



SeaWater Pro WATERMAKERS

Assembly & Parts Brochure
for Single, Dual & Triple
Membrane Desalination Units



3233 SW 2nd Ave. Ste 200 Fort Lauderdale FL. 33315
954.800.8800 • seawaterprollc@gmail.com • www.seawaterpro.com



TABLE OF CONTENTS

Diagrams	1-3
Inventory List	4-6
Assembly	7
Pressure Regulator No Remote	8-11
Pre-Filters	12
Optional Remote Control	13
Start Up Procedure	14
Shutdown Procedure	15
Rinsing	16
Maintenance	17
Troubleshooting	18
Frequently Asked Questions	19
Component Dimensions	20-21

SINGLE MEMBRANE WITH PANEL



Overboard Line



Seawater Strainer
not included



Make sure you connect boost pump to sea strainer or you will clog the the boost pump



DUAL MEMBRANE WITH PANEL



Seawater Strainer
not included



Overboard Line

Make sure you connect boost pump to sea strainer or you will clog the the boost pump

SINGLE MEMBRANE WITHOUT PANEL



Overboard Line



Seawater Strainer
not included



Make sure you connect boost pump to sea strainer or you will clog the the boost pump



High Pressure Pump



High Pressure Motor
(Style & Color May Vary)



High Pressure Pump Mounting Bolts
& Vented Cap / Dipstick



Salt Water Boost Pump
(12v, Brushless Pump)



High Pressure Membrane
(x2 for Double Membrane)



w/ guage =
no remote



5 Micron, 20 Micron,
& Carbon Filter

INVENTORY LIST



Remote Panel (Optional)
Teak , Black, White or Graphite



6' (2m) High Pressure Hose (Blue)
(Remote Option Comes with 2 Hoses)



3/8" ID Overboard Hose (Clear)



3/8" OD Fresh Water Tubing (White)



1/2" OD Tubing (Blue)



1/4" Panel Low Pressure Tubing (Blue)
(Panel Only)



8in High Pressure Loop Hose
(Dual Membrane Only)



2 Way Valve Assembly



Low Pressure Gauge T Connector
(For Panel Only)



Low Pressure Gauge T Connector
(For No Panel Only)



Automatic Rinse Timer
(Requires 2 x AA batteries)



Flow Meter (No Panel)
Pressure Regulator
TDS Monitor



3'' Hex Nipple (No Panel)



Stainless Steel Elbow (No Panel)



[Fig. 1]

- 1). Insert Key Way into Motor.
- 2). Use grease to prevent erosion.



[Fig. 2]

