TECHNICAL REGULATION ON ENERGY LABELING OF TELEVISIONS, NO. (XXX) FOR THE YEAR 2012, ISSUED IN ACCORDANCE TO ARTICLE (XX) AND ARTICLE (XX) OF STANDARDS AND METROLOGY LAW NO 22/2000

Article 1:
This Technical Regulation shall be referred to as the "implementing Technical Regulation on energy labeling for televisions" No. ... for 2012.

Article 2:
This Technical Regulation represents an implementing Technical Regulation to Technical Regulation on labelling and standard product information of the consumption of energy and other resources by energy related products, No. ... for 2012 (hereinafter: Framework Technical Regulation), both of which shall be used to establish the class of energy efficiency for televisions.

Section 1
Definitions

Article 3:
In addition to the definitions laid down in Article 2 of the Framework Technical Regulation, the following words and terms, whenever mentioned in this implementing Technical Regulation, shall have the meanings indicated hereafter:
3-1 Television: a television set or a television monitor;
3-2 Television set: a product designed primarily for the display and reception of audiovisual signals which is placed on the market under one model or system designation, and which consists of:
(a) a display;
(b) one or more tuner(s)/receiver(s) and optional additional functions for data storage and/or display such as digital versatile disc (DVD), hard disk drive (HDD) or videocassette recorder (VCR), either in a single unit combined with the display, or in one or more separate units;
3-3 Television monitor: a product designed to display on an integrated screen a video signal from a variety of sources, including television broadcast signals, which optionally controls and reproduces audio signals from an external source device, which is linked through standardized video signal paths including cinch (component, composite), SCART, HDMI, and future wireless standards (but excluding non-standardized video signal paths like DVI and SDI), but cannot receive and process broadcast signals;
3-4 On-mode: the condition where the television is connected to the mains power source and produces sound and picture;
3-5 Home-mode: the television setting which is recommended by the manufacturer for normal home use;
3-6 Standby-mode(s): a condition where the equipment is connected to the mains power source, depends on energy input from the mains power source to function properly and offers the following functions only, which may persist for an indefinite time:
(a) reactivation function, or reactivation function and only an indication of enabled reactivation function; and/or
(b) information or status display;
3-7 Off-mode: a condition in which the equipment is connected to the mains power source and is not providing any function; the following shall also be considered as off- mode:
(a) conditions providing only an indication of off-mode condition;

(b) conditions providing only functionalities intended to ensure electromagnetic compatibility pursuant to rules on electromagnetic compatibility;
3-8 Reactivation function: a function facilitating the activation of other modes, including on-mode, by remote switch including remote control, internal sensor, timer to a condition providing additional functions, including on- mode;
3-9 Information or status display: a continuous function providing information or indicating the status of the equipment on a display, including clocks;
3-10 Forced menu: a set of television settings, pre- defined by the manufacturer, of which the user of the television must select a particular setting upon initial start-up of the television;
3-11 Peak luminance ratio: the ratio of the peak luminance of the home-mode condition or of the on- mode condition of the television as set by the supplier, as applicable, and the peak luminance of the brightest on- mode condition;
3-12 Point of sale: a location where televisions are displayed or offered for sale, hire or hire purchase;
3-13 End-user: a consumer buying or expected to buy a television.

Section 2
Subject matter and Scope

Article 4:
This implementing Technical Regulation establishes requirements for the labelling and the provision of supplementary product information for televisions.

Section 3
Responsibilities

Article 5: Responsibilities of Suppliers
5-1 Suppliers shall ensure that:

5-1-1 each television is supplied with a printed label in the format and containing information as set out in Annex E;

5-1-2 a product fiche, as set out in Annex C, is made available;

5-1-3 the technical documentation as set out in Annex D is made available on request to the authorities of Jordan and to the Commission.

5-1-4 any advertisement for a specific television model contains the energy efficiency class, if the advertisement discloses energy-related or price information;

5-1-5 any technical promotional material concerning a specific television model, which describes its specific technical parameters includes the energy efficiency class of that model.

5-2 The energy efficiency classes shall be based on the Energy Efficiency Index calculated in accordance with Annex B.

5-3 The format of the label set out in Annex E shall be applied according to the following timetable:

5-3-1 for televisions placed on the market from 1 January 2014 with energy efficiency classes A+, A, B, C, D, E, F, labels shall be in accordance with point 2 of Annex E or, where suppliers deem appropriate, with point 3 of that Annex;

5-3-2 for televisions placed on the market from 1 January 2017 with energy efficiency classes A++, A+, A, B, C, D, E, labels shall be in accordance with point 3 of Annex E or, where suppliers deem appropriate, with point 4 of that Annex;

5-3-3 for televisions placed on the market from 1 January 2020 with energy efficiency classes A+++, A++, A+, A, B, C, D labels shall be in accordance with point 4 of Annex E.

