



# ***GOL PUMP SURFACE CENTRIFUGAL PUMP***

## ***OPERATION MANUAL***

### **Cast Stainless Steel Pump with semi-open impeller**



**Sarias : GCVQ**

## **■ FOREWORD**

We appreciate your selection of Showfou pump. Before undertaking any operation, please read this manual carefully to ensure that the pump is installed correctly and is used safely. If you have any questions regarding damage or technicalities, please contact our authorized dealers, or you may ask the technicians who are specialized in electric machinery. To ensure the pump is in good condition, please use it correctly. Please keep this manual in an easily accessible location.

**Before installing the pump, please read all the following instructions for correct installation guidance.**

## **⚠ WARNING**

1. Electrical installation should be complied with local electrical code.
2. The pump is not to be used by persons (including children) with reduced physical, sensory or metal capabilities, or lack of experience and knowledge.  
It must be installed by a qualified electrician.
3. The pump must be connected to an approved electrical box as per the local electrical code.
4. The electrical box must have a motor-control switch.
5. Model 0511, and 0512 (0.5hp, single phase) pump has built-in thermal motor protector. If the pump is not provided with motor protection, the pump must be protected from overload and over current conditions per the local code during the installation.

**To reduce risk of the hazards that can cause any serious injury or property damage, observe the following precautions**

## **WARNING**

- **Make sure** the pump is not to be installed in locations classified as hazardous in accordance with the National Electrical Code, ANSI /NFPA 70.
- **Do not** expose the capacitor base to the rain or snow.
- **Do not** operate the pump or control unit if it has been damaged.
- **Notice:** This pump has been evaluated for use with water only.
- **Notice:** This pump is designed for transferring clean water and noncorrosive liquids only.

## **CAUTION**

- The pump cannot be used to transfer any liquids with corrosive, high density matters and lubricant oil. It will cause damage to the pumps and decrease overall performance when transferring faulty liquid as a result.

## **CAUTION**

- Electrical installation should be carried out in accordance with the local electrical regulations and standards. Make sure that the electricity supply has been switched off before electrical connection.

## **OPERATION AND MAINTENANCE INSTRUCTION**

### **(A) Before Operation**

- (1) Electrical specifications are shown on the pump nameplate (voltage, hertz). Please verify the local power supply voltage and hertz are matched with the pump requirements.
- (2) Motor must be connected to a motor-protective circuit breaker which can be manually reset. Set the motor-protective circuit breaker according to the rated current of the motor. The precaution notice has been marked on nameplate of the pump.

## **CAUTION**

- (3) Please install a Ground Fault Circuit Interrupter (Leakage Circuit Breaker) in circuit to ensure the safety operation. Due to long-term use, the cable may be worn out to have deflection of the surface, leading to electrical accidents. Therefore, the Ground Fault Circuit Interrupter(Leakage Circuit Breaker) is an important device.
- (4) For the first installation, be sure to prime the pump before starting. Never run the pump without the water inside the pump housing, which will damage the mechanical seal and may cause the motor to get burnt.
- (5) **Properly** locate the pump during the transportation, and ensure the pump is not cracked.
- (6) **Examine** if the pump is running normally when the power starts on. If the pump could not run smoothly, please check whether the impeller is squeezed because of rust.

- (7) **Make sure** the pump is rotating in a proper direction, refer to the rotation stickers or engraving, usually on our pump casing which indicate the direction it should run. Give your pump a quick bump of power and check that the shaft is rotating in the same direction as the label.

In general, our pumps run in a clockwise rotation (viewing from motor end to the pump impeller)

(a) Single phase motor: It has a fixed rotating direction in spite of wire connection.

(b) Three phase motor: if the pump is rotating in the wrong direction, the fix often consists of switching any two(2) of the three(3) wires respectively in the power supply terminal connection.

Note: If the motor turns reversely, abnormal sound and vibration could be noticed; and the water volume is obviously reduced. Thus, the motor's life be shortened eventually.

