TEST REPORT
EN 62368-1
Audio/video, information and communication technology equipment
Part 1: Safety requirements

Report Number	:	XK2309013058S
Tested by (name)	:	Rachel Yang
Compiled by (name)	:	Jean Shu
Approved by (name)	:	Andy Wang
Date of issue	:	October 15, 2023

Applicant's name ..... :	Shenszhen Domino Times Technology Co., Ltd
Address ..... :	Room 806, Taibang Tech. Building, Yuehai Street, Nanshan District, Shenzhen.

Test specification:	
Standard.....:	EN IEC 62368-1:2020+A11:2020
Test procedure.....:	Type test
Non-standard test method .....:	N/A
Test Report Form No. ..... :	EN62368_1B
Test Report Form(s) Originator.....:	SICT TEST LAB
Master TRF .....:	2017-03

Test Item description.....	Smart Watch
Trade Mark.....	Domiwear
Manufacturer.....	Shenszhen Domino Times Technology Co., Ltd
Address.....	Room 806, Taibang Tech. Building, Yuehai Street, Nanshan District, Shenzhen.
Model/Type reference	DM63
Rating.....	DC 5V 1A Class III equipment.

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

1. **Attachment 1: EN IEC 62368-1:2020+A11:2020 EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES**
2. **Attachment 2: Photos)**

Summary of testing:

Tests performed (name of test and test clause):	**Testing location:**
See Report for details.	**Shenzhen SiCT Technology Co., Ltd.** 202, Building 3, No.111 Huanguan Middle Road, Songyuanxia Community, Guanhu Street, Longhua District, Shenzhen, Guangdong, P. R. China

Summary of compliance with National Differences:

List of countries addressed

EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES

☒ **The product fulfils the requirements of EN IEC 62368-1:2020+A11:2020**

Copy of marking plate:

The artwork below may be only a draft.

Smart Watch

Model: DM63

Rating: DC 5V

Manufacturer:Room 806,Taibang Tech. Building, Yuehai Street,Nanshan District, Shenzhen.

Made in China

Note:

DM63 was selected as the test model and the data's have been recorded in this report.

The above marking are the minimum requirements required by the safety standard. For the final production sample, the marking which do not give rise to misunderstanding may be add.

- The height dimension of CE mark should not less than 5mm, the height dimension of WEEE symbol should not less than 7mm.

- As declared by the applicant the authorized EEA representative or importer was not decided at the time of application, but will be marked on the products before placing them on the market.

TEST ITEM PARTICULARS:	
Classification of use by.....:	☒ Ordinary person ☒ Instructed person ☒ Skilled person ☐ Children likely to be present
Supply Connection .....:	☐ AC Mains ☐ DC Mains ☒ External Circuit - not Mains connected - ☒ ES1 ☐ ES2 ☐ ES3
Supply % Tolerance .....:	☒ +10%/-10% ☐ +20%/-15% ☐ +____%/ -_____% ☐ None
Supply Connection – Type .....:	☐ pluggable equipment type A - ☐ non-detachable supply cord ☐ appliance coupler ☐ direct plug-in ☐ mating connector ☐ pluggable equipment type B - ☐ non-detachable supply cord ☐ appliance coupler ☐ permanent connection ☐ mating connector ☒ other:_Not connect to Mains supply_____
Considered current rating of protective device as part of building or equipment installation.....:	___0.002___ A; Installation location: ☐ building; ☒ equipment
Equipment mobility .....:	☒ movable ☐ hand-held ☐ transportable ☐ stationary ☐ for building-in ☐ direct plug-in ☐ rack-mounting ☐ wall-mounted
Over voltage category (OVC) .....:	☐ OVC I ☒ OVC II ☐ OVC III ☐ OVC IV ☐ other: _____
Class of equipment .....:	☐ Class I ☐ Class II ☒ Class III
Access location .....:	☐ restricted access location ☒ N/A
Pollution degree (PD) .....:	☐ PD 1 ☒ PD 2 ☐ PD 3
Manufacturer's specified maximum operating ambient..:	__45___°C
IP protection class .....:	☐ IPX0 ☒ IP_20__
Power Systems .....:	☒ TN ☐ TT ☐ IT - ____ V_{L-L}
Altitude during operation (m) .....:	☐ 2000 m or less ☒ __5000__ m
Altitude of test laboratory (m) .....:	☒ 2000 m or less ☐ _____ m
Mass of equipment (kg) .....:	☒ ____0.06____ kg
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 .....:	October 6
Date (s) of performance of tests.....:	October 7, 2023 to October 14, 2023
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 ☐ comma / ☒ point is used as the decimal separator.**	
GENERAL PRODUCT INFORMATION:	
Product Description: The equipment under tests is Smart Watch	

OVERVIEW OF EMPLOYED SAFEGUARDS				
Clause	**Possible Hazard**			
5.1	Electrically-caused injury			
Body Part (e.g. Ordinary)	Energy Source (ES3: Primary Filter circuit)	Safeguards		
		Basic	Supplementary	Reinforced (Enclosure)
Ordinary person	ES1: Secondary circuit	N/A	N/A	N/A
6.1	Electrically-caused fire			
Material part (e.g. mouse enclosure)	Energy Source (PS2: 100 Watt circuit)	Safeguards		
		Basic	Supplementary	Reinforced
Internal combustible material	PS2: Secondary components/circuit	1. No ignition occurred. 2. No parts exceeding 90% of its spontaneous ignition temperature.	1. PCB is complied with V-1 material. 2. All other components: at least V-2 except for mounted on min. V-1 material or small parts of combustible material. 3. V-1 enclosure provided.	N/A
7.1	Injury caused by hazardous substances			
Body Part (e.g., skilled)	Energy Source (hazardous material)	Safeguards		
		Basic	Supplementary	Reinforced
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8.1	Mechanically-caused injury			
Body Part (e.g. Ordinary)	Energy Source (MS3:High Pressure Lamp)	Safeguards		
		Basic	Supplementary	Reinforced (Enclosure)
Ordinary person	MS1: Sharp edges and Corners	N/A	N/A	N/A
Ordinary person	MS1: Equipment mass	N/A	N/A	N/A
9.1	Thermal Burn			
Body Part (e.g., Ordinary)	Energy Source (TS2)	Safeguards		
		Basic	Supplementary	Reinforced
Ordinary person	TS1: External enclosure	N/A	N/A	N/A
10.1	Radiation			
Body Part (e.g., Ordinary)	Energy Source (Output from audio port)	Safeguards		
		Basic	Supplementary	Reinforced
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Supplementary Information: (1) See attached energy source diagram for additional details. (2) “N” – Normal Condition; “A” – Abnormal Condition; “S” Single Fault				

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Clause	Requirement + Test	Result - Remark	Verdict

4	**GENERAL REQUIREMENTS**		P
4.1.1	Acceptance of materials, components and subassemblies (IEC 60065, 3.4) & (IEC 60950-1, 1.5.1)		P
4.1.2	Use of components (IEC 60065, 3.4, 14.1) & (IEC 60950-1, 1.5.2)		P
4.1.3	Equipment design and construction (IEC 60065, 3.1) & (IEC 60950-1, 1.3.2)		P
4.1.15	Markings and instructions ..... : (IEC 60065, 5.1) & (IEC 60950-1, 1.7)	(See Annex F)	—
4.4.4	Safeguard robustness		
4.4.4.2	Steady force tests ..... : (IEC 60065, 9.1.1.7 c), 13.3.1) & (IEC 60950-1, 4.2.4)	(See Annex T.4, T.5)	—
4.4.4.3	Drop tests..... : (IEC 60065, 12.1.5) & (IEC 60950-1, 4.2.6)	(See Annex T.7)	—
4.4.4.4	Impact tests..... : (IEC 60065, 12.1.4) & (IEC 60950-1, 4.2.5)	(See Annex T.6)	—
4.4.4.5	Internal accessible safeguard enclosure and barrier tests ..... : (IEC 60950-1, 4.2.3)	(See Annex T.3)	—
4.4.4.6	Glass Impact tests..... : (IEC 60065, 19.6) & (IEC 60950-1, 4.2.5)	(See Annex T.9, Annex U)	—
4.4.4.7	Thermoplastic material tests ..... : (IEC 60065, 12.1.6) & (IEC 60950-1, 4.2.7)	(See Annex T.8)	—
4.4.4.8	Air comprising a safeguard ..... : (IEC 60065, 9.1.7) & (IEC 60950-1, 4.2)	(See Annex T)	—
4.4.4.9	Accessibility and safeguard effectiveness (IEC 60065, 9.1.7) & (IEC 60950-1, 4.2.1)		P
4.5	Explosion		P
4.6	Fixing of conductors (IEC 60065, 8.14) & (IEC 60950-1, 3.1.9)		P
4.6.1	Fix conductors not to defeat a safeguard (IEC 60065, 8.14) & (IEC 60950-1, 3.1.9)		P
4.6.2	10 N force test applied to ..... : (IEC 60065, 8.14) & (IEC 60950-1, 3.1.9)		—
4.7	Equipment for direct insertion into mains socket – outlets (IEC 60065, 15.4) & (IEC 60950-1, 4.3.6)		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
4.7.2	Mains plug part complies with the relevant standard ..... : (IEC 60065, 15.4.2) & (IEC 60950-1, 4.3.6)		—
4.7.3	Torque (Nm)..... : (IEC 60065, 15.4.1) & (IEC 60950-1, 4.3.6)		—
4.8	Products containing coin/button cell batteries (IEC 60065, 12.7)		N/A
4.8.2	Instructional safeguard (IEC 60065, 5.4 c), 5.5.2 j))		N/A
4.8.3	Battery Compartment Construction (IEC 60065, 12.7.2)		N/A
	Means to reduce the possibility of children removing the battery ..... :		—
4.8.4	Battery Compartment Mechanical Tests..... : (IEC 60065, 12.7.3)	(See Table 4.8.4)	—
4.8.5	Battery Accessibility (IEC 60065, 12.7.4)		N/A
4.9	Likelihood of fire or shock due to entry of conductive object ..... : (IEC 60065, 9.1.3, 20.3.2) & (IEC 60950-1, 4.6.1)	(See Annex P)	—

