IEC 60335\_1X ATTACHMENT

Clause Requirement + Test Result - Remark Verdict

## ATTACHMENT TO TEST REPORT

## IEC 60335-1

## **EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES**

Household and similar electrical appliances – Safety – Part 1: GENERAL REQUIREMENTS

EN 60335-1:2012 + AC:2014 + A11:2014 + A13:2017 + A1:2019 +

**Differences according to** .....: A14:2019 + A2:2019

EN 62233:2008 + AC:2008

Attachment Form No. ..... EU\_GD\_IEC60335\_1X

Attachment Originator.....: Nemko AS

Master Attachment.....: 2019-09-24

## Copyright © 2019 IEC System for Conformity Testing and Certification of Electrical Equipment (IECEE), Geneva, Switzerland. All rights reserved.

	CENELEC COMMON MODIFICATIONS (EN)	
6.1	Delete "class 0" and "class 01"	Р
7.1	Single-phase appliances to be connected to the supply mains: 230 V covered	Р
	Multi-phase appliances to be connected to the supply mains: 400 V covered	N/A
7.12	The instructions include the substance of the following:	
	- this appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved	Р
	- children shall not play with the appliance	Р
	- cleaning and user maintenance shall not be made by children without supervision	Р
8.1.1	Also test probe 18 of EN 61032 is applied	Р
	The appliance being in every possible position during the test, except that	Р
	appliances normally used on the floor and having a mass exceeding 40 kg are not tilted	N/A
	The force on the probe in the straight position is increased to 10 N when probe 18 is used	Р
	When using test probe 18 the appliance is fully assembled as in normal use without any parts removed, and	Р

	IEC 60335_1X ATTACHME	NT	
Clause	Requirement + Test	Result - Remark	Verdict
	parts intended to be removed for user maintenance are also not removed		N/A
8.1.3	Instead of test probe B, test probe 18 and test probe 13, for appliances other than those of class II, test probe 41 of IEC 61032 is applied with a force not exceeding 1 N to live parts of visibly glowing heating elements, all poles of which can be disconnected by a single switching action		N/A
8.2	Compliance is checked by inspection and by applying the test probes of EN 61032 in accordance with the conditions specified in 8.1.1		Р
	Test probe B and probe 18 of EN 61032 are applied to built-in appliances and fixed appliances only after installation		Р
15.1.2	Appliances with an automatic cord reel tested with the cord in the most unfavourable position so that the reeling of the wet cord may affect electrical insulation during operation, the cord not being dried before reeling		N/A
20.2	For appliances having dangerous moving parts, due to their working function, e.g. the needle of a sewing machine, tools of kitchen machines or the blade of an electrical knife, full protection is not possible for performing their intended use		Р
	When using a test probe similar to test probe B of EN 61032, having a circular stop face and applied with a force of 5N, the accessories and detachable covers are removed		P
	When using test probe 18 it is applied with a force of 2,5N on the appliance fully assembled		Р
22.12	Other parts intended to be detached during use, maintenance or cleaning (e.g. batteries, battery covers, lids, attachments, steam nozzles) are not considered as parts providing a similar function as handles, knobs, grips, levers		N/A
22.17	The requirement is not applicable to built-in appliances		N/A
24.1	Components comply with the safety requirements specified in the relevant EN standards as far as they reasonably apply		Р
	Motors are not required to comply with EN 60034- 1, but tested as part of the appliance according to this standard		Р
	Relays are tested as part of the appliance according to this standard		N/A
	Relays may be alternatively tested to EN 60730-1 and the additional requirements in EN 60335-1		N/A

Report No.: 60004			70-700.00L
01	IEC 60335_1X ATTACHME	T	
Clause	Requirement + Test  The requirements of Clause 29 of this standard apply between live parts of components and accessible parts of the appliance	Result - Remark	Verdict P
	Components may comply with the requirements for clearances and creepage distances for functional insulation as specified in the relevant component standard		Р
	The requirements of 30.2 of this standard apply to parts of non-metallic material in components including parts of non-metallic material supporting current-carrying connections inside components		Р
	Components that have not been tested and shown to comply with the EN standard for the relevant component are tested according to the requirements of 30.2 of this standard		Р
	Components that have been tested and shown to corequirements in the EN standard for the relevant coprovided that:		
	- the severity specified in the component standard is not less than the severity specified in 30.2, and		N/A
	- the test report for the component states the values of $t_{\text{e}}$ and $t_{\text{i}}$ acc. to EN 60695-2-11		N/A
	If the above two conditions are not satisfied, the component is tested as part of the appliance		N/A
	Power electronic converter circuits are not required to comply with EN 62477-1, but tested as part of the appliance according to this standard		N/A
	Unless components have been tested and found to comply with the relevant EN standard for the number of cycles specified, they are tested in accordance with 24.1.1 to 24.1.9		Р
	For components mentioned in 24.1.1 to 24.1.9, no additional tests specified in the relevant EN standard for the component are necessary other than those specified in 24.1.1 to 24.1.9		Р
	Components that have not been tested and found to comply with the relevant EN standard, and		N/A
	components that are not marked or not used in accordance with their marking,		N/A
	are tested in accordance with the conditions occurring in the appliance, the number of samples being that required by the relevant standard		N/A

