

UL TEST REPORT AND PROCEDURE

Standard:	UL 60950-1, 2nd Edition, 2011-12-19 (Information Technology Equipment - Safety - Part 1: General Requirements) CSA C22.2 No. 60950-1-07, 2nd Edition, 2011-12 (Information Technology Equipment - Safety - Part 1: General Requirements)
Certification Type:	Component Recognition
CCN:	QQGQ2, QQGQ8 (Power Supplies for Information Technology Equipment Including Electrical Business Equipment)
Product:	Switching Power Adapter
Model:	GTM91120-WWVV-X.X-AB series, GTM91128LI1CEL, GTM91128LI2CEL and GTM91128LI3CEL M can be "M" or "-" for market identification and not related to safety WW is the rated output wattage designation, with a maximum value of "30"; VV is the standard rated output voltage designation, with a maximum value of "48"; -X.X denotes the optional deviation, subtracted or added from standard output voltage in 0.1 volt increments or blank to indicate the no voltage different; A:F is Open Frame, P is Encapsulated; when A=F, B can be Blank or W , W means class II equipment, Blank means class I; when A=P, B can be 2 or 3, 2 means class II equipment, 3 means class I equipment.
Rating:	Input: 100-240 Vac, 1.5 A, 50-60 Hz Refer to Enclosure ID: 7-01 for detail of output rating. Model GTM91128LI1CEL Output: 4.2V, 1000mA; Model GTM91128LI2CEL Output: 8.4V, 1000mA; Model GTM91128LI3CEL Output: 12.6V, 1000mA;
Applicant Name and Address:	GLOBTEK (HONG KONG) LTD UNIT 1402, BENSON TOWER 74 HUNG TO RD KWUN TONG KOWLOON HONG KONG

This is to certify that representative samples of the products covered by this Test Report have been investigated in accordance with the above referenced Standards. The products have been found to comply with the requirements covering the category and the products are judged to be eligible for Follow-Up Service under the indicated Test Procedure. The manufacturer is authorized to use the UL Mark on such products which comply with this Test Report and any other applicable requirements of UL LLC ('UL') in accordance with the Follow-Up Service Agreement. Only those products which properly bear the UL Mark are considered as being covered by UL's Follow-Up Service under the indicated Test Procedure.

The applicant is authorized to reproduce the referenced Test Report provided it is reproduced in its entirety.

Issue Date: 2012-02-29
2012-07-31

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Report Reference #

E341351-A56-UL

UL authorizes the applicant to reproduce the latest pages of the referenced Test Report consisting of the first page of the Specific Technical Criteria through to the end of the Conditions of Acceptability.

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL.

Prepared by: Steve Chiu

Reviewed by: Brian Wong

Supporting Documentation

The following documents located at the beginning of this Procedure supplement the requirements of this Test Report:

- A. Authorization - The Authorization page may include additional Factory Identification Code markings.
- B. Generic Inspection Instructions -
 - i. Part AC details important information which may be applicable to products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of this Test Report.
 - ii. Part AE details any requirements which may be applicable to all products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of each Test Report.
 - iii. Part AF details the requirements for the UL Certification Mark which is not controlled by the technical standard used to investigate these products. Products are permitted to bear only the Certification Mark(s) corresponding to the countries for which it is certified, as indicated in each Test Report.

Product Description

Electronic components mounted to PWB with Open Frame or Encapsulated construction and Class I or Class II construction

For models GTM91128LI1CEL, GTM91128LI2CEL, GTM91128LI3CEL, Electronic components mounted to PWB, and housed in plastic enclosure, with Class II appliance inlet, which intended to provide electrical power to battery pack used in Information Technology equipment. Models GTM91128LI1CEL, GTM91128LI2CEL and GTM91128LI3CEL is External/Desktop model.

Model Differences

Model GTM91120-WWVV-X.X-PB is identical to Model GTM91120-WWVV-X.X-FB except the Open Frame construction and Encapsulation Construction and slight different in PWB layout.

Models GTM91128LI1CEL, GTM91128LI2CEL, GTM91128LI3CEL are identical to Model GTM91120-WWVV-X.X-F2 except employ additional output battery charging circuit, output rating, Plastic enclosure and PWB Size.

Technical Considerations

- Equipment mobility : for building-in
- Connection to the mains : Should be determined in end system
- Operating condition : continuous
- Access location : operator accessible
- Over voltage category (OVC) : OVC II
- Mains supply tolerance (%) or absolute mains supply values : +10%, -10% (Manufacturer declared)
- Tested for IT power systems : No

- IT testing, phase-phase voltage (V) : N/A
- Class of equipment : Class I and Class II (double insulated)
- Considered current rating of protective device as part of the building installation (A) : 20 A
- Pollution degree (PD) : PD 2
- IP protection class : IP X0
- Altitude of operation (m) : Up to 3000m
- Altitude of test laboratory (m) : Up to 3000m
- Mass of equipment (kg) : <8 kg
- The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of: 40
- The means of connection to the mains supply is: Should be determined at end system.
- The product is intended for use on the following power systems: TN
- The equipment disconnect device is considered to be: Should be determined at end system
- The following accessible locations (with circuit/schematic designation) are within a limited current circuit: CY1
- The following circuit locations (with circuit/schematic designation) were investigated as a limited power source (LPS): Output
- The following are available from the Applicant upon request: Installation (Safety) Instructions / Manual

Engineering Conditions of Acceptability

For use only in or with complete equipment where the acceptability of the combination is determined by UL LLC. When installed in an end-product, consideration must be given to the following:

- The following Production-Line tests are conducted for this product: Electric Strength
- The end-product Electric Strength Test is to be based upon a maximum working voltage of: Primary-

SELV: 242 Vrms, 630Vpk

- The following secondary output circuits are SELV: All output
- The following secondary output circuits are at non-hazardous energy levels: All Output
- The following secondary output circuits are Limited Current Circuits: Secondary Pin of CY1
- The following secondary output circuits are supplied by a Limited Power Source: All Output
- The maximum investigated branch circuit rating is: 20 A
- The investigated Pollution Degree is: 2
- The following magnetic devices (e.g. transformers or inductor) are provided with an OBJ2 insulation system with the indicated rating greater than Class A (105°C): T1 Class B
- The following end-product enclosures are required: Mechanical, Fire, Electrical
- During testing, the testing battery used is rated 3.7V 1000mAh, 1S-1P, (for model GTM91128LI1CEL) and 11.1V, 1000mAh, 3S-1P (for GTM91128LI3CEL). The suitability of the battery rating and configuration should be considered at end system.
- The field connection of the output wire of models GTM91128LI1CEL, GTM91128LI2CEL and GTM91128LI3CEL is not evaluated.

Additional Information

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

The Corresponding CB report is E341351-A57

The following test is considered necessary for models GTM91128LI1CEL, GTM91128LI2CEL, GTM91128LI3CEL and is conducted in Test Record of E341350-A3:
Maximum Output Voltage, Current and Volt Ampere Measurement, Input Test, Drop Test, Heating Test and Power Supply Output Short-Circuit/Overload Test.

Project 11CA60635 (Revision)

- Add Models GTM91128LI1CEL, GTM91128LI2CEL, GTM91128LI3CEL
- Add alternate Transformer by Shan Dong Boam Electric Co Ltd

10CA43389

- Add class I model GTM91120-WVVV-X.X-P3 series and GTM91120-WVVV-X.X-F series

Additional Standards

The product fulfills the requirements of: N/A

Markings and instructions

Clause Title	Marking or Instruction Details
Warning to service personnel	"CAUTION: Double pole/neutral fusing"
LPS	Optional provides with marked "LPS" or "Limited Power Source".
1.7.1 Power rating - Ratings	Ratings (voltage, frequency/dc, current)
1.7.1 Power rating - Company identification	Listee's or Recognized company's name, Trade Name, Trademark or File Number
1.7.1 Power rating - Model	Model Number
1.7.1 Power rating - Class II symbol	Symbol for Class II construction
1.7.6 Fuses - Rating	Rated current and voltage and type located on or adjacent to fuse or fuseholder.

Special Instructions to UL Representative

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Production-Line Testing Requirements						
<u>Electric Strength Test Special Constructions - Refer to Generic Inspection Instructions, Part AC for further information.</u>						
Model	Component	Removable Parts	Test probe location	V rms	V dc	Test Time, s
All models	T1	N/A	Primary to Secondary	300 0	--	1
<u>Earthing Continuity Test Exemptions - This test is not required for the following models:</u>						
All						
<u>Electric Strength Test Exemptions - This test is not required for the following models:</u>						
N/A						
<u>Electric Strength Test Component Exemptions - The following solid-state components may be disconnected from the remainder of the circuitry during the performance of this test:</u>						
N/A						
<u>Sample and Test Specifics for Follow-Up Tests at UL</u>						
Model	Component	Material	Test	Sample(s)	Test Specifics	
N/A						

1.5.1	TABLE: list of critical components					Pass
Object/part or Description	Manufacturer/ trademark	type/model	technical data	Product Category CCN(s)	Required Marks of Conformity	Supplement ID
Enclosure (For models GTM91128LI1CEL, GTM91128LI2CEL and GTM91128LI3CEL only)	Sabic Innovative Plastics B V	HF500R(f2)	Rated min V-0, 125 degC Overall 45.3 by 100.3 by 35.2 mm, min 2.0mm thickness.	QMFZ2 (E45329)	UL	
Enclosure (For Encapsulation only)	Sabic Innovative Plastics B V	HF500R(f2)	Rated min V-0, 125 degC Overall 97 by 46 by 32 mm, min 2.0mm thickness.	QMFZ2 (E45329)	UL	
Appliance –Inlet (For Class II models GTM91128LI1CEL, GTM91128LI2CEL and GTM91128LI3CEL only)	Zhejiang Leci Electronics Co Ltd	DB-8	Rated 5A, 250Vac, 105 degC	AXUT2/8 (E302229)	UL	
Appliance –Inlet – Alternate (For Class II models GTM91128LI1CEL, GTM91128LI2CEL and GTM91128LI3CEL only)	Kunshan DLK Electronics Technology Co Ltd	CDJ-2	Rated 2.5A, 250Vac, 125 degC	AXUT2/8 (E317189)	UL	
Appliance –Inlet – Alternate (For Class II models GTM91128LI1CEL, GTM91128LI2CEL and GTM91128LI3CEL only)	Shenzhen Delikang Electronics Technology Co Ltd	CDJ-2	Rated 2.5A, 250Vac, 125 degC	AXUT2/8 (E217394)	UL	
Appliance –Inlet – Alternate (For Class II models GTM91128LI1CEL, GTM91128LI2CEL and GTM91128LI3CEL only)	Rich Bay Co Ltd	R-201SN90	Rated 2.5A, 250Vac, 105 degC	AXUT2/8 (E184638)	UL	
Appliance –Inlet –	Sun Fair Electric Wire	S-01	Rated 2.5A, 250Vac.	AXUT2/8	UL	

Alternate (For Class II models GTM91128LI1CEL, GTM91128LI2CEL and GTM91128LI3CEL only)	& Cable (HK) Co Ltd			(E226643)		
Appliance –Inlet – Alternate (For Class II models GTM91128LI1CEL, GTM91128LI2CEL and GTM91128LI3CEL only)	Inalways Corp	0721 series	Rated 2.5A, 250Vac, 105 degC	AXUT2/8 (E94191)	UL	
Appliance –Inlet – Alternate (For Class II models GTM91128LI1CEL, GTM91128LI2CEL and GTM91128LI3CEL only)	Tecx-unions Technology Corp	SO-222 series	Rated 2.5A, 250Vac, 75 degC	AXUT2 (E220004)	UL	
Appliance –Inlet – Alternate (For Class II models GTM91128LI1CEL, GTM91128LI2CEL and GTM91128LI3CEL only)	Supercom Electronics Co Ltd	SC-12S series	Rated 2.5A, 250Vac, 75 degC	AXUT2/8 (E152973)	UL	
Input connector (For Open Frame Construction only)	Various	Various	Rated min 240Vac, 1.5A, 85 degC.	ECBT2/8	UL,cUL	
Input Lead Wire (For Encapsulation construction only)	Various	Various	Rated min 300V, 105DegC, min 18AWG, VW-1.	AVLV2/8	UL, cUL	
Fuse (F1) and (F2)	Walter Electronic Co Ltd.	ICP	Rated 3.15A, 250Vac, provided with tubing (YDPU2/8), marked with VW-1, min 300V, 105 degC.	JDYX/7 (E56092)	UL, cUL	
Fuse (F1) and (F2) - Alternate	Zhong Shan Lanbao Electrical Co Ltd	RTI-10	Rated 3.15A, 250Vac, provided with tubing (YDPU2/8), marked with VW-1, min 300V, 105	JDYX/7 (E213695)	UL, cUL	

			degC.			
Fuse (F1) and (F2) - Alternate	Various	Various	Rated 3.15A, 250Vac, provided with tubing (YDPU2/8), marked with VW-1, min 300V, 105 degC.	JDYX/7	UL, cUL	
Protective bonding conductor (Encapsulation Type)	Various	Various	Yellow and Green in Color, provided at the secondary side. Rated min 300V, 105 degC, VW-1, min 18 AWG	AVLV2	UL	
Varistor (MOV)	Thinking Electronic Industrial Co Ltd	TVR10471, TVR07471, TVR14471	Rated 300Vac.	UL, cUL, VDE,	-	
Varistor (MOV) - Alternate (Optional)	Joyin Co Ltd	7N471K, 10N471K, 14N471K	Rated 300Vac.	UL, cUL, VDE,	-	
Varistor (MOV) - Alternate (Optional)	Centra Science Corp	CNR07D471K, CNR10D471K, CNR14D471K	Rated 300Vac.	UL, cUL, VDE,	-	
Varistor (MOV) - Alternate (Optional)	Success Electronics Co Ltd	SVR07D471K, SVR10D471K, SVR14D471K	Rated 300Vac.	UL, cUL, VDE,	-	
Varistor (MOV) - Alternate (Optional)	Brightking (Shenzhen) Co Ltd	471KD07, 471KD10, 471KD14	Rated 300Vac.	UL, cUL, VDE,	-	
Varistor (MOV) - Alternate (Optional)	Walsin Technology Corp.	VZ07D471K, VZ10D471K, VZ14D471K	Rated 300Vac.	UL, cUL, VDE,	-	
Varistor (MOV) - Alternate (Optional)	Lien Shun Electronics Co Ltd	07D471K, 10D471K, 14D471K	Rated 300Vac.	UL, cUL, VDE,	-	
Bleeder Resistors (R1A, R1B)	--	--	Min. 0.499M ohm , 1/4W	-	-	
X-Capacitor (CX1) (Optional)	Cheng Tung Industrial Co., Ltd.	CTX	Rated 0.47uF max. Min 250Vac, 100degC, marked X1 or X2 (meets IEC 60384-14)	FOWX2/8 (E193049)	UL, cUL	
X-Capacitor	Winday Electronic	MPX	Rated 0.47uF max. Min	FOWX2/8 (UL, cUL	

