



PRODUCT SAFETY ENGINEERING, INC.

9F-1 No.80, Sec. 2, Guang Fu Rd., San Chung Dist., New Taipei City 241, Taiwan
TEL : +886-2-85123188 FAX : +886-2-29959169 E-MAIL: service@psemail.com.tw

LVD Report

MSTronic Co., Ltd.



MIT-09x-VVFF

(x=G or blank, VV=18, 24, or 56, FF=D, R or blank)



PSE INC. TAIWAN

9F-1 No.80, Sec. 2, Guang Fu Rd., San Chung Dist., New Taipei City 241, Taiwan
Tel:+886-2-85123188 Fax:+886-2-29959169



Certificate of Compliance

Low Voltage Directive 2006/95/EC

Certificate Number: PSE100-0484

Manufacturer: MStronic Co., Ltd.

2F., No. 12, Gong Shang Rd., Wugu District, New Taipei City 248,
Taiwan

Product : PoE injector.

Model/Type : MIT-09x-VVFF

(x=G or blank, VV=18, 24, or 56, FF=D, R or blank)

Electrical Rating: See report

Trade Mark: 

Standards applied: IEC 60950-1:2005 (2nd Edition); A1:2009
EN 60950-1:2006 (2nd Edition); A11:2009

The tested samples of the above products are in conformity with the technical provisions of the
Following European Directive -

- Low Voltage Directive 2006/95/EC -

Date Issued: 2011-10-18

Approve & Authorized Signer: 

Jeff Chang



EU Declaration of Conformity



According to the Low Voltage Directive 2006/95/EC

For the following equipment:

Product:

PoE injector.

Type Designation/Trademark:

MIT-09x-VVFF

(x=G or blank, VV=18, 24, or 56, FF=D, R or blank)

Manufacturer's Name:

MSTronic Co., Ltd.

Manufacturer's Address:

2F., No. 12, Gong Shang Rd., Wugu District,
New Taipei City 248, Taiwan

is herewith confirmed to comply with the requirements set out in the Council Directive 2006/95/EC for electrical equipment used within certain voltage limits. For the evaluation of the compliance with this Directives, the following standards were applied:

IEC 60950-1:2005 (2nd Edition); A1:2009

EN 60950-1:2006 (2nd Edition); A11:2009

Responsible for making this declaration is the :

Manufacturer ☐

Authorized representative established within the EU ☐

Authorized representative established within the EU (if applicable) :

Company Name :

Company Address :

Person responsible for making this declaration

Name, Surname :

Position/Title :

(Place)

(Date)

(Company stamp and legal signature)

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Test Report

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

Report Number.: PSE100-0484

Date of issue: 2011-10-18

Total number of pages: 59

Testing Laboratory.....: Product Safety Engineering Inc. Taiwan

Address: 9F-1 No.80, Sec. 2, Guang Fu Rd., San Chung Dist., New Taipei City 241, Taiwan

Applicant's name.....: MStronic Co., Ltd.

Address: 2F., No. 12, Gong Shang Rd., Wugu District, New Taipei City 248, Taiwan

Manufacturer's name.....: MStronic Co., Ltd.

Address: 2F., No. 12, Gong Shang Rd., Wugu District, New Taipei City 248, Taiwan

Test specification:

Standard: IEC 60950-1:2005 (2nd Edition); A1:2009
EN 60950-1:2006 (2nd Edition); A11:2009

Test procedure: LVD of CE

Non-standard test method.....: N/A

Test Report Form No.....: IEC60950_1B

Test Report Form(s) Originator: SGS Fimko Ltd

Master TRF.....: Dated 2010-04

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

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

Test item description: PoE injector.

Trade Mark: 

Manufacturer: MStronic Co., Ltd.

Model/Type reference: MIT-09x-VVFF
(x=G for Gigabite or blank, VV=18, 24 or 56 for output voltage, FF=D for DETECTION or R for REVERSE or blank)

Ratings: MIT-09x-18FF:
I/P: 100-240Vac, 47-63Hz, 0.7-0.45A
O/P: 18Vdc, 2A, 36W Max.
MIT-09x-24FF:
I/P: 100-240Vac, 47-63Hz, 0.96-0.57A
O/P: 24Vdc, 2A, 48W Max.

MIT-09x-56R ,MIT-09x-56:

I/P: 100-240Vac, 47-63Hz, 1.02-0.63A

O/P: 56Vdc, 0.9A, 50.4W Max.

MIT-09x-56D :

I/P: 100-240Vac, 47-63Hz, 1.02-0.63A

O/P: 56Vdc, 0.63A

Testing procedure and testing location:		
☐	CB Testing Laboratory: Testing location/ address.....:	
☐	Associated CB Laboratory: Testing location/ address :	
	Tested by (name + signature): Jacky Hsu	
	Approved by (+ signature).....: Jeff Chang	
☐	Testing procedure: TMP Tested by (name + signature): Approved by (+ signature).....: Testing location/ address.....:	
☐	Testing procedure: WMT Tested by (name + signature): Witnessed by (+ signature): Approved by (+ signature).....: Testing location/ address.....:	
☐	Testing procedure: SMT Tested by (name + signature): Approved by (+ signature).....: Supervised by (+ signature): Testing location/ address.....:	
☐	Testing procedure: RMT Tested by (name + signature): Approved by (+ signature).....: Supervised by (+ signature): Testing location/ address.....:	

Summary of testing: Unless otherwise indicated, all tests were conducted at PSE Inc. Taiwan, 9F-1 No.80, Sec. 2, Guang Fu Rd., San Chung Dist., New Taipei City, Taiwan	
Tests performed (name of test and test clause): Maximum Output Voltage, Current, and Volt-Ampere Measurement (1.2.2.1) Input: Single-Phase (1.6.2) Durability of Marking (1.7.11) Energy Hazard Measurements (2.1.1.5, 2.1.2, 1.2.8.10) SELV Reliability (2.2.2, 2.2.3, 2.2.4, Part 22 6.1) TNV-1, TNV-2, TNV-3 LIMITS (NORMAL) (2.3.1) TNV-1, TNV-2, TNV-3 LIMITS (SINGLE FAULT) (2.3.1, 2.3.4) Protective Bonding I (2.6.3.4, 2.6.1).7) Protective Bonding II (2.6.3.4, 2.6.1) Limited Current Circuit Measurement (2.4.1, 2.4.2) Limited Power Source Measurements (2.5) Humidity (2.9.1, 2.9.2, 5.2.2) Determination of Working Voltage; Working Voltage Measurement (2.10.2) Determination of Working Voltage; Hazardous Voltage (Circuit) Measurement (2.10.2, Part 22 6.1) Transformer and Wire /Insulation Electric Strength (2.10.5.6, 2.10.5.13) Steady Force (4.2.1 - 4.2.4) Impact (4.2.5, 4.2.1, Part 22 10.2) Drop Test (4.2.6, 4.2.1) Stress Relief (4.2.7, 4.2.1) Sharp Edge Test (4.3.1) Heating (4.5.1, 1.4.12, 1.4.13) Touch Current (Single-Phase; TN/TT System) (5.1, Annex D) Electric Strength (5.2.2) Component Failure (5.3.1, 5.3.4, 5.3.7) Transformer Abnormal Operation (5.3.3, 5.3.7b, Annex C.1) Power Supply Output Short-Circuit/Overload (5.3.7) ELECTRIC STRENGTH TEST PROCEDURE - IMPULSE TEST (6.2.2.1) ELECTRIC STRENGTH TEST PROCEDURE - STEADY-STATE TEST (6.2.2.2)	Testing location:
Summary of compliance with National Differences: CE only	

Copy of marking plate

MIT-09G-24R

AC Input	DC Output
100-240V 47-63Hz 0.96-0.57A	24V $\equiv$ 2A

Pin	RJ45 Input	RJ45 Output
1	BI_DA+	BI_DA+
2	BI_DA-	BI_DA-
3	BI_DB+	BI_DB+
4	BI_DC+	BI_DC+ -Vdc
5	BI_DC-	BI_DC- -Vdc
6	BI_DB-	BI_DB-
7	BI_DD+	BI_DD+ +Vdc
8	BI_DD-	BI_DD- +Vdc

S/N:

MADE IN TAIWAN

MIT-09-24R

AC Input	DC Output
100-240V 47-63Hz 0.96-0.57A	24V $\equiv$ 2A

Pin	RJ45 Input	RJ45 Output
1	RX+	RX+
2	RX-	RX-
3	TX+	TX+
4	NC	-Vdc
5	NC	-Vdc
6	TX-	TX-
7	NC	+Vdc
8	NC	+Vdc

S/N:

MADE IN TAIWAN

MIT-09G-18R

AC Input	DC Output
100-240V 47-63Hz 0.7-0.45A	18V $\equiv$ 2A

Pin	RJ45 Input	RJ45 Output
1	BI_DA+	BI_DA+
2	BI_DA-	BI_DA-
3	BI_DB+	BI_DB+
4	BI_DC+	BI_DC+ -Vdc
5	BI_DC-	BI_DC- -Vdc
6	BI_DB-	BI_DB-
7	BI_DD+	BI_DD+ +Vdc
8	BI_DD-	BI_DD- +Vdc

S/N:

MADE IN TAIWAN

MIT-09-18R

AC Input	DC Output
100-240V 47-63Hz 0.7-0.45A	18V $\equiv$ 2A

Pin	RJ45 Input	RJ45 Output
1	RX+	RX+
2	RX-	RX-
3	TX+	TX+
4	NC	-Vdc
5	NC	-Vdc
6	TX-	TX-
7	NC	+Vdc
8	NC	+Vdc

S/N:

MADE IN TAIWAN

MIT-09G-24

AC Input	DC Output
100-240V 47-63Hz 0.96-0.57A	24V $\equiv$ 2A

Pin	RJ45 Input	RJ45 Output
1	BI_DA+	BI_DA+
2	BI_DA-	BI_DA-
3	BI_DB+	BI_DB+
4	BI_DC+	BI_DC+ +Vdc
5	BI_DC-	BI_DC- +Vdc
6	BI_DB-	BI_DB-
7	BI_DD+	BI_DD+ -Vdc
8	BI_DD-	BI_DD- -Vdc

S/N:

MADE IN TAIWAN

MIT-09-24

AC Input	DC Output
100-240V 47-63Hz 0.96-0.57A	24V $\equiv$ 2A

Pin	RJ45 Input	RJ45 Output
1	RX+	RX+
2	RX-	RX-
3	TX+	TX+
4	NC	+Vdc
5	NC	+Vdc
6	TX-	TX-
7	NC	-Vdc
8	NC	-Vdc

S/N:

MADE IN TAIWAN

MIT-09G-18

AC Input	DC Output
100-240V 47-63Hz 0.7-0.45A	18V $\equiv$ 2A

Pin	RJ45 Input	RJ45 Output
1	BI_DA+	BI_DA+
2	BI_DA-	BI_DA-
3	BI_DB+	BI_DB+
4	BI_DC+	BI_DC+ +Vdc
5	BI_DC-	BI_DC- +Vdc
6	BI_DB-	BI_DB-
7	BI_DD+	BI_DD+ -Vdc
8	BI_DD-	BI_DD- -Vdc

S/N:

MADE IN TAIWAN

MIT-09-18

AC Input	DC Output
100-240V 47-63Hz 0.7-0.45A	18V $\equiv$ 2A

Pin	RJ45 Input	RJ45 Output
1	RX+	RX+
2	RX-	RX-
3	TX+	TX+
4	NC	+Vdc
5	NC	+Vdc
6	TX-	TX-
7	NC	-Vdc
8	NC	-Vdc

S/N:

MADE IN TAIWAN

MIT-09G-56R

AC Input	DC Output
100-240V 47-63Hz 1.02-0.63A	56V $\equiv$ 0.9A

Pin	RJ45 Input	RJ45 Output
1	BI_DA+	BI_DA+
2	BI_DA-	BI_DA-
3	BI_DB+	BI_DB+
4	BI_DC+	BI_DC+ -Vdc
5	BI_DC-	BI_DC- -Vdc
6	BI_DB-	BI_DB-
7	BI_DD+	BI_DD+ +Vdc
8	BI_DD-	BI_DD- +Vdc

S/N:

