

TEST REPORT
IEC 61010-1
Safety requirements for electrical equipment for measurement,
control, and laboratory use
Part 1: General requirements

Report Number..... : 241213058GZU-001

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Total number of pages : 88

**Name of Testing Laboratory
preparing the Report :** Intertek Testing Services Shenzhen Ltd. Guangzhou Branch

Applicant's name : Uni-Trend Technology (China) Co., Ltd

Address..... : No 6, Gong Ye Bei 1st Road, Songshan Lake National High-Tech
Industrial Development Zone, Dongguan City, Guangdong
Province, China

Test specification:

Standard : IEC 61010-1:2010, IEC 61010-1:2010/AMD1:2016

Test procedure : Test report

Non-standard test method : N/A

TRF template used..... : IECEE OD-2020-F1:2020, Ed.1.3

Test Report Form No. : IEC61010_1P

Test Report Form(s) Originator : VDE Prüf- und Zertifizierungsinstitut GmbH

Master TRF : 2021-04-12

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This report is not valid as a CB Test Report unless signed by an approved IECEE Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.

General disclaimer:

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Test item description..... :	Professional Thermal Imager	
Trade Mark..... :	UNI-T	
Manufacturer	Same as applicant	
Model/Type reference..... :	UTi260B+, UTi165B+	
Ratings..... :	Powered by Li-ion battery: 3.6V, 5000mAh, 18Wh	
Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):		
<input checked="" type="checkbox"/>	CB Testing Laboratory:	Intertek Testing Services Shenzhen Ltd. Guangzhou Branch
Testing location/ address		Room101/301/401/102/202/302/402/502/602/702/802, No. 7-2, Caipin Road, Huangpu District, Guangzhou, Guangdong, China
Tested by (name, function, signature)..... :		Eric Deng Engineer 
Approved by (name, function, signature) .. :		Justin He Manager 
<input type="checkbox"/>	Testing procedure: CTF Stage 1:	N/A
Testing location/ address		
Tested by (name, function, signature)..... :		
Approved by (name, function, signature) .. :		
<input type="checkbox"/>	Testing procedure: CTF Stage 2:	N/A
Testing location/ address		
Tested by (name + signature)..... :		
Witnessed by (name, function, signature) . :		
Approved by (name, function, signature) .. :		
<input type="checkbox"/>	Testing procedure: CTF Stage 3:	N/A
<input type="checkbox"/>	Testing procedure: CTF Stage 4:	N/A
Testing location/ address		
Tested by (name, function, signature)..... :		
Witnessed by (name, function, signature) . :		
Approved by (name, function, signature) .. :		
Supervised by (name, function, signature) :		

List of Attachments (including a total number of pages in each attachment)		
Document No.	Documents included / attached to this report (description)	Page No.
Appendix 1	National differences	1
Appendix 2	Product photos	3

Documents referenced by this report (available on request):		
Document Name or No.	Documents description	Page No.
None		

Summary of testing:

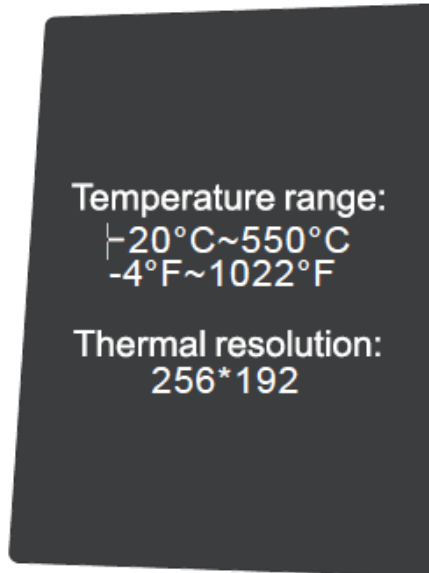
The equipment under test complied with requirements of IEC 61010-1:2010/AMD1:2016, EN 61010-1:2010 +A1:2019.

Clause	Comment
All applicable clauses of this standard performed.	Pass

Test Report History: This report may consist of more than one report and is only valid with additional or previous issued reports:	
Report Ref. No.	Item
None	
Tests performed (name of test and test clause): All applicable clauses performed	Testing location: Intertek Testing Services Shenzhen Ltd. Guangzhou Branch Room101/301/401/102/202/302/402/502/602/702/802, No. 7-2, Caipin Road, Huangpu District, Guangzhou, Guangdong, China
Summary of compliance with National Differences (List of countries addressed): European Group National differences were checked in this report, see appendix 1 for details. <input checked="" type="checkbox"/> The product fulfils the requirements of <u>IEC 61010-1:2010/AMD1:2016, EN 61010-1:2010+A1:2019.</u>	
Statement concerning the uncertainty of the measurement systems used for the tests (may be required by the product standard or client) <input type="checkbox"/> Internal procedure used for type testing through which traceability of the measuring uncertainty has been established: Procedure number, issue date and title: Calculations leading to the reported values are on file with the NCB and testing laboratory that conducted the testing. <input checked="" type="checkbox"/> Statement not required by the standard used for type testing	

Copy of marking plate:

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



Remark: UTi260B+ and UTi165B+ have same marking except model name.

Test item particulars:	
Type of item	Measurement
Description of equipment function.....	see general product information
Connection to MAINS supply	Battery operated
Overvoltage category	Powered by battery
POLLUTION DEGREE.....	2
Means of protection	Class III
Environmental conditions	-20 to 60°C (0 to 100%RH)
For use in wet locations	No
Equipment mobility.....	Hand-held
Operating conditions.....	Continuous
Overall size of equipment (W x D x H).....	230x80x80 mm
Mass of equipment (kg).....	0.5
Marked degree of protection to IEC 60529	IP65
Possible test case verdicts:	
- Test case does not apply to the test object	N/A (Not Applicable)
- Test object does meet the requirement.....	P (Pass)
- Test object does not meet the requirement	F (Fail)
Testing:	
Date of receipt of test item.....	13 Dec 2024
Date (s) of performance of tests	13 Dec 2024 – 24 Dec 2024
General remarks:	
<p>The test results presented in this report relate only to the object tested.</p> <p>This report shall not be reproduced, except in full, without the written approval of the issuing testing laboratory.</p> <p>"(see ENCLOSURE #)" refers to additional information appended to the report.</p> <p>"(see Form A.xx)" refers to a Table appended to the report.</p> <p>Bottom lines for measurement Tables Forms A.xx are optional if used as record.</p>	
Throughout this report a <input type="checkbox"/> comma / <input checked="" type="checkbox"/> point is used as the decimal separator.	
Manufacturer's Declaration per sub-clause 4.2.5 of IEC 60529:	
<p>The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided..... :</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not applicable</p>	
When differences exist; they shall be identified in the general product information section.	
<p>Name and address of factory (ies) Uni-Trend Technology (China) Co., Ltd No 6, Gong Ye Bei 1st Road, Songshan Lake National High-Tech Industrial Development Zone, Dongguan City, Guangdong Province, China</p>	

General product information and other remarks:

Determination of the test conclusion is based on IEC Guide 115 in consideration of measurement uncertainty.

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UTi260B+ and UTi165B+ Handheld Thermal Imager equips wide temperature measurement range and multiple image modes for different imaging requirements, PC software and mobile APP for images analysis and report generating, meanwhile, real-time image transmission is supported.

Description of model differences:

UTi260B+ and UTi165B+ have same structure and PCB except model name.

Description of special features:

None

IEC 61010-1			
Clause	Requirement + Test	Result - Remark	Verdict
4	TESTS		P
4.4	Testing in SINGLE FAULT CONDITIONS		P
4.4.1	Fault tests	(see Form A.1)	P
4.4.2	Application of SINGLE FAULT CONDITIONS		P
4.4.2.1	SINGLE FAULT CONDITIONS not covered by 4.4.2.2 to 4.4.2.14	(see Form A.1)	P
4.4.2.2	PROTECTIVE IMPEDANCE	No protective impedance	N/A
4.4.2.3	PROTECTIVE CONDUCTOR	No protective conductor	N/A
4.4.2.4	Equipment or parts for short-term or intermittent operation	Continuous operation	N/A
4.4.2.5	Motors	No motors	—
	– stopped while fully energized		N/A
	– prevented from starting		N/A
	– one phase interrupted (multi-phase)		N/A
4.4.2.6	Capacitors	No capacitors	N/A
4.4.2.7	MAINS transformers	No mains transformer used	N/A
4.4.2.7.2	Short circuit		N/A
4.4.2.7.3	Overload		N/A
4.4.2.8	Outputs		N/A
4.4.2.9	Equipment for more than one supply	Powered by battery	N/A
4.4.2.10	Cooling	No cooling parts	—
	– air holes closed		N/A
	– fans stopped		N/A
	– coolant stopped		N/A
	– loss of cooling liquid		N/A
4.4.2.11	Heating devices	No heating devices	—
	– timer overridden		N/A
	– temperature controller overridden		N/A
4.4.2.12	Insulation between circuits and parts	No such part	N/A
4.4.2.13	Interlocks	No Interlock	N/A
4.4.2.14	Voltage selectors	No such part	N/A
4.4.3	Duration of tests		—
4.4.4	Conformity after application of fault conditions		P
5	MARKING AND DOCUMENTATION		P
5.1	Marking		P
5.1.1	General		P

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Clause	Requirement + Test	Result - Remark	Verdict
	Required equipment markings		—
	– Visible from the exterior; or		P
	– Visible after removing cover or opening door	No such markings	N/A
	– Visible after removal from a rack or panel	No such markings	N/A
	Not put on parts which can be removed by an operator	No such parts can be removed by an operator	N/A
	Letter symbols (IEC 60027) used		P
	Graphic symbols of Table 1 used	Not used	N/A
5.1.2	Identification		P
	Equipment is identified by:		—
	a) Manufacturer's or supplier's name or trademark	UNI-T	P
	b) Model number, name or other means	UTi260B+, UTi165B+	P
	Manufacturing location identified	Only one location	N/A
5.1.3	MAINS supply	Powered by battery	N/A
	Equipment is marked as follows:		—
	a) Nature of supply:		—
	1) a.c. RATED MAINS frequency or range of frequencies	Powered by battery	—
	2) d.c. with symbol 1	DC battery supply	—
	b) RATED supply voltage(s) or range	3.6Vdc battery	—
	c) Max. RATED power (W or VA) or input current		—
	The marked value not less than 90 % of the maximum value		N/A
	If more than one voltage range:		—
	Separate values marked; or		N/A
	Values differ by less than 20 %		N/A
	d) OPERATOR-set for different RATED supply voltages:	No such parts	—
	Indicates the equipment set voltage		N/A
	PORTABLE EQUIPMENT indication is visible from the exterior		N/A
	Changing the setting changes the indication		N/A
	e) Accessory MAINS socket-outlets accepting standard MAINS plugs are marked:	No such accessory	—
	With the voltage if it is different from the MAINS supply voltage.....		—
	For use only with specific equipment		N/A
	If not marked for specific equipment it is marked with:		—
	The maximum RATED current or power; or		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Symbol 14 with full details in the documentation		N/A
5.1.4	Fuses	No operator replaceable fuse used	N/A
	OPERATOR replaceable fuse marking (see also 5.4.5).....:		—
5.1.5	TERMINALS, connections and operating devices	No such devices	N/A
5.1.5.1	General		N/A
	Where necessary for safety, indication of purpose of TERMINALS, connectors, controls and indicators marked		N/A
	If insufficient space, symbol 14 used		N/A
	Push-buttons and actuators of emergency stop devices and indicators:	No such devices	—
	– used only to indicate a warning of danger; or		N/A
	– the need for urgent action		N/A
	– coloured red		N/A
	– coded as specified in IEC 60073		N/A
	Supplementary means of coding provided, if meaning of colour relates (see IEC 60073):	No supplementary means of coding provided	—
	– to safety of persons; or		N/A
	– safety of the environment		N/A
5.1.5.2	TERMINALS	No terminals	—
	MAINS supply TERMINAL identified		N/A
	Other TERMINAL marking:		—
	a) FUNCTIONAL EARTH TERMINALS marked with symbol 5	No such terminals	N/A
	b) PROTECTIVE CONDUCTOR TERMINALS:	No protective conductor terminals	—
	Symbol 6 is placed close to or on the TERMINAL; or		N/A
	Part of appliance inlet		N/A
	c) TERMINALS of circuits (symbol 7 used)	No such terminals	N/A
	d) HAZARDOUS LIVE TERMINALS supplied from the interior	No hazardous live terminals	N/A
	Standard MAINS socket outlet used; or		N/A
	RATINGS marked; or		N/A
	Symbol 14 used		N/A
5.1.6	Switches and circuit-breakers	No switches and circuit-breakers	N/A
	If disconnecting device, off position clearly marked		N/A
	If push-button used as power supply switch:	No push-button	—