(CX1) - Alternate (Optional)	Industrial Co Ltd		250Vac, 100degC, marked X1 or X2 (meets IEC 60384-14)	E302125)		
X-Capacitor (CX1) - Alternate (Optional)	ULTRA TECH XIPHI ENTERPRISE CO LTD	HQX	Rated 0.47uF max. Min 250Vac, 100degC, marked X1 or X2 (meets IEC 60384-14)	FOWX2/8 (E183780)	UL, cUL	
X-Capacitor (CX1) - Alternate (Optional)	Okaya Electric Industries Co. LTD	RE series	Rated 0.47uF max. Min 250Vac, 100degC, marked X1 or X2 (meets IEC 60384-14)	FOWX2/8 (E47474)	UL, cUL	
X-Capacitor (CX1) - Alternate (Optional)	VISHAY Capacitors Belgium N V	F1772	Rated 0.47uF max. Min 250Vac, 100degC, marked X1 or X2 (meets IEC 60384-14)	FOWX2 (E100682)	UL, cUL	
X-Capacitor (CX1) - Alternate (Optional)	Tenta Electric Industrial Co Ltd	MEX	Rated 0.47uF max. Min 250Vac, 100degC, marked X1 or X2 (meets IEC 60384-14)	FOKY2/8 (E186475)	UL, cUL	
X-Capacitor (CX1) - Alternate (Optional)	DAIN ELECTRONICS CO LTD	MEX, MPX, NPX	Rated 0.47uF max. Min 250Vac, 100degC, marked X1 or X2 (meets IEC 60384-14)	FOWX2/8 (E147776)	UL, cUL	
X-Capacitor (CX1) - Alternate (Optional)	Sinhua Electronics (Huzhou) Co. Ltd.	MPX	Rated 0.47uF max. Min 250Vac, 100degC, marked X1 or X2 (meets IEC 60384-14)	FOWX2/8 (E237560)	UL, cUL	
X-Capacitor (CX1) - Alternate (Optional)	FOSHAN SHUNDE CHUANG GE ELECTRONIC INDUSTRIAL CO LTD	MKP-X2	Rated 0.47uF max. Min 250Vac, 100degC, marked X1 or X2 (meets IEC 60384-14)	FOWX2/8 (E308832)	UL, cUL	
X-Capacitor (CX1) - Alternate (Optional)	SHUN DE DAHUA ELECTRIC CO LTD	HD	Rated 0.47uF max. Min 250Vac, 100degC, marked X1 or X2 (meets IEC 60384-14)	FOWX2/8 (E227157)	UL, cUL	
Y-Capacitors (CY1) – (Optional)	WELSON INDUSTRIAL CO LTD	WD	Rated 2200pF max. Min 250V, 105degC, marked with Y1 or Y2 (meets IEC 60384-14)	FOWX2/8 (E104572)	UL	
Y-Capacitors (CY1) – Alternate (Optional)	SUCCESS ELECTRONICS CO LTD	SE, SB	Rated 2200pF max. Min 250V, 105degC, marked with Y1 or Y2 (meets IEC 60384-14)	FOWX2 (E114280)	--	
Y-Capacitors (CY1) - Alternate (Optional)	TDK CORP	CD	Rated 2200pF max. Min 250V, 105degC, marked with Y1 or	FOWX2 (E37861)	UL	

			Y2 (meets IEC 60384-14)			
Y-Capacitors (CY1) - Alternate (Optional)	WALSIN TECHNOLOGY CORP	AH	Rated 2200pF max. Min 250V, 105degC, marked with Y1 or Y2 (meets IEC 60384-14)	FOWX2/8 (E146544)	UL	
Y-Capacitors (CY1) - Alternate (Optional)	JYA-NAY CO LTD	JN	Rated 2200pF max. Min 250V, 105degC, marked with Y1 or Y2 (meets IEC 60384-14)	FOWX2/8 (E201384)	UL	
Y-Capacitors (CY1) - Alternate (Optional)	KUNSHAN WANSHENG ELECTRONICS CO LTD	CT7	Rated 2200pF max. Min 250V, 105degC, marked with Y1 or Y2 (meets IEC 60384-14)	FOWX2/8 (E249006)	UL	
Y-Capacitors (CY1) - Alternate (Optional)	MURATA MFG CO LTD	KX	Rated 2200pF max. Min 250V, 105degC, marked with Y1 or Y2 (meets IEC 60384-14)	FOWX2 (E37921)	UL	
Line Filter (LF1)	Various	Various	Open-type construction with ferrite core. Copper wire (OBMW2), rated min. 130degC. See illustration *ID4-12 for details.	-	-	
Diode (D1, D2, D3, D4)	--	--	Rated min 2A, min 1000V	-	-	
Transistor (Q1)	--	--	Rated min 7A, min600V	-	-	
Electrolytic Capacitor (C2)	--	--	Rated 68uF, Min 400V, fully tubed by tubing (YDPU2) 120 degC, VW-1.	-	-	
Transformer (T1)	Top Nation Electronic Ltd	GT-3005001 for 5-7.5V GT-3009001 for 7.6V to 10.5V GT-3012001 for 10.6V to 14.5V GT-3015001 for 14.6V to 19.5V GT-3024001 for	(OBJY2) Class B insulation system, (E212542), designated M7A90. Open type construction with ferrite core. See enclosed illustration ID 4-01 to 06 for construction.	-	-	

		19.6V to 24V GT-3048001 for 24.1V to 48V				
Primary winding used in T1	Various	Various	Polyurethane with or without overcoat Polyamide, 130 degC min. MW -75 Type.	OBMW2	UL	
Secondary winding used in T1	Furukawa Electric Co Ltd.	TEX-E	Rated 130 degC Triple insulated wire	OBJT2 (E206440)	UL	
Bobbin used in T1	HITACHI CHEMICAL CO LTD	CP-J-8800	Phenolic, rated V-0, 150 degC, min 0.39 mm thick	QMFZ2 (E42956)	UL	
Insulation Tape used in T1	3M COMPANY ELECTRICAL MARKETS DIV (EMD)	1350F	Rated 130 degC	OANZ2 (E17385)	UL	
Insulation Tape wrapping over transformer	3M COMPANY ELECTRICAL MARKETS DIV (EMD)	1350F	Rated 130 degC. Min. two layers, minimum 22 mm width.	OANZ2 (E17385)	UL	
Varnish used in T1	KYOCERA CHEMICAL CORP	TVB2180T++	Rated 130 degC	OBOR2 (E83702)	UL	
Varnish used in T1 - Alternate	HITACHI CHEMICAL CO LTD	WP-2952F-2G	Rated 130 degC	OBOR2 (E72979)	UL	
Tube	NIKKAN INDUSTRIES CO LTD	S-693-600	Rated 600V, 200 Degree C,	UZFT2 (E72406)	UL	
Transformer (T1) - Alternate	XEPEX ELECTRONIC CO LTD	GT-3005001 for 5-7.5V GT-3009001 for 7.6V to 10.5V GT-3012001 for 10.6V to 14.5V GT-3015001 for 14.6V to 19.5V GT-3024001 for	(OBJY2) Class B insulation system, (E140166), designated SPB-6. Open type construction with ferrite core. See enclosed illustration ID 4-01 to 06 for construction.	-	-	

		19.6V to 24V GT-3048001 for 24.1V to 48V				
Primary winding used in T1	Various	Various	Polyurethane with or without overcoat Polyamide, 130 degC min. MW -75 or MW28 Type.	OBMW2	UL	
Secondary winding used in T1	Furukawa Electric Co Ltd.	TEX-E	Rated 130 degC Triple insulated wire	OBJT2 (E206440)	UL	
Bobbin used in T1	HITACHI CHEMICAL CO LTD	CP-J-8800	Phenolic, rated V-0, 150 degC, min 0.39 mm thick	QMFZ2 (E42956)	UL	
Insulation Tape used in T1	3M COMPANY ELECTRICAL MARKETS DIV (EMD)	1350F(#), (#) is replaced with suffix B-1, B-2, W-1, W-2, Y-1 or Y-2	Rated 130 degC	OANZ2 (E17385)	UL	
Insulation Tape wrapping over transformer	3M COMPANY ELECTRICAL MARKETS DIV (EMD)	1350F(#), (#) is replaced with suffix B-1, B-2, W-1, W-2, Y-1 or Y-2	Rated 130 degC. Min. two layers, minimum 22 mm width.	OANZ2 (E17385)	UL	
Varnish used in T1	KYOCERA CHEMICAL CORP	TVB2180T++	Rated 130 degC	OBOR2 (E83702)	UL	
Varnish used in T1 - Alternate	HITACHI CHEMICAL CO LTD	WP-2952F-2G	Rated 130 degC	OBOR2 (E72979)	UL	
Tube	NIKKAN INDUSTRIES CO LTD	E651U-1	Rated 300V, 200 Degree C, VW-1	YDTU2 (E88468)	UL	
Tube - Alternate	NIKKAN INDUSTRIES CO LTD	S-693-600	Rated 600V, 200 Degree C, VW-1	UZFT2 (E72406)	UL	
Tube - Alternate	NIKKAN INDUSTRIES CO LTD	S-693F-1, S-693VF-1	Rated 300V, 200 Degree C, VW-1	UZIQ2 (E55258)	UL	
Tube - Alternate	SUMITOMO ELECTRIC FINE POLYMER INC	Sumitube F2	Rated 600V, 125 degC, VW-1	YDPU2 (E48762)	UL	

Tube - Alternate	ZEUS INDUSTRIAL PRODUCTS INC	TFE-TW-300	Rated 300V, 200degC, VW-1	YDPU2 (E64007)	UL	
Tube - Alternate	FURUKAWA ELECTRIC CO LTD	PI-Tube	Rated 600V, 200degC, VW-1.	YDTU2 (E58401)	UL	
Transformer (T1) - Alternate	Shan Dong Boam Electric Co Ltd	GT-3005001 for 5-7.5V GT-3009001 for 7.6V to 10.5V GT-3012001 for 10.6V to 14.5V GT-3015001 for 14.6V to 19.5V GT-3024001 for 19.6V to 24V GT-3048001 for 24.1V to 48V	(OBJY2) Class B insulation system, (E252329), designated BOAM. Open type construction with ferrite core. See enclosed illustration ID ID 4-01 to 06 for construction.	-	-	
Primary winding used in T1	Various	Various	Polyurethane with or without overcoat Polyamide, 130 degC min. MW -75 or MW28 Type.	OBMW2	UL	
Secondary winding used in T1	Furukawa Electric Co Ltd.	TEX-E	Rated 130 degC Triple insulated wire	OBJT2 (E206440)	UL	
Bobbin used in T1	HITACHI CHEMICAL CO LTD	CP-J-8800	Phenolic, rated V-0, 150 degC, min 0.39 mm thick	QMFZ2 (E42956)	UL	
Insulation Tape used in T1	3M COMPANY ELECTRICAL MARKETS DIV (EMD)	1350F(#), (#) is replaced with suffix B-1, B-2, W-1, W-2, Y-1 or Y-2	Rated 130 degC	OANZ2 (E17385)	UL	
Insulation Tape wrapping over transformer	3M COMPANY ELECTRICAL MARKETS DIV (EMD)	1350F(#), (#) is replaced with suffix B-1, B-2, W-1, W-2, Y-1 or Y-2	Rated 130 degC. Min. two layers, minimum 22 mm width.	OANZ2 (E17385)	UL93947	
Varnish used in T1	Noroo Paint & Coatings Co Ltd	DVB-2085	Rated 130 degC	OBOR2 (E93947)	UL	
Tube in T1	Great Holding	TFL	Rated 150V, 200 Degree C,	YDTU2	UL	

	Industrial Co Ltd		VW-1	(E156256)		
Opto-couplers (U2)	Everlight Electronics Co Ltd	EL817	Rated min. 110degC Provide min 5000Vac isolation test voltage rating.	FPQU2/8 (E214129)	UL	
Opto-couplers (U2) - Alternate	Cosmo Electroncis Corp	K1010, KP1010	Rated min. 115degC Provide min 5000Vac isolation test voltage rating.	FPQU2/8 (E169586)	UL	
Opto-couplers (U2) - Alternate	Lite-On Technology Corp.	LTV-357T LTV357 LTV-817	Rated min. 115degC Provide min 3750Vac isolation test voltage rating.	FPQU2/8 (E113898)	UL	
Opto-couplers (U2) - Alternate	Fairchild	H11A817B, F0D817B	Rated min. 110degC Provide min 5000Vac isolation test voltage rating.	FPQU2/8 (E90700)	UL	
Heat Sink - HS1	--	--	Aluminium. Shaped as shown. Secured to PWB by soldering. See ID4-08 for dimension	-	-	
Heat Sink – HS2	--	--	Aluminium. Shaped as shown. Secured to PWB by soldering. See ID 4-09 for dimension	-	-	
Insulation tape provided on HS2	3M COMPANY ELECTRICAL MARKETS DIV (EMD)	1350T-1	Provided between primary component C2, C7, CX1, U2 and HS3. Overall measured 42 mm by 18 mm.	OANZ2 (E17385)	UL	
Insulation tape provided on HS2 - Alternate	3M COMPANY ELECTRICAL MARKETS DIV (EMD)	1350F, 1350-1	Provided between primary component C2, C7, CX1, U2 and HS2. Overall measured 42 mm by 18 mm. Min 3 layers or 3 wraps.	OANZ2 (E17385)	UL	
Insulation tape provided on HS2 - Alternate	Symbio Inc	35660Y	Provided between primary component C2, C7, CX1, U2 and HS2. Overall measured 42 mm by 18 mm. Min 3 layers or	OANZ2 (E50292)	UL	

