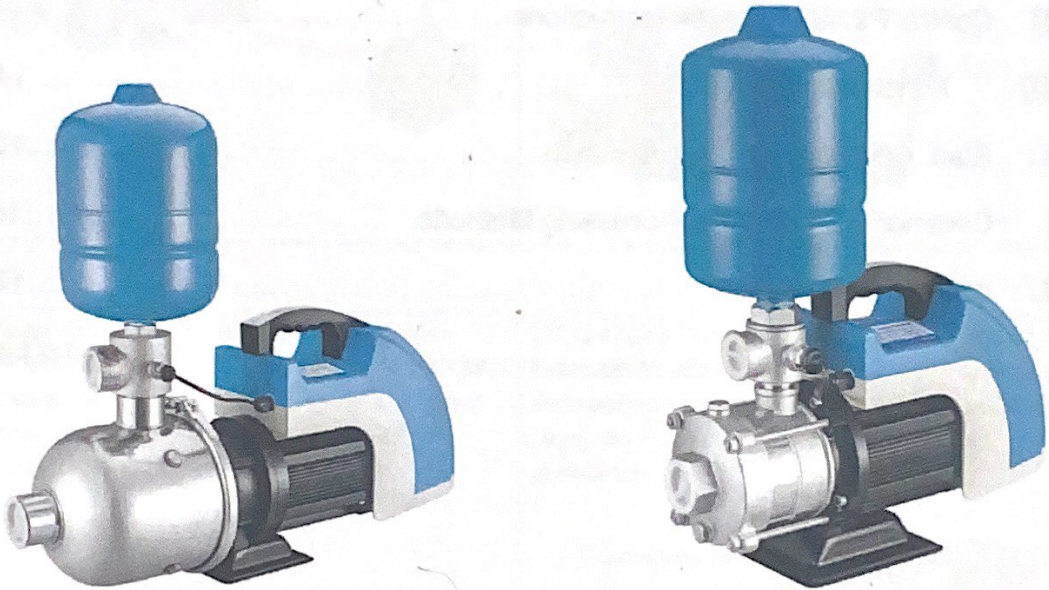




XLWHBL/XLWHBJL Series Intelligent Permanent Magnet Multistage Centrifugal Pump

Instruction For User



This product has a number of technical patent protection, counterfeited not allowed



Warning

- ★ Please carefully read the users' manual before installation and operation.
- ★ Reliable ground connection is necessary before operating.
- ★ Forbidden to touch the pump when it is energized.
- ★ In order to prevent electric shock, please ensure the power switch is "OFF", or remove the plug before maintenance and cleaning.
- ★ When operate the pump, do not remove or open the safety protection device.
- ★ In order to avoid the pump over-loading, the pump shall be operated within the scope of prescribed conditions.

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Please read the instructions in details before installation and use the products

Installation precautions

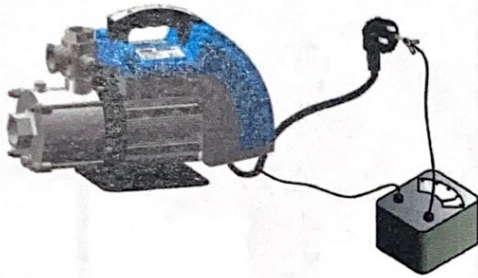
1. Power requirements

1.1 Power supply voltage: ensure that the AC voltage 220V-240V can be used (160V-260V), but the voltage is too low, the pressure will be reduced.

1.2 Electrical connection.

1.2.1 before installation and use, should check the pump whether it is damage during transport and storage,

Such as whether cable or plug, lead wire, etc. is intact, whether insulation resistance is greater than 50MΩ.



1.2.2 The pump should be properly installed leakage protection device, the power outlet which connect to the plug should be reliable grounding.

1.2.3 To extend the power cord, in order to prevent the voltage drop caused by the pump cannot start normally, according to the requirements of the following table to use the cord.

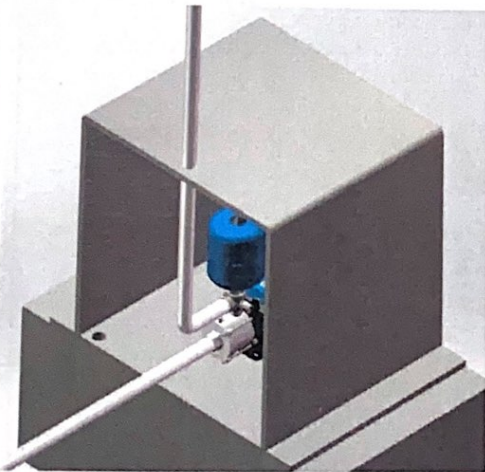
Use the length of the cable	Cross-sectional area of cable
50m below	1.5mm ² above
50m~200m	2.5mm ² and above



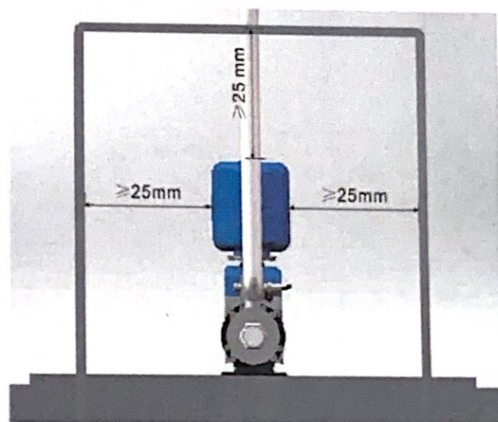
Plug reliable ground connection is necessary.