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Clause	Requirement + Test	Result - Remark	Verdict
	– Symbol 9 and 15 used for on-position		N/A
	– Symbol 10 and 16 used for off-position		N/A
	– Pair of symbols 9, 15 and 10, 16 close together		N/A
5.1.7	Equipment protected by DOUBLE INSULATION or REINFORCED INSULATION	Powered by battery, no insulation requirement	N/A
	Protected throughout (symbol 11 used)		N/A
	Only partially protected (symbol 11 not used)		N/A
5.1.8	Field-wiring TERMINAL boxes	No Field-wiring TERMINAL boxes	N/A
	If TERMINAL or ENCLOSURE exceeds 60 °C:		—
	Cable temperature RATING marked		—
	Marking visible before and during connection or beside TERMINAL		N/A
5.2	Warning markings	No warning marking	N/A
	Visible when ready for NORMAL USE		N/A
	Are near or on applicable parts		N/A
	Symbols and text correct dimensions and colour:		—
	a) Symbols min 2,75 mm and text 1,5 mm high and contrasting in colour with background		N/A
	b) Symbols and text moulded, stamped or engraved in material min. 2,0 mm high and		N/A
	0,5 mm depth or raised if not contrasting in colour		N/A
	If necessary marked with symbol 14, or	No used	N/A
	Additional symbols such as symbol 12, 13 or 17 used to indicate the nature of HAZARD	No such hazard	N/A
	Statement to place equipment in a safe state before access by using a tool to HAZARDOUS parts is permitted	No such hazardous parts	N/A
5.3	Durability of markings		P
	The required markings remain clear and legible in NORMAL USE	(see Form A.3)	P
5.4	Documentation		P
5.4.1	General		P
	Equipment is accompanied by documentation for safety purposes for OPERATOR or RESPONSIBLE BODY		P
	Safety documentation for service personnel authorized by the manufacturer		P
	Documentation necessary for safe operation is provided in printed media or		P
	in electronic media if available at any time	In printed media	N/A
	Documentation includes:		—

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Clause	Requirement + Test	Result - Remark	Verdict
	a) Intended use	Indoor use	P
	b) Technical specification		P
	c) Name and address of manufacturer or supplier		P
	d) Information specified in 5.4.2 to 5.4.6		P
	e) Information to mitigate residual RISK (see also subclause 17)	No such risks	N/A
	f) Accessories for safe operation of the equipment specified	No such accessories	N/A
	g) Guidance provided to check correct function of the equipment, if incorrect reading may cause a HAZARD from harmful or corrosive substances of HAZARDOUS live parts	No such hazard	N/A
	h) Instructions for lifting and carrying	Hand-held equipment No such requirements	N/A
	Warning statements and a clear explanation of warning symbols:	No warning	—
	– provided in the documentation; or		N/A
	– information is marked on the equipment		N/A
5.4.2	Equipment RATINGS		N/A
	Documentation includes:	Powered by battery	—
	a) Supply voltage or voltage range.....:		—
	Frequency or frequency range		—
	Power or current rating.....:		—
	b) Description of all input and output connections in accordance to 6.6.1 a)	No such connections	N/A
	c) RATING of insulation of external circuits in accordance to 6.6.1 b)	No such hazard	N/A
	d) Statement of the range of environmental conditions (refer to 1.4):		—
	1) indoor or outdoor use,	Indoor use	P
	2) altitude,	Up to 2000m	P
	3) temperature,	-20° C to 60° C	P
	4) relative humidity,	0% to 100%RH	P
	5) MAINS supply voltage fluctuations,	Battery supply	N/A
	6) OVERVOLTAGE CATEGORY,	Battery supply, no such requirement	N/A
	7) WET LOCATION, if applicable,	Not for wet location	N/A
	8) POLLUTION DEGREE of the intended environment	PD2	P
	e) Degree of ingress protection (IEC 60529)	IP65	P
	f) If impact rating less than 5 J:	Hand-held equipment, no such requirement	—

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Clause	Requirement + Test	Result - Remark	Verdict
	IK code in accordance to IEC 62262 marked; or		N/A
	symbol 14 of Table 1 marked, with		N/A
	RATED energy level and test method stated		N/A
5.4.3	Equipment installation	Hand-held equipment, no such requirements	N/A
	Documentation includes instructions for:		—
	a) Assembly, location and mounting requirements		N/A
	b) Instructions for protective earthing		N/A
	c) Connections to supply		N/A
	d) PERMANENTLY CONNECTED EQUIPMENT:		—
	1) Supply wiring requirements		N/A
	2) If external switch or circuit-breaker, requirements and location recommendation		N/A
	e) Ventilation requirements		N/A
	f) Safety characteristics for special external services (e. g. maximum and minimum temperature, pressure, flow of air, cooling liquid)		N/A
	g) Instructions relating to sound level		N/A
5.4.4	Equipment operation		P
	Instructions for use include:		—
	a) Identification and description of operating controls		P
	b) Positioning for disconnection	Powered by battery	N/A
	c) Instructions for interconnection to accessories or other equipment	Hand-held equipment, no such parts	N/A
	d) Specification of intermittent operation limits	Continuous working	N/A
	e) Explanation of symbols used	No safety related symbol used	N/A
	f) Replacement of consumable materials	Li-ion battery	P
	g) Cleaning and decontamination	No such requirement	N/A
	h) Listing of any poisonous or injurious gases and quantities	No such poisonous or injurious gases and quantities	N/A
	i) RISK reduction procedures relating to flammable liquids (see 9.5 c)	No flammable liquids used	N/A
	j) RISK reduction procedures relating burn from surfaces permitted to exceed limits of 10.1	No parts exceed limits of 10.1	N/A
	Additional precautions for IEC 60950 conforming equipment in regard to moistures and liquids	No such risk	N/A
	A statement about protection impairment if used in a manner not specified by the manufacturer	No such hazard	N/A
5.4.5	Equipment maintenance and service		P
	Instructions for RESPONSIBLE BODY include:		—

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Clause	Requirement + Test	Result - Remark	Verdict
	Instructions sufficient in detail permitting safe maintenance and inspection and continued safety:		—
	Instruction against the use of detachable MAINS supply cord with inadequate RATING	No such detachable MAINS supply cord	N/A
	Specific battery type of user replaceable batteries	PNAS26650 3.6V 5200mAh Li-ion battery	P
	Any manufacturer specified parts	No such parts	N/A
	RATING and characteristics of fuses	No replaceable fuses	N/A
	Instructions include following subjects permitting safe servicing and continued safety:		—
	a) Product specific RISKS may affect service personnel	No such risks	N/A
	b) Protective measures for these RISKS	No such risks	N/A
	c) Verification of the safe state after repair	No such requirement	N/A
5.4.6	Integration into systems or effects resulting from special conditions	No such requirement	N/A
	Aspects described in documentation		N/A

6	PROTECTION AGAINST ELECTRIC SHOCK		P
6.1	General		P
6.1.1	Requirements		P
	Protection against electric shock maintained in NORMAL CONDITION and SINGLE FAULT CONDITION	Powered by 3.6Vdc battery, max. working voltage is 5Vdc. Whole unit is regard as accessible part.	P
	ACCESSIBLE parts not HAZARDOUS LIVE		P
	Voltage, current, charge or energy below the limits in NORMAL CONDITION and in SINGLE FAULT CONDITION between:		—
	ACCESSIBLE parts and earth		P
	two ACCESSIBLE parts on same piece of the equipment within a distance of 1,8 m		P
	Conformity is checked by the determination of 6.2 and 6.3 followed by the tests of 6.4 to 6.11		P
6.1.2	Exceptions		N/A
	Following HAZARDOUS LIVE parts may be ACCESSIBLE to an OPERATOR:	No such parts	—
	a) parts of lamps and lamp sockets after lamp removal		N/A
	b) parts to be replaced by OPERATOR only by the use of tool and warning marking		N/A
	Those parts not HAZARDOUS LIVE 10 s after interruption of supply		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Capacitance test if charge is received from internal capacitor		N/A
6.2	Determination of ACCESSIBLE parts	(see Form A.4)	P
6.2.1	General		P
	Unless obviously determination of ACCESSIBLE parts as specified in 6.2.2 to 6.2.4		P
6.2.2	Examination		P
	– with jointed test finger (as specified B.2)		P
	– with rigid test finger (as specified B.1) and a force of 10 N		P
6.2.3	Openings above parts that are HAZARDOUS LIVE	Powered by 3.6Vdc battery, max. working voltage is 5Vdc	N/A
	– test pin with length of 100 mm and 4 mm in diameter applied		N/A
6.2.4	Openings for pre-set controls	No such pre-set controls	N/A
	– test pin with length of 100 mm and 3 mm in diameter applied		N/A
6.3	Limit values for ACCESSIBLE parts		P
6.3.1	Levels in NORMAL CONDITION	(see Form A.5)	P
	a) Voltage limits less than 30 V r.m.s. and 42,4 V peak or 60 V d.c.	Powered by 3.6Vdc battery, max. working voltage is 5Vdc	P
	for WET LOCATIONS voltage limits less than 16 V r.m.s. and 22,6 V peak or 35 V d.c.		N/A
	Voltages are not HAZARDOUS LIVE the levels of:		—
	b) Current less than 0,5 mA r.m.s. for sinusoidal, 0,7 mA peak non-sinusoidal or mixed frequencies or 2 mA d.c. when measured with measuring circuit A.1 or A.2 if less than 100 Hz		N/A
	for WET LOCATIONS measuring circuit A.4 used		N/A
	70 mA r.m.s. when measured with circuit A.3 for higher frequencies		N/A
	c) Levels of capacitive charge or energy less:		—
	1) 45 µC for voltages up to 15 kV peak or d.c. or line A of Figure 3		N/A
	2) 350 mJ stored energy for voltages above 15 kV peak or d.c.		N/A
6.3.2	Levels in SINGLE FAULT CONDITION	(see Form A.6)	P
	a) Voltage limits less than 50 V r.m.s. and 70 V peak or 120 V d.c.	Powered by 3.6Vdc battery, max. working voltage is 5Vdc	P
	for WET LOCATIONS voltage limits less than 33 V r.m.s. and 46,7 V peak or 70 V d.c.		N/A
	Voltages are not HAZARDOUS LIVE the levels of:		—