			3 wraps.			
Insulation tape provided on HS2 - Alternate	Shang Shu Liang Yi Tape Industry Co Ltd	LY-20	Provided between primary component C2, C7, CX1, U2 and HS3. Overall measured 42 mm by 18 mm. Min 3 layers or 3 wraps.	OANZ2 (E246820)	UL	
Output connector (For Open Frame Construction only)	Various	Various	Constructed with thermoplastic (QMFZ2), rated min V-2.	--	--	
Label (Provided if not using engraving or silkscreen)	Various	Various	Rated min 80 deg C Suitable for use on the plastic enclosure	PGDQ2	UL	
PWB	Various	Various	Min V-1, 130 degC.	ZPMV2/8	UL	
Encapsulation (For Encapsulation construction only)	Dong Guan Shi Pai Hua Chuang Material FTY	808A/B	Rated V-0, 90 degC.	QMFZ2	UL	

Enclosures

<u>Type</u>	<u>Supplement Id</u>	<u>Description</u>
Photographs	3-01	Top View of GTM91120-WWVV-X.X-P2 series
Photographs	3-02	PWB component side of Model GTM91120-WWVV-X.X-P2 series
Photographs	3-03	PWB Layout side of Model GTM91120-WWVV-X.X-P2 series
Photographs	3-04	PWB Component Side of Model GTM91120-WWVV-X.X-FW series
Photographs	3-05	PWB Layout side of Model GTM91120-WWVV-X.X-FW series
Photographs	3-09	PWB component side of Model GTM91120-WWVV-X.X-P3 series
Photographs	3-10	PWB Component Side of Model GTM91120-WWVV-X.X-F series
Photographs	3-11	Overall view of models GTM91128LI1CEL, GTM91128LI2CEL and GTM91128LI3CEL
Photographs	3-12	Internal view of models GTM91128LI1CEL, GTM91128LI2CEL and GTM91128LI3CEL
Photographs	3-13	PWB Component Side of models GTM91128LI1CEL, GTM91128LI2CEL and GTM91128LI3CEL
Photographs	3-14	PWB Layout Side of models GTM91128LI1CEL, GTM91128LI2CEL and GTM91128LI3CEL
Diagrams	4-01	T1 Specification GT-3005001 for 5-7.5V
Diagrams	4-02	T1 Specification GT-3009001 for 7.6V to 10.5V
Diagrams	4-03	T1 Specification GT-3012001 for 10.6V to 14.5V
Diagrams	4-04	T1 Specification GT-3015001 for 14.6V to 19.5V
Diagrams	4-05	T1 Specification GT-3024001 for 19.6V to 24V
Diagrams	4-06	T1 Specification GT-3048001 for 24.1V to 48V
Diagrams	4-07	Choke LF1 specification
Diagrams	4-08	Heatsink 1 dimension drawing
Diagrams	4-09	Heatsink 2 dimension drawing
Schematics + PWB	5-01	PWB Layout of Encapsulation Construction
Schematics + PWB	5-03	PWB Layout of Open Frame Construction
Manuals		
Miscellaneous	7-01	Output List

Test Record No. 1

The Manufacturer has submitted Switching Power Adapter models GTM91120-WWVV-X.X-P2 series and GTM91120-WWVV-X.X-FW series for testing and evaluation. Tests conducted on models GTM91120-3007.5-2.5-P2, GTM91120-3048-P2, GTM91120-3007.5-2.5-FW, GTM91120-3048-FW are considered representative of whole series of model GTM91120-WWVV-X.X-P2 and GTM91120-WWVV-X.X-FW respectively. Some tests conducted on model GTM91120-WWVV-X.X-P2 is considered cover on model GTM91120-WWVV-X.X-FW

Only Limited Tests is considered necessary for model GTM91120-WWVV-X.X-P2 and GTM91120-WWVV-X.X-FW due to other tests refer to Test Record of E341350-A3.

The following tests were conducted:

Test	Testing Location/Comments
End Product Reference Page	
General Guidelines	
Power Supply Reference Page	
Guide Information Page - Maximum Output Voltage, Current, and Volt Ampere Measurement (1.2.2.1)	UL International Ltd HK
Limited Current Circuit Measurement (2.4.1, 2.4.2)	UL International Ltd HK
Limited Power Source Measurements (2.5)	UL International Ltd HK
Touch Current (Single-Phase; TN/TT System) (5.1, Annex D)	UL International Ltd HK

Test results are valid only for the tested equipment. These tests are considered representative of the products covered by this Test Report. The test methods and results of the above tests have been reviewed and found to be in accordance with the requirements in the Standard(s) referenced at the beginning of this Test Report.

The following tests were waived:

Test	Rationale for Waiving
Input: Single-Phase (1.6.2)	Please refer to Test record of E341350-A3
Durability of Marking (1.7.11)	Please refer to Test record of E341350-A3
Capacitance Discharge (2.1.1.7)	Please refer to Test record of E341350-A3
SELV Reliability Test Including Hazardous Voltage Measurements (2.2.2, 2.2.3, 2.2.4, Part 22 6.1)	Please refer to Test record of E341350-A3
Humidity (2.9.1, 2.9.2, 5.2.2)	Please refer to Test record of E341350-A3
Determination of Working Voltage; Working Voltage Measurement (2.10.2)	Please refer to Test record of E341350-A3
Thin Sheet Material (2.10.5.9, 2.10.5.10, 2.10.5.6)	Please refer to Test record of E341350-A3
Heating (4.5.1, 1.4.12, 1.4.13)	Please refer to Test record of E341350-A3
Ball Pressure (4.5.5, 4.5)	Please refer to Test record of E341350-A3
Electric Strength (5.2.2)	Please refer to Test record of E341350-A3
Component Failure (5.3.1, 5.3.4, 5.3.7)	Please refer to Test record of E341350-A3
Abnormal Operation (5.3.1 - 5.3.9)	Please refer to Test record of E341350-A3
Transformer Abnormal Operation (5.3.3, 5.3.7b, Annex C.1)	Please refer to Test record of E341350-A3
Power Supply Output Short-Circuit/Overload (5.3.7)	Please refer to Test record of E341350-A3

The following supplements are provided as a part of this Test Record. NOTE: These supplements are only available to the Applicant via the CDA system.

Type	Supplement Id	Description
Attachment	2-01	CRD
Datasheet	2-02	Datasheet DS-1
Datasheet	2-03	DS-2

Test Record No. 2

The Manufacturer has submitted Switching Power Adapter models GTM91120-WWVV-X.X-P3 series and GTM91120-WWVV-X.X-F series for testing and evaluation.

Only Limited test is considered necessary for model GTM91120-WWVV-X.X-F series due to identical to previously recognized model GTM91120-WWVV-X.X-F2 series except class I construction.

No test is considered necessary for model GTM91120-WWVV-X.X-P3 series due to the earthing conductor is connected in the secondary side.

The following tests were conducted:

Test	Testing Location/Comments
End Product Reference Page	
General Guidelines	
Power Supply Reference Page	
Humidity (2.9.1, 2.9.2, 5.2.2)	

Test results are valid only for the tested equipment. These tests are considered representative of the products covered by this Test Report. The test methods and results of the above tests have been reviewed and found to be in accordance with the requirements in the Standard(s) referenced at the beginning of this Test Report.

The following supplements are provided as a part of this Test Record. NOTE: These supplements are only available to the Applicant via the CDA system.

Type	Supplement Id	Description
Attachment	2-04	CRD
Datasheet	2-05	datasheet

Test Record No. 3

The Manufacturer has submitted Switching power Adapter models GTM91128LI1CEL, GTM91128LI2CEL and GTM91128LI3CEL for evaluation. No test is considered necessary for models GTM91128LI1CEL, GTM91128LI2CEL and GTM91128LI3CEL due to similar to previously recognized model GTM91120-WVVV-X.X-F2 series, except employ additional output battery charging circuit, output rating and Plastic Enclosure and tests is conducted on same model refer to Test Record of E341350-3A. (Tests include Maximum Output Voltage, Current and Volt Ampere Measurement, Input Test, Drop Test, Heating Test and Power Supply Output Short-Circuit/Overload Test

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1	GENERAL		Pass
1.5	Components		Pass
1.5.1	General		Pass
	Comply with IEC 60950-1 or relevant component standard	(see appended table 1.5.1)	Pass
1.5.2	Evaluation and testing of components	- Components certified to IEC harmonized standard and checked for correct application. - 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. - Components not certified are used in accordance with their ratings and they comply with applicable parts of IEC 60950-1 and the relevant component Standard.	Pass
1.5.3	Thermal controls	There are no thermal controls	N/A
1.5.4	Transformers		Pass
1.5.5	Interconnecting cables	Interconnecting cables comply with the relevant requirements of this standard.	Pass
1.5.6	Capacitors bridging insulation	Accessible conductive parts separated from other parts by DOUBLE or REINFORCED INSULATION bridged by CY1 comply with the requirements for LIMITED CURRENT CIRCUITS.	Pass
1.5.7	Resistors bridging insulation		N/A
1.5.7.1	Resistors bridging functional, basic or supplementary insulation		N/A
1.5.7.2	Resistors bridging double or reinforced insulation between a.c. mains and other circuits		N/A
1.5.7.3	Resistors bridging double or reinforced insulation between a.c. mains and antenna or coaxial cable		N/A
1.5.8	Components in equipment for IT power systems		N/A
1.5.9	Surge suppressors		Pass

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

1.5.9.1	General		Pass
1.5.9.2	Protection of VDRs		Pass
1.5.9.3	Bridging of functional insulation by a VDR		N/A
1.5.9.4	Bridging of basic insulation by a VDR		N/A
1.5.9.5	Bridging of supplementary, double or reinforced insulation by a VDR		N/A

1.6	Power interface		Pass
1.6.1	AC power distribution systems	AC power distribution systems are classify as TN	Pass
1.6.2	Input current	(see appended table 1.6.2) The steady state input current of the equipment did not exceed the RATED CURRENT by more than 10% under NORMAL LOAD.	Pass
1.6.3	Voltage limit of hand-held equipment	The unit is not a hand-held equipment.	N/A
1.6.4	Neutral conductor	Neutral is insulated from earth with basic insulation for Class I Equipment	Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7	Marking and instructions		Pass
1.7.1	Power rating and identification markings	Rating marking readily visible to operator.	Pass
1.7.1.1	Power rating mark		Pass
	Multiple mains supply connections..... :		N/A
	Rated voltage(s) or voltage range(s) (V)..... :	Refer to the Rating information at the beginning of this Test Report.	Pass
	Symbol for nature of supply, for d.c. only..... :		N/A
	Rated frequency or rated frequency range (Hz).... :	Refer to the Rating information at the beginning of this Test Report.	Pass
	Rated current (mA or A)..... :	Refer to the Rating information at the beginning of this Test Report.	Pass
1.7.1.2	Identification markings		Pass
	Manufacturer's name or trademark or identification mark..... :	GLOBTEK (HONG KONG) LTD	Pass
	Model identification or type reference..... :	Refer to the Model information at the beginning of this Test Report.	Pass
	Symbol for Class II equipment only..... :	60417-1-IEC-5172 symbol marked.	Pass
	Other markings and symbols..... :	Other symbols may be used provided that they do not give rise to misunderstanding.	Pass
1.7.2	Safety instructions and marking	Safety instructions in English. Other languages will be provided when submitted for national approval.	Pass
1.7.2.1	General		Pass
1.7.2.2	Disconnect devices		N/A
1.7.2.3	Overcurrent protective device		N/A
1.7.2.4	IT Power distribution systems		N/A
1.7.2.5	Operator access with a tool		N/A
1.7.2.6	Ozone		N/A
1.7.3	Short duty cycles		N/A
1.7.4	Supply voltage adjustment..... :		N/A
	Method and means of adjustment; reference to		N/A

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

	installation instructions		
1.7.5	Power outlets on the equipment.....		N/A
1.7.6	Fuse identification (marking, special fusing characteristics, cross-reference)	Fuse marking provided as follows: F1, F2 T3.15 A/ 250V.	Pass
1.7.7	Wiring terminals		N/A
1.7.7.1	Protective earthing and bonding terminals.....		N/A
1.7.7.2	Terminals for a.c. mains supply conductors		N/A
1.7.7.3	Terminals for d.c. mains supply conductors		N/A
1.7.8	Controls and indicators		N/A
1.7.8.1	Identification, location and marking		N/A
1.7.8.2	Colours	No indicators with colors.	N/A
1.7.8.3	Symbols according to IEC 60417	There are no switches in the equipment.	N/A
1.7.8.4	Markings using figures.....		N/A
1.7.9	Isolation of multiple power sources		N/A
1.7.10	Thermostats and other regulating devices	No thermostats or similar regulating devices.	N/A
1.7.11	Durability	All markings provided on UL Recognized Component labels.	Pass
1.7.12	Removable parts	No removable parts provided.	N/A
1.7.13	Replaceable batteries.....	There are no lithium batteries in the equipment.	N/A
	Language(s)		-
1.7.14	Equipment for restricted access locations.....		N/A

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

2	PROTECTION FROM HAZARDS		Pass
2.1	Protection from electric shock and energy hazards		Pass
2.1.1	Protection in operator access areas		Pass
2.1.1.1	Access to energized parts	Should be considered at end system.	N/A
	Test by inspection..... :		N/A
	Test with test finger (Figure 2A) :		N/A
	Test with test pin (Figure 2B)..... :		N/A
	Test with test probe (Figure 2C) :	No TNV present.	N/A
2.1.1.2	Battery compartments	No Battery compartments.	N/A
2.1.1.3	Access to ELV wiring		N/A
	Working voltage (V _{peak} or V _{rms}); minimum distance through insulation (mm) :		-
2.1.1.4	Access to hazardous voltage circuit wiring	No internal wiring accessible to the user.	N/A
2.1.1.5	Energy hazards :	- The output power do not exceed 240VA	Pass
2.1.1.6	Manual controls	The equipment does not contain any knobs, handles, levers, or the like.	N/A
2.1.1.7	Discharge of capacitors in equipment	No capacitance between line to ground and neutral to ground of the input circuit, no measurement is required.	N/A
	Measured voltage (V); time-constant (s) :		-
2.1.1.8	Energy hazards - d.c. mains supply		N/A
	a) Capacitor connected to the d.c. mains supply .. :		N/A
	b) Internal battery connected to the mains supply :		N/A
2.1.1.9	Audio amplifiers :		N/A
2.1.2	Protection in service access areas	No bare parts operating at HAZARDOUS VOLTAGES in a service access area.	N/A
2.1.3	Protection in restricted access locations		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.2	SELV circuits		Pass
2.2.1	General requirements	42.4V peak or 60 VDC are not exceeded in SELV circuit under normal operation or single fault condition.	Pass
2.2.2	Voltages under normal conditions (V) :	All accessible voltages are less than 42.4 Vp or 60 V dc and are classified as SELV.	Pass
2.2.3	Voltages under fault conditions (V) :	All accessible voltages are less than 42.4 Vp or 60 V dc and are classified as SELV.	Pass
2.2.4	Connection of SELV circuits to other circuits :	- SELV circuits are only connected to other secondary circuits. - SELV circuit and all interconnected circuits separated from primary by double/reinforce insulation. - The SELV circuit does not exceed the SELV limits under normal and fault conditions.	Pass

