

Tel: 0129-4321765 | Email: info@stclab.in | website: www.stclab.in

SUMMARY OF TEST REPORT

Section Report No: 22EAF30N_1...DATED 06/12/2022

(Number of pages in test report: page no. 01 to 103)

TEST FORMAT AS PER IS 13252 (Part 1): 2010 + A1: 2013+ A2:2015 / IEC 60950-1: 2005 + A1: 2009 +A2:2013

1. Name of Manufacturer: ALTOP INDUSTRIES, ALTOP SATIVALI

2. Product: Interactive Flat Panel (ADPM)

3. Mode: Lead Model: Altop IFP 01

Series Model: Altop IFP 02, Altop IFP 03, Altop IFP 04

4. Model differences provided (if applicable): Yes

5. Model differences verified as per <u>DEITY Guidelines</u> for series formulation: Yes

6. Test Results: See below

PART A: GENERAL

SL. NO.	TEST REQUIREMENT	CLAUSE	VERDICT
1.	Components	1.5	Р
2.	Power Interface	1.6	Р
3.	Markings and Instructions	1.7	Р

PART B: PROTECTION FROM HAZARDS

SL. NO.	TEST REQUIREMENT	CLAUSE	VERDICT
1.	Protection from electric shock and energy hazards	2.1	Р
2.	SELV circuits	2.2	Р
3.	TNV circuits	2.3	N/A
4.	Limited current circuits	2.4	Р
5.	Limited power sources	2.5	Р
6.	Provisions for earthing and bonding	2.6	Р
7.	Over current for earth fault protection in primary circuits	2.7	Р
8.	Safety interlocks	2.8	N/A
9.	Electrical insulation	2.9	Р
10.	Clearances, creepage distances and distances through insulation	2.10	Р

PART C: WIRING, CONNECTIONS AND PHYSICAL REQUIREMENTS

SL. NO.	TEST REQUIREMENT	CLAUSE	VERDICT
1	General	3.1	Р
2	Connection to a mains supply	3.2	Р
3	Wiring terminals for connection of external conductors	3.3	N/A
4	Disconnection from the mains supply	3.4	Р
5	Interconnection of equipment	3.5	Р
6.	Stability	4.1	N/A
7	Mechanical strength	4.2	Р
8	Design and construction	4.3	Р
9	Protection against hazardous moving parts	4.4	N/A
10	Thermal requirements	4.5	Р
11	Openings in enclosures	4.6	Р
12	Resistance to fire	4.7	Р

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PART D: ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS

SL. NO.	TEST REQUIREMENT	CLAUSE	VERDICT
1	Touch current and protective conductor current	5.1	Р
2	Electric strength	5.2	Р
3	Abnormal operating and fault conditions	5.3	Р

PART E: CONNECTION TO TELECOM AND CABLED DISTRIBUTION SYSTEM

SL. NO.	TEST REQUIREMENT	CLAUSE	VERDICT
1	Protection of telecommunication network service persons, and users of	6.1	N/A
	other equipment connected to the network, from hazards in the equipment		
2	Protection of equipment users from over voltages on telecommunication networks	6.2	N/A
3	Protection of the telecommunication wiring system from overheating	6.3	N/A
4	Connection to cable distribution systems - General	7.1	N/A
5	Protection of cable distribution system service persons, and users of other equipment connected to the system, from hazardous voltages in the equipment	7.2	N/A
6	Protection of equipment users from over voltages on the cable distribution system	7.3	N/A
7	Insulation between primary circuits and cable distribution systems	7.4	N/A

General Information:

1. The conformity certificates of critical components are verified to ensure complete testing of apparatus under test and details regarding harmonized IEC standards (where IEC standards are not available) are also provided in the list of critical component.

Remarks: All the tests have been performed on Altop IFP 01 (Worst case).

CONCLUSION:

1) Sample meets all relevant requirements of <u>IS 13252 (Part 1)</u>: 2010 + A1: 2013+ A2:2015 / IEC 60950-1: 2005 + A1: 2009 +A2:2013V

I, hereby, undertake that the verdict stated in the test reports for all the tests matches with the test results. The sample meets all relevant requirements of IS 13252 (Part 1):2010. If any deviation is found, suitable punitive action may be taken by BIS.

Tested by:	Approved by / Authorized Signatory:	Issued by:
(Esha Tyagi/Testing Engineer)	(Chandra Prakash Chandan / Director)	(Manpreet Kaur / CSE)
Date: 06/12/2022	Date: 06/12/2022	Date: 06/12/2022

Note: This is computer generated report. No need of Seal and Sign.

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Issue Date: 06/12/2022

Manufacturer's name : ALTOP INDUSTRIES, ALTOP SATIVALI

Addresses: FLAT 1,2, SIDDHI BLDG NO.2, VASAI, BLOCK 1,2, TRUNGARESHWAR

PHATA, SATAVALI, PALGHAR, MAHARASHTRA-401208



Test item:	Interactive Flat Panel (ADPM)	•
Identification;	Lead Model: Altop IFP 01	Serial No.:
	Series Model: Altop IFP 02, Altop IFP 03, Altop I	FP 04
Receipt No.:	22EAF30N	Date of receipt: 25/11/2022
Testing laboratory: and its address:	STANDARD TESTING AND COMPLIANCE (STC LA 14/7, Parmeshwari Colony, Mathura Road, Farid	•
Test specification:	IS 13252 (Part 1): 2010 + A1: 2013 + A2 : 2015 /	IEC 60950-1: 2005 + A1: 2009 + A2 : 2013
Test Result:	The test item passed the test specification(s).	
Other Aspects:		
1 P. Pass F. Fail N/	A: Not Applicable	

This test report relates to the test sample submitted and list of documents attached.

Tested by:	Approved by / Authorized Signatory:	Issued by:
(Esha Tyagi/Testing Engineer)	(Chandra Prakash Chandan / Director)	(Manpreet Kaur / CSE)
Date: 06/12/2022	Date: 06/12/2022	Date: 06/12/2022



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TESTREPORT

IS13252(Part 1):2010+A1:2013+A2:2015/ IEC60950-1:2005+A1:2009+ A2:2013 Informationtechnologyequipment–Safety– Part1:Generalrequirements

"Automatic Data Processing Machine"

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TestingLaboratory....: STANDARDTESTINGANDCOMPLIANCE(STCLAB

Address...... 14/7,ParmeshwariColony,MathuraRoad,Faridabad(Haryana)–121008,India

Manufacturer'sname...... ALTOP INDUSTRIES, ALTOP SATIVALI

Address...... FLAT 1,2, SIDDHI BLDG NO.2, VASAI, BLOCK 1,2, TRUNGARESHWAR PHATA,

SATAVALI, PALGHAR, MAHARASHTRA-401208

Testspecification:

Standard...... IS13252(Part1):2010+A1:2013+ A2:2015/

IEC60950-1:2005+ A1:2009+A2:2013

Testprocedure.....: ComplianceReport

Non-standardtestmethod.....: N/A

TestReportFormNo....... BIS_IT/ADP_IS13252_V1.4
TestReportForm(s)Originator...: Bureau of Indian Standards

MasterTRF....: 03/06/2016

Testitemdescription...... Interactive Flat Panel (ADPM)

Trade Mark.....:

Model/Typereference...... Lead Model: Altop IFP 01

Series Model: Altop IFP 02, Altop IFP 03, Altop IFP 04

Ratings...... Input:100-240V~,50/60Hz,5A

OtherDocumentssubmitted......: Please refer to Table – List of Attachments at Page No. 07

Tested by:	Approved by / Authorized Signatory:	Issued by:
(Esha Tyagi/Testing Engineer)	(Chandra Prakash Chandan /Director)	(Manpreet Kaur / CSE)
Date: 06/12/2022	Date: 06/12/2022	Date: 06/12/2022



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TestCode	Description	Measurement/ testing	Total No. of tests	Total no. of applicable tests/ Req.	No. of tests/	Page No.
EL 2100	General Requirements	Components (Cl.1.5)	18	12	12	10
EL 2101	General Requirements	Power interface (Cl.1.6)	05	04	04	12
EL 2102	Marking Requirements	Marking & instructions (Cl.1.7)	39	20	20	13
EL 2103	Electrical safety	Protection from electric shock and energy hazards (Cl.2.1)	14	07	07	15
EL 2104	Electrical safety	SELV Circuits (Cl.2.2)	04	04	04	17
EL 2105	Electrical safety	TNV Circuits (Cl.2.3)	12	00	N/A	18
EL 2106	Electrical safety	Limited current circuits (Cl.2.4)	04	04	04	19
EL 2107	Electrical safety	Limited Power sources (Cl.2.5)	07	03	03	20
EL 2108	Electrical safety	Provisions for earthing and bonding (Cl.2.6)	19	15	15	21
EL 2109	Electrical safety	Over current and earth fault protection in primary circuits (Cl.2.7)	07	04	04	23
EL 2110	Electrical safety	Safety Interlocks (Cl.2.8)	13	00	N/A	24
EL 2111	Electrical safety	Electrical Insulation (Cl.2.9)	05	05	05	25
EL 2112	Electrical safety	Clearances, Creepage distances and distances through insulation (Cl.2.10)	63	32	32	26
EL 2113	Wiring	Wiring, connections and supply (Cl.3)	11	07	07	30
EL 2114	Wiring	Connection to a main supply (Cl.3.2)	14	06	06	31
EL 2115	Wiring	Wiring terminals for connection of external conductors (Cl.3.3)	09	00	N/A	33
EL 2116	Wiring	Disconnection for the main supply (Cl.3.4)	12	05	05	34
EL 2117	Wiring	Interconnection of equipment (Cl.3.5)	05	04	04	35
EL 2118	Mechanical properties	Stability (Cl.4.1)	05	01	01	36
EL 2119	Mechanical properties	Mechanical strength (Cl.4.2)	13	05	05	37
EL 2120	Mechanical properties	Design and construction (Cl.4.3)	25	05	05	38
EL 2121	Mechanical properties	Protection against hazardous moving parts (Cl.4.4)	14	00	N/A	40
EL 2122	Thermal Properties	Thermal requirements (Cl.4.5)	06	06	06	41
EL 2123	Mechanical properties	Openings in Enclosures (Cl.4.6)	18	02	02	42
EL 2124	Fire Safety	Resistance to fire (Cl.4.7)	25	09	09	44
EL 2125	Insulating properties	Electrical requirements and simulated abnormal conditions (Cl.5),5.1	20	10	10	48
EL 2126	Insulating	Electric Strength (Cl.5.2)	03	03	03	50
	salating	2.00010 3010118011 (01.3.2)				50

BIS_IT/ADP_IS13252_V1.4

Address: #14/7, Parmeshwari Colony, Mathura Road, Faridabad (Haryana) – 121008, India



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Issue Date: 06/12/2022

	properties					
EL 2127	Insulating properties	Abnormal operating and fault conditions (Cl.5.3)	11	09	09	51
EL 2128	Communicating connection	Protection of telecommunication network service persons, and users of other equipment connected to the network, from hazards in the equipment (Cl.6.1)	04	00	N/A	52
EL 2129	Communicating connection	Protection of equipment users from overvoltage on telecommunication networks (Cl.6.2)	06	00	N/A	54
EL 2130	Communicating connection	Protection of the telecommunication wiring system from overheating (Cl.6.3)	05	00	N/A	55
EL 2131	Connection to cable distribution systems	Connection to cable distribution systems(Cl.7)	08	00	N/A	57
EL 2132	Fire safety	Tests for resistance to heat and fire (Annex A)	20	02	02	58
EL 2133	Insulating properties	Motor tests under abnormal conditions (Annex B)	19	00	N/A	60
EL 2134	Electrical Safety	Transformers (Annex C)	03	03	03	62
EL 2135	Insulating properties	Measuring Instruments for Touch- Current Tests (Annex D)	03	02	02	63
EL 2136	Thermal Properties	Temperature Rise of a Winding (Annex E)	01	00	N/A	64
EL 2137	Electrical safety	Measurement Of Clearances and Creepage Distances (Annex F)	01	01	01	65
EL 2138	Electrical safety	Alternative Method for Determining Minimum Clearances (Annex G)	17	00	N/A	66
EL 2139	Radiation Safety	Ionizing Radiation (Annex H)	01	00	N/A	67
EL 2140	Electrical Safety	Table of electrochemical potentials (Annex J)	01	01	01	68
EL 2141	General Requirements	Thermal controls (Annex K)	07	00	N/A	69
EL 2142	General Requirements	Normal load conditions for some types of electrical business equipment (Annex L)	08	02	02	70
EL 2143	Electrical Safety	Criteria for telephone ringing signals (Annex M)	13	00	N/A	71
EL 2144	Electrical safety	Impulse Test Generators (Annex N)	03	00	N/A	72
EL 2145	General Requirements	Normative References (Annex P)	01	01	01	73
EL 2146	General Requirements	Voltage dependent resistors (VDRs) (Annex Q)	03	03	03	74
EL 2147	General Requirements	Examples Of Requirements for Quality Control Programmed (Annex R)	03	00	N/A	75
EL 2148	General	Procedure For Impulse Testing (Annex	04	00	N/A	76



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	Requirements	S)				
EL 2149	Protection against Ingress of water	Guidance On Protection Against Ingress of Water (Annex T)	01	00	N/A	77
EL 2150	Wiring	Insulated Winding Wires for Use Without Interleaved Insulation (Annex U)	17	17	17	78
EL 2151	Electrical Safety	Ac Power Distribution Systems (Annex V)	05	03	03	79
EL 2152	Electrical Safety	Summation Of Touch Currents (Annex W)	08	00	N/A	80
EL 2153	Electrical Safety	Maximum Heating Effect in Transformer Tests (Annex X)	03	00	N/A	81
EL 2154	Radiation safety	Ultraviolet light conditioning test (Annex Y)	05	00	N/A	82
EL 2155	Electrical Safety	Overvoltage Categories (Annex Z)	01	01	01	83
EL 2156	Mechanical properties	Mandrel Test (Annex AA)	01	00	N/A	84
EL 2157	Electrical Safety	Changes In the Second Edition (Annex BB)	01			
EL 2158	Electrical Safety	Evaluation Of Integrated Circuit (IC) Current Limiters (Annex CC)	06	00	N/A	85
EL 2159	Mechanical properties	Requirements For the Mounting Means of Rack-Mounted Equipment (Annex DD)	04	00	N/A	86
EL 2160	Electrical Safety	Household And Home/Office Document/Media Shredders (Annex EE)	06	00	N/A	87

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

•••••	• • • • • • • • • • • • • • • • • • • •
(Approving Authority)	



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Issue Date: **06/12/2022**

Copy of marking plate:

Interactive Flat Panel

Model: Altop IFP 01

Input:100-240V~,50/60Hz,5A

Made in India



Lead Model

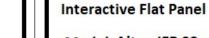
Marking label for series models

Interactive Flat Panel

Model: Altop IFP 02

Input:100-240V~,50/60Hz,5A

Made in India



Model: Altop IFP 03

Input:100-240V~,50/60Hz,5A

Made in India



Interactive Flat Panel

Model: Altop IFP 04

Input:100-240V~,50/60Hz,5A

Made in India





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Table – List of Attachments

Attachment No.	Attachment Description	No. of pages in Attachment
Attachment – 1	Photo Document	02 Pages (102-103)

General remarks:

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

This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.

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)

Testing:

Date of receipt of test item 25/11/2022

Laboratory conditions:

Ambient Temperature:25±10°C

Ambient Humidity:45-75% RH



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IS 13252 (Part 1): 2010 + A1: 2013+ A2:2015 /

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	TEC 00750-1. 2005 + A1. 2007 +A2.2015	Issue Date: 06/12/2022			
Test item particulars :	Interactive Flat Panel (ADPM)				
Equipment mobility :	movable hand-held	transportable			
,	<u> </u>	ng-in direct plug-in			
	pluggable equipment [X] ty				
Connection to the mains :	permanent connection				
	detachable power supply co	ord			
	non-detachable power sup	ply cord			
	not directly connected to the	ne mains			
Operating condition :					
	rated operating / resting til	me:			
Access location :	igotimes operator accessible				
	restricted access location	_			
Over voltage category (OVC) :	□ ovc ı⊠ ovc ıı □ ovc ı				
	other: No mains connection	1			
Mains supply tolerance (%) or absolute mains					
Class of equipment :		Class I Class II Class III			
	Not classified				
Considered current rating of protective device					
building installation (A) :	16A (for India)				
Pollution degree (PD) :		☐ PD 1			
IP protection class :	-	IPX0			
Altitude during operation (m) :	Up to 2000				
Altitude of test laboratory (m) :	< 1000				
Mass of equipment (kg) :	44.35Kg				
Abbreviations that may be used throughout th					
PE/PB: protective earth/protective					
CB: : circuit breaker	Sec: : secondary				
(SW)PS: : (switching) power supply	gnd: ground				
HV: high voltage	I/O: input/outpu				
PCB : printed circuit (wiring) boa					
TIW:: triple insulated wire B/I:: built-in application (compli	PSU: Power Supp	iy Offic			
F/B/S/R : Functional/Basic/Supplement					
T/D/J/N	entary/Neimorceu insulation				



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Section Test Report No: 22EAF30N _1

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Issue Date: **06/12/2022**

Generalproductinformation:

Application details / Description of the product:

Name of the product: Interactive Flat Panel (ADPM)

Model: Lead Model: Altop IFP 01

Series Model: Altop IFP 02, Altop IFP 03, Altop IFP 04

Ratings: Input:100-240V~,50/60Hz,5A



Trademark:

Max. specified ambient temperature (°C): 40°C

1)Differences between the models: Model number

2) Similarities: Same mains layout, same enclosure except for differences of decoration parts, Power transformer: same design and insulation system.

