

	Test Report issued under the responsibility of: UL International Demko A/S	 Underwriters Laboratories
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TEST REPORT IEC 60950-1 Information technology equipment - Safety - Part 1: General requirements	
Report Reference No Date of issue Total number of pages	E134786-A77-CB-1 2011-08-09 68
CB Testing Laboratory Address	Underwriters Laboratories Taiwan Co., Ltd. 260 Da-Yeh Road, 112 Peitou Taipei City, Chinese Taipei
Applicant's name Address	DELTA ELECTRONICS INC 3 TUNG YUAN RD CHUNGLI INDUSTRIAL ZONE TAOYUAN HSIEN 320 TAIWAN
Test specification: Standard IEC 60950-1:2005 (Second Edition) Test procedure CB Scheme Non-standard test method N/A	
Test Report Form No. Test Report Form originator Master TRF	IEC60950_1A SGS Fimko Ltd 2009-09
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Test item description	DLP Projector
Trade Mark	NEC
	
Manufacturer	SAME AS APPLICANT
Model/Type reference	NP-PH1000yyy (y can be any character or blank for marketing purpose and no impact safety related critical components and constructions.)
Rating	100-130 Vac, 11.2A, 50/60 Hz; 200-240 Vac, 5.4 A, 50/60 Hz

Testing procedure and testing location:	
☐ CB Testing Laboratory	Testing location / address..... :
☐ Associated CB Test Laboratory	Testing location / address..... :
	Tested by (name + signature) :
	Approved by (+ signature) :
☐ Testing Procedure: TMP	Testing location / address..... :
	Tested by (name + signature) :
	Approved by (+ signature) :
☒ Testing Procedure: WMT	Testing location / address..... :
Tested by (name + signature) :	Dylan Liang 
Witnessed by (+ signature)..... :	Stephen Huang 
Approved by (+ signature) :	Stalling Chen 
Testing location / address..... :	DELTA ELECTRONICS INC, 3 TUNG YUAN RD CHUNGLI, INDUSTRIAL ZONE, TAOYUAN HSIEN,320 TAIWAN
☐ Testing Procedure: SMT	Testing location / address..... :
	Tested by (name + signature) :
	Approved by (+ signature) :
	Supervised by (+ signature) :
	Testing location / address..... :
☐ Testing Procedure: RMT	Testing location / address..... :
	Tested by (name + signature) :
	Approved by (+ signature) :
	Supervised by (+ signature) :
	Testing location / address..... :

List of Attachments

National Differences (26 pages)

Enclosures (78 pages)

Summary Of Testing

Unless otherwise indicated, all tests were conducted at DELTA ELECTRONICS INC, 3 TUNG YUAN RD CHUNGLI, INDUSTRIAL ZONE, TAOYUAN HSIEN,320 TAIWAN.

Tests performed (name of test and test clause)	Testing location / Comments
End Product Reference Page	

General Guidelines

Input: Single-Phase (1.6.2)

Capacitance Discharge (2.1.1.7)

SELV Reliability (2.2.2, 2.2.3, 2.2.4, Part 22 6.1)

Limited Current Circuit Measurement (2.4.1, 2.4.2)

Limited Power Source Measurements (2.5)

Protective Bonding I (2.6.3.4, 2.6.1).7)

Protective Bonding II (2.6.3.4, 2.6.1)

Humidity (2.9.1, 2.9.2, 5.2.2)

Determination of Working Voltage; Working Voltage Measurement (2.10.2)

Determination of Working Voltage; Hazardous Voltage (Circuit) Measurement (2.10.2, Part 22 6.1)

Electric Strength for Circuits with Starting Pulses (2.10.3.5)

Thin Sheet Material (2.10.5.9, 2.10.5.10, 2.10.5.6)

Transformer and Wire /Insulation Electric Strength (2.10.5.13)

Stability (4.1)

Steady Force (4.2.1 - 4.2.4)

Impact (4.2.5, 4.2.1, Part 22 10.2)

Stress Relief (4.2.7, 4.2.1)

Loading - Wall and Ceiling Mounted Equipment (4.2.10)

Knob Pull/Handle Loading (4.3.2)

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Ball Pressure (4.5.5, 4.5)

Touch Current (Single-Phase; TN/TT System) (5.1, Annex D)

Electric Strength (5.2.2)

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Abnormal Operation (5.3.1 - 5.3.9)

Abnormal Operation - Lamp Rupture (5.3.1, 5.3.9)

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Power Supply Output Short-Circuit/Overload (5.3.7)

Overload of Operator Accessible Connector (5.3.7)

Locked-Rotor Overload for DC Motors in Secondary Circuits (Annex B.7)

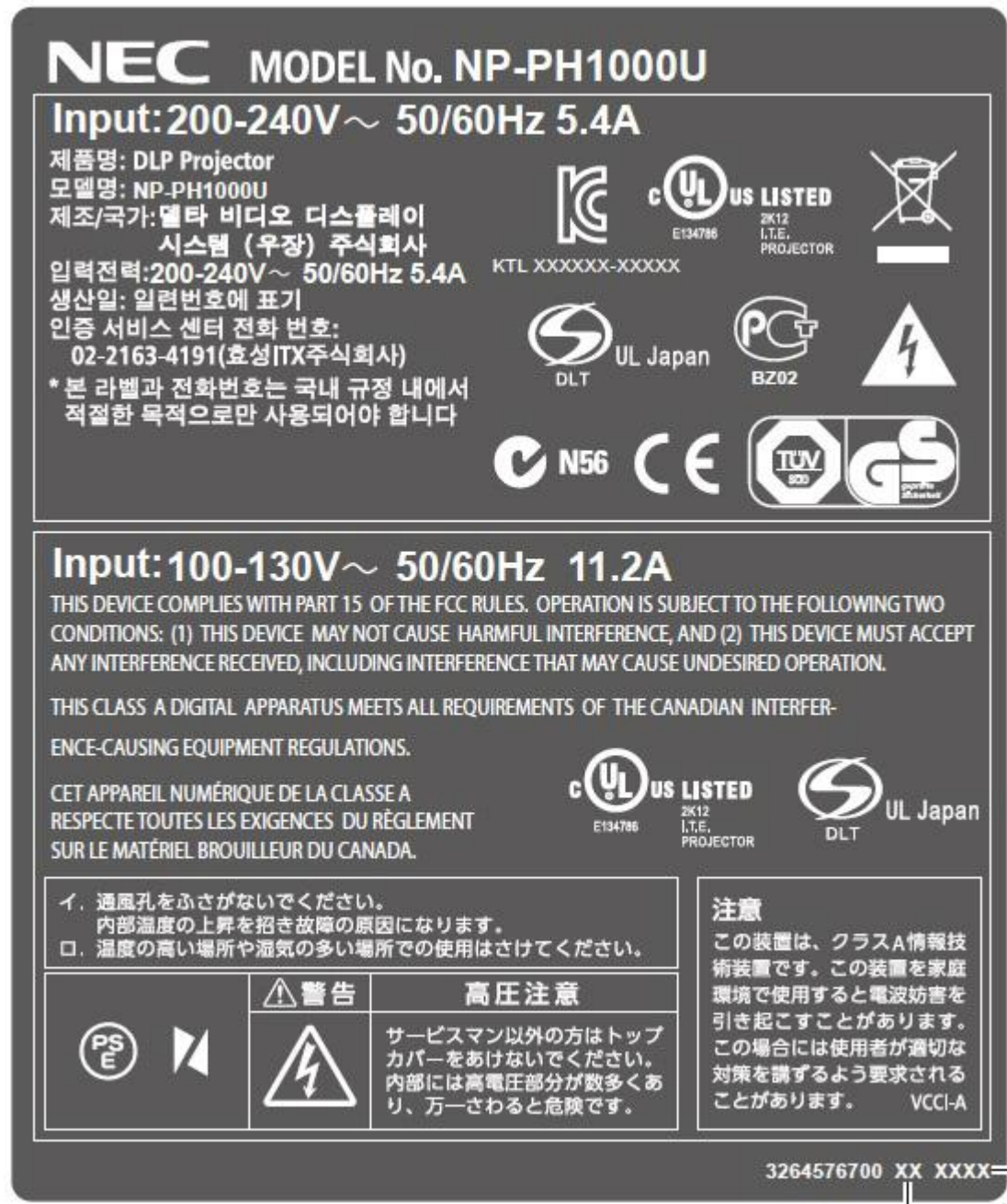
Summary of Compliance with National Differences:

List of countries addressed: AT, AU, BE, BG, BR, CA, CH, CN, CY, CZ, DE, DK, EE, ES, EU, FI, FR, GB, GR, HU, IL, IS, IT, JP, KR, LT, LU, LV, MT, NL, NO, PL, RO, SE, SG, SI, SK, UA, US

The product fulfills the requirements of: EN 60950-1:2006 + A11:2009

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 NCBs that own these marks.



Test item particulars :

Equipment mobility	stationary
Connection to the mains	pluggable A
Operating condition	continuous
Access location	operator accessible
Over voltage category (OVC)	OVC II
Mains supply tolerance (%) or absolute mains supply values	+10%, -10%
Tested for IT power systems	No
IT testing, phase-phase voltage (V)	N/A
Class of equipment	Class I (earthed)
Considered current rating (A)	20
Pollution degree (PD)	PD 2
IP protection class	IP X0
Altitude of operation (m)	Up to 3,048 m
Altitude of test laboratory (m)	Up to 2,000 m
Mass of equipment (kg)	39 kg max.

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(s) of receipt of test item	2011-05-10
Date(s) of Performance of tests	2011-05-16 to 2011-06-30

General remarks:

The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.

"(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 point is used as the decimal separator.

Manufacturer's Declaration per SubClause 6.25 of IEC60950:

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

When differences exist, they shall be identified in the General Product Information section.

Name and address of Factory(ies): 1). DELTA VIDEO DISPLAY SYSTEM (WUJIANG) LTD
WUJIANG ECONOMIC DEVELOPMENT ZONE, 1688 JIANGXING

EAST RD, WUJIANG JIANGSU, CHINA

2). DELTA ELECTRONICS, INC.

3, TUNG YUAN RD CHUNGLI INDUSTRIAL ZONE TAOYUAN
HSIEN 320, TAIWAN

GENERAL PRODUCT INFORMATION:

Report Summary

All applicable tests according to the referenced standard(s) have been carried out.

Product Description

Consist of ballast, AC power supply and electric components mounted on PWB, housed with metal enclosure and equipped with signal input function of 1 Lan, 1 HDMI, 1 display port, 1 USB, 2 VGA (Computer 1, 2), 1 Video, 1 PC control, 1 remote, 1 RGBHV (Computer 3), 1 Monitor out, 1 S-Video and 1 optional slot. (For these connectors for optional.)

Model Differences

N/A

Additional Information

- The label is a draft of an artwork for marking plate pending approval by National Certification Bodies and it shall not be affixed to products prior to such an approval.

Technical Considerations

- The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of: 40°C
- The means of connection to the mains supply is: Pluggable A, Detachable power cord
- The product is intended for use on the following power systems: TN
- The equipment disconnect device is considered to be: Appliance inlet
- The product was investigated to the following additional standards: - EN 60950-1:2006+ A11:2009 (which includes all European national differences, including those specified in this test report)., - Japan deviation see Miscellaneous/ID 7-04., - IEC 60664-1: 1992 table A.2 with a multiplication factor of 1.14 through this report (3000m : 1.14, 4000m : 1.29, linear interpolation between this value was considered). , - The Clearances and Creepage Distances have additionally been assessed for suitability up to 3,000m elevation.
- The following circuit locations (with circuit/schematic designation) were investigated as a limited power source (LPS): All output connectors.

- The following are available from the Applicant upon request: Installation (Safety) Instructions / Manual

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1	GENERAL		Pass
1.5	Components		Pass
1.5.1	General		Pass
	Comply with IEC 60950-1 or relevant component standard	(see appended table 1.5.1)	Pass
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 exist, have been tested under the conditions occurring in the equipment, using applicable parts of IEC 60950-1.	Pass
1.5.3	Thermal controls	Approved thermal controls used, see appended table 1.5.1.	Pass
1.5.4	Transformers		Pass
1.5.5	Interconnecting cables	Interconnecting cables comply with the relevant requirements of this standard.	Pass
1.5.6	Capacitors bridging insulation	Line-to-line capacitors are subclass X1 or X2. Primary-to-earth capacitors are subclass Y1 or Y2.	Pass
1.5.7	Resistors bridging insulation		Pass
1.5.7.1	Resistors bridging functional, basic or supplementary insulation		Pass
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		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.5.9	Surge suppressors		Pass
1.5.9.1	General		Pass
1.5.9.2	Protection of VDRs		Pass
1.5.9.3	Bridging of functional insulation by a VDR		Pass
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		Pass
1.6.1	AC power distribution systems	AC power distribution systems are classify as TN.	Pass
1.6.2	Input current	(see appended table 1.6.2)	Pass
1.6.3	Voltage limit of hand-held equipment	The unit is not a hand-held equipment.	N/A
1.6.4	Neutral conductor	Neutral is insulated from earth with basic insulation.	Pass
1.7	Marking and instructions		Pass
1.7.1	Power rating	Rating marking readily visible to operator.	Pass
	Rated voltage(s) or voltage range(s) (V)	100-130 Vac or 200-240 Vac	Pass
	Symbol for nature of supply, for d.c. only	Class I equipment	N/A
	Rated frequency or rated frequency range (Hz)	50/60 Hz	Pass
	Rated current (mA or A)	11.2A / 5.4 A	Pass
	Manufacturer's name or trademark or identification mark.....	NEC	Pass
	Model identification or type reference	NP-PH1000yyyy (y can be any character or blank for marketing purpose and no impact safety related critical components and constructions.)	Pass
	Symbol for Class II equipment only.....	Class I equipment.	N/A
	Other markings and symbols.....	Additional symbols may be provided when submitted for International Approval.	Pass
1.7.2	Safety instructions and marking	Operating or safety instructions made available to the USER.	Pass
1.7.2.1	General		Pass
1.7.2.2	Disconnect devices		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.2.3	Overcurrent protective device		N/A
1.7.2.4	IT Power distribution systems		N/A
1.7.2.5	Operator access with a tool		N/A
1.7.2.6	Ozone		N/A
1.7.3	Short duty cycles		N/A
1.7.4	Supply voltage adjustment		N/A
	Method and means of adjustment; reference to installation instructions		N/A
1.7.5	Power outlets on the equipment		N/A
1.7.6	Fuse identification (marking, special fusing characteristics, cross-reference)	Fuse marking provided as follows: F101: F20AH/250V and F103: F12AH/250V	Pass
1.7.7	Wiring terminals	See below.	Pass
1.7.7.1	Protective earthing and bonding terminals	The symbol (60417-2-IEC-5019) is provided beside grounding pin of appliance inlet. The other symbol (60417-2-IEC-5017) is also provided beside bonding terminal.	Pass
1.7.7.2	Terminals for a.c. mains supply conductors	Not PERMANENTLY CONNECTED EQUIPMENT.	N/A
1.7.7.3	Terminals for d.c. mains supply conductors		N/A
1.7.8	Controls and indicators	See below.	Pass
1.7.8.1	Identification, location and marking	No indicators, switches and other controls affecting safety provided.	Pass
1.7.8.2	Colours	Only functional indicators use color.	Pass
1.7.8.3	Symbols according to IEC 60417	- The mains switch is marked with the symbols: "0" and "I" (60417-1-IEC-5007 and IEC-5008). - The stand-by switch is marked with the correct symbol (60417-1-IEC-5009).	Pass
1.7.8.4	Markings using figures		N/A
1.7.9	Isolation of multiple power sources		N/A
1.7.10	Thermostats and other regulating devices		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.11	Durability	All markings provided on UL Recognized Component labels suitable for surface they are applied upon and meet the durability test.	Pass
1.7.12	Removable parts	No marking is located on (a) removable part(s).	Pass
1.7.13	Replaceable batteries	No lithium batteries used.	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		Pass
2.1	Protection from electric shock and energy hazards		Pass
2.1.1	Protection in operator access areas	The USER is instructed to perform lamp replacement with detailed instructions and illustrations. Prior to the removal of the lamp cover, the interlock of the lamp cover, the interlock switch cut the AC MAINS SUPPLY off immediately. The mapped safeguards retained OPERATOR ACCESS AREAS safe all the time.	Pass
2.1.1.1	Access to energized parts	The OPERATOR cannot access to energized parts except for specified in sub clause 2.1.1.	Pass
	Test by inspection..... :	Operator cannot contact with any parts with only basic insulation to ELV or hazardous voltage.	Pass
	Test with test finger (Figure 2A) :	The test finger was unable to contact bare hazardous parts, basic insulation, or ELV circuits.	Pass
	Test with test pin (Figure 2B)..... :	The test pin was unable to contact bare hazardous parts.	Pass
	Test with test probe (Figure 2C) :	No TNV presents	N/A
2.1.1.2	Battery compartments	No such devices within the EUT.	N/A
2.1.1.3	Access to ELV wiring	No ELV wirings within the EUT.	N/A
	Working voltage (V _{peak} or V _{rms}); minimum distance through insulation (mm) :		-
2.1.1.4	Access to hazardous voltage circuit wiring	No hazardous voltage circuit wirings accessible to the USER.	N/A
2.1.1.5	Energy hazards :	The hazardous energy circuits can't be bridged by the test finger in a straight position.	Pass
2.1.1.6	Manual controls		N/A
2.1.1.7	Discharge of capacitors in equipment		Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Measured voltage (V); time-constant (s)	Vo=364 Vpk, 37%Vo=135 Vpk, Vtc=128 V, time constant less than 1 second.	-
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 mains supply :		N/A
2.1.1.9	Audio amplifiers		N/A
2.1.2	Protection in service access areas		N/A
2.1.3	Protection in restricted access locations		N/A
2.2	SELV circuits		Pass
2.2.1	General requirements	SELV levels are maintained after single fault condition.	Pass
2.2.2	Voltages under normal conditions (V)	All accessible voltages are less than 42.4 Vp or 60 V dc and are classified as SELV.	Pass
2.2.3	Voltages under fault conditions (V)	Under fault conditions voltages never exceed 42.4 V peak or 60V dc for more than 0.2 Seconds.	Pass
2.2.4	Connection of SELV circuits to other circuits	SELV circuits are only connected to other secondary circuits. SELV circuit and all interconnected circuits separated from primary by double insulation. The SELV circuit does not exceed the SELV limits under normal and fault conditions.	Pass
2.3	TNV circuits		N/A
2.3.1	Limits		N/A
	Type of TNV circuits		-
2.3.2	Separation from other circuits and from accessible parts		N/A
2.3.2.1	General requirements		N/A
2.3.2.2	Protection by basic insulation		N/A
2.3.2.3	Protection by earthing		N/A
2.3.2.4	Protection by other constructions		N/A
2.3.3	Separation from hazardous voltages		N/A
	Insulation employed.....		-

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
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		Pass
2.4.1	General requirements		Pass
2.4.2	Limit values		Pass
	Frequency (Hz)..... :	See Enclosure/ Miscellaneous/ ID 7-01 for detail.	-
	Measured current (mA)..... :	See Enclosure/ Miscellaneous/ ID 7-01 for detail.	-
	Measured voltage (V)..... :	See Enclosure/ Miscellaneous/ ID 7-01 for detail.	-
	Measured circuit capacitance (nF or uF)..... :	CY108 = 2200 pF/ 250 Vac	-
2.4.3	Connection of limited current circuits to other circuits		N/A
2.5	Limited power sources		Pass
	a) Inherently limited output	All I/O ports used for data transfer only, except for Trigger port. Refer to 5.3.6 - Overload of Operator Accessible Connector.	Pass
	b) Impedance limited output		N/A
	c) Regulating network limited output under normal operating and single fault condition		Pass
	d) Overcurrent protective device limited output	See Enclosure/ Miscellaneous/ ID 7-01 for detail.	Pass
	Max. output voltage (V), max. output current (A), max. apparent power (VA)..... :	See Enclosure/ Miscellaneous/ ID 7-01 for detail.	-
	Current rating of overcurrent protective device (A) :	See Enclosure/ Miscellaneous/ ID 7-01 for detail.	-
2.6	Provisions for earthing and bonding		Pass
2.6.1	Protective earthing	Accessible conductive parts are earthed.	Pass
2.6.2	Functional earthing	The functional earthing (SELV ground) have separated from hazardous part by Double/Reinforce Insulation.	Pass
2.6.3	Protective earthing and protective bonding conductors	Protective earthing conductors and protective bonding	Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
		conductors complies with Table 3B.	
2.6.3.1	General		Pass
2.6.3.2	Size of protective earthing conductors	Power supply cord earthing conductor complies with Table 3B.	Pass
	Rated current (A), cross-sectional area (mm ²), AWG :	Rated input 11.2 A, min. 1.25 mm square, 16AWG wire shall be used.	-
2.6.3.3	Size of protective bonding conductors		Pass
	Rated current (A), cross-sectional area (mm ²), AWG :	Comply with 2.6.3.4 test.	-
	Protective current rating (A), cross-sectional area (mm ²), AWG..... :	-	-
2.6.3.4	Resistance of earthing conductors and their terminations; resistance (ohm), voltage drop (V), test current (A), duration (min) :	See Enclosure/ Miscellaneous/ ID 7-01 for detail.	Pass
2.6.3.5	Colour of insulation :	Protective bonding conductors are green with yellow stripe. Protective earthing conductor is green with yellow stripe.	Pass
2.6.4	Terminals	See below.	Pass
2.6.4.1	General		Pass
2.6.4.2	Protective earthing and bonding terminals	Main protective earthing terminals complied with cable 3E and protective bonding terminals meet the test requirements of 2.6.3.3.	Pass
	Rated current (A), type, nominal thread diameter (mm) :	Rated input 11.2 A, double crimp-on copper star ring terminal with screw, the size of screw was complied with table 3E also.	-
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors	Appliance inlet is used.	Pass
2.6.5	Integrity of protective earthing	See below for compliances.	Pass
2.6.5.1	Interconnection of equipment		N/A
2.6.5.2	Components in protective earthing conductors and protective bonding conductors	No switches or overcurrent protective devices contained in Protective earthing conductors and protective bonding conductors.	Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.6.5.3	Disconnection of protective earth	Protective earthing connections are so designed that disconnecting the protective earthing connections also the relevant potential hazard at the same time.	Pass
2.6.5.4	Parts that can be removed by an operator	Protective earthing connections make earlier and break later than the supply connections in an appliance coupler.	Pass
2.6.5.5	Parts removed during servicing	Connections to protective earthing cannot be removed unless hazardous voltage is removed from the part simultaneously.	Pass
2.6.5.6	Corrosion resistance	All safety earthing connections in compliance with Annex J.	Pass
2.6.5.7	Screws for protective bonding	Self-tapping or spaced thread screws used for protective bonding and they will not be disturbed during servicing.	Pass
2.6.5.8	Reliance on telecommunication network or cable distribution system		N/A
2.7	Overcurrent and earth fault protection in primary circuits		Pass
2.7.1	Basic requirements	Protective in PRIMARY CIRCUIT is an integral part of the equipment.	Pass
	Instructions when protection relies on building installation	This appliance is neither PLAGGABLE EQUIPMENT TYPE B nor the PERMANENTLY CONNECTED EQUIPMENT.	N/A
2.7.2	Faults not covered in 5.3.7	Protection against faults covered in 5.3 is fitted as an integral part of the equipment.	Pass
2.7.3	Short-circuit backup protection	The building installation is considered as providing short-circuit backup protection.	N/A
2.7.4	Number and location of protective devices :	One protective device in the "LIVE" phase.	Pass
2.7.5	Protection by several devices		Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.7.6	Warning to service personnel	The following warning or its equivalent is provided: CAUTION. Double pole/neutral fusing.	Pass
2.8	Safety interlocks		N/A
2.8.1	General principles		N/A
2.8.2	Protection requirements		N/A
2.8.3	Inadvertent reactivation		N/A
2.8.4	Fail-safe operation		N/A
2.8.5	Moving parts		N/A
2.8.6	Overriding		N/A
2.8.7	Switches and relays		N/A
2.8.7.1	Contact gaps (mm)		N/A
2.8.7.2	Overload test		N/A
2.8.7.3	Endurance test		N/A
2.8.7.4	Electric strength test		N/A
2.8.8	Mechanical actuators		N/A
2.9	Electrical insulation		Pass
2.9.1	Properties of insulating materials	Electric Strength Test of 5.2.2 was performed after the Humidity Treatment of 2.9.2.	Pass
2.9.2	Humidity conditioning		Pass
	Relative humidity (%), temperature (°C).....	93%, 40 degree C, 120 hrs.	-
2.9.3	Grade of insulation	No flash over or breakdown of insulation.	Pass
2.9.4	Separation from hazardous voltages		Pass
	Method(s) used.....	Method 1 used.	-
2.10	Clearances, creepage distances and distances through insulation		Pass
2.10.1	General	Pollution degree 2 applicable.	Pass
2.10.1.1	Frequency.....	60	Pass
2.10.1.2	Pollution degrees.....	2	Pass
2.10.1.3	Reduced values for functional insulation	See 5.3.4.	Pass
2.10.1.4	Intervening unconnected conductive parts		N/A
2.10.1.5	Insulation with varying dimensions		N/A
2.10.1.6	Special separation requirements		N/A
2.10.1.7	Insulation in circuits generating starting pulses		Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.10.2	Determination of working voltage		Pass
2.10.2.1	General		Pass
2.10.2.2	RMS working voltage	See table 2.10.3 and 2.10.4 for detail.	Pass
2.10.2.3	Peak working voltage	See table 2.10.3 and 2.10.4 for detail.	Pass
2.10.3	Clearances	(see appended table 2.10.3 and 2.10.4).	Pass
2.10.3.1	General		Pass
2.10.3.2	Mains transient voltages		Pass
	a) AC mains supply	2500Vpk.	Pass
	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)	Pass
2.10.3.4	Clearances in secondary circuits		Pass
2.10.3.5	Clearances in circuits having starting pulses	(see appended table 2.10.3 and 2.10.4)	Pass
2.10.3.6	Transients from a.c. mains supply.....	1500Vpk	Pass
2.10.3.7	Transients from d.c. mains supply.....		N/A
2.10.3.8	Transients from telecommunication networks and cable distribution systems		N/A
2.10.3.9	Measurement of transient voltage levels		N/A
	a) Transients from a mains supply		N/A
	For an a.c. mains supply		N/A
	For a d.c. mains supply		N/A
	b) Transients from a telecommunication network		Pass
2.10.4	Creepage distances	(see appended table 2.10.3 and 2.10.4)	Pass
2.10.4.1	General		Pass
2.10.4.2	Material group and comparative tracking index		Pass
	CTI tests	Material group IIIb; $100 \leq CTI < 175$.	-
2.10.4.3	Minimum creepage distances		Pass
2.10.5	Solid insulation	(see appended table 2.10.5)	Pass
2.10.5.1	General		Pass

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Clause	Requirement + Test	Result - Remark	Verdict
2.10.5.2	Distances through insulation	(see appended table 2.10.5)	Pass
2.10.5.3	Insulating compound as solid insulation		N/A
2.10.5.4	Semiconductor devices		Pass
2.10.5.5	Cemented joints		N/A
2.10.5.6	Thin sheet material - General	- (see appended table 5.2) - Two layers used, each of which complies with the required electric strength test.	Pass
2.10.5.7	Separable thin sheet material		Pass
	Number of layers (pcs) : 2		-
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		Pass
	Electric strength test : 3000Vac		-
2.10.5.11	Insulation in wound components		Pass
2.10.5.12	Wire in wound components	The employed UL Recognized wiring meets the requirements of 2.10.5.4 and Annex U.	Pass
	Working voltage : See Append Table 2.10.3		Pass
	a) Basic insulation not under stress :		N/A
	b) Basic, supplementary, reinforced insulation..... :		N/A
	c) Compliance with Annex U :		N/A
	Two wires in contact inside wound component; angle between 45° and 90° :		N/A
2.10.5.13	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		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		Pass
2.10.6.1	Uncoated printed boards		Pass
2.10.6.2	Coated printed boards	No special coating used.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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
	Distance through insulation		N/A
	Number of insulation layers (pcs) :		N/A
2.10.7	Component external terminations		N/A
2.10.8	Tests on coated printed boards and coated components		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

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Clause	Requirement + Test	Result - Remark	Verdict
3	WIRING, CONNECTIONS AND SUPPLY		Pass
3.1	General		Pass
3.1.1	Current rating and overcurrent protection		Pass
3.1.2	Protection against mechanical damage	The wires are well routed away from sharp edges, etc. and are adequately fixed to prevent excessive strain on wire and terminals.	Pass
3.1.3	Securing of internal wiring		Pass
3.1.4	Insulation of conductors	(see appended table 5.2)	Pass
3.1.5	Beads and ceramic insulators	No such devices within the EUT.	N/A
3.1.6	Screws for electrical contact pressure	All electrical screw connection are by screws of insulating material with more than 2 threads into a metal plate.	Pass
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		Pass
3.1.9	Termination of conductors	All conductors are secured in a reliable manner.	Pass
	10 N pull test		Pass
3.1.10	Sleeving on wiring	The sleeving used as supplementary insulation on internal wiring is retained by positive means.	Pass
3.2	Connection to mains supply		Pass
3.2.1	Means of connection	The unit is provided with an appliance inlet.	Pass
3.2.1.1	Connection to an a.c. mains supply	An appliance inlet for connection of a DETACHABLE POWER SUPPLY CORD provided.	Pass
3.2.1.2	Connection to a d.c. mains supply		N/A
3.2.2	Multiple supply connections		N/A
3.2.3	Permanently connected equipment		N/A
	Number of conductors, diameter of cable and conduits (mm)..... :		-
3.2.4	Appliance inlets	The appliance inlet complies with IEC 60320 and UL 498.	Pass

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Clause	Requirement + Test	Result - Remark	Verdict
3.2.5	Power supply cords	(see critical component table)	Pass
3.2.5.1	AC power supply cords		Pass
	Type..... :	(see critical component table)	-
	Rated current (A), cross-sectional area (mm ²), AWG :	11.2 A, 1.25mm square, 16AWG min.	-
3.2.5.2	DC power supply cords	The equipment does not use a non-detachable power supply cord.	N/A
3.2.6	Cord anchorages and strain relief		N/A
	Mass of equipment (kg), pull (N) :		-
	Longitudinal displacement (mm) :		-
3.2.7	Protection against mechanical damage		N/A
3.2.8	Cord guards		N/A
	Diameter of minor dimension D (mm); test mass (g) :		-
	Radius of curvature of cord (mm) :		-
3.2.9	Supply wiring space		N/A
3.3	Wiring terminals for connection of external conductors		N/A
3.3.1	Wiring terminals		N/A
3.3.2	Connection of non-detachable power supply cords		N/A
3.3.3	Screw terminals		N/A
3.3.4	Conductor sizes to be connected		N/A
	Rated current (A), cord/cable type, cross-sectional area (mm ²) :		-
3.3.5	Wiring terminal sizes		N/A
	Rated current (A), type and nominal thread diameter (mm) :		-
3.3.6	Wiring terminals 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		Pass
3.4.1	General requirement		Pass
3.4.2	Disconnect devices	The equipment is provided with an appliance coupler.	Pass
3.4.3	Permanently connected equipment	Not permanently connected equipment.	N/A
3.4.4	Parts which remain energized		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
3.4.5	Switches in flexible cords	No isolating switches fitted in flexible cord.	N/A
3.4.6	Number of poles - single-phase and d.c. equipment		N/A
3.4.7	Number of poles - three-phase equipment		N/A
3.4.8	Switches as disconnect devices		N/A
3.4.9	Plugs as disconnect devices		N/A
3.4.10	Interconnected equipment	No interconnection of hazardous voltages or energy levels.	N/A
3.4.11	Multiple power sources	Merely one supply connection provided.	N/A
3.5	Interconnection of equipment		Pass
3.5.1	General requirements	Interconnection circuit did continued conformance to the requirements of SELV CIRCUITS.	Pass
3.5.2	Types of interconnection circuits :	Interconnection circuits are SELV CIRCUITS.	Pass
3.5.3	ELV circuits as interconnection circuits		N/A
3.5.4	Data ports for additional equipment		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
4	PHYSICAL REQUIREMENTS		Pass
4.1	Stability		Pass
	Angle of 10°	This unit is of a stable mechanical construction and does not overbalance when tilted to an angle of 10 degrees from its normal upright position.	Pass
	Test force (N)..... :	The EUT is not floor-standing.	N/A
4.2	Mechanical strength		Pass
4.2.1	General	After tests of 4.2.2 to 4.2.7, the sample is continuing to comply with the requirements of 2.1.1, 2.6.1 and 2.10.	Pass
4.2.2	Steady force test, 10 N	During the application of the test force, the required DISTANCES do not reduced below the values required in 2.10.	Pass
4.2.3	Steady force test, 30 N		N/A
4.2.4	Steady force test, 250 N	No hazards as a result of the 250 N test.	Pass
4.2.5	Impact test	No hazards as a result of the Impact test.	Pass
	Fall test		Pass
	Swing test		N/A
4.2.6	Drop test; height (mm)..... :		N/A
4.2.7	Stress relief test	No indication of shrinkage or distortion on enclosures due to the stress relief test (92.8 degree C/7 h).	Pass
4.2.8	Cathode ray tubes	No such devices within the EUT.	N/A
	Picture tube separately certified		N/A
4.2.9	High pressure lamps	The sample was shut down immediately. The lamp ruptured without emission of glass particles other than dust.	Pass
4.2.10	Wall or ceiling mounted equipment; force (N)		N/A
4.3	Design and construction		Pass
4.3.1	Edges and corners	All edges and corners judged	Pass

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Clause	Requirement + Test	Result - Remark	Verdict
		to be sufficiently well rounded so as not to constitute a hazard.	
4.3.2	Handles and manual controls; force (N)..... :	The shape of the handle is such that an axial pull is likely to be applied.	Pass
4.3.3	Adjustable controls		N/A
4.3.4	Securing of parts	Electrical and mechanical connections can be expected to withstand usual mechanical stress.	Pass
4.3.5	Connection by plugs and sockets		Pass
4.3.6	Direct plug-in equipment	Not direct plug-in equipment.	N/A
	Torque :		N/A
	Compliance with the relevant mains plug standard:		N/A
4.3.7	Heating elements in earthed equipment		N/A
4.3.8	Batteries		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		N/A
4.3.10	Dust, powders, liquids and gases		N/A
4.3.11	Containers for liquids or gases		N/A
4.3.12	Flammable liquids..... :		N/A
	Quantity of liquid (l)..... :		N/A
	Flash point (°C)..... :		N/A
4.3.13	Radiation	The high pressure lamp generates a certain level of ultraviolet radiation and was enclosed in the independent.	Pass
4.3.13.1	General		Pass
4.3.13.2	Ionizing radiation		N/A
	Measured radiation (pA/kg) :		-
	Measured high-voltage (kV) :		-
	Measured focus voltage (kV) :		-
	CRT markings..... :		-

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Clause	Requirement + Test	Result - Remark	Verdict
4.3.13.3	Effect of ultraviolet (UV) radiation on materials		N/A
	Part, property, retention after test, flammability classification		N/A
4.3.13.4	Human exposure to ultraviolet (UV) radiation		N/A
4.3.13.5	Laser (including LEDs)		Pass
	Laser class	LEDs provided for indicating only.	-
4.3.13.6	Other types		N/A
4.4	Protection against hazardous moving parts		N/A
4.4.1	General		N/A
4.4.2	Protection in operator access areas		N/A
4.4.3	Protection in restricted access locations		N/A
4.4.4	Protection in service access areas		N/A
4.5	Thermal requirements		Pass
4.5.1	General		Pass
4.5.2	Temperature tests	(see the table 4.5.)	Pass
	Normal load condition per Annex L	Operated in the most unfavorable way of operation given in the operating instructions until steady conditions established.	-
4.5.3	Temperature limits for materials		Pass
4.5.4	Touch temperature limits		Pass
4.5.5	Resistance to abnormal heat.....		N/A
4.6	Openings in enclosures		Pass
4.6.1	Top and side openings		Pass
	Dimensions (mm)	There are no openings in the top of the enclosure, for side opening dimensions please see Enclosures/Diagrams for details.	-
4.6.2	Bottoms of fire enclosures	Fire enclosure construction is considered to comply with the requirement.	Pass
	Construction of the bottom, dimensions (mm).....	No openings provided.	-
4.6.3	Doors or covers in fire enclosures	Doors and/or covers are intended only for occasional use. Information regarding their proper removal and	Pass

