



TEST REPORT

Prepared For :	VAPEX TECHNOLOGY LIMITED Room 1103, 11/F, Hang Seng Mongkok Building, 677 Nathan Road, Mongkok, Kowloon Hong Kong
Product Name:	BALANCE CHARGER
Model :	VTE600
Prepared By :	Shenzhen ZJT Testing Technology Co., Ltd. 6F, Henglin Building, Baoyuan Road, Xixiang Street, Baoan District, Shenzhen
Date of receipt of test item	Oct.14, 2013
Test Date:	Oct.14, 2013– Oct.21, 2013
Date of Report :	Oct.21, 2013
Report No.:	ZJT131014003L-1

**Test Report****EN60950-1:2006+A11:2009+A1:2010+A12:2011****Information technology equipment – Safety –****Part 1: General requirements**

Testing Laboratory	Shenzhen ZJT Testing Technology Co., Ltd.
Address	6F, Henglin Building, Baoyuan Road, Xixiang Street, Baoan District, Shenzhen
Testing location	Same as above
Applicant's Name	VAPEX TECHNOLOGY LIMITED
Address.....	Room 1103, 11/F, Hang Seng Mongkok Building, 677 Nathan Road, Mongkok, Kowloon Hong Kong
Manufacturer	VAPEX TECHNOLOGY LIMITED.
Address	Bldg 30-33, Tongfucun Ind.Park, Dalang, Longhua, Shenzhen, 518109, Guangdong, China
Standard.....	EN 60950-1:2006+A11:2009+A1:2010+A12:2011
Test Result	Compliance with EN 60950-1:2006+A11:2009+A1:2010+A12:2011
Procedure deviation.....	N/A
Non-standard test method	N/A

Type of test object	BALANCE CHARGER
Trademark	VP
Model/type reference	VTE600
Rating	Input 85-245V~, 50/60Hz, 0.2A max
Test item particulars :	
Equipment mobility	Portable equipment
Operation condition	Continuous
Class of equipment	Class II
Protection against ingress of water:	N/A
Test case does not apply to the test object	N/A
Test object does meet the requirement	P(ass)
Test object does not meet the requirement	F(ail)

General remarks:

"(see remark #)" refers to a remark appended to the report.

"(see appended table)" refers to a table appended to the report.

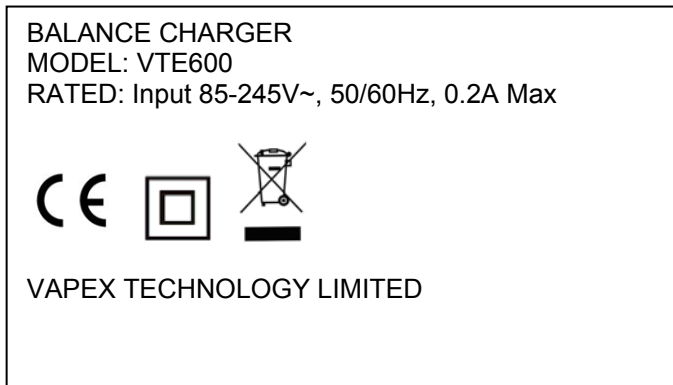
Throughout this report a comma is used as the decimal separator.

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

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When determining the test conclusion, the Measurement Uncertainty of test has been considered

Copy of marking plate



Test by (name+ Signature): Brian Huang

Brian Huang _____

Approved by (name+ Signature) : Jack Zhang (Technical




Jack Zhang _____

Date of issue..... : Oct.21,2013



EN 60950-1			
Clause	Requirement – Test	Result - Remark	Verdict
1	GENERAL		P
1.5	Components		P
1.5.1	General		P
	Comply with IEC 60950 or relevant component standard	Components, which were found to affect safety aspects comply with the requirements of this aspects of the relevant IEC component standards. (See appended table 1.5.1)	P
1.5.2	Evaluation and testing of components	Components, which are certified to IEC or national standards, are applied correctly within their ratings. Components not covered by IEC standards are tested under the conditions present in the equipment.	P
1.5.3	Thermal controls	No thermal controls provided	N/A
1.5.4	Transformers	(see appended table 5.2)	P
1.5.5	Interconnecting cables	No interconnecting cable provided.	N/A
1.5.6	Capacitors bridging insulation		N/A
1.5.7	Resistors bridging insulation	No bridging resistors.	N/A
1.5.7.1	Resistors bridging functional, basic or supplementary insulation	No bridging resistors.	N/A
1.5.7.2	Resistors bridging double or reinforced insulation between a.c. mains and other circuits	No bridging resistors.	N/A
1.5.7.3	Resistors bridging double or reinforced insulation between a.c. mains and antenna or coaxial cable	No bridging resistors.	N/A
1.5.8	Components in equipment for IT power systems		N/A
1.5.9	Surge suppressors		N/A
1.5.9.1	General		N/A
1.5.9.2	Protection of VDRs		N/A
1.5.9.3	Bridging of functional insulation by a VDR		N/A
1.5.9.4	Bridging of basic insulation by a VDR		N/A
1.5.9.5	Bridging of supplementary, double or reinforced insulation by a VDR		N/A
1.6	Power interface		P
1.6.1	AC power distribution systems	Connection to TN power system	P

EN 60950-1			
Clause	Requirement – Test	Result - Remark	Verdict
1.6.2	Input current	See appended table 1.6.2	P
1.6.3	Voltage limit of hand-held equipment	This appliance is not a hand-held equipment.	N/A
1.6.4	Neutral conductor	AC	N/A

1.7	Marking and instructions		P
1.7.1	Power rating		P
	Rated voltage(s) or voltage range(s) (V) :	85-245V	P
	Symbol for nature of supply, for d.c. only :	This is an AC Equipment	N/A
	Rated frequency or rated frequency range (Hz) :	50/60Hz	P
	Rated current (mA or A) :	0.2A	P
	Manufacturer's name or trade-mark or identification mark :	VAPEX TECHNOLOGY LIMITED	P
	Model identification or type reference :	VTE600	P
	Symbol for Class II equipment only :		P
	Other markings and symbols :		N/A
1.7.2	Safety instructions and marking		N/A
1.7.2.1	General		P
1.7.2.2	Disconnect devices		P
1.7.2.3	Overcurrent protective device		P
1.7.2.4	IT power distribution systems	TN power system	N/A
1.7.2.5	Operator access with a tool		N/A
1.2.7.6	Ozone		N/A
1.7.3	Short duty cycles	Equipment is designed for continuous operation.	N/A
1.7.4	Supply voltage adjustment :	Input not adjustable.	N/A
	Methods and means of adjustment; reference to installation instructions :	--	-
1.7.5	Power outlets on the equipment :	Using the insert row	N/A
1.7.6	Fuse identification (marking, special fusing characteristics, cross-reference) :	T2.5A 250V	P
1.7.7	Wiring terminals	See below.	N/A
1.7.7.1	Protective earthing and bonding terminals :		N/A
1.7.7.2	Terminals for a.c. mains supply conductors		P
1.7.7.3	Terminals for d.c. mains supply conductors		N/A
1.7.8	Controls and indicators		N/A

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Clause	Requirement – Test	Result - Remark	Verdict
1.7.8.1	Identification, location and marking :		P
1.7.8.2	Colours :		N/A
1.7.8.3	Symbols according to IEC 60417 :		N/A
1.7.8.4	Markings using figures :		P
1.7.9	Isolation of multiple power sources :		N/A
1.7.10	Thermostats and other regulating devices :	No such components.	N/A
1.7.11	Durability		P
1.7.12	Removable parts		N/A
1.7.13	Replaceable batteries :		N/A
	Language(s) :	English	P
1.7.14	Equipment for restricted access locations :		N/A

2	PROTECTION FROM HAZARDS		P
2.1	Protection from electric shock and energy hazards		P
2.1.1	Protection in operator access areas		P
2.1.1.1	Access to energized parts		P
	Test by inspection :		P
	Test with test finger (Figure 2A) :		P
	Test with test pin (Figure 2B) :		P
	Test with test probe (Figure 2C) :		P
2.1.1.2	Battery compartments		N/A
2.1.1.3	Access to ELV wiring		N/A
	Working voltage (V _{peak} or V _{rms}); minimum distance through insulation (mm)		—
2.1.1.4	Access to hazardous voltage circuit wiring	No hazardous voltage wiring in operator accessible area.	N/A
2.1.1.5	Energy hazards :	The energy does not exceed 120VA between any two points in output connectors. See appended table 2.1.1.5	P
2.1.1.6	Manual controls		N/A
2.1.1.7	Discharge of capacitors in equipment	≤0.1 μ F	N/A
	Measured voltage (V); time-constant (s) :		—
2.1.1.8	Energy hazards – d.c. mains supply		N/A
	a) Capacitor connected to the d.c. mains supply :		N/A
	b) Internal battery connected to the d.c. mains supply :		N/A



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Clause	Requirement – Test	Result - Remark	Verdict
2.1.1.9	Audio amplifiers :	See cl. 2.1.1.1 See separate test report IEC/EN 60065	N/A
2.1.2	Protection in service access areas	No service access area.	N/A
2.1.3	Protection in restricted access locations	The unit is not limited to be used in restricted access locations	N/A

2.2	SELV circuits		P
2.2.1	General requirements		P
2.2.2	Voltages under normal conditions (V) :	≤42.4V Peak or 60 V d.c	P
2.2.3	Voltages under fault conditions (V) :	≤42.4V Peak or 60 V d.c and 71Vpeak or 120V d.c(0.2s)	P
2.2.4	Connection of SELV circuits to other circuits :		N/A

