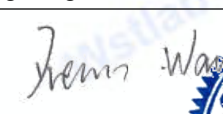
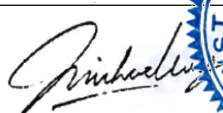





Test Report issued under the responsibility of:



TEST REPORT IEC 60335-2-27 Household and similar electrical appliances - Safety - Part 2-27: Particular requirements for appliances for skin exposure to optical radiation	
Report Number	WST24N020107-1SR
Date of issue	2024-03-01
Total number of pages	126
Name of Testing Laboratory preparing the Report	Shenzhen WST Testing Co., Ltd.
Applicant's name	Vincent Medical Excel Limited
Address	Units 1604-07A, 16/F., Two Harbourfront, 22 Tak Fung Street, Hung Hom, Kowloon, Hong Kong
Test specification:	
Standard	IEC 60335-2-27:2019 for use in conjunction with IEC 60335-1:2010, COR1:2010, COR2:2011, AMD1:2013, COR1:2014, AMD2:2016, COR1:2016
Test procedure	SAA Test Report
Non-standard test method	N/A
Test Report Form No	IEC60335_2_27J
Test Report Form(s) Originator	SLG
Master TRF	Dated 2020-05-15
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This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.	
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Test item description.....	Red Light Tower	
Trade Mark.....	Clearlight	
Manufacturer.....	Vincent Medical Excel Limited Units 1604-07A, 16/F., Two Harbourfront, 22 Tak Fung Street, Hung Hom, Kowloon, Hong Kong	
Model/Type reference.....	RLC-VM	
Ratings.....	100-240V~, 50/60Hz, 200W	
Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):		
<input checked="" type="checkbox"/>	Testing Laboratory:	Shenzhen WST Testing Co., Ltd.
	Testing location/ address.....	87 Guangshen Road, Baocheng 11st Zone, Xin'an Street, Bao'an, Shenzhen, Guangdong 518101, China
	Tested by (name, function, signature).....	Dream Wang (Test Engineer) 
	Approved by (name, function, signature)...	Michael Ling (Technical Manager) 
		
<input type="checkbox"/>	Testing procedure: CTF Stage 1:	
	Testing location/ address.....	
	Tested by (name, function, signature).....	
	Approved by (name, function, signature)...	
<input type="checkbox"/>	Testing procedure: CTF Stage 2:	
	Testing location/ address.....	
	Tested by (name + signature).....	
	Witnessed by (name, function, signature)..:	
	Approved by (name, function, signature)...	
<input type="checkbox"/>	Testing procedure: CTF Stage 3:	
<input type="checkbox"/>	Testing procedure: CTF Stage 4:	
	Testing location/ address.....	
	Tested by (name, function, signature).....	
	Witnessed by (name, function, signature)..:	
	Approved by (name, function, signature)...	
	Supervised by (name, function, signature) :	

List of Attachments (including a total number of pages in each attachment):

- Appendix 1: For requirements of AUSTRALIA/NEW ZEALAND NATIONAL DIFFERENCES (8 pages)
- Appendix 2: Photo documentation (4 pages)

Summary of testing:**Tests performed (name of test and test clause):**

Full tests are carried on RLC-VM.

Testing location:

Shenzhen WST Testing Co., Ltd.
87 Guangshen Road, Baocheng 11st Zone, Xin'an
Street, Bao'an, Shenzhen, Guangdong

Summary of compliance with National Differences (List of countries addressed):

AUSTRALIA/NEW ZEALAND NATIONAL DIFFERENCES

The product fulfils the requirements of AS/NZS 60335.2.27:2020, AS/NZS 60335.1:2020+A1:2021

Copy of marking plate:

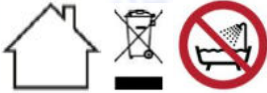
The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.

Red Light Tower

Model: RLC-VM

Trade: Clearlight

Input: 100-240V~, 50/60Hz, 200W



Vincent Medical(Dongguan)Technology Company Limited
RM 101 And 201, Block 10, 1st Taoyuan Road, Songshan
Lake Zone, Dongguan 523808, Guangdong P.R. China

WARNING:

Do not stare at the emitter. It is required to wear the provided eyewear due to intense optical radiation.
Read instructions carefully.

Test item particulars :	
Classification of installation and use : Fixed appliances and indoor use only	
Supply Connection :	
..... :	
Possible test case verdicts:	
- test case does not apply to the test object..... : N/A	
- test object does meet the requirement..... : P (Pass)	
- test object does not meet the requirement..... : F (Fail)	
Testing :	
Date of receipt of test item : 2024-02-19	
Date (s) of performance of tests : 2024-02-20 to 2024-02-28	
General remarks:	
"(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report.	
Throughout this report a <input checked="" type="checkbox"/> comma / <input type="checkbox"/> point is used as the decimal separator.	
Manufacturer's Declaration per sub-clause 4.2.5 of IEC60335-1:	
The application for obtaining a Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided..... :	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not applicable
When differences exist; they shall be identified in the General product information section.	
Name and address of factory (ies) : Vincent Medical(Dongguan)Technology Company Limited RM 101 And 201, Block 10, 1st Taoyuan Road, Songshan Lake Zone, Dongguan 523808, Guangdong P.R. China	
General product information:	
The appliance is Red Light Tower for household and indoor use only.	

IEC 60335-2-27			
Clause	Requirement + Test	Result - Remark	Verdict
5	GENERAL CONDITIONS FOR THE TESTS		P
	Tests performed according to clause 5, e.g. nature of supply, sequence of testing, etc.		P
5.101	- Appliances with IR emitters only are tested as heating appliances (IEC 60335-2-27)		N/A
	- All other appliances are tested as motor-operated appliances (IEC 60335-2-27)		P
6	CLASSIFICATION		P
6.1	Protection against electric shock: Class 0, 0I, I, II, III		P
	For a class III construction with a detachable power supply part the appliance is classified according to the detachable power supply part		N/A
6.2	Protection against harmful ingress of water		N/A
6.101	UV appliances shall be one of the following types with respect to the emission of ultraviolet radiation (IEC 60335-2-27)		N/A
	- appliances suitable for household use; (IEC 60335-2-27)		N/A
	- appliances for commercial use only (IEC 60335-2-27)		N/A
	Compliance is checked by inspection and by the relevant tests (IEC 60335-2-27)		N/A
7	MARKING AND INSTRUCTIONS		P
7.1	Rated voltage or voltage range (V)	100-240	P
	Symbol for nature of supply, or	~	P
	Rated frequency (Hz)	50/60	P
	Rated power input (W), or	200	P
	Rated current (A)		N/A
	Manufacturer's or responsible vendor's name, trademark or identification mark	Clearlight	P
	Model or type reference	RLC-VM	P
	Symbol IEC 60417-5172, for class II appliances		N/A
	IP number, other than IPX0	IP20	N/A
	Symbol IEC 60417-5180, for class III appliances, unless		N/A
	the appliance is operated by batteries only, or		N/A

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IEC 60335-2-27			
Clause	Requirement + Test	Result - Remark	Verdict
	for appliances powered by rechargeable batteries recharged in the appliance		N/A
	Symbol IEC 60417-5018, for class II and class III appliances incorporating a functional earth		N/A
	Symbol IEC 60417-5036, for the enclosure of electrically-operated water valves in external hose-sets for connection of an appliance to the water mains, if the working voltage exceeds extra-low voltage		N/A
	UV appliances intended for commercial use, such as in tanning salons, beauty parlours and similar premises shall be marked the Prohibition sign: "not for household use" or with the substance of the following: Not for household use (IEC 60335-2-27)		N/A
	Appliances having fluorescent UV lamps for tanning shall be marked with the fluorescent UV lamp equivalency code range (IEC 60335-2-27)		N/A
	For UV emitters other than fluorescent UV lamps for tanning, the appliance shall be marked with the type reference of the emitters that are recommended for use. (IEC 60335-2-27)		N/A
	UV appliances shall be marked with the substance of the following: (IEC 60335-2-27)		N/A
	WARNING: Ultraviolet radiation can cause injury to eyes. internal tissues of the mouth and skin. such as skin aging and eventually skin cancer. Read instructions carefully- Wear the protective goggles provided. Certain medicines and cosmetics may increase sensitivity. (IEC 60335-2-27)		N/A
	UV appliances with a luminance exceeding 100 000 cd/mm ² shall be marked with the substance of the following: (IEC 60335-2-27)		N/A
	WARNING: Intense light. Do not stare at the emitter. (IEC 60335-2-27)		N/A
	Appliances shall be marked with the substance of the following unless they are in the exempt group (see 6.1.1 in IEC 62471:2006): (IEC 60335-2-27)		P
	WARNING: Do not stare at the emitter. It is required to wear the provided eyewear due to intense optical radiation. Read instructions carefully. (IEC 60335-2-27)		P

IEC 60335-2-27			
Clause	Requirement + Test	Result - Remark	Verdict
	Appliances incorporating VIS emitters or IR emitters shall be marked with the following: (IEC 60335-2-27)		P
	- the manufacturer (IEC 60335-2-27)		P
	- model name (IEC 60335-2-27)		P
	- technical specification of appropriate replacement lamps (IEC 60335-2-27)		P
	Unless the intended exposure distance is controlled by their construction, UV appliances shall be marked: (IEC 60335-2-27)		N/A
	- with symbol IEC 60417-6301 (2015-03) (IEC 60335-2-27)		N/A
	- with the recommended exposure distance and (IEC 60335-2-27)		N/A
	- its unit in centimetres (cm) included between the dimensional arrow heads. (IEC 60335-2-27)		N/A
	Goggles shall be marked with: (IEC 60335-2-27)		P
	- name, trade mark or identification mark of the manufacturer (IEC 60335-2-27)		P
	- and the following alpha-numeric characters 'IEC 60335-2-27' (IEC 60335-2-27)		P
7.2	Warning for stationary appliances for multiple supply		N/A
	Warning placed in vicinity of terminal cover		N/A
7.3	Range of rated values marked with the lower and upper limits separated by a hyphen	100-240V	P
	Different rated values marked with the values separated by an oblique stroke	50/60Hz	P
7.4	Appliances adjustable for different rated voltages or rated frequencies, the voltage or the frequency setting is clearly discernible		N/A
	Requirement met if frequent changes are not required and the rated voltage or rated frequency to which the appliance is to be adjusted is determined from a wiring diagram		N/A
7.5	Appliances with more than one rated voltage or one or more rated voltage ranges, marked with rated input or rated current for each rated voltage or range, unless		N/A
	the power input or current are related to the arithmetic mean value of the rated voltage range		N/A

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IEC 60335-2-27			
Clause	Requirement + Test	Result - Remark	Verdict
	Relation between marking for upper and lower limits of rated power input or rated current and voltage is clear		N/A
7.6	Correct symbols used		P
	Symbol for nature of supply placed next to rated voltage		P
	Symbol for class II appliances placed unlikely to be confused with other marking		N/A
	Prohibition sign "not for household use" (IEC 60335-2-27)		N/A
	Symbol IEC 60417-6301 (2015-03) "ultra-violet light source, exposure distance" (IEC 60335-2-27)		N/A
	Units of physical quantities and their symbols according to international standardised system		P
7.7	Connection diagram fixed to appliances to be connected to more than two supply conductors and appliances for multiple supply, unless		N/A
	correct mode of connection is obvious		N/A
7.8	Except for type Z attachment, terminals for connection to the supply mains indicated as follows:		P
	- marking of terminals exclusively for the neutral conductor (letter N)		P
	- marking of protective earthing terminals (symbol IEC 60417-5019)		P
	- marking of functional earthing terminals (symbol IEC 60417-5018)		N/A
	- marking not placed on removable parts		P
7.9	Marking or placing of switches which may cause a hazard		P
7.10	Indications of switches on stationary appliances and controls on all appliances by use of figures, letters or other visual means	By figures	P
	This applies also to switches which are part of a control		P
	If figures are used, the off position indicated by the figure 0		P
	The figure 0 indicates only OFF position, unless no confusion with the OFF position		P
7.11	Indication for direction of adjustment of controls		N/A
7.12	Instructions for safe use provided		P

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IEC 60335-2-27			
Clause	Requirement + Test	Result - Remark	Verdict
	Details concerning precautions during user maintenance		P
	The instructions state that:		P
	- the appliance is not to be used by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction		P
	- children being supervised not to play with the appliance		P
	For a part of class III construction supplied from a detachable power supply unit, the instructions state that the appliance is only to be used with the unit provided		N/A
	Instructions for class III appliances state that it must only be supplied at SELV, unless		N/A
	it is a battery-operated appliance, the battery being charged outside the appliance		N/A
	For appliances for altitudes exceeding 2 000 m, the maximum altitude is stated		N/A
	The instructions for appliances incorporating a functional earth states that the appliance incorporates an earth connection for functional purposes only		N/A
	The instructions shall give clear information with regard to the proper use of the appliance. (IEC 60335-2-27)		P
	UV appliances shall include a statement that non-users, especially children, must not be present when the appliance is being operated. (IEC 60335-2-27)		N/A
	The instructions for UV appliances shall include the substance of the following: (IEC 60335-2-27)		N/A
	- a statement that UV appliances are not to be used by (IEC 60335-2-27)		N/A
	- persons under the age of 18 years; (IEC 60335-2-27)		N/A
	- persons who tend to freckle; (IEC 60335-2-27)		N/A
	- persons with a natural red hair colour; (IEC 60335-2-27)		N/A
	- persons having abnormal discoloured patches on the skin; (IEC 60335-2-27)		N/A

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IEC 60335-2-27			
Clause	Requirement + Test	Result - Remark	Verdict
	- persons having a large number of moles; (IEC 60335-2-27)		N/A
	- persons having asymmetrical irregularly shaped moles larger than 5 mm in diameter with variable pigmentation and irregular borders: in case of doubt. seek medical advice; (IEC 60335-2-27)		N/A
	- persons suffering from sunburn; (IEC 60335-2-27)		N/A
	- persons not able to tan at all or persons that burn easily when exposed to the sun; (IEC 60335-2-27)		N/A
	- persons having a history of frequent severe sunburn during childhood; (IEC 60335-2-27)		N/A
	- persons suffering from or previously suffering from skin cancer or predisposed to skin cancer; (IEC 60335-2-27)		N/A
	- persons under a doctor's care for diseases that involve photosensitivity; (IEC 60335-2-27)		N/A
	- persons receiving photosensitising medications. (IEC 60335-2-27)		N/A
	- a statement that if unexpected side effects, such as itching, occur within 48 h of the first session of using a UV appliance. medical advice should be sought prior to further UV exposure; (IEC 60335-2-27)		N/A
	- a statement that exposures should not exceed the minimal amount of UV radiation exposure required to cause perceptible reddening of the skin (a person's minimal erythema dose (MED)); (IEC 60335-2-27)		N/A
	- a statement that if skin reddening (erythema) is visible approximately 16 h to 24 h after any exposure, further exposure should cease. After one week, exposures may be restarted from the beginning of the schedule of exposure; (IEC 60335-2-27)		N/A
	- a statement that the appliance must not be used if the timer is faulty or the filter is broken or removed; (IEC 60335-2-27)		N/A
	- identification of components that may influence the ultraviolet radiation. such as filters and reflectors; (IEC 60335-2-27)		N/A

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IEC 60335-2-27			
Clause	Requirement + Test	Result - Remark	Verdict
	- identification of replaceable UV emitters and a statement that they are only to be replaced by types marked on the appliance. For fluorescent UV lamps for tanning, it shall be stated that they are only to be replaced by types marked with an equivalency code, the UV component of which falls within the UV component equivalency code range that is marked on the appliance. In this case, an example of the equivalency code shall be given and the UV component aspect of the fluorescent UV lamp for tanning equivalency code shall be explained. (IEC 60335-2-27)		N/A
	The instructions for UV appliances shall contain the substance of the following information and precautions: (IEC 60335-2-27)		N/A
	- ultraviolet radiation from the sun or from UV appliances can cause skin or eye damage that may be irreversible. Avoid exposure to the internal tissues of the mouth as it may be more susceptible to UV damage than the skin. These biological effects depend upon the quality and quantity of the radiation as well as the skin sensitivity of the individual; (IEC 60335-2-27)		N/A
	- the skin may develop sunburn after overexposure. Excessively repeated exposures to ultraviolet radiation from the sun or from UV appliances may lead to premature ageing of the skin as well as increased risk of development of skin tumours. These risks increase with increasing cumulative UV exposure. Exposure at an early age increases the risk of skin damage later in life; (IEC 60335-2-27)		N/A
	- the unprotected eye may develop surface inflammation and in some cases damage may occur to the retina after excessive exposure. Cataracts may develop after many repeated exposures; (IEC 60335-2-27)		N/A
	- in cases of pronounced individual sensitivity or allergic reaction to ultraviolet radiation, medical advice is recommended before starting exposure; (IEC 60335-2-27)		N/A
	- information concerning the intended exposure distance (unless this is controlled by the construction of the UV appliance); (IEC 60335-2-27)		N/A

IEC 60335-2-27			
Clause	Requirement + Test	Result - Remark	Verdict
	- recommended schedule of exposure specifying duration and intervals (based on the UV emitter characteristics, distances and skin sensitivity), see Annex DD; (IEC 60335-2-27)		N/A
	- recommended number of exposures that should not be exceeded in one year, see Annex DD; (IEC 60335-2-27)		N/A
	- the type reference of the protective goggles to be used; (IEC 60335-2-27)		N/A
	- the following precautions must be taken: (IEC 60335-2-27)		N/A
	- always use the protective goggles provided. Contact lenses and sun glasses are not a substitute for goggles; (IEC 60335-2-27)		N/A
	- remove cosmetics, fragrances, and skin care products well in advance of exposure and do not use any sunscreens or products that accelerate tanning; (IEC 60335-2-27)		N/A
	- certain medical conditions or side effects of certain medicines may be aggravated by ultraviolet exposure. In case of doubt; seek medical advice; (IEC 60335-2-27)		N/A
	- allow at least 48 h between the first two exposures; (IEC 60335-2-27)		N/A
	- do not sunbathe and use the appliance on the same day; (IEC 60335-2-27)		N/A
	- follow the recommendations concerning exposure durations; exposure intervals and distances from the lamp; (IEC 60335-2-27)		N/A
	- seek medical advice if persistent lumps or sores appear on the skin or if there are changes in pigmented moles; (IEC 60335-2-27)		N/A
	- protect sensitive skin parts such as scars, tattoos and genitals from exposure. (IEC 60335-2-27)		N/A
	For appliances having a lid that has to be opened in normal use; the instructions shall include a warning that the appliance must not be switched on with the lid in the closed position and that, before closing the lid for storage, the appliance must be disconnected from the supply and allowed to cool down. (IEC 60335-2-27)		N/A

IEC 60335-2-27			
Clause	Requirement + Test	Result - Remark	Verdict
	For appliances having parts that are intended to support a person, the instructions shall include the substance of the following: (IEC 60335-2-27)		N/A
	This appliance shall not be used by persons exceeding the maximum load of xxx kg. Stated value by the manufacturer in (kg) : (IEC 60335-2-27)		N/A
	The instructions for appliances incorporating VIS emitters or IR emitters shall include the substance of the following: (IEC 60335-2-27)		P
	- advice for the protection of the eyes against exposure to visible and infrared radiation and advise that adequate precautions must be taken to safeguard the user against the dangers of excessive exposure. (IEC 60335-2-27)		P
	- a statement that VIS appliances and IR appliances are not to be used by (IEC 60335-2-27)		P
	- persons suffering from sunburn; (IEC 60335-2-27)		P
	- persons under medical care for diseases that involve photosensitivity; (IEC 60335-2-27)		P
	- persons receiving photosensitising medications; (IEC 60335-2-27)		P
	- a statement that if unexpected side effects, such as itching, occur within 48 h of the first session of using an appliance, medical advice should be sought prior to further exposure; (IEC 60335-2-27)		P
	- information concerning the intended exposure distance (unless this is controlled by the construction of the appliance); (IEC 60335-2-27)		P
	- recommended schedule of exposure specifying duration and intervals (based on the emitter characteristics, distances); (IEC 60335-2-27)		P
	- a statement that the appliance must not be used if the timer is faulty or the filter is broken or removed; (IEC 60335-2-27)		P
	- identification of alternative components that may influence the radiation, such as filters and reflectors; (IEC 60335-2-27)		P
	- identification of replaceable emitters and a statement that they are only to be replaced by types marked on the appliance; (IEC 60335-2-27)		N/A

IEC 60335-2-27			
Clause	Requirement + Test	Result - Remark	Verdict
	- instruction to use goggles and an information about the maximum exposure time unless (IEC 60335-2-27)		P
	the appliance complies with the limits for the exempt group as defined in 6.1.1 of IEC 62471:2006 when tested as required by 32.103. (IEC 60335-2-27)		N/A
	If the Prohibition sign "Not for household use" or symbol IEC 60417-6301 (2015-03) is used, its meaning shall be explained. (IEC 60335-2-27)		N/A
7.12.1	Sufficient details for installation supplied		P
	For an appliance intended to be permanently connected to the water mains and not connected by a hose-set, this is stated		N/A
	If different rated voltages or different rated frequencies are marked, the instructions state what action to be taken to adjust the appliance		N/A
7.12.2	Stationary appliances not fitted with means for disconnection from the supply mains having a contact separation in all poles that provide full disconnection under overvoltage category III, the instructions state that means for disconnection must be incorporated in the fixed wiring in accordance with the wiring rules		N/A
7.12.3	Insulation of the fixed wiring in contact with parts exceeding 50 K during clause 11; instructions state that the fixed wiring must be protected		N/A
7.12.4	Instructions for built-in appliances:		N/A
	- dimensions of space		N/A
	- dimensions and position of supporting and fixing		N/A
	- minimum distances between parts and surrounding structure		N/A
	- minimum dimensions of ventilating openings and arrangement		N/A
	- connection to supply mains and interconnection of separate components		N/A
	- allow disconnection of the appliance after installation, by accessible plug or a switch in the fixed wiring, unless		N/A
	a switch complying with 24.3		N/A
7.12.5	Replacement cord instructions, type X attachment with a specially prepared cord		N/A

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IEC 60335-2-27			
Clause	Requirement + Test	Result - Remark	Verdict
	Replacement cord instructions, type Y attachment		P
	Replacement cord instructions, type Z attachment		N/A
7.12.6	Caution in the instructions for appliances incorporating a non-self-resetting thermal cut-out that is reset by disconnection of the supply mains, if this cut-out is required to comply with the standard		
7.12.7	Instructions for fixed appliances stating how the appliance is to be fixed		P
7.12.8	Instructions for appliances connected to the water mains:		N/A
	- max. inlet water pressure (Pa)		N/A
	- min. inlet water pressure, if necessary (Pa)		N/A
	Instructions concerning new and old hose-sets for appliances connected to the water mains by detachable hose-sets		N/A
7.12.9	Instructions specified in 7.12 and from 7.12.1 to 7.12.8 appear together before any other instructions supplied with the appliance		P
	These instructions may be supplied with the appliance separately from any functional use booklet		P
	They may follow the description of the appliance that identifies parts, or follow the drawings/sketches		P
	In addition, instructions are also available in an alternative format such as on a website or on request from the user in a format such as a DVD		P
	In addition, instructions are also available in an alternative format such as on a website or in a format such as a DVD	On a website	P
7.13	Instructions and other texts in an official language	English	P
7.14	Markings clearly legible and durable:		P
	Signal words WARNING, CAUTION, DANGER in uppercase having a height as specified	3,0mm	P
	Uppercase letter of the text explaining the signal word not smaller than 1,6 mm	1,6mm	P
	Moulded in, engraved, or stamped markings either raised above or have a depth below the surface of at least 0,25 mm, unless		N/A
	contrasting colours are used		P
	The diameter of the Prohibition sign "not for household use" shall be at least 10 mm. (IEC 60335-2-27)		N/A

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IEC 60335-2-27			
Clause	Requirement + Test	Result - Remark	Verdict
	The diameter of the UV lamp circle in symbol IEC 60417-6301 (2015-03) shall be at least 20 mm. (IEC 60335-2-27)		N/A
	Markings checked by inspection, measurement and rubbing test as specified		P
7.15	Markings on a main part		P
	Marking clearly discernible from the outside, if necessary after removal of a cover		P
	For portable appliances, cover can be removed or opened without a tool		N/A
	For stationary appliances, name, trademark or identification mark and model or type reference visible after installation		N/A
	For fixed appliances, name, trademark or identification mark and model or type reference visible after installation according to the instructions		P
	Indications for switches and controls placed on or near the components. Marking not on parts which can be positioned or repositioned in such a way that the marking is misleading		P
	The symbol IEC 60417-5018 placed next to the symbol IEC 60417-5172 or IEC 60417-5180		N/A
	The additional warnings and markings specified in 7.1 shall be visible after the appliance has been installed and without removal of a cover. (IEC 60335-2-27)		P
7.16	Marking of a possible replaceable thermal link or fuse link clearly visible with regard to replacing the link		N/A
8	PROTECTION AGAINST ACCESS TO LIVE PARTS		P
8.1	Adequate protection against accidental contact with live parts		P
8.1.1	Requirement applies for all positions, detachable parts removed		P
	Lamps behind a detachable cover not removed, if conditions met		N/A
	Insertion or removal of lamps, protection against contact with live parts of the lamp cap		N/A
	Use of test probe B of IEC 61032, with a force not exceeding 1 N: no contact with live parts		P

IEC 60335-2-27			
Clause	Requirement + Test	Result - Remark	Verdict
	Use of test probe B of IEC 61032 through openings, with a force of 20N: no contact with live parts		P
8.1.2	Use of test probe 13 of IEC 61032, with a force not exceeding 1 N, through openings in class 0 appliances and class II appliances/constructions: no contact with live parts		N/A
	Test probe 13 also applied through openings in earthed metal enclosures having a non-conductive coating: no contact with live parts		P
8.1.3	Clause not applicable (IEC 60335-2-27)		N/A
8.1.4	Accessible part not considered live if:		N/A
	- safety extra-low a.c. voltage: peak value not exceeding 42,4 V		N/A
	- safety extra-low d.c. voltage: not exceeding 42,4 V		N/A
	- or separated from live parts by protective impedance		N/A
	If protective impedance: d.c. current not exceeding 2 mA, and		N/A
	a.c. peak value not exceeding 0,7 mA		N/A
	- for peak values over 42,4 V up to and including 450 V, capacitance not exceeding 0,1 μ F		N/A
	- for peak values over 450 V up to and including 15 kV, discharge not exceeding 45 μ C		N/A
	- for peak values over 15 kV, the energy in the discharge not exceeding 350 mJ		N/A
8.1.5	Live parts protected at least by basic insulation before installation or assembly:		P
	- built-in appliances		N/A
	- fixed appliances		P
	- appliances delivered in separate units		N/A
8.2	Class II appliances and constructions constructed so that there is adequate protection against accidental contact with basic insulation and metal parts separated from live parts by basic insulation only		P
	Only possible to touch parts separated from live parts by double or reinforced insulation		P
9	STARTING OF MOTOR-OPERATED APPLIANCES		N/A
	Clause not applicable (IEC 60335-2-27)		N/A

