

Commission Regulation (EU) 2016/2282 of 30 November 2016 amending Regulations (EC) No 1275/2008, (EC) No 107/2009, (EC) No 278/2009, (EC) No 640/2009, (EC) No 641/2009, (EC) No 642/2009, (EC) No 643/2009, (EU) No 1015/2010, (EU) No 1016/2010, (EU) No 327/2011, (EU) No 206/2012, (EU) No 547/2012, (EU) No 932/2012, (EU) No 617/2013, (EU) No 666/2013, (EU) No 813/2013, (EU) No 814/2013, (EU) No 66/2014, (EU) No 548/2014, (EU) No 1253/2014, (EU) 2015/1095, (EU) 2015/1185, (EU) 2015/1188, (EU) 2015/1189 and (EU) 2016/2281 with regard to the use of tolerances in verification procedures (Text with EEA relevance)

COMMISSION REGULATION (EU) 2016/2282

of 30 November 2016

amending Regulations (EC) No 1275/2008, (EC) No 107/2009, (EC) No 278/2009, (EC) No 640/2009, (EC) No 641/2009, (EC) No 642/2009, (EC) No 643/2009, (EU) No 1015/2010, (EU) No 1016/2010, (EU) No 327/2011, (EU) No 206/2012, (EU) No 547/2012, (EU) No 932/2012, (EU) No 617/2013, (EU) No 666/2013, (EU) No 813/2013, (EU) No 814/2013, (EU) No 66/2014, (EU) No 548/2014, (EU) No 1253/2014, (EU) 2015/1095, (EU) 2015/1185, (EU) 2015/1188, (EU) 2015/1189 and (EU) 2016/2281 with regard to the use of tolerances in verification procedures

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products⁽¹⁾, and in particular Article 15(1) thereof,

After consulting the Ecodesign Consultation Forum,

Whereas:

- (1) Experience in implementing Commission Regulations on ecodesign requirements adopted on the basis of Directive 2009/125/EC has revealed that the verification tolerances laid down in the implementing measures, and intended for use only by market surveillance authorities, have been used by some manufacturers and importers to establish the values required to be provided in the technical documentation or to interpret those values with a view to achieving compliance or to communicate better performance of their products.
- (2) The verification tolerances are designed to allow for variations that emerge in the measurements taken during verification tests, which are due to the differences in the measurement equipment used by manufacturers, importers and surveillance authorities across the Union. Verification tolerances should not be used by the manufacturer or importer for establishing the values in the technical documentation or for interpreting

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

those values in order to achieve compliance with ecodesign rules or to communicate better performance than has actually been measured and calculated. The parameters declared or published by the manufacturer or importer should not be more favourable for the manufacturer or importer than the values contained in the technical documentation.

- (3) To ensure fair competition, to realise the energy savings that the Regulations were designed to achieve and to provide consumers with accurate information about the environmental and functional performance of products, it should be clarified that the verification tolerances set out in the implementing measures may only be used by the Member State authorities, for the purpose of verifying compliance.
- (4) Commission Regulations (EC) No 1275/2008⁽²⁾, (EC) No 107/2009⁽³⁾, (EC) No 278/2009⁽⁴⁾, (EC) No 640/2009⁽⁵⁾, (EC) No 641/2009⁽⁶⁾, (EC) No 642/2009⁽⁷⁾, (EC) No 643/2009⁽⁸⁾, (EU) No 1015/2010⁽⁹⁾, (EU) No 1016/2010⁽¹⁰⁾, (EU) No 327/2011⁽¹¹⁾, (EU) No 206/2012⁽¹²⁾, (EU) No 547/2012⁽¹³⁾, (EU) No 932/2012⁽¹⁴⁾, (EU) No 617/2013⁽¹⁵⁾, (EU) No 666/2013⁽¹⁶⁾, (EU) No 813/2013⁽¹⁷⁾, (EU) No 814/2013⁽¹⁸⁾, (EU) No 66/2014⁽¹⁹⁾, (EU) No 548/2014⁽²⁰⁾, (EU) No 1253/2014⁽²¹⁾, (EU) 2015/1095⁽²²⁾, (EU) 2015/1185⁽²³⁾, (EU) 2015/1188⁽²⁴⁾, (EU) 2015/1189⁽²⁵⁾ and (EU) 2016/2281⁽²⁶⁾ should therefore be amended accordingly.
- (5) Data provided by lighting industry actors shows that many lamp types intended as alternatives to the least efficient banned types (such as the mains-voltage halogen bulbs intended to replace incandescent bulbs) would be entirely removed from the market by Regulations (EC) No 244/2009⁽²⁷⁾, (EC) No 245/2009⁽²⁸⁾ and (EU) No 1194/2012⁽²⁹⁾ if manufacturers were prohibited from using the approach for data and information declaration described in the measurement standards supporting the verification tolerances set out in these Regulations in the way that is current practice throughout the industry. It is therefore appropriate not to amend those three Regulations through this Regulation, but to clarify the intended use of the tolerances in conjunction with a reassessment of the related minimum requirements when those Regulations are next reviewed.
- (6) The measures provided for in this Regulation are in accordance with the opinion of the committee established by Article 19(1) of Directive 2009/125/EC,

HAS ADOPTED THIS REGULATION:

Article 1

Amendments to Regulation (EC) No 1275/2008

Annex III to Regulation (EC) No 1275/2008 is amended in accordance with Annex I to this Regulation.

Article 2

Amendments to Regulation (EC) No 107/2009

Annexes I and II to Regulation (EC) No 107/2009 are amended in accordance with Annex II to this Regulation.

Article 3

Amendments to Regulation (EC) No 278/2009

Annexes I and II to Regulation (EC) No 278/2009 are amended in accordance with Annex III to this Regulation.

Article 4

Amendments to Regulation (EC) No 640/2009

Annex III to Regulation (EC) No 640/2009 is amended in accordance with Annex IV to this Regulation.

Article 5

Amendments to Regulation (EC) No 641/2009

Annex III to Regulation (EC) No 641/2009 is amended in accordance with Annex V to this Regulation.

Article 6

Amendments to Regulation (EC) No 642/2009

Annexes II and III to Regulation (EC) No 642/2009 are amended in accordance with Annex VI to this Regulation.

Article 7

Amendments to Regulation (EC) No 643/2009

Annex V to Regulation (EC) No 643/2009 is amended in accordance with Annex VII to this Regulation.

Article 8

Amendments to Regulation (EU) No 1015/2010

Annex III to Regulation (EU) No 1015/2010 is amended in accordance with Annex VIII to this Regulation.

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

Article 9

Amendments to Regulation (EU) No 1016/2010

Annex III to Regulation (EU) No 1016/2010 is amended in accordance with Annex IX to this Regulation.

Article 10

Amendments to Regulation (EU) No 327/2011

Annex III to Regulation (EU) No 327/2011 is amended in accordance with Annex X to this Regulation.

Article 11

Amendments to Regulation (EU) No 206/2012

Annex III to Regulation (EU) No 206/2012 is amended in accordance with Annex XI to this Regulation.

Article 12

Amendments to Regulation (EU) No 547/2012

Annex IV to Regulation (EU) No 547/2012 is amended in accordance with Annex XII to this Regulation.

Article 13

Amendments to Regulation (EU) No 932/2012

Annex III to Regulation (EU) No 932/2012 is amended in accordance with Annex XIII to this Regulation.

Article 14

Amendments to Regulation (EU) No 617/2013

Regulation (EU) No 617/2013 is amended as follows:

- (1) the second point (e) of Article 2(20) is replaced by the following:
 - (e) dividing by 1 000 converts Mega into Giga;;
- (2) Annexes II and III are amended in accordance with Annex XIV to this Regulation.

Article 15

Amendments to Regulation (EU) No 666/2013

Annex III to Regulation (EU) No 666/2013 is amended in accordance with Annex XV to this Regulation.

Article 16

Amendments to Regulation (EU) No 813/2013

Annex IV to Regulation (EU) No 813/2013 is amended in accordance with Annex XVI to this Regulation.

Article 17

Amendments to Regulation (EU) No 814/2013

Annex V to Regulation (EU) No 814/2013 is amended in accordance with Annex XVII to this Regulation.

Article 18

Amendments to Regulation (EU) No 66/2014

Annex III to Regulation (EU) No 66/2014 is amended in accordance with Annex XVIII to this Regulation.

Article 19

Amendments to Regulation (EU) No 548/2014

Annex III to Regulation (EU) No 548/2014 is amended in accordance with Annex XIX to this Regulation.

Article 20

Amendments to Regulation (EU) No 1253/2014

Annex VI to Regulation (EU) No 1253/2014 is amended in accordance with Annex XX to this Regulation.

Article 21

Amendments to Regulation (EU) 2015/1095

Annexes IX, X and XI to Regulation (EU) 2015/1095 are amended in accordance with Annex XXI to this Regulation.

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

Article 22

Amendments to Regulation (EU) 2015/1185

Annex IV to Regulation (EU) 2015/1185 is amended in accordance with Annex XXII to this Regulation.

Article 23

Amendments to Regulation (EU) 2015/1188

Annex IV to Regulation (EU) 2015/1188 is amended in accordance with Annex XXIII to this Regulation.

Article 24

Amendments to Regulation (EU) 2015/1189

Annex IV to Regulation (EU) 2015/1189 is amended in accordance with Annex XXIV to this Regulation.

Article 25

Amendments to Regulation (EU) 2016/2281

Annex IV to Regulation (EU) 2016/2281 is amended in accordance with Annex XXV to this Regulation.

Article 26

Entry into force

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 30 November 2016.

For the Commission

The President

Jean-Claude JUNCKER

ANNEX I

Amendments to Annex III to Regulation (EC) No 1275/2008

Annex III is replaced by the following:

ANNEX III

Product compliance verification by market surveillance authorities

The verification tolerances defined in this Annex relate only to the verification of the measured parameters by Member State authorities and shall not be used by the manufacturer or importer as an allowed tolerance to establish the values in the technical documentation or in interpreting these values with a view to achieving compliance or to communicate better performance by any means.

1. VERIFICATION PROCEDURE

When verifying the compliance of a product model with the requirements laid down in this Regulation pursuant to Article 3(2) of Directive 2009/125/EC, for the requirements referred to in this Annex, the authorities of the Member States shall apply the following procedure:

- (1) The Member State authorities shall verify one single unit of the model.
- (2) The model shall be considered to comply with the applicable requirements if:
 - (a) the values given in the technical documentation pursuant to point 2 of Annex IV to Directive 2009/125/EC (declared values), and, where applicable, the values used to calculate these values, are not more favourable for the manufacturer or importer than the results of the corresponding measurements carried out pursuant to paragraph (g) thereof; and
 - (b) the declared values meet any requirements laid down in this Regulation, and any required product information published by the manufacturer or importer does not contain values that are more favourable for the manufacturer or importer than the declared values; and
 - (c) when the Member State authorities test the unit of the model, the determined values (the values of the relevant parameters as measured in testing and the values calculated from these measurements) comply with the respective verification tolerances as given in the table below.
- (3) If the results referred to in point 2(a) or (b) are not achieved, the model shall be considered not to comply with this Regulation.
- (4) If the result referred to in point 2(c) is not achieved, the Member State authorities shall select three additional units of the same model for testing.
- (5) The model shall be considered to comply with the applicable requirements if, for these three units, the arithmetical mean of the determined values complies with the respective verification tolerances given in the table below.
- (6) If the result referred to in point 5 is not achieved, the model shall be considered not to comply with this Regulation.

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

- (7) The Member State authorities shall provide all relevant information to the authorities of the other Member States and to the Commission without delay after a decision being taken on the non-compliance of the model according to points 3 and 6.

The Member State authorities shall use the measurement and calculation methods set out in point 8 of Annex II and in part 2 of this Annex. The Member State authorities shall only apply the verification tolerances that are set out in the table below and shall only use the procedure described in points 1 to 7 for the requirements referred to in this Annex. No other tolerances, such as those set out in harmonised standards or in any other measurement method, shall be applied.

VERIFICATION TOLERANCES

Type of requirement	Category	Tolerance
Annex II, points 1(a) and (b), or points 2(a) and (b)	For power consumption requirements above 1,00 W	The determined value shall not exceed the declared value by more than 10 %.
	For power consumption requirements less than or equal to 1,00 W	The determined value shall not exceed the declared value by more than 0,10 W.
Annex II, points 3(c) and 4(a)	n/a	The determined value shall not exceed the declared value by more than 10 %.

2. TEST PROCEDURE FOR NETWORKED EQUIPMENT

To test compliance with the requirements set out in points 3(c) and 4(a) of Annex II, Member State authorities shall use the procedure set out in part 1 of this Annex, after having deactivated and/or disconnected, as applicable, all network ports of the unit.

To test compliance with the other requirements set out in points 3 and 4 of Annex II, Member State authorities shall test one single unit as follows:

If the equipment has, as indicated in the technical documentation, one type of network port and if two or more ports of that type are available, one of these ports is randomly chosen and that port is connected to the appropriate network complying with the maximum specification of the port. In the event of multiple wireless network ports of the same type, the other wireless ports shall be deactivated if possible. In the event of multiple wired network ports of the same type for verifying requirements set out in Annex II, point 3, the other network ports shall be deactivated if possible. If only one network port is available, that port is connected to the appropriate network complying with the maximum specification of the port.

The unit is put in on mode. Once the unit in on mode is working properly, it is allowed to go into the condition providing networked standby and the power consumption is measured. Then the appropriate trigger is given to the equipment through the network port and a check is made on whether the equipment is reactivated.

If the equipment has, as indicated in the technical documentation, more than one type of network port for each type of network port the following procedure is repeated. If two or more network ports of a type are available, one port is chosen randomly for each type of network port and that port is connected to the appropriate network complying with the maximum specification of the port.