2.3	TNV circuits		N/A
2.3.1	Limits		N/A
	Type of TNV circuits :		—
2.3.2	Separation from other circuits and from accessible parts		N/A
2.3.2.1	General requirements		N/A
2.3.2.2	Protection by basic insulation		N/A
2.3.2.3	Protection by earthing		N/A
2.3.2.4	Protection by other constructions :		N/A
2.3.3	Separation from hazardous voltages		N/A
	Insulation employed :		—
2.3.4	Connection of TNV circuits to other circuits		N/A
	Insulation employed :		—
2.3.5	Test for operating voltages generated externally		N/A

2.4	Limited current circuits		P
2.4.1	General requirements		P
2.4.2	Limit values	35mA	P
	Frequency (Hz) :	50.0kHz	—
	Measured current (mA) :	23mA	P
	Measured voltage (V) :	46.0V	—
	Measured circuit capacitance (nF or μF) :		—



EN 60950-1			
Clause	Requirement – Test	Result - Remark	Verdict

2.4.3	Connection of limited current circuits to other circuits		N/A
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2.5	Limited power sources		P
	a) Inherently limited output		N/A
	b) Impedance limited output		N/A
	c) Regulating network limited output under normal operating and single fault condition		N/A
	d) Overcurrent protective device limited output		N/A
	Max. output voltage (V), max. output current (A), max. apparent power (VA) :		P
	Current rating of overcurrent protective device (A)		N/A
	Use of integrated circuit (IC) current limiters	(See Annex CC)	

2.6	Provisions for earthing and bonding		N/A
2.6.1	Protective earthing		N/A
2.6.2	Functional earthing		N/A
2.6.3	Protective earthing and protective bonding conductors		N/A
2.6.3.1	General		N/A
2.6.3.2	Size of protective earthing conductors		N/A
	Rated current (A), cross-sectional area (mm ²), AWG :		—
2.6.3.3	Size of protective bonding conductors		N/A
	Rated current (A), cross-sectional area (mm ²), AWG :		—
2.6.3.4	Resistance of earthing conductors and their terminations; resistance (Ω), voltage drop (V), test current (A), duration (min) :		N/A
2.6.3.5	Colour of insulation :		N/A
2.6.4	Terminals		N/A
2.6.4.1	General		N/A
2.6.4.2	Protective earthing and bonding terminals		N/A
	Rated current (A), type, nominal thread diameter (mm) :		—
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors		N/A
2.6.5	Integrity of protective earthing		N/A
2.6.5.1	Interconnection of equipment		N/A



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Clause	Requirement – Test	Result - Remark	Verdict
2.6.5.2	Components in protective earthing conductors and protective bonding conductors	No swiZJh or overcurrent protective device in protective earthing or bonding conductor.	N/A
2.6.5.3	Disconnection of protective earth	It is not possible to disconnect earth without disconnecting input connector.	N/A
2.6.5.4	Parts that can be removed by an operator	Appliance terminal used.	N/A
2.6.5.5	Parts removed during servicing		N/A
2.6.5.6	Corrosion resistance	All safety earthing connections in compliance with annex J.	N/A
2.6.5.7	Screws for protective bonding		N/A
2.6.5.8	Reliance on telecommunication network or cable distribution system		N/A

2.7	Overcurrent and earth fault protection in primary circuits		P
2.7.1	Basic requirements		P
	Instructions when protection relies on building installation		--
2.7.2	Faults not simulated in 5.3.7		P
2.7.3	Short-circuit backup protection		P
2.7.4	Number and location of protective devices :	One fuse connected in series of circuit	P
2.7.5	Protection by several devices		N/A
2.7.6	Warning to service personnel :		N/A

2.8	Safety interlocks		N/A
2.8.1	General principles		N/A
2.8.2	Protection requirements		N/A
2.8.3	Inadvertent reactivation		N/A
2.8.4	Fail-safe operation		N/A
2.8.5	Moving parts		N/A
2.8.6	Overriding		N/A
2.8.7	SwiZJhes and relays		N/A
2.8.7.1	Contact gaps (mm) :		N/A
2.8.7.2	Overload test		N/A
2.8.7.3	Endurance test		N/A
2.8.7.4	Electric strength test	(see appended table 5.2)	N/A



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Clause	Requirement – Test	Result - Remark	Verdict

2.8.8	Mechanical actuators		N/A
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2.9	Electrical insulation		P
2.9.1	Properties of insulating materials	Suitable material according to their thermal electrical and mechanical properties.	P
2.9.2	Humidity conditioning	(see appended table 2.9.2)	P
	Relative humidity (%), temperature (°C) :	93%,25°C 48H	—
2.9.3	Grade of insulation	The adequate levels of safety insulation is provided and maintained to comply with the requirements of this standard	P
2.9.4	Separation from hazardous voltages		P
	Method(s) used :		—

2.10	Clearances, creepage distances and distances through insulation		P
2.10.1	General	See 2.10.3, 2.10.4 and 2.10.5	P
2.10.1.1	Frequency :		P
2.10.1.2	Pollution degrees :	Pollution Degree 2	P
2.10.1.3	Reduced values for functional insulation		N/A
2.10.1.4	Intervening unconnected conductive parts		N/A
2.10.1.5	Insulation with varying dimensions		N/A
2.10.1.6	Special separation requirements		N/A
2.10.1.7	Insulation in circuits generating starting pulses		N/A
2.10.2	Determination of working voltage	See (see appended table 2.10.2)	P
2.10.2.1	General		P
2.10.2.2	RMS working voltage		P
2.10.2.3	Peak working voltage		P
2.10.3	Clearances	(see appended table 2.10.3 and 2.10.4)	P
2.10.3.1	General		P
2.10.3.2	Mains transient voltages		P
	a) AC mains supply :		P
	b) Earthed d.c. mains supplies :		P
	c) Unearthed d.c. mains supplies :		P
	d) Battery operation :	No battery.	P
2.10.3.3	Clearances in primary circuits	(see appended table 2.10.3 and 2.10.4)	P



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Clause	Requirement – Test	Result - Remark	Verdict
2.10.3.4	Clearances in secondary circuits		N/A
2.10.3.5	Clearances in circuits having starting pulses	(see appended table 2.10.3 and 2.10.4)	N/A
2.10.3.6	Transients from a.c. mains supply :		N/A
2.10.3.7	Transients from d.c. mains supply :		N/A
2.10.3.8	Transients from telecommunication networks and cable distribution systems :		N/A
2.10.3.9	Measurement of transient voltage levels		N/A
	a) Transients from a mains supply		N/A
	For an a.c. mains supply :		N/A
	For a d.c. mains supply :		N/A
	b) Transients from a telecommunication network :		N/A
2.10.4	Creepage distances		P
2.10.4.1	General		P
2.10.4.2	Material group and comparative tracking index		P
	CTI tests :	Material group IIIb is assumed to be used	—
2.10.4.3	Minimum creepage distances	(see appended table 2.10.3 and 2.10.4)	P
2.10.5	Solid insulation		P
2.10.5.1	General		P
2.10.5.2	Distances through insulation	(see appended table 2.10.5)	P
2.10.5.3	Insulating compound as solid insulation		P
2.10.5.4	Semiconductor devices		N/A
2.10.5.5	Cemented joints	(see appended table 2.10.3 and 2.10.4)	N/A
2.10.5.6	Thin sheet material – General		P
2.10.5.7	Separable thin sheet material		N/A
	Number of layers (pcs):		—
2.10.5.8	Non-separable thin sheet material		N/A
2.10.5.9	Thin sheet material – standard test procedure		N/A
	Electric strength test	(see appended table 2.10.5)	—
2.10.5.10	Thin sheet material – alternative test procedure		P
	Electric strength test	(see appended table 2.10.5)	—
2.10.5.11	Insulation in wound components		P
2.10.5.12	Wire in wound components		P
	Working voltage :		P
	a) Basic insulation not under stress :		P

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Clause	Requirement – Test	Result - Remark	Verdict
	b) Basic, supplementary, reinforced insulation :		P
	c) Compliance with Annex U :		P
	Two wires in contact inside wound component; angle between 45° and 90° :		--
2.10.5.13	Wire with solvent-based enamel in wound components		N/A
	Electric strength test	(see appended table 2.10.5)	—
	Routine test		N/A
2.10.5.14	Additional insulation in wound components		N/A
	Working voltage :		N/A
	- Basic insulation not under stress :		N/A
	- Supplementary, reinforced insulation :		N/A
2.10.6	Construction of printed boards		N/A
2.10.6.1	Uncoated printed boards	(see appended table 2.10.3 and 2.10.4)	N/A
2.10.6.2	Coated printed boards	(see appended table 2.10.3 and 2.10.4)	N/A
2.10.6.3	Insulation between conductors on the same inner surface of a printed board	(see appended table 2.10.3 and 2.10.4)	N/A
2.10.6.4	Insulation between conductors on different layers of a printed board		N/A
	Distance through insulation	(see appended table 2.10.5)	N/A
	Number of insulation layers (pcs) :		N/A
2.10.7	Component external terminations	(see appended table 2.10.3 and 2.10.4)	P
2.10.8	Tests on coated printed boards and coated components		P
2.10.8.1	Sample preparation and preliminary inspection		P
2.10.8.2	Thermal conditioning		P
2.10.8.3	Electric strength test	(see appended table 5.2)	P
2.10.8.4	Abrasion resistance test		N/A
2.10.9	Thermal cycling		N/A
2.10.10	Test for Pollution Degree 1 environment and insulating compound		N/A
2.10.11	Tests for semiconductor devices and cemented joints		N/A
2.10.12	Enclosed and sealed parts		P
3	WIRING, CONNECTIONS AND SUPPLY		P
3.1	General		P