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Clause	Requirement + Test	Result - Remark	Verdict
		replacement is provided.	
4.6.4	Openings in transportable equipment	Unit not transportable.	N/A
4.6.4.1	Constructional design measures		N/A
	Dimensions (mm) :		-
4.6.4.2	Evaluation measures for larger openings		N/A
4.6.4.3	Use of metallized parts		N/A
4.6.5	Adhesives for constructional purposes		N/A
	Conditioning temperature (°C), time (weeks) :		-
4.7	Resistance to fire		Pass
4.7.1	Reducing the risk of ignition and spread of flame	Method 1: Selection and application of components and materials which minimize the possibility of ignition and spread of flame.	Pass
	Method 1, selection and application of components wiring and materials		Pass
	Method 2, application of all of simulated fault condition tests		N/A
4.7.2	Conditions for a fire enclosure		Pass
4.7.2.1	Parts requiring a fire enclosure	Per cl. 4.2.7.1, the FIRE ENCLOSURE is required.	Pass
4.7.2.2	Parts not requiring a fire enclosure		N/A
4.7.3	Materials		Pass
4.7.3.1	General	See below.	Pass
4.7.3.2	Materials for fire enclosures	5VB minimum.	Pass
4.7.3.3	Materials for components and other parts outside fire enclosures		N/A
4.7.3.4	Materials for components and other parts inside fire enclosures	All internal materials are rated V-2 or better or are mounted on a PWB rated V-1 or better. Internal wiring is UL Recognized, rated VW-1 or FT-1 and strapped by individual cable ties (where needed).	Pass
4.7.3.5	Materials for air filter assemblies		N/A
4.7.3.6	Materials used in high-voltage components		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5	ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS		Pass
5.1	Touch current and protective conductor current		Pass
5.1.1	General	See below.	Pass
5.1.2	Configuration of equipment under test (EUT)	The EUT provided only one connection to AC MAINS SUPPLY.	Pass
5.1.2.1	Single connection to an a.c. mains supply		Pass
5.1.2.2	Redundant multiple connections to an a.c. mains supply		N/A
5.1.2.3	Simultaneous multiple connections to an a.c. mains supply		N/A
5.1.3	Test circuit	Using figure 5A.	Pass
5.1.4	Application of measuring instrument	Using measuring circuit in annex D.	Pass
5.1.5	Test procedure		Pass
5.1.6	Test measurements	See below	Pass
	Supply voltage (V)	264 Vac/ 60 Hz	-
	Measured touch current (mA)	- Metal part: 1 mA Max. measured when "e" opened. - User's accessible part: 0.005 mA measured when "e" closed.	-
	Max. allowed touch current (mA)	3.5 mA when "e" opened; 0.25 when "e" closed.	-
	Measured protective conductor current (mA)	--	-
	Max. allowed protective conductor current (mA) ...	--	-
5.1.7	Equipment with touch current exceeding 3,5 mA		N/A
5.1.7.1	General		N/A
5.1.7.2	Simultaneous multiple connections to the supply		N/A
5.1.8	Touch currents to telecommunication networks and cable distribution systems and from telecommunication networks	No TNV presents.	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)		-

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Clause	Requirement + Test	Result - Remark	Verdict

5.1.8.2	Summation of touch currents from telecommunication networks		N/A
	a) EUT with earthed telecommunication ports :		N/A
	b) EUT whose telecommunication ports have no reference to protective earth		N/A
5.2	Electric strength		Pass
5.2.1	General	(see appended table 5.2)	Pass
5.2.2	Test procedure	(see appended table 5.2)	Pass
5.3	Abnormal operating and fault conditions		Pass
5.3.1	Protection against overload and abnormal operation	(see appended table 5.3)	Pass
5.3.2	Motors	Refer to Annex B	Pass
5.3.3	Transformers	Transformers are constructed in accordance with the applicable Clause and Annex C.	Pass
5.3.4	Functional insulation..... :	Functional insulation complies with the requirements (c).	Pass
5.3.5	Electromechanical components		N/A
5.3.6	Audio amplifiers in ITE..... :		N/A
5.3.7	Simulation of faults	(see appended table 5.3)	Pass
5.3.8	Unattended equipment		N/A
5.3.9	Compliance criteria for abnormal operating and fault conditions	- No fire, emission of molten metal or deformation was noted during the tests. - Electric Strength tests performed after abnormal and fault tests	Pass
5.3.9.1	During the tests		Pass
5.3.9.2	After the tests		Pass

6	CONNECTION TO TELECOMMUNICATION NETWORKS	N/A
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7	CONNECTION TO CABLE DISTRIBUTION SYSTEMS	N/A
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Clause	Requirement + Test	Result - Remark	Verdict

A	ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE		N/A
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B	ANNEX B, MOTOR TESTS UNDER ABNORMAL CONDITIONS (see 4.7.2.2 and 5.3.2)		Pass
B.1	General requirements		Pass
	Position	See Table 1.5.1	-
	Manufacturer	See Table 1.5.1	-
	Type.....	See Table 1.5.1	-
	Rated values.....	See Table 1.5.1	-
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		Pass
B.7.1	General		Pass
B.7.2	Test procedure	(see appended table 5.3)	Pass
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)		-

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Clause	Requirement + Test	Result - Remark	Verdict

C	ANNEX C, TRANSFORMERS (see 1.5.4 and 5.3.3)		Pass
	Position	T101 and T102	-
	Manufacturer	See table 1.5.1 for details.	-
	Type	See table 1.5.1 for details.	-
	Rated values	See table 1.5.1 for details.	-
	Method of protection	Internal protection.	-
C.1	Overload test	(see appended table 5.3)	Pass
C.2	Insulation	(see appended table 5.2)	N/A
	Protection from displacement of windings	- Margin tape provided on each end of each winding of T101 and T102.	Pass

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

E	ANNEX E, TEMPERATURE RISE OF A WINDING (see 1.4.13)		N/A
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F	ANNEX F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10 and Annex G)		Pass
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Clause	Requirement + Test	Result - Remark	Verdict

G	ANNEX G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES		Pass
G.1	Clearances		Pass
G.1.1	General		Pass
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 supply :		N/A
G.2.3	Unearthed d.c. mains supply :		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 :	- Minimum CLEARANCES shall be multiplied by the factor given in Table A.2 of IEC 60664-1. - See table 2.10.3 for details.	Pass

H	ANNEX H, IONIZING RADIATION (see 4.3.13)		N/A
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J	ANNEX J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6)		Pass
	Metal(s) used :	Copper-Alloy	-

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Clause	Requirement + Test	Result - Remark	Verdict

K	ANNEX K, THERMAL CONTROLS (see 1.5.3 and 5.3.8)		Pass
K.1	Making and breaking capacity		N/A
K.2	Thermostat reliability; operating voltage (V)..... :	See the Table 1.5.1	N/A
K.3	Thermostat endurance test; operating voltage (V) :	See the Table 1.5.1	N/A
K.4	Temperature limiter endurance; operating voltage (V) :	See the Table 1.5.1	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)		N/A
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M	ANNEX M, CRITERIA FOR TELEPHONE RINGING SIGNALS (see 2.3.1)		N/A
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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
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P	ANNEX P, NORMATIVE REFERENCES		Pass
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Q	ANNEX Q, Voltage dependent resistors (VDRs) (see 1.5.9.1)		Pass
	a) Preferred climatic categories..... :	Approved component used, check by inspection and relative data. (VDE certificate comply)	Pass
	b) Maximum continuous voltage..... :	Approved component used, check by inspection and relative data. (VDE certificate comply)	Pass
	c) Pulse current :	Approved component used, check by inspection and relative data. (VDE certificate comply)	Pass

R	ANNEX R, EXAMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES		N/A
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Clause	Requirement + Test	Result - Remark	Verdict
S	ANNEX S, PROCEDURE FOR IMPULSE TESTING (see 6.2.2.3)		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)		N/A
V	ANNEX V, AC POWER DISTRIBUTION SYSTEMS (see 1.6.1)		Pass
V.1	Introduction		Pass
V.2	TN power distribution systems		Pass
W	ANNEX W, SUMMATION OF TOUCH CURRENTS		N/A
X	ANNEX X, MAXIMUM HEATING EFFECT IN TRANSFORMER TESTS (see clause C.1)		Pass
X.1	Determination of maximum input current		Pass
X.2	Overload test procedure		Pass
Y	ANNEX Y, ULTRAVIOLET LIGHT CONDITIONING TEST (see 4.3.13.3)		N/A
Z	ANNEX Z, OVERVOLTAGE CATEGORIES (see 2.10.3.2 and Clause G.2)		Pass
AA	ANNEX AA, MANDREL TEST (see 2.10.5.8)		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: list of critical components					Pass
object/part or Description	manufacturer/ trademark	type/model	technical data	standard (edition/year)	mark(s) of conformity ¹⁾	
01. Power Supply Cord (optional)	Various	Various	Min. 16 AWG/1.25 ² mm	--	--, --	
02. Interconnecting Cables (optionally provided; detachable)	Various	Various	Min. 30 V, min. 60 degree C, max. 3.05 m, jacketed, marked VW-1 or FT-1.	UL 758	UL, --	
03. AC Mains Input Wires	Various	Various	Min. 20 AWG, 300 V, 80 degree C, marked VW-1.	UL 758	UL, --	
04. Internal Wiring (Primary)	Various	Various	FEP, PTFE, PVC, TFE, neoprene, polyimide or marked VW-1; min 300 V, 80 degree C.	UL758	UL, --	
04-1. Internal Wiring (Secondary)	Various	Various	FEP, PTFE, PVC, TFE, neoprene, polyimide or marked VW-1; min 30 V, 60 degree C.	UL758	UL, --	
05. Earthing and Bonding	Various	Various	Min. No. 16 AWG (1.25 mm ²), insulated with green/yellow color, one end mechanically secured and soldered to the ground pin of the appliance inlet, the other end terminated in a double-crimped closed-loop or spade type terminal and secured to metal chassis/frame by a screw and a	UL 758	UL, --	

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1.5.1	TABLE: list of critical components					Pass
object/part or Description	manufacturer/ trademark	type/model	technical data	standard (edition/year)	mark(s) of conformity ¹⁾	
			star or lock washer with engaged min. two complete threads.			
06. Insulating Tubing/Sleeving	Various	Various	Min. 300 V, 105 degree C, FEP, PTFE, PVC, TFE, neoprene, polyimide or marked VW-1.	UL 1441, UL 224	UL, --	
07. Insulating Tubing on the wires between power board and ballast board	SHENZHEN WOER HEAT-SHRINKABLE MATERIAL CO LTD	RSFR-X	Min. 300 V, 125 degree C, min. 0.4 mm thickness, marked VW-1	UL 224	UL, --	
07a. Alternate - Insulating Tubing on the wires between power board and ballast board	Dongguan SALIPT CO LTD	SALIPT S-901-300, SALIPT S-901-600	Min. 300 V, 125 degree C, min. 0.4 mm thickness, marked VW-1	UL 224	UL, --	
07b. Alternate - Insulating Tubing on the wires between power board and ballast board	CHANGYUAN ELECTRONICS(SHENZHEN)CO LTD	Changbao 102, CB-HFT	Min. 300 V, 125 degree C, min. 0.4 mm thickness, marked VW-1	UL 224	UL, --	
07c. Alternate - Insulating Tubing on the wires between power board and ballast board	HAMBURG INDUSTRIES CO LTD	H-2	Min. 300 V, 125 degree C, min. 0.4 mm thickness, marked VW-1	UL 224	UL, --	
07d. Alternate - Insulating Tubing on the wires between power board and ballast board	RAYCHEM PRODUTOS IRRADIADOS LTDA	VERSAFIT	Min. 300 V, 125 degree C, min. 0.4 mm thickness, marked VW-1	UL 224	UL, --	
07e. Alternate - Insulating Tubing on the wires between power board and ballast	LONGWELL CO	LHS-125FR	Min. 300 V, 125 degree C, min. 0.4 mm thickness, marked VW-1	UL 224	UL, --	

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board						
07f. Alternate - Insulating Tubing on the wires between power board and ballast board	Sumitomo	SUMITUBE F32	Min. 600 V, 125 degree C, Min. 0.4 mm thickness, marked VW-1	UL 1441, UL 224	UL, --	
07g. Alternate - Insulating Tubing on the wires between power board and ballast board	Tyco	ZH2 or Versafit V2	Min. 300 V, 125 degree C, min. 0.4 mm thickness, marked VW-1	UL 224	UL, --	
08. Connectors and Receptacles (secondary)	Various	Various	Min. V-2.	UL 498, UL1977, UL 94, UL 746C	UL, --	
09. Adhesive Glue	Various	Various	Min. V-2.	UL 94	UL, --	
10. Label	Various	Various	Min. 60 degree C.	UL 969	UL, --	
11. Enclosure	--	--	Metal (Aluminum), min. 1.5mm	--	--, --	
12. Plastic enclosure of lamp cover and the right side for inhaling openings	SABIC INNOVATIVE PLASTICS	945	5VA, 120 degree C, min. 3 mm thickness.	UL 94, UL 746C	UL, --	
12a. Plastic enclosure of lamp cover and the right side for inhaling openings (alternate)	TEIJIN CHEMICALS LTD RESEARCH & DEVELOPMENT DIV	MN-3600H#(# : suffix optional)	5VB, 95 degree C, min. 2 mm thickness.	UL 94, UL 746C	UL, --	
13. Appliance Inlet	RONG FENG INDUSTRIAL CO LTD	SS-3B	250 V ac, 16 A, 70 degree C.	UL 498, IEC 60320-1, VDE 0625	UL, VDE, CSA, SEMKO	
13a. Appliance Inlet (alternate)	SOLTEAM ELECTRONICS CO LTD	ST-01	250 V ac, 15 A, 70 degree C.	UL 498, IEC 60320-1, VDE 0625	UL, VDE, CSA, SEMKO	
14. Power Switch	CANAL ELECTRONIC CO LTD	MR-2 series	250 V ac, 12 A, 10 K operating cycles evaluated.	IEC 61058-1, UL 1054	UL, CSA, VDE	

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1.5.1	TABLE: list of critical components					Pass
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14a. Power Switch (alternate)	Solteam	MR28 series	Min.15A, 250V, 65 degree C	IEC 61058-1, UL 1054, EN61058-1	UL, ENEC	
14b. Power Switch (alternate)	Solteam	MR-22 series	12A, 250V, 85 degree C	IEC 61058-1, UL 1054, EN61058-1	UL, VDE	
14c. Power Switch (alternate)	Omron	A8WD#(# can be followed by optional suffix(es), any letter(s) and/or any number(s))	16A, 250V, 55 degree C	IEC 61058-1, UL 1054, EN61058-1	UL, VDE	
14d. Power Switch (alternate)	SWANN INDUSTRIES PTE LTD	series 33	16A/125V, min. 65 degree C	IEC 61058-1, UL 1054, EN61058-1	UL, VDE	
15. Slide switch	Rong Feng	RF-1002	10 A or 12 A, 250Vac, 85 degree C	IEC 61058-1, UL 1054, EN61058-1	UL, VDE	
16. Ballasts (2 sets provided) (alternate)	Philips	EUC 400c E/X0X(X may be blanks or figures)	Two sets provided, I/P: 280-410 Vdc, max.2000 mA, Max. 450 W, O/P: Ignition voltage max. 3.5kVp, Max. normal output voltage 200 Vac	UL 60950-1, IEC 60950-1	UL, --	
17. Lamp Wires	Various	Various	Min. 6 kV, min. 150 degree C, marked VW-1 or FT-1.	UL 758	UL, --	
18. Lamps (2 sets provided) with input rating	Philips	UHP 400-320W 1.3 E21.9	Two sets provided, ignition voltage 3 KV max.420W	--	--, --	
19. Lamp Housings and holders	TORAY INDUSTRIES INC	AR10MB or AR04B	Min. V-2, 200 degree C.	UL 94, UL 746C	UL, --	
19a. Lamp Housings and holders (alternate)	VICTREX MFG LTD	150CA30, 150GL30	Min. V-2, min. 170 degree C.	UL 94, UL 746C	UL, --	
20. DC Fan 1, 2, 11, 15	Delta	NFB1212H	DC 12 V, 0.41 A, min. 83.234 CFM	UL 507, EN 60950-1	UL, VDE	

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1.5.1	TABLE: list of critical components					Pass
object/part or Description	manufacturer/ trademark	type/model	technical data	standard (edition/year)	mark(s) of conformity ¹⁾	
20a. DC Fan 1, 2, 11, 15 (alternate)	Delta	AFB1212H	DC 12 V, 0.35 A, min. 74.41 CFM	UL 507, EN 60950-1	UL, VDE	
21. DC Fan 3,4	Delta	AFB0912H-A(Y), Y may be XXXXX, where X may be A through Z, 0 through 9, "-" or blank	DC 12 V, 0.3 A, min. 53.90 CFM	UL 507, EN 60950-1	UL, VDE	
22. DC Fan 5	Delta	BFB0612HB	DC 12 V, 0.22 A, min. 4.21 CFM	UL 507, EN 60950-1	UL, VDE	
23. DC Fan 6, 7, 8, 9, 10	Delta	BFB0712HD	DC 12 V, 0.37 A, min. 6.388 CFM	UL 507, EN 60950-1	UL, VDE	
23a. DC Fan 6, 7, 8, 9,10 (alternate)	Delta	BFB0712HD-SP01	DC 12 V, 0.6 A, min. 8.707 CFM	--	--, --	
24. DC Fan 12, 16	Delta	AFB0812HD	DC 12 V, 0.27 A, min. 44.41 CFM	UL 507, EN 60950-1	UL, VDE	
25. DC Fan 13	Delta	BFB0612HB	DC 12 V, 0.22 A, min. 4.21 CFM	UL 507, EN 60950-1	UL, VDE	
26. DC Fan 14	Delta	AFB0912M-A(Y), Y may be XXXXX, where X may be A through Z, 0 through 9, "-" or blank	DC 12 V, 0.2 A, min. 44.56 CFM	UL 507, EN 60950-1	UL, VDE	
27. DC Fan 17	Delta	AFB0612HC	DC 12 V, 0.21 A, min. 19.11 CFM	UL 507, EN 60950-1	UL, VDE	
28. DC Motor for shutter (Optional)	Nakatsu Engineering Co., Ltd.	NS-16SG-250-12G162	12 Vdc, max. 200mA	Test with unit	--, --	
29. DC Motor for Lens (optional) (2sets)	Hsiang Neng	HN-50GWD	12 Vdc, max. 210mA	Test with unit	--, --	
30. Accessory - Remote controller (optional)	Various	Various	Infrared type, contains with two AA type batteries	--	--, --	
31. Fuse (F1305) on mainboard for L.P.S.	COOPER BUSSMANN INC	S506	250Vac, 5 A	UL 248, EN60127-1/2, IEC60127	UL, VDE	
32. Control Box (Optional)	--	SB-01HC	PWB: min. V-1, connector: SDI	--	--, --	

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1.5.1	TABLE: list of critical components					Pass
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			input and SDI output			
- Filter Board	--	--	--	--	--, --	
01. Fuse (F101)	Littelfuse	314 or 324	F20AH/250V	UL 248-14	UL, --	
02. Fuse (F103)	Littelfuse	314 or 324	F12AH/250V	UL 248-14	UL, --	
03. X-Capacitors (CX101, CX103) (Optional)	Okaya Electric Industries Co., Ltd.	RE or LE	Min. 250 V ac, max. 1uF, subclass X2 min., comply with IEC 60384-14.	UL 1414, IEC 60384-14:93, VDE 0565, EN132400:1994 +A2+A3	UL, VDE, ENEC, CCEE, FIMKO, SEMKO	
03a. X-Capacitors (CX101, CX103) (Optional)(alternate)	ARCOTRONICS SPA	R.46	Min. 250 V ac, max. 1uF, subclass X2 min., comply with IEC 60384-14.	UL 1414, IEC 60384-14:93, VDE 0565, EN132400:1994 +A2+A3	UL, VDE, ENEC, CCEE, FIMKO, SEMKO	
03b. X-Capacitors (CX101, CX103) (Optional) (alternate)	VISHAY CAPACITORS BELGIUM N V	MKP 336 2, MKP 338 2, 336 2 or 338 2	Min. 250 V ac, max. 1uF, subclass X2 min., comply with IEC 60384-14.	UL 1414, IEC 60384-14:93, VDE 0565, EN132400:1994 +A2+A3	UL, VDE, ENEC, CCEE, FIMKO, SEMKO	
03c. X-Capacitors (CX101, CX103) (alternate) (Optional)	Hua Jung Components Co., Ltd.	MKP	Min. 250 V ac, max. 1uF, subclass X2 min., comply with IEC 60384-14.	UL 1414, IEC 60384-14:93, VDE 0565, EN132400:1994 +A2+A3	UL, VDE, ENEC, CCEE, FIMKO, SEMKO	
03d. X-Capacitors (CX101, CX103) (Optional) (alternate)	ISKRA KONDENZATO RJI D D	KNB 1530 or KNB 1560	Min. 250 V ac, max. 1uF, subclass X2 min., comply with IEC 60384-14.	UL 1414, IEC 60384-14:93, VDE 0565, EN132400:1994 +A2+A3	UL, VDE, ENEC, CCEE, FIMKO, SEMKO	
03e. X-Capacitors (CX101, CX103) (Optional) (alternate)	MATSUSHITA ELECTRIC INDUSTRIAL CO LTD PANASONIC CORP OF NORTH AMERICA	ECQ-UL	Min. 250 V ac, max. 1uF, subclass X2 min., comply with IEC 60384-14.	UL 1414, IEC 60384-14:93, VDE 0565, EN132400:1994 +A2+A3	UL, VDE, ENEC, CCEE, FIMKO, SEMKO	
04. Line Filters (FL101, FL102)	--	--	Min. 130 degree C.	--	--, --	
04-1. Core	--	--	For dimension, see enclosure 4-04 for details.	--	--, --	
04-2. Coils	--	--	Min. 130 degree C.	UL1446	UL, --	

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1.5.1	TABLE: list of critical components					Pass
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05. Y-Capacitors (CY101, CY102, CY103, CY104, CY105, CY106) (Optional)	Murata MFG Co Ltd	KX, KH	CY101=CY102= Min. 250 V ac, max. 2200 pF; CY103=CY104= CY105=CY106= Min. 250 V ac, max. 1000 pF, subclass Y1 or Y2. , comply with IEC 60384-14.	UL 1414, IEC 60384-14:93, EN 132400	UL, VDE, FIMKO, SEMKO	
05a. Y-Capacitors (CY101, CY102, CY103, CY104, CY105, CY106) (Optional)(alternate)	MATSUSHITA ELECTRIC INDUSTRIAL CO LTD PANASONIC CORP OF NORTH AMERICA	NS-A	CY101=CY102= Min. 250 V ac, max. 2200 pF; CY103=CY104= CY105=CY106= Min. 250 V ac, max. 1000 pF, subclass Y1 or Y2. , comply with IEC 60384-14.	UL 1414, IEC 60384-14:93, EN 132400	UL, VDE, FIMKO, SEMKO	
05b. Y-Capacitors (CY101, CY102, CY103, CY104, CY105, CY106) (Optional)(alternate)	TDK CORP	CD or CS	CY101=CY102= Min. 250 V ac, max. 2200 pF; CY103=CY104= CY105=CY106= Min. 250 V ac, max. 1000 pF, subclass Y1 or Y2. , comply with IEC 60384-14.	UL 1414, IEC 60384-14:93, EN 132400	UL, VDE, FIMKO, SEMKO	
06. Varistor (TVR101) (Optional)	THINKING ELECTRONIC INDUSTRIAL CO LTD	TVR14471, TVR14621, TVR14511, TVR14561, TVR14681	Min. 250 V, (line-to-line)	UL 1449, IEC 61051-1, IEC61051-2	UL, VDE, VDE	
06a. Varistor (TVR101) (Optional)(alternate)	EPCOS OHG	SIOVS14K420, SIOVS14K420E 2K1	Min. 250 V, (line-to-line)	UL 1449, IEC 61051-1, IEC61051-2	UL, VDE	
06b. Varistor (TVR101) (Optional)(alternate)	EPCOS OHG	S14K420, S14K420E2	Min. 250 V, (line-to-line)	UL 1449, IEC 61051-1, IEC61051-2	UL, VDE	
07. Bleeder Resistors (R101,	--	--	Series connected, each	--	--, --	

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R102)			rated max. 392 K Ohms, 1/4 W.			
08. IC (U101)	--	--	0.25~2.5 A, min. 825 V	--	--, --	
09. Primary connector (CN101, CN102, CN103)	Various	Various	Min. 250Vac	UL 1977	UL, --	
- Power supply	--	--	--	--	--, --	
01. Line Filters (FL103)	--	--	Min. 130 degree C.	--	--, --	
01-1. Core	--	--	For dimension, see enclosure 4-04 for details.	--	--, --	
01-2. Coils	--	--	Min. 130 degree C.	--	UL, --	
02. Bleeder Resistors (R135, R137)	--	--	Series connected, each rated max. 392 K Ohms, 1/4 W.	--	--, --	
03. X-Capacitors (CX104) (Optional)	Okaya Electric Industries Co., Ltd.	RE or LE	Min. 250 V ac, 0.47 uF max, subclass X2 min., comply with IEC 60384-14.	UL 1414, IEC 60384-14:93, VDE 0565, EN132400:1994 +A2+A3	UL, VDE, ENEC, CCEE, FIMKO, SEMKO	
03a. X-Capacitors (CX104) (Optional)(alternate)	ARCOTRONICS SPA	R.46	Min. 250 V ac, 0.47 uF max, subclass X2 min., comply with IEC 60384-14.	UL 1414, IEC 60384-14:93, VDE 0565, EN132400:1994 +A2+A3	UL, VDE, ENEC, CCEE, FIMKO, SEMKO	
03b. X-Capacitors (CX104) (Optional)(alternate)	VISHAY CAPACITORS BELGIUM N V	MKP 336 2, MKP 338 2, 336 2 or 338 2	Min. 250 V ac, 0.47 uF max, subclass X2 min., comply with IEC 60384-14.	UL 1414, IEC 60384-14:93, VDE 0565, EN132400:1994 +A2+A3	UL, VDE, ENEC, CCEE, FIMKO, SEMKO	
03c. X-Capacitors (CX104) (Optional)(alternate)	Hua Jung Components Co., Ltd.	MKP	Min. 250 V ac, 0.47 uF max, subclass X2 min., comply with IEC 60384-14.	UL 1414, IEC 60384-14:93, VDE 0565, EN132400:1994 +A2+A3	UL, VDE, ENEC, CCEE, FIMKO, SEMKO	
03d. X-Capacitors (CX104) (Optional)(alternate)	ISKRA KONDENZATO RJI D D	KNB 1530 or KNB 1560	Min. 250 V ac, 0.47 uF max, subclass X2 min., comply with IEC 60384-14.	UL 1414, IEC 60384-14:93, VDE 0565, EN132400:1994 +A2+A3	UL, VDE, ENEC, CCEE, FIMKO, SEMKO	

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03e. X-Capacitors (CX104) (Optional)(alternate)	MATSUSHITA ELECTRIC INDUSTRIAL CO LTD PANASONIC CORP OF NORTH AMERICA	ECQ-UL	Min. 250 V ac, 0.47 uF max, subclass X2 min., comply with IEC 60384-14.	UL 1414, IEC 60384-14:93, VDE 0565, EN132400:1994 +A2+A3	UL, VDE, ENEC, CCEE, FIMKO, SEMKO	
4. Thermistors (NTC101)	--	--	10 Ohms at 25 degree C, 8 A or 6A	--	--, --	
5. Thermistors (NTC102)	--	--	15 Ohms at 25 degree C, 2 A	--	--, --	
6. Relay (RL101, RL102, RL103)	SONG CHUAN PRECISION CO LTD	888HN series	Min. 250 V ac, 17 A,	UL 1054, IEC 61058-1	UL, --	
06a. Relay (RL101, RL102, RL103)(alternate)	SONG CHUAN PRECISION CO LTD	894H-2AH1-F-C	Min. 250 V ac, 10~12 A,	UL 1054, IEC 61058-1	UL, TUV	
06b. Relay (RL101, RL102, RL103)(alternate)	TAKAMISAWA ELECTRIC CO LTD	VS-12MBU-NR	Min. 240 V ac, 10~15 A,	UL 1054, IEC 61058-1	UL, SEMKO	
07. Y-Capacitors (CY107, CY109) (Optional)	Murata MFG Co Ltd	KX, KH	Min. 250 V ac, max. 2200 pF, subclass Y1 or Y2. , comply with IEC 60384-14.	UL 1414, IEC 60384-14:93, EN 132400	UL, VDE, FIMKO, SEMKO	
07a. Y-Capacitors (CY107, CY109) (Optional)	MATSUSHITA ELECTRIC INDUSTRIAL CO LTD PANASONIC CORP OF NORTH AMERICA	NS-A	Min. 250 V ac, max. 2200 pF, subclass Y1 or Y2. , comply with IEC 60384-14.	UL 1414, IEC 60384-14:93, EN 132400	UL, VDE, FIMKO, SEMKO	
07b. Y-Capacitors (CY107, CY109) (Optional)	TDK CORP	CD or CS	Min. 250 V ac, max. 2200 pF, subclass Y1 or Y2. , comply with IEC 60384-14.	UL 1414, IEC 60384-14:93, EN 132400	UL, VDE, FIMKO, SEMKO	
08. Bridge Diode (CR101)	--	--	23~25 A, min. 600 V.	--	--, --	
09. Bridge Diode	--	--	1.5~2 A, min.	--	--, --	

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(CR102)			800 V.			
10. Bulk Capacitor (C107, C108, C109, C124)	--	--	C107=C108=C109=330~470 uF, min. 400 V ac, 105 degree C; C124=68~100 uF, min. 400 V ac, 105 degree C with integral pressure relief	--	--, --	
11. Transistors (Q120, Q121)	--	--	12~15 A, min. 600 V	--	--, --	
12. TOP Switch (U104)	--	--	1~2 A, 650 V	--	--, --	
13. Optical Isolators (U103, U105, U107)	TOSHIBA CORP, SEMICONDUCTOR OR CO DISCRETE SEMICONDUCTOR OR DIV	TLP781, TLP781F	3000 Vac isolation; di = 0.6 mm min. min. 100 degree C. Distance between input and output = min. 7 mm	UL 1577, IEC 60950, VDE 0884	UL, VDE, FIMKO, SEMKO	
13a. Optical Isolators (U103, U105, U107)(alternate)	VISHAY INFRARED COMPONENTS INC	TCET1104G, SFH617A or TCET1103(G)D	3000 Vac isolation; di = 0.4 mm min. min. 100 degree C. Distance between input and output = min. 6.4 mm	UL 1577, IEC 60950, VDE 0884	UL, VDE, FIMKO, SEMKO	
13b. Optical Isolators (U103, U105, U107)(alternate)	Sharp Corporation	PC123	3000 Vac isolation; di = 0.4 mm min., min. 100 degree C. Distance between input and output = min. 5 mm	UL 1577, IEC 60950, VDE 0884	UL, VDE, FIMKO, SEMKO	
14. Bridge Capacitors (CY108) (Optional)	TDK Corp	CD	Min. 250 V ac, max. 2200 pF, marked with Y1, Comply with IEC 60384-14.	UL 1414, IEC 60384-14:93, EN 132400	UL, VDE, FIMKO, SEMKO	
14a. Bridge Capacitor	MURATA MFG CO LTD	KX	Min. 250 V ac, max. 2200 pF,	UL 1414, IEC 60384-14:93, EN	UL, VDE, FIMKO, SEMKO	

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(CY108) (Optional)(alternate)			marked with Y1, Comply with IEC 60384-14.	132400		
14b. Bridge Capacitors (CY108) (Optional)(alternate)	Matsushita Electric Industrial Co Ltd	NS-A	Min. 250 V ac, max. 2200 pF, marked with Y1, Comply with IEC 60384-14.	UL 1414, IEC 60384-14:93, EN 132400	UL, VDE, FIMKO, SEMKO	
14c. Bridge Capacitors (CY108) (Optional)(alternate)	WALSIN TECHNOLOGY CORP	AH	Min. 250 V ac, max. 2200 pF, marked with Y1, Comply with IEC 60384-14.	UL 1414, IEC 60384-14:93, EN 132400	UL, VDE, FIMKO, SEMKO	
15. Isolation Transformer (T101)	Delta Electronics, Inc.	P/N: DV-DS10056	Class B.	Evaluated within EUT.	--, --	
15-1. Insulation system	Delta	MP-130I	Class B	UL1446	UL, --	
15-2. Core	--	--	Ferrite, overall 27.4 by 20 by 5 mm	--	--, --	
15-3. Coil	--	--	Rated min 130 degree C	UL1446	UL, --	
15-4. Bobbin	Sumitomo Bakelite Co. Ltd.	PM-9630 or PM-9820	Rated 150 degree C, V-0, thickness: Min. 0.4mm.	UL94, UL746C	UL, --	
15-5. Insulation Tape	3M Company	1350F-1or 1350T-3, 1351-1	Rated 130 degree C	UL510	UL, --	
15-5a. Insulation Tape (Alternate)	Symbio Inc.	35660Y	Rated 130 degree C	UL510	UL, --	
15-5b. Insulation Tape (Alternate)	Jingjiang Yahua Pressure Sensitive Glue co., Ltd	CT	Rated 130 degree C	UL510	UL, --	
15-6. Varnish (optional)	John C. Dolph Co.	BC-346A or BC-346-A	Rated 200 degree C	UL1446	UL, --	
15-6a. Varnish (optional)	Kyocera Chemical Corp.	TVB2180T	Rated 155 degree C	UL1446	UL, --	
15-6b. Varnish (optional)	Hitachi Chemical Co., Ltd.	WP-2952F-2G	Rated 130 degree C	UL1446	UL, --	
15-6c. Varnish (optional)	Elantas Electrical Insulation Elantas PDG INC	V1380FC	Rated 130 degree C	UL1446	UL, --	

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: list of critical components					Pass
object/part or Description	manufacturer/ trademark	type/model	technical data	standard (edition/year)	mark(s) of conformity ¹⁾	
15-7. Margin Tape	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	WF	Rated 130 degree C	UL510	UL, --	
15-7a. Margin Tape (Alternate)	3M Company	44, 44D-A, 44T-A	Rated 130 degree C	UL510	UL, --	
15-7b. Margin Tape (Alternate)	Symbio Inc.	35661	Rated 130 degree C	UL510	UL, --	
15-8. Tubing	Great Holding Industrial Co., Ltd.	TFT, TFS, TFL	200 degree C, VW-1	UL 224	UL, --	
15-8a Tubing (Alternate)	Zeus Industrial Products Inc.	TFE-TW-300, TFE-SW-600, TFE-LW-150	200 degree C, VW-1	UL 224	UL, --	
15-8b Tubing (Alternate)	CHANGYUAN ELECTRONICS (SHENZHEN) CO LTD	CB-TT-L, CB-TT-T, CB-TT-S	200 degree C, VW-1	UL 224	UL, --	
16. Isolation Transformer (T102)	Delta Electronics, Inc.	P/N: MV-DS10290	Class B	Evaluated within EUT.	--, --	
16-1. Insulation system	Delta	MP-130I	Class B	UL1446	UL, --	
16-2. Margin Tape	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	WF	Rated 130 degree C	UL510	UL, --	
16-2a. Margin Tape (Alternate)	3M Company	44, 44D-A, 44T-A	Rated 130 degree C	UL510	UL, --	
16-2b. margin Tape (Alternate)	Symbio Inc.	35661	Rated 130 degree C	UL510	UL, --	
16-3. Core	--	--	Ferrite, overall 39.3 by 44.6 by 12.8 mm	--	--, --	
16-4. Coil	--	--	Rated min 130 degree C	UL1446	UL, --	
16-5. Bobbin	Sumitomo	PM-9630, PM-9820	Rated 150 degree C, V-0, thickness: Min. 0.4mm.	UL94, UL746C	UL, --	
16-6. Insulation Tape	3M Company	1350F-1, 1351-1 or 1350T-3	Rated 130 degree C	UL510	UL, --	
16-6a. Insulation	Symbio Inc.	35660Y	Rated 130	UL510	UL, --	

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: list of critical components					Pass
object/part or Description	manufacturer/ trademark	type/model	technical data	standard (edition/year)	mark(s) of conformity ¹⁾	
Tape (Alternate)			degree C			
16-6b. Insulation Tape (Alternate)	Jingjiang Yahua Pressure Sensitive Glue co., Ltd	CT	Rated 130 degree C	UL510	UL, --	
16-7. Varnish	John C. Dolph Co.	BC-346-A or BC-346A	Rated 200 degree C	UL1446	UL, --	
16-7a. Varnish (Alternate)	Elantas Electrical Insulation Elantas PDG INC	V1380FC	Rated 130 degree C	UL1446	UL, --	
16-7b. Varnish (Alternate)	HITACHI CHEMICAL CO LTD	WP-2952F-2G	Rated 130 degree C	UL1446	UL, --	
16-7c. Varnish (optional)	Kyocera Chemical Corp.	TVB2180T	Rated 155 degree C	UL1446	UL, --	
16-8. Tubing	Great Holding Industrial Co., Ltd.	TFT, TFL, TFS	200 degree C, VW-1	UL 224	UL, --	
16-8a Tubing (Alternate)	Zeus Industrial Products Inc.	TFE-TW-300, TFE-LW-150, TFE-SW-600	200 degree C, VW-1	UL 224	UL, --	
16-8b Tubing (Alternate)	Changyuan Electronics(Shenzhen)CO LTD	CB-TT-L, CB-TT-T, CB-TT-S	200 degree C, VW-1	UL 224	UL, --	
17. Heat Sink (HS101, HS102, HS202)	Various	Various	Material: Aluminum, see Enclosure 4-06 For detail.	--	--, --	
18. Heat Sink fixed on HS101 and HS102	Various	Various	Material: Aluminum, see Enclosure 4-08 For detail.	--	--, --	
19. Heat Sink (HS103)	Various	Various	Material: Aluminum, see Enclosure 4-07 For detail.	--	--, --	
20. Inductor (L101)	Various	Various	Min. 130 degree C.	Evaluated within EUT.	--, --	
20-1. Core	--	--	For dimension, see enclosure 4-05 for details.	--	--, --	
20-2. Coils	--	--	Min. 130 degree C.	--	UL, --	
21. PWB	Various	Various	V-1 or better,	UL 796	--, --	

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: list of critical components					Pass
object/part or Description	manufacturer/ trademark	type/model	technical data	standard (edition/year)	mark(s) of conformity ¹⁾	
			minimum 130 degree C.			
22. Primary connector (CN101)	Various	Various	Min. 250Vac	UL 1977	UL, --	
23. Primary connector (CN102)	Various	Various	Min. 380Vdc	UL 1977	UL, --	
23a. Alternate - Primary connector (CN102)	JOWLE TECHNOLOGY CO LTD	C4201, C4202	Min. 250Vac	UL 1977	UL, --	
24. Foamed material for air filter	Various	Various	Rated HBF or better	UL 94	UL, --	
25. Handling fixed on the bottom case(2 sets) (optional)	Various	Various	Metal (Aluminum)	--	--, --	
26. Handling fixed on the sides of enclosure (4 sets)(Optional)	Various	Various	Metal (Aluminum)	--	--, --	
27. Plastic around lens	Various	Various	Rated HB or better	UL 94	UL, --	
28. Plastic under power board	MIANYANG LONGHUA FILM CO LTD	PC-870	Rated V-2 or better	UL 94	UL, --	
Supplementary information: ¹⁾ Provided evidence ensures the agreed level of compliance. See OD-CB2039.						

