

Submitting Products to Topten

Overview of selection criteria and accepted standards

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Criteria for all products

- Criteria:
- ✓ Natural refrigerant with global warming potential $GWP \leq 3$ (e.g. R290/propane, R600a/isobutane, R744/CO₂)
 - ✓ Plug-in (integral, self-contained)

Beverage Coolers

- Criteria:
- ✓ Forced-air circulation (capable of pulling down temperature within 4 hours, respectively)
 - ✓ Efficiency class C or better (maximum energy efficiency index of 35 according to 2019 final regulation); R744 models with efficiency class D or better (maximum energy efficiency index of 50 according to 2019 final regulation)
- Data:
- Measurement at climate class CC1 (EN 16902) → 25°C, 60% relative humidity
 - Temperature class must be one of the following: K1, K2, K3 or K4 (EN 16902)
 - According to the European standard for beverage coolers (EN 16902)

Ice Cream Freezers

- Criteria:
- ✓ With lid, maximum 600 litres net volume, static
 - ✓ Efficiency class C or better (maximum energy efficiency index of 35 according to 2019 final regulation)
- Data:
- Measurement at climate class 4 (30°C, 55% relative humidity)
 - Temperature class must be one of the following: C1 or C2 (EN 16901)
 - According to the European standard for ice cream freezers (EN 16901)

Refrigerated Display Cabinets

- Criteria: ✓ Maximum energy efficiency index as given in table below according to official regulation (EU) 2019/2018.

Category	Energy efficiency index	Energy efficiency class
Horizontal display freezers	≤ 50	D
Small counter-top freezers	≤ 10	
Vertical freezers with glass doors (TDA < 2 m ²) *	≤ 30	
Vertical freezers with glass doors (TDA > 2 m ²) *	≤ 60	
Horizontal chilled display cabinets	≤ 50	D
Vertical chilled display cabinets	≤ 35	C

* with closed sides

- Data:
- Measurement at climate class 3 (25°C, 60% relative humidity)
 - Temperature class must be one of the following: M1, M2, H1, H2, L1, L2 or L3
 - Primarily according to EN ISO 23953-2:2015

Refrigerated Vending machines

- Criteria: ✓ Maximum draft energy efficiency index of 75 according to 2014 working document
- Data:
- Measurement at climate class 3 (25°C, 60% relative humidity)
 - Primarily according to the new European standard for vending machines (EN 50597:2015)

Storage Refrigerators and Freezers

- Criteria: ✓ Energy efficiency class according to the EU energy label (EU regulation No 2015/1094) as given in the following table (or better):

Category	Energy efficiency class	Energy efficiency index
Storage counter refrigerators	A	<25
Storage refrigerators 1-door	A	<25
Storage refrigerators 2-doors	C	<50
Storage counter freezers	B	<35
Storage freezers 1-door	C	<50
Storage freezers 2-doors	C	<50
Storage refrigerator-freezers	D	<75

Minibars

- Criteria: ✓ Energy efficiency class according to the EU energy label (EU regulation No 1060/2010) as given in the following table (or better):

Category	Energy efficiency class	Energy efficiency index
Minibars	A+	<42

Wine coolers

- Criteria: ✓ Energy efficiency class according to the EU energy label (EU regulation No 1060/2010) as given in the following table (or better):

Category	Energy efficiency class	Energy efficiency index
One temperature zone	A+	<42
Multi temperature zones	A	<55

Links to documents

- EU energy label for refrigerated commercial display cabinets:
<https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1575538096087&uri=CELEX:32019R2018>
- EU energy label for storage refrigerators and freezers:
http://www.topten.eu/uploads/File/2015-1094_EN_Professional-equipment_Label.pdf
- EU energy label for household refrigerating appliances:
<http://www.topten.eu/uploads/File/Energy%20Label%20regulation%20cold%202010.pdf>

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Info :

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