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Clause	Requirement + Test	Result - Remark	Verdict
	b) Current less than 3,5 mA r.m.s. for sinusoidal, 5 mA peak non-sinusoidal or mixed frequencies or 15 mA d.c. when measured with measuring circuit A.1 or A.2 if less than 100 Hz		N/A
	for WET LOCATIONS measuring circuit A.4 used		N/A
	500 mA r.m.s. when measured with circuit A.3 for higher frequencies		N/A
	c) Levels of capacitive charge or energy less line B of Figure 3		N/A
6.4	Primary means of protection	Powered by 3.6Vdc battery, max. working voltage is 5Vdc, no hazardous live parts. No insulation requirement.	N/A
6.4.1	General		N/A
	ACCESSIBLE parts prevented from being HAZARDOUS LIVE by one or more of following means:		—
	a) ENCLOSURES or PROTECTIVE BARRIERS (see 6.4.2)		N/A
	b) BASIC INSULATION (see 6.4.3)		N/A
	c) Impedance (see 6.4.4)		N/A
6.4.2	ENCLOSURES or PROTECTIVE BARRIERS		N/A
	– meet rigidity requirements of 8.1		N/A
	– meet requirements for BASIC INSULATION, if protection is provided by insulation		N/A
	– meet requirements of 6.7 for CREEPAGE and – CLEARANCES between ACCESSIBLE parts and – HAZARDOUS live parts, if protection is provided by – limited access		N/A
6.4.3	BASIC INSULATION		N/A
	– meet CLEARANCE, CREEPAGE DISTANCE and solid insulation requirements of 6.7		N/A
6.4.4	Impedance		N/A
	Impedance used as primary means of protection meets all the following requirements:		—
	a) limits current or voltage to level of 6.3.2		N/A
	b) RATED for maximum WORKING VOLTAGE and the amount of power it will dissipate		N/A
	c) CLEARANCE, CREEPAGE DISTANCE between terminations of the impedance meet requirements of BASIC INSULATION of 6.7		N/A
6.5	Additional means of protection in case of SINGLE FAULT CONDITION	Powered by 3.6Vdc battery, max. working voltage is 5Vdc, no hazardous live parts. No insulation requirement.	N/A
6.5.1	General		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	ACCESSIBLE parts are prevented from becoming HAZARDOUS live by the primary means of protection and supplemented by one of:		—
	a) PROTECTIVE BONDING (see 6.5.2)		N/A
	b) SUPPLEMENTARY INSULATION (see 6.5.3)		N/A
	c) automatic disconnection of the supply (see 6.5.5)		N/A
	d) current- or voltage-limiting device (see 6.5.6)		N/A
	Alternatively one of the single means of protection is used:		—
	e) REINFORCED INSULATION (see 6.5.3)		N/A
	f) PROTECTIVE IMPEDANCE (see 6.5.4)		N/A
6.5.2	PROTECTIVE BONDING		N/A
6.5.2.1	General		N/A
	ACCESSIBLE conductive parts, may become HAZARDOUS LIVE in SINGLE FAULT CONDITION:		—
	Bonded to the PROTECTIVE CONDUCTOR TERMINAL; or		N/A
	Separated by conductive screen or barrier bonded to PROTECTIVE CONDUCTOR TERMINAL		N/A
6.5.2.2	Integrity of PROTECTIVE BONDING		—
	a) PROTECTIVE BONDING consists of directly connected structural parts or discrete conductors or both; and withstands thermal and dynamic stresses		N/A
	b) Soldered connections:		—
	Independently secured against loosening		N/A
	Not used for other purposes		N/A
	c) Screw connections are secured		N/A
	d) PROTECTIVE BONDING not interrupted; or		N/A
	except as removable part that carries MAINS SUPPLY input connection to the whole equipment		N/A
	e) Any movable PROTECTIVE BONDING connection specifically designed, and meets 6.5.2.4		N/A
	f) No external metal braid of cables used (not regarded as PROTECTIVE BONDING)		N/A
	g) IF MAINS SUPPLY passes through:		—
	Means provided for passing protective conductor;		N/A
	Impedance meets 6.5.2.4		N/A
	h) Protective conductors bare or insulated, if insulated, green/yellow		N/A
	Exceptions:		—
	1) earthing braids;		N/A
	2) internal protective conductors etc.;		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Green/yellow not used for other purposes		N/A
	TERMINAL suitable for connection of a PROTECTIVE CONDUCTOR, and meets 6.5.2.3		N/A
6.5.2.3	PROTECTIVE CONDUCTOR TERMINAL		—
	a) Contact surfaces are metal		N/A
	b) Appliance inlet used		N/A
	c) For rewirable cords and PERMANENTLY CONNECTED EQUIPMENT, PROTECTIVE CONDUCTOR TERMINAL is close to MAINS supply TERMINALS		N/A
	d) If no MAINS supply is required, any PROTECTIVE CONDUCTOR TERMINAL:		—
	Is near terminals of circuit for which protective earthing is necessary		N/A
	External if other terminals external		N/A
	e) Equivalent current-carrying capacity to MAINS supply TERMINALS		N/A
	f) If plug-in, makes first and breaks last		N/A
	g) If also used for other bonding purposes, PROTECTIVE CONDUCTOR:		—
	Applied first;		N/A
	Secured independently;		N/A
	Unlikely to be removed by servicing		N/A
	h) PROTECTIVE CONDUCTOR of measuring circuit:		—
	1) Current RATING equivalent to measuring circuit TERMINAL;		N/A
	2) PROTECTIVE BONDING: not interrupted by any switch or interrupting device		N/A
	i) FUNCTIONAL EARTH TERMINALS allow independent connection		N/A
	j) If a binding screw used for PROTECTIVE CONDUCTOR TERMINAL:		—
	Suitable size for bond wire		N/A
	Not smaller than M 4		N/A
	At least 3 turns of screw engaged		N/A
	Passes tightening torque test		N/A
	k) Contact pressure not capable being reduced by deformation of materials		N/A
6.5.2.4	Impedance of PROTECTIVE BONDING of plug-connected equipment		N/A
	Impedance between PROTECTIVE CONDUCTOR TERMINAL and each ACCESSIBLE part where PROTECTIVE BONDING is specified, is:		—
	– less than 0,1 Ohm; or		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	– less than 0,2 Ohm if equipment is provided with non-detachable cord		N/A
6.5.2.5	Impedance of PROTECTIVE BONDING of PERMANENTLY CONNECTED EQUIPMENT		N/A
6.5.2.6	Transformer PROTECTIVE BONDING screen		N/A
	Transformer provided with screen for PROTECTIVE BONDING:		—
	screen bonding consists of directly connected structural parts or discrete conductors or both; and withstands thermal and dynamic stresses (see 6.5.2.2 a)		N/A
	screen bonding with soldered connection (see 6.5.2.2 b) is:		—
	– Independently secured against loosening		N/A
	– Not used for other purposes		N/A
6.5.3	SUPPLEMENTARY and REINFORCED INSULATION		N/A
	Meet CLEARANCE, CREEPAGE DISTANCE and solid insulation requirements of 6.7		N/A
6.5.4	PROTECTIVE IMPEDANCE		N/A
	Limits current or voltage to level of 6.3.1 in NORMAL and to level of 6.3.2 in SINGLE FAULT CONDITION		N/A
	CLEARANCE, CREEPAGE DISTANCE between terminations of the impedance meet requirements of DOUBLE or REINFORCED INSULATION of 6.7		N/A
	The PROTECTIVE IMPEDANCE consists of one or more of the following:		—
	a) appropriate single component suitable for safety and reliability for protection, it is:		—
	1) RATED twice the maximum WORKING VOLTAGE		N/A
	2) resistor RATED for twice the power dissipation for maximum WORKING VOLTAGE		N/A
	b) combination of components		N/A
	Single electronic device not used as PROTECTIVE IMPEDANCE		N/A
6.5.5	Automatic disconnection of the supply		N/A
	a) RATED to disconnect the load within time specified in Figure 2		N/A
	b) RATED for the maximum load conditions of the equipment		N/A
6.5.6	Current- or voltage-limiting devices		N/A
	Device complies with all of:		—
	a) RATED to limit the current or voltage to the level of 6.3.2		N/A
	b) RATED for the maximum WORKING VOLTAGE; and		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	RATED for the maximum operational current if applicable		N/A
	c) CLEARANCE, CREEPAGE DISTANCE between terminations of the impedance meet requirements of SUPPLEMENTARY INSULATION of 6.7		N/A
6.6	Connections to external circuits	Powered by 3.6Vdc battery, max. working voltage is 5Vdc, no hazardous live parts. No insulation requirement.	N/A
6.6.1	General		N/A
	Connections do not cause ACCESSIBLE parts of the following to become HAZARDOUS LIVE in NORMAL CONDITION or SINGLE FAULT CONDITION:		—
	– the external circuits		N/A
	– the equipment		N/A
	Protection achieved by separation of circuits; or		N/A
	short circuit of separation does not cause a HAZARD		N/A
	Instructions or markings for each terminal include:		—
	a) RATED conditions for TERMINAL		N/A
	b) Required RATING of external circuit insulation		N/A
6.6.2	TERMINALS for external circuits		N/A
	TERMINALS which receive a charge from an internal capacitor are not HAZARDOUS LIVE after 10 s of interrupting supply connection		N/A
6.6.3	Circuits with terminals which are HAZARDOUS LIVE		N/A
	These circuits are:		—
	Not connected to ACCESSIBLE conductive parts; or		N/A
	Connected to ACCESSIBLE conductive parts, but are not MAINS CIRCUITS and have one TERMINAL contact at earth potential		N/A
	No ACCESSIBLE conductive parts are HAZARDOUS LIVE		N/A
6.6.4	Terminals for stranded conductors		N/A
	No RISK of accidental contact because:		—
	– Located or shielded		N/A
	– Self-evident or marked whether or not connected to ACCESSIBLE conductive parts		N/A
	Complies as applicable:		—
	a) Manufacturer's specified maximum length of removed insulation, or		N/A
	b) 8 mm length of insulation removed		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
6.7	Insulation requirements	Powered by 3.6Vdc battery, max. working voltage is 5Vdc, no hazardous live parts. No insulation requirement.	N/A
6.7.1	The nature of insulation		N/A
6.7.1.1	General		N/A
	Insulation between ACCESSIBLE parts or between separate circuits consist of CLEARANCES, CREEPAGE DISTANCES and solid insulation if provided as protection against a HAZARD		N/A
6.7.1.2	CLEARANCES		N/A
	Required CLEARANCES reflecting factors of 6.7.1.1		N/A
	Equipment rated for operating altitude greater than 2000 m correction factor of Table 3 of 61010-1 applied		N/A
6.7.1.3	CREEPAGE DISTANCES		N/A
	Required CREEPAGE DISTANCES reflecting factors of 6.7.1.1 a) to d)		N/A
	CTI material group reflected by requirements		N/A
	CTI test performed		N/A
6.7.1.4	Solid insulation		N/A
	Required solid insulation reflecting factors of 6.7.1.1 a) to d)		N/A
6.7.1.5	Requirements for insulation according to type of circuit		N/A
	a) 6.7.2 MAINS circuits of OVERVOLTAGE CATEGORY II up to nominal supply voltage of 300 V		N/A
	b) 6.7.3 secondary circuits separated from circuits defined in a) by transformer		N/A
	c) K.1 MAINS circuits of OVERVOLTAGE CATEGORY III and IV or OVERVOLTAGE CATEGORY II over 300 V		N/A
	d) K.2 secondary circuits separated from circuits defined in c) by transformer		N/A
	e) K.3 circuits having one or more of:		—
	1) maximum TRANSIENT OVERVOLTAGE is limited to known level below the level of MAINS CIRCUIT		N/A
	2) maximum TRANSIENT OVERVOLTAGE above the level of MAINS CIRCUIT		N/A
	3) WORKING VOLTAGE is the sum of more than one circuit or a mixed voltage		N/A
	4) WORKING VOLTAGE includes recurring peak voltage, may include non-sinusoidal or non-periodic waveform		N/A
	5) WORKING VOLTAGE with a frequency above 30 kHz		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
6.7.2	Insulation for MAINS CIRCUITS of OVERVOLTAGE CATEGORY II with a nominal supply voltage up to 300 V		N/A
6.7.2.1	CLEARANCES and CREEPAGE DISTANCES		—
	Values for MAINS CIRCUITS of Table 4 are met		N/A
	Coatings to achieve reduction to POLLUTION DEGREE 1 comply with requirements of Annex H		N/A
6.7.2.2	Solid insulation		N/A
6.7.2.2.1	General		N/A
	Withstands electrical and mechanical stresses in normal use and all RATED environmental conditions of 1.4		N/A
	Equipment passed voltage tests of 6.8.3 with values of Table 5		N/A
	Complies as applicable:		—
	a) ENCLOSURE or PROTECTIVE BARRIER of Clause 8		N/A
	b) moulded and potted parts requirements of 6.7.2.2.2		N/A
	c) inner layers of printed wiring boards requirements of 6.7.2.2.3		N/A
	d) thin-film insulation requirements of 6.7.2.2.4		N/A
6.7.2.2.2	Moulded and potted parts		—
	Conductors between same two layers are separated by at least 0,4 mm after moulding is completed		N/A
6.7.2.2.3	Inner insulating layers of printed wiring boards		—
	Separated by at least 0,4 mm between same two layers		N/A
	REINFORCED INSULATION has adequate electric strength; one of following methods used:		—
	a) thickness of insulation is at least 0,4 mm		N/A
	b) insulation is assembled of minimum two separate layers, each RATED for test voltage of Table 5 for BASIC INSULATION		N/A
	c) insulation is assembled of minimum two separate layers, where the combination is rated for test voltage of Table 5 for REINFORCED INSULATION		N/A
6.7.2.2.4	Thin-film insulation		—
	Conductors between same two layers are separated by applicable CLEARANCES and CREEPAGE DISTANCE of 6.7.2.1		N/A
	REINFORCED INSULATION have adequate electric strength; one of the following methods used:		—
	a) thickness through the insulation at least 0,4 mm		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	b) insulation is assembled of min. two separate layers, each RATED for test voltage of Table 5 for BASIC INSULATION		N/A
	c) insulation is assembled of min. three separate layers, where the combination of two layers passed voltage tests of 6.8.3 with values of Table 5 for REINFORCED INSULATION		N/A
6.7.3	Insulation for secondary circuits derived from MAINS CIRCUITS of OVERVOLTAGE CATEGORY II up to 300 V		N/A
6.7.3.1	General		N/A
	Secondary circuits where separation from MAINS CIRCUITS is achieved by a transformer providing:		—
	– REINFORCED INSULATION		N/A
	– DOUBLE INSULATION		N/A
	– screen connected to the PROTECTIVE CONDUCTOR TERMINAL		N/A
6.7.3.2	CLEARANCES		N/A
	a) meet the values of Table 6 for BASIC INSULATION and SUPPLEMENTARY INSULATION; or		N/A
	twice the values of Table 6 for REINFORCED INSULATION; or		N/A
	b) pass the voltage tests of 6.8 with values of Table 6;		N/A
	with following adjustments:		—
	1) values for reinforced insulation are 1,6 times the values for basic insulation		N/A
	2) if operating altitude is greater than 2000 m values of CLEARANCES multiplied with factor of Table 3		N/A
	3) minimum CLEARANCE is 0,2 mm for POLLUTION DEGREE 2 and 0,8 mm for POLLUTION DEGREE 3		N/A
6.7.3.3	CREEPAGE DISTANCES		N/A
	Based on WORKING VOLTAGE meets the values of Table 7 for BASIC and SUPPLEMENTARY INSULATION		N/A
	Values for REINFORCED INSULATION are twice the values of BASIC INSULATION		N/A
	Coatings to achieve reduction to POLLUTION DEGREE 1 comply with requirements of Annex H		N/A
6.7.3.4	Solid insulation		N/A
6.7.3.4.1	General		N/A
	Withstands electrical and mechanical stresses in normal use and all RATED environmental conditions of 1.4		—
	a) Equipment passed voltage test of 6.8.3.1 for 5 s with VALUES of Table 6 for BASIC and SUPPLEMENTARY INSULATION		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	values for REINFORCED INSULATION are 1,6 times the values of BASIC INSULATION		N/A
	b) if WORKING VOLTAGE exceeds 300 V, equipment passed voltage test of 6.8.3.1 for 1 min with a test voltage of 1,5 times working voltage for BASIC or SUPPLEMENTARY INSULATION		N/A
	value for REINFORCED INSULATION are twice the WORKING VOLTAGE		N/A
	Complies as applicable:		—
	1) ENCLOSURE or PROTECTIVE BARRIER of Clause 8		N/A
	2) moulded and potted parts requirements of 6.7.3.4.2		N/A
	3) inner layers of printed wiring boards requirements of 6.7.3.4.3		N/A
	4) thin-film insulation requirements of 6.7.3.4.4		N/A
6.7.3.4.2	Moulded and potted parts		—
	Conductors between same two layers are separated by applicable distances of Table 8		N/A
6.7.3.4.3	Inner insulation layers of printed wiring boards		—
	Separated by at least the applicable distances of Table 8 between same two layers		N/A
	REINFORCED INSULATION have adequate electric strength; one of following methods used:		—
	a) thickness at least applicable distance of Table 8		N/A
	b) insulation is assembled of minimum two separate layers, each RATED for test voltage of Table 6 for BASIC INSULATION		N/A
	c) insulation is assembled of min. two separate layers, where the combination is RATED for 1,6 times the test voltage of Table 6		N/A
6.7.3.4.4	Thin-film insulation		—
	Conductors between same two layers are separated by applicable CLEARANCES and CREEPAGE DISTANCE of 6.7.3.2 and 6.7.3.3		N/A
	REINFORCED INSULATION have adequate electric strength; one of following methods used:		—
	a) thickness at least applicable distance of Table 8		N/A
	b) insulation is assembled of min. two separate layers, each RATED for test voltage of Table 6 for BASIC INSULATION		N/A
	c) insulation is assembled of min. three separate layers, where the combination of two layers passed voltage tests with 1,6 time values of Table 6:		—
	a.c. test of 6.8.3.1; or		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	d.c. test of 6.8.3.2 for circuits stressed only by d.c. voltages		N/A
6.8	Procedure for voltage tests	Powered by 3.6Vdc battery, max. working voltage is 5Vdc, no hazardous live parts. No insulation requirement.	N/A
6.9	Constructional requirements for protection against electric shock	Powered by 3.6Vdc battery, max. working voltage is 5Vdc, no hazardous live parts. No insulation requirement.	N/A
6.9.1	General		N/A
	If a failure could cause a HAZARD:		—
	a) security of wiring connections		N/A
	b) screws securing removable covers		N/A
	c) accidental loosening		N/A
	d) CLEARANCES and CREEPAGE DISTANCES not reduced below the values of basic insulation by loosening of parts or wires		N/A
6.9.2	Insulating materials		N/A
	Material not to be used for safety relevant insulation:		—
	a) easily damaged materials not used		N/A
	b) non-impregnated hygroscopic materials not used		N/A
6.9.3	Colour coding		N/A
	Green-and-yellow insulation shall not be used except:		—
	a) protective earth conductors;		N/A
	b) PROTECTIVE BONDING conductors;		N/A
	c) potential equalization conductors;		N/A
	d) functional earth conductors		N/A
6.10	Connection to MAINS supply source and connections between parts of equipment	Powered by battery	N/A
6.10.1	MAINS supply cords		N/A
	RATED for maximum equipment current (see 5.1.3 c)		N/A
	Cable complies with IEC 60227 or IEC 60245		N/A
	Heat-resistant if likely to contact hot parts		N/A
	Temperature RATING (cord and inlet)		—
	Green/yellow used only for connection to PROTECTIVE CONDUCTOR TERMINALS		N/A
	Detachable cords with IEC 60320 MAINS connectors:		—
	Conform to IEC 60799; or		N/A
	Have the current RATING of the MAINS connector		N/A
6.10.2	Fitting of non-detachable MAINS supply cords		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
6.10.2.1	Cord entry		—
	a) inlet or bushing with a smoothly rounded opening; or		N/A
	b) insulated cord guard protruding >5 D (diameter)		N/A
6.10.2.2	Cord anchorage		—
	Protective earth conductor is the last to take the strain		N/A
	a) cord is not clamped by direct pressure from a screw		N/A
	b) knots are not used		N/A
	c) cannot push the cord into the equipment to cause a HAZARD		N/A
	d) no failure of cord insulation in anchorage with metal parts		N/A
	e) not to be loosened without a tool		N/A
	f) cord replacement does not cause a HAZARD and method of strain relief is clear		N/A
	Push-pull and or torque test		N/A
6.10.3	Plugs and connectors		N/A
	MAINS supply plugs, connectors etc., conform with relevant specifications		N/A
	If equipment supplied at voltages below 6.3.2.a) or from a sole source:		—
	Plugs of supply cords do not fit MAINS sockets above rated SUPPLY voltage		N/A
	MAINS type plugs used only for connection to MAINS supply		N/A
	Plug pins which receive a charge from an internal capacitor		N/A
	Accessory MAINS socket outlets:		—
	a) marking if accepts a standard MAINS supply plug (see 5.1.3e)		N/A
	b) input has a protective earth conductor if outlet has EARTH TERMINAL CONTACT		N/A
6.11	Disconnection from supply source	Powered by battery	N/A
6.11.1	Disconnects all current-carrying conductors		N/A
6.11.2	Exceptions		N/A
6.11.3	Requirements according to type of equipment		N/A
6.11.3.1	PERMANENTLY CONNECTED EQUIPMENT and multi-phase equipment		N/A
	Employs switch or circuit-breaker		N/A
	If switch or circuit-breaker is not part of the equipment, documentation requires:		—

