

TEST REPORT
IEC 60950-1 and/or EN 60950-1
Information technology equipment – Safety –
Part 1: General requirements

Report reference No: T223-0006/06

Tested by
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Testing Laboratory Name: SIQ – Slovenian Institute of Quality and Metrology
 Testing Laboratory is accredited by Slovenian Accreditation, Reg. No.: LP-009

Address: Tržaška c. 2, SI-1000 Ljubljana, Slovenia

Testing location: CBTL ☒ CCATL ☐ SMT ☐ TMP ☐

Address: Same as above

Applicant's Name: GlobTek Inc.

Address: Corporate Headquarters, 186 Veterans Dr Northvale, NJ 07647 /
 USA

Test specification

Standard: IEC 60950-1:2001 (1st Edition) and/or EN 60950-1:2001

Test procedure: CB/CCA –scheme

Non-standard test method: N/A

Test Report Form No.: IECEN60950_1B

TRF originator: SGS Fimko Ltd

Master TRF: dated 2003-03

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Test item description: AC/DC Adaptor (Plug in Power Supply)

Trademark: GlobTek

Manufacturer: Same as Applicant

Model and/or type reference: GT-41062-18VV-X.X-TZ

Where "41062" represents Series Code

"VV" denotes Rated Output Voltage

"-X.X" is optional or blank and denotes voltage differentiator (subtracting X.X Volts from standard output voltage VV in 0,1 V increments)

"TZ" = plug connection, where "2" is C8; "3" is C14, "3A" is C6 and model without "TZ" is for direct plug in (see also page 2)

Serial number: Various

Rating(s): Input: 100-240 Va.c.; 50-60 Hz; 0,6 A

Output: see page 2

<u>Model:</u>	<u>Output Ratings</u>	<u>Transformer</u>	<u>Class</u>
GT-41062-1805-X.X	5Vdc / 3,2A	XF00209	II
GT-41062-1806-X.X	6Vdc / 3,0A	XF00209	II
GT-41062-1807-X.X	7Vdc / 2,57A	XF00209	II
GT-41062-1809-X.X	9Vdc / 2,0A	XF00168	II
GT-41062-1812-X.X	12Vdc / 1,5A	XF00168	II
GT-41062-1815-X.X	15Vdc / 1,2A	XF00168	II
GT-41062-1818-X.X	18Vdc / 1,0A	XF00169	II
GT-41062-1820-X.X	20Vdc / 0,9A	XF00169	II
GT-41062-1824-X.X	24Vdc / 0,75A	XF00169	II
GT-41062-1805-X.X-T2	5Vdc / 3,6A	XF00210	II
GT-41062-1806-X.X-T2	6Vdc / 3,0A	XF00210	II
GT-41062-1807-X.X-T2	7Vdc / 2,57A	XF00210	II
GT-41062-1809-X.X-T2	9Vdc / 2,0A	XF00211	II
GT-41062-1812-X.X-T2	12Vdc / 1,5A	XF00211	II
GT-41062-1815-X.X-T2	15Vdc / 1,2A	XF00211	II
GT-41062-1818-X.X-T2	18Vdc / 1,0A	XF00212	II
GT-41062-1820-X.X-T2	20Vdc / 0,9A	XF00212	II
GT-41062-1824-X.X-T2	24Vdc / 0,75A	XF00212	II
GT-41062-1805-X.X-T3	5Vdc / 3,6A	XF00210	I
GT-41062-1806-X.X-T3	6Vdc / 3,0A	XF00210	I
GT-41062-1807-X.X-T3	7Vdc / 2,57A	XF00210	I
GT-41062-1809-X.X-T3	9Vdc / 2,0A	XF00211	I
GT-41062-1812-X.X-T3	12Vdc / 1,5A	XF00211	I
GT-41062-1815-X.X-T3	15Vdc / 1,2A	XF00211	I
GT-41062-1818-X.X-T3	18Vdc / 1,0A	XF00212	I
GT-41062-1820-X.X-T3	20Vdc / 0,9A	XF00212	I
GT-41062-1824-X.X-T3	24Vdc / 0,75A	XF00212	I
GT-41062-1805-X.X-T3A	5Vdc / 3,6A	XF00210	I
GT-41062-1806-X.X-T3A	6Vdc / 3,0A	XF00210	I
GT-41062-1807-X.X-T3A	7Vdc / 2,57A	XF00210	I
GT-41062-1809-X.X-T3A	9Vdc / 2,0A	XF00211	I
GT-41062-1812-X.X-T3A	12Vdc / 1,5A	XF00211	I
GT-41062-1815-X.X-T3A	15Vdc / 1,2A	XF00211	I
GT-41062-1818-X.X-T3A	18Vdc / 1,0A	XF00212	I
GT-41062-1820-X.X-T3A	20Vdc / 0,9A	XF00212	I
GT-41062-1824-X.X-T3A	24Vdc / 0,75A	XF00212	I

Copy of marking plate

Class II units:



Class I units:



Summary of testing:

The component was tested to the standard IEC 60950-1:2001 (1st Edition) and/or EN 60950-1:2001 and/or DIN/EN60950-1:2003 and fulfils the requirements of the standard.

1. All secondary output circuits are separated from mains by reinforced insulation and rated SELV non hazardous energy levels.
2. The power supply is rated Class I or Class II, depending on input connection (see page 2).
3. The transformers provide reinforced insulation. These transformers are built up to fulfill the requirement of insulation class B and provide in addition an UR (OBJY2) insulation system. (see also list of safety critical components).
4. The maximum working voltages are 233 V rms; 475 V pk (24V version).
5. The product was evaluated for a maximum ambient of 40°C.
6. Direct plug-in units:
Dimensions of the injection part of the European plug are in accordance the with the requirement of EN 50075 standard. Dimensions of the injection part of the US plug are in accordance with the requirement of UL 1310 standard. Dimensions of the injection part of the UK plug are in accordance with the requirement of the BS 1363 standard. Dimensions of the injection part of the Australian plug are in accordance with the AS/NZS 3112.
Only dimensions of the pins were measured and torque test was performed. Compliance with the BS 1363 and AS/NZS 3112 shall be evaluated during national approval.

Particulars: test item vs. test requirements

Equipment mobility	GT-41062-18VV-X.X.: Direct Plug-in GT-41062-18VV-X.X.-T2; -T3; -T3A: Table top (movable)
Operating condition	Continuous
Mains supply tolerance (%)	+/- 10% or 90 to 264 Va.c.
Tested for IT power systems	N/A
IT testing, phase-phase voltage (V)	N/A
Class of equipment	Class I or Class II (depends on input connection, see page 2)
Mass of equipment (kg).....	Approx. 0,2 kg
Protection against ingress of water	IPX0

Test case verdicts

Test case does not apply to the test object :	N/A
Test item does meet the requirement	P(ass)
Test item does not meet the requirement ...:	F(ail)

Testing

Date of receipt of test item	2005-11-29
Date(s) of performance of test	From 2005-12-07 to 2006-01-06

General remarks

"This report is not valid as a CB Test Report unless appended by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02".

The test result presented in this report relate only to the object(s) tested.

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

"(see Enclosure #)" refers to additional information appended to the report.

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

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

This Test Report consists of the following documents:

1. Test Report – 75 pages
2. National Differences – Enclosure No. 1, 14 pages
3. Additional Test Data – Enclosure No. 2, 8 pages
4. Pictures – Enclosure No. 3, 7 pages
5. Schematics, Layouts, Transformer data - Enclosure No. 4, 57 pages

General product information:

The equipment is an external power adaptor for the general use with information technology equipment.

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
1	GENERAL		P
1.5	Components		P
1.5.1	General		P
	Comply with IEC 60950-1 or relevant component standard	(see appended table 1.5.1)	P
1.5.2	Evaluation and testing of components	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.	P
1.5.3	Thermal controls	No thermal controls.	N/A
1.5.4	Transformers	(see list of safety critical components table 1.5.1 and the transformer drawings in the Enclosure No. 4) Transformer used is suitable for intended application and comply with the relevant requirements of the standard.	P
1.5.5	Interconnecting cables	Interconnection O/P cable to other device is carrying only SELV voltage on an energy level below 240VA. Except for the insulation material there are no further requirements to the interconnection cable.	P
1.5.6	Capacitors in primary circuits	X1 or X2 capacitors according to IEC 60384-14:1993.	P
1.5.7	Double insulation or reinforced insulation bridged by components	See below	P
1.5.7.1	General	Y1- capacitor CY1 is bridging primary to secondary return.	P
1.5.7.2	Bridging capacitors	Single Y1 capacitor. Refer to 2.4 for limited current circuit test result.	P
1.5.7.3	Bridging resistors		N/A
1.5.7.4	Accessible parts	No accessible parts.	N/A
1.5.8	Components in equipment for IT power systems	Equipment was not investigated for the IT power distribution system.	N/A

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
1.6	Power interface		P
1.6.1	AC power distribution systems	For TN power system only.	P
1.6.2	Input current	(see appended table 1.6.2)	P
1.6.3	Voltage limit of hand-held equipment	The unit is not a hand-held equipment.	N/A
1.6.4	Neutral conductor		P

1.7	Marking and instructions		P
1.7.1	Power rating	Rating marking readily visible to operator.	P
	Rated voltage(s) or voltage range(s) (V)	100 – 240 Va.c.	P
	Symbol for nature of supply, for d.c. only	AC input voltage only	N/A
	Rated frequency or rated frequency range (Hz) :	50 - 60 Hz	P
	Rated current (mA or A)	0,6 A	P
	Manufacturer's name or trademark or identification mark	GlobTek	P
	Type/model or type reference	GT-41062-WVVV-X.X-TZ (see page 1)	P
	Symbol for Class II equipment only	Symbol is only on unit which is class II.	P
	Other symbols		N/A
	Certification marks	See copy of marking.	P
1.7.2	Safety instructions	No special precautions necessary.	N/A
1.7.3	Short duty cycles	The equipment is intended for continuous operation.	N/A
1.7.4	Supply voltage adjustment	No voltage selector.	N/A
	Methods and means of adjustment; reference to installation instructions		N/A
1.7.5	Power outlets on the equipment	No power outlet is provided	N/A
1.7.6	Fuse identification (marking, special fusing characteristics, cross-reference)	T2A/250V marked adjacent to the fuse on PCB.	P
1.7.7	Wiring terminals	No wiring terminals.	N/A
1.7.7.1	Protective earthing and bonding terminals	Unit is provided with appliance inlet.	N/A
1.7.7.2	Terminal for a.c. mains supply conductors	Unit has input connection with appliance inlet (table top), or plug (direct plug-in).	N/A
1.7.8	Controls and indicators		N/A
1.7.8.1	Identification, location and marking	No controls or indicators.	N/A
1.7.8.2	Colours		N/A
1.7.8.3	Symbols according to IEC 60417		N/A

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
1.7.8.4	Markings using figures	No indicators for different positions.	N/A
1.7.9	Isolation of multiple power sources	Only one supply from mains	N/A
1.7.10	IT power distribution systems	Not intended for use on IT power systems.	N/A
1.7.11	Thermostats and other regulating devices	No adjustable thermostats or similar regulating devices.	N/A
1.7.12	Language(s)		—
1.7.13	Durability	Tested with water, alcohol and petroleum spirit.	P
1.7.14	Removable parts	No marking is located on removable parts.	P
1.7.15	Replaceable batteries	There are no batteries in the equipment.	N/A
	Language(s).....		—
1.7.16	Operator access with a tool		N/A
1.7.17	Equipment for restricted access locations		N/A

2	PROTECTION FROM HAZARDS		P
2.1	Protection from electric shock and energy hazards		P
2.1.1	Protection in operator access areas	See below	P
2.1.1.1	Access to energized parts	See below	P
	Test by inspection	There is adequate protection against operator contact with bare parts at ELV or hazardous voltage or parts separated from these with basic or functional insulation only (except protective earth).	P
	Test with test finger	No access with test finger with any parts with only basic insulation to ELV or hazardous voltage.	P
	Test with test pin	The test pin can not touch hazardous voltage through and openings or seams of the whole enclosure.	P
	Test with test probe	No TNV circuits.	N/A
2.1.1.2	Battery compartments	No battery compartment.	N/A
2.1.1.3	Access to ELV wiring	No ELV wiring in operator accessible area.	N/A
	Working voltage (V _{peak} or V _{rms}); minimum distance (mm) through insulation	(see appended table 2.10.5)	—
2.1.1.4	Access to hazardous voltage circuit wiring	No hazardous voltage wiring in operator accessible area.	N/A

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
2.1.1.5	Energy hazards	Output of the unit does not represent an energy hazard.	P
2.1.1.6	Manual controls		N/A
2.1.1.7	Discharge of capacitors in equipment	No risk or electric shock	P
	Time-constant (s); measured voltage (V)	see appended table 2.1.1.7 in Encl. No. 2	—
2.1.2	Protection in service access areas	No maintenance work in operation mode necessary.	N/A
2.1.3	Protection in restricted access locations	The equipment is not intended to be used in RAL.	N/A

2.2	SELV circuits		P
2.2.1	General requirements	SELV limits of the outputs are not exceeded under normal conditions.	P
2.2.2	Voltages under normal conditions (V)..... :	SELV voltage by no load and at rated load on the output. (see enclosed test results)	P
2.2.3	Voltages under fault conditions (V)	(see appended table 5.3)	P
2.2.3.1	Separation by double insulation or reinforced insulation (method 1)	Method 1	P
2.2.3.2	Separation by earthed screen (method 2)		N/A
2.2.3.3	Protection by earthing of the SELV circuit (method 3)		N/A
2.2.4	Connection of SELV circuits to other circuits	SELV output only for connection to SELV circuits.	N/A

2.3	TNV circuits		N/A
2.3.1	Limits	No TNV circuit.	N/A
	Type of TNV circuits..... :		—
2.3.2	Separation from other circuits and from accessible parts		N/A
	Insulation employed		—
2.3.3	Separation from hazardous voltages		N/A
	Insulation employed		—
2.3.4	Connection of TNV circuits to other circuits		N/A
	Insulation employed		—
2.3.5	Test for operating voltages generated externally		N/A

2.4	Limited current circuits		P
2.4.1	General requirements		P

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
2.4.2	Limit values	See appended table 2.4 in enclosure No. 2.	P
	Frequency (Hz)	See appended table 2.4 in enclosure No. 2.	—
	Measured current (mA).....	The peak drop voltage was measured with an oscilloscope at 2 kΩ non-inductive resistor. See appended table 2.4 in enclosure No. 2.	—
	Measured voltage (V).....	< 250V	—
	Measured capacitance (μF)	≤ 0,1 μF	—
2.4.3	Connection of limited current circuits to other circuits		N/A

2.5	Limited power sources		P
	Inherently limited output	The output is limited to the values of table 2B in normal operation conditions or in the case of a single fault (see appended table 2.5).	P
	Impedance limited output		N/A
	Overcurrent protective device limited output		N/A
	Regulating network limited output under normal operating and single fault condition		P
	Regulating network limited output under normal operating conditions and overcurrent protective device limited output under single fault condition		N/A
	Output voltage (V), output current (A), apparent power (VA)	(See in addition table abnormal testing enclosed)	—
	Current rating of overcurrent protective device (A)		—

2.6	Provisions for earthing and bonding		P
2.6.1	Protective earthing	For class I units only.	P
2.6.2	Functional earthing	No functional earthing provided.	N/A
2.6.3	Protective earthing and protective bonding conductors		P
2.6.3.1	General		P
2.6.3.2	Size of protective earthing conductors		N/A
	Rated current (A), cross-sectional area (mm ²), AWG		—
2.6.3.3	Size of protective bonding conductors	Test according to clause 2.6.3.4 was performed.	P

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
	Rated current (A), cross-sectional area (mm ²), AWG	0,6A	—
2.6.3.4	Resistance (Ω) of earthing conductors and their terminations, test current (A)	< 0,1 Ω	P
2.6.3.5	Colour of insulation	Green and yellow (for class I only)	P
2.6.4	Terminals		N/A
2.6.4.1	General		N/A
2.6.4.2	Protective earthing and bonding terminals		N/A
	Rated current (A), type and nominal thread diameter (mm)		—
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors	Appliance inlet.	P
2.6.5	Integrity of protective earthing	Power supply cord is not part of the investigation.	N/A
2.6.5.1	Interconnection of equipment		N/A
2.6.5.2	Components in protective earthing conductors and protective bonding conductors	No components in protective bonding path.	N/A
2.6.5.3	Disconnection of protective earth		P
2.6.5.4	Parts that can be removed by an operator		N/A
2.6.5.5	Parts removed during servicing		N/A
2.6.5.6	Corrosion resistance		P
2.6.5.7	Screws for protective bonding		N/A
2.6.5.8	Reliance on telecommunication network or cable distribution system		N/A

2.7	Overcurrent and earth fault protection in primary circuits		P
2.7.1	Basic requirements		P
	Instructions when protection relies on building installation	The unit is provided with single fuse.	N/A
2.7.2	Faults not covered in 5.3	The protection devices are well dimensioned and mounted.	P
2.7.3	Short-circuit backup protection	The building installation is considered as short circuit backup protection.	P
2.7.4	Number and location of protective devices	Overcurrent protection by single built in fuse.	P
2.7.5	Protection by several devices	Only one fuse.	N/A
2.7.6	Warning to service personnel	No service work necessary.	N/A

2.8	Safety interlocks		N/A
2.8.1	General principles	No safety interlocks.	N/A

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
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		P
2.9.1	Properties of insulating materials	Neither natural rubber, materials containing asbestos nor hygroscopic materials are used as insulation. No driving belts or couplings used.	P
2.9.2	Humidity conditioning		P
	Humidity (%)	(see appended table 2.9.2 in Enclosure No. 2)	—
	Temperature (°C)	(see appended table 2.9.2 in Enclosure No. 2)	—
2.9.3	Grade of insulation	Basic, Reinforced.	P

2.10	Clearances, creepage distances and distances through insulation		P
2.10.1	General		P
2.10.2	Determination of working voltage	The rms and peak measured on the switching power supply. The unit was connected to the 240 V TN power system during measurement. See appended table 2.10.2 in Enclosure No. 2.	P
2.10.3	Clearances	See below	P
2.10.3.1	General	See appended table 2.10.3 and 2.10.4	P
2.10.3.2	Clearances in primary circuits	see appended table 2.10.3 and 2.10.4	P
2.10.3.3	Clearances in secondary circuits	see appended table 2.10.3 and 2.10.4	P
2.10.3.4	Measurement of transient voltage levels	Measurement not relevant.	N/A

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
2.10.4	Creepage distances	see appended table 2.10.3 and 2.10.4	P
	CTI tests.....:	Min. IIIb)	—
2.10.5	Solid insulation	See appended table 2.10.5	P
2.10.5.1	Minimum distance through insulation	see appended table 2.10.5	P
2.10.5.2	Thin sheet material	The thin sheet materials of polyester tape used in transformers. There are also 3 layers of polyester foil wrapped around the transformer.	P
	Number of layers (pcs).....:	2 layers (inside transformer) 2 layers around the transformer	—
	Electric strength test	See appended table 5.2	—
2.10.5.3	Printed boards	PCB does not serve as an insulation barrier.	N/A
	Distance through insulation		N/A
	Electric strength test for thin sheet insulating material		—
	Number of layers (pcs).....:		N/A
2.10.5.4	Wound components	Triple insulated wire is used	P
	Number of layers (pcs).....:	3 layers	P
	Two wires in contact inside wound component; angle between 45° and 90°	No contact between 45 and 90°.	P
2.10.6	Coated printed boards	No coated printed wiring boards.	N/A
2.10.6.1	General		N/A
2.10.6.2	Sample preparation and preliminary inspection		N/A
2.10.6.3	Thermal cycling		N/A
2.10.6.4	Thermal ageing (°C)		N/A
2.10.6.5	Electric strength test		—
2.10.6.6	Abrasion resistance test		N/A
	Electric strength test		—
2.10.7	Enclosed and sealed parts.....:	No hermetically sealed components.	N/A
	Temperature $T_1 = T_2 + T_{ma} - T_{amb} + 10K$ (°C).....:		N/A
2.10.8	Spacings filled by insulating compound	Opto Couplers are approved according to IEC60950-1 reinforced insulation. See also list of safety critical components.	P
	Electric strength test	(see appended table 5.2)	—
2.10.9	Component external terminations	See appended table 2.10.3 and 2.10.4	P

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
2.10.10	Insulation with varying dimensions		N/A

3	WIRING, CONNECTIONS AND SUPPLY		P
3.1	General		P
3.1.1	Current rating and overcurrent protection	All internal wires are UL recognized wiring that is PVC insulated, rated VW-1, min. 80°C, 300V, internal wiring is suitable for current intended to be carried.	P
3.1.2	Protection against mechanical damage	Wires do not touch sharp edges and heatsinks which could damage the insulation and cause hazard.	P
3.1.3	Securing of internal wiring	The wires with only basic isolation are routed so that they are not close to any live bare components. The wires are secured by solder pins and quick connect terminals so that a loosening is unlikely.	P
3.1.4	Insulation of conductors	The insulation of the individual conductors is suitable for the application and the working voltage. For the insulation material see 3.1.1.	P
3.1.5	Beads and ceramic insulators	Not used.	N/A
3.1.6	Screws for electrical contact pressure		N/A
3.1.7	Insulating materials in electrical connections	No contact pressure through insulating material	P
3.1.8	Self-tapping and spaced thread screws	Thread-cutting or space thread screws are not used for electrical connections. Machine screws only.	P
3.1.9	Termination of conductors	Securely held on PCB. No hazard.	P
	10 N pull test		P
3.1.10	Sleeving on wiring		P

3.2	Connection to an a.c. mains supply or a d.c. mains supply		P
3.2.1	Means of connection	Detachable power supply cord or direct plug-in equipment.	P
3.2.2	Multiple supply connections	Only one supply connection.	N/A
3.2.3	Permanently connected equipment	The unit is not a permanent connected equipment.	N/A
	Number of conductors, diameter (mm) of cable		—