Article 6: Responsibilities of Dealers

Dealers shall ensure that:

6-1 each television, at the point of sale, bears the label provided by suppliers in accordance with Article 5-1 on the front the television, in such a way as to be clearly visible;

6-2 televisions offered for sale, hire or hire- purchase where the end-user cannot be expected to see the television displayed, are marketed with the information provided by suppliers in accordance with Annex F;

6-3 any advertisement for a specific television model contains a reference to its energy efficiency class, if the advertisement discloses energy-related or price information;

6-4 any technical promotional material concerning a specific television model which describes its specific technical parameters includes a reference to the energy efficiency class of that model.

Section 4
Measurement methods

Article 7: The information to be provided pursuant to Articles 5 and 6 shall be obtained by reliable, accurate and reproducible measurement procedures, which take into account the recognized state-of-the-art measurement methods, as set out in Annex G.

Section 5
Verification procedure for market surveillance purposes

Article 8: The Organization shall apply the procedure laid down in Annex H when assessing the conformity of the declared energy efficiency class.

Section 6
Related documents

Article 9:

9-1 Jordanian Technical Regulation No. 200/2012 on labelling and standard product information of the consumption of energy and other resources by energy-related products.

9-2 This implementing Technical Regulation represents transposition of Commission Delegated Regulation (EU) No 1062/2010 supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to energy labelling of televisions.

9-3 Standards and metrology Law, No.22/2000.

9-4 Instructions on market surveillance, No ….

Section 7
Transitional and final provision

Article 10:

Before the start of implementing ACAA, the text of Article 5-1-3 reads as follows:

»the technical documentation as set out in Annex D is made available on request to the competent authority«.

Article 11:

This Technical Regulation shall enter into force on 1/1/2014.

ANNEX A
ENERGY EFFICIENCY CLASS

The energy efficiency class of a television shall be determined on the basis of its Energy Efficiency Index (EEI) as set out in Table A-1. The Energy Efficiency Index of a television shall be determined in accordance with point 1 of Annex B.

Table A-1
Energy efficiency classes

Energy efficiency class	Energy Efficiency Index
A+++ (most efficient)	EEI < 0,10
A++	0,10 ≤ EEI < 0,16
A+	0,16 ≤ EEI < 0,23
A	0,23 ≤ EEI < 0,30
B	0,30 ≤ EEI < 0,42
C	0,42 ≤ EEI < 0,60
D	0,60 ≤ EEI < 0,80
E	0,80 ≤ EEI < 0,90
F	0,90 ≤ EEI < 1,00
G(least efficient)	1,00 ≤ EEI

ANNEX B
METHOD FOR CALCULATING THE ENERGY EFFICIENCY INDEX AND THE ANNUAL ON-MODE ENERGY CONSUMPTION

1. The information in the product fiche of the household dishwasher shall be provided in the following order and shall be included in the product brochure or other literature provided with the product:

1. The Energy Efficiency Index (EEI) is calculated as $EEI = P/P_{ref}$ (A), where:

— P_{ref} (A) = P_{basic} + A × 4,3224 Watts/dm^2 ,

— P_{basic} = 20 Watts for television sets with one tuner/receiver and no hard disc,

— P_{basic}= 24 Watts for television sets with hard disc(s),

— P_{basic} = 24 Watts for television sets with two or more tuners/receivers,

— P_{basic}= 28 Watts for television sets with hard disc(s) and two or more tuners/receivers,

— P_{basic} = 15 Watts for television monitors,

— A is the visible screen area expressed in dm^2,

— P is the on-mode power consumption of the television in Watts measured in accordance with Annex G, rounded to one decimal place.

2. The annual on-mode energy consumption E in kWh is calculated as E = 1,46 × P.

3. Televisions with automatic brightness control

For the purposes of calculating the Energy Efficiency Index and the annual on-mode energy consumption referred to in points 1 and 2, the on-mode power consumption as established according to the procedure set out in Annex G is reduced by 5% if the following conditions are fulfilled when the television is placed on the market:

(a) the luminance of the television in the home-mode or the on-mode condition as set by the supplier, is automatically reduced between an ambient light intensity of at least 20 lux and 0 lux;

(b) the automatic brightness control is activated in the home-mode condition or the on-mode condition of the television as set by the supplier.

ANNEX C
PRODUCT FICHE

1. The information in the product fiche of the television shall be provided in the following order, and shall be included in the product brochure or other literature provided with the product:

(a) supplier's name or trade mark;

(b) supplier's model identifier; where model identifier means the code, usually alphanumeric, which distinguishes a specific television model from other models of the same trade mark or supplier's name;

(c) the energy efficiency class of the model in accordance with Annex A, Table A-1; where the television has been awarded an 'EU Ecolabel' pursuant to EU rules, this information may be included;

(d) the visible screen diagonal in centimeters and in inches;

(e) the on-mode power consumption measured in accordance with the procedure set out in Annex G;

(f) the annual energy consumption calculated in accordance with Annex B in kWh per year, rounded to the first integer; it shall be described as: 'Energy consumption XYZ kWh per year, based on the power consumption of the television operating 4 hours per day for 365 days. The actual energy consumption will depend on how the television is used.';

(g) the standby and off-mode power consumption or both measured in accordance with the procedure set out in Annex G;

(h) the screen resolution in physical horizontal and vertical pixel count.