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IEC 60335-2-27			
Clause	Requirement + Test	Result - Remark	Verdict
10	POWER INPUT AND CURRENT		P
10.1	Power input at normal operating temperature, rated voltage and normal operation not deviating from rated power input by more than shown in table 1 ... :	(see appended table)	P
	If the power input varies throughout the operating cycle and the maximum value of the power input exceeds, by a factor greater than two, the arithmetic mean value of the power input occurring during a representative period, the power input is the maximum value that is exceeded for more than 10 % of the representative period		N/A
	Otherwise the power input is the arithmetic mean value		P
	Test carried out at upper and lower limits of the ranges for appliances with one or more rated voltage ranges, unless		N/A
	the rated power input is related to the arithmetic mean value		N/A
	- appliances having UV emitters only: + 10 %; (IEC 60335-2-27)		N/A
	- other appliances: + 5 %, -10 %; (IEC 60335-2-27)		N/A
10.2	Current at normal operating temperature, rated voltage and normal operation not deviating from rated current by more than shown in table 2 :	(see appended table)	N/A
	If the current varies throughout the operating cycle and the maximum value of the current exceeds, by a factor greater than two, the arithmetic mean value of the current occurring during a representative period, the current is the maximum value that is exceeded for more than 10 % of the representative period		N/A
	Otherwise the current is the arithmetic mean value		N/A
	Test carried out at upper and lower limits of the ranges for appliances with one or more rated voltage ranges, unless		N/A
	the rated current is related to the arithmetic mean value of the range		N/A
	- appliances having UV emitters only: + 10 %; (IEC 60335-2-27)		N/A
	- other appliances: + 5 %, -10 %; (IEC 60335-2-27)		N/A

IEC 60335-2-27			
Clause	Requirement + Test	Result - Remark	Verdict
11	HEATING		P
11.1	No excessive temperatures in normal use		P
11.2	The appliance is held, placed or fixed in position as described	Fixed to a wall are fixed to a vertical support	P
	Appliances normally placed on a floor or table are placed on the floor of the test corner with their back as near as possible to one of the walls and away from the other wall. (IEC 60335-2-27)		N/A
	If the direction of the radiation is adjustable, the appliance is adjusted to the most unfavourable position of normal use. (IEC 60335-2-27)		N/A
	Appliances having fluorescent lamps shall be fitted with a fluorescent lamp having either a short mount electrode or long mount electrode whichever provides the more unfavourable results. (IEC 60335-2-27)		N/A
11.3	Temperature rises, other than of windings, determined by thermocouples		P
	Temperature rises of windings determined by resistance method, unless		N/A
	the windings are non-uniform or it is difficult to make the necessary connections		N/A
11.4	Heating appliances operated under normal operation at 1,15 times rated power input (W)		N/A
11.5	Motor-operated appliances operated under normal operation at most unfavourable voltage between 0.94 and 1.06 times rated voltage (V)	254,4V	P
11.6	Combined appliances operated under normal operation at most unfavourable voltage between 0.94 and 1.06 times rated voltage (V)		N/A
11.7	The appliance is operated until steady conditions are established (IEC 60335-2-27)		P
	Parts operated by motors in appliances for wall mounting or ceiling mounting are fully raised and lowered five times without rest periods, or for 5 min, whichever is shorter. (IEC 60335-2-27)		N/A
11.8	Temperature rises monitored continuously and not exceeding the values in table 3	(see appended table)	P
	If the temperature rise of a motor winding exceeds the value of table 3, or		N/A
	if there is doubt with regard to classification of insulation,		N/A

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IEC 60335-2-27			
Clause	Requirement + Test	Result - Remark	Verdict
	tests of Annex C are carried out		N/A
	Sealing compound does not flow out		N/A
	Protective devices do not operate, except		P
	components in protective electronic circuits tested for the number of cycles specified in 24.1.4		P
	The temperature of ballast windings and their associated wiring not exceed the values specified in 12.4 of IEC 60598-1:2008, when measured under the conditions stated (IEC 60335-2-27)		N/A
	The temperature rises for surfaces in direct contact with the skin shall not exceed those specified for handles that are continuously held in the hand (IEC 60335-2-27)		N/A
13	LEAKAGE CURRENT AND ELECTRIC STRENGTH AT OPERATING TEMPERATURE		P
13.1	Leakage current not excessive and electric strength adequate		P
	Heating appliances operated at 1,15 times the rated power input (W)		N/A
	Motor-operated appliances and combined appliances supplied at 1.06 times the rated voltage (V)	254,4V	P
	Protective impedance and radio interference filters disconnected before carrying out the tests		P
13.2	The leakage current is measured by means of the circuit described in Figure 4 of IEC 60990:1999		N/A
	For class 0I appliances and class I appliances, except parts of class II construction, C may be replaced by a low impedance ammeter		P
	Leakage current measurements	(see appended table)	P
13.3	The appliance is disconnected from the supply		P
	Electric strength tests according to table 4	(see appended table)	P
	No breakdown during the tests		P
14	TRANSIENT OVERVOLTAGES		N/A
	Appliances withstand the transient over-voltages to which they may be subjected		N/A
	Clearances having a value less than specified in table 16 subjected to an impulse voltage test, the test voltage specified in table 6	(see appended table)	N/A
	No flashover during the test, unless		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	of functional insulation if the appliance complies with clause 19 with the clearance short-circuited		N/A
15	MOISTURE RESISTANCE		P
15.1	Enclosure provides the degree of moisture protection according to classification of the appliance		N/A
	Compliance checked as specified in 15.1.1, taking into account 15.1.2, followed by the electric strength test of 16.3		N/A
	No trace of water on insulation which can result in a reduction of clearances or creepage distances below values specified in clause 29		N/A
15.1.1	Appliances, other than IPX0, subjected to tests as specified in IEC 60529		N/A
	Water valves containing live parts in external hoses for connection of an appliance to the water mains tested as specified for IPX7 appliances		N/A
15.1.2	Hand-held appliance turned continuously through the most unfavourable positions during the test		N/A
	Built-in appliances installed according to the instructions		N/A
	Appliances placed or used on the floor or table placed on a horizontal unperforated support		N/A
	Appliances normally fixed to a wall and appliances with pins for insertion into socket-outlets are mounted on a wooden board		N/A
	For IPX3 appliances, the base of wall mounted appliances is placed at the same level as the pivot axis of the oscillating tube		N/A
	For IPX4 appliances, the horizontal centre line of the appliance is aligned with the pivot axis of the oscillating tube, and		N/A
	for appliances normally used on the floor or table, the movement is limited to two times 90° for a period of 5 min, the support being placed at the level of the pivot axis of the oscillating tube		N/A
	Wall-mounted appliances, take into account the distance to the floor stated in the instructions		N/A
	Appliances normally fixed to a ceiling are mounted underneath a horizontal unperforated support, the pivot axis of the oscillating tube located at the level of the underside of the support, and		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	for IPX4 appliances, the movement of the tube is limited to two times 90° from the vertical for a period of 5 min		N/A
	Appliances with type X attachment fitted with a flexible cord as described		N/A
	Detachable parts subjected to the relevant treatment with the main part		N/A
	However, if a part has to be removed for user maintenance and a tool is needed, this part is not removed		N/A
15.2	Spillage of liquid does not affect the electrical insulation		N/A
	Spillage solution comprising water containing approximately 1 % NaCl and 0,6 % rinsing agent		N/A
	Appliances with type X attachment fitted with a flexible cord as described		N/A
	Appliances incorporating an appliance inlet tested with or without an connector, whichever is most unfavourable		N/A
	Detachable parts are removed		N/A
	Overfilling test with additional amount of the solution, over a period of 1 min (l)		N/A
	The appliance withstands the electric strength test of 16.3		N/A
	No trace of water on insulation that can result in a reduction of clearances or creepage distances below values specified in clause 29		N/A
15.3	Appliances proof against humid conditions		P
	Checked by test Cab: Damp heat steady state in IEC 60068-2-78		P
	Detachable parts removed and subjected, if necessary, to the humidity test with the main part		P
	Humidity test for 48 h in a humidity cabinet	25°C, 95%R.H.	P
	Reassembly of those parts that may have been removed		P
	The appliance withstands the tests of clause 16		P
16	LEAKAGE CURRENT AND ELECTRIC STRENGTH		P
16.1	Leakage current not excessive and electric strength adequate		P

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Clause	Requirement + Test	Result - Remark	Verdict
	Protective impedance disconnected from live parts before carrying out the tests		N/A
	Tests carried out at room temperature and not connected to the supply		P
16.2	Single-phase appliances: test voltage 1,06 times rated voltage (V)	254,4V	P
	Three-phase appliances: test voltage 1,06 times rated voltage divided by $\sqrt{3}$ (V)		N/A
	Leakage current measurements	(see appended table)	P
	Limit values doubled if:		N/A
	- all controls have an off position in all poles, or		N/A
	- the appliance has no control other than a thermal cut-out, or		N/A
	- all thermostats, temperature limiters and energy regulators do not have an off position, or		N/A
	- the appliance has radio interference filters		N/A
	With the radio interference filters disconnected, the leakage current do not exceed limits specified	(see appended table)	N/A
16.3	Electric strength tests according to table 7	(see appended table)	P
	Test voltage applied between the supply cord and inlet bushing and cord guard and cord anchorage as specified	(see appended table)	P
	No breakdown during the tests		P
17	OVERLOAD PROTECTION OF TRANSFORMERS AND ASSOCIATED CIRCUITS		P
	No excessive temperatures in transformer or associated circuits in event of short-circuits likely to occur in normal use	(see appended table)	P
	Appliance supplied with 1,06 or 0,94 times rated voltage under the most unfavourable short-circuit or overload likely to occur in normal use (V)	254,4V	P
	Basic insulation is not short-circuited		P
	Temperature rise of insulation of the conductors of safety extra-low voltage circuits not exceeding the relevant value specified in table 3 by more than 15 K		N/A
	Temperature of the winding not exceeding the value specified in table 8		P

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Clause	Requirement + Test	Result - Remark	Verdict
	However, limits do not apply to fail-safe transformers complying with sub-clause 15.5 of IEC 61558-1		N/A
18	ENDURANCE		N/A
	Requirements and tests are specified in part 2 when necessary		N/A
19	ABNORMAL OPERATION		P
19.1	The risk of fire, mechanical damage or electric shock under abnormal or careless operation obviated		P
	Electronic circuits so designed and applied that a fault will not render the appliance unsafe	(see appended table)	P
	Instead of the tests specified, appliances are subjected to 19.4 to 19.12, 19.101 and 19.102 as applicable. (IEC 60335-2-27)		P
	Appliances having a lid but without a warning in the instructions that the appliance must not be switched on with the lid closed, 19.2 and 19.3 are applicable. (IEC 60335-2-27)		N/A
19.2	Appliances having a lid that is opened in normal use are tested with the lid closed (IEC 60335-2-27)		N/A
	Appliances with IR emitters are operated at 0,85 times rated power input (IEC 60335-2-27)		N/A
	All other appliances are supplied at 0,94 times rated voltage (IEC 60335-2-27)		N/A
19.3	Test of 19.2 repeated; test voltage (V), power input of 1,24 times rated power input (W)		N/A
19.4	Test conditions as in clause 11, any control limiting the temperature during tests of clause 11 short-circuited		N/A
19.5	Test of 19.4 repeated on Class 0I and I appliances with tubular sheathed or embedded heating elements. No short-circuiting, but one end of the element connected to the sheath		N/A
	The test repeated with reversed polarity and the other end of the heating element connected to the sheath		N/A
	The test is not carried out on appliances intended to be permanently connected to fixed wiring and on appliances where an all-pole disconnection occurs during the test of 19.4		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
19.6	Appliances with PTC heating elements tested at rated voltage, establishing steady conditions		N/A
	The working voltage of the PTC heating element is increased by 5% and the appliance is operated until steady conditions are re-established. The voltage is then increased in similar steps until 1,5 times working voltage or until the PTC heating element ruptures (V)		N/A
19.7	Stalling test by locking the rotor if the locked rotor torque is smaller than the full load torque, or		N/A
	locking moving parts of other appliances		P
	Locked rotor, capacitors open-circuited one at a time		N/A
	Test repeated with capacitors short-circuited one at a time, unless		N/A
	the capacitor is of class S2 or S3 of IEC 60252-1		N/A
	Appliances with timer or programmer supplied with rated voltage for each of the tests, for a period equal to the maximum period allowed		N/A
	An electronic timer or programmer that operates to ensure compliance with the test before the maximum period under the conditions of Clause 11 is reached, is a protective electronic circuit		N/A
	Other appliances supplied with rated voltage for a period as specified	240V	P
	Winding temperatures not exceeding values specified in table 8	(see appended table)	P
19.8	Multi-phase motors operated at rated voltage with one phase disconnected		N/A
19.9	Clause not applicable (IEC 60335-2-27)		N/A
19.10	Series motor operated at 1.3 times rated voltage for 1 min (V)		N/A
	During the test, parts not being ejected from the appliance		N/A
19.11	Electronic circuits, compliance checked by evaluation of the fault conditions specified in 19.11.2 for all circuits or parts of circuits, unless		P
	they comply with the conditions specified in 19.11.1		P
	Appliances incorporating an electronic circuit that relies upon a programmable component to function correctly, subjected to the test of 19.11.4.8, unless		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	restarting does not result in a hazard		N/A
	Appliances having a device with an off position obtained by electronic disconnection, or a device placing the appliance in a stand-by mode, subjected to the tests of 19.11.4		N/A
	If the safety of the appliance under any of the fault conditions depends on the operation of a miniature fuse-link complying with IEC 60127, the test of 19.12 is carried out		P
	During and after each test the following is checked:		P
	- the temperature of the windings do not exceed the values specified in table 8		P
	- the appliance complies with the conditions specified in 19.13		P
	- any current flowing through protective impedance not exceeding the limits specified in 8.1.4		P
	If a conductor of a printed board becomes open-circuited, the appliance is considered to have withstood the particular test, provided both of the following conditions are met:		N/A
	- the base material of the printed circuit board withstands the test of Annex E		N/A
	- any loosened conductor does not reduce clearance or creepage distances between live parts and accessible metal parts below the values specified in clause 29		N/A
19.11.1	Fault conditions a) to g) in 19.11.2 are not applied to circuits or parts of circuits meeting both of the following conditions:		N/A
	- the electronic circuit is a low-power circuit, that is, the maximum power at low-power points does not exceed 15 W according to the tests specified		N/A
	- the protection against electric shock, fire hazard, mechanical hazard or dangerous malfunction of other parts of the appliance does not rely on the correct functioning of the electronic circuit		N/A
19.11.2	Fault conditions applied one at a time, the appliance operating under conditions specified in clause 11, but supplied at rated voltage, duration of the tests as specified:		P
	a) short circuit of functional insulation if clearances or creepage distances are less than the values specified in clause 29		P
	b) open circuit at the terminals of any component		P
	c) short circuit of capacitors, unless		P

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Clause	Requirement + Test	Result - Remark	Verdict
	they comply with IEC 60384-14		P
	d) short circuit of any two terminals of an electronic component, other than integrated circuits		P
	This fault condition is not applied between the two circuits of an optocoupler		P
	e) failure of triacs in the diode mode		P
	f) failure of microprocessors and integrated circuits		P
	g) failure of an electronic power switching device		N/A
	Each low power circuit is short-circuited by connecting the low-power point to the pole of the supply source from which the measurements were made		N/A
19.11.3	If the appliance incorporates a protective electronic circuit that operates to ensure compliance with clause 19, the appliance is tested as specified		N/A
19.11.4	Appliances having a device with an off position obtained by electronic disconnection, or		N/A
	a device that can be placed in the stand-by mode,		N/A
	subjected to the tests of 19.11.4.1 to 19.11.4.7, the device being set in the off position or in the stand-by mode		N/A
	Appliances incorporating a protective electronic circuit subjected to the tests of 19.11.4.1 to 19.11.4.7, the tests being carried out after the protective electronic circuit has operated, except that		N/A
	appliances operated for 30 s or 5 min during the test of 19.7 are not subjected to the tests for electromagnetic phenomena.		N/A
	Surge protective devices disconnected, unless		N/A
	They incorporate spark gaps		N/A
19.11.4.1	The appliance is subjected to electrostatic discharges in accordance with IEC 61000-4-2, test level 4		N/A
19.11.4.2	The appliance is subjected to radiated fields in accordance with IEC 61000-4-3, at frequency ranges specified		N/A
19.11.4.3	The appliance is subjected to fast transient bursts in accordance with IEC 61000-4-4, test level 3 or 4 as specified		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
19.11.4.4	The power supply terminals of the appliance subjected to voltage surges in accordance with IEC 61000-4-5, test level 3 or 4 as specified		N/A
	An open circuit test voltage of 2 kV is applicable for the line-to-line coupling mode		N/A
	An open circuit test voltage of 4 kV is applicable for the line-to-earth coupling		N/A
	Earthed heating elements in class I appliances disconnected		N/A
19.11.4.5	The appliance is subjected to injected currents in accordance with IEC 61000-4-6, test level 3		N/A
19.11.4.6	Appliances having a rated current not exceeding 16 A are subjected to the Class 3 voltage dips and interruptions in accordance with IEC 61000-4-11		N/A
	Appliances having a rated current exceeding 16 A are subjected to the Class 3 voltage dips and interruptions in accordance with IEC 61000-4-34		N/A
19.11.4.7	The appliance is subjected to mains signals in accordance with IEC 61000-4-13, test level class 2		N/A
19.11.4.8	The appliance is supplied at rated voltage and operated under normal operation. After 60s the power supply is reduced to a level such that the appliance ceases to respond or parts controlled by the programmable component cease to operate		N/A
	The appliance continues to operate normally, or		N/A
	requires a manual operation to restart		N/A
19.12	If the safety of the appliance for any of the fault conditions specified in 19.11.2 depends on the operation of a miniature fuse-link complying with IEC 60127, the test is repeated, measuring the current flowing through the fuse-link; measured current (A); rated current of the fuse-link (A)	Measured current (A): A; rated current of the fuse-link (A):	P
19.13	During the tests the appliance does not emit flames, molten metal, poisonous or ignitable gas in hazardous amounts		P
	Temperature rises not exceeding the values shown in table 9	(see appended table)	P
	Compliance with clause 8 not impaired		P
	If the appliance can still be operated it complies with 20.2		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Insulation, other than of class III appliances or class III constructions that do not contain live parts, withstands the electric strength test of 16.3, the test voltage as specified in table 4:		P
	- basic insulation (V)	1000	P
	- supplementary insulation (V)	1750	P
	- reinforced insulation (V)	3000	P
	After operation or interruption of a control, clearances and creepage distances across the functional insulation withstand the electric strength test of 16.3, the test voltage being twice the working voltage		P
	The appliance does not undergo a dangerous malfunction, and		P
	no failure of protective electronic circuits, if the appliance is still operable		P
	Appliances tested with an electronic switch in the off position, or in the stand-by mode:		N/A
	- do not become operational, or		N/A
	- if they become operational, do not result in a dangerous malfunction during or after the tests of 19.11.4		N/A
	If the appliance contains lids or doors that are controlled by one or more interlocks, one of the interlocks may be released provided that:		N/A
	- the lid or door does not move automatically to an open position when the interlock is released, and		N/A
	- the appliance does not start after the cycle in which the interlock was released		N/A
19.14	Appliances operated under the conditions of clause 11, any contactor or relay contact operating under the conditions of clause 11 being short-circuited		N/A
	For a relay or contactor with more than one contact, all contacts are short-circuited at the same time		N/A
	A relay or contactor operating only to ensure the appliance is energized for normal use is not short-circuited		N/A
	If more than one relay or contactor operates in clause 11, they are short-circuited in turn		N/A
19.15	For appliances with a mains voltage selector switch, the switch is set to the lowest rated voltage position and the highest value of rated voltage is applied		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
19.101	Appliances, other than those for mounting at a height more than 1,8 m above the floor, are supplied at rated voltage and operated as specified in Clause 11 (IEC 60335-2-27)		P
	When steady conditions are established, a piece of dry bleached cotton flannelette having a specific mass, a width of 100 mm and long enough to pass over the front of the appliance, is stretched over the appliance in the most unfavourable position (IEC 60335-2-27)		P
	No smoulder or ignition of flannelette within 10 s (IEC 60335-2-27)		P
19.102	Appliances having discharge lamps are operated under the fault conditions specified in 12.5.1 a), d) and e) of IEC 60598-1:2008, the appliance being supplied at rated voltage. (IEC 60335-2-27)		N/A
	The temperature rises of ballast and transformer windings shall not exceed the values specified in 12.5 of IEC 60598-1:2008. (IEC 60335-2-27)		N/A
20	STABILITY AND MECHANICAL HAZARDS		P
20.1	Appliances having adequate stability	Fixed appliances	N/A
	Tilting test through an angle of 10°, appliance placed on an inclined plane/horizontal support, not connected to the supply mains; appliance does not overturn		N/A
	Tilting test repeated on appliances with heating elements, angle of inclination increased to 15°		N/A
	Possible heating test in overturned position; temperature rise does not exceed values shown in table 9		N/A
20.2	Moving parts adequately arranged or enclosed as to provide protection against personal injury		P
	Protective enclosures, guards and similar parts are non-detachable, and		P
	have adequate mechanical strength		P
	Enclosures that can be opened by overriding an interlock are considered to be detachable parts		N/A
	Self-resetting thermal cut outs and overcurrent protective devices not causing a hazard by unexpected closure		N/A
	Not possible to touch dangerous moving parts with the test probe described		P

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Clause	Requirement + Test	Result - Remark	Verdict
21	MECHANICAL STRENGTH		P
21.1	Appliance has adequate mechanical strength and is constructed as to withstand rough handling		
	Checked by applying 3 blows to every point of the enclosure like to be weak, in accordance with test Ehb of IEC 60068-2-75, spring hammer test, with an impact energy of 0,5 J	(see appended table)	P
	The appliance shows no damage impairing compliance with this standard, and		P
	compliance with 8.1, 15.1 and clause 29 not impaired		P
	If doubt, supplementary or reinforced insulation subjected to the electric strength test of 16.3		N/A
	If necessary, repetition of groups of three blows on a new sample		N/A
	For emitters, including adjacent glass parts and any lens that protrude from the enclosure, the impact energy is reduced to 0,35 J (IEC 60335-2-27)		P
	For filters, the impact energy is increased to 1,0 J and compliance with 32.101 shall not be impaired (IEC 60335-2-27)		N/A
21.2	Accessible parts of solid insulation having strength to prevent penetration by sharp implements		P
	Test not applicable if the thickness of supplementary insulation is at least 1 mm and reinforced insulation at least 2 mm		P
	The insulation is tested as specified, and does withstand the electric strength test of 16.3		N/A
21.101	Guards intended to prevent inadvertent ignition of flammable material shall have adequate mechanical strength (IEC 60335-2-27)		N/A
	Test with flat disk, diameter 10 cm and mass 2,5 kg for 1 min, on the centre of the guard (IEC 60335-2-27)		N/A
	No significant permanent deformation (IEC 60335-2-27)		N/A
21.102	Parts of appliance that are intended to support a person shall have adequate mechanical strength (IEC 60335-2-27)		N/A

IEC 60335-2-27			
Clause	Requirement + Test	Result - Remark	Verdict
	Load test for 1 min with a mass equal to maximum load indicated or at least 135 kg over an area of 30 cm x 50 cm evenly distributed on the person supporting surface (IEC 60335-2-27) (kg) :		N/A
	No damage to such an extent that compliance with this standard, in particular with Clause 29, is impaired (IEC 60335-2-27)		N/A
	In case of doubt electric strength test of 16.3 (IEC 60335-2-27)		N/A
22	CONSTRUCTION		P
22.1	Appliance marked with the first numeral of the IP system, relevant requirements of IEC 60529 are fulfilled		P
22.2	Stationary appliance: means to ensure all-pole disconnection from the supply being provided:		N/A
	- a supply cord fitted with a plug, or		N/A
	- a switch complying with 24.3, or		N/A
	- a statement in the instruction sheet that a disconnection incorporated in the fixed wiring is to be provided, or		N/A
	- an appliance inlet		N/A
	Single-pole switches and single-pole protective devices for the disconnection of heating elements in single-phase, permanently connected class 01 and class I appliances, connected to the phase conductor		N/A
22.3	Appliance provided with pins: no undue strain on socket-outlets		N/A
	Applied torque not exceeding 0,25 Nm		N/A
	Pull force of 50N to each pin after the appliance has being placed in the heating cabinet; when cooled to room temperature the pins are not displaced by more than 1mm		N/A
	Each pin subjected to a torque of 0,4 Nm; the pins are not rotating, unless		N/A
	rotating does not impair compliance with this standard		N/A
22.4	Appliance for heating liquids and appliance causing undue vibration not provided with pins for insertion into socket-outlets		N/A