## **(B) During Operation**

No matter what kind of pump, it always accompanies with a normal sound while the pump works. Any abnormal sound, vibration, amperage, or less water output, is the signal of latter breakdown. If any unusual signals are noticed, please immediately switch off the power to stop the pump.

Refer to the [next page](#) for trouble-shooting.


## **(C) After Operation**

- (1) **Do not** touch the electric pump unless the power has been cut off for at least five minutes because of the residual voltage.
- (2) **Do not** leave the pump in water when the pump would not be used for a certain period of time, so as to prevent interior/exterior surface being rusted by water.
- (3) Wash the pump in clean water by running it for a few minutes; clean up material in strainer or on impeller. Store the pump in dry place after fully dried.

## **(D) Warranty**

- (1) All of our distributors will reserve sufficient spare parts for servicing the customers. This will provide the users with quick, better replacement and maintenance.
- (2) Any failure caused by human-error, incorrect power source or natural disaster; is out of our liability of warranty

## ■ TROUBLE SHOOTING

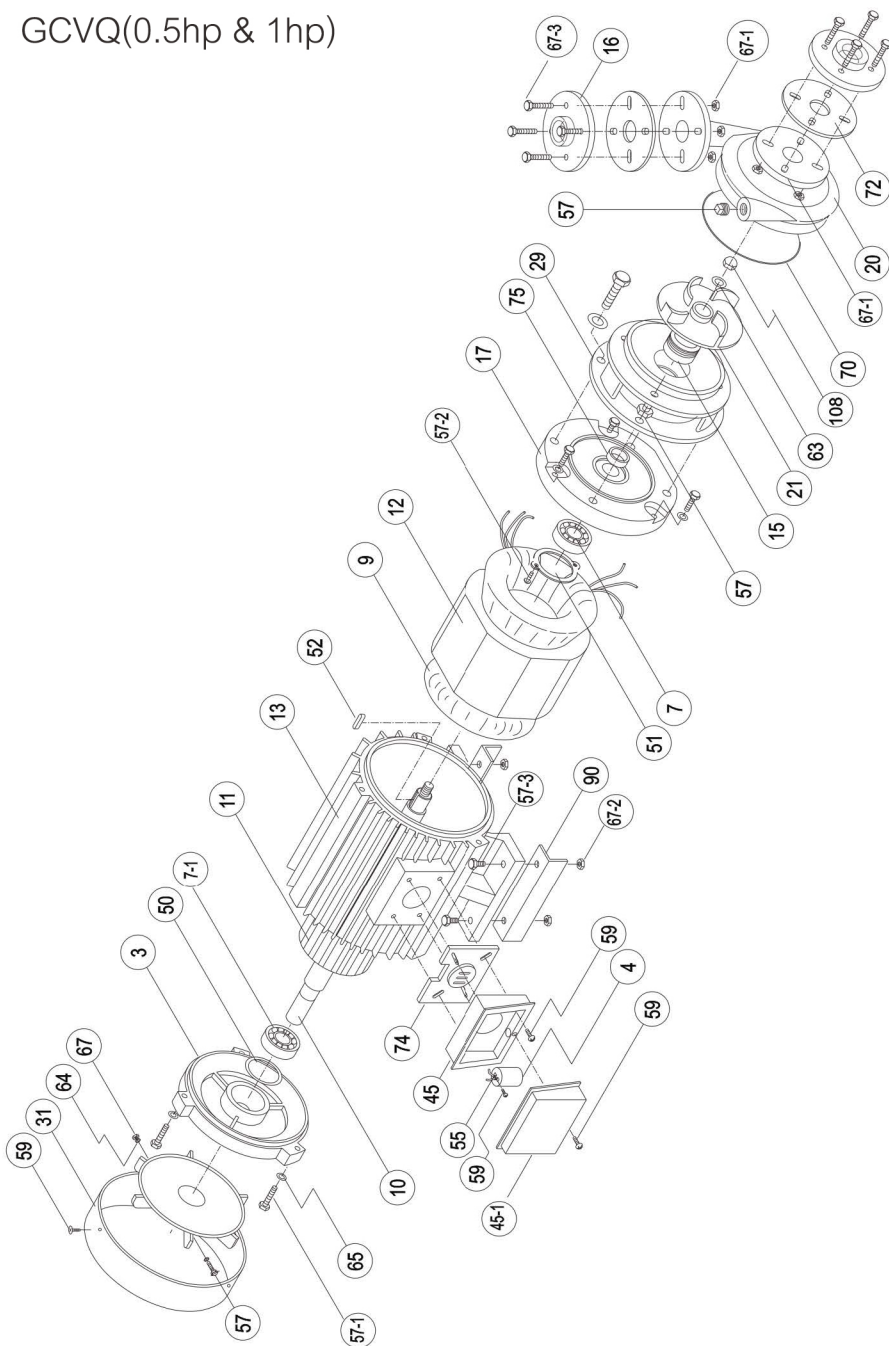
 **WARNING** Before inspecting the pump, make sure to disconnect the electrical power to prevent serious accidents.

