# Recognition Criteria

## Consumer Refrigeration Products

### Scope

*Included products:* Consumer refrigeration products are eligible for ENERGY STAR® Most Efficient recognition in 2022.

*Excluded products:* The following products are not eligible for ENERGY STAR Most Efficient recognition in 2022:

- All-refrigerators. At the present time, standard-size all-refrigerators are not eligible for ENERGY STAR Most Efficient 2022 recognition.
- Coolers. At the present time, coolers are not eligible for ENERGY STAR Most Efficient 2022 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 Consumer Refrigeration Products, Version 5.1. Product performance must be certified by a certification body recognized by the U.S. Environmental Protection Agency (EPA).

2. For standard-size refrigerator-freezers and freezers, product must have an Annual Energy Consumption (AEC) of less than or equal to 637 kWh per year.

3. For standard-size refrigerator-freezers other than top freezers\(^1\), product must be at least 27% more efficient than federal requirements (see table below), as determined by the DOE test procedure in 10 CFR 430 Subpart B, Appendix A. For standard-size and compact freezers, product must be at least 15% (standard-size) or 20% (compact) more efficient than federal requirements, as determined by the DOE test procedure in 10 CFR 430 Subpart B, Appendix B. For compact refrigerators and refrigerator-freezers, product must be at least 30% more efficient than federal requirements, as determined by the DOE test procedure in 10 CFR 430 Subpart B, Appendix A.

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\(^1\) 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.
<table>
<thead>
<tr>
<th>Product Class</th>
<th>Maximum AEC (kWh/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Refrigerator-freezers and refrigerators other than all-refrigerators with manual defrost. AV ≤ 81.1, $AEC_{MAX} \leq 5.83^*AV + 164.3$ AV &gt; 81.1, $AEC_{MAX} \leq 637$</td>
</tr>
<tr>
<td>2</td>
<td>Refrigerator-freezers—partial automatic defrost. AV ≤ 81.1, $AEC_{MAX} \leq 5.83^*AV + 164.3$ AV &gt; 81.1, $AEC_{MAX} \leq 637$</td>
</tr>
<tr>
<td>4</td>
<td>Refrigerator-freezers—automatic defrost with side-mounted freezer without an automatic icemaker. AV ≤ 67.6, $AEC_{MAX} \leq 6.21^*AV + 217.4$ AV &gt; 67.6, $AEC_{MAX} \leq 637$</td>
</tr>
<tr>
<td>4-BI</td>
<td>Built-In Refrigerator-freezers—automatic defrost with side-mounted freezer without an automatic icemaker AV ≤ 67.6, $AEC_{MAX} \leq 6.21^*AV + 217.4$ AV &gt; 67.6, $AEC_{MAX} \leq 637$</td>
</tr>
<tr>
<td>4I</td>
<td>Refrigerator-freezers—automatic defrost with side-mounted freezer with an automatic icemaker without through-the-door ice service AV ≤ 54.0, $AEC_{MAX} \leq 6.21^*AV + 301.4$ AV &gt; 54.0, $AEC_{MAX} \leq 637$</td>
</tr>
<tr>
<td>4I-BI</td>
<td>Built-In Refrigerator-freezers—automatic defrost with side-mounted freezer with an automatic icemaker without through-the-door ice service AV ≤ 54.0, $AEC_{MAX} \leq 6.21^*AV + 301.4$ AV &gt; 54.0, $AEC_{MAX} \leq 637$</td>
</tr>
<tr>
<td>5</td>
<td>Refrigerator-freezers—automatic defrost with bottom-mounted freezer without an automatic icemaker AV ≤ 62.8, $AEC_{MAX} \leq 6.46^*AV + 231.4$ AV &gt; 62.8, $AEC_{MAX} \leq 637$</td>
</tr>
<tr>
<td>5-BI</td>
<td>Built-In Refrigerator-freezers—automatic defrost with bottom-mounted freezer without an automatic icemaker AV ≤ 62.8, $AEC_{MAX} \leq 6.46^*AV + 231.4$ AV &gt; 62.8, $AEC_{MAX} \leq 637$</td>
</tr>
<tr>
<td>5I</td>
<td>Refrigerator-freezers—automatic defrost with bottom-mounted freezer with an automatic icemaker without through-the-door ice service AV ≤ 49.8, $AEC_{MAX} \leq 6.46^*AV + 315.4$ AV &gt; 49.8, $AEC_{MAX} \leq 637$</td>
</tr>
<tr>
<td>5I-BI</td>
<td>Built-In Refrigerator-freezers—automatic defrost with bottom-mounted freezer with an automatic icemaker without through-the-door ice service AV ≤ 49.8, $AEC_{MAX} \leq 6.46^*AV + 315.4$ AV &gt; 49.8, $AEC_{MAX} \leq 637$</td>
</tr>
<tr>
<td>5A</td>
<td>Refrigerator-freezers—automatic defrost with bottom-mounted freezer with through-the-door ice service AV ≤ 39.6, $AEC_{MAX} \leq 6.75^*AV + 369.7$ AV &gt; 39.6, $AEC_{MAX} \leq 637$</td>
</tr>
<tr>
<td>5A-BI</td>
<td>Built-in refrigerator-freezer—automatic defrost with bottom-mounted freezer with through-the-door ice service AV ≤ 39.6, $AEC_{MAX} \leq 6.75^*AV + 369.7$ AV &gt; 39.6, $AEC_{MAX} \leq 637$</td>
</tr>
<tr>
<td>7</td>
<td>Refrigerator-freezers—automatic defrost with side-mounted freezer with through-the-door ice service AV ≤ 47.9, $AEC_{MAX} \leq 6.23^*AV + 338.6$ AV &gt; 47.9, $AEC_{MAX} \leq 637$</td>
</tr>
<tr>
<td>7-BI</td>
<td>Built-in refrigerator-freezers—automatic defrost with side-mounted freezer with through-the-door ice service AV ≤ 47.9, $AEC_{MAX} \leq 6.23^*AV + 338.6$ AV &gt; 47.9, $AEC_{MAX} \leq 637$</td>
</tr>
</tbody>
</table>

