[LAB LOGO]

Test Report No.:	**Xxxxxxxx**		*Page 1 of xx*
		Issue Date:	*DD/MM/YYYY*
Manufacturer:	**Applicant Name** Applicant address		
Test item:	**Smart Speakers**		
Identification:	**(Model No.)**	*Serial No.:*	
Receipt No.:		*Date of receipt:*	*DD/MM/YYYY*
Testing laboratory and its address:	**Lab Name** **Lab address**		
Test specification:	IS 616:2017/ IEC 60065:2014		
Test Result:	*The test item Passed/Failed the test specification*		
Other Aspects: - *This report consists of xx pages and attachment as stated in page no. XX*			
This test report relates to the test sample submitted and list of documents attached.			

Tested by:	**Approved by/Authorized Signatory:**	**Issued by:**
(Name / Designation)	**(Name / Designation)**	**(Name / Designation)**
Date: *DD/MM/YYYY*	**Date:** *DD/MM/YYYY*	**Date:** *DD/MM/YYYY*

[LAB LOGO]

TEST REPORT
IS 616:2017/ IEC 60065:2014
Audio, Video and Similar Electronic Apparatus - Safety requirements (Fifth Revision)
:Smart Speakers

Report Number. ..... :	Xxxxxxxx
Date of issue ..... :	(See cover page)
Total number of pages ..... :	(See cover page)
Testing Laboratory .....:	Lab Name
Address.....:	Lab Address
Manufacturer's name .....:	**Applicant's Name**
Address.....:	Applicant's address
Test specification:	
Standard ..... :	**IS 616: 2017 / IEC 60065:2014**
Test procedure..... :	Compliance Report
Non-standard test method..... :	N/A
Test Report Form No. ..... :	BIS_AV/SS IS 616_V1.0
Test Report Form(s) Originator.... :	Bureau of Indian Standards
Test Report Form ..... :	31/12/2020
Test item description ..... :	**Smart Speakers**
Trade Mark ..... :	
Model/Type reference..... :	
Ratings..... :	
Other Documents submitted.....:	Please refer to Table – List of Attachments at Page No. *xx*

Tested by:	**Approved by/Authorized Signatory:**	**Issued by:**
(Name / Designation)	**(Name / Designation)**	**(Name / Designation)**
Date: DD/MM/YYYY	Date: DD/MM/YYYY	Date: DD/MM/YYYY

Summary of testing:

Test Code	Description	Measurement / testing	Total No. of Tests / Requirement	Total No. of Applicable Tests / Requirement	No. of Tests / Requirement Passed	Page No.
EL 2000	Marking Requirements	Marking and Instructions (Cl 5)	36			
EL 2001	Radiation Requirements	Hazardous radiations (Cl 6)	06			
EL 2002	Heating Requirements	Heating under normal operating conditions(Cl 7)	08			
EL 2003	Electrical safety	Constructional requirements with regard to the protection against electric shock(Cl 8)	39			
EL 2004	Electrical safety	Electric shock hazard under normal operating condition (Cl 9)	22			
EL 2005	Electrical safety	Insulation requirements (Cl 10)	08			
EL 2006	Electrical safety	Fault conditions (Cl 11)	20			
EL 2007	Mechanical properties	Mechanical Strength (Cl 12)	28			
EL 2008	Mechanical properties	Clearances and creepage distances (Cl 13)	16			
EL 2009	Components	Components (Cl 14)	90			
EL 2010	Wiring	Terminals (Cl 15)	34			
EL 2011	Wiring	External flexible cords (Cl 16)	14			
EL 2012	Wiring	Electrical connections and mechanical fixings (Cl 17)	14			
EL 2013	Physical properties	Mechanical strength of picture tubes and protection against the effect of implosion (Cl.18)	03			
EL 2014	Physical properties	Stability and mechanical hazards (Cl 19)	14			

EL 2015	Physical properties	Resistance to fire (Cl 20)	16			
EL 2016	Protection against splashing water	Requirements for apparatus with protection against splashing water (Annex A)	07			
EL 2017	Communicating connection	Apparatus to be connected to the TELECOMMUNICATION NETWORKS (Annex B)	09			
EL 2018	Insulation Properties	Measuring network for TOUCH CURRENTS (Annex D)	02			
EL 2019	Electrical Safety	Measurement of Clearances and Creepage Distances(Annex E)	01			
EL 2020	Electrical Safety	Table of electrochemical potentials (Annex F)	01			
EL 2021	Electrical Safety	Flammability test methods (Annex G)	08			
EL 2022	Insulation Properties	Insulated Winding Wires For Use Without Interleaved Insulation (Annex H)	10			
EL 2023	Electrical safety	Alternative Method For Determining Minimum Clearances(Annex J)	10			
EL 2024	Electrical safety	Impulse Test Generators (Annex K)	02			
EL 2025	Photographic Purposes	Electronic Flash Apparatus For Photographic Purposes (Annex L)	10			

Certificate: It is certified that the above tests were performed and found to be passing/failing in the requirement tested.

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Table EL 2009-(01 to 83)

14	TABLE: Critical components information				
Object / part No.	**Manufacturer/ trademark**	**Type / model**	**Technical data**	**Standard**	**Mark(s) of conformity**
- Description:					
- Description:					
- Description:					
Supplementary information:					

Tested by:	Approved by/ Authorized Signatory:
Name/Designation	Name/Designation

Test item particulars……..:	
Sample received condition……...:	☐ Good ☐ Others
Classification of installation and use .....:	**Class I / Class II/ DC powered**
Supply Connection .....:	
.....:	
Laboratory conditions……..……..:	
Ambient Temperature .....:	25±5˚C
Ambient Humidity .....:	40 to 75 %
Testing:	
Date of receipt of test item.....:	
Date (s) of performance of tests .....:	

Table – List of Attachments

Attachment No.	Attachment Description	No. of pages in Attachment
Attachment – 1	Photo Documentation	xx

Possible test case verdicts:

- test case does not apply to the test object .....: N/A
- test object does meet the requirement .....: P (Pass)
- test object does not meet the requirement.....: F (Fail)

General remarks:

The test results presented in this report relate only to the object tested.

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General product information:

Differences between the models:

Model No. tested with-in the family series :

3	**General requirements**		**Verdict**
	Safety class of the apparatus .....:		
3.3	Constructions and components not specifically covered		
	Equipment involving technologies, components and materials or methods of construction not specifically covered in this standard, comply with the safety requirement of this standard		
3.4	Components and subassemblies that comply with IEC 62368-1		

4	**General test conditions**		**Verdict**
4.1.4	Ventilation instructions require the use of the test box		
4.2.2	Measurement of rated current consumption or rated power consumption of television sets as specified.		
4.2.5 (e)	Equipment containing multi-channel amplifiers, where each channel can be operated independently using rated load impedance at output power level that corresponds to 1/8th of non-clipped output power and the channel that cannot be operated independently shall be operated using rated load impedance at output power level in such a way to deliver one-eighth of the non- clipped output power to the rated load impedance.		