MADE IN TAIWAN

MIT-09G-56

AC Input	DC Output
100-240V 47-63Hz 1.02-0.63A	56V --- 0.9A

Pin	RJ45 Input	RJ45 Output
1	BI_DA+	BI_DA+
2	BI_DA-	BI_DA-
3	BI_DB+	BI_DB+
4	BI_DC+	BI_DC+ +Vdc
5	BI_DC-	BI_DC- +Vdc
6	BI_DB-	BI_DB-
7	BI_DD+	BI_DD+ -Vdc
8	BI_DD-	BI_DD- -Vdc

S/N:

MADE IN TAIWAN

MIT-09-56R

AC Input	DC Output
100-240V 47-63Hz 1.02-0.63A	56V --- 0.9A

Pin	RJ45 Input	RJ45 Output
1	RX+	RX+
2	RX-	RX-
3	TX+	TX+
4	NC	-Vdc
5	NC	-Vdc
6	TX-	TX-
7	NC	+Vdc
8	NC	+Vdc

S/N:

MADE IN TAIWAN

MIT-09-56

AC Input	DC Output
100-240V 47-63Hz 1.02-0.63A	56V --- 0.9A

Pin	RJ45 Input	RJ45 Output
1	RX+	RX+
2	RX-	RX-
3	TX+	TX+
4	NC	+Vdc
5	NC	+Vdc
6	TX-	TX-
7	NC	-Vdc
8	NC	-Vdc

S/N:

MADE IN TAIWAN

MIT-09G-56D

AC Input	DC Output
100-240V 47-63Hz / 1.02-0.63A	56V/0.63A L.P.S

Pin	RJ45 Input	RJ45 Output
1	BI_DA+	BI_DA+
2	BI_DA-	BI_DA-
3	BI_DB+	BI_DB+
4	BI_DC+	BI_DC+ +Vdc
5	BI_DC-	BI_DC- +Vdc
6	BI_DB-	BI_DB-
7	BI_DD+	BI_DD+ -Vdc
8	BI_DD-	BI_DD- -Vdc

S/N:

MADE IN TAIWAN

LISTED
I.T.E
E314090

MIT-09-56D

AC Input	DC Output
100-240V 47-63Hz / 1.02-0.63A	56V/0.63A L.P.S

Pin	RJ45 Input	RJ45 Output
1	RX+	RX+
2	RX-	RX-
3	TX+	TX+
4	NC	+Vdc
5	NC	+Vdc
6	TX-	TX-
7	NC	-Vdc
8	NC	-Vdc

S/N:

MADE IN TAIWAN

LISTED
I.T.E
E314090

Test item particulars	Splitter of power over Ethernet)
Equipment mobility.....	☒ movable ☐ hand-held ☐ transportable ☐ stationary ☐ for building-in ☐ direct plug-in
Connection to the mains	☒ pluggable equipment ☒ type A ☐ type B ☐ permanent connection ☒ detachable power supply cord ☐ non-detachable power supply cord ☐ not directly connected to the mains
Operating condition.....	☒ continuous ☐ rated operating / resting time:
Access location	☒ operator accessible ☐ restricted access location
Over voltage category (OVC)	☐ OVC I ☒ OVC II ☐ OVC III ☐ OVC IV ☐ other:
Mains supply tolerance (%) or absolute mains supply values	+10%, -10% (manufacturer declare)
Tested for IT power systems	☒ Yes ☐ No
IT testing, phase-phase voltage (V)	230V for Norway only
Class of equipment	☒ Class I ☐ Class II ☐ Class III ☐ Not classified
Considered current rating of protective device as part of the building installation (A)	16A (20A for North American)
Pollution degree (PD)	☐ PD 1 ☒ PD 2 ☐ PD 3
IP protection class	IP20
Altitude during operation (m)	2000
Altitude of test laboratory (m)	100
Mass of equipment (kg)	0.23
Possible test case verdicts:	
- test case does not apply to the test object	N/A (or N)
- test object does meet the requirement	P (Pass)
- test object does not meet the requirement	F (Fail)
Testing	
Date of receipt of test item.....	2011-07-25
Date(s) of performance of tests.....	2011-07-25 to 2011-10-06
General remarks:	
The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory. "(see Enclosure #)" refers to additional information appended to the report. "(see appended table)" refers to a table appended to the report. Throughout this report a ☐ comma / ☒ point is used as the decimal separator.	

Name and address of factory (ies) : 1)	Lih Rong Electronic Enterprise Co., Ltd. 2F, No. 2, Lane 387, Hsin Shu Road, Hsin Chung District, New Taipei City, 242 Taiwan R.O.C
2)	CHATA ELECTRONICS LTD 43 LAN 57 DONGSHUN ST.SHULIN DISTRICT NEW TAIPEI CITY 238 TW

General product information:
Product Description:

The product is an Power over Ethernet (PoE) for Information Technology Equipment (ITE). All live parts are enclosed in a thermoplastic enclosure, provided with appliance inlet for connection to the AC mains supply and an output in RJ45 connectors.

Technical Considerations:

The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of 40°C

The means of connection to the mains supply is: Detachable power cord, Pluggable A

The product is intended for use on the following power systems: TN, IT for Norway

The equipment disconnect device is considered to be: Appliance inlet

The following accessible locations (with circuit/schematic designation) were investigated as a limited power source (LPS): RJ45 ports.

The following Telecommunication Network Voltage (TNV-1) circuit locations (with circuit/schematic designation) with exposed plant leads were investigated to Clause 6 and 7: RJ-45 connector

The following are available from the Applicant upon request: Specific data sheets for LED indicators that are class I and operate at wavelength in the 400-710 nm range.

For Instruction manual provided with the unit, reviewed only English language. Applicant to furnish Instructions in language suitable for countries noted in National Differences Enclosure of the report when submitting for National Certification.

The product was investigated to the following additional standards : EN 60950-1:2006+A11:2009(which includes all European national difference, including those specified in this report)

IEC 60950-1/Am1			
Clause	Requirement + Test	Result - Remark	Verdict
1	GENERAL		P
1.5	Components		P
1.5.1	General	See as below.	P
	Comply with IEC 60950-1 or relevant component standard	(see appended tables 1.5.1)	P
1.5.2	Evaluation and testing of components	Components certified to IEC harmonized standard and checked for correct application. Components not certified are used in accordance with their ratings and they comply with applicable parts of IEC 60950-1 and the relevant component Standard. Components, for which no relevant IEC-Standard exist, have been tested under the conditions occurring in the equipment, using applicable parts of IEC 60950-1.	P
1.5.3	Thermal controls	No thermal controls provided	N/A
1.5.4	Transformers	See Annex C	P
1.5.5	Interconnecting cables	Interconnection o/p cable to other device is carrying only SELV and energy level didn't exceed 240VA	P
1.5.6	Capacitors bridging insulation	Line-to-line capacitors are subclass X1 or X2. Double Insulation bridged by a single capacitor complying with IEC 60384-14, subclass Y1 Accessible conductive parts separated from other parts by DOUBLE or REINFORCED INSULATION bridged by CY1 comply with the requirements for LIMITED CURRENT CIRCUITS.	P
1.5.7	Resistors bridging insulation	See below.	P
1.5.7.1	Resistors bridging functional, basic or supplementary insulation	Bleeder resistors provided for bridging functional insulation only	P
1.5.7.2	Resistors bridging double or reinforced insulation between a.c. mains and other circuits	No such Resistors provided.	N/A

IEC 60950-1/Am1			
Clause	Requirement + Test	Result - Remark	Verdict
1.5.7.3	Resistors bridging double or reinforced insulation between a.c. mains and antenna or coaxial cable	No such Resistors provided.	N/A
1.5.8	Components in equipment for IT power systems	Y-Cap. are all rated min. 230V and complied with IEC 60384-14, and others component in such condition has suitable voltage rating. (see appended table 1.5.1)	P
1.5.9	Surge suppressors	See below.	P
1.5.9.1	General	Approved Varistor comply with Annex Q used in primary circuit.	P
1.5.9.2	Protection of VDRs	A fuse is connected in series with VDR.	P
1.5.9.3	Bridging of functional insulation by a VDR	Approved Varistor locate between mains lines.	P
1.5.9.4	Bridging of basic insulation by a VDR	No VDR provided in basic insulation.	N/A
1.5.9.5	Bridging of supplementary, double or reinforced insulation by a VDR	No VDR provided in double or reinforced insulation.	N/A

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

1.7	Marking and instructions		P
1.7.1	Power rating and identification markings		P
1.7.1.1	Power rating marking	Rating marking readily visible to operator. See below for details.	P
	Multiple mains supply connections.....:	Not multiple powers.	N/A
	Rated voltage(s) or voltage range(s) (V)	100-240 Vac	P

IEC 60950-1/Am1			
Clause	Requirement + Test	Result - Remark	Verdict
	Symbol for nature of supply, for d.c. only.....:	Mains from AC source.	N/A
	Rated frequency or rated frequency range (Hz) ...:	47-63 Hz	P
	Rated current (mA or A)	1) MIT-09x-18FF: 0.7-0.45A 2) MIT-09x-24FF: 0.96-0.57A 3) MIT-09x-56FF: 1.02-0.63A	P
1.7.1.2	Identification markings	See as below.	P
	Manufacturer's name or trade-mark or identification mark	MSTronic Co., Ltd. or 	P
	Model identification or type reference	MIT-09x-VVFF (x=G for Gigabite or blank, VV=18, 24 or 56 for output voltage, FF=D for DETECTION or R for REVERSE or blank)	P
	Symbol for Class II equipment only	Class I equipment.	N/A
	Other markings and symbols	Additional symbols or markings do not give rise to misunderstanding.	P
1.7.2	Safety instructions and marking	See below.	P
1.7.2.1	General	Operating/safety instructions made available to the user.	P
1.7.2.2	Disconnect devices	Applicant inlet is provided as disconnection device.	P
1.7.2.3	Overcurrent protective device	The equipment is Pluggable Type A	P
1.7.2.4	IT power distribution systems	230V for Norway only.	P
1.7.2.5	Operator access with a tool	No operator accessible area which needs to be accessed by use of a tool.	N/A
1.2.7.6	Ozone	No ozone provided.	N/A
1.7.3	Short duty cycles	The equipment is intended for continuous operation	N/A
1.7.4	Supply voltage adjustment	No Voltage adjustment device provided	N/A
	Methods and means of adjustment; reference to installation instructions	Same as above.	N/A
1.7.5	Power outlets on the equipment	No socket-outlets provided.	N/A
1.7.6	Fuse identification (marking, special fusing characteristics, cross-reference)	Fuse marking on PCB near fuse: F1: T2A/250V	P
1.7.7	Wiring terminals	See below.	P

IEC 60950-1/Am1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.7.1	Protective earthing and bonding terminals	The earth terminal is marked with the standard earth symbol (60417-2-IEC-5019) near the terminal.	P
1.7.7.2	Terminals for a.c. mains supply conductors	Not permanently connected equipment and no non-detachable power supply cords provided.	N/A
1.7.7.3	Terminals for d.c. mains supply conductors	Mains from AC source only.	N/A
1.7.8	Controls and indicators	No safety relevant controls and indicators used.	N/A
1.7.8.1	Identification, location and marking	Same as above.	N/A
1.7.8.2	Colours	Same as above.	N/A
1.7.8.3	Symbols according to IEC 60417	Same as above.	N/A
1.7.8.4	Markings using figures	Same as above.	N/A
1.7.9	Isolation of multiple power sources	Only one supply from the mains.	N/A
1.7.10	Thermostats and other regulating devices	No thermostats provided.	N/A
1.7.11	Durability	All markings provided on UL Recognized Component labels suitable for surface they are applied upon and meet the durability test and the label was subjected to the permanence of marking test. The label was rubbed with cloth soaked with water for 15s and then again for 15 s with the cloth soaked with petroleum spirit. After this test there was no damage to the label. The marking on the label did not fade. There was no curling nor lifting of the label edge.	P
1.7.12	Removable parts	No marking is located on removable parts.	P
1.7.13	Replaceable batteries	No battery provided.	N/A
	Language(s)	Same as above.	-
1.7.14	Equipment for restricted access locations.....	Equipment is not intended for use in restricted access locations.	N/A
2	PROTECTION FROM HAZARDS		P
2.1	Protection from electric shock and energy hazards		P

