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SRD.4 - Informatics & Logistics

European Product Registry for Energy Labelling (EPREL)

Water heaters (Packages)

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1.1. Document History

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1.00	23/07/2018	Draft Document created by Oscar Miralles (OM)

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1.2. Bibliography

- [1] EPREL, *Bussiness Glossary*, 2016.
- [2] EPREL, *COMMISSION DELEGATED REGULATION (EU) No 811/2013 of 18 February 2013 supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to the energy labelling of space heaters, combination heaters, packages of space heater, temp.*
- [3] EPREL, XML Exchange Model, 2018.

1.3. Abbreviations and Glossary

See document "EPREL – Business Glossary" [1]

2. INTRODUCTION AND PURPOSE

This document is a summary of all that is necessary for the EPREL to generate the UI form (list of fields and mock-up screenshot) for each product group, to generate the labels and to generate the product information sheet.

3. WATER HEATERS (PACKAGES)

COMMISSION DELEGATED REGULATION (EU) No 812/2013 of 18 February 2013 supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to the energy labelling of water heaters, hot water storage tanks and packages of water heater and solar device [2].

These product group concerns 4 types of products "Water heaters", "Hot water storage tanks", "Solar devices", "Packages of water heater and solar device". They will have separate Product Information Sheets.

This document is intended only for "Packages of water heater and solar device".

3.1. Fields/Exchange model

List of fields extracted from the Regulation mentioned above and their correspondence with the fields in Data Exchange Model [3] class "WaterHeaterPackage". The column "Item" is a reference to the field as defined in the Annex IV "Product fiche"; the name of the field, the type, if mandatory and a short description how it's filled or the units used.