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If for a certain type of network port only one port is available, that port is connected to the appropriate network complying with the maximum specification of the port. Wireless ports not used shall be deactivated if possible. In the event of verification of requirements set out in Annex II, point 3, the wired network ports not used shall be deactivated if possible.

The unit is put in on mode. Once the unit in on mode is working properly, it is allowed to go into the condition providing networked standby and the power consumption is measured. Then the appropriate trigger is given to the equipment through the network port and a check is made whether the equipment is reactivated. If one physical network port is shared by two or more types of (logical) network ports this procedure is repeated for each type of logical network port, with the other logical network ports being logical-disconnected.

ANNEX II

Amendments to Annexes I and II to Regulation (EC) No 107/2009

- (1) In Annex I, the second paragraph of point 5 is deleted.
- (2) Annex II is replaced by the following:

ANNEX II

Product compliance verification by market surveillance authorities

The verification tolerances defined in this Annex relate only to the verification of the measured parameters by Member State authorities and shall not be used by the manufacturer or importer as an allowed tolerance to establish the values in the technical documentation or in interpreting these values with a view to achieving compliance or to communicate better performance by any means.

When verifying the compliance of a product model with the requirements laid down in this Regulation pursuant to Article 3(2) of Directive 2009/125/EC, for the requirements referred to in this Annex, the authorities of the Member States shall apply the following procedure:

- (1) The Member State authorities shall verify one single unit of the model.
- (2) The model shall be considered to comply with the applicable requirements if:
 - (a) the values given in the technical documentation pursuant to point 2 of Annex IV to Directive 2009/125/EC (declared values), and, where applicable, the values used to calculate these values, are not more favourable for the manufacturer or importer than the results of the corresponding measurements carried out pursuant to paragraph (g) thereof; and
 - (b) the declared values meet any requirements laid down in this Regulation, and any required product information published by the manufacturer or importer does not contain values that are more favourable for the manufacturer or importer than the declared values; and

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

- (c) when the Member State authorities test the unit of the model, the determined values (the values of the relevant parameters as measured in testing and the values calculated from these measurements) comply with the respective verification tolerances as given in Table 1.
- (3) If the results referred to in point 2(a) or (b) are not achieved, the model shall be considered not to comply with this Regulation.
- (4) If the result referred to in point 2(c) is not achieved, the Member State authorities shall select three additional units of the same model for testing.
- (5) The model shall be considered to comply with the applicable requirements if, for these three units, the arithmetical mean of the determined values complies with the respective verification tolerances given in Table 1.
- (6) If the result referred to in point 5 is not achieved, the model shall be considered not to comply with this Regulation.
- (7) The Member State authorities shall provide all relevant information to the authorities of the other Member States and to the Commission without delay after a decision being taken on the non-compliance of the model according to points 3 and 6.

The Member State authorities shall use the measurement and calculation methods set out in Annex I.

The Member State authorities shall only apply the verification tolerances that are set out in Table 1 and shall only use the procedure described in points 1 to 7 for the requirements referred to in this Annex. No other tolerances, such as those set out in harmonised standards or in any other measurement method, shall be applied.

TABLE 1

Verification tolerances

Provisions in Annex I, Points 1 and 2, as applicable	Verification tolerances
For power consumption above 1,00 W	The determined value shall not exceed the declared value by more than 10 %.
For power consumption less than or equal to 1,00 W	The determined value shall not exceed the declared value by more than 0,10 W.

ANNEX III

Amendments to Annexes I and II to Regulation (EC) No 278/2009

- (1) In Annex I, the second paragraph of point 2 is deleted.
- (2) Annex II is replaced by the following:

ANNEX II

Product compliance verification by market surveillance authorities

The verification tolerances defined in this Annex relate only to the verification of the measured parameters by Member State authorities and shall not be used by the manufacturer or importer as an allowed tolerance to establish the values in the technical documentation or in interpreting these values with a view to achieving compliance or to communicate better performance by any means.

When verifying the compliance of a product model with the requirements laid down in this Regulation pursuant to Article 3(2) of Directive 2009/125/EC, for the requirements referred to in this Annex, the authorities of the Member States shall apply the following procedure:

- (1) The Member State authorities shall verify one single unit of the model.
- (2) The model shall be considered to comply with the applicable requirements if:
 - (a) the values given in the technical documentation pursuant to point 2 of Annex IV to Directive 2009/125/EC (declared values), and, where applicable, the values used to calculate these values, are not more favourable for the manufacturer or importer than the results of the corresponding measurements carried out pursuant to paragraph (g) thereof; and
 - (b) the declared values meet any requirements laid down in this Regulation, and any required product information published by the manufacturer or importer does not contain values that are more favourable for the manufacturer or importer than the declared values; and
 - (c) when the Member State authorities test the unit of the model, the determined values (the values of the relevant parameters as measured in testing and the values calculated from these measurements) comply with the respective verification tolerances as given in the table below.
- (3) If the results referred to in point 2(a) or (b) are not achieved, the model shall be considered not to comply with this Regulation.
- (4) If the result referred to in point 2(c) is not achieved, the Member State authorities shall select three additional units of the same model for testing.
- (5) The model shall be considered to comply with the applicable requirements if, for these three units, the arithmetical mean of the determined values complies with the respective verification tolerances given in the table below.
- (6) If the result referred to in point 5 is not achieved, the model shall be considered not to comply with this Regulation.
- (7) The Member State authorities shall provide all relevant information to the authorities of the other Member States and to the Commission without delay after a decision being taken on the non-compliance of the model according to points 3 and 6.

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

The Member State authorities shall use the measurement and calculation methods set out in Annex I.

The Member State authorities shall only apply the verification tolerances that are set out in the table below and shall only use the procedure described in points 1 to 7 for the requirements referred to in this Annex. No other tolerances, such as those set out in harmonised standards or in any other measurement method, shall be applied.

VERIFICATION TOLERANCES

Parameters	Verification tolerances
No-load condition	The determined value shall not exceed the declared value by more than 0,10 W.
Arithmetical mean of efficiency at load conditions 1-4 as defined in Annex I	The determined value shall not be lower than the declared value by more than 5 %.

ANNEX IV

Amendments to Annex III to Regulation (EC) No 640/2009

Annex III is replaced by the following:

ANNEX III

Product compliance verification by market surveillance authorities

The verification tolerances defined in this Annex relate only to the verification of the measured parameters by Member State authorities and shall not be used by the manufacturer or importer as an allowed tolerance to establish the values in the technical documentation or in interpreting these values with a view to achieving compliance or to communicate better performance by any means.

When verifying the compliance of a product model with the requirements laid down in this Regulation pursuant to Article 3(2) of Directive 2009/125/EC, for the requirements referred to in this Annex, the authorities of the Member States shall apply the following procedure:

- (1) The Member State authorities shall verify one single unit of the model.
- (2) The model shall be considered to comply with the applicable requirements if:
 - (a) the values given in the technical documentation pursuant to point 2 of Annex IV to Directive 2009/125/EC (declared values), and, where applicable, the values used to calculate these values, are not more favourable for the manufacturer or importer than the results of the corresponding measurements carried out pursuant to paragraph (g) thereof; and
 - (b) the declared values meet any requirements laid down in this Regulation, and any required product information published by the manufacturer or importer does not contain values that are more favourable for the manufacturer or importer than the declared values; and

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

- (c) when the Member State authorities test the unit of the model, the determined values (the values of the relevant parameters as measured in testing and the values calculated from these measurements), including the total losses (1- η) as decisive criterion for the efficiency, comply with the respective verification tolerances as given in Table 3.
- (3) If the results referred to in point 2(a) or (b) are not achieved, the model shall be considered not to comply with this Regulation.
- (4) If the result referred to in point 2(c) is not achieved:
 - (a) for models that are produced in quantities of less than five per year, the model shall be considered not to comply with this Regulation;
 - (b) for models that are produced in quantities of five or more per year, the Member State authorities shall select three additional units of the same model for testing. The model shall be considered to comply with the applicable requirements if, for these three units, the arithmetical mean of the determined values, including the total losses (1- η) as decisive criterion for the efficiency, complies with the respective verification tolerances given in Table 3.
- (5) If the result referred to in point 4(b) is not achieved, the model shall be considered not to comply with this Regulation.
- (6) The Member State authorities shall provide all relevant information to the authorities of the other Member States and to the Commission without delay after a decision being taken on the non-compliance of the model according to points 3, 4(a) and 5.

The Member State authorities shall use the measurement and calculation methods set out in Annex II.

The Member State authorities shall only apply the verification tolerances that are set out in Table 3 and shall only use the procedure described in points 1 to 6 for the requirements referred to in this Annex. No other tolerances, such as those set out in harmonised standards or in any other measurement method, shall be applied.

TABLE 3

Verification tolerances

Parameters	Motors on the power range 0,75-150 kW	Motors in the power range 150-375 kW
Total losses (1- η)	Maximum 15 % above the values as derived from declared values according to Annex I	Maximum 10 % above the values as derived from declared values according to Annex I

ANNEX V

Amendments to Annex III to Regulation (EC) No 641/2009

Annex III is replaced by the following:

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

ANNEX III

Product compliance verification by market surveillance authorities

The verification tolerances defined in this Annex relate only to the verification of the measured parameters by Member State authorities and shall not be used by the manufacturer or importer as an allowed tolerance to establish the values in the technical documentation or in interpreting these values with a view to achieving compliance or to communicate better performance by any means.

When verifying the compliance of a product model with the requirements laid down in this Regulation pursuant to Article 3(2) of Directive 2009/125/EC, for the requirements referred to in this Annex, the authorities of the Member States shall apply the following procedure:

- (1) The Member State authorities shall verify one single unit of the model.
- (2) The model shall be considered to comply with the applicable requirements if:
 - (a) the values given in the technical documentation pursuant to point 2 of Annex IV to Directive 2009/125/EC (declared values), and, where applicable, the values used to calculate these values, are not more favourable for the manufacturer or importer than the results of the corresponding measurements carried out pursuant to paragraph (g) thereof; and
 - (b) the declared values meet any requirements laid down in this Regulation, and any required product information published by the manufacturer or importer does not contain values that are more favourable for the manufacturer or importer than the declared values; and
 - (c) when the Member State authorities test the unit of the model, the determined values (the values of the relevant parameters as measured in testing and the values calculated from these measurements) comply with the respective verification tolerances as given in Table 1.
- (3) If the results referred to in point 2(a) or (b) are not achieved, the model shall be considered not to comply with this Regulation.
- (4) If the result referred to in point 2(c) is not achieved, the Member State authorities shall select three additional units of the same model for testing.
- (5) The model shall be considered to comply with the applicable requirements if, for these three units, the arithmetical mean of the determined values complies with the respective verification tolerances given in Table 1.
- (6) If the result referred to in point 5 is not achieved, the model shall be considered not to comply with this Regulation.
- (7) The Member State authorities shall provide all relevant information to the authorities of the other Member States and to the Commission without delay after a decision being taken on the non-compliance of the model according to points 3 and 6.

The Member State authorities shall use the measurement and calculation methods set out in Annex II.

The Member State authorities shall only apply the verification tolerances that are set out in Table 1 and shall use only the procedure described in points 1 to 7 for the requirements referred to in

this Annex. No other tolerances, such as those set out in harmonised standards or in any other measurement method, shall be applied.

TABLE I

Verification tolerances

Parameter	Verification tolerance
Energy efficiency index	The determined value shall not exceed the declared value by more than 7 %.

ANNEX VI

Amendments to Annexes II and III to Regulation (EC) No 642/2009

- (1) In Annex II, the fourth indent of paragraph (c) of part 1 is deleted.
- (2) The title of Annex III is replaced by ‘Product compliance verification by market surveillance authorities’.
- (3) Annex III part A is replaced by the following:
 - A. The verification tolerances defined in this Annex relate only to the verification of the measured parameters by Member State authorities and shall not be used by the manufacturer or importer as an allowed tolerance to establish the values in the technical documentation or in interpreting these values with a view to achieving compliance or to communicate better performance by any means.

When verifying the compliance of a product model with the requirements laid down in this Regulation pursuant to Article 3(2) of Directive 2009/125/EC, for the requirements referred to in this Annex, the authorities of the Member States shall apply the following procedure. They shall apply the steps set out in points 2(a), 2(b) and 3 below also during the verification procedure set out in part B of this Annex.

- (1) The Member State authorities shall verify one single unit of the model.
- (2) The model shall be considered to comply with the applicable requirements if:
 - (a) the values given in the technical documentation pursuant to point 2 of Annex IV to Directive 2009/125/EC (declared values), and, where applicable, the values used to calculate these values, are not more favourable for the manufacturer or importer than the results of the corresponding measurements carried out pursuant to paragraph (g) thereof; and
 - (b) the declared values meet any requirements laid down in this Regulation, and any required product information published by the manufacturer or importer does not contain values that are more favourable for the manufacturer or importer than the declared values; and
 - (c) when the Member State authorities test the unit of the model, the determined values (the values of the relevant parameters

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as measured in testing and the values calculated from these measurements) comply with the respective verification tolerances as given in Table 1.

- (3) If the results referred to in point 2(a) or (b) are not achieved, the model shall be considered not to comply with this Regulation.
- (4) If the result referred to in point 2(c) is not achieved, the Member State authorities shall select three additional units of the same model for testing.
- (5) The model shall be considered to comply with the applicable requirements if, for these three units, the arithmetical mean of the determined values complies with the respective verification tolerances given in Table 1.
- (6) If the result referred to in point 5 is not achieved, the model shall be considered not to comply with this Regulation.
- (7) The Member State authorities shall provide all relevant information to the authorities of the other Member States and to the Commission without delay after a decision being taken on the non-compliance of the model according to points 3 and 6.

The Member State authorities shall use the calculation methods set out in Annex I and the measurement conditions set out in Annex II.

The Member State authorities shall only apply the verification tolerances that are set out in Table 1 and shall only use the procedure described in points 1 to 7 for the requirements referred to in this Annex. No other tolerances, such as those set out in harmonised standards or in any other measurement method, shall be applied.