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
	and conduits		
3.2.4	Appliance inlets	Unit is provided with approved appliance inlet. See list of critical components.	P
3.2.5	Power supply cords	Power supply cord is not part of the investigation.	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	No sharp edges etc.	P
3.2.8	Cord guards		N/A
	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	Unit is provided with appliance inlet.	N/A
3.3.2	Connection of non-detachable power supply cords		N/A
3.3.3	Screw terminals		N/A
3.3.4	Conductor sizes to be connected		N/A
	Rated current (A), cord/cable type, cross-sectional area (mm ²)		—
3.3.5	Wiring terminal sizes		N/A
	Rated current (A), type 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		P
3.4.1	General requirement	Table top: appliance inlet is considered as disconnect device. Direct plug-in: the plug part is considered to be the disconnect device.	P
3.4.2	Disconnect devices	Plug or appliance inlet. Refer above.	P
3.4.3	Permanently connected equipment	The unit is not the permanently connected equipment.	N/A

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
3.4.4	Parts which remain energized	No part of the unit remains energized after disconnection of the mains supply.	P
3.4.5	Switches in flexible cords	No isolation switch provided.	N/A
3.4.6	Single-phase equipment and d.c. equipment	The disconnect device disconnects both poles simultaneously.	P
3.4.7	Three-phase equipment	Equipment is single phase.	N/A
3.4.8	Switches as disconnect devices		N/A
3.4.9	Plugs as disconnect devices	Direct plug-in equipment. Plug is not located on the power supply cord.	N/A
3.4.10	Interconnected equipment	Interconnection to other devices by secondary output cable only.	N/A
3.4.11	Multiple power sources	Only one supply connection provided.	N/A

3.5	Interconnection of equipment		P
3.5.1	General requirements		N/A
3.5.2	Types of interconnection circuits.....:	Interconnection circuits of SELV through sec o/p cable. No ELV interconnection circuits.	P
3.5.3	ELV circuits as interconnection circuits	No ELV interconnection.	N/A

4	PHYSICAL REQUIREMENTS		P
4.1	Stability		P
	Angle of 10°		P
	Test: force (N).....:	Equipment is not floor standing.	N/A

4.2	Mechanical strength		P
4.2.1	General	See below	P
4.2.2	Steady force test, 10 N		P
4.2.3	Steady force test, 30 N	No internal enclosure.	N/A
4.2.4	Steady force test, 250 N	No hazard. The test is performed at 250 N.	P
4.2.5	Impact test		P
4.2.6	Drop test	Direct plug-in: The adaptor has been subjected to 3 drops from 1 m height on a hard wooden surface.	P
4.2.7	Stress relief test	After 7 h at 110°C and cooling down to room temperature, no shrinkage, distortion or loosening	P

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
		of enclosure parts was noticeable on the equipment.	
4.2.8	Cathode ray tubes		N/A
	Picture tube separately certified.....:		N/A
4.2.9	High pressure lamps		N/A
4.2.10	Wall or ceiling mounted equipment; force (N) ...:		N/A

4.3	Design and construction		P
4.3.1	Edges and corners	Edges and corners of the enclosure are rounded.	P
4.3.2	Handles and manual controls; force (N)	No such components	N/A
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. For the protection solder pins, cable ties and heat shrink tubing are used. No connection likely to be exposed to mechanical stress is provided on unit.	P
4.3.5	Connection of plugs and sockets	SELV connector does not comply with IEC 60320 or IEC 60083.	P
4.3.6	Direct plug-in equipment		P
	Dimensions (mm) of mains plug for direct plug-in	Dimension of the injection part of the European plug is in accordance the with the requirement of EN 50075 standard. See also National differences.	P
	Torque and pull test of mains plug for direct plug-in; torque (Nm); pull (N)	< 0,2 Nm	P
4.3.7	Heating elements in earthed equipment		N/A
4.3.8	Batteries		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; type of radiation		N/A
4.3.13.1	General		N/A

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
4.3.13.2	Ionizing radiation		N/A
	Measured radiation (pA/kg)		—
	Measured high-voltage (kV)		—
	Measured focus voltage (kV)		—
	CRT markings		—
4.3.13.3	Effect of ultraviolet (UV) radiation on materials		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)		N/A
	Laser class		—
4.3.13.6	Other types		N/A

4.4	Protection against hazardous moving parts		N/A
4.4.1	General	No moving parts.	N/A
4.4.2	Protection in operator access areas		N/A
4.4.3	Protection in restricted access locations	The equipment is not intended to be used in restricted locations.	N/A
4.4.4	Protection in service access areas		N/A

4.5	Thermal requirements		P
4.5.1	Maximum temperatures	(see appended table 4.5)	P
	Normal load condition per Annex L	Max. normal output load, which specified by manufacturer.	N/A
4.5.2	Resistance to abnormal heat	(see appended table 4.5.2)	P

4.6	Openings in enclosures		P
4.6.1	Top and side openings		P
	Dimensions (mm)	The enclosure is constructed with no opening.	—
4.6.2	Bottoms of fire enclosures		P
	Construction of the bottom	There is no opening at the bottom of enclosure.	—
4.6.3	Doors or covers in fire enclosures		N/A
4.6.4	Openings in transportable equipment		N/A
4.6.5	Adhesives for constructional purposes		N/A
	Conditioning temperature (°C)/time (weeks).....		—

4.7	Resistance to fire		P
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IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
4.7.1	Reducing the risk of ignition and spread of flame	Use of materials with the required flammability classes and testing in Single Fault Conditions.	P
4.7.2	Conditions for a fire enclosure		P
4.7.2.1	Parts requiring a fire enclosure	Fire enclosure covers all parts.	P
4.7.2.2	Parts not requiring a fire enclosure	Output PVC cable.	P
4.7.3	Materials		P
4.7.3.1	General		P
4.7.3.2	Materials for fire enclosures	(see appended table 1.5.1)	P
4.7.3.3	Materials for components and other parts outside fire enclosures	Output PVC cable and appliance inlet.	P
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.	P
4.7.3.5	Materials for air filter assemblies	The equipment does not have any air filters.	N/A
4.7.3.6	Materials used in high-voltage components	No high-voltage components.	N/A

5	ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS		P
5.1	Touch current and protective conductor current		P
5.1.1	General	The touch current was measured from supply to conductive parts (DC output connector) and metal foil wrapped on accessible non-conductive parts (plastic enclosure).	P
5.1.2	Equipment under test (EUT)	See appended table.	P
5.1.3	Test circuit	Equipment is tested using the test circuits as in figure 5A.	P
5.1.4	Application of measuring instrument	Measuring instrument D1 is used.	P
5.1.5	Test procedure	See appended table.	P
5.1.6	Test measurements		P
	Test voltage (V)	See appended table 5.1 in Enclosure No. 2.	—
	Measured touch current (mA)	See appended table 5.1 in Enclosure No. 2.	—
	Max. allowed touch current (mA)	0,25 mA	—
	Measured protective conductor current (mA)	—	—
	Max. allowed protective conductor current (mA) :	—	—
5.1.7	Equipment with touch current exceeding	Touch current less than 0,25	N/A

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
	3.5 mA	mA.	
5.1.8	Touch currents to and from telecommunication networks and cable distribution systems and from telecommunication networks		N/A
5.1.8.1	Limitation of the touch current to a telecommunication network and a cable distribution system		N/A
	Test voltage (V)		—
	Measured touch current (mA)		—
	Max. allowed touch current (mA)		—
5.1.8.2	Summation of touch currents from telecommunication networks		N/A

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

5.3	Abnormal operating and fault conditions		P
5.3.1	Protection against overload and abnormal operation	(see appended table 5.3)	P
5.3.2	Motors	No motor is provided	N/A
5.3.3	Transformers	(see appended Annex C)	P
5.3.4	Functional insulation	Complies with a) and c).	P
5.3.5	Electromechanical components	The equipment does not have any electromechanical components in the secondary.	N/A
5.3.6	Simulation of faults	See appended table.	P
5.3.7	Unattended equipment		N/A
5.3.8	Compliance criteria for abnormal operating and fault conditions	(see appended table) No fire, emission of molten metal or deformation was noted during the tests. Electric strength tests performed after abnormal and fault tests.	P

6	CONNECTION TO TELECOMMUNICATION NETWORKS		N/A
6.1	Protection of telecommunication network service persons, and users of other equipment connected to the network, from hazards in the equipment		N/A
6.1.1	Protection from hazardous voltages		N/A
6.1.2	Separation of the telecommunication network from earth		N/A
6.1.2.1	Requirements		N/A

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
	Test voltage (V)		—
	Current in the test circuit (mA)		—
6.1.2.2	Exclusions		N/A

6.2	Protection of equipment users from overvoltages on telecommunication networks		N/A
6.2.1	Separation requirements		N/A
6.2.2	Electric strength test procedure		N/A
6.2.2.1	Impulse test		N/A
6.2.2.2	Steady-state test		N/A
6.2.2.3	Compliance criteria		N/A

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

A	ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE		N/A
A.1	Flammability test for fire enclosures of movable equipment having a total mass exceeding 18 kg, and of stationary equipment (see 4.7.3.2)		N/A
A.1.1	Samples	Approved materials are used.	—
	Wall thickness (mm)		—
A.1.2	Conditioning of samples; temperature (°C)		N/A
A.1.3	Mounting of samples		N/A
A.1.4	Test flame (see IEC 60695-11-3)		N/A
	Flame A, B, C or D		—
A.1.5	Test procedure		N/A
A.1.6	Compliance criteria		N/A
	Sample 1 burning time (s)		—
	Sample 2 burning time (s)		—
	Sample 3 burning time (s)		—
A.2	Flammability test for fire enclosures of movable equipment having a total mass not exceeding 18 kg, and for material and components located inside fire enclosures (see 4.7.3.2 and 4.7.3.4)		N/A
A.2.1	Samples, material		—
	Wall thickness (mm)		—
A.2.2	Conditioning of samples		N/A
A.2.3	Mounting of samples		N/A
A.2.4	Test flame (see IEC 60695-11-4)		N/A

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
	Flame A, B or C		—
A.2.5	Test procedure		N/A
A.2.6	Compliance criteria		N/A
	Sample 1 burning time (s).....		—
	Sample 2 burning time (s).....		—
	Sample 3 burning time (s).....		—
A.2.7	Alternative test acc. to IEC 60695-2-2, cl. 4 and 8		N/A
	Sample 1 burning time (s).....		—
	Sample 2 burning time (s).....		—
	Sample 3 burning time (s).....		—
A.3	Hot flaming oil test (see 4.6.2)		N/A
A.3.1	Mounting of samples		N/A
A.3.2	Test procedure		N/A
A.3.3	Compliance criterion		N/A

B	ANNEX B, MOTOR TESTS UNDER ABNORMAL CONDITIONS (see 4.7.2.2 and 5.3.2)		N/A
B.1	General requirements	No motor.	N/A
	Position		—
	Manufacturer		—
	Type		—
	Rated values		—
B.2	Test conditions		N/A
B.3	Maximum temperatures		N/A
B.4	Running overload test		N/A
B.5	Locked-rotor overload test		N/A
	Test duration (days)		—
	Electric strength test: test voltage (V)		—
B.6	Running overload test for d.c. motors in secondary circuits		N/A
B.7	Locked-rotor overload test for d.c. motors in secondary circuits		N/A
B.7.1	Test procedure		N/A
B.7.2	Alternative test procedure; test time (h)		N/A
B.7.3	Electric strength test		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)		—

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test		Verdict
C	ANNEX C, TRANSFORMERS (see 1.5.4 and 5.3.3)		P
	Position	Primary to secondary	—
	Manufacturer	See critical component list	—
	Type	See critical component list	—
	Rated values	100-240Va.c.	—
	Method of protection	Primary current limitation	-
C.1	Overload test	(see appended table 5.3)	P
C.2	Insulation	reinforced	P
C.3	Electric strength test	(See appended table 5.2)	P
D	ANNEX D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS (see 5.1.4)		P
D.1	Measuring instrument	D1 was used.	P
D.2	Alternative measuring instrument		N/A
E	ANNEX E, TEMPERATURE RISE OF A WINDING (see 1.4.13)		N/A
F	ANNEX F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10)		N/A
G	ANNEX G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES		N/A
G.1	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	DC mains supply		N/A
G.3	Determination of telecommunication network transient voltage (V).....:		N/A
G.4	Determination of required withstand voltage (V) ..:		N/A
G.5	Measurement of transient levels (V)		N/A
G.6	Determination of minimum clearances		N/A
H	ANNEX H, IONIZING RADIATION (see 4.3.13)		N/A
J	ANNEX J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6)		P
	Metal used	Verified	—

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
K	ANNEX K, THERMAL CONTROLS (see 1.5.3 and 5.3.7)		N/A
K.1	Making and breaking capacity		N/A
K.2	Thermostat reliability; operating voltage (V)		N/A
K.3	Thermostat endurance test; operating voltage (V)		N/A
K.4	Temperature limiter endurance; operating voltage (V)		N/A
K.5	Thermal cut-out reliability		N/A
K.6	Stability of operation	(see appended table 5.3)	N/A

L	ANNEX L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.1)		N/A
L.1	Typewriters		N/A
L.2	Adding machines and cash registers		N/A
L.3	Erasers		N/A
L.4	Pencil sharpeners		N/A
L.5	Duplicators and copy machines		N/A
L.6	Motor-operated files		N/A
L.7	Other business equipment		N/A

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



N	ANNEX N, IMPULSE TEST GENERATORS (see 2.10.3.4, 6.2.2.1, 7.3.2 and clause G.5)		N/A
N.1	ITU-T impulse test generators		N/A
N.2	IEC 60065 impulse test generator		N/A

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
P	ANNEX P, NORMATIVE REFERENCES		N/A
Q	ANNEX Q, BIBLIOGRAPHY		N/A
R	ANNEX R, EXAMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES		N/A
R.1	Minimum separation distances for unpopulated coated printed boards (see 2.10.6)		N/A
R.2	Reduced clearances (see 2.10.3)		N/A
S	ANNEX S, PROCEDURE FOR IMPULSE TESTING (see 6.2.2.3)		N/A
S.1	Test equipment		N/A
S.2	Test procedure		N/A
S.3	Examples of waveforms during impulse testing		N/A
T	ANNEX T, GUIDANCE ON PROTECTION AGAINST INGRESS OF WATER (see 1.1.2)		N/A
		See separate test report	—
U	ANNEX U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4)		P
		Approved triple insulated wire used.	—
V	ANNEX V, AC POWER DISTRIBUTION SYSTEMS (see 1.6.1)		P
V.1	Introduction		P
V.2	TN power distribution systems		P
W	ANNEX W, SUMMATION OF TOUCH CURRENTS		N/A
W.1	Touch current from electronic circuits		N/A
W.1.2	Earthed circuits		N/A
W.2	Interconnection of several equipments		N/A
W.2.1	Isolation		N/A
W.2.2	Common return, isolated from earth		N/A
W.2.3	Common return, connected to protective earth		N/A
X	ANNEX X, MAXIMUM HEATING EFFECT IN TRANSFORMER TESTS (see clause C.1)		N/A
X.1	Determination of maximum input current		N/A

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
X.2	Overload test procedure		N/A

Y	ANNEX Y, ULTRAVIOLET LIGHT CONDITIONING TEST (see 4.3.13.3)		N/A
Y.1	Test apparatus		N/A
Y.2	Mounting of test samples		N/A
Y.3	Carbon-arc light-exposure apparatus		N/A
Y.4	Xenon-arc light exposure apparatus		N/A

CENELEC COMMON MODIFICATIONS [C], SPECIAL NATIONAL CONDITIONS [S] AND A-DEVIATIONS (NATIONAL DEVIATIONS) [A] (EN 60950-1:2001, Annex ZB and Annex ZC)			P
General	C: Delete all the "country" notes in the reference document according to the following list: 1.1.5 Note 2 1.5.8 Note 2 1.6.1 Note 1.7.2 Note 4 1.7.12 Note 2 2.6 Note 2.2.3 Note 2.2.4 Note 2.3.2 Note 2, 7, 8 2.3.3 Note 1, 2 2.3.4 Note 2,3 2.7.1 Note 2.10.3.1 Note 4 3.2.1.1 Note 3.2.3 Note 1, 2 3.2.5.1 Note 2 4.3.6 Note 1,2 4.7.2.2 Note 4.7.3.1 Note 2 6.1.2.1 Note 6.1.2.2 Note 6.2.2 Note 6.2.2.1 Note 2 6.2.2.2 Note 7 Note 4 7.1 Note G2.1 Note 1, 2 Annex H Note 2	Considered.	P
1.2.4.1	S (DK): Certain types of Class I appliances (see 3.2.1.1) may be provided with a plug not establishing earthing conditions when inserted into Danish socket-outlets.	The power cord is not provided with the equipment, refer to Summary of Testing.	N/A
1.5.1	A (SE, Ordinance 1990:944 and CH, Ordinance on environmentally hazardous substances SR 814.013, Annex 3.2, Mercury): Add NOTE – Switches containing mercury such as thermostats, relays and level controllers are not allowed.	There are no components containing mercury in the equipment.	P
1.5.8	S (NO): Due to the IT power system used (see annex V, Fig. V.7), capacitors are required to be rated for the applicable line-to-line voltage (230 V).	The product is not investigated for IT mains.	N/A
1.7.2	S (FI, NO, SE): 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:		N/A
	FI: "Laite on liitettävä suojamaadoituskoskettimilla varustettuun pistorasiaan"		N/A
	NO: "Apparatet må tilkoples jordet stikkontakt"		N/A

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
	SE: "Apparaten skall anslutas till jordat uttag"		N/A
	<p>A (DK, Heavy Current Regulations): Supply cords of class I equipment, which is delivered without a plug, must be provided with a visible tag with the following text:</p> <p>Vigtigt! Lederen med grøn/gul isolation må kun tilsluttes en klemme mærket</p> <p> eller </p> <p>If essential for the safety of the equipment, the tag must in addition be provided with a diagram which shows the connection of the other conductors, or be provided with the following text: "For tilslutning af de øvrige ledere, se medfølgende installationsvejledning."</p>		N/A
1.7.5	S (DK): 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.	There are no socket-outlets providing power to other appliances.	N/A
1.7.5	A (DK, Heavy Current Regulations): CLASS II EQUIPMENT shall not be fitted with socket-outlets for providing power to other equipment.		N/A
1.7.12	<p>A (DE, Gesetz über technische Arbeitsmittel (Gerätesicherheitsgesetz) [Law on technical labour equipment {Equipment safety law}], of 23rd October 1992, Article 3, 3rd paragraph, 2nd sentence, together with the "Allgemeine Verwaltungsvorschrift zur Durchführung des Zweiten Abschnitts des Gerätesicherheitsgesetzes" [General administrative regulation on the execution of the Second Section of the Equipment safety law], of 10th January 1996, article 2, 4th paragraph item 2):</p> <p>Directions for use with rules to prevent certain hazards for (among others) maintenance of the technical labour equipment, also for imported technical labour equipment shall be written in the German language.</p> <p>NOTE: Of this requirement, rules for use even only by service personnel are not exempted.</p>	Instructions and markings shall be in a language acceptable for the country where the equipment is to be used.	P
1.7.15	A (CH, Ordinance on environmentally hazardous substances SR 814.013): Annex 4.10 of SR 814.013 applies for batteries.	There is no battery within the unit.	N/A
	<p>A (DE, Regulation on protection against hazards by X-ray, of 8th January 1987, Article 5 [Operation of X-ray emission source], clauses 1 to 4):</p> <p>a) A licence is required by those who operate an X-ray emission source.</p>		N/A

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
	<p>b) A licence in accordance with Cl. 1 is not required by those who operate an X-ray emission source on which the electron acceleration voltage does not exceed 20 kV if</p> <ol style="list-style-type: none"> 1) the local dose rate at a distance of 0,1 m from the surface does not exceed 1 $\mu\text{Sv/h}$ and 2) it is adequately indicated on the X-ray emission source that <ol style="list-style-type: none"> i) X-rays are generated and ii) the electron acceleration voltage must not exceed the maximum value stipulated by the manufacturer or importer. <p>c) A licence in accordance with Cl. 1 is also not required by persons who operate an X-ray emission source on which the electron acceleration voltage exceeds 20 kV if</p> <ol style="list-style-type: none"> 1) the X-ray emission source has been granted a type approval and 2) it is adequately indicated on the X-ray emission source that <ol style="list-style-type: none"> i) X-rays are generated ii) the device stipulated by the manufacturer or importer guarantees that the maximum permissible local dose rate in accordance with the type approval is not exceeded and iii) the electron acceleration voltage must not exceed the maximum value stipulated by the manufacturer or importer. <p>d) Furthermore, a licence in accordance with Cl. 1 is also not required by persons who operate X-ray emission sources on which the electron acceleration voltage does not exceed 30 kV if</p> <ol style="list-style-type: none"> 1) the X-rays are generated only by intrinsically safe CRTs complying with Enclosure III, No. 6, 2) the values stipulated in accordance with Enclosure III, No. 6.2 are limited by technical measures and specified in the device and 3) it is adequately indicated on the X-ray emission source that the X-rays generated are adequately screened by the intrinsically safe CRT. 		
2.2.4	S (NO): Requirements according to this annex, 1.7.2 and 6.1.2.1 apply.		N/A
2.3.2	S (NO): Requirements according to this annex, 6.1.2.1 apply.		N/A
2.3.3 and 2.3.4	S (NO): Requirements according to this annex, 1.7.2 and 6.1.2.1 apply.		N/A
2.6.3.3	S (GB): The current rating of the circuit shall be taken as 13 A, not 16 A.	Considered.	P
2.7.1	C: Replace the subclause as follows:	Complies with a).	P

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
	<p><i>Basic requirements</i></p> <p>To protect against excessive current, short-circuits and earth faults in PRIMARY CIRCUITS, protective devices shall be included either as integral parts of the equipment or as parts of the building installation, subject to the following, a), b) and c):</p> <p>a) except as detailed in b) and c), protective devices necessary to comply with the requirements of 5.3 shall be included as parts of the equipment;</p> <p>b) for components in series with the mains input to the equipment such as the supply cord, appliance coupler, r.f.i. filter and switch, short-circuit and earth fault protection may be provided by protective devices in the building installation;</p> <p>c) it is permitted for PLUGGABLE EQUIPMENT TYPE B or PERMANENTLY CONNECTED EQUIPMENT, to rely on dedicated overcurrent and short-circuit protection in the building installation, provided that the means of protection, e.g. fuses or circuit breakers, is fully specified in the installation instructions.</p> <p>If reliance is placed on protection in the building installation, the installation instructions shall so state, except that for PLUGGABLE EQUIPMENT TYPE A the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet.</p>		
	S (GB): To protect against excessive currents and short-circuits in the PRIMARY CIRCUIT OF DIRECT PLUG-IN EQUIPMENT, protective device shall be included as integral parts of the DIRECT PLUG-IN EQUIPMENT.	Direct plug-in units provided with internal fuse.	P
2.7.2	C: Void.	Considered.	N/A
2.10.2	C: Replace in the first line "(see also 1.4.7)" by "(see also 1.4.8)".	Considered.	N/A
2.10.3.1	S (NO): Due to the IT power distribution system used (see annex V, Fig. V.7), the A.C. MAINS SUPPLY voltage is considered to be equal to the line-to-line voltage and will remain at 230 V in case of a single earth fault		N/A