EN 60950-1			
Clause	Requirement – Test	Result - Remark	Verdict
3.1.1	Current rating and overcurrent protection		P
3.1.2	Protection against mechanical damage		P
3.1.3	Securing of internal wiring	Suitable securing	P
3.1.4	Insulation of conductors	(see appended table 5.2)	P
3.1.5	Beads and ceramic insulators	Not used.	N/A
3.1.6	Screws for electrical contact pressure	No screws used to provide electrical contact pressure.	N/A
3.1.7	Insulating materials in electrical connections	Not used.	N/A
3.1.8	Self-tapping and spaced thread screws		N/A
3.1.9	Termination of conductors	All conductors are reliable secured.	P
	10 N pull test	Break away or pivot on its terminal is unlikely.	P
3.1.10	Sleeving on wiring		N/A

3.2	Connection to a mains supply		P
3.2.1	Means of connection	AC 85-245V	P
3.2.1.1	Connection to an a.c. mains supply		P
3.2.1.2	Connection to a d.c. mains supply		N/A
3.2.2	Multiple supply connections		N/A
3.2.3	Permanently connected equipment		N/A
	Number of conductors, diameter of cable and conduits (mm) :		—
3.2.4	Appliance inlets		N/A
3.2.5	Power supply cords		N/A
3.2.5.1	AC power supply cords		N/A
	Type :		—
	Rated current (A), cross-sectional area (mm ²), AWG :		—
3.2.5.2	DC power supply cords		N/A
3.2.6	Cord anchorages and strain relief		N/A
	Mass of equipment (kg), pull (N) :		—
	Longitudinal displacement (mm) :		—
3.2.7	Protection against mechanical damage		P
3.2.8	Cord guards		N/A
	Diameter or minor dimension D (mm); test mass (g) :		—
	Radius of curvature of cord (mm) :		—



EN 60950-1			
Clause	Requirement – Test	Result - Remark	Verdict
3.2.9	Supply wiring space		N/A
3.3	Wiring terminals for connection of external conductors		N/A
3.3.1	Wiring terminals		N/A
3.3.2	Connection of non-detachable power supply cords		N/A
3.3.3	Screw terminals		N/A
3.3.4	Conductor sizes to be connected		N/A
	Rated current (A), cord/cable type, cross-sectional area (mm ²) :		—
3.3.5	Wiring terminal sizes		N/A
	Rated current (A), type, nominal thread diameter (mm) :		—
3.3.6	Wiring terminal design		N/A
3.3.7	Grouping of wiring terminals		N/A
3.3.8	Stranded wire		N/A
3.4	Disconnection from the mains supply		P
3.4.1	General requirement		P
3.4.2	Disconnect devices	Plug	P
3.4.3	Permanently connected equipment		N/A
3.4.4	Parts which remain energized		N/A
3.4.5	SwiZJhes in flexible cords		N/A
3.4.6	Number of poles - single-phase and d.c. equipment	L/N poles -single-phase	P
3.4.7	Number of poles - three-phase equipment	Single-phase equipment.	N/A
3.4.8	SwiZJhes as disconnect devices		N/A
3.4.9	Plugs as disconnect devices		P
3.4.10	Interconnected equipment		N/A
3.4.11	Multiple power sources		N/A
3.5	Interconnection of equipment		P
3.5.1	General requirements	SELV voltage connections for the output. Not compatible with connection for the input.	P
3.5.2	Types of interconnection circuits :	Only SELV circuit	P
3.5.3	ELV circuits as interconnection circuits		N/A
3.5.4	Data ports for additional equipment	IT	N/A
4	PHYSICAL REQUIREMENTS		P



EN 60950-1			
Clause	Requirement – Test	Result - Remark	Verdict
4.1	Stability		N/A
	Angle of 10°	Portable equipment	N/A
	Test force (N) :		N/A
4.2	Mechanical strength		P
4.2.1	General		P
4.2.2	Steady force test, 10 N	Internal components	P
4.2.3	Steady force test, 30 N	Enclosure	N/A
4.2.4	Steady force test, 250 N	Enclosure	P
4.2.5	Impact test	Enclosure	N/A
	Fall test	Enclosure	N/A
	Swing test	Enclosure	N/A
4.2.6	Drop test; height (mm) :	1m	P
4.2.7	Stress relief test	90°C	P
4.2.8	Cathode ray tubes		N/A
	Picture tube separately certified :		N/A
4.2.9	High pressure lamps		N/A
4.2.10	Wall or ceiling mounted equipment; force (N) :		N/A
4.3	Design and construction		P
4.3.1	Edges and corners	Smooth	P
4.3.2	Handles and manual controls; force (N) :	15	N/A
4.3.3	Adjustable controls	No adjustable controls.	N/A
4.3.4	Securing of parts		P
4.3.5	Connection by plugs and sockets		P
4.3.6	Direct plug-in equipment	direct plug-in type.	P
	Torque :	≤0.25N.m	—
	Compliance with the relevant mains plug standard :		P
4.3.7	Heating elements in earthed equipment	No heating elements provided.	N/A
4.3.8	Batteries		N/A
	- Overcharging of a rechargeable battery		--
	- Unintentional charging of a non-rechargeable battery		--
	- Reverse charging of a rechargeable battery		--
	- Excessive discharging rate for any battery		--



EN 60950-1			
Clause	Requirement – Test	Result - Remark	Verdict
4.3.9	Oil and grease	Insulation in intended use not considered to be exposed to oil or grease.	N/A
4.3.10	Dust, powders, liquids and gases	Equipment in intended use not considered to be exposed to these substances.	N/A
4.3.11	Containers for liquids or gases	No container for liquids or gases provided.	N/A
4.3.12	Flammable liquids :	No flammable liquids provided.	N/A
	Quantity of liquid (l) :		--
	Flash point (°C) :		--
4.3.13	Radiation		N/A
4.3.13.1	General		N/A
4.3.13.2	Ionizing radiation	Ionizing radiation.	N/A
	Measured radiation (pA/kg) :		—
	Measured high-voltage (kV) :		—
	Measured focus voltage (kV) :		—
	CRT markings :		—
4.3.13.3	Effect of ultraviolet (UV) radiation on materials	UV radiation.	N/A
	Part, property, retention after test, flammability classification :		--
4.3.13.4	Human exposure to ultraviolet (UV) radiation :		N/A
4.3.13.5	Laser (including LEDs)		N/A
	Laser class :		—
4.3.13.6	Other types :		N/A

4.4	Protection against hazardous moving parts		N/A
4.4.1	General		N/A
4.4.2	Protection in operator access areas :		N/A
4.4.3	Protection in restricted access locations :		N/A
4.4.4	Protection in service access areas		N/A

4.5	Thermal requirements		P
4.5.1	General		P
4.5.2	Temperature tests		P



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Clause	Requirement – Test	Result - Remark	Verdict
	Normal load condition per Annex L :		—
4.5.3	Temperature limits for materials	(see appended table 4.5)	P
4.5.4	Touch temperature limits	(see appended table 4.5)	P
4.5.5	Resistance to abnormal heat :	(see appended table 4.5.5)	P

4.6	Openings in enclosures		P
4.6.1	Top and side openings	Dangerous parts can not touch	P
	Dimensions (mm) :		—
4.6.2	Bottoms of fire enclosures		N/A
	Construction of the bottom, dimensions (mm) :		—
4.6.3	Doors or covers in fire enclosures		N/A
4.6.4	Openings in transportable equipment		N/A
4.6.4.1	Constructional design measures		N/A
	Dimensions (mm) :		—
4.6.4.2	Evaluation measures for larger openings		N/A
4.6.4.3	Use of metallized parts		N/A
4.6.5	Adhesives for constructional purposes		N/A
	Conditioning temperature (°C), time (weeks) :		—

4.7	Resistance to fire		P
4.7.1	Reducing the risk of ignition and spread of flame	Enclosure	P
	Method 1, selection and application of components wiring and materials	(see appended table 4.7)	P
	Method 2, application of all of simulated fault condition tests	(see appended table 5.3)	P
4.7.2	Conditions for a fire enclosure	Enclosure	P
4.7.2.1	Parts requiring a fire enclosure	Enclosure	P
4.7.2.2	Parts not requiring a fire enclosure		N/A
4.7.3	Materials	PVC	P
4.7.3.1	General	PVC Enclosure	P
4.7.3.2	Materials for fire enclosures		P
4.7.3.3	Materials for components and other parts outside fire enclosures		P

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Clause	Requirement – Test	Result - Remark	Verdict
4.7.3.4	Materials for components and other parts inside fire enclosures		P
4.7.3.5	Materials for air filter assemblies	No air filter provided.	N/A
4.7.3.6	Materials used in high-voltage components	No high voltage components provided.	N/A

