



# **TEST REPORT**

Report No	:	WTF22D12245013R1Y
Applicant	J.	Mid Ocean Brands B.V.
Address	: ~``	7/F., Kings Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong
Manufacturer	:	111033
Address	:	This which will be at the test states with
Product	ç:	A5 portfolio with power bank, A4 portfolio with power bank
Model(s)	-	MO9231(A5 portfolio with power bank) MO9232(A4 portfolio with power bank)
Total pages	÷	76 pages and 7 pages of photo.
Standards	S.,	EN IEC 62368-1: 2020+A11:2020
		Audio/video, information and communication technology equipment- Part 1:Safety requirements
Date of Receipt sample	ð.	2022-12-06
Date of Test	:	2022-12-06 to 2023-2-17
Date of Issue	÷	2023-3-22
Test Result	4	Pass , the set of a set of the se

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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neas Cao

Lucas Cao / Project Engineer

Approved by:

Scott Jin / Designated Reviewer

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<u></u>		
Test Item description A	5 portfolio	with power bank, A4 portfolio with power bank
Trade Mark(s) M		
Model/Type reference	109231(A5	portfolio with power bank) portfolio with power bank)
Ratings In	put: 5Vdc,	2A (Supplied by Type-C port )
A A OU	SB output:	5VdC, 2.1A;
Remark:	iternal lithit	um-ion cells: 3.7Vdc, 4000mAh, 14.8Wh
Whether parts of tests for the product have bee		
Yes If Yes, list the related test items and lab information	No 🖂 No	
Test items:		
Lab information:	+ 1	The atter with white white white
Summary of testing:	when	with you with the state
Tests performed (name of test and test class		Testing location:
- EN IEC 62368-1:2020+A11:2020	20. 1	No. 77, Houjie Section, Guantai Road, Houjie Town, Dongguan City, Guangdong, China
The submitted samples were found to comply requirements of above specification.	with the	noujio rown, bongguan oky, ouanguong, onina
	ces and Gr	ist of countries addressed): oup Differences for CENELEC countries were
List of countries addressed: National Difference checked. The product fulfils the requirements of EN 1:2020+A11:2020.		oup Differences for CENELEC countries were
checked.  The product fulfils the requirements of EN	IEC 62368	oup Differences for CENELEC countries were 3-1:2020+A11:2020 and BS EN IEC 62368-
<ul> <li>checked.</li> <li>The product fulfils the requirements of EN 1:2020+A11:2020.</li> <li>Use of uncertainty of measurement for dec</li> <li>No decision rule is specified by the IEC sta applicable limit according to the specification i without applying the measurement uncertainty "accuracy method").</li> </ul>	IEC 62368 cisions on andard, wh in that stan y ("simple a	oup Differences for CENELEC countries were 8-1:2020+A11:2020 and BS EN IEC 62368- <b>conformity (decision rule) :</b> then comparing the measurement result with the dard. The decisions on conformity are made acceptance" decision rule, previously known as
<ul> <li>checked.</li> <li>The product fulfils the requirements of EN 1:2020+A11:2020.</li> <li>Use of uncertainty of measurement for dec</li> <li>No decision rule is specified by the IEC sta applicable limit according to the specification i without applying the measurement uncertainty "accuracy method").</li> </ul>	IEC 62368 cisions on andard, wh in that stan y ("simple a	oup Differences for CENELEC countries were 3-1:2020+A11:2020 and BS EN IEC 62368- <b>conformity (decision rule) :</b> ten comparing the measurement result with the dard. The decisions on conformity are made
<ul> <li>checked.</li> <li>The product fulfils the requirements of EN 1:2020+A11:2020.</li> <li>Use of uncertainty of measurement for dec</li> <li>No decision rule is specified by the IEC sta applicable limit according to the specification i without applying the measurement uncertainty "accuracy method").</li> <li>Other: (to be specified, for example when</li> </ul>	IEC 62368 cisions on andard, wh in that stan y ("simple a	oup Differences for CENELEC countries were 8-1:2020+A11:2020 and BS EN IEC 62368- <b>conformity (decision rule) :</b> then comparing the measurement result with the dard. The decisions on conformity are made acceptance" decision rule, previously known as
<ul> <li>checked.</li> <li>The product fulfils the requirements of EN 1:2020+A11:2020.</li> <li>Use of uncertainty of measurement for deconstruction of the specification of the specification is applicable limit according to the specification is without applying the measurement uncertainty "accuracy method").</li> <li>Other: (to be specified, for example when requirements apply)</li> <li>Information on uncertainty of measurement: The uncertainties of measurement are calculated and the specified of the specification is specified of the specified of the specification is specified of the specified of the specification is specified of the specification of the specification of the specification is specified of the specification of the spec</li></ul>	IEC 62368 <b>Eisions on</b> andard, wh in that stan y ("simple a required by	oup Differences for CENELEC countries were 8-1:2020+A11:2020 and BS EN IEC 62368- <b>conformity (decision rule) :</b> then comparing the measurement result with the dard. The decisions on conformity are made acceptance" decision rule, previously known as
<ul> <li>checked.</li> <li>☑ The product fulfils the requirements of EN 1:2020+A11:2020.</li> <li>Use of uncertainty of measurement for deconnected by the IEC state of the specification is specified by the IEC state of the specification is without applying the measurement uncertainty "accuracy method").</li> <li>☑ Other: (to be specified, for example when requirements apply)</li> <li>Information on uncertainty of measurement: The uncertainties of measurement are calcula OD-5014 for test equipment and application on IECEE.</li> </ul>	IEC 62368 cisions on andard, wh in that stan y ("simple a required by required by the by the f test meth ication of n	oup Differences for CENELEC countries were 8-1:2020+A11:2020 and BS EN IEC 62368- <b>conformity (decision rule) :</b> hen comparing the measurement result with the dard. The decisions on conformity are made acceptance" decision rule, previously known as y the standard or client, or if national accreditation laboratory based on application of criteria given by ods, decision sheets and operational procedures of measurement uncertainty principles and applying E scheme, noting that the reporting of the

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#### Copy of marking plate:

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



Input: DC 5V= 2A Output: DC 5 V=2.1A(wired) Capacity: 4000mAh/14.8Wh

# MOB/MO9231 PO BOX 644 6710 BP (NL) Made in China



PO41-XXXXXX

#### Remark:

- 1. The above markings are the minimum requirements required by the safety standard. For the final production, the additional markings which don't give rise to misunderstanding may be added.
- 2. The CE marking and WEEE symbol should be at least 5.0mm and 7.0mm respectively in height.
- 3. 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.

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Test item particulars:	with antit whit whit whit whe whe we
Product group:	end product in built-in component
Classification of use by	☐ Ordinary person ☐ Children likely present
ister alter mitter white white white	Instructed person
and with the total the	Skilled person
Supply connection:	AC mains DC mains
at when all the start of	☑ not mains connected: ☑ ES1 □ ES2 □ ES3
Supply tolerance:	□ +10%/-10%
	□ +20%/-15%
- ret ret stret stret super white water	□ +_%/%
when white when when the total	⊠ None
Supply connection – type:	D pluggable equipment type A -
man what what all the	non-detachable supply cord
at set set wet with with with wh	appliance coupler
the world world when you the	direct plug-in
t at ret ret with whet whet	pluggable equipment type B -
white white white with the state	non-detachable supply cord appliance coupler
at left left stat street wither	permanent connection
white white white where whe was	☐ mating connector ⊠ other: not Mains connected
Considered current rating of protective device	UK: 13 A; Others: 16 A
	Location: building equipment
Equipment mobility:	<ul> <li>N/A</li> <li>Movable</li> <li>☐ hand-held</li> <li>☑ transportable</li> </ul>
Equipment mobility	☐ direct plug-in ☐ stationary ☐ for building-in
at at all the the way	wall/ceiling-mounted SRME/rack-mounted
white white white whe whe we	other:
Overvoltage category (OVC):	□ OVC I     □ OVC II     □ OVC III       □ OVC IV     ⊠ other: not Mains connected
Class of equipment:	□ Class I □ Class II ⊠ Class III
i st st st st	□ Not classified □
Special installation location:	☑ N/A         □ restricted access area
Delle General (DD) at the state	
Pollution degree (PD):	□ PD 1 □ PD 2 □ PD 3
Manufacturer's specified T <sub>ma</sub> :	35°C Outdoor: minimum°C
IP protection class:	
Power systems:	□ TN □ TT □ ITV L-L
Altitude during operation (m)	$2000 \text{ m or less} \square \m$
Altitude of test laboratory (m)	2000 m or less □ m
Mass of equipment (kg)	MO9231 :0.605kg
	MO9232 :0.343kg



			and when the
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Possible test case verdicts:         - test case does not apply to the test object: N/A         - test object does meet the requirement			
<ul> <li>test case does not apply</li> </ul>	to the test object:	N/A	
- test object does meet th	e requirement:	P (Pass)	
- test object does not mee	et the requirement:	F (Fail)	
Possible test case verdicts:         - test case does not apply to the test object: N/A         - test object does meet the requirement: P (Pass)         - test object does not meet the requirement: P (Fail)         Testing:         Date of receipt of test item			
Date of receipt of test iter	n:	2022-12-06	
Date (s) of performance o	f tests	2022-12-06 to 2023-2-17	at the set
General remarks:	ALLE WALL AND	zu	s at at all
"(see appended table)" refe	ers to a table appended	to the report.	parator.
General Product Informa	tion:	the sure sure	at at at
Product Description:		at the street with a	net when when w
information apparatus. It 2. The manufacturer specif	is supplied by internal ied maximum ambient	lithium ion Cells or Type C por	rt supply.
	- / / / / / / / / / / / / / / / / / / /		g change:
			cessary
nutet anitet anitet an	Clause B.2.5	clauses and appended tables. The change	P white white white

#### **Model Differences**

1. All these models are same as each other only except for the model name and enclosure in size.

2. The model MO9231 was selected for all testing. Because the MO9231 is smaller than MO9232.and the same power.

#### Additional application considerations -N/A



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Clause	Possible Hazard				
5	Electrically-caused injury	jury			
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	N/A	N/A	
ES1: Lithium Cell output	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 <sup>st</sup> S	2 <sup>nd</sup> S	
PS2: >15 Watt circuits, <100 Watt circuits (Lithium Cells output)	Fire barriers	See 6.3	See 6.4.5	N/A	
PS1: <15 Watt circuits	The other components/materials	N/A	N/A	N/A	
7	Injury caused by hazardou	s substances			
Class and Energy Source (e.g. Ozone)	Body Part (e.g., Skilled)		Safeguards		
		В	S	R	
N/A	N/A	N/A	<n a<="" td=""><td>N/A</td></n>	N/A	
8	Mechanically-caused injury				
Class and Energy Source	Body Part		Safeguards		
(e.g. MS3: Plastic fan blades)	(e.g. Ordinary)	В	S	R	
MS1: Edges and corners of enclosure	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: External enclosure surfaces	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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		ENERGY	SOURCE DI	AGRAM		
Indicate which e	energy sourc	es are included	d in the energy	source diagrar	n. Insert diagram b	elow
the fit	THE NUT	A UNLIEK WALT	and many an		s at the	<u>i</u> t
	S ES	PS	🖂 MS	⊠ TS	🖂 RS	
LIER WALTE WA	<u>a</u>	n OVERVIEW OF	211-	JRCES AND SAI	<u></u>	

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Clause	Requirement + Test	Result - Remark	Verdict

4	GENERAL REQUIREMENTS		P
4.1.1	Acceptance of materials, components and subassemblies	(See appended table 4.1.2)	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	P
4.1.3	Equipment design and construction	Equipment is adequately designed and constructed.	P N
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)	Р
4.4.3	Safeguard robustness	See below	P
4.4.3.1	General	m m m	Р
4.4.3.2	Steady force tests	(See Annex T.2 and T.5).	_∿P
4.4.3.3	Drop tests	(See Annex T.7)	P
4.4.3.4	Impact tests	(See Annex T.6)	Р
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
dit.	Glass impact test (1J)	sur sur st st	N/A
in the	Push/pull test (10 N)	NUTER MALT WALT WAL	√°Ñ/A
4.4.3.8	Thermoplastic material tests	(See Annex T.8)	_́Р
4.4.3.9	Air comprising a safeguard	No such air comprising a safeguard	N/A
4.4.3.10	Accessibility, glass, safeguard effectiveness	After tests of 4.4.3.2, 4.4.3.3,4.4.3.4,4.4.3.8 no safeguard damaged.	P
4.4.4	Displacement of a safeguard by an insulating liquid	No such liquid.	N/A



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Clause	Requirement + Test	Result - Remark	Verdict
4.4.5	Safety interlocks	No such parts.	N/A
4.5	Explosion		P
4.5.1	General	No explosion occurs during normal/abnormal operation and single fault conditions	P
4.5.2	No explosion during normal/abnormal operating condition	(See Clause B.2, B.3)	Р
when a	No harm by explosion during single fault conditions	(See Clause B.4)	SUL P
4.6	Fixing of conductors	See below	Р
IN WIT	Fix conductors not to defeat a safeguard	Internal wires are routed and secured so that adequate insulation are maintained.	P
t st	Compliance is checked by test	(See Clause T.2)	, P∠
4.7	Equipment for direct insertion into mains socket	-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):	Intit water water	N/A
4.8	Equipment containing coin/button cell batteries	at the with a	N/A
4.8.1	General	No coin/button cell batteries used.	N/A
4.8.2	Instructional safeguard	me m m	N/A
4.8.3	Battery compartment door/cover construction	atter intre- unite while	N/A
,et	Open torque test	and the second	N/A
4.8.4.2	Stress relief test	WIE WHIT WALL WALL	N/A
4.8.4.3	Battery replacement test	at at let set	N/A
4.8.4.4	Drop test	in me me me	N/A
4.8.4.5	Impact test	- the the states with	N/A
4.8.4.6	Crush test	me me so	N/A
4.8.5	Compliance	NUTER INTER MUTCH MALLE	N/A
at a	30N force test with test probe	1 A A A	N/A
le m	20N force test with test hook	LIET WALT WALL WALL Y	N/A
4.9	Likelihood of fire or shock due to entry of condu	ctive object	P
4.10	Component requirements	and and and and	N/A
4.10.1	Disconnect Device	and and when the	N/A
4.10.2	Switches and relays	The she she she	N/A

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Verdict

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	Clause	Requirement + Test	Result - Remark
5	Clause		ILESUIL - ILEIHAIK

5	ELECTRICALLY-CAUSED INJURY		P
5.2	Classification and limits of electrical energy source	ces and a straight	Р
5.2.2	ES1, ES2 and ES3 limits	at at let set	S <sup>©</sup> P
5.2.2.2	Steady-state voltage and current limits:	(See appended table 5.2)	Р
5.2.2.3	Capacitance limits:	No such capacitance	N/A
5.2.2.4	Single pulse limits	No single pulse introduced	N/A
5.2.2.5	Limits for repetitive pulses	No repetitive pulses introduced	N/A
5.2.2.6	Ringing signals	No means for connection to telephone network and no ringing signal generated	N/A
5.2.2.7	Audio signals	at the state what is	N/A
5.3	Protection against electrical energy sources	me m m	Р
5.3.1	General Requirements for accessible parts to ordinary, instructed and skilled persons	See only 4.3 and 5.3 to 5.5 which applies to protection between the accessible parts and hazardous parts of other circuits.	, P
5.3.1 a)	Accessible ES1/ES2 derived from ES2/ES3 circuits	at the street white	رت <sup>ر</sup> P
5.3.1 b)	Skilled persons not unintentional contact ES3 bare conductors	and the state of	N/A
5.3.2.1	Accessibility to electrical energy sources and safeguards	Only ES1 circuit can be accessed for this product	P
	Accessibility to outdoor equipment bare parts	Mr. Mr. M. m.	N/A
5.3.2.2	Contact requirements	See below	n <sup>to</sup> ₽.
itet white	Test with test probe from Annex V	The test probe cannot contact with the bare internal conductive part.	-
5.3.2.2 a)	Air gap – electric strength test potential (V):	No such air gap	N/A
5.3.2.2 b)	Air gap – distance (mm)	No such air gap	N/A
5.3.2.3	Compliance	THE LER NUMBER MUTE	P
5.3.2.4	Terminals for connecting stripped wire	No stripped wire used.	N/A
5.4	Insulation materials and requirements	NUTER INVITE WALTER WALTER	P
5.4.1.2	Properties of insulating material	1 A A A	⊘ N/A
5.4.1.3	Material is non-hygroscopic	white white white white	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)	- Pr
5.4.1.5	Pollution degrees	at at at at	N/A



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Result - Remark	Verdict
	Result - Remark

5.4.1.5.2	Test for pollution degree 1 environment and for an insulating compound	The street minet and	N/A
5.4.1.5.3	Thermal cycling test	the set of the set	N/A
5.4.1.6	Insulation in transformers with varying dimensions	No such transformer	N/A
5.4.1.7	Insulation in circuits generating starting pulses	No such circuit	N/A
5.4.1.8	Determination of working voltage	white white white a	N/A
5.4.1.9	Insulating surfaces	tet set states	N/A
5.4.1.10	Thermoplastic parts on which conductive metallic parts are directly mounted	when when we will will	N/A
5.4.1.10.2	Vicat test	in the second	N/A
5.4.1.10.3	Ball pressure test	et allet aller and	N/A
5.4.2	Clearances	1 A A	N/A
5.4.2.1	General requirements	WALTE WALT WALL W	N/A
WALTER WA	Clearances in circuits connected to AC Mains, Alternative method	ouret intret mouret mot	N/A
5.4.2.2	Procedure 1 for determining clearance		N/A
200	Temporary overvoltage	a fun nu	
5.4.2.3	Procedure 2 for determining clearance	a the state state	N/A
5.4.2.3.2.2	a.c. mains transient voltage	Mr. M. M.	
5.4.2.3.2.3	d.c. mains transient voltage	NUTER INITE WAITE W	× _
5.4.2.3.2.4	External circuit transient voltage	a at at a	d* —
5.4.2.3.2.5	Transient voltage determined by measurement:	MIL WALL WALL WALL	_
5.4.2.4	Determining the adequacy of a clearance using an electric strength test	LEX WALTER WALTER WALTER	N/A
5.4.2.5	Multiplication factors for clearances and test voltages	whilet whilet whilet	N/A
5.4.2.6	Clearance measurement:	at at at a	N/A
5.4.3	Creepage distances	mer mer mer m	N/A
5.4.3.1	General	STER STER MITER MUTE	N/A
5.4.3.3	Material group:	No at at	_
5.4.3.4	Creepage distances measurement	at white white white	N/A
5.4.4	Solid insulation	the state	N/A
5.4.4.1	General requirements	more more more a	N/A
5.4.4.2	Minimum distance through insulation	at at at a	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.4.4.3	Insulating compound forming solid insulation	with white white and	N/A
5.4.4.4	Solid insulation in semiconductor devices	NUTER MALIE WALTE WALTE	N/A
5.4.4.5	Insulating compound forming cemented joints	a at at at	N/A
5.4.4.6	Thin sheet material	and which which when a	N/A
5.4.4.6.1	General requirements	et alt alter alter int	N/A
5.4.4.6.2	Separable thin sheet material	Mr. M. M. L	N/A
when a	Number of layers (pcs)	aller million mile some	N/A
5.4.4.6.3	Non-separable thin sheet material	No non-separable thin sheet	N/A
w. w	Number of layers (pcs)	the water water water	N/A
5.4.4.6.4	Standard test procedure for non-separable thin sheet material	Tet whitet whitet whitet w	N/A
5.4.4.6.5	Mandrel test	the set set is	N/A
5.4.4.7	Solid insulation in wound components	white white white white	N/A
5.4.4.9	Solid insulation at frequencies >30 kHz, $E_P$ , $K_R$ , $d$ , $V_{PW}$ (V)	untifet watter watter watter	N/A
NUTER WINLS	Alternative by electric strength test, tested voltage (V), $K_{\rm R}$	white white shife a	N/A
5.4.5	Antenna terminal insulation	No such antenna terminal used.	N/A
5.4.5.1	General	. at the state with	N/A
5.4.5.2	Voltage surge test	mer mer me m	N/A
5.4.5.3	Insulation resistance (MΩ)	stift outer outer white	N/A
15 15	Electric strength test:	i i i it it	N/A
5.4.6	Insulation of internal wire as part of supplementary safeguard	ite waite wait wat w	N/A
5.4.7	Tests for semiconductor components and for cemented joints	WALTE WALT WALL WAL	N/A
5.4.8	Humidity conditioning	MITER MAILE MALIE MALIE	⊲√Ñ/A
nitek whi	Relative humidity (%), temperature (°C), duration (h)	Lifet milet whilet whilet	-
5.4.9	Electric strength test	a state state	N/A
5.4.9.1	Test procedure for type test of solid insulation:	White white white wh	N/A
5.4.9.2	Test procedure for routine test	t get get get all	N/A
5.4.10	Safeguards against transient voltages from external circuits	No such external circuits	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
sur 1	the set of the state state state	white white white whe	-m
5.4.10.1	Parts and circuits separated from external circuits	a at at at	N/A
5.4.10.2	Test methods	nute white where whe	N/A
5.4.10.2.1	General	at set set wet	N/A
5.4.10.2.2	Impulse test	and the sur sur s	N/A
5.4.10.2.3	Steady-state test:	et uset while multiple and	N/A
5.4.10.3	Verification for insulation breakdown for impulse test	who we write write	N/A
5.4.11	Separation between external circuits and earth	No such connections for external circuit applied within the EUT	N/A
5.4.11.1	Exceptions to separation between external circuits and earth	No such connections to external circuit as above.	N/A
5.4.11.2	Requirements	t at the set of	N/A
stret of	SPDs bridge separation between external circuit and earth	white white white white	N/A
the sec	Rated operating voltage U <sub>op</sub> (V):	unit wint wine with	_
LIE WALT	Nominal voltage U <sub>peak</sub> (V)	at all the market	v —
t it	Max increase due to variation $\Delta U_{sp}$		_
me	Max increase due to ageing $\Delta U_{sa}$ :	In the water water water w	_
5.4.11.3	Test method and compliance:	at at at a	N/A
5.4.12	Insulating liquid	No such liquid	N/A
5.4.12.1	General requirements	let get write write	N/A
5.4.12.2	Electric strength of an insulating liquid	the same and same	N/A
5.4.12.3	Compatibility of an insulating liquid	with our and and and a	N/A
5.4.12.4	Container for insulating liquid	s at at a	N/A
5.5	Components as safeguards	while while whe whe	N/A
5.5.1	General	at the set of	N/A
5.5.2	Capacitors and RC units	me me me me	N/A
5.5.2.1	General requirement	Tet stret wiret wiret.	N/A
5.5.2.2	Safeguards against capacitor discharge after disconnection of a connector	et stret wiret whitet at	N/A
5.5.3	Transformers	WI WI WI W	N/A
5.5.4	Optocouplers	milet while while while	N/A
5.5.5	Relays	No such relays used	N/A