TABLE 1

Verification tolerances

Parameters	Verification tolerances
On-mode power consumption given in Annex I, points 1 and 2 of Part 1	The determined value shall not exceed the declared value by more than 7 %.
Off-mode/standby conditions, as applicable, given in Annex I, points 1(a) and (b) and points 2(a) and (b) of Part 2	The determined value shall not exceed the declared value by more than 0,10 W.
Peak luminance ratio given in Annex I, Part 5	The determined value shall not be lower than 60 % of the peak luminance of the brightest on-mode condition provided by the television.

- (4) The 9th, 10th, 11th and 12th paragraphs of Annex III part B are replaced by the following:

The model shall be considered to comply with this Regulation if the results for each type of network port do not exceed the declared value by more than 7 %.

Otherwise, three more units shall be tested. The model shall be considered to comply with this Regulation if the arithmetical mean of the determined values does not exceed the declared value by more than 7 %.

Otherwise, the model shall be considered not to comply.

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

The Member State authorities shall provide the test results and other relevant information to the authorities of the other Member States and to the Commission without delay after the decision being taken on the non-compliance of the model.

ANNEX VII

Amendments to Annex V to Regulation (EC) No 643/2009

Annex V is replaced by the following:

ANNEX V

Product compliance verification by market surveillance authorities

The verification tolerances defined in this Annex relate only to the verification of the measured parameters by Member State authorities and shall not be used by the manufacturer or importer as an allowed tolerance to establish the values in the technical documentation or in interpreting these values with a view to achieving compliance or to communicate better performance by any means.

When verifying the compliance of a product model with the requirements laid down in this Regulation pursuant to Article 3(2) of Directive 2009/125/EC, for the requirements referred to in this Annex, the authorities of the Member States shall apply the following procedure:

- (1) The Member State authorities shall verify one single unit of the model.
- (2) The model shall be considered to comply with the applicable requirements if:
 - (a) the values given in the technical documentation pursuant to point 2 of Annex IV to Directive 2009/125/EC (declared values), and, where applicable, the values used to calculate these values, are not more favourable for the manufacturer or importer than the results of the corresponding measurements carried out pursuant to paragraph (g) thereof; and
 - (b) the declared values meet any requirements laid down in this Regulation, and any required product information published by the manufacturer or importer does not contain values that are more favourable for the manufacturer or importer than the declared values; and
 - (c) when the Member State authorities test the unit of the model, the determined values (the values of the relevant parameters as measured in testing and the values calculated from these measurements) comply with the respective verification tolerances as given in Table 1.
- (3) If the results referred to in point 2(a) or (b) are not achieved, the model and all models that have been listed as equivalent household refrigerating appliance models in the manufacturer's or importer's technical documentation shall be considered not to comply with this Regulation.
- (4) If the result referred to in point 2(c) is not achieved, the Member State authorities shall select three additional units of the same model for testing. As an alternative, the three

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

additional units selected may be of one or more different models that have been listed as equivalent models in the manufacturer's or importer's technical documentation.

- (5) The model shall be considered to comply with the applicable requirements if, for these three units, the arithmetical mean of the determined values complies with the respective verification tolerances given in Table 1.
- (6) If the result referred to in point 5 is not achieved, the model and all models that have been listed as equivalent household refrigerating appliance models in the manufacturer's or importer's technical documentation shall be considered not to comply with this Regulation.
- (7) The Member State authorities shall provide all relevant information to the authorities of the other Member States and to the Commission without delay after a decision being taken on the non-compliance of the model according to points 3 and 6.

The Member State authorities shall use the measurement and calculation methods set out in Annexes III and IV.

The Member State authorities shall only apply the verification tolerances that are set out in Table 1 and shall only use the procedure described in points 1 to 7 for the requirements referred to in this Annex. No other tolerances, such as those set out in harmonised standards or in any other measurement method, shall be applied.

TABLE 1

Verification tolerances

Parameters	Verification tolerances
Gross volume	The determined value shall not be less than the declared value by more than 3 % or 1 litre, whichever is the greater value.
Storage volume	The determined value shall not be less than the declared value by more than 3 % or 1 litre, whichever is the greater value. Where the volumes of the cellar compartment and the fresh food storage compartment are adjustable, relative to one another, by the user, the volume shall be tested when the cellar compartment is adjusted to its minimum volume.
Freezing capacity	The determined value shall not be less than the declared value by more than 10 %.
Energy consumption	The determined value shall not exceed the declared value (E_{24h}) by more than 10 %.
Power consumption of household refrigerating appliances with a storage volume below 10 litres	The determined value shall not exceed the declared value by more than 0,10 W.
Humidity of wine storage appliances	The determined value for the relative humidity shall not exceed the declared range by more than 10 % in any direction.

ANNEX VIII

Amendments to Annex III to Regulation (EU) No 1015/2010

Annex III is replaced by the following:

ANNEX III

Product compliance verification by market surveillance authorities

The verification tolerances defined in this Annex relate only to the verification of the measured parameters by Member State authorities and shall not be used by the manufacturer or importer as an allowed tolerance to establish the values in the technical documentation or in interpreting these values with a view to achieving compliance or to communicate better performance by any means.

When verifying the compliance of a product model with the requirements laid down in this Regulation pursuant to Article 3(2) of Directive 2009/125/EC, for the requirements referred to in this Annex, the authorities of the Member States shall apply the following procedure:

- (1) The Member State authorities shall verify one single unit of the model.
- (2) The model shall be considered to comply with the applicable requirements if:
 - (a) the values given in the technical documentation pursuant to point 2 of Annex IV to Directive 2009/125/EC (declared values), and, where applicable, the values used to calculate these values, are not more favourable for the manufacturer or importer than the results of the corresponding measurements carried out pursuant to paragraph (g) thereof; and
 - (b) the declared values meet any requirements laid down in this Regulation, and any required product information published by the manufacturer or importer does not contain values that are more favourable for the manufacturer or importer than the declared values; and
 - (c) when the Member State authorities test the unit of the model, the determined values (the values of the relevant parameters as measured in testing and the values calculated from these measurements) comply with the respective verification tolerances as given in Table 1.
- (3) If the results referred to in point 2(a) or (b) are not achieved, the model and all models that have been listed as equivalent household washing machine models in the manufacturer's or importer's technical documentation shall be considered not to comply with this Regulation.
- (4) If the result referred to in point 2(c) is not achieved, the Member State authorities shall select three additional units of the same model for testing. As an alternative, the three additional units selected may be of one or more different models that have been listed as equivalent models in the manufacturer's or importer's technical documentation.
- (5) The model shall be considered to comply with the applicable requirements if, for these three units, the arithmetical mean of the determined values complies with the respective verification tolerances given in Table 1.
- (6) If the result referred to in point 5 is not achieved, the model and all models that have been listed as equivalent household washing machine models in the manufacturer's

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

or importer's technical documentation shall be considered not to comply with this Regulation.

- (7) The Member State authorities shall provide all relevant information to the authorities of the other Member States and to the Commission without delay after a decision being taken on the non-compliance of the model according to points 3 and 6.

Member States' authorities shall use measurement procedures which take into account the generally recognised, state-of-the-art, reliable, accurate and reproducible measurement methods, including methods set out in documents whose reference numbers have been published for that purpose in the *Official Journal of the European Union*. The Member State authorities shall use the measurement and calculation methods set out in Annex II.

The Member State authorities shall only apply the verification tolerances that are set out in Table 1 and shall only use the procedure described in points 1 to 7 for the requirements referred to in this Annex. No other tolerances, such as those set out in harmonised standards or in any other measurement method, shall be applied.

TABLE 1

Verification tolerances

Parameters	Verification tolerances
Annual energy consumption (AE_C)	The determined value shall not exceed the declared value of AE_C by more than 10 %.
Washing efficiency index (I_W)	The determined value shall not be less than the declared value of I_W by more than 4 %.
Energy consumption (E_t)	The determined value shall not exceed the declared value of E_t by more than 10 %. Where three additional units need to be selected, the arithmetic mean of the determined values of these three units shall not exceed the declared value of E_t by more than 6 %.
Programme time (T_t)	The determined values shall not exceed the declared values of T_t by more than 10 %.
Water consumption (W_t)	The determined value shall not exceed the declared value of W_t by more than 10 %.
Power consumption in off mode and left-on mode (P_o and P_l)	The determined values of power consumption P_o and P_l of more than 1,00 W shall not exceed the declared values of P_o and P_l by more than 10 %. The determined values of power consumption P_o and P_l of less than or equal to 1,00 W shall not exceed the declared values of P_o and P_l by more than 0,10 W.
Duration of the left-on mode (T_l)	The determined value shall not exceed the declared value of T_l by more than 10 %.

ANNEX IX

Amendments to Annex III to Regulation (EU) No 1016/2010

Annex III is replaced by the following:

ANNEX III

Product compliance verification by market surveillance authorities

The verification tolerances defined in this Annex relate only to the verification of the measured parameters by Member State authorities and shall not be used by the manufacturer or importer as an allowed tolerance to establish the values in the technical documentation or in interpreting these values with a view to achieving compliance or to communicate better performance by any means.

When verifying the compliance of a product model with the requirements laid down in this Regulation pursuant to Article 3(2) of Directive 2009/125/EC, for the requirements referred to in this Annex, the authorities of the Member States shall apply the following procedure:

- (1) The Member State authorities shall verify one single unit of the model.
- (2) The model shall be considered to comply with the applicable requirements if:
 - (a) the values given in the technical documentation pursuant to point 2 of Annex IV to Directive 2009/125/EC (declared values), and, where applicable, the values used to calculate these values, are not more favourable for the manufacturer or importer than the results of the corresponding measurements carried out pursuant to paragraph (g) thereof; and
 - (b) the declared values meet any requirements laid down in this Regulation, and any required product information published by the manufacturer or importer does not contain values that are more favourable for the manufacturer or importer than the declared values; and
 - (c) when the Member State authorities test the unit of the model, the determined values (the values of the relevant parameters as measured in testing and the values calculated from these measurements) comply with the respective verification tolerances as given in Table 1.
- (3) If the results referred to in point 2(a) or (b) are not achieved, the model and all models that have been listed as equivalent household dishwasher models in the manufacturer's or importer's technical documentation shall be considered not to comply with this Regulation.
- (4) If the result referred to in point 2(c) is not achieved, the Member State authorities shall select three additional units of the same model for testing. As an alternative, the three additional units selected may be of one or more different models that have been listed as equivalent models in the manufacturer's or importer's technical documentation.
- (5) The model shall be considered to comply with the applicable requirements if, for these three units, the arithmetical mean of the determined values complies the respective verification tolerances given in Table 1.
- (6) If the result referred to in point 5 is not achieved, the model and all models that have been listed as equivalent household dishwasher models in the manufacturer's

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

or importer's technical documentation shall be considered not to comply with this Regulation.

- (7) The Member State authorities shall provide all relevant information to the authorities of the other Member States and to the Commission without delay after a decision being taken on the non-compliance of the model according to points 3 and 6.

Member States' authorities shall use measurement procedures which take into account the generally recognised, state-of-the-art, reliable, accurate and reproducible measurement methods, including methods set out in documents whose reference numbers have been published for that purpose in the *Official Journal of the European Union*. The Member State authorities shall use the measurement and calculation methods set out in Annex II.

The Member State authorities shall only apply the verification tolerances that are set out in Table 1 and shall only use the procedure described in points 1 to 7 for the requirements referred to in this Annex. No other tolerances, such as those set out in harmonised standards or in any other measurement method, shall be applied.

TABLE 1

Verification tolerances

Parameters	Verification tolerances
Annual energy consumption (AE_C)	The determined value shall not exceed the declared value of AE_C by more than 10 %.
Cleaning efficiency index (I_C)	The determined value shall not be less than the declared value of I_C by more than 10 %.
Drying efficiency index (I_D)	The determined value shall not be less than the declared value of I_D by more than 19 %.
Energy consumption (E_t)	The determined value shall not exceed the declared value of E_t by more than 10 %. Where three additional units need to be selected, the arithmetic mean of the determined values of these three units shall not exceed the declared value of E_t by more than 6 %.
Programme time (T_t)	The determined value shall not exceed the declared values T_t by more than 10 %.
Power consumption in off mode and left-on mode (P_o and P_l)	The determined values of power consumption P_o and P_l of more than 1,00 W shall not exceed the declared values of P_o and P_l by more than 10 %. The determined values of power consumption P_o and P_l of less than or equal to 1,00 W shall not exceed the declared values of P_o and P_l by more than 0,10 W.
Duration of left-on mode (T_l)	The determined value shall not exceed the declared value of T_l by more than 10 %.

ANNEX X

Amendments to Annex III to Regulation (EU) No 327/2011

Annex III is replaced by the following:

ANNEX III

Product compliance verification by market surveillance authorities

The verification tolerances defined in this Annex relate only to the verification of the measured parameters by Member State authorities and shall not be used by the manufacturer or importer as an allowed tolerance to establish the values in the technical documentation or in interpreting these values with a view to achieving compliance or to communicate better performance by any means.