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Clause	Requirement + Test	Result - Remark	Verdict
	a) switch or circuit-breaker to be included in building installation		N/A
	b) suitable location easily reached		N/A
	c) marking as disconnecting for the equipment		N/A
6.11.3.2	Single-phase cord-connected equipment		N/A
	Equipment is provided with one of the following:		—
	a) switch or circuit-breaker		N/A
	b) appliance coupler (disconnectable without tool)		N/A
	c) separable plug (without locking device)		N/A
6.11.4	Disconnecting devices		N/A
6.11.4.1	General		N/A
	Disconnecting device part of equipment		N/A
	Electrically close to the SUPPLY		N/A
	Power-consuming components not electrically located between the supply source and the disconnecting device		N/A
	Except electromagnetic interference suppression circuits permitted to be located on the supply side of the disconnecting device		N/A
6.11.4.2	Switches and circuit-breakers		N/A
	When used as disconnection device:		—
	Circuit breaker meets the relevant requirements IEC 60947-2 and is suitable for the application		N/A
	Switch meets the relevant requirements IEC 60947-3 and is suitable for the application		
	Marked to indicate function		—
	Not incorporated in MAINS cord		N/A
	Does not interrupt PROTECTIVE EARTH CONDUCTOR		N/A
6.11.4.3	Appliance couplers and plugs		N/A
	Where an appliance coupler or separable plug is used as the disconnecting device (see 6.11.3.2):		—
	Readily identifiable and easily reached by the operator		N/A
	Single-phase portable equipment cord length not more than 3 m		N/A
	PROTECTIVE EARTH CONDUCTOR connected first and disconnected last		N/A

7	PROTECTION AGAINST MECHANICAL HAZARDS		P
7.1	General		P
	Equipment does not cause a mechanical HAZARD in NORMAL nor in SINGLE FAULT CONDITION		P

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Clause	Requirement + Test	Result - Remark	Verdict
	Conformity is checked by 7.2 to 7.7		P
7.2	Sharp edges		P
	Easily-touched parts are smooth and rounded		P
	Do not cause injury during NORMAL USE and		P
	Do not cause injury during SINGLE FAULT CONDITION		P
7.3	Moving parts	No moving parts	N/A
7.3.1	General		N/A
	HAZARDS from moving parts limited to a tolerable level with the conditions specified in 7.3.2 and 7.3.5		N/A
	RISK assessment in accordance with 7.3.3 carried out		N/A
7.3.2	Exceptions		N/A
	Access to HAZARDOUS moving parts permitted under following circumstances:		—
	a) obviously intended to operate on parts or materials external of the equipment		N/A
	inadvertent touching of moving parts minimized by equipment design (e .g. guards or handles)		N/A
	b) If OPERATOR access is unavoidable outside NORMAL USE following precautions have been taken:		—
	1) access requires TOOL		N/A
	2) statement about training in the instructions		N/A
	3) warning markings on covers prohibiting access by untrained OPERATORS		N/A
	or symbol 14 with full details in documentation		N/A
7.3.3	RISK assessment for mechanical HAZARDS to body parts		N/A
	RISK is reduced to a tolerable level by protective measures as specified in Table 12		N/A
	Minimum protective measures:		—
	A. Low level measures		N/A
	B. Moderate measures		N/A
	C. Stringent measures		N/A
7.3.4	Limitation of force and pressure		N/A
	Following levels are met in NORMAL and SINGLE FAULT CONDITION:		—
	Continuous contact pressure below 50 N / cm ² with force below 150 N		N/A
	Temporary force below 250 N for an area at least of 3 cm ² for a maximum duration of 0,75 s		N/A
7.3.5	Gap limitations between moving parts		N/A
7.3.5.1	Access normally allowed		—

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Clause	Requirement + Test	Result - Remark	Verdict
	If levels of 7.3.4 exceeded and a body part may be inserted minimum gap as specified in Table 13 assured in NORMAL and in SINGLE FAULT CONDITION		N/A
7.3.5.2	Access normally prevented		—
	Maximum gap as specified in Table 14 assured in NORMAL and in SINGLE FAULT CONDITION		N/A
7.4	Stability	Hand-held equipment, no such requirement.	N/A
	Equipment not secured to building structure is physical stable		N/A
	Stability maintained after opening of drawers etc. by automatic means, or		N/A
	warning marking requires the application of means		N/A
	Compliance checked by following tests as applicable:		—
	a) 10° tilt test for other than handheld equipment		N/A
	b) multi-directional force test for equipment exceeds height of 1 m and mass of 25 kg		N/A
	c) downward force test for floor-standing equipment		N/A
	d) overload test with 4 times maximum load for castor or support foot that supports greatest load, or		N/A
	e) castor or support foot that supports greatest load removed from equipment		N/A
7.5	Provisions for lifting and carrying	Hand-held equipment, no such requirement.	N/A
7.5.1	General		N/A
	Equipment more than 18 kg.....: 0.5kg		N/A
	Has means for lifting or carrying; or		N/A
	Directions are given in documentation		N/A
7.5.2	Handles and grips		N/A
	Handles or grips withstand four times weight		N/A
7.5.3	Lifting devices and supporting parts		N/A
	RATED for maximum load; or		N/A
	Tested with four times maximum static load		N/A
7.6	Wall mounting	Hand-held equipment, no such requirement.	N/A
	Mounting brackets withstand four times weight		N/A
	One fastener removed and test repeated with two times weight		N/A
7.7	Expelled parts		N/A
	Equipment contains or limits the energy	No such hazard	N/A
	Protection not removable without the aid of a tool		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

8	RESISTANCE TO MECHANICAL STRESSES		P
8.1	General		P
	Equipment does not cause a HAZARD when subjected to mechanical stresses in NORMAL USE		P
	Normal protection level is 5 J	Hand-held equipment, no such requirement.	N/A
	Levels below 5 J but not less than 1 J are acceptable if all of the following criteria are met:		—
	a) Lower level justified by RISK assessment of manufacturer		N/A
	b) Equipment installed in its intended application is not easily touched		N/A
	c) Only occasional access during NORMAL USE		N/A
	d) IK code in accordance to IEC 62262 marked or symbol 14 used with full information in the documentation		N/A
	for non-metallic ENCLOSURES rated below 2 °C ambient temperature value chosen for minimum RATED temperature		N/A
	impact energies between IK values, the IK code marked for nearest lower value		N/A
	Conformity is checked by performing following tests:	(see Form A.16)	—
	1) Static test of 8.2.1		P
	2) Impact test of 8.2.2 with 5 J except for HAND-HELD EQUIPMENT	Hand-held equipment	N/A
	if specified impact energy is not 5 J alternate method of IEC 62262 used		N/A
	3) Drop test of 8.3.1 or 8.3.2 except for FIXED EQUIPMENT and equipment with mass over 100 kg		P
	Equipment RATED with an impact rating of IK 08 that obviously meets the criteria		N/A
	After the tests inspection with following results:		—
	– HAZARDOUS LIVE parts above the limits of 6.3.2 not ACCESSIBLE	No hazard live parts	N/A
	– insulation pass the voltage tests of 6.8	No insulation required	N/A
	i) No leaks of corrosive and harmful substances	No harmful substances	N/A
	ii) ENCLOSURE shows no cracks resulting in a HAZARD		P
	iii) CLEARANCES not less than their permitted values	No insulation required	N/A
	iv) Insulation of internal wiring remains undamaged	No insulation required	N/A
	v) PROTECTIVE BARRIERS not damaged or loosened	No protective barriers	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	vi) No moving parts exposed, except permitted by 7.3	No moving parts	N/A
	vii) No damage which could cause spread of fire	No fire risk	N/A
8.2	ENCLOSURE rigidity test		P
8.2.1	Static test	(see Form A.21A)	P
	– 30 N with 12 mm rod applied to each part of ENCLOSURE	No hazards after test	P
	– in case of doubt test conducted at maximum RATED ambient temperature	60°C	P
8.2.2	Impact test		N/A
	Impact applied to any part of ENCLOSURE causing a HAZARD if damaged	Hand-held equipment, no such requirement.	N/A
	Impact energy level and corresponding IK code.....:		—
	Non-metallic ENCLOSURES cooled to minimum RATED ambient temperature if below 2 °C		N/A
8.3	Drop test	(see Form A.21B)	P
8.3.1	Other than HAND-HELD and DIRECT-PLUG-IN EQUIPMENT		N/A
	Tests conducted with a drop height or angle of:		—
8.3.2	HAND-HELD and DIRECT-PLUG-IN EQUIPMENT		P
	Non-metallic ENCLOSURES cooled to minimum RATED ambient temperature if below 2 °C	-20°C	P
	Drop test conducted with an height of 1 m		P