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Clause	Requirement + Test	Result - Remark	Verdict

5.5.6	Resistors	N/A
5.5.7	SPDs	N/A
5.5.8	Insulation between the mains and an external circuit consisting of a coaxial cable	N/A
5.5.9	Safeguards for socket-outlets in outdoor equipment	N/A
Inc	RCD rated residual operating current (mA)	m m _
5.6	Protective conductor	N/A
5.6.2	Requirement for protective conductors	N/A
5.6.2.1	General requirements	N/A
5.6.2.2	Colour of insulation	N/A
5.6.3	Requirement for protective earthing conductors	N/A
* SULEY	Protective earthing conductor size (mm <sup>2</sup> )	
	Protective earthing conductor serving as a reinforced safeguard	N/A
State of the	Protective earthing conductor serving as a double safeguard	N/A
5.6.4	Requirements for protective bonding conductors	N/A
5.6.4.1	Protective bonding conductors	N/A
L A	Protective bonding conductor size (mm <sup>2</sup> )	- k -
5.6.4.2	Protective current rating (A)	N/A
5.6.5	Terminals for protective conductors	N/A
5.6.5.1	Terminal size for connecting protective earthing conductors (mm):	N/A
et alt	Terminal size for connecting protective bonding conductors (mm):	N/A
5.6.5.2	Corrosion	N/A
5.6.6	Resistance of the protective bonding system	N/A
5.6.6.1	Requirements	N/A
5.6.6.2	Test Method	N/A
5.6.6.3	Resistance (Ω) or voltage drop:	N/A
5.6.7	Reliable connection of a protective earthing conductor	N/A
5.6.8	Functional earthing	N/A
. Ar	Conductor size (mm <sup>2</sup> )	N/A



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Clause	Requirement + Test	Result - Remark	Verdict
· · · · · · · · · · · · · · · · · · ·			

	Class II with functional earthing marking	W when the set	N/A
m. m	Appliance inlet cl & cr (mm)	NUTE WALTE WALT WALT	N/A
5.7	Prospective touch voltage, touch current and protective conductor current		N/A
5.7.2	Measuring devices and networks		N/A
5.7.2.1	Measurement of touch current	et stat state with mil	N/A
5.7.2.2	Measurement of voltage	the the second	N/A
5.7.3	Equipment set-up, supply connections and earth connections	White white white white	N/A
5.7.4	Unearthed accessible parts	LIEK NUER WALLE WALTE V	N/A
5.7.5	Earthed accessible conductive parts	i i it it	_∕N/A
5.7.6	Requirements when touch current exceeds ES2 limits	Not exceeds ES2	N/A
m	Protective conductor current (mA)	unite white white white	N/A
. Set	Instructional Safeguard	at at the set	N/A
5.7.7	Prospective touch voltage and touch current associated with external circuits	No such connection to external circuits.	N/A
5.7.7.1	Touch current from coaxial cables	a sure and a	N/A
5.7.7.2	Prospective touch voltage and touch current associated with paired conductor cables	The substance which white white	N/A
5.7.8	Summation of touch currents from external circuits	Not such equipment	N/A
suffet of	a) Equipment connected to earthed external circuits, current (mA)	where where we will be	N/A
5 Et	b) Equipment connected to unearthed external circuits, current (mA)	at all all we	N/A
5.8	Backfeed safeguard in battery backed up supplies		N/A
MALTE	Mains terminal ES	No battery used	N/A
	Air gap (mm):	The the the	N/A

6	ELECTRICALLY- CAUSED FIRE Classification of PS and PIS		. «Р
6.2			Р
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)	P



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6.2.3       Classification of potential ignition sources       See the following details.       P         6.2.3.1       Arcing PIS       N/A         6.2.3.2       Resistive PIS       (See appended table 6.2.3.2)       P         6.3       Safeguards against fire under normal operating and abnormal operating conditions       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)         Combustible materials outside fire enclosure       No such parts       N/A         6.4       Safeguards against fire under single fault conditions       P         6.4.1       Safeguard method       Control fire spread, evaluation P       N/A         6.4.2       Reduction of the likelihood of ignition under single fault conditions in PS1 circuits       N/A         6.4.3       Reduction of the likelihood of ignition under single fault conditions in PS2 and PS3 circuits       N/A         6.4.3.1       Supplementary safeguards       N/A       N/A         6.4.3.2       Single Fault Conditions       P         6.4.4       Control of fire spread in PS1 circuits       P         6.4.5.2       Supplementary safeguards       Compliance detailed as follows:         6.4.5.2	Report No.	: WTF22D12245013R1Y Page 16 of 76	the state	
6.2.3       Classification of potential ignition sources       See the following details.       P         6.2.3.1       Arcing PIS       N/A         6.2.3.2       Resistive PIS       (See appended table 6.2.3.2)       P         6.3       Safeguards against fire under normal operating and abnormal operating conditions       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)         Combustible materials outside fire enclosure       No such parts       N/A         6.4       Safeguards against fire under single fault conditions       P         6.4.1       Safeguard method       Control fire spread, evaluation P       N/A         6.4.2       Reduction of the likelihood of ignition under single fault conditions in PS1 circuits       N/A         6.4.3       Reduction of the likelihood of ignition under single fault conditions in PS2 and PS3 circuits       N/A         6.4.3.1       Supplementary safeguards       N/A       N/A         6.4.3.2       Single Fault Conditions       P         6.4.4       Control of fire spread in PS1 circuits       P         6.4.5.2       Supplementary safeguards       Compliance detailed as follows:         6.4.5.2	in white	EN IEC 62368-1	ret intret until until unit un	, aur
6.2.3.1       Arcing PIS       N/A         6.2.3.2       Resistive PIS       (See appended table 6.2.3.2)       P         6.3       Safeguards against fire under normal operating and abnormal operating conditions       P         6.3.1       No ignition and attainable temperature value less than 90 % defined by ISO 871 or less than 300 °C       No ignition and no such temperature attained within the equipment. (See appended table B.1.5 & B.3)         Combustible materials outside fire enclosure       No such parts       N/A         6.4       Safeguards against fire under single fault conditions       P         6.4.1       Safeguard method       Control fire spread, evaluation by Clause 6.4.4, 6.4.5, 6.4.6       P         6.4.2       Reduction of the likelihood of ignition under single fault conditions in PS1 circuits       N/A       N/A         6.4.3       Reduction of the likelihood of ignition under single fault conditions for temperature limited by fuse       N/A         6.4.3.1       Supplementary safeguards       N/A         6.4.4       Control of fire spread in PS1 circuits       P         6.4.5       Control of fire spread in PS1 circuits       P         6.4.5       Control of fire spread in PS1 circuits       P         6.4.5       Control of fire spread in PS1 circuits       See 6.4.6       P         6.4.5       Control of fi	Clause	Requirement + Test	Result - Remark	Verdict
6.2.3.1       Arcing PIS       N/A         6.2.3.2       Resistive PIS       (See appended table 6.2.3.2)       P         6.3       Safeguards against fire under normal operating and abnormal operating conditions       P         6.3.1       No ignition and attainable temperature value less than 90 % defined by ISO 871 or less than 300 °C       No ignition and no such temperature attained within the equipment. (See appended table B.1.5 & B.3)         Combustible materials outside fire enclosure       No such parts       N/A         6.4       Safeguards against fire under single fault conditions       P         6.4.1       Safeguard method       Control fire spread, evaluation by Clause 6.4.4, 6.4.5, 6.4.6       P         6.4.2       Reduction of the likelihood of ignition under single fault conditions in PS1 circuits       N/A       N/A         6.4.3       Reduction of the likelihood of ignition under single fault conditions for temperature limited by fuse       N/A         6.4.3.1       Supplementary safeguards       N/A         6.4.4       Control of fire spread in PS1 circuits       P         6.4.5       Control of fire spread in PS1 circuits       P         6.4.5       Control of fire spread in PS1 circuits       P         6.4.5       Control of fire spread in PS1 circuits       See 6.4.6       P         6.4.5       Control of fi	623	Classification of potential ignition sources	See the following details	P
62.3.2       Resistive PIS       (See appended table 6.2.3.2)       P         6.3       Safeguards against fire under normal operating and abnormal operating conditions       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 stained within the equipment. (See appended table B.1.5 & B.3)       P         6.4       Safeguards against fire under single fault conditions       P         6.4.1       Safeguard method       Control fire spread, evaluation by Clause 6.4.4, 6.4.5, 6.4.6       P         6.4.2       Reduction of the likelihood of ignition under single fault conditions in PS1 circuits       N/A       N/A         6.4.3.1       Supplementary safeguards       N/A       N/A         6.4.3.2       Single Fault Conditions       P       N/A         6.4.3.3       Reduction of the likelihood of ignition under single fault conditions in PS2 and PS3 circuits       N/A       N/A         6.4.3.1       Supplementary safeguards       N/A       N/A         6.4.3.2       Single Fault Conditions       P         6.4.4       Control of fire spread in PS1 circuits       See 6.4.6       P         6.4.5.2       Supplementary safeguards       Compliance detailed as follows:       P         - Printed board: rated V-O	- 5	the second se		5
6.3       Safeguards against fire under normal operating and abnormal operating conditions       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)         Combustible materials outside fire enclosure       No such parts       N/A         6.4       Safeguards against fire under single fault conditions       P         6.4.1       Safeguard method       Control fire spread, evaluation by Clause 6.4.4, 6.4.5, 6.4.6       P         6.4.2       Reduction of the likelihood of ignition under single fault conditions in PS1 circuits       N/A         6.4.3.1       Supplementary safeguards       N/A         6.4.3.2       Single Fault Conditions for temperature limited by fuse       N/A         6.4.4       Control of fire spread in PS1 circuits       P         6.4.5       Control of fire spread in PS2 circuits       See 6.4.6       P         6.4.5.2       Supplementary safeguards       Compliance detailed as follows: - Printed board: rated V-0 (Internal wires: complying with relevant IEC standard, which test method and testing compluing with cleave and point or small parts of combustibe material with mass less than 49) or components: complying with relevant IEC standard, even or components: complying with relevant IEC standard, even or components: complying with relevant IEC standard, even or components: complying with relevant IE			(See appended table 6.2.3.2)	
than 90 % defined by ISO 871 or less than 300 °C for unknown materials       temperature attained within the equipment. (See appended table B.1.5 & B.3)         Combustible materials outside fire enclosure       No such parts       N/A         6.4       Safeguards against fire under single fault conditions       P         6.4.1       Safeguard method       Control fire spread, evaluation by Clause 6.4.4, 6.4.5, 6.4.6       P         6.4.2       Reduction of the likelihood of ignition under single fault conditions in PS1 circuits       N/A       N/A         6.4.3       Reduction of the likelihood of ignition under single fault conditions in PS2 and PS3 circuits       N/A         6.4.3.1       Supplementary safeguards       N/A         6.4.4       Control of fire spread in PS1 circuits       P         6.4.5.2       Supplementary safeguards       N/A         6.4.4       Control of fire spread in PS1 circuits       P         6.4.5.2       Supplementary safeguards       Compliance detailed as follows: - Printed board: rated V-0 - Internal wires: complying with UL 758 standard, which test method and testing complying with relevant IEC standard. east V-2 except for parts mounted on min. V-1 material or small parts of components complying with relevant IEC standard. - Fire barriers used       P	6.3	Safeguards against fire under normal operating a		P
6.4       Safeguards against fire under single fault conditions       P         6.4.1       Safeguard method       Control fire spread, evaluation by Clause 6.4.4, 6.4.5, 6.4.6       P         6.4.2       Reduction of the likelihood of ignition under single fault conditions in PS1 circuits       N/A         6.4.3       Reduction of the likelihood of ignition under single fault conditions in PS2 and PS3 circuits       N/A         6.4.3.1       Supplementary safeguards       N/A         6.4.3.2       Single Fault Conditions       N/A         6.4.3.4       Control of fire spread in PS1 circuits       N/A         6.4.4       Control of fire spread in PS1 circuits       N/A         6.4.4       Control of fire spread in PS2 circuits       See 6.4.6       P         6.4.5.2       Supplementary safeguards       Compliance detailed as follows:	6.3.1	than 90 % defined by ISO 871 or less than 300 °C	temperature attained within the equipment. (See appended table B.1.5 &	P
6.4.1       Safeguard method       Control fire spread, evaluation by Clause 6.4.4, 6.4.5, 6.4.6       P         6.4.2       Reduction of the likelihood of ignition under single fault conditions in PS1 circuits       N/A         6.4.3       Reduction of the likelihood of ignition under single fault conditions in PS2 and PS3 circuits       N/A         6.4.3.1       Supplementary safeguards       N/A         6.4.3.2       Single Fault Conditions       N/A         5.4.3.1       Supplementary safeguards       N/A         6.4.3.2       Single Fault Conditions       N/A         5.4.3       Special conditions for temperature limited by fuse       N/A         6.4.4       Control of fire spread in PS1 circuits       P         6.4.5       Control of fire spread in PS2 circuits       See 6.4.6       P         6.4.5.2       Supplementary safeguards       Compliance detailed as follows:       P         6.4.5.2	A	Combustible materials outside fire enclosure:	No such parts	N/A
6.4.2       Reduction of the likelihood of ignition under single fault conditions in PS1 circuits       N/A         6.4.3       Reduction of the likelihood of ignition under single fault conditions in PS2 and PS3 circuits       N/A         6.4.3.1       Supplementary safeguards       N/A         6.4.3.2       Single Fault Conditions       N/A         6.4.3.1       Supplementary safeguards       N/A         6.4.3.2       Single Fault Conditions       N/A         6.4.3.4       Control of fire spread in PS1 circuits       P         6.4.4       Control of fire spread in PS2 circuits       See 6.4.6       P         6.4.5.2       Supplementary safeguards       Compliance detailed as follows:       P         6.4.5.2       Supplementary safeguards       Compliance detailed as follows:       P         6.4.5.2       Supplementary safeguards       Compliance detailed as follows:       P         9       Printed board: rated V-0       Internatives: complying with rest method and testing condition equal to IEC/EN 60695-11-21.       All other components: at least V-2 except for parts mounted on min. V-1 material or small parts of combustible material (with mass less than 4g) or components complying with relevant IEC standard.       Fire barriers used	6.4	Safeguards against fire under single fault condition	ons of the second	R/P
fault conditions in PS1 circuits       N/A         6.4.3       Reduction of the likelihood of ignition under single fault conditions in PS2 and PS3 circuits       N/A         6.4.3.1       Supplementary safeguards       N/A         6.4.3.2       Single Fault Conditions       N/A         Special conditions for temperature limited by fuse       N/A         6.4.4       Control of fire spread in PS1 circuits       P         6.4.5       Control of fire spread in PS2 circuits       See 6.4.6       P         6.4.5.2       Supplementary safeguards       Compliance detailed as follows:       P         6.4.5.2       Supplementary safeguards       Compliance detailed as follows:       P         -       Internal wires: complying with UL 758 standard, which test method and testing condition equal to IEC/EN 60695-11-21.       All other components: at least V-2 except for parts mounted on min. V-1 material or small parts of combustible material (with mass less than 4g) or components complying with relevant IEC standard.       - Fire barriers used	6.4.1	Safeguard method		P P
fault conditions in PS2 and PS3 circuits       N/A         6.4.3.1       Supplementary safeguards       N/A         6.4.3.2       Single Fault Conditions       N/A         Special conditions for temperature limited by fuse       N/A         6.4.4       Control of fire spread in PS1 circuits       P         6.4.5       Control of fire spread in PS2 circuits       See 6.4.6       P         6.4.5.2       Supplementary safeguards       Compliance detailed as follows:       P         6.4.5.2       Supplementary safeguards       Compliance detailed as follows:       P         6.4.5.2       Supplementary safeguards       Compliance detailed as follows:       P         -       Printed board: rated V-0       Internal wires: complying with UL 758 standard, which test method and testing condition equal to IEC/EN 60695-11-21.       All other components: at least V-2 except for parts mounted on min. V-1 material or small parts of combustible material (with mass less than 4g) or components complying with relevant IEC standard.       - Fire barriers used	6.4.2		Tet unet wiret wiret	N/A
6.4.3.2       Single Fault Conditions:       N/A         Special conditions for temperature limited by fuse       N/A         6.4.4       Control of fire spread in PS1 circuits       P         6.4.5       Control of fire spread in PS2 circuits       See 6.4.6       P         6.4.5.2       Supplementary safeguards       Compliance detailed as follows:       P         -       Printed board: rated V-0       Internal wires: complying with UL 758 standard, which test method and testing condition equal to IEC/EN 60695-11-21.       All other components: at least V-2 except for parts mounted on min. V-1 material or small parts of combustible material (with mass less than 4g) or components complying with relevant IEC standard.         -       Fire barriers used       Fire barriers used	6.4.3		at we write with	N/A
Special conditions for temperature limited by fuse       N/A         6.4.4       Control of fire spread in PS1 circuits       P         6.4.5       Control of fire spread in PS2 circuits       See 6.4.6       P         6.4.5.2       Supplementary safeguards       Compliance detailed as follows:       P         -       Printed board: rated V-0       Internal wires: complying with UL 758 standard, which test method and testing condition equal to IEC/EN 60695-11-21.       All other components: at least V-2 except for parts mounted on min. V-1 material or small parts of combustible material (with mass less than 4g) or components complying with relevant IEC standard.         -       Fire barriers used       Fire barriers used	6.4.3.1	Supplementary safeguards		N/A
6.4.4       Control of fire spread in PS1 circuits       P         6.4.5       Control of fire spread in PS2 circuits       See 6.4.6       P         6.4.5.2       Supplementary safeguards       Compliance detailed as follows: <ul> <li>Printed board: rated V-0</li> <li>Internal wires: complying with UL 758 standard, which test method and testing condition equal to IEC/EN 60695-11-21.</li> <li>All other components: at least V-2 except for parts mounted on min. V-1 material or small parts of combustible material (with mass less than 4g) or components complying with relevant IEC standard.</li> <li>Fire barriers used</li> </ul>	6.4.3.2	Single Fault Conditions	menter uniter while whi	N/A
6.4.5       Control of fire spread in PS2 circuits       See 6.4.6       P         6.4.5.2       Supplementary safeguards       Compliance detailed as follows:       P         -       Printed board: rated V-0       Internal wires: complying with UL 758 standard, which test method and testing condition equal to IEC/EN 60695-11-21.       All other components: at least V-2 except for parts mounted on min. V-1 material or small parts of combustible material (with mass less than 4g) or components complying with relevant IEC standard.	t set	Special conditions for temperature limited by fuse	a at at all	N/A
6.4.5.2       Supplementary safeguards       Compliance detailed as follows:       P         -       -       Printed board: rated V-0       -       Internal wires: complying with UL 758 standard, which test method and testing condition equal to IEC/EN 60695-11-21.       -       All other components: at least V-2 except for parts mounted on min. V-1 material or small parts of combustible material (with mass less than 4g) or components complying with relevant IEC standard.       -       Fire barriers used	6.4.4	Control of fire spread in PS1 circuits	White white white white	√ <sup>™</sup> P
follows:       -       Printed board: rated V-0         -       Internal wires: complying with UL 758 standard, which test method and testing condition equal to IEC/EN 60695-11-21.         -       All other components: at least V-2 except for parts mounted on min. V-1 material or small parts of combustible material (with mass less than 4g) or components complying with relevant IEC standard.         -       Fire barriers used	6.4.5	Control of fire spread in PS2 circuits	See 6.4.6	ς SP
	6.4.5.2	Supplementary safeguards	<ul> <li>follows:</li> <li><u>Printed board</u>: rated V-0</li> <li><u>Internal wires</u>: complying with UL 758 standard, which test method and testing condition equal to IEC/EN 60695-11-21.</li> <li><u>All other components</u>: at least V-2 except for parts mounted on min. V-1 material or small parts of combustible material (with mass less than 4g) or components complying with relevant IEC standard.</li> </ul>	
	6.4.6	Control of fire spread in PS3 circuits	The rest of the	N/A

