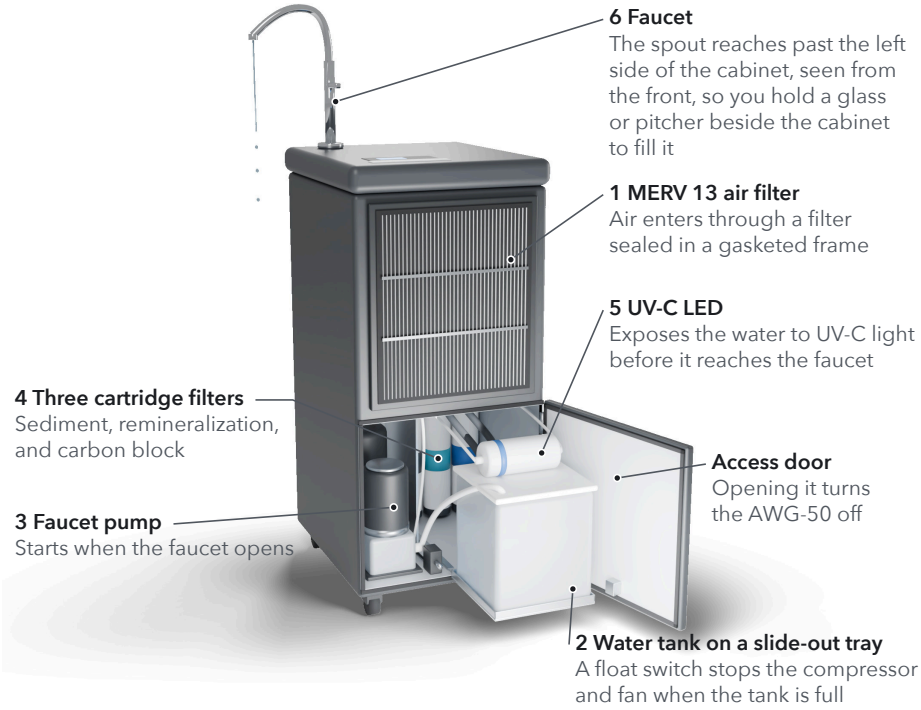
The AWG-50 is rated to condense 14 gal (53 L) of water a day from air at 80°F and 60% relative humidity

A fan draws room air through a MERV 13 filter and across the evaporator coil. The coil is colder than the dew point of the air, so part of the water vapor condenses on it. The water drains into a covered tank. When the faucet opens, the faucet pump sends the water through three cartridge filters and past a UV-C LED. The faucet extends past the left side of the cabinet. The AWG-50 runs on 115 V from a grounded outlet on a 15 A circuit, or from solar panels and a battery through an inverter.

Figure 1 The tank, faucet pump, filters, and UV-C LED sit inside the cabinet, behind the access door below the air filter



The drawing is to scale. The front of the AWG-50 is the side with the air filter and the access door. The parts are numbered in the order the air, then the water, passes through them.

Figure 2 Between the tank and the faucet, the water passes through three filters and then past a UV-C LED

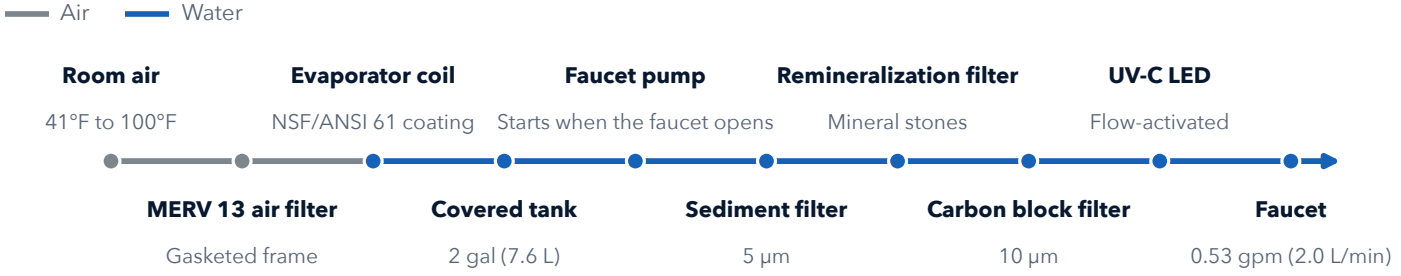


Table 1 Main specifications

Water output	14 gal (53 L) a day at 80°F and 60% RH	**Power**	115 V, 60 Hz; 980 VA running
Operating range	Air from 41°F to 100°F (5°C to 38°C)	**Water tank**	2 gal (7.6 L), covered
Treatment	Three filters and a UV-C LED	**Size and weight**	16.5 in wide, 37.4 in high, about 21 in deep; about 120 lb (54 kg)
Refrigerant	R32 (A2L), in a sealed system	**Warranty**	2 years