9	PROTECTION AGAINST THE SPREAD OF FIRE		P
9.1	General		P
	No spread of fire in NORMAL and SINGLE FAULT CONDITION		P
	MAINS supplied equipment meets requirements of 9.6 additionally	Battery supply	N/A
	Conformity is checked by minimum one or a combination of the following (see Figure 11):	(see Form A.22)	—
	a) SINGLE FAULT test of 4.4; or	(see Form A.1)	P
	b) Application of 9.2 (eliminating or reducing the sources of ignition); or		P
	c) Application of 9.3 (containment of fire within the equipment)		N/A
9.2	Eliminating or reducing the sources of ignition within the equipment		P
	a) 1) Limited-energy circuit (see 9.4); or		P
	2) BASIC INSULATION provided for parts of different potential; or		N/A
	Bridging the insulation does not cause ignition		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	b) Surface temperature of liquids and parts (see 9.5)	No such liquids	N/A
	c) No ignition in circuits designed to produce heat	No such circuit	N/A
9.3	Containment of the fire within the equipment, should it occur		N/A
9.3.1	General		N/A
	Spread of fire outside equipment reduced to a tolerable level if:		—
	a) Energizing of the equipment is controlled by an OPERATOR held switch		N/A
	b) ENCLOSURE is conform with constructional requirements of 9.3.2; and		N/A
	Requirements of 9.5 are met	No flammable liquids	N/A
9.3.2	Constructional requirements		N/A
	a) Connectors and insulating material have flammability classification V-2 or better		N/A
	b) Insulated wires and cables are flame retardant (VW-1 or equivalent)	No such wires and cables.	N/A
	c) ENCLOSURE meets following requirements:		—
	1) Bottom and sides in arc of 5 ° (see Figure 13) to non-limited circuits (9.4) meets:		—
	i) no openings; or		N/A
	ii) perforated as specified in Table 16; or		N/A
	iii) metal screen with a mesh; or		N/A
	iv) baffles as specified in Figure 12		N/A
	2) Material of ENCLOSURE and any baffle or flame barrier is made of:		—
	Metal (except magnesium); or		N/A
	Non-metallic materials have flammability classification V-1 or better	(see TABLE 1.A or Form A.22)	N/A
	3) ENCLOSURE and any baffle or flame barrier have adequate rigidity		N/A
9.4	Limited-energy circuit	Powered by 3.6V battery, the maximum working voltage is 5Vdc	P
	a) Potential not more than 30 r.m.s. and 42,4 V peak, or 60 V d.c.	5Vdc	P
	b) Current limited by one of following means:		—
	1) Inherently or by impedance (see Table 17); or	No such parts	N/A
	2) Overcurrent protective device (see Table 18); or		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	3) A regulating network limits also in SINGLE FAULT CONDITION (see Table 17)		P
	c) Is separated by at least BASIC INSULATION	No insulation required	N/A
	Fuse or a nonadjustable electromechanical device is used		N/A
9.5	Requirements for equipment containing or using flammable liquids	Non-flammable liquids	N/A
	Flammable liquids contained in or specified for use with equipment do not cause spread of fire		N/A
	RISK is reduced to a tolerable level:		—
	a) The temperature of surface or parts in contact with flammable liquids is 25 °C below fire point		N/A
	b) The quantity of liquid is limited		N/A
	c) Flames are contained within the equipment		N/A
	Detailed instructions for RISK-reduction provided		N/A
9.6	Overcurrent protection	No such devices	N/A
9.6.1	General		N/A
	MAINS supplied equipment protected		N/A
	BASIC INSULATION between MAINS parts of opposite polarity provided	No insulation required	N/A
	Overcurrent protection devices not fitted in the protective conductor		N/A
	Fuses or single-pole circuit-breakers not fitted in neutral (multi-phase equipment)	Not multi-phase equipment	N/A
9.6.2	PERMANENTLY CONNECTED EQUIPMENT		N/A
	Overcurrent protection device:		—
	Fitted within the equipment; or		N/A
	Specified in manufacturer's instructions		N/A
9.6.3	Other equipment		N/A
	Protection within the equipment		N/A

10	EQUIPMENT TEMPERATURE LIMITS AND RESISTANCE TO HEAT		P
10.1	Surface temperature limits for protection against burns		P
	Easily touched surfaces within the limits in NORMAL and in SINGLE FAULT CONDITION:	(see Form A.26A)	—
	– at an specified ambient temperature of 40 °C		N/A
	– for equipment rated above 40 °C ambient temperature limits not exceeded raised by the difference to 40 °C	60 °C	P
	Heated surfaces necessary for functional reasons exceeding specified values:	No such functional	—

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Clause	Requirement + Test	Result - Remark	Verdict
	– Are recognizable as such by appearance or function; or		N/A
	– Are marked with symbol 13		N/A
	– Guards are not removable without tool		N/A
10.2	Temperatures of windings	No windings	N/A
	Limits not exceeded in:		—
	NORMAL CONDITION		N/A
	SINGLE FAULT CONDITION		N/A
10.3	Other temperature measurements		P
	Following measurements conducted if applicable:		—
	a) Value of 60 °C of field-wiring terminal box not exceeded	No field-wiring terminal box	N/A
	b) Surface of flammable liquids and parts in contact with this liquids	No such part	N/A
	c) Surface of non-metallic ENCLOSURES		P
	d) Parts made of insulating material supporting parts connected to MAINS supply	No insulating parts	N/A
	e) Terminals carrying a current more than 0,5 A	No such parts	N/A
10.4	Conduct of temperature tests		P
10.4.1	General		P
	Tests conducted under reference test conditions and manufacturer's instructions	(see Form A.26A)	P
	Tests alternatively conducted at the least favourable ambient temperature within the RATED ambient temperature: 60°C		—
10.4.2	Temperature measurement of heating equipment	Not a heating equipment	N/A
	Tests conducted in test corner		N/A
10.4.3	Equipment intended for installation in a cabinet or wall		N/A
	Equipment built in as specified in installation instructions		N/A
10.5	Resistance to heat		P
10.5.1	Integrity of CLEARANCE and CREEPAGE DISTANCES	No insulation required	N/A
10.5.2	Non-metallic ENCLOSURES	(see Form A.27)	P
	Within 10 min after treatment:		—
	Equipment subjected to suitable stresses of 8.2 and 8.3 complying with criteria of 8.1		P
10.5.3	Insulating material	No insulating material	N/A
	a) Parts supporting parts connected to MAINS supply		N/A
	b) TERMINALS carrying a current more than 0,5 A		N/A
	Examination of material data; or		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	in case of doubt:		N/A
	1) Ball pressure test; or		N/A
	2) Vicat softening test of ISO 306		N/A

11	PROTECTION AGAINST HAZARDS FROM FLUIDS AND SOLID FOREIGN OBJECTS		P
11.1	General		P
	Protection to OPERATORS and surrounding area provided by EQUIPMENT		P
	All fluids specified by manufacturer considered		P
11.2	Cleaning		N/A
11.3	Spillage		N/A
11.4	Overflow		N/A
11.5	Battery electrolyte		P
	Battery electrolyte leakage presents no HAZARD		P
11.6	Equipment RATED with a degree of ingress protection (IP code)		P
11.6.1	General		P
	Equipment marked with IP code : IP65		—
	Conditions specified in the documentation		P
11.6.2	Conditions for testing		P
	Equipment in clean and new condition, all parts in place and mounted as specified by manufacturer		P
	Complete equipment tested, or		P
	representative parts tested	Complete equipment tested	N/A
	HAND-HELD EQUIPMENT and PORTABLE EQUIPMENT placed in least favourable position of NORMAL use		P
	Other equipment positioned or installed as specified		N/A
	TERMINALS provided with protective cap or cover, are installed as specified by manufacturer	No such terminals	N/A
	The equipment is operating (energized) during the treatment except:		—
	a) If manufacturer specifies degrees of protection for non-operating (de-energized) equipment, or		N/A
	b) Equipment is operating or non-operating during the treatment with does not affect the test results		P
11.6.3	Protection against solid foreign objects (including dust)		P
	Applicable test of IEC 60529 for protection against solid foreign objects conducted		P
	Additionally inspection of equipment resulted:		—

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Clause	Requirement + Test	Result - Remark	Verdict
	a) No deposit on insulation parts that could lead to a HAZARD		P
	b) No created accumulations that have the potential to cause spread of fire		P
11.6.4	Protection against water		P
	Applicable test of IEC 60529 for protection against water conducted		P
	If any water has entered, safety is not impaired, inspection of equipment resulted:		—
	a) No deposit on insulation parts that could lead to a HAZARD		P
	b) Water has not reached hazardous live parts or windings which are not designed to operate when wet	No live parts	N/A
	c) No accumulations near the end of cable nor enter the cable where it could cause a HAZARD	No such parts	N/A
	d) No accumulations where it could lead to a HAZARD taking in consideration movement of the equipment	No such parts	N/A
11.7	Fluid pressure and leakage	No fluid used	N/A
11.7.1	Maximum pressure :		—
	Maximum pressure of any part does not exceed P_{RATED}		N/A
11.7.2	Leakage and rupture at high pressure		N/A
	Fluid-containing parts checked by inspection or if a HAZARD could arise subjected to hydraulic test, if:		—
	a) product of pressure and volume > 200 kPa·l; and		N/A
	b) pressure > 50 kPa		N/A
	Safety evidence established by calculation in acc. to national authorities (e.g. Pressure Equipment Directive 2014/68/EU)		N/A
	Parts of refrigerating systems meets pressure-related requirements of EN 378-2 or IEC 60335-2-89 as applicable		N/A
11.7.3	Leakage from low-pressure parts		N/A
11.7.4	Overpressure safety device		N/A
	Does not operate in NORMAL USE		N/A
	a) Connected as close as possible to parts intended to be protected		N/A
	b) Easy access for inspection, maintenance and repair		N/A
	c) Adjustment only with TOOL		N/A
	d) No discharge towards person		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	e) No HAZARD from deposit of discharged material		N/A
	f) Adequate discharge capacity		N/A
	No shut-off valve between overpressure safety device and protected parts		N/A

12	PROTECTION AGAINST RADIATION, INCLUDING LASER SOURCES, AND AGAINST SONIC AND ULTRASONIC PRESSURE		P
12.1	General		P
	Equipment provides protection		N/A
12.2	Equipment producing ionizing radiation	No ionizing radiation	N/A
12.2.1	Ionizing radiation		N/A
12.2.1.1	General		N/A
	Equipment meets the following requirements:		—
	a) if intended to emit radiation meets requirements of 12.2.1.2; or		N/A
	tested, classified and marked in accordance to IEC 62598		N/A
	b) if only emits stray radiation meets requirements of 12.2.1.3		N/A
12.2.1.2	Equipment intended to emit radiation		—
	Effective dose rate of radiation measured.....:		—
	If dose rate exceeds 5 µSv/h marked with the following:		—
	a) symbol 17 (ISO 361)		N/A
	b) abbreviations of the radionuclides.....:		—
	c) with maximum dose at 1 m; or		—
	with dose rate value between 1 µSv/h and 5 µSv/h in m.....:		—
12.2.1.3	Equipment not intended to emit radiation		—
	Limit for unintended stray radiation of 1 µSv/h at any easily reached point kept		N/A
12.2.2	Accelerated electrons		N/A
	Compartments opened only by the use of a TOOL		N/A
12.3	Optical radiation		P
	No unintentional HAZARDOUS escape of optical radiation as ultraviolet, visible or infrared radiation, including light emitting diodes:		—
	– Checked by inspection; and		P
	– Radiation sources assessed in acc. to the requirements of IEC 62471, except for sources considered to be safe (Table 22) or conditionally safe (Table 23).	LCD screen is considered to be safe (Table 22)	P

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Clause	Requirement + Test	Result - Remark	Verdict
	– Lamp and lamp systems assessed to Risk Groups 1, 2, or 3 of IEC 62471 are labelled in acc. to IEC 62471-2	No lamp and lamp systems	N/A
	– If labelling impractical, lamp or lamp systems marked with symbol 14		N/A
	– Protective measures, restrictions on use, and operating instructions that may be necessary are provided, including the applicable conditions of use of Table 23.		N/A
12.4	Microwave radiation	No microwave radiation	N/A
	Power density does not exceed 10 W/m ² :		N/A
12.5	Sonic and ultrasonic pressure	No sonic and ultrasonic	N/A
12.5.1	Sound level		N/A
	No HAZARDOUS sound emission		N/A
	Maximum sound pressure level measured and calculated for maximum sound power level as specified in ISO 3746 or ISO 9614-1		N/A
	Instruction describes measures for protection		N/A
12.5.2	Ultrasonic pressure		N/A
	Equipment not intended to emit ultrasound does not exceed limit of 110 dB between 20 kHz and 100 kHz		N/A
	Equipment intended to emit ultrasound:		N/A
	Outside useful beam does not exceed limit of 110 dB between 20 kHz and 100 kHz		N/A
	If inside useful beam above values exceeded:		—
	Marked with Symbol 14 of Table 1		N/A
	and following information in the documentation:		—
	a) dimensions of useful beam		N/A
	b) area where ultrasonic pressure exceed 110 dB		N/A
	c) maximum sound pressure inside beam area		N/A
12.6	Laser sources	No laser used	N/A
	Equipment meets requirements of IEC 60825-1		N/A

