

IEC60335_2_69H - ATTACHMENT			
Clause	Requirement - Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60335-2-69H EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES Household and similar electrical appliances – Safety – Part 2-69: Particular requirements for wet and dry vacuum cleaners, including power brush for commercial use	
Differences according to:	EN 60335-2-69:2012 used in conjunction with EN 60335-1:2012+A11:2014 and EN 62233:2008
Attachment Form No.:	EU_GD_IEC60335_2_69H
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EN 62233			
Clause	Requirement + Test	Result - Remark	Verdict
EMF- ELECTROMAGNETICS FIELDS			
	The tested product also complies with the requirements of EN 62233:2008		
	Limit100%	Measured max. :.....4,528%	P

IEC60335_2_69H - ATTACHMENT			
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CENELEC COMMON MODIFICATIONS			
7	MARKING AND INSTRUCTIONS		
7.1	Single-phase appliances to be connected to the supply mains: 230 V covered		P
	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:		P
	- Children should be supervised to ensure that they do not play with the appliance (EN 60335-2-69:2012)		P
7.12.102	The instructions shall provide information on airborne noise emission as indicated in EE.2.7 (EN 60335-2-69:2012)		P
7.12.103	The instructions shall provide information on vibration emission as indicated in FF.2 (EN 60335-2-69:2012)		P
	- cleaning and user maintenance shall not be made by children without supervision		P
11	HEATING		
11.8	Footnotes to "External enclosure of motor-operated appliances" to be taken into account		P
15	MOISTURE RESISTANCE		
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
24	COMPONENTS		
24.1	Components comply with the safety requirements specified in the relevant standards as far as they reasonably apply		P
	The requirements of Clause 29 of this standard apply between live parts of components and accessible parts of the appliance.		P
	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		P

IEC60335_2_69H - ATTACHMENT			
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	Components that have not been previously tested or do not comply with the standard for the relevant component are tested according to the requirements of 30.2		P
	Components that have been previously tested and shown to comply with the resistance to fire requirements in the standard for the relevant component need not be retested provided that:		N/A
	- 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 whether it complied with the standard for the relevant component with or without flame, flames not exceeding 2 s during the test are ignored		N/A
	Unless components have been previously tested and found to comply with the relevant standard for the number of cycles specified, they are tested in accordance with 24.1.1 to 24.1.9		P
	For components mentioned in 24.1.1 to 24.1.9, no additional tests specified in the relevant standard for the component are necessary other than those specified in 24.1.1 to 24.1.9		P
	Components that have not been separately tested and found to comply with the relevant standard, and		P
	components that are not marked or not used in accordance with their marking,		P
	are tested in accordance with the conditions occurring in the appliance, the number of samples being that required by the relevant standard		P
	Lamp holders and starter holders that have not been previously tested and found to comply with the relevant standard are tested as a part of the appliance and additionally comply with the gauging and interchangeability requirements of the relevant standard under the conditions occurring in the appliance		N/A
	Where the relevant standard specifies these gauging and interchangeability requirements at elevated temperatures, the temperatures measured during the tests of Clause 11 are used		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		P
	with connectors and appliance inlets complying with the standard sheets of IEC 60320-1,		N/A

IEC60335_2_69H - ATTACHMENT			
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	if direct supply to these parts from the supply mains gives rise to a hazard		N/A
24.1.7	If 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	For motor running capacitors (IEC 60252-1 type P2) with a metallic enclosure having an overpressure fuse the flame testing of internal plastic parts supporting current carrying connections as required in 30.2.2 and 30.2.3.1 is not necessary		N/A
25	SUPPLY CONNECTION AND EXTERNAL FLEXIBLE CORDS		
25.6	Supply cords of single-phase portable appliances having a rated current not exceeding 16 A, fitted with a plug complying with the following standard sheets of IEC/TR 60083:		P
	- for Class I appliances: standard sheet C2b, C3b or C4.....:		P
	- for Class II appliances: standard sheet C5 or C6		N/A
25.7	Rubber sheathed cords (60245 IEC 53) are not suitable for appliances intended to be used outdoors or when they are liable to be exposed to significant amount of ultraviolet radiation		P
	Halogen-free thermoplastic compound sheathed supply cords have properties at least those of:		N/A
	<ul style="list-style-type: none"> halogen-free thermoplastic compound sheathed cords (H03Z1Z1H2-F or H03Z1Z1-F), for appliances having a mass not exceeding 3 kg 		N/A
	<ul style="list-style-type: none"> halogen-free thermoplastic compound sheathed cords (H05Z1Z1H2-F or H05Z1Z1-F), for other appliances (60335-2-69:2012) 		N/A
	Cross-linked halogen-free compound sheathed supply cords have properties at least those of cross-linked halogen-free compound sheathed cords (H07ZZ-F) (60335-2-69:2012)		N/A
26	TERMINALS FOR EXTERNAL CONDUCTORS		

