

# **TEST REPORT**

Reference No.	WTF21S01000184Y
Applicant	Mid Ocean Brands B.V.
Address	7/F., Kings Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong
Manufacturer	109328
Address	t I get get atter antier antier antier and and
Product	Health bracelet
Model(s)	MO6195
Total pages	58 + 6 pages of photo documentation
Standards	EN 62368-1:2014+A11:2017
	Audio/video, information and communication technology equipment- Part 1:Safety requirements
Date of Receipt sample	2021-01-05
Date of Test	2021-01-07 to 2021-01-12
Date of Issue	2021-01-13
Test Result	Pass A A A A

Remarks:

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

## Prepared By: Waltek Testing Group Co., Ltd.

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Compiled by:

Gary Liu / Project Engineer

Approved by:

Devolgin

Deval Qin / Manager



Test item description: Health bracelet	and white the the the
Trademark: MOB	
Model and/or type reference MO6195	
Rating(s): Input: 5V==; Battery: 3.7V==	=, 90mAh
Remark: Whether parts of tests for the product have been sub Yes ⊠ No If Yes, list the related test items and lab information: Test items: Lab information:	contracted to other labs:
Summary of testing:	
Tests performed (name of test and test clause): -EN 62368-1:2014+A11:2017 All applicable test	<b>Testing location:</b> Waltek Testing Group Co., Ltd. Address: No.77,Houjie Section, Guantai Road, Houjie Town, Dongguan City, Guangdong, China
Summary of compliance with National Difference	
List of countries addressed: National Differences and checked.	Group Differences for CENELEC countries were
CEX	MOMANUALCOM
MOB/MO6195 PO BOX 644 6710 BP(NL) Made in China	
PO BOX 644 6710 BP(NL) Made in China Input: 5V (rechargea	Frequency range: 2.4-2.48GHz Maximum RF power:

Above label for reference only, are the minimum requirements required by the safety standard. The final label marking on product shall contain the information at least. Name and address of the Importer AND Manufacturer must be affixed on the product when the product placed on the EU market. For the final productions, the additional marking which do not give rise to misunderstanding may be added.



TEST ITEM PARTICULARS:	stift out would write work with an		
Classification of use by	Ordinary person		
when with the state of	Instructed person		
ret ret with write write white wh	Skilled person		
white white white white white white white	Children likely to be present		
Supply Connection	AC Mains DC Mains		
the white white when when the test	External Circuit - not Mains connected		
at at all the state with	- 🛛 ES1 🗌 ES2 🗌 ES3		
Supply % Tolerance:	□+10%/-10%		
it at the state with a state with w	□+20%/-15%		
MATTE MATTE WATE WATE WATE AND	□+6%/ -10%		
	None		
Supply Connection – Type:	pluggable equipment type A -		
the state of the state of the	non-detachable supply cord		
TEX NEED INTE WATE WITH WITH WITH WITH	appliance coupler		
so a stat stat set	<ul> <li>direct plug-in</li> <li>mating connector</li> </ul>		
at aller with white white white white	☐ pluggable equipment type B -		
with the state of the state	non-detachable supply cord		
TEX STER NUTER WITE WITE WITE WALL WA	appliance coupler		
when when we are the set	permanent connection		
At the second	$\Box$ mating connector $\boxtimes$ other: not directly connected		
and such the second	to the mains		
Considered current rating of protective device as part of building or equipment installation:	Installation location: Duilding; Mequipment		
Equipment mobility:	☐ movable hand-held transportable ☐ stationary for building-in direct plug-in rack-mounting wall-mounted		
Over voltage category (OVC):			
white white white white the state of the	Sother: not directly connected to the mains.		
Class of equipment	Class I Class II Class III		
Access location	restricted access location N/A		
Pollution degree (PD)	□ PD 1 □ PD 2 □ PD 3		
Manufacturer's specified maxium operating ambient:	: 40°C		
IP protection class			
Power Systems	⊠ TN □ TT□ IT – V <sub>L-L</sub>		
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		
POSSIBLE TEST CASE VERDICTS:	the tex with with out would would a		
- 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:	MIT WALL WALL WALL WIT WIT		
Date of receipt of test item	2021-01-06		
Date (s) of performance of tests	2021-01-07 to 2021-01-12		
	2021-01-07 to 2021-01-12		

#### **GENERAL REMARKS:**

The test result presented in this report relate only to the object(s) tested.

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The report would be invalid without the signatures of reporter and reviewer.

"(see Enclosure #)" refers to additional information appended to the report.

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

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

## GENERAL PRODUCT INFORMATION:

#### **Product Description**

1. The equipment with model MO6195 is Health bracelet which is classified as Class III equipment.

2. The equipment is powered by an external DC source or Rechargeable Li-ion Battery.

3. The maximum operating temperature is 40°C.

**Model Differences** 

N/A

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



#### ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE:

(Note 1: Identify the following six (6) energy source forms based on the origin of the energy.) (Note 2: The identified classification e.g., ES2, TS1, should be with respect to its ability to cause pain or injury on the body or its ability to ignite a combustible material. Any energy source can be declared Class 3 as a worse case classification e.g. PS3, ES3.

#### Electrically-caused injury (Clause 5):

(Note: Identify type of source, list sub-assembly or circuit designation and corresponding energy source classification)

Example: +5 V dc input

Source of electrical energy	Corresponding classification (ES)		
5Vdc input	ES1		
Battery	ES1		

ES1

#### Electrically-caused fire (Clause 6):

(Note: List sub-assembly or circuit designation and corresponding energy source classification) Example: Battery pack (maximum 85 watts): PS2

Source of power or PIS	Corresponding classification (PS)		
5Vdc input	PS1		
Battery	PS1		

#### Injury caused by hazardous substances (Clause 7)

(Note: Specify hazardous chemicals, whether produces ozone or other chemical construction not addressed as part of the component evaluation.)

Example: Liquid in filled component	Glycol	
Source of hazardous substances	Corresponding chemical	
N/A	N/A	

#### Mechanically-caused injury (Clause 8)

(Note: List moving part(s), fan, special installations, etc. & corresponding MS classification based on Table 35.)

	N WISZ		
Source of kinetic/mechanical energy	Corresponding classification (MS)		
Sharp edges and Corners	MS1		
Equipment mass	MS1		

#### Thermal burn injury (Clause 9)

(Note: Identify the surface or support, and corresponding energy source classification based on type of part, location, operating temperature and contact time in Table 38.) Example: Hand-held scanner – thermoplastic enclosure TS1

Source of thermal energy	Corresponding classification (TS)		
External enclosure	TS1		

#### **Radiation (Clause 10)**

(Note: List the types of radiation present in the product and the corresponding energy source classification.) Example: DVD – Class 1 Laser Product RS1

Type of radiation	Corresponding classification (RS)		
Accessible parts (indicating lights)	RS1		
Accessible parts (screen display)	RS1		



Clause	Possible Hazard	100 50	a life and the all	Life Main
and the second				A It
	Electrically-caused injury			
Body Part (e.g. Ordinary)	Energy Source (ES3: Primary Filter circuit)	Basic	Safeguards Supplementary	Reinforced
Ordinary person, Instructed person, Skilled person	ES1: 5Vdc input ES1: Battery	N/A	N/A	N/A
6.1 standard and and and a	Electrically-caused fire	1. 18	Tet Jet a	LIEK MUTER
Material part	Energy Source	and man	Safeguards	
(e.g. mouse enclosure)	(PS2: 100 Watt circuit)	Basic	Supplementary	Reinforced
Internal combustible material	PS1: 5Vdc input PS1: Battery	N/A	N/A	N/A
7.1 1	Injury caused by hazard	ous substance	s , ,	Set 50
Body Part	Energy Source	INTER WITE	Safeguards	un mu
(e.g., skilled)	(hazardous material)	Basic	Supplementary	Reinforced
N/A	N/A	N/A	N/A	N/A
8.1	Mechanically-caused inj	ury	a still mill	INTE M
Body Part	Energy Source	Safeguards		
	(MS3:High Pressure Lamp)	Basic	Supplementary	Reinforced (Enclosure)
Ordinary person, Instructed person, Skilled person	MS1: Sharp edges and Corners	N/A	N/A	N/A
Ordinary person	MS1: Equipment mass	N/A	N/A	N/A
9.1. 1. 1. 1.	Thermal Burn	in the s	A A	je .
Body Part	Energy Source	Safeguards		
(e.g., Ordinary)	(TS2)	Basic	Supplementary	Reinforced
Ordinary person, Instructed person, Skilled person	TS1: External enclosure	N/A	N/A	N/A
10.1	Radiation	NUTER MUTER	white white wh	- An-
Body Part	Energy Source	a st	Safeguards	t Set
(e.g., Ordinary)	(Output from audio port)	Basic	Supplementary	Reinforced
Ordinary (indicating lights and screen display)	RS1	N/A	N/A	N/A

Clause

Requirement – Test

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Verdict

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	5	Result -
		Resource

Remark	
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4	GENERAL REQUIREMENTS		Р
4.1.1	Acceptance of materials, components and subassemblies	Considered in end system	WILL P
4.1.2	Use of components	(See appended table 4.1.2)	. ́Р
4.1.3	Equipment design and construction	white white white white	P
4.1.15	Markings and instructions	(See Annex F)	P
4.4.4	Safeguard robustness	inter unit unt unt an	Р
4.4.4.2	Steady force tests	(See Annex T.4)	Р
4.4.4.3	Drop tests	(See Annex T.7)	Р
4.4.4.4	Impact tests	(See Annex T.6)	N/A
4.4.4.5	Internal accessible safeguard enclosure and barrier tests	when when the states	N/A
4.4.4.6	Glass Impact tests	No glass used	N/A
4.4.4.7	Thermoplastic material tests	(See Annex T.8)	Р
4.4.4.8	Air comprising a safeguard	(See Annex T)	N/A
4.4.4.9	Accessibility and safeguard effectiveness	fet whet white white white	JU.B.
4.5	Explosion	No explosion	Р
4.6	Fixing of conductors	white white	N/A
4.6.1 🧹	Fix conductors not to defeat a safeguard		_⊘ <sup>+</sup> N/A
4.6.2	10 N force test applied to	million while while while we	N/A
4.7	Equipment for direct insertion into mains socket - outlets	LIEK MITEK MUTEK WALT	N/A
4.7.2	Mains plug part complies with the relevant standard	et stet stret maret water	N/A
4.7.3	Torque (Nm)	we we we at	N/A
4.8	Products containing coin/button cell batteries	No coin/button cell battery used	N/A
4.8.2	Instructional safeguard	w w t	
4.8.3	Battery Compartment Construction	NUTE INTE MUT WALL WA	N/A
WALTER V	Means to reduce the possibility of children removing the battery	stet with milet milet white	_
4.8.4	Battery Compartment Mechanical Tests	in the state	N/A
4.8.5	Battery Accessibility	t mile while while while	s <sup>an</sup> N/A
4.9	Likelihood of fire or shock due to entry of conductive object	ret jet and whet	N/A

2	5	ELECTRICALLY-CAUSED INJURY		⇒ P
4	5.2.1	Electrical energy source classifications	(See appended table 5.2)	N/A

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Clause	Requirement – Test	Result – Remark	Verdict
8 - 5°	with white whe whe whe	i s at at a	6 50 SV
522	ES1 ES2 and ES3 limits	Considered as ES1	

5.2.2	ES1, ES2 and ES3 limits	Considered as ES1	Р
5.2.2.2	Steady-state voltage and current	(See appended table 5.2)	N/A
5.2.2.3	Capacitance limits	in white white when when	N/A
5.2.2.4	Single pulse limits	No single pulse introduced	N/A
5.2.2.5	Limits for repetitive pulses	No repetitive pulses introduced	N/A
5.2.2.6	Ringing signals	No ringing signal generated	N/A
5.2.2.7	Audio signals	The all and an an	N/A
5.3	Protection against electrical energy sources	ret ret with when with	N/A
5.3.1	General Requirements for accessible parts to ordinary, instructed and skilled persons	at the test state state	N/A
5.3.2.1	Accessibility to electrical energy sources and safeguards	white white white white	N/A
5.3.2.2	Contact requirements	white white white white a	N/A
y Jet	a) Test with test probe from Annex V	to the state of	N/A
m	b) Electric strength test potential (V)	MITE WALL WALL WALL WI	N/A
STER IS	c) Air gap (mm)	at at at all all	N/A
5.3.2.4	Terminals for connecting stripped wire	and white white white white	N/A
5.4	Insulation materials and requirements	a star a star star	N/A
5.4.1.2	Properties of insulating material	2 - 20 - 20	N/A
5.4.1.3	Humidity conditioning		Ń/A
5.4.1.4	Maximum operating temperature for insulating materials	(See appended table 5.4.1.4)	N/A
5.4.1.5	Pollution degree	Pollution degree 2 considered	
5.4.1.5.2	Test for pollution degree 1 environment and for an insulating compound	et minet monthet white	N/A
5.4.1.5.3	Thermal cycling	s at at at	N/A
5.4.1.6	Insulation in transformers with varying dimensions	white white white white	N/A
5.4.1.7	Insulation in circuits generating starting pulses	aller mate white white wh	N/A
5.4.1.8	Determination of working voltage	(See appended table 5.4.1.8)	N/A
5.4.1.9	Insulating surfaces	TET WATE WALL WALL WAL	⇒ N/A
5.4.1.10	Thermoplastic parts on which conductive metallic parts are directly mounted	t the maret intret waret	N/A
5.4.1.10.2	Vicat softening temperature	SHI IN A A	N/A
5.4.1.10.3	Ball pressure	(See appended table 5.4.1.10.3)	N/A
5.4.2	Clearances	su se at at	⊘⊢ N/A
5.4.2.2	Determining clearance using peak working voltage	(See appended table 5.4.2.2)	N/A