5	**ELECTRICALLY-CAUSED INJURY**		N/A
5.2.1	Electrical energy source classifications .....:	(See appended table 5.2)	—
5.2.2	ES1, ES2 and ES3 limits	ES1	N/A
5.2.2.2	Steady-state voltage and current.....: (IEC 60065, 9.1.1.2) & (IEC 60950-1, 2.2, 2.3, 2.4)	See appended table 5.2)	—
5.2.2.3	Capacitance limits .....: (IEC 60065, 9.1.1.2) & (IEC 60950-1, 2.4)	(See appended table 5.2)	—
5.2.2.4	Single pulse limits.....: (IEC 60950-1, 2.2)	(See appended table 5.2)	—
5.2.2.5	Limits for repetitive pulses.....: (IEC 60950-1, 2.2)	(See appended table 5.2)	—
5.2.2.6	Ringing signals .....: (IEC 60950-1, 2.3, Annex M)	(See Annex H)	—
5.2.2.7	Audio signals .....: (IEC 60065, 9.1.1.2) & (IEC 60950-1, 2.1.1.9)	(See Clause E.1)	—
5.3	Protection against electrical energy sources (IEC 60065, 9.1.1) & (IEC 60950-1, 2.1)		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.3.1	General Requirements for accessible parts to ordinary, instructed and skilled persons (IEC 60065, 9.1.1) & (IEC 60950-1, 2.1)		N/A
5.3.2.1	Accessibility to electrical energy sources and safeguards (IEC 60065, 9.1.1.3, 9.1.2, 9.1.3, 9.1.4, 9.1.5) & (IEC 60950-1, 2.1.1.1)		N/A
5.3.2.2	Contact requirements (IEC 60065, 9.1.1.1) & (IEC 60950-1, 2.1.1.1)		N/A
	a) Test with test probe from Annex V .....:		—
	b) Electric strength test potential (V).....:		—
	c) Air gap (mm) .....:		—
5.3.2.4	Terminals for connecting stripped wire (IEC 60065, 9.1.1.4)		N/A
5.4	Insulation materials and requirements		N/A
5.4.1.2	Properties of insulating material (IEC 60065, 8.3) & (IEC 60950-1, 2.9.1)		N/A
5.4.1.3	Humidity conditioning..... : (IEC 60065, 10.3) (IEC 60950-1, 2.9.1)	(See sub-clause 5.4.8)	—
5.4.1.4	Maximum operating temperature for insulating materials .....: (IEC 60065, 7.1) & (IEC 60950-1, 4.5)	(See appended table 5.4.1.4)	—
5.4.1.5	Pollution degree.....: (IEC 60065, 13.1) & (IEC 60950-1, 2.10.1.2)		—
5.4.1.5.2	Test for pollution degree 1 environment and for an insulating compound (IEC 60065, 13.6, 13.7) & (IEC 60950-1, 2.10.10)		N/A
5.4.1.5.3	Thermal cycling (IEC 60065, 13.6) & (IEC 60950-1, 2.10.9)		N/A
5.4.1.6	Insulation in transformers with varying dimensions (IEC 60065, 13.2) & (IEC 60950-1, 2.10.1.5)		N/A
5.4.1.7	Insulation in circuits generating starting pulses (IEC 60950-1, 2.10.3.5)		N/A
5.4.1.8	Determination of working voltage (IEC 60065, 13.2) & (IEC 60950-1, 2.10.2)		N/A
5.4.1.9	Insulating surfaces (IEC 60065, 13.3.1) & (IEC 60950-1, 2.10.3.1)		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.4.1.10	Thermoplastic parts on which conductive metallic parts are directly mounted (IEC 60065, 7.2) & (IEC 60950-1, 4.5.5)		N/A
5.4.1.10.2	Vicat softening temperature .....: (IEC 60065, 7.2)	(See appended table 5.4.1.10.2)	—
5.4.1.10.3	Ball pressure .....: (IEC 60950-1, 4.5.5)	(See appended table 5.4.1.10.3)	—
5.4.2	Clearances (IEC 60065, 13.3, Annex J) & (IEC 60950-1, 2.10.3, Annex G)		N/A
5.4.2.2	Determining clearance using peak working voltage	(See appended table 5.4.2.2)	N/A
5.4.2.3	Determining clearance using required withstand voltage .....:	(See appended table 5.4.2.3)	—
	a) a.c. mains transient voltage .....:		—
	b) d.c. mains transient voltage .....:		—
	c) external circuit transient voltage .....:		—
	d) transient voltage determined by measurement ..... :		—
5.4.2.4	Determining the adequacy of a clearance using an electric strength test	(See appended table 5.4.2.4)	N/A
5.4.2.5	Multiplication factors for clearances and test voltages.....:		—
5.4.3	Creepage distances .....: (IEC 60065, 13.4) & (IEC 60950-1, 2.10.4)	(See appended table 5.4.3)	—
5.4.3.1	General		N/A
5.4.3.3	Material Group .....: (IEC 60065, 13.4) & (IEC 60950-1, 2.10.4.2)		—
5.4.4	Solid insulation (IEC 60065, 8.8) & (IEC 60950-1, 2.10.5)		N/A
5.4.4.2	Minimum distance through insulation .....: (IEC 60065, 8.8) & (IEC 60950-1, 2.10.5.2)	(See appended table 5.4.4.2)	N/A
5.4.4.3	Insulation compound forming solid insulation (IEC 60065, 13.6, 13.7, 13.8) & (IEC 60950-1, 2.10.5.3)		N/A
5.4.4.4	Solid insulation in semiconductor devices (IEC 60065, 13.6, 13.8) & (IEC 60950-1, 2.10.5.4)		N/A
5.4.4.5	Cemented joints (IEC 60065, 13.6) & (IEC 60950-1, 2.10.5.5)		N/A
5.4.4.6	Thin sheet material (IEC 60065, 8.8) & (IEC 60950-1, 2.10.5.6)		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.4.4.6.1	General requirements (IEC 60065, 8.8)		N/A
5.4.4.6.2	Separable thin sheet material (IEC 60065, 8.8) & (IEC 60950-1, 2.10.5.7)		N/A
	Number of layers (pcs) .....:		—
5.4.4.6.3	Non-separable thin sheet material (IEC 60065, 8.21) & (IEC 60950-1, 2.10.5.8)		N/A
5.4.4.6.4	Standard test procedure for non-separable thin sheet material..... : (IEC 60950-1, 2.10.5.9)	(See appended Table 5.4.9)	—
5.4.4.6.5	Mandrel test (IEC 60065, 8.21) & (IEC 60950-1, Annex AA)		N/A
5.4.4.7	Solid insulation in wound components (IEC 60065, 8.16) & (IEC 60950-1, 2.10.5.11)		N/A
5.4.4.9	Solid insulation at frequencies >30 kHz..... :	(See appended Table 5.4.4.9)	—
5.4.5	Antenna terminal insulation (IEC 60065, 10.2) & (IEC 60950-1, 7.4)		N/A
5.4.5.1	General		N/A
5.4.5.2	Voltage surge test (IEC 60065, 10.2) & (IEC 60950-1, 7.4.2)		N/A
	Insulation resistance (MΩ) ..... :		—
5.4.6	Insulation of internal wire as part of supplementary safeguard ..... : (IEC 60065, 8.9) & (IEC 60950-1, 2.1.1.3)	(See appended table 5.4.4.2)	—
5.4.7	Tests for semiconductor components and for cemented joints (IEC 60065, 13.6, 13.7, 13.8) & (IEC 60950-1, 2.10.11)		N/A
5.4.8	Humidity conditioning (IEC 60065, 10.3) & (IEC 60950-1, 2.9.2)		N/A
	Relative humidity (%) ..... :	95%	—
	Temperature (°C) .....:	40°C	—
	Duration (h) ..... :	120hrs	—
5.4.9	Electric strength test ..... : (IEC 60065, 10.4) & (IEC 60950-1, 5.2)	(See appended table 5.4.9)	—
5.4.9.1	Test procedure for a solid insulation type test (IEC 60065, 10.4) & (IEC 60950-1, 5.2)		N/A
5.4.9.2	Test procedure for routine tests (IEC 60065, N.3.2) & (IEC 60950-1, 5.2.2)		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.4.10	Protection against transient voltages between external circuit (IEC 60065, Annex B) & (IEC 60950-1, 6.2)		N/A
5.4.10.1	Parts and circuits separated from external circuits (IEC 60950-1, 6.2.1)	(See appended table 5.4.9)	N/A
5.4.10.2	Test methods (IEC 60950-1, 6.2.2)		N/A
5.4.10.2.1	General		N/A
5.4.10.2.2	Impulse test..... : (IEC 60950-1, 6.2.2.1)	(See appended table 5.4.9)	—
5.4.10.2.3	Steady-state test..... : (IEC 60950-1, 6.2.2.2)	(See appended table 5.4.9)	—
5.4.11	Insulation between external circuits and earthed circuitry..... : (IEC 60065, Annex B) & (IEC 60950-1, 6.1)	(See appended table 5.4.9)	—
5.4.11.1	Exceptions to separation between external circuits and earth (IEC 60950-1, 6.1.2.2)		N/A
5.4.11.2	Requirements (IEC 60950-1, 6.1.2.1)		N/A
	Rated operating voltage U_{op} (V) ..... :		—
	Nominal voltage U_{peak} (V) ..... :		—
	Max increase due to variation U_{sp} ..... :		—
	Max increase due to ageing ΔU_{sa} ..... :		—
	$U_{op} = U_{peak} + \Delta U_{sp} + \Delta U_{sa}$..... :		—
5.5	Components as safeguards		N/A
5.5.1	General		N/A
5.5.2	Capacitors and RC units (IEC 60065, 14.3)		N/A
5.5.2.1	General requirement (IEC 60065, 14.3) & (IEC 60950-1, 1.5.6)		N/A
5.5.2.2	Safeguards against capacitor discharge after disconnection of a connector ..... : (IEC 60065, 9.1.6) & (IEC 60950-1, 2.1.1.7)	(See appended table 5.5.2.2)	—
5.5.3	Transformers (IEC 60065, 14.4) & (IEC 60950-1, 1.5.4, Annex C)	(See Annex G.5.3)	N/A
5.5.4	Optocouplers (IEC 60065, 14.12) & (IEC 60950-1, 2.10.5.3, 2.10.5.4)	(See sub-clause 5.4 or Annex G.12)	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.5.5	Relays	(See Annex G.2)	N/A
5.5.6	Resistors (IEC 60065, 14.2) & (IEC 60950-1, 1.5.7)	(See Annex G.10)	N/A
5.5.7	SPD's (IEC 60065, 14.13) & (IEC 60950-1, 1.5.9)	(See Annex G.8)	N/A
5.5.7.1	Use of an SPD connected to reliable earthing (IEC 60065, 14.13) & (IEC 60950-1, 1.5.9.4)		N/A
5.5.7.2	Use of an SPD between mains and protective earth (IEC 60065, 14.13) & (IEC 60950-1, 1.5.9.4)		N/A
5.5.8	Insulation between the mains and external circuit consisting of a coaxial cable ..... : (IEC 60065, 10.2) & (IEC 60950-1, 1.5.7.3, 7.4)	(See Annex G.10.3)	—
5.6	Protective conductor		N/A
5.6.2	Requirement for protective conductors (IEC 60065, 15.2) & (IEC 60950-1, 2.6.3, 2.6.5)		N/A
5.6.2.1	General requirements		N/A
5.6.2.2	Colour of insulation (IEC 60065, 15.2) & (IEC 60950-1, 2.6.3.5)		N/A
5.6.3	Requirement for protective earthing conductors (IEC 60065, 15.2) & (IEC 60950-1, 2.6.3.2)		N/A
	Protective earthing conductor size (mm^2) .....:		—
5.6.4	Requirement for protective bonding conductors		N/A
5.6.4.1	Protective bonding conductors (IEC 60950-1, 2.6.3.3)		N/A
	Protective bonding conductor size (mm^2).....:		—
	Protective current rating (A) ..... :		—
5.6.4.3	Current limiting and overcurrent protective devices (IEC 60950-1, 2.6.5.2)		N/A
5.6.5	Terminals for protective conductors		N/A
5.6.5.1	Requirement (IEC 60065, 15.2) & (IEC 60950-1, 2.6.4.2)		N/A
	Conductor size (mm^2), nominal thread diameter (mm).....:		—
5.6.5.2	Corrosion (IEC 60065, 15.2) & (IEC 60950-1, 2.6.5.6)		N/A
5.6.6	Resistance of the protective system (IEC 60065, 15.2) & (IEC 60950-1, 2.6.3.4)		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.6.6.1	Requirements (IEC 60065, 15.2) & (IEC 60950-1, 2.6.3.4)		N/A
5.6.6.2	Test Method Resistance (Ω) ..... : (IEC 60065, 15.2) & (IEC 60950-1, 2.6.3.4)	(See appended table 5.6.6.2)	—
5.6.7	Reliable earthing (IEC 60065, 14.13) & (IEC 60950-1, 1.5.9.4, 5.1.7.1)		N/A
5.7	Prospective touch voltage, touch current and protective conductor current		N/A
5.7.2	Measuring devices and networks		N/A
5.7.2.1	Measurement of touch current ..... : (IEC 60065, 9.1.1.2) & (IEC 60950-1, 5.1.4)	(See appended table 5.7.4)	—
5.7.2.2	Measurement of prospective touch voltage (IEC 60065, 9.1.1.2) & (IEC 60950-1, 1.4.9)		N/A
5.7.3	Equipment set-up, supply connections and earth connections (IEC 60065, 9.1.1.2) & (IEC 60950-1, 5.1.3)		N/A
	System of interconnected equipment (separate connections/single connection)..... :		—
	Multiple connections to mains (one connection at a time/simultaneous connections)..... :		—
5.7.4	Earthed conductive accessible parts ..... : (IEC 60065, 9.1.1.2) & (IEC 60950-1, 5.1.6)	(See appended Table 5.7.4)	N/A
5.7.5	Protective conductor current (IEC 60950-1, 5.1.7)		N/A
	Supply Voltage (V) ..... :		—
	Measured current (mA) ..... :		—
	Instructional Safeguard ..... :	(See F.4 and F.5)	—
5.7.6	Prospective touch voltage and touch current due to external circuits (IEC 60950-1, 5.1.8)		N/A
5.7.6.1	Touch current from coaxial cables		N/A
5.7.6.2	Prospective touch voltage and touch current from external circuits (IEC 60950-1, 5.1.8.1)		N/A
5.7.7	Summation of touch currents from external circuits (IEC 60950-1, 5.1.8.2)		N/A
	a) Equipment with earthed external circuits Measured current (mA) ..... :	0.03	—
	b) Equipment whose external circuits are not referenced to earth. Measured current (mA) ..... :	0.01	—

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Clause	Requirement + Test	Result - Remark	Verdict

