BLUESKY LAB LLP

ULR No. : TC982524000002199F

DOC No.	:	
Telephone	:	+91 9953745002
FAX	:	-
E-Mail	:	info@blueskylab.in
BO Code	:	NA

Plot no. 62, 63, 1st 2nd 3rd Floor, Ganga Enclave, Behta Hajipur, Main Delhi Saharanpur Road, Near Johri Enclave Metro Station, Ghaziabad, Uttar Pradesh, 201102, Ghaziabad, Ghaziabad, Uttar Pradesh, India - 201102

Test REPORT AS PER : IS 13252 : Part 1 (2010)

QR Code/Barcode : 210230CRS

REPORT NO : SC24EPF17922_1 DATE : 26 Oct, 2024

PART A. PARTICULARS OF SAMPLE SUBMITTED

a) Customer Name & Address	:	Xinsu Global Electronic Co., Limited 3RD FLOOR, NO.1 BUILDING, C DISTRICT,108 HONGHU ROAD, YANLUO STREET, BAOAN DISTRICT, SHENZHEN, GUANGDONG, CHINA, NA, GUANGDONG, China - 518127
b) Nature of sample	:	-
c) Grade/Variety/Type/Class Size etc	:	NA
d) Declare values, if any	:	-
e) Batch No. & Date of Manufacture	:	/
f) Quantity	:	2
g) Date of Receipt	:	30 Sep, 2024
h) BIS Seal	:	Verified by Sample Cell
i) IO's Signature	:	Verified by Sample Cell
j) Any other Information / Expiry Date, If any	:	/
k) Date of Commencement of Testing	:	30 Sep, 2024
l) Date of Completion of Testing	:	26 Oct, 2024
m) Section Code	:	24E0B87N
n) Section Report No.	:	24E0B87N_1
o) Report Type	:	New
p) Reference Report No.	:	
q) Remarks	:	

Ashutosh Jaiswal
OIC SAMPLE CELL
(Authorized Signatory)
Authorized on: 26 Oct, 2024 16:47 PM

1.

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PART B. SUPPLEMENTARY INFORMATION

1.	Reference to sampling procedure, wherever applicable.	Not Applicable
2.	Supporting documents for the measurements taken and results derived like graphs, table sketches and or photographs as appropriate to test report, if any.	Yes
3.	Deviation from the test methods as prescribed in relevant ISS/Work instruction, if any.	Not Applicable
3.	NABL Report required ?	-

KAPIL KUMAR DHAKA
OIC Electrical
(Authorized Signatory)
Authorized on: 26 Oct, 2024 16:46 PM

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PART C. TEST RESULT

S.No.	Clause No Table No. Sl. No	Parameter - Method of test	Test Description	Min Limit	Max Limit	Unit	Result/ Observation
1	Annex EE	Household and home/ office document/ media shredders	-	-	-	-	Test Not Applicable
2	Annex DD	Requirements for the mounting means of a rack mounted equipment	-	-	-	-	Test Not Applicable
3	Annex C	Transformers	-	-	-	-	Complies (see Annex C in attached final test report)
4	Annex B	Motor tests under abnormal conditions	-	-	-	-	Test Not Applicable
5	Annex Q	Voltage Dependent Resistors	-	-	-	-	Test Not Applicable
6	Annex K	Thermal Control	-	-	-	-	Test Not Applicable
7	Annex CC	Evaluation of integrated circuit (IC) current limiters	-	-	-	-	Test Not Applicable
8	Annex U	Insulating winding wires for use without interleaved insulation	-	-	-	-	Test Not Applicable
9	Annex A3	Hot flaming oil test	-	-	-	-	Test Not Applicable
10	7.4	Insulation between primary circuits and cable distribution systems	Insulation between primary circuits and cable distribution systems	-	-	-	Test Not Applicable
11	7.3	Protection of equipment users fromequipment users from overvoltages on the cable distribution system	Protection of overvoltages on the cable distribution system	-	-	-	Test Not Applicable
12	7.2	Protection of cable distribution system service persons, and users of other equipment connected to the system, from hazardous voltages in the equipment	Protection of cable distribution system service persons, and users of other equipment connected to the system, from hazardous voltages in the equipment	-	-	-	Test Not Applicable
13	7.1	General	Connection to cable distribution systems	-	-	-	Test Not Applicable
14	6.3	Protection of the telecommunication wiring system from overheating	Protection of the telecommunication wiring system from overheating	-	-	-	Test Not Applicable
15	6.2	Protection of equipment users fromequipment users from overvoltages on networks telecommunication	Protection of overvoltages on networks telecommunication	-	-	-	Test Not Applicable
16	6.1	Protection of telecommunication network service persons, and users of other equipment connected to the network, from hazards in the equipment	Protection of telecommunication network service persons, and users of other equipment connected to the network, from hazards in the equipment	-	-	-	Test Not Applicable

17	5.3	Abnormal operating and fault conditions	Abnormal operating and fault conditions test	-	-	-	Complies (see cl.no. 5.3 in attached final test report)
18	5.2	Electric strength	To Check Insulation as per Clause 5.2,5.2.1,5.2.2	-	-	-	Complies (see cl.no. 5.2 in attached final test report)
19	5.1	Touch current and protective conductor curren	Cl. 5.1	-	-	-	Complies (see cl.no. 5.1 in attached final test report)
20	4.7	Resistance to fire	Clause 4.7, 4.7.1, 4.7.2, 4.7.2.1, 4.7.2.2, 4.7.3, 4.7.3.1	-	-	-	Complies (see cl.no. 4.7 in attached final test report)
21	4.6	Openings in enclosures	Openings in enclosures	-	-	-	Test Not Applicable
22	4.5	Thermal requirements	Temperature rise measurement Test	-	-	-	Complies (see cl.no. 4.5 in attached final test report)
23	4.4	Protection against hazardous moving parts	Protection against hazardous moving parts	-	-	-	Test Not Applicable
24	4.3	Design and construction	Design and construction	-	-	-	Complies (see cl.no. 4.3 in attached final test report)
25	4.2	Mechanical strength	Mechanical Strength Test	-	-	-	Complies (see cl.no. 4.2 in attached final test report)
26	4.1	Stability	Clause 4.1 Stability	-	-	-	Test Not Applicable
27	3.5	Interconnection of equipment	Clause 3.5, 3.5.1, 3.5.2, 3.5.4	-	-	-	Complies (see cl.no. 3.5 in attached final test report)
28	3.4	Disconnection from the mains supply	Appliance inlet is considered as disconnect device	-	-	-	Complies (see cl.no. 3.4 in attached final test report)
29	3.3	Wiring terminals for connection of external conductors	Wiring terminals for connection of external conductors	-	-	-	Test Not Applicable
30	3.2	Connection to a mains supply	Clause 3.2: Connection to a mains supply	-	-	-	Complies (see cl.no. 3.2 in attached final test report)
31	3.1	General	Clause 3.0, 3.1.1, 3.1.2, 3.1.3	-	-	-	Complies (see cl.no. 3.1 in attached final test report)
32	2.10	Clearances, creepage distances and distances through insulation	Clause 2.10, 2.10.1.2, 2.10.1.3, 2.10.3, 2.10.3.4	-	-	-	Complies (see cl.no. 2.10 in attached final test report)
33	2.9	Electrical insulation	Clause 2.9 Electrical insulation	-	-	-	Complies (see cl.no. 2.9 in attached final test report)
34	2.8	Safety interlocks	Clause 2.8 Safety Interlocks-	-	-	-	Test Not Applicable
35	2.7	Overcurrent and earth fault protection in primary circuits	Certified Fuse is provided for protection against short – circuits and overcurrent. The building installation consider as short-circuit backup protection.	-	-	-	Complies (see cl.no. 2.7 in attached final test report)
36	2.6	Provisions for earthing and bonding	Clause 2.6 Provisions for earthing and bonding	-	-	-	Test Not Applicable
37	2.5	Limited power sources .	Limited power sources test perform on Secondary Li-ion battery pack	-	-	-	Complies (see cl.no. 2.5 in attached final test report)

38	2.4	Limited current circuits	Limited current circuits	-	-	-	Complies (see cl.no. 2.4 in attached final test report)
39	2.3	TNV circuits	TNV circuits	-	-	-	Test Not Applicable
40	2.2	SELV circuits	Clause 2.2: SELV circuits	-	-	-	Complies (see cl.no. 2.2 in attached final test report)
41	2.1	Protection from electric shock and energy hazards	Clause 2.1: Protection from electric shock and energy hazards	-	-	-	Complies (see cl.no. 2.1 in attached final test report)
42	1.7	Markings and instructions	Clause: 1.7.11 (Durability) Rubbing the marking by hand for 15s with a piece of cloth soaked with water and again for 15 s with a piece of cloth soaked with petroleum spirit.	-	-	-	Complies
43	1.6	Power interface .	Input current Measurement	-	-	-	Complies (see cl.no. 1.6 in attached final test report)
44	1.5	Components	Addition of alternate certified switching power supply based on relevant documents provided by manufacturer	-	-	-	Complies (see cl.no. 1.5 in attached final test report)

KAPIL KUMAR DHAKA
OIC Electrical
(Authorized Signatory)
Authorized on: 26 Oct, 2024 16:46 PM

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PART D. REMARKS

KAPIL KUMAR DHAKA
OIC Electrical
(Authorized Signatory)
Authorized on: 26 Oct, 2024 16:46 PM

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BlueSky Lab LLP
1st, 2nd, 3rd Floor, Plot no 62, 63, Ganga Enclave, Loni Border
Near Johri Enclave Metro Station, Ghaziabad
Uttar Pradesh - 201102
Mob: +918595176179 , **Ph:** 011-71862260
Email: Info@blueskylab.in

TEST REPORT

TC-9825

SUMMARY OF TEST REPORT

TEST REPORT NO: SC24EPF17922_1 **DATE:** 26/10/2024
ULR- TC982524000002199F

(Number of Pages in Test Report: Page No. 1 to 108)
TEST FORMAT AS PER IS 13252 (Part 1): 2010 + A1: 2013 + A2: 2015 / IEC 60950-1: 2005 + A1: 2009 + A2: 2013

1. **Name of the Manufacturer:** Xinsu Global Electronic Co., Limited
2. **Product:** SWITCHING POWER SUPPLY (Power Adaptor for IT Equipment)
3. **Model(s):**

S. No.	Models
1.	XSG1801000 (Lead model)
2.	XSG1800500
3.	XSG1681000
4.	XSG1500800
5.	XSG1261000
6.	XSG1201000
7.	XSG1200500
8.	XSG0841500
9.	XSG0841000
10.	XSG0600600

4. **Trademark:** Xinsu Global®
4. **Model differences provided (if applicable):** Yes
5. **Model differences verified as per MEITY Guidelines for series formulation:** Yes
6. **Test Results:** Refer below

S. NO.	TEST REQUIREMENT	CLAUSE	VERDICT
1.	Components	1.5	P
2.	Power interface	1.6	P
3.	Markings and instructions	1.7	P
4.	Protection from electric shock and energy hazards	2.1	P
5.	SELV circuits	2.2	P
6.	TNV circuits	2.3	N/A
7.	Limited current circuits	2.4	P
8.	Limited power source	2.5	P
9.	Provisions for earthing and bonding	2.6	N/A
10.	Over current and earth fault protection in primary circuits	2.7	P
11.	Safety interlocks	2.8	N/A
12.	Electrical insulation	2.9	P
13.	Clearances, creepage distance and distances through insulation	2.10	P
14.	Wiring, connections and supply	3	P
15.	Connection to a mains supply	3.2	P

16.	Wiring terminals for connection of external conductors	3.3	N/A
17.	Disconnections from the main supply	3.4	P
18.	Interconnection of equipment	3.5	P
19.	Stability	4.1	N/A
20.	Mechanical strength	4.2	P
21.	Design and construction	4.3	P
22.	Protection against hazardous moving parts	4.4	N/A
23.	Thermal requirements	4.5	P
24.	Openings in enclosures	4.6	N/A
25.	Resistance to fire	4.7	P
26.	Touch current and protective conductor current	5.1	P
27.	Electric strength	5.2	P
28.	Abnormal operating and fault conditions	5.3	P
29.	Protection of telecommunication network service persons and users of other equipment connected to the network, from hazards in the equipment	6.1	N/A
30.	Protection of equipment users from overvoltage's on telecommunication networks	6.2	N/A
31.	Protection of the telecommunication wiring system from overheating	6.3	N/A
32.	Connection to cable distribution systems	7	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 provided in the list of critical components.

2. All test have been performed on lead model "XSG1801000" only.

CONCLUSION:

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

2. ~~**Sample fails to meet the following test requirements.**~~

I, hereby undertake that the verdict stated in the test reports for all the test matches with the test results. The sample meets all relevant requirements of IS 13252 (Part 1): 2010 + A1: 2013 + A2: 2015 / IEC 60950-1: 2005 + A1: 2009 + A2: 2013/~~does not meet the requirements~~. If any deviation found, suitable punitive action may be taken by BIS.