IEC 60950-1/Am1													
Clause	Requirement + Test	Result - Remark	Verdict										
2.1.1	Protection in operator access areas	See below.	Pass										
2.1.1.1	Access to energized parts	No operator access to energized parts.	Pass										
	Test by inspection:	No operator access to energized parts.	Pass										
	Test with test finger (Figure 2A):	The test finger was unable to contact bare hazardous parts, basic insulation, or ELV circuits.	Pass										
	Test with test pin (Figure 2B):	The test pin was unable to contact bare hazardous parts.	Pass										
	Test with test probe (Figure 2C):	No TNV circuit provided.	N/A										
2.1.1.2	Battery compartments	No TNV circuit provided.	N/A										
2.1.1.3	Access to ELV wiring	No ELV wiring in operator access area.	N/A										
	Working voltage (Vpeak or Vrms); minimum distance through insulation (mm)	Same as above.	-										
2.1.1.4	Access to hazardous voltage circuit wiring	No hazardous voltage wiring in operator accessible area.	N/A										
2.1.1.5	Energy hazards:	The hazardous energy circuits can't be bridged by the test finger in a straight position.	N/A										
2.1.1.6	Manual controls	No conductive shafts of operating knobs or handles provided.	N/A										
2.1.1.7	Discharge of capacitors in equipment	No risk of electric shock, see below.	P										
	Measured voltage (V); time-constant (s):	Result: <table><tr><td>Location</td><td>Swi tch</td><td>V (pk)</td><td>37% (pk)</td><td>Vtc (pk)</td></tr><tr><td>L-N</td><td>--</td><td>372</td><td>138</td><td>62</td></tr></table> 37% time of Vo: 794ms , τ =R * C = 855ms	Location	Swi tch	V (pk)	37% (pk)	Vtc (pk)	L-N	--	372	138	62	-
Location	Swi tch	V (pk)	37% (pk)	Vtc (pk)									
L-N	--	372	138	62									
2.1.1.8	Energy hazards – d.c. mains supply	Mains from AC source only.	N/A										
	a) Capacitor connected to the d.c. mains supply ..:	Same as above.	N/A										
	b) Internal battery connected to the d.c. mains supply:	Same as above.	N/A										
2.1.1.9	Audio amplifiers:	No audio amplifiers provided.	N/A										
2.1.2	Protection in service access areas	No serviceable unit. This unit is not intended to service in the event of failure. Service personnel will replace the unit.	N/A										

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Clause	Requirement + Test	Result - Remark	Verdict
2.1.3	Protection in restricted access locations	The equipment is not intended to be used in restricted locations.	N/A

2.2	SELV circuits		P
2.2.1	General requirements	See below for details.	P
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 (see appended table 2.2)	P
2.2.3	Voltages under fault conditions (V):	Under fault conditions voltages never exceed 71V peak and 120Vdc and do not exceed 42.4V peak or 60V dc for more than 0.2 sec. (see appended table 2.2)	P
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 reinforced insulation. SELV circuit does not exceed the SELV limits under normal and fault conditions.	P

2.3	TNV circuits		P
2.3.1	Limits	Complies by inspection base on review of circuit voltages. Worst case selected: Model No. MIT-09x-56FF: Result:(Method A Europe w/5kΩ) Normal operation: +56V to RTN=56.5Vdc Single Faule operation: +56V to RTN=56.5Vdc (PL1A pin1 open)	P
	Type of TNV circuits:	TNV-1	-
2.3.2	Separation from other circuits and from accessible parts	See below.	P

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Clause	Requirement + Test	Result - Remark	Verdict
2.3.2.1	General requirements	Under normal operating condition, SELV circuit and accessible conductive parts do not exceed the limits specified in 2.3.1 a).	P
2.3.2.2	Protection by basic insulation	Only TNV-1	N/A
2.3.2.3	Protection by earthing	Only TNV-1	N/A
2.3.2.4	Protection by other constructions	Only TNV-1	N/A
2.3.3	Separation from hazardous voltages	TNV-1 circuits are separated from circuits at hazardous voltages by the following method: reinforced insulation: Separately primary circuit	P
	Insulation employed	Same as above.	-
2.3.4	Connection of TNV circuits to other circuits	TNV is only connected to other secondary circuits. TNV and all interconnected circuits separated from primary by Double insulation with certified adapters. TNV circuit complies with 2.3.1 limits under normal and fault conditions.	P
	Insulation employed	Same as above.	-
2.3.5	Test for operating voltages generated externally	Not applicable	N/A

2.4	Limited current circuits		P
2.4.1	General requirements	The output connector is accessible to the user and connected to the primary circuit by one Y1 bridging capacitor. Worst case selected: Model No. MIT-09x-56FF:	P
2.4.2	Limit values	0.7mA	P
	Frequency (Hz).....	0.06	-
	Measured current (mA)	0.35	-
	Measured voltage (V)	0.7	-
	Measured circuit capacitance (nF or μ F)	$\leq 0.1\mu$ F	-
2.4.3	Connection of limited current circuits to other circuits	Output circuit as limited current circuit connected to other circuits.	P

2.5	Limited power sources	(see appended table 2.5)	P
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Clause	Requirement + Test	Result - Remark	Verdict
	a) Inherently limited output	No Inherently limited output	N/A
	b) Impedance limited output	No Impedance limited output	N/A
	c) Regulating network limited output under normal operating and single fault condition	(see appended table 2.5)	P
	d) Overcurrent protective device limited output	No overcurrent protective device limited output provided.	N/A
	Max. output voltage (V), max. output current (A), max. apparent power (VA)	(see appended table 2.5)	-
	Current rating of overcurrent protective device (A) ..	No overcurrent protective device provided.	-
	Use of integrated circuit (IC) current limiters	No such IC used.	N/A

2.6	Provisions for earthing and bonding		P
2.6.1	Protective earthing	Protective earthing provided as one level of protection against electric shock.	P
2.6.2	Functional earthing	Functional Earthing connected to protective bonding.	P
2.6.3	Protective earthing and protective bonding conductors		P
2.6.3.1	General	See 2.6.3.4.	P
2.6.3.2	Size of protective earthing conductors	Power supply cord earthing conductor complies with Table 3B.	P
	Rated current (A), cross-sectional area (mm ²), AWG	Rated input 1.02 A max., min. 0.75mm ² / 18AWG wire shall be used.	-
2.6.3.3	Size of protective bonding conductors	Protective bonding conductors evaluated based on 2.6.3.3 and 2.6.3.4.	P
	Rated current (A), cross-sectional area (mm ²), AWG	Rated input 1.02A max., 0.75 mm ² / 18AWG wire was used, see 2.6.3.4 for test result also.	-
	Protective current rating (A), cross-sectional area (mm ²), AWG	Worst case selected: Model No. MIT-09x-56FF: Result: Between Inlet PE and PCB: 0.216V / 0.0068Ω (32A) Between Inlet PE and PCB: 0.27V (40A)	P
2.6.3.4	Resistance of earthing conductors and their terminations; resistance (Ω), voltage drop (V), test current (A), duration (min)	Earth pin of Appliance inlet was direct solder to PCB.	P

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Clause	Requirement + Test	Result - Remark	Verdict
2.6.3.5	Colour of insulation.....:	See 2.6.3.4.	P
2.6.4	Terminals	See below.	P
2.6.4.1	General	Appliance Inlet employed and the unit meet the test requirement of 2.6.3.4.	P
2.6.4.2	Protective earthing and bonding terminals	See above.	N/A
	Rated current (A), type, nominal thread diameter (mm)	Same as above.	-
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors	Earth pin of Appliance inlet was direct solder to PCB.	P
2.6.5	Integrity of protective earthing	See below.	P
2.6.5.1	Interconnection of equipment	This unit has its own earthing connection. Any other units connected via the output wires to other unit shall provide SELV only.	P
2.6.5.2	Components in protective earthing conductors and protective bonding conductors	No switches or fuses in earthing conductors.	N/A
2.6.5.3	Disconnection of protective earth	Disconnection of the protective earth at one assembly removes connection of HAZARDOUS VOLTAGES from the other assemblies at the same time.	P
2.6.5.4	Parts that can be removed by an operator	No operator removable parts with protective earth connection except supply cord.	N/A
2.6.5.5	Parts removed during servicing	Connections to protective earthing cannot be removed unless hazardous voltage is removed from the part simultaneously. To be determine in the end products.	N/A
2.6.5.6	Corrosion resistance	No risk of corrosion. Complies with Annex J.	P
2.6.5.7	Screws for protective bonding	No such screw used for bonding.	N/A
2.6.5.8	Reliance on telecommunication network or cable distribution system	No such TNV circuit provided.	N/A

2.7	Overcurrent and earth fault protection in primary circuits		P
2.7.1	Basic requirements	Protective devices are integrated in the equipment.	P
	Instructions when protection relies on building installation	The equipment is pluggable Type A	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
2.7.2	Faults not simulated in 5.3.7	Adequate fault protection provided.	N/A
2.7.3	Short-circuit backup protection	The building installation is considered as providing short-circuit backup protection.	P
2.7.4	Number and location of protective devices	One protective device in the "LIVE" phase	P
2.7.5	Protection by several devices	Only one protective device is provided.	N/A
2.7.6	Warning to service personnel.....	No service work necessary.	N/A

2.8	Safety interlocks		N/A
2.8.1	General principles	No safety interlocks provided.	N/A
2.8.2	Protection requirements	Same as above.	N/A
2.8.3	Inadvertent reactivation	Same as above.	N/A
2.8.4	Fail-safe operation	Same as above.	N/A
	Protection against extreme hazard	Same as above.	N/A
2.8.5	Moving parts	Same as above.	N/A
2.8.6	Overriding	Same as above.	N/A
2.8.7	Switches, relays and their related circuits	Same as above.	N/A
2.8.7.1	Separation distances for contact gaps and their related circuits (mm)	Same as above.	N/A
2.8.7.2	Overload test	Same as above.	N/A
2.8.7.3	Endurance test	Same as above.	N/A
2.8.7.4	Electric strength test	Same as above.	N/A
2.8.8	Mechanical actuators	Same as above.	N/A

2.9	Electrical insulation		P
2.9.1	Properties of insulating materials	See appended table 1.5.1	P
2.9.2	Humidity conditioning	Humidity treatment performed to 120hrs in condition :95% humidity, 40°C. Electric strength test conducted after the humidity treatment.	P
	Relative humidity (%), temperature (°C)	95%, 40°C	-
2.9.3	Grade of insulation	No flash over or breakdown of insulation.5.2	P
2.9.4	Separation from hazardous voltages	See below.	P
	Method(s) used	Method 1 used.	-

