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## Overall EU policy and legal framework for ecodesign and energy labelling of electric appliances

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# Overall EU policy and legal framework for ecodesign and energy labelling of electric appliances

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# Ecodesign and energy labelling

The EU energy labelling and ecodesign legislation helps improve the energy efficiency of products on the EU market and reduces the usage of other resources and allows the consumers to make informed choices when buying new electrical appliances.



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# Ecodesign and energy labelling



**Energy efficiency**



**Availability of resources**



**Functionality**



**Information**

# Ecodesign and energy labelling

- **Ecodesign:** setting minimum efficiency requirements for energy-related products:
  - a) Current legislation: Directive 2009/125/EC (establishes a framework for energy-related products with the aim of ensuring the free movement of such products within the internal market – definitions, marking of the products, conformity assessment procedures, harmonised standards, consumer information, .....);
- **Energy labelling:** providing information on energy efficiency and other key performance indicators to consumers enabling potential buyers to make informed choices:
  - a) Current legislation: Regulation (EU) 2017/1369, Tyres labelling: Regulation (EU) 2020/740 (establishes a framework that applies to energy-related products placed on the market concerning the labelling of the products and the provision of standard product information for the consumers regarding energy efficiency, consumption of other resources – definitions, general obligation of the suppliers, dealers, product database, .....).

# Ecodesign and energy labelling (1)

## Ecodesign (30 Regulations)

- 1275/2008 Electric power consumption standby and off mode (2023/826 from 9 May 2025)
- 107/2009 Simple set-top boxes
- 641/2009 Circulators
- 327/2011 Industrial fans
- 206/2012 Air-conditioning products and comfort fans
- 547/2012 Water pumps
- 932/2012 Household tumble driers
- 666/2013 Vacuum cleaners
- 801/2013 Networked standby
- 813/2013 Space heaters
- 814/2013 Water heaters & storage tanks
- 617/2013 Computers
- 66/2014 Domestic ovens, hobs and range hoods
- 548/2014 Power transformers
- 1253/2014 Ventilation units
- 2015/1095 Professional refrigeration
- 2015/1185 Solid fuel local space heaters
- 2015/1188 Local space heaters
- 2015/1189 Solid fuel boilers
- 2016/2281 Air heating and cooling products, process chillers
- 2019/424 Servers and data storage products
- 2019/1781 Electric motors
- 2019/1782 External power supplies
- 2019/1784 Welding equipment
- 2019/2019 Household refrigerating appliances
- 2019/2020 Light sources
- 2019/2021 Electronic displays (televisions)
- 2019/2022 Household dishwashers
- 2019/2023 Household washing machines
- 2019/2024 Commercial fridges

## Energy labelling (16 Regulations)

- 626/2011 Air conditioners
- 392/2012 Household tumble driers
- 811/2013 Space heaters
- 812/2013 Water heaters & storage tanks
- 65/2014 Domestic ovens, hobs and range hoods
- 1254/2014 Residential ventilation units
- 2015/1094 Professional refrigeration
- 2015/1186 Local space heaters
- 2015/1187 Solid fuel boilers
- 2019/2013 Electronic displays (televisions)
- 2019/2014 Household washing machines
- 2019/2015 Light sources
- 2019/2016 Household refrigerating appliances
- 2019/2017 Household dishwashers
- 2019/2018 Commercial fridges
- 2020/740 Tyres labelling



# Ecodesign main requirements and obligations

## Types of requirements

- Specific requirements – may include energy efficiency, emissions, functionality, energy consumption, etc. (for example, min/max - minimum quantities of recycled material to be used in production, maximum energy consumption in standby mode)
- Information requirements (where and what to display) (energy efficiency, use of resources, noise, parameters related to products functionality, ....)

**Manufacturers** – place in the market only products that complies with the Ecodesign requirements (carries out conformity assessment procedures), prepare technical documentation, mark the product and affix required information, prepare declaration of conformity, cooperate with market surveillance authorities, etc.



