

Data Sheet

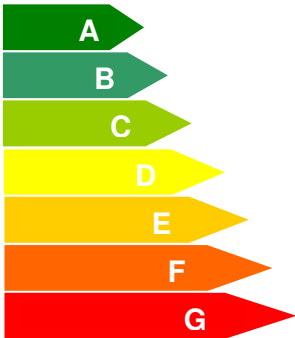

Energy Labels

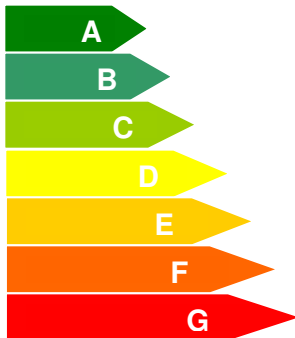

New electrical equipment has energy labels that show a rating for energy efficiency, based on how much energy they use.

A is the most energy efficient and **G** is the least energy efficient.

These labels allow us to make a choice about the energy efficiency of what we buy.

Here are two labels for fridge-freezers with different energy efficiency ratings.

Energy Manufacturer model	<i>Freezepoint</i> RF70
More efficient  Less efficient	
Energy consumption kWh/year	325
<small>Actual consumption will depend on how the appliance is used and where it is located</small>	
Fresh food volume in litres	215
Frozen food volume in litres	95

Energy Manufacturer model	LEX BR20
More efficient  Less efficient	
Energy consumption kWh/year	420
<small>Actual consumption will depend on how the appliance is used and where it is located</small>	
Fresh food volume in litres	215
Frozen food volume in litres	95

Questions

Energy Labels

1

(a) Which of the two fridge-freezers is the less energy efficient?

(b) How many kilowatt hours (kWh) of energy is used by the Freezepoint RF70 in a year?

(c) One kilowatt hour (kWh) of energy costs about 10p.
On that basis, approximately how much money would the more energy efficient fridge-freezer save in a year, compared to the other one?

This table shows some information about five fridge-freezers.

	 Coolmaster	 Bravo	 Zen	 Vortex	 Basch
Price	£259	£270	£289	£349	£360
Fridge capacity	205 litres	190 litres	245 litres	235 litres	230 litres
Freezer capacity	90 litres	140 litres	70 litres	120 litres	90 litres
Energy Rating			B		B
Annual energy consumption	440 kWh/year	335 kWh/year	357 kWh/year	220 kWh/year	335 kWh/year

2

- (a) Three of the fridge-freezers in the table do not have an Energy Rating. One should have an **A** rating, one a **B** rating and the other a **C** rating. Show on the table which fridge-freezer should have which Energy Rating.
- (b) A customer wants the most energy efficient fridge-freezer they can afford.
- The annual energy consumption must be less than 400 kWh/year.
 - The fridge capacity must be at least 200 litres.
 - The most they can spend is £300.

Which of these five fridge-freezers should they buy?

- (c) One kilowatt hour (kWh) of energy costs about 10p. On that basis, after how many years will the total costs of the Vortex (the price to buy plus the cost to run) become less than the total costs of the Coolmaster?
