



The **SolarWave DS100+ water purification system** provides clean and safe drinking water. Based on the principles of *reverse osmosis* and *ultraviolet light*, it effectively removes all bacteria, viruses, algae, fungi, and parasites as well as dissolved and suspended solids, in accordance with the WHO guidelines for drinking water quality. The SolarWave DS100+ is very easy to use with a minimum of installation work required. Its built-in combined intake and high-pressure pump eliminates the need for an external feed pump in cases where raw water can be taken from the depth of up to 3 meters.

The unit is equipped with an efficient two-stage filter package that effectively removes sediment from the intake water in order to maximize the efficiency and extend the service intervals of the reversed osmosis and UV treatment units. After purification, the water passes through a remineralizer which adds the necessary natural minerals to the water to increase its nutritive value and correct any acidic pH condition.

The DS100+ is built for long life. Only high quality parts are used. The system has undergone rigorous performance tests to ensure full functionality in harsh environments such as elevated ambient temperature and humidity. The rugged aluminum cabinet is IP class 54 and hence effectively withstands dusty and wet climatic conditions.

The DS100+ unit is designed to operate on one phase 230 V / 50 Hz or three phase 380 V / 50 Hz power from the grid or from a generator, but can also run on solar power using the SolarWave solar power system PB1000.

Technical specifications SolarWave DS100+

Electrical connection	1 phase 220-240 V / 50 Hz, or 3 phase 380-415 V / 50 Hz
Overall power consumption (nominal*)	550 W
UV lamp power	24 W
Weight	44 kg
Dimensions	795 mm x 693 mm x 283 mm
Water treatment capacity (nominal*)	100 liters per hour
Maximum suction lift **	3 meters
Recommended max ambient temperature	55 °C
Operating pressure	1,500 kPa
Pretreatment filter 1	50 µm nylon (washable)
Pretreatment filter 2	1 µm cotton (single use)
Post-treatment filter	Mineralizing cartridge (single use)

* Depending on various parameters such as pump height, length of hoses, water temperature, etc. The nominal capacity is 100 l/h at a water temperature of 15 °C.

** Pre-filled system.

Feed water recommendations SolarWave DS100+

Conductivity (max)	9,000 µS/cm
Salinity (max)	5 ‰
Iron (max)	0.2 ppm
Manganese (max)	0.05 ppm
Hardness (max)	7 gpg (120 mg/l)
Turbidity (max)	5,000 NTU
pH	3–11
Inlet pressure	0–8 bar
Temperature	0–55 °C

Recommended maintenance SolarWave DS100+

Component	Interval	Action
Filters	As needed *	Clean/replace
RO membrane	Daily	Thorough flush
RO membrane	Bi-annually	Thorough cleaning with citric acid
UV lamp	Once every year	Replace
Quartz sleeve	Bi-annually	Clean with citric acid
Potable water tanks	Monthly	Thorough cleaning using Sodium hypochlorite solution

* Depending on the quality of the raw water.