Model No.	Rating
Altop IFP 01 (Lead Model)	Input:100-240V~,50/60Hz,5A
Altop IFP 02 (Series Model)	Input:100-240V~,50/60Hz,5A
Altop IFP 03 (Series Model)	Input:100-240V~,50/60Hz,5A
Altop IFP 04 (Series Model)	Input:100-240V~,50/60Hz,5A

ModelNo.testedwith-inthefamilyseries.: Altop IFP 01 (Worst case)

1) Options:

The equipment was tested without any optional accessory installed. Hence, this report does not cover parameters that are influenced by the installation of optional accessory that might affect safety in the meaning of this standard.



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Issue Date: **06/12/2022**

Tests relating to General Requirements

EL 2100-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
1.5	Components*	EL 2100-00	Verification of approvals with due correlation between the components used and the approval certificates submitted (See table 1.5.1)	P
1.5.1	General:	EL 2100-01	See below	Р
	Components shall be complying with IEC 60950-1 or relevant component standard.		Component certified with relevant component standard.	Р
	Components and subassemblies approved for IEC 62368-1 can be considered as complying with this standard		See above	N/A
1.5.2	Evaluation and testing of components	EL 2100-02	Components certified with IEC or their harmonized standards are used within their ratings (See table 1.5.1)	Р
1.5.3	Thermal controls	EL 2100-03	No such control used	N/A
1.5.4	Transformers	EL 2100-04	See annex C	Р
1.5.5	Interconnecting cables*	EL 2100-05	Certified internal wire used (See table 1.5.1)	Р
1.5.6	Capacitors bridging insulation *	EL 2100-06	Capacitors used in accordance with their rating and complied with subclasses of IEC 60384-14	Р
1.5.7	Resistors bridging insulation	EL 2100-07	(see table 1.5.1)	
1.5.7	nesistors bridging insulation	EL 2100-07	See Below	Р
1.5.7.1	Resistors bridging functional, basic or supplementary insulation*	EL 2100-08	Resistors used as functional insulation only.	Р
1.5.7.2	Resistors bridging double or reinforced insulation between a.c. mains and other circuits	EL 2100-09	See above cl. no. 1.5.7	N/A
1.5.7.3	Resistors bridging double insulation or reinforced insulation between the a.c. mains supply and circuits connected to an antenna or coaxial cable	EL 2100-10	See above cl. no. 1.5.7	N/A
1.5.8	Components in equipment for IT power distribution systems*	EL 2100-11	Not for IT power distribution systems	N/A
1.5.9	Surge suppressors	EL 2100-12	See below	Р
1.5.9.1	General*	EL 2100-13	Certified varistor used	Р
1.5.9.2	Protection of VDRs*	EL 2100-14	The varistor is located after fuse (FP1) and protect them	Р
1.5.9.3	Bridging of functional insulation by a VDR*	EL 2100-15	Varistor used for functional insulation only.	Р
1.5.9.4	Bridging of basic insulation by a VDR*	EL 2100-16	No such construction	N/A



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IS 13252 (Part 1): 2010 + A1: 2013+ A2:2015 / Section Test Report No: 22EAF30N _1 IEC 60950-1: 2005 + A1: 2009 +A2:2013

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1.5.9.5 Bridging of supplementary, double or reinforced EL 2100-17 No such construction N/A insulation by a VDR*

Total No of applicable Requirement =07

No of Requirements for which the sample passed=07

Total number of tests to be conducted= 08 Total No of applicable Tests = 05 No. of tests for which the sample passed=05

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

^{*}Total number of Requirements to be observed / inspected =10



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Tests relating to Electrical Safety

EL 2101-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
1.6	Power interface*	EL 2101-00	See below	Р
1.6.1	AC power distribution systems*	EL 2101-01	TN power distribution system	р
1.6.2	Input current	EL 2101-02	(See table 1.6.2)	Р
1.6.3	Voltage limit of hand-held equipment*	EL 2101-03	The equipment is not hand-held	N/A
1.6.4	Neutral conductor *	EL 2101-04	The neutral conductor is insulated from the body throughout the equipment	р

*Total number of Requirements to be observed / inspected =04 Total No of applicable Requirement =03

Total number of tests to be conducted =01

No of Requirements for which the sample passed= 03

Total No of applicable Tests = 01

No. of tests for which the sample passed= 01

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



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Tests rela	s relating to Marking Requirements			L 2102-V1.4
Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
1.7	Marking and instructions*	EL 2102-00	Satisfactory	Р
1.7.1	Power rating and identification markings		See below	Р
1.7.1.1	Power rating marking*	EL 2102-01	Satisfactory	Р
	Rated voltage(s) or voltage ranges(s) (V)*.	EL 2102-02	100-240V~	Р
	Multiple mains supply connections*.	EL 2102-03	Single mains supply	N/A
	Symbol for nature of supply, for d.c. only*:	EL 2102-04	Mains from AC source	N/A
	Rated frequency or rated frequency range (Hz) *:	EL 2102-05	50/60Hz	р
	Rated current (mA or A)*:	EL 2102-06	5A	Р
1.7.1.2	Identification markings*	EL 2102-07	See below	Р
	Manufacturer's name or trade- mark or identification mark *:	EL 2102-08		Р
	Model identification or type reference *:	EL 2102-09	Altop IFP 01	Р
	Symbol for Class II equipment only*:	EL 2102-10	No such equipment	N/A
	Other markings and symbols*:	EL 2102-11	Additional symbols or marking do not give rise to misunderstanding	Р
1.7.1.3	Use of graphical symbols*	EL 2102-12	Proper symbol marked	р
1.7.2	Safety instructions and marking*	EL 2102-13	See below	Р
1.7.2.1	General	EL 2102-14	Safety instruction manual provided	Р
1.7.2.2	Disconnect devices*	EL 2102-15	Appliance inlet used as disconnet device	Р
1.7.2.3	Over current protective devices*	EL 2102-16	Pluggable equipment type A	N/A
1.7.2.4	IT power distribution systems*	EL 2102-17	Not for connection to IT power distribution systems	N/A
1.7.2.5	Operator access with a tool*	EL 2102-18	No tools required	N/A
1.7.2.6	Ozone*	EL 2102-19	No ozone generated	N/A
1.7.3	Short duty cycles*	EL 2102-20	Continuous operation	N/A
1.7.4	Supply voltage adjustment*	EL 2102-21	No supply voltage adjustment	N/A
1.7.5	Power outlets on the equipment*	EL 2102-22	No such power outlets	N/A
1.7.6	Fuse identification (marking, special fusing characteristics, cross-reference) Fuse(s) shall clearly and adequately marked with	EL 2102-23	Certified fuse(FP1) clearly and adequately marked with fuse number and rating(See table 1.5.1)	Р



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			15540 Bate: 66/22/	-0
	fuse number and rating*.			
1.7.7	Wiring terminals	EL 2102-24	No Wiring terminals used	N/A
1.7.7.1	Protective earthing and bonding terminals*	EL 2102-25	See above cl. no. 1.7.7	N/A
1.7.7.2	Terminals for a.c. mains supply conductors*	EL 2102-26	See above cl. no. 1.7.7	N/A
1.7.7.3	Terminals for d.c. mains supply conductors*	EL 2102-27	See above cl. no. 1.7.7	N/A
1.7.8	Controls and indicators	EL 2102-28	See below	Р
1.7.8.1	Identification, location and marking *:	EL 2102-29	Functions of controls affecting safety are obvious regardless of language	Р
1.7.8.2	Colors*	EL 2102-30	Colors are used for functional indication only	Р
1.7.8.3	Symbols according to IEC 60417*:	EL 2102-31	I for "ON" and O for "OFF" symbol marked according to IEC 60417	Р
1.7.8.4	Markings using figures*:	EL 2102-32	No such figures used	N/A
1.7.9	Isolation of multiple power sources*	EL 2102-33	No multiple power sources	N/A
1.7.10	Thermostats and other regulating devices*	EL 2102-34	No such components	N/A
1.7.11	Durability	EL 2102-35	Marking is durable and legible after the test	Р
1.7.12	Removable parts*	EL 2102-36	No such removable parts	N/A
1.7.13	Replaceable batteries*	EL 2102-37	Certified RTC battery used (See table 1.5.1)	Р
	Language(s)		English	Р
1.7.14	Equipment for restricted access locations*	EL 2102-38	Not for restricted access location	N/A

^{*}Total number of Requirements to be observed / inspected =35

Total No of applicable Requirement =17

No of Requirements for which the sample passed= 17

Total number of tests to be conducted = 04
Total No of applicable Tests = 03
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.

=03

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Tests relating to Electrical Safety

EL 2103-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
2.1	Protection from electric shock and energy hazards*	EL 2103-00	See below	Р
2.1.1	Protection in operator access areas*	EL 2103-01	Complies	Р
2.1.1.1	Access to energized parts	EL 2103-02	Complies	Р
	Test by inspection:		No access to hazardous parts	Р
	Test with test finger (Figure 2A)		No access with test finger to any parts at hazardous voltage in access area	Р
	Test with test pin (Figure 2B):		The test pin does not touch bare hazardous parts in operator access area	Р
	Test with test probe (Figure 2C)		No TNV circuit	N/A
2.1.1.2	Battery compartments *	EL 2103-03	No battery compartments	N/A
2.1.1.3	Access to ELV wiring	EL 2103-04	No ELV wiring	N/A
	Working voltage (Vpeak or Vrms); minimum distance through insulation (mm)		See above cl. No. 2.1.1.3	N/A
2.1.1.4	Access to hazardous voltage circuit wiring	EL 2103-05	No internal wiring at hazardous voltage or conductive parts accessible to user	Р
2.1.1.5	Energy hazards:	EL 2103-06	No hazardous energy level (See table 2.1.1.5)	Р
2.1.1.6	Manual controls	EL 2103-07	No manual controls	N/A
2.1.1.7	Discharge of capacitors in equipment		Complies	Р
	Measured voltage (V); time-constant (s):	EL 2103-08	See table 2.1.1.7	Р
2.1.1.8	Energy hazards – d.c. mains supply		No DC main supply	N/A
	a) Capacitor connected to the d.c. mains supply:	EL 2103-09	See above cl. no. 2.1.1.8	N/A
	b) Internal battery connected to the d.c. mains supply:	EL 2103-10	See above cl. no. 2.1.1.8	N/A
2.1.1.9	Audio amplifiers to be tested according to IEC 60065, cl. 9.1.1.:	EL 2103-11	No audio amplifier used	N/A
2.1.2	Protection in service access areas	EL 2103-12	Unintentional contact with hazardous parts is unlikely	Р
2.1.3	Protection in restricted access locations	EL 2103-13	Not for restricted access locations	N/A



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= 02

Total number of tests to be conducted = 11 Total No of applicable Tests No. of tests for which the sample passed = 05

No of Requirements for which the sample passed

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



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Tests relating to Electrical Safety

EL 2104-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
2.2	SELV circuits*	EL 2104-00	See below	Р
2.2.2	Voltages under normal conditions	EL 2104-01	Within SELV limit under normal operating conditions (See table 2.2.2)	Р
2.2.3	Voltages under fault conditions	EL 2104-02	Within SELV limit under fault conditions (See table 2.2.3)	Р
2.2.4	Connection of SELV circuits to other circuits*:	EL 2104-03	SELV to SELV connection only	Р

^{*}Total number of Requirements to be observed / inspected =02

Total No of applicable Requirement =02

No of Requirements for which the sample passe= 02

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

Certificate: It is certified	that the above tests were perfo	ormed and found to be p	assing/ failing i n the require	ment testea.
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Tests relating to Electrical Safety

EL 2105-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
2.3	TNV circuits*	EL 2105-00	No TNV circuits used	N/A
2.3.1	Type of TNV circuits: TNV-1 / TNV-2 / TNV-3	EL 2105-01	See above cl. no. 2.3	N/A
	a) Limits of TNV-1:	EL 2105-02	See above cl. no. 2.3	N/A
	b) Limits of TNV-2 or TNV-3: Continuous voltages, combination of AC and DC values, are such that: $\frac{U_{\rm ac}}{71} + \frac{U_{\rm dc}}{120} \le 1$	EL 2105-03	See above cl. no. 2.3	N/A
2.3.2	Separation from other circuits and from accessible parts*	EL 2105-04	See above cl. no. 2.3	N/A
2.3.2.1	General Requirements	EL 2105-05	See above cl. no. 2.3	N/A
2.3.2.2	Protection by basic insulation	EL 2105-06	See above cl. no. 2.3	N/A
2.3.2.3	Protection by earthing	EL 2105-07	See above cl. no. 2.3	N/A
2.3.2.4	Protection by other constructions:	EL 2105-08	See above cl. no. 2.3	N/A
2.3.3	Separation from hazardous voltages	EL 2105-09	See above cl. no. 2.3	N/A
2.3.4	Connection of TNV circuits to other circuits	EL 2105-10	See above cl. no. 2.3	N/A
2.3.5	Test for operating voltages generated externally	EL 2105-11	See above cl. no. 2.3	N/A

*Total	number	of Rec	uireme	ents to h	ne obse	rved / i	nspected	=02

Total No of applicable Requirement =00

No of Requirements for which the sample passed= N/A

Total number of tests to be conducted = 10 Total No of applicable Tests = 00

No. of tests for which the sample passed= N/A

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



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EL 2106-V1.4

Tests relating to Electrical Safety

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
2.4	Limited current circuits *	EL 2106-00	See below	Р
2.4.1	General requirements *	EL 2106-01	See below	Р
2.4.2	Limit values	EL 2106-02	See table 2.4.2	Р
2.4.3	Connection of limited current circuits to other circuits*	EL 2106-03	SELV-SELV circuit connection only	Р

^{*}Total number of Requirements to be observed / inspected =03

Total No of applicable Requirement =03

No of Requirements for which the sample passed = 03

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

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 2107-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
2.5	Limited power sources *	EL 2107-00	See below	Р
	a) Inherently limited output	EL 2107-01	No Inherently limited output	N/A
	b) Impedance limited output	EL 2107-02	HDMI port is Impedance limited (See table 2.5)	Р
	c) Regulating network limited output under normal operating and single fault condition Use of integrated circuit (IC) current limiters	EL 2107-03	USB port is regulating by regulating network (See table 2.5)	Р
	d) Over current protective device limited output	EL 2107-04	See above cl. no. 2.5	N/A
	Max. output voltage (V), Max. output current (A), Max. apparent power (VA)	EL 2107-05	See above cl. no. 2.5	N/A
	Current rating of over current protective device (A)	EL 2107-06	See above cl. no. 2.5	N/A

*Total number of Requirements to be observed / inspected	1=01
Total No of applicable Requirement	=01
No of Requirements for which the sample passed= 01	

Total number of tests to be conducted = 06 Total No of applicable Tests = 02 No. of tests for which the sample passed= 02

Certificate: It is certified	I that the above t	tests were perform	ed and found to	o be passing/ failing	; in therequi	irement tested.



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Tests relating to Electrical Safety

EL 2108-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
2.6	Provisions for earthing and bonding*	EL 2108-00	See below	Р
2.6.1	Protective earthing	EL 2108-01	The relevant parts connected to the main protective earthing terminal reliably	Р
2.6.2	Functional earthing: The Functional earthing either separated from hazardous voltages by double or reinforced insulation or by protectively earthed screen or conductive part separated by at least basic insulation, or safely connected to Protective Bonding Conductor. *	EL 2108-02	Protective earthing provided	N/A
	Use of symbol for functional earthing: *	EL 2108-03	See above cl. no. 2.6.2	N/A
2.6.3	Protective earthing and protective bonding conductors*	EL 2108-04	See below	Р
2.6.3.2	Size of protective earthing conductors	EL 2108-05	Certified Detachable power supply cord set used (See table 1.5.1)	Р
	Rated current (A), cross-sectional area (mm2),		See above Cl. No. 2.6.3.2	Р
2.6.3.3	Size of protective bonding conductors	EL 2108-06	Complies with Cl. No. 2.6.3.4	Р
	Protective current Rating (A), cross- sectional area (mm2)		Complies with Cl. No. 2.6.3.4	Р
2.6.3.4	Resistance of earthing conductors and their terminations; resistance (W), voltage drop (V), test current (A), duration (min):	EL 2108-07	Resistance not exceed 0.1Ω Test time: 2 minute (See table 2.6.3.4)	Р
2.6.3.5	Color of insulation*:	EL 2108-08	Certified power supply cord used (See table 1.5.1)	Р
2.6.4	Terminals		See below	Р
2.6.4.2	Protective earthing and bonding terminals: Rated current(A), Type, Nominal thread diameter (mm)	EL 2108-09	Certified Appliance inlet used (See table 1.5.1)	Р
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors*	EL 2108-10	Certified Appliance inlet used (See table 1.5.1)	Р
2.6.5	Integrity of protective earthing*		See below	Р
2.6.5.1	Interconnection of equipment*	EL 2108-11	Complies	P
2.6.5.2	Components in protective earthing conductors and protective bonding conductors*	EL 2108-12	No switch and over current protective device provided	Р
2.6.5.3	Disconnection of protective earth*	EL 2108-13	Appliance inlet is used as disconnected	Р



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			device	
2.6.5.4	Parts that can be removed by an operator*	EL 2108-14	No operator removable parts with protective earthing connection except supply cord	Р
2.6.5.5	Parts removed during servicing*	EL 2108-15	The relevant hazard is removed at the same in the protective earthing connection is removed for servicing	Р
2.6.5.6	Corrosion resistance*	EL 2108-16	Certified appliance inlet used	Р
2.6.5.7	Screws for protective bonding*	EL 2108-17	No such screws used	N/A
2.6.5.8	Reliance on telecommunication network or cable distribution system*	EL 2108-18	Not for telecommunication network	N/A