Table 2 Specifications

	Item	Specification
Water output	Rated output	14 gal (53 L) a day at 80°F (26.7°C) and 60% relative humidity; 23.8 gal (90 L) a day at 86°F (30°C) and 80% relative humidity
	Operating range	Air from 41°F to 100°F (5°C to 38°C), at 20% relative humidity or more
	Effect of air conditions	Output rises as the dew point of the air rises. The dew point is 65°F (18.3°C) at the 14 gal (53 L) a day rating and 79°F (26.2°C) at the 23.8 gal (90 L) a day rating.
Water treatment	Tank	Covered, 2 gal (7.6 L), on a slide-out tray; a float switch stops the compressor and fan when the tank is full
	Filters	Sediment, 5 µm; remineralization; carbon block, 10 µm
	UV-C LED	Flow-activated, between the filters and the faucet
	Faucet	Lead-free; 0.53 gpm (2.0 L/min)
	Evaporator coil	Coating certified to NSF/ANSI 61 for contact with drinking water
Air	Air filter	MERV 13 in a gasketed frame on the front panel
	Access door	Below the air filter; opening it turns the AWG-50 off
Electrical	Supply	115 V, 60 Hz, from a grounded outlet on a 15 A circuit that serves only the AWG-50
	Current	8.5 A at 80°F and 60% RH; 11.5 A maximum; 53 A as the compressor starts
	Power	980 VA at 80°F and 60% RH; 1,320 VA maximum; 6,100 VA as the compressor starts
	Energy	23.5 kWh per 24 h at 80°F and 60% RH (1.7 kWh/gal, 0.44 kWh/L)
Refrigerant	Refrigerant	R32 (A2L), 10.95 oz (310 g), in a sealed system
Size and weight	Size	16.5 in wide and 37.4 in high (419 × 950 mm); about 21 in (530 mm) deep including the air filter frame; the faucet adds about 12 in (305 mm) to the height
	Weight	About 120 lb (54 kg) with the tank empty, on four casters
Listings and warranty	Listings	Before it ships, every AWG-50 will be listed to UL 60335-2-40 for safety and certified to ASSE 1090, the standard for atmospheric water generators
	Warranty	2 years from the date of purchase, provided by AWG Contracting LLC

With 5 peak sun hours a day, running the AWG-50 12 h a day at 80°F and 60% RH takes 2.9 kW of panels and a 5.9 kWh battery

Figure 3 The battery supplies 17.6 kWh of the 23.5 kWh a day when the AWG-50 runs 24 h a day

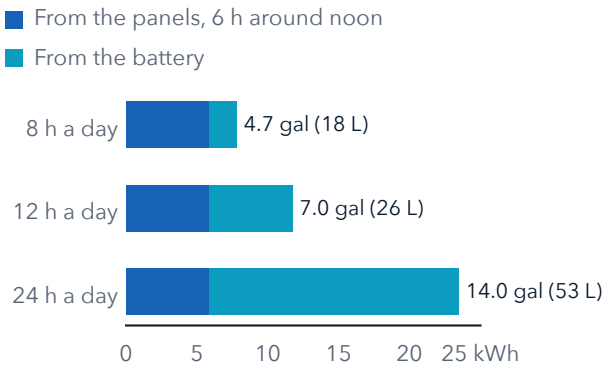


Table 3 Solar panel and battery sizes at 80°F and 60% RH

Running time	Water	Energy a day	Panels	Battery
8 h a day	4.7 gal (18 L)	7.8 kWh	2.0 kW	2.0 kWh
12 h a day	7.0 gal (26 L)	11.7 kWh	2.9 kW	5.9 kWh
24 h a day	14.0 gal (53 L)	23.5 kWh	5.9 kW	17.6 kWh

The examples assume 5 peak sun hours a day and that 80% of the panels' rated output reaches the AWG-50 after losses in the inverter, the wiring, and the battery. The solar panels power the AWG-50 for the 6 h around noon, and the battery powers it for the remaining hours. Each battery size is the usable capacity, the energy above the battery's lowest allowed charge. A site with fewer than 5 peak sun hours a day needs more panel capacity than Table 3 shows.

- Use a pure sine wave inverter with a continuous rating of at least 1,500 W, above the AWG-50's 1,320 VA maximum. The compressor draws 53 A, or 6,100 VA, as it starts, so the inverter's surge rating must be at least 6,100 VA.
- The VA figures are the rated current times 115 V, so the real power and energy are at or below them.
- At a dew point below 65°F (18.3°C), or in air cooler than 80°F, the AWG-50 condenses less water per kWh.
- The faucet pump and the UV-C LED run only while the faucet is open and use under 1% of the daily energy.

Specifications may change before the AWG-50 ships.