



Commercial Refrigerators and Freezers Summary Sheet

A commercial refrigerator is a refrigerator that is not a federally-regulated consumer product. A refrigerator refers to a cabinet that is designed for the refrigerated storage of food, including but not limited to solid food and wine, beer, and other beverages, at temperatures above 32°F, and that has a source of refrigeration requiring an energy input. It may include a compartment for the freezing and storage of food at temperatures below 32° F, but it does not provide a separate low temperature compartment designed for the freezing and storage of food at temperatures below 8°F. A commercial freezer is a freezer that is not a federally-regulated consumer product. A freezer refers to a cabinet that is designed as a unit for the freezing and storage of food, beverages, or ice at temperatures of 0° F or below and that has a source of refrigeration requiring an energy input.

California, Connecticut, New York, Oregon, Rhode Island, and Washington all have maximum daily energy consumption requirements for commercial refrigerators and freezers. Connecticut requires that the maximum daily energy consumption (kWh) must meet the August 1, 2004, California T20 standards. Washington and Oregon have the same maximum daily energy consumption requirements, and the standard includes some values from the January 1, 2007, California T20 standard. Rhode Island adopted the December 15, 2004, California T20 standards to regulate commercial refrigerators and freezers except that the requirement for pull-down refrigerators with transparent doors is 5% less stringent than the California regulation.

Product types that may be covered by these standards include ice cream cabinets, milk or beverage cabinets, pass-through cabinets, reach-in cabinets, roll-in cabinets, roll-through cabinets, and under-counter cabinets. Ice cream freezers are exempt from freezer standards in some states and preparation tables and worktop tables are exempt from standards in all states.

Excerpts from each state's standards are shown below; text in italics is directly excerpted from the state regulations.

The Multi-State Collaborative is providing these standard summaries as a courtesy; these materials are not intended to interpret state regulations. The user is responsible for reading and interpreting the regulations.

Which states have a standard?

Of the states participating in the Multi-State Appliance Collaborative, the following have a standard for commercial refrigerators and/or freezers; the date in parentheses shows the effective date of the standard:

- California (2006)
- Connecticut (2008)
- Oregon (2007)
- New York (2010)
- Rhode Island (2006)
- Washington (2007)

California

Key Commercial Refrigerator/Freezer Definitions

California Title 20 Section 1602(b)

Also see section 1602 (a) for general definitions.

“Buffet table” means a commercial refrigerator, such as a salad bar, that is designed with mechanical refrigeration and that is intended to receive refrigerated food, to maintain food product temperatures, and for customer service.

“Commercial freezer” means a freezer that is not a federally-regulated consumer product.

“Commercial refrigerator” means a refrigerator that is not a federally-regulated consumer product.

“Consumer product” means any article of a type which, to any significant extent, is distributed in commerce for personal use or consumption by individuals.

“Freezer” means a cabinet that is designed as a unit for the freezing and storage of food, beverages, or ice at temperatures of 0o F or below and that has a source of refrigeration requiring an energy input.

“Ice cream cabinet” means a reach-in cabinet commercial freezer that has top, or top and side, doors that are hinged or sliding and that is designed for the storage or dispensing of ice cream or similar foods.

“Milk, beverage, and ice cream cabinet” means a reach-in cabinet commercial refrigerator-freezer that has top, or both top and side, doors that are hinged or sliding and that is designed for the storage or dispensing of milk or other beverages, and ice cream or similar foods.

“Milk or beverage cabinet” means a reach-in cabinet commercial refrigerator that has top, or both top and side, doors that are hinged or sliding and that is designed for the storage or dispensing of milk or other beverages.

“Pass-through cabinet” means a commercial refrigerator or commercial freezer with hinged or sliding doors on both front and rear of the refrigerator or freezer.

“Preparation table” means a commercial refrigerator with a countertop refrigerated compartment with or without cabinets below, and with self-contained refrigeration equipment.

“Reach-in cabinet” means a commercial refrigerator, commercial refrigerator-freezer, or commercial freezer with hinged or sliding doors or lids, but excluding roll-in or roll-through cabinets and pass-through cabinets.

“Refrigerator” means a cabinet that is designed for the refrigerated storage of food, including but not limited to solid food and wine, beer, and other beverages, at temperatures above 32o F, and that has a source of refrigeration requiring an energy input. It may include a compartment for the freezing and storage of food at temperatures below 32o F, but it does not provide a separate low temperature compartment designed for the freezing and storage of food at temperatures below 8o F.