6	**ELECTRICALLY- CAUSED FIRE**		P
6.2	Classification of power sources (PS) and potential ignition sources (PIS)		P
6.2.2	Power source circuit classifications		P
6.2.2.1	General		P
6.2.2.2	Power measurement for worst-case load fault....: (IEC 60065, 4.3.1) & (IEC 60950-1, 2.5)	(See appended table 6.2.2)	—
6.2.2.3	Power measurement for worst-case power source fault.....: (IEC 60065, 4.3.1) & (IEC 60950-1, 2.5)	(See appended table 6.2.2)	—
6.2.2.4	PS1 .....:	(See appended table 6.2.2)	—
6.2.2.5	PS2 .....:	(See appended table 6.2.2)	—
6.2.2.6	PS3 .....:	(See appended table 6.2.2)	—
6.2.3	Classification of potential ignition sources	PS2	P
6.2.3.1	Arcing PIS .....:	(See appended table 6.2.3.1)	—
6.2.3.2	Resistive PIS .....:	(See appended table 6.2.3.2)	—
6.3	Safeguards against fire under normal operating and abnormal operating conditions		P
6.3.1 (a)	No ignition and attainable temperature value less than 90 % defined by ISO 871 or less than 300 °C for unknown materials..... : (IEC 60065, 7.1) & (IEC 60950-1, 4.5.3)	(See appended table 5.4.1.5, 6.3.2, 9.0, B.2.6)	—
6.3.1 (b)	Combustible materials outside fire enclosure (IEC 60950-1, 4.7.3.3)		P
6.4	Safeguards against fire under single fault conditions		P
6.4.1	Safeguard Method (IEC 60950-1, 4.7.1)		N/A
6.4.2	Reduction of the likelihood of ignition under single fault conditions in PS1 circuits		N/A
6.4.3	Reduction of the likelihood of ignition under single fault conditions in PS2 and PS3 circuits (IEC 60065, 11.2, 20.2)		N/A
6.4.3.1	General		P
6.4.3.2	Supplementary Safeguards (IEC 60065, 20.2)		N/A
	Special conditions if conductors on printed boards are opened or peeled		N/A
6.4.3.3	Single Fault Conditions ..... : (IEC 60065, 11.2)	(See appended table 6.4.3)	—
	Special conditions for temperature limited by fuse		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
6.4.4	Control of fire spread in PS1 circuits		N/A
6.4.5	Control of fire spread in PS2 circuits (IEC 60950-1, 4.7.3.4)		P
6.4.5.2	Supplementary safeguards ..... : (IEC 60950-1, 4.7.3.4)	(See appended tables 4.1.2 and Annex G)	—
6.4.6	Control of fire spread in PS3 circuit (IEC 60950-1, 4.7.3.4)		N/A
6.4.7	Separation of combustible materials from a PIS (IEC 60065, 20.2.5) & (IEC 60950-1, 4.7.3.4)		N/A
6.4.7.1	General ..... :	(See tables 6.2.3.1 and 6.2.3.2)	—
6.4.7.2	Separation by distance (IEC 60065, 20.2.5) & (IEC 60950-1, 4.7.3.4)		N/A
6.4.7.3	Separation by a fire barrier (IEC 60065, 20.2.5) & (IEC 60950-1, 4.7.3.4)		N/A
6.4.8	Fire enclosures and fire barriers (IEC 60065, 20.2.5, 20.3) & (IEC 60950-1, 4.7.2, 4.7.3)		P
6.4.8.1	Fire enclosure and fire barrier material properties (IEC 60065, 20.2.5, 20.3) & (IEC 60950-1, 4.7.3.2, 4.7.3.4)		N/A
6.4.8.2.1	Requirements for a fire barrier (IEC 60065, 20.2.5) & (IEC 60950-1, 4.7.3.4)		N/A
6.4.8.2.2	Requirements for a fire enclosure (IEC 60065, 20.3) & (IEC 60950-1, 4.7.3.2)		P
6.4.8.3	Constructional requirements for a fire enclosure and a fire barrier		P
6.4.8.3.1	Fire enclosure and fire barrier openings (IEC 60065, 20.3) & (IEC 60950-1, 4.6.1, 4.6.2)		P
6.4.8.3.2	Fire barrier dimensions (IEC 60065, 20.2.5) & (IEC 60950-1, 4.6.2)		N/A
6.4.8.3.3	Top Openings in Fire Enclosure: dimensions (mm) ..... : (IEC 60065, 20.3) & (IEC 60950-1, 4.6.1)		—
	Needle Flame test		N/A
6.4.8.3.4	Bottom Openings in Fire Enclosure, condition met a), b) and/or c) dimensions (mm) ..... : (IEC 60065, 20.3) & (IEC 60950-1, 4.6.2)		—
	Flammability tests for the bottom of a fire enclosure ..... :		—

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Clause	Requirement + Test	Result - Remark	Verdict
6.4.8.3.5	Integrity of the fire enclosure, condition met: a), b) or c)..... : (IEC 60950-1, 4.6.3)		—
6.4.8.4	Separation of PIS from fire enclosure and fire barrier distance (mm) or flammability rating .....: (IEC 60065, 20.2.5) & (IEC 60950-1, 4.7.3.1, 4.7.3.2)		—
6.5	Internal and external wiring		P
6.5.1	Requirements (IEC 60065, 16.3, 20.2.3) & (IEC 60950-1, 4.7.3.3, 4.7.3.4)		P
6.5.2	Cross-sectional area (mm^2) ..... :		—
6.5.3	Requirements for interconnection to building wiring..... : (IEC 60950-1, 2.5, 6.3)	(See Annex Q.)	—
6.6	Safeguards against fire due to connection to additional equipment (IEC 60950-1, 3.5.4)		P
	External port limited to PS2 or complies with Clause Q.1		P
7	**INJURY CAUSED BY HAZARDOUS SUBSTANCES**		N/A
7.2	Reduction of exposure to hazardous substances		N/A
7.3	Ozone exposure (IEC 60950-1, 1.7.2.6)		N/A
7.4	Use of personal safeguards (PPE)		N/A
	Personal safeguards and instructions.....:		—
7.5	Use of instructional safeguards and instructions		P
	Instructional safeguard (ISO 7010).....:		—
7.6	Batteries.....: (IEC 60065, 14.10) & (IEC 60950-1, 4.3.8)	(See Annex M)	—
8	**MECHANICALLY-CAUSED INJURY**		P
8.1	General		P
8.2	Mechanical energy source classifications	MS1	P
8.3	Safeguards against mechanical energy sources		N/A
8.4	Safeguards against parts with sharp edges and corners (IEC 60065, 19.5) & (IEC 60950-1, 4.3.1)		N/A

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
8.4.1	Safeguards (IEC 60950-1, 4.3.1)		N/A
8.5	Safeguards against moving parts		N/A
8.5.1	MS2 or MS3 part required to be accessible for the function of the equipment (IEC 60065, 14.10.3) & (IEC 60950-1, 4.4)		N/A
8.5.2	Instructional Safeguard ..... : (IEC 60950-1, 4.4.5.2)		—
8.5.4	Special categories of equipment comprising moving parts		N/A
8.5.4.1	Large data storage equipment (IEC 60950-23)		N/A
8.5.4.2	Equipment having electromechanical device for destruction of media (IEC 60950-1, Annex EE)		N/A
8.5.4.2.1	Safeguards and Safety Interlocks ..... : (IEC 60950-1, EE.3)	(See Annex F.4 and Annex K)	—
8.5.4.2.2	Instructional safeguards against moving parts		N/A
	Instructional Safeguard ..... : (IEC 60950-1, EE.2)		—
8.5.4.2.3	Disconnection from the supply (IEC 60950-1, EE.4)		N/A
8.5.4.2.4	Probe type and force (N) ..... : (IEC 60950-1, EE.5)		—
8.5.5	High Pressure Lamps (IEC 60950-1, 4.2.9)		N/A
8.5.5.1	Energy Source Classification		N/A
8.5.5.2	High Pressure Lamp Explosion Test ..... :	(See appended table 8.5.5.2)	—
8.6	Stability (IEC 60065, 19) & (IEC 60950-1, 4.1)		N/A
8.6.1	Product classification		N/A
	Instructional Safeguard ..... : (IEC 60065, 5.5.2)		—
8.6.2	Static stability (IEC 60065, 19.1) & (IEC 60950-1, 4.1)		N/A
8.6.2.2	Static stability test (IEC 60065, 19.2) & (IEC 60950-1, 4.1)		N/A
	Applied Force ..... :		—

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Clause	Requirement + Test	Result - Remark	Verdict
8.6.2.3	Downward Force Test (IEC 60065, 19.3) & (IEC 60950-1, 4.1)		N/A
8.6.3	Relocation stability test (IEC 60065, 19.2)		N/A
	Unit configuration during 10° tilt ..... :		—
8.6.4	Glass slide test		N/A
8.6.5	Horizontal force test (Applied Force) ..... : (IEC 60065, 19.4)		—
	Position of feet or movable parts ..... :		—
8.7	Equipment mounted to wall or ceiling (IEC 60065, 19.7) & (IEC 60950-1, 4.2.10)		N/A
8.7.1	Mounting Means (Length of screws (mm) and mounting surface) ..... : (IEC 60065, 19.7)		—
8.7.2	Direction and applied force..... : (IEC 60065, 19.7) & (IEC 60950-1, 4.2.10)		—
8.8	Handles strength		N/A
8.8.1	Classification		N/A
8.8.2	Applied Force ..... :		—
8.9	Wheels or casters attachment requirements		N/A
8.9.1	Classification		N/A
8.9.2	Applied force..... :		—
8.10	Carts, stands and similar carriers		N/A
8.10.1	General		N/A
8.10.2	Marking and instructions		N/A
	Instructional Safeguard ..... :		—
8.10.3	Cart, stand or carrier loading test and compliance		N/A
	Applied force..... :		—
8.10.4	Cart, stand or carrier impact test		N/A
8.10.5	Mechanical stability		N/A
	Applied horizontal force (N)..... :		—
8.10.6	Thermoplastic temperature stability (°C) ..... :		—
8.11	Mounting means for rack mounted equipment (IEC 60950-1, Annex DD)		N/A
8.11.1	General (IEC 60950-1, DD.1)		N/A
8.11.2	Product Classification		N/A

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
8.11.3	Mechanical strength test, variable *N* .....: (IEC 60950-1, DD.2)		—
8.11.4	Mechanical strength test 250N, including end stops (IEC 60950-1, DD.3)		N/A
8.12	Telescoping or rod antennas.....: (IEC 60065, 12.6)	(See Annex T)	—
	Button/Ball diameter (mm).....:		—
9	**THERMAL BURN INJURY**		P
9.2	Thermal energy source classifications (IEC 60065, 7.1, 11.2) & (IEC 60950-1, 4.5.4)	External enclosure: TS1	P
9.3	Safeguard against thermal energy sources (IEC 60065, 7.1, 11.2) & (IEC 60950-1, 4.5.4)		N/A
9.4	Requirements for safeguards		N/A
9.4.1	Equipment safeguard (IEC 60065, 7.1, 11.2) & (IEC 60950-1, 4.5.4)		N/A
9.4.2	Instructional safeguard .....: (IEC 60065, 7.1, 11.2) & (IEC 60950-1, 4.5.4)		—
10	**RADIATION**		N/A
10.2	Radiation energy source classification		N/A
10.2.1	General classification		N/A
10.3	Protection against laser radiation (IEC 60065, 6.2) & (IEC 60950-1, 4.3.13.5.1)		N/A
	Laser radiation that exists equipment .....:		—
	Normal, abnormal, single-fault .....:	(See attached laser test report)	—
	Instructional safeguard.....:		—
	Tool .....:		—
10.4	Protection against visible, infrared, and UV radiation (IEC 60065, 6.3) & (IEC 60950-1, 4.3.13.4, 4.3.13.5.2)		N/A
10.4.1	General		N/A
10.4.1.a)	RS3 for Ordinary and instructed persons.....:		—
10.4.1.b)	RS3 accessible to a skilled person .....:		—
	Personal safeguard (PPE) instructional safeguard .....:		—
10.4.1.c)	Equipment visible, IR, UV does not exceed RS1:		—

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Clause	Requirement + Test	Result - Remark	Verdict
10.4.1.d)	Normal, abnormal, single-fault conditions .....:	(See appended table B.3 & B.4)	—
10.4.1.e)	Enclosure material employed as safeguard is opaque .....:		—
10.4.1.f)	UV attenuation .....:		—
10.4.1.g)	Materials resistant to degradation UV.....:		—
10.4.1.h)	Enclosure containment of optical radiation .....:		—
10.4.1.i)	Exempt Group under normal operating conditions .....:		—
10.4.2	Instructional safeguard.....:		—
10.5	Protection against x-radiation (IEC 60065, 6.1) & (IEC 60950-1, 4.3.13.2)		N/A
10.5.1	X- radiation energy source that exists equipment:	(See appended table B.3 & B.4)	—
	Normal, abnormal, single fault conditions		N/A
	Equipment safeguards .....:		—
	Instructional safeguard for skilled person .....:		—
10.5.3	Most unfavourable supply voltage to give maximum radiation.....: (IEC 60950-1, Annex H)		—
	Abnormal and single-fault condition.....:	(See appended table B.3 & B.4)	—
	Maximum radiation (pA/kg) .....:		—
10.6	Protection against acoustic energy sources		N/A
10.6.1	General		N/A
10.6.2	Classification		N/A
	Acoustic output, dB(A) .....:		—
	Output voltage, unweighted r.m.s. .....:		—
10.6.4	Protection of persons		N/A
	Instructional safeguards.....:		—
	Equipment safeguard prevent ordinary person to RS2 .....:		—
	Means to actively inform user of increase sound pressure .....:		—
	Equipment safeguard prevent ordinary person to RS2 .....:		—
10.6.5	Requirements for listening devices (headphones, earphones, etc.)		N/A
10.6.5.1	Corded passive listening devices with analogue input		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Input voltage with 94 dB(A) LAeq acoustic pressure output .....:		—
10.6.5.2	Corded listening devices with digital input		
	Maximum dB(A) .....:		—
10.6.5.3	Cordless listening device		
	Maximum dB(A) .....:		—

