
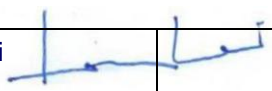
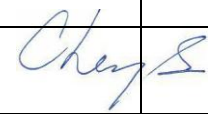




TEST REPORT IEC 60950-1 Information technology equipment – Safety – Part 1: General requirements	
Report Number..... : SHES160400322101 Date of issue..... : 2016-07-18 Total number of pages 75 pages	
Applicant's name GlobTek, Inc. Address..... : 186 Veterans Dr. Northvale, NJ 07647, USA	
Test specification: Standard IEC 60950-1: 2005 (Second Edition) + Am 1: 2009 + Am 2: 2013 Test procedure SGS-CSTC Non-standard test method N/A	
Test Report Form No. : IEC60950_1F Test Report Form(s) Originator : SGS Fimko Ltd Master TRF Dated 2014-02 Copyright © 2014 IEC System of Conformity Assessment Schemes for Electrotechnical Equipment and Components (IECEE System). All rights reserved. This publication may be reproduced in whole or in part for non-commercial purposes as long as the IECEE is acknowledged as copyright owner and source of the material. IECEE takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context. If this Test Report Form is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed. This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.	
General disclaimer: 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 CB Testing Laboratory. The authenticity of this Test Report and its contents can be verified by contacting the NCB, responsible for this Test Report.	
Test item description..... : Trade Mark..... : Manufacturer Model/Type reference Ratings	ITE Power Supply  GlobTek® ,Inc. Same as applicant GT-43004P***-T* (Refer to page 6 for details) Input: 100 - 240 Vac; 50 - 60 Hz; 2,0 A Output: 12-24 Vdc; Max.10 A; Max. 150 W Class I

Testing procedure and testing location:		
<input checked="" type="checkbox"/>	CB Testing Laboratory:	SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.
Testing location/ address		588 West Jindu Road, Xinqiao Town, Songjiang, 201612 Shanghai, China
<input type="checkbox"/>	Associated CB Testing Laboratory:	
Testing location/ address		
Tested by (name + signature)		Lancer Lei 
Approved by (name + signature)		Cherry Sun 
<input type="checkbox"/>	Testing procedure: TMP/CTF Stage 1:	
Testing location/ address		
Tested by (name + signature)		
Approved by (name + signature)		
<input type="checkbox"/>	Testing procedure: WMT/CTF Stage 2:	
Testing location/ address		
Tested by (name + signature)		
Witnessed by (name + signature)		
Approved by (name + signature)		
<input type="checkbox"/>	Testing procedure: SMT/CTF Stage 3 or 4:	
Testing location/ address		
Tested by (name + signature)		
Witnessed by (name + signature)		
Approved by (name + signature)		
Supervised by (name + signature)		

List of Attachments (including a total number of pages in each attachment):

Attachment 1 – 5 pages of Photos documents;

Attachment 2 – 2 pages of Circuit diagram and PCB layout;

Attachment 3 – 19 pages of European group differences and national differences;

Summary of testing:

The sample(s) tested complies with the requirements of IEC 60950-1:2005 (Second Edition) + Am 1:2009 + Am 2:2013 and EN 60950-1: 2006 + A11: 2009 + A1: 2010 + A12: 2011+ A2: 2013.

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

The power supply (model: GT-43004P***-T*) was separately certified according to IEC 60950-1: 2005 (Second Edition) + Am 1: 2009 by Intertek (CB certificate Ref. Certif. No. SE-76446 issued on 13 June 2014, with CB test report Number 140501507SHA-001).

No additional test was considered necessary.

All tests are performed on models GT-43004P12012-T3, GT-43004P12016-1.0-T3, GT-43004P12019-T3 and GT-43004P15024-T3 as representative, for max. output power, output current and voltage.

Test information in report:

Heating test (4.5):

Ta = 40 °C (declared by manufacturer)

Tamb = 40 °C

Tests were carried out at 90 Va.c. and 264 Va.c..

K-type thermocouple used for temperature measurement.

Tests performed (name of test and test clause):

- ☒ 1. GENERAL
- ☒ 2. PROTECTION FROM HAZARDS
- ☒ 3. WIRING, CONNECTIONS AND SUPPLY
- ☒ 4. PHYSICAL REQUIREMENTS
- ☒ 5. ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS
- ☐ 6. CONNECTION TO TELECOMMUNICATION NETWORKS
- ☐ 7. CONNECTION TO CABLE DISTRIBUTION SYSTEMS

Testing location:

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

588 West Jindu Road, Xinqiao Town, Songjiang, 201612 Shanghai, China

Summary of compliance with National Differences:
List of countries addressed

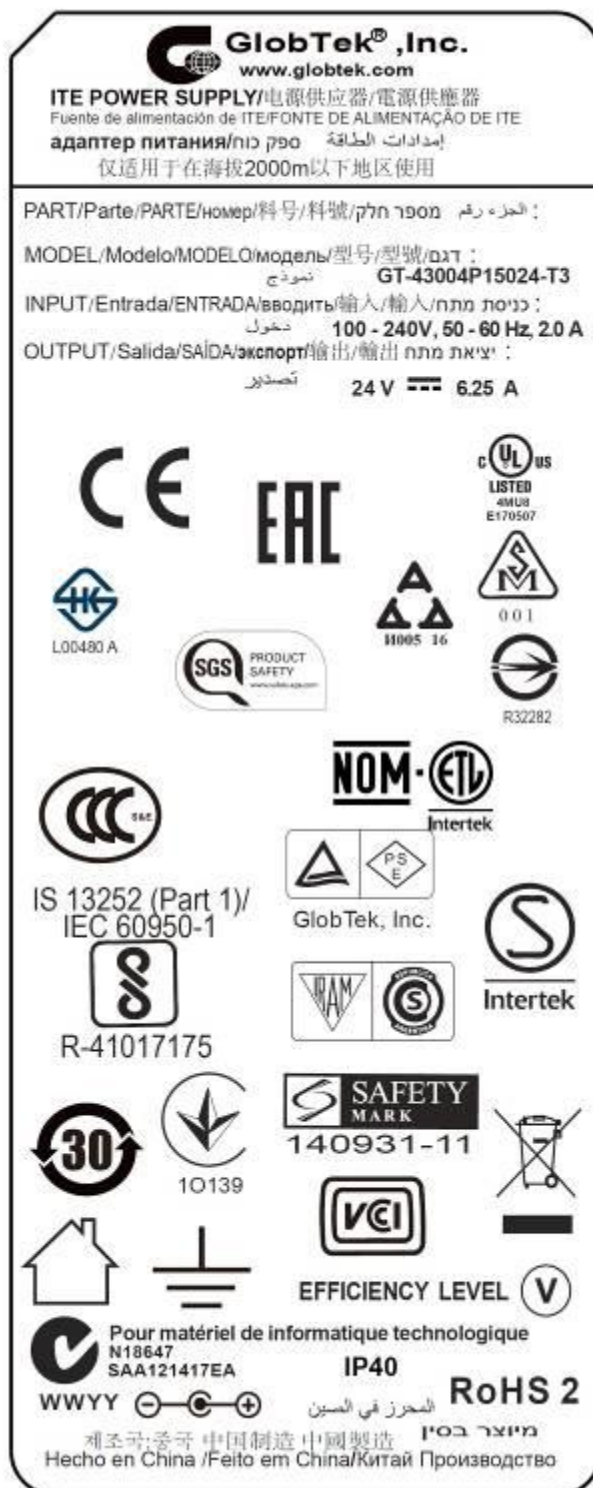
1. EU Group Differences (EN 60950-1: 2006 + A11: 2009 + A1: 2010 + A12: 2011 + A2: 2013)
2. EU Special National Conditions, EU A-deviations: none

The product fulfils the above requirements.

Copy of marking plate:

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective National Certification Body that own these marks.

(Additional requirements for markings. See 1.7 NOTE)



Remark: The marking for other models are same as above except model name and output parameters.

Test item particulars.....:	
Equipment mobility.....:	<input checked="" type="checkbox"/> movable <input type="checkbox"/> hand-held <input type="checkbox"/> transportable <input type="checkbox"/> stationary <input type="checkbox"/> for building-in <input type="checkbox"/> direct plug-in
Connection to the mains.....:	<input checked="" type="checkbox"/> pluggable equipment <input checked="" type="checkbox"/> type A <input type="checkbox"/> type B <input type="checkbox"/> permanent connection <input checked="" type="checkbox"/> detachable power supply cord <input type="checkbox"/> non-detachable power supply cord <input type="checkbox"/> not directly connected to the mains
Operating condition.....:	<input checked="" type="checkbox"/> continuous <input type="checkbox"/> rated operating / resting time:
Access location	<input checked="" type="checkbox"/> operator accessible <input type="checkbox"/> restricted access location
Over voltage category (OVC)	<input type="checkbox"/> OVC I <input checked="" type="checkbox"/> OVC II <input type="checkbox"/> OVC III <input type="checkbox"/> OVC IV <input type="checkbox"/> other:
Mains supply tolerance (%) or absolute mains supply values	± 10% according to manufacturer
Tested for IT power systems	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
IT testing, phase-phase voltage (V)	230V
Class of equipment	<input checked="" type="checkbox"/> Class I <input type="checkbox"/> Class II <input type="checkbox"/> Class III <input type="checkbox"/> Not classified
Considered current rating of protective device as part of the building installation (A)	16 A
Pollution degree (PD)	<input type="checkbox"/> PD 1 <input checked="" type="checkbox"/> PD 2 <input type="checkbox"/> PD 3
IP protection class	IP20
Altitude during operation (m)	≤ 4000 m
Altitude of test laboratory (m)	≤ 100 m
Mass of equipment (kg)	0,21 kg
Possible test case verdicts:	
- test case does not apply to the test object.....: N/A	
- test object does meet the requirement.....: P (Pass)	
- test object does not meet the requirement.....: F (Fail)	
Testing.....:	
Date of receipt of test item	2016-04-29
Date (s) of performance of tests	Original test date: 2014-05-26 to 2014-06-05
General remarks:	

"(see Enclosure #)" refers to additional information 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.

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Unless otherwise stated: (a) the results shown in this document refer only to the sample(s) tested and (b) such sample(s) are retained for 30 Days. This document cannot be reproduced except in full, without prior approval of the company.

Manufacturer's Declaration per sub-clause 4.2.5 of IEC 02:

The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided

☐ Yes
☐ Not applicable

When differences exist; they shall be identified in the General product information section.

Name and address of factory (ies) : GlobTek (Suzhou) Co.,Ltd.
Building 4, 76 Jinling East Road, Suzhou Industrial Park, Suzhou, 215021 Jiangsu, China

General product information:

The product under test is a Class I switching power adapter for indoor use only. Two pieces of outer enclosure are fixed together by screws.

Product name	ITE Power Supply
Model	GT-43004P***-T*
Explanation of model designation	<p>The 1st "*" part denotes the rated output wattage designation, which can be "001" to "150", with interval of 1.</p> <p>The 2nd "*" part denotes the standard rated output voltage designation, which can be "12", "16", "19", "24".</p> <p>The 3rd "*" part is optional, which can be "-0.1" to "-4.9" with interval of 0.1 to denote voltage deviation or blank to indicate no voltage different. The result by subtracting the deviation value from the standard rated output voltage denotes the rated output voltage, with a range of 12-24volts.</p> <p>The 4th "*" part can be '3' and '3A' to denote two types of Class I models with standard sheet C14 or standard sheet C6 appliance inlets .</p>
Power rating	<p>Input: 100 - 240 Vac; 50 - 60 Hz; 2,0 A</p> <p>Output: 12-24 Vdc; Max.10 A; Max. 150 W</p>
Functions	The EUT is Class I switching power adaptors for ITE and designed for continuous operation and indoor use only.

Example of model name and relevant output ratings:

Model	Output Voltage range (d.c.)	Max. rated output current	Max. rated output power
GT-43004P*12-T*	12V	10A	120W
GT-43004P*16*-T*	12,1-16V	10A	120W
GT-43004P*19*-T*	16,1-19V	7,45A	120W
GT-43004P*24*-T*	19,1-24V	7,85A	150W

All models of GT-43004P***-T* are identical to each other except minor differences in transformer secondary winding and secondary circuit.

Abbreviations used in the report:

- normal conditions	N.C.	- single fault conditions	S.F.C
- functional insulation	OP	- basic insulation	BI
- double insulation	DI	- supplementary insulation	SI
- between parts of opposite polarity	BOP	- reinforced insulation	RI


IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

1	GENERAL		P
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1.5	Components		P
1.5.1	General		P
	Comply with IEC 60950-1 or relevant component standard	(see appended tables 1.5.1)	P
1.5.2	Evaluation and testing of components	Certified components are used in accordance with their ratings, certifications and they comply with applicable parts of this standard. Components not certified are used in accordance with their ratings and they comply with applicable parts of IEC 60950-1 and the relevant component standard. Components, for which no relevant IEC-standard exists, have been tested under the conditions occurring in the equipment, using applicable parts of IEC 60950-1.	P
1.5.3	Thermal controls		N/A
1.5.4	Transformers		P
1.5.5	Interconnecting cables		N/A
1.5.6	Capacitors bridging insulation	X1 or X2, Y2 and Y1 capacitors according to IEC 60384-14.	P
1.5.7	Resistors bridging insulation		P
1.5.7.1	Resistors bridging functional, basic or supplementary insulation	Bleeder resistors used between live and neutral located after fuse.	P
1.5.7.2	Resistors bridging double or reinforced insulation between a.c. mains and other circuits		N/A
1.5.7.3	Resistors bridging double or reinforced insulation between a.c. mains and antenna or coaxial cable		N/A
1.5.8	Components in equipment for IT power systems	Class II.	N/A
1.5.9	Surge suppressors	The VDR is in compliance with Annex Q	P
1.5.9.1	General		P
1.5.9.2	Protection of VDRs	Fuses is connected in series with the VDR. (See appended table 1.5.1)	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.5.9.3	Bridging of functional insulation by a VDR	VDR were located between Line and Neutral after Current Fuse. (See appended table 1.5.1)	P
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		P
1.6.2	Input current	(see appended table 1.6.2)	P
1.6.3	Voltage limit of hand-held equipment	Not a hand-held equipment.	N/A
1.6.4	Neutral conductor		P

1.7	Marking and instructions		P
1.7.1	Power rating and identification markings		P
1.7.1.1	Power rating marking		P
	Multiple mains supply connections.....:		N/A
	Rated voltage(s) or voltage range(s) (V)	100 - 240 V	P
	Symbol for nature of supply, for d.c. only		N/A
	Rated frequency or rated frequency range (Hz)	50 - 60 Hz	P
	Rated current (mA or A)	2,0 A	P
1.7.1.2	Identification markings		P
	Manufacturer's name or trade-mark or identification mark	Trade mark :  GlobTek® ,Inc.	P
	Model identification or type reference	GT-43004P***-T*	P
	Symbol for Class II equipment only	Class I	P
	Other markings and symbols	The additional marking does not give rise to misunderstanding.	P
1.7.1.3	Use of graphical symbols		P
1.7.2	Safety instructions and marking	See below.	P
1.7.2.1	General		P
1.7.2.2	Disconnect devices	Appliance coupler.	P
1.7.2.3	Overcurrent protective device	Not pluggable equipment type B or permanently connected equipment.	N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.2.4	IT power distribution systems		P
1.7.2.5	Operator access with a tool	No tool used for access to operator access area.	N/A
1.7.2.6	Ozone	Not produce ozone.	N/A
1.7.3	Short duty cycles	Equipment is designed for continuous operation.	N/A
1.7.4	Supply voltage adjustment	No voltage adjustment.	N/A
	Methods and means of adjustment; reference to installation instructions		N/A
1.7.5	Power outlets on the equipment	No power outlet.	N/A
1.7.6	Fuse identification (marking, special fusing characteristics, cross-reference)	Soldered-in type fuse is provided. Marking adjacent to it: FS1 T4AL/250V	P
1.7.7	Wiring terminals		N/A
1.7.7.1	Protective earthing and bonding terminals	Equipment provided with appliance inlet. Marking of the protective earthing terminal is not applicable.	N/A
1.7.7.2	Terminals for a.c. mains supply conductors	The equipment is not permanently connected or provided with a nondetachable power supply cord.	N/A
1.7.7.3	Terminals for d.c. mains supply conductors		N/A
1.7.8	Controls and indicators		N/A
1.7.8.1	Identification, location and marking	No control and indicator affects safety.	N/A
1.7.8.2	Colours	Safety is not involved.	N/A
1.7.8.3	Symbols according to IEC 60417.....		N/A
1.7.8.4	Markings using figures	No control uses figures.	N/A
1.7.9	Isolation of multiple power sources	No multiple power source.	N/A
1.7.10	Thermostats and other regulating devices	No such device.	N/A
1.7.11	Durability	The marking withstands required tests.	P
1.7.12	Removable parts	No marking placed on removable parts	P
1.7.13	Replaceable batteries		N/A
	Language(s)		—
1.7.14	Equipment for restricted access locations.....		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
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	No access.	P
	Test with test finger (Figure 2A)	No access.	P
	Test with test pin (Figure 2B)	No access.	P
	Test with test probe (Figure 2C)	No TNV circuit.	N/A
2.1.1.2	Battery compartments		N/A
2.1.1.3	Access to ELV wiring	No internal wiring at ELV.	N/A
	Working voltage (V_{peak} or V_{rms}); minimum distance through insulation (mm)		—
2.1.1.4	Access to hazardous voltage circuit wiring	All accessible parts are separated from internal wiring at hazardous voltage by double or reinforced insulation.	P
2.1.1.5	Energy hazards	(See appended table 2.1.1.5)	P
2.1.1.6	Manual controls	No such part.	N/A
2.1.1.7	Discharge of capacitors in equipment	The capacitance of the input circuit is > 0.1 μ F. The measurements were performed in worst case condition with regard to the fuse.	P
	Measured voltage (V); time-constant (s)	Time-constant: 940ms. The max. rated value for X capacitor and bleeder resistor are used. See Table 1.5.1.	—
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
2.1.1.9	Audio amplifiers	No audio amplifier.	N/A
2.1.2	Protection in service access areas	Checked by inspection unintentional contact is unlikely during service operations.	P
2.1.3	Protection in restricted access locations	Not intended to be used in RAL.	N/A
2.2	SELV circuits		P
2.2.1	General requirements		P
2.2.2	Voltages under normal conditions (V)	Under SELV limit.	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

2.2.3	Voltages under fault conditions (V)	Under SELV limit.	P
2.2.4	Connection of SELV circuits to other circuits	SELV circuits are only connected to other SELV circuits.	P

2.3	TNV circuits		N/A
2.3.1	Limits	No TNV circuit.	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	0,7 mA / 35mA	P
	Frequency (Hz)	60Hz / 50 kHz	—
	Measured current (mA).....	0,504mA / 2,52mA	—
	Measured voltage (V)	0,252Vpeak / 5,04Vpeak	—
	Measured circuit capacitance (nF or μ F)	CY1: 2200pF	—
2.4.3	Connection of limited current circuits to other circuits	Limited current circuits are only connected to other SELV circuits.	P

2.5	Limited power sources		N/A
	a) Inherently limited output	No limited power source.	N/A
	b) Impedance limited output		N/A
	c) Regulating network or IC current limiter, limits output under normal operating and single fault condition		N/A
	Use of integrated circuit (IC) current limiters		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	d) Overcurrent protective device limited output		N/A
	Max. output voltage (V), max. output current (A), max. apparent power (VA)..... :		—
	Current rating of overcurrent protective device (A) ..		—