6.5.3	Internal wiring size (mm <sup>2</sup> ) for socket-outlets	a at at a	N/A
6.5.2	Requirements for interconnection to building wiring	at white white white whi	N/A
6.5.1	General requirements	The internal wires are complied with UL standard, of which the test method and testing condition are equal to IEC/EN 60695-11-21.	P
6.5	Internal and external wiring	A LICH NUTER WITCH WALT	P
6.4.9	Flammability of insulating liquid:	min with min an	N/A
6.4.8.4	Separation of a PIS from a fire enclosure and a fire barrier distance (mm) or flammability rating	et ret ret tet	N/A
6.4.8.3.6	Integrity of a fire enclosure, condition met: a), b) or c)	No enclosure can be opened by an ordinary person	N/A
NITER .	Openings dimensions (mm)	Separated from a PIS	N/A
6.4.8.3.5	Side openings and properties	water water water water	N/A
at the	Instructional Safeguard		⊘ <sup>_</sup> N/A
the week	Flammability tests for the bottom of a fire enclosure	and and and and an	N/A
	Openings dimensions (mm)	No bottom openings	N/A
6.4.8.3.4	Bottom openings and properties	tet set site alle	N/A
- and -	Openings dimensions (mm)	No opening	N/A
6.4.8.3.3	Top openings and properties	at at at a	N/A
5.4.8.3.2	Fire barrier dimensions	No fire barrier used.	N/A
6.4.8.3.1	Fire enclosure and fire barrier openings		N/A
6.4.8.3	Constructional requirements for a fire enclosure and a fire barrier	thet while while while	N/A
6.4.8.2.2	Requirements for a fire enclosure	white mile white white	N/A
6.4.8.2.1	Requirements for a fire barrier	When the second second	Р
6.4.8.2	Fire enclosure and fire barrier material properties	t stat state with with	N/A
6.4.8	Fire enclosures and fire barriers	See below.	Р
6.4.7.3	Separation by a fire barrier	No fire barrier used.	N/A
6.4.7.2	Separation by distance	ALTE WALT WALT WALT	N/A
6.4.7	Separation of combustible materials from a PIS	See below	N/A
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Clause	Requirement + Test	Result - Remark	Verdict

7	INJURY CAUSED BY HAZARDOUS SUBSTANCES	P
7.2	Reduction of exposure to hazardous substances	N/A
7.3	Ozone exposure	Ň/A
7.4	Use of personal safeguards or personal protective equipment (PPE)	N/A
er int	Personal safeguards and instructions:	- 1
7.5	Use of instructional safeguards and instructions	N/A
white	Instructional safeguard (ISO 7010):	
7.6	Batteries and their protection circuits	P

8	MECHANICALLY-CAUSED INJURY		P
8.2	Mechanical energy source classifications	e at at at a	P
8.3	Safeguards against mechanical energy sources	white white white white	Р
8.4	Safeguards against parts with sharp edges and corners		P
8.4.1	Safeguards	the the the the	Р
Net WAL	Instructional Safeguard	MS1: Edges and corners of enclosure	P
8.4.2	Sharp edges or corners	Edges and corners of the enclosure are rounded.	P
8.5	Safeguards against moving parts	at the the state	N/A
8.5.1	Fingers, jewellery, clothing, hair, etc., contact with MS2 or MS3 parts	No move parts	N/A
Jet NJE	MS2 or MS3 part required to be accessible for the function of the equipment	See above.	N/A
	Moving MS3 parts only accessible to skilled person	a mar and and a	N/A
8.5.2	Instructional safeguard:	- iter street mitter and	N/A
8.5.4	Special categories of equipment containing moving parts	tet tet stet with	N/A
8.5.4.1	General	pur me me m	N/A
8.5.4.2	Equipment containing work cells with MS3 parts	THE WITH MUTHER MUTHER	N/A
8.5.4.2.1	Protection of persons in the work cell	No to the	N/A
8.5.4.2.2	Access protection override	It waite waite water w	N/A
8.5.4.2.2.1	Override system	A 14 14 5	N/A
8.5.4.2.2.2	Visual indicator	White white white white	N/A
8.5.4.2.3	Emergency stop system	at at at at	N/A

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			- 13
Clause	Requirement + Test	Result - Remark	Verdict
× si	and the second second		

minet an	Maximum stopping distance from the point of activation (m)	tet tet tret wiret	N/A
5184	Space between end point and nearest fixed mechanical part (mm):	at lef left stat	N/A
8.5.4.2.4	Endurance requirements	in must show the sh	N/A
WALTE	Mechanical system subjected to 100 000 cycles of operation	WALTER WALTER WALTER WALT	N/A
	- Mechanical function check and visual inspection	at the state with	N/A
20. 2	- Cable assembly:	white white white wi	N/A
8.5.4.3	Equipment having electromechanical device for destruction of media	LIFE WALTER WALTER WALTER	N/A
8.5.4.3.1	Equipment safeguards	at stat state what we	N/A
8.5.4.3.2	Instructional safeguards against moving parts:	Mr. Mr. M.	N/A
8.5.4.3.3	Disconnection from the supply	NUTER MUTE WALTE WALT	N/A
8.5.4.3.4	Cut type and test force (N):	a to the tet	N/A
8.5.4.3.5	Compliance	intite water water water	N/A
8.5.5	High pressure lamps	No high pressure lamps used.	N/A
	Explosion test	2 Jun 2m 1	N/A
8.5.5.3	Glass particles dimensions (mm)	a of the other white way	N/A
8.6	Stability of equipment	What we at the	N/A
8.6.1	General	Intife Mater Walt wat	N/A
Set .	Instructional safeguard:	at at at sat	
8.6.2	Static stability	with which which a with a	N/A
8.6.2.2	Static stability test	et the states whet an	N/A
8.6.2.3	Downward force test	The second	N/A
8.6.3	Relocation stability	NUTER INTER WAITE WAT	N/A
. Alt	Wheels diameter (mm):	a at at at	
m n	Tilt test	WALTE WALT WAL WAL	N/A
8.6.4	Glass slide test	it it ist ist	N/A
8.6.5	Horizontal force test	i me me me	N/A
8.7	Equipment mounted to wall, ceiling or other struc	ture set set set set	N/A
8.7.1	Mount means type	No wall or ceiling	N/A
8.7.2	Test methods	Inter Mart Marth Marth	N/A
de-	Test 1, additional downwards force (N)	i i it it	N/A



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1,

N/A

No such parts

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Clause	Requirement + Test	Result - Remark	Verdict
sher	and and an international states and	white white white white	m
	Test 2, number of attachment points and test force (N)	whet wind white white	N/A
LIFEK MAL	Test 3 Nominal diameter (mm) and applied torque (Nm):	ret were word wiret	N/A
8.8	Handles strength	M M M	N/A
8.8.1	General	I MUTER MALTE MALLE W	N/A
8.8.2	Handle strength test	a at at a	N/A
m. 1	Number of handles:	white white white white	
WLIER NI	Force applied (N)	tet tet with with	NUTE N
8.9	Wheels or casters attachment requirements	the superior superior	N/A
8.9.2	Pull test	Et allet white while a	N/A
8.10	Carts, stands and similar carriers	i i at at i	<⊢ N/A<
8.10.1	General	No carts, stands or similar carriers	N/A
8.10.2	Marking and instructions:	NUTER NATE WALT WALT	s∿N/A ·
8.10.3	Cart, stand or carrier loading test		N/A
ter an	Loading force applied (N)	and man	N/A
8.10.4	Cart, stand or carrier impact test		N/A
8.10.5	Mechanical stability	me me me	N/A
white	Force applied (N)	white muset and and	- mer
8.10.6	Thermoplastic temperature stability	in the state	N/A
8.11	Mounting means for slide-rail mounted equipmen	t (SRME)	N/A
8.11.1	General	No such parts	N/A
8.11.2	Requirements for slide rails	white white white	N/A
et MALIE	Instructional Safeguard	- iter street wither an	N/A
8.11.3	Mechanical strength test	Mr. M. W.	N/A
8.11.3.1	Downward force test, force (N) applied:	WITER WAITE WAITE WALL	_ <sub>S</sub> €Ň/A
8.11.3.2	Lateral push force test	a at at at	N/A
8.11.3.3	Integrity of slide rail end stops	PLATE MALL WALL WALL	N/A
8.11.4	Compliance	at not not what	N/A
100		1. N. 1. 1. N. 1.	

Telescoping or rod antennas

Button/ball diameter (mm).....:

8.12



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Clause	Requirement + Test	Result - Remark	Verdict

9 🔬	THERMAL BURN INJURY	N. I A At	P
9.2	Thermal energy source classifications	marter until white white	Р
9.3	Touch temperature limits	she at let let	<u>с</u> ́Р
9.3.1	Touch temperatures of accessible parts:	(See appended table 5.4.1.4, 9.3, B.1.5, B.2.6)	Р
9.3.2	Test method and compliance	See B.1.6 & B.2.3	Р
9.4	Safeguards against thermal energy sources	Let set set with	P
9.5	Requirements for safeguards	mus me me su	Р
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.	P
9.5.2	Instructional safeguard:	Instructional safeguard is not required.	N/A
9.6	Requirements for wireless power transmitters	INTER INTER WATER WATER	N/A
9.6.1	General	No wireless power transmitters	N/A
9.6.2	Specification of the foreign objects	a in in and	N/A
9.6.3	Test method and compliance		N/A

10	RADIATION		Ρ
10.2	Radiation energy source classification	m m m t	P. P V
10.2.1 📣	General classification	See below	
de d	Lasers		_
et white	Lamps and lamp systems	: RS1: LED only for indicating use which is considered as low power application.	
At	Image projectors		
me a	X-Ray	et mart white white whe	
JER N	Personal music player	it it it	
10.3	Safeguards against laser radiation	which which will be	N/A
NUNLIE WALLE	The standard(s) equipment containing laser(s) comply	No laser radiation	N/A
10.4	Safeguards against optical radiation from lam LED types)	ps and lamp systems (including	P
10.4.1	General requirements	LED indication light: Classed	P



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With white		EN IEC 62368-1		white white
Clause	Requirement + Test	Main Mar W.	Result - Remark	Verdict

	let set stet auto white white whe	as RS1 (Exempt Group)	+ st
with wi	Instructional safeguard provided for accessible radiation level needs to exceed	onliet while while while	N/A
in me	Risk group marking and location	with surer white white	N/A
t st	Information for safe operation and installation	a stat	N/A
10.4.2	Requirements for enclosures	e white white white w	N/A
NUTER.	UV radiation exposure	. It let set as	N/A
10.4.3	Instructional safeguard:	ours and my and	N/A
10.5	Safeguards against X-radiation	TEX TEX NUTER MUTER	N/A
10.5.1	Requirements	No X-radiation	N/A
in mar	Instructional safeguard for skilled persons	Tele miles and a mark of	n —
10.5.3	Maximum radiation (pA/kg)	and the state	<u> </u>
10.6	Safeguards against acoustic energy sources	Mult main which we	N/A
10.6.1	General	No such equipment	N/A
10.6.2	Classification	and the second	N/A
and and	Acoustic output <i>L</i> <sub>Aeq,T</sub> , dB(A)	Att Contraction Matter	N/A
to de	Unweighted RMS output voltage (mV)		o∕-N/A
man	Digital output signal (dBFS)	Connect white white w	N/A
10.6.3	Requirements for dose-based systems	the set set a	N/A
10.6.3.1	General requirements	white white white white	N/A
10.6.3.2	Dose-based warning and automatic decrease	with write wire white	N/A
10.6.3.3	Exposure-based warning and requirements	provide the state	N/A
in mer	30 s integrated exposure level (MEL30):	Ver miles while while	√ N/A
t set	Warning for MEL ≥ 100 dB(A):	the state	N/A
10.6.4	Measurement methods	white white white wi	N/A
10.6.5	Protection of persons	tet stet stet with	N/A
	Instructional safeguards	Mr. Mr. M. M.	N/A
10.6.6	Requirements for listening devices (headphones, earphones, etc.)	ALTER WALTER WALTER WALTER	N/A
10.6.6.1	Corded listening devices with analogue input	Set wifet wifet white w	N/A
- At	Listening device input voltage (mV)	w w at	N/A
10.6.6.2	Corded listening devices with digital input	WALTE WALTE WALTE WA	N/A
,th	Max. acoustic output <i>L</i> <sub>Aea,T</sub> , dB(A):	a state de	N/A



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4			20. 2.
Clause	Requirement + Test	Result - Remark	Verdict
str	m. m. s.	tet att with our only	me m

10.6.6.3	Cordless listening devices	the state of the	N/A
mer me	Max. acoustic output <i>L</i> <sub>Aeq,T</sub> , dB(A)	MUTER WALT WALT WALT	N/A

в	NORMAL OPERATING CONDITION TESTS, ABNORMAL OPERATING CONDITION TESTS AND SINGLE FAULT CONDITION TESTS		
B.1	General General		
B.1.5	5       Temperature measurement conditions       (See appended table B.1.5)         Normal operating conditions       Image: Condition Section Sec		Р
B.2			Р
B.2.1	General requirements:	(See Test Item Particulars and appended test tables)	р <sup>ул</sup> Р "()
ine when	Audio Amplifiers and equipment with audio amplifiers:	No audio amplifiers	N/A
B.2.3	Supply voltage and tolerances	e user where where where	Р
B.2.5	Input test	(See appended table B.2.5)	P,-
B.3	Simulated abnormal operating conditions	miles while while while	11 P 1
B.3.1	General (See appended table B.3)		<u>ر</u> P
B.3.2	Covering of ventilation openings	and and and a	N/A
JEK WALTE	Instructional safeguard:	Instructional safeguard is not required.	N/A
B.3.3	DC mains polarity test	Not supplied by D.C. mains	N/A
B.3.4	Setting of voltage selector	No voltage selector used.	N/A
B.3.5	Maximum load at output terminals	JEt will aller white	10 <sup>10</sup> P _1/
B.3.6	Reverse battery polarity	No such battery	N/A
B.3.7	Audio amplifier abnormal operating conditions	a set unite white white w	N/A
B.3.8	Safeguards functional during and after abnormal operating conditions:	All safeguards remained effective	* Pire
B.4	Simulated single fault conditions	to the the	P
B.4.1	General	white white white white	<sup>2</sup> <sup>0</sup> P
B.4.2	Temperature controlling device	(See appended table B.4)	N <sup>C</sup> P N
B.4.3	Blocked motor test	No motors	N/A
B.4.4	Functional insulation	See below.	P
B.4.4.1	Short circuit of clearances for functional insulation	(See appended table B.4)	P
B.4.4.2	Short circuit of creepage distances for functional insulation	(See appended table B.4)	P



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m	EN IEC 62368-1	iter white white white white	- and
Clause	Requirement + Test	Result - Remark	Verdic
<b>D</b> 4 4 0		Ne and disting the series	NI/A
B.4.4.3	Short circuit of functional insulation on coated printed boards	No coated printed boards within the EUT	N/A
B.4.5	Short-circuit and interruption of electrodes in tubes and semiconductors	(See appended table B.4)	LI EVP
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	STORE P
B.4.9	Battery charging and discharging under single fault conditions	(See appended table B.4)	P P
C A	UV RADIATION	W St at at	N/A
Ç.1	Protection of materials in equipment from UV radiation		s∿N/A
C.1.2	Requirements	No such UV generated from the equipment.	N/A
Ç.1.3	Test method		⊘ <sup>_</sup> N/A
C.2	UV light conditioning test	main wat war with	N/A
C.2.1	Test apparatus	ret stat stat with	N/A
C.2.2	Mounting of test samples	me me me	N/A
C.2.3	Carbon-arc light-exposure test	They write mine white	N/A
C.2.4	Xenon-arc light-exposure test	i i at at	N/A
D an	TEST GENERATORS	The MALTE MALT WALL W	N/A
D.1 🛒	Impulse test generators	L A A A . 5	N/A
D.2	Antenna interface test generator	Mur mur mur m	N/A
D.3	Electronic pulse generator	alt and area with	N/A
Ē	TEST CONDITIONS FOR EQUIPMENT CONTAININ	NG AUDIO AMPLIFIERS	N/A
E.1	Electrical energy source classification for audio	signals	N/A
8 B	Maximum non-clipped output power (W):	i i t t	d+
-m.	Rated load impedance (Ω):	Main Main Main Main	-m.
- Jitt	Open-circuit output voltage (V)	at the set of	t Inte
- 201	Instructional safeguard	NUT M. MUT MIL	
E.2	Audio amplifier normal operating conditions	let jet jet siet sie	N/A

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Clause	Requirement + Test	Result - Remark	Verdict

sher .	M W ST I ST ST	white much white white	m.
	Audio signal source type	I A A A	<u></u>
m m	Audio output power (W)	MUTE WALT WALL WAL	m_
Set of	Audio output voltage (V)	at at alt alt alt	LIE
	Rated load impedance (Ω)	when the sup a	
er white	Requirements for temperature measurement	et whet whet while whi	N/A
E.3	Audio amplifier abnormal operating conditions	where the second second	N/A
For v	EQUIPMENT MARKINGS, INSTRUCTIONS, AND SAFEGUARDS	INSTRUCTIONAL	P
F.1 📣	General	NUTER WALTE WALTE WALTE	P <
18 . 5ª	Language	English, German	( <sup>1)</sup>
F.2	Letter symbols and graphical symbols	the and and and an	Р
F.2.1	Letter symbols according to IEC60027-1	Letter symbols for quantities and units are complied with IEC 60027-1.	, P. S
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	FE NUT WITH ANY TE MAY	P
F.3.1	Equipment marking locations	The required marking is located on the enclosure of the equipment and is easily visible.	PE
F.3.2	Equipment identification markings	See below for details.	Р
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	the state	N/A
F.3.3.2	Equipment without direct connection to mains	WHITE WALL WALL WALL	∿° P
F.3.3.3	Nature of the supply voltage:	IEC 60417-5032 for a.c. symbol used.	, s <sup>cr</sup> Р <sub>s</sub>
F.3.3.4	Rated voltage	See copy of marking plate.	Р
F.3.3.5	Rated frequency	me me me me	N/A
F.3.3.6	Rated current or rated power	See copy of marking plate.	Р
F.3.3.7	Equipment with multiple supply connections	Single supply connection.	N/A

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	A	A A A A A A A A A A	
Clause	Requirement + Test	Result - Remark	Verdict
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F.3.4	Voltage setting device	No voltage setting device.	N/A
F.3.5	Terminals and operating devices	MITE WALT WALT WALT	P
F.3.5.1	Mains appliance outlet and socket-outlet markings	Marked near socket-outlet	STE P
F.3.5.2	Switch position identification marking	a at at a	N/A
F.3.5.3	Replacement fuse identification and rating markings:	No replacement fuse used.	N/A
we way	Instructional safeguards for neutral fuse	NUTER INTERNATE WALT	N/A
F.3.5.4	Replacement battery identification marking	No such battery.	N/A
F.3.5.5	Neutral conductor terminal	No such parts.	N/A
F.3.5.6	Terminal marking location	Marking is not placed on screws.	State P 15
F.3.6	Equipment markings related to equipment classification	No classification	N/A
F.3.6.1	Class I equipment	L A A A	N/A
F.3.6.1.1	Protective earthing conductor terminal	unit water water water	N/A
F.3.6.1.2	Protective bonding conductor terminals	at the state	N/A
F.3.6.2	Equipment class marking	a sur m a	N/A
F.3.6.3	Functional earthing terminal marking	No functional earth	N/A
F.3.7	Equipment IP rating marking	This equipment is classified as IPX0.	mule
F.3.8	External power supply output marking	See copy of marking plate.	P
F.3.9	Durability, legibility and permanence of marking	Marking is considered to be legible and easily discernible. See also the following details.	P S
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	the state	P