2. Pump installation environment requirements

2.1 Water pump cannot be used in lying in the water or diving, installed in the outdoors, need to have a suitable cover to prevent sun and rain, and anti-freeze



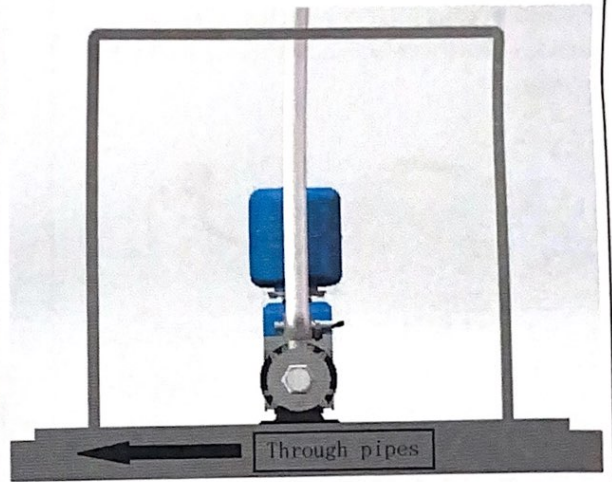
2.2 The pump should be installed in a convenient maintenance, inspection of the place, and keep dry and ventilated; When in a narrow place to install the pump, the following figure for the reference installation.



2.3.1 Ambient temperature is -15°C to $+40^{\circ}\text{C}$.
 2.3.2 When the ambient temperature is below 4°C , the water pump and the pipeline in the water is easy to ice, causing the pump body and pipe rupture, so when not in use, need to open the drain screw, the pump cavity of the water drained and tightened drain screws, exposed pipes also need to protect, to prevent cracking. (Anti-freeze type do not need this operation).

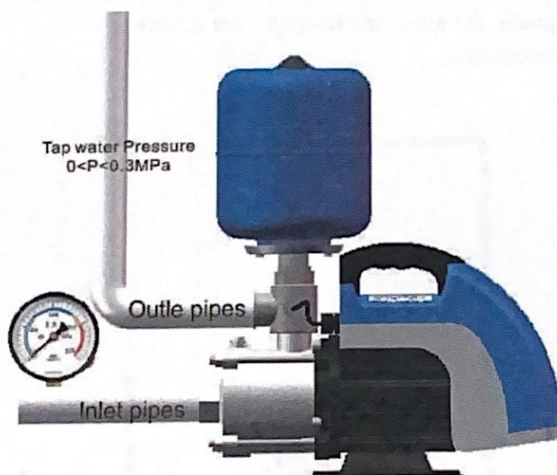


2.4 If cold-proof measures are taken, it is strictly forbidden to enclose the pump with flammable materials, to avoid fire.
 2.5 Around pump installation area need to set the drain, the formation of natural drainage, to prevent the use, maintenance, replacement of the pump, due to leakage caused by loss (especially in the basement, kitchen, stairs and other places)



3. water inlet pressure requirements

3.1 For tap water pressurization, the pressure should be $0.12\text{MP} < P < 0.35\text{MPa}$.



4. Water temperature and water quality requirements

4.1 $0^{\circ}\text{C} \leq \text{water temperature} \leq 70^{\circ}\text{C}$.

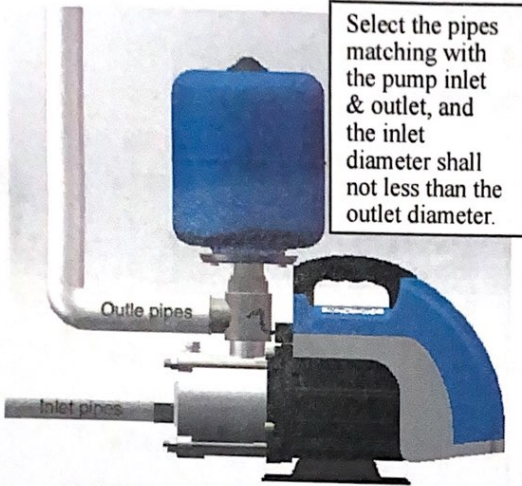
4.2 The water quality must be clean, the volume ratio of solid impurities is not more than 0.1%, the particle size is not more than 0.2mm, and the pH is between 6.5 and 8.5.



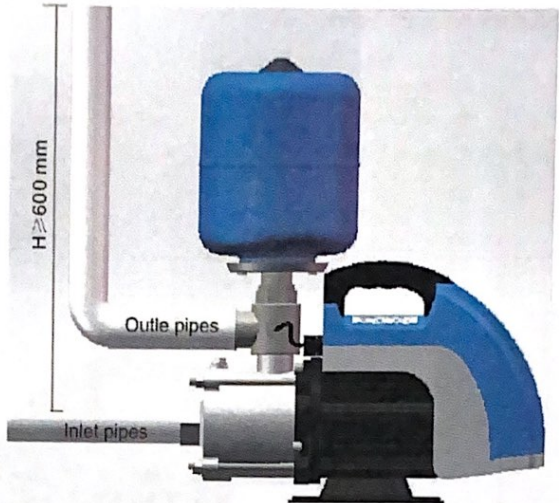
$0^{\circ}\text{C} \leq \text{Water temperature} \leq 70^{\circ}\text{C}$

5. Piping requirements

5.1 should use piping diameter which is matching pump inlet and outlet and the outlet piping diameter shall not be less than the outlet piping diameter.

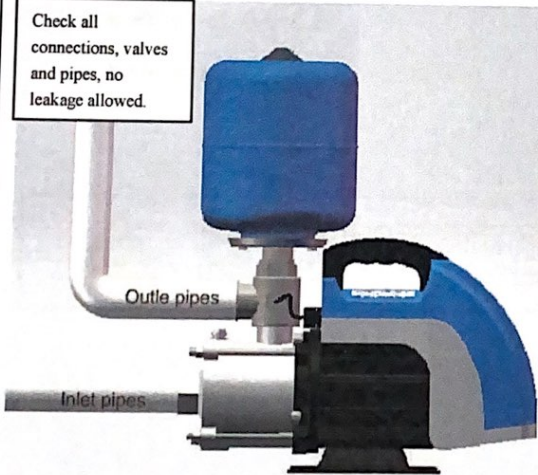


5.2 outlet piping is higher than the inlet 600mm above and then turn a corner.