# Energy labelling - main obligations of the economic operators

## Suppliers

(Manufacturer/importer/authorised representative):

- products are accompanied with printed labels and with product information sheets (on the packaging if required);
- supplier shall deliver printed labels and product information sheets;
- before placing on the market a unit of a new model information must be registered in the Product registration database (EPREL).

## Dealers:

- In shops, display the label in a visible manner, including for online distance selling;
- make available to customers the product information sheet, including, upon request, in physical form at the point of sale.

## Suppliers and dealers:

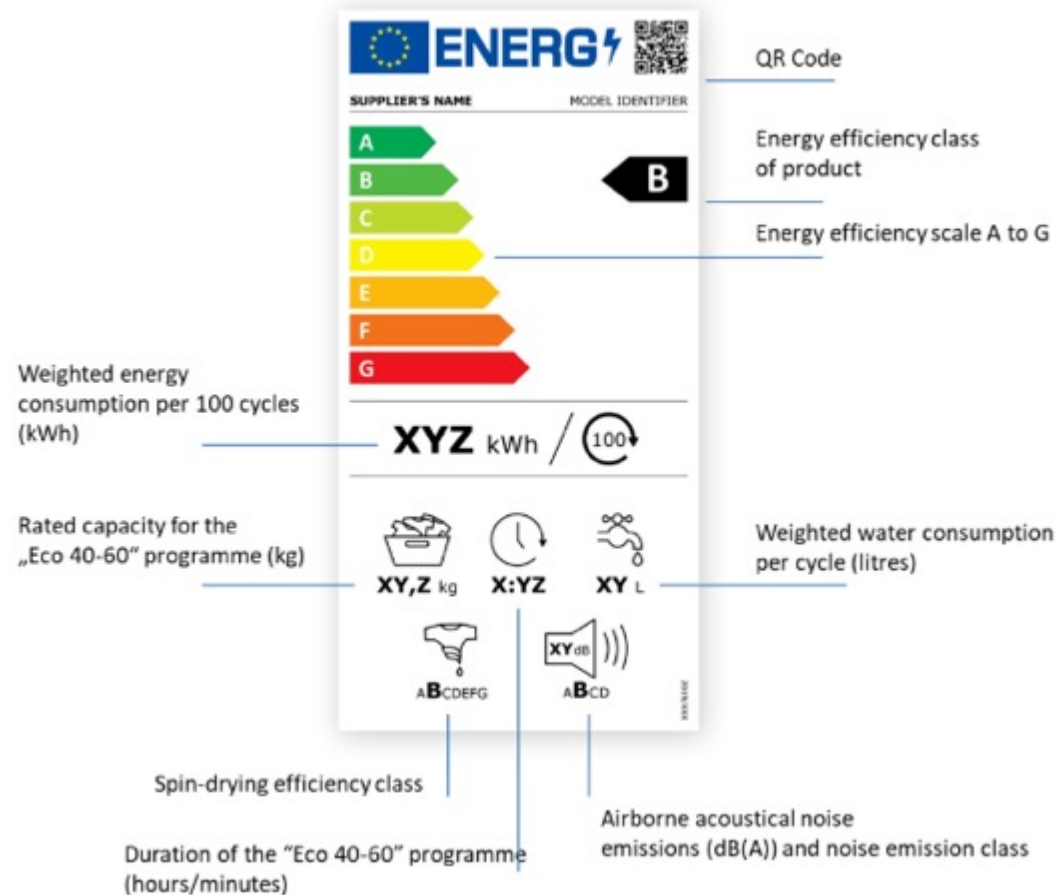
- In visual advertisements or technical promotional materials: make reference to the energy class;
- do not mimic the label in a way that may confuse consumers;
- cooperate with market surveillance authorities and take immediate action in case of non-compliance.