5		ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS	P
5.1		Touch current and protective conductor current	P
5.1.1	General	Touch current shall not be a risk of electrical shock	P
5.1.2	Configuration of equipment under test (EUT)		P
5.1.2.1	Single connection to an a.c. mains supply	Using figure 5A.	P
5.1.2.2	Redundant multiple connections to an a.c. mains supply		P
5.1.2.3	Simultaneous multiple connections to an a.c. mains supply		P
5.1.3	Test circuit		P
5.1.4	Application of measuring instrument	Equipment comply with Annex D.	P
5.1.5	Test procedure	The touch current was measured from primary to enclosure and primary to output.	P
5.1.6	Test measurements	See appended table 5.1.6.	P
	Supply voltage (V) :	264V	—
	Measured touch current (mA) :	0.18mA	—
	Max. allowed touch current (mA) :	0.25mA	—
	Measured protective conductor current (mA) :		—
	Max. allowed protective conductor current (mA) :		—
5.1.7	Equipment with touch current exceeding 3,5 mA		N/A
5.1.7.1	General :		N/A
5.1.7.2	Simultaneous multiple connections to the supply		N/A
5.1.8	Touch currents to telecommunication networks and cable distribution systems and from telecommunication networks		N/A
5.1.8.1	Limitation of the touch current to a telecommunication network or to a cable distribution system		N/A
	Supply voltage (V) :		—
	Measured touch current (mA) :		—
	Max. allowed touch current (mA) :	3.5 mA	—



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Clause	Requirement – Test	Result - Remark	Verdict

5.1.8.2	Summation of touch currents from telecommunication networks		N/A
	a) EUT with earthed telecommunication ports :		N/A
	b) EUT whose telecommunication ports have no reference to protective earth		N/A

5.2	Electric strength		P
5.2.1	General	(see appended table 5.2)	P
5.2.2	Test procedure	(see appended table 5.2)	P

5.3	Abnormal operating and fault conditions		P
5.3.1	Protection against overload and abnormal operation	(see appended table 5.3)	P
5.3.2	Motors	Did not use	N/A
5.3.3	Transformers	(see appended Annex C)	P
5.3.4	Functional insulation :		P
5.3.5	Electromechanical components		N/A
5.3.6	Audio amplifiers in ITE :	See separate test report IEC/EN 60065	N/A
5.3.7	Simulation of faults		P
5.3.8	Unattended equipment		P
5.3.9	Compliance criteria for abnormal operating and fault conditions		P
5.3.9.1	During the tests		P
5.3.9.2	After the tests		P

6	CONNECTION TO TELECOMMUNICATION NETWORKS		N/A
6.1	Protection of telecommunication network service persons, and users of other equipment connected to the network, from hazards in the equipment		N/A
6.1.1	Protection from hazardous voltages		N/A
6.1.2	Separation of the telecommunication network from earth		N/A
6.1.2.1	Requirements	(see appended table 5.2)	N/A
	Supply voltage (V) :		—
	Current in the test circuit (mA) :		—
6.1.2.2	Exclusions :		N/A

6.2	Protection of equipment users from overvoltages on telecommunication networks		N/A
6.2.1	Separation requirements		N/A

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Clause	Requirement – Test	Result - Remark	Verdict
6.2.2	Electric strength test procedure		N/A
6.2.2.1	Impulse test		N/A
6.2.2.2	Steady-state test		N/A
6.2.2.3	Compliance criteria		N/A

6.3	Protection of the telecommunication wiring system from overheating		N/A
	Max. output current (A) :		—
	Current limiting method :		—

7	CONNECTION TO CABLE DISTRIBUTION SYSTEMS		N/A
7.1	General		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		N/A
7.3	Protection of equipment users from overvoltages on the cable distribution system		N/A
7.4	Insulation between primary circuits and cable distribution systems		N/A
7.4.1	General		N/A
7.4.2	Voltage surge test		N/A
7.4.3	Impulse test		N/A

A	Annex A, TESTS FOR RESISTANCE TO HEAT AND FIRE		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)		N/A
A.1.1	Samples :	PVC Enclosure	—
	Wall thickness (mm) :		—
A.1.2	Conditioning of samples; temperature (°C) :		N/A
A.1.3	Mounting of samples :		N/A
A.1.4	Test flame (see IEC 60695-11-3)		N/A
	Flame A, B, C or D :		—
A.1.5	Test procedure		N/A
A.1.6	Compliance criteria		N/A
	Sample 1 burning time (s) :		—
	Sample 2 burning time (s) :		—

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Clause	Requirement – Test	Result - Remark	Verdict
	Sample 3 burning time (s) :		—
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)		P
A.2.1	Samples, material :	Enlcosure ,PVC	—
	Wall thickness (mm) :	2.1	—
A.2.2	Conditioning of samples; temperature (°C) :		—
A.2.3	Mounting of samples :		—
A.2.4	Test flame (see IEC 60695-11-4)		—
	Flame A, B or C :		—
A.2.5	Test procedure		P
A.2.6	Compliance criteria		P
	Sample 1 burning time (s) :		—
	Sample 2 burning time (s) :		—
	Sample 3 burning time (s) :		—
A.2.7	Alternative test acc. to IEC 60695-11-5, cl. 5 and 9		N/A
	Sample 1 burning time (s) :		—
	Sample 2 burning time (s) :		—
	Sample 3 burning time (s) :		—
A.3	Hot flaming oil test (see 4.6.2)		N/A
A.3.1	Mounting of samples		N/A
A.3.2	Test procedure		N/A
A.3.3	Compliance criterion		N/A
B	Annex B, MOTOR TESTS UNDER ABNORMAL CONDITIONS (see 4.7.2.2 and 5.3.2)		N/A
B.1	General requirements		N/A
	Position :		—
	Manufacturer :		—
	Type :		—
	Rated values :		—
B.2	Test conditions		N/A
B.3	Maximum temperatures	(see appended table 5.3)	N/A
B.4	Running overload test	(see appended table 5.3)	N/A
B.5	Locked-rotor overload test		N/A
	Test duration (days) :		—



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Clause	Requirement – Test	Result - Remark	Verdict
	Electric strength test: test voltage (V) :		—
B.6	Running overload test for d.c. motors in secondary circuits		N/A
B.6.1	General		N/A
B.6.2	Test procedure		N/A
B.6.3	Alternative test procedure		N/A
B.6.4	Electric strength test; test voltage (V) :		N/A
B.7	Locked-rotor overload test for d.c. motors in secondary circuits		N/A
B.7.1	General		N/A
B.7.2	Test procedure		N/A
B.7.3	Alternative test procedure		N/A
B.7.4	Electric strength test; test voltage (V) :		N/A
B.8	Test for motors with capacitors	(see appended table 5.3)	N/A
B.9	Test for three-phase motors	(see appended table 5.3)	N/A
B.10	Test for series motors		N/A
	Operating voltage (V) :		—
C	Annex C, TRANSFORMERS (see 1.5.4 and 5.3.3)		P
	Position :	T1	—
	Manufacturer :	(See 1.5.4 and 5.3.3)	—
	Type :	(See 1.5.4 and 5.3.3)	—
	Rated values :		—
	Method of protection..... :		—
C.1	Overload test	(see appended table 5.3)	P
C.2	Insulation	(see appended table 5.2)	P
	Protection from displacement of windings..... :		P
D	Annex D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS (see 5.1.4)		P
D.1	Measuring instrument		P
D.2	Alternative measuring instrument		P
E	ANNEX E, TEMPERATURE RISE OF A WINDING (see 1.4.13)		N/A
F	ANNEX F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10 and Annex G)		P

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Clause	Requirement – Test	Result - Remark	Verdict

G	ANNEX G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES		N/A
G.1	Clearances		N/A
G.1.1	General		N/A
G.1.2	Summary of the procedure for determining minimum clearances		N/A
G.2	Determination of mains transient voltage (V)		N/A
G.2.1	AC mains supply		N/A
G.2.2	Earthed d.c. mains supplies		N/A
G.2.3	Unearthed d.c. mains supplies		N/A
G.2.4	Battery operation	Battery.	N/A
G.3	Determination of telecommunication network transient voltage (V)		--
G.4	Determination of required withstand voltage (V)		N/A
G.4.1	Mains transients and internal repetitive peaks		N/A
G.4.2	Transients from telecommunication networks		N/A
G.4.3	Combination of transients		N/A
G.4.4	Transients from cable distribution systems		N/A
G.5	Measurement of transient voltages (V)		N/A
	a) Transients from a mains supply		N/A
	For an a.c. mains supply		N/A
	For a d.c. mains supply		N/A
	b) Transients from a telecommunication network		N/A
G.6	Determination of minimum clearances		N/A

H	ANNEX H, IONIZING RADIATION (see 4.3.13)		N/A
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J	ANNEX J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6)		N/A
	Metal used		N/A

K	ANNEX K, THERMAL CONTROLS (see 1.5.3 and 5.3.8)		N/A
K.1	Making and breaking capacity		N/A
K.2	Thermostat reliability; operating voltage (V)		N/A
K.3	Thermostat endurance test; operating voltage (V)		N/A
K.4	Temperature limiter endurance; operating voltage (V)		N/A



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Clause	Requirement – Test	Result - Remark	Verdict

K.5	Thermal cut-out reliability		N/A
K.6	Stability of operation	(see appended table 5.3)	N/A

L	ANNEX L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.2)		N/A
L.1	Typewriters		N/A
L.2	Adding machines and cash registers		N/A
L.3	Erasers		N/A
L.4	Pencil sharpeners		N/A
L.5	Duplicators and copy machines		N/A
L.6	Motor-operated files		N/A
L.7	Other business equipment		N/A

M	ANNEX M, CRITERIA FOR TELEPHONE RINGING SIGNALS (see 2.3.1)		N/A
M.1	Introduction		N/A
M.2	Method A		N/A
M.3	Method B		N/A
M.3.1	Ringling signal		N/A
M.3.1.1	Frequency (Hz)		—
M.3.1.2	Voltage (V)		—
M.3.1.3	Cadence; time (s), voltage (V)		—
M.3.1.4	Single fault current (mA)		—
M.3.2	Tripping device and monitoring voltage		—
M.3.2.1	Conditions for use of a tripping device or a monitoring voltage		N/A
M.3.2.2	Tripping device		N/A
M.3.2.3	Monitoring voltage (V)		N/A

