



RIVERHILL

PREMIUM BOOSTER PUMP SYSTEM

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About RIVERHILL

— What we do

RIVERHILL was established in 2010 and deeply explores booster pump systems for water supply and intelligent manufacturing.

RIVERHILL aims to be world's leading manufacturer and service provider of water supply equipments. We do this with a clear vision in mind: to lead the development of sustainable water supply solutions. Above all, we prioritise ethics along with aesthetics, and design without ego, to create the best outcomes for our clients and their communities.



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PREMIUM BOOSTER PUMP SYSTEM



ZSHGX Series

Constant pressure full frequency booster pump system

The third generation NFQ series full frequency conversion water supply equipment adopts NFC2.0 frequency conversion control technology, and the whole control system adopts digital integrated control and modular design of system structure.

Adaptive water supply mode switching technology

Adaptive water supply mode switching in the face of different changes in water inlet pressure, active timing section of municipal water supply and water tank water supply switching and passive water inlet pressure and low water level in the tank of the mandatory adaptive switching, to meet the water supply equipment in a number of scenarios of stable application requirements.

Small flow dormancy and pressure preservation technology

The system can be based on the water continuous constant pressure time, operating frequency, operating current and other related conditions and the establishment of the flow prediction model, timely determination of small flow or unoccupied water and active exploratory and passive mandatory dormancy, to achieve the purpose of energy saving; configuration of large-capacity pneumatic tanks, buffer force of water hammer at the same time to increase the holding pressure time, reduce the number of frequent pump starts and stops to further realize energy saving.

Vector full frequency conversion anti-shaking control technology

One-to-one vector frequency conversion operation, multi-stage backup, intelligent soft start and soft switching, full-flow speed regulation, independent analysis of energy consumption data, low-frequency automatic inspection, automatic adjustment and optimization of the equipment operating mode; can effectively alleviate the fluctuations in the frequency start and stop of the pump on the power grid, and can be instantaneous power energy saving; at the same time, increasing and decreasing the pump in the process of pressure smoothing to reduce the jitter, so that the user experience is better.

Full frequency band efficiency equalization technology

Based on the selection software to determine the optimal pump selection, analyze and determine the optimal pump operating flow range and import the pump curve, using the frequency and torque closed-loop control under the dual DSP architecture, adaptive control characteristics, VF multi-point control speed control, and through the fuzzy algorithm for the optimization of efficiency to achieve the constant torque pumps to achieve safe operation, energy saving and reduction of consumption.

High precision instrument, protection cover and High-strength base

Semi-wrapped sheet metal cover, with hidden wire layout, the overall structure is more compact, more effective protection of the core components.

Adopting international brand pressure sensor + pressure switch electrical and mechanical combination of pressure protection, more than 10MPa limit pressure capacity to effectively prevent water hammer, more than 5% detection accuracy to effectively protect the stability of water supply operation.

The base is constructed by high strength channel steel frame structure, with vertical and horizontal support beams set up above and below, left and right, and through the manufacturing process of full lap splicing and full welding of contact line, it ensures the use of strength, and it can withstand more than 5 times the weight of the water supply equipment for a long time and always ensure that there is no bending and deformation.



DRL Series

Constant pressure frequency conversion booster pump system

The equipment adopts the industry's advanced performance of NFC special intelligent control technology, frequency conversion operation, precise control and adjustment of pump speed to maintain constant pressure in the pipe network, so that the entire water supply system always maintains the best state of high energy saving. Intelligent full-automatic operation, without personnel duty, is an advanced energy-saving water supply equipment in the field of water supply.

Intelligent triple-core high-speed frequency conversion controller

Extreme speed: independently researched and developed, the running speed can reach microsecond level.

High efficiency: each pump is analyzed in depth to ensure that the pump is always running at a high efficiency point.

Intelligent: powerful data analysis function, real-time analysis, automatic adjustment to the operating state, to realize the remote monitoring function of PC, cell phone, IPAD and other terminal equipment.

Energy saving: tri-core extreme constant pressure non-negative pressure PID control technology, energy saving effect is more obvious.

Imported Siemens SMART PLC control system

Flexible: modify the program at any time according to the special needs, greatly improving the flexibility of the equipment.

Expansion: no need to build peripheral modules to expand functionality, lower transformation costs, better compatibility.

Adaptation: powerful non-standard adaptability, customized design for different customer requirements to meet the needs of differentiation

Remote monitoring

Standard RS485 remote monitoring interface: each set of equipment comes standard with a reserved RS485 interface, standard MODBUS communication protocol, easy to monitor and provide more data support for the arrival of the big data era.