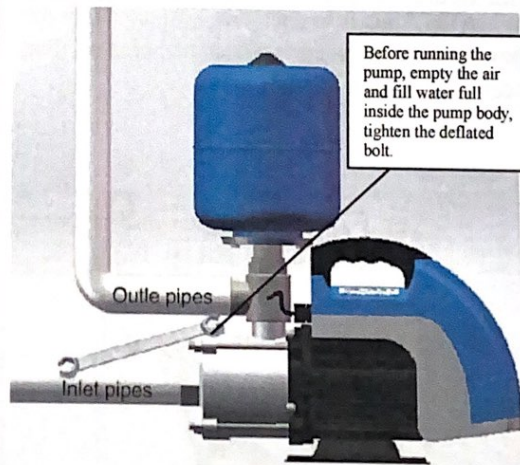
5.3 make sure that the pipeline without leakage.

Check all connections, valves and pipes, no leakage allowed.



6. The first time to use, fill the water in pump cavity for exhausting air

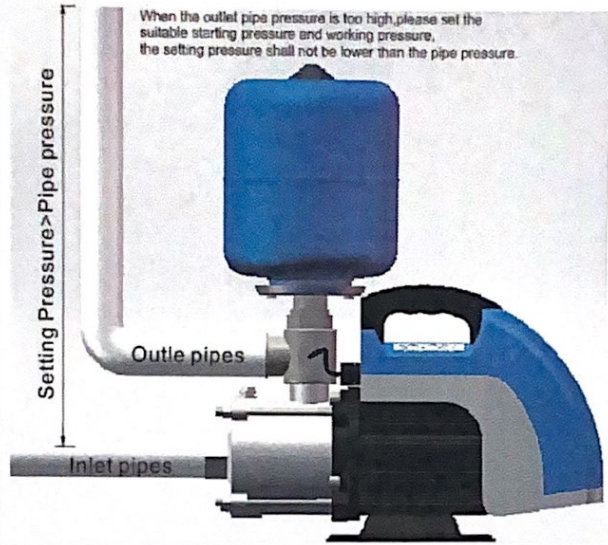
Before running the pump, empty the air and fill water full inside the pump body, tighten the deflated bolt.



7. Setting the requirements

7.1 The pressure setting should not be less than the pressure of the outlet piping itself.

7.2 The starting pressure value is set to about 80% of the constant pressure value.



8. others

8.1 When transport, installation of the pump, it is strictly forbidden to grasp the power cord, avoid to leakage, electric shock due to power cord damage.



8.2 When the pump is in operation, you must turn off the power when you want to adjust the pump position or touch the pump.



I. Purpose and scope of application

XLWHBJL/XLWHBL for non-self-priming horizontal multi-stage centrifugal pump (hereinafter referred to as the pump), with high-efficiency, low noise, corrosion resistant and compact structure, perfect appearance, small volume, light weight, et

1.Application

- Products applicable to low viscosity, neutral, non-explosive, containing no solid
- particles or fibers liquid, liquid can't be transported material has the chemical
- corrosion to pump material. (Oil or oil-based liquid can be pumped with a special type of pump);
- The circulation of air conditioning system.
- The cooling system
- Water treatment (Purification of water)
- Industrial cleaning system
- The liquid transportation, circulation and ascend
- Hot and cold water
- Food, beverages, agricultural and other ingredients system

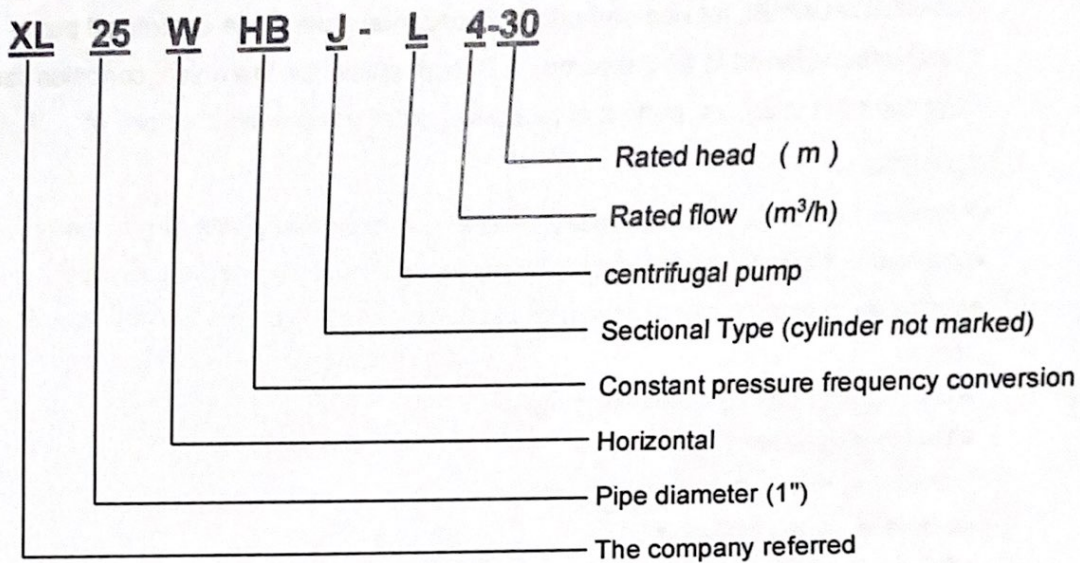
2.Scope of application

- Clean water, the volume of solid particles lower than 0.1%,the size less than 0.2mm;
- Liquid temperature: $0^{\circ}\text{C} < \text{water temperature} \leq 70^{\circ}\text{C}$;
- Ambient temperature range: $0^{\circ}\text{C} \sim 40^{\circ}\text{C}$;
- PH level: 6.5~8.5;
- Relative humidity:Max85%(RH).