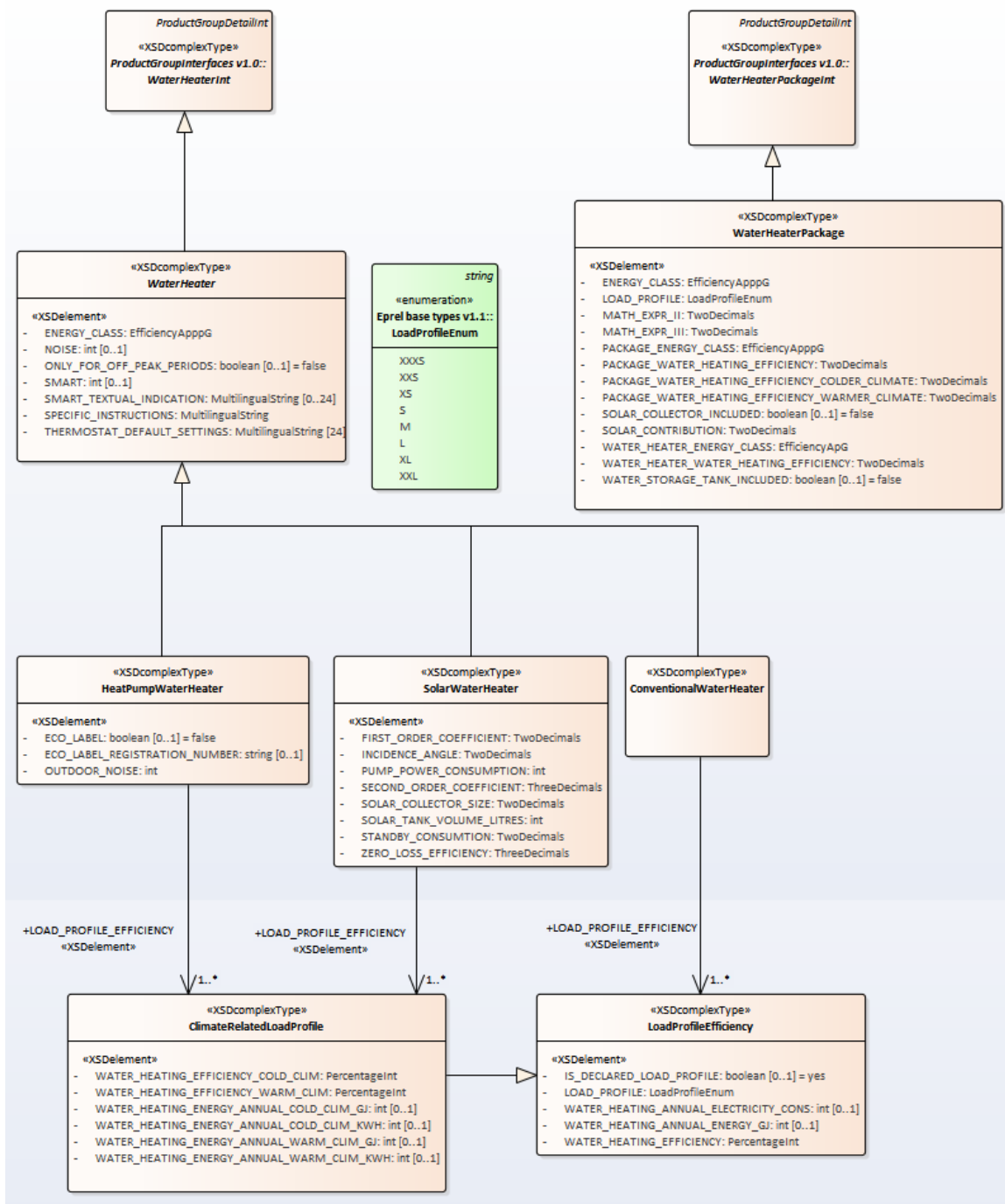


Figure 1 Exchange model

Item	Field	Type	Mandatory	Description	Exchange Model
	Supplier's name or trademark	Text	TRUE		
	Supplier's model identifier	Text	TRUE		

Package of water heater and solar device

Item	Field	Type	Mandatory	Description	Exchange Model
Annex III 3 V (Label)	Solar collector included	Boolean	FALSE	Default = False	SOLAR_COLLECTOR_INCLUDED
	Hot water storage tank included	Boolean	FALSE	Default = False	WATER_STORAGE_TANK_INCLUDED
	Water heater				
4(I)	Water heating energy efficiency of water heater	Number (2 decimals)	TRUE	% (1) In Figure 1	WATER_HEATER_WATER_HEATING_EFFICIENCY
4(II)	Value of II: $(220 \times Q_{ref})/Q_{nonsol}$	Number (2 decimals)	TRUE		MATH_EXPR_II
4(III)	Value of III: $(Q_{aux} \times 2.5)/(220 \times Q_{ref})$	Number (2 decimals)	TRUE		MATH_EXPR_III
Annex III 3.IV (Label)	Water heating energy efficiency class of the water heater	List	TRUE	Point 1 of Annex II (A+++ -> G)	WATER_HEATER_ENERGY_CLASS
Figure 1	Declared load profile	List	TRUE	Table 3 of Annex VII. Figure 1 (M,L,XL,XXL)	LOAD_PROFILE
	Solar contribution				
	Solar contribution	Number (2 decimals)	FALSE	(2) In Figure 1	SOLAR_CONTRIBUTION
	Package				
	Water heating energy efficiency of package (Average climate conditions)	Number (2 decimals)	TRUE	% (3) In Figure 1	PACKAGE_WATER_HEATING_EFFICIENCY
	Water heating energy efficiency class of package (Average climate conditions)	List	TRUE	List from Table 1 of Annex II (A+++ -> G)	ENERGY_CLASS PACKAGE_ENERGY_CLASS

Item	Field	Type	Mandatory	Description	Exchange Model
	Water heating energy efficiency of package (Colder climate conditions)	Number (2 decimals)	TRUE	%	PACKAGE_WATER_HEATING_EFFICIENCY_COLDER_CLIMATE
	Water heating energy efficiency of package (Warmer climate conditions)	Number (2 decimals)	TRUE	%	PACKAGE_WATER_HEATING_EFFICIENCY_WARMER_CLIMATE

3.2. Mock-up

These are the mock-up screenshots of how the UI form will look like for the supplier to enter the model information manually.