IEC 60335-2-27			
Clause	Requirement + Test	Result - Remark	Verdict
22.5	No risk of electric shock when touching pins, for appliances having a capacitor with rated capacitance equal to or greater than 0,1 µF, the appliance being disconnected from the supply at the instant of voltage peak		N/A
	Voltage not exceeding 34 V (V)		N/A
	If compliance relies on the operation of an electronic circuit, the electromagnetic phenomena tests of 19.11.4.3 and 19.11.4.4 are applied		N/A
	The discharge test is then repeated three times, voltage not exceeding 34 V (V)		N/A
22.6	Electrical insulation not affected by condensing water or leaking liquid		N/A
	Electrical insulation of Class II appliances not affected if a hose ruptures or seal leaks		N/A
	In case of doubt, test as described		N/A
22.7	Adequate safeguards against the risk of excessive pressure in appliances containing liquid or gases or having steam-producing devices		N/A
22.8	Electrical connections not subject to pulling during cleaning of compartments to which access can be gained without the aid of a tool, and that are likely to be cleaned in normal use		N/A
22.9	Insulation, internal wiring, windings, commutators and slip rings not exposed to oil, grease or similar substances, unless		N/A
	the substance has adequate insulating properties		N/A
22.10	Not possible to reset voltage-maintained non-self-resetting thermal cut-outs by the operation of an automatic switching device incorporated within the appliance, if:		N/A
	- a non-self-resetting thermal cut-out is required by the standard, and		N/A
	- a voltage maintained non-self-resetting thermal cut-out is used to meet it		N/A
	Non-self-resetting thermal motor protectors have a trip-free action, unless		N/A
	they are voltage maintained		N/A
	Reset buttons of non-self-resetting controls so located or protected that accidental resetting is unlikely		N/A

IEC 60335-2-27			
Clause	Requirement + Test	Result - Remark	Verdict
22.11	Reliable fixing of non-detachable parts that provide the necessary degree of protection against electric shock, moisture or contact with moving parts		N/A
	Obvious locked position of snap-in devices used for fixing such parts		N/A
	No deterioration of the fixing properties of snap-in devices used in parts that are likely to be removed during installation or servicing		N/A
	Tests as described		N/A
22.12	Handles, knobs etc. fixed in a reliable manner, if loosening result in a hazard		P
	Removing or fixing in wrong position of handles, knobs etc. indicating position of switches or similar components not possible, if resulting in a hazard		P
	A choking hazard does not apply to appliances for commercial use		N/A
	Axial force 15 N applied to parts, the shape being so that an axial pull is unlikely to be applied		P
	Axial force 30 N applied to parts, the shape being so that an axial pull is likely to be applied		P
	If the part is removed and can be contained within the small parts cylinder, it is considered to be a choking hazard		N/A
22.13	Unlikely that handles, when gripped as in normal use, make the operator's hand touch parts having a temperature rise exceeding the value specified for handles which are held for short periods only		N/A
22.14	No ragged or sharp edges creating a hazard for the user in normal use, or during user maintenance		P
	No exposed pointed ends of self-tapping screws or other fasteners, likely to be touched by the user in normal use or during user maintenance		P
22.15	Storage hooks and the like for flexible cords smooth and well rounded		N/A
22.16	Automatic cord reels cause no undue abrasion or damage to the sheath of the flexible cord, no breakage of conductors strands and no undue wear of contacts		N/A
	Cord reel tested with 6 000 operations, as specified		N/A
	Electric strength test of 16.3, voltage of 1 000 V applied		N/A

IEC 60335-2-27			
Clause	Requirement + Test	Result - Remark	Verdict
22.17	Spacers not removable from the outside by hand or by means of a screwdriver or a spanner		N/A
22.18	Current-carrying parts and other metal parts resistant to corrosion		P
22.19	Driving belts not relied upon to provide the required level of insulation, unless		N/A
	constructed to prevent inappropriate replacement		N/A
22.20	Direct contact between live parts and thermal insulation effectively prevented, unless		P
	material used is non-corrosive, non-hygroscopic and non-combustible		P
22.21	Wood, cotton, silk, ordinary paper and fibrous or hygroscopic material not used as insulation, unless		P
	impregnated		N/A
	This requirement does not apply to magnesium oxide and mineral ceramic fibres used for the electrical insulation of heating elements		N/A
22.22	Appliances not containing asbestos		P
22.23	Oils containing polychlorinated biphenyl (PCB) not used		P
22.24	Bare heating elements shall be supported to prevent excessive displacement occurring during normal use. (IEC 60335-2-27)		N/A
	The rupture of a heating element shall not give rise to a hazard. (IEC 60335-2-27)		N/A
	The heating element is cut in the most unfavourable place. The conductors shall not come into contact with accessible metal parts or fall out of the appliance. (IEC 60335-2-27)		N/A
22.25	Sagging heating conductors, except in class III appliances or class III constructions that do not contain live parts, cannot come into contact with accessible metal parts		N/A
22.26	For class III constructions the insulation between parts operating at safety extra-low voltage and other live parts complies with the requirements for double or reinforced insulation		N/A
22.27	Parts connected by protective impedance separated by double or reinforced insulation		P

IEC 60335-2-27			
Clause	Requirement + Test	Result - Remark	Verdict
22.28	Metal parts of Class II appliances conductively connected to gas pipes or in contact with water, separated from live parts by double or reinforced insulation		N/A
22.29	Class II appliances permanently connected to fixed wiring so constructed that the required degree of access to live parts is maintained after installation		N/A
22.30	Parts serving as supplementary or reinforced insulation fixed so that they cannot be removed without being seriously damaged, or		P
	so constructed that they cannot be replaced in an incorrect position, and so that if they are omitted, the appliance is rendered inoperable or manifestly incomplete		P
22.31	Neither clearances nor creepage distances over supplementary and reinforced insulation reduced below values specified in clause 29 as a result of wear		P
	Neither clearances nor creepage distances between live parts and accessible parts reduced below values for supplementary insulation if wires, screws etc. become loose		P
22.32	Supplementary and reinforced insulation constructed or protected against pollution so that clearances or creepage distances are not reduced below the values in clause 29		P
	Supplementary insulation of natural or synthetic rubber resistant to ageing, or arranged and dimensioned so that creepage distances are not reduced below values specified in 29.2		N/A
	Ceramic material not tightly sintered, similar materials or beads alone not used as supplementary or reinforced insulation		N/A
	Ceramic and similar porous material in which heating conductors are embedded is considered to be basic insulation, not reinforced insulation		N/A
	Oxygen bomb test at 70 °C for 96 h and 16 h at room temperature		N/A
22.33	Conductive liquids that are or may become accessible in normal use and conductive liquids that are in contact with unearthed accessible metal parts are not in direct contact with live parts, or		N/A
	unearthed metal parts separated from live parts by basic insulation only		N/A

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IEC 60335-2-27			
Clause	Requirement + Test	Result - Remark	Verdict
	Electrodes not used for heating liquids		N/A
	For class II constructions, conductive liquids that are or may become accessible in normal use and conductive liquids that are in contact with unearthed accessible metal parts, not in direct contact with basic or reinforced insulation, unless		N/A
	the reinforced insulation consists of at least 3 layers		N/A
	For class II constructions, conductive liquids which are in contact with live parts, not in direct contact with reinforced insulation, unless		N/A
	the reinforced insulation consists of at least 3 layers		N/A
	An air layer not used as basic or supplementary insulation in a double insulation system if likely to be bridged by leaking liquid		N/A
22.34	Shafts of operating knobs, handles, levers etc. not live, unless		P
	the shaft is not accessible when the part is removed		N/A
22.35	For other than class III constructions, handles, levers and knobs, held or actuated in normal use, not becoming live in the event of a failure of basic insulation		P
	Such parts being of metal, and their shafts or fixings are likely to become live in the event of a failure of basic insulation, are either adequately covered by insulation material or their accessible parts are separated from their shafts or fixings by supplementary insulation		N/A
	The requirement does not apply to handles, levers and knobs which are only intended for short time use such as those touched during entering or leaving the appliance. (IEC 60335-2-27)		N/A
	This requirement does not apply to handles, levers and knobs on cordless appliances, other than those of electrical components, provided they are reliably connected to an earthing terminal or earthing contact, or separated from live parts by earthed metal. (IEC 60335-2-27)		N/A
	Insulating material covering metal handles, levers and knobs withstand the electric strength test of 16.3 for supplementary insulation		N/A

IEC 60335-2-27			
Clause	Requirement + Test	Result - Remark	Verdict
22.36	For appliances other than class III, handles continuously held in the hand in normal use so constructed that when gripped as in normal use, the operators hand is not likely to touch metal parts, unless		N/A
	they are separated from live parts by double or reinforced insulation		N/A
22.37	Capacitors in Class II appliances not connected to accessible metal parts and their casings, if of metal, separated from accessible metal parts by supplementary insulation, unless		N/A
	the capacitors comply with 22.42		N/A
22.38	Capacitors not connected between the contacts of a thermal cut-out		N/A
22.39	Lamp holders used only for the connection of lamps		N/A
22.40	Motor-operated appliances and combined appliances intended to be moved while in operation, or having accessible moving parts, fitted with a switch to control the motor. The actuating member of the switch being easily visible and accessible		N/A
	If the appliance cannot operate continuously, automatically or remotely without giving rise to a hazard, appliances for remote operation being fitted with a switch for stopping the operation. The actuating member of the switch being easily visible and accessible		N/A
22.41	No components, other than lamps, containing mercury		P
22.42	Protective impedance consisting of at least two separate components		N/A
	Values specified in 8.1.4 not exceeded if any one of the components are short-circuited or open-circuited		N/A
	Resistors checked by the test of 14.1 a) in IEC 60065		N/A
	Capacitors checked by the tests for class Y capacitors in IEC 60384-14		N/A
22.43	Appliances adjustable for different voltages, accidental changing of the setting of the voltage unlikely to occur		N/A
22.44	Appliances not having an enclosure that is shaped or decorated like a toy		P

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IEC 60335-2-27			
Clause	Requirement + Test	Result - Remark	Verdict
22.45	When air is used as reinforced insulation, clearances not reduced below the values specified in 29.1.3 due to deformation as a result of an external force applied to the enclosure		P
22.46	For programmable protective electronic circuits used to ensure compliance with the standard, the software contains measures to control the fault/error conditions in table R.1		N/A
	Software that contains measures to control the fault/error conditions specified in table R.2 is to be specified in parts 2 for particular constructions or to address specific hazards		N/A
	These requirements are not applicable to software used for functional purpose or compliance with clause 11		N/A
22.47	Appliances connected to the water mains withstand the water pressure expected in normal use		N/A
	No leakage from any part, including any inlet water hose		N/A
22.48	Appliances connected to the water mains constructed to prevent backsiphonage of non-potable water		N/A
22.49	For remote operation, the duration of operation is to be set before the appliance can be started, unless		N/A
	the appliance switches off automatically or can operate continuously without hazard		N/A
22.50	Controls incorporated in the appliance take priority over controls actuated by remote operation		N/A
22.51	There is a control on the appliance manually adjusted to the setting for remote operation before the appliance can be operated in this mode		N/A
	There is a visual indication showing that the appliance is adjusted for remote operation		N/A
	These requirements not necessary on appliances that can operate as follows, without giving rise to a hazard:		N/A
	- continuously, or		N/A
	- automatically, or		N/A
	- remotely		N/A
22.52	Socket-outlets on appliances accessible to the user in accordance with the socket-outlet system used in the country in which the appliance is sold		N/A

IEC 60335-2-27			
Clause	Requirement + Test	Result - Remark	Verdict
22.53	Class II appliances and class III appliances that incorporate functionally earthed parts have at least double insulation or reinforced insulation between live parts and the functionally earthed parts		N/A
22.54	Button cells and batteries designated R1 not accessible without the aid of a tool, unless		N/A
	the cover of their compartment can only be opened after at least two independent movements have been applied simultaneously		N/A
22.55	Devices operated to stop the intended function of the appliance, if any, are be distinguished from other manual devices by means of shape, size, surface texture or position		N/A
	The requirement concerning position does not preclude use of a push on push off switch		N/A
	An indication when the device has been operated is given by:		N/A
	- tactile feedback from the actuator or from the appliance, or		N/A
	- reduction in heat output; or		N/A
	- audible and visible feedback		N/A
22.56	Detachable power supply part provided with the part of class III construction		N/A
22.57	The properties of non-metallic materials do not degrade from exposure to UV-C radiation, as specified in Annex T		N/A
	This requirement does not apply to glass, ceramics or similar materials		N/A
22.101	Appliances having a lid that has to be opened in normal use shall be constructed so that the lid does not close inadvertently. (IEC 60335-2-27)		N/A
	The lid shall remain in the open position when the appliance is placed in any normal position of use on a plane inclined at an angle of 15 ° to the horizontal. (IEC 60335-2-27)		N/A
22.102	Appliances incorporating parts that are suspended or intended to be raised and lowered over a person shall incorporate a safety device to prevent injury if the suspension means fails or there is excessive travel of the part. (IEC 60335-2-27)		N/A

IEC 60335-2-27			
Clause	Requirement + Test	Result - Remark	Verdict
22.103	Emitters intended for full body exposure or used over a person shall be protected against accidental damage. (IEC 60335-2-27)		P
	It shall not be possible to touch the emitter with the cylindrical rod, having a diameter of 100 mm ± 1 mm and a hemispherical end, while applying a force of 5 N. (IEC 60335-2-27)		P
22.104	Fixed appliances intended to be used over a person shall have means for fixing that are protected against loosening. (IEC 60335-2-27)		N/A
22.105	UV appliances that are inclined at an angle of more than 35 ° to the vertical shall be constructed so that the emission of ultraviolet radiation is automatically stopped if the timer fails. (IEC 60335-2-27)		N/A
	The appliance is supplied at rated voltage and operated under normal operation. A fault in the timer is simulated. The emission of ultraviolet radiation shall cease before the exposure time has exceeded 100 % of the set value. (IEC 60335-2-27)		N/A
	If compliance relies on the operation of an electronic circuit, the appliance is further tested. (IEC 60335-2-27)		N/A
	The appliance is supplied at rated voltage and operated under normal operation. The fault conditions in a) to g) of 19.112 are applied one at a time to the electronic circuit of the timer. (IEC 60335-2-27)		N/A
	- The emission of ultraviolet radiation shall cease before the exposure time has exceeded 110 % of the set value (IEC 60335-2-27)		N/A
	- and the appliance shall not be capable of further use without repair. (IEC 60335-2-27)		N/A
	If the electronic circuit is programmable, the software: (IEC 60335-2-27)		N/A
	- shall contain measures to control the fault / error conditions specified in Table R.1 (IEC 60335-2-27)		N/A
	- and is evaluated in accordance with the relevant requirements of Annex R. (IEC 60335-2-27)		N/A
22.106	UV appliances shall be provided with a timer that terminates the emission of ultraviolet radiation. (IEC 60335-2-27)		N/A
	- The timer shall be incorporated in the appliance or, (IEC 60335-2-27)		N/A

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IEC 60335-2-27			
Clause	Requirement + Test	Result - Remark	Verdict
	- for appliances intended to be permanently connected to fixed wiring, be supplied for incorporation in the wiring system. (IEC 60335-2-27)		N/A
	The settings marked on the timer shall be compatible with the times specified in the recommended schedule of exposure, (IEC 60335-2-27)		N/A
	the highest setting providing an exposure dose not exceeding 600 J/m ² . (IEC 60335-2-27)		N/A
	Compliance is checked by inspection, by measurement and by calculating the exposure dose from the total effective irradiance determined during the test of 32.101, weighted according to the erythema action spectrum of Figure 103. (IEC 60335-2-27)		N/A
22.107	Metal parts in contact with the skin and which support the body in normal use shall not be earthed. (IEC 60335-2-27)		N/A
	The requirement does not apply to hinges or other parts of the enclosure, such as handles, levers and knobs that could be touched when entering or leaving the appliance. (IEC 60335-2-27)		N/A
22.108	Appliances intended to be fixed to a wall by screws or other permanent fixing devices shall be constructed so that the method of fixing is obvious or specified in the installation instructions. (IEC 60335-2-27)		P
22.109	Guards intended to prevent inadvertent ignition of flammable material shall be securely attached to the appliance so that it is not possible to detach them completely without the aid of a tool. (IEC 60335-2-27)		N/A
22.110	UV appliances shall incorporate a control that terminates the emission of radiation. (IEC 60335-2-27)		N/A
	The control shall be easily accessible to the user during exposure and be readily identified by touch and sight. (IEC 60335-2-27)		N/A

IEC 60335-2-27			
Clause	Requirement + Test	Result - Remark	Verdict
22.111	For appliances that are marked with a fluorescent UV lamp equivalency code range, the limits of the range shall be as follows: (IEC 60335-2-27)		N/A
	- for the X component of the range: (IEC 60335-2-27)		N/A
	- the upper limit of the range shall be equal to the total erythema effective UV irradiance of the originally supplied fluorescent UV lamp and that is used during type testing; (IEC 60335-2-27)		N/A
	- the lower limit of the range shall be equal to 0,75 times the upper limit of the range; (IEC 60335-2-27)		N/A
	- for the Y component of the range, (IEC 60335-2-27)		N/A
	- the lower limit of the range shall be equal to 0,75 times the arithmetic mean value of the range; (IEC 60335-2-27)		N/A
	- the upper limit of the range shall be equal to 1,25 times the arithmetic mean value of the range. (IEC 60335-2-27)		N/A
22.112	Appliances fitted with UV filters shall be constructed so that the emission of UV radiation is not increased if the filter is removed. (IEC 60335-2-27)		N/A
	If compliance relies on the operation of an electronic circuit. the appliance is further tested as follows: (IEC 60335-2-27)		N/A
	The appliance is supplied at rated voltage and the filter is removed. The appliance shall comply with 32.101 while the fault conditions in a) to g) of 19.112 are then applied one at a time to the electronic circuit. (IEC 60335-2-27)		N/A
	If the electronic circuit is programmable, the software (IEC 60335-2-27)		N/A
	- shall contain measures to control the fault / error conditions specified in Table R1 (IEC 60335-2-27)		N/A
	- and is evaluated in accordance with the relevant requirements of Annex R. (IEC 60335-2-27)		N/A
22.113	Appliances completely surrounding a person shall be capable of being opened from the inside without the use of any electrical means. (IEC 60335-2-27)		N/A

IEC 60335-2-27			
Clause	Requirement + Test	Result - Remark	Verdict
	Appliances that the user may lock from the inside shall include provision to gain access from outside of the appliance when the appliance is locked. (IEC 60335-2-27)		N/A
	The appliance is disconnected from any electrical source of supply with doors and lids closed. (IEC 60335-2-27)		N/A
	The force shall be applied at a rate not exceeding 15 N/s and the lid or door shall open before the force exceeds 150 N. (Point – Force (N)): (IEC 60335-2-27)		N/A
22.114	Appliances for commercial use only that completely surround a person and that can be locked from the inside shall include provision for the operator to gain access to the appliance from the outside. (IEC 60335-2-27)		N/A
22.115	Glass parts of broken high-pressure metal halide lamps shall not: (IEC 60335-2-27)		N/A
	- be ejected from the appliance or (IEC 60335-2-27)		N/A
	- contact a user or (IEC 60335-2-27)		N/A
	- cause a fire hazard if they contact non-metallic parts of the appliance. (IEC 60335-2-27)		N/A
	Non-metallic material that may be contacted by parts of broken high-pressure metal halide lamps shall comply with IEC 60695-2-11 without ignition at a test severity of 750 °C. (IEC 60335-2-27)		N/A
	The glow-wire test need not be carried out on parts that have a glow-wire ignition temperature according to IEC 60595-2-13 of at least 775 °C. (IEC 60335-2-27)		N/A
23	INTERNAL WIRING		P
23.1	Wireways smooth and free from sharp edges		P
	Wires protected against contact with burrs, cooling fins etc.		P
	Wire holes in metal well-rounded or provided with bushings		N/A
	Wiring effectively prevented from coming into contact with moving parts		P
23.2	Beads etc. on live wires cannot change their position, and are not resting on sharp edges		N/A

IEC 60335-2-27			
Clause	Requirement + Test	Result - Remark	Verdict
	Beads inside flexible metal conduits contained within an insulating sleeve		N/A
23.3	Electrical connections and internal conductors movable relatively to each other not exposed to undue stress		N/A
	Flexible metallic tubes not causing damage to insulation of conductors		N/A
	Open-coil springs not used		N/A
	Adequate insulating lining provided inside a coiled spring, the turns of which touch one another		N/A
	No damage after 10 000 flexings for conductors flexed during normal use, or		N/A
	100 flexings for conductors flexed during user maintenance		N/A
	The number of flexings for conductors that are only flexed when the appliance is stored is 5 000. (IEC 60335-2-27)		N/A
	The number of flexings for conductors flexed in normal use is increased to 50 000. (IEC 60335-2-27)		N/A
	Electric strength test of 16.3, 1 000 V between live parts and accessible metal parts		N/A
	Not more than 10 % of the strands of any conductor broken, and		N/A
	not more than 30 % for wiring supplying circuits that consume no more than 15 W		N/A
23.4	Bare internal wiring sufficiently rigid and fixed		N/A
23.5	The insulation of internal wiring subjected to the supply mains voltage withstanding the electrical stress likely to occur in normal use		P
	Basic insulation electrically equivalent to the basic insulation of cords complying with IEC 60227 or IEC 60245, or		P
	no breakdown when a voltage of 2000 V is applied for 15 min between the conductor and metal foil wrapped around the insulation		P
	For class II construction, the requirements for supplementary insulation and reinforced insulation apply,		N/A
	except that the sheath of a cord complying with IEC 60227 or IEC 60245 may provide supplementary insulation.		N/A

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IEC 60335-2-27			
Clause	Requirement + Test	Result - Remark	Verdict
	A single layer of internal wiring insulation does not provide reinforced insulation		N/A
23.6	Sleeving used as supplementary insulation on internal wiring retained in position by clamping at both ends, or		P
	be such that it can only be removed by breaking or cutting		P
23.7	The colour combination green/yellow only used for earthing conductors		P
23.8	Aluminium wires not used for internal wiring		P
23.9	Stranded conductors not consolidated by soldering where they are subjected to contact pressure, unless		P
	the contact pressure is provided by spring terminals		P
23.10	The insulation and sheath of internal wiring, incorporated in external hoses for the connection of an appliance to the water mains, at least equivalent to that of light polyvinyl chloride sheathed flexible cord (60227 IEC 52)		P
24	COMPONENTS		P
24.1	Components comply with safety requirements in relevant IEC standards		P
	List of components : (see appended table)		P
	Motors not required to comply with IEC 60034-1, they are tested as part of the appliance		P
	Relays tested as part of the appliance, or		N/A
	alternatively acc. to IEC 60730-1, and meeting the additional requirements in IEC 60335-1		N/A
	The requirements of Clause 29 apply between live parts of components and accessible parts of the appliance		P
	Components can comply with the requirements for clearances and creepage distances for functional insulation in the relevant component standard		P
	30.2 of this standard apply to parts of non-metallic material in components including parts of non-metallic material supporting current-carrying connections		P
	Components that have not been previously tested to comply with the IEC standard for the relevant component are tested according to the requirements of 30.2		P