2.6	Provisions for earthing and bonding		P
2.6.1	Protective earthing	Accessible conductive parts are reliably connected to protective earth.	P
2.6.2	Functional earthing	Functional earthing is separated from hazardous voltage by reinforced insulation.	P
	Use of symbol for functional earthing		N/A
2.6.3	Protective earthing and protective bonding conductors	Refer below:	P
2.6.3.1	General		P
2.6.3.2	Size of protective earthing conductors	Power supply cord has not been checked.	N/A
	Rated current (A), cross-sectional area (mm ²), AWG		—
2.6.3.3	Size of protective bonding conductors	Refer to sub clause 2.6.3.4.	P
	Rated current (A), cross-sectional area (mm ²), AWG		—
	Protective current rating (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)	Earth pin of appliance inlet to earthed GND resistance measured: 0,022Ω. Test current: 40A, duration: 2mins.	P
2.6.3.5	Colour of insulation	All insulated protective earth conductors are coloured green/yellow.	P
2.6.4	Terminals	Refer below:	P
2.6.4.1	General		P
2.6.4.2	Protective earthing and bonding terminals	The equipment is provided with an appliance inlet.	P
	Rated current (A), type, nominal thread diameter (mm)		—
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors		P
2.6.5	Integrity of protective earthing	Refer below:	P
2.6.5.1	Interconnection of equipment		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.6.5.2	Components in protective earthing conductors and protective bonding conductors	There are no switches or overcurrent protective devices in the protective earth.	P
2.6.5.3	Disconnection of protective earth	It is not possible to disconnect protective earth without disconnecting mains.	P
2.6.5.4	Parts that can be removed by an operator	No operator removable parts with protective earth connection except supply cord.	P
2.6.5.5	Parts removed during servicing	Protective earthed parts cannot be removed in a way which impairs safety.	P
2.6.5.6	Corrosion resistance	No risk of corrosion.	P
2.6.5.7	Screws for protective bonding	No screw used 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	Protective devices are integrated in equipment.	P
	Instructions when protection relies on building installation	The equipment is pluggable Type A.	N/A
2.7.2	Faults not simulated in 5.3.7		N/A
2.7.3	Short-circuit backup protection	The building installation is considered as providing short circuit backup protection.	P
2.7.4	Number and location of protective devices :	One current fuse used in the line of primary circuit.	P
2.7.5	Protection by several devices		P
2.7.6	Warning to service personnel :	After operation of the protective device, the equipment is still under voltage if it is connected to an IT-power distribution system. A warning is required for service persons. Norway does not require this warning. See also Sub-clause 2.7.4.	N/A

2.8	Safety interlocks		N/A
2.8.1	General principles	No safety interlock used.	N/A
2.8.2	Protection requirements		N/A
2.8.3	Inadvertent reactivation		N/A
2.8.4	Fail-safe operation		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Protection against extreme hazard		N/A
2.8.5	Moving parts		N/A
2.8.6	Overriding		N/A
2.8.7	Switches, relays and their related circuits		N/A
2.8.7.1	Separation distances for contact gaps and their related circuits (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		N/A
2.8.8	Mechanical actuators		N/A

2.9	Electrical insulation		N/A
2.9.1	Properties of insulating materials	Neither natural rubber, materials containing asbestos nor hygroscopic materials are used as insulation. No driving belts or couplings used.	P
2.9.2	Humidity conditioning	Tested for 120 hrs.	P
	Relative humidity (%), temperature (°C)	93%, 40 °C	—
2.9.3	Grade of insulation	Insulation is considered to be functional, basic, supplementary, reinforced or double insulation.	P
2.9.4	Separation from hazardous voltages		P
	Method(s) used	Method 1	—

2.10	Clearances, creepage distances and distances through insulation		P
2.10.1	General	See below.	P
2.10.1.1	Frequency	Considered.	P
2.10.1.2	Pollution degrees	Pollution Degree 2.	P
2.10.1.3	Reduced values for functional insulation	The functional insulation complied with clause 5.3.4.	P
2.10.1.4	Intervening unconnected conductive parts	Considered.	P
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	The circuit will not generate starting pulse.	N/A
2.10.2	Determination of working voltage	(see appended table 2.10.2)	P
2.10.2.1	General	See below.	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.10.2.2	RMS working voltage	(see appended table 2.10.2)	P
2.10.2.3	Peak working voltage	(see appended table 2.10.2)	P
2.10.3	Clearances	(see appended table 2.10.3 and 2.10.4)	P
2.10.3.1	General	See below.	P
2.10.3.2	Mains transient voltages		P
	a) AC mains supply	2500V	P
	b) Earthed d.c. mains supplies		N/A
	c) Unearthed d.c. mains supplies		N/A
	d) Battery operation		N/A
2.10.3.3	Clearances in primary circuits	(see appended table 2.10.3 and 2.10.4)	P
2.10.3.4	Clearances in secondary circuits	Only the functional insulation in secondary circuits complied with clause 5.3.4.	N/A
2.10.3.5	Clearances in circuits having starting pulses		N/A
2.10.3.6	Transients from a.c. mains supply	Considered.	P
2.10.3.7	Transients from d.c. mains supply		N/A
2.10.3.8	Transients from telecommunication networks and cable distribution systems	Not connected to telecommunication networks and cable distribution systems.	N/A
2.10.3.9	Measurement of transient voltage levels	Measurement not relevant.	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	(see appended table 2.10.3 and 2.10.4)	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	For optocouplers, see appended table 1.5.1.	P

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Clause	Requirement + Test	Result - Remark	Verdict
2.10.5.4	Semiconductor devices	For optocouplers, see appended table 1.5.1.	P
2.10.5.5.	Cemented joints	Not used cemented joints.	N/A
2.10.5.6	Thin sheet material – General	See below.	P
2.10.5.7	Separable thin sheet material		P
	Number of layers (pcs)	Min two layers used, each of which complies with the required electric strength test (see appended table 2.10.5)	—
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		—
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	Certified TIW.	P
	Working voltage		P
	a) Basic insulation not under stress		N/A
	b) Basic, supplementary, reinforced insulation		N/A
	c) Compliance with Annex U	Triple insulation wire used in transformer secondary winding.	P
	Two wires in contact inside wound component; angle between 45° and 90°	Insulation tube used.	P
2.10.5.13	Wire with solvent-based enamel in wound components	No wire with solvent-based enamel in wound components.	N/A
	Electric strength test		—
	Routine test		N/A
2.10.5.14	Additional insulation in wound components	No additional insulation used.	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		P
2.10.6.1	Uncoated printed boards	(see appended table 2.10.3 and 2.10.4)	P
2.10.6.2	Coated printed boards		N/A
2.10.6.3	Insulation between conductors on the same inner surface of a printed board		N/A
2.10.6.4	Insulation between conductors on different layers of a printed board		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Distance through insulation		N/A
	Number of insulation layers (pcs)		N/A
2.10.7	Component external terminations	Coatings not used over terminations to increase effective clearance and creepage distances.	N/A
2.10.8	Tests on coated printed boards and coated components	No special coating in order to reduce distance.	N/A
2.10.8.1	Sample preparation and preliminary inspection		N/A
2.10.8.2	Thermal conditioning		N/A
2.10.8.3	Electric strength test		N/A
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		N/A
3	WIRING, CONNECTIONS AND SUPPLY		P
3.1	General		P
3.1.1	Current rating and overcurrent protection	Adequate cross sectional areas on internal wiring.	P
3.1.2	Protection against mechanical damage	Wireways are smooth and free from edges. Wires are adequately fixed to prevent excessive strain on wire and terminals and avoiding damage to the insulation of the conductors.	P
3.1.3	Securing of internal wiring	Internal wiring is secured against excessive strain, loosening of terminals and damage to the conductor insulation.	P
3.1.4	Insulation of conductors	Insulation on internal conductors is considered to be of adequate quality and suitable for the application and the working voltage involved.	P
3.1.5	Beads and ceramic insulators	No such component.	N/A
3.1.6	Screws for electrical contact pressure	No screw used for electrical contact.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
3.1.7	Insulating materials in electrical connections	No contact pressure through insulating material.	N/A
3.1.8	Self-tapping and spaced thread screws	Thread-cutting or space thread screws are not used for electrical connections.	N/A
3.1.9	Termination of conductors	Terminations cannot become displaced so that clearances and creepage distances can be reduced.	P
	10 N pull test		P
3.1.10	Sleeving on wiring	Sleeving can be removed only by breaking or cutting on wires.	P

3.2	Connection to a mains supply		P
3.2.1	Means of connection	Refer below:	P
3.2.1.1	Connection to an a.c. mains supply	The equipment is provided with an appliance inlet.	P
3.2.1.2	Connection to a d.c. mains supply	The equipment is not for connection to a d.c. mains supply.	N/A
3.2.2	Multiple supply connections	Only one supply connection.	N/A
3.2.3	Permanently connected equipment	The equipment is not intended for permanent connection to the mains.	N/A
	Number of conductors, diameter of cable and conduits (mm)		—
3.2.4	Appliance inlets	Certified appliance inlet used.	P
3.2.5	Power supply cords	Power supply cord has not been checked.	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	Equipment provided with an appliance inlet.	N/A
	Mass of equipment (kg), pull (N)		—
	Longitudinal displacement (mm)		—
3.2.7	Protection against mechanical damage	No sharp points or cutting edges on the equipment surfaces.	P

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Clause	Requirement + Test	Result - Remark	Verdict
3.2.8	Cord guards	Equipment provided with an appliance inlet.	N/A
	Diameter or minor dimension D (mm); test mass (g) :		—
	Radius of curvature of cord (mm) :		—
3.2.9	Supply wiring space	Equipment provided with an appliance inlet.	N/A

3.3	Wiring terminals for connection of external conductors		N/A
3.3.1	Wiring terminals	Equipment provided with an appliance inlet.	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	The appliance coupler will be acting as disconnect device.	P
3.4.3	Permanently connected equipment		N/A
3.4.4	Parts which remain energized	No parts remain energized after the disconnect device.	P
3.4.5	Switches in flexible cords	Power cord set is not provided, must be considered for the end product.	N/A
3.4.6	Number of poles - single-phase and d.c. equipment	The disconnect device disconnects both poles simultaneously.	P
3.4.7	Number of poles - three-phase equipment	Single phase equipment.	N/A
3.4.8	Switches as disconnect devices	No switch.	N/A
3.4.9	Plugs as disconnect devices		P

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Clause	Requirement + Test	Result - Remark	Verdict

3.4.10	Interconnected equipment	No interconnections using hazardous voltages.	N/A
3.4.11	Multiple power sources	One power source only.	N/A

3.5	Interconnection of equipment		P
3.5.1	General requirements		P
3.5.2	Types of interconnection circuits	SELV and LCC circuit	P
3.5.3	ELV circuits as interconnection circuits	No ELV interconnection.	N/A
3.5.4	Data ports for additional equipment	No data port.	N/A

4	PHYSICAL REQUIREMENTS		P
4.1	Stability		N/A
	Angle of 10°	<7kg	N/A
	Test force (N)	Not floor-standing equipment.	N/A

4.2	Mechanical strength		P
4.2.1	General		P
	Rack-mounted equipment.		N/A
4.2.2	Steady force test, 10 N	No hazard.	P
4.2.3	Steady force test, 30 N		N/A
4.2.4	Steady force test, 250 N	No hazard.	P
4.2.5	Impact test		P
	Fall test	No hazard.	P
	Swing test	No hazard.	P
4.2.6	Drop test; height (mm)		N/A
4.2.7	Stress relief test	75 °C; 7 h	P
4.2.8	Cathode ray tubes	No cathode ray tube.	N/A
	Picture tube separately certified		N/A
4.2.9	High pressure lamps	No high pressure lamp.	N/A
4.2.10	Wall or ceiling mounted equipment; force (N)	Not intended to be mounted on a wall or ceiling.	N/A

4.3	Design and construction		P
4.3.1	Edges and corners	All edges and corners are rounded and smoothed.	P
4.3.2	Handles and manual controls; force (N)		N/A
4.3.3	Adjustable controls	No adjustable control.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
4.3.4	Securing of parts	No loosening of parts impairing creepage distances or clearances is likely to occur.	P
4.3.5	Connection by plugs and sockets	SELV connectors do not comply with IEC 60320 or IEC 60083.	P
4.3.6	Direct plug-in equipment	Not direct plug-in equipment.	N/A
	Torque		—
	Compliance with the relevant mains plug standard		N/A
4.3.7	Heating elements in earthed equipment		N/A
4.3.8	Batteries	No battery.	N/A
	- Overcharging of a rechargeable battery		N/A
	- Unintentional charging of a non-rechargeable battery		N/A
	- Reverse charging of a rechargeable battery		N/A
	- Excessive discharging rate for any battery		N/A
4.3.9	Oil and grease	No oil and grease.	N/A
4.3.10	Dust, powders, liquids and gases	Not intend to product dust, or using powders, liquids and gases.	N/A
4.3.11	Containers for liquids or gases	No such containers used.	N/A
4.3.12	Flammable liquids	No flammable liquids.	N/A
	Quantity of liquid (l)		N/A
	Flash point (°C)		N/A
4.3.13	Radiation		N/A
4.3.13.1	General		N/A
4.3.13.2	Ionizing radiation	No 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	No UV lamp used.	N/A
	Part, property, retention after test, flammability classification		N/A
4.3.13.4	Human exposure to ultraviolet (UV) radiation	No UV radiation.	N/A
4.3.13.5	Lasers (including laser diodes) and LEDs		N/A
4.3.13.5.1	Lasers (including laser diodes)		N/A
	Laser class		—

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Clause	Requirement + Test	Result - Remark	Verdict

4.3.13.5.2	Light emitting diodes (LEDs)		N/A
4.3.13.6	Other types		N/A

4.4	Protection against hazardous moving parts		N/A
4.4.1	General	No moving parts.	N/A
4.4.2	Protection in operator access areas		N/A
	Household and home/office document/media shredders		N/A
4.4.3	Protection in restricted access locations		N/A
4.4.4	Protection in service access areas		N/A
4.4.5	Protection against moving fan blades		N/A
4.4.5.1	General		N/A
	Not considered to cause pain or injury. a).....		N/A
	Is considered to cause pain, not injury. b)		N/A
	Considered to cause injury. c)		N/A
4.4.5.2	Protection for users		N/A
	Use of symbol or warning		N/A
4.4.5.3	Protection for service persons		N/A
	Use of symbol or warning		N/A

4.5	Thermal requirements		P
4.5.1	General		P
4.5.2	Temperature tests		P
	Normal load condition per Annex L	Rated load with continuous operation.	—
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	Phenolic materials used, no test performed.	P

4.6	Openings in enclosures		P
4.6.1	Top and side openings	No opening.	N/A
	Dimensions (mm)		—
4.6.2	Bottoms of fire enclosures		P
	Construction of the bottommm, dimensions (mm) ..	No opening.	—
4.6.3	Doors or covers in fire enclosures	No door or cover.	N/A
4.6.4	Openings in transportable equipment		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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		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		N/A
4.7.2	Conditions for a fire enclosure		P
4.7.2.1	Parts requiring a fire enclosure	The fire enclosure is required to cover all parts.	P
4.7.2.2	Parts not requiring a fire enclosure		N/A
4.7.3	Materials		P
4.7.3.1	General	Components and materials have adequate flammability classification. See appended table 1.5.1.	P
4.7.3.2	Materials for fire enclosures	The fire enclosure is V-1 material.	P
4.7.3.3	Materials for components and other parts outside fire enclosures	No parts outside the fire enclosure.	N/A
4.7.3.4	Materials for components and other parts inside fire enclosures	Other materials inside fire enclosure are minimum V-2 material.	P
4.7.3.5	Materials for air filter assemblies	No air filter.	N/A
4.7.3.6	Materials used in high-voltage components	No high-voltage component.	N/A

5	ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS		P
5.1	Touch current and protective conductor current		P
5.1.1	General	Test conducted in accordance with 5.1.2 to 5.1.7.	P
5.1.2	Configuration of equipment under test (EUT)	See below.	N/A
5.1.2.1	Single connection to an a.c. mains supply	No interconnection of equipment.	N/A
5.1.2.2	Redundant multiple connections to an a.c. mains supply	No multiple power sources.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.1.2.3	Simultaneous multiple connections to an a.c. mains supply		N/A
5.1.3	Test circuit	Tested for connection to IT power distribution system (also relevant for TN or TT power distribution system).	P
5.1.4	Application of measuring instrument	Measuring instrument D1 is used.	P
5.1.5	Test procedure		P
5.1.6	Test measurements		P
	Supply voltage (V)	(see appended table 5.1)	—
	Measured touch current (mA)	(see appended table 5.1)	—
	Max. allowed touch current (mA)	(see appended table 5.1)	—
	Measured protective conductor current (mA)		—
	Max. allowed protective conductor current (mA)....		—
5.1.7	Equipment with touch current exceeding 3,5 mA	The touch current does not exceed 3.5mA.	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	Not connected to a telecommunication network or a cable distribution system.	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)		—
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

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Clause	Requirement + Test	Result - Remark	Verdict
5.3.1	Protection against overload and abnormal operation	(see appended table 5.3)	P
5.3.2	Motors	No motors.	N/A
5.3.3	Transformers	See Annex C and appended table C.2.	P
5.3.4	Functional insulation	Complies with a), b) and c).	P
5.3.5	Electromechanical components	No such components.	N/A
5.3.6	Audio amplifiers in ITE	No audio amplifier.	N/A
5.3.7	Simulation of faults	(see appended table 5.3)	P
5.3.8	Unattended equipment	No thermostats, temperature limiters or thermal cut-outs.	N/A
5.3.9	Compliance criteria for abnormal operating and fault conditions	See below.	P
5.3.9.1	During the tests	No fire or molten metal occurred and no deformation of enclosure during the test.	P
5.3.9.2	After the tests	Electric strength test made.	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		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
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		—

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Clause	Requirement + Test	Result - Remark	Verdict

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		N/A
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		—
	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)		—
	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)		N/A
A.2.1	Samples, material		—
	Wall thickness (mm)		—
A.2.2	Conditioning of samples; temperature (°C)		N/A
A.2.3	Mounting of samples		N/A
A.2.4	Test flame (see IEC 60695-11-4)		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Flame A, B or C		—
A.2.5	Test procedure		N/A
A.2.6	Compliance criteria		N/A
	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		N/A
B.4	Running overload test		N/A
B.5	Locked-rotor overload test		N/A
	Test duration (days)		—
	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

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Clause	Requirement + Test	Result - Remark	Verdict
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		N/A
B.9	Test for three-phase motors		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: Primary to secondary.	—
	Manufacturer	(See appended table 1.5.1)	—
	Type	(See appended table 1.5.1)	—
	Rated values	(See appended table 1.5.1)	—
	Method of protection	Inherent protection	—
C.1	Overload test	(See appended table 5.3)	P
C.2	Insulation	(see appended tables 5.2 and C2)	P
	Protection from displacement of windings	(see appended table C.2)	P

D	ANNEX D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS (see 5.1.4)		P
D.1	Measuring instrument	Figure D.1 used.	P
D.2	Alternative measuring instrument		N/A

E	ANNEX E, TEMPERATURE RISE OF A WINDING (see 1.4.13)		P
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F	ANNEX F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10 and Annex G)		P
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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

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Clause	Requirement + Test	Result - Remark	Verdict
G.2.3	Unearthed d.c. mains supplies		N/A
G.2.4	Battery operation		N/A
G.3	Determination of telecommunication network transient voltage (V)		N/A
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
J	ANNEX J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6)		P
	Metal(s) used		—
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
K.5	Thermal cut-out reliability		N/A
K.6	Stability of operation		N/A
L	ANNEX L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.2)		P
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

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Clause	Requirement + Test	Result - Remark	Verdict

L.5	Duplicators and copy machines		N/A
L.6	Motor-operated files		N/A
L.7	Other business equipment		P

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		N/A
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)		P
	- Preferred climatic categories	Certified VDR used. (see appended table 1.5.1)	P
	- Maximum continuous voltage	Certified VDR used. (see appended table 1.5.1)	P
	- Combination pulse current	Certified VDR used. (see appended table 1.5.1)	P
	Body of the VDR Test according to IEC60695-11-5.....		P
	Body of the VDR. Flammability class of material (min V-1).....		P

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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 1.1.2)		N/A
			—

U	ANNEX U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4)		P
		The TIW of T1 was certified by UL.	—