Remote monitoring cloud platform: secondary water supply equipment scheduling cloud platform, through the comprehensive collection of various types of data collection and analysis of equipment, business collaborative processing, to achieve a unified 24-hour uninterrupted monitoring of networked secondary water supply equipment, configuration, operation and management, emergency command etc.

Multi-platform access: Internet browser (supports IE kernel, Web kit kernel, Blink kernel), Android cell phone or tablet, IOS cell phone or tablet PC can be run.

Permanent data storage: data storage in the cloud, lifelong preservation query.



Intelligent analysis of big data: cloud data analysis, optimize equipment operation curve, improve operation efficiency.

Intelligent city centralized management of equipment: accurate location positioning, centralized management of 10,000 units of equipment.

Equipment operation state prediction: Integration of intelligent interconnection technology, sending maintenance information at regular intervals.

Strong compatibility: support access to third-party water quality monitoring equipment.

Security: multi-level authority account, partition management, more convenient for water companies to build unified management and daily management of property companies.

High precision meter

Control cabinet

Industrial-grade special control cabinet, protection level IP30-IP54 optional, applicable to a variety of working conditions in the market.

Options expansion, precise customization

According to the different needs of customers, we can increase the level meter, power meter, bypass, inlet and outlet flexible joints, flow meters, filters, shock absorbers, backflow preventers, sterilizers, water quality monitoring and purification equipment and other accessories, and we can also customize the design and development of the unique needs of customers.





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MWG Series

Non-negative pressure frequency conversion booster pump system

The sixth generation NFWG intelligent non-negative pressure water supply equipment can take water directly from the municipal pipe network. When the equipment is working, it eliminates the influence of the suction range generated when the pump is working on the water supply pressure of the municipal pipe network through the joint action of frequency conversion pressure stabilizing control, current stabilizing compensation, negative pressure suppression and other functions.

Variable capacitance steady flow compensation system

The inlet compensation volume and outlet pressure maintaining volume of the equipment will change according to the change of water flow.

When the flow is small: the compensation tank and the pressure maintaining tank are connected to the water outlet, and the pressure maintaining quantity of the water outlet is doubled.

When the flow is medium: the compensation tank and pressure maintaining tank are independent, the compensation tank compensates for the inlet water, and the pressure maintaining tank maintains the pressure for the outlet water.

When the flow is large: the compensation tank and pressure maintaining tanks are connected to the inlet water, the inlet water pressure maintaining quantity is doubled.

Defensive negative pressure suppression technology

Equipment in the negative pressure protection, negative pressure elimination design of double protection.

When the inlet water pressure is unstable or insufficient, through the energy storage of gas pressure and the inherent expansion and contraction of the food-grade capsule body, the inlet water can be pressurized. Force effect on the water inlet to make up the pressure, to achieve the relative negative pressure in advance of the defense and elimination of the effect; In the water inlet stop water zero pressure, the Food-grade capsule body has been fully compensated, through the automatic replenishment to prevent the generation of negative pressure.

Intelligent auxiliary control technology

Equipment configuration of the main auxiliary dual control system, to achieve redundancy of hot standby, bidirectional backup of information. Under normal circumstances - main system control logic operation, auxiliary system data backup and communication. In case of failure of the main system - millisecond switching auxiliary system control logic operation, and local and remote alarm.

Intelligent variable voltage control technology

The equipment adopts the unique control algorithm of constant pressure and variable pressure. According to the high and low peak flow changes, through the pump curve calculation, intelligent adjustment of variable pressure

gradient, flow fitting, deviation calibration and other means to achieve the effect of constant pressure at the end of the equipment end of the variable pressure, greatly reducing energy consumption to enhance the user's experience of stabilizing the pressure.

The sixth generation NFWG intelligent non-negative pressure water supply equipment can take water directly from the municipal pipe network, when the equipment works, through the frequency stabilized pressure control, steady flow compensation, negative pressure suppression and other functions of the joint role, to eliminate the pump work produced by the suction range of the municipal pipe network water supply pressure. Fully sealed tank structure isolates the contact with the air, completely avoiding the secondary pollution of water quality, municipal water supply residual pressure superimposed on the head of water utilization, the pump only to supplement the given water supply pressure and residual pressure is insufficient, energy saving effect is obvious.



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MWX Series

Tank-type pipe network stacked pressure frequency conversion booster pump system

The equipment adopts the latest performance of PID intelligent control technology, frequency conversion operation, adjusting the speed of the pump to maintain a constant pressure on the user network, so that the entire water supply system always maintains the optimal state of high efficiency and energy saving, is a new energy-saving water supply equipment in the field of water supply.

Mainly used in municipal pressure is sufficient and can be emergency water supply occasions, residential water, public places, manufacturing industry etc.