2.3	TNV circuits		N/A
2.3.1	Limits		N/A
	Type of TNV circuits :		-
2.3.2	Separation from other circuits and from accessible parts		N/A
2.3.2.1	General requirements		N/A
2.3.2.2	Protection by basic insulation		N/A
2.3.2.3	Protection by earthing		N/A
2.3.2.4	Protection by other constructions :		N/A
2.3.3	Separation from hazardous voltages		N/A
	Insulation employed..... :		-
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

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

2.4	Limited current circuits		Pass
2.4.1	General requirements		Pass
2.4.2	Limit values	0.7 mA peak	Pass
	Frequency (Hz)..... :	--	-
	Measured current (mA)..... :	Measured from CY1 to Earth: 0.226	-
	Measured voltage (V)..... :	192V	-
	Measured circuit capacitance (nF or uF)..... :	2200pF	-
2.4.3	Connection of limited current circuits to other circuits		N/A

2.5	Limited power sources		Pass
	a) Inherently limited output		N/A
	b) Impedance limited output		N/A
	c) Regulating network limited output under normal operating and single fault condition	The output comply with table 2B, both under normal operating conditions and after single fault in the regulating network.	Pass
	d) Overcurrent protective device limited output		N/A
	Max. output voltage (V), max. output current (A), max. apparent power (VA)..... :	See Table appended 2.1.1.5 C	-
	Current rating of overcurrent protective device (A) :		-
	Use of integrated circuit (IC) current limiters..... :		-

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

2.6	Provisions for earthing and bonding		Pass
2.6.1	Protective earthing		Pass
2.6.2	Functional earthing		N/A
2.6.3	Protective earthing and protective bonding conductors		N/A
2.6.3.1	General		N/A
2.6.3.2	Size of protective earthing conductors	Protective earthing conductor not provided	N/A
	Rated current (A), cross-sectional area (mm ²), AWG		-
2.6.3.3	Size of protective bonding conductors	No accessible earthed part and the protective bonding do not provide earthing connection to other equipment	N/A
	Rated current (A), cross-sectional area (mm ²), AWG		-
	Protective current rating (A), cross-sectional area (mm ²), AWG.....		-
2.6.3.4	Resistance of earthing conductors and their terminations; resistance (ohm), voltage drop (V), test current (A), duration (min).....		N/A
2.6.3.5	Colour of insulation		N/A
2.6.4	Terminals		N/A
2.6.4.1	General		N/A
2.6.4.2	Protective earthing and bonding terminals		N/A
	Rated current (A), type, nominal thread diameter (mm)		-
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors		N/A
2.6.5	Integrity of protective earthing		N/A
2.6.5.1	Interconnection of equipment		N/A
2.6.5.2	Components in protective earthing conductors and protective bonding conductors		N/A
2.6.5.3	Disconnection of protective earth		N/A
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		N/A
2.6.5.7	Screws for protective bonding		N/A

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

2.6.5.8	Reliance on telecommunication network or cable distribution system		N/A
---------	--------------------------------------------------------------------	--	-----

2.7	Overcurrent and earth fault protection in primary circuits		Pass
2.7.1	Basic requirements	Protective devices are integrated in the equipment.	Pass
	Instructions when protection relies on building installation		N/A
2.7.2	Faults not covered in 5.3.7		N/A
2.7.3	Short-circuit backup protection	The building installation is considered as providing short-circuit backup protection.	Pass
2.7.4	Number and location of protective devices :	One protective device in the L and N phase	Pass
2.7.5	Protection by several devices	Two protective device is provided.	Pass
2.7.6	Warning to service personnel :	Required Marking provided.	Pass

2.8	Safety interlocks		N/A
2.8.1	General principles		N/A
2.8.2	Protection requirements		N/A
2.8.3	Inadvertent reactivation		N/A
2.8.4	Fail-safe operation		N/A
	Protection against extreme hazard		N/A
2.8.5	Moving parts		N/A
2.8.6	Overriding		N/A
2.8.7	Switches, relays and their related circuits		N/A
2.8.7.1	Separation distances for contact gaps and their related circuits (mm) :		N/A
2.8.7.2	Overload test		N/A
2.8.7.3	Endurance test		N/A
2.8.7.4	Electric strength test		N/A
2.8.8	Mechanical actuators		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.9	Electrical insulation		Pass
2.9.1	Properties of insulating materials	Natural rubber, materials containing asbestos and hygroscopic materials are not used as insulation.	Pass
2.9.2	Humidity conditioning	- Electric strength test was conducted after the humidity treatment. - There was no indication of dielectric breakdown following humidity conditioning for 48 hours.	Pass
	Relative humidity (%), temperature (°C)..... :	95%, 30 degree C.	-
2.9.3	Grade of insulation	Electric strength test conducted after the humidity treatment. No flash over or breakdown of insulation.	Pass
2.9.4	Separation from hazardous voltages	The adequate level of safety insulation is provided and maintained to comply with the requirements of this standard.	Pass
	Method(s) used..... :	Method 1	-

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

2.10	Clearances, creepage distances and distances through insulation		Pass
2.10.1	General	Pollution degree 2 applicable.	Pass
2.10.1.1	Frequency..... :	60 Hz	Pass
2.10.1.2	Pollution degrees..... :	2	Pass
2.10.1.3	Reduced values for functional insulation		Pass
2.10.1.4	Intervening unconnected conductive parts		Pass
2.10.1.5	Insulation with varying dimensions		Pass
2.10.1.6	Special separation requirements		N/A
2.10.1.7	Insulation in circuits generating starting pulses		N/A
2.10.2	Determination of working voltage		Pass
2.10.2.1	General		Pass
2.10.2.2	RMS working voltage	(see appended table 2.10.3 and 2.10.4).	Pass
2.10.2.3	Peak working voltage	(see appended table 2.10.3 and 2.10.4).	Pass
2.10.3	Clearances	(see appended table 2.10.3 and 2.10.4).	Pass
2.10.3.1	General	Measured distance are adequate.	Pass
2.10.3.2	Mains transient voltages	Overvoltage Category II	Pass
	a) AC mains supply	Considered transient voltage as Overvoltage Category II, 2500 V pk	Pass
	b) Earthed d.c. mains supplies		N/A
	c) Unearthed d.c. mains supplies		N/A
	d) Battery operation		N/A
2.10.3.3	Clearances in primary circuits		Pass
2.10.3.4	Clearances in secondary circuits		Pass
2.10.3.5	Clearances in circuits having starting pulses		N/A
2.10.3.6	Transients from a.c. mains supply..... :	1500 Vpk	Pass
2.10.3.7	Transients from d.c. mains supply..... :		N/A
2.10.3.8	Transients from telecommunication networks and cable distribution systems		N/A
2.10.3.9	Measurement of transient voltage levels		N/A
	a) Transients from a mains supply		N/A
	For an a.c. mains supply		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	For a d.c. mains supply		N/A
	b) Transients from a telecommunication network		N/A
2.10.4	Creepage distances	(see appended table 2.10.3 and 2.10.4)	Pass
2.10.4.1	General		Pass
2.10.4.2	Material group and comparative tracking index		Pass
	CTI tests	Material group IIIb; 100 <= CTI < 175.	-
2.10.4.3	Minimum creepage distances		Pass
2.10.5	Solid insulation	Solid or laminated insulating materials having adequate thickness are provided.	Pass
2.10.5.1	General		Pass
2.10.5.2	Distances through insulation	(see appended table 2.10.5)	Pass
2.10.5.3	Insulating compound as solid insulation		N/A
2.10.5.4	Semiconductor devices	Approved optical isolator used.	Pass
2.10.5.5	Cemented joints		N/A
2.10.5.6	Thin sheet material - General		Pass
2.10.5.7	Separable thin sheet material		Pass
	Number of layers (pcs)	Min two layers insulation tape.	-
2.10.5.8	Non-separable thin sheet material		N/A
2.10.5.9	Thin sheet material - standard test procedure		N/A
	Electric strength test		-
2.10.5.10	Thin sheet material - alternative test procedure		Pass
	Electric strength test	4125Vac	-
2.10.5.11	Insulation in wound components		Pass
2.10.5.12	Wire in wound components	Triple insulated wire used in Transformer (T1) Secondary winding.	Pass
	Working voltage	See appended table 2.10.5	Pass
	a) Basic insulation not under stress		N/A
	b) Basic, supplementary, reinforced insulation.....		N/A
	c) Compliance with Annex U	Certified source of triple insulated wire used in Transformer (T1). See Annex U	Pass

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Clause	Requirement + Test	Result - Remark	Verdict
	Two wires in contact inside wound component; angle between 45° and 90°	Physical separation in the form of insulating sleeving provided to relieve mechanical stress at the crossover point.	Pass
2.10.5.13	Wire with solvent-based enamel in wound components		N/A
	Electric strength test		-
	Routine test		N/A
2.10.5.14	Additional insulation in wound components		N/A
	Working voltage		N/A
	- Basic insulation not under stress		N/A
	- Supplementary, reinforced insulation		N/A
2.10.6	Construction of printed boards		Pass
2.10.6.1	Uncoated printed boards		Pass
2.10.6.2	Coated printed boards		N/A
2.10.6.3	Insulation between conductors on the same inner surface of a printed board		N/A
2.10.6.4	Insulation between conductors on different layers of a printed board		N/A
	Distance through insulation		N/A
	Number of insulation layers (pcs)		N/A
2.10.7	Component external terminations		N/A
2.10.8	Tests on coated printed boards and coated components		N/A
2.10.8.1	Sample preparation and preliminary inspection		N/A
2.10.8.2	Thermal conditioning		N/A
2.10.8.3	Electric strength test		N/A
2.10.8.4	Abrasion resistance test		N/A
2.10.9	Thermal cycling		N/A
2.10.10	Test for Pollution Degree 1 environment and insulating compound		N/A
2.10.11	Tests for semiconductor devices and cemented joints		N/A
2.10.12	Enclosed and sealed parts		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

3	WIRING, CONNECTIONS AND SUPPLY		Pass
3.1	General		Pass
3.1.1	Current rating and overcurrent protection	All internal wiring used in the distribution of primary power protected against overcurrent and short circuit by suitably rated protective devices.	Pass
3.1.2	Protection against mechanical damage	The wires are routed away from sharp edges and parts which could damage insulation.	Pass
3.1.3	Securing of internal wiring	The wires are positioned in such a manner that prevents excessive strain, loosening of terminal connections and damage of conductor insulation.	Pass
3.1.4	Insulation of conductors	Uninsulated conductors have been adequately fixed to prevent, in normal use, any reduction of creepage or clearance distances below those prescribed by in 2.9.	Pass
3.1.5	Beads and ceramic insulators		N/A
3.1.6	Screws for electrical contact pressure		N/A
3.1.7	Insulating materials in electrical connections	The equipment does not have any electrical connections that rely on insulating material for adequate contact pressure.	Pass
3.1.8	Self-tapping and spaced thread screws		N/A
3.1.9	Termination of conductors	All conductors are reliably secured.	Pass
	10 N pull test	10N pull test performed for all relevant conductors. No hazards caused hereby.	Pass
3.1.10	Sleeving on wiring		Pass

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Clause	Requirement + Test	Result - Remark	Verdict

3.2	Connection to mains supply		Pass
3.2.1	Means of connection	The unit is provided with inlet for connection to mains	Pass
3.2.1.1	Connection to an a.c. mains supply	The unit is provided with inlet for connection to mains	Pass
3.2.1.2	Connection to a d.c. mains supply		N/A
3.2.2	Multiple supply connections		N/A
3.2.3	Permanently connected equipment		N/A
	Number of conductors, diameter of cable and conduits (mm)		-
3.2.4	Appliance inlets		Pass
3.2.5	Power supply cords		N/A
3.2.5.1	AC power supply cords	Power Supply cord not provided	N/A
	Type.....		-
	Rated current (A), cross-sectional area (mm ²), AWG		-
3.2.5.2	DC power supply cords		N/A
3.2.6	Cord anchorages and strain relief	no power supply cord provided	N/A
	Mass of equipment (kg), pull (N)		-
	Longitudinal displacement (mm)		-
3.2.7	Protection against mechanical damage		N/A
3.2.8	Cord guards		N/A
	Diameter of minor dimension D (mm); test mass (g)		-
	Radius of curvature of cord (mm)		-
3.2.9	Supply wiring space		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

3.3	Wiring terminals for connection of external conductors		N/A
3.3.1	Wiring terminals		N/A
3.3.2	Connection of non-detachable power supply cords		N/A
3.3.3	Screw terminals		N/A
3.3.4	Conductor sizes to be connected		N/A
	Rated current (A), cord/cable type, cross-sectional area (mm ²) :		-
3.3.5	Wiring terminal sizes		N/A
	Rated current (A), type and nominal thread diameter (mm) :		-
3.3.6	Wiring terminals design		N/A
3.3.7	Grouping of wiring terminals		N/A
3.3.8	Stranded wire		N/A

3.4	Disconnection from the mains supply		N/A
3.4.1	General requirement	Should be considered at end system	N/A
3.4.2	Disconnect devices		N/A
3.4.3	Permanently connected equipment		N/A
3.4.4	Parts which remain energized		N/A
3.4.5	Switches in flexible cords		N/A
3.4.6	Number of poles - single-phase and d.c. equipment		N/A
3.4.7	Number of poles - three-phase equipment		N/A
3.4.8	Switches as disconnect devices		N/A
3.4.9	Plugs as disconnect devices		N/A
3.4.10	Interconnected equipment		N/A
3.4.11	Multiple power sources		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

3.5	Interconnection of equipment		Pass
3.5.1	General requirements		Pass
3.5.2	Types of interconnection circuits :	Interconnection circuits are SELV CIRCUITS.	Pass
3.5.3	ELV circuits as interconnection circuits	No ELV interconnections.	N/A
3.5.4	Data ports for additional equipment		N/A