# Energy labelling

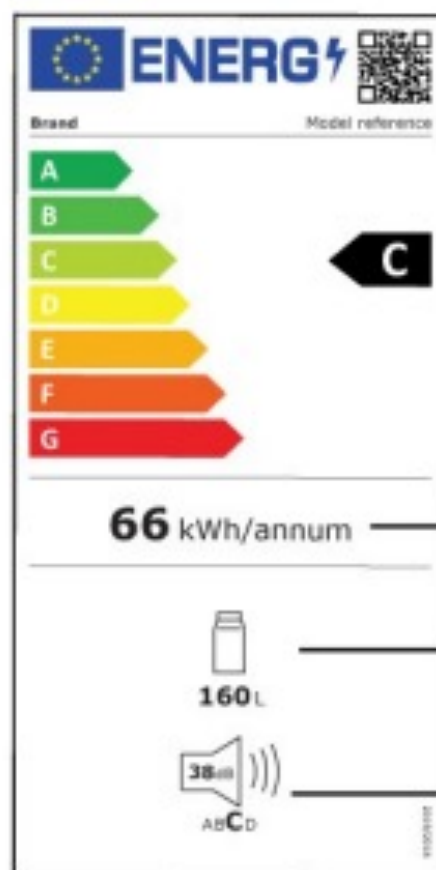
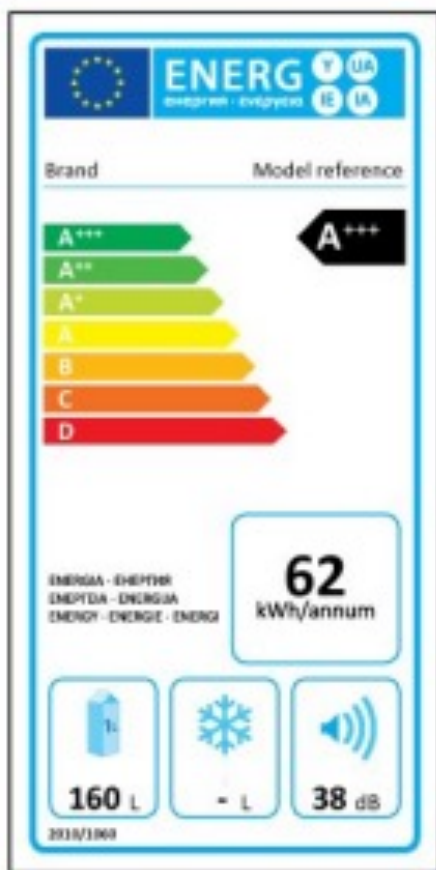
EU energy label and product information sheet (standardized product information):

- energy efficiency classes;
- Other useful information for consumers (energy consumption, noise level, washing performance, capacity, usage of other recourses – water, electricity).