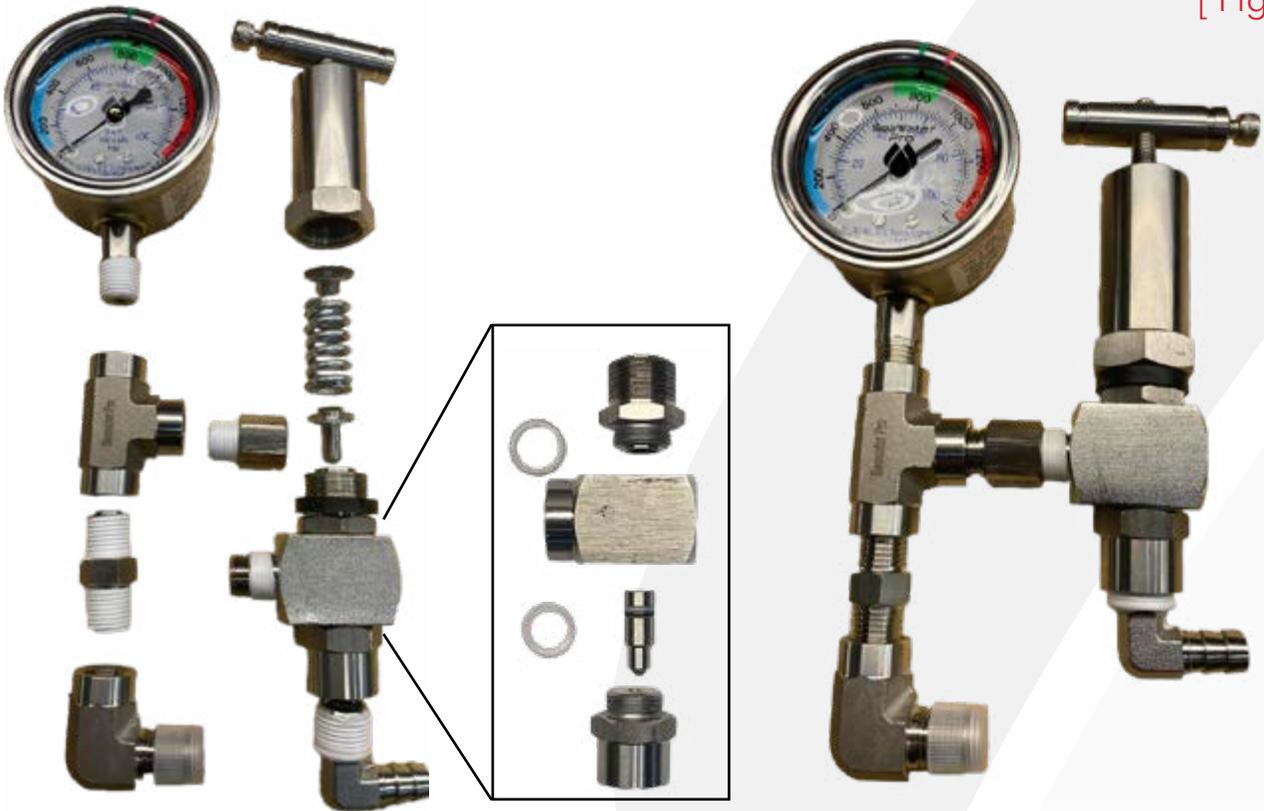
- 3). Secure firmly using 4 bolts. Tighten firm but do NOT over tighten (3/8-16)



- 4). Replace Red Cap on Motor w/ Vented Dipstick

REMOTE PRESSURE REGULATOR: (No panel Only)

[Fig. 3]



1. Unbox Pressure Regulator, wrap ALL threads shown with teflon tape 10 rounds & assemble firmly.

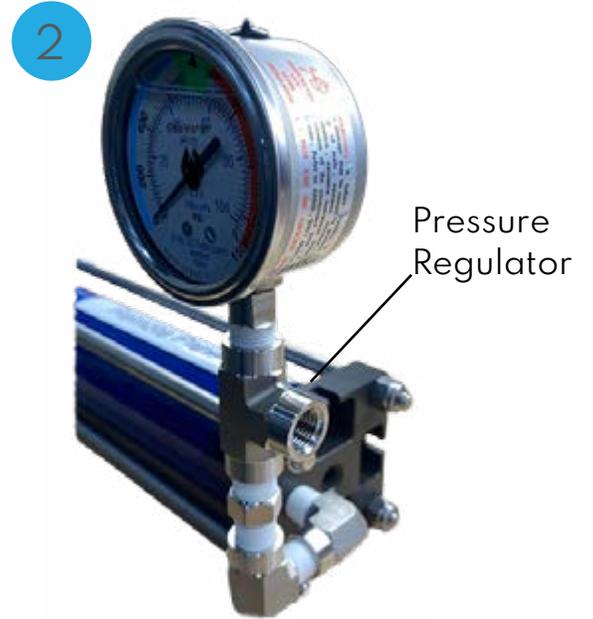
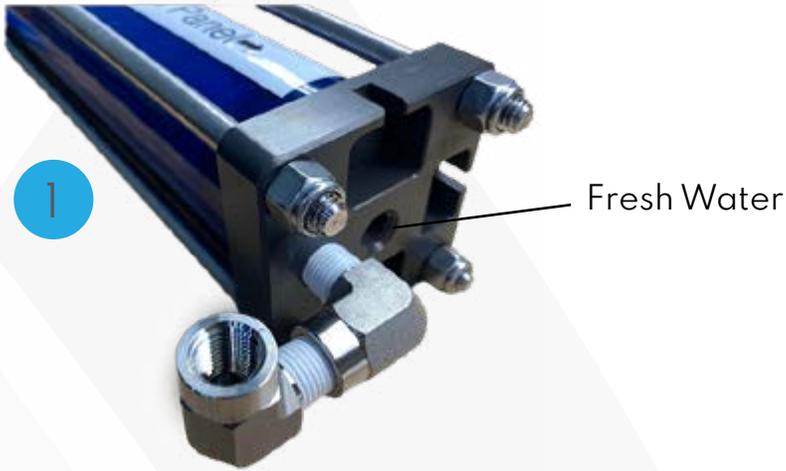
NOTE: Firm but not too tight is ok, as long as no water is leaking.

