MP Serises Hydraulic Pump

Operation Manual

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Catalog

OPERATION AND MAINTENANCE MANUAL
FOR MP Series Pump

WREN Hydraulic

It is operating manual of MP series pump, please read carefully follow instructions、warnings and cautions before using the tools.

Safety Guide

The hydraulic of MP series pump's safe usage requires correct operation and regular inspect. And the user is requested to follow always and carefully .
▲precaution to avoid direct loss in economic or property.
▲warning to avoid personal injury.
Please follow herein before!
When using, if something abnormal happens, please shut off the power immediately, and then consult WREN or WREN`s agent.

1.When using, do not permit any person stand at the oil output in order to avoid personal injury and equipment damage. Please put the pump far away from the fire.
2.Make sure that the hose and quick coupler be connected before building up the pressure in order to avoid hydraulic fluid spurting out to cause personal injury.
3.The maximum operating pressure of this pump is 70Mpa(10,000Psi),WREN has set up the pressure to 70Mpa before selling this pump. Please do not adjust to a pressure higher than the maximum pressure which WREN has not set.
4.If this pump is used for operating other equipments, make sure the maximum operating pressure of the equipments will be less than 70Mpa. Please adjust the pressure to which the equipment need, or else the equipment would be damaged.
5.Make sure the power of the pump is shut off before repairing it.
6.If the rapid release of pressure, lifting jack in the load will fall or spring open, may cause injuries; please refer to WREN or WREN authorized agents, they will recommend you the right valve.
7.Please shut off the switch before starting power; if the switch is on, the pressure may increase.
8.Make sure the equipment be connected with ground to avoid electric shock.
9.Please do not change any part of the pump; if it must be changed, please inform WREN or Wren's agent for help. Without allowance of WREN or its agent, any refit of it will be out of our warranty range.
10.Please do not fill the pump reservoir with too much oil, otherwise, the pressure of the reservoir will increase and the oil will spill over, so the reservoir will be broken and the environment will be polluted.
11.Make sure the quick coupler is tightened; if the quick coupler is not tightened enough, the equipment will not work normally; if it is a synchronic system, the problem may cause one or several pieces of equipment out of order and the quick coupler may be broken and it may cause personal injury or equipment damage.
12.Please stand away from the position where the hydraulic oil may be spurt out; hydraulic oil may penetrate your hand and hurt you.
13.If the hydraulic oil splashed in your eyes, please immediately wash your eyes about 15 minutes with clean water, then you must go to hospital for help right now.

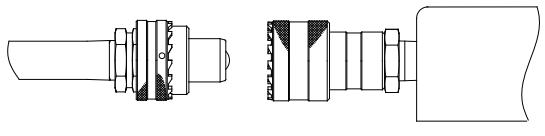


FIG1

14.Please do not touch the pressurized hose; if the hydraulic oil splashed out, it will cause serious injury.
15.Hydraulic hose is easily spoiled fitting; you inspect the hose with eyes regularly and find no problems, but the inner side may have crack and small hole; WREN suggests you should change the hose regularly for

PRECAUTION

1.Only WREN hydraudic special oil available.
2.Do not use pressure regulate valve as relief valve.
3.The used hydraulic oil should be put away according to the antipollution ordinance.

DESCRIPTION

1 MP series electric pump adopts an integrated assembly; by the oil pump, control valve, fuel tank, pneumatic motors, coolers, instrument consisting of an independent and complete hydraulic device, has the advantages of small volume, light weight, simple structure, convenient operation, high work pressure. Pump for high, low pressure oil pump and oil supply, it can obtain the larger oil output. High pressure, low pressure pump by unloading overflow valve automatic no-load return oil, can reduce the power consumption, and (A) export oil pressure is70 ~ 700Bar arbitrary regulation.

2 Electric hydraulic pump of the hydraulic oil used in:46# wear-resistant hydraulic oil.

3 Hydraulic electric pump working environment temperature: - 10~60 C

4 Use WREN high-pressure hose, quick coupler. The maximum working pressure of high pressure hose WREN electric hydraulic pump used is 100Mpa, please use the selection and matching pressure system.

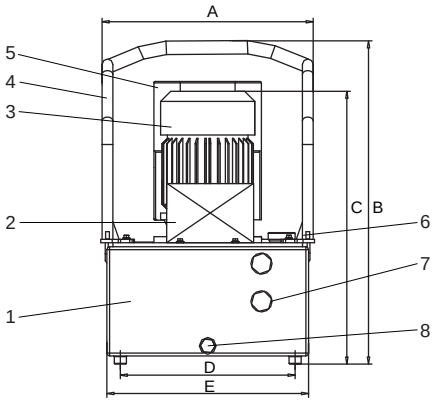
5 This pump for use of hydraulic products, please consult the WREN engineer.

6 Please don't use the electric hydraulic pump near flame.

7 Please do not arbitrarily adjustable pressure regulating valve, in order to avoid the high pressure caused by equipment damage and personal injury.

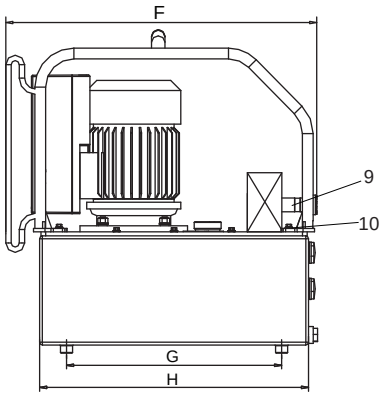
DESCRIPTION OF PARTS OF MP SERIES PUMP

ITEM	NAME	ITEM	NAME
1	Storage tank	6	Fuel tank cover
2	Valve block（A/B/C/D/H)	7	Cat's eye level gauge
3	Electrical moto	8	Oil drainage hole
4	Aluminum protection frame	9	Fast joint
5	Electronic control box	10	Six angle screws



EXTERNAL DIMENSION AND OF MP SERIES PUMP

ITEM	MP04	MP08	MP13	MP18	MP24	MP32	MP56
A	254mm	254mm	314mm	314mm	314mm	460mm	522mm
B	430mm	480mm	480mm	510mm	570mm	510mm	600mm
C	353mm	403mm	405mm	435mm	495mm	440mm	530mm
D	200mm	200mm	260mm	260mm	260mm	460mm	505mm
E	240mm	240mm	300mm	300mm	300mm	505mm	522mm
F	377mm	379mm	463mm	463mm	463mm	662mm	662mm
G	244mm	244mm	320mm	320mm	320mm	600mm	600mm
H	290mm	299mm	400mm	400mm	400mm	645mm	645mm



DESCRIPTIONS OF PARTS

1.Oil storage tank: working with hydraulic oil storage, to ensure the normal work of the system (must have enough oil), to provide the required pressure carrier system.

2.Cartridge valve blocks: a replaceable cartridge valve block (A / B / C / D / H) to achieve different control.

3.Motor: provide power source (based on the use of the voltage, frequency selecting motor, see specific parameters in the motor nameplate).

4.Pump protection frame: installed in the storage tank, used for carrying, protection of hydraulic pump station.

5.Electronic control box: Built-in micro electronic control system, control the entire pump.
6.Ventilation hole : The realization of hydraulic oil discharge tank (replacement of hydraulic oil used in oil); cover with ventilation holes, filling the oil cover, a filtering net is arranged to ensure that no impurities into the tank; tightening oil cover ensure system of air discharged smoothly.
7.Liquid level gauge: Observation of hydraulic oil to ensure that the number, provide the best use of oil; hydraulic oil below the oil standard1 /3 position, must add WREN pumping station hydraulic oil, or may damage the pump station
8.Oil unloading hole: Plug G1/ 4", realize hydraulic oil discharge tank (replacement of hydraulic oil in use);
9.Fast joint : The realization of hydraulic oil output \ return oil function, fast connecting pipe built-in type check valve;
10.Six angle screws: Sealing connecting tank

CHARACTERISTIC

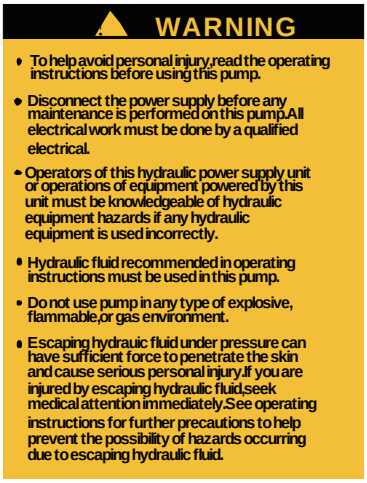
1.MP series electric pump is a double stage pump. High pressure outlet is provided with a pressure relief valve, a low-pressure outlet pressure is 5 ~ 7Mpa, in 70Mpa state flow 0.8L / m.
2.70Mpa maximum operating pressure
3.Motor voltage:100 ~ 120V,200 ~ 240V,350 ~ 420V optional
4.Temperature: - 10~80 C
5.The 6storage tank (tank specifications models):4 ~ 65L7specifications
6. ISO VG 46# hydraulic oil

WARNING!!!

1.When operating, do not permit anyone stand at the oil output,The oil output must connect other components when adjusting the pressure.
2.When using, do not overpass the max operating pressure.
3.If need to check motor tank, please shut off the pump.
4. When working, the oil back to oil reservoir may add the pressure. If open the cover plate, unnecessary injury and damage will happen.
5.Proihbit to operate without oil
6.Keep the pump clean,clean especially the oil inlet, quick couplers.
7.Suggestion: in the condition of not using the pump always, please remember to replace the hydraulic oil

Warning Plate

Warning plate is shown in table 1

warning table	Meaning	Affixed Position
	For Saft Operation, Please Read	The Equipment Enclosure
	Warning Notices	The Equipment Enclosure

MAINTENANCE AND INSPECTION

1. The inspection before operating
(1).Please shut off the pump and inspect whether the position of the power connection is loose or not. If it is loose, please tighten it.
(2).Please inspect whether the hydraulic oil in the oil reservoir is enough or not, if it is not enough, please fill the oil in time.
(3).The pump is still working when the direction of the valve is changed, please build up pressure and inspect whether the whole equipment is normal or not.
(4).Please inspect whether the house and other equipments are leaky or not, if this happened, please inspect to find the reason and repair it or replace it.
2.The inspection in operation
When inspecting the following items, if there is abnormal situation, please shut off the pump and repair it.
(1)Please inspect whether there are abnormal condition or not in the course of raising the pressure.
(2)Please inspect whether the houses and other equipments are leaky or not.
(3)Please inspect whether there is some abnormal noise, rocking and smell or not during the operation of the motor.
(4)Please inspect whether the temperature of hydraulic oil is too high or not.
3.The inspection after finishing the operation of the pump.
(1)Making sure the pump must be turn down.
(2)Please inspect whether there are leaky or abnormal condition or not. If there is abnormal situation,please inspect to find the reason and repair it
(3)Please clean it after using the pump.
4.Refer to changing the hydraulic oil
The oil should be replaced once a year principally. If there are following abnormal conditions, please replace the oil immediately.
(1)If dust mixes with the oil, please replace the oil.
(2)If there is abnormal smell, please replace the oil.
(3)If the water mixes with the oil, the colour of the oil has been changed into milkiness, please replace the oil.
(4)If the colour of the oil has been changed into black-brown, please replace the oil.
5.The way replacing the hydraulic oil
(1)Please loosen the oil filler port of oil reservoir.
(2)Please take down the screw on the flank of the oil reservoir, let hydraulic oil out.
(3)Please clean the inner and filter of the oil reservoir.
(4)Please install the screw and fill the oil reservoir with the hydraulic oil.
WARNING: If the oil splashes into your eyes, please wash with clean water for at least 15 minutes, and Then see doctor immediately. If the oil splashes to your skin, please wash it with clean water and soap.
WARNING: Waste hydraulic oil bellows to industrial waste, it should be dealt with by special companies.

Noise/Vibration And Transport information

1、 Hydraulic pump noise declaration

1) Hydraulic pump noise value: ≤ 70db

2、 Hydraulic pump transport information.

1) Handle with care.

2)The shipment should be vertical upward, as shown in the figure 9-1.

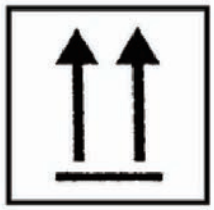


FIG 9-1

3) Product handling, generally using portable, car handling and lifting and moving, as shown in the figure 9-2.

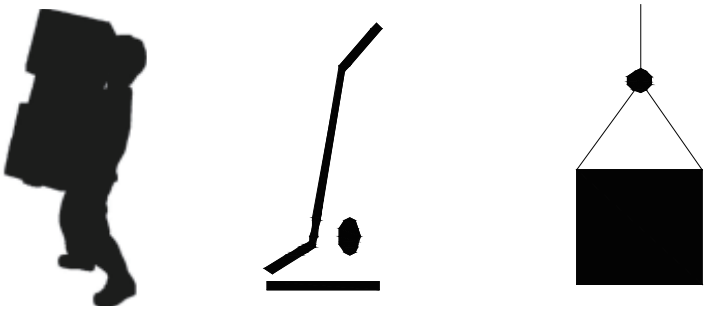


FIG 9-2

OPERATION INSTRUCTIONS

The type A valve block pump (hand double action):

1 .Ready

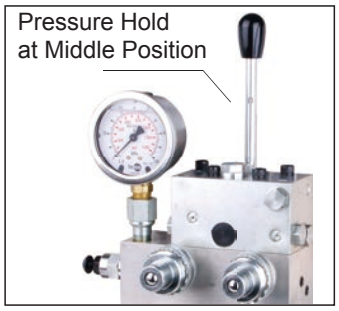
Starting motor before cleaning and inspection of the connector, and then injected into a special hydraulic oil, in ensure the use of pressure in the pressure range, connected by a hose pump and operating tools, check whether the correct connection of safety, such as incorrect, hydraulic pump can not work normally. Check the manual reversing valve to switch the direction shown, according to working need adjusting valve.

2 .Boot

Turn on the power, start the motor, regulating valve to the forward (backward) position, pressure is increased to the desired pressure value, manual reversing valve is pressure in.

3 .Removing

After the work is finished, stop the motor, cut power off, the manual reversing valve, remove hose.



The type B valve block pump (hand single action):

1 .Ready

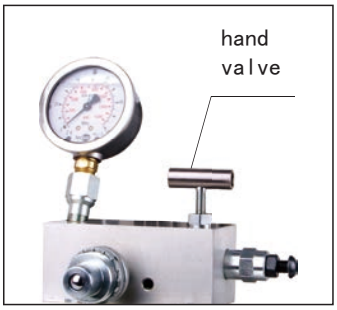
Starting motor before cleaning and inspection of the connector, and then injected into a special hydraulic oil, in ensure the use of pressure in the pressure range, connected by a hose pump and operating tools, check whether the correct connection of safety, such as incorrect, hydraulic pump can not work normally. Check valve manually locking, according to working need adjusting valve manually (tighten packing, loosen the pressure relief).

2 .Boot

Turn on the power, start the motor, is a manual valve, pressure is increased to the desired pressure value and holding pressure.

3 .Removing

After the work is finished, the stop of the motor, cut off the power supply, loosen the hand valve pressure relief, remove hose.



The type C valve block pump (electric control single packing):

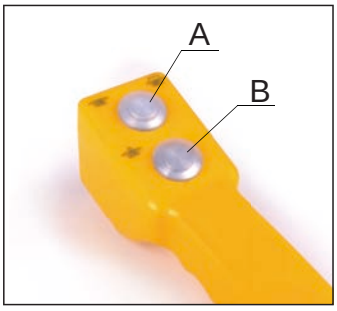
1 .Ready

Starting motor before cleaning and inspection of the connector, and then injected into a special hydraulic oil, in ensure the use of pressure in the pressure range, connected by a hose pump and operating tools, check whether the correct connection of safety, such as incorrect, hydraulic pump can not work normally. Remote control switch has two buttons (the A key to move the boost, B key to move the pressure relief).

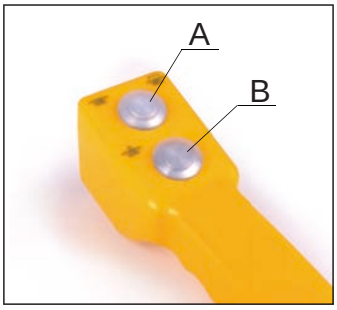
2 .Boot

Turn on the power, the motor is started, the A key to move the pressure, pressure is increased to the desired pressure value and pressure, the B key to move the pressure relief, pressure is reduced to a desired pressure value and holding pressure.

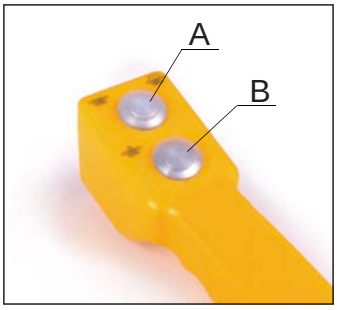
3 .Removing
After the work is finished, stop the motor, cut off the power, pull the electromagnetic valve top button and let the pressure relief, remove the hose.



The type D valve block pump (electric control single action without packing):
1 ready
Starting motor before cleaning and inspection of the connector, and then injected into a special hydraulic oil, in ensure the use of pressure in the pressure range, connected by a hose pump and operating tools, check whether the correct connection of safety, such as incorrect, hydraulic pump can not work normally. Remote control switch has two buttons (the A key to move the boost, the B key spare).
2 boot
Turn on the power, the motor is started, the A key to move the pressure, pressure is increased to the desired pressure value, when the button is loosened and relief, the B key spare.
3 removing
After the work is finished, stop the motor, cut off the power supply, system pressure relief, remove hose.



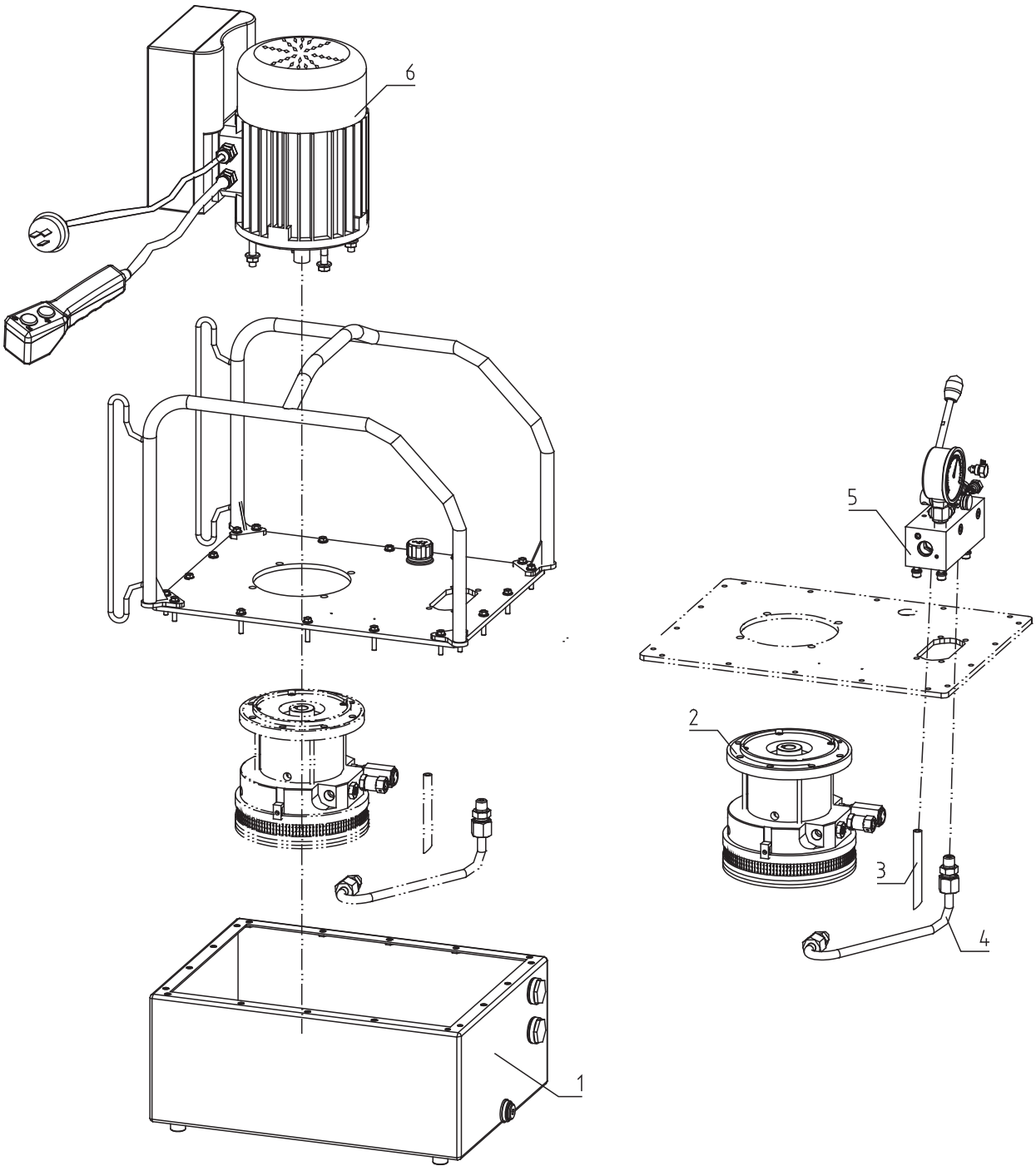
The type H valve block pump (electronically controlled dual role):
1 ready
Starting motor before cleaning and inspection of the connector, and then injected into a special hydraulic oil, in ensure the use of pressure in the pressure range, connected by a hose pump and operating tools, check whether the correct connection of safety, such as incorrect, hydraulic pump can not work normally. Remote control switch has two buttons (the A key to move left to right out, B key instead).
2 boot
Turn on the power, the motor is started, the A key to move the pressure, pressure is increased to the desired pressure value and pressure, the B key. Hose connected in reverse, the B key to move the pressure, pressure is increased to the desired pressure value and pressure, the A key.
3 removing
After the work is finished, stop the motor, cut off the power, tpull the electromagnetic valve top button and let the pressure relief, remove hose.