PROBLEM	CAUSES	RECOMMENDED SOLUTIONS
<b>Pump Fails to Start</b>	Open circuit or poor cable connection.	Check to properly connect the cable.
	Voltage drop due to cable extension	Change cable to a larger size, or shorten the extension
	The impeller is locked	Inspect and remove the foreign objects.
	Phase interruption	Inspect connections and the external magnetic switch.
<b>Motor Protector Trips</b>	Overburden due to heavy sand water	Use mesh guard or replace with a higher power pump.
	The Impeller is locked.	Inspect and remove the foreign objects.
	Phase Interruption	Inspect connections and the external magnetic switch.
	A 50Hz pump is used at 60Hz.	Check the nameplate and replace the pump.
	Motor protector malfunction	Replace a new one.
	Pump has been operating for a long time while exposed to air.	Stop the pump, and increase the water level.
<b>Low Pumping Volume</b>	The impeller is worn out.	Replace a new impeller or a suction cover.
	The strainer or impeller is clogged.	Remove the foreign objects.
	There is a leak in the piping	Repair or replace a new pipe.
	A 60Hz pump is used at 50Hz.	Check the nameplate and replace the pump.
	The motor rotates in reverse	Interchange two of the three wires.
<b>Pump Makes Noise or Vibration</b>	Worn bearing or damaged Impeller.	Inspect and replace the parts.
<b>Leakage in Motor Casing</b>	The mechanical seal is worn out.	Replace a new mechanical seal.
	Oil seal or gasket is worn out	Replace a new one oil seal or gasket.
<b>Amperage Overload</b>	Abnormal voltage or voltage drop	Check the power to ensure the voltage matches with the nameplate.
	The motor rotates in reverse.	Interchange two of the three wires
	Phase interruption	Inspect connections and the external magnetic switch.
	A 50Hz pump is used at 60Hz.	Check the nameplate and replace the pump.
	The motor bearing is damaged.	Disassemble the motor and replace a new bearing.
	The pump or the impeller is clogged.	Remove the foreign matters.
<b>Leakage Circuit Breaker is Activated</b>	Worn mechanical seal	Replace new mechanical seal.
	The cable is damaged.	Replace a new cable.
	The motor is burned.	Replace a new motor.