Date: 26/10/2024 **(Signature of Authorized person with Stamp)**

BlueSky Lab LLP
1st, 2nd, 3rd Floor, Plot no 62, 63, Ganga Enclave, Loni Border
Near Johri Enclave Metro Station, Ghaziabad
Uttar Pradesh - 201102
Mob: +918595176179 , **Ph:** 011-71862260
Email: Info@blueskylab.in

TEST REPORT

TC-9825

Report No.: SC24EPF17922_1	Dated: 26/10/2024
ULR: TC982524000002199F	Page 1 of 108
Discipline: Electronics	Group: IT Equipment

Manufacturer:	Xinsu Global Electronic Co., Limited 3RD FLOOR, NO.1 BUILDING, C DISTRICT,108 HONGHU ROAD, YANLUO STREET, BAOAN DISTRICT, SHENZHEN, GUANGDONG, CHINA, GUANGDONG, 518127
Test item:	SWITCHING POWER SUPPLY (Power Adaptor for IT Equipment)
Identification:	Serial No.: Nil

S. No.	Models
1.	XSG1801000 (Lead model)
2.	XSG1800500
3.	XSG1681000
4.	XSG1500800
5.	XSG1261000
6.	XSG1201000
7.	XSG1200500
8.	XSG0841500
9.	XSG0841000
10.	XSG0600600

Receipt No.:	SC24EPF17922 Date of receipt: 30/09/2024
Testing laboratory and its address:	BLUESKY LAB LLP 1st, 2nd, 3rd Floor, Plot no 62, 63 Ganga Enclave, Behta Hajipur, Loni Border, Main Delhi Saharanpur Road, Near Johri Enclave Metro Station, Ghaziabad, Uttar Pradesh-201102
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:	This report consists of 108 pages.

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

Tested by:	Reviewed by / Authorized Signatory:	Issued by:
Yugank	BlueSky Lab LLP INDIA	
Testing Engineer: Yugank Priyam	Technical Manager: Kapil Kumar Dhaka	C.E.O.: Kapil Kumar Dhaka
Date: 26/10/2024	Date: 26/10/2024	Date: 26/10/2024

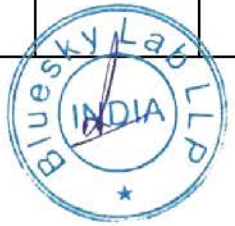
TEST REPORT
IS 13252 (Part 1): 2010 + A1: 2013+ A2: 2015 /
IEC 60950-1: 2005 + A1: 2009 + A2: 2013
Information technology equipment – Safety –
Part 1: General requirements
"Power Adapter for IT Equipment"

Report Reference No. ..... :	SC24EPF17922_1
Date of issue ..... :	26/10/2024
Total number of pages	108
Testing Laboratory ..... :	BLUESKY LAB LLP
Address ..... :	1st, 2nd, 3rd Floor, Plot no 62, 63 Ganga Enclave, Behta Hajipur, Loni Border, Main Delhi Saharanpur Road, Near Johri Enclave Metro Station, Ghaziabad, Uttar Pradesh-201102
Manufacturer's name ..... :	Xinsu Global Electronic Co., Limited
Address ..... :	3RD FLOOR, NO.1 BUILDING, C DISTRICT,108 HONGHU ROAD, YANLUO STREET, BAOAN DISTRICT, SHENZHEN, GUANGDONG, CHINA, GUANGDONG, 518127
Test specification:	
Standard ..... :	IS 13252 (Part 1): 2010 + A1: 2013+ A2:2015 / IEC 60950-1: 2005 + A1: 2009 +A2:2013
Test procedure ..... :	Compliance Report
Non-standard test method ..... :	N/A
Test Report Form No. ..... :	BIS_IT/PA_IS13252_V1.3
Test Report Form(s) Originator ..... :	Bureau of Indian Standards
Master TRF ..... :	03/06/2016
Test item description ..... :	SWITCHING POWER SUPPLY (Power Adaptor for IT Equipment)
Trade Mark ..... :	Xinsu Global®
Model/Type reference ..... :	Lead Model: XSG1801000
Ratings ..... :	(See Copy of marking label page no. 07-08) INPUT: 100-240V~, 50/60Hz, 0.6A. OUTPUT: 18.0V ⎓ 1.0A (See Copy of marking label page no. 07-08)
Other Documents submitted ..... :	Please refer to Table – List of Attachments at Page No.09

Tested by:	Reviewed by / Authorized Signatory:	Issued by:
Yugank	BlueSky Lab LLP INDIA	
Testing Engineer: Yugank Priyam	Technical Manager: Kapil Kumar Dhaka	C.E.O.: Kapil Kumar Dhaka
Date: 26/10/2024	Date: 26/10/2024	Date: 26/10/2024

Test Code	Description	Measurement/ testing	Total No. of tests	Total no. of applicable tests/ Req.	No. of tests/ Req. passed	Page No.
EL 2100	General Requirements	Components (Cl.1.5)	18	05	05	12
EL 2101	General Requirements	Power interface (Cl.1.6)	05	03	03	14
EL 2102	Marking Requirements	Marking & instructions(Cl.1.7)	39	16	16	15
EL 2103	Electrical safety	Protection from electric shock and energy hazards (Cl.2.1)	14	07	07	18
EL 2104	Electrical safety	SELV Circuits (Cl.2.2)	04	04	04	20
EL 2105	Electrical safety	TNV Circuits (Cl.2.3)	12	00	N/A	21
EL 2106	Electrical safety	Limited current circuits (Cl.2.4)	04	04	04	22
EL 2107	Electrical safety	Limited Power sources (Cl.2.5)	07	03	03	23
EL 2108	Electrical safety	Provisions for earthing and bonding (Cl.2.6)	19	00	N/A	24
EL 2109	Electrical safety	Overcurrent and earth fault protection in primary circuits (Cl.2.7)	07	05	05	26
EL 2110	Electrical safety	Safety Interlocks (Cl.2.8)	13	00	N/A	27
EL 2111	Electrical safety	Electrical Insulation (Cl.2.9)	05	05	05	28
EL 2112	Electrical safety	Clearances, Creepage distances and distances through insulation (Cl.2.10)	63	27	27	29
EL 2113	Wiring	Wiring, connections and supply (Cl.3)	11	07	07	33
EL 2114	Wiring	Connection to a main supply (Cl.3.2)	14	02	02	34
EL 2115	Wiring	Wiring terminals for connection of external conductors (Cl.3.3)	09	00	N/A	36
EL 2116	Wiring	Disconnection for the main supply (Cl.3.4)	12	05	05	37
EL 2117	Wiring	Interconnection of equipment (Cl.3.5)	05	03	03	38

EL 2118	Mechanical properties	Stability (Cl.4.1)	04	00	N/A	39
EL 2119	Mechanical properties	Mechanical strength (Cl.4.2)	13	06	06	40
EL 2120	Mechanical properties	Design and construction (Cl.4.3)	25	07	07	41
EL 2121	Mechanical properties	Protection against hazardous moving parts (Cl.4.4)	14	00	N/A	43
EL 2122	Thermal Properties	Thermal requirements (Cl.4.5)	06	06	06	44
EL 2123	Mechanical properties	Openings in Enclosures (Cl.4.6)	18	00	N/A	45
EL 2124	Fire Safety	Resistance to fire (Cl.4.7)	25	10	10	47
EL 2125	Insulating properties	Electrical requirements and simulated abnormal conditions(Cl.5),5.1	20	10	10	52
EL 2126	Insulating properties	Electric Strength (Cl.5.2)	03	03	03	54
EL 2127	Insulating properties	Abnormal operating and fault conditions (Cl.5.3)	11	07	07	55
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	56
EL 2129	Communicating connection	Protection of equipment users from overvoltages on telecommunication networks (Cl.6.2)	06	00	N/A	58
EL 2130	Communicating connection	Protection of the telecommunication wiring system from overheating (Cl.6.3)	05	00	N/A	59
EL 2131	Connection to cable distribution systems	Connection to cable distribution systems (Cl.7)	08	00	N/A	61
EL 2132	Fire safety	Tests for resistance to heat and fire (Annex A)	20	02	02	62
EL 2133	Insulating properties	Motor tests under abnormal conditions (Annex B)	19	00	N/A	64
EL 2134	Electrical Safety	Transformers (Annex C)	03	03	03	66



EL 2135	Insulating properties	Measuring Instruments For Touch-Current Tests (Annex D)	03	02	02	67
EL 2136	Thermal Properties	Temperature Rise Of A Winding(Annex E)	01	00	N/A	68
EL 2137	Electrical safety	Measurement Of Clearances And Creepage Distances(Annex F)	01	01	01	69
EL 2138	Electrical safety	Alternative Method For Determining Minimum Clearances(Annex G)	17	00	N/A	70
EL 2139	Radiation Safety	Ionizing Radiation(Annex H)	01	00	N/A	72
EL 2140	Electrical Safety	Table of electrochemical potentials (Annex J)	01	00	N/A	73
EL 2141	General Requirements	Thermal controls (Annex K)	07	00	N/A	74
EL 2142	General Requirements	Normal load conditions for some types of electrical business equipment (Annex L)	08	02	02	75
EL 2143	Electrical Safety	Criteria for telephone ringing signals (Annex M)	13	00	N/A	76
EL 2144	Electrical safety	Impulse Test Generators(Annex N)	03	00	N/A	77
EL 2145	General Requirements	Normative References(Annex P)	01	00	N/A	78
EL 2146	General Requirements	Voltage dependent resistors (VDRs) (Annex Q)	03	00	N/A	79
EL 2147	General Requirements	Examples Of Requirements For Quality Control Programmes(Annex R)	03	00	N/A	80
EL 2148	General Requirements	Procedure For Impulse Testing (Annex S)	04	00	N/A	81
EL 2149	Protection against Ingress of water	Guidance On Protection Against Ingress Of Water (Annex T)	01	00	N/A	82
EL 2150	Wiring	Insulated Winding Wires For Use Without Interleaved Insulation (Annex U)	17	00	N/A	83

EL 2151	Electrical Safety	Ac Power Distribution Systems(Annex V)	05	03	03	84
EL 2152	Electrical Safety	Summation Of Touch Currents (Annex W)	08	00	N/A	85
EL 2153	Electrical Safety	Maximum Heating Effect In Transformer Tests(Annex X)	03	03	03	86
EL 2154	Radiation safety	Ultraviolet light conditioning test (Annex Y)	05	00	N/A	87
EL 2155	Electrical Safety	Overvoltage Categories (Annex Z)	01	01	01	88
EL 2156	Mechanical properties	Mandrel Test(Annex AA)	01	00	N/A	89
EL 2158	Electrical Safety	Evaluation Of Integrated Circuit (IC) Current Limiters (Annex CC)	06	00	N/A	90
EL 2159	Mechanical properties	Requirements For The Mounting Means Of Rack-Mounted Equipment (Annex DD)	04	00	N/A	91
EL 2160	Electrical Safety	Household And Home/Office Document/Media Shredders (Annex EE)	06	00	N/A	92

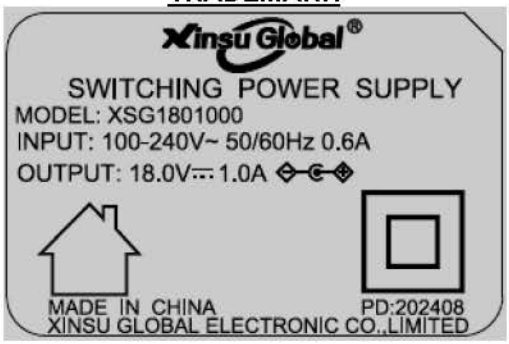
Certificate: It is certified that the above tests were performed and found to be passing/ ~~failing~~ in the requirement tested.

.....