13	PROTECTION AGAINST LIBERATED GASES AND SUBSTANCES, EXPLOSION AND IMPLOSION		P
13.1	Poisonous and injurious gases and substances		P
	No hazardous substances liberated in NORMAL CONDITION and in SINGLE FAULT CONDITION		P
	If potentially-hazardous substances are liberated:	No potentially - hazardous substances are liberated	—
	Operator is not directly exposed to a quantity of the substance that could cause harm		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Requirements to discharge of hazardous substances during NORMAL operation in accordance to manufacturer's instructions not considered as liberation		N/A
	Attached data/test reports demonstrate conformity		N/A
13.2	Explosion and implosion		P
13.2.1	Components		P
	Components liable to explode:		—
	Pressure release device provided; or		N/A
	Apparatus incorporates operator protection (see also 7.7)		N/A
	Pressure release device:		—
	Discharge without danger		N/A
	Cannot be obstructed		N/A
13.2.2	Batteries and battery charging	(see Form A.37)	P
	If explosion or fire HAZARD could occur:		—
	Protection incorporated in the equipment; or		N/A
	Instructions specify batteries with built-in protection		P
	In case of wrong type of battery used:		—
	No HAZARD; or		P
	Warning by marking and within instructions		N/A
	Equipment with means to charge rechargeable batteries:		—
	Warning against the charging of non-rechargeable batteries; and		N/A
	Type of rechargeable battery indicated; or		P
	Symbol 14 used		N/A
	Battery compartment design		P
	Single component failure		P
	Polarity reversal test	Special battery pack, can't reverse polarity	N/A
13.2.3	Implosion of cathode ray tubes	No cathode ray tubes	N/A
	If maximum face dimensions > 160 mm.....:		—
	Intrinsically protected and correctly mounted; or		N/A
	ENCLOSURE provides protection:		N/A
	If non-intrinsically protected:		—
	Screen not removable without TOOL		N/A
	If glass screen, not in contact with surface of tube		N/A
14	COMPONENTS AND SUBASSEMBLIES		P

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Clause	Requirement + Test	Result - Remark	Verdict
14.1	General		P
	Where safety is involved, components and subassemblies meet relevant requirements		P
14.2	Motors	No motors	N/A
14.2.1	Motor temperatures		N/A
	Does not present a HAZARD when stopped or prevented from starting; or		N/A
	Protected by over-temperature or thermal protection device conform with 14.3		N/A
14.2.2	Series excitation motors	No such motors	N/A
	Connected direct to device, if overspeeding causes a HAZARD		N/A
14.3	Overtemperature protection devices	No such devices	N/A
	Devices operating in a SINGLE FAULT CONDITION		N/A
	a) Reliable function is ensured		N/A
	b) RATED to interrupt maximum current and voltage		N/A
	c) Does not operate in NORMAL USE		N/A
	If self-resetting device used to prevent a HAZARD, protected part requires intervention before restarting		N/A
14.4	Fuse holders	No fuse holder	N/A
	No access to HAZARDOUS LIVE parts		N/A
14.5	MAINS voltage selecting devices	No such device	N/A
	Accidental change not possible		N/A
14.6	MAINS transformers tested outside equipment	No mains transformers	N/A
14.7	Printed wiring boards		P
	Data shows conformity with V-1 of IEC 60695-11-10 or better; or	PCB has flammable classification V-0	P
	Test shows conformity with V-1 of IEC 60695-11-10 or better		N/A
	Not applicable for printed wiring boards with limited-energy circuits (9.4)		N/A
14.8	Circuits used to limit TRANSIENT OVERVOLTAGES	No such circuits	N/A
	Test conducted between each pair of MAINS SUPPLY TERMINALS		N/A
	No ignition or overheating of other materials :		—
	– no ignition		N/A
	– no heat to other parts above the self-ignition points		N/A
	Safely suppressing and properly functional after applied tests		N/A
15	PROTECTION BY INTERLOCKS		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
15.1	General	No interlocks	N/A
	Interlocks are designed to remove a HAZARD before OPERATOR exposed		N/A
15.2	Prevention of reactivation		N/A
15.3	Reliability		N/A
	Single fault unlikely to occur; or		N/A
	Cannot cause a HAZARD		N/A

16	HAZARDS RESULTING FROM APPLICATION		P
16.1	REASONABLY FORESEEABLE MISUSE		P
	No HAZARDS arising from settings not intended and not described in the instructions		P
	Other cases of REASONABLY FORESEEABLE MISUSE addressed by RISK assessment		N/A
16.2	Ergonomic aspects		P
	Factors giving rise to a HAZARD the RISK assessment is reflecting those aspects:		—
	a) limitation of body dimensions		P
	b) displays and indicators		P
	c) accessibility and conventions of controls		P
	d) arrangement of TERMINALS		N/A

17	RISK ASSESSMENT		N/A
	RISK assessment conducted, if HAZARD might arise and not covered by Clauses 6 to 16	All risks covered by clause 6 to 16	N/A
	TOLERABLE RISK achieved by iterative documented process covering the following:		—
	a) RISK analysis		N/A
	Identifies HAZARDS and estimates RISK		N/A
	b) RISK evaluation		N/A
	Plan to judge acceptability of resulting RISK level based on the estimated severity and likelihood of a RISK		N/A
	c) RISK reduction		N/A
	Initial RISK reduced by counter measures;		N/A
	Repeated RISK evaluation without new RISKS introduced		N/A
	RISKS remaining after RISK assessment addressed in instructions to RESPONSIBLE BODY:		—
	Information contained how to mitigate these RISKS		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Following principles in methods of RISK reduction applied by manufacturer in given order:		—
	1) RISKS eliminated or reduced as far as possible		N/A
	2) Protective measures taken for RISKS that cannot be eliminated		N/A
	3) User information about residual RISK due to any defect of the protective measures		N/A
	Indication of particular training is required		N/A
	Specification of the need for personal protective equipment		N/A
	Conformity checked by evaluation of the RISK assessment documentation		N/A

ANNEX F	ROUTINE TESTS		N/A
	Manufacturer 's declaration		N/A

ANNEX H	QUALIFICATION OF CONFORMAL COATINGS FOR PROTECTION AGAINST POLLUTION		N/A
H.1	General		N/A
	Conformal coatings meet the requirements of Clause H.2 and H.3.		N/A
H.2	Technical properties		N/A
	Technical properties of conformal coatings are suitable for the intended application. In particular:		—
	a) Manufacturer indicate that it is a coating for PWBs;		N/A
	b) RATED operating temperature include the temperature range of the indicated application;		N/A
	c) CTI, insulation resistance and dielectric strength are suitable for the intended application;		N/A
	d) Coating have adequate UV resistance, if it is exposed to sunlight;		N/A
	e) Flammability RATING of the coating is at least the required flammability RATING of the applied PWB.		N/A
H.3	Qualification of coatings		N/A
	Coating complies with the conformity requirements.		N/A

ANNEX K	INSULATION REQUIREMENTS NOT COVERED BY CLAUSE 6.7	(see Forms A.15 and A.18)	N/A
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[illegible]

[illegible]

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Clause	Requirement — Test		Result — Remark		Verdict
5.3	TABLE: Durability of markings				Form A.3
					P
Marking method (see NOTE)			Agent		
1) Adhesive label			A Water		
2) Ink printed			B Isopropyl alcohol 70%		
3) Laser marked			C (specify agent)		
4) Film-coated (plastic foil control panel)			D (specify agent)		
5) Imprinted on plastic (moulded in)			E (specify agent)		
NOTE – Where applicable include print method, label material, ink or paint type, fixing method, adhesive and surface to which marking is fixed.					
Marking location		Marking method (see above)			
Identification (5.1.2)		2)			
MAINS supply (5.1.3)		-			
Fuses (5.1.4)		-			
Terminals and operating devices (5.1.5.2)		-			
Switches and circuit breakers (5.1.6)		-			
Double/reinforced equipment (5.1.7)		-			
Field wiring Terminal boxes (5.1.8)		-			
Warning marking (5.2)		-			
Battery charging (13.2.2)		-			
Method	Test agent	Remains legible	Label loose	Curled edges	Comments
		Verdict	Verdict	Verdict	
2)	A, B	P	P	P	Remain visible
Supplementary information:					

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6	TABLE: Values in NORMAL CONDITION	Form A.5	P
6.1.2	Exceptions	11.2 Cleaning and decontamination	—
6.3.1	Values in NORMAL CONDITION (see NOTE 1)	11.3 Spillage	—
6.6.2	Terminals for external circuit	11.4 Overflow	—
6.10.3	Plugs and connections		—

NOTE – A 10 s test is specified in 6.1.2 a) b). A. 5 s test is specified in 6.10.3. The capacitance level versus voltage below the limits given from figure 3 of IEC 61010-1.
Supplementary information:

[illegible]

Supplementary information:

IEC 61010-1			
Clause	Requirement — Test	Result — Remark	Verdict
6.5.2.2	TABLE: Cross-sectional area of bonding conductors	Form A.7	N/A
	Conductor location	CROSS-SECTIONAL AREA [mm ²]	Verdict
Supplementary information:			
6.5.2.3	TABLE: Tightening torque test	Form A.8	N/A
	Conductor location	Size of screw	Tightening torque [Nm]
Supplementary information:			

IEC 61010-1					
Clause	Requirement — Test		Result — Remark	Verdict	
6.5.2.4	TABLE: BONDING impedance of plug-connected equipment			Form A.9	
				N/A	
	ACCESSIBLE part under test	Test current [A]	Voltage attained after 1 min [V]	Calculated resistance (Maximum 0,1 or 0,2 Ω) [Ω] (NOTE 1)	Verdict
NOTE 1 – For none-detachable power cord the impedance between protective conductor plug pin of MAINS cord and each ACCESSIBLE part shall not exceed 0,2 Ohm.					
Supplementary information:					
6.5.2.5	TABLE: BONDING impedance of PERMANENTLY CONNECTED EQUIPMENT			Form A.10	
				N/A	
	ACCESSIBLE part under test	Test current [A]	Voltage attained after 1 min (maximum 10 V) [V]	Verdict	
Supplementary information:					
6.5.2.6	TABLE: Transformer PROTECTIVE BONDING screen			Form A.11	
				N/A	
	ACCESSIBLE part under test	Test current (see NOTE) [A]	Voltage attained after 1 min (maximum 10 V) [V]	Calculated resistance (maximum 0,1 Ω) [Ω]	Verdict
NOTE – Test current must be twice the value of the overcurrent protection means of the winding. Test is specified in 6.5.2.6 a) or b).					
Supplementary information:					

IEC 61010-1			
Clause	Requirement — Test	Result — Remark	Verdict

6.5.4	TABLE: PROTECTIVE IMPEDANCE							Form A.12	N/A
A single component									
Component	Location	Measured		Calculated	Rated		Verdict	Comments	
		Working voltage [V]	Current [A]	Power dissipation [W]	Working voltage [V]	Power dissipation [W]			
A combination of components									
Component	Location				Comments				
NOTE – A PROTECTIVE IMPEDANCE shall not be a single electronic device that employs electron conduction in a vacuum, gas or semiconductor.									
Supplementary information:									

IEC 61010-1									
Clause	Requirement — Test				Result — Remark			Verdict	
6.5.6	TABLE: Current- or voltage-limiting device							Form A.13	N/A
Component	Location	Measured		Rated		Verdict	Comments		
		Working voltage [V]	Current [A]	Working voltage [V]	Current [A]				
Supplementary information:									

IEC 61010-1												
Clause	Requirement — Test	Result — Remark	Verdict									
6.7	TABLE: Insulation requirements - Block diagram of system -	Form A.14	N/A									
Pollution degree..... :						Overvoltage category						
Area	Location	Insulation type (NOTE 1)	WORKING VOLTAGE			CLEARANCE (NOTE 3) [mm]	CREEPAGE DISTANCE (NOTE 3)				Test voltage (NOTE 2) [V]	Comments (NOTE 3)
			RMS [V]	Peak [V]	Freq. [kHz]		PWB [mm]	CTI	Other [mm]	CTI		
A												
B												
C												
D												
E												
F												
NOTE 1 – Type of insulation: BI = BASIC INSULATION DI = DOUBLE INSULATION PI = PROTECTIVE IMPEDANCE RI = Reinforced INSULATION SI = Supplementary INSULATION see also Form A.15 for further details			NOTE 2 - Types of voltage Peak impulse test voltage (pulse) r.m.s. d.c. peak				NOTE 3 - OVERVOLTAGE CATEGORIES or POLLUTION DEGREES which differ should be shown under "Comments"					
Supplementary Information:												

IEC 61010-1												
Clause		Requirement — Test				Result — Remark					Verdict	
6.7		TABLE: Insulation requirements - CLEARANCES and CREEPAGES				Form A.15					N/A	
6.2.2		Examination				6.5.4		Protective impedance			—	
6.4.2		ENCLOSURES and protective barriers				6.5.6		Current- or voltage-limiting device			—	
6.4.4		Impedance				9.6.1		BASIC INSULATION between opposite polarity			—	
Area	Location (See Form A.14)	Insulation type (NOTE 1)	WORKING VOLTAGE (NOTE 2)			CLEARANCE		CREEPAGE DISTANCE		CTI	Verdict	Comments
			RMS [V]	Peak [V]	Frequency [kHz]	Required [mm]	Measured [mm]	Required [mm]	Measured [mm]			
A												
B												
C												
D												
E												
F												
NOTE 1 – refer to Form A.14 for type of insulation shown in the insulation diagram												
NOTE 2 - to be used for definition of required insulation (see Form A.14)												
Input supply voltage.....:			V		Hz							
Supplementary information:												

