

第六代KQL/KQW系列 立式/卧式单级单吸离心泵

Generation-6KQL/KQW
Series Single Stage
Vertical / horizontal Centrifugal Pump

■ 性能优良 节能环保

宽高效水力设计，采用国际先进的CFD软件进行水力设计和优化，泵壳与叶轮更加匹配，运行效率高，节能环保

■ 结构紧凑 安全可靠

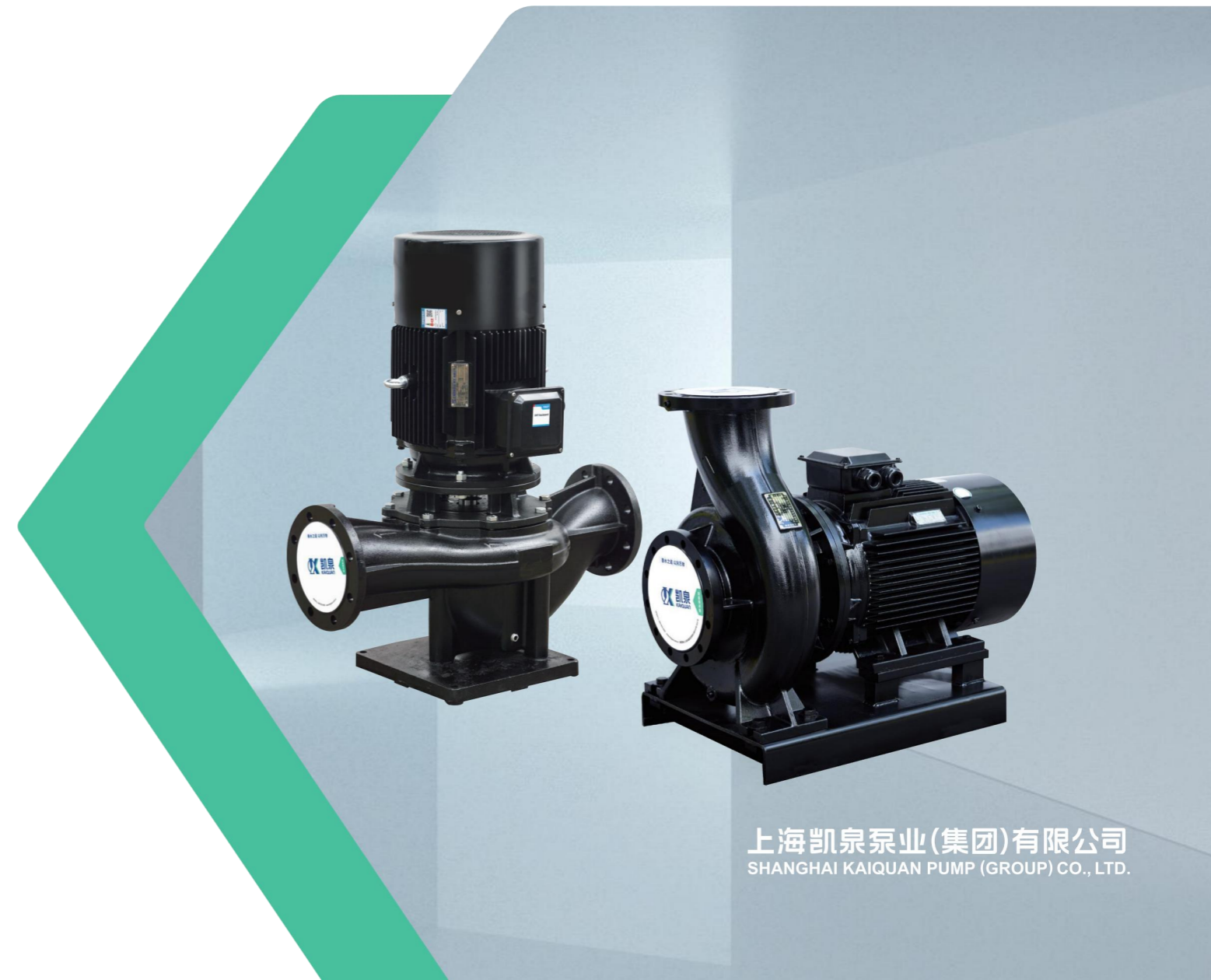
泵与电机共轴设计，结构紧凑，零部件通用化程度高，选用高品质机封，SKF轴承，振动、噪音小，运行稳定，安全可靠