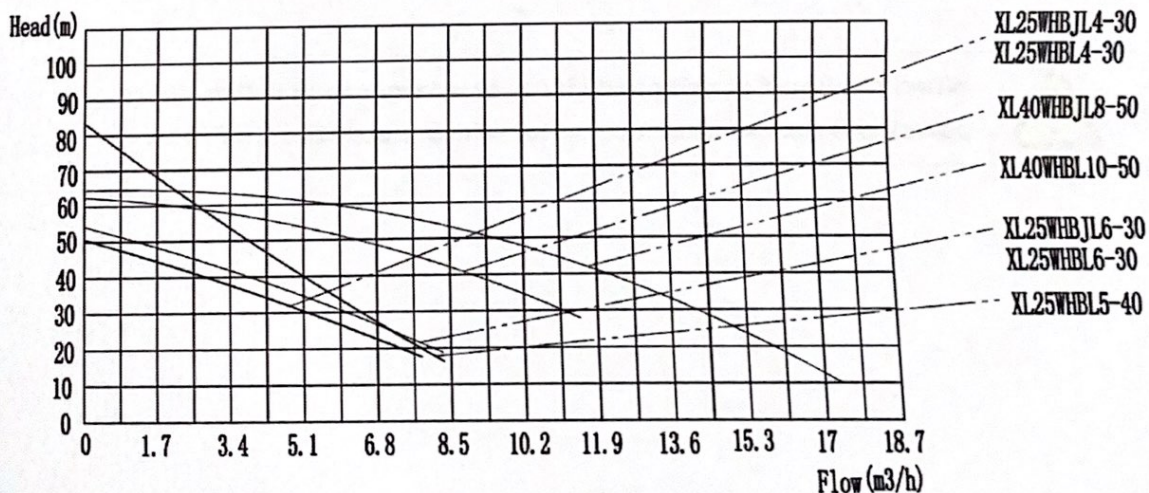
When the liquid density and viscosity is larger than water, shaft power will rise, so must use motor which match the shaft power.

II、 The Model Meaning



III、 Technical data

Model	Power Range (W)	Voltage (V)	Frequency (Hz)	Speed range (r/min)	Inlet/outlet pipe thread	Max. head (m)	Rated head (m)	Max. flow (m^3/h)	Rated flow (m^3/h)
XL25WHBL4-30	100-900	180~250	50/60	600-5500	G1¼/G1	50	30	8	4
XL25WHBJL4-30	100-1200	180~250	50/60	600-5500	G1¼/G1	50	30	8	4
XL25WHBL5-40	100-1200	180~250	50/60	600-5500	G1¼/G1	80	40	8	5
XL25WHBL6-30	100-1500	180~250	50/60	500-4500	G1¼/G1	50	30	12	6
XL25WHBJL6-30	100-1500	180~250	50/60	500-4500	G1¼/G1	50	30	12	6
XL40WHBL10-50	400-2500	180~250	50/60	500-4500	G2/ G1½	60	50	18	10
XL40WHBJL8-50	400-2500	180~250	50/60	500-4500	G1½/ G1¼	60	50	12	8

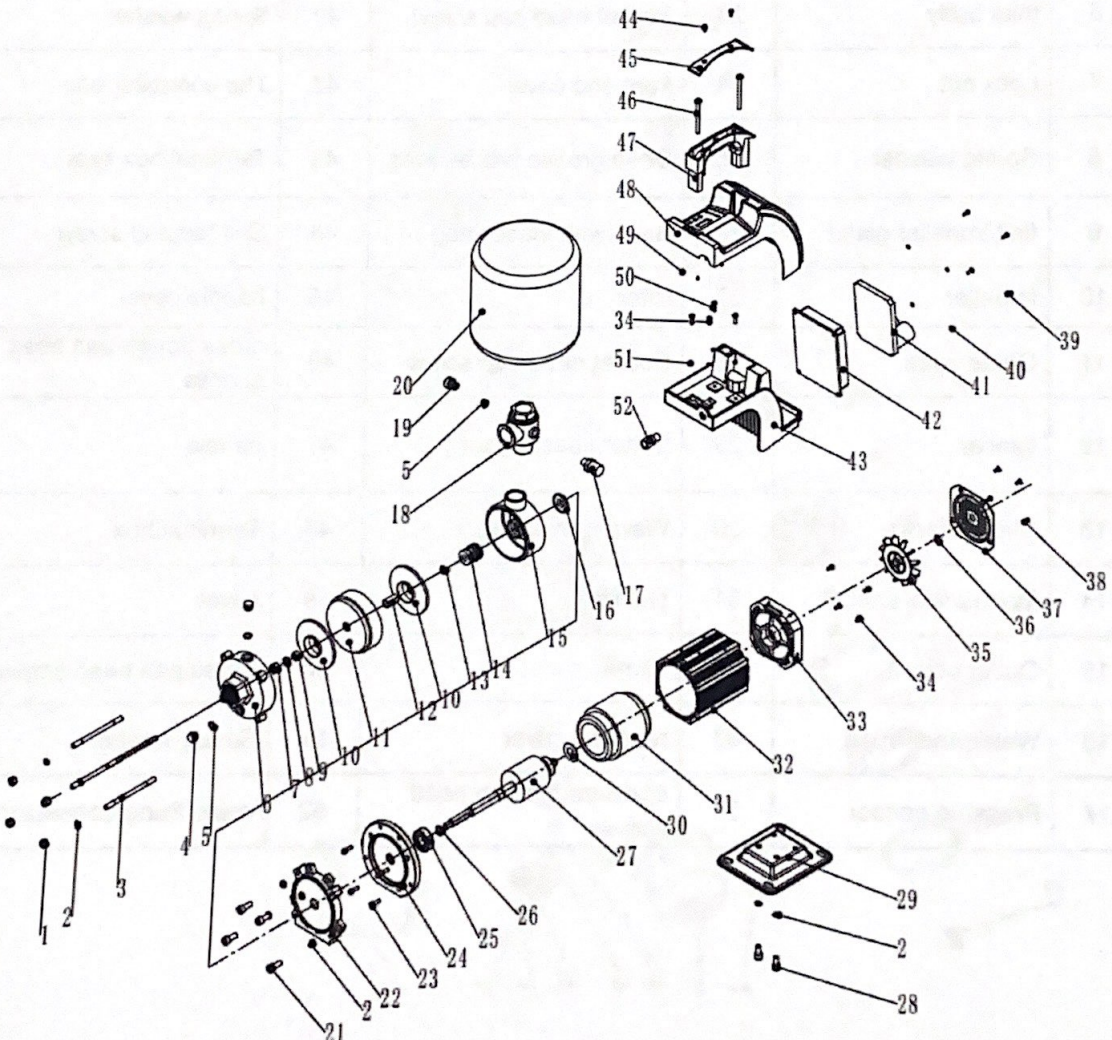


Performance Curve

IV、 Structure Instruction

- WHBJL series of pumps are horizontal, multi-stage sectional, pump shaft is the extension of motor shaft, the pump inlet and outlet direction is axial suction, radial discharge.
- WHBL series cylinder pump consist of the motor, sealing seat, guide vane, impeller, inlet and outlet part, pump shaft, mechanical seal and other major components. WHBJL series sectional pump consist of motor, inlet body, outlet body, guide vane, impeller, pump shaft, mechanical seal and other major components.
- The key of pump parts like guide vane, impeller, inlet and outlet part, pump shaft all adopt stainless steel material, sectional pump inlet and outlet body is made of stainless steel.
- Shaft seal is single-end mechanical seal, grinding block made of the silicon carbide / graphite, according to customer needs, can also use other materials of grinding block.
- The basic form of pump and pipe connection is in line with pipe thread connection in GB7307, pump structure shown in Figure.