2. One fiche may cover a number of television models supplied by the same supplier.

3. The information contained in the fiche may be given in the form of a copy of the label, either in color or in black and white. Where this is the case, the information listed in point 1 not already displayed on the label must also be provided.

ANNEX D
TECHNICAL DOCUMENTATION

The technical documentation referred to in Article 5-1-3 shall include:

(a) the name and address of the supplier;

(b) a general description of the television model, sufficient for it to be unequivocally and easily identified;

(c) where appropriate, the references of the harmonized standards applied;

(d) where appropriate, the other technical standards and specifications used;

(e) identification and signature of the person empowered to bind the supplier;

(f) test parameters for measurements:

1- ambient temperature;

2- test voltage in V and frequency in Hz;

3- total harmonic distortion of the electricity supply system;

4- the input terminal for the audio and video test signals;

5- information and documentation on the instrumentation, set-up and circuits used for electrical testing;

(g) on-mode parameters:

1- the power consumption data in Watts rounded to the first decimal place for power measurements up to 100 Watts, and to the first integer for power measurements above 100 Watts;

2- the characteristics of the dynamic broadcast-content video signal representing typical broadcast TV content;

3- the sequence of steps for achieving a stable condition with respect to power consumption;

4- for televisions with a forced menu, the ratio of the peak luminance of the home-mode and the peak luminance of the brightest on-mode condition provided by the television, expressed as a percentage;

5- for television monitors, a description of the relevant characteristics of the tuner used for measurements;

(h) for each standby or off-mode:

1- the power consumption data in Watts rounded to the second decimal place;

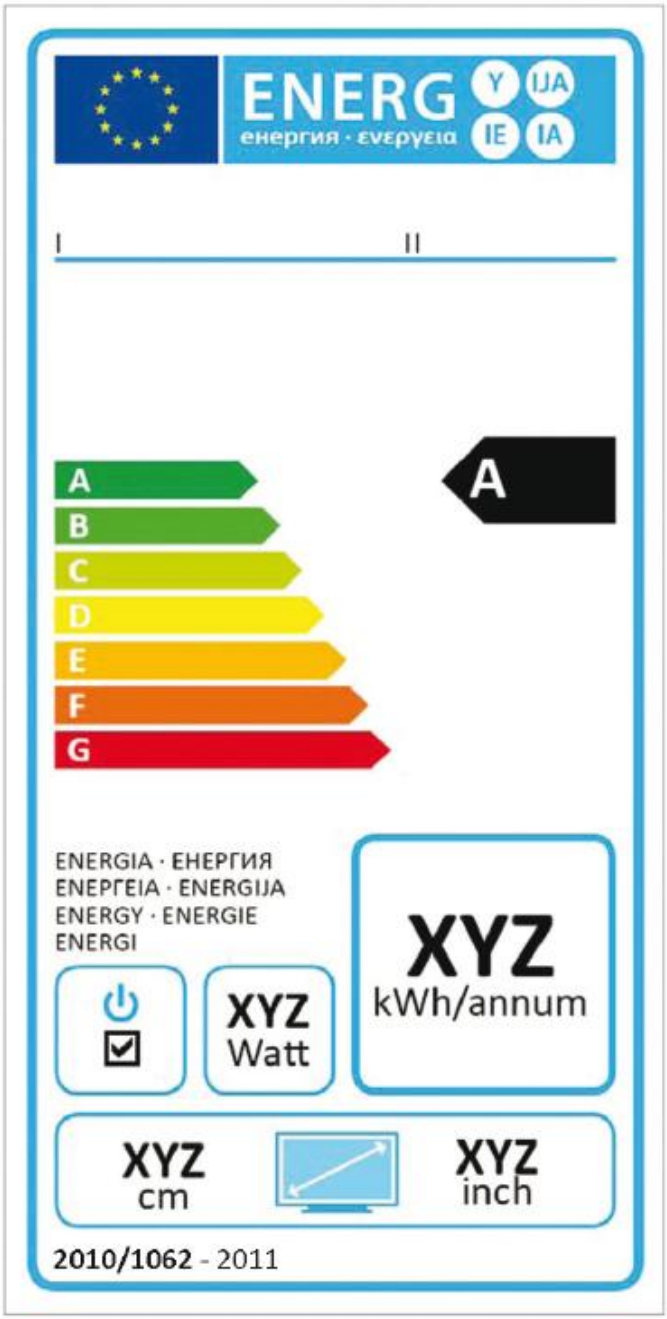
2- the measurement method used;

3- description of how the mode was selected or programmed;

4- sequence of events to reach the mode where the television automatically changes modes.