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Clause	Requirement – Test	Result – Remark	Verdict
5.4.2.3	Determining clearance using required withstand voltage	(See appended table 5.4.2.3)	N/A
me m	a) a.c. mains transient voltage	let while while while while	
# 5	b) d.c. mains transient voltage	No such transient voltage	
e m	c) external circuit transient voltage	No such transient voltage	-
EK WALTER	d) transient voltage determined by measurement	No need to conduct this test	
5.4.2.4	Determining the adequacy of a clearance using an electric strength test	Procedure 2 considered	N/A
5.4.2.5	Multiplication factors for clearances and test voltages	Clearance distance was evaluated for altitude up to 2000m above sea level	N/A
5.4.3	Creepage distances	(See appended table 5.4.3)	N/A
5.4.3.1	General	white white white white	N/A
5.4.3.3	Material Group	Material group IIIb is assumed to be used	_
5.4.4	Solid insulation	and the state	N/A
5.4.4.2	Minimum distance through insulation	set while while while whi	→ N/A
5.4.4.3	Insulation compound forming solid insulation		N/A
5.4.4.4	Solid insulation in semiconductor devices	anti ant	N/A
5.4.4.5	Cemented joints		N/A
5.4.4.6	Thin sheet material	White shrit white where a	N/A
5.4.4.6.1	General requirements	at at all all a	N/A
5.4.4.6.2	Separable thin sheet material	the white white when white	N/A
MUTER IN	Number of layers (pcs)	at let set set and	N/A
5.4.4.6.3	Non-separable thin sheet material	white where where we	N/A
5.4.4.6.4	Standard test procedure for non-separable thin sheet material	WATER WATER WATER WATER	N/A
5.4.4.6.5	Mandrel test	at at set set	N/A
5.4.4.7	Solid insulation in wound components	with most way and	N/A
5.4.4.9	Solid insulation at frequencies >30 kHz	at at all all all	N/A
5.4.5	Antenna terminal insulation	which the superior	N/A
5.4.5.1	General	t get get allet allet allet	N/A
5.4.5.2	Voltage surge test	when we we so	N/A
AL WALT	Insulation resistance (MΩ)	ster street white white	
5.4.6	Insulation of internal wire as part of supplementary safeguard	when when we we will be a start with any	N/A
5.4.7	Tests for semiconductor components and for cemented joints	ner white where where we	N/A

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Clause	Requirement – Test	Result – Remark	Verdict
5.4.8	Humidity conditioning	stat what what we	N/A
5.4.0	Relative humidity (%)	er we we	
mer m	Temperature (°C)		
15 1	Duration (h)		
<u></u>			
5.4.9	Electric strength test	SP ST At	N/A
5.4.9.1	Test procedure for a solid insulation type test	martin white white we	N/A
5.4.9.2	Test procedure for routine tests		N/A
5.4.10	Protection against transient voltages between external circuit	LIER WALTER WALT WAL	N/A
5.4.10.1	Parts and circuits separated from external circuits	et unifet whitet white	N/A
5.4.10.2	Test methods	a at at	
5.4.10.2.1	General	white white white a	N/A
5.4.10.2.2	Impulse test	that the	N/A
5.4.10.2.3	Steady-state test	which which which which	N/A
5.4.11	Insulation between external circuits and earthed circuitry	Set milet inter while	N/A
5.4.11.1	Exceptions to separation between external circuits and earth	at mitet	N/A
5.4.11.2	Requirements		N/A
MUL	Rated operating voltage U <sub>op</sub> (V)	when the water w	- W -
t st	Nominal voltage U <sub>peak</sub> (V)	Sur Sur Str	d
ants a	Max increase due to variation U <sub>sp</sub>	LIET MUTCH WALTER WAY	- m
At a	Max increase due to ageing $\Delta U_{sa}$		
m. m.	$U_{op} = U_{peak} + \Delta U_{sp} + \Delta U_{sa}$	antice which which	-141 -
5.5	Components as safeguards	A A A	Tet Jac
5.5.1	General	white white white a	N/A
5.5.2	Capacitors and RC units	the state of	N/A
5.5.2.1	General requirement	With Mar Mur Mur Mur	N/A
5.5.2.2	Safeguards against capacitor discharge after disconnection of a connector	Tet whitet whitet white	N/A
5.5.3	Transformers	t at at at	N/A
5.5.4	Optocouplers	with with with	N/A
5.5.5	Relays	at the set	N/A
5.5.6	Resistors	mer mer and a	N/A
5.5.7	SPD's	tet tet the state	N/A
5.5.7.1	Use of an SPD connected to reliable earthing	the the the sta	N/A

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Clause	Requirement – Test	Result – Remark	Verdict
		the state state	ALL ALL
5.5.7.2	Use of an SPD between mains and protective earth	NET WALL WALL WALL	N/A
5.5.8	Insulation between the mains and external circuit consisting of a coaxial cable	THE WALTER WALTE WALL W	N/A
5.6	Protective conductor	t itet itet witet int	N/A
5.6.2	Requirement for protective conductors	m. m. m.	N/A
5.6.2.1	General requirements	LIEK NUTER MUTER WALT	N/A
5.6.2.2	Colour of insulation	in su se st	N/A
5.6.3	Requirement for protective earthing conductors	The write mult write	N/A
Interes our	Protective earthing conductor size (mm <sup>2</sup> )	at what what while an	1 <sup>16</sup> —
5.6.4	Requirement for protective bonding conductors	me m m	N/A
5.6.4.1	Protective bonding conductors	THE NUMBER OF MALE	N/A
t st	Protective bonding conductor size (mm <sup>2</sup> )	with the state	_
m	Protective current rating (A)	NUTER INTER WALTE WALTE	- m
5.6.4.3	Current limiting and overcurrent protective devices	ret the wind winds	N/A
5.6.5	Terminals for protective conductors	where the second	N/A
5.6.5.1	Requirement	and white wh	N/A
ret unite	Conductor size (mm <sup>2</sup> ), nominal thread diameter (mm)		N/A
5.6.5.2	Corrosion	me m m	N/A
5.6.6	Resistance of the protective system	Tet the street with	N/A
5.6.6.1	Requirements	a man	N/A
5.6.6.2	Test Method Resistance (Ω)	et whet mile white w	N/A
5.6.7	Reliable earthing	All the state	N/A
5.7 📣	Prospective touch voltage, touch current and proceeding of the second se	rotective conductor current	N/A
5.7.2	Measuring devices and networks	and the second	- N/A
5.7.2.1	Measurement of touch current	marte white white white	N/A
5.7.2.2	Measurement of prospective touch voltage	a at the state	N/A
5.7.3	Equipment set-up, supply connections and earth connections	The work water water	N/A
ne m	System of interconnected equipment (separate connections/single connection)	White White Mill W	_
The work	Multiple connections to mains (one connection at a time/simultaneous connections)	WALTER WALTER WALTER WALT	-
5.7.4	Earthed conductive accessible parts	at at and and	N/A
5.7.5	Protective conductor current	ner mer mer me	N/A
55	Supply Voltage (V)	A do to the	. J <sup>e</sup>

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Clause	Requirement – Test	Result – Remark	Verdict
	Measured current (mA)	the state state with	$\frac{1}{1}$

Set	Instructional Safeguard	N/A
5.7.6	Prospective touch voltage and touch current due to external circuits	N/A
5.7.6.1	Touch current from coaxial cables	N/A
5.7.6.2	Prospective touch voltage and touch current from external circuits	N/A
5.7.7	Summation of touch currents from external circuits	N/A
State of	a) Equipment with earthed external circuits Measured current (mA)	N/A
set se	b) Equipment whose external circuits are not referenced to earth. Measured current (mA)	N/A

6	ELECTRICALLY- CAUSED FIRE		👉 P_
6.2	Classification of power sources (PS) and potential ignition sources (PIS)		P
6.2.2	Power source circuit classifications	a do the fit of	Р
6.2.2.1	General	The watthe watch watch watch	Р
6.2.2.2	Power measurement for worst-case load fault	(See appended table 6.2.2)	N P
6.2.2.3	Power measurement for worst-case power source fault	(See appended table 6.2.2)	Ster P
6.2.2.4	PS1	(See appended table 6.2.2)	Р
6.2.2.5	PS2	(See appended table 6.2.2)	N/A
6.2.2.6	PS3	the men wat me an	N/A
6.2.3	Classification of potential ignition sources	at let let set set alle	N/A
6.2.3.1	Arcing PIS	me sur me su	N/A
6.2.3.2	Resistive PIS	(See appended table 6.2.3.2)	N/A
6.3	Safeguards against fire under normal operating and abnormal operating conditions		Р
6.3.1 (a)	No ignition and attainable temperature value less than 90 % defined by ISO 871 or less than 300 °C for unknown materials	(See appended table 5.4.1.5, 6.3.2, 9.0, B.2.6)	Ρ
6.3.1 (b)	Combustible materials outside fire enclosure	iter intre white white white	√ <sup>3</sup> N/A
6.4	Safeguards against fire under single fault condit	ions	, P
6.4.1	Safeguard Method	Method of control fire spread used	s, P
6.4.2	Reduction of the likelihood of ignition under single fault conditions in PS1 circuits	suffect and feet and the monthest of	LICE PN
6.4.3	Reduction of the likelihood of ignition under single fault conditions in PS2 and PS3 circuits	The state with any the	N/A
6.4.3.1	General	In the the second second	Р
6.4.3.2	Supplementary Safeguards	et uset surer out would	N/A

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Clause	Requirement – Test	Result – Remark	Verdict
WALT	Special conditions if conductors on printed	ist ist with a	SET UN MAL
	boards are opened or peeled	and the second	N/A
6.4.3.3 📣	Single Fault Conditions	let outer south would	N/A
tifet whit	Special conditions for temperature limited by fuse	The street winter	N/A
6.4.4	Control of fire spread in PS1 circuits	me me	Р
6.4.5	Control of fire spread in PS2 circuits	The street miller out	N/A
6.4.5.2	Supplementary safeguards	Mr. Ju ve v	N/A
6.4.6	Control of fire spread in PS3 circuit	LIEK MUTER WALTE WALT	N/A
6.4.7	Separation of combustible materials from a PIS	at that that which	N/A
6.4.7.1	General	all all a	N/A
6.4.7.2	Separation by distance	with with out of	N/A
6.4.7.3	Separation by a fire barrier	the the second	_ N/A
6.4.8	Fire enclosures and fire barriers	atter marter and the and	N/A
6.4.8.1	Fire enclosure and fire barrier material properties	ret stat stat with	N/A
6.4.8.2.1	Requirements for a fire barrier	- MIL MIL MIL	N/A
6.4.8.2.2	Requirements for a fire enclosure	at at	N/A
6.4.8.3	Constructional requirements for a fire enclosure and a fire barrier		N/A
6.4.8.3.1	Fire enclosure and fire barrier openings	white white white we	N/A
6.4.8.3.2	Fire barrier dimensions	set set set at	N/A
6.4.8.3.3	Top Openings in Fire Enclosure: dimensions(mm)	it was set at	N/A
the second	Needle Flame test	while white white	N/A
6.4.8.3.4	Bottom Openings in Fire Enclosure, condition met a), b) and/or c) dimensions (mm)	whitek whitek whitek	N/A
EX WALTER	Flammability tests for the bottom of a fire enclosure	The street wither an	N/A
6.4.8.3.5	Integrity of the fire enclosure, condition met: a), b) or c)	at the the	N/A
6.4.8.4	Separation of PIS from fire enclosure and fire barrier distance (mm) or flammability rating	- whe we we	N/A
6.5	Internal and external wiring	WALL WALL WALL	N/A
6.5.1	Requirements	at at set	N/A
6.5.2	Cross-sectional area (mm <sup>2</sup> )	Mrs mr mr	_
6.5.3	Requirements for interconnection to building wiring	NITER WAITER WAITER WAI	N/A

Reference I	No.:	WT	-21S0	1000	184Y
Reference	NO	VV I I	2100	1000	1041

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Clause	Requirement – Test	Result – Remark	Verdict

0.0	additional equipment	it with the state	N/A	5
Mrt M	External port limited to PS2 or complies with Clause Q.1	Tet white white white white	N/A	

7	INJURY CAUSED BY HAZARDOUS SUBSTANCES		N/A
7.2 <sup>ر</sup>	Reduction of exposure to hazardous substancesNo such hazardous substances		N/A
7.3 🟑	Ozone exposure	No ozone production	N/A
7.4	Use of personal safeguards (PPE)	white white white white white	N/A
. Stat	Personal safeguards and instructions	it it it it	_
7.5	Use of instructional safeguards and instructions	I want want war with	N/A
in m	Instructional safeguard (ISO 7010)	in the white white where a	s
7.6	Batteries		N/A

8	MECHANICALLY-CAUSED INJURY		Р
8.1	General	Edges and corners are classed as MS1	Р
8.2	Mechanical energy source classifications	a Kanti and a	Р
8.3	Safeguards against mechanical energy sources		5 <sup>0*</sup> P
8.4	Safeguards against parts with sharp edges and corners	No edges and corners	P
8.4.1	Safeguards	the intre-white white white	N/A
8.5	Safeguards against moving parts	No moving parts	N/A
8.5.1	MS2 or MS3 part required to be accessible for the function of the equipment	white white white white	N/A
8.5.2	Instructional Safeguard	with mite white white	_
8.5.4	Special categories of equipment comprising moving parts	tet stet stret mittet w	N/A
8.5.4.1	Large data storage equipment	m m m	N/A
8.5.4.2	Equipment having electromechanical device for destruction of media	TEX WALTER WALTE WALT WALT	N/A
8.5.4.2.1	Safeguards and Safety Interlocks	t alt we will a fet all the second	N/A
8.5.4.2.2	Instructional safeguards against moving parts	with the state of	N/A
The When	Instructional Safeguard	ster ster with white a	_
8.5.4.2.3	Disconnection from the supply	W W L A	N/A
8.5.4.2.4	Probe type and force (N)	white and and and and any	N/A
8.5.5	High Pressure Lamps	No high pressure lamps	N/A

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Clause	Requirement – Test	Result – Remark	Verdict
	all white and and an	the stand	JAN AND
8.5.5.1	Energy Source Classification	her with me me	N/A
8.5.5.2	High Pressure Lamp Explosion Test	. at all all	N/A
8.6	Stability	1 MUT MUT MU IN	N/A
8.6.1	Product classification	of the state state with	N/A
4	Instructional Safeguard	. Were all the second	—
8.6.2	Static stability	tet the street with	N/A
8.6.2.2	Static stability test	Mr. Mr. W.	N/A
where is	Applied Force	. THE NUMER WITH WALTER	n <sup>12</sup> —
8.6.2.3	Downward Force Test	and the	N/A
8.6.3	Relocation stability test	Set miles while while wh	N/A
1 12	Unit configuration during 10° tilt	i i at at a	* -
8.6.4	Glass slide test	white white white whe	N/A
8.6.5	Horizontal force test (Applied Force)	. A st set set	N/A
24	Position of feet or movable parts	intre water water water	20 -
8.7	Equipment mounted to wall or ceiling	at at set set	N/A
8.7.1	Mounting Means (Length of screws (mm) and mounting surface)	and which and an and an	N/A
8.7.2	Direction and applied force	and the second	N/A
8.8	Handles strength	No handles.	N/A
8.8.1	Classification	white white white white	N/A
8.8.2	Applied Force	. at let get get	N/A
8.9	Wheels or casters attachment requirements	No wheels or casters.	N/A
8.9.1	Classification	at the state strate of	N/A
8.9.2	Applied force	. me me me	- L
8.10	Carts, stands and similar carriers	No carts or stands or other carriers.	N/A
8.10.1	General	the tet the state	N/A
8.10.2	Marking and instructions	ine me me m	N/A
MALIE N	Instructional Safeguard	the set set with all the	, <sup>15</sup> —
8.10.3	Cart, stand or carrier loading test and compliance	the set set set	N/A
1. m	Applied force	water water war war	_
8.10.4	Cart, stand or carrier impact test	t at at at at	N/A
8.10.5	Mechanical stability	Mrt. Mr. W. W.	N/A
. Maine	Applied horizontal force (N)	. tet stat state with	JP1 -
8.10.6	Thermoplastic temperature stability (°C)	the sur sur	N/A