■ 智能制造 一流品质

国内泵行业首个智能化数字工厂，全系列智能制造，覆膜砂精密铸造，表面电泳处理，外型美观，完善的质量体系，保证产品一流品质

■ 创新设计 智领未来

专为各类集成设备设计，也可灵活安装于管路系统，安装使用维护方便，可接入云监控平台，在线监测运行状态，实现智能运维



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Water
Empower
Future

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ENTERPRISE INTRODUCTION
企业介绍

70 集团总资产
亿元

5 工业园区
家 600+ 办事处
家 1000 占地面积
亩

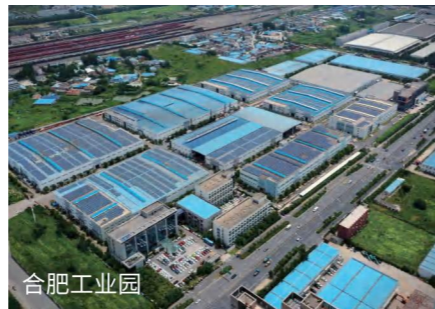
35 生产性建筑面积
万m² 6000+ 集团员工
名



上海凯泉泵业(集团)有限公司成立于1995年,是一家集泵、给水设备及泵用控制设备的研发制造于一体的大型综合性泵业公司,产品线覆盖了核电/电力、石油化工、钢铁冶金、矿山煤炭、建筑、市政、水利七个领域的泵类产品,近百个系列。

旗下设有5家工业园区、23家分公司、600多个办事处、200多个售后服务网点,服务网络覆盖全国,拥有一支经验丰富、技术前沿的专业科研团队,是以技术创新为导向的行业知名企业。

公司先后获得“重合同守信用企业”、



“全国社会保障与就业先进民营企业”、“科技创新企业奖”、“小巨人企业”、“全国国标五星级售后服务企业”等多项荣誉,连续多年入选全国机械百强、上海企业百强。

公司推广应用物联网平台、自动化系统、机器人及AI技术等,提升制造工艺水平和生产效率,大幅改善制造成本;依托ERP与MES系统的数据加持,让生产智能化,实现从销售、设计、制造、物流、售后服务等全流程闭环高效管理;运用智能检测和

大数据分析等技术,实现质量检测过程的数字化、在线化,从而提供更加高效、便捷的产品服务。

面向未来,凯泉将继续以“引领中国泵工业的崛起”为发展使命,不断深化水力研究与泵及水相关系统的技术引领,用绿色技术创新带来高效率的生产模式,直接降低水资源利用的成本,带动产业体系的能效升级,全力塑造民族品牌,进入世界泵行业十强!

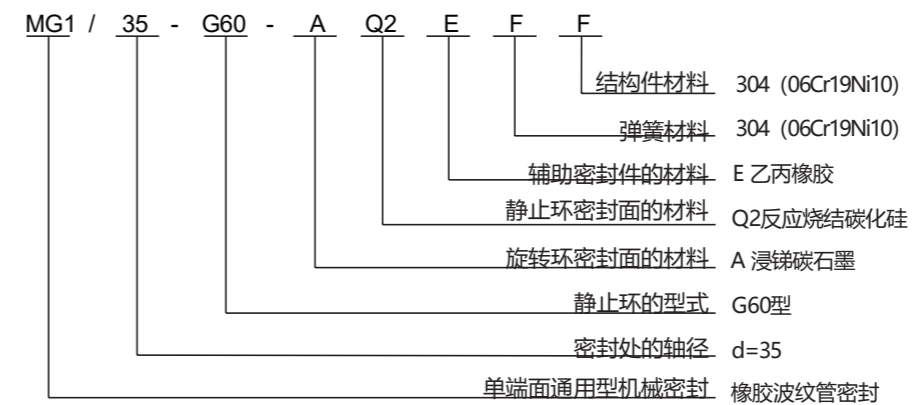
APPLICATIONS
用途

用于空调、采暖、卫生用水、水处理、冷却冷冻系统、液体循环和供水、增压及灌溉等领域中无腐蚀的冷水和热水输送。介质固体不溶物,其体积不超过单位体积0.1%,粒度<0.2mm