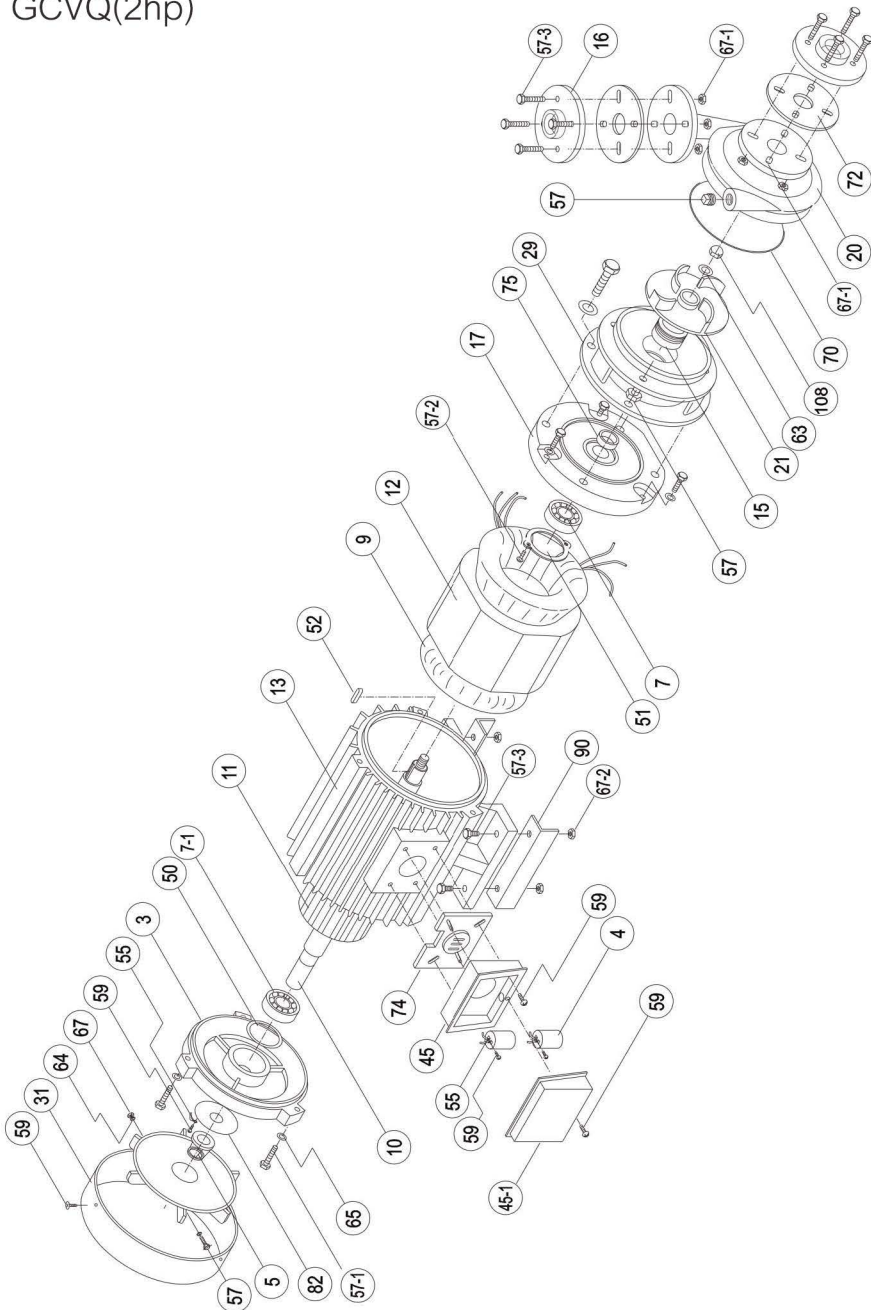
## EXPLODED DIAGRAM : Single Phase

GCVQ(0.5hp & 1hp)

