

# **Safety Test Report**

Report No.: AGC11262210402ES01

**PRODUCT DESIGNATION**: PBX Appliance

**BRAND NAME** : Call4tel

**MODEL NAME** : SBC-NX-96

**CLIENT**: Call4tel Pte Ltd

**DATE OF ISSUE** : May. 25, 2021

**STANDARD(S)** : EN 62368-1:2014+A11:2017

**REPORT VERSION**: V1.0

Attestation of Global Compliance (Shenzhen) Co., Ltd.





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#### **TEST REPORT**

## EN 62368-1

# Audio/video, information and communication technology equipment Part 1: Safety requirements

Report No. ...... AGC11262210402ES01

Tested by(+ signature)...... Elvis Chen

Reviewed by (+ signature) ...... Byron Wang

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Approved by (+ signature) ...... (Authorized Officer)

Date of issue ...... May. 25, 2021

Contents...... Total 57 pages

**Testing laboratory** 

Community, Fuhai Street, Bao 'an District, Shenzhen, Guangdong, China

Byron Way
mette He

Testing location..... Same as above.

**Applicant** 

Name...... Call4tel Pte Ltd

Address ...... #03-06 , Novalty TechPoint , 27 New industrial Road ,Singapore 536212

Manufacturer

Name...... Call4tel Pte Ltd

**Factory** 

Name...... SGM Telecom Limited LTD

Address ...... No.248 HongWu Road, Nanjing, China

Test specification

Standard..... EN 62368-1:2014+A11:2017

Test procedure ...... Type test

Procedure deviation ...... N/A

Non-standard test method ...... N/A



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Test Report Form/blank test report		- C - C
Test Report Form No:	AGC62368A2	
TRF originator		. 200
Master TRF		
Test item	2010-09	-SGV -C V
	DDV Appliance	
Product designation		
	Call4tel	
Test model:	SBC-NX-96	
Series model	N/A	
Rating(s)	Input: AC 100-240V, 50 Output: 5.0V 0.5A	/60Hz, 1A
Test item particulars	7.0	
Classification of use by		
20 -0		⊠Instructed person
- 12 YOU		⊠Skilled person
-C - '-	300	⊠Children likely to be present
Supply Connection		⊠AC Mains □DC Mains
. P. 10		External Circuit - not Mains connected
	3.00	- □ES1 □ES2 □ES3
Supply % Tolerance	······································	⊠+10%/-10%
N 10 10		<u>+20%/-15%</u>
		<u></u> %/%
-C -C -	F	None
Supply Connection – Type	:	⊠ pluggable equipment type A -
- 6		☐non-detachable supply cord
0 20 2		⊠appliance coupler
. No. 100		☐direct plug-in
		mating connector
- CO - F		pluggable equipment type B -
Se . CO .		☐non-detachable supply cord
100		☐appliance coupler
20 2 F		permanent connection
20 - CO - CO		mating connector
. 5	0	other:



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Considered current ra	ating of protective device a	s part of	16A		100
building or equipment installation:		Installation location: ⊠ building; ☐ equipment			
Equipment mobility				] hand-held ☑ for building-in nting☑ wall-mou	
Over voltage category	y (OVC)		OVCI	⊠ovc II	OVC III
N 334	C		OVC IV	other:	<u>.64</u> 6
Class of equipment .		:	⊠ Class I	Class II	Class III
Access location			restricted	access location	⊠ N/A
Pollution degree (PD)	)	:	□PD 1	⊠ PD 2	☐ PD 3
Manufacturer's specif	fied maximum operating ar	mbient:	40°C		20- 1
IP protection class		:	⊠ IPX0 □	IP	
			N/A ⊠TN□	тт 🗆 іт - 🔙 у	V <sub>L-L</sub>
	tion (m)		⊠ 2000 m or	less 🗌	_ m
Altitude of test labora	tory (m)		⊠ 2000 m or	less 🗌	_ m
Mass of equipment (k	(g)		⊠2.4kg		
Test case verdicts	30 .00	-6			30 - 100
Test case does not ap	oply to the test object	:	N (/A)		
Test item does meet the requirement		:	P(ass)		.0
Test item does not meet the requirement			F(ail)		7.G
Testing		30	3 <sup>L</sup>	G .	- P
Date of receipt of test	item	:	May.16, 2021		
Date of performance	of test	:	May.16, 2021 to May.25, 2021		
Attachments			, ,		10
Attachment A		:	Photos of product		
The test results prese "(See remark #)" refer "(See appended table	e reproduced except in full nted in this report relate onl is to a remark appended to )" refers to a table appende t a point is used as the deci	ly to the item tes the report. ed to the report.		the testing labora	atory.
Report Version	Revise Time	Issued Da	ite Val	id Version	Notes
V1.0	/	May.25, 20		Valid	Initial release
	<u>'</u>			. 4114	



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#### **General product information**

The product is PBX Appliance intend used for IT equipment. Class I equipment.

The max. ambient temperature for apparatus is 40°C

#### Summary of testing

The product fulfill the requirement of EN 62368-1:2014+A11:2017.

#### Copy of marking plates

Power adapter Model: PD20-02

Input: AC 100-240V, 50/60Hz, 1A USB Output: 5.0V=== 0.5A Manufacturer: Call4tel Pte Ltd

Address: #03-06, Novalty TechPoint, 27 New industrial

Road, Singapore 536212

Importer:xxx Address:xxx



#### Remark:

- 1) The CE marking and WEEE symbol (if any) should be at least 5mm and 7mm respectively in height.
- 2) The markings and instructions are the minimum requirements required by safety standard. For final production samples, the additional markings which do not give rise to misunderstanding may be added.
- 3) As declared by the applicant, the importer (and manufacturer, if it is different)'s name, registered trade name or mark and the postal address will be marked on the products before being place on the market.
- 4) Marking on the packaging or in a document accompanying the electrical equipment is only acceptable if it is not possible to place such markings on the product.



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#### **ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE:**

(Note 1: Identify the following six (6) energy source forms based on the origin of the energy.)

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

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

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

classification)

Example: +5 V dc input ES1

Source of electrical energy	Corresponding classification (ES)
Primary circuit	ES3
Output circuit, enclosure surface and secondary circuit	ES1

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

(Note: List sub-assembly or circuit designation and corresponding energy source classification)

Example: Battery pack (maximum 85 watts):

Source of power or PIS	Corresponding classification (PS)
Primary circuit	PS3
Output circuit	PS2

# Injury caused by hazardous substances (Clause 7)

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

Example: Liquid in filled component Glycol

Source of hazardous substances	Corresponding chemical
N/A	N/A

## Mechanically-caused injury (Clause 8)

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

Example: Wall mount unit

MS2

	···· <del>·</del>
Source of kinetic/mechanical energy	Corresponding classification (MS)
Edges and corners	MS1
Mass of equipment	MS1

#### Thermal burn injury (Clause 9)

(Note: Identify the surface or support, and corresponding energy source classification based on type of part, location, operating temperature and contact time in Table 38.)

Example: Hand-held scanner – thermoplastic enclosure TS1

Source of thermal energy	Corresponding classification (TS)
Acessible part	TS1

#### Radiation (Clause 10)

(Note: List the types of radiation present in the product and the corresponding energy source classification.)

Example: DVD – Class 1 Laser Product RS1

Type of radiation	Corresponding classification (RS)
N/A	N/A



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		ENERGY	SOURCE I	DIAGRAM		
AC input ES3,PS3	Primary circ	cuit		Secondar ES1,PS2	y output circuit	
			MS1,7	S1,RS1		
	⊠ ES	⊠ PS	⊠ MS	⊠⊤s	□RS	



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OVERVIEW OF EMPLO	TEDSAFEGUARDS				
Clause	Possible Hazard				
5.1	Electrically-caused injury				
Body Part	Energy Source	Safeguards			
(e.g. Ordinary)	(ES3: Primary Filter circuit)	Basic	Supplementary	Reinforced (Enclosure)	
Ordinary	ES3: Primary circuit	N/A	N/A	Isolation transformer (T1),Y-cap (CY1), opto- coupler, enclousre	
Ordinary	ES1: Output port	N/A	N/A	N/A	
6.1	Electrically-caused fire				
Material part	Energy Source		Safeguards		
(e.g. mouse enclosure)	(PS2: 100 Watt circuit)	Basic	Supplementary	Reinforced	
Combustible materials within equipment fire enclosure	PS3: >100 Watt circuit (Primary circuits) PS2: <100 Watt circuit (Output)	For "N" & "A" condition:  1.No ignition occurred.  2.No parts exceeding 90% of its spontaneous ignition temperature.	For "S" condition:  1.PCB is complied with min.V-1 material.  2.All other components:at least V-2 except for mounted on min.V-1 material.	Metal enclosure provided.	
7.1	Injury caused by hazardous	substances			
Body Part	Energy Source	Safeguards			
(e.g., skilled)	(hazardous material)	Basic	Supplementary	Reinforced	
N/A	N/A	N/A	N/A	N/A	
8.1	Mechanically-caused injury				
Body Part	Energy Source	Safeguards			
(e.g. Ordinary)	(MS3:High Pressure Lamp)	Basic	Supplementary	Reinforced (Enclosure)	
Ordinary person	MS1: Mass of unit MS1:Edges and corners	N/A	N/A	N/A	
9.1	Thermal Burn				
Body Part	Energy Source		Safeguards		
(e.g., Ordinary)	(TS2)	Basic	Supplementary	Reinforced	
Ordinary person	TS1: Accessible part	N/A	N/A	N/A	
10.1	Radiation			•	
Body Part	Energy Source		Safeguards		
(e.g., Ordinary)	(Output from audio port)	Basic	Supplementary	Reinforced	



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N/A	N/A	N/A	N/A	N/A
Supplementary Information	on:	100	.C 2	. 0
(1) See attached energy so	urce diagram for additional details	S.		
(2) "N" - Normal Condition;	"A" - Abnormal Condition; "S" Sir	ngle Fault		



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Clause	Requirement – Test	Result - Remark	Verdict		
4	GENERAL REQUIREMENTS	F . 5 ~ C	Р		
4.1.1	Acceptance of materials, components and subassemblies	-60 -6 F	Р		
4.1.2	Use of components	N 30 200	Р		
4.1.3	Equipment design and construction	No accessible part which could cause injury	Р		
4.1.15	Markings and instructions:	(See Annex F)	Р		
4.4.4	Safeguard robustness	See below	Р		
4.4.4.2	Steady force tests:	(See Annex T2 and T.4)	Р		
4.4.4.3	Drop tests:	(See Annex T.7)	Р		
4.4.4.4	Impact tests:	- DC	N		
4.4.4.5	Internal accessible safeguard enclosure and barrier tests:	-co -c *_	N		
4.4.4.6	Glass Impact tests:	P 50- 500	N		
4.4.4.7	Thermoplastic material tests:	Metal enclosure	N		
4.4.4.8	Air comprising a safeguard:	.0 .0 .	N		
4.4.4.9	Accessibility and safeguard effectiveness	No damaged	Р		
4.5	Explosion	No explosion occurs during normal/abnormal operation and single fault conditions	Р		
4.6	Fixing of conductors	V - CO-	Р		
4.6.1	Fix conductors not to defeat a safeguard	- P 35	Р		
4.6.2	10 N force test applied to:	(See Annex T.2)	Р		
4.7	Equipment for direct insertion into mains socket - outlets	NO 100	N		
4.7.2	Mains plug part complies with the relevant standard:	GC 20 2			
4.7.3	Torque (Nm)	200	N		
4.8	Products containing coin/button cell batteries	No coin/button batteries used.	N		
4.8.2	Instructional safeguard	7 7.G 2	N		
4.8.3	Battery Compartment Construction	Se 100	N		
d	Means to reduce the possibility of children removing the battery:				
4.8.4	Battery Compartment Mechanical Tests:	30 - 30 -	N		
4.8.5	Battery Accessibility		N		