	IEC 60335_1X ATTACHMENT		
Clause	Requirement + Test	Result - Remark	Verdict
	Lamp-holders and starter-holders that have not been tested and found to comply with the relevant EN standard are tested as a part of the appliance and additionally comply with the gauging and interchangeability requirements of the relevant EN standard under the conditions occurring in the appliance		N/A
	Where the relevant EN standard specifies these gauging and interchangeability requirements at elevated temperatures, the temperatures measured during the tests of Clause 11 are used		N/A
	There are no additional tests specified for nationally standardized plugs such as those detailed in IEC/TR 60083 or connectors complying with the standard sheets of EN 60320-1 and EN 60309, unless they are specifically mentioned in the text of this standard		P
	Plugs and socket-outlets and other connecting devices of interconnection cords are not interchangeable with plugs and socket-outlets listed in IEC/TR 60083 or IEC 60906-1, or		Р
	with connectors and appliance inlets complying with the standard sheets of EN 60320-1, if		N/A
	direct supply to these parts from the supply mains gives rise to a hazard		N/A
	For plugs used in CENELEC countries Annex ZH applies		Р
24.1.7	When the remote operation of the appliance is via a telecommunication network, the relevant standard for the telecommunication interface circuitry in the appliance is EN 41003		N/A
	Compliance with Clause 8 of this standard is not impaired by connecting the appliance to a device covered by EN 41003		N/A
24.Z1	Type S2 and S3 capacitors according to EN 60252-1 are not required to undergo the testing as required by 30.2.2 and 30.2.3.1		N/A
25.1	Plugs and pins for insertion into socket outlets follow the relevant standards sheets in Annex ZH		N/A
25.7	Rubber sheathed cords (60245 IEC 53) are not suitable for appliances intended to be used outdoors, or		N/A
	when they are liable to be exposed to significant amount of ultraviolet radiation		N/A
25.25	Instead of IEC/TR 60083, dimensions of the pins and engagement face of plugs of appliances that are inserted into socket-outlets are in accordance with the dimensions of the relevant plug standard		N/A

	IEC 60335_1X ATTACHME	ENT	
Clause	Requirement + Test	Result - Remark	Verdict
	Common plugs and socket-outlets types in CENELEC countries as shown in Annex ZH		N/A
26.11	Conductors connected by soldering are not considered to be positioned or fixed so that reliance is not placed upon the soldering alone to maintain them in position,		N/A
	unless they are held in place near the terminals independently of the solder		N/A
29.3.Z1	Appliance constructed so that if there is a possibility of damaging the insulation during installation, the insulation withstands the scratch and penetration test of 21.2		N/A
32	Compliance regarding electromagnetic fields is checked according to EN 62233		Р
Annex I, 19.I.101	The appliance is supplied at rated voltage and operated under normal operation with each of the fault conditions specified		N/A
	The duration of any of the tests is as specified in 19.7		N/A
ZA	ANNEX ZA (NORMATIVE) SPECIAL NATIONAL CONDITIONS (EN)		
	Denmark, Sweden, Norway and Finland		N/A
7.12.8	The maximum inlet water pressure is at least 1,0 MPa		N/A
	Norway		N/A
19.5	The test is also applicable to appliances intended to be permanently connected to fixed wiring		N/A
	Norway		N/A
22.2	The second paragraph of this subclause, dealing with single-phase, permanently connected class I appliances having heating elements, is not applicable due to the supply system		N/A
	Denmark		N/A
22.47	The maximum inlet water pressure is at least 1,0 MPa		N/A