4	PHYSICAL REQUIREMENTS		Pass
4.1	Stability		N/A
	Angle of 10°		N/A
	Test force (N)..... :		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

4.2	Mechanical strength		Pass
4.2.1	General		N/A
	Rack-mounted equipment		N/A
4.2.2	Steady force test, 10 N	10N applied to components other than parts serving as an enclosure. No energy or other hazards.	Pass
4.2.3	Steady force test, 30 N		N/A
4.2.4	Steady force test, 250 N	For models GTM91128L11CEL, GTM91128L2CEL and GTM91228L13CEL only	Pass
4.2.5	Impact test		N/A
	Fall test		N/A
	Swing test		N/A
4.2.6	Drop test; height (mm)..... :	No hazards as a result of the drop test that tested from height 1.22 meter. For models GTM91128L11CEL, GTM91128L2CEL and GTM91228L13CEL only	Pass
4.2.7	Stress relief test		N/A
4.2.8	Cathode ray tubes	The equipment does not have any CRT's	N/A
	Picture tube separately certified :		N/A
4.2.9	High pressure lamps	The equipment does not have any high pressure lamps.	N/A
4.2.10	Wall or ceiling mounted equipment; force (N) :		N/A
4.2.11	Rotating solid media		N/A
	Test to cover on the door..... :		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

4.3	Design and construction		Pass
4.3.1	Edges and corners	All edges and corners are judged to be sufficiently well rounded so as not to constitute a hazard.	Pass
4.3.2	Handles and manual controls; force (N) :		N/A
4.3.3	Adjustable controls	The equipment does not have a voltage selector	N/A
4.3.4	Securing of parts	Mechanical fixings in such a way designed that they will withstand mechanical stress occurring in normal use.	Pass
4.3.5	Connection by plugs and sockets	The equipment does not have any interchangeable plugs/sockets.	N/A
4.3.6	Direct plug-in equipment		N/A
	Torque :		N/A
	Compliance with the relevant mains plug standard:	see below	Pass
4.3.7	Heating elements in earthed equipment		N/A
4.3.8	Batteries	The equipment does not have any batteries.	N/A
	- Overcharging of a rechargeable battery		N/A
	- Unintentional charging of a non-rechargeable battery		N/A
	- Reverse charging of a rechargeable battery		N/A
	- Excessive discharging rate for any battery		N/A
4.3.9	Oil and grease		N/A
4.3.10	Dust, powders, liquids and gases		N/A
4.3.11	Containers for liquids or gases		N/A
4.3.12	Flammable liquids..... :		N/A
	Quantity of liquid (l)..... :		N/A
	Flash point (°C)..... :		N/A
4.3.13	Radiation		N/A
4.3.13.1	General		N/A
4.3.13.2	Ionizing radiation		N/A
	Measured radiation (pA/kg) :		-
	Measured high-voltage (kV) :		-

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Clause	Requirement + Test	Result - Remark	Verdict

	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	Lasers (including laser diodes) and LEDs		N/A
4.3.13.5.1	Lasers (including laser diodes)		N/A
	Laser class..... :		-
4.3.13.5.2	Light emitting diodes (LEDs)		N/A
4.3.13.6	Other types :		N/A

4.4	Protection against hazardous moving parts		N/A
4.4.1	General		N/A
4.4.2	Protection in operator access areas..... :		N/A
	Household and home/office document/media shredders		N/A
4.4.3	Protection in restricted access locations :		N/A
4.4.4	Protection in service access areas		N/A
4.4.5	Protection against moving fan blades		N/A
4.4.5.1	General		N/A
	Not considered to cause pain or injury. a)..... :		N/A
	Is considered to cause pain, not injury. b)..... :		N/A
	Considered to cause injury. c)..... :		N/A
4.4.5.2	Protection for users		N/A
	Use of symbol or warning :		N/A
4.4.5.3	Protection for service persons		N/A
	Use of symbol or warning :		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

4.5	Thermal requirements		Pass
4.5.1	General		Pass
4.5.2	Temperature tests	(see appended table 4.5)	Pass
	Normal load condition per Annex L :	Operated in the most unfavorable way of operation given in the operating instructions until steady conditions established. See test record.	-
4.5.3	Temperature limits for materials	(see appended table 4.5)	Pass
4.5.4	Touch temperature limits		N/A
4.5.5	Resistance to abnormal heat..... :	(see appended table 4.5.5)	Pass

4.6	Openings in enclosures		N/A
4.6.1	Top and side openings		N/A
	Dimensions (mm) :		-
4.6.2	Bottoms of fire enclosures		N/A
	Construction of the bottom, dimensions (mm)..... :		-
4.6.3	Doors or covers in fire enclosures		N/A
4.6.4	Openings in transportable equipment		N/A
4.6.4.1	Constructional design measures		N/A
	Dimensions (mm) :		-
4.6.4.2	Evaluation measures for larger openings		N/A
4.6.4.3	Use of metallized parts		N/A
4.6.5	Adhesives for constructional purposes		N/A
	Conditioning temperature (°C), time (weeks) :		-

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Clause	Requirement + Test	Result - Remark	Verdict

4.7	Resistance to fire		Pass
4.7.1	Reducing the risk of ignition and spread of flame		Pass
	Method 1, selection and application of components wiring and materials	(see appended table 4.7)	Pass
	Method 2, application of all of simulated fault condition tests		N/A
4.7.2	Conditions for a fire enclosure		Pass
4.7.2.1	Parts requiring a fire enclosure	A fire enclosure covers all parts.	Pass
4.7.2.2	Parts not requiring a fire enclosure		N/A
4.7.3	Materials		Pass
4.7.3.1	General	The propagation of fire is minimized through the fire enclosure construction.	Pass
4.7.3.2	Materials for fire enclosures	Build in component, should be considered at end system.	N/A
4.7.3.3	Materials for components and other parts outside fire enclosures		N/A
4.7.3.4	Materials for components and other parts inside fire enclosures	All internal materials are rated V-2 or better or are mounted on a PWB rated V-1 or better	Pass
4.7.3.5	Materials for air filter assemblies		N/A
4.7.3.6	Materials used in high-voltage components	No high-voltage components.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5	ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS		Pass
5.1	Touch current and protective conductor current		Pass
5.1.1	General		Pass
5.1.2	Configuration of equipment under test (EUT)	Equipment designed for connection to only one power source.	Pass
5.1.2.1	Single connection to an a.c. mains supply		Pass
5.1.2.2	Redundant multiple connections to an a.c. mains supply		N/A
5.1.2.3	Simultaneous multiple connections to an a.c. mains supply		N/A
5.1.3	Test circuit	Single phase equipment intended only for connection to star TN or TT system.	Pass
5.1.4	Application of measuring instrument	Test made to 10 x 20 cm metal foil in contact with accessible non-conductive part. Tested using D.1 measuring instrument.	Pass
5.1.5	Test procedure	see above	Pass
5.1.6	Test measurements	see below	Pass
	Supply voltage (V)	264 Vac, 60Hz	-
	Measured touch current (mA).....	- Enclosure with foil: 0.00654 mA max. (for Encapsulation construction only) - Output Connector: 0.0794 mA max.	-
	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 3,5 mA		N/A
5.1.7.1	General		N/A
5.1.7.2	Simultaneous multiple connections to the supply		N/A
5.1.8	Touch currents to telecommunication networks and cable distribution systems and from telecommunication networks		N/A
5.1.8.1	Limitation of the touch current to a telecommunication network or to a cable distribution system		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

	Supply voltage (V)		-
	Measured touch current (mA).....		-
	Max. allowed touch current (mA).....		-
5.1.8.2	Summation of touch currents from telecommunication networks		N/A
	a) EUT with earthed telecommunication ports		N/A
	b) EUT whose telecommunication ports have no reference to protective earth		N/A

5.2	Electric strength		Pass
5.2.1	General	(see appended table 5.2)	Pass
5.2.2	Test procedure	No insulation breakdown detected during the test. (see appended table 5.2)	Pass

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Clause	Requirement + Test	Result - Remark	Verdict
5.3	Abnormal operating and fault conditions		Pass
5.3.1	Protection against overload and abnormal operation	(see appended table 5.3)	Pass
5.3.2	Motors		N/A
5.3.3	Transformers	Transformers are constructed in accordance with the applicable Clause and Annex C.	Pass
5.3.4	Functional insulation..... :	Functional insulation between secondary voltages exceeding SELV and accessible SELV on signal connector complies with method a), b), or c).	Pass
5.3.5	Electromechanical components	The equipment does not have any electromechanical components in the secondary.	N/A
5.3.6	Audio amplifiers in ITE..... :		N/A
5.3.7	Simulation of faults	- Connectors overloaded. - Transformer temperatures measured for compliance with Annex C during test.	Pass
5.3.8	Unattended equipment		N/A
5.3.9	Compliance criteria for abnormal operating and fault conditions	- No fire, emission of molten metal or deformation was noted during the tests. - Electric Strength tests performed after abnormal and fault tests.	Pass
5.3.9.1	During the tests	- No fire, emission of molten metal or deformation was noted during the tests.	Pass
5.3.9.2	After the tests	Electric Strength tests performed after abnormal and fault tests. No breakdown after the test.	Pass

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Clause	Requirement + Test	Result - Remark	Verdict

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

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

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

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Clause	Requirement + Test	Result - Remark	Verdict

7	CONNECTION TO CABLE DISTRIBUTION SYSTEMS		N/A
7.1	General		N/A
7.2	Protection of cable distribution system service persons, and users of other equipment connected to the system, from hazardous voltages in the equipment		N/A
7.3	Protection of equipment users from overvoltages on the cable distribution system		N/A
7.4	Insulation between primary circuits and cable distribution systems		N/A
7.4.1	General		N/A
7.4.2	Voltage surge test		N/A
7.4.3	Impulse test		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

A	ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE		N/A
A.1	Flammability test for fire enclosures of movable equipment having a total mass exceeding 18 kg, and of stationary equipment (see 4.7.3.2)		N/A
A.1.1	Samples..... :		-
	Wall thickness (mm)		-
A.1.2	Conditioning of samples; temperature (°C)		N/A
A.1.3	Mounting of samples		N/A
A.1.4	Test flame (see IEC 60695-11-3)		N/A
	Flame A, B, C or D		N/A
A.1.5	Test procedure		N/A
A.1.6	Compliance criteria		N/A
	Sample 1 burning time (s)		-
	Sample 2 burning time (s)		-
	Sample 3 burning time (s)		-
A.2	Flammability test for fire enclosures of movable equipment having a total mass not exceeding 18 kg, and for material and components located inside fire enclosures (see 4.7.3.2 and 4.7.3.4)		N/A
A.2.1	Samples, material..... :		-
	Wall thickness (mm)		-
A.2.2	Conditioning of samples; temperature (°C)		N/A
A.2.3	Mounting of samples		N/A
A.2.4	Test flame (see IEC 60695-11-4)		N/A
	Flame A, B or C		-
A.2.5	Test procedure		N/A
A.2.6	Compliance criteria		N/A
	Sample 1 burning time (s)		-
	Sample 2 burning time (s)		-
	Sample 3 burning time (s)		-
A.2.7	Alternative test acc. to IEC 60695-11-5, cl. 5 and 9		N/A
	Sample 1 burning time (s)		-
	Sample 2 burning time (s)		-
	Sample 3 burning time (s)		-
A.3	Hot flaming oil test (see 4.6.2)		N/A
A.3.1	Mounting of samples		N/A
A.3.2	Test procedure		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

A.3.3	Compliance criterion		N/A
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B	ANNEX B, MOTOR TESTS UNDER ABNORMAL CONDITIONS (see 4.7.2.2 and 5.3.2)		N/A
B.1	General requirements		N/A
	Position		-
	Manufacturer		-
	Type.....		-
	Rated values.....		-
B.2	Test conditions		N/A
B.3	Maximum temperatures		N/A
B.4	Running overload test		N/A
B.5	Locked-rotor overload test		N/A
	Test duration (days).....		-
	Electric strength test: test voltage (V).....		-
B.6	Running overload test for d.c. motors in secondary circuits		N/A
B.6.1	General		N/A
B.6.2	Test procedure		N/A
B.6.3	Alternative test procedure		N/A
B.6.4	Electric strength test; test voltage (V).....		N/A
B.7	Locked-rotor overload test for d.c. motors in secondary circuits		N/A
B.7.1	General		N/A
B.7.2	Test procedure		N/A
B.7.3	Alternative test procedure		N/A
B.7.4	Electric strength test; test voltage (V).....		N/A
B.8	Test for motors with capacitors		N/A
B.9	Test for three-phase motors		N/A
B.10	Test for series motors		N/A
	Operating voltage (V)		-

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Clause	Requirement + Test	Result - Remark	Verdict

C	ANNEX C, TRANSFORMERS (see 1.5.4 and 5.3.3)		Pass
	Position	T1	-
	Manufacturer	See Critical Component table for details	-
	Type.....	See Critical Component table for details	-
	Rated values.....	See Critical Component table for details	-
	Method of protection.....	Regulating network circuit protection.	-
C.1	Overload test	(see appended table 5.3)	Pass
C.2	Insulation	(see appended table 5.2)	Pass
	Protection from displacement of windings.....	Triple insulated wire used for Transformer (T1).	Pass

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

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

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

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

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Clause	Requirement + Test	Result - Remark	Verdict

K	ANNEX K, THERMAL CONTROLS (see 1.5.3 and 5.3.8)		N/A
K.1	Making and breaking capacity		N/A
K.2	Thermostat reliability; operating voltage (V)..... :		N/A
K.3	Thermostat endurance test; operating voltage (V) :		N/A
K.4	Temperature limiter endurance; operating voltage (V) :		N/A
K.5	Thermal cut-out reliability		N/A
K.6	Stability of operation		N/A

L	ANNEX L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.2)		Pass
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		Pass

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

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Clause	Requirement + Test	Result - Remark	Verdict

N	ANNEX N, IMPULSE TEST GENERATORS (see 1.5.7.2, 1.5.7.3, 2.10.3.9, 6.2.2.1, 7.3.2, 7.4.3 and Clause G.5)		N/A
N.1	ITU-T impulse test generators		N/A
N.2	IEC 60065 impulse test generator		N/A

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

R	ANNEX R, EXAMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES		N/A
R.1	Minimum separation distances for unpopulated coated printed boards (see 2.10.6.2)		N/A
R.2	Reduced clearances (see 2.10.3)		N/A

