方向旋转

● 泵组安装方式：自动耦合式（配耦合架）

硬管移动式（仅带底座）

软管移动式（带底座，配软管连接接头）

Small sewage and sewage submersible electric pump pump group main characteristics

● The overall structure is reasonable and mature

The submersible pump is a vertical pump direct connection pump group, using special submersible motor at the top, the pump is in the lower part, the pumping medium is inhaled from the bottom axis, flow through the impeller pressurization, and then through the pump body side row outlet, and finally through the bending pipe and straight pipe discharge. The impeller is fixed on the motor shaft through the hexagonal screw; the pump body and the pump cover form the pressure boundary; lip sealing ring and double end face, large spring and rubber bellows mechanical seal; small radial clearance between the impeller and the pump cover to prevent the dirt into the lip sealing area to ensure the service life of silicon carbide in the oil chamber, and the connection between the parts adopts O-ring as a reliable static seal.

● Optimized hydraulic design

The pump impeller mainly adopts the double-channel CAD optimization design and CFD analysis, and adopts the swept double-blade impeller, the pump efficiency and pump group efficiency are much higher than the indexes specified in GB / T24674-2021 submersible pump, with the high efficiency and energy saving and the Q-H curve is relatively steep and the Q-P curve is flat, realizing the no-overload design goal.

● High reliability of the diving motor

Standard with a WQD three-phase asynchronous AC motor Type B5 or V1 (seat number 80-112L)
Insulation grade: Grade F Protection level: IP68

The upper bearings of the motor are deep groove ball bearings. Except the lower part of 7.5kW-4p adopts double-column centripetal ball bearings, other models are also NSK deep groove ball bearings with sufficient load margin Using sewage resistant heavy rubber sleeve flexible cable, the section of the wire core meets the continuous operation in 40°C environment, and completely sealed, whether the cable sheath or the wire core insulation is damaged, the water will not enter the motor to burn it, the cable in the handle, to avoid the damage during transportation, installation and use.

● Seal head of electric cable & mark of core

Blue (U), black (V) and brown (W) are three three-phase power lines, and single yellow and green two-color lines are grounding lines.

● The pump group is equipped with a reliable seal and strict inspection

- Seal of the shaft
- Skeleton oil seal + double-end surface machine seal
- Full sealing of the cable
- Integrated structure of full seal and cable core with cast head and sheath
- Seals between the spare parts
- The joints between parts is sealed with O-ring
- leak test
- Hydrostatic test of pressure parts and motor pressure test

● The impeller has a better dynamic balance, and the pump operation is more stable and reliable

● Pump body, pump cover, oil chamber castings after electrophoretic treatment or painting to improve the corrosion resistance

● Rotation direction: rotate clockwise from the top of the motor

● Installation mode of pump set:

Automatic coupling type (with coupling frame)

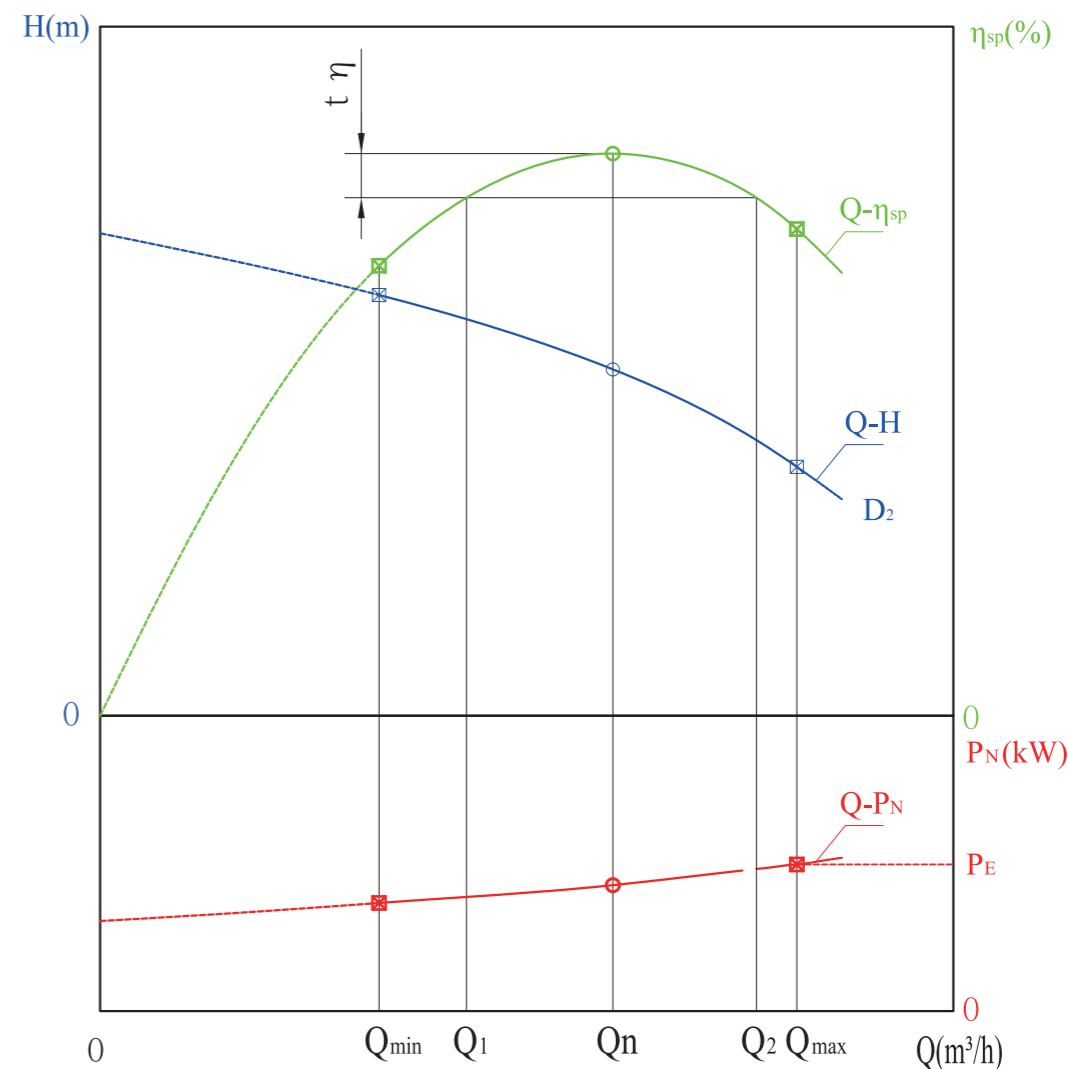
Hard-tube mobile type (with base only)

Hose mobile type (with base, with hose connector)

性能曲线标示解读

Performance curve interpretation

WQ系列小型立式污水污物潜水电泵
WQ Series Small Vertical Submersible Sewage Pump



- 注：1. Q_n ——最佳运行工况流量点；
2. $Q_1 \sim Q_2$ ——高性能(优先)工作范围；
3. $Q_{min} \sim Q_{max}$ ——允许工作范围；
4. $\Delta \eta$ ——为5% η_n (η_n 为最佳运行工况点泵效率)；
5. Q_{min} ——一般为0.5 Q_n 或 η_n 降低15%之中的较大者；
6. D_2 ——叶轮直径。

- Note: 1. Q_n ——Optimum operating condition flow point;
2. $Q_1 \sim Q_2$ ——High-performance (priority) scope of work;
3. $Q_{min} \sim Q_{max}$ ——Permissible operating range;
4. $\Delta \eta$ ——5% η_n (η_n is the optimum operating point pump efficiency)
5. Q_{min} ——Generally the greater of 0.5 Q_n or a 15% reduction in Q_n
6. D_2 ——Impeller diameter.

主要参数说明

Description of the main parameter table

序号 No.	泵型号 Pump type	叶轮最小流道断面 Min size of section A×B (mm×mm)	最大颗粒直径 max. Dia. of pellet Φ (mm)	转速 Speed n (r/min)	泵组重 Weight G (kg)
1	原型 prototype		≤80%Min size	工作 Operating 50Hz	泵组重 total
2	第一次切割后 After 1st cut				
3	第二次切割后 After 2nd cut				
序号 No.	电机型号 Motor type	电机功率 P _E (kW)	额定电流 I (A)	功率因数 CosΦ	电机效率 η _D (%)
1					
2					
3					
序号 No.	流量 Flow Q (m ³ /h)	扬程 Head H (m)	轴功率 Shaft power P _N (kW)	泵效率 Pump efficiency η _{SP} (%)	泵组效率 Unit efficiency η _{DB} (%)
1	Q _{min} -Q _n -Q _{max}	H _{max} -H-H _{min}			

主要项目和符号说明

A×B -- 叶轮最小流道断面
 双流道叶轮内流道径向椭圆出口长轴×短轴
 叶片式叶轮相邻叶片径向垂直于流线方向近似平行四边形过流断面边长×边长
 Φ -- 最大颗粒直径
 不大于80%最小过流断面面积的当量直径
 P_E -- 额定功率
 P_N -- 轴功率
 I -- 额定电流
 CosΦ -- 额定功率因数
 η_D -- 电机效率
 η_{SP} -- 泵效率
 η_{DB} -- 泵组总效率
 IT/RT -- 堵转力矩与额定转矩的比值
 图中曲线实线部分表示所推荐的泵运行范围。
 泵重不包括各种安装附件，如耦合装置、弯管、软管、接头等。

Description of the main items and symbols

A×B -- Minimum flow section
 The radial ellipse outlet of the impeller
 A blade inlet and adjacent blade radial perpendicular to the streamline direction approximate parallel ogram cross section side long side long
 Φ -- Maximum particle diameter
 equivalent diameter not greater than 80% of the minimum overcurrent section area
 P_E -- power rating
 P_N -- shaft power
 I -- current
 CosΦ -- power factor
 η_D -- motor efficiency
 η_{SP} -- pump efficiency
 η_{DB} -- total efficiency
 IT/RT -- locked torque/rated torque
 The solid line of the curve shows the recommended pump operation range.
 Pump weight does not include various installation accessories, such as coupling devices, bends, hoses, joints, etc.

安装方式说明

Description of Installation method

安装方式的说明

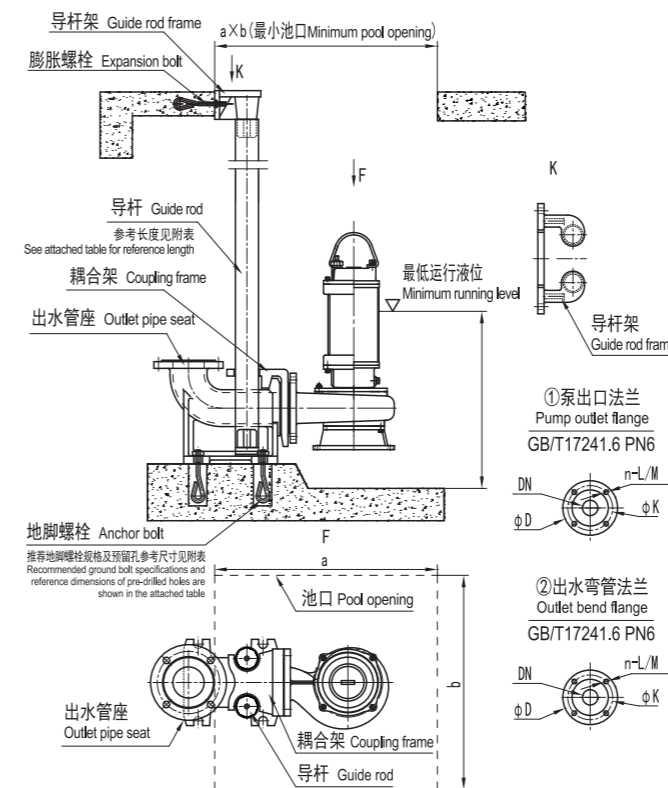
WQ系列泵有自动耦合式安装 (Z)、软管移动式安装 (R)、硬管移动式安装 (Y)、和不带安装方式(空)4种方式。

• 自动耦合式安装 (Z)

自动耦合式安装无须用常规的紧固件来连接泵和管道。耦合装置只有出水管座、导杆、导杆架、耦合架四种部件。导杆只起导向作用，不受力，用普通自来水管或钢管按池深切割成需要的长度即可，用户也可以自备。安装时，将出水管座、导杆、导杆架装好；将耦合架同泵体法兰把合；吊起泵，将耦合架上的半圆孔穿入导杆，再将泵沿导杆向下滑到底，耦合架就会与出水管座对齐扣紧。需要维修时，只需把泵向上提拉，泵与出水管座就脱开了。

由于耦合装置与泵是相对独立的，所以，如果用户在相同使用场所因情况变化更换同口径的低扬程或高扬程的泵时，仍可以使用原来的耦合装置。

自动耦合式安装 (Z) Automatic coupling installation (Z)



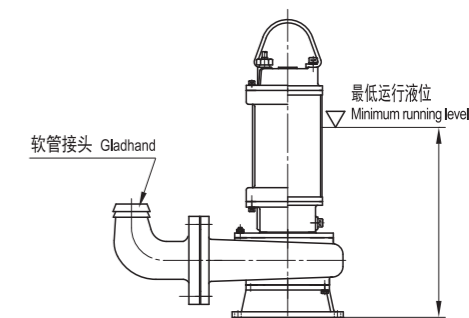
Description of the installation method

WQ pump has four ways: automatic coupling installation (Z), hose mobile installation (R), hard tube mobile installation (Y) and no installation (empty).

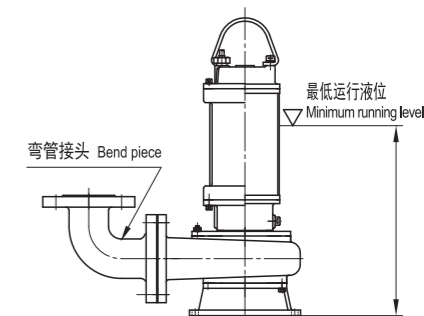
• Automatic coupling installation (Z)

Automatic coupling installation does not need to connect pumps and pipes with conventional fasteners. The coupling device has only four parts: outlet pipe seat, guide rod, guide rod frame and coupling frame. The guide rod only plays a guiding role, not by the force, with ordinary water pipe or steel pipe according to the depth of the pool cut into the required length, users can also bring themselves. During installation, install the outlet pipe seat, guide rod and guide rod frame; close the coupling frame with the pump flange; lift the pump, push the half-circular hole on the coupling frame into the guide rod, and slide the pump along the guide rod, and the coupling frame will be aligned with the outlet pipe seat. When repairs are needed, just pull the pump up and the pump and the outlet pipe are off. Since the coupling device is relatively independent from the pump, the original coupling device can still be used if the user changes the low head or high head pump in the same diameter in the same use place.