XLWHB Sectional Centrifugal Pump Explosive View



Explosive View Details :

No	Name	No	Name	No	Name
1	Hexagonal nut	18	Five-way valve body	35	fan blade
2	Spring washer	19	Five-way valve plug	36	Shaft with elastic ring
3	pull rod	20	Pressure tank	37	wind hood
4	plug	21	Socket head cap screw	38	cross recessed countersunk head screw
5	Type O sealing ring	22	The connection	39	cross trough pan head screws
6	Inlet body	23	Socket head cap screw	40	Spring washer
7	Lock nut	24	front end cover	42	The controller box
8	Spring washer	25	Deep groove ball bearing	43	Terminal box seat
9	first impeller gland	26	Shaft with elastic ring	44	Self tapping screw
10	impeller	27	rotor	45	handle cover
11	Guide vane	28	Socket head cap screw	46	cross trough pan head screws
12	spacer	29	Bottom baseboard	47	handle
13	Short spacer	30	Waveform spring	48	Terminal box
14	Mechanical seal	31	stator	49	cover
15	Outlet body	32	barrel	50	Cross pan head screw
16	Waterproof circle	33	rear end cover	51	Spring washer
17	Pressure sensor	34	cross trough pan head screws	52	cable fixing connector

XLWHB Cylinder Type Centrifugal Pump Explosive View



Explosive View Details

No	Name	No	Name	No	Name
1	Pressure tank	21	Pull rod	42	Hex cylinder head screw
2	Five-way valve plug	22	Mechanical seal	43	Rear end cover
3	O-rings	23	O-rings	44	Hex cylinder head screw
4	Five-way valve body	24	Seal seat	45	Fan blade
5	O-rings	25	Outside hexagonal nut	46	Shaft with elastic ring
6	Pressure sensor	26	Quick connector	47	The wind hood
7	Inlet and outlet body	27	Hex cylinder head screw	48	Cross recessed count ersunk head screw
8	Plug	28	Waterproof circle	49	Cable fixing connector
9	Hexagonal nut	29	The connection	50	Terminal box seat
10	Connecting pipe	30	Hex cylinder head screw	51	The trough pan head screws
11	O-rings	31	The motor front end cover	52	Self tapping screw
12	Plate	32	Hex cylinder head screw	53	Terminal box cover
13	Guide vane	33	Bearing	54	Handle
14	Non-metal insert hexagon lock nut	34	Shaft with elastic ring	55	The cross trough pan head screws
15	Spring washer	35	Rotor	56	Handle cover
16	First impeller gland	36	Bearing	57	Self tapping screw
17	Impeller	37	The wave washer	58	Controller box
18	Spacer	38	Stator	59	Controller
19	Outlet guide vane	39	Barrel	60	The cross trough pan head screws
20	Short spacer	40	Bottom baseboard		

V. Installation And Connection

1. Pump installation

- Pump should be installed in well ventilated and anti-freeze place, in order to make enough air around the cooling fan of the motor, pump and motor is at least 150 mm distance from the obstacles.
- In order to minimize the inlet friction loss, the inlet pipe should be as short as possible.
- Before the pump install, pipe system shall be checked whether to install the check valve to prevent fluid backflow.
- Pump should be installed in a fixed on the ground or on the fixed bracket on the wall, the pump should be fixed and steady after installed. Pay attention to don't put the weight of the piping on the pump, prevent the pump occur deformation.
- Before the pump installation, inlet pipes should be clean, if cannot guarantee particulate matter do not exist in pipe, it is necessary to install a filter net in front of the inlet 0.5 ~ 1 m, in order to ensure the normal operation of pump.
- When installing the inlet pipe, prevent the air sac from being generated, such as figure

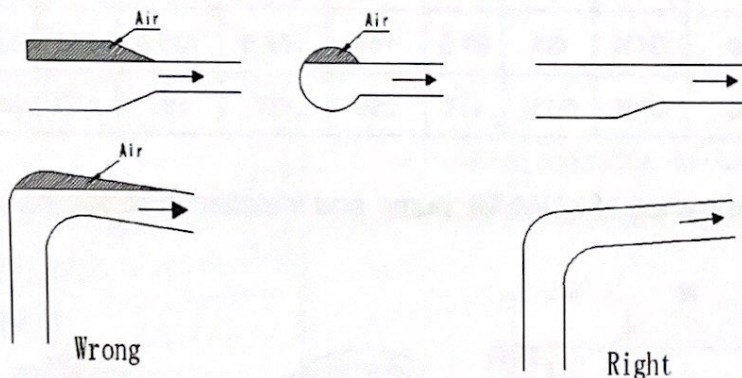


Fig 2

- It is necessary to install a pressure gauge in the pump outlet, in order to observe and control the operation status.
- When pump is installed above the liquid level (in the range of allowable suction head), should be in the suction pipe side set up the bottom valve, and the outlet pipe set a filling screw hole for filling liquid before pump starting.

