



		TEST REPORT
Reference No	: `	WTF24D05125961Y
Applicant	in:	Mid Ocean Brands B.V.
Address		7/F., Kings Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong
Manufacturer	50 C	106613
Address	S. C.	with white whe was an it for the the
Product	j.	Bottle with wireless speaker
Model(s)	:	MO2312
Total pages	: _	67 pages and 6 pages of photo.
Standards	MUL	⊠ EN IEC 62368-1: 2020+A11: 2020
		Audio/video, information and communication technology equipment- Part 1:Safety requirements
Date of Receipt sample	÷	2024-06-03
Date of Test	: <	2024-06-03 to 2024-06-17
Date of Issue	5	2024-06-18
Test Result		Pass the tree of antifer white white white

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

Prepared By: Waltek Testing Group Co., Ltd.

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Compiled by:

Hen Luo

Glen Luo / Project Engineer

Approved by:

Almon Zhao / Designated Reviewer

Reference No.: WTF24D05125961Y	Pag	je 2 of 67
Test item description	Bottle with w	ireless speaker
Trademark	MOB	
Model and/or type reference:	MO2312	
Rating(s):	Input: 5VDC, Battery: 3.7V	, 3W /, 500mAh, 1.85Wh
Remark: Whether parts of tests for the product h Yes ⊠ No If Yes, list the related test items and lab Test items: Lab information:		contracted to other labs:
Summary of testing:	white we	when when when we at the
Tests performed (name of test and te - EN IEC 62368-1: 2020+A11: 2020 The submitted samples were found to o the requirements of above specification	comply with	Testing location:No.77,HoujieSection,GuantaiRoad,HoujieTown,DongguanCity,Guangdong,China
EU Group Differences	of EN IEC 62	368-1:2020+A11:2020.
Use of uncertainty of measurement f	or decisions	on conformity (decision rule) :
No decision rule is specified by the applicable limit according to the specified by the spe	ne IEC standa	ard, when comparing the measurement result with the at standard. The decisions on conformity are made mple acceptance" decision rule, previously known as
Other: (to be specified, for examp requirements apply)	le when requi	red by the standard or client, or if national accreditation
OD-5014 for test equipment and applic IECEE. IEC Guide 115 provides guidance on the decision rule when reporting tes measurement uncertainty for measure customer.	calculated by ation of test m the applicatio t results with ements is not	the laboratory based on application of criteria given by nethods, decision sheets and operational procedures of n of measurement uncertainty principles and applying nin IECEE scheme, noting that the reporting of the t necessary unless required by the test standard or
the testing.	nues are on fi	ile with the NCB and testing laboratory that conducted



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Copy of marking plate:



C E K 🖉

Remark:

- 1. The above markings are the minimum requirements required by the safety standard. For the final production, the additional markings which do not give rise to misunderstanding may be added.
- The CE marking and WEEE symbol should be at least 5.0mm and 7.0mm respectively in height.
 According to the EU directives which have been aligned with EU NLF (new legislative framework), both
- of manufacturer and importer's name and address shall be affixed on the product or, where that is not possible, on its packaging or in a document accompanying the product before the product is placed on the EU market.

TEST ITEM PARTICULARS:	nit want wat all the total
Product group	🛛 end product 🗌 built-in component
Classification of use by:	 Ordinary person Instructed person Skilled person
Supply Connection:	 AC mains DC mains M 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 pluggable equipment type B - non-detachable supply cord appliance coupler permanent connection mating connector in other: not Mains connected
Considered current rating of protective device as part of building or equipment installation:	 □ UK: 13 A; Others: 16 A; Location: □ building □ equipment ☑ N/A
Equipment mobility:	 movable hand-held transportable direct plug-in stationary for building-in wall/ceiling-mounted SRME/rack-mounted other:
Over voltage category (OVC):	○ OVC I ○ OVC II ○ OVC III ○ OVC IV ⊠ other: not Mains connected
Class of equipment:	□ Class I □ Class II □ Class II □ Class II
Access location:	 N/A □ restricted access area □ outdoor location □
Pollution degree (PD):	□ PD 1⊠ PD 2 □ PD 3
Manufacturer's specified maxium operating ambient :	25°C 🔲 Outdoor: minimum°C
IP protection class	⊠ IPX0 □ IP
Power Systems:	□ TN □ TT □ ITV LL ⊠ not AC mains
Altitude during operation (m)	⊠ 2000 m or less □m
Altitude of test laboratory (m):	⊠ 2000 m or less □ m
Mass of equipment (kg):	Approx. 0.212kg

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POSSIBLE TEST CASE VERDICTS:	the survey with the start of the
- 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:	me me in the state
Date of receipt of test item	See cover page.
Date (s) of performance of tests	See cover page.
GENERAL REMARKS:	TER ALTER MUTE MALE WALL WALL WALL
"(see Enclosure #)" refers to additional information ap	ppended to the report.

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"(see appended table)" refers to a table appended to the report.

Throughout this report a $\square\,$ comma / $\boxtimes\,$ point is used as the decimal separator.

GENERAL PRODUCT INFORMATION:

Product Description

- 1. The equipment with model MO2312 is Bottle with wireless speaker.
- 2. It is powered by type C port conformed to LPS or powered by rechargeable Li-ion Battery.
- 3. The maximum operating temperature is 25°C.

Model Differences

N/A

Additional application considerations – (Considerations used to test a component or subassembly) N/A

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Clause	Possible Hazard			
5	Electrically-caused injury		<u>×</u>	
Class and Energy Source	Body Part		Safeguards	
(e.g. ES3: Primary circuit)	(e.g. Ordinary)	В	S	R
ES1: All internal circuit	Ordinary	N/A S	N/A	N/A <
ES1: Lithium battery	Ordinary	N/A	N/A	N/A
6	Electrically-caused fire	·		
Class and Energy Source	Material part		Safeguards	
(e.g. PS2: 100 Watt circuit)	(e.g. Printed board)	В	1 st S	2 nd S
PS1: <15 Watt circuits	РСВ	N/A	N/A	N/A
PS1: Battery circuits	The other components/materials	N/A	N/A	N/A
7	Injury caused by hazardous substances			
Class and Energy Source	Body Part	Safeguards		
(e.g. Ozone)	(e.g., Skilled)	В	S	R
N/A	N/A	N/A	N/A	N/A
8	Mechanically-caused injury	<u> </u>		
Class and Energy Source	Body Part		Safeguards	
(e.g. MS3: Plastic fan blades)	(e.g. Ordinary)	В	S	R
MS1: Edges and corners	Ordinary	N/A	N/A	N/A
MS1: Mass of the unit	Ordinary	N/A	N/A	N/A
9	Thermal burn			
Class and Energy Source	Body Part	Safeguards		
(e.g. TS1: Keyboard caps)	(e.g., Ordinary)	В	S	R
TS1: All accessible parts	Ordinary	_√ [™] N/A √ [™]	N/A	N/A
10	Radiation			
Class and Energy Source	Body Part		Safeguards	
(e.g. RS1: PMP sound output)	(e.g., Ordinary)	В	S	R
RS1: LED for indicating	Ordinary	N/A	N/A	N/A



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			and the second			
ENERGY SOURCE DIAGRAM						
ndicate which energy so	urces are incl	uded in the	energy sou	rce diagram	. Insert diagram below	
		Et NITE	and a	les the	w w t	
	ES ES	🛛 PS	🖂 MS	🛛 TS	🛛 RS	
See de	tails in OVER	VIEW OF E	ENERGY S	OURCES AN	ND SAFEGUARDS	



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20.		EN IEC 62368-1	26. 2.
Clause	Requirement – Test	Result – Remark	Verdict

4	GENERAL REQUIREMENTS	6	P
4.1.1	Acceptance of materials, components and subassemblies	(See appended table 4.1.2)	. 1 ⁰⁰ Р
4.1.2	Use of components	Components which are certified to IEC and/or national standards are used correctly within their ratings. Components not covered by IEC standards are tested under the conditions present in the equipment. See also Annex G	рай Р (497) - 497) -
4.1.3	Equipment design and construction	Equipment is adequately designed and constructed.	P
4.1.4	Specified ambient temperature for outdoor use (°C)	Indoor use only	N/A
4.1.5	Constructions and components not specifically covered	No such constructions and components.	N/A
4.1.8	Liquids and liquid filled components (LFC)	No such parts.	N/A
4.1.15	Markings and instructions	(See Annex F)	P
4.4.3	Safeguard robustness	See below	Ń/A
4.4.3.1	General	- a far an a	N/A
4.4.3.2	Steady force tests	All and and all a	N/A
4.4.3.3	Drop tests	Un mun min an	N/A
4.4.3.4	Impact tests	of the ster when when ship	N/A
4.4.3.5	Internal accessible safeguard tests	No such parts.	N/A
4.4.3.6	Glass impact tests	No such glass used.	N/A
4.4.3.7	Glass fixation tests	No such parts.	N/A
er one	Glass impact test (1J)	whet wheter white white w	N/A
et et	Push/pull test (10 N)	s in the set	⊘-N/A
4.4.3.8	Thermoplastic material tests	VIEL MILL MALL MALL MALL	N/A
4.4.3.9	Air comprising a safeguard	1 1 1 1 1 1	N/A
4.4.3.10	Accessibility, glass, safeguard effectiveness	e until unit unit unit	N/A
4.4.4	Displacement of a safeguard by an insulating liquid	No such liquid.	N/A
4.4.5	Safety interlocks	No such parts.	N/A
4.5	Explosion	atter miles antie wait of	P
4.5.1	General	No explosion occurs during normal/abnormal operation and single fault conditions	et P
4.5.2	No explosion during normal/abnormal operating condition	(See Clause B.2, B.3)	, P



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	EN IEC 62368-1			
Clause	Requirement – Test	Result – Remark	Verdict	
- m	Nie hanne by symbolic metric size is fault	(Cas Claura P 4)	Р	
	No harm by explosion during single fault conditions	(See Clause B.4)	E F	
4.6	Fixing of conductors	See below	N/A	
NUTE MAY	Fix conductors not to defeat a safeguard	ret ret wret wret write	N/A	
* 0	Compliance is checked by test	the same and the	N/A	
4.7	Equipment for direct insertion into mains sock	et-outlets	N/A	
4.7.2	Mains plug part complies with relevant standard	Not direct plug-in equipment.	N/A	
4.7.3	Torque (Nm)	t attet intre waite wa	N/A	
4.8	Equipment containing coin/button cell batteries		N/A	
4.8.1	General	No coin/button cell batteries used.	N/A	
4.8.2	Instructional safeguard	TEX WIEK MITER MATE	N/A	
4.8.3	Battery compartment door/cover construction	- Mr. m	N/A	
white	Open torque test	et whet white white w	N/A	
4.8.4.2	Stress relief test	w w at	N/A	
4.8.4.3	Battery replacement test	miter inite white white	N/A	
4.8.4.4	Drop test		N/A	
4.8.4.5	Impact test	NALL WALL	N/A	
4.8.4.6	Crush test		N/A	
4.8.5	Compliance	TE WALT WALL WALK	N/A	
+ Jet	30N force test with test probe	e at at at	N/A	
an.	20N force test with test hook	white white where we	N/A	
4.9	Likelihood of fire or shock due to entry of cond	luctive object	Р	
4.10	Component requirements	white whe whe w	N/A	
4.10.1	Disconnect Device	at at at all	N/A	
4.10.2	Switches and relays	n's white white wh	N/A	

5	ELECTRICALLY-CAUSED INJURY		Р
5.2	Classification and limits of electrical energy sources		Р
5.2.2	ES1, ES2 and ES3 limits	ment we are an	Р
5.2.2.2	Steady-state voltage and current limits	(See appended table 5.2)	, vP
5.2.2.3	Capacitance limits	No such capacitors	N/A
5.2.2.4	Single pulse limits	No such single pulses	N/A
5.2.2.5	Limits for repetitive pulses	No such repetitive pulses	N/A
5.2.2.6	Ringing signals	No such ringing signals	N/A
5.2.2.7	Audio signals	with the second	P
5.3	Protection against electrical energy sources	THE STREE MUTE MAIL	P



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	EN IEC 62368-	and the second	
Clause	Requirement – Test	Result – Remark	Verdict
311- 1		the sheet with a she with	
5.3.1	General Requirements for accessible parts to ordinary, instructed and skilled persons	at at at a	P
5.3.1 a)	Accessible ES1/ES2 derived from ES2/ES3 circuits	MULTE MULT WILL WILL	N/A
5.3.1 b)	Skilled persons not unintentional contact ES3 bare conductors	MITER WAITER WAITER WAITER	N/A
5.3.2.1	Accessibility to electrical energy sources and safeguards	ES1 circuit and the enclosure (safeguard) are accessed to person.	P
WALL W	Accessibility to outdoor equipment bare parts	t wet when which wh	N/A
5.3.2.2	Contact requirements	when when we want	N/A
mer me	Test with test probe from Annex V	where outer and a man	_
5.3.2.2 a)	Air gap – electric strength test potential (V)	an a st st	N/A
5.3.2.2 b)	Air gap – distance (mm)	stret until while while	N/A
5.3.2.3	Compliance	i a a at	N/A
5.3.2.4	Terminals for connecting stripped wire	No stripped wire used.	N/A
5.4	Insulation materials and requirements	A A A A	P
5.4.1.2	Properties of insulating material	No insulation as a safeguard.	N/A
5.4.1.3	Material is non-hygroscopic	at the set	N/A
5.4.1.4	Maximum operating temperature for insulating materials	(See appended table 5.4.1.4, 9.3, B.1.5, B.2.6, B.3, B.4)	P
5.4.1.5	Pollution degrees	at white white white v	N/A
5.4.1.5.2	Test for pollution degree 1 environment and for an insulating compound	* suret maret whitek wh	N/A
5.4.1.5.3	Thermal cycling test	w w at at a	N/A
5.4.1.6	Insulation in transformers with varying dimensions	NUTER WALTE WALT WALT	_√ [®] N/A
5.4.1.7	Insulation in circuits generating starting pulses	a st at at	N/A
5.4.1.8	Determination of working voltage	NUTE WALTE WALT WALT	N/A
5.4.1.9	Insulating surfaces	a at at at	
5.4.1.10	Thermoplastic parts on which conductive metallic parts are directly mounted	white white white we	N/A
5.4.1.10.2	Vicat test	NUTER MUTER WALTE WAL	N/A
5.4.1.10.3	Ball pressure test	i toto d	N/A
5.4.2	Clearances	Inter water water water	N/A
5.4.2.1	General requirements	s at at at	N/A
t st	Clearances in circuits connected to AC Mains, Alternative method	the world world world with	N/A
5.4.2.2	Procedure 1 for determining clearance	et ourer antier antier out	N/A
dit .	Temporary overvoltage	a stat	-
5.4.2.3	Procedure 2 for determining clearance	stre atte white white	N/A



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	EN IEC 62368-	L. 1. 1. 1. 1.	
Clause	Requirement – Test	Result – Remark	Verdict
5.4.2.3.2.2	a.c. mains transient voltage	with with suffy	
5.4.2.3.2.3	d.c. mains transient voltage	SUTER NUTER INVITE	Martin -
5.4.2.3.2.4	External circuit transient voltage	Super and the	<u> </u>
5.4.2.3.2.5	Transient voltage determined by measurement	NUTER UNITED WALTER	M121
5.4.2.4	Determining the adequacy of a clearance using an electric strength test	ret wiret miret an	N/A
5.4.2.5	Multiplication factors for clearances and test voltages	t the the will	N/A
5.4.2.6	Clearance measurement	mus m m	N/A
5.4.3	Creepage distances	THE NUMBER WITH	N/A
5.4.3.1	General	m m s	N/A
5.4.3.3	Material group	street intret white all	ч ^у , —
5.4.3.4	Creepage distances measurement	i i i it	N/A
5.4.4	Solid insulation	Ter miller while whi	N/A
5.4.4.1	General requirements	at at all	N/A
5.4.4.2	Minimum distance through insulation	white white white	√/ N/A
5.4.4.3	Insulating compound forming solid insulation		N/A
5.4.4.4	Solid insulation in semiconductor devices	and and	N/A
5.4.4.5	Insulating compound forming cemented joints		
5.4.4.6	Thin sheet material	the main way with	N/A
5.4.4.6.1	General requirements	at the set of	N/A
5.4.4.6.2	Separable thin sheet material	my my m	N/A
Intre Inn	Number of layers (pcs)	- Jet Jet Ster	N/A
5.4.4.6.3	Non-separable thin sheet material	all all an	N/A
LIE WALL	Number of layers (pcs)	ster ster attend	N/As
5.4.4.6.4	Standard test procedure for non-separable thin sheet material	at not not i	N/A
5.4.4.6.5	Mandrel test	in which which which	N/A
5.4.4.7	Solid insulation in wound components	+ .6+ .5 ⁶⁺ .5 ⁶	N/A
5.4.4.9	Solid insulation at frequencies >30 kHz, E_P , K_R , d , V_{PW} (V)	when when when	N/A
ret ret	Alternative by electric strength test, tested voltage (V), K_{R}	white white white	N/A
5.4.5	Antenna terminal insulation	LIER NALLE WALLE W	N/A
5.4.5.1	General	a at at a	, → N/A
5.4.5.2	Voltage surge test	Ser white white white	N/A
5.4.5.3	Insulation resistance (MΩ)	a at at	N/A

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Clause	EN IEC 62368- Requirement – Test	Result – Remark	Verdict
	Requirement – rest	Result – Remark	Verdici
d.	Electric strength test	we we so	N/A
5.4.6	Insulation of internal wire as part of supplementary safeguard	WALTER WALTER WALTE WA	N/A
5.4.7	Tests for semiconductor components and for cemented joints	MITEX WALTER WALT	N/A
5.4.8	Humidity conditioning	at let let 5th	S N/A
- Tek	Relative humidity (%), temperature (°C), duration (h)	wat at at	
5.4.9	Electric strength test	white white white s	N/A
5.4.9.1	Test procedure for type test of solid insulation	a de de s	N/A
5.4.9.2	Test procedure for routine test	White white white white	N/A
5.4.10	Safeguards against transient voltages from external circuits	stet miter muter pont	N/A
5.4.10.1	Parts and circuits separated from external circuits	1 A A A	_<∕−N/A
5.4.10.2	Test methods	is white white white	•** N/A
5.4.10.2.1	General	the state	N/A
5.4.10.2.2	Impulse test	white white white w	N/A
5.4.10.2.3	Steady-state test	at a star	́́ N/А
5.4.10.3	Verification for insulation breakdown for impulse test	a sure with	N/A
5.4.11	Separation between external circuits and earth	LIE WALTE WALT WALT	N/A
5.4.11.1	Exceptions to separation between external circuits and earth	t with with whith	N/A
5.4.11.2	Requirements	the second second	N/A
white wh	SPDs bridge separation between external circuit and earth	WALTER WALTER WALTER WA	N/A
LIE MALT	Rated operating voltage U _{op} (V)	Tet the street out	
s st	Nominal voltage U _{peak} (V)	in my me in	_
WALL	Max increase due to variation $ imes U_{sp}$	Let allet mile white	- n.
. At	Max increase due to ageing $\times U_{sa}$	i shat	
5.4.11.3	Test method and compliance	MUTER MALLE MALLE M	N/A
5.4.12	Insulating liquid	a a the	
5.4.12.1	General requirements	INTERNATION WALL WAL	N/A
5.4.12.2	Electric strength of an insulating liquid	1 1 1 1 A	N/A
5.4.12.3	Compatibility of an insulating liquid	LIC WALL WALL WALL	N/A
5.4.12.4	Container for insulating liquid	at at let set	N/A
5.5	Components as safeguards	white white white	N/A
5.5.1	General	No such components as safeguards.	N/A