软管移动式安装 (R) Hose mobile installation (R)



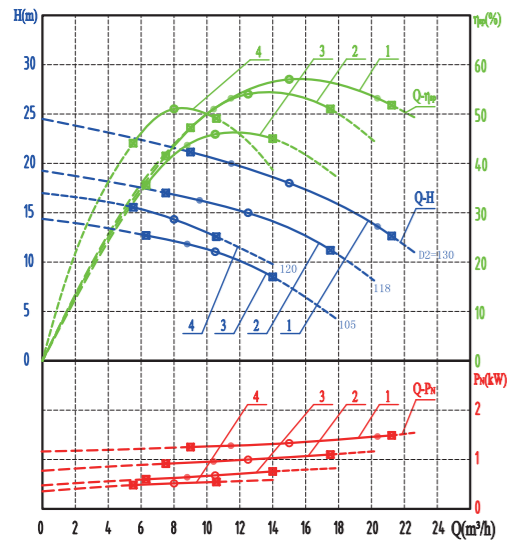
硬管移动式安装 (Y) Hard-tube mobile installation (Y)



性能曲线、主要参数及安装尺寸 Parameter&Size

WQ系列小型立式污水污物潜水电泵
WQ Series Small Vertical Submersible Sewage Pump

性能曲线 Performance curve

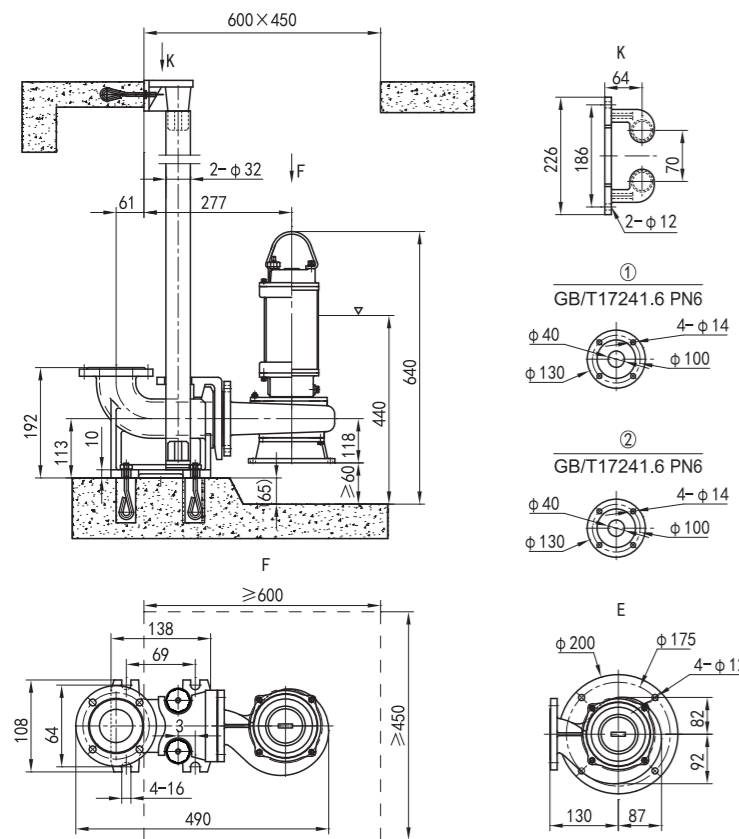


主要参数 Main parameter

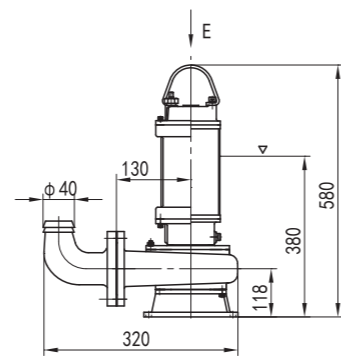
序号 No.	泵型号 Pump type	A×B (mm×mm)	Φ (mm)	n (r/min)	G (kg)
1	40WQ15-18-1.5	24×22	17	2840	24
2	40WQ12.5-15-1.1			2830	21
3	40WQ10.5-11-0.75			2825	20
4	40WQ8-15-0.75J			2825	21
序号 No.	电机型号 Motor type	P _E (kW)	I (A)	cos Φ	η _D (%)
1	WQD-80-1.5/2	1.5	3.43	0.85	78.0
2	WQD-80-1.1/2	1.1	2.58	0.83	76.0
3/4	WQD-80-0.75/2	0.75	1.83	0.83	74.0
序号 No.	Q (m ³ /h)	H (m)	P _N (kW)	η _{SP} (%)	η _{DB} (%)
1	9.0-15.0-21.0	21.6-18.0-13.0	1.159-1.380-1.502	48.0-56.0-52.0	37.4-43.7-40.6
2	7.5-12.5-17.5	17.0-15.0-11.2	0.890-0.999-1.100	41.0-53.7-51.0	31.6-41.3-39.3
3	6.3-10.5-14.0	12.7-11.0-8.5	0.619-0.718-0.757	37.0-46.0-45.0	27.8-34.5-33.8
4	5.6-8.0-10.4	16.8-14.8-12.3	0.612-0.658-0.747	44.0-51.5-49.0	33.0-38.6-36.8

安装尺寸图 Dimension figure

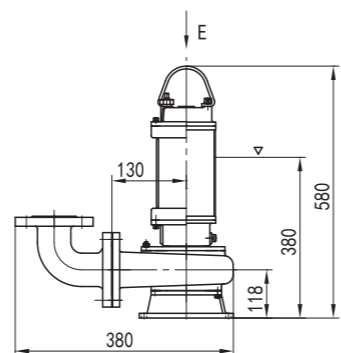
自动耦合式安装 Automatic coupling installation



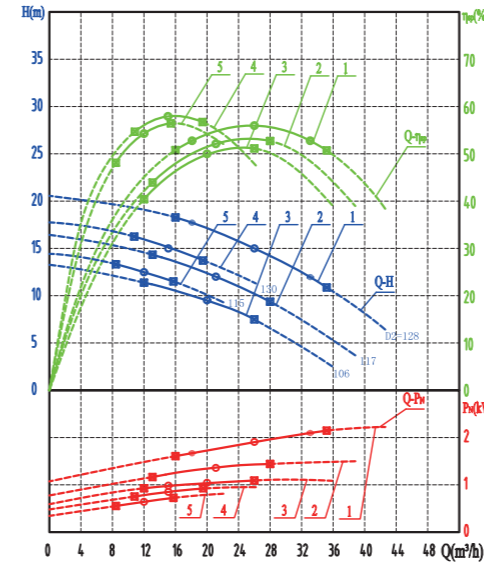
软管移动式安装 Hose mobile installation



硬管移动式安装 Hard-tube mobile installation



性能曲线 Performance curve

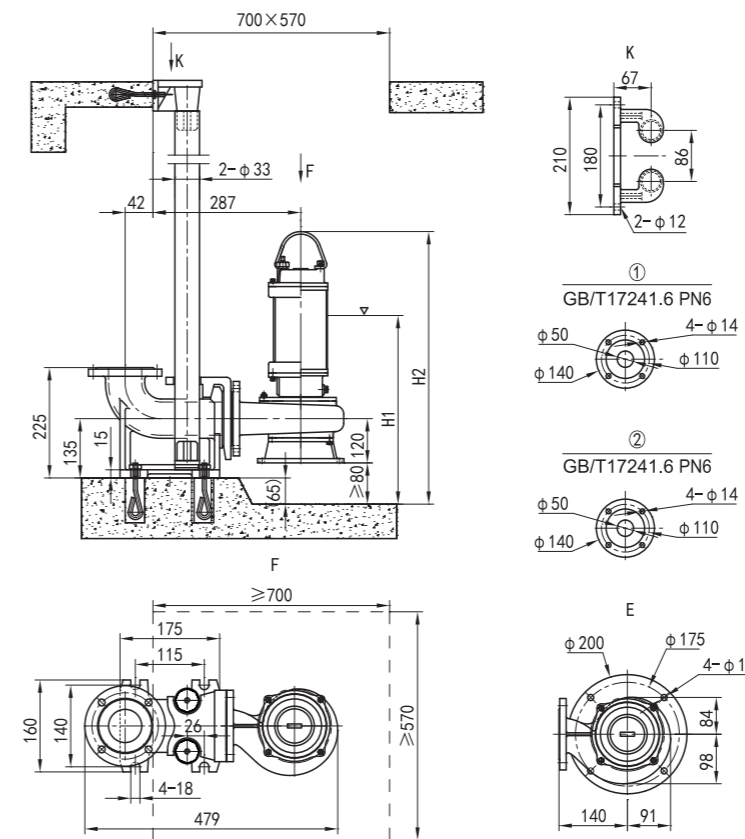


主要参数 Main parameter

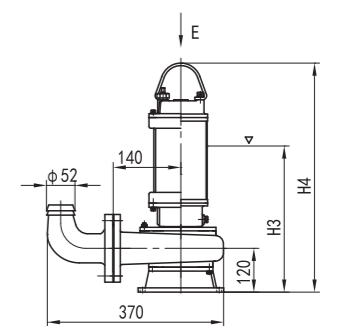
序号 No.	泵型号 Pump type	A×B (mm×mm)	Φ (mm)	n (r/min)	G (kg)
1	50WQ25-15-2.2	35×33	26	2880	33
2	50WQ21-13-1.5			2840	29
3	50WQ20-10-1.1			2830	27
4	50WQ15-15-1.1J	31×25	20	2840	28
5	50WQ12-12-0.75J			2830	27
序号 No.	电机型号 Motor type	P _E (kW)	I (A)	cos Φ	η _D (%)
1	WQD-90-2.2/2	2.2	4.85	0.86	80.0
2	WQD-80-1.5/2	1.5	2.58	0.84	78.0
3/4	WQD-80-1.1/2	1.1	1.83	0.84	77.0
5	WQD-80-0.75/2	0.75	1.83	0.83	74.0
序号 No.	Q (m ³ /h)	H (m)	P _N (kW)	η _{SP} (%)	η _{DB} (%)
1	16-26-35	18-15-11.2	1.616-1.993-2.199	51-56-51	41.8-45.9-41.8
2	13-21-28	14.4-12.6-10	1.275-1.484-1.484	42-51-54	32.8-39.8-42.1
3	12-20-26	12.6-10-7.6	1.082-1.156-1.077	40-49.5-52.5	30.8-38.1-40.4
4	10.5-15.0-19.5	16.5-14.6-11.0	0.932-1.080-1.104	53.2-58.0-55.6	41.0-44.7-42.8
5	8.4-12.0-15.6	13.6-11.7-9.6	0.664-0.723-0.745	49.2-55.6-57.5	37.9-42.8-44.3

安装尺寸图 Dimension figure

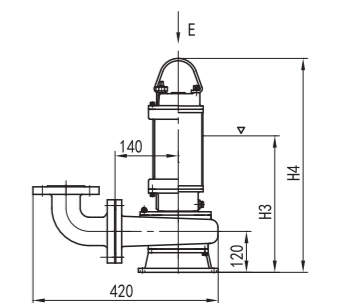
自动耦合式安装 Automatic coupling installation



软管移动式安装 Hose mobile installation



硬管移动式安装 Hard-tube mobile installation

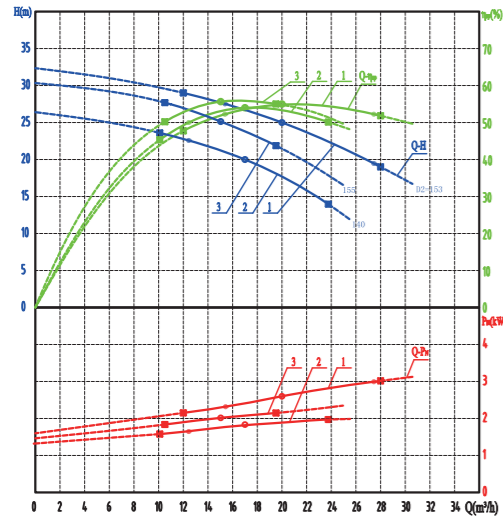


型号	H1	H2	H3	H4
50WQ25-15-2.2	495	730	415	650
50WQ21-13-1.5	455	640	380	560
50WQ20-10-1.1	455	640	380	560
50WQ15-15-1.1	455	640	380	560
50WQ12-12-0.75	455	640	380	560

性能曲线、主要参数及安装尺寸 Parameter&Size

WQ系列小型立式污水污物潜水电泵
WQ Seris Small Vertical Submersible Sewage Pump

性能曲线 Performance cure

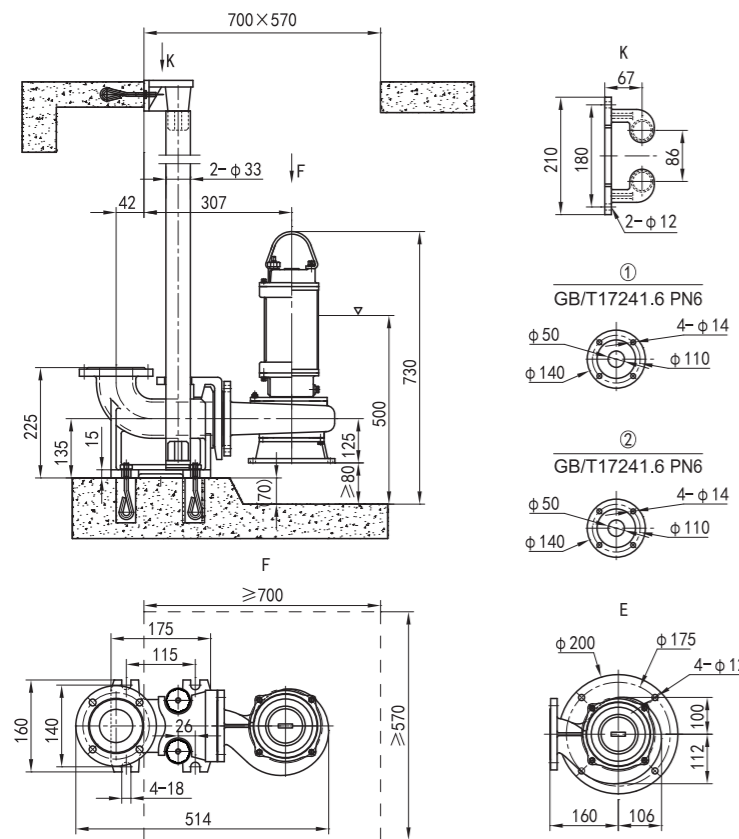


主要参数 Main parameter

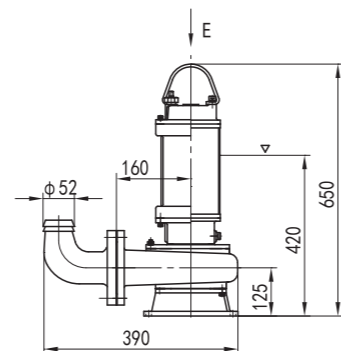
序号 No.	泵型号 Pump type	A×B (mm×mm)	Φ (mm)	n (r/min)	G (kg)
1	50WQ20-25-3	30×29	23	2880	37
2	50WQ17-20-2.2			2840	34
3	50WQ15-25-2.2J			2840	34
序号 No.	电机型号 Motor type	P _E (kW)	I (A)	cos Φ	η _D (%)
1	WQD-90-3/2	3	6.31	0.87	82.0
2/3	WQD-90-2.2/2	2.2	4.85	0.86	82.0
序号 No.	Q (m ³ /h)	H (m)	P _N (kW)	η _{SP} (%)	η _{DB} (%)
1	12-20-28	29-25-19	2.074-2.601-2.927	48-55-52	39.4-45.1-42.6
2	10.2-17.0-23.8	24-20-14	1.459-1.769-1.833	48-55-52	39.4-45.1-42.6
3	10.5-15.0-19.5	28-25-21.4	1.829-1.916-2.171	46-56-55	37.7-45.9-45.1

