



Proposed Criteria Refrigerator-Freezers

Scope

Included products: Full-size refrigerator-freezers are eligible for ENERGY STAR® Most Efficient recognition in 2018.

Excluded products: The following products are not eligible for ENERGY STAR Most Efficient recognition in 2018:

- Compact models. For products certified under Version 5.0: Any all-refrigerator, refrigerator-freezer, or freezer with total volume less than 7.75 cubic feet (220 liters rated volume as determined in Appendix A of 10 CFR subpart B).
- Freezers. At the present time, freezers are not eligible for ENERGY STAR Most Efficient 2018 recognition.
- All-refrigerators. At the present time, all-refrigerators are not eligible for ENERGY STAR Most Efficient 2018 recognition.

Recognition Criteria

1) Product must be ENERGY STAR certified consistent with applicable ENERGY STAR Partner Commitments and the requirements set forth in the ENERGY STAR Program Requirements Product Specification for Residential Refrigerators and Freezers, Version 5.0. Product performance must be certified by a certification body recognized by the U.S. Environmental Protection Agency (EPA).

2) Product must have an Annual Energy Consumption (AEC) of less than or equal to 637 kWh per year.

3) For refrigerator-freezers other than top freezers¹, product must be at least 15% more efficient than federal requirements (see table below), as determined by the DOE test procedure in 10 CFR 430 Subpart B, Appendix A.

¹ Top freezers are not subject to part 3 of the Recognition Criteria; all ENERGY STAR certified top freezers that have an AEC less than or equal to 637 kWh per year are eligible for ENERGY STAR Most Efficient recognition.

Product Class		Maximum AEC (kWh/year)
1	Refrigerator-freezers and refrigerators other than all-refrigerators with manual defrost.	$AV \leq 65.6, AEC_{MAX} \leq 6.79*AV + 191.3$ $AV > 65.6, AEC_{MAX} \leq 637$
2	Refrigerator-freezers—partial automatic defrost.	$AV \leq 65.6, AEC_{MAX} \leq 6.79*AV + 191.3$ $AV > 65.6, AEC_{MAX} \leq 637$
4	Refrigerator-freezers—automatic defrost with side-mounted freezer without an automatic icemaker.	$AV \leq 53.0, AEC_{MAX} \leq 7.23*AV + 253.1$ $AV > 53.0, AEC_{MAX} \leq 637$
4-BI	Built-In Refrigerator-freezers—automatic defrost with side-mounted freezer without an automatic icemaker	$AV \leq 53.0, AEC_{MAX} \leq 7.23*AV + 253.1$ $AV > 53.0, AEC_{MAX} \leq 637$
4I	Refrigerator-freezers—automatic defrost with side-mounted freezer with an automatic icemaker without through-the-door ice service.	$AV \leq 41.4, AEC_{MAX} \leq 7.23*AV + 337.1$ $AV > 41.4, AEC_{MAX} \leq 637$
4I-BI	Built-In Refrigerator-freezers—automatic defrost with side-mounted freezer with an automatic icemaker without through-the-door ice service.	$AV \leq 41.4, AEC_{MAX} \leq 7.23*AV + 337.1$ $AV > 41.4, AEC_{MAX} \leq 637$
5	Refrigerator-freezers—automatic defrost with bottom-mounted freezer without an automatic icemaker	$AV \leq 48.8, AEC_{MAX} \leq 7.52*AV + 269.5$ $AV > 48.8, AEC_{MAX} \leq 637$
5-BI	Built-In Refrigerator-freezers—automatic defrost with bottom-mounted freezer without an automatic icemaker	$AV \leq 48.8, AEC_{MAX} \leq 7.52*AV + 269.5$ $AV > 48.8, AEC_{MAX} \leq 637$
5I	Refrigerator-freezers—automatic defrost with bottom-mounted freezer with an automatic icemaker without through-the-door ice service	$AV \leq 37.7, AEC_{MAX} \leq 7.52*AV + 353.5$ $AV > 37.7, AEC_{MAX} \leq 637$
5I-BI	Built-In Refrigerator-freezers—automatic defrost with bottom-mounted freezer with an automatic icemaker without through-the-door ice service	$AV \leq 37.7, AEC_{MAX} \leq 7.52*AV + 353.5$ $AV > 37.7, AEC_{MAX} \leq 637$
5A	Refrigerator-freezers—automatic defrost with bottom-mounted freezer with through-the-door ice service	$AV \leq 28.0, AEC_{MAX} \leq 7.86*AV + 416.7$ $AV > 28.0, AEC_{MAX} \leq 637$
5A-BI	Built-in refrigerator-freezer—automatic defrost with bottom-mounted freezer with through-the-door ice service	$AV \leq 28.0, AEC_{MAX} \leq 7.86*AV + 416.7$ $AV > 28.0, AEC_{MAX} \leq 637$
7	Refrigerator-freezers—automatic defrost with side-mounted freezer with through-the-door ice service	$AV \leq 35.3, AEC_{MAX} \leq 7.26*AV + 380.5$ $AV > 35.3, AEC_{MAX} \leq 637$
7-BI	Built-in refrigerator-freezers—automatic defrost with side-mounted freezer with through-the-door ice service	$AV \leq 35.3, AEC_{MAX} \leq 7.26*AV + 380.5$ $AV > 35.3, AEC_{MAX} \leq 637$
AV = Adjusted Volume (AV) shall be calculated in accordance with the DOE test procedure in 10 CFR 430 Subpart B, Appendix A.		

Recognition Period

EPA will add eligible models to the ENERGY STAR Most Efficient 2018 product list for refrigerators from January 1, 2018 through December 31, 2018. The ENERGY STAR Most Efficient 2018 designation may be used in association with models recognized during this period for as long as the model remains on the market.