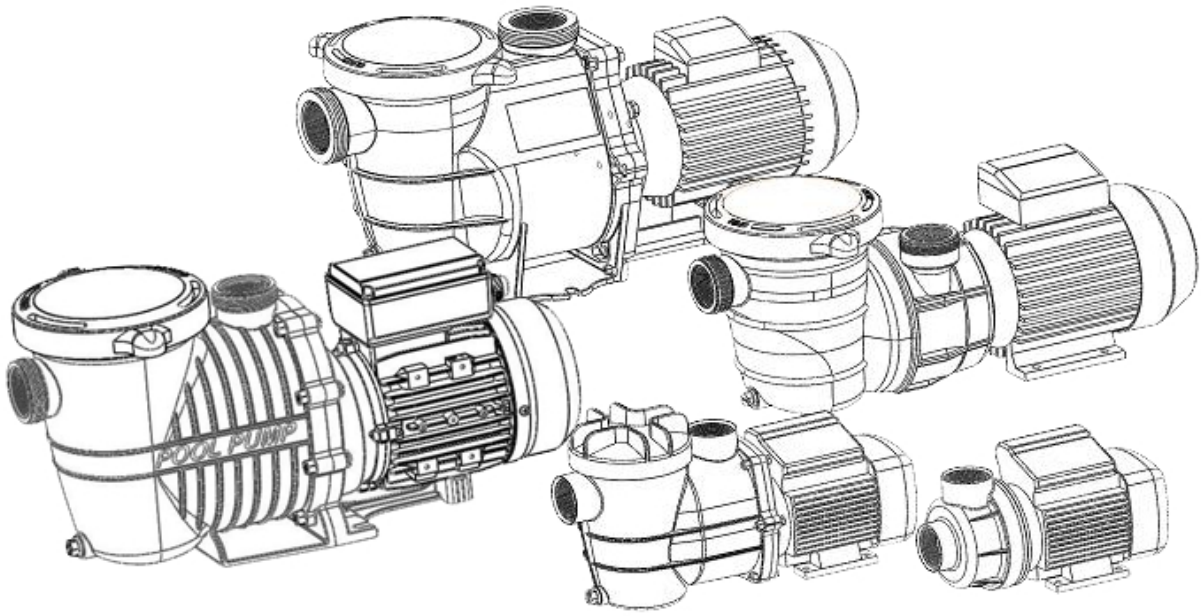
Instruction



Pumps

CE

For your protection, please read these important instructions first.

WARNING

This equipment must be installed and serviced by a qualified technician. Improper installation can create electrical hazards which could result in property damage, serious injury or death. Improper installation will void the warranty.

NINGBO SPLASH POOL APPLIANCE CO., LTD.

www.splashpoolappliance.com

GENERAL SAFETY RULES

1. This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.
2. If the supply cord is damaged, it must be replaced by the manufacture or its service agent or a similarly qualified person in order to avoid a hazard
3. The pump must be supplied through a residual current device (RCD) having a rated residual operating current not exceeding 30mA
4. The products mentioned in this manual are specially designed for the pre-filtering and re-circulation of water in swimming pools and spas.
5. They are designed to work with clean water at a temperature not exceeding **40**℃
6. The installation should be carried out in accordance to the safety instructions of swimming pools, **especially Standard HD 384.7.702**, and the specific instructions for each facility.
7. The compulsory rules on accident prevention should be carefully followed.
8. Any modification of the pump requires the **prior consent of the manufacturer**. Original replacement parts and accessories authorized by the manufacturer ensure a high level of safety. The manufacturer of the pump assumes no liability for the damage and injuries **caused by un-authorized replacement parts and accessories**.
9. During operation, some parts of the pump are subject to dangerous electric voltage. Work may only be performed on each pump or on the equipment connected to it after **disconnecting them from the main power and after disconnecting the starting device.**
10. The user should make sure that assembly and maintenance tasks are carried out by **qualified authorized persons** and that these persons have first carefully read the instructions for service and installation.
11. The operating safety of the pump is only guaranteed if the installation and service instructions are correctly followed.
12. The limit values stated in the technical table **should not be exceeded under any condition**.
13. In the event of defective operation or fault, contact the technical support department of the manufacturer or its nearest authorized agents.
14. If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person to avoid a hazard.
15. The pump must not be used when people are in the water.
16. The pump must be supplied through a residual current device (RCD) having a rated residual operating current not exceeding 30mA.
17. Children should be under close supervision to prevent them from playing with the pump.
18. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
19. Children should be supervised to ensure that they do not play with the appliance.
20. The pump must be protected from running dry.

