



DATE: October 15, 2013

TITLE: Bard Single Package Vertical Units (SPVU),
Federal Energy Standards and EER vs. SEER

FILE: SM13-02

ISSUED BY: Dick Hanna

Bard Manufacturing Company, Inc. is pleased to update you on the current status of the Bard Single Package Vertical Units (SPVU), Federal Energy Efficiency Standards and EER v. SEER.

History: In January 2006, we informed you with Bulletin SM06-01 that then current Bard wall-mounts and Q-TEC™ products in both air conditioning and heat pump versions were not regulated by the new NAECA 13 SEER/7.7 HSPF efficiency requirement for residential products that became effective on January 23, 2006.

Commercial vs. Residential: The Department of Energy (DOE) had ruled that wall-mounts and Q-TEC™ series units are commercial products and are not included in the NAECA 13 SEER/7.7 HSPF efficiency standard rulemaking developed for residential products. Bard products are covered by EPACT, which establishes commercial product efficiency requirements. EPACT commercial standards more accurately reflect the commercial applications where Bard single package wall-mounts are applied.

The SPVU Classification: Beginning with ASHRAE 90.1-2004 and in conjunction with the Air Conditioning Refrigeration Institute (ARI), which is now the Air Conditioning, Heating and Refrigeration Institute (AHRI), a new product classification - Single Package Vertical Unit (SPVU) was developed. New certification standards have been developed for this new SPVU classification, which means Bard wall-mount units are certified under the ARI standard ARI-390. This standard encompasses all Bard wall-mount air conditioners, wall-mount heat pumps, wall-mount gas/electric units, Q-TEC™ units, and more recently the I-TEC® product line. The new air conditioner (SPVAC) and heat pump (SPVHP) classifications were first referenced in the ASHRAE Standard 90.1-2004 (Table 6.8.1D). Subsequent editions of this standard are 90.1-2007, 90.1-2010, and just released 90.1-2013. In all cases Table 6.8.1D is still the applicable minimum efficiency table for SPVAC and SPVHP.

SEER vs. EER: The SPVU classification requires Bard Single Package Vertical Units products to be certified with an **EER** cooling efficiency rating rather than an **SEER** rating, and a **COP** heating efficiency rating rather than an **HSPF** rating. Bard specification sheets all currently show EER for cooling mode on air conditioners and heat pumps and COP for heating mode for heat pumps as required by DOE.

Applicable Efficiency Standards: The SPVU minimum commercial efficiency standard set forth in ASHRAE 90.1-2004 (Table 6.8.1D) was 8.6 EER and 2.7 COP. Minimum efficiency levels were increased to 9.0 EER for SPVAC cooling mode and 9.0 EER for SPVHP cooling mode and 3.0 COP heating mode with the 90.1-2007 standard and remained the same with 90.1-2010.

ASHRAE 90.1-2013 increased the SPVU cooling mode minimum efficiency to 10.0 EER with the heating mode for heat pumps remaining at 3.0 COP. Table 6.8.1D is still the applicable minimum efficiency table for SPVAC and SPVHP. As of this writing, DOE has not established an effective date for adoption of 90.1-2013 and 10.0 EER as the minimum cooling efficiency requirement for SPVU products.

In summary, the NAECA 13 SEER efficiency standard is NOT applicable to the Bard wall-mount air conditioner, wall-mount heat pump, wall-mount gas/electric, Q-TEC™ air conditioner, Q-TEC™ heat pump, or the I-TEC® air conditioner and heat pump product lines.

All efficiency ratings can be verified at www.ahridirectory.org

Commercial state energy code status can be viewed at www.energycodesocean.org/code-status-commercial