“Refrigerator-freezer” means a cabinet that:

(1) consists of two or more compartments with at least one of the compartments designed for the refrigerated storage of food, including but not limited to solid food and wine, beer, and other beverages, at temperatures above 32o F;

(2) has at least one of the compartments designed for the freezing and storage of food or ice at temperatures below 8o F that may be adjusted by the user to a temperature of 0° F or below; and

(3) has a source of refrigeration requiring an energy input.

“Roll-in or roll-through cabinet” means a commercial refrigerator or commercial freezer that allows wheeled racks of product to be rolled into or through the refrigerator or freezer.

“Undercounter cabinet” means a reach-in cabinet commercial refrigerator or reach-in cabinet commercial freezer that has no worktop surface and that is intended for installation under a separate counter.

“Worktop table” means a counter-height commercial refrigerator or freezer with a worktop surface.

Excluded from the California Standard

“Non-commercial freezer” means

(1) a freezer that is a federally-regulated consumer product or

(2) a freezer exceeding 30 ft³ but not exceeding 39 ft³ that is a consumer product.

“Non-commercial refrigerator” means a refrigerator that is a federally-regulated consumer product or a wine chiller that is a consumer product.

“Non-commercial refrigerator-freezer” means a refrigerator-freezer that is a federally regulated consumer product.

Energy Efficiency Standard for Commercial Refrigerators/Freezers

California Title 20 Section 1605.3 (a) 7

Appliances Covered in Standard:

(A) Reach-in cabinets include but are not limited to ice cream cabinets; milk or beverage cabinets; and milk, beverage, and ice cream cabinets.

(B) The appliances listed in 1603.3 (a) 3 and Table 2 do not include preparation tables, refrigerated buffet and preparation tables, or work top tables.

Commercial refrigerators, refrigerator-freezers, and freezers manufactured on or after the effective dates shown in Table 2 shall have daily energy consumption no greater than the applicable values also displayed below in Table 2.

Table 2. Standards for Commercial Refrigerators, Refrigerator-Freezers, and Freezers
(Part of Table A-7 in Title 20)

Appliance	Doors	Maximum Daily Energy Consumption (kWh)		
		August 1, 2004	January 1, 2006	January 1, 2007
Reach-in cabinets, passthrough cabinets, and roll-in or roll-through cabinets that are refrigerators; and wine chillers that are not consumer products	Solid	0.125V + 2.76	0.10V + 2.04	0.10V + 2.04
	Transparent	0.172V + 4.77	0.172V + 4.77	0.12V + 3.34

Reach-in cabinets, passthrough cabinets, and roll-in or roll-through cabinets that are freezers (except ice cream freezers)	Solid	$0.398V + 2.28$	$0.40V + 1.38$	$0.40V + 1.38$
	Transparent	$0.940V + 5.10$	$0.940V + 5.10$	$0.75V + 4.10$
Reach-in cabinets, passthrough cabinets, and roll-in or roll-through cabinets that are freezers that are ice cream freezers	Solid	$0.398V + 2.28$	$0.398V + 2.28$	$0.39V + 0.82$
	Transparent	$0.940V + 5.10$	$0.940V + 5.10$	$0.88V + 0.33$
Reach-in cabinets that are refrigerator-freezers and that have an adjusted volume (AV) of 5.19 ft ³ or greater	Solid	$0.273AV + 1.65$	$0.273AV + 1.65$	$0.27AV - 0.71$
Reach-in cabinets that are refrigerator-freezers and that have an adjusted volume (AV) of less than 5.19 ft ³	Solid or Transparent		0.70	0.70
V = total volume (ft ³) AV = Adjusted Volume = [1.63 x freezer volume (ft ³)] + refrigerator volume (ft ³) C=Rated capacity (number of 12 ounce cans)				

Test Method

California Title 20 Section 1604 (a) 2

Table 1. Commercial Refrigerator, Refrigerator-Freezer, and Freezer Test Methods
(Table A-2 in Title 20)