TROUBLE SHOOTING GUIDE OF HYDRAULIC PUMP

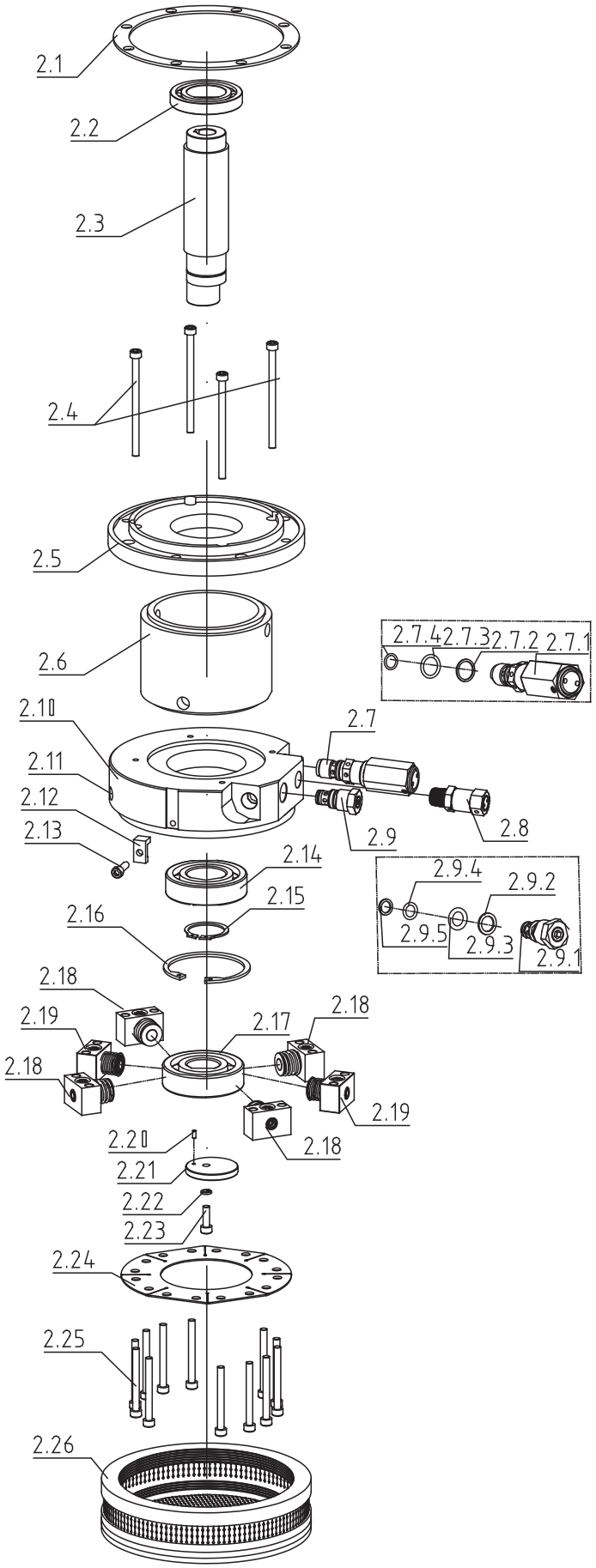
The pump can't be started	The voltage isn't suitable	Confirming whether the voltage is suitable for the pump's need
	The power hasn't be connected	Checked the input air, switch and distribution box and so on, and connect the air.
The system has no pressure	The quick coupler hasn't be connected to the correct position	Take down and reinstall it
	No oil in the oil reservoir	Fill in oil
	Not enough oil in the oil reservoir	Fill in oil
	If the system has a throttle and hand single-direction valve, please check if the valve are open	Open the throttle and hand single-direction valve, and make sure the system is a circle
After reinstalling the quick coupler,the system has no pressure	The quick coupler can't be connected to the correct position, which causes no pressure in the system	Take down the quick coupler, check if the boll is elastic with a rod, if it can't move, please knock it with a hammer to eliminate the mist hydraulic oil
Leakage in the quick coupler	The o ring and escape have worn out	Replace the quick coupler
The pressure can't reach to the set pressure	The relief valve is adjusted too low	Check with the gauge, and adjust the relief valve to the system set pressure
	Oil is mixed with water	Change oil
	Not enough oil in the reservoir	Fill in oil
	Suck in air to the system	Repeat operating the system with no load for several times to eliminate the air
	The throttle and hand single-direction valve haven't been tightened	Locking valve
	The throttle and hand single-direction valve haven't been adjusted to the correct position	Adjust to the correct position
	The throttle and hand single-direction valve have broken	Replace the valve
	There is foreign matter in the oil	Wash the pump valve and change clean oil
When using under static pressure, the pressure reduces slowly	The seal is out of control, please check all the seal	Replace the seal
Pump during operation with strong noise	Radial plunger pump bearing damage	Replace the radial plunger

EXPLOSION OF MP SERIES PUMP



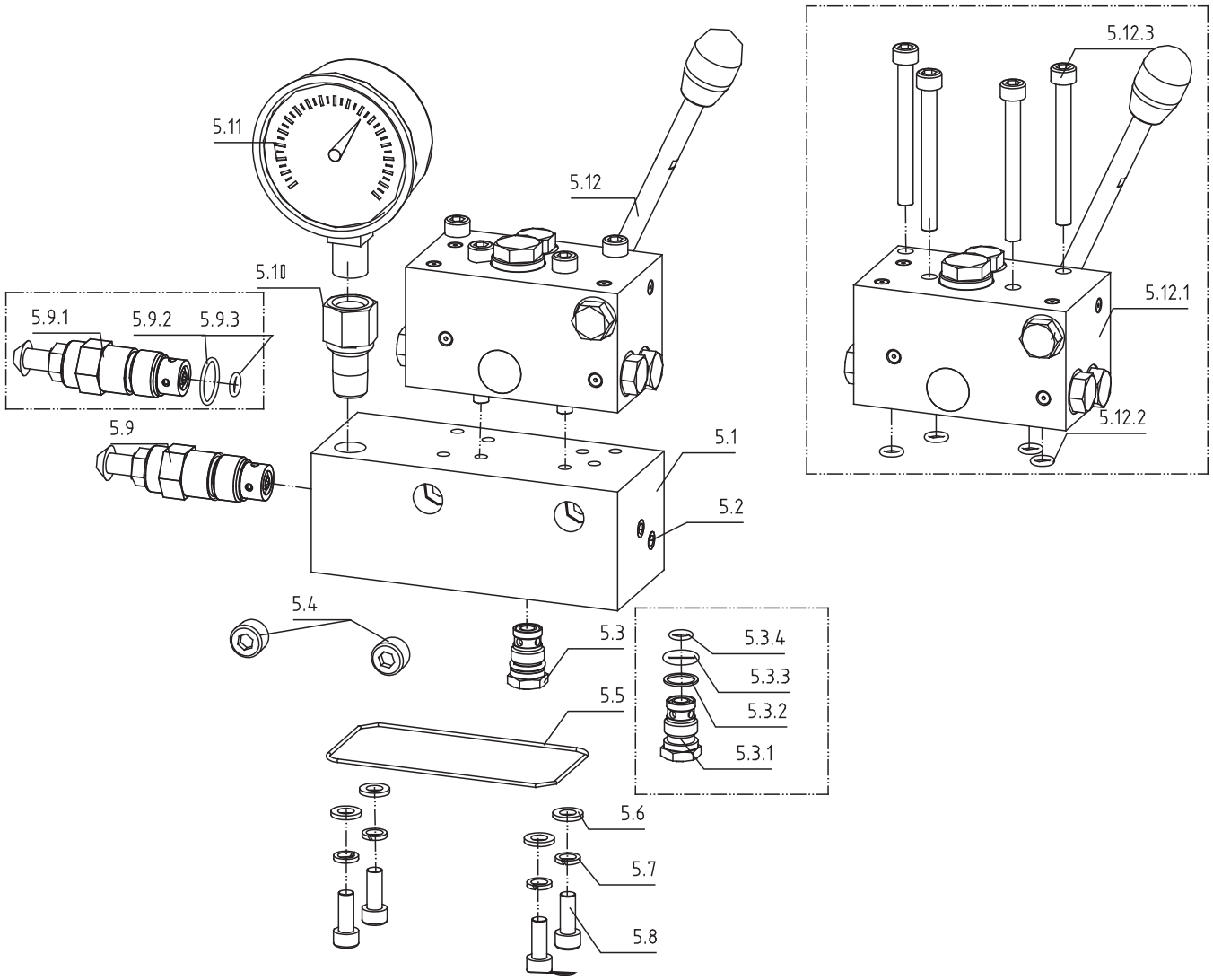
ITEM	NAME	ITEM	NAME
1	The tank module	4	Petroleum Pipeline
2	Pump module	5	Hydraulic control valve block
3	Oil return pipe(1)	6	Electric control valve block

EXPLOSION OF THE PUMP MODULE



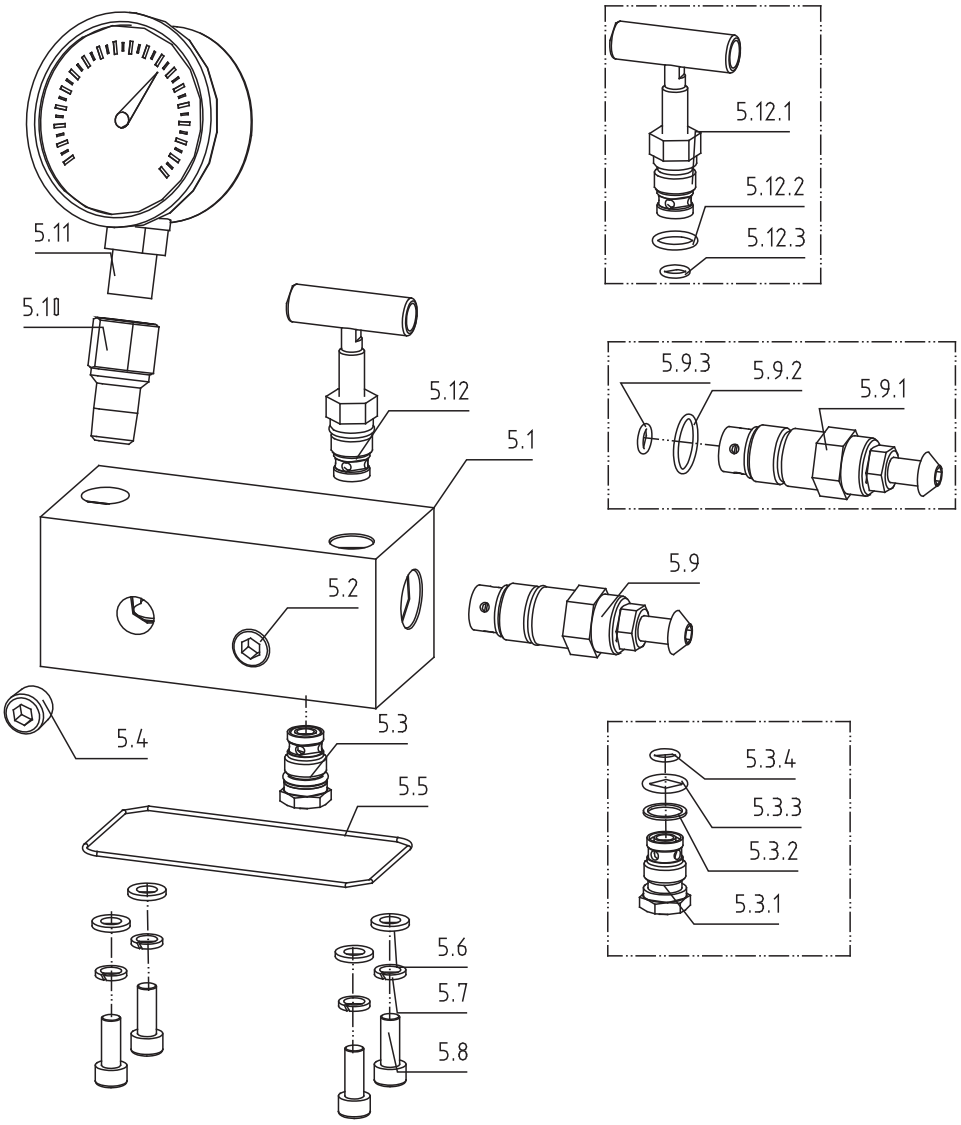
ITEM	NAME	NUM
2.1	Seal	1
2.2	Deep groove ball bearing	1
2.3	Bearing	1
2.4	Screw	4
2.5	Pump flange	1
2.6	The pump body set	1
2.7	Unloading valve	1
2.7.1	Unloading valve body	1/1
2.7.2	Ring	1/1
2.7.3	O Ring	1/1
2.7.4	O Ring	1/1
2.8	Overpressure valve	1
2.9	Check valve	2
2.9.1	The one-way valve body	1/1
2.9.2	Ring	1/1
2.9.3	O Ring	1/1
2.9.4	O Ring	1/1
2.9.5	Ring	1/1
2.10	Separation type pump body	1
2.11	Plug	6
2.12	Filter plate	1
2.13	Screw	1
2.14	Deep groove ball bearing	1
2.15	The circlip for shaft	1
2.16	Empty of elastic ring	1
2.17	Deep groove ball bearing	1
2.18	Plunger 1	4
2.19	Plunger 2	2
2.20	Pin	1
2.21	Bearing end plate	1
2.22	Elastic washer	1
2.23	Screw	1
2.24	Connecting piece	1
2.25	Screw	12
2.26	Fitter	1

EXPLOSION OF THE A TYPE VALVE SET MODULE



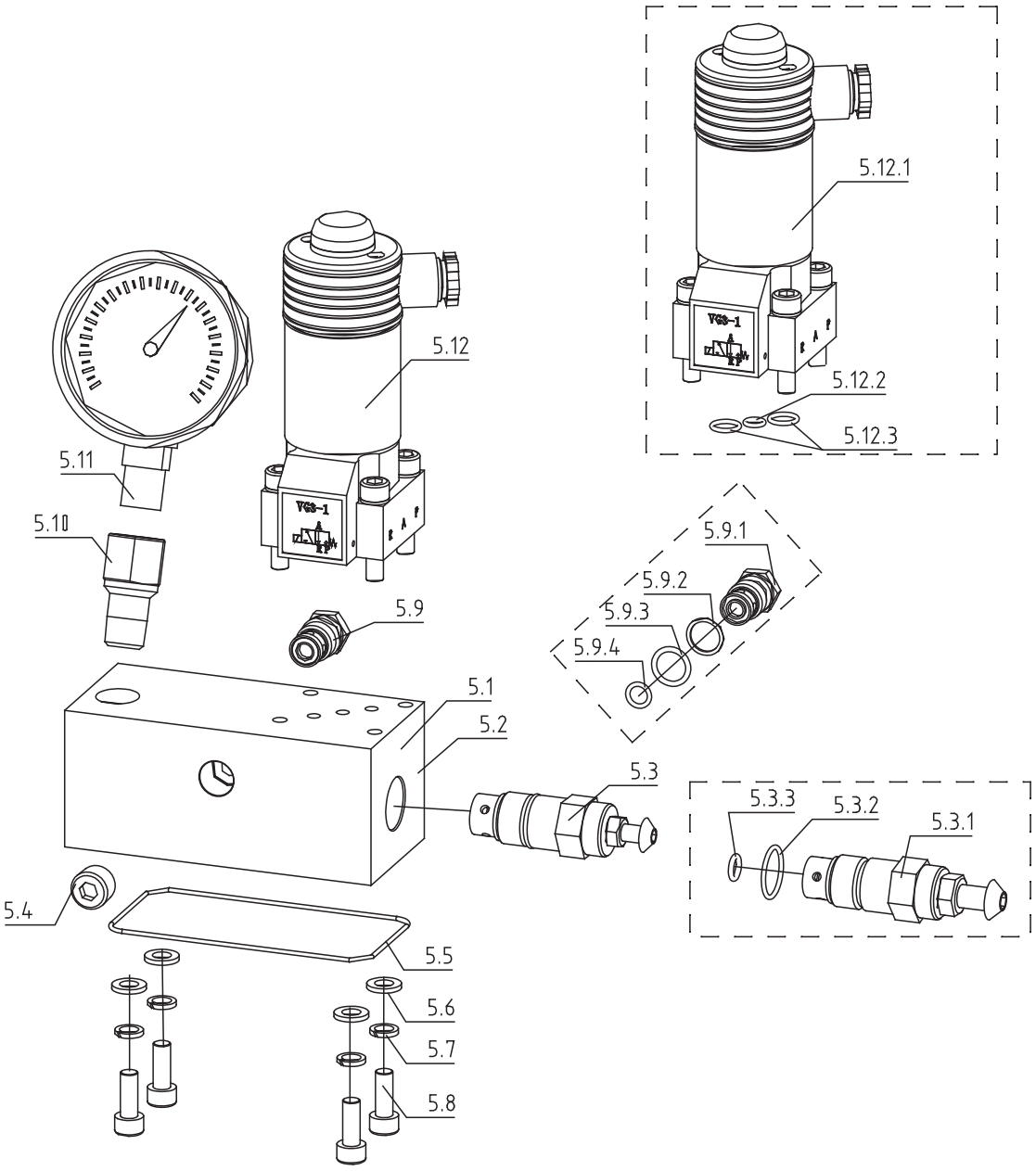
ITEN	NAME	NUM	ITEN	NAME	NUM	ITEN	NAME	NUM
5.1	The WA connection block	1	5.6	Flat washer	4/1	5.12	Reversing valve	1
5.2	Plug	7	5.7	Elastic washer	4/1	5.12.1	Reversing valve body	1/1
5.3	Check valve	1	5.8	Screw	4	5.12.2	O Ring	4/1
5.3.1	Valve body	1/1	5.9	Pressure regulating valve	1	5.12.3	Screw	4/1
5.3.2	Ring	1/1	5.9.1	Valve bidy	1			
5.3.3	O Ring	1/1	5.9.2	O Ring	1/1			
5.3.4	O Ring	1/1	5.9.3	O Ring	1/1			
5.4	Ring NPT1/4	1/1	5.10	Pressure meter joint	1			
5.5	Ring	1/1	5.11	Pressure gauge	1			

EXPLOSION OF THE B TYPE VALVE SET MODULE



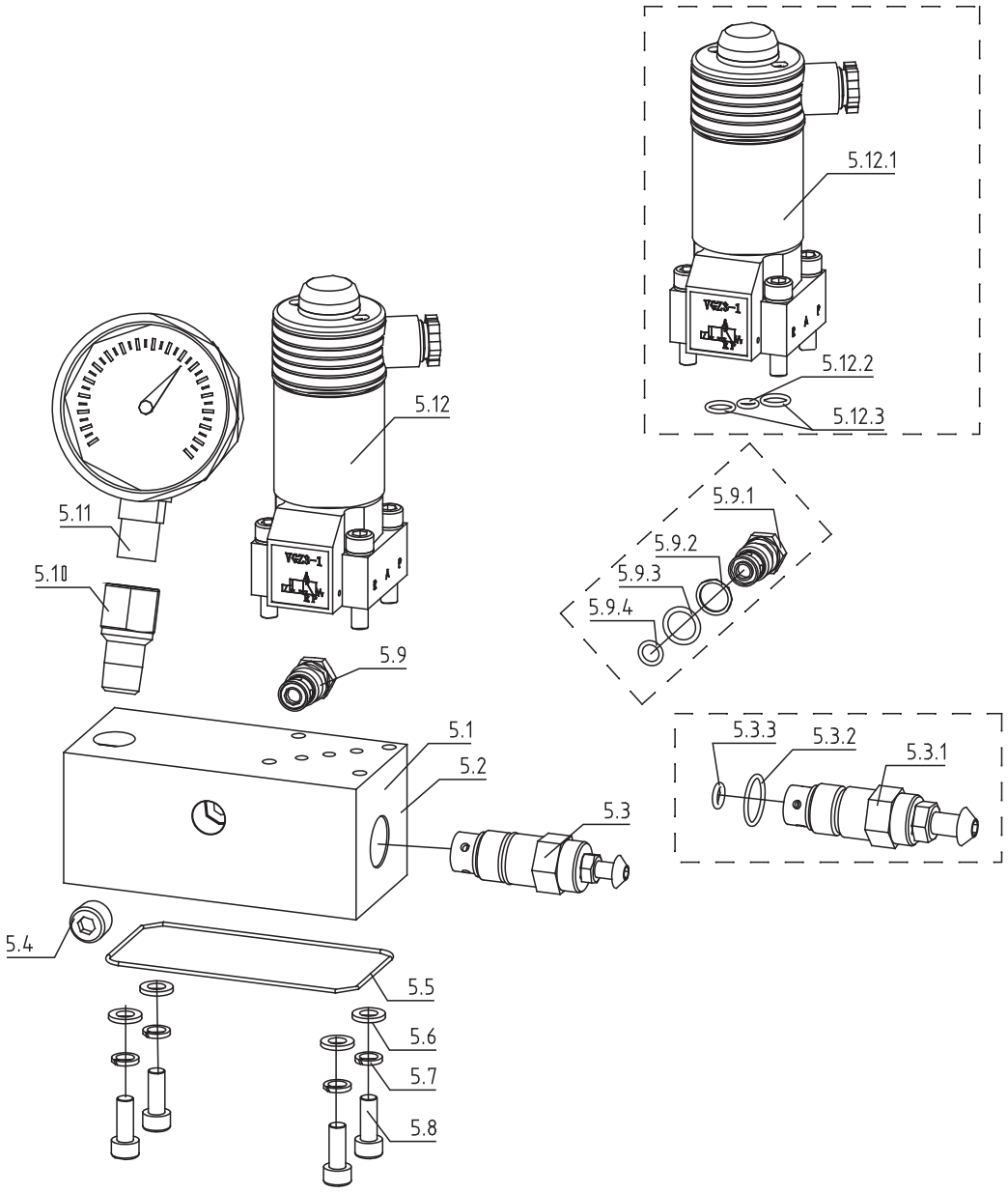
ITEN	NAME	NUM	ITEN	NAME	NUM	ITEN	NAME	NUM
5.1	The WA connection block	1	5.6	Flat washer	4/1	5.12	Stop valve	1
5.2	Plug	7	5.7	Elastic washer	4/1	5.12.1	Stop valve body	1/1
5.3	Check valve	1	5.8	Screw	4	5.12.2	O Ring	1/1
5.3.1	Valve body	1/1	5.9	Pressure regulating valve	1	5.12.3	O Ring	1/1
5.3.2	Ring	1/1	5.9.1	Valve bidy	1			
5.3.3	O Ring	1/1	5.9.2	O Ring	1/1			
5.3.4	O Ring	1/1	5.9.3	O Ring	1/1			
5.4	Ring NPT1/4	1	5.10	Pressure meter joint	1			
5.5	Ring	1	5.11	Pressure gauge	1			

EXPLOSION OF THE C TYPE VALVE SET MODULE



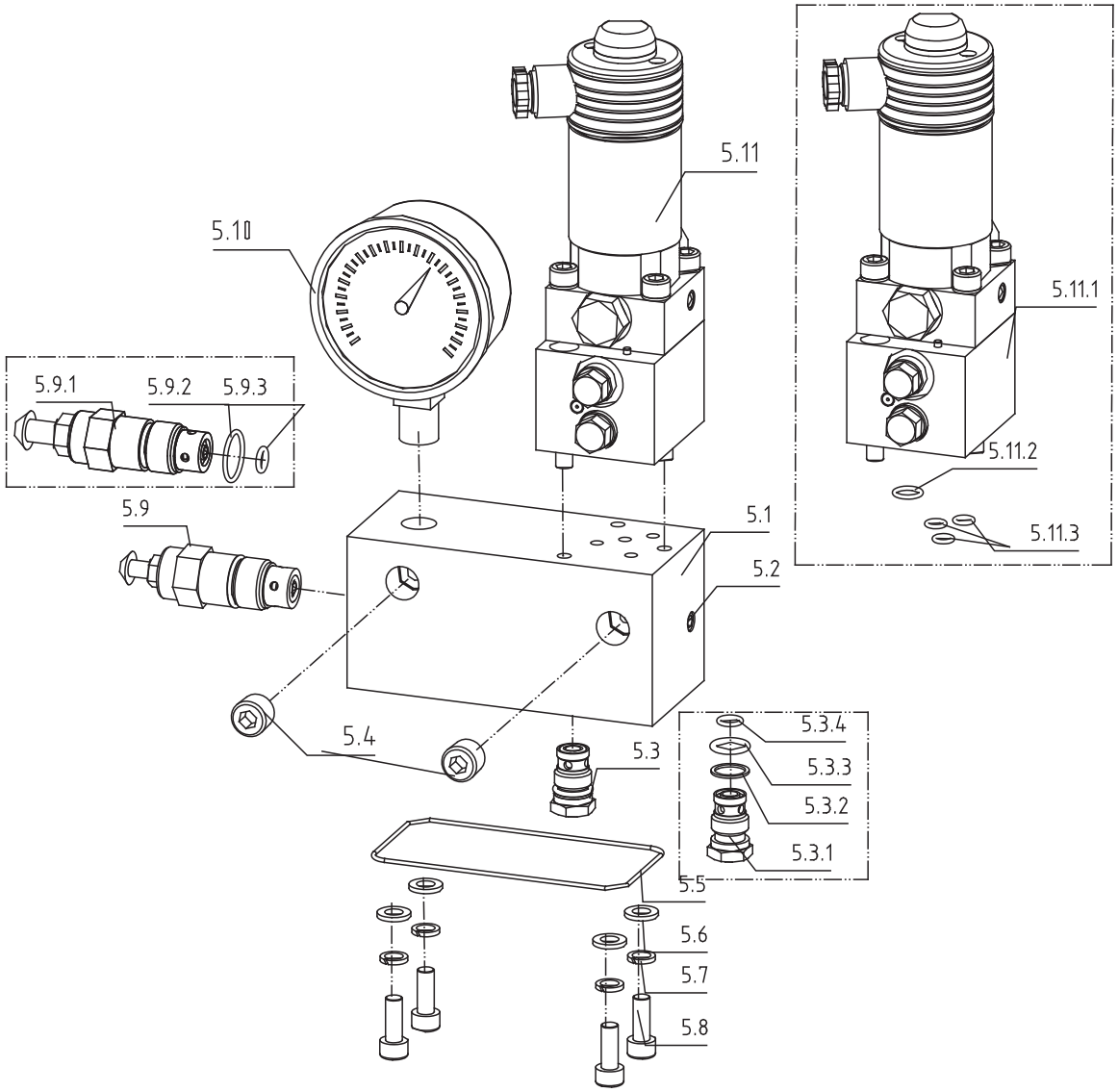
ITEN	NAME	NUM	ITEN	NAME	NUM	ITEN	NAME	NUM
5.1	The WC connection block	1	5.7	Elastic washer	4	5.12	Electromagnetic valve（VG-3)	1
5.2	Plug	4	5.8	Screw	4	5.12.1	Electromagnetic valve body	1/1
5.3	Pressure regulating valve	1	5.9	Check valve	1	5.12.2	O Ring	1/1
5.3.1	Valve body	1/1	5.9.1	Check valve bidy	1/1	5.12.3	O Ring	2/1
5.3.2	O Ring	1/1	5.9.2	Ring	1/1			
5.3.3	O Ring	1/1	5.9.3	O Ring	1/1			
5.4	Ring NPT1/4	1	5.9.4	O Ring	1/1			
5.5	Sealing ring	1	5.10	Pressure meter joint	1			
5.6	Flat washer	4	5.11	Pressure gauge	1			

