



# **TEST REPORT**

Reference No. ..... : WTF22D12262928Y

Applicant .....: Mid Ocean Brands B.V.

Address ...... : 7/F., Kings Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon,

Hong Kong

Manufacturer ..... 109328

Address .....: --

Product .....: Sports and health smart watch

Model(s)..... : MO6166

**Total pages**.....: 68 pages and 4 pages of photo.

Audio/video, information and communication technology equipment-

Part 1:Safety requirements

Date of Receipt sample ... 2022-12-29

**Date of Test** ..... : 2022-12-29 to 2023-02-02

Date of Issue .....: 2023-02-02

Test Result .....: Pass

#### Remarks:

The results shown in this test report referonly 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:

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Compiled by:

Approved by:

Soap Hu/ Project Engineer

Sam Qi / Designated Reviewer



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| Test item description:  | Sports and h                  | ealth smart watch  |
|---|-------------------------------|--|
| Trademark:  | MOB                           |  |
| Model and/or type reference:  | MO6166                        |  |
| Rating(s):  | Input: 5Vdc,<br>Battery: 3.7\ | 65mA<br>/dc, 90mAh, 0.333Wh  |
| Remark:   | apr. Cu                       |  |
| Whether parts of tests for the product h                                    | nave been sub                 | contracted to other labs:  |
| ☐ Yes   |                               |  |
| If Yes, list the related test items and la                                  | o information:                |  |
| Test items:   |                               |  |
| Lab information:  |                               | THE THE THE NITE WITH WALL WALL A  |
| Summary of testing:   |                               |  |
| Tests performed (name of test and t   | est clause):                  | Testing location:  |
| - EN IEC 62368-1: 2020+A11: 2020  |                               |  |
| The submitted samples were found to the requirements of above specification |                               | Houjie Town, Dongguan City, Guangdong, China   |
| Summary of compliance with Nation   | al Difference                 | s (List of countries addressed):   |
| EU Group Differences  |                               |  |
| Mr. Mr. M. M.   |                               |  |
| The product fulfils the requirements  | of EN IEC 62                  | 368-1:2020+A11:2020.   |
| Use of uncertainty of measurement   | for decisions                 | on conformity (decision rule) :  |
| applicable limit according to the spec                                      | cification in th              | rd, when comparing the measurement result with the at standard. The decisions on conformity are made mple acceptance" decision rule, previously known as |
| Other: (to be specified, for examp requirements apply)                      | le when requir                | ed by the standard or client, or if national accreditation   |
| Information on uncertainty of measu   | rement:                       |  |
| The uncertainties of measurement are  | calculated by                 | the laboratory based on application of criteria given by nethods, decision sheets and operational procedures of  |

IEC Guide 115 provides guidance on the application of measurement uncertainty principles and applying the decision rule when reporting test results within IECEE scheme, noting that the reporting of the measurement uncertainty for measurements is not necessary unless required by the test standard or

Calculations leading to the reported values are on file with the NCB and testing laboratory that conducted the testing.



#### Copy of marking plate:



#### Remark:

- 1. The above markings are the minimum requirements required by the safety standard. For the final production, the additional markings which do not give rise to misunderstanding may be added.
- 2. The CE, UKCA 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.





| 4 |   |   |   |
|---|---|---|---|
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| 1 |   | V |   |
|   |   |   |   |

| TEST ITEM PARTICULARS:  | Wir wir any any are it lit  |
|---|---|
| Product group   | ⊠end product □built-in component  |
| Classification of use by:   | <ul><li>☑ Ordinary person</li><li>☐ Instructed person</li><li>☐ Skilled person</li></ul>  |
| Supply Connection:  | ☐ AC mains ☐ DC mains ☐ not mains connected: ☐ ES2 ☐ ES3  |
| Supply % Tolerance:   | ☐ +10%/-10% ☐ +20%/-15% ☐ +%/% ☑ None   |
| Supply Connection – Type:   | <ul> <li>□ pluggable equipment type A -</li> <li>□ non-detachable supply cord</li> <li>□ appliance coupler</li> <li>□ direct plug-in</li> <li>□ pluggable equipment type B -</li> <li>□ non-detachable supply cord</li> <li>□ appliance coupler</li> <li>□ permanent connection</li> <li>□ mating connector ⋈ other: not Mains connected</li> </ul> |
| Considered current rating of protective device as part of building or equipment installation: | □UK: 13 A; Others: 16 A;  Location: □ building □ equipment □ N/A  |
| Equipment mobility:   |   |
| Over voltage category (OVC):  | ☐ OVC I ☐ OVC II ☐ OVC III ☐ OVC IV☐other: not Mains connected  |
| Class of equipment:   | ☐ Class I ☐ Class II ☐ Class III ☐ Not classified ☐ ☐   |
| Access location:  | <ul><li>N/A ☐ restricted access area</li><li>☐ outdoor location ☐</li></ul>   |
| Pollution degree (PD):  | □PD 1⊠ PD 2 □ PD 3  |
| Manufacturer's specified maxium operating ambient:  | 25°C Outdoor: minimum°C   |
| IP protection class:  | ☑ IPX0 □ IP   |
| Power Systems:  | ☐ TN ☐ TT ☐ ITV <sub>L-L</sub> ☐ not AC mains   |
| Altitude during operation (m):  | ⊠ 2000 m or less □m   |
| Altitude of test laboratory (m)   | ☑ 2000 m or less ☐ m  |
| Mass of equipment (kg):   | ⊠0.02kg   |



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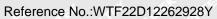
| POSSIBLE TEST CASE VERDICTS:   | Mr. My My My My My                       |
|--|--|
| - test case does not apply to the test object:   | N/A                                      |
| - test object does meet the requirement:   | P (Pass)                                 |
| - test object does not meet the requirement:   | F (Fail)                                 |
| TESTING:   | All the state of the                     |
| Date of receipt of test item:  | 2022-12-29                               |
| Date (s) of performance of tests:  | 2022-12-29 to 2023-02-02                 |
| GENERAL REMARKS:   | ITER STEEL WILL MULL MAN MAN             |
| "(see appended table)" refers to a table appended to the Throughout this report a ☐ comma / ☒ point is understand the Comma of the Com  |  |
| Product Description  1. The equipment described in the report is a sponsor.  2. Powered by internal lithium batteries.   | orts bracelet.                           |
| Model Differences  | the state of the state state with        |
| Additional application considerations – (Considerations – (Conside | rations used to test a component or sub- |



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| Clause                         | Possible Hazard                        |            |                   |                   |
|--------------------------------|--|------------|-------------------|-------------------|
| 5                              | Electrically-caused injury             |            |                   |                   |
| Class and Energy Source        | 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 |
| PS1: <15 Watt circuits         | The other components/materials         | N/A        | N/A               | N/A               |
| 7                              | Injury caused by hazardous su          | ubstances  | <u>.</u>          |                   |
| Class and Energy Source        | Body Part                              | Safeguards |                   |                   |
| (e.g. Ozone)                   | (e.g., Skilled)                        | В          | S                 | R                 |
| N/A                            | N/A                                    | N/A        | N/A               | N/A               |
| 8                              | Mechanically-caused injury             |            |                   |                   |
| Class and Energy Source        | Body Part                              |            | Safeguards        |                   |
| (e.g. MS3: Plastic fan blades) | (e.g. Ordinary)                        | В          | S                 | R                 |
| MS1: Edges and corners         | Ordinary                               | N/A        | N/A               | N/A               |
| MS1: Mass of the unit          | Ordinary                               | N/A        | N/A               | N/A               |
| 9                              | Thermal burn                           |            |                   |                   |
| Class and Energy Source        | Body Part                              |            | Safeguards        |                   |
| (e.g. TS1: Keyboard caps)      | (e.g., Ordinary)                       | В          | S                 | R                 |
| TS1: All accessible parts      | Ordinary                               | N/A        | N/A               | N/A               |
| 10                             | Radiation                              |            |                   |                   |
| Class and Energy Source        | Body Part Safeguards                   |            |                   |                   |
| (e.g. RS1: PMP sound output)   | (e.g., Ordinary)                       | В          | S                 | R                 |
| RS1: LED for indicating        | Ordinary                               | N/A        | N/A               | N/A               |

# ENERGY SOURCE DIAGRAM Indicate which energy sources are included in the energy source diagram. Insert diagram below ES PS MS TS RS See details in OVERVIEW OF ENERGY SOURCES AND SAFEGUARDS



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|------------|--------------------|-----------------|---------|
| Clause     | Requirement – Test | Result – Remark | Verdict |

| - sh        | S   | it with the way   | -20,          |
|-------------|---|---|---------------|
| 4           | GENERAL REQUIREMENTS                                  |   | P             |
| 4.1.1       | Acceptance of materials, components and subassemblies | (See appended table 4.1.2)  | WP 4          |
| 4.1.2 MARIE | 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 | WALLEY WALTER |
| 4.1.3       | Equipment design and construction                     | Equipment is adequately designed and constructed.   | M. B. M.      |
| 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 N           |
| 4.4.3.1     | General   | 2 24 24   | Р             |
| 4.4.3.2     | Steady force tests                                    | (See Annex T.2and T.5).   | IT Posts      |
| 4.4.3.3     | Drop tests  | (See Annex T.7)   | Р             |
| 4.4.3.4     | Impact tests  | H ITEK STEK MITEK SINI  | N/A           |
| 4.4.3.5     | Internal accessible safeguard tests                   | No such parts.  | N/A           |
| 4.4.3.6     | Glass impact tests                                    | No such glass used.   | N/A           |
| 4.4.3.7     | Glass fixation tests                                  | No such parts.  | N/A           |
| ris wer     | Glass impact test (1J)                                | LIFER MITER WALTE WHITE   | N/A           |
| et et       | Push/pull test (10 N)                                 |   | N/A           |
| 4.4.3.8     | Thermoplastic material tests                          | (See Annex T.8)   | Р             |
| 4.4.3.9     | Air comprising a safeguard                            |   | N/A           |
| 4.4.3.10    | Accessibility, glass, safeguard effectiveness         | After tests of 4.4.3.2,<br>4.4.3.3,4.4.3.4, 4.4.3.8, no<br>safeguard damaged.   | WP .          |
| 4.4.4       | Displacement of a safeguard by an insulating liquid   | No such liquid.   | N/A           |
| 4.4.5       | Safety interlocks                                     | No such parts.  | N/A           |
| 4.5         | Explosion   | at at all all a   | P.TE          |
| 4.5.1       | General   | No explosion occurs during normal/abnormal operation and single fault conditions  | P             |



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|---------|---|-------------------------------------|----------|
| Clause  | Requirement – Test  | Result – Remark                     | Verdict  |
| 4.5.2   | No explosion during normal/abnormal operating condition   | (See Clause B.2, B.3)               | Р        |
| TEN N   | No harm by explosion during single fault conditions   | (See Clause B.4)                    | Р        |
| 4.6     | Fixing of conductors  | See below                           | Р ,      |
| EX STE  | Fix conductors not to defeat a safeguard  | at let let cret                     | OF P     |
| - 10,   | Compliance is checked by test   | (See Clause T.2)                    | Р        |
| 4.7     | Equipment for direct insertion into mains sock  | et-outlets                          | N/A      |
| 4.7.2   | Mains plug part complies with relevant standard   | Not direct plug-in equipment.       | N/A      |
| 4.7.3   | Torque (Nm)   | TER TER LITER WITE                  | N/A      |
| 4.8     | Equipment containing coin/button cell batteries   | 3 Mr. M. M. M.                      | N/A      |
| 4.8.1   | General   | No coin/button cell batteries used. | N/A      |
| 4.8.2   | Instructional safeguard   | at let let little                   | N/A      |
| 4.8.3   | Battery compartment door/cover construction   | The Mr. M. A.                       | N/A      |
| WITE .  | Open torque test  | TEX JEX STEE OUT                    | N/A      |
| 4.8.4.2 | Stress relief test  | The American                        | N/A      |
| 4.8.4.3 | Battery replacement test  | AST O NITE MITE                     | N/A      |
| 4.8.4.4 | Drop test   |                                     | N/A      |
| 4.8.4.5 | Impact test   | THE LITE MIT WHITE                  | N/A      |
| 4.8.4.6 | Crush test  | 20 20                               | N/A      |
| 4.8.5   | Compliance  | ed reter meter write an             | N/A      |
| , Et    | 30N force test with test probe  | 70 7 X                              | N/A      |
| Mer. M  | 20N force test with test hook   | WILE WILL MULT AND                  | N/A      |
| 4.9     | Likelihood of fire or shock due to entry of cond  | luctive object                      | Р        |
| 4.10    | Component requirements  | WILL MILL MARK AME                  | N/A      |
| 4.10.1  | Disconnect Device   | a at at at                          | N/A      |
| 4.10.2  | Switches and relays   | in while Mure Mure M                | N/A      |
| 100     | THE SITE OF STATE OF |                                     | CENT STE |
| 5       | ELECTRICALLY-CAUSED INJURY  |                                     | √// P    |
| 5.2     | Classification and limits of electrical energy sou  | irces                               | Р        |
| 5.2.2   | ES1, ES2 and ES3 limits   | MUTT MUTT MUT MILE                  | Р        |
| 5.2.2.2 | Steady-state voltage and current limits   | (See appended table 5.2)            | Р        |
| 5.2.2.3 | Capacitance limits  | No such capacitors                  | N/A      |
| 5.2.2.4 | Single pulse limits   | No such single pulses               | N/A      |
| 5.2.2.5 | Limits for repetitive pulses  | No such repetitive pulses           | N/A      |

No such ringing signals

N/A

Ringing signals

5.2.2.6





|   |   |   | 7 | 7 |
|---|---|---|---|---|
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| V |   | V | 1 |   |
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|------------|---|--|---------|
| Clause     | Requirement – Test  | Result – Remark  | Verdict |
| an .       | M M THE ST  | er with will all the   | A 140   |
| 5.2.2.7    | Audio signals   | 70 7   | N/A     |
| 5.3        | Protection against electrical energy sources  | White white white whi  | JUL P   |
| 5.3.1      | General Requirements for accessible parts to ordinary, instructed and skilled persons | TEK TEK STEK WIEK  | WALTER  |
| 5.3.1 a)   | Accessible ES1/ES2 derived from ES2/ES3 circuits                                      | in my my   | N/A     |
| 5.3.1 b)   | Skilled personsnot unintentional contact ES3 bare conductors                          | TEX WILLEY WILLEY  | N/A     |
| 5.3.2.1    | Accessibility to electrical energy sources and safeguards                             | Only ES1 circuit and the enclosure (safeguard) are accessed to person. | P       |
| inco. The  | Accessibility to outdoor equipment bare parts   | alter miles while while  | N/A     |
| 5.3.2.2    | Contact requirements  | W. J. T. St. Ch.   | N/A     |
| ir. Mir    | Test with test probe from Annex V   | LIER WILL WALL MALL  | -       |
| 5.3.2.2 a) | Air gap – electric strength test potential (V)  |  | N/A     |
| 5.3.2.2 b) | Air gap – distance (mm)   | er write write with w  | N/A     |
| 5.3.2.3    | Compliance  | at at all a  | N/A     |
| 5.3.2.4    | Terminals for connecting stripped wire  | No stripped wire used.   | N/A     |
| 5.4        | Insulation materials and requirements   | A A A A A  | Р       |
| 5.4.1.2    | Properties of insulating material   | No insulation as a safeguard.  | N/A     |
| 5.4.1.3    | Material is non-hygroscopic   | The state  | N/A     |
| 5.4.1.4    | Maximum operating temperature for insulating materials                                | (See appended table 5.4.1.4, 9.3, B.1.5, B.2.6, B.3, B.4)              | P       |
| 5.4.1.5    | Pollution degrees   | White white we we  | N/A     |
| 5.4.1.5.2  | Test for pollution degree 1 environment and for an insulating compound                | SLIER WIER WILLER SWILL  | N/A     |
| 5.4.1.5.3  | Thermal cycling test  | St. A. A.  | N/A     |
| 5.4.1.6    | Insulation in transformers with varying dimensions                                    | LIET INCIES WALL WALL  | N/A     |
| 5.4.1.7    | Insulation in circuits generating starting pulses                                     | a state  | N/A     |
| 5.4.1.8    | Determination of working voltage  | White wait wait of   | N/A     |
| 5.4.1.9    | Insulating surfaces   | A & &  | N/A     |
| 5.4.1.10   | Thermoplastic parts on which conductive metallic parts are directly mounted           | Merry Mary Mary Mary   | N/A     |
| 5.4.1.10.2 | Vicat test  | WITE WILL MULL MULL  | N/A     |
| 5.4.1.10.3 | Ball pressure test  |  | N/A     |
| 5.4.2      | Clearances  | LIET MILE MALLE WALL   | N/A     |
| 5.4.2.1    | General requirements  | a at at at   | N/A     |
| nr.        | Clearances in circuits connected to AC Mains,<br>Alternative method                   | merit mer were   | N/A     |
| 5.4.2.2    | Procedure 1 for determining clearance   | LIFE SLIFE JOLIE JOL   | N/A     |



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| 20,         | IEC62368-1  | in the war an  | 20, 40, |
|-------------|---|--|---------|
| Clause      | Requirement – Test  | Result – Remark  | Verdict |
| The !       | W W Strate Strate Strate  | the wife wife our  | The The |
| J. P.       | Temporary overvoltage   |  |         |
| 5.4.2.3     | Procedure 2 for determining clearance                                       | WILL WILL WELL   | N/A     |
| 5.4.2.3.2.2 | a.c. mains transient voltage  | The state of the s | - ALP   |
| 5.4.2.3.2.3 | d.c. mains transient voltage  | WILL MULTE WALL W  | L       |
| 5.4.2.3.2.4 | External circuit transient voltage  | at the state of  | KEIT -  |
| 5.4.2.3.2.5 | Transient voltage determined by measurement                                 | in min mer me  | - n     |
| 5.4.2.4     | Determining the adequacy of a clearance using an electric strength test     | t milet whilet while   | N/A     |
| 5.4.2.5     | Multiplication factors for clearances and test voltages                     | LIER SLIER WILLER  | N/A     |
| 5.4.2.6     | Clearance measurement   | 711 711 2  | N/A     |
| 5.4.3       | Creepage distances  | LIER CLIEF WITE WI   | N/A     |
| 5.4.3.1     | General   |  | N/A     |
| 5.4.3.3     | Material group  | EL MITE WALL WALL  | - n     |
| 5.4.3.4     | Creepage distances measurement  | ***  | N/A     |
| 5.4.4       | Solid insulation  | WILL MULL MULL   | N/A     |
| 5.4.4.1     | General requirements  | A A A  | N/A     |
| 5.4.4.2     | Minimum distance through insulation   | The Shirt of   | N/A     |
| 5.4.4.3     | Insulating compound forming solid insulation                                |  | / N/A   |
| 5.4.4.4     | Solid insulation in semiconductor devices                                   | is the the the   | N/A     |
| 5.4.4.5     | Insulating compound forming cemented joints                                 | t tet tet lite   | N/A     |
| 5.4.4.6     | Thin sheet material   | Alle Alle Alle   | N/A     |
| 5.4.4.6.1   | General requirements  | TEX STEX STEEL   | N/A     |
| 5.4.4.6.2   | Separable thin sheet material   | me me m  | N/A     |
| Lie Will    | Number of layers (pcs)  | TEK TEK OLIEF I  | N/A     |
| 5.4.4.6.3   | Non-separable thin sheet material   | 12 My 12, 2,   | N/A     |
| WILL        | Number of layers (pcs)  | EF SITE WITE MI  | N/A     |
| 5.4.4.6.4   | Standard test procedure for non-separable thin sheet material               | - TEX TEX STER   | N/A     |
| 5.4.4.6.5   | Mandrel test  | mr. m. m.  | N/A     |
| 5.4.4.7     | Solid insulation in wound components  | TEX TIES STEE  | N/A     |
| 5.4.4.9     | Solid insulation at frequencies >30 kHz, $E_P$ , $K_R$ , $d$ , $V_{PW}$ (V) | of the top   | N/A     |
| t Tex       | Alternative by electric strength test, tested voltage (V), K <sub>R</sub>   | the state  | N/A     |
| 5.4.5       | Antenna terminal insulation   | antic mitty mit  | N/A     |
| 5.4.5.1     | General   | 1 4 2+   | N/A     |