IEC60335_2_69H - ATTACHMENT			
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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 unless they are held in place near the terminals independently of the solder		N/A
29	CLEARANCES, CREEPAGE DISTANCES AND SOLID INSULATION		
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	RADIATION, TOXICITY AND SIMILAR HAZARDS		
32	Compliance regarding electromagnetic fields is checked according to EN 50366 or EN 62233		P
I	ANNEX I (NORMATIVE) MOTORS HAVING BASIC INSULATION THAT IS INADEQUATE FOR THE RATED VOLTAGE OF THE APPLIANCE		
Annex I, 19.1.101	The appliance is supplied at rated voltage and operated under normal operation with each of the fault conditions specified		N/A
	The duration of the test is as specified in 19.7		N/A
EE	ANNEX EE (NORMATIVE) EMISSION OF ACOUSTICAL NOISE (EN 60335-2-69:2012)		
EE.1	Noise reduction		
	Noise reduction from vacuum cleaners is an integral part of the design process and shall be achieved by applying measures at source to control noise, see for example ISO/TR 11688-1. The success of the applied noise reduction measures is assessed on the basis of the actual noise emission values in relation to other machines of the same type with comparable non-acoustical technical data		P
EE.2	Noise test code		
EE.2.1	Emission sound pressure level determination		
	The emission sound pressure level for all vacuum cleaners except for back-pack vacuum cleaners is determined in accordance with ISO 11203 applying the method described in 6.2.3 d) with the measurement distance $d = 1$ m		P

IEC60335_2_69H - ATTACHMENT			
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	The emission sound pressure level for back-pack vacuum cleaners is determined in accordance with ISO 11201, grade 2. The microphone is placed at a height of 1,65 m \pm 0,05 m, and at a distance of 0,10 m \pm 0,025 m in y direction from the ear of the operator on the louder side, and at a distance of 0,00 m \pm 0,025 m in x direction from the ear of the operator. The microphone shall be pointed towards the ear		N/A
EE.2.2	Sound power level determination		
	The sound power level is measured in accordance with ISO 3744, or with ISO 3743-1 if a suitable hard-walled test room is available, or with ISO 9614-2. The direction of the x-axis in Figures EE.1 and EE.2 must be the same as the x-axis defined for the microphone configurations in ISO 3744		P
EE.2.3	Operating and mounting conditions		
	In addition to normal operation in accordance with 3.1.9, the following requirements for different types of vacuum cleaners shall be taken into account. The measurement time is at least 15 s		P
EE.2.3.1	Canister vacuum cleaners		
	The vacuum cleaner is installed on the reflecting plane		P
	Immediately before each series of measurements, the machine shall be operated for at least 10 min		P
	Battery powered machines are operated for at least 2 min, starting with a fully charged battery		N/A
	The noise emission of the non-motorised suction nozzle shall be excluded from measurement so that it does not interfere with the measurement result, e.g. by placing the nozzle outside of the measurement area		P
EE.2.3.2	Upright vacuum cleaners and motorized cleaning heads		
	Before starting the measurement procedure, the cleaning head shall be adjusted correctly in accordance with the manufacturer's instructions for cleaning carpets		N/A
	If the cleaning head is equipped with a device to put out brushes or other retractable parts for cleaning carpets, the cleaning head shall be adjusted so that the bristles of rotating brushes or other retractable parts go beyond the theoretical supporting plane of the cleaning head on a hard floor from 2 (+0,2/-0) mm		N/A