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Clause	Requirement – Test	Result – Remark	Verdict
8.11	Mounting means for rack mounted equipment	Not rack mounted.	N/A
8.11.1	General	s at the fit is	N/A
8.11.2	Product Classification	it while while while while	N/A
8.11.3	Mechanical strength test, variable N	. It it it it	N/A
8.11.4	Mechanical strength test 250N, including end stops	white white white white	N/A
8.12	Telescoping or rod antennas	. No rod antennas.	N/A
- 5 <sup>et</sup>	Button/Ball diameter (mm)	i stat at at	< -

9	THERMAL BURN INJURY		P
9.2	Thermal energy source classifications	Enclosure is classed as TS1	Р
9.3	Safeguard against thermal energy sources	Enclosure is used as safeguard.	N <sup>I</sup> P <sub>N</sub> N
9.4	Requirements for safeguards	when she she she	N/A
9.4.1	Equipment safeguard	Enclosure	Р
9.4.2	Instructional safeguard	Instructional safeguard is not required	N/A

10	RADIATION		P
10.2	Radiation energy source classification	The indicating lights and screen display were RS1.	P
10.2.1	General classification	The indicating lights and screen display were RS1.	Р
10.3	Protection against laser radiation	No laser radiation	N/A
. Att	Laser radiation that exists equipment:	i to the the	
m. m.	Normal, abnormal, single-fault	the write write write write	N/A
Set Ste	Instructional safeguard	at at let let	
20.	Tool	MALL WALL MAN WAY	_
10.4	Protection against visible, infrared, and UV radiation	The indicating lights and screen display were RS1	P
10.4.1	General	1 1 1 1 1 S	N/A
10.4.1.a)	RS3 for Ordinary and instructed persons	TE WALT WALL WALL WALL	N/A
10.4.1.b)	RS3 accessible to a skilled person	L at at at at	N/A
at at	Personal safeguard (PPE) instructional safeguard	white white white white	_
10.4.1.c)	Equipment visible, IR, UV does not exceed RS1	The indicating lights and screen display were RS1	Р
10.4.1.d)	Normal, abnormal, single-fault conditions	The indicating lights and screen display were RS1	Р
10.4.1.e)	Enclosure material employed as safeguard is	Safeguard is not required.	N/A

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Clause	Requirement – Test	Result – Remark	Verdict
NULTER V	opaque	17th 17th 17th 17th 19th	THE N
10.4.1.f)	UV attenuation	No UV.	N/A
, 10.4.1.g)	Materials resistant to degradation UV	No UV.	N/A
10.4.1.h)	Enclosure containment of optical radiation	No required.	N/A
10.4.1.i)	Exempt Group under normal operating conditions	WALL WALLS WALL WAS	N/A
10.4.2	Instructional safeguard	Not required.	N/A
10.5	Protection against x-radiation	No X-radiation.	N/A
10.5.1	X- radiation energy source that exists equipment	(See appended table B.3 & B.4)	N/A
we we	Normal, abnormal, single fault conditions	at a tree out the water white	_√ <sup>©</sup> N/A
18 18	Equipment safeguards	M M A A	N/A
- m	Instructional safeguard for skilled person	NUTER INTE MALT MALE	N/A
10.5.3	Most unfavourable supply voltage to give maximum radiation	the state winds winds we	s —
d.	Abnormal and single-fault condition	the man we want	N/A
mer m	Maximum radiation (pA/kg)	let still other white white	N/A
10.6	Protection against acoustic energy sources		N/A
10.6.1	General	anti wall	N/A
10.6.2	Classification		N/A
m	Acoustic output, dB(A)	marte white white white v	N/A
- Set	Output voltage, unweightedr.m.s.	i it it it.	N/A
10.6.4	Protection of persons	LIE MALL WALL WALL WA	N/A
JEt N	Instructional safeguards	a at at at at	N/A
net it	Equipment safeguard prevent ordinary person to RS2	white white white with	-
t st	Means to actively inform user of increase sound pressure	watter watter watter wat	-
WALL	Equipment safeguard prevent ordinary person to RS2	Martiel White white white w	
10.6.5	Requirements for listening devices (headphones, earphones, etc.)	TEX NOTEX DUTEX DUTEX WATER WAT	N/A
10.6.5.1	Corded passive listening devices with analog input	+ night might mage while	N/A
FEX MATEX	Input voltage with 94 dB(A) <i>L<sub>Aeq</sub></i> acoustic pressure output	set jet with anith	_
10.6.5.2	Corded listening devices with digital input	me me me	N/A
winth	Maximum dB(A)	The street intre- intre- int	š <u> </u>
10.6.5.3	Cordless listening device	241 24	N/A

Reference No.: WTF21S01000184	Y
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Requirement – Test Clause

Result - Remark

Verdict

Maximum dB(A)

В	NORMAL OPERATING CONDITION TESTS, A CONDITION TESTS AND SINGLE FAULT CO		Р
B.2	Normal Operating Conditions	white white white white	P
B.2.1	General requirements	(See summary of testing& appended test tables)	Set P
WALTER	Audio Amplifiers and equipment with audio amplifiers	No audio amplifier circuits	N/A
B.2.3	Supply voltage and tolerances	a man me me	N/A
B.2.5	Input test	(See appended table B.2.5)	N <sup>D</sup> P
B.3	Simulated abnormal operating conditions	Mr. M. W.	P
B.3.1	General requirements	(See appended table B.3&B.4)	N <sup>C</sup> Ps
B.3.2	Covering of ventilation openings	when we we with	N/A
B.3.3	D.C. mains polarity test	with with white white wh	N/A
B.3.4	Setting of voltage selector	No such voltage selector	N/A
B.3.5	Maximum load at output terminals	STER INTER WALT WALT WALT	_Ä/A
B.3.6	Reverse battery polarity	the second se	N/A
B.3.7	Abnormal operating conditions as specified in Clause E.2.	a funct what	N/A
B.3.8	Safeguards functional during and after abnormal operating conditions	All safeguards remained effective.	P.
B.4	Simulated single fault conditions		Р
B.4.2	Temperature controlling device open or short- circuited	No such controlling device	N/A
B.4.3	Motor tests	No motors used	N/A
B.4.3.1	Motor blocked or rotor locked increasing the internal ambient temperature	WALTER WALTER WALTER WALTER	"√ <sup>°</sup> N/Ą
B.4.4	Short circuit of functional insulation	(See appended table B.4)	P
B.4.4.1	Short circuit of clearances for functional insulation	(See appended table B.4)	P
B.4.4.2	Short circuit of creepage distances for functional insulation	(See appended table B.4)	√ <sup>™</sup> P
B.4.4.3	Short circuit of functional insulation on coated printed boards	A NUTLEY WAITER MAILE WALL	_√ <sup>™</sup> N/A
B.4.5	Short circuit and interruption of electrodes in tubes and semiconductors	(See appended table B.4)	N/A
B.4.6	Short circuit or disconnect of passive components	(See appended table B.4)	P
B.4.7	Continuous operation of components	Not intermittent or short-time operation equipment	N/A

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Clause	Requirement – Test	Result – Remark	Verdict
C C C C C C C C C C C C C C C C C C C		the state of the state	
B.4.8	Class 1 and Class 2 energy sources within limits during and after single fault conditions	NET WITT WITT WITT TO	N/A
B.4.9	Battery charging under single fault conditions	SEE MITCH WATE MAIN WAL	SIN P
С	UV RADIATION		N/A
C.1	Protection of materials in equipment from UV radiation	No UV radiation within the EUT.	N/A
C.1.2	Requirements	where all the miller walks and	N/A
C.1.3	Test method	an an an at	N/A
C.2	UV light conditioning test	LIER OLIER WHITE WALL WAL	N/A
C.2.1	Test apparatus	and the set of	N/A
C.2.2	Mounting of test samples	at white white white white	N/A
C.2.3	Carbon-arc light-exposure apparatus	a to be let	Ń/A
C.2.4	Xenon-arc light exposure apparatus	intres white white white	N/A
D	TEST GENERATORS		N/A
D.1	Impulse test generators	Inter white whe whe wh	N/A
D.2	Antenna interface test generator	at at at set it	N/A
D.3	Electronic pulse generator	it white white white white	N/A
E	TEST CONDITIONS FOR EQUIPMENT CONTAINING AUDIO AMPLIFIERS		N/A
E.1	Audio amplifier normal operating conditions	- a contra sur	N/A
SEA MULT	Audio signal voltage (V)	All and all all all the	_
L A	Rated load impedance (Ω)	We me me me	
E.2	Audio amplifier abnormal operating conditions	Tet wet with white whi	N/A
F	EQUIPMENT MARKINGS, INSTRUCTIONS, AND INSTRUCTIONAL SAFEGUARDS		Pt
F.1	General requirements	when when we we	Р
LIE WAL	Instructions – Language	Instructions in English are checked	
F.2	Letter symbols and graphical symbols	at at all all	ST P.S
F.2.1	Letter symbols according to IEC60027-1	min white white white white	Р
F.2.2	Graphic symbols IEC, ISO or manufacturer specific	Tet whitet whitet whitet white	P
F.3	Equipment markings	a at at at at	P
F.3.1	Equipment marking locations	Located on the enclosure surface	A P
F.3.2	Equipment identification markings	at at the 5th	P.
F.3.2.1	Manufacturer identification	See copy of marking plate	_
F.3.2.2	Model identification	See page 1 for details	_
F.3.3	Equipment rating markings	See copy of marking plate	Р
F.3.3.1	Equipment with direct connection to mains	at at at at at	N/A

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Clause	Requirement – Test	Result – Remark	Verdict
L. S.	A WAY WAY WAY WAY	the state of the second	10
F.3.3.2	Equipment without direct connection to mains	See copy of marking plate	P
F.3.3.3	Nature of supply voltage	DC 1 1 1	
F.3.3.4	Rated voltage	5V million	
F.3.3.4	Rated frequency	- ret ret stat whet	
F.3.3.6	Rated current or rated power	-super mar me me	—
F.3.3.7	Equipment with multiple supply connections	No multiple supply connection	N/A
F.3.4	Voltage setting device	No such device	N/A
F.3.5	Terminals and operating devices	ster street mater white white	N/A
F.3.5.1	Mains appliance outlet and socket-outlet markings	No mains appliance outlet	N/A
F.3.5.2	Switch position identification marking	No such switch	N/A
F.3.5.3	Replacement fuse identification and rating markings	White white white white	N/A
F.3.5.4	Replacement battery identification marking	at at all the	N/A
F.3.5.5	Terminal marking location	with which when with the	N/A
F.3.6	Equipment markings related to equipment classification	set whitet white white white	N/A
F.3.6.1	Class I Equipment	A A A A	N/A
F.3.6.1.1	Protective earthing conductor terminal	and the second	N/A
F.3.6.1.2	Neutral conductor terminal		N/A
F.3.6.1.3	Protective bonding conductor terminals	white white where where a	N/A
F.3.6.2	Class II equipment (IEC60417-5172)	at the set when a	N/A
F.3.6.2.1	Class II equipment with or without functional earth	and white and the set	N/A
F.3.6.2.2	Class II equipment with functional earth terminal marking	white white white white	N/A
F.3.7	Equipment IP rating marking	MITER INTE MATE MALL	_
F.3.8 🧹	External power supply output marking	i state tot	_<∕∽N/A
F.3.9	Durability, legibility and permanence of marking	white water water when all	P
F.3.10 📣	Test for permanence of markings	TEX ALTER WALTE WALTE WALT	_√″Ř
F.4	Instructions	where the state of	P
nt wh	a) Equipment for use in locations where children not likely to be present – marking	MALTE MALTE MALL MAL	w <sup>т</sup> Р
IL MALL	b) Instructions given for installation or initial use	ster stree where where	N/A
L A	c) Equipment intended to be fastened in place	and the me	N/A
white	d) Equipment intended for use only in restricted access area	NUTER WALTER WAITER WALTER WA	N/A

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Clause	Requirement – Test	Result – Remark	Verdict
- Inster	and white white white where	the state of the	Ster and
	e) Audio equipment terminals classified as ES3 and other equipment with terminals marked in accordance F.3.6.1	at any and any and an	N/A
	f) Protective earthing employed as safeguard	me me me se	N/A
the way	g) Protective earthing conductor current exceeding ES2 limits	white white white white	N/A
et alle	h) Symbols used on equipment	at let set set	P
Tet	i) Permanently connected equipment not provided with all-pole mains switch	which which we will be	N/A
What I	j) Replaceable components or modules providing safeguard function	the water water water we	N/A
F.5	Instructional safeguards	Instructional safeguards are not required.	N/A
the white	Where "instructional safeguard" is referenced in the test report it specifies the required elements, location of marking and/or instruction	whitet whitet white white	N/A
G	COMPONENTS		P
G.1_	Switches	i state to the	e P
G.1.1	General requirements	No such switch used	N/A
G.1.2	Ratings, endurance, spacing, maximum load	A 1 A 50	N/A
G.2	Relays	S SUPE SUPE	N/A
G.2.1	General requirements		N/A
G.2.2	Overload test	and and and an	N/A
G.2.3	Relay controlling connectors supply power	at let set states	N/A
G.2.4	Mains relay, modified as stated in G.2	in my me in in	N/A
G.3	Protection Devices	tet set set with anter mit	N/A
G.3.1	Thermal cut-offs	we we we we	N/A
G.3.1.1a) &b)	Thermal cut-outs separately approved according to IEC 60730 with conditions indicated in a) & b)	watter watter watter watter	N/A
G.3.1.1c)	Thermal cut-outs tested as part of the equipment as indicated in c)	intre while while while w	N/A
G.3.1.2	Thermal cut-off connections maintained and secure	and wanter wanter water way	N/A
G.3.2	Thermal links	et ret wet with with	N/A
G.3.2.1a)	Thermal links separately tested with IEC 60691	No thermal link used	N/A
G.3.2.1b)	Thermal links tested as part of the equipment	white white white all	N/A
NUTE	Aging hours (H)	it it it it it	s —
1. A.	Single Fault Condition	in my me me	