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Clause	Requirement + Test	Result - Remark	Verdic
Jun .		Sartie mill white white	- m
- Set	a) Information prior to installation and initial use	Provided in the manual.	P-
an a	b) Equipment for use in locations where children not likely to be present	NUT WATER WALL WATER	N/A
the wet	c) Instructions for installation and interconnection	TEX MITEX MUTE WALTE W	N/A
et untret	d) Equipment intended for use only in restricted access area	t stet stret mittet uni	N/A
A	e) Equipment intended to be fastened in place	with the the	N/A
when y	f) Instructions for audio equipment terminals	white mile white white	N/A
dt.	g) Protective earthing used as a safeguard	a shart the	N/A
ni wi	h) Protective conductor current exceeding ES2 limits	the water water water	N/A
in mer	i) Graphic symbols used on equipment	et mile mile white white	N/A
* WALTER	j) Permanently connected equipment not provided with all-pole mains switch	and and the second second	N/A
MITEK I	k) Replaceable components or modules providing safeguard function	ret ret with with	N/A
1 1	I) Equipment containing insulating liquid	we all all all	N/A
white white	m) Installation instructions for outdoor equipment	att white white w	N/A
F.5	Instructional safeguards	a la st	N/A
G 🔊	COMPONENTS	Et antite white white wh	P
G.1 🦽	Switches	A A A A	N/A
G.1.1	General	when we we we	N/A
G.1.2	Ratings, endurance, spacing, maximum load	let the state state	N/A
G.1.3	Test method and compliance	and the second second	N/A
G.2	Relays	TEX NUEL INVER WHILE W	N/A
G.2.1	Requirements	No relay used.	N/A
G.2.2	Overload test	white white white whi	N/A
G.2.3	Relay controlling connectors supplying power to other equipment	with white white white	N/A
G.2.4	Test method and compliance	a at at at	N/A
G.3	Protective devices	NUT WALL MUN WILL	N/A
G.3.1	Thermal cut-offs	No thermal cut-offs provided within the equipment.	N/A
WALTER	Thermal cut-outs separately approved according to IEC 60730 with conditions indicated in a) & b)	wifet anifet anifet white	N/A

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Result - Remark	Verdict
	Result - Remark

UNLIEK W	Thermal cut-outs tested as part of the equipment as indicated in c)	Tet stret miret with	N/A
G.3.1.2	Test method and compliance	the second second	N/A
G.3.2	Thermal links	No thermal links used.	~ N/A
G.3.2.1	a) Thermal links tested separately according to IEC 60691 with specifics	A MUTER MALTER WALTER	N/A
Set	b) Thermal links tested as part of the equipment	A A A .	N/A
G.3.2.2	Test method and compliance	white white white wh	N/A
G.3.3	PTC thermistors	ret ret wet with	N/A
G.3.4	Overcurrent protection devices	an the star we	N/A
G.3.5	Safeguards components not mentioned in G.3.1 to G.3.4	et white white white	N/A
G.3.5.1	Non-resettable devices suitably rated and marking provided	would would would w	N/A
G.3.5.2	Single faults conditions:	ister with mitter wit	N/A
G.4	Connectors	Nr. Sh. S. S.	N/A
G.4.1	Spacings	THE WALTE WALL	N/A
G.4.2	Mains connector configuration:		N/A
G.4.3	Plug is shaped that insertion into mains socket- outlets or appliance coupler is unlikely	white white where y	N/A
G.5	Wound components	White white white wh	N/A
G.5.1	Wire insulation in wound components	at at at at	N/A
G.5.1.2	Protection against mechanical stress	in my my m	N/A
G.5.2	Endurance test	set whet whet where	N/A
G.5.2.1	General test requirements	W W A	N/A
G.5.2.2	Heat run test	white white white w	N/A
Set	Test time (days per cycle)	at at let	fet stat
n v	Test temperature (°C)	net me me me	
G.5.2.3	Wound components supplied from the mains	THE LER NEW MER	N/A
G.5.2.4	No insulation breakdown	- Juli - Juli - Juli	N/A
G.5.3	Transformers	at intract intra months	N/A
G.5.3.1	Compliance method	s at at	N/A
m	Position:	white white shirts with	N/A
5th	Method of protection	at at at a	N/A

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20.			Pop de
Clause	Requirement + Test	Result - Remark	Verdict

G.5.3.2	Insulation	the state	N/A
me m	Protection from displacement of windings	NUTE WALT WALT W	m m -
G.5.3.3	Transformer overload tests	at at at a	<́ Ñ/А
G.5.3.3.1	Test conditions	which which which	N/A
G.5.3.3.2	Winding temperatures	t set stet wire	N/A
G.5.3.3.3	Winding temperatures - alternative test method	and an an	N/A
G.5.3.4	Transformers using FIW	No such FIW	ی N/A
G.5.3.4.1	General	a at at	N/A
1. in	FIW wire nominal diameter	with white when we	
G.5.3.4.2	Transformers with basic insulation only	at the set with	N/A
G.5.3.4.3	Transformers with double insulation or reinforced insulation	when the set	N/A
G.5.3.4.4	Transformers with FIW wound on metal or ferrite core	white white white	N/A
G.5.3.4.5	Thermal cycling test and compliance	with more with a	N/A
G.5.3.4.6	Partial discharge test	set autet an	N/A
G.5.3.4.7	Routine test		N/A
G.5.4	Motors	No motors used.	N/A
G.5.4.1	General requirements	A A A	N/A
G.5.4.2	Motor overload test conditions	while while while	N/A
G.5.4.3	Running overload test	let the tree of	N/A
G.5.4.4.2	Locked-rotor overload test	in the main in	N/A
in main	Test duration (days)	let suret unifer which	Mr1
G.5.4.5	Running overload test for DC motors	A A A	N/A
G.5.4.5.2	Tested in the unit	WALTE WALT WALT	N/A
G.5.4.5.3	Alternative method	at let let	N/A
G.5.4.6	Locked-rotor overload test for DC motors	MULT WALL WITH A	N/A
G.5.4.6.2	Tested in the unit	STER STER NUTER IN	N/A
at at	Maximum Temperature	The second	N/A
G.5.4.6.3	Alternative method	let white white white	N/A
G.5.4.7	Motors with capacitors	the state	N/A
G.5.4.8	Three-phase motors	white white white	N/A

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Clause

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Mr. Mr. M. m.	EN IEC 62368-1	et white white an	NUTE WAI	in white
Requirement + Test	white when white	Result - Remark	1 1	Verdict

st	Operating voltage	St. S.	* #
G.6	Wire Insulation	NUTER AND STREET AND	N/A
G.6.1	General	s at at a	Ň/A
G.6.2	Enamelled winding wire insulation	NUT MUT MUT	N/A
G.7	Mains supply cords	at the set whet	N/A
G.7.1	General requirements	Jur Jur Jur	N/A
WALL W	Туре	allet miller and the and	LIE MIL
G.7.2	Cross sectional area (mm <sup>2</sup> or AWG):	and the second s	N/A
G.7.3	Cord anchorages and strain relief for non- detachable power supply cords	the watter water water	N/A
G.7.3.2	Cord strain relief	et white white who	N/A
G.7.3.2.1	Requirements	- at set set	N/A
	Strain relief test force (N)	mar war war v	N/A
G.7.3.2.2	Strain relief mechanism failure	STER STER MITER WAT	N/A
G.7.3.2.3	Cord sheath or jacket position, distance (mm):		N/A
G.7.3.2.4	Strain relief and cord anchorage material	The Martin Martin	N/A
G.7.4	Cord Entry		N/A
G.7.5	Non-detachable cord bend protection	when whe whe	N/A
G.7.5.1	Requirements	Tet stet with a	N/A
G.7.5.2	Test method and compliance	me me me	N/A
untit punt	Overall diameter or minor overall dimension, <i>D</i> (mm)	WIEL WALLE WALLE WAL	
al when	Radius of curvature after test (mm)	LEX ALLEY MUSE MUSE	mar -
G.7.6	Supply wiring space	a st st	N/A
G.7.6.1	General requirements	WALTER WALTE WALT V	N/A
G.7.6.2	Stranded wire	at at set	N/A
G.7.6.2.1	Requirements	White white white wi	N/A
G.7.6.2.2	Test with 8 mm strand	with with out the with	N/A
G.8	Varistors	1 m m m	N/A
G.8.1	General requirements	No varistor provided	N/A
G.8.2	Safeguards against fire	the state	N/A
G.8.2.1	General	white white white y	N/A
G.8.2.2	Varistor overload test	at at at a	N/A



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Clause	Requirement + Test	Result - Remark	Verdict

G.8.2.3	Temporary overvoltage test	1 A A At	N/A
G.9	Integrated circuit (IC) current limiters	Intife water water water	N/A
G.9.1	Requirements	No IC current limiter provided within the equipment.	́Ν/Α
et set	IC limiter output current (max. 5A):	h at at at a	#
- an	Manufacturers' defined drift	mer mer mer m	
G.9.2	Test Program	Tet the with any	N/A
G.9.3	Compliance	which will be a set	N/A
G.10 📣	Resistors	with miles and a while w	N/A
G.10.1	General	s at at let	<sub>≺</sub> ⊘′N/A
G.10.2	Conditioning	white white white wh	N/A
G.10.3	Resistor test	. At the state with	N/A
G.10.4	Voltage surge test	Whit when we we	N/A
G.10.5	Impulse test	stret allet and the walter	N/A
G.10.6	Overload test	and the second sec	N/A
G.11	Capacitors and RC units	and while white of	N/A
G.11.1	General requirements		N/A
G.11.2	Conditioning of capacitors and RC units	mer mer mer m	N/A
G.11.3	Rules for selecting capacitors	Tet wet with mile	N/A
G.12	Optocouplers	m m m	N/A
WALL W	Optocouplers comply with IEC 60747-5-5 with specifics	White white white white	N/A
ine mai	Type test voltage V <sub>ini,a</sub> :	let nifet mile while all	S41
the set	Routine test voltage, V <sub>ini, b</sub> :	a to the to	*
G.13	Printed boards	white white white wh	ŶР
G.13.1	General requirements	See the following details.	P
G.13.2	Uncoated printed boards	The insulation between conductors on the outer surfaces of an uncoated printed board or over the outer surface of coated printed boards complied with the minimum clearance and creepage requirements of 5.4.2 and 5.4.3.	P



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- an	EN IEC 62368-1	the mile anti anti an	- an
Clause	Requirement + Test	Result - Remark	Verdict
G.13.3	Coated printed boards	No coated printed board or multilayer board applied for within the equipment.	N/A
G.13.4	Insulation between conductors on the same inner surface	Tet writet writet writes w	N/A
G.13.5	Insulation between conductors on different surfaces	t stat state stret with	N/A
, t	Distance through insulation	with the second se	N/A
mer n	Number of insulation layers (pcs)	aller mill while while	m
G.13.6	Tests on coated printed boards	a at at at	N/A
G.13.6.1	Sample preparation and preliminary inspection	the water water water a	N/A
G.13.6.2	Test method and compliance	at let get when a	N/A
G.14	Coating on components terminals	all all all a	N/A
G.14.1	Requirements:	No coating on component terminals considered to affect creepage or clearances.	N/A
G.15	Pressurized liquid filled components	Mart mart war	N/A
G.15.1	Requirements	No such device provided within the equipment.	N/A
G.15.2	Test methods and compliance	a and the suffer shi	N/A
G.15.2.1	Hydrostatic pressure test	Mr. Mr. M. M.	N/A
G.15.2.2	Creep resistance test	NUTER INTER MAILE WALL	N/A
G.15.2.3	Tubing and fittings compatibility test	1 A A A	N/A
G.15.2.4	Vibration test	NUTE WALL WALL WALL	N/A
G.15.2.5	Thermal cycling test	at let set set a	N/A
G.15.2.6	Force test	me me m r	N/A
G.15.3	Compliance	- with aller water wait	N/A
G.16	IC including capacitor discharge function (ICX)	shi was at st	N/A
G.16.1	Condition for fault tested is not required	No such IC used	√°N/A
det a	ICX with associated circuitry tested in equipment	at at at at	N/A
1. m	ICX tested separately	it whit whit where a	N/A
G.16.2	Tests	at that the street whi	N/A
+ NUTEK	Smallest capacitance and smallest resistance specified by ICX manufacturer for impulse test:	when when we want	t <u>ni</u> ret
Julet 1	Mains voltage that impulses to be superimposed on	which which which which	NUTER



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24hr	EN IEC 62368-1	and all all all a	100
Clause	Requirement + Test	Result - Remark	Verdic
sur.		water water water water	- an-
NALTEX W	Largest capacitance and smallest resistance for ICX tested by itself for 10000 cycles test	The street intrest instreet	MALITY
G.16.3	Capacitor discharge test		N/A
H. 202	CRITERIA FOR TELEPHONE RINGING SIGNALS	TET MALTE WALT WALL W	N/A
H.1	General	e at at at i	N/A
H.2	Method A	white when when when	N/A
H.3	Method B	alt alt after with	N/A
H.3.1	Ringing signal	No telephone ringing signal generated within the equipment.	N/A
H.3.1.1	Frequency (Hz)	at ret the with a	1 m
H.3.1.2	Voltage (V)	when when we are	, - ,
H.3.1.3	Cadence; time (s) and voltage (V)	white white white whi	" "
H.3.1.4	Single fault current (mA):	the state of the	. A
H.3.2	Tripping device and monitoring voltage	INTER MATIC MALL MAL	N/A
H.3.2.1	Conditions for use of a tripping device or a monitoring voltage	at white white	N/A
H.3.2.2	Tripping device		N/A
H.3.2.3	Monitoring voltage (V)	mus me me	N/A
Junite	INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED		N/A
J.1	General	set set site and	N/A
	Winding wire insulation	and the second	-
NUL NUL	Solid round winding wire, diameter (mm)	let outer untreasonation of	N/A
A WALTER	Solid square and rectangular (flatwise bending) winding wire, cross-sectional area (mm <sup>2</sup> )	suret muret amiret and	N/A
J.2/J.3	Tests and Manufacturing	the second se	
к	SAFETY INTERLOCKS	MATTER MALIE MALIE MALI	N/A
K.1	General requirements	at at set set	N/A
et ur	Instructional safeguard:	No safety interlock provided within the equipment.	N/A
K.2	Components of safety interlock safeguard mecha	nism	N/A
K.3	Inadvertent change of operating mode		N/A

E

N/A

Interlock safeguard override

K.4



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Clause Requirement + Test Result - Remark Verdict
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K.5	Fail-safe		N/A
K.5.1	Under single fault condition	with white white white	N/A
K.6	Mechanically operated safety interlocks	at at at at	N/A
K.6.1	Endurance requirement	it whit with with w	N/A
K.6.2	Test method and compliance:	- tet stet when wi	N/A
K.7	Interlock circuit isolation	where where we are	N/A
K.7.1	Separation distance for contact gaps & interlock circuit elements	unified subtract subtract subtract	N/A
NUTE W	In circuit connected to mains, separation distance for contact gaps (mm):	TEX WALLEY WALLEY WALLEY	N/A
TER WAL	In circuit isolated from mains, separation distance for contact gaps (mm):	et waiter waiter waiter wa	N/A
WALTE	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):	at tet the state	N/A
K.7.3	Endurance test	nt which all all	N/A
K.7.4	Electric strength test	at antiet antier an	N/A
	DISCONNECT DEVICES		N/A
L.1	General requirements	White white white white	N/A
L.2 5	Permanently connected equipment	at at the set	N/A
L.3	Parts that remain energized	MILL WALL MAL WIT	N/A
L.4	Single-phase equipment	set stat stat with	N/A
L.5	Three-phase equipment	in the state	N/A
L.6 🧬	Switches as disconnect devices	et our white white w	N/A
L.7	Plugs as disconnect devices	s at at a	N/A
L.8	Multiple power sources	water water water water	N/A
TER	Instructional safeguard	at set set set with	N/A
М	EQUIPMENT CONTAINING BATTERIES AND THEIF	R PROTECTION CIRCUITS	Р
M.1	General requirements	tet whet whet white a	N <sup>O</sup> P S
M.2	Safety of batteries and their cells	m w w	, P
M.2.1	Batteries and their cells comply with relevant IEC standards	Approved cell used	Р
M.3	Protection circuits for batteries provided within the equipment	WALTER WAITER WALTER WALT	
M.3.1	Requirements	Alt offer other outer	Р



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- 2m	the second second	EN IEC 62368-1	n in
Clause	Requirement + Test	Result - Remark	Verdict
	1. 1. 2. S.		

M.3.2	Test method	A A A	P
me m	Overcharging of a rechargeable battery	NUTE WALT WALT WALT	м <sup>р</sup> Р
50× 55	Excessive discharging	at at all set	<sub>ر</sub> ه کې
et jet	Unintentional charging of a non-rechargeable battery	a set set set is	N/A
an	Reverse charging of a rechargeable battery	white white white white	N/A
M.3.3	Compliance	the set state all	P
M.4	Additional safeguards for equipment containing battery	a portable secondary lithium	P
M.4.1	General	her me we an	Р
M.4.2	Charging safeguards	set when when white wh	E.r≥
M.4.2.1	Requirements	s at at a	⊢ P_⊘
M.4.2.2	Compliance:	(See appended table Annex M.4)	NP A
M.4.3	Fire enclosure:	V-0 plastic cell frame fire enclosure used	M <sup>M</sup> P
M.4.4	Drop test of equipment containing a secondary lithium battery	the mult water of	P
M.4.4.2	Preparation and procedure for the drop test	State Miles Miles while why	Р
M.4.4.3	Drop, Voltage on reference and dropped batteries (V); voltage difference during 24 h period (%)::	After test, the voltage difference less than 5% .	Pres
M.4.4.4	Check of the charge/discharge function	in the state	P
M.4.4.5	Charge / discharge cycle test	INTE WALL WALL WAL	P <
M.4.4.6	Compliance	at at the take	S <sup>ee</sup> P
M.5	Risk of burn due to short-circuit during carrying	the me me we	Р
M.5.1	Requirement	No bare conductive terminal used	, PU
M.5.2	Test method and compliance	THE THE ALTER MITE	N/A
M.6	Safeguards against short-circuits	and an an a st	Р
M.6.1	External and internal faults	The battery complied with IEC 62133-2 which considered the internal fault tests. No such explosion or fire likely to result from short circuits.	
M.6.2	Compliance	white white white white	N/A
М.7	Risk of explosion from lead acid and NiCd batte	ries	N/A



2

R

EN IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdic
M.7.1	Ventilation preventing explosive gas concentration	white white white white	N/A
UNITER UN	Calculated hydrogen generation rate	is the second market and the	N/A
M.7.2	Test method and compliance	the second secon	N/A
	Minimum air flow rate, Q (m <sup>3</sup> /h)	of the white will be	N/A
M.7.3	Ventilation tests	1 10 50 S	N/A
M.7.3.1	General	Anon Anno Ann an	N/A
M.7.3.2	Ventilation test – alternative 1	with with with white	N/A
	Hydrogen gas concentration (%):	pr all in se	N/A
M.7.3.3	Ventilation test – alternative 2	ret white white white	N/A
50 50	Obtained hydrogen generation rate	L A A A	N/A
M.7.3.4	Ventilation test – alternative 3	Mur Mur Mur M	N/A
1 INLIER	Hydrogen gas concentration (%)	the state wind and	N/A
M.7.4	Marking	white white all the state	N/A
M.8	Protection against internal ignition from external s with aqueous electrolyte	park sources of batteries	N/A
M.8.1	General	et antre while w	N/A
M.8.2	Test method		N/A
M.8.2.1	General	white white whe wh	N/A
M.8.2.2	Estimation of hypothetical volume V <sub>Z</sub> (m <sup>3</sup> /s)	alt alt with with	A NATE
M.8.2.3	Correction factors	here and any an	_
M.8.2.4	Calculation of distance <i>d</i> (mm)	ret writer white white.	. m
М.9	Preventing electrolyte spillage		N/A
M.9.1	Protection from electrolyte spillage	while while while while all	N/A
M.9.2	Tray for preventing electrolyte spillage	let tet stet at	N/A
M.10	Instructions to prevent reasonably foreseeable misuse	which which will will will will will will will wil	N/A
20 A	Instructional safeguard:	up and and and	N/A
N.S. JOS	ELECTROCHEMICAL POTENTIALS	ret wret wiret white a	N/A
1. 18	Material(s) used F	Pollution degree considered	
0	MEASUREMENT OF CREEPAGE DISTANCES AND CLEARANCES		N/A
+ Set	Value of <i>X</i> (mm): C	Considered.	1
P	SAFEGUARDS AGAINST CONDUCTIVE OBJECTS	MULTE MULT WITH WITH	Р
P.1	General	lo opening	P

