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**BUILDINGS BULLETIN 2011-006**  
**OTCR**

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**Supersedes:** None

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Director, Office of Technical Certification and Research

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**Purpose:** This document establishes acceptance criteria for heat pump water heaters in accordance with the 2008 NYC Construction Codes.

<b>Related Code</b>	AC 28-113.2.3	MC 301.7	MC 1002.1
<b>Section(s):</b>	MC 301.4	MC 301.8	PC 504.5
	MC 301.6	MC 918.3	

**Subject(s):** Hot water heater, electric; Heat pump, electric; Hot water heater, combination heat pump

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**Background:** Electric water heaters are prescribed in section MC 1002.1. Heat pump units are prescribed in the section MC 918.3. However, appliances consisting of a combination of heat pump and electric water heater are not specifically addressed in such sections. This bulletin addresses the acceptance criteria for such appliances.

**Description:** Domestic electric hot water heaters with an integral heat pump ("Heat pump water heaters") are used to maintain the temperature of the water in the storage tank and at the same time reduce the ambient air temperature and humidity in the vicinity of the equipment. Heat pump water heaters consists of a heat pump unit typically located on the top of the water tank with the condenser wrapped around the water tank. The unit has two sources for heating domestic hot water. The main heating source is provided by the condenser element. The back-up source is provided by an electric resistance element in the water tank. Each element has its own thermostat which is limited to the maximum water temperature protected by a high limit switch.

**Uses:** Heat pump hot water heaters are installed indoors to supply potable domestic hot water.

**Evaluation Scope:** 2008 NYC Construction Codes

**Evaluation Criteria:** Pursuant to section AC 28-113, the Office of Technical Certification and Research recognizes heat pump water heaters tested, and evaluated in accordance with UL 174<sup>1</sup> and UL 1995<sup>2</sup>. Acceptable heat pump water heaters shall be listed and labeled in accordance with section AC 113.2.3 and shall comply with the conditions of this bulletin.

**Conditions of Acceptance:** Heat pump water heaters shall be designed, and installed in accordance with the 2008 NYC Construction Codes and other applicable provisions including but not limited to the following:

**A. Design**

1. Heat pump water heaters shall be specified in accordance with the manufacturer's recommendation and the conditions of the listing.

**B. Installation Requirements**

1. Installation requirements shall be in accordance with the manufacturer's instructions, the conditions of listing, and the conditions of this bulletin.
2. Installation shall be performed by a New York City licensed master plumber only.
3. Installation of all electrical connections shall be performed by a licensed electrician.
4. Heat pump water heaters shall be installed with an approved pressure and temperature relief valve, in accordance with section PC 504.5.
5. Heat pump water heater shall be labeled as per section AC-113.4. All shipment and deliveries of materials shall be accompanied by a label certifying the material shipped or delivered are equivalent to those tested and approved.

- Referenced Standards:**
1. UL 174-98 "*Household Electric Storage Tank Water Heater*"
  2. UL 1995-98 – "*Heating and Cooling Equipment*"