安装尺寸图 Dimension figure

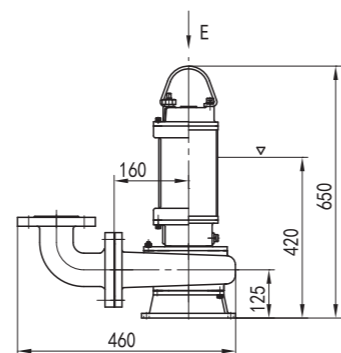
自动耦合式安装 Automatic coupling installation



软管移动式安装 Hose mobile installation



硬管移动式安装 Hard-tube mobile installation



性能曲线 Performance cure

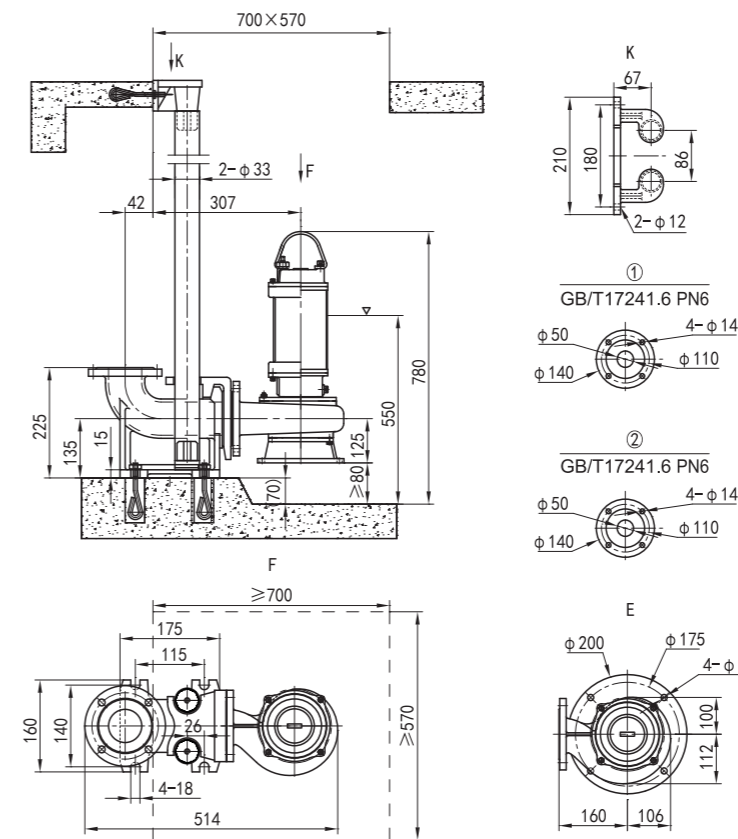


主要参数 Main parameter

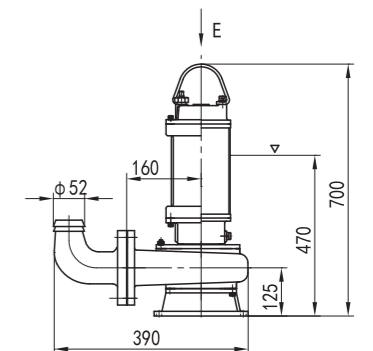
序号 No.	泵型号 Pump type	A×B (mm×mm)	Φ (mm)	n (r/min)	G (kg)
1	50WQA20-32-4	30×29	23	3408	50
序号 No.	电机型号 Motor type	P _E (kW)	I (A)	cos Φ	η _D (%)
1	WQD-90L-4/2	4	8.2	0.87	84.0
序号 No.	Q (m ³ /h)	H (m)	P _N (kW)	η _{SP} (%)	η _{DB} (%)
1	12.2-20.4-28.6	37.8-32-23.4	2.758-3.396-3.677	48-55-52	41.0-47-44.5

安装尺寸图 Dimension figure

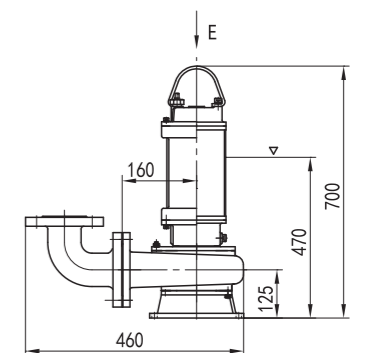
自动耦合式安装 Automatic coupling installation



软管移动式安装 Hose mobile installation



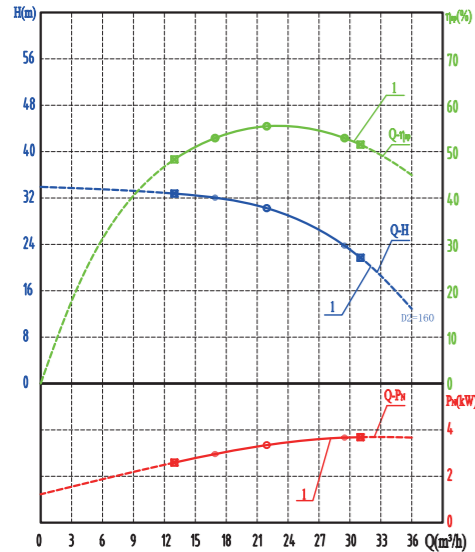
硬管移动式安装 Hard-tube mobile installation



性能曲线、主要参数及安装尺寸 Parameter&Size

WQ系列小型立式污水污物潜水电泵
WQ Series Small Vertical Submersible Sewage Pump

性能曲线 Performance curve



主要参数 Main parameter

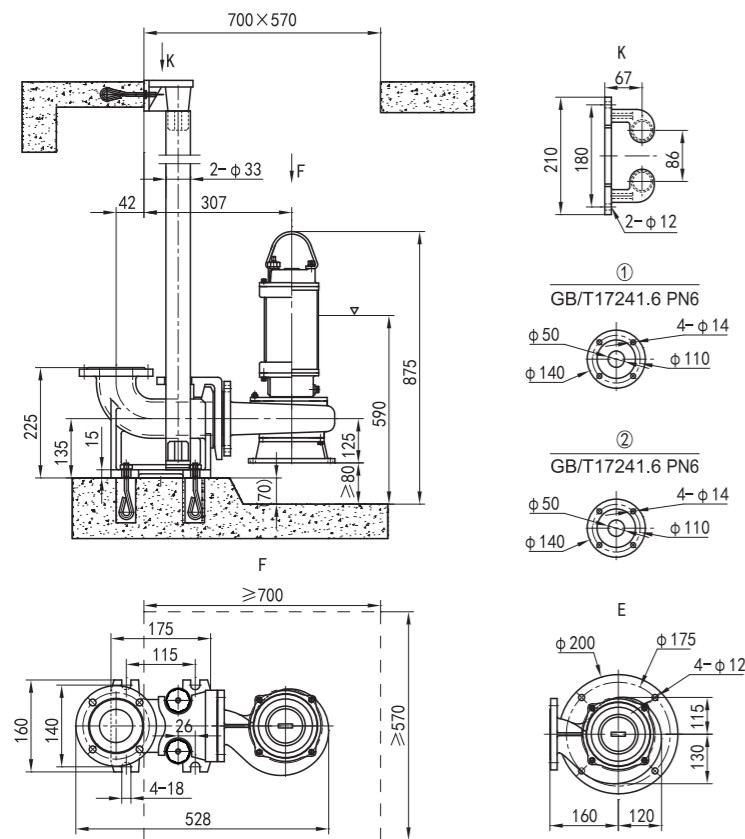
序号 No.	泵型号 Pump type	A×B (mm×mm)	Φ (mm)	n (r/min)	G (kg)
1	50WQ22-30-4	34×33	26	2890	50

序号 No.	电机型号 Motor type	P _E (kW)	I (A)	cos Φ	η _D (%)
1	WQD-90L-4/2	4	8.2	0.87	85.5

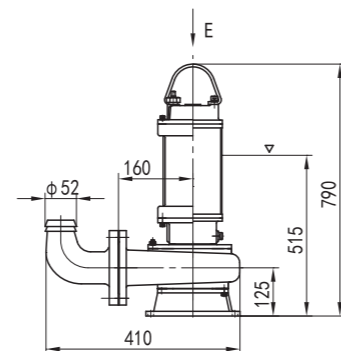
序号 No.	Q (m³/h)	H (m)	P _N (kW)	η _{SP} (%)	η _{DB} (%)
1	13.2-22-30.9	33-30-23.4	2.597-3.434-3.976	48-55-52	41-47-44.5

安装尺寸图 Dimension figure

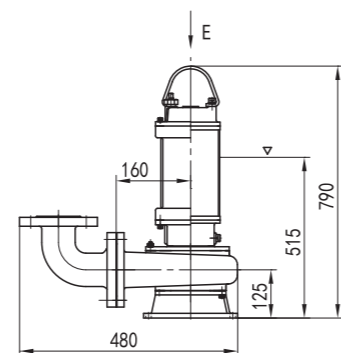
自动耦合式安装 Automatic coupling installation



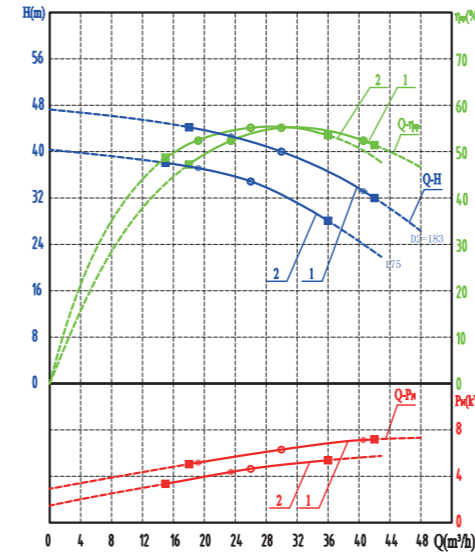
软管移动式安装 Hose mobile installation



硬管移动式安装 Hard-tube mobile installation



性能曲线 Performance curve



主要参数 Main parameter

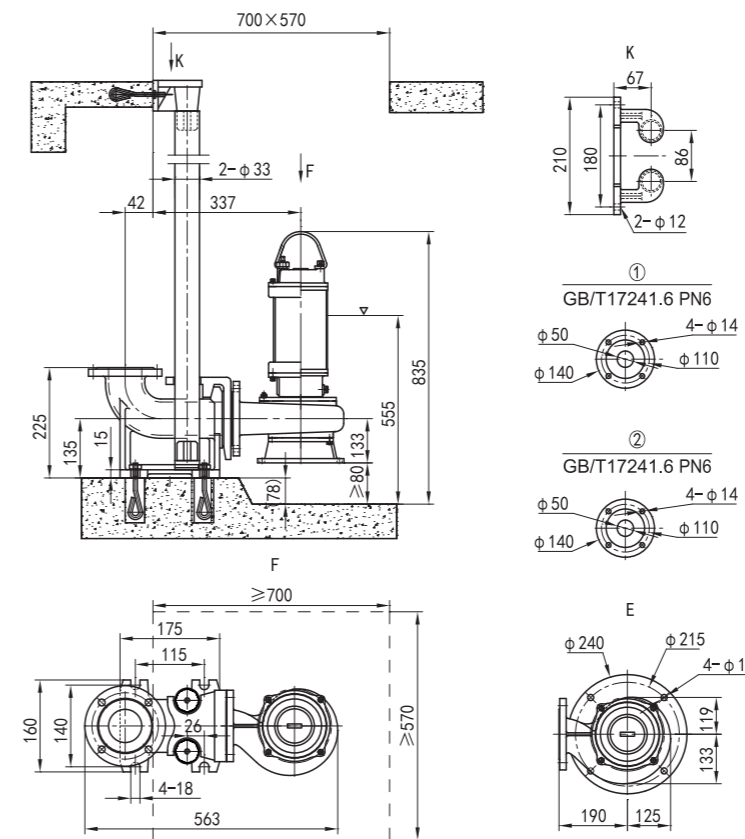
序号 No.	泵型号 Pump type	A×B (mm×mm)	Φ (mm)	n (r/min)	G (kg)
1	50WQ30-40-7.5	34×33	26	2920	70
2	50WQ26-35-5.5			2920	64

序号 No.	电机型号 Motor type	P _E (kW)	I (A)	cos Φ	η _D (%)
1	WQD-112-7.5/2	7.5	14.9	0.88	86.2
2	WQD-112-5.5/2	5.5	11.1	0.88	85.5

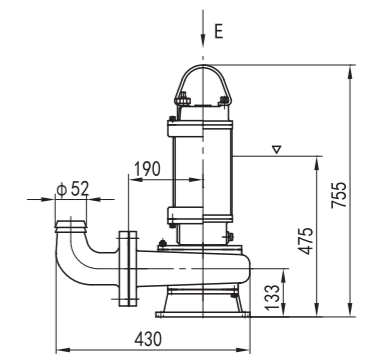
序号 No.	Q (m³/h)	H (m)	P _N (kW)	η _{SP} (%)	η _{DB} (%)
1	18-30-42	44-40-32	4.822-6.243-7.395	47-55-52	40.5-47.4-44.8
2	15-26-36	38-35-28	3.398-4.734-5.442	48-55-53	41-47-45.3

安装尺寸图 Dimension figure

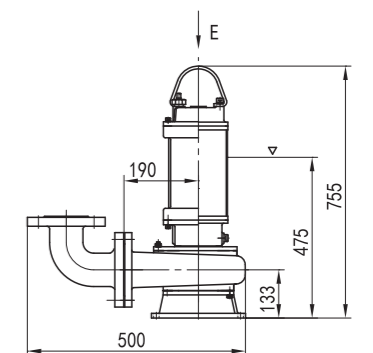
自动耦合式安装 Automatic coupling installation



软管移动式安装 Hose mobile installation



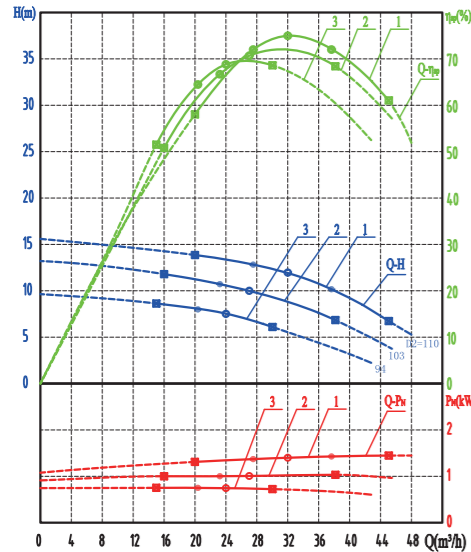
硬管移动式安装 Hard-tube mobile installation



性能曲线、主要参数及安装尺寸 Parameter&Size

WQ系列小型立式污水污物潜水电泵
WQ Series Small Vertical Submersible Sewage Pump

性能曲线 Performance curve

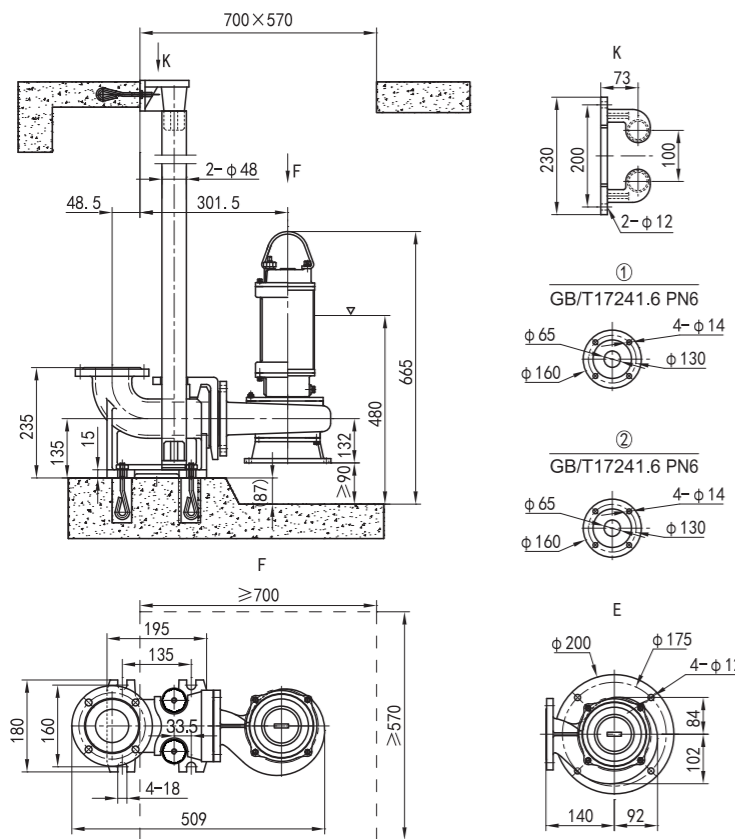


主要参数 Main parameter

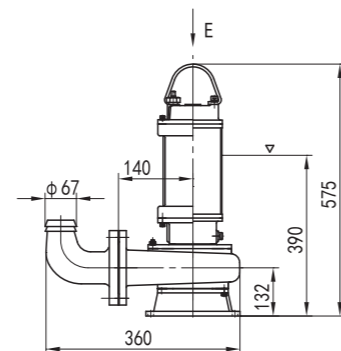
序号 No.	泵型号 Pump type	A×B (mm×mm)	Φ (mm)	n (r/min)	G (kg)
1	65WQ32-12-1.5	39×29	23	2840	26
2	65WQ27-10-1.1			2830	23
3	65WQ24-8-0.75			2830	21
序号 No.	电机型号 Motor type	P _E (kW)	I (A)	cos Φ	η _D (%)
1	WQD-80-1.5/2	1.5	3.43	0.85	78.0
2	WQD-80-1.1/2	1.1	2.58	0.84	76.0
3	WQD-80-0.75/2	0.75	1.83	0.83	74.0
序号 No.	Q (m ³ /h)	H (m)	P _N (kW)	η _{SP} (%)	η _{DB} (%)
1	20-32-45	14-12-7	1.381-1.457-1.478	58-75-61	45.2-58.8-47.6
2	16-27-38	11.6-10.0-6.8	1.062-1.088-1.056	50-71-70	38.5-54.7-53.9
3	15-24-30	8.5-7.7-6.0	0.715-0.766-0.757	51-69-68	39.3-53.1-52.4