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0	EN IEC 62368-	2. M. m. s.	<u> </u>
Clause	Requirement – Test	Result – Remark	Verdict
5.5.2	Capacitors and RC units	white white white	N/A
5.5.2.1	General requirement	. Jet NJEL MIEL	N/A
5.5.2.2	Safeguards against capacitor discharge after disconnection of a connector	the set set	N/A
5.5.3	Transformers	les me me	N/A
5.5.4	Optocouplers	NET JUET ALLET AND	N/A
5.5.5	Relays	241 241 24	N/A
5.5.6	Resistors	t strek miller mile	N/A
5.5.7	SPDs	The second	N/A
5.5.8	Insulation between the mains and an external circuit consisting of a coaxial cable	MALIER MALIER MALIER	N/A
5.5.9	Safeguards for socket-outlets in outdoor equipment	LIEK WAITER WAITER WA	N/A
at intre	RCD rated residual operating current (mA)	of the set of	-
5.6	Protective conductor	me me m	N/A
5.6.2	Requirement for protective conductors	t itet itet atter	N/A
5.6.2.1	General requirements	Class III equipment	N/A
5.6.2.2	Colour of insulation	At NITE N	N/A
5.6.3	Requirement for protective earthing conductors		N/A
er mer	Protective earthing conductor size (mm ²)	JER MITE MATE MAT	× 4 –
t united	Protective earthing conductor serving as a reinforced safeguard	t set set with	N/A
	Protective earthing conductor serving as a double safeguard	when we not not	N/A
5.6.4	Requirements for protective bonding conductors	Mate Mate Mar -	N/A
5.6.4.1	Protective bonding conductors	at at set	Ś
	Protective bonding conductor size (mm ²)	up my m m	
5.6.4.2	Protective current rating (A)	et set set and	N/A
5.6.5	Terminals for protective conductors	me me in	N/A
5.6.5.1	Terminal size for connecting protective earthing conductors (mm)	WAITER WHITER WAITER	N/A
INLIER WA	Terminal size for connecting protective bonding conductors (mm)	Whitek whitek whitek w	N/A
5.6.5.2	Corrosion	a de de	
5.6.6	Resistance of the protective bonding system	LIE WALL WALL WA	N/A
5.6.6.1	Requirements	to the state of	N/A
5.6.6.2	Test Method	white white white	N/A
5.6.6.3	Resistance (Ω) or voltage drop	at the tot	N/A



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in	EN IEC 62368-	in which which when	In In
Clause	Requirement – Test	Result – Remark	Verdict
5.6.7	Reliable connection of a protective earthing conductor	the set and and set	N/A
5.6.8	Functional earthing	Mrs. Mrs. M. M.	N/A
STE MA	Conductor size (mm ²)	tet tet atter atter	N/A
1 0	Class II with functional earthing marking	the state of the	N/A
MALL	Appliance inlet cl &cr (mm)	THE STIPL OUTER WATER A	N/A
5.7	Prospective touch voltage, touch current and p	rotective conductor current	N/A
5.7.2	Measuring devices and networks	et allet antier antie and	N/A
5.7.2.1	Measurement of touch current	su s at de	N/A
5.7.2.2	Measurement of voltage	White white white white	~ ⁰ N/A
5.7.3	Equipment set-up, supply connections and earth connections	Tet stret wheet sources	N/A
5.7.4	Unearthed accessible parts	the second second	N/A
5.7.5	Earthed accessible conductive parts	et whet where where w	N/A
5.7.6	Requirements when touch current exceeds ES2 limits	Tet stat mittet mit	N/A
	Protective conductor current (mA)	when when any an	N/A
nerte and	Instructional Safeguard	At MITE WITE	N/A
5.7.7	Prospective touch voltage and touch current associated with external circuits		N/A
5.7.7.1	Touch current from coaxial cables	a me me m	N/A
5.7.7.2	Prospective touch voltage and touch current associated with paired conductor cables	* white white white white	N/A
5.7.8	Summation of touch currents from external circuits	milet intret whitet white	N/A
LIEK WAL	a) Equipment connected to earthed external circuits, current (mA)	The lifet wiret miret	N/A
at	b) Equipment connected to unearthed external circuits, current (mA)	at at at set	N/A
5.8	Backfeed safeguard in battery backed up supplies		N/A
NUTE	Mains terminal ES	No battery used	N/A
	Air gap (mm)	me me me	N/A

6	ELECTRICALLY- CAUSED FIRE		P
6.2	Classification of PS and PIS	at at all the sale	P
6.2.2	Power source circuit classifications	PS (power source) classification determined by measuring the maximum power in Figures 34 and 35 for load and power source circuits. (See appended table 6.2.2)	Tet P



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20.	EN IEC 62368-	the water when when a	$v_{\mu} \rightarrow v$
Clause	Requirement – Test	Result – Remark	Verdict
<u> </u>			
6.2.3	Classification of potential ignition sources	See the following details.	P
6.2.3.1	Arcing PIS	No Arcing PIS exist in the equipment	N/A
6.2.3.2	Resistive PIS	(See appended table 6.2.3.2)	N/A
6.3	Safeguards against fire under normal operating conditions	and abnormal operating	Set P
6.3.1	No ignition and attainable temperature value less than 90 % defined by ISO 871 or less than 300 °C for unknown materials	No ignition and no such temperature attained within the equipment. (See appended table B.1.5 & B.3)	P
n n	Combustible materials outside fire enclosure	No such parts	N/A
6.4	Safeguards against fire under single fault condit	tions	P
6.4.1	Safeguard method	Control fire spread	Р
6.4.2	Reduction of the likelihood of ignition under single fault conditions in PS1 circuits	et miret whiret whitet w	N/A
6.4.3	Reduction of the likelihood of ignition under single fault conditions in PS2 and PS3 circuits	THE STOR MUTER AND	N/A
6.4.3.1	Supplementary safeguards	Mr. Shi and a shi	N/A
6.4.3.2	Single Fault Conditions	at anti-	N/A
de de	Special conditions for temperature limited by fuse		N/A
6.4.4	Control of fire spread in PS1 circuits	iter white white white v	P
6.4.5	Control of fire spread in PS2 circuits	the state	, ⊘⊢ N/A
6.4.5.2	Supplementary safeguards	and the super white we	N/A
6.4.6	Control of fire spread in PS3 circuits	a at at at	N/A
6.4.7	Separation of combustible materials from a PIS	WALT WALT WAL WAT	N/A
6.4.7.2	Separation by distance	at at let set	Ń/A
6.4.7.3	Separation by a fire barrier	No fire barrier used.	N/A
6.4.8	Fire enclosures and fire barriers	See below.	P
6.4.8.2	Fire enclosure and fire barrier material properties	V-0 plastic enclosure used	Р
6.4.8.2.1	Requirements for a fire barrier	No fire barrier used.	N/A
6.4.8.2.2	Requirements for a fire enclosure	V-0 plastic enclosure used	P
6.4.8.3	Constructional requirements for a fire enclosure and a fire barrier	See below	N/A
6.4.8.3.1	Fire enclosure and fire barrier openings	No openings	N/A
6.4.8.3.2	Fire barrier dimensions	No specific barrier provided.	N/A
6.4.8.3.3	Top openings and properties	No top opening	N/A
	Openings dimensions (mm)	when the say an	N/A
6.4.8.3.4	Bottom openings and properties	No bottom opening	N/A



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Clause	Requirement – Test	Result – Remark	Verdict

and the second	or c)	by an ordinary person	and
6.4.8.4	Separation of a PIS from a fire enclosure and a fire barrier distance (mm) or flammability rating	Only PS1 circuit.	P
6.4.9	Flammability of insulating liquid	WALT WALL WALL WALL	N/A
6.5 5	Internal and external wiring	s at at at	
6.5.1	General requirements	Approved internal lead wire used, see appended table 4.1.2 for the details	P
6.5.2	Requirements for interconnection to building wiring	with the state of	N/A
6.5.3	Internal wiring size (mm2) for socket-outlets	No such wire used	N/A
6.6	Safeguards against fire due to the connection to a		УР

7	INJURY CAUSED BY HAZARDOUS SUBSTANCES	P. ST
7.2	Reduction of exposure to hazardous substances	N/A
7.3 ో	Ozone exposure	N/A
7.4	Use of personal safeguards or personal protective equipment (PPE)	N/A
MUTER	Personal safeguards and instructions	× _
7.5	Use of instructional safeguards and instructions	N/A
LITE N	Instructional safeguard (ISO 7010)	_
7.6	Batteries and their protection circuits	J. P J

8	MECHANICALLY-CAUSED INJURY		Р
8.2	Mechanical energy source classifications	et wet wet miter with	P
8.3	Safeguards against mechanical energy sources	s when we we have	P
8.4	Safeguards against parts with sharp edges and	corners	JUL B JU
8.4.1	Safeguards	with the state	P
in whit	Instructional Safeguard:	MS1: Edges and corners of enclosure	Р
8.4.2	Sharp edges or corners	Edges and corners of the enclosure are rounded.	Р
8.5	Safeguards against moving parts	L & & A . A.	N/A



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Clause	Requirement – Test	Result – Remark	Verdict
8.5.1	Fingers, jewellery, clothing, hair, etc., contact with MS2 or MS3 parts	No moving parts.	N/A
ant all	MS2 or MS3 part required to be accessible for the function of the equipment	See above.	N/A
en an	Moving MS3 parts only accessible to skilled person	Mill Marin Mar Mar	N/A
8.5.2	Instructional safeguard:	at at alt set	N/A
8.5.4	Special categories of equipment containing moving parts	which which with an	N/A
8.5.4.1	General	white white white whe	N/A
8.5.4.2	Equipment containing work cells with MS3 parts	at at at 50	N/A
8.5.4.2.1	Protection of persons in the work cell	white white white white	N/A
8.5.4.2.2	Access protection override	at let stat stat	N/A
8.5.4.2.2.1	Override system	or me me me	N/A
8.5.4.2.2.2	Visual indicator	et stet stret wires an	N/A
8.5.4.2.3	Emergency stop system	Mr. W. W.	N/A
water w	Maximum stopping distance from the point of activation (m):	WALTER WALTER WALTER WALT	N/A
ntifer worth	Space between end point and nearest fixed mechanical part (mm):	at white white	N/A
8.5.4.2.4	Endurance requirements	the set	N/A
t set	Mechanical system subjected to 100 000 cycles of operation	in which which which we	N/A
and a	- Mechanical function check and visual inspection	an until which which wh	N/A
Jet S	- Cable assembly:	at at at at	N/A
8.5.4.3	Equipment having electromechanical device for destruction of media	white white white white	N/A
8.5.4.3.1	Equipment safeguards	NUTER INTER WATER WATER	N/A
8.5.4.3.2	Instructional safeguards against moving parts:	s at at at	_<∕ [−] N/A
8.5.4.3.3	Disconnection from the supply	it water water water w	N/A
8.5.4.3.4	Cut type and test force (N):	- at at set at	N/A
8.5.4.3.5	Compliance	white white white white	N/A
8.5.5	High pressure lamps	No high pressure lamps used.	N/A
4	Explosion test:	nut mu mu m	N/A
8.5.5.3	Glass particles dimensions (mm):	Tet the atter with	N/A
8.6	Stability of equipment	an an an	N/A
8.6.1	General	MS1: Mass of the unit	N/A
dt.	Instructional safeguard:	Mr. A. A.	N/A
8.6.2	Static stability	aller alle and and	N/A

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20	EN IEC 62368-	1 and which which which	In In
Clause	Requirement – Test	Result – Remark	Verdict
Mar	We want the state of the state	the splitter while which is	he m
8.6.2.2	Static stability test:	the state	N/A
8.6.2.3 📣	Downward force test	White white white wh	
8.6.3	Relocation stability	a star star star	N/A
in any	Wheels diameter (mm):	mite white where whe	
	Tilt test	it set set set	N/A
8.6.4	Glass slide test	in which which which	N/A
8.6.5	Horizontal force test:	t at the set	N/A
8.7	Equipment mounted to wall, ceiling or other stru	ucture	N/A
8.7.1	Mount means type	No wall or ceiling	N/A
8.7.2	Test methods	my me m	N/A
LIE WALL	Test 1, additional downwards force (N):	Tet Jet allet mile	N/A
at whitek	Test 2, number of attachment points and test force (N)	at set set set	N/A
	Test 3 Nominal diameter (mm) and applied torque (Nm):	white white white	N/A
8.8	Handles strength	white white when wh	N/A
8.8.1	General	No handles	N/A
8.8.2	Handle strength test	and and and	N/A
let with	Number of handles:		_
	Force applied (N)	in min me m	
8.9	Wheels or casters attachment requirements	at the state states	N/A
8.9.2	Pull test	No such parts	N/A
8.10	Carts, stands and similar carriers	Tet still atter on	N/A
8.10.1	General	No carts, stands or similar carriers	N/A
8.10.2	Marking and instructions:	we we we we	N/A
8.10.3	Cart, stand or carrier loading test	et the tet when	N/A
	Loading force applied (N):	an an an	N/A
8.10.4	Cart, stand or carrier impact test	- Set ster when a	N/A
8.10.5	Mechanical stability	the the the se	N/A
ner wi	Force applied (N):	The stee mile with	white a
8.10.6	Thermoplastic temperature stability	no. m. t. t.	N/A
8.11	Mounting means for slide-rail mounted equipment (SRME)		N/A
8.11.1	General	No such parts	N/A
8.11.2	Requirements for slide rails	CAL INTER WATER WATER V	N/A
15	Instructional Safeguard:	i i it	N/A

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Clause	Requirement – Test	Result – Remark	Verdict
silve	W W S S S S	the shirt whit when we	Un an
8.11.3	Mechanical strength test	and the state	N/A
8.11.3.1	Downward force test, force (N) applied:	white white white whi	N/A 🚿
8.11.3.2	Lateral push force test	The second secon	N/A
8.11.3.3	Integrity of slide rail end stops	NUTER INTE WALL WALL	N/A
8.11.4	Compliance	i st at at	N/A
8.12	Telescoping or rod antennas	LIET UNITE WALL WALL	N/A
- At	Button/ball diameter (mm):	No such parts	_

9	THERMAL BURN INJURY		P
9.2 💉	Thermal energy source classifications		<i>∿</i> n_P
9.3	Touch temperature limits	a state of	_́Р
9.3.1	Touch temperatures of accessible parts	(See appended table 5.4.1.4, 9.3, B.1.5, B.2.6)	P
9.3.2	Test method and compliance	See B.1.6 & B.2.3	Р
9.4 🦽	Safeguards against thermal energy sources	i stat at	- P<
9.5	Requirements for safeguards		<i>⊲</i> ∿́P
9.5.1	Equipment safeguard	Enclosure provided to limit the transfer of thermal energy of internal parts under normal operating conditions and abnormal operating conditions.	INTER DU
9.5.2	Instructional safeguard:	Instructional safeguard is not required.	N/A
9.6	Requirements for wireless power transmitters	me me me	N/A
9.6.1	General	No wireless power transmitters	N/A
9.6.2	Specification of the foreign objects	solar solar son and	N/A
9.6.3	Test method and compliance:	Tet ster ster aller aller a	N/A

10	RADIATION		ST RUST
10.2	Radiation energy source classification	no me me me	Р
10.2.1	General classification	See below	P
A	Lasers	me m m	
NUT W	Lamps and lamp systems:	RS1: LED only for indicating use which is considered as low power application.	
m	Image projectors:	the wait wat wat a	
*	X-Ray:	at at at stat as	
24	Personal music player	white white and an	
10.3	Safeguards against laser radiation	at at the of	N/A



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Clause	Requirement – Test	Result – Remark	Verdict
Clause	Requirement – Test	Result – Remark	verdici
NUTEX	The standard(s) equipment containing laser(s) comply:	No laser radiation	N/A
10.4	Safeguards against optical radiation from lamp (including LED types)	es and lamp systems	P
10.4.1	General requirements	LED indication light: Classed as RS1 (Exempt Group)	Р
when	Instructional safeguard provided for accessible radiation level needs to exceed	NET MALTE WALT MAL	N/A
WALL V	Risk group marking and location:	t the with miles wh	N/A
A	Information for safe operation and installation	White the second	N/A
10.4.2	Requirements for enclosures	ALTER MUTER MALTE MALT	N/A
18 18	UV radiation exposure:	an it it it	N/A
10.4.3	Instructional safeguard:	LIFE INTE WALL WALL	N/A
10.5 🔬	Safeguards against X-radiation	1 1 at at	N/A
10.5.1	Requirements	No X-radiation	N/A
Jet	Instructional safeguard for skilled persons	the state of	<
10.5.3	Maximum radiation (pA/kg)	white white white white	
10.6	Safeguards against acoustic energy sources		N/A
10.6.1	General	- a contraction	N/A
10.6.2	Classification	All and the sufficient	N/A
(t.	Acoustic output <i>L</i> _{Aeq,T} , dB(A):	The Mar Mar Mar	N/A
MALTE	Unweighted RMS output voltage (mV): :	No such electrical output socket	N/A
STER IN	Digital output signal (dBFS)	at let set in	N/A
10.6.3	Requirements for dose-based systems	MULT MUL MUL M	N/A
10.6.3.1	General requirements	let get get get aget	N/A
10.6.3.2	Dose-based warning and automatic decrease	ne was war w	N/A
10.6.3.3	Exposure-based warning and requirements	at the the with	N/A
	30 s integrated exposure level (MEL30):	me m m s	N/A
white w	Warning for MEL ≥ 100 dB(A):	+ JEX ALLEY MUTER WAY	N/A
10.6.4	Measurement methods	Mr. M. M.	N/A
10.6.5	Protection of persons	street marter and annut	N/A
to the	Instructional safeguards:	an an at at	N/A
10.6.6	Requirements for listening devices (headphones, earphones, etc.)	TEL MAILE MALL MALL	N/A
10.6.6.1	Corded listening devices with analogue input	et the street while all	N/A
st	Listening device input voltage (mV):	m m m	N/A
10.6.6.2	Corded listening devices with digital input	ster ster with with	N/A



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	E	N IEC 62368-1	
Clause	Requirement – Test	Result – Remark	Verdict
Mar		with miller white white white	