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Clause	Requirement – Test	Result – Remark	Verdict
WALL V	Test Voltage (V) and Insulation Resistance $(\Omega)$	NITE WALTER WAITE WATE WA	<u> </u>
G.3.3	PTC Thermistors	No PTC used	_√ <sup>®</sup> N/A
G.3.4	Overcurrent protection devices	i i at dit	N/A
G.3.5	Safeguards components not mentioned in G.3.	1 to G.3.5	N/A
G.3.5.1	Non-resettable devices suitably rated and marking provided	The wind while while	N/A
G.3.5.2	Single faults conditions	(See appended Table B.4)	N/A
G.4 🔹 🔬	Connectors	iter aller and sunday and	N/A
G.4.1	Spacings	Not directly connected to mains	N/A
G.4.2	Mains connector configuration	intre white white white	-√ <sup>™</sup> N/A
G.4.3	Plug is shaped that insertion into mains socket-outlets or appliance coupler is unlikely	stet stret wiret water	N/A
G.5	Wound Components	We we we at	N/A
G.5.1	Wire insulation in wound components	with with white white w	N/A
G.5.1.2 a)	Two wires in contact inside wound component, angle between 45° and 90°	at the state mark with	N/A
G.5.1.2 b)	Construction subject to routine testing	when the second	N/A
G.5.2	Endurance test on wound components	At MILE WALT	N/A
G.5.2.1	General test requirements		N/A
G.5.2.2	Heat run test	alite alite white water water	N/A
t st	Time (s)	sur a stat	_
men 2	Temperature (°C)	LIET INLIE WALL WALL WA	_
G.5.2.3	Wound Components supplied by mains	i i a a to to	N/A
G.5.3	Transformers	ster white white white white	N/A
G.5.3.1	Requirements applied (IEC61204-7, IEC61558-1/-2, and/or IEC62368-1)	wifet wifet whilet whilet	N/A
et set	Position	in a st st	—
m	Method of protection	MITE WALT WALL WALL W	<u> </u>
G.5.3.2	Insulation	+ + A At	N/A
m. m.	Protection from displacement of windings	TE WALL WILL WAL WAL	
G.5.3.3	Overload test	t at at sat sat	N/A
G.5.3.3.1	Test conditions	which which which which	N/A
G.5.3.3.2	Winding Temperatures testing in the unit	at set set set	N/A
G.5.3.3.3	Winding Temperatures – Alternative test method	when when when when we we	N/A
G.5.4	Motors	MITE WALL WALL WALL W	Р
G.5.4.1	General requirements	No such motors used	N/A

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Clause	Requirement – Test	Result – Remark	Verdict
A ALLER	and the second sec	the set of the	
	Position	spirit whit with m	
G.5.4.2	Test conditions	at the sale with	N/A
G.5.4.3	Running overload test	is more more me	N/A
G.5.4.4	Locked-rotor overload test	or the state state	N/A
a de	Test duration (days)		
G.5.4.5	Running overload test for d.c. motors in secondary circuits	MITER WALTER WALTER WA	N/A
G.5.4.5.2	Tested in the unit	at at set 5	N/A
20. 2	Electric strength test (V)	the wat we we	
G.5.4.5.3	Tested on the Bench – Alternative test method; test time (h)	TH INTER WAITER WAITER	N/A
5 <sup>64</sup> .5 <sup>6</sup>	Electric strength test (V)	The state	
G.5.4.6	Locked-rotor overload test for d.c. motors in secondary circuits	white white white a	N/A
G.5.4.6.2	Tested in the unit	NUTET INLIE WALT WA	N/A
fet .	Maximum Temperature	· · · · · · ·	N/A
m. m	Electric strength test (V)		N/A
G.5.4.6.3	Tested on the bench – Alternative test method; test time (h)	at munet	N/A
at the	Electric strength test (V)		N/A
G.5.4.7	Motors with capacitors	white white white w	N/A
G.5.4.8	Three-phase motors	the state	s N/A
G.5.4.9	Series motors	white white white whi	N/A
Set 3	Operating voltage	······································	
G.6	Wire Insulation	LIE WALL WALL WALL	N/A
G.6.1 💉	General	s at at at	N/A
G.6.2	Solvent-based enamel wiring insulation	WALL WALL WALLY	N/A
G.7	Mains supply cords	at let let	N/A
G.7.1	General requirements	with the the she	N/A
MALTE	Туре	. let set set set	×
1	Rated current (A)	il on the sure sure	
Intre whe	Cross-sectional area (mm <sup>2</sup> ), (AWG)	at the state out	untre -
G.7.2	Compliance and test method	AND AND ON	N/A
G.7.3	Cord anchorages and strain relief for non- detachable power supply cords	MALIER WAITER MALIER W	N/A
G.7.3.2	Cord strain relief	alt alt are and	N/A
G.7.3.2.1	Requirements	a los alles all all	N/A
and all	Strain relief test force (N)	at at at a	

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N. A.	IEC/EN 623	08-1	The strange
Clause	Requirement – Test	Result – Remark	Verdict
G.7.3.2.2	Strain relief mechanism failure	the state state with	N/A
		the after the the	IN/A
G.7.3.2.3	Cord sheath or jacket position, distance (mm)	at all the set of	<u></u>
G.7.3.2.4	Strain relief comprised of polymeric material	an m m	N/A
G.7.4	Cord Entry	- the state of the	<u>N/A</u>
G.7.5	Non-detachable cord bend protection	m m m	N/A
G.7.5.1	Requirements	whet with white white	N/A
G.7.5.2	Mass (g)	in m m	
when w	Diameter (m)	THE STREE WITE WATE	white -
dt -	Temperature (°C)	A A A	1 -
G.7.6	Supply wiring space	et outer onite and w	N/A .
G.7.6.2	Stranded wire	, et at	N/A
G.7.6.2.1	Test with 8 mm strand	Internet and and and and	N/A
G.8 🦽	Varistors	s at the tot	- N/A
G.8.1	General requirements	NUTER MALTE MALL MAL	N/A
G.8.2	Safeguard against shock	a at the lite	N/A
G.8.3	Safeguard against fire	The applies while while a	N/A
G.8.3.2	Varistor overload test	At a star	N/A
G.8.3.3	Temporary overvoltage	a fun m	N/A
G.9	Integrated Circuit (IC) Current Limiters	the the set of	N/A
G.9.1 a)	Manufacturer defines limit at max. 5A.	No such IC used	N/A
G.9.1 b)	Limiters do not have manual operator or reset	of the set with	N/A
G.9.1 c)	Supply source does not exceed 250 VA	it. Mer Mr. M.	
G.9.1 d)	IC limiter output current (max. 5A)	et jet jet with	NUT -
G.9.1 e)	Manufacturers' defined drift	The shirt of	<u> </u>
G.9.2	Test Program 1	THE ALTER MATTER MA	N/A
G.9.3	Test Program 2	200 - 200 - 20 - 20	- N/A
G.9.4	Test Program 3	ALTER METER MAILER MALT	N/A
G.10	Resistors	the second second	N/A
G.10.1	General requirements	No such resistors used	N/A
G.10.2	Resistor test	and the state	N/A
G.10.3	Test for resistors serving as safeguards between the mains and an external circuit consisting of a coaxial cable	white white white white	N/A
G.10.3.1	General requirements	me me me m	N/A
G.10.3.2	Voltage surge test	the set side with	N/A
G.10.3.3	Impulse test	the same same	N/A
G.11	Capacitor and RC units	at at at at	N/A

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Clause	Requirement – Test	Result – Remark	Verdict
5 J.C.	and the sheet of the state of t	s at at at a	1 S
G.11.1	General requirements	stree while while whe wh	N/A
G.11.2	Conditioning of capacitors and RC units	a at let let le	N/A
G.11.3	Rules for selecting capacitors	it wast wat was with	N/A
G.12	Optocouplers	t at all set set	N/A
et whitet	Optocouplers comply with IEC 60747-5- 5:2007 Spacing or Electric Strength Test (specify option and test results)	white white white white	N/A
. At	Type test voltage Vini	an an ar	
when wh	Routine test voltage, Vini,b	the street intre shirt way	
G.13	Printed boards	i i it it	Р
G.13.1	General requirements	Approved Printed board used	N <sup>III</sup> P
G.13.2	Uncoated printed boards	s at at at	. ́Р
G.13.3	Coated printed boards	WALL WALL WALL WALL V	N/A
G.13.4	Insulation between conductors on the same inner surface	with milet while while wh	P
Whitek wh	Compliance with cemented joint requirements (Specify construction)	Complied with clause 5.4.4.5 item c)	_
G.13.5	Insulation between conductors on different surfaces	and an area with	N/A
	Distance through insulation		N/A
EL NUTE	Number of insulation layers (pcs)	The star star out the	—
G.13.6	Tests on coated printed boards	me m m	N/A
G.13.6.1	Sample preparation and preliminary inspection	att att water water white	N/A
G.13.6.2a)	Thermal conditioning	M. W. T.	N/A
G.13.6.2b)	Electric strength test	et wet mile white white	N/A
G.13.6.2c)	Abrasion resistance test	when when the set	N/A
G.14	Coating on components terminals	where where white white	N/A
G.14.1	Requirements	(See G.13)	_ <i></i> /−N/A_
G.15	Liquid filled components	white white white white wh	N/A
G.15.1	General requirements	i i a at at a	N/A
G.15.2	Requirements	LES NALTE WALL WALL WALL	∕°N/A
G.15.3	Compliance and test methods	e at at at at	N/A
G.15.3.1	Hydrostatic pressure test	while while whe whe	N/A
G.15.3.2	Creep resistance test	at left left set	N/A
G.15.3.3	Tubing and fittings compatibility test	white white white a	N/A
G.15.3.4	Vibration test	at at at at at	N/A
G.15.3.5	Thermal cycling test	the man way and an	N/A
G.15.3.6	Force test	at at at all all	N/A

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

G.15.4	Compliance	N/A
G.16	IC including capacitor discharge function (ICX)	N/A
a)	Humidity treatment in accordance with sc5.4.8 – 120 hours	N/A
b)	Impulse test using circuit 2 with Uc = to transient voltage	N/A
C1)	Application of ac voltage at 110% of rated voltage for 2.5 minutes	N/A
C2)	Test voltage	unt -
D1)	10,000 cycles on and off using capacitor with smallest capacitance resistor with largest resistance specified by manufacturer	N/A
D2)	Capacitance	. 1 -
D3)	Resistance	m 2 -
н	CRITERIA FOR TELEPHONE RINGING SIGNALS	N/A
H.1	General	N/A
H.2	Method A	N/A
H.3	Method B	N/A
H.3.1	Ringing signal	N/A
H.3.1.1	Frequency (Hz)	
H.3.1.2	Voltage (V)	MILE V -
H.3.1.3	Cadence; time (s) and voltage (V)	
H.3.1.4	Single fault current (Ma):	nu mu -
H.3.2	Tripping device and monitoring voltage	N/A
H.3.2.1	Conditions for use of a tripping device or a monitoring voltage complied with	N/A
H.3.2.2	Tripping device	N/A
H.3.2.3	Monitoring voltage (V)	× -
J	INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION	N/A
MALTE	General requirements	N/A
к	SAFETY INTERLOCKS	N/A
K.1 🔊	General requirements	N/A
K.2	Components of safety interlock safeguard mechanism	N/A
K.3	Inadvertent change of operating mode	N/A
K.4	Interlock safeguard override	N/A
K.5	Fail-safe	N/A
min a	Compliance	N/A

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Clause	Requirement – Test	Result – Remark	Verdict
K.6	Mechanically operated safety interlocks	NUTER WALTER WALTER WATER WATER	N/A
K.6.1	Endurance requirement	a at let let let	N/A
K.6.2	Compliance and Test method	in which which when which	N/A
K.7	Interlock circuit isolation	- it is set and	N/A
K.7.1	Separation distance for contact gaps & interlock circuit elements (type and circuit location)	white white white white	N/A
K.7.2	Overload test, Current (A)	an an an	N/A
K.7.3	Endurance test	thet white white white white	N∕A
K.7.4	Electric strength test	the state	N/A
L	DISCONNECT DEVICES		<i>⊲™</i> N/A
L.1	General requirements	a at at at	N/A
L.2 🖑	Permanently connected equipment	WALTE WALT WALL WALL WALL V	N/A
L.3	Parts that remain energized	it at at at	N/A
L.4	Single phase equipment	MIT MALL WALL MAL W	N/A
L.5	Three-phase equipment	at at at at at	N/A
L.6	Switches as disconnect devices	i white white where white	N/A
L.7	Plugs as disconnect devices	at the state	N/A
L.8	Multiple power sources	- 1 Mar M	N/A
М	EQUIPMENT CONTAINING BATTERIES AND	THEIR PROTECTION CIRCUITS	ST Por
M.1	General requirements	mer me me me	Р
M.2	Safety of batteries and their cells	Tet JEt WIEL MUEL MI	P
M.2.1	Requirements	a m m a	P_
M.2.2	Compliance and test method (identify method).	et with our only white	Jul P
M.3	Protection circuits	where the state	Р
M.3.1	Requirements	white white white white	v Pvi
M.3.2	Tests	(See appended table M)	P.
me	- Overcharging of a rechargeable battery	NUTER UNLIES WALLS WALL WALL WA	P
WALTER V	- Unintentional charging of a non- rechargeable battery	tet ister wither writer whit	N/A
d.	- Reverse charging of a rechargeable battery	with the state of	N/A
mer an	- Excessive discharging rate for any battery	A street marter and the administ	JUL P
M.3.3	Compliance	(See appended table M)	N/A
M.4	Additional safeguards for equipment containing secondary lithium battery	WATER WATE WATT WATT WAT	P
M.4.1	General	ster ster aller when wh	P
M.4.2	Charging safeguards	the state of the s	P
M.4.2.1	Charging operating limits	et the user with and	P

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Clause	Requirement – Test	Result – Remark	Verdict
			ANT ANT
M.4.2.2a)	Charging voltage, current and temperature	(See appended table M.4)	\$* <u>-</u>
M.4.2.2 b)	Single faults in charging circuitry	(See appended table M.4)	LIF MAR
M.4.3	Fire Enclosure	Mr. Mr. M. r.	P
M.4.4	Endurance of equipment containing a secondary lithium battery	Whitek whitek whitek white	NULT P
M.4.4.2	Preparation	the state of the	P
M.4.4.3	Drop and charge/discharge function tests	untit whit whit whit	N P
NUTER	Drop	at at the set	P
In in	Charge	its wat wat way a	Р
METER MIL	Discharge	at the test with a	Р
M.4.4.4	Charge-discharge cycle test	when the star of	N/A
M.4.4.5	Result of charge-discharge cycle test	at the set of	N/A
M.5	Risk of burn due to short circuit during carrying	when when we we the	N/A
M.5.1	Requirement	with more way way	N/A
M.5.2	Compliance and Test Method (Test of P.2.3)	at all all all	N/A
M.6	Prevention of short circuits and protection from other effects of electric current	and when when we are	N/A
M.6.1	Short circuits	A MAL MA	N/A
M.6.1.1	General requirements		N/A
M.6.1.2	Test method to simulate an internal fault	white white white white	N/A
M.6.1.3	Compliance (Specify M.6.1.2 or alternative method)	LIEK MITER WALTER WALTER	N/A
M.6.2	Leakage current (Ma)	i i it it	N/A
M.7	Risk of explosion from lead acid and NiCd batteries	white white whe we	N/A
M.7.1	Ventilation preventing explosive gas concentration	white white white yunt	N/A
M.7.2	Compliance and test method	at all all all all	N/A
M.8	Protection against internal ignition from external spark sources of lead acid batteries	it at ret ret	N/A
M.8.1	General requirements	and man man a	N/A
M.8.2	Test method	+ set set set a	N/A
M.8.2.1	General requirements	white white white white	N/A
M.8.2.2	Estimation of hypothetical volume Vz (m <sup>3</sup> /s)	let set set all	_
M.8.2.3	Correction factors	me me me	_
M.8.2.4	Calculation of distance d (mm)	Tet the street outer	"n <sup>s</sup> —
M.9	Preventing electrolyte spillage	and the second	N/A