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Clause	Requirement + Test	Result - Remark	Verdict
2.10	Clearances, creepage distances and distances through insulation		P
2.10.1	General	See below.	P
2.10.1.1	Frequency	EUT frequency under 30kHz.	P
2.10.1.2	Pollution degrees	2	P
2.10.1.3	Reduced values for functional insulation	See sub-clause 5.3.4.	P
2.10.1.4	Intervening unconnected conductive parts	No such conductive parts.	N/A
2.10.1.5	Insulation with varying dimensions	Not applicable.	N/A
2.10.1.6	Special separation requirements	Only TNV-1 for output.	N/A
2.10.1.7	Insulation in circuits generating starting pulses	No lamps provided.	N/A
2.10.2	Determination of working voltage	See below.	P
2.10.2.1	General	The rms and the peak voltage were measured on the switching power supply. The unit was connected to a 240V TN power system. (See appended table 2.10.2)	P
2.10.2.2	RMS working voltage	(See appended table 2.10.2)	P
2.10.2.3	Peak working voltage	(See appended table 2.10.2)	P
2.10.3	Clearances	(see appended table 2.10.3 and 2.10.4).	P
2.10.3.1	General	Annex F and minimum clearances considered.	P
2.10.3.2	Mains transient voltages	See below.	P
	a) AC mains supply	Overvoltage category II for primary circuit and transient voltage 2500V _{peak} .	P
	b) Earthed d.c. mains supplies	Not applicable.	N/A
	c) Unearthed d.c. mains supplies	Not applicable.	N/A
	d) Battery operation	Not applicable.	N/A
2.10.3.3	Clearances in primary circuits	Functional insulation only. Waived by short circuit fault test per Sub-clause 5.3.4 . See appended table 5.3.	N/A
2.10.3.4	Clearances in secondary circuits	Functional insulation only. Waived by short circuit fault test per Sub-clause 5.3.4 . See appended table 5.3.	N/A
2.10.3.5	Clearances in circuits having starting pulses	No lamps provided.	N/A
2.10.3.6	Transients from a.c. mains supply	See sub-clause 2.10.3.2.	P
2.10.3.7	Transients from d.c. mains supply	Mains from AC source only.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
2.10.3.8	Transients from telecommunication networks and cable distribution systems	No networks and cable distribution systems provided.	N/A
2.10.3.9	Measurement of transient voltage levels	See sub-clause 2.10.3.6.	N/A
	a) Transients from a mains supply	Same as above.	N/A
	For an a.c. mains supply	Same as above.	N/A
	For a d.c. mains supply	Same as above.	N/A
	b) Transients from a telecommunication network :	Same as above.	N/A
2.10.4	Creepage distances	(see appended table 2.10.3 and 2.10.4)	P
2.10.4.1	General	Complied.	P
2.10.4.2	Material group and comparative tracking index	Material group IIIb assumed.	P
		CTI rating for all materials of min. 100.	-
	CTI tests	(see appended table 2.10.3 and 2.10.4)	P
2.10.4.3	Minimum creepage distances	(see appended table 2.10.3 and 2.10.4)	P
2.10.5	Solid insulation		P
2.10.5.1	General	See below.	P
2.10.5.2	Distances through insulation	(see appended table 2.10.5)	P
2.10.5.3	Insulating compound as solid insulation	Complied with 2.10.5.2 and 2.10.10.	P
2.10.5.4	Semiconductor devices	See 2.10.5.3.	P
2.10.5.5.	Cemented joints	(see appended table 2.10.3 and 2.10.4)	P
2.10.5.6	Thin sheet material – General	Complied.	P
2.10.5.7	Separable thin sheet material	Reinforced insulation.	P
	Number of layers (pcs)	(see appended table 5.2).	-
2.10.5.8	Non-separable thin sheet material	Not applicable.	N/A
2.10.5.9	Thin sheet material – standard test procedure	See below.	P
	Electric strength test	(see appended table 2.10.5)	-
2.10.5.10	Thin sheet material – alternative test procedure	See below.	P
	Electric strength test	Electric strength test applied to each two layers.	-
2.10.5.11	Insulation in wound components	See sub-clause 2.10.5.12.	P
2.10.5.12	Wire in wound components	Certified source of triple insulated wire used in T1 for Reinforced insulation.	P
	Working voltage	See 2.10.2.	P

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Clause	Requirement + Test	Result - Remark	Verdict
	a) Basic insulation not under stress	Not applicable.	N/A
	b) Basic, supplementary, reinforced insulation	Not applicable.	N/A
	c) Compliance with Annex U	Triple insulated wire is used in secondary winding for reinforced insulation for secondary winding for reinforced insulation for T1, also see annex U and appended table 1.5.1.	P
	Two wires in contact inside wound component; angle between 45° and 90°	Insulation tape and/or tubing provided.	P
2.10.5.13	Wire with solvent-based enamel in wound components	Not applicable.	N/A
	Electric strength test	Same as above.	-
	Routine test	Same as above.	N/A
2.10.5.14	Additional insulation in wound components	Not applicable.	N/A
	Working voltage	Same as above.	N/A
	- Basic insulation not under stress	Same as above.	N/A
	- Supplementary, reinforced insulation	Same as above.	N/A
2.10.6	Construction of printed boards	See below.	P
2.10.6.1	Uncoated printed boards	(see appended table 2.10.3 and 2.10.4)	P
2.10.6.2	Coated printed boards	No coated printed board provided.	N/A
2.10.6.3	Insulation between conductors on the same inner surface of a printed board	Not applicable.	N/A
2.10.6.4	Insulation between conductors on different layers of a printed board	Not applicable.	N/A
	Distance through insulation	Same as above.	N/A
	Number of insulation layers (pcs).....	Same as above.	N/A
2.10.7	Component external terminations	(see appended table 2.10.3 and 2.10.4)	P
2.10.8	Tests on coated printed boards and coated components	Not applicable.	N/A
2.10.8.1	Sample preparation and preliminary inspection	Same as above.	N/A
2.10.8.2	Thermal conditioning	Same as above.	N/A
2.10.8.3	Electric strength test	Same as above.	N/A
2.10.8.4	Abrasion resistance test	Same as above.	N/A
2.10.9	Thermal cycling	Certified sources of photo couplers used.	P

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Clause	Requirement + Test	Result - Remark	Verdict
2.10.10	Test for Pollution Degree 1 environment and insulating compound	No cracks or voids in the insulating material.	P
2.10.11	Tests for semiconductor devices and cemented joints	No cracks, voids or gapes in the insulating material.	P
2.10.12	Enclosed and sealed parts	Passed 2.10.10.	P

3	WIRING, CONNECTIONS AND SUPPLY		P
3.1	General		P
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.	P
3.1.2	Protection against mechanical damage	The wires are routed away from sharp edges and parts which could damage insulation.	P
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.	P
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.	P
3.1.5	Beads and ceramic insulators	Not used.	N/A
3.1.6	Screws for electrical contact pressure	No screws electrical connection used.	N/A
3.1.7	Insulating materials in electrical connections	No contact pressure through insulating material.	P
3.1.8	Self-tapping and spaced thread screws	No spaced threads screws for electrical connections.	P
3.1.9	Termination of conductors	All conductors are reliable secured.	P
	10 N pull test	10 N pull test performed for all relevant conductors. No hazards caused hereby.	P
3.1.10	Sleeving on wiring	Not used.	N/A
3.2	Connection to a mains supply		P
3.2.1	Means of connection	See below.	P

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Clause	Requirement + Test	Result - Remark	Verdict
3.2.1.1	Connection to an a.c. mains supply	Appliance inlet used.	P
3.2.1.2	Connection to a d.c. mains supply	Mains from AC source only.	N/A
3.2.2	Multiple supply connections	Only one supply connection.	N/A
3.2.3	Permanently connected equipment	The unit is not permanent connected equipment.	N/A
	Number of conductors, diameter of cable and conduits (mm)	Same as above.	-
3.2.4	Appliance inlets	The appliance inlet complies with IEC 60320.	P
3.2.5	Power supply cords	A power supply cord suitable for application and subject to country's national code and regulations to be provided by the manufacturer; proper application is determined by the country's local Certification Body.	N/A
3.2.5.1	AC power supply cords	Same as above.	N/A
	Type	Same as above.	-
	Rated current (A), cross-sectional area (mm ²), AWG	Same as above.	-
3.2.5.2	DC power supply cords	Mains from AC source only.	N/A
3.2.6	Cord anchorages and strain relief	The equipment does not use a non-detachable power supply cord	N/A
	Mass of equipment (kg), pull (N)	Same as above.	-
	Longitudinal displacement (mm)	Same as above.	-
3.2.7	Protection against mechanical damage	The equipment does not use a non-detachable power supply cord	N/A
3.2.8	Cord guards	The equipment does not use a non-detachable power supply cord	N/A
	Diameter or minor dimension D (mm); test mass (g)	Same as above.	-
	Radius of curvature of cord (mm).....	Same as above.	-
3.2.9	Supply wiring space	The equipment is not permanently connected or provided with a non-detachable power supply cord	N/A
3.3	Wiring terminals for connection of external conductors		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
3.3.1	Wiring terminals	The equipment is not permanently connected or provided with a non-detachable power supply cord	N/A
3.3.2	Connection of non-detachable power supply cords	Same as above.	N/A
3.3.3	Screw terminals	Same as above.	N/A
3.3.4	Conductor sizes to be connected	Same as above.	N/A
	Rated current (A), cord/cable type, cross-sectional area (mm ²).....:	Same as above.	-
3.3.5	Wiring terminal sizes	Same as above.	N/A
	Rated current (A), type, nominal thread diameter (mm)	Same as above.	-
3.3.6	Wiring terminal design	Same as above.	N/A
3.3.7	Grouping of wiring terminals	Same as above.	N/A
3.3.8	Stranded wire	Same as above.	N/A

3.4	Disconnection from the mains supply		P
3.4.1	General requirement	See below.	P
3.4.2	Disconnect devices	The equipment is provided with an appliance coupler.	P
3.4.3	Permanently connected equipment	The unit is not permanently connected equipment.	N/A
3.4.4	Parts which remain energized	No parts remained energy after disconnection of plug.	P
3.4.5	Switches in flexible cords	No such switch provided.	N/A
3.4.6	Number of poles - single-phase and d.c. equipment	Appliance coupler disconnects both poles.	P
3.4.7	Number of poles - three-phase equipment	Single-phase equipment.	N/A
3.4.8	Switches as disconnect devices	No switch or the switch is not a disconnect device.	N/A
3.4.9	Plugs as disconnect devices	Not used.	N/A
3.4.10	Interconnected equipment	Not interconnected equipment.	N/A
3.4.11	Multiple power sources	Only one supply connection provided.	N/A

3.5	Interconnection of equipment		P
3.5.1	General requirements	See as below.	P
3.5.2	Types of interconnection circuits	SELV CIRCUIT are only connected to SELV CIRCUITS or LIMITED CURRENT CIRCUITS.	P

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Clause	Requirement + Test	Result - Remark	Verdict
3.5.3	ELV circuits as interconnection circuits	No ELV interconnection.	N/A
3.5.4	Data ports for additional equipment	No such part provided.	N/A

4	PHYSICAL REQUIREMENTS		P
4.1	Stability		N/A
	Angle of 10°	Total mass not exceed 7kg.	N/A
	Test force (N)	Equipment is not a floor standing unit.	N/A

4.2	Mechanical strength		P
4.2.1	General	See below.	P
	Rack-mounted equipment.	Not Rack-mounted equipment.	N/A
4.2.2	Steady force test, 10 N	10 N were applied to components. No energy or other hazards.	P
4.2.3	Steady force test, 30 N	No internal enclosure provided.	N/A
4.2.4	Steady force test, 250 N	Worst case selected: Model No. MIT-09x-56FF: Location: - Top, Bottom and Side enclosure Results: No energy or other hazards. Material used: Chi Mei # PA-765A; TEIJIN # LN-1250G (see 1.5.1 list of critical components)	P
4.2.5	Impact test	Worst case selected: Model No. MIT-09x-56FF: Location: - Top, Bottom and Side enclosure Results: No energy or other hazards. Material used: Chi Mei # PA-765A; TEIJIN # LN-1250G (see 1.5.1 list of critical components)	P
	Fall test	Same as above.	P

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Clause	Requirement + Test	Result - Remark	Verdict
	Swing test	Not applicable.	N/A
4.2.6	Drop test; height (mm):	Worst case selected: Model No. MIT-09x-56FF: Location: - Top, Bottom and Side enclosure Results: No energy or other hazards. Material used: Chi Mei # PA-765A; TEIJIN # LN-1250G (see 1.5.1 list of critical components)	P
4.2.7	Stress relief test	Worst case selected: Model No. MIT-09x-56FF: No indication of shrinkage or distortion on enclosures due to the stress relief test 94.9°C/7h. See enclosed test record. Material used: Chi Mei # PA-765A; TEIJIN # LN-1250G (see 1.5.1 list of critical components)	P
4.2.8	Cathode ray tubes	No cathode ray tube provided.	N/A
	Picture tube separately certified:	Same as above.	N/A
4.2.9	High pressure lamps	No high pressure lamps provided.	N/A
4.2.10	Wall or ceiling mounted equipment; force (N):	Not wall or ceiling mounted equipment.	N/A
4.2.11	Rotating solid media	No such construction.	N/A
	Test to cover on the door.....:	Same as above.	N/A

4.3	Design and construction		P
4.3.1	Edges and corners	All edges and corners are judged to be sufficiently well rounded so as not to constitute a hazard.	P
4.3.2	Handles and manual controls; force (N)..... :	No handles or manual controls provided.	N/A
4.3.3	Adjustable controls	No control devices provided.	N/A
4.3.4	Securing of parts	All components are fixed to retain position in event of termination failure.	P