DO NOT attempt assembly without teflon tape, it may damage threads.

Unscrew red cap and replace with 3/8 push connect.



[Fig. 4]



[Fig. 5]



[Fig. 6]

Finished Assembly (on Single Membrane)



[Fig. 7]

You may stack the membranes using the provided groove. 1/4" or 6mm



[Fig. 8]

Finished Assembly
(on a Double Membrane)

NOTE: Pressure Regulator on double goes on bottom right side



From High Pressure Pump

Priming Pump:

[Fig. 9]



Remove shipping cap if necessary by twisting

3 / 4 Barb
Seawater input

1/2 in Push
to Connect



Wrap as shown 10 rounds with teflon and assemble firmly.

Do NOT over-tighten plastic parts they may break.

PRE FILTER ASSEMBLY:

[Fig. 10]



Water Input —

ASSEMBLED

Low Pressure
Gauge or
1/4 PTC —



Inlet from
Boost Pump

CONTROL PANEL:

[Fig. 11]

Splash Guard not available on 12V /24V DC systems

FRONT OF PANEL



3/8" Clear - Brine Water Over-Board

Pressure Regulator

BACK OF PANEL

To Water Tank

1/4" for Low Pressure

Flow Meter Input

TDS Sensor



High Pressure Hose

3/8" Fresh Water Tubing

1). Turn ON primer pump, run primer for 2 minutes. Observe water flowing in the overboard line. If your water maker has been previously used, you don't have to wait 2 minutes. Just wait long enough to observe positive pressure on the low pressure gauge, before starting the high pressure pump.

We do not want to operate the High Pressure Pump completely dry, because water is what lubricates the rubber seals. Even a small amount of water in the pump makes it safe to operate.

Do NOT run high pressure pump dry. Water is what lubricates the pump.

2). START the High Pressure Pump by turning on the "Main Pump" switch.

Adjust pressure by turning the handle Clockwise until the high pressure gauge reads 800 PSI.

If this is the first time you operate the system or you just replace the membrane, raise the pressure slowly over the course of 2 minutes.

If your system has already been in operation, the pressure should be left at 800 PSI, and after turning on the pump you should NOT have to re-adjust the pressure regulator.

The manufacturer recommends no more than 21 gallons per hour per membrane.

(Single 21 GPH, Double 42 GPH, Triple 63 GPH)



WARNING! DO NOT Drink fresh water from a NEW membrane during first hours of operation in order to flush out the factory preservatives.

1). Turn off the high pressure pump.



2). Turn off primer pump.



If you wish to run your boost pump using 110/220VAC consider a transformer similar to this.

<https://amzn.to/3xNDWO>



Each unit comes with a rinse timer. Connect pressurized water from your house pump to the input (1/2in tubing) and set the timer for once every 7 days, for approximately 30 minutes. The purpose of rinsing is to get rid of sealife that can smell if left in the membrane.