When verifying the compliance of a product model with the requirements laid down in this Regulation pursuant to Article 3(2) of Directive 2009/125/EC, for the requirements referred to in this Annex, the authorities of the Member States shall apply the following procedure:

- (1) The Member State authorities shall verify one single unit of the model.
- (2) The model shall be considered to comply with the applicable requirements if:
 - (a) the values given in the technical documentation pursuant to point 2 of Annex IV to Directive 2009/125/EC (declared values), and, where applicable, the values used to calculate these values, are not more favourable for the manufacturer or importer than the results of the corresponding measurements carried out pursuant to paragraph (g) thereof; and
 - (b) the declared values meet any requirements laid down in this Regulation, and any required product information published by the manufacturer or importer does not contain values that are more favourable for the manufacturer or importer than the declared values; and
 - (c) when the Member State authorities test the unit of the model, the determined values (the values of the relevant parameters as measured in testing and the values calculated from these measurements) comply with the respective verification tolerances as given in Table 3.
- (3) If the results referred to in point 2(a) or (b) are not achieved, the model shall be considered not to comply with this Regulation.
- (4) If the result referred to in point 2(c) is not achieved:
 - (a) for models that are produced in quantities of less than five per year, the model shall be considered not to comply with this Regulation;
 - (b) for models that are produced in quantities of five or more per year, the Member State authorities shall select three additional units of the same model for testing. The models shall be considered to comply with the applicable requirements if, for these three units, the arithmetical mean of the determined values complies with the respective verification tolerances given in Table 3.

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

- (5) If the result referred to in point 4(b) is not achieved, the model shall be considered not to comply with this Regulation.
- (6) The Member State authorities shall provide all relevant information to the authorities of the other Member States and to the Commission without delay after a decision being taken on the non-compliance of the model according to points 3, 4(a) and 5.

The Member State authorities shall use the measurement and calculation methods set out in Annex II.

The Member State authorities shall only apply the verification tolerances that are set out in Table 3 and shall only use the procedure described in points 1 to 6 for the requirements referred to in this Annex. No other tolerances, such as those set out in harmonised standards or in any other measurement method, shall be applied.

TABLE 3

Verification tolerances

Parameter	Verification tolerance
Overall efficiency (η_e)	The determined value shall not be lower than the value representing 90 % of the corresponding declared value.

ANNEX XI

Amendments to Annex III to Regulation (EU) No 206/2012

Annex III is replaced by the following:

ANNEX III

Product compliance verification by market surveillance authorities

The verification tolerances defined in this Annex relate only to the verification of the measured parameters by Member State authorities and shall not be used by the manufacturer or importer as an allowed tolerance to establish the values in the technical documentation or in interpreting these values with a view to achieving compliance or to communicate better performance by any means.

When verifying the compliance of a product model with the requirements laid down in this Regulation pursuant to Article 3(2) of Directive 2009/125/EC, for the requirements referred to in this Annex, the authorities of the Member States shall apply the following procedure:

- (1) The Member State authorities shall verify one single unit of the model.
- (2) The model shall be considered to comply with the applicable requirements if:
- (a) the values given in the technical documentation pursuant to point 2 of Annex IV to Directive 2009/125/EC (declared values), and, where applicable, the values used to calculate these values, are not more favourable for the manufacturer or importer than the results of the corresponding measurements carried out pursuant to paragraph (g) thereof; and

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

- (b) the declared values meet any requirements laid down in this Regulation, and any required product information published by the manufacturer or importer does not contain values that are more favourable for the manufacturer or importer than the declared values; and
 - (c) when the Member State authorities test the unit of the model, the determined values (the values of the relevant parameters as measured in testing and the values calculated from these measurements) comply with the respective verification tolerances as given in Table 1.
- (3) If the results referred to in point 2(a) or (b) are not achieved, the model shall be considered not to comply with this Regulation.
 - (4) If the result referred to in point 2(c) is not achieved, the Member State authorities shall select three additional units of the same model for testing.
 - (5) The model shall be considered to comply with the applicable requirements if, for these three units, the arithmetical mean of the determined values complies with the respective verification tolerances given in Table 1.
 - (6) If the result referred to in point 5 is not achieved, the model shall be considered not to comply with this Regulation.
 - (7) The Member State authorities shall provide all relevant information to the authorities of the other Member States and to the Commission without delay after a decision being taken on the non-compliance of the model according to points 3 and 6.

The Member State authorities shall use the measurement and calculation methods set out in Annex II.

The Member State authorities shall only apply the verification tolerances that are set out in Table 1 and shall only use the procedure described in points 1 to 7 for the requirements referred to in this Annex. No other tolerances, such as those set out in harmonised standards or in any other measurement method, shall be applied.

TABLE 1

Verification tolerances

Parameters	Verification tolerances
Seasonal energy efficiency ratio (<i>SEER</i>)	The determined value shall not be lower than the declared value by more than 8 %.
Seasonal coefficient of performance (<i>SCOP</i>)	The determined value shall not be lower than the declared value by more than 8 %.
Power consumption in off mode	The determined value shall not exceed the declared value by more than 10 %.
Power consumption in standby mode	The determined value shall not exceed the declared value by more than 10 %.
Energy efficiency ratio (<i>EER_{rated}</i>)	The determined value shall not be lower than the declared value by more than 10 %.
Coefficient of performance (<i>COP_{rated}</i>)	The determined value shall not be lower than the declared value by more than 10 %.

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

Sound power level	The determined value shall not exceed the declared value by more than 2 dB(A).
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ANNEX XII

Amendments to Annex IV to Regulation (EU) No 547/2012

Annex IV is replaced by the following:

ANNEX IV

Product compliance verification by market surveillance authorities

The verification tolerances defined in this Annex relate only to the verification of the measured parameters by Member State authorities and shall not be used by the manufacturer or importer as an allowed tolerance to establish the values in the technical documentation or in interpreting these values with a view to achieving compliance or to communicate better performance by any means.

When verifying the compliance of a product model with the requirements laid down in Annex II to this Regulation pursuant to Article 3(2) of Directive 2009/125/EC, for the requirements referred to in this Annex, the authorities of the Member States shall apply the following procedure:

- (1) The Member State authorities shall verify one single unit of the model.
- (2) The model shall be considered to comply with the applicable requirements if:
 - (a) the values given in the technical documentation pursuant to point 2 of Annex IV to Directive 2009/125/EC (declared values), and, where applicable, the values used to calculate these values, are not more favourable for the manufacturer or importer than the results of the corresponding measurements carried out pursuant to paragraph (g) thereof; and
 - (b) the declared values meet any requirements laid down in this Regulation, and any required product information published by the manufacturer or importer does not contain values that are more favourable for the manufacturer or importer than the declared values; and
 - (c) when the Member State authorities test the unit of the model, the determined values (the values of the relevant parameters as measured in testing and the values calculated from these measurements) comply with the respective verification tolerances given in Table 2.
- (3) If the results referred to in point 2(a) or (b) are not achieved, the model shall be considered not to comply with this Regulation.
- (4) If the result referred to in point 2(c) is not achieved, the Member State authorities shall select three additional units of the same model for testing.
- (5) The model shall be considered to comply with the applicable requirements if, for these three units, the arithmetical mean of the determined values complies with the respective verification tolerances given in Table 2.

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

- (6) If the result referred to in point 5 is not achieved, the model shall be considered not to comply with this Regulation.
- (7) The Member State authorities shall provide all relevant information to the authorities of the other Member States and to the Commission without delay after a decision being taken on the non-compliance of the model according to points 3 and 6.

The Member State authorities shall use the measurement and calculation methods set out in Annex III.

The Member State authorities shall only apply the verification tolerances that are set out in Table 2 and shall only use the procedure described in points 1 to 7 for the requirements referred to in this Annex. No other tolerances, such as those set out in harmonised standards or in any other measurement method, shall be applied.

TABLE 2

Verification tolerances

Parameters	Verification tolerances
Efficiency at BEP (η_{BEP})	The determined value shall not be lower than the declared value by more than 5 %.
Efficiency at PL (η_{PL})	The determined value shall not be lower than the declared value by more than 5 %.
Efficiency at OL (η_{OL})	The determined value shall not be lower than the declared value by more than 5 %.

ANNEX XIII

Amendments to Annex III to Regulation (EU) No 932/2012

Annex III is replaced by the following:

ANNEX III

Product compliance verification by market surveillance authorities

The verification tolerances defined in this Annex relate only to the verification of the measured parameters by Member State authorities and shall not be used by the manufacturer or importer as an allowed tolerance to establish the values in the technical documentation or in interpreting these values with a view to achieving compliance or to communicate better performance by any means.

When verifying the compliance of a product model with the requirements laid down in this Regulation pursuant to Article 3(2) of Directive 2009/125/EC, for the requirements referred to in this Annex, the authorities of the Member States shall apply the following procedure:

- (1) The Member State authorities shall verify one single unit of the model.
- (2) The model shall be considered to comply with the applicable requirements if:

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

- (a) the values given in the technical documentation pursuant to point 2 of Annex IV to Directive 2009/125/EC (declared values), and, where applicable, the values used to calculate these values, are not more favourable for the manufacturer or importer than the results of the corresponding measurements carried out pursuant to paragraph (g) thereof; and
 - (b) the declared values meet any requirements laid down in this Regulation, and any required product information published by the manufacturer or importer does not contain values that are more favourable for the manufacturer or importer than the declared values; and
 - (c) when the Member State authorities test the unit of the model, the determined values (the values of the relevant parameters as measured in testing and the values calculated from these measurements) comply with the respective verification tolerances as given in Table 1.
- (3) If the results referred to in point 2(a) or (b) are not achieved, the model and all models that have been listed as equivalent household tumble drier models in the manufacturer's or importer's technical documentation shall be considered not to comply with this Regulation.
- (4) If the result referred to in point 2(c) is not achieved, the Member State authorities shall select three additional units of the same model for testing. As an alternative, the three additional units selected may be of one or more different models that have been listed as equivalent models in the manufacturer's or importer's technical documentation.
- (5) The model shall be considered to comply with the applicable requirements if, for these three units, the arithmetical mean of the determined values complies with the respective verification tolerances given in Table 1.
- (6) If the result referred to in point 5 is not achieved, the model and all models that have been listed as equivalent household tumble drier models in the manufacturer's or importer's technical documentation shall be considered not to comply with this Regulation.
- (7) The Member State authorities shall provide all relevant information to the authorities of the other Member States and to the Commission without delay after a decision being taken on the non-compliance of the model according to points 3 and 6.

The Member State authorities shall use measurement procedures which take into account the generally recognised, state-of-the-art, reliable, accurate and reproducible measurement methods, including methods set out in documents whose reference numbers have been published for that purpose in the *Official Journal of the European Union*. The Member State authorities shall use the measurement and calculation methods set out in Annex II.

The Member State authorities shall only apply the verification tolerances that are set out in Table 1 and shall use only the procedure described in points 1 to 7 for the requirements referred to in this Annex. No other tolerances, such as those set out in harmonised standards or in any other measurement method, shall be applied.

TABLE 1

Verification tolerances

Parameters	Verification tolerances
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Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

Weighted annual energy consumption (AE_C)	The determined value shall not exceed the declared value of AE_C by more than 6 %.
Weighted energy consumption (E_t)	The determined value shall not exceed the declared value of E_t by more than 6 %.
Weighted condensation efficiency (C_t)	The determined value shall not be less than the declared value of C_t by more than 6 %.
Weighted programme time (T_t)	The determined values shall not exceed the declared values of T_t by more than 6 %.
Power consumption in off mode and left-on mode (P_o and P_l)	The determined values of power consumption P_o and P_l of more than 1,00 W shall not exceed the declared values of P_o and P_l by more than 6 %. The determined values of power consumption P_o and P_l of less than or equal to 1,00 W shall not exceed the declared values of P_o and P_l by more than 0,10 W.
Duration of the left-on mode (T_l)	The determined value shall not exceed the declared value of T_l by more than 6 %.

ANNEX XIV

Amendments to Annexes II and III to Regulation (EU) No 617/2013

- (1) In Annex II, point 6.2.1 is replaced by the following:
 - 6.2.1 The computer shall reduce the speed of any active 1 Gigabit per second (Gb/s) or higher ethernet network link when transitioning to sleep or off-with-WOL mode.
- (2) Annex III is replaced by the following:

ANNEX III

Measurements by market surveillance authorities and product compliance verification by market surveillance authorities

The verification tolerances defined in this Annex relate only to the verification of the measured parameters by Member State authorities and shall not be used by the manufacturer or importer as an allowed tolerance to establish the values in the technical documentation or in interpreting these values with a view to achieving compliance or to communicate better performance by any means.

1. MEASUREMENTS

For the purposes of compliance and verification of compliance with the applicable requirements of this Regulation, measurements and calculations shall be made using harmonised standards, the reference numbers of which have been published in the *Official Journal of the European Union*, or using other reliable, accurate and

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

reproducible methods which take into account the generally recognised state of the art, and produce results deemed to be of low uncertainty.

Computers placed on the market without an operating system capable of supporting an Advanced Configuration and Power Interface (ACPI) system or similar, shall be tested with an ACPI (or similar) supporting operating system.

2. PRODUCT COMPLIANCE VERIFICATION BY MARKET SURVEILLANCE AUTHORITIES

When verifying the compliance of a product model with the requirements laid down in Annex II to this Regulation pursuant to Article 3(2) of Directive 2009/125/EC, for the requirements referred to in this Annex, the authorities of the Member States shall apply the following procedure:

- (1) The Member State authorities shall verify one single unit of the model or model configuration.
- (2) The model or model configuration shall be considered to comply with the applicable requirements if:
 - (a) the values given in the technical documentation pursuant to point 2 of Annex IV to Directive 2009/125/EC (declared values), and, where applicable, the values used to calculate these values, are not more favourable for the manufacturer or importer than the results of the corresponding measurements carried out pursuant to paragraph (g) thereof; and
 - (b) the declared values meet any requirements laid down in this Regulation, and any required product information published by the manufacturer or importer does not contain values that are more favourable for the manufacturer or importer than the declared values; and
 - (c) when the Member State authorities test the unit of the model, or model configuration according to parts 3 to 5 of this Annex, the determined values (the values of the relevant parameters as measured in testing and the values calculated from these measurements) comply with the respective verification tolerances given in parts 3 and 4 of this Annex, and the unit meets the requirements for power management enabling given in part 5 of this Annex.
- (3) If the results referred to in point 2(a) or (b) are not achieved, the model and all model configurations that are covered by the same product information (according to Annex II points 7.1.2 and 7.3.2) shall be considered not to comply with this Regulation.
- (4) If the result referred to in point 2(c) is not achieved, the Member State authorities shall select for testing three additional units of the same model or one or more model configurations that are covered by the same product information (according to Annex II points 7.1.2 and 7.3.2).
- (5) The model or model configuration shall be considered to comply with the applicable requirements if, for these three units, the arithmetical mean of the determined values complies with the respective tolerances given in parts 3

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

and 4 of this Annex, and if the units all meet the requirements for power management enabling given in part 5 of this Annex.