IEC 61010-1												
Clause	Requirement — Test							Result — Remark			Verdict	
6.7	TABLE: Insulation requirements - CLEARANCES and CREEPAGES										Form A.16	N/A
6.4.2	ENCLOSURES or PROTECTIVE BARRIERS							9.6.1	Overcurrent protection basic insulation between MAINS parts			—
8	Mechanical resistance to shock and impact							10.5.1	Integrity of CLEARANCES and CREEPAGE DISTANCES			—
Area	Location (See Form A.14)	Insulation type	Mechanical tests (NOTE)					Test at max. RATED ambient (10.5.1)	Measured after test (if required)		Verdict	Comments
			Applied force [N]	Rigidity (8.2)		Drop (8.3)			CLEARANCE [mm]	CREEPAGE DISTANCE [mm]		
				Static (8.2.1)	Impact (8.2.2)	Normal (8.3.1)	Hand-held/ Plug-in					
A												
B												
C												
D												
E												
F												
NOTE – Refer to Form A.18 for dielectric strength tests following the above tests.												
Supplementary information:												

IEC 61010-1							
Clause	Requirement – Test			Result — Remark		Verdict	
6.7.2.2.2	TABLE: Reliability of potted components			Form A.17 (optional)		N/A	
14.1 b)	Components and subassemblies					N/A	
Temperature Cycling Test							
Manufacturer							
Type.....							
Construction							
Potting compound							
CREEPAGE DISTANCES measured							
CLEARANCES measured							
Thickness through insulation.....							
Adhesive test Pass/Fail							
Test temperature T °C							
Cycles at U= AC 500 V					Leakage current (at AC 500 V) mA		
Number of cycles	Date			68 h /	1 h /	2 h /	1 h /
				125 °C	25 °C	0 °C	25 °C
1. Cycle from		to					
2. Cycle from		to					
3. Cycle from		to					
4. Cycle from		to					
5. Cycle from		to					
6. Cycle from		to					
7. Cycle from		to					
8. Cycle from		to					
9. Cycle from		to					
10. Cycle from		to					
After Cycling Test :							
Humidity conditioning					48 h		
Requirements for dielectric strength (s. insulation diagram)					Test voltage V r.m.s.		Verdict
Basic insulation _____ V r.m.s.							
Supplementary insulation _____ V r.m.s.							
Reinforced insulation _____ V r.m.s.							
NOTE - to be used for evaluation of components containing insulation through solid insulation, when the component standard require thermal cycling test. Ref Clause 14.1 and Figure 15, option b)							
Supplementary information:							

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Clause	Requirement — Test	Result — Remark	Verdict

[illegible]

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Clause	Requirement — Test	Result — Remark	Verdict

7.	TABLE: Protection against mechanical HAZARDS	Form A.20	N/A
7.3.4	Limitation of force and pressure		—
7.3.5	Gap limitations between moving parts		—

Part / Location	Clause 7.3.4		Clause 7.3.5.1								Clause 7.3.5.2			Verdict	Comments
	Continuous	Temporary	Minimum gaps [mm]								Maximum gaps [mm]				
	Contact pressure max. 50 N /cm² @ max. 150 N	max. 250 N / 3 cm² @ max. 0,75 s	Torso 500	Head 300	Leg 180	Foot 120	Toes 50	Arm 120	Hand 100	Finger 25	Head 120	Foot 35	Finger 4		

Supplementary information:

IEC 61010-1								
Clause	Requirement – Test				Result - Remark		Verdict	
7.4	TABLE: Stability					Form A.20A	N/A	
	Equipment height / mass				mm	kg	—	
	Equipment (Containers) loaded				[yes / no]		—	
	Castors at unfavourable position				[yes / no]		—	
	Doors, drawers and movable arms closed				[yes / no]		—	
	Doors and drawers at unfavourable position				[yes / no]		—	
Location		Tilt angle	Applied force				Comments	Verdict
		10°	250 N	20% [N]	800 N	4 times load [N]		
Front side					—			
Left side					—			
Rear side					—			
Right side					—			
Top side		—						
Working surface		—	—	—				
Ledge		—	—	—				
Castor / support foot								
Castor / support foot removed								
Supplementary information:								
7.6	TABLE: Wall mounting					Form A.20B	N/A	
	Equipment weight				kg		—	
	Equipment mounted as specified by manufacturer ...				[yes / no]		—	
	Equipment mounted at plasterboard (drywall)				[yes / no]		—	
	More than one fastener used				[yes / no]		—	
	Test maintained (after 5 s to 10 s to full load)				1 min		—	
Location		Applied weight				Comments	Verdict	
		4 times weight [kg]		2 times weight [kg]				
Mounting brackets								
Supplementary information:								

IEC 61010-1			
Clause	Requirement – Test	Result - Remark	Verdict
8.2	TABLE: ENCLOSURE rigidity test	Form A.21A	P
8.2.1	Static test		P
	Material of enclosure	Metal / non-metallic	—
	Preparation for the test:	heating	—
	Operated at ambient temperature	60 °C 1 h	—
	Location	Comments	Verdict
	1) Top enclosure	No hazard	P
	2) Side left / right enclosure	No hazard	P
Supplementary information:			
8.2.2	TABLE: Impact test		N/A
	Material of enclosure	Metal / non-metallic	—
	Corresponding IK-code.....		—
	Preparation for the test:		—
	Cooled to (temperature)	°C	—
	Location	Comments	Verdict
	1) Top		
	2) Side left / right		
	3) Bottom		
Supplementary information:			

IEC 61010-1				
Clause	Requirement – Test		Result - Remark	Verdict
8.3	TABLE: Drop test			Form A.21B
8.3.1	Other equipment			N/A
	Location	Raised up to		Comments
		[mm]	30 °	
	1)			
	2)			
	3)			
	4)			
Supplementary information:				
8.3.2	HAND-HELD EQUIPMENT and DIRECT PLUG-IN EQUIPMENT			P
	Material of enclosure		Metal / non-metallic	—
	Preparation for the test:		Cooling	—
	Cooled to (temperature)		-20 °C	—
	Location		Comments	Verdict
	1) Bottom		1000 mm	P
	2) Side left / right		1000 mm	P
	3) Top		1000 mm	P
Supplementary information:				

[illegible]

IEC 61010-1							
Clause	Requirement — Test	Result — Remark				Verdict	
9.3.2	TABLE: Constructional requirements	Form A.23				N/A	
14.7	Printed wiring boards					N/A	
Material tested						—	
Generic name						—	
Material manufacturer						—	
Type						—	
Colour						—	
Conditioning details						—	
		Sample					
		1	2	3	4	5	6
Thickness of specimen	mm						
Duration of flaming after first Application	s						
Duration of flaming plus glowing After second application	s						
Specimen burns to holding clamp	Yes/No						
Cotton ignited	Yes/No						
Sample result	Pass/Fail						
Supplementary information:							

IEC 61010-1			
Clause	Requirement — Test	Result — Remark	Verdict

9.4	TABLE: Limited-energy circuit					Form A.24	P
Item or Location (see Form A.22)	9.4 a)	9.4 b) Current limitation (NOTE)		9.4 c)	Decision	Comments	
	Maximum potential in circuit voltage r.m.s./d.c. [V]	Maximum available current [A]	Overload protection after 120 s [A]	Circuit separation	Yes/No		
Battery	5Vdc	20	-	-	-	The battery charged by a type-C port which max current is 5V, 3A. It is less than maximum available current 20A.	

NOTE – Maximum values see Tables 17 and 18 of IEC 61010-1

Supplementary information:

IEC 61010-1			
Clause	Requirement — Test	Result — Remark	Verdict

[illegible]

Supplementary information:

IEC 61010-1					
Clause	Requirement — Test	Result — Remark	Verdict		
10.	TABLE: Temperature Measurements	Form A.26A	P		
10.1	Surface temperature limits – NORMAL CONDITION and / or SINGLE FAULT CONDITION		P		
10.2	Temperature of windings – NORMAL CONDITION and / or SINGLE FAULT CONDITION		N/A		
10.3	Other temperature measurements		P		
Operating conditions:		Normal operation (charging with 5V type-C and working)			
Frequency..... :	- Hz	Test room ambient temperature (ta).... :	21.2 °C		
Voltage..... :	3.6 V	Test duration..... :	1 h 40 min		
Part / Location	t_m [°C]	t_c [°C]	t_{max} [°C]	Verdict	Comments
LCD surface	27.0	65.8	90	P	
Button	26.6	65.4	90	P	
Hand-held enclosure (near battery)	22.2	61.0	90	P	
Front enclosure near camera	31.8	70.6	90	P	
Mainboard near U33	41.8	80.6	For refer	P	
Camboard near CON1	36.6	75.4	For refer	P	
Battery surface	22.7	61.5	For refer	P	
NOTE 1 - t_m = measured temperature $t_c = t_m$ corrected ($t_m - t_a + 40\text{ °C}$ or max. RATED ambient) t_{max} = maximum permitted temperature NOTE 2 - see also 14.1 with reference to component operating conditions NOTE 3 - Record values for NORMAL CONDITION and / or SINGLE FAULT CONDITION in this Form use additional form if necessary NOTE 4 - see Form A.26B for details of winding temperature measurements					
Supplementary information: Corrected to 60°C					

IEC 61010-1					
Clause	Requirement — Test			Result — Remark	Verdict
10.	TABLE: Temperature Measurements				Form A.26A
10.1	Surface temperature limits – NORMAL CONDITION and / or SINGLE FAULT CONDITION				P
10.2	Temperature of windings – NORMAL CONDITION and / or SINGLE FAULT CONDITION				N/A
10.3	Other temperature measurements				P
Operating conditions:		S-C U33 pin 9 and pin 41			
Frequency..... :		- Hz	Test room ambient temperature (ta).... :		19.2 °C
Voltage..... :		3.6 V	Test duration..... :		2 h 37 min
Part / Location		t_m [°C]	t_c [°C]	t_{max} [°C]	Verdict
LCD surface		30.8	71.6	90	P
Button		31.9	72.7	90	P
Hand-held enclosure (near battery)		23.6	64.4	90	P
Front enclosure near camera		31.7	72.5	90	P
Mainboard near U33		82.3	123.1	For refer	P
Camboard near CON1		39.0	79.8	For refer	P
Battery surface		24.4	65.2	For refer	P
NOTE 1 - t_m = measured temperature $t_c = t_m$ corrected ($t_m - t_a + 40\text{ °C}$ or max. RATED ambient) t_{max} = maximum permitted temperature NOTE 2 - see also 14.1 with reference to component operating conditions NOTE 3 - Record values for NORMAL CONDITION and / or SINGLE FAULT CONDITION in this Form use additional form if necessary NOTE 4 - see Form A.26B for details of winding temperature measurements					
Supplementary information: Corrected to 60°C					

IEC 61010-1									
Clause	Requirement — Test				Result — Remark			Verdict	
10.2	TABLE: Temperature of windings Resistance method Temperature Measurements							Form A.26B	N/A
4.4.2.7	MAINS transformers								N/A
14.2.1	Motor temperatures								N/A
Operating conditions...:									
Frequency	Hz	Test room ambient temperature (t_{a1}/t_{a2}) . :				/	°C (initial / final)		
Voltage.....:	V	Test duration				h	min		
Part / Designation	R _{cold} [Ω]	R _{warm} [Ω]	Current [A]	t_r [K]	t_c [°C]	t_{max} [°C]	Verdict	Comments	
<div>Note 1 - R_{cold} = initial resistance R_{warm} = final resistance t_r = temperature rise $t_c = t_r \text{ corrected } (t_c = t_r + [40\ ^{\circ}\text{C or max RATED ambient}])$ t_{max} = maximum permitted temperature</div> <div>Note 2 - Indicate insulation class (IEC 60085) under comments (optional) Note 3 - Record values for NORMAL CONDITION and / or SINGLE FAULT CONDITION in this Form use additional form if necessary</div>									
Supplementary information: 									

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Clause	Requirement — Test	Result — Remark	Verdict
10.5.3	TABLE: Insulating material	Form A.28	N/A
10.5.3 1)	Ball-pressure test		N/A
	Max. allowed impression diameter :	2 mm	—
Part	Test temperature [°C]	Impression diameter [mm]	Verdict
Supplementary information:			
10.5.3 2)	Vicat softening test (ISO 306)	Form A.29	N/A
Part	Vicat softening temperature [°C]	Thickness of sample [mm]	Verdict
Supplementary information:			

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Clause	Requirement — Test	Result — Remark	Verdict

11.7.2	TABLE: Leakage and rupture at high pressure					Form A.31	N/A
Part	Maximum permissible working pressure [MPa]	Test pressure [MPa]	Leakage Yes / No	Deformation Yes / No	Burst Yes / No	Comments	

NOTE – see also Annex G with requirements for USA and Canada.