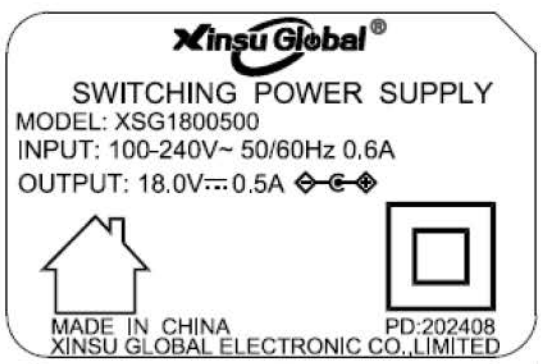
(Approving Authority)

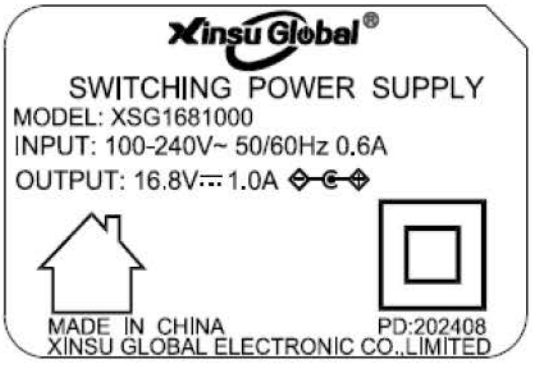
Copy of marking plate:

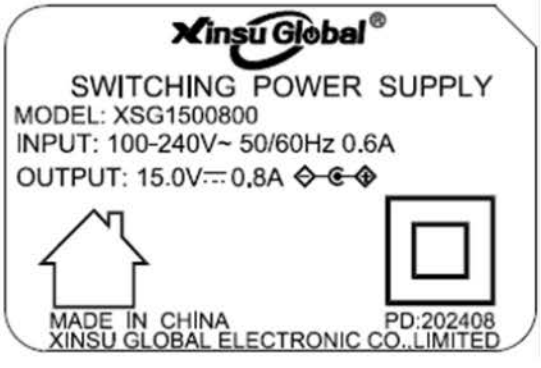
TRADEMARK

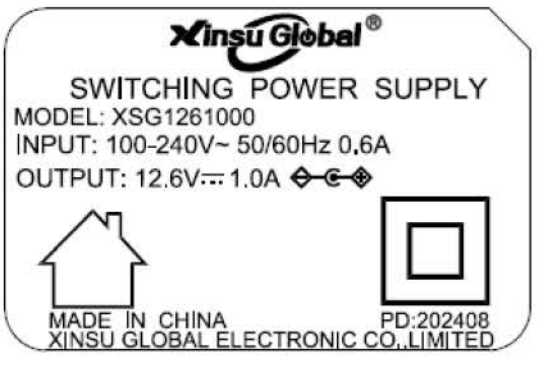


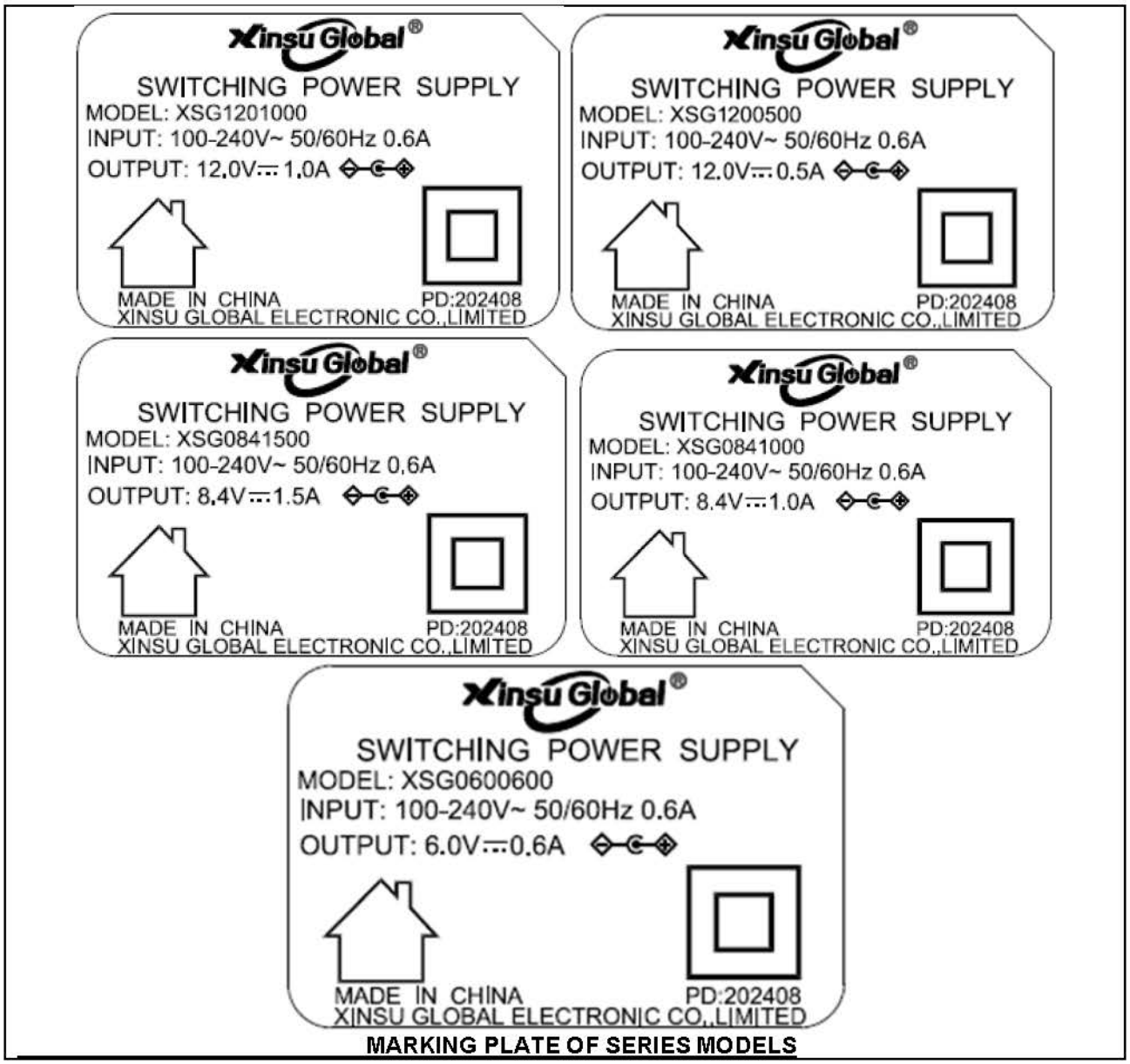
MARKING PLATE OF LEAD MODEL











MARKING PLATE OF SERIES MODELS

Table – List of Attachments

Attachment No.	Attachment Description	No. of pages in Attachment
Attachment-1	Plug dimension	106
Attachment-2	Photographs	107-108

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 ..... : As below

Date of receipt of test item .....: 30/09/2024

Date(s) of performance of tests .....: 30/09/2024 to 26/10/2024

Laboratory conditions ..... : As below

Ambient Temperature .....: (23±5)°C

Ambient Humidity .....: <70 % RH

Test item particulars ..... :	SWITCHING POWER SUPPLY(Power Adapter for IT Equipment)
Equipment mobility ..... :	☒ movable ☐ hand-held ☒ transportable ☐ stationary ☐ for building-in ☒ direct plug-in
Connection to the mains ..... :	☒ pluggable equipment ☒ type A ☐ type B ☐ permanent connection ☐ detachable power supply cord ☐ non-detachable power supply cord ☐ not directly connected to the mains
Operating condition ..... :	☒ continuous ☐ rated operating / resting time:
Access location ..... :	☒ operator accessible ☐ restricted access location
Over voltage category (OVC) ..... :	☐ OVC I ☒ OVC II ☐ OVC III ☐ OVC IV ☐ other:
Mains supply tolerance (%) or absolute mains supply values ..... :	-10%, +6%
Class of equipment ..... :	☐ Class I ☒ Class II ☐ Class III ☐ Not classified
Considered current rating of protective device as a part of the building installation (A) ..... :	16A
Pollution degree (PD) ..... :	☐ PD 1 ☒ PD 2 ☐ PD 3
IP protection class ..... :	IPX0
Altitude during operation (m) ..... :	Up to 2000
Altitude of test laboratory (m) ..... :	<1000
Mass of equipment (kg) ..... :	0.077 Kg.

Abbreviations that may be used throughout this test report:

PE/PB.....:	protective earth/protective bonding	Pri.....:	primary
CB .....:	circuit breaker	sec.....:	secondary
(SW)PS .....:	(switching) power supply	gnd .....:	ground
HV .....:	high voltage	I/O .....:	input/output
PCB.....:	printed circuit (wiring) board	ii .....:	installation instruction
TIW .....:	triple insulated wire	PSU .....:	Power Supply Unit

B/I.....: built-in application (compliance shall be guarantee in host equipment)

F/B/S/R : Functional/Basic/Supplementary/Reinforced Insulation

General product information:	
1) Application details / Description of the product: The Equipment under test is Class II, SWITCHING POWER SUPPLY (Power Adaptor for IT Equipment) with Lead Model: "XSG1801000" having rated INPUT: 100-240V~, 50/60Hz, 0.6A. & OUTPUT: 18V ⎓ 1.0A (Copy of marking plate page no. 07-08). This SWITCHING POWER SUPPLY is considered as movable, transportable and direct plug-in equipment.	
Max. specified ambient temperature (°C) . :	40°C
2) Similarities.....:	All models have a) Same rated input voltage. b) Same class of construction. c) Same mains PCB design layout and transformer.
3) Differences between the models.....:	Model Name & Output Rating
Model No. tested with-in the family series...:	XSG1801000 (Worst case)
4) 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.	

Tests relating to General Requirements **EL 2100 – V1.4**

Cl. 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	P
	Components shall be complying with IEC 60950-1 or relevant component standard.		Complies	P
	Components and subassemblies approved for IEC 62368-1 can be considered as complying with this standard		No such components and subassemblies used	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)	P
1.5.3	Thermal controls	EL 2100-03	No thermal controls	N/A
1.5.4	Transformers	EL 2100-04	See Annex C	P
1.5.5	Interconnecting cables*	EL 2100-05	Suitable internal wire used	P
1.5.6	Capacitors bridging insulation *	EL 2100-06	Capacitors used in accordance with their rating and complied with subclasses of IEC 60384-14 (See table 1.5.1)	P
1.5.7	Resistors bridging insulation	EL 2100-07	See below	N/A
1.5.7.1	Resistors bridging functional, basic or supplementary insulation*	EL 2100-08	No such circuit	N/A
1.5.7.2	Resistors bridging double or reinforced insulation between a.c. mains and other circuits	EL 2100-09	No such circuit	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	No such circuit	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	No such constrution	N/A
1.5.9.1	General*	EL 2100-13	See above Cl.no. 1.5.9	N/A

Tests relating to General Requirements **EL 2100 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
1.5.9.2	Protection of VDRs*	EL 2100-14	See above Cl.no. 1.5.9	N/A
1.5.9.3	Bridging of functional insulation by a VDR*	EL 2100-15	See above Cl.no. 1.5.9	N/A
1.5.9.4	Bridging of basic insulation by a VDR*	EL 2100-16	See above Cl.no. 1.5.9	N/A
1.5.9.5	Bridging of supplementary, double or reinforced insulation by a VDR*	EL 2100-17	See above Cl.no. 1.5.9	N/A

*- Total number of Requirements to be observed/ inspected =10
Total No of applicable Requirement = 02
No of Requirements for which the sample passed = 02

Total number of tests to be conducted = 08
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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(Approving Authority)

Tests relating to Electrical Safety **EL 2101 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
1.6	Power interface*	EL 2101-00		P
1.6.1	AC power distribution systems*	EL 2101-01	TN power distribution systems	P
1.6.2	Input current	EL 2101-02	The steady state input current of the equipment did not exceed the RATED CURRENT by more than 10% under NORMAL LOAD (See table 1.6.2)	P
1.6.3	Voltage limit of hand-held equipment*	EL 2101-03	Not a hand- held equipment	N/A
1.6.4	Neutral conductor *	EL 2101-04	Class II equipment	N/A

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

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

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(Approving Authority)

Tests relating to Marking Requirements **EL 2102 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
1.7	Marking and instructions*	EL 2102-00	In Compliance	P
1.7.1	Power rating and identification markings		See below	P
1.7.1.1	Power rating marking*	EL 2102-01	See below	P
	Rated voltage(s) or voltage ranges(s) (V)*.	EL 2102-02	100-240V~	P
	Multiple mains supply connections*.	EL 2102-03	No multiple mains supply	N/A
	Symbol for nature of supply, for d.c. only*:	EL 2102-04	AC Supply	N/A
	Rated frequency or rated frequency range (Hz) *:	EL 2102-05	50/60Hz	P
	Rated current (mA or A)*:	EL 2102-06	0.6A	P
1.7.1.2	Identification markings*	EL 2102-07	See below	P
	Manufacturer's name or trade-mark or identification mark *:	EL 2102-08	Xinsu Global®	P
	Model identification or type reference *:	EL 2102-09	XSG1801000	P
	Symbol for Class II equipment only* :	EL 2102-10	☐ Symbol marked on marking plate	P
	Other markings and symbols*:	EL 2102-11	Other markings and symbols does not give rise to misunderstanding	P
1.7.1.3	Use of graphical symbols*	EL 2102-12	Complies	P
1.7.2	Safety instructions and marking*	EL 2102-13	Instruction manual provided	P
1.7.2.1	General	EL 2102-14	See above	P
1.7.2.2	Disconnect devices*	EL 2102-15	Plug is part of direct plug-in equipment, considered as disconnect device	P
1.7.2.3	Overcurrent protective devices*	EL 2102-16	Pluggable equipment type A	N/A
1.7.2.4	IT power distribution systems*	EL 2102-17	Not for IT power distribution systems	N/A
1.7.2.5	Operator access with a tool*	EL 2102-18	No tool is required	N/A
1.7.2.6	Ozone*	EL 2102-19	Ozone not produced	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 power outlets	N/A

