



Test Report issued under the responsibility of:



TEST REPORT
IEC 60950-1
Information technology equipment – Safety –
Part 1: General requirements

Report Number..... : 140900434SHA-002
Date of issue..... : 2014-11-14
Modification 1: 2017-07-17
Total number of pages : 40

Applicant's name : GlobTek, Inc.
Address..... : 186 Veterans Dr. Northvale, NJ 07647 USA

Test specification:
Standard..... : IEC 60950-1:2005 (Second Edition) + Am 1:2009 + Am 2:2013
Test procedure : CB Scheme
Non-standard test method : N/A

Test Report Form No. : IEC60950_1F
Test Report Form(s) Originator : SGS Fimko Ltd
Master TRF : Dated 2014-02

Copyright © 2014 IEC System of Conformity Assessment Schemes for Electrotechnical Equipment and Components (IECEE System). All rights reserved.

This publication may be reproduced in whole or in part for non-commercial purposes as long as the IECEE is acknowledged as copyright owner and source of the material. IECEE takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context.



If this Test Report Form is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.

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

General disclaimer:

The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Issuing CB Testing Laboratory. The authenticity of this Test Report and its contents can be verified by contacting the NCB, responsible for this Test Report.

Test item description..... : ITE Power Supply
Trade Mark..... : GlobTek
Manufacturer : Same as applicant
Model/Type reference : GT*43007-***** (Refer to page 6 for details.)
Ratings : Input: 100-240V~, 50-60Hz, 1.5A;
Output: Refer to page 6 for details.

Testing procedure and testing location:		
<input checked="" type="checkbox"/>	CB Testing Laboratory:	
Testing location/ address.....:		Intertek Testing Services Shanghai Building No.86, 1198 Qinzhou Road (North), 200233 Shanghai, China
<input type="checkbox"/>	Associated CB Testing Laboratory:	
Testing location/ address.....:		
Tested by (name + signature)		Francis Cai (Engineer) 
Approved by (name + signature).....:		Justin Yu (Mandated Reviewer) 
<hr/>		
<input type="checkbox"/>	Testing procedure: TMP/CTF Stage 1:	
Testing location/ address.....:		
Tested by (name + signature)		
Approved by (name + signature).....:		
<hr/>		
<input type="checkbox"/>	Testing procedure: WMT/CTF Stage 2:	
Testing location/ address.....:		
Tested by (name + signature)		
Witnessed by (name + signature).....:		
Approved by (name + signature).....:		
<hr/>		
<input type="checkbox"/>	Testing procedure: SMT/CTF Stage 3 or 4:	
Testing location/ address.....:		
Tested by (name + signature)		
Witnessed by (name + signature).....:		
Approved by (name + signature).....:		
Supervised by (name + signature)		

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

Summary of testing:

<p>Tests performed (name of test and test clause):</p> <p>Modification 1: 1.6.2 Input test 2.1.1.5 Energy hazards test 2.2.2 Voltage under normal conditions test 2.2.3 Voltage under fault conditions test 2.5 Limited power source test 4.5.1 Temperature rise test 5.3 Abnormal test</p>	<p>Testing location:</p> <p>Intertek Testing Services Shanghai Building No.86, 1198 Qinzhou Road (North), 200233 Shanghai, China</p>
---	---

Summary of compliance with National Differences:

List of countries addressed

The test report covers group- and national differences for the CENELEC countries.
 The national differences for Singapore have been checked according to IEC 60950-1 1st ed.
 The national differences for China have been checked according to IEC 60950-1 2nd ed.
 The national difference for Korea and Japan has been checked according to IEC 60950-1 2nd ed. + A1.
 The national differences for USA, Canada and Australia/New Zealand have been checked according to IEC 60950-1 2nd ed. + A1 + A2.

The product fulfils the requirements of IEC 60950-1:2005 + A1:2009 + A2:2013 and EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013.

Copy of marking plate (representative):

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

Note:

The marking plates of the other models listed in this report are identical with below except model name and output parameter.

The below marking is complying with the minimum requirements required by the safety standard.

For the final production samples, the additional markings which do not give rise to misunderstanding may be added.



For Class I model



For Class II model



Test item particulars..... :	
Equipment mobility.....:	<input type="checkbox"/> movable <input type="checkbox"/> hand-held <input type="checkbox"/> transportable <input type="checkbox"/> stationary <input checked="" type="checkbox"/> for building-in <input type="checkbox"/> direct plug-in
Connection to the mains.....:	<input type="checkbox"/> pluggable equipment <input type="checkbox"/> type A <input type="checkbox"/> type B <input type="checkbox"/> permanent connection <input type="checkbox"/> detachable power supply cord <input type="checkbox"/> non-detachable power supply cord <input type="checkbox"/> not directly connected to the mains Final determination is needed in end product.
Operating condition.....:	<input checked="" type="checkbox"/> continuous <input type="checkbox"/> rated operating / resting time:
Access location	<input checked="" type="checkbox"/> operator accessible <input type="checkbox"/> restricted access location
Over voltage category (OVC)	<input type="checkbox"/> OVC I <input checked="" type="checkbox"/> OVC II <input type="checkbox"/> OVC III <input type="checkbox"/> OVC IV <input type="checkbox"/> other:
Mains supply tolerance (%) or absolute mains supply values	+/-10%
Tested for IT power systems	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
IT testing, phase-phase voltage (V)	
Class of equipment	<input checked="" type="checkbox"/> Class I or <input checked="" type="checkbox"/> Class II <input type="checkbox"/> Class III <input type="checkbox"/> Not classified
Considered current rating of protective device as part of the building installation (A)	16A or 20A
Pollution degree (PD)	<input type="checkbox"/> PD 1 <input checked="" type="checkbox"/> PD 2 <input type="checkbox"/> PD 3
IP protection class	IPX0
Altitude during operation (m)	<5000m
Altitude of test laboratory (m)	<50m
Mass of equipment (kg)	Approx. 0.12 kg
Possible test case verdicts:	
- test case does not apply to the test object.....:	N/A
- test object does meet the requirement.....:	P (Pass)
- test object does not meet the requirement.....:	F (Fail)
Testing.....:	
Date of receipt of test item	2017-07-03
Date (s) of performance of tests	2017-07-03 to 2017-07-17
General remarks:	

<p>"(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 <input type="checkbox"/> comma / <input checked="" type="checkbox"/> point is used as the decimal separator. This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.</p>	
Manufacturer's Declaration per sub-clause 4.2.5 of IEC 60950-1:	
<p>The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> Not applicable</p>
When differences exist; they shall be identified in the General product information section.	
<p>Name and address of factory (ies) : Factory 1 GlobTek, Inc. 186 Veterans Dr. Northvale, NJ 07647 USA Factory 2 GlobTek (Suzhou) Co., Ltd Building 4, No. 76, Jin Ling East Rd., Suzhou Industrial Park, Suzhou, JiangSu 215021, China</p>	
<p>General product information: Product covered by this report is I.T.E. power supply module, which is open frame type for indoor use only. The installation and use for the insulation construction shall be finally determined in the end product. Model similarity: GT*43007-***** The 1st "*" can be 'M' or '-' or 'H' for market identification and not related to safety. The 2nd "*" is A, B, or C and is related to PCB size: A= 2"x3", B=2"x4", C=3"x5". The different PCB sizes are only for installation purpose in end product with no safety spacing modification. The 3rd "*" denote the rated output wattage designation, which can be "01" to "60", with interval of 1. The 4th "*" denote the standard rated output voltage designation, which can be "05", "07", "09", "12", "15", "18", "24", "36" or "48". Each standard rated output voltage designation corresponds to a transformer model. Each transformer model is identical in insulation construction including clearance and creepage except number of turns per coil. The 5th "*" is optional deviation, subtracted from standard output voltage, which can be "-0.1" to "-11.9" with interval of 0.1, or blank to indicate no voltage different. The 4th and 5th asterisks together denote the output voltage with a range of 5-48 volts. The 6th "*" can be "-F" or "-FW". "-F" represents Class I model and "-FW" represents Class II model.</p>	

Model list:

Model	Output Voltage	Max. output current	Max. output power	Transformer
GT*43007-**05*	5 V	6A	30W	TF024 (5-6.5Vdc) TF025 (6.6-8.9Vdc) TF026 (9-13Vdc) TF027 (13.1-17Vdc) TF028 (17.1-24.9Vdc) TF029 (25-34.9Vdc) TF032 (35-48Vdc)
GT*43007-**07**	5.1-7V	6A	30W	
GT*43007-**09**	7.1-9V	5A	45W	
GT*43007-**12**	9.1-12V	5.0A	60W	
GT*43007-**15**	12.1-15V	5.0A	60W	
GT*43007-**18**	15.1-18V	4.0A	60W	
GT*43007-**24**	18.1-24V	3.31A	60W	
GT*43007-**36**	24.1-36V	2.50A	60W	
GT*43007-**48**	36.1-48V	1.66A	60W	

Modification 1:

The original report ref. No. 140900434SHA-002, dated 2014-11-14, was modified on 2017-07-17 to include the following changes and/or additions:

1. Increased the max. output power for model GT*43007-**12** from 45W to 60W.
2. Updated national difference for Japan and Australia/New Zealand
3. Added alternative PCB material, fuse and heatsink in critical component list.

