

SUBMERSIBLE PUMP SERIES INSTRUCTION MANUAL



Please read the instructions carefully before installation, and keep it for reference.

1.Warning

-Read and follow all instructions.

-Warning Risk of electric shock - This pump is supplied with a grounding conductor and grounding type attachment plug.

To reduce the risk of electric shock, be certain that it is connected only to properly grounded, grounding-type receptacle.

-Warning To reduce the risk of electric shock, use only on portable self-contained fountains.

-Caution This Pump Has Been Evaluated for Use With Water Only.

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

-A suitable protection switch must be installed in the electrical circuit of the pump, and the switch specifications should be in accordance with the pump nameplate nominal current 1.5 times the selection.

-All the wiring should be installed according to the local standard or law by professional electrician who hold the Electrician Skill Certificate. Pump must be reliably earthed.

-To reduce the risk of electrical shock, do not permit children to use this product.

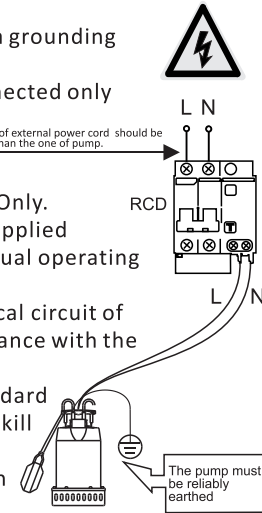
-Power connection can not be buried in the ground, wire positioning is necessary as to avoid damage from mowing or other machine.

-To reduce the risk of electrical shock, once damaged cable is found and must be changed immediately.

-To reduce to risk of electrical shock, any cable extension is not permitted.

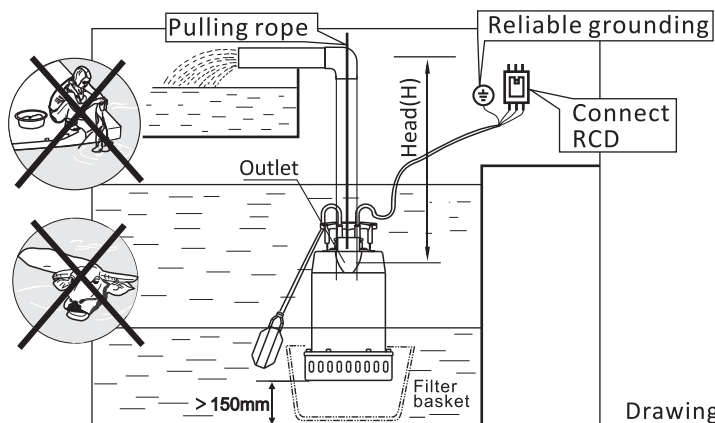
-No pumping flammable, explosive liquid.

The size of external power cord should be double than the one of pump.



2.Installation diagram

Attention: when this product operation, it is prohibited in the water to wash, grazing, swimming, children are prohibited in the vicinity of the water to play and so on.



Drawing 1

11.Trouble shooting

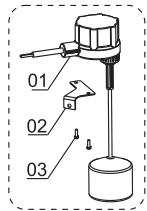
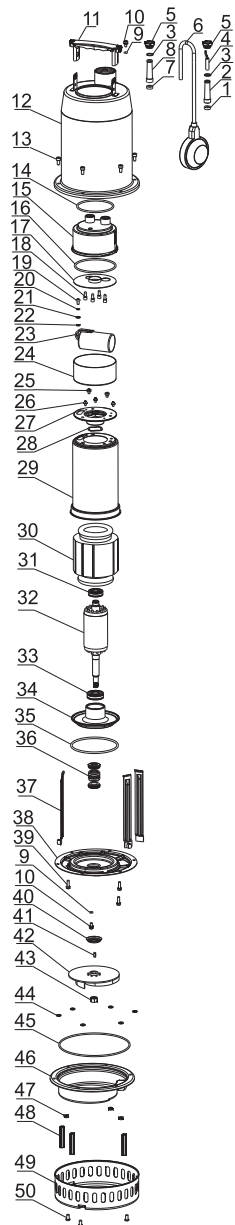
Problem	Possible reasons	Solution
start difficultly	-Low voltage. -Lack of phases . -Impeller is blocked . -Voltage drop too much. -Stator winding burn out.	-To adjust the voltage to rated value about $\pm 10\%$ tolerance. - To check the wiring of switch and cable , plug. -To clean sundries. - To choose right cable. - To change the stator winding.
Insufficient water	-pump lift too high -Net cover is blocked -Impeller abrasion -The immersed depth is too low. Some air is absorbed. -Impeller rotation is not correct	- To make sure the lift within operation condition. - To clean the water grass etc. -To replace the impeller. - To change the immersed depth , not less than 5 meters. - To exchange the connection of any two phase power cords.
Suddenly not working	-Switch is off or fuse is burned down. -Impeller is blocked . -Windings of stator are burned .	- To check if the voltage of power meet to the operation standards. And adjust it if not. - To clean sundries. -To replace the windings of stator .
Stator winding burn out	- Lack of phase. Running long time. -Mechanic seal is damaged to leak water. Which causes current shorten. -Impeller is blocked. -Pump start very frequently or running pump is long time when no water. -Running pump is under overload.	To eliminate the fault listed. Remove the winding and replace with new winding, then take insulation varnished treatment and dry it or send the pump to after sale service department.