10	Max. acoustic output <i>L</i> _{Aeq,T} , dB(A):		N/A
10.6.6.3	Cordless listening devices	white white white white	N/A
dt i	Max. acoustic output <i>L</i> _{Aeq,T} , dB(A):	m i at at	N/A

в	NORMAL OPERATING CONDITION TESTS, ABI CONDITION TESTS AND SINGLE FAULT COND		JEL P
B.1	General	ty met me m. m	Р
B.1.5	Temperature measurement conditions	(See appended table B.1.5)	Р
B.2	Normal operating conditions	mer mer mer me	P
B.2.1	General requirements:	(See Test Item Particulars and appended test tables)	NINC P
LIEK WALT	Audio Amplifiers and equipment with audio amplifiers:	Lifet intret whitet whitet	P
B.2.3	Supply voltage and tolerances	Rated input 5Vdc	خ P
B.2.5	Input test	(See appended table B.2.5)	Р
B.3	Simulated abnormal operating conditions	Lat at at a	Р
B.3.1	General	(See appended table B.3)	P
B.3.2	Covering of ventilation openings	No ventilation openings.	N/A
1. 20	Instructional safeguard:	a sure sur	N/A
В.3.3 💉	DC mains polarity test	Not supplied by D.C. mains	N/A
B.3.4	Setting of voltage selector	No such selector	N/A
B.3.5	Maximum load at output terminals	(See appended table B.3)	Р
B.3.6	Reverse battery polarity	No such battery	N/A
B.3.7	Audio amplifier abnormal operating conditions	(See appended table B.3)	, N°P
B.3.8	Safeguards functional during and after abnormal operating conditions	All safeguards remained effective	P
B.4	Simulated single fault conditions	up we we we	Р
B.4.1	General	at the the states	P
B.4.2	Temperature controlling device	NTC used on battery protective board. The test is carried out for three times, no failure. See appended table B.4 for details	F P
B.4.3	Blocked motor test	No motors	N/A
B.4.4	Functional insulation	See below.	J ^{er} P
B.4.4.1	Short circuit of clearances for functional insulation	(See appended table B.4)	Р
B.4.4.2	Short circuit of creepage distances for functional insulation	(See appended table B.4)	P
B.4.4.3	Short circuit of functional insulation on coated printed boards	No coated printed boards within the EUT	N/A



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Olaria	EN IEC 62368	all all and a	Marrill
Clause	Requirement – Test	Result – Remark	Verdict
B.4.5	Short-circuit and interruption of electrodes in tubes and semiconductors	(See appended table B.4)	P
B.4.6	Short circuit or disconnection of passive components	(See appended table B.4)	P
B.4.7	Continuous operation of components	The EUT is continuous operating type and no such components intended for short time operation or intermittent operation	N/A
B.4.8	Compliance during and after single fault conditions	No change to circuits classified in 5.3	Р
B.4.9	Battery charging and discharging under single fault conditions	See annex M	P.
С	UV RADIATION		N/A
C.1	Protection of materials in equipment from UV	radiation	N/A
C.1.2	Requirements	No such UV generated from the equipment.	N/A
C.1.3	Test method	a st st st st	N/A
C.2	UV light conditioning test	MILL WILL WILL WILL	N/A
C.2.1	Test apparatus	the state of the	N/A
C.2.2	Mounting of test samples		N/A
C.2.3	Carbon-arc light-exposure test	THE THE NEW MUTER	N/A
C.2.4	Xenon-arc light-exposure test	n m m	N/A
D	TEST GENERATORS		N/A
D.1	Impulse test generators	Mr. Mr.	N/A
D.2	Antenna interface test generator	X ALTER MATER MATE WAS	N/A
D.3	Electronic pulse generator	M to A At	N/A
E	TEST CONDITIONS FOR EQUIPMENT CONTAI	INING AUDIO AMPLIFIERS	1 P-11
E.1 🧹	Electrical energy source classification for aud	lio signals	P
m	Maximum non-clipped output power (W)	: (See appended table B.2.5)	<u> </u>
Tex	Rated load impedance (Ω)	: (See appended table 4.1.2)	< -
24. 1	Open-circuit output voltage (V)	: (See appended table B.2.5)	
NUTER IN	Instructional safeguard	: Provided in the manual	_
E.2	Audio amplifier normal operating conditions	white white when whe	Р
JER MIT	Audio signal source type	: (See appended table B.2.5)	_
e de	Audio output power (W)	: (See appended table B.2.5)	
which	Audio output voltage (V)	: (See appended table B.2.5)	s
1	Rated load impedance (Ω)	: (See appended table 4.1.2)	



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Clause	Requirement – Test	Result – Remark	Verdict
	Requirement – Test	Result – Remark	verdict
NUTEX at	Requirements for temperature measurement	(See appended table 5.4.1.4, 9.3, B.1.5, B.2.6, B.3, B.4)	P
E.3	Audio amplifier abnormal operating conditions	(See appended table B.3)	Р
F	EQUIPMENT MARKINGS, INSTRUCTIONS, AND INSTRUCTIONAL SAFEGUARDS		N ^N P
F.1	General	at all set set	J. P.
de.	Language:	English	_
F.2	Letter symbols and graphical symbols	of the the state of	P
F.2.1	Letter symbols according to IEC60027-1	Letter symbols for quantities and units are complied with IEC 60027-1.	P
F.2.2	Graphic symbols according to IEC, ISO or manufacturer specific	Graphical symbols are complied with IEC 60417, ISO 3864-2, ISO 7000 or ISO 7010.	P
F.3	Equipment markings	TEL MITEL WATER WALTE W	Р
F.3.1	Equipment marking locations	The required marking is located on the enclosure of the equipment and is easily visible.	F P
F.3.2	Equipment identification markings	See below for details.	P
F.3.2.1	Manufacturer identification:	See copy of marking plate	P
F.3.2.2	Model identification	See copy of marking plate	Р
F.3.3	Equipment rating markings	See below for details.	P
F.3.3.1	Equipment with direct connection to mains	Supplying by 5Vdc	N/A
F.3.3.2	Equipment without direct connection to mains	See above.	P
F.3.3.3	Nature of the supply voltage:	mur mur mr.	N/A
F.3.3.4	Rated voltage:	ret riet wret write	N/A
F.3.3.5	Rated frequency:	in the weather the	N/A
F.3.3.6	Rated current or rated power:	ist alight might and and	N/A
F.3.3.7	Equipment with multiple supply connections	Single supply connection.	N/A
F.3.4	Voltage setting device	No voltage setting device.	N/A
F.3.5	Terminals and operating devices	in a st st	N/A
F.3.5.1	Mains appliance outlet and socket-outlet markings	waiter waiter waiter waiter	N/A
F.3.5.2	Switch position identification marking:	Tet with out to white	N/A
F.3.5.3	Replacement fuse identification and rating markings:	at the state state as	N/A
100	Instructional safeguards for neutral fuse:	mur mur mur m.	N/A
F.3.5.4	Replacement battery identification marking:	No such battery.	N/A



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Clause	Requirement – Test	Result – Remark	Verdict
Clause	Requirement – Test		verdici
F.3.5.5	Neutral conductor terminal	No such parts.	N/A
F.3.5.6 📣	Terminal marking location	white white white white	N/A
F.3.6	Equipment markings related to equipment classification	Class III equipment	N/A
F.3.6.1	Class I equipment	he we we we	N/A
F.3.6.1.1	Protective earthing conductor terminal	TEX SLIPE NUMER MALTER AN	N/A
F.3.6.1.2	Protective bonding conductor terminals:	Mr. In St.	N/A
F.3.6.2	Equipment class marking:	t still million while whi	N/A
F.3.6.3	Functional earthing terminal marking:	W L A A	N/A
F.3.7	Equipment IP rating marking:	This equipment is classified as IPX0.	white
F.3.8	External power supply output marking:	and all mark marks	N/A
F.3.9	Durability, legibility and permanence of marking	Marking is considered to be legible and easily discernible. See also the following details.	ret P
F.3.10	Test for permanence of markings	The label was subjected to the permanence of marking test. The label was rubbed with cloth soaked with water for 15 sec. And then again for 15 sec, with the cloth soaked with petroleum spirit. After this test there was no damage to the label. The marking on the label did not fade. There was no curling and lifting of the label edge. After each test, the marking remained legible.	
F.4	Instructions	mur mr mr	P
LITE WALT	a) Information prior to installation and initial use	See user manual	P
et stet	b) Equipment for use in locations where children not likely to be present	the set of the	N/A
211	c) Instructions for installation and interconnection	when the me m	N/A
WALTER N	d) Equipment intended for use only in restricted access area	- minet minet mainet main	N/A
de la	e) Equipment intended to be fastened in place	a state state	N/A
we m	f) Instructions for audio equipment terminals	INTER INTERNET MAL	N/A
At St	g) Protective earthing used as a safeguard	e at at set	N/A
t et	h) Protective conductor current exceeding ES2 limits	LIE WALL WALL WALL &	N/A
men	i) Graphic symbols used on equipment	et stret while while wh	N/A
Jet	j) Permanently connected equipment not provided with all-pole mains switch	at at at at	N/A



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0	EN IEC 62368-		
Clause	Requirement – Test	Result – Remark	Verdict
NUTEK al	k) Replaceable components or modules providing safeguard function	and and and	N/A
4. A.	I) Equipment containing insulating liquid	mur mur m	N/A
Life MAY	m) Installation instructions for outdoor equipment	and and when a street and	N/A
F.5	Instructional safeguards	me me me	N/A
G	COMPONENTS		N/A
G.1	Switches	and the second	N/A
G.1.1	General	No switch used	N/A
G.1.2	Ratings, endurance, spacing, maximum load	the state	N/A
G.1.3	Test method and compliance	MITEL WALTER WALT W	N/A
G.2	Relays	and the	N/A
G.2.1	Requirements	No relay used.	N/A
G.2.2 🖉	Overload test	s s at at at	N/A
G.2.3	Relay controlling connectors supplying power to other equipment	white white white	N/A
G.2.4	Test method and compliance	NUTER INTERNATION	۸Ñ/۸ 💦
G.3	Protective devices	and the second	N/A
G.3.1	Thermal cut-offs	No such component	N/A
FEK WALT	Thermal cut-outs separately approved according to IEC 60730 with conditions indicated in a) & b)	The life which we	N/A
t miret	Thermal cut-outs tested as part of the equipment as indicated in c)	t ret ret the	N/A
G.3.1.2	Test method and compliance	me me m	N/A
G.3.2	Thermal links	No such component	N/A
G.3.2.1	a) Thermal links tested separately according to IEC 60691 with specifics	and the set	N/A
	b) Thermal links tested as part of the equipment	min white when wh	N/A
G.3.2.2	Test method and compliance	at at at at	N/A
G.3.3	PTC thermistors	No such component	N/A
G.3.4	Overcurrent protection devices	No such component	N/A
G.3.5	Safeguards components not mentioned in G.3.1 to G.3.4	which which will be	N/A
G.3.5.1	Non-resettable devices suitably rated and marking provided	whit whit with w	N/A
G.3.5.2	Single faults conditions:	LIET UNLIE WALL WAL	N/A
G.4 💉	Connectors	s at at at	- N/A
G.4.1	Spacings	No such component	N/A
G.4.2	Mains connector configuration:	1 A A	N/Á



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Clause	Requirement – Test	Result – Remark	Verdict
Clause			veruict
G.4.3	Plug is shaped that insertion into mains socket- outlets or appliance coupler is unlikely	the states the	N/A
G.5	Wound components	MUT. MUT M	N/A
G.5.1	Wire insulation in wound components	No such component	5 N/A
G.5.1.2	Protection against mechanical stress	We me in in	N/A
G.5.2	Endurance test	Tet still aller and	N/A
G.5.2.1	General test requirements	the star of	N/A
G.5.2.2	Heat run test	et stret with which	N/A
dt .	Test time (days per cycle):	m t t	
ne m	Test temperature (°C):	when white white a	n ¹ –
G.5.2.3	Wound components supplied from the mains	1 A A	
G.5.2.4	No insulation breakdown	WITE WAITE WALL WA	N/A
G.5.3	Transformers	a state de	N/A
G.5.3.1	Compliance method:	I WALL WALL WALL	N/A
JEK .	Position:	the state	N/A
W. y	Method of protection:	white white white	N/A
G.5.3.2	Insulation	at a set	N/A
	Protection from displacement of windings:	a sur a	_
G.5.3.3	Transformer overload tests	10 Nr 35 5	N/A
G.5.3.3.1	Test conditions	and the second	N/A
G.5.3.3.2	Winding temperatures	at the state with	N/A
G.5.3.3.3	Winding temperatures - alternative test method	me me en	N/A
G.5.3.4	Transformers using FIW	LIEK NUEL MUTCH	N/A
G.5.3.4.1	General	an an	N/A
the show	FIW wire nominal diameter:	suffer intres intro in	<u> </u>
G.5.3.4.2	Transformers with basic insulation only		
G.5.3.4.3	Transformers with double insulation or reinforced insulation	LET WALTER WALLS WALL	N/A
G.5.3.4.4	Transformers with FIW wound on metal or ferrite core	watter watter water	N/A
G.5.3.4.5	Thermal cycling test and compliance	the state state	N/A
G.5.3.4.6	Partial discharge test	me me me	N/A
G.5.3.4.7	Routine test	THE THE STREE MY	N/A
G.5.4	Motors	No motors used.	N/A
G.5.4.1	General requirements	set with with white	N/A
G.5.4.2	Motor overload test conditions	Mr w w	N/A
G.5.4.3	Running overload test	LIE LIE ALIE	N/A



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Clause	EN IEC 62368-	<u></u>	Verdict
Clause	Requirement – Test	Result – Remark	verdict
G.5.4.4.2	Locked-rotor overload test	Mut mar and	N/A
where we	Test duration (days):	. Tet NITE INTE	until _
G.5.4.5	Running overload test for DC motors	The second second	N/A
G.5.4.5.2	Tested in the unit	NUTER INTERNATION	N/A
G.5.4.5.3	Alternative method	a state of	⊘⊘ ⁺ N/A,
G.5.4.6	Locked-rotor overload test for DC motors	The unit white white	N/A
G.5.4.6.2	Tested in the unit	L A A A	N/A
m n	Maximum Temperature	white white white	N/A
G.5.4.6.3	Alternative method	at at at	N/A
G.5.4.7	Motors with capacitors	white white white is	N/A
G.5.4.8	Three-phase motors	at at at	5 N/A
G.5.4.9	Series motors	the man me me	N/A
and the	Operating voltage:	at the tit the	- 1
G.6	Wire Insulation	which which which	N/A
G.6.1	General	Only ES1 existed	N/A
G.6.2	Enamelled winding wire insulation	Mr. Mr. M.	N/A
G.7	Mains supply cords	at anti-	N/A
G.7.1	General requirements	No such component	N/A
me	Туре	The mile unit while	- 10
G.7.2	Cross sectional area (mm ² or AWG):	i sha the state	N/A
G.7.3	Cord anchorages and strain relief for non- detachable power supply cords	white white white	N/A
G.7.3.2	Cord strain relief	where marter where a	ss [©] N/A
G.7.3.2.1	Requirements	Sur an A	N/A
r. m.	Strain relief test force (N)	NUTER INLIER MALIN WA	N/A
G.7.3.2.2	Strain relief mechanism failure	i stat d	»+ N/A
G.7.3.2.3	Cord sheath or jacket position, distance (mm):	ter unite white white	N/A
G.7.3.2.4	Strain relief and cord anchorage material	the state of the	N/A
G.7.4	Cord Entry	WALT WALL WALL	N/A
G.7.5	Non-detachable cord bend protection	at at at	N/A
G.7.5.1	Requirements	MALL WALL WALL W	N/A
G.7.5.2	Test method and compliance	at the tet is	N/A
* Lifet	Overall diameter or minor overall dimension, <i>D</i> (mm):	I I I I I I	
an .	Radius of curvature after test (mm):	NALL MALL MALL	n -
G.7.6	Supply wiring space	1 A At	N/A



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EN IEC 62368-1				
Clause	Requirement – Test	Result – Remark	Verdict	
sulter 1	Mr. M. St. Alt St.	the outer only only on	2 m	
G.7.6.1	General requirements	No and the second	N/A	
G.7.6.2	Stranded wire	muter insteament wat	N/A	
G.7.6.2.1	Requirements	su e at dit	N/A	
G.7.6.2.2	Test with 8 mm strand	MITER WALTER WALT WAT	N/A	
G.8 🦽	Varistors	a at at at	_<∕N/A	
G.8.1	General requirements	No such component	N/A	
G.8.2	Safeguards against fire	h at at let i	N/A	
G.8.2.1	General	white white white white	N/A	
G.8.2.2	Varistor overload test	at at at 5	N/A	
G.8.2.3	Temporary overvoltage test	applie white and white	N/A	
G.9	Integrated circuit (IC) current limiters	at at at at	N/A_	
G.9.1	Requirements	No such component	N/A	
A NUTE	IC limiter output current (max. 5A):	of let set set a		
4	Manufacturers' defined drift:	m. m. m. r.		
G.9.2	Test Program	Tet with with any	N/A	
G.9.3	Compliance	AND AND AN AN	N/A	
G.10	Resistors	At a number of the	N/A	
G.10.1	General	No such component	N/A	
G.10.2	Conditioning	The street of the shift of	N/A	
G.10.3	Resistor test		⊘ N/A	
G.10.4	Voltage surge test	a mile inter white wh	N/A	
G.10.5	Impulse test		N/A	
G.10.6	Overload test	White white white white	N/A	
G.11 🚿	Capacitors and RC units	a to the tot	N/A	
G.11.1	General requirements	No such component	N/A	
G.11.2	Conditioning of capacitors and RC units	a at at at	N/A	
G.11.3	Rules for selecting capacitors	with the support	N/A	
G.12	Optocouplers	+ + + + + 3	N/A	
Let 1	Optocouplers comply with IEC 60747-5-5 with specifics	No such component	N/A	
he me	Type test voltage V _{ini,a} :	white white white white	_	
10 . 50	Routine test voltage, V _{ini, b}	a at the fit		
G.13	Printed boards	LIE WALL WALL WALL	N/A	
G.13.1	General requirements	Only need to comply with functional insulation, see only B.4.4.	N/A	
G.13.2	Uncoated printed boards	the state state with	N/A	