Tests relating to Marking Requirements **EL 2102 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
1.7.6	Fuse identification (marking, special fusing characteristics, cross-reference) Fuse(s) shall clearly and adequately marked with fuse number and rating*.	EL 2102-23	Certified Fuse (F1) used (See table 1.5.1)	P
1.7.7	Wiring terminals	EL 2102-24	See below	N/A
1.7.7.1	Protective earthing and bonding terminals*	EL 2102-25	Class II equipment	N/A
1.7.7.2	Terminals for a.c. mains supply conductors*	EL 2102-26	Direct plug-in equipment	N/A
1.7.7.3	Terminals for d.c. mains supply conductors*	EL 2102-27	Not connected to dc mains supply	N/A
1.7.8	Controls and indicators	EL 2102-28	No such controls and indicators	N/A
1.7.8.1	Identification, location and marking *:	EL 2102-29	See above Cl.no. 1.7.8	N/A
1.7.8.2	Colours*	EL 2102-30	See above Cl.no. 1.7.8	N/A
1.7.8.3	Symbols according to IEC 60417*:	EL 2102-31	No such symbol used	N/A
1.7.8.4	Markings using figures* :	EL 2102-32	No such equipment	N/A
1.7.9	Isolation of multiple power sources*	EL 2102-33	No multiple power source	N/A
1.7.10	Thermostats and other regulating devices*	EL 2102-34	No thermostat or other regulating device	N/A
1.7.11	Durability	EL 2102-35	Marking is legible and durable after test	P
1.7.12	Removable parts*	EL 2102-36	No such removable parts	N/A
1.7.13	Replaceable batteries*	EL 2102-37	No battery used	N/A
	Language(s)		See above	N/A
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 = 34
Total No of applicable Requirement = 14
No of Requirements for which the sample passed = 14

Total number of tests to be conducted = 05
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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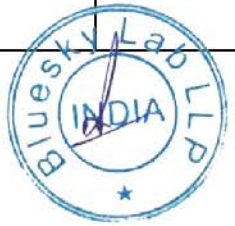
(Approving Authority)

Tests relating to Electrical Safety **EL 2103 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
2.1	Protection from electric shock and energy hazards*	EL 2103-00		P
2.1.1	Protection in operator access areas*	EL 2103-01	Complies	P
2.1.1.1	Access to energized parts	EL 2103-02	Complies	P
	Test by inspection :		No hazardous parts are accessible to user	P
	Test with test finger (Figure 2A)		No access to any parts at hazardous voltage with the test finger	P
	Test with test pin (Figure 2B):		The test pin cannot touch bare hazardous parts	P
	Test with test probe (Figure 2C)		No TNV circuits	N/A
2.1.1.2	Battery compartments *	EL 2103-03	No battery compartment	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 access to hazardous voltage circuit wiring	P
2.1.1.5	Energy hazards :	EL 2103-06	No hazardous energy levels (See table 2.1.1.5)	P
2.1.1.6	Manual controls	EL 2103-07	No such Manual controls	N/A
2.1.1.7	Discharge of capacitors in equipment		No such construction	N/A
	Measured voltage (V); time-constant (s):	EL 2103-08	See above	N/A
2.1.1.8	Energy hazards – d.c. mains supply		No dc mains 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



Tests relating to Electrical Safety **EL 2103 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
2.1.1.9	Audio amplifiers to be tested according to IEC 60065, cl. 9.1.1.:	EL 2103-11	Not such equipment	N/A
2.1.2	Protection in service access areas	EL 2103-12	Unintentional contact with hazardous bare parts during service operation is not likely	P
2.1.3	Protection in restricted access locations	EL 2103-13	Not for restricted access locations	N/A

*- Total number of Requirements to be observed / inspected = 03
Total No of applicable Requirement = 02
No of Requirements for which the sample passed = 02

Total number of tests to be conducted = 11
Total No of applicable Tests = 04
No. of tests for which the sample passed = 04

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

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(Approving Authority)

Tests relating to Electrical Safety **EL 2104 – V1.4**

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

*- 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 = 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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(Approving Authority)

Tests relating to Electrical Safety **EL 2105 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
2.3	TNV circuits*	EL 2105-00	No TNV circuits	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 : $\frac{U_{ac}}{71} + \frac{U_{dc}}{120} \leq 1$	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 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 = 10
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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(Approving Authority)

Tests relating to Electrical Safety **EL 2106 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
2.4	Limited current circuits *	EL 2106-00	In Compliance	P
2.4.1	General requirements *	EL 2106-01	See below	P
2.4.2	Limit values	EL 2106-02	See table 2.4.2	P
2.4.3	Connection of limited current circuits to other circuits*	EL 2106-03	In Compliance	P

*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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(Approving Authority)

Tests relating to Electrical Safety **EL 2107 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
2.5	Limited power sources *	EL 2107-00		P
	a) Inherently limited output	EL 2107-01	In compliance with table 2B (See table 2.5)	P
	b) Impedance limited output	EL 2107-02	No impedance limited output	N/A
	c) Regulating network limited output under normal operating and single fault condition Use of integrated circuit (IC) current limiters	EL 2107-03	No such type of integrated circuit used	N/A
	d) Overcurrent protective device limited output	EL 2107-04	No such protective device	N/A
	Max. output voltage (V), Max. output current (A), Max. apparent power (VA)	EL 2107-05	See table 2.5	P
	Current rating of overcurrent protective device (A)	EL 2107-06	See above cl. no. 2.5d)	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 = 06
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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(Approving Authority)

Tests relating to Electrical Safety **EL 2108 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
2.6	Provisions for earthing and bonding*	EL 2108-00	Class II equipment	N/A
2.6.1	Protective earthing	EL 2108-01	See above cl. no. 2.6	N/A
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	See above cl. no. 2.6	N/A
	Use of symbol for functional earthing:*	EL 2108-03	See above cl. no. 2.6	N/A
2.6.3	Protective earthing and protective bonding conductors*	EL 2108-04	See above cl. no. 2.6	N/A
2.6.3.2	Size of protective earthing conductors	EL 2108-05	See above cl. no. 2.6	N/A
	Rated current (A), cross-sectional area (mm2),		See above cl. no. 2.6	N/A
2.6.3.3	Size of protective bonding conductors	EL 2108-06	See above cl. no. 2.6	N/A
	Protective current Rating (A), cross-sectional area (mm2)		See above cl. no. 2.6	N/A
2.6.3.4	Resistance of earthing conductors and their terminations; resistance (Ω), voltage drop (V), test current (A), duration (min):	EL 2108-07	See above cl. no. 2.6	N/A
2.6.3.5	Colour of insulation*:	EL 2108-08	See above cl. no. 2.6	N/A
2.6.4	Terminals		See above cl. no. 2.6	N/A
2.6.4.2	Protective earthing and bonding terminals : Rated current(A), Type, Nominal thread diameter (mm)	EL 2108-09	See above cl. no. 2.6	N/A
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors*	EL 2108-10	See above cl. no. 2.6	N/A
2.6.5	Integrity of protective earthing*		See above cl. no. 2.6	N/A
2.6.5.1	Interconnection of equipment*	EL 2108-11	See above cl. no. 2.6	N/A

2.6.5.2	Components in protective earthing conductors and protective bonding conductors*	EL 2108-12	See above cl. no. 2.6	N/A
2.6.5.3	Disconnection of protective earth*	EL 2108-13	See above cl. no. 2.6	N/A
2.6.5.4	Parts that can be removed by an operator*	EL 2108-14	See above cl. no. 2.6	N/A
2.6.5.5	Parts removed during servicing*	EL 2108-15	See above cl. no. 2.6	N/A
2.6.5.6	Corrosion resistance*	EL 2108-16	See above cl. no. 2.6	N/A
2.6.5.7	Screws for protective bonding*	EL 2108-17	See above cl. no. 2.6	N/A
2.6.5.8	Reliance on telecommunication network or cable distribution system*	EL 2108-18	See above cl. no. 2.6	N/A

*- Total number of Requirements to be observed /inspected = 14
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 the requirement tested.

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(Approving Authority)

Tests relating to Electrical Safety **EL 2109 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
2.7	Overcurrent and earth fault protection in primary circuits*	EL 2109-00		P
2.7.1	Basic requirements: Protection in primary circuits against overcurrents, 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	The equipment relies on Fuse (F1) (See table 1.5.1)	P
	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 overcurrent 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	P
2.7.3	Short-circuit backup protection	EL 2109-03	Complies	P
2.7.4	Number and location of protective devices :	EL 2109-04	Certified Fuse (F1) used in line	P
2.7.5	Protection by several devices*	EL 2109-05	Protection by single device	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 = 04
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 = 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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(Approving Authority)

Tests relating to Electrical Safety **EL 2110 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
2.8	Safety Interlocks*	EL 2110-00	No safety interlocks present in equipment	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 = 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

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

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(Approving Authority)

Tests relating to Electrical Safety **EL 2111 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
2.9	Electrical insulation*	EL 2111-00		P
2.9.1	Properties of insulating materials*	EL 2111-01	Natural rubber, materials containing asbestos and hygroscopic materials are not used	P
2.9.2	Humidity conditioning	EL 2111-02	See below	P
	Relative Humidity : 93 ±3 %, Temperature: t at 40 ± 2°C Duration : 120 hours		Relative humidity: 93% Temperature: 40°C Tested for 120 hours	P
2.9.3	Grade of insulation*	EL 2111-03	Primary and secondary: reinforced insulation Others: functional insulation	P
2.9.4	Separation from hazardous voltages*	EL 2111-04	The adequate levels of safety insulation provided and maintained to comply with the requirements of this standard	P
	Method(s) used		Method 1(b) used	P

*- 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 above tests were performed and found to be passing/ ~~failing~~ in the requirement tested.

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(Approving Authority)

Tests relating to Electrical Safety **EL 2112 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
2.10	Clearances, creepage distances and distances through Insulation*	EL 2112-00	See below	P
2.10.1.1	Frequency *	EL 2112-01	Complies	P
2.10.1.2	Pollution degrees*	EL 2112-02	Pollution degree 2	P
2.10.1.3	Reduced values for functional insulation	EL 2112-03	Complies with cl.no.5.3.4 c)	P
2.10.1.4	Intervening unconnected conductive parts	EL 2112-04	No unconnected conductive parts used	N/A
2.10.1.5	Insulation with varying dimensions	EL 2112-05	No such transformer	N/A
2.10.1.6	Special separation requirements	EL 2112-06	Special separation is 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	P
2.10.2.2	RMS working voltage	EL 2112-09	See table 2.10.2	P
2.10.2.3	Peak working voltage	EL 2112-10	See table 2.10.2	P
2.10.3	Clearances	EL 2112-11	See below cl. no. 2.10.3.1 to 2.10.3.9	P
2.10.3.1	General	EL 2112-12		P
2.10.3.2	Mains transient voltages*		See below	P
	a) AC mains supply * :	EL 2112-13	Overvoltage category II, mains transient voltage 2500Vpeak	P
	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	P
2.10.3.4	Clearances in secondary circuits	EL 2112-18	Complies with cl. no. 5.3.4c)	P
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 1500Vpeak	P

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 distribution systems	EL 2112-22	No telecommunication network and cable distribution systems	N/A
2.10.3.9	Measurement of transient voltages			N/A
	a) Transients from a mains supply	EL 2112-23		N/A
	For an a.c. mains supply			N/A
	For a d.c. mains supply			N/A
	b) Transients from a telecommunication network	EL 2112-24		N/A
2.10.4	Creepage distances*	EL 2112-25	See below cl.no.2.10.4.1 to 2.10.4.3	P
2.10.4.1	General	EL 2112-26		P
2.10.4.2	Material group and comparative tracking index : CTI tests*	EL 2112-27	Material group IIIb assumed	P
2.10.4.3	Minimum creepage distances	EL 2112-28	See table 2.10.3 and 2.10.4	P
2.10.5	Solid insulation	EL 2112-29	See below	P
2.10.5.1	General	EL 2112-30		P
2.10.5.2	Distances through insulation	EL 2112-31	See table 2.10.5	P
2.10.5.3	Insulating compound as solid insulation	EL 2112-32	No such components used	N/A
2.10.5.4	Semiconductor devices	EL 2112-33		N/A
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	P
2.10.5.7	Separable thin sheet material	EL 2112-36	See above cl. no. 2.10.5.6	P
2.10.5.8	Non-separable thin sheet material	EL 2112-37	Separable thin sheet material used	N/A
2.10.5.9	Thin sheet material – standard test procedure	EL 2112-38	Alternative 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 on each layer of the insulation tape	P
	Electric strength test as per Cl.5.2.2		See table 5.2	P

