

SUPPLEMENTARY INFORMATION: In accordance with Title 10 of the Code of Federal Regulations (10 CFR) 431.401(f)(4), DOE provides notice of the issuance of the Decision and Order set forth below. In this Decision and Order, DOE grants Daikin a waiver from the existing DOE commercial package air conditioner and heat pump test procedures for its VRV III–PB multi-split products. DOE also requires the use of an alternate test procedure for this equipment. The cooling capacities of Daikin’s VRV III–PB multi-split heat pumps in its waiver petition range from 72,000 Btu/hr to 360,000 Btu/hr. Daikin must use American National Standards Institute/Air-Conditioning, Heating and Refrigeration Institute [ANSI/AHRI] Standard 1230–2010, “Performance Rating of Variable Refrigerant Flow (VRF) Multi-Split Air-Conditioning and Heat Pump Equipment” to test and rate the specified models of VRV III–PB variable refrigerant flow (VRF) multi-split commercial heat pumps, identified below, with cooling capacities less than or equal to 300,000 Btu/hr. Daikin must use the alternate test procedure specified in its interim waiver to test and rate the specified models of VRV III–PB variable refrigerant flow (VRF) multi-split commercial heat pumps, identified below, with cooling capacities above 300,000, except that for consistency with the testing required by ANSI/AHRI 1230–2010, tests of both ducted and non-ducted indoor units must now be conducted. 76 FR 19069 (April 6, 2011).

Today’s decision prohibits Daikin from making any representations concerning the energy efficiency of these products unless the product has been tested consistent with the provisions and restrictions in the alternate test procedure set forth in the Decision and Order below, and the representations fairly disclose the test results. 42 U.S.C. 6314(d) Distributors, retailers, and private labelers are held to the same standard when making representations regarding the energy efficiency of these products. Id.

Issued in Washington, DC, on June 7, 2011. Kathleen Hogan,

Decision and Order
In the Matter of: Daikin AC (Americas) Inc. (Daikin) (Case No. CAC–029).

Background
Title III, Part C of the Energy Policy and Conservation Act of 1975 (EPCA), Public Law 94–163 (42 U.S.C. 6311–6317, as codified) established the Energy Conservation Program for Certain Commercial and Industrial Equipment, a program covering certain industrial equipment, which includes the VRV III–PB variable refrigerant flow (VRF) commercial multi-split heat pumps (“VRV III–PB multi-split heat pumps”) that are the focus of this notice. Part C specifically includes definitions (42 U.S.C. 6311), test procedures (42 U.S.C. 6314), labeling provisions (42 U.S.C. 6315), energy conservation standards (42 U.S.C. 6313), and the authority to require information and reports from manufacturers. 42 U.S.C. 6316. With respect to test procedures, Part C authorizes the Secretary of Energy (the Secretary) to prescribe test procedures that are reasonably designed to produce results that measure energy efficiency, energy use, and estimated annual operating costs, and that are not unduly burdensome to conduct. (42 U.S.C. 6314(a)(2))

For commercial package air-conditioning and heating equipment, EPCA provides that “the test procedures shall be those generally accepted industry testing procedures or rating procedures developed or recognized by the Air-Conditioning and Refrigeration Institute [ARI] or by the American Society of Heating, Refrigerating and Air-Conditioning Engineers [ASHRAE], as referenced in ASHRAE/IES Standard 90.1 and in effect on June 30, 1992.” (42 U.S.C. 6314(a)(4)(A)) Under 42 U.S.C. 6314(a)(4)(B), the statute further directs the Secretary to amend the test procedure for a covered commercial product if the industry test procedure is amended, unless the Secretary determines, by rule and based on clear and convincing evidence, that such a modified test procedure does not meet the statutory criteria set forth in 42 U.S.C. 6314(a)(2) and (3). 1For editorial reasons, upon codification in the U.S. Code, Part C was re-designated Part A–1.
On December 8, 2006, DOE published a final rule adopting test procedures for commercial package air-conditioning and heating equipment, effective January 8, 2007. 71 FR 71340. For commercial air-source heat pumps, DOE adopted ARI Standard 340/360–2004. Table 1 to Title 10 of the Code of Federal Regulations (10 CFR) 431.96 directs manufacturers of commercial package air conditioning and heating equipment to use the appropriate procedure when measuring energy efficiency of those products. The cooling capacities of Daikin’s VRV III–PB multi-split heat pumps in its waiver petition range from 72,000 Btu/h to 360,000 Btu/h. The current test procedure for this equipment is ARI Standard 340/360–2004, which includes units with capacities greater than 65,000 Btu/hour.