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IEC 60335-2-27			
Clause	Requirement + Test	Result - Remark	Verdict
	Components that have been previously tested to comply with the resistance to fire requirements in the IEC standard for the relevant component need not be retested provided the specified conditions are met		P
	If these conditions are not satisfied, the component is tested as part of the appliance.		P
	Power electronic converter circuits not required to comply with IEC 62477-1, they are tested as part of the appliance		N/A
	If components have not been tested and found to comply with relevant IEC standard for the number of cycles specified, they are tested in accordance with 24.1.1 to 24.1.9		N/A
	For components mentioned in 24.1.1 to 24.1.9 no additional tests specified in the relevant component standard are necessary other than those specified in 24.1.1 to 24.1.9		P
	Components not tested and found to comply with relevant IEC standard and components not marked or not used in accordance with its marking, tested under the conditions occurring in the appliance		P
	Lampholders and starterholders that have not being tested and found to comply with the relevant IEC standard, tested as a part of the appliance and additionally according to the gauging and interchangeability requirements of the relevant IEC standard		N/A
	If the current flowing through the terminals of lampholders or ballasts exceeds the rated value, the terminal shall comply with 15.6 of IEC 60598-1:2008 while the current for the test is 1,1 times the current measured when the appliance is operated at rated voltage. (IEC 60335-2-27)		N/A
	No additional tests specified for nationally standardized plugs such as those detailed in IEC/TR 60083 or connectors complying with the standard sheets of IEC 60320-1 and IEC 60309		N/A
24.1.1	Capacitors likely to be permanently subjected to the supply voltage and used for radio interference suppression or for voltage dividing, comply with IEC 60384-14		P
	If the capacitors have to be tested, they are tested according to Annex F		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
24.1.2	Transformers in associated switch mode power supplies comply with Annex BB of IEC 61558-2-16		N/A
	Safety isolating transformers comply with IEC 61558-2-6		N/A
	If they have to be tested, they are tested according to Annex G		P
24.1.3	Switches comply with IEC 61058-1, the number of cycles of operation being at least 10 000	Approved switch used	P
	If they have to be tested, they are tested according to Annex H		N/A
	If the switch operates a relay or contactor, the complete switching system is subjected to the test		N/A
	If the switch only operates a motor starting relay complying with IEC 60730-2-10 with the number of cycles of a least 10 000 as specified, the complete switching system need not be tested		N/A
24.1.4	Automatic controls comply with IEC 60730-1 with the relevant part 2. The number of cycles of operation being at least:		N/A
	- thermostats:	10 000	N/A
	- temperature limiters:	1 000	N/A
	- self-resetting thermal cut-outs:	300	N/A
	- voltage maintained non-self-resetting thermal cut-outs:	1 000	N/A
	- other non-self-resetting thermal cut-outs:	30	N/A
	- timers:	3 000	N/A
	- energy regulators:	10 000	N/A
	The number of cycles for controls operating during clause 11 need not be declared, if the appliance meets the requirements of this standard when they are short-circuited		N/A
	Thermal motor protectors are tested in combination with their motor under the conditions specified in Annex D		N/A
	For water valves containing live parts and that are incorporated in external hoses for connection of an appliance to the water mains, the degree of protection declared for subclause 6.5.2 of IEC 60730-2-8 is IPX7		N/A
	Thermal cut-outs of the capillary type comply with the requirements for type 2.K controls in IEC 60730-2-9		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
24.1.5	Appliance couplers comply with IEC 60320-1		P
	However, for class II appliances classified higher than IPX0, the appliance couplers comply with IEC 60320-2-3		N/A
	Interconnection couplers comply with IEC 60320-2-2		P
24.1.6	Small lamp holders similar to E10 lampholders comply with IEC 60238, the requirements for E10 lampholders being applicable		N/A
24.1.7	For remote operation of the appliance via a telecommunication network, the relevant standard for the telecommunication interface circuitry in the appliance is IEC 62151		N/A
24.1.8	The relevant standard for thermal links is IEC 60691		P
	Thermal links not complying with IEC 60691 are considered to be an intentionally weak part for the purposes of Clause 19		N/A
24.1.9	Contactors and relays, other than motor starting relays, tested as part of the appliance		N/A
	They are also tested in accordance with Clause 17 of IEC 60730-1, the number of cycles of operations in 24.1.4 selected according to the contactor or relay function in the appliance		N/A
24.2	Appliances not fitted with:		P
	- switches, automatic controls or power supplies in flexible cords, except		P
	- switches controlling a motor for raising or lowering part of the appliance, and (IEC 60335-2-27)		N/A
	- switches of portable appliances having a rated current not exceeding 2 A. (IEC 60335-2-27)		N/A
	- devices causing the protective device in the fixed wiring to operate in the event of a fault in the appliance		P
	- thermal cut-outs that can be reset by soldering, unless		N/A
	- the solder has a melting point of at least 230 °C		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
24.3	Switches intended for all-pole disconnection of stationary appliances are directly connected to the supply terminals and have a contact separation in all poles, providing full disconnection under overvoltage category III conditions		N/A
24.4	Plugs and socket-outlets for extra-low voltage circuits and heating elements, not interchangeable with plugs and socket-outlets listed in IEC/TR 60083 or IEC 60906-1 or with connectors and appliance inlets complying with the standard sheets of IEC 60320-1		N/A
24.5	Capacitors in auxiliary windings of motors marked with their rated voltage and capacitance, and used accordingly		N/A
	Voltage across capacitors in series with a motor winding does not exceed 1,1 times rated voltage, when the appliance is supplied at 1,1 times rated voltage under minimum load		N/A
24.6	Working voltage of motors connected to the supply mains and having basic insulation that is inadequate for the rated voltage of the appliance, not exceeding 42 V		N/A
	In addition, the motors comply with the requirements of Annex I		N/A
24.7	Detachable hose-sets for connection of appliances to the water mains comply with IEC 61770		N/A
	They are supplied with the appliance		N/A
	Appliances intended to be permanently connected to the water mains not connected by a detachable hose-set		N/A
24.8	Motor running capacitors in appliances for which 30.2.3 is applicable and that are permanently connected in series with a motor winding, not causing a hazard in event of a failure		N/A
	One or more of the following conditions are to be met:		N/A
	- the capacitors are of class S2 or S3 according to IEC 60252-1		N/A
	- the capacitors are housed within a metallic or ceramic enclosure		N/A
	- the distance of separation of the outer surface to adjacent non-metallic parts exceeds 50 mm		N/A
	- adjacent non-metallic parts within 50 mm withstand the needle-flame test of Annex E		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- adjacent non-metallic parts within 50 mm classified as at least V-1 according to IEC 60695-11-10		N/A
25	SUPPLY CONNECTION AND EXTERNAL FLEXIBLE CORDS		P
25.1	Appliance not intended for permanent connection to fixed wiring, means for connection to the supply:		P
	- supply cord fitted with a plug, the current rating and voltage rating of the plug being not less than the corresponding ratings of its associated appliance		N/A
	- an appliance inlet having at least the same degree of protection against moisture as required for the appliance, or		P
	- pins for insertion into socket-outlets		N/A
25.2	Appliance not provided with more than one means of connection to the supply mains		P
	Stationary appliance for multiple supply may be provided with more than one means of connection, provided electric strength test of 1250 V for 1 min between each means of connection causes no breakdown		N/A
25.3	Appliance intended to be permanently connected to fixed wiring provided with one of the following means for connection to the supply mains:		N/A
	- a set of terminals allowing the connection of a flexible cord		N/A
	- a fitted supply cord		N/A
	- a set of supply leads accommodated in a suitable compartment		N/A
	- a set of terminals for the connection of cables of fixed wiring, cross-sectional areas specified in 26.6, and the appliance allows the connection of the supply conductors after the appliance has been fixed to its support		N/A
	- a set of terminals and cable entries, conduit entries, knock-outs or glands, allowing connection of appropriate types of cable or conduit, and the appliance allows the connection of the supply conductors after the appliance has been fixed to its support		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	For a fixed appliance constructed so that parts can be removed to facilitate easy installation, this requirement is met if it is possible to connect the fixed wiring without difficulty after a part of the appliance has been fixed to its support		N/A
25.4	Cable and conduit entries, rated current of appliance not exceeding 16 A, dimension according to table 10 (mm)		N/A
	Introduction of conduit or cable does not reduce clearances or creepage distances below values specified in clause 29		N/A
25.5	Method for assembling the supply cord to the appliance:		P
	- type X attachment		N/A
	- type Y attachment		P
	- type Z attachment, if allowed in relevant part 2		N/A
	Type X attachment, other than those with a specially prepared cord, not used for flat twin tinsel cords		N/A
	For multi-phase appliances supplied with a supply cord and that are intended to be permanently connected to fixed wiring, the supply cord is assembled to the appliance by type Y attachment		N/A
25.6	Plugs fitted with only one flexible cord		N/A
25.7	Supply cords, other than for class III appliances, being one of the following types:		P
	- rubber sheathed (at least 60245 IEC 53)		N/A
	- polychloroprene sheathed (at least 60245 IEC 57)		N/A
	- polyvinyl chloride sheathed. Not used if they are likely to touch metal parts having a temperature rise exceeding 75 K during the test of clause 11		P
	• light polyvinyl chloride sheathed cord (60227 IEC 52), for appliances not exceeding 3 kg		N/A
	• ordinary polyvinyl chloride sheathed cord (60227 IEC 53), for other appliances		P
	- heat resistant polyvinyl chloride sheathed. Not used for type X attachment other than specially prepared cords		N/A
	• heat-resistant light polyvinyl chloride sheathed cord (60227 IEC 56), for appliances not exceeding 3 kg		N/A
	• heat-resistant polyvinyl chloride sheathed cord (60227 IEC 57), for other appliances		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- halogen-free, low smoke, thermoplastic insulated and sheathed		N/A
	• light duty halogen-free low smoke flexible cable (62821 IEC 101) for circular cable and (62821 IEC 101f) for flat cable		N/A
	• Ordinary duty halogen-free low smoke flexible cable (62821 IEC 102) for circular cable and (62821 IEC 102f) for flat cable		N/A
	Supply cords for class III appliances adequately insulated		N/A
	Test with 500 V for 2 min for supply cords of class III appliances that contain live parts		N/A
	Supply cords having a rubber sheath or a sheath of other material likely to be affected by ultraviolet radiation shall not be used. (IEC 60335-2-27)		N/A
25.8	Nominal cross-sectional area of supply cords not less than table 11; rated current (A); cross-sectional area (mm ²)	Rated current (A): A; cross-sectional area (mm ²):	P
25.9	Supply cords not in contact with sharp points or edges		P
25.10	Supply cord of class I appliances have a green/yellow core for earthing		P
	In multi-phase appliances, the colour of the neutral conductor of the supply cord is blue		N/A
	Where additional neutral conductors are provided in the supply cord:		N/A
	- other colours may be used for these additional neutral conductors;		N/A
	- all of the neutral conductors and line conductors are identified by marking using the alpha numeric notation specified in IEC 60445		N/A
	- the supply cord is fitted to the appliance		N/A
25.11	Conductors of supply cords not consolidated by soldering where they are subject to contact pressure, unless		P
	the contact pressure is provided by spring terminals		N/A
25.12	Insulation of the supply cord not damaged when moulding the cord to part of the enclosure		N/A
25.13	Inlet openings so constructed as to prevent damage to the supply cord		P

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Clause	Requirement + Test	Result - Remark	Verdict
	If it is not evident that the supply cord can be introduced without risk of damage, a non-detachable lining or bushing complying with 29.3 for supplementary insulation provided		N/A
	If unsheathed supply cord, a similar additional bushing or lining is required, unless the appliance is		N/A
	class 0, or		N/A
	a class III appliance not containing live parts		N/A
25.14	Supply cords moved while in operation adequately protected against excessive flexing		N/A
	Flexing test, as described:		N/A
	- applied force (N)		N/A
	- number of flexings		N/A
	The test does not result in:		N/A
	- short-circuit between the conductors, such that the current exceeds a value of twice the rated current		N/A
	- breakage of more than 10% of the strands of any conductor		N/A
	- separation of the conductor from its terminal		N/A
	- loosening of any cord guard		N/A
	- damage to the cord or the cord guard		N/A
	- broken strands piercing the insulation and becoming accessible		N/A
25.15	For appliances with supply cord and appliances to be permanently connected to fixed wiring by a flexible cord, conductors of the supply cord relieved from strain, twisting and abrasion by use of cord anchorage		P
	The cord cannot be pushed into the appliance to such an extent that the cord or internal parts of the appliance can be damaged		P
	Pull and torque test of supply cord:		P
	- fixed appliances: pull 100 N; torque (not on automatic cord reel) (Nm)	0,35Nm	P
	- other appliances: values shown in table 12: mass (kg); pull (N); torque (not on automatic cord reel) (Nm)		N/A
	Cord not damaged and max. 2 mm displacement of the cord	1,0mm	P

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Clause	Requirement + Test	Result - Remark	Verdict
25.16	Cord anchorages for type X attachments constructed and located so that:		N/A
	- replacement of the cord is easily possible		N/A
	- it is clear how the relief from strain and the prevention of twisting are obtained		N/A
	- they are suitable for different types of supply cord		N/A
	- cord cannot touch the clamping screws of cord anchorage if these screws are accessible, unless		N/A
	they are separated from accessible metal parts by supplementary insulation		N/A
	- the cord is not clamped by a metal screw which bears directly on the cord		N/A
	- at least one part of the cord anchorage securely fixed to the appliance, unless		N/A
	it is part of a specially prepared cord		N/A
	- screws which have to be operated when replacing the cord do not fix any other component, unless		N/A
	the appliance becomes inoperative or incomplete or the parts cannot be removed without a tool		N/A
	- if labyrinths can be bypassed the test of 25.15 is nevertheless withstood		N/A
	- for class 0, 0I and I appliances they are of insulating material or are provided with an insulating lining, unless		N/A
	failure of the insulation of the cord does not make accessible metal parts live		N/A
	- for class II appliances they are of insulating material, or		N/A
	if of metal, they are insulated from accessible metal parts by supplementary insulation		N/A
	After the test of 25.15, under the conditions specified, the conductors have not moved by more than 1 mm in the terminals		N/A
25.17	Adequate cord anchorages for type Y and Z attachment, test with the cord supplied with the appliance	Type Y	P
25.18	Cord anchorages only accessible with the aid of a tool, or		N/A
	Constructed so that the cord can only be fitted with the aid of a tool		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
25.19	Type X attachment, glands not used as cord anchorage in portable appliances		N/A
	Tying the cord into a knot or tying the cord with string not used		N/A
25.20	The conductors of the supply cord for type Y and Z attachment insulated from accessible metal parts	Type Y	P
25.21	Space for supply cord for type X attachment or for connection of fixed wiring constructed:		N/A
	- to permit checking of conductors with respect to correct positioning and connection before fitting any cover		N/A
	- so there is no risk of damage to the conductors or their insulation when fitting the cover		N/A
	- for portable appliances, so that the uninsulated end of a conductor, if it becomes free from the terminal, prevented from contact with accessible metal parts		N/A
	2 N test to the conductor for portable appliances; no contact with accessible metal parts		N/A
25.22	Appliance inlets:		N/A
	- live parts not accessible during insertion or removal		N/A
	Requirement not applicable to appliance inlets complying with IEC 60320-1		N/A
	- connector can be inserted without difficulty		N/A
	- the appliance is not supported by the connector		N/A
	- not for cold conditions if temp. rise of external metal parts exceeds 75 K during clause 11, unless		N/A
	the supply cord is unlikely to touch such metal parts		N/A
25.23	Interconnection cords comply with the requirements for the supply cord, except that:		P
	- the cross-sectional area of the conductors is determined on the basis of the maximum current during clause 11		P
	- the thickness of the insulation may be reduced		N/A
	- for class I or class II appliance with class III construction, the cross sectional areas of the conductors need not comply with 25.8 if specified conditions are met		N/A
	If necessary, electric strength test of 16.3		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
25.24	Interconnection cords not detachable without the aid of a tool if compliance with this standard is impaired when they are disconnected		N/A
25.25	Dimensions of pins that are inserted into socket-outlets compatible with the dimensions of the relevant socket-outlet.		N/A
	Dimensions of pins and engagement face in accordance with the dimensions of the relevant plug in IEC/TR 60083		N/A
26	TERMINALS FOR EXTERNAL CONDUCTORS		P
26.1	Appliances provided with terminals or equally effective devices for connection of external conductors		P
	Terminals only accessible after removal of a non-detachable cover, except		P
	for class III appliances that do not contain live parts		N/A
	Earthing terminals may be accessible if a tool is required to make the connections and means are provided to clamp the wire independently from its connection		P
26.2	Appliances with type X attachment and appliances for the connection of cables of fixed wiring provided with terminals in which connections are made by means of screws, nuts or similar devices, unless		N/A
	the connections are soldered		N/A
	Screws and nuts not used to fix any other component, except		N/A
	internal conductors, if so arranged that they are unlikely to be displaced when fitting the supply conductors		N/A
	If soldered connections used, the conductor so positioned or fixed that reliance is not placed on soldering alone, unless		N/A
	barriers provided so that neither clearances nor creepage distances between live parts and other metal parts reduced below the values for supplementary insulation if the conductor becomes free at the soldered joint		N/A
26.3	Terminals for type X attachment and for connection of cables of fixed wiring so constructed that the conductor is clamped between metal surfaces with sufficient contact pressure but without damaging the conductor		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Terminals fixed so that when the clamping means is tightened or loosened:		N/A
	- the terminal does not become loose		N/A
	- internal wiring is not subjected to stress		N/A
	- neither clearances nor creepage distances are reduced below the values in clause 29		N/A
	Compliance checked by inspection and by the test of subclause 9.6 of IEC 60999-1, the torque applied being equal to two-thirds of the torque specified (Nm)		N/A
	No deep or sharp indentations of the conductors		N/A
26.4	Terminals for type X attachment, except those having a specially prepared cord and those for the connection of cables of fixed wiring, no special preparation of conductors such as by soldering, use of cable lugs, eyelets or similar, and		N/A
	so constructed or placed that conductors prevented from slipping out when clamping screws or nuts are tightened		N/A
26.5	Terminals for type X attachment so located or shielded that if a wire of a stranded conductor escapes, no risk of accidental connection to other parts that result in a hazard		N/A
	Stranded conductor test, 8 mm insulation removed		N/A
	No contact between live parts and accessible metal parts and,		N/A
	for class II constructions, between live parts and metal parts separated from accessible metal parts by supplementary insulation only		N/A
26.6	Terminals for type X attachment and for connection of cables of fixed wiring suitable for connection of conductors with cross-sectional area according to table 13; rated current (A); nominal cross-sectional area (mm ²)		N/A
	If a specially prepared cord is used, terminals need only be suitable for that cord		N/A
26.7	Terminals for type X attachment, except in class III appliances not containing live parts, accessible after removal of a cover or part of the enclosure		N/A
26.8	Terminals for the connection of fixed wiring, including the earthing terminal, located close to each other		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
26.9	Terminals of the pillar type constructed and located as specified		N/A
26.10	Terminals with screw clamping and screwless terminals not used for flat twin tinsel cords, unless		N/A
	conductors ends fitted with means suitable for screw terminals		N/A
	Pull test of 5 N to the connection		N/A
26.11	For type Y and Z attachment, soldered, welded, crimped or similar connections may be used	Type Y	P
	For Class II appliances, the conductor so positioned or fixed that reliance is not placed on soldering, welding or crimping alone		N/A
	If soldering, welding or crimping alone used, barriers provided so that clearances and creepage distances between live parts and other metal parts are not reduced below the values for supplementary insulation if the conductor becomes free		P
27	PROVISION FOR EARTHING		P
27.1	Accessible metal parts of Class 0I and I appliances permanently and reliably connected to an earthing terminal or earthing contact of the appliance inlet		P
	Earthing terminals and earthing contacts not connected to the neutral terminal		P
	Class 0, II and III appliances have no provision for protective earthing		N/A
	Class II appliances and class III appliances can incorporate an earth for functional purposes		N/A
	Safety extra-low voltage circuits not earthed, unless		N/A
	protective extra-low voltage circuits		N/A
27.2	Clamping means of earthing terminals adequately secured against accidental loosening		P
	Terminals for the connection of external equipotential bonding conductors allow connection of conductors of 2,5 to 6 mm ² , and		N/A
	- do not provide earthing continuity between different parts of the appliance, and		N/A
	- conductors cannot be loosened without the aid of a tool		P

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Clause	Requirement + Test	Result - Remark	Verdict
	Requirements not applicable to class II appliances and class III appliances that incorporate an earth for functional purposes		P
27.3	For a detachable part having an earth connection and being plugged into another part of the appliance, the earth connection is made before and separated after current-carrying connections when removing the part		N/A
	For appliances with supply cords, current-carrying conductors become taut before earthing conductor, if the cord slips out of the cord anchorage		P
	Requirements not applicable to class II appliances and class III appliances that incorporate an earth for functional purposes		P
27.4	No risk of corrosion resulting from contact between parts of the earthing terminal and the copper of the earthing conductor or other metal		P
	Parts providing earthing continuity, other than parts of a metal frame or enclosure, have adequate resistance to corrosion		P
	If of steel, these parts provided with an electroplated coating with a thickness at least 5 μm		N/A
	Adequate protection against rusting of parts of coated or uncoated steel, only intended to provide or transmit contact pressure		N/A
	In the body of the earthing terminal is a part of a frame or enclosure of aluminium or aluminium alloys, precautions taken to avoid risk of corrosion		N/A
	Requirements not applicable to class II appliances and class III appliances that incorporate an earth for functional purposes		N/A
27.5	Low resistance of connection between earthing terminal and earthed metal parts		P
	This requirement does not apply to connections providing earthing continuity in the protective extra-low voltage circuit, provided the clearances of basic insulation are based on the rated voltage of the appliance		N/A
	Requirements not applicable to class II appliances and class III appliances that incorporate an earth for functional purposes		N/A
	Resistance not exceeding 0,1 Ω at the specified low-resistance test (Ω)	0,03 Ω	P

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Clause	Requirement + Test	Result - Remark	Verdict
27.6	The printed conductors of printed circuit boards not used to provide earthing continuity in hand-held appliances.		N/A
	They may be used to provide earthing continuity in other appliances if at least two tracks are used with independent soldering points and the appliance complies with 27.5 for each circuit		N/A
	Requirements not applicable to class II appliances and class III appliances that incorporate an earth for functional purposes		N/A
28	SCREWS AND CONNECTIONS		P
28.1	Fixings, electrical connections and connections providing earthing continuity withstand mechanical stresses		P
	Screws not of soft metal liable to creep, such as zinc or aluminium		P
	Diameter of screws of insulating material min. 3 mm		N/A
	Screws of insulating material not used for any electrical connections or connections providing earthing continuity		N/A
	Screws used for electrical connections or connections providing earthing continuity screwed into metal		N/A
	Screws not of insulating material if their replacement by a metal screw can impair supplementary or reinforced insulation		N/A
	For type X attachment, screws to be removed for replacement of supply cord or for user maintenance, not of insulating material if their replacement by a metal screw impairs basic insulation		N/A
	For screws and nuts; torque-test as specified in table 14	(see appended table)	P
28.2	Electrical connections and connections providing earthing continuity constructed so that contact pressure is not transmitted through non-ceramic insulating material liable to shrink or distort, unless		N/A
	there is resiliency in the metallic parts to compensate for shrinkage or distortion of the insulating material		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	This requirement does not apply to electrical connections in circuits of appliances for which:		N/A
	<ul style="list-style-type: none"> • 30.2.2 is applicable and that carry a current not exceeding 0,5 A 		N/A
	<ul style="list-style-type: none"> • 30.2.3 is applicable and that carry a current not exceeding 0,2 A 		N/A
28.3	Space-threaded (sheet metal) screws only used for electrical connections if they clamp the parts together		N/A
	Thread-cutting (self-tapping) screws and thread rolling screws only used for electrical connections if they generate a full form standard machine screw thread		N/A
	Thread-cutting (self-tapping) screws not used if they are likely to be operated by the user or installer		N/A
	Thread-cutting, thread rolling and space threaded screws may be used in connections providing earthing continuity provided it is not necessary to disturb the connection:		N/A
	- in normal use,		N/A
	- during user maintenance,		N/A
	- when replacing a supply cord having a type X attachment, or		N/A
	- during installation		N/A
	At least two screws being used for each connection providing earthing continuity, unless		N/A
	the screw forms a thread having a length of at least half the diameter of the screw		N/A
28.4	Screws and nuts that make mechanical connection secured against loosening if they also make electrical connections or connections providing earthing continuity		P
	This requirement does not apply to screws in the earthing circuit if at least two screws are used, or		N/A
	if an alternative earthing circuit is provided		N/A
	Rivets for electrical connections or connections providing earthing continuity secured against loosening if the connections are subjected to torsion		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
29	CLEARANCES, CREEPAGE DISTANCES AND SOLID INSULATION		P
	Clearances, creepage distances and solid insulation withstand electrical stress		P
	For coatings used on printed circuits boards to protect the microenvironment (Type 1) or to provide basic insulation (Type 2), Annex J applies.....:		N/A
	The microenvironment is pollution degree 1 under type 1 protection		N/A
	For type 2 protection, the spacing between the conductors before the protection is applied is not less than the values specified in Table 1 of IEC 60664-3		N/A
	These values apply to functional, basic, supplementary and reinforced insulation.....:		N/A
29.1	Clearances not less than the values specified in table 16, taking into account the rated impulse voltage for the overvoltage categories of table 15, unless	(see appended table)	P
	for basic insulation and functional insulation they comply with the impulse voltage test of clause 14		N/A
	However, if the distances are affected by wear, distortion, movement of the parts or during assembly, the clearances for rated impulse voltages of 1 500 V and above are increased by 0,5 mm and the impulse voltage test is not applicable		P
	For appliances intended for use at altitudes exceeding 2 000 m, the clearances in Table 16 is increased according to the relevant multiplier values in Table A.2 of IEC 60664-1		N/A
	Impulse voltage test is not applicable:		N/A
	- when the microenvironment is pollution degree 3, or		N/A
	- for basic insulation of class 0 and class 01 appliances, or		N/A
	- to appliances intended for use at altitudes exceeding 2 000 m		N/A
	Appliances are in overvoltage category II		P
	A force of 2 N is applied to bare conductors, other than heating elements		P
	A force of 30 N is applied to accessible surfaces		P

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Clause	Requirement + Test	Result - Remark	Verdict
29.1.1	Clearances of basic insulation withstand the overvoltages, taking into account the rated impulse voltage		P
	The values of table 16 or the impulse voltage test of clause 14 are applicable	(see appended table)	N/A
	Clearance at the terminals of tubular sheathed heating elements may be reduced to 1,0 mm if the microenvironment is pollution degree 1		N/A
	Lacquered conductors of windings considered to be bare conductors		N/A
29.1.2	Clearances of supplementary insulation not less than those specified for basic insulation in table 16 :	(see appended table)	P
29.1.3	Clearances of reinforced insulation not less than those specified for basic insulation in table 16, using the next higher step for rated impulse voltage	(see appended table)	P
	For double insulation, with no intermediate conductive part between basic and supplementary insulation, clearances are measured between live parts and the accessible surface, and the insulation system is treated as reinforced insulation		P
29.1.4	Clearances for functional insulation are the largest values determined from:		P
	- table 16 based on the rated impulse voltage	(see appended table)	P
	- table F.7a in IEC 60664-1, frequency not exceeding 30 kHz		N/A
	- clause 4 of IEC 60664-4, frequency exceeding 30 kHz		N/A
	If values of table 16 are largest, the impulse voltage test of clause 14 may be applied instead, unless		N/A
	the microenvironment is pollution degree 3, or		N/A
	the distances can be affected by wear, distortion, movement of the parts or during assembly		N/A
	However, clearances are not specified if the appliance complies with clause 19 with the functional insulation short-circuited		N/A
	Lacquered conductors of windings considered to be bare conductors		P
	However, clearances at crossover points are not measured		P
	Clearance between surfaces of PTC heating elements may be reduced to 1mm		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
29.1.5	Appliances having higher working voltages than rated voltage, clearances for basic insulation are the largest values determined from:		N/A
	- table 16 based on the rated impulse voltage		N/A
	- table F.7a in IEC 60664-1, frequency not exceeding 30 kHz		N/A
	- clause 4 of IEC 60664-4, frequency exceeding 30 kHz		N/A
	If clearances for basic insulation are selected from Table F.7a of IEC 60664-1 or Clause 4 of IEC 60664-4, the clearances of supplementary insulation are not less than those specified for basic insulation		N/A
	If clearances for basic insulation are selected from Table F.7a of IEC 60664-1, the clearances of reinforced insulation dimensioned as specified in Table F.7a are to withstand 160% of the withstand voltage required for basic insulation		N/A
	If clearances for basic insulation are selected from Clause 4 of IEC 60664-4, the clearances of reinforced insulation are twice the value required for basic insulation		N/A
	If the secondary winding of a step-down transformer is earthed, or if there is an earthed screen between the primary and secondary windings, clearances of basic insulation on the secondary side not less than those specified in table 16, but using the next lower step for rated impulse voltage		N/A
	Circuits supplied with a voltage lower than rated voltage, clearances of functional insulation are based on the working voltage used as the rated voltage in table 15		N/A
29.2	Creepage distances not less than those appropriate for the working voltage, taking into account the material group and the pollution degree	(see appended table)	P
	Pollution degree 2 applies, unless		P
	- precautions taken to protect the insulation; pollution degree 1		N/A
	- insulation subjected to conductive pollution; pollution degree 3		N/A
	A force of 2 N is applied to bare conductors, other than heating elements		P
	A force of 30 N is applied to accessible surfaces		P