ANNEX E
LABEL

1- LABEL 1



(a) The following information shall be included in the label:

I. supplier's name or trade mark;

II. supplier's model identifier, where 'model identifier' means the code, usually alphanumeric, which distinguishes a specific television model from other models of the same trade mark or supplier's name;

III. the energy efficiency class of the television, determined in accordance with Annex A. The head of the arrow containing the energy efficiency class of the television shall be placed at the same height as the head of the arrow of the relevant energy efficiency class;

IV. on-mode power consumption in Watts, rounded to the first integer;

V. annual on-mode energy consumption calculated in accordance with point 2 of Annex B, in kWh, rounded to the first integer;

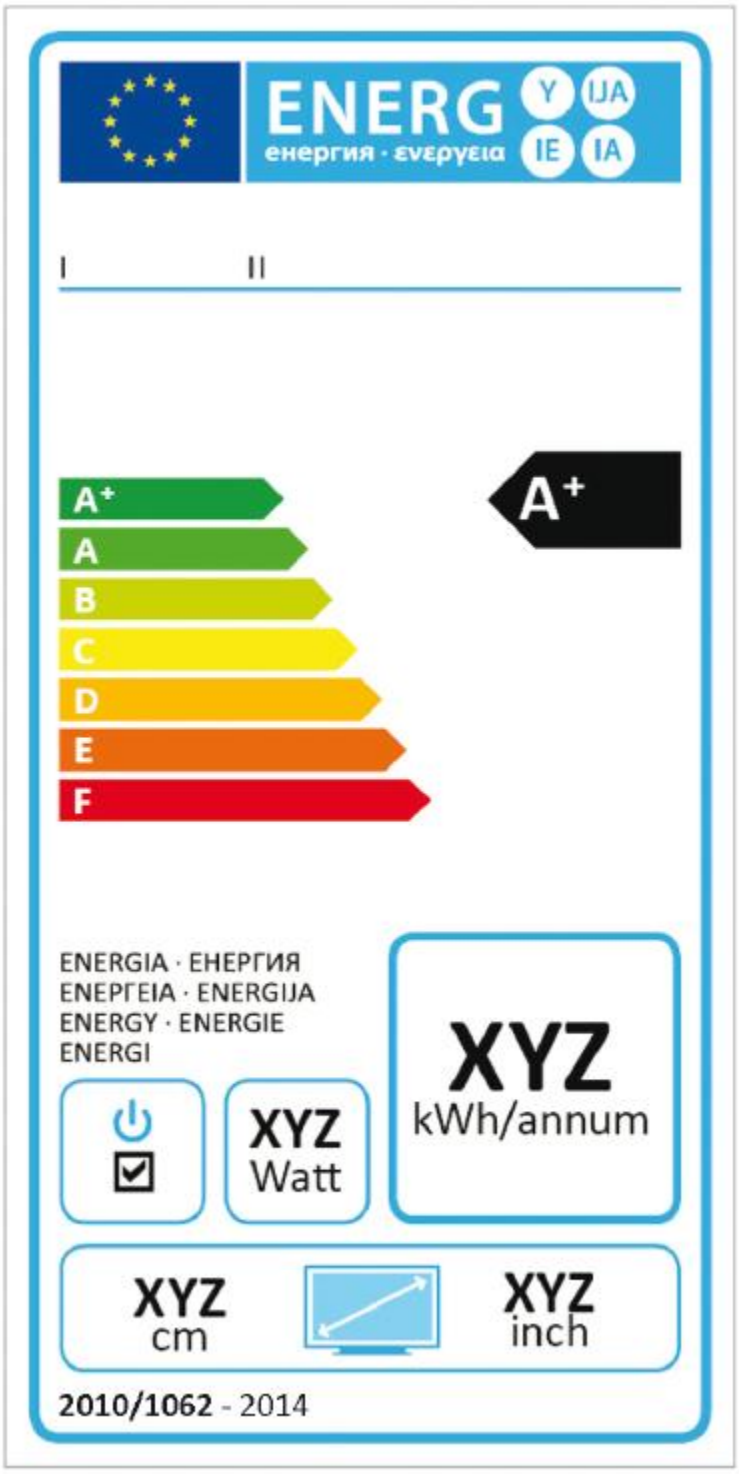
VI. visible screen diagonal in inches and centimeters.

For televisions with an easily visible switch, which puts the television in a condition with power consumption not exceeding 0,01 Watts when operated to the off position, the symbol defined in point 8 of point 5 may be added.

Where a model has been granted an 'European Union Ecolabel' pursuant to EU rules, a copy of the EU Ecolabel may be added.

(b) The design aspects of the label shall be in accordance with point 5.