- (6) If the result referred to in point 5 is not achieved, the model and all model configurations that are covered by the same product information (provided pursuant to Annex II points 7.1.2 and 7.3.2) shall be considered not to comply with this Regulation.
- (7) The Member State authorities shall provide all relevant information to the authorities of the other Member States and to the Commission without delay after a decision being taken on the non-compliance of the model according to points 3 and 6.

The Member State authorities shall use the measurement and calculation methods set out in this Annex.

The Member State authorities shall only apply the verification tolerances that are set out in parts 3 and 4 of this Annex and shall only use the procedure described in points 1 to 7 for the requirements referred to in this Annex. No other tolerances shall be applied.

3. E_{TEC}, SLEEP MODE, OFF MODE AND LOWEST POWER STATE:

- (1) For power demand requirements larger than 1,00 W, or where energy consumption requirements formulated in TEC result in a power demand requirement larger than 1,00 W in at least one power mode, the model configuration shall be considered to comply with the applicable requirements set out in points 1.1, 1.2, 1.3, 1.4, 2.2 and 2.3 of Annex II if the test results do not exceed the respective verification tolerances given in the table below.

VERIFICATION TOLERANCES FOR POWER DEMAND REQUIREMENTS LARGER THAN 1,00 W

Requirements set out	Verification tolerances
Points 1.1, 1.2, 1.3, 1.4 and 2.3 of Annex II	The determined value shall not exceed the declared value by more than 7 %.
Point 2.2 of Annex II (with and without the additional allowance listed in point 2.4)	The determined value shall not exceed the declared value by more than 7 %.

The additional allowances provided for in point 2.4 of Annex II can be added to the requirement specified in point 2.2 if the model configuration is placed on the market with a WOL functionality enabled in sleep mode. The model configuration should be tested with WOL functionality both enabled and disabled and should comply with both requirements. The model configuration placed on the market without ethernet capability shall be tested without WOL enabled.

- (2) For power demand requirements less than or equal to 1,00 W, the model configuration shall be considered to comply with the applicable requirements set out in point 3.1 and 4.1 of Annex II if the test results do not exceed the respective verification tolerances given in the table below.

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

VERIFICATION TOLERANCES FOR POWER DEMAND REQUIREMENTS OF 1,00 W AND SMALLER

Requirements set out	Verification tolerances
Point 3.1 of Annex II (with and without the additional allowance specified in point 3.3)	The determined value shall not exceed the declared value by more than 0,10 W.
Point 4.1 of Annex II (with and without the additional allowances listed in point 4.3)	The determined value shall not exceed the declared value by more than 0,10 W.

The additional allowance provided for in point 3.3 of Annex II can be added to the requirement specified in point 3.1 if the model configuration is placed on the market with an “information or status display”.

The additional allowance provided for in point 4.3 of Annex II can be added to the requirement set out in point 4.1 if the model configuration is placed on the market with a WOL functionality enabled in off mode. The model configuration should be tested with WOL functionality both enabled and disabled and should comply with both requirements. The model configuration placed on the market without ethernet capability shall be tested without WOL enabled.

4. INTERNAL POWER SUPPLY EFFICIENCY

The model shall be considered to comply with the requirements set out in point 5 of Annex II if the test results do not exceed the respective verification tolerances given in the table below.

VERIFICATION TOLERANCES FOR INTERNAL POWER SUPPLY EFFICIENCY

Requirements set out	Verification tolerances
The arithmetical mean of the efficiency at load conditions as defined in Annex II falls below the applicable requirements for average active efficiency.	The determined value shall not be lower than the declared value by more than 2 %.
The arithmetical mean of the power factor as defined in Annex II falls below the applicable requirements for the power factor.	The determined value shall not be lower than the declared value by more than 10 %.

5. POWER MANAGEMENT ENABLING

When verifying compliance with the requirements set out in point 6.1 of Annex II, Member State authorities shall use the applicable procedure to measure the power demand after the power management function or a similar function has switched the equipment into the applicable power mode.

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

When verifying compliance with the requirements set out in points 6.2.1 to 6.2.6 of Annex II, the model configuration shall be considered to comply with the applicable requirements set out in:

- point 6.2.1, if the speed of any active 1 gigabit per second (Gb/s) or higher ethernet network link of a desktop computer, integrated desktop computer or notebook computer is reduced when the computer transitions to sleep or off-with-WOL mode;
- point 6.2.2, if a desktop computer, integrated desktop computer or notebook computer becomes fully usable, including rendering of any connected display, within 5 seconds after a wake event is initiated during sleep mode;
- point 6.2.3, if a display connected to a desktop computer, integrated desktop computer or notebook computer enters sleep mode within 10 minutes of user inactivity;
- point 6.2.4, if a WOL function for sleep and off mode can be enabled and disabled;
- point 6.2.5, if a desktop computer, integrated desktop computer or notebook computer enters sleep mode within 30 minutes of user inactivity;
- point 6.2.6, if users are able to easily activate and deactivate any wireless network connections and users are given a clear indication through a symbol, light or equivalent when wireless network connections have been activated or deactivated.

ANNEX XV

Amendments to Annex III to Regulation (EU) No 666/2013

Annex III is replaced by the following:

ANNEX III

Product compliance verification by market surveillance authorities

The verification tolerances defined in this Annex relate only to the verification of the measured parameters by Member State authorities and shall not be used by the manufacturer or importer as an allowed tolerance to establish the values in the technical documentation or in interpreting these values with a view to achieving compliance or to communicate better performance by any means.

When verifying the compliance of a product model with the requirements laid down in this Regulation pursuant to Article 3(2) of Directive 2009/125/EC, for the requirements referred to in this Annex, the authorities of the Member States shall apply the following procedure:

- (1) The Member State authorities shall verify one single unit of the model.
- (2) The model shall be considered to comply with the applicable requirements if:
 - (a) the values given in the technical documentation pursuant to point 2 of Annex IV to Directive 2009/125/EC (declared values), and, where applicable, the values used to calculate these values, are not more favourable

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

- for the manufacturer or importer than the results of the corresponding measurements carried out pursuant to paragraph (g) thereof; and
- (b) the declared values meet any requirements laid down in this Regulation, and any required product information published by the manufacturer or importer does not contain values that are more favourable for the manufacturer or importer than the declared values; and
- (c) when the Member State authorities test the unit of the model, the determined values (the values of the relevant parameters as measured in testing and the values calculated from these measurements) comply with the respective verification tolerances as given in Table 1.
- (3) If the results referred to in point 2(a) or (b) are not achieved, the model and all models that have been listed as equivalent vacuum cleaner models in the manufacturer's or importer's technical documentation shall be considered not to comply with this Regulation.
- (4) If the result referred to in point 2(c) is not achieved, the Member State authorities shall select three additional units of the same model for testing. As an alternative, the three additional units selected may be of one or more different models that have been listed as equivalent vacuum cleaner in the manufacturer's or importer's technical documentation.
- (5) The model shall be considered to comply with the applicable requirements if, for these three units, the arithmetical mean of the determined values complies with the respective verification tolerances given in Table 1.
- (6) If the result referred to in point 5 is not achieved, the model and all models that have been listed as equivalent vacuum cleaner models in the manufacturer's or importer's technical documentation shall be considered not to comply with this Regulation.
- (7) The Member State authorities shall provide all relevant information to the authorities of the other Member States and to the Commission without delay after a decision being taken on the non-compliance of the model according to points 3 and 6.

The Member State authorities shall use the measurement and calculation methods set out in Annex II.

The Member State authorities shall only apply the verification tolerances that are set out in Table 1 and shall only use the procedure described in points 1 to 7 for the requirements referred to in this Annex. No other tolerances, such as those set out in harmonised standards or in any other measurement method, shall be applied.

TABLE 1

Verification tolerances

Parameters	Verification tolerances
Annual energy consumption	The determined value shall not exceed the declared value by more than 10 %.
Dust pick up on carpet	The determined value shall not be lower than the declared value by more than 0,03.
Dust pick up on hard floor	The determined value shall not be lower than the declared value by more than 0,03.

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

Dust re-emission	The determined value shall not exceed the declared value by more than 15 %.
Sound power level	The determined value shall not exceed the declared value.
Operational motor lifetime	The determined value shall not be lower than the declared value by more than 5 %.

ANNEX XVI

Amendments to Annex IV to Regulation (EU) No 813/2013

Annex IV is replaced by the following:

ANNEX IV

Product compliance verification by market surveillance authorities

The verification tolerances defined in this Annex relate only to the verification of the measured parameters by Member State authorities and shall not be used by the manufacturer or importer as an allowed tolerance to establish the values in the technical documentation or in interpreting these values with a view to achieving compliance or to communicate better performance by any means.

When verifying the compliance of a product model with the requirements laid down in this Regulation pursuant to Article 3(2) of Directive 2009/125/EC, for the requirements referred to in this Annex, the authorities of the Member States shall apply the following procedure:

- (1) The Member State authorities shall verify one single unit of the model.
- (2) The model shall be considered to comply with the applicable requirements if:
 - (a) the values given in the technical documentation pursuant to point 2 of Annex IV to Directive 2009/125/EC (declared values), and, where applicable, the values used to calculate these values, are not more favourable for the manufacturer or importer than the results of the corresponding measurements carried out pursuant to paragraph (g) thereof; and
 - (b) the declared values meet any requirements laid down in this Regulation, and any required product information published by the manufacturer or importer does not contain values that are more favourable for the manufacturer or importer than the declared values; and
 - (c) when the Member State authorities test the unit of the model, the determined values (the values of the relevant parameters as measured in testing and the values calculated from these measurements) comply with the respective verification tolerances as given in Table 8.
- (3) If the results referred to in point 2(a) or (b) are not achieved, the model and all other equivalent models shall be considered not to comply with this Regulation.

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

- (4) If the result referred to in point 2(c) is not achieved, the Member State authorities shall select three additional units of the same model for testing. As an alternative, the three additional units selected may be of one or more different equivalent models.
- (5) The model shall be considered to comply with the applicable requirements if, for these three units, the arithmetical mean of the determined values complies with the respective verification tolerances given in Table 8.
- (6) If the result referred to in point 5 is not achieved, the model and all other equivalent models shall be considered not to comply with this Regulation.
- (7) The Member State authorities shall provide all relevant information to the authorities of the other Member States and to the Commission without delay after a decision being taken on the non-compliance of the model according to points 3 and 6.

The Member State authorities shall use the measurement and calculation methods set out in Annex III.

The Member State authorities shall only apply the verification tolerances that are set out in Table 8 and shall only use the procedure described in points 1 to 7 for the requirements referred to in this Annex. No other tolerances, such as those set out in harmonised standards or in any other measurement method, shall be applied.

TABLE 8

Verification tolerances

Parameters	Verification tolerances
Seasonal space-heating energy efficiency, η_s	The determined value shall not be lower than the declared value by more than 8 %.
Water-heating energy efficiency, η_{wh}	The determined value shall not be lower than the declared value by more than 8 %.
Sound power level, L_{WA}	The determined value shall not exceed the declared value by more than 2 dB(A).
Emissions of nitrogen oxides	The determined value shall not exceed the declared value by more than 20 %.

ANNEX XVII

Amendments to Annex V to Regulation (EU) No 814/2013

Annex V is replaced by the following:

ANNEX V

Product compliance verification by market surveillance authorities

The verification tolerances defined in this Annex relate only to the verification of the measured parameters by Member State authorities and shall not be used by the manufacturer or importer as an allowed tolerance to establish the values in the technical documentation or in interpreting

these values with a view to achieving compliance or to communicate better performance by any means.

When verifying the compliance of a product model with the requirements laid down in this Regulation pursuant to Article 3(2) of Directive 2009/125/EC, for the requirements referred to in this Annex, the authorities of the Member States shall apply the following procedure:

- (1) The Member State authorities shall verify one single unit of the model.
- (2) The model shall be considered to comply with the applicable requirements if:
 - (a) the values given in the technical documentation pursuant to point 2 of Annex IV to Directive 2009/125/EC (declared values), and, where applicable, the values used to calculate these values, are not more favourable for the manufacturer or importer than the results of the corresponding measurements carried out pursuant to paragraph (g) thereof; and
 - (b) the declared values meet any requirements laid down in this Regulation, and any required product information published by the manufacturer or importer does not contain values that are more favourable for the manufacturer or importer than the declared values; and
 - (c) when the Member State authorities test the unit of the model, the determined values (the values of the relevant parameters as measured in testing and the values calculated from these measurements) comply with the respective verification tolerances as given in Table 7.
- (3) If the results referred to in point 2(a) or (b) are not achieved, the model and all models that have been listed as equivalent water heater models or hot water storage tanks models in the manufacturer's or importer's technical documentation shall be considered not to comply with this Regulation.
- (4) If the result referred to in point 2(c) is not achieved, the Member State authorities shall select three additional units of the same model for testing. As an alternative, the three additional units selected may be of one or more different models that have been listed as equivalent models in the manufacturer's or importer's technical documentation.
- (5) The model shall be considered to comply with the applicable requirements if, for these three units, the arithmetical mean of the determined values complies with the respective verification tolerances given in Table 7.
- (6) If the result referred to in point 5 is not achieved, the model and all models that have been listed as equivalent water heater models or hot water storage tanks models in the manufacturer's or importer's technical documentation shall be considered not to comply with this Regulation.
- (7) The Member State authorities shall provide all relevant information to the authorities of the other Member States and to the Commission without delay after a decision being taken on the non-compliance of the model according to points 3 and 6.