V	ANNEX V, AC POWER DISTRIBUTION SYSTEMS (see 1.6.1)		P
V.1	Introduction	IT and TN	P
V.2	TN power distribution systems		P

W	ANNEX W, SUMMATION OF TOUCH CURRENTS		N/A
W.1	Touch current from electronic circuits		N/A
W.1.1	Floating circuits		N/A
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

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Clause	Requirement + Test	Result - Remark	Verdict
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
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)		P
AA	ANNEX AA, MANDREL TEST (see 2.10.5.8)		N/A
BB	ANNEX BB, CHANGES IN THE SECOND EDITION		—
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
CC.4	Test program 3.....		N/A
CC.5	Compliance.....		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

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
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

1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity ¹⁾	
AC inlet	Zhejiang LECI Electronics Co., Ltd.	DB-6	2,5A, 250Vac Standard sheet: C6	EN 60320-1:2001+A1:2007 UL 498	VDE 40032465 UL E302229	
Alternative	Rich Bay Co., Ltd.	R-30790	2,5A, 250Vac Standard sheet: C6	EN 60320-1:2001+A1:2007 UL 498	VDE 40030381 UL E184638	
Alternative	Sun Fair Electric Wire & Cable (HK)Co. Ltd.	S-02	2,5A, 250Vac Standard sheet: C6	EN 60320-1:2001+A1:2007 UL 498	VDE 40034448 UL E226643	
Alternative	TECX-UNIONS Technology Corporation	TU-333 series	2,5A, 250Vac Standard sheet: C6	EN 60320-1:2001+A1:2007 UL 498	VDE 40005430 UL E100004	
Alternative	Rong Feng Industrial Co., Ltd.	RF-190	2,5A, 250Vac Standard sheet: C6	EN 60320-1:2001+A1:2007 UL 498	VDE 40030379 UL E102641	
Alternative	Inalways Corporation	0724	2,5A, 250Vac Standard sheet: C6	EN 60320-1:2001+A1:2007 UL 498	ENEC 2010080 UL E94191	
Alternative	Kunshan Dlk Electronics Technology Co., Ltd	CDJ-2	2,5A, 250Vac Standard sheet: C6	EN 60320-1:2001+A1:2007 UL 498	VDE 40022871 UL E317189	
Alternative	Zhejiang LECI Electronics Co., Ltd.	DB-14	10A, 250Vac Standard sheet: C14	EN 60320-1:2001+A1:2007 UL 498	VDE 40032137 UL E302229	
Alternative	Rich Bay Co., Ltd.	R-301SN	10A, 250Vac Standard sheet: C14	EN 60320-1:2001+A1:2007 UL 498	VDE 40030228 UL E184638	
Alternative	Sun Fair Electric Wire & Cable (HK)Co. Ltd.	S-03	10A, 250Vac Standard sheet: C14	EN 60320-1:2001+A1:2007 UL 498	VDE 40034447 UL E226643	
Alternative	TECX-UNIONS Technology Corporation	TU-301-S TU-301-SP	10A, 250Vac Standard sheet: C14	EN 60320-1:2001+A1:2007 UL 498	VDE 40025582 UL E220004	
Alternative	Rong Feng Industrial Co., Ltd.	SS-120	10A, 250Vac Standard sheet: C14	EN 60320-1:2001+A1:2007 UL 498	VDE 40028101 UL E102641	
Alternative	Inalways Corporation	0711 series	10A, 250Vac Standard sheet: C14	EN 60320-1:2001+A1:2007 UL 498	ENEC 2010084 UL E94191	

Enclosure	SABIC Innovative Plastics B V	SE1X SE1	Min. V-1, min. 1,5 mm thickness	UL 94	UL E45329
Alternative	SABIC Innovative Plastics B V	SE100	Min. V-1, min. 1,5 mm thickness	UL 94	UL E45329
Alternative	SABIC Innovative Plastics B V	C2950	Min. V-1, min. 1,5 mm thickness	UL 94	UL E45329
Alternative	SABIC Innovative Plastics B V	CX7211 EXCY0098	Min. V-1, min. 1,5 mm thickness	UL 94	UL E45329
Alternative	TEIJIN CHEMICALS LTD	LN-1250P LN-1250G	Min. V-1, min. 1,5 mm thickness	UL 94	UL E50075
Alternative	CHI MEI Corporation	PA-765A	Min. V-1, min. 1,5 mm thickness	UL 94	UL E56070
Alternative	CHI MEI Corporation	PC-540	Min. V-0, min. 1,5 mm thickness	UL 94	UL E56070
PCB	Interchangeable	Interchangeable	Min. V-0, 1,6mm, 130°C	UL 796	UL
Insulating tape wrapping around the heatsink	3M COMPANY ELECTRICAL MARKETS DIV (EMD)	1350F-1 1350T-1	Min 130°C	UL 510	UL E17385
Alternative	BONDTEC PACIFIC CO LTD	370S	Min 130°C	UL 510	UL E175868
Alternative	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	PZ, CT	Min 130°C	UL 510	UL E165111
Alternative	JINGJIANG JINGYI ADHESIVE PRODUCT CO LTD	JY25-A	Min 130°C	UL 510	UL E246950
Alternative	CHANG SHU LIANG YI TAPE INDUSTRY CO LTD	LY-XX	Min 130°C	UL 510	UL E246820

Insulating tube wrapping around the heatsink HS3 and HS4 (alternative wrapping material)	SHENZHEN WOER HEAT-SHRINKABLE MATERIAL CO LTD	RSFR RSFR-H RSFR-HPF	Min. 300V, 125°C, 0,4mm	UL 224	UL E203950
Alternative	QIFURUI ELECTRONICS CO	QFR-h	Min. 300V, 125°C, 0,4mm	UL 224	UL E225897
Alternative	DONGGUAN SALIPT CO LTD	SALIPT S-901-300 SALIPT S-901-600	Min. 300V, 125°C, 0,4mm	UL 224	UL E209436
Alternative	GUANGZHOU KAIHENG ENTERPRISE GROUP	K-2 (+) K-2 (CB)	Min. 300V, 125°C, 0,4mm	UL 224	UL E214175
Alternative	CHANGYUAN ELECTRONICS (SHENZHEN) CO LTD	CB-HFT	Min. 300V, 125°C, 0,4mm	UL 224	UL E180908
Fuse (FS1)	Conquer Electronics Co., Ltd.	MST	T4A 250V	EN 60127-1:2006+A1:2011 EN 60127-3:1996+A2:2003 UL 248-1 UL 248-14	VDE 40017118 UL E82636
Alternative	Ever Island Electric Co., Ltd. and Walter Electric	2010	T4A 250V	EN 60127-1:2006+A1:2011 EN 60127-3:1996+A2:2003 UL 248-1 UL 248-14	VDE 40018781 UL E220181
Alternative	Bel Fuse Ltd.	RST	T4A 250V	EN 60127-1:2006+A1:2011 EN 60127-3:1996+A2:2003	VDE 40011144
Alternative	Cooper Bussmann LLC	SS-5	T4A 250V	EN 60127-1:2006+A1:2011 EN 60127-3:1996+A2:2003	VDE 40015513
Alternative	Das & Sons International Ltd.	385T series	T4A 250V	EN 60127-1:2006+A1:2011 EN 60127-3:1996+A2:2003 UL 248-1 UL 248-14	VDE 40008524 UL E205718

Alternative	Shenzhen Lanson Electronics Co. Ltd.	SMT	T4A 250V	EN 60127-1:2006+A1:2011 EN 60127-3:1996+A2:2003 UL 248-1 UL 248-14	VDE 40012592 UL E221465
Alternative	Walter Electronic Co. Ltd.	ICP series	T4A 250V	EN 60127-1:2006+A1:2011 EN 60127-3:1996+A2:2003	VDE 40012824
X capacitor (CX1) (optional)	Cheng Tung Industrial Co., Ltd.	CTX	X1 or X2, AC310V, Max. 0,47µF, 40/110/21/C	IEC/EN 60384-14: 2005 UL 1414	VDE 40022642 UL E193049
Alternative	Tenta Electric Industrial Co. Ltd.	MEX	X1 or X2, AC275V, Max. 0,47µF, 40/100/21/C	IEC/EN 60384-14: 2005 UL 1414	VDE 119119 UL E222911
Alternative	Ultra Tech Xiphi Enterprise Co. Ltd.	HQX	X1 or X2, AC275V, Max. 0,47µF, 40/100/21/C	IEC/EN 60384-14: 2005 UL 1414	VDE 40015608 UL E183780
Alternative	Okaya Electric Industries	RE series	X1 or X2, AC275V, Max. 0,47µF, 55/100/56/C	IEC/EN 60384-14: 2005 UL 1414	VDE 40028657 UL E47474
Alternative	VISHAY Capacitors Belgium NV	F1772	X1 or X2, AC310V, Max. 0,47µF, 40/100/56/C	IEC/EN 60384-14: 2005 UL 1414	VDE 40005079 UL E354331
Alternative	Dain Electronics Co., Ltd.	MPX, MEX and NPX	X1 or X2, AC275V, Max. 0,47µF, 40/100/21/C	IEC/EN 60384-14: 2005 UL 1414	VDE 40018798 UL E147776
Alternative	Sinhua Electronics (Huzhou) Co., Ltd.	MPX	X1 or X2, AC300V, Max. 0,47µF, 40/100/21/C	IEC/EN 60384-14: 2005 UL 1414	VDE 40014686 UL E237560
Alternative	Shunde Da Hua Electric Co., Ltd.	HD-MKP	X1 or X2, AC275V, Max. 0,47µF, 40/105/21/C	IEC/EN 60384-14: 2005 UL 1414	VDE 40001126 UL E227157
Alternative	Foshan Shunde Chuang Ge	MKP-X2	X1 or X2, AC275V, Max. 0,47µF, 40/105/21/C	IEC/EN 60384-14: 2005 UL 1414	VDE 40008922 UL E308832
Alternative	Hongzhi Enterprises Ltd.	MPX	X1 or X2, AC275V, Max. 0,47µF, 40/100/56/C	IEC/EN 60384-14: 2005 UL 1414	VDE 40023936 UL E192572

Alternative	Jiangsu Xinghua Huayu Co., Ltd.	MPX	X1 or X2, AC275V, Max. 0.47 μ F, 40/100/21/C	IEC/EN 60384-14: 2005	VDE 40022417
Y-Capacitor (CY1) (optional)	Success Electronics Co Ltd	SE, SB	Max. 2200pF type Y1; min. 250V, 125°C	IEC/EN 60384-14: 2005 UL 1414	VDE 40020002 40020001 40037221 UL E114280
Alternative	Murata Mfg Co Ltd	KX	Max. 2200pF type Y1; min. 250V, 125°C	IEC/EN 60384-14: 2005 UL 1414	VDE 40002831 UL E37921
Alternative	Walsin Technology Corp	AH	Max. 2200pF type Y1; min. 250V, 125°C	IEC/EN 60384-14: 2005 UL 1414	VDE 40001804 UL E146544
Alternative	JYA-NAY Co Ltd	JN	Max. 2200pF type Y1; min. 250V, 125°C	IEC/EN 60384-14: 2005 UL 1414	ENEC18/HN 69242987 UL E201384
Alternative	Haohua Electronic Co	CT7	Max. 2200pF type Y1; min. 250V, 125°C	IEC/EN 60384-14: 2005 UL 1414	VDE 40003902 VDE 40013601 UL E233106
Alternative	Jerro Electronics Corp	JX	Max. 2200pF type Y1; min. 250V, 125°C	IEC/EN 60384-14: 2005 UL 1414	VDE 40032158 UL E333001
Alternative	TDK CORP	CD	Max. 2200pF type Y1; min. 250V, 125°C	IEC/EN 60384-14: 2005 UL 1414	VDE 40029780 UL E37861
Alternative	JYH CHUNG ELECTRONICS CO LTD	JD	Max. 2200pF type Y1; min. 250V, 125°C	IEC/EN 60384-14: 2005 UL 1414	VDE 137027 UL E187963
Y-Capacitor (CY2) (optional)	Success Electronics Co Ltd	SE, SB, SF	Max. 3300pF Min. Y2, 250V, 125°C	IEC/EN 60384-14: 2005 UL 1414	VDE 40020002 40020001 40037221 UL E114280
Alternative	Murata Mfg Co Ltd	KH	Max. 3300pF Min. Y2, 250V, 125°C	IEC/EN 60384-14: 2005 UL 1414	VDE 40002796 UL E37921
Alternative	Walsin Technology Corp	AC	Max. 3300pF Min. Y2, 250V, 125°C	IEC/EN 60384-14: 2005 UL 1414	VDE 40001829 UL E146544
Alternative	JYA-NAY Co Ltd	JY	Max. 3300pF Min. Y2, 250V, 125°C	IEC/EN 60384-14: 2005 UL 1414	ENEC 18/HN 69242983 UL E201384

Alternative	Haohua Electronic Co	CT7	Max. 3300pF Min. Y2, 250V, 125°C	IEC/EN 60384-14: 2005 UL 1414	VDE 40003902 VDE 40013601 UL E233106
Alternative	Jerro Electronics Corp	JL	Max. 3300pF Min. Y2, 250V, 125°C	IEC/EN 60384-14: 2005 UL 1414	VDE 40032160 UL E333001
Alternative	TDK CORP	CS	Max. 3300pF Min. Y2, 250V, 125°C	IEC/EN 60384-14: 2005 UL 1414	VDE 40029781 UL E37861
Alternative	JYH CHUNG ELECTRONICS CO LTD	JY	Max. 3300pF Min. Y2, 250V, 125°C	IEC/EN 60384-14: 2005 UL 1414	VDE 123326 UL E187963
Varistor (MOV1) (optional)	Joyin Co Ltd	14N471K 10N471K	Max continuous voltage: 300VAC, 6kV/3kA, 40/85/56	IEC/EN 61051-1:2007-04 IEC/EN 61051-2:1991-01 IEC 60950-1:2005 Annex Q UL 1449	VDE 005937 UL E325508
Alternative	Centra Science Corp.	10D471K 14D471K	Max continuous voltage: 300VAC, 6kV/3kA, 40/85/56	IEC/EN 61051-1:2007-04 IEC/EN 61051-2:1991-01 IEC 60950-1:2005 Annex Q UL 1449	VDE 40008220 UL E316325
Alternative	Thinking Electronic industrial Co Ltd	TVR14471 TVR10471	Max continuous voltage: 300VAC, 6kV/3kA, 40/85/56	IEC/EN 61051-1:2007-04 IEC/EN 61051-2:1991-01 IEC 60950-1:2005 Annex Q UL 1449	VDE 005944 UL E314979
Alternative	Success Electronics Co Ltd	SVR10D471K SVR14D471K	Max continuous voltage: 300VAC, 6kV/3kA, 40/85/56	IEC/EN 61051-1:2007-04 IEC/EN 61051-2:1991-01 IEC 60950-1:2005 Annex Q UL 1449	VDE 40030401 UL E330256

Alternative	Ceramate Technical Co Ltd	GNR14D471K GNR10D471K	Max continuous voltage: 300VAC, 6kV/3kA, 40/85/56	IEC/EN 61051- 1:2007-04 IEC/EN 61051- 2:1991-01 IEC 60950-1:2005 Annex Q UL 1449	VDE 40031745 UL E315429
Alternative	BRIGHTKING (SHENZHEN) CO LTD	14D471K 10D471K	Max continuous voltage: 300VAC, 6kV/3kA, 40/85/56	IEC/EN 61051- 1:2007-04 IEC/EN 61051- 2:1991-01 IEC 60950-1:2005 Annex Q UL 1449	VDE 40027827 UL E327997
Alternative	Lien Shun Electronics Co Ltd	14D471K 10D471K	Max continuous voltage: 300VAC, 6kV/3kA, 40/85/56	IEC/EN 61051- 1:2007-04 IEC/EN 61051- 2:1991-01 IEC 60950-1:2005 Annex Q UL 1449	VDE 40005858 UL E315524
Alternative	Guangxi New Future Information Industry Co Ltd	14D471K 10D471K	Max continuous voltage: 300VAC, 6kV/3kA, 40/85/56	IEC/EN 61051- 1:2007-04 IEC/EN 61051- 2:1991-01 IEC 60950-1:2005 Annex Q UL 1449	VDE 40030322 UL E323753
Optocoupler (U2)	Lite-On	LTV-817 LTV-817M LTV-817S	Dti=0,6mm Ext. dcr=7,8mm, thermal cycling test, 100 °C	IEC/EN 60950-1 EN 60747-5-2 UL 1557	VDE 40015248 Semko No. 1119078 UL E113898
Alternative	Everlight	EL817	Dti=0,5mm Int. dcr=6,0mm Ext. dcr= 7,7mm, thermal cycling test, 110 °C	IEC/EN 60950-1 EN 60747-5-2 UL 1557	VDE 132249 Nemko No. P11214765/A1 UL E214129
Alternative	Bright Led	BPC-817 BPC-817 S BPC-817 M	Dti=0,4mm Ext. dcr=7,0mm, thermal cycling test, 100 °C	IEC/EN 60950-1 EN 60747-5-2 UL 1557	VDE 40007240 Semko No. 813247 UL E236324

Alternative	Fairchild	FOD817B H11A817B	Dti=0,6mm Ext. dcr=7,8mm, thermal cycling test, 115 °C	IEC/EN 60950-1 EN 60747-5-2 UL 1557	VDE 40026857 Semko No. 1024922 UL E90700
Inductor (LF1) (Optional) 2)	GlobTek/HAOP UWEI/HEJIA/B OAM/	NF00109 RC00088	130°C	IEC 60950-1:2005 + A1 + A2 EN 60950-1: 2006 + A11 + A1 + A12+ A2	Tested with appliance
Choke (LF2) (Optional) 2)	GlobTek/HAOP UWEI/HEJIA/B OAM/	RC00150	130°C	IEC 60950-1:2005 + A1 + A2 EN 60950-1: 2006 + A11 + A1 + A12+ A2	Tested with appliance
Choke (L1) 2)	GlobTek/HAOP UWEI/HEJIA/B OAM/	RC00085	130°C	IEC 60950-1:2005 + A1 + A2 EN 60950-1: 2006 + A11 + A1 + A12+ A2	Tested with appliance
Choke (L2) 2)	GlobTek/HAOP UWEI/HEJIA/B OAM/	XF00730	130°C	IEC 60950-1:2005 + A1 + A2 EN 60950-1: 2006 + A11 + A1 + A12+ A2	Tested with appliance
Transformer (T1) 3)	GlobTek/HAOP UWEI/HEJIA/B OAM/	XF00735 for 12- 14.9V XF00734 for 15- 17.9V XF00738 for 18- 20V XF00722 for 20.1-24V	Class B	IEC 60950-1:2005 + A1 + A2 EN 60950-1: 2006 + A11 + A1 + A12+ A2	Tested with appliance
Insulation system	GLOBTEK INC	GTX-130-TM	Class B	UL 1446	UL E243347
Alternative	WUXI HAOPUWEI ELECTRONICS CO LTD	ZT-130	Class B	UL 1446	UL E315275
Alternative	SHAN DONG BOAM ELECTRIC CO LTD	BOAM-01	Class B	UL 1446	UL E252329
Alternative		130-1	Class B	UL 1446	UL E308897
Magnet wire (primary)	Pacific Electric Wire & Cable (Shenzhen) Co Ltd	UEWN/U	130 °C	UL 1446	UL E201757