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Clause	Requirement + Test	Result - Remark	Verdict
4.3.5	Connection by plugs and sockets	No misconnection to mains is likely for output (SELV) connector. Connectors complying with IEC 60083 or IEC 60320 is not be used for SELV circuit output.	N/A
4.3.6	Direct plug-in equipment	No direct plug-in type.	N/A
	Torque	Same as above.	N/A
	Compliance with the relevant mains plug standard	Same as above.	N/A
4.3.7	Heating elements in earthed equipment	No heating elements provided.	N/A
4.3.8	Batteries	No batteries provided.	N/A
	- Overcharging of a rechargeable battery	Same as above.	N/A
	- Unintentional charging of a non-rechargeable battery	Same as above.	N/A
	- Reverse charging of a rechargeable battery	Same as above.	N/A
	- Excessive discharging rate for any battery	Same as above.	N/A
4.3.9	Oil and grease	No oil or grease provided.	N/A
4.3.10	Dust, powders, liquids and gases	Equipment in intended use not considered to be exposed to these.	N/A
4.3.11	Containers for liquids or gases	The equipment does not contain liquid or gases.	N/A
4.3.12	Flammable liquids	No flammable liquids in this unit.	N/A
	Quantity of liquid (l)	Same as above.	N/A
	Flash point (°C)	Same as above.	N/A
4.3.13	Radiation		P
4.3.13.1	General	See below.	P
4.3.13.2	Ionizing radiation	No Ionizing radiation provided.	N/A
	Measured radiation (pA/kg)	Same as above.	-
	Measured high-voltage (kV)	Same as above.	-
	Measured focus voltage (kV)	Same as above.	-
	CRT markings	Same as above.	-
4.3.13.3	Effect of ultraviolet (UV) radiation on materials	No UV radiation provided.	N/A
	Part, property, retention after test, flammability classification	Same as above.	N/A
4.3.13.4	Human exposure to ultraviolet (UV) radiation	No UV radiation provided.	N/A
4.3.13.5	Lasers (including laser diodes) and LEDs	See below.	P
4.3.13.5.1	Lasers (including laser laser diodes)	No lasers provided.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Laser class	No other types provided.	-
4.3.13.5.2	Light emitting diodes (LEDs)	This product contains only visible indicator LEDs (Class 1) operating in the range of 400 - 700 nm wavelength. No IEC60825-1 evaluation was deemed necessary. Additional review may be required at the discretion of the accepting NCB.	P
4.3.13.6	Other types	No Ionizing radiation provided.	N/A

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

4.5	Thermal requirements		P
4.5.1	General	See as below.	P
4.5.2	Temperature tests	(see appended table 4.5)	P
	Normal load condition per Annex L	Operated in the most unfavourable way of operation given in the operating instructions until steady conditions established.	—
4.5.3	Temperature limits for materials	(see appended table 4.5)	P
4.5.4	Touch temperature limits	(see appended table 4.5)	P
4.5.5	Resistance to abnormal heat	Phenolic bobbin materials used	N/A

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Clause	Requirement + Test	Result - Remark	Verdict

4.6	Openings in enclosures		P
4.6.1	Top and side openings	Openings are provided with louvers, baffles, etc., which preclude the entry of objects.	P
	Dimensions (mm)	Do not exceed 1mm in width regardless of length.	-
4.6.2	Bottoms of fire enclosures	No opening provided.	P
	Construction of the bottom, dimensions (mm) ..	Same as above.	-
4.6.3	Doors or covers in fire enclosures	No such Doors or covers	N/A
4.6.4	Openings in transportable equipment	Not transportable equipment.	N/A
4.6.4.1	Constructional design measures	Same as above.	N/A
	Dimensions (mm)	Same as above.	—
4.6.4.2	Evaluation measures for larger openings	Same as above.	N/A
4.6.4.3	Use of metallized parts	Same as above.	N/A
4.6.5	Adhesives for constructional purposes	No barrier or screen secured with adhesive.	N/A
	Conditioning temperature (°C), time (weeks)	Same as above.	—

4.7	Resistance to fire		P
4.7.1	Reducing the risk of ignition and spread of flame	Method 1: Selection and application of components and materials which minimize the possibility of ignition and spread of flame.	P
	Method 1, selection and application of components wiring and materials	(see appended table 4.7)	P
	Method 2, application of all of simulated fault condition tests	Not applicable.	N/A
4.7.2	Conditions for a fire enclosure	See below.	P
4.7.2.1	Parts requiring a fire enclosure	Fire enclosure covers all parts.	P
4.7.2.2	Parts not requiring a fire enclosure	See 4.7.2.1.	N/A
4.7.3	Materials		P
4.7.3.1	General	Materials with the required flammability classes are used.	P
4.7.3.2	Materials for fire enclosures	Flammability rating minimum V-1. (see appended table 1.5.1)	P
4.7.3.3	Materials for components and other parts outside fire enclosures	No components or parts outside fire enclosures.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
4.7.3.4	Materials for components and other parts inside fire enclosures	All internal materials are rated minimum 94V-2 or better or are mounted on a PWB rated 94V-1 or better.	P
4.7.3.5	Materials for air filter assemblies	No air filter assemblies.	N/A
4.7.3.6	Materials used in high-voltage components	No high voltage component used.	N/A

5	ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS		P
5.1	Touch current and protective conductor current		P
5.1.1	General	See sub-clause 5.1.2 to 5.1.7.	P
5.1.2	Configuration of equipment under test (EUT)	See below.	P
5.1.2.1	Single connection to an a.c. mains supply	EUT has only one mains connection.	P
5.1.2.2	Redundant multiple connections to an a.c. mains supply	See 5.1.2.1.	N/A
5.1.2.3	Simultaneous multiple connections to an a.c. mains supply	See 5.1.2.1.	N/A
5.1.3	Test circuit	Equipment of figure 5A used.	P
5.1.4	Application of measuring instrument	Tests are conducted using one of the measuring instruments in annex D, or any other circuit giving the same results.	P
5.1.5	Test procedure	The touch current was measured from mains to DC output connector and protective earthing terminal.	P
5.1.6	Test measurements	See below.	P
	Supply voltage (V)	264Vac	-
	Measured touch current (mA)	Maximum 0.7 mA (Between primary and metal earth) Maximum 0.14 mA (Between primary and output and foil)	-
	Max. allowed touch current (mA)	3.5 mA	-
	Measured protective conductor current (mA)	N/A	-
	Max. allowed protective conductor current (mA)....	N/A	-
5.1.7	Equipment with touch current exceeding 3,5 mA	Touch current does not exceed 3.5mA.	N/A
5.1.7.1	General	Same as above.	N/A
5.1.7.2	Simultaneous multiple connections to the supply	Same as above.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.1.8	Touch currents to telecommunication networks and cable distribution systems and from telecommunication networks	TNV-1 only.	N/A
5.1.8.1	Limitation of the touch current to a telecommunication network or to a cable distribution system	Same as above.	N/A
	Supply voltage (V)	Same as above.	—
	Measured touch current (mA)	Same as above.	—
	Max. allowed touch current (mA)	Same as above.	—
5.1.8.2	Summation of touch currents from telecommunication networks	Same as above.	N/A
	a) EUT with earthed telecommunication ports	Same as above.	N/A
	b) EUT whose telecommunication ports have no reference to protective earth	Same as above.	N/A

5.2	Electric strength		P
5.2.1	General	Based on the electric strength test the use of the insulating materials within the equipment is satisfactory. (see appended table 5.2)	P
5.2.2	Test procedure	No insulation breakdown detected during the test. (see appended table 5.2)	P

5.3	Abnormal operating and fault conditions		P
5.3.1	Protection against overload and abnormal operation	(see appended table 5.3)	P
5.3.2	Motors	No motor provided.	N/A
5.3.3	Transformers	Transformers are constructed in accordance with the applicable Clause and Annex C.	P
5.3.4	Functional insulation.....	Functional insulation complies with the requirements (a), (b), or (c).	P
5.3.5	Electromechanical components	No electromechanical components.	N/A
5.3.6	Audio amplifiers in ITE	No audio amplifiers provided.	N/A
5.3.7	Simulation of faults	(see appended table 5.3)	P
5.3.8	Unattended equipment	None of them are used.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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.	P
5.3.9.1	During the tests	No fire, emission of molten metal or deformation was noted during the tests.	P
5.3.9.2	After the tests	Electric strength test made.	P

6	CONNECTION TO TELECOMMUNICATION NETWORKS		P
6.1	Protection of telecommunication network service persons, and users of other equipment connected to the network, from hazards in the equipment		P
6.1.1	Protection from hazardous voltages		P
6.1.2	Separation of the telecommunication network from earth		N/A
6.1.2.1	Requirements	TNV-1 only.	N/A
	Supply voltage (V)	Same as above.	—
	Current in the test circuit (mA)	Same as above.	—
6.1.2.2	Exclusions	Same as above.	N/A

6.2	Protection of equipment users from overvoltages on telecommunication networks		P
6.2.1	Separation requirements	Separation between TNV-1 circuit and circuitry provided for connection to other equipment is supplementary insulation.	P
6.2.2	Electric strength test procedure	See below.	P
6.2.2.1	Impulse test	Tested with 1500V in case b, complies with 6.2.2.3.	P
6.2.2.2	Steady-state test	Tested with 1500V in case b, complies with 6.2.2.3.	P
6.2.2.3	Compliance criteria	No breakdown of insulation during above tests.	P

6.3	Protection of the telecommunication wiring system from overheating		N/A
	Max. output current (A)	Not applicable.	—
	Current limiting method	Same as above.	—

7	CONNECTION TO CABLE DISTRIBUTION SYSTEMS		N/A
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Clause	Requirement + Test	Result - Remark	Verdict
7.1	General	Not connected to cable distribution system.	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	Same as above.	N/A
7.3	Protection of equipment users from overvoltages on the cable distribution system	Same as above.	N/A
7.4	Insulation between primary circuits and cable distribution systems	Same as above.	N/A
7.4.1	General	Same as above.	N/A
7.4.2	Voltage surge test	Same as above.	N/A
7.4.3	Impulse test	Same as above.	N/A

IEC 60950-1/Am1			
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)	Unit total mass not exceeding 18 kg.	N/A
A.1.1	Samples	Same as above.	—
	Wall thickness (mm).....	Same as above.	—
A.1.2	Conditioning of samples; temperature (°C)	Same as above.	N/A
A.1.3	Mounting of samples	Same as above.	N/A
A.1.4	Test flame (see IEC 60695-11-3)	Same as above.	N/A
	Flame A, B, C or D	Same as above.	—
A.1.5	Test procedure	Same as above.	N/A
A.1.6	Compliance criteria	Same as above.	N/A
	Sample 1 burning time (s).....	Same as above.	—
	Sample 2 burning time (s).....	Same as above.	—
	Sample 3 burning time (s).....	Same as above.	—
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	Approved material used.	—
	Wall thickness (mm).....	Same as above.	—
A.2.2	Conditioning of samples; temperature (°C)	Same as above.	N/A
A.2.3	Mounting of samples	Same as above.	N/A
A.2.4	Test flame (see IEC 60695-11-4)	Same as above.	N/A
	Flame A, B or C	Same as above.	—
A.2.5	Test procedure	Same as above.	N/A
A.2.6	Compliance criteria	Same as above.	N/A
	Sample 1 burning time (s).....	Same as above.	—
	Sample 2 burning time (s).....	Same as above.	—
	Sample 3 burning time (s).....	Same as above.	—
A.2.7	Alternative test acc. to IEC 60695-11-5, cl. 5 and 9	Same as above.	N/A
	Sample 1 burning time (s).....	Same as above.	—
	Sample 2 burning time (s).....	Same as above.	—
	Sample 3 burning time (s).....	Same as above.	—
A.3	Hot flaming oil test (see 4.6.2)	Approved material used.	N/A
A.3.1	Mounting of samples	Same as above.	N/A
A.3.2	Test procedure	Same as above.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
A.3.3	Compliance criterion	Same as above.	N/A

B	ANNEX B, MOTOR TESTS UNDER ABNORMAL CONDITIONS (see 4.7.2.2 and 5.3.2)		N/A
B.1	General requirements	No motor provided.	N/A
	Position	Same as above.	—
	Manufacturer	Same as above.	—
	Type	Same as above.	—
	Rated values	Same as above.	—
B.2	Test conditions	Same as above.	N/A
B.3	Maximum temperatures	Same as above.	N/A
B.4	Running overload test	Same as above.	N/A
B.5	Locked-rotor overload test	Same as above.	N/A
	Test duration (days)	Same as above.	—
	Electric strength test: test voltage (V)	Same as above.	—
B.6	Running overload test for d.c. motors in secondary circuits	Same as above.	N/A
B.6.1	General	Same as above.	N/A
B.6.2	Test procedure	Same as above.	N/A
B.6.3	Alternative test procedure	Same as above.	N/A
B.6.4	Electric strength test; test voltage (V)	Same as above.	N/A
B.7	Locked-rotor overload test for d.c. motors in secondary circuits	Same as above.	N/A
B.7.1	General	Same as above.	N/A
B.7.2	Test procedure	Same as above.	N/A
B.7.3	Alternative test procedure	Same as above.	N/A
B.7.4	Electric strength test; test voltage (V)	Same as above.	N/A
B.8	Test for motors with capacitors	Same as above.	N/A
B.9	Test for three-phase motors	Same as above.	N/A
B.10	Test for series motors	Same as above.	N/A
	Operating voltage (V)	Same as above.	—