B	**NORMAL OPERATING CONDITION TESTS, ABNORMAL OPERATING CONDITION TESTS AND SINGLE FAULT CONDITION TESTS**		P
B.2	Normal Operating Conditions		P
B.2.1	General requirements .....: (IEC 60065, 4.2.1) & (IEC 60950-1, 1.4.4)	(See Test Item Particulars and appended test tables)	—
	Audio Amplifiers and equipment with audio amplifiers.....: (IEC 60065, 4.2.5) & (IEC 60950-1, 4.4)	(See Annex E)	—
B.2.3	Supply voltage and tolerances (IEC 60065, 4.2.2) & (IEC 60950-1, 1.4.5)		P
B.2.5	Input test .....: (IEC 60065, 4.2, 5.2 g), h)) & (IEC 60950-1, 1.6.2)	(See appended table B.2.5)	—
B.3	Simulated abnormal operating conditions		P
B.3.1	General requirements .....: (IEC 60065, 4.3) & (IEC 60950-1, 5.3.1)	(See appended table B.3)	—
B.3.2	Covering of ventilation openings (IEC 60065, 4.3.11) & (IEC 60950-1, 5.3.1)		N/A
B.3.3	D.C. mains polarity test (IEC 60065, 4.2.2) & (IEC 60950-1, 5.3.1)		N/A
B.3.4	Setting of voltage selector.....: (IEC 60065, 4.3.14) & (IEC 60950-1, 5.3.1)		—
B.3.5	Maximum load at output terminals.....: (IEC 60065, 4.3.10) & (IEC 60950-1, 5.3.7)		—
B.3.6	Reverse battery polarity (IEC 60065, 4.3.12) & (IEC 60950-1, 4.3.8)		N/A
B.3.7	Abnormal operating conditions as specified in Clause E.2. (IEC 60065, 4.3.6) & (IEC 60950-1, 5.3.6)		N/A
B.3.8	Safeguards functional during and after abnormal operating conditions (IEC 60065, 11) & (IEC 60950-1, 5.3.9)		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
B.4	Simulated single fault conditions (IEC 60065, 4.3) & (IEC 60950-1, 1.4.14)		P
B.4.2	Temperature controlling device open or short-circuited.....:	(See appended table B.4)	—
B.4.3	Motor tests (IEC 60065, 4.3.7) & (IEC 60950-1, 5.3.2)		N/A
B.4.3.1	Motor blocked or rotor locked increasing the internal ambient temperature .....: (IEC 60065, 4.3.7) & (IEC 60950-1, 5.3.2)	(See Clause G.5)	—
B.4.4	Short circuit of functional insulation (IEC 60950-1, 5.3.4)		P
B.4.4.1	Short circuit of clearances for functional insulation		P
B.4.4.2	Short circuit of creepage distances for functional insulation		P
B.4.4.3	Short circuit of functional insulation on coated printed boards		N/A
B.4.5	Short circuit and interruption of electrodes in tubes and semiconductors (IEC 60065, 4.3.4) & (IEC 60950-1, 5.3.7)		P
B.4.6	Short circuit or disconnect of passive components (IEC 60065, 4.3.5) & (IEC 60950-1, 5.3.7)		P
B.4.7	Continuous operation of components (IEC 60065, 4.3.8) & (IEC 60950-1, 5.3.5)		P
B.4.8	Class 1 and Class 2 energy sources within limits during and after single fault conditions (IEC 60065, 11) & (IEC 60950-1, 5.3.9)		N/A
B.4.9	Battery charging under single fault conditions....: (IEC 60065, 14.11.3) & (IEC 60950-1, 4.3.8)	(See Annex M)	—

C	**UV RADIATION**		N/A
C.1	Protection of materials in equipment from UV radiation (IEC 60950-1, 4.3.13.3)		N/A
C.1.2	Requirements		N/A
C.1.3	Test method		N/A
C.2	UV light conditioning test (IEC 60950-1, Annex Y)		N/A
C.2.1	Test apparatus (IEC 60950-1, Y.1)		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
C.2.2	Mounting of test samples (IEC 60950-1, Y.2)		N/A
C.2.3	Carbon-arc light-exposure apparatus (IEC 60950-1, Y.3)		N/A
C.2.4	Xenon-arc light exposure apparatus (IEC 60950-1, Y.4)		N/A
D	**TEST GENERATORS**		N/A
D.1	Impulse test generators (IEC 60065, Annex K) & (IEC 60950-1, N.1)		N/A
D.2	Antenna interface test generator (IEC 60950-1, N.2)		N/A
D.3	Electronic pulse generator		N/A
E	**TEST CONDITIONS FOR EQUIPMENT CONTAINING AUDIO AMPLIFIERS**		N/A
E.1	Audio amplifier normal operating conditions (IEC 60065, 4.2.5) & (IEC 60950-1, 4.5.1)		N/A
	Audio signal voltage (V) ..... :		—
	Rated load impedance (Ω) ..... :		—
E.2	Audio amplifier abnormal operating conditions (IEC 60065, 4.3.6) & (IEC 60950-1, 5.3.6)		N/A
F	**EQUIPMENT MARKINGS, INSTRUCTIONS, AND INSTRUCTIONAL SAFEGUARDS**		P
F.1	General requirements (IEC 60065, 5.1, 5.2, 5.3) & (IEC 60950-1, 1.7.2.1)		P
	Instructions – Language ..... :		—
F.2	Letter symbols and graphical symbols (IEC 60065, 5.1)		P
F.2.1	Letter symbols according to IEC60027-1 (IEC 60065, 5.1)		P
F.2.2	Graphic symbols IEC, ISO or manufacturer specific (IEC 60065, 5.1) & (IEC 60950-1, 1.7.1.1)		P
F.3	Equipment markings		
F.3.1	Equipment marking locations (IEC 60065, 5.1) & (IEC 60950-1, 1.7.1.2)		P
F.3.2	Equipment identification markings (IEC 60065, 5.2) & (IEC 60950-1, 1.7.1.2)		P

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Clause	Requirement + Test	Result - Remark	Verdict
F.3.2.1	Manufacturer identification ..... : (IEC 60065, 5.2 a)) & (IEC 60950-1, 1.7.1.2)		—
F.3.2.2	Model identification ..... : (IEC 60065, 5.2 b)) & (IEC 60950-1, 1.7.1.2)		—
F.3.3	Equipment rating markings (IEC 60065, 5.2) & (IEC 60950-1, 1.7.1.1)		P
F.3.3.1	Equipment with direct connection to mains (IEC 60065, 5.2 e)) & (IEC 60950-1, 1.7.1.1)		P
F.3.3.2	Equipment without direct connection to mains (IEC 60065, 5.2 e)) & (IEC 60950-1, 1.7.1.1)		N/A
F.3.3.3	Nature of supply voltage ..... : (IEC 60065, 5.2 d)) & (IEC 60950-1, 1.7.1.1)		—
F.3.3.4	Rated voltage ..... : (IEC 60065, 5.2 e)) & (IEC 60950-1, 1.7.1.1)		—
F.3.3.4	Rated frequency ..... : (IEC 60065, 5.2 f)) & (IEC 60950-1, 1.7.1.1)		—
F.3.3.6	Rated current or rated power ..... : (IEC 60065, 5.2 g), h)) & (IEC 60950-1, 1.7.1.1)		—
F.3.3.7	Equipment with multiple supply connections (IEC 60950-1, 1.7.1.1)		N/A
F.3.4	Voltage setting device (IEC 60065, 5.2 e)) & (IEC 60950-1, 1.7.4)		N/A
F.3.5	Terminals and operating devices		N/A
F.3.5.1	Mains appliance outlet and socket-outlet markings ..... : (IEC 60065, 5.3 c)) & (IEC 60950-1, 1.7.5)		—
F.3.5.2	Switch position identification marking ..... : (IEC 60065, 5.5.3) & (IEC 60950-1, 1.7.8.3)		—
F.3.5.3	Replacement fuse identification and rating markings ..... : (IEC 60065, 14.6.3.2) & (IEC 60950-1, 1.7.6)		—
F.3.5.4	Replacement battery identification marking ..... : (IEC 60065, 5.5.2 c)) & (IEC 60950-1, 1.7.13)		—
F.3.5.5	Terminal marking location (IEC 60950-1, 1.7.7.1)		N/A
F.3.6	Equipment markings related to equipment classification		P
F.3.6.1	Class I Equipment		N/A
F.3.6.1.1	Protective earthing conductor terminal (IEC 60065, 5.3 a)) & (IEC 60950-1, 1.7.7.1)		P

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
F.3.6.1.2	Neutral conductor terminal (IEC 60950-1, 1.7.7.2)		N/A
F.3.6.1.3	Protective bonding conductor terminals (IEC 60950-1, 1.7.7.1)		N/A
F.3.6.2	Class II equipment (IEC60417-5172)		P
F.3.6.2.1	Class II equipment with or without functional earth (IEC 60065, 5.2 c)) & (IEC 60950-1, 1.7.7.2)		N/A
F.3.6.2.2	Class II equipment with functional earth terminal marking (IEC 60950-1, 2.6.2)		N/A
F.3.7	Equipment IP rating marking ..... : (IEC 60065, A.5)	IP20	—
F.3.8	External power supply output marking (IEC 60065, 5.3 c))		N/A
F.3.9	Durability, legibility and permanence of marking (IEC 60065, 5.1) & (IEC 60950-1, 1.7.11)		P
F.3.10	Test for permanence of markings (IEC 60065, 5.1) & (IEC 60950-1, 1.7.11)		P
F.4	Instructions (IEC 60065, 5.4, 5.5.2) & (IEC 60950-1, 1.7.2.1, 1.7.14, 5.1.7, 3,4,3)		P
	a) Equipment for use in locations where children not likely to be present – marking		P
	b) Instructions given for installation or initial use		P
	c) Equipment intended to be fastened in place		P
	d) Equipment intended for use only in restricted access area		P
	e) Audio equipment terminals classified as ES3 and other equipment with terminals marked in accordance F.3.6.1		N/A
	f) Protective earthing employed as safeguard		P
	g) Protective earthing conductor current exceeding ES 2 limits		P
	h) Symbols used on equipment		N/A
	i) Permanently connected equipment not provided with all-pole mains switch		N/A
	j) Replaceable components or modules providing safeguard function		N/A
F.5	Instructional safeguards (IEC 60065, 5.4, 5.5)		P

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Clause	Requirement + Test	Result - Remark	Verdict
	Where “instructional safeguard” is referenced in the test report it specifies the required elements, location of marking and/or instruction		P

G	COMPONENTS		P
G.1	**Switches** (IEC 60950-1, 2.8.7)		N/A
G.1.1	General requirements (IEC 60065, 14.7)		N/A
G.1.2	Ratings, endurance, spacing, maximum load (IEC 60065, 14.7)		N/A
G.2	**Relays** (IEC 60065, 14.4.3) & (IEC 60950-1, 2.8.7)		N/A
G.2.1	General requirements		N/A
G.2.2	Overload test (IEC 60950-1, 2.8.7.2)		N/A
G.2.3	Relay controlling connectors supply power		N/A
G.2.4	Mains relay, modified as stated in G.2		N/A
G.3	**Protection Devices**		P
G.3.1	Thermal cut-offs (IEC 60065, 14.6.2.2)		N/A
G.3.1.1a) &b)	Thermal cut-outs separately approved according to IEC 60730 with conditions indicated in a) & b) (IEC 60065, 14.6.2.2 a))		N/A
G.3.1.1c)	Thermal cut-outs tested as part of the equipment as indicated in c) (IEC 60065, 14.6.2.2 b))		N/A
G.3.1.2	Thermal cut-off connections maintained and secure		N/A
G.3.2	Thermal links (IEC 60065, 14.6.2.3)		N/A
G.3.2.1a)	Thermal links separately tested with IEC 60691 (IEC 60065, 14.6.2.3 a))		N/A
G.3.2.1b)	Thermal links tested as part of the equipment (IEC 60065, 14.6.2.3 b))		N/A
	Aging hours (H) .....:		—
	Single Fault Condition .....:		—
	Test Voltage (V) and Insulation Resistance (Ω)..:		—

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
G.3.3	PTC Thermistors (IEC 60065, 14.6.4) & (IEC 60950-1, 2.5)		N/A
G.3.4	Overcurrent protection devices (IEC 60065, 14.6.3) & (IEC 60950-1, 2.7)		P
G.3.5	Safeguards components not mentioned in G.3.1 to G.3.5 (IEC 60065, 14.6.5)		N/A
G.3.5.1	Non-resettable devices suitably rated and marking provided (IEC 60065, 14.6.5)		P
G.3.5.2	Single faults conditions ..... : (IEC 60065, 14.6.5)	(See appended Table B.4)	—
G.4	**Connectors**		N/A
G.4.1	Spacings (IEC 60950-1, 2.10.3.1, 2.10.4.3)		N/A
G.4.2	Mains connector configuration ..... : (IEC 60065, 15.1) & (IEC 60950-1, 3.2.4)		—
G.4.3	Plug is shaped that insertion into mains socket-outlets or appliance coupler is unlikely (IEC 60065, 15.1.2) & (IEC 60950-1, 4.3.5)		N/A
G.5	**Wound Components**		P
G.5.1	Wire insulation in wound components	(See Annex J)	—
G.5.1.2 a)	Two wires in contact inside wound component, angle between 45° and 90° (IEC 60065, 8.16) & (IEC 60950-1, 2.10.5.12)		P
G.5.1.2 b)	Construction subject to routine testing (IEC 60950-1, 2.10.5.11)		N/A
G.5.2	Endurance test on wound components (IEC 60065, 8.17)		N/A
G.5.2.1	General test requirements		N/A
G.5.2.2	Heat run test (IEC 60065, 8.17 a))		N/A
	Time (s) ..... :		—
	Temperature (°C) ..... :		—
G.5.2.3	Wound Components supplied by mains (IEC 60065, 8.17 d))		N/A
G.5.3	**Transformers** (IEC 60950-1, 1.5.4)		P

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
G.5.3.1	Requirements applied (IEC61204-7, IEC61558-1/-2, and/or IEC62368-1) ..... : (IEC 60065, 14.4.3)		—
	Position ..... :		—
	Method of protection ..... :		—
G.5.3.2	Insulation		P
	Protection from displacement of windings ..... : (IEC 60065, 14.4) & (IEC 60950-1, C.2)		—
G.5.3.3	Overload test.....:	(See appended table B.3)	—
G.5.3.3.1	Test conditions (IEC 60950-1, C.1)		P
G.5.3.3.2	Winding Temperatures testing in the unit (IEC 60065, 11.2) & (IEC 60950-1, C.1)		P
G.5.3.3.3	Winding Temperatures - Alternative test method		N/A
G.5.4	**Motors**		N/A
G.5.4.1	General requirements (IEC 60065, 4.3.7, 14.10) & (IEC 60950-1, B.1)		N/A
	Position ..... :		—
G.5.4.2	Test conditions (IEC 60065, 4.3.7, 14.10) & (IEC 60950-1, B.2)		N/A
G.5.4.3	Running overload test (IEC 60950-1, B.4)		N/A
G.5.4.4	Locked-rotor overload test (IEC 60065, 4.3.7) & (IEC 60950-1, B.5)		N/A
	Test duration (days) ..... :		—
G.5.4.5	Running overload test for d.c. motors in secondary circuits (IEC 60950-1, B.6)		N/A
G.5.4.5.2	Tested in the unit (IEC 60950-1, B.6.2)		N/A
	Electric strength test (V)..... :		—
G.5.4.5.3	Tested on the Bench - Alternative test method; test time (h) ..... : (IEC 60950-1, B.6.3)		—
	Electric strength test (V)..... :		—
G.5.4.6	Locked-rotor overload test for d.c. motors in secondary circuits (IEC 60065, 4.3.7) & (IEC 60950-1, B.7)		N/A