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
3.2.1.1	<p>S (CH): Supply cords of equipment having a RATED CURRENT not exceeding 10 A shall be provided with a plug complying with SEV 1011 or IEC 60884-1 and one of the following dimension sheets:</p> <p>SEV 6532-2.1991, Plug type 15, 3P+N+PE 250/400 V, 10 A SEV 6533-2.1991, Plug type 11, L+N 250 V, 10 A SEV 6534-2.1991, Plug type 12, L+N+PE 250 V, 10 A</p> <p>In general, EN 60309 applies for plugs for currents exceeding 10A. However, a 16 A plug and socket-outlet system is being introduced in Switzerland, the plugs of which are according to the following dimension sheets, published in February 1998:</p> <p>SEV 5932-2.1998, Plug type 25, 3L+N+PE 230/400 V, 16 A SEV 5933-2.1998, Plug type 21, L+N 250 V, 16 A SEV 5934-2.1998, Plug type 23, L+N+PE 250 V, 16 A</p>	Power supply cord not provided.	N/A
	<p>S (DK): Supply cords of single-phase equipment having a rated current not exceeding 13 A shall be provided with a plug according to the Heavy Current Regulations, Section 107-2-D1.</p> <p>CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a.</p> <p>If poly-phase equipment and single-phase equipment having a RATED CURRENT exceeding 13 A is provided with a supply cord with a plug, this plug shall be in accordance with the Heavy Current Regulations, Section 107-2-D1 or EN 60309-2.</p>	Power supply cord not provided.	N/A
	<p>S (ES): Supply cords of single-phase equipment having a rated current not exceeding 10 A shall be provided with a plug according to UNE 20315:1994.</p> <p>Supply cords of single-phase equipment having a rated current not exceeding 2,5 A shall be provided with a plug according to UNE-EN 50075:1993.</p> <p>CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules, shall be provided with a plug in accordance with standard UNE 20315:1994.</p> <p>If poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with UNE-EN 60309-2.</p>	Power supply cord not provided.	N/A
	<p>S (GB): 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</p>	Power supply cord not provided.	N/A

IEC 60950-1 / EN 60950-1									
Clause	Requirement – Test	Result – Remark	Verdict						
	<p>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 Socket etc. (Safety) Regulations 1994, unless exempted by those regulations.</p> <p>NOTE – 'Standard plug' is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.</p>								
	<p>S (IE): Apparatus which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to I.S. 411 by means of that flexible cable or cord and plug, shall be fitted with a 13 A plug in accordance with Statutory Instrument 525:1997 – National Standards Authority of Ireland (section 28) (13 A Plugs and Conversion Adaptors for Domestic Use) Regulations 1997.</p>	Power supply cord not provided.	N/A						
3.2.3	<p>C: Delete Note 1 and in Table 3A, delete the conduit sizes in parentheses.</p>	Considered.	N/A						
3.2.5.1	<p>C: Replace</p> <p>"60245 IEC 53" by "H05 RR-F";</p> <p>"60227 IEC 52" by "H03 VV-F or H03 VVH2-F";</p> <p>"60227 IEC 53" by "H05 VV-F or H05 VVH2-F2".</p> <p>In Table 3B, replace the first four lines by the following:</p> <table><tr><td>Up to and including 6</td><td>0,75¹⁾</td></tr><tr><td>Over 6 up to and including 10</td><td>(0,75)²⁾ 1,0</td></tr><tr><td>Over 10 up to and including 16</td><td>(1,0)³⁾ 1,5</td></tr></table> <p>In the Conditions applicable to Table 3B delete the words "in some countries" in condition ¹⁾.</p> <p>In Note 1, applicable to Table 3B, delete the second sentence.</p>	Up to and including 6	0,75 ¹⁾	Over 6 up to and including 10	(0,75) ²⁾ 1,0	Over 10 up to and including 16	(1,0) ³⁾ 1,5	Power supply cord not provided.	N/A
Up to and including 6	0,75 ¹⁾								
Over 6 up to and including 10	(0,75) ²⁾ 1,0								
Over 10 up to and including 16	(1,0) ³⁾ 1,5								
3.2.5.1	<p>S (GB): A power supply cord with conductor of 1,25 mm² is allowed for equipment with a rated current over 10 A and up to and including 13 A.</p>	The power cord is not provided with the equipment, refer to Summary of Testing.	N/A						
3.3.4	<p>C: In table 3D, delete the fourth line: conductor sizes for 10 to 13 A, and replace with the following:</p> <p>"Over 10 up to and including 16 1,5 to 2,5 1,5 to 4"</p> <p>Delete the fifth line: conductor sizes for 13 to 16 A.</p>	Considered.	N/A						
3.3.4	<p>S (GB): 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:</p> <p>- 1,25 mm² to 1,5 mm² nominal cross-sectional area.</p>	The power cord is not provided with the equipment, refer to Summary of Testing.	N/A						

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
4.3.6	S (GB): 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.	The UK plug should be evaluated during national approval.	N/A
	S (IE): DIRECT PLUG-IN EQUIPMENT is known as plug similar devices. Such devices shall comply with Statutory Instrument 526:1997 – National Standards Authority of Ireland (Section 28) (Electrical plugs, plug similar devices and sockets for domestic use) Regulations, 1997.	Refer above.	N/A
4.3.13.6	C: Add the following note: NOTE 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 are currently under development.	Considered.	N/A
6.1.2.1	S (FI, NO, SE): Add the following text between the first and second paragraph: 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 2.10.8 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 2.10.7 shall be performed using 1,5 kV), and - is subject to ROUTING 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 132400:1994, subclass Y2. A capacitor classified Y3 according to EN 132400:1994, may bridge this insulation under the following conditions:	No TNV circuits.	N/A

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
	<ul style="list-style-type: none"> - the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 132400, which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in EN 60950:2000, 6.2.2.1; - the additional testing shall be performed on all the test specimens as described in EN 132400; - the impulse test of 2,5 kV is to be performed before the endurance test in EN 132400, in the sequence of tests as described in EN 132400. 		
6.1.2.2	S (FI, NO, SE): 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 circuits.	N/A
7.1	S (FI, NO, SE): 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
G.2.1	S (NO): Due to the IT power distribution system used (see annex V, Fig. V.7), the A.C. MAINS SUPPLY voltage is considered to be equal to the line-to-line voltage, and will remain at 230 V in case of a single earth fault.	Considered.	
Annex H	<p>C: 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.</p> <p>Replace the notes as follows: NOTE These values appear in Directive 96/29/Euratom. Delete Note 2.</p>	The unit does not emit X-ray radiation.	N/A
Annex P	<p>C: Replace the text of this annex by: See annex ZA.</p>	Considered.	P
Annex Q	<p>C: Replace the title of IEC 61032 by "Protection of persons and equipment by enclosures – Probes for verification".</p> <p>Add the following notes for the standards indicated: IEC 60127 NOTE Harmonized as EN 60127 (Series) (not modified) IEC 60269-2-1 NOTE Harmonized as HD 630.2.1 S4:2000 (modified) IEC 60529 NOTE Harmonized as EN 60529:1991 (not modified) IEC 61032 NOTE Harmonized as EN 61032:1998 (not modified) IEC 61140 NOTE Harmonized as EN 61140:2001 (not modified) ITU-T Recommendation K.31 NOTE in Europe, the suggested document is EN 50083-1.</p>		P

IEC 60950-1 / EN 60950-1																																																																																									
Clause	Requirement – Test	Result – Remark	Verdict																																																																																						
Annex ZA	<p>C: NORMATIVE REFERENCES TO INTERNATIONAL PUBLICATIONS WITH THEIR RELEVANT EUROPEAN PUBLICATIONS</p> <p>This European Standard incorporates, by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies (including amendments).</p> <p>NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.</p> <table><tr><td>—</td><td>IEC 60050-151</td></tr><tr><td>—</td><td>IEC 60050-195</td></tr><tr><td>EN 60065:1998 + corr. June 1999</td><td>IEC 60065 (mod):1998</td></tr><tr><td>EN 60073:1996</td><td>IEC 60073:1996</td></tr><tr><td>HD 566 S1:1990</td><td>IEC 60085:1984</td></tr><tr><td>HD 214 S2:1980</td><td>IEC 60112:1979</td></tr><tr><td>HD 611.4.1.S1:1992</td><td>IEC 60216-4-1:1990</td></tr><tr><td>HD 21 ¹⁾ Series</td><td>IEC 60227 (mod) Series</td></tr><tr><td>HD 22 ²⁾ Series</td><td>IEC 60245 (mod) Series</td></tr><tr><td>EN 60309 Series</td><td>IEC 60309 Series</td></tr><tr><td>EN 60317-43:1997</td><td>IEC 60317-43:1997</td></tr><tr><td>EN 60320 Series</td><td>IEC 60320 (mod) Series</td></tr><tr><td>HD 384.3 S2:1995</td><td>IEC 60364-3 (mod):1993</td></tr><tr><td>HD 384.4.41 S2:1996</td><td>IEC 60364-4-41 (mod):1992 ³⁾</td></tr><tr><td>EN 132400:1994 ⁴⁾</td><td>IEC 60384-14:1993</td></tr><tr><td>+ A2:1998 + A3:1998 + A4:2001</td><td></td></tr><tr><td>EN 60417-1</td><td>IEC 60417-1</td></tr><tr><td>HD 625.1 S1:1996 + corr. Nov. 1996</td><td>IEC 60664-1 (mod):1992</td></tr><tr><td>EN 60695-2-2:1994</td><td>IEC 60695-2-2:1991</td></tr><tr><td>EN 60695-2-11:2001</td><td>IEC 60695-2-11:2000</td></tr><tr><td>—</td><td>IEC 60695-2-20:1995</td></tr><tr><td>—</td><td>IEC 60695-10-2:1995</td></tr><tr><td>—</td><td>IEC 60695-11-3:2000</td></tr><tr><td>—</td><td>IEC 60695-11-4:2000</td></tr><tr><td>EN 60695-11-10:1999</td><td>IEC 60695-11-10:1999</td></tr><tr><td>EN 60695-11-20:1999</td><td>IEC 60695-11-20:1999</td></tr><tr><td>EN 60730-1:2000</td><td>IEC 60730-1:1999 (mod)</td></tr><tr><td>EN 60825-1:1994 + corr. Febr. 1995 + A11:1996 + corr. July 1997</td><td>IEC 60825-1:1993</td></tr><tr><td>EN 60825-2:2000</td><td>IEC 60825-2:2000</td></tr><tr><td>—</td><td>IEC 60825-9:1999</td></tr><tr><td>EN 60851-3:1996</td><td>IEC 60851-3:1996</td></tr><tr><td>EN 60851-5:1996</td><td>IEC 60825-5:1996</td></tr><tr><td>EN 60851-6:1996</td><td>IEC 60851-6:1996</td></tr><tr><td>—</td><td>IEC 60885-1:1987</td></tr><tr><td>EN 60990:1999</td><td>IEC 60990:1999</td></tr><tr><td>—</td><td>IEC 61058-1:2000</td></tr><tr><td>EN 61965:2001</td><td>IEC 61965:2000</td></tr><tr><td>EN ISO 178:1996</td><td>ISO 178:1993</td></tr><tr><td>EN ISO 179 Series</td><td>ISO 179 Series</td></tr><tr><td>EN ISO 180:2000</td><td>ISO 180:1993</td></tr><tr><td>—</td><td>ISO 261:1998</td></tr><tr><td>—</td><td>ISO 262:1998</td></tr><tr><td>EN ISO 527 Series</td><td>ISO 527 Series</td></tr></table>		—	IEC 60050-151	—	IEC 60050-195	EN 60065:1998 + corr. June 1999	IEC 60065 (mod):1998	EN 60073:1996	IEC 60073:1996	HD 566 S1:1990	IEC 60085:1984	HD 214 S2:1980	IEC 60112:1979	HD 611.4.1.S1:1992	IEC 60216-4-1:1990	HD 21 ¹⁾ Series	IEC 60227 (mod) Series	HD 22 ²⁾ Series	IEC 60245 (mod) Series	EN 60309 Series	IEC 60309 Series	EN 60317-43:1997	IEC 60317-43:1997	EN 60320 Series	IEC 60320 (mod) Series	HD 384.3 S2:1995	IEC 60364-3 (mod):1993	HD 384.4.41 S2:1996	IEC 60364-4-41 (mod):1992 ³⁾	EN 132400:1994 ⁴⁾	IEC 60384-14:1993	+ A2:1998 + A3:1998 + A4:2001		EN 60417-1	IEC 60417-1	HD 625.1 S1:1996 + corr. Nov. 1996	IEC 60664-1 (mod):1992	EN 60695-2-2:1994	IEC 60695-2-2:1991	EN 60695-2-11:2001	IEC 60695-2-11:2000	—	IEC 60695-2-20:1995	—	IEC 60695-10-2:1995	—	IEC 60695-11-3:2000	—	IEC 60695-11-4:2000	EN 60695-11-10:1999	IEC 60695-11-10:1999	EN 60695-11-20:1999	IEC 60695-11-20:1999	EN 60730-1:2000	IEC 60730-1:1999 (mod)	EN 60825-1:1994 + corr. Febr. 1995 + A11:1996 + corr. July 1997	IEC 60825-1:1993	EN 60825-2:2000	IEC 60825-2:2000	—	IEC 60825-9:1999	EN 60851-3:1996	IEC 60851-3:1996	EN 60851-5:1996	IEC 60825-5:1996	EN 60851-6:1996	IEC 60851-6:1996	—	IEC 60885-1:1987	EN 60990:1999	IEC 60990:1999	—	IEC 61058-1:2000	EN 61965:2001	IEC 61965:2000	EN ISO 178:1996	ISO 178:1993	EN ISO 179 Series	ISO 179 Series	EN ISO 180:2000	ISO 180:1993	—	ISO 261:1998	—	ISO 262:1998	EN ISO 527 Series	ISO 527 Series	P
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IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
	— EN ISO 4892 Series — EN ISO 8256:1996 — EN ISO 9773:1998 — — 1) The HD 21 series is related to, but not directly equivalent with the IEC 60227 series 2) The HD 22 series is related to, but not directly equivalent with the IEC 60245 series 3) IEC 60364-4-41:1992 is superseded by IEC 60364-4-41:2001 4) EN 132400, Sectional Specification: Fixed capacitors for electromagnetic interference suppression and connection to the supply mains (Assessment level D), and its amendments are related to, but not directly equivalent to IEC 60384-14	ISO 386:1984 ISO 4892 Series ISO 7000:1989 ISO 8256:1990 ISO 9772:1994 ISO 9773:1998 ITU-T:1988 Recommendation K.17 ITU-T:2000 Recommendation K.21	

1.5.1	TABLE: list of critical components					P
object/part No.	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity ¹⁾	
GT-41062-WWVV-X.X-T2 series						
Enclosure	Plastic material, overall approx. 80 mm by 45 by 25 mm, min. thickness 1,6 mm Moulded of UR (QMFZ2) E22074, GE Plastics, Type SE1, rated 94V-1 at RTI= 105°C by min thickness 0,75 mm. Constructed with no opening.			—	Accepted	
Input Connector Type C8 (Inlet)	+ Supercom wire & Cable Co Ltd	SC-8R	10A 250Vac; 70°C	IEC60320	VDE	
	+Sun Fair	S-02	2,5A; 250Vac; 70°C	IEC60320	VDE	
	+Sun Fair	S-01	2,5A; 250Vac; 70°C	IEC60320	VDE	
PCB	various	various	Paper phenolic, paper epoxy or glass epoxy, rated 94V-1 at RTI=130°C by min. thickness 0,2 mm. Measured thickness 1,6 mm Overall approx 70 mm by 44 mm	(ZPMV1)	UR	
Fuse (F1)	+ Wickmann Werke	392	T 2A; 250Va.c.	IEC 60127 VDE0820	VDE	
	+ Conquer	MST-series	T 2A; 250Va.c.	IEC 60127 VDE0820	VDE	
	+ Save Fusetech Inc	SS-5	T 2A; 250Va.c.	EN60127	TUV	
Varistor (ZNR1)	+ Centra Science Co.	+ CNR-07D271K	Max. 175Vac; 225Vdc	(XUHT2)	UR E150709	
	+ Joyin	JVR07S471K	300Vac; 385Vdc	(XUHT2)	UR E153360	
X-Capacitor (CX1)	+ Cheng Tung	CTX	Max. 0,22 µF, 300V X2	(FOWX2) IEC60384-14	UR E193049 VDE	
	+ Tenta	MEX	Max. 0,22 µF, 275V X2	(FOWX2) IEC60384-14	UR E222911 VDE	

object/part No.	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity ¹⁾
Electrolytic Capacitor (C1)	various	various	33 μ F, 400Vac; 105°C	—	Accepted
Transformer (T1) Pri/sec	+ Yao Sheng, XF00210 or XF00211 or XF00212, open type construction with overall dimension approx. 23 mm by 20 mm by 18 mm. <u>Rating:</u> 240V/ 0,6A, 50/60 Hz <u>Core:</u> Ferrite ETD <u>Coil:</u> enamelled copper wire. <u>Bobbin:</u> UR (QMFZ2), rated 94V-0 at min thickness 1,6 mm Measured thickness: 3,4 mm <u>Insulation:</u> Triple insulated wire, Furukawa, TEX-B, Class B or Totoku TIW-E class F Insulation class B			—	Accepted
Y-Capacitor (CY1)	+ TDK	CD	Max. 2200pF, 250V	IEC60384 (FOWX2)	VDE UR E37861
Transistor (Q1) (Screwed to the heatsink 1)	various	various	600 V, 7A Insulated from the heatsink 1 with the glue	—	Accepted
Heatsink 1	Aluminium, overall approx. 43 mm by 20 mm by 2 mm			—	Accepted
Heatsink 2 (floating)	Aluminium, overall approx. 35 mm by 20 mm by 2 mm			—	Accepted
Optical Isolator (PC1)	+ Sharp	PC817 series	Dti > 0,4mm	VDE0884 (FPQU2)	TUV UR E64380
GT-41062-WWVV-X.X series					
Enclosure	Plastic material, overall approx. 80 mm by 45 by 25 mm, min thickness 1,5 mm Moulded of UR (QMFZ2) E22074, GE Plastics, Type SE1, rated 94V-1 at RTI= 105°C by min thickness 0,75 mm. Constructed with no opening.			—	Accepted
Plug (plastic material)	+ GE Plastics BV	SE-1	94V-1 rated; 105°C	(QMFZ2)	UR E22074

object/part No.	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity ¹⁾
PCB	various	various	Paper phenolic, paper epoxy or glass epoxy, rated 94V-1 at RTI=130°C by min. thickness 0,2 mm . Measured thickness 1,6 mm Overall approx 70 mm by 44 mm	(ZPMV2)	UR
Fuse (F1)	+ Wickmann Werke	392	T 2A; 250V	VDE0820 IEC60127	VDE
	+ Conquer Electronics	+ MST	T 2A; 250V	VDE0820 (JDYX2)	VDE UR E 82636
	+ Save Fusetech Inc	SS-5	T 2A; 250Vac	EN60127	TUV
Varistor (ZNR1)	+ Centra Science Co.	+ CNR-07D271K	Max. 175Vac; 225Vdc	(XUHT2)	UR E150709
	+ Joyin	JVR07S471K	300Vac; 385Vdc	(XUHT2)	UR E153360
X-Capacitor (CX1)	+ Cheng Tung	CTX	Max. 0,22 µF, 300V X2	(FOWX2) IEC60384-14	UR E193049 VDE
	+ Tenta	MEX	Max.0,22 µF, 275V X2	(FOWX2) IEC60384-14	UR E222911 VDE
	+ Matsushita	ECQUL	Max.0,22 µF, 275V X2	IEC60384-14	VDE
	+ Ultra Tech Xiphi Enterprise Co. Ltd	HQX	Max.0,22 µF, 275V X2	IEC60384-14 (FOWX2)	VDE UL E183780
Electrolytic Capacitor (C1)	various	various	33µF, 400Vac; 105°C	—	Accepted

object/part No.	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity ¹⁾
Transformer (T1) Pri/sec	+ GlobTek, XF00168, open type construction with overall dimension approx. 23 mm by 20 mm by 18 mm. <u>Rating:</u> 240V/ 0,6A, 50/60 Hz <u>Core:</u> Ferrite ETD <u>Coil:</u> enamelled copper wire. <u>Bobbin:</u> UR (QMFZ2), rated 94V-0 at min thickness 1,6mm Measured thickness: 3,4 mm <u>Insulation:</u> Triple insulated wire, +Furukawa, TEX-B, Class B Insulation class B			—	accepted
Y-Capacitor (CY1)	+ TDK	CD	Max. 2200 pF, 250V	IEC60384 (FOWX2)	VDE UR E37861
	+ Matsushita	TS	Max. 2200 pF, 250V	IEC60384	VDE
Optical Isolator (U2)	+ Sharp	PC817 series	Dti > 0,4mm	VDE0884 (FPQU2)	TUV UR E64380
	+ NEC	PS2561-1	Dti > 0,4mm	VDE0884	TUV
	+ NEC	PS2561L1-1	Dti > 0,4mm	VDE0884	TUV
	+ Taiwan Liteon	LTV817	Dti > 0,6mm	VDE0884	TUV
	+ Fairchild Semiconductor	H11A817	Dti > 1,0mm	VDE0884	TUV
GT-41062-WWVV-X.X-T3 and GT-41062-WWVV-XX-T3A					
Enclosure	Plastic material, overall approx. 80 mm by 45 by 25 mm, min thickness 1,5 mm Moulded of UR (QMFZ2) E22074, GE Plastics, Type SE1, rated 94V-1 at RTI= 105°C by min thickness 0,75 mm. Constructed with no opening.			---	Accepted
Input Connector	+ Supercom Wire & Cable Co Ltd	SC-8R	250Vac; 10A	IEC60320	VDE
	+ Sun Fair	S-02	2,5A 250Vac	(AXUT2) IEC60320	UR E226643 VDE
	+ Sun Fair	S-01	2,5A 250Vac	(AXUT2) IEC60320	UR E226643 VDE
Fuse (F1)	+ Wickmann Werke	392	T2A; 250Vac	VDE0820 IEC 60127	VDE

object/part No.	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity ¹⁾
	+ Conquer	MST-series	T2A; 250Vac	VDE0820 IEC 60127	VDE
	+ Save Fusetech Inc	SS-5	T2A; 250Vac	EN60127	TUV
PCB	various	various	Paper phenolic, paper epoxy or glass epoxy, rated 94V-1 at RTI=130°C by min. thickness 0,2 mm . Measured thickness 1,6 mm Overall approx 70 mm by 44 mm	(ZPMV2)	UR
Varistor (ZNR1)	+ Centra Science Co.	+ CNR-07D271K	Max. 175Vac; 225Vdc	(XUHT2)	UR E150709
X-Capacitor (CX1)	+ Cheng Tung	CTX	Max. 0,22 µF, 300V X2	(FOWX2) IEC60384-14	UR E193049 VDE
	+ Tenta	MEX	Max. 0,22 µF, 275V X2	(FOWX2) IEC60384-14	UR E222911 VDE
Y-Capacitor (CY1)	+ TDK	CD	Max. 2200pF, 250V	IEC60384 (FOWX2)	VDE UR E37861
Transistor (Q1) (Screwed to the heatsink 1)	various	various	600 V, 7A Insulated from the heatsink 1 with the glue	—	Accepted
Electrolytic Capacitor (C1)	various	various	33µF, 400Vac; 105°C	—	Accepted

object/part No.	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity ¹⁾
Transformer (T1) Pri/sec	+ Yao Sheng, XF00210 or XF00211 or XF00212, open type construction with overall dimension approx. 23 mm by 20 mm by 18 mm. <u>Rating:</u> 240V/ 0,6A, 50/60 Hz <u>Core:</u> Ferrite ETD <u>Coil:</u> enamelled copper wire. <u>Bobbin:</u> UR (QMFZ2), rated 94V-0 at min thickness 1,6mm Measured thickness: 3,4 mm <u>Insulation:</u> Triple insulated wire, +Furukawa, TEX-B, Class B or +Totoku TIW-E class F Insulation class B			—	Accepted
Optical Isolator (PC1)	+ Sharp	PC817 series	Dti > 0,4mm	VDE0884 (FPQU2)	TUV UR E64380
1) an asterisk indicates a mark which assures the agreed level of surveillance 2) + means, that components from other vendor and other model number, but with the same rating and equivalent approvals are accepted.					