EXPLOSION OF THE D TYPE VALVE SET MODULE



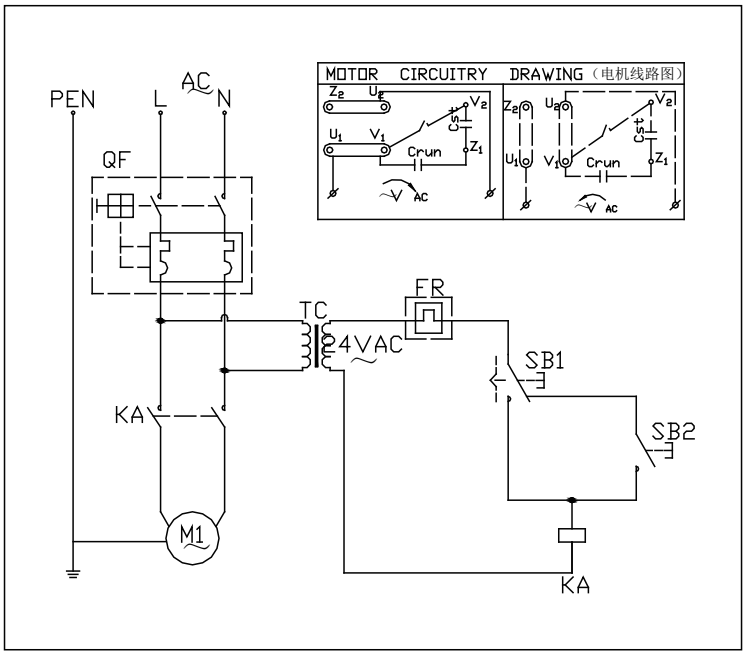
ITEN	NAME	NUM	ITEN	NAME	NUM	ITEN	NAME	NUM
5.1	The WC connection block	1	5.7	Elastic washer	4	5.12	Electromagnetic valve(VGZ-3)	1
5.2	Plug	4	5.8	Screw	4	5.12.1	Electromagnetic valve body	1/1
5.3	Check valve	1	5.9	Check valve	1	5.12.2	O Ring	1/1
5.3.1	Valve body	1/1	5.9.1	Check valve bidy	1/1	5.12.3	O Ring	2/1
5.3.2	O Ring	1/1	5.9.2	Ring	1/1			
5.3.3	O Ring	1/1	5.9.3	O Ring	1/1			
5.4	Ring NPT1/4	1	5.9.4	O Ring	1/1			
5.5	Sealing ring	1	5.10	Pressure meter joint	1			
5.6	Flat washer	4	5.11	Pressure gauge	1			

EXPLOSION OF THE H TYPE VALVE SET MODULE

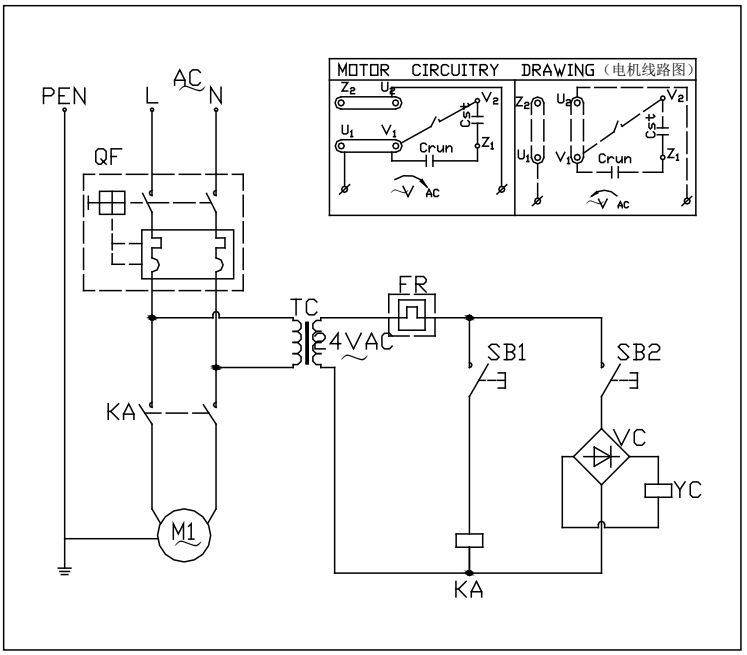


ITEN	NAME	NUM	ITEN	NAME	NUM	ITEN	NAME	NUM
5.1	The WH connection block	1	5.6	Flat washer	4	5.11.1	Valve body	1
5.2	Plug	5	5.7	Elastic washer	4	5.11.2	O Ring	1/1
5.3	Check valve	1	5.8	Screw	4	5.11.3	O Ring	4/1
5.3.1	Valve body	1/1	5.9	Pressure regulating valve	1			4/1
5.3.2	Ring	1/1	5.9.1	Valve bidy	1/1			
5.3.3	O Ring	1/1	5.9.2	O Ring	1/1			
5.3.4	O Ring	1/1	5.9.3	O Ring	1/1			
5.4	Ring NPT1/4	2	5.10	Pressure gauge	1			
5.5	Ring	1/1	5.11	Electromagnetic valve	1			

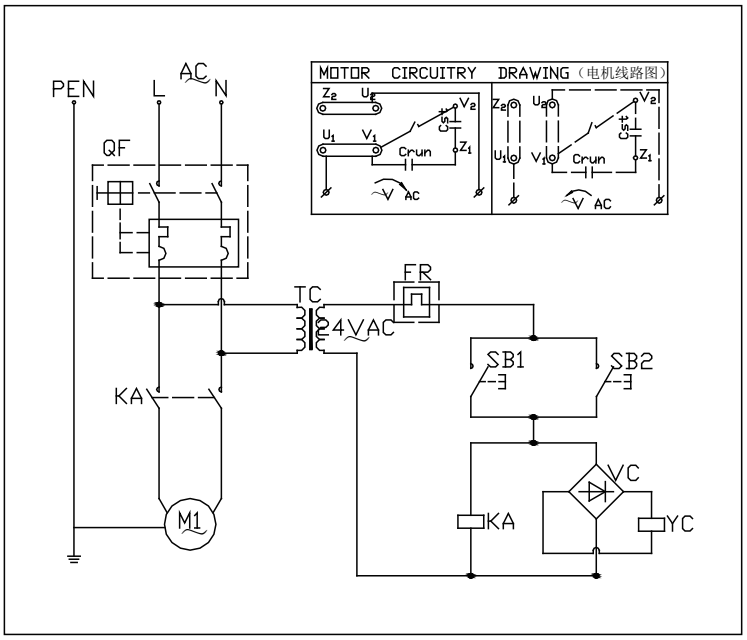
MP series electric pump control circuit principle diagram (Single-phase 220V)



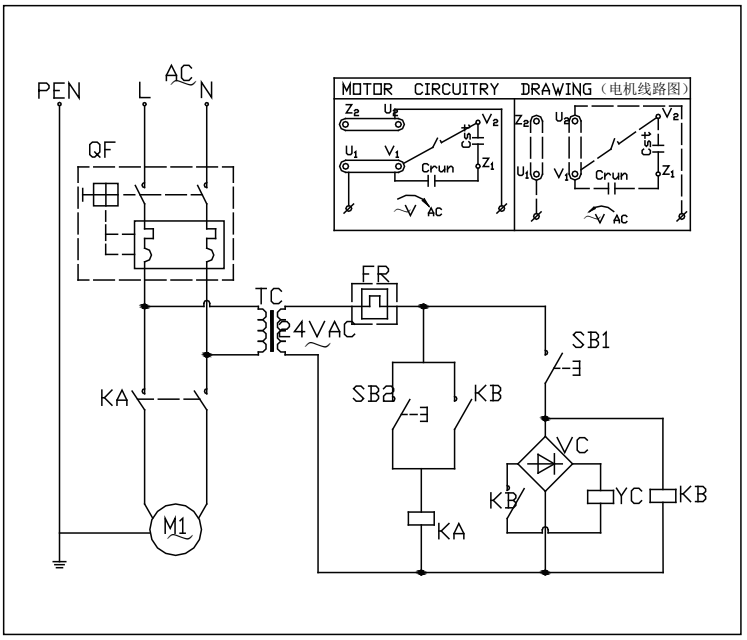
A TYPE VALVE PUMP
B TYPE VALVE PUMP



C TYPE VALVE PUMP

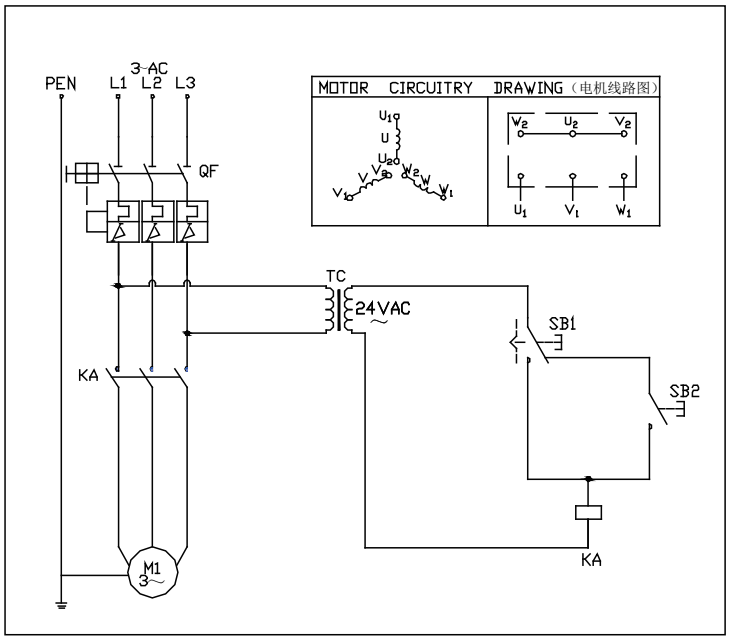


D TYPE VALVE PUMP

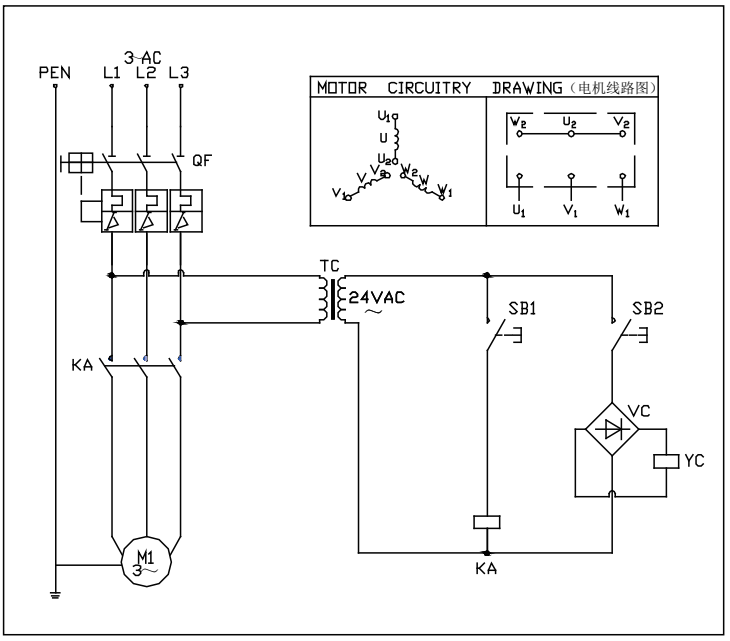


H TYPE VALVE PUMP

MP series electric pump control circuit principle diagram (Three-phase 380V)



A TYPE VALVE PUMP
B TYPE VALVE PUMP



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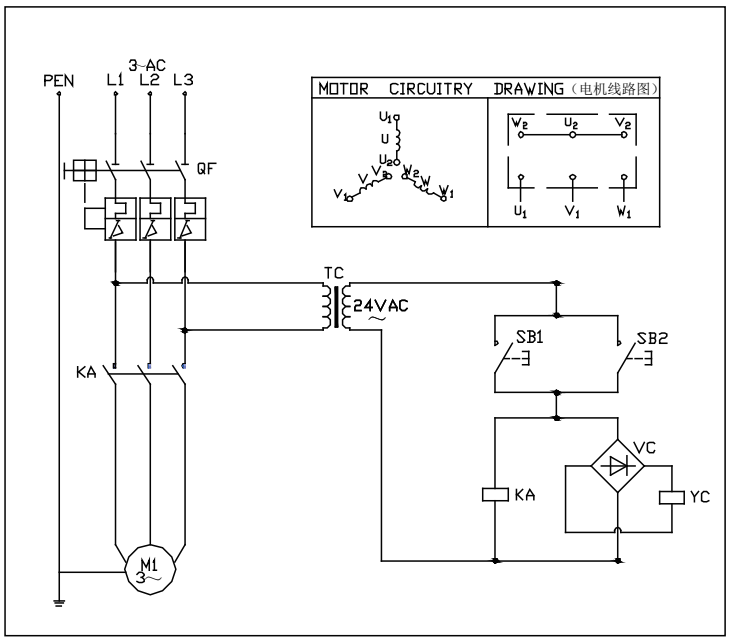
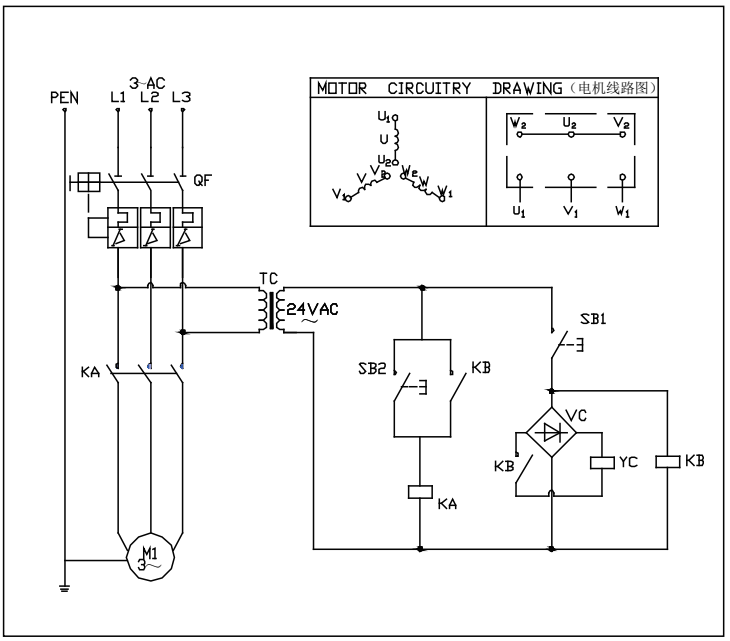
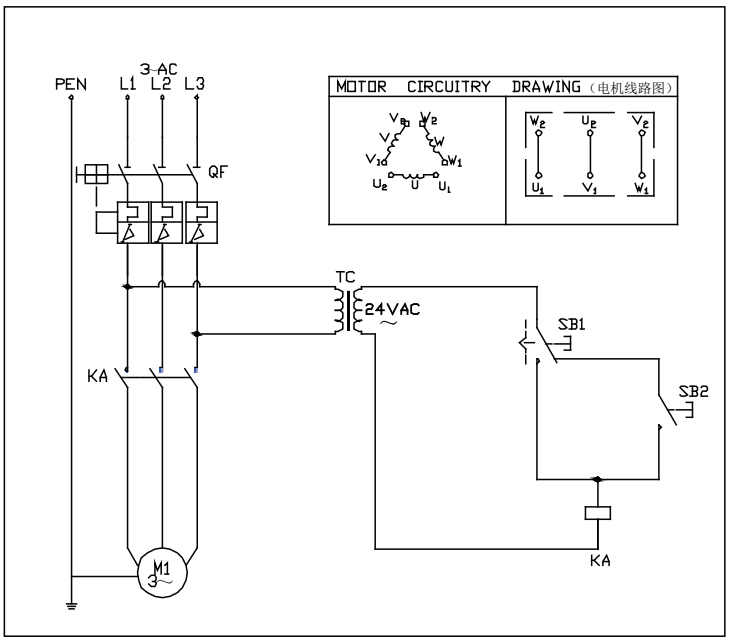


D TYPE VALVE PUMP

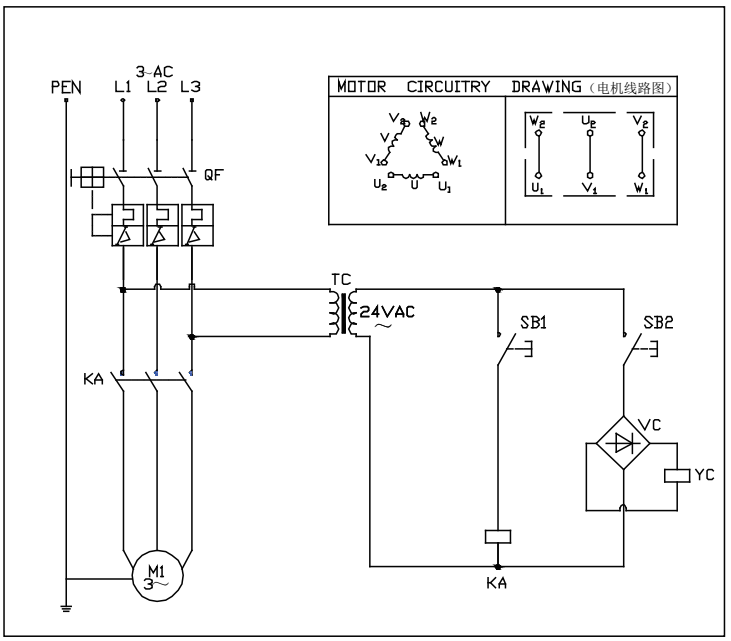


H TYPE VALVE PUMP

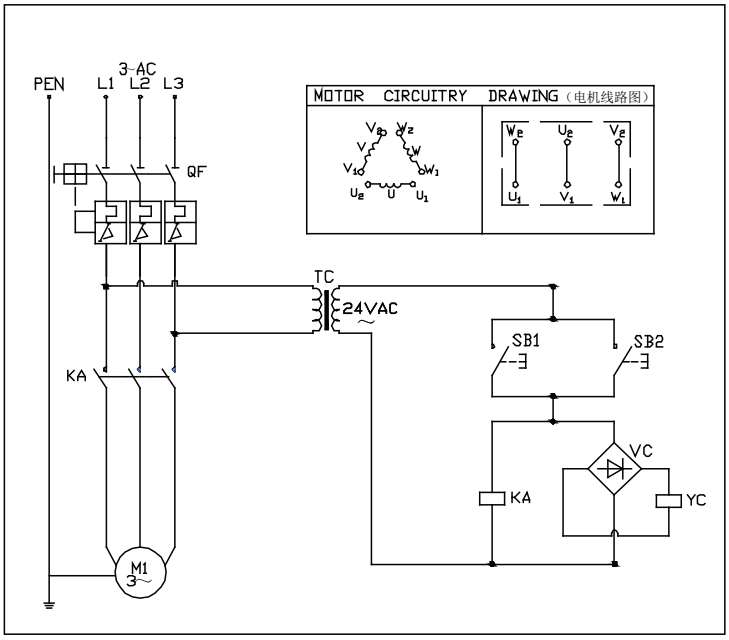
MP series electric pump control circuit principle diagram (Three-phase 220V)



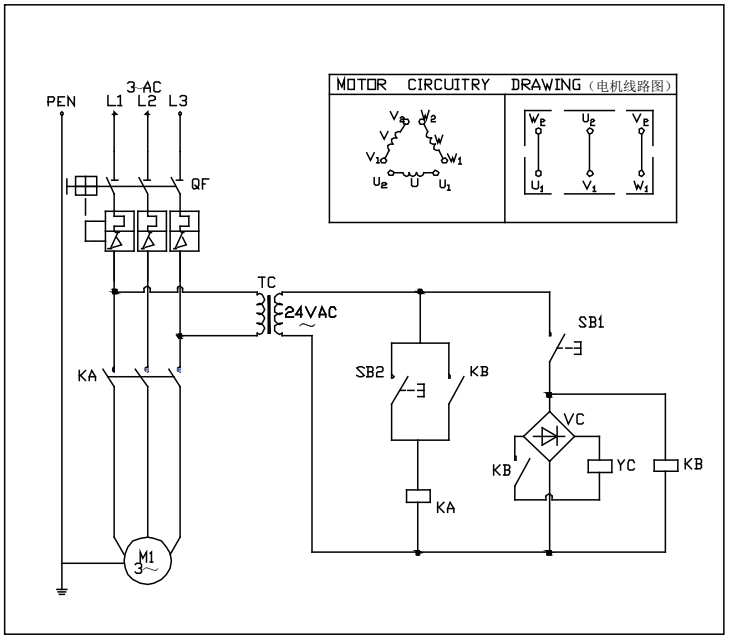
A TYPE VALVE PUMP
B TYPE VALVE PUMP



C TYPE VALVE PUMP

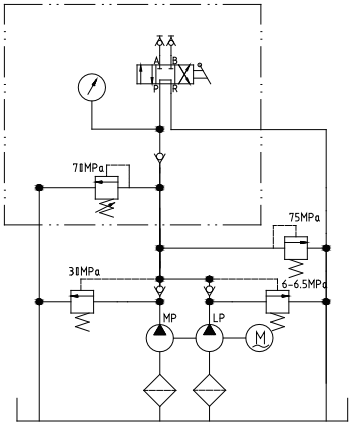


D TYPE VALVE PUMP

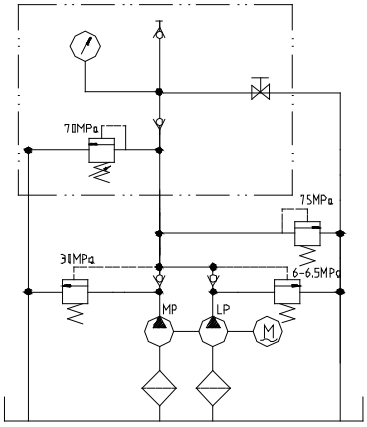


H TYPE VALVE PUMP

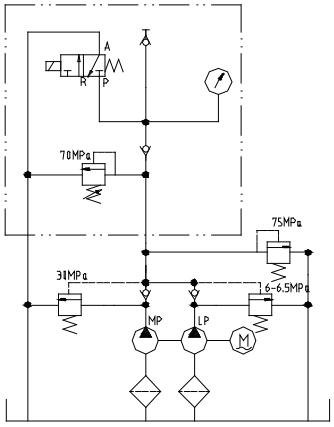
HYDRAULIC PRINCIPLE



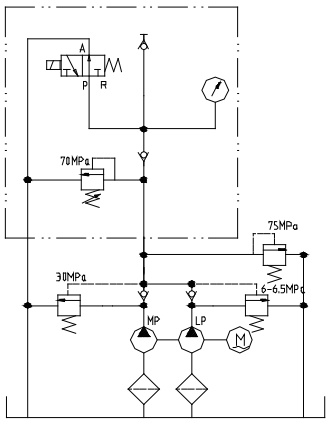
A TYPE VALVE PUMP



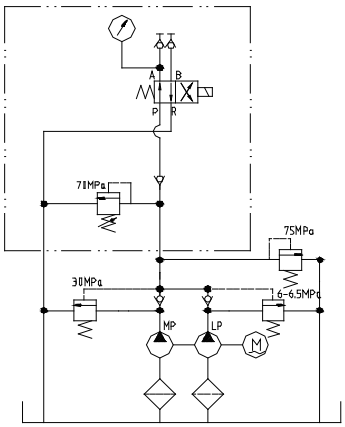
B TYPE VALVE PUMP



C TYPE VALVE PUMP



D TYPE VALVE PUMP



H TYPE VALVE PUMP

WARNING FOR USING HIGH PRESSURE HOSE

1.Please use Wren's JH series high pressure hoses.
2.The minimum bending radius: R>120mm. Too small bending radius will destroy the high pressure hoses.
3.The maximum operating pressure is 70 Mpa, and it is forbidden to overpass the pressure.
4.Do not tighten hoses excessively. Over tightening can cause to premature thread failure or high pressure fittings to split at a pressure lower than their rated capacities.
5.Should any hydraulic hose rupture, burst, or need to be disconnected, immediately shut off the pump. Never attempt to grasp a leaking pressurized hose with your hands. The force of escaping hydraulic fluid could cause serious injury.
6.Do not use the hose to remove attached equipment. Stress can damage the hose, causing personal injury.
7.Do not subject the hose to potential hazard such as fire, sharp surfaces, extreme heat or cold or heavy impact. Do not kink, twist, or bend the hose so tightly that oil flowing in the hose is blocked or reduced. Periodically inspect the hose for wearing, because any of these conditions can damage the hose.
8.WREN JH series 100Mpa high pressure hose's operating pressure is 100Mpa,. Overpass this pressure is forbidden.