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
G.5.4.6.2	Tested in the unit (IEC 60950-1, B.7.2)		N/A
	Maximum Temperature ..... :		—
	Electric strength test (V) ..... :		—
G.5.4.6.3	Tested on the bench - Alternative test method; test time (h) ..... : (IEC 60950-1, B.7.3)		—
	Electric strength test (V)..... :		—
G.5.4.7	Motors with capacitors (IEC 60950-1, B.8)		N/A
G.5.4.8	Three-phase motors (IEC 60950-1, B.9)		N/A
G.5.4.9	Series motors (IEC 60950-1, B.10)		N/A
	Operating voltage ..... :		—
G.6	**Wire Insulation**		P
G.6.1	General (IEC 60065, 8.16) & (IEC 60950-1, 2.10.5.12)		P
G.6.2	Solvent-based enamel wiring insulation (IEC 60065, 8.1) & (IEC 60950-1, 2.10.5.13)		P
G.7	**Mains supply cords**		N/A
G.7.1	General requirements (IEC 60065, 16.1, 16.2) & (IEC 60950-1, 3.2.5.1)		N/A
	Type .....:		—
	Rated current (A)..... :		—
	Cross-sectional area (mm^2), (AWG) .....:		—
G.7.2	Compliance and test method (IEC 60065, 16.2) & (IEC 60950-1, 3.2.5.1)		N/A
G.7.3	Cord anchorages and strain relief for non-detachable power supply cords		N/A
G.7.3.2	Cord strain relief		N/A
G.7.3.2.1	Requirements (IEC 60065, 16.5) & (IEC 60950-1, 3.2.6)		N/A
	Strain relief test force (N) ..... :		—
G.7.3.2.2	Strain relief mechanism failure (IEC 60950-1, 3.2.6)		N/A
G.7.3.2.3	Cord sheath or jacket position, distance (mm) ... : (IEC 60065, 16.5) & (IEC 60950-1, 3.2.7)		—

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
G.7.3.2.4	Strain relief comprised of polymeric material (IEC 60065, 16.5) & (IEC 60950-1, 3.2.6, 3.2.7)		N/A
G.7.4	Cord Entry .....: (IEC 60950-1, 3.1.4, 3.2.7)	(See appended table 5.4.11.1)	—
G.7.5	Non-detachable cord bend protection		N/A
G.7.5.1	Requirements (IEC 60950-1, 3.2.8)		N/A
G.7.5.2	Mass (g) ..... :		—
	Diameter (m) ..... :		—
	Temperature (°C) ..... :		—
G.7.6	Supply wiring space (IEC 60950-1, 3.2.9)		N/A
G.7.6.2	Stranded wire (IEC 60950-1, 3.3.8)		N/A
G.7.6.2.1	Test with 8 mm strand (IEC 60950-1, 3.3.8)		N/A
G.8	**Varistors**		P
G.8.1	General requirements	Approved varistors used	P
G.8.2	Safeguard against shock (IEC 60065, 14.13) & (IEC 60950-1, Annex Q)		P
G.8.3	Safeguard against fire		N/A
G.8.3.2	Varistor overload test ..... : (IEC 60065, 14.13)	(See appended table B.3)	—
G.8.3.3	Temporary overvoltage ..... :	(See appended table B.3)	—
G.9	**Integrated Circuit (IC) Current Limiters** (IEC 60950-1, Annex CC)		N/A
G.9.1 a)	Manufacturer defines limit at max. 5A. (IEC 60950-1, CC.1)		N/A
G.9.1 b)	Limiters do not have manual operator or reset (IEC 60950-1, CC.1)		N/A
G.9.1 c)	Supply source does not exceed 250 VA ..... : (IEC 60950-1, CC.1)		—
G.9.1 d)	IC limiter output current (max. 5A) ..... : (IEC 60950-1, CC.1)		—
G.9.1 e)	Manufacturers' defined drift ..... : (IEC 60950-1, CC.1)		—
G.9.2	Test Program 1 (IEC 60950-1, CC.2)		N/A

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
G.9.3	Test Program 2 (IEC 60950-1, CC.3)		N/A
G.9.4	Test Program 3 (IEC 60950-1, CC.4)		N/A
G.10	**Resistors** (IEC 60065, 14.2) & (IEC 60950-1, 1.5.7)		N/A
G.10.1	General requirements (IEC 60065, 14.2) & (IEC 60950-1, 1.5.7.1)		N/A
G.10.2	Resistor test (IEC 60065, 14.2) & (IEC 60950-1, 1.5.7.2)		N/A
G.10.3	Test for resistors serving as safeguards between the mains and an external circuit consisting of a coaxial cable (IEC 60065, 14.2) & (IEC 60950-1, 1.5.7.3)		N/A
G.10.3.1	General requirements		N/A
G.10.3.2	Voltage surge test		N/A
G.10.3.3	Impulse test (IEC 60950-1, 1.5.7.3)		N/A
G.11	**Capacitor and RC units** (IEC 60065, 14.3) & (IEC 60950-1, 1.5.6)		P
G.11.1	General requirements (IEC 60065, 14.3.1) & (IEC 60950-1, 1.5.6)	Approved CX1 and CY1 used	P
G.11.2	Conditioning of capacitors and RC units (IEC 60065, 14.3.1) & (IEC 60950-1, 1.5.6)		P
G.11.3	Rules for selecting capacitors (IEC 60065, 14.3.2) & (IEC 60950-1, 1.5.6)		P
G.12	**Optocouplers**		P
	Optocouplers comply with IEC 60747-5-5:2007 Spacing or Electric Strength Test (specify option and test results).....: (IEC 60065, 14.12) & (IEC 60950-1, 2.10.5.4)	Approved U2 used	P
	Type test voltage Vini ..... :		—
	Routine test voltage, Vini,b ..... :		—
G.13	**Printed boards** (IEC 60065, 13.5) & (IEC 60950-1, 2.10.6)		P
G.13.1	General requirements		P
G.13.2	Uncoated printed boards (IEC 60065, 13.5.1) & (IEC 60950-1, 2.10.6.1)		P

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
G.13.3	Coated printed boards (IEC 60065, 13.5.2) & (IEC 60950-1, 2.10.6.2)		N/A
G.13.4	Insulation between conductors on the same inner surface (IEC 60950-1, 2.10.6.3)		N/A
	Compliance with cemented joint requirements (Specify construction)..... : (IEC 60065, 13.5.2, 13.6, 13.7) & (IEC 60950-1, 2.10.5.5)		—
G.13.5	Insulation between conductors on different surfaces (IEC 60065, 13.5.1) & (IEC 60950-1, 2.10.6.4)		N/A
	Distance through insulation.....:	(See appended table 5.4.4.5)	—
	Number of insulation layers (pcs) ..... :		—
G.13.6	Tests on coated printed boards (IEC 60065, 13.5.2) & (IEC 60950-1, 2.10.8)		N/A
G.13.6.1	Sample preparation and preliminary inspection (IEC 60950-1, 2.10.8.1)		N/A
G.13.6.2a)	Thermal conditioning (IEC 60950-1, 2.10.8.2)		N/A
G.13.6.2b)	Electric strength test (IEC 60950-1, 2.10.8.3)		N/A
G.13.6.2c)	Abrasion resistance test (IEC 60950-1, 2.10.8.4)		N/A
G.14	**Coating on components terminals**		N/A
G.14.1	Requirements .....: (IEC 60950-1, 2.10.7)	(See G.13)	—
G.15	**Liquid filled components**		N/A
G.15.1	General requirements		N/A
G.15.2	Requirements		N/A
G.15.3	Compliance and test methods		N/A
G.15.3.1	Hydrostatic pressure test		N/A
G.15.3.2	Creep resistance test		N/A
G.15.3.3	Tubing and fittings compatibility test		N/A
G.15.3.4	Vibration test		N/A
G.15.3.5	Thermal cycling test		N/A
G.15.3.6	Force test		N/A
G.15.4	Compliance		N/A
G.16	**IC including capacitor discharge function (ICX)**		N/A

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
a)	Humidity treatment in accordance with sc5.4.8 – 120 hours		N/A
b)	Impulse test using circuit 2 with Uc = to transient voltage ..... :		—
C1)	Application of ac voltage at 110% of rated voltage for 2.5 minutes		N/A
C2)	Test voltage ..... :		—
D1)	10,000 cycles on and off using capacitor with smallest capacitance resistor with largest resistance specified by manufacturer		N/A
D2)	Capacitance ..... :		—
D3)	Resistance ..... :		—

H	**CRITERIA FOR TELEPHONE RINGING SIGNALS**		N/A
H.1	General (IEC 60950-1, M.1)		N/A
H.2	Method A (IEC 60950-1, M.2)		N/A
H.3	Method B (IEC 60950-1, M.3)		N/A
H.3.1	Ringing signal (IEC 60950-1, M.3.1)		N/A
H.3.1.1	Frequency (Hz) ..... : (IEC 60950-1, M.3.1.1)		—
H.3.1.2	Voltage (V) ..... : (IEC 60950-1, M.3.1.2)		—
H.3.1.3	Cadence; time (s) and voltage (V) ..... : (IEC 60950-1, M.3.1.3)		—
H.3.1.4	Single fault current (mA):..... : (IEC 60950-1, M.3.1.4)		—
H.3.2	Tripping device and monitoring voltage..... : (IEC 60950-1, M.3.2)		—
H.3.2.1	Conditions for use of a tripping device or a monitoring voltage complied with (IEC 60950-1, M.3.2.1)		N/A
H.3.2.2	Tripping device (IEC 60950-1, M.3.2.2)		N/A
H.3.2.3	Monitoring voltage (V) ..... : (IEC 60950-1, M.3.2.3)		—

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

J	**INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION**		P
	General requirements (IEC 60065, Annex H) & (IEC 60950-1, Annex U)	(See separate test report)	P

K	**SAFETY INTERLOCKS**		N/A
K.1	General requirements (IEC 60065, 14.8) & (IEC 60950-1, 2.8.1, 2.8.2)		N/A
K.2	Components of safety interlock safeguard mechanism ..... (IEC 60950-1, 2.8.7)	(See Annex G)	—
K.3	Inadvertent change of operating mode (IEC 60950-1, 2.8.3)		N/A
K.4	Interlock safeguard override (IEC 60950-1, 2.8.6)		N/A
K.5	Fail-safe (IEC 60950-1, 2.8.4)		N/A
	Compliance .....:	(See appended table B.4)	—
K.6	Mechanically operated safety interlocks (IEC 60950-1, 2.8.5)		N/A
K.6.1	Endurance requirement (IEC 60950-1, 2.8.5)		N/A
K.6.2	Compliance and Test method .....: (IEC 60950-1, 2.8.5)		—
K.7	Interlock circuit isolation (IEC 60950-1, 2.8.7)		N/A
K.7.1	Separation distance for contact gaps & interlock circuit elements (type and circuit location) .....: (IEC 60950-1, 2.8.7.1, 2.8.7.3)		—
K.7.2	Overload test, Current (A).....: (IEC 60950-1, 2.8.7.2)		—
K.7.3	Endurance test (IEC 60950-1, 2.8.7.3)		N/A
K.7.4	Electric strength test .....: (IEC 60950-1, 2.8.7.4)	(See appended table 5.4.11)	—

L	**DISCONNECT DEVICES**		P
L.1	General requirements (IEC 60065, 5.5.3) & (IEC 60950-1, 3.4.1, 3.4.2)	Integrated mains plug as disconnect device	P

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
L.2	Permanently connected equipment (IEC 60065, 5.5.3) & (IEC 60950-1, 3.4.3)		N/A
L.3	Parts that remain energized (IEC 60065, 5.5.3) & (IEC 60950-1, 3.4.4)		N/A
L.4	Single phase equipment (IEC 60065, 5.5.3) & (IEC 60950-1, 3.4.6)		P
L.5	Three-phase equipment (IEC 60065, 8.18) & (IEC 60950-1, 3.4.7)		N/A
L.6	Switches as disconnect devices (IEC 60065, 5.5.3) & (IEC 60950-1, 3.4.8)		N/A
L.7	Plugs as disconnect devices (IEC 60065, 5.5.3) & (IEC 60950-1, 3.4.9)		P
L.8	Multiple power sources (IEC 60950-1, 3.4.11)		N/A
M	**EQUIPMENT CONTAINING BATTERIES AND THEIR PROTECTION CIRCUITS**		N/A
M.1	General requirements (IEC 60065, 5.5.2 c)) & (IEC 60950-1, 1.7.13)		N/A
M.2	Safety of batteries and their cells (IEC 60065, 14.11.1) & (IEC 60950-1, 4.3.8)		N/A
M.2.1	Requirements (IEC 60950-1, 4.3.8)		N/A
M.2.2	Compliance and test method (identify method) .. : (IEC 60950-1, 4.3.8)		—
M.3	Protection circuits (IEC 60950-1, 4.3.8)		N/A
M.3.1	Requirements (IEC 60950-1, 4.3.8)		N/A
M.3.2	Tests (IEC 60950-1, 4.3.8)		N/A
	- Overcharging of a rechargeable battery		N/A
	- Unintentional charging of a non-rechargeable battery		N/A
	- Reverse charging of a rechargeable battery		N/A
	- Excessive discharging rate for any battery		N/A
M.3.3	Compliance ..... : (IEC 60950-1, 4.3.8)	(See appended Tables and Annex M and M.4)	—
M.4	Additional safeguards for equipment containing secondary lithium battery		N/A