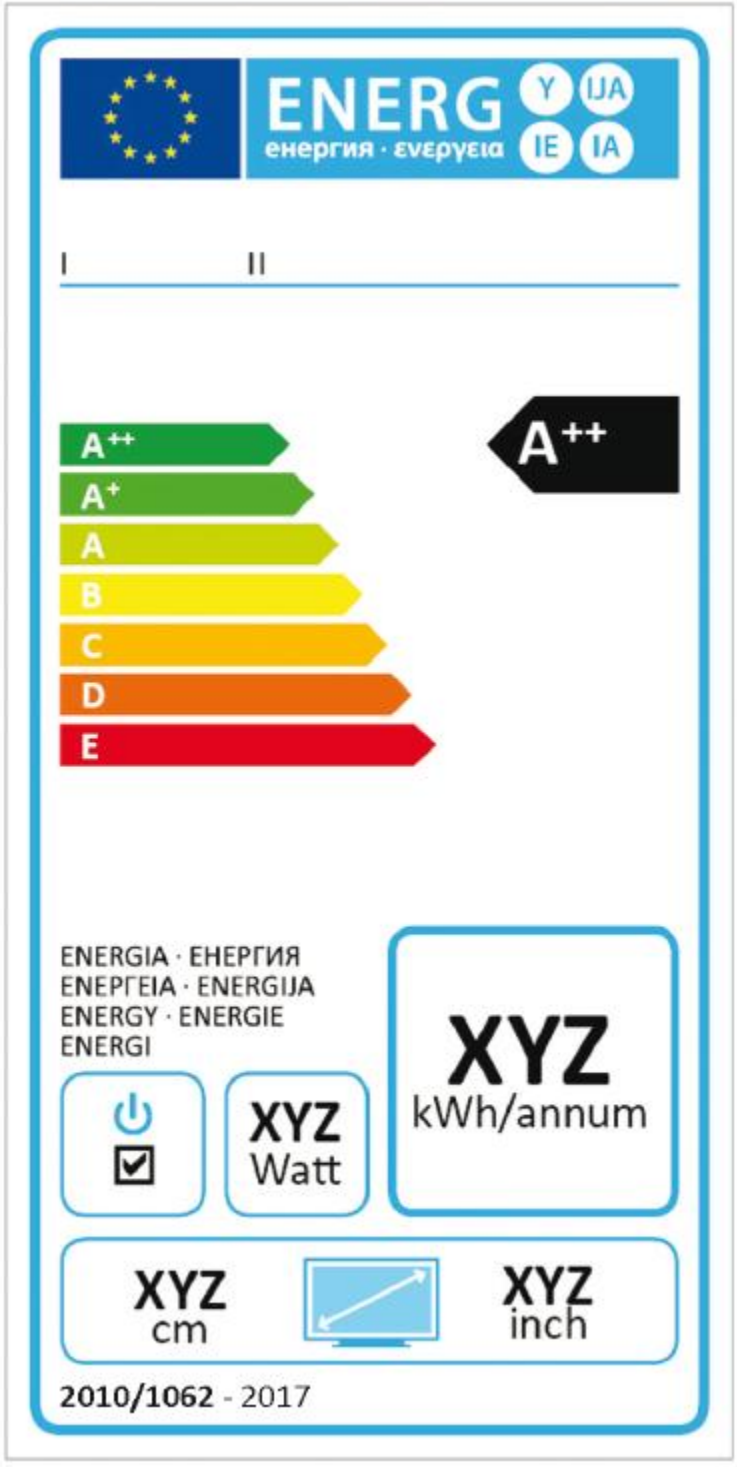
2- LABEL 2



(a) The information listed in point 1(a) shall be included in the label.

(b) The design aspects of the label shall be in accordance with point 5.