It is not a bad idea to rinse the unit after every use, it will extend the life of all components.

Using the manual override knob, rotate to “RESET” position and wait for 2 seconds.

Rotate the manual override knob to the desired setting, which depends on your house water pressure. It takes approximately 2-3 gallons (8-10 Liters) to displace all the salt water with freshwater. Estimate about 30 minutes or measure your overboard water to determine the exact interval.

All Seawater Pro units include automatic check valves therefore the rinse process, once you set the time, is fully automated.



Rinse Timer

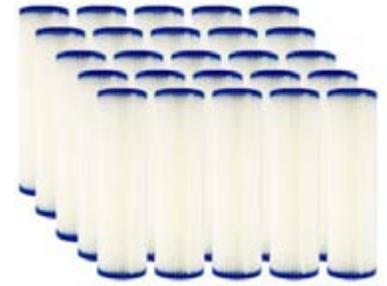


1). REPLACING PRE-FILTERS:

There are 2 prefilters, the first stage requires a 20 micron filter, and the second stage requires a 5 micron filter. Both filters measure 2.5 inches in diameter by 10 inches in length. Filters need to be replaced as needed or every 6 months. If you notice a drop on the low pressure gauge then it is time to clean or replace the filters. Also if you can see algae growing on the filter then it is also time to clean or replace. Links to purchase spare filters on Amazon can be found at:

<https://seawaterpro.com/resources-and-videos/>

You may also purchase filters direct from SeawaterPro.com spare parts section.



Low Pressure
Gauge

2). REPLACING PUMP OIL:

To drain the oil remove the drain plug at the bottom of the pump.

The first oil change is due after 50 hours of use. After that it is recommended to replace the oil once a year or every 300 hours.

You may use any engine oil you happen to have available, 10W30, 5W40, synthetic or not.

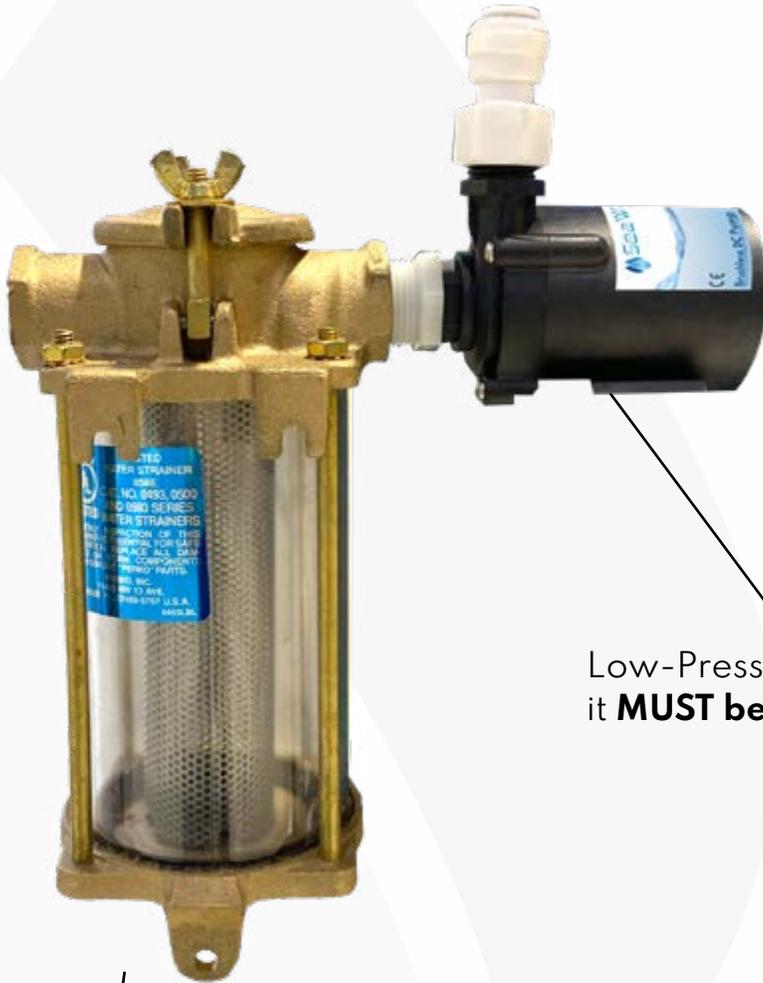
Fill according to the dipstick or use sight glass.