AFTER-SALES SERNICE

1.WREN guarantees quality of the material used for manufacturing products and quality of your technical fulfillment. The guarantee period of the products is 12 months from the date of selling.
2.If any quality issue due to the defects of the materials or craftsmanship is found within the guarantee period. WREN will be responsible and repair or replace the defective products for free.
3.If the equipment is damaged because of happenstance, wrong operating and modifying or repairing the parts without consulting WREN's technical service department, WREN will not guarantee these cases.

Specification & Parameter

Model	Oil capacity (L)	Control retrun circuit	Moto (Voltage/frequency/ stage)	Power (Kw)	(L/min)		Oil outlet connecting thread	oil retrun port connecting thread	Max work pressure (MPa)
					Low flow	High flow			
MP04AR56	4	A	200～230V/50HZ/4Pole (2.56A, 1390r/min)	0.37	2	0.3	NPT1/4	NPT1/4	70
MP04BR56	4	B	200～230V/50HZ/4Pole (2.56A, 1390r/min)	0.37	2	0.3	NPT1/4	NPT1/4	70
MP04CR56	4	C	200～230V/50HZ/4Pole (2.56A, 1390r/min)	0.37	2	0.3	NPT1/4	NPT1/4	70
MP04DR56	4	D	200～230V/50HZ/4Pole (2.56A, 1390r/min)	0.37	2	0.3	NPT1/4	NPT1/4	70
MP08AS12	8	A	200～230V/50HZ/2Pole (7.0A, 2795r/min)	1	5.5	0.6	NPT1/4	NPT1/4	70
MP08BS12	8	B	200～230V/50HZ/2Pole (7.0A, 2795r/min)	1	5.5	0.6	NPT1/4	NPT1/4	70
MP08CS12	8	C	200～230V/50HZ/2Pole (7.0A, 2795r/min)	1	5.5	0.6	NPT1/4	NPT1/4	70
MP08DS12	8	D	200～230V/50HZ/2Pole (7.0A, 2795r/min)	1	5.5	0.6	NPT1/4	NPT1/4	70
MP08HS12	8	H	200～230V/50HZ/2Pole (7.0A, 2795r/min)	1	5.5	0.6	NPT1/4	NPT1/4	70
MP08AT13	8	A	200～240V/50HZ/2Pole (7.2A, 2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP13AT13	13	A	200～240V/50HZ/2Pole (7.2A, 2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP18AT13	18	A	200～240V/50HZ/2Pole (7.2A, 2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP24AT13	24	A	200～240V/50HZ/2Pole (7.2A, 2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP32AT13	32	A	200～240V/50HZ/2Pole (7.2A, 2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP56AT13	56	A	200～240V/50HZ/2Pole (7.2A, 2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP08BT13	8	B	200～240V/50HZ/2Pole (7.2A, 2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP13BT13	13	B	200～240V/50HZ/2Pole (7.2A, 2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP18BT13	18	B	200～240V/50HZ/2Pole (7.2A, 2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP24BT13	24	B	200～240V/50HZ/2Pole (7.2A, 2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP32BT13	32	B	200～240V/50HZ/2Pole (7.2A, 2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP56BT13	56	B	200～240V/50HZ/2Pole (7.2A, 2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70

Continuation for chart 1

Model	Oil capacity (L)	Control retrun circuit	Moto (Voltage/frequency/ stage)	Power (Kw)	(L/min)		Oil outlet connecting thread	oil retrun port connecting thread	Max work pressure (MPa)
					Low flow	High flow			
MP08CT13	8	C	200～240V/50HZ/2Pole (7.2A, 2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP13CT13	13	C	200～240V/50HZ/2Pole (7.2A, 2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP18CT13	18	C	200～240V/50HZ/2Pole (7.2A, 2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP24CT13	24	C	200～240V/50HZ/2Pole (7.2A, 2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP32CT13	32	C	200～240V/50HZ/2Pole (7.2A, 2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP56CT13	56	C	200～240V/50HZ/2Pole (7.2A, 2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP08DT13	8	D	200～240V/50HZ/2Pole (7.2A, 2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP13DT13	13	D	200～240V/50HZ/2Pole (7.2A, 2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP18DT13	18	D	200～240V/50HZ/2Pole (7.2A, 2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP24DT13	24	D	200～240V/50HZ/2Pole (7.2A, 2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP32DT13	32	D	200～240V/50HZ/2Pole (7.2A, 2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP56DT13	56	D	200～240V/50HZ/2Pole (7.2A, 2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP08HT13	8	H	200～240V/50HZ/2Pole (7.2A, 2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP13HT13	13	H	200～240V/50HZ/2Pole (7.2A, 2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP18HT13	18	H	200～240V/50HZ/2Pole (7.2A, 2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP24HT13	24	H	200～240V/50HZ/2Pole (7.2A, 2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP32HT13	32	H	200～240V/50HZ/2Pole (7.2A, 2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP56HT13	56	H	200～240V/50HZ/2Pole (7.2A, 2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP08AT23	8	A	200～240V/60HZ/4Pole (6.2A, 1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP13AT23	13	A	200～240V/60HZ/4Pole (6.2A, 1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP18AT23	18	A	200～240V/60HZ/4Pole (6.2A, 1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70

Continuation for chart 1

Model	Oil capacity (L)	Control retrun circuit	Moto (Voltage/frequency/ stage)	Power (Kw)	(L/min)		Oil outlet connecting thread	oil retrun port connecting thread	Max work pressure (MPa)
					Low flow	High flow			
MP24AT23	24	A	200～240V/60HZ/4Pole (6.2A, 1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP32AT23	32	A	200～240V/60HZ/4Pole (6.2A, 1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP56AT23	56	A	200～240V/60HZ/4Pole (6.2A, 1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP08BT23	8	B	200～240V/60HZ/4Pole (6.2A, 1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP13BT23	13	B	200～240V/60HZ/4Pole (6.2A, 1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP18BT23	18	B	200～240V/60HZ/4Pole (6.2A, 1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP24BT23	24	B	200～240V/60HZ/4Pole (6.2A, 1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP32BT23	32	B	200～240V/60HZ/4Pole (6.2A, 1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP56BT23	56	B	200～240V/60HZ/4Pole (6.2A, 1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP08CT23	8	C	200～240V/60HZ/4Pole (6.2A, 1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP13CT23	13	C	200～240V/60HZ/4Pole (6.2A, 1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP18CT23	18	C	200～240V/60HZ/4Pole (6.2A, 1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP24CT23	24	C	200～240V/60HZ/4Pole (6.2A, 1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP32CT23	32	C	200～240V/60HZ/4Pole (6.2A, 1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP56CT23	56	C	200～240V/60HZ/4Pole (6.2A, 1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP08DT23	8	D	200～240V/60HZ/4Pole (6.2A, 1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP13DT23	13	D	200～240V/60HZ/4Pole (6.2A, 1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP18DT23	18	D	200～240V/60HZ/4Pole (6.2A, 1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP24DT23	24	D	200～240V/60HZ/4Pole (6.2A, 1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP32DT23	32	D	200～240V/60HZ/4Pole (6.2A, 1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP56DT23	56	D	200～240V/60HZ/4Pole (6.2A, 1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70

Continuation for chart 1

Model	Oil capacity (L)	Control retrun circuit	Moto (Voltage/frequency/ stage)	Power (Kw)	(L/min)		Oil outlet connecting thread	oil retrun port connecting thread	Max work pressure (MPa)
					Low flow	High flow			
MP08HT23	8	H	200～240V/60HZ/4Pole (6.2A, 1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP13HT23	13	H	200～240V/60HZ/4Pole (6.2A, 1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP18HT23	18	H	200～240V/60HZ/4Pole (6.2A, 1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP24HT23	24	H	200～240V/60HZ/4Pole (6.2A, 1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP32HT23	32	H	200～240V/60HZ/4Pole (6.2A, 1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP56HT23	56	H	200～240V/60HZ/4Pole (6.2A, 1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP08AT33	8	A	100～120V/50HZ/2Pole (13A, 2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP13AT33	13	A	100～120V/50HZ/2Pole (13A, 2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP18AT33	18	A	100～120V/50HZ/2Pole (13A, 2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP24AT33	24	A	100～120V/50HZ/2Pole (13A, 2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP32AT33	32	A	100～120V/50HZ/2Pole (13A, 2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP56AT33	56	A	100～120V/50HZ/2Pole (13A, 2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP08BT33	8	B	100～120V/50HZ/2Pole (13A, 2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP13BT33	13	B	100～120V/50HZ/2Pole (13A, 2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP18BT33	18	B	100～120V/50HZ/2Pole (13A, 2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP24BT33	24	B	100～120V/50HZ/2Pole (13A, 2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP32BT33	32	B	100～120V/50HZ/2Pole (13A, 2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP56BT33	56	B	100～120V/50HZ/2Pole (13A, 2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP08CT33	8	C	100～120V/50HZ/2Pole (13A, 2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP13CT33	13	C	100～120V/50HZ/2Pole (13A, 2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP18CT33	18	C	100～120V/50HZ/2Pole (13A, 2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70

Continuation for chart 1

Model	Oil capacity (L)	Control retrun circuit	Moto (Voltage/frequency/ stage)	Power (Kw)	(L/min)		Oil outlet connecting thread	oil retrun port connecting thread	Max work pressure (MPa)
					Low flow	High flow			
MP24CT33	24	C	100～120V/50HZ/2Pole (13A, 2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP32CT33	32	C	100～120V/50HZ/2Pole (13A, 2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP56CT33	56	C	100～120V/50HZ/2Pole (13A, 2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP08DT33	8	D	100～120V/50HZ/2Pole (13A, 2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP13DT33	13	D	100～120V/50HZ/2Pole (13A, 2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP18DT33	18	D	100～120V/50HZ/2Pole (13A, 2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP24DT33	24	D	100～120V/50HZ/2Pole (13A, 2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP32DT33	32	D	100～120V/50HZ/2Pole (13A, 2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP56DT33	56	D	100～120V/50HZ/2Pole (13A, 2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP08HT33	8	H	100～120V/50HZ/2Pole (13A, 2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP13HT33	13	H	100～120V/50HZ/2Pole (13A, 2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP18HT33	18	H	100～120V/50HZ/2Pole (13A, 2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP24HT33	24	H	100～120V/50HZ/2Pole (13A, 2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP32HT33	32	H	100～120V/50HZ/2Pole (13A, 2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP56HT33	56	H	100～120V/50HZ/2Pole (13A, 2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP08AT43	8	A	100～130V/60HZ/4Pole (13.1A, 1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP13AT43	13	A	100～130V/60HZ/4Pole (13.1A, 1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP18AT43	18	A	100～130V/60HZ/4Pole (13.1A, 1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP24AT43	24	A	100～130V/60HZ/4Pole (13.1A, 1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP32AT43	32	A	100～130V/60HZ/4Pole (13.1A, 1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP56AT43	56	A	100～130V/60HZ/4Pole (13.1A, 1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70

Continuation for chart 1

Model	Oil capacity (L)	Control retrun circuit	Moto (Voltage/frequency/ stage)	Power (Kw)	(L/min)		Oil outlet connecting thread	oil retrun port connecting thread	Max work pressure (MPa)
					Low flow	High flow			
MP08BT43	8	B	100～130V/60HZ/4Pole (13.1A, 1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP13BT43	13	B	100～130V/60HZ/4Pole (13.1A, 1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP18BT43	18	B	100～130V/60HZ/4Pole (13.1A, 1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP24BT43	24	B	100～130V/60HZ/4Pole (13.1A, 1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP32BT43	32	B	100～130V/60HZ/4Pole (13.1A, 1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP56BT43	56	B	100～130V/60HZ/4Pole (13.1A, 1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP08CT43	8	C	100～130V/60HZ/4Pole (13.1A, 1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP13CT43	13	C	100～130V/60HZ/4Pole (13.1A, 1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP18CT43	18	C	100～130V/60HZ/4Pole (13.1A, 1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP24CT43	24	C	100～130V/60HZ/4Pole (13.1A, 1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP32CT43	32	C	100～130V/60HZ/4Pole (13.1A, 1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP56CT43	56	C	100～130V/60HZ/4Pole (13.1A, 1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP08DT43	8	D	100～130V/60HZ/4Pole (13.1A, 1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP13DT43	13	D	100～130V/60HZ/4Pole (13.1A, 1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP18DT43	18	D	100～130V/60HZ/4Pole (13.1A, 1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP24DT43	24	D	100～130V/60HZ/4Pole (13.1A, 1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP32DT43	32	D	100～130V/60HZ/4Pole (13.1A, 1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP56DT43	56	D	100～130V/60HZ/4Pole (13.1A, 1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP08HT43	8	H	100～130V/60HZ/4Pole (13.1A, 1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP13HT43	13	H	100～130V/60HZ/4Pole (13.1A, 1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP18HT43	18	H	100～130V/60HZ/4Pole (13.1A, 1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70

Continuation for chart 1

Model	Oil capacity (L)	Control retrun circuit	Moto (Voltage/frequency/ stage)	Power (Kw)	(L/min)		Oil outlet connecting thread	oil retrun port connecting thread	Max work pressure (MPa)
					Low flow	High flow			
MP24HT43	24	H	100～130V/60HZ/4Pole (13.1A, 1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP32HT43	32	H	100～130V/60HZ/4Pole (13.1A, 1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP56HT43	56	H	100～130V/60HZ/4Pole (13.1A, 1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP08AT63	8	A	350～420V/50HZ/2Pole (2.56A, 2800r/min) Nebulous Connection	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP13AT63	13	A	350～420V/50HZ/2Pole (2.56A, 2800r/min) Nebulous Connection	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP18AT63	18	A	350～420V/50HZ/2Pole (2.56A, 2800r/min) Nebulous Connection	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP24AT63	24	A	350～420V/50HZ/2Pole (2.56A, 2800r/min) Nebulous Connection	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP32AT63	32	A	350～420V/50HZ/2Pole (2.56A, 2800r/min) Nebulous Connection	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP56AT63	56	A	350～420V/50HZ/2Pole (2.56A, 2800r/min) Nebulous Connection	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP08BT63	8	B	350～420V/50HZ/2Pole (2.56A, 2800r/min) Nebulous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP13BT63	13	B	350～420V/50HZ/2Pole (2.56A, 2800r/min) Nebulous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP18BT63	18	B	350～420V/50HZ/2Pole (2.56A, 2800r/min) Nebulous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP24BT63	24	B	350～420V/50HZ/2Pole (2.56A, 2800r/min) Nebulous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP32BT63	32	B	350～420V/50HZ/2Pole (2.56A, 2800r/min) Nebulous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP56BT63	56	B	350～420V/50HZ/2Pole (2.56A, 2800r/min) Nebulous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70

MP系列专业组装电动泵
操作和维护手册

雷恩液压

本操作手册内容包括MP 系列专业组装电动泵的操作规程、警告和注意事项以及故障排除。使用前，请仔细阅读本手册，彻底理解其内容并妥善保管。

安全指示

液压电动泵的安全使用，必须要求正确操作和定期检查。
在阅读和彻底理解本手册中的安全指示条例后才可以使用本电动泵。
◄ 注意事项--防止造成直接经济损失或财物损失。
◄ 警告事项--防止造成人身伤害。
请确实遵守上述两个事项。
在使用过程中，如发生异常情况，请关闭电源，拔出电源接头，然后向WREN 或WREN授权代理商咨。

1. 使用本电动泵时，所有人员禁止站在液压油出口处，防止液压油不小心泄漏时可能发生的人身伤害或财产损失；电动泵必须远离火源。
2. 加压前，应加装软管或快速接头，防止高压液压油冲出造成人身伤害。
3. 本液压电动泵的最高工作压力为70Mpa；在出厂时工厂已设定压力为70Mpa。绝不要将压力调节到超过设定压力。
4. 如本电动泵用于操作其它配套设备，配套设备的工作压力应小于70Mpa，并将压力调定为其配套设备的工作压力，否则配套设备有可能损坏；调整压力调节阀的操作参见第六、七项。
5. 充分考虑安全性，在维修前，应将电器设备的电源切断。
6.如果迅速释放压力，顶升中的千斤顶上的负载会跌落或弹开，可能造成人身伤害；请向WREN 或WREN授权代理商咨询，他们会向你推荐合适的阀。
7. 在插上电源前，关掉按钮开关；如果开着开关，压力会增加。
8. 确保接地，避免触电。
9. 不要改装本电动泵；如确实需要改装，应先向WREN 或WREN授权代理商咨询。没有WREN的书面同意，所作改装，不在质保范围内。
10. 不要加注超过可用油量的液压油，否则，贮油箱中的压力会增加或溢出，贮油箱有可能损坏、会造成对环境的污染。
11. 拧紧快速接头；如果拧的不够紧设备不会正常工作；如果在同步系统中，会造成其中一台或多台设备不能正常工作。如果出现这种情况，快速接头、设备可能损坏，可能会造成人身伤害。
12. 远离超高压液压油可能喷出的位置；液压油可能穿透你的手，导致严重受伤。
13. 如果液压油喷到你的眼睛里，立即用清水冲洗大约15分钟，然后去医院洁眼睛。
14. 不要碰带压力的软管；如果液压油喷出，会导致严重伤害。

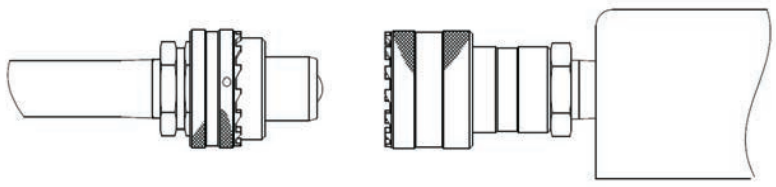


图1

注意事项

1. 只使用WREN液压工具专用油。
2. 不要将压力调节阀当作一般的调整阀或释放阀使用。
3. 要按照防污调理处理使用过后的废旧液压油。

注意事项

1　MP系列电动泵采用集成方式组装；由油泵、控制阀、油箱、气动马达、冷却器、仪表等组成的一种独立完整的液压装置，具有体积小、重量轻、结构简单、操作方便、工作压力高等特点。泵为高、低压油泵同时供油，可获得较大的输出油量。高压时，低压泵经卸荷溢流阀自动空载回油，可减少功率消耗，并且（A）口出油压力可70～700Bar任意调节。

2　液压电动泵使用的液压油：46#耐磨液压油。

3　液压电动泵使用的环境温度：-10~60℃

4 请使用WREN高压软管、高压接头等。WREN液压电动泵配用的高压软管最大工作压力为100Mpa，使用时请选用与之配套的压力系统。

5　此泵如需使用附属液压产品，请咨询WREN公司工程师。

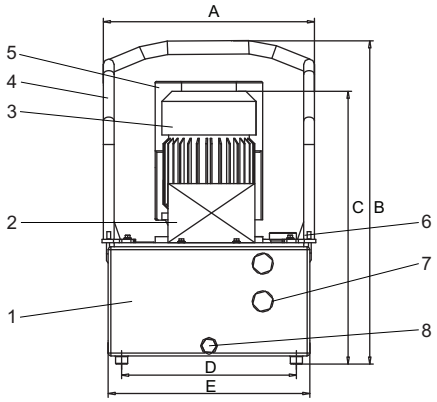
6　请不要在靠近火焰处使用液压电动泵。

7　请不要任意调节压力调节阀，以避免超高压引起的设备损坏和人身伤害。

MP系列电动泵

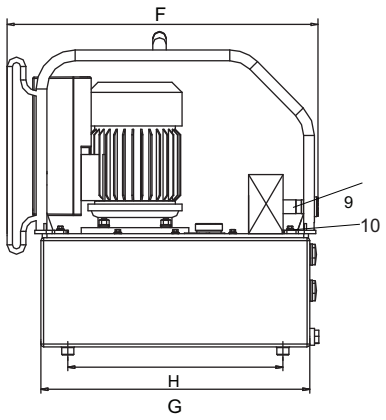
零部件概述

序号	名称	序号	名称
1	贮油箱	6	油箱盖
2	插装阀块（A/B/C/D/H)	7	油位计
3	电机	8	排油孔
4	保护架	9	快速接头
5	电控箱	10	六角螺钉



外观尺寸概述

序号	MP04	MP08	MP13	MP18	MP24	MP32	MP56
A	254mm	254mm	314mm	314mm	314mm	460mm	522mm
B	430mm	480mm	480mm	510mm	570mm	510mm	600mm
C	353mm	403mm	405mm	435mm	495mm	440mm	530mm
D	200mm	200mm	260mm	260mm	260mm	460mm	505mm
E	240mm	240mm	300mm	300mm	300mm	505mm	522mm
F	377mm	379mm	463mm	463mm	463mm	662mm	662mm
G	244mm	244mm	320mm	320mm	320mm	600mm	600mm
H	290mm	299mm	400mm	400mm	400mm	645mm	645mm



零部件概述

1 储油箱：存放工作用液压油，保证系统正常工作（必须有足够油量），提供系统所需的压力载体。
2 插装式阀块：可更换插装式阀块（A/B/C/D/H)实现不同的操控性。
3 电机：提供动力源（根据使用地的电压、频率选用合适电机，具体参数见电机铭牌）。
4 油泵保护架：安装在储油箱上，用于提携、保护液压泵站。
5 电控箱：内置微型电控系统，操控整台泵。

6 通气注油孔：实现液压油排出储油箱(更换液压油时使用)；油盖设计有通气空孔功能，注油时拧开油盖，内有过滤网保证无杂质进入油箱；拧紧油盖后确保系统中的空气顺利排出。
7 液位计：观察液压油的多少，以保证提供最佳使用油量；液压油低于油标1/3位置时，必须加WREN泵站专用液压油，否则可能会损坏泵站。
8 卸油孔：螺塞G1/4＂，实现液压油排出储油箱(更换液压油时使用)。
9 快速接头：实现液压油输出\回油功能，快速连接油管；内置式单向阀。
10 六角螺钉：密封连接油箱。

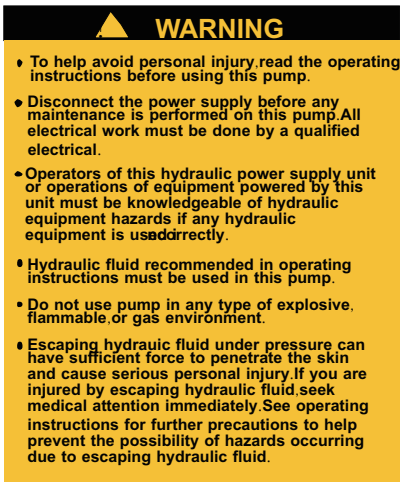
特性

1 MP系列电动泵是双级泵。高压出口设有高压溢流阀，低压出口设定压力为5~7Mpa，在70Mpa状态下流量为0.8L/m。
2 最大操作压力：70Mpa。
3 储油箱规格（油箱型号）：4~65L7种规格。
4 使用温度： -10~80℃。
5 电机工作电压：100~120V、200~240V、350~420V可选。
6 液压油： ISO VG 46#。

WARNING!!!