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Clause	Requirement – Test	Result – Remark	Verdict
M.9.1	Protection from electrolyte spillage	with mitty white white whi	N/A
M.9.2	Tray for preventing electrolyte spillage	i s a la la	N/A
M.10	Instructions to prevent reasonably foreseeable misuse (Determination of compliance: inspection, data review; or abnormal testing)	The world world world world with	N/A
N	ELECTROCHEMICAL POTENTIALS		N/A
when	Metal(s) used	ster street outer white wi	_
0	MEASUREMENT OF CREEPAGE DISTANCE	S AND CLEARANCES	N/A
with 1	Figures O.1 to O.20 of this Annex applied	Considered	_
Ρ	SAFEGUARDS AGAINST ENTRY OF FOREIG	<b>GN OBJECTS AND SPILLAGE OF</b>	N/A
P.1	General requirements	Mr. Mr. L. At	N/A
P.2.2	Safeguards against entry of foreign object	NUTER INTER MALIER WALLY	N/A
* Set	Location and Dimensions (mm)	1 A At At	_
P.2.3	Safeguard against the consequences of entry of foreign object	ALL WALL WALL WALL W	N/A
P.2.3.1	Safeguards against the entry of a foreign object	SEX WATE WATE WATE WATE	N/A
NUTE MAL	Openings in transportable equipment	att atter white	N/A
it out	Transportable equipment with metalized plastic parts		N/A
P.2.3.2	Openings in transportable equipment in relation to metallized parts of a barrier or enclosure (identification of supplementary safeguard)	white white white white	N/A
P.3	Safeguards against spillage of internal liquids	No internal liquids.	Ń/A
P.3.1	General requirements	my my my	N/A
P.3.2	Determination of spillage consequences	THE LIFE MUSE WITE	N/A
P.3.3	Spillage safeguards	m m s. s.	N/A
P.3.4	Safeguards effectiveness	LIER ALIER MALE WALL W	N/A
P.4	Metallized coatings and adhesive securing parts	No metallized coatings or adhesive securing parts.	N/A
P.4.2 a)	Conditioning testing	and the contract	N/A
nere whi	Tc (°C)	t wet write miles write	
at a	Tr (°C)	Mr. m. m.	
an when	Ta (°C)	stret milet intre while w	_
P.4.2 b)	Abrasion testing	an in the st	⊘⊢ N/A
P.4.2 c)	Mechanical strength testing	iter alle out and and	N/A

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Clause Requirement – Test

Result – Remark

Verdict

Q	CIRCUITS INTENDED FOR INTERCONNECTION WITH BUILDING WIRING			
Q.1	Limited power sources	at at at at a	N/A	
Q.1.1 a)	Inherently limited output	white white where where	N/A	
Q.1.1 b)	Impedance limited output	- it is not set	N/A	
et whitet	- Regulating network limited output under normal operating and simulated single fault condition	(See table annex Q1)	N/A	
Q.1.1 c)	Overcurrent protective device limited output	an an an	N/A	
Q.1.1 d)	IC current limiter complying with G.9	iter wifer white white wh	N/A	
Q.1.2	Compliance and test method	and the second second	N/A	
Q.2	Test for external circuits – paired conductor cable	white white white white	N/A	
at white	Maximum output current (A)	TEX NIFER MITER WAITE		
+ st	Current limiting method	where we want		
R	LIMITED SHORT CIRCUIT TEST		N/A	
R.1	General requirements	the states	N/A	
R.2	Determination of the overcurrent protective device and circuit	set white white white white	N/A	
R.3	Test method Supply voltage (V) and short- circuit current (A)).	and a maine waite	N/A	
S	TESTS FOR RESISTANCE TO HEAT AND FIRE			
S.1	Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W	when when white white wh	N/A	
det .	Samples, material	i i stat st	s —	
me m	Wall thickness (mm)	et intre white white white		
Set St	Conditioning (°C)	the state of the	_	
et set	Test flame according to IEC 60695-11-5 with conditions as set out	while while while while	N/A	
me	- Material not consumed completely	NUTER INTERNITE WALL W	N/A	
TEX	- Material extinguishes within 30s	and the state	N/A	
m. n	- No burning of layer or wrapping tissue	TE WALTE WALL WALL WALL	N/A	
S.2	Flammability test for fire enclosure and fire barrier integrity		N/A	
A 1	Samples, material	so at at at		
- m	Wall thickness (mm)	MITER MALTE MALL WALL	2 -	
t stat	Conditioning (°C)	1 A A A	_	
wit .	Test flame according to IEC 60695-11-5 with conditions as set out	NETE MILLE WALL WALL WI	N/A	

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Clause	Requirement – Test	Result – Remark	Verdict
NILLE .		and and all all the	
.et	Test specimen does not show any additional hole	it was son to	N/A
S.3	Flammability test for the bottom of a fire enclosure	SEX MULTER WAITE WAITE W	N/A
in mi	Samples, material	- stat strat out of sol	
1. 1	Wall thickness (mm)	Mr. M. M.	_
me	Cheesecloth did not ignite	where where while while	N/A
S.4 🦽	Flammability classification of materials	and the state	N/A
S.5	Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W	a at at at at	N/A
n w	Samples, material	white white white wh	
LIER WALT	Wall thickness (mm)	net net onet with	×
e at	Conditioning (test condition), (°C)	mer me me m	_
white	Test flame according to IEC 60695-11-20 with conditions as set out	NITER WAITER WAITER WAITER	N/A
WALLER O	After every test specimen was not consumed completely	set united waited waited w	N/A
NUTEX WIN	After fifth flame application, flame extinguished within 1 min	at white way	N/A
т	MECHANICAL STRENGTH TESTS		P.
T.1	General requirements	mere mile white white	N/A
T.2	Steady force test, 10 N	(See appended table T.2)	N/A
Т.3	Steady force test, 30 N	Not applicable.	N/A
T.4	Steady force test, 100 N	(See appended table T.4)	P
T.5	Steady force test, 250 N	(See appended table T.5)	N/A
Т.6	Enclosure impact test	at at set is	N/A روا
	Fall test	white white where white	N/A
ER MUTER	Swing test	ret stet stet stret	N/A
Т.7	Drop test	(See appended table T.7)	Р
T.8	Stress relief test	(See appended table T.8)	P SP
T.9	Impact Test (glass)	No glass used	N/A
T.9.1 🛷	General requirements	t mill white white wh	N/A
T.9.2	Impact test and compliance	t at at at	N/A
-m.	Impact energy (J)	white white white white	-1
t Jet	Height (m)	at at at at	.s -
T.10	Glass fragmentation test	it white white all	N/A
T.11	Test for telescoping or rod antennas	a at at at	N/A

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Clause	Requirement – Test	Result – Remark	Verdict
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- mar	Torque value (Nm)	sure we are -
U	MECHANICAL STRENGTH OF CATHODE RAY TUBES (CRT PROTECTION AGAINST THE EFECTS OF IMPLOSION	) AND N/A
U.1	General requirements No CRTs	N/A
U.2	Compliance and test method for non- intrinsically protected CRTs	N/A
U.3	Protective Screen	N/A
V	DETERMINATION OF ACCESSIBLE PARTS (FINGERS, PRO WEDGES)	BES AND N/A
V.1	Accessible parts of equipment	N/A
V.2	Accessible part criterion	N/A S

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Clause Requirement – Test

Result – Remark

Verdict

(Audio/				ICES AND NAT			ements)	
Differences	s according to	<b>.</b> : E	EN 62368-1	:2014+A11:201	7 C NUTER	Intite Matter	men 1	
Attachmen	t Form No		U_GD_IE	C62368_1B_II				
Attachmen	t Originator		lemko AS					
	NUTE MAIL	, uni , uni , uni		10-22				
	it it	Strate State	North S	w. and	W. M.	14 V.		
		ystem for Cor erland. All rigl		esting and Certi ed.	ification of E	ectrical Equip	oment	
10 .50			SV all	ar w	t At	it let	Set.	
- sur-	Clauses, sub	clauses, notes	, tables, fig	ures and annexe	s which are a	dditional to		
the street		62368-1:2014	•	d "Z".		et set	Set 5	
CONTENT S		wing annexes:		interneti	anal nublicati	ana with thair		
and the st	Annex ZA (normative)Normative references to international publications with their corresponding European publications							
	Annex ZB (n	ormative)Speci	al national	conditions			-20-	
	Annex ZC (informative)A-deviations							
te an	Annex ZD (informative)IEC and CENELEC code designations for flexible cords							
	<b>Delete</b> all the "country" notes in the reference document (IEC 62368-1:2014) according to the following list:							
	0.2.1	Note	1	Note 3	4.1.15	Note	d is	
	4.7.3	Note 1 and 2	5.2.2.2	Note	5.4.2.3.2.2	Note c	with	
	5				Table 13		. Set	
	5.4.2.3.2.4	Note 1 and 3	5.4.2.5	Note 2	5.4.5.1	Note	m	
	5.5.2.1	Note	5.5.6	Note	5.6.4.2.1	Note 2 and 3	UNLIER V	
	5.7.5	Note	5.7.6.1	Note 1 and 2	10.2.1 Table 39	Note 2, 3 and 4	STEK WA	
	10.5.3	Note 2	10.6.2.1	Note 3	F.3.3.6	Note 3	ex white	
	For special r	or special national conditions, see Annex ZB.						
1	Add the follo	wing note:	at .	at at	St St	INTE WALT	me-	
	NOTE Z1 The use of certain substances in electrical and electronic equipment is restricted within the EU: see							
							1 and the second	

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IEC/EN 62368-1				
Clause	Requirement – Test	Result – Remark	Verdict	
4.Z1	Add the following new subclause after 4.9:	LIFE WALTER WALTER WAT	P	
	To protect against excessive current, short- circuits and earth faults in circuits connected to an a.c. <b>mains</b> , 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):	whitek whitek whitek	white whitek	
	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;	ANTER ANTER ANTER ANTER	et ount et onit	
	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;	A WALFER WALFER MALFER	WINTER WINTER	
	c) it is permitted for <b>pluggable equipment</b> <b>type B</b> or <b>permanently connected</b> <b>equipment</b> , 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.	NUTER WALTER WALTER WALTER	Set we set we	
	If reliance is placed on protection in the building installation, the installation instructions shall so state, except that for <b>pluggable equipment</b> <b>type A</b> the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet.	worther worther worther wo	suntin and sunting	
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.	et white white white	N/A	
10.2.1	Add the following to <sup>c)</sup> and <sup>d)</sup> in table 39: For additional requirements, see 10.5.1.	while while while	N/A	

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100 M	IEC/EN 62368-1				
Clause	Requirement – Test	Result – Remark	Verdict		
10.5.4	A stat the station of the the Sunt mean and the	at the set of			
10.5.1	Add the following after the first paragraph: For RS 1 compliance is checked by	in any an an	N/A		
	measurement under the following conditions:	et the milet mile	NALTE WAITE		
	In addition to the normal operating conditions, all controls adjustable from the outside by hand, by any object such as a tool or a coin, and those internal adjustments or presets which are not locked in a reliable manner, are adjusted so as to give maximum radiation whilst maintaining an intelligible picture for 1 h, at the end of which the measurement is made.	Whitek whitek whitek	antifet antifet a		
	NOTE Z1 Soldered joints and paint lockings are examples of adequate locking.	L'EL WALL WALL WALL	White the set		
	The dose-rate is determined by means of a radiation monitor with an effective area of 10 cm <sup>2</sup> , at any point 10 cm from the outer surface of the apparatus.	at whitet whitet white	white white		
	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.	wine white white white	and moret whi		
	For RS1, the dose-rate shall not exceed 1 $\mu$ Sv/h taking account of the background level.	Sternin white whe	when the		
	NOTE Z2 These values appear in Directive 96/29/Euratom of 13 May 1996.	antite antite	white white		
10.6.1	Add the following paragraph to the end of the subclause:	atter atter water as	N/A		
MALTER	EN 71-1:2011, 4.20 and the related tests methods and measurement distances apply.	and a street out of any	ret and et and		
10.Z1	Add the following new subclause after 10.6.5. 10.Z1 Non-ionizing radiation from radio frequencies in the range 0 to 300 GHz	Et antiet antiet antie	N/A		
	The amount of non-ionizing radiation is regulated by European Council Recommendation 1999/519/EC of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz).	whitek whitek whitek	whitek whitek w		
	For intentional radiators, ICNIRP guidelines should be taken into account for Limiting Exposure to Time-Varying Electric, Magnetic, and Electromagnetic Fields (up to 300 GHz). For hand-held and body-mounted devices, attention is drawn to EN 50360 and EN 50566	Tet whitek whitek whitek	whitek whitek		
G.7.1	Add the following note: NOTE Z1 The harmonized code designations corresponding to the IEC cord types are given in Annex ZD.	white white white w	N/A		

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		e 36 of 58				
IEC/EN 62368-1						
Clause	Requirement – Test	Result – Remark	Verdict			
Bibliograph	Add the following standards:	The state with white white	M M			
y	Add the following notes for the standards	indicated:	1 1			
	IEC 60130-9 NOTE Harmonized as EN 60130-9.					
	IEC 60269-2 NOTE Harmonized a		1 1			
	IEC 60309-1 NOTE Harmonized a	s EN 60309-1.	er nur			
	IEC 60364 NOTE some parts harmonized in HD 384/HD 60364 series.					
	IEC 60601-2-4 NOTE Harmonized as EN 60601-2-4.					
	IEC 60664-5 NOTE Harmonized as	s EN 60664-5.	an an			
	IEC 61032:1997 NOTE Harmonized as EN 61032:1998 (not modified).					
	IEC 61508-1 NOTE Harmonized as EN 61508-1.					
	IEC 61558-2-1 NOTE Harmonized as EN 61558-2-1.					
	IEC 61558-2-4 NOTE Harmonized as EN 61558-2-4.					
	IEC 61558-2-6 NOTE Harmonized as EN 61558-2-6.					
	IEC 61643-1 NOTE Harmonized as EN 61643-1.					
	IEC 61643-21 NOTE Harmonized as EN 61643-21.					
	IEC 61643-311 NOTE Harmonized as EN 61643-311.					
	IEC 61643-321 NOTE Harmonized as EN 61643-321.					
. At	IEC 61643-331 NOTE Harmonized as EN 61643-331.					
ZB	ANNEX ZB, SPECIAL NATIONAL CON	DITIONS (EN)	Un Mun			
4.1.15	Denmark, Finland, Norway and Sweder	n Not export to such counties	<u>مالا المجاري المجاري</u>			
	To the end of the subclause the following added:	is showing the second second	Sur.			
	Class I pluggable equipment type A int for connection to other equipment or a ne shall, if safety relies on connection to relia earthing or if surge suppressors are conn between the network terminals and access parts, have a marking stating that the equipment shall be connected to an earth mains socket-outlet.	able ected ssible ned	White M			
	The marking text in the applicable countri shall be as follows:	TE NIEL MIEL WAR WAIT	et whiter y			
	In <b>Denmark</b> : "Apparatets stikprop skal tils en stikkontakt med jord som giver forbind stikproppens jord."		win Tex Jun			
	In Endand, "I also an Illiater, souther and	Him II a				

uttag"