Alternative	JUNG SHING WIRE CO LTD	UEW-4 UEY-2	130 °C	UL 1446	UL E174837
Alternative	JIANGSU HONGLIU MAGNET WIRE TECHNOLOGY CO LTD	2UEW/130	130 °C	UL 1446	UL E335065
Alternative	CHANGZHOU DAYANG WIRE & CABLE CO LTD	2UEW/130	130 °C	UL 1446	UL E158909
Alternative	WUXI JUFENG COMPOUND LINE CO LTD	2UEWB	130 °C	UL 1446	UL E206882
Alternative	JIANGSU DARTONG M & E CO LTD	UEW	130 °C	UL 1446	UL E237377
Alternative	SHANDONG SAINT ELECTRIC CO LTD	UEW/130	130 °C	UL 1446	UL E194410
Alternative	ZHEJIANG LANGLI ELECTRIC EQUIPMENTS CO LTD	UEW	130 °C	UL 1446	UL E222214
Triple insulated wire (secondary)	GREAT LEOFLON INDUSTRIAL CO LTD	TRW(B)	Min 130 °C	IEC 60950:2005 +A1+A2 EN 60950:2006+ A11+A1+A12+A2: 2013	VDE 136581
Alternative	COSMOLINK CO LTD	TIW-M	Min 130 °C	IEC 60950:2005 +A1+A2 EN 60950:2006+ A11+A1+A12+A2: 2013	VDE 138053
Alternative	FURUKAWA ELECTRIC CO LTD	TEX-E	Min 130 °C	IEC 60950:2005 +A1 EN 60950:2006+ A11+A1+A12	VDE 6735
Alternative	TOTOKU ELECTRIC CO LTD	TIW-2	Min 130 °C	IEC 60950:2005 +A1 EN 60950:2006+ A11+A1+A12 UL 2353	VDE 40005152 UL E166483

Alternative	E&B TECHNOLOGY CO LTD	E&B-XXXB E&B-XXXB-1	Min 130 °C	IEC 60950:2005 +A1+A2 EN 60950:2006+ A11+A1+A12+A2: 2013	VDE 40023473
Bobbin	Chang Chun Plastics Co Ltd	T375J T375HF	Phenolic, V-0, min. thickness 0,45 mm, 150 °C	UL 94	UL E59481
Alternative	Sumitomo Bakelite Co Ltd	PM-9820	Phenolic, V-0, min. thickness 0,45 mm, 150 °C	UL 94	UL E41429
Alternative	HITACHI CHEMICAL CO LTD	CP-J-8800	Phenolic, V-0, min. thickness 0,45 mm, 150 °C	UL 94	UL E42956
Insulating tape	3M Company Electrical Markets DIV (EMD)	1350F-1, 1350T-1, 44	Min 130 °C	UL 510	UL E17385
Alternative	Bondtec Pacific Co Ltd	370S	Min 130 °C	UL 510	UL E175868
Alternative	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	PZ CT WF	Min 130 °C	UL 510	UL E165111
Alternative	JINGJIANG JINGYI ADHESIVE PRODUCT CO LTD	JY25-A	Min 130 °C	UL 510	UL E246950
Alternative	CHANG SHU LIANG YI TAPE INDUSTRY CO LTD	LY-XX	Min 130 °C	UL 510	UL E246820
Insulating sheet	FORMEX, DIV OF IL TOOL WORKS INC, FRMRLY FASTEX, DIV OF IL TOOL WORKS INC	FORMEX GK series	V-0, min. 0,4 mm thickness, 115°C	UL 94	UL E121855

Alternative	SKC CO LTD	SH71S	VTM-2, min. 0,4 mm thickness, 105°C	UL 94	UL E74359
Alternative	TORAY INDUSTRIES INC	Lumirror H10	VTM-2, min. 0,4 mm thickness, 105°C	UL 94	UL E86511
Alternative	SABIC INNOVATIVE PLASTICS US L L C	FR60 series FR63 series FR65 series FR7 series FR700 series	V-0, min. 0,4 mm thickness, 130°C	UL 94	UL E121562
Alternative	MIANYANG LONGHUA FILM CO LTD	PP-BK-20 PP- BK-17 PP-BK- 18	VTM-0, min. 0,4 mm thickness, 80°C	UL 94	UL E254551
Alternative	ITW ELECTRONICS COMPONENTS / PRODUCTS (SHANGHAI) CO LTD	FORMEX-18 FORMEX-17	V-0, min. 0,4 mm thickness, 100°C	UL 94	UL E256266
Earthing wire	Interchangeable	1815 1015 1007	Min. 18 AWG, Min. 300V, Min. 80°C	UL 758	UL
Heat shrinkable tube on fly wire between primary and secondary	Interchangeable	Interchangeable	Min VW-1, 125°C	UL 224	UL

Supplementary information:

- 1) **Provided evidence ensures the agreed level of compliance. See OD-CB2039.**
- 2) Inductor / chokes with the same model name from all supply sources have the same construction.
- 3) Transformers with the same model name from all supply sources have the same construction.
Transformers with different model name have the same construction except secondary winding turns.

1.5.1	TABLE: Opto Electronic Devices	P
Manufacturer : Lite-on / Everlight / Bright Led / Fairchild		
Type..... : LTV-817, LTV-817M, LTV-817S / EL817 / BPC-817, BPC-817 M, BPC-817 S / FOD817B, H11A817B		
Separately tested : Certified by VDE, Femko, Semko & UL		
Bridging insulation : Reinforced insulation		
External creepage distance..... : 7,8 / 7,7 / 7,0 / 7,8		
Internal creepage distance : Compliance with thermal cycling test		
Distance through insulation : 0,6 / 0,5 / 0,4 / 0,6		
Tested under the following conditions : Reinforced insulation		
Input..... : --		
Output..... : --		
supplementary information		
--		

1.6.2	TABLE: Electrical data (in normal conditions)						P
U (V)	I (A)	Irated (A)	P (W)	Fuse #	Ifuse (A)	Condition/status	
Test on GT-43004P12012-T3							
90/50Hz	1,539	--	136	FS1	1,539	Loaded with 12 V / 10 A.	
100/50Hz	1,372	2,0	135	FS1	1,372	Loaded with 12 V / 10 A.	
240/50Hz	0,598	2,0	132	FS1	0,598	Loaded with 12 V / 10 A.	
264/50Hz	0,548	--	132	FS1	0,548	Loaded with 12 V / 10 A.	
90/60Hz	1,535	--	136	FS1	1,535	Loaded with 12 V / 10 A.	
100/60Hz	1,372	2,0	135	FS1	1,372	Loaded with 12 V / 10 A.	
240/60Hz	0,602	2,0	132	FS1	0,602	Loaded with 12 V / 10 A.	
264/60Hz	0,554	--	132	FS1	0,554	Loaded with 12 V / 10 A.	
Test on GT-43004P12016-1.0-T3							
90/50Hz	1,494	--	132	FS1	1,494	Loaded with 15 V / 8 A.	
100/50Hz	1,337	2,0	131	FS1	1,337	Loaded with 15 V / 8 A.	
240/50Hz	0,586	2,0	129	FS1	0,586	Loaded with 15 V / 8 A.	
264/50Hz	0,537	--	129	FS1	0,537	Loaded with 15 V / 8 A.	
90/60Hz	1,496	--	132	FS1	1,496	Loaded with 15 V / 8 A.	
100/60Hz	1,337	2,0	131	FS1	1,337	Loaded with 15 V / 8 A.	
240/60Hz	0,590	2,0	129	FS1	0,590	Loaded with 15 V / 8 A.	
264/60Hz	0,543	--	129	FS1	0,543	Loaded with 15 V / 8 A.	
Test on GT-43004P12019-T3							
90/50Hz	1,507	--	133	FS1	1,507	Loaded with 19 V / 6,31 A.	
100/50Hz	1,347	2,0	132	FS1	1,347	Loaded with 19 V / 6,31 A.	
240/50Hz	0,587	2,0	130	FS1	0,587	Loaded with 19 V / 6,31 A.	
264/50Hz	0,539	--	130	FS1	0,539	Loaded with 19 V / 6,31 A.	
90/60Hz	1,507	--	133	FS1	1,507	Loaded with 19 V / 6,31 A.	
100/60Hz	1,347	2,0	133	FS1	1,347	Loaded with 19 V / 6,31 A.	
240/60Hz	0,592	2,0	130	FS1	0,592	Loaded with 19 V / 6,31 A.	
264/60Hz	0,544	--	130	FS1	0,544	Loaded with 19 V / 6,31 A.	
Test on GT-43004P15024-T3							
90/50Hz	1,680	--	163	FS1	1,680	Loaded with 24 V / 6,25 A.	
100/50Hz	1,500	2,0	162	FS1	1,500	Loaded with 24 V / 6,25 A.	
240/50Hz	0,708	2,0	159	FS1	0,708	Loaded with 24 V / 6,25 A.	
264/50Hz	0,651	--	159	FS1	0,651	Loaded with 24 V / 6,25 A.	
90/60Hz	1,679	--	163	FS1	1,679	Loaded with 24 V / 6,25 A.	
100/60Hz	1,499	2,0	162	FS1	1,499	Loaded with 24 V / 6,25 A.	
240/60Hz	0,712	2,0	159	FS1	0,712	Loaded with 24 V / 6,25 A.	

264/60Hz	0,655	--	159	FS1	0,655	Loaded with 24 V / 6,25 A.
Supplementary information:						

2.1.1.5 c) 1)	TABLE: max. V, A, VA test				P
Voltage (rated) (Vd.c.)	Current (rated) (A)	Voltage (max.) (V)	Current (max.) (A)	VA (max.) (VA)	
Test on GT-43004P12012-T3					
12 Vdc	10	12,07 Vdc	13,85	149,38	
Test on GT-43004P12016-1.0-T3					
15 Vdc	8	14,89 Vdc	12,23	164,10	
Test on GT-43004P12019-T3					
19 Vdc	6,31	19,08 Vdc	10,88	187,08	
Test on GT-43004P15024-T3					
24 Vdc	6,25	23,54 Vdc	9,66	219,57	
supplementary information:					
The above measurements are the maximum values (max. V and max. A not obtained at the same time).					

2.1.1.5 c) 2)	TABLE: stored energy			N/A
Capacitance C (μF)	Voltage U (V)		Energy E (J)	
--	--		--	
supplementary information:				

2.2	TABLE: evaluation of voltage limiting components in SELV circuits			P
Component (measured between)		max. voltage (V) (normal operation)		Voltage Limiting Components
		V peak	V d.c.	
Test on GT-43004P12012-T3				
Pin P1 to Pin P2		51,6	--	--
Pin 7 to Pin 10		68,8	--	--
Pin P2 to C9 Pin (+)		--	12,1	Q6
Test on GT-43004P12016-1.0-T3				
Pin P1 to Pin P2		59,6	--	--
Pin 7 to Pin 10		50,4	--	--
Pin P2 to C9 Pin (+)		--	15,1	Q6
Test on GT-43004P12019-T3				
Pin P1 to Pin P2		63,2	--	--
Pin 7 to Pin 10		51,6	--	--

Pin P2 to C9 Pin (+)	--	19,1	Q6
Test on GT-43004P15024-T3			
Pin P1 to Pin P2	71,2	--	--
Pin 7 to Pin 10	51,6	--	--
Pin P2 to C9 Pin (+)	--	23,6	Q6
Fault test performed on voltage limiting components	Voltage measured (V) in SELV circuits (V peak or V d.c.)		
Test on GT-43004P12012-T3			
Q6 short circuit	0Vdc (unit shut down)		
Test on GT-43004P12016-1.0-T3			
Q6 short circuit	0Vdc (unit shut down)		
Test on GT-43004P12019-T3			
Q6 short circuit	0Vdc (unit shut down)		
Test on GT-43004P15024-T3			
Q6 short circuit	0Vdc (unit shut down)		
supplementary information:			
--			

2.5	TABLE: Limited power sources					N/A	
Circuit output tested:							
Note: Measured Uoc (V) with all load circuits disconnected:							
Components	Test condition (Single fault)	Uoc (Vd.c.)	I _{sc} (A)		VA		
			Meas.	Limit	Meas.	Limit	
--	--	--	--	--	--	--	
supplementary information:							
1) Unit shut down;							
2) Oc= open circuit, Sc = short circuit.							

2.10.2	Table: working voltage measurement			P
Location		RMS voltage (V)	Peak voltage (V)	Comments
Test on GT-43004P15024-T3				
T1 pin 1 - pin P1		500	345	--
T1 pin 1 - pin P2		572	368	--
T1 pin 1 - pin 10		556	334	--
T1 pin 2 - pin P1		400	294	--
T1 pin 2 - pin P2		476	302	--
T1 pin 2 - pin 10		496	300	--
T1 pin 3 - pin P1		448	291	--

T1 pin 3 - pin P2	468	301	--
T1 pin 3 - pin 10	400	290	--
T1 pin 4 - pin P1	504	297	--
T1 pin 4 - pin P2	360	174	--
T1 pin 4 - pin 10	432	185	--
T1 pin 5 - pin P1	380	179	--
T1 pin 5 - pin P2	368	182	--
T1 pin 5 - pin 10	444	193	--
US3 Pin 3 - Pin 1	392	199	--
US3 Pin 3 - Pin 2	392	198	--
US3 Pin 4 - Pin 1	392	198	--
US3 Pin 4 - Pin 2	392	197	--
CY1	360	176	--
supplementary information:			
Test voltage: 240 Vac, 60 V			

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) ¹⁾	cl (mm)	Required cr (mm)	cr (mm)	
Functional:							
On PCB solder side:							
Line and Neutral before current fuse (FS1)	340	240	2,0	3,1	2,5	3,1	
Two ends of the current fuse (FS1)	340	240	2,0	9,9	2,5	9,9	
On PCB component side:							
Line and Neutral before current fuse (FS1)	340	240	2,0	9,1	2,5	9,1	
Two ends of the current fuse (FS1)	340	240	2,0	2,8	2,5	2,8	
Basic/supplementary:							
On PCB solder side:							
Line and Earthed	340	240	2,6	5,6	2,6	5,6	
On PCB component side:							
Two ends of CY2	392	240	2,6	3,4	2,6	3,4	
Reinforced:							
On PCB solder side:							
Primary and secondary (two sides of CY1)	360	240	5,2	6,5	5,2	6,5	

Primary and secondary (two sides of U1)	392	240	5,2	5,3	5,2	5,3
On PCB component side:						
Primary circuits to accessible enclosure	340	240	5,2	8,0	5,2	8,0
Primary circuits to accessible screws	340	240	5,2	6,2	5,2	6,2
Primary traces to secondary traces (T1)	572	368	6,0	11,1	7,4	11,1
Supplementary information:						
1) With the equipment to be operated at 4000m above sea level max. the minimum clearances multiplied by the factor 1.29.						
2) Two layers of insulating tape or 0,4mm thick insulating tube wrapped around the heatsink.						

2.10.5	TABLE: Distance through insulation measurements					P
Distance through insulation (DTI) at/of:		U peak (V)	U rms (V)	Test voltage (V)	Required DTI (mm)	DTI (mm)
T1 transformer bobbin 1)		572	368	3000Vac	0,4	Min 0,4
Insulating sheet around the internal circuit board 1)		340	240	3000Vac	0,4	Min 2,0
Insulating tape around the outer side of transformer T1 1)		572	368	3000Vac	3 layers	3 layers
Supplementary information:						
1) Tested for all types from all sources.						

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

4.3.8	TABLE: Batteries	N/A
Battery category : -- Manufacturer : -- Type / model..... : -- Voltage : -- Capacity..... : -- Tested and Certified by (incl. Ref. No.) : -- Circuit protection diagram: -- --		

MARKINGS AND INSTRUCTIONS (1.7.13)	
Location of replaceable battery	--
Language(s):	--
Close to the battery:	--
In the servicing instructions:	--
In the operating instructions:	--

4.5	TABLE: Thermal requirements						P
	Supply voltage (V):	90V/ 60Hz	264V/ 50Hz	90V/ 60Hz	264V/ 50Hz	—	—
	Ambient T _{min} (°C):	40	40	40	40	—	—
	Ambient T _{max} (°C):	40	40	40	40	—	—
Maximum measured temperature T of part/at.....:		T (°C)					Allowed T (°C) T _{ma} =40°C
Test on GT-43004P12012-T3							
Test position:		Label on top		Label on bottom		—	—
T1 coil		100,7	92,5	103,2	94,6	—	110
T1 core		94,0	85,9	96,7	88,4	—	120
LF1 coil		82,2	68,7	82,8	69,4	—	130
LF2 coil		86,9	69,4	89,1	71,2	—	130
L1 coil		89,1	73,6	91,6	75,7	—	130
L2 coil		91,1	75,7	93,3	77,5	—	130
MOV1 body		81,1	69,0	82,6	70,2	—	85
CX1		80,9	69,0	82,9	70,7	—	100
CY1		89,8	81,4	91,9	82,8	—	125
CY2		82,6	68,4	83,2	69,8	—	125
THR1		71,9	62,7	70,4	61,8	—	130
TRH2		87,8	80,1	90,8	82,4	—	130
U1		94,6	86,8	97,6	89,0	—	100
BD1		86,5	72,6	89,4	74,7	—	130
PWB under D1		84,9	73,7	87,7	75,6	—	130
PWB under Q5		87,6	80,2	91,0	82,7	—	130
PWB under Q6		84,3	77,6	87,8	80,1	—	130
PWB under Q1		86,4	74,6	89,2	76,6	—	130
PWB under Q2		85,2	75,9	88,2	78,1	—	130
C1		85,8	71,7	88,6	73,7	—	105
C2		86,6	74,0	89,3	76,0	—	105
C4		89,6	79,9	92,3	82,1	—	105
C6		92,0	83,9	94,6	86,0	—	105
C9		89,9	81,8	92,4	83,9	—	105
C10		89,2	81,3	92,0	83,6	—	105
C11		87,9	80,0	90,6	82,2	—	105
AC inlet		60,8	54,4	61,1	54,8	—	70
Internal wire		76,1	65,6	78,4	67,3	—	80

Output wire	79,8	75,0	82,1	77,0	—	90
NF1 coil	77,9	73,4	80,8	75,7	—	130
Enclosure inside above T1	57,1	54,3	62,5	58,4	—	--
Enclosure outside above T1	67,3	61,9	61,6	56,9	—	95
Test on GT-43004P12016-1.0-T3						
Test position:	Label on top		Label on bottom		—	—
T1 coil	96,6	87,9	97,3	88,5	—	110
T1 core	90,8	82,0	91,5	82,7	—	120
LF1 coil	83,3	69,9	82,1	69,2	—	130
LF2 coil	89,6	70,9	90,3	71,3	—	130
L1 coil	90,8	74,3	91,9	74,9	—	130
L2 coil	91,4	76,1	92,4	76,7	—	130
MOV1 body	80,8	70,2	81,1	70,3	—	85
CX1	82,7	69,9	83,5	70,5	—	100
CY1	88,6	79,3	89,5	79,8	—	125
CY2	81,8	68,7	82,1	68,4	—	125
THR1	75,1	65,0	73,3	63,7	—	130
TRH2	86,5	79,1	87,9	79,8	—	130
U1	91,2	83,4	92,5	84,2	—	100
BD1	88,4	74,5	90,0	75,3	—	130
PWB under D1	86,0	75,4	87,4	76,2	—	130
PWB under Q5	87,3	80,4	88,6	81,0	—	130
PWB under Q6	83,3	77,2	84,2	77,4	—	130
PWB under Q1	88,8	76,9	90,2	77,4	—	130
PWB under Q2	85,6	76,3	87,0	76,9	—	130
C1	87,6	73,6	88,9	74,1	—	105
C2	88,0	75,1	88,8	75,6	—	105
C4	90,0	79,8	90,5	80,2	—	105
C6	90,3	81,8	91,0	82,2	—	105
C9	87,5	79,3	88,1	79,6	—	105
C10	87,1	78,6	87,6	79,1	—	105
C11	86,8	78,5	87,2	78,7	—	105
AC inlet	58,3	52,7	56,8	51,4	—	70
Internal wire	76,9	66,5	76,7	66,8	—	80
Output wire	75,4	70,4	74,0	69,2	—	90
NF1 coil	84,7	78,4	84,1	77,9	—	130
Enclosure inside above T1	63,6	59,3	64,8	60,1	—	--