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Clause	Requirement – Test	Result - Remark	Verdict	
4.9	Likelihood of fire or shock due to entry of conductive object:	No likelihood of conductive object entrying into enclosure.	Р	

5	ELECTRICALLY-CAUSED INJURY	NO 40 A	Р
5.2.1	Electrical energy source classifications:	(See appended table 5.2)	Р
5.2.2	ES1, ES2 and ES3 limits	-0 -	Р
5.2.2.2	Steady-state voltage and current:	(See appended table 5.2)	Р
5.2.2.3	Capacitance limits	. 17 50	N
5.2.2.4	Single pulse limits:	No such single pulses with the EUT	N
5.2.2.5	Limits for repetitive pulses:	No such repetitive pulses with the EUT	N
5.2.2.6	Ringing signals:	No such ringing signals with the EUT	N
5.2.2.7	Audio signals:	200 - 0	N
5.3	Protection against electrical energy sources	See below	Р
5.3.1	General Requirements for accessible parts to ordinary, instructed and skilled persons	GC GG	Р
5.3.2.1	Accessibility to electrical energy sources and safeguards	Only ES1 circuit can be accessed for this product.	Р
5.3.2.2	Contact requirements	No openings allowing entry of a probe. No access with test probe to any ES3 circuit or parts.	Р
-6	a) Test with test probe from Annex V:	No hazardous live part can be accessible	Р
- U	b) Electric strength test potential (V):	10 -0 L	N
	c) Air gap (mm):	F 50 100	N
5.3.2.4	Terminals for connecting stripped wire	No such terminal	N
5.4	Insulation materials and requirements	.0 2 Z	Р
5.4.1.2	Properties of insulating material	The choice and application have taken into account as specified in this Clause 5 and Annex T and natural rubber, hygroscopic materials or asbestos are not used as insulation.	G <sup>P</sup>
5.4.1.3	Humidity conditioning	Approval adapter used	Р
5.4.1.4	Maximum operating temperature for insulating materials	(See appended table 5.4.1.4)	Р



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Clause	Requirement – Test	Result - Remark	Verdict
5.4.1.5	Pollution degree:	2	0 -
5.4.1.5.2	Test for pollution degree 1 environment and for an insulating compound	-6 5	N
5.4.1.5.3	Thermal cycling	20 700 7	N
5.4.1.6	Insulation in transformers with varying dimensions	- D	N
5.4.1.7	Insulation in circuits generating starting pulses	O Y -	N
5.4.1.8	Determination of working voltage	Approval adapter used	Р
5.4.1.9	Insulating surfaces	. 17 50	Р
5.4.1.10	Thermoplastic parts on which conductive metallic parts are directly mounted	0 20 2	N
5.4.1.10.2	Vicat softening temperature:	500	N
5.4.1.10.3	Ball pressure:	see appended table 5.4.1.10.3.	Р
5.4.2	Clearances	The highest value of 5.4.2.2 and 5.4.2.3 shall be used	Р
5.4.2.2	Determining clearance using peak working voltage	Temporary overvoltage 2000Vpeak assumed.	Р
5.4.2.3	Determining clearance using required withstand voltage	(See appended table 5.4.2.2, 5.4.2.4 and 5.4.3)	Р
	a) a.c. mains transient voltage:	2500 Vpk considered for Overvoltage Cat. II	_
- 0	b) d.c. mains transient voltage:	200	_
200	c) external circuit transient voltage:	P . 6 -	_
	d) transient voltage determined by measurement	- P	_
5.4.2.4	Determining the adequacy of a clearance using an electric strength test	100 AC A	N
5.4.2.5	Multiplication factors for clearances and test voltages:	70	N
5.4.3	Creepage distances:	(See appended table 5.4.2.2, 5.4.2.4 and 5.4.3)	Р
5.4.3.1	General		Р
5.4.3.3	Material Group:	IIIb	_
5.4.4	Solid insulation	Plastic enclosure used as solid insulation	Р
5.4.4.2	Minimum distance through insulation:	Min.0.4mm	Р
5.4.4.3	Insulation compound forming solid insulation	50° 20 2	N
5.4.4.4	Solid insulation in semiconductor devices	P NO EU	Р



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Clause	Requirement – Test	Result - Remark	Verdict
5.4.4.5	Cemented joints	PA 400	N
5.4.4.6	Thin sheet material	Insulation tape on T1	Р
5.4.4.6.1	General requirements	- 60 6	Р
5.4.4.6.2	Separable thin sheet material	5° 50° 20	Р
	Number of layers (pcs):	Min. 2 layers	Р
5.4.4.6.3	Non-separable thin sheet material	64 6 .	N
5.4.4.6.4	Standard test procedure for non-separable thin sheet material:	- 50 - 50C	N
5.4.4.6.5	Mandrel test	G 2 ". 1	N
5.4.4.7	Solid insulation in wound components	See G.5.3 and G.6.1 only.	Р
5.4.4.9	Solid insulation at frequencies >30 kHz:	See appended table 5.4.4.9.	Р
5.4.5	Antenna terminal insulation		Р
5.4.5.1	General	10° 20 2	Р
5.4.5.2	Voltage surge test	F 50 -00	Р
75	Insulation resistance (MΩ):	100	760
5.4.6	Insulation of internal wire as part of supplementary safeguard:	No such insulation of internal wire as part of supplementary safeguard.	N
5.4.7	Tests for semiconductor components and for cemented joints	c 2	N
5.4.8	Humidity conditioning	Approval adapter used	Р
100	Relative humidity (%):	P 40 -	
- 4	Temperature (°C):		
407	Duration (h):	- GV C	_
5.4.9	Electric strength test	(See appended table 5.4.9)	Р
5.4.9.1	Test procedure for a solid insulation type test		Р
5.4.9.2	Test procedure for routine tests	60 6	N
5.4.10	Protection against transient voltages between external circuit	No such circuit	N
5.4.10.1	Parts and circuits separated from external circuits	0 2 1	N
5.4.10.2	Test methods	1 3.6° 2.6	N
5.4.10.2.1	General	P 10 . (	N
5.4.10.2.2	Impulse test		N
5.4.10.2.3	Steady-state test	307 -0	N



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Clause	Requirement – Test	Result - Remark	Verdict
5.4.11	Insulation between external circuits and earthed circuitry:	No such external circuit.	N
5.4.11.1	Exceptions to separation between external circuits and earth	VCO -C	N
5.4.11.2	Requirements	P. 30 .00	N
77	Rated operating voltage U <sub>op</sub> (V):	2 2	_
3-	Nominal voltage U <sub>peak</sub> (V):	G 20 2	_
	Max increase due to variation U <sub>sp</sub> :	50 700	_
	Max increase due to ageing $\Delta U_{sa}$ :		_
10	$U_{op} = U_{peak} + \Delta U_{sp} + \Delta U_{sa}$	20 2	_
5.5	Components as safeguards	500	Р
5.5.1	General	See below.	Р
5.5.2	Capacitors and RC units	Approved Y1 type capacitor used	Р
5.5.2.1	General requirement	S	Р
5.5.2.2	Safeguards against capacitor discharge after disconnection of a connector:		Р
5.5.3	Transformers	(See Annex G.5.3)	Р
5.5.4	Optocouplers	· No. 10	Р
5.5.5	Relays	0 4 1	N
5.5.6	Resistors	\GU	N
5.5.7	SPD's		N
5.5.7.1	Use of an SPD connected to reliable earthing		N
5.5.7.2	Use of an SPD between mains and protective earth	100 GC 6	N
5.5.8	Insulation between the mains and external circuit consisting of a coaxial cable:	No such external circuits.	N
5.6	Protective conductor		Р
5.6.2	Requirement for protective conductors	- SA - 100	Р
5.6.2.1	General requirements		Р
5.6.2.2	Colour of insulation	Yellow and green	Р
5.6.3	Requirement for protective earthing conductors	N. 10-	N
	Protective earthing conductor size (mm²)	7 P. St.	_
5.6.4	Requirement for protective bonding conductors	-64 -6	Р
5.6.4.1	Protective bonding conductors	N 50C	Р



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Clause	Requirement – Test	Result - Remark	Verdict
200	Protective bonding conductor size (mm²):	1.5	_
-	Protective current rating (A)	16	
5.6.4.3	Current limiting and overcurrent protective devices	100 CC C	N
5.6.5	Terminals for protective conductors	- D- 30-	N
5.6.5.1	Requirement	-0 2 7	N
7	Conductor size (mm²), nominal thread diameter (mm):	500 CGC	N
5.6.5.2	Corrosion	c	Р
5.6.6	Resistance of the protective system	-6	Р
5.6.6.1	Requirements	200	Р
5.6.6.2	Test Method Resistance (Ω)	0.018	Р
5.6.7	Reliable earthing	- 60 6	N
5.7	Prospective touch voltage, touch current and protective conductor current	P 200	Р
5.7.2	Measuring devices and networks	Figure 4 of IEC 60990 was used in determining of the limit of ES1.	Р
5.7.2.1	Measurement of touch current	See appendent table 5.2, B.3, B.4	Р
5.7.2.2	Measurement of prospective touch voltage	c	Р
5.7.3	Equipment set-up, supply connections and earth connections	Clause 4, 5.3 and 5.4 of IEC 60990:1999 applied.	Р
	System of interconnected equipment (separate connections/single connection):	Single	
200	Multiple connections to mains (one connection at a time/simultaneous connections):	Single	_
5.7.4	Earthed conductive accessible parts:	P	Р
5.7.5	Protective conductor current	-0 -	Р
- 3	Supply Voltage (V):	S 200 -C	_
	Measured current (mA)		_
	Instructional Safeguard	0 2 . 1	N
5.7.6	Prospective touch voltage and touch current due to external circuits	NO LOC	N
5.7.6.1	Touch current from coaxial cables	2 P. 10	N
5.7.6.2	Prospective touch voltage and touch current from external circuits	300 AC A	N



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Clause	Requirement – Test	Result - Remark	Verdict	
5.7.7	Summation of touch currents from external circuits	FC-	N	
(GC	a) Equipment with earthed external circuits     Measured current (mA):	-c0 -c	N	
	b) Equipment whose external circuits are not referenced to earth. Measured current (mA):	F. 30 S	N	

