



# ENERGY STAR® Program Requirements Product Specification for Water Coolers

## Eligibility Criteria Version 2.0

Following is the **Version 2.0** product specification for ENERGY STAR qualified water coolers. A product shall meet all of the identified criteria if it is to earn the ENERGY STAR.

**1) Definitions:** Below are the definitions of the relevant terms in this document.

- A. Water Cooler: A freestanding device that consumes energy to cool and/or heat potable water.
  - a. Cold Only Units: Units that dispense cold water only.
  - b. Hot and Cold Units: Units that dispense both hot and cold water. Some units may also offer room-temperature water.
  - c. Cook and Cold Units: Units that dispense both cold and room-temperature water.
- B. Water Source:
  - a. Bottle-type: A bottle or reservoir supplies water to the water cooler.
  - b. Point of Use (POU): The water cooler is connected to a pressurized water source.
  - c. Conversion-type Water Cooler: A unit that ships as either Bottle-type or POU and includes a conversion kit intended to convert the Water Cooler from a Bottle-type unit to a POU unit or to convert a POU unit to a Bottle-type unit.
- C. Water Storage:
  - a. Storage: Thermally conditioned water is stored in a tank in the water cooler and is available instantaneously.
  - b. On Demand: The water cooler heats water as it is requested, which typically takes a few minutes to deliver.
- D. Compartment-type Water Cooler: A water cooler which, in addition to the primary function of cooling and dispensing potable water, includes a refrigerated compartment with or without provisions for making ice.
- E. Product Family: A group of product models that (1) are manufactured by the same manufacturer, (2) use the same primary energy source, and (3) have electrical characteristics that are essentially identical, and which do not have any differing physical or functional characteristics that affect energy consumption.
- F. Test Modes:
  - a. On Mode with No Water Draw: A test that records the 24-hour energy consumption of a water cooler with no water drawn during the test period. This test was formerly known as “Standby”.

- b. On Mode with Water Draw: A test that records the energy delivered in a water draw and the subsequent energy consumed while recovering from that water draw. Detailed steps can be found in Sections 6.2 and 6.3 of the ENERGY STAR Water Cooler Test Method.
- c. On Mode Water Draw Performance (OMP): A metric for water draw performance that compares the energy delivered and energy consumed by the water cooler. The calculation for OMP can be found in Section 7.6 of the ENERGY STAR Water Cooler Test Method.

**2) Scope:**

- A. Included Products: Products that meet the definition of a water cooler as specified herein are eligible for ENERGY STAR qualification, with the exception of products listed in Section 2.B.
- B. Excluded Products: Units that provide pressurized water and are not free standing (i.e., wall mounted, under sink, or otherwise building integrated) are not eligible for ENERGY STAR. Air-Source units and units with a water source other than bottled or tap water (POU) are not eligible.

**3) Qualification Criteria:**

- A. Energy and Water Consumption Requirements:

Table 1: Energy-Efficiency Criteria for ENERGY STAR Qualified Water Coolers	
Water Cooler Category	Qualification Levels
<b>On Mode with No Water Draw</b>	
Cold only and Cook and Cold units	$\leq 0.16$ kWh/day
Hot and Cold units – Storage-type*	$\leq 0.87$ kWh/day
Hot and Cold units – On Demand	$\leq 0.18$ kWh/day

*\*Note: POU, dry storage compartment, and bottled water coolers are included in this category.*

- B. Significant Digits and Rounding:
  - a. All calculations shall be carried out with actual measured or observed values. Only the final result of a calculation shall be rounded. Calculated results shall be rounded to the nearest significant digit as expressed in the corresponding specification limit.
  - b. Unless otherwise specified, compliance with specification limits shall be evaluated using exact values without any benefit from rounding.

**4) Test Requirements:**

- A. A representative model shall be selected for testing per the following requirements:
  - a. For qualification of an individual product model, the representative model shall be equivalent to that which is intended to be marketed and labeled as ENERGY STAR.

b. For qualification of a product family, any model within that product family can be tested and serve as the representative model.

B. When testing water coolers, the following test method shall be used to determine ENERGY STAR qualification.

<b>Table 2: Test Methods for ENERGY STAR Qualification</b>	
<b>ENERGY STAR Requirement</b>	<b>Test Method Reference</b>
On Mode with No Water Draw	ENERGY STAR Test Method for Water Coolers (Rev. May-2013)

- 5) **Effective Date:** The ENERGY STAR Water Cooler Specification shall take effect on **February 1, 2014**. To qualify for ENERGY STAR, a product model shall meet the ENERGY STAR specification in effect on the model's date of manufacture. The date of manufacture is specific to each unit and is the date on which a unit is considered to be completely assembled.
- 6) **Future Specification Revisions:** EPA reserves the right to change the specification should technological and/or market changes affect its usefulness to consumers, industry, or the environment. In keeping with current policy, revisions to the specification are arrived at through industry discussions. In the event of a specification revision, please note that the ENERGY STAR qualification is not automatically granted for the life of a product model.