^{*}Total number of Requirements to be observed / inspected =14

Total No of applicable Requirement =10

No of Requirements for which the sample passed= 10

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

Certificate: It is certified that the above tests were performed an	d found to be passing/failing in therequirement tested
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Tests relating to Electrical Safety

EL 2109-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
2.7	Over current and earth fault protection in primary circuits*	EL 2109-00	See below	Р
2.7.1	Basic requirements: Protection in primary circuits against over current's, short- circuits and earth faults shall be provided, either as an integral part of the equipment or as part of building installation.	EL 2109-01	A build-in fuse (FP1) provided as an overcurrent protection device (See table 1.5.1)	Р
	If pluggable equipment Type B or permanently connected equipment relies on protective device external to the equipment for protection, the equipment installation Instructions shall so state and shall also specify the requirements for short-circuit protection or over current protection or, where necessary, for both.		Pluggable equipment type A	N/A
2.7.2	Faults not simulated in 5.3.7* need not be fitted as an integral part of the equipment	EL 2109-02	No such protection as integral part of the equipment	N/A
2.7.3	Short-circuit backup protection	EL 2109-03	Building installation is considered as providing short-circuit backup protection	Р
2.7.4	Number and location of protective devices:	EL 2109-04	One fuse (FP1) used in line	Р
2.7.5	Protection by several devices*	EL 2109-05	Protection by single devices	N/A
2.7.6	Warning to service personnel*:	EL 2109-06	No such warning required	N/A

^{*}Total number of Requirements to be observed / inspected =03

Total No of applicable Requirement =01

No of Requirements for which the sample passed= 01

Total number of tests to be conducted = 04 Total No of applicable Tests = 03 No. of tests for which the sample passed= 03

Certificate: It is certified that the above tests were p	erformed and fo	ound to be passing/	failing in the req	uirement tested.
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Tests relating to Electrical Safety

EL 2110-V1.4

Clause	Test / Requirement name	Test Code	Test result/ observation	Verdict
No	33,7 3,4 3 3 3 3 3		<u>'</u>	
2.8	Safety Interlocks*	EL 2110-00	No safety interlock	N/A
2.8.1	General principles*	EL 2110-01	See above cl. no. 2.8	N/A
2.8.2	Protection requirements	EL 2110-02	See above cl. no. 2.8	N/A
2.8.3	Inadvertent reactivation	EL 2110-03	See above cl. no. 2.8	N/A
2.8.4	Fail-safe operation	EL 2110-04	See above cl. no. 2.8	N/A
2.8.5	Moving parts	EL 2110-05	See above cl. no. 2.8	N/A
2.8.6	Overriding*	EL 2110-06	See above cl. no. 2.8	N/A
2.8.7	Switches, relays and their related circuits	EL 2110-07	See above cl. no. 2.8	N/A
2.8.7.1	Separation distances for contact gaps and their related circuits`	EL 2110-08	See above cl. no. 2.8	N/A
2.8.7.2	Overload test	EL 2110-09	See above cl. no. 2.8	N/A
2.8.7.3	Endurance test	EL 2110-10	See above cl. no. 2.8	N/A
2.8.7.4	Electric strength test	EL 2110-11	See above cl. no. 2.8	N/A
2.8.8	Mechanical actuators	EL 2110-12	See above cl. no. 2.8	N/A

^{*}Total number of Requirements to be observed / inspected =03

Total No of applicable Requirement =00

No of Requirements for which the sample passed= 00

Total number of tests to be conducted = 10 Total No of applicable Tests = 00 No. of tests for which the sample passed= 00



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Tests relating to Electrical Safety

EL 2111-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
2.9	Electrical insulation*	EL 2111-00	See below	Р
2.9.1	Properties of insulating materials*	EL 2111-01	Natural rubber and materials containing asbestos and hygroscopic materials are not used	Р
2.9.2	Humidity conditioning	EL 2111-02	See below	Р
	Relative Humidity: 93 ±3 %, Temperature: t at 40 ± 2°C Duration: 120 hours		Relative humidity :93% Temperature :40°C, Tested for 120 Hours.	Р
2.9.3	Grade of insulation*	EL 2111-03	Primary- secondary reinforced insulation, other functional insulation	Р
2.9.4	Separation from hazardous voltages*	EL 2111-04	See below	Р
	Method(s) used		Method 1 (b) used	Р

*Total number of Requirements to be observed / inspected =04

Total No of applicable Requirement =04

No of Requirements for which the sample passed = 04

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

Certificate: It is certified that the ah	ove tests were performed and found	to he nassing/failing in the	requirement tested
cei illicate. It is cei illieu tilat tile ab	ove tests were beligitied and ibuild	TO DE DASSILIE/H AITINE III LITE	reduirement tested.



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	g to Electrical Safety			L 2112-V1.4
Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
2.10	Clearances, creepage distances and distances through Insulation*	EL 2112-00	See below	Р
2.10.1.1	Frequency *	EL 2112-01	50/60Hz	Р
2.10.1.2	Pollution degrees*	EL 2112-02	Pollution degree 2	Р
2.10.1.3	Reduced values for functional insulation	EL 2112-03	Functional insulation Complies with the requirements of cl. no.5.3.4 c)	Р
2.10.1.4	Intervening unconnected conductive parts	EL 2112-04	No such construction provided	N/A
2.10.1.5	Insulation with varying dimensions	EL 2112-05	No such equipment	N/A
2.10.1.6	Special separation requirements	EL 2112-06	Special separation not used	N/A
2.10.1.7	Insulation in circuits generating starting pulses	EL 2112-07	No such circuits	N/A
2.10.2	Determination of working voltage	EL 2112-08	See table 2.10.2	Р
2.10.2.2	RMS working voltage	EL 2112-09	See above cl. no. 2.10.2	Р
2.10.2.3	Peak working voltage	EL 2112-10	See above cl. no. 2.10.2	Р
2.10.3	Clearances	EL 2112-11	See below cl. no. 2.10.3.2 to 2.10.3.9	Р
2.10.3.1	General	EL 2112-12	See below	Р
2.10.3.2	Mains transient voltages*		See below	Р
	a) AC mains supply *:	EL 2112-13	Overvoltage category II, mains transient voltage 2500V peak	Р
	b) Earthed d.c. mains supplies*	EL 2112-14	No DC mains supply	N/A
	c) Unearthed d.c. mains supplies*:	EL 2112-15	No DC mains supply	N/A
	d) Battery operation*:	EL 2112-16	No battery used	N/A
2.10.3.3	Clearances in primary circuits	EL 2112-17	See table 2.10.3 and 2.10.4	Р
2.10.3.4	Clearances in secondary circuits	EL 2112-18	Complied with cl. no. 5.3.4 c)	Р
2.10.3.5	Clearances in circuits having starting pulses	EL 2112-19	No such circuits	N/A
2.10.3.6	Transients from a.c. mains supply:	EL 2112-20	Considered mains transient voltage 1500V peak	Р
2.10.3.7	Transients from d.c. mains supply:	EL 2112-21	No dc mains supply	N/A
2.10.3.8	Transients from telecommunication networks and cable distributionsystems	EL 2112-22	No telecommunication network and cable distribution systems	N/A
2.10.3.9	Measurement of transient voltages		See below	Р
	a) Transients from a mains supply	EL 2112-23	See below	Р
	For an a.c. mains supply		Considered mains transient voltage 1500V peak	Р
			•	



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	For a d.c. mains supply		No dc mains supply	N/A
	b) Transients from a telecommunication network	EL 2112-24	No telecommunication network	N/A
2.10.4	Creepage distances*	EL 2112-25	See below cl. no. 2.10.4.2 to 2.10.4.3	Р
2.10.4.1	General	EL 2112-26	See below	Р
2.10.4.2	Material group and comparative tracking index: CTI tests*	EL 2112-27	Material group IIIb assumed	Р
2.10.4.3	Minimum creepage distances	EL 2112-28	See table 2.10.3 and 2.10.4	Р
2.10.5	Solid insulation	EL 2112-29	See below	Р
2.10.5.1	General	EL 2112-30	See below	Р
2.10.5.2	Distances through insulation	EL 2112-31	See table 2.10.5	Р
2.10.5.3	Insulating compound as solid insulation	EL 2112-32	No such insulation used	N/A
2.10.5.4	Semiconductor devices	EL 2112-33	Certified optocoupler used (See table 1.5.1)	Р
2.10.5.5.	Cemented joints	EL 2112-34	No cemented joints used	N/A
2.10.5.6	Thin sheet material – General	EL 2112-35	Considered	Р
2.10.5.7	Separable thin sheet material	EL 2112-36	Reinforced insulation	Р
2.10.5.8	Non-separable thin sheet material	EL 2112-37	Separable thin sheet material	N/A
2.10.5.9	Thin sheet material – standard test procedure	EL 2112-38	Alternate test procedure used	N/A
	Electric strength test as per Cl.5.2.2		See above cl. no. 2.10.5.9	N/A
2.10.5.10	Thin sheet material – alternative test procedure	EL 2112-39	Electric strength test applied to each layers of the insulation tape	Р
	Electric strength test as per Cl.5.2.2		See table 5.2	Р
2.10.5.11	Insulation in wound components	EL 2112-40	Electric strength test applied on Transformer	Р
2.10.5.12	Wire in wound components		See below	Р
	If Peak Working voltage >71 V		Working voltage exceeded 71V peak	P
	a) Basic insulation not under stress	EL 2112-41	No such insulation	N/A
	b) Basic, supplementary, reinforced insulation	EL 2112-42	Reinforced insulation used	P
	c) Compliance with Annex U	EL 2112-43	Certified triple insulated wire used	Р
			(See table 1.5.1)	
	d) Where two winding wires in contact inside wound component; angle between 45° and 90°	EL 2112-44	No such construction used	N/A
2.10.5.13	Wire with solvent-based enamel in wound components		Not used	N/A
	a) Electric strength test (Type test as per Cl.5.2.2)	EL 2112-45	See above cl. no. 2.10.5.13	N/A



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	b) Electric Strength test (Routine test as per Cl.5.2.2)	EL 2112-46	See above cl. no. 2.10.5.13	N/A
2.10.5.14	Additional insulation in wound components		No such components	N/A
	If Peak Working Voltage >71V		See above cl. no. 2.10.5.14	N/A
	a) Basic insulation not under stress	EL 2112-47	See above cl. no. 2.10.5.14	N/A
	b) Supplementary, reinforced insulation	EL 2112-48	See above cl. no. 2.10.5.14	N/A
2.10.6	Construction of printed boards*		Uncoated printed boards used	Р
2.10.6.1	Uncoated printed boards	EL 2112-49	See table 2.10.3 to 2.10.4	Р
2.10.6.2	Coated printed boards	EL 2112-50	Not used	N/A
2.10.6.3	Insulation between conductors on the same inner surface of a printed board	EL 2112-51	No such construction	N/A
2.10.6.4	Insulation between conductors on different surfaces of a printed board*		See above cl. no. 2.10.6.3	N/A
	a) Minimum Thickness of insulation: 0.4mm or	EL 2112-52	See above cl. no. 2.10.6.3	N/A
	b) Confirm with one of the specifications and pass the relevant tests as per Table 2R	EL 2112-53	See above cl. no. 2.10.6.3	N/A
2.10.7	Component external terminations	EL 2112-54	No external termination used	N/A
2.10.8	Tests on coated printed boards and coated components		Uncoated printed boards used	N/A
2.10.8.1	Sample preparation and preliminary inspection*	EL 2112-55	See above cl. no. 2.10.8	N/A
2.10.8.2	Thermal conditioning	EL 2112-56	See above cl. no. 2.10.8	N/A
2.10.8.3	Electric strength test	EL 2112-57	See above cl. no. 2.10.8	N/A
2.10.8.4	Abrasion resistance test	EL 2112-58	See above cl. no. 2.10.8	N/A
2.10.9	Thermal cycling	EL 2112-59	Not required	N/A
2.10.10	Test for Pollution Degree 1 environment and insulating compound	EL 2112-60	Pollution degree 2	N/A
2.10.11	Tests for semiconductor devices and cemented joints	EL 2112-61	Certified optocoupler used (See table 1.5.1)	Р
2.10.12	Enclosed and sealed parts	EL 2112-62	No enclosed and sealed parts	N/A



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*Total number of Requirements to be observed / inspected =10

Total No of applicable Requirement =07

No of Requirements for which the sample passed= 07

Total number of tests to be conducted =53
Total No of applicable Tests = 25
No. of tests for which the sample passed=25

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 Wiring EL 2113-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
3.0	Wiring, connections and supply*	EL 2113-00	See below	Р
3.1.1	Current rating and overcurrent protection	EL 2113-01	Adequate cross-sectional area of internal wire for the current they intended to carry	Р
3.1.2	Protection against mechanical damage*	EL 2113-02	Wire ways are smooth and free from sharp edges	
3.1.3	Securing of internal wiring*	EL 2113-03	Internal wiring is well secured by proper means	Р
3.1.4	Insulation of conductors	EL 2113-04	The wires are positioned in such a manner that prevents excessive strain, loosening of terminal connections and damage of conductor insulation	P
3.1.5	Beads and ceramic insulators	EL 2113-05	Beads and ceramic insulators not used	N/A
3.1.6	Screws for electrical contact pressure*	EL 2113-06	No such screw used	N/A
3.1.7	Insulating materials in electrical connections*	EL 2113-07	All current carrying connections made by metal to metal	Р
3.1.8	Self-tapping and spaced thread screws*	EL 2113-08	No such screws used	N/A
3.1.9	Termination of conductors: 10 N pull test	EL 2113-09	Terminations cannot become displaced so that clearance and creepage distance can be reduced	Р
3.1.10	Sleeving on wiring*	EL 2113-10	Sleeves not used	N/A

^{*}Total number of Requirements to be observed / inspected =07

Total No of applicable Requirement =04

No of Requirements for which the sample passed=04

Total number of tests to be conducted = 04 Total No of applicable Tests = 03 No. of tests for which the sample passed=03

$\label{lem:continuous} \textbf{Certificate: It is certified that the above tests were performed and found to be passing/\textcolor{red}{\textbf{failing-}} in the requirement tested.}$
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Tests relating to Wiring EL 2114-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
3.2	Connection to a mains supply*	EL 2114-00	See below	Р
3.2.1	Means of connection		See below	Р
3.2.1.1	Connection to an a.c. mains supply*	EL 2114-01	Complies	Р
3.2.1.2	Connection to a d.c. mains supply*	EL 2114-02	No dc mains supply	N/A
3.2.2	Multiple supply connections	EL 2114-03	No multiple supply connections	N/A
3.2.3	Permanently connected equipment	EL 2114-04	Not a permanently connected equipment	N/A
3.2.4	Appliance inlets: Are so Located that parts at hazardous voltage are not accessible during insertion or removal of the connector, connector can be inserted without difficulty and after insertion of the connector, the equipment is not supported by the connector for any position of normal use on a flat surface (Appliance inlets complying with IEC 60309 or IEC 60320 considered to comply with this requirement.	EL 2114-05	Certified Appliance inlet used (See table 1.5.1)	P
3.2.5	Power supply cords		Certified power supply cord used (See table 1.5.1)	Р
3.2.5.1	AC power supply cords*	EL 2114-06	See above cl. no. 3.2.5	Р
	Rated current (A), cross-sectional area (mm²), AWG		See above cl. no. 3.2.5	Р
3.2.5.2	DC power supply cords*	EL 2114-07	Not connected to dc mains	N/A
3.2.6	Cord anchorages and strain relief		Appliance inlet provided	N/A
	Mass of the equipment: Pull Force (N):	EL 2114-08	See above cl.no.3.2.6	N/A
	b) Longitudinal displacement: 2 mm (Max)	EL 2114-09	See above cl.no.3.2.6	N/A
3.2.7	Protection against mechanical damage	EL 2114-10	Appliance inlet provided	N/A
3.2.8	Cord guards		No cord guard	N/A
	a) Diameter or minor dimension D (mm): Test mass (g):	EL 2114-11	See above cl. no. 3.2.8	N/A
	b) Radius of curvature of cord : 1.5 D (Min)	EL 2114-12	See above cl. no. 3.2.8	N/A
3.2.9	Supply wiring space	EL 2114-13	Appliance inlet provided	N/A



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*Total number of Requirements to be observed / inspected =05

Total No of applicable Requirement =03

No of Requirements for which the sample passed=03

Total number of tests to be conducted = 09 Total No of applicable Tests = 03 No. of tests for which the sample passed= 03

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 Wiring EL 2115-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
3.3	Wiring terminals for connection of external conductors*	EL 2115-00	No such wiring terminal used	N/A
3.3.1	Wiring terminals*	EL 2115-01	See above cl.no.3.3	N/A
3.3.2	Connection of non-detachable power supply cords	EL 2115-02	See above cl.no.3.3	N/A
3.3.3	Screw terminals*	EL 2115-03	See above cl.no.3.3	N/A
3.3.4	Conductor sizes to be connected	EL 2115-04	See above cl.no.3.3	N/A
	Rated current (A), cord/cable type, cross-sectional area (mm2)		See above cl.no.3.3	N/A
3.3.5	Wiring terminal sizes	EL 2115-05	See above cl.no.3.3	N/A
	Rated current (A), type, nominal thread diameter (mm)		See above cl.no.3.3	N/A
3.3.6	Wiring terminal design	EL 2115-06	See above cl.no.3.3	N/A
3.3.7	Grouping of wiring terminals*	EL 2115-07	See above cl.no.3.3	N/A
3.3.8	Stranded wire	EL 2115-08	See above cl.no.3.3	N/A

*Total number of Requirements to be observed / inspected =04
Total No of applicable Requirement =00
No of Requirements for which the sample passed=N/A

Total number of tests to be conducted = 05 Total No of applicable Tests = 00 No. of tests for which the sample passed=N/A

Certificate: It is certified that	at the above tests were	nerformed and foun	d to he nassing/failing in	therequirement tested
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Tests relating to Wiring EL 2116-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
3.4	Disconnection from the mains supply*	EL 2116-00	Appliance inlet is considered as disconnected devices	Р
3.4.1	General Requirement A disconnect device or devices shall be provided to disconnect the equipment from the mains supply for servicing.	EL 2116-01	Appliance inlet is considered as disconnected devices	
3.4.2	Disconnect devices*	EL 2116-02	See above cl. no. 3.4.1	Р
3.4.3	Permanently connected equipment*	EL 2116-03	Not a permanently connected equipment	N/A
3.4.4	Parts which remain energized*	EL 2116-04	No such parts remains energized	N/A
3.4.5	Switches in flexible cords*	EL 2116-05	No cord used	N/A
3.4.6	Number of poles - single-phase and d.c. equipment*	EL 2116-06	Disconnected devices disconnects both poles simultaneously	
3.4.7	Number of poles - three-phase equipment*	EL 2116-07	Single phase equipment	N/A
3.4.8	Switches as disconnect devices*	EL 2116-08	Complies	Р
3.4.9	Plugs as disconnect devices*	EL 2116-09	Appliance inlet is considered as disconnected devices	N/A
3.4.10	Interconnected equipment*	EL 2116-10	No interconnected equipment	N/A
3.4.11	Multiple power sources*	EL 2116-11	No multiple power sources	N/A

*Total number of Requirements to be observed / inspected =11

Total No of applicable Requirement =04

No of Requirements for which the sample passed=04

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

Certificate: It is certified that the above t	ests were performed	d and found to be pass	sing/ failing in the rec	uirement tested.