Tested by:	Approved by/ Authorized Signatory:
Name/Designation	Name/Designation

Tests relating to Marking Requirements EL 2000-V1.0

Clause No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
5	Marking and instructions*	EL 2000-00		
5.1	General requirements	EL 2000-01		
	Comprehensible and easily discernible*	EL 2000-02		
	Permanent durability against water and petroleum spirit	EL 2000-03		
5.2	Identification and supply ratings*			
	a) Identification, maker *	EL 2000-04		
	b) Model number or type reference*	EL 2000-05		
	c) Class II symbol or Class II with functional earth symbol if applicable *	EL 2000-06		
	d) Nature of supply*	EL 2000-07		
	e) Rated supply voltage*	EL 2000-08		
	f) Mains frequency if safety dependant *	EL 2000-09		
	g) Rated current or power consumption for apparatus supplied by supply apparatus for general use, on apparatus or in instruction manual: Measured current or power consumption: Deviation % (max 10%):*	EL 2000-10		
	h) Rated current or power consumption for apparatus intended for connection to an a.c. mains supply: Measured current or power consumption for Television set: Deviation % (max 10%): *	EL 2000-11		
	appliance coupler for Class I is used for Class II equipment with functional earth connection, the requirements of Clause 15 and Clause 16 related to Class I construction shall be applied up to the connecting point of the protective (earthing) conductor to the functional earth.*	EL 2000-12		

Tests relating to Marking Requirements EL 2000-V1.0

Clause No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
	Graphical symbols placed on the apparatus, whether required by this standard or not, shall be in accordance with IEC 60417 or ISO 3864-2 or ISO 7000, if available. In the absence of suitable symbols, the manufacturer may design specific graphical symbols.*	EL 2000-13		
	Care shall be taken so that additional markings and instructions not required by this standard do not contradict the markings and instructions required by this standard. Symbols placed on the equipment shall be explained in the user manual.*	EL 2000-14		
5.3	Terminals*			
	a) Earth terminal*	EL 2000-15		
	b) Hazardous live terminals*	EL 2000-16		
	c) Markings on supply output terminals*	EL 2000-17		
5.4	Caution marking*			
	a) Use of triangle with exclamation mark*	EL 2000-18		
	b) Marking on loudspeaker grille, IEC 60417-5036*	EL 2000-19		
	c) User-replaceable coin / button cell battery marking *	EL 2000-20		
5.5	Instructions*	EL 2000-21		
5.5.1	Safety relevant information*	EL 2000-22		
5.5.2	a) Mains powered equipment not exposed to dripping or splashing. Warning concerning objects filled with liquid, etc. *	EL 2000-23		
	b) Hazardous live terminals, instructions for wiring *	EL 2000-24		
	c) Instructions for replacing lithium battery *	EL 2000-25		
	d) Class I earth connection warning *	EL 2000-26		

Tests relating to Marking Requirements EL 2000-V1.0

Clause No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
	e) Instructions for multimedia system connection *	EL 2000-27		
	f) Special stability warning for attachment of the apparatus to the floor/wall*	EL 2000-28		
	g)) Warning: battery exposure to heat *	EL 2000-29		
	h) Warning: protective film on CRT face *	EL 2000-30		
	i) Warning: Non-floor standing TV >7kg*	EL 2000-31		
	j) Warning: User replaceable coin / button cell battery*	EL 2000-32		
5.5.3	a-b) Disconnect device: plug/coupler or all-pole mains switch location, accessibility and markings *	EL 2000-33		
	c) Instructions for permanently connected equipment*	EL 2000-34		
	Marking, signal lamps or similar for completely disconnection from the mains *	EL 2000-35		

* Total number of Requirements to be observed / inspected= 34
Total No. of Applicable Requirement =
No of Requirements for which the sample passed =

Total number of tests to be conducted = 02
Total No. of Applicable Tests =
No. of tests for which the sample passed =

Certificate: It is certified that the above tests were performed and found to be passing/failing in the requirement tested.

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(Approving Authority)

Tests relating to Radiation Requirements EL 2001-V1.0

Clause No	Test / Requirement name	Code	Test result/ observation	Verdict
6	Hazardous radiation*	EL 2001-00		
6.1	Ionizing radiation < 36 pA/kg (0,5 mR/h)			
	Ionizing radiation under fault condition	EL 2001-01		
6.2	Laser radiation, emission limits to IEC 60825-1:2007	EL 2001-02		
	Emission limits under normal operating conditions as per IEC 60825-1:2007	EL 2001-03		
	Emission limits under fault conditions as per IEC 60825-1	EL 2001-04		
6.3	Light emitting diodes (LEDs) according to IEC 62471	EL 2001-05		

*Total number of Requirements to be observed / inspected = 01
Total No. of Applicable Requirement =
No of Requirements for which the sample passed =

Total number of tests to be conducted = 05
Total No. of Applicable Tests =
No. of tests for which the sample passed =

Certificate: It is certified that the above tests were performed and found to be passing/failing in the requirement tested.

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Tests relating to Heating Requirements EL 2002-V1.0

Clause No	Test / Requirement name	Code	Test result/ observation	Verdict
7	Heating under normal operating conditions*	EL 2002-00		
7.1	General			
7.1.1	Temperature rises not exceeding specified values; fuse links and other protective devices defeated	EL 2002-01		
7.1.2	Temperature rise of accessible parts	EL 2002-02		
7.1.3	Temperature rise of parts providing electrical insulation	EL 2002-03		
7.1.4	Temperature rise of parts acting as a support or as a mechanical barrier	EL 2002-04		
7.1.5	Temperature rise of windings	EL 2002-05		
7.1.6	Parts not subject to a limit under 7.1.1 to 7.1.4	EL 2002-06		
7.2	Softening temperature of insulating material supporting parts conductively connected to the mains carrying a current > 0.2 A, shall be at least 150ºC	EL 2002-07		

*Total number of Requirements to be observed / inspected = 01
Total No. of Applicable Requirement =
No of Requirements for which the sample passed =

Total number of tests to be conducted = 07
Total No. of Applicable Tests =
No. of tests for which the sample passed =

Certificate: It is certified that the above tests were performed and found to be passing/failing in the requirement tested.

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(Approving Authority)

Tests relating to Electrical Safety EL 2003- V1.0

Clause No	Test / Requirement name	Code	Test result/ observation	Verdict
8	Constructional requirements with regard to the protection against electric shock*	EL 2003-00		
8.1	Conductive parts covered by lacquer, paper, untreated textile oxide films and beads etc. considered to be bare *	EL 2003-01		
8.2	No shock hazard when changing voltage setting device, fuse-links or handling drawers etc.	EL 2003-02		
8.3	Insulation of hazardous live parts not provided by hygroscopic material	EL 2003-03		
8.4	No risk of electric shock from accessible parts or from parts rendered accessible following the removal of a cover which can be removed by hand	EL 2003-04		
8.5	Class I apparatus*			
	Basic insulation between hazardous live parts and earthed accessible parts *	EL 2003-05		
	Resistors bridging basic insulation shall complying with 14.1 a) *	EL 2003-06		
	Capacitors bridging basic insulation shall complying with 14.2.1 a) *	EL 2003-07		
	Protective earthing terminal *	EL 2003-08		
8.6	Class II apparatus			
	a) Basic and supplementary insulation between hazardous live parts and accessible parts *	EL 2003-09		
	b) Reinforced insulation between hazardous live parts and accessible parts *	EL 2003-10		
8.7	Components bridging insulation			
	Basic insulation bridged by components complying with 14.4.5.3	EL 2003-11		
	Components bridging basic, supplementary, double or reinforced insulation complying with 14.2 a) or 14.4	EL 2003-12		
	Basic and supplementary insulation each being bridged by a capacitor or RC-unit complying with 14.3.2 a)	EL 2003-13		
	Double or reinforced insulation being bridged with 2 capacitors or RC-units in series complying with 14.3.2 a)	EL 2003-14		