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Clause	Requirement + Test	Result - Remark	Verdict

1.6.2	TABLE: electrical data (in normal conditions)						Pass
U (V)	I (A)	I rated (A)	P (W)	Fuse #	I fuse (A)	condition/status	
90/50	12.44	--	1114	F101	12.44	Max. normal load with HDMI input	
90/60	12.43	--	1114	F101	12.43	Max. normal load with HDMI input	
100/50	11.09	11.2	1093	F101	11.09	Max. normal load with HDMI input	
100/60	11.09	11.2	1093	F101	11.09	Max. normal load with HDMI input	
130/50	8.28	11.2	1065	F101	8.28	Max. normal load with HDMI input	
130/60	8.28	11.2	1065	F101	8.28	Max. normal load with HDMI input	
143/50	7.41	--	1058	F101	7.41	Max. normal load with HDMI input	
143/60	7.41	--	1058	F101	7.41	Max. normal load with HDMI input	
180/50	5.95	--	1042	F103	5.95	Max. normal load with HDMI input	
180/60	5.95	--	1042	F103	5.95	Max. normal load with HDMI input	
200/50	5.31	5.4	1038	F103	5.31	Max. normal load with HDMI input	
200/60	5.31	5.4	1038	F103	5.31	Max. normal load with HDMI input	
240/50	4.41	5.4	1033	F103	4.41	Max. normal load with HDMI input	
240/60	4.41	5.4	1033	F103	4.41	Max. normal load with HDMI input	
264/50	4.02	--	1031	F103	4.02	Max. normal load with HDMI input	
264/60	4.02	--	1031	F103	4.02	Max. normal load with HDMI input	
90/50	12.41	--	1110	F101	12.41	Max. normal load with VGA (Computer 1, 2) input	
90/60	12.41	--	1110	F101	12.41	Max. normal load with VGA (Computer 1, 2) input	
100/50	11.07	11.2	1091	F101	11.07	Max. normal load with VGA (Computer 1, 2) input	
100/60	11.07	11.2	1091	F101	11.07	Max. normal load with VGA (Computer 1, 2) input	
130/50	8.21	11.2	1063	F101	8.21	Max. normal load with VGA (Computer 1, 2) input	
130/60	8.21	11.2	1063	F101	8.21	Max. normal load with VGA (Computer 1, 2) input	
143/50	7.39	--	1056	F101	7.39	Max. normal load with VGA (Computer 1, 2) input	
143/60	7.39	--	1056	F101	7.39	Max. normal load with VGA (Computer 1, 2) input	
180/50	5.91	--	1038	F103	5.91	Max. normal load with VGA (Computer 1, 2) input	
180/60	5.91	--	1038	F103	5.91	Max. normal load with VGA (Computer 1, 2) input	
200/50	5.27	5.4	1035	F103	5.27	Max. normal load with VGA (Computer 1, 2) input	
200/60	5.27	5.4	1035	F103	5.27	Max. normal load with VGA (Computer 1, 2) input	
240/50	4.38	5.4	1031	F103	4.38	Max. normal load with VGA (Computer 1, 2) input	
240/60	4.38	5.4	1031	F103	4.38	Max. normal load with VGA (Computer 1, 2) input	
264/50	4.01	--	1029	F103	4.01	Max. normal load with VGA	

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Clause	Requirement + Test		Verdict

						(Computer 1, 2) input
264/60	4.01	--	1029	F103	4.01	Max. normal load with VGA (Computer 1, 2) input
90/50	12.39	--	1110	F101	12.39	Max. normal load with Video input
90/60	12.39	--	1110	F101	12.39	Max. normal load with Video input
100/50	11.05	11.2	1091	F101	11.05	Max. normal load with Video input
100/60	11.05	11.2	1091	F101	11.05	Max. normal load with Video input
130/50	8.23	11.2	1063	F101	8.23	Max. normal load with Video input
130/60	8.23	11.2	1063	F101	8.23	Max. normal load with Video input
143/50	7.39	--	1056	F101	7.39	Max. normal load with Video input
143/60	7.39	--	1056	F101	7.39	Max. normal load with Video input
180/50	5.92	--	1039	F103	5.92	Max. normal load with Video input
180/60	5.92	--	1039	F103	5.92	Max. normal load with Video input
200/50	5.27	5.4	1036	F103	5.27	Max. normal load with Video input
200/60	5.27	5.4	1036	F103	5.27	Max. normal load with Video input
240/50	4.39	5.4	1031	F103	4.39	Max. normal load with Video input
240/60	4.39	5.4	1031	F103	4.39	Max. normal load with Video input
264/50	4.01	--	1030	F103	4.01	Max. normal load with Video input
264/60	4.01	--	1030	F103	4.01	Max. normal load with Video input
90/50	12.38	--	1108	F101	12.38	Max. normal load with S-Video input
90/60	12.38	--	1108	F101	12.38	Max. normal load with S-Video input
100/50	11.05	11.2	1090	F101	11.05	Max. normal load with S-Video input
100/60	11.05	11.2	1090	F101	11.05	Max. normal load with S-Video input
130/50	8.22	11.2	1061	F101	8.22	Max. normal load with S-Video input
130/60	8.22	11.2	1061	F101	8.22	Max. normal load with S-Video input
143/50	7.37	--	1054	F101	7.37	Max. normal load with S-Video input
143/60	7.37	--	1054	F101	7.37	Max. normal load with S-Video input
180/50	5.92	--	1040	F103	5.92	Max. normal load with S-Video input
180/60	5.92	--	1040	F103	5.92	Max. normal load with S-Video input
200/50	5.28	5.4	1036	F103	5.28	Max. normal load with S-Video input
200/60	5.28	5.4	1036	F103	5.28	Max. normal load with S-Video input
240/50	4.40	5.4	1032	F103	4.40	Max. normal load with S-Video input
240/60	4.40	5.4	1032	F103	4.40	Max. normal load with S-Video input
264/50	4.02	--	1030	F103	4.02	Max. normal load with S-Video

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						input
264/60	4.02	--	1030	F103	4.02	Max. normal load with S-Video input
90/50	12.40	--	1109	F101	12.40	Max. normal load with Display input
90/60	12.40	--	1109	F101	12.40	Max. normal load with Display input
100/50	11.05	11.2	1091	F101	11.05	Max. normal load with Display input
100/60	11.05	11.2	1091	F101	11.05	Max. normal load with Display input
130/50	8.22	11.2	1062	F101	8.22	Max. normal load with Display input
130/60	8.22	11.2	1062	F101	8.22	Max. normal load with Display input
143/50	7.39	--	1056	F101	7.39	Max. normal load with Display input
143/60	7.39	--	1056	F101	7.39	Max. normal load with Display input
180/50	5.91	--	1036	F103	5.91	Max. normal load with Display input
180/60	5.91	--	1036	F103	5.91	Max. normal load with Display input
200/50	5.26	5.4	1034	F103	5.26	Max. normal load with Display input
200/60	5.26	5.4	1034	F103	5.26	Max. normal load with Display input
240/50	4.37	5.4	1030	F103	4.37	Max. normal load with Display input
240/60	4.37	5.4	1030	F103	4.37	Max. normal load with Display input
264/50	4.01	--	1029	F103	4.01	Max. normal load with Display input
264/60	4.01	--	1029	F103	4.01	Max. normal load with Display input
90/50	12.38	--	1108	F101	12.38	Max. normal load with RGBHV (Computer 3) input
90/60	12.38	--	1108	F101	12.38	Max. normal load with RGBHV (Computer 3) input
100/50	11.02	11.2	1090	F101	11.02	Max. normal load with RGBHV (Computer 3) input
100/60	11.02	11.2	1090	F101	11.02	Max. normal load with RGBHV (Computer 3) input
130/50	8.19	11.2	1061	F101	8.19	Max. normal load with RGBHV (Computer 3) input
130/60	8.19	11.2	1061	F101	8.19	Max. normal load with RGBHV (Computer 3) input
143/50	7.37	--	1054	F101	7.37	Max. normal load with RGBHV

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Clause	Requirement + Test			Result - Remark		Verdict
						(Computer 3) input
143/60	7.37	--	1054	F101	7.37	Max. normal load with RGBHV (Computer 3) input
180/50	5.89	--	1034	F103	5.89	Max. normal load with RGBHV (Computer 3) input
180/60	5.89	--	1034	F103	5.89	Max. normal load with RGBHV (Computer 3) input
200/50	5.22	5.4	1033	F103	5.22	Max. normal load with RGBHV (Computer 3) input
200/60	5.22	5.4	1033	F103	5.22	Max. normal load with RGBHV (Computer 3) input
240/50	4.35	5.4	1029	F103	4.35	Max. normal load with RGBHV (Computer 3) input
240/60	4.35	5.4	1029	F103	4.35	Max. normal load with RGBHV (Computer 3) input
264/50	3.98	--	1026	F103	3.98	Max. normal load with RGBHV (Computer 3) input
264/60	3.98	--	1026	F103	3.98	Max. normal load with RGBHV (Computer 3) input
90/50	11.45	--	1033	F101	11.45	Max. normal load with SDI input
90/60	11.45	--	1033	F101	11.45	Max. normal load with SDI input
100/50	10.21	11.2	1019	F101	10.21	Max. normal load with SDI input
100/60	10.21	11.2	1019	F101	10.21	Max. normal load with SDI input
130/50	7.75	11.2	995	F101	7.75	Max. normal load with SDI input
130/60	7.75	11.2	995	F101	7.75	Max. normal load with SDI input
143/50	6.93	--	993	F101	6.93	Max. normal load with SDI input
143/60	6.93	--	993	F101	6.93	Max. normal load with SDI input
180/50	5.52	--	974	F103	5.52	Max. normal load with SDI input
180/60	5.52	--	974	F103	5.52	Max. normal load with SDI input
200/50	4.95	5.4	970	F103	4.95	Max. normal load with SDI input
200/60	4.95	5.4	970	F103	4.95	Max. normal load with SDI input
240/50	4.15	5.4	965	F103	4.15	Max. normal load with SDI input
240/60	4.15	5.4	965	F103	4.15	Max. normal load with SDI input
264/50	3.73	--	961	F103	3.73	Max. normal load with SDI input
264/60	3.73	--	961	F103	3.73	Max. normal load with SDI input
supplementary information:						
Max. normal load : Test condition: Timing 108 KHz, Full Brightness and Contrast Full Brightness and Contrast With the load of Remote (1W), USB (2.5W), option unit (60W)						

2.10.3 and 2.10.4	TABLE: clearance and creepage distance measurements						Pass
Clearance (cl) and creepage distance (cr) at/of/between:		U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)
T102 pin 1/ pin 8		448	250	4.9	20	4.9	20
T102 pin 1/ pin 10		416	230	4.9	20	4.9	20

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Clause	Requirement + Test			Result - Remark		Verdict
T102 pin 1/ pin 14	448	258	4.9	20	4.9	20
T102 pin 7/ pin 8	400	208	4.9	20	4.9	20
T102 pin 7/ pin 10	410	216	4.9	20	4.9	20
T102 pin 7/ pin 14	398	208	4.9	20	4.9	20
T101 pin 1/ pin 7	344	178	4.9	10	4.9	10
T101 pin 1/ pin 9	350	178	4.9	10	4.9	10
T101 pin 2/ pin 7	300	180	4.9	10	4.9	10
T101 pin 2/ pin 9	416	182	4.9	10	4.9	10
T101 pin 3/ pin 7	352	180	4.9	10	4.9	10
T101 pin 3/ pin 9	328	180	4.9	10	4.9	10
T101 pin 4/ pin 7	476	200	4.9	10	4.9	10
T101 pin 4/ pin 9	480	203	4.9	10	4.9	10
T101 pin 5/ pin 7	328	182	4.9	10	4.9	10
T101 pin 5/ pin 9	328	186	4.9	10	4.9	10
T101 pin 6/ pin 7	392	182	4.9	10	4.9	10
T101 pin 6/ pin 9	408	180	4.9	10	4.9	10
U103 pin 1 / pin 3	330	185	4.6	6	5	6
U103 pin 1 / pin 4	336	183	4.6	6	5	6
U103 pin 2 / pin 3	336	184	4.6	6	5	6
U103 pin 2 / pin 4	340	183	4.6	6	5	6
U105 pin 1 / pin 3	336	181	4.6	6	5	6
U105 pin 1 / pin 4	336	181	4.6	6	5	6
U105 pin 2 / pin 3	340	181	4.6	6	5	6
U105 pin 2 / pin 4	336	181	4.6	6	5	6
U107 pin 1 / pin 3	336	184	4.6	6	5	6
U107 pin 1 / pin 4	336	184	4.6	6	5	6
U107 pin 2 / pin 3	340	180	4.6	6	5	6
U107 pin 2 / pin 4	344	176	4.6	6	5	6
Ballast output / GND	2440	757.8	5	6	5	6
Functional:						
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)
--	--	--	--	--	--	--
Basic/supplementary:						
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)
All primary parts to metal case (B)	420	250	2x1.15=2.3	2.5	2.5	2.6
Filter board – Component Side	--	--	--	--	--	--
Primary trace to PE(Under CY101)(B)	420	250	2X1.15=2.3	3.5	2.5	3.5
Primary trace to PE(Under CY102)(B)	420	250	2X1.15=2.3	3.5	2.5	3.5
Primary trace to PE(Under CY103)	420	250	2X1.15=2.3	3.5	2.5	3.5
Primary trace to PE(Under	420	250	2X1.15=2.3	3.5	2.5	3.5

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CY104)(B)						
Main power board	--	--	--	--	--	--
Primary trace to PE(Under CY107)(B)	420	250	2X1.15=2.3	3.5	2.5	3.5
Primary trace to PE(Under CY109)(B)	420	250	2X1.15=2.3	3.5	2.5	3.5
Between T102 Core and HS202 (B)	448	258	2.1 x 1.15 = 2.415	4.6	2.6	4.6
Between T102 Core and HS103(B)	448	258	2.1 x 1.15 = 2.415	11.5	2.6	11.5
Between T101 Core and C203 Body (B)	480	203	2.1 x 1.15 = 2.415	8.0	5.0	8
Trace Side	--	--	--	--	--	--
From Primary Trace to PE (B)	480	258	2.1 x 1.15 = 2.415	3.5	2.6	3.5
Reinforced:						
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)
From Ballast Connector to Metal Chassis (D/R)	2440	757.8	4X1.15=4.6	5	5	8.2
From Lamp Connector to Metal Chassis (D/R)	2440	757.8	4X1.15=4.6	5.9	5	5.9
Main power board	--	--	--	--	--	--
Under CY108(D/R)	420	250	4X1.15=4.6	8.1	5.0	8.1
Under U107, U103, U105 (D/R)	420	250	4.0 x 1.15 = 4.6	8.1	5.0	8.1
Between CR102 and L202 (D/R)	420	250	4X1.15=4.6	10.8	5.0	10.8
Trace Side	--	--	--	--	--	--
Under T101 (D/R)	480	203	4.2 x 1.15 = 4.83	10.3	5.0	10.3
Under T102 (D/R)	440	258	4.2 x 1.15 = 4.83	15.1	5.2	15.1
supplementary information:						
Note: - T101 Core was defined as floating. - T102 Core was defined as floating. - Distance of ballast output to accessible part that waived and in accordance with 5.2.2, using an a.c. peak test voltage(2.44KV) equal to 150 % of the 3.66KV. - B is indicated as Basic Insulation. - D/R is indicated as Double/ Reinforce Insulation. - IEC 60664-1: 1992 table A.2 with a multiplication factor of 1.15 through this report (3000m : 1.14, 4000m : 1.29, linear interpolation between this value was considered). - The Clearances and Creepage Distances have additionally been assessed for suitability up to 3,000m elevation.						

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Clause	Requirement + Test	Result - Remark	Verdict

2.10.5	TABLE: distance through insulation measurements					Pass
Distance through insulation (DTI) at/of:		U peak (V)	Urms (V)	Test voltage (V)	Required DTI (mm)	DTI (mm)
Insulating Tubing, Mfr. LONGWELL CO., LHS-125FR		420	250	3000Vac	0.4	0.76
Insulating Tubing, Mfr. Sumitomo, Type SUMITUBE F32		420	250	3000Vac	0.4	0.76
Insulating Tubing, Mfr. Tyco, Type ZH2 and Versafit V2		420	250	3000Vac	0.4	0.76
Plastic under power board, Mfr. Mianyang Longhua Film Co., Type PC-870		420	250	3000Vac	0.4	0.76
supplementary information:						
See the item table 1.5.1 and 5.2 for details.						

4.3.8	TABLE: Batteries								N/A	
The tests of 4.3.8 are applicable only when appropriate battery data is not available.										
Is it possible to install the battery in a reverse polarity position?										
	Non-rechargeable batteries			Rechargeable batteries						
	Discharging		Un-intentional charging	Charging		Discharging		Reversed charging		
	Meas. current	Manuf. specs.		Meas. current	Manuf. specs.	Meas. current	Manuf. specs.	Meas. current	Manuf. specs.	
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:										

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

4.5	TABLE: Thermal requirements					Pass
	Supply voltage (V)..... :	--	--	--	--	—
	Ambient Tmin (°C) :	--	--	--	--	—
	Ambient Tmax (°C) :	--	--	--	--	—
Maximum measured temperature T of part/at:		T (°C)				allowed Tmax (°C)
--		90Vac	143Vac	180Vac	264Vac	--
Power board		--	--	--	--	--
	T102 coil	50.1	49.4	50.2	50.2	110
	T102 core	54.4	53.8	54.3	54.2	110
	T101 coil	48.0	47.1	48.4	48.6	110
	T101 core	47.8	47.1	48.4	48.6	110
	U107	44.3	43.8	43.9	44.1	100
	U105	50.9	50.1	52.0	52.3	100
	U103	51.0	50.1	51.9	51.9	100
	CY108	46.8	46.0	47.2	47.2	85
	FL103	70.9	53.6	51.0	48.3	105
	L101	78.5	60.9	58.6	53.8	105
	L201	51.7	51.0	51.4	51.3	105
	L202	49.8	48.6	49.4	49.2	105
	CX104	58.3	49.1	48.4	47.1	85
	RL103	56.0	48.5	47.8	46.5	105
	PCB under NTC101	57.6	49.3	48.6	47.2	105
	T103	43.1	51.0	43.1	43.2	105
	D104	68.9	48.6	54.6	52.5	105
	Q102	68.3	49.1	50.8	48.9	105
	Q101	70.1	48.5	51.4	49.5	105
	CR101	84.3	49.3	60.4	56.1	105
	CN102	53.5	42.5	46.9	46.2	105
	C107	47.0	45.2	45.4	45.3	105
	L102	58.2	50.0	48.8	47.5	105
	Q121	41.9	45.0	47.9	48.7	105
Filter board		--	--	--	--	--
	CX101	69.1	54.4	52.1	50.1	85
	F101	67.6	54.1	52.0	41.8	105
	CY103	51.2	48.0	47.7	47.4	85
	FL101	73.7	55.8	52.9	50.5	105
	FL102	62.2	51.6	50.2	48.6	105
	PCB near FL101	57.9	50.6	49.9	48.9	105
Ballast 1		--	--	--	--	--
	L6	70.2	66.5	67.1	66.5	115
	Q70	64.3	60.9	61.1	60.6	105
	L20	74.4	70.9	71.5	70.9	115

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Clause	Requirement + Test			Result - Remark			Verdict
L19	78.4	74.9	75.6	75.1	--		115
L3	63.7	59.7	60.2	59.7	--		115
PCB near L1	54.1	51.4	51.4	51.1	--		105
Ballast 2	--	--	--	--	--		--
L19	80.7	77.6	78.2	77.8	--		115
C12	57.1	53.9	53.9	53.6	--		105
L6	64.4	61.4	61.7	61.3	--		115
L3	63.2	59.9	60.2	59.8	--		115
C20	50.6	48.4	48.8	48.5	--		105
L20	63.2	59.8	60.0	59.5	--		115
PCB near L19	60.9	58.8	59.6	59.2	--		105
Others	--	--	--	--	--		--
AC socket	56.4	49.3	49.0	47.6	--		70
PCB near IC7902 (mainboard)	60.7	60.2	61.7	61.7	--		105
PCB near IC328 (slave_UC board)	57.5	57.0	57.8	52.9	--		105
L202 (DC-DC board)	57.4	56.0	57.6	57.3	--		105
Lamp holder 1	113.6	112.1	116.6	112.0	--		120
Lamp holder 2	111.0	110.7	108.8	112.3	--		120
Lamp housing	130.7	130.9	132.5	131.7	--		170
External Enclosure (rear side)	54.7	56.2	56.1	54.8	--		70
Label (rear side)	48.5	47.6	49.1	48.5	--		60
VGA connector	52.7	51.8	52.2	51.8	--		70
Internal of opening on rear side	82.8	81.7	74.6	78.9	--		95
Test time	1.8H	2.7H	2H	1.6H	--		--
Ambient	SHIFT TO 40	SHIFT TO 40	SHIFT TO 40	SHIFT TO 40	--		--
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:							
- T101 and T102 are insulation Class B. - Tma = 40 degree C. - Maximum Normal Load: Refer to Table 1.6.2 for detail.							

4.5.5	TABLE: Ball pressure test of thermoplastic parts			Pass
	allowed impression diameter (mm)	less than or equal to 2.0		—
part	test temperature (°C)		impression diameter (mm)	
CN102, Mfr: JWT, Type C4201, C4202	125		1 mm	

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Clause	Requirement + Test	Result - Remark	Verdict

supplementary information:

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4.7	TABLE: resistance to fire					Pass
	part	manufacturer of material	type of material	thickness (mm)	flammability class	Evidence
	--	--	--	--	--	
supplementary information:						
See the table 1.5.1 for details						

5.2	TABLE: electric strength tests, impulse tests and voltage surge tests			Pass
Test voltage applied between:		Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No
Unit - Primary to PE		DC	2414	No
Unit - Primary to Secondary		DC	4242	No
Unit – Primary to External Enclosure		DC	4242	No
Insulation Tape for 2 layers		AC	3000	No
Transformer (T101, T102) Primary to Secondary		AC	3000	No
Transformer (T101, T102) Primary to Core		AC	1707	No
Transformer (T101, T102) Secondary to Core		AC	1707	No
Functional:				
Test voltage applied between:		Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No
--		--	--	--
Basic/supplementary:				
Test voltage applied between:		Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No
--		--	--	--
Reinforced:				
Test voltage applied between:		Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No
--		--	--	--
supplementary information:				
- T101 Core was considered as floating.				
- T102 Core was considered as floating.				

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Clause	Requirement + Test	Result - Remark	Verdict

- Distance of ballast output to accessible part that waived and in accordance with 5.2.2, using an a.c. peak test voltage(2.44KV) equal to 150 % of the 3.66KV.

5.3	TABLE: fault condition tests					Pass
	ambient temperature (°C)				--	—
	Power source for EUT: Manufacturer, model/type, output rating				--	—
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Abnormal Operation Tests	--	--	--	--	--	--
Openings on rear side	Blocked	240/60	3H	F103	0.37	Max. temperature of T102 coil: 50.1 degree C; T102 core: 55.5 degree C; T101 coil: 47.4 degree C; T101 core: 46.2 degree C; U107: 42.9 degree C; U105: 54.5 degree C; U103: 54.8 degree C; CY108: 49.4 degree C; Ambient: 26.3 degree C. Unit shut down immediately. NC, NB, NT
Openings on front and right side	Blocked	240/60	2H	F103	4.4	Max. temperature of T102 coil: 42.6 degree C; T102 core: 44.8 degree C; T101 coil: 40.3 degree C; T101 core: 40.0 degree C; U107: 34.0 degree C; U105: 44.9 degree C; U103: 44.4 degree C; CY108: 38.9 degree C; Ambient: 25.9 degree C. NC, NB, NT
DC Fan 2	Stalled	240/60	3.6H	F103	0.63	Max. temperature of T102 coil: 39.6 degree C; T102 core: 45.3 degree C; T101 coil: 36.8 degree C; T101 core: 36.0 degree C; U107: 32.2 degree C; U105: 42.2 degree C; U103: 42.0 degree C; CY108: 37.5 degree C; Ambient: 32.2 degree C. Unit shut down immediately. NC, NB, NT
DC Fan 1	Stalled	240/60	0.25H	F103	0.63	Unit shut down immediately.

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Clause	Requirement + Test	Result - Remark	Verdict

						NC, NB, NT
DC Fan 3	Stalled	240/60	0.25H	F103	0.63	Unit shut down immediately. NC, NB, NT
DC Fan 4	Stalled	240/60	0.25H	F103	0.63	Unit shut down immediately. NC, NB, NT
DC Fan 5	Stalled	240/60	0.25H	F103	0.63	Unit shut down immediately. NC, NB, NT
DC Fan 6	Stalled	240/60	0.25H	F103	0.63	Unit shut down immediately. NC, NB, NT
DC Fan 7	Stalled	240/60	0.25H	F103	0.63	Unit shut down immediately. NC, NB, NT
DC Fan 8	Stalled	240/60	0.25H	F103	0.63	Unit shut down immediately. NC, NB, NT
DC Fan 9	Stalled	240/60	0.25H	F103	0.63	Unit shut down immediately. NC, NB, NT
DC Fan 10	Stalled	240/60	0.25H	F103	0.63	Unit shut down immediately. NC, NB, NT
DC Fan 11	Stalled	240/60	0.25H	F103	0.63	Unit shut down immediately. NC, NB, NT
DC Fan 12	Stalled	240/60	0.25H	F103	0.63	Unit shut down immediately. NC, NB, NT
DC Fan 13	Stalled	240/60	0.25H	F103	0.63	Unit shut down immediately. NC, NB, NT
DC Fan 14	Stalled	240/60	0.25H	F103	0.63	Unit shut down immediately. NC, NB, NT
DC Fan 15	Stalled	240/60	0.25H	F103	0.63	Unit shut down immediately. NC, NB, NT
DC Fan 16	Stalled	240/60	0.25H	F103	0.63	Unit shut down immediately. NC, NB, NT
DC Fan 17	Stalled	240/60	0.25H	F103	0.63	Unit shut down immediately. NC, NB, NT
Slide switch	Mismatched (set 230 V)	100/60	0.25H	F103	11.1	Unit operated normally. NB, NC, NT
Slide switch	Mismatched (set 100 V)	240/60	0.25H	F101	4.1	Unit operated normally. NB, NC, NT
Component Failure Tests	--	--	--	--	--	--
T101 (1-2)	S-C	240V/60Hz	25min	F103	0.36	Unit shut down immediately. NC, NB, NT
T101 (7-9)	S-C	240V/60Hz	25min	F103	0.24	Unit shut down immediately. NC, NB, NT
T101 (3-4)	S-C	240V/60Hz	25min	F103	0.24	Unit shut down immediately. NC, NB, NT
T101 (6-5)	S-C	240V/60Hz	25min	F103	0.24	Unit shut down immediately. NC, NB, NT
T102 (8-10)	S-C	240V/60Hz	25min	F103	0.26	Unit shut down immediately. NC, NB, NT

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Clause	Requirement + Test			Result - Remark		Verdict
T102 (14-13)	S-C	240V/60Hz	25min	F103	0.26	Unit shut down immediately. NC, NB, NT
T102 (7-1)	S-C	240V/60Hz	25min	F103	0.25	Unit shut down immediately. NC, NB, NT
U103 (1-2)	S-C	240V/60Hz	25min	F103	0.25	Unit shut down immediately. NC, NB, NT
U103 (3-4)	S-C	240V/60Hz	25min	F103	4.1	Unit operated normally. NB, NC, NT
U105 (1-2)	S-C	240V/60Hz	25min	F103	0.34	Unit shut down immediately. NC, NB, NT
U105 (3-4)	S-C	240V/60Hz	25min	F103	0.25	Unit shut down immediately. NC, NB, NT
U107 (1-2)	S-C	240V/60Hz	25min	F103	0.25	Unit shut down immediately. NC, NB, NT
U107 (3-4)	S-C	240V/60Hz	25min	F103	0.27	Unit shut down immediately. NC, NB, NT
U107 pin 3	O-C	240V/60Hz	25min	F103	0.26	Unit shut down immediately. NC, NB, NT
U107 pin 4	O-C	240V/60Hz	25min	F103	0.26	Unit shut down immediately. NC, NB, NT
D114	S-C	240V/60Hz	25min	F103	4.1	Unit operated normally. NB, NC, NT
D115	S-C	240V/60Hz	25min	F103	4.1	Unit operated normally. NB, NC, NT
D113	S-C	240V/60Hz	25min	F103	0.25	Unit shut down immediately. NC, NB, NT
D116	S-C	240V/60Hz	25min	F103	0.25	Unit shut down immediately. NC, NB, NT. CD: D117, R173, Q120, #
D117	S-C	240V/60Hz	25min	F103	0.25	Unit shut down immediately. NC, NB, NT. CD: R173, Q121, R170, R167, #
ZD105	S-C	240V/60Hz	25min	F103	0.25	Unit shut down immediately. NC, NB, NT
D112	S-C	240V/60Hz	25min	F103	4.1	Unit operated normally. NB, NC, NT
Q121 (G-S)	S-C	240V/60Hz	25min	F103	0.25	Unit shut down immediately. NC, NB, NT
Q121 (G-D)	S-C	240V/60Hz	25min	F103	0.25	Unit shut down immediately. NC, NB, NT
Q121 (D-S)	S-C	240V/60Hz	25min	F103	0.25	Unit shut down immediately. NC, NB, NT. CD: R173, Q120, Q121, #
U106 (7-5)	S-C	240V/60Hz	25min	F103	0.27	Unit shut down immediately. NC, NB, NT
D108	S-C	240V/60Hz	25min	F103	0.24	Unit shut down immediately. NC, NB, NT
D109	S-C	240V/60Hz	25min	F103	0.25	Unit shut down immediately.

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Clause	Requirement + Test	Result - Remark	Verdict

						NC, NB, NT
D111	S-C	240V/60Hz	25min	F103	0.25	Unit shut down immediately. NC, NB, NT
ZD102	S-C	240V/60Hz	25min	F103	0.25	Unit shut down immediately. NC, NB, NT
D101	S-C	240V/60Hz	25min	F103	4.1	Unit operated normally. NB, NC, NT
Q122 (C-E)	S-C	240V/60Hz	25min	F103	4.1	Unit operated normally. NB, NC, NT
Q122 (B-C)	S-C	240V/60Hz	25min	F103	4.1	Unit operated normally. NB, NC, NT
Q122 (B-E)	S-C	240V/60Hz	25min	F103	0.25	Unit shut down immediately. NC, NB, NT
U104 (5-7)	S-C	240V/60Hz	1S	F103	0	Unit shut down immediately. NC, NB, NT. IP: F103, CD: U104, CR102, NTC102, D110
U108 (3-4)	S-C	240V/60Hz	25min	F103	4.1	Unit operated normally. NB, NC, NT
U108 (1-2)	S-C	240V/60Hz	25min	F103	0.24	Unit shut down immediately. NC, NB, NT
D103	S-C	240V/60Hz	1S	F103	0	Unit shut down immediately. NC, NB, NT. IP: F103
Q102 (G-S)	S-C	240V/60Hz	25min	F103	4.1	Unit operated normally. NB, NC, NT
Q102 (G-D)	S-C	240V/60Hz	1S	F103	0	Unit shut down immediately. NC, NB, NT. IP: F103, CD: Q102, CR101
Q102 (D-S)	S-C	240V/60Hz	1S	F103	0	Unit shut down immediately. NC, NB, NT. IP: F103, CD: CR101
Q104 (B-C)	S-C	240V/60Hz	25min	F103	0.25	Unit shut down immediately. NC, NB, NT
Q104 (B-E)	S-C	240V/60Hz	25min	F103	4.1	Unit operated normally. NB, NC, NT
Q104 (C-E)	S-C	240V/60Hz	1S	F103	0	Unit shut down immediately. NC, NB, NT. IP: F103, Q101, CR101
Q101 (G-S)	S-C	240V/60Hz	25min	F103	4.1	Unit operated normally. NB, NC, NT
Q101 (G-D)	S-C	240V/60Hz	1S	F103	0	Unit shut down immediately. NC, NB, NT. IP: F103, Q101, CR101
Q101 (D-S)	S-C	240V/60Hz	1S	F103	0	Unit shut down immediately. NC, NB, NT. IP: F103, Q101, CR101
D107	S-C	240V/60Hz	25min	F103	4.1	Unit operated normally. NB, NC, NT

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Clause	Requirement + Test			Result - Remark		Verdict
D110	S-C	240V/60Hz	25min	F103	4.1	Unit operated normally. NB, NC, NT
C109	S-C	240V/60Hz	1S	F103	0	Unit shut down immediately. NC, NB, NT. IP: F103
CR101 (2-4)	S-C	240V/60Hz	1S	F103	0	Unit shut down immediately. NC, NB, NT. IP: F103
CR101 (3-4)	S-C	240V/60Hz	1S	F103	0	Unit shut down immediately. NC, NB, NT. IP: F103
CR102 (2-4)	S-C	240V/60Hz	1S	F103	0	Unit shut down immediately. NC, NB, NT. IP: F103, CD: NTC102
CR102 (3-4)	S-C	240V/60Hz	25min	F103	0	Unit shut down immediately. NC, NB, NT. IP: F103, CD: NTC102
R170	S-C	240V/60Hz	25min	F103	4.1	Unit operated normally. NB, NC, NT
D103	S-C	240V/60Hz	25min	F103	0	Unit shut down immediately. NC, NB, NT. IP: F103
C39 (ballast)	S-C	240V/60Hz	25min	F103	0	Unit shut down immediately. NC, NB, NT. IP: F103, CD: Q19 (ballast)
Transformer Abnormal Operation Test	--	--	--	--	--	--
T101 output pin 7 (after D201)	Overload	240	7.2H	F103	4.06	Max. temperature of T101 core: 50.0 degree C; T101 coil: 48.0 degree C; T102 core: 43.0 degree C; T102 coil: 40.4 degree C; CY107: 34.2 degree C; CY108: 37.9 degree C; U103: 40.9 degree C; U105: 42.4 degree C; U107: 37.8 degree C; Ambient: 22.4 degree C. NC, NB, NT
T102 output pin 8 (after L201)	Overload	240	6.2H	F103	5.17	Max. temperature of T101 core: 50.2 degree C; T101 coil: 50.4 degree C; T102 core: 59.1 degree C; T102 coil: 59.5 degree C; CY107: 39.3 degree C; CY108: 25.4 degree C; U103: 50.9 degree C; U105: 52.0 degree C; U107: 46.9 degree C; Ambient: 22.8 degree C. NC, NB, NT
T102 output pin	Overload	240	5.3H	F103	5.31	Max. temperature of T101 core: 50.8 degree C; T101

IEC 60950-1						
Clause	Requirement + Test				Result - Remark	
14 (after L201B)						coil: 51.5 degree C; T102 core: 56.0 degree C; T102 coil: 56.7 degree C; CY107: 40.4 degree C; CY108: 25.5 degree C; U103: 52.0 degree C; U105: 52.3 degree C; U107: 45.8 degree C; Ambient: 23.2 degree C. NC, NB, NT
Power Supply Output Short-Circuit Overload Test	--	--	--	--	--	--
+5Vsb (T101)	SC	240/60Hz	0.5H	F103	0.24	Unit shut down immediately. NC, NB, NT
+12 V (T102)	SC	240/60Hz	0.5H	F103	0.25	Unit shut down immediately. NC, NB, NT
+16V (T102)	SC	240/60Hz	0.5H	F103	0.24	Unit shut down immediately. NC, NB, NT
+4.2 V	SC	240/60Hz	0.5H	F103	0.24	Unit shut down immediately. NC, NB, NT
4.2V output	Overload	240/60Hz	8.5H	F103	4.63	Max. temperature of T101 core: 37.9 degree C; T101 coil: 38.9 degree C; T102 core: 47.0 degree C; T102 coil: 45.2 degree C; CY107: 35.2 degree C; CY108: 24.0 degree C; U103: 40.1 degree C; U105: 40.1 degree C; U107: 39.8 degree C; Ambient: 21.5 degree C. NC, NB, NT
+6.2V	SC	240/60Hz	0.5H	F103	0.24	Unit shut down immediately. NC, NB, NT
6.2V output	Overload	240/60Hz	7.9H	F103	4.90	Max. temperature of T101 core: 64.7 degree C; T101 coil: 65.2 degree C; T102 core: 67.8 degree C; T102 coil: 64.0 degree C; CY107: 46.6 degree C; CY108: 27.4 degree C; U103: 62.1 degree C; U105: 65.1 degree C; U107: 53.8 degree C; Ambient: 22.9 degree C. NC, NB, NT
Overload	--	240/60Hz	--	--	--	--

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Clause	Requirement + Test	Result - Remark	Verdict

Of Operator Accessible Connector Test						
Lan (1, 2, 3, 5, 6, 7, 8)	Overload	240/60Hz	--	--	--	Voc=0V, B.
USB (1, 2, 3)	Overload	240/60Hz	--	--	--	Voc=0V, B.
USB (4)	Overload	240/60Hz	1H	--	1.3	Voc=5, NB, NC, NT
VGA(Computer 1, 2) (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14)	Overload	240/60Hz	--	--	--	Voc=0V, B.
Computer 1, 2 (12, 15)	Overload	240/60Hz	1H	--	0.015	Voc=4.6, NB, NC, NT
HDMI (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19)	Overload	240/60Hz	--	--	--	Voc=0V, B.
Display port in (18)	Overload	240/60Hz	1H	--	0.045	Voc=3.3, NB, NC, NT
Display port in (1, 3, 4, 6, 7, 9, 10, 12)	Overload	240/60Hz	1H	--	0.015	Voc=0.67, NB, NC, NT
Display port in(2, 5, 8, 11, 13, 14, 15, 16, 17, 19, 20)	Overload	240/60Hz	--	--	--	Voc=0V, B.
Video in (1, 2)	Overload	240/60Hz	--	--	--	Voc=0V, B.
Monitor out (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15)	Overload	240/60Hz	--	--	--	Voc=0V, B.
VGA (Computer 3) (1, 2, 3,	Overload	240/60Hz	--	--	--	Voc=0V, B.