Appliance	Test Method				
Automatic commercial icemakers	ARI 810-2003 Harvest rate (lbs. of ice/24 hours) shall be reported within 5% of the tested value.				
Refrigerated buffet and preparation tables	ANSI/ASTM F2143-01				
Other self-contained commercial refrigerators, refrigerator-freezers, and freezers, with doors	<p>Volume shall be measured using ANSI/AHAM HRF1-1979. Energy consumption shall be measured using ANSI/ASHRAE 117- 1992, except that the back (loading) doors of pass-through and rollthrough refrigerators and freezers shall remain closed throughout the test, and except that the controls of all appliances shall be adjusted to obtain the following product temperatures:</p> <table border="1"> <thead> <tr> <th>Type</th> <th>Integrated Average Product Temperature (Section 9.1.1) in ° F</th> </tr> </thead> <tbody> <tr> <td>Refrigerator Compartment</td> <td>38 ± 2</td> </tr> </tbody> </table>	Type	Integrated Average Product Temperature (Section 9.1.1) in ° F	Refrigerator Compartment	38 ± 2
Type	Integrated Average Product Temperature (Section 9.1.1) in ° F				
Refrigerator Compartment	38 ± 2				

	Freezer Compartment	0 ± 2
	Wine chiller	45 ± 2
	Ice Cream Cabinet	-5 ± 2
Other self-contained commercial refrigerators, refrigerator-freezers, and freezers, without doors	Volume measured using ANSI/AHAM HRF1-1979 Energy consumption measured using ANSI/ASHRAE 72-1998, with the controls adjusted to obtain the following product temperatures:	
	Type	Integrated Average Product Temperature (Section 9.1.1) in ° F
	Refrigerator Compartment	38 ± 2
	Freezer Compartment	0 ± 2
	Wine chiller	45 ± 2
	Ice Cream Cabinet	-5 ± 2

(3) When a refrigerator, refrigerator-freezer, or freezer can be operated using either alternating current electricity or one or more other sources of primary power, the test shall be performed using alternating current electricity only.

EXCEPTION for units equipped with an integral, automatic timer. Units equipped with an integral, automatic timer shall not be tested using Section 4D, "Timer Usage," of the referenced test method.

Labeling Requirements

California Title 20 Section 1607

All units must comply with section 1607, Marking of Appliances, which requires the following:

(a) Every unit of every appliance within the scope of Section 1601 shall comply with the applicable provisions of this Section. The effective dates of this section shall be the same as the effective dates shown in Section 1605.1, 1605.2 or 1605.3 for appliances for which there is an energy efficiency, energy consumption, energy design, water efficiency, water consumption, or water design standard in Section 1605.1, 1605.2, or 1605.3. For appliances with no energy efficiency, energy consumption, energy design, water efficiency, water consumption, or water design standard in Section 1605.1, 1605.2, or 1605.3, the effective date of this section shall be January 1, 2006.

(b) **Name, Model Number, and Date.**

Except as provided in Subsection (c), the following information shall be permanently, legibly, and conspicuously displayed on an accessible place on each unit:

(1) manufacturer's name or brand name or trademark (which shall be either the name, brand, or trademark of the listed manufacturer specified pursuant to Section 1606(a)(2)(A) or, if applicable, the designated manufacturer specified pursuant to Section 1606(f)(1)(F));

(2) model number; and

(3) date of manufacture, indicating (i) year and (ii) month or smaller (e.g. week) increment. If the date is in a code that is not readily understandable to the

layperson, the manufacturer shall immediately, on request, provide the code to the Energy Commission.

Subsection (c) provides exceptions to subsection (b) requirements shown above. Commercial refrigerators, refrigerator-freezers, and freezers are not called out as exceptions.

Connecticut

Effective July 1, 2008

Definition

"Pass-through cabinet" means a refrigerator or freezer with hinged or sliding doors on both the front and rear of the refrigerator or freezer;

"Reach-in cabinet" means a refrigerator, freezer, or combination thereof, with hinged or sliding doors or lids.

"Roll-in" or "roll-through cabinet" means a refrigerator or freezer with hinged or sliding doors that allows wheeled racks of product to be rolled into or through the refrigerator or freezer.

"Commercial refrigerators and freezers" means reach-in cabinets, pass-through cabinets, roll-in cabinets and roll-through cabinets that have less than eighty-five feet of capacity. "Commercial refrigerators and freezers" does not include walk-in models or consumer products regulated under the federal National Appliance Energy Conservation Act of 1987.

Standard

Commercial refrigerators and freezers shall meet the August 1, 2004, requirements shown in Table A-6 of said California regulation and located in Table 3 below.