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
M.4.1	General		N/A
M.4.2	Charging safeguards		N/A
M.4.2.1	Charging operating limits		N/A
M.4.2.2a)	Charging voltage, current and temperature.....: (IEC 60065, 14.11.3)	(See Table M.4)	—
M.4.2.2 b)	Single faults in charging circuitry .....: (IEC 60065, 14.11.3)	(See Annex B.4)	—
M.4.3	Fire Enclosure		N/A
M.4.4	Endurance of equipment containing a secondary lithium battery		N/A
M.4.4.2	Preparation		N/A
M.4.4.3	Drop and charge/discharge function tests (IEC 60065, 14.11.5)		N/A
	Drop		N/A
	Charge		N/A
	Discharge		N/A
M.4.4.4	Charge-discharge cycle test		N/A
M.4.4.5	Result of charge-discharge cycle test		N/A
M.5	Risk of burn due to short circuit during carrying		N/A
M.5.1	Requirement		N/A
M.5.2	Compliance and Test Method (Test of P.2.3)		N/A
M.6	Prevention of short circuits and protection from other effects of electric current		N/A
M.6.1	Short circuits		N/A
M.6.1.1	General requirements		N/A
M.6.1.2	Test method to simulate an internal fault		N/A
M.6.1.3	Compliance (Specify M.6.1.2 or alternative method) ..... :		—
M.6.2	Leakage current (mA) ..... :		—
M.7	Risk of explosion from lead acid and NiCd batteries		N/A
M.7.1	Ventilation preventing explosive gas concentration		N/A
M.7.2	Compliance and test method		N/A
M.8	Protection against internal ignition from external spark sources of lead acid batteries		N/A
M.8.1	General requirements		N/A
M.8.2	Test method		N/A

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
M.8.2.1	General requirements		N/A
M.8.2.2	Estimation of hypothetical volume *Vz* (m^3/s) ..... :		—
M.8.2.3	Correction factors..... :		—
M.8.2.4	Calculation of distance *d* (mm) ..... :		—
M.9	Preventing electrolyte spillage		N/A
M.9.1	Protection from electrolyte spillage		N/A
M.9.2	Tray for preventing electrolyte spillage		N/A
M.10	Instructions to prevent reasonably foreseeable misuse (Determination of compliance: inspection, data review; or abnormal testing) ..... : (IEC 60065, 5.5.1)		—
N	**ELECTROCHEMICAL POTENTIALS**		P
	Metal(s) used ..... : (IEC 60065, Annex F) & (IEC 60950-1, Annex J)	Pollution degree considered	—
O	**MEASUREMENT OF CREEPAGE DISTANCES AND CLEARANCES**		P
	Figures O.1 to O.20 of this Annex applied..... : (IEC 60065, Annex E) & (IEC 60950-1, Annex F)		—
P	**SAFEGUARDS AGAINST ENTRY OF FOREIGN OBJECTS AND SPILLAGE OF INTERNAL LIQUIDS**		P
P.1	General requirements		P
P.2.2	Safeguards against entry of foreign object (IEC 60065, 9.1.3) & (IEC 60950-1, 4.6.1)		P
	Location and Dimensions (mm) ..... :	No opening	—
P.2.3	Safeguard against the consequences of entry of foreign object		P
P.2.3.1	Safeguards against the entry of a foreign object (IEC 60950-1, 4.6.1, 4.6.4.3)		P
	Openings in transportable equipment		N/A
	Transportable equipment with metalized plastic parts ..... :		—
P.2.3.2	Openings in transportable equipment in relation to metallized parts of a barrier or enclosure (identification of supplementary safeguard) ..... : (IEC 60950-1, 4.6.4.2, 4.6.4.3)		—
P.3	Safeguards against spillage of internal liquids		N/A
P.3.1	General requirements		N/A

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
P.3.2	Determination of spillage consequences		N/A
P.3.3	Spillage safeguards		N/A
P.3.4	Safeguards effectiveness		N/A
P.4	Metallized coatings and adhesive securing parts		N/A
P.4.2 a)	Conditioning testing (IEC 60950-1, 4.6.5)		N/A
	Tc (°C)..... :		—
	Tr (°C) ..... :		—
	Ta (°C) ..... :		—
P.4.2 b)	Abrasion testing ..... :	(See G.13.6.2)	—
P.4.2 c)	Mechanical strength testing ..... :	(See Annex T)	—

Q	**CIRCUITS INTENDED FOR INTERCONNECTION WITH BUILDING WIRING**		P
Q.1	Limited power sources (IEC 60950-1, 2.5)		P
Q.1.1 a)	Inherently limited output (IEC 60950-1, 2.5)		N/A
Q.1.1 b)	Impedance limited output (IEC 60950-1, 2.5)		P
	- Regulating network limited output under normal operating and simulated single fault condition		P
Q.1.1 c)	Overcurrent protective device limited output (IEC 60950-1, 2.5)		N/A
Q.1.1 d)	IC current limiter complying with G.9 (IEC 60950-1, 2.5)		N/A
Q.1.2	Compliance and test method (IEC 60950-1, 2.5)		P
Q.2	Test for external circuits – paired conductor cable (IEC 60950-1, 6.3)		N/A
	Maximum output current (A) ..... :		—
	Current limiting method..... :		—

R	**LIMITED SHORT CIRCUIT TEST**		N/A
R.1	General requirements		N/A
R.2	Determination of the overcurrent protective device and circuit		N/A
R.3	Test method Supply voltage (V) and short-circuit current (A)). ..... :		—

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

S	**TESTS FOR RESISTANCE TO HEAT AND FIRE**		N/A
S.1	Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W		N/A
	Samples, material ..... :		—
	Wall thickness (mm) ..... :		—
	Conditioning (°C) ..... :		—
	Test flame according to IEC 60695-11-5 with conditions as set out		N/A
	- Material not consumed completely		N/A
	- Material extinguishes within 30s		N/A
	- No burning of layer or wrapping tissue		N/A
S.2	Flammability test for fire enclosure and fire barrier integrity		N/A
	Samples, material ..... :		—
	Wall thickness (mm) ..... :		—
	Conditioning (°C) ..... :		—
	Test flame according to IEC 60695-11-5 with conditions as set out		N/A
	Test specimen does not show any additional hole		N/A
S.3	Flammability test for the bottom of a fire enclosure (IEC 60950-1, A.3)		N/A
	Samples, material ..... :		—
	Wall thickness (mm) ..... :		—
	Cheesecloth did not ignite		N/A
S.4	Flammability classification of materials		N/A
S.5	Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W		N/A
	Samples, material ..... :		—
	Wall thickness (mm) ..... :		—
	Conditioning (test condition), (°C)..... :		—
	Test flame according to IEC 60695-11-20 with conditions as set out		N/A
	After every test specimen was not consumed completely		N/A

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
	After fifth flame application, flame extinguished within 1 min		N/A

T	MECHANICAL STRENGTH TESTS		P
T.1	General requirements		P
T.2	Steady force test, 10 N .....: (IEC 60065, 13.3.1) & (IEC 60950-1, 4.2.2)	(See appended table T.2)	—
T.3	Steady force test, 30 N .....: (IEC 60065, 13.3.1) & (IEC 60950-1, 4.2.3)	(See appended table T3)	—
T.4	Steady force test, 100 N .....: (IEC 60065, 9.1.7)	(See appended table T4)	—
T.5	Steady force test, 250 N .....: (IEC 60065, 9.1.7) & (IEC 60950-1, 4.2.4)	(See appended table T5)	—
T.6	Enclosure impact test (IEC 60065, 12.1.4) & (IEC 60950-1, 4.2.5)	(See appended table T6)	N/A
	Fall test		N/A
	Swing test		N/A
T.7	Drop test .....: (IEC 60065, 12.1.5) & (IEC 60950-1, 4.2.6)	(See appended table T7)	—
T.8	Stress relief test.....: (IEC 60065, 12.1.6) & (IEC 60950-1, 4.2.7)	(See appended table T8)	—
T.9	Impact Test (glass) (IEC 60065, 19.6.1) & (IEC 60950-1, 4.2.5)		N/A
T.9.1	General requirements		N/A
T.9.2	Impact test and compliance		N/A
	Impact energy (J) ..... :		—
	Height (m)..... :		—
T.10	Glass fragmentation test ..... : (IEC 60065, 19.6.2)	(See sub-clause 4.4.4.9)	—
T.11	Test for telescoping or rod antennas (IEC 60065, 12.6)		N/A
	Torque value (Nm) .....:		—

U	MECHANICAL STRENGTH OF CATHODE RAY TUBES (CRT) AND PROTECTION AGAINST THE EFECTS OF IMPLOSION		N/A
U.1	General requirements (IEC 60065, 18.1) & (IEC 60950-1, 4.2.8)		N/A

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
U.2	Compliance and test method for non-intrinsically protected CRTs (IEC 60065, 18.2)		N/A
U.3	Protective Screen .....:	(See Annex T)	—
V	**DETERMINATION OF ACCESSIBLE PARTS (FINGERS, PROBES AND WEDGES)**		P
V.1	Accessible parts of equipment (IEC 60065, 9.1.1.3, 9.1.3, 9.1.4) & (IEC 60950-1, 1.7.2.5, 2.1.1.1, EE.5)		P
V.2	Accessible part criterion		P

4.1.2	TABLE: List of critical components				P
Object/part No.	Manufacturer/ trademark	Type/ model	Technical data	Standard	Mark(s) of conformity
Plastic Enclosure	COVESTRO DEUTSCHLAND AG [PC RESINS]	6485 + (z)(f1) 6485 + (z)(f2)	V-0, 115°C, min. thinkness 2.0 mm.	UL94	UL
PCB	DONGGUAN CITY TONSUN ELECTRONIC CO LTD	TS-03	V-0, 130°C	UL 796	UL
(Alternative)	NIPPON (BOLUO) ELECTRONICS CO LTD	S4	V-0, 130°C	UL 796	UL
(Alternative)	Countcash Ltd	C-29	V-0, 130°C	UL 796	UL
Battery	--	--	DC3.7V 4000mAh	IEC/EN 62133	CE
Note:					
Supplementary information: 1) Provided evidence ensures the agreed level of compliance. See OD-CB2039. 2) Description line content is optional. Main line description needs to clearly detail the component used for testing					

4.8.4, 4.8.5	TABLE: Lithium coin/button cell batteries mechanical tests	N/A
(The following mechanical tests are conducted in the sequence noted.)		

4.8.4.2	TABLE: Stress relief test	—

Part	Material	Oven Temperature (°C)	Comments

4.8.4.3	TABLE: Battery replacement test	—
Battery part no.....:		—

Battery Installation/withdrawal	Battery Installation/Removal Cycle	Comments
	1	
	2	
	3	
	4	
	5	
	6	
	8	
	9	
	10	

4.8.4.4	TABLE: Drop test	—

Impact Area	Drop Distance	Drop No.	Observations
		1	
		2	
		3	

4.8.4.5	TABLE: Impact	—

Impacts per surface	Surface tested	Impact energy (Nm)	Comments

4.8.4.6	TABLE: Crush test	—

Test position	Surface tested	Crushing Force (N)	Duration force applied (s)

Supplementary information:

4.8.5	TABLE: Lithium coin/button cell batteries mechanical test result	N/A

Test position	Surface tested	Force (N)	Duration force applied (s)

Supplementary information:			

5.2	TABLE: Classification of electrical energy sources						N
5.2.2.2 – Steady State Voltage and Current conditions							
No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters			ES Class
				U (Vrms or Vpk)	I (Apk or Arms)	Hz	
5.2.2.3 - Capacitance Limits							
No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters			ES Class
				Capacitance, nF	Upk (V)		
5.2.2.4 - Single Pulses							
No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters			ES Class
				Duration (ms)	Upk (V)	Ipk (mA)	
			Normal				
			Abnormal				
			Single fault – SC/OC				
5.2.2.5 - Repetitive Pulses							
No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters			ES Class
				Off time (ms)	Upk (V)	Ipk (mA)	
			Normal				
			Abnormal				
			Single fault – SC/OC				

Test Conditions:

Normal –

Abnormal -

Supplementary information: SC=Short Circuit, OC=Short Circuit

5.4.1.4, 6.3.2, 9.0, B.2.6	TABLE: Temperature measurements					P
	Supply voltage (V) .....:	DC5V (charging battery)	3.7V (Battery discharge)	--	--	—
	Ambient T_{min} (°C) .....:	24.4	45.0	--	--	—
	Ambient T_{max} (°C) .....:	24.2	45.0	--	--	—
	Tma (°C) .....:	24.3	45.0	--	--	—
Maximum measured temperature T of part/at:		T (°C)				Allowed T_{max} (°C)
Internal wire		26.9	26.5	--	--	80
PCB near D1		36.3	38.1	--	--	130
PCB near IC		34.6	36.7	--	--	130
Ambient		24.3	45.2	--	--	--

Supplementary information:

Temperature T of winding:	t_1 (°C)	R_1 (Ω)	t_2 (°C)	R_2 (Ω)	T (°C)	Allowed T_{max} (°C)	Insulation class
--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--