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|------------|---|-----------------------|-----------|
| Clause     | Requirement – Test  | Result – Remark       | Verdict   |
| 5.450      | When the state of | the writer war. Mar.  | 71/2 TILL |
| 5.4.5.2    | Voltage surge test  |                       | N/A       |
| 5.4.5.3    | Insulation resistance (M $\Omega$ )   | WUTE AVEL WITE        | N/A       |
| JE 1       | Electric strength test  |                       | N/A       |
| 5.4.6      | Insulation of internal wire as part of supplementary safeguard  | Will Mull Mull A      | N/A       |
| 5.4.7      | Tests for semiconductor components and for cemented joints  | IEK WUTTER MUTTER AND | N/A       |
| 5.4.8      | Humidity conditioning   | t TEX LIER NITE       | N/A       |
| SEE N      | Relative humidity (%), temperature (°C), duration (h)   | Mus My My             |           |
| 5.4.9      | Electric strength test  | Will Mir Mir.         | N/A       |
| 5.4.9.1    | Test procedure for type test of solid insulation  | at at at              | N/A       |
| 5.4.9.2    | Test procedure for routine test   | The Mary May M        | N/A       |
| 5.4.10     | Safeguards against transient voltages from external circuits  | et united united whi  | N/A       |
| 5.4.10.1   | Parts and circuits separated from external circuits   | at at all             | N/A       |
| 5.4.10.2   | Test methods  | write white was       | N/A       |
| 5.4.10.2.1 | General   | A STATE               | N/A       |
| 5.4.10.2.2 | Impulse test  | The state of          | N/A       |
| 5.4.10.2.3 | Steady-state test   |                       | N/A       |
| 5.4.10.3   | Verification for insulation breakdown for impulse test  | Mr. Mr. M.            | N/A       |
| 5.4.11     | Separation between external circuits and earth  | WILL WALL WALL        | N/A       |
| 5.4.11.1   | Exceptions to separation between external circuits and earth  | SLIEF WITH WHILE      | N/A       |
| 5.4.11.2   | Requirements  | 24 3 3                | N/A       |
| 7 74.      | SPDs bridge separation between external circuit and earth   | HITE WALTER WALTE W   | N/A       |
| MILLE      | Rated operating voltage U <sub>op</sub> (V)   | EX SLIEK OLIEK JOL    | <u> </u>  |
| , et       | Nominal voltage U <sub>peak</sub> (V)   | 2/1, 2/1, ,           | _         |
| MULL M     | Max increase due to variation ΔU <sub>sp</sub>  | CLIE MILIE MALTE      | anc _     |
| A EST A    | Max increase due to ageing ΔU <sub>sa</sub>   | 30 36 x               | - A       |
| 5.4.11.3   | Test method and compliance  | WILL WILL MULL        | N/A       |
| 5.4.12     | Insulating liquid   | s stat                | ∠ N/A     |
| 5.4.12.1   | General requirements  | LIE WILL MULL M       | N/A       |
| 5.4.12.2   | Electric strength of an insulating liquid   | s at at a             | N/A       |
| 5.4.12.3   | Compatibility of an insulating liquid   | WHITE MAIN WILL       | N/A       |
| 5.4.12.4   | Container for insulating liquid   |                       | N/A       |





| 97.       | IEC62368-1   | ar are are                        | 20 10   |
|-----------|--|-----------------------------------|---------|
| Clause    | Requirement – Test   | Result – Remark                   | Verdict |
| 5.5       | Components as safeguards   | the sure of the second            | N/A     |
| 5.5.1     | General  | No such components as safeguards. | N/A     |
| 5.5.2     | Capacitors and RC units  | TEK ITEK NITEK MITE               | N/A     |
| 5.5.2.1   | General requirement  | ale all all all                   | N/A     |
| 5.5.2.2   | Safeguards against capacitor discharge after disconnection of a connector          | HER WHITER WHITE                  | N/A     |
| 5.5.3     | Transformers   | et tek itek sitek e               | N/A     |
| 5.5.4     | Optocouplers   | The Mr. M. A.                     | N/A     |
| 5.5.5     | Relays   | TEX LIEK SLIEK INLI               | N/A     |
| 5.5.6     | Resistors  | an an an                          | N/A     |
| 5.5.7     | SPDs   | THE SITES WITER SMITE             | N/A     |
| 5.5.8     | Insulation between the mains and an external circuit consisting of a coaxial cable | ex sex sex stex                   | N/A     |
| 5.5.9     | Safeguards for socket-outlets in outdoor equipment                                 | THE THE THE                       | N/A     |
| 1/2 1     | RCD rated residual operating current (mA)  | WILL MULL AND AN                  | _       |
| 5.6       | Protective conductor   | at the st                         | N/A     |
| 5.6.2     | Requirement for protective conductors  | a fuer an                         | N/A     |
| 5.6.2.1   | General requirements   | Class III equipment               | N/A     |
| 5.6.2.2   | Colour of insulation   | in my                             | N/A     |
| 5.6.3     | Requirement for protective earthing conductors                                     | the little with                   | N/A     |
|           | Protective earthing conductor size (mm²)   | The The The                       | _       |
| Marie M   | Protective earthing conductor serving as a reinforced safeguard                    | White White White whi             | N/A     |
| LIER WILL | Protective earthing conductor serving as a double safeguard                        | ALIER WALTER WALTER               | N/A     |
| 5.6.4     | Requirements for protective bonding conductors                                     | e at at at                        | N/A     |
| 5.6.4.1   | Protective bonding conductors  | CLE MILL MULL MULL                | N/A     |
|           | Directoratives in an eliminary council value of the (many 2)                       |                                   |         |

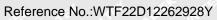




| - 20,     | IEC62368-1  | REAL MAR MILL                         | 70. 1.  |
|-----------|---|---------------------------------------|---------|
| Clause    | Requirement – Test  | Result – Remark                       | Verdict |
| 5.6.6.2   | Test Method   | the true and the                      | N/A     |
|           |   | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |         |
| 5.6.6.3   | Resistance ( $\Omega$ ) or voltage drop   | with the me me                        | N/A     |
| 5.6.7     | Reliable connection of a protective earthing conductor                              | TEX SITES NUTES INSTERS               | N/A     |
| 5.6.8     | Functional earthing   | b. m. r.                              | N/A     |
| White     | Conductor size (mm <sup>2</sup> )   | TEX STEEL WITER WALTER                | N/A     |
| - 100     | Class II with functional earthing marking   | W. W.                                 | N/A     |
| MUT.      | Appliance inlet cl &cr (mm)   | ALTER MITE MAIN WA                    | N/A     |
| 5.7       | Prospective touch voltage, touch current and p                                      | rotective conductor current           | N/A     |
| 5.7.2     | Measuring devices and networks  | write while while while               | N/A     |
| 5.7.2.1   | Measurement of touch current  | a state of                            | N/A     |
| 5.7.2.2   | Measurement of voltage  | LIE WALL WALL WALL                    | N/A     |
| 5.7.3     | Equipment set-up, supply connections and earth connections                          | EX SUFEX WIFEX SMITEX SW              | N/A     |
| 5.7.4     | Unearthed accessible parts  | 70 7                                  | N/A     |
| 5.7.5     | Earthed accessible conductive parts   | CHIEF WILL WILL WILL                  | N/A     |
| 5.7.6     | Requirements when touch current exceeds ES2 limits                                  | at a suffer                           | N/A     |
| st si     | Protective conductor current (mA)   | 7 1 1 1                               | N/A     |
| Were      | Instructional Safeguard   | TE SITE MILE WALLE                    | N/A     |
| 5.7.7     | Prospective touch voltage and touch current associated with external circuits       | t fet stat sister of                  | N/A     |
| 5.7.7.1   | Touch current from coaxial cables   | Mr. Mr. Mr.                           | N/A     |
| 5.7.7.2   | Prospective touch voltage and touch current associated with paired conductor cables | WHITEK WHITEK WHITEK WHITE            | N/A     |
| 5.7.8     | Summation of touch currents from external circuits                                  | LIER WITER WHITER WHITER              | N/A     |
| EK WALTEN | a) Equipment connected to earthed external circuits, current (mA)                   | EX STER OUTER SPUTERS                 | N/A     |
| MITER     | b) Equipment connected to unearthed external circuits, current (mA)                 | - 1st 1st 1st of                      | N/A     |
| 5.8       | Backfeed safeguard in battery backed up supplies                                    |                                       |         |
| nere an   | Mains terminal ES   | No battery used                       | N/A     |
|           | Air gap (mm)  | Me Me Me Me                           | N/A     |

| 6   | ELECTRICALLY- CAUSED FIRE    |   |
|-----|------------------------------|---|
| 6.2 | Classification of PS and PIS | P |





| 4 |   |    |   | 4 | 7 |
|---|---|----|---|---|---|
|   | 7 | 7  | Z |   |   |
| 1 | 6 | ,) |   |   |   |
|   |   |    |   |   |   |

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|--|--|--|----------|--|
| Clause   | Requirement – Test   | Result – Remark  | Verdict  |  |
| 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.F.     |  |
| 6.2.3  | Classification of potential ignition sources   | See the following details.   | P        |  |
| 6.2.3.1  | Arcing PIS   | No Arcing PIS exist in the equipment   | N/A      |  |
| 6.2.3.2  | Resistive PIS  | (See appended table 6.2.3.2)   | △/Þ      |  |
| 6.3  | Safeguards against fire under normal operating conditions  | and abnormal operating   | 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)  | NEEL M   |  |
| - L  | Combustible materials outside fire enclosure   | No such parts  | N/A      |  |
| 6.4  | Safeguards against fire under single fault conditions  |  | u P      |  |
| 6.4.1  | Safeguard method   | Control fire spread  | Р        |  |
| 6.4.2  | Reduction of the likelihood of ignition under single fault conditions in PS1 circuits                                    | MILIE WALLE  | WILL P   |  |
| 6.4.3  | Reduction of the likelihood of ignition under single fault conditions in PS2 and PS3 circuits                            | TE WITE WILL WITE  | ALTE PIN |  |
| 6.4.3.1  | Supplementary safeguards   | t at all all a   | N/A      |  |
| 6.4.3.2  | Single Fault Conditions  | mer were me me   | N/A      |  |
| - CLIFFE   | Special conditions for temperature limited by fuse   | est test trest stre  | N/A      |  |
| 6.4.4  | Control of fire spread in PS1 circuits   | mer me m   | Р        |  |
| 6.4.5  | Control of fire spread in PS2 circuits   | tet tet tiek with  | P.       |  |
| 6.4.5.2  EVALUE AND LEEVAN AND LE | Supplementary safeguards   | Compliance detailed as follows:  1) Printed board: rated V-0 2) Internal wires: complying with UL 758 standard, which test method and testing condition equal to IEC/EN 60695-11-21.  3) 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.  4) V-0 plastic enclosure used | TEK WAL  |  |



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|           | IEC62368-1  | vie aler ale ale  | 25.           |
|-----------|---|---|---------------|
| Clause    | Requirement – Test  | Result – Remark   | Verdict       |
| 0.4.0     | Control of fine control in DOO singlife   | the water and and   | NI/A          |
| 6.4.6     | Control of fire spread in PS3 circuits  | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   | N/A           |
| 6.4.7     | Separation of combustible materials from a PIS  | THE PARTY MET ME  | N/A           |
| 6.4.7.2   | Separation by distance  |   | N/A           |
| 6.4.7.3   | Separation by a fire barrier  | No fire barrier used.   | N/A           |
| 6.4.8     | Fire enclosures and fire barriers   | See below.  | N/A           |
| 6.4.8.2   | Fire enclosure and fire barrier material properties   | V-0 plastic enclosure used  | N/A           |
| 6.4.8.2.1 | Requirements for a fire barrier   | No fire barrier used.   | N/A           |
| 6.4.8.2.2 | Requirements for a fire enclosure   | V-0 plastic enclosure used  | N/A           |
| 6.4.8.3   | Constructional requirements for a fire enclosure and a fire barrier                               | See below   | N/A           |
| 6.4.8.3.1 | Fire enclosure and fire barrier openings  | No openings   | N/A           |
| 6.4.8.3.2 | Fire barrier dimensions   | No specific barrier provided.   | N/A           |
| 6.4.8.3.3 | Top openings and properties   | No top opening  | N/A           |
|           | Openings dimensions (mm)  | er antic mit mit mit  | N/A           |
| 6.4.8.3.4 | Bottom openings and properties  | No bottom opening   | N/A           |
|           | Openings dimensions (mm)  | WILL MULL MULL MILL   | N/A           |
| ALTEK WAL | Flammability tests for the bottom of a fire enclosure   | et Writer writer  | N/A           |
| et le     | Instructional Safeguard   | - L   | N/A           |
| 6.4.8.3.5 | Side openings and properties  | No side openings  | N/A           |
| - Let     | Openings dimensions (mm)  | e at at at  | 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           |
| 6.4.8.4   | Separation of a PIS from a fire enclosure and a fire barrier distance (mm) or flammability rating | V-0 plastic enclosure used  | N/A           |
| 6.4.9     | Flammability of insulating liquid   | TEX TEX STEE WITE   | N/A           |
| 6.5       | Internal and external wiring  | in an a   | Р             |
| 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. | PAC<br>VINITE |
| 6.5.2     | Requirements for interconnection to building wiring   | See 6.5.1.  | Р             |
| 6.5.3     | Internal wiring size (mm2) for socket-outlets   | No such wire used   | N/A           |
| 6.6       | Safeguards against fire due to the connection to ac   | dditional equipment   | Р             |

| 7   | INJURY CAUSED BY HAZARDOUS SUBSTANCES         |     |
|-----|---|-----|
| 7.2 | Reduction of exposure to hazardous substances | N/A |



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|------------|--------------------|-----------------|---------|
| Clause     | Requirement – Test | Result – Remark | Verdict |

| 7.3    | Ozone exposure  |     |
|--------|---|-----|
| 7.4    | Use of personal safeguards or personal protective equipment (PPE) | N/A |
| , et   | Personal safeguards and instructions                              | _   |
| 7.5    | Use of instructional safeguards and instructions                  | N/A |
| CENT S | Instructional safeguard (ISO 7010)                                | _   |
| 7.6    | Batteries and their protection circuits                           | Р   |

| 8           | MECHANICALLY-CAUSED INJURY  |   | J/P   |
|-------------|---|---|-------|
| 8.2         | Mechanical energy source classifications                                    |   |       |
| 8.3         | Safeguards against mechanical energy sources                                | WITE WALL WALL WALL                             | √// P |
| 8.4         | Safeguards against parts with sharp edges and corners                       |   | Р     |
| 8.4.1       | Safeguards  | THE WALL WALL MAN                               | P.    |
| WALTER      | 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   | 41 4  | N/A   |
| 8.5.1       | Fingers, jewellery, clothing, hair, etc., contact with MS2 or MS3 parts     | No moving parts.                                | N/A   |
| IER WALTE   | MS2 or MS3 part required to be accessible for the function of the equipment | See above.                                      | N/A   |
| t TEX       | Moving MS3 parts only accessible to skilled person                          | t lik lik like like                             | N/A   |
| 8.5.2       | Instructional safeguard:  | Mer Mer Mer M                                   | N/A   |
| 8.5.4       | Special categories of equipment containing moving parts                     | MITER WHITER WHITE                              | N/A   |
| 8.5.4.1     | General   | a state of                                      | N/A   |
| 8.5.4.2     | Equipment containing work cells with MS3 parts                              | KITE WALL WALL WALL WALL                        | N/A   |
| 8.5.4.2.1   | Protection of persons in the work cell                                      | at let tet tet                                  | N/A   |
| 8.5.4.2.2   | Access protection override  | They may my a                                   | N/A   |
| 8.5.4.2.2.1 | Override system   | - TEX TEX LIER ON                               | N/A   |
| 8.5.4.2.2.2 | Visual indicator  | Mrs. Mrs. Mrs. Am                               | N/A   |
| 8.5.4.2.3   | Emergency stop system   | TEN TEN CITER WITE                              | N/A   |
| TEX SLIER   | Maximum stopping distance from the point of activation (m)                  | IN AN THE STEEL STEEL                           | N/A   |
| k lifek     | Space between end point and nearest fixed mechanical part (mm)              | at the title                                    | N/A   |
| 8.5.4.2.4   | Endurance requirements  | WHIT WILL WILL W                                | N/A   |
| NALTEK WA   | Mechanical system subjected to 100 000 cycles of operation                  | SLIER WIFER WILLER WILL                         | N/A   |



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|------------|--|---|------------|--|
| Clause     | Requirement – Test   | Result – Remark   | Verdict    |  |
| Mr.        | W W TEN ST   | ET WILL WILL MAY WE   | " "h.      |  |
|            | - Mechanical function check and visual inspection                  | The state of  | N/A        |  |
| mr. m      | - Cable assembly   | WILL MILL MULL MULL   | N/A        |  |
| 8.5.4.3    | Equipment having electromechanical device for destruction of media | Tet wifet milet miret   | N/A        |  |
| 8.5.4.3.1  | Equipment safeguards   | b. M. D. A.   | N/A        |  |
| 8.5.4.3.2  | Instructional safeguards against moving parts:                     | TEX WILLEY WILLEY WHILL A   | N/A        |  |
| 8.5.4.3.3  | Disconnection from the supply                                      |   | N/A        |  |
| 8.5.4.3.4  | Cut type and test force (N)  | WILL WILL MULL WAS  | N/A        |  |
| 8.5.4.3.5  | Compliance   | a state st  | N/A        |  |
| 8.5.5      | High pressure lamps  | No high pressurelamps used.   | N/A        |  |
| TEX TE     | Explosion test:  | at lest test steels   | N/A        |  |
| 8.5.5.3    | Glass particles dimensions (mm)                                    | The Mary May My   | N/A        |  |
| 8.6        | Stability of equipment   | et set set stet stet  | N/A        |  |
| 8.6.1      | General  | MS1: Mass of the unit   | N/A        |  |
| MLIE       | Instructional safeguard:   | TEN TEN STEEL OUT   | N/A        |  |
| 8.6.2      | Static stability   | White the same of | N/A        |  |
| 8.6.2.2    | Static stability test  | LEE MITE SOUTH  | N/A        |  |
| 8.6.2.3    | Downward force test  | - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   | N/A        |  |
| 8.6.3      | Relocation stability   | TE OLITE UNLINATED  | N/A        |  |
| t Let      | Wheels diameter (mm):  | L A A   | _          |  |
| 2/15 1     | Tilt test  | MILIE WHILE WHILE WHI   | N/A        |  |
| 8.6.4      | Glass slide test   | A A A A A   | N/A        |  |
| 8.6.5      | Horizontal force test:   | WILL MULT WILL WILL   | N/A        |  |
| 8.7        | Equipment mounted to wall, ceiling or other stru                   | icture  | N/A        |  |
| 8.7.1      | Mount means type   | No wall or ceiling  | N/A        |  |
| 8.7.2      | Test methods   | Et TEK TEK SITEM  | N/A        |  |
|            | Test 1, additional downwards force (N)                             | My My My  | N/A        |  |
| MULTER WI  | Test 2, number of attachment points and test force (N):            | WALTER WALTER WALTER WAL  | N/A        |  |
| NLTER WILL | Test 3 Nominal diameter (mm) and applied torque (Nm)               | UNITER WHITEK WHITEK  | N/A        |  |
| 8.8        | Handles strength   | at the last tells   | N/A        |  |
| 8.8.1      | General  | No handles  | N/A        |  |
| 8.8.2      | Handle strength test   | at the fifth  | N/A        |  |
| 20, 1      | Number of handles  | MULL MULL MULL MI   | _          |  |
| THE .      | Force applied (N)  | at at at a  | - <u>-</u> |  |



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| , au   |                                  | IEC62368-1      |         |
|--------|----------------------------------|-----------------|---------|
| Clause | Requirement – Test               | Result – Remark | Verdict |
| 8.9    | Wheels or casters attachment req | uirements       | N/A     |

| 8.9      | Wheels or casters attachment requirements              |   | N/A |
|----------|--|---|-----|
| 8.9.2    | Pull test  | No such parts                           | N/A |
| 8.10     | Carts, stands and similar carriers                     | Shirt it it                             | N/A |
| 8.10.1   | General  | No carts, stands or similar carriers    | N/A |
| 8.10.2   | Marking and instructions                               | LER STER STEE WITE I                    | N/A |
| 8.10.3   | Cart, stand or carrier loading test                    | The The Table                           | N/A |
| WILL !   | Loading force applied (N):                             | e still mite mite mi                    | N/A |
| 8.10.4   | Cart, stand or carrier impact test                     | 70 7 7                                  | N/A |
| 8.10.5   | Mechanical stability                                   | WILL MULL MULL MULL                     | N/A |
| det di   | Force applied (N):                                     | 1 A et est                              | CE. |
| 8.10.6   | Thermoplastic temperature stability                    | HITE MALIE WALL WALL                    | N/A |
| 8.11     | Mounting means for slide-rail mounted equipment (SRME) |   | N/A |
| 8.11.1   | General  | No such parts                           | N/A |
| 8.11.2   | Requirements for slide rails                           | e cer cer cer ce                        | N/A |
| 10, 1    | Instructional Safeguard:                               | Wer Mr Mr Mr                            | N/A |
| 8.11.3   | Mechanical strength test                               | LIFE OUTE                               | N/A |
| 8.11.3.1 | Downward force test, force (N) applied:                | 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | N/A |
| 8.11.3.2 | Lateral push force test                                | TE TE WITH MITE                         | N/A |
| 8.11.3.3 | Integrity of slide rail end stops                      | Mr. Mr. Mr.                             | N/A |
| 8.11.4   | Compliance   | FA ALTER INLIER WALTER WA               | N/A |
| 8.12     | Telescoping or rod antennas                            | 20 20 A                                 | N/A |
| Were an  | Button/ball diameter (mm)                              | No such parts                           | _   |

| 9     | THERMAL BURN INJURY                       |   | In Punt    |
|-------|---|---|------------|
| 9.2   | Thermal energy source classifications     | The The The   | ∠ P ∠      |
| 9.3   | Touch temperature limits                  | * ITEX NITER WITE WALLE WE  | P          |
| 9.3.1 | Touch temperatures of accessible parts    | : (See appended table 5.4.1.4, 9.3, B.1.5, B.2.6)   | PEK        |
| 9.3.2 | Test method and compliance                | See B.1.6 & B.2.3   | Р          |
| 9.4   | Safeguards against thermal energy sources |   | W Action   |
| 9.5   | Requirements for safeguards               | in in the   | ,(P        |
| 9.5.1 | Equipment safeguard                       | Enclosure provided to limit the transfer of thermal energy of internal parts under normal operating conditions and abnormal operating conditions. | NE PAINTER |



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|------------|---|--|----------|
| Clause     | Requirement – Test  | Result – Remark  | Verdict  |
| ale.       | W W A A A A   | Et all with other was  | 100      |
| 9.5.2      | Instructional safeguard:  | Instructional safeguard is not required.                                       | N/A      |
| 9.6        | Requirements for wireless power transmitters                                    | Mr. Mr. M. M.  | N/A      |
| 9.6.1      | General   | No wireless power transmitters   | N/A      |
| 9.6.2      | Specification of the foreign objects  | he me me   | N/A      |
| 9.6.3      | Test method and compliance:   | TER MILIER MALTER MALTER AND   | N/A      |
| 10         | RADIATION   |  | Р        |
| 10.2       | Radiation energy source classification  | Mr. Mr. Mr. M.   | Р        |
| 10.2.1     | General classification  | See below  | Р        |
|            | Lasers:   | Mrs. Mrs. Mrs. Mrs.  | _        |
| ities with | Lamps and lamp systems:   | RS1: LED only for indicating use which is considered as low power application. | _        |
| 70         | Image projectors:   | WHILL MUT. MUT. M.   | _        |
| CER        | X-Ray:  | at at the til  | _        |
| 111 1      | Personal music player   | White Mary all which   | _        |
| 10.3       | Safeguards against laser radiation  |  | N/A      |
|            | The standard(s) equipment containing laser(s) comply:                           | No laser radiation   | N/A      |
| 10.4       | Safeguards against optical radiation from lamp (including LED types)            | s and lamp systems   | Р        |
| 10.4.1     | General requirements  | LED indication light: Classed as RS1 (Exempt Group)                            | Р        |
| Write M    | Instructional safeguard provided for accessible radiation level needs to exceed | MILITER WALLE WALLE  | N/A      |
| Life and   | Risk group marking and location   | TEX TEX STER STEE  | N/A      |
|            | Information for safe operation and installation                                 | Mr. Mr. Mr. Mr.  | N/A      |
| 10.4.2     | Requirements for enclosures   | Et TEX LIET OUTEN  | N/A      |
|            | UV radiation exposure   | The The Section  | N/A      |
| 10.4.3     | Instructional safeguard   | - LIEN MILE WILL MILE  | N/A      |
| 10.5       | Safeguards against X-radiation  | m m t  | N/A      |
| 10.5.1     | Requirements  | No X-radiation   | N/A      |
| .et 10     | Instructional safeguard for skilled persons                                     | W W  | _        |
| 10.5.3     | Maximum radiation (pA/kg)   | LIEF WILL WALL WALL O  | _        |
| 10.6       | Safeguards against acoustic energy sources                                      | s at at at   | N/A      |
| 10.6.1     | General   | No such equipment  | N/A      |
| 10.6.2     | Classification  |  | N/A      |