DOE’s regulations for covered products permit a person to seek a waiver from the test procedure requirements for covered commercial equipment if at least one of the following conditions is met: (1) The petitioner’s basic model contains one or more design characteristics that prevent testing according to the prescribed test procedures; or (2) the prescribed test procedures may evaluate the basic model in a manner so unrepresentative of its true energy consumption as to provide materially inaccurate comparative data. 10 CFR 431.401(a)(1). Petitioners must include in their petition any alternate test procedures known to the petitioner to evaluate the basic model in a manner more representative of its energy consumption. 10 CFR 431.401(b)(1)(iii). The Assistant Secretary for Energy Efficiency and Renewable Energy (Assistant Secretary) may grant a waiver subject to conditions, including adherence to alternate test procedures. 10 CFR 431.401(f)(4). Waivers remain in effect pursuant to the provisions of 10 CFR 431.401(g).

The waiver process also permits parties submitting a petition for waiver to file an application for interim waiver of the applicable test procedure requirements. 10 CFR 431.401(a)(2). The Assistant Secretary will grant an interim waiver request if it is determined that the applicant will experience economic hardship if the application for interim waiver is denied, if it appears likely that the petition for waiver will be granted, and/or the Assistant Secretary determines that it would be desirable for public policy reasons to grant immediate relief pending a determination on the petition for waiver. 10 CFR 431.401(e)(3). An interim waiver remains in effect for 180 days or until DOE issues its determination on the petition for waiver, whichever occurs first. It may be extended by DOE for an additional 180 days. 10 CFR 431.401(e)(4).

On November 22, 2010, Daikin filed a petition for waiver from the test procedure at 10 CFR 431.96 applicable to commercial package air source central air conditioners and heat pumps, as well as an application for interim waiver. The capacities of Daikin’s VRV III–PB multi-split heat pumps range from 72,000 Btu/h to 360,000 Btu/h. The applicable test procedure for commercial air-source heat pumps is ARI 340/360–2004. Manufacturers are directed to use these test procedures pursuant to Table 1 of 10 CFR 431.96.

Daikin seeks a waiver from the applicable test procedures under 10 CFR 431.96 on the grounds that its VRV III–PB multi-split heat pumps contain design characteristics that prevent testing according to the current DOE test procedures. Specifically, Daikin asserts that the two primary factors that prevent testing of its multi-split variable speed products are the same factors stated in the waivers that DOE granted to Mitsubishi Electric & Electronics USA, Inc. (Mitsubishi) and other manufacturers for similar lines of commercial multi-split air-conditioning systems:

- Testing laboratories cannot test products with so many indoor units; and
- There are too many possible combinations of indoor and outdoor units to test. See, e.g., 72 FR 17528 (April 9, 2007) (Mitsubishi); 76 FR 19069 (April 6, 2011) (Daikin); 76 FR 19078 (April 6, 2011) (Mitsubishi).

On April 6, 2011, DOE published Daikin’s petition for waiver in the Federal Register, seeking public comment pursuant to 10 CFR 431.401(b)(1)(iv), and granted the application for interim waiver. 76 FR 19069. DOE received no comments on the Daikin petition.

Assertions and Determinations

Daikin’s Petition for Waiver

Daikin seeks a waiver from the DOE test procedures for this product class on the grounds that its VRV III–PB variable refrigerant flow (VRF) multi-split commercial heat pumps contain design characteristics that prevent them from being tested using the current DOE test procedures. As stated above, Daikin asserts that the two primary factors that prevent testing of multi-split variable speed products are the same factors stated in the waivers that DOE granted to Mitsubishi, Fujitsu General Ltd. (Fujitsu), Samsung Air Conditioning (Samsung), Sanyo, and LG for similar lines of commercial multi-split air-conditioning systems: (1) Testing laboratories cannot test products with so many indoor units; and (2) there are too many possible combinations of indoor and outdoor unit to test.

The VRV III–PB multi-split heat pump system consists of multiple indoor units connected to an air-cooled outdoor unit. The indoor units for this equipment are available in a very large number of potential configurations, including: 4-Way Cassette, Wall Mounted, Ceiling Suspended, Floor Standing, Ceiling Concealed, and Multi Position AHU. There are over one million combinations possible with the current Daikin VRV III–PB product offerings. It is impractical for testing laboratories to test this equipment because of the number of potential system configurations. Consequently, Daikin requested that DOE grant a waiver from the applicable test procedure for its VRV III–PB multi-split heat pump equipment designs. Until a suitable test method can be prescribed.