LOCATION

The pump must be installed and placed to an enough distance away from the pool or water source, to avoid the water from the pool or water source, to avoid the water pouring or flowing onto the pump.
The pump must also be in a position that enables easy access for periodic servicing.
Care must also be taken to position the pump in an area that is **free from flooding in a well ventilated and dry area.**

INSTALLATION

Adopt the latest technology when designing and manufacturing our pumps, a few simple precautions during installation will ensure years of trouble free operation.

1. The pump suction line should not be smaller than 1 1/2" (40mm imperial) or 50mm true metric.
2. The suction line is to have as few bends or elbows as possible. There must not be an air traps on the suction line.
3. Installation shall arrange on a solid, flat foundation with the pump bolted securely to it.
4. **The pump electrical cable must be wired for the proper voltage and current in accordance with the wiring instructions.**
5. All wiring (electrical) work must be carried out **by licensed electricians** and must be installed in accordance to the local codes.
6. The motor must be grounded.
7. The weight of the plumbings and fittings is to be independently supported and not carried by the pump.
8. The maximum total head (Hmax) of the pump (in metres) shown on the pump label should be noted by the installer.
9. The permissible temperature is **> 0˚C and < 40˚C**. The pump should never be operated outside of these temperatures, or damage may occur.

~ IMPORTANT ELECTRICAL NOTICE ~

The electrical installation is to be done by a licensed electrician.

Each pump requires a circuit breaker to separate the pump from the electrical supply.
The open contact distance of the circuit breaker is to be ***no less than 3mm.***

The pump is to be supplied by an isolating transformer, or supplied through a residual current device (RCD) with a rated residual current not exceeding 30mA.

Check the pumps name plate for the following: Voltage, Amp draw and Cycle.

The power cord, including the ground wire shall have a quality of ***245 IEC66 (HO7RN-F)*** *for models* ***greater*** *than* ***1kW*** *power input.*

For models ***less*** *than* ***1kW*** *input the quality shall be of* ***245 IEC57 (H05RN-F).***
All installations must comply with local codes, based on ***IEC 364-7-702*** *requirements.*

- ***RESPECT THE MINIMUM GAUGE GIVEN IN THE CHART OF THE TECHNICAL MANUAL.***

ELECTRICAL CONNECTION

Check that the information on the nameplate corresponds to the power supply.
Employ a competent electrician to ensure wiring installation is made in accordance with any local electrical codes. Every motor requires either a **fused disconnect switch or a circuit breaker.**
A SINGLE PHASE MOTOR has a built in thermal overload switch.

PRIMING

The pump will prime and re-prime providing the filter tank water and there is sufficient supply from the suction point. (It is for pump# 72542-72543-72544-72547-72548)
If you lose water from the filter tank it will be necessary to re-fill it before starting.

1. Remove the translucent lid and fill the filter tank with water.
2. Replace the lid ensuring **the o-ring is correctly** located and start the pump.

After you have done this allow a **few minutes (maximum) running** for the pump to start delivering water.

▲WARNING

High suction lift or long suction lines will require additional time to prime and can severely affect the performance of the pump. If the pump will not prime, repeat step 1 and 2 above.
The pumps # 72512-72513-72514-72515-72520-72521-72527-72528-72529-72530 are required worked or installed below the water level.
Mechanical seals if runing dry can be damaged rapidly and may need to be replaced.