S	ANNEX S, PROCEDURE FOR IMPULSE TESTING (see 6.2.2.3)		N/A
S.1	Test equipment		N/A
S.2	Test procedure		N/A
S.3	Examples of waveforms during impulse testing		N/A

T	ANNEX T, GUIDANCE ON PROTECTION AGAINST INGRESS OF WATER (see 1.1.2)		N/A
 :		-

U	ANNEX U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4)		Pass
 :	Triple Insulated Wire used for Transformer (T1).	-

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Clause	Requirement + Test	Result - Remark	Verdict

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

W	ANNEX W, SUMMATION OF TOUCH CURRENTS		N/A
W.1	Touch current from electronic circuits		N/A
W.1.1	Floating circuits		N/A
W.1.2	Earthed circuits		N/A
W.2	Interconnection of several equipments		N/A
W.2.1	Isolation		N/A
W.2.2	Common return, isolated from earth		N/A
W.2.3	Common return, connected to protective earth		N/A

X	ANNEX X, MAXIMUM HEATING EFFECT IN TRANSFORMER TESTS (see clause C.1)		N/A
X.1	Determination of maximum input current		N/A
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

Z	ANNEX Z, OVERVOLTAGE CATEGORIES (see 2.10.3.2 and Clause G.2)		Pass
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AA	ANNEX AA, MANDREL TEST (see 2.10.5.8)		N/A
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BB	ANNEX BB, CHANGES IN THE SECOND EDITION		N/A
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Clause	Requirement + Test	Result - Remark	Verdict

CC	ANNEX CC, EVALUATION OF INTEGRATED CIRCUIT (IC) CURRENT LIMITERS		N/A
CC.1	General		N/A
CC.2	Test program 1	:	N/A
CC.3	Test program 2	:	N/A

DD	ANNEX DD, REQUIREMENTS FOR THE MOUNTING MEANS OF RACK-MOUNTED EQUIPMENT		N/A
DD.1	General		N/A
DD.2	Mechanical strength test, variable N	:	N/A
DD.3	Mechanical strength test, 250 N, including end stops	:	N/A
DD.4	Compliance.....	:	N/A

EE	ANNEX EE, HOUSEHOLD AND HOME/OFFICE DOCUMENT/MEDIA SHREDDERS		N/A
EE.1	General		N/A
EE.2	Markings and instructions		N/A
	Use of markings or symbols	:	N/A
	Information of user instructions, maintenance and/or servicing instructions	:	N/A
EE.3	Inadvertent reactivation test	:	N/A
EE.4	Disconnection of power to hazardous moving parts		N/A
	Use of markings or symbols	:	N/A
EE.5	Protection against hazardous moving parts	:	N/A
	Test with test finger (Figure 2A)		N/A
	Test with wedge probe (Figure EE1 and EE2)	:	N/A

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Enclosure
National Differences

USA / Canada

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

USA / Canada - Differences to IEC 60950-1:2005 (2nd Edition); Am 1:2009			
1.1	Equipment able to be installed in accordance with the National Electrical Code ANSI/NFPA 70 and the Canadian Electrical Code, Part1, and when applicable, the National Electrical Safety Code, IEEE C2.		Pass
1.1.1	Equipment able to be installed in accordance with ANSI/NFPA 75 and NEC Art. 645 unless intended for use outside of computer room and provided with such instructions.		Pass
1.1.2	Equipment in wire-line communication facilities serving high-voltage electric power stations operating at greater than 1kV are excluded.		N/A
1.1.2	Special requirements apply to equipment intended for use outdoors.		N/A
1.4.14	For PLUGGABLE EQUIPMENT TYPE A, the protection in the installation is assumed to be 20 A.		Pass
1.5.1	All IEC standards for components identified in Annex P.1 replaced by the relevant requirements of CSA and UL component standards in Annex P.1.		Pass
1.5.1	All IEC standards for components identified in Annex P.2 alternatively satisfied by the relevant requirements of CSA and UL component standards in Annex P.2.		Pass
1.5.5	Interconnecting cables acceptable for the application regarding voltage, current, temperature, flammability, mechanical serviceability and the like.	Interconnecting cables comply with the relevant requirements of this standard.	Pass

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
1.5.5	For other than limited power and TNV circuits, the type of output circuit identified for output connector.		N/A
1.5.5	External cable assemblies that exceed 3.05 m in length to be types specified in the NEC and CEC.		Pass
1.5.5	Detachable external interconnecting cables 3.05 m or less in length and provided with equipment marked to identify the responsible organization and the designation for the cable.		N/A
1.5.5	Building wiring and cable for use in ducts, plenums and other air handling space subject to special requirements and excluded from scope.		N/A
1.5.5	Telephone line and extension cords and the like comply with UL 1863 and CSA C22.2 No. 233.		N/A
1.6.1.2	Equipment intended for connection to a d.c. power (mains) distribution system is subject to special circuit classification requirements (e.g., TNV-2)		N/A
1.6.1.2	Earthing of d.c. powered equipment provided.		N/A
1.7	Lamp replacement information indicated on lampholder in operator access area.		N/A
1.7.1	Special marking format for equipment intended for use on a supply system with an earthed neutral and more than one phase conductor.		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
1.7.1	Equipment voltage rating not higher than rating of the plug except under special conditions.		N/A
1.7.6	Special fuse replacement marking for operator accessible fuses.		N/A
1.7.7	Identification of terminal connection of the equipment earthing conductor.		N/A
1.7.7	Connectors and field wiring terminals for external Class 2 or Class 3 circuits provided with marking indicating minimum Class of wiring to be used.		N/A
1.7.7	Marking located adjacent to terminals and visible during wiring.		N/A
2.1.1.1	Bare TNV conductive parts in the interior of equipment normally protected against contact by a cover intended for occasional removal are exempt provided instructions include directions for disconnection of TNV prior to removal of the cover.		N/A
2.3.1.b	Other telecommunication signaling systems (e.g., message waiting) than described in 2.3.1(b) are subject to M.4.		N/A
2.3.1.b	For TNV-2 and TNV-3 circuits with other than ringing signals and with voltages exceeding 42.4 Vp or 60 V d.c., the maximum current limit through a 2000 Ohm or greater resistor with loads disconnected is 7.1 mA peak or 30 mA d.c. under normal conditions.		N/A
2.3.1.b	Limits for measurements across 5000 ohm		N/A

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SubClause	Difference + Test	Result - Remark	Verdict
	resistor in the event of a single fault are replaced after 200 ms with the limits of M.3.1.4.		
2.3.2.1	In the event of a single fault, the limits of 2.2.3 apply to SELV circuits and accessible conductive parts.		N/A
2.3.2.4	Enamel coating on signal transformer winding wire allowed as an alternative to Basic insulation in specific telecommunication applications when subjected to special construction requirements and routine testing.		N/A
2.5	Overcurrent protection device required for Class 2 and Class 3 limiting in accordance with the NEC, or for a Limited Power Source, not interchangeable with devices of higher ratings if operator replaceable.		N/A
2.6	Equipment having receptacles for output a.c. power connectors generated from an internal separately derived source have the earthed (grounded) circuit conductor suitably bonded to earth.		N/A
2.6.3.3	For PLUGGABLE EQUIPMENT TYPE A, if a) b) or c) are not applicable, the current rating of the circuit is taken as 20 A		N/A
2.6.3.3	The first column on Table 2D requirement: "Smaller of the RATED CURRENT of the equipment or the PROTECTIVE CURRENT RATING of the circuit under consideration."		N/A
2.6.3.4	Capacity of connection between earthing terminal and parts required to be earthed subject to special conditions based on the current rating of the circuit.		N/A

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SubClause	Difference + Test	Result - Remark	Verdict
2.6.3.4	Protective bonding conductors and their terminals of non-standard constructions (e.g. PWB traces) evaluated to limited short-circuit test of CSA C22.2 No.0.4.		N/A
2.6.4.1	Field wiring terminals for earthing conductors suitable for wire sizes (gauge) used in US and Canada.		N/A
2.7.1	Data for selection of special external branch circuit overcurrent devices marked on the equipment.		N/A
2.7.1	Standard supply outlets protected by overcurrent device in accordance with the NEC, and CEC, Part 1.		N/A
2.7.1	Overcurrent protection for individual transformers that distribute power to other units over branch circuit wiring.		N/A
2.7.1	Additional requirements for overcurrent protection apply to equipment provided with panelboards.		N/A
2.7.1	Non-motor-operated equipment requiring special overcurrent protective device marked with device rating.		N/A
2.10.5.12	Multi-layer winding wire subject to UL component wire requirements in addition to 2.10.5.12 and Annex U.		Pass
3.1.1	Permissible combinations of internal		Pass

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
	wiring/external cable sizes for overcurrent and short circuit protection.		
3.1.1	All interconnecting cables protected against overcurrent and short circuit.		Pass
3.2	Wiring methods permit connection of equipment to primary power supply in accordance with the NEC and CEC, Part 1.		Pass
3.2.1	Permitted use for flexible cords and plugs.	Non employ non Detachable Cord	N/A
3.2.1	Flexible cords provided with attachment plug rated 125% of equipment current rating.	Plug not provided	N/A
3.2.1	Any Class II equipment provided with 15 or 20 A standard supply outlets, Edison-base lampholders or single pole disconnect device provided with a polarized type attachment plug.	No outlet provided	N/A
3.2.1.2	Equipment intended for connection to DC mains supply power systems complies with special wiring requirements (e.g., no permanent connection to supply by flexible cord).		N/A
3.2.1.2	Equipment with one pole of the DC mains supply connected to both the equipment mains input terminal and the main protective earthing terminal provided with special instructions and construction provisions for earthing.		N/A
3.2.1.2	Equipment with means for connecting supply to earthing electrode conductor has no switches or protective devices between supply connection and earthing electrode connection.		N/A

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SubClause	Difference + Test	Result - Remark	Verdict
3.2.1.2	Special markings and instructions for equipment with provisions to connect earthed conductor of a DC supply circuit to earthing conductor at the equipment.		N/A
3.2.1.2	Special markings and instructions for equipment with earthed conductor of a DC supply circuit connected to the earthing conductor at the equipment.		N/A
3.2.1.2	Terminals and leads provided for permanent connection of DC powered equipment to supply marked to indicate polarity if reverse polarity may result in a hazard.		N/A
3.2.3	Permanently connected equipment has provision for connecting and securing a field wiring system (i.e. conduit, or leads etc.) per the NEC and CEC, Part 1.		N/A
3.2.3	Permanently connected equipment may have terminals or leads not smaller than No. 18 AWG (0.82 mm ²) and not less than 150 mm in length for connection of field installed wiring.		N/A
3.2.3	If supply wires exceed 60 °C, marking indicates use of 75 °C or 90 °C wiring for supply connection as appropriate.		N/A
3.2.3	Equipment compatible with suitable trade sizes of conduits and cables.		N/A
3.2.5	Power supply cords are required to be no longer than 4.5 m in length.		N/A

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SubClause	Difference + Test	Result - Remark	Verdict
	<p>Minimum cord length is required to be 1.5 m, with certain constructions such as external power supplies allowed to consider both input and output cord lengths into the requirement.</p> <p>Flexible power supply cords are required to be compatible with Article 400 of the NEC, and Tables 11 and 12 of the CEC.</p>		
3.2.5	<p>Conductors in power supply cords sized according to NEC and CEC, Part I.</p>		N/A
3.2.5	<p>Power supply cords and cord sets incorporate flexible cords suitable for the particular application.</p>		N/A
3.2.6	<p>Strain relief provided for non-detachable interconnecting cables not supplied by a limited power source.</p>	The Output is LPS	N/A
3.2.9	<p>Adequate wire bending space and volume of field wiring compartment required to properly make the field connections.</p>		N/A
3.2.9	<p>Equipment intended solely for installation in Restricted Access Locations using low voltage d.c. systems may not need provision for connecting and securing a field wiring system. A method of securing wiring or instructions provided to ensure the wiring is protected from abuse.</p>		N/A
3.3	<p>Field wiring terminals provided for interconnection of units for other than LPS or Class 2 circuits also comply with 3.3.</p>		N/A
3.3	<p>Interconnection of units by LPS or Class 2 conductors may have field wiring connectors other than those specified in 3.3 if wiring is reliably</p>		N/A

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SubClause	Difference + Test	Result - Remark	Verdict
	separated.		
3.3.1	Terminals for the connection of neutral conductor identified by a distinctive white marking or other equally effective means.		N/A
3.3.3	Wire binding screw terminal permitted for connection of No. 10 AWG (5.3 mm ²) or smaller conductor if provided with upturned lugs, cupped washer or equivalent retention.		N/A
3.3.4	Terminals accept wire sizes (gauge) used in the U.S. and Canada.		N/A
3.3.4	Terminals accept current-carrying conductors rated 125% of the equipment current rating.		N/A
3.3.5	First column of Table 3E requirement: "Smaller of the RATED CURRENT of the equipment or the PROTECTIVE CURRENT RATING of the circuit under consideration."		N/A
3.3.6	Field wiring terminals marked to indicate the material(s) of the conductor appropriate for the terminals used.		N/A
3.3.6	Connection of an aluminum conductor not permitted to terminal for equipment earthing conductor.		N/A
3.3.6	Field wiring connections made through the use of suitable pressure connectors (including set screw type), solder lugs or splices to flexible leads.		N/A
3.4.2			N/A

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SubClause	Difference + Test	Result - Remark	Verdict
	Separate motor control device(s) required for cord-connected equipment rated more than 12 A, or with motor rated more than 1/3 hp or more than 120 V.		
3.4.8	Vertically mounted disconnect devices oriented so up position of handle is "on".		N/A
3.4.11	For computer-room applications, equipment with battery systems capable of supplying 750 VA for 5 min require battery disconnect means.		N/A
4.2.8.1	Special opening restrictions for enclosures around CRTs with face dimension of 160 mm or more.		N/A
4.2.9	Compartment housing high-pressure lamp marked to indicate risk of explosion.		N/A
4.2.11	For equipment intended for mounting on racks and provided with slide/rails allowing the equipment to slide away from the rack for installation, service and maintenance, additional construction, performance and marking requirements are applicable to determine the adequacy of the slide/rails.		N/A
4.3.2	Loading test for equipment with handle(s) used to support more than 9 kg tested at four times the weight of the unit.		N/A
4.3.6	In addition to the IEC requirements, Direct Plug-in Equipment complies with UL 1310 or CSA 223 mechanical assembly requirements.		N/A
4.3.12	The maximum quantity of flammable liquid		N/A