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. children should be supervised to ensure that they do not play with the appliance.

Type y attachment damaged supply cords to be replaced by the manufacturer, service agent or similarly qualified person to avoid hazard.

10.Exploded drawing



01	Float switch
02	Bracket
03	Cross recessed pan head screws

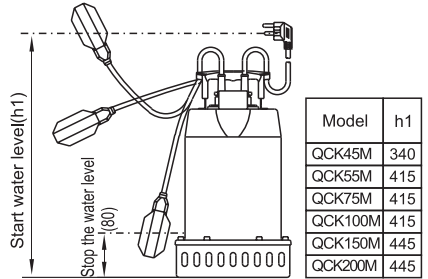
NO.	Name
1	The fixed clip of Cable
2	Cable head
3	Cable clamp
4	Cable
5	Press nut
6	Float switch
7	The fixed clip of Cable
8	Cable head
9	O-ring
10	Cross recessed pan head screws
11	Handle
12	Housing assembly
13	Hexagon socket head cap screw
14	O-ring
15	Capacitor cover
16	O-ring
17	Upper part of terminal box
18	Terminal
19	Cross recessed pan head screws
20	Spring washer
21	Spring washer
22	Serrated lock washer external teeth
23	Capacitor
24	Bottom part of terminal box
25	Cross recessed pan head screw and washer assemble

NO.	Name
26	Cross recessed pan head screws
27	Back Cover
28	The three wave
29	Motor base
30	Rotor assembling
31	Bearing
32	Rotor assembling
33	Bearing
34	Front Cover
35	O-ring
36	Mechanical Seal
37	Tension rod
38	Pump Casing
39	Cross recessed pan head screws
40	Protective cover
41	Key
42	Impeller
43	Hexagon Nut
44	Washer
45	O-ring
46	Pump casing
47	Hexagon Nut
48	Base connection block
49	Base
50	Cross recessed pan head screws

Automatic float working principle: when water level rise to the fixed height, the automatic float is connected and operate, the pump begin operation; when water level goes down and lower than the fixed height, the automatic float is cut off power and pump stop operation.

3.Application

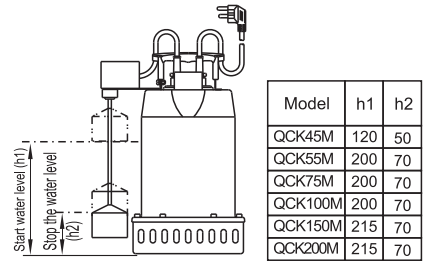
This pump is completely sealed by water proof. IP68 protection. With thermal protector .
 It's used for fish pool, waterfall, filtering, drainage, agriculture, etc.
 Liquid: clean water , sea water.
 Note: The power supply voltage and frequency, see the pump nameplate



4.Operation Condition

Pump can be continuous running under below condition:

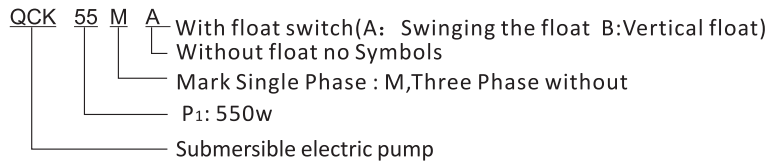
- Liquid temp is less than +50°C
- non corrosive liquid with less sand and sludge;
- The Max. solid impurities size is 10mm
- Immersed depth is not more than 5m.