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Clause	Requirement + Test	Result - Remark	Verdict

P.2	Safeguards against entry or consequences of entry of a foreign object		N/A
P.2.1 💉	General	ality water water water	N/A
P.2.2	Safeguards against entry of a foreign object	at at all set	JEK .
	Location and Dimensions (mm):	a war war we w	
P.2.3	Safeguards against the consequences of entry of a foreign object	watter watter watter while	N/A
P.2.3.1	Safeguard requirements	tet the wind and	N/A
NUTEX AN	The ES3 and PS3 keep-out volume in Figure P.3 not applicable to transportable equipment	Not transportable equipment	N/A
TEK MIT	Transportable equipment with metalized plastic parts	Not transportable equipment	N/A
P.2.3.2	Consequence of entry test:	Mr. Mr. M. M.	N/A
P.3	Safeguards against spillage of internal liquids	t with with white white	N/A
P.3.1	General	No such liquids.	N/A
P.3.2	Determination of spillage consequences	miter white white white	N/A
P.3.3	Spillage safeguards	at the set	N/A
P.3.4	Compliance	a che and a	N/A
P.4	Metallized coatings and adhesives securing parts	S	N/A
P.4.1	General	No such construction.	N/A
P.4.2	Tests	white white white white	N/A
,et	Conditioning, T <sub>C</sub> (°C):	+ + of let	S. State
no n	Duration (weeks):	stre white white white	n. —
Q	CIRCUITS INTENDED FOR INTERCONNECTION	WITH BUILDING WIRING	С <sup>р</sup> Р
Q.1	Limited power sources	See appended table Annex Q.1	Р
Q.1.1	Requirements	muc me me	Р
MALTEN	a) Inherently limited output	Set wife mile with	N/A
1. Ar	b) Impedance limited output	w w w	Р
ur m	c) Regulating network limited output	LIER MALTER MALL WALL V	N/A
de de	d) Overcurrent protective device limited output	a at at at a	N/A
- Inc	e) IC current limiter complying with G.9	white whe whe we	N/A
Q.1.2	Test method and compliance	See below	Р
	Current rating of overcurrent protective device (A)	See appended table Annex	Р





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Clause R	equirement + Test	Result - Remark	Verdict

Q.2	Test for external circuits – paired conductor       cable	N/A
,t	Maximum output current (A)	N/A
r. m	Current limiting method	1-2-11
R <sup></sup>	LIMITED SHORT CIRCUIT TEST	N/A
R.1	General No such consideration.	N/A
R.2	Test setup	N/A
*	Overcurrent protective device for test	
R.3	Test method	N/A
to de	Cord/cable used for test	At -
R.4	Compliance	N/A
S S	TESTS FOR RESISTANCE TO HEAT AND FIRE	N/A
S.1	Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W	
5 C C C C C C C C C C C C C C C C C C C	Samples, material	
NUTE NI	Wall thickness (mm)	1-1-1
at a	Conditioning (°C)	at
WILL NIL	Test flame according to IEC 60695-11-5 with conditions as set out	N/A
m	- Material not consumed completely	N/A
Set	- Material extinguishes within 30s	N/A
m a	- No burning of layer or wrapping tissue	N/A
S.2	Flammability test for fire enclosure and fire barrier integrity	N/A
s - 1	Samples, material	<u>,                                     </u>
white	Wall thickness (mm)	10
. Let	Conditioning (°C)	6
S.3	Flammability test for the bottom of a fire enclosure	N/A
S.3.1	Mounting of samples	N/A
S.3.2	Test method and compliance	N/A
in whi	Mounting of samples	in th
t d	Wall thickness (mm)	et
S.4	Flammability classification of materials	N/A

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N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

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Clause	Requirement + Test	Result - Remark	Verdict
S.5	Flammability test for fire enclosure materials of equipment with a steady state power exceeding 4 000 W	martin white white	N/A
LIE WAL	Samples, material	TEL STEL MUEL WITE S	1-22-20
t d	Wall thickness (mm):	w t	at - 3
m	Conditioning (°C)	antife maint water was	- m
T	MECHANICAL STRENGTH TESTS	at the set of	P
T.1	General	which which which which	Р
T.2	Steady force test, 10 N:	(See appended table T.2)	N <sup>D</sup> P
T.3	Steady force test, 30 N	1 million to the	N/A
T.4 🔊	Steady force test, 100 N	at mine white white w	N/A
T.5	Steady force test, 250 N:	(See appended table T.5)	P (
T.6	Enclosure impact test	(See appended table T.6)	Р
NUTER	Fall test	ret stat stret when	Р
and	Swing test	with some soll so	Р
Т.7	Drop test:	(See appended table T.7)	P <sub>N</sub>
T.8	Stress relief test	(See appended table T.8)	P .
Т.9	Glass Impact Test:	No such glass	N/A
T.10	Glass fragmentation test	the set of the	N/A
241.	Number of particles counted:	No such glass	N/A
T.11	Test for telescoping or rod antennas	THE LIFE NUTER MUTER	N/A
	Torque value (Nm)	No such antennas provided	N/A

MECHANICAL STRENGTH OF CATHODE RAY TUBES (CRT) AND PROTECTION

Test method and compliance for non-intrinsically protected CRTs

AGAINST THE EFFECTS OF IMPLOSION

DETERMINATION OF ACCESSIBLE PARTS

Accessible parts of equipment

within the equipment.

No CRT provided within the

equipment.

General

General

Instructional safeguard :

Protective screen

U

U.1

U.2

U.3

۷

V.1

V.1.1

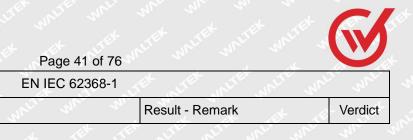


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Clause	Requirement + Test	Result - Remark	Verdic
Jun	M N N N N N N N N N N N N N N N N N N N	white white and white	- m
V.1.2	Surfaces and openings tested with jointed test probes	The marter whiter whiter	N/A
V.1.3	Openings tested with straight unjointed test probes	the state of the	N/A
V.1.4	Plugs, jacks, connectors tested with blunt probe	ster white white white w	N/A
V.1.5	Slot openings tested with wedge probe	h at at at it	N/A
V.1.6	Terminals tested with rigid test wire	white white where where	N/A
V.2	Accessible part criterion	. The the street with	N/A
X	ALTERNATIVE METHOD FOR DETERMINING CLE IN CIRCUITS CONNECTED TO AN AC MAINS NOT (300 V RMS)		N/A
I.E.K. NIT	Clearance:	at at at at at	N/A
Y	CONSTRUCTION REQUIREMENTS FOR OUTDOC	OR ENCLOSURES	N/A
Y.1	General	Indoor equipment	N/A
Y.2	Resistance to UV radiation	m m t	N/A
Y.3	Resistance to corrosion	NUTER WALTE WALTE WALTE	≪ N/A
Y.3	Resistance to corrosion	the set of the	_ N/A
Y.3.1	Metallic parts of outdoor enclosures are resistant to effects of water-borne contaminants by	a war war a	N/A
Y.3.2	Test apparatus	white white white white	N/A
Y.3.3	Water – saturated sulphur dioxide atmosphere	- let tet stet stet sure	N/A
Y.3.4	Test procedure	Mrs. Mrs. Mr. M.	N/A
Y.3.5	Compliance	state astrate marks white	N/A
Y.4	Gaskets	i st st	N/A
Y.4.1	General	Wet intre until white su	N/A
Y.4.2	Gasket tests	e at at at 5	N/A
Y.4.3	Tensile strength and elongation tests	when which when when	N/A
JALIER .	Alternative test methods:	tet stet stet with	N/A
Y.4.4	Compression test	an an an si	N/A
Y.4.5 💉	Oil resistance	LIER MITER MATER MAILE	N/A
Y.4.6	Securing means	, i to the	N/A
Y.5	Protection of equipment within an outdoor enclose	sure on an an	N/A
Y.5.1	General	the set set st	N/A
Y.5.2	Protection from moisture	white white white with	N/A
NUT N	Relevant tests of IEC 60529 or Y.5.3	at the the state	N/A



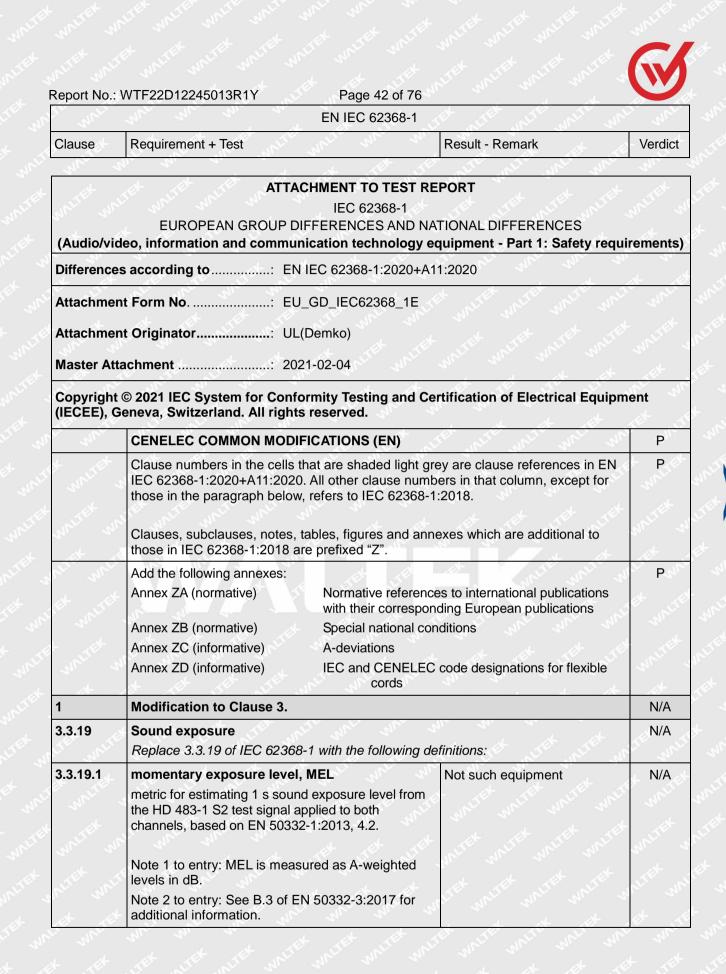
Y.5.3	Water spray test	N/A
Y.5.4	Protection from plants and vermin	N/A
Y.5.5	Protection from excessive dust	N/A
Y.5.5.1	General	N/A
Y.5.5.2	IP5X equipment	N/A
Y.5.5.3	IP6X equipment	N/A
Y.6	Mechanical strength of enclosures	N/A
Y.6.1	General	N/A
Y.6.2	Impact test	N/A

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Requirement + Test

Clause



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	EN IEC 62368-1		
Clause	Requirement + Test	Result - Remark	Verdic
3.3.19.3	<b>sound exposure, E</b> 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 <sup>2</sup> s. $E = \int_{0}^{T} p(t)^{2} dt$	antiet antiet antiet antiet	N/A
3.3.19.4	sound exposure level, SEL logarithmic measure of sound exposure relative to a reference value, <i>E0</i> , typically the 1 kHz threshold of hearing in humans.	Whitek whitek whitek whi	N/A
	Note 1 to entry: <i>SEL</i> is measured as A-weighted levels in dB. $SEL = 10 \lg \left(\frac{E}{E_0}\right)_{dB}$	Set whilet whilet while	WALTER WALTER
in an	Note 2 to entry: See B.4 of EN 50332-3:2017 for additional information.	and sure sure sur	et whitek w
3.3.19.5	<ul> <li>digital signal level relative to full scale, dBFS</li> <li>levels reported in dBFS are always r.m.s. Full scale</li> <li>level, 0 dBFS, is the level of a dc-free 997-</li> <li>Hz sine wave whose undithered positive peak</li> <li>value is positive digital full scale, leaving the code</li> <li>corresponding to negative digital full scale unused</li> <li>Note 1 to entry: It is invalid to use dBFS for non-</li> </ul>	white white white	N/A
tet suntif	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. In particular, square wave signals may reach +3,01 dBFS.	LEE WALTER WALTER WALTER	
2	Modification to Clause 10		N/A
10.6	Safeguards against acoustic energy sources Replace 10.6 of IEC 62368-1 with the following:	the set set	N/A
10.6.1.1	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 <b>ordinary person</b> , that:	Not such equipment	N/A

10 Marti	: WTF22D12245013R1Y Page 44 of 76 EN IEC 62368-1	et set site and	UNLIE MAL
Clause	Requirement + Test	Result - Remark	Verdict
sur	We we all the set of the set	MUTER MALL ANNU	men me
	<ul> <li>audiovisual content / material; and</li> <li>uses a listening device, such as headphones or earphones that can be worn in or on or around the ears; and</li> <li>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.).</li> </ul>	and the second s	nutet anitet
	Subway, at an airport, etc.).	m. m. m.	the state
	EXAMPLES Portable CD players, MP3 audio players, mobile phones with MP3 type features, PDAs or similar equipment.	whitek whitek whitek	white white
	Personal music players shall comply with the requirements of either 10.6.2 or 10.6.3.	NUTER WRITE WRITE W	et whet w
	NOTE 1 Protection against acoustic energy sources from telecom applications is referenced to ITU-T P.360.	A LIFE MITER MITER	white 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.	INTER WALFER WALTER	nizet unizet
	<ul> <li>Listening devices sold separately shall comply with the requirements of 10.6.6.</li> <li>These requirements are valid for music or video mode only.</li> <li>The requirements do not apply to:         <ul> <li>professional equipment;</li> </ul> </li> </ul>	white with white	SUNTER SUNTER
	NOTE 3Professional equipment, NOTE 3Professional equipment is equipment sold through special sales channels. All products sold through normal electronics stores are considered not to be professional equipment.	NA WALTER WALTER W	stret an ret an
	<ul> <li>hearing aid equipment and other devices for assistive listening;</li> </ul>	e when when the	white white
	<ul> <li>the following type of analogue personal music players:</li> <li>long distance radio receiver (for example, a multiband radio receiver or world band radio receiver, an AM radio receiver), and</li> <li>cassette player/recorder;</li> </ul>	white white white	whitek whitek
	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.	and white white	et white white
	<ul> <li>a player while connected to an external amplifier that does not allow the user to walk around while in</li> </ul>	white white white	stret white

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Clause	Requirement + Test	Result - Remark	Verdict

an .	all the state of the	inter unit whe whe	an.
	use.	i s s st	det
	For equipment that is clearly designed or intended primarily for use by children, the limits of the relevant toy standards may apply.	NUTER WALTER WALTER WALTER	unt wh
et whitet	The relevant requirements are given in EN 71-1:2011, 4.20 and the related tests methods and measurement distances apply.	et mines united united unit	ex white
10.6.1.2	Non-ionizing radiation from radio frequencies in the range 0 to 300 GHz	tet stet with much	N/A
	<ul> <li>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).</li> <li>For intentional radiators, ICNIRP guidelines should be taken into account for Limiting Exposure to Time-Varying Electric, Magnetic, and Electromagnetic Fields (up to 300 GHz). For hand- held and body mounted devices, attention is drawn to EN 50360 and EN 50566.</li> </ul>	and an	ALTEX WALL
10.6.2	Classification of devices without the capacity to	estimate sound dose	N/A
10.6.2.1	<ul> <li>General</li> <li>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.</li> <li>For classifying the acoustic output <i>L</i>Aeq, <i>T</i>, measurements are based on the A-weighted equivalent sound pressure level over a 30 s period.</li> <li>For music where the average sound pressure (long term <i>L</i>Aeq, <i>T</i>) measured over the duration of the song is lower than the average produced by the programme simulation noise, measurements may be done over the duration of the song. In this case, <i>T</i> becomes the duration of the song.</li> </ul>	Not such equipment	N/A
	NOTE Classical music, acoustic music and broadcast typically has an average sound pressure (long term <i>L</i> Aeq, <i>T</i> ) 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	and the and th	SUNCTON SUNCTION

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white	EN IEC 62368-1	the intre- white white	me me
Clause	Requirement + Test	Result - Remark	Verdict
WILLEY WI	acknowledgement as long as the average sound level of the song is not above the basic limit of 85 dB.	NITER ANTER ANTER AN	Tet wiret
10.6.2.2	RS1 limits (to be superseded, see 10.6.3.2)	a state to	N/A
	RS1 is a class 1 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 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>T</i> acoustic output shall be ≤ 85 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 ≤ 27 mV (analogue interface) or -25 dBFS (digital interface) when playing the fixed "programme simulation noise" described in EN 50332-1.		SUNCEN SUNCES
10.6.2.3	<ul> <li>The RS1 limits will be updated for all devices as per 10.6.3.2.</li> <li>RS2 limits (to be superseded, see 10.6.3.3)</li> </ul>	At Multer white	N/A
et wouret	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, <i>T</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.		
10.6.2.4	RS3 limits RS3 is a class 3 acoustic energy source that exceeds RS2 limits.	A NUTER WITER WITER	N/A
10.6.3	Classification of devices (new)	i stat	N/A
10.6.3.1	General Previous limits (10.6.2) created abundant false negative and false positive PMP sound level	Not such equipment	N/A

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Clause	Requirement + Test	Result - Remark	Verdic
an 1	New York New Rights - a chief light with The	white white white w	E. 20
UNLIEK WA	warnings. New limits, compliant with The Commission Decision of 23 June 2009, are given below.	NUTER INVITER INVITER INNI	SEX WALLEX
10.6.3.2	RS1 limits (new)		N/A
	RS1 is a class 1 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 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>T</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 and some and	an 2 an
THE AL	simulation noise" described in EN 50332-1.	the state	set set
10.6.3.3	RS2 limits (new) RS2 is a class 2 acoustic energy source that does	With Mur Mur. M.	N/A
antiet would	<ul> <li>not exceed the following: <ul> <li>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 listening device is known by other means such as setting or automatic detection, the weekly sound exposure level, as described in EN 50332-3, shall be ≤ 80 dB when playing the fixed "programme simulation noise" described in EN 50332-1.</li> <li>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 level, integrated over one week, as described in EN50332-3, shall be ≤ 15 mV (analogue interface) or -30 dBFS (digital interface) when playing the fixed "programme simulation noise" described in EN 50332-1.</li> </ul> </li> </ul>		WALES WALES
10.6.4	Requirements for maximum sound exposure	the state of	N/A
10.6.4.1	Measurement methods       Not such equipment         All volume controls shall be turned to maximum during tests.       Not such equipment         Measurements shall be made in accordance with       Not such equipment		N/A
10.6.4.2	EN 50332-1 or EN 50332-2 as applicable. Protection of persons	NUT UNITE MATE	N/A
10.0.4.2	Except as given below, protection requirements for parts accessible to ordinary persons, instructed	at ret ret	

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N/A

	EN IEC 62368-1		
lause	Requirement + Test	Result - Remark	Verdic
we .	all all the set of the set	inter anti anti anti	-201-
	persons and skilled persons are given in 4.3.	in a st st	. set
	NOTE 1 Volume control is not considered a safeguard.	ALTER WALTER WALTE WALTE	White the
	Between RS2 and an <b>ordinary person</b> , the <b>basic</b> <b>safeguard</b> may be replaced by an <b>instructional</b> <b>safeguard</b> in accordance with Clause F.5, except	Tex white white white w	
	that the <b>instructional safeguard</b> shall be placed on the equipment, or on the packaging, or in the instruction manual.	white white white white	WIN
	Alternatively, the <b>instructional safeguard</b> may be given through the equipment display during use.	white white white where	NUTEX NUTEX
	The elements of the <b>instructional safeguard</b> shall be as follows:	the work white white a	Set .
	– element 1a: the symbol , IEC 60417-6044 (2011-01)	er which which where wh	
	<ul> <li>– element 2: "High sound pressure" or equivalent wording</li> <li>– element 3: "Hearing damage risk" or equivalent</li> </ul>	White white white white	What when
	wording – element 4: "Do not listen at high volume levels for long periods." or equivalent wording	and white white white	unex.
	An <b>equipment safeguard</b> shall prevent exposure of an <b>ordinary person</b> to an RS2 source without	and write write so	et .
	intentional physical action from the <b>ordinary</b> <b>person</b> and shall automatically return to an output level not exceeding what is specified for an RS1	white white white white	
	source when the power is switched off.	SUNITED SUNITE SUNITE SUNIT	white
	The equipment shall provide a means to actively inform the user of the increased sound level when the equipment is operated with an output	white white white	MIT L
	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	The wonter wonter wonter wo	
	repeated more than once every 20 h of cumulative listening time.	white white white white	What when
	NOTE 2 Examples of means include visual or audible signals. Action from the user is always needed.	white white white white	MITEK
	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.	A water water water water	ex wh
	A <b>skilled person</b> shall not be unintentionally exposed to RS3.	White while white white	-SUN-