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Clause	Requirement + Test			Result - Remark		Verdict
4, 5)						
S-Video(1,2,3,4)	Overload	240/60Hz	--	--	--	Voc=0V, B.
PC control (1, 2, 4, 5, 6, 7, 8, 9)	Overload	240/60Hz	--	--	--	Voc=0V, B.
PC control (3)	Overload	240/60Hz	1H	--	0.021	Voc=5.5, NB, NC, NT
Remote (2)	Overload	240/60Hz	1H	--	0.23	Voc=4.7, NB, NC, NT
Remote (1,3,4,5)	Overload	240/60Hz	--	--	--	Voc=0V, B.
SDI input (1)	Overload	240/60Hz	--	--	0	Voc=0.06, NB, NC, NT
SDI output(2)	Overload	240/60Hz	--	--	--	Voc=0V, B.
SDI output(1, 2)	Overload	240/60Hz	--	--	--	Voc=0V, B.
supplementary information:						
Results Key: IP = Internal protection operated (component indicated) CT = Constant temperatures were obtained TW = Transformer winding opened CD = Components damaged (damaged components indicated) NB = No indication of dielectric breakdown YB = Dielectric breakdown (time and location indicated) NC = Cheesecloth remained intact YC = Cheesecloth charred or flamed NT = Tissue paper remained intact YT = Tissue paper charred or flamed A = Circuit measures 10 KS or more series impedance B = Circuit measures less than 12.5 mA C = Circuit measures 0 Volts # = The test was repeat 3 times.						

Enclosure

National Differences

Australia*
Austria**
Belgium**
Brazil*
Bulgaria**
China*
Cyprus**
Czech Republic**
Denmark
Estonia**
Finland
France**
Germany
Greece**
Group
Hungary**
Iceland**
Israel*
Italy**
Japan*
Korea
Latvia**
Lithuania**
Luxembourg**
Malta**
Netherlands**
Norway
Poland**
Romania**
Singapore*
Slovakia**
Slovenia**
Spain
Sweden
Switzerland
USA / Canada
Ukraine*
United Kingdom

* No National Differences Declared

** Only Group Differences

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict

Denmark - Differences to IEC 60950-1:2005 (Second Edition)			
1.2.4.1	In Denmark, certain types of Class I appliances (see sub-clause 3.2.1.1) may be provided with plug not establishing earthing continuity when inserted into Danish socket-outlets.		N/A
1.7.5	In Denmark, socket-outlets for providing power to other equipment shall be in accordance with the Heavy Current Regulations, Section 107-2-D1, Standard Sheet DK 1-3a, DK 1-5a or DK 1-7a, when used on Class I equipment. For stationary equipment, the socket-outlet shall be in accordance with Standard Sheet DK 1-1b or DK 1-5a.	No socket-outlet used.	N/A
1.7.5	For CLASS II EQUIPMENT the socket outlet shall be in accordance with Standard Sheet DKA 1-4a. (Heavy Current Regulations, Section 107-2-D1)	Class I equipment.	N/A
3.2.1.1	Supply cord 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. Class I equipment provided with socket-outlets with earth contact 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. 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.		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict

Finland - Differences to IEC 60950-1:2005 (Second Edition)			
1.5.7.1	Resistors bridging BASIC INSULATION in CLASS I PLUGGABLE EQUIPMENT TYPE A must comply with the requirements in 1.5.7.2. In addition when a single resistor is used, the resistor must withstand the resistor test in 1.5.7.2.		N/A
1.5.9.4	The third dashed sentence is applicable only to equipment as defined in 6.1.2.2 of this annex		N/A
1.7.2.1	Class I Pluggable Equipment Type A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet. The marking text shall be: "Laite on liitettävä suojakosketinpistorasiaan"		N/A
5.1.7.1	Touch current measurement results exceeding 3,5 mA r.m.s are permitted only for the following equipment: - Stationary pluggable equipment Type A that: (1) is intended to be used in a Restricted Access Location where equipotential bonding has been applied, for example, in a telecommunication centre; and (2) has provision for a permanently connected protective earthing conductor; and (3) 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	Add the following text between the first and second paragraph of the compliance clause: If this insulation is solid, including insulation forming part of a component, it shall at least consist of either - 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. If this insulation forms part of a semiconductor component (e.g. an optocoupler), there is no distance through insulation requirement for the insulation consisting of an insulating compound completely filling the casing, so that CLEARANCES		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
	and CREEPAGE DISTANCES do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition - 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. It is permitted to bridge this insulation with a capacitor complying with EN 60384-14, subclass Y2. A capacitor classified Y3 according to EN 60384-14, may bridge this insulation under the following conditions: - 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.		
6.1.2.2	The exclusions are applicable for permanently connected equipment and 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.	No TNV circuit in the unit.	N/A
7.2	Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply with the term telecommunication network in 6.1.2 being replaced by the term cable distribution system.		N/A

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SubClause	Difference + Test	Result - Remark	Verdict

Germany - Differences to IEC 60950-1:2005 (Second Edition)			
1.7.2.1	If for the assurance of safety and health certain rules during use, amending or maintenance of a technical labour equipment or readymade consumer product are to be followed, a manual in German language has to be delivered when placing the product on the market. Of this requirement, rules for use even only by SERVICE PERSONS are not exempted.	Only English language reviewed. May be provided in other languages upon request from the manufacturer.	N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict

Group - Differences to IEC 60950-1:2005 (Second Edition)			
1.3.Z1	Exposure to excessive sound pressure - The apparatus shall be so designed and constructed as to present no danger when used for its intended purpose, either in normal operating conditions or under fault conditions, particularly providing protection against exposure to excessive sound pressures from headphones or earphones. NOTE Z1 A new method of measurement is described in EN 50332-1, Sound system equipment: Headphones and earphones associated with portable audio equipment - Maximum sound pressure level measurement methodology and limit considerations - Part 1: General method for "one package equipment", and in EN 50332-2, Sound system equipment: Headphones and earphones associated with portable audio equipment - Maximum sound pressure level measurement methodology and limit considerations - Part 2: Guidelines to associate sets with headphones coming from different manufacturers.		N/A
1.5.1	Add the following NOTE Z1: The use of certain substances in electrical and electronic equipment is restricted within the EU: see Directive 2002/95/EC		N/A
1.7.2.1	Add the following NOTE Z1: In addition, the instructions shall include, as far as applicable, a warning that excessive sound pressure from earphones and headphones can cause hearing loss.		N/A
2.7.1	Replace the subclause as follows: Basic requirements 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): 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; 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; c) it is permitted for pluggable equipment type B or permanently connected equipment, to rely on		Pass

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
	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. 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.		
2.7.2	Void		Pass
3.2.3	Delete the NOTE and conduit sizes in parentheses in Table 3A	Not a permanently connected equipment.	N/A
3.2.5.1	Replace: "60245 IEC 53" by "H05 RR-F" "60227 IEC 52" by "H03 VV-F or H03 VVH2-F" "60227 IEC 53" by "H05 VV-F or H05 VVH2-F" In table 3B, replace the first four lines by the following: 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 In the conditions applicable to table 3B, delete the words "in some countries" in condition a). In Note 1, applicable Table 3B, to delete the second sentence.		Pass
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 by 4" Delete the fifth line: conductor sizes for 13 to 16A.	Appliance Inlet is used.	N/A
4.3.13.6	Add 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. Standards taking into account this Recommendation which demonstrate compliance with the applicable EU Directive are indicated in the OJEC.		N/A
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.		N/A

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SubClause	Difference + Test	Result - Remark	Verdict

	Replace the notes as follows: NOTE - These values appear in Directive 96/29/Euratom. Delete Note 2.		
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Korea - Differences to IEC 60950-1:2005 (Second Edition)			
1.5.101	Plugs for the connection of the apparatus to the mains supply shall comply with the Korean requirement (KSC 8305)		N/A
8	EMC - The apparatus shall comply with the relevant CISPR standards		N/A

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SubClause	Difference + Test	Result - Remark	Verdict

Norway - Differences to IEC 60950-1:2005 (Second Edition)			
1.5.7.1	Resistors bridging BASIC INSULATION in CLASS I PLUGGABLE EQUIPMENT TYPE A must comply with the requirements in 1.5.7.2. In addition when a single resistor is used, the resistor must withstand the resistor test in 1.5.7.2. In addition, when a single resistor is used, the resistor must withstand the resistor test in 1.5.7.2.		N/A
1.5.8	Due to the IT power system used (see annex V, figure V.7), capacitors are required to be rated for the applicable line-to-line voltage (230 V).		N/A
1.5.9.4	The third dashed sentence is applicable only to equipment as defined by 6.1.2.2 of this annex		N/A
1.7.2.1	Class I Pluggable Equipment Type A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet. The marking text shall be: "Apparatet må tilkoples jordet stikkontakt"		N/A
1.7.2.1	In Norway, 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. 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. The user manual shall then have the following or similar information in Norwegian language: "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)." NOTE: In Norway, due to regulation for installations		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
	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. Translation to Norwegian (the Swedish text will also be accepted in Norway): "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."		
2.2.4	Requirements according to this annex, 1.7.2.1, 6.1.2.1 and 6.1.2.2 apply.		N/A
2.3.2	Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply.		N/A
2.3.4	Requirements according to this annex, 1.7.2.1, 6.1.2.1 and 6.1.2.2 apply.		N/A
2.10.5.13	Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply.		N/A
5.1.7.1	Touch current measurement results exceeding 3,5 mA r.m.s are permitted only for the following equipment: - Stationary pluggable equipment Type A that: (1) Is intended to be used in a Restricted Access Location where equipotential bonding has been applied, for example, in a telecommunication centre; and (2) Has provision for a permanently connected protective earthing conductor; and (3) 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	Add the following text between the first and second paragraph of the compliance clause: If this insulation is solid, including insulation forming part of a component, it shall at least consist of either - 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.		N/A

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SubClause	Difference + Test	Result - Remark	Verdict
	If this insulation forms part of a semiconductor component (e.g. an optocoupler), there is no distance through insulation requirement for the insulation consisting of an insulating compound completely filling the casing, so that CLEARANCES and CREEPAGE DISTANCES do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition - 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. It is permitted to bridge this insulation with a capacitor complying with EN 60384-14, subclass Y2. A capacitor classified Y3 according to EN 60384-14, may bridge this insulation under the following conditions: - 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.		
6.1.2.2	The exclusions are applicable for permanently connected equipment and 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.		N/A
7.2	For requirements, see 6.1.2.1 and 6.1.2.2 of this annex. The term telecommunication network in 6.1.2 is replaced by the term cable distribution system.		N/A

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SubClause	Difference + Test	Result - Remark	Verdict
7.3	Refer to EN 60728-11:2005 for installation conditions. Also, there are many buildings where the screen of the coaxial cable is normally not connected to the earth in the building installation.		N/A

Spain - Differences to IEC 60950-1:2005 (Second Edition)			
3.2.1.1	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. 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. 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. If poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with UNE-EN 60309-2.		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict

Sweden - Differences to IEC 60950-1:2005 (Second Edition)			
1.5.1	(Ordinance (1990:944)) Add NOTE: Switches containing mercury are not permitted.		N/A
1.5.7.1	Resistors bridging BASIC INSULATION in CLASS I PLUGGABLE EQUIPMENT TYPE A must comply with the requirements in 1.5.7.2. In addition when a single resistor is used, the resistor must withstand the resistor test in 1.5.7.2.		N/A
1.5.9.4	The third dashed sentence is applicable only to equipment as defined in 6.1.2.2 of this annex		N/A
1.7.2.1	Class I Pluggable Equipment Type A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet. The marking text shall be: "Apparaten skall anslutas till jordat uttag"		N/A
1.7.2.1	In 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. 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. The user manual shall then have the following or similar information in Swedish language: "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)." 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		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
	dielectric strength of 1,5 kV r.m.s., 50 Hz or 60 Hz, for 1 min. Translation to Swedish: "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."		
2.3.2	Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply.		N/A
2.10.5.13	Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply.		N/A
5.1.7.1	Touch current measurement results exceeding 3,5 mA r.m.s are permitted only for the following equipment: - Stationary pluggable equipment Type A that: (1) Is intended to be used in a Restricted Access Location where equipotential bonding has been applied, for example, in a telecommunication centre; and (2) Has provision for a permanently connected protective earthing conductor; and (3) 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	Add the following text between the first and second paragraph of the compliance clause: If this insulation is solid, including insulation forming part of a component, it shall at least consist of either - 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. If this insulation forms part of a semiconductor component (e.g. an optocoupler), there is no distance through insulation requirement for the insulation consisting of an insulating compound completely filling the casing, so that CLEARANCES and CREEPAGE DISTANCES do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition - passes the tests and inspection criteria of 2.10.11		N/A

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SubClause	Difference + Test	Result - Remark	Verdict
	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. It is permitted to bridge this insulation with a capacitor complying with EN 60384-14, subclass Y2. A capacitor classified Y3 according to EN 60384-14, may bridge this insulation under the following conditions: - 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."		
6.1.2.2	The exclusions are applicable for permanently connected equipment and 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.		N/A
7.2	Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply with the term telecommunication network in 6.1.2 is replaced by the term cable distribution system.		N/A
7.3	There are many buildings where the screen of the coaxial cable is not normally connected to the earth in the building installation		N/A

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SubClause	Difference + Test	Result - Remark	Verdict

Switzerland - Differences to IEC 60950-1:2005 (Second Edition)			
1.5.1	Ordinance on environmentally hazardous substances SR 814.081, Annex 1.7, Mercury - Annex 1.7 of SR 814.81 applies for mercury. Switches containing mercury such as thermostats, relays and level controllers are not allowed.		N/A
1.7.13	Ordinance on chemical hazardous risk reduction SR 814.81, Annex 2.15, Batteries - Annex 2.15 of SR 814.81 applies for batteries containing cadmium and mercury.		N/A
3.2	Supply cords of portable electrical appliances having a rated current not exceeding 10 A shall be provided with a plug complying with IEC 60884-1 (3rd Ed.) + Amd. 1, SEV 1011 and one of the following dimension sheets: - SEV 6533-2:2009, Plug type 11, L+N, 250 V, 10 A - SEV 6534-2:2009, Plug type 12, L+N+PE, 250 V, 10 A - SEV 6532-2:2009, Plug type 15, 3P+N+PE, 250/400 V, 10 A Supply cords of portable electrical appliances having a rated current not exceeding 16 A shall be provided with a plug complying with IEC 60884-1 (3rd Ed.) + Amd. 1, SEV 1011 and one of the following dimension sheets: - SEV 5933-2:2009, Plug type 21, L+N, 250 V, 16 A - SEV 5934-2:2009, Plug type 23, L+N+PE, 250 V, 16 A - SEV 5932-2:2009, Plug type 25, 3P+N+PE, 230/400 V, 16 A NOTE: 16 A plugs are not often used in Swiss domestic installation systems.		N/A

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SubClause	Difference + Test	Result - Remark	Verdict

USA / Canada - Differences to IEC 60950-1:2005 (Second Edition)			
1.1	Equipment able to be installed in accordance with the National Electrical Code ANSI/NFPA 70 and the Canadian Electrical Code, Part1, and when applicable, the National Electrical Safety Code, IEEE C2.		Pass
1.1.1	Equipment able to be installed in accordance with ANSI/NFPA 75 and NEC Art. 645 unless intended for use outside of computer room and provided with such instructions.		Pass
1.1.2	Equipment in wire-line communication facilities serving high-voltage electric power stations operating at greater than 1kV are excluded.		N/A
1.1.2	Special requirements apply to equipment intended for use outdoors.		N/A
1.4.14	For Pluggable Equipment Type A, the protection in the installation is assumed to be 20 A.		N/A
1.5.1	All IEC standards for components identified in Annex P.1 replaced by the relevant requirements of CSA and UL component standards in Annex P.1.		Pass
1.5.1	All IEC standards for components identified in Annex P.2 alternatively satisfied by the relevant requirements of CSA and UL component standards in Annex P.2.		Pass
1.5.5	Interconnecting cables acceptable for the application regarding voltage, current, temperature, flammability, mechanical serviceability and the like.	INTERCONNECTING CABLES used complied with the relevant requirements of this standard.	Pass
1.5.5	For other than limited power and TNV circuits, the type of output circuit identified for output connector.		N/A
1.5.5	External cable assemblies that exceed 3.05 m in length to be types specified in the NEC and CEC.		N/A
1.5.5	Detachable external interconnecting cables 3.05 m or less in length and provided with equipment marked to identify the responsible organization and the designation for the cable.		N/A
1.5.5	Building wiring and cable for use in ducts, plenums and other air handling space subject to special requirements and excluded from scope.		N/A
1.5.5	Telephone line and extension cords and the like comply with UL 1863 and CSA C22.2 No. 233.		N/A
1.6.1.2	Equipment intended for connection to a d.c. power (mains) distribution system is subject to special		N/A

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SubClause	Difference + Test	Result - Remark	Verdict
	circuit classification requirements (e.g., TNV-2)		
1.6.1.2	Earthing of d.c. powered equipment provided.		N/A
1.7	Lamp replacement information indicated on lampholder in operator access area.	Marking is provided.	N/A
1.7.1	Special marking format for equipment intended for use on a supply system with an earthed neutral and more than one phase conductor.		N/A
1.7.1	Equipment voltage rating not higher than rating of the plug except under special conditions.		N/A
1.7.6	Special fuse replacement marking for operator accessible fuses.		N/A
1.7.7	Identification of terminal connection of the equipment earthing conductor.		N/A
1.7.7	Connectors and field wiring terminals for external Class 2 or Class 3 circuits provided with marking indicating minimum Class of wiring to be used.		N/A
1.7.7	Marking located adjacent to terminals and visible during wiring.		N/A
2.1.1.1	Bare TNV conductive parts in the interior of equipment normally protected against contact by a cover intended for occasional removal are exempt provided instructions include directions for disconnection of TNV prior to removal of the cover.		N/A
2.3.1.b	Other telecommunication signaling systems (e.g., message waiting) than described in 2.3.1(b) are subject to M.4.		N/A
2.3.1.b	For TNV-2 and TNV-3 circuits with other than ringing signals and with voltages exceeding 42.4 Vp or 60 V d.c., the maximum current limit through a 2000 Ohm or greater resistor with loads disconnected is 7.1 mA peak or 30 mA d.c. under normal conditions.		N/A
2.3.1.b	Limits for measurements across 5000 ohm resistor in the event of a single fault are replaced after 200 ms with the limits of M.3.1.4.		N/A
2.3.2.1	In the event of a single fault, the limits of 2.2.3 apply to SELV circuits and accessible conductive parts.		N/A
2.3.2.4	Enamel coating on signal transformer winding wire allowed as an alternative to Basic insulation in specific telecommunication applications when subjected to special construction requirements and routine testing.		N/A

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SubClause	Difference + Test	Result - Remark	Verdict
2.5	Overcurrent protection device required for Class 2 and Class 3 limiting in accordance with the NEC, or for a Limited Power Source, not interchangeable with devices of higher ratings if operator replaceable.		N/A
2.6	Equipment having receptacles for output a.c. power connectors generated from an internal separately derived source have the earthed (grounded) circuit conductor suitably bonded to earth.		N/A
2.6.3.3	For Pluggable Equipment Type A, if a) b) or c) are not applicable, the current rating of the circuit is taken as 20 A		N/A
2.6.3.4	Capacity of connection between earthing terminal and parts required to be earthed subject to special conditions based on the current rating of the circuit.	40 A and 2 minutes used as the testing condition.	Pass
2.6.3.4	Protective bonding conductors and their terminals of non-standard constructions (e.g. PWB traces) evaluated to limited short-circuit test of CSA C22.2 No.0.4.		N/A
2.6.4.1	Field wiring terminals for earthing conductors suitable for wire sizes (gauge) used in US and Canada.		N/A
2.7.1	Data for selection of special external branch circuit overcurrent devices marked on the equipment.		N/A
2.7.1	Standard supply outlets protected by overcurrent device in accordance with the NEC, and CEC, Part 1.		N/A
2.7.1	Overcurrent protection for individual transformers that distribute power to other units over branch circuit wiring.		N/A
2.7.1	Additional requirements for overcurrent protection apply to equipment provided with panelboards.		N/A
2.7.1	Non-motor-operated equipment requiring special overcurrent protective device marked with device rating.		N/A
2.10.5.12	Multi-layer winding wire subject to UL component wire requirements in addition to 2.10.5.12 and Annex U.		Pass
3.1.1	Permissible combinations of internal wiring/external cable sizes for overcurrent and short circuit protection.		N/A
3.1.1	All interconnecting cables protected against overcurrent and short circuit.	INTERCONNECTING CABLES does possess	Pass

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
		adequate cross-sectional areas for their intended application.	
3.2	Wiring methods permit connection of equipment to primary power supply in accordance with the NEC and CEC, Part 1.	Fulfilled	Pass
3.2.1	Permitted use for flexible cords and plugs.		Pass
3.2.1	Flexible cords provided with attachment plug rated 125% of equipment current rating.	Power supply cords have attachment plugs rated not less than 125% of the rated current of the equipment.	Pass
3.2.1	Any Class II equipment provided with 15 or 20 A standard supply outlets, Edison-base lampholders or single pole disconnect device provided with a polarized type attachment plug.		N/A
3.2.1.2	Equipment intended for connection to DC mains supply power systems complies with special wiring requirements (e.g., no permanent connection to supply by flexible cord).		N/A
3.2.1.2	Equipment with one pole of the DC mains supply connected to both the equipment mains input terminal and the main protective earthing terminal provided with special instructions and construction provisions for earthing		N/A
3.2.1.2	Equipment with means for connecting supply to earthing electrode conductor has no switches or protective devices between supply connection and earthing electrode connection.		N/A
3.2.1.2	Special markings and instructions for equipment with provisions to connect earthed conductor of a DC supply circuit to earthing conductor at the equipment.		N/A
3.2.1.2	Special markings and instructions for equipment with earthed conductor of a DC supply circuit connected to the earthing conductor at the equipment.		N/A
3.2.1.2	Terminals and leads provided for permanent connection of DC powered equipment to supply marked to indicate polarity if reverse polarity may result in a hazard.		N/A
3.2.3	Permanently connected equipment has provision for connecting and securing a field wiring system (i.e. conduit, or leads etc.) per the NEC and CEC, Part 1.		N/A

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SubClause	Difference + Test	Result - Remark	Verdict
3.2.3	Permanently connected equipment may have terminals or leads not smaller than No. 18 AWG (0.82 mm ²) and not less than 150 mm in length for connection of field installed wiring.		N/A
3.2.3	If supply wires exceed 60 °C, marking indicates use of 75 °C or 90 °C wiring for supply connection as appropriate.		N/A
3.2.3	Equipment compatible with suitable trade sizes of conduits and cables.		N/A
3.2.5	Length of power supply cord limited to between 1.5 and 4.5 m unless shorter length used when intended for a special installation.		Pass
3.2.5	Conductors in power supply cords sized according to NEC and CEC, Part I.		Pass
3.2.5	Power supply cords and cord sets incorporate flexible cords suitable for the particular application.		N/A
3.2.6	Strain relief provided for non-detachable interconnecting cables not supplied by a limited power source.		N/A
3.2.9	Adequate wire bending space and volume of field wiring compartment required to properly make the field connections.		N/A
3.2.9	Equipment intended solely for installation in Restricted Access Locations using low voltage d.c. systems may not need provision for connecting and securing a field wiring system. A method of securing wiring or instructions provided to ensure the wiring is protected from abuse.		N/A
3.3	Field wiring terminals provided for interconnection of units for other than LPS or Class 2 circuits also comply with 3.3.		N/A
3.3	Interconnection of units by LPS or Class 2 conductors may have field wiring connectors other than those specified in 3.3 if wiring is reliably separated.		N/A
3.3.1	Terminals for the connection of neutral conductor identified by a distinctive white marking or other equally effective means.		N/A
3.3.3	Wire binding screw terminal permitted for connection of No. 10 AWG (5.3 mm ²) or smaller conductor if provided with upturned lugs, cupped washer or equivalent retention.		N/A
3.3.4	Terminals accept wire sizes (gauge) used in the		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
	U.S. and Canada.		
3.3.4	Terminals accept current-carrying conductors rated 125% of the equipment current rating.		N/A
3.3.6	Field wiring terminals marked to indicate the material(s) of the conductor appropriate for the terminals used.		N/A
3.3.6	Connection of an aluminum conductor not permitted to terminal for equipment earthing conductor.		N/A
3.3.6	Field wiring connections made through the use of suitable pressure connectors (including set screw type), solder lugs or splices to flexible leads.		N/A
3.4.2	Separate motor control device(s) required for cord-connected equipment rated more than 12 A, or with motor rated more than 1/3 hp or more than 120 V.		N/A
3.4.8	Vertically mounted disconnect devices oriented so up position of handle is "on".		N/A
3.4.11	For computer-room applications, equipment with battery systems capable of supplying 750 VA for 5 min require battery disconnect means.		N/A
4.2.8.1	Special opening restrictions for enclosures around CRTs with face dimension of 160 mm or more.		N/A
4.2.9	Compartment housing high-pressure lamp marked to indicate risk of explosion.		Pass
4.2.11	For equipment intended for mounting on racks and provided with slide/rails allowing the equipment to slide away from the rack for installation, service and maintenance, additional construction, performance and marking requirements are applicable to determine the adequacy of the slide/rails.		N/A
4.3.2	Loading test for equipment with handle(s) used to support more than 9 kg tested at four times the weight of the unit.		Pass
4.3.6	In addition to the IEC requirements, Direct Plug-in Equipment complies with UL 1310 or CSA 223 mechanical assembly requirements.		N/A
4.3.12	The maximum quantity of flammable liquid stored in equipment complies with ANSI/NFPA 30(Table NAE.6).		N/A
4.3.12	Equipment using replenishable liquids marked to indicate type of liquid to be used.		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
4.3.13.2	Equipment that produces x-radiation and does not comply with 4.3.12 under all conditions of servicing marked to indicate the presence of radiation where readily visible.		N/A
4.3.13.5	Requirements contained in the applicable national codes and regulations apply to lasers (21 CFR 1040 and REDR C1370).		N/A
4.7	Automated information storage equipment intended to contain more than 0.76 m ³ of combustible media requires provision for automatic sprinklers or a gaseous agent extinguishing system.		N/A
4.7.3.1	Equipment for use in environmental air space other than ducts or plenums provided with metal enclosure or with non-metallic enclosure having adequate fire-resistance and low smoke producing characteristics. Low smoke-producing characteristics evaluated according to UL 2043. Equipment for installation in space used for environmental air as described in Sec. 300-22(c) of the NEC provided with instructions indicating suitability for installation in such locations.		N/A
4.7.3.1	Flame spread rating for external surface of combustible material with exposed area greater than 0.93 m ² or a single dimension greater than 1.8 m; 50 or less for computer room applications or 200 or less for other applications.		N/A
4.7.3.4	Wire marked "VW-1" or "FT-1" considered equivalent.	Internal wiring is UL Recognized, rated VW-1 or FT-1 and strapped by individual cable ties (where needed).	Pass
5.1.8.2	Special earthing provisions and instructions for equipment with high touch current due to telecommunication network connections.		N/A
5.1.8.3	Touch current due to ringing voltage for equipment containing telecommunication network leads.		N/A
5.3.7	Overloading of SELV connectors and printed wiring board receptacles accessible to the operator.		Pass
5.3.7	Tests interrupted by opening of a component repeated two additional times.		N/A
5.3.9.1	Test interrupted by opening of wire or trace subject to certain conditions.		N/A
6	Specialized instructions provided for telephones that may be connected to a telecommunications		N/A

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SubClause	Difference + Test	Result - Remark	Verdict

	network.		
6	Marking identifying function of telecommunication type connectors not used for connection to a telecommunication network.		N/A
6.3	Equipment remotely powered over telecommunication wiring systems provided with specialized markings adjacent to the connection.		N/A
6.3	Overcurrent protection incorporated into equipment to provide power over telecommunication wiring system not interchangeable with devices of higher ratings if operator replaceable.		N/A
6.4	Additional requirements for equipment intended for connection to a telecommunication network using cable subject to overvoltage from power line failures (Fig. 6C).		N/A
6.4	Where 26 AWG line cord required by Fig. 6C, either the cord is provided with the equipment or described in the safety instructions.		N/A
7	Equipment associated with the cable distribution system may need to be subjected to applicable parts of Chapter 8 of the NEC.		N/A
H	Ionizing radiation measurements made under single fault conditions in accordance with the requirements of the Code of Federal Regulations 21 CFR 1020 and the Canadian Radiation Emitting Devices Act, REDR C1370.		N/A
M.2	Continuous ringing signals evaluated to Method A subjected to special accessibility considerations.		N/A
M.4	Special requirements for message waiting and similar telecommunications signals.		N/A
NAC	Equipment intended for use with a generic secondary protector marked with suitable instructions.		N/A
NAC	Equipment intended for use with a specific primary or secondary protector marked with suitable instructions.		N/A
NAD	Acoustic pressure from an ear piece less than 136 dBA for short duration disturbances, and less than 125 dBA for handsets, 118 dBA for headsets, and 121 dBA for insert earphones, for long duration disturbances.		N/A
NAD	Equipment connected to a telecommunication and cable distribution networks and supplied with an		N/A

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SubClause	Difference + Test	Result - Remark	Verdict

	earphone intended to be held against, or in the ear is required to comply with special acoustic pressure requirements.		
NAF	Household/Home Office Document Shredders		N/A
NAF.1.7	Markings and instructions alert the user to key safety considerations related to use of shredders, including not intended to be used by children, avoid touching document feed opening, avoid clothes and hair entanglement, and avoid aerosol products.		N/A
NAF.2.8.3	Safety interlock cannot be inadvertently activated by the articulated accessibility probe (figure NAF.1).		N/A
NAF.3.4	Provided with an isolating switch complying with 3.4.2, including 3 mm contact gap, with appropriate markings associated with the switch.		N/A
NAF.4.4	Hazardous moving parts are not accessible, as determined using the articulated accessibility probe (figure NAF.1) and the accessibility probe/wedge (figures NAF.2/NAF.3).		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict

United Kingdom - Differences to IEC 60950-1:2005 (Second Edition)			
2.6.3.3	The current rating of the circuit shall be taken as 13 A, not 16 A.		N/A
2.7.1	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
3.2.1.1	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. NOTE: 'Standard plug' is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.	Power supply cord suitable for application and subject to country's national code and regulations to be provided by the manufacturer.	N/A
3.2.5.1	A power supply cord with conductor of 1.25 mm ² is allowed for equipment with a rated current over 10A and up to and including 13A.		N/A
3.3.4	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	The torque test is performed using a socket outlet complying with BS 1363 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, 12.16 and 12.17, except that the test of 12.17 is performed at not less than 125°C.	Not a Direct Plug-In device.	N/A

Enclosures

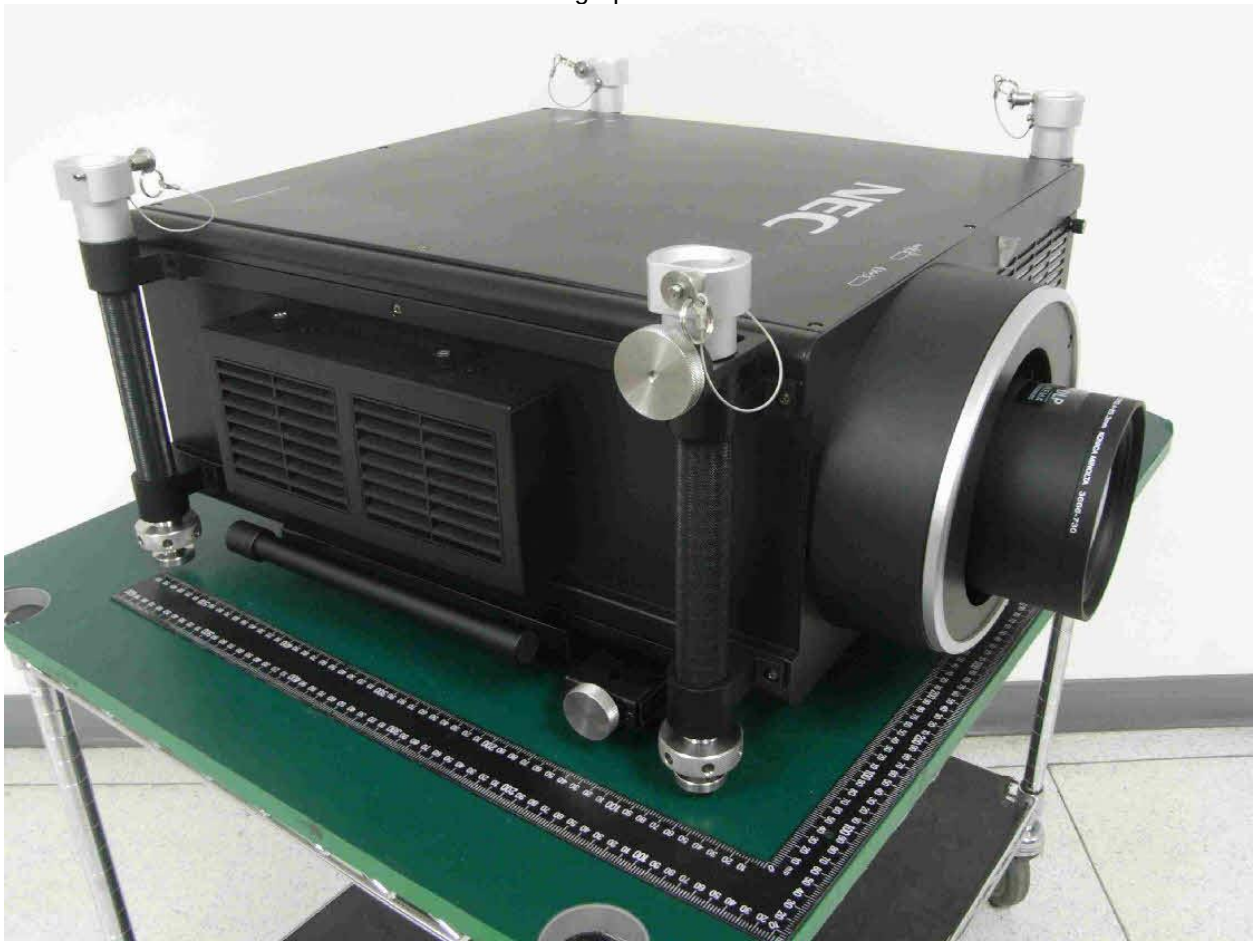
Enclosures

<u>Type</u>	<u>Supplement Id</u>	<u>Description</u>
Photographs	3-01	External View - 1 of 4
Photographs	3-02	External View - 2 of 4
Photographs	3-03	External View - 3 of 4
Photographs	3-04	External View - 4 of 4
Photographs	3-05	Internal View - 1 of 15
Photographs	3-06	Internal View - 2 of 15
Photographs	3-07	Internal View - 3 of 15
Photographs	3-08	Internal View - 4 of 15
Photographs	3-09	Internal View - 5 of 15
Photographs	3-10	Internal View - 6 of 15
Photographs	3-11	Internal View - 7 of 15
Photographs	3-12	Internal View - 8 of 15
Photographs	3-13	Internal View - 9 of 15
Photographs	3-14	Internal View - 10 of 15
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Photographs	3-16	Internal View - 12 of 15
Photographs	3-17	Internal View - 13 of 15
Photographs	3-18	Internal View - 14 of 15
Photographs	3-19	Internal View - 15 of 15
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Diagrams	4-02	Transformer T101
Diagrams	4-03	Transformer T102
Diagrams	4-04	Inductor (FL101, FL102, FL103)
Diagrams	4-05	Inductor (L101)
Diagrams	4-06	Heatsink (HS101, HS102, HS202)
Diagrams	4-07	Heatsink (HS103)
Diagrams	4-08	Heatsink (On the top side of HS101 and HS102)
Diagrams	4-09	Insulator between Power and Bottom Enclosure
Schematics + PWB	5-01	Power Board Layout
Schematics + PWB	5-02	EMI Filter Board Layout
Manuals	6-01	Manual
Miscellaneous	7-01	Test Form Tables

Enclosures

Miscellaneous	7-02	Manufacturer Declaration Letter
Miscellaneous	7-03	J3000(H21)
Miscellaneous	7-04	Japan National Deviation
Miscellaneous	7-05	WMP list of test equipment
Miscellaneous	7-07	EN National Deviation
Licenses		
Marking Plate		