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-29.	EN IEC 62368-	the anti- and and	24. 4.
Clause	Requirement – Test	Result – Remark	Verdict
- m-		iter with which which	when the
G.13.3	Coated printed boards		N/A
G.13.4	Insulation between conductors on the same inner surface	MULTE MULT MULL	N/A
G.13.5	Insulation between conductors on different surfaces	MITER WALTER WALTER WA	N/A
let with	Distance through insulation:	at at at a	N/A
24	Number of insulation layers (pcs)	in me me me	- ¹
G.13.6	Tests on coated printed boards	t at set set	N/A
G.13.6.1	Sample preparation and preliminary inspection	mer mer m	N/A
G.13.6.2	Test method and compliance	the set set	N/A
G.14	Coating on components terminals	mer mer mer a	N/A
G.14.1	Requirements:	the state street of	N/A
G.15	Pressurized liquid filled components	the sur sur sur	N/A
G.15.1	Requirements	No such component	N/A
G.15.2	Test methods and compliance	NI STATE	N/A
G.15.2.1	Hydrostatic pressure test	NUTER INTERNITE	یں`` <\Ñ/A
G.15.2.2	Creep resistance test		N/A
G.15.2.3	Tubing and fittings compatibility test	ALL MALL M	N/A
G.15.2.4	Vibration test		<u>م</u> N/A_
G.15.2.5	Thermal cycling test	LIE WALLE WALL MAL	N/A
G.15.2.6	Force test	e at at at	N/A
G.15.3	Compliance	while while whi	N/A
G.16	IC including capacitor discharge function (ICX)	at at at	N/A
G.16.1	Condition for fault tested is not required	No such component	N/A
UTER MUT	ICX with associated circuitry tested in equipment	it it it is	Ś N/A
1	ICX tested separately	the me in	N/A
G.16.2	Tests	at the total with	N/A
State	Smallest capacitance and smallest resistance specified by ICX manufacturer for impulse test:	with the set	
w w	Mains voltage that impulses to be superimposed on	water water water	× -
In the	Largest capacitance and smallest resistance for ICX tested by itself for 10000 cycles test:	WALTER WALTER WALTE W	-
G.16.3	Capacitor discharge test:	THE STIFF MITE MY	N/A
н	CRITERIA FOR TELEPHONE RINGING SIGNAL	S	N/A
H.1	General	let alle white white	N/A
H.2	Method A	st it at	N/A
H.3	Method B	aller aller and	N/A



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generated within the equipment. H.3.1.1 Frequency (Hz) H.3.1.2 Voltage (V) H.3.1.3 Cadence; time (s) and voltage (V) H.3.1.4 Single fault current (mA): H.3.2 Tripping device and monitoring voltage H.3.2.1 Conditions for use of a tripping device or a monitoring voltage H.3.2.2 Tripping device M.3.2.3 Monitoring voltage (V) H.3.2.4 Tripping device H.3.2.5 Monitoring voltage (V) H.3.2.6 Tripping device M.3.2 Tripping device H.3.2.1 Conditions for use of a tripping device or a monitoring voltage (V) H.3.2.3 Monitoring voltage (V) J.1 General J.1 General N/A N/A Solid round winding wire, diameter (mm) N/A Solid square and rectangular (flatwise bending) winding wire, cross-sectional area (mm ²) N/A J.2/J.3 Tests and Manufacturing //A K.1 General requirements N/A Instructional safeguard N/A within the equipment. K.2 Components of safety	20	EN IEC 62368-	b. 4. 6. 2.	24. 41
generated within the equipment. H.3.1.1 Frequency (Hz) H.3.1.2 Voltage (V) H.3.1.3 Cadence; time (s) and voltage (V) H.3.1.4 Single fault current (mA) H.3.1.4 Single fault current (mA) H.3.2 Tripping device and monitoring voltage H.3.2.1 Conditions for use of a tripping device or a monitoring voltage H.3.2.2 Tripping device H.3.2.3 Monitoring voltage (V) H.3.2.4 Conditions for use of a tripping device or a monitoring voltage (V) H.3.2.3 Monitoring voltage (V) J NXA J.1 General N/A N/A Winding wire insulation — Solid round winding wire, diameter (mm): N/A Solid square and rectangular (flatwise bending) winding wire insulatoring — J.2/J.3 Tests and Manufacturing — K SAFETY INTERLOCKS N/A K.1 General equirements N/A M/A Instructional safeguard N/A K.3 Inadvertent change of operating mode N/A K.4 Interlock safeguard override N/A K.5 Fail-safe N/A K.5.1 Under single f	Clause	Requirement – Test	Result – Remark	Verdict
H.3.1.1 Frequency (Hz)	H.3.1	Ringing signal	generated within the	N/A
H.3.1.3 Cadence; time (s) and voltage (V)	H.3.1.1	Frequency (Hz):	24. 22	_
H.3.1.4 Single fault current (mA):	H.3.1.2	Voltage (V):	MILLS WALLS WALL	
H.3.2 Tripping device and monitoring voltage N/A H.3.2.1 Conditions for use of a tripping device or a monitoring voltage N/A H.3.2.2 Tripping device N/A H.3.2.3 Monitoring voltage (V) N/A J INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED IN/A N/A J INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED IN/A N/A J.1 General N/A Winding wire insulation	H.3.1.3	Cadence; time (s) and voltage (V):	at all the the	
H.3.2.1 Conditions for use of a tripping device or a monitoring voltage N/A H.3.2.2 Tripping device N/A H.3.2.3 Monitoring voltage (V): N/A J INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED IN/A N/A J.1 General N/A Winding wire insulation:	H.3.1.4	Single fault current (mA)::	and me and	_
monitoring voltage N/A H.3.2.2 Tripping device N/A H.3.2.3 Monitoring voltage (V) N/A J INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION N/A J.1 General N/A Winding wire insulation — Solid round winding wire, diameter (mm) M/A Solid square and rectangular (flatwise bending) winding wire, cross-sectional area (mm²) N/A J.2/J.3 Tests and Manufacturing — K SAFETY INTERLOCKS N/A K.1 General requirements N/A Instructional safeguard N/A K.2 Components of safety interlock safeguard mechanism N/A K.3 Inadvertent change of operating mode N/A K.4 Interlock safeguard override N/A K.5.1 Under single fault condition N/A K.6.2 Test method and compliance N/A K.6.1 Endurance requirement N/A K.6.2 Test method and compliance	H.3.2	Tripping device and monitoring voltage	t the state states of	N/A
H.3.2.3 Monitoring voltage (V)	H.3.2.1		When the set of	N/A
J INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED N/A J.1 General N/A Winding wire insulation — Solid round winding wire, diameter (mm): N/A Solid square and rectangular (flatwise bending) winding wire, cross-sectional area (mm²) N/A J.2/J.3 Tests and Manufacturing — K SAFETY INTERLOCKS N/A K.1 General requirements N/A Instructional safeguard N/A K.2 Components of safety interlock safeguard mechanism N/A K.3 Inadvertent change of operating mode N/A K.4 Interlock safeguard override N/A K.5.5 Fail-safe N/A K.6.1 Endurance requirement N/A K.6.2 Test method and compliance N/A K.6.1 Endurance requirement N/A K.7.1 Separation distance for contact gaps & interlock for contact gaps (mm) N/A K.7.1 In circuit isolation N/A In circuit connected to mains, separation distance for contact gaps (mm) N/A In circuit iso	H.3.2.2	Tripping device	white white white white	N/A
INSULATION General N/A J.1 General N/A Winding wire insulation — Solid round winding wire, diameter (mm): N/A Solid square and rectangular (flatwise bending) winding wire, cross-sectional area (mm ²): N/A J.2/J.3 Tests and Manufacturing — K SAFETY INTERLOCKS N/A K.1 General requirements N/A Instructional safeguard N/A N/A K.2 Components of safety interlock safeguard mechanism N/A K.3 Inadvertent change of operating mode N/A K.4 Interlock safeguard override N/A K.5.1 Under single fault condition N/A K.6.1 Endurance requirement N/A K.6.2 Test method and compliance N/A K.7.1 Separation distance for contact gaps & interlock N/A K.7.1 Separation distance for contact gaps & interlock N/A K.7.1 In circuit isolation N/A K.7.1 Separation distance for contact gaps & interlock N/A In circuit connected to ma	H.3.2.3	Monitoring voltage (V):	at at the set	N/A
Winding wire insulation — Solid round winding wire, diameter (mm): N/A Solid square and rectangular (flatwise bending) winding wire, cross-sectional area (mm²): N/A J.2/J.3 Tests and Manufacturing — K SAFETY INTERLOCKS N/A K.1 General requirements N/A Instructional safeguard No safety interlock provided within the equipment. N/A K.2 Components of safety interlock safeguard mechanism N/A K.3 Inadvertent change of operating mode N/A K.4 Interlock safeguard override N/A K.5 Fail-safe N/A K.5.1 Under single fault condition N/A K.6.2 Test method and compliance N/A K.6.1 Endurance requirement N/A K.7.1 Separation distance for contact gaps & interlock circuit elements N/A K.7.1 Separation distance for contact gaps & interlock circuit elements N/A In circuit isolated from mains, separation distance for contact gaps (mm) N/A	J			N/A
Solid round winding wire, diameter (mm): N/A Solid square and rectangular (flatwise bending) winding wire, cross-sectional area (mm ²): N/A J.2/J.3 Tests and Manufacturing — K SAFETY INTERLOCKS N/A K.1 General requirements N/A Instructional safeguard No safety interlock provided within the equipment. N/A K.2 Components of safety interlock safeguard mechanism N/A K.3 Inadvertent change of operating mode N/A K.4 Interlock safeguard override N/A K.5 Fail-safe N/A K.6.1 Endurance requirement N/A K.6.1 Endurance requirement N/A K.6.2 Test method and compliance N/A K.7.1 Separation distance for contact gaps & interlock circuit elements N/A K.7.1 Separation distance for contact gaps & interlock circuit isolated from mains, separation distance for contact gaps (mm) N/A In circuit isolated from mains, separation distance N/A	J.1	General	it while whe whe w	N/A
Solid square and rectangular (flatwise bending) winding wire, cross-sectional area (mm ²) N/A J.2/J.3 Tests and Manufacturing — K SAFETY INTERLOCKS N/A K.1 General requirements N/A Instructional safeguard No safety interlock provided within the equipment. N/A K.2 Components of safety interlock safeguard mechanism N/A K.3 Inadvertent change of operating mode N/A K.4 Interlock safeguard override N/A K.5 Fail-safe N/A K.5.1 Under single fault condition N/A K.6.1 Endurance requirement N/A K.6.2 Test method and compliance N/A K.7.1 Separation distance for contact gaps & interlock circuit elements N/A K.7.1 Separation distance for contact gaps & interlock circuit isolated from mains, separation distance for contact gaps (mm) N/A	STER	Winding wire insulation:	. It let set a	Ś —
winding wire, cross-sectional area (mm²): Image: cross-sectional area (mm²): Image: cross-sectional area (mm²): Image: cross-sectional area (mm²): Image: cross-sectional area (mm²): N/A K SAFETY INTERLOCKS N/A K.1 General requirements N/A Instructional safeguard No safety interlock provided within the equipment. N/A K.2 Components of safety interlock safeguard mechanism N/A K.3 Inadvertent change of operating mode N/A K.4 Interlock safeguard override N/A K.5 Fail-safe N/A K.5.1 Under single fault condition N/A K.6 Mechanically operated safety interlocks N/A K.6.1 Endurance requirement N/A K.6.2 Test method and compliance N/A K.7 Interlock circuit isolation N/A K.7.1 Separation distance for contact gaps & interlock circuit elements N/A In circuit connected to mains, separation distance for contact gaps (mm) N/A In circuit isolated from mains, separation distance N/A	24 1	Solid round winding wire, diameter (mm) :	white white she with	N/A
K SAFETY INTERLOCKS N/A K.1 General requirements N/A Instructional safeguard No safety interlock provided within the equipment. N/A K.2 Components of safety interlock safeguard mechanism N/A K.3 Inadvertent change of operating mode N/A K.4 Interlock safeguard override N/A K.5 Fail-safe N/A K.5.1 Under single fault condition N/A K.6 Mechanically operated safety interlocks N/A K.6.1 Endurance requirement N/A K.6.2 Test method and compliance N/A K.7.1 Separation distance for contact gaps & interlock circuit elements N/A K.7.1 In circuit connected to mains, separation distance for contact gaps (mm)	INITE WIN		antifet watte	N/A
K.1 General requirements N/A Instructional safeguard No safety interlock provided within the equipment. N/A K.2 Components of safety interlock safeguard mechanism N/A K.3 Inadvertent change of operating mode N/A K.4 Interlock safeguard override N/A K.5 Fail-safe N/A K.5.1 Under single fault condition N/A K.6.1 Endurance requirement N/A K.6.2 Test method and compliance N/A K.7 Interlock circuit isolation N/A K.7.1 Separation distance for contact gaps & interlock circuit elements N/A K.7.1 In circuit connected to mains, separation distance for contact gaps (mm) N/A In circuit isolated from mains, separation distance N/A In circuit isolated from mains, separation distance N/A	J.2/J.3	Tests and Manufacturing		JEN-
Instructional safeguard	к	SAFETY INTERLOCKS		N/A
K.2 Components of safety interlock safeguard mechanism N/A K.3 Inadvertent change of operating mode N/A K.4 Interlock safeguard override N/A K.5 Fail-safe N/A K.5.1 Under single fault condition N/A K.6 Mechanically operated safety interlocks N/A K.6.1 Endurance requirement N/A K.6.2 Test method and compliance N/A K.7 Interlock circuit isolation N/A K.7.1 Separation distance for contact gaps & interlock circuit elements N/A K.7.1 In circuit connected to mains, separation distance for contact gaps (mm) N/A N/A In circuit isolated from mains, separation distance N/A	K.1_	General requirements		N/A
K.3 Inadvertent change of operating mode N/A K.4 Interlock safeguard override N/A K.5 Fail-safe N/A K.5.1 Under single fault condition N/A K.6 Mechanically operated safety interlocks N/A K.6.1 Endurance requirement N/A K.6.2 Test method and compliance N/A K.7 Interlock circuit isolation N/A K.7.1 Separation distance for contact gaps & interlock circuit elements N/A K.7.1 In circuit connected to mains, separation distance for contact gaps & interlock circuit isolated from mains, separation distance N/A		Instructional safeguard:		N/A
K.4Interlock safeguard overrideN/AK.5Fail-safeN/AK.5.1Under single fault conditionN/AK.6Mechanically operated safety interlocksN/AK.6.1Endurance requirementN/AK.6.2Test method and complianceN/AK.7Interlock circuit isolationN/AK.7.1Separation distance for contact gaps & interlock circuit elementsN/AN/AN/AIn circuit connected to mains, separation distance for contact gaps (mm)N/AN/AN/AIn circuit isolated from mains, separation distance for contact gaps (mm)N/A	К.2	Components of safety interlock safeguard mec	hanism	N/A
K.5Fail-safeN/AK.5.1Under single fault conditionN/AK.6Mechanically operated safety interlocksN/AK.6.1Endurance requirementN/AK.6.2Test method and compliance:N/AK.7Interlock circuit isolationN/AK.7.1Separation distance for contact gaps & interlock circuit elementsN/AK.7.1In circuit connected to mains, separation distance for contact gaps (mm):N/AN/AN/AN/AM.7In circuit isolated from mains, separation distanceN/AN/AN/AN/AM.7N/AM.7N/AM.7	K.3	Inadvertent change of operating mode	at at at at	N/A
K.5.1Under single fault conditionN/AK.6Mechanically operated safety interlocksN/AK.6.1Endurance requirementN/AK.6.2Test method and complianceN/AK.6.2Interlock circuit isolationN/AK.7Interlock circuit isolationN/AK.7.1Separation distance for contact gaps & interlock circuit elementsN/AIn circuit connected to mains, separation distance for contact gaps (mm)N/AIn circuit isolated from mains, separation distanceN/A	K.4	Interlock safeguard override	until white white white	N/A
K.6Mechanically operated safety interlocksN/AK.6.1Endurance requirementN/AK.6.2Test method and complianceN/AK.7Interlock circuit isolationN/AK.7.1Separation distance for contact gaps & interlock circuit elementsN/AK.7.1In circuit connected to mains, separation distance for contact gaps (mm)N/AIn circuit isolated from mains, separation distanceN/A	K.5	Fail-safe	at let stat stat	N/A
K.6.1 Endurance requirement N/A K.6.2 Test method and compliance N/A K.7 Interlock circuit isolation N/A K.7.1 Separation distance for contact gaps & interlock circuit elements N/A In circuit connected to mains, separation distance for contact gaps (mm) N/A In circuit isolated from mains, separation distance N/A	K.5.1	Under single fault condition	when the the a	N/A
K.6.2 Test method and compliance: N/A K.7 Interlock circuit isolation N/A K.7.1 Separation distance for contact gaps & interlock circuit elements N/A K.7.1 In circuit connected to mains, separation distance for contact gaps (mm) N/A In circuit isolated from mains, separation distance N/A N/A N/A N/A	K.6	Mechanically operated safety interlocks	t get get with m	N/A
K.7 Interlock circuit isolation N/A K.7.1 Separation distance for contact gaps & interlock circuit elements N/A In circuit connected to mains, separation distance for contact gaps (mm): N/A In circuit isolated from mains, separation distance N/A	K.6.1	Endurance requirement	Mr. Mr. M. M.	N/A
K.7.1 Separation distance for contact gaps & interlock circuit elements N/A In circuit connected to mains, separation distance for contact gaps (mm): N/A In circuit isolated from mains, separation distance N/A	K.6.2	Test method and compliance:	the week out the must	N/A
circuit elements In circuit connected to mains, separation distance for contact gaps (mm): N/A In circuit isolated from mains, separation distance N/A	K.7	Interlock circuit isolation	man man man	N/A
for contact gaps (mm) In circuit isolated from mains, separation distance N/A	K.7.1		The ward water water	N/A
	A WALTE		at white white white w	N/A
			NITER MITER WAITER WAIT	N/A



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Clause	Paguirament Test	Result – Remark	Verdict
Clause	Requirement – Test		verdict
Whitek a	Electric strength test before and after the test of K.7.2	(See appended table 5.4.9)	N/A
K.7.2	Overload test, Current (A):	mer. mer m. m.	N/A
K.7.3	Endurance test	THE LIFE NUMBER ONLIFE	N/A
K.7.4	Electric strength test	he when we are	N/A
L	DISCONNECT DEVICES	·	N/A
L.1 🦽	General requirements	the start	N/A
L.2	Permanently connected equipment	t still mill white white	N/A
L.3	Parts that remain energized	Shi to to all	N/A
L:4 📣	Single-phase equipment	white white white white	⊲ ^{∿°} N/A
L.5	Three-phase equipment	i it it it	N/A
L.6 🖑	Switches as disconnect devices	till white white white	N/A
L.7 了	Plugs as disconnect devices	e at at at	N/A
L.8	Multiple power sources	anti wat wat w	N/A
JEt	Instructional safeguard	A 10 10 5	N/A
М	EQUIPMENT CONTAINING BATTERIES AND TH	EIR PROTECTION CIRCUITS	P
M.1	General requirements	At 15th St	́́Р
M.2	Safety of batteries and their cells	a sur m	Р
M.2.1	Batteries and their cells comply with relevant IEC standards	Approved battery pack used	NUT RI
M.3	Protection circuits for batteries provided within the equipment	a marter marter would would	P.
M.3.1	Requirements	State of the	P
M.3.2 📣	Test method	wife white white white	√ [™] P
LIEX WAL	Overcharging of a rechargeable battery	(See appended table Annex M)	MUTEP S
ek intres	Excessive discharging	(See appended table Annex M)	JEL P
Jet	Unintentional charging of a non-rechargeable battery	No such battery used	N/A
NUT V	Reverse charging of a rechargeable battery	Built-in battery used; reverse charging is prevented	N/A
M.3.3	Compliance	No chemical leakage, no spillage of liquid, no explosion of the battery, no emission of flame or expulsion of molten metal	SUP P
M.4	Additional safeguards for equipment containing lithium battery	g a portable secondary	P
M.4.1	General	at at at at	Р