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Requirements for dose-based systems

10.6.5

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Clause	Requirement + Test	Result - Remark	Verdic
when .	all and the state state	white white white a	he m
10.6.5.1	<b>General requirements</b> Personal music players shall give the warnings as provided below when tested according to EN 50332-3, using the limits from this clause.	Not such equipment	N/A
	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.	and	Whitek whitek
	The personal music player shall be supplied with 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.	whitek whitek whitek	Whitet white
10.6.5.2	Dose-based warning and requirements	white show	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 acknowledgement. In case the user does not acknowledge, the output level shall automatically decrease to compliance with class RS1.	white white white	MALE WALTE
	The warning shall at least clearly indicate that listening above 100 % <i>CSD</i> leads to the risk of hearing damage or loss.	NITER WAITER WAITER WAT	ret ret
10.6.5.3	Exposure-based requirements	in and white white	N/A
at 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.	whitek whitek whitek	NALTEX WALTER
	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.	Tek antifek antifek antifek	WINE WALTER
WEITER IN	Test of EL functionality is conducted according to EN 50332-3, using the limits from this clause. For	at the tot of	Tet milet

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20.	EN IEC 62368-1	in all when when	24 24
Clause	Requirement + Test	Result - Remark	Verdict
NATURE NA	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 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.	AND	
- Sur	NOTE In case the source is known not to be music (or test signal), the EL may be disabled.	which which when a	NI SI
10.6.6	Requirements for listening devices (headphones	, earphones, etc.)	N/A
10.6.6.1	<ul> <li>Corded listening devices with analogue input</li> <li>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 ≥ 75 mV.</li> <li>NOTE The values of 94 dB and 75 mV correspond with 85 dB and 27 mV or 100 dB and 150 mV.</li> </ul>	Not such equipment	N/A
10.6.6.2	<b>Corded listening devices with digital input</b> 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 level control, additional sound features like equalization, etc.) set to the combination of positions that maximize the measured acoustic output, 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.	ANTITE ANTITE ANTITE	N/A
10.6.6.3	Cordless listening devices	in which which	N/A
	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.	SUNTER SUNTER SUNTER	UNIT & SUMITE



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EN IE	C 62368-1
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Clause Requirement + Test Result - Remark Verdi	Clause	Requirement + Test	Result - Remark	Verdict
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Set		ements shall be ma 32-2 as applicable		ance with	an an		+ still
3	Modific	ation to the whole	e document				Р
STER W	Delete a list:	all the "country" no	tes in the refe	erence docume	ent according	to the following	P ST P
et .5	0.2.1	Note 1 and 3	2 1	Note 4 and 5	3.3.8.1	Note 2	TEX MIT
	3.3.8	.3 Note 1	4.1.15	Note	4.7.3	Note 1 and 2	a st
WALTE	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	WALTE
INLIER V	5.4.2 Table	.3.2.4 Note 2	5.4.2.5	Note 2	5.4.5.1	Note	VINLIE W
JEL WIN	5.4.1		5.4.10.2.2	Note	5.4.10.2.3	Note	NICE WAL
et whit	5.5.2	.1 Note	5.5.6	Note	5.6.4.2.1	Note 2 and 3 and 4	SEA WALTE
WALTER	JNN 5.6.8	Note 2	5.7.6	Note	5.7.7.1	Note 1 and Note 2	MALTER
NUTEX W	8.5.4	.2.3 Note	10.2.1 Table 39	Note 3 and 4 and 5	10.5.3	Note 2	WILTER WI
itte whi	10.6.	4 Note 3	F.3.3.6	Note 3	Y.4.1	Note	E E WALL
- III	Y.4.5	Note					et intret
4	Modific	ation to Clause 1	·	V .N .	w. w		P
1		following note:	at a	× 5° .	5°	when when	<u>ч</u> Р 3
LIEK DU	NOTE Z	1 The use of certa ctronic equipment ective 2011/65/EU.	is restricted w				NN TEX MIN
5		ation to 4.Z1					Р

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	EN IEC 62368-1		
Clause	Requirement + Test	Result - Remark	Verdict
she i	or you we at the state	white white white white	m
	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, to rely on dedicated overcurrent and short-circuit protection in the building installation, provided that the means of protection, e.g. fuses or circuit breakers, is fully specified in the installation instructions. If reliance is placed on protection in the building installation, the installation 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	Considered. Complied with item a) for internal fuse used and for parts as described in b) reliance on the protection in the building installation.	
with	the wall socket outlet.	NUT INT NAL WAY	- ante
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 <b>external</b> <b>circuit</b> 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	Verdic
Mrs	WI W Y THE SET	white white white white	m
	<ul> <li>Add the following after the first paragraph:</li> <li>For RS 1 compliance is checked by measurement under the following conditions:</li> <li>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 measurement is made.</li> <li>NOTE Z1 Soldered joints and paint lockings are examples of adequate locking.</li> <li>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.</li> <li>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.</li> <li>For RS1, the dose-rate shall not exceed 1 µSv/h taking account of the background level.</li> <li>NOTE Z2 These values appear in Directive 96/29/Euratom of 13 May 1996.</li> </ul>		N/A
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.	Approved mains plug used (see appended table 4.1.2)	N/A
10	Modification to Bibliography		N/A

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EN IEC 62368-1				
Clause	Requirement + Test	white white the st	Result - Remark	Verdic
Jun 1	Add the following pr	otes for the standards indicat	od: White your when when	P
	State of the state			the street
	IEC 60130-9	NOTE Harmonized as EN 6		- An-
	IEC 60269-2	NOTE Harmonized as HD 6		12
	IEC 60309-1	NOTE Harmonized as EN 6		and and
	IEC 60364	-	ed in HD 384/HD 60364 series.	24.
	IEC 60601-2-4	NOTE Harmonized as EN 6		1 3
	IEC 60664-5 IEC 61032:1997	NOTE Harmonized as EN 6		er an
	IEC 61508-1	NOTE Harmonized as EN 6 NOTE Harmonized as EN 6		1 1
	IEC 61558-2-1	NOTE Harmonized as EN 6		and the
	IEC 61558-2-4	NOTE Harmonized as EN 6		24-
	IEC 61558-2-6	NOTE Harmonized as EN 6		. A
	IEC 61643-1	NOTE Harmonized as EN 6		N. S. S.
	IEC 61643-21	NOTE Harmonized as EN 6		3. 1
	IEC 61643-311	NOTE Harmonized as EN 6	1643-311.	de .
	IEC 61643-321	NOTE Harmonized as EN 6	1643-321.	no m
	IEC 61643-331	NOTE Harmonized as EN 6	1643-331.	
	and the second			SET NI
-91-		and the second	Charlen and all	-24
11		FXFS		
11 ZB	ADDITION OF ANN		S (EN)	 P
ZB	ANNEX ZB, SPECIA	AL NATIONAL CONDITION	the the the	- No
ZB	ANNEX ZB, SPECIA Denmark, Finland,	AL NATIONAL CONDITION	Not directly connected to the	 P N/A
ZB	ANNEX ZB, SPECIA Denmark, Finland, To the end of the su	AL NATIONAL CONDITION	the the the	- <u></u>
ZB	ANNEX ZB, SPECIA Denmark, Finland, To the end of the su added:	AL NATIONAL CONDITION Norway and Sweden bclause the following is	Not directly connected to the	- <u></u>
ZB	ANNEX ZB, SPECIA Denmark, Finland, To the end of the su added: Class I pluggable e	AL NATIONAL CONDITION	Not directly connected to the	
ZB	ANNEX ZB, SPECIA Denmark, Finland, To the end of the su added: Class I pluggable e for connection to oth shall, if safety relies	AL NATIONAL CONDITIONS Norway and Sweden bclause the following is equipment type A intended her equipment or a network on connection to reliable	Not directly connected to the	- <u></u>
11 ZB 4.1.15	ANNEX ZB, SPECIA Denmark, Finland, To the end of the su added: Class I pluggable e for connection to oth shall, if safety relies earthing or if surges	AL NATIONAL CONDITIONS Norway and Sweden bclause the following is equipment type A intended her equipment or a network on connection to reliable suppressors are connected	Not directly connected to the	- <u></u>
ZB	ANNEX ZB, SPECIA Denmark, Finland, To the end of the su added: Class I pluggable of for connection to oth shall, if safety relies earthing or if surge s between the network	AL NATIONAL CONDITIONS Norway and Sweden belause the following is equipment type A intended her equipment or a network on connection to reliable suppressors are connected k terminals and accessible	Not directly connected to the mains	
ZB	ANNEX ZB, SPECIA Denmark, Finland, To the end of the su added: Class I pluggable of for connection to oth shall, if safety relies earthing or if surge s between the network parts, have a markin	AL NATIONAL CONDITIONS Norway and Sweden bclause the following is equipment type A intended her equipment or a network on connection to reliable suppressors are connected k terminals and accessible ng stating that the equipment	Not directly connected to the mains	
ZB	ANNEX ZB, SPECIA Denmark, Finland, To the end of the su added: Class I pluggable of for connection to oth shall, if safety relies earthing or if surge s between the network parts, have a markin shall be connected t	AL NATIONAL CONDITIONS Norway and Sweden belause the following is equipment type A intended her equipment or a network on connection to reliable suppressors are connected k terminals and accessible	Not directly connected to the mains	
ZB	ANNEX ZB, SPECIA Denmark, Finland, To the end of the su added: Class I pluggable of for connection to oth shall, if safety relies earthing or if surge s between the network parts, have a markin	AL NATIONAL CONDITIONS Norway and Sweden bclause the following is equipment type A intended her equipment or a network on connection to reliable suppressors are connected k terminals and accessible ng stating that the equipment	Not directly connected to the mains	
ZB	ANNEX ZB, SPECIA Denmark, Finland, To the end of the su added: Class I pluggable e for connection to oth shall, if safety relies earthing or if surges between the netword parts, have a markin shall be connected to outlet.	AL NATIONAL CONDITIONS Norway and Sweden bclause the following is equipment type A intended her equipment or a network on connection to reliable suppressors are connected k terminals and accessible ng stating that the equipment	Not directly connected to the mains	
ZB	ANNEX ZB, SPECIA Denmark, Finland, To the end of the su added: Class I pluggable e for connection to oth shall, if safety relies earthing or if surge s between the networl parts, have a markin shall be connected t outlet.	AL NATIONAL CONDITIONS Norway and Sweden bclause the following is equipment type A intended her equipment or a network on connection to reliable suppressors are connected k terminals and accessible ng stating that the equipment o an earthed mains socket-	Not directly connected to the mains	
ZB	ANNEX ZB, SPECIA Denmark, Finland, To the end of the su added: Class I pluggable of for connection to oth shall, if safety relies earthing or if surge s between the network parts, have a markin shall be connected to outlet. The marking text in shall be as follows:	AL NATIONAL CONDITIONS Norway and Sweden belause the following is equipment type A intended her equipment or a network on connection to reliable suppressors are connected k terminals and accessible ng stating that the equipment o an earthed mains socket-	Not directly connected to the mains	
ZB	ANNEX ZB, SPECIA Denmark, Finland, To the end of the su added: Class I pluggable of for connection to oth shall, if safety relies earthing or if surge s between the network parts, have a markin shall be connected to outlet. The marking text in shall be as follows: In Denmark: "Appar	AL NATIONAL CONDITIONS Norway and Sweden belause the following is equipment type A intended her equipment or a network on connection to reliable suppressors are connected k terminals and accessible ng stating that the equipment o an earthed mains socket- the applicable countries	Not directly connected to the mains	
ZB	ANNEX ZB, SPECIA Denmark, Finland, To the end of the su added: Class I pluggable of for connection to oth shall, if safety relies earthing or if surge s between the network parts, have a markin shall be connected to outlet. The marking text in shall be as follows: In Denmark: "Appar en stikkontakt med j	AL NATIONAL CONDITIONS Norway and Sweden belause the following is equipment type A intended her equipment or a network on connection to reliable suppressors are connected k terminals and accessible ng stating that the equipment o an earthed mains socket-	Not directly connected to the mains	
ZB	ANNEX ZB, SPECIA Denmark, Finland, To the end of the su added: Class I pluggable of for connection to oth shall, if safety relies earthing or if surge s between the network parts, have a markin shall be connected to outlet. The marking text in shall be as follows: In Denmark: "Appar en stikkontakt med j stikproppens jord."	AL NATIONAL CONDITIONS Norway and Sweden belause the following is equipment type A intended her equipment or a network on connection to reliable suppressors are connected k terminals and accessible ng stating that the equipment o an earthed mains socket- the applicable countries ratets stikprop skal tilsluttes ord som giver forbindelse til	Not directly connected to the mains	
ZB	ANNEX ZB, SPECIA Denmark, Finland, To the end of the su added: Class I pluggable of for connection to oth shall, if safety relies earthing or if surge s between the network parts, have a markin shall be connected to outlet. The marking text in shall be as follows: In Denmark: "Appar en stikkontakt med j stikproppens jord." In Finland: "Laite or varustettuun pistora	AL NATIONAL CONDITIONS Norway and Sweden belause the following is equipment type A intended her equipment or a network on connection to reliable suppressors are connected k terminals and accessible ng stating that the equipment o an earthed mains socket- the applicable countries ratets stikprop skal tilsluttes ord som giver forbindelse til h liitettävä suojakoskettimilla siaan"	Not directly connected to the mains	
ZB	ANNEX ZB, SPECIA Denmark, Finland, To the end of the su added: Class I pluggable of for connection to oth shall, if safety relies earthing or if surge s between the network parts, have a markin shall be connected to outlet. The marking text in shall be as follows: In Denmark: "Appar en stikkontakt med j stikproppens jord." In Finland: "Laite or varustettuun pistora: In Norway: "Appara	AL NATIONAL CONDITIONS Norway and Sweden belause the following is equipment type A intended her equipment or a network on connection to reliable suppressors are connected k terminals and accessible ng stating that the equipment o an earthed mains socket- the applicable countries ratets stikprop skal tilsluttes ord som giver forbindelse til n liitettävä suojakoskettimilla	Not directly connected to the mains	
ZB	ANNEX ZB, SPECIA Denmark, Finland, To the end of the su added: Class I pluggable of for connection to oth shall, if safety relies earthing or if surge s between the network parts, have a markin shall be connected to outlet. The marking text in shall be as follows: In Denmark: "Appar en stikkontakt med j stikproppens jord." In Finland: "Laite or varustettuun pistora	AL NATIONAL CONDITIONS Norway and Sweden belause the following is equipment type A intended her equipment or a network on connection to reliable suppressors are connected k terminals and accessible ng stating that the equipment o an earthed mains socket- the applicable countries ratets stikprop skal tilsluttes ord som giver forbindelse til h liitettävä suojakoskettimilla siaan"	Not directly connected to the mains	
ZB	ANNEX ZB, SPECIA Denmark, Finland, To the end of the su added: Class I pluggable of for connection to oth shall, if safety relies earthing or if surge s between the network parts, have a markin shall be connected to outlet. The marking text in a shall be as follows: In Denmark: "Appar en stikkontakt med j stikproppens jord." In Finland: "Laite or varustettuun pistoraa In Norway: "Appara stikkontakt"	AL NATIONAL CONDITIONS Norway and Sweden belause the following is equipment type A intended her equipment or a network on connection to reliable suppressors are connected k terminals and accessible ng stating that the equipment o an earthed mains socket- the applicable countries ratets stikprop skal tilsluttes ord som giver forbindelse til h liitettävä suojakoskettimilla siaan"	Not directly connected to the mains	

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Clause	Requirement + Test	Result - Remark	Verdict
aller	The the second	at the ster with out which which	- m-
473	United Kingdom	in the star star	Ν/Δ

4.7.3	United Kingdom	See a second	N/A
white whi	To the end of the subclause the following is added:	NUTER INLIGE UNLIGE WALTER	man an
white white	The torque test is performed using a socket-outlet complying with BS 1363, and the plug part shall be assessed to the relevant clauses of BS 1363. Also see Annex G.4.2 of this annex	Set while while while w	n lifet whit
5.2.2.2	Denmark	No high touch current	N/A
yunifet wi	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.	measured.	S SURVER S
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: For separation of the telecommunication network from earth the following is applicable:	at white white white w	STER WALT
WALTEX WALT	<ul> <li>If this insulation is solid, including insulation forming part of a component, it shall at least consist of either</li> <li>two layers of thin sheet material, each of which shall pass the electric strength test below, or</li> </ul>	with white white white	WALTER W
itek smirek	• one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below.	watter watter watter	r of white
and the and	If this insulation forms part of a semiconductor component (e.g. an optocoupler), there is no distance through insulation requirement for the insulation consisting of an insulating compound completely filling the casing, so that clearances and creepage distances do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition	whitek whitek whitek whitek	A SUPLITY SUP
S MALTER MA	• 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),	whitek whitek whitek white	A MATEK
and all	and	it it ret ret	Tet of
Tet watter	• is subject to routine testing for electric strength during manufacturing, using a test voltage of 1,5 kV.	at while while while a	stat sur
P writer w	It is permitted to bridge this insulation with a capacitor complying with EN 60384-14:2005, subclass Y2.	whilet whilet whilet while	e white
IN THE WAY	A capacitor classified Y3 according to EN 60384-	set set site aller	and and

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Clause	Requirement + Test	Result - Remark	Verdic
ano .	and the set of the	white mark white white	-an-
NULLIEK NI	14:2005, may bridge this insulation under the following conditions:	The suret much white	Whitek.
	<ul> <li>the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 60384-14, which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in 5.4.11;</li> </ul>	Tet whitet whitet whitet	NO <sup>LTEX</sup> N
	<ul> <li>the additional testing shall be performed on all the test specimens as described in EN 60384- 14;</li> </ul>	whitek whitek whitek white	et wintret
	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.	LIFEX WALLEY WALLEY WALLEY	SALTE S
5.5.2.1	Norway After the 3rd paragraph the following is added:	X-capacitors, Y-capacitors rated min. 250V.	N/A
WALL	Due to the IT power system used, capacitors are required to be rated for the applicable line-tOLine voltage (230 V).	watter watter watter wat	t street
5.5.6	Finland, Norway and Sweden	No such resistors.	N/A
et antif	To the end of the subclause the following is added: Resistors used as <b>basic safeguard</b> or bridging <b>basic insulation</b> in <b>class I pluggable equipment</b> <b>type A</b> shall comply with G.10.1 and the test of G.10.2.	And a south the souther and	Maret W
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>	antifet antifet antifet antifet	wintrex wintrex
et whitet	In Denmark an existing 13 A socket outlet can be protected by a 20 A fuse.	with aller whiter an	The Whit
5.6.4.2.1	Ireland and United KingdomAfter the indent for pluggable equipment type A, the following is added: 	Approved mains plug used (see appended table 4.1.2)	N/A
5.6.4.2.1	France 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.	WALTER WALTER WALTER WAL	N/A



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EN IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdic
Mrs	with the state of the state	white white white	mer mer
5.6.5.1	To the second paragraph the following is added: The range of conductor sizes of flexible cords to be accepted by terminals for equipment with a rated current over 10 A and up to and including 13 A is: 1,25 mm <sup>2</sup> to 1,5 mm <sup>2</sup> in cross-sectional area.	NUTER WITTER WAITER W	N/A
5.6.8	Norway To the end of the subclause the following is added: Equipment connected with an earthed mains plug is classified as <b>class I equipment</b> . See the Norway marking requirement in 4.1.15. The symbol IEC 60417-6092, as specified in F.3.6.2, is accepted.	Whitek whitek whitek	N/A
5.7.6	Denmark	a de alt	N/A
	To the end of the subclause the following is added: The installation instruction shall be affixed to the equipment if the <b>protective conductor current</b>	et anite anite anite	y yn set yn
5.7.6.2	exceeds the limits of 3,5 mA a.c. or 10 mA d.c. Denmark	L A A	N/A
5.7.0.2	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.	MALTER WALTER WALTER W	
5.7.7.1	Norway and Sweden	Not such system.	N/А
	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.	white white white	white white
	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.	Et water water water	et win stet win
	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:	WAITER WAITER WAITER	MALT MALT
	"Apparatus connected to the protective earthing of the building installation through the mains connection or through other apparatus with a connection to protective earthing – and to a television distribution system using coaxial	Tet white white whi	tet whitek w
	cable, may in some circumstances create a fire hazard. Connection to a television distribution system therefore has to be provided through a device providing electrical isolation below a certain frequency range (galvanic isolator, see EN 60728- 11)"	while while while	while white