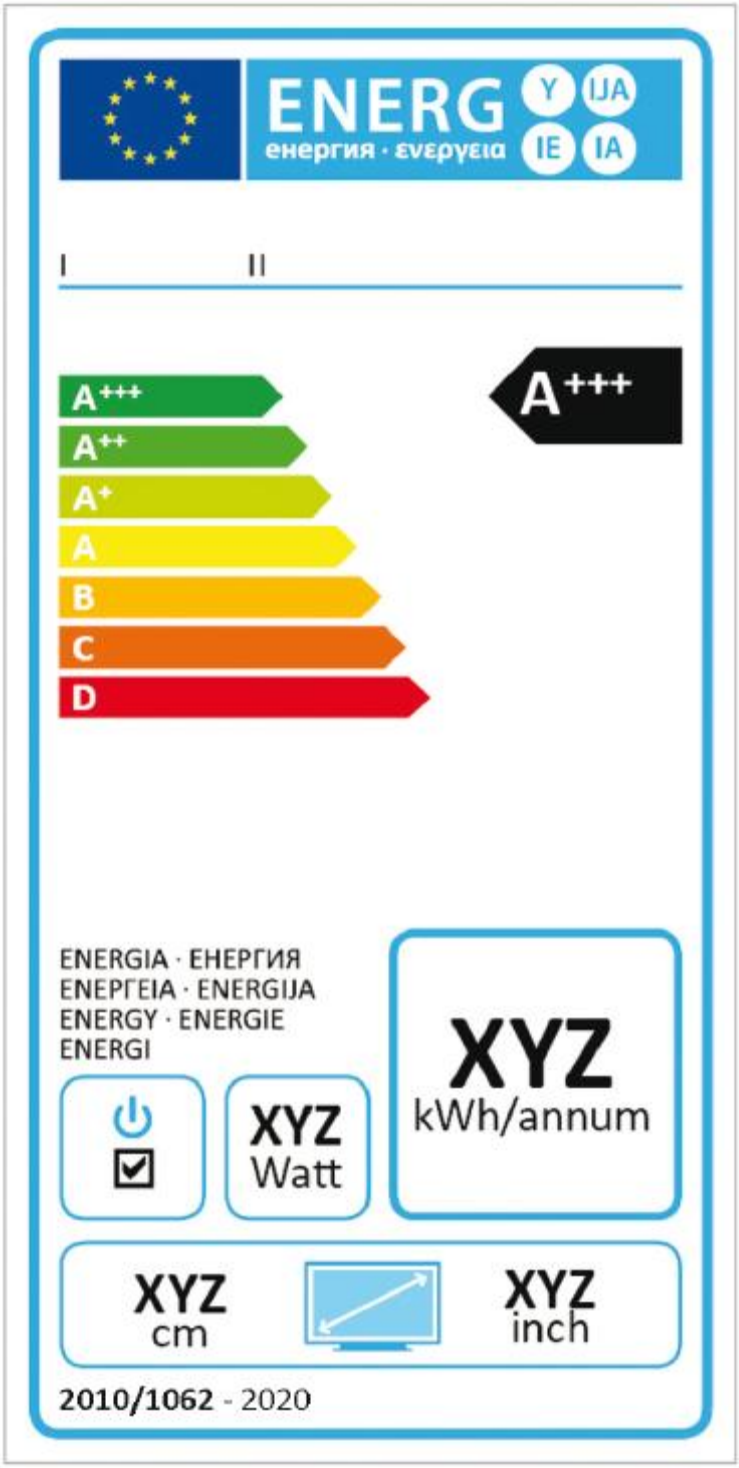
3- LABEL 3



(a) The information listed in point 1(a) shall be included in the label.

(b) The design aspects of the label shall be in accordance with point 5.