6	ELECTRICALLY- CAUSED FIRE	NO	Р
6.2.2	Power source circuit classifications	PS (power source) classification determined by measuring the maximum power in Figures 34 and 35 for load and power source circuits.	Р
6.2.2.1	General	See the following details.	Р
6.2.2.2	Power measurement for worst-case load fault:	(See appended table 6.2.2)	Р
6.2.2.3	Power measurement for worst-case power source fault:	(See appended table 6.2.2)	Р
6.2.2.4	PS1:	USB	Р
6.2.2.5	PS2:	Output circuit	Р
6.2.2.6	PS3:	Primary circuit	Р
6.2.3	Classification of potential ignition sources	See the following details.	Р
6.2.3.1	Arcing PIS:	Primary circuit	Р
6.2.3.2	Resistive PIS:	All circuit inside enclsoure considered as resistive PIS	Р
6.3	Safeguards against fire under normal operating and abnormal operating conditions	160 cc 2	Р
6.3.1 (a)	No ignition and attainable temperature value less than 90 % defined by ISO 871 or less than 300 °C for unknown materials	(See appended table 5.4.1.5, 6.3.2, 9.0, B.2.6, B.3)	Р
6.3.1 (b)	Combustible materials outside fire enclosure	No such materials used.	N
6.4	Safeguards against fire under single fault conditions		Р
6.4.1	Safeguard Method	Reduction of the likelihood of ignition and control of fire spread	P
6.4.2	Reduction of the likelihood of ignition under single fault conditions in PS1 circuits		N
6.4.3	Reduction of the likelihood of ignition under single fault conditions in PS2 and PS3 circuits	200 ac	Р



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Clause	Requirement – Test	Result - Remark	Verdict
6.4.3.1	General	50 VG-	Р
6.4.3.2	Supplementary Safeguards	. F 300	Р
SQC.	Special conditions if conductors on printed boards are opened or peeled	560 AC A	Р
6.4.3.3	Single Fault Conditions:	(See appended table B.4)	Р
.0	Special conditions for temperature limited by fuse	No such consideration.	Р
6.4.4	Control of fire spread in PS1 circuits	S 100 10	N
6.4.5	Control of fire spread in PS2 circuits	. P. SO.	Р
6.4.5.2	Supplementary safeguards:	(See appended tables 4.1.2 and Annex G)	Р
6.4.6	Control of fire spread in PS3 circuit	200	Р
6.4.7	Separation of combustible materials from a PIS	. F 39	N
6.4.7.1	General:	- 60 A	N
6.4.7.2	Separation by distance	D	N
6.4.7.3	Separation by a fire barrier	- F - 30	N
6.4.8	Fire enclosures and fire barriers	Equipment enclosure was evaluated as a fire enclosure.	Р
6.4.8.1	Fire enclosure and fire barrier material properties	See the following details.	Р
6.4.8.2.1	Requirements for a fire barrier	0 2 7	N
6.4.8.2.2	Requirements for a fire enclosure	Equipment fire enclosure was made of min. V-0 material.	Р
6.4.8.3	Constructional requirements for a fire enclosure and a fire barrier	See the following details.	Р
6.4.8.3.1	Fire enclosure and fire barrier openings	20 20 A	N
6.4.8.3.2	Fire barrier dimensions	F 50 460	N
6.4.8.3.3	Top Openings in Fire Enclosure: dimensions (mm):	60 6 7	N
. 3	Needle Flame test	SO 50	N
6.4.8.3.4	Bottom Openings in Fire Enclosure, condition met a), b) and/or c) dimensions (mm):	6 2 2 1	N
No	Flammability tests for the bottom of a fire enclosure:	267 700 T	N
6.4.8.3.5	Integrity of the fire enclosure, condition met: a), b) or c):	_6 - >	N
6.4.8.4	Separation of PIS from fire enclosure and fire barrier distance (mm) or flammability rating:	The plastic enclosure rated min. V-0 is considered as fire enclosure.	Р



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	EN 62368-1				
Clause	Requirement – Test	Result - Remark	Verdict		
6.5	Internal and external wiring	50 VOV -	Р		
6.5.1	Requirements	. F 35	Р		
6.5.2	Cross-sectional area (mm²):	0.5	_		
6.5.3	Requirements for interconnection to building wiring:	NO 100	N		
6.6	Safeguards against fire due to connection to additional equipment	GC 20 2	Р		
. 3	External port limited to PS2 or complies with Clause Q.1	, N. SC.	Р		

7	INJURY CAUSED BY HAZARDOUS SUBSTANCES		N
7.2	Reduction of exposure to hazardous substances	No hazardous chemicals within the equipment.	N
7.3	Ozone exposure	No ozone production within the equipment.	N
7.4	Use of personal safeguards (PPE)	No such consideration.	N
-,0	Personal safeguards and instructions	CO A	
7.5	Use of instructional safeguards and instructions	No chemical-caused injuries, the instruction safeguard was not required.	N
- m	Instructional safeguard (ISO 7010)	7 2G	
7.6	Batteries:	No battery used.	N

8	MECHANICALLY-CAUSED INJURY		Р
8.1	General	See the following details.	Р
8.2	Mechanical energy source classifications	Sharp edges and corners, classified as MS1  Equipment mass < 7 kg, classified as MS1	P
8.3	Safeguards against mechanical energy sources	MS1	N
8.4	Safeguards against parts with sharp edges and corners	Accessible edges and corners of the equipment are rounded and are classified as MS1.	Р
8.4.1	Safeguards	F N	N
8.5	Safeguards against moving parts	No moving parts within the equipment.	N



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	EN 62368-1		
Clause	Requirement – Test	Result - Remark	Verdict
8.5.1	MS2 or MS3 part required to be accessible for the function of the equipment	P 20 10	O N
8.5.2	Instructional Safeguard:	-0 2 K	_
8.5.4	Special categories of equipment comprising moving parts	300 200	N
8.5.4.1	Large data storage equipment		N
8.5.4.2	Equipment having electromechanical device for destruction of media	SO YOU	N
8.5.4.2.1	Safeguards and Safety Interlocks		N
8.5.4.2.2	Instructional safeguards against moving parts		
750	Instructional Safeguard	30- 60	_
8.5.4.2.3	Disconnection from the supply	F. 8 30	N
8.5.4.2.4	Probe type and force (N):	2.Ca 2 F	N
8.5.5	High Pressure Lamps	20, 70, 75	N
8.5.5.1	Energy Source Classification		N
8.5.5.2	High Pressure Lamp Explosion Test	~G	N
8.6	Stability	Fixed during used and mass less than 7kg	N
8.6.1	Product classification		N
	Instructional Safeguard:	0	_
8.6.2	Static stability		N
8.6.2.2	Static stability test		N
200	Applied Force	C 2 F	_
8.6.2.3	Downward Force Test	30 .00 .6	N
8.6.3	Relocation stability test		N
· JU	Unit configuration during 10° tilt:	20 2 Y	
8.6.4	Glass slide test	N 464 26	N
8.6.5	Horizontal force test (Applied Force):	. P NO.	N
	Position of feet or movable parts:	0 2 .	_
8.7	Equipment mounted to wall or ceiling	100 LG	Р
8.7.1	Mounting Means (Length of screws (mm) and mounting surface)	See manual	Р
8.7.2	Direction and applied force	Downward,70.56N	Р
8.8	Handles strength	No such device	N



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EN 62368-1				
Clause	Requirement – Test	Result - Remark	Verdict	
8.8.1	Classification	200	N	
8.8.2	Applied Force		N	
8.9	Wheels or casters attachment requirements	No such wheels or casters within the EUT	N	
8.9.1	Classification	. > 50	N	
8.9.2	Applied force	-O -2 Y	_	
8.10	Carts, stands and similar carriers	No such device provided within the EUT.	N	
8.10.1	General	A	N	
8.10.2	Marking and instructions	7 20 2	N	
150	Instructional Safeguard:	200	_	
8.10.3	Cart, stand or carrier loading test and compliance	6 F 39	N	
- 7,0	Applied force	- 69 6	_	
8.10.4	Cart, stand or carrier impact test	P 50 20	N	
8.10.5	Mechanical stability		N	
-,	Applied horizontal force (N)	60 6	_	
8.10.6	Thermoplastic temperature stability (°C)	- 50° mO	N	
8.11	Mounting means for rack mounted equipment	MS1 equipment	N	
8.11.1	General	Y -0 . I	N	
8.11.2	Product Classification	.0	N	
8.11.3	Mechanical strength test, variable N	399	N	
8.11.4	Mechanical strength test 250N, including end stops	-60 è	N	
8.12	Telescoping or rod antennas	No such device provided within the EUT.	N	
-,(-)	Button/Ball diameter (mm):	-0	_	

9	THERMAL BURN INJURY		Р
9.2	Thermal energy source classifications	All accessible surfaces are classified as TS1, see appended table 5.4.1.4, 6.3.2, 9.0, B.2.6	Р
9.3	Safeguard against thermal energy sources	See above.	Р
9.4	Requirements for safeguards	-6 -	Р
9.4.1	Equipment safeguard	200 -0	N
9.4.2	Instructional safeguard		N



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Clause	Requirement – Test	Result - Remark	Verdict
200	-G -G -	NO 100 -1	0
10	RADIATION		Р
10.2	Radiation energy source classification	-60 6	Р
10.2.1	General classification	RS1	Р
10.3	Protection against laser radiation		N
,U	Laser radiation that exists equipment:	GY - G .	_
1	Normal, abnormal, single-fault:	- NOT . NO	Ν
	Instructional safeguard:	2 - 3 - 3	_
l mil	Tool:	U _G _ ' '	_
10.4	Protection against visible, infrared, and UV radiation	NO 100	N
10.4.1	General		N
10.4.1.a)	RS3 for Ordinary and instructed persons:	10° 20 2	N
10.4.1.b)	RS3 accessible to a skilled person:	F 50 700	N
,c	Personal safeguard (PPE) instructional safeguard:	GC A F.	_
10.4.1.c)	Equipment visible, IR, UV does not exceed RS1	30 300	N
10.4.1.d)	Normal, abnormal, single-fault conditions:	7.0	N
10.4.1.e)	Enclosure material employed as safeguard is opaque:	F 160	N
10.4.1.f)	UV attenuation:		N
10.4.1.g)	Materials resistant to degradation UV:	50° -0 -	N
10.4.1.h)	Enclosure containment of optical radiation:	P 500 100	N
10.4.1.i)	Exempt Group under normal operating conditions	60 2 5	N
10.4.2	Instructional safeguard:	5 50 60	N
10.5	Protection against x-radiation	No such x-radiation generated from the equipment.	N
10.5.1	X- radiation energy source that exists equipment :	' <g">G</g">	N
100	Normal, abnormal, single fault conditions	P 10 . 6	N
- 7	Equipment safeguards:		N
~ GP	Instructional safeguard for skilled person:	-G	N