1 使用时，泵站高压油输出口处禁止站人，调压时输出口必须连接其他元件。
2 泵站使用时，禁止随意调高超出本泵的最大工作压力，否则会造成泵站的损坏。
3 需要检查电机时，必须切断电源输入。
4 泵站工作时，返回储油箱的油可能会增压；如果此时打开储油箱盖可能会造成不必要的损伤和伤害。
5 禁止无油启动泵站，这将会造成泵站损坏。
6 必须保持液压泵站的清洁，特别是注油口、快速接头等处，由于液压油的不清洁，是引发泵站的故障的主要原因。

警告标志

警告标志	意义	粘贴位置
	请阅读安全条例	油箱侧面
	警告	油箱正面

保养检查

1.　　使用前检查事项

1.1　检查电源连接线部位是否有松脱、连接不良的情况，如发现电源接线部位有松脱现象，应将松脱的部位拧紧。

1.2 请检查液压油的油量是否达到规定的值，不足时请即时添加。

1.3 切换方向控制阀时机具做工，加压检查有无异常。

1.4 检查配管或设备是否有漏油现象，如有此类现象发生，请查明原因并对此进行处理。

2.　　操作中的检查事项

在检查下列项目中，如果发现有异常情况，请立即停机，处理故障

2.1　在升压过程中是否有异常情况。

2.2　配管及设备是否有漏油现象。

2.3　电机在工作中是否有异常燥声、振动及异味。

2.4　液压油是否温度过高。

3.　　操作后的检查事项

3.1　必须切断电源。

3.2　检查是否有漏油或者其他异常情况。如果有异常情况发生，请查明原因并进行处理。

3.3　使用后请进行清理。

4.　　关于更换液压油

液压油原则上应每年更换一次。如出现下列这些情况，请立即更换。

4.1　灰尘进入时。

4.2　有异味时。

4.3　有水进入时，使油液呈现出乳白色。

4.4　油劣化显现出黑褐色时。

5.　　液压油更换方法

5.1　松动打开气动泵上的通气注油盖。

5.2　取下油箱侧面的螺钉，使液压油流出。

5.3　清洁油箱内部及吸入口的过滤网。安装排油口的螺钉，将油加入油箱。

警告：如果油液溅到您的眼睛里，应立即用清水冲洗至少15分钟，冲洗完毕后应立即去看医生。如果油液飞溅到您的皮肤上，请用清水和肥皂清洗。

警告：　废弃的液压油属于工业废料，应委托具有收集和处理工业废料的公司处理。

液压泵的噪音/振动声明

液压泵使用噪声值为: ≤70db

液压扳手运输信息

1 ,搬运时注意轻拿轻放。

2 ,装运时应将产品立式向上，如图9-1所示 。

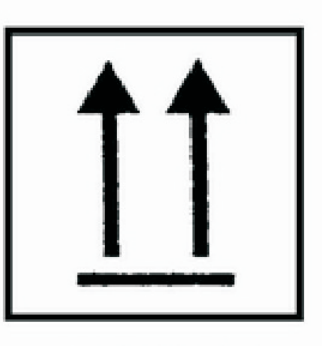


图9-1

3 ,产品搬运一般采用手提式或小车搬运移动、吊装移动，如图9-2所示 。

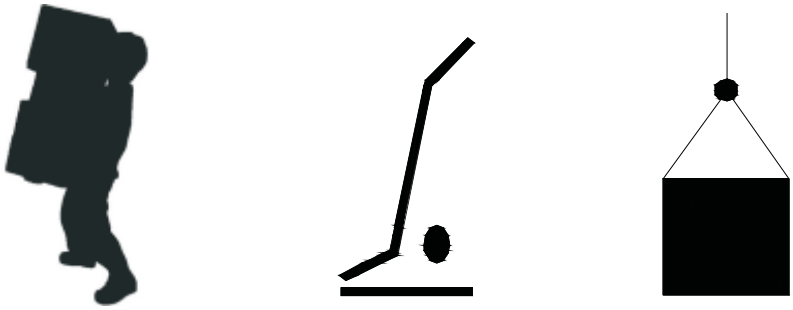


图9-2

操作方法（压力调节）

A型阀块泵(手控双作用）

1. 准备

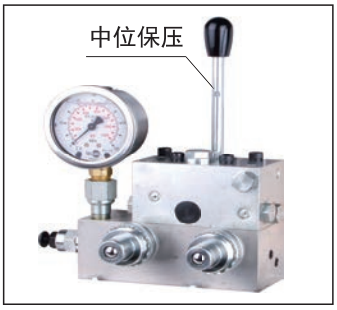
启动电机前先清洁和检查各连接器接，然后注入专用液压油，在确保使用压力在压力表量程内，用软管连接电动泵和操作工具，检查连接处是否安全正确，如不正确，液压泵无法正常工作。检查手动换向阀开关所示方向，根据工作需要调节手动换向阀。

2. 启动

打开电源，启动电机，调节手动换向阀到前进（后退）位置，压力升高到所需压力值，手动换向阀回中位即保压。

3. 拆卸

工作完毕后，关闭电机，切断电源，扳动手动换向阀泄压，拆卸软管。



B型阀块泵（手控单作用）：

1. 准备

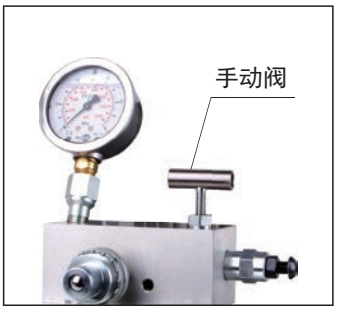
启动电机前先清洁和检查各连接器接，然后注入专用液压油，在确保使用压力在压力表量程内，用软管连接电动泵和操作工具，检查连接处是否安全正确，如不正确，液压泵无法正常工作。检查手动阀是否锁紧，根据工作需要调节手动阀（拧紧保压、旋松泄压）。

2. 启动

打开电源，启动电机，旋紧手动阀，压力升高到所需压力值并保压。

3. 拆卸

工作完毕后，关闭电机，切断电源，旋松手动阀泄压，拆卸软管。



C型阀块泵（电控单作用保压）：

1. 准备

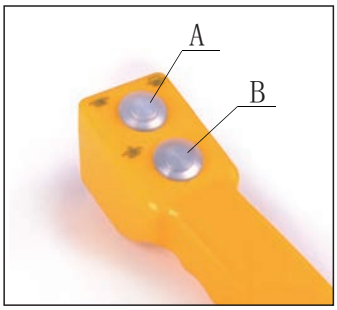
启动电机前先清洁和检查各连接器接，然后注入专用液压油，在确保使用压力在压力表量程内，用软管连接电动泵和操作工具，检查连接处是否安全正确，如不正确，液压泵无法正常工作。线控开关有两个按钮（A键点动升压，B键点动泄压)。

2. 启动

打开电源，启动电机，A键点动升压，压力升高到所需压力值并保压，B键点动泄压，压力降低到所需压力值并保压。

3. 拆卸

工作完毕后，关闭电机，切断电源，按动电磁阀顶端按钮泄压，拆卸软管。



D型阀块泵（电控单作用不保压）：

1. 准备

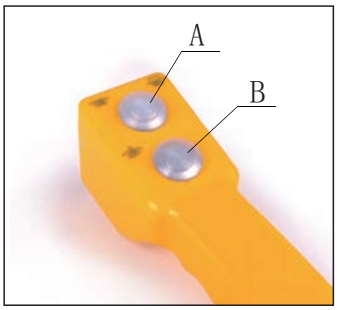
启动电机前先清洁和检查各连接器接，然后注入专用液压油，在确保使用压力在压力表量程内，用软管连接电动泵和操作工具，检查连接处是否安全正确，如不正确，液压泵无法正常工作。线控开关有两个按钮（A键点动升压，B键备用）。

2. 启动

打开电源，启动电机，A键点动升压，压力升高到所需压力值，松开按钮便泄压，B键备用。

3. 拆卸

工作完毕后，关闭电机，切断电源，系统泄压后，拆卸软管。



H型阀块泵（电控双作用）：

1. 准备

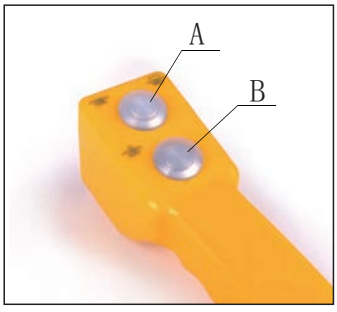
启动电机前先清洁和检查各连接器接，然后注入专用液压油，在确保使用压力在压力表量程内，用软管连接电动泵和操作工具，检查连接处是否安全正确，如不正确，液压泵无法正常工作。线控开关有两个按钮（A键点动左进右出，B键反之）。

2. 启动

打开电源，启动电机，A键点动升压，压力升高到所需压力值并保压，B键回复。软管反接后，B键点动升压，压力升高到所需压力值并保压，A键回复。

3. 拆卸

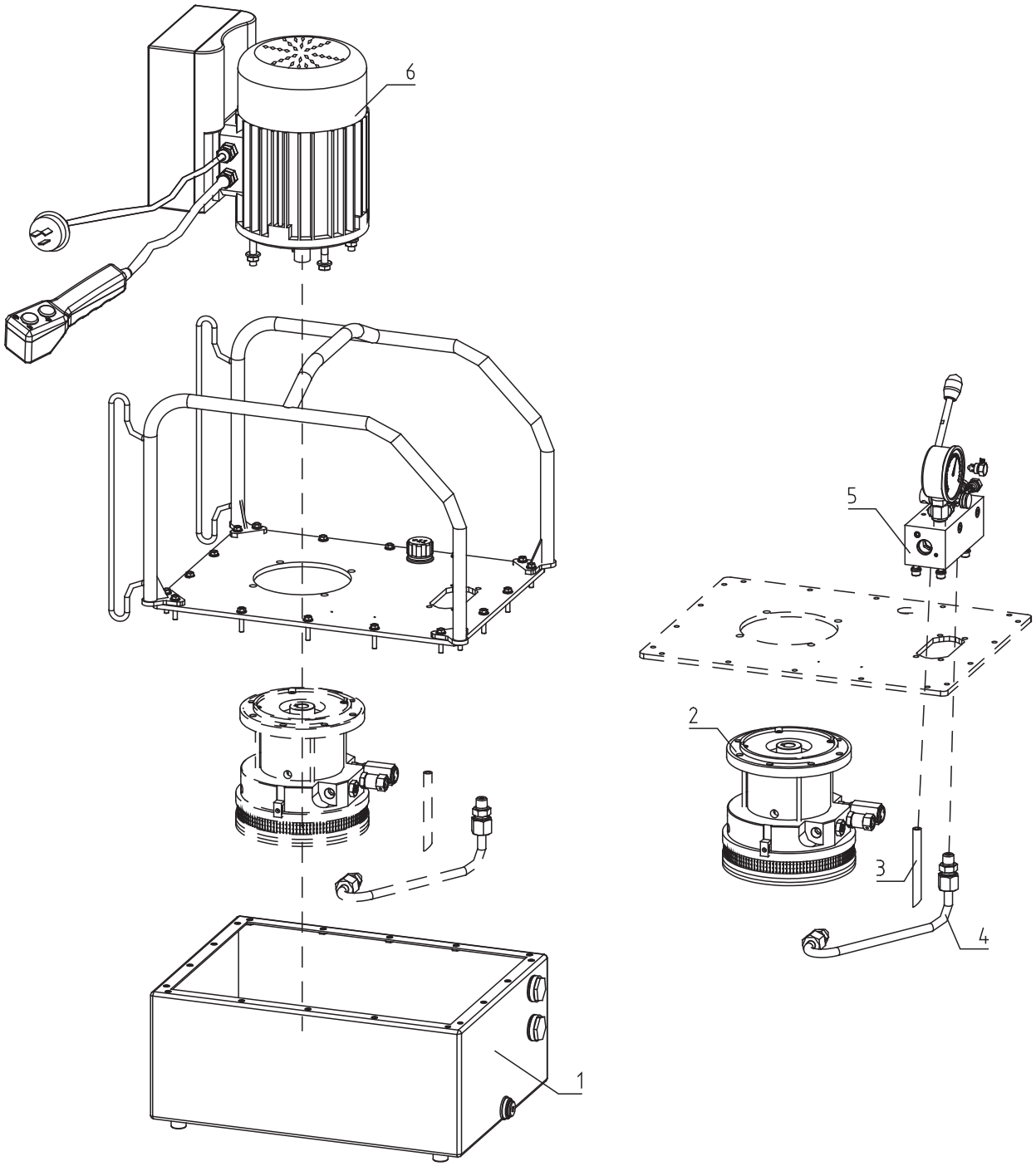
工作完毕后，关闭电机，切断电源，按动电磁阀顶端按钮泄压，拆卸软管。



MP系列电动液压泵的故障排除

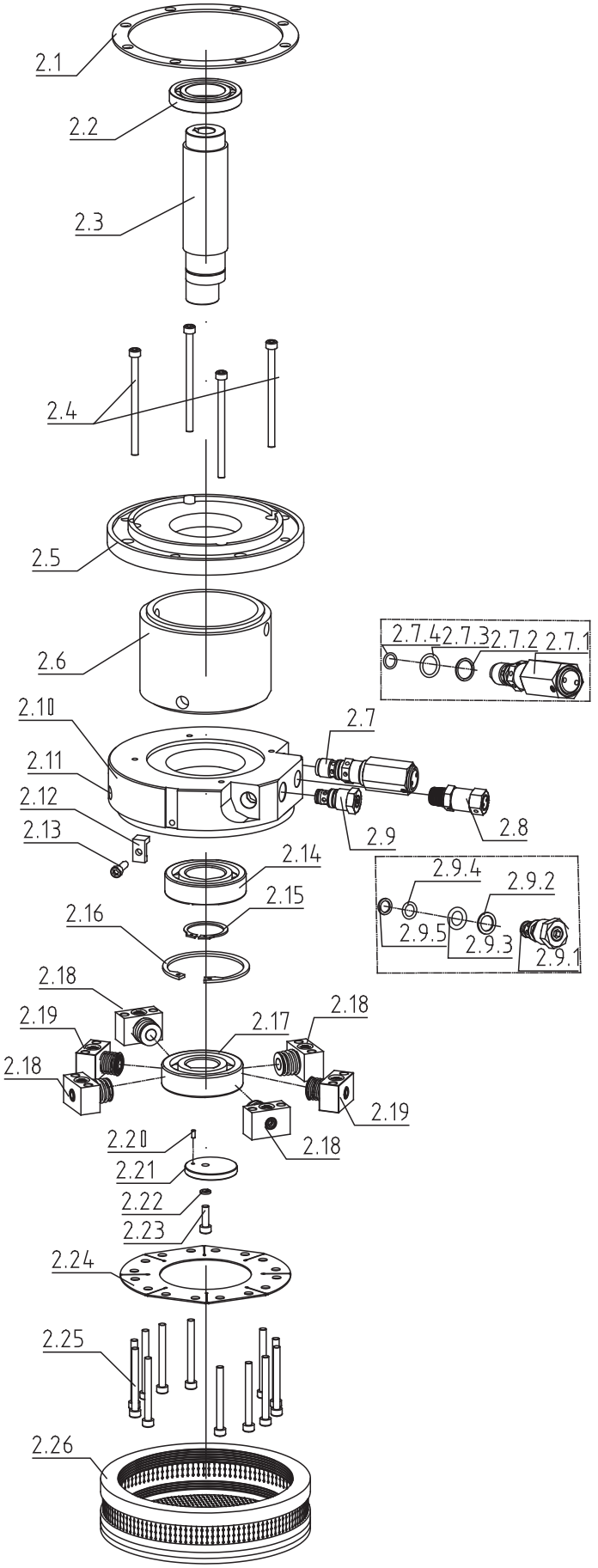
无法启动泵站	电源电压不符	确定电源电压是否 符合泵站规定要求
	电源未接通	检查电源、电源连接部、插座等， 接通电源
系统无压力	快速接头未接到位	拆开，重新安装
	贮油箱内无油	加注油
	贮油箱内油量不足	加注油
	系统带有节流阀、手动单向阀的 ，检查阀是否打开	打开节流阀、手动单向阀， 确定系统为通路状态
重装快速接头，系统无压力	快速接头无法接到位， 引起系统内敝压	拆开快速接头，用顶杆检查快速接 头钢球是否有弹性，如顶不动，用 小锤敲击钢球，使雾状液压油排尽
快速接头处漏油	快速接头掊?型圈、挡圈磨损	更换快速接头
系统压力达不到额定压力	溢流阀调整得过低	压力表检测，溢流阀调至系统额值
	水油混合	换油
	贮油箱内油量不足	加注油
	吸入空气	系统反复空运转数次，排尽空气
	节流阀、手动单向阀未关紧	锁紧阀
	节流阀、手动单向阀未调整到位	调整至正确位置
	节流阀、手动单向阀损坏	更换阀
	液压油中含有杂质	清洗泵站阀块并更换清洁液压油
静压使用时，压力缓慢下降	密封失灵，检查各密封处	更换密封件
泵在运行过程中有强烈噪音	径向柱塞泵轴承损坏	更换轴承

MP 系列电动泵爆炸图



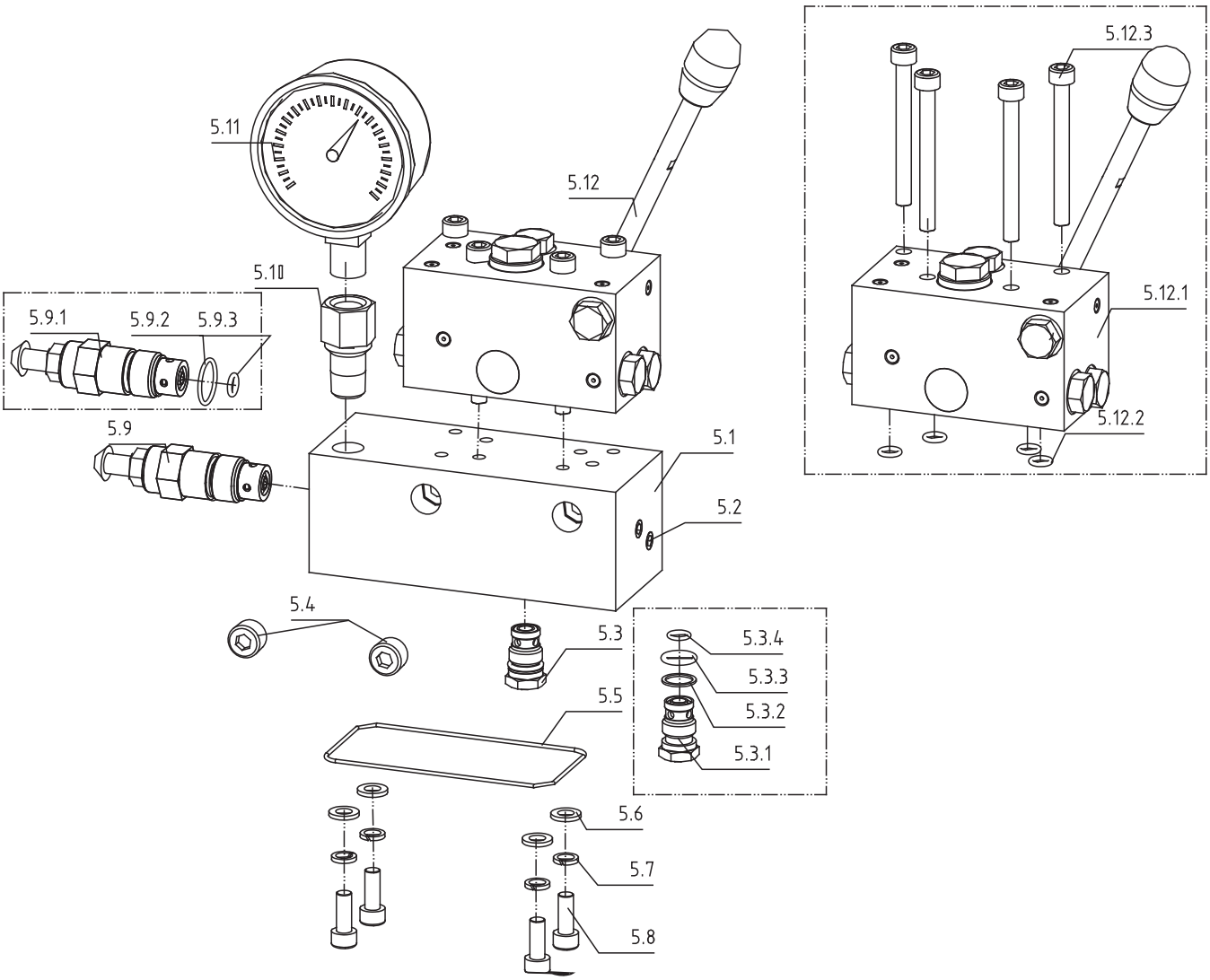
序号	名称	序号	名称
1	油箱模块	4	输油管
2	泵体模块	5	液压控制模块
3	回油管	6	电气控制模块

MP 泵体模块爆炸图



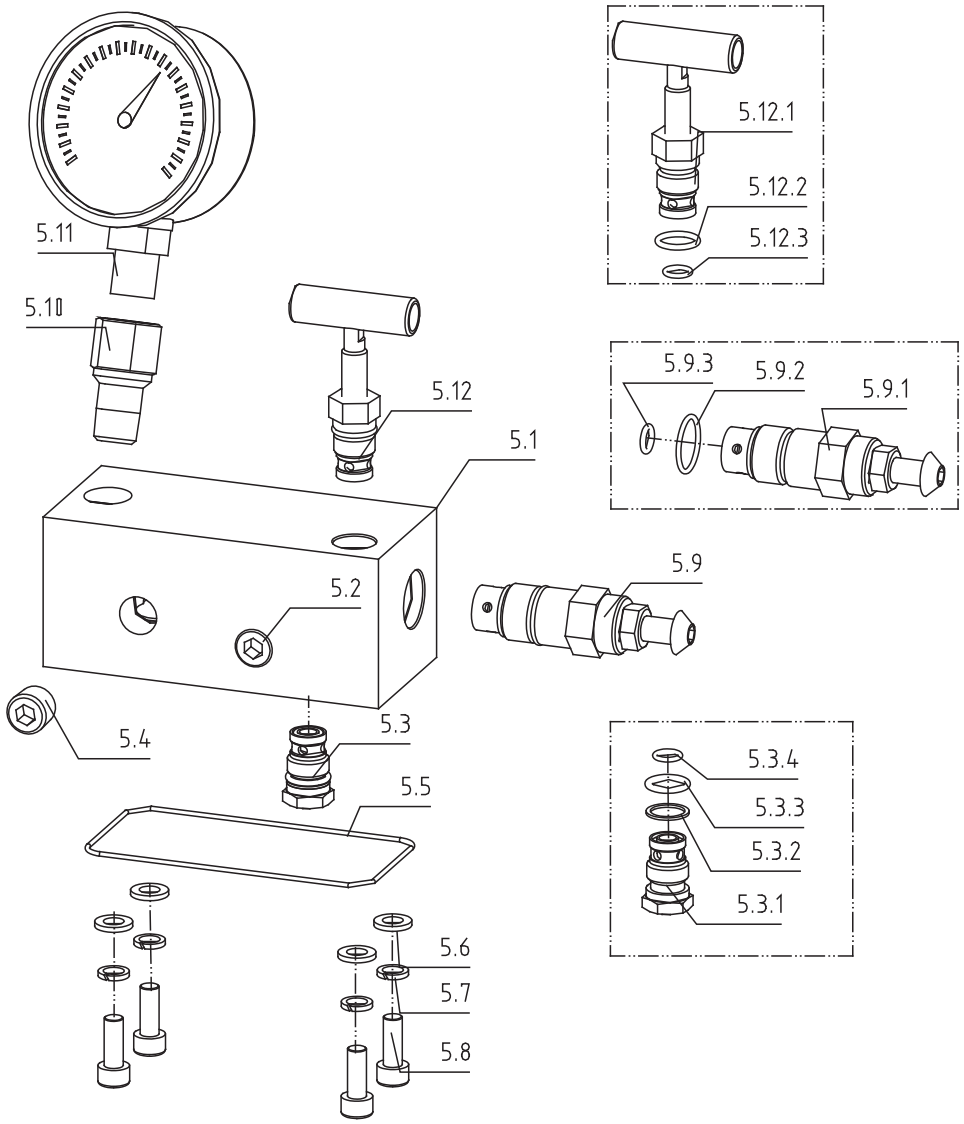
序号	名称	数量
2.1	密封件	1
2.2	深沟球轴承	1
2.3	泵轴	1
2.4	螺钉	4
2.5	泵体法兰	1
2.6	泵体套	1
2.7	卸荷阀	1
2.7.1	卸荷阀泵体	1/1
2.7.2	挡圈	1/1
2.7.3	0 型圈	1/1
2.7.4	0 型圈	1/1
2.8	超压阀	1
2.9	单向阀	2
2.9.1	单向阀本体	1/1
2.9.2	挡圈	1/1
2.9.3	0 型圈	1/1
2.9.4	0 型圈	1/1
2.9.5	挡圈	1/1
2.10	分离式泵体	1
2.11	堵头	6
2.12	滤网压板	1
2.13	螺钉	1
2.14	深沟球轴承	1
2.15	轴用弹性挡圈	1
2.16	孔用弹性挡圈	1
2.17	深沟球轴承	1
2.18	柱塞副1	4
2.19	柱塞副 2	2
2.20	销	1
2.21	轴承端板	1
2.22	弹性垫圈	1
2.23	螺钉	1
2.24	连接片	1
2.25	螺钉	12
2.26	滤网	1