	IEC 60335_1X ATTACHMENT	
Clause	Requirement + Test Result - Remark	Verdict
	Ireland and United Kingdom	N/A
25.8	In the table, the line >10 A and ≤16 A is replaced with:	
	> 10 and ≤ 13 1,25 (1,0) <sup>b</sup>	N/A
	> 13 and ≤ 16 1,5 (1,0) <sup>b</sup>	N/A
ZB	ANNEX ZB (INFORMATIVE) A-DEVIATIONS	
	Ireland	N/A
25.1 and 25.25	These regulations apply to all plugs for domestic use at a voltage of not less than 200 V and in general allow only plugs complying with I.S. 401:1997, or equivalent, to be fitted to domestic appliances	N/A
	United Kingdom	N/A
25.1 and 25.25	These regulations apply to all plugs for domestic use at a voltage of not less than 200 V and in general allow only plugs to BS 1363 to be fitted to domestic appliances.	N/A
	It also allows plugs to BS 4573 and EN 50075 to be fitted to shavers and toothbrushes	N/A
ZC	ANNEX ZC (NORMATIVE) NORMATIVE REFERENCES TO INTERNATIONAL PUBLICATIONS WITH THEIR CORRESPONDING EUROPEAN PUBLICATIONS	
	A list of documents referred to in the text of this standard in such a way that some or all of their content constitutes requirements of this document	Р
ZD	ANNEX ZD (INFORMATIVE) IEC and CENELEC CODE DESIGNATIONS FOR FLEXIBLE CORDS	
	List of IEC and CENELEC code designations for flexible cords	Р
ZE	ANNEX ZE (INFORMATIVE)	
	SPECIFIC ADDITIONAL REQUIREMENTS FOR APPLIANCES AND MACHINES INTENDED FOR COMMERCIAL USE	

	IEC 60335_1X ATTACHMENT		
Clause	Requirement + Test	Result - Remark	Verdict
7.1	Business name and full address of the manufacturer and, where applicable, his authorized representative:		N/A
	Model or type reference:		N/A
	Serial number, if any		N/A
	Production year		N/A
	Designation of the appliance:		N/A
7.12	Instructions provided with the appliance so that the appliance can be used safely		N/A
	The instructions contain at least the following inform	nation:	
	the business name and full address of the manufacturer and, where applicable, his authorized representative		N/A
	- model or type reference of the appliance as marked on the appliance itself, except for the serial number		N/A
	- the designation of the appliance together with its explanation in case it is given by a combination of letters and/or numbers		N/A
	- the general description of the appliance, when needed due to the complexity of the appliance		N/A
	<ul> <li>specific precautions required during installation, operation, adjusting, user maintenance, cleaning, repairing or moving</li> </ul>		N/A
	- when needed drawings, diagrams, descriptions and explanations necessary for the safe use and user maintenance of the appliance		N/A
	- the possible reasonably foreseeable misuse and, whenever relevant, a warning against the effects it may have on the safe use of the appliance		N/A
	The words "Original instructions" appear on the language version(s) verified by the manufacturer or by the authorized representative		N/A
	When a translation of the original instructions has been provided by a person introducing the appliance on the market; the meaning of the sentence "Translation of the original instructions" appear in the relevant instructions delivered with the appliance		N/A

	IEC 60335_1X ATTACHME	NT	
Clause	Requirement + Test	Result - Remark	Verdict
	The instructions for maintenance/service to be done by specialized personnel, mandated by the manufacturer or the authorized representative may be supplied in only one Community language which the specialized personnel understand		N/A
	The instructions indicate the type and frequency of inspections and maintenance required for safe operation including the preventive maintenance measures		N/A
7.12.ZE1	If needed for specific appliances, the following inform	mation to be given:	
	- on use, transportation, assembly, dismantling when out of service, testing or foreseeable breakdowns, if these operations have consequences on stability of the appliance in order to avoid overturning, falling or uncontrolled movements of the appliance or of its component parts		N/A
	- on how to maintain adequate mechanical stability when in use, during transportation, assembly, dismantling, scrapping and any other action involving the appliance		N/A
	- on the protective measures to be taken by the user, including, where appropriate, the personal protective equipment to be provided		N/A
	- on the operating method to be followed in the event of accident or breakdown; if a blockage is likely to occur the operating method to safely unblock the appliance		N/A
	- on the specifications on the spare parts to be used, when these affect the health and safety of the operator		N/A
	- on airborne noise emissions, determined and declarelevant Part 2, which includes:	ared in accordance with the	
	- the A-weighted emission sound pressure level at workstations, where this exceeds 70 dB(A);		N/A
	- where this level does not exceed 70 dB(A), this fact is indicated		N/A
	- the peak C-weighted instantaneous sound pressure value at workstations, where this exceeds 63 Pa (130 dB in relation to 20 μPa)		N/A
	- the A-weighted sound power level emitted by the machinery, where the A-weighted emission sound pressure level at workstations exceeds 80 dB(A):		N/A