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SubClause	Difference + Test	Result - Remark	Verdict
	stored in equipment complies with ANSI/NFPA 30(Table NAE.6).		
4.3.12	Equipment using replenishable liquids marked to indicate type of liquid to be used.		N/A
4.3.13.2	Equipment that produces x-radiation and does not comply with 4.3.12 under all conditions of servicing marked to indicate the presence of radiation where readily visible.		N/A
4.3.13.5	Requirements contained in the applicable national codes and regulations apply to lasers (21 CFR 1040 and REDR C1370).		N/A
4.7	Automated information storage equipment intended to contain more than 0.76 m ³ of combustible media requires provision for automatic sprinklers or a gaseous agent extinguishing system.		N/A
4.7.3.1	Equipment for use in environmental air space other than ducts or plenums provided with metal enclosure or with non-metallic enclosure having adequate fire-resistance and low smoke producing characteristics. Low smoke-producing characteristics evaluated according to UL 2043. Equipment for installation in space used for environmental air as described in Sec. 300-22(c) of the NEC provided with instructions indicating suitability for installation in such locations.		N/A
4.7.3.1	Flame spread rating for external surface of combustible material with exposed area greater than 0.93 m ² or a single dimension greater than 1.8 m; 50 or less for computer room applications or 200 or less for other applications.		N/A
4.7.3.4	Wire marked "VW-1" or "FT-1" considered		Pass

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SubClause	Difference + Test	Result - Remark	Verdict
	equivalent.		
5.1.8.2	Special earthing provisions and instructions for equipment with high touch current due to telecommunication network connections.		N/A
5.1.8.3	Touch current due to ringing voltage for equipment containing telecommunication network leads.		N/A
5.3.7	Overloading of SELV connectors and printed wiring board receptacles accessible to the operator.		N/A
5.3.7	Tests interrupted by opening of a component repeated two additional times.		N/A
5.3.9.1	Test interrupted by opening of wire or trace subject to certain conditions.	No interrupted by opening of wire or trace during Fault Test	N/A
6	Specialized instructions provided for telephones that may be connected to a telecommunications network.		N/A
6	Marking identifying function of telecommunication type connectors not used for connection to a telecommunication network.		N/A
6.3	Equipment remotely powered over telecommunication wiring systems provided with specialized markings adjacent to the connection.		N/A
6.3	Overcurrent protection incorporated into equipment to provide power over		N/A

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SubClause	Difference + Test	Result - Remark	Verdict
	telecommunication wiring system not interchangeable with devices of higher ratings if operator replaceable.		
6.4	Additional requirements for equipment intended for connection to a telecommunication network using cable subject to overvoltage from power line failures (Fig. 6C).		N/A
6.4	Where 26 AWG line cord required by Fig. 6C, either the cord is provided with the equipment or described in the safety instructions.		N/A
7	Equipment associated with the cable distribution system may need to be subjected to applicable parts of Chapter 8 of the NEC.		N/A
H	Ionizing radiation measurements made under single fault conditions in accordance with the requirements of the Code of Federal Regulations 21 CFR 1020 and the Canadian Radiation Emitting Devices Act, REDR C1370.		N/A
M.2	Continuous ringing signals evaluated to Method A subjected to special accessibility considerations.		N/A
M.4	Special requirements for message waiting and similar telecommunications signals.		N/A
NAC	Equipment intended for use with a generic secondary protector marked with suitable instructions.		N/A
NAC	Equipment intended for use with a specific primary or secondary protector marked with suitable		N/A

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SubClause	Difference + Test	Result - Remark	Verdict
	instructions.		
NAD	Acoustic pressure from an ear piece less than 140 dBA for short duration disturbances, and less than 125 dBA for handsets, 118 dBA for headsets and insert earphones, for long duration disturbances.		N/A
NAD	Equipment connected to a telecommunication and cable distribution networks and supplied with an earphone intended to be held against, or in the ear is required to comply with special acoustic pressure requirements.		N/A
EE.5	UL articulated accessibility probe (Fig. EE.3) required for assessing accessibility to document/media shredders, instead of Figure 2A test finger.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: Opto Electronic Devices			Pass
Manufacturer.....:	#	-	-	
Type.....:	#	-	-	
Separately tested.....:	--	-	-	
Bridging insulation.....:	Reinforced Insulation	-	-	
External creepage distance.....:	8 mm	-	-	
Internal creepage distance.....:	--	-	-	
Distance through insulation.....:	--	-	-	
Tested under following conditions.....:	--	-	-	
Input.....:	--	-	-	
Output.....:	--	-	-	
supplementary information:				
#See Critical component List.				

1.6.2	TABLE: electrical data (in normal conditions)						Pass
U (V)	I (A)	I rated (A)	P (W)	Fuse #	I fuse (A)	condition/status	
Model GTM 91120- 3007.5- 2.5-P2	-	-	-	-	-	-	
90Vac, 50 Hz	0.521	1.5	25.3	F1	0.521	Maximum Normal Load 5Vdc, 4A	
90Vac, 60 Hz	0.515	1.5	25.2	F1	0.515	Maximum Normal Load 5Vdc, 4A	
100Vac, 50 Hz	0.472	1.5	25.1	F1	0.472	Maximum Normal Load 5Vdc, 4A	
100Vac, 60 Hz	0.458	1.5	25.0	F1	0.458	Maximum Normal Load 5Vdc, 4A	
240Vac, 50 Hz	0.231	1.5	24.8	F1	0.231	Maximum Normal Load 5Vdc, 4A	
240Vac, 60 Hz	0.236	1.5	24.9	F1	0.236	Maximum Normal Load 5Vdc, 4A	
264Vac, 50 Hz	0.219	1.5	24.8	F1	0.219	Maximum Normal Load 5Vdc, 4A	

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Clause	Requirement + Test				Result - Remark	Verdict

264Vac, 60 Hz	0.223	1.5	24.9	F1	0.223	Maximum Normal Load 5Vdc, 4A
Model GTM 91120-3048-P2	-	-	-	-	-	-
90Vac, 50 Hz	0.730	1.5	36.6	F1	0.730	Maximum Normal Load 48Vdc, 0.625A
90Vac, 60 Hz	0.715	1.5	36.5	F1	0.715	Maximum Normal Load 48Vdc, 0.625A
100Vac, 50 Hz	0.643	1.5	36.4	F1	0.643	Maximum Normal Load 48Vdc, 0.625A
100Vac, 60 Hz	0.645	1.5	36.3	F1	0.645	Maximum Normal Load 48Vdc, 0.625A
240Vac, 50 Hz	0.325	1.5	37.9	F1	0.325	Maximum Normal Load 48Vdc, 0.625A
240Vac, 60 Hz	0.323	1.5	36.9	F1	0.323	Maximum Normal Load 48Vdc, 0.625A
264Vac, 50 Hz	0.310	1.5	38.1	F1	0.310	Maximum Normal Load 48Vdc, 0.625A
264Vac, 60 Hz	0.303	1.5	36.9	F1	0.303	Maximum Normal Load 48Vdc, 0.625A
Model GTM91 128LI1 CEL	-	-	-	-	-	-
90Vac, 50 Hz	0.1551	1.5	6.66	F1	0.1551	Max. normal load, 4.2V, 1000mA
90Vac, 60 Hz	0.1539	1.5	6.67	F1	0.1539	Max. normal load, 4.2V, 1000mA
100Vac, 50 Hz	0.1429	1.5	6.69	F1	0.1429	Max. normal load, 4.2V, 1000mA
100Vac, 60 Hz	0.1425	1.5	6.67	F1	0.1425	Max. normal load, 4.2V, 1000mA
240Vac, 50 Hz	0.0850	1.5	6.99	F1	0.0850	Max. normal load, 4.2V, 1000mA
240Vac, 60 Hz	0.0905	1.5	6.92	F1	0.0905	Max. normal load, 4.2V, 1000mA
264Vac, 50 Hz	0.0835	1.5	7.03	F1	0.0835	Max. normal load, 4.2V, 1000mA
264Vac, 60 Hz	0.0964	1.5	7.09	F1	0.0964	Max. normal load, 4.2V, 1000mA
90Vac, 50 Hz	0.1839	1.5	8.03	F1	0.1839	Max. normal load, Charging Discharged battery (1S-1P)
90Vac, 60 Hz	0.1800	1.5	8.01	F1	0.1800	Max. normal load, Charging Discharged battery (1S-1P)
100Vac,	0.1678	1.5	7.99	F1	0.1678	Max. normal load, Charging

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Clause	Requirement + Test				Result - Remark	Verdict
50 Hz						Discharged battery (1S-1P)
100Vac, 60 Hz	0.1640	1.5	7.95	F1	0.1640	Max. normal load, Charging Discharged battery (1S-1P)
240Vac, 50 Hz	0.0964	1.5	8.30	F1	0.0964	Max. normal load, Charging Discharged battery (1S-1P)
240Vac, 60 Hz	0.1058	1.5	8.31	F1	0.1058	Max. normal load, Charging Discharged battery (1S-1P)
264Vac, 50 Hz	0.0936	1.5	8.35	F1	0.0936	Max. normal load, Charging Discharged battery (1S-1P)
264Vac, 60 Hz	0.1014	1.5	8.38	F1	0.1014	Max. normal load, Charging Discharged battery (1S-1P)
Model GTM91 128LI3 CEL	-	-	-	-	-	-
90Vac, 50 Hz	0.3217	1.5	14.94	F1	0.3217	Max. normal load, 4.2V, 1000mA
90Vac, 60 Hz	0.3137	1.5	14.96	F1	0.3137	Max. normal load, 4.2V, 1000mA
100Vac, 50 Hz	0.2933	1.5	14.92	F1	0.2933	Max. normal load, 4.2V, 1000mA
100Vac, 60 Hz	0.2873	1.5	14.94	F1	0.2873	Max. normal load, 4.2V, 1000mA
240Vac, 50 Hz	0.1533	1.5	15.26	F1	0.1533	Max. normal load, 4.2V, 1000mA
240Vac, 60 Hz	0.1590	1.5	15.17	F1	0.1590	Max. normal load, 4.2V, 1000mA
264Vac, 50 Hz	0.1442	1.5	15.23	F1	0.1442	Max. normal load, 4.2V, 1000mA
264Vac, 60 Hz	0.1542	1.5	15.46	F1	0.1542	Max. normal load, 4.2V, 1000mA
90Vac, 50 Hz	0.3115	1.5	14.39	F1	0.3115	Max. normal load, Charging Discharged battery (1S-1P)
90Vac, 60 Hz	0.3084	1.5	14.40	F1	0.3084	Max. normal load, Charging Discharged battery (1S-1P)
100Vac, 50 Hz	0.2846	1.5	14.31	F1	0.2846	Max. normal load, Charging Discharged battery (1S-1P)
100Vac, 60 Hz	0.2799	1.5	14.36	F1	0.2799	Max. normal load, Charging Discharged battery (1S-1P)
240Vac, 50 Hz	0.1483	1.5	14.54	F1	0.1483	Max. normal load, Charging Discharged battery (1S-1P)
240Vac, 60 Hz	0.1524	1.5	14.44	F1	0.1524	Max. normal load, Charging Discharged battery (1S-1P)
264Vac, 50 Hz	0.1401	1.5	14.58	F1	0.1401	Max. normal load, Charging Discharged battery (1S-1P)
264Vac, 60 Hz	0.1472	1.5	14.90	F1	0.1472	Max. normal load, Charging Discharged battery (1S-1P)
supplementary information:						

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Clause	Requirement + Test	Result - Remark	Verdict

2.1.1.5 c) 1)	TABLE: Max. V, A, VA test				Pass
Voltage(rated) (V)	Current(rated) (A)	Voltage (max.) (V)	Current (max.) (A)	VA (max.) (VA)	
GTM91120-WVVV- X.X-AB series	--	--	--	--	
5Vdc	4A	5.4Vdc	5.286A	24.47VA	
48Vdc	0.625A	51.6Vdc	0.631A	31.2VA	
GTM91128LI1CEL	--	--	--	--	
4.2V	1A	4.146Vdc	1.314A	5.06VA	
GTM91128LI3CEL	--	--	--	--	
12.6V	1A	12.548Vdc	0.982A	11.84VA	
supplementary information:					
--					

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

2.2	TABLE: Evaluation of voltage limiting components in SELV circuits			Pass
Component (measured between)	max. voltage (V) (normal operation)		Voltage Limiting Components	
	V Peak	V d.c.		

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Clause	Requirement + Test	Result - Remark	Verdict

T1 Pin Ta - Common	284	--	D7
D7 sec pin - Common	52.4	--	--
Fault test performed on voltage limiting components	Voltage measured (V) in SELV circuits (V peak or V d.c.)		
D7	Within SELV		
supplementary information:			
--			

2.5	TABLE: limited power sources				Pass
Circuit output tested:	5V and 48 V output				
Measured Uoc (V) with all load circuits disconnected:	5.24V and 49.6V				
	Isc (A)		VA		
	Meas.	Limit	Meas.	Limit	
5V Output	--	--	--	--	
Normal condition	3.746	8	16.8	100	
Single fault: R11 S/C	7.03	8	28.6	100	
Single fault: R20 S/C	7.264	8	18.8	100	
48V Output	--	--	--	--	
Normal condition	1.006	8	46.8	100	
Single fault: R11 S/C	1.51	8	68.0	100	
supplementary information:					
Sc=short circuit, Oc-Open circuit					

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Clause	Requirement + Test	Result - Remark	Verdict

2.10.2	TABLE: working voltage measurement			Pass
Location	RMS Voltage (V)	Peak voltage (V)	Comments	
Model GTM91120-3048-AB	--	--	--	
T1 pin (5-TB)	240	630	--	
T1 pin (Pin 1) – R21	242	460	--	
CY1 Pri - Sec	240	360	--	
U2 Pin 2-4	240	381	--	
supplementary information:				
--				

2.10.3 and 2.10.4	TABLE: clearance and creepage distance measurements						Pass
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)	
--	--	--	--	--	--	--	
Functional:							
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)	
--	--	--	--	--	--	--	
Basic/supplementary:							
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)	
--	--	--	--	--	--	--	
Reinforced:							
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)	
Model GTM91120-3048-AB	--	--	--	--	--	--	
T1 Primary to Secondary	630	242	5.3	14.5	5.3	21.3	
T1 Pin 1(Primary) to R21 (Secondary)	460	242	5.3	10.3	5.3	17	
U2 Primary pin to Secondary pin	381	240	4.6	8.0	4.8	8.0	
CY1 Primary pin to Secondary pin	360	240	4.6	9.5	4.8	12	
supplementary information:							
- T1 Core is defined as Primary. - D/R is defined as Double/Reinforce Insulation.							