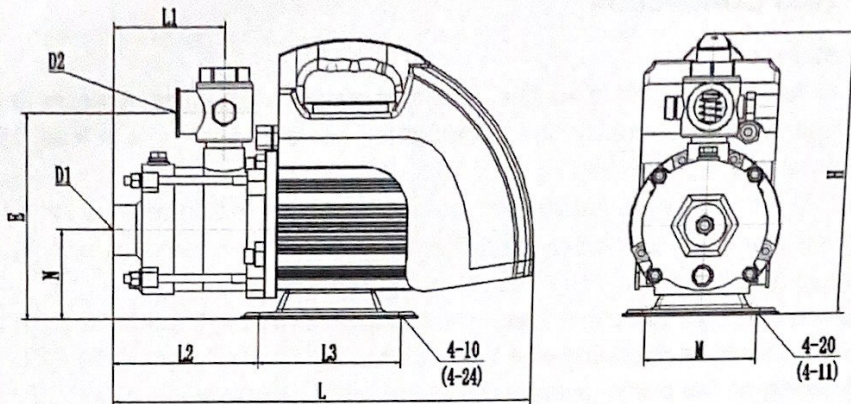
2. Electrical Connection

- The connection of the electrical circuit must be operated by an electrician with a corresponding qualification certificate.
- Find out whether the motor matches all power supplies or not. The motor lead wire must be connected to the power supply according to the wiring diagram on the terminal box and the motor nameplate.
- The motor must be connected to a fast and efficient motor starter to ensure that the motor is not subject to phase loss, voltage instability and overload damage. The motor should be grounded.



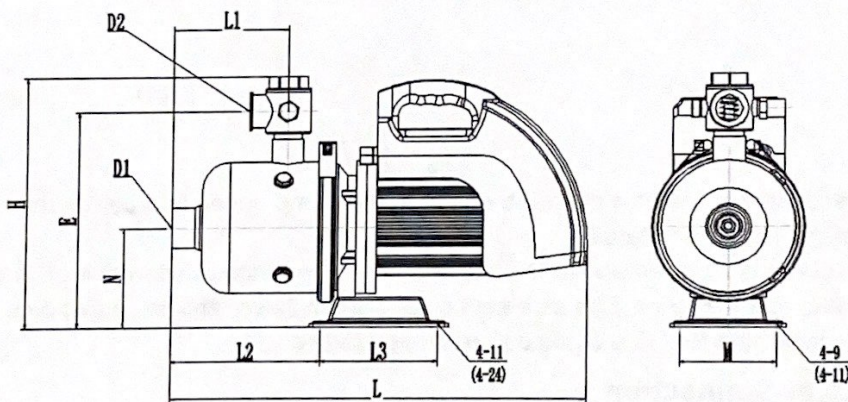
Before removing the motor terminal box cover and removing the pump, make sure that the power supply has been cut off

3、The appearance of XLWHBJL pump and installation size(mm)



Model	D1	D2	N	E	L1	L2	L3	L	H	M	Weight
											kg
XL25WHBJL4-30	G1¼	G1	81.5	194	102.5	135.5	134	393	250	104	11
XL25WHBJL6-30	G1¼	G1	81.5	194	102.5	135.5	134	393	250		11
XL40WHBJL8-50	G1½	G1¼	117	255	137	181	179	551	355	157	25

4、The appearance of XLWHBL pump and installation size(mm)

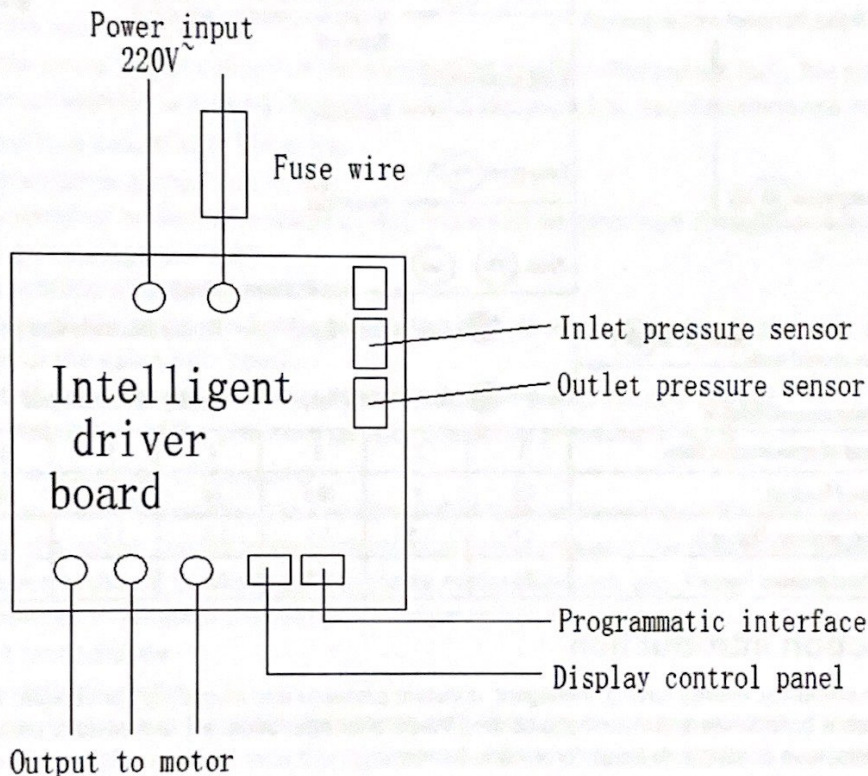


Model	D1	D2	N	E	L1	L2	L3	L	H	M	Weight
											kg
XL25WHBL4-30	G1¼	G1	113.5	247	120.5	168	134	471	283	108	13.5
XL25WHBL5-40	G1¼	G1	113.5	247	128.5	172	134	475	283		13
XL25WHBL6-30	G1¼	G1	113.5	247	128.5	172	134	475	283		13
XL40WHBL10-50	G2	G1½	133.5	321	172	254	179	693	380	157	28

VI. Appliance Connection



Unless the power has been shut down, please don't do the terminal connection. Pump should be reliable grounding to prevent leakage, and should match the leakage protection switch; electrical connections and protection should be performed accordingly; working voltage is marked on the nameplate, please ensure the supply power is match with the motor power. If pumps' operate places are far away from power supply, please properly add the transmission line, otherwise the drop of the voltage will influence the pump working. If pumps operated outdoors, extension cable must use outdoor special rubber cable and ensure the pump is well running and the direction is same as the pump body.