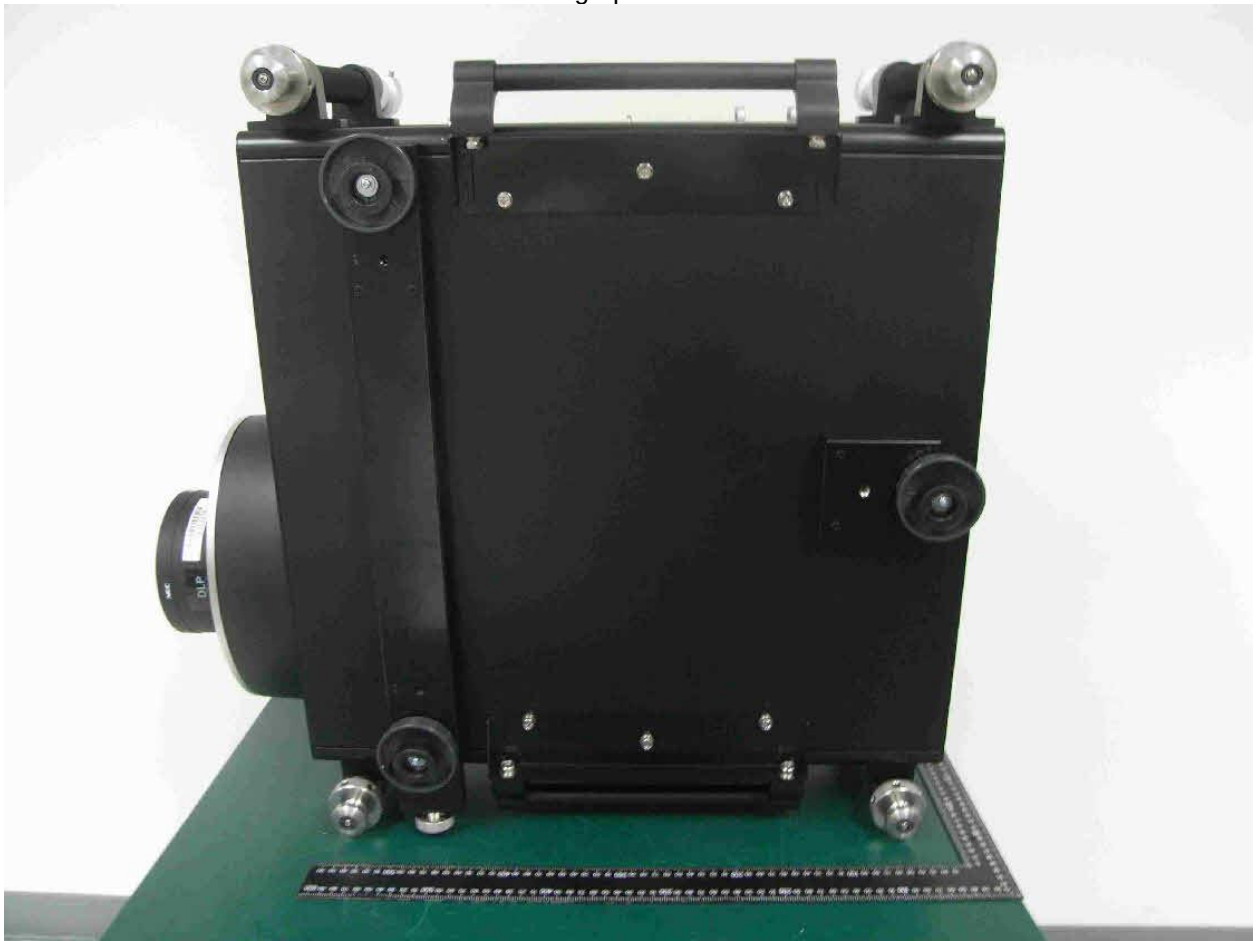
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Photographs ID 3-02



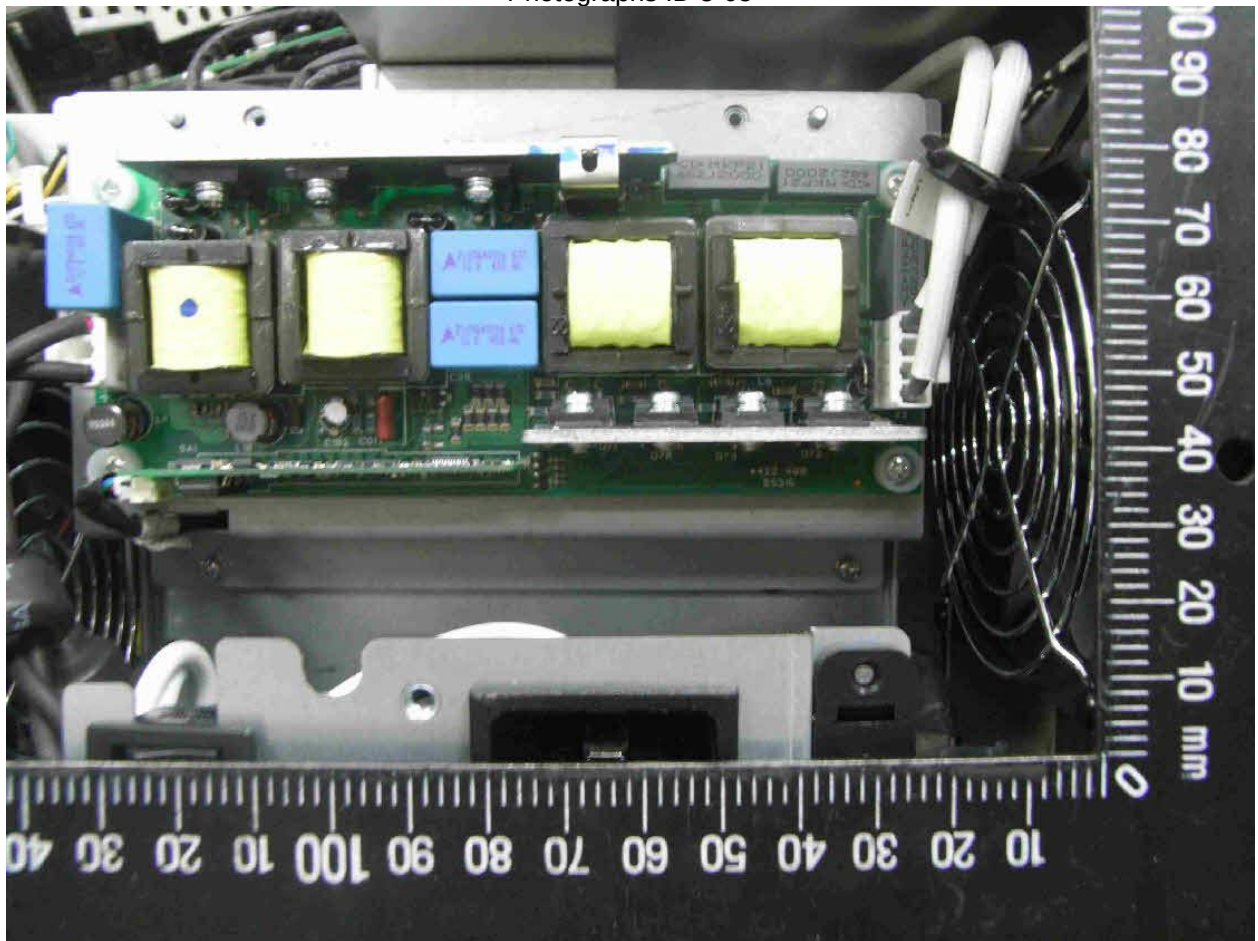
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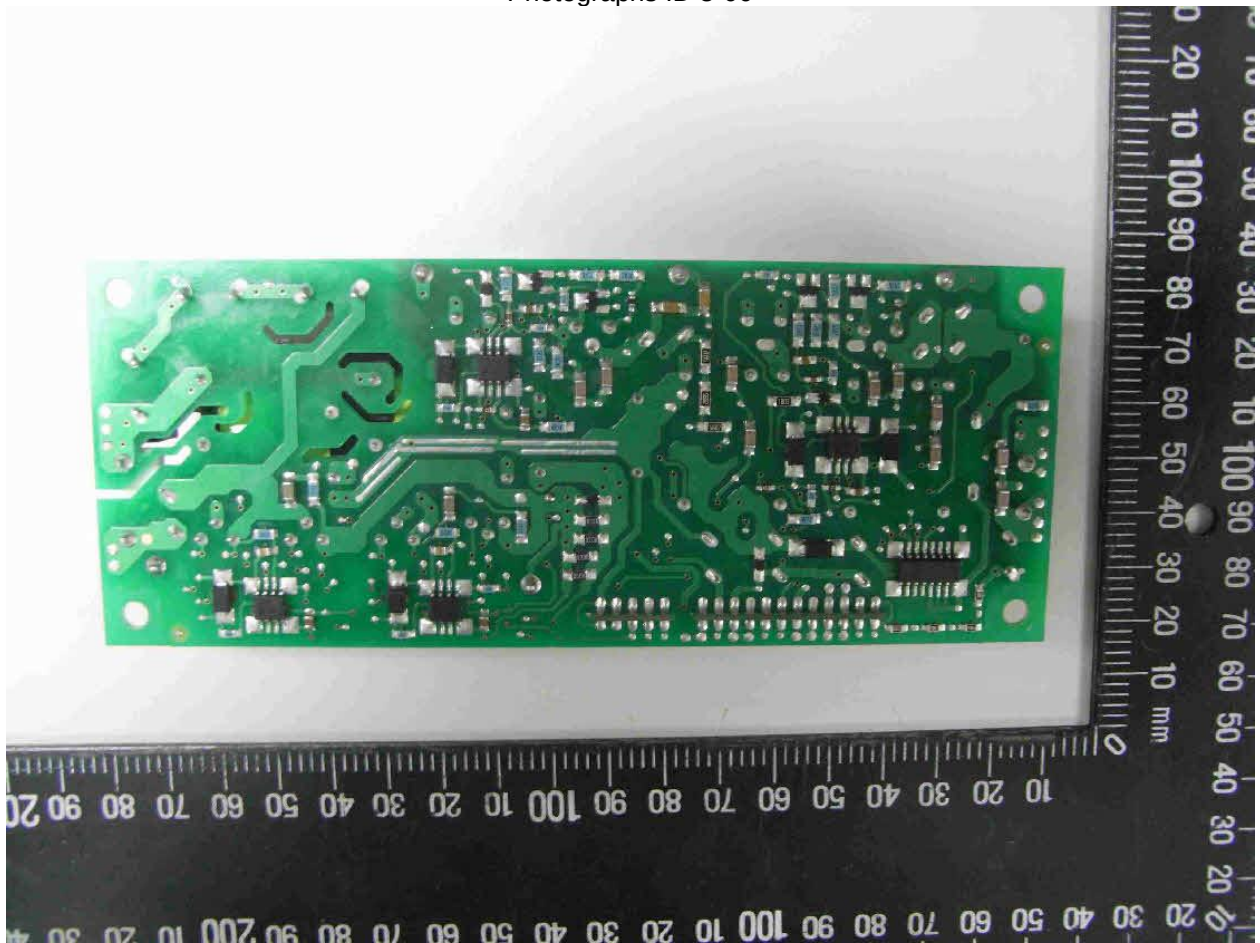
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Photographs ID 3-05



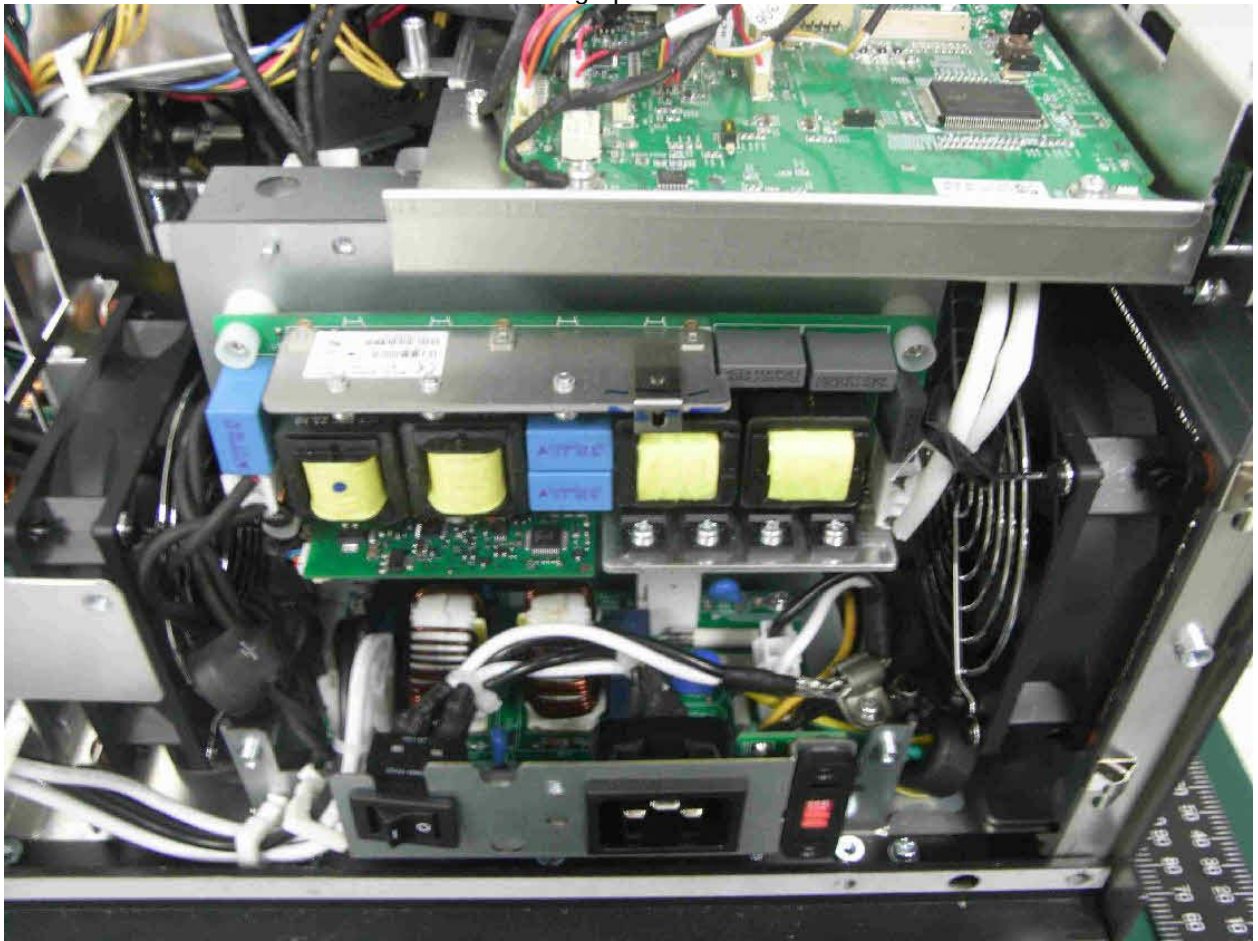
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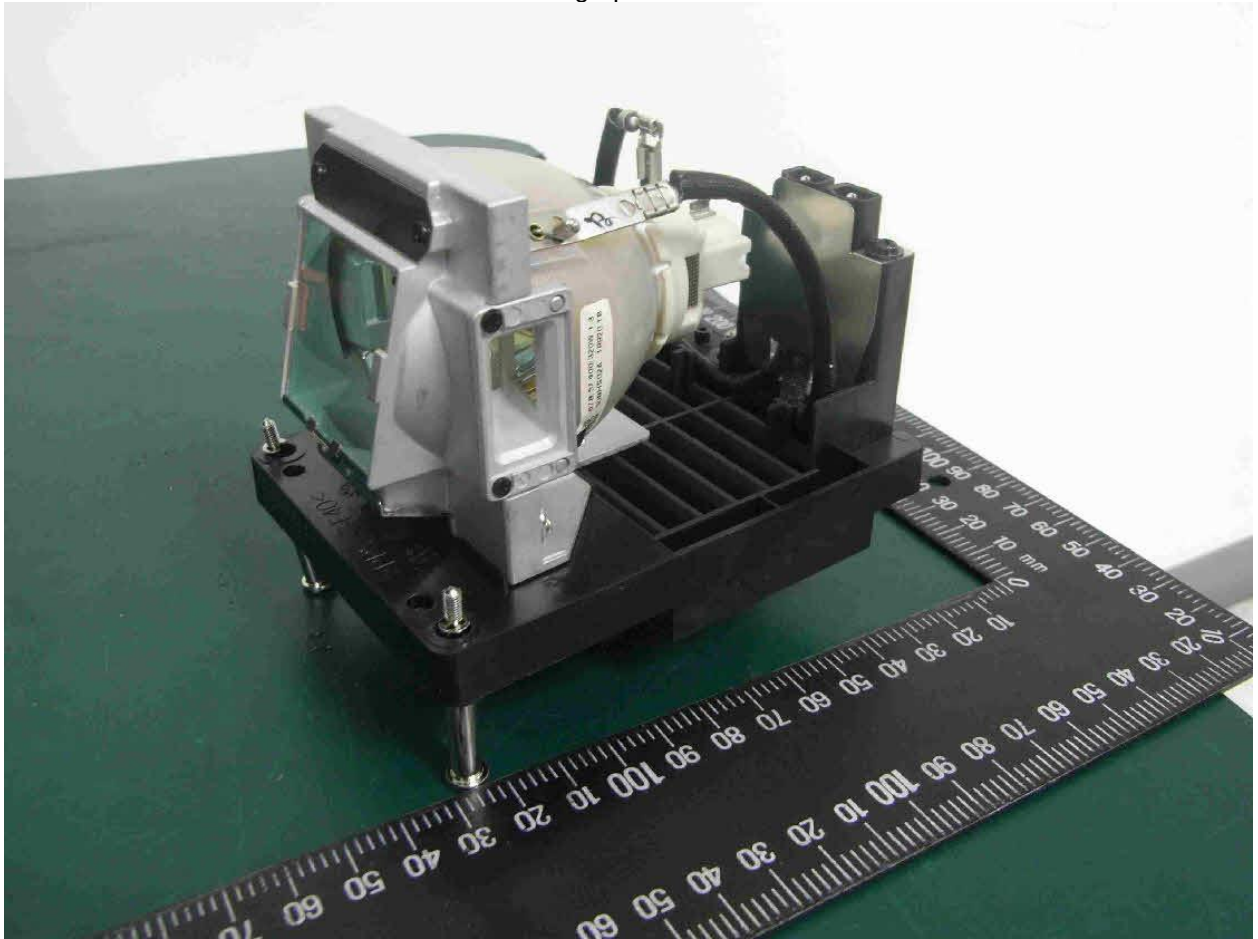
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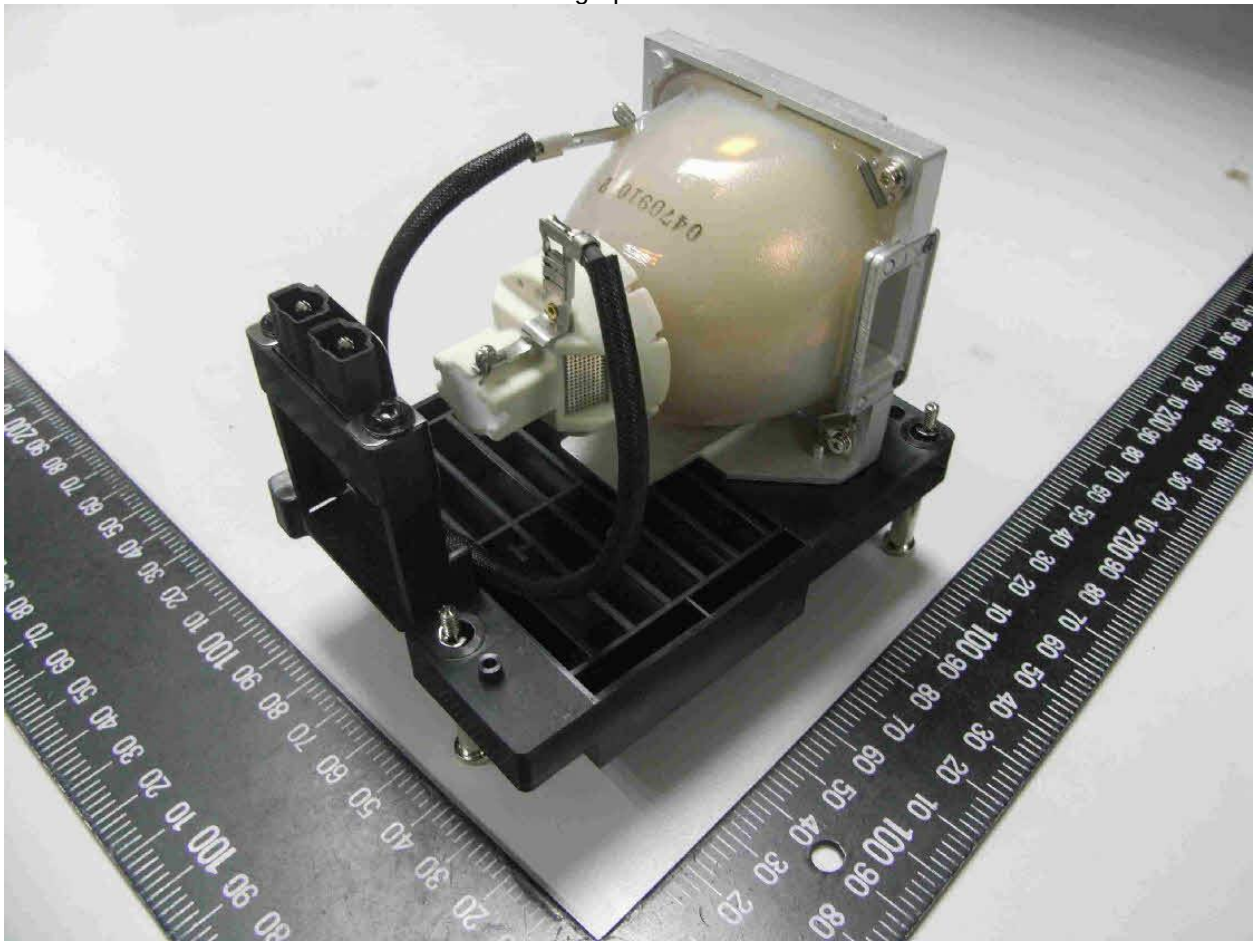
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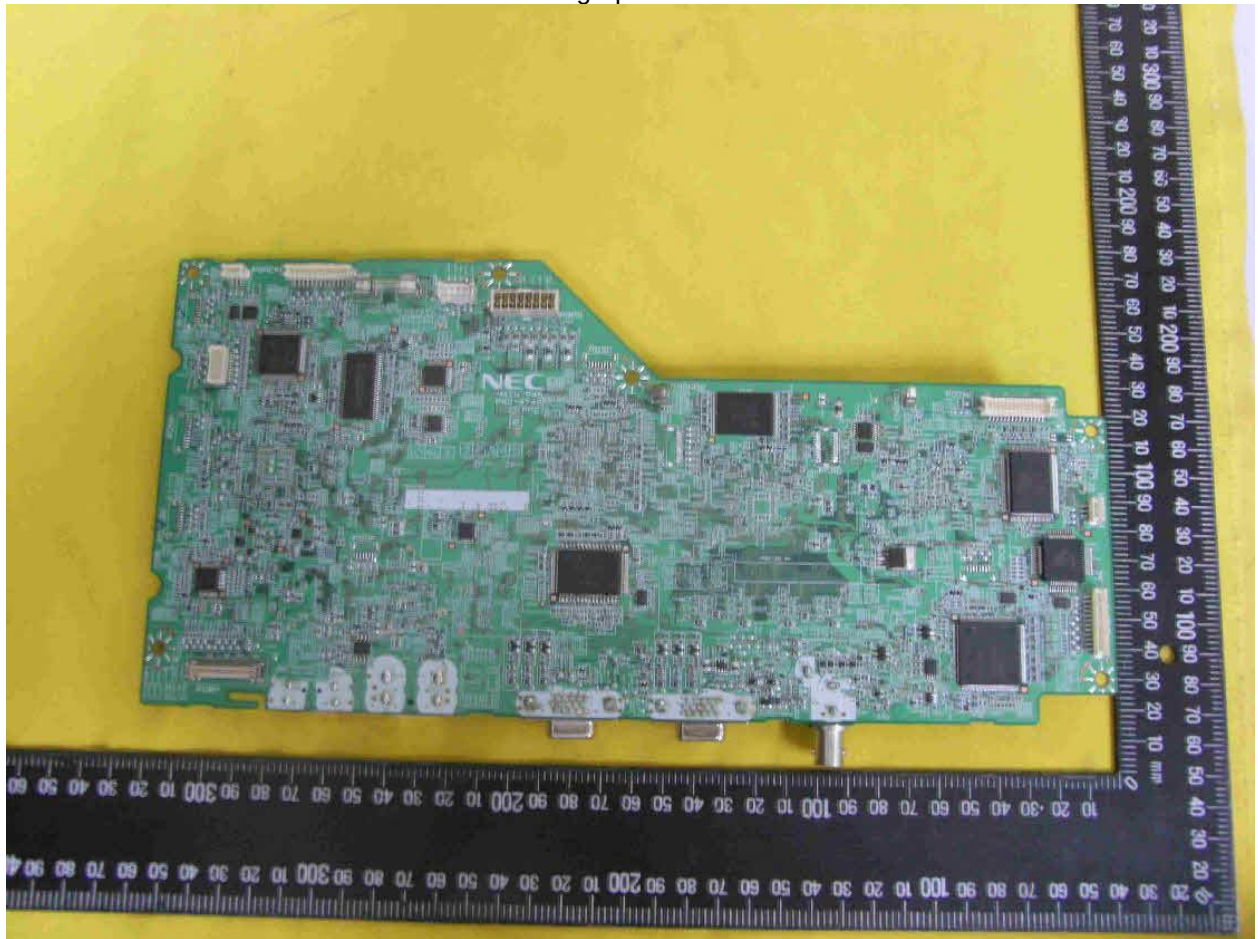
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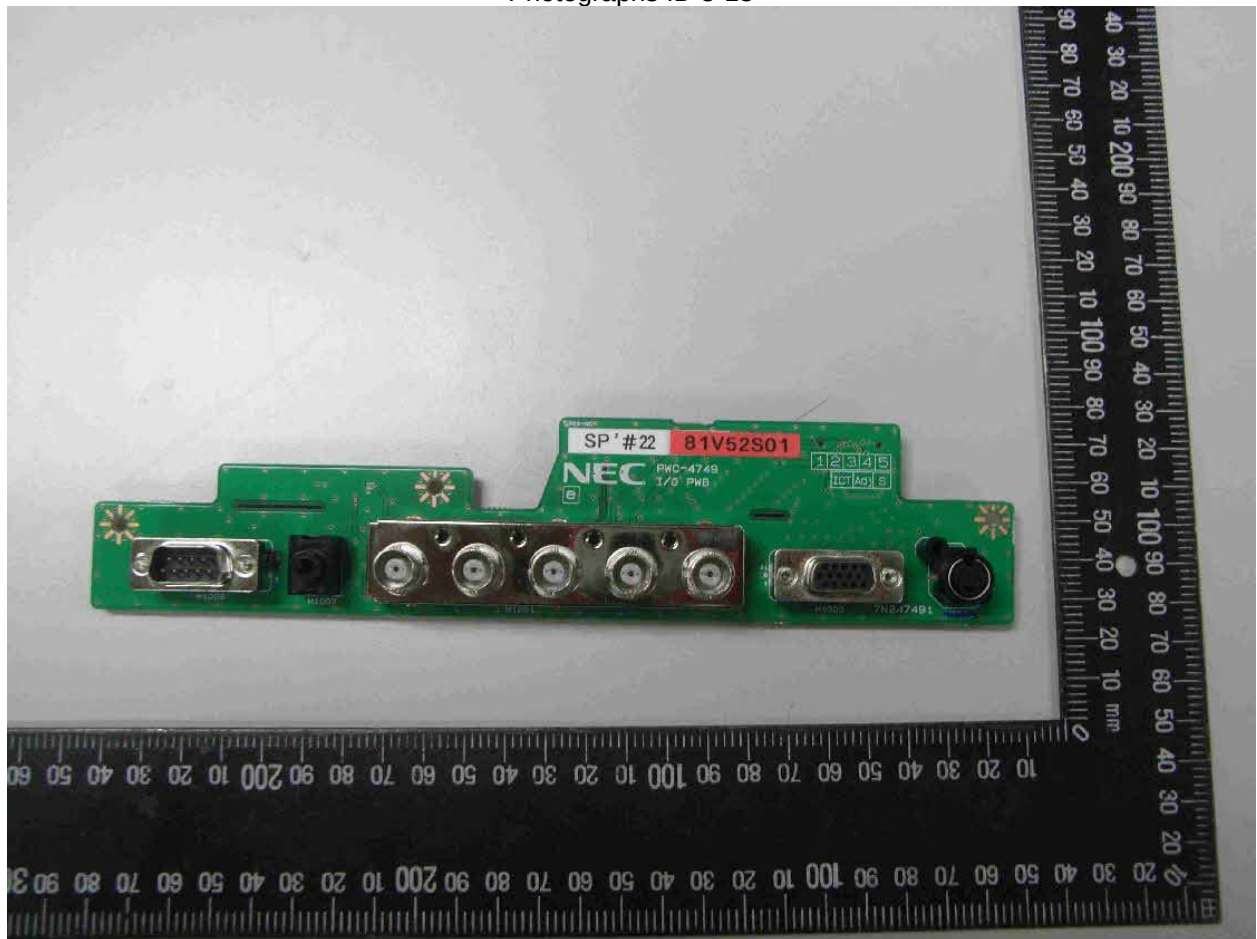
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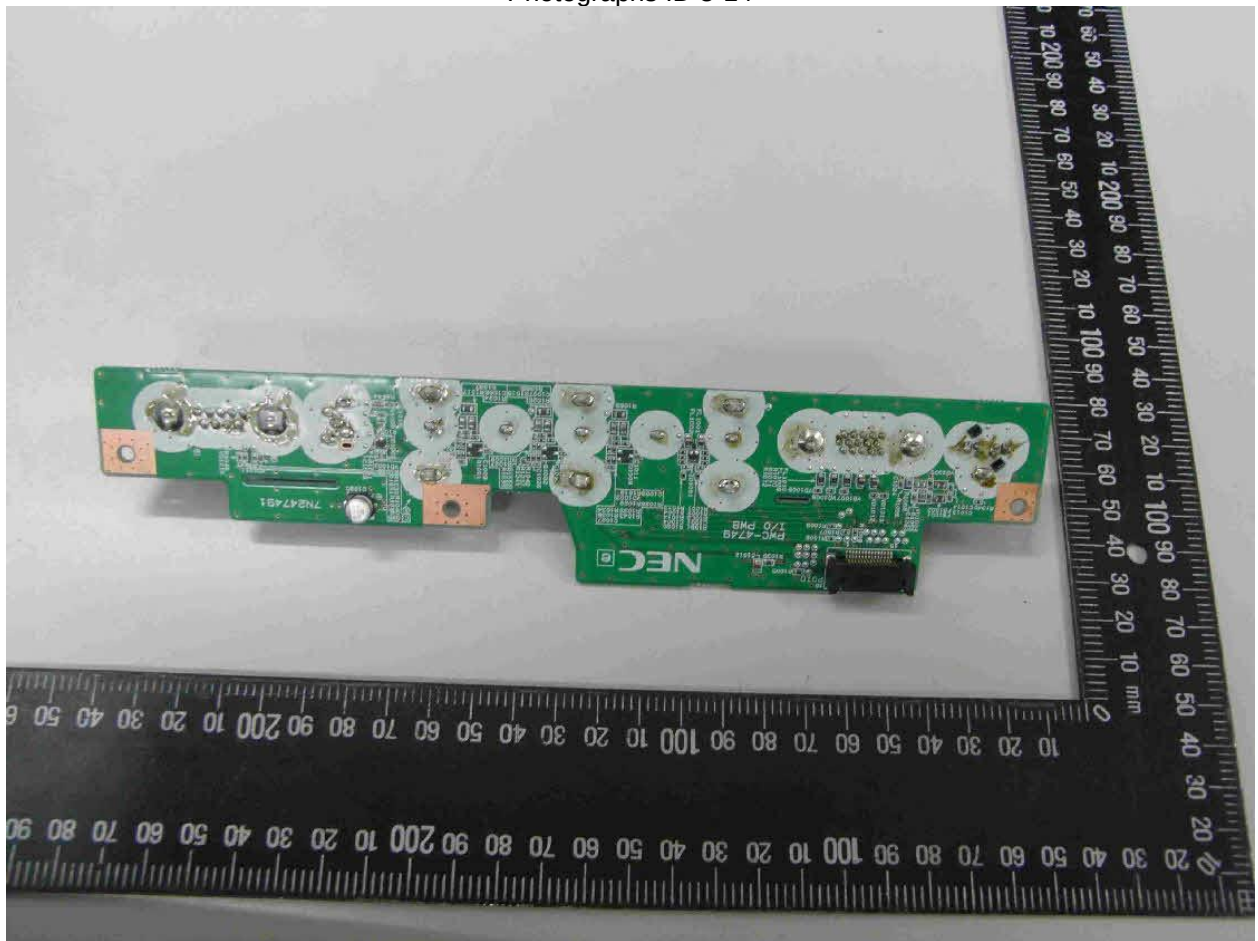
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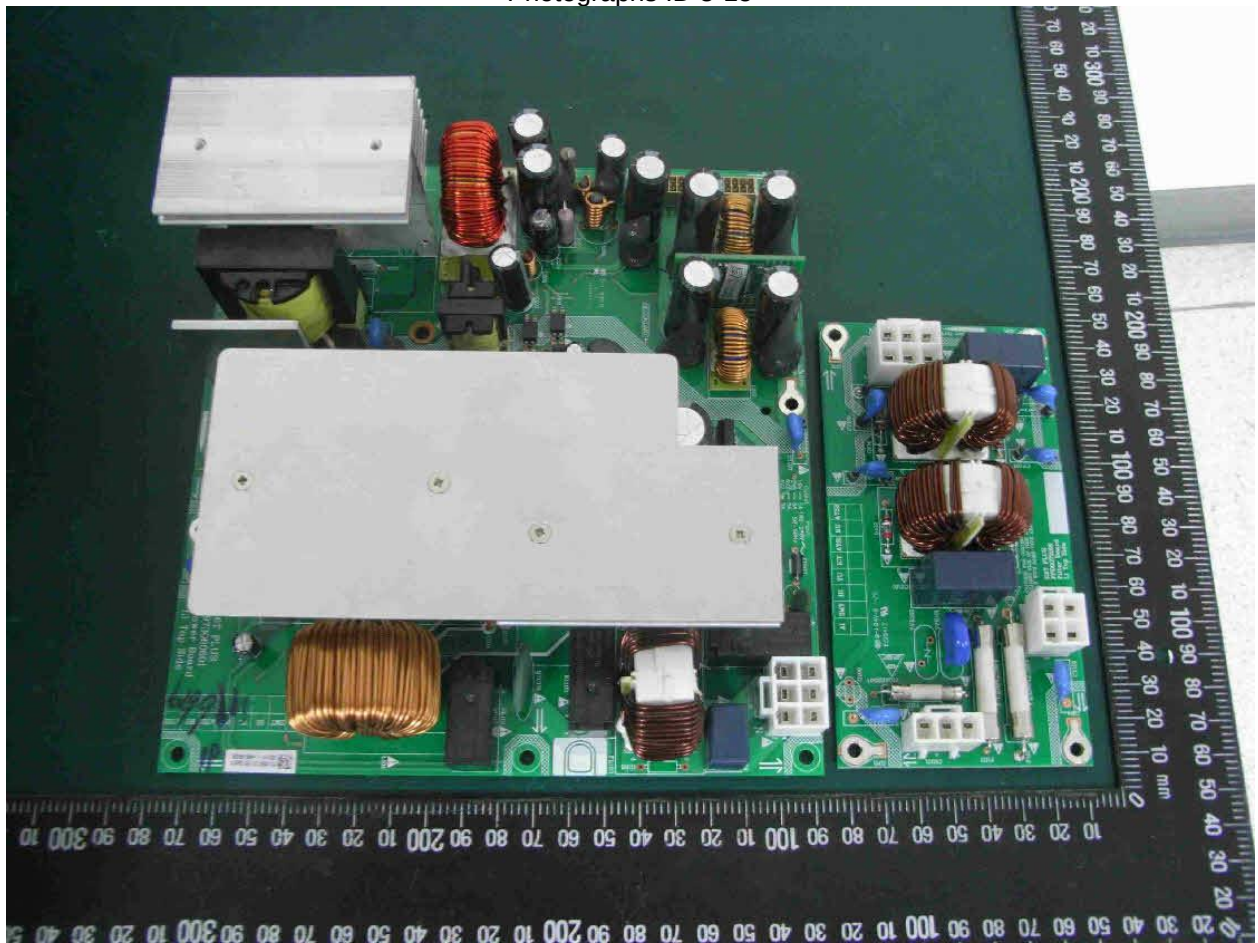
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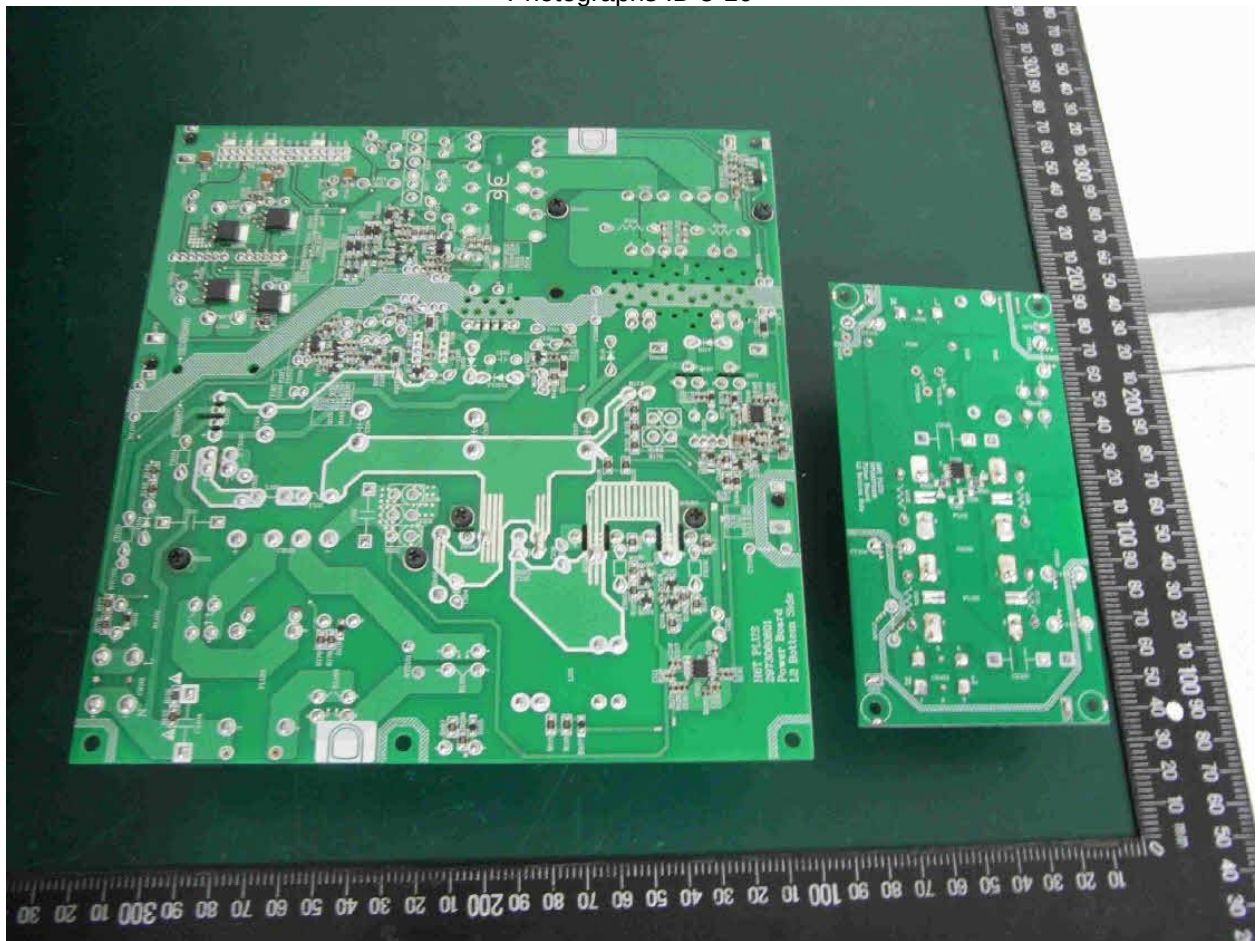
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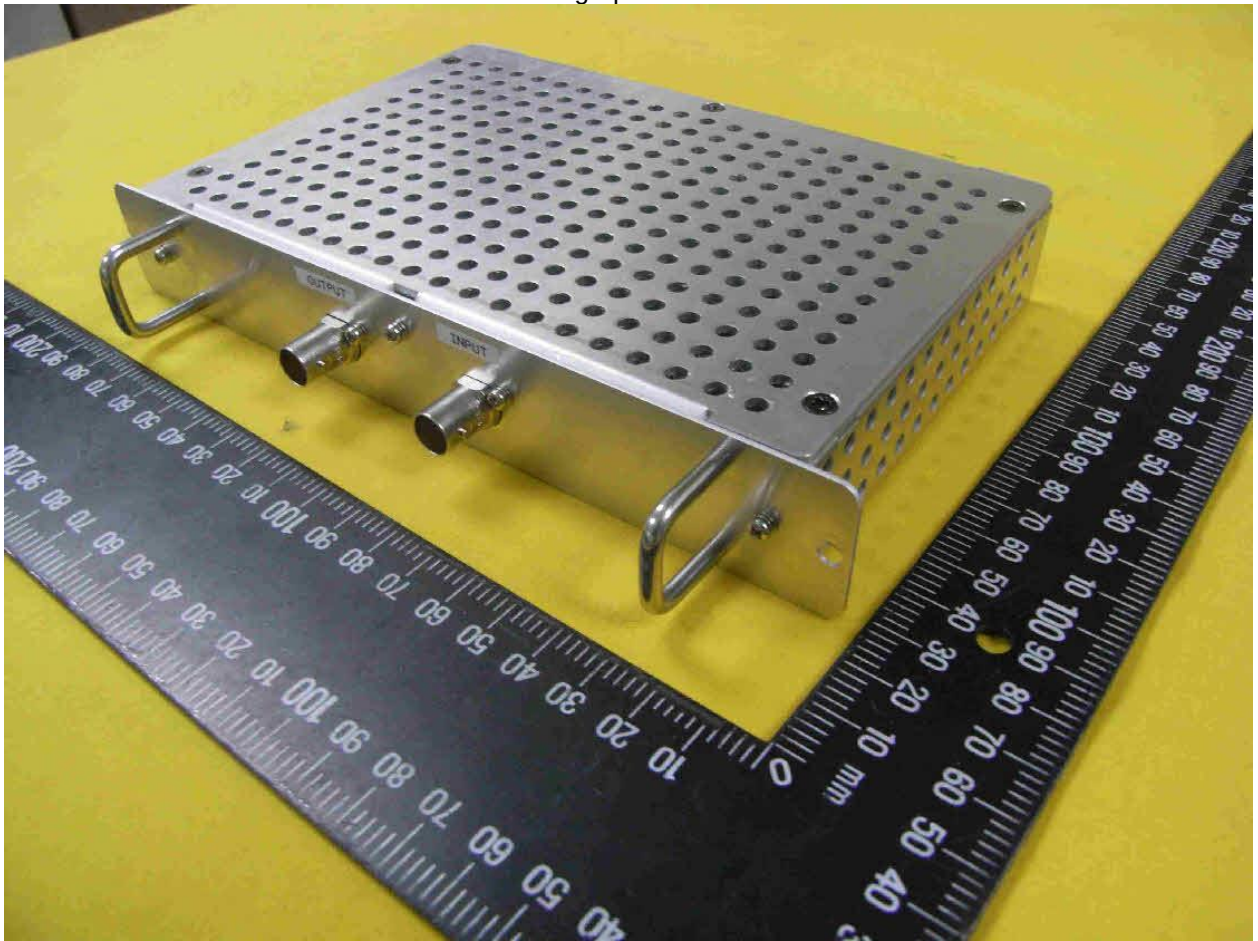
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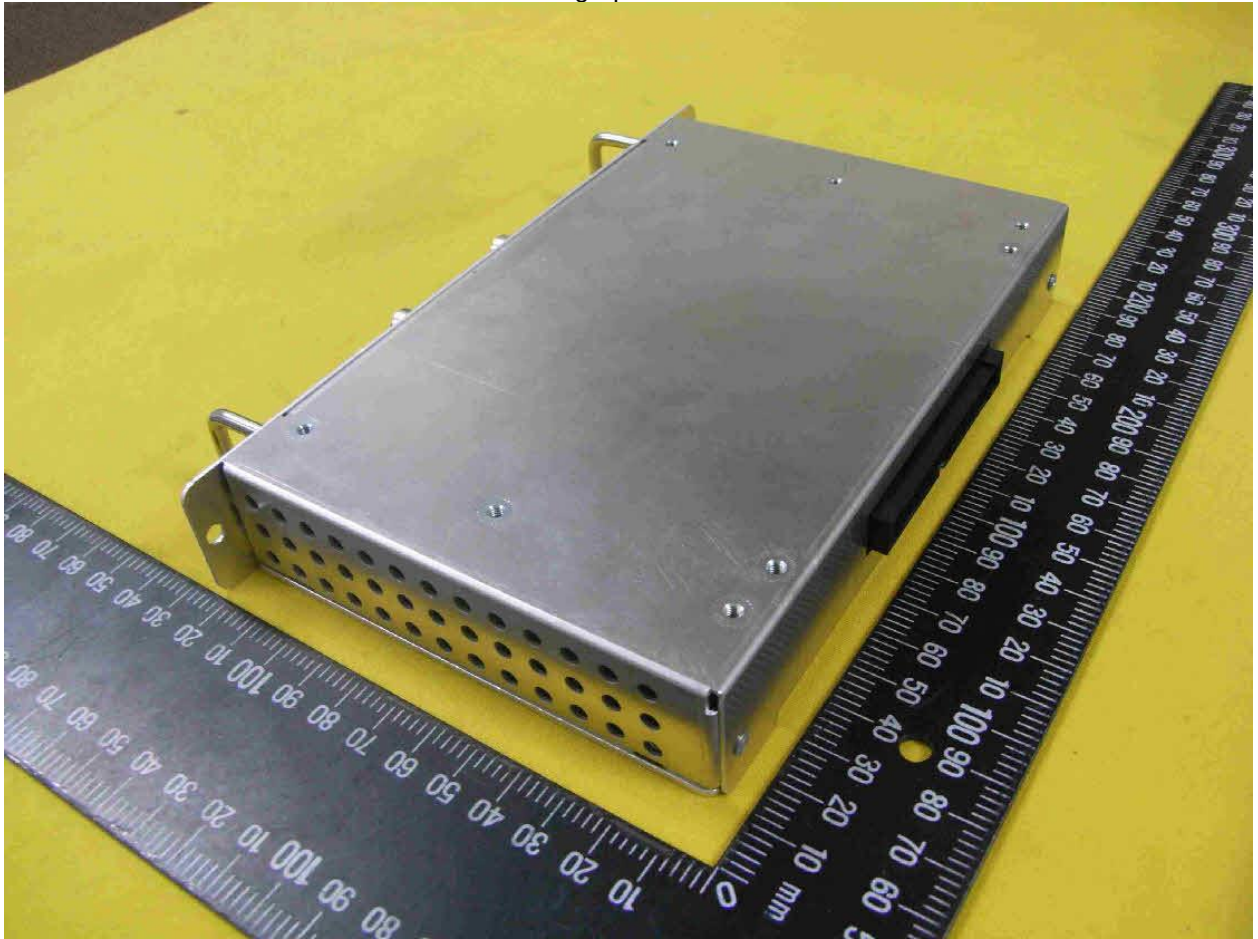
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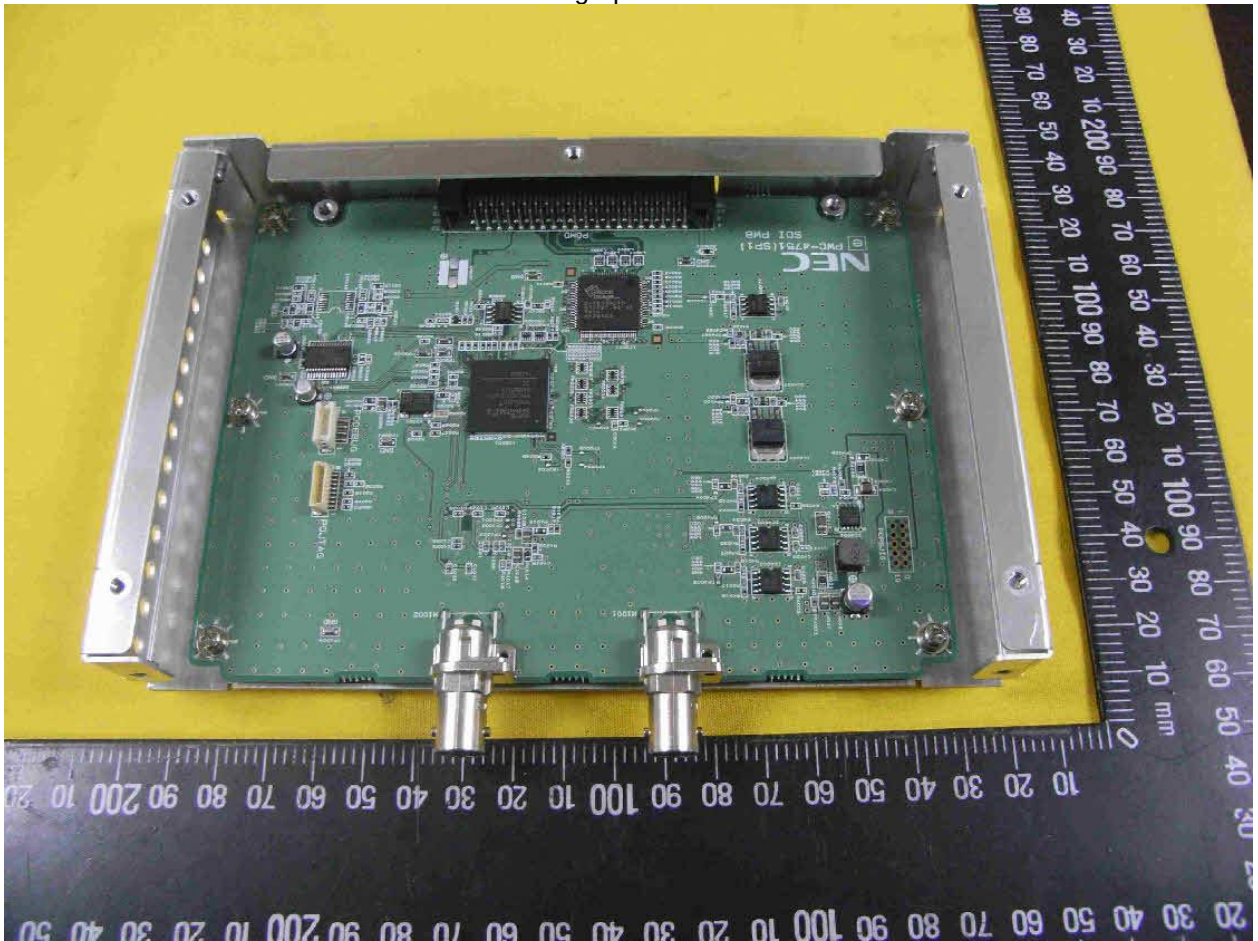
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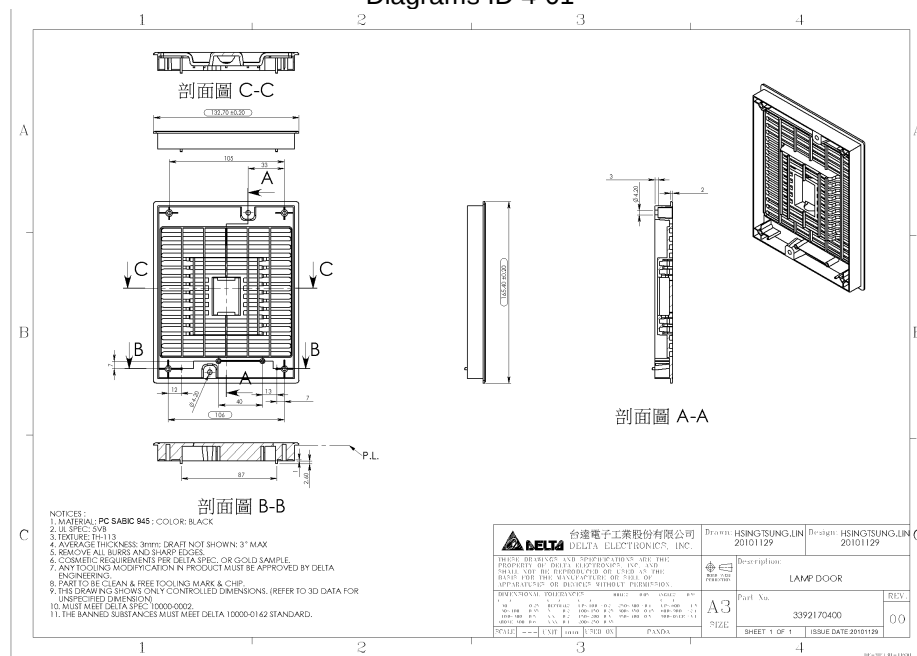
Photographs ID 3-18