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Clause	Requirement + Test	Result - Remark	Verdict
	In a double insulation system, the working voltage for both the basic and supplementary insulation is taken as the working voltage across the complete double insulation system		P
29.2.1	Creepage distances of basic insulation not less than specified in table 17	(see appended table)	P
	However, if the working voltage is periodic and has a frequency exceeding 30 kHz, the creepage distances are also determined from table 2 of IEC 60664-4, these values being used if exceeding the values in table 17		N/A
	Except for pollution degree 1, corresponding creepage distance not less than the minimum specified for the clearance in table 16, if the clearance has been checked according to the test of clause 14		N/A
29.2.2	Creepage distances of supplementary insulation at least those specified for basic insulation in table 17, or	(see appended table)	P
	Table 2 of IEC 60664-4, as applicable		N/A
29.2.3	Creepage distances of reinforced insulation at least double those specified for basic insulation in table 17, or	(see appended table)	P
	Table 2 of IEC 60664-4, as applicable		N/A
29.2.4	Creepage distances of functional insulation not less than specified in table 18	(see appended table)	P
	However, if the working voltage is periodic and has a frequency exceeding 30 kHz, the creepage distances are also determined from table 2 of IEC 60664-4, these values being used if exceeding the values in table 18		N/A
	Creepage distances may be reduced if the appliance complies with clause 19 with the functional insulation short-circuited		N/A
29.3	Supplementary and reinforced insulation have adequate thickness, or a sufficient number of layers, to withstand the electrical stresses.		P
	The requirement does not apply if the insulation is provided by the envelope of an UV emitter or by the glass envelope of an IR emitter. (IEC 60335-2-27)		P
	Compliance checked:		P
	- by measurement, in accordance with 29.3.1, or		P

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Clause	Requirement + Test	Result - Remark	Verdict
	- by an electric strength test in accordance with 29.3.2, or		N/A
	- for insulation, other than single layer internal wiring insulation, by an assessment of the thermal quality of the material combined with an electric strength test, in accordance with 29.3.3, and		N/A
	for accessible parts of reinforced insulation consisting of a single layer, by measurement in accordance with 29.3.4, or		N/A
	- by an assessment of the thermal quality of the material according to 29.3.3 combined with an electric strength test in accordance with 23.5, for each single layer internal wiring insulation touching each other, or		N/A
	- as specified in subclause 6.3 of IEC 60664-4 for insulation that is subjected to any periodic voltage having a frequency exceeding 30 kHz		N/A
29.3.1	Supplementary insulation have a thickness of at least 1 mm		P
	Reinforced insulation have a thickness of at least 2 mm		P
29.3.2	Each layer of material withstand the electric strength test of 16.3 for supplementary insulation		N/A
	Supplementary insulation consist of at least 2 layers		N/A
	Reinforced insulation consist of at least 3 layers		N/A
29.3.3	The insulation is subjected to the dry heat test Bb of IEC 60068-2-2, followed by		N/A
	the electric strength test of 16.3		N/A
	If the temperature rise during the tests of clause 19 does not exceed the value specified in table 3, the test of IEC 60068-2-2 is not carried out		N/A
29.3.4	Thickness of accessible parts of reinforced insulation consisting of a single layer not less than specified in table 19		N/A
30	RESISTANCE TO HEAT AND FIRE		P
30.1	External parts of non-metallic material,		P
	parts supporting live parts, and		P
	parts of thermoplastic material providing supplementary or reinforced insulation		P
	sufficiently resistant to heat		P

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Clause	Requirement + Test	Result - Remark	Verdict
	Ball-pressure test according to IEC 60695-10-2		P
	External parts tested at 40 °C plus the maximum temperature rise determined during the test of clause 11, or at 75 °C, whichever is the higher; temperature (°C)	(see appended table 30.1)	P
	Parts supporting live parts tested at 40 °C plus the maximum temperature rise determined during the test of clause 11, or at 125 °C, whichever is the higher; temperature (°C)	(see appended table 30.1)	P
	Parts of thermoplastic material providing supplementary or reinforced insulation tested at 25 °C plus the maximum temperature rise determined during clause 19, if higher; temperature (°C)	(see appended table 30.1)	N/A
30.2	Parts of non-metallic material resistant to ignition and spread of fire		P
	This requirement does not apply to:		P
	parts having a mass not exceeding 0,5 g, provided the cumulative effect is unlikely to propagate flames that originate inside the appliance by propagating flames from one part to another, or		N/A
	decorative trims, knobs and other parts unlikely to be ignited or to propagate flames that originate inside the appliance		P
	Compliance checked by the test of 30.2.1, and in addition:		P
	- for attended appliances, 30.2.2 applies		P
	- for unattended appliances, 30.2.3 applies		N/A
	For appliances for remote operation, 30.2.3 applies		N/A
	For base material of printed circuit boards, 30.2.4 applies		P
30.2.1	Parts of non-metallic material subjected to the glow-wire test of IEC 60695-2-11 at 550°C	(see appended table 30.2)	P
	However, test not carried out if the material is classified as having a glow-wire flammability index according to IEC 60695-2-12 of at least 550 °C, or		N/A
	the material is classified at least HB40 according to IEC 60695-11-10		N/A
	Parts for which the glow-wire test cannot be carried out need to meet the requirements in ISO 9772 for material classified HBF		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
30.2.2	Appliances operated while attended, parts of non-metallic material supporting current-carrying connections, and		P
	parts of non-metallic material within a distance of 3 mm of such connections,		P
	and all parts, except electrical parts that operate when the appliance is unattended, (IEC 60335-2-27)		P
	subjected to the glow-wire test of IEC 60695-2-11 with appropriate severity level:	(see appended table 30.2)	P
	- 750 °C, for connections carrying a current exceeding 0,5 A during normal operation		P
	- 650 °C, for other connections		P
	Glow-wire applied to an interposed shielding material, if relevant		N/A
	The glow-wire test is not carried out on parts of material classified as having a glow-wire flammability index according to IEC 60695-2-12 of at least:		N/A
	- 750 °C, for connections carrying a current exceeding 0,5 A during normal operation		N/A
	- 650 °C, for other connections		N/A
	The glow-wire test is also not carried out on small parts. These parts are to:		N/A
	- comprise material having a glow-wire flammability index of at least 750 °C, or 650 °C as appropriate, or		N/A
	- comply with the needle-flame test of Annex E, or	(see appended table 30.2/30.2.4)	N/A
	- comprise material classified as V-0 or V-1 according to IEC 60695-11-10		N/A
	Glow-wire test not applicable to conditions as specified		N/A
30.2.3	Electrical parts that operate when the appliance is unattended and (IEC 60335-2-27)		N/A
	Appliances operated while unattended, tested as specified in 30.2.3.1 and 30.2.3.2		N/A
	The tests are not applicable to conditions as specified		N/A
30.2.3.1	Parts of non-metallic material supporting connections carrying a current exceeding 0,2 A during normal operation, and		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	parts of non-metallic material, other than small parts, within a distance of 3 mm,		N/A
	subjected to the glow-wire test of IEC 60695-2-11 with a test severity of 850 °C	(see appended table 30.2)	N/A
	Glow-wire applied to an interposed shielding material, if relevant		N/A
	The glow-wire test is not carried out on parts of material classified as having a glow-wire flammability index according to IEC 60695-2-12 of at least 850 °C		N/A
30.2.3.2	Parts of non-metallic material supporting connections, and		N/A
	parts of non-metallic material within a distance of 3 mm,		N/A
	subjected to the glow-wire test of IEC 60695-2-11 with appropriate severity level:	(see appended table 30.2)	N/A
	- 750 °C, for connections carrying a current exceeding 0,2 A during normal operation		N/A
	- 650 °C, for other connections		N/A
	Glow-wire applied to an interposed shielding material, if relevant		N/A
	However, the glow-wire test of 750 °C or 650 °C as appropriate, is not carried out on parts of material fulfilling both or either of the following classifications:		N/A
	- a glow-wire ignition temperature according to IEC 60695-2-13 of at least:		N/A
	• 775 °C, for connections carrying a current exceeding 0,2 A during normal operation		N/A
	• 675 °C, for other connections		N/A
	- a glow-wire flammability index according to IEC 60695-2-12 of at least:		N/A
	- 750 °C, for connections carrying a current exceeding 0,2 A during normal operation		N/A
	- 650 °C, for other connections		N/A
	The glow-wire test is also not carried out on small parts. These parts are to:		N/A
	- comprise material having a glow-wire ignition temperature of at least 775 °C or 675 °C as appropriate, or		N/A
	- comprise material having a glow-wire flammability index of at least 750 °C or 650 °C as appropriate, or		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- comply with the needle-flame test of Annex E, or		N/A
	- comprise material classified as V-0 or V-1 according to IEC 60695-11-10		N/A
	The consequential needle-flame test of Annex E applied to non-metallic parts that encroach within the vertical cylinder placed above the centre of the connection zone and on top of the non-metallic parts supporting current-carrying connections, and parts of non-metallic material within a distance of 3 mm of such connections if these parts are those:		N/A
	- parts that withstood the glow-wire test of IEC 60695-2-11 of 750 °C or 650 °C as appropriate, but produce a flame that persist longer than 2 s, or		N/A
	- parts that comprised material having a glow-wire flammability index of at least 750 °C or 650 °C as appropriate, or		N/A
	- small parts, that comprised material having a glow-wire flammability index of at least 750 °C or 650 °C as appropriate, or		N/A
	- small parts for which the needle-flame test of Annex E was applied, or		N/A
	- small parts for which a material classification of V-0 or V-1 was applied		N/A
	However, the consequential needle-flame test is not carried out on non-metallic parts, including small parts, within the cylinder that are:		N/A
	- parts having a glow-wire ignition temperature of at least 775 °C or 675 °C as appropriate, or		N/A
	- parts comprising material classified as V-0 or V-1 according to IEC 60695-11-10, or		N/A
	- parts shielded by a flame barrier that meets the needle-flame test of Annex E or that comprises material classified as V-0 or V-1 according to IEC 60695-11-10		N/A
30.2.4	Base material of printed circuit boards subjected to the needle-flame test of Annex E	(see appended table 30.2/30.2.4)	P
	Test not applicable to conditions as specified	V-0	N/A
31	RESISTANCE TO RUSTING		N/A
	Relevant ferrous parts adequately protected against rusting		N/A
	Tests specified in part 2 when necessary		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
32	RADIATION, TOXICITY AND SIMILAR HAZARDS		P
	Appliance does not emit harmful radiation or present a toxic or similar hazard due to their operation in normal use		P
	Compliance is checked by the limits or tests specified in part 2, if relevant		P
32.101	The radiation from UV appliances shall be limited. (IEC 60335-2-27)		N/A
	The appliance is provided with UV emitters that have been aged by supplying them at rated voltage for a period of approximately: (IEC 60335-2-27)		N/A
	- 5 h for fluorescent lamps; (IEC 60335-2-27)		N/A
	- 1 h for high-intensity discharge lamps. (IEC 60335-2-27)		N/A
	The appliance is supplied at rated voltage and operated for approximately half the maximum exposure time allowed by the timer. (min) : (IEC 60335-2-27)		N/A
	Appliances suitable for household use shall have a total effective irradiance, measured according to 32.101.1. and weighted according to the erythema action spectrum of Figure 103, not exceeding: (IEC 60335-2-27)		N/A
	- 0,15 W/m ² for wavelengths up to 320 nm; (IEC 60335-2-27)		N/A
	- 0,15 W/m ² for wavelengths between 320 nm and 400 nm; (IEC 60335-2-27)		N/A
	Appliances for commercial use only shall have a total effective irradiance not exceeding 0,7 W/m ² , weighted according to the erythema action spectrum of Figure 103. (IEC 60335-2-27)		N/A
32.101.1	The irradiance is measured with the measuring instrument being placed so that the highest effective irradiance is recorded at positions which model the human body as follows: (IEC 60335-2-27)		N/A
	- for appliances which expose persons from below; (IEC 60335-2-27)		N/A
	- for appliances that are arranged over a person; (IEC 60335-2-27)		N/A
	- for appliances having upper and lower radiating surfaces; (IEC 60335-2-27)		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- for appliances exposing an upright standing person from all sides; (IEC 60335-2-27)		N/A
	- for appliances where the exposure position is not defined by the construction; (IEC 60335-2-27)		N/A
	- for appliances exposing a sitting person. (IEC 60335-2-27)		N/A
32.102	The radiation from appliances incorporating VIS emitters or IR emitters shall be limited. (IEC 60335-2-27)		P
	Details for the conditioning of the appliance: (IEC 60335-2-27)		P
	Measured radiation of the appliance as detailed in 5.1 of IEC 62471:2006: (IEC 60335-2-27)		P
	Irradiances from shall not exceed the limits of risk group 1 as specified in 6.1 of IEC 62471:2006: (IEC 60335-2-27)		P
32.103	Appliances that are not in the exempt group of IEC 62471 shall be supplied with at least two pairs of protective goggles that ensure adequate front and side protection for the eyes and that provide enough luminous transmittance to make it possible to see through them. (IEC 60335-2-27)		N/A
	The transmission is measured at the centre of each ocular. (IEC 60335-2-27)		N/A
	Bandwidth the spectrophotometer not exceeding 2,5 nm. (IEC 60335-2-27) (nm)		N/A
	Diameter of the beam of light of approximately 5 mm. (IEC 60335-2-27) (mm)		N/A
	Transmission intervals of not more than 5 nm used. (IEC 60335-2-27) (nm)		N/A
	The transmission shall not exceed the values specified in Table 101 and		N/A
	the luminous transmission shall not be less than 1 %. (IEC 60335-2-27) (%)		N/A
A	ANNEX A (INFORMATIVE) ROUTINE TESTS		N/A
	Description of routine tests to be carried out by the manufacturer		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
B	ANNEX B (NORMATIVE) APPLIANCES POWERED BY RECHARGEABLE BATTERIES THAT ARE RECHARGED IN THE APPLIANCE		N/A
	The following modifications to this standard are applicable for appliances powered by batteries that are recharged in the appliance		N/A
	Three forms of construction covered:		N/A
	a) Appliance supplied directly from the supply mains or a renewable energy source, the battery charging circuitry and other supply unit circuitry incorporated within the appliance		N/A
	b) The part of the appliance incorporating the battery is supplied from the supply mains or a renewable energy source, via a detachable supply unit. The battery charging circuitry is incorporated within the part of the appliance containing the battery		N/A
	c) The part of the appliance incorporating the battery is supplied from the supply mains or a renewable energy source, via a detachable supply unit. The battery charging circuitry is incorporated within the detachable supply unit		N/A
3.1.9	Appliance operated under the following conditions:		N/A
	- the appliance, supplied by its fully charged battery, operated as specified in relevant part 2		N/A
	- the battery is charged, the battery being initially discharged to such an extent that the appliance cannot operate		N/A
	- if possible, the appliance is supplied from the supply mains through its battery charger, the battery being initially discharged to such an extent that the appliance cannot operate. The appliance is operated as specified in relevant part 2		N/A
	- if the appliance incorporates inductive coupling between two parts that are detachable from each other, the appliance is supplied from the supply mains with the detachable part removed		N/A
3.6.2	Part to be removed in order to discard the battery is not considered to be detachable		N/A
5.B.101	Appliances supplied from the supply mains tested as specified for motor-operated appliances		N/A
7.1	Battery compartment for batteries intended to be replaced by the user, marked with battery voltage (V) and polarity of the terminals		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	The positive terminal indicated by symbol IEC 60417-5005 and the negative terminal by symbol IEC 60417-5006		N/A
	Appliances intending to be supplied from a detachable supply unit marked with symbol IEC 60417-6181 and its type reference along with symbol ISO 7000-0790 (2004-01), or		N/A
	use only with <model designation> supply unit		N/A
7.6	Additional symbols		N/A
7.12	The instructions give information regarding charging		N/A
	Instructions for appliances incorporating batteries intended to be replaced by the user include required information		N/A
	Instructions for appliances containing non user-replaceable batteries state the substance of the following:		N/A
	This appliance contains batteries that are only replaceable by skilled persons		N/A
	Instructions for appliances containing non-replaceable batteries shall state the substance of the following:		N/A
	This appliance contains batteries that are non-replaceable		N/A
	For appliances intending to be supplied from a detachable supply unit for the purposes of recharging the battery, the type reference of the detachable supply unit is stated along with the following:		N/A
	WARNING: For the purposes of recharging the battery, only use the detachable supply unit provided with this appliance		N/A
	If the symbol for detachable supply unit is used, its meaning is explained		N/A
7.15	Markings placed on the part of the appliance connected to the supply mains		N/A
	The type reference of the detachable supply unit is placed in close proximity to the symbol		N/A
8.2	Appliances having batteries that according to the instruction may be replaced by the user need only have basic insulation between live parts and the inner surface of the battery compartment		N/A
	If the appliance can be operated without batteries, double or reinforced insulation required		N/A
11.7	The battery is charged for the period stated in the instructions or 24 h		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
11.8	Temperature rise of the battery surface does not exceed the limit in the battery manufacturer's specification; measured (K); limit (K)		N/A
	If no limit specified, the temperature rise does not exceed 20 K; measured (K)		N/A
19.1	Appliances subjected to tests of 19.B.101, 19.B.102 and 19.B.103		N/A
19.10	Not applicable		N/A
19.B.101	Appliances supplied at rated voltage for 168 h, the battery being continually charged		N/A
19.B.102	For appliances having batteries that can be removed without the aid of a tool, short-circuit of the terminals of the battery, the battery being fully charged,		N/A
19.B.103	Appliances having batteries replaceable by the user supplied at rated voltage under normal operation with the battery removed or in any position allowed by the construction		N/A
19.13	The battery does not rupture or ignite		N/A
21.B.101	Appliances having pins for insertion into socket-outlets have adequate mechanical strength		N/A
	Part of the appliance incorporating the pins subjected to the free fall test, procedure 2, of IEC 60068-2-31, the number of falls being:		N/A
	- 100, if the mass of the part does not exceed 250 g (g)		N/A
	- 50, if the mass of the part exceeds 250 g		N/A
	After the test, the requirements of 8.1, 15.1.1, 16.3 and clause 29 are met		N/A
22.3	Appliances having pins for insertion into socket-outlets tested as fully assembled as possible		N/A
25.13	An additional lining or bushing not required for interconnection cords in class III appliances or class III constructions operating at safety extra-low voltage not containing live parts		N/A
30.2	For parts of the appliance connected to the supply mains during the charging period, 30.2.3 applies		N/A
	For other parts, 30.2.2 applies		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
C	ANNEX C (NORMATIVE) AGEING TEST ON MOTORS		N/A
	Tests, as described, carried out when doubt with regard to the temperature classification of the insulation of a motor winding		N/A
	Test conditions as specified		N/A
D	ANNEX D (NORMATIVE) THERMAL MOTOR PROTECTORS		N/A
	Applicable to appliances having motors that incorporate thermal motor protectors necessary for compliance with the standard		N/A
	Test conditions as specified		N/A
E	ANNEX E (NORMATIVE) NEEDLE-FLAME TEST		P
	Needle-flame test carried out in accordance with IEC 60695-11-5, with the following modifications:		P
7	Severities		P
	The duration of application of the test flame is 30 s ± 1 s		P
9	Test procedure		P
9.1	The specimen so arranged that the flame can be applied to a vertical or horizontal edge as shown in the examples of Figure 1		P
9.2	The first paragraph does not apply		P
	If possible, the flame is applied at least 10 mm from a corner		N/A
9.3	The test is carried out on one specimen		P
	If the specimen does not withstand the test, the test may be repeated on two additional specimens, both withstanding the test		N/A
11	Evaluation of test results		P
	The duration of burning not exceeding 30 s		P
	However, for printed circuit boards, the duration of burning not exceeding 15 s		P
F	ANNEX F (NORMATIVE) CAPACITORS		N/A
	Capacitors likely to be permanently subjected to the supply voltage, and used for radio interference suppression or voltage dividing, comply with the following clauses of IEC 60384-14, with the following modifications:		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
1.5	Terms and definitions		N/A
1.5.3	Class X capacitors tested according to subclass X2		N/A
1.5.4	This subclause is applicable		N/A
1.6	Marking		N/A
	Items a) and b) are applicable		N/A
3.4	Approval testing		N/A
3.4.3.2	Table 3 is applicable as described		N/A
4.1	Visual examination and check of dimensions		N/A
	This subclause is applicable		N/A
4.2	Electrical tests		N/A
4.2.1	This subclause is applicable		N/A
4.2.5	This subclause is applicable		N/A
4.2.5.2	Only table 11 is applicable		N/A
	Values for test A apply		N/A
	However, for capacitors in heating appliances the values for test B or C apply		N/A
4.12	Damp heat, steady state		N/A
	This subclause is applicable		N/A
	Only insulation resistance and voltage proof are checked		N/A
4.13	Impulse voltage		N/A
	This subclause is applicable		N/A
4.14	Endurance		N/A
	Subclauses 4.14.1, 4.14.3, 4.14.4 and 4.14.7 are applicable		N/A
4.14.7	Only insulation resistance and voltage proof are checked		N/A
	No visible damage		N/A
4.17	Passive flammability test		N/A
	This subclause is applicable		N/A
4.18	Active flammability test		N/A
	This subclause is applicable		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
G	ANNEX G (NORMATIVE) SAFETY ISOLATING TRANSFORMERS		P
	The following modifications to this standard are applicable for safety isolating transformers:		P
7	Marking and instructions		P
7.1	Transformers for specific use marked with:		P
	-name, trademark or identification mark of the manufacturer or responsible vendor	See table 24.1	P
	-model or type reference	See table 24.1	P
17	Overload protection of transformers and associated circuits		P
	Fail-safe transformers comply with subclause 15.5 of IEC 61558-1		P
22	Construction		P
	Subclauses 19.1 and 19.1.2 of IEC 61558-2-6 are applicable		P
29	Clearances, creepage distances and solid insulation		P
29.1, 29.2, 29.3	The distances specified in items 2a, 2c and 3 in table 13 of IEC 61558-1 apply		P
	For insulated winding wires complying with subclause 19.12.3 of IEC 61558-1 there are no requirements for clearances or creepage distances		P
	For windings providing reinforced insulation, the distance specified in item 2c of table 13 of IEC 61558-1 is not assessed		P
	For safety isolating transformers subjected to periodic voltages with a frequency exceeding 30 kHz, the clearances, creepage distances and solid insulation values specified in IEC 60664-4 are applicable, if greater than the values specified in items 2a, 2c and 3 in table 13 of IEC 61558-1		N/A
H	ANNEX H (NORMATIVE) SWITCHES		N/A
	Switches comply with the following clauses of IEC 61058-1, as modified below:		N/A
	The tests of IEC 61058-1 carried out under the conditions occurring in the appliance		N/A
	Before being tested, switches are operated 20 times without load		N/A
8	Marking and documentation		N/A
	Switches are not required to be marked		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	However, a switch that can be tested separately from the appliance marked with the manufacturer's name or trade mark and the type reference		N/A
13	Mechanism		N/A
	The tests may be carried out on a separate sample		N/A
15	Insulation resistance and dielectric strength		N/A
15.1	Not applicable		N/A
15.2	Not applicable		N/A
15.3	Applicable for full disconnection and micro-disconnection		N/A
17	Endurance		N/A
	Compliance is checked on three separate appliances or switches		N/A
	For 17.2.4.4, the number of cycles declared according to 7.1.4 is 10 000, unless		N/A
	otherwise specified in 24.1.3 of the relevant part 2 of IEC 60335		N/A
	Switches for operation under no load and which can be operated only by a tool, and		N/A
	switches operated by hand that are interlocked so that they cannot be operated under load,		N/A
	are not subjected to the tests		N/A
	However, switches without this interlock are subjected to the test of 17.2.4.4 for 100 cycles of operation		N/A
	Subclauses 17.2.2 and 17.2.5.2 not applicable		N/A
	The ambient temperature during the test is that occurring in the appliance during the test of Clause 11 in IEC 60335-1		N/A
	The temperature rise of the terminals not more than 30 K above the temperature rise measured in clause 11 of IEC 60335-1 (K)		N/A
20	Clearances, creepage distances, solid insulation and coatings of rigid printed board assemblies		N/A
	Clause 20 is applicable to clearances across full disconnection and micro-disconnection		N/A
	It is also applicable to creepage distances for functional insulation, across full disconnection and micro-disconnection, as stated in Table 24		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
I	ANNEX I (NORMATIVE) MOTORS HAVING BASIC INSULATION THAT IS INADEQUATE FOR THE RATED VOLTAGE OF THE APPLIANCE		N/A
	The following modifications to this standard are applicable for motors having basic insulation that is inadequate for the rated voltage of the appliance:		N/A
8	Protection against access to live parts		N/A
8.1	Metal parts of the motor are considered to be bare live parts		N/A
11	Heating		N/A
11.3	The temperature rise of the body of the motor is determined instead of the temperature rise of the windings		N/A
11.8	The temperature rise of the body of the motor, where in contact with insulating material, not exceeding values in table 3 for the relevant insulating material		N/A
16	Leakage current and electric strength		N/A
16.3	Insulation between live parts of the motor and its other metal parts is not subjected to the test		N/A
19	Abnormal operation		N/A
19.1	The tests of 19.7 to 19.9 are not carried out		N/A
19.1.101	Appliance operated at rated voltage with each of the following fault conditions:		N/A
	- short circuit of the terminals of the motor, including any capacitor incorporated in the motor circuit		N/A
	- short circuit of each diode of the rectifier		N/A
	- open circuit of the supply to the motor		N/A
	- open circuit of any parallel resistor, the motor being in operation		N/A
	Only one fault simulated at a time, the tests carried out consecutively		N/A
22	Construction		N/A
22.1.101	For class I appliances incorporating a motor supplied by a rectifier circuit, the d.c. circuit being insulated from accessible parts of the appliance by double or reinforced insulation		N/A
	Compliance checked by the tests specified for double and reinforced insulation		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
J	ANNEX J (NORMATIVE) COATED PRINTED CIRCUIT BOARDS		N/A
	Testing of protective coatings of printed circuit boards carried out in accordance with IEC 60664-3 with the following modifications:		N/A
5.7	Conditioning of the test specimens		N/A
	When production samples are used, three samples of the printed circuit board are tested		N/A
5.7.1	Cold		N/A
	The test is carried out at -25 °C		N/A
5.7.3	Rapid change of temperature		N/A
	Severity 1 is specified		N/A
5.9	Additional tests		N/A
	This subclause is not applicable		N/A
K	ANNEX K (NORMATIVE) OVERVOLTAGE CATEGORIES		P
	The information on overvoltage categories is extracted from IEC 60664-1		P
	Overvoltage category is a numeral defining a transient overvoltage condition		P
	Equipment of overvoltage category IV is for use at the origin of the installation		N/A
	Equipment of overvoltage category III is equipment in fixed installations and for cases where the reliability and the availability of the equipment is subject to special requirements		N/A
	Equipment of overvoltage category II is energy consuming equipment to be supplied from the fixed installation		P
	If such equipment is subjected to special requirements with regard to reliability and availability, overvoltage category III applies		N/A
	Equipment of overvoltage category I is equipment for connection to circuits in which measures are taken to limit transient overvoltages to an appropriate low level		N/A
L	ANNEX L (INFORMATIVE) GUIDANCE FOR THE MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES		P
	Information for the determination of clearances and creepage distances		P