IEC60335_2_69H - ATTACHMENT			
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	All parts intended for hard floor treatment only shall be removed or retracted		N/A
	The upright vacuum cleaner shall be fixed directly without any resilient means on the Wilton carpet (according to IEC 60312-1) of a size 2 m x 1 m, placed on the floor of the test room		N/A
	If the measurement is done in a reverberation test room or a hard-walled test room, a minimum clearance of 1 m between any part of the machine or attachments and the nearest wall shall be observed		N/A
	The vacuum cleaner shall be positioned in accordance with Figures EE.1 or EE.2.		N/A
	The hose and connecting tube(s) or the handles of hand-supported and upright vacuum cleaners shall be resiliently suspended or supported in normal position of use (middle of the handles at (80 ± 5) cm above the carpet, if possible), the cleaning head being in full contact with the carpet		N/A
	If necessary, the cleaning head shall be resiliently fastened to prevent self-propulsion		N/A
	Sound radiation due to possible vibrations of the standard test carpet shall be prevented		N/A
EE.2.3.3	Back-pack vacuum cleaners		
	Before starting the measurement procedure, the nozzle intended for cleaning carpets shall be adjusted correctly in accordance with the manufacturer's instructions for cleaning carpets		N/A
	If the nozzle is equipped with a device to put out brushes or other retractable parts for cleaning carpets, the nozzle shall be adjusted so that the bristles or other retractable parts go beyond the theoretical supporting plane of the nozzle on a hard floor from 2 $(+0,2/-0)$ mm		N/A
	All parts intended for hard floor treatment only shall be removed or retracted. Crevice nozzles or similar accessories, if applicable, shall not be taken into account		N/A
	The back-pack vacuum cleaner shall be carried by an operator. The operator shall stand upright and look straight ahead.		N/A
	The operator shall be $1,75 \text{ m} \pm 0,05 \text{ m}$ tall.		N/A
	The harness of the back-pack vacuum cleaner shall be adjusted to the size of the operator		N/A

IEC60335_2_69H - ATTACHMENT			
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	The handle is held by the operator in the right hand in 0,80 m height with inclination of 45 ° to the floor and the suction nozzle is placed with no pressure on the Wilton carpet (according to IEC 60312-1) of a size 2 m x 1 m, placed on the floor of the test room		N/A
	The vacuum cleaner and the operator shall be positioned in accordance with Figure EE.3		N/A
	If the measurement is done in a reverberation test room or a hard-walled test room, a minimum clearance of 1 m between any part of the machine or attachments and the nearest wall shall be observed		N/A
	Sound radiation due to possible vibrations of the standard test carpet shall be prevented		N/A
EE.2.3.4	Centrally-sited vacuum cleaners		
	The airflow through the machine shall be adjusted so that the power consumption is according to the rated power		N/A
	When carrying out free field measurements, the machine may be operated with the mounting side on the reflecting floor. A suction hose shall be used, long enough to avoid measuring suction noise. Carpets are not required		N/A
EE.2.4	Measurement uncertainties		
	A standard deviation of reproducibility σ_{RO} of less than 1,5 dB is expected for both the A-weighted emission sound pressure level according to ISO 11203 and the A-weighted sound power level determined according to ISO 3744 or ISO 3743-1		P
EE.2.5	Information to be recorded		
	The information to be recorded covers all of the technical requirements of this noise test code		P
	Any deviations from this noise test code or from the basic standards upon which it is based are to be recorded together with the technical justification for such deviations		P
EE.2.6	Information to be reported		
	The information to be included in the test report is at least that which the manufacturer requires for a noise emission declaration or the user requires to verify the declared values		P
EE.2.7	Declaration and verification of noise emission values		