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Tests relating to Wiring EL 2117-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
3.5	Interconnection of equipment*	EL 2117-00	See below	Р
3.5.1	General requirements*	EL 2117-01	See below	Р
3.5.2	Types of interconnection circuits*	EL 2117-02	SELV-SELV connection only	Р
3.5.3	ELV circuits as interconnection circuits *	EL 2117-03	No ELV circuits	N/A
3.5.4	Data ports for additional equipment	EL 2117-04	Complies with cl. no. 2.5	Р

^{*}Total number of Requirements to be observed / inspected =04

Total No of applicable Requirement =03

No of Requirements for which the sample passed=03

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

$\textbf{Certificate: It is certified that the above tests were performed and found to be passing/} \textbf{failing} \ in \ the \ requirement test and the latter of th$					
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Tests relating to Mechanical Properties

EL 2118-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
4	PHYSICAL REQUIREMENTS*	EL 2118-00	See below	Р
4.1	Stability	EL 2118-01	Mass of equipment 44.35Kg	N/A
	a) A unit having a mass of 7 kg or more shall not fall over when tilted to an angle of 10° from its normal upright position. Alternatively, the unit is placed in its intended position of use on a plane, inclined at an angle of 10° to the horizontal, and then rotated slowly through an angle of 360° about its normal vertical axis.	EL 2118-02	No such equipment	N/A
	b) A floor-standing unit having a mass of 25 kg or more shall not fall over when a force equal to 20 % of the weight of the unit, but not more than 250 N, is applied in any direction except upwards, at a height not exceeding 2 m from the floor.	EL 2118-03	Not a floor standing equipment	N/A
	c) A floor-standing unit shall not fall over when a constant downward force of 800 N isapplied at the point of maximum moment to any horizontal surface of at least 125 mm by at least 200 mm, at a height up to 1 m from the floor.	EL 2118-04	Not a floor standing equipment	N/A

^{*}Total number of Requirements to be observed / inspected =01

Total No of applicable Requirement =01

No of Requirements for which the sample passed=01

Total number of tests to be conducted = 04 Total No of applicable Tests = 00 No. of tests for which the sample passed= N/A

Certificate: It is certified that the abov	e tests were perfor	med and found to be	passing/failing	z in the reau	irement tested.



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Tests relating to Mechanical Properties

EL 2119-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
4.2	Mechanical Strength	EL 2119-00	See below	Р
4.2.1	General	EL 2119-01	See below	Р
4.2.2	Steady force test, 10 N	EL 2119-02	Force applied on power switch Result: No damage, no hazards	Р
4.2.3	Steady force test, 30 N	EL 2119-03	No such parts	N/A
4.2.4	Steady force test, 250 N	EL 2119-04	Force applied on each side of the enclosure Result: No damage, no hazards	
			Result: No damage, no hazards	
4.2.5	Impact test	EL 2119-05	No such equipment	N/A
	a) Fall test as per Fig. 4A	EL 2119-06	See above cl. no. 4.2.5	N/A
	b) Swing test as per Fig. 4A	EL 2119-07	See above cl. no. 4.2.5	N/A
4.2.6	Drop test; height (mm) :	EL 2119-08	No such equipment	N/A
4.2.7	Stress relief test	EL 2119-09	Metallic enclosure used	N/A
4.2.8	Cathode Ray Tubes	EL 2119-10	No cathode rays tube used	N/A
4.2.9	High Pressure Lamps*	EL 2119-11	No high Pressure Lamp used	N/A
4.2.10	Wall or ceiling mounted equipment; force(N)	EL 2119-12	Downward force of 1305.22N is applied for 1 minute	Р
			Result: No damage , no hazards	

*Total	number	of Require	ments to b	oe obse	rved / ir	rspected =	-01

Total No of applicable Requirement =00

No of Requirements for which the sample passed= N/A

Total number of tests to be conducted = 12 Total No of applicable Tests = 05 No. of tests for which the sample passed= 05

Cartificator It is cartifica	d that the above tests were	norformed and found to be	a naccina/failina in tha	requirement tested
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-	g to Mechanical Properties			_2120-V1.4
Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
4.3	Design and Construction*	EL 2120-00	See below	Р
4.3.1	Edges and corners*	EL 2120-01	All edges or corners accessible to operator are rounded and smoothed	Р
4.3.2	Handles and manual controls; force (N)	EL 2120-02	No such handle and manual control	N/A
4.3.3	Adjustable controls	EL 2120-03	No such controls used	N/A
4.3.4	Securing of parts	EL 2120-04	Internal parts are well secured against mechanical stress occurring in normal use	Р
4.3.5	Connections by Plugs and Sockets*	EL 2120-05	No misconnection likely to create hazard	Р
4.3.6	Direct plug-in equipment	EL 2120-06	Not a direct plug-in equipment	N/A
	Torque	EL 2120-07	See above cl.no.4.3.6	N/A
	Compliance with the relevant mains plug standard	EL 2120-08	See above cl.no.4.3.6	N/A
4.3.7	Heating elements in earthed equipment*	EL 2120-09	No heating elements	N/A
4.3.8	Batteries Portable secondary sealed cells and batteries (other than button) containing alkaline or other non-acid electrolyte shall comply with IEC 62133		Certified RTC Battery used (See table 1.5.1)	N/A
	a) Overcharging of a rechargeable battery	EL 2120-10	See above cl. no. 4.3.8	N/A
	b) Unintentional charging of a non-rechargeable battery	EL 2120-11	See above cl. no. 4.3.8	N/A
	c) Reverse charging of a rechargeable battery	EL 2120-12	See above cl. no. 4.3.8	N/A
	d) Excessive discharging rate for any battery	EL 2120-13	See above cl. no. 4.3.8	N/A
	e) Electric strength as per Cl.5.3.9.2	EL 2120-14	See above cl. no. 4.3.8	N/A
4.3.9	Oil & grease*	EL 2120-15	No oil & grease	N/A
4.3.10	Dust, powders, liquids and gases	EL 2120-16	No Dust, powders, liquids and gases	N/A
4.3.11	Containers for liquids or gases	EL 2120-17	No Containers for liquids or gases	N/A
4.3.12	Flammable liquids	EL 2120-18	No Flammable liquids	N/A
4.3.13	Radiation		See below	Р
4.3.13.2	Ionizing radiation	EL 2120-19	No ionizing radiation	N/A
4.3.13.3	Effect of ultraviolet (UV) radiation on materials	EL 2120-20	No UV radiation	N/A
4.3.13.4	Human exposure to ultraviolet (UV) radiation	EL 2120-21	See above cl. no. 4.3.13.3	N/A



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4.3.13.5	Lasers (including laser diodes) and LED's:		No laser used	Р
4.3.13.5.1	Lasers (including laser diodes) For laser see IEC 60825-1, respective part as applicable.	EL 2120-22	See above cl. no. 4.3.15.5	N/A
	Laser class		See above cl. no. 4.3.15.5	N/A
4.3.13.5.2	Light emitting diodes (LED's)	EL 2120-23	Low power LED's are used	Р
4.3.13.6	Other types*	EL 2120-24	No other type radiations	N/A

^{*}Total number of Requirements to be observed / inspected =06

Total No of applicable Requirement =03

No of Requirements for which the sample passed= 03

Total number of tests to be conducted = 19 Total No of applicable Tests = 02 No. of tests for which the sample passed= 02

Certificate:	: It is certified	I that the abov	e tests were p	performed and	found to be pas	ssing/ failing in the	e requirement teste	ed.



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Tests relating to Mechanical Properties

EL 2121-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
4.4	Protection against hazardous moving parts	EL 2121-00	No such moving parts in operator access area	N/A
4.4.1	General	EL 2121-01	See above cl. no. 4.4	N/A
4.4.2	Protection in operator access areas	EL 2121-02	See above cl. no. 4.4	N/A
4.4.3	Protection in restricted access locations *	EL 2121-03	See above cl. no. 4.4	N/A
4.4.4	Protection in service access areas*	EL 2121-04	See above cl. no. 4.4	N/A
4.4.5	Protection against moving fan blades	EL 2121-05	See above cl. no. 4.4	N/A
4.4.5.1	General*	EL 2121-06	See above cl. no. 4.4	N/A
	Not considered likely to cause pain or injury. a)	EL 2121-07	See above cl. no. 4.4	N/A
	Is considered likely to cause pain, not injury. b)	EL 2121-08	See above cl. no. 4.4	N/A
	Considered likely to cause injury. c):	EL 2121-09	See above cl. no. 4.4	N/A
4.4.5.2	Protection for users*	EL 2121-10	See above cl. no. 4.4	N/A
	Use of symbol or warning*	EL 2121-11	See above cl. no. 4.4	N/A
4.4.5.3	Protection for service persons*	EL 2121-12	See above cl. no. 4.4	N/A
	Use of symbol or warning *	EL 2121-13	See above cl. no. 4.4	N/A

^{*}Total number of Requirements to be observed / inspected =07

Total No of applicable Requirement =00

No of Requirements for which the sample passed= N/A

Total number of tests to be conducted = 07 Total No of applicable Tests = 00 No. of tests for which the sample passed= N/A

Certificate. It is certified	I that the above tests were	nerformed and found to	he nassing/failing in th	e requirement tested
Cei illicate. It is cei illieu	i tilat tile above tests wele	bellullied alla ludila tu	DE Dassilië/ famme ili til	e reduirenient tested.



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Tests relating to Thermal Properties

EL 2122-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
4.5	Thermal Requirements*	EL 2122-00	See table 4.5	Р
4.5.1	General	EL 2122-01	See table 4.5	Р
4.5.2	Temperature tests	EL 2122-02	See table 4.5	Р
4.5.3	Temperature limits for materials*	EL 2122-03	See table 4.5	Р
4.5.4	Touch temperature limits*	EL 2122-04	See table 4.5	Р
4.5.5	Resistance to abnormal heat	EL 2122-05	Certified material used (See table 1.5.1)	Р

*Total number of Requirements to be observed / inspected =03
Total No of applicable Requirement =03

No of Requirements for which the sample passed= 03

Total number of tests to be conducted = 03 Total No of applicable Tests = 03 No. of tests for which the sample passed= 03

Certificate: It is certified that the above tests were performed and found to be passing/failing in therequirement tested
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Tests relating to Mechanical Properties

EL 2123-V1.4

Clause	Test / Requirement name	Test Code	Test result/ observation	Verdict
No		51 2422 00		_
4.6	Openings in enclosures*	EL 2123-00	See below	Р
4.6.1	Top and side openings	EL 2123-01	Rear side opening	Р
	Dimensions (mm) :		See table 4.6.1 and 4.6.2	Р
4.6.2	Bottoms of fire enclosures :	EL 2123-02	See above cl. no. 4.6	N/A
	Construction of the bottom, dimensions (mm) :		See above cl. no. 4.6	N/A
4.6.3	Doors or covers in fire enclosures*	EL 2123-03	See above cl. no. 4.6	N/A
4.6.4	Openings in transportable equipment	EL 2123-04	Not a transportable Equipment	N/A
4.6.4.1	Constructional design measures	EL 2123-05	See above cl. no. 4.6.4	N/A
	Dimensions (mm)		See above cl. no. 4.6.4	
4.6.4.2	Evaluation measures for larger openings	EL 2123-06	See above cl. no. 4.6.4	N/A
4.6.4.3	Use of metallized parts	EL 2123-07	No such metalized part used	N/A
4.6.5	Adhesives for constructional purposes: Compliance is checked by examination of the construction and of the available data. If such data is not available, compliance is checked by the following tests.	EL 2123-08	No such construction	N/A
	a)Temperature Conditioning at : 100 °C ± 2 °C for one week; or 90 °C ± 2 °C for three weeks; or 82 °C ± 2 °C for eight weeks.	EL 2123-09	See above cl. no. 4.6.5	N/A
	After temperature conditioning b) Leave the sample between 20°C to 30°C for 1 hour	EL 2123-10	See above cl. no. 4.6.5	N/A
	c) Place the sample at - 40°C±2°C for 4 hours	EL 2123-11	See above cl. no. 4.6.5	N/A
	d) Remove and allow the sample to come to any convenient temperature between 20 °C and 30 °C for 8 h;	EL 2123-12	See above cl. no. 4.6.5	N/A
	e) Place the sample in a cabinet at 91 % to 95 % relative humidity for 72 h;	EL 2123-13	See above cl. no. 4.6.5	N/A
	f) Remove the sample and leave it at any convenient temperature between 20 °C and 30 °C for 1 h;	EL 2123-14	See above cl. no. 4.6.5	N/A
	g) Place the sample in an oven at the temperature used for the temperature conditioning for 4 h;	EL 2123-15	See above cl. no. 4.6.5	N/A
	h) Remove the sample and allow it to reach any convenient temperature between 20 °C; and 30 °C for 8 h.	EL 2123-16	See above cl. no. 4.6.5	N/A
	i) The sample is then immediately subjected to the tests of Cl.4.2 as applicable.	EL 2123-17	See above cl. no. 4.6.5	N/A



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*Total number of Requirements to be observed / inspected =02

Total No of applicable Requirement =01

No of Requirements for which the sample passed= 01

Total number of tests to be conducted = 16 Total No of applicable Tests = 01 No. of tests for which the sample passed= 01

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 Fire Safety

EL 2124-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
4.7	Resistance to fire*	EL 2124-00	Satisfactory	Р
4.7.1	Reducing the risk of ignition and spread of flame		See below	Р
	Method 1, selection and application of components	EL 2124-01	Method 1 used	Р
	wiring and materials OR		(see table 1.5.1)	
	Method 2, application of all of simulated fault condition tests	EL 2124-02	Not used	N/A
4.7.2	Conditions for a fire enclosure*		See below	Р
4.7.2.1	Parts requiring a fire enclosure*	EL 2124-03	All parts in primary and secondary circuit	Р
4.7.2.2	Parts not requiring a fire enclosure	EL 2124-04	Fire enclosure is required to cover all parts	N/A
4.7.3	Materials*	EL 2124-05	See below	Р
4.7.3.1	General*	EL 2124-06	Components and material have adequate flammability classification (see table 1.5.1)	Р
	a) Class of material used*	EL 2124-07	See below	Р
	b) Where HB40 CLASS MATERIAL, HB75 CLASS MATERIAL or HBF CLASS FOAMED MATERIAL, is required, material passing the glow-wire test at 550 °C according to IEC 60695-2-11 is acceptable as an alternative.	EL 2124-08	Enclosure is metallic	N/A
	c) Where it is not practical to protect components against overheating under fault conditions, the components shall be mounted on V-1 CLASS MATERIAL. Additionally, such components shall be separated from material of a class lower than V-1 CLASS MATERIAL by at least 13 mm of air, or by a solid barrier of V-1 CLASS MATERIAL.	EL 2124-09	Component mounted on V-0 class material (see table 1.5.1)	P
4.7.3.2	Materials for fire enclosures		Metallic fire enclosure used	N/A
	a) For MOVABLE EQUIPMENT having a total mass not exceeding 18 kg, the material of a FIRE ENCLOSURE, in the thinnest significant wall thickness used, shall be of V-1 CLASS MATERIAL or shall pass the test of Clause A.2.	EL 2124-10	Not a movable equipment	N/A
	b) For MOVABLE EQUIPMENT having a total mass exceeding 18 kg and for all STATIONARY EQUIPMENT, the material of a FIRE ENCLOSURE, in the thinnest significant wall thickness used, shall be of 5VB CLASS MATERIAL or shall pass the test of Clause A.1.	EL 2124-11	See above cl. no .4.7.3.2	N/A



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	c) Materials for components that fill an opening is a FIRE ENCLOSURE, and that are intended to be mounted in this opening shall: be of V-1 CLASS MATERIAL; or pass the tests of Clause A.2; or comply with the flammability	n EL 2124-12	No such openings	N/A
	requirements of the relevant IEC component standard d) Plastic materials of a FIRE ENCLOSURE shall be	EL 2124-13	No such arcing parts	N/A
	located more than 13 mm through air from arcing parts such as unenclosed commutators and unenclosed switch contacts.			
	e) Plastic materials of a FIRE ENCLOSURE located less than 13mm through air from non- arcing par which, under any condition of normal or abnorm operation, could attain a temperature sufficient tignite the material, shall be capable of passing the test of IEC 60695-2- 20.	ts al to	No such construction	N/A
	The average time to ignition of the samples shall I not less than 15sec. If the sample melts through without igniting, the time at which this occurs is not considered to be the time to ignition.	oe		
4.7.3.3	Materials for components and other parts outside fire enclosures *	2	No such components used	N/A
	 a) Materials shall be of: - HB75 CLASS MATERIAL if the thinnest significant thickness of this material is < 3 mm, or HB40 CLASS MATERIAL if the thinnest significant thickness of this material is ≥ 3 mm, or HBF CLASS FOAMED MATERIAL. * 	EL 2124-15		N/A
	b) Connectors shall comply with one of the following:be made of V-2 CLASS MATERIAL; or	EL 2124-16		N/A
	– pass the tests of Clause A.2; or			
	 comply with the flammability requirements of the relevant IEC component standard; or 			
	 be mounted on V-1 CLASS MATERIAL and be of a small size; or 			
	be located in a SECONDARY CIRCUIT supplied by power source that is limited to a maximum of 15 VA (see 1.4.11) under normal operating conditions and after a single fault			
	- in the equipment (see 1.4.14).			