Concerning above change, input test, energy hazards test, voltage under normal or fault conditions test, limited power source test, temperature test and abnormal test were performed on model GT*43007-**6012**.

National difference for Japan and Australia/New Zealand were re-evaluated for all models

Abbreviations used in the report:

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

Indicate used abbreviations (if any)

N/A

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

1.6	Power interface		
1.6.2	Input current	(see appended table 1.6.2)	P

2.1	Protection from electric shock and energy hazards		
2.1.1	Protection in operator access areas	Final determination is needed in end product.	N/A
2.1.1.5	Energy hazards	See table 2.1.1.5.	P

2.2	SELV circuits		
2.2.2	Voltages under normal conditions (V)	Between any SELV circuits 42.4V peak or 60V dc are not exceeded. (see appended table)	P
2.2.3	Voltages under fault conditions (V)	Limits of 71V peak and 120V DC were not exceed and SELV limits not for longer than 0.2 seconds. (see appended table)	P

2.5	Limited power sources		
	a) Inherently limited output		P
	b) Impedance limited output		N/A
	c) Regulating network or IC current limiter, limits output under normal operating and single fault condition		N/A
	Use of integrated circuit (IC) current limiters		N/A
	d) Overcurrent protective device limited output		N/A
	Max. output voltage (V), max. output current (A), max. apparent power (VA)		—
	Current rating of overcurrent protective device (A) ..		—

4.5	Thermal requirements		
4.5.1	General		P
4.5.2	Temperature tests		P
	Normal load condition per Annex L	L7	—
4.5.3	Temperature limits for materials	(see appended table 4.5)	P
4.5.4	Touch temperature limits	(see appended table 4.5)	P
4.5.5	Resistance to abnormal heat	(see appended table 4.5.5)	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
5.3	Abnormal operating and fault conditions		
5.3.1	Protection against overload and abnormal operation	(see appended table 5.3)	P
5.3.2	Motors	No motor.	N/A
5.3.3	Transformers	(see appended Annex C)	P
5.3.4	Functional insulation	Method a) & c). Short Circuit tests, result see appended table 5.3.	P
5.3.5	Electromechanical components	No electromechanical components.	N/A
5.3.6	Audio amplifiers in ITE	No such component.	N/A
5.3.7	Simulation of faults	(see appended table 5.3)	P
5.3.8	Unattended equipment	There are no thermostats and similar components within the EUT.	N/A
5.3.9	Compliance criteria for abnormal operating and fault conditions	No fire propagated beyond the equipment, no molten metal was emitted and the enclosures no deformed.	P
5.3.9.1	During the tests		P
5.3.9.2	After the tests	After test, the EUT still complies with relevant requirements of this standard.	P

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

1.5.1	TABLE: List of critical components				P
Component/ Part No.	Manufacturer/ Trademark	Type No./model No./	Technical data	Standard No./, Edition	Mark(s) & Certificates of conformity ¹
PCB material	PACIFIC WIN INDUSTRIAL LTD	PW-02 PW-03	Min. V-0, min 1.6 mm thickness, 130°C	IEC/EN 60950-1 UL 796	Tested with appliance UL E228070
Alt.	YILIHUA	YLH-1 YLH-2	Min. V-0, min 1.6 mm thickness, 130°C	IEC/EN 60950-1 UL 796	Tested with appliance UL E251781
Alt.	AREX	02V0 04V0	Min. V-0, min 1.6 mm thickness, 130°C	IEC/EN 60950-1 UL 796	Tested with appliance UL E186016
Alt.	BRITE PLUS ELECTRONICS (SUZHOU) CO LTD	DKV0-3A DGV0-3A	Min. V-0, min 1.6 mm thickness, 130°C	IEC/EN 60950-1 UL 796	Tested with appliance UL E177671
Alt.	SHENZHEN TONGCHUANGXI N ELECTRONICS CO LTD	TCX	Min. V-0, min 1.6 mm thickness, 130°C	IEC/EN 60950-1 UL 796	Tested with appliance UL E250336
Alt.	WALEX ELECTRONIC (WUXI) CO LTD	T2, T2A, T2B T4	Min. V-0, min 1.6 mm thickness, 130°C	IEC/EN 60950-1 UL 796	Tested with appliance UL E154355
Alt.	DONGGUAN HE TONG ELECTRONICS CO LTD	CEM1 2V0 FR4	Min. V-0, min 1.6 mm thickness, 130°C	IEC/EN 60950-1 UL 796	Tested with appliance UL E243157
Alt.	CHEERFUL ELECTRONIC (HK) LTD	02 03 03A	Min. V-0, min 1.6 mm thickness, 130°C	IEC/EN 60950-1 UL 796	Tested with appliance UL E199724
Alt.	DONGGUAN DAYSUN ELECTRONIC CO LTD	DS2	Min. V-0, min 1.6 mm thickness, 130°C	IEC/EN 60950-1 UL 796	Tested with appliance UL E251754
Alt.	KUOTIANG ENT LTD	C-2 C-2A	Min. V-0, min 1.6 mm thickness, 130°C	IEC/EN 60950-1 UL 796	Tested with appliance UL E227299
Alt.	YUANMAN PRINTED CIRCUIT CO LTD	1V0	Min. V-0, min 1.6 mm thickness, 130°C	IEC/EN 60950-1 UL 796	Tested with appliance UL E74757

IEC 60950-1					
Clause	Requirement + Test		Result - Remark		Verdict
Alt.	SUZHOU XINKE ELECTRONICS CO LTD	XK-2, XK-3	Min. V-0, min 1.6 mm thickness, 130°C	IEC/EN 60950-1 UL 796	Tested with appliance UL E213590
Alt.	KUNSHAN CITY HUA SHENG CIRCUIT BOARD CO LTD	HS-S	Min. V-0, min 1.6 mm thickness, 130°C	IEC/EN 60950-1 UL 796	Tested with appliance UL E229877
Alt.	JIANGSU DIFEIDA ELECTRONICS CO LTD	DFD-1	Min. V-0, min 1.6 mm thickness, 130°C	IEC/EN 60950-1 UL 796	Tested with appliance UL E213009
Alt.	HUIZHOU SHUNJIA ELECTRONICS CO LTD	SJ-B	Min. V-0, min 1.6 mm thickness, 130°C	IEC/EN 60950-1 UL 796	Tested with appliance UL E320884
Alt.	SHANGHAI H-FAST ELECTRONIC CO LTD	211001, 411001	Min. V-0, min 1.6 mm thickness, 130°C	IEC/EN 60950-1 UL 796	Tested with appliance UL E337862
Alt.	Interchangeable	Interchangeable	Min. V-0, min 1.6 mm thickness, 130°C	IEC/EN 60950-1 UL 796	Tested with appliance UL Approved
Fuse (F1, F2) (F2 is optional.)	Conquer Electronics Co., Ltd.	MST	T 2 A, 250 V, Rated breaking capacity 100A	IEC/EN 60127-2 UL 248-1 UL 248-14	VDE 40017118 UL E82636
Alt.	Ever Island Electric Co., Ltd. and Walter Electric	2010, ICP	T 2 A, 250 V, Rated breaking capacity 130A	IEC/EN 60127-2 UL 248-1 UL 248-14	VDE 40018781 UL E220181
Alt.	Bel Fuse Ltd.	RST	T2A, 250V, Rated breaking capacity 100A	IEC/EN 60127-2 UL 248-1 UL 248-14	VDE 40011144 UL E20624
Alt.	Das & Sons International Ltd.	385T series	T2A, 250V, Rated breaking capacity 35A	IEC/EN 60127-2 UL 248-1 UL 248-14	VDE 40008524 UL E205718
Alt.	Shenzhen Lanson Electronics Co. Ltd.	SMT	T2A, 250V, Rated breaking capacity 35A	IEC/EN 60127-2 UL 248-1 UL 248-14	VDE 40012592 UL E221465
Alt.	Walter Electronic Co. Ltd.	ICP series	T2A, 250V, Rated breaking capacity 50A	IEC/EN 60127-2 UL 248-1 UL 248-14	VDE 40012824 UL E56092
Alt.	Zhongshan Lanbao Electrical Appliances Co., Ltd.	RTI-10 series	T2A, 250V, Rated breaking capacity 50A	IEC/EN 60127-2 UL 248-1 UL 248-14	VDE 40017009 UL E213695