Table 3. Standards for Commercial Refrigerators, Refrigerator-Freezers, and Freezers
(Part of Table A-7 in Title 20)

Appliance	Doors	Maximum Daily Energy Consumption (kWh)
		August 1, 2004
Reach-in cabinets, pass-through cabinets, and roll-in or roll-through cabinets that are refrigerators; and wine chillers that are not consumer products	Solid	$0.125V + 2.76$
	Transparent	$0.172V + 4.77$
Reach-in cabinets, pass-through cabinets, and roll-in or roll-through cabinets that are freezers (except ice cream freezers)	Solid	$0.398V + 2.28$
	Transparent	$0.940V + 5.10$
Reach-in cabinets that are refrigerator-freezers and that have an adjusted volume (AV) of 5.19 ft ³ or greater	Solid	$0.273AV + 1.65$

$V = \text{total volume (ft}^3\text{)}$
 $AV = \text{Adjusted Volume} = [1.63 \times \text{freezer volume (ft}^3\text{)}] + \text{refrigerator volume (ft}^3\text{)}$
 $C = \text{Rated capacity (number of 12 ounce cans)}$

Oregon

Effective January 1, 2007

Definitions

“Commercial refrigerators or freezers” means refrigerators, freezers or refrigerator-freezers, smaller than 85 cubic feet of internal volume and designed for use by commercial or institutional facilities for the purpose of storing or merchandising food products, beverages or ice at specified temperatures, other than products without doors, walk-in refrigerators or freezers, consumer products that are federally regulated pursuant to 42 U.S.C. 6291 et seq. or freezers specifically designed for ice cream. “Commercial refrigerators or freezers”:

(a) Must incorporate most components involved in the vapor-compression cycle and the refrigerated compartment in a single cabinet; and

(b) May be configured with either solid or transparent doors as a reach-in cabinet, pass-through cabinet, roll-in cabinet or roll-through cabinet.

“Pass-through cabinet” means a commercial refrigerator or freezer with hinged or sliding doors on both the front and rear of the unit.

“Reach-in cabinet” means a commercial refrigerator or freezer with hinged or sliding doors or lids, other than roll-in or roll-through cabinets or pass-through cabinets.

“Roll-in cabinet” means a commercial refrigerator or freezer with hinged or sliding doors that allow wheeled racks to be rolled into the unit.

“Roll-through cabinet” means a commercial refrigerator or freezer with hinged or sliding doors on two sides of the cabinet that allow wheeled racks to be rolled through the unit.

Standard

Commercial refrigerators or freezers must meet the applicable requirements listed in the following table:

Equipment Type	Doors	Maximum Daily Energy Consumption (kWh)
Reach-in cabinets, pass-through cabinets and roll-in or roll-through cabinets that are refrigerators	Solid	$0.10V + 2.04$
	Transparent	$0.12V + 3.34$
Reach-in cabinets, pass-through cabinets and roll-in or roll-through cabinets that are “pulldown” refrigerators	Transparent	$0.126V + 3.51$
Reach-in cabinets, pass-through cabinets and roll-in or roll-through	Solid	$0.40V + 1.38$
	Transparent	$0.75V + 4.10$

<i>cabinets that are freezers</i>		
<i>Reach-in cabinets that are refrigerator-freezers with an AV of 5.19 or higher</i>	<i>Solid</i>	<i>0.27AV - 0.71</i>

kWh = kilowatt hours

V = total volume (ft³)

AV = adjusted volume = [1.63 x freezer volume (ft³)] + refrigerator volume (ft³)

(b) For purposes of this subsection:

(A) "Pull-down" designates products designed to take a fully stocked refrigerator with beverages at 90 degrees Fahrenheit and cool those beverages to a stable temperature of 38 degrees Fahrenheit within 12 hours or less.

(B) Daily energy consumption shall be measured in accordance with the American National Standards Institute/American Society of Heating, Refrigerating and Air-Conditioning Engineers test method 117-2002, except that:

(i) The back-loading doors of pass-through and roll-through refrigerators and freezers must remain closed throughout the test; and

(ii) The controls of all commercial refrigerators or freezers shall be adjusted to obtain the following product temperatures, in accordance with the California Code of Regulations, Title 20, Division 2, Chapter 4, Article 4, section 1604, table A-2, effective November 27, 2002:

Product or compartment type	Integrated average product temperature in degrees Fahrenheit
<i>Refrigerator</i>	<i>38 +/- 2</i>
<i>Freezer</i>	<i>0 +/- 2</i>

New York

Effective January 1, 2010

Definitions

"Commercial refrigerator, freezer, and refrigerator-freezer" means refrigeration equipment that:

(i) is not a consumer product as defined by 42 USC 6291;

(ii) is not designed and marketed exclusively for medical, scientific, or research purposes;

(iii) operates at a chilled, frozen, combination chilled/frozen, or variable temperature;

(iv) displays or stores merchandise and other perishable materials either horizontally, semivertically, or vertically;

(v) has transparent or solid doors, sliding or hinged doors, a combination of hinged, sliding, transparent or solid doors;

(vi) is designed for pull-down temperature applications or holding temperature applications; and

(vii) is connected to a self-contained condensing unit.