Supplementary information:

11.7.3	TABLE: Leakage from low-pressure parts			Form A.32	N/A
Part	Test pressure [MPa]	Leakage Yes / No	Comments		

Supplementary information:

IEC 61010-1			
Clause	Requirement — Test	Result — Remark	Verdict
12.2.1	TABLE: Ionizing radiation	Form A.33	N/A
12.2.1.2	Equipment intended to emit radiation		N/A
Locations tested	Measured values [μSv/h]	Verdict	Comments
Supplementary information:			
12.2.1.3	Equipment not intended to emit radiation	Form A.34	N/A
	Max. allowed effective dose rate at 100 mm.....:	1 μSv/h	—
Locations tested	Measured values [μSv/h]	Verdict	Comments
Supplementary information:			

IEC 61010-1			
Clause	Requirement — Test	Result — Remark	Verdict
12.5.1	TABLE: Sound level	Form A.35	N/A
	Locations tested	Measured maximum sound pressure level dB(A)	Calculated maximum sound power level
	At operator's normal position and at bystanders' positions		
	a)		
	b)		
	c)		
	d)		
	e)		
	f)		
Supplementary information:			
12.5.2	TABLE: Ultrasonic pressure	Form A.36	N/A
	Locations tested	Measured values	Comments
		[dB] [kHz]	
	At operator's normal position		
	At 1 m from the ENCLOSURE		
	a)		
	b)		
	c)		
	d)		
	e)		
NOTE – No limit is specified at present, but a limit of 110 dB above the reference pressure value of 20 µPa is under consideration for applicable frequencies between 20 kHz and 100 kHz.			
Supplementary information:			

IEC 61010-1			
Clause	Requirement — Test	Result — Remark	Verdict
13.2.2	TABLE: Batteries and battery charging	Form A.37	P
	Battery load and charging circuit diagram:		
	<p>PMU</p> <p>Battery CON</p> <p>Test Point of PMU each channel power supply close to Output capacitance</p> <p>按2A电流走线</p> <p>换成26650 5000mAh 插座方向已经对调</p>		
	Battery type	Battery pack	—
	Battery manufacturer/model/catalogue No.	-	—
	Battery ratings	3.6Vdc, 5000mAh, 18Wh	—
	Reverse polarity instalment test	Special battery pack, can't reverse	N/A
Single component failures		Verdict	
Component		Open circuit	Short circuit
Battery		P	P
Supplementary information:			

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IEC 61010-1				
Clause	Requirement — Test	Result — Remark	Verdict	
4.4.2.7	TABLE: MAINS transformer	Form A.40	N/A	
4.4.2.7.3	Overload tests (for MAINS transformers)		N/A	
14.6	MAINS transformers tested outside equipment		N/A	
Type			—	
Manufacturer			—	
Test in equipment				
Test on bench				
Test repeated inside equipment (see 14.6)				
Optional – Insulation class (IEC 60085) of the lowest rated winding			—	
Winding identification				
Type of Protector for winding (NOTE 1)				
Elapsed time				
Current, A primary				
secondary				
Winding temperature, °C primary				
(see NOTE 2) secondary				
Tissue paper / cheesecloth OK ? (Pass / Fail)				
Voltage tests (see NOTE 3)				
Primary to secondary	_____ V _____			
Primary to core	_____ V _____			
Secondary to secondary	_____ V _____			
Secondary to core	_____ V _____			
Verdict				
NOTE 1:	Primary fuse Secondary fuse Overtemperature protection Impedance protection	- PF / () A - SF / () A - OP / () °C - Z		
NOTE 2:	Indicate method of measurement	TC = with thermocouple R = resistance method		
NOTE 3:	If resistance method is used, record resistance in cold and warm condition in Form A.26B. Record the voltage applied and the type of voltage (r.m.s. / d.c. / peak) and for results use NB = no breakdown or B = breakdown			
Supplementary information:				

IEC 61010-1			
Clause	Requirement — Test	Result — Remark	Verdict

14.8	TABLE: Circuits used to limit TRANSIENT OVERVOLTAGES										Form A.41	N/A
Circuit / Designation	Overvoltage Category	MAINS voltage [V r.m.s.]	Test voltage [V]	t_m [°C]	t_c [°C]	t_{max} [°C]	Ignited Yes / No	Safely suppressed Yes / No	Properly functional Yes / No	Verdict	Comments	
Test room ambient temperature:			°C									
NOTE - t_m = measured temperature t_c = t_m corrected ($t_m - t_a + 40$ °C or max. RATED ambient) t_{max} = maximum permitted temperature Conformity is checked by applying 5 positive and 5 negative impulses with the applicable impulse withstand voltage, spaced up to 1 min apart, from a hybrid impulse generator (see IEC 61180-1).												
Supplementary information:												

IEC 61010-1												
Clause		Requirement – Test			Result — Remark					Verdict		
Annex H		TABLE: Qualification of conformal coating for protection against pollution								Form A.42		N/A
Technical properties												
Manufacturer										—		
Type										—		
Meet requirements of ANSI / UL 746E				[yes / no]								
Manufacturer declaration of coating material				[yes / no]								
Operating temperature of coating				[] °C								
Comparative tracking index (CTI)				[]								
Insulation resistance				[] MΩ								
Dielectric strength				[] V								
UV resistance (if required)				[yes / no]								
Flammability rating												
Preparation of the test specimens conducted				[yes / no]								
Item	Test conditioning	Parameter	Td h	Samples						Verdict	Comments	
				1	2	3	4	5	6			
1	Cold		24									
2	Dry heat		48									
3	Rapid temp. change											
4	Damp heat		24									
5	Adhesion of coating	5 N										
	Visual inspection											
6	Humidity		48									
7	Insulation resistance	≥ 100 MΩ										
	Visual inspection											
NOTE Td = Test duration time												
Supplementary information:												

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Clause	Requirement – Test	Result — Remark	Verdict

[illegible]

IEC 61010-1						
Clause	Requirement — Test			Result — Remark		Verdict
	TABLE 1.A: List of components and circuits relied on for safety					P
Unique component reference or location	Application/function	Manufacturer / trademark (NOTE 1)	Type / model	Technical data (NOTE 2)	Standard	Mark(s) of conformity evidence of acceptance (NOTE 3 and 4)
Plastic Enclosure	-	PC-385(+)	CHI MEI CORPORATION	PC/ABS, HB, 60°C, Min. thickness: 1.5mm, Material Group III	UL 94	UL E56070
PCB	-	Interchangeable	Interchangeable	V-0,130°C	UL 94	UL
Lithium-ion Rechargeable Battery	-	PNAS 26650	ZHONGSHAN PNAS ENERGY TECHNOLOGY CO., LTD	3.6V, 5000mAh,18Wh	UL 2054	TUV US 72302288 01
NOTE → 1 List all different manufacturers of the above components → 4 asterisk indicates mark assuring agreed level of surveillance → 2 May include electrical, mechanical values → 3 List licence no or method of acceptance						

Appendix 1 – National differences

IEC61010_1P ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
ATTACHMENT TO TEST REPORT IEC 61010-1 EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES (Electrical Equipment For Measurement, Control, and Laboratory Use; Part1: General Requirements)			
Differences according to : EN 61010-1:2010/A1			
Attachment Form No. : EU_GD_IEC61010_1P			
Attachment Originator : TÜV Rheinland LGA Products GmbH			
Master Attachment : Date 2021-04-12			
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	CENELEC COMMON MODIFICATIONS (EN)		—
	Procedure for voltage tests		N/A
6.8.3.1	The a.c. voltage test <i>Replace the first sentence by the following sentence:</i> The voltage tester shall be capable of maintaining the test voltage throughout the test within +/- 5 % of the specified value.	Powered by battery, no voltage test requirement	N/A
Annex ZA (normative)	The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.		P
Annex ZZ (informative)	Relationship between this European standard and the safety objectives of Directive 2014/35/EU [2014 OJ L96] aimed to be covered	Powered by 3.6Vdc battery, max. working voltage is 5Vdc	N/A

Appendix 2 – Product photos



Photo 1 – Overall view



Photo 2 – Side view

Appendix 2 – Product photos



Photo 3 – Internal view

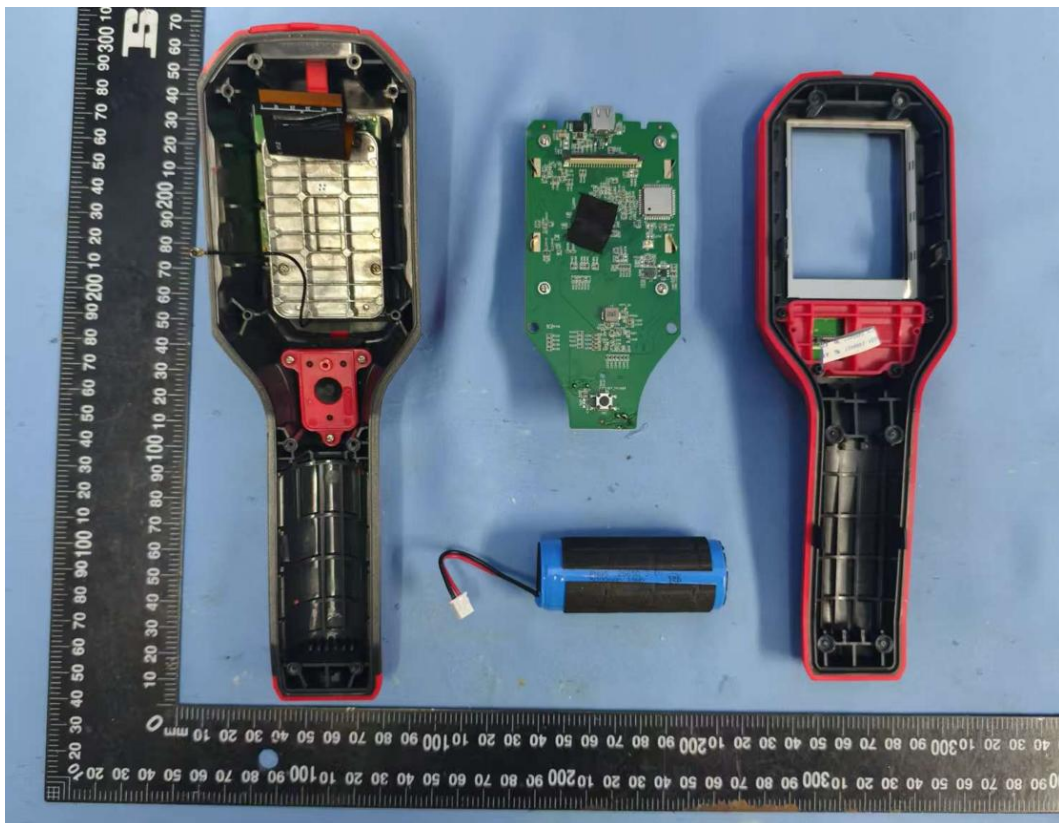


Photo 4 - Internal view

Appendix 2 – Product photos

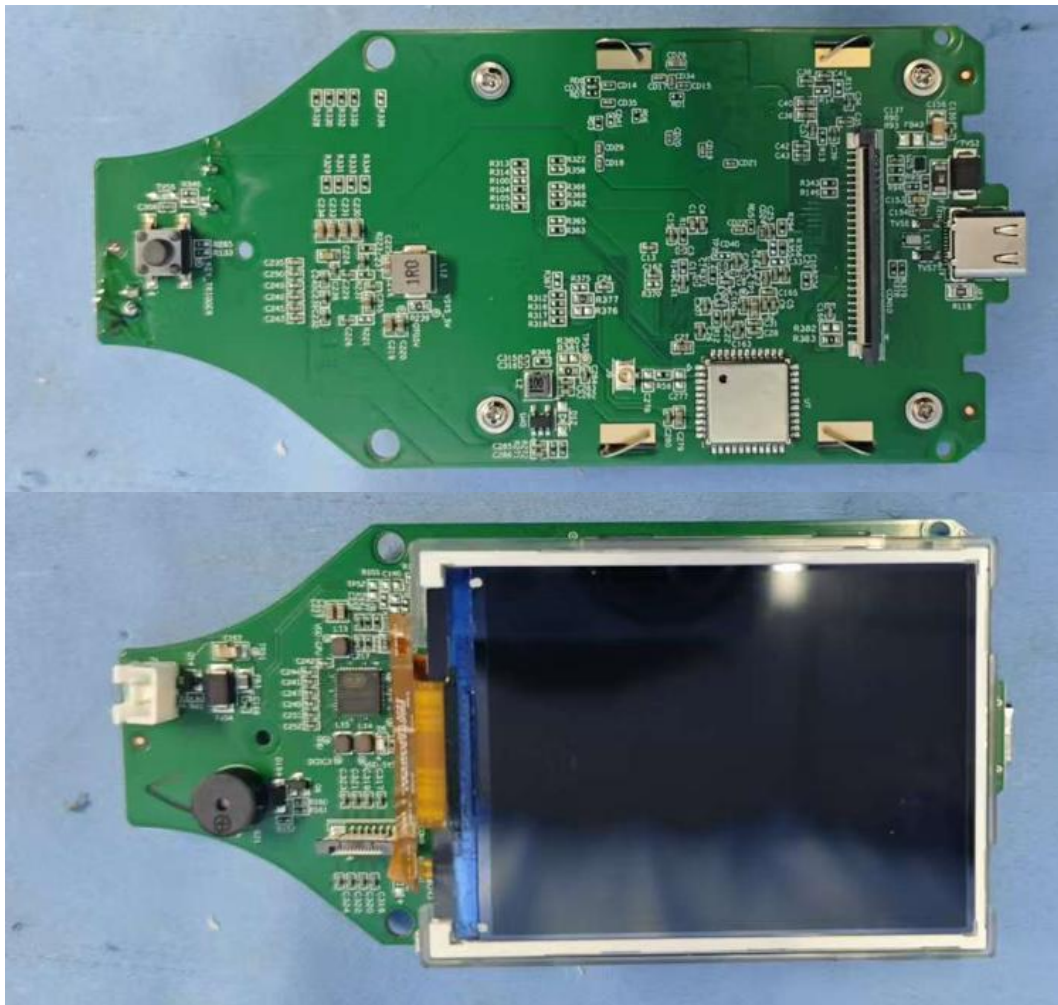


Photo 5 - PCB view

****END OF REPORT****