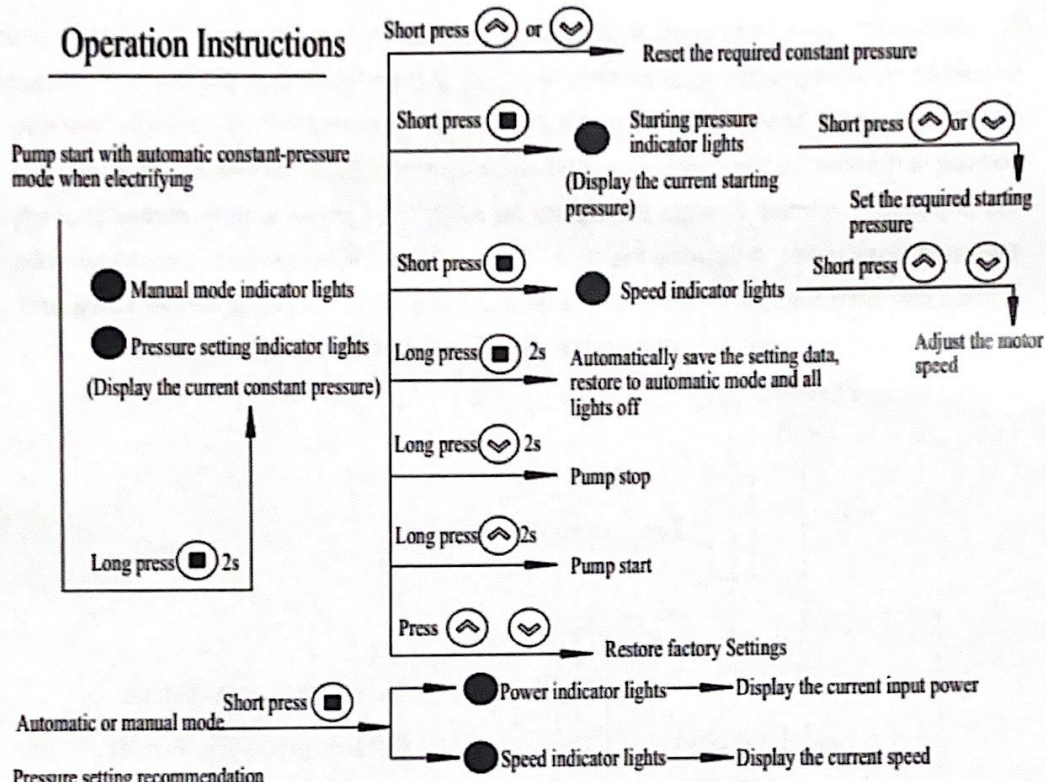


Intelligent pump electrical schematic diagram

(Because of products constantly updated, please in kind prevail)

Model	Power wire length		50~100m		100~150m	
	0~50m	Fuse A	Fuse A	Fuse A	Fuse A	
XL25WHBL4-30 XL25WHBJL4-30 XL25WHBL5-40 XL25WHBL 6-30 XL25WHBJL 6-30	1.5mm ²	10	2 mm ²	15	2.5 mm ²	18
XL40WHBL10-50 XL40WHBJL8-50	2.5mm ²	27	4 mm ²	30	6 mm ²	30

VII、 Control Panel Operation Instructions



Amount of pressurization floors	1	2	3	4	5	6
Operated head(m)	3.5	7	10.5	14	17.5	21
Starting pressure (kg/cm ²)	1.5	1.5	1.5	1.5	1.8	2.1
Stabilized pressure (kg/cm ²)	2.5	2.5	2.5	2.5	2.8	3.1

VIII、 Function introduction

- High efficiency, energy saving, intelligent, constant pressure and frequency conversion; Water flow and pressure control; Manual, Automatic control; Water shortage, overload, locked-rotor protection; Some models have heating anti-freeze protection function.
- Motor soft start and soft stop, effectively protect and improve the service life of the motor.
- Auto-starts functions: when customers long time not use, the pump will running few seconds automatically every 12 hours to prevent the jammed impeller.
- Panel shows the error code when the error lights, if two or more errors happened at the same time, the codes will be showed alternately every 2 seconds, please take actions accordingly as the below codes:
E1 Lack of water E2 Leakage (frequently start) E3 Rotor locked E4 Motor error E5 Inlet sensor
E6 Outlet sensor E7 Flow switch E8 Controller E9 Temp. controller E10 heater
E11 Voltage error E12 Driver board overheating error E13 Motor overheating error
E15 Set the abnormal

Pressure setting recommendation:

Amount of pressurization floors	1	2	3	4	5	6
Starting pressure(kg/cm ²)	1.5	1.5	1.5	1.5	1.8	2.1
Stabilized pressure(kg/cm ²)	2.5	2.5	2.5	2.5	2.8	3.1

IX. Start, operation and maintenance



Forbidden to dry running without medium inside, avoid the damage of mechanical seal, sliding bearing.

1. The pump must be filled full with water (or liquid) to start.
 - In the back flow of system to fill water:
Close the pump outlet valve, open the vent screw on pump head, slowly open the inlet valve, until the water Steady out-flow vent plug screw, then tighten the vent plug screw.
 - In the liquid level below the pump system, fill water inside pump.
Before starting the pump, the air must be removed so that the inlet and pump are filled with water
2. Check the rotation direction
Close the power supply, observe the direction of rotation (Reference fan), the correct direction of rotation is looking from the motor side should be counterclockwise rotation.
3. Should check before start the pump
 - Check whether pump fixed firmly;
 - Pump whether is filled with water or not, the liquid whether free through or not;
 - Is the grid voltage correct?
 - Is the rotation direction correct?
 - Whether all the pipes are tightly connected and whether the piping is properly supplied
 - Is inlet of the valve fully open?
 - Outlet of valve should be slowly opened after the pump already started;
 - If the installation of the pressure gauge, check the pressure of work
4. Control the operation of the pump
 - Pump can't start frequently, it is recommended that no more than 100 times per hour;
 - Refer to the rough curve for the performance range, prevent the flow is too small to make pump over-heat and flow is bigger to make motor overload, etc.;
 - Pay attention to whether the pump has noise or not, if have problem, please stop and check it immediately.
5. Anti-freezing measures
Pump can be used in the water has taken anti-freezing measures system, if the pump is installed in icy place, must add the right amount of antifreeze in order to avoid freezing and damage the pump, if without antifreeze, pump should be shut down in there is a risk of possible frost, when the pump stop, must empty the water in the pump and system.
6. The pump should be regularly check the following
 - Work pressure and operation pressure;
 - Possible leakage;
 - Motor may be overheating;
 - Remove and clean/replace all filter net, (Equipped with a filter net);
 - The disconnection time of Motor overload;
 - The frequency of start and stop;
 - All the control operation;
 - If you find fault, please check system according to "the common failures and solutions ";
 - When pump is unused for a long time, it should be cleaned and kept properly.
 - Pump should prevent corrosion and damage in the store.