SYMPTOM	CAUSE	SOLUTION
Surging Noise from the high pressure pump resulting in unstable High Pressure Gauge.	Water Starvation Not enough water reaching high pressure pump. Air Leaking into the water supply.	Replace Pre-Filters Clean Strainer Inspect Boost Pump
Odor, rotten egg smell in the water.	Algae is growing in the filters and or membrane, due to lack of rinsing.	Replace pre-filters. Remove and clean membrane if necessary. Increase rinse frequency.
High TDS reading, TDS meter reading over 500.	Improper installation of membrane. Worn out or damaged membrane.	Damaged or mangled membrane O-ring. Replace membrane.
Unable to build up pressure.	Air present in the system. Seacock is closed. Sea strainer is clogged. High Pressure Pump damaged. Barnacles or Seaweed is restricting water flow.	Open pressure regulator counter clockwise and wait for air to purge, while operating both pumps. Verify seacock is open. Clean sea strainer. Inspect for any growth or foreign objects or material.

BOOST PUMP INSTALLATION

This is the ideal way to connect the boost pump to a sea strainer.
(Sea strainer not included.)

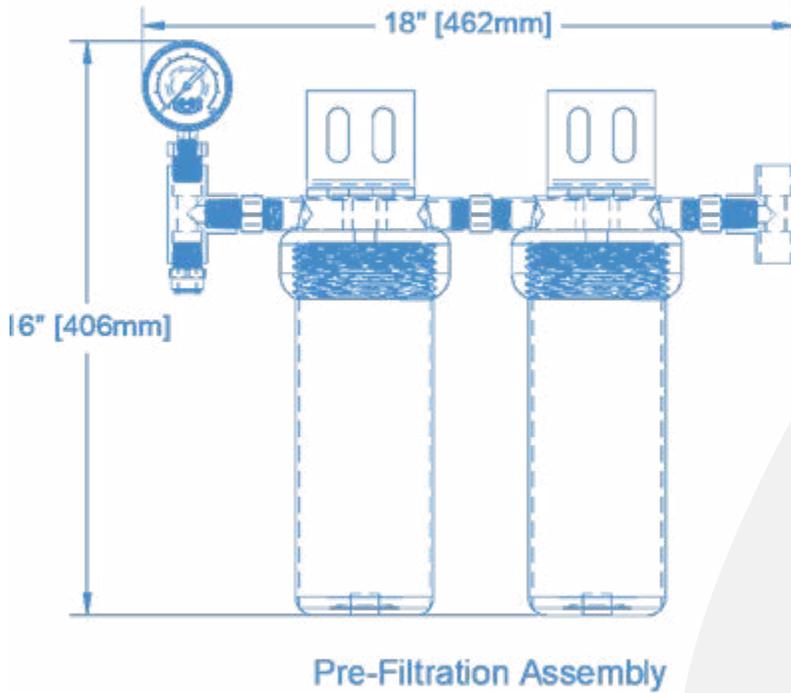


Low-Pressure Boost Pump is not self priming, it **MUST be installed below the water line.**