IEC60335_2_69H - ATTACHMENT			
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	The declaration of the emission sound pressure level is made as a dual-number noise emission declaration according to ISO 4871, where it exceeds 70 dB(A)		P
	Where the emission sound pressure level does not exceed 70 dB(A), this fact may be stated in place of the emission value and uncertainty, e.g. by declaring $L_{pA} \leq 70$ dB(A)		N/A
	It declares the noise emission value L_{pA} and separately the respective uncertainty K_{pA}		P
	The sound power level shall be given as a dual-number noise emission declaration according to ISO 4871, where the emission sound pressure level exceeds 80 dB(A). It declares the noise emission value L_{WA} and separately the respective uncertainty K_{WA}		
	The noise declaration states that the noise emission values have been obtained according to this noise test code		
	If this statement is not true, the noise declaration indicates clearly what the deviations from this standard, and from the basic standards, are.		
	If undertaken, verification is conducted according to ISO 4871 by using the same mounting, installation and operating conditions as those used for the initial determination of the noise emission values		
FF	ANNEX FF (NORMATIVE) EMISSION OF VIBRATION	(EN 60335-2-69:2012)	
FF.1	Reduction of vibration emission		
	The machine is designed and constructed in such a way that risks resulting from vibrations produced by the machine are reduced to the lowest level		P
FF.2	Information on vibration emission		
	The instructions for hand-held and walk-behind machines and hand-held parts of other machines shall give the following information:		
	– the vibration total value to which the hand-arm system is subjected, measured in accordance with ISO 5349-1 for arm vibrations, the machine being supplied at rated voltage or at the maximum rated voltage for machines with a range of voltages, if the vibration total value exceeds $2,5$ m/s ² . Where this value does not exceed $2,5$ m/s ² , this fact may be stated in place of the emission value and uncertainty, e.g. by declaring $a_h \leq 2,5$ m/s ²		P

IEC60335_2_69H - ATTACHMENT			
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	– the uncertainty surrounding these values, in accordance with the above given standards		P

ZA	ANNEX ZA (NORMATIVE) SPECIAL NATIONAL CONDITIONS		
	Finland		
7.12	If a polyvinyl chloride sheathed cord is fitted, the instructions shall state that the appliance is not to be used outdoors at low temperature (EN 60335-2-69:2012)		N/A
	Norway		
19.5	The test is also applicable to appliances intended to be permanently connected to fixed wiring		N/A
	Norway		
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
	All CENELEC countries		
25.6 and 25.25	Information concerning National plug and socket-outlets is available from the CENELEC website. Normative national requirements concerning plug and socket-outlets are shown in the relevant National standard		P
	Ireland and United Kingdom		
25.8	In the table, the lines for 10 A and 16 A are replaced by:		N/A
	> 10 and ≤ 13 1,25		N/A
	> 13 and ≤ 16 1,5		N/A
ZB	ANNEX ZB (INFORMATIVE) A-DEVIATIONS		
	Ireland		

IEC60335_2_69H - ATTACHMENT			
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25.6	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		
25.6	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. 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 referenced documents in this standard		P
ZD	ANNEX ZD (INFORMATIVE) IEC and CENELEC CODE DESIGNATIONS FOR FLEXIBLE CORDS		
	A table with IEC and CENELEC code designations for flexible cords		P
ZE	ANNEX ZE (INFORMATIVE) SPECIFIC ADDITIONAL REQUIREMENTS FOR APPLIANCES AND MACHINES INTENDED FOR COMMERCIAL USE		
	This Annex is not applicable	(EN 60335-2-69:2012)	
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)		P
ZG	ANNEX ZG (NORMATIVE) UV APPLIANCES		
	The following modifications to this standard apply to appliances having UV emitters		N/A

IEC60335_2_69H - ATTACHMENT			
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	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
ZZ	ANNEX ZZ (INFORMATIVE) COVERAGE OF ESSENTIAL REQUIREMENTS OF EC DIRECTIVES		
	Description of the relation between this European standard and the LVD (Low Voltage Directive) and the MD (Machinery Directive)		P

EN 60335-1:2012 + A11: 2014

Annex EN 60335-1 A11: 2014			
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7.14	In NOTE Z1, replace "IEC 82079-1" by "EN 82079-1".		N/A
Annex ZF	Table ZF.1, change EN 60335-2-38		N/A

 END