Intelligent triple-core high-speed frequency conversion controller

Extreme speed: independent research and development, running speed can reach microseconds.

High efficiency: deep analysis of each pump to ensure that the pump is always running at a high efficiency point.

Intelligent: powerful data analysis function, real-time analysis, automatic adjustment to the operating state, to achieve PC, cell phones, IPAD and other terminal equipment remote monitoring function.

Energy saving: tri-core extreme constant pressure non-negative pressure PID control technology, energy saving effect is more obvious.

Aesthetics: equipped with industrial-grade high-resolution color touch screen, beautiful interface, easy to operate.

Imported Siemens SMART PLC control system

Flexible: modify the program at any time according to the special needs, greatly improving the flexibility of the equipment.

Expansion: no need to build peripheral modules to expand functionality, lower transformation costs, better compatibility.

Adaptation: powerful non-standard adaptability, customized design for different customer requirements to meet the needs of differentiation

Remote monitoring

Standard RS485 remote monitoring interface: each set of equipment comes standard with a reserved RS485 interface, standard MODBUS communication protocol, easy to monitor and provide more data support for the arrival of the big data era.

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Equipment operation state prediction: Integration of intelligent interconnection technology, sending maintenance information at regular intervals.

High precision meter

Control cabinet

Industrial-grade special control cabinet, protection level IP30-IP54 optional, applicable to a variety of working conditions in the market.

Options expansion, precise customization

According to the different needs of customers, we can increase the level meter, power meter, bypass, inlet and outlet flexible joints, flow meters, filters, shock absorbers, backflow preventers, sterilizers, water quality monitoring and purification equipment and other accessories, and we can also customize the design and development of the unique needs of customers.

Water quality monitoring

According to the statistics of relevant organizations, 80% of human diseases are related to improper drinking water, drinking clean (water turbidity) with a certain degree of hardness (ca²⁺ calcium ions) and contains a certain amount of dissolved solids (conductivity) PH value of alkaline tap water, beneficial to human health.

Stainless steel water tank

Made of high-strength stamping process; ER308 welding wire with strong corrosion resistance; light weight, affordable; no special requirements for the installation site, and can provide insulation services.

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YTH Series

Pipeline network non-negative pressure tank pump station

Cutting-edge pressurized equipment consisting of the latest performance PID frequency control system and 2 pumps in parallel, suitable for residential water, public places, manufacturing industry etc.

Four major features

Solving the municipal low water pressure, constant outlet operating pressure, small flow to maintain pressure, energy saving and low operating costs

Six major protection

Overheating protection, water shortage protection, overload protection, short circuit protection, low pressure protection, overpressure double protection

Eight details

IP55 protection level of the control cabinet, the latest PID algorithm, one-to-one frequency conversion, advanced hardware configuration, water cutting process, precision devices, all stainless steel overflow parts, each pump can be independently maintained

Five advantages

Waterproof, dustproof, heat insulation, noise reduction, ventilation



MWG-Y

Permanent magnet frequency conversion non-negative pressure booster pump system

At present, the multi-stage centrifugal pump of negative pressure water supply equipment in the market adopts IE3 energy-efficient asynchronous motor, in order to improve the smooth and efficient operation of the equipment and reduce the noise, RIVERHILL has launched a new generation of MWG-Y-type permanent magnet inverter negative pressure water supply equipment, which mainly consists of flow stabilization and compensation system, permanent magnet inverter pressure boosting system, pipe and valve system, negative pressure detecting system and intelligent control system,



Six major features

- Energy saving: IE5 energy efficiency, put the water to save 39% of energy
- Bottom noise: Only wind and water sound, no noise resonance
- Intelligent: Intelligent Preset function, no need to program
- Integration: Integrated design, easy to install
- Stability: remote control system, reliable and assured
- Easy to use: friendly man-machine interface, pad one-handed control

Variable capacitance steady flow compensation system

The pump is equipped with CMT series IE5 integrated intelligent permanent magnet inverter motor + Mylarco AS multi-stage centrifugal pump pump body. The pump is equipped with CMT series IE5 integrated intelligent permanent magnetic frequency conversion motor + Mylarco AS multi-stage centrifugal pump pump body, together with the exclusive electrolytic shot blasting process, the whole equipment is more energy-efficient than the conventional no-negative-pressure water supply equipment, the operation of which is more energy-saving and efficient, and the noise is lower. Anodized shell, fine and beautiful at the same time, to ensure that 15 years do not corrode due to moisture, salt environment. Built-in intelligent control software, whether it is a single machine or multiple parallel operation, the completeness and reliability of its functions have been upgraded to a new level.



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Booster Pump System

PROUDLY MADE IN CHINA

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