

Draft PDS-01 MINHERS 2013 Addendum 39-201x

Amendment: Non-measured ventilation airflow and ventilation fan wattage defaults

Proponent:

Gayathri Vijayakumar, Steven Winter Associates, Inc.

Applies to:

RESNET MINHERS Chapter 3

Background/Rationale:

RESNET MINHERS currently references ANSI/RESNET/ICC 301-2014 in Chapter 3 of its Standards. A recent [interpretation](#) of 301-2014, indicated that ventilation airflows must be measured in the energy rating. There are many situations where ventilation airflows cannot be measured. The 2019 version of 301 has provided an avenue for an energy rating to be completed, in the absence of measured ventilation airflow, in which it simply treats the Rated Home the same as a home without a mechanical ventilation system. In order to adopt that allowance sooner than the adoption of 301-2019, this amendment is being proposed to Chapter 3 of MINHERS.

In addition, it has been noted as an issue that ventilation fan wattages cannot always be determined in the Rated Home, and similar to other default efficiencies offered in 301-2014, similar defaults should also be offered for ventilation fans in order to provide consistency in the rating industry. This amendment proposes default fan wattages that are based primarily on the ventilation fan efficiencies of the Reference Home, with some additions for systems that may be used in the Rated Home, that are never present in the Reference Home. It is expected that these will also be proposed in 301-2019.

Proposed Amendment:

Add the following exception and table.

303 Technical Requirements

303.1 Applicable Standards

All RESNET Home Energy Ratings conducted in accordance with this Standard shall comply with the provisions of ANSI/RESNET/ICC 301-2014, “Standard for the Calculation and Labeling of the Energy Performance of Low-Rise Residential Buildings using an Energy Rating Index.”

Exception 1: RESNET Home Energy Ratings conducted on Dwelling Units in multi-family buildings four and five stories above grade that are certified through EPA’s ENERGY STAR certified homes program shall comply with the provisions of ANSI/RESNET/ICC 301-2014, notwithstanding the limit on stories, and Sections 303.2 and 303.3.

Exception 2: RESNET Home Energy Ratings conducted on Townhouses and single-family Dwellings four Stories Above Grade Plane in height(e.g., four-Story detached single-family home, four-Story duplex, four-Story Townhouse) shall comply with the provisions of ANSI/RESNET/ICC 301-2014, notwithstanding the limit on stories, and Sections 303.2 and 303.3.

Exception 3: Where Whole-House Mechanical Ventilation System airflow rate cannot be measured, the Infiltration rate in the Rated Home shall be no less than 0.3 ACH. To determine fan energy in the Rated Home, ventilation fan watts shall be based on the table below for the given system or the value observed in the Rated Home, for the highest airflow setting. Where needed to calculate fan watts, for systems other than Central Fan Integrated Supply (CFIS), the Whole-House Mechanical Ventilation System rate shall be assumed to be equal to Qfan, as calculated in accordance with Section 4.1.2 of ASHRAE Standard 62.2. For CFIS systems, the cfm used to determine fan watts shall be the larger of 400 cfm per 12 kBtu/h cooling capacity or 240 cfm per 12 kBtu/h heating capacity.

<u>Default Ventilation Fan Watts</u>	
<u>Equipment Type</u>	<u>W/cfm</u>
<u>Exhaust ventilation fans</u>	<u>0.35</u>
<u>Supply ventilation fans</u>	<u>0.35</u>
<u>Balanced ventilation fans</u>	<u>0.70</u>
<u>HRV/ERV fans</u>	<u>1.00</u>
<u>CFIS fans</u>	<u>0.50</u>
<u>Range hoods</u>	<u>0.70</u>

304 Normative References

ANSI/RESNET/ICC 301-2014(Republished January 2016), “Standard for the Calculation and Labeling of the Energy Performance of Low-Rise Residential Buildings using an Energy Rating Index.”, including addenda and normative appendices.

RESNET MINHERS Chapter 1-2013, “National Accreditation Procedures for Home Energy Rating Systems” including addenda.

RESNET MINHERS Chapter 2-2013, “National Rater Training and Certifying Standard” including addenda.

RESNET MINHERS Chapter 9-2013, “RESNET National Standard for Quality Assurance” including addenda.

(MINHERS- Mortgage Industry National Home Energy Rating Standards)

ANSI/RESNET/ICC 380-2016, “Standard for Testing Airtightness of Building Enclosures, Airtightness of Heating and Cooling Air Distribution Systems, and Airflow of Mechanical Ventilation Systems”, including addenda and normative appendices.

[ASHRAE Standard 62.2-2013, “Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings”, ASHRAE, Atlanta, GA.](#)