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)		N/A
N.1	ITU-T impulse test generators		N/A
N.2	IEC 60065 impulse test generator		N/A

P	ANNEX P, NORMATIVE REFERENCES		—
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Q	ANNEX Q, Voltage dependent resistors (VDRs) (see 1.5.9.1)		N/A
	a) Preferred climatic categories		N/A
	b) Maximum continuous voltage		N/A
	c) Pulse current		N/A



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Clause	Requirement – Test	Result - Remark	Verdict
R	ANNEX R, EXAMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES		N/A
R.1	Minimum separation distances for unpopulated coated printed boards (see 2.10.6.2)		N/A
R.2	Reduced clearances (see 2.10.3)		N/A
S	ANNEX S, PROCEDURE FOR IMPULSE TESTING (see 6.2.2.3)		N/A
S.1	Test equipment		N/A
S.2	Test procedure		N/A
S.3	Examples of waveforms during impulse testing		N/A
T	ANNEX T, GUIDANCE ON PROTECTION AGAINST INGRESS OF WATER (see 1.2)		N/A
		See separate test report	—
U	ANNEX U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4)		N/A
		See separate test report	—
V	ANNEX V, AC POWER DISTRIBUTION SYSTEMS (see 1.6.1)		P
V.1	Introduction		P
V.2	TN power distribution systems		P
W	ANNEX W, SUMMATION OF TOUCH CURRENTS		P
W.1	Touch current from electronic circuits		P
W.1.1	Floating circuits		P
W.1.2	Earthed circuits		N/A
W.2	Interconnection of several equipments		N/A
W.2.1	Isolation		N/A
W.2.2	Common return, isolated from earth		N/A
W.2.3	Common return, connected to protective earth		N/A
X	ANNEX X, MAXIMUM HEATING EFFECT IN TRANSFORMER TESTS (see clause C.1)		P
X.1	Determination of maximum input current		P
X.2	Overload test procedure		P
Y	ANNEX Y, ULTRAVIOLET LIGHT CONDITIONING TEST (see 4.3.13.3)		N/A
Y.1	Test apparatus		N/A
Y.2	Mounting of test samples		N/A



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Clause	Requirement – Test	Result - Remark	Verdict
Y.3	Carbon-arc light-exposure apparatus		N/A
Y.4	Xenon-arc light exposure apparatus		N/A
Z	ANNEX Z, OVERVOLTAGE CATEGORIES (see 2.10.3.2 and Clause G.2)		N/A
AA	ANNEX AA, MANDREL TEST (see 2.10.5.8)		N/A
BB	ANNEX BB, CHANGES IN THE SECOND EDITION		N/A
CC	ANNEX CC, Evaluation of integrated circuit (IC) current limiters		N/A
CC.1	General		N/A
CC.2	Test program 1.....		N/A
CC.3	Test program 2.....		N/A
DD	ANNEX DD, Requirements for the mounting means of rack-mounted equipment		N/A
DD.1	General		N/A
DD.2	Mechanical strength test, variable N.....		N/A
DD.3	Mechanical strength test, 250N, including end stops.....		N/A
DD.4	Compliance.....		N/A
EE	ANNEX EE, Household and home/office document/media shredders		N/A
EE.1	General		N/A
EE.2	Markings and instructions		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.....		N/A
EE.4	Disconnection of power to hazardous moving parts:		N/A
	Use of markings or symbols.....		N/A
EE.5	Protection against hazardous moving parts		N/A
	Test with test finger (Figure 2A)		N/A
	Test with wedge probe (Figure EE1 and EE2)		N/A

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Clause	Requirement – Test	Result - Remark	Verdict

IEC 60950-1:2005 – COMMON MODIFICATIONS			
Contents	Add the following annexes: Annex ZA (normative) Normative references to international publications with their corresponding European publications Annex ZB (normative) Special national conditions Annex ZC (informative) A-deviations		N/A
General	Delete all the “country” notes in the reference document according to the following list: 1.4.8 Note 2 1.5.1 Note 2 & 3 1.5.7.1 Note 1.5.8 Note 2 1.5.9.4 Note 1.7.2.1 Note 4, 5 & 6 2.2.3 Note 2.2.4 Note 2.3.2 Note 2.3.2.1 Note 2 2.3.4 Note 2 2.6.3.3 Note 2 & 3 2.7.1 Note 2.10.3.2 Note 2 2.10.5.13 Note 3 3.2.1.1 Note 3.2.4 Note 3. 2.5.1 Note 2 4.3.6 Note 1 & 2 4.7 Note 4 4.7.2.2 Note 4.7.3.1 Note 2 5.1.7.1 Note 3 & 4 5.3.7 Note 1 6 Note 2 & 5 6.1.2.1 Note 2 6.1.2.2 Note 6.2.2 Note 6. 2.2.1 Note 2 6.2.2.2 Note 7.1 Note 3 7.2 Note 7.3 Note 1 & 2 G.2.1 Note 2 Annex H Note 2		N/A
1.3.Z1	Add the following subclause: 1.3.Z1 Exposure to excessive sound pressure The apparatus shall be so designed and constructed as to present no danger when used for its intended purpose, either in normal operating conditions or under fault conditions, particularly providing protection against exposure to excessive sound pressures from headphones or earphones. NOTE Z1 A new method of measurement is described in EN 50332-1, Sound system equipment: Headphones and earphones associated with portable audio equipment - Maximum sound pressure level measurement methodology and limit considerations - Part 1: General method for “one package equipment”, and in EN 50332-2, Sound system equipment: Headphones and earphones associated with portable audio equipment - Maximum sound pressure level measurement methodology and limit considerations - Part 2: Guidelines to associate sets with headphones coming from different manufacturers.		N/A
1.5.1	Add the following NOTE: NOTE Z1 The use of certain substances in electrical and electronic equipment is restricted within the EU: see Directive 2002/95/EC		N/A

EN 60950-1																							
Clause	Requirement – Test	Result - Remark	Verdict																				
2.7.1	<p>Replace the subclause as follows:</p> <p>Basic requirements</p> <p>To protect against excessive current, short-circuits and earth faults in PRIMARY CIRCUITS, protective devices shall be included either as integral parts of the equipment or as parts of the building installation, subject to the following, a), b) and c):</p> <p>a) except as detailed in b) and c), protective devices necessary to comply with the requirements of 5.3 shall be included as parts of the equipment;</p> <p>b) for components in series with the mains input to the equipment such as the supply cord, appliance coupler, r.f.i. filter and swiZJh, short-circuit and earth fault protection may be provided by protective devices in the building installation;</p> <p>c) it is permitted for PLUGGABLE EQUIPMENT TYPE B or PERMANENTLY CONNECTED EQUIPMENT, to rely on dedicated overcurrent and short-circuit protection in the building installation, provided that the means of protection, e.g. fuses or circuit breakers, is fully specified in the installation instructions.</p> <p>If reliance is placed on protection in the building installation, the installation instructions shall so state, except that for PLUGGABLE EQUIPMENT TYPE A the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet.</p>		N/A																				
2.7.2	This subclause has been declared 'void'.		N/A																				
3.2.3	Delete the NOTE in Table 3A, and delete also in this table the conduit sizes in parentheses.		N/A																				
3.2.5.1	<p>Replace "60245 IEC 53" by "H05 RR-F";</p> <p>"60227 IEC 52" by "H03 VV-F or H03 VVH2-F";</p> <p>"60227 IEC 53" by "H05 VV-F or H05 VVH2-F2".</p> <p>In Table 3B, replace the first four lines by the following:</p> <table border="0" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;"> Up to and including 6</td> <td style="width: 10%; border-left: 1px solid black; border-right: 1px solid black;"></td> <td style="width: 20%; text-align: right;">0,75^{a)}</td> <td style="width: 10%; border-left: 1px solid black;"></td> <td style="width: 10%;"></td> </tr> <tr> <td> Over 6 up to and including 10</td> <td style="border-left: 1px solid black; border-right: 1px solid black; text-align: center;">(0,75)^{b)}</td> <td style="text-align: right;">1,0</td> <td style="border-left: 1px solid black;"></td> <td></td> </tr> <tr> <td style="text-align: center;"> </td> <td style="border-left: 1px solid black; border-right: 1px solid black;"></td> <td></td> <td style="border-left: 1px solid black;"></td> <td></td> </tr> <tr> <td> Over 10 up to and including 16</td> <td style="border-left: 1px solid black; border-right: 1px solid black; text-align: center;">(1,0)^{c)}</td> <td style="text-align: right;">1,5</td> <td style="border-left: 1px solid black;"></td> <td></td> </tr> </table> <p>In the conditions applicable to Table 3B delete the words "in some countries" in condition^{a)}.</p> <p>In NOTE 1, applicable to Table 3B, delete the second sentence.</p>	Up to and including 6		0,75 ^{a)}			Over 6 up to and including 10	(0,75) ^{b)}	1,0								Over 10 up to and including 16	(1,0) ^{c)}	1,5				N/A
Up to and including 6		0,75 ^{a)}																					
Over 6 up to and including 10	(0,75) ^{b)}	1,0																					
Over 10 up to and including 16	(1,0) ^{c)}	1,5																					
3.3.4	<p>In Table 3D, delete the fourth line: conductor sizes for 10 to 13 A, and replace with the following:</p> <table border="0" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;"> Over 10 up to and including 16</td> <td style="width: 10%; border-left: 1px solid black; border-right: 1px solid black; text-align: center;">1,5 to 2,5</td> <td style="width: 10%; border-left: 1px solid black;"></td> <td style="width: 10%; text-align: right;">1,5 to 4</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="border-left: 1px solid black; border-right: 1px solid black;"></td> <td style="border-left: 1px solid black;"></td> <td></td> </tr> </table> <p>Delete the fifth line: conductor sizes for 13 to 16 A.</p>	Over 10 up to and including 16	1,5 to 2,5		1,5 to 4						N/A												
Over 10 up to and including 16	1,5 to 2,5		1,5 to 4																				
4.3.13.6	<p>Add the following NOTE:</p> <p>NOTE Z1 Attention is drawn to 1999/519/EC: Council Recommendation on the limitation of exposure of the general public to electromagnetic fields 0 Hz to 300 GHz. Standards taking into account this Recommendation which demonstrate compliance with the applicable EU Directive are indicated in the OJEC.</p>		N/A																				