Sending non-corrosive cold and warm water used in air-condition, heat circulation, freezing water system, water supply, press increased and irrigation. The volume should not exceed the unit volume by 0.1% and particulate size should be less than 0.2mm.

泵送液体		使用温度	机械密封材质
水	地下水	<80°C	AQ2EFF
	锅炉给水	<80°C	AQ2EFF
		<120°C	Q2Q2EFF
	冷凝水	<80°C	Q2Q2EFF
	区域供暖用水	80~120°C	Q2Q2EFF
	含油水	<80°C	Q2Q2PFF
	软化水	<80°C	Q2Q2EFF
冷却剂	冷却和切削润滑剂	<80°C	Q2Q2PFF(NMB102A)
	醇类化合物(液体)	50°C~80°C 浓度 ≤40%	RREP2F1(V16/W)
		<50°C 浓度 ≤40%	Q2Q2EFF
	30%盐水(如氯化钠、氯化钙等溶液)	<5°C	Q2Q2EFF

机封型号示例:



WORKING CONDITIONS

使用条件

名义转速: 2960r/min, 1480r/min, 980r/min	Speed: 2960r/min, 1480r/min or 980r/min
流量范围: 8~1500m³/h	Capacity range: 8~ 1400m³/h
扬程: ≤127m	Head: Up to 127m
介质温度: -25°C~80°C	Medium temperature: -25°C~ 80°C
80°C~ 120°C (耐高温机封、O形密封圈)	80 °C~120°C (high temperature resistant machine seal, O-ring seal)
环境温度: 最大+40°C, 海拔高度小于1000m; 相对湿度不超过95%	Ambient temperature: Up to + 40°C, Altitude < 1000m; relative humidity ≤ 95%

Maximum working pressure (Pressure-bearing)

最大工作压力(承压)

型号 Type	工作压力 Working pressure	测试压力 Test pressure	承压零件材质 Material of pressure-bearing parts
125口径(2极转速)及125口径以下 125 caliber (2-pole Speed) and below	1.6MPa	2.1 MPa	灰铁 Grey iron
125~250口径(4极转速) 125~250 caliber (4-pole speed)	1.2MPa	1.6MPa	灰铁 Grey iron
300口径及300口径以上 300 caliber and above	1 MPa	1.3MPa	灰铁 Grey iron
125口径(4极转速)及125口径以上 125 caliber (4-pole speed) and above	1.6MPa	2.1MPa	球铁, 订货需注明 Ductile iron, please indicate when placing an order

Maximum operation pressure=Inlet pressure + valve shutting pressure (Q=0)

Maximum inlet pressure

最大工作压力=进口压力+闭阀压力(Q=0)

最大进口压力

型号 Type	扬程(m) Head(m)	最大进口压力 (MPa) Maximum inlet pressure (MPa)	
		标准配置 Standard configuration	球铁泵壳、高压机封 Ductile iron pump casing, high-pressure machine seal
125口径(2极转速)及125口径以下 125 caliber (2-pole Speed) and below	≤40	1.2	/
	≤60	1	/
	≤80	0.8	/
	≤125	0.4	/
125~250口径(4极转速) 125~250 caliber (4-pole speed)	≤20	1	/
	≤40	0.8	1.2
	≤60	0.6	1
	≤80	0.4	0.8
300口径及300口径以上 300 caliber and above	≤20	0.8	1.2
	≤40	0.6	1.2
	≤60	0.4	1
	≤80	0.2	0.8

125口径(2极转速)及125口径以下小口径泵无需采用球铁材质, 公司无表中打“/”的配置。

125 caliber (2-pole speed) and smaller caliber pumps below 125 caliber do not require the use of ductile iron material, and the company does not have the configuration marked with "/" in the table.