	Double or reinforced insulation being bridged with a single capacitor or RC-unit complying with 14.3.2 b)	EL 2003-15		
8.8	Insulation thickness and thin sheet materials			
	Basic or supplementary insulation > 0,4 mm (mm)*	EL 2003-16		
	Reinforced insulation > 0,4 mm (mm) *	EL 2003-17		
	Thin sheet material used inside the equipment	EL 2003-18		
	Basic or supplementary insulation, at least two layers, each meeting 10.4	EL 2003-19		
	Basic or supplementary insulation, three layers any two of which meet 10.4	EL 2003-20		
	Reinforced insulation, two layers each of which meet 10.4	EL 2003-21		
8.9	Adequate insulation between internal hazardous live conductors and accessible parts, or between internal hazardous live parts and conductors connected to accessible parts	EL 2003-22		
8.10	Double insulation between accessible parts and conductors connected to the mains	EL 2003-23		
	Double insulation between conductors connected to accessible parts and parts connected to the mains	EL 2003-24		
8.11	Detaching of wires			
	No undue reduction of creepage or clearance distances if wires become detached	EL 2003-25		
	Vibration test carried out	EL 2003-26		
8.12	Adequate fastening of windows, lenses, lamp covers etc. (pull test 20 N for 10 s)	EL 2003-27		
8.13	Adequate fastening of windows, lenses, lamp covers etc. (pull test 20 N for 10 s)	EL 2003-28		
8.14	No risk of damage to the insulation of internal wiring due to hot parts or sharp edges	EL 2003-29		
8.15	Only special supply equipment can be used*	EL 2003-30		
8.16	Insulated winding wire without additional interleaved insulation	EL 2003-31		
8.17	Endurance test as required by 8.16	EL 2003-32		
8.18	Disconnection from the mains			
	Disconnect device used in apparatus	EL 2003-33		
	All-pole switch or circuit breaker with >3mm contact separation.	EL 2003-34		
	Mains switch ON indication *	EL 2003-35		
8.19	Switch not fitted in the mains cord *	EL 2003-36		

8.20	Bridging components comply with clause 14	EL 2003-37		
8.21	Non-separable thin sheet material	EL 2003-38		

*Total number of Requirements to be observed / inspected = 13
Total No. of Applicable Requirement =
No of Requirements for which the sample passed =

Total number of tests to be conducted = 26
Total No. of Applicable Tests =
No. of tests for which the sample passed =

Certificate: It is certified that the above tests were performed and found to be passing/failing in the requirement tested.

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Tests relating to Electrical Safety EL 2004-V1.0

Clause No	Test / Requirement name	Code	Test result/ observation	Verdict
9	Electric shock hazard under normal operating conditions*	EL 2004-00		
9.1	Testing on the outside	EL 2004-01		
9.1.1	Requirements			
	Accessible parts shall not be hazardous live	EL 2004-02		
	Inaccessible terminals are not accessible or comply with relevant requirements	EL 2004-03		
	For voltages >1000 V ac or >1500 V dc complies with clause 13.3.1 for basic insulation	EL 2004-04		
9.1.1.2	Determination of hazardous live parts			
	a) Open circuit voltages	EL 2004-05		
	b) Touch current measured from terminal devices using the network in annex D	EL 2004-06		
	c) The charge exceeds 45 µC	EL 2004-07		
	d) Energy of discharge not exceeding 350 mJ	EL 2004-08		
9.1.1.3	Test with test finger and test probe	EL 2004-09		
9.1.2	No hazardous live shafts of knobs, handles or levers	EL 2004-10		
9.1.3	Ventilation holes and other holes tested by means of 4 mm x 100 mm test pin	EL 2004-11		
9.1.4	Terminal devices tested with 1 mm x 20 mm test pin (10 N); test probe D of IEC 61032	EL 2004-12		
	Terminal devices tested with 1 mm x 100 mm straight wire (1 N); test probe D of IEC 61032	EL 2004-13		
9.1.5	Pre-set controls tested with 2.5 mm x 100 mm test pin (10 N); test probe C of IEC 61032	EL 2004-14		
9.1.6	Withdrawal of the mains plug:			
	No shock hazard due to stored charge after 2 s :	EL 2004-15		
	Bleeder resistor(s) comply with 14.2 or no shock hazard when open circuited	EL 2004-16		
	If C is not greater than 0,1 µF no test needed	EL 2004-17		
9.1.7	Resistance to external forces			

	a) Test probe 11 of IEC 61032 for 10 s (50 N)	EL 2004-18		
	b) Test hook of fig. 4 for 10 s (20 N)	EL 2004-19		
	c) 30 mm diameter test tool for 5 s (100 or 250 N)	EL 2004-20		
9.2	No hazard after removing a cover by hand	EL 2004-21		

Total number of requirements to be observed / inspected = 01
Total No. of Applicable Requirement =
No of requirements for which sample passed =

Total number of tests to be conducted = 21
Total No. of Applicable Tests =
No. of tests for which the sample passed =

Certificate: It is certified that the above tests were performed and found to be passing/failing in the requirement tested.

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(Approving Authority)

Tests relating to Electrical Safety EL 2005- V1.0

Clause No	Test / Requirement name	Code	Test result/ observation	Verdict
10	Insulation requirements*	EL 2005-00		
10.2	Surge Test			
	a) Insulation between desired terminals is subjected to 50 discharges at a maximum rate of 12/min, from 1 nF capacitor charged to 10 kV in a test circuit as per Fig.5a.	EL 2005-01		
	b) After surge test, the tested insulation shall comply with clause 10.3, Table 5 : i) Insulation resistance : 2 MΩ, Min. (for basic insulation) , ii) Insulation resistance :4 MΩ, Min. (for reinforced insulation) , iii) Dielectric strength test	EL 2005-02		
10.3	Humidity treatment 48 h or 120 h	EL 2005-03		
10.4	Insulation resistance and dielectric strength			
10.4.1	Insulation of the insulating materials	EL 2005-04		
10.4.2	Between parts of different polarity directly connected to the mains	EL 2005-05		
	Between parts separated by BASIC or SUPPLEMENTARY insulation	EL 2005-06		
	Between parts separated by REINFORCED insulation	EL 2005-07		

Total number of requirement to be observed / inspected = 01
Total No. of Applicable Requirement =
No of requirement for which the sample passed =

Total number of tests to be conducted = 07
Total No. of Applicable Tests =
No. of tests for which the sample passed =

Certificate: It is certified that the above tests were performed and found to be passing/failing in the requirement tested.

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(Approving Authority)

Tests relating to Electrical Safety EL 2006- V1.0

Clause No	Test / Requirement name	Code	Test result/ observation	Verdict
11	Fault conditions*	EL 2006-00		
11.1	No shock hazard under fault condition			
	a) - The permissible values of Open circuit voltage [as per Cl.9.1.1.1(a)] for other than audio signals, are increased to 70 V(peak) a.c. and 120 V d.c.	EL 2006-01		
	b) - The permissible values of Touch Current [Cl.9.1.1.1(b)] are increased to U_1=70V (peak) and U_2=1.4V(peak) for a.c. and to U_1=4 V for d.c.	EL 2006-02		
11.2	Heating	EL 2006-03		
11.2.1	Requirements			
	No danger of fire to the surroundings	EL 2006-04		
	Safety not impaired by abnormal heat	EL 2006-05		
	Flames extinguish within 10 seconds	EL 2006-06		
	No hazard from softening solder	EL 2006-07		
	Soldered terminations not used as protective mechanism	EL 2006-08		
11.2.2	Measurement of temperature rises	EL 2006-09		
11.2.3	Temperature rise of accessible parts	EL 2006-10		
11.2.4	Temperature rise of parts, other than windings and printed boards, providing electrical insulation	EL 2006-11		
11.2.5	Temperature rise of parts acting as a support or mechanical barrier	EL 2006-12		
11.2.6	Temperature rise of windings	EL 2006-13		
11.2.7	Printed boards			
	Temperature rise does not exceed the limits of table 3 or exceed the limits of table 3 by max. 100 K for max. 5 min	EL 2006-14		
	a) Temperature rise of V-0 or VTM-0 printed circuit boards exceeding the limits of table 3 by not more than 100 K for an area not greater than 2 cm²	EL 2006-15		

	b) Temperature rise of V-0 or VTM-0 printed circuit boards exceeding the limits of table 3 up to 300 K for an area not greater than 2 cm² for a maximum of 5 min	EL 2006-16		
	Meets all the special conditions if conductors on printed circuit boards are interrupted	EL 2006-17		
	Class I protective earthing maintained	EL 2006-18		
11.2.8	Temperature rise of parts not subject to the limits of 11.2.2 to 11.2.7 shall not exceed the limits in table 3, item e), "Fault conditions".	EL 2006-19		

Total number of requirements to be observed / inspected = 01
Total No. of Applicable Requirement =
No of requirements for which the sample passed =

Total number of tests to be conducted = 19
Total No. of Applicable Tests =
No. of tests for which the sample passed =

Certificate: It is certified that the above tests were performed and found to be passing/failing in the requirement tested.