ENSURE that there is always adequate water in the filter tank before you start up.
If you are unable to prime the pump please see the trouble-shooting guide.
ENSURE that all suction and discharge valves are open before you start the pump, otherwise will result in damage to the pump.

Pump Start Up

Do not operate pump until it has been primed as water acts to cool and lubricate the seal. For pumps without strainer bodies and locater above water, close suction line valve and fill pump with water in order to prime. For pumps with strainer bodies and located above water, prime by removing strainer cover and filling strainer body with water. Pumps located below water level will selfprime if all piping is also below water level. After pump has been primed, energize motor and open all suction and discharge line valves. It may take some time for pump to remove air from suction lines. If no flow is observed in five minutes, stop the motor and re-prime. If the pump fails to operate, check for air leaks. Refer to Trouble Shooting section.

After about ten minutes of operation, check the return fittings for air bubbles. A continuous flow of air indicates leaks in suction line. Locate and correct any leaks immediately.

CONTROLLING THE OUTPUT

Keep the gate valve in the suction line fully open during operation. Should it be necessary to control the output, use a valve in the return line.

Caution: Do not retighten strainer Ring-Lok during operation.

Caution: Do not operate pump with closed suction or discharge valves.

MAINTENANCE

The strainer basket in the filter tank should be inspected and cleaned at **regular intervals**.

1. Remove lid and lift out basket.
2. Remove debris and hose off with clean water if necessary.
3. Inspect the lid gasket, lubricate with **SILICON** based grease only if needed. If it is damaged, pls replace.
4. Replace the strainer.
5. Re-prime the filter tank.
6. Correctly locate the o-ring.
7. Replace the lid **(hand tighten)** only.
8. Switch on pump.

In Climates where the pump may be **exposed to frost or freezing**, care must be taken to ensure the pump is protected from damage.

It is **recommended** that if the pump is not used during winter period it should be **drained completely** and store pump in a dry location. Do not replace the drain plug. Store it in a safe place when not use. An example would be store plug in the filter tank basket.

When you re activate the pump ensure all seals and o-rings are in operational condition, re-grease if necessary, replace if unsure of condition.

Check that the motor shaft moves freely before re-activation.

▲WARNING

1. When connecting electric cables to the motor of the pump, be careful to correctly arrange them inside the connection box, verify that no bits of cable are left inside the box on closing it. **See that the ground wire is correctly connected**. When connecting the motor, follow the wiring diagram supplied with the pump.
2. Be especially careful **that no water enters the motor or electrical parts under voltage**.
3. In the event that the planned use is not as specified, adaptations and supplementary technical rules may be necessary.
4. Before starting the pump, verify the calibration of the electrical protection devices of the motor and that the protections against electrical and mechanical contacts are correctly positioned and attached.
5. It is advisable to follow the steps listed below before handling the pump in any way.
   a) Turn off the voltage to the pump.
   b) Lock starting devices.
   c) Verify that there is no voltage in the circuits, including ancillary devices and auxiliary circuits.
   d) Wait until motor stops completely.

The above list should be considered indicative and not binding for the purpose of safety;specific safety rules may exist in particular regulations.

REGULARLY VERIFY

1. The correct attachments of the mechanical parts and of the support screws of the pump.
2. The correct position, attachment and condition of the supply cables and of the insulating parts.
3. The temperature of the motor. In the event of any excessive high, stop immediately and have it repaired.
4. The vibration of the pump. In the case of any excessive high, stop immediately and have it repaired.

▲CAUTION

Owing to the complexity of the cases covered, the instructions for installation, use and maintenance contained in this manual do not attempt to examine all possible and imaginable cases of service and maintenance. If supplementary instructions are required or if special problems arise, do not hesitate to contact the distributor or to address directly the manufacturer of the pump.

