

**Changes to legislation:** There are outstanding changes not yet made to Commission Regulation (EC) No 643/2009. Any changes that have already been made to the legislation appear in the content and are referenced with annotations. (See end of Document for details) View outstanding changes

## ANNEX IV

**Method for calculating the Energy Efficiency Index**

## 1. CLASSIFICATION OF HOUSEHOLD REFRIGERATING APPLIANCES

Household refrigerating appliances are classified in categories as in Table 1. Each category is defined by the specific compartment composition as specified in Table 2 and is independent of the number of doors and/or drawers.

TABLE 1

**Household refrigerating appliances categories**

Category	Designation
1	Refrigerator with one or more fresh-food storage compartments
2	Refrigerator-cellar, cellar and wine storage appliances
3	Refrigerator-chiller and refrigerator with a 0-star compartment
4	Refrigerator with a 1-star compartment
5	Refrigerator with a 2-star compartment
6	Refrigerator with a 3-star compartment
7	Refrigerator-freezer
8	Upright freezer
9	Chest freezer
10	Multi-use and other refrigerating appliances

Household refrigerating appliances that cannot be classified in categories 1 to 9 because of compartment temperature are classified in Category 10.

TABLE 2

**Household refrigerating appliance classification and relevant compartment composition**

Nominal temperature (for the EEI) (°C)	Design + 12	+ 12	+ 5	0	0	- 6	- 12	- 18	- 18	Category(number)
a	also includes 3-star frozen-food cabinets.									

Notes:

Y = the compartment is present;  
 N = the compartment is not present;  
 O = the presence of the compartment is optional;

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Compartments types	Other	Wine storage	Cellar	Fresh food storage	Chill	0-star/ Ice making	1-star	2-star	3-star	4-star	
<b>Appliances compartments composition</b>											
<b>Category</b>											
REFRIGERATOR WITH ONE OR MORE FRESH-FOOD STORAGE COMPARTMENTS			N	Y	N	N	N	N	N	N	1
REFRIGERATOR, CELLAR AND WINE STORAGE APPLIANCE		O	O	Y	N	N	N	N	N	N	2
REFRIGERATOR AND REFRIGERATOR WITH A 0-STAR COMPARTMENT		O	O	Y	O	O	Y	N	N	N	3
REFRIGERATOR WITH A 1-STAR COMPARTMENT		O	O	Y	O	O	O	Y	N	N	4
REFRIGERATOR WITH A 2-STAR COMPARTMENT		O	O	Y	O	O	O	O	Y	N	5
REFRIGERATOR WITH A 3-		O	O	Y	O	O	O	O	O	Y	6

**a** also includes 3-star frozen-food cabinets.

Notes:

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STAR COMPARTMENT											
REFRIGERATOR-FREEZER	O	Y	O	O	O	O	O	O	Y	7	
UPRIGHT FREEZER	N	N	N	N	N	N	O	Y <sup>a</sup>	Y	8	
CHESTN FREEZER	N	N	N	N	N	N	O	N	Y	9	
MULTI-USE AND OTHER APPLIANCES	O	O	O	O	O	O	O	O	O	10	

<sup>a</sup> also includes 3-star frozen-food cabinets.

Notes:

Y = the compartment is present;  
 N = the compartment is not present;  
 O = the presence of the compartment is optional;

Household refrigerating appliances are classified in one or more climate classes as shown in Table 3

TABLE 3

#### Climate classes

Class	Symbol	Ambient average temperature °C
Extended temperate	SN	+ 10 to + 32
Temperate	N	+ 16 to + 32
Subtropical	ST	+ 16 to + 38
Tropical	T	+ 16 to + 43

The refrigerating appliance shall be capable of maintaining the required storage temperatures in the different compartments simultaneously and within the permitted temperature deviations (during the defrost cycle) as defined in Table 4 for the different types of household refrigerating appliances and for the appropriate climate classes.

Multi-use appliances and/or compartments shall be capable of maintaining the required storage temperatures of the different compartment types where these temperatures can be set by the end-user according to the manufacturer's instructions.

TABLE 4

#### Storage temperatures

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Storage temperatures (°C)							
Other compartment	Wine storage compartment	Cellar compartment	Fresh-food storage compartment	Chill compartment	One-star compartment	Two-star compartment/section	Food freezer and three-star compartment/cabinet
$t_{om}$	$t_{wma}$	$t_{cm}$	$t_{1m}, t_{2m}, t_{3m}, t_{ma}$	$t_{cc}$	$t^*$	$t^{**}$	$t^{***}$
$> + 14$	$+ 5 \leq t_{wma} \leq + 20$	$+ 8 \leq t_{cm} \leq + 14$	$0 \leq t_{1m}, t_{2m}, t_{3m} \leq + 8; t_{ma} \leq + 4$	$- 2 \leq t_{cc} \leq + 3$	$\leq - 6$	$\leq - 12^a$	$\leq - 18^a$

**a** for frost-free household refrigerating appliances during the defrost cycle, a temperature deviation of no more than 3 K during a period of 4 hours or 20 % of the duration of the operating cycle, whichever is the shorter, is allowed

Notes:

$t_{om}$  : storage temperature of the other compartment  
 $t_{wma}$  : storage temperature of the wine storage compartment with a variation of 0,5 K  
 $t_{cm}$  : storage temperature of the cellar compartment  
 $t_{1m}, t_{2m}, t_{3m}$  : storage temperatures of the fresh-food compartment  
 $t_{ma}$  : average storage temperature of the fresh-food compartment  
 $t_{cc}$  : instantaneous storage temperature of the chill compartment  
 $t^*, t^{**}, t^{***}$  : maximum temperatures of the frozen-food storage compartments  
 storage temperature for the ice-making compartment and for the '0-star' compartment is below 0 °C

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**Changes and effects yet to be applied to :**

- Regulation revoked by [S.I. 2021/745 Sch. 29 para. 3](#)

**Changes and effects yet to be applied to the whole legislation item and associated provisions**

- Signature words omitted by [S.I. 2019/539 Sch. 2 para. 9\(6\)](#)
- Annex 5(2)(a) words substituted by [S.I. 2019/539 Sch. 2 para. 9\(8\)\(c\)\(i\)](#)
- Annex 5(2)(a) words substituted by [S.I. 2019/539 Sch. 2 para. 9\(8\)\(c\)\(ii\)](#)
- Annex 5(7) omitted by [S.I. 2019/539 Sch. 2 para. 9\(8\)\(d\)](#)