2.10.5.11	Insulation in wound components	EL 2112-40	Electric strength test applied on Transformer (T1)	P
2.10.5.12	Wire in wound components		Certified wire used	P
	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		N/A
	d) Where two winding wires in contact inside wound component; angle between 45° and 90°	EL 2112-44	Physical separation in the form of insulation sheet material or tube to relieve mechanical strength at the crossover point	P
2.10.5.13	Wire with solvent-based enamel in wound components		No such wound components 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
	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 wound components used	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 board used	P
2.10.6.1	Uncoated printed boards	EL 2112-49	See above	P
2.10.6.2	Coated printed boards	EL 2112-50	Uncoated printed board 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 specification 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 board 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		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		N/A
2.10.12	Enclosed and sealed parts	EL 2112-62	No enclosed sealed parts	N/A

*- Total number of Requirements to be observed / inspected = 10
Total No of applicable Requirement = 06
No of Requirements for which the sample passed = 06

Total number of tests to be conducted = 53
Total No of applicable Tests = 21
No. of tests for which the sample passed= 21

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

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(Approving Authority)

Tests relating to Wiring **EL 2113 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
3.0	Wiring, connections and supply*	EL 2113-00	See below	P
3.1.1	Current rating and overcurrent protection	EL 2113-01	Adequate cross sectional areas on internal wiring	P
3.1.2	Protection against mechanical damage*	EL 2113-02	Wire ways are smooth and free from sharp edges	P
3.1.3	Securing of internal wiring*	EL 2113-03	The wires are positioned in such a manner that prevents excessive strain, loosening of terminal connections and damage of conductor insulation	P
3.1.4	Insulation of conductors	EL 2113-04	Insulation on internal conductors is considered to be of adequate quality and suitable for the application	P
3.1.5	Beads and ceramic insulators	EL 2113-05	No beads and ceramic insulators	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	P
3.1.8	Self-tapping and spaced thread screws*	EL 2113-08	Self-tapping and spaced thread screws not 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	P
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	= 03
No of Requirements for which the sample passed	= 03
Total number of tests to be conducted	= 04
Total No of applicable Tests	= 04
No. of tests for which the sample passed	= 04

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

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(Approving Authority)

Tests relating to Wiring **EL 2114 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
3.2	Connection to a mains supply*	EL 2114-00		P
3.2.1	Means of connection		See below	P
3.2.1.1	Connection to an a.c. mains supply*	EL 2114-01	The equipment is intended for direct plug-in	P
	As per IS 13252 (Part 1): 2010 Cl.No.3.2.1.1, Note: It is a legal requirement to provide a plug that complies with the national wiring rules		Adapter plug conforming to the requirements of dimensions for 2.5A plug as per IS 1293:2019 (See Attachment no. 1)	P
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	Direct plug-in equipment	N/A
3.2.5	Power supply cords		Direct plug-in equipment	N/A
3.2.5.1	AC power supply cords*	EL 2114-06	See above cl. no. 3.2.5	N/A
	Rated current (A), cross-sectional area (mm²), AWG		See above cl. no. 3.2.5	N/A
3.2.5.2	DC power supply cords*	EL 2114-07	See above cl. no. 3.2.5	N/A
3.2.6	Cord anchorages and strain relief		See above cl. no. 3.2.5	N/A
	Mass of the equipment: Pull Force (N):	EL 2114-08	See above cl. no. 3.2.5	N/A
	b) Longitudinal displacement: 2 mm (Max)	EL 2114-09	See above cl. no. 3.2.5	N/A
3.2.7	Protection against mechanical damage	EL 2114-10	See above cl. no. 3.2.5	N/A

3.2.8	Cord guards		See above cl. no. 3.2.5	N/A
	a) Diameter or minor dimension D (mm) : Test mass (g) :	EL 2114-11	See above cl. no. 3.2.5	N/A
	b) Radius of curvature of cord : 1.5 D (Min)	EL 2114-12	See above cl. no. 3.2.5	N/A
3.2.9	Supply wiring space	EL 2114-13	See above cl. no. 3.2.5	N/A

*Total number of Requirements to be observed / inspected	= 05
Total No of applicable Requirement	= 02
No of Requirements for which the sample passed	= 02
Total number of tests to be conducted	= 09
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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(Approving Authority)

Tests relating to Wiring **EL 2115 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
3.3	Wiring terminals for connection of external conductors*	EL 2115-00	No wiring terminals	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 the above tests were performed and found to be passing/ ~~failing~~ in the requirement tested.

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(Approving Authority)

Tests relating to Wiring **EL 2116 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
3.4	Disconnection from the mains supply*	EL 2116-00		P
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	See below	P
3.4.2	Disconnect devices*	EL 2116-02	Plug is a part of direct plug -in equipment, considered as disconnect device	P
3.4.3	Permanently connected equipment*	EL 2116-03	Not permanently connected equipment	N/A
3.4.4	Parts which remain energized*	EL 2116-04	No such parts	N/A
3.4.5	Switches in flexible cords*	EL 2116-05		N/A
3.4.6	Number of poles - single-phase and d.c. equipment*	EL 2116-06	Disconnect device disconnects both poles simultaneously	P
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	No such switches used	N/A
3.4.9	Plugs as disconnect devices*	EL 2116-09	Plug is a part of direct plug -in equipment, considered as disconnect device	P
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 tests were performed and found to be passing/ ~~failing~~ in the requirement tested.

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(Approving Authority)

Tests relating to Wiring **EL 2117 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
3.5	Interconnection of equipment*	EL 2117-00		P
3.5.1	General requirements*	EL 2117-01	See below	P
3.5.2	Types of interconnection circuits*	EL 2117-02	SELV-SELV connection only	P
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	No such data ports for additional equipment	N/A

*- 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 = 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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(Approving Authority)

Tests relating to Mechanical Properties **EL 2118 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
4	PHYSICAL REQUIREMENTS*	EL 2118-00		P
4.1	Stability	EL 2118-01	Mass of the equipment is 0.077 Kg.	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	Mass <7Kg.	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 is applied 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 above tests were performed and found to be passing/ ~~failing~~ in the requirement tested.

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(Approving Authority)

TRF No. BIS_IT/PA_IS13252_V1.3

Tests relating to Mechanical Properties **EL 2119 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
4.2	Mechanical Strength	EL 2119-00		P
4.2.1	General	EL 2119-01	See below	P
4.2.2	Steady force test, 10 N	EL 2119-02	Applied to relevant parts, No Hazard seen after the Test	P
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 All side of the enclosure. Result: No damage, no hazards	P
4.2.5	Impact test	EL 2119-05	Direct plug-in 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	Dropped three times from a height of 1000mm Result: No damage, no hazards	P
4.2.7	Stress relief test	EL 2119-09	Test performed at 70°C for 7 hours, Result: no deformation and shrinkage of enclosure	P
4.2.8	Cathode Ray Tubes	EL 2119-10		N/A
4.2.9	High Pressure Lamps*	EL 2119-11	No such lamps used	N/A
4.2.10	Wall or ceiling mounted equipment; force(N)	EL 2119-12	No such equipment	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 = 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 the requirement tested.

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(Approving Authority)

TRF No. BIS_IT/PA_IS13252_V1.3

Tests relating to Mechanical Properties **EL 2120 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
4.3	Design and Construction*	EL 2120-00		P
4.3.1	Edges and corners*	EL 2120-01	All edges and corners accessible to operator are rounded and smoothed	P
4.3.2	Handles and manual controls; force (N)	EL 2120-02	Handles and manual controls not used	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 stresses occurring in normal use	P
4.3.5	Connections by Plugs and Sockets*	EL 2120-05	No misconnection likely to create hazard	P
4.3.6	Direct plug-in equipment	EL 2120-06	Torque observed is less than 0.25Nm & Plug dimension complies with IS: 1293:2019 (See attachment no. 1)	P
	Torque	EL 2120-07	See above cl. no. 4.3.6	P
	Compliance with the relevant mains plug standard	EL 2120-08	See above cl. no. 4.3.6	P
4.3.7	Heating elements in earthed equipment*	EL 2120-09	No heating elements in the equipment	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		No battery used	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	Oil and grease not used	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		No Radiation produced by equipment	N/A
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	See above	N/A
4.3.13.4	Human exposure to ultraviolet (UV) radiation	EL 2120-21	See above	N/A
4.3.13.5	Lasers (including laser diodes) and LED's:		No laser used nor LED's	N/A
4.3.13.5.1	Lasers (including laser diodes) For laser see IEC 60825-1, respective part as applicable.	EL 2120-22	See above	N/A
	Laser class		See above	N/A
4.3.13.5.2	Light emitting diodes (LED's)	EL 2120-23	No LED's Used	N/A
4.3.13.6	Other types*	EL 2120-24	No other type of radiation	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 = 04

No. of tests for which the sample passed = 04

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

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(Approving Authority)

Tests relating to Mechanical Properties **EL 2121 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
4.4	Protection against hazardous moving parts	EL 2121-00	No hazardous moving parts	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 that the above tests were performed and found to be passing/ ~~failing~~ in the requirement tested.

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(Approving Authority)

Tests relating to Thermal Properties **EL 2122 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
4.5	Thermal Requirements*	EL 2122-00	Components, parts temperature within limits	P
4.5.1	General	EL 2122-01	Operated in the most unfavorable way of operation until steady conditions established. (see table 4.5)	P
4.5.2	Temperature tests	EL 2122-02	See table 4.5	P
4.5.3	Temperature limits for materials*	EL 2122-03	See table 4.5	P
4.5.4	Touch temperature limits*	EL 2122-04	See table 4.5	P
4.5.5	Resistance to abnormal heat	EL 2122-05	See table 4.5.5	P

*- 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 the requirement tested.

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(Approving Authority)

Tests relating to Mechanical Properties **EL 2123 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
4.6	Openings in enclosures*	EL 2123-00	See below	N/A
4.6.1	Top and side openings	EL 2123-01	No openings	N/A
	Dimensions (mm) :		See above cl. no. 4.6.1	N/A
4.6.2	Bottoms of fire enclosures :	EL 2123-02	See above cl. no. 4.6.1	N/A
	Construction of the bottom, dimensions (mm) :		See above cl. no. 4.6.1	N/A
4.6.3	Doors or covers in fire enclosures*	EL 2123-03	Doors or covers not used	N/A
4.6.4	Openings in transportable equipment	EL 2123-04	No openings	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	N/A
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 metalized parts	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 adhesive parts	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

*- 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 = 16
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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(Approving Authority)

Tests relating to Fire Safety **EL 2124 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
4.7	Resistance to fire*	EL 2124-00		P
4.7.1	Reducing the risk of ignition and spread of flame		See below	P
	Method 1, selection and application of components wiring and materials OR	EL 2124-01	Method 1 used (See table 1.5.1)	P
	Method 2, application of all of simulated fault condition tests	EL 2124-02	Method 2 not used	N/A
4.7.2	Conditions for a fire enclosure*		See below	P
4.7.2.1	Parts requiring a fire enclosure*	EL 2124-03	The fire enclosure is required to cover all parts	P
4.7.2.2	Parts not requiring a fire enclosure	EL 2124-04	See above cl. no. 4.7.2.1	N/A
4.7.3	Materials*	EL 2124-05	See below	P
4.7.3.1	General*	EL 2124-06	Components and materials have adequate flammability classification. (See table 1.5.1)	P
	a)Class of material used*	EL 2124-07	See above cl. no. 4.7.3.1	P
	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	No such class of material used	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	Components are mounted on V-0 class material	P

4.7.3.2	Materials for fire enclosures		See below	P
	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	Certified material used (See table 1.5.1)	P
	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	Mass <18kg	N/A
	c) Materials for components that fill an opening in 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 requirements of the relevant IEC component standard	EL 2124-12	No openings	N/A
	d) Plastic materials of a FIRE ENCLOSURE shall be located more than 13 mm through air from arcing parts such as unenclosed commutators and unenclosed switch contacts.	EL 2124-13	No such arcing parts	N/A

	e)Plastic materials of a FIRE ENCLOSURE located less than 13mm through air from non-arcing parts which, under any condition of normal or abnormal operation,could attain a temperature sufficient to ignite the material, shall be capable of passing the test of IEC 60695-2-20. The average time to ignition of the samples shall be 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.	EL 2124-14		N/A
4.7.3.3	Materials for components and other parts outside fire enclosures *		No parts outside fire enclosure	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	See above cl. no. 4.7.3.3	N/A

	b) Connectors shall comply with one of the following: − be made of V-2 CLASS MATERIAL; or − 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 a 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).	EL 2124-16	See above cl. no. 4.7.3.3	N/A
4.7.3.4	Materials for components and other parts inside fire enclosures		Certified material used (See table 1.5.1)	P
	a) Inside FIRE ENCLOSURES, materials for components and other parts shall comply with one of the following: − 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.	EL 2124-17	See above cl. no. 4.7.3.4	P
	Requirements for voltage dependent resistors (VDR's) are in Annex Q.*	EL 2124-18	No such constrution	N/A
4.7.3.5	Materials for air filter assemblies : Air filter assemblies shall be constructed of V-2 CLASS MATERIAL, or HF-2 CLASS FOAMED MATERIAL.	EL 2124-19	No air filter assemblies	N/A
4.7.3.6	Materials used in high-voltage components		No high voltage components used	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 MATERIAL, or comply with 14.4 of IEC 60065 or pass the needle flame test according to IEC 60695-11-5.	EL 2124-20	See above cl. no. 4.7.3.6	N/A
	b) Compliance is checked by inspection of the equipment and material data sheets and, if 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.	EL 2124-21	See above cl. no. 4.7.3.6	N/A
	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. 4.7.3.6	N/A
	Clause 8 - Conditioning	EL 2124-23	See above cl. no. 4.7.3.6	N/A
	Clause 11 - Evaluation of test results	EL 2124-24	See above cl. no. 4.7.3.6	N/A