Enclosure outside above T1	69,6	63,5	67,5	61,8	—	95
Test on GT-43004P12019-T3						
Test position:	Label on top		Label on bottom		—	—
T1 coil	98,3	87,5	96,6	88,7	—	110
T1 core	91,5	81,8	91,5	83,0	—	120
LF1 coil	85,7	70,8	83,1	70,7	—	130
LF2 coil	91,5	72,2	91,0	73,1	—	130
L1 coil	92,4	75,4	91,9	76,5	—	130
L2 coil	94,1	77,2	93,7	78,3	—	130
MOV1 body	81,4	71,3	81,0	71,9	—	85
CX1	85,5	71,4	84,9	72,3	—	100
CY1	90,6	80,2	89,7	81,0	—	125
CY2	89,1	71,5	86,6	71,8	—	125
THR1	77,5	66,1	72,8	63,7	—	130
TRH2	89,1	80,5	87,8	80,7	—	130
U1	95,4	86,5	94,1	86,7	—	100
BD1	94,6	76,7	93,5	76,7	—	130
PWB under D1	89,6	76,5	88,4	76,6	—	130
PWB under Q5	89,5	81,4	88,1	81,6	—	130
PWB under Q6	86,5	79,0	84,4	78,4	—	130
PWB under Q1	91,4	77,8	90,3	77,9	—	130
PWB under Q2	88,8	78,1	88,1	78,4	—	130
C1	90,6	74,4	89,7	74,6	—	105
C2	90,7	75,9	90,3	76,7	—	105
C4	90,2	79,4	89,9	80,3	—	105
C6	92,9	83,5	92,6	84,5	—	105
C9	89,7	81,5	89,7	83,0	—	105
C10	90,4	82,3	90,5	83,7	—	105
C11	87,4	78,9	87,2	80,0	—	105
AC inlet	60,5	53,3	57,7	52,9	—	70
Internal wire	76,3	67,4	76,0	68,1	—	80
Output wire	76,8	70,6	75,2	70,8	—	90
NF1 coil	83,4	76,3	81,6	76,3	—	130
Enclosure inside above T1	64,0	59,8	64,5	60,3	—	--
Enclosure outside above T1	71,3	64,8	68,8	63,3	—	95
Test on GT-43004P15024-T3						
Test position:	Label on top		Label on bottom		—	—

T1 coil	108,8	102,2	106,5	100,1	—	110	
T1 core	92,6	85,2	89,9	82,9	—	120	
LF1 coil	84,3	70,9	81,9	69,2	—	130	
LF2 coil	91,5	72,6	90,1	71,4	—	130	
L1 coil	89,8	76,6	87,7	74,9	—	130	
L2 coil	93,0	78,5	90,5	76,6	—	130	
MOV1 body	81,9	70,8	80,8	69,6	—	85	
CX1	82,8	71,3	81,5	70,2	—	100	
CY1	93,2	85,8	90,5	83,6	—	125	
CY2	79,1	68,1	77,5	67,1	—	125	
THR1	72,6	63,8	69,7	61,8	—	130	
TRH2	92,6	86,4	90,3	84,8	—	130	
U1	95,9	90,2	93,6	88,5	—	100	
BD1	88,1	75,5	86,1	73,8	—	130	
PWB under D1	86,4	76,8	84,1	74,9	—	130	
PWB under Q5	94,3	89,2	90,8	86,5	—	130	
PWB under Q6	91,2	86,5	87,1	83,2	—	130	
PWB under Q1	89,0	79,5	86,9	77,7	—	130	
PWB under Q2	85,4	76,8	83,0	74,9	—	130	
C1	88,8	75,5	87,2	74,0	—	105	
C2	88,0	76,8	85,8	75,0	—	105	
C4	94,9	86,1	92,5	84,2	—	105	
C6	96,1	88,9	93,6	87,2	—	105	
C9	91,1	84,7	89,0	83,2	—	105	
C10	88,4	81,7	85,8	79,7	—	105	
C11	82,8	76,9	81,1	75,4	—	105	
AC inlet	54,0	50,1	56,8	52,0	—	70	
Internal wire	75,7	66,9	74,9	66,1	—	80	
Output wire	70,6	66,8	66,0	62,8	—	90	
Enclosure inside above T1	59,5	56,8	60,9	57,7	—	--	
Enclosure outside above T1	71,7	66,4	59,1	55,9	—	95	
Supplementary information: For component with temperature marking, allowed $T = T_{max} + T_{amb} - T_{ma}(T_{ma} = 40\text{ }^{\circ}\text{C}, T_{amb} = 40\text{ }^{\circ}\text{C})$;							
Temperature T of winding:	t ₁ (°C)	R ₁ (Ω)	t ₂ (°C)	R ₂ (Ω)	T (°C)	Allowed T _{max} (°C)	Insulation class
--	--	--	--	--	--	--	--
Supplementary information:							

4.5.5	TABLE: Ball pressure test of thermoplastic parts			N/A
	Allowed impression diameter (mm):	≤ 2 mm		—
Part		Test temperature (°C)	Impression diameter (mm)	
--		--	--	
Supplementary information:				

4.7	TABLE: Resistance to fire					P
Part	Manufacturer of material	Type of material	Thickness (mm)	Flammability class	Evidence	
--	--	--	--	--	--	
Supplementary information: Refer to appended table 1.5.1.						

5.1	TABLE: touch current measurement			P
Measured between:		Measured (mA)	Limit (mA)	Comments/conditions
L/N and earth		0,39	3,5	Normal condition
L/N and Plastic enclosure (foil)		0,002	0,25	Normal condition
L/N and Output		0,113	0,25	Normal condition
supplementary information:				
1) Supplied with 264Va.c. 60Hz; 2) CY1: 2200pF; CY2: 3300pF				

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:				
L/N before fuse		AC	1500	No
Basic				
L/N and earth		AC	1500	No
Reinforced:				
Tape of transformer		AC	3000	No
Primary circuit to plastic enclosure covered with foil (RI)		AC	3000	No
Primary circuit to secondary circuit (RI)		AC	3000	No
Primary winding to secondary winding of T1 (RI)		AC	3000	No
Secondary winding to core of T1 (RI)		AC	3000	No
Supplementary information: All testing Including after Humidity required of clause 2.9, there are including unit, transformer and all material of transformer, see appended tables 1.5.1 Core of transformer T1 is considered as primary circuit.				

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)		25 °C, if not else specified		—	
	Power source for EUT: Manufacturer, model/type, output rating		--		—	
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Test on GT-43004P15024-T3						
C1	s-c	264	< 1s	FS1	--	FS1 opened immediately, no hazard. RF.
BD1	s-c	264	< 1s	FS1	--	FS1 opened immediately, no hazard. RF.
R2	s-c	264	< 1s	FS1	--	FS1 opened immediately, no hazard. RF.
Q5 D-S	s-c	264	30 min	FS1	0,01	Unit shut down immediately. No damage, no hazard.
US1 pin1-2	s-c	264	30 min	FS1	0,01	Unit shut down immediately. No damage, no hazard.
US1 pin2-3	s-c	264	30 min	FS1	0,01	Unit shut down immediately. No damage, no hazard.

US1 pin2-16	s-c	264	30 min	FS1	0,01	Unit shut down immediately. No damage, no hazard.
US1 pin3-16	s-c	264	30 min	FS1	0,01	Unit shut down immediately. No damage, no hazard.
US1 pin12-13	s-c	264	30 min	FS1	0,01	Unit shut down immediately. No damage, no hazard.
US1 pin9-10	s-c	264	30 min	FS1	0,01	Unit shut down immediately. No damage, no hazard.
US2 pin1-5	s-c	264	30 min	FS1	0,01	Unit shut down immediately. No damage, no hazard.
US2 pin5-8	s-c	264	30 min	FS1	0,01	Unit shut down immediately. No damage, no hazard.
US2 pin1-8	s-c	264	30 min	FS1	0,01	Unit shut down immediately. No damage, no hazard.
US2 pin2-5	s-c	264	30 min	FS1	0,01	Unit shut down immediately. No damage, no hazard.
U1 pin1-2	s-c	264	30 min	FS1	0,01	Unit shut down immediately. No damage, no hazard.
U1 pin3-4	s-c	264	30 min	FS1	0,01	Unit shut down immediately. No damage, no hazard.
U1 pin1	o-c	264	30 min	FS1	0,01	Unit shut down immediately. No damage, no hazard.
U1 pin3	o-c	264	30 min	FS1	0,01	Unit shut down immediately. No damage, no hazard.
U2 pin A-R	s-c	264	30 min	FS1	0,01	Unit shut down immediately. No damage, no hazard.
U2 pin R-C	s-c	264	30 min	FS1	0,01	Unit shut down immediately. No damage, no hazard.
U2 pin A-C	s-c	264	30 min	FS1	0,01	Unit shut down immediately. No damage, no hazard.
Q1 G-D	s-c	264	< 1s	FS1	--	FS1 opened immediately, no hazard. RF.
Q1 D-S	s-c	264	< 1s	FS1	--	FS1 opened immediately, no hazard. RF.

Q1 G-S	s-c	264	30 min	FS1	0,01	Unit shut down immediately. No damage, no hazard.
Q2 G-D	s-c	264	< 1s	FS1	--	FS1 opened immediately, no hazard. RF.
Q2 D-S	s-c	264	< 1s	FS1	--	FS1 opened immediately, no hazard. RF.
Q2 G-S	s-c	264	30 min	FS1	0,01	Unit shut down immediately. No damage, no hazard.
T1 Pin P1-P2	s-c	264	30 min	FS1	0,01	Unit shut down immediately. No damage, no hazard.
T1 Pin 7-10	s-c	264	30 min	FS1	0,01	Unit shut down immediately. No damage, no hazard.
Test on GT-43004P12012-T3						
Output	s-c	264	30 min	FS1	0,01	Unit shut down immediately. No damage, no hazard.
Output	o-l	264	8 h	FS1	0,68	Loaded to 12,3A, max temperature on T1 winding 118,4°C, U1 107,9°C ambient 20,0°C. no damage, no hazard.
T1 pin P1-P2	s-c	264	30 min	FS1	0,01	Unit shut down immediately. No damage, no hazard.
T1 pin P1-P2	o-l	264	8 h	FS1	0,66	Loaded to 12,5A, max temperature on T1 winding 132,0°C, U1 118,3°C ambient 20,0°C. no damage, no hazard.
Test on GT-43004P12016-1.0-T3						
Output	s-c	264	30 min	FS1	0,01	Unit shut down immediately. No damage, no hazard.
Output	o-l	264	8 h	FS1	0,73	Loaded to 11,2A, max temperature on T1 winding 103,6°C, U1 98,7°C ambient 20,0°C. no damage, no hazard.
T1 pin P1-P2	s-c	264	30 min	FS1	0,01	Unit shut down immediately. No damage, no hazard.
T1 pin P1-P2	o-l	264	8 h	FS1	0,72	Loaded to 11,1A, max temperature on T1 winding 102,3°C, U1 95,0°C ambient 20,0°C. no damage, no hazard.

Test on GT-43004P12019-T3						
Output	s-c	264	30 min	FS1	0,01	Unit shut down immediately. No damage, no hazard.
Output	o-l	264	8 h	FS1	0,83	Loaded to 10,2A, max temperature on T1 winding 120,4°C, U1 113,9°C ambient 20,0°C. no damage, no hazard.
T1 pin P1-P2	s-c	264	30 min	FS1	0,01	Unit shut down immediately. No damage, no hazard.
T1 pin P1-P2	o-l	264	8 h	FS1	0,83	Loaded to 10,3A, max temperature on T1 winding 120,6°C, U1 114,4°C ambient 20,0°C. no damage, no hazard.
Test on GT-43004P15024-T3						
Output	s-c	264	30 min	FS1	0,01	Unit shut down immediately. No damage, no hazard.
Output	o-l	264	9 h	FS1	0,85	Loaded to 7,65A, max temperature on T1 winding 134,9°C, U1 125,1°C ambient 20,0°C. no damage, no hazard.
T1 pin P1-P2	s-c	264	30 min	FS1	0,01	Unit shut down immediately. No damage, no hazard.
T1 pin P1-P2	o-l	264	9 h	FS1	0,85	Loaded to 7,85A, max temperature on T1 winding 135,2°C, U1 124,1°C ambient 20,0°C. no damage, no hazard.
Supplementary information: 1) s-c: short circuit, o-c: open circuit, o-l: overload. 2) YC: Cheesecloth charred or flamed NT: Tissue paper remained intact RF: Repeat all fuse result were the same. YT: Tissue paper charred or flamed IP: Internal protection operated (list component) I/P: Input current IP: Internal protection operated (list component) The electric strength test performed after fault condition test.						

C.2		TABLE: transformers						P
Loc.	Tested insulation	Working voltage peak / V (2.10.2)	Working voltage rms / V (2.10.2)	Required electric strength (5.2)	Required clearance / mm (2.10.3)	Required creepage distance / mm (2.10.4)	Required distance thr. insul. (2.10.5)	
T1	Reinforced: Primary to secondary	572	368	3000 Va.c.	6,0	7,4	0,4 / 2 layers / Annex U	
T1	Reinforced: Secondary winding to core	572	368	3000 Va.c.	6,0	7,4	0,4 / 2 layers / Annex U	
Loc.	Tested insulation			Test voltage/ V	Measured clearance / mm	Measured creepage dist./ mm	Measured distance thr. insul. / mm; number of layers	
T1	Reinforced: Primary to secondary			3000 Va.c.	7,5	7,5	TIW	
T1	Reinforced: Secondary winding to core			3000 Va.c.	10,2	10,2	TIW	
supplementary information:								
All testing Including after Humidity required of clause 2.9, there are including unit, transformer and all material of transformer, see appended tables 1.5.1								

C.2	TABLE: transformers	P
Transformer type XF00722		

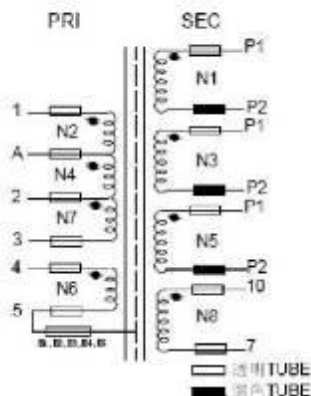
C.2

TABLE: transformers

P

Transformer type XF00722

2. SCHEMATIC:



3. WINDING SEQUENCE:



4. WINDING TABLE

Winding No (組別)	Margin Tape (檔邊膠帶)	PIN (腳位)	Wire&Wire Copper (線徑X股數)	Turns (圈數)	Winding Tape (繞線方式)	Tape Layer (膠帶層次)	Tube (套管)
N1	0	P1-P2	0.45ΦX3P (三層絕緣線)	6Ts	密繞	1L	
E1	0	-5	0.025*10mm	0.9Ts	背膠	1L	
N2	0	1-A	0.32ΦX3P	12Ts	密繞	1L	
E2	0	-5	0.025*10mm	0.9Ts	背膠	1L	
N3	0	P1-P2	0.45ΦX3P (三層絕緣線)	6Ts	密繞	1L	
E3	0	-5	0.025*10mm	0.9Ts	背膠	1L	
N4	0	A-2	0.32ΦX3P	12Ts	密繞	1L	
E4	0	-5	0.025*10mm	0.9Ts	背膠	1L	
N5	0	P1-P2	0.45ΦX3P (三層絕緣線)	6Ts	密繞	1L	
E5	0	-5	0.025*10mm	0.9Ts	背膠	1L	
N6	0	4-5	0.20ΦX2P	6Ts	疏繞	1L	
N7	0	2-3	0.32ΦX3P	12Ts	密繞	1L	
N8	0	10-7	0.20ΦX1P (三層絕緣線)	4Ts	疏繞	1L	
			將A級錫箔互繞後用檔牆包住反折回繞包				1L

NOTE:

- 1.) E1-E5 為內銅箔(背膠), 從無線端起繞, 接引線0.3吋穿TFL套管接於PIN5.
- 2.) N2, N4為密繞各佔一層, A為中間抽頭由PIN2-3頂部進出線, 待N8繞完互絞錫箔用檔牆包住反折回線包再包ITS膠帶(注意整體線包不能超出BOBBIN底座)N6/N8為疏繞, N7為密繞一層.
- 3.) N1, N3, N5 均為密繞各佔一層, 且使用三層絕緣線繞制, 須先脫皮再繞錫, P1, P2均為飛線, P1穿透明TUBE從PIN7-12側頂部進線, P2穿黑色TUBE從PIN8-9間四槽出線, 飛線長度均從CORE上量起, 成品後P1互絞在一起, P2互絞在一起.

DESCRIPTION	TRANSFORMER	Customer P/N	XF00722	DATE	2010/11/17
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C.2

TABLE: transformers

P

Transformer type XF00722

5. ELECTRICAL CHARACTERISTIC: (電器特性)

TEST CONDITION : TEMPERATURE AT 25℃ @1KHz, 0.3V

TEST POINT	INDUCTANCE(L)	LK	DCR	TEST INSTRUMENT
1~3	0.37mH±5%	4.0uH Max (short other pin)		WK—4235

1) HI-POT TEST:(WK-7620)

PRI. TO SEC. —————AC 3.00KV/(50/60Hz)/5mA/60sec.

PRI. TO CORE. —————AC 1.5KV/(50/60Hz)/5mA/60sec.

SEC. TO CORE. —————AC 1.5KV/(50/60Hz)/5mA/60sec.

2) AR. C TEST:(WK7620)

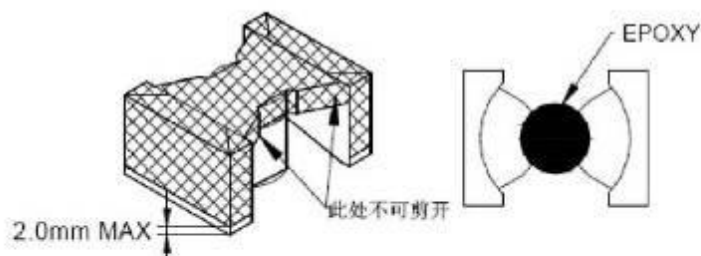
PRI. TO SEC. —————AC 3.00KV/(50/60Hz)/12mA/1sec.

3) INSULATION TEST:(DC 500V)

BETWEEN PRI. TO SEC. & PRI. TO CORE AND SEC. TO CORE THE
RESISTANCE MORE 100M ohm.