In Finland: "Laite on liitettävä suojakoskettimilla

In Sweden: "Apparaten skall anslutas till jordat

In **Norway**: "Apparatet må tilkoples jordet stikkontakt"

varustettuun pistorasiaan"

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IEC/EN 62368-1 Requirement – Test Result – Remark

Clause	Requirement – Test Result – Remark		Verdict
4.7.3	United Kingdom	The state with an	N/A
ALL S	To the end of the subclause the following is added:	et ret wet with	
	The torque test is performed using a socket- outlet complying with BS 1363, and the plug part shall be assessed to the relevant clauses of BS 1363. Also see Annex G.4.2 of this annex	white white white	MALIFER MALIFER MA
5.2.2.2	<b>Denmark</b> After the 2 <sup>nd</sup> paragraph add the following:	MUTER WALTER WALTER W	N/A
	A warning (marking <b>safeguard</b> ) for high <b>touch</b> <b>current</b> is required if the <b>touch current</b> exceeds the limits of 3,5 Ma a.c. or 10 Ma d.c.	Lifet whilet whilet whi	et while while

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	IEC/EN 623	68-1 /	IN LIFE N
Clause	Requirement – Test	Result – Remark	Verdict
5.4.11.1	Finland and Sweden	LIFE NUT WALTER WALTER	N/A
and Annex G	To the end of the subclause the following is added:	et get whet whet whi	E WALTER
	For separation of the telecommunication network from earth the following is applicable:	white with the state	witer
	If this insulation is solid, including insulation forming part of a component, it shall at least consist of either	white white white white	NUTEX NN
	• two layers of thin sheet material, each of which shall pass the electric strength test below, or	and and white and a	I St WALTE
	• one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below.	et wiret whitet whitet white	* WALTER
	If this insulation forms part of a semiconductor component (e.g. an optocoupler), there is no distance through insulation requirement for the insulation consisting of an insulating compound completely filling the casing, so that clearances and creepage distances do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition	NUTER WALTER WALTER WALTER	NITEL MI
	• passes the tests and inspection criteria of 5.4.8 with an electric strength test of 1,5 Kv multiplied by 1,6 (the electric strength test of 5.4.9 shall be performed using 1,5 Kv), and	at a write write	ounited a
	• is subject to routine testing for electric strength during manufacturing, using a test voltage of 1,5Kv.	watte watte watte wait	al and a support
	It is permitted to bridge this insulation with a capacitor complying with EN 60384-14:2005, subclass Y2.	erter which which which will	et unifet
	A capacitor classified Y3 according to EN 60384-14:2005, may bridge this insulation under the following conditions:	water water water and	Mullet W
	• the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 60384-14, which in addition to the Y3 testing, is tested with an impulse test of 2,5 Kv defined in 5.4.11;	when where the set	n Tet whi
	• the additional testing shall be performed on all the test specimens as described in EN 60384- 14;	to while while whe wh	t minet
	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.	white white white	WILLEY OUT

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N/A

N/A

N/A

	IEC/EN 623	68-1 / /	
Clause	Requirement – Test	Result – Remark	Verdict
5.5.2.1	Norway After the 3 <sup>rd</sup> paragraph the following is added: Due to the IT power system used, capacitors are required to be rated for the applicable line- to-line voltage (230 V).	A A AND AND AND AND AND AND AND AND AND	N/A
5.5.6	<ul> <li>Finland, Norway and Sweden</li> <li>To the end of the subclause the following is added:</li> <li>Resistors used as basic safeguard or bridging basic insulation in class I pluggable equipment type A shall comply with G.10.1 and the test of G.10.2.</li> </ul>	Super super super super super	N/A
5.6.1	Denmark Add to the end of the subclause Due to many existing installations where the socket-outlets can be protected with fuses with higher rating than the rating of the socket-	white white white	N/A

outlets the protection for pluggable equipment

In Denmark an existing 13 A socket outlet can

After the indent for pluggable equipment type

- the **protective current rating** is taken to be 13 A, this being the largest rating of fuse used

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

1,25 mm<sup>2</sup> to 1,5 mm<sup>2</sup> in cross-sectional area.

To the end of the subclause the following is

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

To the second paragraph the following is

type A shall be an integral part of the

be protected by a 20 A fuse. Ireland and United Kingdom

A, the following is added:

in the mains plug.

including 13 A is:

Denmark

added:

Ma d.c.

added:

equipment. Justification:

5.6.4.2.1

5.6.5.1

5.7.5

Waltek T	esting	Group Co., Ltd.	
http://ww	w.walt	ek.com.cn	

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1	IEC/EN 623	08-1	She with a
Clause	Requirement – Test	Result – Remark	Verdict
5.7.6.1	Norway and Sweden	LIST MALIS WALLER WAL	N/A
	To the end of the subclause the following is added:	set suret miret mire	WALTE WALTE
	The screen of the television distribution system is normally not earthed at the entrance of the building and there is normally no equipotential bonding system within the building. Therefore the protective earthing of the building installation needs to be isolated from the screen of a cable distribution system.	white white white	WALTER WALTER
	It is however accepted to provide the insulation external to the equipment by an adapter or an interconnection cable with galvanic isolator, which may be provided by a retailer, for example.	and writes writes writes	white white
	The user manual shall then have the following or similar information in Norwegian and Swedish language respectively, depending on in what country the equipment is intended to be used in:	white white white	ALTER MALTER
	"Apparatus connected to the protective earthing of the building installation through the mains connection or through other apparatus with a connection to protective earthing – and to a television distribution system using coaxial cable, may in some circumstances create a fire	ret water water water	White white
	hazard. Connection to a television distribution system therefore has to be provided through a device providing electrical isolation below a certain frequency range (galvanic isolator, see EN 60728-11)"	watter watter watche	Et an et and
	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.	et white white white	white white
	Translation to Norwegian (the Swedish text will also be accepted in Norway):	WALTER WALTER WALTE	min white
	"Apparater isa I koplet til beskyttelsesjord via nettplugg og/eller via annet jordtilkoplet utstyr – og er tilkoplet et koaksialbasert kabel-TV nett, kan forårsake brannfare. For å unngå dette	outer wouter wouter wo	TEL WAS TEL WA
	skal det ved tilkopling av apparater til kabel-TV nett isa llers en galvanisk isolator mellom apparatet og kabel-TV nettet." Translation to Swedish:	the south south south	white white
	<ul> <li>"Apparater som är kopplad till skyddsjord via jordat vägguttag och/eller via annan utrustning och samtidigt är kopplad till kabel-TV nät kan i isa fall medföra risk för brand. För att undvika detta skall vid anslutning av apparaten till kabel-TV nät galvanisk isolator finnas mellan</li> </ul>	SAN SAN SAN SAN	NITEX WAITER W

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- 4° -	IEC/EN 623		
Clause	Requirement – Test	Result – Remark	Verdict
5.7.6.2	Denmark To the end of the subclause the following is added: The warning (marking safeguard) for high touch current is required if the touch current or the	STEL WALLER WALLER WALLER	N/A
B.3.1 and B.4	protective current exceed the limits of 3,5 Ma .Ireland and United KingdomThe following is applicable:To protect against excessive currents and short-circuits in the primary circuit of direct plug-in equipment, tests according to Annexes B.3.1 and B.4 shall be conducted using an external miniature circuit breaker complying with EN 60898-1, Type B, rated 32A. If the equipment does not pass these tests, suitable protective devices shall be included as an integral part of the direct plug-in equipment, until the requirements of Annexes B.3.1 and B.4 are met	and	N/A
G.4.2	Denmark To the end of the subclause the following is added: Supply cords of single phase appliances having a rated current not exceeding 13 A shall be provided with a plug according to DS 60884-2- D1:2011. CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a.	and where wh	N/A
	If a single-phase equipment having a RATED CURRENT exceeding 13 A or if a poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with the standard sheets DK 6-1a in DS 60884-2-D1 or EN 60309-2. Mains socket outlets intended for providing power to Class II apparatus with a rated current of 2,5 A shall be in accordance DS 60884-2- D1:2011 standard sheet DKA 1-4a. Other current rating socket outlets shall be in compliance with Standard Sheet DKA 1-3a or DKA 1-1c. Mains socket-outlets with earth shall be in compliance with DS 60884-2-D1:2011 Standard Sheet DK 1-3a, DK 1-1c, DK1-1d, DK 1-5a or DK 1-7a	at white white white	Whitek whitek

*Justification:* Heavy Current Regulations, Section 6c

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IEC/EN 62368-1

ater and	IEC/EN 62368-1					
Clause	Requirement – Test	Result – Remark	Verdict			
5 <u>5</u> 5	att whit whit whe when you	the the state of t	AT AT AT			
G.4.2	<ul> <li>United Kingdom</li> <li>To the end of the subclause the following is added:</li> <li>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.</li> </ul>	and				
G.7.1	United Kingdom To the first paragraph the following is added: Equipment which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to BS 1363 by means of that flexible cable or cord shall be fitted with a 'standard plug' in accordance with the Plugs and Sockets etc (Safety) Regulations 1994, Statutory Instrument 1994 No. 1768, unless exempted by those regulations. NOTE "Standard plug" is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.	A MAILER MAILER MAILER	N/A			
G.7.1	IrelandTo the first paragraph the following is added:Apparatus which is fitted with a flexible cable orcord shall be provided with a plug inaccordance with Statutory Instrument 525:1997, "13 A Plugs and Conversion Adapters forDomestic Use Regulations: 1997. S.I. 525provides for the recognition of a standard ofanother Member State which is equivalent tothe relevant Irish Standard	antifet antifet antifet antifet	N/A			
G.7.2	Ireland and United Kingdom To the first paragraph the following is added: A power supply cord with a conductor of 1,25 mm <sup>2</sup> is allowed for equipment which is rated over 10 A and up to and including 13 A.	WALTER WALTER WALTER	N/A			

marking. Justification:

German ministerial decree against ionizing

Physikalisch-Technische Bundesanstalt,

NOTE Contact address:

Bundesallee 100, D-38116 Braunschweig, Tel.: Int +49-531-592-6320, Internet: http://www.ptb.de

radiation (Röntgenverordnung), in force since 2002-07-01, implementing the European Directive 96/29/EURATOM.

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Ser inte	IEC/EN 623	368-1	and and
Clause	Clause Requirement – Test Result – Remark		Verdict
ZC	ANNEX ZC, NATIONAL DEVIATIONS (EN)	MUTER WALTER WATER	IT VILLE
10.5.2	Germany The following requirement applies:	THE MUTCH WAITER WA	N/A
NITES WAL	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	white white white white	A WALTER WALTE

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Clause Requirement – Test

Result – Remark

Verdict

4.1.2	TAB	LE: List of critical co	E: List of critical components					
Object / par	t No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity <sup>1</sup>		
Plastic encl	osure	FORMOSA CHEMICALS & FIBRE CORP PLASTICS DIV	AC2300-N	HB, 60°C, min.thinkness:1.5 mm	UL 94, UL746	UL		
Motor	white	Shenzhen Sanfu Microelectronics Co. LTD	SFW0408-Y47	3.0V, 100mA, min.12000rpm	EN 62368-1	Test with appliance		
LITHIUM BATTERY		Shenzhen City triumph Electronic Technology Co., Ltd.	341423	3.7VDC, 90mAh	IEC 62133- 2:2017	Report No: TCT190828B 012		
PCB	wint	DONGGUAN XIANGHUI (GREATTA) ELECTRONICS CO LTD	LX004	V-0, 130°C	UL 94, UL 796	UL E306427		
Alternative		Interchangeable	Interchangeable	V-0, 130°C	UL 94, UL 796	UL		

4.8.4, 4.8.5	TABLE: Lithi	N/A		
(The follow	ving mechanical te	sts are conducted in th	ne sequence noted.)	
4.8.4.2	TABLE: Stres	s Relief test	et stat aller with white whi	
Par	t	Material	Oven Temperature (°C)	Comments
m	211. 21. 2	4 - A 5th	The state we are sold with	mer mer
4.8.4.3	TABLE: Batte	ry replacement test	White the state of the	_
Battery pa	irt no		Et intre intre main unit	_
Battery Ins	stallation/withdrav	wal	Battery Installation/Removal Cycle	Comments
24	at at	at set a	it with white the way of	In a
			2	et inter int
			3	Sec. 1
			1 1 4 50 50	MUTE MALTE
			5	a de
			6	NUTE WALTEN
			8	st at
			9	in which wh
			10	L At A

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Clause Requirement – Test Result – Remark

4.8.4.4	TABL	E: Drop test		
Impact Are	ea	Drop Distance	Drop No.	Observations
de s	et i	It while while while while	Jun 1	- At At .
in the	24	the state of	2,000	mer mer m
et intre	MUTE	white white white white	1 3 At At	Wet nurth white
4.8.4.5	TAB	LE: Impact	were more more more a	
Impact surfa		Surface tested	Impact energy (Nm)	Comments
NUTER AT	LIE NI	Strant man man	e at at at a	et auter muter
4.8.4.6	TAB	LE: Crush test	white white white sure	_
Test po	sition	Surface tested	Crushing Force (N)	Duration force applied (s)
5 <u>5</u>	. 51°	mile when - one when	i i - it it	St 55 50

4.8.5 TABLE: Lithium coin/button cell batteries mechanical test result						
Test pos	Test position     Surface tested     Force (N)     E					
de de				\$ <del></del>		
Supplement	ary inforr	nation:				

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0		k
V	V	
	2	1

Clause Requirement – Test

Result – Remark

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5.2	्र- T/	ABLE: Classificatio	n of electrical ene	rgy sources	a at	at de	- P
5.2.2	2.2 – Stead	dy State Voltage and	I Current conditions				
				F	Parameters		
No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	U (Vrms or Vpk)	l (Apk or Arms)	Hz	ES Class
-	Set S	et miter white	Normal	5.0Vpk	x - A	DC	et tiet
1	5VDC	Input circuit	Abnormal	The mark whi	the state of	me - m	ES1
INCOS	WALTER	WALL WALL W	Single fault – SC/OC	- aller mit	t united wi	tret - untret	WALTER W
Set.	JEt	NIT A WALTER WAL	Normal	4.2Vpk		,⊢ DC ∕	State of
2	4.2VDC	Battery	Abnormal	NUTER - NUTE	nnin - nni	111	ES1
	NUTER WAY	Ter white white	Single fault – SC/OC	Tet stret a	STEK - MALTER	white wh	TEX WALTER
5.2.2	2.3 – Capa	citance Limits					
	Supply	Location (e.g.		F	Parameters		
No.	Voltage	circuit designation)	Test conditions	Capacitance,	Nf U	pk (V)	ES Class
1	,et-		Normal		2		A- 1
1	NUT N	s - 34 - 5-	Abnormal:	18t 316	and and	- white w	In Aur
د ال	TEX WAL	ist whites whites	Single fault – SC/OC:	at the	Set Set	miret uni	et white

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Clause Requirement – Test

Result – Remark

h. 4.