TECHNICAL DATA

TYPE	Input power	H. Max	Q. Max/min	V	HZ	IP	REMARK
72512	250	6M	132L	220~240	50	IPX5	Single- speed
72513	250	6.5M	125L				
72514	400	8.5M	170L				
72515	400	9M	166L				
72520	530	9M	192L				
72521	530	11m	183				
72527	550	7.5M	240L				
72528	600	8M	265L				
72529	1000	10M	280L				
72530	1100	11	296L				
72542	800	12M	250L				
72543	1000	13M	300L				
72544	1400	14.8M	360L				
72547	1000	15M	313L				
72548	1500	18M	380L				

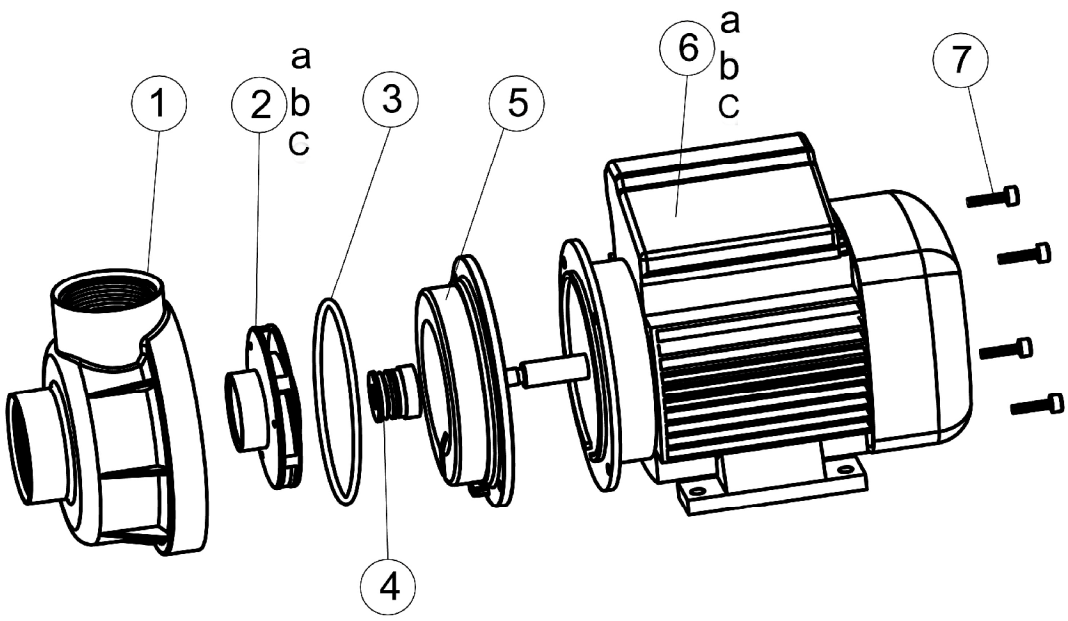
TROUBLE SHOOTING

SYMPTOMS	PROBABLE CAUSE	WHAT TO DO
Pump will not prime	Suction air leak	Make sure water level is correct through suction points. Ensure baskets and strainers are free of debris. Tighten all fittings/unions on the suction side of the pump, remove and replace mechanical seal.
	No water in the pump	Make sure the filter tank if full
	Closed valves or blocked lines	Open all valves in system, clean skimmer and pump basket,check pump impeller of blockage
Motor will not run	No power to motor	Check that all electrical switches are on. Ensure the circuit breakers are properly set. Check if timer is set properly. Check motor wiring at terminals
	Pump jammed	With power switched off turn pump shaft(should spn freely).
Low flow	Dirty filter	Backwash or clean cartridge.
	Dirty skimmer and pump strainer	Clean skimmer and pump strainer.
	Suction air leak	See 1
	Closed valve or blocked line	See 1
Motor runs hot	Low or incorrect voltage	Supply to be correct by electrician. Motors running hot to touch is normal. Thermal overload protector will function to turn them off if there is an overload or excessive high temperature problem.