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0	Desidement Text	Descritte Democrite	Manaliat
Clause	Requirement – Test	Result – Remark	Verdict
M.4.2	Charging safeguards	Under normal operating conditions, abnormal operating conditions or single fault conditions, the charging voltage, charging current of the battery no exceed the maximum specified charging voltage and maximum specified charging current.	
M.4.2.1	Requirements	t at set set s	N/A
M.4.2.2	Compliance	(See appended table M.4.2)	Р
M.4.3	Fire enclosure	at out out out	P
M.4.4	Drop test of equipment containing a secondary lithium battery	white white white white	P
M.4.4.2	Preparation and procedure for the drop test	the white white where y	Р
M.4.4.3	Drop, Voltage on reference and dropped batteries (V); voltage difference during 24 h period (%)::	The voltage difference not exceed 5%.	STOR P.C
M.4.4.4	Check of the charge/discharge function	Three complete discharge and charge cycles under normal operating conditions.	E Pri
M.4.4.5	Charge / discharge cycle test	No fire, explosion and any electrolyte leakage	NULLY P
M.4.4.6	Compliance		S.⊘_P_
M.5	Risk of burn due to short-circuit during carrying	git whit whit white w	Р
M.5.1	Requirement	No bare conductive terminal used	P.S
M.5.2	Test method and compliance	and the second s	N/A
M.6	Safeguards against short-circuits	White white white white	P
M.6.1	External and internal faults	a at at at	N/A
M.6.2	Compliance	The battery complied with IEC 62133-2 which considered the internal fault tests. No such explosion or fire likely to result from short circuits.	Ρ
M.7 🔍	Risk of explosion from lead acid and NiCd batte	eries of the other	N/A
M.7.1	Ventilation preventing explosive gas concentration	No such battery used	N/A
1 0	Calculated hydrogen generation rate:	and the the	N/A
M.7.2	Test method and compliance	Tet allet alle walter	N/A
t st	Minimum air flow rate, Q (m ³ /h)	The second second	N/A
M.7.3	Ventilation tests	et allet and water walt was	N/A
M.7.3.1	General	the state	N/A
M.7.3.2	Ventilation test – alternative 1	stree out white white	N/A



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EN IEC 62368-1				
Clause	Requirement – Test	Result – Remark	Verdict	
SIL	Hydrogen gas concentration (%):	the sheet water and all	N/A	
M.7.3.3	Ventilation test – alternative 2	The state what while	N/A	
<u></u>	Obtained hydrogen generation rate:	Mr. Mr. M. M.	N/A	
M.7.3.4	Ventilation test – alternative 3	The state with south	N/A	
1. 18	Hydrogen gas concentration (%):	per un su si	N/A	
M.7.4	Marking:	Jet outer only and white	N/A	
M.8	Protection against internal ignition from extern with aqueous electrolyte	al spark sources of batteries	N/A	
M.8.1	General	Jun Jun La A	N/A	
M.8.2 📣	Test method	street miles while while	_s [©] N/A	
M.8.2.1	General	and the set of	N/A	
M.8.2.2	Estimation of hypothetical volume V _Z (m ³ /s):	LIFE UNITE WALT WALT	1 · · · · ·	
M.8.2.3	Correction factors:	a st at at	<u></u>	
M.8.2.4	Calculation of distance <i>d</i> (mm):	white when when we		
M.9	Preventing electrolyte spillage		N/A	
M.9.1	Protection from electrolyte spillage	white white white white	N/A	
M.9.2	Tray for preventing electrolyte spillage	at the state	N/A	
M.10	Instructions to prevent reasonably foreseeable misuse	- I have the	N/A	
m	Instructional safeguard:	is which which which a	N/A	
N Str	ELECTROCHEMICAL POTENTIALS		N/A	
- 200	Material(s) used:	Mr. Mr. M. M.		
0.5	MEASUREMENT OF CREEPAGE DISTANCES AND CLEARANCES		N/A	
<u>a</u>	Value of <i>X</i> (mm):	me me me m	_	
P	SAFEGUARDS AGAINST CONDUCTIVE OBJEC	TS of State State State	P	
P.1	General	See below	P	
P.2	Safeguards against entry or consequences of e	entry of a foreign object	P	
P.2.1	General	and an and	Р	
P.2.2	Safeguards against entry of a foreign object	- which while while whi	_√ ⁰ P	
dt.	Location and Dimensions (mm)	No opening.		
P.2.3	Safeguards against the consequences of entry of a foreign object	WALTER WALTER WALTE WALTE	N/A	
P.2.3.1	Safeguard requirements	Tet with mile mile	N/A	
& INLIEK	The ES3 and PS3 keep-out volume in Figure P.3 not applicable to transportable equipment	of the state state of	N/A	
	Transportable equipment with metalized plastic parts	with the set of	N/A	



S

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	EN IEC 62368-	the and the second	
Clause	Requirement – Test	Result – Remark	Verdict
	N. N. Standard and a state with	Er with white white wh	
P.2.3.2	Consequence of entry test		N/A
P.3 📣	Safeguards against spillage of internal liquids	white white white white	_⊲∕N/A
P.3.1	General	No such liquids.	N/A
P.3.2	Determination of spillage consequences	nette unit whe whe	N/A
P.3.3	Spillage safeguards	i it it	N/A
P.3.4	Compliance	re whit when whe w	N/A
P.4	Metallized coatings and adhesives securing pa	rts <u> </u>	N/A
P.4.1	General	No such construction.	N/A
P.4.2	Tests	at at at all	N/A
	Conditioning, T _C (°C):	and me and and	-22
UPER INT	Duration (weeks)	at let net wet	NITE-
Q	CIRCUITS INTENDED FOR INTERCONNECTION	WITH BUILDING WIRING	N/A
Q.1	Limited power sources	et the the states of	N/A
Q.1.1	Requirements	with the second second	N/A
NULLICE V	a) Inherently limited output	ister and all all and	N/A
	b) Impedance limited output	- Mr She - She - She	N/A
	c) Regulating network limited output	At a number of the	N/A
1 1	d) Overcurrent protective device limited output		N/A
Nr.	e) IC current limiter complying with G.9	The street of the south of	N/A
Q.1.2	Test method and compliance:	See below	⊳ N/A
ann	Current rating of overcurrent protective device (A)	White white white white	N/A
Q.2	Test for external circuits – paired conductor cable	No such circuit for connection to the EUT	N/A
JIE MAL	Maximum output current (A):	it it set set	N/A
	Current limiting method	up my me m	
R	LIMITED SHORT CIRCUIT TEST	of the state what a	N/A
R.1	General	No such consideration.	N/A
R.2	Test setup	- JEX JEE NUE ME	N/A
A	Overcurrent protective device for test	Mr. Mr. M. St.	
R.3	Test method	und which makes much	N/A
de de	Cord/cable used for test	and the second	
R.4	Compliance	thet which which which a	N/A
S 🖉	TESTS FOR RESISTANCE TO HEAT AND FIRE	the second se	N/A
	the state of the s		
S.1	Flammability test for fire enclosures and fire ba where the steady state power does not exceed		N/A



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0	EN IEC 62368-	2. 20. 20. 2.	
Clause	Requirement – Test	Result – Remark	Verdict
SW	Wall thickness (mm):	mer were an	
and the state	Conditioning (°C)	THE LEW NUMBER	INTER VILLE
	Test flame according to IEC 60695-11-5 with	and me and	
	conditions as set out	ster ster miler and	
1 1	- Material not consumed completely	1. 24. 2.	N/A
in main	- Material extinguishes within 30s	ret ourer online would	N/A
- st	- No burning of layer or wrapping tissue	in the	N/A
S.2	Flammability test for fire enclosure and fire bar	rier integrity	N/A
det	Samples, material:	s s at	1 5
ne n	Wall thickness (mm):	WALLE WALL WALL W	r. m.
Set S	Conditioning (°C)	at at at a	et set
S.3	Flammability test for the bottom of a fire enclose	sure of the second	N/A
S.3.1	Mounting of samples	at left set set	N/A
S.3.2	Test method and compliance	where where where	N/A
- MUTER	Mounting of samples	Tet Jet Jet Jet	NUT AN ANTE
	Wall thickness (mm):	when when we a	
S.4	Flammability classification of materials	at mitter of	N/A
S.5	Flammability test for fire enclosure materials of equipment with a steady state power exceeding 4 000 W	The antite particle parties	N/A
t set	Samples, material:	e at at at	
- an	Wall thickness (mm):	WALL WILL WAL	m. m
JEN.	Conditioning (°C)	at at at	
Ť	MECHANICAL STRENGTH TESTS	mer mer mer n	N/A
T.1	General	at let set as	N/A
Т.2	Steady force test, 10 N:	up and an an	N/A
Т.3	Steady force test, 30 N:	et set ster stret wire	N/A
Т.4	Steady force test, 100 N:	Mr. Mr. m.	N/A
Т.5	Steady force test, 250 N:	t stick which white	N/A
Т.6	Enclosure impact test	111 m 1	N/A
	Fall test	MUTER WALFER WALTE W	N/A
1 1	Swing test	i at at	مان رواند (N/A
T.7 🖑	Drop test:	(See appended table)	N/A
T.8	Stress relief test:	(See appended table)	N/A
Т.9	Glass Impact Test:	No such glass	N/A
T.10	Glass fragmentation test	the state of the	N/A



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0	EN IEC 62368-	1. 1. 1. I.	
Clause	Requirement – Test	Result – Remark	Verdict
<u></u>	Number of particles counted:	No such glass	N/A
T.11 📣	Test for telescoping or rod antennas	white mile white white	N/A
NUTEK WAY	Torque value (Nm):	No such antennas provided within the equipment.	N/A
U	MECHANICAL STRENGTH OF CATHODE RAY TUBES (CRT) AND PROTECTION AGAINST THE EFFECTS OF IMPLOSION		N/A
U.1	General	the man where	N/A
WALTER	Instructional safeguard:	No CRT provided within the equipment.	N/A
U.2	Test method and compliance for non-intrinsically protected CRTs		N/A
U.3	Protective screen		N/A
V ^{ar} S	DETERMINATION OF ACCESSIBLE PARTS		N/A
V.1	Accessible parts of equipment		N/A
V.1.1	General	at the state states	N/A
V.1.2	Surfaces and openings tested with jointed test probes	Mar with which is	N/A
V.1.3	Openings tested with straight unjointed test probes	white white white white	N/A
V.1.4	Plugs, jacks, connectors tested with blunt probe	at the state	N/A
V.1.5	Slot openings tested with wedge probe	5 Sur 20	N/A
V.1.6	Terminals tested with rigid test wire	Alt all alt all the	N/A
V.2	Accessible part criterion	the super	N/A
X	ALTERNATIVE METHOD FOR DETERMINING CLEARANCES FOR INSULATION IN CIRCUITS CONNECTED TO AN AC MAINS NOT EXCEEDING 420 V PEAK (300 V RMS)		N/A
me m	Clearance	white white white white	<∿ [®] N/A
Y.	CONSTRUCTION REQUIREMENTS FOR OUTDOOR ENCLOSURES		N/A
Ϋ́.1 👘	General	Indoor equipment	N/A
Y.2	Resistance to UV radiation	is at at at	N/A
Y.3	Resistance to corrosion	it wat wat wat w	N/A
Y.3	Resistance to corrosion	t at let let i	N/A
Y.3.1	Metallic parts of outdoor enclosures are resistant to effects of water-borne contaminants by	white white white white	N/A
Y.3.2 👋	Test apparatus	INTE WALT WALL WAL	N/A
Y.3.3	Water – saturated sulphur dioxide atmosphere	i at at set	N/A
Y.3.4	Test procedure	the while while while a	N/A
Y.3.5	Compliance	at at at at	N/A
Y.4	Gaskets	white white white wh	N/A
Y.4.1	General	at at at 5	N/A



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EN IEC 62368-1					
Clause	Requirement – Test	Result – Remark	Verdict		
sur	with the second	the strength white white	Mr. Mr.		
Y.4.2	Gasket tests	m m t	N/A		
Y.4.3	Tensile strength and elongation tests	NUEL INTERNITE	N/A		
dt i	Alternative test methods:	su t at	N/A		
Y.4.4	Compression test	NUTER SINITE SUNITE ST	N/A		
Y.4.5 🧹	Oil resistance	i de de	N/A		
Y.4.6	Securing means	white white white wh	N/A		
Y.5	Protection of equipment within an outdoor enclo	osure	N/A		
Y.5.1	General	and mit white white	N/A		
Y.5.2	Protection from moisture	at at at	N/A		
n n	Relevant tests of IEC 60529 or Y.5.3	white white white	N/A		
Y.5.3	Water spray test	at let let	N/A		
Y.5.4	Protection from plants and vermin	here are and an	N/A		
Y.5.5	Protection from excessive dust	et 12 50 5	N/A		
Y.5.5.1	General	me me m	N/A		
Y.5.5.2	IP5X equipment	t set ster with	N/A		
Y.5.5.3	IP6X equipment	We we we	N/A		
Y.6	Mechanical strength of enclosures	At a multi	N/A s		
Y.6.1	General		N/A		
Y.6.2	Impact test:	Str. Str. Str. B	N/A		



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EN IEC 62368-1

Clause

Requirement - Test

Result – Remark

Verdict

	ATTACHMENT TO TEST R	EPORT	
(Audio	IEC 62368-1 EUROPEAN GROUP DIFFERENCES AND N /video, information and communication technology ed		ents)
Difference	s according to EN IEC 62368-1:2020+A1	1:2020	
	nt Form No: EU_GD_IEC62368_1E nt Originator: UL(Demko)	tet whitet white white white	White
Master Att	achment: 2021-02-04		
	© 2021 IEC System for Conformity Testing and Co eneva, Switzerland. All rights reserved.	ertification of Electrical Equipm	ent
me	CENELEC COMMON MODIFICATIONS (EN)	LIER MILE MILE WALL WA	Р
WALTER W	Clause numbers in the cells that are shaded light gu IEC 62368-1:2020+A11:2020. All other clause num those in the paragraph below, refers to IEC 62368- Clauses, subclauses, notes, tables, figures and anr	bers in that column, except for 1:2018.	Pr
the s	those in IEC 62368-1:2018 are prefixed "Z".		det .
	 Add the following annexes: Annex ZA (normative)Normative references to intern corresponding European publications Annex ZB (normative)Special national conditions Annex ZC (informative)A-deviations Annex ZD (informative)IEC and CENELEC code destinational conditions 	and the set the set	EX WA
1	Modification to Clause 3.		N/A
3.3.19	Sound exposure Replace 3.3.19 of IEC 62368-1 with the following de	efinitions:	N/A
3.3.19.1	momentary exposure level, MELmetric for estimating 1 s sound exposure level fromthe HD 483-1 S2 test signal applied to bothchannels, based on EN 50332-1:2013, 4.2.Note 1 to entry: MEL is measured as A-weighted levels in dB.Note 2 to entry: See B.3 of EN 50332-3:2017 for additionalinformation.	Not such equipment	N/A
3.3.19.3	sound exposure, E A-weighted sound pressure (<i>p</i>) squared and integrated over a stated period of time, <i>T</i> Note 1 to entry: The SI unit is Pa ² s. $E = \int_{0}^{T} p(t)^{2} dt$	ALLE MALLER MALLER MALLER	N/A



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EN IEC 62368-1					
Clause	Requirement – Test Result – Remark				
3.3.19.4	sound exposure level, SEL logarithmic measure of sound exposure relative to a reference value, <i>Eo</i> , typically the 1 kHz threshold of hearing in humans. Note 1 to entry: <i>SEL</i> is measured as A-weighted levels in dB. $SEL = 10 \lg \left(\frac{E}{E_0}\right) dB$	and the and	N/A		
3.3.19.5	Note 2 to entry: See B.4 of EN 50332-3:2017 for additional information. digital signal level relative to full scale, dBFS levels reported in dBFS are always r.m.s. Full scale level, 0 dBFS, is the level of a dc-free 997-Hz sine wave whose undithered positive peak value is positive digital full scale, leaving the code corresponding to negative digital full scale unused Note 1 to entry: It is invalid to use dBFS for non-r.m.s. levels. Because the definition of full scale is based on a sine wave, the level of signals with a crest factor lower than that of a sine wave may exceed 0 dBFS.	And	N/A		
2	may reach +3,01 dBFS. Modification to Clause 10		N/A		
10.6	Safeguards against acoustic energy sources		<i></i>		
	Replace 10.6 of IEC 62368-1 with the following:		m. m		
	Introduction Safeguard requirements for protection against long-term exposure to excessive sound pressure levels from personal music players closely coupled to the ear are specified below. Requirements for earphones and headphones intended for use with personal music players are also covered. A personal music player is a portable equipment intended for use by an ordinary person , that: - is designed to allow the user to listen to audio or audiovisual content / material; and - uses a listening device, such as headphones or earphones that can be worn in or on or around the ears; and - has a player that can be body worn (of a size suitable to be carried in a clothing pocket) and is intended for the user to walk around with while in continuous use (for example, on a street, in a subway, at an airport, etc.).	Not such equipment			
	EXAMPLES Portable CD players, MP3 audio players, mobile phones with MP3 type features, PDAs or similar equipment. Personal music players shall comply with the requirements of either 10.6.2 or 10.6.3.	would write would	white white		



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EN IEC 62368-1					
Clause	Requirement – Test	Result – Remark	Verdict		
- Mar	M M Start Start	er alte and and	me m		
	NOTE 1 Protection against acoustic energy sources from telecom applications is referenced to ITU-T P.360.	at let let	where white		
	NOTE 2 It is the intention of the Committee to allow the alternative methods for now, but to only use the dose measurement method as given in 10.6.5 in future. Therefore, manufacturers are encouraged to implement 10.6.5 as soon as possible.	antite white white	where where we		
	Listening devices sold separately shall comply with the requirements of 10.6.6. These requirements are valid for music or video mode only.	tet wantet wantet wat	et white white		
	The requirements do not apply to: – professional equipment;	white white white	JUNE JUNE		
	NOTE 3Professional equipment is equipment sold through special sales channels. All products sold through normal electronics stores are considered not to be professional equipment.	Tex marex martex martex	TEX AN TEX ANY		
	 hearing aid equipment and other devices for assistive listening; the following type of analogue personal music 	at install annual annual	t white white		
	 Interfoliowing type of analogue personal music players: Iong distance radio receiver (for example, a multiband radio receiver or world band radio receiver, an AM radio receiver), and cassette player/recorder; 	Whitek whitek whitek	antifet antifet a		
	NOTE 4 This exemption has been allowed because this technology is falling out of use and it is expected that within a few years it will no longer exist. This exemption will not be extended to other technologies.	SE WALL WALLY WAL	et any ret and		
	 a player while connected to an external amplifier that does not allow the user to walk around while in use. 	- while while while	white white		
	For equipment that is clearly designed or intended primarily for use by children, the limits of the relevant toy standards may apply.	while while while y	Tet w tret w		
et white	The relevant requirements are given in EN 71-1:2011, 4.20 and the related tests methods and measurement distances apply.	et whitet whitet whit	at while while		
10.6.1.2	Non-ionizing radiation from radio frequencies in the range 0 to 300 GHz	t miller whiter whiter	N/A		
	 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 	Notifet whitet whitet w	NUTER NUTER S		
Whitek a	Electromagnetic Fields (up to 300 GHz). For hand- held and body mounted devices, attention is drawn to EN 50360 and EN 50566.	white white white	miter miter		