5.2.2	2.4 – Single Pu	ulses					
MAL	Supply	Location (e.g.			Parameters		
No.	Voltage	circuit designation)	Test conditions	Duration (ms)	Upk (V)	lpk (Ma)	ES Class
4	1 1	- A 5	Normal	white white	m n		
- 3	MITE	MULT MULT	Abnormal	10- 10		er internal	par main
	JEK WAITER	UNITEK WALTER	Single fault – SC/OC	in Thur		. unter mi	Set unifet
5.2.2	2.5 – Repetitiv	e Pulses	·				
	No. Supply Voltage Location (e.g. circuit designation)	Location (e.g.			Parameters		
No.		circuit	Test conditions	Off time (ms)	Upk (V)	lpk (Ma)	ES Class
	at at	At At	Normal	with - when	m. m	211	at at
کہ ۔۔. «ک	NUTE MUTE	white white	Abnormal	1 - 1	<u></u>	A NITE N	STER MULTE
	et miret	NITEX WALTER	Single fault – SC/OC	t <u>n</u> nt	Mr. M	510 <sup>+</sup> .5	t mittet
Test	Conditions:	de de	the start of	and an	Mr. Mar	nu nu	
Norn	nal –						
Abno	ormal –						
Supp	plementary inf	ormation: SC=Sh	nort Circuit, OC=Sho	ort Circuit			

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Clause Requirement – Test

Result – Remark

5.4.1.4, 6.3.2, 9.0, B.2.6	TABLE: Temperature measurer	nents	nest whit	whitek a	WALLER WALTE	P
A 16	Supply voltage (V)	5V 🔊	4.2V	10 10	A	
the wet	Ambient T <sub>min</sub> (°C)	23.6	23.8 24.8	NITER NI		
et et	Ambient T <sub>max</sub> (°C)	24.6				
- Mar	T <sub>ma</sub> (°C):	40.0	40.0	C. M.C.	mr - m	
Maximum measured temperature T of part/at:			T (°	C)		Allowed T <sub>max</sub> (°C)
PCB near U1		46.4	45.6	I.I.	st - 18	130
PCB near U	12	46.1	45.3	mut- m	the second	130
PCB near U	15 are mile white white	47.9	46.2	, - ,	+ <del>-</del> +	
Surface of b	oattery package	44.6	43.8	Un Aur	m - 1	Ref.
Internal enc	losure	43.9	43.0	st - St	14 J	Ref.
20. 1	a at at at a	Ajust to 25°C	intit whit	m	m. m.	1
Screen	the write write write with	27.7	27.2	e t	JIEK- JIE	48
External en	closure	27.1	26.4	m. n		48
Supplemen	tary information:	1	de la de		Ser Ste	in the set

Temperature T of winding:	t <sub>1</sub> (°C)	R <sub>1</sub> (Ω)	t <sub>2</sub> (°C)	R <sub>2</sub> (Ω)	T (°C)	Allowed T <sub>max</sub> (°C)	Insulation class
- Mur Mur Mur Mur	5	, tt	.etcf	t There	IN LITE IN	The - with	112 1
Supplementary information:	MALTER V	me in	- m	24		at at	. At

5.4.1.10.2	TABLE: Vicat softening tem	perature of thermoplastics	at at at	<u></u>
Penetration	(mm)	MITE WALTE	MALL WALL WALL	
Object/ Part	No./Material	Manufacturer/t rademark	T softening (°C)	
- 1	TEX NUTER MUTE WAIT	m. 1 m	s. 14 15 18	- Set
supplementa	ary information:	the state with mit	when when white	m i

5.	.4.1.10.3	TABLE: Ba	II pressure test of thermopl	astics	mere where	_√ <sup>™</sup> N/A √ <sup>™</sup>
A	llowed imp	ression diam	eter (mm)	≤ 2 mm	at at	—
0	bject/Part I	No./Material	Manufacturer/trademark	Test temperature (°C)	Impression dia	ameter (mm)
÷-	Set	NUTER INLIE	- white when when		+ 1 -	Set Ster
S	upplement	ary information	on: A A	LIEF, NALTE WALTE WALT	m. m.	- 14

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 Clause
 Requirement – Test
 Result – Remark
 Verdict

5.4.2.2, 5.4.2.4 and 5.4.3	TABLE: Minimu	m Cleara	nces/Cre	epage dista	ince			N/A
	l) and creepage at/of/between:	Up (V)	U r.m.s. (V)	Frequenc y (kHz) <sup>1</sup>	Required cl (mm)	cl (mm) <sup>2</sup>	Required cr (mm)	cr (mm)
et jet	NTIET MITE N	nn-m	mr	<u></u>		* - *	1. Art	10 - 10 C

Supplementary information:

Note 1: Provide Material Group IIIb

Note 2: BI: basic insulation; SI: supplementary insulation; DI: double insulation; RI: reinforced insulation.

5.4.2.3	TABLE: Minimum Cl	earances distances using	required withstand	d voltage	N/A				
A I	Overvoltage Categor	Overvoltage Category (OV):							
IL WAL	Pollution Degree:	a the state	The street with	NPLIE V	mer me				
Clearance	e distanced between:	Required withstand voltage	Required cl (mm)	Measure	ed cl (mm)				
4	at - At At	Jet with white	m-m	10 10	I A				
Suppleme	ntary information:	the second second	t set set	NITER MIT	NALL Y				
BI: basic i	nsulation; SI: supplement	ary insulation; DI: double in	sulation; RI: reinforc	ed insulation	ı.				
1)See app	pended table 5.4.2.2, 5.4.2	2.4 and 5.4.3 for measurem	ents.						

5.4.2.4	TABLE: Clearances	based on electric str	ength test	That will a start	N/A
Test volta	ge applied between:	Required cl (mm)	Test voltage (Kv) peak/ r.m.s. / d.c.	Breakdov Yes / N	
-2011 -	1 A A	and a state with	white we way	Mar Mr	20

Supplementary information: Not used the alternative method to determine the clearances.

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5.4.4.9						ITE WALTER
Distance throunsulation di a		Peak voltage (V)	Frequency (Hz)	Material	Required DTI (mm)	DTI (mm)
4	dit .	et of all	NUTE WAL	me m		, F

5.4.9	TABLE: Electric strength	i tests		N/A
Test volta	ge applied between:	Voltage shape (AC, DC)	Test voltage (V)	Breakdown Yes / No
Basic/sup	plementary:	We and the second	e at at a	et oft
24	- 1 A	at the star with	MALL MALL MAL	201 - 20
Reinforce	d: with min white	mu no st	at at at	- STER ST
24		t the street mile	where where where	In In

5.5.2.2	TABL	E: Stored disc	charge on capa	citors		N/A 5
Supply Vol (V), Hz	tage	Test Location	Operating Condition (N, S)	Switch position On or off	Measured Voltage (after 2 seconds)	ES Classification
NITE-	MUT 1	Up. Aug		7.	at the tak	THE NUT WITE

Supplementary information:

X-capacitors installed for testing are:

Bleeding resistor rating: --

ICX:

Notes:

A. Test Location:

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

B. Operating condition abbreviations:

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

5.6.6.2 TABLE: Res	istance of protective co	onductors and term	inations	N/A
Accessible part	Test current (A)	Duration (min)	Voltage drop (V)	Resistance (Ω)
no no no		t stet street	MITE MILL W	r m m
Supplementary informatio	n: white white white	24. 25.	1	the state of the

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5.7.2.2, 5.7.4	TABLE: Earthed accessible conductive part					
Supply vo	ltage	the state of the south works of				
Location		Test conditions specified in 6.1 of IEC 60990 or Fault Condition No in IEC 60990 clause 6.2.2.1 through 6.2.2.8, except for 6.2.2.7	Touch current (mA)			
Metal enc	losure	in and when when	N/A			
		2*	N/A			
		S MILLING 3 WILL WALL	N/A			
		4	N/A			
		Internet 51 March	N/A			
		A 14 6 14 5	N/A			
		8	N/A			

Supplementary Information:

N/A

Notes:

[1] Supply voltage is the anticipated maximum Touch Voltage

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

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

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

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

N: Normal condition, R: Reverse condition.

6.2.2	Table: Electric	al power source	P		
Source	Description	Measurement	Max Power after 3 s	Max Power after 5 $s^{\star^{i}}$	PS Classification
ine whit	men men	Power (W) :	0.15	+ JEt - JEt of	TER WALTE W
A	5V input	V <sub>A</sub> (V) :	5.0	m. m. a	PS1
	which which	I <sub>A</sub> (A) :	0.03	TIER THE MUT	
de la	et set	Power (W) :	1.77	on	at de
B S	Battery	V <sub>A</sub> (V) :	2.53	LIFE MITE MITE	PS1
	at at a	I <sub>A</sub> (A) :	0.7		

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6.2.3.1	Table: Determination of Potential Ignition Sources (Arcing PIS)							
		Open circuit voltage After 3 s	Measured r.m.s current	Calculated value	Arcing PIS?			
	Location	(Vp)	(Irms)	(V <sub>p</sub> x I <sub>rms</sub> )	Yes / No			
, Inp	out connector	JIE ALL M	in million 2m		Yes			

Supplementary information:

All primary circuit/components were considered as arcing PIS, the open circuit of all secondary components/ circuit were not exceeded 50V.

An Arcing PIS requires a minimum of 50 V (peak) a.c. or d.c. An Arcing PIS is established when the product of the open circuit voltage ( $V_p$ ) and normal operating condition rms current ( $I_{rms}$ ) is greater than 15.

6.2.3.2	Table: Det	Table: Determination of Potential Ignition Sources (Resistive PIS)									
Circuit Lo	ocation (x-y)	Operating Condition (Normal / Describe Single Fault)	Measured wattage or VA During first 30 s (W / VA)	Measured wattage or VA After 30 s (W / VA)	Protective Circuit, Regulator, or PTC Operated? Yes / No (Comment)	Resistive PIS? Yes/No					
. At	-10 . 50°	min - min	11		1 - 14	10 - 10					

Supplementary Information:

All primary/secondary components were 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, <u>or</u> (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	et miller miller	N/A
Description	1	Values	Energy Source Classification
Lamp type		Multer MALIL W	up mu mu mu
Manufactu	rer:	t at	ret ret stet-stret mire
Cat no		untite white whi	The me the
Pressure (	cold) (MPa):	A A A	t set side maret white
Pressure (	operating) (MPa)	The when when	and the second
Operating f	time (minutes):	t at at	The aller mere white w
Explosion r	method:	white white	Mr. In In It
Max particl	e length escaping enclosure (mm). :	the state .	LIER MITER WALT WALT WAL
Max particl	e length beyond 1 m (mm):	mer mer m	the second second
Overall res	ult	tet stet all	et intite antite while anti-
Supplemen	ntary information:	in the the	and at at

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B.2.5	TA	BLE: Inpu	ut test			in which where the P	
U (V/Hz)		I (A)	I rated (A)	P (W)	P rated (W)	Condition/status	
5VDC	4 4	0.03	e <u>p</u> unit	0.15	EX	Powered by 5VDC with empty battery (at battery charging mode)	
4.2VDC	m	0.025	0.09	0.105		Powered by Li-ion Battery (Discharging mode with fully charged battery)	

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B.3	TABLE: Abnormal operating condition tests								
Ambient temperature (°C): See below									
Power sour	Power source for EUT: Manufacturer, model/type, output rating .: See cover page for details								
Componen t No.	Abnormal Condition	Supply voltage, (V)	Test time (ms)	Fuse no.	Fuse current (A)	T- couple	Temp. (°C)	Observatio n	
2/1	~		<i></i>	*	5 <sup>67</sup> - "S	JI-LI	- me me m		

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B.4	TABLE:	Fault cond	lition tests					Р
Ambient temp	perature (°	°C)				40.0	the set of	°
Power source	of for EUT:	Manufactu	rer, model/ty	pe, outp	out rating	. See cov	ver page for details	_
Component No.	Fault Conditi on	Supply voltage, (V)	Test time (ms)	Fuse no.	Fuse current, (A)	T- couple	Temp. (°C)	Observatio n
Powered by D	C source	with empty	battery(at b	attery cl	harging mo	ode) (5V)	and and a	h. m
B+ to P- (overcharge)	short circuit	5VDC	7hours	-vin 	0.034	W	- WALTER WALTER WAN	Unit work normally, no damage, no hazard.
B+ to B-	short circuit	5VDC	10mins	unite Int-	0.001	ret white	et whitet whitet	Unit shut down, recoverabl e, no damage, no hazard
Powered by L	i-ion Batte	ery (Discha	rging mode v	vith fully	charged I	battery) (4	4.2V)	to the
B- to P- (overdischar ge)	short circuit	4.2VDC	7hours	NITEK	0.029	JUNLITER .	mine white white	Unit work normally, no damage, no hazard.
U5 pin 4-7	short circuit	4.2VDC	10mins	ret ou t	0.002	- WALTER	watter water wa	Unit shut down, recoverabl e, no damage, no hazard
B+ to B-	short circuit	4.2VDC	10mins	Mariak Land	0.001	ALTER N SEE MIL	NUTER WALTER WALTER	Unit shut down, recoverabl e, no damage, no hazard

Supplementary information:

1) SC: short circuit, OL: overload, OC: open circuit; CD: components damaged;

2) The Hi-pot test conducted successfully after the completion of fault condition test.

3) \*: For fault where fuse opened, tested were repeat nine times and same result was obtained.

4)No ignition during and after all tests.