C	ANNEX C, TRANSFORMERS (see 1.5.4 and 5.3.3)		P
	Position	Transformer (T1)	-
	Manufacturer	See Table 1.5.1 for details.	-
	Type	See Table 1.5.1 for details.	-
	Rated values	See Table 1.5.1 for details.	-

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Clause	Requirement + Test	Result - Remark	Verdict
	Method of protection	Inherent circuit protection.	-
C.1	Overload test	See Table 5.3 for details.	P
C.2	Insulation	(see appended table 5.2)	P
	Protection from displacement of windings	Triple insulated wire used.	P

D	ANNEX D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS (see 5.1.4)		P
D.1	Measuring instrument	Figure D.1 used.	P
D.2	Alternative measuring instrument	Not used.	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)		P
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G	ANNEX G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES		N/A
G.1	Clearances	Not used.	N/A
G.1.1	General	Same as above.	N/A
G.1.2	Summary of the procedure for determining minimum clearances	Same as above.	N/A
G.2	Determination of mains transient voltage (V)	Same as above.	N/A
G.2.1	AC mains supply	Same as above.	N/A
G.2.2	Earthed d.c. mains supplies	Same as above.	N/A
G.2.3	Unearthed d.c. mains supplies	Same as above.	N/A
G.2.4	Battery operation	Same as above.	N/A
G.3	Determination of telecommunication network transient voltage (V)	Same as above.	N/A
G.4	Determination of required withstand voltage (V)	Same as above.	N/A
G.4.1	Mains transients and internal repetitive peaks	Same as above.	N/A
G.4.2	Transients from telecommunication networks	Same as above.	N/A
G.4.3	Combination of transients	Same as above.	N/A
G.4.4	Transients from cable distribution systems	Same as above.	N/A
G.5	Measurement of transient voltages (V)	Same as above.	N/A
	a) Transients from a mains supply	Same as above.	N/A
	For an a.c. mains supply	Same as above.	N/A
	For a d.c. mains supply	Same as above.	N/A
	b) Transients from a telecommunication network	Same as above.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
G.6	Determination of minimum clearances	Same as above.	N/A
H	ANNEX H, IONIZING RADIATION (see 4.3.13)		N/A
J	ANNEX J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6)		P
	Metal(s) used	Complied.	—
K	ANNEX K, THERMAL CONTROLS (see 1.5.3 and 5.3.8)		N/A
K.1	Making and breaking capacity	No thermal controls provided.	N/A
K.2	Thermostat reliability; operating voltage (V)	Same as above.	N/A
K.3	Thermostat endurance test; operating voltage (V)	Same as above.	N/A
K.4	Temperature limiter endurance; operating voltage (V)	Same as above.	N/A
K.5	Thermal cut-out reliability	Same as above.	N/A
K.6	Stability of operation	Same as above.	N/A
L	ANNEX L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.2)		P
L.1	Typewriters	Not such type.	N/A
L.2	Adding machines and cash registers	Not such type.	N/A
L.3	Erasers	Not such type.	N/A
L.4	Pencil sharpeners	Not such type.	N/A
L.5	Duplicators and copy machines	Not such type.	N/A
L.6	Motor-operated files	Not such type.	N/A
L.7	Other business equipment	Continuous operation at rated output load.	P
M	ANNEX M, CRITERIA FOR TELEPHONE RINGING SIGNALS (see 2.3.1)		N/A
M.1	Introduction	No ringing signals provided.	N/A
M.2	Method A	Same as above.	N/A
M.3	Method B	Same as above.	N/A
M.3.1	Ringing signal	Same as above.	N/A
M.3.1.1	Frequency (Hz)	Same as above.	—
M.3.1.2	Voltage (V)	Same as above.	—
M.3.1.3	Cadence; time (s), voltage (V)	Same as above.	—
M.3.1.4	Single fault current (mA)	Same as above.	—

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Clause	Requirement + Test	Result - Remark	Verdict
M.3.2	Tripping device and monitoring voltage	Same as above.	N/A
M.3.2.1	Conditions for use of a tripping device or a monitoring voltage	Same as above.	N/A
M.3.2.2	Tripping device	Same as above.	N/A
M.3.2.3	Monitoring voltage (V)	Same as above.	N/A
N	ANNEX N, IMPULSE TEST GENERATORS (see 1.5.7.2, 1.5.7.3, 2.10.3.9, 6.2.2.1, 7.3.2, 7.4.3 and Clause G.5)		N/A
N.1	ITU-T impulse test generators	No such construction.	N/A
N.2	IEC 60065 impulse test generator	Same as above.	N/A
P	ANNEX P, NORMATIVE REFERENCES		P
Q	ANNEX Q, Voltage dependent resistors (VDRs) (see 1.5.9.1)		P
	a) Preferred climatic categories	Varistor is certified component, see appended table 1.5.1.	P
	b) Maximum continuous voltage	Ditto.	P
	c) Pulse current	Ditto.	P
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)	No such construction.	N/A
R.2	Reduced clearances (see 2.10.3)	Same as above.	N/A
S	ANNEX S, PROCEDURE FOR IMPULSE TESTING (see 6.2.2.3)		N/A
S.1	Test equipment	No such construction.	N/A
S.2	Test procedure	Same as above.	N/A
S.3	Examples of waveforms during impulse testing	Same as above.	N/A
T	ANNEX T, GUIDANCE ON PROTECTION AGAINST INGRESS OF WATER (see 1.1.2)		N/A
		IPX0	—
U	ANNEX U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4)		P
		Certified triple insulated wire used, see Table 1.5.1 for details.	—

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Clause	Requirement + Test	Result - Remark	Verdict
V	ANNEX V, AC POWER DISTRIBUTION SYSTEMS (see 1.6.1)		P
V.1	Introduction	See below.	P
V.2	TN power distribution systems	Single-phase TN power system considered and used for testing. 230V for Norway	P
W	ANNEX W, SUMMATION OF TOUCH CURRENTS		N/A
W.1	Touch current from electronic circuits	Not used.	N/A
W.1.1	Floating circuits	Same as above.	N/A
W.1.2	Earthed circuits	Same as above.	N/A
W.2	Interconnection of several equipments	Same as above.	N/A
W.2.1	Isolation	Same as above.	N/A
W.2.2	Common return, isolated from earth	Same as above.	N/A
W.2.3	Common return, connected to protective earth	Same as above.	N/A
X	ANNEX X, MAXIMUM HEATING EFFECT IN TRANSFORMER TESTS (see clause C.1)		N/A
X.1	Determination of maximum input current	Not applicable.	N/A
X.2	Overload test procedure	Same as above.	N/A
Y	ANNEX Y, ULTRAVIOLET LIGHT CONDITIONING TEST (see 4.3.13.3)		N/A
Y.1	Test apparatus	Not applicable.	N/A
Y.2	Mounting of test samples	Same as above.	N/A
Y.3	Carbon-arc light-exposure apparatus	Same as above.	N/A
Y.4	Xenon-arc light exposure apparatus	Same as above.	N/A
Z	ANNEX Z, OVERVOLTAGE CATEGORIES (see 2.10.3.2 and Clause G.2)		P
AA	ANNEX AA, MANDREL TEST (see 2.10.5.8)		N/A
BB	ANNEX BB, CHANGES IN THE SECOND EDITION		—
CC	ANNEX CC, Evaluation of integrated circuit (IC) current limiters		N/A
CC.1	General	No such part.	N/A
CC.2	Test program 1.....	Same as above.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
CC.3	Test program 2.....:	Same as above.	N/A

DD	ANNEX DD, Requirements for the mounting means of rack-mounted equipment		N/A
DD.1	General	No such part.	N/A
DD.2	Mechanical strength test, variable N.....:	Same as above.	N/A
DD.3	Mechanical strength test, 250N, including end stops.....:	Same as above.	N/A
DD.4	Compliance.....:	Same as above.	N/A

EE	ANNEX EE, Household and home/office document/media shredders		N/A
EE.1	General	No such part.	N/A
EE.2	Markings and instructions	Same as above.	N/A
	Use of markings or symbols.....:	Same as above.	N/A
	Information of user instructions, maintenance and/or servicing instructions.....:	Same as above.	N/A
EE.3	Inadvertent reactivation test.....:	Same as above.	N/A
EE.4	Disconnection of power to hazardous moving parts:	Same as above.	N/A
	Use of markings or symbols.....:	Same as above.	N/A
EE.5	Protection against hazardous moving parts	Same as above.	N/A
	Test with test finger (Figure 2A)	Same as above.	N/A
	Test with wedge probe (Figure EE1 and EE2)	Same as above.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity ¹⁾	
1. Plastic Enclosure	Teijin Polycarbonate Singapore Pte Ltd	LN-1250G#(f1)	Min. V-0, 105°C, 1.3 mm thick	UL 94	UL	
	Chi Mei Corporation	PA-765A	Min. V-1, 115°C, 1.5 mm thick	UL 94	UL	
2. PCB	Various	Various	V-1 or better, 130°C	UL746	UL	
3.AC Inlet (JP3)	Rich Bay Co Ltd	R-301SN	10A, 250V	IEC/EN 60320-1	VDE	
	Tecx-Unions Technology Corporation	TU-301-SP	10A, 250V	IEC/EN 60320-1	VDE	
4. Fuse (F1)	Wickmann-Werke GmbH	392	T2A, 250V	EN 60127-1 EN 60127-3 UL 248-1	VDE UL	
	Conquer Electronics Co Ltd	MST-series	T2A, 250V	EN 60127-1 EN 60127-3 UL 248-1	VDE UL	
	Bel Fuse Ltd	RST series	T2A, 250V	EN 60127-1 EN 60127-3 UL 248-1	VDE UL	
	Walter Electronic Co Ltd	2010-Series	T2A, 250V	EN 60127-1 EN 60127-3 UL 248-1	VDE UL	
5. Varistor (ZP1)	Thinking Electronic Industrial Co Ltd	TVR07471-K	300Vac, 385Vdc	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2	VDE	
	Centra Science Corp	CNR-07D471K	300Vac, 385Vdc	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2	VDE	
	Uppermost Electronic Industries Co Ltd	V07K300	300Vac, 405Vdc	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2	VDE	
	Dongguan Littelfuse Electronics Co Ltd	MOV-471KD07	300Vac, 385Vdc	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2	VDE	
	Joyin Company Ltd	JVR07N471K	300Vac, 385Vdc	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-	VDE	

IEC 60950-1/Am1					
Clause	Requirement + Test			Result - Remark	Verdict
1.5.1	TABLE: List of critical components				P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity ¹⁾
				2	
6. Y-Capacitor (C4, C19, C3) (Optional)	Matsushita (Panasonic Corporation)	NS-A, TS, RS	Max. 3300pF min. 250Vac, 125°C	IEC/EN 60384-14	VDE
	Murata Mfg Co Ltd.	KH	Max. 3300pF min. 300Vac, 125°C	IEC/EN 60384-14	VDE
	Walsin Technology Corp	AC, AH	Max. 3300pF min. 250Vac, 125°C	IEC/EN 60384-14	VDE
	TDK Corp	CS, CD	Max. 3300pF min. 250Vac, 125°C	IEC/EN 60384-14	VDE
	Welson Industrial Co Ltd	KL, WD	Max. 3300pF min. 250Vac, 125°C	IEC/EN 60384-14	VDE
7. Bleeder resistors (R1, R2)	--	--	0.75MΩ, 1/4W	--	--
8. X-capacitor (C1, CX) (C1 max. Up to 0.47uF, Cx max. Up to 0.1uF) (X1 or X2 type) (optional)	Arcotronics Italia Spa	1.40	Max. 0.47uF, 275Vac, 100°C	IEC/EN 60384-14	ENEC 03
	Arcotronics Italia Spa	R.46	Max. 0.47uF, 275Vac, 100°C	IEC/EN 60384-14	VDE
	Vishay BCcomponents BVBA	MKP 338 2, 338 2	Max. 0.47uF, 275Vac, 105°C	IEC/EN 60384-14	ENEC 02
	Carli Electronics Co Ltd	MPX	Max. 0.47uF, 275Vac, 100°C	IEC/EN 60384-14	VDE
	Iskra Kondenzatorji d.d.	KNB 1530	Max. 0.47uF, 275Vac, 100°C	IEC/EN 60384-14	VDE
	Iskra Kondenzatorji d.d.	KNB 1560	Max. 0.47uF, 275Vac, 125°C	IEC/EN 60384-14	VDE
	Matsushita (Panasonic Corporation)	ECQUL ECQUG	Max. 0.47uF, 275Vac, 100°C	IEC/EN 60384-14	VDE
	Okaya Electric Industries Co Ltd	PA, RE-Series, XE-Series	Max. 0.47uF, 275Vac, 100°C	IEC/EN 60384-14	VDE
	Okaya Electric	LE	Max. 0.47uF,	IEC/EN 60384-14	ENEC 14