AV = Adjusted Volume (AV) shall be calculated in accordance with the DOE test procedure in 10 CFR 430 Subpart B, Appendix A.
**Product Class** | **Maximum AEC (kWh/year)** |
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8 | Upright freezers with manual defrost | AV ≤ 99.9, AEC_{MAX} ≤ 4.73*AV + 164.6  
|  |  | AV > 99.9, AEC_{MAX} ≤ 637  
9 | Upright freezers with automatic defrost without an automatic icemaker | AV ≤ 60.4, AEC_{MAX} ≤ 7.33*AV + 194.1  
|  |  | AV > 60.4, AEC_{MAX} ≤ 637  
9I | Upright freezers with automatic defrost with an automatic icemaker | AV ≤ 49.0, AEC_{MAX} ≤ 7.33*AV + 278.1  
|  |  | AV > 49.0, AEC_{MAX} ≤ 637  
9-BI | Built-In Upright freezers with automatic defrost without an automatic icemaker | AV ≤ 60.4, AEC_{MAX} ≤ 7.33*AV + 194.1  
|  |  | AV > 60.4, AEC_{MAX} ≤ 637  
9I-BI | Built-In upright freezers with automatic defrost with an automatic icemaker | AV ≤ 49.0, AEC_{MAX} ≤ 7.33*AV + 278.1  
|  |  | AV > 49.0, AEC_{MAX} ≤ 637  
10 | Chest freezers and all other freezers except compact freezers | AV ≤ 88.0, AEC_{MAX} ≤ 6.20*AV + 91.6  
|  |  | AV > 88.0, AEC_{MAX} ≤ 637  
10A | Chest freezers with automatic defrost | AV ≤ 58.7, AEC_{MAX} ≤ 8.70*AV + 125.9  
|  |  | AV > 58.7, AEC_{MAX} ≤ 637  
11 | Compact Refrigerator and Refrigerator-Freezer other than All-Refrigerator - manual defrost | AEC_{MAX} ≤ 6.32*AV + 176.6  
11A | Compact All-Refrigerator - manual defrost | AEC_{MAX} ≤ 5.49*AV + 153.4  
12 | Compact Refrigerator-Freezer - partial automatic defrost | AEC_{MAX} ≤ 4.14*AV + 235.1  
13 | Compact refrigerator-freezers - automatic defrost with top-mounted freezer | AEC_{MAX} ≤ 8.26*AV + 237.4  
13I | Compact refrigerator-freezers—automatic defrost with top-mounted freezer with an automatic icemaker | AEC_{MAX} ≤ 8.26*AV + 321.4  
13A | Compact All-Refrigerators - automatic defrost | AEC_{MAX} ≤ 6.42*AV + 181.5  
14 | Compact Refrigerator-Freezer - automatic defrost with side-mounted freezer | AEC_{MAX} ≤ 4.77*AV + 319.8  
14I | Compact Refrigerator-Freezer - automatic defrost with side-mounted freezer with an automatic icemaker | AEC_{MAX} ≤ 4.77*AV + 403.8  
15 | Compact Refrigerator-Freezer - automatic defrost with Bottom-Mounted freezer | AEC_{MAX} ≤ 8.26*AV + 237.4  
15I | Compact Refrigerator-Freezer - automatic defrost bottom-mount- with an automatic icemaker | AEC_{MAX} ≤ 8.26*AV + 321.4  
16 | Compact upright freezers with manual defrost | AEC_{MAX} ≤ 6.92*AV + 180.6  
17 | Compact upright freezers with automatic defrost | AEC_{MAX} ≤ 8.14*AV + 281.5  
18 | Compact chest freezers | AEC_{MAX} ≤ 7.4*AV + 109.4  

AV = Adjusted Volume (AV) shall be calculated in accordance with the DOE test procedures in 10 CFR 430 Subpart B, Appendix A and 10 CFR 430 Subpart B, Appendix B.

**Recognition Period**

The U.S. Environmental Protection Agency (EPA) will add eligible models to the ENERGY STAR Most Efficient 2022 product list for consumer refrigeration products from January 1, 2022 through December 31, 2022. The ENERGY STAR Most Efficient 2022 designation may be used in association with models recognized during this period for as long as the model remains on the market.