安装尺寸图 Dimension figure

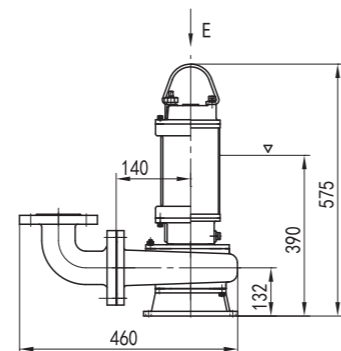
自动耦合式安装 Automatic coupling installation



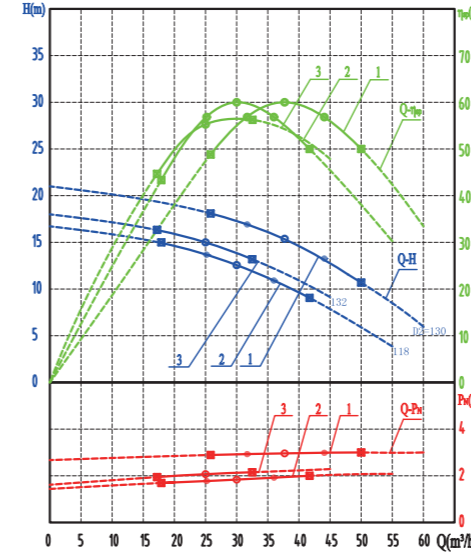
软管移动式安装 Hose mobile installation



硬管移动式安装 Hard-tube mobile installation



性能曲线 Performance curve

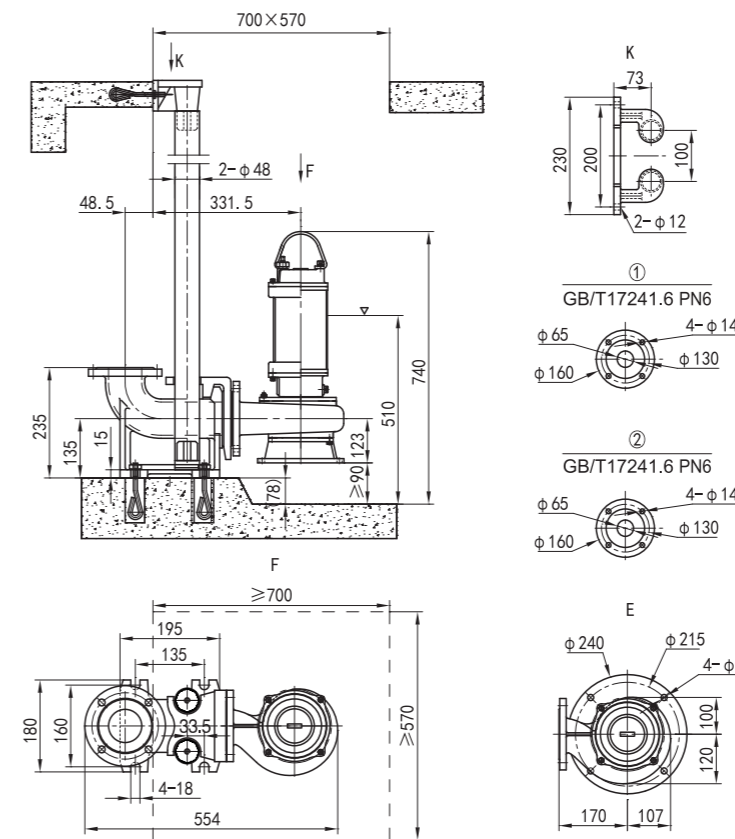


主要参数 Main parameter

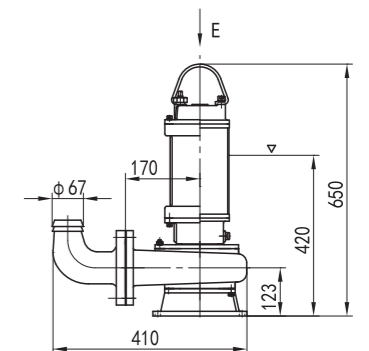
序号 No.	泵型号 Pump type	A×B (mm×mm)	Φ (mm)	n (r/min)	G (kg)
1	65WQ35-15-3	39×34	27	2880	40
2	65WQ30-12-2.2			2840	34
3	65WQ25-15-2.2J			21	2840
序号 No.	电机型号 Motor type	P _E (kW)	I (A)	cos Φ	η _D (%)
1	WQD-90-3/2	3	6.31	0.87	82.0
2/3	WQD-90-2.2/2	2.2	4.85	0.86	82.0
序号 No.	Q (m ³ /h)	H (m)	P _N (kW)	η _{SP} (%)	η _{DB} (%)
1	26-37.5-50	18-15.5-10.7	2.911-2.772-3.062	46-60-50	37.7-49.2-41
2	18-30-42	15-12-9	1.717-1.717-2.163	45-60-50	36.9-49.2-41.0
3	17.5-25.0-32.5	16.5-15.0-13.2	1.878-1.916-2.116	44-56-58	36.1-45.9-47.6

安装尺寸图 Dimension figure

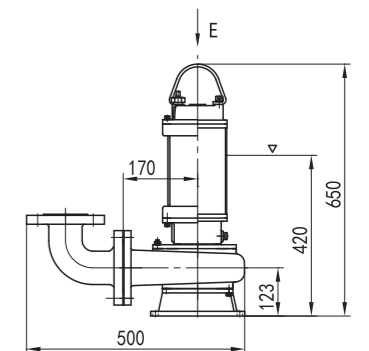
自动耦合式安装 Automatic coupling installation



软管移动式安装 Hose mobile installation



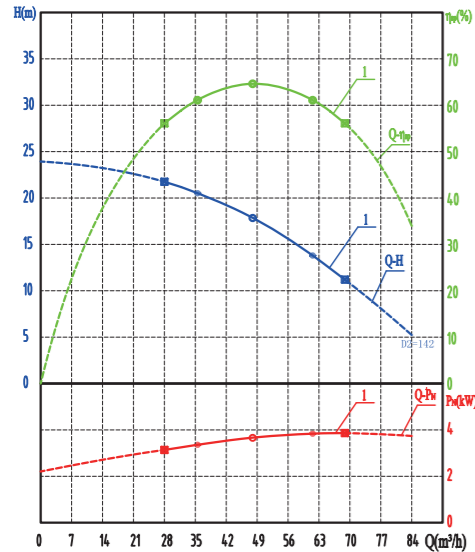
硬管移动式安装 Hard-tube mobile installation



性能曲线、主要参数及安装尺寸 Parameter&Size

WQ系列小型立式污水污物潜水电泵
WQ Seris Small Vertical Submersible Sewage Pump

性能曲线 Performance cure



主要参数 Main parameter

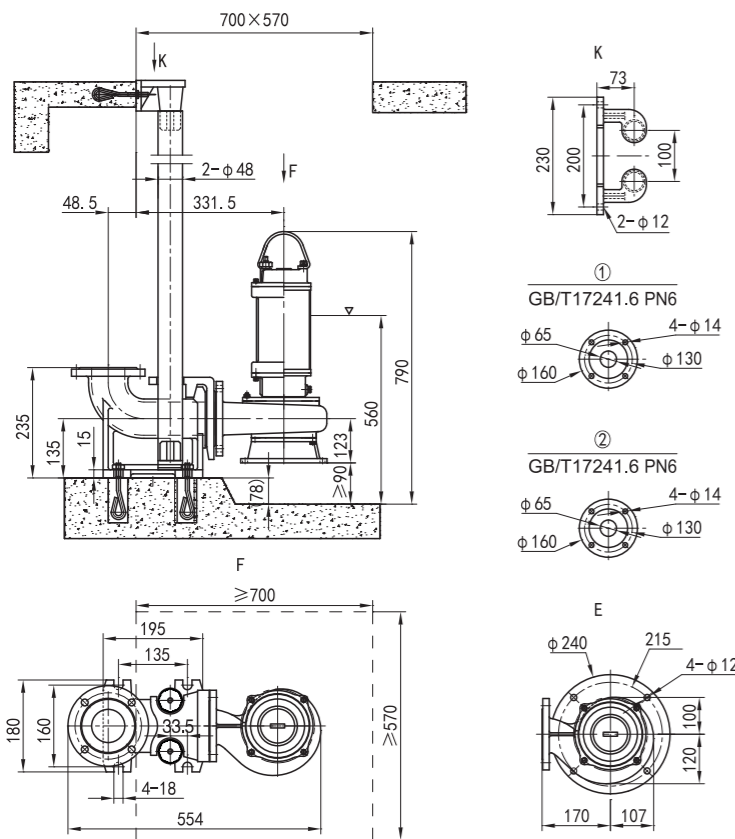
序号 No.	泵型号 Pump type	A×B (mm×mm)	Φ (mm)	n (r/min)	G (kg)
1	65WQ48-18-4	40×38	30	2890	45

序号 No.	电机型号 Motor type	P _E (kW)	I (A)	Cos Φ	η _D (%)
1	WQD-90L-4/2	4	8.2	0.87	85.5

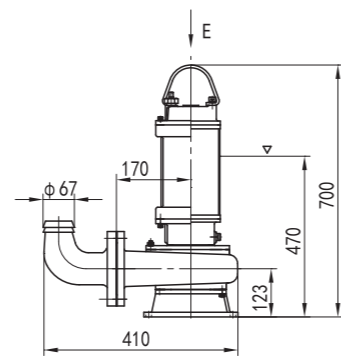
序号 No.	Q (m³/h)	H (m)	P _N (kW)	η _{SP} (%)	η _{DB} (%)
1	28-48-68	22-18-11.4	3.147-3.863-3.961	56-64-56	47.9-54.7-47.9

安装尺寸图 Dimension figure

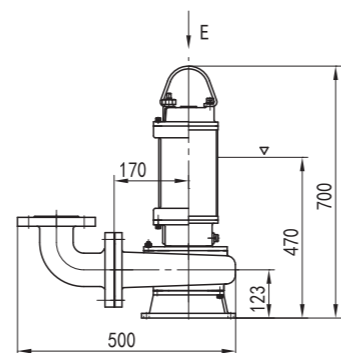
自动耦合式安装 Automatic coupling installation



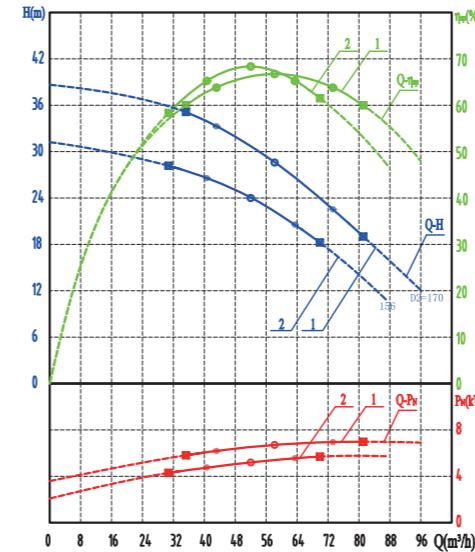
软管移动式安装 Hose mobile installation



硬管移动式安装 Hard-tube mobile installation



性能曲线 Performance cure



主要参数 Main parameter

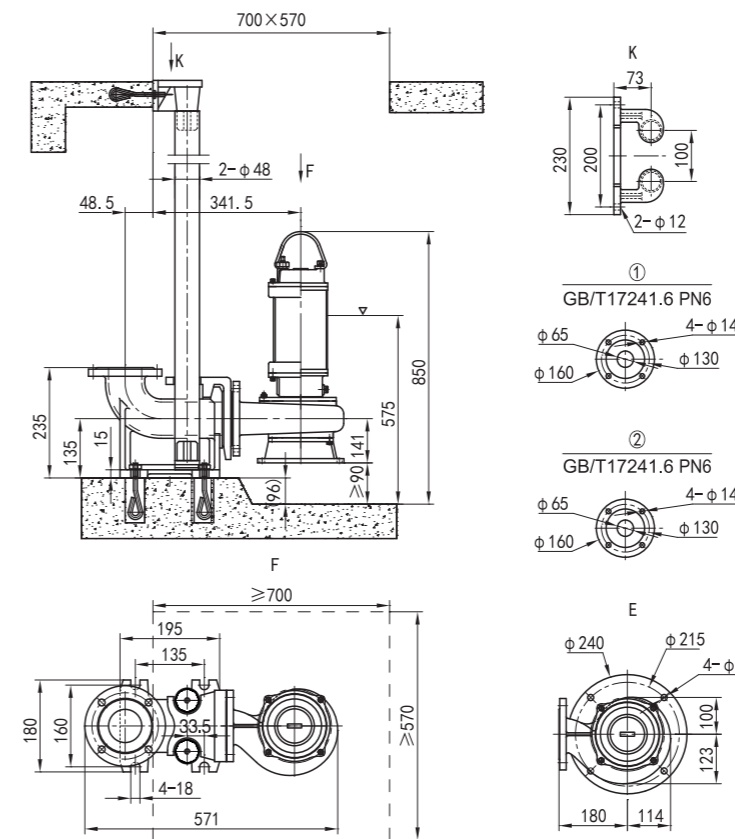
序号 No.	泵型号 Pump type	A×B (mm×mm)	Φ (mm)	n (r/min)	G (kg)
1	65WQ58-28-7.5	40×38	30	2920	71
2	65WQ52-24-5.5			2920	64

序号 No.	电机型号 Motor type	P _E (kW)	I (A)	Cos Φ	η _D (%)
1	WQD-112-7.5/2	7.5	14.9	0.88	86.2
2	WQD-112-5.5/2	5.5	11.1	0.88	85.5

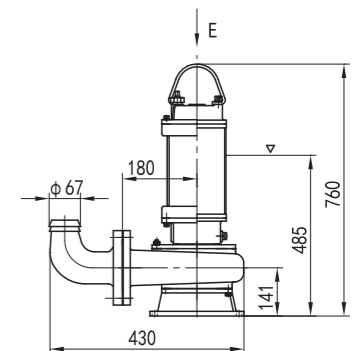
序号 No.	Q (m³/h)	H (m)	P _N (kW)	η _{SP} (%)	η _{DB} (%)
1	35-58-81	35.3-28-18.8	5.858-6.935-7.262	60-67-60	51.7-57.8-51.7
2	31-52-70	28.3-24-16.8	4.328-5.251-5.436	58-68-61.9	49.6-58.1-52.9