汽蚀余量是设计点实测值, 实际使用时应加0.5m的安全裕量。

NPSH is the actual measurement value at the design point, and a safety margin of 0.5 meters should be added during actual use.

可选配PN16-GB/T17241.6-2008配对法兰。

Optional PN16-GB/T17241.6-2008 matching flange.

DEFINITION

型号说明

例如: 80KQL50-32-7.5/2或80KQW50-32-7.5/2

KQL标准立式单级泵, KQW标准卧式单级泵

80 进出口直径

50 额定点流量

32 额定点扬程

7.5/2电机功率/电机极数

KQL: Standard vertical single-stage pump

KQW: Standard horizontal single-stage pump

80: Suction and discharge nozzle nominal diameters

50: Capacity at rated point

32: Head at rated point

7.5/2: Motor power/motor pole

MATERIALS

材质

主要部件 MAIN PARTS	型号配置 MODEL	KQL 或 KQW	KQL /T或KQW/T
电机系列 MOTOR		YE3系列超高效率三相异步电动机, Three-phase induction motor series	按用户要求 According to the customer's needs
泵轴材料 SHAFT		45#钢 45# Steel	
轴套材料 Shaft sleeve		304	
轴承 BEARING		进口名牌 SKF (4KW 及以下 NSK)	
机械密封 MECHANICAL SEAL		知名品牌 Well-known brand	
铸件 CASTING		优质铸件 Quality casting	
表面处理 SURFACE DISPOSE		电泳漆	

泵体、泵盖: 铸铁; 叶轮: 铸铁或者304

泵轴: 45#钢

机械密封动、静环: 浸蚀石墨、碳化硅

Casing、Cover: Cast iron; Impeller: Cast iron or 304

Shaft: 45# Steel

Motive, motionless ring of mechanical seal: Graphite, harden alloy

STRUCTURE 结构

结构紧凑的单级泵,是最适用于现代建筑物的。

compact single -stage pump is especially suitable for modern

——立式泵壳

管理连接型式的螺旋形泵壳,采用现代最优水力模型设计制造,进出口在同一直线上,且口径相同。法兰符合GB/T17241.1-2024并可选配RP1/4或RP3/8测压口。

——casing

It has pipe joined spiral casing and uses the best hydraulic model. suction and discharge nozzles are in one line with the same diameter. Flange accords with the standard of GB/T17241 .6-1998and may choose to be fixed with RP1/4or RP3/8 prcssure gauge.

——卧式泵壳

泵脚支承型式的螺旋形泵壳,采用现代最优水力模型设计制造,水平吸入上方输出。法兰符合GB/T17241.1-2024并可选配Rp1/4或RP3/8测压口。

——casing

It has pipe joined spiral casing and uses the best hydraulic model, suction and discharge nozzles are in one line. Flange accords with the standard of GB/T17241.6-1998 and may choose to be fixed with RP1/4or RP3/8 pressure gauge.

——叶轮

闭式叶轮,优秀的水力模型保证泵的效率 and 可靠性,部分改进型号泵的配套功率下降一档。

——Impeller

closed cast iron impeller. Best hydraulic model guarantees the efficiency and reliability of the pump.

机械密封 Mechanical seal

——系列产品

用于水温80C以下,免保养,不受转向限制。特殊波纹管设计保证了动环的补偿性和密封性能。

——series product

If the pump operates in the water with temperature below 80°C, it needn't maintain and will not be limited by rotating direction. special bellows design guarantees the compensation and hermetic function of the dynamic ring.

MOTOR 电机

YE3系列高效率三相异步电动机系列。功率和型式符合IEC-Norm。

型式:V1 (K QL) B35 (KQ W)

电源:380V,50HZ

防护等级: IP55

绝缘等级: F

电机轴:45钢(密封位304)或不锈钢(2cr13)

温度:电机工作环境温度最大到40°C.温度高于40C时,请降低功率使用。

转向:立式泵从电机风叶端向下看为顺时针方向,卧式泵从泵进口方向看为逆时针方向。

squirrel three-phase induction motor series.