1.6.2	TABLE: electrical data (in normal conditions)					P
fuse #	I _{rated} (A)	U (V)	P (W)	I (A)	I _{fuse} (A) Rated	condition/status
GT-41062-1824-X.X						
50Hz						
F1	0,6	90Vac 50Hz	—	0,473	2A	24Vdc; 0,75A
F1	0,6	100Vac 50Hz	—	0,436	2A	24Vdc; 0,75A
F1	0,6	240Vac 50Hz	—	0,329	2A	24Vdc; 0,75A
F1	0,6	254Vac 50Hz	—	0,334	2A	24Vdc; 0,75A
F1	0,6	264Vac 50Hz	—	0,337	2A	24Vdc; 0,75A
60Hz						
F1	0,6	90Vac 60 Hz	—	0,479	2A	24Vdc; 0,75A
F1	0,6	100Vac 60Hz	—	0,443	2A	24Vdc; 0,75A
F1	0,6	240Vac 60Hz	—	0,332	2A	24Vdc; 0,75A
F1	0,6	254Vac 60Hz	—	0,335	2A	24Vdc; 0,75A
F1	0,6	264Vac 60 Hz	—	0,338	2A	24Vdc; 0,75A

1.6.2	TABLE: electrical data (in normal conditions)					P
fuse #	I _{rated} (A)	U (V)	P (W)	I (A)	I _{fuse} (A) Rated	condition/status
GT-41062-1818-X.X						
50Hz						
F1	0,6	90Vac 50Hz	—	0,469	2A	18Vdc; 1A
F1	0,6	100Vac 50Hz	—	0,435	2A	18Vdc; 1A
F1	0,6	240Vac 50Hz	—	0,326	2A	18Vdc; 1A
F1	0,6	254Vac 50Hz	—	0,329	2A	18Vdc; 1A
F1	0,6	264Vac 50Hz	—	0,331	2A	18Vdc; 1A
60Hz						
F1	0,6	90Vac 60 Hz	—	0,472	2A	18Vdc; 1A
F1	0,6	100Vac 60Hz	—	0,442	2A	18Vdc; 1A
F1	0,6	240Vac 60Hz	—	0,328	2A	18Vdc; 1A
F1	0,6	254Vac 60Hz	—	0,333	2A	18Vdc; 1A
F1	0,6	264Vac 60 Hz	—	0,335	2A	18Vdc; 1A

1.6.2		TABLE: electrical data (in normal conditions)					P
fuse #	Irated (A)	U (V)	P (W)	I (A)	Ifuse (A) Rated	condition/status	
GT-41062-1812-X.X							
50Hz							
F1	0,6	90Vac 50Hz	—	0,476	2A	12Vdc; 1,5A	
F1	0,6	100Vac 50Hz	—	0,439	2A	12Vdc; 1,5A	
F1	0,6	240Vac 50Hz	—	0,322	2A	12Vdc; 1,5A	
F1	0,6	254Vac 50Hz	—	0,323	2A	12Vdc; 1,5A	
F1	0,6	264Vac 50Hz	—	0,325	2A	12Vdc; 1,5A	
60Hz							
F1	0,6	90Vac 60 Hz	—	0,493	2A	12Vdc; 1,5A	
F1	0,6	100Vac 60Hz	—	0,444	2A	12Vdc; 1,5A	
F1	0,6	240Vac 60Hz	—	0,323	2A	12Vdc; 1,5A	
F1	0,6	254Vac 60Hz	—	0,324	2A	12Vdc; 1,5A	
F1	0,6	264Vac 60 Hz	—	0,326	2A	12Vdc; 1,5A	

1.6.2		TABLE: electrical data (in normal conditions)					P
fuse #	Irated (A)	U (V)	P (W)	I (A)	Ifuse (A) Rated	condition/status	
GT-41062-1805-X.X							
50Hz							
F1	0,6	90Vac 50Hz	—	0,429	2A	5Vdc; 3,2A	
F1	0,6	100Vac 50Hz	—	0,396	2A	5Vdc; 3,2A	
F1	0,6	240Vac 50Hz	—	0,270	2A	5Vdc; 3,2A	
F1	0,6	254Vac 50Hz	—	0,264	2A	5Vdc; 3,2A	
F1	0,6	264Vac 50Hz	—	0,262	2A	5Vdc; 3,2A	
60Hz							
F1	0,6	90Vac 60 Hz	—	0,435	2A	5Vdc; 3,2A	
F1	0,6	100Vac 60Hz	—	0,402	2A	5Vdc; 3,2A	
F1	0,6	240Vac 60Hz	—	0,271	2A	5Vdc; 3,2A	
F1	0,6	254Vac 60Hz	—	0,269	2A	5Vdc; 3,2A	
F1	0,6	264Vac 60 Hz	—	0,266	2A	5Vdc; 3,2A	

1.6.2	TABLE: electrical data (in normal conditions)					P
fuse #	I _{rated} (A)	U (V)	P (W)	I (A)	I _{fuse} (A) Rated	condition/status
GT-41062-1806-X.X						
50Hz						
F1	0,6	90Vac 50Hz	—	0,425	2A	6Vdc; 3A
F1	0,6	100Vac 50Hz	—	0,379	2A	6Vdc; 3A
F1	0,6	240Vac 50Hz	—	0,227	2A	6Vdc; 3A
F1	0,6	254Vac 50Hz	—	0,218	2A	6Vdc; 3A
F1	0,6	264Vac 50Hz	—	0,212	2A	6Vdc; 3A
60Hz						
F1	0,6	90Vac 60 Hz	—	0,428	2A	6Vdc; 3A
F1	0,6	100Vac 60Hz	—	0,387	2A	6Vdc; 3A
F1	0,6	240Vac 60Hz	—	0,231	2A	6Vdc; 3A
F1	0,6	254Vac 60Hz	—	0,221	2A	6Vdc; 3A
F1	0,6	264Vac 60 Hz	—	0,217	2A	6Vdc; 3A

1.6.2	TABLE: electrical data (in normal conditions)					P
fuse #	I _{rated} (A)	U (V)	P (W)	I (A)	I _{fuse} (A) Rated	condition/status
GT-41062-1807-X.X						
50Hz						
F1	0,6	90Vac 50Hz	—	0,439	2A	7Vdc; 2,57A
F1	0,6	100Vac 50Hz	—	0,387	2A	7Vdc; 2,57A
F1	0,6	240Vac 50Hz	—	0,238	2A	7Vdc; 2,57A
F1	0,6	254Vac 50Hz	—	0,225	2A	7Vdc; 2,57A
F1	0,6	264Vac 50Hz	—	0,221	2A	7Vdc; 2,57A
60Hz						
F1	0,6	90Vac 60 Hz	—	0,440	2A	7Vdc; 2,57A
F1	0,6	100Vac 60Hz	—	0,404	2A	7Vdc; 2,57A
F1	0,6	240Vac 60Hz	—	0,225	2A	7Vdc; 2,57A
F1	0,6	254Vac 60Hz	—	0,228	2A	7Vdc; 2,57A
F1	0,6	264Vac 60 Hz	—	0,223	2A	7Vdc; 2,57A

1.6.2		TABLE: electrical data (in normal conditions)					P
fuse #	Irated (A)	U (V)	P (W)	I (A)	Ifuse (A) Rated	condition/status	
GT-41062-1824-X.X-T2							
50Hz							
F1	0,6	90Vac 50Hz	—	0,451	2A	24Vdc; 0,75A	
F1	0,6	100Vac 50Hz	—	0,418	2A	24Vdc; 0,75A	
F1	0,6	240Vac 50Hz	—	0,307	2A	24Vdc; 0,75A	
F1	0,6	254Vac 50Hz	—	0,304	2A	24Vdc; 0,75A	
F1	0,6	264Vac 50Hz	—	0,308	2A	24Vdc; 0,75A	
60Hz							
F1	0,6	90Vac 60 Hz	—	0,456	2A	24Vdc; 0,75A	
F1	0,6	100Vac 60Hz	—	0,422	2A	24Vdc; 0,75A	
F1	0,6	240Vac 60Hz	—	0,312	2A	24Vdc; 0,75A	
F1	0,6	254Vac 60Hz	—	0,307	2A	24Vdc; 0,75A	
F1	0,6	264Vac 60 Hz	—	0,311	2A	24Vdc; 0,75A	

1.6.2		TABLE: electrical data (in normal conditions)					P
fuse #	Irated (A)	U (V)	P (W)	I (A)	Ifuse (A) Rated	condition/status	
GT-41062-1818-X.X-T2							
50Hz							
F1	0,6	90Vac 50Hz	—	0,449	2A	18Vdc; 1A	
F1	0,6	100Vac 50Hz	—	0,419	2A	18Vdc; 1A	
F1	0,6	240Vac 50Hz	—	0,311	2A	18Vdc; 1A	
F1	0,6	254Vac 50Hz	—	0,308	2A	18Vdc; 1A	
F1	0,6	264Vac 50Hz	—	0,306	2A	18Vdc; 1A	
60Hz							
F1	0,6	90Vac 60 Hz	—	0,459	2A	18Vdc; 1A	
F1	0,6	100Vac 60Hz	—	0,432	2A	18Vdc; 1A	
F1	0,6	240Vac 60Hz	—	0,316	2A	18Vdc; 1A	
F1	0,6	254Vac 60Hz	—	0,312	2A	18Vdc; 1A	
F1	0,6	264Vac 60 Hz	—	0,308	2A	18Vdc; 1A	

1.6.2		TABLE: electrical data (in normal conditions)					P
fuse #	Irated (A)	U (V)	P (W)	I (A)	Ifuse (A) Rated	condition/status	
GT-41062-1809-X.X-T2							
50Hz							
F1	0,6	90Vac 50Hz	—	0,468	2A	9Vdc; 2A	
F1	0,6	100Vac 50Hz	—	0,432	2A	9Vdc; 2A	
F1	0,6	240Vac 50Hz	—	0,314	2A	9Vdc; 2A	
F1	0,6	254Vac 50Hz	—	0,307	2A	9Vdc; 2A	
F1	0,6	264Vac 50Hz	—	0,305	2A	9Vdc; 2A	
60Hz							
F1	0,6	90Vac 60 Hz	—	0,471	2A	9Vdc; 2A	
F1	0,6	100Vac 60Hz	—	0,437	2A	9Vdc; 2A	
F1	0,6	240Vac 60Hz	—	0,318	2A	9Vdc; 2A	
F1	0,6	254Vac 60Hz	—	0,312	2A	9Vdc; 2A	
F1	0,6	264Vac 60 Hz	—	0,308	2A	9Vdc; 2A	

1.6.2		TABLE: electrical data (in normal conditions)					P
fuse #	Irated (A)	U (V)	P (W)	I (A)	Ifuse (A) Rated	condition/status	
GT-41062-1805-X.X-T2							
50Hz							
F1	0,6	90Vac 50Hz	—	0,486	2A	5Vdc; 3,6A	
F1	0,6	100Vac 50Hz	—	0,447	2A	5Vdc; 3,6A	
F1	0,6	240Vac 50Hz	—	0,316	2A	5Vdc; 3,6A	
F1	0,6	254Vac 50Hz	—	0,312	2A	5Vdc; 3,6A	
F1	0,6	264Vac 50Hz	—	0,309	2A	5Vdc; 3,6A	
60Hz							
F1	0,6	90Vac 60 Hz	—	0,491	2A	5Vdc; 3,6A	
F1	0,6	100Vac 60Hz	—	0,452	2A	5Vdc; 3,6A	
F1	0,6	240Vac 60Hz	—	0,319	2A	5Vdc; 3,6A	
F1	0,6	254Vac 60Hz	—	0,315	2A	5Vdc; 3,6A	
F1	0,6	264Vac 60 Hz	—	0,312	2A	5Vdc; 3,6A	

1.6.2		TABLE: electrical data (in normal conditions)					P
fuse #	Irated (A)	U (V)	P (W)	I (A)	Ifuse (A) Rated	condition/status	
GT-41062-1806-X.X-T2							
50Hz							
F1	0,6	90Vac 50Hz	—	0,438	2A	6Vdc; 3A	
F1	0,6	100Vac 50Hz	—	0,433	2A	6Vdc; 3A	
F1	0,6	240Vac 50Hz	—	0,228	2A	6Vdc; 3A	
F1	0,6	254Vac 50Hz	—	0,209	2A	6Vdc; 3A	
F1	0,6	264Vac 50Hz	—	0,201	2A	6Vdc; 3A	
60Hz							
F1	0,6	90Vac 60 Hz	—	0,441	2A	6Vdc; 3A	
F1	0,6	100Vac 60Hz	—	0,433	2A	6Vdc; 3A	
F1	0,6	240Vac 60Hz	—	0,229	2A	6Vdc; 3A	
F1	0,6	254Vac 60Hz	—	0,209	2A	6Vdc; 3A	
F1	0,6	264Vac 60 Hz	—	0,202	2A	6Vdc; 3A	

1.6.2		TABLE: electrical data (in normal conditions)					P
fuse #	Irated (A)	U (V)	P (W)	I (A)	Ifuse (A) Rated	condition/status	
GT-41062-1807-X.X-T2							
50Hz							
F1	0,6	90Vac 50Hz	—	0,428	2A	7Vdc; 2,57A	
F1	0,6	100Vac 50Hz	—	0,391	2A	7Vdc; 2,57A	
F1	0,6	240Vac 50Hz	—	0,229	2A	7Vdc; 2,57A	
F1	0,6	254Vac 50Hz	—	0,221	2A	7Vdc; 2,57A	
F1	0,6	264Vac 50Hz	—	0,213	2A	7Vdc; 2,57A	
60Hz							
F1	0,6	90Vac 60 Hz	—	0,431	2A	7Vdc; 2,57A	
F1	0,6	100Vac 60Hz	—	0,397	2A	7Vdc; 2,57A	
F1	0,6	240Vac 60Hz	—	0,231	2A	7Vdc; 2,57A	
F1	0,6	254Vac 60Hz	—	0,224	2A	7Vdc; 2,57A	
F1	0,6	264Vac 60 Hz	—	0,215	2A	7Vdc; 2,57A	

1.6.2		TABLE: electrical data (in normal conditions)					P
fuse #	Irated (A)	U (V)	P (W)	I (A)	Ifuse (A) Rated	condition/status	
GT-41062-1824-X.X-T3; -T3A							
50Hz							
F1	0,6	100Vac 50Hz	—	0,419	2A	24Vdc; 0,75A	

fuse #	I _{rated} (A)	U (V)	P (W)	I (A)	I _{fuse} (A) Rated	condition/status
F1	0,6	240Vac 50Hz	—	0,307	2A	24Vdc; 0,75A
60Hz						
F1	0,6	100Vac 60Hz	—	0,424	2A	24Vdc; 0,75A
F1	0,6	240Vac 60Hz	—	0,311	2A	24Vdc; 0,75A

1.6.2	TABLE: electrical data (in normal conditions)					P
fuse #	I _{rated} (A)	U (V)	P (W)	I (A)	I _{fuse} (A) Rated	condition/status
GT-41062-1818-X.X-T3; -T3A						
50Hz						
F1	0,6	100Vac 50Hz	—	0,419	2A	18Vdc; 1A
F1	0,6	240Vac 50Hz	—	0,311	2A	18Vdc; 1A
60Hz						
F1	0,6	100Vac 60Hz	—	0,432	2A	18Vdc; 1A
F1	0,6	240Vac 60Hz	—	0,315	2A	18Vdc; 1A

1.6.2	TABLE: electrical data (in normal conditions)					P
fuse #	I _{rated} (A)	U (V)	P (W)	I (A)	I _{fuse} (A) Rated	condition/status
GT-41062-1809-X.X-T3; -T3A						
50Hz						
F1	0,6	100Vac 50Hz	—	0,435	2A	9Vdc; 2A
F1	0,6	240Vac 50Hz	—	0,313	2A	9Vdc; 2A
60Hz						
F1	0,6	100Vac 60Hz	—	0,441	2A	9Vdc; 2A
F1	0,6	240Vac 60Hz	—	0,316	2A	9Vdc; 2A

1.6.2	TABLE: electrical data (in normal conditions)					P
fuse #	I _{rated} (A)	U (V)	P (W)	I (A)	I _{fuse} (A) Rated	condition/status
GT-41062-1805-X.X-T3; -T3A						
50Hz						
F1	0,6	100Vac 50Hz	—	0,447	2A	5Vdc; 3,6A
F1	0,6	240Vac 50Hz	—	0,314	2A	5Vdc; 3,6A
60Hz						
F1	0,6	100Vac 60Hz	—	0,451	2A	5Vdc; 3,6A
F1	0,6	240Vac 60Hz	—	0,317	2A	5Vdc; 3,6A

1.6.2	TABLE: electrical data (in normal conditions)					P
fuse #	I _{rated} (A)	U (V)	P (W)	I (A)	I _{fuse} (A) Rated	condition/status
GT-41062-1806-X.X-T3; -T3A						
50Hz						
F1	0,6	100Vac 50Hz	—	0,431	2A	6Vdc; 3A
F1	0,6	240Vac 50Hz	—	0,224	2A	6Vdc; 3A
60Hz						
F1	0,6	100Vac 60Hz	—	0,434	2A	6Vdc; 3A
F1	0,6	240Vac 60Hz	—	0,227	2A	6Vdc; 3A

1.6.2	TABLE: electrical data (in normal conditions)					P
fuse #	I _{rated} (A)	U (V)	P (W)	I (A)	I _{fuse} (A) Rated	condition/status
GT-41062-1807-X.X-T3; -T3A						
50Hz						
F1	0,6	100Vac 50Hz	—	0,392	2A	7Vdc; 2,57A
F1	0,6	240Vac 50Hz	—	0,227	2A	7Vdc; 2,57A
60Hz						
F1	0,6	100Vac 60Hz	—	0,401	2A	7Vdc; 2,57A
F1	0,6	240Vac 60Hz	—	0,231	2A	7Vdc; 2,57A

2.10.3 and 2.10.4	TABLE: clearance and creepage distance measurements						P
clearance cl and creepage distance dcr at/of:	Up (V)	U r.m.s. (V)	required cl (mm)	cl (mm)	required dcr (mm)	dcr (mm)	
GT-41062-WWVV-X.X-T3 and GT-41062-WWVV-X.X-T3A							
Primary to Primary before fuse (functional)	420	250	1,5	>5	2,5	>5	
Primary to Primary after fuse (functional)	420	250	Method C was used				
Primary to Earth (Basic)	420	250	2,0	3,0	2,5	3,0	
Primary to Secondary (Reinforced) transformer *	455	233	4,6	5,0*	5,0	> 5,2*	
Primary to Secondary on PCB	455	233	4,6	5,0	5,0	6,0	
Primary of transformer to secondary heatsink	455	233	4,6	5,0	5,0	>5,2	
Secondary to Secondary	—	—	Method C was used				
* TIW is used							
Whole transformer outer is wrapped by 2 layers of insulating tape.							

2.10.3 and 2.10.4	TABLE: clearance and creepage distance measurements						P
clearance cl and creepage distance dcr at/of:	Up (V)	U r.m.s. (V)	required cl (mm)	cl (mm)	required dcr (mm)	dcr (mm)	
GT-41062-WWVV-X.X-T2							
Primary to Primary before fuse(functional)	420	250	1,5	>5	2,5	>5	
Primary to Primary after fuse(functional)	420	250	Method C was used				
Primary to Secondary (Reinforced) transformer	455	233	4,6	5,0*	5,0*	> 5,2*	
Primary to Secondary on PCB	455	233	4,6	5,0	5,0	6,0	
Primary of transformer to secondary heatsink	455	233	4,6	5,0	5,0	>5,2	
Secondary to Secondary	—	—	Method C was used				
* TIW is used							
Whole transformer outer is wrapped by 2 layers of insulating tape.							