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|---------------|--|---------------------------------------|---------|
| Clause        | Requirement – Test   | Result – Remark                       | Verdict |
| m.            | Will the state of  | the wife with one                     | The The |
| 1             | Acoustic output <i>L</i> <sub>Aeq,T</sub> , dB(A)                | 4 4                                   | N/A     |
| المارين المال | Unweighted RMS output voltage (mV):                              | ALTER WALTE WALTE                     | N/A     |
|               | Digital output signal (dBFS):                                    | 20 20                                 | N/A     |
| 10.6.3        | Requirements for dose-based systems                              | RLIFE WILL WALL VI                    | N/A     |
| 10.6.3.1      | General requirements   | 1 st st .                             | N/A     |
| 10.6.3.2      | Dose-based warning and automatic decrease                        | ite with must me                      | N/A     |
| 10.6.3.3      | Exposure-based warning and requirements                          | e stadt sil                           | N/A     |
| 1/12 1        | 30 s integrated exposure level (MEL30)                           | WILL WILL WILL                        | N/A     |
| Cler V        | Warning for MEL ≥ 100 dB(A)                                      | at at at                              | N/A     |
| 10.6.4        | Measurement methods  | WHITE WILL WAS                        | N/A     |
| 10.6.5        | Protection of persons  | at let let.                           | N/A     |
| 7             | Instructional safeguards   | Tr. Mr. Mr. M.                        | N/A     |
| 10.6.6        | Requirements for listening devices (headphones, earphones, etc.) | EX MITEL MATER WAL                    | N/A     |
| 10.6.6.1      | Corded listening devices with analogue input                     | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | N/A     |
| 41, 2         | Listening device input voltage (mV)                              | white and any                         | N/A     |
| 10.6.6.2      | Corded listening devices with digital input                      | at a late                             | N/A     |
|               | Max. acoustic output L <sub>Aeq,T</sub> , dB(A):                 | 2 44                                  | N/A     |
| 10.6.6.3      | Cordless listening devices                                       |                                       | N/A     |
| - 0"          | Max. acoustic output L <sub>Aeq,T</sub> , dB(A)                  | y my my m                             | N/A     |

| В      | NORMAL OPERATING CONDITION TESTS, ABNORMAL OPERATING CONDITION TESTS AND SINGLE FAULT CONDITION TESTS |                            |          |
|--------|---|----------------------------|----------|
| B.1    | General   | WILL WILL MULL MULL        | W. b w   |
| B.1.5  | Temperature measurement conditions  | (See appended table B.1.5) | ₫P ₫     |
| B.2    | Normal operating conditions   | WITE WILL MILL MILL        | P. P.    |
| B.2.1  | .1 General requirements: (See Test Item Particulars and appended test tables)                         |                            | TEL PITE |
| MALTER | Audio Amplifiers and equipment with audio amplifiers  | - TEK STEK STEK SKI        | N/A      |
| B.2.3  | Supply voltage and tolerances   | Rated input 5Vdc           | Р        |
| B.2.5  | Input test:   | (See appended table B.2.5) | web w    |
| B.3    | Simulated abnormal operating conditions   | 14. 14. 1.                 | Р        |
| B.3.1  | General   | (See appended table B.3)   | ni Puni  |
| B.3.2  | Covering of ventilation openings  | No ventilation openings.   | N/A      |
| MARC   | Instructional safeguard:  | CER STILL MILLER WILL ME   | 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 such selector           | N/A      |



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|------------|--|---|---------|--|
| Clause     | Requirement – Test   | Result – Remark   | Verdict |  |
| an.        | All the state of   | EL TILL WILL MULT IN  | e un    |  |
| B.3.5      | Maximum load at output terminals   | (See appended table B.3)  | ⊢ P+    |  |
| B.3.6      | Reverse battery polarity   | No such battery   | N/A     |  |
| B.3.7      | Audio amplifier abnormal operating conditions                            | (See appended table B.3)  | Р       |  |
| B.3.8      | Safeguards functional during and after abnormal operating conditions     | All safeguards remained effective   | No. ba  |  |
| B.4        | Simulated single fault conditions  |   | BU.     |  |
| B.4.1      | General  | 7, 7  | e P.e   |  |
| B.4.2      | Temperature controlling device   | NTC used on battery protective board. The test is carried out for three times, no failure. See appended table B.4 for details | N P     |  |
| B.4.3      | Blocked motor test   | No motors   | N/A     |  |
| B.4.4      | Functional insulation  | See below.  | A P     |  |
| B.4.4.1    | Short circuit of clearances for functional insulation                    | (See appended table B.4)  | Р       |  |
| B.4.4.2    | Short circuit of creepage distances for functional insulation            | (See appended table B.4)  | L PE    |  |
| 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)  | P       |  |
| B.4.6      | Short circuit or disconnection of passive components                     | (See appended table B.4)  | Р       |  |
| 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   | MELLE   |  |
| B.4.9      | Battery charging and discharging under single fault conditions           | See annex M   | TER PAI |  |
| С          | UV RADIATION   |   | N/A     |  |
| C.1        | Protection of materials in equipment from UV re                          | adiation  | N/A     |  |
| C.1.2      | Requirements   | No such UV generated from the equipment.  | N/A     |  |
| C.1.3      | Test method  | In 20,  | N/A     |  |
| C.2        | UV light conditioning test   | LITER RELIEF MELLER MINERY  | N/A     |  |
| C.2.1      | Test apparatus   |   | N/A     |  |
| C.2.2      | Mounting of test samples   | et nite unite unite un  | N/A     |  |
| C.2.3      | Carbon-arc light-exposure test   | an are at a   | N/A     |  |
| C.2.4      | Xenon-arc light-exposure test  | alie alie anii mali   | N/A     |  |



| 1101010110011 | 0111111 223 122020201 | . ago 22 01 00    |                 |             |
|---------------|-----------------------|-------------------|-----------------|-------------|
| - m           |                       | IEC62368-1        |                 | ing and any |
| Clause        | Requirement – Test    | Will Mary All Mr. | Result – Remark | Verdict     |

| Clause   | Requirement – Test   | Result – Remark  | Verdict    |
|----------|--|--|------------|
| - w      | W  | er after way when we   | 201        |
| D        | TEST GENERATORS  | . A V AV 3   | N/A        |
| D.1      | Impulse test generators  | WHILE MULL MULL MUR  | N/A        |
| D.2      | Antenna interface test generator                               | The second second  | N/A        |
| D.3      | Electronic pulse generator                                     | WILL WILL WIFE MUTE  | N/A        |
| E        | TEST CONDITIONS FOR EQUIPMENT CONTAIN                          | IING AUDIO AMPLIFIERS  | N/A        |
| E.1      | Electrical energy source classification for audio              | signals  | N/A        |
| - JIEN   | Maximum non-clipped output power (W)                           | L St St St St  |            |
| 40, 4    | Rated load impedance ( $\Omega$ ):                             | MULL MAY MAY MAY   | _          |
| CLIER AN | Open-circuit output voltage (V):                               | LEK LEK LIEK SLIEK   | _          |
| n        | Instructional safeguard  | They were my my  | _          |
| E.2      | Audio amplifier normal operating conditions                    | the the tier outer.  | N/A        |
| t        | Audio signal source type                                       | is my my my  | _          |
| antit    | Audio output power (W):  | ex tex alter allers in   | _          |
|          | Audio output voltage (V)                                       | 710, 711, 21, 7  | _          |
| WALLE OF | Rated load impedance (Ω)                                       | LIE NIE MIENNIE  | _          |
| <u> </u> | Requirements for temperature measurement                       |  | N/A        |
| E.3      | Audio amplifier abnormal operating conditions                  | THE TOTAL WALLE  | N/A        |
| F        | EQUIPMENT MARKINGS, INSTRUCTIONS, AND INSTRUCTIONAL SAFEGUARDS |  | ALTER P    |
| F.1      | General  | 711 7  | J P        |
| Mr. C.   | Language   | English  | _          |
| F.2      | Letter symbols and graphical symbols                           |  | P          |
| F.2.1    | Letter symbols according to IEC60027-1                         | Letter symbols for quantities and units are complied with IEC 60027-1.                   | P          |
| F.2.2    | Graphic symbols according to IEC, ISO or manufacturer specific | Graphical symbols are complied with IEC 60417, ISO 3864-2, ISO 7000 or ISO 7010.         | P TEL TINE |
| F.3      | Equipment markings   | y tex sites writer and   | Р          |
| F.3.1    | Equipment marking locations                                    | The required marking is located on the enclosure of the equipment and is easily visible. | P          |
| F.3.2    | Equipment identification markings                              | See below for details.   | PNI        |
| F.3.2.1  | Manufacturer identification                                    | See copy of marking plate  | Р          |
| F.3.2.2  | Model identification   | See copy of marking plate  | Р          |
| F.3.3    | Equipment rating markings                                      | See below for details.   | P          |
| F.3.3.1  | Equipment with direct connection to mains                      | Supplying by 5Vdc  | N/A        |



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|-----------|--|---|-------------------|--|--|
| Clause    | Requirement – Test                                     | Result – Remark   | Verdict           |  |  |
| F.3.3.2   | Equipment without direct connection to mains           | See above.  | Р                 |  |  |
| F.3.3.3   | Nature of the supply voltage:                          | See copy of marking plate.  | Р                 |  |  |
| F.3.3.4   | Rated voltage:   | See copy of marking plate.  | Р                 |  |  |
| F.3.3.5   | Rated frequency:                                       | DC supply   | un P              |  |  |
| F.3.3.6   | Rated current or rated power:                          | See copy of marking plate.  | A P               |  |  |
| F.3.3.7   | Equipment with multiple supply connections             | Single supply connection.   | N/A               |  |  |
| F.3.4     | Voltage setting device                                 | No voltage setting device.  | N/A               |  |  |
| F.3.5     | Terminals and operating devices                        | MUTTER MUTTER MUTE AND  | N/A               |  |  |
| F.3.5.1   | Mains appliance outlet and socket-outlet markings      | NITER WILLER WALTER   | N/A               |  |  |
| F.3.5.2   | Switch position identification marking:                | and the second  | N/A               |  |  |
| F.3.5.3   | Replacement fuse identification and rating markings:   | Lie while will wall   | N/A               |  |  |
| WILL      | Instructional safeguards for neutral fuse:             | EX SITEX INTER WHITE WI   | 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                              | THE REPORT OF THE   | N/A               |  |  |
| F.3.6     | Equipment markings related to equipment classification | Class III equipment   | N/A               |  |  |
| F.3.6.1   | Class I equipment                                      | TE STE WITH WITH  | N/A               |  |  |
| F.3.6.1.1 | Protective earthing conductor terminal:                | The state of  | N/A               |  |  |
| F.3.6.1.2 | Protective bonding conductor terminals:                | HOLLIE WALLE WALLE  | N/A               |  |  |
| F.3.6.2   | Equipment class marking:                               | 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  | N/A               |  |  |
| F.3.6.3   | Functional earthing terminal marking:                  | INLIE MALL WALL WALL  | N/A               |  |  |
| F.3.7     | Equipment IP rating marking:                           | This equipment is classified as IPX0.   | MITE <del>L</del> |  |  |
| 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                 |  |  |



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| IEC62368-1 |  |  |           |  |
|------------|--|--|-----------|--|
| Clause     | Requirement – Test   | Result – Remark  | Verdict   |  |
| F.3.10     | Test for permanence of markings  | The lebel was subjected to                                     | P         |  |
| r.3.10     | Test for permanence of markings  | The label was subjected to thepermanence of marking            | the Court |  |
|            | The state of the state of  | test. Thelabel was rubbed                                      | 2/1/2     |  |
|            | te the life still mile only  | with cloth soakedwith water                                    | at the    |  |
|            | " WE ME AND TO THE   | for 15 sec. And thenagain for                                  | 11 C      |  |
|            | At let tex tex tex street while a  | 15 sec, with the clothsoaked with petroleum spirit. After this |           |  |
|            | all will will will all the   | test there was nodamage to                                     | JE        |  |
|            | W The state of   | the label. The markingon the                                   | 20        |  |
|            | THE SLIER OLITE MILL WALL WILL WILL  | label did not fade. Therewas                                   | C+ 16     |  |
|            | My My My My The The The  | no curling and lifting of                                      | Merch     |  |
|            | at let the their outlier while while   | thelabel edge. After each test, the marking remained legible.  |           |  |
| F.4        | Instructions   | and marriangromained togicies                                  | Р         |  |
|            | a) Information prior to installation and initial use   | See user manual  | P         |  |
| The same   | b) Equipment for use in locations where children   | TEN STEE STEE STEE   | N/A       |  |
| + 11       | not likely to be present   | in the same  | 14/A      |  |
| Miller     | c) Instructions for installation and interconnection   | EX WIFE MULTER WATER AND                                       | N/A       |  |
| MITEK      | d) Equipment intended for use only in restricted access area                                   | tet tet stet stet skit   | N/A       |  |
|            | e) Equipment intended to be fastened in place  | 10 10 10 10 10 10 10 10 10 10 10 10 10 1                       | N/A       |  |
| Veries Mus | f) Instructions for audio equipment terminals  | THE MILITER MALITE   | N/A       |  |
| pt de      | g) Protective earthing used as a safeguard   |  | N/A       |  |
| " WE       | h) Protective conductor current exceeding ES2 limits   | The mile water water or  | N/A       |  |
| - SINLITE  | i) Graphic symbols used on equipment   | t tet tet niter in   | N/A       |  |
|            | <ul> <li>j) Permanently connected equipment not provided with all-pole mains switch</li> </ul> | and an an are  | N/A       |  |
| 2014 - 20  | k) Replaceable components or modules providing safeguard function                              | mer and any  | N/A       |  |
| ir. The    | Equipment containing insulating liquid   | NITE MILITE WILL WALL  | N/A       |  |
| EK JEK     | m) Installation instructions for outdoor equipment   | a state of the   | N/A       |  |
| F.5        | Instructional safeguards   | it were mer mer m  | N/A       |  |
| G          | COMPONENTS   |  | P         |  |
| G.1        | Switches   | mer, mer, mer, en,   | N/A       |  |
| G.1.1      | General  | No switch used   | N/A       |  |
| G.1.2      | Ratings, endurance, spacing, maximum load  | Mr. Mr. M. M.  | N/A       |  |
| G.1.3      | Test method and compliance   | TEL STEE STEE STITE  | N/A       |  |
| G.2        | Relays   | 10 30  | N/A       |  |
| G.2.1      | Requirements   | No relay used.   | N/A       |  |
| G.2.2      | Overload test  | 24, 25   | N/A       |  |



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| - "       | IEC62368-1   | ere aler ale all                                       | 20, 7      |
|-----------|--|--|------------|
| Clause    | Requirement – Test   | Result – Remark  | Verdict    |
| 000       | District Control of the Control of t | E. Milit April Mr.                                     | 7/2 7/1    |
| G.2.3     | Relay controlling connectors supplying power to other equipment  | THE THE STATE  | N/A        |
| G.2.4     | Test method and compliance   | 44. 44. 44. 14.  | N/A        |
| G.3       | Protective devices   | TEK LIFEK NUTER IN                                     | N/A        |
| G.3.1     | Thermal cut-offs   | No such component                                      | N/A        |
| white     | Thermal cut-outs separately approved according to IEC 60730 with conditions indicated in a) & b)   | ies writer writer will                                 | N/A        |
| MALTER    | Thermal cut-outs tested as part of the equipment as indicated in c)  | ANTER WHITEL WHITER                                    | N/A        |
| G.3.1.2   | Test method and compliance   | A A A  | N/A        |
| G.3.2     | Thermal links  | No such component                                      | N/A        |
| G.3.2.1   | a) Thermal links tested separately according to IEC 60691 with specifics   | LIEK MITEK MITEK WAT                                   | N/A        |
| et Jet    | b) Thermal links tested as part of the equipment   | 1 + 2 4  | - N/A      |
| G.3.2.2   | Test method and compliance   | er with mill mi  | N/A        |
| G.3.3     | PTC thermistors  | No such component                                      | N/A        |
| G.3.4     | Overcurrent protection devices   | No such component                                      | N/A        |
| G.3.5     | Safeguards components not mentioned in G.3.1 to G.3.4  | THE THE NUMBER AND                                     | N/A        |
| G.3.5.1   | Non-resettable devices suitably rated and marking provided   | The life will not                                      | N/A        |
| G.3.5.2   | Single faults conditions   | 14, 14, 14,  | N/A        |
| G.4       | Connectors   | EX LIFE NITE WITE                                      | N/A        |
| G.4.1     | Spacings   | No such component                                      | N/A        |
| G.4.2     | Mains connector configuration  | alier while while w                                    | N/A        |
| G.4.3     | Plug is shaped that insertion into mains socket-<br>outlets or appliance coupler is unlikely   | THE THE MITTER IN                                      | N/A        |
| G.5       | Wound components   | We she she so  | N/A        |
| G.5.1     | Wire insulation in wound components  | No such component                                      | N/A        |
| G.5.1.2   | Protection against mechanical stress   | The Tree of  | N/A        |
| G.5.2     | Endurance test   | NITE WITE WITE   | N/A        |
| G.5.2.1   | General test requirements  | 20 20 3  | N/A        |
| G.5.2.2   | Heat run test  | WILL WILL MULL AND | N/A        |
| 76th . 16 | Test time (days per cycle)   |  | # <u> </u> |
| 2 min     | Test temperature (°C)  | LIE WALTE WALL WAL                                     | 4 _        |
| G.5.2.3   | Wound components supplied from the mains   | a at at at   | N/A        |
| G.5.2.4   | No insulation breakdown  | MALIT WALL WALL  | N/A        |
| G.5.3     | Transformers   | 1 1 1  | N/A        |



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| IEC62368-1 |  |                    |         |  |
|------------|--|--------------------|---------|--|
| Clause     | Requirement – Test   | Result – Remark    | Verdict |  |
| Mrs.       | n v v tit tit tilt mi  | ER WILL MULL ONLY  | Mer Mer |  |
| G.5.3.1    | Compliance method  |                    | N/A     |  |
| mr m       | Position   | WALLE WALLE MALL   | N/A     |  |
| all s      | Method of protection   | the state of       | N/A     |  |
| G.5.3.2    | Insulation   | RETER MALTE WALL W | N/A     |  |
| er Jer     | Protection from displacement of windings:                    | L A At             |         |  |
| G.5.3.3    | Transformer overload tests                                   | TE WALL MULL AND   | N/A     |  |
| G.5.3.3.1  | Test conditions  | L at all 18        | N/A     |  |
| G.5.3.3.2  | Winding temperatures   | WALL MUT. MUT.     | N/A     |  |
| G.5.3.3.3  | Winding temperatures - alternative test method               | et et set          | N/A     |  |
| G.5.3.4    | Transformers using FIW                                       | MILL MILL MILL     | N/A     |  |
| G.5.3.4.1  | General  | let set set s      | N/A     |  |
| , J.       | FIW wire nominal diameter                                    | or my my m         | _       |  |
| G.5.3.4.2  | Transformers with basic insulation only                      | et let let li      | N/A     |  |
| G.5.3.4.3  | Transformers with double insulation or reinforced insulation | Mr Mr M            | N/A     |  |
| G.5.3.4.4  | Transformers with FIW wound on metal or ferrite core         | White Marie And    | N/A     |  |
| G.5.3.4.5  | Thermal cycling test and compliance                          | NAT. A             | N/A     |  |
| G.5.3.4.6  | Partial discharge test                                       |                    | N/A     |  |
| G.5.3.4.7  | Routine test   | The Will My        | N/A     |  |
| G.5.4      | Motors   | No motors used.    | N/A     |  |
| G.5.4.1    | General requirements   | WILL MUT AND       | N/A     |  |
| G.5.4.2    | Motor overload test conditions                               | at at the          | N/A     |  |
| G.5.4.3    | Running overload test  | MULL MULL MINE     | N/A     |  |
| G.5.4.4.2  | Locked-rotor overload test                                   | et let jet         | N/A     |  |
|            | Test duration (days)   | vez mez mez m      | _       |  |
| G.5.4.5    | Running overload test for DC motors                          | et let let al      | N/A     |  |
| G.5.4.5.2  | Tested in the unit   | Mrs. Mrs. All.     | N/A     |  |
| G.5.4.5.3  | Alternative method   | - ITEK LITER NITER | N/A     |  |
| G.5.4.6    | Locked-rotor overload test for DC motors                     | 211 211 211        | N/A     |  |
| G.5.4.6.2  | Tested in the unit   | LIEF SLIEF WLITTE  | N/A     |  |
| at a       | Maximum Temperature  | 1,0 1,1 1,1        | N/A     |  |
| G.5.4.6.3  | Alternative method   | TEL STEE WILLIAM   | N/A     |  |
| G.5.4.7    | Motors with capacitors                                       | 40 70, 2,          | A N/A   |  |
| G.5.4.8    | Three-phase motors   | et night ingenanci | N/A     |  |
| G.5.4.9    | Series motors  | 70, 70, 70         | N/A     |  |