	Installed in direct sunlight	Shield from wheather
	Poor ventilation	Do not tightly cover or enclose motor
Noise pump operation	Bad bearing	Have electrician replace
	Air leak in suction	See 1
	Suction blockage	Locate and clean blockage
	Disturbance in impeller	Contact supplier
	Cavitations	Improve suction, reduce suction lift, reduce number of fittings, increase pipe size, increase discharge pressure and reduce flow by throttling discharge valve.
Motor overload cuts out	Motor not connected properly	Have electrician check wiring.
	Low incoming voltage	Voltage at motors should be no more than 6% above or below nameplate voltage. Have electrician check voltage, ensure pump is not running on an extension cord, Report low supply to authorities.
	Over load due to binding in pump or wrong size impeller	Contact supplier
Leaking	Leak between pump housing and pump cover	Change a new O-ring between pump housing and pump cover
	Leak between pump and motor	Change a new pair of mechanical seal

▲WARNING

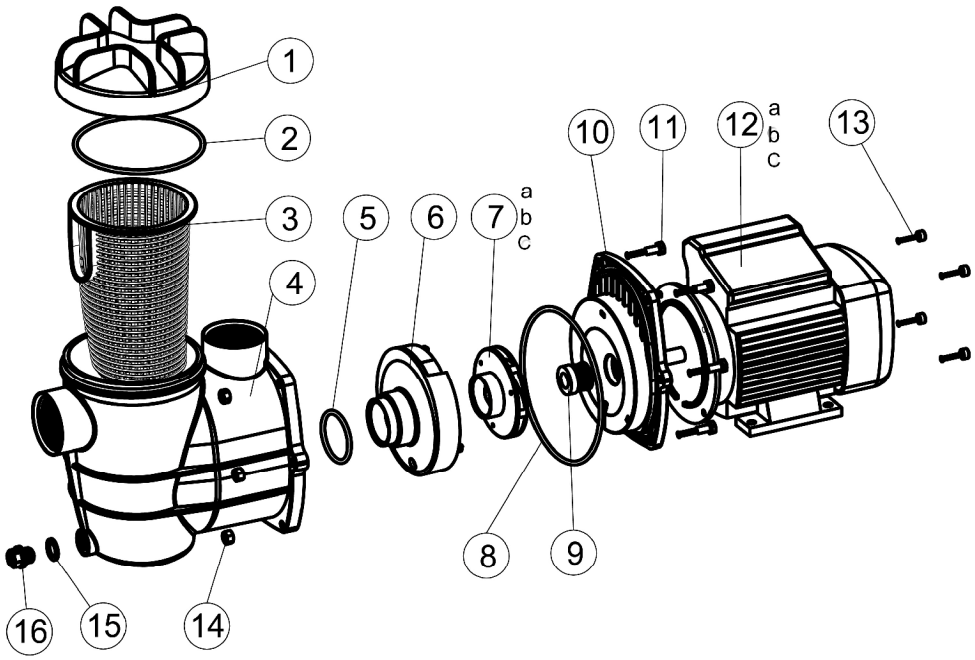
If the pump is within the stated warranty period and you experience faults always contact your supplier. Failure to do this may void warranty. Refer to warranty documentation supplied with pump.
All electrical work is to be carried out by a Qualified Electrician; under no circumstances should you attempt repairs on the electrical components of pumps unless you are qualified to do so.