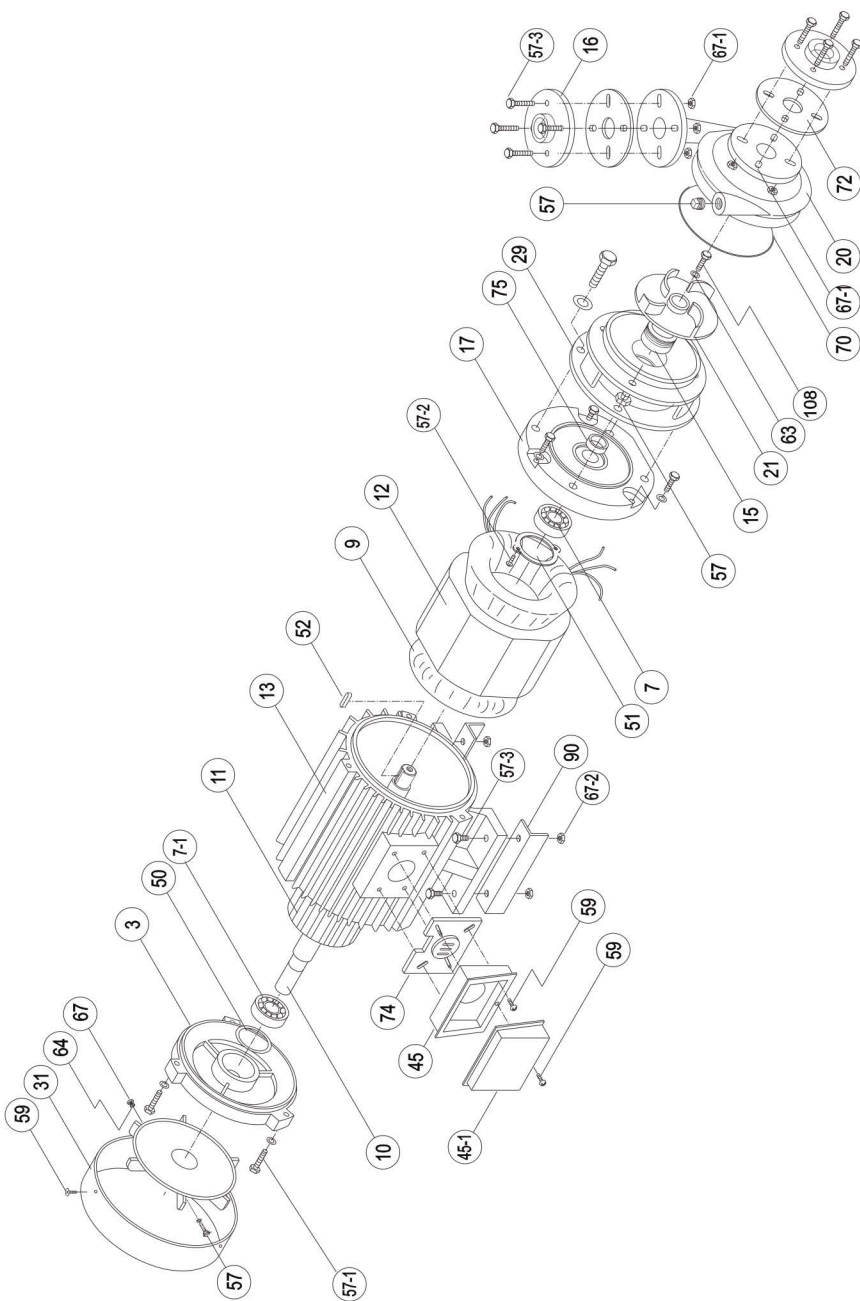


### ■ EXPLODED DIAGRAM : Single Phase

GCVQ(2hp)



## EXPLODED DIAGRAM : Three Phase



## ■ PART LIST

No.	PART NAME	No.	PART NAME	No.	PART NAME
3	Motor Head Cover	20	Pump Casing	64	Spring Washer
4	Capacitor	21	Impeller	65	Washer
5	Centrifugal Switch	29	Pump Bracket	67	Nut - Imperial
7	Bearing	31	Fan Cover	70	O-Ring
9	Coil + Stator	45	Terminal Box	72	Rubber - Outlet
10	Shaft + Rotor	50	Waved Washer	74	Rubber - Outlet
11	Rotor	51	Bearing Cover	75	Rubber - Shaft
12	Stator	52	Key	82	Fixed Point
13	Motor Casing	55	Terminal	90	Motor Base
15	Mechanical Seal	57	Hex Bolt - Imperial	108	Cap Nut
16	Flange Setter	59	Bolt - Imperial		
17	Motor Lower Cover	63	Washer		