| Product Information Sheet   |  |  |               |    |
|---|--|--|---------------|----|
| COMMISSION DELEGATED REGULATION (EU) 2019/2014 with regard to energy labelling of household washing machines and household washer-dryers  |  |  |               |    |
| Supplier's name or trade mark: LG Electronics   |  |  |               |    |
| Supplier's address: EU representative of LG Electronics Inc., Krijgsman 1, 1186 DM Amstelveen, NL   |  |  |               |    |
| Model identifier: F2W9S721W   |  |  |               |    |
| General product parameters:   |  |  |               |    |
| Parameter   | Value  | Parameter  | Value         |    |
| Rated capacity <sup>(a)</sup> (kg)  | 9,0  | Dimensions in cm   | Height        | 85 |
|   |  |  | Width         | 60 |
|   |  |  | Depth         | 48 |
| Energy Efficiency Index <sup>(a)</sup> (EEI <sub>w</sub> )  | 46,1   | Energy efficiency class <sup>(a)</sup>   | A             |    |
| Washing efficiency index <sup>(a)</sup>   | 1,031  | Rinsing effectiveness (g/kg) <sup>(a)</sup>  | 5,0           |    |
| Energy consumption in kWh per cycle, based on the eco 40-60 programme at a combination of full and partial loads. Actual energy consumption will depend on how the appliance is used. | 0,438  | Water consumption in litre per cycle, based on the eco 40-60 programme at a combination of full and partial loads. Actual water consumption will depend on how the appliance is used and on the hardness of the water. | 50            |    |
| Maximum temperature inside the treated textile <sup>(a)</sup> (°C)  | Rated capacity: 36<br>Half: 26<br>Quarter: 24          | Weighted remaining moisture content <sup>(a)</sup> (%)   | 53,9          |    |
| Spin speed <sup>(a)</sup> (rpm)   | Rated capacity: 1 160<br>Half: 1 160<br>Quarter: 1 160 | Spin-drying efficiency class <sup>(a)</sup>  | B             |    |
| Programme duration <sup>(a)</sup> (h:min)   | Rated capacity: 3:48<br>Half: 2:54<br>Quarter: 2:20    | Type   | Free-standing |    |
| Airborne acoustical noise emissions in the spinning phase <sup>(a)</sup> (dB(A) re 1 pW)  | 71   | Airborne acoustical noise emission class <sup>(a)</sup> (spinning phase)   | A             |    |

# Old vs new energy label (rescaling in 2021 for several products)



The **QR code** gives access to more information on the model

The **rescaled energy efficiency class** for this fridge, an A+++ in the previous label

The **annual energy consumption** of this fridge is calculated with refined methods

The **volume** of the fridge expressed in liters (L)

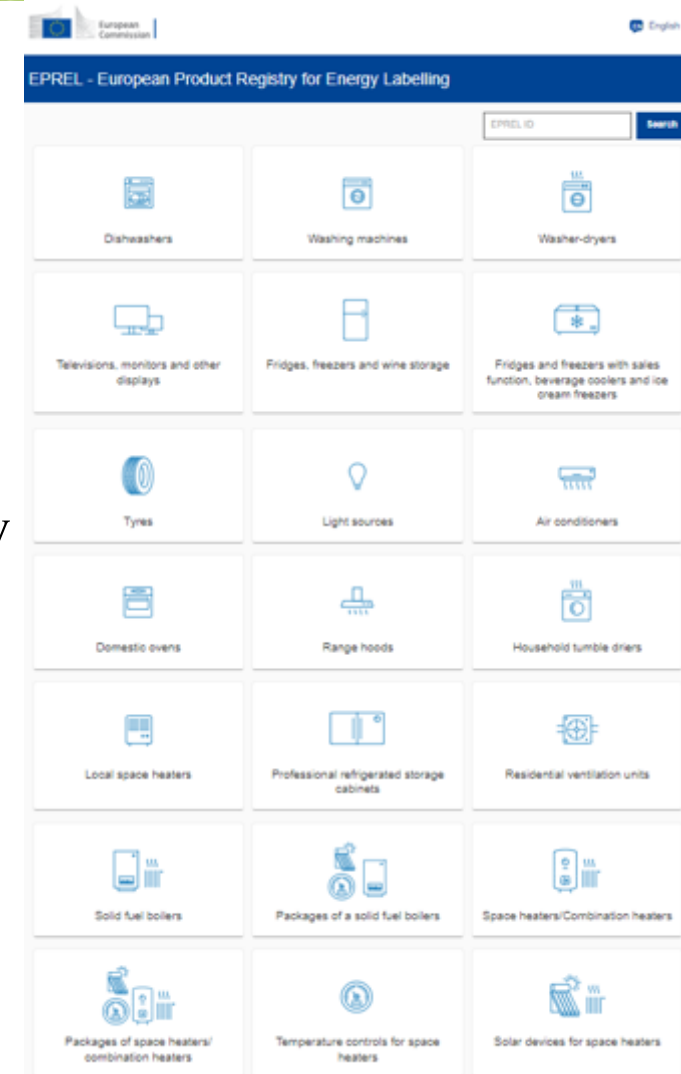
The **noise level** measured in decibels (dB) and using a four classes scale