4) TERMINAL STRENGTH:

1.0 Kg on terminals for 30seconds, test the breakdown.



DESCRIPTION	TRANSFORMER	Customer P/N	XF00722	DATE	2010/11/17
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C.2	TABLE: transformers	P
Transformer type XF00734		

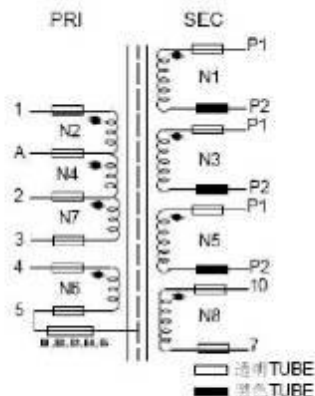
C.2

TABLE: transformers

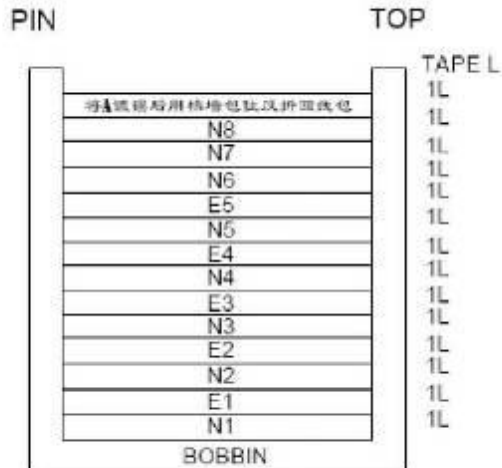
P

Transformer type XF00734

2. SCHEMATIC:



3. WINDING SEQUENCE:



4. WINDING TABLE

Winding No (組別)	Margin Tape (檔牆膠帶)	PIN (腳位)	Wire&Wire Copper (線徑X股數)	Turns (圈數)	Winding Tape (繞線方式)	Tape Layer (膠帶層次)	Tube (套管)
N1	0	P1-P2	0.40ΦX4P (三層絕緣線)	5Ts	密繞	1L	
E1	0	-5	0.025*10mm	0.9Ts	背膠	1L	
N2	0	1-A	0.32ΦX3P	12Ts	密繞	1L	
E2	0	-5	0.025*10mm	0.9Ts	背膠	1L	
N3	0	P1-P2	0.40ΦX4P (三層絕緣線)	5Ts	密繞	1L	
E3	0	-5	0.025*10mm	0.9Ts	背膠	1L	
N4	0	A-2	0.32ΦX3P	12Ts	密繞	1L	
E4	0	-5	0.025*10mm	0.9Ts	背膠	1L	
N5	0	P1-P2	0.40ΦX4P (三層絕緣線)	5Ts	密繞	1L	
E5	0	-5	0.025*10mm	0.9Ts	背膠	1L	
N6	0	4-5	0.20ΦX2P	7Ts	疏繞	1L	
N7	0	2-3	0.32ΦX3P	12Ts	密繞	1L	
N8	0	10-7	0.20ΦX1P (三層絕緣線)	4Ts	疏繞	1L	
將A級錫互繞後用檔牆包住反折回線包						1L	

NOTE:

- 1.) E1-E5 為內銅箔(背膠), 從無線端起繞, 接引線0.3穿TFL套管接於PIN5.
- 2.) N2, N4為密繞各佔一層, A為中間抽頭由PIN2-3頂部進出線, 待N8繞完互繞繞錫用檔牆包住反折回線包再包ITS膠帶(注意整體線包不能超出BOBBIN底座)N6/N8為疏繞, N7為密繞一層.
- 3.) N1, N3, N5 均為密繞各佔一層, 且使用三層絕緣線繞制, 須先脫皮再鍍錫, P1, P2均為飛線, P1穿透明TUBE從PIN7-12側頂部進線, P2穿黑色TUBE從PIN3-9間四槽出線, 繞線長度均從CORE上量起, 成品後P1互繞在一起, P2互繞在一起.

DESCRIPTION	TRANSFORMER	Customer P/N	XF00734	DATE	2011/2/10
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C.2

TABLE: transformers

P

Transformer type XF00734

5. ELECTRICAL CHARACTERISTIC: (電器特性)

TEST CONDITION : TEMPERATURE AT 25 °C @10KHz, 0.25V

TEST POINT	INDUCTANCE(L)	LK	DCR	TEST INSTRUMENT
1-3	0.45mH±5%	5.0uH Max (short other pin)		WK-4235

1) HI-POT TEST:(WK-7620)

PRI. TO SEC. -----AC 3.00KV/(50/60Hz)/5mA/60sec.

PRI. TO CORE. -----AC 1.5KV/(50/60Hz)/5mA/60sec.

SEC. TO CORE. -----AC 1.5KV/(50/60Hz)/5mA/60sec.

2) AR. C TEST:(WK7620)

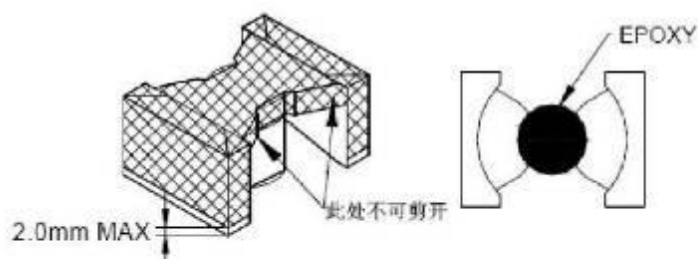
PRI. TO SEC. -----AC 3.00KV/(50/60Hz)/12mA/1sec.

3) INSULATION TEST:(DC 500V)

BETWEEN PRI. TO SEC. & PRI. TO CORE AND SEC. TO CORE THE
RESISTANCE MORE 100M ohm.

4) TERMINAL STRENGTH:

1.9 Kg on terminals for 30seconds. test the breakdown.



DESCRIPTION	TRANSFORMER	Customer P/N	XF00734	DATE	2011/2/10
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C.2	TABLE: transformers	P
Transformer type XF00735		

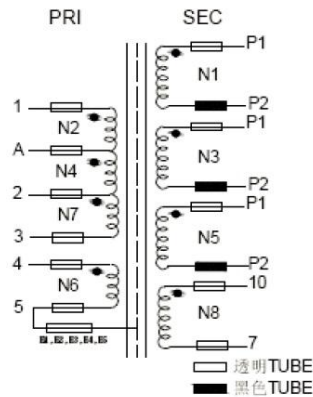
C.2

TABLE: transformers

P

Transformer type XF00735

2. SCHEMATIC:



3. WINDING SEQUENCE:



4. WINDING TABLE

Winding No (組別)	Margin Tape (槽牆膠帶)	PIN (腳位)	Wire&Wire Copper (線徑X股數)	Turns (圈數)	Winding Tape (繞線方式)	Tape Layer (膠帶層次)	Tube (套管)
N1	0	P1~P2	0.35ΦX5P (三層絕緣線)	4Ts	密繞	1L	
E1	0	~5	0.025*10mm	0.9Ts	背膠	1L	
N2	0	1~A	0.32ΦX3P	12Ts	密繞	1L	
E2	0	~5	0.025*10mm	0.9Ts	背膠	1L	
N3	0	P1~P2	0.35ΦX5P (三層絕緣線)	4Ts	密繞	1L	
E3	0	~5	0.025*10mm	0.9Ts	背膠	1L	
N4	0	A~2	0.32ΦX3P	12Ts	密繞	1L	
E4	0	~5	0.025*10mm	0.9Ts	背膠	1L	
N5	0	P1~P2	0.35ΦX5P (三層絕緣線)	4Ts	密繞	1L	
E5	0	~5	0.025*10mm	0.9Ts	背膠	1L	
N6	0	4~5	0.20ΦX2P	7Ts	疏繞	1L	
N7	0	2~3	0.32ΦX3P	12Ts	密繞	1L	
N8	0	10~7	0.20ΦX1P (三層絕緣線)	5Ts	疏繞	1L	
			將A鍍錫互絞後用槽牆包住反折回線包				1L

NOTE:

- 1.) E1~E5 為內銅箔(背膠). 從無線端起繞, 接引線0.3Φ穿TFL套管接於PIN5.
- 2.) N2, N4為密繞各佔一層, A為中間抽頭由PIN2-3頂部進出線. 待N8繞完互絞鍍錫用槽牆包住反折回線包再包1TS膠帶(注意整體線包不能超出BOBBIN底座)N6/N8為疏繞, N7為密繞一層.
- 3.) N1, N3, N5 均為密繞各佔一層, 且使用三層絕緣線繞制, 須先脫皮再鍍錫, P1, P2均為飛線, P1穿透明TUBE從PIN7~12側頂部進線, P2穿黑色TUBE從PIN8~9間凹槽出線, 飛線長度均從CORE上量起, 成品後P1互絞在一起, P2互絞在一起.

DESCRIPTION	TRANSFORMER	Customer P/N	XF00735	DATE	2011/2/10
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C.2

TABLE: transformers

P

Transformer type XF00735

5. ELECTRICAL CHARACTERISTIC: (電器特性)

TEST CONDITION : TEMPERATURE AT 25 °C @10KHz, 0.25V

TEST POINT	INDUCTANCE(L)	LK	DCR	TEST INSTRUMENT
1~3	0.48mH±5%	5.0uH Max (short other pin)		WK---4235

1) HI-POT TEST:(WK-7620)

PRI. TO SEC. -----AC 3.00KV/(50/60Hz)/5mA/60sec.

PRI. TO CORE. -----AC 1.5KV/(50/60Hz)/5mA/60sec.

SEC. TO CORE. -----AC 1.5KV/(50/60Hz)/5mA/60sec.

2) AR.C TEST:(WK7620)

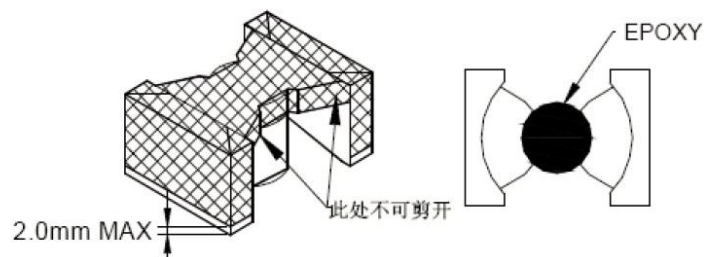
PRI. TO SEC. -----AC 3.00KV/(50/60Hz)/12mA/1sec.

3) INSULATION TEST:(DC 500V)

BETWEEN PRI. TO SEC. & PRI. TO CORE AND SEC. TO CORE THE
RESISTANCE MORE 100M ohm.

4) TERMINAL STRENGTH:

1.0 Kg on terminals for 30seconds.test the breakdown.



DESCRIPTION	TRANSFORMER	Customer P/N	XF00735	DATE	2011/2/10
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C.2	TABLE: transformers	P
Transformer type XF00738		

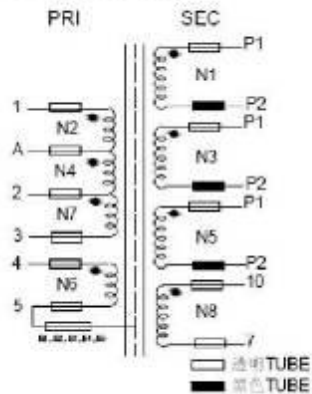
C.2

TABLE: transformers

P

Transformer type XF00738

2. SCHEMATIC:



3. WINDING SEQUENCE:



4. WINDING TABLE

Winding No (組別)	Margin Tape (擋膠膠帶)	PIN (腳位)	Wire&Wire Copper (線徑X股數)	Turns (圈數)	Winding Tape (繞線方式)	Tape Layer (膠帶層次)	Tube (套管)
N1	0	P1-P2	0.40ΦX4P (三層絕緣線)	5Ts	密繞	1L	
E1	0	-5	0.025*10mm	0.9Ts	背膠	1L	
N2	0	1-A	0.32ΦX3P	12Ts	密繞	1L	
E2	0	-5	0.025*10mm	0.9Ts	背膠	1L	
N3	0	P1-P2	0.40ΦX4P (三層絕緣線)	5Ts	密繞	1L	
E3	0	-5	0.025*10mm	0.9Ts	背膠	1L	
N4	0	A-2	0.32ΦX3P	12Ts	密繞	1L	
E4	0	-5	0.025*10mm	0.9Ts	背膠	1L	
N5	0	P1-P2	0.40ΦX4P (三層絕緣線)	5Ts	密繞	1L	
E5	0	-5	0.025*10mm	0.9Ts	背膠	1L	
N6	0	4-5	0.20ΦX2P	6Ts	疏繞	1L	
N7	0	2-3	0.32ΦX3P	12Ts	密繞	1L	
N8	0	10-7	0.20ΦX1P (三層絕緣線)	4Ts	疏繞	1L	
			將A鍵錫片互絞後用棉線包住反折回線包				1L

NOTE:

- 1.) E1-E5 為內銅箔(背膠), 從無線端起繞, 接引線0.3寸穿TFL套管接於PIN5.
- 2.) N2, N4為密繞各佔一層, A為中間抽頭由PIN2-3頂部進出線. 將N8繞完互絞鍍錫片端膠包住反折回線包再包1TS膠帶(注意整體線包不能超出BOBBIN底座)N6/N8為疏繞, N7為密繞一層.
- 3.) N1, N3, N5 均為密繞各佔一層, 且使用三層絕緣線繞制, 須先脫皮再鍍錫, P1, P2均為飛線, P1穿透明TUBE從PIN7-12側頂部進線, P2穿黑色TUBE從PIN8-9間凹槽出線, 飛線長度均從CORE上量起, 成品後P1互絞在一起, P2互絞在一起.

DESCRIPTION	TRANSFORMER	Customer P/N	XF00738	DATE	2011/2/10
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C.2

TABLE: transformers

P

Transformer type XF00738

5. ELECTRICAL CHARACTERISTIC: (電器特性)

TEST CONDITION : TEMPERATURE AT 25 °C @10KHz, 0.25V

TEST POINT	INDUCTANCE(L)	LK	DCR	TEST INSTRUMENT
1-3	0.45mH±5%	4.0uH Max (short other pin)		WK-4235

1) HI-POT TEST:(WK-7620)

PRI. TO SEC. ————— AC 3.00KV/(50/60Hz)/5mA/60sec.

PRI. TO CORE. ————— AC 1.5KV/(50/60Hz)/5mA/60sec.

SEC. TO CORE. ————— AC 1.5KV/(50/60Hz)/5mA/60sec.

2) AR.C TEST:(WK7620)

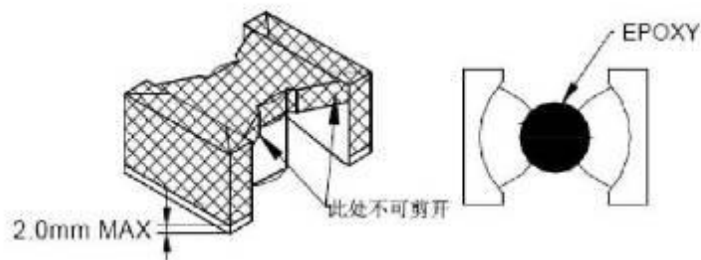
PRI. TO SEC. ————— AC 3.00KV/(50/60Hz)/12mA/1sec.

3) INSULATION TEST:(DC 500V)

BETWEEN PRI. TO SEC. & PRI. TO CORE AND SEC. TO CORE THE
RESISTANCE MORE 100M ohm.

4) TERMINAL STRENGTH:

1.0 Kg on terminals for 30seconds.test the breakdown.



DESCRIPTION	TRANSFORMER	Customer P/N	XF00738	DATE	2011/2/10
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*****End of Test report*****

Attachment 1 Photo documentation

General view



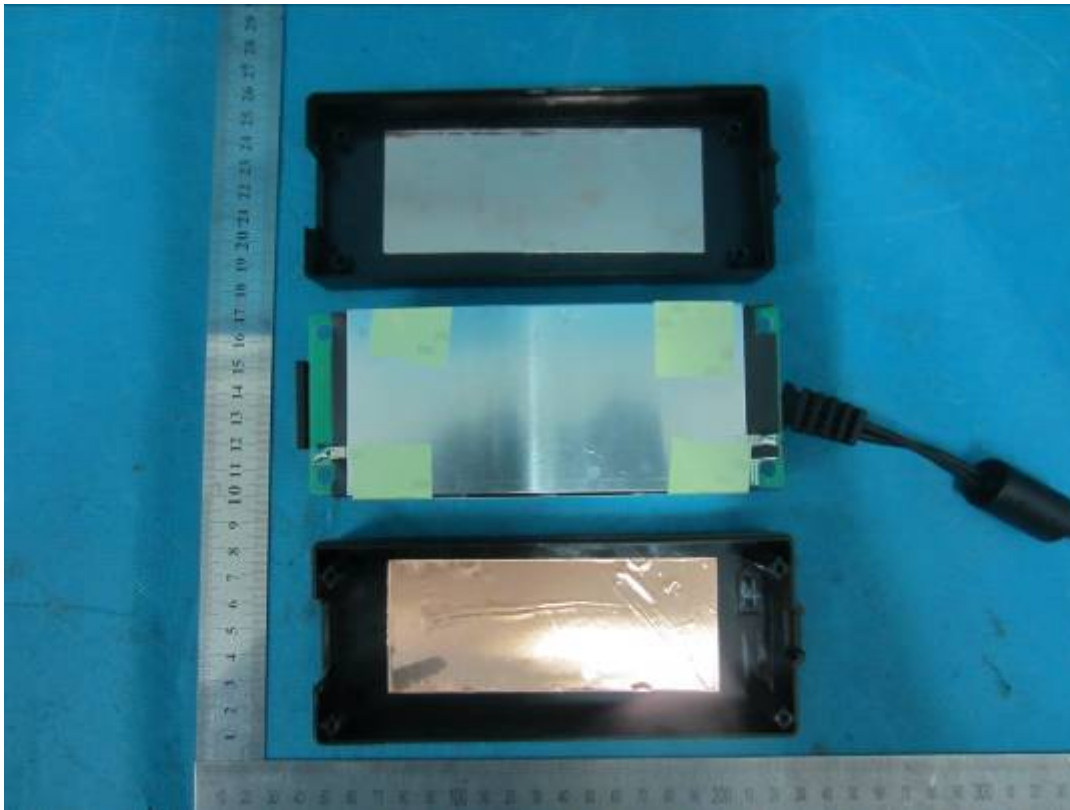
General view



Attachment 1 Photo documentation

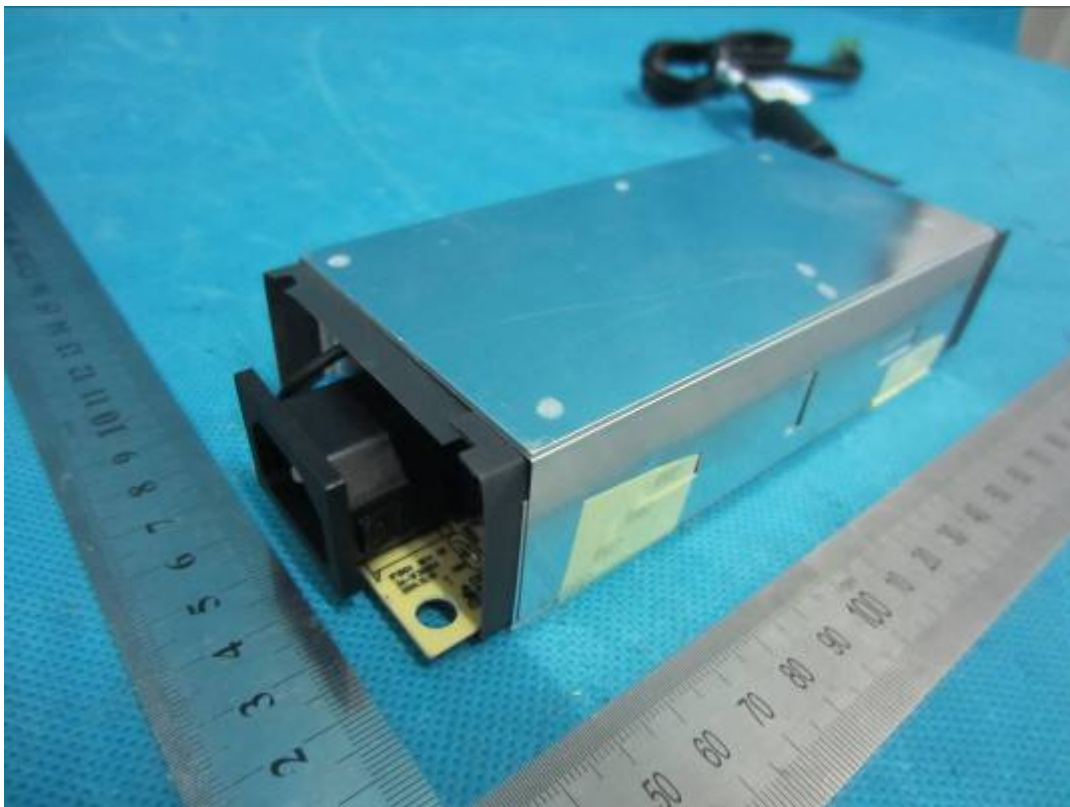
Internal view

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Plug disassembled

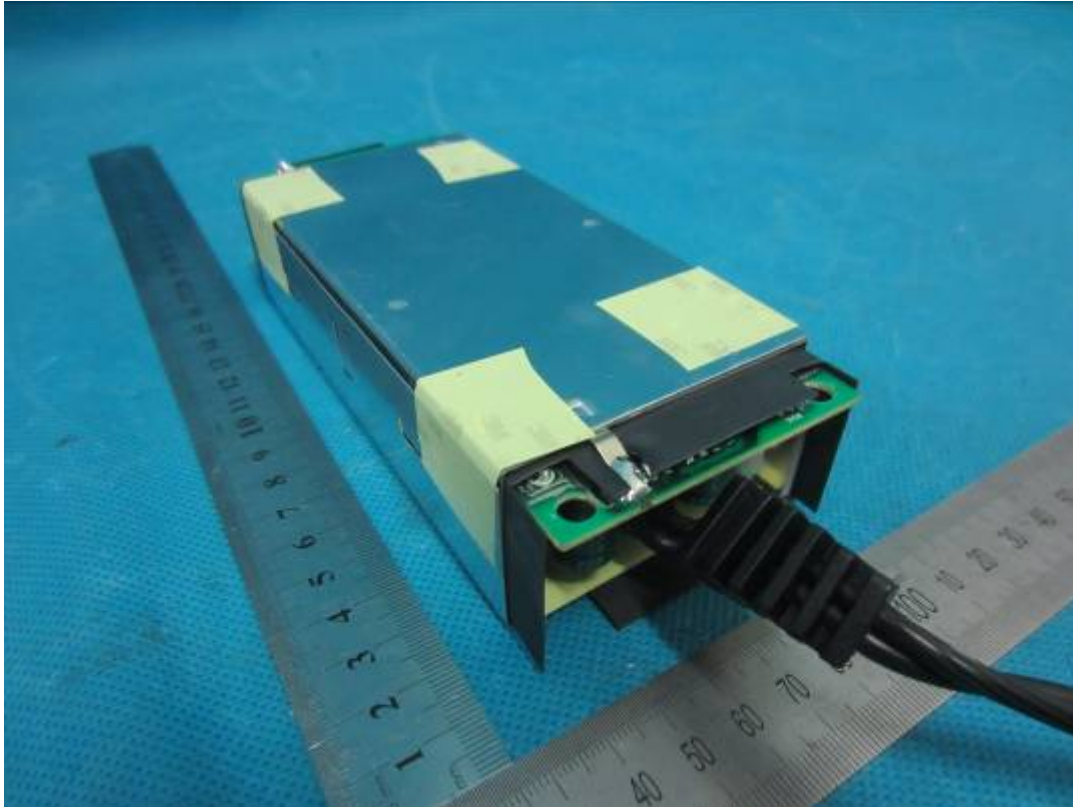
.....