IEC 60950-1/Am1					
Clause	Requirement + Test		Result - Remark		Verdict
1.5.1	TABLE: List of critical components				P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity ¹⁾
	Industries Co Ltd		300V, 110°C		
	Vishay-Electronic GmbH	F1778-xxx- x2xxxx	Max. 0.47uF, 275Vac, 100°C	IEC/EN 60384-14	VDE
	Cheng Tung Industrial Co Ltd	CTX	Max. 0.47uF, 300Vac, 100°C	IEC/EN 60384-14	VDE
9. Choke (L1)	Jai Mei Technology Inc	13-02MIT-09-L1	130°C	--	--
10. Bridge Diode (BR1)	--	--	4A, 600V	--	--
11. Storage Capacitor (C5)	--	--	68μF, min. 400V, min. 105°C	--	--
12. Thermistor (NTC1) (Optional)	--	--	4A, 5 Ohm	--	--
13. Mosfet (Q1)	--	--	Min. 8A, min. 600V	--	--
14. Bridge Capacitor (C11) (Y1 type)	Murata Mfg Co Ltd.	KX	Max. 2200pF min. 250Vac, 125°C	IEC/EN 60384-14	VDE
	Vishay Electronic Gmbh	WKP, VKP, VY1	Max. 2200pF min. 500Vac, 125°C	IEC/EN 60384-14	VDE
	TDK Corp.	CD, CS	Max. 2200pF min. 250Vac, 125°C	IEC/EN 60384-14	VDE
	Matsushita (Panasonic Corporation)	NS-A	Max. 2200pF min. 250Vac, 125°C	IEC/EN 60384-14	VDE
15. Optocoupler (PL1)	Lite-On Technology Corp	LTV817-V	Dti =0.8mm Int. dcr=5.2mm Ext. dcr=7.8mm 100°C	IEC/EN 60747-5- 2 IEC/EN 60950-1	VDE
	NEC (Renesas)	PS2761B-1	Dti=0.4mm Ext. dcr= 7.0mm, thermal cycling test, 100°C	IEC/EN 60747-5- 2 IEC/EN 60950-1	VDE
	Everlight Electronics Co Ltd	EL817	Dti=0.5mm Int. dcr=6.0mm Ext. dcr= 7.7mm, thermal cycling test, 110°C	IEC/EN 60747-5- 2 IEC/EN 60950-1	VDE
16. Transformer (T1) (for MIT-	Jai Mei Technology Inc	13-01MIT23-T3	Class B	--	--

IEC 60950-1/Am1					
Clause	Requirement + Test			Result - Remark	Verdict
1.5.1	TABLE: List of critical components				P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity ¹⁾
09x-18FF)					
(T1) (for MIT-09x-24FF)	Jai Mei Technology Inc	13-01MIT23-T2	Class B	--	--
(for MIT-09x-56FF)	Jai Mei Technology Inc	13-01MIT23-T1	Class B	--	--
16 ^a . Triple wire (used in T1)	Furukawa Electronic Co Ltd	TEX-E	130°C	IEC/EN60950-1	VDE
Supplementary information:					
¹⁾ Provided evidence ensures the agreed level of compliance. See OD-CB2039.					

IEC 60950-1/Am1			
Clause	Requirement + Test	Result - Remark	Verdict
1.5.1	TABLE: Opto Electronic Devices		P
Manufacturer	(see appended tables 1.5.1)		
Type	(see appended tables 1.5.1)		
Separately tested	(see appended tables 1.5.1)		
Bridging insulation	(see appended tables 1.5.1)		
External creepage distance	(see appended tables 1.5.1)		
Internal creepage distance	(see appended tables 1.5.1)		
Distance through insulation	(see appended tables 1.5.1)		
Tested under the following conditions	(see appended tables 1.5.1)		
Input	(see appended tables 1.5.1)		
Output	(see appended tables 1.5.1)		
supplementary information			

1.6.2	TABLE: Electrical data (in normal conditions)						P
U (V)	I (A)	Irated (A)	P (W)	Fuse #	Ifuse (A)	Condition/status	
Model No.: MIT-09x-24FF							
90	1.019	--	56.4	F1	1.019	24V, 2A / 47Hz	
100	0.919	--	55.6	F1	0.919	24V, 2A / 47Hz	
240	0.479	--	49.4	F1	0.479	24V, 2A / 47Hz	
254	0.470	--	51.0	F1	0.470	24V, 2A / 47Hz	
264	0.462	--	51.7	F1	0.462	24V, 2A / 47Hz	
90	1.032	--	56.2	F1	1.032	24V, 2A / 63Hz	
100	0.946	--	55.6	F1	0.946	24V, 2A / 63Hz	
240	0.484	--	51.4	F1	0.484	24V, 2A / 63Hz	
254	0.471	--	52.1	F1	0.471	24V, 2A / 63Hz	
264	0.462	--	52.6	F1	0.462	24V, 2A / 63Hz	
Model No.: MIT-09x-18FF							
90	0.772	--	42.9	F1	0.772	18V, 2A / 47Hz	
100	0.704	--	42.4	F1	0.704	18V, 2A / 47Hz	
240	0.398	--	41.4	F1	0.398	18V, 2A / 47Hz	
254	0.381	--	41.4	F1	0.381	18V, 2A / 47Hz	

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Clause	Requirement + Test				Result - Remark	Verdict
264	0.371	--	41.5	F1	0.371	18V, 2A / 47Hz
90	0.788	--	42.9	F1	0.788	18V, 2A / 63Hz
100	0.726	--	42.5	F1	0.726	18V, 2A / 63Hz
240	0.395	--	41.4	F1	0.395	18V, 2A / 63Hz
254	0.379	--	41.4	F1	0.379	18V, 2A / 63Hz
264	0.371	--	41.5	F1	0.371	18V, 2A / 63Hz
Model No.: MIT-09x-56FF						
90	1.11	-	61	F1	1.11	56V, 0.9A / 47Hz
100	1.00	1.02	60	F1	1.00	56V, 0.9A / 47Hz
240	0.55	1.02	58	F1	0.55	56V, 0.9A / 47Hz
254	0.50	-	58	F1	0.50	56V, 0.9A / 47Hz
264	0.49	-	58	F1	0.49	56V, 0.9A / 47Hz
90	1.12	-	61	F1	1.12	56V, 0.9A / 63Hz
100	1.02	1.02	60	F1	1.02	56V, 0.9A / 63Hz
240	0.57	1.02	58	F1	0.57	56V, 0.9A / 63Hz
254	0.50	-	58	F1	0.50	56V, 0.9A / 63Hz
264	0.49	-	58	F1	0.49	56V, 0.9A / 63Hz
Supplementary information:						

2.1.1.5 c) 1) TABLE: max. V, A, VA test					P
Voltage (rated) (V)	Current (rated) (A)	Voltage (max.) (V)	Current (max.) (A)	VA (max.) (VA)	
Model No.: MIT-09x-18FF					
18Vdc	2.0A	18.2	3.3	57.9	
Model No.: MIT-09x-24FF					
24Vdc	2.0A	24.2	2.7	60.8	
Model No.: MIT-09x-56FF					
56Vdc	0.9A	56.5	1.12	61.7	
supplementary information:					

2.1.1.5 c) 2) TABLE: stored energy			N/A
Capacitance C (μF)	Voltage U (V)	Energy E (J)	
Model No.: MIT-09x-18FF			
57.9	18.1	3.2	
Model No.: MIT-09x-24FF			

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Clause	Requirement + Test	Result - Remark	Verdict
60.8	22.5	2.7	
Model No.: MIT-09x-56FF			
61.7	56.1	1.1	
supplementary information:			

2.2	TABLE: evaluation of voltage limiting components in SELV circuits			P
Component (measured between)		max. voltage (V) (normal operation)		Voltage Limiting Components
		V peak	V d.c.	
Model No.: MIT-09x-56FF				
T1 (1-7,8.9)		166	--	
T1 (1-7,8.9)		70	--	D3
T1 (1-7,8.9)		67	--	L2
T1 (1-7,8.9)		--	56	L3A
Fault test performed on voltage limiting components		Voltage measured (V) in SELV circuits (V peak or V d.c.)		
Model No.: MIT-09x-56FF				
L3A		56Vdc		
supplementary information:				

2.5	TABLE: limited power sources			P
Model No.: MIT-09x-24FF				
Circuit output tested: Output				
Measured Uoc (V) with all load circuits disconnected: 24.2Vdc				
	I _{sc} (A)		VA	
	Meas.	Limit	Meas.	Limit
Normal condition	2.7	≤8	60.8	≤100
Single fault: PL1A pin1-2 short	0	≤8	0	≤100
Single fault: PL1A pin1 open	2.7	≤8	60.0	≤100
Single fault: R11 short	0	≤8	0	≤100
Single fault: R10 open	0	≤8	0	≤100
Single fault: ZD1 open	0	≤8	0	≤100
Single fault: ZD3 open	2.65	≤8	60.0	≤100
Model No.: MIT-09x-56FF				
Circuit output tested: Output				

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Clause	Requirement + Test		Result - Remark	Verdict
Measured Uoc (V) with all load circuits disconnected: 61.7Vdc				
	I _{sc} (A)		VA	
	Meas.	Limit	Meas.	Limit
Normal condition	1.12	≤8	56.5	≤100
Single fault: PL1A pin1-2 short	0	≤8	0	≤100
Single fault: PL1A pin1 open	1.12	≤8	56.5	≤100
Single fault: R11 short	0	≤8	0	≤100
Single fault: R10 open	0	≤8	0	≤100
Single fault: ZD1 open	0	≤8	0	≤100
Single fault: ZD3 open	1.12	≤8	56.5	≤100
Model No.: MIT-09x-18FF				
Circuit output tested: Output				
Measured Uoc (V) with all load circuits disconnected: 18.2Vdc				
	I _{sc} (A)		VA	
	Meas.	Limit	Meas.	Limit
Normal condition	3.3	≤8	57.9	≤100
Single fault: PL1A pin1-2 short	0	≤8	0	≤100
Single fault: PL1A pin1 open	3.3	≤8	57.9	≤100
Single fault: R11 short	0	≤8	0	≤100
Single fault: R10 open	0	≤8	0	≤100
Single fault: ZD1 open	0	≤8	0	≤100
Single fault: ZD3 open	3.3	≤8	57.9	≤100
supplementary information:				
Sc=Short circuit, Oc=Open circuit				

2.10.2	Table: working voltage measurement			P
Location		RMS voltage (V)	Peak voltage (V)	Comments
Model No.: MIT-09x-24FF				
T1 (1-8,9)		235	420	
T1 (1-10,11,RTN)		255	436	Max. RMS
T1 (3-8,9)		212	412	
T1 (3-10,11,RTN)		212	348	
T1 (5-8,9)		211	372	
T1 (5-10,11,RTN)		213	348	