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| 24        | IEC62368-1  | WILL MULL MULL MULL      | 2/1, 2/1, |
|-----------|---|--------------------------|-----------|
| Clause    | Requirement – Test  | Result – Remark          | Verdict   |
| The .     | On creating welltone  | THE WILL WILL MAN        | 11/2 11/1 |
|           | Operating voltage:  |                          | -         |
| G.6       | Wire Insulation   | WILL MULL MALL           | N/A       |
| G.6.1     | General   | Only ES1 existed         | N/A       |
| G.6.2     | Enamelled winding wire insulation   | Will Muli Muli Mu        | N/A       |
| G.7       | Mains supply cords  | s at at a                | N/A       |
| G.7.1     | General requirements  | No such component        | N/A       |
| - LITER   | Type:   | L at all out             | <u> </u>  |
| G.7.2     | Cross sectional area (mm <sup>2</sup> or AWG):                              | MULL MULL MULL           | N/A       |
| G.7.3     | Cord anchorages and strain relief for non-<br>detachable power supply cords | INTER MATER WATER W      | N/A       |
| G.7.3.2   | Cord strain relief  |                          | N/A       |
| G.7.3.2.1 | Requirements  | The Muli Mil Mu          | N/A       |
| it the    | Strain relief test force (N)  | at at at A               | N/A       |
| G.7.3.2.2 | Strain relief mechanism failure   | while and any            | N/A       |
| G.7.3.2.3 | Cord sheath or jacket position, distance (mm):                              | at let the               | N/A       |
| G.7.3.2.4 | Strain relief and cord anchorage material                                   | Weign Mur Mer.           | N/A       |
| G.7.4     | Cord Entry  | it of the                | N/A       |
| G.7.5     | Non-detachable cord bend protection   | 2 10 20                  | N/A       |
| G.7.5.1   | Requirements  | The The Lite             | N/A       |
| G.7.5.2   | Test method and compliance  | Mr. M. M.                | N/A       |
| MULTER    | Overall diameter or minor overall dimension, D (mm)                         | WALTER WALTER WALTER     | will -    |
| WILLER OW | Radius of curvature after test (mm):  | Alt Alt Oliv             | alie —    |
| G.7.6     | Supply wiring space   | They have him a          | N/A       |
| G.7.6.1   | General requirements  | TEX TEX LITER ON         | N/A       |
| G.7.6.2   | Stranded wire   | Vir My My My             | N/A       |
| G.7.6.2.1 | Requirements  | EF STEF STEE MITE        | N/A       |
| G.7.6.2.2 | Test with 8 mm strand   | 14, 14, 1,               | N/A       |
| G.8       | Varistors   | A LIER OLITER MATER      | N/A       |
| G.8.1     | General requirements  | No such component        | N/A       |
| G.8.2     | Safeguards against fire   | ALTER INLIER MALTER W    | N/A       |
| G.8.2.1   | General   | 20. 20. 2                | N/A       |
| G.8.2.2   | Varistor overload test  | LIER WITE WALLS WAL      | N/A       |
| G.8.2.3   | Temporary overvoltage test  |                          | N/A       |
| G.9       | Integrated circuit (IC) current limiters                                    | THE WALTER WALTER WALTER | N/A       |
| G.9.1     | Requirements  | No such component        | N/A       |



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| - 07           | IEC62368-1   | the all the all the   | 3.      |
|----------------|--|---|---------|
| Clause         | Requirement – Test   | Result – Remark   | Verdict |
| - in-          | IC limiter output current (max. 5A):   | The Ann Mr. Mr. M.  | 10,     |
| WELLER AL      | Manufacturers' defined drift   | CENT TENT TOP NOT   |         |
| G.9.2          |  | There are any   | NI/A    |
| G.9.2<br>G.9.3 | Test Program   | THE STATES  | N/A     |
| G.9.3          | Compliance  Resistors  | Vir Mur Mr Mr   | N/A     |
| <u> </u>       | The state of the s | No oush someons   | N/A     |
| G.10.1         | General  | No such component   | N/A     |
| G.10.2         | Conditioning   | t tiek eiter sier wi  | N/A     |
| G.10.3         | Resistor test  | My 20 20  | N/A     |
| G.10.4         | Voltage surge test   | Little out the miles with                                       | N/A     |
| G.10.5         | Impulse test   | Mr. Mr. D.  | N/A     |
| G.10.6         | Overload test  | THE STEEL STEEL STATE   | N/A     |
| G.11           | Capacitors and RC units  | L. 111 11.  | N/A     |
| G.11.1         | General requirements   | No such component   | N/A     |
| G.11.2         | Conditioning of capacitors and RC units  | 11, 2   | N/A     |
| G.11.3         | Rules for selecting capacitors   | CITER WILL WILL WALL ON   | N/A     |
| G.12           | Optocouplers   |   | N/A     |
| ivr. Alva      | Optocouplers comply with IEC 60747-5-5 with specifics  | No such component   | N/A     |
| LEE WALLE      | Type test voltage V <sub>ini,a</sub> :   | THE THE STATE OF THE STATE OF                                   | _       |
| L st           | Routine test voltage, V <sub>ini, b</sub> :  | The The The   | _       |
| G.13           | Printed boards   | * slift niter white wh  | N/A     |
| G.13.1         | General requirements   | Only need to comply with functional insulation, see only B.4.4. | N/A     |
| G.13.2         | Uncoated printed boards  | at let let let  | N/A     |
| G.13.3         | Coated printed boards  | HIT WILL WIFE WIFE  | N/A     |
| G.13.4         | Insulation between conductors on the same inner surface  | EX MITER WHITER WHITER W  | N/A     |
| G.13.5         | Insulation between conductors on different surfaces  | - TEK STEK STEK MIL   | N/A     |
| A              | Distance through insulation:   | M M A   | N/A     |
| ives air       | Number of insulation layers (pcs):   | SLIFE THE MALTE SUPLIE  | _       |
| G.13.6         | Tests on coated printed boards   | in an at at   | N/A     |
| G.13.6.1       | Sample preparation and preliminary inspection  | THE RITE MILE WALL Y  | N/A     |
| G.13.6.2       | Test method and compliance   | ***   | N/A     |
| G.14           | Coating on components terminals  | HI WILL MALLE MALLE MA  | N/A     |
| G.14.1         | Requirements   |   | N/A     |



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| alle     | IEC62368-1   | alife until water water                                     | 21/2 21  |
|----------|--|---|----------|
| Clause   | Requirement – Test   | Result – Remark   | Verdict  |
| G.15     | Pressurized liquid filled components   |   |          |
| G.15.1   | Requirements   | No such component   | N/A      |
| G.15.2   | Test methods and compliance  | Cherry Chr. In A.   | N/A      |
| G.15.2.1 | Hydrostatic pressure test  | STEP STEP SPITE SPITE                                       | N/A      |
| G.15.2.2 | Creep resistance test  |   | N/A      |
| G.15.2.3 | Tubing and fittings compatibility test   | TEX INTITE WALL WALL V                                      | N/A      |
| G.15.2.4 | Vibration test   | is at at  | N/A      |
| G.15.2.5 | Thermal cycling test   | MILLE WILL MILL MI  | N/A      |
| G.15.2.6 | Force test   | it it tit it  | N/A      |
| G.15.3   | Compliance   | Were Mer Mer Mer  | N/A      |
| G.16     | IC including capacitor discharge function (ICX)  | et let let liet   | N/A      |
| G.16.1   | Condition for fault tested is not required   | No such component   | N/A      |
| A WITE   | ICX with associated circuitry tested in equipment  | CH TEN TEN STEP .   | N/A      |
| 4        | ICX tested separately  | The Mr. M.  | N/A      |
| G.16.2   | Tests  | TEX THE NITE ON   | N/A      |
| TIFE ST  | Smallest capacitance and smallest resistance specified by ICX manufacturer for impulse test: | A THE LITE  | <u> </u> |
| CER CLE  | Mains voltage that impulses to be superimposed on:   | The thing the   | _        |
| t ist    | Largest capacitance and smallest resistance for ICX tested by itself for 10000 cycles test:  | The war war with  | 2        |
| G.16.3   | Capacitor discharge test   | A WILL WILL MULL M  | N/A      |
| Н        | CRITERIA FOR TELEPHONE RINGING SIGNAL  | S   | N/A      |
| H.1      | General  | MITE MILIE WALL WALL  | N/A      |
| H.2      | Method A   | a a at at   | N/A      |
| H.3      | Method B   | WILL MULL MULL MULL   | N/A      |
| H.3.1    | Ringing signal   | No telephone ringing signal generated within the equipment. | N/A      |
| H.3.1.1  | Frequency (Hz)   | - TEN LIER SLIER IN   | · _      |
| H.3.1.2  | Voltage (V)  | The Mr. Mr.   |          |
| H.3.1.3  | Cadence; time (s) and voltage (V):   | LIER SLIER WITH SINITE                                      | _        |
| H.3.1.4  | Single fault current (mA)::  | 712 - 711, 12, 12, 12, 12, 12, 12, 12, 12, 12,              | _        |
| H.3.2    | Tripping device and monitoring voltage   | TEX STEE MITTER SHIFT.                                      | N/A      |
| H.3.2.1  | Conditions for use of a tripping device or a monitoring voltage                              | et liet liet sliet  | N/A      |
| H.3.2.2  | Tripping device  | 20, 20, 20, 30  | N/A      |
| H.3.2.3  | Monitoring voltage (V)   | TEX STER STEE OU  | N/A      |



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| <u> </u> |                    |                 |         |  |  |
|----------|--------------------|-----------------|---------|--|--|
| in an    |                    | IEC62368-1      |         |  |  |
| Clause   | Requirement – Test | Result – Remark | Verdict |  |  |

| J         | INSULATED WINDING WIRES FOR USE WITHO INSULATION   | UT INTERLEAVED                                     | N/A     |
|-----------|--|--|---------|
| J.1       | General  | The Ale An An                                      | N/A     |
| The MA    | Winding wire insulation  | TEX STEX NUTER NUTER                               | _       |
| .L 2      | Solid round winding wire, diameter (mm)  | in the second                                      | N/A     |
| White     | Solid square and rectangular (flatwise bending) winding wire, cross-sectional area (mm²) | IER MUTTER MUTTER MUTTER AN                        | N/A     |
| J.2/J.3   | Tests and Manufacturing  | t get get agent mi                                 | er with |
| K         | SAFETY INTERLOCKS  |  | N/A     |
| K.1       | General requirements   | THE LIFE WITE WITE                                 | N/A     |
| IEK NI    | Instructional safeguard:   | No safety interlock provided within the equipment. | N/A     |
| K.2       | Components of safety interlock safeguard mec   | hanism   | N/A     |
| K.3       | Inadvertent change of operating mode   | cet tet tet stet we                                | N/A     |
| K.4       | Interlock safeguard override   | Mur Mr. M. M.                                      | N/A     |
| K.5       | Fail-safe  | t test ties attended                               | N/A     |
| K.5.1     | Under single fault condition   | The same of  | N/A     |
| K.6       | Mechanically operated safety interlocks  | ALTE MITE MITE                                     | N/A     |
| K.6.1     | Endurance requirement  | 2 1 1  | N/A     |
| K.6.2     | Test method and compliance   | The other mile waite of                            | N/A     |
| K.7       | Interlock circuit isolation  |  | N/A     |
| K.7.1     | Separation distance for contact gaps & interlock circuit elements                        | MALIE WHILE WALL WAS                               | N/A     |
| mrite w   | In circuit connected to mains, separation distance for contact gaps (mm):                | MILIER WALTER WALTER WALTER                        | N/A     |
| ITER WAL  | In circuit isolated from mains, separation distance for contact gaps (mm)                | NIFE WILLER WILLIER WILLIER                        | N/A     |
| ek whiteh | 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)   |  | N/A     |
| K.7.3     | Endurance test   | MITE WILL WILL WILL WILL                           | N/A     |
| K.7.4     | Electric strength test   | L A A A  | N/A     |
| L         | DISCONNECT DEVICES   |  | N/A     |
| LA J      | General requirements   | at the state of the                                | N/A     |
| L.2 🖑     | Permanently connected equipment  | Tite Maria Maria Maria                             | N/A     |
| L.3       | Parts that remain energized  | at at the time of                                  | N/A     |
| L.4       | Single-phase equipment   | aver her me an                                     | N/A     |
| L.5 (     | Three-phase equipment  | at the tilt of                                     | N/A     |



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| Ola        | IEC62368-1  | Davils David  | 1/4            |
|------------|---|---|----------------|
| Clause     | Requirement – Test  | Result – Remark   | Verdict        |
| L.6        | Switches as disconnect devices                                  | THE THE THE THE   | N/A            |
| L.7        | Plugs as disconnect devices                                     | alie will wall wall   | N/A            |
| L.8        | Multiple power sources  | The state of the  | N/A            |
| ve. The    | Instructional safeguard:  | RITER WALTER WALLE WALL   | N/A            |
| М          | EQUIPMENT CONTAINING BATTERIES AND TH                           | IEIR PROTECTION CIRCUITS  | P              |
| M.1        | General requirements  | iter white whis were w  | Р              |
| M.2        | Safety of batteries and their cells                             | e st st st st   | P              |
| M.2.1      | Batteries and their cells comply with relevant IEC standards    | Approved battery pack used  | Р              |
| M.3        | Protection circuits for batteries provided within the equipment | unties until until white  | P              |
| M.3.1      | Requirements  | TEX LIEX WITH WITH  | P <sub>s</sub> |
| M.3.2      | Test method   | . M. 2.   | P              |
| MUL        | Overcharging of a rechargeable battery                          | (See appended table AnnexM)   | Р              |
| White a    | Excessive discharging   | (See appended table AnnexM)   | , P            |
| Uniter Mus | Unintentional charging of a non-rechargeable battery            | No such battery used  | N/A            |
| TEX WALTE  | Reverse charging of a rechargeable battery                      | Built-in battery used, reverse charging is prevented  | N/A            |
| M.3.3      | Compliance  | No chemical leakage, no<br>spillage of liquid, no explosion<br>of the battery, no emission of<br>flame or expulsion of molten<br>metal  | EK P           |
| M.4        | Additional safeguards for equipment containing lithium battery  | g a portable secondary  | P              |
| M.4.1      | General   | reference with which  | Р              |
| M.4.2      | Charging safeguards   | Under normal operating conditions, abnormal operating conditions or single fault conditions, the charging voltage, charging current of the battery no exceed the maximum specified charging voltage and maximum specified charging current. | TE PO          |
| M.4.2.1    | Requirements  | TEX STEE WITE WAITE   | N/A            |
| M.4.2.2    | Compliance  | (See appended table M.4.2)  | P P            |
| M.4.3      | Fire enclosure  | V-0 fire enclosure used   | Р              |
| M.4.4      | Drop test of equipment containing a secondary lithium battery   | at at at a  | - Pe           |







|          | IEC62368-1  |  |          |
|----------|---|--|----------|
| Clause   | Requirement – Test  | Result – Remark  | Verdict  |
| mr.      | W W S STATE OF STATE | the with white our and   | The same |
| M.4.4.2  | Preparation and procedure for the drop test   |  | P+       |
| M.4.4.3  | Drop, Voltage on reference and dropped batteries (V); voltage difference during 24 h period (%)::   | The voltage difference not exceed 5%.  | √n P     |
| M.4.4.4  | Check of the charge/discharge function  | Three complete discharge and charge cycles under normal operating conditions.  | Maria P  |
| M.4.4.5  | Charge / discharge cycle test   | No fire, explosion and any electrolyte leakage   | Р        |
| M.4.4.6  | Compliance  | t get affet affet and  | P        |
| M.5      | Risk of burn due to short-circuit during carrying   | g ull  | P        |
| M.5.1    | Requirement   | No bare conductive terminal used   | JIN P    |
| M.5.2    | Test method and compliance  | TEX STER STER BUTER  | N/A      |
| M.6      | Safeguards against short-circuits   | 1 m m 2 m  | Р        |
| M.6.1    | External and internal faults  | Et CIET NITE NITE W  | N/A      |
| M.6.2    | Compliance  | The battery complied with IEC 62133-2 which considered the internal fault tests. No such explosion or fire likely to result from short circuits. | PRE-     |
| M.7      | Risk of explosion from lead acid and NiCd batte   | eries  | N/A      |
| M.7.1    | Ventilation preventing explosive gas concentration  | No such battery used   | N/A      |
| t Tilet  | Calculated hydrogen generation rate:  | t let telt itelt it  | N/A      |
| M.7.2    | Test method and compliance  | Mrs. Mrs. Mrs. Mrs.  | N/A      |
| CLIFE OF | Minimum air flow rate, Q (m³/h):  | et let let let life  | N/A      |
| M.7.3    | Ventilation tests   | mer me me m  | N/A      |
| M.7.3.1  | General   | TEX TEX LIER NITER   | N/A      |
| M.7.3.2  | Ventilation test – alternative 1  | 1 14 14 14 14 14 14 14 14 14 14 14 14 14   | N/A      |
| in with  | Hydrogen gas concentration (%):   | et tret tret wife of   | N/A      |
| M.7.3.3  | Ventilation test – alternative 2  | m, m, a,   | N/A      |
| MALLE VI | Obtained hydrogen generation rate:  | - LIER MITE WITE WAL   | N/A      |
| M.7.3.4  | Ventilation test – alternative 3  | 20 20 A CA   | N/A      |
| ur, au   | Hydrogen gas concentration (%):   | CLIER WIFE WALTE WALTE   | N/A      |
| M.7.4    | Marking:  |  | N/A      |
| M.8      | Protection against internal ignition from external spark sources of batteries with aqueous electrolyte  |  | N/A      |
| M.8.1    | General   | It like when which the   | N/A      |
| M.8.2    | Test method   | 711. 111. 111.   | N/A      |
| M.8.2.1  | General   | LET THE LIFE WITH  | N/A      |



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| 20,       | IEC62368-1  | view mer mer mer          | 20, 20     |
|-----------|---|---------------------------|------------|
| Clause    | Requirement – Test  | Result – Remark           | Verdict    |
| 11000     |   | The write water and       | we are     |
| M.8.2.2   | Estimation of hypothetical volume $V_Z$ (m <sup>3</sup> /s):                            |                           | Set Jet    |
| M.8.2.3   | Correction factors:   | Walie Allie Mar. M        | v. 14.     |
| M.8.2.4   | Calculation of distance d (mm):   | Ly it it                  | the state  |
| M.9       | Preventing electrolyte spillage   | write ours and any        | N/A        |
| M.9.1     | Protection from electrolyte spillage  | the set set set           | N/A        |
| M.9.2     | Tray for preventing electrolyte spillage  | The Men My                | N/A        |
| M.10      | Instructions to prevent reasonably foreseeable misuse                                   | t miter whiter            | N/A        |
| 1th       | Instructional safeguard:  | a stat                    | N/A        |
| N 4       | ELECTROCHEMICAL POTENTIALS  | MUTTE MUTTE MUTTE ME      | N/A        |
| JEH J     | Material(s) used:   | at at at a                | et Jet.    |
| 0         | MEASUREMENT OF CREEPAGE DISTANCES A   | AND CLEARANCES            | N/A        |
| ek alifek | Value of X (mm):  | at let like like          | NITER IN   |
| Р         | SAFEGUARDS AGAINST CONDUCTIVE OBJECT  | TS with the win           | Р          |
| P.1       | General   | See below                 | ALTY MP    |
| P.2       | Safeguards against entry or consequences of e   | entry of a foreign object | Р          |
| P.2.1     | General   | ALL STEP IN               | P          |
| P.2.2     | Safeguards against entry of a foreign object  |                           | Р          |
| ie. Muri. | Location and Dimensions (mm):   | No opening.               | Write A    |
| P.2.3     | Safeguards against the consequences of entry of a foreign object                        | the test start street     | N/A        |
| P.2.3.1   | Safeguard requirements  | Any Any An                | N/A        |
| Marie M   | The ES3 and PS3 keep-out volume in Figure P.3 not applicable to transportable equipment | Whitek Whitek Whitek W    | N/A        |
| LITER WAL | Transportable equipment with metalized plastic parts                                    | NIEK MIEK WAITER WAL      | N/A        |
| P.2.3.2   | Consequence of entry test:  |                           | N/A        |
| P.3       | Safeguards against spillage of internal liquids   | TER MALTE WALL WALL       | N/A        |
| P.3.1     | General   | No such liquids.          | N/A        |
| P.3.2     | Determination of spillage consequences  | West Mrs Mes              | N/A        |
| P.3.3     | Spillage safeguards   | at let set                | N/A        |
| P.3.4     | Compliance  | Mery Mery and an          | N/A        |
| P.4       | Metallized coatings and adhesives securing pa   | rts to the title          | N/A        |
| P.4.1     | General   | No such construction.     | N/A        |
| P.4.2     | Tests   | et the little little      | N/A        |
|           | Conditioning, T <sub>C</sub> (°C):  | 1115 111 111              | <u></u>    |
| WITE A    | Duration (weeks):   | TEN TEN TEN               | alife will |







| S | The Maria | IEC6236            | 58-1 (* ) (*)   | the Maria Andrea |
|---|-----------|--------------------|-----------------|------------------|
|   | Clause    | Requirement – Test | Result – Remark | Verdict          |

| Q ,     | CIRCUITS INTENDED FOR INTERCONNECTION  | WITH BUILDING WIRING                          | P        |
|---------|--|---|----------|
| Q.1     | Limited power sources  | See appended table Annex Q.1                  | JIP P    |
| Q.1.1   | Requirements   | TEK STEK NITER MITE                           | J. L. P  |
| A- 4    | a) Inherently limited output   | L M M   | N/A      |
| IL WILL | b) Impedance limited output  | TEX SLIFE OLITER SINCE W                      | Р        |
| - 4     | c) Regulating network limited output   | 4, 4,   | N/A      |
| ant.    | d) Overcurrent protective device limited output  | t alter while while with                      | N/A      |
| et-     | e) IC current limiter complying with G.9   | The state of                                  | N/A      |
| Q.1.2   | Test method and compliance:  | See below                                     | ALL P    |
| LIEX    | Current rating of overcurrent protective device (A)  | See appended table Annex Q.1                  | ALTE P   |
| Q.2     | Test for external circuits – paired conductor cable  | No such circuit for connection to the EUT     | N/A      |
| 4.      | Maximum output current (A)   | any my and                                    | N/A      |
| WITE.   | Current limiting method:   | THE THE STILL OUT                             | · 41-67  |
| R       | LIMITED SHORT CIRCUIT TEST   | My My And | N/A      |
| R.1     | General  | No such consideration.                        | N/A      |
| R.2     | Test setup   | 7 7 7   | N/A      |
| in alle | Overcurrent protective device for test:  | The still mile while w                        | 700 - 10 |
| R.3     | Test method  | 70° × 34                                      | N/A      |
| anc     | Cord/cable used for test   | A STEE WHITE WALL WAL                         | - an     |
| R.4     | Compliance   | and the second                                | N/A      |
| S       | TESTS FOR RESISTANCE TO HEAT AND FIRE  | WILL MULL MULL AND                            | N/A      |
| S.1     | Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W |   | N/A      |
| et e    | Samples, material  | The state of                                  | , et     |
| The     | Wall thickness (mm)  | Et WILL AUTE AND AND                          | 7/1/2    |
|         | Conditioning (°C):   | 1 1 1 1 1                                     | × _6     |
| Me      | Test flame according to IEC 60695-11-5 with conditions as set out  | MULTINAL MALE WILL                            | N/A      |
| iner al | - Material not consumed completely   | ALTER MILE MALL MALL                          | N/A      |
| at a    | - Material extinguishes within 30s   |   | N/A      |
| , m     | - No burning of layer or wrapping tissue   | LIEF WILL WHILL AND A                         | N/A      |
| S.2     | Flammability test for fire enclosure and fire bar  | rier integrity                                | N/A      |
| 2012    | Samples, material  | White Mill Mill Mr.                           | 100      |
| 15      | Wall thickness (mm)  | 2 2 2 2                                       | 18       |