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Clause	Requirement – Test	Result - Remark	Verdict
10.5.3	Most unfavourable supply voltage to give maximum radiation:	NO NO	_
- 0	Abnormal and single-fault condition:	- C 3 F	N
NO.	Maximum radiation (pA/kg):	NO	N
10.6	Protection against acoustic energy sources	No such consideration for the purpose of personal music players.	N
10.6.1	General	.G	N
10.6.2	Classification	200	N
	Acoustic output, dB(A):	A	N
100	Output voltage, unweighted r.m.s:	-6 -	N
10.6.4	Protection of persons	200	N
	Instructional safeguards:	5 P 30	N
10°C	Equipment safeguard prevent ordinary person to RS2:	NOO GO G	_
7	Means to actively inform user of increase sound pressure	- No. No.	_
30	Equipment safeguard prevent ordinary person to RS2	SO NO	_
10.6.5	Requirements for listening devices (headphones, earphones, etc.)		N
10.6.5.1	Corded passive listening devices with analog input	200	N
	Input voltage with 94 dB(A) L <sub>Aeq</sub> acoustic pressure output:	36	_
10.6.5.2	Corded listening devices with digital input	200 -0 1	N
	Maximum dB(A):	F 30 .66	_
10.6.5.3	Cordless listening device		N
2	Maximum dB(A):	.07 _0 _	_

В	NORMAL OPERATING CONDITION TESTS, ABNORMAL OPERATING CONDITION TESTS AND SINGLE FAULT CONDITION TESTS		Р
B.2	Normal Operating Conditions See the following details.		
B.2.1	.2.1 General requirements		Р
	Audio Amplifiers and equipment with audio amplifiers:		N



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Clause	Requirement – Test	Result - Remark	Verdict
B.2.3	Supply voltage and tolerances	+10%, -10% considered	Р
B.2.5	Input test:	(See appended table B.2.5)	Р
B.3	Simulated abnormal operating conditions		Р
B.3.1	General requirements	(See appended table B.3)	Р
B.3.2	Covering of ventilation openings	No ventilation openings	N
B.3.3	D.C. mains polarity test		N
B.3.4	Setting of voltage selector	No setting of voltage selector within the EUT	N
B.3.5	Maximum load at output terminals	(See appended table B.3)	Р
B.3.6	Reverse battery polarity	No battery within the EUT	N
B.3.7	Abnormal operating conditions as specified in Clause E.2.		N
B.3.8	Safeguards functional during and after abnormal operating conditions	All safeguards remained effectively.	Р
B.4	Simulated single fault conditions		Р
B.4.2	Temperature controlling device open or short-circuited		N
B.4.3	Motor tests	No motor within the EUT	N
B.4.3.1	Motor blocked or rotor locked increasing the internal ambient temperature		N
B.4.4	Short circuit of functional insulation	See the following details.	Р
B.4.4.1	Short circuit of clearances for functional insulation	(See appended table B.4)	Р
B.4.4.2	Short circuit of creepage distances for functional insulation	(See appended table B.4)	Р
B.4.4.3	Short circuit of functional insulation on coated printed boards	No coated printed boards within the EUT	N
B.4.5	Short circuit and interruption of electrodes in tubes and semiconductors		Р
B.4.6	Short circuit or disconnect of passive components	(See appended table B.4)	Р
B.4.7	Continuous operation of components	The EUT is continuous operating type and no such components intended for short time operation or intermittent operation	N
B.4.8	Class 1 and Class 2 energy sources within limits during and after single fault conditions	(See appended table B.4)	Р
B.4.9	Battery charging under single fault conditions:	No battery involved in the EUT	N



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Clause	Requirement – Test	Result - Remark	Verdict		
С	UV RADIATION		N		
C.1	Protection of materials in equipment from UV radiation	No such UV generated from the equipment.	N		
C.1.2	Requirements		N		
C.1.3	Test method		N		
C.2	UV light conditioning test		N		
C.2.1	Test apparatus		N		
C.2.2	Mounting of test samples		N		
C.2.3	Carbon-arc light-exposure apparatus		N		
C.2.4	Xenon-arc light exposure apparatus		N		

D	TEST GENERATORS		N
D.1	Impulse test generators	No such consideration.	N
D.2	Antenna interface test generator		N
D.3	Electronic pulse generator		N

E	TEST CONDITIONS FOR EQUIPMENT CONTAINING AUDIO AMPLIFIERS	
E.1	Audio amplifier normal operating conditions	
	Audio signal voltage (V):	_
	Rated load impedance (Ω):	_
E.2	Audio amplifier abnormal operating conditions	N

F	EQUIPMENT MARKINGS, INSTRUCTIONS, AND INSTRUCTIONAL SAFEGUARDS		Р
F.1	General requirements	See the following details.	Р
	Instructions – Language:	English	_
F.2	Letter symbols and graphical symbols	See the following details.	Р
F.2.1	Letter symbols according to IEC60027-1	Letter symbols for quantities and units are complied with IEC 60027-1.	Р
F.2.2	Graphic symbols IEC, ISO or manufacturer specific	Graphical symbols are complied with IEC 60417, ISO 3864-2, ISO 7000 or ISO 7010.	Р
F.3	Equipment markings		Р
F.3.1	Equipment marking locations	Equipment marking is located on the exterior surface and is easily visible.	Р



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Clause	Requirement – Test	Result - Remark	Verdict
F.3.2	Equipment identification markings	See the following details.	Р
F.3.2.1	Manufacturer identification:		_
F.3.2.2	Model identification:	See copy of marking plate.	_
F.3.3	Equipment rating markings	See the following details.	Р
F.3.3.1	Equipment with direct connection to mains	Connected to AC mains	Р
F.3.3.2	Equipment without direct connection to mains		N
F.3.3.3	Nature of supply voltage	~	_
F.3.3.4	Rated voltage	100-240V	_
F.3.3.4	Rated frequency:	50/60Hz	_
F.3.3.6	Rated current or rated power:	1A	_
F.3.3.7	Equipment with multiple supply connections	Only one supply connection.	N
F.3.4	Voltage setting device	No such device on the equipment.	N
F.3.5	Terminals and operating devices		N
F.3.5.1	Mains appliance outlet and socket-outlet markings	No such outlet on the equipment.	N
F.3.5.2	Switch position identification marking:	No such switch on the equipment.	N
F.3.5.3	Replacement fuse identification and rating markings		N
F.3.5.4	Replacement battery identification marking:	No battery	N
F.3.5.5	Terminal marking location		N
F.3.6	Equipment markings related to equipment classification		Р
F.3.6.1	Class I Equipment		Р
F.3.6.1.1	Protective earthing conductor terminal		Р
F.3.6.1.2	Neutral conductor terminal		Р
F.3.6.1.3	Protective bonding conductor terminals		Р
F.3.6.2	Class II equipment (IEC60417-5172)		N
F.3.6.2.1	Class II equipment with or without functional earth		N
F.3.6.2.2	Class II equipment with functional earth terminal marking		N
F.3.7	Equipment IP rating marking:	This equipment is classified as IPX0.	_
F.3.8	External power supply output marking	See label	Р
F.3.9	Durability, legibility and permanence of marking	See the following details.	Р



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Clause	Requirement – Test	Result - Remark	Verdict
F.3.10	Test for permanence of markings	The label was subjected to the permanence of marking test, 15 sec. for water and 15 sec. for petroleum spirit.  After each test, the marking remained legible.	Р
F.4	Instructions		Р
	a) Equipment for use in locations where children not likely to be present - marking		N
	b) Instructions given for installation or initial use		Р
	c) Equipment intended to be fastened in place		N
	d) Equipment intended for use only in restricted access area		N
	e) Audio equipment terminals classified as ES3 and other equipment with terminals marked in accordance F.3.6.1		N
	f) Protective earthing employed as safeguard		N
	g) Protective earthing conductor current exceeding ES 2 limits		N
	h) Symbols used on equipment		Р
	i) Permanently connected equipment not provided with all-pole mains switch		N
	j) Replaceable components or modules providing safeguard function	No such parts	N
F.5	Instructional safeguards		N
	Where "instructional safeguard" is referenced in the test report it specifies the required elements, location of marking and/or instruction		N

G	COMPONENTS	Р
G.1	Switches	Р
G.1.1	General requirements	Р
G.1.2	Ratings, endurance, spacing, maximum load	Р
G.2	Relays	N
G.2.1	General requirements	N
G.2.2	Overload test	N
G.2.3	Relay controlling connectors supply power	N
G.2.4	Mains relay, modified as stated in G.2	N



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Clause	Requirement – Test	Result - Remark	Verdict
G.3	Protection Devices		Р
G.3.1	Thermal cut-offs		N
G.3.1.1a) &b)	Thermal cut-outs separately approved according to IEC 60730 with conditions indicated in a) & b)		N
G.3.1.1c)	Thermal cut-outs tested as part of the equipment as indicated in c)		N
G.3.1.2	Thermal cut-off connections maintained and secure		N
G.3.2	Thermal links		N
G.3.2.1a)	Thermal links separately tested with IEC 60691		N
G.3.2.1b)	Thermal links tested as part of the equipment		N
	Aging hours (H)		_
	Single Fault Condition		_
	Test Voltage (V) and Insulation Resistance ( $\Omega$ ):		_
G.3.3	PTC Thermistors		N
G.3.4	Overcurrent protection devices	Fuse	Р
G.3.5	Safeguards components not mentioned in G.3.1 to	G.3.5	N
G.3.5.1	Non-resettable devices suitably rated and marking provided		N
G.3.5.2	Single faults conditions		N
G.4	Connectors		Р
G.4.1	Spacings		Р
G.4.2	Mains connector configuration	250V10A	Р
G.4.3	Plug is shaped that insertion into mains socket- outlets or appliance coupler is unlikely		N
G.5	Wound Components		Р
G.5.1	Wire insulation in wound components	Triple insulated wire used as Reinforced insulation for secondary winding of T1.	Р
G.5.1.2 a)	Two wires in contact inside wound component, angle between 45° and 90°	Tube used	Р
G.5.1.2 b)	Construction subject to routine testing		N
G.5.2	Endurance test on wound components		N
G.5.2.1	General test requirements		N
G.5.2.2	Heat run test		N



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Clause	Requirement – Test	Result - Remark	Verdict	
	Time (s)			
	Temperature (°C):		_	
G.5.2.3	Wound Components supplied by mains		N	
G.5.3	Transformers		Р	
G.5.3.1	Requirements applied (IEC61204-7, IEC61558-1/-2, and/or IEC62368-1)	The transformer meets the requirements given in G.5.3.2 and G.5.3.3.	Р	
	Position:	T1	_	
	Method of protection	See G.5.3.3.	_	
G.5.3.2	Insulation	Primary windings and secondary windings are separated by Reinforced insulation	Р	
	Protection from displacement of windings:	By bobbin and insulating tape	_	
G.5.3.3	Overload test	(See appended table B.3)	Р	
G.5.3.3.1	Test conditions	Tested in the complete equipment.	Р	
G.5.3.3.2	Winding Temperatures testing in the unit	(See appended table B.3)	Р	
G.5.3.3.3	Winding Temperatures - Alternative test method		N	
G.5.4	Motors		N	
G.5.4.1	General requirements	No motors	N	
	Position		_	
G.5.4.2	Test conditions		N	
G.5.4.3	Running overload test		N	
G.5.4.4	Locked-rotor overload test		N	
	Test duration (days)			
G.5.4.5	Running overload test for d.c. motors in secondary circuits		N	
G.5.4.5.2	Tested in the unit		N	
	Electric strength test (V)			
G.5.4.5.3	Tested on the Bench - Alternative test method; test time (h)		N	
	Electric strength test (V)		_	
G.5.4.6	Locked-rotor overload test for d.c. motors in secondary circuits		N	
G.5.4.6.2	Tested in the unit		N	
	Maximum Temperature:		N	