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4.7.3.4	Materials for components and other parts inside fire enclosures		See below		Р
	a) Inside FIRE ENCLOSURES, materials for components and other parts shall comply with one of the following:	EL 2124-17	Certified material (See table 1.5.1)	used	Р
	– be of V-2 CLASS MATERIAL or				
	HF-2 CLASS FOAMED MATERIAL; or				
	 pass the flammability test described in Clause A.2; or 				
	meet the flammability requirements of a relevant IEC component standard that includes such requirements.				
	Requirements for voltage dependent resistors (VDR's) are in Annex Q.*	EL 2124-18	Certified Varistor (See table 1.5.1)	used	Р
4.7.3.5	Materials for air filter assemblies:	EL 2124-19	No air filter assem	blies	N/A
	Air filter assemblies shall be constructed of V-2 CLASS MATERIAL, or HF-2 CLASS FOAMED MATERIAL.				
4.7.3.6	Materials used in high-voltage components		No such high voltage components		N/A
	a) High-voltage components operating at peak- to-peak voltages exceeding 4 kV shall either be of V-2 CLASS MATERIAL, or HF-2 CLASS FOAMED	EL 2124-20	See above cl. no. 4	4.7.3.6	N/A
	MATERIAL, or comply with 14.4 of IEC 60065 or pass the needle flame test according to IEC 60695-11-5.				
	b) Compliance is checked by inspection of the equipment and material data sheets and, if	EL 2124-21	See above cl. no. 4	4.7.3.6	N/A
	necessary, by				
	 the tests for V-2 CLASS MATERIAL or HF-2 CLASS FOAMED MATERIAL; or 				
	- the test described in 14.4 of IEC 60065; or				
	the needle flame test according to IEC 60695-11-5.				
	c) In addition to above, the following details apply, referring to clauses of IEC 60695-11-5: Clause 7 - Severities	EL 2124-22	See above cl. no. 4	4.7.3.6	N/A
		FL 2424 22	See above cl. no. 4	1736	N/A
	Clause 8 - Conditioning	EL 2124-23			
	Clause 11 - Evaluation of test results	EL 2124-24	See above cl. no. 4	4./.3.b	N/A



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*Total number of Requirements to be observed / inspected =07

Total No of applicable Requirement =06

No of Requirements for which the sample passed= 06

Total number of tests to be conducted =18 Total No of applicable Tests = 03 No. of tests for which the sample passed= 03

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 Insulating Properties

EL 2125-V1.4

ests relat	ing to Insulating Properties	EL 212			
Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict	
5.0	ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS*	EL 2125-00	See below	Р	
5.1	Touch current and protective conductor current*	EL 2125-01	See below	Р	
.1.2	Configuration of equipment under test (EUT)*	EL 2125-02	See below cl. no. 5.1.2.1	Р	
5.1.2.1	Single connection to an a.c. mains supply*	EL 2125-03	The EUT has only one mains supply connection	Р	
.1.2.2	Redundant multiple connections to an a.c. mains supply*	EL 2125-04	No multiple connections	N/A	
5.1.2.3	Simultaneous multiple connections to an a.c. mains supply	EL 2125-05	See above cl. no. 5.1.2.2	N/A	
.1.3	Test circuit	EL 2125-06	As per figure 5A	Р	
5.1.4	Application of measuring instrument	EL 2125-07	Tested using figure D.1 measuring instrument of annex D	Р	
5.1.5	Test procedure	EL 2125-08	See table 5.1.6	Р	
5.1.6	Test measurements		See below	Р	
	a) r.m.s value of voltage, U2 measured using the instrument as per Fig. D.1 or r.m.s value of current measured using the instrument as per Fig. D.2 Alternatively, peak value of voltage, U2, is measured using the measuring instrument described in Clause D.1	EL 2125-09	See table 5.1.6	P	
	b) Measured touch current (mA):	EL 2125-10	See table 5.1.6	Р	
	c) Calculated value of TOUCH CURRENT (mA) = U2 / 500	EL 2125-11	Not used	N/A	
	d) Measured protective conductor current(mA)	EL 2125-12	See above cl. no. 5.1.6 c)	N/A	
	e) Max. protective conductor current =5% of Input current	EL 2125-13	See above cl. no. 5.1.6 c)	N/A	
5.1.7	Equipment with touch current exceeding 3.5 mA	EL 2125-14	Not used	N/A	
5.1.7.1	General	EL 2125-15	See above cl. no. 5.1.7	N/A	
5.1.7.2	Simultaneous multiple connections to the supply	EL 2125-16	See above cl. no. 5.1.7	N/A	
5.1.8	Touch currents to telecommunication networks and cable distribution systems and from telecommunication networks	EL 2125-17	No telecommunication network or cable distribution systems	N/A	
5.1.8.1	Limitation of the touch current to a telecommunication network or to a cable distribution system	EL 2125-18	See above cl. no. 5.1.8	N/A	
	Supply voltage (V)		See above cl. no. 5.1.8	N/A	
	Measured touch current (mA)		See above cl. no. 5.1.8	N/A	
	Max. allowed touch current (mA)		See above cl. no. 5.1.8	N/A	



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5.1.8.2	Summation of touch currents from	EL 2125-19	See above cl. no. 5.1.8	N/A
	telecommunication networks			
	a) EUT with earthed telecommunication ports:		See above cl. no. 5.1.8	N/A
	b) EUT whose telecommunication ports have no		See above cl. no. 5.1.8	N/A
	reference to protective earth			

^{*}Total number of Requirements to be observed / inspected =05

Total No of applicable Requirement =04

No of Requirements for which the sample passed= 04

Total number of tests to be conducted = 15 Total No of applicable Tests = 06 No. of tests for which the sample passed=06

Certificate: It is certified that the above tests were performed and found to be passing/failing in therequirement tested.
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Tests relating to Insulating Properties

EL 2126-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
5.2	Electric strength*	EL 2126-00	See below	Р
5.2.1	General*	EL 2126-01	See below	Р
5.2.2	Test procedure		See table 5.2	Р
	a) The test voltages for electric strength for the appropriate grade of insulation [FUNCTIONAL INSULATION if required by 5.3.4 b), BASIC INSULATION, SUPPLEMENTARY INSULATION or REINFORCED INSULATION] are as specified in either:	EL 2126-02	See table 5.2	P
	 Table 5B using the PEAK WORKING VOLTAGE (U), as determined in 2.10.2; or 			
	Table 5C using the REQUIRED WITHSTAND VOLTAGE, as determined in G.4.			

^{*}Total number of Requirements to be observed / inspected =02

Total No of applicable Requirement =02

No of Requirements for which the sample passed= 02

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

C+:£:+ + :+:£:			/f : ! :	g in therequirement tested.
Cerrificate: It is cerrified	i that the above tests were	- performed and for	ina to be bassing/ raiiin	• in therequirement tested
certificate. It is certifica	that the above tests were	periorinea ana roc		

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Tests relating to Insulating Properties

EL 2127-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
5.3	Abnormal operating and fault conditions	EL 2127-00	See below	Р
5.3.1	Protection against overload and abnormal operation	EL 2127-01	See table 5.3	Р
5.3.2	Motors	EL 2127-02	No motor used	N/A
5.3.3	Transformers	EL 2127-03	See annex C	Р
5.3.4	Functional insulation:	EL 2127-04	Complies with cl. no. 5.3.4 c)	Р
5.3.5	Electromechanical components	EL 2127-05	No such components	N/A
5.3.6	Audio amplifiers in ITE:	EL 2127-06	No audio amplifier used	N/A
5.3.7	Simulation of faults	EL 2127-07	See table 5.3	Р
5.3.8	Unattended equipment	EL 2127-08	No unattended equipment	N/A
5.3.9	Compliance criteria for abnormal operating and fault conditions*		See below	Р
5.3.9.1	During the tests	EL 2127-09	No fire occurred, No molten metal emitted and no distortion of enclosure	Р
5.3.9.2	After the tests	EL 2127-10	No breakdown occurred	Р

^{*}Total number of Requirements to be observed / inspected =00

Total No of applicable Requirement =01

No of Requirements for which the sample passed= 01

Total number of tests to be conducted = 11 Total No of applicable Tests = 08 No. of tests for which the sample passed= 08

Certificate: It is certified that the above tests were performed and found to be passing/ failing -in therequirement tested	Cortificator It is cortified that the above	tacte ware norforme	d and found to be pacein	a/failing in thoroguiroment tected
	certificate; it is certified that the above	tests were periormed	a and found to be bassin	ig/ laning in theredultement tested



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Tests relating to Communicating Connection

EL 2128-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
6.1	Protection of telecommunication network service persons, and users of other equipment connected to the network, from hazards in the equipment	EL 2128-00	No connection to telecommunication networks	N/A
6.1.1	Protection from hazardous voltages	EL 2128-01	See above cl. no. 6.1	N/A
6.1.2	Separation of the telecommunication network from earth*		See above cl. no. 6.1	N/A
6.1.2.1	Requirements: - Surge suppressors that bridge the insulation shall have a minimum rated operating voltage Uop of Uop =Upeak + ΔUsp + ΔUsa Where Upeak is 360V or 180V ΔUsp is the maximum increase of the rated operating voltage due to variations in component production (If not specified by the manufacturer, shall be taken as 10% of the rated operating voltage of the component) ΔUsa is the maximum increase of the rated operating voltage due to the component ageing over the expected life of the equipment (If not specified by the manufacturer, shall be taken as 10% of the rated operating voltage of the component) -Insulation is subjected to electric strength test according to 5.2.2. The a.c test voltage is 1.5kV or 1.0kV - Components bridging the insulation that are left in place during electric strength testing shall not be damaged. There shall be no breakdown of insulation during electric strength testing.	EL 2128-02	See above cl. no. 6.1	N/A
6.1.2.2	Exclusions	EL 2128-03	See above cl. no. 6.1	N/A



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

Total No of applicable Requirement =00

No of Requirements for which the sample passed= N/A

Total number of tests to be conducted = 04
Total No of applicable Tests = 00
No. of tests for which the sample passed= N/A

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 Communicating Connection

EL 2129-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
6.2	Protection of equipment users from over voltages on telecommunication networks*	EL 2129-00	No connection to telecommunication networks	N/A
6.2.1	Separation requirements	EL 2129-01	See above cl. no. 6.2	N/A
6.2.2	Electric strength test procedure	EL 2129-02	See above cl. no. 6.2	N/A
6.2.2.1	Impulse test	EL 2129-03	See above cl. no. 6.2	N/A
6.2.2.2	Steady-state test	EL 2129-04	See above cl. no. 6.2	N/A
6.2.2.3	Compliance criteria	EL 2129-05	See above cl. no. 6.2	N/A

*Total number of Requirements to be observed / inspected =01 Total No of applicable Requirement =00

No of Requirements for which the sample passed= N/A

Total number of tests to be conducted = 05 Total No of applicable Tests = 00 No. of tests for which the sample passed= N/A

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



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Tests relating to Communicating Connection

EL 2130-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
6.3	Protection of the telecommunication wiring system from overheating	EL 2130-00	No connection to telecommunication networks	N/A
	a) If current limiting is due to the inherent impedance of the power source, the output current into any resistive load, including a short-circuit, is measured. The current limit shall not be exceeded after 60 s of test. Max. output current (A):	EL 2130-01	See above cl. no. 6.3	N/A
	b) If current limiting is provided by an overcurrent protective device having a specified time/current characteristic:	EL 2130-02	See above cl. no. 6.3	N/A
	 the time/current characteristic shall show that a current equal to 110 % of the current limit will be interrupted within 60 min; and 			
	c) the output current into any resistive load, including a short- circuit, with the overcurrent protective device bypassed, measured after 60 s of test, shall not exceed 1 000/U, where U is the output voltage measured in accordance with 1.4.5 with all load circuitsdisconnected.	EL 2130-03	See above cl. no. 6.3	N/A
	d) If current limiting is provided by an overcurrent protective device that does not have a specified time/current characteristic:	EL 2130-04	See above cl. no. 6.3	N/A
	 the output current into any resistive load, including a short- circuit, shall not exceed the current limit after 60 s of test; and 			
	the output current into any resistive load, including a short- circuit, with the overcurrent protective device bypassed, measured after 60 s of test, shall not exceed 1 000/U, where U is the output voltage measured in accordance with 1.4.5 with all load circuits			



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

Total No of applicable Requirement =00

No of Requirements for which the sample passed= 00

Total number of tests to be conducted = 05 Total No of applicable Tests = 00 No. of tests for which the sample passed= 00

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

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Tests relating to Connection to cable distribution system

EL 2131-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
7	Connection to cable distribution systems*	EL 2131-00	No cable distribution system used	N/A
7.1	General requirements*	EL 2131-01	See above cl. no. 7	N/A
7.2	Protection of cable distribution system service persons, and users of other equipment connected to the system, from hazardous voltages in the equipment	EL 2131-02	See above cl. no. 7	N/A
7.3	Protection of equipment users from overvoltages on the cable distribution system	EL 2131-03	See above cl. no. 7	N/A
7.4	Insulation between primary circuits and cable distribution systems	EL 2131-04	See above cl. no. 7	N/A
7.4.1	General	EL 2131-05	See above cl. no. 7	N/A
7.4.2	Voltage surge test	EL 2131-06	See above cl. no. 7	N/A
7.4.3	Impulse test	EL 2131-07	See above cl. no. 7	N/A

^{*}Total number of Requirements to be observed / inspected =02

Total No of applicable Requirement =00

No of Requirements for which the sample passed= N/A

Total number of tests to be conducted = 06 Total No of applicable Tests = 00 No. of tests for which the sample passed= N/A

Certificate: It is certified	that the above tests	were performed a	and found to b	oe passing/ failing in ^r	therequirement tested.



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Tests relating to Fire Safety

ests relat	elating to Fire Safety				
Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict	
А	ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE	EL 2132-00	See Below	Р	
A.1	Flammability test for fire enclosures of movable equipment having a total mass exceeding 18 kg, and of stationary equipment (see 4.7.3.2)	EL 2132-01	Enclosure is metallic	N/A	
A.1.1	Samples:	EL 2132-02	See above cl. no. A.1	N/A	
	Wall thickness (mm):		See above cl. no. A.1	N/A	
A.1.2	Conditioning of samples; temperature (°C):	EL 2132-03	See above cl. no. A.1	N/A	
A.1.3	Mounting of samples :	EL 2132-04	See above cl. no. A.1	N/A	
A.1.4	Test flame (see IEC 60695-11- 3)	EL 2132-05	See above cl. no. A.1	N/A	
	Flame A, B, C or D :		See above cl. no. A.1	N/A	
A.1.5	Test procedure	EL 2132-06	See above cl. no. A.1	N/A	
A.1.6	Compliance criteria	EL 2132-07	See above cl. no. A.1	N/A	
	Sample 1 burning time (s):		See above cl. no. A.1	N/A	
	Sample 2 burning time (s):		See above cl. no. A.1	N/A	
	Sample 3 burning time (s):		See above cl. no. A.1	N/A	
A.2	Flammability test for fire enclosures of movable equipment having a total mass not exceeding 18 kg, and for material and components located inside fire enclosures (see 4.7.3.2 and 4.7.3.4)	EL 2132-08	Refer 4.7.3.4	P	
A.2.1	Samples, material:	EL 2132-09	See above cl. no. A.2	N/A	
	Wall thickness (mm):		See above cl. no. A.2	N/A	
A.2.2	Conditioning of samples; temperature (°C):	EL 2132-10	See above cl. no. A.2	N/A	
A.2.3	Mounting of samples :	EL 2132-11	See above cl. no. A.2	N/A	
A.2.4	Test flame (see IEC 60695-11- 4)	EL 2132-12	See above cl. no. A.2	N/A	



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				100000 20000 00, 22,	
	Flame A, B or C :		See above cl. no.	A.2	N/A
A.2.5	Test procedure	EL 2132-13	See above cl. no.	A.2	N/A
A.2.6	Compliance criteria	EL 2132-14	See above cl. no.	A.2	N/A
	Sample 1 burning time (s):		See above cl. no.	A.2	N/A
	Sample 2 burning time (s):		See above cl. no.	A.2	N/A
	Sample 3 burning time (s):		See above cl. no.	A.2	N/A
A.2.7	Alternative test acc. to IEC 60695-11-5, cl. 5 and 9	EL 2132-15	See above cl. no.	A.2	N/A
	Sample 1 burning time (s):		See above cl. no.	A.2	N/A
	Sample 2 burning time (s):		See above cl. no.	A.2	N/A
	Sample 3 burning time (s):		See above cl. no	A.2	N/A
A.3	Hot flaming oil test (see 4.6.2)	EL 2132-16	No such openings		N/A
A.3.1	Mounting of samples	EL 2132-17	See above cl. no.	A.3	N/A
A.3.2	Test procedure	EL 2132-18	See above cl. no.	A.3	N/A
A.3.3	Compliance criterion	EL 2132-19	See above cl. no.	A.3	N/A