Efficiency and type accord with ICE-Norm.

power source: 380v,50HZ

protection class: IP55

Insulation: F

shaft of the motor: stainless steel(2cr13)

Temperature: Maximum temperature of working environment is 40°C. Above 40°C, please decrease the power.

ADVANTAGES 泵机组优点

——采用电机直接连接,机泵轴完全同心,振动小噪音低

——泵进出口口径相同,运行稳定可靠。

——用整轴和特殊结构配置的SK F轴承,运行可靠。

——用强制环流的不受转向限制的特殊结构配置的机械密封,改善其运行环境,延长使用寿命。

——独特的安装结构大大缩小了泵的占地面积,节约建设投资40%~60%。

——完美的设计确保泵的无泄漏,长寿命运行,节约运行管理费50%~70%。

——采用优质铸件,尺寸精度高,外形美观。

电机优点

——采用更新设计的高效率三相异步电动机系列,结构更加合理,外形新颖美观。

——启动转矩大,效率高,噪音小。

——F级绝缘,提高了电机使用的最高允许温升,因而抗过载能力高,耐力强,使用安全可靠,寿命延长。

——IP55全封闭结构,防止粉尘、风雨、飞溅水滴等进入电机内部,造成电机损坏。

——密封位不锈钢,永不生锈,保证配合零件拆装简便,机械密封波纹管密封可靠。

- Directly connected with the motor. the axle of motor and pump share the same shaft. Less vibration, Low noise.
- The outlet and inlet are same in diameter and the diameters are in the same line. Liquid flows smoothly with less loss.
- Removal of base plate. Just like valves, the pump can be mounted wherever on the pipe line.
- The whole shaft and special structured configuration bearing runs reliably.
- The mechanical seal, which applies the configuration of end-to-end circulation and no direct connection limited special structure, improves the running environment and elongate the service life.
- unique in stallion reduces the occupation of pump, which saves the invest cost by 40% to 60%.
- perfect design makes sure of no leakage, long life, which saves operation cost by 50% to 70%.
- Adopt the high-quality casting off, which results in high accuracy in dimension and nice-looking appearance.

Motor Advantages

- Adopt the modified Two-phase induction, the structure is more reasonable and, rational and nice-looking.
- The starting torque is large, the efficiency is high, the noise is low.
- F class insulation, which improves the permissible temperature rise of motor, thus resulting in high ability the antioverload, strong wear-resistant, and long service life.
- Ip 55 fully close structure, which prevents dust, water drop, rain (with cover) from entering the motor to damage the motor.
- Rotating shaft made of stainless material; will never be rusty, which ensures that the components are easy to dismantle, and the ripple pipe of mechanical seal is reliable.

**SUPPLY ARRANGE
供货范围**

水泵带底座(板)和安装使用说明书
pump and installation instructions are available.

**NOTES ON ORDER-PLACING
订货须知**

1. 输送特殊液体时, 请在合同中注明液体的名称。温度、密度、浓度、粘性等, 以便制造厂合理选配材质和电机功率。
 2. 当对流量、扬程、进口压力、电机电压、频率、防爆等有特殊要求时, 请在合同中注明。
 3. 外形图尺寸因电机品牌而异, 该样本所注仅为参考尺寸, 最终尺寸请以选定电机的官方图纸为准。
1. Name, temperature, density, concentration, trellises should be clearly noted in the contract when the transporting media is corrosive, so that the manufacturer can make a proper choice of material and power of motor.
 2. It should be clearly noted in the contract when special requirement, for instance, capacity, suction pressure, head, motor, voltage, frequency, blast-proof etc, are made.
 3. The dimensions of the outline drawing vary depending on the motor brand, the dimensions noted in this sample are only for reference, the final dimensions should be based on the official drawings of the selected motor.

**HYDRAULIC COVERAGE
型谱图**