In responses to two petitions for waiver from Mitsubishi, DOE specified an alternate test procedure to provide a basis upon which Mitsubishi could test and make valid energy efficiency representations for its R410A CITY MULTI equipment, as well as for its R22 multi-split equipment. Alternate test procedures related to the Mitsubishi petitions were published in the Federal Register on April 9, 2007. See 72 FR 17528 and 72 FR 17533. The Daikin VRV III–PB systems have operational characteristics similar to the commercial multi-split products manufactured by Mitsubishi, Samsung, Fujitsu, LG, and Sanyo. DOE has granted waivers for these products with a similar alternate test procedure prescribed for Mitsubishi. For reasons similar to those published in these prior notices, DOE believes that an alternate test procedure is appropriate in this instance.

After DOE granted a waiver for Mitsubishi’s R22 multi-split products, ARI formed a committee to discuss testing issues and to develop a testing protocol for variable refrigerant flow systems. The committee has developed a test procedure which has been adopted by the American National Standards Institute (AHRI)—“American National Standards Institute (ANSI)/AHRI 1230–2010: Performance Rating of Variable Refrigerant Flow (VRF) Multi-Split Air-Conditioning and Heat Pump Equipment.” This test procedure has been incorporated into DOE Order 001–2010. DOE is currently assessing AHRI 1230–2010 with respect to the...
requirements for test procedures specified by EPCA (42 U.S.C. 6314(a)(4)(B)), and will provide a preliminary determination regarding those test procedures in a future notice of proposed rulemaking.

Daikin’s petition proposed that DOE apply ANSI/AHRI Standard 1230–2010 as the alternate test procedure to apply to its VRV III–PB multi-split heat pump equipment as a condition of its requested waiver. As stated above, no comments were received by DOE regarding the Daikin petition. The alternate test procedure in the commercial multi-split waivers that DOE granted to Mitsubishi and the other manufacturers listed above is similar to ANSI/AHRI 1230–2010, except that it covers equipment with cooling capacities greater than 300,000 Btu/hr while ANSI/AHRI 1230–2010 covers equipment with cooling capacities only equal to or less than 300,000 Btu/hr.

DOE issues today’s Decision and Order granting Daikin a test procedure waiver for its commercial VRV III–PB multi-split heat pumps. As a condition of this waiver, Daikin must use the alternate test procedure specified by DOE. For the listed Daikin VRV III–PB models with cooling capacities less than or equal to 300,000 Btu/hr, DOE must use ANSI/AHRI 1230–2010 as the alternate procedure. For the listed Daikin VRV III–PB models with cooling capacities greater than 300,000 Btu/h, Daikin must use the alternate test procedure prescribed in its interim waiver, except that for consistency with the testing required by ANSI/AHRI 1230–2010, tests of both ducted and non-ducted indoor units must now be conducted. This alternate test procedure is essentially the same as ANSI/AHRI 1230–2010. The upper limit of the scope of ANSI/AHRI 1230–2010 was set for historical rather than technical reasons.

Alternate Test Procedure

The alternate test procedure prescribed by DOE in earlier multi-split waivers, including the interim waiver granted to Daikin in response to the current petition, consisted of a definition of a “tested combination” and a prescription for representations. ANSI/AHRI 1230–2010 also includes a definition of “tested combination,” and the two definitions are identical in all relevant respects.

The earlier alternate test procedure provides for efficiency rating of a non-tested combination in one of two ways: (1) At an energy efficiency level determined using a DOE-approved alternate method; or (2) at the efficiency level of the tested combination utilizing the same outdoor unit. ANSI/AHRI 1230–2010 requires an additional test and in this respect is similar to the residential test procedure set forth in 10 CFR part 430, subpart B, appendix M. Multi-split manufacturers must test two or more combinations of indoor units with each outdoor unit. The first system combination is tested using only non-ducted indoor units that meet the definition of a tested combination. The rating given to any untested multi-split system combination having the same outdoor unit and all non-ducted indoor units is set equal to the rating of the tested system having all non-ducted indoor units. The second system combination is tested using only ducted indoor units that meet the definition of a tested combination. The rating given to any untested multi-split system combination having the same outdoor unit and all ducted indoor units is set equal to the rating of the tested system having all ducted indoor units. The rating given to any untested multi-split system combination having the same outdoor unit and a mix of non-ducted and ducted indoor units is set equal to the average of the ratings for the two required tested combinations.