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Clause	Requirement – Test	Result - Remark	Verdict
	Electric strength test (V)		N
G.5.4.6.3	Tested on the bench - Alternative test method; test time (h):		N
	Electric strength test (V)		N
G.5.4.7	Motors with capacitors		N
G.5.4.8	Three-phase motors		N
G.5.4.9	Series motors		N
	Operating voltage		_
G.6	Wire Insulation		N
G.6.1	General		N
G.6.2	Solvent-based enamel wiring insulation		N
G.7	Mains supply cords		N
G.7.1	General requirements		N
	Туре:		_
	Rated current (A):		_
	Cross-sectional area (mm²), (AWG)		_
G.7.2	Compliance and test method		N
G.7.3	Cord anchorages and strain relief for non- detachable power supply cords		N
G.7.3.2	Cord strain relief		N
G.7.3.2.1	Requirements		N
	Strain relief test force (N):		_
G.7.3.2.2	Strain relief mechanism failure		N
G.7.3.2.3	Cord sheath or jacket position, distance (mm):		_
G.7.3.2.4	Strain relief comprised of polymeric material		N
G.7.4	Cord Entry		N
G.7.5	Non-detachable cord bend protection		N
G.7.5.1	Requirements		N
G.7.5.2	Mass (g)		
	Diameter (m)		
	Temperature (°C):		_
G.7.6	Supply wiring space		N
G.7.6.2	Stranded wire		N



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Clause	Requirement – Test	Result - Remark	Verdict
G.7.6.2.1	Test with 8 mm strand		N
G.8	Varistors		N
G.8.1	General requirements		N
G.8.2	Safeguard against shock		N
G.8.3	Safeguard against fire		N
G.8.3.2	Varistor overload test:		N
G.8.3.3	Temporary overvoltage:		N
G.9	Integrated Circuit (IC) Current Limiters		N
G.9.1 a)	Manufacturer defines limit at max. 5A.		N
G.9.1 b)	Limiters do not have manual operator or reset		N
G.9.1 c)	Supply source does not exceed 250 VA:		_
G.9.1 d)	IC limiter output current (max. 5A):		_
G.9.1 e)	Manufacturers' defined drift:		_
G.9.2	Test Program 1		N
G.9.3	Test Program 2		N
G.9.4	Test Program 3		N
G.10	Resistors		N
G.10.1	General requirements		N
G.10.2	Resistor test		N
G.10.3	Test for resistors serving as safeguards between the mains and an external circuit consisting of a coaxial cable		N
G.10.3.1	General requirements		N
G.10.3.2	Voltage surge test		N
G.10.3.3	Impulse test		N
G.11	Capacitor and RC units		Р
G.11.1	General requirements	Approved Y1 capacitor used.	Р
G.11.2	Conditioning of capacitors and RC units		N
G.11.3	Rules for selecting capacitors		N
G.12	Optocouplers	•	Р
	Optocouplers comply with IEC 60747-5-5:2007 Spacing or Electric Strength Test (specify option and test results)	Comply with IEC 60747-5-5:2007	Р
	Type test voltage Vini:	Comply with IEC 60747-5-5:2007	_



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Clause	Requirement – Test Result - Remark	Verdict
	Routine test voltage, Vini,b	
G.13	Printed boards	Р
G.13.1	General requirements	Р
G.13.2	Uncoated printed boards	Р
G.13.3	Coated printed boards	N
G.13.4	Insulation between conductors on the same inner surface	N
	Compliance with cemented joint requirements (Specify construction):	_
G.13.5	Insulation between conductors on different surfaces	N
	Distance through insulation	N
	Number of insulation layers (pcs)	_
G.13.6	Tests on coated printed boards	N
G.13.6.1	Sample preparation and preliminary inspection	N
G.13.6.2a)	Thermal conditioning	N
G.13.6.2b)	Electric strength test	N
G.13.6.2c)	Abrasion resistance test	N
G.14	Coating on components terminals	N
G.14.1	Requirements	N
G.15	Liquid filled components	N
G.15.1	General requirements	N
G.15.2	Requirements	N
G.15.3	Compliance and test methods	N
G.15.3.1	Hydrostatic pressure test	N
G.15.3.2	Creep resistance test	N
G.15.3.3	Tubing and fittings compatibility test	N
G.15.3.4	Vibration test	N
G.15.3.5	Thermal cycling test	N
G.15.3.6	Force test	N
G.15.4	Compliance	N
G.16	IC including capacitor discharge function (ICX)	N
a)	Humidity treatment in accordance with sc5.4.8 – 120 hours	N



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Clause	Requirement – Test	Result - Remark	Verdict		
b)	Impulse test using circuit 2 with Uc = to transient voltage		N		
C1)	Application of ac voltage at 110% of rated voltage for 2.5 minutes		N		
C2)	Test voltage		_		
D1)	10,000 cycles on and off using capacitor with smallest capacitance resistor with largest resistance specified by manufacturer		N		
D2)	Capacitance		_		
D3)	Resistance		_		

Н	CRITERIA FOR TELEPHONE RINGING SIGNALS	N
H.1	General	N
H.2	Method A	N
H.3	Method B	N
H.3.1	Ringing signal	N
H.3.1.1	Frequency (Hz)	_
H.3.1.2	Voltage (V)	_
H.3.1.3	Cadence; time (s) and voltage (V)	_
H.3.1.4	Single fault current (mA):	_
H.3.2	Tripping device and monitoring voltage:	N
H.3.2.1	Conditions for use of a tripping device or a monitoring voltage complied with	N
H.3.2.2	Tripping device	N
H.3.2.3	Monitoring voltage (V):	_

J	INSULATED WINDING WIRES FOR USE WITHOU	JT INTERLEAVED INSULATION	N
	General requirements		Ν

K	SAFETY INTERLOCKS		N
K.1	General requirements	No safety interlock provided within the equipment.	N
K.2	Components of safety interlock safeguard mechanism		N
K.3	Inadvertent change of operating mode		N



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Clause	Requirement – Test	Result - Remark	Verdict	
K.4	Interlock safeguard override		N	
K.5	Fail-safe		N	
	Compliance		N	
K.6	Mechanically operated safety interlocks		N	
K.6.1	Endurance requirement		N	
K.6.2	Compliance and Test method		N	
K.7	Interlock circuit isolation		N	
K.7.1	Separation distance for contact gaps & interlock circuit elements (type and circuit location):		N	
K.7.2	Overload test, Current (A)		N	
K.7.3	Endurance test		N	
K.7.4	Electric strength test		N	

L	DISCONNECT DEVICES		Р
L.1	General requirements		Р
L.2	Permanently connected equipment		N
L.3	Parts that remain energized	When AC plug is disconnected no hazardous voltage in the equipment.	Р
L.4	Single phase equipment		Р
L.5	Three-phase equipment		N
L.6	Switches as disconnect devices	No such switch	N
L.7	Plugs as disconnect devices		N
L.8	Multiple power sources	Single	N

М	EQUIPMENT CONTAINING BATTERIES AND THEIR PROTECTION CIRCUITS		N
M.1	1 General requirements No battery used.		N
M.2	Safety of batteries and their cells		N
M.2.1	Requirements		N
M.2.2	Compliance and test method (identify method):	:	N
M.3	Protection circuits		N
M.3.1	Requirements		N
M.3.2	Tests		N
	- Overcharging of a rechargeable battery		N



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Clause	Requirement – Test	Result - Remark	Verdict
	- Unintentional charging of a non-rechargeable battery		N
	- Reverse charging of a rechargeable battery		N
	- Excessive discharging rate for any battery		N
M.3.3	Compliance		N
M.4	Additional safeguards for equipment containing secondary lithium battery		N
M.4.1	General		N
M.4.2	Charging safeguards		N
M.4.2.1	Charging operating limits		N
M.4.2.2a)	Charging voltage, current and temperature:		N
M.4.2.2 b)	Single faults in charging circuitry:		N
M.4.3	Fire Enclosure		N
M.4.4	Endurance of equipment containing a secondary lithium battery		N
M.4.4.2	Preparation		N
M.4.4.3	Drop and charge/discharge function tests		N
	Drop		N
	Charge		N
	Discharge		N
M.4.4.4	Charge-discharge cycle test		N
M.4.4.5	Result of charge-discharge cycle test		N
M.5	Risk of burn due to short circuit during carrying		N
M.5.1	Requirement		N
M.5.2	Compliance and Test Method (Test of P.2.3)		N
M.6	Prevention of short circuits and protection from other effects of electric current		N
M.6.1	Short circuits		N
M.6.1.1	General requirements		N
M.6.1.2	Test method to simulate an internal fault		N
M.6.1.3	Compliance (Specify M.6.1.2 or alternative method):		N
M.6.2	Leakage current (mA):		N
M.7	Risk of explosion from lead acid and NiCd batteries		N



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Clause	Requirement – Test	Result - Remark	Verdict
M.7.1	Ventilation preventing explosive gas concentration		N
M.7.2	Compliance and test method		N
M.8	Protection against internal ignition from external spark sources of lead acid batteries		N
M.8.1	General requirements		N
M.8.2	Test method		N
M.8.2.1	General requirements		N
M.8.2.2	Estimation of hypothetical volume Vz (m³/s):		_
M.8.2.3	Correction factors		_
M.8.2.4	Calculation of distance d (mm)		_
M.9	Preventing electrolyte spillage		N
M.9.1	Protection from electrolyte spillage		N
M.9.2	Tray for preventing electrolyte spillage		N
M.10	Instructions to prevent reasonably foreseeable misuse (Determination of compliance: inspection, data review; or abnormal testing):		N

N ELECTROCHEMICAL POTENTIALS		N	
	Metal(s) used:		

0	MEASUREMENT OF CREEPAGE DISTANCES AND CLEARANCES		Р
	Figures O.1 to O.20 of this Annex applied:	Considered.	

Р	SAFEGUARDS AGAINST ENTRY OF FOREIGN OBJECTS AND SPILLAGE OF INTERNAL LIQUIDS		Р
P.1	General requirements		Р
P.2.2	Safeguards against entry of foreign object	No openings of enclosure.	Р
	Location and Dimensions (mm):		_
P.2.3	Safeguard against the consequences of entry of foreign object		N
P.2.3.1	Safeguards against the entry of a foreign object		N
	Openings in transportable equipment		N
	Transportable equipment with metalized plastic parts:		N



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	EN 62368-1		
Clause	Requirement – Test	Result - Remark	Verdict
P.2.3.2	Openings in transportable equipment in relation to metallized parts of a barrier or enclosure (identification of supplementary safeguard):		N
P.3	Safeguards against spillage of internal liquids	No such construction.	N
P.3.1	General requirements		N
P.3.2	Determination of spillage consequences		N
P.3.3	Spillage safeguards		N
P.3.4	Safeguards effectiveness		N
P.4	Metallized coatings and adhesive securing parts	No such construction.	N
P.4.2 a)	Conditioning testing		N
	Tc (°C)		_
	Tr (°C)		_
	Ta (°C)		_
P.4.2 b)	Abrasion testing		N
P.4.2 c)	Mechanical strength testing:		N