2.10.3 and 2.10.4	TABLE: clearance and creepage distance measurements						P
clearance cl and creepage distance dcr at/of:	Up (V)	U r.m.s. (V)	required cl (mm)	cl (mm)	required dcr (mm)	dcr (mm)	
GT-41062-WWVV-X.X							
Primary to Primary before fuse(functional)	420	250	1,5	2,9	2,5	2,9	
Primary to Primary after fuse(functional)	420	250	Method C was used				
Primary to Secondary (Reinforced) transformer T1	475	225	4,8	5,0*	5,0	>5,2*	
Primary to Secondary on PCB (near U2)	399	218	4,0	4,2	5,0	7,2	
Primary to Secondary on PCB (near CY1)	475	225	4,8	5,5	5,0	5,5	
Secondary to Secondary	—	—	Method C was used				
* TIW is used							
Whole transformer outer is wrapped by 2 layers of insulating tape.							

2.10.5.1	TABLE: distance through insulation measurements				P
distance through insulation di at/of:	U r.m.s (V)	test voltage (V)	required di (mm)	di (mm)	
Optocoupler (reinforced insulation)	250	3000	0,4	>0,4	
Approved optocouplers are used. See list of critical components.					

4.5	TABLE: maximum temperatures GT-41062-1824-X.X						P
	test voltage (V)	90*	264*	90**	264**		—
	Frequency (Hz)	50	50	50	50		
	t _{amb1} (°C)	23,0	24,1	23,1	24,3		—
	t _{amb2} (°C)	40	40	40	40		—
maximum temperature T of part/at::		T (°C)					allowed T _{max} (°C)
1.	transformer T1 coil	101,1	101,3	102,0	102,3		110
2.	transformer T1 core	96,7	96,2	97,2	97,3		110
3.	BD1 body	107,6	79,4	94,2	76,3		130
4.	Capacitor C1	83,4	73,7	81,3	70,2		105
5.	Capacitor CX1	71,9	67,7	72,0	67,6		105
6.	PCB (near Q1)	106,1	106,0	104,7	106,6		130
7.	Inductor L2 coil	88,6	89,1	90,9	92,6		105
8.	Inductor NF1 coil	86,0	72,6	84,0	70,9		105
9.	PCB (near D3)	106,4	107,1	105,9	109,4		130
10.	Capacitor C9	74,5	73,6	76,9	78,1		105
11.	Enclosure (inside)	86,7	85,7	87,1	87,2		--
12.	Enclosure (outside)	68,7	67,3	70,6	69,6		95
<p>Comment: The above temperatures are measured at t_{amb1}. The values measured are subtracted with t_{amb1} and t_{amb2} (°C) added. Therefore above measured temperatures are the absolute temperatures in °C at maximum ambient.</p> <p>* vertical</p> <p>** horizontal</p>							

4.5	TABLE: maximum temperatures GT-41062-1818-X.X						P
	test voltage (V)	90*	264*	90**	264**		—
	Frequency (Hz)	50	50	50	50		
	t _{amb1} (°C)	23,8	24,5	22,8	23,5		—
	t _{amb2} (°C)	40	40	40	40		—
maximum temperature T of part/at::		T (°C)				allowed T _{max} (°C)	
1.	transformer T1 coil	90,2	97,4	90,6	95,8		110
2.	transformer T1 core	92,8	100,3	92,0	98,6		110
3.	BD1 body	92,5	81,1	89,2	77,7		130
4.	Capacitor C1	76,0	73,0	74,7	71,6		105
5.	Capacitor CX1	71,4	69,1	67,7	64,7		105
6.	PCB (near Q1)	101,1	112,9	100,1	112,3		130
7.	Inductor L2 coil	76,0	81,4	78,7	82,3		105
8.	Inductor NF1 coil	81,6	74,6	78,0	70,6		105
9.	PCB (near D3)	92,5	101,4	94,7	102,9		130
10.	Capacitor C9	71,7	76,5	70,9	74,3		105
11.	Enclosure (inside)	74,8	79,8	80,4	81,8		--
12.	Enclosure (outside)	59,2	61,7	66,3	63,8		95
<p>Comment: The above temperatures are measured at t_{amb1}. The values measured are subtracted with t_{amb1} and t_{amb2} (°C) added. Therefore above measured temperatures are the absolute temperatures in °C at maximum ambient.</p> <p>* vertical</p> <p>** horizontal</p>							

4.5	TABLE: maximum temperatures GT-41062-1812-X.X						P
	test voltage (V)	90*	264*	90**	264**		—
	Frequency (Hz)	50	50	50	50		
	t _{amb1} (°C)	22,8	24,7	22,4	22,8		—
	t _{amb2} (°C)	40	40	40	40		—
maximum temperature T of part/at::		T (°C)				allowed T _{max} (°C)	
1.	transformer T1 coil	97,5	98,2	94,8	100,1		110
2.	transformer T1 core	102,1	104,3	100,8	106,8		110
3.	BD1 body	92,2	77,2	90,6	71,2		130
4.	Capacitor C1	86,4	77,1	86,7	71,9		105
5.	Capacitor CX1	77,9	70,1	73,1	70,4		105
6.	PCB (near Q1)	105	107,1	104,5	105,5		130
7.	Inductor L2 coil	84,6	85,0	85,4	91,2		105
8.	Inductor NF1 coil	88,5	74,8	84,5	71,6		105
9.	PCB (near D3)	100,5	101,7	102,2	106,7		130
10.	Capacitor C9	77,3	77,0	74,8	83,8		105
11.	Enclosure (inside)	88,9	93,6	89,8	95,1		--
12.	Enclosure (outside)	58,5	59,5	60,0	61,2		95
<p>Comment: The above temperatures are measured at t_{amb1}. The values measured are subtracted with t_{amb1} and t_{amb2} (°C) added. Therefore above measured temperatures are the absolute temperatures in °C at maximum ambient.</p> <p>* vertical</p> <p>** horizontal</p>							

4.5	TABLE: maximum temperatures GT-41062-1805-X.X						P
	test voltage (V)	90*	264*	90**	264**		—
	Frequency (Hz)	50	50	50	50		
	t _{amb1} (°C)	31,4	27,0	32,2	32,7		—
	t _{amb2} (°C)	40	40	40	40		—
maximum temperature T of part/at::		T (°C)				allowed T _{max} (°C)	
1.	transformer T1 coil	97,9	107,1	94,5	98,6		110
2.	transformer T1 core	90,5	99,2	88,5	91,9		110
3.	BD1 body	84,2	75,7	85,1	75,0		130
4.	Capacitor C1	78,8	74,7	78,9	74,2		105
5.	Capacitor CX1	67,0	65,1	68,3	65,2		105
6.	PCB (near Q1)	103,9	115,2	102,1	108,5		130
7.	Inductor L2 coil	85,0	94,2	82,8	87,1		105
8.	Inductor NF1 coil	78,5	69,9	79,3	69,0		105
9.	PCB (near D3)	106,7	115,4	102,6	105,5		130
10.	Capacitor C9	71,3	80,1	69,3	73,4		105
11.	Enclosure (inside)	78,6	87,5	76,4	79,2		--
12.	Enclosure (outside)	65,2	70,8	65,0	67,2		95
<p>Comment: The above temperatures are measured at t_{amb1}. The values measured are subtracted with t_{amb1} and t_{amb2} (°C) added. Therefore above measured temperatures are the absolute temperatures in °C at maximum ambient.</p> <p>* vertical</p> <p>** horizontal</p>							

4.5	TABLE: maximum temperatures GT-41062-1806-X.X						P
	test voltage (V)	90*	264*	90**	264**		—
	Frequency (Hz)	50	50	50	50		
	t _{amb1} (°C)	33,0	24,1	32,4	23,9		—
	t _{amb2} (°C)	40	40	40	40		—
maximum temperature T of part/at::		T (°C)				allowed T _{max} (°C)	
1.	transformer T1 coil	102,7	97,3	106,6	98,7		110
2.	transformer T1 core	98,0	96,7	101,6	98,1		110
3.	BD1 body	101,7	104,4	103,1	100,8		130
4.	Capacitor C1	86,0	89,8	87,8	88,2		105
5.	Capacitor CX1	87,5	79,2	87,1	78,8		105
6.	PCB (near Q1)	112,0	111,3	115,2	110,5		130
7.	Inductor L2 coil	84,7	85,9	87,8	87,5		105
8.	Inductor NF1 coil	99,7	97,4	99,4	95,1		105
9.	PCB (near D3)	106,3	100,6	112,4	102,0		130
10.	Capacitor C9	79,5	72,9	83,3	75,5		105
11.	Enclosure (inside)	78,1	84,2	80,8	85,7		--
12.	Enclosure (outside)	65,0	68,6	68,3	70,8		95
<p>Comment: The above temperatures are measured at t_{amb1}. The values measured are subtracted with t_{amb1} and t_{amb2} (°C) added. Therefore above measured temperatures are the absolute temperatures in °C at maximum ambient.</p> <p>* vertical</p> <p>** horizontal</p>							

4.5	TABLE: maximum temperatures GT-41062-1807-X.X						P
	test voltage (V)	90*	264*	90**	264**		—
	Frequency (Hz)	50	50	50	50		
	t _{amb1} (°C)	24,5	25,5	24,9	25,8		—
	t _{amb2} (°C)	40	40	40	40		—
maximum temperature T of part/at::		T (°C)					allowed T _{max} (°C)
1.	transformer T1 coil	94,3	97,4	94,5	97,2		110
2.	transformer T1 core	89,8	92,4	90,0	82,5		110
3.	BD1 body	96,8	80,9	98,6	75,8		130
4.	Capacitor C1	81,3	74,9	83,1	80,1		105
5.	Capacitor CX1	77,5	75,1	82,7	100,1		105
6.	PCB (near Q1)	96,8	100,7	98,9	78,7		130
7.	Inductor L2 coil	78,3	79,0	78,2	78,0		105
8.	Inductor NF1 coil	86,9	74,8	90,4	96,5		105
9.	PCB (near D3)	96,2	98,7	94,3	73,5		130
10.	Capacitor C9	73,0	73,5	73,0	81,5		105
11.	Enclosure (inside)	81,1	82,8	80,2	61,3		--
12.	Enclosure (outside)	61,7	63,1	60,1	61,3		95
<p>Comment: The above temperatures are measured at t_{amb1}. The values measured are subtracted with t_{amb1} and t_{amb2} (°C) added. Therefore above measured temperatures are the absolute temperatures in °C at maximum ambient.</p> <p>* vertical</p> <p>** horizontal</p>							

4.5	TABLE: maximum temperatures GT-41062-1824-X.X-T2						P
	test voltage (V)	90	264				—
	Frequency (Hz)	50	50				
	t_{amb1} (°C)	30,6	31,3				—
	t_{amb2} (°C)	40	40				—
maximum temperature T of part/at::		T (°C)				allowed T_{max} (°C)	
1.	Transformer T1 coil	87,0	91,9				110
2.	Transformer T1 core	88,4	92,7				110
3.	NF1 coil	91,3	79,0				120
4.	Inlet	68,9	66,4				90
5.	Capacitor CX1	63,0	59,5				105
6.	BD1 body	89,5	81,6				130
7.	Capacitor C1	87,0	81,1				105
8.	PC1 body	78,7	84,4				130
9.	Inductor L1 (body)	66,1	69,2				120
10.	Capacitor C8	70,7	74,5				105
11.	PCB (near T1)	87,9	90,2				130
12.	PCB (near Q1)	91,7	94,2				130
13.	Enclosure (inside)	63,7	66,8				--
14.	Enclosure (outside)	52,6	54,9				95
Comment: The above temperatures are measured at t_{amb1} . The values measured are subtracted with t_{amb1} and t_{amb2} (°C) added. Therefore above measured temperatures are the absolute temperatures in °C at maximum ambient.							

4.5	TABLE: maximum temperatures GT-41062-1818-X.X-T2						P
	test voltage (V)	90	264				—
	Frequency (Hz)	50	50				—
	t_{amb1} (°C)	32,0	33,2				—
	t_{amb2} (°C)	40	40				—
maximum temperature T of part/at::		T (°C)				allowed T_{max} (°C)	
1.	Transformer T1 coil	89,6	91,0				110
2.	Transformer T1 core	89,2	90,6				110
3.	NF1 coil	91,2	79,6				120
4.	Inlet	59,0	58,2				90
5.	Capacitor CX1	61,6	58,8				105
6.	BD1 body	96,5	82,4				130
7.	Capacitor C1	88,9	82,2				105
8.	PC1 body	82,9	86,6				130
9.	Inductor L1 (body)	67,0	68,9				120
10.	Capacitor C8	76,4	79,0				105
11.	PCB (near T1)	93,9	98,5				130
12.	PCB (near Q1)	91,4	97,9				130
13.	Enclosure (inside)	79,3	80,7				--
14.	Enclosure (outside)	63,7	63,8				95
Comment: The above temperatures are measured at t_{amb1} . The values measured are subtracted with t_{amb1} and t_{amb2} (°C) added. Therefore above measured temperatures are the absolute temperatures in °C at maximum ambient.							

4.5	TABLE: maximum temperatures GT-41062-1809-X.X-T2						P
	test voltage (V)	90	264				—
	Frequency (Hz)	50	50				
	t_{amb1} (°C)	29,4	30,8				—
	t_{amb2} (°C)	40	40				—
maximum temperature T of part/at::		T (°C)				allowed T_{max} (°C)	
1.	Transformer T1 coil	101,8	105,5				110
2.	Transformer T1 core	93,5	106,3				110
3.	NF1 coil	89,5	78,7				120
4.	Inlet	60,4	66,5				90
5.	Capacitor CX1	59,7	58,8				105
6.	BD1 body	96,3	82,9				130
7.	Capacitor C1	87,3	76,2				105
8.	PC1 body	82,3	97,5				130
9.	Inductor L1 (body)	72,4	79,4				120
10.	Capacitor C8	78,9	86,5				105
11.	PCB near T1	96,3	90,3				130
12.	PCB near Q1	104,3	95,7				130
13.	Enclosure (inside)	80,0	78,7				--
14.	Enclosure (outside)	62,7	62,5				95
Comment: The above temperatures are measured at t_{amb1} . The values measured are subtracted with t_{amb1} and t_{amb2} (°C) added. Therefore above measured temperatures are the absolute temperatures in °C at maximum ambient.							

4.5	TABLE: maximum temperatures GT-41062-1805-X.X-T2						P
	test voltage (V)	90	264				—
	Frequency (Hz)	50	50				
	t_{amb1} (°C)	32,9	31,7				—
	t_{amb2} (°C)	40	40				—
maximum temperature T of part/at::		T (°C)				allowed T_{max} (°C)	
1.	Transformer T1 coil	104,9	107,9				110
2.	Transformer T1 core	106,2	107,2				110
3.	NF1 coil	93,4	85,0				120
4.	Inlet	52,5	56,9				90
5.	Capacitor CX1	63,4	61,1				105
6.	BD1 body	101,7	81,7				130
7.	Capacitor C1	92,7	84,5				105
8.	PC1 body	100,1	97,6				130
9.	Inductor L1 (body)	89,7	80,3				120
10.	Capacitor C8	80,6	89,0				105
11.	PCB near T1	106,1	98,6				130
12.	PCB near Q1	97,4	97,3				130
13.	Enclosure (inside)	80,8	91,4				--
14.	Enclosure (outside)	62,1	52,9				95
Comment: The above temperatures are measured at t_{amb1} . The values measured are subtracted with t_{amb1} and t_{amb2} (°C) added. Therefore above measured temperatures are the absolute temperatures in °C at maximum ambient.							

4.5	TABLE: maximum temperatures GT-41062-1806-X.X-T2						P
	test voltage (V)	90	264				—
	Frequency (Hz)	50	50				
	t_{amb1} (°C)	28,9	35,1				—
	t_{amb2} (°C)	40	40				—
maximum temperature T of part/at::		T (°C)				allowed T_{max} (°C)	
1.	Transformer T1 coil	109,5	105,3				110
2.	Transformer T1 core	105,8	101,7				110
3.	NF1 coil	91,9	82,2				120
4.	Inlet	64,0	62,8				90
5.	Capacitor CX1	62,4	58,4				105
6.	BD1 body	99,6	83,7				130
7.	Capacitor C1	94,2	84,1				105
8.	PC1 body	99,6	97,0				130
9.	Inductor L1 (body)	97,0	88,9				120
10.	Capacitor C8	100,0	91,7				105
11.	PCB near T1	103,3	98,5				130
12.	PCB near Q1	102,8	112,3				130
13.	Enclosure (inside)	80,5	77,3				--
14.	Enclosure (outside)	63,7	66,0				95
<p>Comment: The above temperatures are measured at t_{amb1}. The values measured are subtracted with t_{amb1} and t_{amb2} (°C) added. Therefore above measured temperatures are the absolute temperatures in °C at maximum ambient.</p> <p>Measurement uncertainty of temperature measurement is 3°C.</p>							

4.5	TABLE: maximum temperatures GT-41062-1807-X.X-T2						P
	test voltage (V)	90	264				—
	Frequency (Hz)	50	50				
	t_{amb1} (°C)	34,3	35,2				—
	t_{amb2} (°C)	40	40				—
maximum temperature T of part/at::		T (°C)				allowed T_{max} (°C)	
1.	Transformer T1 coil	104,7	106,9				110
2.	Transformer T1 core	101,1	104,9				110
3.	NF1 coil	88,7	83,4				120
4.	Inlet	60,7	62,5				90
5.	Capacitor CX1	60,1	57,7				105
6.	BD1 body	94,4	85,0				130
7.	Capacitor C1	91,3	85,2				105
8.	PC1 body	94,4	100,3				130
9.	Inductor L1 (body)	90,6	92,6				120
10.	Capacitor C8	93,7	95,7				105
11.	PCB near T1	100,0	101,7				130
12.	PCB near Q1	99,2	111,5				130
13.	Enclosure (inside)	77,2	79,6				--
14.	Enclosure (outside)	65,9	66,5				95
Comment: The above temperatures are measured at t_{amb1} . The values measured are subtracted with t_{amb1} and t_{amb2} (°C) added. Therefore above measured temperatures are the absolute temperatures in °C at maximum ambient.							

4.5	TABLE: maximum temperatures GT-41062-1824-X.X-T3; -T3A						P
	test voltage (V)	90	264				—
	Frequency (Hz)	50	50				
	t_{amb1} (°C)	30,6	31,3				—
	t_{amb2} (°C)	40	40				—
maximum temperature T of part/at::		T (°C)				allowed T_{max} (°C)	
1.	Transformer T1 coil	87,7	91,6				110
2.	Transformer T1 core	88,1	92,9				110
3.	NF1 coil	91,3	78,7				120
4.	Inlet	68,8	65,7				90
5.	Capacitor CX1	62,6	58,9				105
6.	BD1 body	89,4	81,3				130
7.	Capacitor C1	87,4	80,4				105
8.	PC1 body	78,5	85,0				130
9.	Inductor L1 (body)	65,8	69,2				120
10.	Capacitor C8	71,0	74,9				105
11.	PCB near T1	88,0	90,9				130
12.	PCB near Q1	91,6	94,4				130
13.	Enclosure (inside)	63,9	67,0				--
14.	Enclosure (outside)	52,8	55,3				95
Comment: The above temperatures are measured at t_{amb1} . The values measured are subtracted with t_{amb1} and t_{amb2} (°C) added. Therefore above measured temperatures are the absolute temperatures in °C at maximum ambient.							

4.5	TABLE: maximum temperatures GT-41062-1818-X.X-T3; -T3A						P
	test voltage (V)	90	264				—
	Frequency (Hz)	50	50				
	t_{amb1} (°C)	32,0	33,2				—
	t_{amb2} (°C)	40	40				—
maximum temperature T of part/at::		T (°C)				allowed T_{max} (°C)	
1.	Transformer T1 coil	89,5	91,5				110
2.	Transformer T1 core	88,8	91,1				110
3.	NF1 coil	91,2	79,1				120
4.	Inlet	58,7	58,0				90
5.	Capacitor CX1	61,9	58,6				105
6.	BD1 body	95,9	82,3				130
7.	Capacitor C1	88,6	82,3				105
8.	PC1 body	83,4	86,2				130
9.	Inductor L1 (body)	67,2	69,1				120
10.	Capacitor C8	76,5	79,8				105
11.	PCB near T1	93,6	98,8				130
12.	PCB near Q1	91,5	97,3				130
13.	Enclosure (inside)	79,8	80,7				--
14.	Enclosure (outside)	63,9	64,2				95
Comment: The above temperatures are measured at t_{amb1} . The values measured are subtracted with t_{amb1} and t_{amb2} (°C) added. Therefore above measured temperatures are the absolute temperatures in °C at maximum ambient.							

4.5	TABLE: maximum temperatures GT-41062-1809-X.X-T3; -T3A						P
	test voltage (V)	90	264				—
	Frequency (Hz)	50	50				
	t_{amb1} (°C)	29,4	30,8				—
	t_{amb2} (°C)	40	40				—
maximum temperature T of part/at::		T (°C)				allowed T_{max} (°C)	
1.	Transformer T1 coil	101,2	104,8				110
2.	Transformer T1 core	93,2	105,7				110
3.	NF1 coil	90,0	78,1				120
4.	Inlet	60,3	66,3				90
5.	Capacitor CX1	59,5	59,1				105
6.	BD1 body	96,0	82,9				130
7.	Capacitor C1	87,6	75,8				105
8.	PC1 body	82,1	98,3				130
9.	Inductor L1 (body)	71,8	79,5				120
10.	Capacitor C8	79,2	86,6				105
11.	PCB near T1	96,7	90,8				130
12.	PCB near Q1	104,7	95,2				130
13.	Enclosure (inside)	80,2	78,7				--
14.	Enclosure (outside)	63,3	62,3				95
Comment: The above temperatures are measured at t_{amb1} . The values measured are subtracted with t_{amb1} and t_{amb2} (°C) added. Therefore above measured temperatures are the absolute temperatures in °C at maximum ambient.							