Supplementary information:

Note 1: Tma should be considered as directed by appliable requirement

Note 2: Tma is not included in assessment of Touch Temperatures (Clause 9)

5.4.1.10.2	TABLE: Vicat softening temperature of thermoplastics		N/A
Penetration (mm) ..... :			—
Object/ Part No./Material	Manufacturer/trademark	T softening (°C)	

Supplementary information:

5.4.1.10.3	TABLE: Ball pressure test of thermoplastics		N/A
Allowed impression diameter (mm) .....:	≤ 2 mm		—
Object/Part No./Material	Manufacturer/trademark	Test temperature (°C)	Impression diameter (mm)

Supplementary information:

5.4.2.2, 5.4.2.4 and 5.4.3	TABLE: Minimum Clearances/Creepage distance	N/A

Clearance (cl) and creepage distance (cr) at/of/between:	Up (V)	U r.m.s. (V)	Frequency (kHz)[1]	Required cl (mm)	cl (mm)[2]	Required[3] cr (mm)	cr (mm)

Supplementary information:

Note 1: Only for frequency above 30 kHz
Note 2: See table 5.4.2.4 if this is based on electric strength test
Note 3: Provide Material Group

5.4.2.3	TABLE: Minimum Clearances distances using required withstand voltage	N/A
	Overvoltage Category (OV) .....:	II
	Pollution Degree .....:	III

Clearance distanced between:	Required withstand voltage	Required cl (mm)	Measured cl (mm)

Supplementary information:

5.4.2.4	TABLE: Clearances based on electric strength test	N/A

Test voltage applied between:	Required cl (mm)	Test voltage (kV) peak/ r.m.s. / d.c.	Breakdown Yes / No

Supplementary information:

5.4.4.2, 5.4.4.5 c) 5.4.4.9	TABLE: Distance through insulation measurements	N/A

Distance through insulation di at/of:	Peak voltage (V)	Frequency (kHz)	Material	Required DTI (mm)	DTI (mm)
Supplementary information:					

5.4.9	TABLE: Electric strength tests	N/A

Test voltage applied between:	Voltage shape (AC, DC)	Test voltage (V)	Breakdown Yes / No
Functional:			
--	--	--	--
Basic/supplementary:			
Reinforced:			
Routine Tests:			
Supplementary information:			

5.5.2.2	TABLE: Stored discharge on capacitors	N/A

Supply Voltage (V), Hz	Test Location	Operating Condition (N, S)	Switch position On or off	Measured Voltage (after 2 seconds)	ES Classification

Supplementary information:

X-capacitors installed for testing are: CX1:0.47uF

☒ bleeding resistor rating: R101=R102=1.2 MΩ,

☐ ICX:

Notes:

A. Test Location:

Phase to Neutral; Phase to Phase; Phase to Earth; and/or Neutral to Earth

B. Operating condition abbreviations:

N – Normal operating condition (e.g., normal operation, or open fuse); S –Single fault condition

5.6.6.2	TABLE: Resistance of protective conductors and terminations			N/A
Accessible part	Test current (A)	Duration (min)	Voltage drop (V)	Resistance (Ω)
Supplementary information:				

5.7.2.2, 5.7.4	TABLE: Earthed accessible conductive part	N/A
Supply voltage.....:		—
Location	Test conditions specified in 6.1 of IEC 60990 or Fault Condition No in IEC 60990 clause 6.2.2.1 through 6.2.2.8, except for 6.2.2.7	Touch current (mA)
	1	
	2*	
	3	
	4	
	5	
	6	
	8	

Supplementary Information:

Notes:

[1] Supply voltage is the anticipated maximum Touch Voltage

[2] Earthed neutral conductor [Voltage differences less than 1% or more]

[3] Specify method used for measurement as described in IEC 60990 sub-clause 4.3

[4] IEC60990, sub-clause 6.2.2.7, Fault 7 not applicable.

[5] (*) IEC60990, sub-clause 6.2.2.2 is not applicable if switch or disconnect device (e.g., appliance coupler) provided.

6.2.2	TABLE: Electrical power sources (PS) measurements for classification				P
Source	Description	Measurement	Max Power after 3 s	Max Power after 5 s*)	PS Classification
A					PSI
		VA (V).....:	5.12	5.12	
		IA (A).....:	0.85	0.87	
B		Power (W).....:			
		VA (V).....:			
		IA (A).....:			
C		Power (W).....:			
		VA (V).....:			
		IA (A).....:			
D		Power (W).....:			
		VA (V).....:			
		IA (A).....:			
Supplementary Information: (*) Measurement taken only when limits at 3 seconds exceed PS1 limits					

6.2.3.1	TABLE: Determination of Potential Ignition Sources (Arcing PIS)			N/A
Location	Open circuit voltage After 3 s (Vp)	Measured r.m.s current (Irms)	Calculated value (V_p x I_{rms})	Arcing PIS? Yes / No
Supplementary information: An Arcing PIS requires a minimum of 50 V (peak) a.c. or d.c. An Arcing PIS is established when the product of the open circuit voltage (V_p) and normal operating condition rms current (I_{rms}) is greater than 15.				

6.2.3.2	TABLE: Determination of Potential Ignition Sources (Resistive PIS)				N/A
Circuit Location (x-y)	Operating Condition (Normal / Describe Single Fault)	Measured wattage or VA During first 30 s (W / VA)	Measured wattage or VA After 30 s (W / VA)	Protective Circuit, Regulator, or PTC Operated? Yes / No (Comment)	Resistive PIS? Yes/No

Supplementary Information:

A combination of voltmeter, VA and ammeter IA may be used instead of a wattmeter.

If a separate voltmeter and ammeter are used, the product of (VA x IA) is used to determine Resistive PIS classification.

A Resistive PIS: (a) dissipates more than 15 W, measured after 30 s of normal operation, or (b) under single fault conditions has either a power exceeding 100 W measured immediately after the introduction of the fault if electronic circuits, regulators or PTC devices are used, or has an available power exceeding 15 W measured 30 s after introduction of the fault.

8.5.5	**TABLE: High Pressure Lamp**	N/A
Description	Values	Energy Source Classification
Lamp type ..... :		—
Manufacturer..... :		—
Cat no..... :		—
Pressure (cold) (MPa) ..... :		MS_
Pressure (operating) (MPa)..... :		MS_
Operating time (minutes)..... :		—
Explosion method ..... :		—
Max particle length escaping enclosure (mm). :		MS_
Max particle length beyond 1 m (mm) ..... :		MS_
Overall result ..... :		

Supplementary information:

B.2.5	**TABLE: Input test**						P
U (V)	I (A)	I rated (A)	P (W)	P rated (W)	Fuse No	I fuse (A)	Condition/status
5V	0.085	/	0.425	--	--	--	Max. normal load.

Supplementary information:

Equipment may be have rated current or rated power or both. Both should be measured

B.4	TABLE: Fault condition tests							P
Ambient temperature (°C) ..... :				See blow				—
Power source for EUT: Manufacturer, model/type, output rating . :				See label				—
Component No.	Fault Condition	Supply voltage, (V)	Test time (ms)	Fuse no.	Fuse current, (A)	T-couple	Temp. (°C)	Observation
C5	S-C	DC 5V	10mins	--	0.005	--	--	Unit shutdown immediately, recoverable when the fault removed, No damage, no hazard
C16	S-C	DC 5V	10mins	--	0.005	--	--	Unit shutdown immediately, recoverable when the fault removed, No damage, no hazard
D5	S-C	DC 5V	10mins	--	0.005	--	--	Unit shutdown immediately, recoverable when the fault removed, No damage, no hazard
R2	S-C	DC 5V	10mins	--	0.005	--	--	Unit shutdown immediately, recoverable when the fault removed, No damage, no hazard
Supplementary information: S-C=Short Circuit, O-C=Open Circuit, O-L=Over Load. The Electric strength tests were successfully conducted after the completion of fault tests, no breakdown. *) fuse current is more than 2.1 times fuse rating.								

Annex M	**TABLE: Batteries**	P
The tests of Annex M are applicable only when appropriate battery data is not available		
Is it possible to install the battery in a reverse polarity position? ..... :		

	Non-rechargeable batteries			Rechargeable batteries					
	Discharging		Un-intentional charging	Charging		Discharging		Reversed charging	
	Meas. current	Manuf. Specs.		Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.
Max. current during normal condition	--	--	--	0.202A	1.0A	0.225	1.0A	--	--
Max. current during fault condition	--	--	--	0.245A	1.0A	0.269A	1.0A	--	--

Test results:		Verdict
- Chemical leaks		
- Explosion of the battery		
- Emission of flame or expulsion of molten metal		
- Electric strength tests of equipment after completion of tests		
Supplementary information:		

Annex M.4	**TABLE: Additional safeguards for equipment containing secondary lithium batteries**	P

Battery/Cell No.	Test conditions	Measurements			Observation
		U	I (A)	Temp (C)	
Battery Model	Normal	4.195	0.202	30.9°C (under 25.0°C ambient)	The charging voltage does not exceed 4.2V and the charging current does not exceed 1.0.
Battery Model	Single fault (U2 pin 21-17 SC)	4.16V	0.245	31.5°C (under 25.0°C ambient)	The charging voltage not exceed 4.2V and the single battery charging current not exceed 1.0A.
Battery Model	Single fault (U5 pin 8-12 SC)	--	--	25.6	Battery shutdown charging
Battery Model	Single fault (R3 SC)	--	--	25.8	Battery shutdown charging
Supplementary Information:					

Battery identification	Charging at T_{lowest} (°C)	Observation	Charging at $T_{highest}$ (°C)	Observation
Supplementary Information:				

Annex Q.1	**TABLE: Circuits intended for interconnection with building wiring (LPS)**					N/A
Note: Measured UOC (V) with all load circuits disconnected:						
Output Circuit	Components	U_{oc} (V)	I_{sc} (A)		S (VA)	
			Meas.	Limit	Meas.	Limit
Supplementary Information: SC=Short circuit, OC=Open circuit						

T.2, T.3, T.4, T.5	**TABLE: Steady force test**				P
Part/Location	Material	Thickness (mm)	Force (N)	Test Duration (sec)	Observation
Internal component	--	--	10	5	No any hazards, no reducing the insulation distance.
External enclosure	PC	2.0	250	5	No any hazards, no any damages.
Supplementary information:					

T.6, T.9	**TABLE: Impact tests**			N/A
Part/Location	Material	Thickness (mm)	Vertical distance (mm)	Observation
Supplementary information:				

T.7	**TABLE: Drop tests**			P
Part/Location	Material	Thickness (mm)	Drop Height (mm)	Observation
Top External enclosure	PC	2.0	1000	No any hazards, no any damages.
Side External enclosure	PC	2.0	1000	No any hazards, no any damages.
Bottom External enclosure	PC	2.0	1000	No any hazards, no any damages.

Supplementary information:

T.8	TABLE: Stress relief test				P
Part/Location	Material	Thickness (mm)	Oven Temperature (°C)	Duration (h)	Observation
External enclosure	PC	2.0	70	7	No any hazards, no any damages.
Supplementary information:					

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT
IEC 62368-1
EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES
(Audio/video, information and communication technology equipment - Part 1: Safety requirements)

Differences according to ..... : EN IEC 62368-1:2020+A11:2020

Attachment Form No. ..... : EU_GD_IEC62368_1B_III

Attachment Originator..... : Nemko AS

Master Attachment..... : Date 2020-03-22

	CENELEC COMMON MODIFICATIONS (EN)	--
	Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 62368-1:2020 are prefixed "Z".	--
CONTENTS	**Add** the following annexes: Annex ZA (normative) Normative references to international publications with their corresponding European publications Annex ZB (normative) Special national conditions Annex ZC (informative) A-deviations Annex ZD (informative) IEC and CENELEC code designations for flexible cords	P
	Delete all the "country" notes in the reference document (IEC 62368-1:2020) according to the following list:	P
	For special national conditions, see Annex ZB.	P
1	**Add** the following note: NOTE Z1 The use of certain substances in electrical and electronic equipment is restricted within the EU: see Directive 2011/65/EU.	N/A

0.2.1	Note	1	Note 3	4.1.15	Note
4.7.3	Note 1 and 2	5.2.2.2	Note	5.4.2.3.2.2 Table 13	Note c
5.4.2.3.2.4	Note 1 and 3	5.4.2.5	Note 2	5.4.5.1	Note
5.5.2.1	Note	5.5.6	Note	5.6.4.2.1	Note 2 and 3
5.7.5	Note	5.7.6.1	Note 1 and 2	10.2.1 Table 39	Note 2, 3 and 4
10.5.3	Note 2	10.6.2.1	Note 3	F.3.3.6	Note 3