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| 411.           | IEC62368-1  | KLIP WILL WILL WILL  | 9/12 29          |
|----------------|---|--|------------------|
| Clause         | Requirement – Test  | Result – Remark  | Verdict          |
| - Sur          | All the state of the state of   | The write while one of   | 711              |
|                | Conditioning (°C)   |  | et <u>, et</u>   |
| S.3            | Flammability test for the bottom of a fire enclose  | sure   | N/A              |
| S.3.1          | Mounting of samples   |  | N/A              |
| S.3.2          | Test method and compliance  | Will Mill War Mur  | N/A              |
| CENTER STEE    | Mounting of samples   | at at at the   | JEW-             |
| 10,            | Wall thickness (mm)   | it must must must  | 20 - 20          |
| S.4            | Flammability classification of materials  | t at let stet s  | N/A              |
| S.5            | Flammability test for fire enclosure materials of equipment with a steady state power exceeding 4 000 W | whis wife while whi  | N/A              |
| St. 1          | Samples, material:  | The things of the state of the  |                  |
| ry Mrs.        | Wall thickness (mm):  | LIER WILL WHILE WHILE  | 1/2 -2           |
| * 18           | Conditioning (°C):  | the state of the s | (et -            |
| T Jun          | MECHANICAL STRENGTH TESTS   | TER MILE WALL WALL OF  | Р                |
| T.1            | General   | · · · · · · · · · · · ·  | P                |
| T.2            | Steady force test, 10 N:  | (See appended table T.2)   | J <sup>0</sup> P |
| T.3            | Steady force test, 30 N:  | A A A A A A A A A A A A A A A A A A A  | N/A              |
| T.4            | Steady force test, 100 N:   | " " " " " " " " " " " " " " " " " " "  | N/A              |
| T.5            | Steady force test, 250 N:   | (See appended table T.5)   | JE P             |
| T.6            | Enclosure impact test   | (See appended table T.6)   | P                |
| MITE           | Fall test   | the tell tell steel of   | P                |
|                | Swing test  | The The The Land   | Р                |
| T.7            | Drop test:  | (See appended table T.7)   | Р                |
| T.8            | Stress relief test:   | (See appended table T.8)   | Р                |
| T.9            | Glass Impact Test:  | No such glass  | N/A              |
| T.10           | Glass fragmentation test  |  | N/A              |
| m, C.          | Number of particles counted:  | No such glass  | N/A              |
| T.11           | Test for telescoping or rod antennas  | 4 A A A  | N/A              |
| July .         | Torque value (Nm):  | No such antennas provided within the equipment.  | N/A              |
| U VI<br>John K | MECHANICAL STRENGTH OF CATHODE RAY TUBES (CRT) AND PROTECTION AGAINST THE EFFECTS OF IMPLOSION          |  | N/A              |
| U.1            | General   | LIFER WITE WALTER WALTER   | N/A              |
| K WILLER       | Instructional safeguard:  | No CRT provided within the equipment.  | N/A              |
| U.2            | Test method and compliance for non-intrinsical  | ly protected CRTs  | N/A              |
| U.3            | Protective screen   | - TEN TEN STEE STEE  | N/A              |

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|          | IEC62368-1   |                           |         |
|----------|--|---------------------------|---------|
| Clause   | Requirement – Test   | Result – Remark           | Verdict |
| July .   | M M LET C  | all all all all           | 20      |
| V        | DETERMINATION OF ACCESSIBLE PARTS  | 711, 22                   | N/A     |
| V.1      | Accessible parts of equipment  | L SLIEB WILL WALL WALL    | N/A     |
| V.1.1    | General  | and the set set           | N/A     |
| V.1.2    | Surfaces and openings tested with jointed test probes  | Intifer white white white | N/A     |
| V.1.3    | Openings tested with straight unjointed test probes  | TER SLIER WLIER WALTER W  | N/A     |
| V.1.4    | Plugs, jacks, connectors tested with blunt probe   | Mr. Ar.                   | N/A     |
| V.1.5    | Slot openings tested with wedge probe  | CLIER WITE WHILE WA       | N/A     |
| V.1.6    | Terminals tested with rigid test wire  | W T A R                   | N/A     |
| V.2      | Accessible part criterion  | CHERT WITE WALL WALL      | N/A     |
| XX       | ALTERNATIVE METHOD FOR DETERMINING CLEARANCES FOR INSULATION IN CIRCUITS CONNECTED TO AN AC MAINS NOT EXCEE 420 V PEAK (300 V RMS) |                           | N/A     |
| A CALLER | Clearance  | CH TEN TEN STEEL OF       | N/A     |
| Υ        | CONSTRUCTION REQUIREMENTS FOR OUTDO  | OOR ENCLOSURES            | N/A     |
| Y.1      | General  | Indoor equipment          | N/A     |
| Y.2      | Resistance to UV radiation   | Mr. Mr. An.               | N/A     |
| Y.3      | Resistance to corrosion  | ALL ANTE MITE             | N/A     |
| Y.3      | Resistance to corrosion  | 2 1                       | N/A     |
| Y.3.1    | Metallic parts of outdoor enclosures are resistant to effects of water-borne contaminants by                                       | TE MITE MILIE WILLE       | N/A     |

to effects of water-borne contaminants by .....: Y.3.2 N/A Test apparatus Y.3.3 N/A Water - saturated sulphur dioxide atmosphere Y.3.4 Test procedure....: N/A Y.3.5 N/A Compliance Y.4 N/A **Gaskets** Y.4.1 General N/A Y.4.2 N/A Gasket tests Y.4.3 N/A Tensile strength and elongation tests N/A Alternative test methods..... Y.4.4 N/A Compression test Y.4.5 Oil resistance N/A N/A Y.4.6 Securing means Y.5 Protection of equipment within an outdoor enclosure N/A Y.5.1 N/A General Y.5.2 Protection from moisture N/A Relevant tests of IEC 60529 or Y.5.3....: N/A



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| IEC62368-1 |  |                        |           |
|------------|--|------------------------|-----------|
| Clause     | Requirement – Test   | Result – Remark        | Verdict   |
| The        | The same of the sa | THE SITE WITH JAN      | alle alle |
| Y.5.3      | Water spray test   | 211, 21, 25            | N/A       |
| Y.5.4      | Protection from plants and vermin  | LIE SLIEB WITE WITE    | N/A       |
| Y.5.5      | Protection from excessive dust   | n 20, 7                | N/A       |
| Y.5.5.1    | General  | TEX NITER WITE WALL OF | N/A       |
| Y.5.5.2    | IP5X equipment   |                        | N/A       |
| Y.5.5.3    | IP6X equipment   | A WILL MULL MULL MU    | N/A       |
| Y.6        | Mechanical strength of enclosures  | L A At At              | N/A       |
| Y.6.1      | General  | WILL MILL MULT MINE    | N/A       |
| Y.6.2      | Impact test  | i de de de             | N/A       |





| Les Mes | The the tent of th | IEC62368-1 | LIER WILLE WALL W | in mon me |
|---------|--|------------|-------------------|-----------|
| Clause  | Requirement – Test   | mer my m   | Result – Remark   | Verdict   |

#### ATTACHMENT TO TEST REPORT

#### IEC 62368-1

#### **EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES**

(Audio/video, information and communication technology equipment - Part 1: Safety requirements)

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

Attachment Form No...... EU\_GD\_IEC62368\_1E

Attachment Originator .....: UL(Demko)

Master Attachment ...... 2021-02-04

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|                       | CENELEC COMMON MODIFICATIONS (EN)  | lifer write write were on               | P              |
|-----------------------|--|---|----------------|
| MULIER W              | Clause numbers in the cells that are shaded light g IEC 62368-1:2020+A11:2020. All other clause num those in the paragraph below, refers to IEC 62368-Clauses, subclauses, notes, tables, figures and any those in IEC 62368-1:2018 are prefixed "Z".  | bers in that column, except for 1:2018. | PITE<br>WALTER |
| nek white<br>k whitek | Add the following annexes:  Annex ZA (normative)Normative references to interr corresponding European publications  Annex ZB (normative)Special national conditions  Annex ZC (informative)A-deviations  Annex ZD (informative)IEC and CENELEC code des  | THE WATE WHITE WAS                      | PV<br>EK MI    |
| 1                     | Modification to Clause 3.  |   | N/A            |
| 3.3.19                | Sound exposure  Replace 3.3.19 of IEC 62368-1 with the following definitions:  |   | N/A            |
| 3.3.19.1              | momentary exposure level, MEL metric for estimating 1 s sound exposure level from the HD 483-1 S2 test signal applied to both channels, based on EN 50332-1:2013, 4.2.  Note 1 to entry: MEL is measured as A-weighted levels in dB. Note 2 to entry: See B.3 of EN 50332-3:2017 for additional information. | Not such equipment                      | N/A            |
| 3.3.19.3              | sound exposure, E  A-weighted sound pressure ( $p$ ) squared and integrated over a stated period of time, $T$ Note 1 to entry: The SI unit is Pa <sup>2</sup> s. $E = \int_{0}^{T} p(t)^{2} dt$  | TEK WILLER WILLER WILLER WILLER         | N/A            |



|        |                    | IEC62368-1      |         |
|--------|--------------------|-----------------|---------|
| Clause | Requirement – Test | Result – Remark | Verdict |

| Clause             | rtequirement – rest   | Nesult – Nemark          | Veruici                    |
|--------------------|---|--------------------------|----------------------------|
| The .              | M. M. A. The College  | MALLE WILL WILL          | ne an                      |
| 3.3.19.4           | sound exposure level, SEL logarithmic measure of sound exposure relative to a reference value, <i>E<sub>o</sub></i> , typically the 1 kHz threshold of hearing in humans.   | united united united on  | N/A                        |
|                    | Note 1 to entry: SEL is measured as A-weighted levels in dB.  | the white white with     | الله المالي<br>الله المالي |
|                    | $SEL = 10 \lg \left(\frac{E}{E_0}\right) dB$  | until unit unit          | WITE WITER                 |
| NITEH IN           | Note 2 to entry: See B.4 of EN 50332-3:2017 for additional information.   | whi whi will w           | TEX MITER                  |
| 3.3.19.5           | digital signal level relative to full scale, dBFS   | ner me me m              | N/A                        |
|                    | levels reported in dBFS are always r.m.s. Full scale level, 0 dBFS, is the level of a dc-free 997-Hz sine wave whose undithered positive peak value is positive digital full scale, leaving the code corresponding to negative digital full scale unused  | TEX WHITEK WHITEK WHITEK | oner of oner               |
| MATER W            | Note 1 to entry: It is invalid to use dBFS for non-r.m.s. levels. Because the definition of full scale is based on a sine wave, the level of signals with a crest factor lower than that of a sine wave may exceed 0 dBFS. In particular, square wave signals may reach +3,01 dBFS.   | Whitek Whitek Whitek W   | EK TEK                     |
| 2                  | Modification to Clause 10   |                          | N/A                        |
|                    |   |                          |                            |
| 10.6               |   |                          | N/A                        |
| in Mur.            | Replace 10.6 of IEC 62368-1 with the following:   | TE WILL WILLE            | Mr. Mr.                    |
| in win             |   | Not such equipment       | N/A<br>N/A                 |
| 10.6.1.1  10.6.1.1 | Introduction Safeguard requirements for protection against long-term exposure to excessive sound pressurelevels 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   | Not such equipment       | Mr. Mr.                    |
| in Mur.            | Introduction Safeguard requirements for protection against long-term exposure to excessive sound pressurelevels from personal music players closely coupled to the ear are specified below. Requirements for earphones and headphones intended for use with personal music players are also covered.  A personal music player is a portable equipment intended for use by an ordinary person, that:  — is designed to allow the user to listen to audio or audiovisual content / material; and — uses a listening device, such as headphones or earphones that can be worn in or on or around the ears; and — has a player that can be body worn (of a size suitable to be carried in a clothing pocket) and is intended for the user to walk around with while in continuous use (for example, on a street, in a | Not such equipment       | Mr. Mur                    |





| - Mr     | IEC62368-1   | iter intite water wat | The Mr.      |
|----------|--|-----------------------|--------------|
| Clause   | Requirement – Test   | Result – Remark       | Verdict      |
| The same | requirements of either 10.6.2 or 10.6.3.   | White main along      | The All      |
|          | of the section of the | at at at              | TEX STEE     |
|          | NOTE 1 Protection against acoustic energy sources from telecom applications is referenced to ITU-T P.360.  | WALLE WALL WALL       | me me        |
|          | NOTE 2 It is the intention of the Committee to allow the   | at at at              | TEX STEX S   |
|          | alternative methods for now, but to only use the dose measurement method as given in 10.6.5 in future. Therefore,  | RETER WALTE WALL ON   | 7 20 20      |
|          | manufacturers are encouraged to implement 10.6.5 as soon as  | a start of            | et et s      |
|          | possible.  | ER WILL MULL AND      | mr mr        |
|          | Listening devices sold separately shall comply with the requirements of 10.6.6.  | a at at               | LE TEX       |
|          | These requirements are valid for music or video  | CLIEB MILIE MILITE    | Mur. Mur.    |
|          | mode only.   | 20, 20,               | at at        |
|          | The requirements do not apply to:  - professional equipment;   | LIER SLIER WIFE I     | WELL MEN A   |
|          | it tex itex river write mer and  | n. in is              | A 15         |
|          | NOTE 3Professional equipment is equipment sold through special sales channels. All products sold throughnormal   | TEX STEEL STEEL SIN   | The Mark and |
|          | electronics stores are considered not to be professional equipment.  | 111, 11, 12,          | 1 4 0        |
|          | The me me in the   | et tet stet stil      | WALL WALL    |
|          | <ul> <li>hearing aid equipment and other devices for assistive listening;</li> </ul>   | the the th            | , t          |
|          | the following type of analogue personal music  | TEX SEX STEX          | WILLEY WILLE |
|          | players:   | Wer Aug My            | 70.          |
|          | long distance radio receiver (for example, a<br>multiband radio receiver or world band radio   | LEST TENT             | LIER NIER N  |
|          | receiver, an AM radio receiver), and   | - 1 July 21           | . 2          |
|          | cassette player/recorder;  |                       | LEK WIEL WIL |
|          | NOTE 4 This exemption has been allowed because this technology is falling out of use and it is expected that within a  | in with the the       | 71, 12,      |
|          | few years it will no longer exist. This exemption will not be extended to other technologies.  | - CH TEX STEN         | LIE RITE     |
|          | The state of the s | MULL MULL MULL        | 411.         |
|          | <ul> <li>a player while connected to an external amplifier<br/>that does not allow the user to walk around while</li> </ul>  | at at let             | TEN STEE     |
|          | in use.  | MUTTER WALL WILL      | m m          |
|          | For equipment that is clearly designed or intended   | at at at.             | TEX TEX N    |
|          | primarily for use by children, the limits of the   | FIF MULL AND AND      | 711 711      |
|          | relevant toy standards may apply.  | e at at a             | Et GET SU    |
|          | The relevant requirements are given in   | White Many Must       | 21/2         |
|          | EN 71-1:2011, 4.20 and the related tests methods   | A ST ST               | TEN STEK     |
| 10.6.1.2 | and measurement distances apply.  Non-ionizing radiation from radio frequencies  | West With Miles       | N/A          |
| CLEAN C  | in the range 0 to 300 GHz  | at at at              | TEX TIEN     |
|          | The amount of non-ionizing radiation is regulated  | MITE WALL WALL OF     | V 311 7      |
|          | by European Council Recommendation<br>1999/519/EC of 12 July 1999 on the limitation of   | at the state of       | TEK TEK      |
|          | exposure of the general public to electromagnetic  | LE MULL MULL MULL     | 1/1/20       |
|          | fields (0 Hz to 300 GHz).  For intentional radiators, ICNIRP guidelines should   | 1 1 1 1               | F 575 F 576  |
|          | be taken into account for Limiting Exposure to   | WALLE WALL WALL       | Mr. Mr.      |
|          | Time-Varying Electric, Magnetic, and   | a de de               | TEX TEX      |
|          | Electromagnetic Fields (up to 300 GHz). For handheld and body mounted devices, attention is  | MITER MITE MALTE      | mer mer.     |



| IEC62368-1 |                    |             |                 | in the the |
|------------|--------------------|-------------|-----------------|------------|
| Clause     | Requirement – Test | Mur. Any An | Result – Remark | Verdict    |

|          | drawn to EN 50360 and EN 50566.   | 10. 3.                      | J. J.       |
|----------|---|-----------------------------|-------------|
| 10.6.2   | Classification of devices without the capacity to   | estimate sound dose         | N/A         |
| 0.6.2.1  | General   | Not such equipment          | N/A         |
|          | 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.  | LIFEK WHITEK WHITEK WHITEK  | grifer gr   |
|          | For classifying the acoustic output $L_{Aeq, T}$ , measurements are based on the A-weighted equivalent sound pressure level over a 30 s period.   | UNLIEF WHILE WALTER WALT    | ir miret.   |
|          | For music where the average sound pressure (long term $L_{Aeq,7}$ ) 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 complete song. In this case, $T$ becomes the duration of the   | TEX WHITEK WHITEK WHITEK    | on the ou   |
|          | song.   | WHITEK MUTTER MUTER AND     | TE. WALTE   |
|          | NOTE Classical music, acoustic music and broadcast typically has an average sound pressure (long term $L_{Aeq,7}$ ) 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. | ite mit muitet muitet       | WATER OF    |
| Whitek.  | For example, if the player is set with the programme simulation noise to 85 dB, but the average music level of the song is only 65 dB, there is no need to give a warning or ask an acknowledgement as long as the average sound level of the song is not above the basic limit of 85 dB.   | Whitek whitek whitek w      | itel whit   |
| 10.6.2.2 | RS1 limits (to be superseded, see 10.6.3.2)   | LIER OLIER WILLER WAL       | 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   | the whitek united united    | NULTER N    |
|          | connector between the player and its listening device, or where the combination of player and listening device is known by other means such as setting or automatic detection, the <i>L</i> Aeq, <i>τ</i> acoustic output shall be ≤ 85 dB when playing the fixed   | Murital Murital Muritals Mu | ITEX WALTER |
|          | "programme simulation noise" described in EN 50332-1.  – for equipment provided with a standardized connector (for example, a 3,5 phone jack) that  | INTER WHITER WHITE WHITE    | TEX.        |
|          | 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.  | TEX WHITE WHITE WHITE       | ATLY WHILE  |
|          | - The RS1 limits will be updated for all devices as per 10.6.3.2.   | MILIER MILIER WALTER WAL    | WALTER      |



| IEC62368-1          |   |  |   |
|---------------------|---|--|---|
| Clause              | Requirement – Test  | Result – Remark  | Verdict                                   |
| 10.6.2.3            | RS2 limits (to be superseded, see 10.6.3.3)   | the set the  | N/A                                       |
|                     | 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 <i>L</i> Aeq, <i>τ</i> acoustic output shall be ≤ 100 dB(A) when playing the fixed "programme simulation noise" as described in EN 50332-1.  — for equipment provided with a standardized connector (for example, a 3,5 phone jack) that allows connection to a listening device for general use, the unweighted r.m.s. output voltage shall be ≤ 150 mV (analogue interface) or -10 dBFS (digital interface) when playing the fixed "programme simulation noise" as described in EN 50332-1. | antit white  |   |
| 10.6.2.4            | RS3 limits  | Any Any Any  | N/A                                       |
|                     | RS3 is a class 3 acoustic energy source that exceeds RS2 limits.  | WALTER WALTER WALTER W   | ALTER WALTE                               |
| 10.6.3              | Classification of devices (new)   | at the same  | N/A                                       |
| 10.6.3.1            | General  Previous limits (10.6.2) created abundant false negative and false positive PMP sound level warnings. New limits, compliant with The Commission Decision of 23 June 2009, are given below.   | Not such equipment   | N/A                                       |
| 10.6.3.2            | RS1 limits (new)  | 24, 24, 24   | 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>τ</i> acoustic output shall be ≤ 80 dB when playing the fixed "programme simulation noise" described in EN 50332-1.  — for equipment provided with a standardized connector (for example, a 3,5 phone jack) that  | Whitek wh | ek witek wate<br>watek watek<br>tek autek |
| ne white<br>Ference | allows connection to a listening device for general use, the unweighted r.m.s. output voltage shall be ≤ 15 mV (analogue interface) or -30 dBFS (digital interface) when playing the fixed "programme simulation noise" described in EN 50332-1.  | TEX MULTEX MULTER WILL   | H WY TEK W                                |

RS2 is a class 2 acoustic energy source that does not exceed the following:

– for equipment provided as a package (player



| Clause     | Requirement – Test  | Desult Demands   | 1  |
|------------|---|--|--|
| 2/12 2     | Requirement – Test Result – Remark  |  | Verdict  |
| WALTER WAS | 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.  — 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 EN50332-1. | ANLIER WHITER WH | Who while wh |
| 10.6.4     | Requirements for maximum sound exposure   | 1 My 24 24   | N/A  |
| 10.6.4.1   | Measurement methods  All volume controls shall be turned to maximum during tests.  Measurements shall be made in accordance with EN 50332-1 or EN 50332-2 as applicable.  | Not such equipment   | N/A  |
| 10.6.4.2   | Protection of persons   | TEL MITE AND   | N/A  |
|            | Except as given below, protection requirements for parts accessible to ordinary persons, instructed persons and skilled persons are given in 4.3.  NOTE 1 Volume control is not considered a safeguard.  Between RS2 and an ordinary person, the basic safeguard may be replaced by an instructional  | TEK STEK DUTEK   | White white  |
|            | safeguard in accordance with Clause F.5, except that the instructional safeguard shall be placed on the equipment, or on the packaging, or in the   | ing myter myter myte   | ex writex was  |
|            | instruction manual.  Alternatively, the <b>instructional safeguard</b> may be given through the equipment display during use.   | A WALTER WALTER  | WILL WHITE   |
|            | The elements of the instructional safeguard shall be as follows:  | WALTER WALTER WALTER   | UNITED WALTER  |
|            | - element 1a: the symbol Fig. (1997), IEC 60417-6044 (2011-01) - element 2: "High sound pressure" or equivalent wording   | ALTER WALTER WALTER WA   | TER WILE M   |
|            | <ul> <li>– element 3: "Hearing damage risk" or equivalent wording</li> <li>– element 4: "Do not listen at high volume levels</li> </ul>   | t tex stex with  | MILITY WILLER  |
|            | for long periods." or equivalent wording  An equipment safeguard shall prevent exposure   | Me Me Me   | LIEK CLIEK   |



|              | IEC62368-1   |  |  |  |  |
|--------------|--|--|--|--|--|
| Clause       | Requirement – Test   | Result – Remark  | Verdict  |  |  |
| apr.         | M. M. The The  | The Still Mill Will  | 11/2 11/2  |  |  |
|              | of an <b>ordinary person</b> to an RS2 source without  | 20. 1  | **   |  |  |
|              | intentional physical action from the <b>ordinary</b>   | LEK TEK TEK  | Clife William  |  |  |
|              | person and shall automatically return to an output   | WILL MUE WILL A  | 20   |  |  |
|              | level not exceeding what is specified for an RS1   | 21   | A St   |  |  |
|              | source when the power is switched off.   | Let Let Jee 1  | The State of   |  |  |
|              |  | in any any   | 20.  |  |  |
|              | The equipment shall provide a means to actively  |  | t st.  |  |  |
|              | inform the user of the increased sound level when  | at the the star star   | an' an'  |  |  |
|              | the equipment is operated with an output   | The Mr. M.   | 20,  |  |  |
|              | exceeding RS1. Any means used shall be   | 1 1  | 10- 15   |  |  |
|              | acknowledged by the user before activating a   | THE LIES STEEL   | THE MALL   |  |  |
|              | mode of operation which allows for an output   | Mr. Mr. Mr.  | 20.  |  |  |
|              | exceeding RS1. The acknowledgement does not  |  | 14 18th  |  |  |
|              | need to be repeated more than once every 20 h of   | THE THE STITE OF   | Little artis   |  |  |
|              | cumulative listening time.   | Were They They are   |  |  |  |
|              | NOTE 2 Examples of means include visual or audible signals.  |  | CH LET   |  |  |
|              | Action from the user is always needed.   | THE STIFF WITH MALL  | "Me "M   |  |  |
|              | The state of the second of the | 14 14 14   |  |  |  |
|              | NOTE 3 The 20 h listening time is the accumulative listening   | 1 1 1 1  |  |  |  |
|              | time, independent of how often and how long the personal music player has been switched off.   | THE STIP OF THE  | are are  |  |  |
|              | music player has been switched on.   | 211 211 21   |  |  |  |
|              | A <b>skilled person</b> shall not be unintentionally   | at at at   | JER JIER   |  |  |
| 4 21         | exposed to RS3.  | The way all the  | 1000   |  |  |
| 0.6.5        | Requirements for dose-based systems  |  | N/A  |  |  |
| 0.6.5.1      | General requirements   | Not such equipment   | N/A  |  |  |
|              | Personal music players shall give the warnings as  |  |  |  |  |
|              | provided below when tested according to EN   |  |  |  |  |
|              | 50332-3, using the limits from this clause.  | The alie with wall   | 21/2 21/2  |  |  |
|              | CH TEX TEX LIFE ONLY WAS AND   | 70, 70   |  |  |  |
|              | The manufacturer may offer optional settings to  | L A At ACT   | TOP STATE  |  |  |
|              | allow the users to modify when and how they wish   | Will will make   | 21/2   |  |  |
|              | to receive the notifications and warnings to   | 20, 20,  | 4. 4   |  |  |
|              | promote a better user experience without   | at at at   | JEE SITE   |  |  |
|              | defeating the safeguards. This allows the users to   | CLIP WILL WALL W   | 211  |  |  |
|              | be informed in a method that best meets their  | $n$ $\sim$ $\sim$  | 1 1  |  |  |
|              | physical capabilities and device usage needs. If   | A A A A C  | CIV (  |  |  |
|              | such optional settings are offered, an administrator   | LIL WILL WALL WALL   | 21, 20,  |  |  |
|              | (for example, parental restrictions,   | 20.  |  |  |  |
|              |  |  |  |  |  |
|              |  | of let tet the   | - SUEE IN  |  |  |
|              | business/educational administrators, etc.) shall be  | ik mitek antiek antie  | MULTER MAL   |  |  |
|              |  | MUNITER MULTER MULTER  | unit whi   |  |  |
|              | business/educational administrators, etc.) shall be able to lock any optional settings into a specific configuration.  | A WALTER WALTER WALTER   | White white  |  |  |
|              | business/educational administrators, etc.) shall be able to lock any optional settings into a specific configuration.  The personal music player shall be supplied with  | A MALTER MALTER WALTER   | WALTER WALTER  |  |  |
|              | business/educational administrators, etc.) shall be able to lock any optional settings into a specific configuration.  The personal music player shall be supplied with easy to understand explanation to the user of the  | Whitek whitek whitek   | WALLER WALLER  |  |  |
|              | business/educational administrators, etc.) shall be able to lock any optional settings into a specific configuration.  The personal music player shall be supplied with easy to understand explanation to the user of the dose management system, the risks involved, and  | Whitek whitek whitek   | MATER WATER  |  |  |
|              | business/educational administrators, etc.) shall be able to lock any optional settings into a specific configuration.  The personal music player shall be supplied with easy to understand explanation to the user of the dose management system, the risks involved, and how to use the system safely. The user shall be  | MUNITER WHITER WHITER  | whitek whitek  |  |  |
|              | business/educational administrators, etc.) shall be able to lock any optional settings into a specific configuration.  The personal music player shall be supplied with easy to understand explanation to the user of the dose management system, the risks involved, and how to use the system safely. The user shall be made aware that other sources may significantly  | MUNITER WHITER WHITER  | whitek whitek  |  |  |
|              | business/educational administrators, etc.) shall be able to lock any optional settings into a specific configuration.  The personal music player shall be supplied with easy to understand explanation to the user of the 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  | Whitek wh | JUNE WILLEY  JUNE OF THE SUNGER  |  |  |
|              | business/educational administrators, etc.) shall be able to lock any optional settings into a specific configuration.  The personal music player shall be supplied with easy to understand explanation to the user of the 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   | Whitek wh | White white  |  |  |
| White was    | business/educational administrators, etc.) shall be able to lock any optional settings into a specific configuration.  The personal music player shall be supplied with easy to understand explanation to the user of the 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.   | MATER WALTER WALTER  |  |  |  |
| Juniter with | business/educational administrators, etc.) shall be able to lock any optional settings into a specific configuration.  The personal music player shall be supplied with easy to understand explanation to the user of the 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.  Dose-based warning and requirements  | Whitek wh | N/A  |  |  |
| 0.6.5.2      | business/educational administrators, etc.) shall be able to lock any optional settings into a specific configuration.  The personal music player shall be supplied with easy to understand explanation to the user of the 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.   | WINLIER WHITER WHITER  WHITER WHITER WHITER  WHITER WHITER WHITER  WHITER WHITER WHITER  WHITER WHITER WHITER  | Junified wintifest wintifest win start win and wintifest |  |  |



| 20          | IEC62368-1   | ite with the war   | in in  |
|-------------|--|--|--|
| Clause      | Requirement – Test   | Result – Remark  | Verdict  |
| 3/1         | and the state of   | er all all and   | me m   |
|             | acknowledgement. In case the user does not acknowledge, the output level shall automatically decrease to compliance with class RS1.  | MULTER MULTER WHITER W   | NITEK WAITEK   |
| LTEX WAL    | The warning shall at least clearly indicate that listening above 100 % <i>CSD</i> leads to the risk of hearing damage or loss.   | LITER WHITER WHITER WHI  | IER WITER W  |
| 0.6.5.3     | Exposure-based requirements  | EX JEX JEX JE  | N/A  |
|             | With only dose-based requirements, cause and effect could be far separated in time, defying the purpose of educating users about safe listening practice. In addition to dose-based requirements, a PMP shall therefore also put a limit to the short-term sound level a user can listen at.  The exposure-based limiter (EL) shall automatically reduce the sound level not to exceed 100 dB(A) or 150 mV integrated over the past 180 s, based on methodology defined in EN 50332-3. The EL settling time (time from starting level reduction to reaching target output) shall be 10 s or faster.  Test of EL functionality is conducted according to EN 50332-3, using the limits from this clause. For | JUNITER WHITER W | White whitek whi |
|             | 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.  NOTE In case the source is known not to be music (or test  | The white wh | antie unite  |
| 0.6.6       | signal), the EL may be disabled.  Requirements for listening devices (headphone  | s earnhones etc.)  | N/A  |
| <del></del> |  |  | A 1  |
|             | Corded listening devices with analogue input With 94 dB LAeqacoustic 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.  NOTE The values of 94 dB and 75 mV correspond with 85 dB and 27 mV or 100 dB and 150 mV.   | Not such equipment   | N/A  MILE  M |
| 10.6.6.2    | Corded listening devices with digital input  | 70, 7  | N/A  |
| 10.0.0.2    | 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   | Whitek Whitek Whitek   | NATER WALTER   |





|  | IEC62368-1  |  |  |
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| Clause   | Requirement – Test  | Result – Remark  | Verdict  |
| The.   | W W A ART OF  | all all apri   | The Marie  |
| WALTER W   | level control, additional sound features like equalization, etc.) set to the combination of positions that maximize the measured acoustic output, the $L_{Aeq}$ , $\tau$ acoustic output of the listening device shall be $\leq 100$ dB with an input signal of - 10 dBFS.  | whitek whitek whitek   | untifek untifek  |
| 10.6.6.3   | Cordless listening devices  |  | N/A  |
| JUNETEK JUNETE | 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 LAeq, τacoustic output of the listening device shall be ≤ 100 dB with an input signal of -10 dBFS. | TEK WHITEK | JUNE WALTER MALTER MALT |
| 10.6.6.4   | Measurement method  | WILL WILL WALL   | N/A  |
| NITEH IN   | Measurements shall be made in accordance with EN 50332-2 as applicable.   | THE TOTAL STATE OF   | LIEK NITEK   |
| 3  | Modification to the whole document  |  | Р  |



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| ré | The same | IEC62368-          | NIE MIE MILE MILE | mr. mr. |
|----|----------|--------------------|-------------------|---------|
|    | Clause   | Requirement – Test | Result – Remark   | Verdict |

|   | lis        |             | country note   | is in the rete          | rience docume         | nt according | to the following      | نون      |
|---|------------|-------------|--|-------------------------|-----------------------|--------------|-----------------------|----------|
|   | , E -      | 0.2.1       | Note 1 and 2   | 1                       | Note 4 and 5          | 3.3.8.1      | Note 2                | 20.      |
|   | , in ,     | 3.3.8.3     | Note 1   | 4.1.15                  | Note                  | 4.7.3        | Note 1 and 2          | 100      |
|   | E#<br>[10] | 5.2.2.2     | Note   | 5.4.2.3.2.2<br>Table 12 | Note c                | 5.4.2.3.2.4  | Note 1 and 3          | EX       |
|   | ٠. ر       | 5.4.2.3.2.4 | Note 2   | 5.4.2.5                 | Note 2                | 5.4.5.1      | Note                  | -        |
|   | 411.       | Table 13    |  |                         |                       |              |                       | -al      |
|   | WILLE      | 5.4.10.2.1  | Note   | 5.4.10.2.2              | Note                  | 5.4.10.2.3   | Note                  | JA C     |
|   | TEK (      | 5.5.2.1     | Note   | 5.5.6                   | Note                  | 5.6.4.2.1    | Note 2 and 3<br>and 4 | IIE'S    |
|   | * in       | 5.6.8       | Note 2   | 5.7.6                   | Note                  | 5.7.7.1      | Note 1 and<br>Note 2  | *        |
|   | JUN IT     | 8.5.4.2.3   | Note   | 10.2.1<br>Table 39      | Note 3 and 4<br>and 5 | 10.5.3       | Note 2                | an.      |
|   | J. O       | 10.6.1      | Note 3   | F.3.3.6                 | Note 3                | Y.4.1        | Note                  | -        |
|   | , €<br>    | Y.4.5       | Note   |                         |                       |              | 2                     |          |
| N | 11.        | 77"         |  |                         | AT AY                 |              | V 10 11               |          |
|   | M          | odification | to Clause 1  |                         |                       |              |                       |          |
| ŀ | NO<br>ele  |             | ving note:<br>e of certain substa<br>ent is restricted v |                         |                       | uniter unit  | TEK TEK               | 10<br>10 |
|   | М          | odification | to 4.71  |                         |                       |              |                       |          |







| 21/2   |                    | IEC62368-1      |         |
|--------|--------------------|-----------------|---------|
| Clause | Requirement – Test | Result – Remark | Verdict |

| 4.Z1   | Add the following new subclause after 4.9:   | Not directly connected to the         | N/A  |
|--|--|---------------------------------------|--|
| WINTER WI | To protect against excessive current, short-circuits and earth faults in circuits connected to an a.c.mains, protective devices shall be included either as integral parts of the equipment or as parts of the building installation, subject to the following, a), b) and c):  a) except as detailed in b) and c), protective devices necessary to comply with the requirements of B.3.1 and B.4 shall be included as parts of the equipment; b) for components in series with the mains input to the equipment such as the supply cord, appliance coupler, r.f.i. filter and switch, short-circuit and earth fault protection may be provided by protective devices in the building installation; c) it is permitted for pluggable equipment type B or permanently connected equipment, to rely on dedicated overcurrent and short-circuit protection in the building installation, provided that the means of protection, e.g. fuses or circuit breakers, is fully specified in the installation instructions.  If reliance is placed on protection in the building installation, the installation instructions shall so state, except that for pluggable equipment type A the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet. | mains                                 | JUNE THE WALLES OF THE STATE OF |
| 6  | Modification to 5.4.2.3.2.4  |                                       | N/A  |
| 5.4.2.3.2.4  | Add the following to the end of this subclause: The requirement for interconnection with external circuit is in addition given in EN 50491-3:2009.   | No connection to external circuit.    | N/A  |
| 7  | Modification to 10.2.1   |                                       | N/A  |
| 10.2.1   | Add the following to c) and d) in table 39:For additional requirements, see 10.5.1.  | No such radiation from the equipment. | N/A  |
|  |  |                                       |  |



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| IEC62368-1    |   |  |   |  |
|---------------|---|--|---|--|
| Clause        | Requirement – Test  | Result – Remark  | Verdict   |  |
| 10.5.1        | Add the following after the first paragraph:  | They were the  | N/A   |  |
| Whitek whitek | For RS 1 compliance is checked by measurement under the following conditions:  In addition to the normal operating conditions, all controls adjustable from the outside by hand, by any object such as a tool or a coin, and those internal adjustments or pre-sets which are not locked in a reliable manner, are adjusted so as to give maximum radiation whilst maintaining an intelligible picture for 1 h, at the end of which the measurement is made.  NOTE Z1 Soldered joints and paint lockings are examples of adequate locking.  The dose-rate is determined by means of a radiation monitor with an effective area of 10 cm², | antiek whitek whitek we tek whitek wh | AND THE WALTER OF THE |  |
|               | at any point 10 cm from the outer surface of the apparatus.  Moreover, the measurement shall be made under fault conditions causing an increase of the high voltage, provided an intelligible picture is maintained for 1 h, at the end of which the measurement is made.   | MULIER WHITER WHITER   | Whitek Whitek   |  |
|               | For RS1, the dose-rate shall not exceed 1 μSv/h taking account of the background level.   | The state of the same  | EK WILLEK WAT   |  |
| LITEK         | NOTE Z2 These values appear in Directive 96/29/Euratom of 13 May 1996.  |  | - Life alife  |  |
| 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 AnnexZD.   | Writek Writek Multek   | N/A   |  |
| 10            | Modification to Bibliography  |  | Р   |  |



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| The same | Mrs. Mrs. M.       | IEC62368-1       | TEX WITE WITE W | Tip Music Miles |
|----------|--------------------|------------------|-----------------|-----------------|
| Clause   | Requirement – Test | WILL MUTE AND AN | Result – Remark | Verdict         |

| - de   | W W THE T   | the section with the section of the | 20, 1  |
|--|---|---|--|
| _e+  | Add the following notes for the standards indicated   | The state of  | P  |
| Whitek wh | IEC 60130-9 IEC 60269-2 IEC 60309-1 IEC 60309-1 IEC 60364 IEC 60664-5 IEC 61032:1997 IEC 61558-2-1 IEC 61558-2-6 IEC 61643-21 IEC 61643-311 IEC 61643-321 IEC 61643-331 NOTE Harmonized as EN 616 IEC 61643-331 NOTE Harmonized as EN 616 NOTE Harmonized as EN 616 NOTE Harmonized as EN 615 NOTE Harmonized as EN 615 IEC 61643-311 NOTE Harmonized as EN 616   | 69-2.<br>09-1.<br>1 in HD 384/HD 60364 series.<br>01-2-4.<br>64-5.<br>32:1998 (not modified).<br>08-1.<br>58-2-1.<br>58-2-4.<br>58-2-6.<br>43-1.<br>43-311.   | MALER WALER  MALER  MAL |
| 11   | ADDITION OF ANNEXES   | er after with white white   | JULE.  |
|  | 7 76° AH 300° 3   | FM)   | P  |
| ZB<br>4.1.15   | ANNEX ZB, SPECIAL NATIONAL CONDITIONS (EN)  Denmark, Finland, Norwayand Sweden  Not directly connected to the   |   | P<br>N/A   |
| Intitude of the suntitude of the suntitu | To the end of the subclause the following is added:  Class I pluggable equipment type A intended for connection to other equipment or anetwork shall, if safety relies on connection to reliable earthing or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment shall be connected to an earthed mains socket-outlet.  The marking text in the applicable countries shall be as follows:  In Denmark:  "Apparatetsstikpropskaltilsluttesenstikkontakt med jordsom giver forbindelsetilstikproppensjord."  In Finland: "Laite on liitettäväsuojakoskettimillavarustettuunpistorasiaan "  In Norway:  "Apparatetmåtilkoplesjordetstikkontakt"  In Sweden: "Apparatenskallanslutas till jordatuttag" | Not directly connected to the mains   | LEY WALTER  WA |



|        |                    | IEC62368-1      |         |
|--------|--------------------|-----------------|---------|
| Clause | Requirement – Test | Result – Remark | Verdict |

| Clause                    | Requirement – Test  | Result – Remark                 | Verdict         |
|---------------------------|---|---------------------------------|-----------------|
| 2/12 1                    | The state of  | The main while will             | 10              |
| 4.7.3 L                   | United Kingdom  To the end of the subclause the following is added:  The torque test is performed using a socket-outlet complying with BS 1363, and the plug part shall be assessed to the relevant clauses of BS 1363. Also  | untitek untitek untitek untitek | N/A             |
|                           | see Annex G.4.2 of this annex   | EK TEK LIEK WITER               | ncie uncir      |
| 5.2.2.2<br>white          | Denmark  After the 2nd paragraph add the following:  A warning (marking safeguard) for high touch current is required if the touch current exceeds the limits of 3,5 mA a.c. or 10 mA d.c.  | No high touch current measured. | N/A             |
| 5.4.11.1                  | Finland and Sweden  | No such external circuits.      | N/A             |
| and Annex<br>G            | added:  For separation of the telecommunication network from earth the following is applicable:   | TEK WILLER WILLER WALLER        | out at military |
| nrifek milit<br>sek rifek | If this insulation is solid, including insulation forming part of a component, it shall at least consist of either  • two layers of thin sheet material, each of which shall pass the electric strength test below, or  | white white white               | t whitek wh     |
| Murites A                 | <ul> <li>one layer having a distance through insulation<br/>of at least 0,4 mm, which shall pass the electric<br/>strength test below.</li> <li>If this insulation forms part of a semiconductor</li> </ul>   | whitek multer multer            | nn miter        |
|                           | 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 | United whited whited whited     | AND THE WALTER  |
| Whitek whi                | <ul> <li>passes the tests and inspection criteria of 5.4.8<br/>with an electric strength test of 1,5 kV multiplied<br/>by 1,6 (the electric strength test of 5.4.9 shall be<br/>performed using 1,5 kV),</li> </ul>   | Whitek whitek whitek wh         | ie white w      |
| * *                       | and of the state white with white   | 16. M. M. M.                    | 18th A.         |
| antiek<br>A               | is subject to routine testing for electric strength<br>during manufacturing, using a test voltage of<br>1,5 kV.   | THE WALTER WALTER WALTER        | on a mariex     |
| WALTER WA                 | It is permitted to bridge this insulation with a capacitor complying with EN 60384-14:2005, subclass Y2.  | Whitek whitek whitek whi        | EK WITEK W      |





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|---|----|--------------|---|
|   | 7  | $\checkmark$ | 4 |
| U |    | V            | J |
|   |    |              |   |

| 21/2         | IEC62368-1  | LIEF MILTE MALL WALL   | 21/2 211       |
|--------------|---|--|----------------|
| Clause       | Requirement – Test  | Result – Remark  | Verdict        |
| "he          | AN AN AN AN AN AND AN   | The out of the   | They are       |
|              | A capacitor classified Y3 according to EN 60384-<br>14:2005, may bridge this insulation under<br>the following conditions:  | united united anited a   | INITER WHITER  |
|              | <ul> <li>the insulation requirements are satisfied by<br/>having a capacitor classified Y3 as defined by<br/>EN 60384-14, which in addition to the Y3<br/>testing, is tested with an impulse test of 2,5 kV<br/>defined in 5.4.11;</li> </ul>   | EX WHITEX MAILER WHITE   | AND EX WALL    |
|              | the additional testing shall be performed on all<br>the test specimens as described in EN 60384-<br>14;   | White White white  | riek wriek m   |
| LIEK WALT    | 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.   | ter with writer wit  | EK WATER WAT   |
| 5.5.2.1      | Norway  | e at at all  | N/A            |
|              | After the 3rd paragraph the following is added:   | in intermediate water  | me me          |
|              | Due to the IT power system used, capacitors are required to be rated for the applicable line-to-line voltage (230 V).   | WHITEK WHITEK WHITEK   | UNITER WHITEK  |
| 5.5.6        | Finland, Norwayand Sweden   | No such resistors.   | N/A            |
|              | To the end of the subclause the following is added:   | The state of the s | y lift sii     |
| yunliest.    | Resistors used as <b>basic safeguard</b> or bridging <b>basic insulation</b> in <b>class I pluggable equipment type A</b> shall comply with G.10.1 and the test of G.10.2.  | The white whitek whitek  | White whitest  |
| 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 fuseswith higher rating than the rating of the socket-outlets the protection for pluggable equipment type A shall be an integral part of the equipment.  Justification: | THE WALLES WHITEK WALLES   | SUN SUN SUNING |
| · MALTER V   | In Denmark an existing 13 A socket outlet can be protected by a 20 A fuse.  | STER SUIER WILLER  | WALTER WALTER  |
| 5.6.4.2.1    | Ireland and United Kingdom  | 21/2 21/2  | N/A            |
| uniter unite | After the indent for pluggable equipment type A, the following is added:  – the protective current rating is taken to be 13 A, this being the largest rating of fuse used in the mains plug.  | nties united united un   | it white with  |