4.5	TABLE: maximum temperatures GT-41062-1805-X.X-T3; -T3A						P
	test voltage (V)	90	264				—
	Frequency (Hz)	50	50				
	t_{amb1} (°C)	32,9	31,7				—
	t_{amb2} (°C)	40	40				—
maximum temperature T of part/at::		T (°C)				allowed T_{max} (°C)	
1.	Transformer T1 coil	104,8	108,0				110
2.	Transformer T1 core	106,6	107,0				110
3.	NF1 coil	93,7	85,2				120
4.	Inlet	52,7	56,9				90
5.	Capacitor CX1	63,5	61,5				105
6.	BD1 body	101,9	81,9				130
7.	Capacitor C1	92,5	84,6				105
8.	PC1 body	100,4	98,4				130
9.	Inductor L1 (body)	90,1	79,9				120
10.	Capacitor C8	80,9	88,9				105
11.	PCB near T1	106,9	98,4				130
12.	PCB near Q1	96,7	97,2				130
13.	Enclosure (inside)	80,6	91,3				--
14.	Enclosure (outside)	62,3	52,9				95
Comment: The above temperatures are measured at t_{amb1} . The values measured are subtracted with t_{amb1} and t_{amb2} (°C) added. Therefore above measured temperatures are the absolute temperatures in °C at maximum ambient.							

4.5	TABLE: maximum temperatures GT-41062-1806-X.X-T3; -T3A						P
	test voltage (V)	90	264				—
	Frequency (Hz)	50	50				
	t_{amb1} (°C)	28,9	35,1				—
	t_{amb2} (°C)	40	40				—
maximum temperature T of part/at::		T (°C)				allowed T_{max} (°C)	
1.	Transformer T1 coil	107,2	104,6				110
2.	Transformer T1 core	106,1	102,0				110
3.	NF1 coil	91,7	82,6				120
4.	Inlet	63,8	63,1				90
5.	Capacitor CX1	61,7	58,5				105
6.	BD1 body	99,9	83,5				130
7.	Capacitor C1	94,8	83,3				105
8.	PC1 body	99,9	97,4				130
9.	Inductor L1 (body)	96,3	88,6				120
10.	Capacitor C8	100,6	91,5				105
11.	PCB near T1	103,9	98,9				130
12.	PCB near Q1	103,0	112,5				130
13.	Enclosure (inside)	81,2	77,2				--
14.	Enclosure (outside)	64,0	65,5				95
Comment: The above temperatures are measured at t_{amb1} . The values measured are subtracted with t_{amb1} and t_{amb2} (°C) added. Therefore above measured temperatures are the absolute temperatures in °C at maximum ambient.							

4.5	TABLE: maximum temperatures GT-41062-1807-X.X-T3; -T3A						P
	test voltage (V)	90	264				—
	Frequency (Hz)	50	50				
	t _{amb1} (°C)	34,3	35,2				—
	t _{amb2} (°C)	40	40				—
maximum temperature T of part/at::		T (°C)				allowed T _{max} (°C)	
1.	Transformer T1 coil	104,4	107,0				110
2.	Transformer T1 core	101,3	104,5				110
3.	NF1 coil	88,9	83,4				120
4.	Inlet	61,2	62,9				90
5.	Capacitor CX1	60,9	57,7				105
6.	BD1 body	94,1	85,5				130
7.	Capacitor C1	91,1	85,4				105
8.	PC1 body	94,7	100,1				130
9.	Inductor L1 (body)	91,4	92,5				120
10.	Capacitor C8	94,5	94,9				105
11.	PCB near T1	99,7	101,8				130
12.	PCB near Q1	98,9	112,2				130
13.	Enclosure (inside)	77,3	79,6				--
14.	Enclosure (outside)	65,6	66,4				95
Comment: The above temperatures are measured at t _{amb1} . The values measured are subtracted with t _{amb1} and t _{amb2} (°C) added. Therefore above measured temperatures are the absolute temperatures in °C at maximum ambient.							

4.5.2	TABLE: ball pressure test of thermoplastic parts		P
	allowed impression diameter (mm):	≤ 2 mm	—
part		test temperature (°C)	impression diameter (mm)
Plug holder (GT-41062-WWVV-X.X-T2)		125	0,8
Transformer bobbin XF00209		125	0,8
Transformer bobbin XF00210		125	0,9
Transformer bobbin XF00211		125	0,7
Transformer bobbin XF00212		125	0,7
Enclosure		125	0,6
Comment: Approved materials are used.			

4.7	TABLE: resistance to fire				P
part	manufacturer of material	type of material	thickness (mm)	flammability class	
Comment: Approved materials are used. See list of critical components.					

5.2	TABLE: electric strength tests, impulse tests and voltage surge tests			P
test voltage applied between:		test voltage (V) a.c. / d.c.	breakdown Yes / No	
Primary to Earth (Basic)		1500 Vac	No	
Primary to Secondary (Reinforced)		3000 Vac	No	
1 layer of polyester foil (inside and around the transformer)		3000 Vac	No	
supplementary information:				
The test was done on each model.				

5.3	TABLE: fault condition tests GT-41062-WWVV-X.X					P
	ambient temperature (°C)	22,3				—
	model/type of power supply	Various, see below				—
	manufacturer of power supply	Various				—
	rated markings of power supply	100-240Vac				—
component No.	fault	test voltage (V)	test time	fuse No.	fuse current (A)	result
SELV reliability Testing						
GT-41062-1824-X.X						
Output Diode D3	Short	264Vac	>10min	F1	—	Unit switched off, no hazard, no fire. Output voltage dropped to 0V immediately.
U2 (1-2)	Short	264Vac	>10min	F1	0,25	Unit worked normal and switched of after 12min. Q1, R6 defect. Fuse opened. Temperature of T1 was 113,2°C.
Method C – functional insulation (clause 5.3.4)						
NF1	Short	264Vac	< 1sec	F1	—	F1 opened immediately. No hazard, no fire.
BD1	Short (+ to -)	264Vac	< 1sec	F1	—	F1 opened immediately. No hazard, no fire.
Additional Component faults						
Bulk capacitor C1	Short	264Vac	< 1sec	F1	—	F1 opened immediately. No hazard, no fire.
Q1 (1-2)	Short	264Vac	< 1sec	F1	—	F1 opened immediately. No hazard, no fire. Q1, R6 defect.
Q1 (1-3)	Short	264Vac	< 1sec	F1	—	F1 opened immediately. No hazard, no fire. Q1, R6 defect.
D1	Short	264Vac	>10min	F1	—	Unit switched off, no hazard, no fire, no damage.
T1 (Pin 4-5)	Short	264Vac	< 1sec	F1	—	Fuse opened immediately, Q1 defect, no hazard, no fire.
Transformer overload / short (clause 5.3.3)						
T1 winding Pin A to B	Short	264Vac	1h	F1	< 0,1	Unit switched off. No hazard, no fire. Temperature of T1 winding was 52,2°C.

component No.	fault	test voltage (V)	test time	fuse No.	fuse current (A)	result
T1 winding Pin A to B	Overload	264Vac	1h	F1	0,23	Conditions: 0,93A output current. Temperature of T1 winding was 136,7°C.
Misuse						
Output	Short	264Vac	1h	F1	< 0,1	Unit switched off, no hazard, no fire, no excessive temperatures.
Output	Overload	264Vac	2h	F1	0,22	Conditions: 0,91A output current. Temperature of T1 winding was 128,1°C.
GT-41062-1818-XX						
T1 (A-B)	Short	264Vac	>10min	F1	—	Unit switched off, no hazard, no fire, no excessive temperatures.
Output	Short	264Vac	>10min	F1	—	Unit switched off, no hazard, no fire, no excessive temperatures.
T1 (A-B)	Overload	264Vac	3h	F1	0,23	Conditions: 1,21A output current. Temperature of T1 winding was 142,6°C.
Output	overload	264Vac	2h	F1	0,22	Conditions: 1,14A output current. Temperature of T1 winding was 135,9°C.
GT-41062-1812-XX						
T1 (A-B)	Short	264Vac	>10min	F1	—	Unit switched off, no hazard, no fire
Output	Short	264Vac	>10min	F1	—	Unit switched off, no hazard, no fire
T1 (A-B)	Overload	264Vac	3h	F1	0,23	Conditions: 1,68A output current. Temperature of T1 winding was 139,1°C.
Output	overload	264Vac	>3h	F1	0,22	Conditions: 1,66A output current. Temperature of T1 winding was 134,5°C.
GT-41062-1805-XX						
T1 (A-B)	Short	264Vac	>10min	F1	—	Unit switched off, no hazard, no fire, no excessive temperature.
Output	Short	264Vac	>10min	F1	—	Unit switched off, no hazard, no fire, no excessive temperature.
Output	overload	264Vac	>3h	F1	0,23	Conditions: 3,24A output current. Temperature of T1 winding reached 121,7°C.
T1 (A-B)	Overload	264Vac	3h	F1	0,24	Conditions: 3,88A output current. Temperature of T1 was 131,4°C.

component No.	fault	test voltage (V)	test time	fuse No.	fuse current (A)	result
GT-41062-1806-XX						
T1 (A-B)	Short	264Vac	>10min	F1	—	Unit switched off, no hazard, no fire
Output	Short	264Vac	>10min	F1	—	Unit switched off, no hazard, no fire
Output	overload	264Vac	>3h	F1	0,24	Conditions: 3,62A output current. Temperature of T1 winding was 122,7°C.
T1 (A-B)	Overload	264Vac	>3h	F1	0,25	Conditions: 3,68A output current. Temperature of T1 winding was 126,9°C.
supplementary information						

5.3	TABLE: fault condition tests GT-41062-WWVV-X.X-T2					P
	ambient temperature (°C)				25,0	—
	model/type of power supply				Various	—
	manufacturer of power supply				Various	—
	rated markings of power supply				100-240Vac	—
component No.	fault	test voltage (V)	test time	fuse No.	fuse current (A)	result
Transformer overload / short (clause 5.3.3)						
T1 winding Pin A to B	Short	264Vac	1min	F1	0,04	Unit switched off. No hazard, no fire.
T1 winding Pin A to B	Overload	264Vac	1h	F1	0,44	Conditions: 0,98A output current. The unit went defect when loaded to 1,05A. Temperature of T1 was 140,5°C.
Misuse						
Output	Overload	264Vac	2h	F1	0,44	Conditions: 0,98A output current. The unit went defect when loaded to 1,1A. Temperature of T1 was 127,6°C at 24,6°C ambient.
Output	Short	264Vac	—	F1	—	Unit switched off, no hazard, no fire.
GT-41062-1818-XX-T2						
T1 (A-B)	Short	264Vac	>10min	F1	—	Unit switched off, no hazard, no fire
Output	Short	264Vac	>10min	F1	—	Unit switched off, no hazard, no fire

component No.	fault	test voltage (V)	test time	fuse No.	fuse current (A)	result
Output	overload	264Vac	3h	F1	0,44	Conditions:1,3A output current. The unit went defect when loaded to 1,4A. Temperature of T1 was 149,3°C and 24,8°C ambient.
T1 (A-B)	Overload	264Vac	3h	F1	0,44	Conditions:1,4A output current. The unit went defect when loaded to 1,5A. Temperature of T1 was 153,2°C.
GT-41062-1809-XX-T2						
T1 (A-B)	Short	264Vac	>10min	F1	—	Unit switched off, no hazard, no fire
T1 (1-4)	Short	264Vac	>10min	F1	—	Fuse opened, Q1 damaged, no hazard, no fire.
Output	Short	264Vac	>10min	F1	—	Unit switched off, no hazard, no fire
Output	overload	264Vac	>3h	F1	0,22	Conditions:2,4A output current. The unit went defect when loaded to 2,6A. Temperature of T1 was 143,9°C.
T1 (A-B)	Overload	264Vac	3h	F1	0,24	Conditions:2,2A output current. The unit went defect when loaded to 2,4A. Temperature of T1 was 161,3°C at 25,6°C ambient.
GT-41062-1805-XX-T2						
T1 (A-B)	Short	264Vac	>10min	F1	—	Unit switched off, no hazard, no fire
T1 (1-4)	Short	264Vac	—	F1	—	Fuse opened, Q1 damaged, no fire, no hazard.
Output	Short	264Vac	>10min	F1	—	Unit switched off, no hazard, no fire
Output	overload	264Vac	>3h	F1	0,22	Conditions:3,96A output current. The unit went defect when loaded to 4,32A. Temperature of T1 was 99,9°C.
T1 (A-B)	Overload	264Vac	3h	F1	0,22	Conditions:4,32A output current. The unit went defect when loaded to 4,68 A. Temperature of T1 was 158,1°C at 25,3°C ambient.
GT-41062-1806-XX-T2						

component No.	fault	test voltage (V)	test time	fuse No.	fuse current (A)	result
T1 (A-B)	Short	264Vac	>10min	F1	—	Unit switched off, no hazard, no fire
T1 (1-4)	Short	264Vac	—	F1	—	Fuse opened, Q1 damaged, no fire, no hazard.
Output	Short	264Vac	>10min	F1	—	Unit switched off, no hazard, no fire
Output	overload	264Vac	>3h	F1	0,22	Conditions:3,6A output current. The unit went defect when loaded to 3,9A. Temperature of T1 was 145,0°C.
T1 (A-B)	Overload	264Vac	>3h	F1	0,22	Conditions:3,3A output current. The unit went defect when loaded to 3,6A. Temperature of T1 was 159,0°C at 25,8°C ambient.
supplementary information						

Enclosure No. 1

**National differences according to the CB Bulletin
No. 107A, May 2004**

IEC 60950-1 / EN 60950-1				
Clause	Difference – Test	Result – Remark	Verdict	
AUSTRALIA-Differences to IEC 60950-1:2001				
Annex ZZ (normative)				
Variations to IEC 60950-1:2001 for application in Australia and New Zealand				
ZZ.1 Introduction				
This Annex sets out variations between this Standard and IEC 60950-1:2001. These variations indicate national variations for purposes of the IECEE CB Scheme and will be published in the IECEE CB Bulletin. These variations are indicated within the body of the Standard.				
ZZ.” Variations				
The variations are as follows :				
1.2	Between the definitions for ‘Person, service’ and ‘Range, rated frequency’ insert the following: Ignition source 1.2.12.201	Inserted	N/A	
1.2.12.10	After the definition of 1.2.12.15, add the following: 1.2.12.201 potential ignition source: Possible fault which can start a fire if the open-circuit voltage measured across an interruption or faulty contact exceeds a value of 50 V (peak) a.c. or d.c. and the product of the peak value of this voltage and the measured r.m.s current under normal operating conditions exceeds 15 VA. Such a faulty contact or interruption in an electrical connection includes those which may occur in conductive patterns on printed boards. NOTE 201 An electronic protection circuit may be used to prevent such a fault from becoming a POTENTIAL IGNITION SOURCE. NOTE 202 This definition is from AS/NZS 60065:2003.	Added	N/A	
1.5.1	Add the following variation to the first paragraph: “ or the relevant Australian/ New Zeland Standard”		N/A	
1.5.2	Add the following to the end of first and third dash items: ‘or the relevant Australian/New Zealand Standard’.		N/A	
1.7.12	Add the following variation to the first paragraph: All safety instructions and safety markings shall be in English.		P	
3.2.5.1	Modify Table 3B as follows: Delete the first four rows and replace with		N/A	
	RATED CURRENT OF EQUIPMENT A	Minimum conductor sizes		
		Nominal cross-sectional area mm²		AWG or Kcmil (cross-sectional area in mm²) See note 1
		Over 0.2 up to and including 3		0,5 ¹⁾ 18 (0,8)
		Over 3 up to and including 7,5		0,75 16 (1,3)
	Over 7,5 up to and including 10	(0,75) ²⁾ 1,00 16 (1,3)		
	Over 10 up to and including 16	(1,0) ³⁾ 1,5 14 (2)		

IEC 60950-1 / EN 60950-1			
Clause	Difference – Test	Result – Remark	Verdict
	Replace footnote 1) with the following: ¹⁾ This nominal cross-sectional area is only allowed for Class II appliances if the length of the power supply cord, measured between the point where the cord, or cord guard, enters the appliance, and the entry to the plug does not exceed 2 m (0,5 mm ² three-core supply flexible cords are not permitted; see AS/NZS 3191). Delete Note 1.		
4.3.6	Replace paragraph three with: Equipment with a plug portion, suitable for insertion into a 10 A 3-pin flat-pin socket-outlet complying with AS/NZS 3112, shall comply with the requirements in AS/NZS 3112 for equipment with integral pins for insertion into socket-outlets.	Should be evaluated during national approval.	N/A
4.3.13	After the third paragraph <i>insert</i> the following variation: NOTE: For the purpose of this standard compliance with AS/NZS 2211.1 is deemed to be compliance with the IEC 60825.1	Inserted	N/A
4.7	Add the following paragraph: For alternative tests refer to Clause 4.7.201.	Added	N/A
6.2.2	Add the symbol NZ in the right hand margin beside the first paragraph. Add the following after the first paragraph: In Australia (this variation does not apply in New Zealand), compliance with 6.2.2 shall be checked by the tests of both 6.2.2.1 and 6.2.2.2. Delete the note.	No TNV	N/A
6.2.2.1	Add the symbol NZ in the right hand margin beside the first paragraph including Note 1. Delete Note 2 Add the following after the first paragraph: In Australia (this variation does not apply in New Zealand), the electrical separation is subjected to 10 impulses of alternating polarity, using the impulse test generator of annex N for 10/700µs impulses. The interval between successive impulses is 60 s and the initial voltage, U _c , is: for 6.2.1 a): 7,0 kV for hand-held telephones and for headsets and 2,5 kV for other equipment; and for 6.2.1 b) and 6.2.1 c): 1,5 kV. NOTE 201 – The 7 kV impulse simulates lightning surges on typical rural and semi-rural network lines. NOTE 202 – The value of 2,5 kV for 6.2.1 a) was chosen to ensure the adequacy of the insulation concerned and does not necessarily simulate likely overvoltages.	No TNV	N/A

IEC 60950-1 / EN 60950-1			
Clause	Difference – Test	Result – Remark	Verdict
6.2.2.2	<p>Add the symbol NZ in the right hand margin beside the second paragraph. Delete the Note. Add the following after the second paragraph: In Australia (this variation does not apply in New Zealand), the a.c. test voltage is: for 6.2.1 a):3 kV; and for 6.2.1 b) and 6.2.1 c):1,5 kV. NOTE 201 – Where there are capacitors across the insulation under test, it is recommended that d.c. test voltages are used. NOTE 202 – The 3 kV and 1,5 kV values have been determined considering the low frequency induced voltages from the power supply distribution system.</p>	No TNV	N/A
Annex P	<p>Replace the marginally bared normative references with the following:</p> <p>IEC 60065, Audio, Video and similar electronic apparatus—Safety requirements AS/NZS 3191, Approval and test specification—Electric flexible cords AS/NZS 3112, Approval and test specification—Plugs and socket-outlets AS/NZS 4695.707, Fire hazard testing of electrotechnical products—Methods of test for the determination of the flammability of solid electrical insulating materials when exposed to an igniting source</p>	Replaced	N/A
Annex Q	<p>Replace the marginally bared normative references with the following:</p> <p>AS 2005.21.1-1990, Low voltage fuses – Fuses with enclosed fuse – links Part 21.1: Supplementary requirements for fuses for use by authorized persons (Fuses mainly for industrial application) – Standardized fuse systems – Fuses with fuse – links with blade contacts.</p> <p>AS 3859-1991, Effects of current passing through the human body (identical to IEC 60479-1:1984)</p> <p>AS 1939-1990, Degrees of protection provided by enclosures for electrical equipment (IP code) (Identical to IEC60529:1989)</p>	Replaced	N/A

IEC 60950-1 / EN 60950-1			
Clause	Difference – Test	Result – Remark	Verdict
CHINA-Differences to IEC 60950, Third Edition (1999)			
1.	<p>Supply tolerance Item 1.4.5 of IEC60950 stipulates the tolerance of rated voltage is +6% and –10%, while GB4943-2001 makes a specification of tolerance of +10% and –10%.</p>	The supply tolerance is covering the requirements.	P

IEC 60950-1 / EN 60950-1			
Clause	Difference – Test	Result – Remark	Verdict
2.	<p>Power rating marking</p> <p>Item 1.7.1 of IEC60950 does not specify concrete figures of markings for supply voltage and frequency, instead, descriptions are given by examples. But the examples do not include China's mains voltage. GB4943-2001 stipulates that:</p> <ul style="list-style-type: none"> ·A single rated voltage shall be expressed as 220V ·When a rated voltage range is given, the range shall cover 220V ·When a variety of rated voltages or rated voltage ranges are given, one of them shall be 220V, and shall be set as 220V when dispatched from the factory ·Rated frequency or rated frequency range shall be 50Hz or include 50Hz ·If a unit is not provided with a means for direct connection to the AC mains supply, it need not be marked with any electrical rating 	Input voltage range covers 220 V.	P
3.	<p>plate and warning marking in Chinese</p> <p>Item 1.7.12 of GB4943-2001 stipulates: instructions and equipment markings related to safety shall be in standardized Chinese.</p>	Compliance shall be evaluated during national approval.	N/A

IEC 60950-1 / EN 60950-1			
Clause	Difference – Test	Result – Remark	Verdict
JAPAN- Differences to IEC 60950, Third Edition (1999)			
1.2	<p>Addition:</p> <p>Add the following terms.</p> <p>Equipment, Class 0I 1.2.4.101</p> <p>Material, VTM 1.2.12.101</p>	Added	N/A
1.2.4.101	<p>Addition:</p> <p>CLASS 0I EQUIPMENT: Equipment where protection against electric shock is achieved by:</p> <p>a) using BASIC INSULATION, and</p> <p>b) providing a means of connecting to the protective earthing conductor in the building wiring those conductive parts that are otherwise capable of assuming HAZARDOUS VOLTAGES if the BASIC INSULATION fails, and</p> <p>c) using a supply cord without earthing conductor and a plug without earthing wire although the equipment has externally an earth terminal or a lead wire for earthing.</p> <p>Equipment provided with a cord set having a two-pin type plug with a lead wire for earthing is also regarded as Class 0I.</p> <p>NOTE – Class 0I equipment may have a part constructed with Double Insulation or Reinforced Insulation as well as an operating part as SELV circuit.</p>		N/A