安装尺寸图 Dimension figure

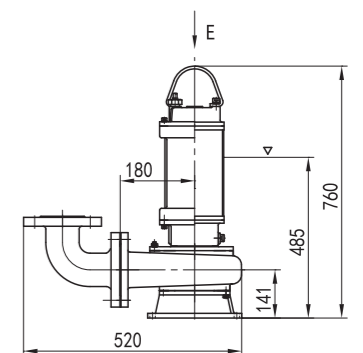
自动耦合式安装 Automatic coupling installation



软管移动式安装 Hose mobile installation



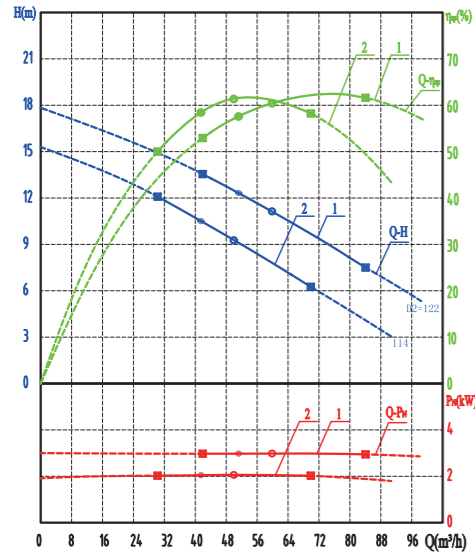
硬管移动式安装 Hard-tube mobile installation



性能曲线、主要参数及安装尺寸 Parameter&Size

WQ系列小型立式污水污物潜水电泵
WQ Series Small Vertical Submersible Sewage Pump

性能曲线 Performance curve



主要参数 Main parameter

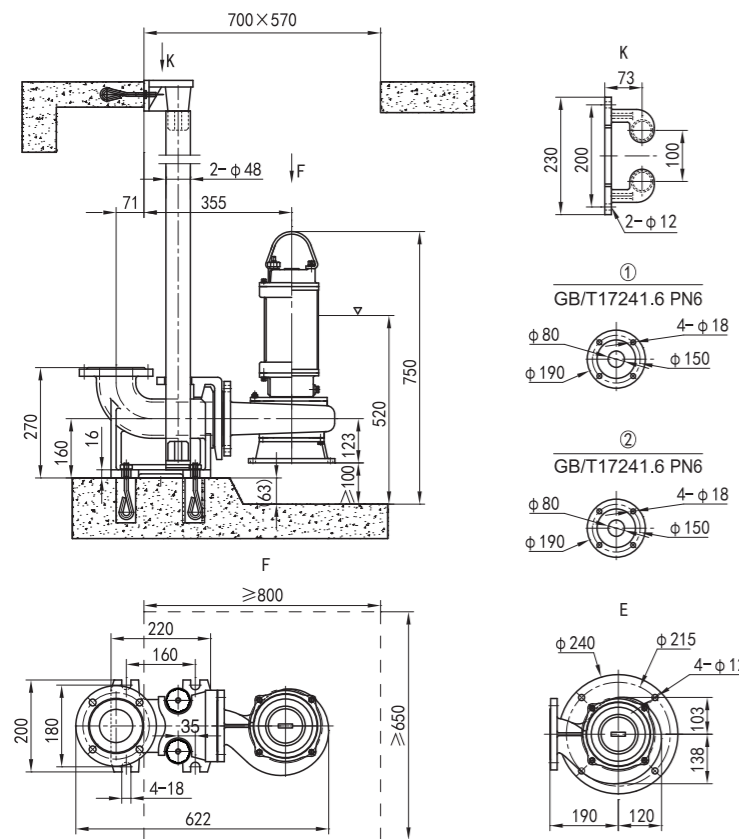
序号 No.	泵型号 Pump type	A×B (mm×mm)	Φ (mm)	n (r/min)	G (kg)
1	80WQ60-10-3	38×30	24	2880	43
2	80WQ50-9-2.2			2840	37

序号 No.	电机型号 Motor type	P _E (kW)	I (A)	Cos Φ	η _D (%)
1	WQD-90-3/2	3	6.31	0.87	82.0
2	WQD-90-2.2/2	2.2	4.85	0.86	82.0

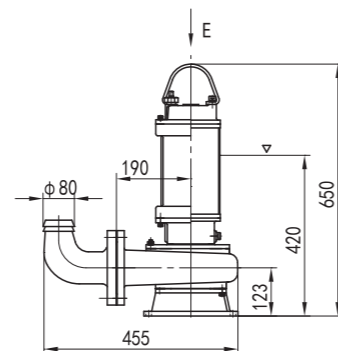
序号 No.	Q (m³/h)	H (m)	P _N (kW)	η _{SP} (%)	η _{DB} (%)
1	42-60-84	13.5-10.5-7.5	3.061-2.979-2.907	53-60.5-62	42-48.1-49.3
2	30-50-70	12.2-9.0-6.0	2.094-2.090-2.072	50-61.6-58	39.5-49-46.1

安装尺寸图 Dimension figure

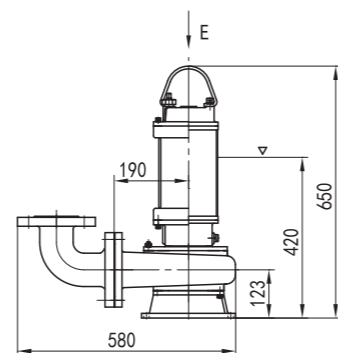
自动耦合式安装 Automatic coupling installation



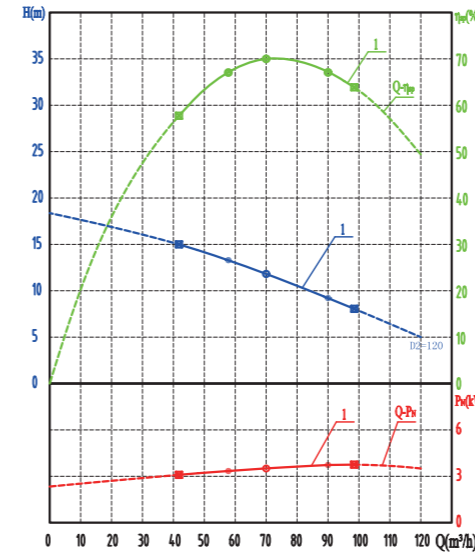
软管移动式安装 Hose mobile installation



硬管移动式安装 Hard-tube mobile installation



性能曲线 Performance curve



主要参数 Main parameter

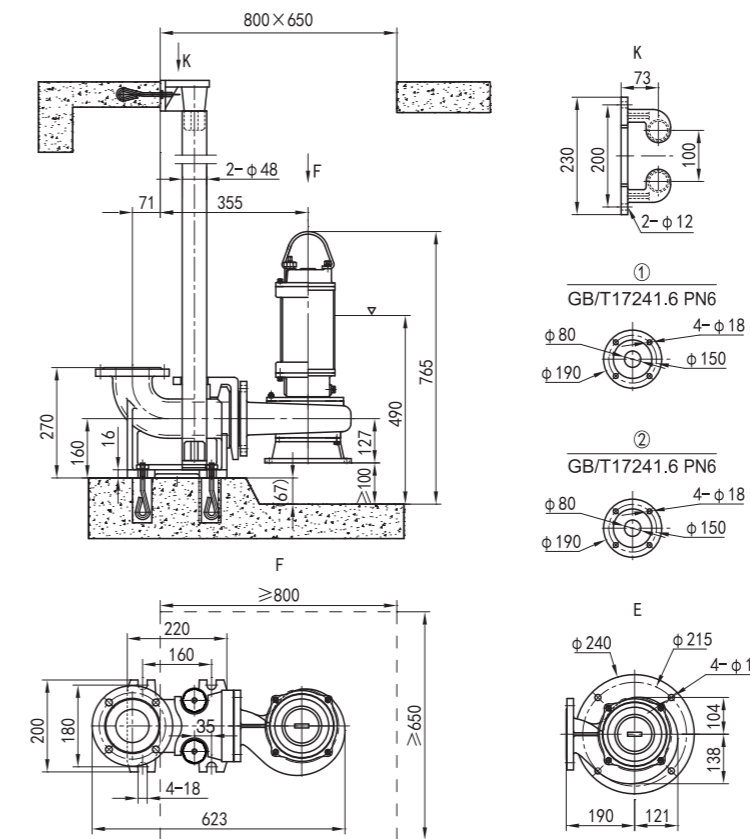
序号 No.	泵型号 Pump type	A×B (mm×mm)	Φ (mm)	n (r/min)	G (kg)
1	80WQ70-12-4	51×43	34	2890	65

序号 No.	电机型号 Motor type	P _E (kW)	I (A)	Cos Φ	η _D (%)
1	WQD-90L-4/2	4	8.2	0.87	85.5

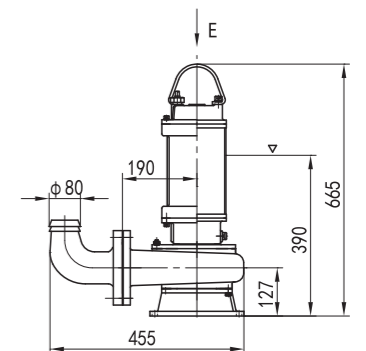
序号 No.	Q (m³/h)	H (m)	P _N (kW)	η _{SP} (%)	η _{DB} (%)
1	42-70-98	15-12-8	3.108-3.434-3.505	58-70-64	49.6-59.9-54.7

安装尺寸图 Dimension figure

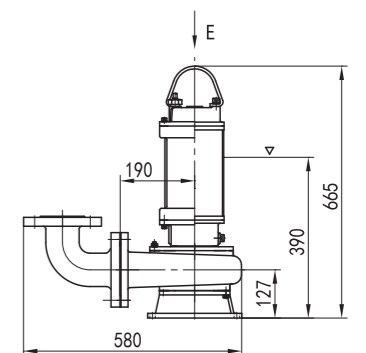
自动耦合式安装 Automatic coupling installation



软管移动式安装 Hose mobile installation

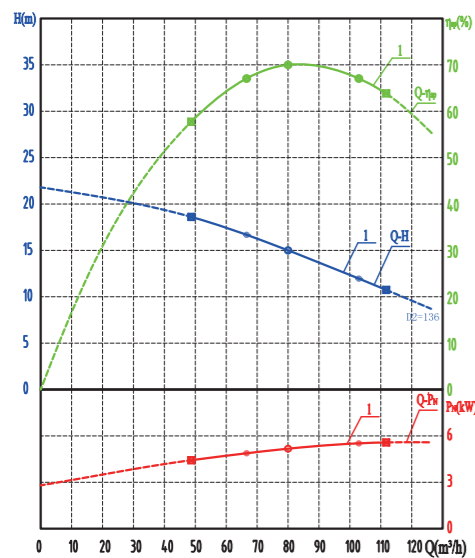


硬管移动式安装 Hard-tube mobile installation



性能曲线、主要参数及安装尺寸 Parameter&Size

性能曲线 Performance curve



主要参数 Main parameter

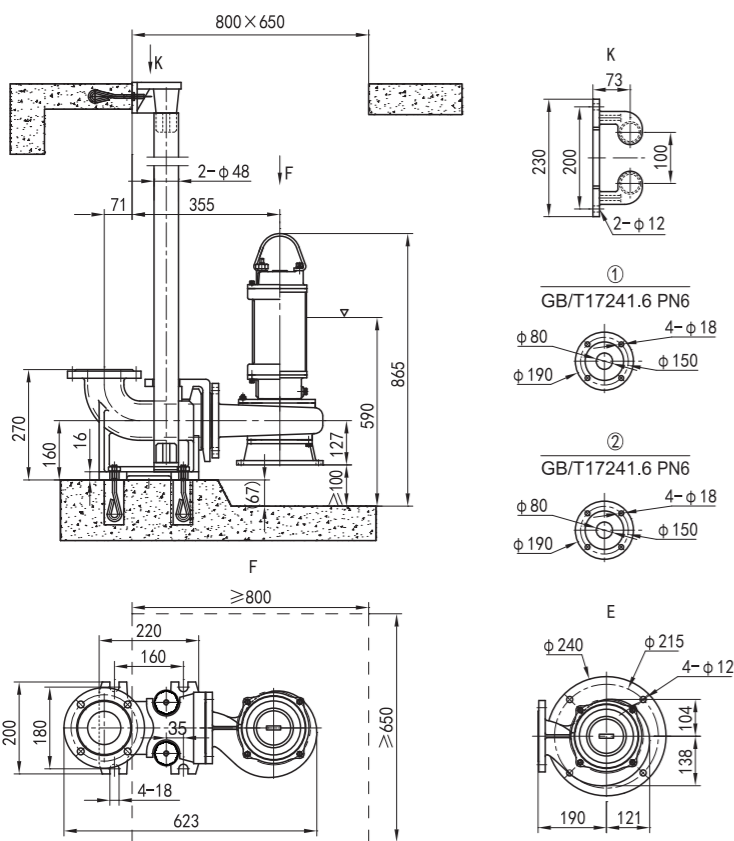
序号 No.	泵型号 Pump type	A×B (mm×mm)	Φ (mm)	n (r/min)	G (kg)
1	80WQ80-15-5.5	51×43	34	2920	73

序号 No.	电机型号 Motor type	P _E (kW)	I (A)	cos Φ	η _D (%)
1	WQD-112-5.5/2	5.5	11.1	0.88	85.5

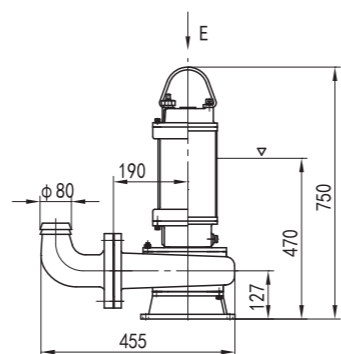
序号 No.	Q (m³/h)	H (m)	P _N (kW)	η _{SP} (%)	η _{DB} (%)
1	48-80-112	18-15-10.9	4.262-4.905-5.458	58-70-64	49.6-59.9-54.7

安装尺寸图 Dimension figure

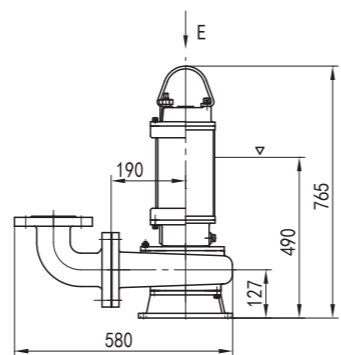
自动耦合式安装 Automatic coupling installation



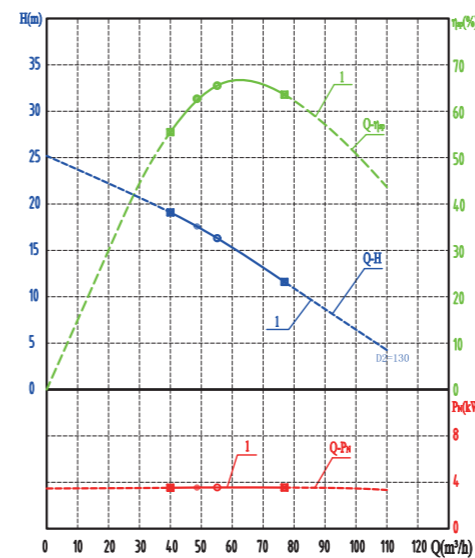
软管移动式安装 Hose mobile installation



硬管移动式安装 Hard-tube mobile installation



性能曲线 Performance curve



主要参数 Main parameter

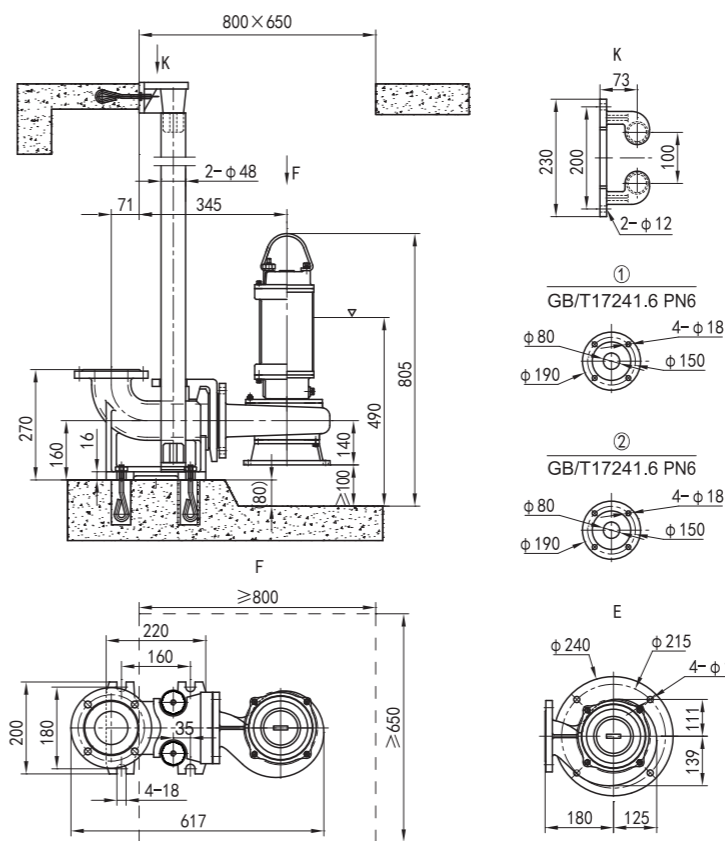
序号 No.	泵型号 Pump type	A×B (mm×mm)	Φ (mm)	n (r/min)	G (kg)
1	80WQ55-16-4	47×43	34	2890	52