EN 60950-1			
Clause	Requirement – Test	Result - Remark	Verdict
Annex H	Replace the last paragraph of this annex by: At any point 10 cm from the surface of the OPERATOR ACCESS AREA, the dose rate shall not exceed 1 μ Sv/h (0,1 mR/h) (see NOTE). Account is taken of the background level. Replace the notes as follows: NOTE These values appear in Directive 96/29/Euratom. Delete NOTE 2.		N/A
Bibliography	Additional EN standards.		—



ZA	NORMATIVE REFERENCES TO INTERNATIONAL PUBLICATIONS WITH THEIR CORRESPONDING EUROPEAN PUBLICATIONS	N/A
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ZB	SPECIAL NATIONAL CONDITIONS	N/A
1.2.4.1	In Denmark , certain types of Class I appliances (see 3.2.1.1) may be provided with a plug not establishing earthing conditions when inserted into Danish socket-outlets.	N/A
1.5.7.1	In Finland, Norway and Sweden , resistors bridging BASIC INSULATION in CLASS I PLUGGABLE EQUIPMENT TYPE A must comply with the requirements in 1.5.7.2.	N/A
1.5.8	In Norway , due to the IT power system used (see annex V, Figure V.7), capacitors are required to be rated for the applicable line-to-line voltage (230 V).	N/A
1.5.9.4	In Finland, Norway and Sweden , the third dashed sentence is applicable only to equipment as defined in 6.1.2.2 of this annex.	N/A
1.7.2.1	In Finland, Norway and Sweden , CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet. The marking text in the applicable countries shall be as follows: In Finland: "Laitte on liitettävä suojamaadoituskoskettimilla varustettuun pistorasiaan" In Norway: "Apparatet må tilkoples jordet stikkontakt" In Sweden: "Apparaten skall anslutas till jordat uttag"	N/A
1.7.5	In Denmark , socket-outlets for providing power to other equipment shall be in accordance with the Heavy Current Regulations, Section 107-2-D1, Standard Sheet DK 1-3a, DK 1-5a or DK 1-7a, when used on Class I equipment. For STATIONARY EQUIPMENT the socket-outlet shall be in accordance with Standard Sheet DK 1-1b or DK 1-5a.	N/A
2.2.4	In Norway , for requirements see 1.7.2.1, 6.1.2.1 and 6.1.2.2 of this annex.	N/A
2.3.2	In Finland, Norway and Sweden there are additional requirements for the insulation. See 6.1.2.1 and 6.1.2.2 of this annex.	N/A
2.3.4	In Norway , for requirements see 1.7.2.1, 6.1.2.1 and 6.1.2.2 of this annex.	N/A

EN 60950-1																											
Clause	Requirement – Test	Result - Remark	Verdict																								
2.6.3.3	In the United Kingdom , the current rating of the circuit shall be taken as 13 A, not 16 A.		N/A																								
2.7.1	In the United Kingdom , to protect against excessive currents and short-circuits in the PRIMARY CIRCUIT of DIRECT PLUG-IN EQUIPMENT, tests according to 5.3 shall be conducted, using an external protective device rated 30 A or 32 A. If these tests fail, suitable protective devices shall be included as integral parts of the DIRECT PLUG-IN EQUIPMENT, so that the requirements of 5.3 are met.		N/A																								
2.10.5.13	In Finland, Norway and Sweden , there are additional requirements for the insulation, see 6.1.2.1 and 6.1.2.2 of this annex.		N/A																								
3.2.1.1	<p>In Switzerland, supply cords of equipment having a RATED CURRENT not exceeding 10 A shall be provided with a plug complying with SEV 1011 or IEC 60884-1 and one of the following dimension sheets:</p> <table border="0"> <tr> <td>SEV 6532-2.1991</td> <td>Plug Type 15</td> <td>3P+N+PE</td> <td>250/400 V, 10 A</td> </tr> <tr> <td>SEV 6533-2.1991</td> <td>Plug Type 11</td> <td>L+N</td> <td>250 V, 10 A</td> </tr> <tr> <td>SEV 6534-2.1991</td> <td>Plug Type 12</td> <td>L+N+PE</td> <td>250 V, 10 A</td> </tr> </table> <p>In general, EN 60309 applies for plugs for currents exceeding 10 A. However, a 16 A plug and socket-outlet system is being introduced in Switzerland, the plugs of which are according to the following dimension sheets, published in February 1998:</p> <table border="0"> <tr> <td>SEV 5932-2.1998</td> <td>Plug Type 25</td> <td>3L+N+PE</td> <td>230/400 V, 16 A</td> </tr> <tr> <td>SEV 5933-2.1998</td> <td>Plug Type 21</td> <td>L+N</td> <td>250 V, 16 A</td> </tr> <tr> <td>SEV 5934-2.1998</td> <td>Plug Type 23</td> <td>L+N+PE</td> <td>250 V, 16 A</td> </tr> </table>	SEV 6532-2.1991	Plug Type 15	3P+N+PE	250/400 V, 10 A	SEV 6533-2.1991	Plug Type 11	L+N	250 V, 10 A	SEV 6534-2.1991	Plug Type 12	L+N+PE	250 V, 10 A	SEV 5932-2.1998	Plug Type 25	3L+N+PE	230/400 V, 16 A	SEV 5933-2.1998	Plug Type 21	L+N	250 V, 16 A	SEV 5934-2.1998	Plug Type 23	L+N+PE	250 V, 16 A		N/A
SEV 6532-2.1991	Plug Type 15	3P+N+PE	250/400 V, 10 A																								
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SEV 5934-2.1998	Plug Type 23	L+N+PE	250 V, 16 A																								
3.2.1.1	<p>In Denmark, supply cords of single-phase equipment having a rated current not exceeding 13 A shall be provided with a plug according to the Heavy Current Regulations, Section 107-2-D1.</p> <p>CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a.</p> <p>If poly-phase equipment and single-phase equipment having a RATED CURRENT exceeding 13 A is provided with a supply cord with a plug, this plug shall be in accordance with the Heavy Current Regulations, Section 107-2-D1 or EN 60309-2.</p>		N/A																								
3.2.1.1	<p>In Spain, supply cords of single-phase equipment having a rated current not exceeding 10 A shall be provided with a plug according to UNE 20315:1994.</p> <p>Supply cords of single-phase equipment having a rated current not exceeding 2,5 A shall be provided with a plug according to UNE-EN 50075:1993.</p> <p>CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules, shall be provided with a plug in accordance with standard UNE 20315:1994.</p> <p>If poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with UNE-EN 60309-2.</p>		N/A																								
3.2.1.1	<p>In the United Kingdom, apparatus which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to BS 1363 by means of that flexible cable or cord and plug, shall be fitted with a 'standard plug' in accordance with Statutory Instrument 1768:1994 - The Plugs and Sockets eZJ. (Safety) Regulations 1994, unless exempted by those regulations.</p> <p>NOTE 'Standard plug' is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.</p>		N/A																								

EN 60950-1			
Clause	Requirement – Test	Result - Remark	Verdict
3.2.1.1	In Ireland , apparatus which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to I.S. 411 by means of that flexible cable or cord and plug, shall be fitted with a 13 A plug in accordance with Statutory Instrument 525:1997 - National Standards Authority of Ireland (section 28) (13 A Plugs and Conversion Adaptors for Domestic Use) Regulations 1997.		N/A
3.2.4	In Switzerland , for requirements see 3.2.1.1 of this annex.		N/A
3.2.5.1	In the United Kingdom , a power supply cord with conductor of 1,25 mm ² is allowed for equipment with a rated current over 10 A and up to and including 13 A.		N/A
3.3.4	In the United Kingdom , the range of conductor sizes of flexible cords to be accepted by terminals for equipment with a RATED CURRENT of over 10 A up to and including 13 A is: • 1,25 mm ² to 1,5 mm ² nominal cross-sectional area.		N/A
4.3.6	In the United Kingdom , the torque test is performed using a socket outlet complying with BS 1363 part 1:1995, including Amendment 1:1997 and Amendment 2:2003 and the plug part of DIRECT PLUG-IN EQUIPMENT shall be assessed to BS 1363: Part 1, 12.1, 12.2, 12.3, 12.9, 12.11, 12.12, 12.13, 12.16 and 12.17, except that the test of 12.17 is performed at not less than 125 °C. Where the metal earth pin is replaced by an Insulated Shutter Opening Device (ISOD), the requirements of clauses 22.2 and 23 also apply.		N/A
4.3.6	In Ireland , DIRECT PLUG-IN EQUIPMENT is known as plug similar devices. Such devices shall comply with Statutory Instrument 526:1997 - National Standards Authority of Ireland (Section 28) (Electrical plugs, plug similar devices and sockets for domestic use) Regulations, 1997.		N/A
5.1.7.1	In Finland, Norway and Sweden TOUCH CURRENT measurement results exceeding 3,5 mA r.m.s. are permitted only for the following equipment: • STATIONARY PLUGGABLE EQUIPMENT TYPE A that ○ is intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, for example, in a telecommunication centre; and ○ has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR; and ○ is provided with instructions for the installation of that conductor by a SERVICE PERSON; • STATIONARY PLUGGABLE EQUIPMENT TYPE B; • STATIONARY PERMANENTLY CONNECTED EQUIPMENT.		N/A