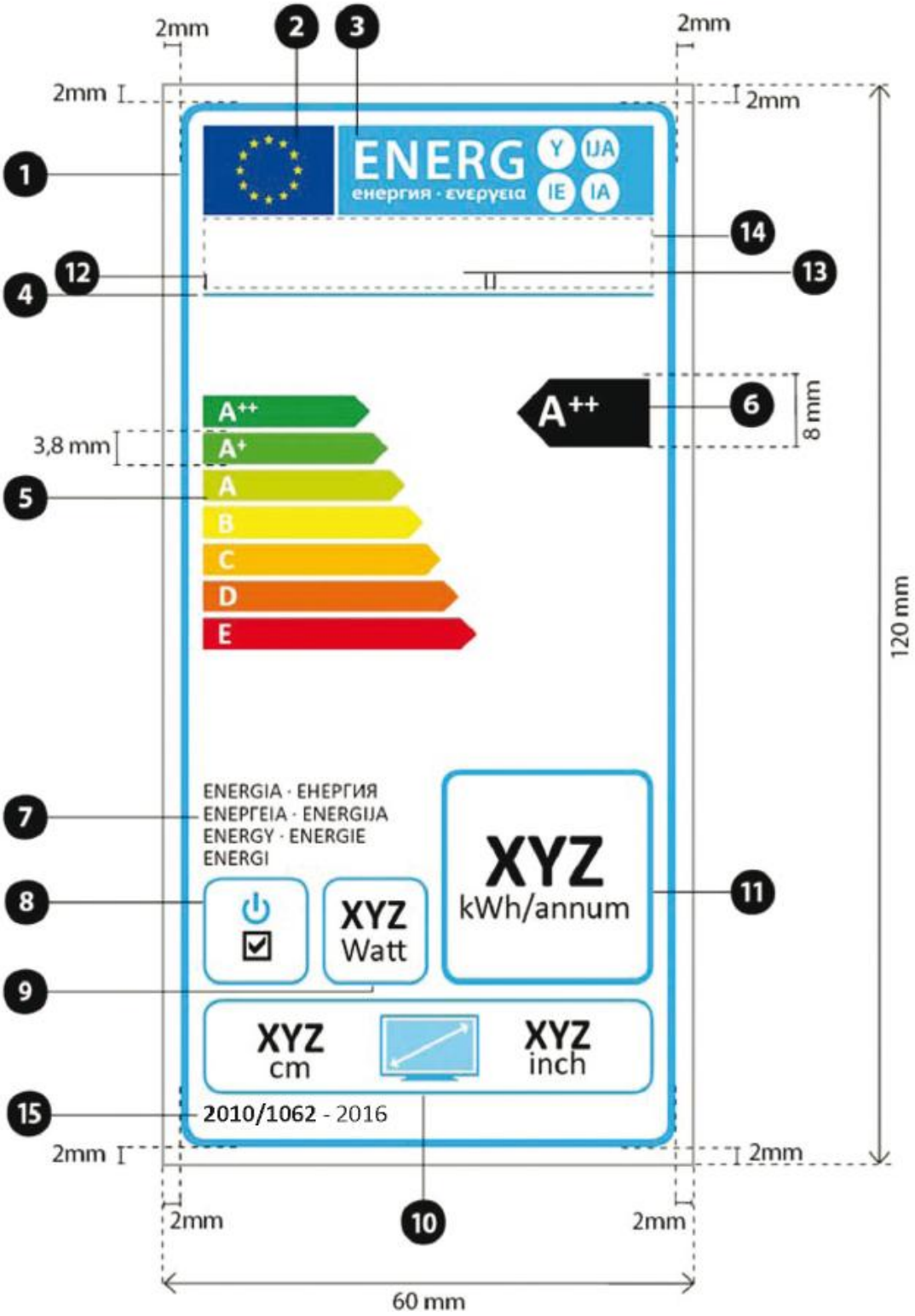
4- LABEL 4



(a) The information listed in point 1(a) shall be included in the label.

(b) The design aspects of the label shall be in accordance with point 5.

5. The design of the label shall be the following:



Whereby:

(a) The label shall be at least 60 mm wide and 120 mm high. Where the label is printed in a larger format, its content must nevertheless remain proportionate to the specifications above.

(b) For televisions with screen area above 29 dm 2 the background shall be white. For televisions with screen area of 29 dm 2 or below the background shall be white or transparent.

(c) Colors are CMYK — cyan, magenta, yellow and black and are given following this example: 00-70-X-00: 0 % cyan, 70 % magenta, 100% yellow, 0% black.

(d) The label shall fulfil all of the following requirements (numbers refer to the figure above):

❶ Border stroke: 3 pt — color: Cyan 100% — round corners: 3,5 mm.

❷ EU logo — colors: X-80-00-00 and 00-00-X-00.

❸ Energy logo: color: X-00-00-00.

Pictogram as depicted: EU logo and energy logo (combined): width: 81 mm, height: 9 mm.

❹ Sub-logos border: 1 pt — color: Cyan 100 % — length: 51 mm.

❺ A-G scale

— Arrow: height: 3.8 mm, gap: 0,75 mm — colors:
- Highest class: X-00-X-00,
- Second class: 70-00-X-00,
- Third class: 30-00-X-00,
- Fourth class: 00-00-X-00,
- Fifth class: 00-30-X-00,
- Sixth class: 00-70-X-00,
- Last class: 00-X-X-00.

— Text: Calibri bold 10 pt, capitals and white; '+' symbols: Calibri bold 7 pt, capitals, white.

❻ Energy efficiency class

— Arrow: width: 26 mm, height: 8 mm, 100% black.

— Text: Calibri bold 15 pt, capitals and white; '+' symbols: Calibri bold 10 pt, capitals, white.

❼ Energy: text: Calibri regular 7 pt, capitals, 100% black.

❽ Switch logo:

— Pictogram as depicted, Border: 1 pt — color: Cyan 100% — round corners: 3,5 mm.

❾ Text related to on-mode power consumption:

— Border: 1 pt — color: Cyan 100% — round corners: 3,5 mm.

— Value: Calibri bold 14 pt, 100% black.

— Second line: Calibri regular 11 pt, 100% black.

10 Television screen diagonal size:
— Pictogram as depicted
— Border: 1 pt — color: Cyan 100% — round corners: 3,5 mm.

— Value: Calibri bold 14 pt, 100% black. Calibri regular 11pt, 100% black.

11 Text related to annual energy consumption:
— Border: 2 pt — color: Cyan 100% — round corners: 3,5 mm.
— Value: Calibri bold 25 pt, 100% black.

— Second line: Calibri regular 11 pt, 100% black.

12 Supplier's name or trade mark

13 Supplier's model identifier

14 The supplier's name or trade mark and model information should fit in a space of 51 × 8 mm.

15 Reference period
Text: Calibri bold 8 pt

Text: Calibri light 9 pt.

ANNEX F
INFORMATION TO BE PROVIDED IN THE CASES WHERE END-USERS CANNOT BE EXPECTED TO SEE THE PRODUCT DISPLAYED

1. The information referred to in Article 6-2 shall be provided in the following order:

(a) the energy efficiency class of the model as defined in Annex A;

(b) the on-mode power consumption as referred to in point 1of Annex B;

(c) the annual power consumption in accordance with point 2 of Annex B;

(d) the visible screen diagonal.

2. Where other information contained in the product information fiche is also provided, it shall be in the form and order specified in Annex C.