With regard to the laboratory testing of commercial products, some of the difficulties associated with the existing test procedure are avoided by the alternate test procedure’s requirements for choosing the indoor units to be used in the manufacturer-specified tested combination. For example, in addition to limiting the number of indoor units, another requirement is that all the indoor units must be subjected the same minimum external static pressure. This requirement enables the test lab to manifold the outlets from each indoor unit into a common plenum that supplies air to a single airflow measuring apparatus. This eliminates situations in which some of the indoor units are ducted and some are non-ducted. Without this requirement, the laboratory must evaluate the capacity of a subgroup of indoor coils separately and then sum the separate capacities to obtain the overall system capacity. Measuring capacity in this way would require that the test laboratory be equipped with multiple airflow measuring apparatuses. It is unlikely that any test laboratory would be equipped with the necessary number of such apparatuses. Alternatively, the test laboratory could connect its one airflow measuring apparatus to one or more common indoor units until the contribution of each indoor unit had been measured. However, that approach would be so time-consuming as to be impractical.

For the reasons discussed above, DOE believes Daikin’s VRV III–PB multi-split heat pumps cannot be tested using the procedure prescribed in 10 CFR 431.96 (ARI Standard 340/360–2004) and incorporated by reference in DOE’s regulations at 10 CFR 431.95(b)(2)–(3). After careful consideration, DOE has decided to prescribe ANSI/AHRI 1230–2010 as the alternate test procedure for Daikin’s commercial multi-split products with cooling capacities less than or equal to 300,000 Btu/hr and the alternate test procedure specified in Daikin’s interim waiver for its commercial multi-split products with cooling capacities greater than 300,000 Btu/hr, except that for consistency with the testing required by ANSI/AHRI 1230–2010, tests of both ducted and non-ducted indoor units must now be conducted.

Consultations With Other Agencies

DOE consulted with the Federal Trade Commission (FTC) staff concerning the Daikin petition for waiver. The FTC staff did not have any objections to issuing a waiver to Daikin.

Conclusion

After careful consideration of all the materials submitted by Daikin, the absence of any comments, and consultation with the FTC staff, it is ordered that:

(1) The petition for waiver filed by Daikin (Case No. CAC–029) is hereby granted as set forth in the paragraphs below.

(2) Daikin shall not be required to test or rate its VRV III–PB multi-split heat pump models listed below on the basis of the test procedures cited in 10 CFR 431.96, specifically ARI Standard 340/360–2004 (incorporated by reference in 10 CFR 431.95(b)(2)–(3)). Instead, it shall be required to test and rate such products according to the alternate test procedure as set forth in paragraphs (3).

VRV III–PB multi-split heat pump series outdoor units:
- 460V/3-phase/60Hz Models:
  - Heat Pump models RXYQ72PBYD, RXYQ66PBYD, RXYQ120PBYD, RXYQ144PBYD, RXYQ168PBYD, RXYQ192PBYD, RXYQ216PBYD, RXYQ240PBYD, RXYQ264PBYD, RXQY288PBYD, RXYQ312PBYD, RXYQ336PBYD, RXYQ360PBY with nominal cooling capacities of 72,000, 96,000, 120,000, 144,000, 168,000, 192,000, 216,000, 240,000, 264,000, 288,000, 312,000, 336,000 and 360,000 Btu/hr respectively.
  - Heat Recovery models REYQ72PBYD, REYQ66PBYD, REYQ120PBYD, REYQ144PBYD (2x REMQ72PBYD), REYQ168PBYD (1x REMQ72PBYD),
indoor units with nominal capacities of 12,000, 18,000 and 24,000 Btu/hr.

units with nominal capacities of 7,500, 9,500, 12,000 and 18,000 Btu/hr.

indoor units with nominal capacities of 12,000, 18,000 and 24,000 Btu/hr.

indoor units with nominal capacities of 7,500, 9,500, 12,000, 18,000, 24,000, 30,000, 36,000, 48,000, 72,000 and 96,000 Btu/hr.

indoor units with nominal capacities of 12,000, 18,000 and 24,000 Btu/hr.

Heat Recovery models

○ Heat Pump models RXQ72PBTJ, RXQ120PBTJ, RXQ144PBTJ, RXQ168PBTJ, RXQ192PBTJ, RXQ216PBTJ, RXQ240PBTJ, RXQ264PBTJ, RXQ288PBTJ, RXQ312PBTJ, RXQ336PBTJ, RXQ360PBTJ

FXMQ Series medium/high static ducted indoor units with nominal capacities of 7,500, 9,500, 12,000, 18,000, 24,000, 30,000, 36,000, 48,000, 72,000 and 96,000 Btu/hr.