A型控制阀块爆炸图



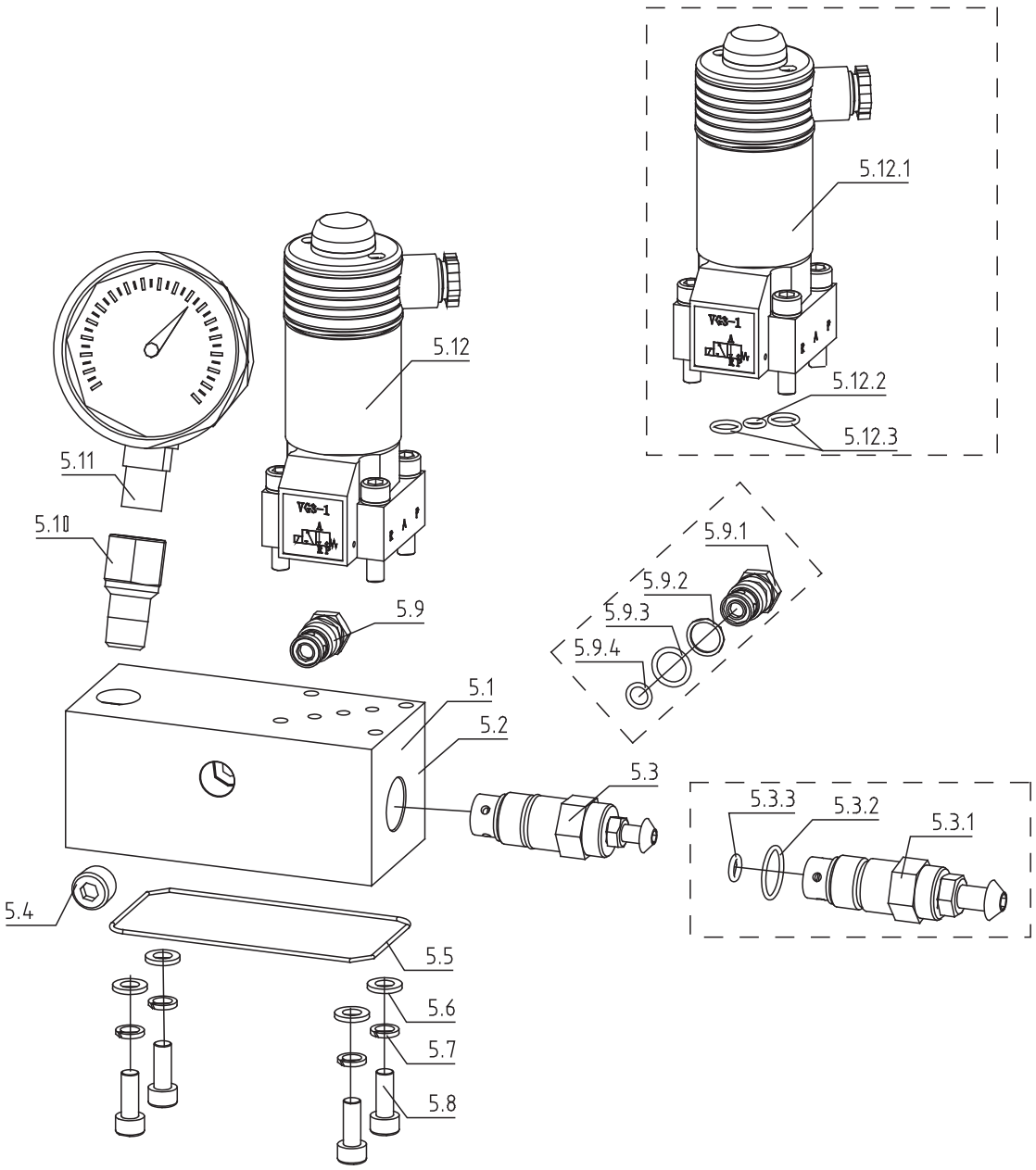
序号	名称	数量	序号	名称	数量	序号	名称	数量
5.1	WA连接块	1	5.6	平垫圈	4/1	5.12	三位四通换向阀	1
5.2	堵头	7	5.7	弹性垫圈	4/1	5.12.1	换向阀本体	1/1
5.3	单向阀	1	5.8	螺钉	4	5.12.2	0 型圈	4/1
5.3.1	单向阀本体	1/1	5.9	调压阀	1	5.12.3	螺钉	4/1
5.3.2	挡圈	1/1	5.9.1	调压阀本体	1			
5.3.3	0型圈	1/1	5.9.2	0 型圈	1/1			
5.3.4	0 型圈	1/1	5.9.3	0 型圈	1/1			
5.4	堵头NPT1/4	1/1	5.10	压力表接头	1			
5.5	密封圈	1/1	5.11	压力表	1			

B型控制阀块爆炸图



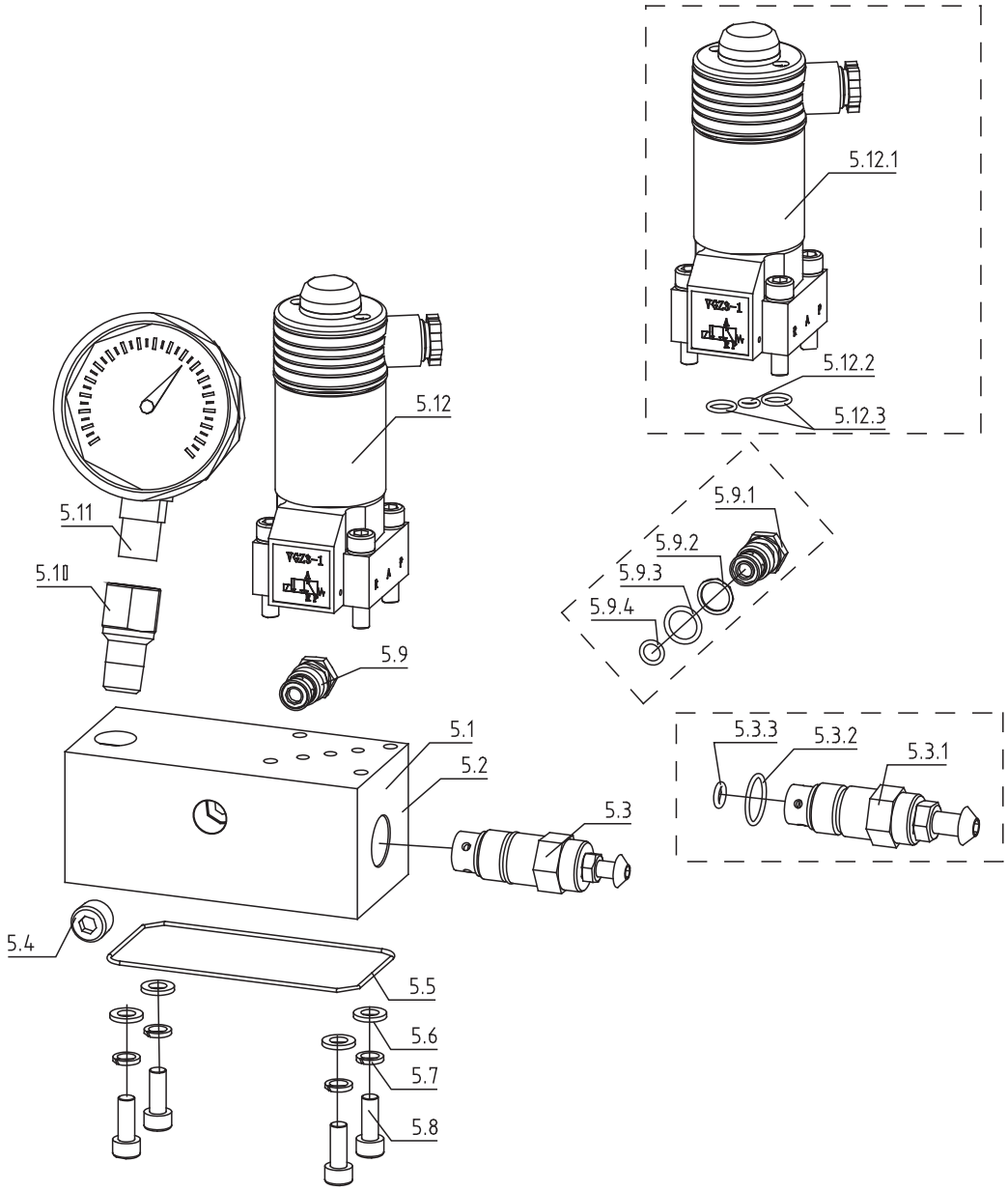
序号	名称	数量	序号	名称	数量	序号	名称	数量
5.1	WB连接块	1	5.6	平垫圈	4/1	5.12	截止阀	1
5.2	堵头	5	5.7	弹性垫圈	4/1	5.12.1	截止阀本体	1/1
5.3	单向阀	1	5.8	螺钉	4	5.12.2	0 型圈	1/1
5.3.1	单向阀本体	1/1	5.9	调压阀	1	5.12.3	0 型圈	1/1
5.3.2	挡圈	1/1	5.9.1	调压阀本体	1			
5.3.3	0型圈	1/1	5.9.2	0 型圈	1/1			
5.3.4	0 型圈	1/1	5.9.3	0 型圈	1/1			
5.4	堵头NPT1/4	1	5.10	压力表接头	1			
5.5	密封圈	1	5.11	压力表	1			

C型控制阀块爆炸图



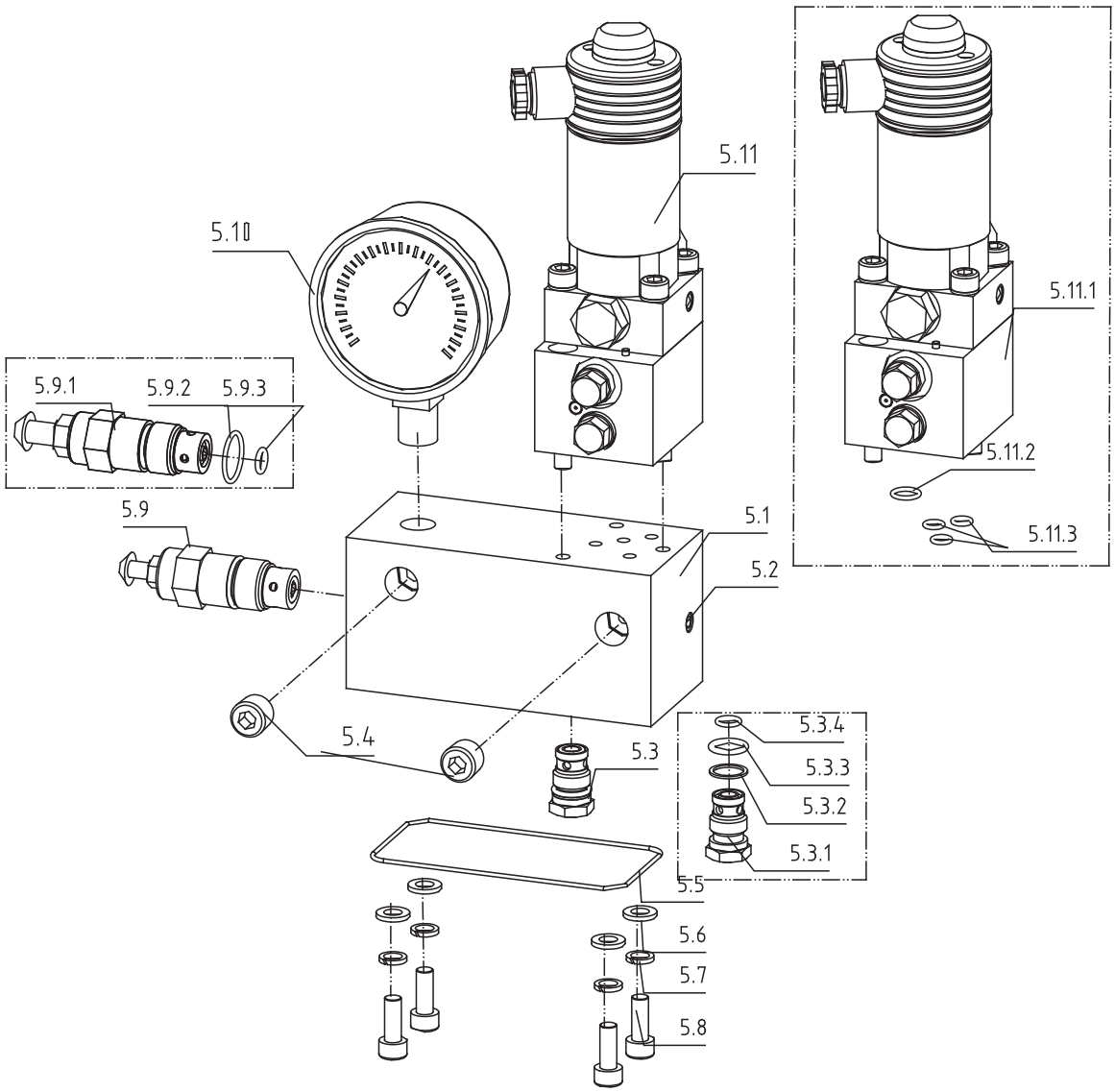
序号	名称	数量	序号	名称	数量	序号	名称	数量
5.1	WC连接块	1	5.7	弹性垫圈	4	5.12	电磁阀(VG-3)	1
5.2	堵头	5	5.8	螺钉	4	5.12.1	电磁阀本体	1/1
5.3	调压阀	1	5.9	单向阀	1	5.12.2	0 型圈	1/1
5.3.1	调压阀本体	1/1	5.9.1	单向阀本体	1	5.12.3	0 型圈	2/1
5.3.2	0型圈	1/1	5.9.2	挡圈	1/1			
5.3.3	0型圈	1/1	5.9.3	0 型圈	1/1			
5.4	堵头NPT1/4	1	5.9.4	0 型圈	1/1			
5.5	密封圈	1	5.10	压力表接头	1			
5.6	平垫圈	4/1	5.11	压力表	1			

D型控制阀块爆炸图



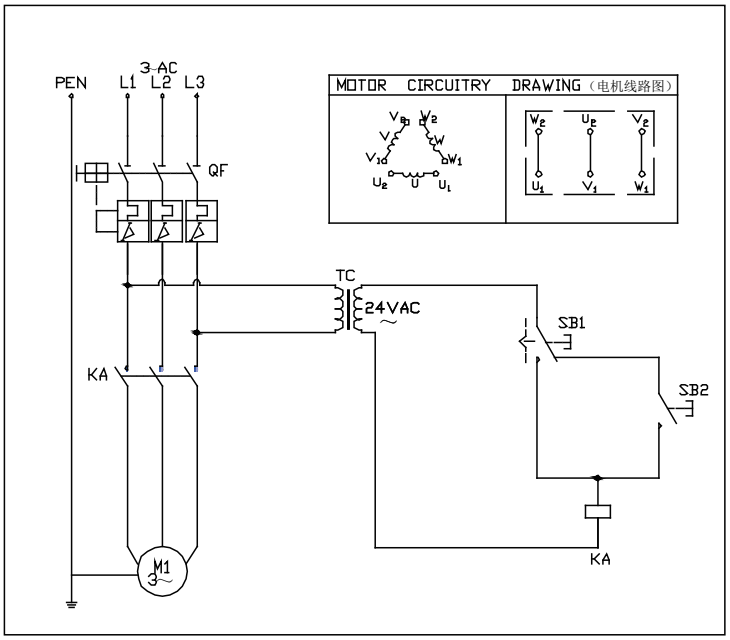
序号	名称	数量	序号	名称	数量	序号	名称	数量
5.1	WC连接块	1	5.7	弹性垫圈	4	5.12	电磁阀(VGZ-3)	1
5.2	堵头	5	5.8	螺钉	4	5.12.1	电磁阀本体	1/1
5.3	调压阀	1	5.9	单向阀	1	5.12.2	O 型圈	1/1
5.3.1	调压阀本体	1/1	5.9.1	单向阀本体	1	5.12.3	O 型圈	2/1
5.3.2	O型圈	1/1	5.9.2	挡圈	1/1			
5.3.3	O型圈	1/1	5.9.3	O 型圈	1/1			
5.4	堵头NPT1/4	1	5.9.4	O 型圈	1/1			
5.5	密封圈	1	5.10	压力表接头	1			
5.6	平垫圈	4/1	5.11	压力表	1			

H型控制阀块爆炸图



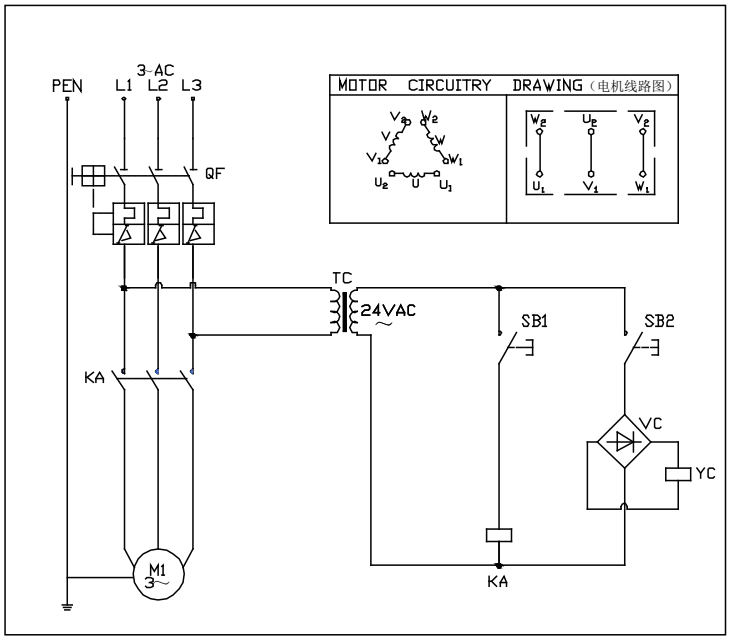
序号	名称	数量	序号	名称	数量	序号	名称	数量
5.1	WH连接块	1	5.6	平垫圈	4	5.11.1	换向阀本体	1/1
5.2	堵头	5	5.7	弹性垫圈	4	5.11.2	0 型圈	1/1
5.3	单向阀	1	5.8	螺钉	4	5.11.3	0 型圈	3/1
5.3.1	单向阀本体	1/1	5.9	调压阀	1			
5.3.2	挡圈	1/1	5.9.1	调压阀本体	1			
5.3.3	0型圈	1/1	5.9.2	0 型圈	1/1			
5.3.4	0 型圈	1/1	5.9.3	0 型圈	1/1			
5.4	堵头NPT1/4	2	5.10	压力表100MPa	1			
5.5	密封圈	1	5.11	二位四通电磁阀	1			

MP系列电动泵电路控制原理图（三相220V）

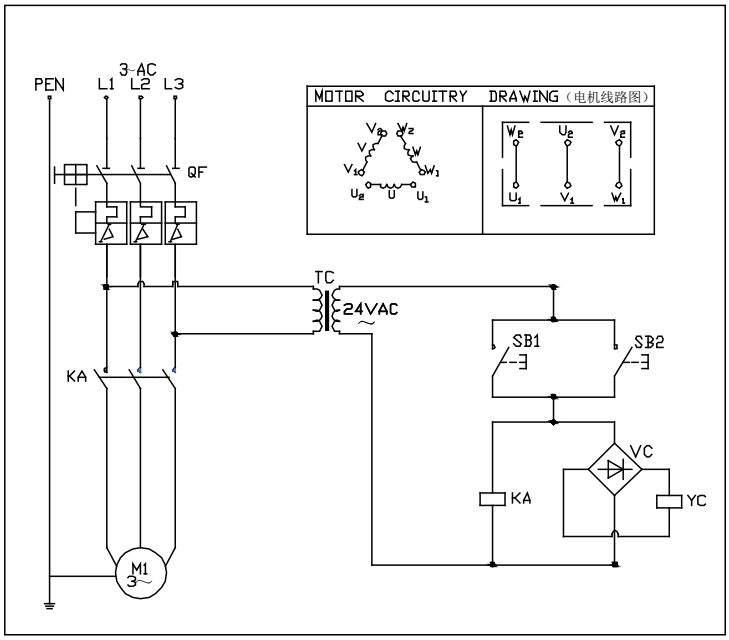


A 型阀块电动泵

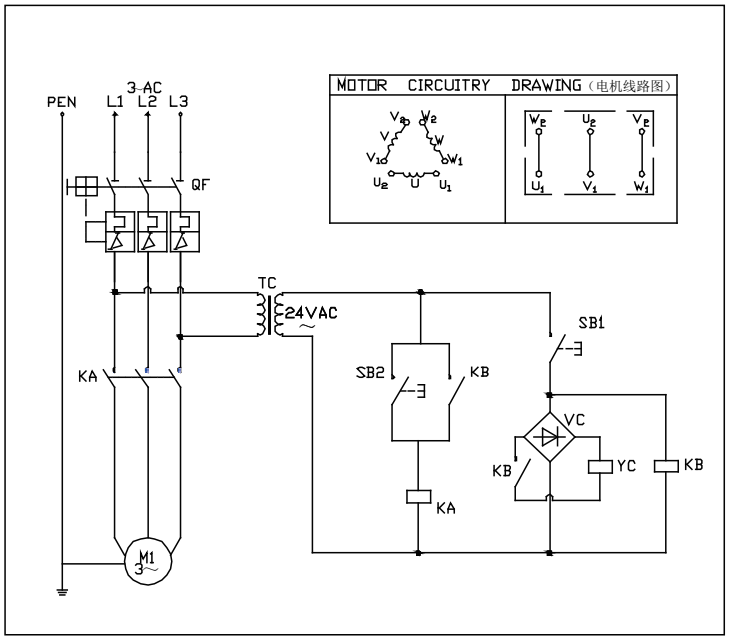
B 型阀块电动泵



C 型阀块电动泵

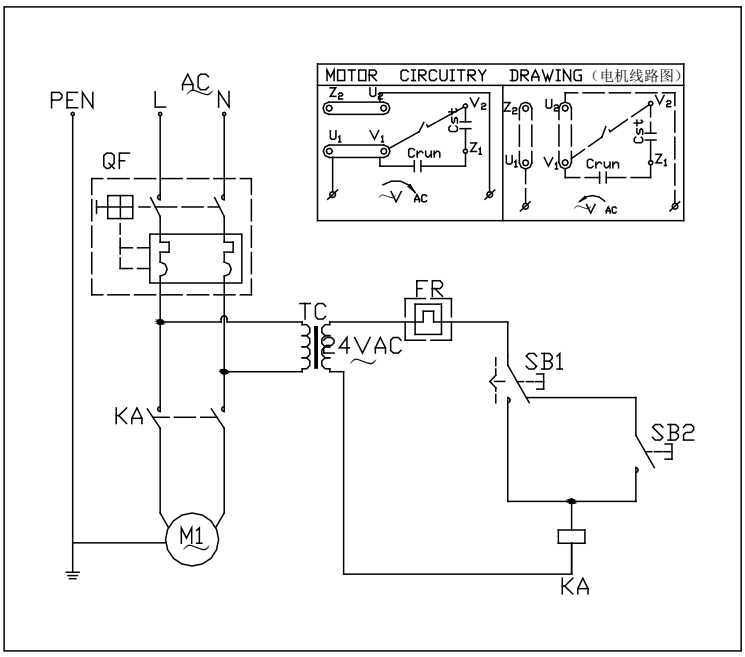


D 型阀块电动泵



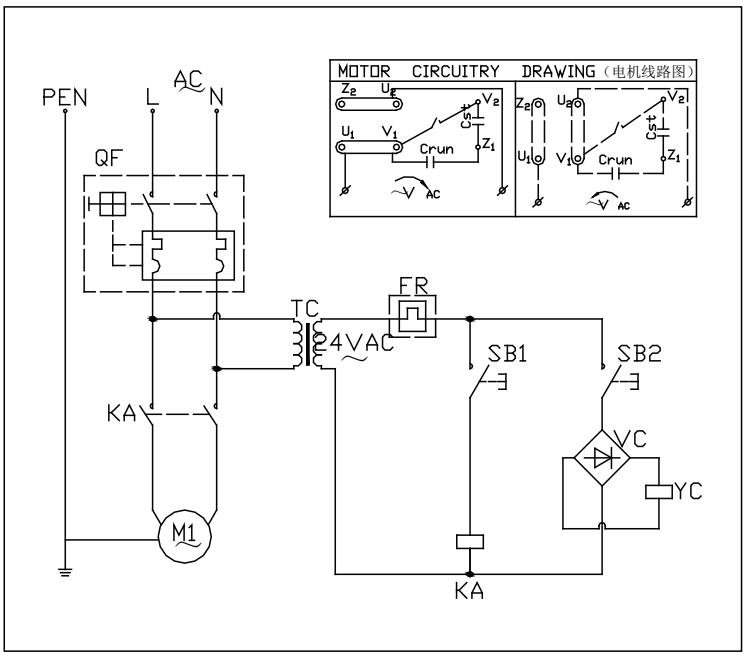
H 型阀块电动泵

MP系列电动泵电路控制原理图(单相220V)