The Member State authorities shall use the measurement and calculation methods set out in Annex III and Annex IV.

The Member State authorities shall only apply the verification tolerances that are set out in Table 7 and shall only use the procedure described in points 1 to 7 for the requirements referred to in this Annex. No other tolerances, such as those set out in harmonised standards or in any other measurement method, shall be applied.

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

TABLE 7

Verification tolerances

Parameters	Verification tolerances
Daily electricity consumption, Q_{elec}	The determined value shall not exceed the declared value by more than 5 %.
Sound power level, L_{WA} , indoors and/or outdoors	The determined value shall not exceed the declared value by more than 2 dB.
Daily fuel consumption, Q_{fuel}	The determined value shall not exceed the declared value by more than 5 %.
Emissions of nitrogen oxides	The determined value shall not exceed the declared value by more than 20 %.
Weekly fuel consumption with smart controls, $Q_{fuel,week,smart}$	The determined value shall not exceed the declared value by more than 5 %.
Weekly electricity consumption with smart controls, $Q_{elec,week,smart}$	The determined value shall not exceed the declared value by more than 5 %.
Weekly fuel consumption without smart controls, $Q_{fuel,week}$	The determined value shall not exceed the declared value by more than 5 %.
Weekly electricity consumption without smart controls, $Q_{elec,week}$	The determined value shall not exceed the declared value by more than 5 %.
Storage volume, V	The determined value shall not be lower than the declared value by more than 2 %.
Mixed water at 40 °C, V_{40}	The determined value shall not be lower than the declared value by more than 3 %.
Collector aperture area, A_{sol}	The determined value shall not be lower than the declared value by more than 2 %.
Pump power consumption, sol_{pump}	The determined value shall not exceed the declared value by more than 3 %.
Standby power consumption, $sol_{standby}$	The determined value shall not exceed the declared value by more than 5 %.
Standing loss, S	The determined value shall not exceed the declared value by more than 5 %.

ANNEX XVIII

Amendments to Annex III to Regulation (EU) No 66/2014

Annex III is replaced by the following:

ANNEX III

Product compliance verification by market surveillance authorities

The verification tolerances defined in this Annex relate only to the verification of the measured parameters by Member State authorities and shall not be used by the manufacturer or importer as an allowed tolerance to establish the values in the technical documentation or in interpreting these values with a view to achieving compliance or to communicate better performance by any means.

When verifying the compliance of a product model with the requirements laid down in this Regulation pursuant to Article 3(2) of Directive 2009/125/EC, for the requirements referred to in this Annex, the authorities of the Member States shall apply the following procedure:

- (1) The Member State authorities shall verify one single unit of the model.
- (2) The model shall be considered to comply with the applicable requirements if:
 - (a) the values given in the technical documentation pursuant to point 2 of Annex IV to Directive 2009/125/EC (declared values), and, where applicable, the values used to calculate these values, are not more favourable for the manufacturer or importer than the results of the corresponding measurements carried out pursuant to paragraph (g) thereof; and
 - (b) the declared values meet any requirements laid down in this Regulation, and any required product information published by the manufacturer or importer does not contain values that are more favourable for the manufacturer or importer than the declared values; and
 - (c) when the Member State authorities test the unit of the model, the determined values (the values of the relevant parameters as measured in testing and the values calculated from these measurements) comply with the respective verification tolerances as given in Table 7.
- (3) If the results referred to in point 2(a) or (b) are not achieved, the model and all models that have been listed as equivalent models in the manufacturer's or importer's technical documentation shall be considered not to comply with this Regulation.
- (4) If the result referred to in point 2(c) is not achieved, the Member State authorities shall select three additional units of the same model for testing. As an alternative, the three additional units selected may be of one or more different models that have been listed as equivalent models in the manufacturer's or importer's technical documentation.
- (5) The model shall be considered to comply with the applicable requirements if, for these three units, the arithmetical mean of the determined values complies with the respective verification tolerances given in Table 7.
- (6) If the result referred to in point 5 is not achieved, the model and all models that have been listed as equivalent models in the manufacturer's or importer's technical documentation shall be considered not to comply with this Regulation.
- (7) The Member State authorities shall provide all relevant information to the authorities of the other Member States and to the Commission without delay after a decision being taken on the non-compliance of the model according to points 3 and 6.

The Member State authorities shall use the measurement and calculation methods set out in Annex II.

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

The Member State authorities shall only apply the verification tolerances that are set out in Table 7 and shall only use the procedure described in points 1 to 7 for the requirements referred to in this Annex. No other tolerances, such as those set out in harmonised standards or in any other measurement method, shall be applied.

TABLE 7

Verification tolerances

Parameters	Verification tolerances
Mass of the domestic oven, M	The determined value shall not exceed the declared value of M by more than 5 %.
Volume of the cavity of the domestic oven, V	The determined value shall not be lower than the declared value of V by more than 5 %.
$EC_{\text{electric cavity}}$, $EC_{\text{gas cavity}}$	The determined values shall not exceed the declared values of $EC_{\text{electric cavity}}$ and $EC_{\text{gas cavity}}$ by more than 5 %.
$EC_{\text{electric hob}}$	The determined value shall not exceed the declared value of $EC_{\text{electric hob}}$ by more than 5 %.
EE_{gashob}	The determined value shall not be lower than the declared value of $EE_{\text{gas hob}}$ by more than 5 %.
W_{BEP} , W_L	The determined values shall not exceed the declared values of W_{BEP} and W_L by more than 5 %.
Q_{BEP} , P_{BEP}	The determined values shall not be lower than the declared values of Q_{BEP} and P_{BEP} by more than 5 %.
Q_{max}	The determined value shall not exceed the declared value of Q_{max} by more than 8 %.
E_{middle}	The determined value shall not be lower than the declared value of E_{middle} by more than 5 %.
Sound power level, L_{WA}	The determined value shall not exceed the declared value of L_{WA} .
P_o , P_s	The determined values of power consumption P_o and P_s shall not exceed the declared values of P_o and P_s by more than 10 %. The determined values of power consumption P_o and P_s of less than or equal to 1,00 W shall not exceed the declared values of P_o and P_s by more than 0,10 W.

ANNEX XIX

Amendments to Annex III to Regulation (EU) No 548/2014

Annex III is replaced by the following:

ANNEX III

Product compliance verification by market surveillance authorities

The verification tolerances defined in this Annex relate only to the verification of the measured parameters by Member State authorities and shall not be used by the manufacturer or importer as an allowed tolerance to establish the values in the technical documentation or in interpreting these values with a view to achieving compliance or to communicate better performance by any means.

When verifying the compliance of a product model with the requirements laid down in this Regulation and its Annexes pursuant to Article 3(2) of Directive 2009/125/EC, for the requirements referred to in this Annex, the authorities of the Member States shall apply the following procedure:

- (1) The Member State authorities shall verify one single unit of the model. Given the weight and size limitations in the transportation of medium and large power transformers, Member States authorities may decide to undertake the verification procedure at the premises of manufacturers, before they are put into service in their final destination.
- (2) The model shall be considered to comply with the applicable requirements if:
 - (a) the values given in the technical documentation pursuant to point 2 of Annex IV to Directive 2009/125/EC (declared values), and, where applicable, the values used to calculate these values, are not more favourable for the manufacturer or importer than the results of the corresponding measurements carried out pursuant to paragraph (g) thereof; and
 - (b) the declared values meet any requirements laid down in this Regulation, and any required product information published by the manufacturer or importer does not contain values that are more favourable for the manufacturer or importer than the declared values; and
 - (c) when the Member State authorities test the unit of the model, the determined values (the values of the relevant parameters as measured in testing and the values calculated from these measurements) comply with the respective verification tolerances as given in Table 1.
- (3) If the results referred to in point 2(a), (b) or (c) are not achieved, the model shall be considered not to comply with this Regulation.
- (4) The Member State authorities shall provide all relevant information to the authorities of the other Member States and to the Commission without delay after a decision being taken on the non-compliance of the model according to point 3.

The Member State authorities shall use the measurement and calculation methods set out in Annex II.

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

The Member State authorities shall only apply the verification tolerances that are set out in Table 1 and shall only use the procedure described in points 1 to 4 for the requirements referred to in this Annex. No other tolerances, such as those set out in harmonised standards or in any other measurement method, shall be applied.

TABLE 1

Verification tolerances

Parameters	Verification tolerances
Load losses	The determined value shall not exceed the declared value by more than 5 %.
No-load losses	The determined value shall not exceed the declared value by more than 5 %.
The electrical power required by the cooling system for no-load operation	The determined value shall not exceed the declared value by more than 5 %.

ANNEX XX

Amendments to Annex VI to Regulation (EU) No 1253/2014

Annex VI is replaced by the following:

ANNEX VI

Product compliance verification by market surveillance authorities

The verification tolerances defined in this Annex relate only to the verification of the measured parameters by Member State authorities and shall not be used by the manufacturer or importer as an allowed tolerance to establish the values in the technical documentation or in interpreting these values with a view to achieving compliance or to communicate better performance by any means.

When verifying the compliance of a product model with the requirements laid down in this Regulation pursuant to Article 3(2) of Directive 2009/125/EC, for the requirements referred to in this Annex, the authorities of the Member States shall apply the following procedure:

- (1) The Member State authorities shall verify one single unit of the model.
- (2) The model shall be considered to comply with the applicable requirements if:
 - (a) the values given in the technical documentation pursuant to point 2 of Annex IV to Directive 2009/125/EC (declared values), and, where applicable, the values used to calculate these values, are not more favourable for the manufacturer or importer than the results of the corresponding measurements carried out pursuant to paragraph (g) thereof; and
 - (b) the declared values meet any requirements laid down in this Regulation, and any required product information published by the manufacturer or importer does not contain values that are more favourable for the manufacturer or importer than the declared values; and

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

- (c) when the Member State authorities test the unit of the model, the determined values (the values of the relevant parameters as measured in testing and the values calculated from these measurements) comply with the respective verification tolerances as given in Table 1.
- (3) If the results referred to in point 2(a) or (b) are not achieved, the model and all equivalent ventilation unit models that have been listed as equivalent models in the manufacturer's or importer's technical documentation shall be considered not to comply with this Regulation.
- (4) If the result referred to in point 2(c) is not achieved:
 - (a) for models that are produced in quantities of less than five per year, the model shall be considered not to comply with this Regulation;
 - (b) for models that are produced in quantities of five or more per year, the Member State authorities shall select three additional units of the same model for testing. As an alternative, the three additional units selected may be of one or more different models that have been listed as equivalent models in the manufacturer's or importer's technical documentation. The model shall be considered to comply with the applicable requirements if, for these three units, the arithmetical mean of the determined values complies with the respective verification tolerances given in Table 1.
- (5) If the result referred to in point 4(b) is not achieved, the model and all equivalent ventilation unit models that have been listed as equivalent models in the manufacturer's or importer's technical documentation shall be considered not to comply with this Regulation.
- (6) The Member State authorities shall provide all relevant information to the authorities of the other Member States and to the Commission without delay after a decision being taken on the non-compliance of the model according to points 3, 4(a) and 5.

The Member State authorities shall use the measurement and calculation methods set out in Annexes VIII and IX.

The Member State authorities shall only apply the verification tolerances that are set out in Table 1 and shall only use the procedure described in points 1 to 6 for the requirements referred to in this Annex. No other tolerances, such as those set out in harmonised standards or in any other measurement method, shall be applied.

TABLE 1

Verification tolerances

Parameters	Verification tolerances
SPI	The determined value shall be no more than 1,07 times the declared value.
Thermal efficiency RVU and NRVU	The determined value shall be no less than 0,93 times the declared value.
SFP _{int}	The determined value shall be no more than 1,07 times the declared value.
Fan efficiency UVU, non-residential	The determined value shall be no less than 0,93 times the declared value.

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

Sound power level RVU	The determined value shall be no more than the declared value plus 2 dB.
Sound power level NRVU	The determined value shall be no more than the declared value plus 5 dB.

ANNEX XXI

Amendments to Annexes IX, X and XI to Regulation (EU) 2015/1095

- (1) Annex IX is replaced by the following:

ANNEX IX

Product compliance verification by market surveillance authorities for professional refrigerated storage cabinets

The verification tolerances defined in this Annex relate only to the verification of the measured parameters by Member State authorities and shall not be used by the manufacturer or importer as an allowed tolerance to establish the values in the technical documentation or in interpreting these values with a view to achieving compliance or to communicate better performance by any means.

When verifying the compliance of a product model with the requirements laid down in this Regulation pursuant to Article 3(2) of Directive 2009/125/EC, for the requirements referred to in this Annex, the authorities of the Member States shall apply the following procedure:

- (1) The Member State authorities shall verify one single unit of the model.
- (2) The model shall be considered to comply with the applicable requirements if:
 - (a) the values given in the technical documentation pursuant to point 2 of Annex IV to Directive 2009/125/EC (declared values), and, where applicable, the values used to calculate these values, are not more favourable for the manufacturer or importer than the results of the corresponding measurements carried out pursuant to paragraph (g) thereof; and
 - (b) the declared values meet any requirements laid down in this Regulation, and any required product information published by the manufacturer or importer does not contain values that are more favourable for the manufacturer or importer than the declared values; and
 - (c) when the Member State authorities test the unit of the model, the determined values (the values of the relevant parameters as measured in testing and the values calculated from these measurements) comply with the respective verification tolerances as given in Table 8.
- (3) If the results referred to in point 2(a) or (b) are not achieved, the model and all equivalent professional refrigerated storage cabinets that have been

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

- listed as equivalent products in the manufacturer's or importer's technical documentation shall be considered not to comply with this Regulation.
- (4) If the result referred to in point 2(c) is not achieved, the Member State authorities shall select three additional units of the same model for testing. As an alternative, the three additional units selected may be of one or more different models that have been listed as equivalent products in the technical documentation.
 - (5) The model shall be considered to comply with the applicable requirements if, for these three units, the arithmetical mean of the determined values complies with the respective verification tolerances given in Table 8.
 - (6) If the result referred to in point 5 is not achieved, the model and all equivalent professional refrigerated storage cabinets that have been listed as equivalent products in the manufacturer's or importer's technical documentation shall be considered not to comply with this Regulation.
 - (7) The Member State authorities shall provide all relevant information to the authorities of the other Member States and to the Commission without delay after a decision being taken on the non-compliance of the model according to points 3 and 6.