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(Approving Authority)

Tests relating to Mechanical Properties EL 2007- V1.0

Clause No	Test / Requirement name	Code	Test result/ observation	Verdict
12	Mechanical strength*	EL 2007-00		
12.1.1	The apparatus have adequate mechanical strength			
12.1.2	Bump test where mass >7 kg	EL 2007-01		
12.1.3	Vibration test	EL 2007-02		
12.1.4	Impact test	EL 2007-03		
	Impact hammer test	EL 2007-04		
	Steel ball test	EL 2007-05		
12.1.5	Drop test for portable appliance where mass ≤7 kg	EL 2007-06		
12.1.6	Thermoplastic enclosures stress relief test	EL 2007-07		
12.2	Fixing of knobs, push buttons, keys and levers	EL 2007-08		
12.3	Remote control hazardous live parts	EL 2007-09		
12.4	Drawers (pull test 50N,10s)	EL 2007-10		
12.5	Antenna coaxial sockets and providing isolation	EL 2007-11		
	a) - Endurance test,	EL 2007-12		
	b) - Impact test,	EL 2007-13		
	c) - Torque test	EL 2007-14		
12.6	Telescoping or rod antennas	EL 2007-15		
12.6.1	6,0mm diameter end	EL 2007-16		
	Prevented from falling into the apparatus	EL 2007-17		
12.6.2	Physical securement, removal prevented	EL 2007-18		
12.7	Apparatus containing coin / button cell batteries	EL 2007-19		
12.7.1	Coin/button cell batteries with a diameter of 32 mm or less.	EL 2007-20		
12.7.2	Reduced possibility for children to remove battery	EL 2007-21		
12.7.3	Tests			
12.7.3.2	Stress relief test	EL 2007-22		
12.7.3.3	Battery replacement test	EL 2007-23		
12.7.3.4	Drop test	EL 2007-24		
12.7.3.5	Impact test	EL 2007-25		

12.7.3.6	Crush test	EL 2007-26		
12.7.4	The battery compartment door/cover shall remain functional	EL 2007-27		

Total number of requirements to be observed / inspected = 01
Total No. of Applicable Requirement =
No of requirements for which the sample passed =

Total number of tests to be conducted = 27
Total No. of Applicable Tests =
No. of tests for which the sample passed =

Certificate: It is certified that the above tests were performed and found to be passing/failing in the requirement tested.

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(Approving Authority)

Tests relating to Mechanical Properties EL 2008- V1.0

Clause No	Test / Requirement name	Code	Test result/ observation	Verdict
13	Clearances and creepage distances*	EL 2008-00		
13.1	General			
13.2	Determination of Working voltage	EL 2008-01		
13.3.2	Circuits conductively connected to the mains comply with table 8 and, where applicable, table 9:	EL 2008-02		
13.3	Clearances			
13.3.1	Comply with 13.3 or Annex J			
13.3.3	Circuits not conductively connected to the mains comply with table 10	EL 2008-03		
13.3.4	Measurement of transient voltages	EL 2008-04		
13.4	a) Creepage distances shall be not less than the appropriate minimum values specified in Table 11, taking into account the values of operating voltage, the pollution degree and the material group.	EL 2008-05		
	When determining the operating voltage for a TNV circuit connected to a telecommunication network whose characteristics are not known, the normal operating voltages shall be assumed to be as : 60 V dc for TNV-1 circuits, 120 V dc for TNV-2 & TNV-3 circuits	EL 2008-06		
	c) - Classification of Material groups : Material group I – 600 ≤CTI Material group II - 400≤ CTI < 600 Material group IIIa - 175≤CTI<400 Material group IIIb - 100≤CTI<175	EL 2008-07		
13.5.1	Clearances and creepage distances between conductors on printed circuit boards, one of which may be conductively connected to the mains, as in fig. 10	EL 2008-08		
13.5.2	Type B coated printed circuit boards complying with IEC 60664-3 (basic insulation only)	EL 2008-09		

13.6	a) - Conductive parts along uncemented joints clearances and creepage distances comply with 13.3 and 13.4	EL 2008-10		
	b) - Conductive parts along reliably cemented joints comply with 8.8	EL 2008-11		
	c) - Temperature cycle test (10 times):	EL 2008-12		
	d) - Dielectric strength test as per Cl.10.3	EL 2008-13		
13.7	a) - Enclosed, enveloped or hermetically sealed parts not conductively connected to the mains, clearances and creepage distances as in table 12 i) - Temperature cycle test (10 times), ii) - Dielectric strength test as per Cl.10.3	EL 2008-14		
13.8	Parts filled with insulating compound, meeting the requirements of 8.8	EL 2008-15		

Total number of requirements to be observed / inspected = 01
Total No. of Applicable Requirement =
No of requirement for which the sample passed =

Total number of tests to be conducted = 15
Total No. of Applicable Tests =
No. of tests for which the sample passed =

Certificate: It is certified that the above tests were performed and found to be passing/failing in the requirement tested.

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(Approving Authority)

Tests relating to Components EL 2009- V1.0

Clause No	Test / Requirement name	Code	Test result/ observation	Verdict
14.	Components*	EL 2009-00		
14.1	Flammability according to IEC 60695-11-10 or annex G, or 20.2.5	EL 2009-01		
14.2	Resistors			
	Resistors separately approved	EL 2009-02		
	a) Resistors between hazardous live parts and accessible metal parts	EL 2009-03		
	b) Resistors, other than between hazardous live parts and accessible parts	EL 2009-04		
14.3	Capacitors and RC units	EL 2009-05		
	Capacitors separately approved :	EL 2009-06		
14.3.1	Damp heat test duration 21 days	EL 2009-07		
14.3.2	Y capacitors tested to IEC 60384-14:2005:	EL 2009-08		
14.3.3	X capacitors tested to IEC 60384-14:2005:	EL 2009-09		
14.3.4	Capacitors operating at mains frequency but not connected to the mains: tests for X2:	EL 2009-10		
14.3.6	Capacitors with volume exceeding 1750 mm³, where short-circuit current exceeds 0,2 A: compliance with IEC 60384-1, 4.38 category B or better :	EL 2009-11		
	Capacitors with volume exceeding 1750 mm³, mounted closer to a potential ignition source than table 13 permits: compliance with IEC 60384-1, 4.38 category B or better :	EL 2009-12		
14.4	Inductors and windings	EL 2009-13		
14.4.1	Comply with IEC 61558-1, IEC 61558-2	EL 2009-14		
	Addition to above insulating material complies with 20.2.5	EL 2009-15		
14.4.2	Transformers and inductors marked with manufacturer's name and type:	EL 2009-16		
14.4.3	General			
	Insulation material complies with clause 20.2.5	EL 2009-17		
14.4.4	Constructional requirements	EL 2009-18		