Photographs ID 3-19



Diagrams ID 4-01



Enclosures

Diagrams ID 4-02

1
2
3
4

TEST TERMINAL	TEST CONDITION	L(uH)	LK(uH)	DCR(mΩ)	TURN RATIO(mV)	TURN'S	WIRE GAUGE	HI-POT TEST
4-3	40Hz IV	858±5%	53.88 MAX	1083±216.6	204Hz IV	107±3		60Hz 1.5s
6-5								3000Vac
4-X						107	Ø0.27 2UEW	PRI TO CORE 1500Vac
7-9						7	Ø0.56 2UEW	SEC TO CORE 1500Vac
6-X						28	Ø0.27 2UEW	PRI TO PRI 5000Vac
2-1						28	Ø0.27 2UEW	INDUCED VOLTAGE
X-3						3	Ø0.27 2UEW	1(4-3) 1KV-0.5s MAX/1S
								ARcing CURRENT ≥10.0mA
								LEAKAGE CURRENT <=1.0mA

1. MECHANICAL DIMENSIONS :

MARKING 2
MARKING 1

UNIT : mm
 A = 32.0 MAX
 B = 3.5±0.5/-0.3
 C = 12.0±0.4
 D = 2.5 MAX
 E = 7.0±0.2
 F = 21.0 MAX
 G = 3.5 MAX
 H = 2.7±0.2
 I = Ø0.6±0.1

2. SCHEMATIC:

3. WINDING CONSTRUCTION:

6. FOR ENVIRONMENT CONCERNS, ALL PARTS MUST FOLLOW THE SPECIFICATION "10000-0162"(THE MANAGEMENT STANDARDS FOR ENVIRONMENT-RELATED SUBSTANCE).

3. WINDING CONSTRUCTION:

7. FOR ENVIRONMENT CONCERNS, ALL PARTS MUST FOLLOW THE SPECIFICATION "10000-0162"(THE MANAGEMENT STANDARDS FOR ENVIRONMENT-RELATED SUBSTANCE).

4. PACKAGE MUST BE IN COMPLIANCE WITH PACKING

SPEC. NO. : 3525-358000
 15.9g/PC 7.3kg/CARTON 360PCS/CARTON

5. MARKING : SEE DRAWING

MARKING 1: NO.7 BLACK INK
 X: REV. NO
 XXXX: DATE CODE
 * * : FACTORY CODE
 * * : WINDING TEAM
 DET : DELTA THAILAND PLANT
 DCM : DELTA DONGGUAN PLANT
 DCCM : DELTA WUJIANG PLANT
 DCUM : DELTA WUHU PLANT
 DCZM : DELTA CHENZHOU PLANT

5. MARKING : SEE DRAWING

MARKING 1: NO.7 BLACK INK
 X: REV. NO
 XXXX: DATE CODE
 * * : FACTORY CODE
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 DET : DELTA THAILAND PLANT
 DCM : DELTA DONGGUAN PLANT
 DCCM : DELTA WUJIANG PLANT
 DCUM : DELTA WUHU PLANT
 DCZM : DELTA CHENZHOU PLANT

6. CORE GAP : 0.55mm (REF) (ON THE CENTER LEG OF TOP CORE)

7. WINDING : EC-146-A (VALUOM) CONSISTENT 141520

7. WINDING : EC-146-A (VALUOM) CONSISTENT 141520

8. CORE GAP : 0.55mm (REF) (ON THE CENTER LEG OF TOP CORE)

8. CORE GAP : 0.55mm (REF) (ON THE CENTER LEG OF TOP CORE)

9. WINDING : EC-146-A (VALUOM) CONSISTENT 141520

9. WINDING : EC-146-A (VALUOM) CONSISTENT 141520

10. CORE GAP : 0.55mm (REF) (ON THE CENTER LEG OF TOP CORE)

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11. WINDING : EC-146-A (VALUOM) CONSISTENT 141520

11. WINDING : EC-146-A (VALUOM) CONSISTENT 141520

12. CORE GAP : 0.55mm (REF) (ON THE CENTER LEG OF TOP CORE)

12. CORE GAP : 0.55mm (REF) (ON THE CENTER LEG OF TOP CORE)

13. WINDING : EC-146-A (VALUOM) CONSISTENT 141520

13. WINDING : EC-146-A (VALUOM) CONSISTENT 141520

14. CORE GAP : 0.55mm (REF) (ON THE CENTER LEG OF TOP CORE)

14. CORE GAP : 0.55mm (REF) (ON THE CENTER LEG OF TOP CORE)

15. WINDING : EC-146-A (VALUOM) CONSISTENT 141520

15. WINDING : EC-146-A (VALUOM) CONSISTENT 141520

16. CORE GAP : 0.55mm (REF) (ON THE CENTER LEG OF TOP CORE)

16. CORE GAP : 0.55mm (REF) (ON THE CENTER LEG OF TOP CORE)

17. WINDING : EC-146-A (VALUOM) CONSISTENT 141520

17. WINDING : EC-146-A (VALUOM) CONSISTENT 141520

18. CORE GAP : 0.55mm (REF) (ON THE CENTER LEG OF TOP CORE)

18. CORE GAP : 0.55mm (REF) (ON THE CENTER LEG OF TOP CORE)

19. WINDING : EC-146-A (VALUOM) CONSISTENT 141520

19. WINDING : EC-146-A (VALUOM) CONSISTENT 141520

20. CORE GAP : 0.55mm (REF) (ON THE CENTER LEG OF TOP CORE)

20. CORE GAP : 0.55mm (REF) (ON THE CENTER LEG OF TOP CORE)

21. WINDING : EC-146-A (VALUOM) CONSISTENT 141520

21. WINDING : EC-146-A (VALUOM) CONSISTENT 141520

22. CORE GAP : 0.55mm (REF) (ON THE CENTER LEG OF TOP CORE)

22. CORE GAP : 0.55mm (REF) (ON THE CENTER LEG OF TOP CORE)

23. WINDING : EC-146-A (VALUOM) CONSISTENT 141520

23. WINDING : EC-146-A (VALUOM) CONSISTENT 141520

24. CORE GAP : 0.55mm (REF) (ON THE CENTER LEG OF TOP CORE)

24. CORE GAP : 0.55mm (REF) (ON THE CENTER LEG OF TOP CORE)

25. WINDING : EC-146-A (VALUOM) CONSISTENT 141520

25. WINDING : EC-146-A (VALUOM) CONSISTENT 141520

26. CORE GAP : 0.55mm (REF) (ON THE CENTER LEG OF TOP CORE)

26. CORE GAP : 0.55mm (REF) (ON THE CENTER LEG OF TOP CORE)

27. WINDING : EC-146-A (VALUOM) CONSISTENT 141520

27. WINDING : EC-146-A (VALUOM) CONSISTENT 141520

28. CORE GAP : 0.55mm (REF) (ON THE CENTER LEG OF TOP CORE)

28. CORE GAP : 0.55mm (REF) (ON THE CENTER LEG OF TOP CORE)

29. WINDING : EC-146-A (VALUOM) CONSISTENT 141520

29. WINDING : EC-146-A (VALUOM) CONSISTENT 141520

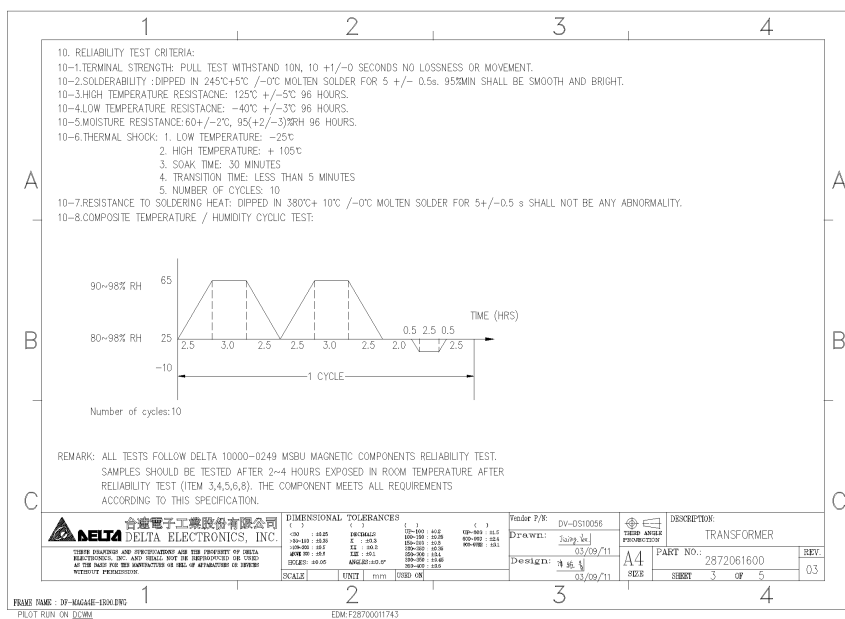
30. CORE GAP : 0.55mm (REF) (ON THE CENTER LEG OF TOP CORE)

30. CORE GAP : 0.55mm (REF) (ON THE CENTER LEG OF TOP CORE)

31. WINDING : EC-1

Enclosures

Diagrams ID 4-02



Diagrams ID 4-02

11. MATERIAL LIST :																																																																																																																																					
NO.	PART	MANUFACTURER	MANUFACTURER PART NO.	DESCRIPTION	UL FILE NO.																																																																																																																																
A	1	BOBBIN	SUMITOMO BAKELITE CO LTD 150°C 94V-0 FM -9B30 (0.4mm MINNIOGEN WALL)	PHENOLIC (PF), "SUMIKON", FURNISHED AS PELLETS,GRANULAR MATERIAL	E41429																																																																																																																																
			SUMITOMO BAKELITE CO LTD 150°C 94V-0 FM -9B20 (0.4mm MINNIOGEN WALL)	PHENOLIC (PF), "SUMIKON", FURNISHED AS PELLETS,GRANULAR MATERIAL	E41429																																																																																																																																
	2	TAPE	3M COMPANY ELECTRICAL MARKETS DIV (EMD) 130°C MATERIAL GROUP I NO.135F-1	FLAME RETARDANT POLYESTER FILM INSULATING TAPE	E17385																																																																																																																																
			3M COMPANY ELECTRICAL MARKETS DIV (EMD) 130°C MATERIAL GROUP II NO.135OF-1	FLAME RETARDANT POLYESTER FILM INSULATING TAPE	E17385																																																																																																																																
			3M COMPANY ELECTRICAL MARKETS DIV (EMD) 130°C MATERIAL GROUP II NO.135OF-1	FLAME RETARDANT POLYESTER FILM INSULATING TAPE	E17385																																																																																																																																
			SYMBIO INC 130°C MATERIAL GROUP (IFOR UL) GROUP (IFOR FLV) NO.3566VJ	POLYETHYLENE-TEREHALATE FILM INSULATING TAPE WITH ACRYLIC ADHESIVE	E50292																																																																																																																																
		JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	130°C MATERIAL GROUP I NO.C7	POLYETHYLENE TEREHALATE FILM TAPE	E165111																																																																																																																																
	B	3	MAGNET WIRE	UL RECOGNIZED	130°C MW28 130°C MW75	UL RECOGNIZED																																																																																																																															
				UL RECOGNIZED																																																																																																																																	
		4	TUBING	ZEUS INDUSTRIAL PRODUCTS INC 200°C TE-W-150 VW-1 200°C TE-TW-300 VW-1 200°C TE-S-600 VW-1	POLYTETRAFLUOROETHYLENE (PTFE)	E64007																																																																																																																															
			GREAT HOLDING INDUSTRIAL CO LTD 200°C TPL VW-1 200°C TTF VW-1 200°C TFS VW-1	NOT HEAT-SHRINKABLE POLYTETRAFLUROETHYLENE	E165256																																																																																																																																
			CHANGYUAN ELECTRONICS (SHENZHEN) CO LTD 200°C CB-TT-1 VW-1 200°C CB-TT-5 VW-1	TEFLON(P/TFE) NON-HEAT-SHRINKABLE TUBING	E180908																																																																																																																																
			SYMBIO INC 130°C MATERIAL GROUP I NO.3566I	POLYETHYLENE-TEREHALATE FILM INSULATING TAPE WITH ACRYLIC ADHESIVE	E50292																																																																																																																																
5		MARGIN TAPE	3M COMPANY ELECTRICAL MARKETS DIV (EMD) 130°C MATERIAL GROUP I No.44_44D-A-44T-A	POLYESTER FILM/NONWOVEN COMPOSITE INSULATING TAPES	E17385																																																																																																																																
			JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD 130°C MATERIAL GROUP I NO.WF	NONWOVEN CLOTH/ TEREHALATE FILM TAPE	E165111																																																																																																																																
C		合達電子工業股份有限公司 DELTA ELECTRONICS, INC. OTHER SPECIFICATIONS ARE CONTAINED ON THE INVERSE OF THIS SHEET. RESISTANCE, IF ANY SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OF RELAY OR MECHANISM OF SIMILAR FUNCTION. <table><tr><td colspan="2">DIMENSIONAL TOLERANCES</td><td colspan="2">1 ± .030</td><td colspan="2">2 ± .015</td><td colspan="2">3 ± .010</td><td colspan="2">4 ± .010</td><td colspan="2">5 ± .010</td><td colspan="2">6 ± .010</td><td colspan="2">7 ± .010</td><td colspan="2">8 ± .010</td><td colspan="2">9 ± .010</td><td colspan="2">10 ± .010</td></tr><tr><td>11 ± .010</td><td>12 ± .010</td><td>13 ± .010</td><td>14 ± .010</td><td>15 ± .010</td><td>16 ± .010</td><td>17 ± .010</td><td>18 ± .010</td><td>19 ± .010</td><td>20 ± .010</td><td>21 ± .010</td><td>22 ± .010</td><td>23 ± .010</td><td>24 ± .010</td><td>25 ± .010</td><td>26 ± .010</td><td>27 ± .010</td><td>28 ± .010</td><td>29 ± .010</td><td>30 ± .010</td><td>31 ± .010</td></tr><tr><td>32 ± .010</td><td>33 ± .010</td><td>34 ± .010</td><td>35 ± .010</td><td>36 ± .010</td><td>37 ± .010</td><td>38 ± .010</td><td>39 ± .010</td><td>40 ± .010</td><td>41 ± .010</td><td>42 ± .010</td><td>43 ± .010</td><td>44 ± .010</td><td>45 ± .010</td><td>46 ± .010</td><td>47 ± .010</td><td>48 ± .010</td><td>49 ± .010</td><td>50 ± .010</td><td>51 ± .010</td><td>52 ± .010</td></tr><tr><td>53 ± .010</td><td>54 ± .010</td><td>55 ± .010</td><td>56 ± .010</td><td>57 ± .010</td><td>58 ± .010</td><td>59 ± .010</td><td>60 ± .010</td><td>61 ± .010</td><td>62 ± .010</td><td>63 ± .010</td><td>64 ± .010</td><td>65 ± .010</td><td>66 ± .010</td><td>67 ± .010</td><td>68 ± .010</td><td>69 ± .010</td><td>70 ± .010</td><td>71 ± .010</td><td>72 ± .010</td><td>73 ± .010</td></tr><tr><td>74 ± .010</td><td>75 ± .010</td><td>76 ± .010</td><td>77 ± .010</td><td>78 ± .010</td><td>79 ± .010</td><td>80 ± .010</td><td>81 ± .010</td><td>82 ± .010</td><td>83 ± .010</td><td>84 ± .010</td><td>85 ± .010</td><td>86 ± .010</td><td>87 ± .010</td><td>88 ± .010</td><td>89 ± .010</td><td>90 ± .010</td><td>91 ± .010</td><td>92 ± .010</td><td>93 ± .010</td><td>94 ± .010</td></tr><tr><td>95 ± .010</td><td>96 ± .010</td><td>97 ± .010</td><td>98 ± .010</td><td>99 ± .010</td><td>100 ± .010</td><td colspan="15"></td></tr></table> Order / 3/16/01 Drawn: 3/16/01 Design: 3/16/01 DATE: 3/16/01 DISCREPANCY TRANSFORMER PART NO.: 2872061600 REV: 03					DIMENSIONAL TOLERANCES		1 ± .030		2 ± .015		3 ± .010		4 ± .010		5 ± .010		6 ± .010		7 ± .010		8 ± .010		9 ± .010		10 ± .010		11 ± .010	12 ± .010	13 ± .010	14 ± .010	15 ± .010	16 ± .010	17 ± .010	18 ± .010	19 ± .010	20 ± .010	21 ± .010	22 ± .010	23 ± .010	24 ± .010	25 ± .010	26 ± .010	27 ± .010	28 ± .010	29 ± .010	30 ± .010	31 ± .010	32 ± .010	33 ± .010	34 ± .010	35 ± .010	36 ± .010	37 ± .010	38 ± .010	39 ± .010	40 ± .010	41 ± .010	42 ± .010	43 ± .010	44 ± .010	45 ± .010	46 ± .010	47 ± .010	48 ± .010	49 ± .010	50 ± .010	51 ± .010	52 ± .010	53 ± .010	54 ± .010	55 ± .010	56 ± .010	57 ± .010	58 ± .010	59 ± .010	60 ± .010	61 ± .010	62 ± .010	63 ± .010	64 ± .010	65 ± .010	66 ± .010	67 ± .010	68 ± .010	69 ± .010	70 ± .010	71 ± .010	72 ± .010	73 ± .010	74 ± .010	75 ± .010	76 ± .010	77 ± .010	78 ± .010	79 ± .010	80 ± .010	81 ± .010	82 ± .010	83 ± .010	84 ± .010	85 ± .010	86 ± .010	87 ± .010	88 ± .010	89 ± .010	90 ± .010	91 ± .010	92 ± .010	93 ± .010	94 ± .010	95 ± .010	96 ± .010	97 ± .010	98 ± .010	99 ± .010	100 ± .010															
		DIMENSIONAL TOLERANCES		1 ± .030		2 ± .015		3 ± .010		4 ± .010		5 ± .010		6 ± .010		7 ± .010		8 ± .010		9 ± .010		10 ± .010																																																																																																															
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	53 ± .010	54 ± .010	55 ± .010	56 ± .010	57 ± .010	58 ± .010	59 ± .010	60 ± .010	61 ± .010	62 ± .010	63 ± .010	64 ± .010	65 ± .010	66 ± .010	67 ± .010	68 ± .010	69 ± .010	70 ± .010	71 ± .010	72 ± .010	73 ± .010																																																																																																																
	74 ± .010	75 ± .010	76 ± .010	77 ± .010	78 ± .010	79 ± .010	80 ± .010	81 ± .010	82 ± .010	83 ± .010	84 ± .010	85 ± .010	86 ± .010	87 ± .010	88 ± .010	89 ± .010	90 ± .010	91 ± .010	92 ± .010	93 ± .010	94 ± .010																																																																																																																
	95 ± .010	96 ± .010	97 ± .010	98 ± .010	99 ± .010	100 ± .010																																																																																																																															

TRADE MARK: 30-3946E-4836G

PLC RUN ON CUM

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3

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1

2

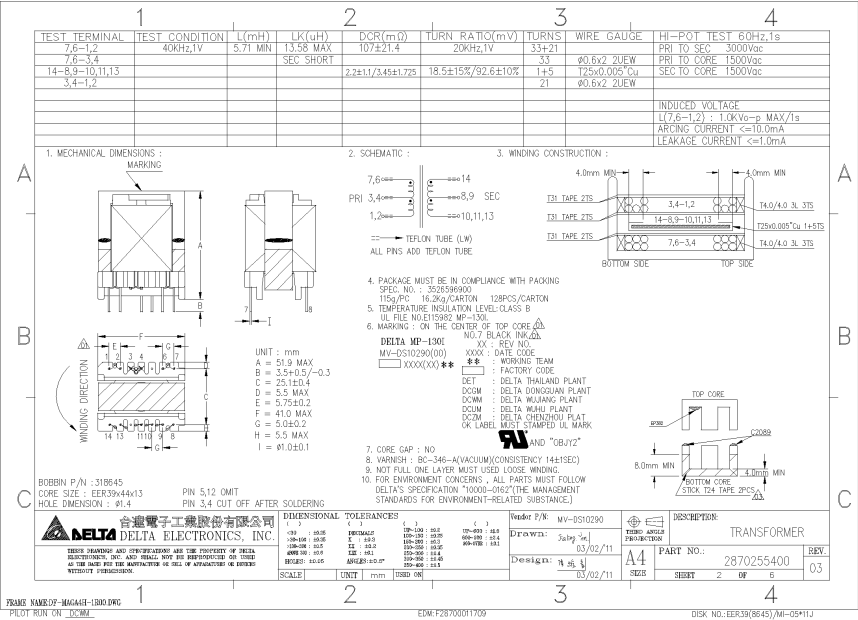
3

4

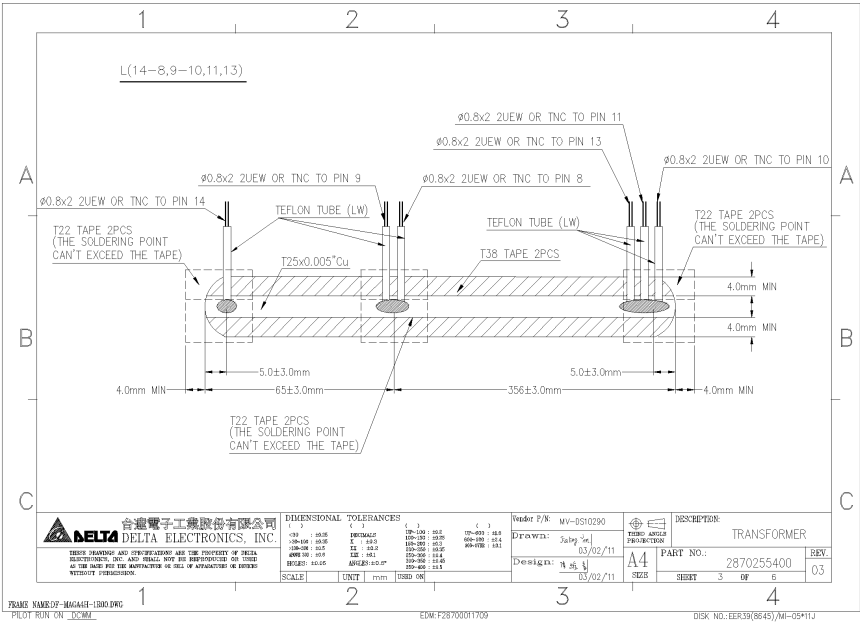
Diagrams ID 4-02

11. MATERIAL LIST :					
NO.	PART	MANUFACTURER	MANUFACTURER PART NO.	DESCRIPTION	
A 6	CORE	JFE	MB4,MBT1	FERRITE (UNIT:mm)	N/A
		JINCHUAN	RM2,3KD	FERRITE (UNIT:mm)	N/A
		DMEGC	DMR40 ,DMR44	FERRITE (UNIT:mm)	N/A
		KAIYUAN	KP4,KP44	FERRITE (UNIT:mm)	N/A
		TDG	TP4,TP4A	FERRITE (UNIT:mm)	N/A
		NICERA CO	NC-2H,2HM5	FERRITE (UNIT:mm)	N/A
		A-CORE CO	JPP4,JPP-44A	FERRITE (UNIT:mm)	N/A
		FERROXCUBE CO	3C92,3C96	FERRITE (UNIT:mm)	N/A
		LIAN FENG	NH2B,NH2C	FERRITE (UNIT:mm)	N/A
B 7	VARNISH	JOHN C DOLPH CO.	200°C NO.BC-346-A		E317427
		KYOCERA CHEMICAL CORP.	155°C TVB2180T		E83702
		HITACHI CHEMICAL CO LTD	130°C WP-2952F-2G		E72979
		ELANTAS ELECTRICAL INSULATION ELANTAS PDG INC	130°C V1380FC		E75225
8	ADHESIVE	KUA SEN ENTERPRISE	EP382	EPOXY	N/A
		EPOLAB CHEMICALS CO	C2089	EPOXY	N/A
C					
 合達電子工業股份有限公司 DELTA ELECTRONICS, INC.		DIMENSIONAL TOLERANCES		Under 2/8	
OTHER DIMENSIONS AND TOLERANCES ARE THE PROPERTY OF DELTA ELECTRONICS, INC. AND SHALL NOT BE REPRODUCED OR USED BY ANY PARTY FOR THE MANUFACTURE OF ANY PRODUCT OR SERVICE WITHOUT THE WRITTEN PERMISSION OF DELTA ELECTRONICS, INC.		UNIT: mm		Drawn: 3/11/11 Checked: 3/11/11 Date: 03/09/11	
		SCALE: 1:1		DESIGN: 3/11/11	
		UNIT: mm		PART NO.: 2872061600	
		UNIT: mm		REV: 03	
		UNIT: mm		REV: 03	
		UNIT: mm		REV: 03	
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Diagrams ID 4-03