Parts Listing: 72512 / 72514/72520



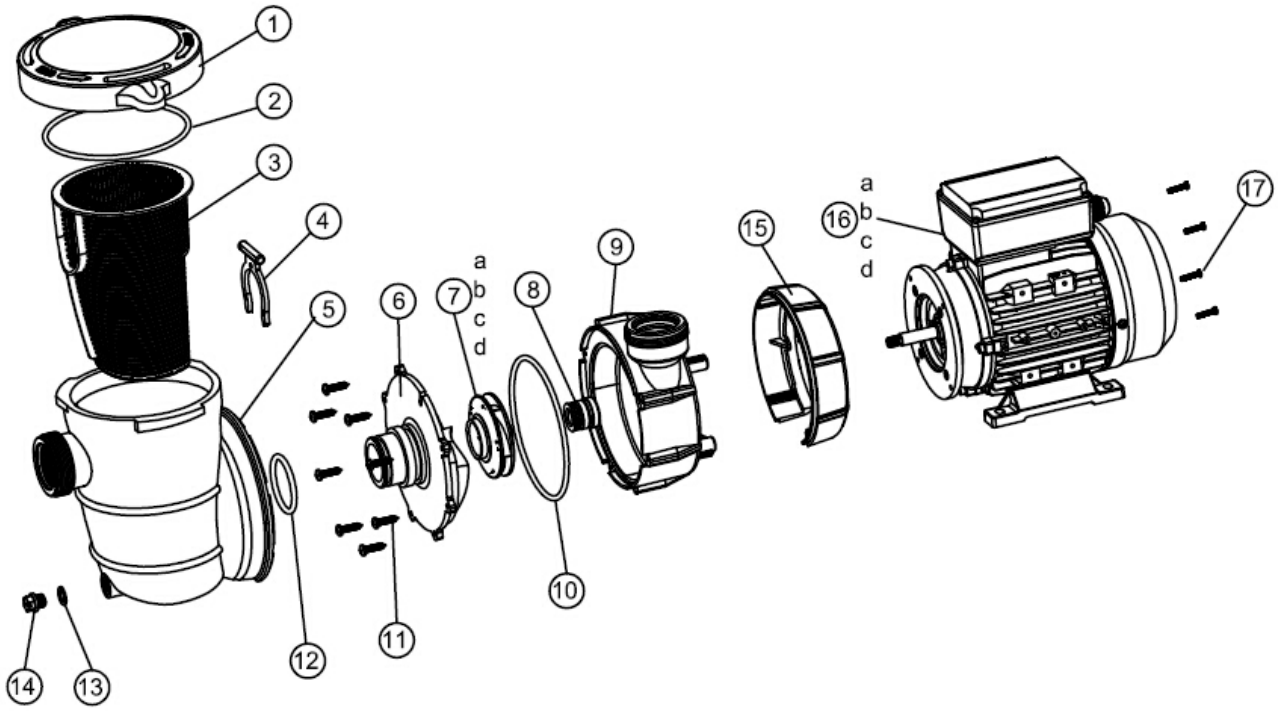
Ref. No.	Part No.	Description	QTY
1	647251201080	Pump housing	1
2a	647251271000	Impeller for 72512	1
2b	647251571000	Impeller for 72514	1
2C	647252171000	Impeller for 72521	1
3	65431069080	o-ring	1
4	65028013000	Seal assembly	1
5	647251202080	Pump cover	1
6a	65023010000	0.25HP motor for 72512	1
6b	65023011000	0.35HP motor for 72514	1
6C	65023154000	0.5HP motor for 72521	1
7	65224024000	Screw M5X20	4