IEC 60950-1					
Clause	Requirement + Test			Result - Remark	Verdict
Alt.	Sun Electric Co.	5T	T2A, 250V, Rated breaking capacity 100A	IEC/EN 60127-2 UL 248-1 UL 248-14	VDE 40027241 UL E166522
Alt.	Bel Fuse Ltd.	5ST	T2A, 250V, Rated breaking capacity 35A	IEC/EN 60127-2 UL 248-1 UL 248-14	VDE 40000507 UL E20624
Alt.	Copper Bussmann LLC	SS-5	T2A, 250V, Rated breaking capacity 50A	IEC/EN 60127-2 UL 248-1 UL 248-14	VDE 40015513 UL E19180
Alt.	Dongguan Better Electronics Technology Co., Ltd.	932	T2A, 250V, Rated breaking capacity 100A	IEC/EN 60127-2 UL 248-1 UL 248-14	VDE 40033369 UL E300003
Alt.	Hollyland Compoany Limited	5ET	T2A, 250V, Rated breaking capacity 63A	IEC/EN 60127-2 UL 248-1 UL 248-14	VDE 40015669 UL E156471
Alt.	Sunny East Enterprise Co. Ltd.	CFD-Serie(s)	T2A, 250V, Rated breaking capacity 50A	IEC/EN 60127-2 UL 248-1 UL 248-14	VDE 40030246 UL E133774
Alt.	Conquer Electronics Co., Ltd.	MET series	T2A, 250V, Rated breaking capacity 35A	IEC/EN 60127-2 UL 248-1 UL 248-14	VDE 40017157 UL E82636
Heatsink (HS2) (for 5-9V)	Interchangeable	Interchangeable	Aluminum. Approximate overall dimension 50mm by 22mm by 38mm, min.1.0mm thick, secured to PWB by soldering	IEC/EN 60950-1	Tested with appliance
Alt.	Interchangeable	Interchangeable	Aluminum. Approximate overall dimension 50mm by 22mm by 38mm, min.1.2mm thick, secured to PWB by soldering	IEC/EN 60950-1	Tested with appliance
Alt.	Interchangeable	Interchangeable	SPCC. Approximate overall dimension 50mm by 14mm by 38mm, min.1.2mm thick, secured to PWB by soldering	IEC/EN 60950-1	Tested with appliance

IEC 60950-1					
Clause	Requirement + Test			Result - Remark	Verdict
Heatsink (HS2) (for 9.1-48V)	Interchangeable	Interchangeable	Aluminum. Approximate overall dimension 50mm by 6mm by 18mm, min.1.4mm thick, secured to PWB by soldering	IEC/EN 60950-1	Tested with appliance
Alt.	Interchangeable	Interchangeable	SPCC. Approximate overall dimension 50mm by 14mm by 38mm, min.1.2mm thick, secured to PWB by soldering	IEC/EN 60950-1	Tested with appliance
Supplementary information: Updated the list of PCB material, fuse and heatsink (HS2).					

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

1.6.2	TABLE: Electrical data (in normal conditions)					P
U (V)	I (A)	I _{rated} (A)	P (W)	Fuse #	I _{fuse} (A)	Condition/status
Tested on model GTM43007-A6012-F						
264Vac	0.44	1.5	69.5	F1, F2	0.44	Normal operation with 12Vdc output, 5A.
240Vac	0.47	1.5	69.3	F1, F2	0.47	
100Vac	1.08	1.5	70.6	F1, F2	1.08	
90Vac	1.24	1.5	70.9	F1, F2	1.24	
Supplementary information: The measured input current at rated voltage shall be less than 110 % of rated current.						

2.1.1.5 c) 1)	TABLE: max. V, A, VA test				P
Voltage (rated) (V)	Current (rated) (A)	Voltage (max.) (V)	Current (max.) (A)	VA (max.) (VA)	
Tested on model: GTM43007-A6012-F					
12.0	5.0	12.1	7.6	83.7	
Supplementary information: -					

2.2	TABLE: evaluation of voltage limiting components in SELV circuits			P
Component (measured between)	max. voltage (V) (normal operation)		Voltage Limiting Components	
	V peak	V d.c.		
Tested on model: GTM43007-A6012-F				
T1 Pin 5 to Pin 8	41	--	--	
Fault test performed on voltage limiting components	Voltage measured (V) in SELV circuits (V peak or V d.c.)			
--	--			
Supplementary information: Test voltage: 264 Vac, 60 Hz				

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

2.5	TABLE: Limited power sources		P
------------	-------------------------------------	--	----------

Model: GTM43007-A6012-F

Circuit output tested: V (+) – V (-)

Note: Measured Uoc (V) with all load circuits disconnected: 12.18 Vdc

	I _{sc} (A)		VA	
	Meas.	Limit	Meas.	Limit
Normal condition	7.6	8.0	83.7	100
Single fault condition (R13 open)	7.6	8.0	83.7	100
Single fault condition (R21 open)	7.6	8.0	83.7	100
Single fault condition: See the note below	--	8.0	--	100

Supplementary information:

For all model, the other single fault conditions are relate to the below:
 Measured result shut down under the single fault condition of U1 (pin 1-2) short-circuited.
 Measured result shut down under the single fault condition of U1 (pin 3-4) short-circuited.
 Measured result shut down under the single fault condition of U1 (pin 1) opened-circuited.
 Measured result shut down under the single fault condition of U1 (pin 4) opened-circuited.
 Measured result shut down under the single fault condition of R28 short-circuited.
 Measured result shut down under the single fault condition of U3 short-circuited.
 Measured result shut down under the single fault condition of RS17 short-circuited.

4.5	TABLE: Thermal requirements		P
------------	------------------------------------	--	----------

	Supply voltage (V)	90Vac	—
	Ambient T _{min} (°C)	40	—
	Ambient T _{max} (°C)	40	—
	Maximum measured temperature T of part/at.....:	T (°C)	Allowed T _{max} (°C)
	LF1 winding	69.7	130
	CX1 body	65.4	100
	C8 body	88.2	105
	T1 winding	109.5	120
	T1 core	108.6	130
	PCB near Q1 (HS1)	87.7	130
	PCB near Q2 (HS2)	109.5	130

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

U2		83.8	100
C9 body		88.7	105

Supplementary information:
 Max. Operation ambient is considered as 40 °C which declared by the manufacturer.
 Tested on model: **GTM43007-A6012-F**.

5.3	TABLE: Fault condition tests	P
	Ambient temperature (°C)	25, if no else specified
	Power source for EUT: Manufacturer, model/type, output rating	See appended table 1.5.1

Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
---------------	-------	--------------------	-----------	--------	------------------	-------------

Tested on model: GTM43007-A6036-F

Output	O/L	264	6 hrs.	F1, F2	0.44→ 0.63	Total testing duration: 6 hours. While output overload to 7.6 A, No damage, no hazards. Damaged: Temp: T1 coil = 116.5°C, T1 core = 115.8°C, U2 Body = 87.9°C, Ambient = 25.0°C Max. Voltage: 12.18 Vdc
--------	-----	-----	--------	--------	---------------	---

Supplementary information:

1. S: Short-circuited; O: Open-circuited; O/L: Overloaded; B: Blocked; L: Locked.
2. Observation: The observations during and after fault condition tests.
3. Damaged: Which component (components) damaged during the fault condition test.
4. Temp: The maximum temperature of transformer (T1) winding.
5. Max. Voltage: The maximum accessible voltage of DC output terminal during the fault condition test.
6. During fault condition where the fuse opened, the test was repeated ten times to ensure no hazard.
7. During fault condition where the fuse did not open, the test was repeated three times.
8. The electric strength test performed after fault condition test and see appended table 5.2 for detailed test conditions.