Q	CIRCUITS INTENDED FOR INTERCONNECTION WITH BUILDING WIRING	Р
Q.1	Limited power sources	Р
Q.1.1 a)	Inherently limited output	N
Q.1.1 b)	Impedance limited output	Р
	- Regulating network limited output under normal operating and simulated single fault condition	Р
Q.1.1 c)	Overcurrent protective device limited output	N
Q.1.1 d)	IC current limiter complying with G.9	N
Q.1.2	Compliance and test method	N
Q.2	Test for external circuits – paired conductor cable	N
	Maximum output current (A):	_
	Current limiting method:	_

R	LIMITED SHORT CIRCUIT TEST		N
R.1	General requirements	No such consideration.	N
R.2	Determination of the overcurrent protective device and circuit		N



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Clause	Requirement – Test	Result - Remark	Verdict
R.3	Test method Supply voltage (V) and short-circuit current (A)):		N

S	TESTS FOR RESISTANCE TO HEAT AND FIRE		N
S.1	Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W	The fire enclosure was made of rated min. V-0 material.	N
	Samples, material:		_
	Wall thickness (mm):		_
	Conditioning (°C):		_
	Test flame according to IEC 60695-11-5 with conditions as set out		N
	- Material not consumed completely		N
	- Material extinguishes within 30s		N
	- No burning of layer or wrapping tissue		N
S.2	Flammability test for fire enclosure and fire barrier integrity		N
	Samples, material:		_
	Wall thickness (mm)		_
	Conditioning (°C)		_
	Test flame according to IEC 60695-11-5 with conditions as set out		N
	Test specimen does not show any additional hole		N
S.3	Flammability test for the bottom of a fire enclosure		N
	Samples, material:		_
	Wall thickness (mm):		_
	Cheesecloth did not ignite		N
S.4	Flammability classification of materials		N
S.5	Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W		N
	Samples, material		_
	Wall thickness (mm)		_
	Conditioning (test condition), (°C):		_
	Test flame according to IEC 60695-11-20 with conditions as set out		N

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Clause Requirement – Test Result - Remark V					
	After every test specimen was not consumed completely		N		
	After fifth flame application, flame extinguished within 1 min		N		

T	MECHANICAL STRENGTH TESTS		Р
T.1	General requirements	See the following details.	Р
T.2	Steady force test, 10 N	(See appended table T.2)	Р
T.3	Steady force test, 30 N		N
T.4	Steady force test, 100 N		N
T.5	Steady force test, 250 N	(See appended table T.5)	Р
T.6	Enclosure impact test		N
	Fall test	(See appended table T.6)	Р
	Swing test		N
T.7	Drop test:		N
T.8	Stress relief test:		N
T.9	Impact Test (glass)	No such glass provided within the equipment.	N
T.9.1	General requirements		N
T.9.2	Impact test and compliance		N
	Impact energy (J):		_
	Height (m):		_
T.10	Glass fragmentation test:	No glass used.	N
T.11	Test for telescoping or rod antennas	No such antennas provided within the equipment.	N
	Torque value (Nm)		_

U	MECHANICAL STRENGTH OF CATHODE RAY TUBES (CRT) AND PROTECTION AGAINST THE EFECTS OF IMPLOSION		N
U.1	General requirements	No CRT provided within the equipment.	N
U.2	Compliance and test method for non-intrinsically protected CRTs		N
U.3	Protective Screen		N

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Clause	Requirement – Test	Result - Remark	Verdict	
V	DETERMINATION OF ACCESSIBLE PARTS (FINGERS, PROBES AND WEDGES)			
V.1	Accessible parts of equipment	No access with test probes to any hazardous parts	Р	
V.2	Accessible part criterion	No live parts can be accessible.	Р	

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	EN 62368-1			
Clause	e Requirement – Test Result – Remark			
(A	ATTACHMENT TO TEST REPORT IE EUROPEAN GROUP DIFFERENCES AND NATIon undio/video, information and communication technology equip	ONAL DIFFERENCES	nents)	
200	CENELEC COMMON MODIFICATIONS (EN)	CO C	-	
1	NOTE Z1	D. 10.	Р	
4.Z1	Protective devices included as integral parts of the equipment or as parts of the building installation:	-6	N	
	a) Included as parts of the equipment	10- 20	N	
	b) For components in series with the mains; by devices in the building installation	F	N	
~0	c) For pluggable type B or permanently connected; by devices in the building installation	o <sup>G</sup> -d	N	
5.4.2.3.2.4	Interconnection with external circuit	200	N	
10.2.1	Additional requirements in 10.5.1	2 7 3	N	
10.5.1	RS1 compliance measurement conditions	Y . C .	N	
10.6.2.1	EN 71-1:2011, 4.20 and methods and distances	20° - W	N	
10.Z1	Non-ionizing radiation from radio frequencies in the range 0 to 300 GHz		N	
G.7.1	NOTE Z1	-00	Р	

ZB ANNEX ZB, SPECIAL NATIONAL CONDITIONS (EN)			-
4.1.15	Denmark, Finland, Norway and Sweden: Class I pluggable equipment type A marking	0	N
4.7.3	United Kingdom: Torque test socket-outlet BS 1363, and the plug part BS 1363.	30 30	N
5.2.2.2	Denmark: Warning for high touch current	30 ,00 ,	N
5.4.11.1 and Annex G	Finland and Sweden: Separation of the telecommunication network from earth	100	N
5.5.2.1	Norway: Capacitors rated for the applicable line-to-line voltage (230 V).	Non Year	N
5.5.6	Finland, Norway and Sweden: Resistors used as basic safeguard or bridging basic insulation comply with G.10.1 and G.10.2.	60 6	N
5.6.1	Denmark: Protection for pluggable equipment type A; integral part of the equipment	No. No.	N
5.6.4.2.1	Ireland and United Kingdom: The protective current rating is taken to be 13 A	30 ,00 ,	N

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Clause	Requirement – Test	Result – Remark	Verdict
5.6.5.1	Ireland and United Kingdom: Conductor sizes of flexible cords to be accepted by terminals for equipment rated 10 A to 13 A	7 70 No	N
5.7.5	enmark:  le installation instruction affixed to the equipment if  gh protective conductor current		N
5.7.6.1	Norway and Sweden: Television distribution system isolation text in user manual	-6	N
5.7.6.2	Denmark: Warning for high touch current	20 200	N
B.3.1 and B.4	Ireland and United Kingdom: Tests conducted using an external miniature circuit breaker or protective devices included as an integral part of the direct plug-in equipment	GC CC	N
G.4.2	Denmark: Appliances rated ≤13 A provided with a plug according to DS 60884-2-D1:2011.	6 5	N
	Class I equipment provided with socket-outlets provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a.	1 FOO 100	N
	If a single-phase equipment having rated >13 A or polyphase equipment provided with a supply cord with a plug, plug in accordance with the standard sheets DK 6-1a in DS 60884-2-D1 or EN 60309-2.	200 .00	N
	Mains socket outlets intended for providing power to Class II apparatus rated 2,5 A in accordance with DS 60884-2-D1:2011 standard sheet DKA 1- 4a.	20	N
D.	Other current rating socket outlets in compliance with Standard Sheet DKA 1-3a or DKA 1-1c.	- COO -	N
(dÓ	Mains socket-outlets with earth in compliance with DS 60884-2-D1:2011 Standard Sheet DK 1- 3a, DK 1-1c, DK1-1d, DK 1-5a or DK 1-7a	o S	N
G.4.2	United Kingdom: The plug part of direct plug-in equipment assessed to BS 1363	100 10C	N
G.7.1	United Kingdom: Equipment fitted with a 'standard plug' in accordance with the Plugs and Sockets etc (Safety) Regulations 1994, Statutory Instrument 1994 No. 1768	Sec Sec	N
G.7.1	Ireland: Apparatus provided with a plug in accordance with Statutory Instrument 525: 1997, "13 A Plugs and Conversion Adapters for Domestic Use	GC GC	N
G.7.2	Ireland and United Kingdom: A power supply cord for equipment which is rated over 10 A and up to and including 13 A.	G E N	N

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Clause	Requirement – Test	Result – Remark	Verdict
10.5.2	Germany: Cathode ray tube intended for the display of visual images, authorization or application of type approval and marking.	C NO NO	N

4.1.2 T	ABLE: List of critical comp	onents			Р
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity <sup>1</sup>
SWITCH	Rong Feng Industrial Co., Ltd.	RF-1003	250V/8A	EN 61058- 1:2002+A2 UL 61058-1,	HN 69248433 UL E94138
Appliance inlet	LECI Electronics Co., Ltd	DB-14	250V 10A	EN 60320- 1:2015 + AC:2016	VDE 40032137
Internal wire	Interchangeable	Interchangeable	V-0, 105°C,Min. 26AWG	UL94	UL
Earth wire	Interchangeable	Interchangeable	V-0, 105°C,Min. 18AWG	UL94	UL
PCB	Kingboard Laminates Holdings Ltd.	KB-6160A, KB- 6160C	V-0, 130°C	UL94 UL 796	UL E123995
Alternative	Interchangeable	Interchangeable	V-0, 130°C	UL94 UL 796	UL ZPMV2
Internal adapter	Mean Well Enterprises Co.,Ltd	RS-25-12	Input:100-240VAC, 50/60Hz,0.7A; Output:12VDC2.1A	EN 62368- 1:2014+A11	R 50442670

4.8.4, 4.8.	5 TABLE: Litt	nium coin/button cell batteries	s mechanical tests	N
(The follo	wing mechanic	al tests are conducted in the	sequence noted.)	
4.8.4.2	TABLE: Stre	ess relief test	1 2GO 2G	_
	Part	Material	Oven Temperature (°C)	Comments
		10 - C		- G-
4.8.4.3	TABLE: Bat	tery replacement test	<6° -6 -1	<u> </u>
Battery pa	rt no	······································	-50 TOO	_
Battery Ins	tallation/withdra	wal	Battery Installation/Removal Cycle	Comments
C		F. 1	1	- 5
			2	-6
			3	

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(The follow	ing mechanical	tests are conducted in the se	equence noted.)	
200	<0 <sup>-</sup>	-0 1	4	- C-
		200 LGC	5	20 - 10
		F 100 10	6	- 12
		20 2 "	8	لر - 0,5
		200	9	ن ارا ارا
,O	. 6	. 17 30	10	
1.8.4.4	TABLE: Drop	test	No. 70	_
Impact Area		Drop Distance	Drop No.	Observations
. 60 6			16	- 1
120	- 50	-60 - A	2	- 15 G
- 6	-	N -10	3	- 7C
4.8.4.5	TABLE: Impa	ct	10 40	_
Impacts	per surface	Surface tested	Impact energy (Nm)	Comments
.0		. SY < 6'	7 -G - 3 P	3.0
7-			200	
. 6	£ 70	- 2G 2	, p. 10	=0
4.8.4.6	TABLE: Crus	h test	20 2	_
Test	position	Surface tested	Crushing Force (N)	Duration force applied (s)
		76	. ć	3.07
-J.O		100	3	- 70