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EN IEC 62368-1						
Clause	Requirement – Test	Result – Remark	Verdict			
silve	M N I I I I I I I	and the working which a	no m			
10.6.2	Classification of devices without the capacity to estimate sound dose					
10.6.2.1	General This standard is transitioning from short-term based (30 s) requirements to long-term based (40 hour) requirements. These clauses remain in effect only for devices that do not comply with sound dose estimation as stipulated in EN 50332- 3.	Not such equipment	N/A			
	For classifying the acoustic output $L_{Aeq, \tau}$, measurements are based on the A-weighted equivalent sound pressure level over a 30 s period.	whilet whilet whilet w	NUTE MILLE			
	For music where the average sound pressure (long term $LAeq, \tau$) measured over the duration of the song is lower than the average produced by	aret whitet whitet white	whitek wh			
	the programme simulation noise, measurements may be done over the duration of the complete song. In this case, <i>T</i> becomes the duration of the song.	whitet whitet whitet	NNET EX MINET			
	NOTE Classical music, acoustic music and broadcast typically has an average sound pressure (long term $L_{Aeq,T}$) which is much lower than the average programme simulation noise. Therefore, if the player is capable to analyse the content and compare it with the programme simulation noise, the warning does not need to be given as long as the average sound pressure of the song does not exceed the required limit. For example, if the player is set with the programme simulation noise to 85 dB, but the average music level of the song is only 65 dB, there is no need to give a warning or ask an acknowledgement as long as the average sound level of the song is not above the basic limit of 85 dB.	uniter antite antitet anti est antite antitet antitet	et onitet o			
10.6.2.2	RS1 limits (to be superseded, see 10.6.3.2) RS1 is a class 1 acoustic energy source that does	WITER ANTIFE ANTIFE AND	N/A			
	 not exceed the following: for equipment provided as a package (player with its listening device), and with a proprietary connector between the player and its listening device, or where the combination of player and 	The would would would	NO GE MAIN			
	listening device is known by other means such as setting or automatic detection, the $LAeq, \tau$ acoustic output shall be ≤ 85 dB when playing the fixed "programme simulation noise" described in EN 50332-1.	white white white	NITER WALFER			
	- for equipment provided with a standardized connector (for example, a 3,5 phone jack) that allows connection to a listening device for general use, the unweighted r.m.s. output voltage shall be \leq 27 mV (analogue interface) or -25 dBFS (digital	NUTER WALTER WALTER WALTER	we feet			
	 interface) when playing the fixed "programme simulation noise" described in EN 50332-1. The RS1 limits will be updated for all devices as per 10.6.3.2. 	antifet water water	unit vunit			

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EN IEC 62368-1	L'E WALL WALL WALL	In In
Requirement – Test	Result – Remark	Verdict
	white white white	
RS2 mints (to be superseded, see 10.6.3.3)	at at at	N/A
RS2 is a class 2 acoustic energy source that does	WHITE WILL WILL W	er an
not exceed the following:	a at at a	et Jet .
	with which which which	24. 2
connector between the player and its listening	a at the to	t et .
	fer intit white white	me m
setting or automatic 130 detection, the $LAeq, \tau$	1 A A	15 1
acoustic output shall be $\leq 100 \text{ dB}(A)$ when playing	ALTER MUTE MALTE	WILL WILL
	m. m. st	at at
– for equipment provided with a standardized	where while while wh	in white
	m. m. w. s.	st it
use, the unweighted r.m.s. output voltage shall be	THE STAR STAR WITH	w The w
≤ 150 mV (analogue interface) or -10 dBFS (digital	Mr. M. M.	
	at the state street	INTE MAL
RS3 limits	Mr. Mr. M.	N/A
RS3 is a class 3 acoustic energy source that	let set set	NUTER MUTER
exceeds RS2 limits.	when when when a	
Classification of devices (new)	at a state of	<u> </u>
General	Not such equipment	N/A
	and the state state	and the sur
warnings. New limits, compliant with The	when the shirt	
Commission Decision of 23 June 2009, are given	- at set set	NITE MILL
	with with with	N/A
	at let set	
not exceed the following:	White white where we	24
for any inneget provided as a posterior (player		1 15
- for equipment provided as a package (player	1 A A A A	
with its listening device), and with a proprietary connector between the player and its listening	LIEX WALTER WALTE WALT	w w
with its listening device), and with a proprietary connector between the player and its listening device, or where the combination of player and	Tex white white white	WIN W
with its listening device), and with a proprietary connector between the player and its listening device, or where the combination of player and listening device is known by other means such as	and white white white	while whi
with its listening device), and with a proprietary connector between the player and its listening device, or where the combination of player and	A WALLER WALLER WALLER	wind and
with its listening device), and with a proprietary connector between the player and its listening device, or where the combination of player and listening device is known by other means such as setting or automatic detection, the $LAeq, \tau$ acoustic output shall be ≤ 80 dB when playing the fixed "programme simulation noise" described in EN	A WALLER WALLES WALLES	and anticiant
with its listening device), and with a proprietary connector between the player and its listening device, or where the combination of player and listening device is known by other means such as setting or automatic detection, the $LAeq, \tau$ acoustic output shall be ≤ 80 dB when playing the fixed "programme simulation noise" described in EN 50332-1.	WALTER WALTER WALTER	white white
 with its listening device), and with a proprietary connector between the player and its listening device, or where the combination of player and listening device is known by other means such as setting or automatic detection, the LAeq, <i>τ</i> acoustic output shall be ≤ 80 dB when playing the fixed "programme simulation noise" described in EN 50332-1. – for equipment provided with a standardized connector (for example, a 3,5 phone jack) that 	A WALLER WALLES WALL	white white
 with its listening device), and with a proprietary connector between the player and its listening device, or where the combination of player and listening device is known by other means such as setting or automatic detection, the LAeq, <i>τ</i> acoustic output shall be ≤ 80 dB when playing the fixed "programme simulation noise" described in EN 50332-1. – for equipment provided with a standardized connector (for example, a 3,5 phone jack) that allows connection to a listening device for general 	Antek whitek whitek	white white
 with its listening device), and with a proprietary connector between the player and its listening device, or where the combination of player and listening device is known by other means such as setting or automatic detection, the LAeq, <i>τ</i> acoustic output shall be ≤ 80 dB when playing the fixed "programme simulation noise" described in EN 50332-1. – for equipment provided with a standardized connector (for example, a 3,5 phone jack) that 	Antick whitek whitek	WILL CHANGE
 with its listening device), and with a proprietary connector between the player and its listening device, or where the combination of player and listening device is known by other means such as setting or automatic detection, the <i>L</i>Aeq,<i>τ</i> acoustic output shall be ≤ 80 dB when playing the fixed "programme simulation noise" described in EN 50332-1. for equipment provided with a standardized connector (for example, a 3,5 phone jack) that allows connection to a listening device for general use, the unweighted r.m.s. output voltage shall be ≤ 15 mV (analogue interface) or -30 dBFS (digital interface) when playing the fixed "programme 	and	white white white white ret white t
 with its listening device), and with a proprietary connector between the player and its listening device, or where the combination of player and listening device is known by other means such as setting or automatic detection, the <i>L</i>Aeq,<i>τ</i> acoustic output shall be ≤ 80 dB when playing the fixed "programme simulation noise" described in EN 50332-1. for equipment provided with a standardized connector (for example, a 3,5 phone jack) that allows connection to a listening device for general use, the unweighted r.m.s. output voltage shall be ≤ 15 mV (analogue interface) or -30 dBFS (digital interface) when playing the fixed "programme simulation noise" described in EN 50332-1. 	and and a superior and	
 with its listening device), and with a proprietary connector between the player and its listening device, or where the combination of player and listening device is known by other means such as setting or automatic detection, the <i>L</i>Aeq, <i>τ</i> acoustic output shall be ≤ 80 dB when playing the fixed "programme simulation noise" described in EN 50332-1. for equipment provided with a standardized connector (for example, a 3,5 phone jack) that allows connection to a listening device for general use, the unweighted r.m.s. output voltage shall be ≤ 15 mV (analogue interface) or -30 dBFS (digital interface) when playing the fixed "programme 	A MALICE MALICE MALICE	N/A
	Requirement – Test RS2 limits (to be superseded, see 10.6.3.3) RS2 is a class 2 acoustic energy source that does not exceed the following: – for equipment provided as a package (player with its listening device), and with a proprietary connector between the player and its listening device, or when the combination of player and listening device, or when the combination of player and listening device is known by other means such as setting or automatic 130 detection, the <i>L</i> Aeq, <i>τ</i> acoustic output shall be ≤ 100 dB(A) when playing the fixed "programme simulation noise" as described in EN 50332-1. – for equipment provided with a standardized connector (for example, a 3,5 phone jack) that allows connection to a listening device for general use, the unweighted r.m.s. output voltage shall be ≤ 150 mV (analogue interface) or -10 dBFS (digital interface) when playing the fixed "programme simulation noise" as described in EN 50332-1. RS3 limits RS3 is a class 3 acoustic energy source that exceeds RS2 limits. Classification of devices (new) General Previous limits (10.6.2) created abundant false negative and false positive PMP sound level warnings. New limits, compliant with The Commission Decision of 23 June 2009, are given below. RS1 limits (new) RS1 is a class 1 acoustic energy source that does not exceed the following:	RS2 limits (to be superseded, see 10.6.3.3) RS2 is a class 2 acoustic energy source that does not exceed the following: – for equipment provided as a package (player with its listening device), and with a proprietary connector between the player and its listening device, or when the combination of player and listening device is known by other means such as setting or automatic 130 detection, the LAeq, r acoustic output shall be ≤ 100 dB(A) when playing the fixed "programme simulation noise" as described in EN 50332-1. – for equipment provided with a standardized connector (for example, a 3,5 phone jack) that allows connection to a listening device for general use, the unweighted r.m.s. output voltage shall be ≤ 150 mV (analogue interface) or -10 dBFS (digital interface) when playing the fixed "programme simulation noise" as described in EN 50332-1. RS3 is a class 3 acoustic energy source that exceeds RS2 limits. Classification of devices (new) General Previous limits (10.6.2) created abundant false negative and false positive PMP sound level warnings. New limits, compliant with The Commission Decision of 23 June 2009, are given below. Not such equipment RS1 limits (new) RS1 is a class 1 acoustic energy source that does not exceed the following: Rat limits does not exceed the following:

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	EN IEC 62368-1	in the star	
Clause	Requirement – Test	Result – Remark	Verdict
alle	We we we then the set	and the second second	me me
4	with its listening device), and with a proprietary	211 24	a at
	connector between the player and its listening	at at at	SET SE
	device, or where the combination of player and	with min when we	2m
	listening device is known by other means such as	211. 24. 24.	A she
	setting or automatic detection, the weekly sound	at at at a	er ste
	exposure level, as described in EN 50332-3, shall	white mine white white	21 2
	be \leq 80 dB when playing the fixed "programme"	20 2	
	simulation noise" described in EN 50332-1.	at at at all	
	- for equipment provided with a standardized	inter when when	m. m
	connector (for example, a 3,5 phone jack) that	24. 24.	A- 1
	allows connection to a listening device for general	the state of the	with all
	use, the unweighted r.m.s. output level, integrated	inter when when	n. In
	over one week, as described in EN50332-3, shall	20. 2.	A St
	be \leq 15 mV (analogue interface) or -30 dBFS	the set set a	JE NULL
	(digital interface) when playing the fixed	man when when we	- 24
	"programme simulation noise" described in EN		* it
an and	50332-1.	The state of the state	
10.6.4	Requirements for maximum sound exposure	t. Mr. Mr. m.	N/A
10.6.4.1	Measurement methods	Not such equipment	N/A
	All volume controls shall be turned to maximum	when when when	20 00
	during tests.	i i it	14 1
	1 m m m m	THE STREEMSTREES	NUT WIT
	Measurements shall be made in accordance with	mer mer m a	
the second	EN 50332-1 or EN 50332-2 as applicable.		the state
10.6.4.2	Protection of persons	and we have	N/A
	Except as given below, protection requirements for		i de
	parts accessible to ordinary persons,		Sec. 1
	instructed persons and skilled persons are	ster mine when when	In In
	given in 4.3.	St. A.	1 1
	NOTE 1 Volume control is not considered a safeguard .	- set ster with	mire main
	I A A A A A A	mer mer in	a st
	Between RS2 and an ordinary person, the basic	at at at	SET ST
	safeguard may be replaced by an instructional	with mer when we	- 2 ¹¹ -
	safeguard in accordance with Clause F.5, except	an an	1 A
	that the instructional safeguard shall be placed	at at set is	at the second
	on the equipment, or on the packaging, or in the	with and white when	21 21
	instruction manual.		
	Alternatively, the instructional safeguard may be given through the equipment display during use.	at all all ster	in the
	given unough the equipment display during use.	white white white	20. 20
	The elements of the instructional safeguard	a at at	10 50
	shall be as follows:	with mile special	no m
	the set set a set when	211. 24. 2.	d the
	– element 1a: the symbol , IEC 60417-	at at at	Jer Jie
	6044 (2011-01)	mer unit with with	40
	– element 2: "High sound pressure" or equivalent	10 - 20	e st
	wording	at at at a	NAL N
	– element 3: "Hearing damage risk" or equivalent	in white white white	20 20
	wording		at a
	– element 4: "Do not listen at high volume levels	t at at an	and and
	for long periods." or equivalent wording	when when sure	20 20
		i d at	the st



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-an	EN IEC 62368-1					
Clause	Requirement – Test Result – Remark					
ANTIER ANT	 of an ordinary person to an RS2 source without intentional physical action from the ordinary person and shall automatically return to an output level not exceeding what is specified for an RS1 source when the power is switched off. The equipment shall provide a means to actively inform the user of the increased sound level when the equipment is operated with an output exceeding RS1. Any means used shall be acknowledged by the user before activating a mode of operation which allows for an output exceeding RS1. The acknowledgement does not need to be repeated more than once every 20 h of cumulative listening time. NOTE 2 Examples of means include visual or audible signals. Action from the user is always needed. NOTE 3 The 20 h listening time is the accumulative listening time, independent of how often and how long the personal music player has been switched off. 		ALTER MATER			
0.6.5	exposed to RS3. Requirements for dose-based systems	WITE WAITER WAITE S	N/A			
10.6.5.1	General requirements	N/A				
	 Personal music players shall give the warnings as provided below when tested according to EN 50332-3, using the limits from this clause. The manufacturer may offer optional settings to allow the users to modify when and how they wish to receive the notifications and warnings to promote a better user experience without defeating the safeguards. This allows the users to be informed in a method that best meets their physical capabilities and device usage needs. If such optional settings are offered, an administrator (for example, parental restrictions, business/educational administrators, etc.) shall be able to lock any optional settings into a specific configuration. The personal music player shall be supplied with easy to understand explanation to the user of the 	antick antick antick	antice antices			
NITES WIN TEX WALTE	easy to understand explanation to the user of the dose management system, the risks involved, and how to use the system safely. The user shall be made aware that other sources may significantly contribute to their sound exposure, for example work, transportation, concerts, clubs, cinema, car races, etc.	nutet whitet whitet white	A VIN JEK VIN			
10.6.5.2	Dose-based warning and requirements	A MITER MUTER MAITE	N/A			
	When a dose of 100 % <i>CSD</i> is reached, and at least at every 100 % further increase of <i>CSD</i> , the device shall warn the user and require an	the set with	NUTEX WILLIEK			



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	EN IEC 62368-1	in which which when	
Clause	Requirement – Test	Result – Remark	Verdict
whitek whi	acknowledgement. In case the user does not acknowledge, the output level shall automatically decrease to compliance with class RS1. The warning shall at least clearly indicate that listening above 100 % <i>CSD</i> leads to the risk of hearing damage or loss.	MALTER WALTER WALTER W	NUTER SUPERIOR
0.6.5.3	Exposure-based requirements	at let let le	N/A
whitek whitek for whitek whitek whitek whitek whitek	 With only dose-based requirements, cause and effect could be far separated in time, defying the purpose of educating users about safe listening practice. In addition to dose-based requirements, a PMP shall therefore also put a limit to the short-term sound level a user can listen at. The exposure-based limiter (EL) shall automatically reduce the sound level not to exceed 100 dB(A) or 150 mV integrated over the past 180 s, based on methodology defined in EN 50332-3. The EL settling time (time from starting level reduction to reaching target output) shall be 10 s or faster. Test of EL functionality is conducted according to EN 50332-3, using the limits from this clause. For equipment provided as a package (player with its listening device), the level integrated over 180 s shall be 100 dB or lower. For equipment provided with a standardized connector, the unweighted 	ANTER ANTER ANTER ANTER	ANTER ANTER
	level integrated over 180 s shall be no more than 150 mV for an analogue interface and no more than -10 dBFS for a digital interface.	white white white	NALTE MATT
10.6.6	Requirements for listening devices (headphone	s, earphones, etc.)	N/A
10.6.6.1	Corded listening devices with analogue input With 94 dB <i>L</i> Aeq acoustic pressure output of the listening device, and with the volume and sound settings in the listening device (for example, built- in volume level control, additional sound features like equalization, etc.) set to the combination of positions that maximize the measured acoustic output, the input voltage of the listening device when playing the fixed "programme simulation noise" as described in EN 50332-1 shall be \geq 75 mV.	Not such equipment	N/A
10.6.6.2	and 27 mV or 100 dB and 150 mV. Corded listening devices with digital input	the second	N/A
10.0.0.2	With any playing devices with digital input With any playing device playing the fixed "programme simulation noise" described in EN 50332-1, and with the volume and sound settings in the listening device (for example, built-in volume	WALTER WALTER WALTER	



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EN IEC 62368-1					
Clause	Requirement – Test	Result – Remark	Verdict		
whitek w	level control, additional sound features like equalization, etc.) set to the combination of positions that maximize the measured acoustic output, the $LAeq, \tau$ acoustic output of the listening device shall be ≤ 100 dB with an input signal of - 10 dBFS.	antifet while white	MALE MALE MALE		
	Cordless listening devices In cordless mode, – with any playing and transmitting device playing the fixed programme simulation noise described in EN 50332-1; and – respecting the cordless transmission standards, where an air interface standard exists that specifies the equivalent acoustic level; and – with volume and sound settings in the receiving device (for example, built-in volume level control, additional sound features like equalization, etc.) set to the combination of positions that maximize the measured acoustic output for the above mentioned programme simulation noise, the <i>L</i> Aeq, <i>T</i> acoustic output of the listening device shall be \leq 100 dB with an input signal of -10 dBFS.	and the and and and a	N/A		
10.6.6.4	Measurement method Measurements shall be made in accordance with EN 50332-2 as applicable.	white white white	N/A		
3	Modification to the whole document		Р		



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				EN I	EC 62368-1			
Clause	Re	quirement -	- Test	white	m. n.	Result – Rema	ark	Verdict
MATEK al	Delete all the "country" notes in the reference document according to the following list:							- P-
	[0.2.1	Note 1 and 2	1	Note 4 and 5	5 3.3.8.1	Note 2	St.
		3.3.8.3	Note 1	4.1.15	Note	4.7.3	Note 1 and 2	WITT W
	- ₂ 1	5.2.2.2	Note	5.4.2.3.2.2 Table 12	Note c	5.4.2.3.2.4	Note 1 and 3	iciet uni
	ur ¹⁵	5.4.2.3.2.4 Table 13	Note 2	5.4.2.5	Note 2	5.4.5.1	Note	e- white
	5 ⁶⁸ -	5.4.10.2.1	Note	5.4.10.2.2	Note	5.4.10.2.3	Note	WALTER
	*	5.5.2.1	Note	5.5.6	Note	5.6.4.2.1	Note 2 and 3 and 4	DETEX MI
		5.6.8	Note 2	5.7.6	Note	5.7.7.1	Note 1 and Note 2	Set mis
	10-55	8.5.4.2.3	Note	10.2.1 Table 39	Note 3 and 4 and 5	10.5.3	Note 2	* WALTER
	4	10.6.1	Note 3	F.3.3.6	Note 3	Y.4.1	Note	JEEK
	L I	Y.4.5	Note					st s
MULT	SIL	<i>N</i> .			15 1	× 5 .	St. M. d	Ne we
	Mo	dification	to Clause 1					P
	NO		ring note: e of certain substa ent is restricted w					P
		1/65/EU.			al de			1. N.