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	EN IEC 62368-1			
Clause			Verdic	
un 1	and a set of the set	NUTER INCIENT WITTE WAS	an.	
whitek white	NOTE In Norway, due to regulation for CATV- installations, and in Sweden, a galvanic isolator shall provide electrical insulation below 5 MHz. The insulation shall withstand a dielectric strength of 1,5 kV r.m.s., 50 Hz or 60 Hz, for 1 min.	North Marinet Marinet Marinet	UNITEK N	
	Translation to Norwegian (the Swedish text will also be accepted in Norway):	watter watter watter wat	Sex whit	
	"Apparater som er koplet til beskyttelsesjord via nettplugg og/eller via annet jordtilkoplet utstyr – og er tilkoplet et koaksialbasert kabel-TV nett, kan forårsake brannfare. For å unngå dette skal det ved tilkopling av apparater til kabel-TV nett installeres en galvanisk isolator mellom apparatet og kabel-TV nettet."	and the and the and and and the	SALIS SALIS	
	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."	where white white white	and a set	
8.5.4.2.3	United Kingdom	No external circuits.	N/A	
	Add the following after the 2 <sup>nd</sup> dash bullet in 3 <sup>rd</sup> 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.	antifet antifet antifet anti	r ex white	
B.3.1 and	Ireland and United Kingdom	Not direct plug-in equipment	N/A	
	The following is applicable: To protect against excessive currents and short- circuits in the primary circuit of <b>direct plug-in</b> <b>equipment</b> , tests according to Annexes B.3.1 and B.4 shall be conducted using an external miniature circuit breaker complying with EN 60898-1, Type B, rated 32A. If the equipment does not pass these tests, suitable protective devices shall be included as an integral part of the <b>direct plug-in</b> <b>equipment</b> , until the requirements of Annexes B.3.1 and B.4 are met			
G.4.2	Denmark	Approved mains plug used	N/A	
	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.	(see appended table 4.1.2)	E WALTE	
	CLASS I EQUIPMENT provided with socket-outlets	at at all all	and the	

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EN IEC 62368-1				
Clause	Requirement + Test	Result - Remark	Verdict	
whitek w	with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with	ALTER WALTER WALTER	whitek	
	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.	Tet antifet antifet antifet antifet	n Changer	
	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.	et stet stret whitet	S ALTER J	
	Other current rating socket outlets shall be in compliance with Standard Sheet DKA 1-3a or DKA 1-1c.	white white white white	et white	
	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	antiet water water water	NUTEX N	
	<i>Justification:</i> Heavy Current Regulations, Section 6c	a the state out the	Sex while	
G.4.2	United Kingdom To the end of the subclause the following is added:	Not direct plug-in equipment	N/A	
uniter wa Tex wait	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.	The wanter water water	NALTER WA	

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EN IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
G.7.1	United Kingdom         To the first paragraph the following is added:         Equipment which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to BS 1363 by means of that flexible cable or cord shall be fitted with a 'standard plug' in accordance with the Plugs and Sockets etc. (Safety) Regulations 1994, Statutory Instrument 1994 No. 1768, unless exempted by those regulations.         NOTE "Standard plug" is defined in SI 1768:1994 and essentially means an approved plug	Approved mains plug used (see appended table 4.1.2)	N/A
G.7.1	conforming to BS 1363 or an approved conversion plug. Ireland	Should be evaluated during	N/A
whitek	To the first paragraph the following is added: Apparatus which is fitted with a flexible cable or cord shall be provided with a plug in accordance with Statutory Instrument 525: 1997, "13 A Plugs and Conversion Adapters for Domestic Use Regulations: 1997. S.I. 525 provides for the recognition of a standard of another Member State which is equivalent to the relevant Irish Standard	national approval however plug according to BS 1363-1 as for UK may be used.	t white whitet
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.	Approved mains plug used (see appended table 4.1.2)	N/A
ZC	ANNEX ZC, NATIONAL DEVIATIONS (EN)	THE STATE NUMBER OF THE	N/A
10.5.2	GermanyThe following requirement applies:For the operation of any cathode ray tube intendedfor the display of visual images operating at anacceleration voltage exceeding 40 kV, authorizationis required, or application of type approval(Bauartzulassung) and marking.Justification:German ministerial decree against ionizingradiation (Röntgenverordnung), in force since2002-07-01, implementing the European Directive96/29/EURATOM.	No CRT within the equipment.	N/A
whitek	NOTE Contact address: Physikalisch-Technische Bundesanstalt, Bundesallee 100, D-38116 Braunschweig, Tel.: Int+49-531-592-6320, Internet: http://www.ptb.de	WALL WALL WALLEY WALLEY	WALTER



Verdict

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Clause Requirement + Test

**Result - Remark** 

T (0. 3)		
Type of flexible cord	Code de	esignations
	IEC	CENELE
PVC insulated cords		
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	H03RT-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		•
Rubber insulated and sheathed cord	60245 IEC 86	H03RR-H
Rubber insulated, crosslinked PVC sheathed core	d 60245 IEC 87	нозрv4-н
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		H03Z1Z1-F

H05Z1Z1-F H05Z1Z1H2-F

H03Z1Z1H2-F

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sheathed flexible cords

sheathed flexible cords

Ordinary halogen-free thermoplastic insulated and



Verdict

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Clause	Requirement + Test	Result - Remark
Clause		Nesul - Nemaik

5.2	TABLE: Classification of electrical energy sources									
Supply	Location (e.g.	Test conditions		Para	meters		ES			
Voltage	circuit designation)		U (V)	I (mA)	Type <sup>1)</sup>	Additional Info <sup>2)</sup>	Class			
5Vdc	5Vdc The EUT is	Normal	<60Vdc		SS	DC S	1			
designed to be supplied by Type - C port		Abnormal	unite uni	the second	m	an - m	ES1 (decla			
	Single fault – SC/OC	LTEX MALTE	t	NUTER N	LIFE WALTE	e)				
4.20Vdc	The EUT is	Normal	<60Vdc	4	SS	DC	150			
supplie Internal	designed to be supplied by	Abnormal		m - m			ES1 (decla			
	Internal Li-ion Single fault – battery cells SC/OC	WALTER W	stret-	WILLE	whit wh	e)				

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.

3) Test Conditions:

Normal -Full load and no load.

Abnormal - Overload output

SC= short circuit; OC= open circuit

5.4.1.8	TABLE: Working voltage measurement							
Location	-	RMS voltage (V)	Peak voltage (V)	Frequency (Hz)	Comments			
ne m	-m m		584- 58K	MUTE MUT	marth water way			
Set St	A THE WALTER	Mar June	24 - 24 - 24 - 24 - 24 - 24 - 24 - 24 -		at set set a			
- 20-		at - at .	LIE JULE	Unit Auro	me me - m m			
Supplemer	ntary information:							

5.4.1.10.2 TABLE: Vicat softening temperature of thermoplastics								
Method		: ISO 306 / B50	white a -					
Object/ Part No./Material	Manufacturer/trademark	Thickness (mm)	T softening (°C)					
- Sur we st	at whet white white	mit whit whit	an an an					
Supplementary information:								
	at all alle million	the me and a	h de se					

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Clause	Requirement + Test	Result - Remark	Verdict

5.4.1.10.3 TABLE: Ball pressure test of thermoplastics								
Allowed impression diam	eter (mm)	:	≤ 2 m	Multi will a	ne .			
Object/Part No./Material	Manufacturer/trademark	Thickness	(mm)	mm) ·		ression ter (mm)		
et allet - allet wal	white where where is		÷	et 17 5	le L	at and		
1 - A A	The state state of	in min	m	an- an	197 - 1 1			

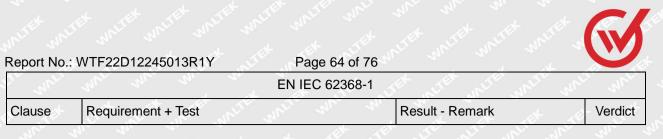
Supplementary information:

Other materials of transformer are no need to conduct this test. See appended table 4.1.2, and no other parts are necessary to be tested.

5.4.2, 5.4.3 TABLE: Minimum Clearances/Creepage distance							NITER IN	N/A	
	) and creepage at/of/between:	U <sub>p</sub> (V)	U <sub>rms</sub> (V)	Freq <sup>1)</sup> (kHz)	Required cl (mm)	cl (mm)	E.S. <sup>2)</sup> (V)	Required cr (mm)	cr (mm)
4	at at let	15		NT CT	mr i	n <u>-</u> n	n n		- 74-
Main Main	-me me	20-1	<u> </u>	7.05		5 <sup>65</sup> - 55		. Martin	man .
at a			S	- °	1		ł		A
Supplementa	ry information:								<u>~</u>
			21 14					15 1	* .

5.4.4.2	TABLE: Minimum distance through insulation								
Distance through insulation (DTI) at/of		Peak voltage (V)	Insulation*	Required DTI (mm)	Measured DTI (mm)				
m n	1 - A A	set wet muse	untite martin wh	m. m.					
JUTER MALT	The way	m m	at the de	- Jak Mart	NALTE MAL				
* #		Tet with white	m m		15- J				
Suppleme	ntary information:								
. A	the state and	E MAIL WAL WA	do. a.	1 A	the set				

5.4.4.9	5.4.4.9 TABLE: Solid insulation at frequencies >30 kHz							
Insulation r	naterial	E <sub>P</sub>	Frequency (kHz)	K <sub>R</sub>	Thickness d (mm)	Insulation	V <sub>PW</sub> (Vpk)	
- m	The In		5 <sup>05</sup>	JEF NUE	- mile m	- win .	$n_{r}$ $n_{h}$	
Supplemen	tary information:							
The bobbin	of transformer ma	aterial is phen	olic	er nutre	inch where	in n	Cr.	



5.4.9	TABLE: Electric strength tests	all all an	t it	N-
Test voltag	e applied between:	Voltage shape (Surge, Impulse, AC, DC, etc.)	Test voltage (V)	Breakdown Yes / No
Functional	Tet the sufer outer of	the me me a	a se st	1. 1.
- m	ma ma man	e	Stranger Main	mr -m
Basic/supp	plementary:	Mr. Mr. A.	t at at	Jet Jet
	a stat stat stat	- NITER WALTE WALT	- me me m	<u> </u>
Double/ rei	inforced:	a at at	all all all	LEK WAITER WA
	to the the state with a	With me me	m di su	
LITE WALL	me m m	A JEt Jet	LIFE METER WALTE	whit - whe
at the	THE ALTER MUTCH WALTER WAT	n - m n	1 J. A.	at - at
Routine Te	ests:	+ with mitter whi	the work white	me m
- set	NUTER WALTE WALTE WALT WAL		- 1 1	Jet Jet .
Suppleme	ntary information:	-		
NUTER WAL	the set of all		ALTER MAL	er white whi

5.5.2.2	TABLE: Stored discharge on capacitors							
Location		Supply voltage (V)	Operating and fault condition <sup>1)</sup>	Switch position	Measured voltage (Vpk)	ES Class		
NUTER IN	SET WAL	when - when a		de de		* INITET I		
<u>, , , , , , , , , , , , , , , , , , , </u>	t it	at - at	TEN UNIT UNIT	our - our	20 20	, i		
ine min	WALL	m. The m	15- 15-	Set - Set	NUTER - MITE	man m		
Supplemer	ntary inform	nation:				1		
X-capacitor	s installed	for testing are:	the start of	the star of	it white w	n' m		

[] bleeding resistor rating:

[] ICX:

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

TABLE: Resistance of protective conductors and terminations					
Test current (A)	Duration (min)	Voltage drop (V)	Resistance (Ω)		
a da da a	s the state	_d+d+	JIE - JIE		
t at mar whi	water water	me me			
	Test current	Test current (A)     Duration (min)	Test current (A)     Duration (min)     Voltage drop (V)		

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Ser winter	when when when we	EN IEC 62368-1	TEX ALTEX MUTER WALT	more more
Clause	Requirement + Test	where we we	Result - Remark	Verdict

5.7.4	TABLE	: Unearthed accessible parts					
Location		Operating and	Supply	F	Parameters		ES
		fault conditions	Voltage (V)	Voltage (V <sub>rms</sub> or V <sub>pk</sub> )	Current (A <sub>rms</sub> or A <sub>pk</sub> )	Freq. (Hz)	class
WALTER WALTER		LIE MAIL WAL	mr. m		L 15 A	<u>_</u>	S. Start
		1 7 1	THE ME	and white	mer mer	-10	241
		white white		d d	Jet- Jet	and the second	15 <sup>16</sup> -
		- <u>1</u> 4 <u>5</u> 4-	JIEF - WITT	mer mer	m -m		

SC= short circuit; OC= open circuit

5.7.5	TABLE: Earthed accessible conductive part				
Supply vo	tage (V):	- et alet alet	NUTE WALTE W	ner when	_
Phase(s)		[] Single Phase; [] Three F	Phase: [] Delta	[] Wye	
Power Dis	tribution System:	[]TN []TT []I	T 3 Sales	the se	
Location		Fault Condition No in IEC 60990 clause 6.2.2	Touch current (mA)	Comme	ent
- MUTER	white white white white	s the state	Set - Set	NUTER MITE	MALTE
de la	the the set with	water water water	1 - Zu .	14 4	đ
Suppleme	ntary Information:				

5.8 TABLE: Backfeed safeguard in battery backed up supplies						N/A	
Location		Supply voltage (V)	Operating and fault condition	Time (s)	Open-circuit voltage (V)	Touch current (A)	ES Class
-m m	24		at 3th st	NITER NO	TE MILTE	un -m	- m
Supplement	ary inforn	nation:			·		

6.2.2	TAB	TABLE: Power source circuit classifications					
Location		Operating and fault condition	Voltage (V)	Current (A)	Max. Power <sup>1)</sup> (W)	Time (S)	PS class

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Battery cell	Output pin + to -	2.76	8.0	22.08	5S	PS2
Main board	Output pin + to - Signal fault (U3 pin 3-4 SC)	0*	0*	0*	35	PS1
Main board	Output pin + to - Signal fault (U2 pin 1-6 SC)	0*	0*	0*	3S	PS1
Main board	Output pin + to - Signal fault (U4 pin 1-2 SC)	0*	0*	0*	3S	PS1
Main board	Output pin + to - Signal fault (NTC1 SC)	0*	0*	0*	3S	PS1

Supplementary information:

Abbreviation: SC= short circuit; OC= open circuit

1) Measured after 3 s for PS1 and measured after 5 s for PS2 and PS3.

\* Unit shutdown immediately, recoverable, no hazard.

6.2.3.1 TABLE: Determ	nination of Arcing PIS	et stet stet	NUTER MALTER M	N/A
Location	Open circuit voltage after 3 s (Vpk)	Measured r.m.s current (A)	Calculated value	Arcing PIS? Yes / No
at at T	See 12 and			de de
Supplementary information:				
	a martine the	$h_{i} = 2h_{i} = 2$ .	· •	the start

6.2.3.2	TABLE: Deter	rmination of resistive PIS		_∕r _ P
Location		Operating and fault condition	Dissipate power (W)	Arcing PIS? Yes / No
All primary circuits/co		o ret miret would would would an	The white white white	Yes (declaration)

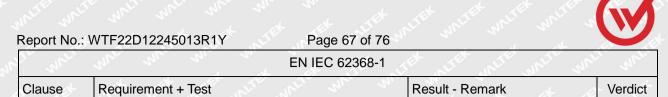
All primary and secondary circuit are considered as resistive PIS

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 availabel power exceeding 15 W measured 30 s after introduction of the fault.

All conductors and devices are considered as PIS.



8.5.5	TABLE: Hig	h pressure lamp			At	N/A
Lamp mar	nufacturer	Lamp type	Explosion method	Longest axis of glass particle (mm)	bey	icle founc /ond 1 m es / No
	+ 5 <sup>64</sup> 5 <sup>6</sup>	A REFER WALTE WAL	the man	E de		s- 1
Suppleme	ntary information	n:				

			iture meas	sureme	ents	for wirele	ss power t	transmitter	s-	N/A
Supply voltage	e (V) .			:	5٧	NILLE STREET	where w	in me	- me	_
Max. transmit	powe	r of transm	itter (W)	:	5V	V A	At 5	Set STER	MUTER	
		w/o rece direct d	iver and contact			eiver and contact		ver and at of 2 mm		eiver and at e of 5 mm
Foreign obje	ects	Object (°C)	Ambient (°C)	Obje (°C		Ambient (°C)	Object (°C)	Ambient (°C)	Object (°C)	Ambient (°C)
nt at				 5	2010	<u> </u>		<u>n. m</u>	1	J.
the sures	Ne.	- 9			A			- Antik	- white	me - m
t st		- '	-	<u>in 1</u>	× 1			N <del>-</del>		.d+5
Supplementar	y infor	mation:								

5.4.1.4, TABLE: Tempo 9.3, B.1.5, B.2.6	erature measurement	S white white w	NITER WAITER WAITER	UNIT P UN
Supply voltage (V)	5	4.2	No. Maine - Maine w	
Ambient temperature during test $T_{amb}$ (°C)	See below	See below	WALLEX WALLEY WALL	
Maximum measured temperature <i>T</i> of part/at:		<i>T</i> (°C)		Allowed T <sub>max</sub> (°C)
PCB near U1	45.5	57.9	at at at	130
Battery body	39.1	40.4	- m - m s	Ref.
Battery wire	39.3	40.8	at the - atter and	80
Internal enclosure near battery	36.9	39.1	at the set	70
Ambient(°C)	35.0	35.0	ma me	

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Clause Requirement + Test	Result - Remark	Verdict
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Accessible parts	LIER WALTE	NILLE	m m			t th	. et
Switch	26.	1 1	2	6.4	White v	menter and	48
External enclosure near battery	26.	4	2	.6.4	NN JEK MA	LIEL WALTER W	48
Ambient(°C)	25.	0 00	2	25.0	* 4	\$ - L 5	et
Temperature T of winding:	t <sub>1</sub> (°C)	R <sub>1</sub> (Ω)	t <sub>2</sub> (°C)	R <sub>2</sub> (Ω)	T (°C)	Allowed T <sub>max</sub> (°C)	Insulatio n class
m n t	dd	Tert	NUT <u>ER</u> IN	Se - me	June .	mm.	

Supplementary information:

\* 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 35°C.

Note 2: The temperatures were measured under the worse case normal mode defined in clause B.2.1. Condition 1:Only charge with internal empty battery.

Condition 2:Only discharge with internal fully battery.