Alternate test procedure.

(A) Daikin is not required to test the equipment listed in paragraph (2) above with cooling capacities above 300,000 Btu/h and below listed in paragraph (2) above according to the test procedure for commercial package air conditioners and heat pumps prescribed by DOE at 10 CFR 431.96 (ARI Standard 340/360–2004 (incorporated by reference in 10 CFR 431.95(b)(2)–(3)), but instead shall use the alternate test procedure ANSI/AHRI 1230–2010.

(B) Daikin shall be required to test the equipment listed in paragraph (2) above with cooling capacities above 300,000 Btu/h according to the test procedures for central air conditioners and heat pumps prescribed by DOE at 10 CFR 431.96, except that Daikin shall test each model of outdoor unit with two or more combinations of indoor units. The first system combination shall be tested using only non-ducted indoor units that meet the definition of a tested combination as set forth in paragraph C. The second system combination shall be tested using only ducted indoor units that meet the definition of a tested combination as set forth in paragraph C. Daikin shall represent combinational sales models of all tested model combinations. Testing results for the tested combination and all combinations tested in accordance with this alternate test procedure, Daikin may make representations based on the test results.

(i) For VRV III–PB multi-split combinations tested in accordance with this alternate test procedure, Daikin may make representations based on the test results.

(ii) For VRV III–PB multi-split combinations that are not tested, Daikin may make representations based on the testing results for the tested combination and that are consistent with one of the following methods:

(a) Rating of non-tested combinations according to an alternative rating method approved by DOE; or

(b) Rating of non-tested combinations having the same outdoor unit and all non-ducted indoor units shall be set equal to the rating of the tested system having all non-ducted indoor units.

(c) Rating of non-tested combinations having the same outdoor unit and all ducted indoor units shall be set equal to the rating of the tested system having all ducted indoor units. To be considered a ducted unit, the indoor unit must be intended to be connected with ductwork and have a rated external static pressure capability greater than zero (0).
(d) Rating of non-tested combinations having the same outdoor unit and a mix of non-ducted and ducted indoor units shall be set equal to the average of the ratings for the two required tested combinations.

(4) This waiver shall remain in effect from the date this Decision and Order is issued, consistent with the provisions of 10 CFR 431.401(g).

(5) This waiver is issued on the condition that the statements, representations, and documentary materials provided by the petitioner are valid. DOE may revoke or modify the waiver at any time if it determines that the factual basis underlying the petition for waiver is incorrect, or the results from the alternate test procedure are unrepresentative of the basic models’ true energy consumption characteristics.

(6) This waiver applies only to those basic models set out in Daikin’s petition for waiver. Grant of this waiver does not represent and in compliance with Commission submission guidelines at http://www.ferc.gov/help/submission-guide.asp. eFiling instructions are available at http://www.ferc.gov/docs-filing/eFiling.asp. First-time users must follow eRegister instructions at: http://www.ferc.gov/docs-filing/eregistration.asp, to establish a user name and password before eFiling. The Commission will send an automatic notification of activity in this docket may do so through eSubscription at http://www.ferc.gov/docs-filing/esubscription.asp. All comments and FERC issuances may be viewed, printed or downloaded remotely through FERC’s eLibrary at http://www.ferc.gov/docs-filing/elibrary.asp, by searching on

DEPARTMENT OF ENERGY
Federal Energy Regulatory Commission

[DOCKET NO. IC11–583–000]

Commission Information Collection Activities [FERC–583], Comment Request; Extension

AGENCY: Federal Energy Regulatory Commission.

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Estimated cost burden to respondents is $62,835. (918 hours/2,080 hours per year times $142,372 per year average per employee = $62,835). The cost per respondent is $137 (rounded).

The reporting burden includes the total time, effort, or financial resources expended to generate, maintain, retain, disclose, or provide the information including: (1) Reviewing instructions; (2) developing, acquiring, installing, and utilizing technology and systems for the purposes of collecting, validating, verifying, processing, maintaining, disclosing and providing information; (3) adjusting the existing ways to comply with any previously applicable instructions and requirements; (4) training personnel to respond to a collection of information; (5) searching data sources; (6) completing and reviewing the collection of information; and (7) transmitting, or otherwise disclosing the information.

The estimate of cost for respondents is based upon salary for professional and clerical support, as well as direct and indirect overhead costs. Direct costs include all costs directly attributable to providing this information, such as