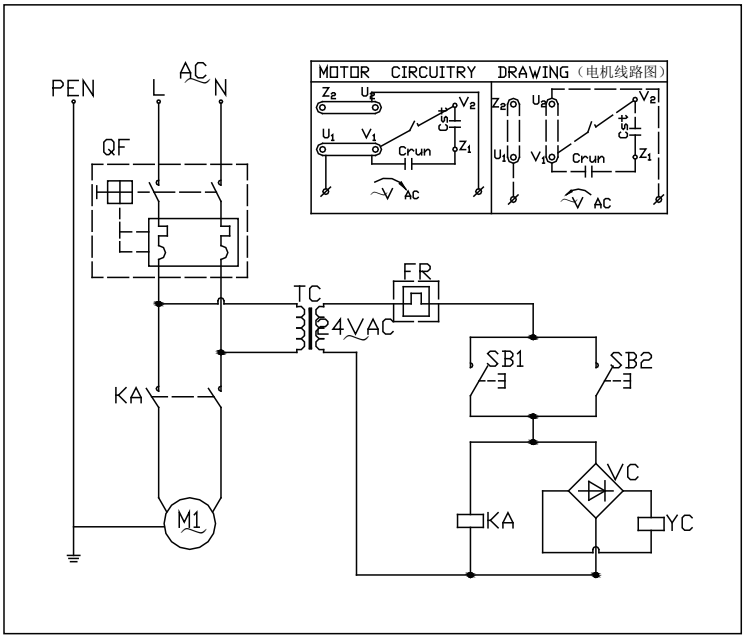


A 型阀块电动泵

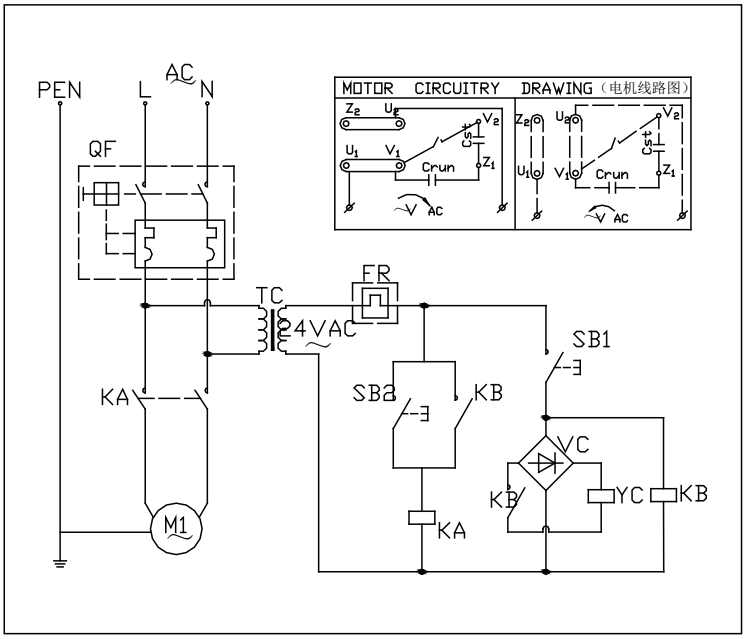
B 型阀块电动泵



C 型阀块电动泵

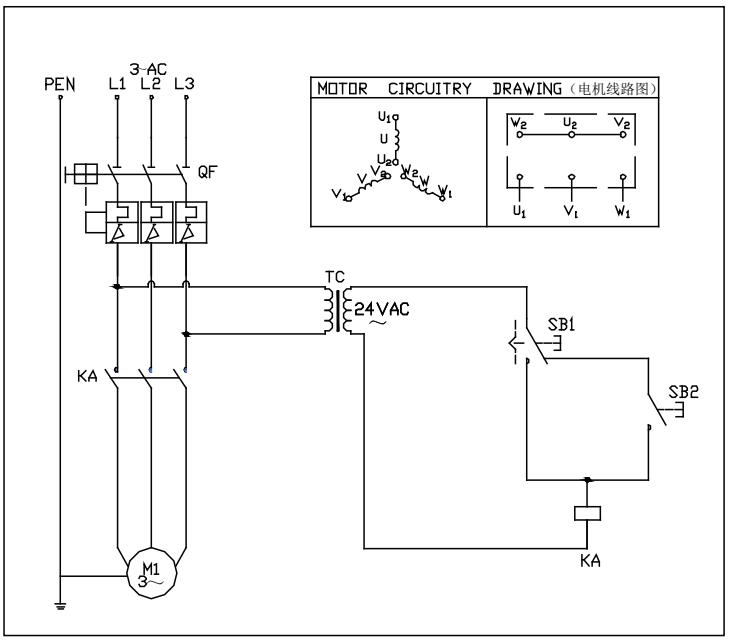


D 型阀块电动泵



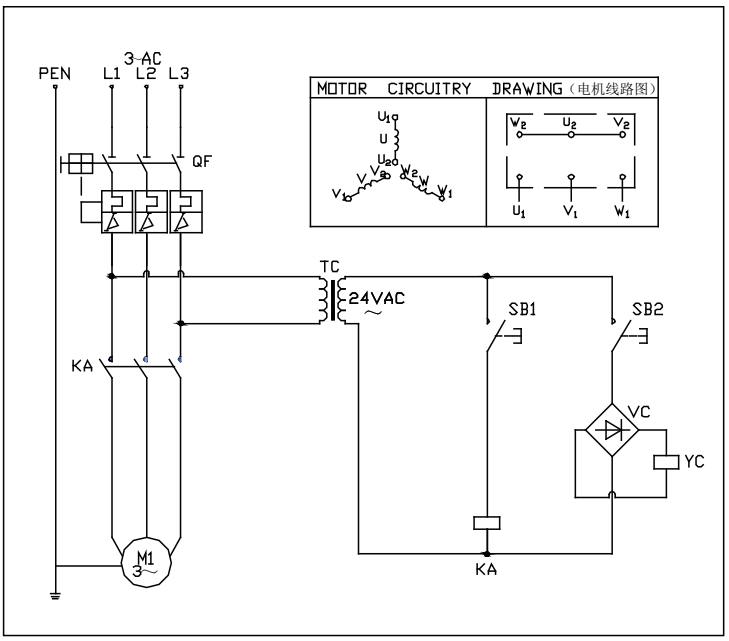
H 型阀块电动泵

MP系列电动泵电路控制原理图（三相380V）

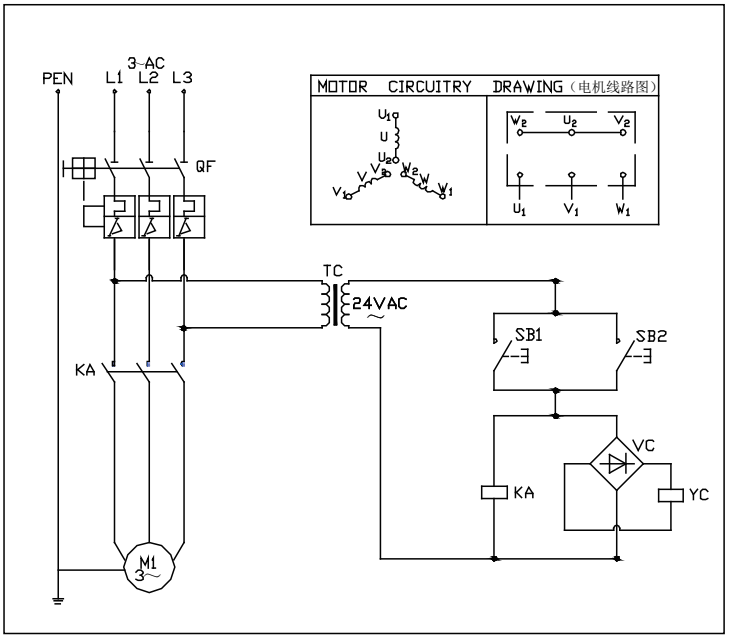


A 型阀块电动泵

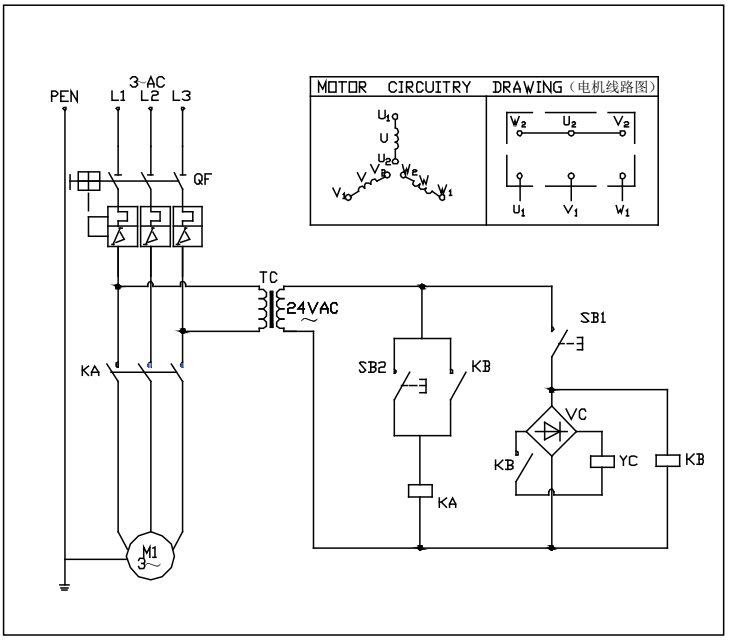
B 型阀块电动泵



C 型阀块电动泵

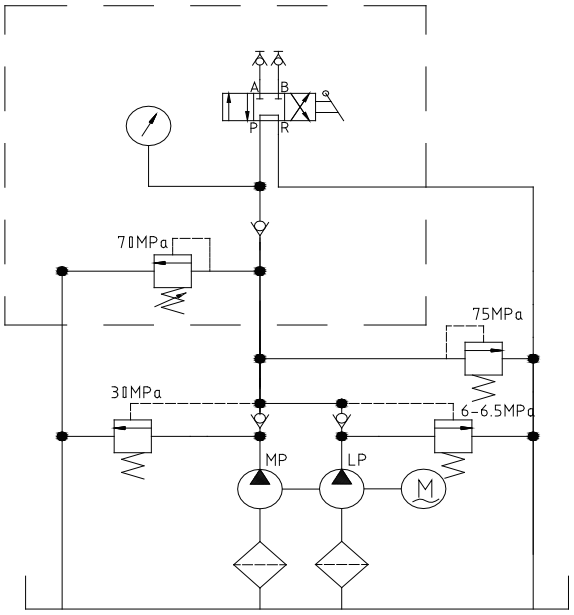


D 型阀块电动泵

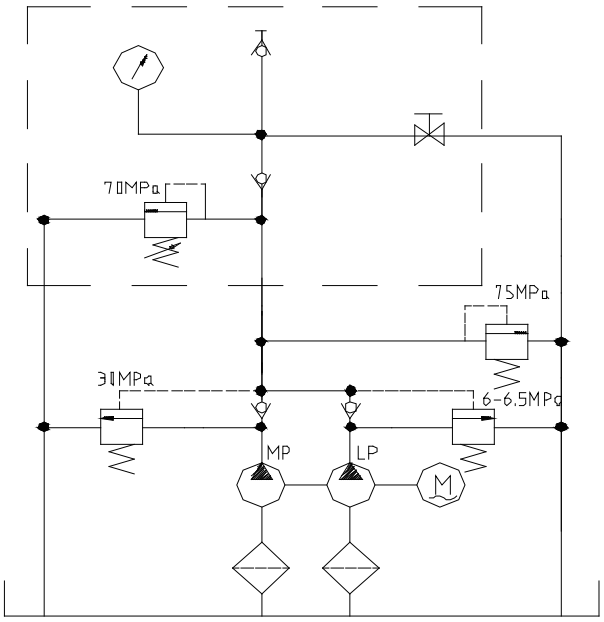


H 型阀块电动泵

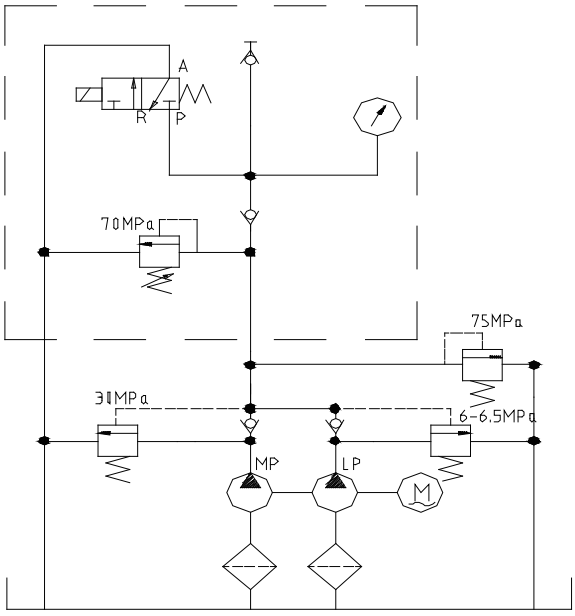
MP系列电动液压泵液压原理图



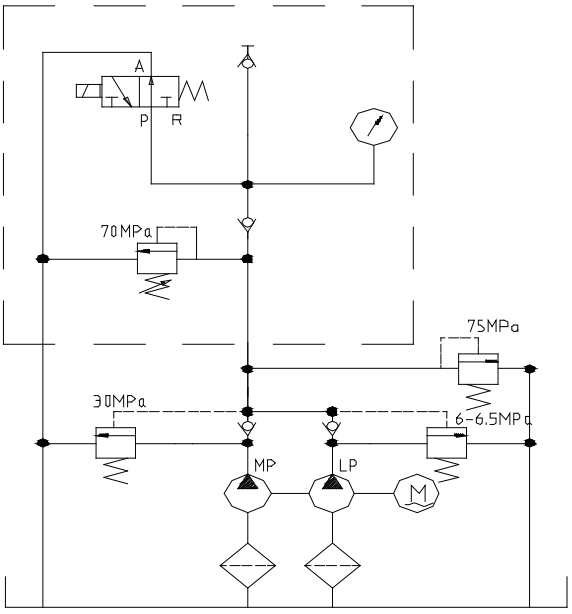
A 型控制阀块泵



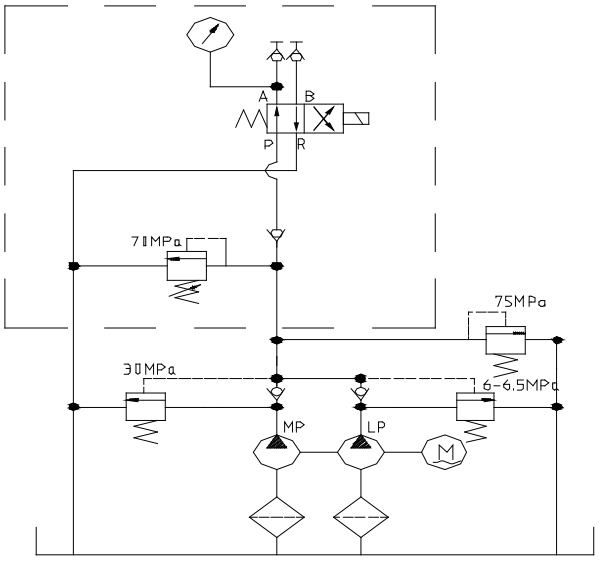
B 型控制阀块泵



C 型控制阀块泵



D 型控制阀块泵



H 型控制阀块泵

高压软管使用警告

1.适用于WREN Jh系列等级的高压软管。
2.最小弯曲半径：R>120mm。过小的弯曲半径，将严重损坏高压软管。
3.操作压力为70Mpa，禁止超压使用。
4.操作中不得使软管缠绕，否则会使油管生产过大的背压，使软管内部损坏，软管过早报。
5.不得将重物掉到或压到软管上；严重冲击可能引起软管损坏，使用时将会暴裂，并引起人身伤害。
6.不得用软管拖、拉、吊起重物。
7.禁止在过热、火焰、机器辗轧、利刃和化学腐蚀等条件环境下使用。软管布置在通道上时，必须加装盖板。
8 .WREN JH系列100Mpa等级高压软管操作压力为100Mpa，禁止超高压使用，

售后服务

1.自客户购买WREN品牌液压机具产品之日起，WREN公司为用户提供十二个月的保质期。
2.WREN产品在保质期，内因材料、制造缺陷引起的质量问题，由WREN公司免费便换、维修。
3.因工作状况不符合规定、意外事故、滥用、操作不当、未经受权的产品改装或修理以及不按规范操作而引起的产品损坏，不属本保修范围。

MP系列电动液压泵参数表

型号	油箱容积（L）	控制阀	电机（电压/频率/转速）	功率（Kw）	（L/min）		出油接口	回油接口	最大工作压力（MPa）
					低压	高压			
MP04AR56	4	A	200～230V/50HZ/4Pole (2.56A，1390r/min)	0.37	2	0.3	NPT1/4	NPT1/4	70
MP04BR56	4	B	200～230V/50HZ/4Pole (2.56A，1390r/min)	0.37	2	0.3	NPT1/4	NPT1/4	70
MP04CR56	4	C	200～230V/50HZ/4Pole (2.56A，1390r/min)	0.37	2	0.3	NPT1/4	NPT1/4	70
MP04DR56	4	D	200～230V/50HZ/4Pole (2.56A，1390r/min)	0.37	2	0.3	NPT1/4	NPT1/4	70
MP08AS12	8	A	200～230V/50HZ/2Pole (7.0A，2795r/min)	1	5.5	0.6	NPT1/4	NPT1/4	70
MP08BS12	8	B	200～230V/50HZ/2Pole (7.0A，2795r/min)	1	5.5	0.6	NPT1/4	NPT1/4	70
MP08CS12	8	C	200～230V/50HZ/2Pole (7.0A，2795r/min)	1	5.5	0.6	NPT1/4	NPT1/4	70
MP08DS12	8	D	200～230V/50HZ/2Pole (7.0A，2795r/min)	1	5.5	0.6	NPT1/4	NPT1/4	70
MP08HS12	8	H	200～230V/50HZ/2Pole (7.0A，2795r/min)	1	5.5	0.6	NPT1/4	NPT1/4	70
MP08AT13	8	A	200～240V/50HZ/2Pole (7.2A，2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP13AT13	13	A	200～240V/50HZ/2Pole (7.2A，2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP18AT13	18	A	200～240V/50HZ/2Pole (7.2A，2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP24AT13	24	A	200～240V/50HZ/2Pole (7.2A，2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP32AT13	32	A	200～240V/50HZ/2Pole (7.2A，2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP56AT13	56	A	200～240V/50HZ/2Pole (7.2A，2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP08BT13	8	B	200～240V/50HZ/2Pole (7.2A，2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP13BT13	13	B	200～240V/50HZ/2Pole (7.2A，2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP18BT13	18	B	200～240V/50HZ/2Pole (7.2A，2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP24BT13	24	B	200～240V/50HZ/2Pole (7.2A，2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP32BT13	32	B	200～240V/50HZ/2Pole (7.2A，2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP56BT13	56	B	200～240V/50HZ/2Pole (7.2A，2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70

型号	油箱容积（L）	控制阀	电机（电压/频率/转速）	功率（Kw）	（L/min）		出油接口	回油接口	最大工作压力（MPa）
					低压	高压			
MP08CT13	8	C	200～240V/50HZ/2Pole (7.2A，2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP13CT13	13	C	200～240V/50HZ/2Pole (7.2A，2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP18CT13	18	C	200～240V/50HZ/2Pole (7.2A，2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP24CT13	24	C	200～240V/50HZ/2Pole (7.2A，2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP32CT13	32	C	200～240V/50HZ/2Pole (7.2A，2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP56CT13	56	C	200～240V/50HZ/2Pole (7.2A，2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP08DT13	8	D	200～240V/50HZ/2Pole (7.2A，2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP13DT13	13	D	200～240V/50HZ/2Pole (7.2A，2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP18DT13	18	D	200～240V/50HZ/2Pole (7.2A，2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP24DT13	24	D	200～240V/50HZ/2Pole (7.2A，2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP32DT13	32	D	200～240V/50HZ/2Pole (7.2A，2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP56DT13	56	D	200～240V/50HZ/2Pole (7.2A，2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP08HT13	8	H	200～240V/50HZ/2Pole (7.2A，2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP13HT13	13	H	200～240V/50HZ/2Pole (7.2A，2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP18HT13	18	H	200～240V/50HZ/2Pole (7.2A，2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP24HT13	24	H	200～240V/50HZ/2Pole (7.2A，2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP32HT13	32	H	200～240V/50HZ/2Pole (7.2A，2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP56HT13	56	H	200～240V/50HZ/2Pole (7.2A，2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP08AT23	8	A	200～240V/60HZ/4Pole (6.2A，1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP13AT23	13	A	200～240V/60HZ/4Pole (6.2A，1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP18AT23	18	A	200～240V/60HZ/4Pole (6.2A，1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70

型号	油箱容积（L）	控制阀	电机（电压/频率/转速）	功率（Kw）	（L/min）		出油接口	回油接口	最大工作压力（MPa）
					低压	高压			
MP24AT23	24	A	200～240V/60HZ/4Pole (6.2A，1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP32AT23	32	A	200～240V/60HZ/4Pole (6.2A，1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP56AT23	56	A	200～240V/60HZ/4Pole (6.2A，1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP08BT23	8	B	200～240V/60HZ/4Pole (6.2A，1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP13BT23	13	B	200～240V/60HZ/4Pole (6.2A，1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP18BT23	18	B	200～240V/60HZ/4Pole (6.2A，1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP24BT23	24	B	200～240V/60HZ/4Pole (6.2A，1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP32BT23	32	B	200～240V/60HZ/4Pole (6.2A，1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP56BT23	56	B	200～240V/60HZ/4Pole (6.2A，1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP08CT23	8	C	200～240V/60HZ/4Pole (6.2A，1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP13CT23	13	C	200～240V/60HZ/4Pole (6.2A，1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP18CT23	18	C	200～240V/60HZ/4Pole (6.2A，1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP24CT23	24	C	200～240V/60HZ/4Pole (6.2A，1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP32CT23	32	C	200～240V/60HZ/4Pole (6.2A，1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP56CT23	56	C	200～240V/60HZ/4Pole (6.2A，1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP08DT23	8	D	200～240V/60HZ/4Pole (6.2A，1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP13DT23	13	D	200～240V/60HZ/4Pole (6.2A，1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP18DT23	18	D	200～240V/60HZ/4Pole (6.2A，1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP24DT23	24	D	200～240V/60HZ/4Pole (6.2A，1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP32DT23	32	D	200～240V/60HZ/4Pole (6.2A，1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP56DT23	56	D	200～240V/60HZ/4Pole (6.2A，1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70

型号	油箱容积（L）	控制阀	电机（电压/频率/转速）	功率（Kw）	（L/min）		出油接口	回油接口	最大工作压力（MPa）
					低压	高压			
MP08HT23	8	H	200～240V/60HZ/4Pole (6.2A，1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP13HT23	13	H	200～240V/60HZ/4Pole (6.2A，1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP18HT23	18	H	200～240V/60HZ/4Pole (6.2A，1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP24HT23	24	H	200～240V/60HZ/4Pole (6.2A，1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP32HT23	32	H	200～240V/60HZ/4Pole (6.2A，1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP56HT23	56	H	200～240V/60HZ/4Pole (6.2A，1720r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP08AT33	8	A	100～120V/50HZ/2Pole (13A，2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP13AT33	13	A	100～120V/50HZ/2Pole (13A，2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP18AT33	18	A	100～120V/50HZ/2Pole (13A，2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP24AT33	24	A	100～120V/50HZ/2Pole (13A，2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP32AT33	32	A	100～120V/50HZ/2Pole (13A，2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP56AT33	56	A	100～120V/50HZ/2Pole (13A，2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP08BT33	8	B	100～120V/50HZ/2Pole (13A，2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP13BT33	13	B	100～120V/50HZ/2Pole (13A，2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP18BT33	18	B	100～120V/50HZ/2Pole (13A，2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP24BT33	24	B	100～120V/50HZ/2Pole (13A，2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP32BT33	32	B	100～120V/50HZ/2Pole (13A，2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP56BT33	56	B	100～120V/50HZ/2Pole (13A，2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP08CT33	8	C	100～120V/50HZ/2Pole (13A，2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP13CT33	13	C	100～120V/50HZ/2Pole (13A，2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP18CT33	18	C	100～120V/50HZ/2Pole (13A，2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70