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

<p>ATTACHMENT TO TEST REPORT IEC 60950-1 (AUSTRALIA/NEW ZEALAND) NATIONAL DIFFERENCES (Information technology equipment-safety)</p>
<p>Differences according to : AS/NZS 60950.1:2015</p>
<p>Attachment Form No. : AU_NZ_ND_IEC60950_1F</p>
<p>Attachment Originator : JAS-ANZ</p>
<p>Master Attachment..... : 2017-06</p>
<p>Copyright © 2017 IEC System for Conformity Testing and Certification of Electrical Equipment (IECEE), Geneva, Switzerland. All rights reserved.</p>

National Differences			
Appendix ZZ	Variations to IEC 60950-1, Ed 2.2 (2013) for Australia and New Zealand		
1.2	DEFINITIONS		
	After definition 'PERSON, SERVICE', insert the following new definition: POTENTIAL IGNITION SOURCE.....1.2.12.201		P
1.5	COMPONENTS		
1.5.1	<ol style="list-style-type: none"> 1 First paragraph, insert the following text after the words 'IEC component standard: or the relevant Australian/New Zealand Standard 2 In the Note, insert the following text after the word standard: or the relevant Australian/New Zealand Standard 3 ... Second paragraph, delete the words 'without further evaluation' 		P
1.5.2	<ol style="list-style-type: none"> 1 First paragraph, insert the following text after the word 'standard' or an Australian/New Zealand Standard 2.... First paragraph, second dash item, second line, insert the following text after the word 'standard' or an Australian/New Zealand Standard 3...First paragraph, second dash item, last line, insert the following text after the word 'standard': or an Australian/New Zealand Standard 		P
1.7	MARKINGS AND INSTRUCTIONS		

IEC 60950-1															
Clause	Requirement + Test	Result - Remark	Verdict												
1.7.1.3	<i>Delete</i> existing text and <i>replace</i> with the following: Graphical symbols placed on the equipment as a requirement of this standard, shall be in accordance with IEC 60417 or ISO 3864-2 or ISO 7000, if available. In the absence of suitable symbols, the manufacturer may design specific graphical symbols. Symbols as required by this standard placed on the equipment shall be explained in the user manual		P												
2.9	ELECTRICAL INSULATION														
2.9.2	Variation Second paragraph, <i>delete</i> the word 'designated'		P												
3.2.5	POWER SUPPLY CORDS														
Table 3B	Variation 1. <i>Delete</i> the first four rows and replace with the following: <table border="1" data-bbox="379 949 991 1200"> <tbody> <tr> <td>Over 0.2 up to and including 3</td> <td>0.5^a</td> <td>18 [0.8]</td> </tr> <tr> <td>Over 3 up to and including 7.5</td> <td>0.75</td> <td>16 [1.3]</td> </tr> <tr> <td>Over 7.5 up to including 10</td> <td>(0.75)^b 1.00</td> <td>16 [1.3]</td> </tr> <tr> <td>Over 10 up to including 16</td> <td>(1.0)^c 1.5</td> <td>14 [2]</td> </tr> </tbody> </table>	Over 0.2 up to and including 3	0.5 ^a	18 [0.8]	Over 3 up to and including 7.5	0.75	16 [1.3]	Over 7.5 up to including 10	(0.75) ^b 1.00	16 [1.3]	Over 10 up to including 16	(1.0) ^c 1.5	14 [2]		N/A
Over 0.2 up to and including 3	0.5 ^a	18 [0.8]													
Over 3 up to and including 7.5	0.75	16 [1.3]													
Over 7.5 up to including 10	(0.75) ^b 1.00	16 [1.3]													
Over 10 up to including 16	(1.0) ^c 1.5	14 [2]													
	2. ... <i>Delete</i> NOTE 1 and renumber existing NOTE 2 as 'NOTE'		N/A												
	3. <i>Delete</i> Footnote ^a and replace with the following: ^a 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 to the plug does not exceed 2 m (0,5 mm ² three-core supply flexible cords are not permitted; see AS/NZS 3191)		N/A												
4.3	DESIGN AND CONSTRUCTION														
4.3.6	Variation <i>Delete</i> the third paragraph and <i>replace</i> with the following:		N/A												
	<i>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</i>		N/A												
4.3.8	Addition Eighth paragraph, <i>insert</i> the following new note after the first dash item:		N/A												

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	NOTE 6.201 In cases where the voltage source is provided by power from an unassociated power source, consideration should be given to the effects of possible single fault conditions in the unassociated equipment. If the power source is unknown then it should be assumed that the maximum limit of SELV may be applied to the source input under assumed single fault conditions in the source when assessing the charging circuit in the equipment under test.		N/A
4.3.13.5.1	Variation <i>Delete</i> the first paragraph and <i>replace</i> with the following: Except as permitted below, equipment shall be classified and labelled according to IEC 60825-1 or AS/NZS 60825.1, IEC 60825-2 or AS/NZS 60825.2 and IEC 60825-12, as applicable		N/A
	Third paragraph, first sentence, after 'IEC 60825-1', <i>insert</i> the following text: or AS/NZS 60825.1		N/A
	Fourth paragraph, after 'IEC 60825-1', <i>insert</i> the following text: or AS/NZS 60825.1		N/A
4.7	RESISTANCE TO FIRE		
4.7	Addition At the end of Clause 4.7, <i>insert</i> the following text: For alternate tests refer to Clause 4.7.201		P
6	CONNECTION TO TELECOMMUNICATIONS NETWORKS		
6.2.2	Variation For Australia only, <i>delete</i> the first paragraph and Note, and <i>replace</i> with the following: In Australia only, compliance with 6.2.2 shall be checked by the tests of both 6.2.2.1 and 6.2.2.2		N/A
6.2.2.1	Variation For Australia only, <i>delete</i> the first paragraph including the Notes, and <i>replace</i> with the following: In Australia only, the electrical separation is subjected to 10 impulses of alternating polarity, using the impulse test generator Reference 1 of Table N.1. The interval between successive impulses is 60 s and the initial voltage, U _c , is: (i)..... for 6.2.1 a): 7.0 kV for hand-held telephones and for headsets and 2.5 kV for other equipment; and (ii) For 6.2.1 b) and 6.2.1 c): 1.5kV		N/A
	NOTE 201 The 7 kV impulse simulates lightning surges on typical rural and semi-rural network lines		N/A
	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		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
6.2.2.2	Variation For Australia only, delete the second paragraph including the Note, and replace with the following: In Australia only, the a.c. test voltage is (i) for 6.2.1 a): 3kV; and (ii) for 6.2.1b) and 6.2.1c): 1.5kV		N/A
	NOTE 201 Where there are capacitors across the insulation under test, it is recommended that d.c. test voltages are used.		N/A
	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.		N/A
7	CONNECTION TO CABLE DISTRIBUTION NETWORK		
7.3	Addition <i>Add</i> the following before the first paragraph: Equipment providing functions that fall only within the scope of AS/NZS 60065 and that incorporate a PSTN interface, are not required to comply with this Clause where the only ports provided on the equipment, in addition to a coaxial cable connection and a PSTN interface, are audio or video ports and analogue or data ports not intended to be used for telecommunications purposes		N/A
Annex P	Addition <i>Add</i> the following Normative References: AS/NZS 3191, Electric flexible cords AS/NZS 3112, Approval and test specification—Plugs and socket-outlets		--

<i>Special national conditions (if any)</i>			
1.2.12	FLAMMABILITY		
1.2.12.15	Addition After Clause 1.2.12.15, <i>insert</i> the following new clause:		P
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		P
	Such a faulty contact or interruption in an electrical connection includes those which may occur in CONDUCTIVE PATTERNS on PRINTED BOARDS		P
	NOTE 1 An electronic protection circuit may be used to prevent such a fault from becoming a POTENTIAL IGNITION SOURCE		P
	NOTE 2 This definition is from AS/NZS 60065:2012, Clause 2.8.11.		P
4	PHYSICAL REQUIREMENTS		