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Clause	Requirement + Test	Result - Remark	Verdict
M	ANNEX M (NORMATIVE) POLLUTION DEGREE		P
	The information on pollution degrees is extracted from IEC 60664-1		P
	Pollution		P
	The microenvironment determines the effect of pollution on the insulation, taking into account the macroenvironment		P
	Means may be provided to reduce pollution at the insulation by effective enclosures or similar		P
	Minimum clearances specified where pollution may be present in the microenvironment		P
	Degrees of pollution in the microenvironment		P
	For evaluating creepage distances, the following degrees of pollution in the microenvironment are established:		P
	- pollution degree 1: no pollution or only dry, non-conductive pollution occurs. The pollution has no influence		N/A
	- pollution degree 2: only non-conductive pollution occurs, except that occasionally a temporary conductivity caused by condensation is to be expected		P
	- pollution degree 3: conductive pollution occurs or dry non-conductive pollution occurs that becomes conductive due to condensation that is to be expected		N/A
	- pollution degree 4: the pollution generates persistent conductivity caused by conductive dust or by rain or snow		N/A
N	ANNEX N (NORMATIVE) PROOF TRACKING TEST		P
	The proof tracking test is carried out in accordance with IEC 60112 with the following modifications:		P
7	Test apparatus		P
7.3	Test solutions		P
	Test solution A is used		P
10	Determination of proof tracking index (PTI)		P
10.1	Procedure		P
	The proof voltage is 100V, 175V, 400V or 600V	175V	P
	The test is carried out on five specimens		P

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Clause	Requirement + Test	Result - Remark	Verdict
	In case of doubt, additional test with proof voltage reduced by 25V, the number of drops increased to 100		N/A
10.2	Report		N/A
	The report states if the PTI value was based on a test using 100 drops with a test voltage of (PTI-25) V		N/A
O	ANNEX O (INFORMATIVE) SELECTION AND SEQUENCE OF THE TESTS OF CLAUSE 30		P
	Description of tests for determination of resistance to heat and fire		P
P	ANNEX P (INFORMATIVE) GUIDANCE FOR THE APPLICATION OF THIS STANDARD TO APPLIANCES USED IN TROPICAL CLIMATES		N/A
	Modifications applicable for class 0 and 01 appliances having a rated voltage exceeding 150V, intended to be used in countries having a tropical climate and that are marked with symbol IEC 60417-6332		N/A
	Modifications may also be applied to class 1 appliances having a rated voltage exceeding 150V, intended to be used in countries having a tropical climate and that are marked with symbol IEC 60417-6332, if liable to be connected to a supply mains that excludes the protective earthing conductor		N/A
5.7	The ambient temperature for the tests of clauses 11 and 13 is 40 +3/0 °C		N/A
7.1	The appliance marked with symbol IEC 60417-6332		N/A
7.12	The instructions state that the appliance is to be supplied through a residual current device (RCD) having a rated residual operating current not exceeding 30 mA		N/A
	The instructions state that the appliance is considered to be suitable for use in countries having a tropical climate, but may also be used in other countries		N/A
	If symbol IEC 60417-6332 is used, its meaning is explained		N/A
11.8	The values of Table 3 are reduced by 15 K		N/A
13.2	The leakage current for class I appliances not exceeding 0,5 mA		N/A
15.3	The value of t is 37 °C		N/A
16.2	The leakage current for class I appliances not exceeding 0,5 mA (mA):		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
19.13	The leakage current test of 16.2 is applied in addition to the electric strength test of 16.3		N/A
Q	ANNEX Q (INFORMATIVE) SEQUENCE OF TESTS FOR THE EVALUATION OF ELECTRONIC CIRCUITS		P
	Description of tests for appliances incorporating electronic circuits		P
R	ANNEX R (NORMATIVE) SOFTWARE EVALUATION		N/A
	Programmable electronic circuits requiring software incorporating measures to control the fault/error conditions specified in table R.1 or R.2 validated in accordance with the requirements of this annex		N/A
R.1	Programmable electronic circuits using software		N/A
	Programmable electronic circuits requiring software incorporating measures to control the fault/error conditions specified in table R.1 or R.2 constructed so that the software does not impair compliance with the requirements of this standard		N/A
R.2	Requirements for the architecture		N/A
	Programmable electronic circuits requiring software incorporating measures to control the fault/error conditions specified in table R.1 or R.2 use measures to control and avoid software-related faults/errors in safety-related data and safety-related segments of the software		N/A
R.2.1.1	Programmable electronic circuits requiring software incorporating measures to control the fault/error conditions specified in table R.2 have one of the following structures:		N/A
	- single channel with periodic self-test and monitoring		N/A
	- dual channel (homogenous) with comparison		N/A
	- dual channel (diverse) with comparison		N/A
	Programmable electronic circuits requiring software incorporating measures to control the fault/error conditions specified in table R.1 have one of the following structures:		N/A
	- single channel with functional test		N/A
	- single channel with periodic self-test		N/A
	- dual channel without comparison		N/A
R.2.2	Measures to control faults/errors		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
R.2.2.1	When redundant memory with comparison is provided on two areas of the same component, the data in one area is stored in a different format from that in the other area		N/A
R.2.2.2	Programmable electronic circuits with functions requiring software incorporating measures to control the fault/error conditions specified in table R.2 and that use dual channel structures with comparison, have additional fault/error detection means for any fault/errors not detected by the comparison		N/A
R.2.2.3	For programmable electronic circuits with functions requiring software incorporating measures to control the fault/error conditions specified in table R.1 or R.2, means are provided for the recognition and control of errors in transmissions to external safety-related data paths		N/A
R.2.2.4	For programmable electronic circuits with functions requiring software incorporating measures to control the fault/error conditions specified in table R.1 or R.2, the programmable electronic circuits incorporate measures to address the fault/errors in safety-related segments and data indicated in table R.1 and R.2 as appropriate		N/A
R.2.2.5	For programmable electronic circuits with functions requiring software incorporating measures to control the fault/error conditions specified in table R.1 or R.2, detection of a fault/error shall occur before compliance with clause 19, 22.105 and 22.112 is impaired (IEC 60335-2-27)		N/A
R.2.2.6	The software is referenced to relevant parts of the operating sequence and the associated hardware functions		N/A
R.2.2.7	Labels used for memory locations are unique		N/A
R.2.2.8	The software is protected from user alteration of safety-related segments and data		N/A
R.2.2.9	Software and safety-related hardware under its control shall be initialized and shall terminate before compliance with clause 19, 22.105 and 22.112 is impaired (IEC 60335-2-27)		N/A
R.3	Measures to avoid errors		N/A
R.3.1	General		N/A
	For programmable electronic circuits with functions requiring software incorporating measures to control the fault/error conditions specified in table R.1 or R.2, the following measures to avoid systematic fault in the software are applied		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Software that incorporates measures used to control the fault/error conditions specified in table R.2 is inherently acceptable for software required to control the fault/error conditions specified in table R.1		N/A
R.3.2	Specification		N/A
R.3.2.1	Software safety requirements:	Software Id:	N/A
	The specification of the software safety requirements includes the descriptions listed		N/A
R.3.2.2	Software architecture		N/A
R.3.2.2.1	The specification of the software architecture includes the aspects listed - techniques and measures to control software faults/errors (refer to R.2.2); - interactions between hardware and software; - partitioning into modules and their allocation to the specified safety functions; - hierarchy and call structure of the modules (control flow); - interrupt handling; - data flow and restrictions on data access; - architecture and storage of data; - time-based dependencies of sequences and data	Document ref. No:	N/A
R.3.2.2.2	The architecture specification is validated against the specification of the software safety requirements by static analysis		N/A
R.3.2.3	Module design and coding		N/A
R.3.2.3.1	Based on the architecture design, software is suitably refined into modules		N/A
	Software module design and coding is implemented in a way that is traceable to the software architecture and requirements		N/A
R.3.2.3.2	Software code is structured		N/A
R.3.2.3.3	Coded software is validated against the module specification by static analysis		N/A
	The module specification is validated against the architecture specification by static analysis		N/A
R.3.3.3	Software validation		N/A
	The software is validated with reference to the requirements of the software safety requirements specification		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Compliance is checked by simulation of:		N/A
	- input signals present during normal operation		N/A
	- anticipated occurrences		N/A
	- undesired conditions requiring system action		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

TABLE R.1 ^e – GENERAL FAULT/ERROR CONDITIONS						
Component ^a	Fault/error	Acceptable measures ^{b, c}	Definitions	Document reference for applied measure	Document reference for applied test	Verdict
1 CPU 1.1 Registers	Stuck at	Functional test, or periodic self-test using either: <ul style="list-style-type: none"> - static memory test, or - word protection with single bit redundancy 	H.2.16.5 H.2.16.6 H.2.19.6 H.2.19.8.2			N/A
1.2 VOID						N/A
1.3 Programme counter	Stuck at	Functional test, or Periodic self-test, or Independent time-slot monitoring, or Logical monitoring of the programme sequence	H.2.16.5 H.2.16.6 H.2.18.10.4 H.2.18.10.2			N/A
2 Interrupt handling and execution	No interrupt or too frequent interrupt	Functional test, or time-slot monitoring	H.2.16.5 H.2.18.10.4			N/A
3 Clock	Wrong frequency (for quartz synchronized clock: harmonics/sub-harmonics only)	Frequency monitoring, or time slot monitoring	H.2.18.10.1 H.2.18.10.4			N/A
4. Memory 4.1 Invariable memory	All single bit faults	Periodic modified checksum, or multiple checksum, or word protection with single bit redundancy	H.2.19.3.1 H.2.19.3.2 H.2.19.8.2			N/A

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Clause	Requirement + Test	Result - Remark	Verdict

TABLE R.1 ^e – GENERAL FAULT/ERROR CONDITIONS						
Component ^a	Fault/error	Acceptable measures ^{b, c}	Definitions	Document reference for applied measure	Document reference for applied test	Verdict
4.2 Variable memory	DC fault	Periodic static memory test, or word protection with single bit redundancy	H.2.19.6 H.2.19.8.2			N/A
4.3 Addressing (relevant to variable and invariable memory)	Stuck at	Word protection with single bit redundancy including the address	H.2.19.8.2			N/A
5 Internal data path	Stuck at	Word protection with single bit redundancy	H.2.19.8.2			N/A
5.1 VOID						N/A
5.2 Addressing	Wrong address	Word protection with single bit redundancy including the address	H.2.19.8.2			N/A
6 External communication	Hamming distance 3	Word protection with multi-bit redundancy, or CRC – single work, or Transfer redundancy, or Protocol test	H.2.19.8.1 H.2.19.4.1 H.2.18.2.2 H.2.18.14			N/A
6.1 VOID						N/A
6.2 VOID						N/A

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Clause	Requirement + Test	Result - Remark	Verdict

TABLE R.1 ^e – GENERAL FAULT/ERROR CONDITIONS						
Component ^a	Fault/error	Acceptable measures ^{b, c}	Definitions	Document reference for applied measure	Document reference for applied test	Verdict
6.3 Timing	Wrong point in time Wrong sequence	Time-slot monitoring, or scheduled transmission Time-slot and logical monitoring, or comparison of redundant communication channels by either: - reciprocal comparison - independent hardware comparator Logical monitoring, or time-slot monitoring, or Scheduled transmission	H.2.18.10.4 H.2.18.18 H.2.18.10.3 H.2.18.15 H.2.18.3 H.2.18.10.2 H.2.18.10.4 H.2.18.18			N/A
7 Input/output periphery	Fault conditions specified in 19.11.2	Plausibility check	H.2.18.13			N/A
7.1 VOID						N/A
7.2 Analog I/O						N/A
7.2.1 A/D and D/A-converter	Fault conditions specified in 19.11.2	Plausibility check	H.2.18.13			N/A
7.2.2 Analog multiplexer	Wrong addressing	Plausibility check	H.2.18.13			N/A
8 VOID						N/A
9 Custom chips ^d e.g. ASIC, GAL, gate array	Any output outside the static and dynamic functional specification	Periodic self-test	H.2.16.6			N/A

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Clause	Requirement + Test	Result - Remark	Verdict

TABLE R.1^e – GENERAL FAULT/ERROR CONDITIONS

Component ^a	Fault/error	Acceptable measures ^{b, c}	Definitions	Document reference for applied measure	Document reference for applied test	Verdict
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NOTE A Stuck-at fault model denotes a fault model representing an open circuit or a non-varying signal level. A DC fault model denotes a stuck-at fault model incorporating short circuit between signal lines.

- a) For fault/error assessment, some components are divided into their sub-functions.
- b) For each sub-function in the table, the Table R.2 measure will cover the software fault/error.
- c) Where more than one measure is given for a sub-function, these are alternatives.
- d) To be divided as necessary by the manufacturer into sub-functions.
- e) Table R.1 is applied according to the requirements of R.1 to R.2.2.9 inclusive.

S	ANNEX S (NORMATIVE) BATTERY OPERATED APPLIANCES POWERED BY BATTERIES THAT ARE NON-RECHARGEABLE OR NOT RECHARGED IN THE APPLIANCE	N/A
	The following modifications to this standard are applicable for battery-operated appliances where the batteries are either non-rechargeable (primary batteries), or	N/A
	rechargeable batteries (secondary batteries) that are not recharged in the appliance	N/A
5.8.1	If the supply terminals for the connection of the battery have no indication of polarity, the more unfavourable polarity is applied	N/A
5.S.101	Appliances intended for use with a battery box are tested with the battery box supplied with the appliance or with the battery box recommended in the instructions	N/A
5.S.102	Appliances are tested as motor-operated appliances.	N/A
7.1	Appliances marked with the battery voltage (V) and the polarity of the terminals, unless	N/A
	the polarity is irrelevant	N/A
	Appliances also marked with:	N/A
	- name, trade mark or identification mark of the manufacturer or responsible vendor	N/A
	- model or type reference	N/A
	- IP number according to degree of protection against ingress of water, other than IPX0	N/A
	- type reference of battery or batteries	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	If relevant, the positive terminal is indicated by the symbol IEC 60417-5005 and the negative terminal by the symbol IEC 60417-5006		N/A
	If appliances use more than one battery, they are marked to indicate correct polarity connection of the batteries		N/A
7.6	Additional symbols		N/A
7.12	The instructions contain the following, as applicable:		N/A
	- the types of batteries that may be used		N/A
	- how to remove and insert the batteries		N/A
	- non-rechargeable batteries are not to be recharged		N/A
	- rechargeable batteries are to be removed from the appliance before being charged		N/A
	- different types of batteries or new and used batteries are not to be mixed		N/A
	- batteries are to be inserted with the correct polarity		N/A
	- exhausted batteries are to be removed from the appliance and safely disposed of		N/A
	- if the appliance is to be stored unused for a long period, the batteries are removed		N/A
	- the supply terminals are not to be short-circuited		N/A
11.5	Appliances are supplied with the most unfavourable supply voltage between		N/A
	- 0,55 and 1,0 times the battery voltage, if the appliance can be used with non-rechargeable batteries		N/A
	- 0,75 and 1,0 times battery voltage, if the appliance is designed for use with rechargeable batteries only		N/A
	The values specified in Table S.101 for the internal resistance per cell of the battery is taken into account		N/A
19.1	The tests are carried out with the battery fully charged unless otherwise specified		N/A
19.13	The battery does not rupture or ignite		N/A
19.S.101	Appliances are supplied with the voltage specified in 11.5. The supply terminals having an indication of polarity are connected to the opposite polarity, unless		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	such a connection is unlikely to occur due to the construction of the appliance		N/A
19.S.102	For appliances with provision for multiple batteries, one or more of the batteries are reversed and the appliance is operated, if reversal of batteries is allowed by the construction		N/A
25.5	The flexible leads or flexible cord used to connect an external battery or battery box in is connected to the appliance by a type X attachment		N/A
25.13	This requirement is not applicable to the flexible leads or flexible cord connecting external batteries or a battery box with an appliance		N/A
25.S.101	Appliances have suitable means for connection of the battery. If the type of battery is marked on the appliance, the means of connection is suitable for this type of battery		N/A
26.5	Terminal devices in an appliance for the connection of the flexible leads or flexible cord connecting an external battery or battery box are so located or shielded that there is no risk of accidental connection between supply terminals		N/A
30.2.3.2	There is no battery in the area of the vertical cylinder used for the consequential needle flame test, unless		N/A
	the battery is shielded by a barrier that meets the needle flame test of Annex E, or		N/A
	that comprises material classified as V-0 or V-1 according to IEC 60695-11-10		N/A
T	ANNEX T (NORMATIVE) UV-C RADIATION EFFECT ON NON-METALLIC MATERIALS		P
	Requirements for non-metallic materials subject to direct or reflected UV-C radiation exposure and whose mechanical and electrical properties are relied upon for compliance with the		N/A
	Does not apply to glass, ceramic and similar materials		N/A
	Tested as specified in ISO 4892-1 and ISO 4892-2, with the following modifications:		N/A
	Modifications to ISO 4892-1:		N/A
5.1.6	The UV-C emitter is a low pressure mercury lamp with a quartz envelope having a continuous spectral irradiance of 10 W/m ² at 254 nm		N/A
	Subclause 5.1.6.1 and Table 1 are not applicable		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.2.4	The black-panel temperature shall be 63 °C+/- 3 °C		N/A
5.3.1	Humidification of the chamber air is specified in part 2 when necessary		N/A
9	This clause is not applicable		N/A
	Modifications to ISO 4892-2:		N/A
7.1	At least three test specimens are tested		N/A
	Ten samples of internal wiring is tested		N/A
7.2	The specimens are attached to the specimen holders such that they are not subject to any stress		N/A
7.3	Apparatus prepared as specified		N/A
	The test specimens and, if used, the irradiance-measuring instrument are exposed for 1 000 h		N/A
7.4	If used, a radiometer is mounted and calibrated such that it measures the irradiance at the exposed surface of the test specimen		N/A
7.5	Material properties and test methods for parts providing mechanical support or impact resistance as specified in Table T.1		N/A
	Material properties and test method for electrical insulation of internal wiring as specified in Table T.2		N/A
8	This clause is not applicable		N/A
AA	ANNEX AA (NORMATIVE) MEASUREMENT OF LUMINANCE		P
	The luminance is measured by means of collimating optics and at the shortest possible distance, but not less than 0,2 m. IEC 60335-2-27)		P
	During the measurement, the appliance is operating at rated voltage (IEC 60335-2-27)		P
BB	ANNEX BB (INFORMATIVE) DETAILED CLASSIFICATION OF UV APPLIANCES		N/A
	This annex provides details of a classification of UV appliances based on amounts of radiation in the ranges 250 nm to 320 nm and 320 nm to 400 nm (IEC 60335-2-27)		N/A
BB.1	TERMS AND DEFINITIONS		N/A
	Definitions for UV type 1, 2, 3, 4, 5 appliance (IEC 60335-2-27)		N/A
BB.2	CLASSIFICATION		N/A
	Classification for UV appliance (IEC 60335-2-27)		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
BB.3	EFFECTIVE IRRADIANCE		N/A
	The effective irradiance for each type of UV appliance, weighted according to the erythema action spectrum of Figure 103, is given in Table BB.1 (IEC 60335-2-27)		N/A
CC	ANNEX CC (INFORMATIVE) FLUORESCENT UV LAMP EQUIVALENCY CODE		N/A
	The equivalency code for fluorescent UV lamps for tanning, as detailed in IEC 61228, that is legibly and durably marked on the lamp (IEC 60335-2-27)		N/A
DD	ANNEX DD (INFORMATIVE) GUIDELINES FOR THE DEVELOPMENT OF AN EXPOSURE TIME SCHEDULE FOR UV EXPOSURE		N/A
	Detailed information about requirements for an exposure time schedule for UV exposure (IEC 60335-2-27)		N/A
EE	ANNEX EE (INFORMATIVE) IRRADIANCE LIMITS SET BY REGIONAL OR NATIONAL AUTHORITIES		P
	The limits as advised by National Committees that differ from the IEC limits are given in the following Tables EE.1 to EE.3, which should also be taken into account during the type testing and classification of the appliance for these countries. Where no differing limit is given the IEC limit is assumed to apply. (IEC 60335-2-27)		P
EE.1	TABLE: EUROPE		P
	EN 60335-2-27 limits (IEC 60335-2-27)		P
EE.2	TABLE: AUSTRALIA AND NEW ZEALAND		P
	AS/NZS 60335.2.27 limits (IEC 60335-2-27)		P
EE.3	TABLE: USA		P
	21 CFR 1040.20 limits (IEC 60335-2-27)		P

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Clause	Requirement + Test	Result - Remark	Verdict

10.1	TABLE: Power input deviation					P
Input deviation of/at:	P rated (W)	P measured (W)	ΔP	Required ΔP	Remark	
100V/50Hz	200	195	-2,5%	+20%	P	
100V/60Hz	200	196	-2,0%	+20%	P	
240V/50Hz	200	187	-6,5%	+20%	P	
240V/60Hz	200	188	-6,0%	+20%	P	
Supplementary information: 0						

10.2	TABLE: Current deviation					N/A
Current deviation of/at:	I rated (A)	I measured (A)	ΔI	Required ΔI	Remark	
Supplementary information:						

11.8	TABLE: Heating test		P
	Test voltage (V).....:	254,4	—
	Ambient (°C).....:	24,7	—
Thermocouple locations:		Max. temperature rise measured, ΔT (K)	Max. temperature rise limit, ΔT (K)
Supply cord		15,7	50
Connector		12,2	45
Switch		4,8	60
CX1		13,9	95
LF1		16,6	85
CE1		16,8	80
LF2		15,3	85
T1 winding		26,2	85
T1 bobbin		19,1	85
L1 winding		15,5	85
L1 bobbin		14,5	85
C31		15,1	80
U1		28,2	95

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Clause	Requirement + Test	Result - Remark	Verdict
	Optocoupler	14,6	85
	Rectifier bridge	16,2	120
	Internal wire	10,5	T80-25=55
	DC Fan	6,3	80
	LED	12,8	120
	Lampshade	11,8	Cl.30
	Metal enclosure	10,1	39
	Tets corner	5,1	60
Supplementary information:			

11.8	TABLE: Heating test, resistance method					N/A
	Test voltage (V)..... :					—
	Ambient, t1 (°C)..... :					—
	Ambient, t2 (°C)..... :					—
Temperature rise of winding:	R1 (Ω)	R2 (Ω)	Δ T (K)	Max. Δ T (K)	Insulation class	
Supplementary information:						

13.2	TABLE: Leakage current			P
	Heating appliances: 1.15 x rated input (W)... :			—
	Motor-operated and combined appliances: 1.06 x rated voltage (V)..... :			—
				254,4
Leakage current between:	I (mA)		Max. allowed I (mA)	
L/N and accessible metal parts	0,03		3,5	
L/N and plastic enclosure/Switch	0,01 peak		0,35 peak	
Supplementary information:				

IEC 60335-2-27			
Clause	Requirement + Test	Result - Remark	Verdict

13.3	TABLE: Dielectric strength		P
Test voltage applied between:		Test potential applied (V)	Breakdown / flashover (Yes/No)
Live and Neutral (without F1)		1000	No
1 layer of insulation tape		1750	No
Live/Neutral - Enclosure /control panel with metal foil		3000	No
Live/Neutral - Secondary winding of transformer		3000	No
Transformer: Secondary to core		3000	No
Supplementary information:			

14	TABLE: Transient overvoltages					N/A
Clearance between:	CI (mm)	Required CI (mm)	Rated impulse voltage (V)	Impulse test voltage (V)	Flashover (Yes/No)	
Supplementary information:						

16.2	TABLE: Leakage current		P
	Single phase appliances: 1.06 x rated voltage (V).....:	254,4	—
	Three phase appliances 1.06 x rated voltage divided by $\sqrt{3}$ (V).....:	--	—
Leakage current between:		I (mA)	Max. allowed I (mA)
L/N and accessible metal parts		0,07	3,5
L/N and plastic enclosure/Switch		0,03	0,25
Supplementary information:			

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Clause	Requirement + Test	Result - Remark	Verdict

16.3	TABLE: Dielectric strength		P
Test voltage applied between:	Test potential applied (V)	Breakdown / flashover (Yes/No)	
Live and Neutral (without F1)	1250	No	
1 layer of insulation tape	1750	No	
Live/Neutral - Enclosure /control panel with metal foil	3000	No	
Live/Neutral - Secondary winding of transformer	3000	No	
Transformer: Secondary to core	3000	No	
Supplementary information:			

17	TABLE: Overload protection		P
Thermocouple locations:	Max. temperature rise measured, Δ T (K)	Max. temperature rise limit, Δ T (K)	
Transformer winding	38,7	175	
Supplementary information:			

17	TABLE: Overload protection, resistance method					N/A
	Test voltage (V)..... :					—
	Ambient, t1 (°C)..... :					—
	Ambient, t2 (°C)..... :					—
Temperature of winding:	R1 (Ω)	R2 (Ω)	Δ T (K)	T (°C)	Max. T (°C)	
Supplementary information:						

IEC 60335-2-27							
Clause	Requirement + Test			Result - Remark			Verdict
19	Abnormal operation conditions						P
Operational characteristics			YES/NO	Operational conditions			
Are there electronic circuits to control the appliance operation?			Yes	-			
Are there “off” or “stand-by” position?			“off” position	-			
The unintended operation of the appliance results in dangerous malfunction?			No	-			
Sub-clause	Operating conditions description	Test results description	PEC description	EMP 19.11.4	Software type required	19.11.3 PEC	Final result
19.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.7	Refer to clause 19.7	No hazard	N/A	N/A	N/A	N/A	P
19.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.11.2	Detail see cl.19.11.2	No hazard	N/A	N/A	N/A	N/A	P
19.11.4.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.101	Refer to clause 19.101	No hazard	N/A	N/A	N/A	N/A	P
Supplementary information:							