EN 60950-1			
Clause	Requirement – Test	Result - Remark	Verdict
6.1.2.1	<p>In Finland, Norway and Sweden, add the following text between the first and second paragraph of the compliance clause:</p> <p>If this insulation is solid, including insulation forming part of a component, it shall at least consist of either</p> <ul style="list-style-type: none"> - two layers of thin sheet material, each of which shall pass the electric strength test below, or - one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below. <p>If this insulation forms part of a semiconductor component (e.g. an optocoupler), there is no distance through insulation requirement for the insulation consisting of an insulating compound completely filling the casing, so that CLEARANCES and CREEPAGE DISTANCES do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition</p> <ul style="list-style-type: none"> - passes the tests and inspection criteria of 2.10.11 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 2.10.10 shall be performed using 1,5 kV), and - is subject to ROUTINE TESTING for electric strength during manufacturing, using a test voltage of 1,5 kV. <p>It is permitted to bridge this insulation with a capacitor complying with EN 132400:1994, subclass Y2.</p> <p>A capacitor classified Y3 according to EN 132400:1994, may bridge this insulation under the following conditions:</p> <ul style="list-style-type: none"> - the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 132400, which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in IEC 60950-1:2005, 6.2.2.1; - the additional testing shall be performed on all the test specimens as described in EN 132400; - the impulse test of 2,5 kV is to be performed before the endurance test in EN 132400, in the sequence of tests as described in EN 132400. 		N/A
6.1.2.2	<p>In Finland, Norway and Sweden, the exclusions are applicable for PERMANENTLY CONNECTED EQUIPMENT, PLUGGABLE EQUIPMENT TYPE B and equipment intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, e.g. in a telecommunication centre, and which has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR and is provided with instructions for the installation of that conductor by a SERVICE PERSON.</p>		N/A
7.2	<p>In Finland, Norway and Sweden, for requirements see 6.1.2.1 and 6.1.2.2 of this annex.</p> <p>The term TELECOMMUNICATION NETWORK in 6.1.2 being replaced by the term CABLE DISTRIBUTION SYSTEM.</p>		N/A
7.3	<p>In Norway and Sweden, there are many buildings where the screen of the coaxial cable is normally not connected to the earth in the building installation.</p>		N/A
7.3	<p>In Norway, for installation conditions see EN 60728-11:2005.</p>		N/A
ZC	A-DEVIATIONS (informative)		N/A

EN 60950-1			
Clause	Requirement – Test	Result - Remark	Verdict
1.5.1	<p>Sweden (Ordinance 1990:944)</p> <p>Add the following:</p> <p>NOTE In Sweden, swiZJhes containing mercury are not permitted.</p>		N/A
1.5.1	<p>Switzerland (Ordinance on environmentally hazardous substances SR 814.081, Annex 1.7, Mercury - Annex 1.7 of SR 814.81 applies for mercury.)</p> <p>Add the following:</p> <p>NOTE In Switzerland, swiZJhes containing mercury such as thermostats, relays and level controllers are not allowed.</p>		N/A
1.7.2.1	<p>Denmark (Heavy Current Regulations)</p> <p>Supply cords of CLASS I EQUIPMENT, which is delivered without a plug, must be provided with a visible tag with the following text:</p> <p style="text-align: center;">Vigtigt! Lederen med grøn/gul isolation må kun tilsluttes en klemme mærket</p> <p style="text-align: center;"> eller </p> <p>If essential for the safety of the equipment, the tag must in addition be provided with a diagram, which shows the connection of the other conductors, or be provided with the following text:</p> <p>“For tilslutning af de øvrige ledere, se medfølgende installationsvejledning.”</p>		P
1.7.2.1	<p>Germany (Gesetz über technische Arbeitsmittel und Verbraucherprodukte (Geräte- und Produktsicherheitsgesetz – GPSG) [Law on technical labour equipment and consumer products], of 6th January 2004, Section 2, Article 4, Clause (4), Item 2).</p> <p>If for the assurance of safety and health certain rules during use, amending or maintenance of a technical labour equipment or readymade consumer product are to be followed, a manual in German language has to be delivered when placing the product on the market.</p> <p>Of this requirement, rules for use even only by SERVICE PERSONS are not exempted.</p>		N/A
1.7.5	<p>Denmark (Heavy Current Regulations)</p> <p>With the exception of CLASS II EQUIPMENT provided with a socket outlet in accordance with the Heavy Current Regulations, Section 107-2-D1, Standard Sheet DK 1-4a, CLASS II EQUIPMENT shall not be fitted with socket-outlets for providing power to other equipment.</p>		N/A
1.7.13	<p>Switzerland (Ordinance on chemical hazardous risk reduction SR 814.81, Annex 2.15 Batteries)</p> <p>Annex 2.15 of SR 814.81 applies for batteries.</p>		N/A
5.1.7.1	<p>Denmark (Heavy Current Regulations, Chapter 707, clause 707.4)</p> <p>TOUCH CURRENT measurement results exceeding 3,5 mA r.m.s. are permitted only for PERMANENTLY CONNECTED EQUIPMENT and PLUGGABLE EQUIPMENT TYPE B.</p>		N/A

1.5.1	TABLE: list of critical components					P
object/part No.	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity ¹⁾	
NZJ	--	SD-9	--	-	Tested with appliance	
Transformer	--	--	Class B	--	Tested with appliance	
E-Capacitor	--	TH105°C (M)	120uF 400V	--	Tested with appliance	
E-Capacitor	KSJ	LOWESR VENT	40+105°C		Tested with appliance	
Y-Capacitor	JNC	--	--	--	VDE	
X-Capacitor	ZJ	MEX/TENA MKP	0.1uF K X2 275V~	--	VDE	
Fuse	--	--	T2A 250V	--	Tested with appliance	
PCB	--	--	130°C	--	Tested with appliance	

¹⁾ an asterisk indicates a mark which assures the agreed level of surveillance

1.6.2	TABLE: electrical data test (in normal conditions)						P
fuse #	Irated (A)	U (V)	I (A)	P(W)	DC output(V)	DC output(A)	condition
F1	--	90 (50Hz)	0.137	7.3	4.2	0.65	under maximum normal load
	--	90 (60Hz)	0.140	7.3	4.2	0.65	
	0.2	100 (50Hz)	0.125	7.3	4.2	0.65	
	0.2	100 (60Hz)	0.131	7.2	4.2	0.65	
	0.2	240 (50Hz)	0.067	6.8	4.2	0.65	
	0.2	240 (60Hz)	0.067	6.8	4.2	0.65	
	--	254.4 (50Hz)	0.064	6.9	4.2	0.65	
	--	254.4 (60Hz)	0.064	6.9	4.2	0.65	

Remark: The steady state input current [did] [did not] exceed the rated current at the rated voltage by more than 10 percent under maximum normal load.



1.7.13	TABLE: durability of marking test			P
Location	Checked by	Time	Result	
External enclosure	Water	15s	No any curling and still legibility	
External enclosure	Petroleum spirit	15s	No any curling and still legibility	

2.1.1.5	TABLE: Hazardous energy measurement			P
Output	Voltage (Max.) (V)	Current (Max.) (A)	VA (Max.) (VA)	
V+ to V-	4.6	0.65	2.99	
Remark:				
Input: 1.1 times rate voltage				

2.1.1.7	TABLE: discharge test				N/A
Condition	calculated	calculated	T u →0V(s)	Comments	
Remark:					
Input:					

2.2.2& 2.2.3	TABLE: voltage measurement under normal and fault condition			P
Location	condition	Voltage measurement (V)	Comments	
Transformer secondary	Normal	26.4	Pass	
Remark: The voltage should not exceeds 42.4V peak and 60Vd.c , and moreover,71V peak and 120V dc(0.2s) in fault condition				
Input: Un				

2.4.2	TABLE: limited current circuit measurement					P
Location	Voltage (V)	Current (mA)	Freq. (kHz)	Limit (mA)	Comments	
Y capacitor Sec.	46	23	50	35	Pass	
Remark:						

2.5	TABLE: limited power source measurement			P
Condition	Output voltage (Uoc) (V)	Output current (Isc) (A)	Apparent power (S) (VA)	
Normal condition	3.75	0.65	2.43	
Single fault: Opto-coupler(1-2)S-C	0	0	0	
Uoc: max output voltage, Isc: max. output current with any non-capacitive load, including a short circuit, measured 5s after application of the load, S(VA): max. output VA with any non-capacitive load, including a short circuit, measured 5s after application of the load				
Remark:				



2.6.3.3	TABLE: provisions for protective earthing			N/A
Location		Resistance measured(mΩ)	Comments	
Note:				

2.9.2	TABLE: humidity test				P
Test condition:		Temperature	Relative Humidity	Duration	Breakdown (Y/N)
		25°C	93%	48h	N
Remark: After humidity test, electric strength test specified in clause 5.2.2 should be applied.					