4.8.5	TABLE: Lit	hium coin/button cell batteries m	nechanical test result	100	N
Test	position	Surface tested	Force (N)		ration force pplied (s)
	100	~0 <u>~</u> ~.0	2 P. S	Υ,	G
			- FAU FC		

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5.2 Table: Classification of electrical energy sources							Р
5.2.2.2	2 – Steady State	Voltage and Curi	rent conditions				
	Supply	Location (e.g.		ı			
No.	Voltage(V)	circuit designation)	Test conditions	U (Vrms or Vpk)	l (Apk or Arms)	Hz	ES Class
1	264	Primary circuits	Normal	×0	Z-0		
	10.	supplied by a.c. mains supply	Abnormal		20	~ ( <del>)</del> (	ES3 (declaration)
			Single fault	- 7		-	(0.000.000)
2	264 Output to earth	Normal	9	0.066mApk	2	Pr	
		Abnormal: overload	No.	0.066mApk	34	ES1	
	. 6	-	Single fault:	- C-	_6-		
3	264	Metal	Normal	- 1	0.005mApk	<i>j</i> -	
		enclosure to earth	Abnormal: overload	20T	0.005mApk	38	ES1
			Single fault:		0		
4	264	Output "+" to "-	Normal	5Vdc max	N-27	- G	
		,,	Abnormal: output over load	5Vdc max	7	2-	ES1
	- G-	7.O	Single fault :	-	- O-	-,G	

5.2.2.3	3 - Capacitan	ce Limits					
Na	Supply	Location (e.g. circuit	Toot conditions		Parameter	s	ES Class
No.	Voltage	designation)	Test conditions	Capacitance,	nF	Upk (V)	ES Class
	A - 1	1	Normal	,C		- 39	~.G
	· .	0 4	Abnormal	, TO	/	6 - 5	
	1	Sec.	Single fault – SC/OC	P.I.	P	200	L66
5.2.2.4	4 - Single Pul	ses			-		
No	Supply	Supply Location (e.g. circuit		Parameters		S	ES Class
No.	Voltage	designation)	Test conditions	Duration (ms)	Upk (V)	lpk (mA)	ES Class
-	9.5	5 - K	Normal	- G/-	C7	- F	
		CO 2	Abnormal	- 20	2	- O.	
		100	Single fault – SC/OC	. Č - Č.	- E	- 10	0

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5.2.2.5	5 - Repetitive	Pulses					
No	Supply	Location (e.g. circuit	Test conditions		Parameters		ES Class
No.	Voltage	designation)	Test conditions	Off time (ms)	Upk (V)	lpk (mA)	ES Class
	P		Normal	C -	19	-300	~6
. 0	0		Abnormal	) <u></u> - 0			
	20	700	Single fault – SC/OC		3-0)-	\ &C	-6

Test Conditions:

Normal – Abnormal -

Supplementary information: SC=Short Circuit, OC=Short Circuit

5.4.1.4, 6.3.2, 9.0, B.2.6	TABLE: Temperature measurem	ents				Р
72.	Supply voltage (V):	a):100V×0. b):240V×1.			. 39	_
300	Ambient T <sub>min</sub> (°C):	-	10	-c.C	7 ,	_
F 3	Ambient T <sub>max</sub> (°C):		100		0'-	_
-6	Tma (°C):	40		_		
Maximum measured temperature T of part/at:			T (°	C)		Allowed T <sub>max</sub> (°C)
Test condition	ı No.:	a)	b)			-04-7
Appliance coup	oler	52.3	48.9	0-		P - 3
Switch	16 <sup>0</sup> . F.	44.6	43.8		C-	77
PCB near U2	N. 10. 10	75.2	76.8			130
Internal wire		53.9	55.2		12	80
Internal enclos	ure near T1	48.7	48.9		- ,	
Ambinet	100 . 10	40.0	40.0	7	4-0	- <del>-</del> G
For accessible	part	-0V	-0		100	300
External enclos	sure near T1	29.2	28.6	0	-	60
Ambinet	Nº 2.0	25.0	25.0		4. C3-1	

Supplementary information:\*) Temperature limits for winding include less 10K for thermocouple measurement method.

Temperature T of winding:	t <sub>1</sub> (°C)	R <sub>1</sub> (Ω)	t <sub>2</sub> (°C)	$R_2(\Omega)$	T (°C)	Allowed T <sub>max</sub> (°C)	Insulation class
- C	-5%	7 1	o,U	-70		-	1
70 FO A		B		<u> </u>	,0		

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Supplementary information:

Note 1: Tma should be considered as directed by applicable requirement

Note 2: Tma is not included in assessment of Touch Temperatures (Clause 9)

5.4.1.10.3 TABLE: Ball	4.1.10.3 TABLE: Ball pressure test of thermoplastics					
Allowed impression diame	er (mm)	≤ 2 mm	0 .	_		
Object/Part No./Material	Manufacturer/trademark	Test temperature (°C)	Impression of	liameter (mm)		
-0 2	- DY 36	Y _6 _	100	- 33		
Supplementary information	6 1 1	100				

5.4.2.2, 5.4.2.4 TABLE: Minimum Clearances/Creepage distance and 5.4.3							Р
Clearance (cl) and creepage distance (cr) at/of/between:	Up (V)	U r.m.s. (V)	Frequency (kHz) <sup>1</sup>	Required cl (mm)	cl (mm) <sup>2</sup>	Required <sup>3</sup> cr (mm)	cr (mm)
Line to Neutral before F1	<420	<250	0.06	1.5	3	2.5	3
LN to E	<420	<250	0.06	1.5	3	2.5	3
Primary circuit to enclosure	<420	<250	0.06	1.5	4.0	2.5	4.0
Primary circuit to secondary circuit	<420	<250	≤30	3.0	6.2	5.0	6.2

Supplementary information:

Note 1: Only for frequency above 30 kHz

Note 2: See table 5.4.2.4 if this is based on electric strength test

Note 3: Provide Material Group

5.4.2.3	TABLE: Minimum Clear	ances distances using	required withstand v	oltage	P
7	Overvoltage Category (	OV):	)		II 2 red cl (mm)
10-	Pollution Degree:		160	6	2
Clearance distanced between:		Required withstand voltage	Required cl (mm)	Meas	ured cl (mm)
See table 5.4.2.2, 5.4.2.4 and 5.4.3 above.		2500	1.5mm for BI 3.0mm for RI		

5.4.2.4 TABLE: Clearances based on electric strength test							
Test voltage applied between:	Required cl (mm)	Test voltage (kV) peak/ r.m.s. / d.c <del>.</del>	Break Yes				
	150° - 10	- C	- P				

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5.4.4.2,5.4.4.5 c) 5.4.4.9	TAE	BLE: Distance through in		N			
Distance through insulation di at/of:		Peak voltage (V)	Frequency (kHz)	Material	Required DTI (mm)	DTI (mm)	
6		20 T 190	1 0		P	70 - CO	
Supplementary information:1). See appended table 4.1.2 for details.							

5.4.9	TABLE: Electric strength t	ests		P	
Test voltage applied between:		Voltage shape (AC, DC)	Test voltage (V)	Breakdown Yes / No	
Basic/sup	pplementary:	5 E	257 7.01	0	
L/N before	e F1	DC	2500	No	
L/N and enclosure		DC	2500	No	
Reinforce	ed:	2 K.	200	-C	
L/N and o	utput	DC	4000	No	
Routine T	ests:	No. 10	, O	, P	
-52	30 7.0	- 3	, 70 <sub>1</sub>	~G	
Suppleme	entary information:	G <sup>1</sup> . G	F 87 3	Y .G	

5.5.2.2 TABLE: S	toreu dischar	ge on capacit	UIS	- 17		N
Supply Voltage (V), Hz	Test Location	Operating Condition (N, S)	Switch position On or off	Measured Voltage (after 2 seconds)	ES Cla	assification
~ CH	e,	0	200	~ C)/		
Supplementary informat	ion:	1 1		- C	~	- 0
X-capacitors installed fo	r testing are:					
	in au					
<ul> <li>bleeding resistor rat</li> </ul>	ing:					
<ul><li>□ lCX:</li></ul>	ing:					
	ling.					
□ ICX:	ing.					
☐ ICX: Notes:	≥GC	ase to Earth; al	nd/or Neutral t	o Earth		
☐ ICX: Notes: A. Test Location:	e to Phase; Ph	ase to Earth; a	nd/or Neutral t	o Earth		

5.6.6.2 TABLE	TABLE: Resistance of protective conductors and terminations						
Accessible	e part Test current (A)	Duration (min)	Voltage drop (V)	Resistance (Ω)			
-, r <sub>2</sub> O ,		10 T	0 - 3				
-52	Z 20 =2		0	-0-			

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TABLE: Resistance of protective conductors and terminations						
Test current (A)	Duration (min)	Voltage drop (V)	Resistance (Ω)			
30			702 V			

5.7.2.2, 5.7.4	TABLE: Earthed accessible conductive part					N
Supply voltage		264V/60H	Нz	. P		_
Location		Test conditions specified in 6.1 of IEC 60990 or Fault Condition No in IEC 60990 clause 6.2.2.1 through 6.2.2.8, except for 6.2.2.7			Touch current (mA)	
~6	0 _c= , 8		1	-0		1
1	NO NO		2	30	- 14	-
		r.C	3	100		- 50
-0	-0 - 1 - 3	4		0		
N 100 E		· 1	5	9		
74.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0	6	. 5		-0-
94	-G =	70.0	7	O .		

## Supplementary Information:

## Notes

- [1] Supply voltage is the anticipated maximum Touch Voltage
- [2] Earthed neutral conductor [Voltage differences less than 1% or more]
- [3] Specify method used for measurement as described in IEC 60990 sub-clause 4.3
- [4] IEC60990, sub-clause 6.2.2.7, Fault 7 not applicable.
- [5] (\*) IEC60990, sub-clause 6.2.2.2 is not applicable if switch or disconnect device (e.g., appliance coupler) provided.

6.2.2	Table: Electrical power sources (PS) measurements for classification					
Source	Description	Measurement	Max Power after 3 s	Max Power after 5 s*)	PS Classification	
		Power (W) :			PS3 (declared by	
Primary circuit		V <sub>A</sub> (V) :	ı		manufacturer)	
on out		I <sub>A</sub> (A) :	ı			
		Power (W) :	10.1	10.1	PS1	
USB output Normal		V <sub>A</sub> (V) :	5.07	5.07		
		I <sub>A</sub> (A) :	2.29	2.29		
LICD output	UL2 SC	Power (W) :	0	0	PS1	
USB output	UL2 SC	V <sub>A</sub> (V) :	0	0		

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		I <sub>A</sub> (A)	:	0	0		
Supplementary Information:							
(*) Measuren	nent taken only	when limi	ts at 3	seconds exceed PS1 lim	nits		

6.2.3.1	Table: Determinati	Р			
	Location	Open circuit voltageAfter 3 s (Vp)	Measured r.m.s current(Irms)	Calculated value (Vp x Irms)	Arcing PIS? Yes / No
Pri	mary circuit	29° 46	Y =0		Yes

Supplementary information:

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

6.2.3.2	Table: Dete	P				
Circuit Loo	cation (x-y)	Operating Condition (Normal / Describe Single Fault)	Measured wattage or VA During first 30 s (W / VA)	Measured wattage or VA After 30 s (W / VA)	Protective Circuit, Regulator, or PTC Operated? Yes / No (Comment)	Resistive PIS? Yes/No
	al circuit / onent	200 - 10C	20		- 30,	Yes

Supplementary Information:

A combination of voltmeter, VA and ammeter IA may be used instead of a wattmeter.