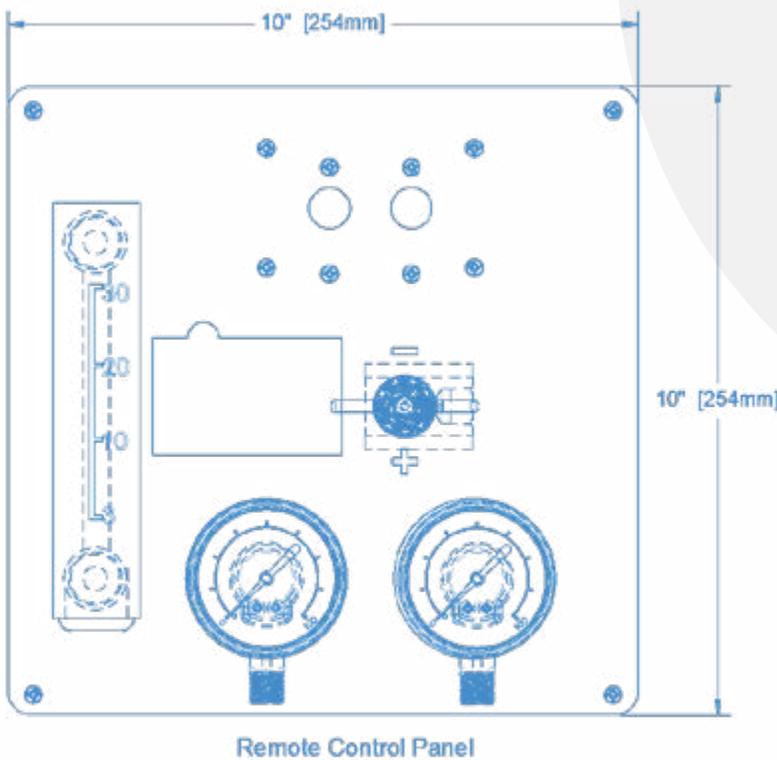
Sea Strainer
(not included)



Long lines on the suction side of the boost pump, may result in poor boost pressure.