2.10.2	TABLE: working voltage measurement			P
Location		Peak Voltage (V)	RMR Voltage (V)	Comments ¹⁾
Transformer pin 1 to pin 5		346	219	
Transformer pin 1 to pin 6		370	213	
Transformer pin 2 to pin 5		474	240	
Transformer pin 2 to pin 6		480	231	
Transformer pin 3 to pin 5		382	219	
Transformer pin 3 to pin 6		360	202	
Transformer pin 4 to pin 5		346	219	
Transformer pin 4 to pin 6		352	200	
Optocoupler pin 1 to pin 3		350	211	
Optocoupler pin 1 to pin 3		350	205	
Optocoupler pin 2 to pin 3		350	217	
Optocoupler pin 2 to pin 4		348	203	
CY1 primary to secondary		346	203	
Remark: Input: 240V/50Hz				

2.10.3 and 2.10.4	TABLE: clearance and creepage distance measurements					P	
clearance cl and creepage distance dcr at/of:		Up (V)	U r.m.s. (V)	required cl (mm)	cl (mm)	required dcr (mm)	dcr (mm)
L to N		340	240	1.5	3.5	2.5	3.5
Pri. Wing to sec. of transformers		480	240	6.4	7.9	5	7.9
Pri. to sec.by PCB		350	2.7	3	5.3	5	5.3
Remark:							



3.2.6	TABLE: strain relief test				N
Mass(Kg)	Pull force(N)	Duration	Times	Displaced ($\leq 2\text{mm}$)	
0.08	30N	1 s per time	25	1.0	
Remark:					

4.2.4	TABLE: steady force test ,250N				P
Test part	Push force(N)	Duration	Result	Breakdown (Y/N)	
Top	250	5s	No damage	N	
Side	250	5s	No damage	N	
Bottom	250	5s	No damage	N	
Remark:					

4.2.5	TABLE: impact test			N/A
Test part	method	Result	Breakdown (Y/N)	

4.2.6	TABLE: drop test		P
Test part	Height (m)	Result	
Top	1.0	No damage	
Side	1.0	No damage	
Bottom	1.0	No damage	

4.2.7	TABLE: stress relief test		P
Temperature (°C)	Duration	Result	
70	7H	No soften	

4.3.6	TABLE: DIRECT PLUG-IN EQUIPMENT-MOMENT TEST		P
Torque (N.m)		0.02	
Remark: $\text{limit} \leq 0.25\text{N.m}$			

4.5.1	TABLE: temperature rise measurements			P
	t1 (°C).....:	21.2		—
	t2 (°C).....:	21.3		—
temperature rise dT of part/at:		90V 50Hz	254.4V 50Hz	required Tmax (°C)
		Temperature (°C)	Temperature(°C)	
Plug holder		42.7	34.6	105
Input Wire		62.7	45.3	105



C3 body	103.0	71.1	105
TR1 Coil	83.3	69.3	110
TR1 Core	86.2	72.0	110
IC1 of Optocoupler	65.8	53.5	100
C9 body (Y-Capacity)	70.6	57.1	105
PCB near D5	77.6	69.1	130
R6	48.2	60.2	105
Output Wire	45.5	40.9	105
Enclosure near TR1, inside	58.8	50.1	95
Enclosure near TR1, outside	50.9	43.8	95

4.5.5	TABLE: ball pressure test of thermoplastics			P
	required impression diameter (mm)	Limit ≤ 2 mm		--
	part	test temperature (°C)	impression diameter (mm)	
	Plug holder	125	0.9	
	Transformer bobbin	125	0.8	

5.1	ANNEX D – TOUCH CURRENT TEST (SINGLE-PHASE; TN/TT SYSTEM)					P
Terminal A (SwiZJh “s”) of Measuring Instrument Connected to:	SwiZJh “e” Position	Test voltage (V)	Touch Current (mA r.m.s.)			
			Polarity P1/Primary SwiZJh Condition			
			Normal/On	Normal/Off	Reverse/On	Reverse/Off
Output terminal	closed	254.4V	0.001	--	0.001	--
Enclosure with metal foil	closed	254.4V	0.001	--	0.001	--

5.2	TABLE: Electric strength tests, impulse tests and voltage surge tests			P
Test voltage applied between: From/To		Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No
Live parts to Output		AC	3000	No
Live parts to enclosure cover with metal foil		AC	3000	No
Transformer primary to secondary		AC	3000	No
Transformer core to secondary		AC	3000	No
One layer film tape		AC	1500	No

5.3.1, 5.3.4, 5.3.7	TABLE: component failure tests		P
	Ambient temperature (°C) :	19.0	



Component No.	Fault	Supply voltage (V)	Test time	Fuse current (A)	Observation
D4	Short	240V/50Hz	3Min	--	Unit Shutdown, No Hazard
C5	Short	240V/50Hz	3Min	--	Unit Shutdown, No Hazard
Transformer(5-6)	Short	240V/50Hz	3Min	--	Unit Shutdown, No Hazard
Transformer(1-2)	Short	240V/50Hz	3Min	--	Unit Shutdown, No Hazard
Transformer(3-4)	Short	240V/50Hz	3Min	--	Unit Shutdown, No Hazard
Opto-coupler	Short	240V/50Hz	3Min	--	Unit Shutdown, No Hazard
Y Capacity	Short	240V/50Hz	3Min	--	Unit Shutdown, No Hazard
D1	Short	240V/50Hz	3Min	--	F1 Open, No Hazard
Supplementary information: After fault condition, all output voltage comply with SELV requirement;					

5.3.7 TABLE: POWER SUPPLY OUTPUT SHORT-CIRCUIT/OVERLOAD TEST						
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Output V+ to Output V-	Shout	240V/50Hz	10Min	F1	-	Unit Shutdown, No Hazard
Output V+ to Output V-	Overload	240V/50Hz	5H	F1		The Output Current:3.4A, The maximum Temperature were: T1 core=143.0°C, T1 coil =135.7°C, Ambient=24.5°C.



ANNEX AAA: Equipment list

Code	Name	Model/Type	S/N	Calibrated date	Next Calibration Date	Manufacture
ZJ-001	Digital Multimeter	34401A	MY47043456	2013.07.20	2014.07.19	agilent
ZJ-004	Push/pull gauge	NK-500	2Q10060932	2013.07.20	2014.07.19	
ZJ-005	Electronic weight	DSI-861	198692	2013.07.20	2014.07.19	shangdeli
ZJ-006	Insulation resistance tester	CS2676CX	1107032-009	2013.07.20	2014.07.19	changshen
ZJ-007	Earthing resistance tester	YD2668-4B	4B-2307	2013.07.20	2014.07.19	Yangzi
ZJ-008	HI-pot/Insulation tester	CS2672C	1108006-002	2013.07.20	2014.07.19	changshen
ZJ-010	AC Voltage Regulator	TDGC2J		2013.07.20	2014.07.19	SAKO
ZJ-013	AC power source	HPA-3110	3513	2013.07.20	2014.07.19	Henqiang
ZJ-014	Temperature/Humidity chamber	SDJ-80L	SDJ-80J	2013.07.20	2014.07.19	Shenzhen hongjian
ZJ-015	Electric oven	HK45AS	F11011008	2013.07.20	2014.07.19	Guangzhou KENTON
ZJ-017	AC digital power meter	PF9901	YG100731N11070075	2013.07.20	2014.07.19	Yuanfang
ZJ-019	DC electronic load	IT8512	002002506670001002	2013.07.20	2014.07.19	ITECH
ZJ-022	Leakage current tester	228	10-866030	2013.07.20	2014.07.19	simpson
ZJ-023	Oscilloscope	TDS1012C-SC	C013300	2013.07.21	2014.07.20	tektronix
ZJ-024	Tape measure	DK-2041		2013.07.23	2014.07.22	Proskit
ZJ-025	Stop watch	TA-228		2013.07.21	2014.07.20	KTJ
ZJ-026	Data acquisition/software unit	34970A	MY44057668	2013.07.24	2014.07.23	Agilent
ZJ-027	Temperature/humidity meter	VC230		2013.07.21	2014.07.20	ViCTOR
ZJ-028	Torque drive	3RTD	435850B	2013.05.15	2014.05.14	TOHNICHI
ZJ-030	Impact hammer	ZLT-CJ1	C011207	2013.07.21	2014.07.20	Guangzhou zhilitong
ZJ-031	Inclined plane	ZLT-WD1	W011201	2013.07.20	2014.07.19	Guangzhou zhilitong
ZJ-033	Test finger	ZLT-I02	I021203	2013.07.23	2014.07.22	Guangzhou zhilitong
ZJ-034	Test pin	ZLT-I09	I091201	2013.07.23	2014.07.22	Guangzhou zhilitong
ZJ-038	Test apparatus of the mains plug	ZLT-LJ2	LJ011202	2013.07.20	2014.07.19	Guangzhou zhilitong
ZJ-039	Ball pressure apparatus	ZLT-QY1	Q011202	2013.07.21	2014.07.20	Guangzhou zhilitong
ZJ-042	Caliper rule	CD-6 " CSX	500-196-20	2013.07.05	2014.07.04	MITUTOYO

ANNEX BBB:

Photo-documentation

Figure 错误！未指定书签。 Over view



Figure 错误！未指定书签。 Over view



End of Test Report