序号 No.	电机型号 Motor type	P _E (kW)	I (A)	cos Φ	η _D (%)
1	WQD-90L-4/2	4	8.2	0.87	85.5

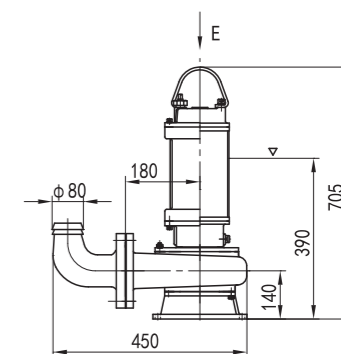
序号 No.	Q (m³/h)	H (m)	P _N (kW)	η _{SP} (%)	η _{DB} (%)
1	40-55-77	19.3-16-11	3.903-3.815-3.884	56.6-66-62.4	47.0-58.1-50.4

安装尺寸图 Dimension figure

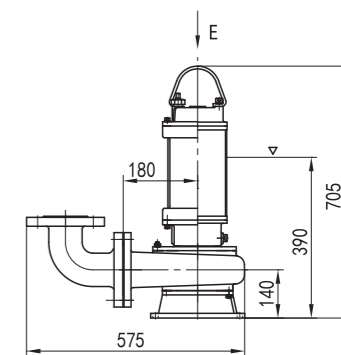
自动耦合式安装 Automatic coupling installation



软管移动式安装 Hose mobile installation



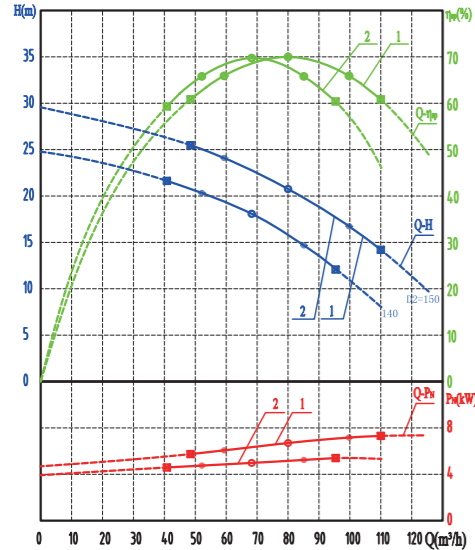
硬管移动式安装 Hard-tube mobile installation



性能曲线、主要参数及安装尺寸

WQ系列小型立式污水污物潜水电泵
WQ Seris Small Vertical Submersible Sewage Pump

性能曲线 Performance curve



主要参数 Main parameter

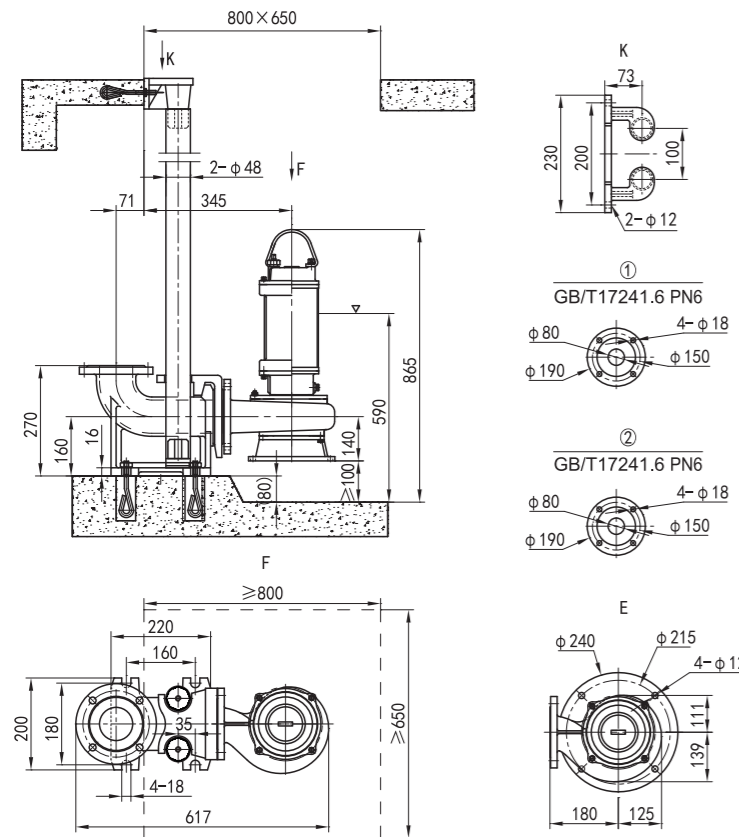
序号 No.	泵型号 Pump type	A×B (mm×mm)	Φ (mm)	n (r/min)	G (kg)
1	80WQ80-20-7.5	47×43	34	2920	72
2	80WQ68-18-5.5			2920	60

序号 No.	电机型号 Motor type	P _E (kW)	I (A)	cos Φ	η _D (%)
1	WQD-112-7.5/2	7.5	14.9	0.88	86.2
2	WQD-112-5.5/2	5.5	11.1	0.88	85.5

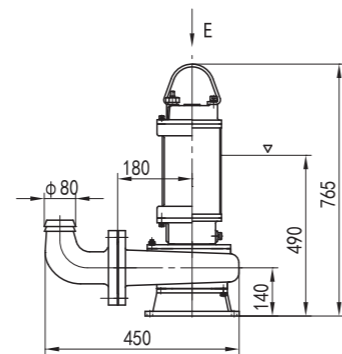
序号 No.	Q (m³/h)	H (m)	P _N (kW)	η _{SP} (%)	η _{DB} (%)
1	48-80-110	25.5-20.4-14	5.741-6.709-7.223	61-69.6-61	47.4-58.6-50.9
2	41-68-95	21.8-18-11.9	4.335-5.076-5.260	59-69-61.5	47.0-58.1-50.4

安装尺寸图 Dimension figure

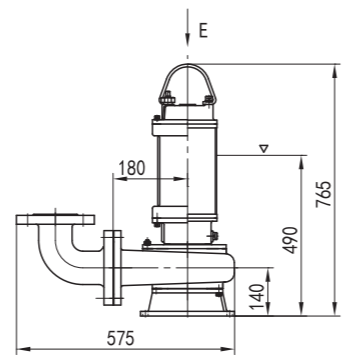
自动耦合式安装 Automatic coupling installation



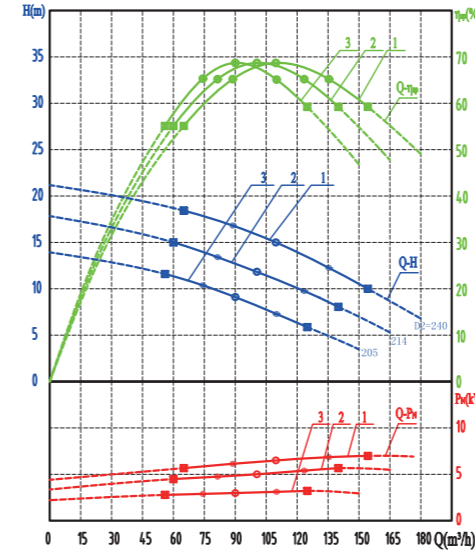
软管移动式安装 Hose mobile installation



硬管移动式安装 Hard-tube mobile installation



性能曲线 Performance curve



主要参数 Main parameter

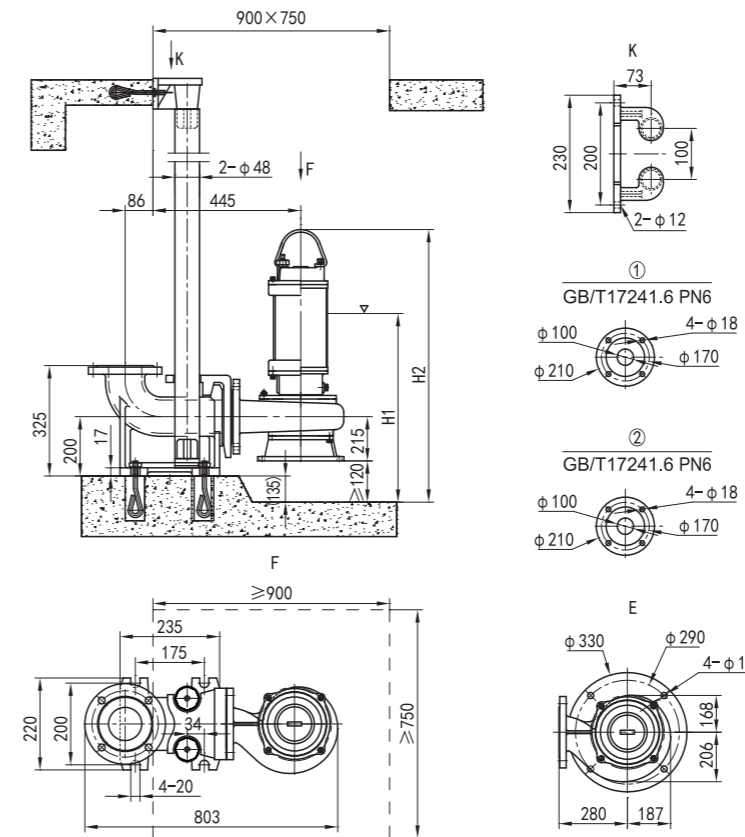
序号 No.	泵型号 Pump type	A×B (mm×mm)	Φ (mm)	n (r/min)	G (kg)
1	100WQ110-15-7.5	75×73	58	1440	115
2	100WQ100-12-5.5			1440	103
3	100WQ90-9-4			1440	80

序号 No.	电机型号 Motor type	P _E (kW)	I (A)	cos Φ	η _D (%)
1	WQD-112L-7.5/4	7.5	15.4	0.85	87.0
2	WQD-112-5.5/4	5.5	11.6	0.84	85.5
3	WQD-112-4/4	4	8.8	0.82	84.5

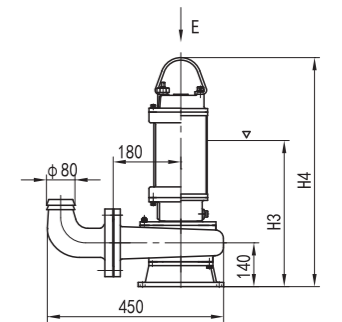
序号 No.	Q (m³/h)	H (m)	P _N (kW)	η _{SP} (%)	η _{DB} (%)
1	66-110-154	18-15-10	6.180-6.943-7.468	55-68-59	47.9-59.2-51.3
2	60-100-140	15-12-8	4.682-5.049-5.432	55-68-59	47-58.1-50.4
3	54-90-126	12-9-6	3.371-3.408-3.666	55-68-59	46.5-57.5-49.9

安装尺寸图 Dimension figure

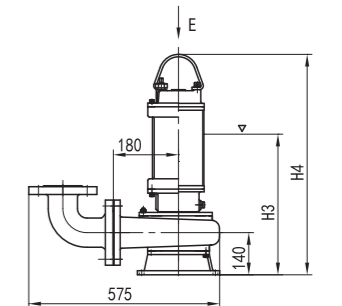
自动耦合式安装 Automatic coupling installation



软管移动式安装 Hose mobile installation



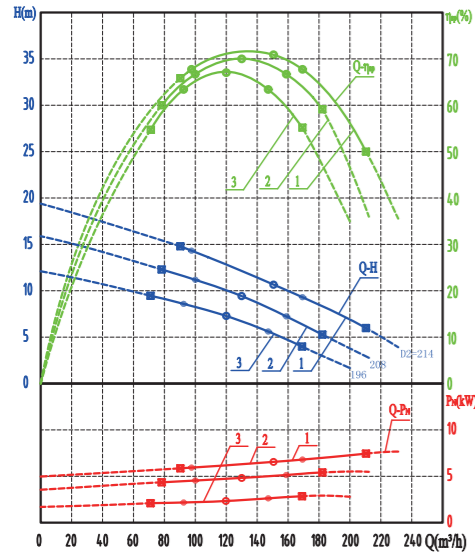
硬管移动式安装 Hard-tube mobile installation



型号	H1	H2	H3	H4
100WQ110-15-7.5	770	1025	650	905
100WQ100-12-5.5	695	975	575	855
100WQ90-9-4	695	975	575	855

性能曲线、主要参数及安装尺寸 Parameter&Size

性能曲线 Performance curve

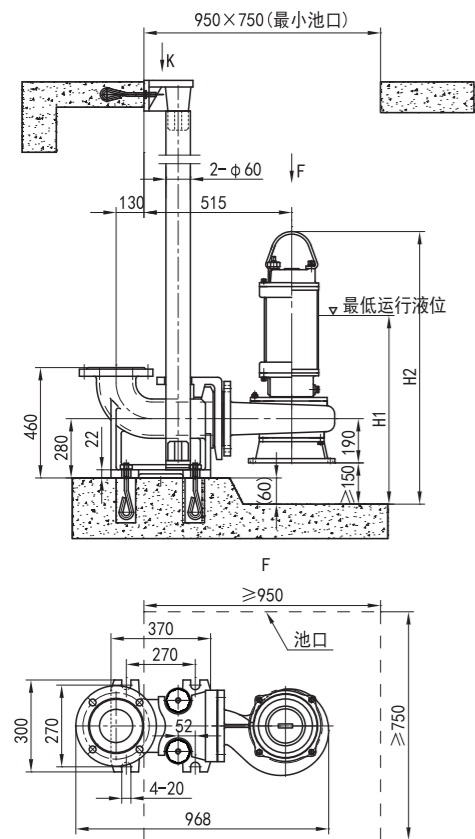


主要参数 Main parameter

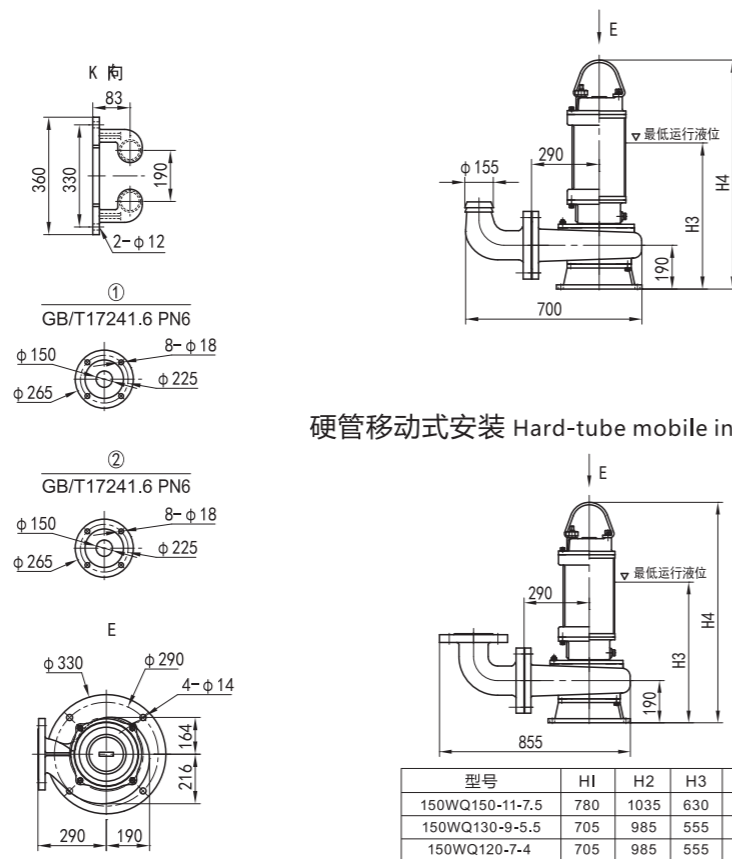
序号 No.	泵型号 Pump type	A×B (mm×mm)	Φ (mm)	n (r/min)	G (kg)
1	150WQ150-11-7.5	79×68	54	1440	120
2	150WQ130-9-5.5			1440	108
3	150WQ120-7-4			1440	85
序号 No.	电机型号 Motor type	P _E (kW)	I (A)	cos Φ	η _D (%)
1	WQD-112L-7.5/4	7.5	15.4	0.85	87.0
2	WQD-112-5.5/4	5.5	11.6	0.84	85.5
3	WQD-112-4/4	4	8.8	0.82	84.5
序号 No.	Q (m³/h)	H (m)	P _N (kW)	η _{SP} (%)	η _{DB} (%)
1	90-150-210	15-11-6.2	5.853-6.649-7.451	66-71-50	57.4-61.8-43.5
2	78-130-182	12-9-6	4.464-4.782-5.207	60-70-60	51.3-59.9-51.3
3	72-120-168	9-7-4	3.434-3.534-3.496	54-68-55	45.6-57.5-46.5