19.7	TABLE: Abnormal operation, locked rotor/moving parts					P
	Test voltage (V) :	240			—	
	Ambient, t1 (°C) :	24,3			—	
	Ambient, t2 (°C) :	24,9			—	
Temperature of winding:		R1 (Ω)	R2 (Ω)	Δ T (K)	T (°C)	Max. T (°C)
DC Fan		-	-	-	44	150
Supplementary information:						

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Clause	Requirement + Test	Result - Remark	Verdict
19.13	TABLE: Abnormal operation, temperature rises		P
Thermocouple locations:		Max. temperature rise measured, ΔT (K)	Max. temperature rise limit, ΔT (K)
Supply cord		16,1	150
Plastic enclosure		16,5	For Cl.30.1
Test corner		5,2	150
Supplementary information:			

21.1	TABLE: Impact resistance			P
Impacts per surface	Surface tested	Impact energy (Nm)	Comments	
3 times	Enclosure	0,5	-	
Supplementary information:				

IEC 60335-2-27					
Clause	Requirement + Test			Result - Remark	Verdict
24.1	TABLE: Components information				P
Object	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity ¹⁾
Power cord	Yong Hao Electrical Industry Co., Ltd	H05VV-F	3x1.0mm ²	EN 50525-2- 11	VDE 40027125
Connector	Yonghao Electrical Industry Co., Ltd.	YH-E-006	10A, 250V~, C13	IEC 60320-1 EN 60320-1 AS/NZS 60320.1	VDE 40029606, SAA- 211951-EA
Internal wire	SHENZHEN SHUNJIA ELECTRICAL TECHNOLOGY CO LTD	1007	24AWG, 80°C, 300V, VW-1	UL 758	UL E490463
Connector (CN1, CN2)	CHYAO SHIUNN ELECTRONIC INDUSTRIAL LTD	JS-4001	7A, 250Vac	UL 1977	UL E113875
-Alt	Chyao Shiunn Electronic Industrial Ltd.	JS-1120X7-X1 (X7=R or Blank; X1=02-15)	7A, 250Vac	UL 1977	UL E113875
-Alt	Taiwan King Pin Terminal Co., Ltd.	PVHI	7A, 250Vac	UL 1977	UL E118260
Fuse (FS1,FS2)	Conquer Electronics Co, Ltd.	MST	T4A, 250Vac	IEC/EN 60127-1, IEC/EN 60127-3	VDE 40017118
-Alt	Suzhou Walter Electronic Co. Ltd.	2010	T4A, 250Vac	IEC/EN 60127-1, IEC/EN 60127-3	VDE 40018781
-Alt	Littelfuse Inc.	369	T4A, 250Vac	IEC/EN 60127-1, IEC/EN 60127-3	VDE 4003735
-Alt	Littelfuse Inc.	392	T4A,250Vac	IEC/EN 60127-1, IEC/EN 60127-3	VDE 126983

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Clause	Requirement + Test			Result - Remark	Verdict
X-Capacitor (C1)	CARLI ELECTRONICS CO LTD	MPX	C1 rated maximum 0.68 μ F, minimum 250 Vac. Class X1 or X2. 100°C min	IEC/EN 60384-14 UL 60384-14	VDE 40008520 ENEC, UL
-Alt	KEMET ELECTRONICS ITALIA SRL	R.46, R49	C1 rated maximum 0.68 μ F, minimum 250 Vac. Class X1 or X2. 100°C min.	IEC/EN 60384-14 UL 60384-14	ENEC, UL
-Alt	LIOW GU ELECTRONICS INDUSTRY CO LTD	GS-L	C1 rated maximum 0.68 μ F, minimum 250 Vac. Class X1 or X2. 110°C min.	IEC/EN 60384-14 UL 60384-14	ENEC, UL
-Alt	TDK (Zhuhai FTZ) Co., Ltd.	B3292#, B3292 series, B3292#C/D/T /S/H/J3 series	C1 rated maximum 0.68 μ F, minimum 250 Vac. Class X1 or X2. 105°C min	IEC/EN 60384-14 UL 60384-14	VDE 40030986 ENEC, UL
-Alt	ULTRA TECH XIPHI ENTERPRISE CO LTD	HQX	C1 rated maximum 0.68 μ F, minimum 250 Vac. Class X1 or X2. 100°C min	IEC/EN 60384-14 UL 60384-14	VDE 40015608 UL
-Alt	HUA JUNG COMPONENTS CO LTD	MKP	C1 rated maximum 0.68 μ F, minimum 250 Vac. Class X1 or X2. 110°C min.	IEC/EN 60384-14 UL 60384-14	ENEC, UL
-Alt	CHENG TUNG INDUSTRIAL CO LTD	CTX	C1 rated maximum 0.68 μ F, minimum 250 Vac. Class X1 or X2. 110°C min.	IEC/EN 60384-14 UL 60384-14	ENEC, UL
Y-Capacitor (C3, C4, C30, C129) (Optional)	MURATA MFG CO LTD	KX	Rated maximum 4700 pF, minimum 250 Vac. Class Y1, 125°C	IEC/EN 60384-14 UL 60384-14	VDE 40002831 UL
-Alt	WALSIN TECHNOLOGY CORP	AH	Rated maximum 4700 pF, minimum 250 Vac. Class Y1 or Y2, 125°C	IEC/EN 60384-14 UL 60384-14	VDE 40001804 UL
-Alt	WALSIN TECHNOLOGY CORP	AC	Rated maximum 4700 pF, minimum 250 Vac. Class Y1 or Y2, 125°C	IEC/EN 60384-14 UL 60384-14	VDE 40001829 UL

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Clause	Requirement + Test		Result - Remark		Verdict
-Alt	WALSIN TECHNOLOGY CORP	AS	Rated maximum 4700 pF, minimum 250 Vac. Class Y1 or Y2, 125°C	IEC/EN 60384-14 UL 60384-14	VDE 40039265 UL
-Alt	TDK Corporation Honjo Factory	CD	Rated maximum 4700 pF, minimum 250 Vac. Class Y1, 125°C	IEC/EN 60384-14 UL 60384-14	VDE 40017931 UL
-Alt	WELSON INDUSTRIAL CO LTD	WD	Rated maximum 4700 pF, minimum 250 Vac. Class Y1, 125°C	IEC/EN 60384-14 UL 60384-14	VDE 40016157 UL
-Alt	VISHAY ELECTRONIC GMBH	VY1	Rated maximum 4700 pF, minimum 250 Vac. Class Y1, 125°C	IEC/EN 60384-14 UL 60384-14	VDE 40012673 UL
(Alternate)	XIAMEN WANMING ELECTRONICS CO LTD	HJ	Rated maximum 4700 pF, minimum 250 Vac. Class Y1, 125°C	IEC/EN 60384-14 UL 60384-14	VDE 40034438 UL
Thermistor (from FL1 to FL2)	Interchangeable	Interchangeable	Min. 150 mW, max. 100 k ohms at 25°C	AS/NZS 60335.2.27 AS/NZS 60335.1	Tested with appliance
Optocoupler (U3, U4)	Cosmo Electronics Corp.	K1010	Dti=0.5mm, internal cr.= 5.3 mm (thermal cycling test), external cr.= 8.0mm, 115°C	IEC/EN 60747-5-5, IEC/EN 60950-1, UL 1577	VDE 101347 UL
Transformer (T1)	MEAN WELL Enterprises Co Ltd	TF-5374	Class B	AS/NZS 60335.2.27 AS/NZS 60335.1	Tested with appliance
- Bobbin of T1	Sumitomo Bakelite Co., Ltd.	PM-9820, PM-9630	Phenolic. Min. V-2, min. 0.71 mm thick, 150°C	UL 94	UL E41429

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Clause	Requirement + Test		Result - Remark		Verdict
-Alt	E I DUPONT DE NEMOURS & CO INC	FR-530	Polyethylene Terephthalate (PET). Min. V-2, min. 0.71 mm thick, 150°C	UL 94	UL E41938
- Insulation tape of T1	3M Company Electrical Markets Div (EMD)	1351-1 (a), 1351T-1 (a) , 1351T-2 (a), 1351T-3 (a), 1318-1 (a), 1350F-1 (b), 1350T-1 (b), 1350T-3 (b), 1351-2 (c)	130°C	UL 510	UL E17385
-Alt	Bondtec Pacific Co., Ltd.	370S(b)	130°C	UL 510	UL E175868
-Alt	Symbio Inc.	35660Y (e), MY9YAF (h), 35660 (a)	130°C	UL 510	UL E50292
-Alt	Jingjiang Yahua Pressure Sensitive Glue Co. Ltd.	CT*(b)(g)	130°C	UL 510	UL E165111
-Alt	E I DUPONT DE NEMOURS & CO INC	410, 411, 414, 418	130°C	UL 510	UL E34739
Line Choke (L2) (Optional)	MEAN WELL Enterprises Co., Ltd.	TR-5069	Rated min. 130°C	AS/NZS 60335.2.27 AS/NZS 60335.1	Tested with appliance
Line Choke (L1) (Optional)	MEAN WELL Enterprises Co., Ltd.	TR-5372	Rated min. 130°C	AS/NZS 60335.2.27 AS/NZS 60335.1	Tested with appliance
-WIRE	SHENZHEN MYSUN INSULATION MATERIALS CO LTD	1330	200°C, 600V	UL 758	UL E239689
-Alt	Interchangeable	Interchangeable	200°C, 600V	UL 758	UL

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Clause	Requirement + Test		Result - Remark		Verdict
PCB	MEAN WELL Enterprises Co., Ltd.	DFD-2	V-0, 130°C	UL 94	UL E213009
-Alt	Interchangeable	Interchangeable	V-0, 130°C	UL 94	UL
LED PCB	Interchangeable	HH-LL-LED	V-0, 130°C	UL 94	UL E123995
Transparent lampshade	SABIC JAPAN L L C	PC940A	Flame Class: 1.5mm V-2; 3.0mm V-0	UL 94	UL E207780
Lampshade	SABIC JAPAN L L C	PC940	Flame Class: 1.1mm V-0; 3.0mm V-0	UL 94	UL E207780
Plastic enclosure	SABIC JAPAN L L C	PC940	Flame Class: 1.1mm V-0; 3.0mm V-0	UL 94	UL E207780
Supplementary information: 1) Provided evidence ensures the agreed level of compliance. See OD-CB2039.					

28.1	TABLE: Threaded part torque test			P
Threaded part identification:	Diameter of thread (mm)	Column number (I, II, or III)	Applied torque (Nm)	
Screw for fixed enclosure	2,88	II	0,5	
Screw for earthing terminal	2,88	II	0,5	
Supplementary information:				

29.1	TABLE: Clearances					P
Overvoltage category..... : II					—	
		Type of insulation:				
Rated impulse voltage (V):	Min. cl (mm)	Basic (mm)	Supplementary (mm)	Reinforced (mm)	Functional (mm)	Verdict / Remark
330	0,2* / 0,5 / 0,8**	--	--	--	--	N/A
500	0,2* / 0,5 / 0,8**	--	--	--	--	N/A
800	0,2* / 0,5 / 0,8**	--	--	--	--	N/A
1 500	0,5 / 0,8** / 1,0***	--	--	--	--	N/A
2 500	1,5 / 2,0***	3,1	4,0	--	3,1	P

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Clause	Requirement + Test			Result - Remark		Verdict
4 000	3,0 / 3,5***	--	--	8,1	--	P
6 000	5,5 / 6,0***	--	--	--	--	N/A
8 000	8,0 / 8,5***	--	--	--	--	N/A
10 000	11,0 / 11,5***	--	--	--	--	N/A
Supplementary information:						
*) For tracks on printed circuit boards if pollution degree 1 and 2						
**) For pollution degree 3						
***) If the construction is affected by wear, distortion, movement of the parts or during assembly						

29.2	TABLE: Creepage distances, basic, supplementary and reinforced insulation										P
Working voltage (V):	Creepage distance (mm)							Type of insulation			
	Pollution degree										
	1	2			3						
		Material group			Material group						
		I	II	IIIa/IIIb	I	II	IIIa/IIIb*	B**	S**	R**	Verdict
≤50	0,18	0,6	0,85	1,2	1,5	1,7	1,9		—	—	N/A
≤50	0,18	0,6	0,85	1,2	1,5	1,7	1,9	—		—	N/A
≤50	0,36	1,2	1,7	2,4	3,0	3,4	3,8	—	—		N/A
125	0,28	0,75	1,05	1,5	1,9	2,1	2,4	—	—		N/A
125	0,28	0,75	1,05	1,5	1,9	2,1	2,4	—		—	N/A
125	0,56	1,5	2,1	3,0	3,8	4,2	4,8	—	—		N/A
250	0,56	1,25	1,8	<u>2,5</u>	3,2	3,6	4,0	3,1	—	—	P
250	0,56	1,25	1,8	<u>2,5</u>	3,2	3,6	4,0	—	4,0	—	P
250	1,12	2,5	3,6	<u>5,0</u>	6,4	7,2	8,0	—	—	8,1	P
400	1,0	2,0	2,8	4,0	5,0	5,6	6,3		—	—	N/A
400	1,0	2,0	2,8	4,0	5,0	5,6	6,3	—		—	N/A
400	2,0	4,0	5,6	8,0	10,0	11,2	12,6	—	—		N/A
500	1,3	2,5	3,6	5,0	6,3	7,1	8,0		—	—	N/A
500	1,3	2,5	3,6	5,0	6,3	7,1	8,0	—		—	N/A
500	2,6	5,0	7,2	10,0	12,6	14,2	16,0	—	—		N/A
>630 and ≤800	1,8	3,2	4,5	6,3	8,0	9,0	10,0		—	—	N/A
>630 and ≤800	1,8	3,2	4,5	6,3	8,0	9,0	10,0	—		—	N/A

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Clause	Requirement + Test								Result - Remark			Verdict
>630 and ≤800	3,6	6,4	9,0	12,6	16,0	18,0	20,0	—	—	—	N/A	
>800 and ≤1000	2,4	4,0	5,6	8,0	10,0	11,0	12,5	—	—	—	N/A	
>800 and ≤1000	2,4	4,0	5,6	8,0	10,0	11,0	12,5	—	—	—	N/A	
>800 and ≤1000	4,8	8,0	11,2	16,0	20,0	22,0	25,0	—	—	—	N/A	
>1000 and ≤1250	3,2	5,0	7,1	10,0	12,5	14,0	16,0	—	—	—	N/A	
>1000 and ≤1250	3,2	5,0	7,1	10,0	12,5	14,0	16,0	—	—	—	N/A	
>1000 and ≤1250	6,4	10,0	14,2	20,0	25,0	28,0	32,0	—	—	—	N/A	
>1250 and ≤1600	4,2	6,3	9,0	12,5	16,0	18,0	20,0	—	—	—	N/A	
>1250 and ≤1600	4,2	6,3	9,0	12,5	16,0	18,0	20,0	—	—	—	N/A	
>1250 and ≤1600	8,4	12,6	18,0	25,0	32,0	36,0	40,0	—	—	—	N/A	
>1600 and ≤2000	5,6	8,0	11,0	16,0	20,0	22,0	25,0	—	—	—	N/A	
>1600 and ≤2000	5,6	8,0	11,0	16,0	20,0	22,0	25,0	—	—	—	N/A	
>1600 and ≤2000	11,2	16,0	22,0	32,0	40,0	44,0	50,0	—	—	—	N/A	
>2000 and ≤2500	7,5	10,0	14,0	20,0	25,0	28,0	32,0	—	—	—	N/A	
>2000 and ≤2500	7,5	10,0	14,0	20,0	25,0	28,0	32,0	—	—	—	N/A	
>2000 and ≤2500	15,0	20,0	28,0	40,0	50,0	56,0	64,0	—	—	—	N/A	
>2500 and ≤3200	10,0	12,5	18,0	25,0	32,0	36,0	40,0	—	—	—	N/A	
>2500 and ≤3200	10,0	12,5	18,0	25,0	32,0	36,0	40,0	—	—	—	N/A	
>2500 and ≤3200	20,0	25,0	36,0	50,0	64,0	72,0	80,0	—	—	—	N/A	
>3200 and ≤4000	12,5	16,0	22,0	32,0	40,0	45,0	50,0	—	—	—	N/A	
>3200 and ≤4000	12,5	16,0	22,0	32,0	40,0	45,0	50,0	—	—	—	N/A	
>3200 and ≤4000	25,0	32,0	44,0	64,0	80,0	90,0	100,0	—	—	—	N/A	
>4000 and ≤5000	16,0	20,0	28,0	40,0	50,0	56,0	63,0	—	—	—	N/A	
>4000 and ≤5000	16,0	20,0	28,0	40,0	50,0	56,0	63,0	—	—	—	N/A	
>4000 and ≤5000	32,0	40,0	56,0	80,0	100,0	112,0	126,0	—	—	—	N/A	
>5000 and ≤6300	20,0	25,0	36,0	50,0	63,0	71,0	80,0	—	—	—	N/A	
>5000 and ≤6300	20,0	25,0	36,0	50,0	63,0	71,0	80,0	—	—	—	N/A	
>5000 and ≤6300	40,0	50,0	72,0	100,0	126,0	142,0	160,0	—	—	—	N/A	
>6300 and ≤8000	25,0	32,0	45,0	63,0	80,0	90,0	100,0	—	—	—	N/A	
>6300 and ≤8000	25,0	32,0	45,0	63,0	80,0	90,0	100,0	—	—	—	N/A	
>6300 and ≤8000	50,0	64,0	90,0	126,0	160,0	180,0	200,0	—	—	—	N/A	
>8000 and ≤10000	32,0	40,0	56,0	80,0	100,0	110,0	125,0	—	—	—	N/A	

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Clause	Requirement + Test							Result - Remark			Verdict
>8000 and ≤10000	32,0	40,0	56,0	80,0	100,0	110,0	125,0	—		—	N/A
>8000 and ≤10000	64,0	80,0	112,0	160,0	200,0	220,0	250,0	—	—		N/A
>10000 and ≤12500	40,0	50,0	71,0	100,0	125,0	140,0	160,0		—	—	N/A
>10000 and ≤12500	40,0	50,0	71,0	100,0	125,0	140,0	160,0	—		—	N/A
>10000 and ≤12500	80,0	100,0	142,0	200,0	250,0	280,0	320,0	—	—		N/A

Supplementary information:
 *) Material group IIIb is allowed if the working voltage does not exceed 50 V
 **) B = Basic insulation, S = Supplementary insulation, R = Reinforced insulation

29.2	TABLE: Creepage distances, functional insulation							P
Working voltage (V):	Creepage distance (mm) Pollution degree							Verdict / Remark
	1	2			3			
	Material group			Material group				
	I	II	IIIa/IIIb	I	II	IIIa/IIIb*		
≤10	0,08	0,4	0,4	0,4	1,0	1,0	1,0	N/A
50	0,16	0,56	0,8	1,1	1,4	1,6	1,8	N/A
125	0,25	0,71	1,0	1,4	1,8	2,0	2,2	N/A
250	0,42	1,0	1,4	<u>2,0</u>	2,5	2,8	3,2	P (3,1)
400	0,75	1,6	2,2	3,2	4,0	4,5	5,0	N/A
500	1,0	2,0	2,8	4,0	5,0	5,6	6,3	N/A
>630 and ≤800	1,8	3,2	4,5	6,3	8,0	9,0	10,0	N/A
>800 and ≤1000	2,4	4,0	5,6	8,0	10,0	11,0	12,5	N/A
>1000 and ≤1250	3,2	5,0	7,1	10,0	12,5	14,0	16,0	N/A
>1250 and ≤1600	4,2	6,3	9,0	12,5	16,0	18,0	20,0	N/A
>1600 and ≤2000	5,6	8,0	11,0	16,0	20,0	22,0	25,0	N/A
>2000 and ≤2500	7,5	10,0	14,0	20,0	25,0	28,0	32,0	N/A
>2500 and ≤3200	10,0	12,5	18,0	25,0	32,0	36,0	40,0	N/A
>3200 and ≤4000	12,5	16,0	22,0	32,0	40,0	45,0	50,0	N/A
>4000 and ≤5000	16,0	20,0	28,0	40,0	50,0	56,0	63,0	N/A
>5000 and ≤6300	20,0	25,0	36,0	50,0	63,0	71,0	80,0	N/A
>6300 and ≤8000	25,0	32,0	45,0	63,0	80,0	90,0	100,0	N/A
>8000 and ≤10000	32,0	40,0	56,0	80,0	100,0	110,0	125,0	N/A

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Clause	Requirement + Test								Result - Remark	Verdict
>10000 and ≤12500	40,0	50,0	71,0	100,0	125,0	140,0	160,0		N/A	
Supplementary information: *) Material group IIIb is allowed if the working voltage does not exceed 50 V										

30.1	TABLE: Ball Pressure Test of Thermoplastics				P
Allowed impression diameter (mm)				2	—
Object/ Part No./ Material	Manufacturer/ trademark	Test temperature (°C)		Impression diameter (mm)	
Connector (CN1)/JS-4001	See table 24.1	125		1,6	
Connector (CN1)/ JS-1120X7-X1 (X7=R or Blank; X1=02-15)	See table 24.1	125		1,5	
Connector (CN1)/PVHI	See table 24.1	125		1,5	
Transformer (T1)/PM-9820	See table 24.1	125		1,4	
Transformer (T1)/FR-530	See table 24.1	125		1,3	
Transparent lampshade/PC940A	See table 24.1	75		0,8	
Plastic enclosure/Lampshade/PC940	See table 24.1	75		1,0	
PCB/DFD-2	See table 24.1	125		1,1	
Supplementary information:					

30.2	TABLE: Resistance to heat and fire - Glow wire tests						P	
Object/ Part No./ Material	Manufacturer / trademark	Glow wire test (GWT); (°C)						Verdict
		550	650		750		850	
			te	ti	te	ti		
Connector (CN1)/JS-4001	See table 24.1	--	0s	0s	0s	0s	--	P
Connector (CN1)/ JS-1120X7-X1 (X7=R or Blank; X1=02-15)	See table 24.1	--	0s	0s	0s	0s	--	P

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Clause	Requirement + Test			Result - Remark				Verdict
Connector (CN1)/PVHI	See table 24.1	--	0s	0s	0s	0s	--	P
Transformer (T1)/PM-9820	See table 24.1	--	0s	0s	0s	0s	--	P
Transformer (T1)/FR-530	See table 24.1	--	0s	0s	0s	0s	--	P
Transparent lampshade/PC940A	See table 24.1	0s	--	--	--	--	--	P
Plastic enclosure/Lampshade/PC940	See table 24.1	0s	--	--	--	--	--	P
Switch	See table 24.1	--	0s	0s	0s	0s	--	P
Object/ Part No./ Material	Manufacturer / trademark	Glow-wire flammability index (GWFI), °C				GW ignition temp. (GWIT), °C		Verdict
		550	650	750	850	675	775	
The test specimen passed the glow wire test (GWT) with no ignition [(te – ti) ≤ 2s] (Yes/No):								Yes
If no, then surrounding parts passed the needle-flame test of annex E (Yes/No)								N/A
The test specimen passed the test by virtue of most of the flaming material being withdrawn with the glow-wire (Yes/No)?								N/A
Ignition of the specified layer placed underneath the test specimen (Yes/No)								N0
Supplementary information:								
- 550 °C GWT not relevant (or applicable) to parts of material classified at least HB40 or if relevant HBF								
- The GWIT pre-selection option, the 850 °C GWFI pre-selection option, and the 850 °C GWT are not relevant (or applicable) for attended appliances								

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Clause	Requirement + Test	Result - Remark			Verdict
30.2/30.4	TABLE: Needle- flame test (NFT)				P
Object/ Part No./ Material	Manufacturer/ trademark	Duration of application of test flame (ta); (s)	Ignition of specified layer Yes/No	Duration of burning (tb) (s)	Verdict
PCB/DFD-2	See table 24.1	30	No	0	P
Supplementary information:					
- NFT not relevant (or applicable) for Parts of material classified as V-0 or V-1 - NFT not relevant (or applicable) for Base material of PCBs classified as V-0 or if relevant VTM-0					

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Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60335-2-27 AUSTRALIA/NEW ZEALAND NATIONAL DIFFERENCES Household and similar electrical appliances – Safety – Part 2-27: Particular requirements for appliances for skin exposure to optical radiation			
Differences according to AS/NZS 60335.2.27:2020 AS/NZS 60335.1:2020+A1:2021			
TRF template used: IECEE OD-2020-F3:2022, Ed. 1.2			
Attachment Form No : AU_NZ_ND_IEC60335_2_27J			
Attachment Originator: NZ Electrotechnical Committee/Standards New Zealand			
Master Attachment : Date 2023-11-03			
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	National Differences		P
3	TERMS AND DEFINITIONS		N/A
	Insert the following definition:		N/A
AZ.3.1.201	Outlet load (AS/NZS 60335.1:2020)		N/A
	maximum allowed load that may be connected to appliance outlets and socket outlets accessible to the user (AS/NZS 60335.1:2020)		N/A
	Note to entry 1 A USB outlet is not considered to be an appliance outlet (AS/NZS 60335.1:2020)		N/A
5	GENERAL CONDITIONS FOR THE TESTS		P
5.2	Insert the following variation:		N/A
	If the tests of AZ.22.201 need to be performed they are carried out on separate appliances, the number of appliances is that required by AS/NZS 3112. (AS/NZS 60335.1:2020)		N/A
5.8.1	Replace the test condition by the following variation:		P
	Appliances for a.c. only are tested with a.c. at 50 Hz, and those for a.c. and d.c. are tested at a.c. 50 Hz or d.c., whichever is the more unfavourable supply. (AS/NZS 60335.1:2020)		P