14.4.4.1	Clearances and creepage distances comply with clause 13	EL 2009-19		
14.4.4.2	Transformers meet the constructional requirements	EL 2009-20		
14.4.5	Separation between windings	EL 2009-21		
14.4.5.1	Class II transformers have adequate separation between hazardous live parts and accessible parts (double or reinforced insulation):	EL 2009-22		
	Coil formers and partition walls > 0,4 mm	EL 2009-23		
14.4.5.2	Class I transformers, with basic insulation and protective screening only if all 7 conditions are met	EL 2009-24		
14.4.5.3	Separating transformers with at least basic insulation	EL 2009-25		
14.4.6	Insulation between hazardous live parts and accessible parts	EL 2009-26		
14.4.6.1	Class II transformers have adequate insulation between hazardous live parts and accessible parts (double or reinforced insulation)	EL 2009-27		
	Coil formers and partition walls > 0,4 mm	EL 2009-28		
14.4.6.2	Class I transformers have adequate insulation between hazardous live parts and accessible conductive parts or those conductive parts or protective screens connected to a protective earth terminal	EL 2009-29		
	Winding wires connected to protective earth have adequate current-carrying capacity	EL 2009-30		
14.5	High voltage components and assemblies (U > 4kV peak)	EL 2009-31		
14.5.1	Component meets category V-1 of IEC 60695-11-10	EL 2009-32		
14.5.2	High voltage transformers and multipliers	EL 2009-33		
14.5.3	High voltage assemblies and other parts	EL 2009-34		
14.6	Protective devices	EL 2009-35		
14.6.1	Protective devices used within their ratings	EL 2009-36		

	External clearances and creepage distances meet requirement of clause 13 for the voltage across the device when opened	EL 2009-37		
14.6.2	Thermal Releases	EL 2009-38		
14.6.2.1	Comply with 14.6.2.2, 14.6.2.3 or 14.6.2.4	EL 2009-39		
14.6.2.2	a) Thermal cut-outs separately approved	EL 2009-40		
	b) Thermal cut-outs tested as part of the submission	EL 2009-41		
14.6.2.3	a) Thermal links separately approved	EL 2009-42		
	b) Thermal links tested as part of the submission	EL 2009-43		
14.6.2.4	Thermal devices re-settable by soldering	EL 2009-44		
14.6.3	Fuse-links and fuse holders*	EL 2009-45		
14.6.3.1	Fuse-links in the mains circuit according to IEC 60127	EL 2009-46		
14.6.3.2	Correct marking of fuse-links adjacent to holder :	EL 2009-47		
14.6.3.3	Not possible to connect fuses in parallel	EL 2009-48		
14.6.3.4	Not possible to touch hazardous live parts when replacing fuse-links without the use of a tool :	EL 2009-49		
14.6.4	PTC thermistors comply with IEC 60730-1:2010	EL 2009-50		
	PTC devices (>15 W) category V-1 or better	EL 2009-51		
14.6.5	Circuit protectors have adequate breaking capacity and their position is correctly marked	EL 2009-52		
14.7	Switches*	EL 2009-53		
14.7.1 a)	Separate testing to IEC 61058-1 including: - 10 000 operations - Normal pollution suitability - For CRT TV's, make and break speed independent of speed of actuation - V-0 or compliance with G.1.1	EL 2009-54		
14.7.1 b)	Tested in the apparatus			

	Switch controlling > 0.2A with open contact voltage > 35 V (peak) / 24 V dc complying with 14.6.3, 14.6.4 and V-0 or G.1.1	EL 2009-55		
	Switch controlling > 0.2A with open contact voltage < 35 V (peak) / 24 V dc complying with 14.6.3 and V-0 or G.1.1	EL 2009-56		
	Switch controlling ≤ 0.2A with open contact voltage > 35 V (peak)/24 V dc complying with 14.6.4 and V-0 or G.1.1	EL 2009-57		
14.7.2	Switch tested to 14.7.1 b) checked according to IEC 61058-1 clause 13.1 and 10 000 operation test	EL 2009-58		
14.7.3	Switch tested to 14.6.1 b) compliant with IEC 61058-1 subclause 16.2.2 d) and m) not attaining excessive temperatures in use	EL 2009-59		
14.7.4	Switch tested to 14.6.1 b) has adequate dielectric strength	EL 2009-60		
14.7.5	Mains switch controlling mains socket outlets additional tests to IEC 61058-1	EL 2009-61		
14.8	Safety interlocks according to 2.8 of IEC 60950-1	EL 2009-62		
14.9	Voltage setting device and the like are not likely to be changed accidentally	EL 2009-63		
14.10	Motors*	EL 2009-64		
14.10.1	a) Endurance test on motors	EL 2009-65		
	b) Motor start test Dielectric strength test	EL 2009-66		
14.10.2	Not adversely affected by oil or grease etc.	EL 2009-67		
14.10.3	Protection against moving parts	EL 2009-68		
14.10.4	Motors with phase-shifting capacitors, three-phase motors and series motors meet clause. B.8, B.9 and B.10 of IEC 60950-1, Annex B	EL 2009-69		
14.11	Batteries*	EL 2009-70		
14.11.1	Comply with IEC 62133 if applicable *	EL 2009-71		
	Batteries mounted with no risk of accumulation of flammable gases	EL 2009-72		

14.11.2	No possibility of recharging user replaceable non-rechargeable batteries	EL 2009-73		
14.11.3	Recharging currents and times within manufacturers limits	EL 2009-74		
	Lithium batteries discharge and reverse currents within the manufacturers limits	EL 2009-75		
14.11.4	Battery mould stress relief	EL 2009-76		
14.11.5	Battery drop test	EL 2009-77		
14.12	Opto couplers*	EL 2009-78		
	Comply with constructional requirements of clause 8	EL 2009-79		
	External clearances and creepage comply with 13.1	EL 2009-80		
	Compound completely filling the casing or internal clearances and creepage comply with 13.1:	EL 2009-81		
	a) Complies with 13.6 (jointed insulation) and N.3.2	EL 2009-82		
	b) Complies with IEC 60747-5-5:2007	EL 2009-83		
	c) Complies with 13.8	EL 2009-84		
14.13	Surge suppression varistors*	EL 2009-85		
	Comply with IEC 61051-2*	EL 2009-86		
	Not connected between mains and accessible parts except for earthed parts of permanently connected apparatus	EL 2009-87		
	GDT bridging basic insulation complies with electric strength and distance requirements	EL 2009-88		
	Complies with the climatic, voltage, current pulse, fire hazard and thermal stress requirements of 14.13	EL 2009-89		

*Total number of requirement to be observed / inspected = 09
Total No. of Applicable Requirement =
No of requirement for which the sample passed =

Total number of tests to be conducted = 81
Total No. of Applicable Test =
No. of tests for which the sample passed =

Certificate: It is certified that the above tests were performed and found to be passing/failing in the requirement tested.

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(Approving Authority)

Test s relating to wiring EL 2010- V1.0

Clause No	Test / Requirement name	Code	Test result/ observation	Verdict
15	Terminals *	EL 2010-00		
15.1	Plugs and Sockets*	EL 2010-01		
15.1.1	Mains plug, appliance inlet, interconnection couplers and mains socket-outlet meet the appropriate standard	EL 2010-02		
	Overloading of plugs or appliance inlets prevented if the apparatus has mains socket outlets	EL 2010-03		
	Overloading of internal wiring prevented if the apparatus has mains socket outlets	EL 2010-04		
15.1.2	Design of connectors other than for mains power *	EL 2010-05		
	Design of sockets with symbol of 5.3 b) design *	EL 2010-06		
15.1.3	Design of terminals and connectors used in output circuits of supply apparatus *	EL 2010-07		
15.2	Provisions for protective earthing	EL 2010-08		
	Accessible conductive parts of Class I equipment reliably connected to earth terminal, within equipment	EL 2010-09		
	Protective earth conductors correctly fixed and coloured	EL 2010-10		
	Separate protective earth terminal near mains terminal and comply with 15.3	EL 2010-11		
	Protective earth terminal resistant to corrosion	EL 2010-12		
	Earth resistance test: < 0,1 Ω at 25 A :	EL 2010-13		
15.3	Terminals for external flexible cords and for permanent connection to the mains supply*	EL 2010-14		
15.3.1	Adequate terminals for connection of permanent wiring*	EL 2010-15		
15.3.2	Reliable connection of non-detachable cords	EL 2010-16		
	Not soldered to conductors of a printed circuit board	EL 2010-17		
	Adequate clearances and creepage distances between connections should a wire break away	EL 2010-18		
	Wire secured by additional means to the conductor	EL 2010-19		