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| Clause   | Requirement – Test   | Result – Remark            | Verdict    |
| The s  | N Y THE THE THE  | Willy Mary May 1           | 11. 20,    |
| 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.  | united united whited white | N/A        |
| 5.6.5.1  | To the second paragraph the following is added: The range of conductor sizes of flexible cords to be accepted by terminals for equipment with a rated current over 10 A and up to and including 13 A is: 1,25 mm²to 1,5 mm²in cross-sectional area.  | EX WHITEX WHITEX           | N/A        |
|  | Norway To the end of the subclause the following is added: Equipment connected with an earthed mains plug is classified as class I equipment. See the Norway marking requirement in 4.1.15. The symbol IEC 60417-6092, as specified in F.3.6.2, is accepted.   | TEX WHITEK WHITEK WHITEK   | IN LIFE W  |
| 5.7.6 white  | Denmark To the end of the subclause the following is added: The installation instruction shall be affixed to the equipment if the protective conductor current exceeds the limits of 3,5 mA a.c. or 10 mA d.c.   | whitek whitek whitek wh    | THE WALLEY |
| 5.7.6.2  | Denmark  To the end of the subclause the following is added: The warning (marking safeguard) for high touch current is required if the touch current or the protective current exceed the limits of 3,5 mA.  | Whitek whitek whitek w     | ALTE ANTE  |
| 5.7.7.1 STEEL WILLIES WINGER W | Norway and Sweden  To the end of the subclause the following is added: The screen of the television distribution system is normally not earthed at the entrance of the building and there is normally no equipotential bonding system within the building. Therefore the protective earthing of the building installation needs to be isolated from the screen of a cable distribution system.  It is however accepted to provide the insulation external to the equipment by an adapter or an interconnection cable with galvanic isolator, which may be provided by a retailer, for example.  The user manual shall then have the following or | Not such system.           | N/A        |





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| IEC62368-1 |   |                        |   |  |  |
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| Clause     | Requirement – Test  | Result – Remark        | Verdict                                 |  |  |
| all .      | All All The All All All All All All All All All Al  | A STE WILL WILL        | The April                               |  |  |
|            | "Apparatus connected to the protective earthing of the building installation through the mains  | et ret ret             | TIEK WIEK                               |  |  |
|            | connection or through other apparatus with a connection to protective earthing –  | MUTTE MUEL MUTE A      | 20                                      |  |  |
|            | and to a television distribution system using coaxial cable, may in some circumstances create   | TEX STEX NITER IN      | IEK WILLER WI                           |  |  |
|            | a fire hazard. Connection to a television   | er mr. m. m.           | L 2+ 1                                  |  |  |
|            | distribution system therefore has to be provided through a device providing electrical isolation  | EX SLIEN WILLER WILLE  | in the wri                              |  |  |
|            | below a certain frequency range (galvanic isolator, see EN 60728-11)"   | THE THE THE            | NITE MITE                               |  |  |
|            | 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. | White while while      | on on the                               |  |  |
|            | Translation to Norwegian (the Swedish text will also be accepted in Norway):  | and an arrest and      | EK TEK M                                |  |  |
|            | TEX TEX LIES OLITE AND WIN AND  | 1/11/2 1/11 1/2        |   |  |  |
|            | "Apparatersom er koplettilbeskyttelsesjord via nettpluggog/eller via annetjordtilkoplet   | ik intiek intervalier  | MUES AVER                               |  |  |
|            | utstyr – og er tilkoplet et koaksialbasertkabel-TV  | The state of           | LEX LEX                                 |  |  |
|            | nett, kanforårsakebrannfare.<br>For å unngådetteskal det  | WILL MULL MULL         | Wry. Wir.                               |  |  |
|            | vedtilkoplingavapparatertilkabel-TV nett  |                        | LET JET                                 |  |  |
|            | installeresengalvanisk isolator mellomapparatetogkabel-TV nettet."  | The mile m             | 100 1                                   |  |  |
|            | Translation to Swedish:   | The state of the state | K WILL MUI                              |  |  |
|            | "Apparatersomärkopplad till skyddsjord via jordatvägguttagoch/eller via   | The ship ship          | 1 1                                     |  |  |
|            | annanutrustningochsamtidigtärkopplad till kabel-<br>TV nätkanivissa fall medfőra risk főr brand.  | - NITER WITER WALTER   | MUTLE MUT.                              |  |  |
|            | Főrattundvikadettaskall vid anslutningavapparaten   | 20 20 CF               | at let                                  |  |  |
|            | till kabel-TV nätgalvanisk isolator finnasmellanapparatenochkabel-TV nätet."  | WITEE WALTE WALTE W    | ner where                               |  |  |
| .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:   | LIER WILL MILL MILL    | - 14 - 14 - 14 - 14 - 14 - 14 - 14 - 14 |  |  |
|            | 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.   | White white white      | whi whi                                 |  |  |



| IEC62368-1 |                    |                 |         |  |  |
|------------|--------------------|-----------------|---------|--|--|
| Clause     | Requirement – Test | Result – Remark | Verdict |  |  |

| B.3.1 and | Ireland and United Kingdom   | Not directly connected to the  | N/A       |
|-----------|--|--|-----------|
| B.4       | The following is applicable:   | mains  | White     |
|           | To protect against excessive currents and short-circuits in the primary circuit of <b>direct plug-in 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   | STEK WALTER WALTER WALTER  | NITEK OV  |
| MUTER M   | 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 equipment</b> , until the requirements of Annexes B.3.1 and B.4 are met   | MUTER MUTER MUTER MUTER  | WALTER    |
| G.4.2     | Denmark  | Not directly connected to the  | N/A       |
|           | To the end of the subclause the following is added:  | mains  | TIEK M    |
|           | 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.   | t whitek whitek whitek whi   | ek viniti |
|           | CLASS I EQUIPMENT provided with socket-<br>outlets with earth contacts or which are intended<br>to be used in locations where protection against<br>indirect contact is required according to the wiring<br>rules shall be provided with a plug in accordance<br>with standard sheet DK 2-1a or DK 2-5a. | MULTER WALTER WALTER WALTER  | White a   |
|           | 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.  | SE WHITE WHI | MALTEX    |
|           | 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.   | THE MULTER WHITER WHITER W   | LIFE W    |
|           | Other current rating socket outlets shall be in compliance with Standard Sheet DKA 1-3a or DKA 1-1c.   | White white white white  | WALTER    |
|           | 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   | NUTER WHITER WHITER  | JALTEK J  |
|           | Justification:   | in the me me me  | -20       |
|           | Heavy Current Regulations, Section 6c  | 1 t at at a  | J (1      |







| IEC62368-1 |                    |                 |         |  |  |
|------------|--------------------|-----------------|---------|--|--|
| Clause     | Requirement – Test | Result – Remark | Verdict |  |  |

| G.4.2                            | United Kingdom  | Not directly connected to the  | N/A              |
|----------------------------------|---|--|------------------|
|                                  | To the end of the subclause the following is added:   | mains  | Murit.           |
| EX WHITE                         | 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.   | LIER WALTER WALTER WALTER WALTER   | ER WHITE         |
| G.7.1                            | United Kingdom  | LEK TEK TEK STEEK  | N/A              |
|                                  | To the first paragraph the following is added:  Equipment which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to BS 1363 by means of that flexible cable or cord shall be fitted with a 'standard plug' in accordance with the Plugs and Sockets etc. (Safety) Regulations 1994, Statutory Instrument 1994 No. 1768, unless exempted by those regulations.  NOTE "Standard plug" is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug. | TEX WHITEX | TEX WA           |
| G.7.1                            | Ireland   | The state of   | N/A              |
| whitek<br>whitek<br>whitek<br>wh | 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   | WALTER WALTER WALTER WALTER  | UNLIEF<br>UNLIEF |
| G.7.2                            | Ireland and United Kingdom  | 1 My My 12 12  | N/A              |
|                                  | To the first paragraph the following is added:  A power supply cord with a conductor of 1,25 mm <sup>2</sup> is allowed for equipment which is rated over 10 A and up to and including 13 A.  | A MULTER MULTER MULTER MULTER  | WALTER           |
| ZC 🖈                             | ANNEX ZC, NATIONAL DEVIATIONS (EN)  | In the second  | N/A              |



Р

Reference No.:WTF22D12262928Y

ZD

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| IEC62368-1 |   |                              |          |  |  |
|------------|---|------------------------------|----------|--|--|
| Clause     | Requirement – Test  | Result – Remark              | Verdict  |  |  |
| Me         | THE THE STREET  | MITTER WALL WALL WALL        | an       |  |  |
| 10.5.2     | Germany The following requirement applies:  | No CRT within the equipment. | N/A      |  |  |
|            | For the operation of any cathode ray tube intended for the display of visual images operating at an acceleration voltage exceeding 40 kV, authorization is required, or application of type approval (Bauartzulassung) and marking. | et writet writet writer      | ex whi   |  |  |
|            | Justification: German ministerial decree against ionizing radiation (Röntgenverordnung), in force since 2002-07-01, implementing the European Directive 96/29/EURATOM.  | Whitek whitek whitek whitek  | WALTER O |  |  |
| TEK WALT   | NOTE Contact address: Physikalisch-TechnischeBundesanstalt, Bundesallee 100, D-38116 Braunschweig, Tel.: Int+49-531-592-6320, Internet: http://www.ptb.de   | TEK MUTEK MUTEK MUTEK M      | LIEK WA  |  |  |

IEC and CENELEC CODE DESIGNATIONS FOR FLEXIBLE CORDS (EN)



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| IEC62368-1 |                    |            |                 |         |  |
|------------|--------------------|------------|-----------------|---------|--|
| Clause     | Requirement – Test | aut. All a | Result – Remark | Verdict |  |

| Type of flexible cord  | Code de      | esignations             |
|--|--------------|-------------------------|
|  | IEC          | CENELEC                 |
| PVC insulated cords  |              |                         |
| Flat twin tinsel cord  | 60227 IEC 41 | H03VH-Y                 |
| Light polyvinyl chloride sheathed flexible cord                            | 60227 IEC 52 | H03VV-F<br>H03VVH2-F    |
| Ordinary polyvinyl chloride sheathed flexible cord                         | 60227 IEC 53 | H05VV-F<br>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 cord                            | 60245 IEC 87 | H03 ₹V4-H               |
| Crosslinked PVC insulated and sheathed cord                                | 60245 IEC 88 | H03V4V4-H               |
| Cords insulated and sheathed with halogen-<br>free thermoplastic compounds |              |                         |
| Light halogen-free thermoplastic insulated and sheathed flexible cords     |              | H03Z1Z1-F<br>H03Z1Z1H2- |
| Ordinary halogen-free thermoplastic insulated and sheathed flexible cords  |              | H05Z1Z1-F<br>H05Z1Z1H2- |

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



| Reference | No.:W | TF22D1 | 12262928Y |
|-----------|-------|--------|-----------|
|-----------|-------|--------|-----------|

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| IEC62368-1 |                    |             |                 |         |  |
|------------|--------------------|-------------|-----------------|---------|--|
| Clause     | Requirement – Test | Mur. Any An | Result – Remark | Verdict |  |

| 5.2      | TABLE: Classification                           | on of electrical er        | ergy source | es              | at a               | THE LIES                         | N/A         |
|----------|---|----------------------------|-------------|-----------------|--------------------|----------------------------------|-------------|
| Supply   | Location (e.g.                                  | Test conditions            |             | Parame          | ters               |                                  | ES<br>Class |
| Voltage  | circuit<br>designation)                         |                            | U (V)       | I (mA)          | Type <sup>1)</sup> | Additional<br>Info <sup>2)</sup> | Class       |
| 5Vdc     | 5Vdc The EUT is designed to be supplied by Type | Normal                     | <60Vdc      | A - A           | SS                 | DC C                             | ES3         |
| 7/1      |   | Abnormal                   | with wh     | The Contract of | 10, 1,             | 70,                              | 20,         |
| WALLEK W | -C port   | Single fault –<br>SC/OC    | STEEL STEE  | ek Tek          | TEK-               | EK WITER                         | MALTER      |
| 4.20Vdc  | The EUT is                                      | Normal                     | <60Vdc      | T.              | SS                 | DC                               | ES1         |
| me me    | designed to be supplied by                      | Abnormal                   | TER WITE    | WILL WILL       | 240                | 21/2 - 21                        | . 70        |
| LIEK     | Internal Li-ion<br>battery cells                | Single fault –<br>(D1 SC)* | TEN.        | LIEK "MITEK     | MALTEX.            | UNLIEK WINLE                     | ek wali     |

## Supplementary information:

- 1) Type: Steady state (SS), Capacitance (CP), Single pulse (SP), Repetitive pulses (RP), etc. 2) Additional Info: Frequency, Pulse duration, Pulse off time, Capacitance value, etc.

**Test Conditions:** 

Normal -Full load and no load.

Abnormal - Overload output short circuit; OC= open circuit SC=

3)

| 5.4.1.8  | TABLE: Working     |                    | N/A                 |                   |                    |
|----------|--------------------|--------------------|---------------------|-------------------|--------------------|
| Location |                    | RMS voltage<br>(V) | Peak voltage<br>(V) | Frequency<br>(Hz) | Comments           |
| -ans     | 111. 24. 25.       | . J                | it with all         | ER JUSTER OU      | The Mary Mary Mary |
| - TEX    | LIER WILLER WILLER | Will Mr.           | " " "               | 7                 | et let tet utet .  |
| Suppleme | ntary information: |                    |                     |                   |                    |
|          | Et de liv          | Will Mur           | 20 0                |                   | A ST ST S          |

| 5.4.1.10.2 TABLE: Vicat softening temperature of thermoplastics             |  |                        |               |          |       |  |  |
|---|--|------------------------|---------------|----------|-------|--|--|
| Method: ISO 306 / B50   |  |                        |               |          |       |  |  |
| Object/ Part No./Material Manufacturer/trademark Thickness (mm) T softening |  |                        |               |          |       |  |  |
| -21/2 -21   | 1 1  | THE STREET WITH STREET | "Note - Mes M | '' ''' - | 10, 1 |  |  |
| Supplementary information:  |  |                        |               |          |       |  |  |
| 1. 2.   | The state wife own with the way on the same of the sam |                        |               |          |       |  |  |

| 5.4.1.10.3 TABLE: Ball pressure test of thermoplastics |              |                        |           |      |                       | N/A |                      |
|--|--------------|------------------------|-----------|------|-----------------------|-----|----------------------|
| Allowed impression diameter (mm) ≤ 2 mm                |              |                        |           |      |                       |     | _                    |
| Object/Part  | No./Material | Manufacturer/trademark | Thickness | (mm) | Test temperature (°C) | Imp | ression<br>eter (mm) |

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|          |                             | IEC62368-1  |                 |              |
|----------|-----------------------------|-------------|-----------------|--------------|
| Clause   | Requirement – Test          | Wr. 24. 20. | Result – Remark | Verdict      |
| Jahr.    | M M                         | <u> </u>    | er all art are  | " "Mrs. "Mar |
| - 4      | TEK TEK TEK MITER IN        | in my       | . 10 10         | L 1 - 11+    |
| Suppleme | ntary information:          |             |                 |              |
| +        | tet tet ster ster ster sper | With My     | 20, 1           | at alt       |

| 5.4.2, 5.4.3 TABLE: Minimum Clearances/Creepage distance   |       |        |          |            |                 |            | N/A     |     |
|--|-------|--------|----------|------------|-----------------|------------|---------|-----|
| Clearance (cl) and creepage $U_p$ $U_{rms}$ $Freq^{1)}$ Required cl $E.S.^{2)}$ Required distance (cr) at/of/between: (V) (V) (kHz) cl (mm) (mm) (V) cr (mm) |       |        |          |            |                 | cr<br>(mm) |         |     |
| - WILL MILL MULL MULL  | 1/1/2 | 1/11   | اير      |            | 16 <del>1</del> | 56th 5     | Et with | N/I |
| Supplementary information:   | l     |        |          |            |                 |            |         |     |
| Only for frequency above 30     Complete Electric Strength voltage   |       | (V) wh | en 5 4 2 | 4 applied) | SEEL WILL       | ek Nalte   | WALTE V | 2)  |

| 5.4.4.2                 | TABLE: Minimun    | n distance through insu | 12          | N/A               |     |                   |
|-------------------------|-------------------|-------------------------|-------------|-------------------|-----|-------------------|
| Distance th (DTI) at/of | rough insulation  | Peak voltage (V)        | Insulation* | Required DTI (mm) | Mea | sured DTI<br>(mm) |
| - 4                     | THE STEP ST       | Will Mile Mus           | 1424.       | ,t                |     | ZEX               |
| Supplement              | tary information: |                         |             |                   |     |                   |
| *See also s             | ub-clause 5.4.4.9 | 10 10                   |             | 1/2               | et. | All I             |

| 5.4.4.9 TABLE: Solid insulation at frequencies >30 kHz                     |              |  |     |           |          |          |       |
|--|--------------|--|-----|-----------|----------|----------|-------|
| Insulation material $E_{P}$ Frequency $K_{R}$ Thickness Insulation $V_{F}$ |              |  |     |           |          |          | (Vpk) |
| - WILL MULL MULL M   | The state of |  | * 4 | EN 17E    | CLIER OF | <u> </u> | Will. |
| Supplementary information:   |              |  |     |           |          |          |       |
| WILL MULL MULL AME   | 20.          |  | . d | CENT CENT | LUER WIL |          | 0 4   |

| 5.4.9 TABLE: Electric strength tests | at at at   | TEX LIEK ALT     | N/A                   |
|--------------------------------------|--|------------------|-----------------------|
| Test voltage applied between:        | Voltage shape<br>(Surge, Impulse, AC,<br>DC, etc.) | Test voltage (V) | Breakdown<br>Yes / No |
| Functional:                          | 1/12 1/11 1/11                                     | 1 1 1            | LET TEX               |
| - July Mr. M. W. Th.                 | t JEK STER MIT                                     | - write write v  | V. 170, 1             |
| Basic/supplementary:                 | Mr. M. M.  | at at            | CER CLER CO           |
| The min was the test                 | THE STEE WITE                                      | and and          | Mr. An                |
| Reinforced:                          | M. M. A.   | at at d          | t TEX TE              |
| - un un the lite                     | UER WITE WITE W                                    | The Maria Maria  | 24, - 24              |
| Routine Tests:                       | 7  | et let let       | LIFE CLIER            |
| - which the set                      | E - WITE WHITE WAY                                 | - me me.         | 20, Zn                |
| Supplementary information:           |  |                  |                       |



| The ship | 111 211 211 211 1  | IEC62368-1     | LIEN WITE WALTER | Marie Marie Marie |
|----------|--------------------|----------------|------------------|-------------------|
| Clause   | Requirement – Test | Trie Wir M. M. | Result – Remark  | Verdict           |

| 5.5.2.2    | TABLE: Stored discharge on capacitors |                    |                                  |                 |                        |              |  |
|------------|---------------------------------------|--------------------|----------------------------------|-----------------|------------------------|--------------|--|
| Location   | •                                     | Supply voltage (V) | Operating and fault condition 1) | Switch position | Measured voltage (Vpk) | ES Class     |  |
| 10         | - J                                   | A A                | Normal                           | Note The        | 21/2 - 21/2            | 24, 24,      |  |
| TEX WITTER | MULTER                                | uri Mar mur        | Single fault: SC/<br>OC          | TIEK "TEK       | PLIEK WALTER           | MULTER VINLE |  |

X-capacitors installed for testing are:[] bleeding resistor rating:

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

| 5.6.6 TABLE: Resistance of | protective condu | uctors and terminati | ons         | N/A     |  |  |  |
|----------------------------|------------------|----------------------|-------------|---------|--|--|--|
|                            |                  |                      |             |         |  |  |  |
| - my my my my              | A A              | TER OUTER WITE       | White - min | are are |  |  |  |
| Supplementary information: |                  |                      |             |         |  |  |  |
| Mr. Mr. 20                 | 4 A S            | Et JET NITE          | Will Mr. M  | . W. A  |  |  |  |

| 5.7.4 TABLI          | E: Unearthed acces      | sible parts  |   |   |               | N/A      |
|----------------------|-------------------------|--------------|---|---|---------------|----------|
| Location             | Operating and           | Supply       | ſ   | Parameters  |               | ES class |
|                      | fault conditions        | Voltage (V)  | Voltage<br>(V <sub>rms</sub> or V <sub>pk</sub> ) | Current<br>(A <sub>rms</sub> or A <sub>pk</sub> ) | Freq.<br>(Hz) |          |
| L/N to secondary     | Normal                  |              | A   | THE THE W   | Ell - Cite    | . Intil  |
| terminals            | Abnormal: overload      | AUTE AUT     | AND AND   | - 154 - 159<br>- 107 - 109                        | T. TEX        | LIEN.    |
|                      | Single fault: SC/<br>OC | WALTER WALTE | White white                                       | Mur Mur.  | "II"          | 7 E.F    |
| Supplementary info   | ormation:               |              |   |   |               |          |
| SC= short circuit; C | OC= open circuit        | The Will .   | the the   | 20  |               | at all   |

| 5.7.5      | TABLE: Earthed acces | sible conductive part                        |                    | 70 20       | N/A  |  |  |
|------------|----------------------|--|--------------------|-------------|------|--|--|
| Supply vol | Itage (V)            | - " I st set the the title                   |                    |             |      |  |  |
| Phase(s)   |                      | [] Single Phase; [] Three F                  | Phase: [] Delta [] | Wye         |      |  |  |
| Power Dis  | tribution System     | []TN []TT []IT                               |                    |             |      |  |  |
| Location   |                      | Fault Condition No in IEC 60990 clause 6.2.2 | Touch current (mA) | rent Commer |      |  |  |
| - ance     | 24. 24. 24.          | A AN 18th J                                  | El CIAL MAIL       | Wer The     | The. |  |  |
| t et       | TEN TEN STEP IN      | ATT AND THE AND THE                          | 70 7               | * 1         | 26   |  |  |
| Suppleme   | ntary Information:   |  |                    |             |      |  |  |
|            | 4 14 15 1            | er all ar                                    | 24. 20.            |             | - 0  |  |  |





| in the | M In the           | IEC62368-1      | Tr. Mr. Mr. |
|--------|--------------------|-----------------|-------------|
| Clause | Requirement – Test | Result – Remark | Verdict     |

| 5.8                        | TABLE | , the                                  | N/A       |                                   |           |                   |           |  |  |
|----------------------------|-------|--|-----------|-----------------------------------|-----------|-------------------|-----------|--|--|
| Location                   |       | Supply Operating and fault voltage (V) |           | Time (s) Open-circuit voltage (V) |           | Touch current (A) | ES Class  |  |  |
| NETE MALT                  | Mr.   | Mr. M                                  | - 2n - 2n | 70 <del>5</del> .1                | et Jet .  | JER - ALTER       | White whi |  |  |
| Supplementary information: |       |  |           |                                   |           |                   |           |  |  |
| C INC.                     | W     | en in                                  | 7) ,      | et et                             | - (E) (1) | er Live           | NET WILL  |  |  |

| 6.2.2 TABLE: Power source circuit classifications |                               |             |             |                                    |          |          |  |  |
|---|-------------------------------|-------------|-------------|------------------------------------|----------|----------|--|--|
| Location  | Operating and fault condition | Voltage (V) | Current (A) | Max.<br>Power <sup>1)</sup><br>(W) | Time (S) | PS class |  |  |
| Battery cells                                     | Output pin + to -             | 3.62        | 0.53        | 2.14                               | 5S       | PS1      |  |  |
| Battery cells (U3 pin 3-10 SC)                    | Output pin + to -             | 0           | NITED NITE  | W O W                              | 58       | PS1      |  |  |

Abbreviation: SC= short circuit; OC= open circuit1) 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: Determination of Arcing PIS |                                      |                            |                  |                         |        |  |  |  |  |
|----------------------------|------------------------------------|--------------------------------------|----------------------------|------------------|-------------------------|--------|--|--|--|--|
| Location                   |                                    | Open circuit voltage after 3 s (Vpk) | Measured r.m.s current (A) | Calculated value | Arcing PIS?<br>Yes / No |        |  |  |  |  |
| CENT SEL                   |                                    | 2 20                                 |                            | 4-10             |                         | TEX TE |  |  |  |  |
| Supplementary information: |                                    |                                      |                            |                  |                         |        |  |  |  |  |
| + 10+                      | THE LITE OF                        | the William C                        | 74. 7                      | 1 + 0+           | 24                      | yk JEK |  |  |  |  |

| 6.2.3.2 TABLE: De               | .2 TABLE: Determination of resistive PIS |                       |                         |  |  |  |  |  |  |  |
|---------------------------------|--|-----------------------|-------------------------|--|--|--|--|--|--|--|
| Location                        | Operating and fault condition            | Dissipate power (W)   | Arcing PIS?<br>Yes / No |  |  |  |  |  |  |  |
| All primary circuits/components | in the tites likely                      | LIEN WITER WHITER WHI | Yes<br>(declaration)    |  |  |  |  |  |  |  |
| 0 1 1 1 1                       |  |                       |                         |  |  |  |  |  |  |  |

Supplementary information:

All circuits are considered as resistive PIS; A combination of voltmeter, VA and ammeter IA may be used instead of a wattmeter.