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	EN IEC 62368-1	ite white white white wi	
Clause	Requirement – Test	Result – Remark	Verdict
Clause 4.Z1	Requirement – Test 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.	Not directly connected to the mains	Verdict N/A
ALLER JUNITE	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.	ant when when when the	NUTER ON
6	Modification to 5.4.2.3.2.4		N/A
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 connection to external circuit.	N/A
7	Modification to 10.2.1		N/A
10.2.1	Add the following to c) and d) in table 39: For additional requirements, see 10.5.1.	No such radiation from the equipment.	N/A
8	Modification to 10.5.1		N/A



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EN IEC 62368-1					
Clause	Requirement – Test	Result – Remark	Verdict		
sur	W W L L L L	and the work with	me m		
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 pre-sets 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 	WALTER WALTER WALTER	N/A		
	 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 cm², at any point 10 cm from the outer surface of the apparatus. 	and an and the and the and	NUTEK UNUTEK		
	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.	M. M. W. W.	and of a second		
	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.	ite white white white	et un let un		
9	Modification to G.7.1		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.	UNLIEK WALTER WALTER	N/A		
10	Modification to Bibliography		P		



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- m	EN IEC 62368-1			h. 24.	
Clause	Requirement – Test	while when when we	Result – Remark	Verdict	
- sur-	A statut all a faille suite air a st		and which which which and		
	Add the following hol	es for the standards indicated		- P-	
	IEC 60130-9	NOTE Harmonized as EN 601	30-9.	an	
	IEC 60269-2	NOTE Harmonized as HD 602		A	
	IEC 60309-1	NOTE Harmonized as EN 603		NITE I	
	IEC 60364	NOTE some parts harmonized		24 2	
	IEC 60601-2-4	NOTE Harmonized as EN 606		et .	
	IEC 60664-5	NOTE Harmonized as EN 606		in m	
	IEC 61032:1997 IEC 61508-1	NOTE Harmonized as EN 610 NOTE Harmonized as EN 615			
	IEC 61558-2-1	NOTE Harmonized as EN 615		9° .5°	
	IEC 61558-2-4	NOTE Harmonized as EN 615		-2Mer	
	IEC 61558-2-6	NOTE Harmonized as EN 615			
	IEC 61643-1	NOTE Harmonized as EN 616		NUTE	
	IEC 61643-21	NOTE Harmonized as EN 616		-22	
	IEC 61643-311	NOTE Harmonized as EN 616	43-311.	1th	
	IEC 61643-321	NOTE Harmonized as EN 616	43-321.	12 M	
	IEC 61643-331	NOTE Harmonized as EN 616	43-331.		
<u>+ .0</u> *				P	
11		ADDITION OF ANNEXES			
ZB 4.1.15	Denmark, Finland, N	L NATIONAL CONDITIONS (Not directly connected to the	P N/A	
	 connection to other e if safety relies on con- if surge suppressors network terminals and marking stating that t connected to an earth The marking text in the be as follows: In Denmark: "Apparate stikkontakt med jord s stikproppens jord." In Finland: "Laite on varustettuun pistoras In Norway: "Apparate stikkontakt" 				
4.7.3	United Kingdom	of stat stat with	INTERNATE MALL MALL	N/A	
	1. UN AV A	clause the following is	Tet wantet water water w	N JEK W	
	complying with BS 13	formed using a socket-outlet 363, and the plug part shall be ant clauses of BS 1363. Also his annex	water water water wa	STAL WALT	



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EN IEC 62368-1					
Clause	Requirement – Test	Result – Remark	Verdict		
she i	the second se	and the second states and	n m		
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	Finland and Sweden	No such external circuits.	N/A		
and Annex G	To the end of the subclause the following is added:	er white white white v	11" - 11" 		
	For separation of the telecommunication network from earth the following is applicable:	WALTE WALT WALL WA	et unet		
	If this insulation is solid, including insulation forming part of a component, it shall at least consist of either	and and set set whet	NATEX NO		
	• two layers of thin sheet material, each of which shall pass the electric strength test below, or	at the tet set	No No		
	• one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below.	white white white	Tex white		
	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	and some some some and the solution of the sol	sources and		
	in addition	whit whit whit w	et set		
	• 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),	white white white white	Whitek w		
	and	at that stat withet	nijet vnij		
	 is subject to routine testing for electric strength during manufacturing, using a test voltage of 1,5 kV. 	white white white	TER MILTER		
	It is permitted to bridge this insulation with a capacitor complying with EN 60384-14:2005, subclass Y2.	ALTER WALTER WALTER WALTE	ynuret s		
	A capacitor classified Y3 according to EN 60384- 14:2005, may bridge this insulation under the following conditions:	tet white white white	NIN THE MIT		
	 the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 60384-14, which in addition to the Y3 	white white white	et white		



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20.	EN IEC 62368-	in the way was	20. 10
Clause	Requirement – Test	Result – Remark	Verdict
white	testing, is tested with an impulse test of 2,5 kV	WALT WALT WALT	Mar Mar
	defined in 5.4.11;	NITEX INTEX MUTEX W	NUTER MALTER
	• the additional testing shall be performed on all the test specimens as described in EN 60384- 14;	WITEK WAITEK WAITEK WAI	ret whitek a
EX WALTER	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.	Tex writes writes write	whilet wh
5.5.2.1	Norway	y let the the	N/A
	After the 3rd paragraph the following is added:	white white white	at lit
incher in	Due to the IT power system used, capacitors are required to be rated for the applicable line-to-line voltage (230 V).	MITER WAITER WAITE WA	et ret
5.5.6	Finland, Norway and Sweden	No such resistors.	N/A
	To the end of the subclause the following is added:	at which must which	whilek whi
	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.	whitet whitet whitet	MITEK WALTER
5.6.1	Denmark	No such equipment.	N/A
	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. <i>Justification:</i>	the watthe watthe watthe	AND TOK NAN
	In Denmark an existing 13 A socket outlet can be protected by a 20 A fuse.	WALTER WALTER WALTER W	NUTE OWNER
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.	netet whitet whitet white	N/A
5.6.4.2.1	France	t set set set	N/A
nitet we	After the indent for pluggable equipment type A , the following is added: – in certain cases, the protective current rating of the circuit supplied from the mains is taken as 20 A instead of 16 A.	SUPER	at ret
5.6.5.1	To the second paragraph the following is added:	are white white white	N/A
	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.	et white white white	white white



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EN IEC 62368-1				
Clause	Requirement – Test	Result – Remark	Verdict	
str	W W THE AND THE NUT	and the world with	men m	
5.6.8	Norway To the end of the subclause the following is added: Equipment connected with an earthed mains plug is classified as class I equipment . See the Norway marking requirement in 4.1.15. The symbol IEC 60417-6092, as specified in F.3.6.2, is	antifet antifet antifet	N/A	
5.7.6	accepted. Denmark	antis with sume	N/A	
	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.	antifet antifet antifet		
5.7.6.2	Denmark	at the the	N/A	
* WALTER	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.	A WAL WALLEY WALLEY	t whitet whit	
5.7.7.1	Norway and Sweden	Not such system.	••••• N/A	
	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.	A STATES AND A STATES	ALTER WALTER WA	
	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.	AND EX WALTER WALTER	NULL SULLS	
	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:	at white white white	at while white	
	"Apparatus connected to the protective earthing of the building installation through the mains connection or through other apparatus with a connection to protective earthing –	MALE WATEL WALLEY	NUTEX UNLITEX	
	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,	Tet sourcet sourcet source	non set on	
	see EN 60728-11)" NOTE In Norway, due to regulation for CATV-installations, and	stret suffet whilet	NUTE WALTE	

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NVVL



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EN IEC 62368-1					
Clause	Requirement – Test Result – Remark				
- drive	W W W	at the shirt white white	an.		
whitek w	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.	white water water water	* whitek		
	Translation to Norwegian (the Swedish text will also be accepted in Norway):	whet maret antifet whitet	Whitek W		
	 "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 	and an and an and an and an	E et yni		
	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 medfőra risk főr brand. Főr att undvika detta skall vid anslutning av apparaten till kabel-TV nät galvanisk isolator finnas mellan apparaten och kabel-TV nätet."	Antifet annifet annifet annifet	Whitek		
8.5.4.2.3	United Kingdom	No external circuits.	N/A		
	Add the following after the 2 nd dash bullet in 3 rd paragraph: An emergency stop system complying with the requirements of IEC 60204-1 and ISO 13850 is required where there is a risk of personal injury	AND AND STREET WINTER	N NET WAY		
required where there is a risk of personal inB.3.1 and B.4Ireland and United Kingdom The following is applicable:To protect against excessive currents and a circuits in the primary circuit of direct plug equipment, tests according to Annexes B. B.4 shall be conducted using an external m circuit breaker complying with EN 60898-1, B, rated 32A. If the equipment does not pay these tests, suitable protective devices shall included as an integral part of the direct plug equipment, until the requirements of Annexed Statement		Not directly connected to the mains	N/A		
G.4.2	B.3.1 and B.4 are met Denmark	Not directly connected to the	N/A		
ALTER WAITE	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.	mains			
	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	whitek whitek whitek wh	A WALTER		



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EN IEC 62368-1				
Requirement – Test	Result – Remark	Verdict		
 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 polyphase 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 		ANTER AN		
Heavy Current Regulations, Section 6c United Kingdom To the end of the subclause the following is	Not directly connected to the mains	N/A		
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.	whitek whitek whitek white	ret wanter wartet wartet w		
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.	A soluter poster soluter soluter	N/A		
	Requirement – Test 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 polyphase 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 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, 12.17, 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. 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 tho	Requirement – Test Result – Remark 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 polyphase 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 0 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 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, 12.1, 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. 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. (Safefy) Regulations 1994,		

Reference	No.: WTF24D05125961Y Page 56 of 67	a state at	
- m	EN IEC 62368-1	when white white white w	in the
Clause	Requirement – Test	Result – Remark	Verdict
where we	M M Start Strange	an with anti- and and	- ame
G.7.1	IrelandTo 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	whitet whitet whitet whitet	N/A
G.7.2	Ireland and United KingdomTo the first paragraph the following is added:A power supply cord with a conductor of 1,25 mm²is allowed for equipment which is rated over 10 Aand up to and including 13 A.	white white white white	N/A
zc	ANNEX ZC, NATIONAL DEVIATIONS (EN)	it's must must must be	N/A
	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,	No CRT within the equipment.	N/A
	Tel.: Int+49-531-592-6320, Internet: http://www.ptb.de		N



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Clause	Requirement – Test	Result – Remark	Verdict		

Type of flexible cord	Code de	signations
	IEC	CENELEC
PVC insulated cords	1	
Flat twin tinsel cord	60227 IEC 41	H03VH-Y
Light polyvinyl chloride sheathed flexible cord	60227 IEC 52	H03VV-F H03VVH2-F
Ordinary polyvinyl chloride sheathed flexible cord	60227 IEC 53	H05VV-F H05VVH2-F
Rubber insulated cords		
Braided cord	60245 IEC 51	HO3RT-F
Ordinary tough rubber sheathed flexible cord	60245 IEC 53	H05RR-F
Ordinary polychloroprene sheathed flexible cord	60245 IEC 57	H05RN-F
Heavy polychloroprene sheathed flexible cord	60245 IEC 66	H07RN-F
Cords having high flexibility	<u>5</u> ,	
Rubber insulated and sheathed cord	60245 IEC 86	H03RR-H
Rubber insulated, crosslinked PVC sheathed cord	60245 IEC 87	H03RV4-H
Crosslinked PVC insulated and sheathed cord	60245 IEC 88	H03V4V4-H
Cords insulated and sheathed with halogen- free thermoplastic compounds		
Light halogen-free thermoplastic insulated and sheathed flexible cords		H03Z1Z1-F H03Z1Z1H2-
Ordinary halogen-free thermoplastic insulated and sheathed flexible cords		H05Z1Z1-F H05Z1Z1H2-I



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m	EN IEC 62368-1		
Clause	Requirement – Test	Result – Remark	Verdict

5.2	TABLE: Classificati	on of electrical e	nergy sourc	es		4 M	P
Supply	Location (e.g.	Test conditions		Parame	eters		ES Class
Voltage	designation)		U (V)	I (mA)	Type ¹⁾	Additional Info ²⁾	Class
5V DC	all all all	Normal	<60VDC	2020.	SS	DC	ES1
	Input circuit	Abnormal		JER JULE	mer- w	the sur	m
	N EX WALTER WALTER	Single fault – SC/OC	m <u> </u>	at set	194 .01	et	MALIEK
1.	at the set	Normal	<60VDC	- m m.	SS	DC	ES1
4.2V DC	Battery circuit	Abnormal	d - d		JT-LT	10 ton	11 14
	UNLIEK WALTER W	Single fault – SC/OC	S.	Alt Jet		MUTET MUT	ex whi

Supplementary information:

Type: Steady state (SS), Capacitance (CP), Single pulse (SP), Repetitive pulses (RP), etc.
 Additional Info: Frequency, Pulse duration, Pulse off time, Capacitance value, etc.
 Test Conditions: Normal –Full load and no load.
 Abnormal - Overload output

SC= short circuit; OC= open circuit

5.4.1.8 TABLE: Working	y voltage measu	rement			st a	N/A
Location	RMS voltage (V)	Peak voltage (V)	Frequency (Hz)	Comments		
- white white white wh	211-	+ 70 -	et g et	LIEK MLIER	JULI	MALL
- + + 5	et and mi	white white	m n			1.t
Supplementary information:						

5.4.1.10.2 TABLE: Vicat softening temperature of thermoplastics					
	:	ISO 306 / B50	INCLES WAL		
Manufacturer/trademark		Thickness (mm)	T soften	ing (°C)	
the state of the s	1.et	ALTER MUTER AN	LIT WALT	me	
			ISO 306 / B50 Manufacturer/trademark Thickness (mm)	Manufacturer/trademark Thickness (mm) T soften	

5.4.1.10.3	TABLE: Ball	pressure test of thermopla	stics	Set .	LIEK NUTER WAY	See an	N/A
Allowed imp	pression diame	ter (mm)	:	≤ 2 m	m	t x	
Object/Part	No./Material	Manufacturer/trademark	Thickness	(mm)	Test temperature (°C)	Impi diame	ression ter (mm)



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7

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		N IEC 62368-1	
Clause	Requirement – Test	Result – Remark	Verdict
and a	the star is the	the ster street while while	we we

Supplementary information:

5.4.2, 5.4.3 TABLE: Minimum	Clearan	ces/Cre	epage o	distance	m	- The -		N/A
Clearance (cl) and creepage distance (cr) at/of/between:	U _p (V)	U _{rms} (V)	Freq ¹⁾ (kHz)	Required cl (mm)	cl (mm)	E.S. ²⁾ (V)	Required cr (mm)	cr (mm)
- white white white white	- an.	20.	,,		14-	5 ¹⁰	er <u>a</u> tte	. Martin

Supplementary information:

1) Only for frequency above 30 kHz

2) Complete Electric Strength voltage (E.S. (V) when 5.4.2.4 applied)

5.4.4.2	TABLE: Minimum	n distance through insu	lation			N/A
Distance ((DTI) at/o	through insulation	Peak voltage (V)	Insulation*	Required DTI (mm)	Mea	asured DTI (mm)
}	the set of	a mure and way	- m	1 - A	.1	- 4

Supplementary information:

*See also sub-clause 5.4.4.9

5.4.4.9 TABLE: Solid in	nsulation at	frequencies	>30 kHz			N/A
Insulation material	E _P	Frequency (kHz)	K _R	Thickness d (mm)	Insulation	V _{PW} (Vpk)
- Inthe water water w	- m	, ,		10 - 50	- NITER IN	Ster Martin
Supplementary information:						

5.4.9	TABLE: Electric strength tests	a at at	set set of	N/A
Test voltage	applied between:	Voltage shape (Surge, Impulse, AC, DC, etc.)	Test voltage (V)	Breakdown Yes / No
Functional:	THE STREE MUTER WATER WATER	me m m	i i it it	at at
-m. m	i with the set	- JEK JIEK MIT	- mit whit w	1. m. 1
Basic/supple	ementary:	The the to	t it	of the s
the me	where the state of	Tet allet while	This was me	m. m.
Reinforced:	NITER MUTE WALT WAT W		at at a	t stat st
- 20-	the state of the state	the muter white w	the sure sure	m m
Routine Tes	sts:		at at at	STILL STILL
- 10 2	at at at at at with	- nere where whe	- me me	en. 7 .
Supplement	ary information:			



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20.		N IEC 62368-1	24. 4.
Clause	Requirement – Test	Result – Remark	Verdict

5.5.2.2	TABLE:	Stored discharge of	on capacitors	Maile Maile	Ant. An	N/A
Location		Supply voltage (V)	Operating and fault condition ¹⁾	Switch position	Measured voltage (Vpk)	ES Class
n m-	20. 1		Normal	JER JRIE N	the there .	mm
et whitek	untitet wh	TET WALL WALL	Single fault: SC/ OC	at what we	et	LIEK UNLIEK

Supplementary information:

X-capacitors installed for testing are:

[] bleeding resistor rating:

[] ICX: 1) Normal operating condition (e.g., normal operation, or open fuse), SC= short circuit, OC= open circuit

5.6.6	5.6.6 TABLE: Resistance of protective conductors and terminations							
Location		Test current (A)	Duration (min)	Voltage drop (V)	Resistance (Ω)			
7	the state	1	antin - white	The my m				

5.7.4 **TABLE: Unearthed accessible parts** N/A Parameters Location Operating and Supply ES class fault conditions Voltage (V) Voltage Current Freq. (V_{rms} or V_{pk}) (Arms or Apk) (Hz) L/N to secondary Normal --------------terminals Abnormal: ------------overload Single fault: -------____ ------SC/OC Supplementary information:

SC= short circuit; OC= open circuit

ingle Phase; [] Three	Phase: [] Delta	[] Wye	
	Phase: [] Delta	[] Wye	
	A- 15 A		
N []TT [] T			
	Touch current (mA)	Comme	nt
when the when	mr - m	n. n	
		It Condition No in IEC Touch current	It Condition No in IEC Touch current Comme

Waltek Testing Group Co., Ltd. http://www.waltek.com.cn



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EN IEC 62368-1					
Clause	Requirement – Test	Result – Remark	Verdict		

5.8	TABLE: Backfeed safeguard in battery backed up supplies									
Location		Supply voltage (V)	Operating and fault condition	Time (s)	Open-circuit voltage (V)	Touch current (A)	ES Class			
HIE WALL	m	m. m		15 1	at the	LIEF JALIE	m-nn			
Supplementary information:										
e nu		n. n.	de a	1 18	- 1 S	0 J	ner un			

6.2.2	TABLE: Power source	ce circuit classif	ications			P
Location	Operating and fault condition	Voltage (V)	Current (A)	Max. Power ¹⁾ (W)	Time (S)	PS class
Battery circu	iit 👉 🖽 🚿	2.71	3.17	8.59	3S	PS1

Abbreviation: SC= short circuit; OC= open circuit 1) Measured after 3 s for PS1 and measured after 5 s for PS2 and PS3.