安装尺寸图 Dimension figure

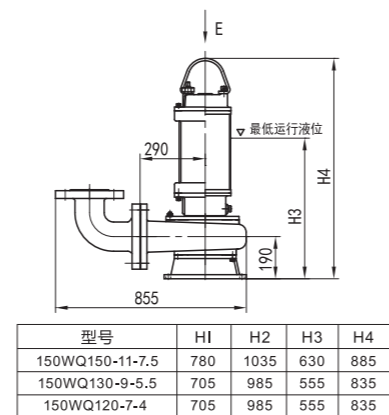
自动耦合式安装 Automatic coupling installation



软管移动式安装 Hose mobile installation



硬管移动式安装 Hard-tube mobile installation



配套电控柜

Complement electric control cabinet

概述

该系列潜水排污泵配套的TQK型控制柜是一种经济适用、安全可靠、维护简便的自动控制设备。控制柜选用国内外知名品牌的低压电器和液位传感器，具有短路、缺相、过载等保护功能。控制柜可采用普通继电器控制或面板控制器控制等多种方案，配套浮球液位开关、水位电极液位传感器，在无人值守的情况下，可根据液位的高低自动控制水泵的启停。除单控产品外，凡有主备泵控制的产品，均具有故障泵自行关闭、备用泵自动投入运行的功能。两泵和三泵控制柜可实现自动交替或循环运行，以实现各泵运行时间均等。

主要元器件标配国内知名品牌：正泰，可选配德力西，天正，上海人民，良信等等国产元器件品牌

主要元器件可选择进口品牌元器件，公司默认：施耐德，可选配西门子，ABB等等进口元器件品牌。

技术指标及使用条件

主要技术指标

- 时间控制精度：±0.5s
- 控制电机功率：0.75-15kW
- 控制电压：AC220V

设备使用条件

- 电源电压波动范围：±10%Ue
- 周围环境温度：-10℃~+40℃，24小时内其平均值不超过+35℃
- 空气相对湿度20%~80%
- 海拔高度：≤2000米
- *海拔超过2000米应降频使用
- 现场应无导电尘埃及破坏金属绝缘的腐蚀性气体
- 无爆炸危险场所
- 无距离震动
- 柜体倾斜度不超过5度

Brief Introduction

The TQK control cabinet equipped with this series of submersible sewage pumps is an economical, safe and reliable, and simple maintenance of automatic control equipment. The control cabinet selects low-voltage electrical appliances and liquid level sensors at home and abroad, with protection functions such as short circuit, phase deficiency and overload. The control cabinet can use ordinary relay control or panel controller control and other schemes, supporting the floating ball liquid level switch, water level electrode liquid level sensor, in the case of unattended, can control the start and stop of the pump automatically according to the height of the liquid level. Except for the single control products, all the products controlled by the main and standby pump have the function of the fault pump closing by itself and the standby pump being put into operation automatically. The two pumps and the three pump control cabinets can realize automatic alternating or cyclic operation to achieve equal operation time of each pump.

The main components are standard equipped with well-known domestic brands: Chint, optional delixi, Tianzheng, Shanghai People, Liangxin and other domestic component brands. The main components can be selected imported brand components, the company default: Schneider, optional Siemens, ABB and other imported component brands.

Technical Specification & Working Condition

The key technical indexes

- Time control accuracy: ±0.5s
- Control motor power: 0.75-15kW
- Control voltage: AC220V

Equipment usage conditions

- Voltage fluctuation range of the power supply: ±10% Ue
- Ambient temperature: -10℃ ~ +40℃, with the average value not exceeding +35℃ within 24 hours
- The air humidity is 20%~80%
- Altitude: 2,000 meters
- * The frequency should be reduced over 2000 meters
- The site shall be free of conductive dust and corrosive gas destroying metal insulation
- No explosion risk places
- No distance vibration
- The inclination of the cabinet shall not exceed 5 degrees

配套电控柜 Complement electric control cabinet

控制柜型号说明 Explain of electric control cabinet model

TQK - 2 KL - 3 / Z / T

- 功能描述：省略：代表厂配功能，T：代表定制产品
Functional description: omitted: for factory-fitted features, T: for customized products
- 代表元器件品牌：Z或省略：代表主要元器件正泰，S：代表主要元器件施耐德
Representative component brand: Z or omitted: on behalf of the main components Chint, S: on behalf of the main components Schneider
- 数字代表功率，例：3代表3kW
The number represents the power, for example: 3 represents 3kW
- 控制柜类型：KL：代表智能控制器控制，L：代表传统继电器控制
Control cabinet type: KL: for intelligent controller control, L: for traditional relay control
- 控制水泵台数：1：代表1个控制柜控制1台水泵.....3：代表1个控制柜控制3台水泵
Control the number of pumps: 1: on behalf of a control cabinet to control 1 pump... 3: on behalf of a control cabinet to control 3 pumps
- TQK：代表上海天泉品牌
TQK: represents Shanghai Tianquan brand



控制水泵数量

- 1泵(一用)
- 2泵(一用一备或者两用)
- 3泵(二用一备或者三用)

控制柜类型

- KL型
- L型

Number of control water pumps

- 1 Pump (one use)
- 2 Pump (one with one standby or dual use)
- Pump (two for one or three)

Number of control water pumps

- KL mould
- L mould

KL型功能功能如下

- 通用性强可满足常用工况
- 柜体表面静电喷塑, 识别标识采用UV印刷工艺
- 外门点胶密封工艺/内门导水槽工艺
- 操作简单, 性能成熟稳定
- 核心电子电路板三防漆(防潮、防霉、防盐雾)涂敷工艺且灌导热有机硅灌封装, 防潮效果好
- 手动模式&自动模式切换功能
- 手动按键启停功能
- 自动交替切换启动模式
- 自动固定备用泵模式
- 水泵巡检功能
- 超高液位启动双泵并报警功能
- 液位弱电控制
- 电流/电压显示
- 电机堵转报警
- 三相不平衡报警
- 故障应急启动功能
- 缺相保护功能
- 轻型过载保护功能
- 重型过载保护功能
- 电压异常保护功能

L型功能如下

- 柜体表面静电喷塑
- 操作简单, 性能成熟稳定
- 手动模式&自动模式切换功能
- 手动按键启停功能
- 自动固定备用泵模式
- 过载保护功能
- 重型过载保护功能

元器件品牌

- 默认国内知名品牌正泰及进口知名品牌施耐德, 其他品牌元器件可以指定
- 主要元器件包含: 断路器, 交流接触器, 热继电器 (注: KL型无热继电器)

The KL-type functional functions are shown as follows

- Strong versatility can meet the common working conditions
- Electrostatic spraying on the cabinet surface adopts UV printing process
- Outer door dispensing sealing process / inner door guide process
- Simple operation, mature and stable performance
- Core electronic circuit board three-proof paint (moisture-proof, mildew-proof, anti-salt spray) coating process and irrigation of thermal conductivity silicone packaging, moisture-proof effect is good
- Manual mode & automatic mode switching function
- Manual button start and stop function
- Automatic alternately switch start mode
- Automatic fixed standby pump mode
- Pump inspection function
- Ultra high liquid level to start the double pump and alarm function
- Weak current control of liquid level
- Current / voltage display
- Motor plug turn alarm
- Three-phase imbalance alarm
- Fault emergency start function
- Lack of phase protection function
- Light-duty overload protection function
- Heavy-duty overload protection function
- Voltage abnormal protection function

Type L functions are as follows

- Electrostatic spraying on the cabinet surface
- Simple operation, mature and stable performance
- Manual mode & automatic mode switching function
- Manual button start and stop function
- Automatic fixed standby pump mode
- overload protection function
- Heavy-duty overload protection function

Type L functions are as follows

- By default, domestic well-known brands Chint and imported well-known brands Schneider, and other brand components can be designated
- The main components include: circuit breaker, AC contractor, thermal relay (note: KL type no thermal relay)

配套电控柜

Complement electric control cabinet

升级功能描述

T代表升级或定制产品,具体升级功能如下

- KL型可以升级为全保型,具备电机油室漏水/电机过热/电机接线腔漏水/4路BA接口/485接口
- L型可以升级交替切换,巡检功能,故障延时切换,延时启动水泵,弱电控制,(2泵)一用一备切换两用,(3泵)二用一备切换三用,浮球或干簧管等控制功能,同时升级缺相,三相不平衡,溢流,无水,超高水位等故障保护

表1 配套WQ泵(一控一)

Table 1 Supporting WQ pump (1 control 1)

序号 No.	功率 Power (Kw)	智能型号(KL型) Intelligent model (KL model)	KL 型尺寸 KL size (mm)	普通型号(L型) General model (L type)	L 型尺寸 L size (mm)
1	0.75KW	TQK-1KL-0.75	400*300*150	TQK-1L-0.75	400*300*200
2	1.1KW	TQK-1KL-1.1	400*300*150	TQK-1L-1.1	400*300*200
3	1.5KW	TQK-1KL-1.5	400*300*150	TQK-1L-1.5	400*300*200
4	2.2KW	TQK-1KL-2.2	400*300*150	TQK-1L-2.2	400*300*200
5	3KW	TQK-1KL-3	400*300*150	TQK-1L-3	400*300*200
6	4KW	TQK-1KL-4	400*300*150	TQK-1L-4	400*300*200
7	5.5KW	TQK-1KL-5.5	400*300*150	TQK-1L-5.5	400*300*200
8	7.5KW	TQK-1KL-7.5	400*300*150	TQK-1L-7.5	400*300*200
9	11KW	TQK-1KL-11	400*300*150	TQK-1L-11	400*300*200

表2 配套WQ泵(一控二)

Table 2 Supporting WQ pump (1 control 2)

序号 No.	功率 Power (Kw)	智能型号(KL型) Intelligent model (KL model)	KL 型尺寸 KL size (mm)	普通型号(L型) General model (L type)	L 型尺寸 L size (mm)
1	0.75KW	TQK-2KL-0.75	400*300*150	TQK-2L-0.75	500*400*200
2	1.1KW	TQK-2KL-1.1	400*300*150	TQK-2L-1.1	500*400*200
3	1.5KW	TQK-2KL-1.5	400*300*150	TQK-2L-1.5	500*400*200
4	2.2KW	TQK-2KL-2.2	400*300*150	TQK-2L-2.2	500*400*200
5	3KW	TQK-2KL-3	400*300*150	TQK-2L-3	500*400*200
6	4KW	TQK-2KL-4	400*300*150	TQK-2L-4	500*400*200
7	5.5KW	TQK-2KL-5.5	500*400*150	TQK-2L-5.5	500*400*200
8	7.5KW	TQK-2KL-7.5	500*400*150	TQK-2L-7.5	500*400*200
9	11KW	TQK-2KL-11	500*400*150	TQK-2L-11	500*400*200

Upgrade Function Description

T represents an upgrade or a customized product. The specific upgrade functions are as follows

- The KL model can be upgraded to a full protection model, with motor oil chamber leakage / motor overheating / motor wiring cavity leakage / 4-way BA interface / 485 interface.
- L type can upgrade alternately switch, inspection function, fault delay switch, delay start pump, weak current control, (2 pump) a switch, (3 pump) a switch three, floating ball or dry reed clarinet control functions, at the same time upgrade the phase, three phase imbalance, overflow, no water, ultra high water level fault protection.

表3 配套WQ泵(一控三)

Table 3 Supporting WQ pump (1 control 3)

序号 No.	功率 Power (Kw)	智能型号(KL型) Intelligent model (KL model)	KL 型尺寸 KL size (mm)	普通型号(L型) General model (L type)	L 型尺寸 L size (mm)
1	0.75KW	TQK-3KL-0.75	600*500*150	TQK-3L-0.75	600*500*200
2	1.1KW	TQK-3KL-1.1	600*500*150	TQK-3L-1.1	600*500*200
3	1.5KW	TQK-3KL-1.5	600*500*150	TQK-3L-1.5	600*500*200
4	2.2KW	TQK-3KL-2.2	600*500*150	TQK-3L-2.2	600*500*200
5	3KW	TQK-3KL-3	600*500*150	TQK-3L-3	600*500*200
6	4KW	TQK-3KL-4	600*500*150	TQK-3L-4	600*500*200
7	5.5KW	TQK-3KL-5.5	600*500*150	TQK-3L-5.5	600*500*200
8	7.5KW	TQK-3KL-7.5	600*500*150	TQK-3L-7.5	600*500*200
9	11KW	TQK-3KL-11	600*500*150	TQK-3L-11	600*500*200

WQ (≤7.5kW) 系列小型污水污物潜水电泵电缆型号及尺寸表

WQ(≤7.5kW) Series of small waste and sewage submersible electric pump cable model and size table

序号 No.	电机型号 Motor model	主电缆(长6m) Main cable (6m long)	控制电缆 control cable	单根主电缆外径 Outer diameter of a single main cable (mm)	控制电缆外径 Control cable outer diameter (mm)
1	WQD-80-0.75/2	4×0.75		9.3	
2	WQD-80-1.1/2				
3	WQD-80-1.5/2				
4	WQD-90-2.2/2	4×1		9.8	
5	WQD-90-3/2	3×1.5+1×1		10.5	/
6	WQD-90L-4/2				
7	WQD-112-4/4				
8	WQD-112-5.5/2	3×2.5+1×1.5		12	
9	WQD-112-7.5/2				
10	WQD-112-5.5/4				
11	WQD-112L-7.5/4				

供货范围

Scope of supply

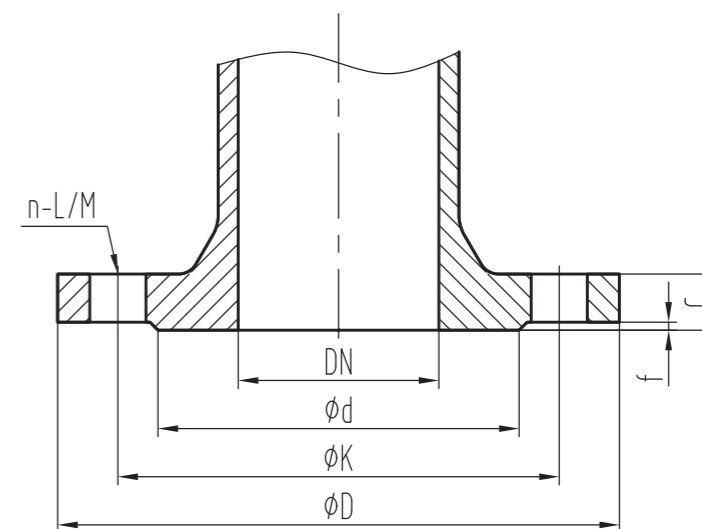
安装方式 Way to install	成套供货件 Complete supply parts	选购件 Choose a piece		备件 Spare parts
移动软管安装 Hose mobile Installation	电动泵组、软管弯接头 (1个/台套) Electric pump set and hose joint (1piece / set)	软管 Flexible pipe	电控装置 Electric control gear	叶轮 Impeller
移动硬管安装 Hard-tube mobile installation	电动泵组 Electric pump set	弯管接头 (1个/台套) Elbow joint (1piece / set)	端子箱 Terminal box	轴承 Bearing
自动耦合安装 Automatic coupling installation	电动泵组、自动耦合装置 (1个/台套) Electric pump set, automatic coupling device (1 piece / set)	导杆 Guide rod	阀门 Valve	骨架油封 Skeleton oil seal
		地脚螺栓 Foundation bolt	吊具 Slings for lifting loads	机封 Machine seal
		膨胀螺栓 Expansion bolt	拦污栅 (订制) Stop rack (customized)	O形圈 O ring
				叶轮紧固件 Impeller fasteners