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.1	Addition After Clause 4.1, <i>insert</i> new Clause 4.1.201 as follows:		P
4.1.201	Display devices used for television purposes Display devices which may be used for television purposes, with a mass of 7 kg or more, shall comply with the requirements for stability and mechanical hazards, including the additional stability requirements for television receivers, specified in AS/NZS 60065		N/A
4.3	DESIGN AND CONSTRUCTION		
4.3.8	Addition After Clause 4.3.8, <i>add</i> the following new clause as follows		P
4.3.8.201	Products containing coin/button cell batteries and batteries designated R1 The requirements of AS/NZS 60065:2012 Amendment 1:2015, Clause 14.10.201 apply for this Clause.		N/A
4.7	RESISTANCE TO FIRE		
4.7.3.6	Addition After Clause 4.7.3.6, <i>add</i> new clauses as follows:		P
4.7.201	Resistance to fire—Alternative tests	The equipment complies with the requirements of IEC 60950-1. Alternative test methods are not considered.	N/A
4.7.201.1	General Parts of non-metallic material shall be resistant to ignition and spread of fire. This requirement does not apply to decorative trims, knobs and other parts unlikely to be ignited or to propagate flames from inside the apparatus, or the following: a) Components that are contained in an enclosure having a flammability category of V-0 according to AS/NZS 60695.11.10 and having openings only for the connecting wires filling the openings completely, and for ventilation not exceeding 1 mm in width regardless of length.		N/A
	b) The following parts which would contribute negligible fuel to a fire: – small mechanical parts, the mass of which does not exceed 4 g, such as mounting parts, gears, cams, belts and bearings; – small electrical components, such as capacitors with a volume not exceeding 1,750 mm ³ , integrated circuits, transistors and optocoupler packages, if these components are mounted on material of flammability category V-1, or better, according to AS/NZS 60695.11.10		N/A
	NOTE In considering how to minimize propagation of fire and what 'small parts' are, account should be taken of the cumulative effect of small parts adjacent to each other for the possible effect of propagating the fire from one part to another		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	<i>Compliance shall be checked by the tests of 4.7.201.2, 4.7.201.3, 4.7.201.4 and 4.7.201.5</i>		N/A
	<i>For the base material of printed boards, compliance shall be checked by the test of 4.7.201.5</i>		N/A
	The tests shall be carried out on parts of non-metallic material which have been removed from the apparatus. When the glow-wire test is carried out, the parts shall be placed in the same orientation as they would be in normal use. These tests are not carried out on internal wiring		N/A
4.7.201.2	<p>Testing of non-metallic materials</p> <p>Parts of non-metallic material shall be subject to the glow-wire test of AS/NZS 60695.2.11 which shall be carried out at 550°C</p> <p>Parts for which the glow-wire test cannot be carried out, such as those made of soft or foamy material, shall meet the requirements specified in ISO 9772 for category FH-3 material. The glow-wire test shall be not carried out on parts of material classified at least FH-3 according to ISO 9772 provided that the sample tested was not thicker than the relevant part.</p>		N/A
4.7.201.3	<p>Testing of insulating materials</p> <p>Parts of insulating material supporting POTENTIAL IGNITION SOURCES shall be subject to the glow-wire test of AS/NZS 60695.2.11 which shall be carried out at 750°C.</p> <p>The test shall be also carried out on other parts of insulating material which are within a distance of 3 mm of the connection.</p> <p>NOTE Contacts in components such as switch contacts are considered to be connections.</p> <p>For parts which withstand the glow-wire test but produce a flame, other parts above the connection within the envelope of a vertical cylinder having a diameter of 20 mm and a height of 50 mm shall be subjected to the needle-flame test. However, parts shielded by a barrier which meets the needle-flame test shall not be tested.</p> <p>The needle-flame test shall be made in accordance with AS/NZS 60695.11.5 with the following modifications:</p>		N/A

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

Clause of AS/NZS 60695.11.5	Change		N/A
9 Test procedure			
9.2 Application of Needle-flame	<i>Delete</i> the first and second paragraphs and <i>replace</i> with the following: The specimen shall be arranged so that the flame can be applied to a vertical or horizontal edge as shown in the examples of Figure 1. If possible the flame shall be applied at least 10 mm from a corner. The duration of application of the test flame shall be 30 s ± 1 s		
9.3 Number of test specimens	<i>Delete</i> existing text and <i>replace</i> with the following: The test shall be made on one specimen. If the specimen does not withstand the test, the test may be repeated on two further specimens, both of which shall withstand the test.		
11 Evaluation of test results	<i>Delete</i> existing text and <i>replace</i> with the following: The duration of burning (tb) shall not exceed 30 s. However, for printed circuit boards, it shall not exceed 15s		
	The needle-flame test shall not be carried out on parts of material classified as V-0 or V-1 according to AS/NZS 60695.11.10, provided that the sample tested was not thicker than the relevant part		N/A


IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.7.201.4	<p>Testing in the event of non-extinguishing material</p> <p>If parts, other than enclosures, do not withstand the glow wire tests of 4.7.201.3 by failure to extinguish within 30 s after the removal of the glow-wire tip, the needle-flame test detailed in 4.7.201.3 shall be made on all parts of non-metallic material which are within a distance of 50 mm or which are likely to be impinged upon by flame during the tests of 4.7.201.3. Parts shielded by a separate barrier which meets the needle-flame test need not be tested.</p>		N/A
	<p>NOTE 1 If the enclosure does not withstand the glow-wire test the equipment is considered to have failed to meet the requirements of Clause 4.7.201 without the need for consequential testing.</p>		N/A
	<p>NOTE 2 If other parts do not withstand the glow-wire test due to ignition of the tissue paper and if this indicates that burning or glowing particles can fall onto an external surface underneath the equipment, the equipment is considered to have failed to meet the requirements of Clause 4.7.201 without the need for consequential testing</p>		N/A
	<p>NOTE 3 Parts likely to be impinged upon by the flame are considered to be those within the envelope of a vertical cylinder having a radius of 10 mm and a height equal to the height of the flame, positioned above the point of the material supporting, in contact with, or in close proximity to, connections.</p>		N/A
4.7.201.5	<p>Testing of printed boards</p> <p>The base material of printed boards shall be subjected to the needle-flame test of Clause 4.7.201.3. The flame shall be applied to the edge of the board where the heat sink effect is lowest when the board is positioned as in normal use. The flame shall not be applied to an edge, consisting of broken perforations, unless the edge is less than 3 mm from a POTENTIAL IGNITION SOURCE.</p>		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>The test is not carried out if the</p> <ul style="list-style-type: none"> – Printed board does not carry any POTENTIAL IGNITION SOURCE; – Base material of printed boards, on which the available apparent power at a connection exceeds 15 VA operating at a voltage exceeding 50 V and equal or less than 400 V (peak) a.c. or d.c. under normal operating conditions, is of flammability category V-1 or better according to AS/NZS 60695.11.10, or the printed boards are protected by an enclosure meeting the flammability category V-0 according to AS/NZS 60695.11.10, or made of metal, having openings only for connecting wires which fill the openings completely; or – Base material of printed boards, on which the available apparatus power at a connection exceeds 15 VA operating at a voltage exceeding 400 V (peak) a.c. or d.c. under normal operating conditions, and base material of printed boards supporting spark gaps which provides protection against overvoltages, is of flammability category V-0 according to AS/NZS 60695.11.10 or the printed boards are contained in a metal enclosure, having openings only for connecting wires which fill the openings completely <p><i>Compliance shall be determined using the smallest thickness of the material.</i></p>		N/A
	<p>NOTE Available apparent power is the maximum apparent power which can be drawn from the supplying circuit through a resistive load whose value is chosen to maximise the apparent power for more than 2 m when the circuit supplied is disconnected.</p>		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
APPENDIX	National differences for Japan IEC 60950-1, 2 nd edition + Am 1:2009		—
1.2.4.1	Add the following new notes. Note: Even if the equipment is designed as Class I, the equipment is regarded as Class 0I equipment when 2-pin adaptor with earthing lead wire or cord set having 2-pin plug with earthing lead wire is provided or recommended.		N/A
1.2.4.3A	Add the following new clause. 1.2.4.3A CLASS 0I EQUIPMENT Equipment having attachment plug without earthing blade, where protection against electric shock is achieved by: - using BASIC INSULATION, and - providing either of the following a) or b) in order to connect those conductive parts that might assume a HAZARDOUS VOLTAGES in the event of BASIC INSULATION fault to the PROTECTIVE EARTHING CONDUCTOR in the building wiring. a) Provision of 2-pin plug with earthing lead including the condition of that 2-pin adaptor with earthing lead wire is provided or recommended. b) Provision of an independent earthing terminal, when 2-core mains cord (without earthing conductor) is used. Note – Class 0I equipment may have a part constructed with Double Insulation or Reinforced Insulation.		N/A
1.3.2	Add the following notes after first paragraph: Note 1 Transportable or similar equipment that are relocated frequently for intended usage should not be designed as Class I or Class 0I equipment unless it is intended to be installed by service personnel. Note 2 Considering wiring circumstance in Japan, equipment intended to be installed where the provision for earthing connection is unlikely should not be designed as Class I or Class 0I equipment unless it is intended to be installed by service personnel.		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.5.1	<p>Replace the first paragraph with the follows:</p> <p>Where safety is involved, components shall comply either with the requirements of this standard, with the safety aspects of the relevant JIS component standard, or IEC component standards in case there is no applicable JIS component standard is available. However, a component that falls within the scope of METI Ministerial ordinance No. 85 is properly used in accordance with its marked ratings, requirements of 1.5.4, 2.8.7 and 3.2.5 apply, and in addition, a cord connector of power supply cord set mating with appliance inlet complying with the standard sheet of IEC 60320-1 or JIS C 8283-1, shall comply with relevant standard sheet of IEC 60320-1 or JIS C 8283-1.</p> <p>Replace Note 1 with the following:</p> <p>Note 1 JIS or an IEC component standard is considered relevant only if the component in question clearly falls within its scope.</p>		P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.5.2	<p>Replace the first sentence in the first dashed paragraph with the following:</p> <ul style="list-style-type: none"> - a component that has been demonstrated to comply with a JIS component standard harmonized with the relevant IEC component standard, or where such JIS component standard is not available, a component that has been demonstrated to comply with the relevant IEC component standard shall be checked for correct application and use in accordance with its rating. <p>Replace the first sentence in the third dashed paragraph as follows:</p> <ul style="list-style-type: none"> - where no relevant IEC component standard or JIS component standard harmonized with the relevant IEC component standard exists, or where components are used in circuits not in accordance with their specified rating, the components shall be tested under the conditions occurring in the equipment. <p>Add the following Note 2 after the third dashed paragraph as follows:</p> <p>Note 2 See 1.7.5A when Type C.14 appliance coupler rated 10 A per JIS C 8283-1 is used with an equipment rated not more than 125 V and rated more than 10 A.</p>		P
1.5.9.1	<p>Add the following in the last of NOTE 1.</p> <p>Gas discharge tube connected in series with VDR may be used.</p>		N/A
1.5.9.4	<p>Add following paragraph after the NOTE:</p> <p>Gas discharge tube that complies with the requirements of functional insulation may be connected in series with VDR for bridging basic insulation.</p>		N/A
1.7.1.1	<p>Replace the last paragraph with the following:</p> <p>Where symbols are used, they shall conform to JIS S 0101, ISO 7000 or IEC 60417 where appropriate symbols exist.</p>		P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.1.2	<p>Replace first and second dashed paragraphs with the followings:</p> <ul style="list-style-type: none"> - manufacturer's or responsible company's name or trade-mark or identification mark; - manufacturer's or responsible company's model identification or type reference; 	(see copy of the marking plate)	P
1.7.2.1	<p>Add the following after 2nd paragraph.</p> <p>Instruction or equipment marking regarding safety shall be written in Japanese unless otherwise permitted in this standard.</p>		P
1.7.5A	<p>Add the following new clause. after 1.7.5</p> <p>1.7.5A Appliance Coupler</p> <p>If appliance coupler according to IEC60320-1, C.14(rated current: 10A)is used in equipment whose rated voltage is less than 125V and rated current is over 10A, the following instruction or equivalent shall be described in the user instruction.</p> <p>“Use only designated cord set attached in this equipment”</p>	It shall be checked for proper certificate of these countries' certification before products are sold in the market.	N/A
1.7.2.5	<p>Replace the last sentence with the following:</p> <p>An acceptable marking for an electric shock hazard</p> <p> is (6.2.4 of JIS S 0101).</p>		N/A
1.7.5	<p>Replace 2nd paragraph with the following.</p> <p>Socket-outlets conforming to JISC8303 are examples of standard power supply outlets.</p>		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.5A	<p>Add the following new clause. after 1.7.5</p> <p>1.7.5A Appliance Coupler If appliance coupler according to IEC60320-1, C.14(rated current: 10A) is used in equipment whose rated voltage is less than 125V and rated current is over 10A, the following instruction or equivalent shall be described in the user instruction. “ Use only designated cord set attached in this equipment”</p> <p><i>Example in Japanese:</i> “この機器に同こん(細)した指定の電源コードセットだけを使用して下さい。”</p> <p>If appliance coupler is used for connection to the mains and if the cord set is not provided within the package for the equipment, suitable information regarding to the cord set shall be described in the user instruction</p> <p><i>Note Since the combination of appliance inlet with earthing pin and two-core cord set(without earthing conductor) is special, the cord set should be attached in the equipment and the use instruction should provide the information that the cord set is exclusively used with the equipment and not allowed to use with other equipments.</i></p>		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.14A	<p>Add the following new clause. after 1.7.14</p> <p>1.7.14A Marking for CLASS 0I EQUIPMENT For CLASS 0I EQUIPMENT, the following or equivalent instructions shall be marked.</p> <p>- the following instruction shall be marked on the mains plug or on the visible place of the main body</p> <p>“Provide an earthing connection”</p> <p><i>Example in Japanese:</i> “必ず接地接続を行ってください。”</p> <p>- the following marking shall be marked on the visible place of the main body or written in the operating instructions:</p> <p>“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.”</p> <p><i>Example in Japanese:</i> 接地接続は必ず、電源プラグを電源につなぐ前に行ってください。 また、接地接続を外す場合は、必ず電源プラグを電源から切り離してから行ってください。</p>		N/A
1.7.14B	<p>Add the following new clause after 1.7.14A</p> <p>1.7.14B Protective earthing conductor used for CLASS 0I equipment</p> <p>For CLASS 0I equipment provided with independent main protective earthing terminal, where the cord for the protective earthing connection is not provided within the package for the equipment, the suitable information for the protective earthing connection shall be provided in the instruction manual. (See 2.6.3.2)</p>		N/A


IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.1.1.1	<p>Replace item b) of 2.1.1.1 with the following.</p> <p>b) A test with the test finger, Figure 2A, which shall not contact parts described above when applied to openings in the ENCLOSURES after removal of parts that can be detached by an OPERATOR, including fuseholders, and with OPERATOR access doors and covers open. It is permitted to leave lamps in place for this test. Connectors that can be separated by an OPERATOR, other than those complying with JIS C 8303 or Appendix 4 of the interpretation of Ministerial Ordinance on stipulating technical requirements for the Electrical Appliance or JIS C 8285 or IEC 60309 series or JIS C 8283 series or IEC 60320 series, shall also be tested during disconnection.</p>		N/A
2.5	<p>Replacement: "IEC 60730-1" replaced with "JIS C 9730-1".</p>		N/A
2.6.3.2	<p>Add the following after 1st paragraph.</p> <p>However where the single core conductor is used for protective earthing lead or earthing cord for CLASS 0I equipment, either of the following condition shall be met.</p> <ul style="list-style-type: none"> - Use of annealed copper wire with 1 .6mm diameter or corrosion-inhibiting metal wire equivalent or higher in term of strength and thickness.. - Single core cord or single core cable with 1.25mm² or more cross-sectional area 		N/A
2.6.3.5	<p>Add the following after 1st paragraph.</p> <p>However this requirement does not apply to internal conductor of the cord set that is covered by the sheath of mains cord and is the formed together with mains plug and appliance connector.</p>		N/A
2.6.4.2	<p>Replace 1st paragraph with the following.</p> <p>Equipment required to have protective earthing shall have a main protective earthing terminal. For equipment with a DETACHABLE POWER SUPPLY CORD, the earthing terminal in the appliance inlet is regarded as the main protective earthing terminal. However, for CLASS 0I EQUIPMENT provided with the separate main protective earthing terminal other than appliance inlet, the separate main protective earthing terminal may be treated as mains protective earthing terminal.</p>		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.6.5.4	Replace 1st sentence with the following. Protective earthing connections of CLASS I EQUIPMENT shall make earlier and break later than the supply connections in each of the following:		N/A
2.6.5.8A	Add the following new clause. after 2.6.5.8 2.6.5.8A Earthing of CLASS 0I EQUIPMENT Plugs with a lead wire for earthing shall not be used for equipment having a rated voltage exceeding 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 location where easily visible.		N/A
2.7.6	Replace "ISO 3864, No. 5036" with "6.2.4 of JIS S 0101".		N/A
2.9.3 Table 2H	Replace the following columns in Table 2H. The right column for BASIC, TNV-2, -earthed TNV-1 circuit is replaced with "B13 ^{d), f)} " The right column for SUPPLEMENTARY, TNV CIRCUIT, -basic-insulated conductive part earthed circuit is replaced with "S2"		P
2.10.3.1	Replace 8th paragraph with the following The above minimum CREEPAGE DISTANCES for connectors do not apply to connectors that comply with JIS C 8285, IEC60309 series, JIS C 8283 series, IEC60320 series, JIS C 8303, and Appendix 4 of the interpretation of Ministerial Ordinance on stipulating technical requirements for the Electrical Appliance in which dimension is comply with JIS C 8283 series, JIS C 8303 or IEC 60309-2.		P
2.10.4.3	Replace 6th paragraph with the following The above minimum CREEPAGE DISTANCE for connectors do not apply to connectors that comply with JIS C 8285, IEC60309 series, JIS C 8283 series, IEC60320 series, JIS C 8303, and Appendix 4 of the interpretation of Ministerial Ordinance on stipulating technical requirements for the Electrical Appliance in which dimension is comply with JIS C 8283 series, JIS C 8303 or IEC 60309-2.		P
2.10.9	Replace "1.4.5" in 3rd paragraph with "1.4.12".		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.3	<p>Add the following after 3rd paragraph.</p> <p>Table 3A applies when cables complying JIS C 3662 or JIS C 3663 are used. In case of other cables, cable entries shall be so designed that a conduit suitable for the cable used can be fitted.</p>		N/A
3.2.4	<p>Add the following as fourth dash.</p> <p>- be so constructed that mechanical stress shall not transmit to the soldering part of inlet terminal during insertion or removal of the connector except that the body of the inlet is secured and is secured not only soldering.</p>		N/A
3.2.5.1	<p>Add the following to the last of first dashed paragraph.</p> <p>Or mains cords shall be of the sheathed type complying with Appendix 1 of the interpretation of Ministerial Ordinance on stipulating technical requirements for the Electrical Appliance.</p> <p>Add the following to the last of second dashed paragraph.</p> <p>Or mains cords shall be of the sheathed type complying with Appendix 1 of the interpretation of Ministerial Ordinance on stipulating technical requirements for the Electrical Appliance.</p> <p>Replace 3rd dashed paragraph with the following.</p> <p>- include, for equipment required to have protective earthing, a PROTECTIVE EARTHING CONDUCTOR having green-and-yellow insulation. However this requirement does not apply to internal conductor of the cord set that is covered by the sheath of mains cord and is the formed together with mains plug and appliance connector. For CLASS 0I EQUIPMENT provided with the separate main protective earthing terminal, the protective conductor may not need to provide in mains cord. ; and</p> <p>Replace 4th dashed paragraph with the following.</p> <p>- The cord complying with JIS C 3662-5 or JIS C 3663-4 has conductors with cross-sectional areas not less than those specified in Table 3B. Other cord shall comply with relevant wiring regulation.</p>		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
3.3.4 Table 3D	Add the following note to Table 3D: Note For cables other than those complying with JIS C 3662 or JIS C 3663, terminals shall be suitable for the size of the intended cables.		N/A
3.3.7	Add the following after the first sentence: This requirement is not applicable to the external earthing terminal of Class 0I equipment.		N/A
4.3.4	Add the following after the first sentence: This requirement also applies to those connections in Class 0I equipment, where CLEARANCE or CREEPAGE DISTANCES over BASIC INSULATION would be reduced to less than the values specified in 2.10.		N/A
4.3.5	Replace 1st dashed paragraph with the following. Within a manufacturer's unit or system, plugs and sockets likely to be used by the OPERATOR or by a SERVICE PERSON shall not be employed in a manner likely to create a hazard due to misconnection. In particular, connectors complying with IEC 60320/JIS C 8283 series or JIS C 8303 or JIS C 8358 shall not be used for SELV CIRCUITS or TNV CIRCUITS. Keying, location or, in the case of connectors accessible only to a SERVICE PERSON, clear markings are permitted to meet the requirement.		N/A
4.4.2	Replace the paragraph with the following: HOUSEHOLD AND HOME/OFFICE DOCUMENT/MEDIA SHREDDERS shall also comply with Annex JA.		N/A
4.5.3	Add the following note to footnote b) of Table 4B: NOTE: In case no data for the material is available, Appendix 4, 4. (1). b. 3 of the Interpretation on the Ministerial Ordinance stipulating Technical Specifications for Electrical Appliances (Commerce and Distribution Policy Group No. 3:2008/04/19) may apply.		N/A
5.1.3	Add a note after the first paragraph as follows: Note – Attention should be drawn to that majority of three-phase power system in Japan is of delta connection, and therefore, in that case, test is conducted using the test circuit from IEC 60990, figure 13.		N/A

IEC 60950-1																																							
Clause	Requirement + Test	Result - Remark	Verdict																																				
5.1.6	<p>Replace Table 5A. as follows</p> <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. ^a</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 ^b</td> <td>0,25</td> <td>-</td> </tr> <tr> <td rowspan="2">HAND-HELD</td> <td>Main protective earthing terminal of CLASS I EQUIPMENT</td> <td>0,75</td> <td>-</td> </tr> <tr> <td>Main protective earthing terminal of CLASS 0 I EQUIPMENT</td> <td>0,5</td> <td>-</td> </tr> <tr> <td rowspan="2">MOVABLE (other than HAND_HELD, but including TRANSPORTABLE EQUIPMENT)</td> <td>Main protective earthing terminal of CLASS I EQUIPMENT</td> <td>3,5</td> <td>-</td> </tr> <tr> <td>Main protective earthing terminal of CLASS 0 I EQUIPMENT</td> <td>1,0</td> <td>-</td> </tr> <tr> <td rowspan="2">STATIONARY, PLUGGABLE TYPE A</td> <td>Main protective earthing terminal of CLASS I EQUIPMENT</td> <td>3,5</td> <td>-</td> </tr> <tr> <td>Main protective earthing terminal of CLASS 0 I EQUIPMENT</td> <td>1,0</td> <td>-</td> </tr> <tr> <td rowspan="2">ALL other STATIONARY EQUIPMENT - not subject to the conditions of 5.1.7 - subject to the conditions of 5.1.7</td> <td>Main protective earthing terminal of CLASS I EQUIPMENT</td> <td>3,5 -</td> <td>- 5 % of input current</td> </tr> <tr> <td>Main protective earthing terminal of CLASS 0 I EQUIPMENT</td> <td>1,0 -</td> <td>- -</td> </tr> </tbody> </table> <p>a If peak values of TOUCH CURRENT are measured, the maximum values are obtained by multiplying the r.m.s.values in the table by 1,414. b Some unearthed accessible parts are covered in 1.5.6 and 1.5.7 and the requirements of 2.4 apply. These may be different from those in 5.1.6.</p>	Type of equipment	Terminal A of measuring instrument connected to:	Maximum TOUCH CURRENT mA r.m.s. ^a	Maximum PROTECTIVE CONDUCTOR CURRENT	ALL equipment	Accessible parts and circuits not connected to protective earth ^b	0,25	-	HAND-HELD	Main protective earthing terminal of CLASS I EQUIPMENT	0,75	-	Main protective earthing terminal of CLASS 0 I EQUIPMENT	0,5	-	MOVABLE (other than HAND_HELD, but including TRANSPORTABLE EQUIPMENT)	Main protective earthing terminal of CLASS I EQUIPMENT	3,5	-	Main protective earthing terminal of CLASS 0 I EQUIPMENT	1,0	-	STATIONARY, PLUGGABLE TYPE A	Main protective earthing terminal of CLASS I EQUIPMENT	3,5	-	Main protective earthing terminal of CLASS 0 I EQUIPMENT	1,0	-	ALL other STATIONARY EQUIPMENT - not subject to the conditions of 5.1.7 - subject to the conditions of 5.1.7	Main protective earthing terminal of CLASS I EQUIPMENT	3,5 -	- 5 % of input current	Main protective earthing terminal of CLASS 0 I EQUIPMENT	1,0 -	- -		P
Type of equipment	Terminal A of measuring instrument connected to:	Maximum TOUCH CURRENT mA r.m.s. ^a	Maximum PROTECTIVE CONDUCTOR CURRENT																																				
ALL equipment	Accessible parts and circuits not connected to protective earth ^b	0,25	-																																				
HAND-HELD	Main protective earthing terminal of CLASS I EQUIPMENT	0,75	-																																				
	Main protective earthing terminal of CLASS 0 I EQUIPMENT	0,5	-																																				
MOVABLE (other than HAND_HELD, but including TRANSPORTABLE EQUIPMENT)	Main protective earthing terminal of CLASS I EQUIPMENT	3,5	-																																				
	Main protective earthing terminal of CLASS 0 I EQUIPMENT	1,0	-																																				
STATIONARY, PLUGGABLE TYPE A	Main protective earthing terminal of CLASS I EQUIPMENT	3,5	-																																				
	Main protective earthing terminal of CLASS 0 I EQUIPMENT	1,0	-																																				
ALL other STATIONARY EQUIPMENT - not subject to the conditions of 5.1.7 - subject to the conditions of 5.1.7	Main protective earthing terminal of CLASS I EQUIPMENT	3,5 -	- 5 % of input current																																				
	Main protective earthing terminal of CLASS 0 I EQUIPMENT	1,0 -	- -																																				
Annex G	<p>Replace the paragraph before Table G.2 with the following</p> <p>The above minimum CREEPAGE DISTANCES for connectors do not apply to connectors that comply with JIS C 8285, IEC60309 series, JIS C 8283 series, IEC60320 series, JIS C 8303, and Appendix 4 of the interpretation of Ministerial Ordinance on stipulating technical requirements for the Electrical Appliance in which dimension is comply with JIS C 8283 series, JIS C 8303 or IEC 60309-2.</p>		N/A																																				
Annex P	Delete the issued date of IEC61051-2.		-																																				
Annex Q	<p>Replace the terms in b) as follows:</p> <p>From “Maximum continuous voltage” to “Maximum continuously applied voltage” From “The maximum continuous a.c. voltage” to “The maximum continuously applied a.c. voltage”</p>		N/A																																				