IEC62368_1B – ATTACHMENT 1			
Clause	Requirement + Test	Result - Remark	Verdict
4.Z1	**Add** the following new subclause after 4.9: To protect against excessive current, short-circuits and earth faults in circuits connected to an a.c. **mains**, protective devices shall be included either as integral parts of the equipment or as parts of the building installation, subject to the following, a), b) and c): a) except as detailed in b) and c), protective devices necessary to comply with the requirements of B.3.1 and B.4 shall be included as parts of the equipment; b) for components in series with the mains input to the equipment such as the supply cord, appliance coupler, r.f.i. filter and switch, short-circuit and earth fault protection may be provided by protective devices in the building installation; c) it is permitted for **pluggable equipment type B** or **permanently connected equipment**, to rely on dedicated overcurrent and short-circuit protection in the building installation, provided that the means of protection, e.g. fuses or circuit breakers, is fully specified in the installation instructions. If reliance is placed on protection in the building installation, the installation instructions shall so state, except that for **pluggable equipment type A** the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet.		P
5.4.2.3.2.4	**Add** the following to the end of this subclause: The requirement for interconnection with **external circuit** is in addition given in EN 50491-3:2009.	No external circuit	N/A
10.2.1	Add the following to [c] and [d] in table 39: For additional requirements, see 10.5.1.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
10.5.1	**Add** the following after the first paragraph: For RS 1 compliance is checked by measurement under the following conditions: In addition to the normal operating conditions, all controls adjustable from the outside by hand, by any object such as a tool or a coin, and those internal adjustments or presets which are not locked in a reliable manner, are adjusted so as to give maximum radiation whilst maintaining an intelligible picture for 1 h, at the end of which the measurement is made. NOTE Z1 Soldered joints and paint lockings are examples of adequate locking. The dose-rate is determined by means of a radiation monitor with an effective area of 10 cm^2, at any point 10 cm from the outer surface of the apparatus. Moreover, the measurement shall be made under fault conditions causing an increase of the high-voltage, provided an intelligible picture is maintained for 1 h, at the end of which the measurement is made. For RS1, the dose-rate shall not exceed 1 µSv/h taking account of the background level. NOTE Z2 These values appear in Directive 96/29/Euratom of 13 May 1996.		N/A
10.6.1	**Add** the following paragraph to the end of the subclause: EN 71-1:2011, 4.20 and the related tests methods and measurement distances apply.		N/A
10.Z1	**Add** the following new subclause after 10.6.5. **10.Z1 Non-ionizing radiation from radio frequencies in the range 0 to 300 GHz** The amount of non-ionizing radiation is regulated by European Council Recommendation 1999/519/EC of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz). For intentional radiators, ICNIRP guidelines should be taken into account for Limiting Exposure to Time-Varying Electric, Magnetic, and Electromagnetic Fields (up to 300 GHz). For hand-held and body-mounted devices, attention is drawn to EN 50360 and EN 50566		N/A
G.7.1	**Add** the following note: NOTE Z1 The harmonized code designations corresponding to the IEC cord types are given in Annex ZD.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

Bibliography	**Add** the following standards: **Add** the following notes for the standards indicated: IEC 60130-9 NOTE Harmonized as EN 60130-9. IEC 60269-2 NOTE Harmonized as HD 60269-2. IEC 60309-1 NOTE Harmonized as EN 60309-1. IEC 60364 NOTE some parts harmonized in HD 384/HD 60364 series. IEC 60601-2-4 NOTE Harmonized as EN 60601-2-4. IEC 60664-5 NOTE Harmonized as EN 60664-5. IEC 61032:1997 NOTE Harmonized as EN 61032:1998 (not modified). IEC 61508-1 NOTE Harmonized as EN 61508-1. IEC 61558-2-1 NOTE Harmonized as EN 61558-2-1. IEC 61558-2-4 NOTE Harmonized as EN 61558-2-4. IEC 61558-2-6 NOTE Harmonized as EN 61558-2-6. IEC 61643-1 NOTE Harmonized as EN 61643-1. IEC 61643-21 NOTE Harmonized as EN 61643-21. IEC 61643-311 NOTE Harmonized as EN 61643-311. IEC 61643-321 NOTE Harmonized as EN 61643-321. IEC 61643-331 NOTE Harmonized as EN 61643-331.		P
ZB	**ANNEX ZB, SPECIAL NATIONAL CONDITIONS (EN)**		P
4.1.15	**Denmark, Finland, Norway** and **Sweden** To the end of the subclause the following is added: **Class I pluggable equipment type A** intended for connection to other equipment or a network shall, if safety relies on connection to reliable earthing or if surge suppressors are connected between the network terminals and **accessible** parts, have a marking stating that the equipment shall be connected to an earthed **mains** socket-outlet. The marking text in the applicable countries shall be as follows: In **Denmark**: “Apparatets stikprop skal tilsluttes en stikkontakt med jord som giver forbindelse til stikproppens jord.” In **Finland**: "Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan" In **Norway**: “Apparatet må tilkoples jordet stikkontakt” In **Sweden**: “Apparaten skall anslutas till jordat uttag”		N/A
4.7.3	**United Kingdom** To the end of the subclause the following is added: The torque test is performed using a socket-outlet complying with BS 1363, and the plug part shall be assessed to the relevant clauses of BS 1363. Also see Annex G.4.2 of this annex		N/A

IEC62368_1B – ATTACHMENT 1			
Clause	Requirement + Test	Result - Remark	Verdict
5.2.2.2	**Denmark** After the 2nd paragraph add the following: A warning (marking **safeguard**) for high **touch current** is required if the **touch current** exceeds the limits of 3,5 mA a.c. or 10 mA d.c.	No high touch current measured.	N/A
5.4.11.1 and Annex G	**Finland and Sweden** To the end of the subclause the following is added: For separation of the telecommunication network from earth the following is applicable: If this insulation is solid, including insulation forming part of a component, it shall at least consist of either • two layers of thin sheet material, each of which shall pass the electric strength test below, or • one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below. If this insulation forms part of a semiconductor component (e.g. an optocoupler), there is no distance through insulation requirement for the insulation consisting of an insulating compound completely filling the casing, so that clearances and creepage distances do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition • passes the tests and inspection criteria of 5.4.8 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 5.4.9 shall be performed using 1,5 kV), and • is subject to routine testing for electric strength during manufacturing, using a test voltage of 1,5kV. It is permitted to bridge this insulation with a capacitor complying with EN 60384-14:2005, subclass Y2. A capacitor classified Y3 according to EN 60384-14:2005, may bridge this insulation under the following conditions: • the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 60384-14, which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in 5.4.11; • the additional testing shall be performed on all the test specimens as described in EN 60384-14; the impulse test of 2,5 kV is to be performed before the endurance test in EN 60384-14, in the sequence of tests as described in EN 60384-14.		N/A

IEC62368_1B – ATTACHMENT 1			
Clause	Requirement + Test	Result - Remark	Verdict
5.5.2.1	**Norway** After the 3rd paragraph the following is added: Due to the IT power system used, capacitors are required to be rated for the applicable line-to-line voltage (230 V).		N/A
5.5.6	**Finland, Norway** and **Sweden** To the end of the subclause the following is added: Resistors used as **basic safeguard** or bridging **basic insulation** in **class I pluggable equipment type A** shall comply with G.10.1 and the test of G.10.2.		N/A
5.6.1	**Denmark** **Add** to the end of the subclause Due to many existing installations where the socket-outlets can be protected with fuses with higher rating than the rating of the socket-outlets the protection for pluggable equipment type A shall be an integral part of the equipment. *Justification:* In Denmark an existing 13 A socket outlet can be protected by a 20 A fuse.		N/A
5.6.4.2.1	**Ireland and United Kingdom** After the indent for **pluggable equipment type A**, the following is added: – the **protective current rating** is taken to be 13 A, this being the largest rating of fuse used in the **mains** plug.		N/A
5.6.5.1	To the second paragraph the following is added: The range of conductor sizes of flexible cords to be accepted by terminals for equipment with a rated current over 10 A and up to and including 13 A is: 1,25 mm^2 to 1,5 mm^2 in cross-sectional area.		N/A
5.7.5	**Denmark** To the end of the subclause the following is added: The installation instruction shall be affixed to the equipment if the **protective conductor current** exceeds the limits of 3,5 mA a.c. or 10 mA d.c.		N/A

IEC62368_1B – ATTACHMENT 1			
Clause	Requirement + Test	Result - Remark	Verdict
5.7.6.1	**Norway and Sweden** To the end of the subclause the following is added: The screen of the television distribution system is normally not earthed at the entrance of the building and there is normally no equipotential bonding system within the building. Therefore the protective earthing of the building installation needs to be isolated from the screen of a cable distribution system. It is however accepted to provide the insulation external to the equipment by an adapter or an interconnection cable with galvanic isolator, which may be provided by a retailer, for example. The user manual shall then have the following or similar information in Norwegian and Swedish language respectively, depending on in what country the equipment is intended to be used in: “Apparatus connected to the protective earthing of the building installation through the mains connection or through other apparatus with a connection to protective earthing – and to a television distribution system using coaxial cable, may in some circumstances create a fire hazard. Connection to a television distribution system therefore has to be provided through a device providing electrical isolation below a certain frequency range (galvanic isolator, see EN 60728-11)” NOTE In Norway, due to regulation for CATV-installations, and in Sweden, a galvanic isolator shall provide electrical insulation below 5 MHz. The insulation shall withstand a dielectric strength of 1,5 kV r.m.s., 50 Hz or 60 Hz, for 1 min. Translation to Norwegian (the Swedish text will also be accepted in Norway): “Apparater som er koplet til beskyttelsesjord via nettplugg og/eller via annet jordtilkoplet utstyr – og er tilkoplet et koaksialbasert kabel-TV nett, kan forårsake brannfare. For å unngå dette skal det ved tilkopling av apparater til kabel-TV nett installeres en galvanisk isolator mellom apparatet og kabel-TV nettet.” Translation to Swedish: ”Apparater som är kopplad till skyddsjord via jordat vägguttag och/eller via annan utrustning och samtidigt är kopplad till kabel-TV nät kan i vissa fall medföra risk för brand. För att undvika detta skall vid anslutning av apparaten till kabel-TV nät galvanisk isolator finnas mellan apparaten och kabel-TV nätet.”.		N/A

IEC62368_1B – ATTACHMENT 1			
Clause	Requirement + Test	Result - Remark	Verdict
5.7.6.2	**Denmark** To the end of the subclause the following is added: The warning (marking safeguard) for high touch current is required if the touch current or the protective current exceed the limits of 3,5 mA .		N/A
B.3.1 and B.4	**Ireland and United Kingdom** The following is applicable: To protect against excessive currents and short-circuits in the primary circuit of **direct plug-in equipment**, tests according to Annexes B.3.1 and B.4 shall be conducted using an external miniature circuit breaker complying with EN 60898-1, Type B, rated 32A. If the equipment does not pass these tests, suitable protective devices shall be included as an integral part of the **direct plug-in equipment**, until the requirements of Annexes B.3.1 and B.4 are met		N/A
G.4.2	**Denmark** To the end of the subclause the following is added: Supply cords of single phase appliances having a rated current not exceeding 13 A shall be provided with a plug according to DS 60884-2-D1:2011. CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a. If a single-phase equipment having a RATED CURRENT exceeding 13 A or if a poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with the standard sheets DK 6-1a in DS 60884-2-D1 or EN 60309-2. Mains socket outlets intended for providing power to Class II apparatus with a rated current of 2,5 A shall be in accordance DS 60884-2-D1:2011 standard sheet DKA 1-4a. Other current rating socket outlets shall be in compliance with Standard Sheet DKA 1-3a or DKA 1-1c. Mains socket-outlets with earth shall be in compliance with DS 60884-2-D1:2011 Standard Sheet DK 1-3a, DK 1-1c, DK1-1d, DK 1-5a or DK 1-7a *Justification:* Heavy Current Regulations, Section 6c		N/A

IEC62368_1B – ATTACHMENT 1			
Clause	Requirement + Test	Result - Remark	Verdict
G.4.2	**United Kingdom** To the end of the subclause the following is added: The plug part of direct plug-in equipment shall be assessed to BS 1363: Part 1, 12.1, 12.2, 12.3, 12.9, 12.11, 12.12, 12.13, 12.16, and 12.17, except that the test of 12.17 is performed at not less than 125 °C. Where the metal earth pin is replaced by an Insulated Shutter Opening Device (ISOD), the requirements of clauses 22.2 and 23 also apply.		P
G.7.1	**United Kingdom** To the first paragraph the following is added: Equipment which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to BS 1363 by means of that flexible cable or cord shall be fitted with a 'standard plug' in accordance with the Plugs and Sockets etc (Safety) Regulations 1994, Statutory Instrument 1994 No. 1768, unless exempted by those regulations. NOTE "Standard plug" is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.		N/A
G.7.1	**Ireland** To the first paragraph the following is added: Apparatus which is fitted with a flexible cable or cord shall be provided with a plug in accordance with Statutory Instrument 525: 1997, "13 A Plugs and Conversion Adapters for Domestic Use Regulations: 1997. S.I. 525 provides for the recognition of a standard of another Member State which is equivalent to the relevant Irish Standard		N/A
G.7.2	**Ireland and United Kingdom** To the first paragraph the following is added: A power supply cord with a conductor of 1,25 mm^2 is allowed for equipment which is rated over 10 A and up to and including 13 A.		N/A

IEC62368_1B – ATTACHMENT 1			
Clause	Requirement + Test	Result - Remark	Verdict

ZC	*ANNEX ZC, NATIONAL DEVIATIONS (EN)*		**N/A**
10.5.2	**Germany** The following requirement applies: For the operation of any cathode ray tube intended for the display of visual images operating at an acceleration voltage exceeding 40 kV, authorization is required, or application of type approval (Bauartzulassung) and marking. *Justification:* German ministerial decree against ionizing radiation (Röntgenverordnung), in force since 2002-07-01, implementing the European Directive 96/29/EURATOM. **NOTE** Contact address: Physikalisch-Technische Bundesanstalt, Bundesallee 100, D-38116 Braunschweig, Tel.: Int +49-531-592-6320, Internet: http://www.ptb.de		N/A

Attachment: Photos of the product:

EUT view ☒Whole ☐Rear ☐Right ☐Left ☐Top ☐Bottom ☐Internal	

EUT view ☒Whole ☐Rear ☐Right ☐Left ☐Top ☐Bottom ☐Internal	

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