3. The size and font in which all the information referred in this Annex is printed or shown shall be legible.

ANNEX G
MEASUREMENTS

1. For the purposes of compliance and verification of compliance with the requirements of this implementing Technical Regulation, measurements shall be made using a reliable, accurate and reproducible measurement procedure that takes into account the generally recognized state-of-the-art measurement methods, including methods set out in Jordanian standards adopting EU documents, the reference numbers of which have been published for that purpose in the Official Gazette

2. Measurements of on-mode power consumption referred to in point 1 of Annex B

(a) General conditions:

(i) measurements shall be made at an ambient temperature of 23°C +/– 5°C;

(ii) measurements shall be made using a dynamic broadcast-content video signal representing typical broadcast TV content; The measurement shall be the average power consumed over ten consecutive minutes;

(iii) measurements shall be made after the television has been in the off-mode for a minimum of 1 hour immediately followed by a minimum of 1 hour in the on-mode and shall be completed before a maximum of 3 hours in on-mode. The relevant video signal shall be displayed during the entire on-mode duration. For televisions that are known to stabilize within 1 hour, these durations may be reduced if the resulting measurement can be shown to be within 2% of the results that would otherwise be achieved using the durations described here;

(iv) measurements shall be made with an uncertainty of less than or equal to 2% at the 95% confidence level;

(v) measurements shall be made with the Automatic Brightness Control function, if such a function exists, made inactive. If the Automatic Brightness Control function exists and cannot be made inactive, then the measurements shall be performed with the light entering directly into the ambient light sensor at a level of 300 lux, or more.

(b) Conditions for measuring the on-mode power consumption of televisions:

(i) television sets without forced menu: The power consumption shall be measured in the on-mode condition of the television as delivered by the manufacturer, that is, the brightness controls of the television shall be in the position adjusted by the manufacturer for the end user;

(ii) television sets with forced menu: The power consumption shall be measured in the 'home-mode' condition;

(iii) television monitors without forced menu: The television monitor shall be connected to an appropriate tuner. The power consumption shall be measured in the on-mode condition of the television as delivered by the manufacturer, that is, the brightness controls of the television monitor shall be in the position adjusted by the manufacturer for the end user. The power consumption of the tuner is not relevant for the measurements of on-mode power consumption of the television monitor;

(iv) television monitors with forced menu: The television monitor shall be connected to an appropriate tuner. The power consumption shall be measured in the 'home-mode' condition.

3. Measurements of standby/off-mode power consumption referred to in point 1(g) of Annex C

Measurements of power of 0,50 Watts or greater shall be made with an uncertainty of less than or equal to 2% at the 95% confidence level. Measurements of power of less than 0,50

Watts shall be made with an uncertainty of less than or equal to 0,01 Watts at the 95% confidence level.

4. Measurements of peak luminance referred to in point 2(c) Annex H

(a) Measurements of peak luminance shall be made with a luminance meter, detecting that portion of the screen exhibiting a full (100%) white image, which is part of a 'full screen test' test pattern that does not exceed the average picture level (APL) point where any power limiting occurs in the display luminance drive system.

(b) Measurements of luminance ratio shall be made without disturbing the luminance meter's detection point on the display whilst switching between the home-mode condition or the on-mode condition of the television as set by the supplier, as applicable, and the brightest on-mode condition.

ANNEX H
VERIFICATION PROCEDURE FOR MARKET SURVEILLANCE PURPOSES

For the purposes of checking conformity with the requirements laid down in Articles 5 and 6, the Organization shall apply the following verification procedure for the on-mode power consumption referred to in point 1 of Annex B and the standby/off-mode power consumption referred to in point 1(g) of Annex C.

1. The Organization shall test one single unit.

2. The model shall be considered to comply with the declared value of the on-mode power consumption and the declared values for standby and/or off-mode power consumption, if:

(a) the result for on-mode power consumption does not exceed the declared power consumption value by more than 7%; and

(b) the results for standby and off-mode power consumption values, as applicable, do not exceed the declared power consumption values by more than 0,10 Watts; and

(c) the result for the peak luminance ratio is above 60%.

3. If the results referred to in point (2)(a) or (b) or (c) are not achieved, three additional units of the same model shall be tested.

4. After three additional units of the same model have been tested, the model shall be considered to comply with the declared value of the on-mode power consumption and the declared values for standby and off-mode power consumption, if:

(a) the average of the results for the latter three units for on-mode power consumption does not exceed the declared power consumption value by more than 7%; and

(b) the average of the results for the latter three units for standby and off-mode conditions, as applicable, does not exceed the declared power consumption values by more than 0,10 Watts; and

(c) the average of the results for the latter three units for the peak luminance ratio is above 60%.

5. If the results referred to in point (4)(a) or (b) or (c) are not achieved, the model shall be considered not to comply with the requirements.

3. CALCULATION OF THE ANNUAL WATER CONSUMPTION

The annual water consumption (AW_C) of a household dishwasher is calculated, in liters and rounded up to the nearest integer, as:

$$AW_C = W_t \times 280$$

where:

W_t= water consumption for the standard cleaning cycle, in liters and rounded to one decimal place.