	IEC 60335_1X ATTACHME	NT	
Clause	Requirement + Test	Result - Remark	Verdict
7.12.ZE2	The instructions include a warning to disconnect the appliance from its power source during service and when replacing parts		N/A
	If the removal of the plug is foreseen, it is clearly indicated that the removal of the plug is such that an operator can check from any of the points to which he has access that the plug remains removed		N/A
	If this is not possible, due to the construction of the appliance or its installation, a disconnection with a locking system in the isolated position is provided		N/A
19.11.4.8	The appliance continues to operate, without causing any hazard to the user, from the same point in its operating cycle at which the voltage fluctuation occurred, or		N/A
	a manual operation is required to restart it		N/A
20.1	Appliances and their components and fittings have adequate mechanical stability during transportation, assembly, dismantling and any other action involving the appliance		N/A
20.2	Dangerous moving transmission parts safeguarded either by design or guards		N/A
	When guards are used, they are fixed guards, interlocking movable guards or protective devices		N/A
	Moving parts directly involved in the function of the made completely inaccessible fitted with:	appliance which cannot be	
	- fixed guards or interlocking movable guards preventing access to those sections of the parts that are not used in the work, and		N/A
	- adjustable guards restricting access to those sections of the moving parts where access is necessary		N/A
	Interlocking movable guards used where frequent access is required		N/A
21.1	Appliances and their components and fittings have adequate mechanical strength and is constructed to withstand such rough handling that may be expected in normal use, during transportation, assembly, dismantling, scrapping and any other action involving the appliance		N/A
22.ZE.1	For appliances provided with a seat, the seat gives adequate stability		N/A
	The distance between the seat and the control devices capable of being adapted to the operator		N/A

IEC 60335_1X ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
22.ZE.2	For appliances provided with separate devices for the start and the stop functions, the stop function is unambiguously identifiable and does always override the start function		N/A
	For appliances provided with one device performing the start and the stop function, the stop function is unambiguously identifiable and does always override the start function		N/A
22.ZE.3	Appliances designed in such a way that incorrect mounting is avoided, if this can lead to an unsafe situation		N/A
	If this is not possible, information on the correct mounting is given directly on the part and/or the enclosure		N/A
22.ZE.4	Where the weight, size or shape prevents appliances from being moved manually, they are fitted with attachments for lifting gear, or		N/A
	so designed that they can be fitted with such attachments, or		N/A
	be shaped in such a way that standard lifting gear can easily be used		N/A
	Appliances to be moved manually are constructed or equipped so that they can be moved easily and safely		N/A
22.ZE.5	The fixing systems of fixed guards which prevent access to dangerous moving transmission parts only removable with the use of tools		N/A
	If such guards have to be removed by the user for routine cleaning or maintenance their fixing systems remain attached to the fixed guards or to the machine after removal		N/A
	Where possible, guards are incapable of remaining in place without their fixings		N/A
	This does not apply if, after removal of the screws, or if the component is incorrectly repositioned, the appliance becomes inoperative		N/A
	Movable guards are interlocked		N/A
	The interlocking devices prevent the start of hazardous appliance functions until the guards are fixed in their position, and give a stop command whenever they are no longer closed		N/A
	Where it is possible for an operator to reach the dan hazardous appliance functions has ceased, movable guard locking device in addition to an interlocking device.	guards associated with a	

	IEC 60335_1X ATTACHMENT	
Clause	Requirement + Test Result - Remark	Verdict
	- prevents the start of hazardous appliance functions until the guard is closed and locked, and	N/A
	- keeps the guard closed and locked until the risk of injury from the hazardous appliance functions has ceased	N/A
	Interlocking movable guards remain attached to the appliance when open, and	N/A
	they are designed and constructed in such a way that they can be adjusted only by means of an intentional action	N/A
22.ZE.6	Interlocking movable guards designed in such a way that the absence or failure of one of their components prevents starting or stops the hazardous appliance functions	N/A
	The guard is opened to the extent needed to cause the interlocking to operate and is then closed, the number of operations being defined in the specific Part 2:	N/A
	After this test any defect that may be expected in normal use is applied to the interlock system, including interruption of the supply, only one defect being simulated at a time	N/A
	After these tests the interlock system is fit for further use	N/A
22.ZE.7	Adjustable guards restricting access to areas of the moving parts strictly necessar for the work are:	
	- adjustable manually or automatically, depending on the type of work involved, and	N/A
	- readily adjustable without the use of tools	N/A
22.ZE.8	In case of interruption, re-establishment after an interruption or fluctuation in whatever manner of the power supply, the appliance does not restart	N/A
	However, automatic restarting of the operation is allowed if the appliance may continue to operate, without causing any hazard to the user, from the same point in its operating cycle at which the voltage interruption or fluctuation occurred	N/A
22.ZE.9	Appliances fitted with means to isolate them from all energy sources	N/A
	Such isolators are clearly identified, and	N/A
	they are capable of being locked if reconnection endanger persons	N/A