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Clause	Requirement + Test	Result - Remark	Verdict
6	CLASSIFICATION		P
6.1	Replace the first paragraph of the requirement by the following variation:		P
	Appliances shall be of one of the following classes with respect to protection against electric shock: class I, class II, class III. (AS/NZS 60335.1:2020)	Class I	P
7	MARKING AND INSTRUCTIONS		N/A
7.1	After the first paragraph of the requirement insert the following variation:		N/A
	For appliance outlets and socket outlets accessible to the user that are incorporated in appliances connected to the supply mains; and		N/A
	- that operate at rated voltage;		N/A
	the appliances shall be marked with their maximum outlet load in Watts. (AS/NZS 60335.1:2020)		N/A
	Max. Outlet load (W).....:		N/A
7.13	Replace the requirement with the following variation:		N/A
	Instructions and other text required by this standard are written in English. (AS/NZS 60335.1:2020)		N/A
7.15	After the last paragraph of the requirement insert the following variation:		N/A
	The marking of the maximum outlet load shall be close to the appliance outlet or socket outlet. (AS/NZS 60335.1:2020)		N/A
10	POWER INPUT AND CURRENT		N/A
10.1	After the last paragraph of the test specification insert the following variation:		N/A
	Appliance outlets and socket outlets accessible to the user that are incorporated in appliances connected to the supply mains; and		N/A
	that operate at rated voltage;		N/A
	are not loaded during the test, however their contribution to the power input is considered to be the marked outlet load per appliance outlet or socket-outlet. (AS/NZS 60335.1:2020)		N/A
11	HEATING		N/A
11.7	After the first paragraph of the test specification insert the following variation:		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Appliance outlets and socket outlets accessible to the user are loaded with a resistive load that gives the marked outlet load in watts. (AS/NZS 60335.1:2020)		N/A
11.8	After the first paragraph of the test specification insert the following variation:		P
	The pins of plug connectors inserted into appliance outlets accessible to the user and plugs inserted into socket outlets accessible to the user shall have a temperature rise not exceeding 45 K. (AS/NZS 60335.1:2020)		P
	Temperature rise (K).....:	12,2K	P
19	ABNORMAL OPERATION		N/A
19.13	After the seventh paragraph of the test specification insert the following variation:		N/A
	During and after the tests the no-load output voltage of an accessible safety extra-low voltage outlet or connector shall not have increased by more than 3 V or 10% of its no-load output voltage in normal use, whichever is higher. (AS/NZS 60335.1:2020)		N/A
	Voltage normal use (V).....:		N/A
	Voltage abnormal operation (V).....:		N/A
	Deviation (%).....:		N/A
	During and after the tests the no-load output voltage of a USB outlet shall not increase by more than 3 V or 10% of its no-load output voltage in normal use, whichever is higher. (AS/NZS 60335.1:2020)		N/A
	Voltage normal use (V).....:		N/A
	Voltage abnormal operation (V).....:		N/A
	Deviation (%).....:		N/A
22	CONSTRUCTION		
22.2	After the first paragraph of the requirement insert the following variation:		N/A
	For stationary appliances permanently connected to the fixed wiring, compliance with this requirement is considered to be met if the instruction concerning disconnection incorporated in the fixed wiring is in accordance with AS/NZS 3000. (AS/NZS 60335.1:2020)		N/A
22.3	Replace the text with the following variation:		N/A
	VOID (AS/NZS 60335.1:2020)		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
22.33	Delete the last sentence of the first paragraph of the requirement and introduce it as a new first paragraph of the requirement. (AS/NZS 60335.1:2020)		N/A
AZ.22.201	Appliances having integral pins for insertion into socket outlets shall comply with the appropriate requirements of AS/NZS 3112. (AS/NZS 60335.1:2020)		N/A
	Compliance is checked as specified in Annex J of AS/NZS 3112 (AS/NZS 60335.1:2020)		N/A
AZ.22.202	Appliance outlets and socket outlets accessible to the user that are incorporated in appliances connected to the supply mains; and		N/A
	that operate at rated voltage		N/A
	shall be single-phase and have a current rating not exceeding 16 A. (AS/NZS 60335.1:2020)		N/A
	The socket outlets shall comply with AS/NZS 3112; (AS/NZS 60335.1:2020)		N/A
	accept a 3-pin, flat-pin plug as described in figure 2.1(a1) of AS/NZS 3112. (AS/NZS 60335.1:2020)		N/A
	The appliance outlets and socket outlets shall be protected by one of the following protection devices that has a current rating not exceeding the current rating of the appliance outlet or socket-outlet: (AS/NZS 60335.1:2020)		N/A
	- a circuit breaker for equipment complying with IEC 60934; (AS/NZS 60335.1:2020)		N/A
	- a manually resettable trip-free or cycling trip-free overcurrent protection device; (AS/NZS 60335.1:2020)		N/A
	- a non-user replaceable fuse-link. (AS/NZS 60335.1:2020)		N/A
	Current of outlet (A).....:		N/A
	Current of protection device (A).....:		N/A
	The protection device shall be placed behind a non-detachable cover. The actuating member of the circuit breaker and the manually resettable protection device may be accessible. (AS/NZS 60335.1:2020)		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	The current rating of the appliance outlets and socket outlets is obtained from the marked outlet load in watts divided by the rated voltage. (AS/NZS 60335.1:2020)		N/A
	Load of outlet (W).....:		N/A
	Rated voltage (V).....:		N/A
	Current of outlet (A).....:		N/A
	Compliance is checked by inspection and for a manually resettable trip-free or cycling trip-free overcurrent protection device by the following tests: (AS/NZS 60335.1:2020)		N/A
	The device shall be operated at rated voltage at 136% of its current rating, in an ambient temperature of 23°C ± 2°C in a draught-free environment. (AS/NZS 60335.1:2020)		N/A
	Rated voltage (V).....:		N/A
	Current of outlet (A).....:		N/A
	Test current (A).....:		N/A
	Ambient temperature (°C).....:		N/A
	The device shall operate to interrupt the current within 2 h. (AS/NZS 60335.1:2020)		N/A
	Overload condition existed for (_h,_min,_sec).....:		N/A
	The device shall be operated at rated voltage at 600% of its current rating in an ambient temperature of 23°C ± 2°C in a draught-free environment (AS/NZS 60335.1:2020)		N/A
	Rated voltage (V).....:		N/A
	Current of outlet (A).....:		N/A
	Test current (A).....:		N/A
	Ambient temperature (°C).....:		N/A
	The device shall operate to interrupt the current within 5 s. (AS/NZS 60335.1:2020)		N/A
	Overload condition existed for (sec).....:		N/A
	Immediately following the overcurrent tests, the test of clause 16.3 shall be applied, and the device shall comply with the specified requirements of the test. (AS/NZS 60335.1:2020)		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	The device shall comply with the ball pressure test of 30.1 carried out at 160 °C. (AS/NZS 60335.1:2020)		N/A
	Plastic material type.....:		N/A
	Impression diameter (mm).....:		N/A
	The device shall comply with the glow-wire test of 30.2.3.1 with a test severity of 960 °C. (AS/NZS 60335.1:2020)		N/A
	Plastic material type.....:		N/A
	Time of ignition (sec).....:		N/A
	Time of extinguish (sec).....:		N/A
	Specified layer placed underneath the test specimen does not ignite.:		N/A
24	COMPONENTS		P
24.1	Insert the following variation before NOTE 1:		P
	NOTE 201 The relevant IEC standard can be replaced with the relevant Australia/New Zealand standard where applicable. (AS/NZS 60335.1:2020)		P
25	SUPPLY CONNECTION AND EXTERNAL FLEXIBLE CORDS		N/A
25.1	Insert the following variation:		N/A
	Supply cords for single-phase portable appliances intended for direct connection to the supply mains, shall be fitted with an appropriate plug complying with AS/NZS 3112. (AS/NZS 60335.1:2020)		N/A
Table 11	In footnote <i>a</i> insert the following variation		N/A
	However, they cannot be used in class I appliances. (AS/NZS 60335.1:2020)		N/A
32	RADIATION, TOXICITY AND SIMILAR HAZARDS		N/A
32.101	Add to the test specification the following variation:		N/A
	The spectral irradiance for appliances for wavelengths in the range $200 \text{ nm} \leq \lambda \leq 280 \text{ nm}$ shall not exceed $1,0 \times 10^{-5} \text{ W/m}^2/\text{nm}$ (AS/NZS 60335.2.27:2020)		N/A
	The ratio (R) of the total irradiance in the range $280 \text{ nm} \leq \lambda \leq 320 \text{ nm}$ to the total irradiance in the range $280 \text{ nm} \leq \lambda \leq 400 \text{ nm}$ shall fall within the limits $0,007 < R < 0,03$. (AS/NZS 60335.2.27:2020)		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Spectral irradiance (W/m ² /nm).....:		N/A
	Ratio value.....		N/A
Annex BB	DETAILED CLASSIFICATION OF UV APPLIANCES		N/A
BB.2	At the end of the Note add the following variation:		N/A
	UV Type 1 appliances, UV Type 4 appliances and UV Type 5 appliances are not allowed for household use or commercial use (AS/NZS 60335.2.27:2020)		N/A
	Special national conditions (if any)		P
	Australia		P
5	GENERAL CONDITIONS FOR THE TESTS		P
AZ.5.201	For appliances, other than class III appliances, that are intended for connections to the supply mains (AS/NZS 60335.1:2020/A1:2021)		P
	–for single phase appliances, if marked with a rated voltage of either “230V” or “240V” test: (AS/NZS 60335.1:2020/A1:2021)		N/A
	•at the multiplication factor (of less than 1) × 230 V; and (AS/NZS 60335.1:2020/A1:2021)		N/A
	•at the multiplication factor (of greater than 1) × 240 V; (AS/NZS 60335.1:2020/A1:2021)		N/A
	–for multi-phase appliances, if marked with a rated voltage of either “400V” or “415V” test: (AS/NZS 60335.1:2020/A1:2021)		N/A
	•at the multiplication factor (of less than 1) × 400 V; and (AS/NZS 60335.1:2020/A1:2021)		N/A
	•at the multiplication factor (of greater than 1) × 415 V; (AS/NZS 60335.1:2020/A1:2021)		N/A
	If marked with a rated voltage range then test:		P
	•at the multiplication factor (of less than 1) × the lower extremity of the rated voltage range; and (AS/NZS 60335.1:2020/A1:2021)		N/A
	•at the multiplication factor (of greater than 1) × the higher extremity of the rated voltage range; or (AS/NZS 60335.1:2020/A1:2021)		P

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Clause	Requirement + Test	Result - Remark	Verdict
	<ul style="list-style-type: none"> at the worst case voltage within the rated voltage range (AS/NZS 60335.1:2020/A1:2021) 		N/A
7.1	After the first paragraph of the requirement insert the following variation:		P
	Appliances intended for connection to the supply mains, other than class III appliances, shall be marked with:		P
	–a rated voltage of at least: 230 V for single-phase appliances; 400 V for multi-phase appliances; or (AS/NZS 60335.1:2020/A1:2021)		N/A
	–a rated voltage range that includes: 230 V for single-phase appliances; 400 V for multi-phase appliances. (AS/NZS 60335.1:2020/A1:2021)	100-240V	P
24	COMPONENTS		N/A
24.1.7	Telecommunication interface circuitry must comply with the Telecom Labelling Notice issued under the Telecommunications Act instead of IEC 62151 (AS/NZS 60335.1:2020)		N/A
	New Zealand		P
7.1	After the first paragraph of the requirement insert the following variation:		P
	Appliances intended for connection to the supply mains, other than class III appliances, shall be marked with:		P
	–a rated voltage of: 230 V for single-phase appliances; 400 V for multi-phase appliances; or (AS/NZS 60335.1:2020/A1:2021)		N/A
	–a rated voltage range that includes: 230 V for single-phase appliances; 400 V for multi-phase appliances. (AS/NZS 60335.1:2020/A1:2021)	100-240V	P

-Appendix 2: Photo document



Photo 1: Overall view

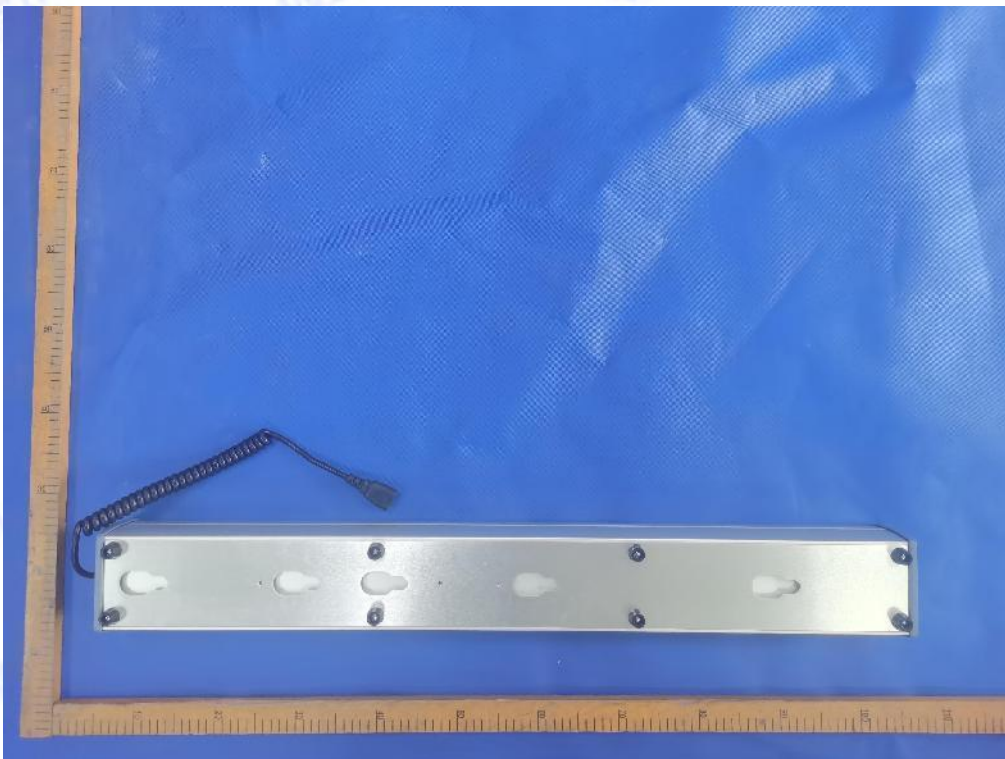


Photo 2: Overall view

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Photo 3: Overall view

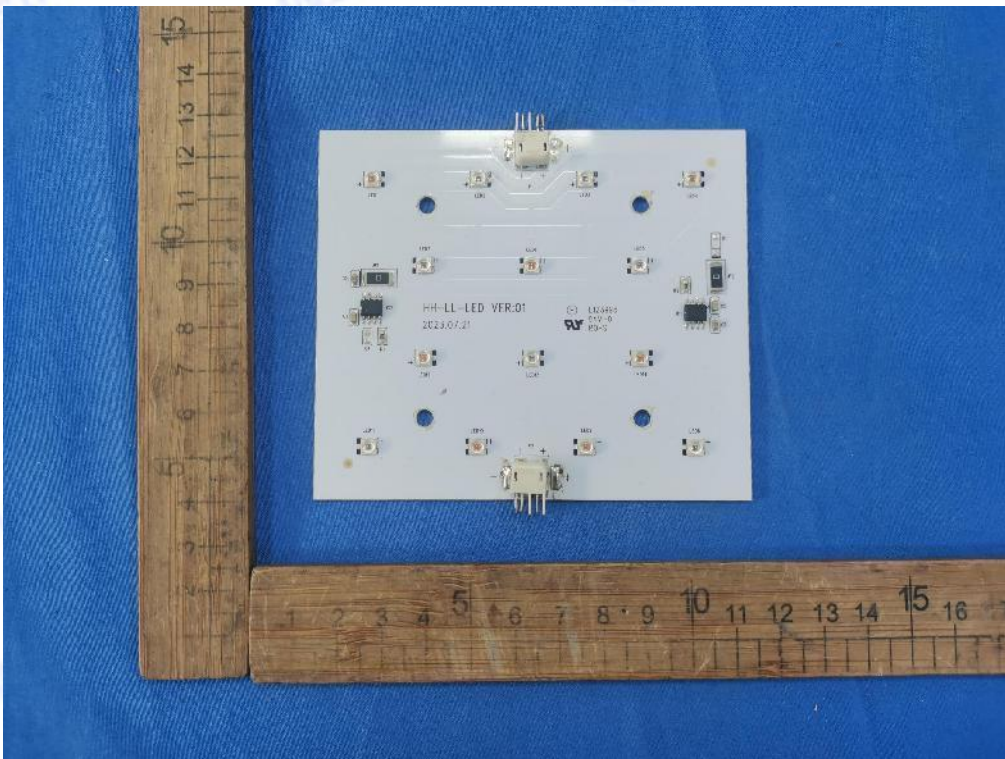


Photo 4: PCB view

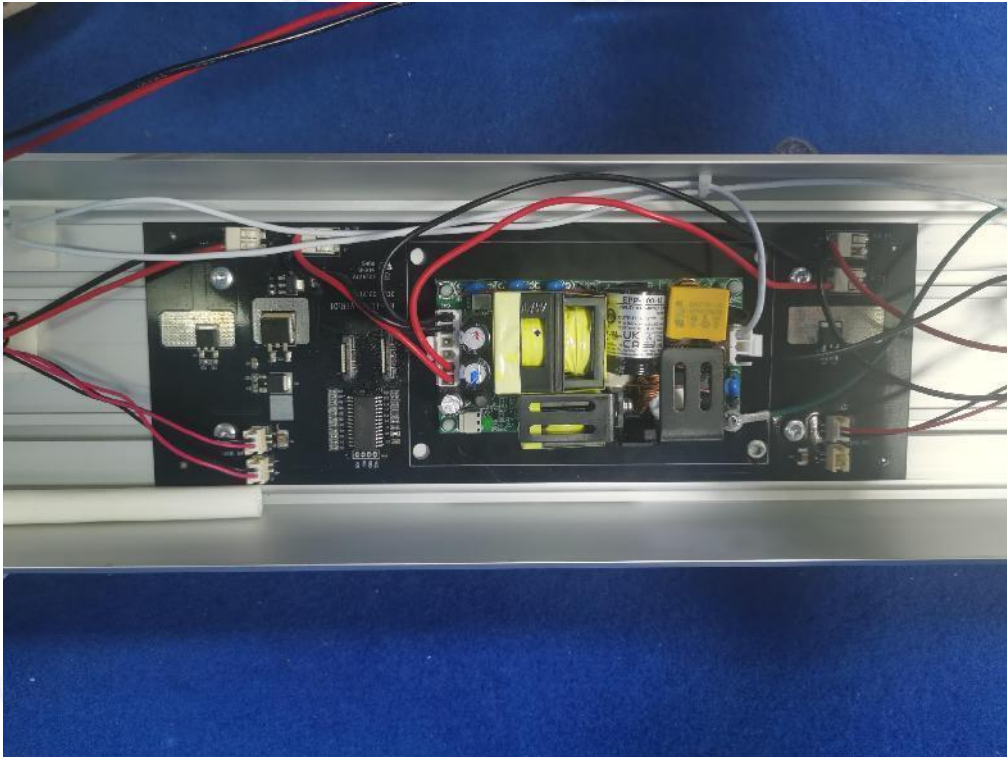


Photo 5: Internal view

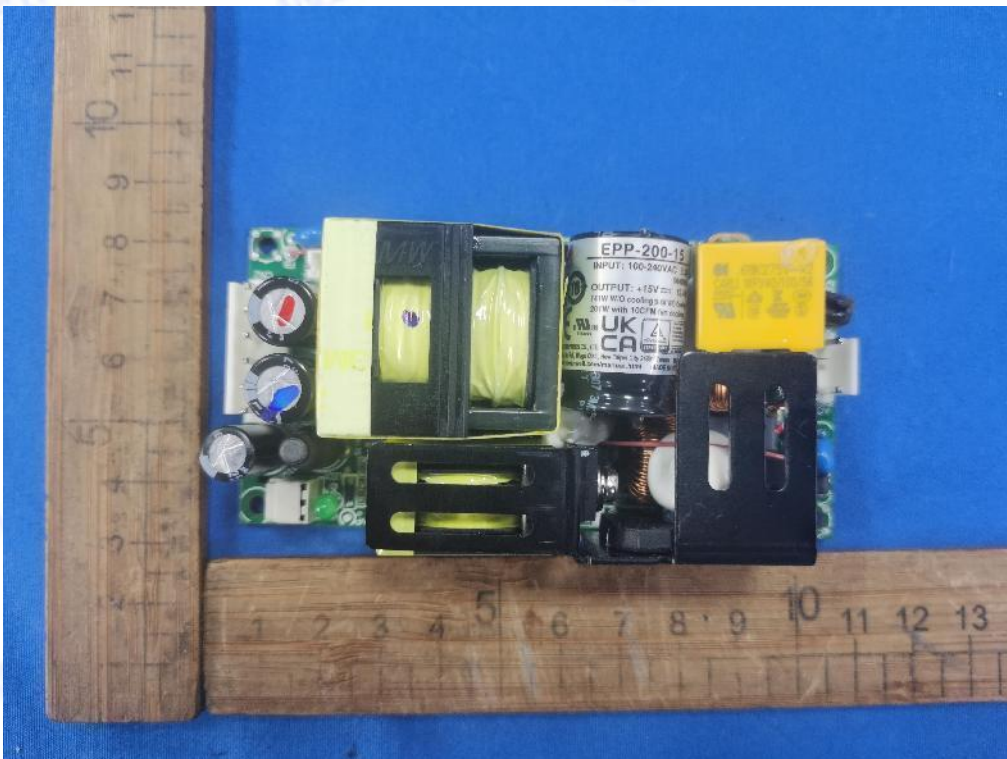


Photo 6: PCB view

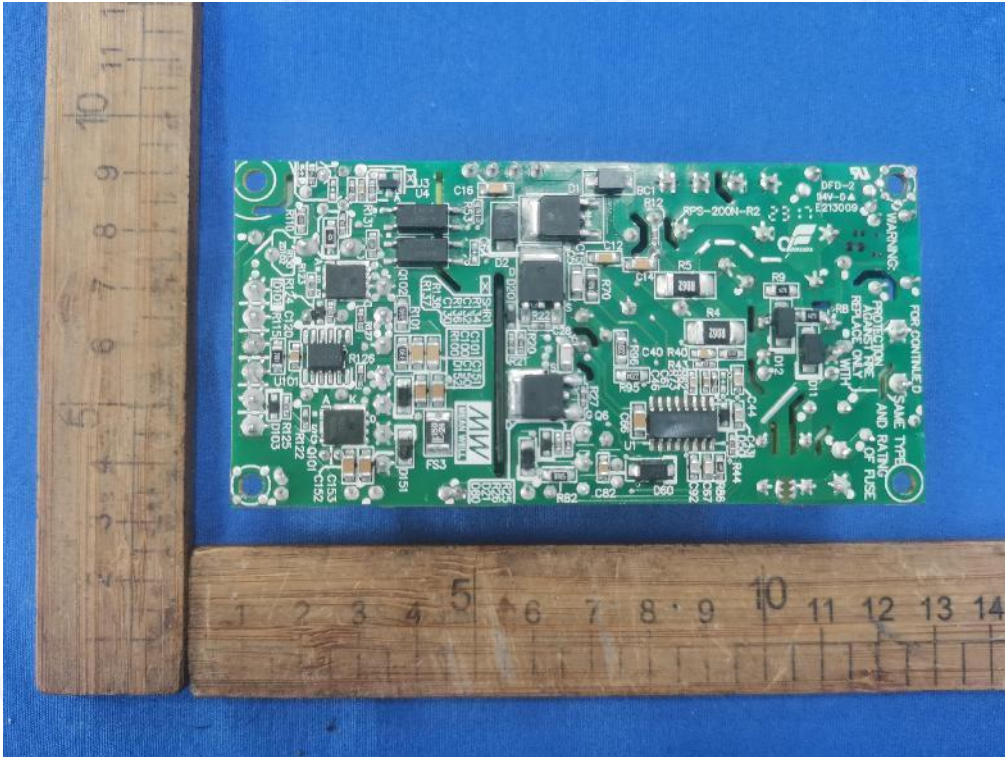


Photo 7: PCB view

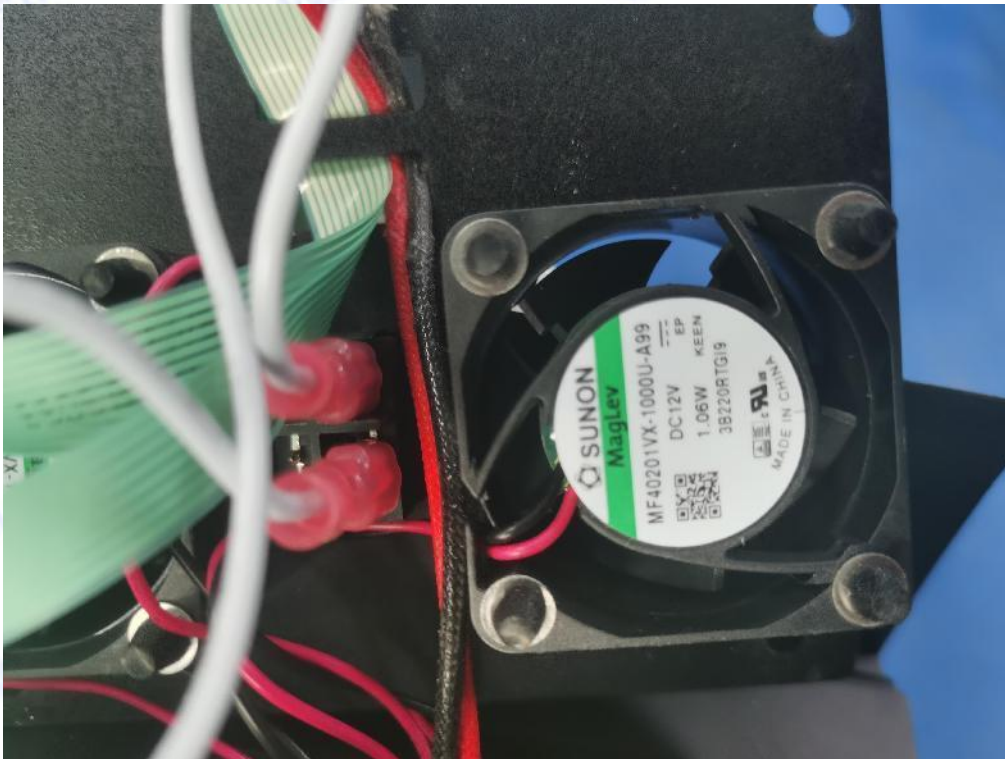


Photo 8: Fan view

----- End of Test Report -----