IEC 60950-1 / EN 60950-1			
Clause	Difference – Test	Result – Remark	Verdict
1.2.12.1	Replacement: FLAMMABILITY CLASSIFICATION OF MATERIALS: The recognition of the burning behaviour of materials and their ability to extinguish if ignited. Materials are classified as in 1.2.12.2 to 1.2.12.9, and 1.2.12.101 when tested in accordance with annex A. NOTE 1 - When applying the requirements in this standard, HF-1 CLASS FOAMED MATERIALS are regarded as better than those of CLASS HF-2, and HF-2 better than HBF. NOTE 2 - Similarly, other MATERIALS, including rigid (engineering structural) foam of CLASSES 5V or V-0 are regarded as better than those of CLASS V-1, V-1 better than V-2, and V-2 better than HB. NOTE 3 - Similarly, for thin MATERIALS, VTM-0 Class materials are regarded as better than those of VTM-1 Class, and VTM-1 better than VTM-2.	Replaced	P
1.2.12.10 1	Addition: VTM CLASS MATERIAL: Thin MATERIALS fulfill the specified conditions during the test of clause A.101 applied for materials that the test and evaluation of clauses A.6 to A.10 is difficult to enforce. Materials are classified to three classifications as VTM-0, VTM-1 and VTM-2 according to the conditions after the removal of the test flame.	Added	P
1.7.101	Addition: Marking for CLASS 0I EQUIPMENT For CLASS 0I EQUIPMENT, the following instruction shall be indicated on the visible place of the mains plug or the main body: “Provide an earthing connection” Moreover, for CLASS 0I EQUIPMENT, the following instruction shall be indicated on the visible place of the main body or written in the operating instructions: “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.”		N/A
2.1.1.1	Replacement: Replace “IEC 60083” to “IEC 60083 or JIS C 8303” in 2.1.1.1 b).	Considered.	P
2.6.3.1	Addition: Add the following after 1st paragraph. This also applies to the conductor of lead wire for protective earthing of CLASS 0I EQUIPMENT.		N/A

IEC 60950-1 / EN 60950-1			
Clause	Difference – Test	Result – Remark	Verdict
2.6.4.1	Replacement: Replace 2nd sentence in 1st paragraph. For CLASS I EQUIPMENT with a DETACHABLE POWER SUPPLY CORD, the earthing terminal in the appliance inlet is regarded as the main protective earthing terminal.		N/A
2.6.5.4	Replacement: Replace 1st sentence. Protective earthing connections of CLASS I EQUIPMENT shall make earlier and break later than the supply connections in each of the following:		N/A
2.6.101	Addition: Earthing of CLASS 0I EQUIPMENT Plugs with a lead wire for earthing shall not be used for equipment having a rated voltage exceeding 150V. 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 lead wire for earthing in the external where easily visible.		N/A
3.2.5	Delete 1) in Table 3B.		N/A
4.2.8	Addition: Add the following informative remark after the last sentence. Remark - IEC 61965 is also applicable instead of IEC 60065.		N/A
4.5.1	Addition: Add the following to suffix 5) as specified in “Conditions applicable to Table 4A, Parts 1 and 2”. With regard to Table 4A, insulating materials complying with Japanese requirements (refer to Japanese differences for the current IEC 60335-1 (3rd Edition) in CB Bulletin 101B) are also acceptable. Add a suffix 7) in “Conditions applicable to Table 4A, Parts 1 and 2”. In the right column of Table 4A, Part 1, add suffix 7) to “50” (K), corresponding to “- without T – marking” in the left column so as to become “50 7)”. Add 7) to Table 4A, Part 2 as follows. 7) This value shall apply only to wiring or cords complying with relevant IEC standards. Others shall comply with Japanese requirements (refer to Japanese differences for the current IEC 60335-1 (3rd Edition) in CB Bulletin 101B).	Added	P
4.7.3.2	Addition: Add the following in 7th paragraph. - for thin materials, e.g., flexible printed boards, etc., used inside equipment, be of FLAMMABILITY CLASS VTM-2 or better.	Added	P

IEC 60950-1 / EN 60950-1																																							
Clause	Difference – Test	Result – Remark	Verdict																																				
5.1.6	Replacement: Replace Table 5A. <table border="1"> <thead> <tr> <th>Type of equipment</th><th>Terminal A of measuring instrument connected to:</th><th>Maximum TOUCH CURRENT mA r.m.s.</th><th>Maximum PROTECTIVE CONDUCTOR CURRENT</th></tr> </thead> <tbody> <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 MOVABLE (other than HAND-HELD, but including TRANSPORTABLE EQUIPMENT)</td><td>Equipment main protective earthing terminal (if any)</td><td>0.75 3.5</td><td>- -</td></tr> <tr> <td>STATIONARY, PLUGGABLE TYPE A</td><td>CLASS I EQUIPMENT</td><td>3.5</td><td>-</td></tr> <tr> <td>ALL other STATIONARY EQUIPMENT</td><td></td><td>3.5</td><td>-</td></tr> <tr> <td>- not subject to the conditions of 5.1.7</td><td></td><td>-</td><td>5 % of input current</td></tr> <tr> <td>- subject to the conditions of 5.1.7</td><td></td><td>-</td><td>-</td></tr> <tr> <td>HAND-HELD Others</td><td>Equipment main protective earthing terminal (if any)</td><td>0.5 1.0</td><td>- -</td></tr> <tr> <td></td><td>CLASS II EQUIPMENT</td><td></td><td></td></tr> </tbody> </table> <p><small>** If peak values of TOUCH-CURRENT are measured, the maximum values obtained by multiplying the r.m.s. values by 1.414.</small></p>	Type of equipment	Terminal A of measuring instrument connected to:	Maximum TOUCH CURRENT mA r.m.s.	Maximum PROTECTIVE CONDUCTOR CURRENT	ALL equipment	Accessible parts and circuits not connected to protective earth	0.25	-	HAND-HELD MOVABLE (other than HAND-HELD, but including TRANSPORTABLE EQUIPMENT)	Equipment main protective earthing terminal (if any)	0.75 3.5	- -	STATIONARY, PLUGGABLE TYPE A	CLASS I EQUIPMENT	3.5	-	ALL other STATIONARY EQUIPMENT		3.5	-	- not subject to the conditions of 5.1.7		-	5 % of input current	- subject to the conditions of 5.1.7		-	-	HAND-HELD Others	Equipment main protective earthing terminal (if any)	0.5 1.0	- -		CLASS II EQUIPMENT			Replaced	P
Type of equipment	Terminal A of measuring instrument connected to:	Maximum TOUCH CURRENT mA r.m.s.	Maximum PROTECTIVE CONDUCTOR CURRENT																																				
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	CLASS II EQUIPMENT																																						
5.3.8.2	Replacement: Replace 3rd Item as follows. - BASIC INSULATION between the PRIMARY CIRCUIT and accessible conductive parts of CLASS I or 0I EQUIPMENT;		N/A																																				
Annex A	Addition: Add the subclause A.101 with the title “Flammability tests for classifying materials VTM” and the following: Thin sheet materials shall comply with ISO 9773.		N/A																																				
Annex G	Addition: Add the following to the Note for Table G.1. 2. In Japan, MAINS TRANSIENT VOLTAGE for equipment with a Nominal AC MAINS SUPPLY VOLTAGE of 100V is to be decided based on the column where Nominal AC MAINS SUPPLY VOLTAGE in Table G.1 is 150V.		N/A																																				
Annex P	Addition: Add “IEC 61965:2000, Mechanical Safety for Cathode Ray Tubes”.		N/A																																				
Annex U	Replacement: Replace 2nd paragraph. This annex covers to round winding wires having diameters between 0.05 mm and 5.00 mm.	Approved triple insulated wire is used. See list of critical components.	P																																				
U.2.1	Replacement: Electric strength The test sample is prepared according to IEC 60851-5:1997, 4.4.1 (for a twisted pair). The sample is then subjected to the test of 5.2.2 of this standard, with a test voltage not less than twice the appropriate voltage in table 5B (see 5.2.2) of this standard. However, the minimum values shall be as follows: - for BASIC INSULATION or SUPPLEMENTARY INSULATION, 3000 V, or; - for REINFORCED INSULATION, 6000 V.		N/A																																				

IEC 60950-1 / EN 60950-1															
Clause	Difference – Test	Result – Remark	Verdict												
U.2.2	Replacement: Flexibility and adherence Test 8 of IEC 60851-3:1996, 5.1.1, using the mandrel diameters of table U.1. The test sample is then examined in accordance with IEC 60851-3:1996, 5.1.1.4, followed by the test of 5.2.2 of this standard except applying the test voltage between the wire and the mandrel. A test voltage shall not be less than twice the appropriate voltage in table 5B (see 5.2.2) of this standard. However, the minimum values shall be as follows: - for BASIC INSULATION or SUPPLEMENTARY INSULATION, 1500 V, or; - for REINFORCED INSULATION, 3000 V.		N/A												
Table U.1	Replacement: Mandrel diameter <table border="1"><thead><tr><th>Nominal Conductor diameter mm</th><th>Mandrel diameter mm ± 0.2 mm</th></tr></thead><tbody><tr><td>0.05 – 0.34</td><td>4,0</td></tr><tr><td>0.35 – 0.49</td><td>6,0</td></tr><tr><td>0.50 – 0.74</td><td>8,0</td></tr><tr><td>0.75 – 2.49</td><td>10,0</td></tr><tr><td>2.50 – 5.00</td><td>4 times of the diameter of conductor ¹⁾</td></tr></tbody></table> ¹⁾ in compliance with IEC 60317-43. The tension to be applied to the wire during winding on the mandrel is calculated from the wire diameter to be equivalent to 118 Mpa ± 10 % (118 N/mm 2 ± 10 %).	Nominal Conductor diameter mm	Mandrel diameter mm ± 0.2 mm	0.05 – 0.34	4,0	0.35 – 0.49	6,0	0.50 – 0.74	8,0	0.75 – 2.49	10,0	2.50 – 5.00	4 times of the diameter of conductor ¹⁾		N/A
Nominal Conductor diameter mm	Mandrel diameter mm ± 0.2 mm														
0.05 – 0.34	4,0														
0.35 – 0.49	6,0														
0.50 – 0.74	8,0														
0.75 – 2.49	10,0														
2.50 – 5.00	4 times of the diameter of conductor ¹⁾														

IEC 60950-1 / EN 60950-1			
Clause	Difference – Test	Result – Remark	Verdict
KOREA- Differences to IEC 60950-1, First Edition (2001)			
1.5.101	Addition Plugs for the connection of the apparatus to the supply mains shall comply with the Korean requirement (KSC 8305 and 8305).	This must be considered during national approval.	N/A
7 EMC	Addition The apparatus shall comply with the relevant CISPR standards	This must be considered during national approval.	N/A

IEC 60950-1 / EN 60950-1			
Clause	Difference – Test	Result – Remark	Verdict
US and CANADA- Differences to IEC 60950-1, First Edition (2001)			
Notes: “CEC” denotes Canadian Electrical Code. “NEC” denotes US National Electrical Code. Due to common Canadian and US national differences, products that are in compliance with the Canadian national differences are also considered in compliance with the US national differences.			

IEC 60950-1 / EN 60950-1			
Clause	Difference – Test	Result – Remark	Verdict
1.1.1	All equipment is to be designed to allow installation in accordance with the National Electrical Code (NEC), ANSI/NFPA 70, the Canadian Electrical Code (CEC), Part I, CAN/CSA C22.1, and when applicable, the National Electrical Safety Code, IEEE C2. Also, unless marked or otherwise identified, installation is allowed per the Standard for the Protection of Electronic Computer/Data-Processing Equipment, ANSI/NFPA 75.		P
1.5.5	For lengths exceeding 3,05 m, external interconnecting flexible cord and cable assemblies are required to be a suitable cable type (e.g. DP, CL2) specified in the NEC. For lengths 3,05 m or less, external interconnecting flexible cord and cable assemblies that are not types specified in the NEC are required to have special construction features and identification markings.		N/A
1.7.1	Equipment for use on a.c. mains supply systems with a neutral and more than one phase conductor (e.g. 120/240 V, 3-wire) require a special marking format for electrical ratings. A voltage rating that exceeds an attachment plug cap rating is only permitted if it does not exceed the extreme operating conditions in Table 2 of CAN/CSA C22.2 No. 235, and if it is part of a range that extends into the Table 2 "Normal Operating Conditions." Likewise, a voltage rating shall not be lower than the specified "Normal Operating Conditions," unless it is part of a range that extends into the "Normal Operating Conditions."		N/A
2.5	Where a fuse is used to provide Class 2, Limited Power Source, or TNV current limiting, it shall not be operator-accessible unless it is not interchangeable.		N/A
2.7.1	Suitable NEC/CEC branch circuit protection rated at the maximum circuit rating is required for all standard supply outlets, receptacles and medium-base or smaller lampholders if the supply branch circuit protection is not suitable. Power distribution transformers distributing power at 100 volts or more, and rated 10 kVA or more, require transformer overcurrent protection.		N/A
3.2	Wiring methods (terminals, leads, etc.) used for the connection of the equipment to the mains shall be in accordance with the NEC/CEC.		P
3.2.1	Power supply cords are required to have attachment plugs rated not less than 125 percent of the rated current of the equipment.		N/A
3.2.3	Permanent connection of equipment to the mains supply by a power supply cord is not permitted, except for certain equipment, such as ATMs.		N/A

IEC 60950-1 / EN 60950-1			
Clause	Difference – Test	Result – Remark	Verdict
3.2.5	Power supply cords are required to be no longer than 4.5 m in length. Flexible power supply cords are required to be compatible with Article 400 of the NEC, and Tables 11 and 12 of the CEC.		N/A
3.2.8	Permanently connected equipment is required to have a suitable wiring compartment and wire bending space.		N/A
3.3	Wiring terminals and associated spacings for field wiring connections shall comply with CSA C22.2 No. 0.		N/A
3.3.3	Wire binding screws are not permitted to attach conductors larger than 10 AWG (5,3 mm ²).		N/A
3.3.4	Terminals for permanent wiring, including protective earthing terminals, are required to be suitable for U.S./Canadian wire gauge sizes, rated 125 percent of the equipment rating, and be specially marked when specified (1.7.7).		N/A
3.4.2	Motor control devices are required for cord-connected equipment with a motor if the equipment is rated more than 12 A, or if the motor has a nominal voltage rating greater than 120 V, or is rated more than 1/3 hp (locked rotor current over 43 A).		N/A
3.4.8	Vertically-mounted disconnect switches and circuit breakers are required to have the "on" position indicated by the handle in the up position.		N/A
3.4.10	For computer room applications, equipment with battery systems capable of supplying 750 VA for five minutes are required to have a battery disconnect means that may be connected to the computer room remote power-off circuit.		N/A
4.3.12	The maximum quantity of flammable liquid stored in equipment is required to comply with NFPA 30.		N/A
4.3.13	Equipment with lasers is required to meet the Code of Federal Regulations 21 CFR 1040 (and the Canadian Radiation Emitting Devices Act, REDR C1370).		N/A
4.7	For computer room applications, automated information storage systems with combustible media greater than 27 cubic feet are required to have a provision for connection of either automatic sprinklers or a gaseous agent extinguishing system with an extended discharge.		N/A
4.7.3.1	For computer room applications, enclosures with combustible material measuring greater than 0,9 m ² or a single dimension greater than 1,8 m are required to have a flame spread rating of 50 or less. For other applications, enclosures with the same dimensions require a flame spread rating of 200 or less.		N/A

IEC 60950-1 / EN 60950-1			
Clause	Difference – Test	Result – Remark	Verdict
Annex H	Equipment that produces ionizing radiation is required to comply with the Code of Federal Regulations, 21 CFR 1020 (and the Canadian Radiation Emitting Devices Act, REDR C1370).		N/A
<p style="text-align: center;">OTHER DIFFERENCES</p> <p style="text-align: center;">The following key national differences are based on requirements other than national regulatory requirements.</p>			
ADDITIONAL CANADIAN NATIONAL DEVIATIONS			
1.5.1	<p>Components of equipment must be suitable for the application, and must comply with the requirements of the equipment standard and the applicable national (Canadian and/or U.S.) component or material standards, as far as they may apply.</p> <p>The acceptance will be based on the following:</p> <p>I) A component Certified by a Canadian or U.S. National Certification Body (NCB) to a Canadian or U.S. component standard will be checked for correct application and use in accordance with its specified rating. Where necessary, it will also be subject to the applicable tests of the equipment standard.</p> <p>J) A component, which has a CB Test Certificate for compliance with a relevant IEC component standard, will be checked for correct application and use in accordance with its specified ratings. Where necessary, it will also be subject to the applicable tests of the equipment standard, and to the applicable tests of the Canadian and/or U.S. component or material standard, under the conditions occurring in the equipment.</p> <p>K) A component, which has no approval as in A) or B) above or which is used not in accordance with its specified ratings, will be subject to the applicable tests of the equipment standard, and to the applicable tests of the Canadian and/or U.S. component or material standard, under the conditions occurring in the equipment.</p> <p>L) Some components may require annual re-testing, which may be carried out by the manufacturer, CSA International or another laboratory</p>	The components fulfil the requirements of the IEC and in addition P1 and P2 of UL60950 and CSA 22.2-60950 was applied.	P
2.3.1	For TNV-2 and TNV-3 circuits with other than ringing signals and with voltages exceeding 42,4 V _{peak} or 60 V _{d.c.} , the maximum acceptable current through a 2000 ohm resistor (or greater) connected across the voltage source with other loads disconnected is 7,1 mA peak or 30 mA d.c. under normal operating conditions.		N/A
2.6.3.3	When subject to impedance testing, protective earthing and bonding is required to be tested subject per the specified test conditions that originate in CSA C22.2 No.0.4		N/A

IEC 60950-1 / EN 60950-1			
Clause	Difference – Test	Result – Remark	Verdict
4.2.8.1	Enclosures around CRTs with a face diameter of 160 mm or more are required to reduce the risk of injury due to the implosion of the CRT.		N/A
4.3.2	Equipment with handles is required to comply with special loading tests.		N/A
5.1.8.1.1	Equipment intended to receive telecommunication ringing signals is required to comply with a special touch current measurement tests.		N/A
6.2.1	Enamel coating on winding wire not considered electrical separation unless subjected to special investigation.		N/A
6.4	Equipment intended for connection to telecommunication network outside plant cable is required to be protected against overvoltage from power line crosses in accordance with 6.4 and Annex NAC.		N/A
6.5	Equipment connected to a telecommunications network and supplied with an earphone intended to be held against, or in the ear is required to comply with special acoustic pressure tests.		N/A
M.2	Continuous ringing signals up to 16 mA only are permitted if the equipment is subjected to special installation and performance restrictions.		N/A
ADDITIONAL US NATIONAL DEVIATIONS			
1.5.1	Some components and materials associated with the risk of fire, electric shock, or personal injury are required to have component or material ratings in accordance with the applicable national (U.S. and Canadian) component or material requirements. These components include: attachment plugs, battery packs (rechargeable type, used with transportable equipment), cathode ray tubes, circuit breakers, communication circuit accessories, connectors (used for current interruption of non-LPS circuits), cord sets and power supply cords, direct plug-in equipment, enclosures (outdoor), flexible cords and cables, fuses (branch circuit), fuseholders, ground-fault current interrupters, industrial control equipment, insulating tape, interconnecting cables, lampholders, limit controls, printed wiring, protectors for communications circuits, receptacles, solid state controls, supplementary protectors, surge suppressors, switches (including interlock switches), thermal cutoffs, thermostats, multi-layer transformer winding wire, tubing, wire connectors, and wire and cables.	See appended 1.5.1	P

IEC 60950-1 / EN 60950-1			
Clause	Difference – Test	Result – Remark	Verdict
2.3.1	For TNV-2 and TNV-3 circuits with other than ringing signals and with voltages exceeding 42,4 V _{peak} or 60 V _{d.c.} , the maximum acceptable current through a 2000 ohm resistor (or greater) connected across the voltage source with other loads disconnected is 7,1 mA peak or 30 mA d.c. under normal operating conditions.		N/A
2.6.3.3	When subject to impedance testing, protective earthing and bonding are required to be subjected to the additional test conditions specified.		N/A
4.2.8.1	Enclosures around CRTs with a face diameter of 160 mm or more are required to reduce the risk of injury due to the implosion of the CRT.		N/A
4.3.2	Equipment with handles is required to comply with special loading tests.		N/A
5.1.8.1	Equipment intended to receive telecommunication ringing signals is required to comply with a special touch current measurement tests.		N/A
6.2.1	Enamel coating on winding wire not considered electrical separation unless subjected to special investigation.		N/A
6.4	Equipment intended for connection to telecommunication network outside plant cable is required to be protected against overvoltage from power line crosses in accordance with 6.4 and Annex NAC.		N/A
6.5	Equipment connected to a telecommunications network and supplied with an earphone intended to be held against, or in the ear is required to comply with special acoustic pressure tests. M.2 Continuous ringing signals up to 16 mA only are permitted if the equipment is subjected to special installation and performance restrictions.		N/A

Enclosure No. 2

Additional test data

2.1.1.5	TABLE: Energy hazards, Maximum Output Voltage, Current , and Voltampere measurement			P
<i>The sample was connected to 240 V a.c. and 60 Hz. With the unit operating normally, a variable resistor was connected across the points noted beside. The current through the resistor and voltage across the resistor were monitored using suitable meters. The resistance was adjusted to obtain maximum VA at a voltage exceeding 2 V.</i>				
Output Tested	Max. Volts	Max. Amps.	Max. VA	Hazard Energy YES/NO
GT-41062-WWVV-X.X				
GT-41062-1824-X.X Output + to -	24	0,75 (rated load)	18	NO
	24,44	1,67 (max load)	28,34	NO
GT-41062-1818-X.X Output + to -	18	1 (rated load)	18	NO
	18,42	1,75 (max load)	27,18	NO
GT-41062-1812-X.X Output + to -	12	1,5 (rated load)	18	NO
	12,13	3,14 (max load)	30,18	NO
GT-41062-1805-X.X Output + to -	5	3,2 (rated load)	16	NO
	5,28	5,29 (max load)	23,67	NO
GT-41062-1806-X.X Output + to -	6	3,0 (rated load)	18	NO
	6,22	5,48 (max load)	21,95	NO
GT-41062-1807-X.X Output + to -	7	2,58 (rated load)	18	NO
	7,24	5,60 (max load)	22,07	NO
Comments: These test results also represent other models with the same circuit diagram.				