Diagrams ID 4-03



Diagrams ID 4-03

1		2		3		4	
13. MATERIAL LIST :							
NO.	PART	MANUFACTURER	MANUFACTURER PART NO.	DESCRIPTION	UL FILE NO.		
1	BOBBIN	SUMITOMO BAKELITE CO LTD	150°C 94V-0 PM-9630 (0.4mm MINBOBBIN WALL)	PHENOLIC (PF), "SUMIKON", FURNISHED AS PELLETS,GRANULAR MATERIAL	E41429		
		SUMITOMO BAKELITE CO LTD	150°C 94V-0 PM-9820 (0.4mm MINBOBBIN WALL)	PHENOLIC (PF), "SUMIKON", FURNISHED AS PELLETS,GRANULAR MATERIAL	E41429		
2	TAPE	3M COMPANY ELECTRICAL MARKETS DIV (EMD)	130°C MATERIAL GROUP I NO.1351-1	FLAME RETARDANT POLYESTER FILM INSULATING TAPE	E17385		
		3M COMPANY ELECTRICAL MARKETS DIV (EMD)	130°C MATERIAL GROUP II NO.1350F-1	FLAME RETARDANT POLYESTER FILM INSULATING TAPE	E17385		
		3M COMPANY ELECTRICAL MARKETS DIV (EMD)	130°C MATERIAL GROUP II NO.1350T-3	FLAME RETARDANT POLYESTER FILM INSULATING TAPE	E17385		
		SYMBIO INC	130°C MATERIAL GROUP II(FOR UL), GROUP II(FOR TUV) NO.35660Y	POLYETHYLENE-TEREPHTHALATE FILM INSULATING TAPE WITH ACRYLIC ADHESIVE	E50292		
		JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	130°C MATERIAL GROUP I NO.CT	POLYETHYLENE TEREPHTHALATE FILM TAPE	E165111		
3	MAGNET WIRE	UL RECOGNIZED	UL RECOGNIZED	130°C MW28 130°C MW75	UL RECOGNIZED		
4	TUBING	ZEUS INDUSTRIAL PRODUCTS INC	200°C TFE-LW-150 VW-1 200°C TFE-TW-300 VW-1 200°C TFE-SW-600 VW-1	POLYTETRAFLUOROETHYLENE (PTFE)	E64007		
		GREAT HOLDING INDUSTRIAL CO LTD	200°C TFL VW-1 200°C TFT VW-1 200°C TFS VW-1	NOT HEAT-SHRINKABLE POLYTETRAFLUOROETHYLENE	E156256		
		CHANGYUAN ELECTRONICS (SHENZHEN) CO LTD	200°C CB-TT-L VW-1 200°C CB-TT-T VW-1 200°C CB-TT-S VW-1	TEFLON(PTFE) NON-HEAT-SHRINKABLE TUBING	E180908		
		SYMBIO INC	130°C MATERIAL GROUP I NO.35661	POLYETHYLENE-TEREPHTHALATE FILM INSULATING TAPE WITH ACRYLIC ADHESIVE	E50292		
5	MARGIN TAPE	3M COMPANY ELECTRICAL MARKETS DIV (EMD)	130°C MATERIAL GROUP I NO.44 ,44D-A,44T-A	POLYESTER FILM/NONWOVEN COMPOSITE INSULATING TAPES	E17385		
		JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	130°C MATERIAL GROUP I NO.WF	NONWOVEN CLOTH/POLYETHYLENE TEREPHTHALATE FILM TAPE	E165111		
 合達電子工業股份有限公司 DELTA ELECTRONICS, INC.		DIMENSIONAL TOLERANCES		Vendor P/N	DESCRIPTION		
UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) AND DECIMAL FRACTIONS ARE IN THOUSITHS OF AN INCH (HUNDREDTHS OF AN INCH).		UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) AND DECIMAL FRACTIONS ARE IN THOUSITHS OF AN INCH (HUNDREDTHS OF AN INCH).		03/02/11	TRANSFORMER		
SCALE		UNIT		03/02/11	TRANSFORMER		
1		2		3		4	
PRIME NAME OF MAGACH-1300.DWG PLOT RUN ON :C:\M...							
EDM-F2870001709							
USK NO.:EER39(8645)/MI-0541J							

Enclosures

Diagrams ID 4-04

5. MATERIAL LIST :					
NO.	PART	MANUFACTURER	MANUFACTURER PART NO.	DESCRIPTION	UL FILE NO.
1	CORE	HITACHI METALSCO.,LTD. ACME ELECTRONICS CORPORATION TAIGRNE METAL INDUSTRY CO.,LTD. ZHEJIANG DONGYANG DMEGC MAGNETICS	GP-11 A10 MP10T R10K	FERRITE (UNIT : mm) 00x10x11T : 31x19x13	N/A
2	MAGENT WIRE	TATUNG CO. TAI-I ELECTRIC WIRE & CABLE CO.,LTD. TA YA ELECTRIC WIRE & CABLE CO.,LTD. PROSPERITY ELECTRIC WIRE & CABLE CO. WUXI JUFENG COMPOUND LINE CO.,LTD. XIN LONG MAGNET WIRE CO.,LTD. JUNG SHING WIRE CO.,LTD. SHUNDE WELLKEY ELECTRIC MATERIAL CO.,LTD. PACIFIC-THAI ELECTRIC WIRE & CABLE CO.,LTD. HITACHI CABLE(S) PTE LTD. SIAM ELECTRIC INDUSTRIES CO.,LTD.	130°C MW28 UETW 130°C MW75 UEW 130°C MW28 UEW 130°C MW75 UEW 130°C MW28 THFN-216 130°C MW75 THS4-U130 130°C MW28 UEW-NY 130°C MW75 UEW 130°C MW28C UEDN 130°C MW75C UEW-130 130°C MW75C UEW 130°C MW28C UET 130°C MW75C UEW-4 130°C MW28 UEDN 130°C MW28 MW75 UEW 130°C MW28 UEW-NY 130°C MW28 MW75 UEW-U 130°C MW28 NY-UW 130°C MW28 MW75 UEW	POLYURETHANE POLYURETHANE POLYURETHANE POLYURETHANE POLYURETHANE POLYURETHANE POLYURETHANE POLYURETHANE POLYURETHANE POLYURETHANE POLYURETHANE	E106004 E55640 E84201 E196072 E206882 E171082 E174837 E211138 E142108 E62342 E94303
3	HOT MELT ADHESIVE	HWA HONG CHEMICAL CO.,LTD.	50°C 94V-0 FH-7063	EPOXY	E206490

 台灣電子工業股份有限公司 DELTA ELECTRONICS, INC.		DIMENSIONAL TOLERANCES () : ±0.25 10-25 : ±0.25 25-50 : ±0.5 50-100 : ±0.5 100-200 : ±0.5 200-400 : ±0.5 400-600 : ±0.5 600-800 : ±0.5 800-1000 : ±0.5 1000-1500 : ±0.5 1500-2000 : ±0.5 2000-3000 : ±0.5 3000-4000 : ±0.5 4000-5000 : ±0.5 5000-6000 : ±0.5 6000-8000 : ±0.5 8000-10000 : ±0.5 10000-15000 : ±0.5 15000-20000 : ±0.5 20000-30000 : ±0.5 30000-40000 : ±0.5 40000-50000 : ±0.5 50000-60000 : ±0.5 60000-80000 : ±0.5 80000-100000 : ±0.5 100000-150000 : ±0.5 150000-200000 : ±0.5 200000-300000 : ±0.5 300000-400000 : ±0.5 400000-500000 : ±0.5 500000-600000 : ±0.5 600000-800000 : ±0.5 800000-1000000 : ±0.5 1000000-1500000 : ±0.5 1500000-2000000 : ±0.5 2000000-3000000 : ±0.5 3000000-4000000 : ±0.5 4000000-5000000 : ±0.5 5000000-6000000 : ±0.5 6000000-8000000 : ±0.5 8000000-10000000 : ±0.5 10000000-15000000 : ±0.5 15000000-20000000 : ±0.5 20000000-30000000 : ±0.5 30000000-40000000 : ±0.5 40000000-50000000 : ±0.5 50000000-60000000 : ±0.5 60000000-80000000 : ±0.5 80000000-100000000 : ±0.5 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Diagrams ID 4-04

1		2		3		4	
5. MATERIAL LIST :							
NO.	PART	MANUFACTURER	MANUFACTURER PART NO.	DESCRIPTION	UL FILE NO.		
3	ADHESIVE	FLYING DRAGONS CO.,LTD	FR6820T	EPOXY	N/A		
		SONY CHEMICALS	SC-608MV22	EPOXY	N/A		
4	INSULATION	NAN YA PLASTICS CORP CCL DEPT	130°C 94V-0 FR-4	0.025mm THICKNESS	E98963		
5	CORE COVER	NAN YA PLASTICS CORP.	130°C 94V-0 140326	PBT(0.76mm MIN)	E130155(M)		
6	BASE	NAN YA PLASTICSCORP	130°C 94V-0 FR-4	CLASS FIBER BOARD	E59481		

Diagrams ID 4-05

1		2		3		4	
4. RELIABILITY TEST CRITERIA :							
4-1. COLD TEST (LOW TEMP) : $-40 \pm -3^{\circ}\text{C}$, 96 HOURS .							
4-2. DRY HEAT TEST (HIGH TEMP) : $125 \pm -3^{\circ}\text{C}$, 96 HOURS .							
4-3. RESISTANCE TO SOLDERING HEAT TEST : DIPPED IN $260 \pm 5^{\circ}\text{C}$ MOLTEN SOLDER FOR 5 ± 0.5 sec . SHALL NOT BE ANY ABNORMALITY .							
3-4. DAMP HEAT (HUMIDITY) : $40 \pm 2^{\circ}\text{C}$, $95 \pm 3\%$ R.H. , 96HOURS .							
4-5. MECHANICAL SHOCK TEST : PEAK ACCELERATION 735m/s^2 (75G) , DURATION OF PULSE 6 msec , THREE SUCCESSIVE SHOCK SHALL BE APPLIED IN BOTH DIRECTION OF 3 MUTUALLY PERPENDICULAR AXIS (A TOTAL OF 18 SHOCKS) . WITHOUT DEFORMATION OF CASE OR EXCESSIVE LOOSENESS OF TERMINALS ELECTRICAL CHARACTERISTICS SHALLBE SATISFIED .							
4-6. SOLDERABILITY TEST : DIPPED IN $235 \pm 5^{\circ}\text{C}$ MOLTEN SOLDER FOR 3 ± 0.5 sec , 95% MIN SHALL BE SMOOTH AND BRIGHT .							
4-7. COMPOSITE TEMP . / HUMIDITY CYCLING TEST : $-10^{\circ}\text{C} \sim +65^{\circ}\text{C}$, $80 \sim 96\%$ R.H. , 240 HOURS (10 CYCLES) .							
4-8. TERMINAL STRENGTH : PULL TEST WITHSTAND 10N 30 ± 0.5 sec NO LOOSENESS OR MOVEMENT .							
4-9. CHANGE OF TEMPERATURE TEST : EXPOSED 5 CYCLES . EACH CONSISTING OF 30 MINUTES AT $-40 \pm 2^{\circ}\text{C}$, 2 ~ 3 MINUTES AT $20 \pm 2^{\circ}\text{C}$, 30 MINUTES AT $125 \pm 2^{\circ}\text{C}$, 2 ~3 MINUTES AT $20 \pm 2^{\circ}\text{C}$,							
4-10. VIBRATION : 0.75 mm AMPLITUDE TOTAL EXCURSION 5 ~ 500 Hz , X , Y , Z AXIS FOR 2 HOURS . SHALL NOT BE ANY ABNORMALITY.							
REMARK : AFTER RELIABILITY TEST PER ITEM 8 , 9 , 10 , IN PRIOR TO THE TEST AS SPECIFIED , THE TRANSFORMER / COIL WOULD BE EXPOSED TO THE ROOM TEMPERATURE FOR 1 ~ 2 HOURS . THE COMPONENT MEETS ALL REQUIREMENTS ACCORDING TO THIS SPECIFICATION .							
 台達電子工業股份有限公司 DELTA ELECTRONICS, INC.		DIMENSIONAL TOLERANCES () UNIT : mm DIMENSIONS : mm TOLERANCES : mm ANGLES : $\pm 0.5^{\circ}$ SURF. FIN. : 12.5 SCALE : 1:1 UNIT : mm USED ON :		Drawn: DELTA DESIGN 01/07/10 Approved: NEW 01/07/10		DESCRIPTION THREE ANGLE PRESCRIPTION INDUCTOR PART NO.: 2876085201 SIZE: 3 OF 4 REV. 02	
PRIMARY NAME : DF-WAG4E-1000.DWG DIM 128700000000 DESK NO.: 1001300011(1071)A1-01761							

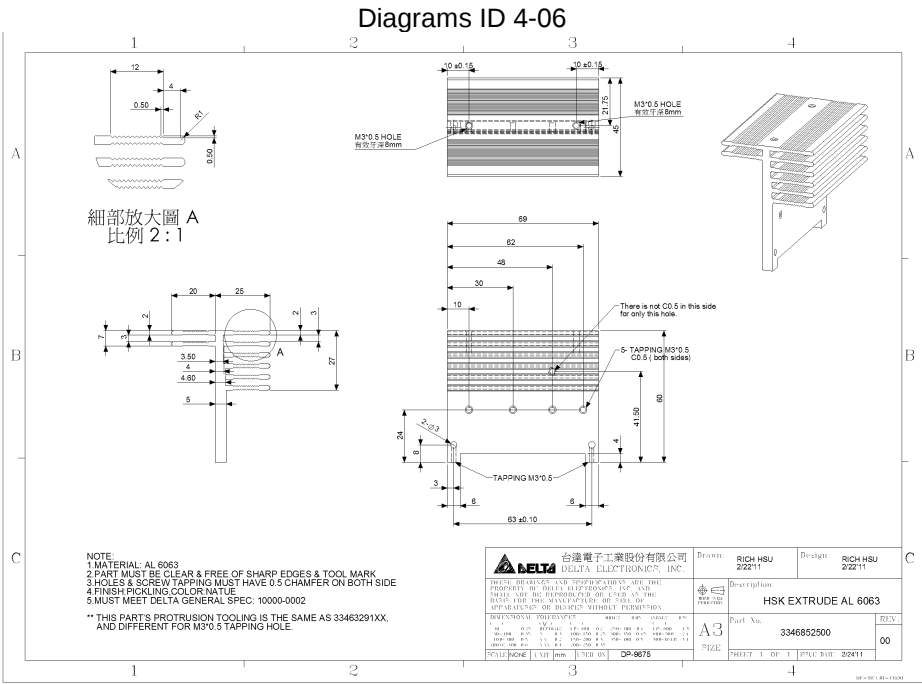
Diagrams ID 4-05

5. MATERIAL LIST :														
NO.	PART	MANUFACTURER	MANUFACTURER PART NO.	DESCRIPTION	UL FILE NO.									
1	CORE	MAGNETICS DIVISION , SPANG & COMPANY THE ARNOLD ENGINEERING COMPANY CHANG SUNG CORPORATION	58071-A2 HF-130060-2 CH330060	HIGH FLUX (UNIT : mm) ODxDxHT : 33.0x19.0x11.6	N/A									
2	MAGNET WIRE	TAI-I ELECTRIC WIRE & CABLE CO LTD.	130°C MW-28C UEWE 130°C MW75C UEW	POLYURETHANE	E85640									
		WUXI JUFENG COMPOUND LINE CO LTD.	130°C MW28 UEWN 130°C MW75 UEW	POLYURETHANE	E206882									
		XIN LONG MAGNET WIRE CO LTD.	130°C MW28 UEWN 130°C MW75 UEW	POLYURETHANE	E171082									
		JUNG SHING WIRE CO LTD.	130°C MW28-C UEY 130°C MW75C UEW-4	POLYURETHANE	E174837									
		FOSHAN CITY WELKEY ELECTRIC MATERIAL CO LTD	130°C MW28 UEWN 130°C MW75 UEW	POLYURETHANE	E211138									
		PACIFIC-THAI ELECTRIC WIRE & CABLE CO LTD.	130°C MW-28C UEW-NY 130°C MW-75C UEW-U	POLYURETHANE	E142108									
		HITACHI CABLE(JOHOR) SDN BHD	130°C MW28NY UEW-H OR UEW-S 130°C MW-75 UEW OR UEW-FI	POLYURETHANE	E215584									
		SIAM ELECTRIC INDUSTRIES CO LTD.	130°C MW28-C UNX1 130°C MW75 UEX1	POLYURETHANE	E94303									
		TA YA ELECTRIC WIRE FACTORY	130°C MW28-C THEN-216	POLYURETHANE	E197768									
3	BASE	CHANG CHUN PLASTICS CO.,LTD CHANG CHUN PLASTICS CO.,LTD	150°C 94V-1 T373J 150°C 94V-0 T375J	PHENOLIC PHENOLIC	E59481 E59481									
台達電子工業股份有限公司 DELTA ELECTRONICS, INC. THESE DIMENSIONS AND TOLERANCES ARE THE PROPERTY OF DELTA ELECTRONICS, INC. AND SHALL NOT BE REPRODUCED OR USED IN THE NAME OF THE MANUFACTURER OR FOR ANY OTHER PURPOSE WITHOUT PERMISSION. DIMENSIONAL TOLERANCES<table><tr><th>UNIT</th><th>MIN</th><th>MAX</th></tr><tr><td>mm</td><td>0.05</td><td>0.10</td></tr><tr><td>inch</td><td>0.002</td><td>0.004</td></tr></table> Drawn: 01/07/10 Approved: 01/07/10 DATE: 01/07/10 SIZE: A4 DESCRIPTION: INDUCTOR PART NO.: 2876085201 REV.: 02						UNIT	MIN	MAX	mm	0.05	0.10	inch	0.002	0.004
UNIT	MIN	MAX												
mm	0.05	0.10												
inch	0.002	0.004												

FRAMES NAME : DF-WACAGE-0000001

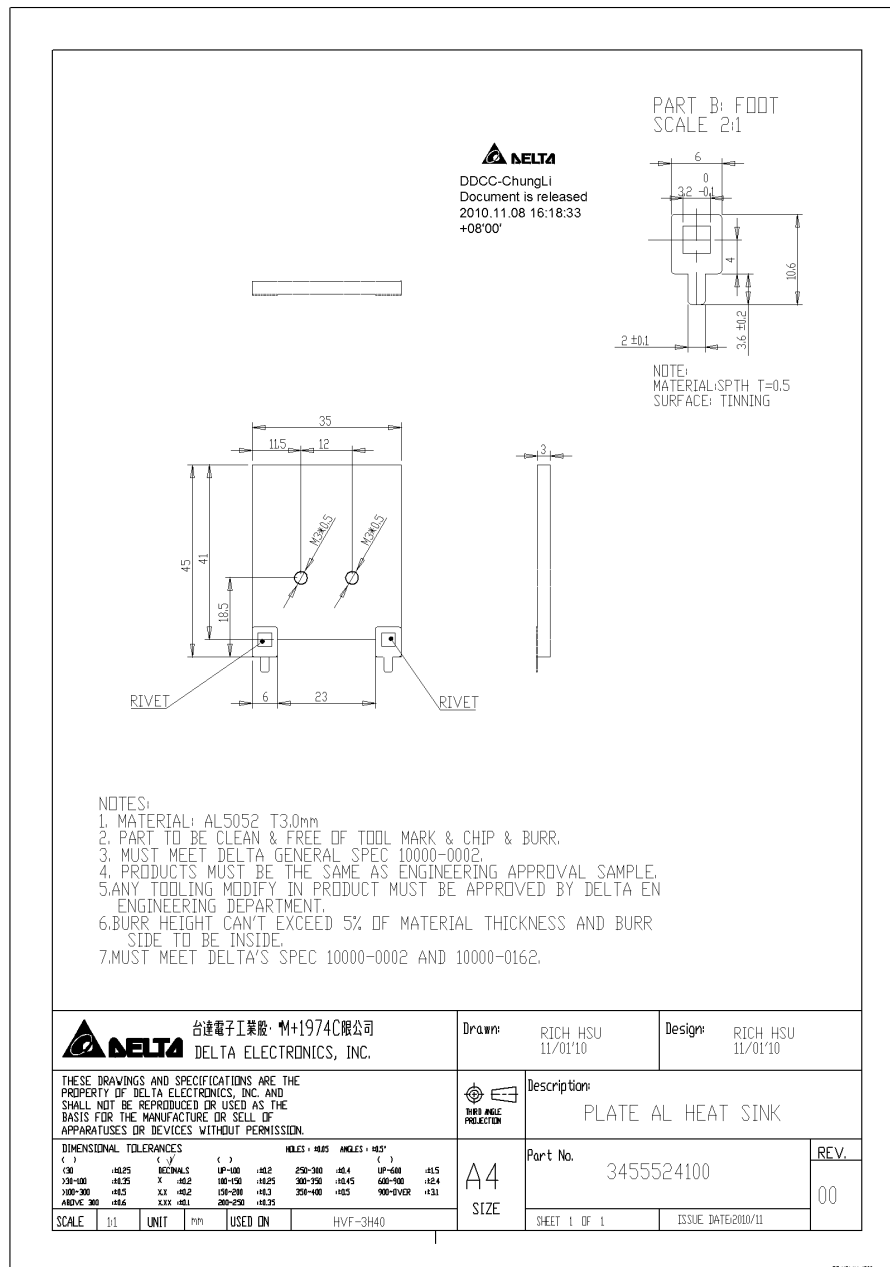
ITEM F8700004000

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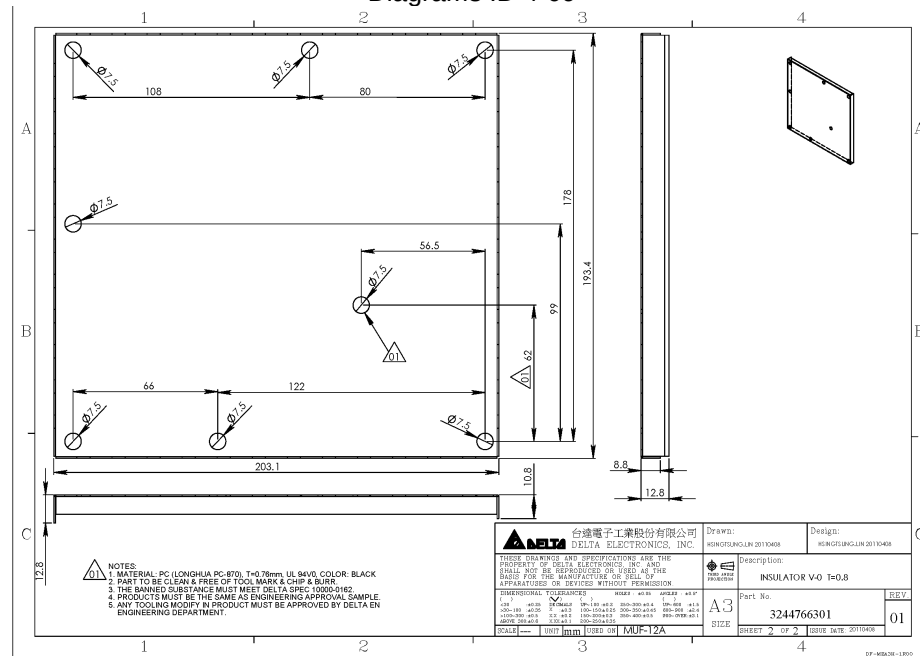


Enclosures

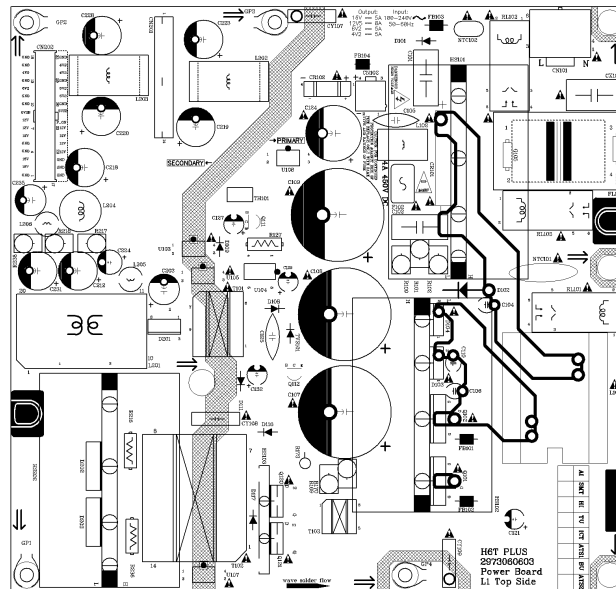
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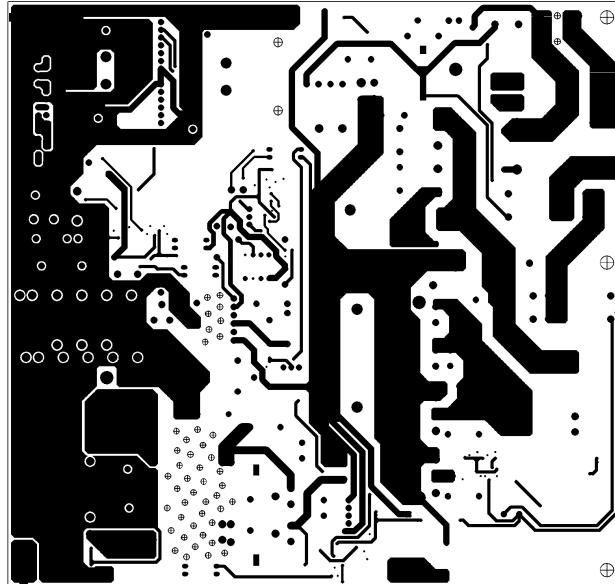
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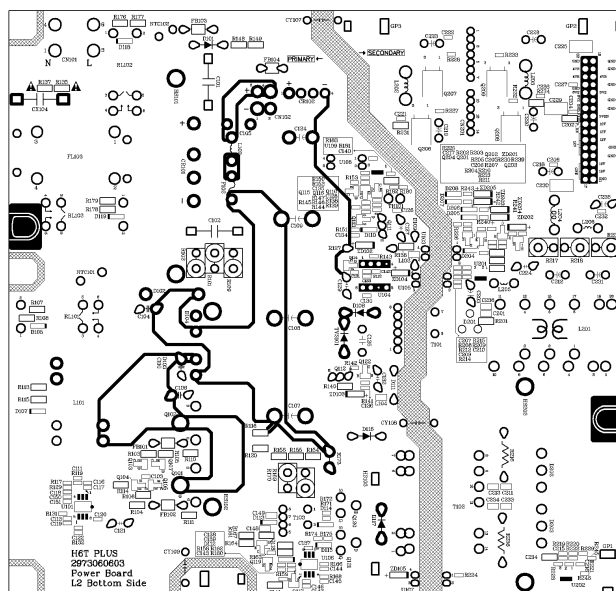
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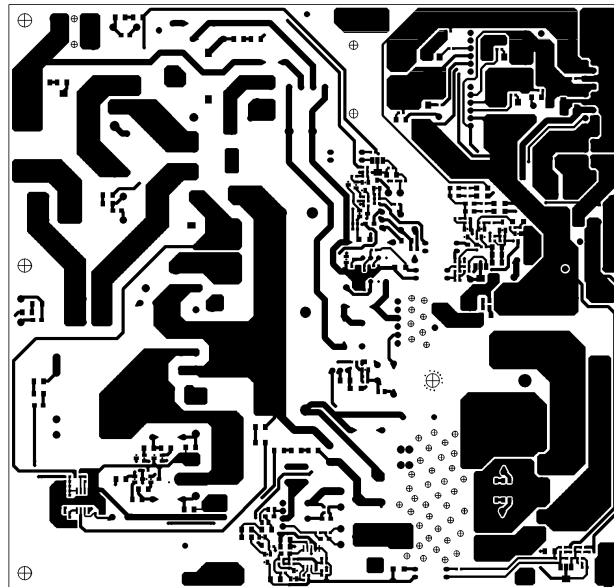
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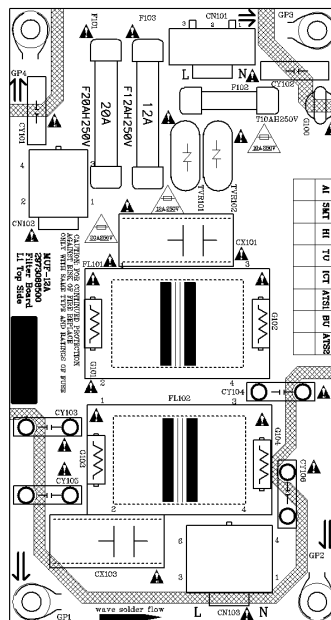
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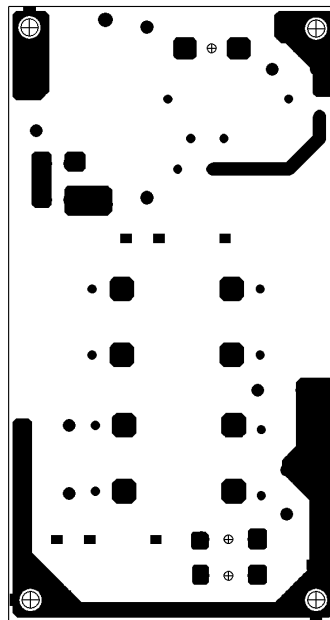
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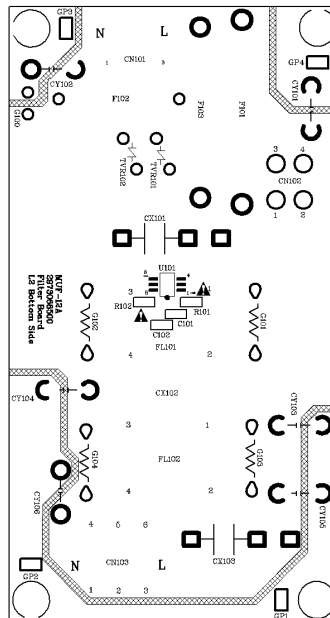
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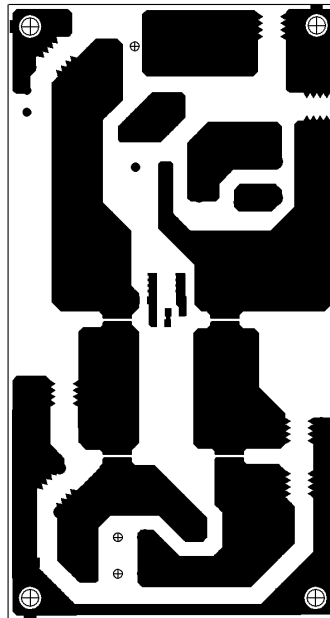
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Schematics ID 5-02



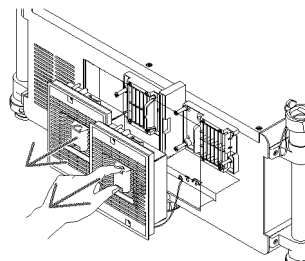
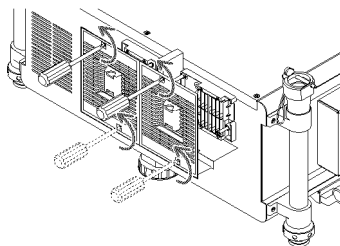
Schematics ID 5-02



Manuals ID 6-01

7. Maintenance**To replace the lamp:****1. Remove the lamp cover.**

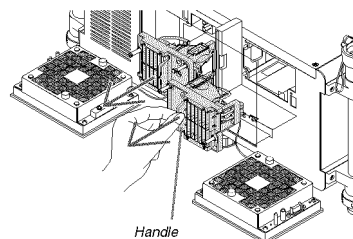
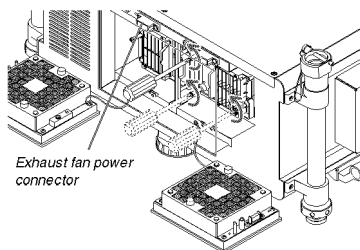
- (1) Loosen the two lamp cover screws.
 - The lamp cover screw is not removable.
- (2) Pull the lamp cover towards you and remove it.

**2. Remove the lamp housing.**

- (1) Loosen the three screws securing the lamp housing until the phillips screwdriver goes into a freewheeling condition.
 - The three screws are not removable.
 - Do not touch the exhaust fan power connectors.
- (2) Remove the lamp housing by holding it.

CAUTION:

Make sure that the lamp housing is cool enough to handle before removing it.



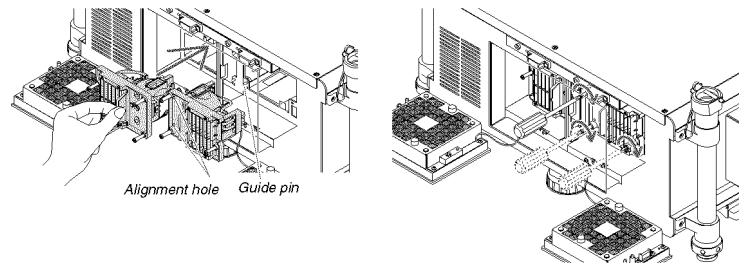
Manuals ID 6-01

7. Maintenance**3. Install a new lamp housing.**

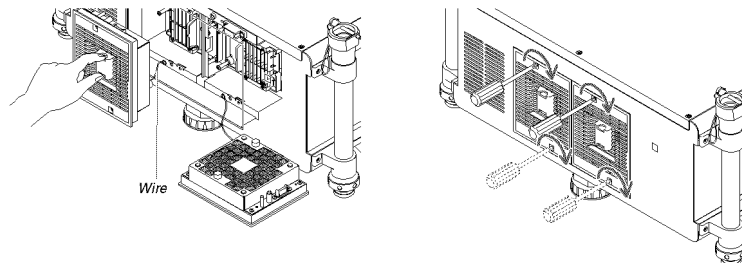
- (1) Insert a new lamp housing until the lamp housing is plugged into the socket.
- (2) Secure it in place with the three screws.
 - Be sure to tighten the screws.

NOTE:

- Be sure to install both Lamp 1 and Lamp 2. The projector will not turn on unless both the lamps are installed.

**4. Reattach the lamp cover.**

- (1) Align the left side of the lamp cover with the left side of the lamp housing and reattach the lamp cover. While doing so, place the wire inside the lamp compartment so as not to get it caught under the lamp cover.
- (2) Tighten the two screws to secure the lamp cover.
 - Be sure to tighten the screws.



**This completes the lamp replacement.
Go on to the filter replacement.**

NOTE: When you continue to use the projector for another 100 hours after the lamp has reached the end of its life, both LAMP 1 and LAMP 2 indicators will light red and the projector cannot turn on and the menu is not displayed. If this happens, press the HELP button on the remote control for 10 seconds to reset the lamp clock back to zero. When the lamp time clock is reset to zero, the LAMP indicator goes out. When only one lamp is replaced, select [RESET] from the menu to reset the lamp hour used. Do not press the HELP button.