The Member State authorities shall use the measurement and calculation methods set out in Annexes III and IV.

The Member State authorities shall only apply the verification tolerances that are set out in Table 8 and shall only use the procedure described in points 1 to 7 for the requirements referred to in this Annex. No other tolerances, such as those set out in harmonised standards or in any other measurement method, shall be applied.

TABLE 8

Verification tolerances

Parameters	Verification tolerances
Net volume	The determined value shall not be lower than the declared value by more than 3 %.
Energy consumption (<i>E24h</i>)	The determined value shall not exceed the declared value by more than 10 %.

- (2) Annex X is replaced by the following:

ANNEX X

Product compliance verification by market surveillance authorities for condensing units

The verification tolerances defined in this Annex relate only to the verification of the measured parameters by Member State authorities and shall not be used by the manufacturer or importer as an allowed tolerance to establish the values in the technical documentation or in interpreting these values with a view to achieving compliance or to communicate better performance by any means.

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

When verifying the compliance of a product model with the requirements laid down in this Regulation pursuant to Article 3(2) of Directive 2009/125/EC, for the requirements referred to in this Annex, the authorities of the Member States shall apply the following procedure:

- (1) The Member State authorities shall verify one single unit of the model.
- (2) The model shall be considered to comply with the applicable requirements if:
 - (a) the values given in the technical documentation pursuant to point 2 of Annex IV to Directive 2009/125/EC (declared values), and, where applicable, the values used to calculate these values, are not more favourable for the manufacturer or importer than the results of the corresponding measurements carried out pursuant to paragraph (g) thereof; and
 - (b) the declared values meet any requirements laid down in this Regulation, and any required product information published by the manufacturer or importer does not contain values that are more favourable for the manufacturer or importer than the declared values; and
 - (c) when the Member State authorities test the unit of the model, the determined values (the values of the relevant parameters as measured in testing and the values calculated from these measurements) comply with the respective verification tolerances as given in Table 9.
- (3) If the results referred to in point 2(a) or (b) are not achieved, the model shall be considered not to comply with this Regulation.
- (4) If the result referred to in point 2(c) is not achieved, the Member State authorities shall select three additional units of the same model for testing.
- (5) The model shall be considered to comply with the applicable requirements if, for these three units, the arithmetical mean of the determined values complies with the respective verification tolerances given in Table 9.
- (6) If the result referred to in point 5 is not achieved, the model shall be considered not to comply with this Regulation.
- (7) The Member State authorities shall provide all relevant information to the authorities of the other Member States and to the Commission without delay after a decision being taken on the non-compliance of the model according to points 3 and 6.

The Member State authorities shall use the measurement and calculation methods set out in Annex VI.

The Member State authorities shall only apply the verification tolerances that are set out in Table 9 and shall only use the procedure described in points 1 to 7 for the requirements referred to in this Annex. No other tolerances, such as those set out in harmonised standards or in any other measurement method, shall be applied.

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

TABLE 9

Parameters	Verification tolerances
The seasonal energy performance ratio (<i>SEPR</i>) of condensing units with a rated cooling capacity higher than 2 kW at low temperature and 5 kW at medium temperature	The determined value shall not be more than 10 % lower than the declared value, with point A measured at the rated cooling capacity.
The rated coefficient of performance (<i>COP_A</i>) of condensing units with a rated cooling capacity lower than 2 kW at low temperature and 5 kW at medium temperature	The determined value shall not be more than 10 % lower than the declared value measured at the rated cooling capacity.
The coefficients of performance <i>COP_B</i> , <i>COP_C</i> and <i>COP_D</i> of condensing units with a rated cooling capacity higher than 2 kW at low temperature and 5 kW at medium temperature	The determined values shall not be more than 10 % lower than the declared value measured at the rated cooling capacity.

- (3) Annex XI is replaced by the following:

ANNEX XI

Product compliance verification by market surveillance authorities for process chillers

The verification tolerances defined in this Annex relate only to the verification of the measured parameters by Member State authorities and shall not be used by the manufacturer or importer as an allowed tolerance to establish the values in the technical documentation or in interpreting these values with a view to achieving compliance or to communicate better performance by any means.

When verifying the compliance of a product model with the requirements laid down in this Regulation pursuant to Article 3(2) of Directive 2009/125/EC, for the requirements referred to in this Annex, the authorities of the Member States shall apply the following procedure:

- (1) The Member State authorities shall verify one single unit of the model.
- (2) The model shall be considered to comply with the applicable requirements if:
 - (a) the values given in the technical documentation pursuant to point 2 of Annex IV to Directive 2009/125/EC (declared values), and, where applicable, the values used to calculate these values, are not more favourable for the manufacturer or importer than the results of the corresponding measurements carried out pursuant to paragraph (g) thereof; and
 - (b) the declared values meet any requirements laid down in this Regulation, and any required product information published by the

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

manufacturer or importer does not contain values that are more favourable for the manufacturer or importer than the declared values; and

- (c) when the Member State authorities test the unit of the model, the determined values (the values of the relevant parameters as measured in testing and the values calculated from these measurements) comply with the respective verification tolerances as given in Table 10.
- (3) If the results referred to in point 2(a) or (b) are not achieved, the model shall be considered not to comply with this Regulation.
- (4) If the result referred to in point 2(c) is not achieved, the Member State authorities shall select three additional units of the same model for testing.
- (5) The model shall be considered to comply with the applicable requirements if, for these three units, the arithmetical mean of the determined values complies with the respective verification tolerances given in Table 10.
- (6) If the result referred to in point 5 is not achieved, the model shall be considered not to comply with this Regulation.
- (7) The Member State authorities shall provide all relevant information to the authorities of the other Member States and to the Commission without delay after a decision being taken on the non-compliance of the model according to points 3 and 6.

The Member State authorities shall use the measurement and calculation methods set out in Annex VIII.

The Member State authorities shall only apply the verification tolerances that are set out in Table 10 and shall only use the procedure described in points 1 to 7 for the requirements referred to in this Annex. No other tolerances, such as those set out in harmonised standards or in any other measurement method, shall be applied.

TABLE 10

Verification tolerances

Parameters	Verification tolerances
Seasonal energy performance ratio (<i>SEPR</i>)	The determined value shall not be more than 10 % lower than the declared value, with point A measured at the rated cooling capacity.
Rated energy efficiency ratio (<i>EER_A</i>)	The determined value shall not be more than 10 % lower than the declared value, measured at the rated cooling capacity.

ANNEX XXII

Amendments to Annex IV to Regulation (EU) 2015/1185

Annex IV is replaced by the following:

ANNEX IV

Product compliance verification by market surveillance authorities

The verification tolerances defined in this Annex relate only to the verification of the measured parameters by Member State authorities and shall not be used by the manufacturer or importer as an allowed tolerance to establish the values in the technical documentation or in interpreting these values with a view to achieving compliance or to communicate better performance by any means.

When verifying the compliance of a product model with the requirements laid down in this Regulation pursuant to Article 3(2) of Directive 2009/125/EC, for the requirements referred to in this Annex, the authorities of the Member States shall apply the following procedure:

- (1) The Member State authorities shall verify one single unit of the model.
- (2) The model shall be considered to comply with the applicable requirements if:
 - (a) the values given in the technical documentation pursuant to point 2 of Annex IV to Directive 2009/125/EC (declared values), and, where applicable, the values used to calculate these values, are not more favourable for the manufacturer or importer than the results of the corresponding measurements carried out pursuant to paragraph (g) thereof; and
 - (b) the declared values meet any requirements laid down in this Regulation, and any required product information published by the manufacturer or importer does not contain values that are more favourable for the manufacturer or importer than the declared values; and
 - (c) when the Member State authorities test the unit of the model, the determined values (the values of the relevant parameters as measured in testing and the values calculated from these measurements) comply with the respective verification tolerances as given in Table 4. The unit shall be tested with one or more fuels with characteristics in the same range as the fuel(s) that were used by the manufacturer to perform the measurements described in Annex III.
- (3) If the results referred to in point 2(a) or (b) are not achieved, the model and all models that have been listed as equivalent models in the manufacturer's or importer's technical documentation shall be considered not to comply with this Regulation.
- (4) If the result referred to in point 2(c) is not achieved, the Member State authorities shall select three additional units of the same model for testing. As an alternative, the three additional units selected may be of one or more different models that have been listed as equivalent models in the manufacturer's or importer's technical documentation.
- (5) The model shall be considered to comply with the applicable requirements if, for these three units, the arithmetical mean of the determined values complies with the respective verification tolerances given in Table 4.
- (6) If the result referred to in point 5 is not achieved, the model and all models that have been listed as equivalent models in the manufacturer's or importer's technical documentation shall be considered not to comply with this Regulation.
- (7) The Member State authorities shall provide all relevant information to the authorities of the other Member States and to the Commission without delay after a decision being taken on the non-compliance of the model according to points 3 and 6.

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

The Member State authorities shall use the measurement and calculation methods set out in Annex III.

The Member State authorities shall only apply the verification tolerances that are set out in Table 4 and shall only use the procedure described in points 1 to 7 for the requirements referred to in this Annex. No other tolerances, such as those set out in harmonised standards or in any other measurement method, shall be applied.

TABLE 4

Verification tolerances

Parameters	Verification tolerances
Seasonal space-heating energy efficiency, η_s	The determined value shall not be lower than the declared value by more than 5 %.
Emissions of particulate matter	<p>The determined value shall not exceed the declared value by more than 20 mg/m³ at 13 % O₂ for open fronted solid fuel local space heaters, closed fronted solid fuel local space heaters using solid fuel other than compressed wood in the form of pellets and cookers when measured according to the method described in Annex III, point 4(a)(i)(1).</p> <p>The determined value shall not exceed the declared value by more than 10 mg/m³ at 13 % O₂ for closed fronted solid fuel local space heaters using compressed wood in the form of pellets when measured according to the method described in Annex III, point (4)(a)(i)(1).</p> <p>The determined value shall not exceed the declared value by more than 1 g/kg when measured according to the method described in Annex III, point (4)(a)(i)(2).</p> <p>The determined value shall not exceed the declared value by more than 0,8 g/kg when measured according to the method described in Annex III, point (4)(a)(i)(3).</p>
Emissions of organic gaseous compounds	<p>The determined value shall not exceed the declared value by more than 25 mgC/m³ at 13 % O₂ for open fronted solid fuel local space heaters, closed fronted solid fuel local space heaters using solid fuel other than compressed wood in the form of pellets and cookers.</p> <p>The determined value shall not exceed the declared value by more than 15 mgC/m³ at 13 % O₂ for closed fronted solid fuel local space heaters using compressed wood in the form of pellets.</p>

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

Emissions of carbon monoxide	The determined value shall not exceed the declared value by more than 275 mg/m ³ at 13 % O ₂ for open fronted solid fuel local space heaters, closed fronted solid fuel local space heaters using solid fuel other than compressed wood in the form of pellets and cookers. The determined value shall not exceed the declared value by more than 60 mg/m ³ at 13 % O ₂ for closed fronted solid fuel local space heaters using compressed wood in the form of pellets.
Emissions of nitrogen oxides	The determined value shall not exceed the declared value by more than 30 mg/m ³ expressed as NO ₂ at 13 % O ₂ .

ANNEX XXIII

Amendments to Annex IV to Regulation (EU) 2015/1188

Annex IV is replaced by the following:

ANNEX IV

Product compliance verification by market surveillance authorities

The verification tolerances defined in this Annex relate only to the verification of the measured parameters by Member State authorities and shall not be used by the manufacturer or importer as an allowed tolerance to establish the values in the technical documentation or in interpreting these values with a view to achieving compliance or to communicate better performance by any means.

When verifying the compliance of a product model with the requirements laid down in this Regulation pursuant to Article 3(2) of Directive 2009/125/EC, for the requirements referred to in this Annex, the authorities of the Member States shall apply the following procedure:

- (1) The Member State authorities shall verify one single unit of the model.
- (2) The model shall be considered to comply with the applicable requirements if:
 - (a) the values given in the technical documentation pursuant to point 2 of Annex IV to Directive 2009/125/EC (declared values), and, where applicable, the values used to calculate these values, are not more favourable for the manufacturer or importer than the results of the corresponding measurements carried out pursuant to paragraph (g) thereof; and
 - (b) the declared values meet any requirements laid down in this Regulation, and any required product information published by the manufacturer or importer does not contain values that are more favourable for the manufacturer or importer than the declared values; and

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

- (c) when the Member State authorities test the unit of the model, the determined values (the values of the relevant parameters as measured in testing and the values calculated from these measurements) comply with the respective verification tolerances as given in Table 9.
- (3) If the results referred to in point 2(a) or (b) are not achieved, the model and all models that have been listed as equivalent models in the manufacturer's or importer's technical documentation shall be considered not to comply with this Regulation.
- (4) If the result referred to in point 2(c) is not achieved, the Member State authorities shall select three additional units of the same model for testing, except for electric local space heaters, where non-compliance is determined without further tests, and points 6 and 7 below apply immediately. For other models, as an alternative, the three additional units selected may be of one or more different models that have been listed as equivalent models in the manufacturer's or importer's technical documentation.
- (5) The model shall be considered to comply with the applicable requirements if, for these three units, the arithmetical mean of the determined values complies the respective verification tolerances given in Table 9.
- (6) If the result referred to in point 4 or 5 is not achieved, the model and all models that have been listed as equivalent models in the manufacturer's or importer's technical documentation shall be considered not to comply with this Regulation.
- (7) The Member State authorities shall provide all relevant information to the authorities of the other Member States and to the Commission without delay after a decision being taken on the non-compliance of the model according to points 3 and 6.