The term "pull-down temperature application" means a commercial refrigerator with doors that, when fully loaded with twelve ounce beverage cans at ninety degrees Fahrenheit, can cool these beverages to an average stable temperature of thirty-eight degrees Fahrenheit in twelve hours or less.

The term "holding temperature application" means a use of commercial refrigeration equipment other than a pull-down temperature application, excluding a blast chiller or freezer.

The term "self-contained condensing unit" means a factory-made assembly of refrigerating components designed to compress and liquefy a specific refrigerant that is an integral part of the refrigerated equipment and consists of one or more refrigerant compressors, refrigerant condensers, condenser fans and motors, and factory supplied accessories.

The term "integrated average temperature" means the average temperature of all test package measurements taken during the test.

The term 'AV' means the adjusted volume (cubic feet) defined as 1.63 X frozen temperature compartment volume (cubic feet) + chilled temperature compartment volume (cubic feet) with compartment volumes measured in accordance with the association of home appliance manufacturers standard HRF1-1979.

The term 'V' means the chilled or frozen compartment volume (cubic feet) as defined in the association of home appliance manufacturers standard HRF1-1979.

Standard

Commercial refrigerators and freezers.

(A) Each commercial refrigerator, freezer, and refrigerator-freezer with a self-contained condensing unit designed for holding temperature applications sold, offered for sale or installed in New York state on or after January first, two thousand ten shall have a daily energy consumption (in kilowatt hours per day) not to exceed:

(I) refrigerators with solid doors $0.10 V + 2.04$

(II) refrigerators with transparent doors $0.12 V + 3.34$

(III) freezers with solid doors $0.40 V + 1.38$

(IV) freezers with transparent doors $0.75 V + 4.10$

(V) refrigerators/freezers with solid doors the greater of: $0.27AV-0.71$ or 0.70

(B) Each commercial refrigerator with a self-contained condensing unit designed for pull-down temperature applications sold, offered for sale or installed in New York state on or after January first, two thousand ten shall have a daily energy consumption (in kilowatt hours per day) not to exceed: refrigerators with transparent doors $0.126 V + 3.51$.

Rhode Island

Effective June 1, 2006

Definitions

"Commercial refrigerator, freezer and refrigerator-freezer" means self-contained refrigeration equipment that:

(1) Is not a consumer product as regulated pursuant to 42 U.S. Code section 6291 and subsequent sections;

(2) Operates at a chilled, frozen, combination chilled/frozen, or variable temperature for the purpose of storing and/or merchandising food, beverages and/or ice;

(3) May have transparent and/or solid hinged doors, sliding doors, or a combination of (4) Incorporates most components involved in the vapor compression cycle and the refrigerated compartment in a single cabinet.

This term does not include:

(1) Units with eighty-five (85) cubic feet or more of internal volume;

(2) Walk-in refrigerators or freezers;

(3) Units with no doors; or

(4) Freezers specifically designed for ice cream.

"Pull-down refrigerator" means a commercial refrigerator with doors that, when fully loaded with twelve (12) ounce canned beverages at ninety (90) degrees F, can cool these beverages to an average stable temperature of thirty-eight (38) degrees F in twelve (12) hours or less.

Standard

Commercial refrigerators, freezers and refrigerator-freezers shall meet the minimum efficiency requirements shown in Table A-6 of section 1605.3 of the California Code of Regulations, Title 20: Division 2, Chapter 4, Article 4: Appliance Efficiency Regulations as adopted on December 15, 2004 (located below in table 4) except that pull-down refrigerators with transparent doors shall meet a requirement five percent (5%) less stringent than shown in the California regulations.