*- 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 = 04
No. of tests for which the sample passed= 04

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

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(Approving Authority)

TRF No. BIS_IT/PA_IS13252_V1.3

Tests relating to Insulating Properties **EL 2125 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
5.0	ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS*	EL 2125-00		P
5.1	Touch current and protective conductor current*	EL 2125-01	See below	P
5.1.2	Configuration of equipment under test (EUT)*	EL 2125-02	See below cl. no. 5.1.2.1	P
5.1.2.1	Single connection to an a.c. mains supply*	EL 2125-03	The EUT has only one mains connections	P
5.1.2.2	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
5.1.3	Test circuit	EL 2125-06	As per figure 5A	P
5.1.4	Application of measuring instrument	EL 2125-07	Tested using figure D.1 measuring instrument of Annex D	P
5.1.5	Test procedure	EL 2125-08	See table 5.1.6	P
5.1.6	Test measurements		See below	P
	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	Instrument as per figure D.1 used	P
	c) Calculated value of TOUCH CURRENT (mA) = U2 / 500	EL 2125-11	See table 5.1.6	P
	d) Measured protective conductor current(mA)	EL 2125-12		N/A
	e) Max. protective conductor current =5% of Input current	EL 2125-13	No such equipment	N/A
5.1.7	Equipment with touch current exceeding 3.5 mA	EL 2125-14	No such equipment	N/A

5.1.7.1	General	EL 2125-15		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	Not telecommunication network	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
5.1.8.2	Summation of touch currents from telecommunication networks	EL 2125-19	See above cl. no. 5.1.8	N/A
	a) EUT with earthed telecommunication ports :		See above cl. no. 5.1.8	N/A
	b) EUT whose telecommunication ports have no reference to protective earth		See above cl. no. 5.1.8	N/A

*- 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 the requirement tested.

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(Approving Authority)

Tests relating to Insulating Properties **EL 2126 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
5.2	Electric strength*	EL 2126-00		P
5.2.1	General*	EL 2126-01	See below	P
5.2.2	Test procedure		Table 5B used	P
	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: − 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.	EL 2126-02	See table 5.2	P

*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

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

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(Approving Authority)

Tests relating to Insulating Properties **EL 2127 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
5.3	Abnormal operating and fault conditions	EL 2127-00		P
5.3.1	Protection against overload and abnormal operation	EL 2127-01	See table 5.3	P
5.3.2	Motors	EL 2127-02		N/A
5.3.3	Transformers	EL 2127-03	See Annex C	P
5.3.4	Functional insulation:	EL 2127-04	Complies with cl. no. 5.3.4 c)	P
5.3.5	Electromechanical components	EL 2127-05	No such components used	N/A
5.3.6	Audio amplifiers in ITE :	EL 2127-06	Not used	N/A
5.3.7	Simulation of faults	EL 2127-07	See table 5.3	P
5.3.8	Unattended equipment	EL 2127-08	No such equipment	N/A
5.3.9	Compliance criteria for abnormal operating and fault conditions*		See below	P
5.3.9.1	During the tests	EL 2127-09	No fire occurred, no molten metal emitted and no distortion of enclosure	P
5.3.9.2	After the tests	EL 2127-10	No breakdown occurred	P

*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 = 11
Total No of applicable Tests = 07
No. of tests for which the sample passed = 07

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

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(Approving Authority)

Tests relating to Communicating Connection **EL 2128 – V1.4**

Cl. 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	Not for 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 U_{op} of $U_{op} = U_{peak} + \Delta U_{sp} + \Delta U_{sa}$ Where U_{peak} is 360V or 180V ΔU_{sp} 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) ΔU_{sa} 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

*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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(Approving Authority)

Tests relating to Communicating Connection **EL 2129 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
6.2	Protection of equipment users from overvoltages on telecommunication networks*	EL 2129-00	Not for 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 the requirement tested.

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(Approving Authority)

Tests relating to Communicating Connection **EL 2130 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
6.3	Protection of the telecommunication wiring system from overheating	EL 2130-00	Not for connection to telecommunication wiring system	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: – the time/current characteristic shall show that a current equal to 110 % of the current limit will be interrupted within 60 min; and	EL 2130-02	See above cl. no. 6.3	N/A
	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 circuits disconnected.	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: – 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 disconnected.	EL 2130-04	See above cl. no. 6.3	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	= 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 the requirement tested.

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(Approving Authority)

Tests relating to Connection to cable distribution system **EL 2131 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
7	Connection to cable distribution systems*	EL 2131-00	Not for connection to cable distribution systems	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 and found to be passing/ ~~failing~~ in the requirement tested.

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(Approving Authority)

Tests relating to Fire Safety **EL 2132 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
A	ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE	EL 2132-00		P
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	Mass <18kg	N/A
A.1.1	Samples:	EL 2132-02	See above A.1	N/A
	Wall thickness (mm):		See above A.1	N/A
A.1.2	Conditioning of samples; temperature (°C) :	EL 2132-03	See above A.1	N/A
A.1.3	Mounting of samples :	EL 2132-04	See above A.1	N/A
A.1.4	Test flame (see IEC 60695-11-3)	EL 2132-05	See above A.1	N/A
	Flame A, B, C or D :		See above A.1	N/A
A.1.5	Test procedure	EL 2132-06	See above A.1	N/A
A.1.6	Compliance criteria	EL 2132-07	See above A.1	N/A
	Sample 1 burning time (s):		See above A.1	N/A
	Sample 2 burning time (s):		See above A.1	N/A
	Sample 3 burning time (s):		See above 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	Certified materials used (See table 1.5.1)	P
A.2.1	Samples, material:	EL 2132-09	See above A.2	N/A
	Wall thickness (mm):		See above A.2	N/A
A.2.2	Conditioning of samples; temperature (°C) :	EL 2132-10	See above A.2	N/A
A.2.3	Mounting of samples :	EL 2132-11	See above A.2	N/A
A.2.4	Test flame (see IEC 60695-11-4)	EL 2132-12	See above A.2	N/A
	Flame A, B or C :		See above A.2	N/A

Tests relating to Fire Safety **EL 2132 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
A.2.5	Test procedure	EL 2132-13	See above A.2	N/A
A.2.6	Compliance criteria	EL 2132-14	See above A.2	N/A
	Sample 1 burning time (s):		See above A.2	N/A
	Sample 2 burning time (s):		See above A.2	N/A
	Sample 3 burning time (s):		See above A.2	N/A
A.2.7	Alternative test acc. to IEC 60695-11-5, cl. 5 and 9	EL 2132-15	See above A.2	N/A
	Sample 1 burning time (s):		See above A.2	N/A
	Sample 2 burning time (s):		See above A.2	N/A
	Sample 3 burning time (s):		See above 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 A.3	N/A
A.3.2	Test procedure	EL 2132-18	See above A.3	N/A
A.3.3	Compliance criterion	EL 2132-19	See above 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 that the above tests were performed and found to be passing/ ~~failing~~ in the requirement tested.

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(Approving Authority)

Tests relating to Insulating Properties **EL 2133 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
B	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 B	N/A
	Position :		See above B	N/A
	Manufacturer :		See above B	N/A
	Type :		See above B	N/A
	Rated values :		See above B	N/A
B.2	Test conditions	EL 2133-02	See above B	N/A
B.3	Maximum temperatures	EL 2133-03	See above B	N/A
B.4	Running overload test	EL 2133-04	See above B	N/A
B.5	Locked-rotor overload test	EL 2133-05	See above B	N/A
	Test duration (days):		See above B	N/A
	Electric strength test: test voltage (V) :		See above B	N/A
B.6	Running overload test for d.c. motors in secondary circuits	EL 2133-06	See above B	N/A
B.6.1	General	EL 2133-07	See above B	N/A
B.6.2	Test procedure	EL 2133-08	See above B	N/A
B.6.3	Alternative test procedure	EL 2133-09	See above B	N/A
B.6.4	Electric strength test; test voltage (V):	EL 2133-10	See above B	N/A
B.7	Locked-rotor overload test for d.c. motors in secondary circuits	EL 2133-11	See above B	N/A
B.7.1	General	EL 2133-12	See above B	N/A
B.7.2	Test procedure	EL 2133-13	See above B	N/A
B.7.3	Alternative test procedure	EL 2133-14	See above B	N/A
B.7.4	Electric strength test; test voltage (V) :	EL 2133-15	See above B	N/A
B.8	Test for motors with capacitors	EL 2133-16	See above B	N/A
B.9	Test for three-phase motors	EL 2133-17	See above B	N/A
B.10	Test for series motors	EL 2133-18	See above B	N/A
	Operating voltage (V) :		See above B	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	= 19
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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(Approving Authority)

Tests relating to Electrical Safety **EL 2134 – V1.4**

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

*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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(Approving Authority)

Tests relating to Insulating Properties **EL 2135 – V1.4**

Cl. 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		P
D.1	Measuring instrument	EL 2135-01	Measuring instrument D.1 used	P
D.2	Alternative measuring instrument	EL 2135-02	Alternative measuring instrument 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 = N/A

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 performed and found to be passing/ ~~failing~~ in the requirement tested.

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(Approving Authority)

Tests relating to Thermal Properties **EL 2136– V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
E	ANNEX E, TEMPERATURE RISE OF A WINDING (see 1.4.13)	EL2136-00	Thermocouple 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 the requirement tested.

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(Approving Authority)

Tests relating to Electrical Safety **EL 2137 – V1.4**

Cl. 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	P

*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	= 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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(Approving Authority)

Tests relating to Electrical safety **EL 2138 – V1.4**

Cl. 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 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	= 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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(Approving Authority)

Tests relating to Radiation Safety **EL 2139 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
H	ANNEX H, IONIZING RADIATION (see 4.3.13)	EL 2139-00	No 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 requirement tested.

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(Approving Authority)

Tests relating to Electrical Safety **EL 2140 – V1.4**

Cl. 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 earthing and bonding terminals used	N/A
	Metal(s) used :		See above J	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	= 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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(Approving Authority)

Tests relating to General Requirement **EL 2141 – V1.4**

Cl. 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 thermal controls	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

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

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(Approving Authority)

Tests relating to General Requirement **EL 2142 – V1.4**

Cl. 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	P
L.1	Typewriters*	EL 2142-01	See below L.7	N/A
L.2	Adding machines and cash registers*	EL 2142-02	See below L.7	N/A
L.3	Erasers*	EL 2142-03	See below L.7	N/A
L.4	Pencil sharpeners*	EL 2142-04	See below L.7	N/A
L.5	Duplicators and copy machines*	EL 2142-05	See below L.7	N/A
L.6	Motor-operated files*	EL 2142-06	See below L.7	N/A
L.7	Other business equipment*	EL 2142-07	Maximum Normal Load (See table 1.6.2)	P

*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 the requirement tested.

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(Approving Authority)

Tests relating to Electrical Safety **EL 2143 – V1.4**

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

Tests relating to Electrical safety **EL 2144 – V1.4**

Cl. 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	Not connected to telecommunication network	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 be passing/ ~~failing~~ in the requirement tested.

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(Approving Authority)

Tests relating to General Requirements **EL 2145– V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
P	ANNEX P, NORMATIVE REFERENCES	EL 2145-00		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 requirement tested.

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(Approving Authority)

Tests relating to General Requirements **EL 2146 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
Q	ANNEX Q, Voltage dependent resistors (VDRs) (see 1.5.9.1)	EL 2146-00	No such constrution	N/A
	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 Q	N/A
	a) Preferred climatic categories Lower category temperature: -10°C Upper category temperature: +85°C Duration of damp Test, steady state test:21 days		See above Q	N/A
	b) Maximum continuous voltage: Atleast 1,25 times the rated voltage of the equipment or Atleast 1,25 times the upper voltage of the rated voltage range		See above Q	N/A
	c) Combination pulse :	EL 2146-01	See above Q	N/A
	d) Body of the VDR shall comply with Needle flame test according to IEC 60695-11-5 with the following test severities: 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]	EL 2146-02	See above Q	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 be passing/ ~~failing~~ in the requirement tested.

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(Approving Authority)

Tests relating to General Requirement **EL 2147– V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
R	ANNEX R, EXAMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES*	EL 2147-00		N/A
R.1	Minimum separation distances for unpopulated coated printed boards (see 2.10.6.2)*	EL 2147-01		N/A
R.2	Reduced clearances (see 2.10.3)*	EL 2147-02		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 above tests were performed and found to be passing/ ~~failing~~ in the requirement tested.