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# Product registration database (EPREL)

- Operational since 1 January 2019 (for suppliers);
- Suppliers must register each product model prior to placing products on the market;
- Facilitates the work of the market participants (possibility to generate energy labelling, product information sheet, distribution of the needed information to dealers);
- National market surveillance authorities have access to compliance information (e.g. technical documentation);
- Consumers have access to public information online 1 March 2021.



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# PRODUCT REGISTRATION DATABASE (EPREL)

## Search

Model identifier

Brand or trademark

Energy Efficiency Class

Any

☐ Include models not placed on the market anymore

### Advanced

Overall dimensions

Height (cm)

1 999

1 999

Width (cm)

1 999

1 999

Depth (cm)

1 999

1 999

Rated capacity (Kg)

0,1 99,9

0,1 99,9

Weighted energy consumption [per 100

## Washing machines (13 976)

REGULATION (EU) 2019/2014

Showing result 1 to 25

Items per page

25

Sort by

Energy Efficiency Class ↓

Energy Efficiency Class ↑

Rated capacity ↓

Rated capacity ↑

Weighted energy consumption [per 100 cycles, eco 40-60 programme] ↓

Weighted energy consumption [per 100 cycles, eco 40-60 programme] ↑

Airborne acoustical noise emissions (spinning phase) ↓

Airborne acoustical noise emissions (spinning phase) ↑

Brand or trademark ↓

Brand or trademark ↑

### GORENJE

WNS1X4ARTWIFI/UA

Overall dimensions

Rated capacity

Weighted energy consumption

More

### LG Electronics

F2R7009TSSB

Overall dimensions

85 (Height) x 60 (Width) x 48 (Depth)

cm

Rated capacity

9

Kg

Weighted energy consumption [per 100 cycles, eco 40-60

44

kWh

More

### Hoover

HPS5104DAMB7-11

Overall dimensions

85 (Height) x 60 (Width) x 58 (Depth)

cm

Rated capacity

10

Kg

Weighted energy consumption [per 100 cycles, eco 40-60

44

kWh

More

### LG Electronics

F2R7S09TSWC

Overall dimensions

85 (Height) x 60 (Width) x 48 (Depth)

cm

Rated capacity

9

Kg

Weighted energy consumption [per 100 cycles, eco 40-60

44

kWh

More

### OCEAN

WFO 1087 WL MB FP 4

Overall dimensions

85 (Height) x 60 (Width) x 53 (Depth)

cm



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# Revision of the Ecodesign directive

## Revision of the Ecodesign directive - new Ecodesign for Sustainable Products Regulation:

- Will replace the current Ecodesign directive aiming only at energy-related products;
- Will enable setting of performance & information requirements for almost all categories of physical goods placed on the EU market;
- Wide range of requirements, including:
  - ✓ product durability, reusability, upgradability and reparability;
  - ✓ energy and resource efficiency;
  - ✓ recycled content;
  - ✓ remanufacturing and recycling;
  - ✓ carbon and environmental footprints;
  - ✓ information requirements.
- The new “Digital Product Passport” will provide information about products environmental sustainability. It should help consumers and businesses make informed choices when purchasing products, facilitate repairs and recycling and improve transparency about products life cycle impacts on the environment.



# MAIN BENEFITS AND GOALS

- Reduction of environmental impact (usage of all kind of recourses consumed in the use of the appliance and also reduction of recourses used in products life cycle (manufacturing of the products, transportation, packaging, recycling, etc.);
- Products are becoming more efficient and use less recourses (legislation and consumers demand);
- Consumers receive information and can take informed decisions.





Thank you for your attention!



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