

Production Rate: 7-14 Gallons per hour, 26-53 liters per hour

The production rate is set by the displacement of the Enhanced Clark Pump energy recovery device and the feed flow rate. The SolarMaax 340 uses a 10% displacement Clark Pump so 10% of the feed water flow is turned into product water. Water temperature and salinity affect operating pressure but has little effect on production rate. Changes in feed flow does have an effect, the more feed flow the more product. Supplying good voltage to the feed pump gives the best production rate. Running the system while the batteries are bulk charging gives the highest production rate.

RO Membrane: The SolarMaax 340 Watermaker is equipped with Reverse Osmosis Membranes

Membrane Type: Polyamide Thin-Film Composite

Membrane Model: two SW2521

Range of Operating Pressures: 650 to 1000 psi (45 to 69 bar)

Normal Operating Pressure: Set by feed water conditions and feed flow rate.

Salt Rejection rate: 99.4%

Maximum Operating Temperature: 113°F (45°C)

Minimum Storage/Operating Temp: 32°F (0°C)

Maximum Operating Pressure: 1,000 psi, (69 bar)

Maximum Pressure Drop: 15 psi (1 bar)

pH Range, Continuous Operation: 2-11

pH Range, short-term cleaning: 1-12

Free Chlorine Tolerance: <0.1ppm

Electrical Power Requirements:

8.0 – 20.0 amps @ 12.5-14.4 VDC

4.0 – 10.0 amps @ 25.0 – 28.8 VDC

The Enhanced Clark Pump Hydraulic Pressure Intensifier:

Manufactured by ElectroMaax for marine and military use. The Enhanced Clark Pump uses the Feed pump flow pressure to intensify the pressure of the flow through the RO membranes high enough for reverse osmosis to occur. There are no electrical components.

Displacement: 10 %

Feed Flow range: 1.0 gpm (3.78 lpm) to 4.0 gpm (15.14 lpm)

Maximum Inlet pressure: up to 125 psi (8.6 bar)

Maximum Working Pressure: 1000 psi (68.9 bar)

Maximum operating temperature: 113°F (45°C)

Maximum storage temperature: 140°F (60°C)

Pump Dimensions: 26.38" (67cm) W, 5.75" (14.6cm) D, 8.0" (20.32cm) H

Pressure Relief Valve: Manually open ½ turn CCW for priming and servicing

Feed Pump:

Motor: Permanent magnet type, fully enclosed, 1/8 hp

Pump Body: Thermoplastic

Pump Type: 3 chamber diaphragm

Typical Amp Draw each: 8 to 10 amps, 12VDC 4 to 5 amps 24VDC

Recommended fuse size: 25 amps, 12VDC 15 amps, 24VDC

Flow Rate: 1.6 gpm (6.05 lpm) open flow

Pressure Vessel:

Filament wound fiberglass/epoxy compound with non-metallic wetted surfaces. Easily removable end caps for membrane replacement with larger than standard internal porting and fittings for increased energy efficiency. The most compact complete assembly available.

Max pressure - 1000 psi (69 Bar)

Burst pressure - 3000 psi (207 Bar)

Prefilter and Auto Freshwater Flush Filter housings:

Industry standard, 10-inch, plastic, filter housings. Accepting 9.75" by 2.5" pleated filters and high flow carbon filter elements.

Controls:

Level 1 electronics in an enclosure for remote control, Auto-Flush, status LEDs and manual over-ride switches for emergency operation Remote Control panel with Pump and Auto-Flush control switches, Flow Meter and Product Diversion Valve for testing and servicing.

Clark Pump and Pressure Vessel Assembly, 2-21" Membranes:

Dimensions: 16.3" (413 mm) W, 24.7" (630 mm) L, 8.4" (213 mm) H

Weight: 40.0 lbs. (18.2 kg)

Feed Pump Assembly:

Dimensions: 14.1" (358 mm) W, 6.7" (170 mm) D, 13.6" (345 mm) H

Weight: 22.0 lbs. (9.9 kg)

Shipping:**3 Boxes**

30" x 12" x 12" -- 46lbs

18" x 18" x 16" – 30lbs

12" x 12" x 14" – 10lbs