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Clause	Requirement + Test	Result - Remark	Verdict

2.10.5	TABLE: distance through insulation measurements					Pass
Distance through insulation (DTI) at/of:	U peak (V)	Urms (V)	Test voltage (V)	Required DTI (mm)	DTI (mm)	
Two layers of insulation tape	630	242	4125 Vac	--	--	
supplementary information:						
- See Table 1.5.1 for detail mfr. and type.						

4.3.8	TABLE: Batteries									N/A
The tests of 4.3.8 are applicable only when appropriate battery data is not available.										
Is it possible to install the battery in a reverse polarity position?										
	Non-rechargeable batteries			Rechargeable batteries						
	Discharging		Un-intentional charging	Charging		Discharging		Reversed charging		
	Meas. current	Manuf. specs.		Meas. current	Manuf. specs.	Meas. current	Manuf. specs.	Meas. current	Manuf. specs.	
Max. current during normal operation										
Max. current during fault operation										
Test results:										Verdict
- Chemical leaks										
- Explosion of the battery										
- Emission of flame or expulsion of molten metal										
- Electric strength tests of equipment after completion of tests										
supplementary information:										

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Clause	Requirement + Test	Result - Remark	Verdict

4.3.8	TABLE: Batteries					N/A
Battery Category (Lithium, NiMh, NiCad, Lithium ion, etc.).....:						
Manufacturer.....:						
Type/Model.....:						
Voltage.....:						
Capacity (mAh).....:						
Tested and Certified by (incl. Ref. No.).....:						
Circuit protection diagram (Refer indicated supplement of Enclosure-Miscellaneous).....:						
MARKINGS AND INSTRUCTIONS (1.7.12, 1.7.15)						
Location of replaceable battery.....:						
Language(s).....:						
Close to the battery.....:						
In the servicing instructions.....:						
In the operating instructions.....:						
In the operating instructions						
supplementary information:						
Additional devices may be described in Enclosure - Miscellaneous						

4.5	TABLE: Thermal requirements					Pass
Supply voltage (V)..... :	See below.	--	--	--	--	—
Ambient Tmin (°C) :	--	--	--	--	--	—
Ambient Tmax (°C) :	--	--	--	--	--	—
Maximum measured temperature T of part/at:	T (°C)					allowed Tmax (°C)
--	90Vac/60Hz,	264Va c/	264Va c/	--	--	--

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Clause	Requirement + Test	Result - Remark			Verdict	

		Label ,Model GTM 91120- 3048- P2	60Hz, Model GTM 91120- 3048- P2	60Hz, Model GTM9 1120- 3007.5 -2.5-P2			
AMBIENT		27.5	27.3	25.6	--	--	--
INPUT WIRE		46.2	41.9	40.1	--	--	85
F1		47.5	43.7	40.5	--	--	155
F2		46.9	42.4	38.2	--	--	130
LF1 Winding		59.5	50.4	46.2	--	--	130
C2		59.2	56.4	54.6	--	--	130
D4		64.2	55.9	50.4	--	--	120
CX1		49.7	47.0	44.6	--	--	130
Q1		61.3	62.4	57.1	--	--	100
T1 Core		63.1	65.8	62.5	--	--	130
T1 winding		64.8	68.4	64.5	--	--	130
CY1		57.4	60.7	55.9	--	--	120
U2		58.7	62.8	59.6	--	--	100
D7		62.1	70.0	70.5	--	--	110
LF2		50.8	54.7	61.5	--	--	130
OUTPUT WIRE, Inside near LF2		48.7	52.0	55.0	--	--	130
PWB near Q1		61.4	61.8	57.4	--	--	80
PWB near R11		61.9	57.2	54.0	--	--	130
ENCLOSURE, Inside, near Label		58.6	60.0	52.0	--	--	85
ENCLOSURE, Outside above Label		55.5	54.6	46.6	--	--	155
--		Supply Volutag e: 90VAC , 60Hz, Model GTM 91120- 3048- FW	Supply Volutag e: 264VA C, 60Hz, Model GTM 91120- 3048- FW	Supply Volutag e: 264VA C, 60Hz, Model GTM 91120- 3007.5 -2.5- FW	--	--	--
AMBIENT		40.0	40.0	40.0	--	--	40
INPUT CONNECTOR BODY		55.9	49.4	47.6	--	--	85
INPUT CONNECTOR PIN		51.5	47.4	47.6	--	--	155
F1		53.4	48.0	47.7	--	--	130
LF1 Winding		81.8	58.2	56.7	--	--	130
C2		77.6	67.5	63.1	--	--	85
D4		90.2	66.9	61.9	--	--	105
CX1		71.7	59.4	55.0	--	--	100
Q1		84.1	82.8	80.1	--	--	130

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Clause	Requirement + Test	Result - Remark				Verdict

T1 Core	88.2	96.5	86.2	--	--	120
T1 winding	90.3	98.4	87.5	--	--	120
CY1	65.3	68.1	69.5	--	--	85
U2	70.0	75.4	68.5	--	--	100
D7	84.0	99.4	96.4	--	--	105
LF2	56.6	59.8	91.0	--	--	130
OUTPUT connector	46.1	47.6	54.9	--	--	80
PWB near Q1	81.7	79.5	78.6	--	--	130
PWB near R11	82.9	74.0	71.1	--	--	130
--	Supply Voltage: 90VAC, 60Hz, Model GTM9 1128LI 3CEL, Loading 12.6V, 1000mA, charging fully discharged battery (3S-1P)	Supply Voltage: 264VA C, 60Hz, Model GTM9 1128LI 3CEL, Loading 12.6V, 1000mA, charging fully discharged battery (3S-1P)	Supply Voltage: 90VAC, 60Hz, Model GTM9 1128LI 1CEL, Loading 12.6V, 1000mA, charging fully discharged battery (3S-1P)	--	--	--
AMBIENT	40	40.0	40.0	--	--	40
AC INLET BODY	50.3	49.1	45.6	--	--	85
AC INLET PIN	51.3	51.8	46.8	--	--	155
F1	51.9	53.7	47.7	--	--	130
LF1 Winding	69.2	64.1	55.2	--	--	130
C2	72.0	72.8	61.1	--	--	120
D4	72.8	69.8	59.1	--	--	105
CX1	64.1	57.3	52.8	--	--	100
Q1	76.7	79.9	68.8	--	--	130
T1 Core	77.2	82.5	69.8	--	--	130
T1 winding	79.0	83.4	71.1	--	--	120
CY1	66.2	70.1	64.1	--	--	85
U2	74.5	76.7	66.9	--	--	100
Charging PWB near R1	73.9	81.2	68.7	--	--	130
Charging PWB near U100	100.1	98.1	95.2	--	--	130
OUTPUT WIRE, Inside near LF2	57.2	58.5	55.9	--	--	80

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Clause	Requirement + Test	Result - Remark	Verdict

Main PWB near Q1	76.4	80.5	68.8	--	--	130	
ENCLOSURE, Inside, above T1	62.7	68.9	56.4	--	--	125	
ENCLOSURE, Outside above Label	61.8	56.7	52.3	--	--	85	
temperature T of winding:	t ₁ (°C)	R ₁ (Ω)	t ₂ (°C)	R ₂ (Ω)	T (°C)	allowed T _{max} (°C)	insulation class
--	--	--	--	--	--	--	--
supplementary information:							
- Maximum Normal Load: Refer to table 1.6.2 for detail. - Tma = 40 degree C.							

4.5.5	TABLE: Ball pressure test of thermoplastic parts					Pass
	allowed impression diameter (mm)	:	2mm			—
part			test temperature (°C)	impression diameter (mm)		
T1 Bobbin, type CP-J-8800 by Hitachi Chemical Co Ltd			125	1.1		
supplementary information:						
--						

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

5.1	TABLE: touch current measurement				Pass
Measured between:		Measured (mA)	Limit (mA)	Comments/Conditions	
Enclosure (warp with metal)		0.00554	0.25	Model GT-91120-3048-P2	
Outut (" +/- ")		0.0794	0.25	Model GT-91120-3048-P2	
supplementary information:					
--					

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Clause	Requirement + Test	Result - Remark	Verdict

5.2	TABLE: electric strength tests, impulse tests and voltage surge tests			Pass
Test voltage applied between:	Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No	
			--	
Functional:				
Test voltage applied between:	Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No	
--	--	--	--	
Basic/supplementary:				
Test voltage applied between:	Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No	
Model GTM91120-WWVV-X.X-F series, Class I	--	--	No	
Power Supply Primary to Earth	AC	1563	No	
Reinforced:				
Test voltage applied between:	Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No	
Model GTM91120-WWVV-X.X-P2 series, Class II	--	--	--	
Primary – Secondary Output	AC	4125	No	
T1 Core - Secondary	AC	4125	No	
Triple Wire (Furukawa Electric / TEX-E) *	AC	4125	No	
TWO layer tape (3M Company / 1350F)	AC	4125	No	
Primary - Enclosure	AC	4125	No	
TWO layer tape (3M Company / 1350F, 1350-1, 35660Y, LY-20)	AC	4125	No	
Model GTM 91120-WWVV-X.X-FW series, Class II	--	--	--	
Primary – Secondary Output	AC	4125	No	
supplementary information:				
- T1 Core is defined as Primary.				

5.3	TABLE: fault condition tests		Pass
	ambient temperature (° C)	--	—
	Power source for EUT: Manufacturer, model/type, output rating	--	—

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Clause	Requirement + Test	Result - Remark	Verdict

Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
For model GTM91120 -3048-AB, B can be 2 or W	--	--	--	--	--	--
Diode D1	short	264V	1sec	F1	--	NB, NC, NT, Fuse open immediately
Diode C2	short	264V	1sec	F1	--	NB, NC, NT, Fuse open immediately
R11	short	264V	1sec	F1	--	NB, NC, NT, Fuse open immediately, Q1 damaged
U2B (Pri pin 1-2)	Short	264V	7 hr	F1	120mA	NB, NC, NT, Input and output bouncing Final Input: 264Vac, 20mA to 120mA, 3W to 20W Final Output: 29V, 0.18A T1= 54.64 °C
U2A(Sec pin 3-4)	short	264V	1 hr	F1	32mA	NB, NC, NT, Unit shut down. Final Input: 264Vac, 32mA, 0.6W Final Output: 0V, 0A
Mosfet Q1 (G-D)	short	264V	1sec.	F1	--	NB, NC, NT, Fuse opened immediately R11, R12, R13 and R14 damaged
Mosfet Q1 (S-D)	short	264V	1sec.	F1	--	NB, NC, NT, Fuse opened immediately R11, R12, R13 and R14 damaged
Mosfet Q1 (G-S)	short	264V	1 hr	F1	33mA	NB, NC, NT, Unit shut down. Final Input: 264Vac, 33mA, 0.6W Final Output: 0V, 0A
T1 Pin1-2 (Primary)	short	264V	30 mins.	F1	--	NB, NC, NT, Input and output bouncing Fuse open after run for 30mins R9, R11, R12, R13 and R14 damaged T1= 127.22°C
T1 Pin3-5 (Primary)	short	264V	15 mins.	F1	--	NB, NC, NT, Fuse (F1) opened R11, R12 damaged
D7	short	264V	10min.	F1	31.1mA	NB, NC, NT, Unit shut down Final Input: 264Vac,

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						31.1mA, 0.11W Final Output: 0V, 0A
R20	short	264V	10min.	F1	34.64mA	NB, NC, NT, Unit shut down No hazard Final Input: 264Vac, 34.64mA, 0.59W Final Output: 0V, 0A
Model GTM91120 -3007.5- 2.5-AB, B can 2 or W	--	--	--	--	--	--
U2A(Sec pin 3-4)	short	264V	15min.	F1	30mA	NB, NC, NT, Unit shut down Final Input: 264Vac, 30mA, 0.6W Final Output: 0V, 0A
D7	short	264V	1 hr	F1	30mA	NB, NC, NT, Unit shut down Final Input: 264Vac, 30mA, 0.6W Final Output: 0V, 0A
R20	short	264V	15mins.	F1	35mA	NB, NC, NT, Unit shut down. Final Input: 264Vac, 35mA, 0.7W Final Output: 0V, 0A
Output	Short	264V	15 mins	F1	34mA	NB, NC, NT, Unit shut down Final Input: 264Vac, 34mA
Output overload	short	264V	6.5 hr	F1	106.28mA	NB, NC, NT, Final Output: 4.65V, 5A T1= 109.64°C Output bouncing at 5.1A
Model GTM91128 L1CEL	--	--	--	--	--	--
Output	Short	264V	15 mins	F1	34mA	NB, NC, NT, Unit shut down Final Input: 0.066A T1= 47.3degC
Output overload	short	264V	4 hr	F1	106.28mA	NB, NC, NT, Final Output: 1.291A After 1.291A, unit Shut down T1= 88.4°C
Model GTM91128	--	--	--	--	--	--

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Clause	Requirement + Test	Result - Remark	Verdict

L3CEL						
Output	Short	264V	15 mins	F1	0.1028A	NB, NC, NT, Unit shut down Final Input: 0.0543A T1= 54.4degC
Output overload	short	264V	4 hr	F1	143.91mA	NB, NC, NT, Final Output: 0.965A After 0.965A, unit Shut down T1= 88.6°C

supplementary information:

Results Key: IP = Internal protection operated (component indicated) CT = Constant temperatures were obtained TW = Transformer winding opened CD = Components damaged (damaged components indicated) NB = No indication of dielectric breakdown YB = Dielectric breakdown (time and location indicated) NC = Cheesecloth remained intact YC = Cheesecloth charred or flamed NT = Tissue paper remained intact YT = Tissue paper charred or flamed

C.2	TABLE: transformers						Pass
Loc.	Tested insulation	Working voltage peak /V (2.10.2)	Working voltage rms /V (2.10.2)	Required electric strength (5.2)	Required clearance / mm (2.10.3)	Required creepage distance / mm (2.10.4)	Required distance thr. insul. (2.10.5)
T1	Reinforced Insulation	630	242	3000	5.3	5.3	--
Loc.	Tested insulation			Test voltage / V	Measured clearance / mm	Measured creepage dist./mm	Measured distance thr. insul / mm; number of layers
T1	Reinforced Insulation			4125	14.5	21.3	--
Transformer type number				Enclosure - Miscellaneous ID			
See component List							
supplementary information:							
--							