^{*}Total number of Requirements to be observed / inspected =00

Total No of applicable Requirement =00

No of Requirements for which the sample passed= N/A

Total number of tests to be conducted = 20 Total No of applicable Tests = 02 No. of tests for which the sample passed= 02

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



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Tests relat	elating to Insulating Properties			
Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
В	ANNEX B, MOTOR TESTS UNDER ABNORMAL CONDITIONS (see 4.7.2.2 and 5.3.2)	EL 2133-00	No motor used	N/A
B.1	General requirements	EL 2133-01	See above cl. no. B	N/A
	Position:		See above cl. no. B	N/A
	Manufacturer:		See above cl. no. B	N/A
	Туре:		See above cl. no. B	N/A
	Rated values:		See above cl. no. B	N/A
B.2	Test conditions	EL 2133-02	See above cl. no. B	N/A
B.3	Maximum temperatures	EL 2133-03	See above cl. no. B	N/A
B.4	Running overload test	EL 2133-04	See above cl. no. B	N/A
B.5	Locked-rotor overload test	EL 2133-05	See above cl. no. B	N/A
	Test duration (days):		See above cl. no. B	N/A
	Electric strength test: test voltage (V):		See above cl. no. B	N/A
B.6	Running overload test for d.c. motors in secondary circuits	EL 2133-06	See above cl. no. B	N/A
B.6.1	General	EL 2133-07	See above cl. no. B	N/A
B.6.2	Test procedure	EL 2133-08	See above cl. no. B	N/A
B.6.3	Alternative test procedure	EL 2133-09	See above cl. no. B	N/A
B.6.4	Electric strength test; test voltage (V):	EL 2133-10	See above cl. no. B	N/A
B.7	Locked-rotor overload test for d.c. motors in secondary circuits	EL 2133-11	See above cl. no. B	N/A
B.7.1	General	EL 2133-12	See above cl. no. B	N/A
B.7.2	Test procedure	EL 2133-13	See above cl. no. B	N/A
B.7.3	Alternative test procedure	EL 2133-14	See above cl. no. B	N/A



B.10

STANDARD TESTING AND COMPLIANCE (STC LAB)

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B.7.4	Electric strength test; test volt	rage (V) :	EL 2133-15	See above cl. no. E	3	N/A
B.8	Test for motors with capacitor	rs	EL 2133-16	See above cl. no. E	3	N/A
B.9	Test for three-phase motors		EL 2133-17	See above cl. no. E	3	N/A

EL 2133-18

See above cl. no. B

Total No of applicable Requirement =00

No of Requirements for which the sample passed= N/A

Total number of tests to be conducted = 19 Total No of applicable Tests = 00 No. of tests for which the sample passed= N/A

Test for series motors

Certificate: It is certified that the	above tests were	performed and for	ound to be pass	ing/ failing in	the requirement tested.

^{*}Total number of Requirements to be observed / inspected =00



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Tests relating to Electrical Safety

EL 2134-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
С	ANNEX C, TRANSFORMERS (see 1.5.4 and 5.3.3) *	EL 2134-00	See below	Р
	Position:		On PCB	Р
	Manufacturer:		See table 1.5.1	Р
	Type:		See table 1.5.1	Р
	Rated values:		See table 1.5.1	Р
	Method of protection:		Protection by circuit design	Р
C.1	Overload test	EL 2134-01	See table 5.3	Р
C.2	Insulation	EL 2134-02	See table 5.2 and C.2	Р
	Protection from displacement of windings:		Windings mechanically secured and soldered to pins insulations tapes and coil spacer tapes provided to avoid displacement	Р

^{*}Total number of Requirements to be observed / inspected =01

Total No of applicable Requirement =01

No of Requirements for which the sample passed= 01

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

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 Insulating Properties

EL 2135-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
D	ANNEX D, MEASURING INSTRUMENTS FOR TOUCH- CURRENT TESTS (see 5.1.4)	EL 2135-00	See below	Р
D.1	Measuring instrument	EL 2135-01	Measuring Instrument D.1 used	Р
D.2	Alternative measuring instrument	EL 2135-02	not used	N/A

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

No of Requirements for which the sample passed= 00

Total number of tests to be conducted = 03 Total No of applicable Tests = 02 No. of tests for which the sample passed= 02

Certificate: It is certified that the above tests were perform	ed and found to be passing/failing in the requirement teste
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Tests relating to Thermal Properties

EL 2136-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
Е	ANNEX E, TEMPERATURE RISE OF A WINDING (see 1.4.13)	EL2136-00	No such method used	N/A

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

Total number of tests to be conducted = 01
Total No of applicable Tests = 00
No. of tests for which the sample passed= N/A

Certificate: It is certified that the above tests were performed and found to be passing/failing in therequirement tested.
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Tests relating to Electrical Safety

EL 2137-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
F	ANNEX F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10 and Annex G)	EL2137-00	Complies	Р

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

No of Requirements for which the sample passed= 00

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

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 2138-V1.4

	ing to Electrical Safety			EL 2138-V1.4	
Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict	
G	ANNEX G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES	EL 2138-00	Alternate method not used	N/A	
G.1	Clearances	EL 2138-01	See above G	N/A	
G.1.1	General	EL 2138-02	See above G	N/A	
G.1.2	Summary of the procedure for determining minimum clearances	EL 2138-03	See above G	N/A	
G.2	Determination of mains transient voltage (V)	EL 2138-04	See above G	N/A	
G.2.1	AC Mains supply	EL 2138-05	See above G	N/A	
G.2.2	Earthed d.c. mains supplies	EL 2138-06	See above G	N/A	
G.2.3	Unearthed d.c. mains supplies	EL 2138-07	See above G	N/A	
G.2.4	Battery operation	EL 2138-08	See above G	N/A	
G.3	Determination of telecommunication network transient voltage (V)	EL 2138-09	See above G	N/A	
G.4	Determination of required withstand voltage (V)	EL 2138-10	See above G	N/A	
G.4.1	Mains transients and internal repetitive peaks	EL 2138-11	See above G	N/A	
G.4.2	Transients from telecommunication networks:	EL 2138-12	See above G	N/A	
G.4.3	Combination of transients	EL 2138-13	See above G	N/A	
G.4.4	Transients from cable distribution systems	EL 2138-14	See above G	N/A	
G.5	Measurement of transient voltages (V)	EL 2138-15	See above G	N/A	
	a) Transients from a mains supply		See above G	N/A	
	For an a.c. mains supply		See above G	N/A	
	For a d.c. mains supply		See above G	N/A	
	b) Transients from a telecommunication network		See above G	N/A	
G.6	Determination of minimum clearances	EL 2138-16	See above G	N/A	

*Total	number	of Requirer	nents to be	observed /	inspected =00
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Total No of applicable Requirement =00

No of Requirements for which the sample passed= N/A

Total number of tests to be conducted = 17 Total No of applicable Tests = 00

No. of tests for which the sample passed= N/A

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 Radiation Safety

EL 2139-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
Н	ANNEX H, IONIZING RADIATION (see 4.3.13)	EL 2139-00	Equipment not produce ionizing radiation	N/A

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

Total number of tests to be conducted = 01
Total No of applicable Tests = 00
No. of tests for which the sample passed= N/A

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

EL 2140-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
J	ANNEX J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6) *	EL 2140-00	No risk of corrosion, Certified appliance inlet used (See table 1.5.1)	Р
	Metal(s) used:		See above J	Р

*Total number of Requirements to be observed / inspected =01 Total No of applicable Requirement =01

No of Requirements for which the sample passed= 01

Total number of tests to be conducted = 00 Total No of applicable Tests = 00 No. of tests for which the sample passed= N/A

Certificate: It is certified that the a	bove tests were performed a	nd found to be passing/fai	ling in the requirement tested.
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Tests relating to General Requirement

EL 2141-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
K	ANNEX K, THERMAL CONTROLS (see 1.5.3 and 5.3.8) *	EL 2141-00	No such thermal control used	N/A
K.1	Making and breaking capacity	EL 2141-01	See above K	N/A
K.2	Thermostat reliability; operating voltage (V):	EL 2141-02	See above K	N/A
K.3	Thermostat endurance test; operating voltage (V):	EL 2141-03	See above K	N/A
K.4	Temperature limiter endurance; operating voltage (V):	EL 2141-04	See above K	N/A
K.5	Thermal cut-out reliability	EL 2141-05	See above K	N/A
K.6	Stability of operation	EL 2141-06	See above K	N/A

^{*}Total number of Requirements to be observed / inspected =01

Total No of applicable Requirement =00

No of Requirements for which the sample passed= N/A

Total number of tests to be conducted = 06 Total No of applicable Tests = 00 No. of tests for which the sample passed= N/A

ertificate: 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 General Requirement

EL 2142-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
L	ANNEX L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.2)*	EL 2142-00	See below	Р
L.1	Typewriters*	EL 2142-01	No such typewriters used	N/A
L.2	Adding machines and cash registers*	EL 2142-02	No adding machines and cash registers used	N/A
L.3	Erasers*	EL 2142-03	No such erasers used	N/A
L.4	Pencil sharpeners*	EL 2142-04	No such pencil sharpeners used	N/A
L.5	Duplicators and copy machines*	EL 2142-05	No such duplicators and copy machines used	N/A
L.6	Motor-operated files*	EL 2142-06	No such motor operated files used	N/A
L.7	Other business equipment*	EL 2142-07	Operated at most unfavorable operating instructions	Р

^{*}Total number of Requirements to be observed / inspected =08

Total No of applicable Requirement =02

No of Requirements for which the sample passed= 02

Total number of tests to be conducted = 00
Total No of applicable Tests = 00
No. of tests for which the sample passed= N/A

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



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Tests relating to Electrical Safety

EL 2143-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
М	ANNEX M, CRITERIA FOR TELEPHONE RINGING SIGNALS (see 2.3.1)	EL 2143-00	See below	N/A
M.1	Introduction*	EL 2143-01	No telephone ringing signals	N/A
M.2	Method A	EL 2143-02	See above M.1	N/A
M.3	Method B	EL 2143-03	See above M.1	N/A
M.3.1	Ringing signal	EL 2143-04	See above M.1	N/A
M.3.1.1	Frequency (Hz)	EL 2143-05	See above M.1	N/A
M.3.1.2	Voltage (V)	EL 2143-06	See above M.1	N/A
M.3.1.3	Cadence; time (s), voltage (V)	EL 2143-07	See above M.1	N/A
M.3.1.4	Single fault current (mA)	EL 2143-08	See above M.1	N/A
M.3.2	Tripping device and monitoring voltage	EL 2143-09	See above M.1	N/A
M.3.2.1	Conditions for use of a tripping device or a monitoring voltage	EL 2143-10	See above M.1	N/A
M.3.2.2	Tripping device	EL 2143-11	See above M.1	N/A
M.3.2.3	Monitoring voltage (V)	EL 2143-12	See above M.1	N/A

^{*}Total number of Requirements to be observed / inspected =01

Total No of applicable Requirement =00

No of Requirements for which the sample passed= N/A

Total number of tests to be conducted = 12 Total No of applicable Tests = 00 No. of tests for which the sample passed= N/A

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 2144-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
N	Annex N, IMPULSE TEST GENERATORS (see 1.5.7.2, 1.5.7.3, 2.10.3.9, 6.2.2.1, 7.3.2, 7.4.3 and Clause G.5)	EL 2144-00	No such equipment	N/A
N.1	ITU-T impulse test generators	EL 2144-01	See above N	N/A
N.2	IEC 60065 impulse test generator	EL 2144-02	See above N	N/A

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

Total number of tests to be conducted = 03

Total No of applicable Tests = 00

No. of tests for which the sample passed= N/A

Certificate: It is certified that the above tests were performed and found to k	pe passing/ failing in the requirement tested.
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Tests relating to General Requirement

EL 2145-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
Р	ANNEX P, NORMATIVE REFERENCES	EL 2145-00	Complies	Р

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

Total No of applicable Requirement =00

No of Requirements for which the sample passed= 00

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

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 General Requirement

EL 2146-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
Q	ANNEX Q, Voltage dependent resistors (VDRs) (see	EL 2146-00	Certified varistor used	Р
	1.5.9.1)		(See table 1.5.1)	
	A VDR shall comply with iec 61051-2, whether a fire enclosure is provided or not, taking into account all of the following:		See above Cl. No. Q	Р
	a) Preferred climatic categories		See above Cl. No. Q	Р
	Lower category temperature: -10ºC			
	Upper category temperature: +85ºC			
	Duration of damp Test, steady state test:21 days:			
	b) Maximum continuous voltage:		See above Cl. No. Q	Р
	At least 1,25 times the rated voltage of the equipment or			
	At least 1,25 times the upper voltage of the rated voltage range			
	c) Combined pulse:	EL 2146-01	See above Cl. No. Q	Р
	d) Body of the VDR shall comply with Needle flame test according to IEC 60695-11-5 with the following test severities:	EL 2146-02	See above Cl. No. Q	Р
	duration of application of the test flame: 10 s after flame time: 5s			
	[This test is not required if VDR complies with V-1 CLASS MATERIAL]			

*Total number	of Requirements	to be observed ,	inspected =00

Total No of applicable Requirement =00

No of Requirements for which the sample passed= N/A

Total number of tests to be conducted = 03 Total No of applicable Tests = 03 No. of tests for which the sample passed=03

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

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Tests relating to General Requirement

EL 2147-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
R	ANNEX R, EXAMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES*	EL 2147-00	See below	N/A
R.1	Minimum separation distances for unpopulated coated printed boards (see 2.10.6.2)*	EL 2147-01	No such coated printed board used	N/A
R.2	Reduced clearances (see 2.10.3)*	EL 2147-02	See above Annex R.1	N/A

^{*}Total number of Requirements to be observed / inspected =03

Total No of applicable Requirement =00

No of Requirements for which the sample passed=N/A

Total number of tests to be conducted = 00 Total No of applicable Tests = 00 No. of tests for which the sample passed= N/A

Certificate: It is certified that the abo	ve tests were performed and	d found to be passing /fail	ling i n the requirement tested.



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Tests relating to General Requirement

EL 2148-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
S	ANNEX S, PROCEDURE FOR IMPULSE TESTING (see 6.2.2.3)*	EL 2148-00	No such equipment	N/A
S.1	Test equipment*	EL 2148-01	See above S	N/A
S.2	Test procedure*	EL 2148-02	See above S	N/A
S.3	Examples of waveforms during impulse testing*	EL 2148-03	See above S	N/A

^{*}Total number of Requirements to be observed / inspected =04

Total No of applicable Requirement =00

No of Requirements for which the sample passed= N/A

Total number of tests to be conducted = 00 Total No of applicable Tests = 00 No. of tests for which the sample passed= N/A

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 Protection against Ingress of water

EL 2149-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
Т	ANNEX T, GUIDANCE ON PROTECTION AGAINST INGRESS OF WATER (see 1.1.2)*	EL 2149-00	IPX0	N/A

*Total number of Requirements to be observed / inspected =01

Total No of applicable Requirement =00

No of Requirements for which the sample passed= 00

Total number of tests to be conducted =00 Total No of applicable Tests = 00 No. of tests for which the sample passed= 00

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 Wiring EL 2150-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
U	ANNEX U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4)	EL2150-00	Certified triple insulated wire used (See table 1.5.1)	Р
U.1	GENERAL	EL2150-01	See above U	Р
U.2	TYPE TESTS	EL2150-02	See above U	Р
U.2.1	GENERAL	EL2150-03	See above U	Р
U.2.2	ELECTRIC STRENGTH	EL2150-04	See above U	Р
U.2.2.1	SOLID ROUND WINDING WIRE AND STRANDED WINDING WIRES	EL2150-05	See above U	Р
U.2.2.1.1	WIRES WITH NOMINAL CONDUCTOR DIAMETER UPTO AND INCLUDING 0.100MM	EL2150-06	See above U	Р
U.2.2.1.2	WIRES WITH NOMINAL CONDUCTOR DIAMETER OVER 0.100MM AND INCLUDING 2.500MM	EL2150-07	See above U	Р
U.2.2.1.3	WIRES WITH NOMINAL CONDUCTOR DIAMETER OVER 2.500MM	EL2150-08	See above U	Р
U.2.2.2	SQUARE OR RECTANGULAR WIRES	EL2150-09	See above U	Р
U.2.3	FLEXIBILITY AND ADHERENCE	EL2150-10	See above U	Р
U.2.4	HEAT SHOCK	EL2150-11	See above U	Р
U.2.5	RETENTION OF ELECTRIC STRENGTH AFTER BENDING	EL2150-12	See above U	Р
U.3	TESTING DURING MANUFACTURING	EL2150-13	See above U	Р
U.3.1	GENERAL	EL2150-14	See above U	Р
U.3.2	ROUTINE TESTS	EL2150-15	See above U	Р
U.3.3	SAMPLING TEST	EL2150-16	See above U	Р

*Total	number	of Rega	uiramant	s to ha	ohserved	/ inspected =	00
· TOLAI	number	oi kea	uiremeni	s to be	observed	/ inspected =	UU

Total No of applicable Requirement =00

No of Requirements for which the sample passed= 00

Total number of tests to be conducted = 17

Total No of applicable Tests = 17

No. of tests for which the sample passed= 17

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 2151-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
V	ANNEX V, AC POWER DISTRIBUTION SYSTEMS (see 1.6.1) *	EL 2151-00	See below	Р
V.1	Introduction*	EL 2151-01	See below	Р
V.2	TN power distribution systems	EL 2151-02	TN power distribution system used	Р
V.3	TT Power Distribution systems	EL 2151-03	See above V.2	N/A
V.4	IT Power Distribution systems	EL 2151-04	See above V.2	N/A

*Total number of Requirements to be observed / inspected =02

Total No of applicable Requirement =02

No of Requirements for which the sample passed= 02

Total number of tests to be conducted = 03 Total No of applicable Tests = 01 No. of tests for which the sample passed= 01

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 2152-V1.4

Clause	Test / Requirement name	Test Code	Test result/ observation	Verdict
No				
W	Annex W, SUMMATION OF TOUCH CURRENTS *	EL 2152-00	No such construction	N/A
W.1	Touch current from electronic circuits*	EL 2152-01	See above W	N/A
W.1.1	Floating circuits*	EL 2152-02	See above W	N/A
W.1.2	Earthed circuits*	EL 2152-03	See above W	N/A
W.2	Interconnection of several equipments*	EL 2152-04	See above W	N/A
W.2.1	Isolation*	EL 2152-05	See above W	N/A
W.2.2	Common return, isolated from earth*	EL 2152-06	See above W	N/A
W.2.3	Common return, connected to protective earth*	EL 2152-07	See above W	N/A

*Total number of Requirements to be observed / inspected =08 Total No of applicable Requirement =-00

No of Requirements for which the sample passed= N/A

Total number of tests to be conducted = 00 Total No of applicable Tests = 00 No. of tests for which the sample passed= N/A

Certificate: It is certified that the above test	sts were performed and found to be r	passing/ failing in the rec	uirement tested.