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

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

| 8.5.5 TABLE: High pressure lamp |               |           |                  |                                     |    |                                   |  |  |
|---------------------------------|---------------|-----------|------------------|-------------------------------------|----|-----------------------------------|--|--|
| Lamp manu                       | facturer      | Lamp type | Explosion method | Longest axis of glass particle (mm) |    | ticle found<br>nd 1 m Yes<br>/ No |  |  |
| - NITE NA                       | The MULL WALL | -1/2      | The set set      | TEX TEX                             | W. | NLTE W                            |  |  |





| 2 alex | 40 40 A            | IEC62368-1  | LIER WALLE      | ing an | ch.     |
|--------|--------------------|-------------|-----------------|--------|---------|
| Clause | Requirement – Test | Mar. Mr. M. | Result – Remark | et d   | Verdict |

| 63.65  |          |         |        |    |   |    |     |         |      | 200    | 2///  |     |     |
|--------|----------|---------|--------|----|---|----|-----|---------|------|--------|-------|-----|-----|
| Supple | ementary | informa | ation: |    |   |    |     |         |      |        |       |     |     |
| Wir    | MUL      | 2/1/2   | 24     | 77 | · | ,t | TEX | J. LIFE | 10 C | MULTER | Wille | Mer | -91 |

| 9.6                                    | TABL   | E: Temper      | ature mea    | surem        | ents for wirel           | ess power                             | r transmitte | ers            | N/A                         |
|--|--------|----------------|--------------|--------------|--------------------------|---------------------------------------|--------------|----------------|-----------------------------|
| Supply voltage (V)                     |        |                |              |              | TIET WILL                | me n                                  | 4,           | 7              |                             |
| Max. transmit power of transmitter (W) |        |                |              |              | at 18th                  | TEK N                                 | TEK MITE     | MALTER.        | _                           |
|  |        |                |              |              | receiver and ect contact | with receiver and at distance of 2 mm |              |                | ceiver and at<br>ce of 5 mm |
| Foreign o                              | bjects | Object<br>(°C) | Ambient (°C) | Obje<br>(°C) |                          | Object<br>(°C)                        | Ambient (°C) | Object<br>(°C) | Ambient (°C)                |
| 1. 2.                                  |        | L J+           | , et         | 16t          | Will Till                | WILL.                                 | ar - ar      | 7/1            | 20 0.                       |
| Supplementary information:             |        |                |              |              |                          |                                       |              |                |                             |

| 5.4.1.4,<br>9.3, B.1.5,<br>B.2.6 | TABLE: Temperature measurements |                         |                               |                     |                    |           |                               |                  |  |  |  |  |
|----------------------------------|---------------------------------|-------------------------|-------------------------------|---------------------|--------------------|-----------|-------------------------------|------------------|--|--|--|--|
| Supply volta                     | age (V)                         |                         | :                             | Condition 1 (5Vdc): | Condition 2 (4.2Vo |           |                               | _                |  |  |  |  |
| Ambient ter                      | nperature durin                 | g test T <sub>amb</sub> | (°C):                         | See below           | See bel            | ow        | 12 712                        | _                |  |  |  |  |
| Maximum n                        | neasured tempe                  |                         | Allowed T <sub>max</sub> (°C) |                     |                    |           |                               |                  |  |  |  |  |
| PCB near U                       | 11 set see                      | 44.4                    | 45.3                          |                     | e <del>e</del>     | 130       |                               |                  |  |  |  |  |
| Battery bod                      | у                               |                         | £ 56                          | 30.5                | 34.3               | The MUTT. | 21/2 21                       | Ref.             |  |  |  |  |
| Battery wire                     | THE WITE OF                     | LIE WALL                | de                            | 29.5                | 34.7               | a st      | , EN ,                        | 105              |  |  |  |  |
| Internalplas                     | tic enclosure ne                | ar battery              | 7EF                           | 29.1                | 32.3               | 1000-     | 11/2 -11/2                    | Ref.             |  |  |  |  |
| External pla                     | stic enclosurene                | ear battery             | 24cm                          | 26.4                | 29.9               | . At      | EK JE                         | J77 J            |  |  |  |  |
| Ambient                          | - J.                            | ,et                     | Let .                         | 25.0                | 25.0               | 111 11    | L 111                         | 4, -4,           |  |  |  |  |
| Temperatur winding:              | e T of                          | t <sub>1</sub> (°C)     | R <sub>1</sub> (Ω)            | t <sub>2</sub> (°C) | $R_2(\Omega)$      | T (°C)    | Allowed T <sub>max</sub> (°C) | Insulation class |  |  |  |  |
| All                              | JER JIER                        | المال المال             | 4/6                           | 20,                 | ·                  | A         |                               | TEX -TEX         |  |  |  |  |

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

Note 2: The temperatures were measured under the worse case normal mode defined in clause B.2.1.

Condition 1: Only charge with internal empty battery

Condition 2: Only discharge with internal fully battery

<sup>\*</sup> Temperature limit for TS1 of accessible enclosure according to Table 38 to be measured at normal ambient temperature.



| The same | All All All        | IEC62368-1      | LIET INLIET WALLEN | WILL MUTT AND |
|----------|--------------------|-----------------|--------------------|---------------|
| Clause   | Requirement – Test | The Maria Maria | Result – Remark    | Verdict       |

| B.2.5                | T/     | ABLE: Inp  | out test       |            |                |            |               | P                                |
|----------------------|--------|------------|----------------|------------|----------------|------------|---------------|----------------------------------|
| U (V)                | Hz     | I (A)      | I rated<br>(A) | P (W)      | P rated<br>(W) | Fuse<br>No | I fuse<br>(A) | Condition/status                 |
| Conditio             | 1: O   | nly charge | e with intern  | nal empty  | battery        | ,et        | (EX           | LIER WIEL WILL MALL              |
| 5Vdc <sup>1)</sup>   | ţ      | 0.34       | 0.65           | 1.7        | JOINE .        | ant.       | m.            | Battery charge current: 0.34A    |
| Conditio             | n 2: O | nly discha | arge with int  | ernal full | y battery      | ,et        | TEK           | LIER CLIEB WILLE WALLE WA        |
| 4.2Vdc <sup>2)</sup> |        | 0.51       | - 55           | 2.14       | 111º W         | n - 4      | - 40          | Battery discharge current: 0.34A |

<sup>&</sup>lt;sup>1)</sup> Supply by external DC source, <sup>2)</sup> Measured battery cells voltage and current. The maximum measured current under rated voltage did not exceed 110% of the rated current.

| B.3, B.4 T     | ABLE: Abnorr                 | mal operatin       | g and fau    | It condit   | ion tests           |  | U P           |
|----------------|------------------------------|--------------------|--------------|-------------|---------------------|--|---------------|
| Ambient temp   | perature T <sub>amb</sub> (° | C)                 | ±            |             | : See b             | pelow  | _             |
| Power source   | e for EUT: Man               | ufacturer, mo      | del/type, d  | outputrati  | ng:                 | H CIEN SCIENCE   | _             |
| Component No.  | Condition                    | Supply voltage (V) | Test<br>time | Fuse<br>no. | Fuse<br>current (A) | Observatio   | n             |
| Condition 1: 0 | Only discharge               | with internal      | fully batter | ry          | The WALL            | Mrs. Mr. M.  | 20.           |
| Condition 2: E | Empty battery c              | harging            | 6 2          | st.         |                     | TEX LITER  | CLIFE NO      |
| B+ to P-       | Short circuit                | 5VDC               | 7hours       | MALTER      | 0.001               | Unit short down, no damage,recoverable r hazard.Battery charge current:1.95→0.001A |               |
| U1 pin1-3      | Short circuit                | 5VDC               | 10mins       | intiek      | 0.001               | Unit short down, no da<br>hazard Battery current<br>Battery current:1.95→          | t diminution. |
| U1 pin1-6      | Short circuit                | 5VDC               | 10mins       | TEK<br>TEK  | 0.001               | Unit short down, no da recoverable, no hazar Battery charge current 1.95→0.001A    | d.            |

#### 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) s-c: Short-circuited; o-l: Overloaded; BL=Blocked.
- 2) The test result shown all safeguards remained effective and didn't lead to a single fault condition during abnormal operating condition; In addition all safeguards complied with applicable requirements in this standard after restoration of normal operating conditions.
- 3) The test result showed no Class 1 or 2 energy source become Class 3 level during and after single fault condition.
- 4) Limit temperature: Plastic material: 87°C

| M.3          | TABLE: Pro                       | tection circuits for batteries provided within | the equipment | √P. |  |
|--------------|----------------------------------|--|---------------|-----|--|
| Is it possib | ole to install the               | battery in a reverse polarity position?:       | A - A A       | _   |  |
| Equipmen     | Equipment Specification Charging |  |               |     |  |







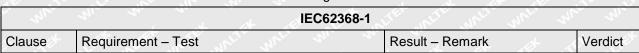
| The same | Mr. Mr. O. A.      | IEC62368-1 | LIEW WILLES WILLES WI | iri an | r, m    |
|----------|--------------------|------------|-----------------------|--------|---------|
| Clause   | Requirement – Test | Mr. M. M.  | Result – Remark       | et d   | Verdict |

|  | Current (A)  |                                |  |  |  |  |  |
|--|--|--------------------------------|--|--|--|--|--|
| TER MITE   | 1A, 1  | Mrs.                           |  |  |  |  |  |
| Battery specification  |  |                                |  |  |  |  |  |
| lon-rechargeable batteries Rechargeable batteries  |  |                                |  |  |  |  |  |
| Discharging Unintentional Charging Discurrent (A) Charging Current (A) Charging Current (A) Charging Current (B) Charging Current (C) Curr |  |                                |  |  |  |  |  |
| Current (A)  | current (A)  | charging<br>current (A)        |  |  |  |  |  |
| 4.2  |  | ien <sub>We</sub> ite<br>F rek |  |  |  |  |  |
| data is not ava  | vailable.  |                                |  |  |  |  |  |
| , , , , , , , , , , , , , , , , , , ,  | 10-45  |                                |  |  |  |  |  |
| rrent Voltage<br>A) (V)  | •  | ervation                       |  |  |  |  |  |
| 001 4.20   | Unit shutdo<br>immediatel<br>Recoverab<br>damaged, | y.<br>le. No                   |  |  |  |  |  |
|  | WAL WILL   | Recoverab                      |  |  |  |  |  |

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.

|  | TABLE:<br>pattery | Charging saf                             | feguards for         | equipment c          | onta | aining a se                   | econdary lithium             | P           |
|--|-------------------|--|----------------------|----------------------|------|-------------------------------|------------------------------|-------------|
| Maximum sp   | ecified o         | charging voltag                          | je (V)               |                      | 0    | 4.25                          | rie Mure Mur                 | _           |
| Maximum sp   | ecified o         | charging currer                          | nt (A)               | (1)                  | :    | 1                             | of the the                   | _           |
| Highest spec   | ified ch          | arging tempera                           | ature (°C)           |                      |      | 45                            | Mrs. Mrs.                    |             |
| Lowest speci   | fied cha          | arging tempera                           | ture (°C)            |                      | :    | 10                            | TEN TEN                      |             |
| Battery  |                   | Operating                                |                      | Measuremen           | ıt   |                               | vation                       |             |
| manufacturer/type                                      |                   | and fault condition                      | Charging voltage (V) | Charging current (A) |      | Temp.<br>(°C)                 |                              |             |
| Lowest specif  | fied cha          | rging temperat                           | ure: 10°C            | 14, 14,              |      | , t                           | at at de                     | LIER        |
| Shenzhen City<br>triumph Electronic<br>Technology Co., |                   | Normal                                   | 4.20                 | 0.54                 | ter  | Battery<br>nperature:<br>10°C | The battery chargi decreases | ng current  |
| Ltd. / 341423  | , et              | Abnormal-                                | 10 21 E W            | in Aur               | n    | -201                          |                              | <del></del> |
| ite whitek w   | WAL.              | Single fault - (R4 SC under condition 1) | 4.20                 | 0.54                 |      | Battery<br>nperature:<br>10°C | The battery chargi decreases | ng current  |
| Highest speci  | ified cha         | arging temperat                          | ture: 45°C           | Mrs. Mr.             |      | 24. 2                         | 1 X 2                        | , et        |
| Shenzhen Cit   | ty                | Normal                                   | 4.20                 | 0.001A               |      | Battery                       | The battery chargi           | ng circuit  |





| triumph Electronic Technology Co., | IEK WALTER W                                      | ALTER WALTER | mr. m     | temperature:<br>46.8°C            | stop charging                              |
|------------------------------------|---|--------------|-----------|-----------------------------------|--|
| Ltd. / 341423                      | Abnormal-   | EX TEX       | LIER WILL | MULL - MUL                        | - m m m                                    |
| NUTER WHITE WALTER                 | Single fault –<br>(R4 SC<br>under<br>condition 1) | 4.20         | 0.001A    | Battery<br>temperature:<br>46.8°C | The battery charging circuit stop charging |

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

| Q.1               | TABLE: Circuits intended for interconnection with building wiring (LPS) |                     |          |                   |       |        | Р     |
|-------------------|---|---------------------|----------|-------------------|-------|--------|-------|
| Output<br>Circuit | Condition   | U <sub>oc</sub> (V) | Time (s) | I <sub>sc</sub> ( | (A)   | S (VA) |       |
|                   | Condition   | O <sub>oc</sub> (V) |          | Meas.             | Limit | Meas.  | Limit |
| Battery<br>output | Normal  | 4.2                 | 5S       | 8.0               | 8.0   | 28.90  | 100   |
|                   | Single fault - U1 pin<br>1-8 SC*  | 4.2                 | 5S       | 0                 | 8     | J 0 J  | 100   |

## Supplementary Information:

SC = short circuit, OC = open circuit\* Unit shutdown immediately, recoverable, no hazard.

| T.2, T.3,<br>T.4, T.5           | TABLE: S  | eady force te      | st                                 |              |                         | WHITE WHITE WHITE WASTE PALL                           |
|---------------------------------|-----------|--------------------|------------------------------------|--------------|-------------------------|--|
| Location /<br>Part              | Material  | Thickness<br>(mm)  | Probe                              | Force<br>(N) | Test<br>Duration<br>(s) | Observation  |
| Internal<br>components<br>(T.2) | water w   | on - on            | Figure<br>V.1 and<br>Figure<br>V.2 | 10           | WALTES WALTER           | No reduction the clearances and creepage distances     |
| Enclosure<br>top(T.4)           | Metal*    | See table<br>4.1.2 | nlie <mark> o</mark> n             | 100          | 5                       | Enclosure remained intact, no crack/ opening developed |
| Enclosure side(T.4)             | Plastics* | See table<br>4.1.2 | IER WINLT                          | 100          | 5                       | Enclosure remained intact, no crack/ opening developed |
| Enclosure<br>bottom (T.4)       | Metal*    | See table<br>4.1.2 | - WALTER                           | 100          | uni 5 uni               | Enclosure remained intact, no crack/ opening developed |

#### Supplementary information:

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

| T.6, T.9 TABLE: Impact test                                   |        |     |        |  |  |  |  |  |
|---|--------|-----|--------|--|--|--|--|--|
| Location/Part Material Thickness (mm) Height Observation (mm) |        |     |        |  |  |  |  |  |
| MALTE WALL  | Mar. M | 201 | at let | THE THE LITTER BUTTER SHIPLE SHIPLE SHIPLE |  |  |  |  |



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|           |                 |                   | IEC623           | 368-1     |               |           |           |
|-----------|-----------------|-------------------|------------------|-----------|---------------|-----------|-----------|
| Clause    | Requireme       | ent – Test        | were we          | 30        | Result – Rema | ark       | Verdict   |
| White     | 14. 14.         | 4                 | J. J.            | - JE      | NI THE ME     | one a     | ne m      |
| ,e*       | Let Jet         | LIER MILE         | William Mr.      | 211.      | 20 2          |           | it it     |
|           | VI. Mer         | 4                 | * #              | TEN       |               |           |           |
| Suppleme  | ntary informati | ion:              |                  |           |               |           |           |
| *Test was | performed on    | product with each | source listed in | table 4.1 | .2.           | WILL WILL | 21/2 21/2 |

| Г.7                 | ABLE: Drop | test            |             | EX TEX STEE OFFER MITTER AND A P                                    |  |
|---------------------|------------|-----------------|-------------|---|--|
| _ocation/Part       | Material   | Thickness (mm)  | Height (mm) | Observation   |  |
| Enclosure<br>Top    | Metal*     | See table 4.1.2 | 1000        | Enclosure remained intact, no crack/ opening developed. No hazards. |  |
| Enclosure<br>Side   | Plastics*  | See table 4.1.2 | 1000        | Enclosure remained intact, no crack/ openi developed. No hazards.   |  |
| Enclosure<br>Bottom | Metal*     | See table 4.1.2 | 1000        | Enclosure remained intact, no crack/ opening developed. No hazards. |  |

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

| T.8 T.4       | ABLE: Stress | s relief test   |                              |                 | P P  |  |
|---------------|--------------|-----------------|------------------------------|-----------------|--|--|
| Location/Part | Material     | Thickness (mm)  | Oven<br>Temperatur<br>e (°C) | Duration<br>(h) | Observation  |  |
| Enclosure     | Plastic*     | See table 4.1.2 | 70°C                         | 7h              | Enclosure remained intact, no cracking/opening developed in the enclosure joint. No hazards. |  |
| Supplementary | information: |                 |                              |                 |  |  |

| TABLE: Alternative method for determining minimum clearances distances |                             |                     |                     |  |  |  |  |
|--|-----------------------------|---------------------|---------------------|--|--|--|--|
| Clearance distanced between:   | Peak of working voltage (V) | Required cl<br>(mm) | Measured cl<br>(mm) |  |  |  |  |
| - 24 24 24 24 24 2   | 1 1 - Jet 15                | er mile while while | me me m             |  |  |  |  |
| Supplementary information:   |                             |                     |                     |  |  |  |  |
| 74. 74.  | t et liet sliet             | WITE WILL WILL      | Mr. Mr. M. A        |  |  |  |  |



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| in m   | The The Table      | IEC62368-1    | LIER WHITE WHITE WALL WAL | Mr. Mr. |
|--------|--------------------|---------------|---------------------------|---------|
| Clause | Requirement – Test | Aut. Au. III. | Result – Remark           | Verdict |

| 4.1.2                    | TABLE: Critical components information                      |                     |  |                      |                                    |  |
|--------------------------|---|---------------------|--|----------------------|------------------------------------|--|
| Object / part No.        | Manufacturer/<br>trademark                                  | Type / model        | Technical data                           | Standard             | Mark(s) of conformity <sup>1</sup> |  |
| РСВ                      | LG CHEM LTD   | AF312C              | V-0, Min. 70°C, min. thickness: 2.5mm    | UL 94                | UL E159194                         |  |
| Plasticenclo sure        | LG CHEM LTD   | 100G                | V-0, 130°C,<br>thickness: 0.4 mm         | UL 94                | UL E67171                          |  |
| Battery lead wire        | Interchangeable   | Interchangeabl<br>e | Min. 30V, min. 80°C,<br>min. 26AWG, VW-1 | UL 758               | UL                                 |  |
| Internal Li-<br>ion Cell | Shenzhen City<br>triumph Electronic<br>Technology Co., Ltd. | 341423              | 3.7V, 90mAh,<br>0.333Wh                  | IEC 62133-2:<br>2017 | TCT test:<br>TCT211022<br>B019     |  |

Supplementary information: 1) License available upon request. Provided evidence ensures the agreed level of compliance. See OD-CB2039.





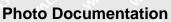






Photo 1 external view



Photo 2 external view

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

# W

## Page 2 of 4

## **Photo Documentation**

Reference No.: WTF22D12262928Y



Photo 3 external view



Photo 4 internal view

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# **Photo Documentation**

Reference No.: WTF22D12262928Y





Photo 5 internal view



Photo 6 internal view



# **Photo Documentation**

Reference No.: WTF22D12262928Y





Photo 7 internal view



Photo 8 battery

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