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Clause Requirement -

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- Test	Result – Remark
--------	-----------------

Verdict

Annex M	TABLE: B	atteries						20	Р
The tests of A	Annex M a	re applica	able only whe	n appropria	ate battery	data is no	t available	÷^	N/A
ls it possible f	to install th	ne battery	י in a reverse	polarity po	sition?:	ret white	It is imported in the second s	the n a	N/A
	Non-re	chargeab	le batteries		F	Rechargea	ble batteri	es	
	Discharging		Un-	Cha	rging	Disch	arging	Reverse	d charging
	Meas. current	Manuf. Specs.	intentional charging	Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.
1) Imax in normal condition	NUT THE	LIEK NI	TEK Whitek	27mA	90mA	25mA	90mA	HALL	Tex M
2) Imax in fault B+ to P- short circuit (overcharge)	STEK - WAL	EX MOLTEX	A WALTER WAL	30mA	90mA	ountrates of	an Nitet Nitet	ret whit	VINLES
3) Imax in fault B- to P- short circuit (overdischar ge)		augent -	et unter	Valle Milet		29mA	90mA	antrat o	LIEK WILL
Test results:	-14	24		d B				- un	Verdict
- Chemical le	aks 🖉	Jet	METER WAY	111-22	me	the th		L	P
- Explosion of	f the batte	ry			Jet .	LIET IN	MALTE	Maria	м <sup>о</sup> Р 4
- Emission of	flame or e	expulsion	of molten me	tal	10°. 20		, t	dit-	P
	nath tests	of equipr	nent after con	anletion of	toete	<u> </u>		Jr 1	Р

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<u>.</u>	Clause	Requirement – Test	Result – Remark	Verdict

		rds for e	equipment co	ontaining second	dary lit	hium	JE PL		
Cell	Test conditions		Measurements				Observation		
			U	I (A)	Tem	p (C)			
	Normal			4.2VDC		0.025	43.8℃ (Ambient: 40.0°C)		white whi
	Single fault – B- to P- SC		4.2VDC	0.029	44.2℃ (Ambient: 40.0°C)		Tet shiret		
ary Inform	mation:	J. T. S.	mer when	me m	24		L		
	Charging at T <sub>lowest</sub> (°C)	Obs	ervation	Charging at T <sub>hiq</sub> (°C)	hest	Ob	servation		
NUT N	<0 Batte		100	>45	J.T.EX	S	arging, battery urrent: 0		
	Cell 23 ary Inform	batteries       Cell     Test condition       Normal     Normal       23     Single fault – B-SC       ary Information:     Charging at T <sub>lowest</sub> (°C)	Detteries       Cell     Test conditions       Particular     Normal       Particular     Single fault – B- to P- SC       Single fault – B- to P- SC     P-       ary Information:     Charging at T <sub>lowest</sub> Obsice       On     Charging at T <sub>lowest</sub> Obsice       <0	batteries       Cell     Test conditions       U     U       V     V <td>batteries         Cell       Test conditions       Measurements         U       I (A)       <thi (a)<="" th="">       I (A)       I (A)</thi></td> <td>batteries         Cell       Test conditions       Measurements         U       I (A)       Temp         U       I (A)       Temp         U       I (A)       Temp         U       I (A)       Temp         V3       Normal       4.2VDC       0.025       43.4         V3       Single fault – B- to P-       4.2VDC       0.029       44.2         Single fault – B- to P-       4.2VDC       0.029       44.2         (Amt 40.0)       Charging at T<sub>lowest</sub>       Observation       Charging at T<sub>hidhest</sub>         On       Charging at T<sub>lowest</sub>       Observation       Charging at T<sub>hidhest</sub>       0          &lt;0</td> Battery current:       >45       45	batteries         Cell       Test conditions       Measurements         U       I (A)       I (A) <thi (a)<="" th="">       I (A)       I (A)</thi>	batteries         Cell       Test conditions       Measurements         U       I (A)       Temp         U       I (A)       Temp         U       I (A)       Temp         U       I (A)       Temp         V3       Normal       4.2VDC       0.025       43.4         V3       Single fault – B- to P-       4.2VDC       0.029       44.2         Single fault – B- to P-       4.2VDC       0.029       44.2         (Amt 40.0)       Charging at T <sub>lowest</sub> Observation       Charging at T <sub>hidhest</sub> On       Charging at T <sub>lowest</sub> Observation       Charging at T <sub>hidhest</sub> 0          <0	Cell       Test conditions       Measurements         U       I (A)       Temp (C)         U       I (A)       Temp (C)         Normal       4.2VDC       0.025       43.8°C (Ambient: 40.0°C )         Single fault – B- to P-       4.2VDC       0.029       44.2°C (Ambient: 40.0°C )         Single fault – B- to P-       4.2VDC       0.029       44.2°C (Ambient: 40.0°C )         ary Information:       Observation       Charging at T <sub>lowest</sub> Observation       Charging at T <sub>highest</sub> Observation         on       Charging at T <sub>lowest</sub> Observation       Charging at T <sub>highest</sub> Observation          <0		



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	15		7
			Y
2			
	_	-	

Clause Requirement – Test

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Noto: Moas	sured UOC (V) with	all load circuite	disconnected:		st at a	1 . A
Output	Components	U <sub>oc</sub> (V)		(A)	S (V	/A)
Circuit			Meas.	Limit	Meas.	Limit
- 4	- 1. 1.	Let Jet	JER STR.	ww.	24 - 24	<u> </u>
	the men me	20 4	4-	1 - A	Jet - Jet	I

T.2, T.3, T.4, T.5	TABLE: Steady	force test			NUTER WALTE	SULC P
Part/Location	Material	Thickness (mm)	Force (N)	Test Duration (sec)	Observ	ation
Enclosure	Plastic	1.5	100N	5- 5-	Enclosure r intac	

Т.6, Т.9	TABLE: Impact tes	sts		N/A
Part/Locatior	n Material	Thickness (mm)	Vertical distance (mm)	Observation
Ser Martin	N - 31 - 4-		1	The state mark until unit
Supplementa	ary information:	et let no	in which which	m m n

7 TABLE:	Drop tests		Le Mr. m. m.
Part/Location	Drop No.	Drop Height (mm)	Observation
Тор	15th 15th	1000	No damage, no hazard
Side 2		1000	No damage, no hazard
Bottom 3		1000	No damage, no hazard

T.8	ABLE: Stress relie	ef test			meren aner an P .
Part/Location	Material	Thickness (mm)	Oven Temperature (°C)	Duration (h)	Observation
Plastic enclosure	PLIE WALLE WA	1.5mm	70	7	No damage, no hazard
Supplementary	/ information:	me m	10 10	at the	at set set



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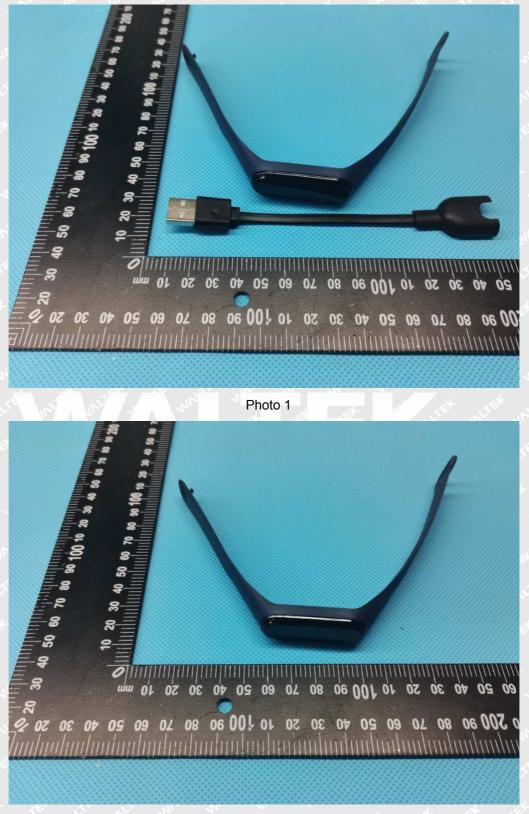


Photo 2



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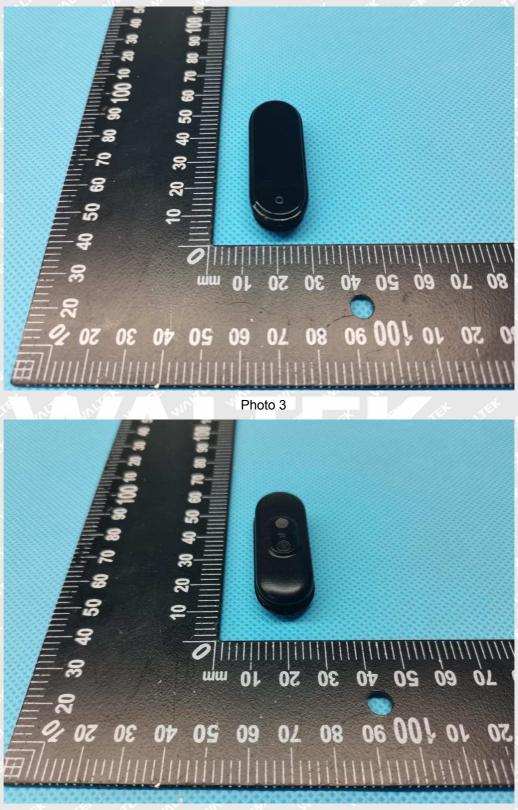
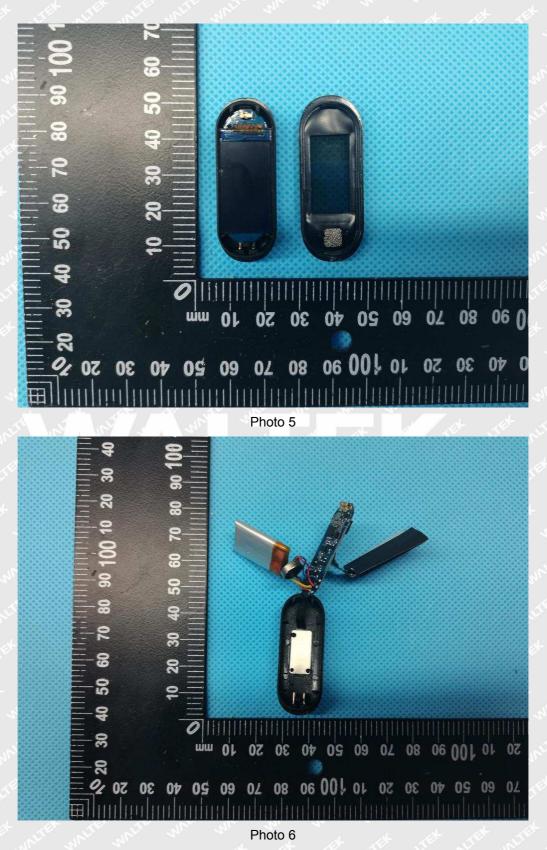


Photo 4

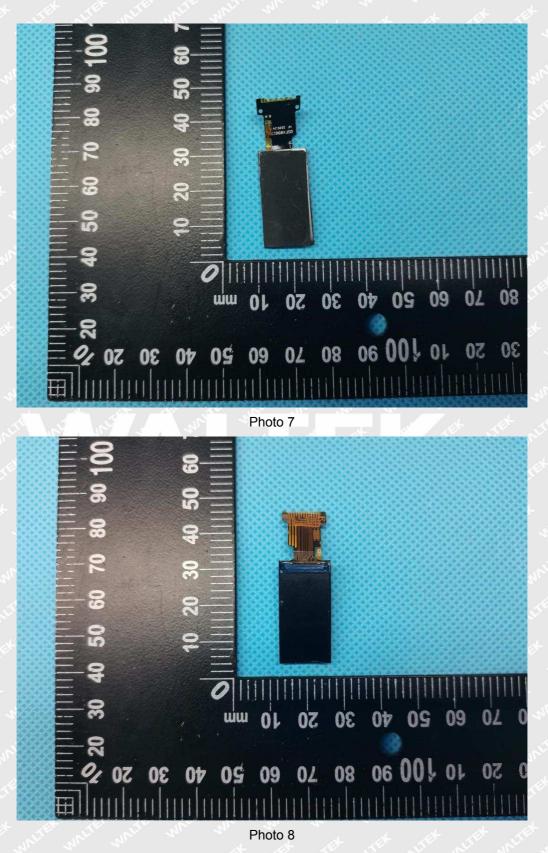


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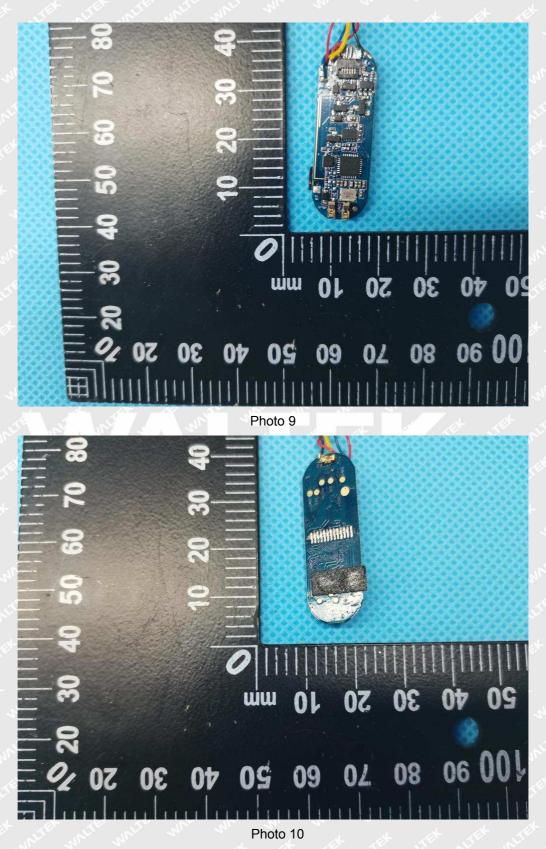


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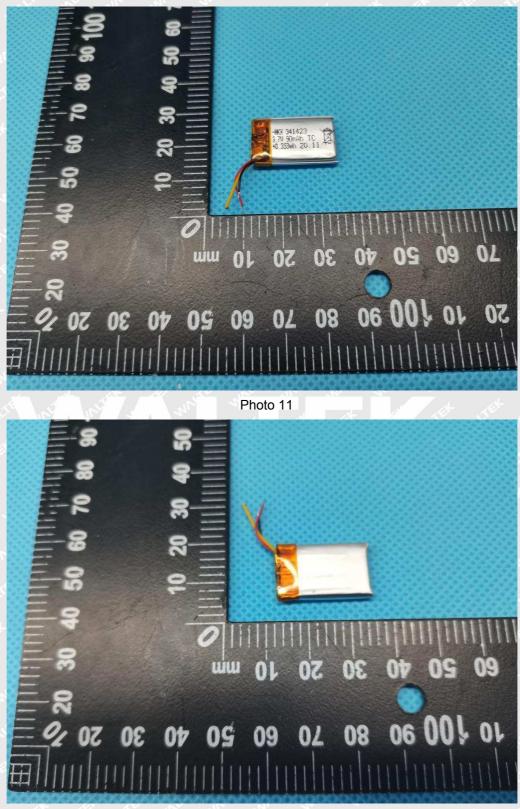


Photo 12

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