Table 4. California Standards for Commercial Refrigerators, Refrigerator-Freezers, and Freezers

(Part of Table A-6 in 2005 Title 20)

Appliance	Doors	Maximum Daily Energy Consumption (kWh)		
		August 1, 2004	January 1, 2006	January 1, 2007
Reach-in cabinets, passthrough cabinets, and roll-in or roll-through cabinets that are refrigerators; and wine chillers that are not consumer products	Solid	0.125V + 2.76	0.10V + 2.04	0.10V + 2.04
	Transparent	0.172V + 4.77	0.172V + 4.77	0.12V + 3.34
Reach-in cabinets, passthrough cabinets, and roll-in or roll-through cabinets that are freezers (except ice cream freezers)	Solid	0.398V + 2.28	0.40V + 1.38	0.40V + 1.38
	Transparent	0.940V + 5.10	0.940V + 5.10	0.75V + 4.10
Reach-in cabinets, passthrough cabinets, and roll-in or roll-	Solid			0.39V + 0.82

through cabinets that are freezers that are ice cream freezers	Transparent			$0.88V + 0.33$
Reach-in cabinets that are refrigerator-freezers and that have an adjusted volume (AV) of 5.19 ft ³ or greater	Solid	$0.273AV + 1.65$	$0.273AV + 1.65$	$0.27AV - 0.71$
Reach-in cabinets that are refrigerator-freezers and that have an adjusted volume (AV) of less than 5.19 ft ³			0.70	0.70
V = total volume (ft ³) AV = Adjusted Volume = [1.63 x freezer volume (ft ³)] + refrigerator volume (ft ³) C=Rated capacity (number of 12 ounce cans)				

Washington

Effective January 1, 2007

Definitions

"Commercial refrigerators and freezers" means refrigerators, freezers, or refrigerator-freezers designed for use by commercial or institutional facilities for the purpose of storing or merchandising food products, beverages, or ice at specified temperatures that:

- (i) Incorporate most components involved in the vapor-compression cycle and the refrigerated compartment in a single cabinet; and
- (ii) may be configured with either solid or transparent doors as a reach-in cabinet, pass-through cabinet, roll-in cabinet, or roll-through cabinet.

"Commercial refrigerators and freezers" does not include:

- (i) Products with 85 cubic feet or more of internal volume;
- (ii) walk-in refrigerators or freezers;
- (iii) consumer products that are federally regulated pursuant to 42 U.S.C. Sec. 6291 et seq.;
- (iv) products without doors; or
- (v) freezers specifically designed for ice cream.

"Pass-through cabinet" means a commercial refrigerator or freezer with hinged or sliding doors on both the front and rear of the unit.

"Reach-in cabinet" means a commercial refrigerator or freezer with hinged or sliding doors or lids, but does not include roll-in or roll-through cabinets or pass-through cabinets.

"Roll-in cabinet" means a commercial refrigerator or freezer with hinged or sliding doors that allow wheeled racks of product to be rolled into the unit.

"Roll-through cabinet" means a commercial refrigerator or freezer with hinged or sliding doors on two sides of the cabinet that allow wheeled racks of product to be rolled through the unit.

Standard

(a) Commercial refrigerators and freezers must meet the applicable requirements listed in the following table:

Equipment Type	Doors	Maximum Daily Energy Consumption (kWh)
<i>Reach-in cabinets, pass-through cabinets and roll-in or roll-through cabinets that are refrigerators</i>	<i>Solid</i>	$0.10V + 2.04$
	<i>Transparent</i>	$0.12V + 3.34$
<i>Reach-in cabinets, pass-through cabinets and roll-in or roll-through cabinets that are "pulldown" refrigerators</i>	<i>Transparent</i>	$0.126V + 3.51$
<i>Reach-in cabinets, pass-through cabinets and roll-in or roll-through cabinets that are freezers</i>	<i>Solid</i>	$0.40V + 1.38$
	<i>Transparent</i>	$0.75V + 4.10$
<i>Reach-in cabinets that are refrigerator-freezers with an AV of 5.19 or higher</i>	<i>Solid</i>	$0.27AV - 0.71$

(b) For purposes of this section, "pulldown" designates products designed to take a fully stocked refrigerator with beverages at 90 degrees F and cool those beverages to a stable temperature of 38 degrees F within 12 hours or less. Daily energy consumption shall be measured in accordance with the American National Standards Institute/American Society of Heating, Refrigerating and Air-conditioning Engineers test method 117-2002 (ANSI/ASHRAE 117-2002), except that the back-loading doors of pass-through and roll-through refrigerators and freezers must remain closed throughout the test, and except that the controls of all appliances must be adjusted to obtain the following product temperatures.

Product or compartment type	Integrated average product temperature in degrees Fahrenheit
<i>Refrigerator</i>	38 ± 2
<i>Freezer</i>	0 ± 2