The Member State authorities shall use the measurement and calculation methods set out in Annex III.

The Member State authorities shall only apply the verification tolerances that are set out in Table 9 and shall only use the procedure described in points 1 to 7 for the requirements referred to in this Annex. No other tolerances, such as those set out in harmonised standards or in any other measurement method, shall be applied.

TABLE 9

Verification tolerances

Parameters	Verification tolerances
Seasonal space-heating energy efficiency, η_s , for electric local space heaters	The determined value shall not be lower than the declared value at the nominal heat output of the unit.
Seasonal space-heating energy efficiency, η_s , for liquid fuel and gaseous fuel domestic local space heaters	The determined value shall not be lower than the declared value by more than 8 %.
Seasonal space-heating energy efficiency, η_s , for luminous and tube local space heaters	The determined value shall not be lower than the declared value by more than 10 %.
Emissions of nitrogen oxides for gaseous and liquid fuel domestic local space heaters and luminous and tube local space heaters	The determined value shall not exceed the declared value by more than 10 %.

ANNEX XXIV

Amendments to Annex IV to Regulation (EU) 2015/1189

Annex IV is replaced by the following:

ANNEX IV

Product compliance verification by market surveillance authorities

The verification tolerances defined in this Annex relate only to the verification of the measured parameters by Member State authorities and shall not be used by the manufacturer or importer as an allowed tolerance to establish the values in the technical documentation or in interpreting these values with a view to achieving compliance or to communicate better performance by any means.

When verifying the compliance of a product model with the requirements laid down in this Regulation pursuant to Article 3(2) of Directive 2009/125/EC, for the requirements referred to in this Annex, the authorities of the Member States shall apply the following procedure:

- (1) The Member State authorities shall verify one single unit of the model.
- (2) The model shall be considered to comply with the applicable requirements if:
 - (a) the values given in the technical documentation pursuant to point 2 of Annex IV to Directive 2009/125/EC (declared values), and, where applicable, the values used to calculate these values, are not more favourable for the manufacturer or importer than the results of the corresponding measurements carried out pursuant to paragraph (g) thereof; and
 - (b) the declared values meet any requirements laid down in this Regulation, and any required product information published by the manufacturer or importer does not contain values that are more favourable for the manufacturer or importer than the declared values; and
 - (c) when the Member State authorities test the unit of the model, the determined values (the values of the relevant parameters as measured in testing and the values calculated from these measurements) comply with the respective verification tolerances as given in Table 2. The unit shall be tested with one or more fuels with characteristics in the same range as the fuel(s) that were used by the manufacturer to perform the measurements described in Annex III.
- (3) If the results referred to in point 2(a) or (b) are not achieved, the model and all models that have been listed as equivalent models in the manufacturer's or importer's technical documentation shall be considered not to comply with this Regulation.
- (4) If the result referred to in point 2(c) is not achieved, the Member State authorities shall select three additional units of the same model for testing. As an alternative, the three additional units selected may be of one or more different models that have been listed as equivalent models in the manufacturer's or importer's technical documentation.
- (5) The model shall be considered to comply with the applicable requirements if, for these three units, the arithmetical mean of the determined values complies with the respective verification tolerances given in Table 2.

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

- (6) If the result referred to in point 5 is not achieved, the model and all models that have been listed as equivalent models in the manufacturer's or importer's technical documentation shall be considered not to comply with this Regulation.
- (7) The Member State authorities shall provide all relevant information to the authorities of the other Member States and to the Commission without delay after a decision being taken on the non-compliance of the model according to points 3 and 6.

The Member State authorities shall use the measurement and calculation methods set out in Annex III.

The Member State authorities shall only apply the verification tolerances that are set out in Table 2 and shall only use the procedure described in points 1 to 7 for the requirements referred to in this Annex. No other tolerances, such as those set out in harmonised standards or in any other measurement method, shall be applied.

TABLE 2

Verification tolerances

Parameters	Verification tolerance
Seasonal space-heating energy efficiency, η_s	The determined value shall not be lower than the declared value by more than 4 %.
Emissions of particulate matter	The determined value shall not exceed the declared value by more than 9 mg/m ³ .
Emissions of organic gaseous compounds	The determined value shall not exceed the declared value by more than 7 mg/m ³ .
Emissions of carbon monoxide	The determined value shall not exceed the declared value by more than 30 mg/m ³ .
Emissions of nitrogen oxides	The determined value shall not exceed the declared value by more than 30 mg/m ³ .

ANNEX XXV

Amendments to Annex IV to Regulation (EU) 2016/2281

Annex IV is replaced by the following:

ANNEX IV

Product compliance verification by market surveillance authorities

The verification tolerances defined in this Annex relate only to the verification of the measured parameters by Member State authorities and shall not be used by the manufacturer or importer as an allowed tolerance to establish the values in the technical documentation or in interpreting these values with a view to achieving compliance or to communicate better performance by any means.

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

When verifying the compliance of a product model with the requirements laid down in this Regulation pursuant to Article 3(2) of Directive 2009/125/EC, for the requirements referred to in this Annex, the authorities of the Member States shall apply the following procedure:

- (1) The Member State authorities shall verify one single unit of the model.
- (2) The model shall be considered to comply with the applicable requirements if:
 - (a) the values given in the technical documentation pursuant to point 2 of Annex IV to Directive 2009/125/EC (declared values), and, where applicable, the values used to calculate these values, are not more favourable for the manufacturer or importer than the results of the corresponding measurements carried out pursuant to paragraph (g) thereof; and
 - (b) the declared values meet any requirements laid down in this Regulation, and any required product information published by the manufacturer or importer does not contain values that are more favourable for the manufacturer or importer than the declared values; and
 - (c) when the Member State authorities test the unit of the model, the determined values (the values of the relevant parameters as measured in testing and the values calculated from these measurements) comply with the respective verification tolerances as given in Table 30.
- (3) If the results referred to in point 2(a) or (b) are not achieved, the model and any other model where the information included in the technical documentation was obtained on the same basis shall be considered not to comply with this Regulation.
- (4) For air heating product, cooling product, high temperature process chiller or fan coil unit models with a rated heating, cooling or refrigeration capacity ≥ 70 kW or that are produced in lower quantities than 5 per year, if the result referred to in point 2(c) is not achieved, the model and any other model where the information included in the technical documentation was obtained on the same basis shall be considered not to comply with this Regulation.
- (5) For air heating product, cooling product, high temperature process chiller or fan coil unit models with a rated heating, cooling or refrigeration capacity < 70 kW or that are produced in quantities of 5 or more per year, if the result referred to in point 2(c) is not achieved, the Member State authorities shall select three additional units of the same model for testing.
- (6) The model shall be considered to comply with the applicable requirements if, for these three units, the arithmetical mean of the determined values complies with the respective verification tolerances given in Table 30.
- (7) If the result referred to in point 6 is not achieved, the model and any other model where the information included in the technical documentation was obtained on the same basis shall be considered not to comply with this Regulation.
- (8) The Member State authorities shall provide all relevant information to the authorities of the other Member States and to the Commission without delay after a decision being taken on the non-compliance of the model according to points 3, 4 and 7.

The Member State authorities shall use the measurement and calculation methods set out in Annex III.

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

The Member State authorities shall only apply the verification tolerances that are set out in Table 30 and shall only use the procedure described in points 1 to 8 for the requirements referred to in this Annex. No other tolerances, such as those set out in harmonised standards or in any other measurement method, shall be applied.

TABLE 30

Verification tolerances

Parameters	Verification tolerance
Seasonal space heating energy efficiency ($\eta_{s,h}$) for air heating products at the rated heating capacity of the unit	The determined value shall not be lower than the declared value by more than 8 %.
Seasonal space cooling energy efficiency ($\eta_{s,c}$) for cooling products at the rated cooling capacity of the unit	The determined value shall not be lower than the declared value by more than 8 %.
Sound power level (L_{WA}) for air heating products and cooling products	The determined value shall not exceed the declared value by more than 1,5 dB.
Emissions of nitrogen oxides for fuel fired air heating products and cooling products expressed in nitrogen dioxide	The determined value shall not exceed the declared value by more than 20 %.
Seasonal energy performance ratio (<i>SEPR</i>) of high temperature process chillers at the rated refrigeration capacity of the unit	The determined value shall not be lower than the declared value by more than 10 %.
Rated energy efficiency ratio (EER_A) of high temperature process chillers at the rated refrigeration capacity	The determined value shall not be lower than the declared value by more than 5 %.

- (1) [OJ L 285, 31.10.2009, p. 10.](#)
- (2) Commission Regulation (EC) No 1275/2008 of 17 December 2008 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for standby and off mode electric power consumption of electrical and electronic household and office equipment ([OJ L 339, 18.12.2008, p. 45](#)).
- (3) Commission Regulation (EC) No 107/2009 of 4 February 2009 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for simple set-top boxes ([OJ L 36, 5.2.2009, p. 8](#)).
- (4) Commission Regulation (EC) No 278/2009 of 6 April 2009 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for non-load condition electric power consumption and average active efficiency of external power supplies ([OJ L 93, 7.4.2009, p. 3](#)).
- (5) Commission Regulation (EC) No 640/2009 of 22 July 2009 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for electric motors ([OJ L 191, 23.7.2009, p. 26](#)).
- (6) Commission Regulation (EC) No 641/2009 of 22 July 2009 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for glandless standalone circulators and glandless circulators integrated in products ([OJ L 191, 23.7.2009, p. 35](#)).
- (7) Commission Regulation (EC) No 642/2009 of 22 July 2009 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for televisions ([OJ L 191, 23.7.2009, p. 42](#)).
- (8) Commission Regulation (EC) No 643/2009 of 22 July 2009 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for household refrigerating appliances ([OJ L 191, 23.7.2009, p. 53](#)).
- (9) Commission Regulation (EU) No 1015/2010 of 10 November 2010 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for household washing machines ([OJ L 293, 11.11.2010, p. 21](#)).
- (10) Commission Regulation (EU) No 1016/2010 of 10 November 2010 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for household dishwashers ([OJ L 293, 11.11.2010, p. 31](#)).
- (11) Commission Regulation (EU) No 327/2011 of 30 March 2011 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for fans driven by motors with an electric input power between 125 W and 500 kW ([OJ L 90, 6.4.2011, p. 8](#)).
- (12) Commission Regulation (EU) No 206/2012 of 6 March 2012 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for air conditioners and comfort fans ([OJ L 72, 10.3.2012, p. 7](#)).
- (13) Commission Regulation (EU) No 547/2012 of 25 June 2012 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for water pumps ([OJ L 165, 26.6.2012, p. 28](#)).
- (14) Commission Regulation (EU) No 932/2012 of 3 October 2012 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for household tumble driers ([OJ L 278, 12.10.2012, p. 41](#)).
- (15) Commission Regulation (EU) No 617/2013 of 26 June 2013 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for computers and computer servers ([OJ L 175, 27.6.2013, p. 13](#)).
- (16) Commission Regulation (EU) No 666/2013 of 8 July 2013 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for vacuum cleaners ([OJ L 192, 13.7.2013, p. 24](#)).
- (17) Commission Regulation (EU) No 813/2013 of 2 August 2013 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for space heaters and combination heaters ([OJ L 239, 6.9.2013, p. 136](#)).

Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282. (See end of Document for details)

- (18) Commission Regulation (EU) No 814/2013 of 2 August 2013 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for water heaters and hot water storage tanks (OJ L 239, 6.9.2013, p. 162).
- (19) Commission Regulation (EU) No 66/2014 of 14 January 2014 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for domestic ovens, hobs and range hoods (OJ L 29, 31.1.2014, p. 33).
- (20) Commission Regulation (EU) No 548/2014 of 21 May 2014 on implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to small, medium and large power transformers (OJ L 152, 22.5.2014, p. 1).
- (21) Commission Regulation (EU) No 1253/2014 of 7 July 2014 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for ventilation units (OJ L 337, 25.11.2014, p. 8).
- (22) Commission Regulation (EU) 2015/1095 of 5 May 2015 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for professional refrigerated storage cabinets, blast cabinets, condensing units and process chillers (OJ L 177, 8.7.2015, p. 19).
- (23) Commission Regulation (EU) 2015/1185 of 24 April 2015 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for solid fuel local space heaters (OJ L 193, 21.7.2015, p. 1).
- (24) Commission Regulation (EU) 2015/1188 of 28 April 2015 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for local space heaters (OJ L 193, 21.7.2015, p. 76).
- (25) Commission Regulation (EU) 2015/1189 of 28 April 2015 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for solid fuel boilers (OJ L 193, 21.7.2015, p. 100).
- (26) Commission Regulation (EU) 2016/2281 of 30 November 2016 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for air heating products, cooling products and high temperature process chillers and fan coil units (see page 1 of this Official Journal).
- (27) Commission Regulation (EC) No 244/2009 of 18 March 2009 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for non-directional household lamps (OJ L 76, 24.3.2009, p. 3).
- (28) Commission Regulation (EC) No 245/2009 of 18 March 2009 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for fluorescent lamps without integrated ballast, for high intensity discharge lamps, and for ballasts and luminaires able to operate such lamps, and repealing Directive 2000/55/EC of the European Parliament and of the Council (OJ L 76, 24.3.2009, p. 17).
- (29) Commission Regulation (EU) No 1194/2012 of 12 December 2012 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for directional lamps, light emitting diode lamps and related equipment (OJ L 342, 14.12.2012, p. 1).

Changes to legislation:

There are currently no known outstanding effects for the Commission Regulation (EU) 2016/2282.