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(Approving Authority)

Tests relating to General Requirement **EL 2148 – V1.4**

Cl. 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	Not connected to telecommunication network	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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(Approving Authority)

Tests relating to Protection against Ingress of water **EL 2149 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
T	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	= 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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(Approving Authority)

Tests relating to Wiring **EL 2150 – V1.4**

Cl. 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		N/A
U.1	General	EL2150-01		N/A
U.2	Type tests	EL2150-02		N/A
U.2.1	General	EL2150-03		N/A
U.2.2	Electric strength	EL2150-04		N/A
U.2.2.1	Solid round winding wire and stranded winding wires	EL2150-05		N/A
U.2.2.1.1	Wires with nominal conductor diameter upto and including 0.100mm	EL2150-06		N/A
U.2.2.1.2	Wires with nominal conductor diameter over 0.100mm and including 2.500mm	EL2150-07		N/A
U.2.2.1.3	Wires with nominal conductor diameter over 2.500mm	EL2150-08		N/A
U.2.2.2	Square or rectangular wires	EL2150-09		N/A
U.2.3	Flexibility and adherence	EL2150-10		N/A
U.2.4	Heat shock	EL2150-11		N/A
U.2.5	Retention of electric strength after bending	EL2150-12		N/A
U.3	Testing during manufacturing	EL2150-13		N/A
U.3.1	General	EL2150-14		N/A
U.3.2	Routine tests	EL2150-15		N/A
U.3.3	Sampling test	EL2150-16		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 = 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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(Approving Authority)

Tests relating to Electrical Safety **EL 2151 – V1.4**

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

Tests relating to Electrical Safety **EL 2152 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
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 tests were performed and found to be passing/ ~~failing~~ in the requirement tested.

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(Approving Authority)

Tests relating to Electrical Safety **EL 2153– V1.4**

Cl. 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	See below	P
X.1	Determination of maximum input current*	EL 2153-01	See below	P
X.2	Overload test procedure*	EL 2153-02	See table 5.3	P

*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	= 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.

.....
(Approving Authority)

Tests relating to Radiation Safety **EL 2154– V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
Y	ANNEX Y, ULTRAVIOLET LIGHT CONDITIONING TEST (see 4.3.13.3)	EL 2154-00	No U.V. produced in the equipment	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 the above tests were performed and found to be passing/ ~~failing~~ in the requirement tested.

.....
(Approving Authority)

Tests relating to Electrical Safety **EL 2155– V1.4**

Cl. 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	OVC II	P

*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.

.....
(Approving Authority)

Tests relating to Mechanical Properties **EL 2156 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
AA	ANNEX AA, MANDREL TEST (see 2.10.5.8)	EL 2156-00		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 requirement tested.

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(Approving Authority)

Tests relating to Electrical Safety **EL 2158 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
CC	Evaluation of integrated circuit (IC) current limiters*	EL 2158-00	No integrated circuit current limiters 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.

.....
(Approving Authority)

Tests relating to Mechanical Properties **EL 2159 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
DD	Requirements for the mounting means of rack-mounted equipment*	EL 2159-00	No such 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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(Approving Authority)

Tests relating to Mechanical Properties **EL 2160 – V1.4**

Cl. No.	Test / Requirement name	Test Code	Test result/ observation	Verdict
EE	ANNEX EE, Household and home/office document/media shredders	EL 2160-00		N/A
EE.1	General			N/A
EE.2	Markings and instructions*	EL 2160-01		N/A
	Use of markings or symbols*.....:			N/A
	Information of user instructions, maintenance and/or servicing instructions*.....:			N/A
EE.3	Inadvertent reactivation test.....:	EL 2160-02		N/A
EE.4	Disconnection of power to hazardous moving parts*	EL 2160-03		N/A
	Use of markings or symbols*.....:			N/A
EE.5	Protection against hazardous moving parts			N/A
	Test with test finger (Figure 2A) .....:	EL 2160-04		N/A
	Test with wedge probe (Figure EE1 and EE2) .....:	EL 2160-05		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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(Approving Authority)

1.5.1	TABLE: List of components				P
Object/part no.	**Manufacturer/ trademark**	**Type/model**	**Technical data**	**Standard**	**Mark(s) of conformity[1].**
Plastic Enclosure	SABIC INNOVATIVE PLASTICS US L L C	940(f1)(gg*)	V-0, 130°C, 2.07mm thickness	UL 94 (Harmonized with IEC 60695-11-10)	UL E121562
Plug holder	SABIC INNOVATIVE PLASTICS US L L C	940(f1)(gg*)	V-0, 130°C, 3.46mm thickness	UL 94 (Harmonized with IEC 60695-11-10)	UL E121562
PCB	DONGGUAN CITY XINRAN ELECTRONIC CO LTD	XR-V002	V-0, 130°C	UL 796 (No equivalent IEC Standard)	UL E330704
Alternate	DONGGUAN CITY XINRAN ELECTRONIC CO LTD	XR-F003	V-0, 130°C	UL 796 (No equivalent IEC Standard)	UL E330704
Alternate	Luoshan DingFeng Electronics Co Ltd	DF-1(ASP 1), DF-2(ASP 1), GL-1, GL-2	V-0, 130°C	UL 796 (No equivalent IEC Standard)	UL E465198
Alternate	QIAOLIAN ELECTRONICS (DONGGUAN) CO LTD	3S-1	V-0, 130°C	UL 796 (No equivalent IEC Standard)	UL E254717
Alternate	QIAOLIAN ELECTRONICS (DONGGUAN) CO LTD	3S	V-0, 120°C	UL 796 (No equivalent IEC Standard)	UL E254717
Fuse (F1)	XC Electronics (Shen Zhen) Corp. Ltd.	5TE	T1A, 250V	UL 248-1/14 (Harmonized with IEC 60127-1) IEC/EN 60127-1/3	UL E249609 VDE 40029550
Alternate	Shenzhen Lanson Electronics Co. Ltd.	SMT	T1A, 250V	UL 248-1/14 (Harmonized with IEC 60127-1) IEC/EN 60127-1/3	UL E221465 VDE 40012592

Alternate	King Wahoo Electronics Co.,Ltd	KET series	T1A, 250Vac	IEC/EN 60127-1/3	TUV R 50152902
Alternate	KING WAHOO ELECTRONICS CO LTD	KET	T1A, 250Vac	UL 248-1/14 (Harmonized with IEC 60127-1)	UL E302100
Alternate	Conquer Electronics Co., Ltd.	MST	T1A, 250Vac	UL 248-1/14 (Harmonized with IEC 60127-1) IEC/EN 60127-1/3	UL E82636 VDE 40017118
Fusing Resistor (F1) (Alternate)	Anhui Changsheng Electronics Co., Ltd	RXF21-2W	3.3Ω	IEC/EN 60127-1/3	VDE 40024768
Heat shrink tube used for Fusing Resistor (F1)	SHENZHEN WOER HEAT-SHRINKABLE MATERIAL CO LTD	RSFR(CB)	300V,125°C	UL 224 (No equivalent IEC Standard)	UL E203950
Alternate	SHENZHEN WOER HEAT-SHRINKABLE MATERIAL CO LTD	RSFR, RSFR-135G, AMS, RSFR-H	600V,125°C	UL 224 (No equivalent IEC Standard)	UL E203950
Alternate	CHANGYUAN ELECTRONICS GROUP CO LTD	CB-HFT, CB-HFT(XY)	600V,125°C	UL 224 (No equivalent IEC Standard)	UL E180908
Bridging Y-Capacitor (CY1)	DongGuan City Jiankun Electronics Technology Co. Ltd	JT series	AC 250/300/400V; Max 1000pF; 85°C; Y1 type	UL 60384-14 (Harmonized with IEC 60384-14) IEC/EN 60384-14	UL E340699 VDE 40041534

Alternate	Shantou High-New Technology Dev. Zone Songtian Enterprise Co., Ltd.	CD-Series	AC 250/300/400V; Max 1000pF; 125°C;Y1 type	UL 60384-14 (Harmonized with IEC 60384-14) IEC/EN 60384-14	UL E208107 VDE 40025754
Alternate	Jyh Chung Electronic Co., Ltd.	JD	AC400V;Max 1000pF;125°C ; Y1 type	UL 60384-14 (Harmonized with IEC 60384-14) IEC/EN 60384-14	UL E187963 VDE 137027
Line Filter (L1)	Dongguan Yaneyea Electronic Technology Co. , Ltd.	EE8.3-15mH	130°C	IS 13252 (Part 1): 2010 + A1: 2013 + A2 : 2015 / IEC 60950-1: 2005 + A1:2009 + A2 : 2013	Tested within Appliance
Alternate	SHENZHENSHI CHENGYEXIO NGEIECTRONI C CO,LTD	DRWW5*12-001	130°C	IS 13252 (Part 1): 2010 + A1: 2013 + A2 : 2015 / IEC 60950-1: 2005 + A1:2009 + A2 : 2013	Tested within Appliance
Input wire	SHENZHEN SHUNJIA ELECTRICAL TECHNOLOGY CO LTD	1430	105°C, 300V, 20AWG	UL 758 (No equivalent IEC Standard)	UL E490463
Output wire	HONGKONG XIE KANG INDUSTRIAL CO LTD	2464	80°C, 300V, 22AWG	UL 758 (No equivalent IEC Standard)	UL E315696
Alternate	HONGKONG XIE KANG INDUSTRIAL CO LTD	2468, 1185	80°C, 300V, 26AWG	UL 758 (No equivalent IEC Standard)	UL E315696
Alternate	DONGGUAN FU WEI ELECTRONICS CO LTD	2464, 2468, 1185	80°C, 300V, 26AWG	UL 758 (No equivalent IEC Standard)	UL E485741
Alternate	FUYUEDA ELECTRONICS CO LTD	2464, 2468, 1185	80°C, 300V, 20AWG	UL 758 (No equivalent IEC Standard)	UL E475747

Alternate	SHENZHEN BOSITAI COMPUTER ACCESSORY CO LTD	2464, 2468, 1185	80°C, 300V, Min 26AWG	UL 758 (No equivalent IEC Standard)	UL E341894
Alternate	SHENZHEN YUNSHENGDA ELECTRONICS TECHNOLOGY CO LTD	2464, 2468, 1185	80°C, 300V, Min 26AWG	UL 758 (No equivalent IEC Standard)	UL E332481
Alternate	KEMP ELECTRIC MFG CO LTD	2464, 2468, 1185	80°C, 300V, Min 26AWG	UL 758 (No equivalent IEC Standard)	UL E484741
Mylar sheet (Under the PCB for horizontal enclosure)	Sichuan Longhua Film Co Ltd	PP-(i)(j)	V-0, 100ºC, min. thickness 0.4 mm	UL 94 (Harmonized with IEC 60695-11-10)	UL E254551
Transformer (T1)	SHENZHENSHI XINDAHUI ELECTRONICS CO LTD	TR-018-T02 CCP-130-1 (15) XDH-EE16-8685	130°C	IS 13252 (Part 1): 2010 + A1: 2013 + A2 : 2015 / IEC 60950-1: 2005 + A1:2009 +A2: 2013	Tested Within Appliance
Bobbin	CHANG CHUN PLASTICS CO LTD	T375J(G5)(G6)	V-0, 150°C, 1.03mm	UL 94 (Harmonized with IEC 60695-11-10)	UL E59481
Insulation Tape	3M COMPANY	1351T-1 (a)	130°C	UL 1446 (Equivalent to Applicable requirements of IEC 60950-1	UL E17385
Magnetic wire	ZHEJIANG HONGBO TECHNOLOGY CO LTD	2UEW/130	130°C	UL 1446 (Equivalent to Applicable requirements of IEC 60950-1)	UL E221719
Tube	GREAT HOLDING INDUSTRIAL CO LTD	TFL	200°C	UL 224 (No equivalent IEC Standard)	UL E156256

T.I.W	KBI COSMOLINK CO.,LTD..	TIW-M	130°C	UL 2353 (Equivalent to applicable parts of IEC 60950-1)	UL E213764
Varnish	SUZHOU TAIHU ELECTRIC ADVANCED MATERIAL CO LTD	T-4260(a)	130°C	UL 1446 (Equivalent to Applicable requirements of IEC 60950-1)	UL E228349
Supplementary information: 1. Evidences provided by the manufacturer for the listed components are verified by us and the evidences are conforming to the requirements of the relevant standard.					