Parts Listing: 72513 / 72515/72521



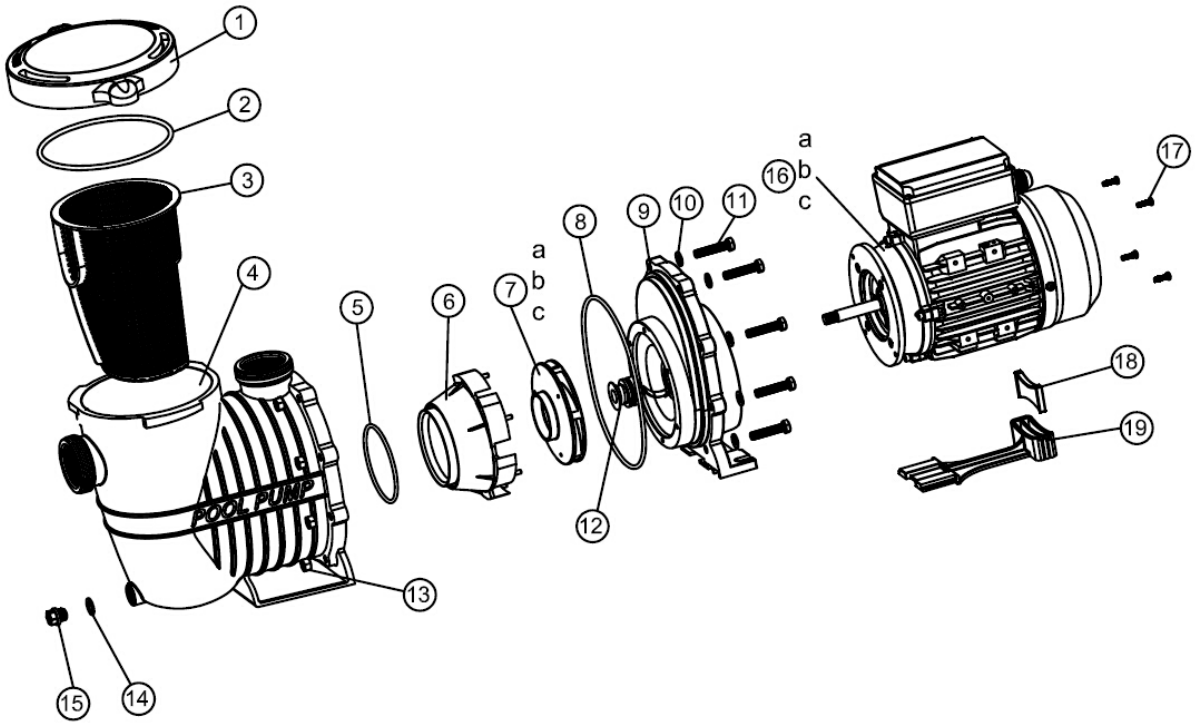
Ref. No.	Part No.	Description	QTY
1	647251503000	Cover	1
2	65431071080	o-ring	1
3	647251507001	basket	1
4	647251501080	Pump housing	1
5	65431070080	o-ring	1
6	647251504080	diffuser	1
7a	647251271000	Impeller for 72513	1
7b	647251571000	Impeller for 72515	1
7C	647252171000	Impeller for 72521	1
8	65431037080	o-ring	1
9	65028013000	Seal assembly	1
10	647251502080	Pump cover	1
11	65224004000	Screw M6X25	6
12a	65023010000	0.25HP motor for 72513	1
12b	65023011000	0.35HP motor for 72515	1
12C	65023154000	0.5HP motor for 72521	1
13	65224025000	Screw M5X14	4
14	65231002000	Nut M6	6
15	65432002080	gasket	1
16	88601007000	Drain plug	1