2.1.1.7	TABLE: Discharge of capacitors in the primary circuit					P
<i>The unit was connected to 240 V a.c., 50 Hz. A storage oscilloscope was connected across the external point of disconnection of the mains supply. The unit was disconnected from the supply source. The voltage at the time of disconnection, Vo, and the voltage Vtc at 1 second was recorded.</i>						
Measurement location	Fuse In/out	Switch	Time Constant	Measured voltage after 1 sec.	Condition	
GT-41062-1824-X.X						
L to N	in	--	0,67 s	84	No load	
Comments: The voltage across the line capacitor did decay to less than 37 percent of it's original value in 1 second. This test represents all models due to the same input circuit.						

2.2.2	TABLE: Hazard Voltage (Circuit) Measurement GT-41062-WWVV-X.X			P
<i>The unit was connected to 240 V ac , and 50 Hz. The output were loaded to the rated value. The voltage at each secondary winding was recorded. If the voltage exceeded 42.4 Vpk or 60 V dc, the measurement were taken again after the next component in series with the secondary until the voltage measured was less 42.4 Vpk or 60 Vdc.</i>				
Transformer Designation	Location	Maximum Voltage (Vpk/dc)	Voltage Limiting Component	
GT-41062-1824-X.X				
T1	Pin A – Pin B	86Vpk	D3	
T1	C8 (+ to -)	24,7Vpk	—	
GT-41062-1818-X.X				
T1	Pin A – Pin B	85Vpk	D3	
T1	C8 (+ to -)	21,2Vpk	—	
GT-41062-1812-X.X				
T1	Pin A – Pin B	45,3Vpk	D3	
T1	C8 (+ to -)	14,4Vpk	—	
GT-41062-1805-X.X				
T1	Pin A – Pin B	25,4Vpk	—	
GT-41062-1806-X.X				
T1	Pin A – Pin B	26,2Vpk	—	
GT-41062-1807-X.X				
T1	Pin A – Pin B	26,9Vpk	—	
Comment:				

2.2.2	TABLE: Hazard Voltage (Circuit) Measurement GT-41062-WWVV-X.X-T2			P
<i>The unit was connected to 240 V ac , and 50 Hz. The output were loaded to the rated value. The voltage at each secondary winding was recorded. If the voltage exceeded 42.4 Vpk or 60 V dc, the measurement were taken again after the next component in series with the secondary until the voltage measured was less 42.4 Vpk or 60 Vdc.</i>				
Transformer Designation	Location	Maximum Voltage (Vpk/dc)	Voltage Limiting Component	
GT-41062-1824-X.X-T2				

T1	Pin A – Pin B	87Vpk	D3
T1	Pin A – Pin B	25,0Vpk	--
Comment:			

2.2.2	TABLE: Hazard Voltage (Circuit) Measurement GT-41062-WWVV-X.X-T3; 3A		P
<i>The unit was connected to 240 V ac , and 50 Hz. The output were loaded to the rated value. The voltage at each secondary winding was recorded. If the voltage exceeded 42.4 Vpk or 60 V dc, the measurement were taken again after the next component in series with the secondary until the voltage measured was less 42.4 Vpk or 60 Vdc.</i>			
Transformer Designation	Location	Maximum Voltage (Vpk/dc)	Voltage Limiting Component
GT-41062-1824-X.X-T3; 3A			
T1	Pin A – Pin B	87Vpk	D3
T1	Pin A – Pin B	24,8Vpk	--
Comment:			

2.4	TABLE: Limited current circuit GT-41062-1824-X.X	P
<i>The unit was connected to 240 Vac, 50 Hz. A 2000 Ohms non-inductive resistor and a switch were connected between the user accessible part of a limited current circuit and either pole of the limited current circuit or earth. A storage oscilloscope was connected across the points under consideration. The switch was closed and voltages on resistor were measured.</i>		
Limit values	0,7mA	
Circuit(s) tested	CY1	
Measured working voltage:	< 250 Vr.m.s.	
Measured frequency	<1kHz	
Measured current through 2000Ω	0,73V I = 0,365mA	
Measured capacitance	2200pF	

2.4	TABLE: Limited current circuit GT-41062-1824-X.X-T2	P
<i>The unit was connected to 240 Vac, 50 Hz. A 2000 Ohms non-inductive resistor and a switch were connected between the user accessible part of a limited current circuit and either pole of the limited current circuit or earth. A storage oscilloscope was connected across the points under consideration. The switch was closed and voltages on resistor were measured.</i>		
Limit values	0,7mA	
Circuit(s) tested	CY1	
Measured working voltage:	< 250 Vr.m.s.	
Measured frequency	< 1 kHz	
Measured current through 2000Ω	0,78V I = 0,39mA	

Measured capacitance	2200pF
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2.5	TABLE: Limited power source			P
<i>The maximum available output power was measured at nominal condition and with single fault conditions. The unit was connected to main nominal input voltage (240 Vac)</i>				
Condition		Voltage	Test Current in A	Calculated power
GT-41062-1824-X.X				
Normal operating conditions		24,44	1,67	28,34
Short (U2) (1-2)		27,42	0,99	23,69
open (U2) (1-2)		27,12	0,82	18,95
Short (U2) (3-4)		—	—	—
Short (R6)		24,13	0,87	19,46
Short (R14)		27,35	1,51	26,27
GT-41062-1805-X.X				
Normal operating conditions		5,28	5,29	23,67
Short (U2) (1-2)		7,87	4,86	18,23
open (U2) (1-2)		7,73	3,79	16,38
Short (R6)		5,31	4,68	17,26
Short (R14)		7,84	4,91	18,34
Comments:				

2.6	TABLE: Resistance of earthing conductors and their terminations			P
<i>Using a maximum 12 V dc power source, a current of 40 A was passed between the equipment earthing terminal and the part in the equipment that is required by 2.6.1 to be earthed listed below for a period of 120 s. The voltage drop from the earthing terminal to the accessible metal part required to be earthed was recorded and the resistance was calculated.</i>				
Accessible conductive part		Test Current in A	Measured Voltage in (V)	Calculated Resistance (Ω)
(GT-41062-WWVV-X.X-T3A) PE pin of appliance inlet- PCB		40A	2,0V	0,05
(GT-41062-WWVV-X.X-T3) PE pin of appliance inlet- PCB		40A	2,2V	0,055
Comments:				
The resistance did not exceed 0,1 Ohm from any accessible conductive part and earth.				

2.9.1, 2.9.2, 5.2.2	TABLE: Humidity test			P
<p>A humidity chamber was maintained within 1°C of temperature “t” at a temperature of 25°C. The unit and any other separate components were brought to a temperature between t and t + 4°C They were then placed in the chamber and held at a relative humidity of 94% for a period of 48 hours. Prior to conditioning, parts of the unit (covers) which could be removed without the use of tools were removed and separately placed in the chamber. During conditioning, cable entrances and/or conduit openings were left open. During this treatment, the unit was not energized.</p> <p>While still in the humidity chamber, but after all parts have been placed back on the unit, a dielectric potential was applied and maintained for a period of one minute between the points indicated below. During this test, all switching devices (switches, relays, triacs, etc.) in the primary circuit were closed.</p>				
Location		Insulation type	Potential used	Breakdown Yes/No
GT-41062-WWVV-X.X-T2		reinforced	3000Vac	No
GT-41062-WWVV-X.X-T3,-3A		reinforced	3000Vac	No
GT-41062-WWVV-X.X		reinforced	3000Vac	No
Comments: There was no breakdown.				

2.10.2	Table: Working voltage measurement			P
From		To	Peak Voltage	RMS voltage
GT-41062-1824-X.X				
T1 pin2	T1 A		447	225
T1 pin2	T1 B		475	223
T1 pin3	T1 A		428	223
T1 pin3	T1 B		349	223
T1 pin4	T1 A		362	218
T1 pin4	T1 B		349	218
T1 pin5	T1 A		349	218
T1 pin5	T1 B		399	218
GT-41062-1824-X.X-T2				
T1 pin2	T1 A		354	226
T1 pin2	T1 B		419	227
T1 pin3	T1 A		455	233
T1 pin3	T1 B		338	228
T1 pin4	T1 A		379	229
T1 pin4	T1 B		356	226
T1 pin5	T1 A		431	227
T1 pin5	T1 B		353	227
GT-41062-1824-X.X-T3 and GT-41062-1824-X.X-T3A				
T1 pin2	T1 A		354	226
T1 pin2	T1 B		419	227
T1 pin3	T1 A		455	233
T1 pin3	T1 B		338	228
T1 pin4	T1 A		379	229
T1 pin4	T1 B		356	226
T1 pin5	T1 A		431	227
T1 pin5	T1 B		353	227
Comment: Input: 240 V, 50 Hz Working voltage was recorded for model with highest output voltage.				

2.10.3, 4.2.2, 4.2.3, 4.2.4	TABLE: Steady force test (internal spacings push test)	P	
<p>Components and parts, other than parts serving as an enclosure, are subjected to a steady force of 10 N ± 1 N.</p> <p>Parts of an enclosure located in Operator Access Area, which are protected by a cover or door, are subjected to a steady force of 30 N ± 3 N for a period of 5 s, applied by means of a straight unjointed version of the test finger, to the part on or within the equipment.</p> <p>External enclosures are subjected to a steady force of 250 N ± 10 N for a period of 5 s, applied in turn to the top, bottom and sides of the enclosure fitted to the equipment, by means of a suitable test tool providing contact over a circular plane surface 30 mm in diameter. However, this test is not applied to the bottom of an enclosure of equipment having a mass of more than 18 kg.</p>			
Part	Thickness	Force	Observation
Components	—	10 N	Passed, ZNR1 is glued
Top/ Bottom of enclosure	2,1 mm	250 N	No deflection of the metal
Left/ Right Side of Enclosure	2,2 mm	250 N	No deflection of the metal
Comments: for all models			

5.1	TABLE: Touch current and protective conductor current					P
	Measurement		Fuse open and closed	Input Switch position	Voltage (mV)	Leakage current (mA)
	From	To				
GT-41062-1824-X.X-T3 and GT-41062-1824-X.X-T3A						
	L	PE	closed	--	97	0,194
	N	PE	closed	--	97	0,194
	L	Encl	closed	--	3,6	0,008
	N	Encl	closed	--	3,6	0,008
GT-41062-1824-X.X-T2						
	L	Output -	Closed	--	97	0,194
	N	Output +	Closed	--	97	0,194
	L	Encl	closed	--	3,6	0,008
	N	Encl	closed	--	3,6	0,008
GT-41062-1824-X.X						
	L	Output -	closed	--	80	0,16
	N	Output +	closed	--	80	0,16
	L	Encl	closed	--	3,5	0,007
	N	Encl	closed	--	3,5	0,007
Comments: The tests were performed at 264 Vac and 60 Hz with D1 measurement circuit. For measurement to enclosure aluminium foil was wrapped around enclosure.						

Enclosure No. 3

Pictures of the unit



Input, (GT-41062-WWVV-X.X-T2)



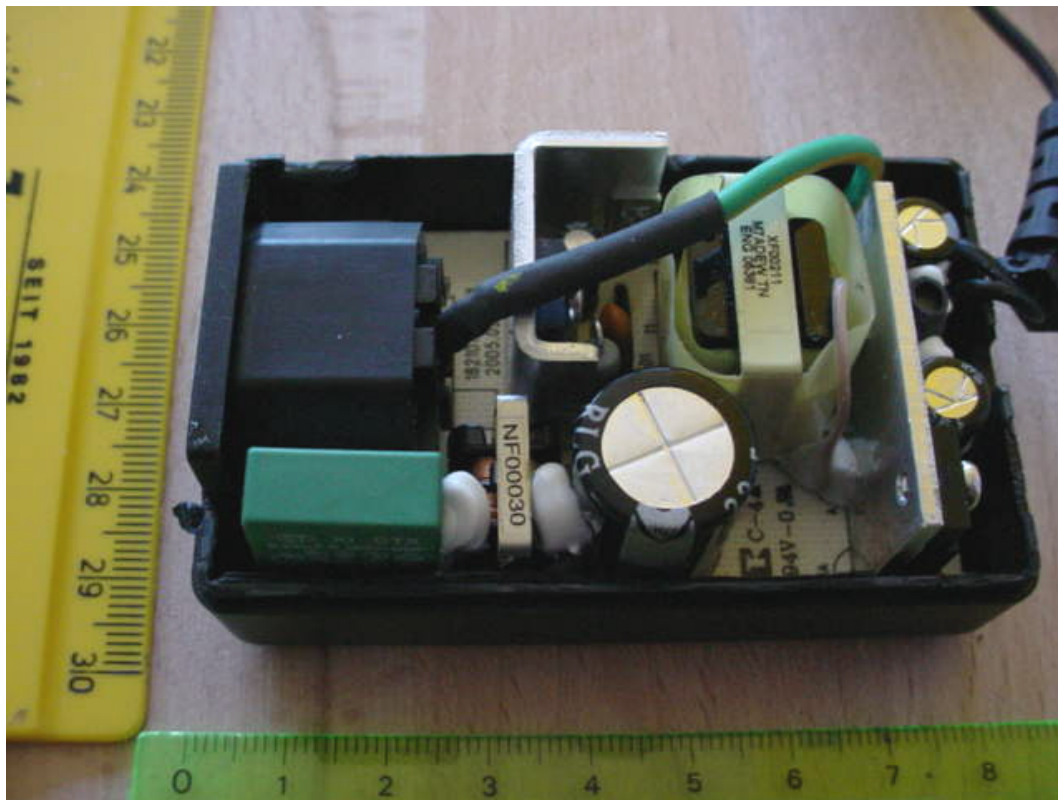
Inside 1, (GT-41062-WWVV-X.X-T2)



Inside 2, (GT-41062-WWVV-X.X-T2)



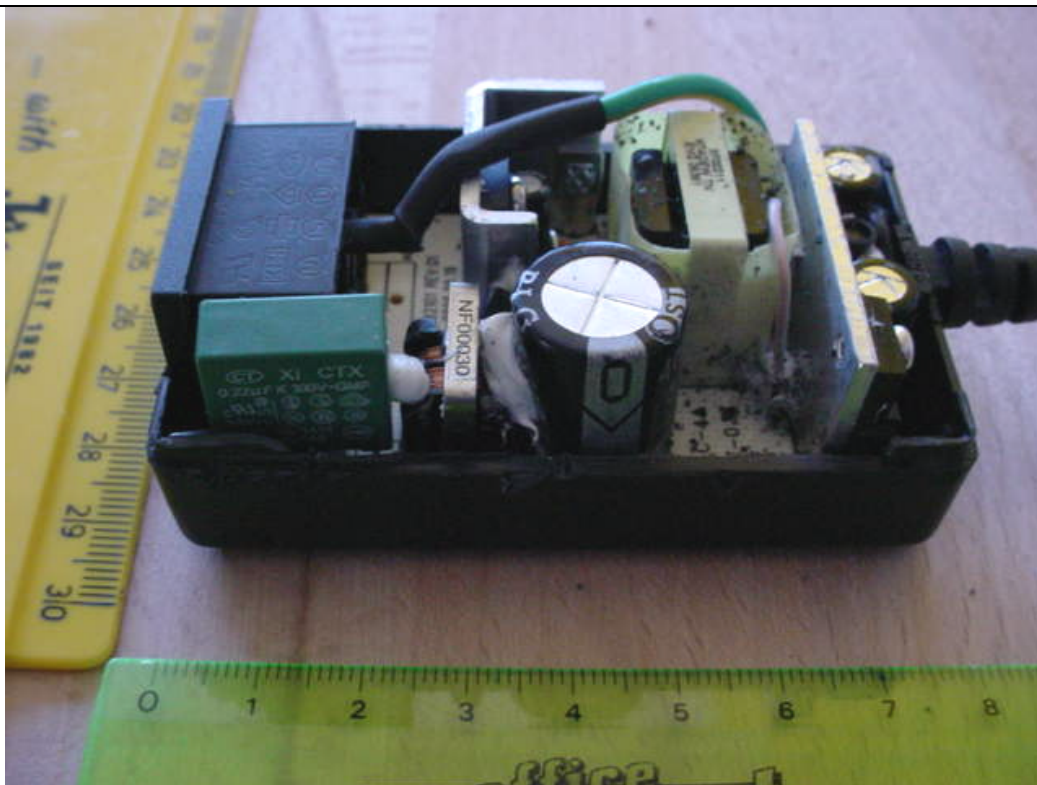
Input, (GT-41062-WWVV-X.X-T3)



Inside, (GT-41062-WWVV-X.X-T3)



Input, (GT-41062-WWVV-X.X-T3A)



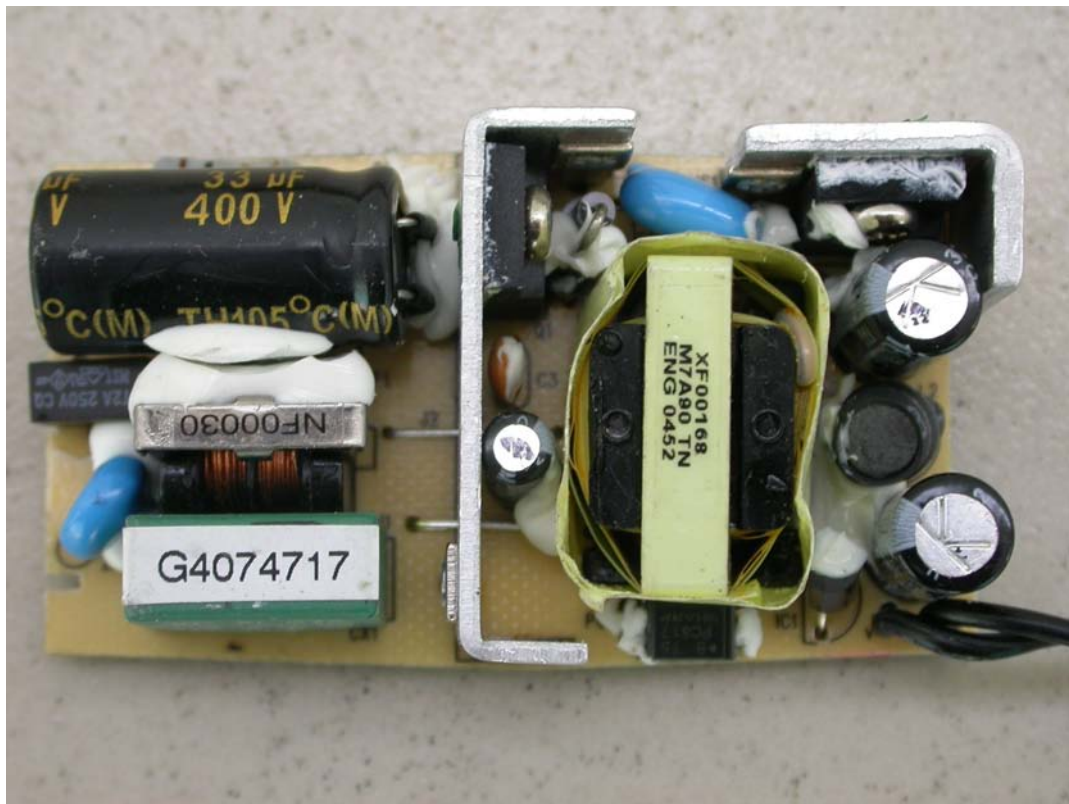
Inside 1, (GT-41062-WWVV-X.X-T3A)



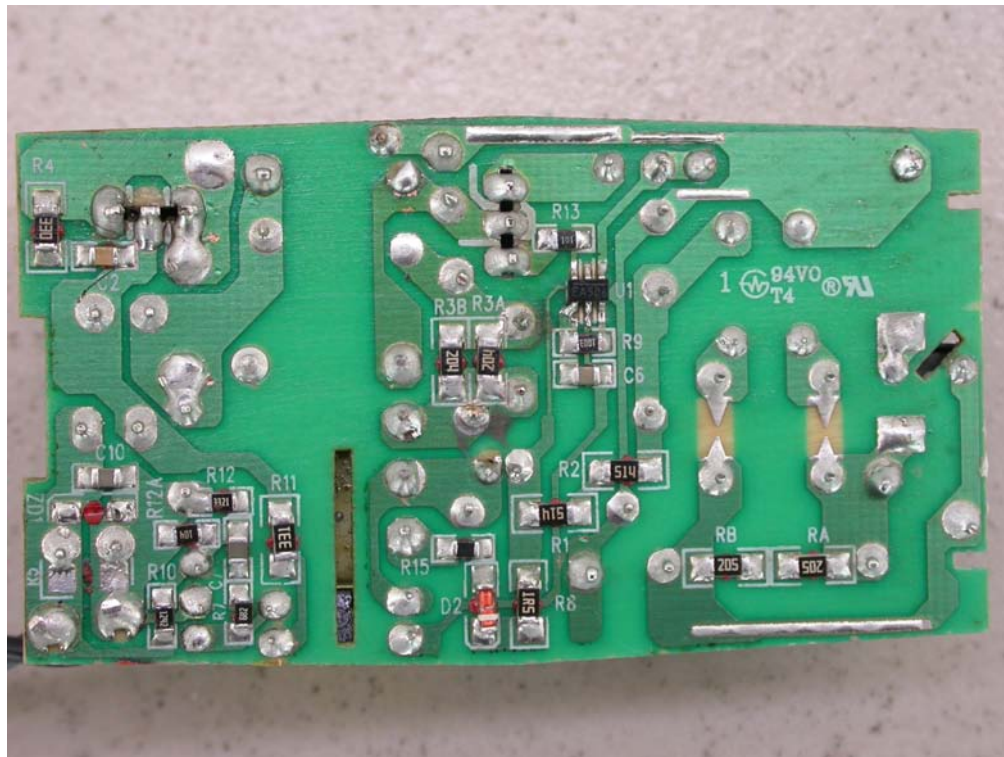
Inside 2, (GT-41062-WWVV-X.X-T3A)



Enclosure, (GT-41062-WWVV-X.X)



PCB top, (GT-41062-WWVV-X.X)



PCB bottom, (GT-41062-WWVV-X.X-T3A)