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Tests relating to Electrical Safety

EL 2153-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
X	ANNEX X, MAXIMUM HEATING EFFECT IN TRANSFORMER TESTS (see clause C.1)*	EL 2153-00	Method not used	N/A
X.1	Determination of maximum input current*	EL 2153-01	See above X	N/A
X.2	Overload test procedure*	EL 2153-02	See above X	N/A

^{*}Total number of Requirements to be observed / inspected =03

Total No of applicable Requirement =00

No of Requirements for which the sample passed= N/A

Total number of tests to be conducted = 00 Total No of applicable Tests = 00 No. of tests for which the sample passed=N/A

$\label{thm:continuous} \textbf{Certificate: It is certified that the above tests were performed and found to be passing/\textit{failing} in the requirement terms of the continuous contin$				
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Tests relating to Radiation Safety

EL 2154-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
Υ	ANNEX Y, ULTRAVIOLET LIGHT CONDITIONING TEST (see 4.3.13.3)	EL 2154-00	No such ultraviolet light	N/A
Y.1	Test apparatus	EL 2154-01	See above Y	N/A
Y.2	Mounting of test samples	EL 2154-02	See above Y	N/A
Y.3	Carbon-arc light-exposure apparatus	EL 2154-03	See above Y	N/A
Y.4	Xenon-arc light exposure apparatus	EL 2154-04	See above Y	N/A

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

Total No of applicable Requirement =00

No of Requirements for which the sample passed= N/A

Total number of tests to be conducted = 05 Total No of applicable Tests = 00 No. of tests for which the sample passed=N/A

Certificate: It is certified that t	he ahove tests were	nerformed and for	ind to be passing	/failing in the re	auirement tested
cci tilicate. It is cci tilica tilat t	ile above tests were	periorinea ana iot		s/ running in the re	quii cilicili testeu.



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Tests relating to Electrical Safety

EL 2155-V1.0

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
Z	ANNEX Z, OVERVOLTAGE CATEGORIES (see 2.10.3.2 and Clause G.2)*	EL 2155-00	Overvoltage categories II	Р

*Total number of Requirements to be observed / inspected =01

Total No of applicable Requirement =01

No of Requirements for which the sample passed=01

Total number of tests to be conducted = 00 Total No of applicable Tests = 00 No. of tests for which the sample passed= N/A

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 Mechanical Properties

EL 2156-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
AA	ANNEX AA, MANDREL TEST (see 2.10.5.8)	EL 2156-00	No such construction	N/A

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

Total No of applicable Requirement =00

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No of Requirements for which the sample passed= N/A

Total number of tests to be conducted = 01
Total No of applicable Tests = 00
No. of tests for which the sample passed=N/A

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 2158-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
СС	Evaluation of integrated circuit (IC) current limiters*	EL 2158-00	Integrated circuit current limiters is not used	N/A
CC.1	Integrated circuit (IC) current limiters*	EL 2158-01	See above CC	N/A
CC.2	Test program 1	EL 2158-02	See above CC	N/A
CC.3	Test program 2	EL 2158-03	See above CC	N/A
CC.4	Test program 3	EL 2158-04	See above CC	N/A
CC.5	Compliance	EL 2158-05	See above CC	N/A

^{*}Total number of Requirements to be observed / inspected =02

Total No of applicable Requirement =00

No of Requirements for which the sample passed= N/A

Total number of tests to be conducted = 04 Total No of applicable Tests = 00 No. of tests for which the sample passed= N/A

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 Mechanical Properties

EL 2159-V1.4

Clause No	Test / Requirement name	Test Code	Test result/ observation	Verdict
DD	Requirements for the mounting means of rack- mounted equipment*	EL 2159-00	No rack-mounted equipment	N/A
DD.1	General		See above DD	N/A
DD.2	Mechanical strength test, variable N:	EL 2159-01	See above DD	N/A
DD.3	Mechanical strength test, 250N, including end stops:	EL 2159-02	See above DD	N/A
DD.4	Compliance*:	EL 2159-03	See above DD	N/A

*Total number of Requirements to be observed / inspected =02 Total No of applicable Requirement =00

No of Requirements for which the sample passed= N/A

Total number of tests to be conducted = 02 Total No of applicable Tests = 00 No. of tests for which the sample passed= N/A

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 Mechanical Properties

EL 2160-V1.4

Test / Requirement name	Test Code	Test result/ observation	Verdict
ANNEX EE, Household and home/office document/media shredders	EL 2160-00	No such Equipment	N/A
General		See above EE	N/A
Markings and instructions*	EL 2160-01	See above EE	N/A
Use of markings or symbols*:		See above EE	N/A
Information of user instructions, maintenance and/or servicing instructions*		See above EE	N/A
Inadvertent reactivation test:	EL 2160-02	See above EE	N/A
Disconnection of power to hazardous moving parts*	EL 2160-03	See above EE	N/A
Use of markings or symbols*:		See above EE	N/A
Protection against hazardous moving parts		See above EE	N/A
Test with test finger (Figure 2A):	EL 2160-04	See above EE	N/A
Test with wedge probe (Figure EE1 and EE2):	EL 2160-05	See above EE	N/A
	ANNEX EE, Household and home/office document/media shredders General Markings and instructions* Use of markings or symbols*	ANNEX EE, Household and home/office document/media shredders General Markings and instructions* Use of markings or symbols*	ANNEX EE, Household and home/office document/media shredders General Markings and instructions* Use of markings or symbols*

^{*}Total number of Requirements to be observed / inspected =02

Total No of applicable Requirement =00

No of Requirements for which the sample passed= N/A

Total number of tests to be conducted = 04

Total No of applicable Tests = 00

No. of tests for which the sample passed= N/A

Certificate: It is certified	that the above tests were perfor	med and found to be pas	ssing /tailing in the requirem	ent tested
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1.5.1	Table:List of components				Р
Object/partno.	Manufacturer/trademark	Type/model	Technicaldata	Standard	Mark(s) of conformity
LCD panel	Guangzhou ShiruiElectronics Co.,Ltd	S65R-UHD	65 inch TFT type with LED backlight	IS 13252 (Part 1): 2010 / IEC 60950-1: 2005	Tested within equipment
Power Plug	QUADLEX ELECTRIC PRIVATE LIMITED	Three Pin	250V~ ,16A	IS 1293:2019	CM/L 8800099517
Power Cable	Quadlex Electric Pvt. Ltd.	Circular	3x 1.5mm ² , 1100V	IS 694:2010	CM/L 2729769
Connector	Well Shin Technology Co Ltd	WS-003-3	250V AC, 15A	UL 60320-1 (Equivalent to IEC 60320-1)	UL E115330
Metal Enclosure	ALTOP INDUSTRIES, ALTOP SATIVALI	Metallic	Thickness 2.5mm	IS 13252 (Part 1): 2010 / IEC 60950-1: 2005	Tested within equipment
Power switch	ZHE JIANG BEIER JIA ELECTRONIC CO LTD	PS8A	6A, 250Vac	UL 61058-1 (Equivalent to IEC61058-1)	UL E236875
Appliance inlet	ZHE JIANG BEIER JIA ELECTRONIC CO LTD	ST-A01-003J	10A, 250 V~	UL 498 (Equivalent to IEC60320-1)	UL E225980
Mylar sheet	SABIC JAPAN LL C	FR700	V-0, 130°C, Min 0.4mm thickness	UL 94 (Flammability testequivalent to IEC 60695-11-10)	UL E207780
Secondary PCB 1	SHENZHEN STARIVER CIRCUITS COLTD	SR-01A	V-0, 130°C	UL 796 (No equivalent IEC standard) U L 94 (Flammability test equivalent to IEC 60695-11- 10)	UL E258603
Secondary PCB 2	VICTORY GIANT TECHNOLOGY (HUIZHOU) CO LTD	SH6	V-0, 130°C	UL 796 (No equivalent IEC standard) U L 94 (Flammability test equivalent to IEC 60695-11-	UL E248779



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				10)	
RTC Battery	DURACELL INC	CR2032	Max Abnormal Charging Current: 8mA, Max Abnormal Charging Voltage: 12V	UL 1642 (No equivalent to IEC standard)	UL MH12538
Internalprimary wire(Red)	POLYCAB WIREPVT LTD	PVC Insulated	1100V, 1mm ²	IS 694 : 2010	CM/L-2832257
Internalprimary wire(black)	POLYCAB WIRES PVT LTD	PVC Insulated	1100V, 1mm ²	IS 694 : 2010	CM/L- 7200099111
Power supply un	it				
PCB	SHENZHEN ZHONG LUO ELECTRONICS CO LTD	ZL-03A	V-0, 130°C	UL 796 (No equivalent IEC standard) U L 94 (Flammability test equivalent to IEC 60695-11-10)	UL E255554
AC Connector (CN101)	SUZHOU XINYA ELECTRIC COMMUNICATIO N CO LTD	W7913	250V, 7A	UL 1977 (Equivalent to IEC 60320-1)	UL E216870
Fuse (FP1)	HOLLYLAND COLTD	3CS	250V, 6.3A	UL 248-1 (Equivalent to IEC60127-1)	UL E156471
Varistor (RP13)	Zhejiang Liown SemiconductorCo Ltd	681KD14	420Vac, Max. continuous voltage: 680Vdc, 125°C	UL 1449 (Equivalent to IEC61051-2)	UL E525338
Line Choke (LP8)	Shenzhen Megmeet Electrical Co., Ltd	MP600S-K-L1	130°C	IS 13252 (Part 1): 2010 /IEC 60950-1: 2005	Tested with appliance
Bobbin	SUMITOMO BAKELITE COLTD	PM-9820	V-0, 150°C, min. 0.45mm, Phenolic	UL 94 (Flammability testequivalent to IEC60695-11-10)	UL E41429



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Insulation Tape	3M COMPANYELECTRICAL	1350F-1	130°C	UL510	UL E17385
	MARKETS DIV(EMD)			(No equivalent	
				IEC Standard)	
X-capacitor	NISTRONICS(JIANGXI) COLTD	MPR	0.68μF,275Vac,	UL 60384-14	UL E338685
(CP5)			100°C	(Equivalent to	
				IEC 60384-14)	
Line Choke	Yao Sheng Electronic Co.,Ltd	8LM05718	130°C	IS 13252 (Part 1):	Tested with
(LP7)				2010 /IEC	appliance
				60950-1: 2005	
Bobbin	SUMITOMO BAKELITE COLTD	PM-9820	V-0, 150°C,	UL 94	UL E41429
			min. 0.45mm,	(Flammability	
			Phenolic	testequivalent to	
				IEC60695-11-10)	
Insulation Tape	3M COMPANYELECTRICAL	1350F-1	130°C	UL510	UL E17385
	MARKETS DIV(EMD)			(No equivalent	
				IEC Standard)	
Line Choke	Yao Sheng Electronic Co.,Ltd	8LM11718	130°C	IS 13252 (Part 1):	Tested with
(LP6)				2010 /IEC	appliance
				60950-1: 2005	
Bobbin	SUMITOMO BAKELITE COLTD	PM-9820	V-0, 150°C,	UL 94	UL E41429
			min. 0.45mm,	(Flammability	
			Phenolic	testequivalent to	
				IEC60695-11-10)	
Insulation Tape	3M COMPANYELECTRICAL	1350F-1	130°C	UL510	UL E17385
	MARKETS DIV(EMD)			(No equivalent	
				IEC Standard)	
Inductor (LP1,	Shenzhen Megmeet Electrical	MP650S-K	130°C	IS 13252 (Part 1):	Tested with
LP9)	Co., Ltd			2010 /IEC	appliance
				60950-1: 2005	
Bobbin	SUMITOMO BAKELITE COLTD	PM-9820	V-0, 150°C,	UL 94	UL E41429
			min. 0.45mm,	(Flammability	
			Phenolic	testequivalent to	
				IEC60695-11-10)	
Insulation Tape	3M COMPANYELECTRICAL	1350F-1	130°C	UL510	UL E17385
	MARKETS DIV(EMD)			(No equivalent	
				IEC Standard)	
Bridging-	KEMET	AH	Min.250 Va.c.	IEC 60384-14:	VDE 40036417
Capacitor	Electronics Corporation		330pF, 125°C	2013/AMD1:	
(CHA16)				2016	
				IEC 60384-14:	
				2013	



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Y-capacitor (CP10, CP11, CP12)	KEMET Electronics Corporation	АН	Min.250 Va.c. 330pF, 125°C	IEC 60384-14: 2013/AMD1: 2016 IEC 60384-14: 2013	VDE 40036417
Optocoupler (PH1, PHA1, PHA2, PHA3)	Lite-On Technology Corporation	LTV-817	Cr ≥ 7.0mm,Cl ≥ 7.0mm, Dti ≥ 0.4mm, 115°C	IEC 60747-5- 5:2020	VDE 40015248
Transformer (TH1)	Shenzhen Megmeet Electrical Co., Ltd	SYEFD40- T200245A	130°C	IS 13252 (Part 1): 2010 A2: 2015 /IEC 60950-1: 2005	Tested with appliance
Bobbin	SUMITOMO BAKELITE CO.,LTD	PM-9820	V-0, 150°C	UL 94 (Flammability testequivalent to IEC60695-11-10)	UL E41429
Triple insulated Wire	YOUNG CHANGSILICONE CO LTD	STW-B	130°C	UL 2353 (Equivalent to applicable parts of IEC 60950-1)	UL E242198
Insulation Tape	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	CT* (b)(g)	130°C	UL510 (No equivalent IEC Standard)	UL E165111
Magnet Wire	TAI-I ELECTRICWIRE & CABLE CO LTD	UEWB	130°C	UL1446 (Equivalent to applicable parts ofIEC 60950-1)	UL E85640
Tube	CHANGYUAN ELECTRONICS GROUP CO LTD	СВ-ТТ-Т	200°C	UL 224 (No equivalent IEC Standard)	UL E180908
Varnish	ELANTAS PDG,INC.	V1380FC	130°C	UL 1446 (Equivalent to applicable parts of IEC 60950-1)	UL E75225
Transformer (THA1)	Shenzhen Megmeet Electrical Co., Ltd	MP600S-K-TH1	130°C	IS 13252 (Part 1): 2010 A2: 2015 /IEC 60950-1: 2005	Tested with appliance
Bobbin	SUMITOMO BAKELITE CO.,LTD	PM-9820	V-0, 150°C	UL 94 (Flammability testequivalent to IEC60695-11-10)	UL E41429



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				L.		
Insulation Tape	JINGJIANG YAHUA PRESSURE	CT* (b)(g)	130°C	UL 510		UL E165111
	SENSITIVE GLUE CO LTD			(No equi	valent	
				IEC Stand	dard)	
Magnet Wire	TAI-I ELECTRICWIRE & CABLE	UEWB	130°C	UL 1446		UL E85640
	CO LTD			(No equi	valent	
				IEC stanc	lard)	
Triple	YOUNG CHANGSILICONE CO	STW-B	130°C	UL 2353		UL E242198
Insulation Wire	LTD			(Equivale	ent to	
				applicabl	e parts	
				ofIEC 609	950-1)	
Tube	CHANGYUAN ELECTRONICS	CB-TT-T	200°C	UL 224		UL E180908
	GROUP CO LTD			(No equi	valent	
				IEC Stand	dard)	
Varnish	ELANTAS PDG,INC.	V1380FC	130°C	UL 1446		UL E75225
				(No equi	valent	
				IEC stanc	lard)	

Supplementary information:

^{1.}Evidence have been evaluated and checked for the agreed level of compliance as per the referred standard



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1.6.2	TABLE: El	lectrical data	(in normal cor	nditions)			Р
U (/)	I (A)	Irated (A)	P (W)	Fuse #	Ifuse (A)	Condition/status
90)	2.83		250.1	FP1	2.83	
10	0	2.52	5	248.2	FP1	2.52	Maximum Normal load at 50 Hz
24	0	1.04	5	240.2	FP1	1.04	
254	.4	1.02		241.3	FP1	1.02	
Suppleme	ntary infor	mation: max	imum normal l	oad.			