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

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

8.5.5	TABLE: High Pressure Lamp		N	
Description		Values	Energy Source Classification	
Lamp type	e:	40 - A	_	
Manufacti	urer:		_	
Cat no:		8. 30	_	
Pressure (cold) (MPa):		, P	MS_	
Pressure	(operating) (MPa)	20° 20	MS_	
Operating	time (minutes)	- 20	I	
Explosion method:		-6-	_	
Max partio	cle length escaping enclosure (mm):	70 40	MS_	
Max partic	cle length beyond 1 m (mm):	- 200	MS_	

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PCB= 75.2°C, Enclosure

oustside =32.5°C Ambient=24.8°C

Overall result	) r.		1	50
Supplementary information:	200	z.0		

B.2.5	TABLE: Inp	ut test					Р
U (V)	I (A)	I rated (A)	P (W)	P rated (W)	Fuse No	I fuse (A)	Condition/status
90V/50Hz	0.287	- 6	15.27	-	F1	0.287	Output 5VDC0.5A*2
90V/60Hz	0.284	VO	15.25	-	F1	0.284	Ditto
100V/50H	z 0.253	1	14.06	GY.	F1	0.253	Ditto
100V/60H	z 0.254	1	14.06	- 33	F1	0.254	Ditto
240V/50H	z 0.138	1	14.66	A - 1	F1	0.138	Ditto
240V/60H	z 0.139	1	14.65	7	F1	0.139	Ditto
264V/50H	z 0.132	- 1	14.86	-	F1	0.132	Ditto
264V/60H	z 0.134		14.88		F1	0.134	Ditto

Cappiomontai	,								
100	200	1					/ /		
B.3	ABLE: Abnor	mal operating	condition	tests					Р
Ambient temp	erature (°C)				:	25°C	150	355	_
Power source	for EUT: Manu	facturer, mode	l/type, outpu	ut rating	- 174		- 7		_
Component No	Condition	Supply voltage, (V)	Test time (ms)	Fuse no.		use nt, (A)	T-couple	Temp. (°C)	Observation
USB output	S-C	264V	10min	F1	0.0	089			USB output shutdown immediately, recoverable,no damage,no hazards.
USB output	Overload	264V	4h46min	F1	0.182	2 max	Type J		Output max load at 2.1A, over 2.1A unit shut down. No hazards.

Supplementary information:S-C= short circuit.

B.4	TABLE: Fault condition tests	Р

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Ambient tempera	nture (°C)				: 2	25°C			
Power source for	EUT: Manuf	acturer, model	/type, outpu	ıt rating	2: -	- 7/	.G		_
Component No.	Fault Condition	Supply voltage, (V)	Test time (ms)	Fuse no.	Fuse current,	_	T-couple	Temp. (°C)	Observation
UL2	S-C	264V	10min	F1	0.01	2			USB shutdown immediately, recoverable,no damage,no hazards.

Annex M	TABLE: Batte	eries						-	N
The tests of	Annex M are a	pplicable o	nly when app	ropriate bat	tery data is	not availa	ble		
ls it possible	to install the b	attery in a r	everse polari	ty position?			0		7
	Non-re	chargeable	batteries		F	Rechargea	ble batterie	s	
	Disch	arging	Un-	Cha	rging	Disch	arging	Reverse	d charging
	Meas. current	Manuf. Specs.	intentional charging	Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.
Max. currenduring norm condition		و و	,gC	26	4	7/14	3°-	g©.	ت ی
Max. currenduring fault condition	5	ő	- 1	-	) GU	6	) <del>-</del>	å-	
Test results:	7 2		100		54	-0		100	Verdict
- Chemical I	eaks					0	6		2 1
- Explosion	of the battery	10.	_ A.C	7 7			- W	- 0	<i></i>
- Emission c	of flame or exp	ulsion of mo	olten metal	×0'		6			-3/6
- Electric str	ength tests of e	equipment a	after completion	on of tests	~.0	5	-C)-		

D - # /O - IIN -	Took oon dittoo		Observation			
Battery/CellNo.	Test conditions	U	I (A)	Temp (C)	Observation	
	Normal	<u>ب</u> کر	0		200	
- CO-	Abnormal	-250	<0\		-	
_ \	Single fault –SC/OC			<u>.</u>	100	

Battery identification	Charging at T <sub>lowest</sub> (°C)	Observation	Charging at T <sub>highest</sub> (°C)	Observation
Identification	lowest( C)		i highest( C)	

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Battery identification	Charging at T <sub>lowest</sub> (°C)	Observation	Charging at T <sub>highest</sub> (°C)	Observation
- 50-	7.C	A '- D	-0-	20 - A 1
	C	V .6 .	_ E	FO CO
Supplementary In	formation:	70 . 44	1 6	

Annex Q.1	TABLE: Circuits into	ended for inter	connection with	n building wirir	ng (LPS)	N
lote: Measur	ed UOC (V) with all lo	ad circuits disco	nnected:	7.		10-
Output Circuit Com	Componente	U <sub>oc</sub> (V)	I <sub>sc</sub>	(A)	S (VA)	
	Components		Meas.	Limit	Meas.	Limit
	P- 3	9	O >	-	-	W.

Part/Location	Material	Thickness (mm)	Force(N)	Test Duration(sec)	Observation
Top enclosure	Metal	1.5	250	5	No damage,no hazard
Side enclosure	Metal	1.5	250	5	No damage,no hazard
Bottom enclosure	Metal	1.5	250	5	No damage,no hazard
Internal component	- 1		10	5	No reduction the clearances and creepage distances

Р				LE: Impact tests	TABL	T.6, T.9
	Observation	Vertical distance (mm)	Thickness (mm)	Material	Location	Part/Locati
ard	No damage,no hazard	1300	1.5	Metal	enclosure	Top enclos
2	No damage,no haza	1300	1.5			Top enclose Supplementa

T.7	TABL	E: Drop tests			- C-	N
Part/Locat	tion	Material	Thickness (mm)	Drop Height (mm)	Observation	
2.2		-G-4	C -	120	70 COL	75

T.8 TABLE: Stress relief test P
---------------------------------

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Part/Location	Material	Thickness (mm)	Oven Temperature (°C)	Duration (h)	Observation	
Supplementary information:For details refer to appended table 4.1.2.						

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Attachment A Photos of product



Fig.1 – overview



Fig.2- overview

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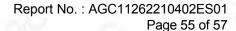




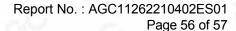


Fig.3 -overview



Fig.4 -overview

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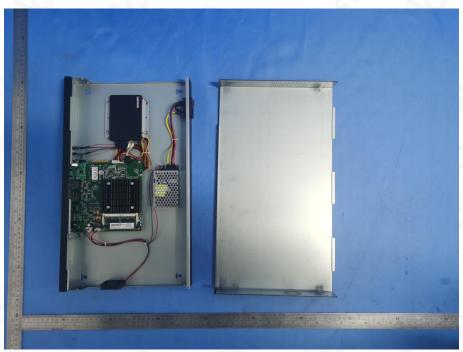


Fig.5 —Internal view

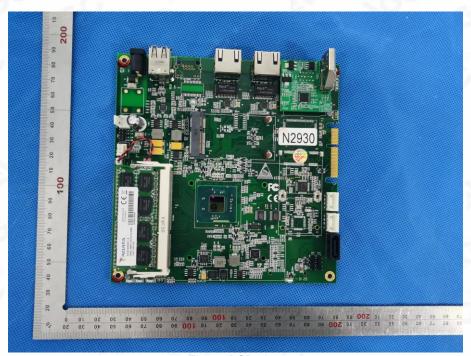


Fig.6 -PCB view

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Fig.7 —PCB view

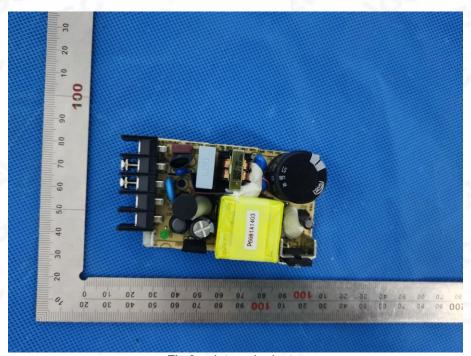


Fig.8 —Internal adapter

## ----END OF REPORT----

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## Conditions of Issuance of Test Reports

- 1. All samples and goods are accepted by the Attestation of Global Compliance (Shenzhen) Co., Ltd (the "Company") solely for testing and reporting in accordance with the following terms and conditions. The company provides its services on the basis that such terms and conditions constitute express agreement between the company and any person, firm or company requesting its services (the "Clients").
- 2. Any report issued by Company as a result of this application for testing services (the "Report") shall be issued in confidence to the Clients and the Report will be strictly treated as such by the Company. It may not be reproduced either in its entirety or in part and it may not be used for advertising or other unauthorized purposes without the written consent of the Company. The Clients to whom the Report is issued may, however, show or send it, or a certified copy thereof prepared by the Company to its customer, supplier or other persons directly concerned. The Company will not, without the consent of the Clients, enter into any discussion or correspondence with any third party concerning the contents of the Report, unless required by the relevant governmental authorities, laws or court orders.
- 3. The Company shall not be called or be liable to be called to give evidence or testimony on the Report in a court of law without its prior written consent, unless required by the relevant governmental authorities, laws or court orders.
- 4. The non-CMA report issued by AGC is only permitted to be used by the client as internal reference use and shall not be used for public demonstration purpose.
- 5. In the event of the improper use of the report as determined by the Company, the Company reserves the right to withdraw it, and to adopt any other additional remedies which may be appropriate.
- 6. Samples submitted for testing are accepted on the understanding that the Report issued cannot form the basis of, or be the instrument for, any legal action against the Company.
- 7. The Company will not be liable for or accept responsibility for any loss or damage however arising from the use of information contained in any of its Reports or in any communication whatsoever about its said tests or investigations.
- 8. Clients wishing to use the Report in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.
- 9. The Company is not responsible for recalling the electronic version of the original report when any revision is made to them. The Client assumes the responsibility to providing the revised version to any interested party who uses them.
- 10. Subject to the variable length of retention time for test data and report stored hereinto as otherwise specifically required by individual accreditation authorities, the Company will only keep the supporting test data and information of the test report for a period of six years. The data and information will be disposed of after the aforementioned retention period has elapsed. Under no circumstances shall we provide any data and information which has been disposed of after retention period. Under no circumstances shall we be liable for damage of any kind, including (but not limited to) compensatory damages, lost profits, lost data, or any form of special, incidental, indirect, consequential or punitive damages of any kind, whether based on breach of contract of warranty, tort (including negligence), product liability or otherwise, even if we are informed in advance of the possibility of such damages.

The test results

he test report.

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