

## Department of Energy

## § 431.66

[http://www.ahrinet.org/Content/StandardsProgram\\_20.aspx](http://www.ahrinet.org/Content/StandardsProgram_20.aspx).

(1) ARI Standard 1200–2006, *Performance Rating of Commercial Refrigerated Display Merchandisers and Storage Cabinets*, 2006, IBR approved for §§ 431.64 and 431.66, and appendices A and B to subpart C of part 431.

(2) AHRI Standard 1200 (I–P)–2010 (“AHRI Standard 1200 (I–P)–2010”), *2010 Standard for Performance Rating of Commercial Refrigerated Display Merchandisers and Storage Cabinets*, 2010, IBR approved for §§ 431.64 and 431.66, and appendices A and B to subpart C of part 431.

(d) ASHRAE. The American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc., 1971 Tullie Circle NE., Atlanta, GA 30329, or <http://www.ashrae.org/>.

(1) ANSI/ASHRAE Standard 72–2005, (ASHRAE 72–2005), “Method of Testing Commercial Refrigerators and Freezers,” Copyright 2005, IBR approved for § 431.62, and appendices A and B to subpart C of part 431.

(2) [Reserved]

(e) ASTM. ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428, (877) 909–2786, or go to <http://www.astm.org/>.

(1) ASTM E 1084 (Reapproved 2009), “Standard Test Method for Solar Transmittance (Terrestrial) of Sheet Materials Using Sunlight,” approved April 1, 2009, IBR approved for § 431.62.

(2) [Reserved]

[74 FR 1139, Jan. 9, 2009, as amended at 77 FR 10318, Feb. 21, 2012; 78 FR 62993, Oct. 23, 2013; 79 FR 22308, Apr. 21, 2014]

### § 431.64 Uniform test method for the measurement of energy consumption of commercial refrigerators, freezers, and refrigerator-freezers.

(a) *Scope*. This section provides the test procedures for measuring, pursuant to EPCA, the daily energy consumption in kilowatt hours per day (kWh/day) for a given product category and volume or total display area of commercial refrigerators, freezers, and refrigerator-freezers.

(b) *Testing and calculations*. Determine the daily energy consumption of each covered commercial refrigerator, freezer, or refrigerator-freezer by conducting the appropriate test procedure

set forth below, in appendix A or B to this subpart. The daily energy consumption of commercial refrigeration equipment shall be calculated using raw measured values and the final test results shall be reported in increments of 0.01 kWh/day.

[70 FR 60414, Oct. 18, 2005, as amended at 77 FR 10318, Feb. 21, 2012; 79 FR 22308, Apr. 21, 2014]

## ENERGY CONSERVATION STANDARDS

### § 431.66 Energy conservation standards and their effective dates.

(a) In this section—

(1) The term “AV” means the adjusted volume (ft<sup>3</sup>) (defined as 1.63 × frozen temperature compartment volume (ft<sup>3</sup>) + chilled temperature compartment volume (ft<sup>3</sup>)) with compartment volumes measured in accordance with the Association of Home Appliance Manufacturers Standard HRF1–1979.

(2) The term “V” means the chilled or frozen compartment volume (ft<sup>3</sup>) (as defined in the Association of Home Appliance Manufacturers Standard HRF1–1979).

(3) For the purpose of paragraph (d) of this section, the term “TDA” means the total display area (ft<sup>2</sup>) of the case, as defined in ARI Standard 1200–2006, appendix D (incorporated by reference, see § 431.63). For the purpose of paragraph (e) of this section, the term “TDA” means the total display area (ft<sup>2</sup>) of the case, as defined in AHRI Standard 1200 (I–P)–2010, appendix D (incorporated by reference, see § 431.63).

(b)(1) Each commercial refrigerator, freezer, and refrigerator-freezer with a self-contained condensing unit designed for holding temperature applications manufactured on or after January 1, 2010 and before March 27, 2017 shall have a daily energy consumption (in kilowatt-hours per day) that does not exceed the following:

Category	Maximum daily energy consumption (kilowatt hours per day)
Refrigerators with solid doors	0.10V + 2.04.
Refrigerators with transparent doors.	0.12V + 3.34.
Freezers with solid doors .....	0.40V + 1.38.
Freezers with transparent doors.	0.75V + 4.10.