	IEC 60335_1X ATTACHMENT	
Clause	Requirement + Test Result - Remark	Verdict
	After the energy source is disconnected, it is possible to dissipate any energy remaining or stored in the circuits of the appliance without risk to persons	N/A
ZF	ANNEX ZF (INFORMATIVE) CRITERIA APPLIED FOR THE ALLOCATION OF PRODUCTS COVERED BY STANDARDS IN THE EN 60335 SERIES UNDER LVD OR MD	
	List of standards under CENELEC/TC61 with the allocation under the LVD (Low Voltage Directive) or the MD (Machinery Directive)	Р
ZG	ANNEX ZG (NORMATIVE) UV APPLIANCES	
	The following modifications to this standard apply to appliances having UV emitters	N/A
	This annex is not applicable to appliances covered by the scopes of IEC 60335-2-27, IEC 60335-2-59 or IEC 60335-2-109	N/A
7.12.ZG	The instructions for appliances incorporating UVC emitters include the substance of the following: WARNING — This appliance contains a UV emitter. Do not stare at the light source	N/A
32	For appliances incorporating UV emitters the manufacturer delivers a declaration providing evidence that the plastic material exposed to the radiation is UV resistant	N/A
ZH	ANNEX ZH (INFORMATIVE)	
211	Common plug and socket-outlet types in CENELEC countries	
	In general, supply cords of single-phase appliances having a rated current not exceeding 16 A are fitted with a plug complying with the following standard sheets:	
	- for class I appliances or class II appliances with functional earth, standard sheet EU2, EU3 or EU4	N/A
	- for class II appliances, standard sheet EU5, EU6 or EU7	Р
	There are exemptions or differences in certain CENELEC countries	N/A
ZI	ANNEX ZI (INFORMATIVE) Information on the application of A11:2014 to EN 60335-1:2012 CENELEC CLC/TC 61(SEC)2096A	

	IEC 60335_1X ATTACHMEN	NT	
Clause	Requirement + Test	Result - Remark	Verdict
	Clarification of the application of parts 2 in conjunction with the 2002 or 2012 version of EN 60335-1		N/A
ZZA	ANNEX ZZA (INFORMATIVE) RELATIONSHIP BETWEEN THIS EUROPEAN STANDARD AND THE SAFETY OBJECTIVES OF DIRECTIVE 2014/35/EU [2014 OJ L96] AIMED TO BE COVERED		
	This standard provides one means of conforming to safety objectives of Directive 2014/35/EU		Р
	When cited in the Official Journal under that Directive, compliance with the normative clauses of this standard given in Table ZZA.1 confers a presumption of conformity with the safety objectives of that Directive and associated EFTA regulations		Р
	Compliance with this Part 1 when used together with the relevant Part 2 provides one means of conformity with the safety objectives		Р
ZZB	ANNEX ZZB (INFORMATIVE) RELATIONSHIP BETWEEN THIS EUROPEAN STANDARD AND THE ESSENTIAL REQUIREMENTS OF DIRECTIVE 2006/42/EC AIMED TO BE COVERED		
	This standard provides one means of conforming to essential requirements of EU Directive 2006/42/EC		N/A
	When cited in the Official Journal under that Directive, compliance with the normative clauses of this standard given in Table ZZB.1 confers a presumption of conformity with the essential requirements of that Directive and associated EFTA regulations		N/A
	Compliance with this Part 1 when used together with the relevant Part 2 provides one means of conformity with the essential health and safety requirements		N/A
	ANNEX EN 62233:2008 + AC:2008 EMF- ELECTROMAGNETICS FIELDS		
	The tested product also complies with the requirements of EN 62233:2008		
	Limit100%	Measured max. 4,183%	Р
	Limit100%	Measured max. 4,183%	j F