15.3.3	Screws and nuts clamping conductors have adequate threads: ISO 261, ISO 262 or similar *	EL 2010-20		
15.3.4	Conductors adequately fixed (two independent fixings) *	EL 2010-21		
15.3.5	Terminals allow connection of conductors having appropriate cross-sectional area	EL 2010-22		
15.3.6	Terminals to 15.3.3 have sizes required by table 16	EL 2010-23		
15.3.7	Terminals clamp conductors between metal and have adequate pressure	EL 2010-24		
	Terminals designed to avoid conductor slipping out when tightened	EL 2010-25		
	Terminals adequately fixed when tightened or loosened (no loosening, wiring not stressed, distances not reduced)	EL 2010-26		
15.3.8	Terminals carrying a current more than 0.2 A, contact pressure not transmitted by insulating material except ceramic*	EL 2010-27		
15.3.9	Termination of non-detachable cords: wires terminated near to each other	EL 2010-28		
	Terminals located and shielded: test with 8 mm strand	EL 2010-29		
15.4	Devices forming a part of the mains plug*	EL 2010-30		
15.4.1	No undue strain on mains socket-outlets. Device shall be tested on the equipment as per Fig.11: Torque to be applied : 0.25 Nm (Max)	EL 2010-31		
15.4.2	Device complies with standard for dimensions of mains plugs	EL 2010-32		
15.4.3	Device has adequate mechanical strength (tests a,b,c)	EL 2010-33		

*Total number of requirements to be observed / inspected= 11
Total No. of Applicable Requirement: =
No of requirements for which the sample passed =

Total number of tests to be conducted = 23
Total No. of Applicable Tests: =
No. of tests for which the sample passed =

Certificate: It is certified that the above tests were performed and found to be passing/failing in the requirement tested.

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(Approving Authority)

Test s relating to wiring — EL 2011- V1.0

Clause No	Test / Requirement name	Code	Test result/ observation	Verdict
16	External flexible cords*	EL 2011-00		
16.1	a) - Mains supply flexible cords shall be sheathed type, complying with IEC 60227 for PVC cords or as per IEC 60245 for synthetic rubber cords	EL 2011-01		
	b) - Non-detachable cords for Class I have green/yellow core for protective earth	EL 2011-02		
16.2	Mains cords conductors shall have a nominal cross-sectional area not less than the values given in Table 18, for rated current consumption of the apparatus	EL 2011-03		
16.3	a) Flexible cords not complying with 16.1, used for interconnections between separate units of equipment used in combination and carrying hazardous live voltages, have adequate dielectric strength as per Cl.10.3	EL 2011-04		
	b) Flexible cords not complying with 16.1, withstand bending and mechanical stress as per 3.1 of IEC 60227-2 read with except that Table-19 of this ISS applies i)Flexing : 15000 times(30000 movements) ii) Dielectric strength test as per Cl.10.3	EL 2011-05		
16.4	Flexible cords used for connection between equipment have adequate cross-sectional areas to avoid temperature rise under normal and fault conditions	EL 2011-06		
16.5	a) - Adequate strain relief on external flexible cords	EL 2011-07		
	b) - Not possible to push cord back into equipment	EL 2011-08		
	c) - Strain relief device unlikely to damage flexible cord	EL 2011-09		
	d) - For mains cords of Class I equipment, hazardous live conductors become taut before earth conductor	EL 2011-10		
16.6	Apertures for external flexible cord: no risk of damage to the cord during assembly or movement in use	EL 2011-11		

16.7	a) Transportable apparatus fitted with detachable cord sets with appliance inlet as per IEC 60320-1 **or**	EL 2011-12		
	b) Transportable apparatus shall have a means of stowage to protect the cord	EL 2011-13		

*Total number of requirements to be observed / inspected = 01
Total No. of Applicable Requirement: =
No of requirements for which the sample passed =

Total number of tests to be conducted =13
Total No. of Applicable Tests =
No. of tests for which the sample passed =

Certificate: It is certified that the above tests were performed and found to be passing/failing in the requirement tested.

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(Approving Authority)

Test s relating to wiring EL 2012- V1.0

Clause No	Test / Requirement name	Code	Test result/ observation	Verdict
17	Electrical connections and mechanical fixings*	EL 2012-00		
17.1	a) - Screws are loosened and then tightened with a torque according to table 20	EL 2012-01		
	b) -5 times in the case of screws operating in a thread of metal	EL 2012-02		
	c) -10 times in the case of screws operating in wood or in a thread in insulating material:	EL 2012-03		
17.2	Correct introduction of screws into female threads in non-metallic material	EL 2012-04		
17.3	a) Screws or other fixing devices intended to fix Covers, legs, stands or the like, shall be captive in order to prevent replacement during servicing by screws or other fixing devices……	EL 2012-05		
	b) Non-captive fixing screws: no hazard when replaced by a screw whose length is 10 times its diameter	EL 2012-06		
17.4	No loosening of conductive parts carrying a current > 0.2 A	EL 2012-07		
17.5	Contact pressure not transmitted through plastic other than ceramic for connections carrying a current > 0.2 A *	EL 2012-08		
17.6	Stranded conductors of flexible supply cords carrying a current > 0.2 A with screw terminals not consolidated by solder *	EL 2012-09		
17.7	Cover fixing devices other than screws have adequate strength and their positioning is unambiguous	EL 2012-10		
17.8	Detachable legs or stands supplied by the manufacturer of the apparatus shall be delivered with the relevant fixing means *	EL 2012-11		
17.9	a) - Internal pluggable connections, affecting safety, unlikely to become disconnected	EL 2012-12		
	b) - By applying a 2N pull force in any direction to the connection, in case of doubt	EL 2012-13		

*Total number of requirements to be observed / inspected = 04
Total No. of Applicable Requirement =
No of requirements for which the sample passed =

Total number of tests to be conducted = 10
Total No. of Applicable Tests =
No. of tests for which the sample passed =

Certificate: It is certified that the above tests were performed and found to be passing/failing in the requirement tested.

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(Approving Authority)

Tests relating to Physical Properties EL 2013- V1.0

Clause No	Test / Requirement name	Code	Test result/ observation	Verdict
18	MECHANICAL STRENGTH OF PICTURE TUBES AND PROTECTION AGAINST THE EFFECTS OF IMPLOSION*	EL 2013-00		
18.1	Comply with IEC 61965 or 18.2	EL 2013-01		
18.2	Non-intrinsically protected tubes	EL 2013-02		

Number of requirements to be observed / inspected = 01
Total No. of Applicable Requirement =
No of requirements for which the sample passed =

Number of tests to be conducted = 02
Total No. of Applicable Tests =
No. of tests to be conducted =

Certificate: It is certified that the above tests, were performed and found to be passing/failing in the requirement tested.

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(Approving Authority)

Tests relating to Physical Properties EL 2014- V1.0

Clause No	Test / Requirement name	Code	Test result/ observation	Verdict
19	Stability and mechanical hazards*	EL 2014-00		
19.1	Apparatus > 7kg have adequate stability or is required to be fastened in place and provided with the warning of 5.5.2 f)	EL2014-01		
	The test of 19.4 – apparatus with a mass of 25 kg or more, or	EL2014-02		
	– apparatus, excluding loudspeaker systems, with a height of 1 m or more, or	EL2014-03		
	– apparatus, excluding loudspeaker systems, in combination with a supplied or recommended cart or stand with a total height of 1 m or more.	EL2014-04		
19.2	Test at 10° to the horizontal	EL2014-05		
19.3	Vertical force test 100 N applied downwards	EL2014-06		
19.4	Horizontal force test, 100 N or 13% of weight, applied horizontally to point of least stability	EL2014-07		
19.5	Edges or corners not hazardous*	EL2014-08		
19.6	Mechanical strength of glass	EL2014-09		
19.6.1	Glass surfaces (exc.laminated) with an area exceeding 0,1 m² or major dimension > 450 mm, pass the test of 12.1.4	EL2014-10		
19.6.2	Fragmentation test	EL2014-11		
19.7	Wall or ceiling mounting means	EL2014-12		
19.7.1 - 19.7.3	Not dislodged and remain mechanically intact after test according to 19.7.2 Test 1, Test 2 or Test 3:	EL2014-13		

*Total number of requirement to be tested = 02
Total No. of Applicable Requirement =
No of requirement for which the sample passed =

Total number of tests to be conducted = 12
Total No. of Applicable Tests =
No. of tests for which the sample passed =

Certificate: It is certified that the above tests, were performed and found to be passing/failing in the requirement tested.