Location Open circuit voltage Measured r.m.s Calculated value after 3 s (Vpk) current (A)		TABLE: Determination of Arcing PIS							
	Arcing PIS? Yes / No	Calculated value			Location				
The south of some some some some some some some some	Strain March	- Tet al		<u> </u>	1 10° 10°	References			

Supplementary information:

6.2.3.2	TABLE: Determ	ination of resistive PIS		N/A
Location		Operating and fault condition	Dissipate power (W)	Arcing PIS? Yes / No
All primary circuits/co		Tet street white white	uniter waite waite of	Yes (declaration)
Suppleme	ntary information:	·		

All circuits are considered as resistive PIS;

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 pro	essure lamp	24 Array	at at a	> N/A
Lamp manu	facturer	Lamp type	Explosion method	Longest axis of glass particle (mm)	Particle found beyond 1 m Yes / No
	any information:	t white white w	T. Mer. Mer.	20 - 20	

Supplementary information:



Verdict

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0	Destruction The State	
Clause	Requirement – Test	Result –

Remark

9.6 TA	BLE: Tempe	rature mea	surement	s for wirel	ess power	transmitte	ers	N/A
Supply voltage	(V)			c At	. fet	51 5	et nure	
Max. transmit power of transmitter (W)				mitte white white white with the				
		eiver and contact		eiver and contact		ver and at of 2 mm		eiver and at ce of 5 mm
Foreign objec	ts (°C)	Ambient (°C)	Object (°C)	Ambient (°C)	Object (°C)	Ambient (°C)	Object (°C)	Ambient (°C)
STER BUTER	Mill John	un ·	m - 1			Æ.	1 ⁹⁴ 54	
Supplementary information:								
JER JIE .	The Martin	wer we			ste	18 18	+ Set	S. Ster S

5.4.1.4, TABLE: Tem 9.3, B.1.5, B.2.6	iperature m	easurem	ents	NUTEX NUN	LIEK WALT	et whitet w	INT OF PITER
Supply voltage (V)		:	1)	2)	the set		—
Ambient temperature duri	ng test T _{amb}	(°C):	See below	See belo	w 🔊		
Maximum measured temp		Τ(°C)		Allowed T _{max} (°C)		
Battery	58.2	30.4		1	Ref.		
Battery wire	55.0	29.5	en the	-24-	80		
PCB near U1	48.1	48.8	dd		130		
PCB near U2	68.9	31.0	20-	201 - 20	130		
DC terminal	61.8	g- 30.30		JULET MI	77		
Internal wire	44.7	28.6			80		
Enclosure inside near bat	tery		45.1	27.7	5 ⁴⁰ 18	JE JULE	Ref.
Enclosure outside near ba	ittery	NUTE OF	30.5	25.4	···		48
Button			27.4	25.9	UN JUL	un <u>e</u>	48
Ambient	MILLE MI	re me	25.0	25.0			at - at
Temperature T of winding:	t ₁ (°C)	R ₁ (Ω)	t ₂ (°C)	R ₂ (Ω)	T (°C)	Allowed T _{max} (°C)	Insulation class
Inter which which wh	24		10	st - St	- Star	Jul - Jul	where whi
Supplementary information	ו:						

* Temperature limit for TS1 of accessible enclosure according to Table 38 to be measured at normal ambient temperature.

Note 1: The apparatus was submitted and evaluated for maximum manufacturer's recommended ambient (Tma) of 25°C.

Note 2: The temperatures were measured under the worse case normal mode defined in clause B.2.1. 1. Test 1) Only discharge with internal fully battery;

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3	20	EN IEC 62368-1	EN IEC 62368-1		
	Clause	Requirement – Test	Result – Remark	Verdict	

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Test 2) Off mode, charging empty battery by 5VDC.

B.2.5	Т/	ABLE: Inp	out test					Mr. Mr. M. S. P
U (V)	Hz	I (A)	l rated (A)	P (W)	P rated (W)	Fuse No	I fuse (A)	Condition/status
5.0Vdc ¹⁾	"n *	0.330	-2011	1.65	3.0	5. . [17	5 ⁶⁴ .	Empty battery Only charge. Batter current: 0.302A
5.0Vdc ¹⁾	uni.	0.320	WILLEY.	1.60	3.0	674 - 14	er - 7	Empty battery charge and EUT running. Battery current: 0.03A
4.2Vdc	N. THE	0.469	MULTER W	1.97	mar			Fully battery discharge. Battery current: 0.469A

Supplementary information: ¹⁾Supply by external DC source.

Input signal: 1k Hz

Normal condition, speaker max. output power: 4Ω , 2.37V, 1.404W.

B.3, B.4 T.	ABLE: Abnor	mal operatin	g and fau	It condit	ion tests	. A A A	Р
Ambient temp	erature T _{amb} (^c	°C)			:: See	below	
Power source	for EUT: Man	ufacturer, mo	del/type, d	outputrati	ng:	at the state	
Component No.	Condition	Supply voltage (V)	Test time	Fuse no.	Fuse current (A)	Observation	
Condition 1: C	Only charging v	vith internal e	mpty batte	ery 🦯	must white	it was war we	24
U1 Pin 1-9	S-C	5Vdc ¹⁾	10mins	NULTER JA	0.049	Unit shut down immedi damage, no hazard. Recoverable.	ately. No
U1 Pin 1-11	S-C	5Vdc ¹⁾	10mins	JEX-	0.049	Unit shut down immedi damage, no hazard. Recoverable.	ately. No
Speaker	Max. non- clipped output	5Vdc ¹⁾	35min	A WALLER	0.463	Normal operation work Enclosure outside near 38.2°C Ambient: 25.0°C	-
Condition 2: C	only discharge	with internal	fully batte	ry	it it	. Jet wife mile	MALIE
Speaker	S-C	4.20Vdc ²⁾	10mins	1 ¹¹⁷ 111 1914 11	0.761	Unit speaker no voice, damage, no hazard. Recoverable.	no Multiple
U1 Pin 1-9	S-C	4.20 Vdc ²⁾	10mins	- <u>1</u> 4	0.050	Unit shut down immedi damage, no hazard. Re	
U1 Pin 1-11	S-C	4.20 Vdc ²⁾	10mins	WC'	0.051	Unit shut down immedi damage, no hazard. Recoverable.	ately. No

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6 20	State of the state	EN IEC 62368-1	an in
Clause	Requirement – Test	Result – Remark	Verdict

¹⁾ Supply by external DC source, ²⁾ Measured battery cell voltage and current.

Test table is provided to record abnormal and fault conditions for all applicable energy sources including Thermal burn injury. Column "Abnormal/Fault." Specify if test condition by indicating "Abnormal" then the condition for a C.0lause B.3 test or "Single Fault" then the condition for Clause B.4.

1) S-C: Short-circuited; O-L: Overloaded; BL=Blocked.

2) The test result shown all safeguards remained effective and didn't lead to a single fault condition during abnormal operating condition; In addition all safeguards complied with applicable requirements in this standard after restoration of normal operating conditions.

3) The test result showed no Class 1 or 2 energy source become Class 3 level during and after single fault condition.

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4) Limit temperature: Plastic material: 58°C.

M.3	TABLE: Pr	otection circu	iits f	or batterie	es provid	ed v	vithin	the equ	ipment 🧹	P N	in.
Is it possible	to install the	battery in a re	evers	e polarity	position?.		4	12 3	te m	_	
					C	Charg	ging				
Equipment S	pecification		Vo	ltage (V)					Current (A)		
		5			de la	et	A	ن ا	.6 (Referenc	e) (e	<u>, </u>
					Battery	/ spe	ecifica	tion			
		Non-rechargeable batteries					Rec	hargeab	le batteries		
		Discharging Unintentional			(Char	ging		Discharging	Reverse	
Manufact	urer/type	current (A)		harging rrent (A)	Voltage	(V)	Curr	ent (A)	current (A)	chargin current (
Dengzhou lithium Elec Co.LTD /	tric Energy		in la constante da la constante La constante da la constante da	NALTER IN	4.2	15 ^{ee}	- Inter	0.5	0.5		LI E
Note: The tes	sts of M.3.2 a	are applicable o	only v	when abov	e appropr	iate	data i	s not ava	ilable.		
Specified bat	tery tempera	ature (°C)					h.	24.	0-45		
Component No.	Fault condition	Charge/ discharge mo	ode	Test time	Temp. (°C)		rrent A)	Voltage (V)	e Obs	ervation	
Battery (charge base)	B- to P- SC	Charge	Jet.	7h	MULTER V	0.	340	3.6		Unit normal working. No damaged, no hazard.	
Battery (charge base)	B- to P- SC	Discharge	1	7h	LIEK- WIN	0.	300	3.7	Unit norma No damag hazard.		*
Supplementa	iry informatic	n:									
Abbreviation	CO- short		100	inautit NU -	na ahami			- NO-			

Abbreviation: SC= short circuit; OC= open circuit NL= no chemical leakage; NS= no spillage of liquid; NE= no explosion; NF= no emission of flame or expulsion of molten metal.



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Clause	Requirement – Test	Result – Remark	Verdict						

M.4.2	TABLE: battery	Charging sat	feguards for	equipment c	onta	aining a se	econdary lithium	Pet	
Maximum	specified of	harging voltag	je (V)		:51	4.2	the second		
Maximum	specified of	charging currer	nt (A)		:	0.5	NUTER WITER		
Highest sp	pecified cha	arging tempera	ature (°C)	<u> </u>	24	45	See at		
Lowest sp	ecified cha	rging tempera	ture (°C)			0 5	MUTER MALTE WIT		
Battery		Operating		Measuremen	nt	Observation			
manufactu	irer/type	and fault condition	Charging voltage (V)	Charging current (A)		Temp. (°C)			
Lowest sp	ecified cha	rging temperat	ure: 0°C	1. 1.		5 ¹⁰ .51	at intree white	unia y	
Dengzhou Hengxin lithium Electric Energy		Normal	4.20	0 / 0 / 0 / 0 / 0 / 0 / 0 / 0 / 0 / 0 /	Battery temperature: 0°C		The battery charging circl stop charging		
Co.LTD / 7	702040	B- to P- SC	4.20	0		Battery nperature: 0°C	erature: stop charging		
Highest sp	pecified cha	rging tempera	ture: 45°C	it is	*	1. C. 1. 1.	set aller white	MALTE	
Dengzhou Hengxin lithium Electric Energy Co.LTD / 702040		Normal	4.20	0 . S ^{CC}		Battery temperature: 49°C		rging circuit	
		B- to P- SC	4.20			Battery nperature: 49°C	The battery charging circui stop charging		

Abbreviation: SC= short circuit; OC= open circuit; MSCV= maximum specified charging voltage; MSCC= maximum specified charging current; HSCT= highest specified charging temperature; LSCT= lowest specified charging temperature.

Q.1	TABLE: Circuits inte	ended for inte	erconnectio	n with build	ing wiring	(LPS)	N/A
Output	Condition		Time (a)	lsc(A	A)	S (VA)	
Circuit	Condition	U _{oc} (V)	Time (s)	Meas.	Limit	Meas.	Limit
dit.	Tet Jet Ster	white wat	m.	n n		at a	at set
	241 24	1 1	Set .	Jet NJe	Martin 1	mer with	m
Supplemen	tary Information:						
	circuit, OC = open circu own immediately, reco		zard.	white y	wer we	where	w. w

T.2, T.3, T.4, T.5	TABLE: S	teady force te	st	ne m	white	when the set and	N/A
Location / Part	Material	Thickness (mm)	Probe	Force (N)	Test Duration (s)	Observation	



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	EN IEC 62368-1										
Clause	Requirement – Test	Wr. W. W.	Result – Remark	Verdict							
mer	W. W. W.	THE AND AND	Ter unit white white	me m							
, de	1 pt iter with mit with	<u> </u>		15 15							
Suppleme	ntary information										

T.6, T.9 TA	ABLE: Impa	ct test	MULTER WA	and and	- m	- 240	-24		N/A	
Location/Part	Material	Thickness (mm)	Height (mm)			Obse	ervation			
INTE MUT	man.	n. m. n		,th	.At	Set	J.J.C.	MUTE	MALIN	
Supplementary	information	:								
55 55	the star	2 Mr. m.			A	de	1.E	55	5	

T.7 🛒 1	ABLE: Drop	test	20. 2	t it	de .	et .	Ster.	N/A
Location/Part	Material	Thickness (mm)	Height (mm)		Obs	ervation		
			18t - 118	- mill	white	man	m	24
Supplementa	ry information							

T.8 T/	ABLE: Stres	s relief test	. TEN S	58	N/A ^N
Location/Part	Material	Thickness (mm)	Oven Temperatur e (°C)	Duration (h)	Observation
- inite init		n H	1 - at	, the	The street out of another and
Supplementary	information:				
and and	we way	~ ~ m		at a	et the star with only of

X TABLE: Alternat	tive method for determinin	ng minimum clearances	s distances N/A	
Clearance distanced between:	Peak of working voltage (V)	Required cl (mm)	Measured cl (mm)	
- m m	at the state of	Multi Mali wat	mer m. m.	
Supplementary information:				
Sh. Pr.	- at the sta	inter white white	2112 - 241 - 241 - 2	



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EN IEC 62368-1						
Clause	Requirement – Test	Result – Remark	Verdict			

4.1.2	TABLE: Critical components information					
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity ¹ UL E162823	
Enclosure	FORMOSA CHEMICALS & FIBRE CORP PLASTICS DIV	ANC180	V-0, 60°C, Min. Thickness 1.5mm	UL 94		
PCB	JINBAO ELECTRONICS (TONGLING) CO LTD	HRFR-4	V-0, 130°C	UL 94, UL 796	UL E212661	
Alternative	Interchangeable	Interchangeabl e	V-0, 130°C	UL 94, UL 796	UL	
Polymer Li- ion Rechargeab le Battery	Dengzhou Hengxin lithium Electric Energy Co.LTD	702040	3.7V, 500mAh, 1.85Wh	IEC 62133- 2:2017	Report No.: TSZ2207001 5-P01-R01	
Internal wires	Interchangeable	Interchangeabl e	Min. 28AWG, Min. 80°C, Min. 300V, VW-1	UL 758	UL	
Speaker	Interchangeable	Interchangeabl e	4Ω, 3W	EN IEC 62368- 1	Test with appliance	

CB2039.



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Photo 1 Overall view



Photo 2 Overall view

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Page 2 of 6 **Photo Documentation** Reference No.: WTF24D05125961Y



Photo 3 Overall view



Photo 4 Overall view

Waltek Testing Group Co., Ltd. http://www.waltek.com.cn



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Photo 5 Internal view



Photo 6 Internal view

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Photo 7 Internal view

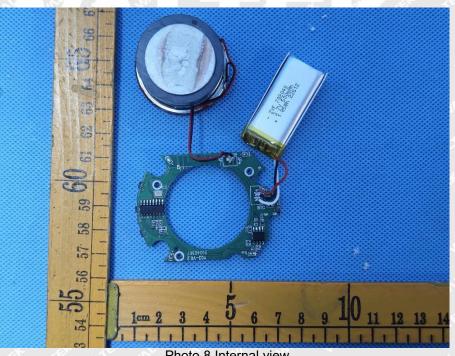


Photo 8 Internal view



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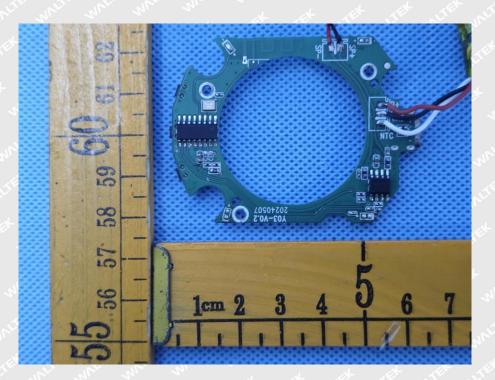


Photo 9 PCB view

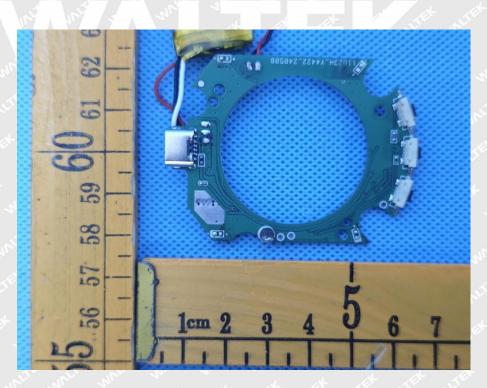


Photo 10 PCB view

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Photo 11 Battery view

===== End of Report ======

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