Enclosures

Misc ID 7-01

Table 2.1.1.5	Energy Hazard Measurements				N/A
Accessible Parts	Test Points From / To	Maximum VA	Maximum V (Volts)	Maximum A (Amps)	
Note(s):					

Table 2.1.1.7	Capacitance Discharge Test					PASS
Measurement Locations	Fuse In/Out	Switch Position	V _o (V pk)	37% V _o (V pk)	V _{tc} (V pk)	
L-N	In	--	356	131	120	
Note(s): CX101=CX103 =1 uF, 250 Vac R101=R102=R135= R137= 392 K ohm Discharge IC: U101 CX104=0.47 uF, 250 Vac						

Table 2.2	SELV Reliability Test						PASS
Hazardous Voltage (Circuit) Measurement							
Clearance and creepage distance at/of:			Up (V)	U r.m.s. (V)	Limiting component		
T102 pin 8 to GND			56	--	--		
After D202 pin 2 to GND			54	--	--		
After L201 pin 13 to GND			14	--	L201		
T102 pin14 to GND			56	--	--		
After D203 to GND			52	--	--		
After L201B pin 20 to GND			25.4	--	L201B		
No. Accessible Part From - To	Component No. (Voltage Limiting)	Fault	Test Voltage	Test time (Duration)	Fuse No.	Fuse Current (A)	Result Specify Maximum Vpk or V dc
12V – GND (T102 pin 8)	L201	SC	240	--	F103	0.23	0
16V – GND (T102 pin 14)	L201B	SC	240	--	F103	0.23	0
Note(s):							

Enclosures

Table 2.4.2	Limited Current Circuit Measurements					PASS
Fault	Volts Peak	Volts dc	mA _p	mA dc	Frequency kHz	
Result Part I						
User Accessible Live Part: CY108 to Pole 1: earth						
Normal	4.48	--	2.24	--	101K	
User Accessible Live Part: CY107 to Pole 1: earth						
Normal	8.6	--	4.3	--	69.44K	
Note(s):						

Table 2.5	Limited Power Source Measurements					PASS
Output Tested	Measured		Single Fault Condition	Maximum		
	From	To		U _{oc}	I _{sc}	VA 5 s
LAN	1, 2, 3, 4, 5, 6, 7, 8	GND	Normal	0	0	0
USB	1, 2, 3	GND	Normal	0	0	0
USB	4	GND	Normal	5	1.3	6.3
USB	4	GND	X9602 short	5	1.4	6.4
USB	4	GND	IC9605 (6-7) short	5	1.4	6.4
VGA (Computer 1, 2)	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14	GND	Normal	0	0	0
VGA (Computer 1, 2)	12, 15	GND	Normal	4.6	0.015	0.02
HDMI	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19	GND	Normal	0	0	0
Display port in	18	GND	Normal	3.3	0.045	0.08
Display port in	1, 3, 4, 6, 7, 9, 10, 12	GND	Normal	0.67	0.015	0.01
Display port in	2, 5, 8, 11, 13, 14, 15, 16, 17, 19, 20	GND	Normal	0	0	0
Video in	1, 2	GND	Normal	0	0	0
SDI in	1	GND	Normal	0.06	0	0
SDI in	2	GND	Normal	0	0	0
SDI out	1, 2	GND	Normal	0	0	0
Monitor out	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15	GND	Normal	0	0	0
RGBHV (Computer 3)	1, 2, 3, 4, 5	GND	Normal	0	0	0
S-Video	1, 2, 3, 4	GND	Normal	0	0	0
PC control	1, 2, 4, 5, 6, 7, 8, 9	GND	Normal	0	0	0

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PC control	3	GND	Normal	5.5	0.021	0.11
Remote	2	GND	Normal	4.7	0.23	0.66
Remote	2	GND	R1044 short	4.7	0.24	0.72
Remote	1, 3, 4, 5	GND	Normal	0	0	0
Note(s):						

Table 2.6.3.4	Earthing Test				PASS
Accessible Conductive Part		Current (Amps)	Voltage Drop (Volts)	Resistance (Ù)	
The PE pin of inlet to the I/O metal case		32	0.288	0.009	
The PE pin of inlet to the furthest metal case		32	0.256	0.08	
The PE pin of inlet to the I/O metal case		40	0.36	0.009	
The PE pin of inlet to the furthest metal case		40	0.32	0.008	
Note(s):					

Table 2.10.2	Working Voltage Measurement Test			PASS
Clearance and creepage distance dcr at/of:		Up (V)	U r.m.s. (V)	
T102 pin 1/ pin 8		448	250	
T102 pin 1/ pin 10		416	230	
T102 pin 1/ pin 14		448	258	
T102 pin 7/ pin 8		400	208	
T102 pin 7/ pin 10		410	216	
T102 pin 7/ pin 14		398	208	
T101 pin 1/ pin 7		344	178	
T101 pin 1/ pin 9		350	178	
T101 pin 2/ pin 7		300	180	
T101 pin 2/ pin 9		416	182	
T101 pin 3/ pin 7		352	180	
T101 pin 3/ pin 9		328	180	
T101 pin 4/ pin 7		476	200	
T101 pin 4/ pin 9		480	203	
T101 pin 5/ pin 7		328	182	
T101 pin 5/ pin 9		328	186	
T101 pin 6/ pin 7		392	182	
T101 pin 6/ pin 9		408	180	
U103 pin 1 / pin 3		330	185	
U103 pin 1 / pin 4		336	183	
U103 pin 2 / pin 3		336	184	
U103 pin 2 / pin 4		340	183	
U105 pin 1 / pin 3		336	181	

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U105 pin 1 / pin 4	336	181
U105 pin 2 / pin 3	340	181
U105 pin 2 / pin 4	336	181
U107 pin 1 / pin 3	336	184
U107 pin 1 / pin 4	336	184
U107 pin 2 / pin 3	340	180
U107 pin 2 / pin 4	344	176
Ballast output / GND	2440	757.8
Note(s):		

Table 5.1.6		Touch Current Test					PASS
Terminal A (Switch “s”) of Measuring Instrument Connected to:	Switch “e” Position	Test voltage	Touch Current (mA r.m.s.)				
			Polarity P1/Primary Switch Condition				
			Normal/On	Normal/Off	Reverse/On	Reverse/Off	
I/O port Metal Connector	Open	264Vac	1	0.03	1	0.03	
User’s accessible part (plastic enclosure with foil)	Close	264Vac	0.005	0.005	0.005	0.005	
I/O port Metal Connector	Open	100Vac	0.4	0.03	0.4	0.03	
Note(s):							

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DRAFT CB TEST CERTIFICATE INFORMATION

Generated by ULtraLink on: 2011/07/28

Product	DLP Projector
Name and address of the Applicant	DELTA ELECTRONICS INC 3 TUNG YUAN RD CHUNGLI INDUSTRIAL ZONE TAOYUAN HSIEN 320 TAIWAN
Name and address of the Manufacturer	SAME AS APPLICANT
Name and address of the Factory(ies)	1). DELTA VIDEO DISPLAY SYSTEM (WUJIANG) LTD WUJIANG ECONOMIC DEVELOPMENT ZONE, 1688 JIANGXING EAST RD, WUJIANG JIANGSU, CHINA 2). DELTA ELECTRONICS, INC. 3. TUNG YUAN RD CHUNGLI INDUSTRIAL ZONE TAOYUAN HSIEN 320, TAIWAN
Rating and principal characteristics	100-130 Vac, 11.2A, 50/60 Hz; 200-240 Vac, 5.4 A, 50/60 Hz
Trademarks (if any)	NEC 
Model / Type ref.	NP-PH1000yyyy (y can be any character or blank for marketing purpose and no impact safety related critical components and constructions.)
Additional information (if necessary)	
A sample of the product was tested and found to be in conformity with	IEC 60950-1:2005 (Second Edition) inclusive of CENELEC Common Modifications. See Test Report for National Differences.
As shown in the Test Report Ref. No. which forms part of this Certificate	E134786-A77
Client Representative	Ms. Bonnie Liu
Client email (or fax)	+886 03 452-6107#8708

This form is to acknowledge that the above information has been reviewed and the material has been found to be accurate as stated. This is also to record client's confirmation that above factories manufacture product(s) that are equal to those submitted for testing and certification. (Refer to IEC 02, Sub-clause 6.2.5: "When the application covers more than one factory, the address of each factory

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shall be stated in the CB Test Certificate and the NCB shall take steps to ensure that the products from all the factories are equal. That shall be confirmed in the Test Report.")

Signed: Bonnie LTA

Dated: 2011/07/28

*Definitions per IECEE 02 (<http://www.iecee.com/cbscheme/pdf/IECEE02.pdf>):

Applicant: A firm or a person who applies to an NCB for obtaining a CB Test Certificate.

Manufacturer: An organization, situated at a stated location or locations, that carries out or controls such stages in the manufacture, assessment, handling and storage of a product that enables it to accept responsibility for continued compliance of the product with the relevant requirements and undertakes all obligations in that connection.

Factory: The location(s) at which the product is produced or assembled and follow-up service is established by the NCB.

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J3000(H21) Attachment 206			
Clause	Requirement - Test	Result - Remark	Verdict
Japan Differences to IEC Standards			
1. General	Equipment employs appliance couplers as defined in JIS C 8283-1(2008): Equipment shall be so constructed that mechanical force is not transmitted to soldering section of appliance coupler when connector is inserted in or pulled out. This requirement is not applied to equipment which appliance coupler is security fixed, and installation of appliance coupler is not relied solely on soldering. Verdict shall be judged by visual inspection.	Added	Pass

Notes:

1. Product scope of JIS C 8283-1(2008) is harmonized with IEC60320-1 (2001).
2. General requirement is applied to all Specified and Non-Specified PSE products when J-Standard is used.

TRF No.: J3000(H21)

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

ATTACHMENT TO TEST REPORT IEC 60950-1 JAPAN NATIONAL DIFFERENCES			
Information technology equipment – Safety – Part 1: General requirements			
Differences according to: J60950-1(H22)			

National Differences - Japan			
1.2.4.1	Add the following new NOTE. NOTE Even if the equipment is designed as Class I, the equipment is regarded as Class 0I equipment when a 2-pin adaptor with an earthing lead wire or a cord set having a 2-pin plug with an earthing lead wire is provided or recommended.		N
1.2.4.3A	Add the following new clause. 1.2.4.3A CLASS 0I EQUIPMENT Equipment having attachment plug without earthing blade, where protection against electric shock is achieved by: - using BASIC INSULATION, and - providing externally an earth terminal or a lead wire for earthing in order to connect those conductive parts that might assume a HAZARDOUS VOLTAGES in the event of BASIC INSULATION fault to the PROTECTIVE EARTHING CONDUCTOR in the building wiring. NOTE Class 0I equipment may have a part constructed with Double Insulation or Reinforced Insulation circuit.		N
1.3.2	Add the following notes after the first paragraph: NOTE 1 Transportable or similar equipment that is relocated frequently for intended usage should not be designed as Class I or Class 0I equipment unless it is intended to be installed by service personnel. NOTE 2 Considering wiring circumstance in Japan, equipment intended to be installed where the provision for earthing connection is unlikely should not be designed as Class I or Class 0I equipment unless it is intended to be installed by service personnel.		N

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IEC 60950-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
1.5.1	Replace the first paragraph with the following: Where safety is involved, components shall comply either with the requirements of this standard or with the safety aspects of the relevant JIS component standard or IEC component standards in case there is no applicable JIS component standard is available. However, in case a component that falls within the scope of the METI Ministerial ordinance (No. 85:1962) is properly used in accordance with its marked ratings, the requirements of 1.5.4, 2.8.7 and 3.2.5 apply, and in addition, a cord connector of power supply cord set matching with an appliance inlet specified in the standard sheets of IEC 60320-1, shall comply with relevant standard sheet of IEC 60320-1. Replace NOTE 1 with the following: NOTE 1 A JIS or an IEC component standard is considered relevant only if the component in question clearly falls within its scope.	Replaced	P

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IEC 60950-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
1.5.2	Replace the first sentence in the first dashed paragraph with the following: - a component that has been demonstrated to comply with a JIS component standard harmonized with the relevant IEC component standard, or where such JIS component standard is not available, a component that has been demonstrated to comply with the relevant IEC component standard shall be checked for correct application and use in accordance with its rating. Add a NOTE after the first dashed paragraph as follows: NOTE 1 See 1.7.5A when Type C.14 appliance coupler rated 10 A per IEC 60320-1 is used with an equipment rated not more than 125 V and rated more than 10 A. Replace the first sentence in the third dashed paragraph as follows: - where no relevant IEC component standard or JIS component standard harmonized with the relevant IEC component standard exists, or where components are used in circuits not in accordance with their specified rating, the components shall be tested under the conditions occurring in the equipment.	Replaced	P
1.5.6	In this sub-clause, add "JIS C 5101-14:1998 or" before the reference number, IEC 60384-14:1993.	Added	P
1.5.7.2	In this sub-clause, add "JIS C 5101-14:1998 or" before the reference number, IEC 60384-14:1993.	Added	P
1.5.8	In the first paragraph, add "JIS C 5101-14:1998 or" before the reference number, IEC 60384-14:1993.	Added	P
1.7.1	Replace the fifth dashed paragraph with the following: - manufacturer's or responsible company's name or trade-mark or identification mark;	Replaced	P
1.7.5	In the second paragraph, add "or JIS C 8303:2007" after the reference number, IEC/TR 60083:1997".	Added	P

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IEC 60950-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.5A	Add the following new clause after 1.7.5 1.7.5A Appliance Couplers If an appliance coupler according to IEC 60320-1, C.14(rated current: 10 A) is used in equipment whose rated voltage is less than 125 V and the rated current is over 10 A, the following instruction or equivalent shall be described in the user instruction. “ Use only designated cord set attached in this equipment”		P
1.7.12	Replace first sentence with the following: Instructions and equipment marking related to safety shall be in Japanese.	Replaced	P
1.7.17A	Add the following new clause after 1.7.17 1.7.17A Marking for CLASS 0I EQUIPMENT For CLASS 0I EQUIPMENT, the following instruction shall be marked on the visible place of the mains plug or the main body: 必ず接地接続を行って下さい “Provide an earthing connection” Moreover, for CLASS 0I EQUIPMENT, the following or equivalent instruction shall be indicated on the visible place of the main body or written in the operating instructions: 接地接続は必ず、電源プラグを電源につなぐ前に行って下さい。又、接地接続を外す場合は、必ず電源プラグを電源から切り離してから行って下さい。 “ Provide an earthing connection before the mains plug is connected to the mains. And, when disconnecting the earthing connection, be sure to disconnect after pulling out the mains plug from the mains.”	Shall be evaluated when submitting this CB Report to a National Certification Body (NCB) to obtain a National Mark.	N
2.1.1.1	In item b) of this sub-clause, replace “IEC 60083” with “JIS C 8303:2007 or Article 1 of the Ministerial Ordinance (No. 85:1962)”	Replaced.	P
2.6.3.2	Add the following after the first paragraph. This also applies to the conductor of lead wire for protective earthing of CLASS 0I EQUIPMENT.		N

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IEC 60950-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
2.6.4.2	Replace the first paragraph with the following. Equipment required to have protective earthing shall have a main protective earthing terminal. For equipment with a DETACHABLE POWER SUPPLY CORD, the earthing terminal in the appliance inlet is regarded as the main protective earthing terminal except for CLASS 0I EQUIPMENT providing separate main protective earthing terminal other than appliance inlet.		N
2.6.5.4	Replace the first sentence with the following. Protective earthing connections of CLASS I EQUIPMENT shall make earlier and break later than the supply connections in each of the following:		N
2.6.5.8A	Add the following new clause after 2.6.5.8 2.6.5.8A Earthing of CLASS 0I EQUIPMENT Plugs with a lead wire for earthing shall not be used for equipment having a rated voltage exceeding 150 V. For plugs with a lead wire for earthing, the lead wire shall not be earthed by a clip. CLASS 0I EQUIPMENT shall be provided with an earthing terminal or a lead wire for earthing in the external location where easily visible.		N
2.10.3.1	In this sub-clause, replace IEC 60664-1 with JIS C 0664:2003.	Replaced.	P
2.10.3.2	In the second paragraph, replace IEC 60664-1 with JIS C 0664:2003.	Replaced.	P
3.2.3	Add the following after Table 3A: Table 3A applies when cables complying with JIS C 3662 or JIS C 3663 are used. In case of other cables, the cable entries shall be so designed that a conduit suitable for the cable used can be fitted.		N

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IEC 60950-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.5.1	Add the following to the last of first dashed paragraph. Or mains cords shall be of the sheathed type complying with Appendix 1 of Article 1 of the Ministerial Ordinance (No. 85:1962) on stipulating technical requirements for the Electrical Appliance. Add the following to the last of second dashed paragraph. Or mains cords shall be of the sheathed type complying with Appendix 1 of Article 1 of the Ministerial Ordinance (No. 85:1962) on stipulating technical requirements for the Electrical Appliance. Delete 1) in Table 3B.		N
3.3.4	Add the following note to Table 3D: NOTE For cables other than those complying with JIS C 3662 or JIS C 3663, terminals shall be suitable for the size of the intended cables.		N
3.3.7	Add the following after the first sentence: This requirement is not applicable to the external earthing terminal of Class 0I equipment.		N
4.3.4	Add the following after the first sentence: This requirement also applies to those connections in Class 0I equipment, where CLEARANCE or CREEPAGE DISTANCES over BASIC INSULATION would be reduced to less than the values specified in 2.10.		N
4.3.13.5	Replace the first paragraph with the following: Except as permitted below, equipment shall be classified and labelled according to JIS C 6802:2005, and JIS C 6803:2006 or IEC 60825-2:2000, as applicable. Replace IEC 60825-1 in the second and the last paragraph with JIS C 6802:2005.	Replaced	N

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IEC 60950-1 ATTACHMENT																														
Clause	Requirement + Test	Result - Remark	Verdict																											
4.5	Add the following NOTE to Table 4B, 3): NOTE: In case no data for the material is available, Appendix 4, 4. (1). b. 3 of the Interpretation on the Ministerial Ordinance stipulating Technical Specifications for Electrical Appliances (Commerce and Distribution Policy Group No. 3:2008/06/19) may apply.	Added	P																											
5.1.3	Add a note after the first paragraph as follows: NOTE Attention should be drawn to that majority of three-phase power system in Japan is of delta connection, and therefore, in that case, the test is conducted using the test circuit from IEC 60990, figure 13.	Added	P																											
5.1.6	Replace Table 5A as follows: <table><tr><th>Type of equipment</th><th>Terminal A of measuring instrument connected to:</th><th>Maximum TOUCH CURRENT mA r.m.s.¹⁾</th><th>Maximum PROTECTIVE CONDUCTOR CURRENT</th></tr><tr><td>All equipment</td><td>Accessible parts and circuits not connected to protective earth</td><td>0,25</td><td>-</td></tr><tr><td>HAND-HELD</td><td rowspan="5">Equipment main protective earthing terminal (if any) CLASS I EQUIPMENT</td><td>0,75</td><td>-</td></tr><tr><td>MOVABLE (other than HAND-HELD, but including TRANSPORTABLE EQUIPMENT</td><td>3,5</td><td>-</td></tr><tr><td>STATIONARY, PLUGGABLE TYPE A</td><td>3,5</td><td>-</td></tr><tr><td>All other STATIONARY EQUIPMENT - not subject to the conditions of 5.1.7 - subject to the conditions of 5.1.7</td><td>3,5 -</td><td>- 5 % of input current</td></tr><tr><td>HAND-HELD</td><td>0,5</td><td>-</td></tr><tr><td>Others</td><td>CLASS 0I EQUIPMENT</td><td>1,0</td><td>-</td></tr></table> ¹⁾ If peak values of TOUCH-CURRENT are measured, the maximum values obtained by multiplying the r.m.s. values by 1,414.	Type of equipment	Terminal A of measuring instrument connected to:	Maximum TOUCH CURRENT mA r.m.s. ¹⁾	Maximum PROTECTIVE CONDUCTOR CURRENT	All equipment	Accessible parts and circuits not connected to protective earth	0,25	-	HAND-HELD	Equipment main protective earthing terminal (if any) CLASS I EQUIPMENT	0,75	-	MOVABLE (other than HAND-HELD, but including TRANSPORTABLE EQUIPMENT	3,5	-	STATIONARY, PLUGGABLE TYPE A	3,5	-	All other STATIONARY EQUIPMENT - not subject to the conditions of 5.1.7 - subject to the conditions of 5.1.7	3,5 -	- 5 % of input current	HAND-HELD	0,5	-	Others	CLASS 0I EQUIPMENT	1,0	-	Replaced
Type of equipment	Terminal A of measuring instrument connected to:	Maximum TOUCH CURRENT mA r.m.s. ¹⁾	Maximum PROTECTIVE CONDUCTOR CURRENT																											
All equipment	Accessible parts and circuits not connected to protective earth	0,25	-																											
HAND-HELD	Equipment main protective earthing terminal (if any) CLASS I EQUIPMENT	0,75	-																											
MOVABLE (other than HAND-HELD, but including TRANSPORTABLE EQUIPMENT		3,5	-																											
STATIONARY, PLUGGABLE TYPE A		3,5	-																											
All other STATIONARY EQUIPMENT - not subject to the conditions of 5.1.7 - subject to the conditions of 5.1.7		3,5 -	- 5 % of input current																											
HAND-HELD		0,5	-																											
Others	CLASS 0I EQUIPMENT	1,0	-																											
6	Replace IEC 60664-1 in NOTE 4 with JIS C 0664.	Replaced	N																											
7	Replace IEC 60664-1 in NOTE 3 with JIS C 0664:2003.	Replaced	N																											

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IEC 60950-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
7.2	Add the following after the paragraph: However, the separation requirements and tests of 6.2.1 a), b) and c) do not apply to a CABLE DISTRIBUTION SYSTEM if all of the following apply: - the circuit under consideration is a TNV-1 CIRCUIT; and - the common or earthed side of the circuit is connected to the screen of the coaxial cable and to all accessible parts and circuits (SELV, accessible metal parts and LIMITED CURRENT CIRCUITS, if any); and - the screen of the coaxial cable is intended to be connected to earth in the building installation.	Added	N
W.1	Replace the second and the third sentence in the first paragraph with the following: This distinction between earthed and unearthed (floating) circuit is not the same as between CLASS I EQUIPMENT, CLASS 0I EQUIPMENT and CLASS II EQUIPMENT. Floating circuits can exist in CLASS I EQUIPMENT or CLASS 0I EQUIPMENT and earthed circuits in CLASS II EQUIPMENT.	Replaced	N

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IEC 60950-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
Annex JA	Add a new annex JA with the following contents. Annex JA (normative) Document shredding machines Document shredding machines shall also comply with the requirements of this annex except those of STATIONARY EQUIPMENT used by connecting directly to an AC MAINS SUPPLY of three-phase 200V or more. JA.1 Markings and instructions The symbol  (JIS S 0101:2000, 6.2.4) and the following precautions for use shall be marked on readily visible part adjacent to document feed opening. The marking shall be clearly legible, permanent, and easily discernible; - that use by an infants/children may cause a hazard of injury etc.; - that a hand can be drawn into the mechanical section for shredding when touching the document-slot; - that clothing can be drawn into the mechanical section for shredding when touching the document-slot; - that hairs can be drawn into the mechanical section for shredding when touching the document-slot; - in case of equipment incorporating a commutator motor, that equipment may catch fire or explode by spraying of flammable gas. JA.2 Inadvertent reactivation Any safety interlock that can be operated by means of the test finger, Figure JA.1, is considered to be likely to cause inadvertent reactivation of the hazard. Compliance is checked by inspection and, where necessary, by a test with the test finger, Figure JA.1 JA.3 Disconnection from the mains supply Document shredding machines shall incorporate an isolating switch complying with sub-clause 3.4.2 as the device disconnecting the power of hazardous moving parts. For this switch, two-position (single-use) switch or multi-position (multifunction) switch (e.g., slide switch) may be used.		N

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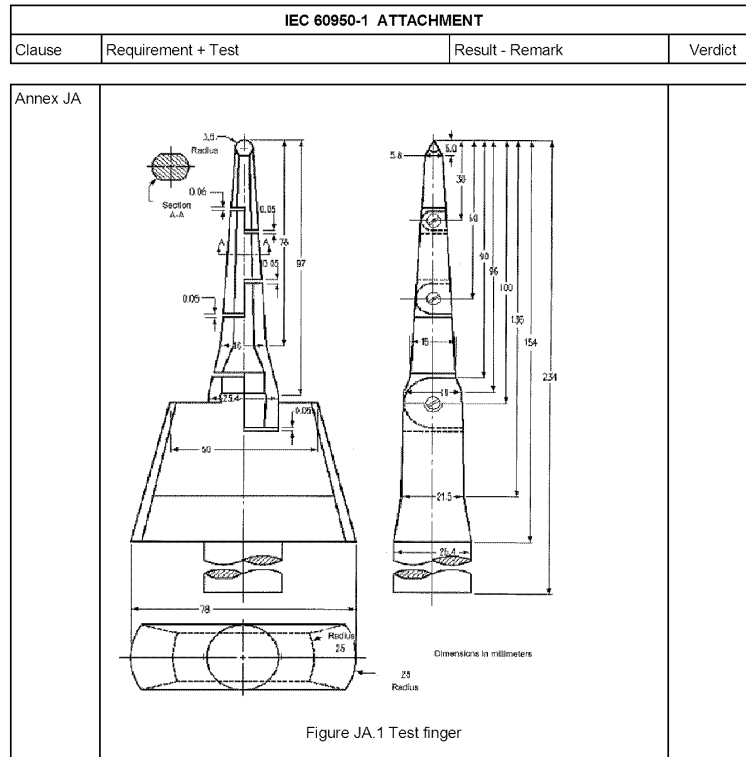
IEC 60950-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
Annex JA	If two-position switch, the positions for "ON" and "OFF" shall be indicated in accordance with sub-clause 1.7.8. If multi-position switch, the position for "OFF" shall be indicated in accordance with sub-clause 1.7.8 and other positions shall be indicated with proper terms or symbols. Compliance is checked by inspection JA.4 Protection against hazardous moving parts Any warning shall not be used instead of the structure for preventing access to hazardous moving parts. Document shredding machines shall comply with the following requirements. Push-Insert the test finger, Figure JA.1, into all openings in MECHANICAL ENCLOSURES without applying additional appreciable force. It shall not be possible to touch hazardous moving parts with the test finger. This consideration applies to the document shredding machine is installed as intended, and all face sides of MECHANICAL ENCLOSURES when the equipment is mounted as intended are subjected to this test. Before testing with the test finger, remove the parts detachable without a tool. InsertPush the wedge-probe, Figure JA.2, into the document-slot. And, against all directions of openings, if straight-cutting type, a force of 45 N shall apply to the probe, and 90 N if cross-cutting type. In this case, the weight of the probe is to be factored into the overall applied force shall not influence the test. Before testing with the test finger wedge-probe, remove the parts detachable without a tool. It shall not be possible to touch any hazardous moving parts, including the shredding roller or the mechanical section for shredding, with the probe.		P

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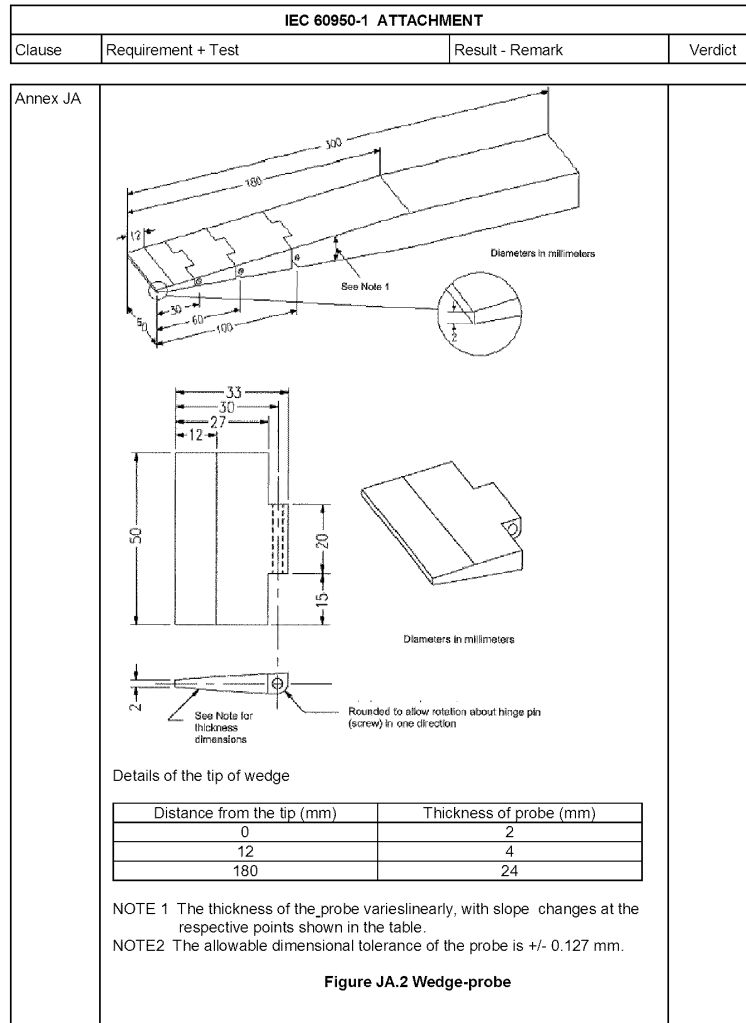


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EQUIPMENT CALIBRATION CERTIFICATE

ANNEX 2

Equipment Calibration Certificate

Insert here a copy of the manufacturer's equipment calibration certificate utilized during testing.

TEST INSTRUMENTS REFERENCE LIST

Instr Code	Instr I.D.	Range	Instr Type	Make and Model	Calibration Date (Y-M-D)	
					Last	Due
1	E09-085	500V/30A	Power Meter Tester	Zentech, 2100	2011-01-27	2012-01-26
2	E09-081	500V/20A	Power Meter Tester	Zentech, 2100	2011-01-21	2012-01-20
4	E18-935	300V/10A	AC Source	TOPTEK, TK2010	2011-05-10	2012-05-09
5	E18-936	300V/10A	AC Source	TOPTEK, TK2010	2011-02-15	2012-02-14
6	E06-387	H:10K~100KH V:50~100Hz	Graphics Generator	Chroma, 2251	2011-05-12	2012-05-11
7	E06-386	H:10K~100KH V:50~100Hz	Graphics Generator	Chroma, 2251	2011-05-12	2012-05-11
8	E08-094	0-600 sec	Timer	Timer	2011-05-10	2012-05-09
11	E24-248	-30°C~150°C, 20%~95% humidity (0~24H)	Humidity Chamber (including timer)	Taiichy	2011-02-08	2012-02-08
12	E07-489	400MHz, 2Gs/s (50V, 50ms)	Oscilloscope	Tektronix TDS380	2011-05-19	2012-05-18
13	E17-070	0°C~200°C (0~24H)	Temperature Recorder (including timer)	YOKOGAWA UR1800	2010-02-02	2011-08-01
15	E12-243	5KV/10mA (0~120s)	Hi-Pot meter (including timer)	Zentech 9072	2011-03-02	2011-09-01
17	E26-065	(A)10/MIU (B)3/MIU (C)1/MIU (D)0.1/MIU	Leakage meter	Simpson 228	2011-01-27	2012-01-26
18	E18-947	CH1 and CH2: 60V/60A, CH3 and CH4: 250V/10A	DC Load	Zentech 2601A	2010-12-29	2011-12-28
19	E18-946	CH1 and CH2: 60V/60A, CH3 and CH4: 250V/10A	DC Load	Zentech 2601A	2010-12-29	2011-12-28
20	E22-772	200mm	Caliper	Mitutoyo	2010-12-28	2011-12-28

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Enclosures

Misc ID 7-05

EQUIPMENT CALIBRATION CERTIFICATE						
Inst. Code	Instr. I.D.	Range	Instr. Type	Make and Model	Calibration Date	
					Last	Due
21	E10-883	750Vac, 1000Vdc, 19A, 1Mohm	Digital Multimeter	Zentech 2041	2011-01-14	2012-01-13
22	E13-087	40A, 150 ohm (2 Min.)	Earth Continuity Tester (including timer)	Chroma, 19572	2011-05-03	2011-11-02
23	E17-112	-50°C~200°C (0~24H)	Temperature Recorder (including timer)	Yokogawa DR230	2010-12-30	2011-12-29
24	E11-K013	30V/5A	DC Power supply	Tapward 6306D	2011-04-08	2012-04-07
26	E21-236	5kg	Weight meter	EXCELL	2011-06-30	2012-06-29
28	E21-299	30kg	Push-Pull scale	Japan Instrumentation System NK-500	2011-01-14	2012-01-13
29	E06-152	Max. 10KHz	Audio Generator	Good Will GAG-808G	2010-12-30	2011-12-29
31	E22-922	1M	Measuring tape	精工操尺 5m	2011-05-09	2012-05-08
33	E21-324	200kg	Weight meter	永華度量衡有限公司	2010-08-03	2011-08-02
37	E24-194	-40°C~150°C 20%~98% humidity (0~24H)	Humidity Chamber (including timer)	Taiobx	2011-07-21	2012-07-20
45	E18-1861	300V/20A	AC source	True power AC power source, TFC-1003	2010-01-11	2012-01-10
46	E24-634	-40°C~80°C, 20%~95% humidity (0~24H)	Humidity Chamber (including timer)	Taiobx	2011-07-21	2012-07-20
47	E20-341	100M, 7pF	High Voltage Probe	WATSU HV-F30	2010-09-09	2011-09-08
48	E24-709	±2%RH accuracy @73°F Humidity: 0~95%	Thermo-hygrometer	Dickson TM320	2010-12-07	2011-12-06
49	E21-334	500g	Steel ball	—	2010-12-29	2011-12-28
50	E22-995	Bent a angle of 95°±5°	Test finger	PTL	2011-01-24	2012-01-23

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Misc ID 7-05

EQUIPMENT CALIBRATION CERTIFICATE

APPARATUS ID NO.	APPARATUS TYPE	Test No. +, Test Title	STANDARD	DATE CHECKED	CHECKED DUE DATE
3 SE-3	Sharp edge tester	Sharp edge test	UL50950-1	—	—
4 SE-4	Test pin	Construction review	UL50950-1	—	—
5 SE-5	ball pressure apparatus	BALL PRESSURE TEST	UL50950-1	—	—
6 SE-6	Wood plate	Impact test	UL50950-1	—	—
7 SE-7	Lamp rupture test fixture	Lamp rupture test	UL50950-1	—	—
8 SE-8	Petroleum spirit(Hexane)	Durability of marking test	UL50950-1	—	—
9 SE-9	Pipe	Impact test	UL50950-1	—	—
10 SE-10	DVD player	Input test	UL50950-1	—	—
11 SE-11	Tissue Paper	Abnormal test	UL50950-1	—	—
12 SE-12	Cheesecloth	Abnormal test	UL50950-1	—	—
13 SE-13	Tilt Wood plate	Stability test	UL50950-1	—	—
14 SE-14	Ceiling mount kit	Ceiling mount test	UL50950-1	—	—
15 SE-15	Digital signal generator	Input test	UL50950-1	—	—
16 SE-16	Wood plate	Drop test	UL50950-1	—	—
17 SE-17	Current Probe	Input test	UL50950-1	—	—

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Enclosures

Misc ID 7-07

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
EN 60950-1:2006+A11:2009 – CENELEC COMMON MODIFICATIONS			
Contents	Add the following annexes: Annex ZA (normative) Normative references to international publications with their corresponding European publications Annex ZB (normative) Special national conditions Annex ZC (informative) A-deviations		—
ZA	NORMATIVE REFERENCES TO INTERNATIONAL PUBLICATIONS WITH THEIR CORRESPONDING EUROPEAN PUBLICATIONS		—
ZB	SPECIAL NATIONAL CONDITIONS		
1.2.13.14	Add as new SNC: In Norway and Sweden , for requirements see 1.7.2.1 and 7.3 of this annex.		N/A
1.5.7.1	Replace the existing SNC by following: 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.		N/A
1.7.2.1	Add as new SNC: In Finland, Norway and Sweden , CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet. The marking text in the applicable countries shall be as follows: In Finland: "Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan" In Norway: "Apparatet må tilkoples jordet stikkontakt" In Sweden: "Apparaten skall anslutas till jordat uttag" 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. 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. 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: "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)."		N/A

Enclosures

Misc ID 7-07

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	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. Translation to Norwegian (the Swedish text will also be accepted in Norway): "Ustyr som er koplet til beskyttelsesjord via nettplugg og/eller via annet jordtilkoplede utstyr – og er tilkoplede 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." Translation to Swedish: "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."		
1.7.5	Add the following paragraph to the exiting SNC for Denmark: 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. For CLASS II EQUIPMENT the socket outlet shall be in accordance with Standard Sheet DKA 1-4a.		N/A
7.3	Delete the existing SNC for Norway and Sweden (based on NOTE 1 of IEC 60950-1:2005+corr.1) Add as new SNC (based on future NOTE 3 of IEC 60950-1:200X): In Norway and Sweden, for requirements see 1.2.13.14 and 1.7.2.1 of this annex.		N/A
ZC	A-DEVIATIONS (informative)		---
1.5.1	Sweden (Ordinance 1990:944) Delete the A-deviation.		---
1.7.2.1	Denmark Delete the A-deviation.		---
1.7.5	Denmark Delete the A-deviation.		---
5.1.7.1	Denmark Delete the A-deviation.		---