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(Approving Authority)

Tests relating to Physical Properties EL 2015- V1.0

Clause No	Test / Requirement name	Code	Test result/ observation	Verdict
20	Resistance to fire*	EL2015-00		
20.1	Start and spread of fire is prevented	EL 2015-01		
20.2	Electrical components and mechanical parts	EL 2015-02		
20.2.1	a) Exemption for components contained in an enclosure of material V-0 to IEC 60695-11-10 with openings not exceeding 1 mm in width	EL 2015-03		
	b) Exemption for small components	EL 2015-04		
20.2.2	Electrical components meet the requirements of Clause 14 or 20.2.5	EL 2015-05		
20.2.3	Insulation of internal wiring working at voltages > 4 kV or leaving an internal fire enclosure, or located within the areas mentioned in Table 21, comply with G.2	EL 2015-06		
20.2.4	Material of printed circuit boards on which the available power exceeds 15 W at a voltage between 50 V and 400 V (peak) a.c. or d.c. meets V-1 or better to IEC 60695-11-10, unless used in a fire enclosure	EL 2015-07		
	Material of printed circuit boards on which the available power exceeds 15 W at a voltage >400 V (peak) a.c. or d.c. meets V-0 to IEC 60695-11-10.	EL 2015-08		
20.2.5	Components and parts not covered by 20.1.1, 20.1.2 and 20.1.3 (other than fire enclosures) mounted nearer to a potential ignition source than the distances in Table 21 comply with the relevant flammability category in Table 21	EL 2015-09		
	Components and parts as above but shielded from a potential ignition source, with the barrier area in accordance with Table 21 and fig. 13	EL 2015-10		
	Apparatus with voltages >4kV under normal operating conditions and distances to the enclosure exceed those specified Table 21, flammability classification HB40 or better is required for the enclosure	EL 2015-11		
20.3	Fire enclosure*	EL 2015-12		

20.3.1	Potential ignition sources with open circuit voltage > 4 kV (peak) a.c. or d.c. contained in a fire enclosure to V-1	EL 2015-13		
20.3.2	Internal fire enclosures with openings not exceeding 1 mm in width and with openings for wires completely filled	EL 2015-14		
20.3.3	Requirements of 20.2.1 and 20.2.2 met by an internal fire enclosure	EL 2015-15		

Total number of requirements to be tested = 02
Total No. of Applicable Requirement =
No of requirement for which the sample passed =

Total number of tests to be conducted = 14
Total No. of Applicable Tests =
No. of tests for which the sample passed =

Certificate: It is certified that the above tests, were performed and found to be passing/failing in the requirement tested.

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(Approving Authority)

Tests relating to Protection against Splashing Water

EL 2016- V1.0

Clause No	Test / Requirement name	Code	Test result/ observation	Verdict
ANNEX A	Annex A,ADDITIONAL REQUIREMENTS FOR APPARATUS WITH PROTECTION AGAINST SPLASHING WATER	EL 2016-00		
A.5	Marking and instructions*	EL 2016-01		
A.5.1	A.5.2 i) Marked with at least IPX4 (IEC 60529) 5.5.2 a) does not apply	EL 2016-02		
A.10	Insulation requirements*	EL 2016-03		
A.10.3	Splash and humidity treatment	EL 2016-04		
A.10.3.1	The enclosure provide adequate protection against splashing water	EL 2016-05		
A.10.3.2	Complies with 10.3,duration of the test is 168h	EL 2016-06		

Number of requirements to be observed / inspected = 02
Total No. of Applicable Requirement =
No of requirements for which the sample passed =

Number of tests to be conducted = 05
Total No. of Applicable Tests =
No. of tests to be conducted =

Certificate: It is certified that the above tests, were performed and found to be passing/failing in the requirement tested.

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(Approving Authority)

Tests relating to Telecommunication Networks — EL 2017- V1.0

Clause No	Test / Requirement name	Code	Test result/ observation	Verdict
ANNEX B	Annex B,APPARATUS TO BE CONNECTED TO TELECOMUNICATION THE TELECOMMUNICATION NETWORKS*	EL 2017-00		
	Complies with IEC 62151 clause 1	EL 2017-01		
	Complies with IEC 62151 clause 2	EL 2017-02		
	Complies with IEC 62151 clause 3 modified	EL 2017-03		
	Complies with IEC 62151 clause 4 modified	EL 2017-04		
	Complies with IEC 62151 cause 5 modified	EL 2017-05		
	Complies with IEC 62151 clause 6	EL 2017-06		
	Complies with IEC 62151 clause 7	EL 2017-07		
	Complies with IEC 62151 annex A, B and C	EL 2017-08		

Number of requirements to be observed / inspected = 01
Total No. of Applicable Requirement =
No of requirements for which the sample passed =

Number of tests to be conducted = 08
Total No. of Applicable Tests =
No. of tests to be conducted =

Certificate: It is certified that the above tests, were performed and found to be passing/failing in the requirement tested.

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(Approving Authority)

Tests relating to Insulation Properties EL 2018- V1.0

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
Annex D	Annex D,MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS	EL 2018-00		
D.1	Measuring instrument	EL 2018-01		

*- Total number of Requirements to be observed / inspected = 00
Total No of applicable Requirement =
No of Requirements for which the sample passed=

Total number of tests to be conducted = 02
Total No of applicable Tests =
No. of tests for which the sample passed=

Certificate: It is certified that the above tests were performed and found to be passing/failing in the requirement tested.

(Approving Authority)

Tests relating to Electrical Safety — EL 2019-V1.0

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
Annex E	Annex E,MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 13)	EL2019-00		

*- Total number of Requirements to be observed / inspected = 00
Total No of applicable Requirement =
No of Requirements for which the sample passed=

Total number of tests to be conducted = 01
Total No of applicable Tests =
No. of tests for which the sample passed=

Certificate: It is certified that the above tests were performed and found to be passing/failing in the requirement tested.

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(Approving Authority)

Tests relating to Electrical Safety EL 2020-V1.0

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
Annex F	Annex F,TABLE OF ELECTROCHEMICAL POTENTIALS	EL 2020-00		
	Metal(s) used :			

*- Total number of Requirements to be observed / inspected = 00
Total No of applicable Requirement =
No of Requirements for which the sample passed=

Total number of tests to be conducted = 01
Total No of applicable Tests =
No. of tests for which the sample passed=

Certificate: It is certified that the above tests were performed and found to be passing/failing in the requirement tested.

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(Approving Authority)

Tests relating to Electrical Safety EL 2021-V1.0

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
Annex G	Flammability test methods	EL2021-00		
G.1	Test as per IEC 60695-11-5	EL2021-01		
G.1.1	Flame test for V-0 material.	EL2021-02		
G.1.2	Flame test for V-1 material.	EL2021-03		
G.1.3	Flame test for V-2 material.	EL2021-04		
G.1.4	Flame test for HB75 or HB40 material.	EL2021-05		
G.2	Test for insulation of wires according to IEC 60695-11-5	EL2021-06		
G.3	Test for barrier according to IEC 60695-11-5	EL2021-07		

*- Total number of Requirements to be observed / inspected = 00
Total No of applicable Requirement =

No of Requirements for which the sample passed=

Total number of tests to be conducted = 08
Total No of applicable Tests =

No. of tests for which the sample passed=

Certificate: It is certified that the above tests were performed and found to be passing/failing in the requirement tested.