X. Common Error And Processing Methods



Before removing the motor terminal box cover and removing the pump, make sure that the power supply has been cut off

Fault phenomenon	Cause analysis	Method	Remark
Motor can't start	a) power source error	a) check the power source	
	b) The fuse is broken	b) Replace the fuse	
	c) Motor overheating protection (display E13)	c) After cooling, pump automatically start	
	d) Motor damaged	d) Consulting service provider or maintenance service	
	e) Water pressure is higher than the starting pressure	e) Pump automatically start when the pressure drop to the starting pressure.	
	f) Driver error	f) Consulting service provider or maintenance department	
	g) Motor lead plug is not inserted or lead is loose (display E4)	g) Connect the lead-wire to re-plug the plug	
	h) low-water will be protected (display E1)	h) Every 30 minutes to restart the motor once, when the pipe have water, the pump will resume operation	
	i) inlet pressure sensor is damaged (display E5) or plug is not inserted	i) Replace the inlet pressure sensor or re-plug the plug again	
	j) Outlet pressure sensor is damaged (display E6) or plug is not inserted	j) Replace the sensor or re-plug the plug again	
	k) when voltage operating range is over, motor will be protected. (display E6)	k) Adjust the voltage to the range of use, then restart the pump	
	l) Motor stall (display E3)	l) Check whether the pump has a foreign body stuck	
	m) Drive error (display E8)	m) Long press the set button to switch Manual / Auto , if the error could not be removed, please repair or change.	
n) Drive board overheat error (display E12)	n) The pump will stop and automatically troubleshoot after cooling		
Pump water uneven	a) The inlet pipe is too small	a) Increase the inlet pipe	
	b) At the pump inlet, there is not enough water	b) Improve the system, try to increase water	
	c) Liquid level is too low	c) Try to raise the liquid level	
	d) inlet pressure is too small compared to water temperature, pipe loss and flow	d) Improve the system, try to increase inlet pressure	
	e) Part of pressure pipe is impurities clogging	e) Check and clean	
The pump is running but the water is small and the pressure is insufficient	a) Pump rotation direction is wrong	a) Check the motor rotation direction (From the motor side should be counterclockwise rotation)	
	b) inlet pipe, filter, bottom valve or pump body is clogged	b) Clean the pipe, bottom valve, filter or pump body to remove debris	
	c) Low motor voltage or the wire is too long	c) Check the motor end part voltage, increase the wire cross section	
	d) Incorrect model selection	d) Select the suitable model	
	e) Impeller wear serious	e) Replace the impeller	
	f) Mechanical seal leak	f) Clean or replace mechanical seals	
	g) Outlet pipe leak	g) check and repair the outlet pipe	
The motor running but no water	a) Pump body is not full filled with water	a) Open the vent screw, remove the air in pump chamber and inlet pipe	
	b) Impeller damage	b) Replace the impeller	
	c) Water level is lower than bottom valve	c) Adjust the inlet pipe to immerse the bottom valve into water	
	d) Suction pipe air leakage	d) Check the inlet pipe and the connections 's sealing.	
	e) The inlet pipe is clogged	e) Check and clean up	
	f) Bottom valve or check valve in the closed position	f) Check the bottom valve and the check valve	

Fault phenomenon	Cause analysis	Method	Remark
Pump has abnormal vibration and noise	a) Inlet pipe leak	a) Check the water inlet pipe	
	b) The inlet pipe is too small or part is clogged with sundries	b) Increase or repair the inlet line	
	c) The inlet pipe or pump has air	c) fill water again and remove the air	
	d) The mechanical part of the pump is rubbed	d) check and repair the pump	
	e) Base fixed is not strong	e) Sturdy the base, tighten the bolts	
Pump frequently start	a) Water flow is too small	a) Appropriate increase in water flow	
	b) outlet pipe leak or faucet drip, it will display E2	b) Check the water pipe and tighten or replace the faucet	

XI、 Important items

- 1、 The contents of this instruction are subject to change without prior notice
- 2、 Users in the selection of appropriate and correct use of cases, the pump has One year warranty except wearing parts of normal wear and tear
- 3、 User self-demolition caused by quality problems in warranty period, all consequences shall be the responsibility of the user.

Packing List

Factory No. :

Packing Dimension:

XL25WHBJL4-30:433×245×320mm
 XL25WHBL4-30:513×222×338mm
 XL25WHBL5-40:513×222×338mm
 XL25WHBJL6-30:433×245×320mm
 XL25WHBL6-30:513×222×338mm
 XL40WHBL10-50:755×298×415mm
 XL40WHBJL8-50:643×280×415mm

G.W./N.W. :

XL25WHBJL4-30:13/11kg
 XL25WHBL4-30:15/13kg
 XL25WHBL5-40:15/13kg
 XL25WHBJL6-30:13/11kg
 XL25WHBL6-30:15/13kg
 XL40WHBL10-50:30/28kg
 XL40WHBJL8-50:27/25kg

No	Name	No	Unit	Quantity	Remark
1	Intelligent constant pressure efficiency multistage centrifugal pump	XLWHBJL/XLWHBL	Pcs	1	Inner
2	Pressure tank		Pcs	1	Independent packing (paid service)
3	Warranty card		Pcs	1	Inner
4	Specification, packing list		Pcs	1	Inner
5	Certificate of approval		Pcs	1	On pump