Attachment 1 Photo documentation

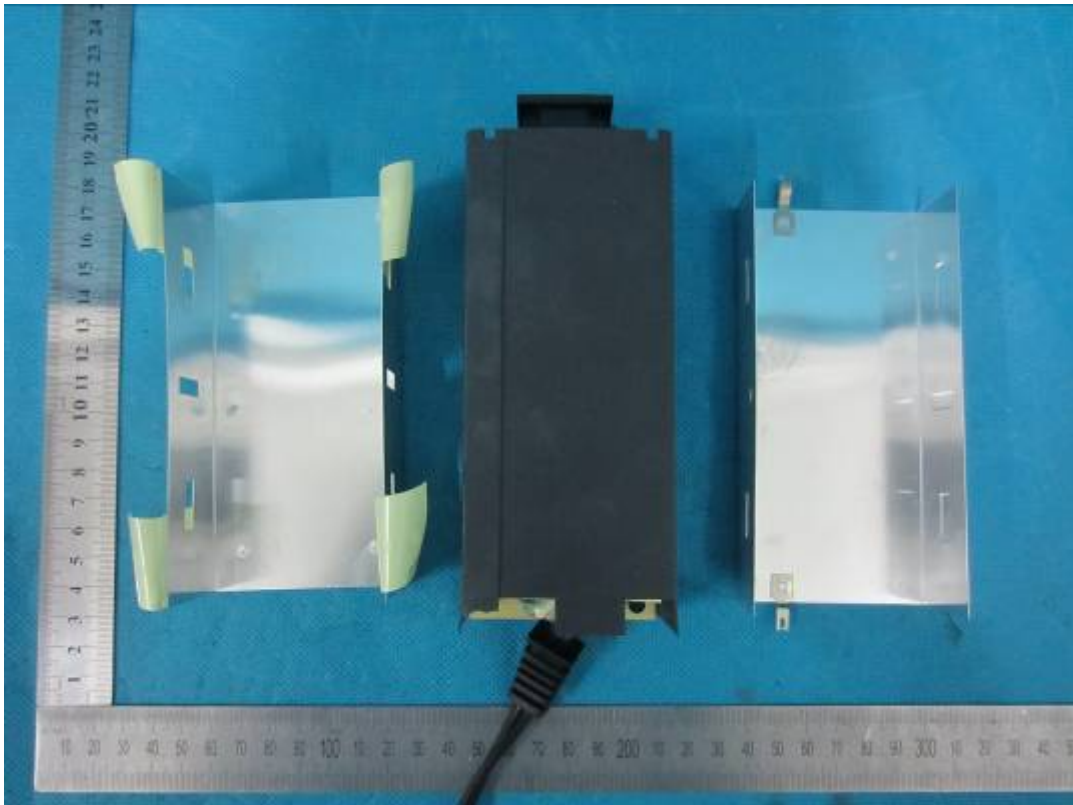
Illustration of EN50075 plug

.....



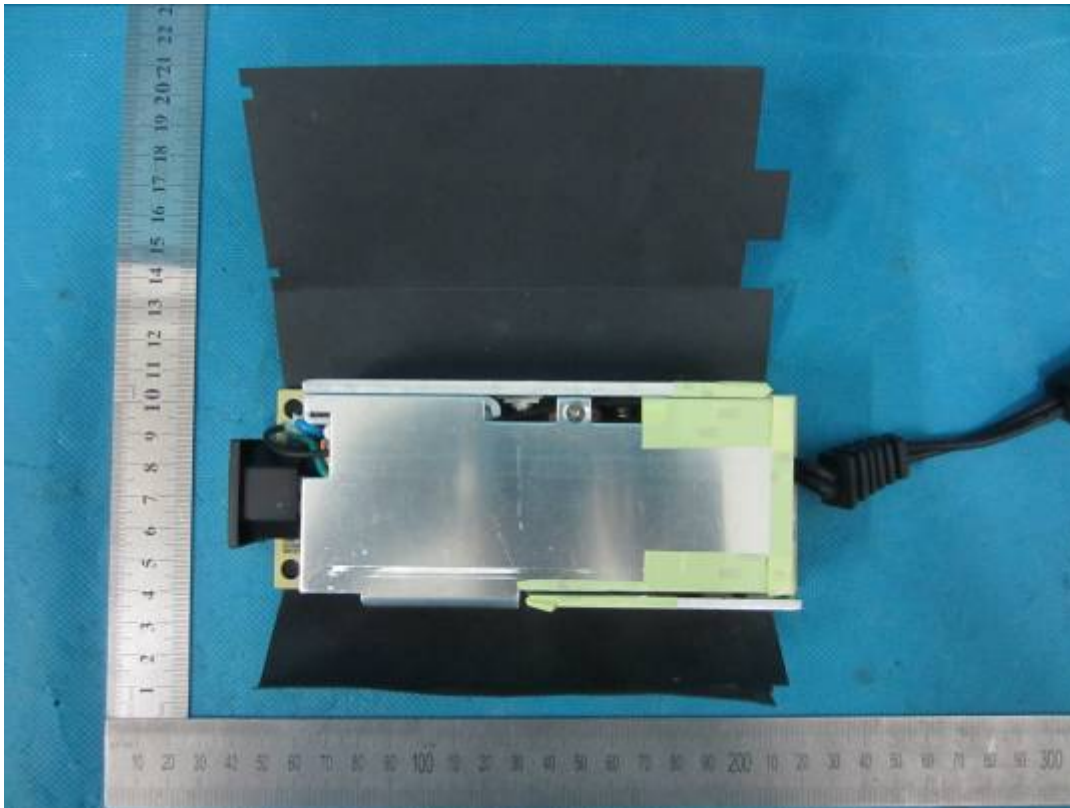
Internal view

.....

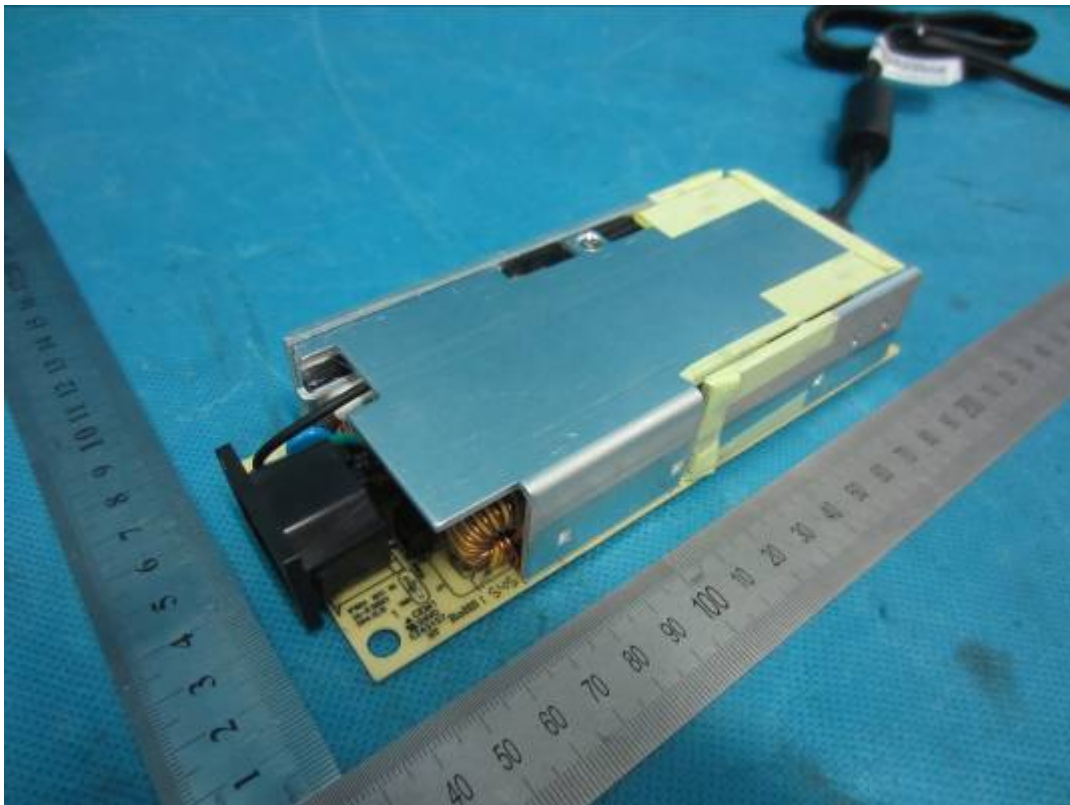


Attachment 1 Photo documentation

PCB assembly

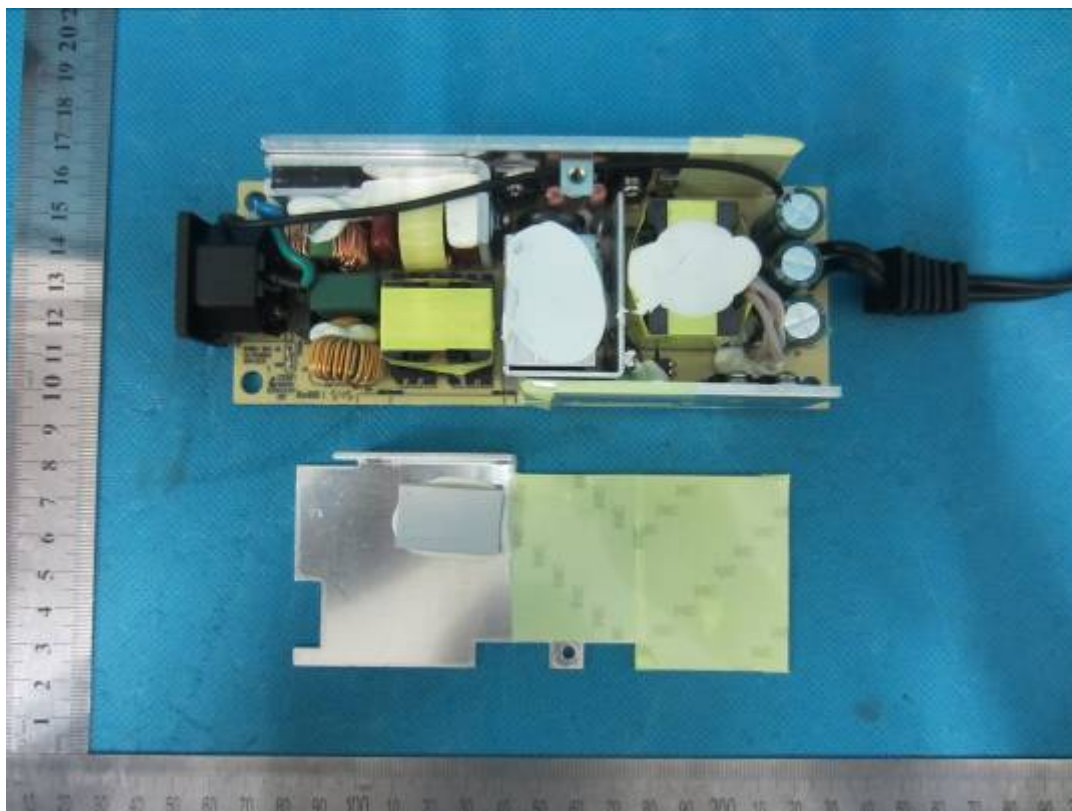


PCB assembly

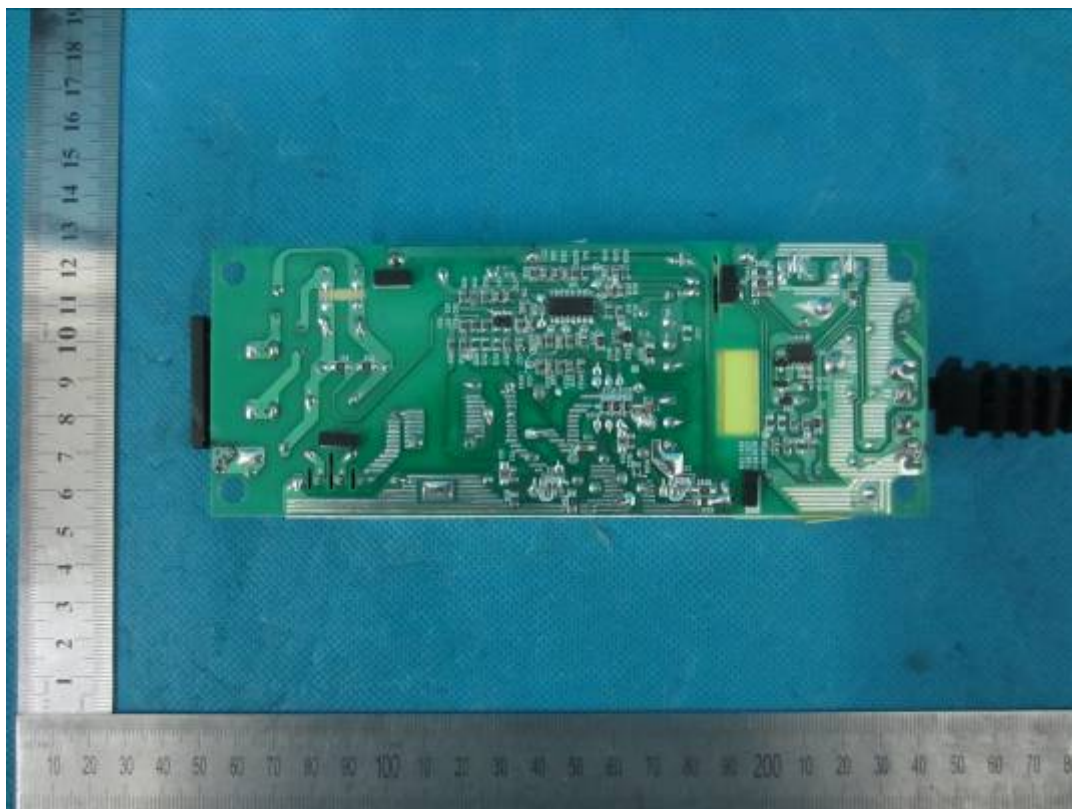


Attachment 1 Photo documentation

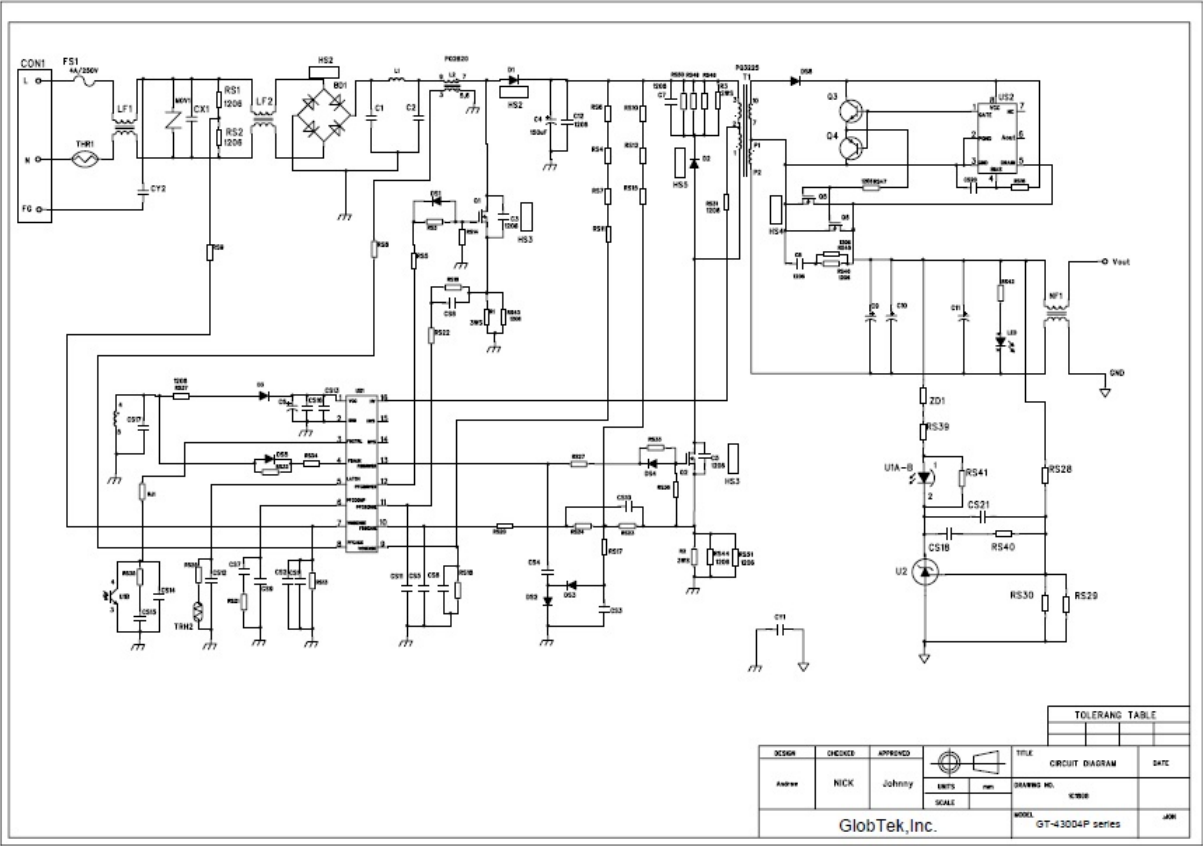
PCB assembly



PCB assembly

*******End of Attachment 1******

Circuit diagram



IEC60950_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

Attachment 3 Deviation of EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES

ATTACHMENT TO TEST REPORT IEC 60950-1 EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES Information technology equipment – Safety – Part 1: General requirements	
Differences according to.....:	EN 60950-1:2006/A11:2009/A1:2010/A12:2011/A2:2013
Attachment Form No.....:	EU_GD_IEC60950_1E
Attachment Originator	SGS Fimko Ltd
Master Attachment	Date 2013-09
Copyright © 2013 IEC System for Conformity Testing and Certification of Electrical Equipment (IECEE), Geneva, Switzerland. All rights reserved.	

