

Coolly calculated – costs saved



Food service businesses, catering industries and hotels
that choose energy efficient refrigerated cabinets

- ❄ save on electricity costs
- ❄ protect the environment
- ❄ operate much more economically

Best products of Europe – topten.eu



Large energy savings

Storage refrigerators and display cabinets consume a great deal of energy and contain climate-damaging refrigerants. However, there exist alternatives. Be sure to choose most energy efficient models with climate-friendly refrigerants.



Beverages do not need to be refrigerated at night

Integrated energy management systems can automatically switch beverage coolers into sleep-mode after opening hours. Energy saving potential: 15 % to 45 %.

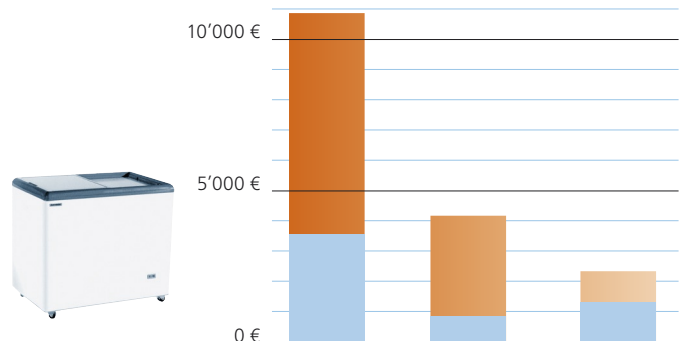
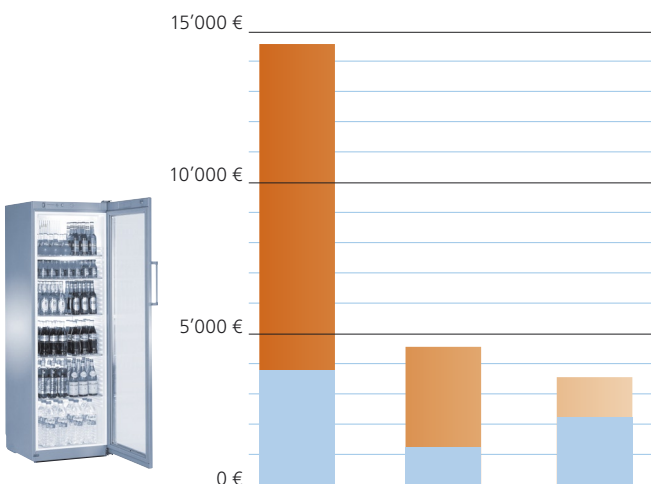
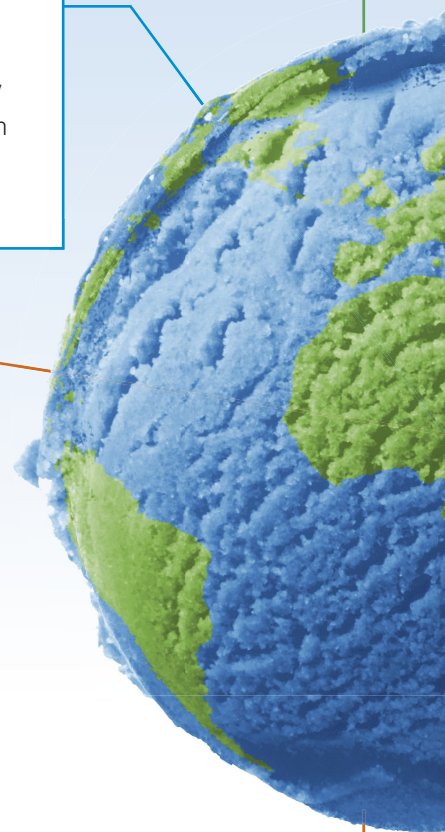
Cover ice cream freezers at night

Night covers help to additionally reduce energy costs of ice cream freezers. Ideal night covers are integrated in the cabinet.



Doors and lids are number one priority

They comprise the largest energy savings of all improvement options. Closed display cabinets use three times less energy than open cabinets. Open cabinets can be retrofitted with doors and lids to achieve energy savings of 40 %. Another advantage of closed cabinets is the better control of the room climate.



Example of beverage coolers	without door	with door	with door
Volume	324 litres	350 litres	346 litres
Energy	6'753 kWh/a	2'168 kWh/a	944 kWh/a
Electricity costs*	10'800 €	3'470 €	1'510 €
Purchase price	3'760 €	1'170 €	2'120 €
Total costs	14'560 €	4'640 €	3'630 €

Example of ice cream freezers	without lid	with lid	with lid
Volume	151 litres	183 litres	190 litres
Energy	4'636 kWh/a	1'991 kWh/a	584 kWh/a
Electricity costs*	7'420 €	3'190 €	930 €
Purchase price	3'570 €	980 €	1'290 €
Total costs	10'990 €	4'170 €	2'220 €

* 8 years, 0.2 €/kWh

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Minibars: A+++, A++ or A+

- ❄ Compressor-minibars are by far the most energy efficient ones. On the EU energy label they reach the classes A+++ and A++. A presence sensor or timer keeps them silent during the guests' residence in the room. Eutectic plates (= cold storage) guarantee a long cooling time without the compressor starting.
 - ❄ Among the Peltier-minibars the efficient ones are labelled with A+.
 - ❄ Absorber-minibars are inefficient and mostly in class D.
- An alternative to minibars in each room are highly efficient vending machines or refrigerators available on the floor.

Go for climate-friendly refrigerants

Refrigerants like R290, R600a or CO₂ (R744) have minimal global warming potential (GWP). Their GWP is below 4. Using climate-friendly refrigerants is future-oriented: the EU will ban climate-damaging refrigerants like R404A from 2020 and R134a from 2022. GWP of those refrigerants is around 4'000 and 1'400 respectively.

Topten is a help in the selection of the best products

Find the most energy efficient plug-in refrigerated cabinets with one click on Topten. All listed cabinets use climate-friendly refrigerants. Technical criteria are strengthened regularly to reflect the latest market developments. Product information is harmonised, which makes the comparison between all models and brands easy. Topten is independent from manufacturers and sellers of products listed on the website.

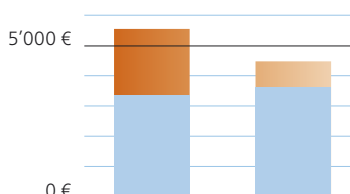
The best products on the European market



Green procurement

Purchase:

- ❄ Topten products or use the Topten technical criteria in calls for tender
- ❄ Display cabinets with doors and lids
- ❄ Cabinets with climate-friendly refrigerants
- ❄ Beverage coolers equipped with energy management systems
- ❄ Ice cream freezers with integrated night covers



Example of storage refrigerators	typical	efficient
Volume	450 litres	489 litres
Energy	1'348 kWh/a	408 kWh/a
Electricity costs*	2'160 €	650 €
Purchase price	3'250 €	3'830 €
Total costs	5'410 €	4'480 €

* 8 years, 0.2 €/kWh



ProCold – energy efficient and climate-friendly into the future

ProCold is an EU-project aiming to improve energy efficiency in plug-in cabinets and speed up the switch to climate-friendly refrigerants.

Product groups covered include: refrigerated storage cabinets, refrigerated display cabinets, beverage coolers, ice cream freezers, vending machines, wine coolers and minibars.

The project involves manufacturers, suppliers, food and beverage companies, retailers, restaurants, hotels and public authorities on the EU-level and in eight European countries.



More information: topten.eu/pro-cold

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