U (V)	Hz	I (A)	I rated (A)	P (W)	P rated (W)	Fuse No	I fuse (A)	Condition/status
Conditio	n 1: Or	nly charge	with interna	al empty ba		-m	-141	
5 Vdc <sup>1)</sup>	- Julie	1.85	2	9.25	et	WN TEK	NULLE V	Battery charge current: 1.82A
Conditio	n 2: Or	nly dischai	rge with inte	ernal fully b	attery	Set.	Ult IN	are white white white y
4.2 Vdc <sup>2)</sup>	Set S	3.9	LIER WALT	16.38		500 - 500 500 - 500	et 15	Battery discharge current: 3.9A, USB output: 5Vdc, 2.1A

B.3, B.4	TABLE: Abnorn	nal operating	and fau	It condition	on te	sts		Р
Ambient tem	perature T <sub>amb</sub> (°C	\$)		óróð	: <u>_</u>	See be	low	_
Power sourc	e for EUT: Manuf	acturer, mode	el/type, ou	utputrating	:	-	the states	
Component No.	Condition	Supply voltage (V)	Test time	Fuse no.		Fuse rent (A)	Observation	
Condition 1:	Only charge with	internal empty	y battery	NUTER IN	500	MALTA	mer mer me	Zu.
U1 pin 1-7	SC	5Vdc <sup>1)</sup>	7hrs		4		Unit shut down immed	iately. No



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in men		EN IEC 62368-1			du.
Clause	Requirement + Test	murra mar m	Result - Remark	at a	Verdict

WALTER WALTER	WALTER WALTER	white wh	NET OF	A WULL	ymuset.	damage, no hazard. Recoverable. Battery cells charge current(A): 1.82→0.001
U2 pin 1-6	SC	5Vdc <sup>1)</sup>	7hrs	WALTER W	an <sup>al -</sup> an arth <sub>a</sub> nal at at	Unit shut down immediately. No damage, no hazard. Recoverable. Battery cells charge current(A): 1.82→0.001
Q3 pin 3-2	SC	5Vdc <sup>1)</sup>	7hrs	at white	whitek a	Unit shut down immediately. No damage, no hazard. Recoverable. Battery cells charge current(A): 1.82→0.001
R55	SC	5Vdc <sup>2)</sup>	7hrs	NATER NA	an _ water	Unit normally working. No damage, no hazard. Recoverable. Battery cells discharge current(A): 1.82
CZ1	SC	5Vdc <sup>2)</sup>	7hrs	auret .	ALTER MARK	Unit normally working. No damage, no hazard. Recoverable. Battery cells discharge current(A): 1.82
white white	SC	5Vdc <sup>2)</sup>	7hrs	eret war	Norther	Unit normally working. No damage, no hazard. Recoverable. Battery cells discharge current(A): 1.82
R3	SC	5Vdc <sup>2)</sup>	7hrs	whitek	united whit	Unit normally working. No damage, no hazard. Recoverable. Battery cells discharge current(A): 1.82
R6	SC	5Vdc <sup>1)</sup>	7hrs	ret-onic	ontrek w	Unit normally working. No damage, no hazard. Recoverable. Battery cells charge current(A): 1.82
U4 pin 1-2	SC	5Vdc <sup>1)</sup>	7hrs	WALTER WA	nin <sup>en</sup> wnine Fektywnine	Unit normally working. No damage, no hazard. Recoverable. Battery cells charge current(A): 1.82



IN

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me	an.	24		EN IEC	C 62368-1	STER ST	ALL WALLS	mer m
Clause	Require	ement +	Test	MALIN	m n	Result	- Remark	Verdic
NTC1	EX UNITED	SC	5Vdc <sup>1)</sup>	7hrs	wh	ALTER NO	Unit shut down i Repeat 3 times hazard. Recove Battery cells cha 1.82→0.001	No damage, r rable.
Condition 2	2: Only dis	charge	with internal full	y battery	20	A	et set set	JIET ON
U3 pin 3-		SC	4.20 Vdc <sup>2)</sup>	7hrs	un <sup>ite</sup> w Set <sub>w</sub> ni st set	et white	Unit shut down i damage, no haz Recoverable. Battery cells d current(A): 3.9–	zard. ischarge
C13	VINI EX	SC	4.20Vdc <sup>2)</sup>	7hrs	WALLER .	wn <del>e.</del> meret wn ret eer	Unit shut down damage, no haz Recoverable. Battery cells d current(A): 3.9–	zard. ischarge
R9	sere <sub>sun</sub> i	SC	4.20Vdc <sup>2)</sup>	7hrs	nt <u>-</u> wi set whit stat	ver K nontrek	Unit normally we damage, no haz Recoverable. Battery cells d current(A): 3.9	zard.
R92	win in the sur	SC	4.20Vdc <sup>2)</sup>	7hrs	antifet v	Reference	Unit normally we damage, no haz Recoverable. Battery cells d current(A): 3.9	zard.
D15	at sold	SC	4.20Vdc <sup>2)</sup>	7hrs	ex	WALTER WA	Unit normally we damage, no haz Recoverable. Battery cells d current(A): 3.9	zard.
QD7 pin D	0-S	SC	4.20Vdc <sup>2)</sup>	7hrs	NITET ON	et would	Unit shut down i damage, no haz Recoverable. Battery cells d current(A): 3.9–	zard. ischarge
R51	Whitek Wittek	SC	4.20Vdc <sup>2)</sup>	7hrs	VINLIEK	MALIER WAY	Unit normally we damage, no haz Recoverable. Battery cells d current(A): 3.9	-
Q2 pin 1-	·2	SC	4.20Vdc <sup>2)</sup>	7hrs	stre <u>t</u> wn	re <sub>vor</sub> ure t ret	Unit shut down i damage, no haz Recoverable.	• .

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at water water water with	EN IEC 62368-1	

	Clause	Requirement + Test	Result - Remark	Verdict
. L				

Whitek whitek	watter wats	WALTE V	MET W	1 - 11 - 1	t set	Battery cells discharge current(A): 3.9→0.001
USB output	SC	4.20Vdc <sup>2)</sup>	10mins	WALLEX WALLEX	walter wat	Unit shut down immediately. No damage, no hazard. Recoverable. Battery cells discharge current(A): 3.9→0.001
USB output	OL	4.20Vdc <sup>2)</sup>	1hours 30mins	n n Tex Nu	et whitet	USB output overload to 2.2A, over 2.3A unit shutdown, no hazard no damage. Recoverable when fault removed and no hazards.
Liet watter w	NITEK WALTER	MULTER MIL	whit	WAL	SIL SI	PCB near U1:76.8°C Battery body: 42.1°C
et whitek whi	et whitet w	LIEK WALTE	WALTE	white	Tet stet	External enclosure near Battery :27.5°C
1 0	- 11 -	et set	NUTER N	ne m	n m	Ambient: 25.0°C
white white	and and	yun y		set mit	st anninest as	No higher temperature rise exceeding its limit occurred. Battery cells discharge current(A): $3.9 \rightarrow 3.95 \rightarrow 0.001$

Supplementary information:

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 Clause B.3 test or "Single Fault" then the condition for Clause B.4.

1) SC: Short-circuited; OL: 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.

Limit temperature:

Plastic material: 87°C,

M.3	TABLE: Pro	otection circuits for batterie	ection circuits for batteries provided within the equipment					
Is it possib	le to install the	install the battery in a reverse polarity position? :				Ļ.		
			Chargin	g				
Equipmer	nt Specification	Voltage (V)	Current (A)					
		15 m 15 m	r. m. a		2	,ð	. At	
			Battery specif	ication				
Manufa	acturer/type	Non-rechargeable batteries	Rechargeabl	e batteries				



with	m. m.	20. 21	s.	EN IEC 6	2368-1	5ex	NUTE	MALIN	water w	in mar	
Clause	Requirement	+ Test	3	were m	. m.	Re	esult -	Remark	de la	Verdict	
he alle	in the			<u></u>	5.5		S.C.	- Martin	when when	- nu	
		Discharging	Uni	intentional		Charging			Discharging	Reverse	
		current (A)	charging current (A)		Voltage	oltage (V) Curr		ent (A)	current (A)	charging current (A)	
BAT <sup>-</sup> TECHNOLC	JAN AIEN TERY DGY CO.,LTD 6124	united uni	at wards a		3.7	3.7 2		2	4	TEX WALTE	
Note: The te	sts of M.3.2 ar	e applicable on	ly w	hen above	appropria	ate d	ata is	not avail	abel.		
Specified ba	ttery temperat	ture (°C)						ر <sup>ار ار</sup> ا	)-45		
Component No.	Fault condition	Charge/ discharge mo	de	Test time	Temp. (°C)		urrent (A)	Voltage (V)	e Obse	rvation	
U2 Pin 1-7	SC	Charge	et .	7h	itret oun		82→ .001	3.7	imme Recove	nutdown diately. rable. No no hazard.	
R55	SC	Charge	-m	7h	- Junia	1	.82	3.7	no dan	ng normally, nage, no ard	
R6	SC	Charge	n N N	7h	un <sup>er</sup>		.82	3.7	no dan	ng normally, nage, no zard.	
C13	SC	Discharge	-	7h	LIEK - WINE	0.	.002	3.7	no dan	ng normally, nage, no zard.	
R92	SC	Discharge	win'	7h	whitek	-sil	3.9	3.7	norm	vorking ally, no ige, no ard	
Q1 Pin 1-2	SC	Discharge	ð	7h	NITER W	0.	.002	3.7	imme	nutdown diately. rable. No	

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Supplementary information:

SC

Discharge

R51

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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.

3.9

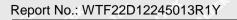
3.7

7h

damaged, no hazard.

Unit working normally,

no damage, no hazard..



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Clause	Requirement + Test	Result - Remark	Verdict

M.4.2	TABLE: battery	Charging saf	eguards for	equipment c	ontaining a s	secondary lithium	Intit P-
Maximum sp	becified c	harging voltage	ə (V)		: See below	st st	_
Maximum sp	pecified c	harging current	t (A)	÷	: See below	we way and	
Highest spec	cified cha	rging temperat	ure (°C)		: See below	tet stet st	
Lowest spec	ified cha	rging temperati	ure (°C)		: See below	le m n	
Battery		Operating		Measurement	t	Observatio	n
manufacture	r/type	and fault condition	Charging voltage (V)	Charging current (A)	Temp. (°C)		
Lowest spec	ified char	ging temperatu	re: 10°C	in white	me m	An an	de .
DONGGUAN BATTERY TECHNOLO		Normal	3.7	1.5	Battery temperature: 10°C	The battery chargin decreases	g curren
CO.,LTD /3866124		Abnormal-	1 - 1		In the w	- me m	an.
		Single fault – (R3 SC under condition No.1)	3.7	0.001	Battery temperature: 10°C	The battery chargin decreases	g curren
Highest spec	cified cha	rging temperatu	ıre: 45°C		- 4 N	t at a	et 5
DONGGUA BATTE TECHNOI	RY LOGY	Normal	3.7	0.001	Battery temperature: 42.3°C	The battery charging circuit stop charging	
CO.,LTD /3	866124	Abnormal-	Let RITER	MULT MULT	me m		- S
		Single fault – (R3 SC under condition No.1)	3.7	0.001	Battery temperature: 42.3°C	The battery charging circuit stop charging	
Supplementa	ary inform	nation:					
Abbreviation	: SC= sh becified c	ort circuit; OC= harging current				charging voltage; M erature; LSCT= lowe	

Q.1	TABLE: Circuits inten	ded for inter	connection	with buildi	ng wiring (	LPS)	9 P 9
Output	Condition	U <sub>oc</sub> (V)	Time (s)	I <sub>sc</sub>	(A)	S ('	VA)
Circuit	Condition	$O_{\rm oc}(V)$	Time (3)	Meas.	Limit	Meas.	Limit
at set	Normal	5.0	5	2.2	8.0	10.34	100
USB output	Single fault C14 SC	5.0	5 0	0	8.0	0	100

		EN	IEC 62368-1				
Clause	Requirement + Test	NUTE WAL	an a	Result ·	Remark	to be	Verdict
Miss	my my my	de de	Alt is	Jer Jie	and the	when which	m
	Single fault U2 Pin1-8 SC	5.0	5	0	8.0	Set 0.54	100
	Single fault C8 SC	5.0	5	0	8.0	0.4	100

SC = short circuit, OC = open circuit

T.2, T.3, T.4, T.5	TABLE: S	teady force test				Tet white white white
Location / Part	Material	Thickness (mm)	Probe	Force (N)	Test Duration (s)	Observation
Internal components (T.2)	an <u>-</u> vo The volt	WALTER WALTER	Figure V.1 and Figure V.2	10	5	No reduction the clearances and creepage distances
Enclosure bottom (T.5)	plastic*	See table 4.1.2		250		Enclosure remained intact, no crack/ opening developed. Internal ES2, ES3, TS2, TS3 were not accessible after test. No insulation breakdown.
Enclosure top (T.5)	plastic*	See table 4.1.2	white where	250	5	Enclosure remained intact, no crack/ opening developed. Internal ES2, ES3, TS2, TS3 were not accessible after test. No insulation breakdown.
Enclosure side (T.5)	Plastic*	See table 4.1.2	NUTER N	250	5	Enclosure remained intact, no crack/ opening developed. Internal ES2, ES3, TS2, TS3 were not accessible after test. No insulation breakdown.

З

\*Test was performed on product with each source listed in table 4.1.2.

T.6, T.9 TA	BLE: Impa	ct test		STEP MITE MATT WAT WAT WAT
Location/Part	Material	Thickness (mm)	Height (mm)	Observation
Enclosure bottom (T.6)	Plastic*	See table 4.1.2	1300	Enclosure remained intact, no crack/ opening developed. Internal ES2, ES3, TS2, TS3 were not accessible after test. No insulation breakdown.
Enclosure top (T.6)	Plastic*	See table 4.1.2	1300	Enclosure remained intact, no crack/ opening developed. Internal ES2, ES3, TS2, TS3 were not accessible after test. No insulation

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in white	where where where a	EN IEC 62368-1	ret wret white	white whi	MULT
Clause	Requirement + Test	The white when we	Result - Remark	16 1	Verdict

		THE NUTE WIT		breakdown.
Enclosure side (T.6)	Plastic*	See table 4.1.2	1300	Enclosure remained intact, no crack/ opening developed. Internal ES2, ES3, TS2, TS3 were not accessible after test. No insulation breakdown.

\*Test was performed on product with each source listed in table 4.1.2.

T.7	TABLE: Drop	test		while while which we P	
Location/Part	Material	Thickness (mm)	Height (mm)	Observation	
Enclosure bottom (T.6)	Plastic*	See table 4.1.2	1000	Enclosure remained intact, no crack/ opening developed. Internal ES2, ES3, TS2, TS3 were not accessible after test. No insulation breakdown.	
Enclosure top (T.6)	D Plastic*	See table 4.1.2	1000	Enclosure remained intact, no crack/ opening developed. Internal ES2, ES3, TS2, TS3 wer not accessible after test. No insulation breakdown.	
Enclosure side (T.6)	Plastic*	See table 4.1.2	1000	Enclosure remained intact, no crack/ openi developed. Internal ES2, ES3, TS2, TS3 w not accessible after test. No insulation breakdown.	

T.8	ABLE: Stres	s relief test		s. A	At At AT STOP		
Location/Part	Material	Thickness (mm)	Oven Temperatur e (°C)	Duration (h)	Observation		
Enclosure Plastic* S		See table 4.1.2 70°C		7h	Enclosure remained intact, no crack/ opening developed. Internal ES3, TS3 were not accessible after test. No insulation breakdown.		
Fire barriers	Plastic*	See table 4.1.2	70°C	7h	Enclosure remained intact, no crack opening developed. Internal ES3, TS3 were not accessible after test. No insulation breakdown.		
Supplementary	information:						

				<ul> <li>(w)</li> </ul>
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Vic mar	mr. mr. m. a	EN IEC 62368-1	TEX MUTER MATER WAL	white white
Clause	Requirement + Test	in white when we	Result - Remark	Verdict

X	TABLE: Alternative method for determining minimum clearances distances         P						
Clearance	distanced between:	Peak of working voltage (V)	Required cl (mm)	Measured cl (mm)			
78- 18	- Set Stet a	The water water wa	m m	- 10 - 10 - 10			
Suppleme	ntary information:	· · · · ·					
See Table	5.4.2, 5.4.3	white white we	and the	at the set			

4.1.2 TA	BLE: Critical compon				
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard <sup>2)</sup>	Mark(s) of conformity
Plastic enclosure	LG Chem Huizhou Petrochemical Co.,Ltd	AF312C	V-0, min. thickness 2.5mm, 70 °C,	UL 94	UL E476284
PCB Interchangeable		Interchangeabl e	V-0, 130 ℃	UL 796	UL
Fire barrier NAN YA PLASTICS CORP PLASTICS 3RD DIV		64140G5	V-0, min. thickness 0.75mm, 65 °C,	UL 94	UL E130155
Battery lead Interchangeable wire		Interchangeabl e	30AWG, Min 80 °C, 30V	UL 758	UL CAL
Li-ion Polymer Cell BATTERY TECHNOLOGY CO.,LTD		3866124	3.7V 4000mAh 14.8Wh	IEC 62133- 2:2017	Test report No. PTC220701 01102S- IE01

Supplementary information: <sup>1)</sup> License availabel upon request. Provided evidence ensures the agreed level of compliance. See OD-CB2039.

2) License available upon request



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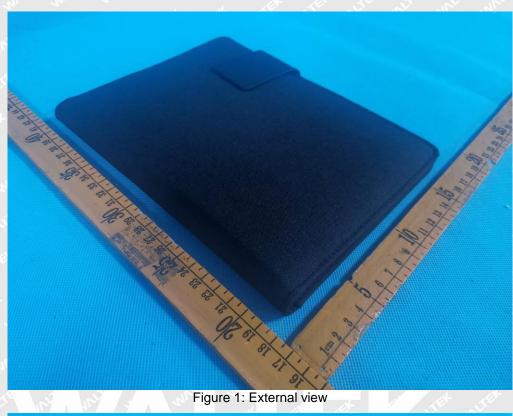




Figure 2: External view



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Figure 4: Terminal view

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Figure 6: Internal view



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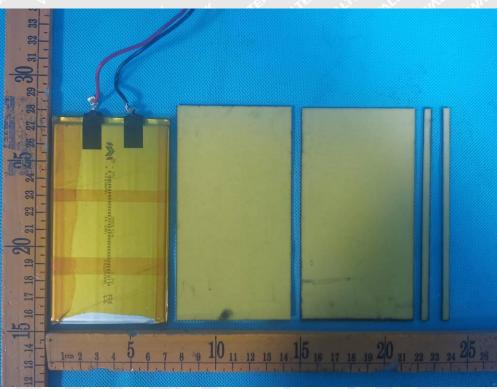


Figure 7: Internal view

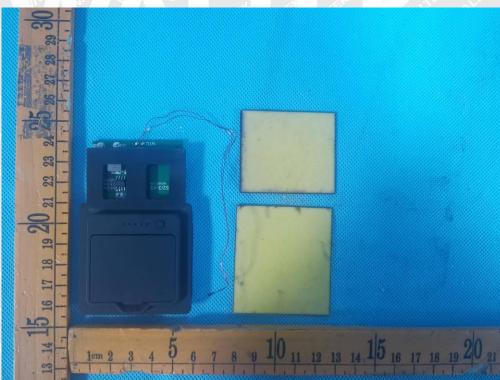


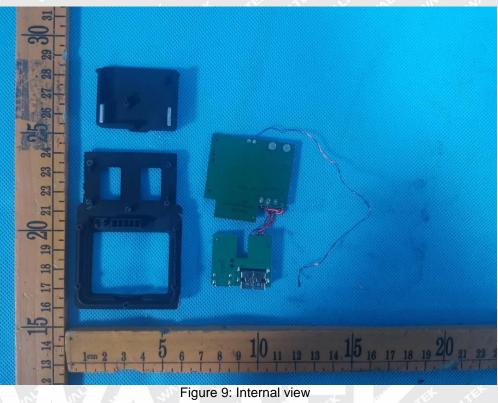
Figure 8: Internal view



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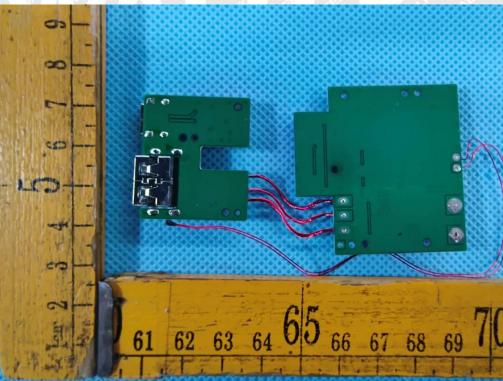


Figure 10: PCB view



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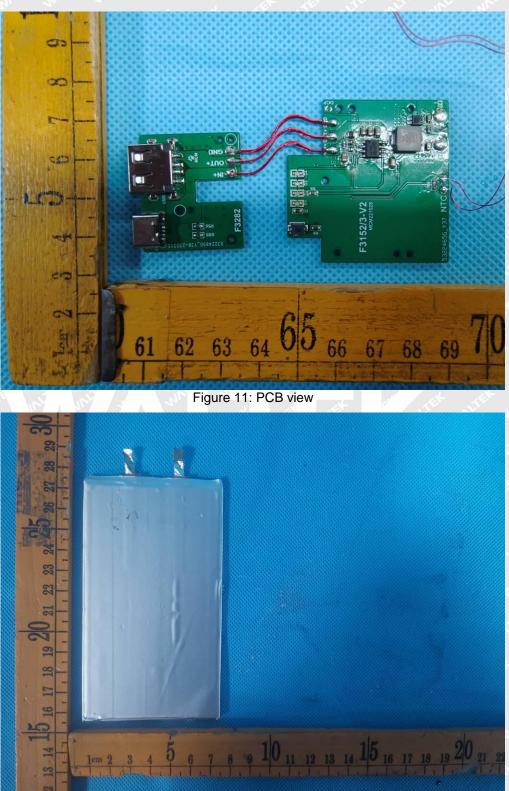


Figure 12: Battery view



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Figure 13: Battery view

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