EN 60950-1:2006/A11:2009/A1:2010/A12:2011/A2:2013 – CENELEC COMMON MODIFICATIONS

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	Clauses, subclauses, notes, tables and figures which are additional to those in IEC60950-1 and it's amendmets are prefixed "Z"		P
Contents (A2:2013)	Add the following annexes: Annex ZA (normative) Normative references to international publications with their corresponding European publications Annex ZB (normative) Special national conditions Annex ZD (informative) IEC and CENELEC code designations for flexible cords		P
General	Delete all the "country" notes in the reference document (IEC 60950-1:2005) 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		P
General (A1:2010)	Delete all the "country" notes in the reference document (IEC 60950-1:2005/A1:2010) according to the following list: 1.5.7.1 Note 6.1.2.1 Note 2 6.2.2.1 Note 2 EE.3 Note		P

IEC60950_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

Attachment 3 Deviation of EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
General (A2:2013)	Delete all the "country" notes in the reference document (IEC 60950-1:2005/A2:2013) according to the following list: 2.7.1 Note * 2.10.3.1 Note 2 6.2.2. Note * Note of secretary: Text of Common Modification remains unchanged.		P
1.1.1 (A1:2010)	Replace the text of NOTE 3 by the following. NOTE 3 The requirements of EN 60065 may also be used to meet safety requirements for multimedia equipment. See IEC Guide 112, Guide on the safety of multimedia equipment. For television sets EN 60065 applies.		P
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.	No headphone and earphone.	N/A
(A12:2011)	In EN 60950-1:2006/A12:2011 Delete the addition of 1.3.Z1 / EN 60950-1:2006 Delete the definition 1.2.3.Z1 / EN 60950-1:2006 /A1:2010		N/A
1.5.1 (Added info*)	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. New Directive 2011/65/11 *		P
1.7.2.1 (A1:2010)	In addition, for a PORTABLE SOUND SYSTEM, the instructions shall include a warning that excessive sound pressure from earphones and headphones can cause hearing loss.	No headphone and earphone.	N/A
1.7.2.1 (A12:2011)	In EN 60950-1:2006/A12:2011 Delete NOTE Z1 and the addition for Portable Sound System. Add the following clause and annex to the existing standard and amendments.		N/A

IEC60950_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

Attachment 3 Deviation of EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>Zx Protection against excessive sound pressure from personal music players</p>		N/A
	<p>Zx.1 General</p> <p>This sub-clause specifies requirements for protection against excessive sound pressure from personal music players that are closely coupled to the ear. It also specifies requirements for earphones and headphones intended for use with personal music players.</p> <p>A personal music player is a portable equipment for personal use, that:</p> <ul style="list-style-type: none"> – is designed to allow the user to listen to recorded or broadcast sound or video; and – primarily uses headphones or earphones that can be worn in or on or around the ears; and – allows the user to walk around while in use. <p>NOTE 1 Examples are hand-held or body-worn portable CD players, MP3 audio players, mobile phones with MP3 type features, PDA's or similar equipment.</p> <p>A personal music player and earphones or headphones intended to be used with personal music players shall comply with the requirements of this sub-clause.</p> <p>The requirements in this sub-clause are valid for music or video mode only.</p> <p>The requirements do not apply:</p> <ul style="list-style-type: none"> – while the personal music player is connected to an external amplifier; or – while the headphones or earphones are not used. <p>NOTE 2 An external amplifier is an amplifier which is not part of the personal music player or the listening device, but which is intended to play the music as a standalone music player.</p> <p>The requirements do not apply to:</p> <ul style="list-style-type: none"> – hearing aid equipment and professional equipment; <p>NOTE 3 Professional equipment is equipment sold through special sales channels. All products sold through normal electronics stores are considered not to be professional equipment.</p>		N/A

IEC60950_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

Attachment 3 Deviation of EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>– analogue personal music players (personal music players without any kind of digital processing of the sound signal) that are brought to the market before the end of 2015.</p> <p>NOTE 4 This exemption has been allowed because this technology is falling out of use and it is expected that within a few years it will no longer exist. This exemption will not be extended to other technologies.</p> <p>For equipment which is clearly designed or intended for use by young children, the limits of EN 71-1 apply.</p>		N/A
	<p>Zx.2 Equipment requirements</p> <p>No safety provision is required for equipment that complies with the following:</p> <p>– equipment provided as a package (personal music player with its listening device), where the acoustic output $L_{Aeq,T}$ is ≤ 85 dBA measured while playing the fixed “programme simulation noise” as described in EN 50332-1; and</p> <p>– a personal music player provided with an analogue electrical output socket for a listening device, where the electrical output is ≤ 27 mV measured as described in EN 50332-2, while playing the fixed “programme simulation noise” as described in EN 50332-1.</p> <p>NOTE 1 Wherever the term acoustic output is used in this clause, the 30 s A-weighted equivalent sound pressure level $L_{Aeq,T}$ is meant. See also Zx.5 and Annex Zx.</p> <p>All other equipment shall:</p> <p>a) protect the user from unintentional acoustic outputs exceeding those mentioned above; and</p> <p>b) have a standard acoustic output level not exceeding those mentioned above, and automatically return to an output level not exceeding those mentioned above when the power is switched off; and</p>		N/A


IEC60950_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

Attachment 3 Deviation of EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>c) provide a means to actively inform the user of the increased sound pressure when the equipment is operated with an acoustic output exceeding those mentioned above. Any means used shall be acknowledged by the user before activating a mode of operation which allows for an acoustic output exceeding those mentioned above. The acknowledgement does not need to be repeated more than once every 20 h of cumulative listening time; and</p> <p>NOTE 2 Examples of means include visual or audible signals. Action from the user is always required.</p> <p>NOTE 3 The 20 h listening time is the accumulative listening time, independent how often and how long the personal music player has been switched off.</p> <p>d) have a warning as specified in Zx.3; and</p> <p>e) not exceed the following:</p> <p>1) equipment provided as a package (player with its listening device), the acoustic output shall be ≤ 100 dBA measured while playing the fixed "programme simulation noise" described in EN 50332-1; and</p> <p>2) a personal music player provided with an analogue electrical output socket for a listening device, the electrical output shall be ≤ 150 mV measured as described in EN 50332-2, while playing the fixed "programme simulation noise" described in EN 50332-1.</p> <p>For music where the average sound pressure (long term $L_{Aeq,T}$) measured over the duration of the song is lower than the average produced by the programme simulation noise, the warning does not need to be given as long as the average sound pressure of the song is below the basic limit of 85 dBA. In this case T becomes the duration of the song.</p> <p>NOTE 4 Classical music typically has an average sound pressure (long term $L_{Aeq,T}$) which is much lower than the average programme simulation noise. Therefore, if the player is capable to analyse the song and compare it with the programme simulation noise, the warning does not need to be given as long as the average sound pressure of the song is below the basic limit of 85 dBA.</p> <p>For example, if the player is set with the programme simulation noise to 85 dBA, but the average music level of the song is only 65 dBA, there is no need to give a warning or ask an acknowledgement as long as the average sound level of the song is not above the basic limit of 85 dBA.</p>		N/A

IEC60950_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

Attachment 3 Deviation of EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>Zx.3 Warning</p> <p>The warning shall be placed on the equipment, or on the packaging, or in the instruction manual and shall consist of the following:</p> <ul style="list-style-type: none"> – the symbol of Figure 1 with a minimum height of 5 mm; and – the following wording, or similar: <p>“To prevent possible hearing damage, do not listen at high volume levels for long periods.”</p>  <p>Figure 1 – Warning label (IEC 60417-6044)</p> <p>Alternatively, the entire warning may be given through the equipment display during use, when the user is asked to acknowledge activation of the higher level.</p>		N/A
	Zx.4 Requirements for listening devices (headphones and earphones)		N/A
	<p>Zx.4.1 Wired listening devices with analogue input</p> <p>With 94 dBA sound pressure output $L_{Aeq,T}$, the input voltage of the fixed “programme simulation noise” described in EN 50332-2 shall be ≥ 75 mV.</p> <p>This requirement is applicable in any mode where the headphones can operate (active or passive), including any available setting (for example built-in volume level control).</p> <p>NOTE The values of 94 dBA – 75 mV correspond with 85dBA – 27 mV and 100 dBA – 150 mV.</p>		N/A

IEC60950_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

Attachment 3 Deviation of EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>Zx.4.2 Wired listening devices with digital input</p> <p>With any playing device playing the fixed “programme simulation noise” described in EN 50332-1 (and respecting the digital interface standards, where a digital interface standard exists that specifies the equivalent acoustic level), the acoustic output $L_{Aeq,T}$ of the listening device shall be ≤ 100 dBA.</p> <p>This requirement is applicable in any mode where the headphones can operate, including any available setting (for example built-in volume level control, additional sound feature like equalization, etc.).</p> <p>NOTE An example of a wired listening device with digital input is a USB headphone.</p>		N/A
	<p>Zx.4.3 Wireless listening devices</p> <p>In wireless mode:</p> <ul style="list-style-type: none"> – with any playing and transmitting device playing the fixed programme simulation noise described in EN 50332-1; and – respecting the wireless transmission standards, where an air interface standard exists that specifies the equivalent acoustic level; and – with volume and sound settings in the listening device (for example built-in volume level control, additional sound feature like equalization, etc.) set to the combination of positions that maximize the measured acoustic output for the abovementioned programme simulation noise, the acoustic output $L_{Aeq,T}$ of the listening device shall be ≤ 100 dBA. <p>NOTE An example of a wireless listening device is a Bluetooth headphone.</p>		N/A
	<p>Zx.5 Measurement methods</p> <p>Measurements shall be made in accordance with EN 50332-1 or EN 50332-2 as applicable. Unless stated otherwise, the time interval T shall be 30 s.</p> <p>NOTE Test method for wireless equipment provided without listening device should be defined.</p>		N/A

IEC60950_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

Attachment 3 Deviation of EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)									
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 switch, short-circuit and earth fault protection may be provided by protective devices in the building installation;</p>	<p>The equipment is provided with a fuse and complies with a).</p>	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'.		—						
3.2.3	Delete the NOTE in Table 3A, and delete also in this table the conduit sizes in parentheses.	Not permanently connected equipment.	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><tr><td>Up to and including 6 </td><td>0,75 ^{a)} </td></tr><tr><td>Over 6 up to and including 10 (0,75) ^{b)}</td><td>1,0 </td></tr><tr><td>Over 10 up to and including 16 (1,0) ^{c)}</td><td>1,5 </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	No power supply cord provided.	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								

IEC60950_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

Attachment 3 Deviation of EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.5.1 (A2:2013)	NOTE Z1 The harmonised code designations corresponding to the IEC cord types are given in Annex ZD		N/A
3.3.4	In Table 3D, delete the fourth line: conductor sizes for 10 to 13 A, and replace with the following: Over 10 up to and including 16 1,5 to 2,5 1,5 to 4 Delete the fifth line: conductor sizes for 13 to 16 A		N/A
4.3.13.6 (A1:2010)	Replace the existing NOTE by the following: 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, and 2006/25/EC: Directive on the minimum health and safety requirements regarding the exposure of workers to risks arising from physical agents (artificial optical radiation).		N/A
	Standards taking into account mentioned Recommendation and Directive which demonstrate compliance with the applicable EU Directive are indicated in the OJEC.		N/A
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 µSv/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.	No ionizing radiation.	N/A
Bibliography	Additional EN standards.		—

ZA	NORMATIVE REFERENCES TO INTERNATIONAL PUBLICATIONS WITH THEIR CORRESPONDING EUROPEAN PUBLICATIONS	—
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ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
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.	No power supply cord provided.	N/A
1.2.13.14 (A11:2009)	In Norway and Sweden , for requirements see 1.7.2.1 and 7.3 of this annex.	Not intended to be connected to cable distribution system.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict

Attachment 3 Deviation of EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
1.5.7.1 (A11:2009)	In Finland, Norway and Sweden , resistors bridging BASIC INSULATION in CLASS I PLUGGABLE EQUIPMENT TYPE A must comply with the requirements in 1.5.7.1. In addition when a single resistor is used, the resistor must withstand the resistor test in 1.5.7.2.	No such resistor.	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).		P
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.	No TNV circuit.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict

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ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.2.1	<p>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.</p> <p>The marking text in the applicable countries shall be as follows:</p> <p>In Finland: "Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan"</p> <p>In Norway: "Apparatet må tilkoples jordet stikkontakt"</p> <p>In Sweden: "Apparaten skall anslutas till jordat uttag"</p>	Must be considered when marketing in the countries.	N/A
1.7.2.1 (A11:2009)	<p>In Norway and Sweden, the screen of the cable distribution system is normally not earthed at the entrance of the building and there is normally no equipotential bonding system within the building. Therefore the protective earthing of the building installation need to be isolated from the screen of a cable distribution system.</p> <p>It is however accepted to provide the insulation external to the equipment by an adapter or an interconnection cable with galvanic isolator, which may be provided by e.g. a retailer.</p> <p>The user manual shall then have the following or similar information in Norwegian and Swedish language respectively, depending on in what country the equipment is intended to be used in:</p> <p>"Equipment connected to the protective earthing of the building installation through the mains connection or through other equipment with a connection to protective earthing – and to a cable distribution system using coaxial cable, may in some circumstances create a fire hazard. Connection to a cable distribution system has therefore to be provided through a device providing electrical isolation below a certain frequency range (galvanic isolator, see EN 60728-11)."</p>		

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Clause	Requirement + Test	Result - Remark	Verdict

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ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>NOTE In Norway, due to regulation for installations of cable distribution systems, and in Sweden, a galvanic isolator shall provide electrical insulation below 5 MHz. The insulation shall withstand a dielectric strength of 1,5 kV r.m.s., 50 Hz or 60 Hz, for 1 min.</p> <p>Translation to Norwegian (the Swedish text will also be accepted in Norway):</p> <p>“Utstyr som er koplet til beskyttelsesjord via nettplugg og/eller via annet jordtilkoplet utstyr – og er tilkoplet et kabel-TV nett, kan forårsake brannfare. For å unngå dette skal det ved tilkopling av utstyret til kabel-TV nettet installeres en galvanisk isolator mellom utstyret og kabel- TV nettet.”</p> <p>Translation to Swedish:</p> <p>”Utrustning som är kopplad till skyddsjord via jordat vägguttag och/eller via annan utrustning och samtidigt är kopplad till kabel-TV nät kan i vissa fall medföra risk för brand. För att undvika detta skall vid anslutning av utrustningen till kabel-TV nät galvanisk isolator finnas mellan utrustningen och kabel-TV nätet.”</p>		N/A
1.7.2.1 (A2:2013)	<p>In Denmark, 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.</p> <p>The marking text in Denmark shall be as follows: In Denmark: “Apparatets stikprop skal tilsluttes en stikkontakt med jord, som giver forbindelse til stikproppens jord.”</p>	Must be considered when marketing in the countries.	N/A
1.7.5 1.7.5 (A11:2009)	<p>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.</p> <p>For CLASS II EQUIPMENT the socket outlet shall be in accordance with Standard Sheet DKA 1-4a.</p>		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

Attachment 3 Deviation of EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.5 (A2:2013)	<p>In Denmark, socket-outlets for providing power to other equipment shall be in accordance with the DS 60884-2-D1:2011.</p> <p>For class I equipment the following Standard Sheets are applicable: DK 1-3a, DK 1-1c, DK 1-1d, DK 1-5a or DK 1-7a, with the exception for STATIONARY EQUIPMENT where the socket-outlets shall be in accordance with Standard Sheet DK 1-1b, DK 1-1c, DK 1-1d or DK 1-5a.</p> <p>Socket outlets intended for providing power to Class II apparatus with a rated current of 2,5 A shall be in accordance with DS 60884-2-D1 standard sheet DKA 1-4a. Other current rating socket outlets shall be in compliance with by DS 60884-2-D1 Standard Sheet DKA 1-3a or DKA 1-3b.</p> <p>Justification the Heavy Current Regulations, 6c</p>		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.	No TNV circuit.	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.	No TNV circuit.	N/A
2.6.3.3	In the United Kingdom , the current rating of the circuit shall be taken as 13 A, not 16 A.		P
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.	No TNV circuit.	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> <p>SEV 6532-2.1991 Plug Type 15 3P+N+PE 250/400 V, 10 A</p>	No power supply cord provided.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict

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ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>SEV 6533-2.1991 Plug Type 11 L+N 250 V, 10 A</p> <p>SEV 6534-2.1991 Plug Type 12 L+N+PE 250 V, 10 A</p> <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> <p>SEV 5932-2.1998: Plug Type 25 , 3L+N+PE 230/400 V, 16 A</p> <p>SEV 5933-2.1998: Plug Type 21, L+N, 250 V, 16A</p> <p>SEV 5934-2.1998: Plug Type 23, L+N+PE 250 V, 16 A</p>		
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>	No power supply cord provided.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict

Attachment 3 Deviation of EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.1.1 (A2:2013)	<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 DS 60884-2-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 a single-phase equipment having a RATED CURRENT exceeding 13 A or if a poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with the standard sheets DK 6-1a in DS 60884-2-D1 or EN 60309-2.</p> <p>Justification the Heavy Current Regulations, 6c</p>	No power supply cord provided.	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>	No power supply cord provided.	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 etc. (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>	No power supply cord provided.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict

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ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
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.	No power supply cord provided.	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.	Not direct plug-in equipment.	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

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Clause	Requirement + Test	Result - Remark	Verdict

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ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
5.1.7.1	<p>In Finland, Norway and Sweden TOUCH CURRENT measurement results exceeding 3,5 mA r.m.s. are permitted only for the following equipment:</p> <ul style="list-style-type: none"> • STATIONARY PLUGGABLE EQUIPMENT TYPE A that <ul style="list-style-type: none"> 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
6.1.2.1 (A1:2010)	<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>Alternatively for components, there is no distance through insulation requirements 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. 	No TNV circuit.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict

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ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>It is permitted to bridge this insulation with an optocoupler complying with 2.10.5.4 b).</p> <p>It is permitted to bridge this insulation with a capacitor complying with EN 60384-14:2005, subclass Y2.</p> <p>A capacitor classified Y3 according to EN 60384-14:2005, 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 60384-14, which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in EN 60950-1:2006, 6.2.2.1; - the additional testing shall be performed on all the test specimens as described in EN 60384-14; - the impulse test of 2,5 kV is to be performed before the endurance test in EN 60384-14, in the sequence of tests as described in EN 60384-14. 	No TNV circuit.	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>	No TNV circuit.	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>	Not intended to be connected to cable distribution system.	N/A
7.3 (A11:2009)	<p>In Norway and Sweden, for requirements see 1.2.13.14 and 1.7.2.1 of this annex.</p>	Not intended to be connected to cable distribution system.	N/A

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Annex ZD
(informative)

IEC and CENELEC code designations for flexible cords

Type of flexible cord	Code designations	
	IEC	CENELEC
PVC insulated cords		
Flat twin tinsel cord	60227 IEC 41	H03VH-Y
Light polyvinyl chloride sheathed flexible cord	60227 IEC 52	H03VV-F H03VVH2-F
Ordinary polyvinyl chloride sheathed flexible cord	60277 IEC 53	H05VV-F H05VVH2-F
Rubber insulated cords		
Braided cord	60245 IEC 51	H03RT-F
Ordinary tough rubber sheathed flexible cord	60245 IEC 53	H05RR-F
Ordinary polychloroprene sheathed flexible cord	60245 IEC 57	H05RN-F
Heavy polychloroprene sheathed flexible cord	60245 IEC 66	H07RN-F
Cords having high flexibility		
Rubber insulated and sheathed cord	60245 IEC 86	H03RR-H
Rubber insulated, crosslinked PVC sheathed cord	60245 IEC 87	H03RV4-H
Crosslinked PVC insulated and sheathed cord	60245 IEC 88	H03V4V4-H

*****End of Attachment 3*****