型号	油箱容积（L）	控制阀	电机（电压/频率/转速）	功率（Kw）	（L/min）		出油接口	回油接口	最大工作压力（MPa）
					低压	高压			
MP24CT33	24	C	100～120V/50HZ/2Pole (13A，2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP32CT33	32	C	100～120V/50HZ/2Pole (13A，2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP56CT33	56	C	100～120V/50HZ/2Pole (13A，2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP08DT33	8	D	100～120V/50HZ/2Pole (13A，2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP13DT33	13	D	100～120V/50HZ/2Pole (13A，2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP18DT33	18	D	100～120V/50HZ/2Pole (13A，2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP24DT33	24	D	100～120V/50HZ/2Pole (13A，2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP32DT33	32	D	100～120V/50HZ/2Pole (13A，2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP56DT33	56	D	100～120V/50HZ/2Pole (13A，2800r/min)	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP08HT33	8	H	100～120V/50HZ/2Pole (13A，2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP13HT33	13	H	100～120V/50HZ/2Pole (13A，2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP18HT33	18	H	100～120V/50HZ/2Pole (13A，2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP24HT33	24	H	100～120V/50HZ/2Pole (13A，2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP32HT33	32	H	100～120V/50HZ/2Pole (13A，2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP56HT33	56	H	100～120V/50HZ/2Pole (13A，2800r/min)	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP08AT43	8	A	100～130V/60HZ/4Pole (13.1A，1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP13AT43	13	A	100～130V/60HZ/4Pole (13.1A，1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP18AT43	18	A	100～130V/60HZ/4Pole (13.1A，1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP24AT43	24	A	100～130V/60HZ/4Pole (13.1A，1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP32AT43	32	A	100～130V/60HZ/4Pole (13.1A，1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP56AT43	56	A	100～130V/60HZ/4Pole (13.1A，1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70

型号	油箱容积（L）	控制阀	电机（电压/频率/转速）	功率（Kw）	（L/min）		出油接口	回油接口	最大工作压力（MPa）
					低压	高压			
MP08BT43	8	B	100～130V/60HZ/4Pole (13.1A，1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP13BT43	13	B	100～130V/60HZ/4Pole (13.1A，1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP18BT43	18	B	100～130V/60HZ/4Pole (13.1A，1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP24BT43	24	B	100～130V/60HZ/4Pole (13.1A，1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP32BT43	32	B	100～130V/60HZ/4Pole (13.1A，1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP56BT43	56	B	100～130V/60HZ/4Pole (13.1A，1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP08CT43	8	C	100～130V/60HZ/4Pole (13.1A，1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP13CT43	13	C	100～130V/60HZ/4Pole (13.1A，1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP18CT43	18	C	100～130V/60HZ/4Pole (13.1A，1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP24CT43	24	C	100～130V/60HZ/4Pole (13.1A，1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP32CT43	32	C	100～130V/60HZ/4Pole (13.1A，1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP56CT43	56	C	100～130V/60HZ/4Pole (13.1A，1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP08DT43	8	D	100～130V/60HZ/4Pole (13.1A，1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP13DT43	13	D	100～130V/60HZ/4Pole (13.1A，1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP18DT43	18	D	100～130V/60HZ/4Pole (13.1A，1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP24DT43	24	D	100～130V/60HZ/4Pole (13.1A，1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP32DT43	32	D	100～130V/60HZ/4Pole (13.1A，1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP56DT43	56	D	100～130V/60HZ/4Pole (13.1A，1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP08HT43	8	H	100～130V/60HZ/4Pole (13.1A，1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP13HT43	13	H	100～130V/60HZ/4Pole (13.1A，1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP18HT43	18	H	100～130V/60HZ/4Pole (13.1A，1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70

型号	油箱容积（L）	控制阀	电机（电压/频率/转速）	功率（Kw）	（L/min）		出油接口	回油接口	最大工作压力（MPa）
					低压	高压			
MP24HT43	24	H	100～130V/60HZ/4Pole (13.1A，1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP32HT43	32	H	100～130V/60HZ/4Pole (13.1A，1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP56HT43	56	H	100～130V/60HZ/4Pole (13.1A，1675r/min)	0.9	4.5	0.7	NPT1/4	NPT1/4	70
MP08AT63	8	A	350～420V/50HZ/2Pole (2.56A，2800r/min) Nebulous Connection	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP13AT63	13	A	350～420V/50HZ/2Pole (2.56A，2800r/min) Nebulous Connection	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP18AT63	18	A	350～420V/50HZ/2Pole (2.56A，2800r/min) Nebulous Connection	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP24AT63	24	A	350～420V/50HZ/2Pole (2.56A，2800r/min) Nebulous Connection	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP32AT63	32	A	350～420V/50HZ/2Pole (2.56A，2800r/min) Nebulous Connection	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP56AT63	56	A	350～420V/50HZ/2Pole (2.56A，2800r/min) Nebulous Connection	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP08BT63	8	B	350～420V/50HZ/2Pole (2.56A，2800r/min) Nebulous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP13BT63	13	B	350～420V/50HZ/2Pole (2.56A，2800r/min) Nebulous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP18BT63	18	B	350～420V/50HZ/2Pole (2.56A，2800r/min) Nebulous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP24BT63	24	B	350～420V/50HZ/2Pole (2.56A，2800r/min) Nebulous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP32BT63	32	B	350～420V/50HZ/2Pole (2.56A，2800r/min) Nebulous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP56BT63	56	B	350～420V/50HZ/2Pole (2.56A，2800r/min) Nebulous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70

型号	油箱容积（L）	控制阀	电机（电压/频率/转速）	功率（Kw）	（L/min）		出油接口	回油接口	最大工作压力（MPa）
					低压	高压			
MP08CT63	8	C	350～420V/50HZ/2Pole (2.56A，2800r/min) Nebulous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP13CT63	13	C	350～420V/50HZ/2Pole (2.56A，2800r/min) Nebulous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP18CT63	18	C	350～420V/50HZ/2Pole (2.56A，2800r/min) Nebulous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP24CT63	24	C	350～420V/50HZ/2Pole (2.56A，2800r/min) Nebulous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP32CT63	32	C	350～420V/50HZ/2Pole (2.56A，2800r/min) Nebulous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP56CT63	56	C	350～420V/50HZ/2Pole (2.56A，2800r/min) Nebulous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP08DT63	8	D	350～420V/50HZ/2Pole (2.56A，2800r/min) Nebulous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP13DT63	13	D	350～420V/50HZ/2Pole (2.56A，2800r/min) Nebulous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP18DT63	18	D	350～420V/50HZ/2Pole (2.56A，2800r/min) Nebulous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP24DT63	24	D	350～420V/50HZ/2Pole (2.56A，2800r/min) Nebulous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP32DT63	32	D	350～420V/50HZ/2Pole (2.56A，2800r/min) Nebulous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP56DT63	56	D	350～420V/50HZ/2Pole (2.56A，2800r/min) Nebulous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP08HT63	8	H	350～420V/50HZ/2Pole (2.56A，2800r/min) Nebulous Connection	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP13HT63	13	H	350～420V/50HZ/2Pole (2.56A，2800r/min) Nebulous Connection	1.1	5.5	0.8	NPT1/4	NPT1/4	70

型号	油箱容积（L）	控制阀	电机（电压/频率/转速）	功率（Kw）	（L/min）		出油接口	回油接口	最大工作压力（MPa）
					低压	高压			
MP18HT63	18	H	350～420V/50HZ/2Pole (2.56A，2800r/min) Nebulous Connection	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP24HT63	24	H	350～420V/50HZ/2Pole (2.56A，2800r/min) Nebulous Connection	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP32HT63	32	H	350～420V/50HZ/2Pole (2.56A，2800r/min) Nebulous Connection	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP56HT63	56	H	350～420V/50HZ/2Pole (2.56A，2800r/min) Nebulous Connection	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP08AT73	8	A	200～240V/50HZ/2Pole (4.43A，2800r/min) Triquetrous Connection	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP13AT73	13	A	200～240V/50HZ/2Pole (4.43A，2800r/min) Triquetrous Connection	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP18AT73	18	A	200～240V/50HZ/2Pole (4.43A，2800r/min) Triquetrous Connection	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP24AT73	24	A	200～240V/50HZ/2Pole (4.43A，2800r/min) Triquetrous Connection	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP32AT73	32	A	200～240V/50HZ/2Pole (4.43A，2800r/min) Triquetrous Connection	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP56AT73	56	A	200～240V/50HZ/2Pole (4.43A，2800r/min) Triquetrous Connection	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP08BT73	8	B	200～240V/50HZ/2Pole (4.43A，2800r/min) Triquetrous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP13BT73	13	B	200～240V/50HZ/2Pole (4.43A，2800r/min) Triquetrous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP18BT73	18	B	200～240V/50HZ/2Pole (4.43A，2800r/min) Triquetrous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP24BT73	24	B	200～240V/50HZ/2Pole (4.43A，2800r/min) Triquetrous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70

型号	油箱容积（L）	控制阀	电机（电压/频率/转速）	功率（Kw）	（L/min）		出油接口	回油接口	最大工作压力（MPa）
					低压	高压			
MP32BT73	32	B	200～240V/50HZ/2Pole (4.43A，2800r/min) Triquetrous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP56BT73	56	B	200～240V/50HZ/2Pole (4.43A，2800r/min) Triquetrous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP08CT73	8	C	200～240V/50HZ/2Pole (4.43A，2800r/min) Triquetrous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP13CT73	13	C	200～240V/50HZ/2Pole (4.43A，2800r/min) Triquetrous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP18CT73	18	C	200～240V/50HZ/2Pole (4.43A，2800r/min) Triquetrous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP24CT73	24	C	200～240V/50HZ/2Pole (4.43A，2800r/min) Triquetrous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP32CT73	32	C	200～240V/50HZ/2Pole (4.43A，2800r/min) Triquetrous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP56CT73	56	C	200～240V/50HZ/2Pole (4.43A，2800r/min) Triquetrous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP08DT73	8	D	200～240V/50HZ/2Pole (4.43A，2800r/min) Triquetrous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP13DT73	13	D	200～240V/50HZ/2Pole (4.43A，2800r/min) Triquetrous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP18DT73	18	D	200～240V/50HZ/2Pole (4.43A，2800r/min) Triquetrous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP24DT73	24	D	200～240V/50HZ/2Pole (4.43A，2800r/min) Triquetrous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP32DT73	32	D	200～240V/50HZ/2Pole (4.43A，2800r/min) Triquetrous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70
MP56DT73	56	D	200～240V/50HZ/2Pole (4.43A，2800r/min) Triquetrous Connection	1.1	7.2	0.8	NPT1/4	NPT1/4	70

型号	油箱容积（L）	控制阀	电机（电压/频率/转速）	功率（Kw）	（L/min）		出油接口	回油接口	最大工作压力（MPa）
					低压	高压			
MP08HT73	8	H	200～240V/50HZ/2Pole (4.43A，2800r/min) Triquetrous Connection	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP13HT73	13	H	200～240V/50HZ/2Pole (4.43A，2800r/min) Triquetrous Connection	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP18HT73	18	H	200～240V/50HZ/2Pole (4.43A，2800r/min) Triquetrous Connection	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP24HT73	24	H	200～240V/50HZ/2Pole (4.43A，2800r/min) Triquetrous Connection	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP32HT73	32	H	200～240V/50HZ/2Pole (4.43A，2800r/min) Triquetrous Connection	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP56HT73	56	H	200～240V/50HZ/2Pole (4.43A，2800r/min) Triquetrous Connection	1.1	5.5	0.8	NPT1/4	NPT1/4	70
MP08AT83	8	A	350～420V/60HZ/4Pole (2.90A，1675r/min) Nebulous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP13AT83	13	A	350～420V/60HZ/4Pole (2.90A，1675r/min) Nebulous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP18AT83	18	A	350～420V/60HZ/4Pole (2.90A，1675r/min) Nebulous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP24AT83	24	A	350～420V/60HZ/4Pole (2.90A，1675r/min) Nebulous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP32AT83	32	A	350～420V/60HZ/4Pole (2.90A，1675r/min) Nebulous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP56AT83	56	A	350～420V/60HZ/4Pole (2.90A，1675r/min) Nebulous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP08BT83	8	B	350～420V/60HZ/4Pole (2.90A，1675r/min) Nebulous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP13BT83	13	B	350～420V/60HZ/4Pole (2.90A，1675r/min) Nebulous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70

型号	油箱容积（L）	控制阀	电机（电压/频率/转速）	功率（Kw）	（L/min）		出油接口	回油接口	最大工作压力（MPa）
					低压	高压			
MP18BT83	18	B	350～420V/60HZ/4Pole (2.90A，1675r/min) Nebulous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP24BT83	24	B	350～420V/60HZ/4Pole (2.90A，1675r/min) Nebulous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP32BT83	32	B	350～420V/60HZ/4Pole (2.90A，1675r/min) Nebulous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP56BT83	56	B	350～420V/60HZ/4Pole (2.90A，1675r/min) Nebulous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP08CT83	8	C	350～420V/60HZ/4Pole (2.90A，1675r/min) Nebulous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP13CT83	13	C	350～420V/60HZ/4Pole (2.90A，1675r/min) Nebulous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP18CT83	18	C	350～420V/60HZ/4Pole (2.90A，1675r/min) Nebulous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP24CT83	24	C	350～420V/60HZ/4Pole (2.90A，1675r/min) Nebulous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP32CT83	32	C	350～420V/60HZ/4Pole (2.90A，1675r/min) Nebulous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP56CT83	56	C	350～420V/60HZ/4Pole (2.90A，1675r/min) Nebulous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP08DT83	8	D	350～420V/60HZ/4Pole (2.90A，1675r/min) Nebulous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP13DT83	13	D	350～420V/60HZ/4Pole (2.90A，1675r/min) Nebulous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP18DT83	18	D	350～420V/60HZ/4Pole (2.90A，1675r/min) Nebulous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP24DT83	24	D	350～420V/60HZ/4Pole (2.90A，1675r/min) Nebulous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70

型号	油箱容积（L）	控制阀	电机（电压/频率/转速）	功率（Kw）	（L/min）		出油接口	回油接口	最大工作压力（MPa）
					低压	高压			
MP32DT83	32	D	350～420V/60HZ/4Pole (2.90A，1675r/min) Nebulous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP56DT83	56	D	350～420V/60HZ/4Pole (2.90A，1675r/min) Nebulous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP08HT83	8	H	350～420V/60HZ/4Pole (2.90A，1675r/min) Nebulous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP13HT83	13	H	350～420V/60HZ/4Pole (2.90A，1675r/min) Nebulous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP18HT83	18	H	350～420V/60HZ/4Pole (2.90A，1675r/min) Nebulous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP24HT83	24	H	350～420V/60HZ/4Pole (2.90A，1675r/min) Nebulous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP32HT83	32	H	350～420V/60HZ/4Pole (2.90A，1675r/min) Nebulous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP56HT83	56	H	350～420V/60HZ/4Pole (2.90A，1675r/min) Nebulous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP08AT93	8	A	200～240V/60HZ/4Pole (5.02A，1675r/min) Triquetrous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP13AT93	13	A	200～240V/60HZ/4Pole (5.02A，1675r/min) Triquetrous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP18AT93	18	A	200～240V/60HZ/4Pole (5.02A，1675r/min) Triquetrous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP24AT93	24	A	200～240V/60HZ/4Pole (5.02A，1675r/min) Triquetrous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP32AT93	32	A	200～240V/60HZ/4Pole (5.02A，1675r/min) Triquetrous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP56AT93	56	A	200～240V/60HZ/4Pole (5.02A，1675r/min) Triquetrous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70

型号	油箱容积（L）	控制阀	电机（电压/频率/转速）	功率（Kw）	（L/min）		出油接口	回油接口	最大工作压力（MPa）
					低压	高压			
MP08BT93	8	B	200～240V/60HZ/4Pole (5.02A，1675r/min) Triquetrous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP13BT93	13	B	200～240V/60HZ/4Pole (5.02A，1675r/min) Triquetrous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP18BT93	18	B	200～240V/60HZ/4Pole (5.02A，1675r/min) Triquetrous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP24BT93	24	B	200～240V/60HZ/4Pole (5.02A，1675r/min) Triquetrous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP32BT93	32	B	200～240V/60HZ/4Pole (5.02A，1675r/min) Triquetrous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP56BT93	56	B	200～240V/60HZ/4Pole (5.02A，1675r/min) Triquetrous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP08CT93	8	C	200～240V/60HZ/4Pole (5.02A，1675r/min) Triquetrous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP13CT93	13	C	200～240V/60HZ/4Pole (5.02A，1675r/min) Triquetrous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP18CT93	18	C	200～240V/60HZ/4Pole (5.02A，1675r/min) Triquetrous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP24CT93	24	C	200～240V/60HZ/4Pole (5.02A，1675r/min) Triquetrous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP32CT93	32	C	200～240V/60HZ/4Pole (5.02A，1675r/min) Triquetrous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP56CT93	56	C	200～240V/60HZ/4Pole (5.02A，1675r/min) Triquetrous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP08DT93	8	D	200～240V/60HZ/4Pole (5.02A，1675r/min) Triquetrous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP13DT93	13	D	200～240V/60HZ/4Pole (5.02A，1675r/min) Triquetrous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70

型号	油箱容积（L）	控制阀	电机（电压/频率/转速）	功率（Kw）	（L/min）		出油接口	回油接口	最大工作压力（MPa）
					低压	高压			
MP18DT93	18	D	200～240V/60HZ/4Pole (5.02A，1675r/min) Triquetrous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP24DT93	24	D	200～240V/60HZ/4Pole (5.02A，1675r/min) Triquetrous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP32DT93	32	D	200～240V/60HZ/4Pole (5.02A，1675r/min) Triquetrous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP56DT93	56	D	200～240V/60HZ/4Pole (5.02A，1675r/min) Triquetrous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP08HT93	8	H	200～240V/60HZ/4Pole (5.02A，1675r/min) Triquetrous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP13HT93	13	H	200～240V/60HZ/4Pole (5.02A，1675r/min) Triquetrous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP18HT93	18	H	200～240V/60HZ/4Pole (5.02A，1675r/min) Triquetrous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP24HT93	24	H	200～240V/60HZ/4Pole (5.02A，1675r/min) Triquetrous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP32HT93	32	H	200～240V/60HZ/4Pole (5.02A，1675r/min) Triquetrous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70
MP56HT93	56	H	200～240V/60HZ/4Pole (5.02A，1675r/min) Triquetrous Connection	1.1	4.5	0.7	NPT1/4	NPT1/4	70

CERTIFICATE No. : 1312/IN-IST-12
IS1250-0803/AOO/AKC

EC-ATTESTATION CERTIFICATE OF MACHINE SAFETY

Date/Place of Issue	: 11.09.2012 / Istanbul
Valid Until	: 10.09.2017
Name of Applicant	: Hangzhou WREN Hydraulic Equipment Manufacturing Co., Ltd
Address of Applicant	: No. 24, Xingxing Road, Xingqiao, Yuhang District, Hangzhou, China
Name of Manufacturer	: Hangzhou WREN Hydraulic Equipment Manufacturing Co., Ltd
Address of Manufacturer	: No. 24, Xingxing Road, Xingqiao, Yuhang District, Hangzhou, China
Description of Product	: Hydraulic Pump
Model(s)	: # MP Series; SMP Series; HNP Series; SHNP Series,# # KLW4000 Series; KLW4000N Series; KLW4100 Series.#
Assessment Performed	: Conformity to Annex I's Applicable Paragraphs of 2006/42/EC Machinery Directive.
Standard(s)	: # EN ISO 12100:2010; EN ISO 4413:2010; EN 60204-1:2006/AC:2010.#
Conditions Subject to Issue	: Acceptance of Information Detailed in Technical File TCF-120824-213 and Referenced Against Job File IS1250-0803.
Declaration	: In the Opinion of SGS the Submitted Technical File TCF-120824-213 Satisfies the Requirements of the Machinery Directive 2006/42/EC Annex-VII.
Assessor ID No.	: TR-IND-S20
Date/Place of Assessment	: 06.08.2012 / Yuhang - China

Test reports in technical file TCF-120824-213 and referenced against job file IS1250-0803 are reviewed and found to be acceptable. The certificate is valid as long as the relevant directives and harmonised standards written above are current. The CE mark as shown below can be used, under the responsibility of the manufacturer, after completion of an EC Declaration of Conformity and compliance with all relevant EC Directives.

CE

This EC-Attestation Certificate is only valid for the equipment and configuration described in conjunction with the data detailed above. It refers only to the sample submitted to SGS Supervise Gözetme Etüd Kontrol Servisleri A.Ş. for testing and certification. Any modifications made to the product shall immediately be reported to SGS Supervise Gözetme Etüd Kontrol Servisleri A.Ş. office in order to examine whether this certificate remains valid. This certificate shall not be reproduced except in full without the written approval of SGS Supervise Gözetme Etüd Kontrol Servisleri A.Ş.

For and on behalf of
SGS Supervise Gözetme Etüd
Kontrol Servisleri A.Ş.

Ali Osman ÖZEREN

Ahmet Kürşad Çanakçı

SGS Supervise Gözetme Etüd Kontrol Servisleri A.Ş.
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F150201M

S-IND-F-32/ Rev:4

SGSPAPER
12865421

国际单位换算公式

长度				
国际单位	转换系数	非国际单位	转换系数	国际单位
毫米（mm）	×0.03937	寸	× 25.4	毫米
厘米（cm）	×0.3937	寸	× 2.51	厘米
米（m）	×1.0936	码	× 0.944	米
千米（km）	×0.62	里	× 1.61	公里
面积				
国际单位	转换系数	非国际单位	转换系数	国际单位
平方毫米（mm²）	× 0.00155	平方英寸	× 645	平方毫米
平方厘米（cm²）	× 0.155	平方英寸	× 6.45	平方厘米
平方米（m²）	×10.8	平方英尺	× 0.0929	平方米
平方米（m²）	×1.2	平方码	× 0.836	平方米
公顷（ha）	×2.47	英亩	× 0.405	公顷
平方千米（km²）	×0.39	平方英里	× 2.59	平方千米
容积				
国际单位	转换系数	非国际单位	转换系数	国际单位
立方厘米（cm³）	× 0.061	立方英寸	× 16.4	立方厘米
升（L）	×61	立方英寸	× 0.016	1升
毫升（ML）	× 0.034	盎司-流体	× 29.6	毫升
升（L）	× 1.06	夸脱	× 0.946	1升
升（L）	× 0.26	加仑	× 3.79	1升
立方米（m³）	× 1.3	立方码	× 0.76	立方米
质量				
国际单位	转换系数	非国际单位	转换系数	国际单位
克—g—	× 0.035	盎司	× 28.36	克
千克（kg）	× 2.2	磅	× 0.454	公斤
公吨（t）	× 1.1	短吨	× 0.907	吨
力				
国际单位	转换系数	非国际单位	转换系数	国际单位
牛顿(N)	× 0.225	磅	× 4.45	牛顿
千牛（KN）	× 225	磅	× 0.00445	千牛顿
扭矩				
国际单位	转换系数	非国际单位	转换系数	国际单位
牛顿.米（N.M）	× 8.9	磅.英寸	× 0.113	牛顿.米
牛顿.米（N.M）	× 0.74	磅.英尺	× 1.36	牛顿.米
压强				
国际单位	转换系数	非国际单位	转换系数	国际单位
千帕（kpa）	× 4	英寸水柱	× 0.249	千帕
千帕（kpa）	× 0.3	英寸汞柱	× 3.38	千帕
千帕（kpa）	× 0.145	磅/英寸2	× 6.89	千帕
兆帕（Mpa）	× 145	磅/英寸2	× 0.00689	兆帕
巴（Bar）	× 14.5	磅/英寸2	× 0.0689	巴
功率				
国际单位	转换系数	非国际单位	转换系数	国际单位
千瓦（kw）	× 1.34	马力	× 0.746	千瓦
瓦特（w）	× 0.74	英寸磅/秒	× 1.36	瓦
温度				
℃=（F-32）÷1.8　F=（℃×1.8）+32				

WREN

HYDRAULIC TOOL

For prompt service,
contact you Authorized
WREN Agent

All Wren products are guaranteed against defects in workmanship and materials for as long as you own them.Under this guarantee, free repair or replacement will be made to your satisfation.

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