Parts Listing: 72527/72528 / 72529 / 72530



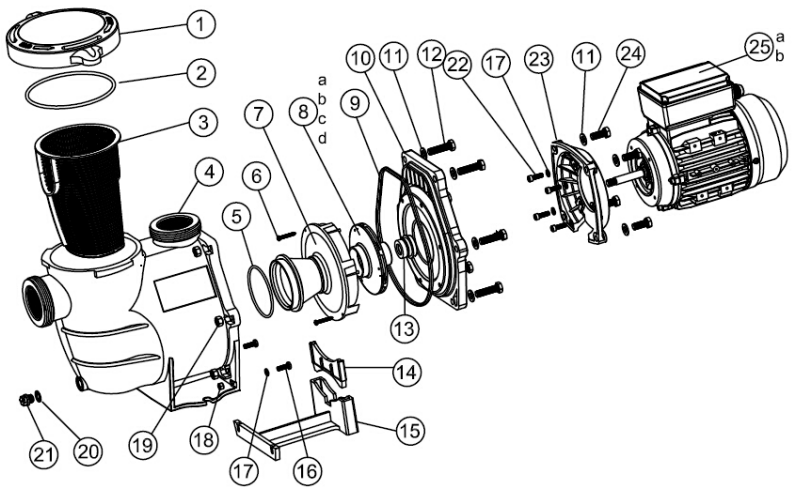
Ref. No.	Part No.	Description	QTY
1	647252772000	Cover	1
2	65431042080	o-ring	1
3	647252704001	Basket	1
4	647252705080	Clip	1
5	647252703080	Strainer housing	1
6	647252702080	Pump cover	1
7a	647252771	Impeller for 72527/72528	1
7b	647252971	Impeller for 72529/72530	1
8	65028003000	Seal assembly	1
9	647252701080	Pump housing	1
10	65431040080	o-ring	1
11	65212016000	Screw ST5.5X25	8
12	65431029080	O-RING	1
13	65432002080	gasket	1
14	648860105080	Drain plug	1
15	647252708080	Motor mounting plate	1
16a	65023001000	0.5HP motor for 72527	1
16b	65023002000	0.75HP motor for72528	1
16c	65023003000	1.0 HP motor for 72529	1
16d	65023004000	1.5HP motor for 72530	1
17	65226020000	Screw P+8#-32*5/8 UNC	4

Parts Listing: 72542 / 72543 / 72544



Ref. No.	Part No.	Description	QTY
1	647252772000	Cover	1
2	65431042080	o-ring	1
3	647252704001	Basket	1
4	647254201080	Pump housing	1
5	65431032080	o-ring	1
6	647254203080	Diffuser	1
7a	647254271	Impeller for 72542	1
7b	647254371	Impeller for 72543	1
7c	647254471	Impeller for 72544	1
8	65431075080	o-ring	1
9	647254202080	Pump cover	1
10	65244005000	gasket M8	8
11	65221009000	Screw M8X40	8
12	65028003000	Seal assembly	1
13	6523100 4106	Nut M8	8
14	65432002080	gasket	1
15	648860105080	Drain plug	1
16a	65023002000	0.75HP motor for 72542	1
16b	65023003000	1.0HP motor for 72543	1
16c	65023004000	1.5HP motor for 72544	1
17	65226020000	Screw P+8#-32*5/8 UNC	4
18	647254205080	Supporting	1
19	647254204080	Mounting foot	1

Parts Listing: 72547 / 72548



Ref. No.	Part No.	Description	QTY
1	647252772000	Cover	1
2	65431042080	o-ring	1
3	647252704001	Basket	1
4	647254701080	Pump housing	1
5	65431032080	o-ring	1
6	65212025000	Screw ST4.2X38	2
7	647254703080	Diffuser	1
8a	647254771	Impeller for 72547	1
8b	647254871	Impeller for 72548	1
9	65431074080	o-ring	1
10	647254702080	Pump cover	1
11	65244015000	Gasket M10	6
12	65225003000	Screw 3/8-16*1 1/2 UNC	6
13	65028014000	Seal assembly	1
14	647254705080	Foot insert wfe pump	1
15	647254704080	Mounting foot	1
16	65224003000	Screw M6X20	2
17	65244016000	Gasket M6	2
18	65231002106	Nut M6	2
19	65232001106	Nut 3/8-16	6
20	65432002080	Gasket	1
21	648860105080	Drain plug	1
22	65224003000	Screw M6*20	4
23	647254706	Motor flange	1
24	65221008000	Screw M10*25	4
25a	65023015000	1.0HP motor for 72547	1
25b	65023016000	1.5HP motor for 72548	1