The screenshot shows a web browser window with the URL 'http://'. The page title is 'EPREL Compliance website'. The main heading is 'Packages of water heaters'. Below the heading, there is a status bar showing 'Delegated Regulation 812/2013', 'EPREL Registration Number 8564125144', 'Version 3', 'Model identifier', and 'Supplier name/Trademark'. The status is 'Incomplete'.

The form is divided into two main sections: 'General information' and 'Actions'.

General information

- Date of placement on the market: / /
- Date of end of placement on the market: / /
- Package:
 - ☒ Solar collectors
 - ☒ Hot water storage tanks
 - Water heating energy efficiency class of package (Average climate conditions): A++
 - Water heating energy efficiency of package (Average climate conditions) (%): 80.12
 - Water heating energy efficiency of package (colder climate conditions) (%): 80.12
 - Water heating energy efficiency of package (warmer climate conditions) (%): 80.12
- Water heater:
 - Water heating energy efficiency class of the water heater: A++
 - Water heating energy efficiency of water heater (%): 80.12
 - Value of II: $(220 \times Q_{ref}) / Q_{nonsol}$: 80.12
 - Value of III: $(Q_{aux} \times 2.5) / (220 \times Q_{ref})$: 80.12
 - Declared load profile: M
- Solar contribution:
 - Solar contribution: 80.12

Actions

-

Declaration

☐ I accept the labels generated by EPREL for this model

If you choose to allow EPREL to generate the labels for this model, you are accepting that the generated label is correct in format and content. Before accepting it, we recommend to generate the label to preview the output and verify them. If you upload a label manually it will be ignored and the generated used in Public Site.