Filter Housing Unit

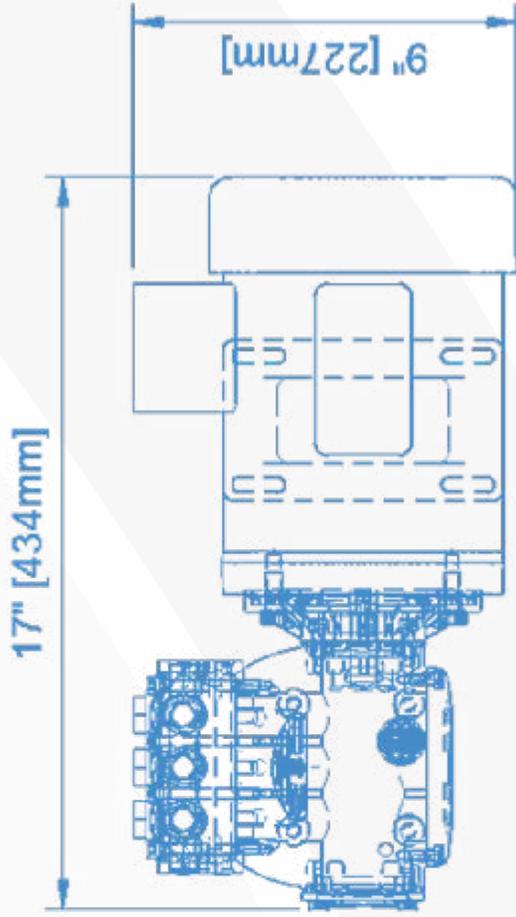


Control Panel

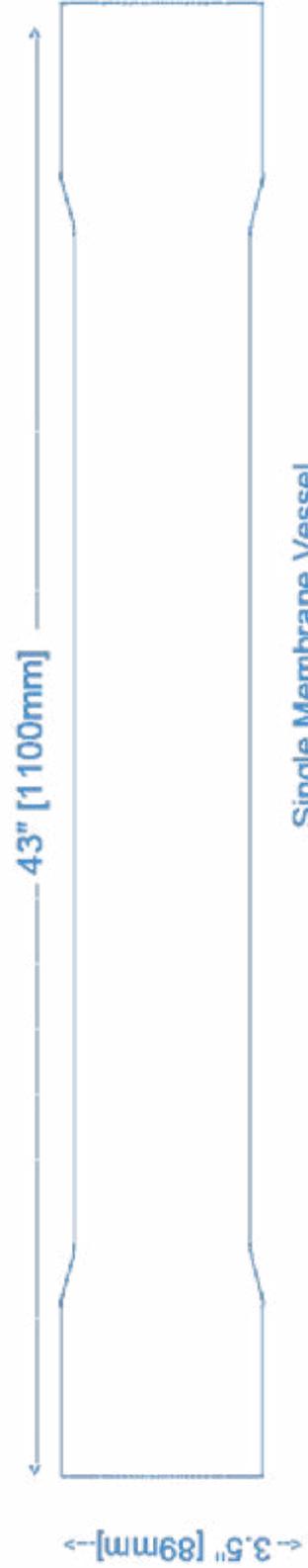
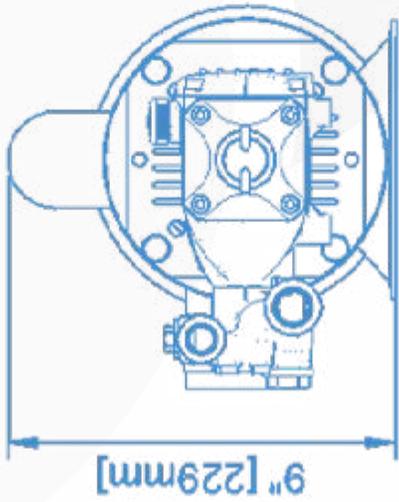
(available in various colors & finishes)



COMPONENT DIMENSIONS



Motor and Pump Assembly



Single Membrane Vessel



ELECTRICAL

This is how you would wire for 60Hz 120V.

Connect Phase or Neutral to either bundle.

Direction of rotation does not matter, the pump will work either way.



T1, T3, T8

T2, T4, T5



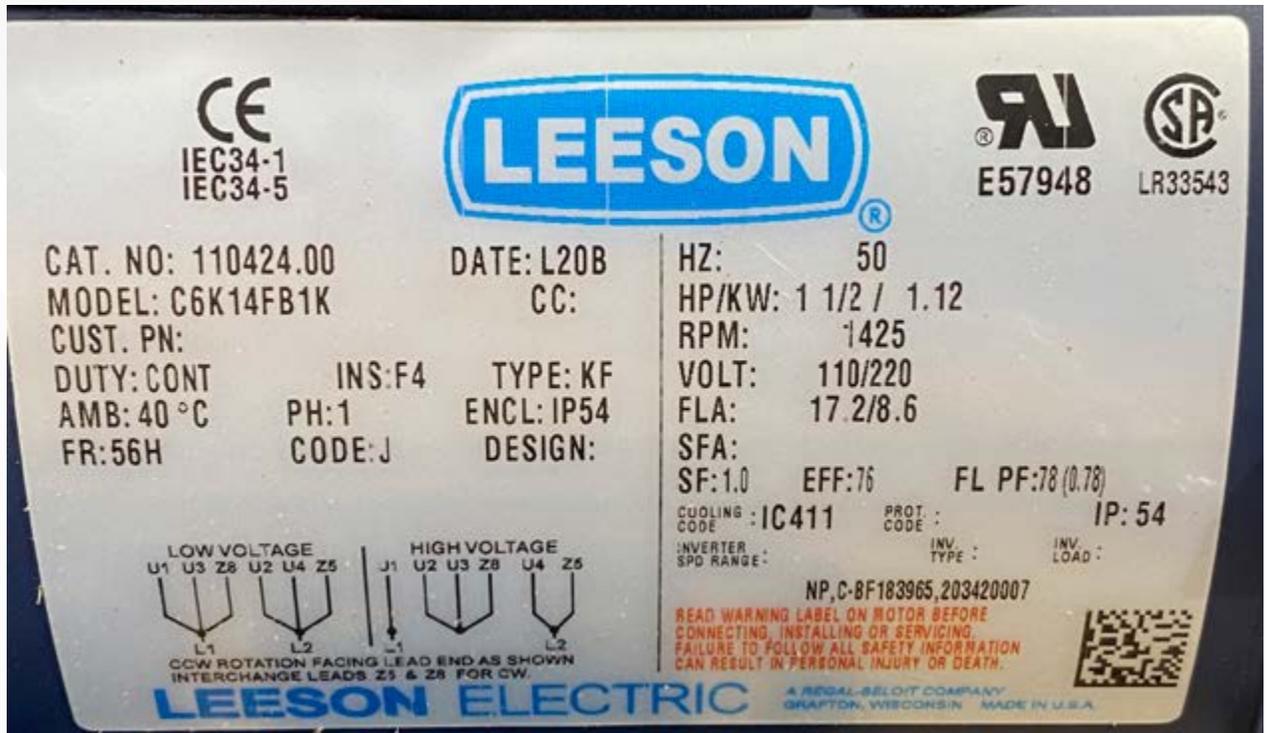
Please NOTE:
Direction of rotation
does not matter.