2.1.1.5	TABLE: Energy hazar	rd measurement			P	
١	/oltage (rated)	Current (rated)	Voltage (max.)	Current (max.)	VA (max.)	
	(V)	(A)	(V)	(A)	(VA)	
			Front USB Port 1 5.062	0.732	3.705	
			Front USB Port 2 5.074	1.386	7.032	
			Back USB Port 1 5.160	1.816	9.370	
			Back USB Port 2 5.171	1.807	9.344	
			Back USB Port 3 5.168	1.510	7.804	
			Back USB Port 4 5.162	1.520	7.846	
			Back USB Port 5 5.070	1.511	7.660	
			Back USB Port 6 5.065	1.553	7.764	
Supplem	entary information: 24	0V~, 50Hz				

2.1.1.7	TABLE: Discharge test	t				Р
Condition		τ calculated	τ measured	$tu \rightarrow 0V$	Comments	
		(s)	(s)	(s)		
X-Capacitor			0.36		Vpeak=344, 37% of Vpeak 127.3V	
					After 1 sec. Vpeak= 0V	
Supplementary information:240V~, 50Hz						

2.2.2	TABLE: SELV measurement (under normal conditions)						
Transformer		Location	Voltage (max.) (V)		Voltage Limitation Com	ponent	
			V peak	V d.c.			
Tr	ansformer (TH1)	Pin 8 to Pin 9	28				
Tra	nsformer (THA1)	Pin 9 to Pin 10	34				
Supplem	entary information: 240	DV~, 50Hz					

2.2.3	TABLE: SELV measurement (under fa	ult conditions)		Р
Location Voltage (max.) (V) Comments				
Capacitor	Capacitor (CHA38) 0.0 short-circuited			
Suppleme	ntary information: 240V~, 50Hz			



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2.4.2	TABLE: Limited current circ	uit measuremen	t				Р
Location		Voltage	Current	Freq.	Limit	Comments	
		(V)	(mA)	(kHz)	(mA)		
,	Y-Capacitor (CP10)	0.416	0.294		0.7	2kΩ non inductive resistor us	ed
Suppleme	ntary information: Nil				•		

2.5 TAI	BLE: Limited power s	ource measurement		Р
		Limits	Measured	Verdict
According to Table 2B/ 2C (nor	mal condition) Front	USB Port 1 output voltage = 5.0	62Vdc	
current (in A)		≤8	0.732	Р
apparent power (in VA)		≤100	3.705	Р
According to Table 2B/ 2C (sing	le fault condition) F	ront USB Port 1 (short circuited)	output Voltage= 0	-
current (in A)		≤8	0	Р
apparent power (in VA)		≤100	0	Р
According to Table 2B/ 2C (nor	mal condition) Front	USB Port 2 output voltage = 5.0	74Vdc	
current (in A)		≤8	1.386	Р
apparent power (in VA)		≤100	7.032	Р
According to Table 2B/ 2C (sing	le fault condition) F	ront USB Port 2 (short circuited)	output Voltage= 0	
current (in A)		≤8	0	Р
apparent power (in VA)		≤100	0	Р
According to Table 2B/ 2C (nor	mal condition) Back	USB Port 1 output voltage = 5.16	50Vdc	
current (in A)		≤8	1.816	Р
apparent power (in VA)		≤100	9.370	Р
According to Table 2B/ 2C (sing	le fault condition) B	ack USB Port 1 (short circuited)	output Voltage= 0	
current (in A)		≤8	0	Р
apparent power (in VA)		≤100	0	Р
According to Table 2B/ 2C (nor	mal condition) Back	USB Port 2 output voltage = 5.17	71Vdc	
current (in A)		≤8	1.807	Р
apparent power (in VA)		≤100	9.344	Р
According to Table 2B/ 2C (sing	le fault condition) B	ack USB Port 2 (short circuited)	output Voltage= 0	
current (in A)		≤8	0	Р
apparent power (in VA)		≤100	0	Р
According to Table 2B/ 2C (nor	mal condition) Back	USB Port 3 output voltage = 5.16	58Vdc	
current (in A)		≤8	1.510	Р



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apparent power (in VA)	≤100	7.804	Р
According to Table 2B/ 2C (single fault condition)	Back USB Port 3 (short circuited) o	output Voltage= 0	
current (in A)	≤8	0	Р
apparent power (in VA)	≤100	0	Р
According to Table 2B/ 2C (normal condition) Bac	ck USB Port 4 output voltage = 5.16	52Vdc	
current (in A)	≤8	1.520	Р
apparent power (in VA)	≤100	7.846	Р
According to Table $2B/2C$ (single fault condition)	Back USB Port 4 (short circuited) o	output Voltage= 0	•
current (in A)	≤8	0	Р
apparent power (in VA)	≤100	0	Р
According to Table $2B/\frac{2C}{2C}$ (normal condition) Bac	ck USB Port 5 output voltage = 5.07	70Vdc	•
current (in A)	≤8	1.511	Р
apparent power (in VA)	≤100	7.660	Р
According to Table $2B/\frac{2C}{2C}$ (single fault condition)	Back USB Port 5 (short circuited) o	output Voltage= 0	•
current (in A)	≤8	0	Р
apparent power (in VA)	≤100	0	Р
According to Table $2B/\frac{2C}{2C}$ (normal condition) Bac	ck USB Port 6 output voltage = 5.06	55Vdc	
current (in A)	≤8	1.553	Р
apparent power (in VA)	≤100	7.764	Р
According to Table $2B/2C$ (single fault condition)	Back USB Port 6 (short circuited) o	output Voltage= 0	1
current (in A)	≤8	0	Р
()			

2.6.3.4	TABLE: Resistance of earthing meas	urement		Р					
Location		Resistance measured (m Ω)	Comments						
Earth to metal screw		0.016Ω	U1=0.6, U2=1.1 Voltage drop: U2-U1=0.5						
Supplementary information: Tested current 32A applied for 2 minutes.									

<OR>

2.6.3.4	TABLE: Resistance of earthing mea	asurement		N/A
Location		Voltage drops (V)	Comments	
Supplement	ary information: Tested current 40	A		



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2.10.2 Table: Working volta	age measurement		
Location	RMS voltage (V)	Peak voltage (V)	Comments
Line to neutral	240	340	
Line to earth	240	339	Max Vrms, Vpeak
Transformer (TH1)	1	I	
N-Pin 1	106	156	
N-Pin 2	94	134	
N-Pin 3	156	225	Max Vrms, Vpeak
N-Pin 4	102	154	
N-Pin 5-6	98	146	
N-Pin 7	104	152	
N-Pin 8	106	156	
N-Pin 9	98	146	
N-Pin 10-11	115	164	
Transformer (THA1)	•		
N-Pin (1-2)	106	152	
N-Pin (3-4-5)	112	162	
N-Pin 6-7-8-11-12	93	136	
N-Pin 9	128	183	
N-Pin 10	132	188	
N-Pin 13	161	235	Max Vrms, Vpeak
N-Pin 14	137	196	

2.10.3 and 2.10.4	TABLE: Clearance an	d creepage di	stance measu	rements			Р		
Clearance (cl) and cre at/of/between:	epage distance (cr)	U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)		
Functional:									
Line to neutral		340	240	1.5	5.79	2.5	5.79		
Basic / supplementary	Basic / supplementary:								
Line to Earth	Line to Earth			2.0	5.60	2.5	5.60		
Reinforced:									
Primary to secondary Transformer(TH1)	on	225	156	4.0	41.30	4.0	41.30		
Primary to secondary Transformer(THA1)	235	161	4.0	35.99	4.0	35.99			
Supplementary inforr	nation: 240V~, 50Hz		I	1		I I			



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2.10.5 TAI	BLE: Distance through insulation mea	asurements				р				
Distance thro	ugh insulation (DTI) at/of:	U peak (V)	U r.m.s. (V)	Test voltage (V)	Required DTI (mm)	DTI (mm)				
Basic:										
Supplementa	ry:	1								
Reinforced:		·								
	Mylar sheet	340	240	3000	0.4	0.48				
Supplementa	ry information: Nil	•	•	•						

4.3.8	TABLE: Batt	eries								N/A
The test		applicable (only when a	ppropriate bat	tery data is	not	Certified RT	C Battery u	sed	N/A
Is it pos	sible to instal	I the battery	in a revers	e polarity positi	ion?					N/A
		Non-re	echargeable	batteries			Recharge	eable batte	ries	
		Discharging Un-			Chai	ging	Disch	arging	Revers	ed charging
		Meas. current	Manuf. Specs.	intentional charging	Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.
	rrent during condition									
Max. cu fault co	rrent during ndition									
Test res	sults:	'			•		'			Verdict
- Chemi	cal leaks									
- Explos	ion of the bat	tery								
- Emissi	on of flame o	r expulsion	of molten m	etal						
- Electri	c strength tes	ts of equipr	nent after c	ompletion of te	ests					
Suppler	nentary infori	mation: Cert	tified RTC Ba	attery used						1



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4.5	TABLE: Temp	erature rise measu	rements									Р
Tempe	ratures were m	easured according o	cl. 1.4.5. Test i	in condit	ion A a	nd B a	t continuou	s normal	opera	tion as for p	ower in	nput
measur	rements of table	e 1.6.2 resulted in h	ighest tempe	rature va	alues.							
-		ulated according cl.	1.4.12.3 with	regard t	to the r	naximı	um ambient	operation	n tem	perature of	<u>40</u> °C (1	_{ma}), as
specifie	ed by the manu	facturer.										
Test vo	ltage(s) (V):				A: V	= 90V~	, 50Hz		B: V=	254.4V~, 5	0Hz	
t _{amb1} (°	C):	A: 2	5°C B: 25°C		t _{amb2}	(°C):			A: 25	°C B: 25°C		
Tempe	rature of part/a	t:			Meas	ured te	emperature		Calcul	ated	Α.	llowed
(measu	red with therm	ocouples)				rise at	t T _{amb}	tem	peratu	ire at T _{ma}	Т	max (°C)
					А	١	В	А		В		
					dT	(K)	dT (K)	T (°0	2)	T (°C)		
Extern	al enclosure (M	letallic)		1	1	10	51		50		70	
LCD Display						4	13	54		53		80
Transformer (TH1)					3	8	36	78		76		110
Transf	ormer (THA1)				3	6	35	76	;	75		110
Line Cl	hoke (LP8)				2	8	27	68	;	67		110
Line Cl	hoke (LP7)				2	6	25	66	;	65		110
Line Cl	hoke (LP6)				2	7	26	67	'	66		110
Induct	or (LP1)				2	9	28	69	1	68		110
Induct	or (LP9)				2	6	24	66	;	64		110
PCB					2.	5	24	65		64		130
Supple	mentary inform	ation: Nil										
Tempe	ratures measur	ed with winding res	istance metho	od: Not	used							
	rature T of wind ng resistance m	•	(V)	R ₁ (9	Ω)	R ₂	(Ω)	T (°C)	alle	owed T _{max} (°C)	insula	ation class
Supple	mentary inforn	nation: Nil		•			•		•	•		
												T
4.5.5	TABLE: Ball p	ressure test of the	moplastic pa	rts								Р
		Allowed impression	on diameter (ı	mm)		:	≤ 2 mm					
Part	Part					Test temperature (°C)		ire	Impression diameter (mm)			
								. ,				

4.6.1, 4.6.2 Table: Enclosure opening measure	rements		Р				
Location	Size (mm)	Comments					
Rear Side openings	2.92mm * 1.80mm	Numerous rectangular openings					
Supplementary information: Nil							

Supplementary information: Certified material used(See table 1.5.1)



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4.7	Table: Resistance to fire	9					P			
Part		Manufacturer of material	Type of material	Thickness Flammability (mm) class		Evidenc	e			
Supple	Supplementary information: Certified material used (See table 1.5.1)									

5.1.6	TABLE: Touch co	urrent and proted	ctive conducto	or current me	asurement				Р
	Test voltage (V): AC 254.4V, 50Hz								
Measurement location			Polarity (normal) [mA]		Polarity (reverse) [mA]		Limit (mA)	Comments	
(Termin	(Terminal A connected to)			Switch: OFF	Switch: ON	Switch: OFF			
L/N to Metallic enclosure			0.956		0.998		3.5 "e'		" open
Suppler	mentary informa	tion: Nil						•	

5.2	TABLE: Electric strength tests, impulse tests and	voltage surge tests		N/A
Test	voltage applied between:	Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No
Funct	ional:			
Line t	o neutral (Fuse FP1 opened)	AC	1500	No
Basic	/ supplementary:			
Line	to Earth	AC	1500	No
Reinf	orced:			
Trans	former(TH1)	AC	3000	No
Trans	former(THA1)	AC	3000	No
Insula	ation Tape	AC	3000	No
Suppl	ementary information: nil			



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			l .					
5.3	TABLE: Fault co	ondition tests						Р
		Ambient temperatu	ıre (°C)			: 25		_
	I	Power source for EUT: Manufacturer, model/type, output rating:					ole 1.5.1	_
Co	omponent No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation	
Tra	nsformer(TH1)	Overload	254.4V~, 50Hz	4hrs	FP1		Temperature rise on TH1 4 Result: No damage, No haza	
Trar	nsformer (THA1)	Overload	254.4V~, 50Hz	4 hrs	FP1		Temperature rise on THA1 Result: No damage, No haza	
Supple	ementary inform	nation: Nil		•			•	

C.2 TABLE: Insulat	ion of transformers(Tr	ansformer (TH	H1))				Р	
	Transformer part nar	:	See table 1.5.1					
	Manufacturer:			See table 1.5.1				
	Туре			See table 1.5.1				
Clearance (cl) and creepage distance (cr)		U peak	U r.m.s.	Required cl	cl	Required cr	cr	
at/of/between:	. ,	(V)	(V)	(mm)	(mm)	(mm)	(mm)	
Primary /input windin	g and	225	156	4.0	T.I.W.	4.0	T.I.W.	
secondary/output winding (internal)								
Primary/input winding and core (internal)				4.0	T.I.W.	4.0	T.I.W.	
Secondary/output winding and core (internal)				4.0	T.I.W.	4.0	T.I.W.	
Primary/input part and secondary/output part (external)				4.0	43.20	4.0	43.20	
Primary/input part and core (external)				4.0	T.I.W.	4.0	T.I.W.	
Primary/input part and secondary/output winding (external)				4.0	T.I.W.	4.0	T.I.W.	
Secondary/output part and core (external)				4.0	T.I.W.	4.0	T.I.W.	
Secondary/output part and primary/input winding (external)				4.0	T.I.W.	4.0	T.I.W.	
Description of design:								
(a) Bobbin								
Primary/input pins:			1,2,3,4					
Secondary/output pins				5-6, 7,8,9,10-11				
Material (manufacturer, type, ratings):				See table 1.5.1				
Thickness (mm):				See above				
(b) General								
Supplementary inforn	nation:Nil							



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C.2 TABLE: Insula	ation of transformers(Tr	ansformer (TI	HA1))				Р	
	Transformer part nar	9	See table 1.5.					
	Manufacturer	:	9					
	Туре	:	9					
Clearance (cl) and creepage distance (cr) at/of/between:		U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)	
Primary /input winding and secondary/output winding (internal)		235	161	4.0	T.I.W.	4.0	T.I.W.	
Primary/input winding and core (internal)				4.0	T.I.W.	4.0	T.I.W.	
Secondary/output winding and core (internal)				4.0	T.I.W.	4.0	T.I.W.	
Primary/input part and secondary/output part (external)				4.0	37.40	4.0	37.40	
Primary/input part and core (external)				4.0	T.I.W.	4.0	T.I.W.	
Primary/input part and secondary/output winding (external)				4.0	T.I.W.	4.0	T.I.W.	
Secondary/output part and core (external)				4.0	T.I.W.	4.0	T.I.W.	
Secondary/output p winding (external)	art and primary/input			4.0	T.I.W.	4.0	T.I.W.	
Description of design	n:							
(a) Bobbin								
Primary/input pins:			1-2, 3-4-5					
Secondary/output pins:			6-7-8-11-12, 9,10,13,14					
Material (manufacturer, type, ratings):			See table 1.5.1					
Thickness (mm):				See above				
(b) General			•					
Supplementary info	rmation: Nil							



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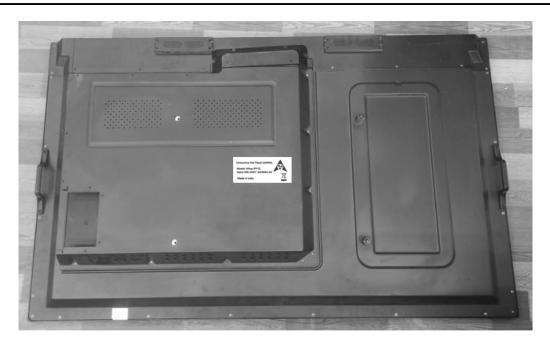
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Photographs



Front View



Rear View



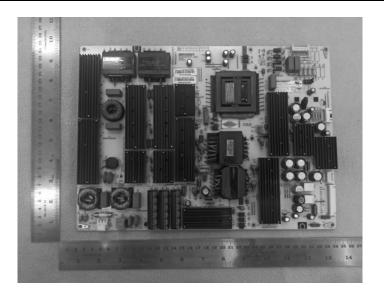
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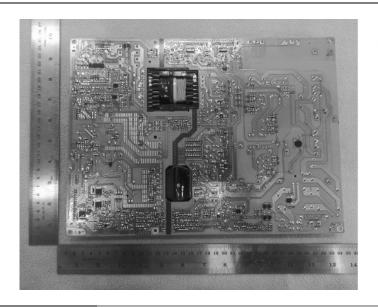
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PCB Front View



PCB Rear View

Note: This is computer generated report. No need of seal and sign.

End of Test Report