Pump start and shut off Schematic diagram of water level

5.Symbols and parameter

1.Model Description

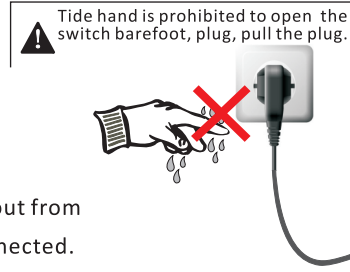


2. Specification

Model	Power P ₂ (W)	Max Flow (m ³ /h)	Max Head (m)
QCK45M(A)	250	9	7.5
QCK55M(A)	370	13	11
QCK75M(A)	550	15	13.5
QCK100M(A)	750	16.5	15
QCK150M(A)	1100	18	18
QCK200M(A)	1500	20	19

6. INSTRUCTION MANUAL AND WARNING

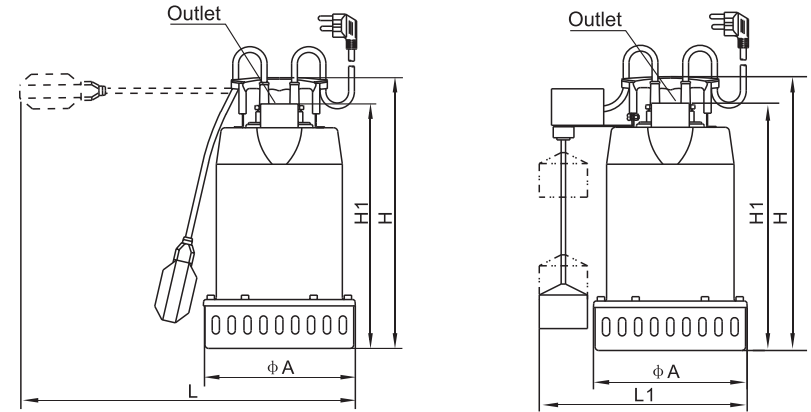
- Don't pull the cable or hang the pump with the cable. Use the sling to put the pump down into water.
- Make sure the cable and the plug is in good condition before starting the Pump. Check the bolts not loose and not oil oozes out from the pump and make sure the water pipe is well connected.
- Check power supply is in conform to the pump name plate.
- Power must have the leakage protection switch, pump must ground connected and the insulation resistance should not be less than 50MΩ.
- Use a bigger power cord (not smaller than the pump power cord) if the power supply is in long distance.
- Start the pump in no load situation to check the pump starts good and the Rotation is correct (If the three phase pump rotation is not correct, exchange the connection any two phase power cords.)
- Put the whole pump into the water vertically, water depth less than 5 meters .Mark obvious sings of electronic shock when the pumps works, and not allow swimming or grazing nearby. Pump should not move before the power is cut off.
- Don't let the pump froze in winter.



7. Maintenance

- Regularly check the insulation resistance between winding and pump casing; it should be bigger than 1MΩ.
- When pump works reach 2500 hours, check the under follow maintenance method Disassembly the pump and check the wearing parts like mechanical seal , bearing, impeller etc., replace a new part when damage parts is found. Do leakage test under 0.2MPA for 3 minutes after replace the seals, no leakage should be found. Replace with new #7 machine oil (Fill 95% of the oil cavity).
- Pump is not suitable in water when it is unused for long time, it should be storage in dry and ventilated place. If the pump has serviced for long time, run the pump with clean water and clear the obstacles, dry the pump and repaint if needed before storage.

8. Dimension Drawing



Model	H	H1	L	L1	A	Outlet
QCK45M(A)	273	231	380	242	167	G1.25" or G1"
QCK55M(A)	360	324	485	285	211	G1.5"
QCK75M(A)	360	324	485	285	211	G1.5"
QCK100M(A)	360	324	485	285	211	G1.5"
QCK150M(A)	375	339	500	285	211	G1.5"
QCK200M(A)	375	339	500	285	211	G1.5"

9. Performance curves