ELECTRICAL

This example is for 50Hz Leeson wired at 220V

Connect J1 to Neutral and insulate with electrical tape.
Join U2 + U3 + Z8 together & insulate with electrical tape.
Joining U4 + Z5 + Phase and insulate with electrical tape.

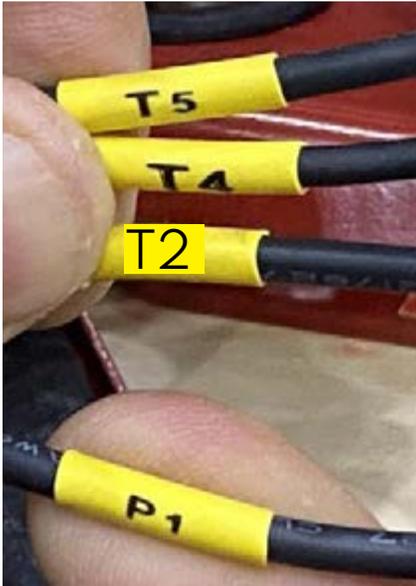


Please NOTE:
Direction of rotation
does not matter.





ELECTRICAL



AMPS	9.09/5.02-4.54	DUTY	CONT
S.F.AMPS	10.04/5.5-5.14	MAX AMB	40°C
CONNECTION	5 Lead/P1,P2	SER #	HS20100122

115V			208-230V		
CCW	LOW VOLTAGE	CW	CCW	HIGH VOLTAGE	CW
P1	L1	P1	P1	L1	P1
P2		P2	P2		P2
T3		T3	T2		T2
T8		T5	T3		T3
T2		T2	T8		T5
T4	L2	T4	T4	L2	T4
T5		T8	T5		T8

Hernando, MS ISO9001 CE SP US
www.naemotors.com CERTIFIED 601196



Please NOTE: Direction of rotation does not matter.



WATER INPUT



Examples of how to connect the boost pump properly. Must be installed below the water line.

Long lines on the suction side of the boost pump, will result in poor boost pressure.





SeaWater Pro WATERMAKERS

Seawater pro provides the fastest and simplest way to provide fresh water on your vessel whenever you need it. We offer modular systems in multiple configurations to fit your needs. Seawater Pro watermakers are designed with three principles in mind.

1. Quality: We designed and manufacture our product right here in the U.S.
2. Simplicity: Our systems are designed to last due to their lack of complexity.
3. Affordability: At SeaWater Pro we believe that clean water should be available to everyone so our systems are priced to be affordable.



3233 SW 2nd Ave. Ste 200 Fort Lauderdale FL. 33315
954.800.8800 • seawaterprollc@gmail.com • www.seawaterpro.com