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
Annex U U.2.4	Add the following new note after NOTE: NOTE 2 Considering environmental issue, "(for example 1,1,1 -trichloroethane)" was deleted from the above paragraph.		P
Annex V V.1	Replace "3.1.2" in the first line of V.1 with "312" in first line.		P
Annex W W.1	Replace third sentence in the first paragraph with the following: Floating circuits can exist in CLASS I EQUIPMENT, CLASS 0I EQUIPMENT and earthed circuits can exist in CLASS II EQUIPMENT.		N/A
Annex CC CC.2	Replace second dashed paragraph with the following: - 10 000 cycles of turning enable on and off with a ferrite-core inductor having (0.35 ± 0.1) mH inductance at 1 kHz and a d.c. resistance not exceeding 1 Ω connected in the output circuit; Replace fifth dashed paragraph with the following: - 10 000 cycles of turning the input pin on and off with a ferrite-core inductor having (0.35 ± 0.1) mH inductance at 1 kHz and a d.c. resistance not exceeding 1Ω connected to the input supply and return while keeping enable active and shorting the output;		N/A
CC.3	Add note at end of CC.3: Note: The fast blow fuse should be the one complying with IEC 60127-2.		N/A
Annex EE	Replace Annex EE with the following Annex JA. Annex JA (normative) Document shredding machines HOUSEHOLD AND HOME/OFFICE DOCUMENT/MEDIA SHREDDERS shall additionally comply with the requirements of this annex. JA.1 Markings and instructions The symbol  (JIS S 0101:2000, 6.2.1) and the following precautions for use shall be marked on readily visible part adjacent to document feed opening. The marking shall be clearly legible, permanent, and easily discernible; - that use by an infants/children may cause a hazard of injury etc.;		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	<ul style="list-style-type: none"> - that a hand can be drawn into the mechanical section for shredding when touching the document-slot; - that clothing can be drawn into the mechanical section for shredding when touching the document-slot; - that hairs can be drawn into the mechanical section for shredding when touching the document-slot; - in case of equipment incorporating a commutator motor, that equipment may catch fire or explode by spraying of flammable gas. <p>JA.2 Inadvertent reactivation Any safety interlock that can be operated by means of the test finger, Figure JA.1, is considered to be likely to cause inadvertent reactivation of the hazard.</p> <p>Compliance is checked by inspection and, where necessary, by a test with the test finger, Figure JA.1.</p> <p>JA.3 Disconnection from the mains supply Document shredding machines shall incorporate an isolating switch complying with sub-clause 3.4.2 as the device disconnecting the power of hazardous moving parts. For this switch, two-position (single-use) switch or multi-position (multifunction) switch (e.g., slide switch) may be used. If two-position switch, the positions for "ON" and "OFF" shall be indicated in accordance with sub-clause 1.7.8. If multi-position switch, the position for "OFF" shall be indicated in accordance with sub-clause 1.7.8 and other positions shall be indicated with proper terms or symbols.</p> <p>Compliance is checked by inspection.</p> <p>JA.4 Protection against hazardous moving parts Any warning shall not be used instead of the structure for preventing access to hazardous moving parts. Document shredding machines shall comply with the following requirements.</p> <p>Insert the test finger, Figure JA.1, into all openings in MECHANICAL ENCLOSURES without applying appreciable force. It shall not be possible to touch hazardous moving parts with the test finger. This consideration applies to all sides of MECHANICAL ENCLOSURES when the equipment is mounted as</p>		

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

intended. Before testing with the test finger, remove the parts detachable without a tool.

Insert the wedge-probe, Figure JA.2, into the document-slot. And, against all directions of openings, if straight-cutting type, a force of 45 N shall apply to the probe, and 90 N if cross-cutting type. In this case, the weight of the probe is to be factored into the overall applied force. Before testing with the wedge-probe, remove the parts detachable without a tool. It shall not be possible to touch any hazardous moving parts, including the shredding roller or the mechanical section for shedding, with the probe.

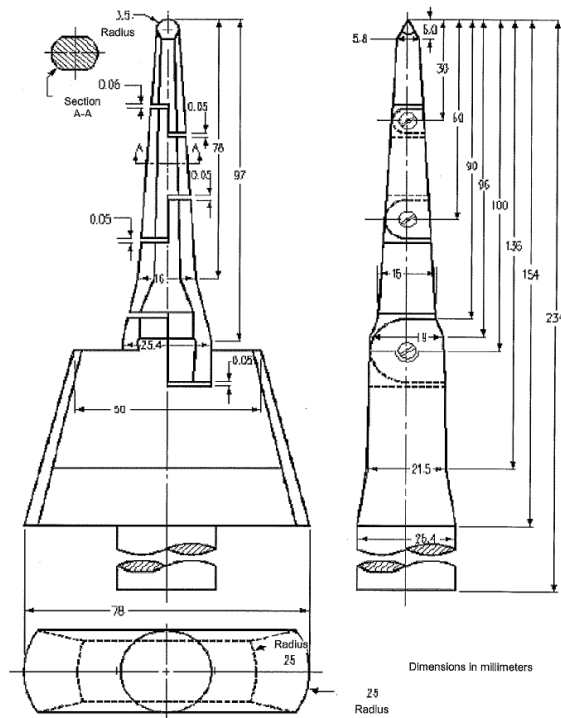


Figure JA.1 Test finger

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

The drawing shows a wedge-shaped probe with a total length of 300 mm. Key dimensions include a 12 mm wide tip, a 30 mm section with a 60 mm length, and a 100 mm section. A circular detail shows a 2 mm diameter hole. A side view shows a 50 mm height and a 20 mm wide base. A bottom view shows a 2 mm thickness at the tip and a rounded end. Notes specify that diameters are in millimeters and that the tip is rounded for rotation about a hinge pin.

(Details of the tip of wedge)

Distance from the tip (mm)	Thickness of probe (mm)
0	2
12	4
180	24

Note 1 - The thickness of the probe varies linearly, with slope changes at the respective points shown in the table.
 Note 2 - The allowable dimensional tolerance of the probe is +/- 0.127 mm.

Figure JA.2 Wedge-probe