备件规格型号表 Size of spare parts

电机功率 Power of motor	0.75/1.1/1.5	2.2/3	4	4/5.5	5.5/7.5	7.5
电机极数 Motor pole number	2p	2p	2p	4p	2p	4p
叶轮 Impeller	泵型号后加“-01”，如50WQ20-15-1.5型泵的叶轮代号为50WQ20-15-1.5-01 Pump model is followed with "-01", if the impeller code of 50 WQ 20-15-1.5 pump is 50WQ20-15-1.5-01					
上轴承 Upper bearing	6204	6205	6306	6306	6306	
下轴承 lower bearing	6204	6206	6307	6307	3307	
骨架油封 Skeleton oil seal	B20×40×7	B25×47×7	B30×52×8			
双端面机械密封 Double mechanical seal	208-20	208-25	208-30	208-30	208-30	
O形圈 O-Ring	2×φ118×2.65 1×φ90×2.65	2×φ130×2.65 1×φ90×2.65	2×φ176×2.65 1×φ130×2.65			
叶轮紧固件 Impeller fasteners	M6×20	M8×20	M10×20		M10×25	

法兰 Flange

法兰尺寸 Flange size



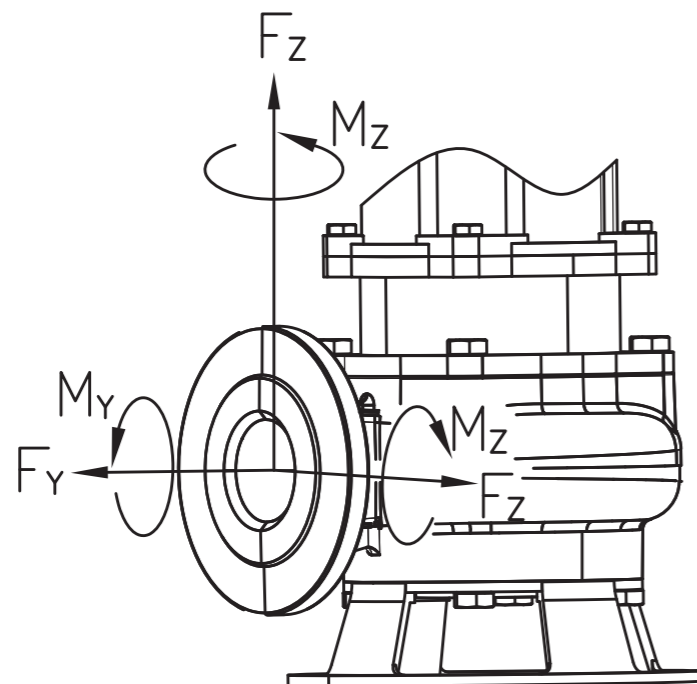
符合GB/T17241.6-2008，等效于ISO7005-2/EN1092-2，PN6压力等级配合安装尺寸图和表一起使用

Conistent with GB/T17241.6-2008, equivalent to ISO7005-2 / EN1092-2, PN6 Pressure class with the installation size drawing and the table

整体铸铁法兰GB/T17241.6-2008 RF (未注单位: mm)										
Integral cast-iron flange GB/T17241.6-2008 RF (unlisted unit: mm)										
DN	PN (bar)	D	K	L	n (个) (pcs.)	M	d	f	C	
									HT250	QT400 QT500
40	6	130	100	14	4	12	78	3	16	/
50	6	140	100	14	4	12	88	3	16	/
65	6	160	130	14	4	12	108	3	16	/
80	6	190	150	19	4	16	124	3	18	/
100	6	210	170	19	4	16	144	3	18	/
150	6	265	225	19	8	16	199	3	20	/

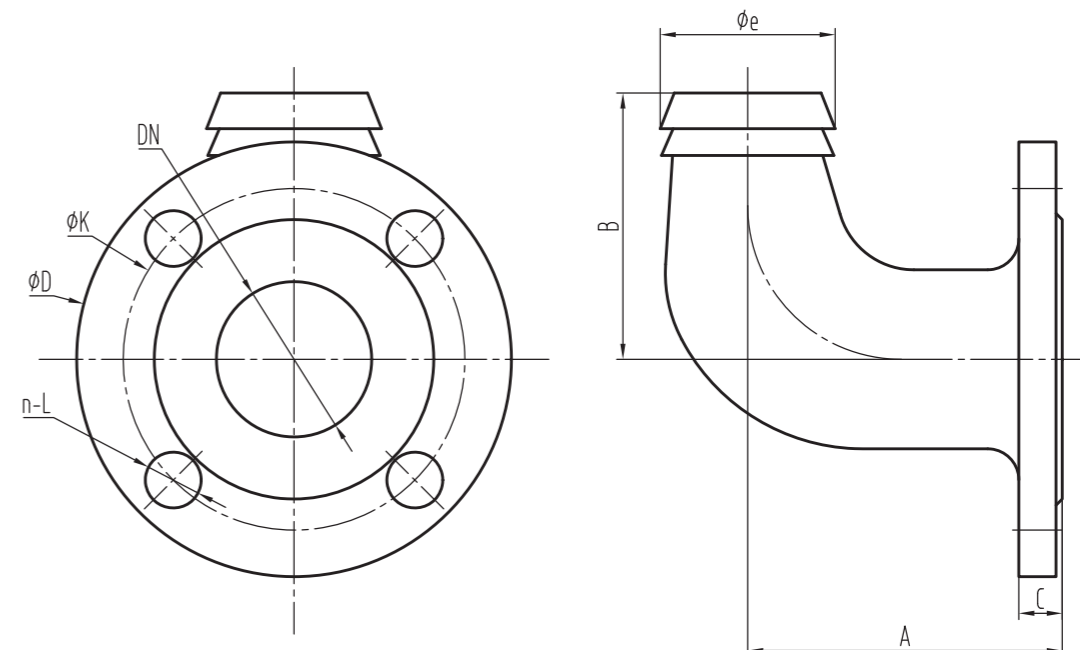
泵出口管口载荷

Pump outlet nozzle load



软管弯接头

Gladhand



灰铸铁 Gray Pig Iron	DN (mm)	力 Forces F (N)				力矩 Moments M (N · m)			
		F _x	F _y	F _z	Σ F*	M _x	M _y	M _z	Σ M*
潜水排污泵 吐出法兰--Y向 Submersible sewage pumps Y- discharge nozzle	40	385	438	350	683	455	315	368	665
	50	525	578	473	910	490	350	403	718
	65	648	735	595	1155	525	385	420	770
	80	788	875	718	1383	560	403	455	823
	100	1050	1173	945	1838	613	438	508	910
	125	1243	1383	1120	2170	735	525	665	1068
150	1575	1750	1418	2748	875	613	718	1278	

球墨铸铁 Nodular cast iron	DN (mm)	力 Forces F (N)				力矩 Moments M (N · m)			
		F _x	F _y	F _z	Σ F*	M _x	M _y	M _z	Σ M*
潜水排污泵 吐出法兰--Y向 Submersible sewage pumps Y- discharge nozzle	40	520	670	430	960	430	210	320	570
	50	710	890	580	1280	460	230	350	620
	65	880	1120	740	1610	890	450	660	1200
	80	1070	1330	890	1930	950	470	720	1280
	100	1420	1780	1160	2560	1330	680	1000	1800
	125	1970	2460	1620	3540	1930	1010	1630	2620
150	2490	3110	2050	4480	2300	1180	1760	3130	

软管弯接头尺寸表 Hose joint size table

除n外其他尺寸单位为mm Other dimensions are in mm except n

规格 Size	DN	K	D	n-L	C	PN (bar)	A	B	e	*配软管内径 φ Inner diameter of the hose
50-6	50	110	140	4-14	12	6	76	120	52	52
65-6	65	130	160	4-14	15		80	125	67	67
80-6	80	150	190	4-18	15		92	145	80	80
100-6	100	170	210	4-18	16		112	160	105	105
150-6	150	225	265	8-18	18		120	240	155	155

*注：GB/T9575-2013/ISO1307:2006 橡胶和塑料软管 软管规格和最大最小内径及切割长度公差

* Note: GB / T9575-2013 / ISO1307:2006 Rubber and plastic hose hose specifications and maximum minimum internal diameter and cutting length tolerance

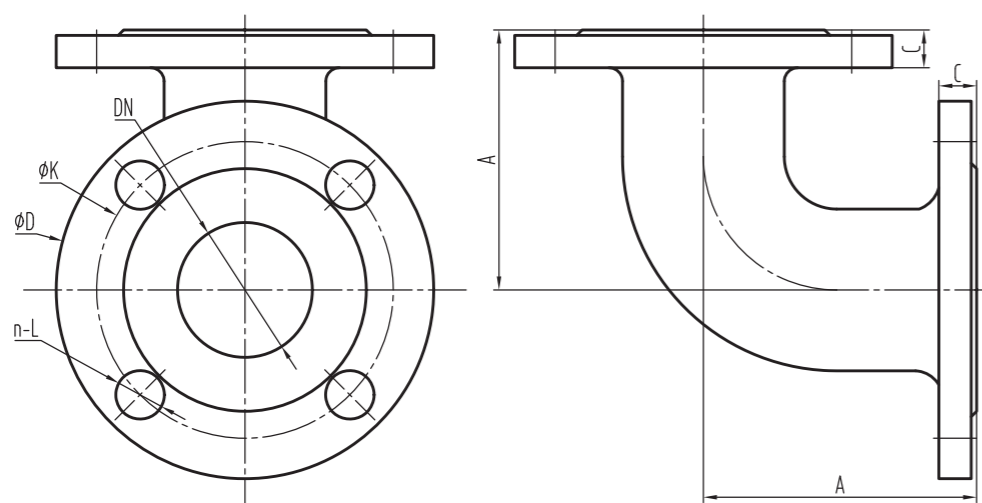
弯管接头

Bend piece

适用于泵体吐出口法兰与管路之间的连接，用户亦可根据管路实际法兰（DN&PN）需求选用，在订单上注明。

It is suitable for the connection between the pump body vomit outlet flange and the pipe.

Users can also select the actual pipe flange (DN & PN) demand and indicate on the order.



规格 Size	DN	K	D	n-L	C	法兰标准及 压力等级 Flange standards and PN	A
40-6	40	100	130	4-14	16	GB/T17241.6 PN6	95
50-6	50	110	140	4-14	16		105
65-6	65	130	160	4-14	16		130
80-6	80	150	190	4-18	18		155
100-6	100	170	210	4-18	18		160
150-6	150	225	265	8-18	20		220

自动耦合安装相关尺寸

软管移动安装配用软管

尺寸表

Dimensions for automatic
coupling installation

Hose movement installation
equipped with hose size table

WQ系列小型立式污水污物潜水电泵
WQ Series Small Vertical Submersible Sewage Pump

未标单位均为mm Unmarked units are all mm

附件 accessory 泵排出口径 Pump discharge caliber	40	50	65	80	100	150
导杆 Guide rod	自来水管/无缝钢管 water pipe / seamless steel pipe					
	1"/φ33×2.5		1.5"/φ48×2.5		2"/φ60×2.5	
导杆长度 Guide rod length	池深-255 Pool depth -255	池深-255 Pool depth -255	池深-268 Pool depth -268	池深-303 Pool depth -303	池深-353 Pool depth -353	池深-435 Pool depth -435
地脚螺栓数量及规格 Number and specification of anchor bolts	4-M16×220				4-M18×300	
膨胀螺栓数量及规格 Number and specification of anchor bolts	2-M10×150 I					
地脚螺栓的预留孔尺寸 Reserve hole size for the anchor bolts	80×80×270				100×100×350	
配用的软管弯接头规格 Specification of the used hose joint	\	50-6	65-6	80-6	100-6	150-6
移动安装软管内径 Inner diameter of the installation hose	\	52	67	80	105	155

订货须知

Notes on Order -placing

亲爱的客户：

请在天泉销售人员或代理商的协助下填写下表，以便为您提供的泵解决方案可以满足您在泵型号、材料、轴封、附件、安装条件等各方面要求

WQ系列污水污物潜水电泵数据单		编号：	
客户信息		产品信息	
公司名称：		项目名称：	
联系人：		产品型号：	
电话：		台数：	
传真：		安装方式：	
E-mail：			

介质

液体类型：_____

最高温度：_____ (°C)

最低温度：_____ (°C)

浓度：_____ (%)

PH值：_____

运动粘度：_____ (mm²/s)

密度：_____ (kg/m³)

固体颗粒含量：_____ (质量%)

颗粒最大直径：_____ (mm) 纤维最大长度：_____ (mm)

环境

环境温度：_____ (°C)

安装条件

池深：_____ (m)

最高浸没深度：_____ (m) 最低液位：_____ (m)

三种方式打 选择：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)

参数

最小流量点 Q：_____ (m³/h) H：_____ (m)

额定流量点 Q：_____ (m³/h) H：_____ (m)

最大流量点 Q：_____ (m³/h) H：_____ (m)

材质：标配或可选择过流部件材料

泵体、泵盖 _____

叶轮 _____

机封：标配双端面机封

电机：标配安徽超达，如果介质密度 > 1050kg/m³，电机功率应会升档。标配电缆长度8m，若需其它长度请在订单上注明。防护等级、绝缘等级、转速等。

选购件和备件：须按照供货范围部分类别填写另外订单，注明规格及数量。

Dear customer:

Please fill in the following table with the assistance of Tianquan sales personnel or agent, so that the pump solution provided for you can meet your requirements in the pump model, material, shaft seal, accessories, installation conditions and other aspects.

Data sheet of small sewage sewage submersible electric pump No. :	
Customer information	On-product information
Corporate name :	Project name:
Contacts :	Product type:
Telephone :	Set number:
Fax :	Way to install:
E-mail :	

Medium

Liquid type : _____

Max. temperature : _____ (°C)

Min. temperature : _____ (°C)

Potency : _____ (%)

PH value : _____

Kinematic viscosity : _____ (mm²/s)

Density : _____ (kg/m³)

Solid particle content : _____ (quality %)

The particle has a maximum diameter : _____ (mm) Fiber maximum length : _____ (mm)

Environment

Ambient temperature : _____ (°C)

Installation conditions

Pool deep : _____ (m)

Maximum immersion depth : _____ (m) Minimum liquid level : _____ (m)

Three ways to play (choose:) automatic coupling installation (Z)

hose mobile installation (R)

hard tube mobile installation (Y)

Parameter

Minimum flow point Q : _____ (m³/h) H : _____ (m)

Rated flow point Q : _____ (m³/h) H : _____ (m)

Maximum flow point Q : _____ (m³/h) H : _____ (m)

material : Standard or optional overflow component material

Pump casing, pump casing cover _____

Impeller _____

Machine seal : Standard with double-end surface machine seal

Motor : Standard with Anhui Chaoda, if the medium density is > 1050 kg/m³, the motor power should be upgraded. Standard cable length is 8m, if other lengths are required, please indicate on the order. Protection grade, insulation grade, rotational speed, etc.

Purchase parts and spare parts : Additional orders must be filled in according to the scope of supply part category, indicating the specification and quantity.