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(Approving Authority)

Tests relating to Wiring — EL 2022-V1.0

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
Annex H	ANNEX H, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (SEE8.17)	EL2022-00		
H.1	GENERAL	EL2022-01		
H.2	TYPE TESTS	EL2022-02		
H.2.1	GENERAL			
H.2.2	ELECTRIC STRENGTH	EL2022-03		
H.2.3	FLEXIBILITY AND ADHERENCE	EL2022-04		
H.2.4	HEAT SHOCK	EL2022-05		
H 2.5	RETENTION OF ELECTRIC STRENGTH AFTER BENDING	EL2022-06		
H.3	TESTING DURING MANUFACTURING	EL2022-07		
H.3.1	GENERAL			
H.3.2	ROUTINE TESTS	EL2022-08		
H 3.3	SAMPLING TEST	EL2022-09		

*- Total number of Requirements to be observed / inspected = 00
Total No of applicable Requirement =

No of Requirements for which the sample passed=

Total number of tests to be conducted = 10
Total No of applicable Tests =

No. of tests for which the sample passed=

Certificate: It is certified that the above tests were performed and found to be passing/failing in the requirement tested.

.....
(Approving Authority)

Tests relating to Electrical safety EL 2023-V1.0

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
Annex J	Annex J, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES	EL 2023-00		
J.1	General			
J.2	Summary of the procedure for determining minimum clearances	EL 2023-01		
J.3	Determination of mains transient voltage (V)	EL 2023-02		
J.4	Determination of telecommunication network transient voltage (V)	EL 2023-03		
J.5	Determination of required withstand voltage (V)	EL 2023-04		
J.5.1	Mains transients and internal repetitive peaks	EL 2023-05		
J.5.2	Transients from telecommunication networks:	EL 2023-06		
J.5.3	Combination of transients	EL 2023-07		
J.5	Measurement of transient voltages (V)	EL 2023-08		
	a) Transients from a mains supply			
	For an a.c. mains supply			
	For a d.c. mains supply			
	b) Transients from a telecommunication network			
J.6	Determination of minimum clearances	EL 2023-09		

*- Total number of Requirements to be observed / inspected = 00

Total No of applicable Requirement =

No of Requirements for which the sample passed=

Total number of tests to be conducted.....= 10

Total No of applicable Tests =

No. of tests for which the sample passed=

Certificate: It is certified that the above tests were performed and found to be passing/failing in the requirement tested.

.....

(Approving Authority)

Tests relating to Electrical safety EL 2024-V1.0

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
Annex K	Annex K, IMPULSE TEST GENERATORS (see 13.3.4 and annex J,J.5)	EL 2024-00		
K1	ITU-T impulse test generators	EL 2024-01		

*- Total number of Requirements to be observed / inspected = 00
Total No of applicable Requirement =
No of Requirements for which the sample passed=

Total number of tests to be conducted = 02
Total No of applicable Tests =
No. of tests for which the sample passed=

Certificate: It is certified that the above tests were performed and found to be passing/failing in the requirement tested.

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(Approving Authority)

Tests relating to Electrical safety EL 2025-V1.0

Clause No	Test / Requirement name	Code	Test result/ observation	Verdict
ANNEX L	ANNEX L ,ADDITIONAL REQUIREMENTS FOR ELECTRONIC FLASH APPARATUS FOR PHOTOGRAPHIC PURPOSES*	EL 2025-00		
L.2	General requirements			
L.4	General test conditions			
L.5	Marking and instructions*	EL 2025-01		
L.5.5.1	Instructions for battery chargers and Supply apparatus indicating type or model number of flash apparatus with which it is to be used *	EL 2025-02		
	Instructions for flash apparatus indicating type or model number of battery chargers or Supply apparatus with which it is to be used *	EL 2025-03		
L.7	Heating under normal operating conditions	EL 2025-04		
L.7.1.6	Lithium batteries meet permissible temp rise in Table 3 *	EL 2025-05		
L.9	Electric shock hazard under normal operating conditions	EL 2025-06		
L. 9.1.1.1	Terminals for connection to synchroniser not hazardous live	EL 2025-07		
L.14	Components	EL 2025-08		
L.14.6.7	Mains switch characteristics appropriate to its function under normal conditions	EL 2025-09		

*- Total number of Requirements to be observed / inspected = 05
Total No of applicable Requirement =
No of Requirements for which the sample passed=

Total number of tests to be conducted = 05
Total No of applicable Tests =
No. of tests for which the sample passed=
Certificate: It is certified that the above tests were performed and found to be passing/failing in the requirement tested.

.....
(Approving Authority)

Table EL 2002-(00 to 06)

7.1	TABLE: Heating Test		
	Ambient (°C)..... :		—
	Loudspeaker impedance (Ω) ..... :		—

Cond.	U_n (V)	Hz	I_n (A)	P_n (W)	U_{out} (V)	P_{out} (W)	Operating Condition / Status

Test condition No.	**No.**	**No.**	**No.**	—
Thermocouple Locations	**dT (K)**	**dT (K)**	**dT (K)**	**dT (K) limit**

Supplementary information:

	TABLE: Heating test, resistance method		
	Test condition No. ..... :		—
	Ambient, t_1 (°C) ..... :		—
	Ambient, t_2 (°C) ..... :		—

Temperature rise of winding	**R_1 (Ω)**	**R_2 (Ω)**	**ΔT (K)**	**Max. dT (K)**	**Insulation class**

Supplementary information:

Table EL 2002-07

7.2	TABLE: Heat Resistance of Insulating Materials		
Temperature T of part	**T - normal conditions (°C)**	**T - fault conditions (°C)**	**Min T softening (°C)**

Table EL 2005-(03 to 07)

10.4	TABLE: Dielectric Strength	
Test voltage applied between:	**Test potential applied (V)**	**Breakdown / flashover (Yes/No)**
Between mains poles (primary fuse disconnected)		
Between parts separated by basic or supplementary insulation		
Between parts separated by double or reinforced insulation		
Supplementary information:		

10.4	TABLE: Insulation Resistance Measurements	
Insulation resistance R between:	**R (MΩ)**	**Required R (MΩ)**
Between mains poles (primary fuse disconnected)		
Between parts separated by basic or supplementary insulation		
Between parts separated by double or reinforced insulation		
Supplementary information:		

Table EL 2006-(08 to 19)

11	TABLE: Fault Conditions			
No.	**Component**	**Fault**	**dT (K) / Component**	**Test conditions, test duration, test result**
Supplementary information:				

Table EL 2008-(01 to 15)

13	TABLE: Clearance And Creepage Distance Measurements					
Rated supply voltage.....		Pollution degree...:		Material Group....:		
2 N force on internal parts applied:						
30 N force on outside of conductive enclosure applied:						
clearance and creepage distance at/of:	**Working voltage (V)**		**Clearance (mm)**		**Creepage (mm)**	
	U peak	**U r.m.s.**	**Required**	**Measured**	**required**	**Measured**
Primary (ac) to Earth (B)						
Primary (+dc) to Earth max (B)						
Primary (-dc) to Earth max (B)						
Across mains fuse F____ (B)						
Across primary directly connected to the mains (B)						
Hazardous live secondary to Earth (B)						
Optocoupler input to output (R)						
Primary to Secondary (R)						
Primary to accessible conductive parts (R)						
Hazardous live secondary to non-hazardous live secondary (R)						
Hazardous live secondary to unearthed conductive enclosure (R)						
Supplementary information:						

Photograph of marking plate and other photographs of the sample tested:

****End of Test Report*****