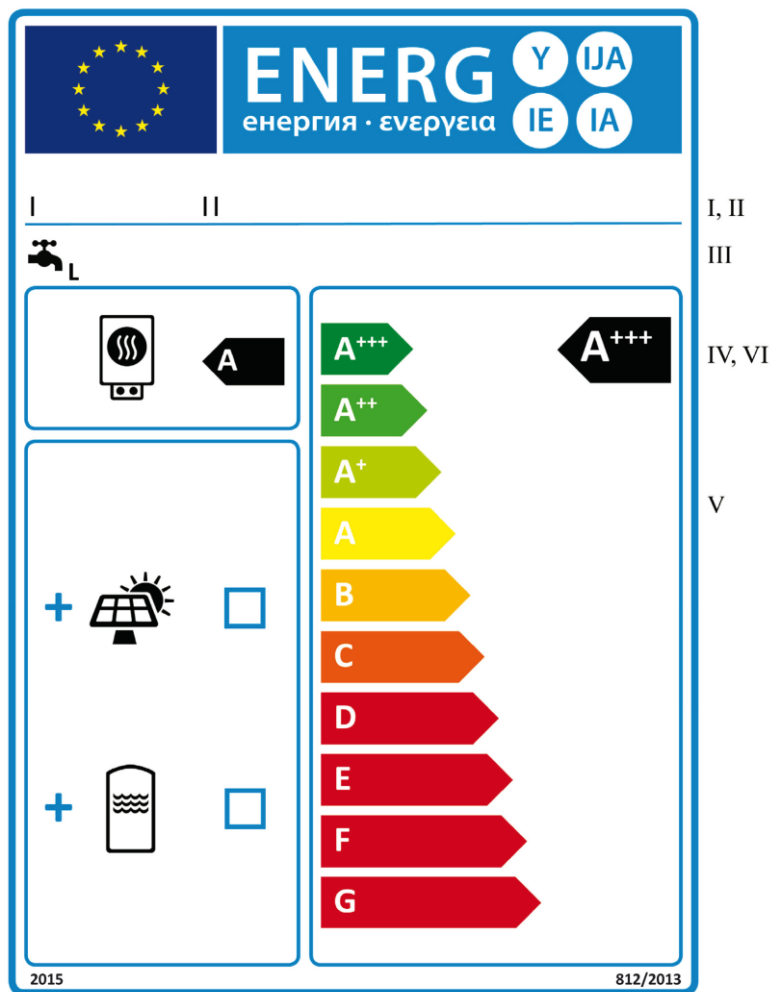
Figure 2 Mock-up

3.3. Labels

Description of the labels can be found in Annex III of the regulation.

This is a summary of which one has to be generated by the system followed by images of the labels.

Label	Placement on the market	
	Date From	Date To
3. PACKAGES OF WATER HEATER AND SOLAR DEVICE		
Label for packages of water heater and solar device in water heating energy efficiency classes A+++ to G	26/09/2015	Onwards



3.4. Product Information Sheet

As mentioned in the Delegated Act [2], Annex IV:

4. PACKAGES OF WATER HEATER AND SOLAR DEVICE

The fiche for packages of water heater and solar device shall contain the elements set out in Figure 1 for evaluating the water heating energy efficiency of a package of water heater and solar device, where the following information shall be included:

- I: the value of the water heating energy efficiency of the water heater, expressed in %,
- II: the value of the mathematical expression $(220 \times Q_{\text{ref}})/Q_{\text{nonsol}}$, where Q_{ref} is taken from Table 3 in Annex VII and Q_{nonsol} from the product fiche of the solar device for the declared load profile M, L, XL or XXL of the water heater,
- III: the value of the mathematical expression $(Q_{\text{aux}} \times 2,5)/(220 \times Q_{\text{ref}})$, expressed in %, where Q_{aux} is taken from the product fiche of the solar device and Q_{ref} from Table 3 in Annex VII for the declared load profile M, L, XL or XXL.

For knowing what field goes to the numbered fields (1, 2, 3) see [Fields](#).

3.4.1. Figure 1

Fiche for a package of water heater and solar device indicating the water heating energy efficiency of the package offered.

Water heating energy efficiency of water heater

1

'I'

%

Declared load profile:

Solar contribution
From fiche of solar device

Auxiliary electricity

2

%

(1,1 × 'I' - 10 %) × 'II' -

III'

-

'I'

=

+

%

Water heating energy efficiency of package under average climate

3

%

Water heating energy efficiency class of package under average climate

G

F

E

D

C

B

A

A⁺

A⁺⁺

A⁺⁺⁺

	M	< 27 %	≥ 27 %	≥ 30 %	≥ 33 %	≥ 36 %	≥ 39 %	≥ 65 %	≥ 100 %	≥ 130 %	≥ 163 %
	L	< 27 %	≥ 27 %	≥ 30 %	≥ 34 %	≥ 37 %	≥ 50 %	≥ 75 %	≥ 115 %	≥ 150 %	≥ 188 %
	XL	< 27 %	≥ 27 %	≥ 30 %	≥ 35 %	≥ 38 %	≥ 55 %	≥ 80 %	≥ 123 %	≥ 160 %	≥ 200 %
	XXL	< 28 %	≥ 28 %	≥ 32 %	≥ 36 %	≥ 40 %	≥ 60 %	≥ 85 %	≥ 131 %	≥ 170 %	≥ 213 %

Water heating energy efficiency under colder and warmer climate conditions

3

2

- 0,2 ×

=

%

3

2

+ 0,4 ×

=

%

The energy efficiency of the package of products provided for in this fiche may not correspond to its actual energy efficiency once installed in a building, as this efficiency is influenced by further factors such as heat loss in the distribution system and the dimensioning of the products in relation to building size and characteristics.

Figure 3 Annex IV – Figure 1