

GENERAL TECHNICAL INFORMATION

Rev B

GBTS-UV1200

Drinking Water and Power Station 1200 L/Hour

Technical Data

Solar cell effect, 4 panels	400 W
Max charging current	30 A
Max suction height	2.5 m
Max pump flow (continuous)	40 L/min
Max tapping flow	20 L/min
Pump working time, 20 L/min	25 min/h
Current consumption pump	28 A
Current consumption UV 50 W	4.2 A
Current consumption 4 pcs USB	1.0 A
Lamp outside 6 W LED	0.5 A



The stations measures are: L203cm x W131cm x H186cm Corrosion resistant sheet metal, lockable, floor joists.

The water purification process

The purification process includes 2 pumps, 1 sand filter, 1 humus filter and 1 UV- purification system. The entire process is powered by 4 solar panels, each 100 W.

The process also contains a particle and a carbon filter to remove smell and bad taste.

The energy from the solar panels are stored in 2 pcs of 100 Ah AGM batteries.

There are also 4 pcs USB sockets for mobile phone charging.

Calculations

The calculations below are based on 30 A current from 4 solar panels. *

Maximum power consumption is 17 Ah. 10 hours sunshine/day, gives a total capacity of 300 Ah/day. This is enough to deliver purified water 17 hours/day. In a cloudy day (around 40% solar intensity), the total power capacity is 120 Ah/day. In this condition, you can tap water for about 7 hours/day.

The system shuts down automatically when the power gets low, and an indication sign "Water station temporary closed" turns on. This sign is also turned on when maintenance and service is in progress.

In sunny weather, 1020 Jerry cans per day can be filled with water.

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^{*} Alternative solutions with increased number of solar panels for higher power output are available.