1.6.2	TABLE: Electrical data (in normal conditions)					P
U (Vac)	I (A)	I rated (A)	P (W)	Fuse #	Ifuse (A)	Condition/status
90	0.401	--	21.29	F1	0.401	Maximum normal load At 18.0V ⎓ 1.0A At supply frequency 50Hz.
100	0.366	0.6	21.23	F1	0.366	
240	0.199	0.6	21.01	F1	0.199	
254.4	0.191	--	20.89	F1	0.191	
90	0.405	--	21.31	F1	0.405	Maximum normal load At 18.0V ⎓ 1.0A At supply frequency 60Hz.
100	0.371	0.6	21.26	F1	0.371	
240	0.197	0.6	20.98	F1	0.197	
254.4	0.189	--	20.87	F1	0.189	
Supplementary information: Maximum Normal load						

2.1.1.5	TABLE: Energy hazard measurement				P
Voltage (rated)(V)	Current (rated)(A)	Voltage (max.)(V)	Current (max.)(A)	VA (max.)(VA)	
18.0Vdc	1.0	18.11	1.32	23.91	
Supplementary information: Nil					

2.1.1.7	TABLE: Discharge test				N/A
Condition	τ calculated (s)	τ measured (s)	t u→ 0V (s)	Comments	
–	–	--	--	--	
Supplementary information: No such construction					

2.2.2	TABLE: SELV measurement (under normal conditions)			P
Transformer	Location	Voltage (max.) (V)		Voltage Limitation Component
		V peak	V d.c.	
Transformer (T1)	Pin A to Pin B	33	--	--
--	Capacitor (C5)	–	19.22	--
Supplementary information: Nil				

2.2.3	TABLE: SELV measurement (under fault conditions)	P
Location	Voltage (max.) (V)	Comments
Capacitor (C5) (S-C)	0.0	Unit shutdown immediately No fire, No hazards
Transformer (T1) (Pin A to Pin B)	0.0	Unit shutdown immediately No fire, No hazards
Supplementary information: S-C=Short-circuit		

2.4.2	TABLE: Limited current circuit measurement				P
Location	Voltage(V)	Current(mA)	Freq.(kHz)	Limit(mA)	Comments
Bridging Y-Capacitor (CY1)	0.034	0.017	<1KHz	0.7	In-Compliance (Measured with 2 kilo ohm non-inductive resistor)
Supplementary information: Nil					

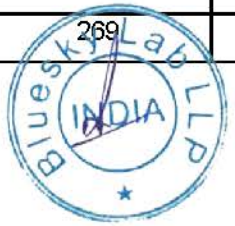
2.5	TABLE: Limited power source measurement		P
	Limits	Measured	Verdict
According to Table 2B (normal condition) At Output Uoc=18.11Vdc			
Current (in A)	8	1.32	P
Apparent power (in VA)	100	23.91	P
Supplementary information: Nil			

2.6.3.4	TABLE: Resistance of earthing measurement	N/A
Location	Resistance measured(mΩ)	Comments
--	--	--
Supplementary information: Class II equipment		

<OR>

2.6.3.4	TABLE: Resistance of earthing measurement	N/A
Location	Voltage drop (V)	Comments
–	--	--
Supplementary information: Class II equipment		

2.10.2	Table: Working voltage measurement		P
Location	RMS voltage (V)	Peak voltage (V)	Comments
Line to Neutral	240	343	--
Transformer (T1)			
Pin 1 to pin A	127	184	--
Pin 2 to pin A	201	292	--
Pin 3 to pin A	237	338	Max. Vrms & Vpeak of T1
Pin 4 to pin A	195	279	--
Pin 1 to pin B	146	215	--
Pin 2 to pin B	187	269	--



Pin 3 to pin B	217	313	--
Pin 4 to pin B	172	249	--
Bridging Y-Capacitor (CY1)	170	251	--
Supplementary information: Nil			

2.10.3 and 2.10.4	TABLE: Clearance and creepage distance measurements					P
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)
Functional:						
Line to neutral	343	240	1.5	3.45	2.5	3.45
Basic / supplementary:						
--	--	--	--	--	--	--
Reinforced:						
Transformer (T1) (primary pin to secondary pin)	338	237	4.0	17.45	5.0	17.45
Bridging Y-Capacitor (CY1) (primary to secondary)	251	170	4.0	8.15	5.0	8.15
Supplementary information:						

2.10.5	TABLE: Distance through insulation measurements				P
Distance through insulation (DTI) at/of:	U peak (V)	U r.m.s. (V)	Test voltage (V)	Required DTI (mm)	DTI (mm)
Basic:					
--	--	--	--	--	--
Supplementary:					
--	--	--	--	--	--
Reinforced:					
Bobbin of Transformer (T1)	338	237	3000	0.4	1.03
Supplementary information:					

4.3.8	TABLE: Batteries	N/A
The tests of 4.3.8 are applicable only when appropriate battery data is not available	--	--
Is it possible to install the battery in a reverse polarity position?	--	--

	Non-rechargeable batteries			Rechargeable batteries					
	Discharging		Un-intentional charging	Charging		Discharging		Reversed charging	
	Meas. current	Manuf. Specs.		Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.
Max. current during normal condition	--	--	--	--	--	--	--	--	--
Max. current during fault condition	--	--	--	--	--	--	--	--	--

Test results:		Verdict
- Chemical leaks		--
- Explosion of the battery	--	--
- Emission of flame or expulsion of molten metal	--	--
- Electric strength tests of equipment after completion of tests	--	--

Supplementary information: Battery not used

4.5	TABLE: Temperature rise measurements	P

Temperatures were measured according cl. 1.4.5. Test in condition A and B at continuous normal operation as for power input measurements of table 1.6.2 resulted in highest temperature values.
Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of 40°C (T_{ma}), as specified by the manufacturer.

test voltage(s) (V):		A: 90V~, 60Hz	B: 254.4V~, 50Hz
t_{amb1} (°C):	A: 25 B: 26	t_{amb2} (°C):	A: 25 B: 26

Temperature of part/at: (measured with thermocouples)	Measured temperature rise at T_{amb}		Calculated temperature at T_{ma}		Allowed T_{max} (°C)
	A dT (K)	B dT (K)	A T (°C)	B T (°C)	
Plastic Enclosure	18	16	58	56	95
Line Filter (L1) winding	29	28	69	68	120
Transformer (T1) Core	36	34	76	74	130
PCB	24	22	64	62	130
Plug Holder	16	14	56	54	95
Bridging Y-Capacitor (CY1)	22	20	62	60	85
Internal wire	15	14	55	54	105
Line Filter (L1) winding (Alternate)	28	26	68	66	120

Supplementary information:

Temperatures measured with winding resistance method: Not used

temperature T of winding: (winding resistance method)	(V)	R_1 (Ω)	R_2 (Ω)	T (°C)	allowed T_{max} (°C)	insulation class
--	--	--	--	--	--	--

Supplementary information: Nil

4.5.5	TABLE: Ball pressure test of thermoplastic parts		P
	Allowed impression diameter (mm) ..... :	≤ 2 mm	--

Part	Test temperature (°C)	Impression diameter (mm)
--	--	--

Supplementary information: Certified material used (See table 1.5.1)

4.6.1, 4.6.2	Table: Enclosure opening measurements	N/A

Location	Size (mm)	Comments
–	–	–

Supplementary information: No openings present in the equipment

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

5.1.6	TABLE: Touch current and protective conductor current measurement					P
	Test voltage (V).....:	AC 254.4V, 60Hz				–
Measurement location (Terminal A connected to...)	Polarity (normal) [mA]		Polarity (reverse) [mA]		Limit (mA)	Comments
	Switch: ON	Switch: OFF	Switch: ON	Switch: OFF		
Line to external enclosure wrapped with metal foil	0.034	–	0.021	--	0.25	In-Compliance
L-N to output pin	0.057	–	0.044	--	0.25	In-Compliance
Supplementary information: Nil						

5.2	TABLE: Electric strength tests, impulse tests and voltage surge tests			P
Test voltage applied between:	Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No	
Functional:				
Line to neutral (Fuse (F1) opened)	AC	1500	NO	
Basic / supplementary:				
--	--	–	–	
Reinforced:				
Transformer (T1) primary to secondary	AC	3000	NO	
Line to plastic enclosure wrapped with metal foil	AC	3000	NO	
Insulation Tape	AC	3000	NO	
Supplementary information: Nil				

5.3	TABLE: Fault condition tests		P
	Ambient temperature (°C) ..... :	25°C	P
	Power source for EUT: Manufacturer, model/type, output rating ..... :	See table 1.5.1	P

Component No.	Fault	Supply voltage (Vac)	Test time	Fuse #	Fuse current (A)	Observation
Output	Over load	90	2 hrs. 15 min.	F1	--	Unit operated normally Temperature on Transformer (T1) core: 79°C Result: no fire, no hazards
Transformer (T1) (Pin A-Pin B)	Short-Circuit	254.4	5 min.	F1	--	Unit shut down immediately Result: no fire, no hazards
Capacitor (C5)	Short-Circuit	240	2 min.	F1	--	Unit shut down immediately Result: no fire, no hazards
Capacitor (C6)	Short-Circuit	100	6 min.	F1	--	Unit shut down immediately Result: no fire, no hazards
Supplementary information: hrs.= hour, min= minutes						

C.2	TABLE: Insulation of transformers		P
	Transformer part name.....:	See table 1.5.1	—
	Manufacturer .....:	See above	—
	Type.....:	See above	—

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)	338	237	4.0	T.I.W	5.0	T.I.W
Primary/input winding and core (internal)			4.0	T.I.W	5.0	T.I.W
Secondary/output winding and core (internal)			4.0	T.I.W	5.0	T.I.W
Primary/input part and secondary/output part (external)			4.0	17.45	5.0	17.45
Primary/input part and core (external)			4.0	T.I.W	5.0	T.I.W
Primary/input part and secondary/output winding (external)			4.0	T.I.W	5.0	T.I.W
Secondary/output part and core (external)			4.0	T.I.W	5.0	T.I.W
Secondary/output part and primary/input winding (external)			4.0	17.45	5.0	17.45

Description of design:	
(a) Bobbin	
Primary/input pins ..... :	1,2,3,4
Secondary/output pins ..... :	A,B
Material (manufacturer, type, ratings)..... :	See table 1.5.1
Thickness (mm) ..... :	See table 1.5.1
(b) General	
Concentric windings on Bobbin/Core. Winding ends additionally fixed with tape, outer winding is secondary. Teflon tube on all winding exits are provided. Core is considered as primary.	
Supplementary information: T.I.W= Triple insulated wire	

Attachment-1

Plug dimension

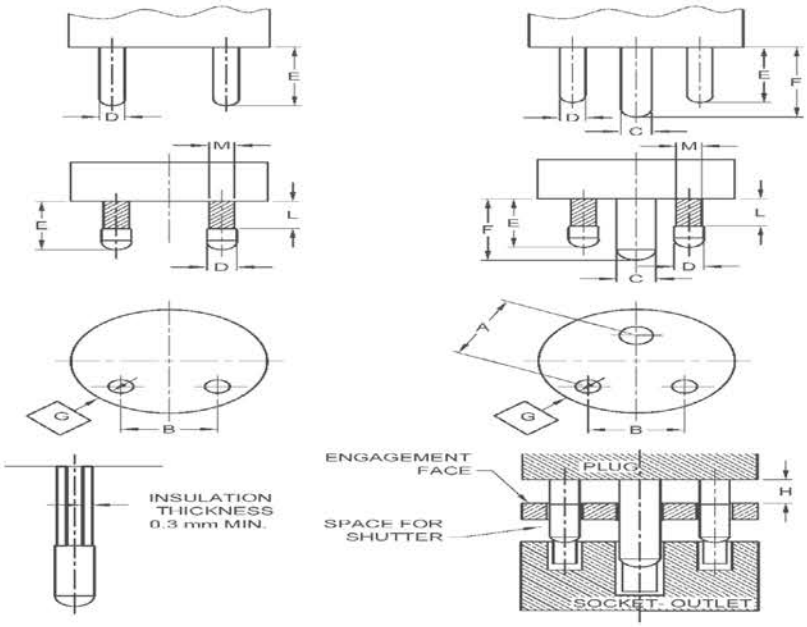


Table 1: Plug Dimensions						
Type of Plug: Two pin [X] Three pin []						
Reference points	**Ratings**					
	2.5A [X]		**6A []**		**16A []**	
	Limits	**Measured**	**Limits**	**Measured**	**Limits**	**Measured**
A	--	–	22.05-22.35	--	28.45-28.75	--
B	18.95-19.25	19.02	18.95-19.25	--	25.25-25.55	--
C	--	–	7.01-7.085	--	8.66-8.735	--
D	5.03-5.105	5.08	5.03-5.105	--	7.01-7.085	--
E	15.77-16.94	16.48	15.77-16.94	--	20.47-21.64	--
F	--	–	20.47-21.64	--	28.47-29.64	--
G	7.94 (min.)	8.54	7.94 (min.)	--	9.52 (min.)	--
H	5.16-7.54	–	5.16-7.54	--	6.76-9.12	--
L	7.5	–	7.5	--	9	--
M	4.58 Max.	–	4.58 Max.	--	6.56Max.	--
Supplementary information: Above dimensional limits are as per IS 1293:2019 in mm						

Attachment-2

PHOTOGRAPHS

EXTERNAL VIEW 1

EXTERNAL VIEW 2

INTERNAL VIEW

	
PCB VIEW 1	**PCB VIEW 2**

****END OF TEST REPORT****