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Clause	Requirement + Test		Verdict
T1 (6-8,9)	210	356	
T1 (6-10,11,RTN)	214	368	
Model No.: MIT-09x-18FF			
T1 (1-8,9)	238	412	
T1 (1-10,11,RTN)	250	428	
T1 (3-8,9)	212	404	
T1 (3-10,11,RTN)	213	348	
T1 (5-8,9)	211	372	
T1 (5-10,11,RTN)	212	348	
T1 (6-8,9)	210	348	
T1 (6-10,11,RTN)	214	396	
Model No.: MIT-09x-56FF			
T1 (1-8,9)	222	412	
T1 (1-10,11,RTN)	248	444	
T1 (3-8,9)	224	516	Max. Peak
T1 (3-10,11,RTN)	202	348	
T1 (5-8,9)	211	412	
T1 (5-10,11,RTN)	204	348	
T1 (6-8,9)	204	404	
T1 (6-10,11,RTN)	205	388	
PL1(3-1)	222	372	
PL1(3-2)	222	372	
PL1(4-1)	220	372	
PL1(4-2)	220	372	
C11(Pri-Sec.)	204	348	
supplementary information:			

2.10.3 and 2.10.4	TABLE: Clearance and creepage distance measurements						P
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)	
Functional:							
Trace under L/N (with 1.6mm hole)	420	250	1.5	3.1	2.5	3.1	
Trace under fuse (F1) (with 1.6mm hole)	420	250	1.5	1.6	2.5	3.9	
Basic/supplementary:							

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Clause	Requirement + Test			Result - Remark		Verdict
Primary components (with 10N) → Earth pin (with 10N)	420	250	2.0	↓	2.5	↓
L5 (with tube) → G/Y wires	↓	↓	↓	4.8	↓	4.8
NTC1 (with tube) → G/Y wires	↓	↓	↓	12.0	↓	12.0
Primary trace → Earth trace	420	250	2.0	↓	2.5	↓
Between C19	↓	↓	↓	4.5	↓	4.5
Between C4 (with 1.6mm hole)	↓	↓	↓	3.4	↓	5.8
C26 → C23 (no components provided)	↓	↓	↓	6.3	↓	6.3
R1 → Earth	↓	↓	↓	3.6	↓	3.6
H1 H.S. → Earth	↓	↓	↓	3.8	↓	6.2
Reinforced:						
Primary components (with 10N) → secondary components (with 10N)	420	250	4.0	↓	5.0	↓
Between PL1	↓	↓	↓	5.1	↓	5.1
T1 Core → Secondary component (L3) (with polyester tape)	↓	↓	↓	8.2	↓	14.0
T1 Core → Secondary component (C14)	↓	↓	↓	7.8	↓	7.8
H1 H.S. (with polyester tape around 3 layers) → Secondary component	↓	↓	↓	7.6	↓	7.6
H1 H.S. (with polyester tape around 3 layers) → Surface of enclosure	↓	↓	↓	5.2	↓	5.2
Primary trace → secondary trace	420	250	4.0	↓	5.0	↓
Under C11 (with 4.2mm hole)	↓	↓	↓	7.1	↓	8.6
Under PL1	↓	↓	↓	6.2	↓	6.2
Under T1	516	255	4.6	6.2	5.2	6.2
Supplementary information:						

2.10.5	TABLE: Distance through insulation measurements					P
Distance through insulation (DTI) at/of:		U peak (V)	U rms (V)	Test voltage (V)	Required DTI (mm)	DTI (mm)
PL1		420	250	3000V _a c	0.4	0.4
Supplementary information:						

IEC 60950-1/Am1			
Clause	Requirement + Test	Result - Remark	Verdict

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 condition										
Max. current during fault condition										
Test results:									Verdict	
- Chemical leaks										
- Explosion of the battery										
- Emission of flame or expulsion of molten metal										
- Electric strength tests of equipment after completion of tests										
Supplementary information:										

4.3.8	TABLE: Batteries								N/A
Battery category					(Lithium, NiMh, NiCad, Lithium Ion ...)				
Manufacturer									
Type / model									
Voltage									
Capacity					mAh				
Tested and Certified by (incl. Ref. No.)									
Circuit protection diagram:									

IEC 60950-1/Am1			
Clause	Requirement + Test	Result - Remark	Verdict

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	

4.5	TABLE: Thermal requirements						P
	Supply voltage (V)	--	--	--	--	--	---
	Ambient T _{min} (°C)	--	--	--	--	--	---
	Ambient T _{max} (°C)	--	--	--	--	--	---
Maximum measured temperature T of part/at::		T (°C)					Allowed T _{max} (°C)
Model No.: MIT-09x-24FF							
Supply voltage (V)		90Vac (V)	Shift to 40°C	90Vac (H)	Shift ro 40°C	--	--
Inlet body		45.2	53.1	49.5	55.2	--	65
C4 body (Y cap)		51.1	59.0	58.2	63.9	--	100
C1 body (X cap)		59.0	66.9	68.3	74.0	--	100
C3 body (Y cap)		75.4	83.3	84.1	89.8	--	100
C19 body (Y cap)		76.6	84.5	74.5	80.2	--	100
PCB under NTC1		86.7	94.6	80.4	86.1	--	130
C5 body		85.1	93.0	88.3	94.0	--	105
PCB under BR1		97.5	105.4	102.9	108.6	--	130
ZP1 body (Varistor)		60.1	68.0	71.0	76.7	--	85
L1 coil		83.5	91.4	98.8	104.5	--	105
H1 body of Q1		97.1	105.0	90.5	96.2	--	105
T1 primary coil		84.9	92.8	92.2	97.9	--	110
T1 secondary coil		88.3	96.2	93.3	99.0	--	110
T1 core		89.1	97.0	93.5	99.2	--	110

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Clause	Requirement + Test			Result - Remark		Verdict
C11 body (2200pF) Bridge cap	77.0	84.9	88.6	94.3	--	--
PL1 body (Photo coupler)	84.2	92.1	83.0	88.7	--	100
L3 coil	112.4	120.3	107.7	113.4	--	130
H2 body of D3	87.2	95.1	95.0	100.7	--	105
C13 body	87.1	95.0	90.1	95.8	--	100
Inside Enclosure	77.0	84.9	78.4	84.1	--	--
Surface of Enclosure	55.2	63.1	62.8	68.5	--	95
Ambient air	32.1	40.0	34.3	40.0	--	--
Model No.: MIT-09x-24FF						
Supply voltage (V)	264Vac (V)	Shift to 40°C	264Vac (H)	Shift ro 40°C	--	
Inlet body	40.4	48.4	44.1	53.1	--	65
C4 body (Y cap)	44.9	52.9	50.5	59.5	--	100
C1 body (X cap)	50.8	58.8	56.0	65.0	--	100
C3 body (Y cap)	60.7	68.7	65.4	74.4	--	100
C19 body (Y cap)	63.5	71.5	57.7	66.7	--	100
PCB under NTC1	69.9	77.9	64.1	73.1	--	105
C5 body	69.9	77.9	71.8	80.8	--	105
PCB under BR1	82.3	90.3	81.5	90.5	--	130
ZP1 body (Varistor)	49.5	57.5	54.6	63.6	--	85
L1 coil	60.3	68.3	69.2	78.2	--	105
H1 body of Q1	84.0	92.0	76.0	85.0	--	105
T1 primary coil	82.9	90.9	86.0	95.0	--	110
T1 secondary coil	88.0	96.0	91.3	100.3	--	110
T1 core	88.9	96.9	88.1	97.1	--	110
C11 body (2200pF) Bridge cap	74.6	82.6	82.2	91.2	--	--
PL1 body (Photo coupler)	81.8	89.8	75.2	84.2	--	100
L3 coil	110.7	118.7	100.6	109.6	--	130
H2 body of D3	85.7	93.7	88.1	97.1	--	105
C13 body	86.2	94.2	85.0	94.0	--	100
Inside Enclosure	75.9	83.9	74.2	83.2	--	--
Surface of Enclosure	52.5	60.5	54.7	63.7	--	95
Ambient	32.0	40.0	31.0	40.0	--	--
Test time	1:53	--	2:08	--	--	--
Model No.: MIT-09x-56FF						
Supply voltage (V)	90V / 60Hz	90V / 60Hz	90V / 60Hz	90V / 60Hz	--	--

IEC 60950-1/Am1						
Clause	Requirement + Test			Result - Remark		Verdict
		Top Tma is 25.8°C	Top Tma is 40°C	Bottom Tma is 25.6°C	Bottom Tma is 40°C	
Inlet pin		40.0	54.2	39.4	53.8	-- 65
C4 body		45.8	60.0	45.4	59.8	-- 85
C1 body		52.0	66.2	51.1	65.5	-- 85
L4 coil		50.1	64.3	49.2	63.6	-- 105
C2 body		57.6	71.8	57.2	71.6	-- 85
PCB under NTC1		65.0	79.2	65.6	80.0	-- 105
L5 coil		65.8	80.0	64.1	78.5	-- 105
ZP1 body (Varistor)		53.0	67.2	53.6	68.0	-- 85
C19 body		56.7	70.9	57.4	71.8	-- 85
PCB under BR1		82.3	96.5	80.7	95.1	-- 105
C5 body		74.6	88.8	73.0	87.4	-- 105
HS body of Q1		69.9	84.1	68.9	83.3	-- 105
L1 coil		59.1	73.3	57.5	71.9	-- 105
PL1 body (Photo couple)		70.0	84.2	69.4	83.8	-- 100
T1 Primary coil		73.8	88.0	73.2	87.6	-- 110
T1 Secondary coil		69.7	83.9	68.9	83.3	-- 110
T1 core		68.6	82.8	68.3	82.7	-- 110
C11 body (Bridge Cap.)		60.7	74.9	61.2	75.6	-- 85
L3 coil		60.7	74.9	61.2	75.6	-- 105
L2 coil		51.8	66.0	51.9	66.3	-- 105
HS body of D3 near C13		54.0	68.2	51.8	66.2	-- 105
T2 body		41.7	55.9	42.0	56.4	-- 105
Inside of Enclosure		59.1	73.3	60.3	74.7	-- 80
Surface of enclosure		41.9	56.1	45.4	59.8	-- 95
Ambient air		25.8	40.0	25.6	40.0	-- --
Test time (h:m)		--	1:01	--	1:21	-- --
Model No.: MIT-09x-56FF						
Supply voltage (V)		264V / 60Hz Top Tma is 24.6°C	264V / 60Hz Top Tma is 40°C	264V / 60Hz Bottom Tma is 26.2°C	264V / 60Hz Bottom Tma is 40°C	-- --
Inlet pin		34.4	49.8	34.6	48.4	-- 65
C4 body		39.5	54.9	38.7	52.5	-- 85
C1 body		42.3	57.7	41.3	55.1	-- 85

IEC 60950-1/Am1							
Clause	Requirement + Test			Result - Remark			Verdict
L4 coil	40.1	55.5	39.8	53.6	--		105
C2 body	47.4	62.8	45.7	59.5	--		85
PCB under NTC1	51.8	67.2	52.5	66.3	--		105
L5 coil	51.2	66.6	50.6	64.4	--		105
ZP1 body (Varistor)	45.0	60.4	44.0	57.8	--		85
C19 body	48.0	63.4	49.2	63.0	--		85
PCB under BR1	71.5	86.9	70.7	84.5	--		105
C5 body	60.3	75.7	59.7	73.5	--		105
HS body of Q1	64.9	80.3	64.7	78.5	--		105
L1 coil	46.7	62.1	46.8	60.6	--		105
PL1 body (Photo couple)	68.6	84.0	68.5	82.3	--		100
T1 Primary coil	74.5	89.9	73.5	87.3	--		110
T1 Secondary coil	71.8	87.2	70.6	84.4	--		110
T1 core	70.8	86.2	70.2	84.0	--		110
C11 body (Bridge Cap.)	59.7	75.1	60.4	74.2	--		85
L3 coil	60.4	75.8	61.2	75.0	--		105
L2 coil	52.1	67.5	52.4	66.2	--		105
HS body of D3 near C13	54.3	69.7	52.4	66.2	--		105
T2 body	41.3	56.7	42.5	56.3	--		105
Inside of Enclosure	60.5	75.9	61.2	75.0	--		80
Surface of enclosure	40.9	56.3	45.2	59.0	--		95
Ambient air	24.6	40.0	26.2	40.0	--		--
Test time (h:m)	--	1:37	--	1:55	--		--
Supplementary information:							
Temperature T of winding:	t ₁ (°C)	R ₁ (Ω)	t ₂ (°C)	R ₂ (Ω)	T (°C)	Allowed T _{max} (°C)	Insulation class
Supplementary information:							

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

IEC 60950-1/Am1			
Clause	Requirement + Test	Result - Remark	Verdict

4.7	TABLE: Resistance to fire					P
Part	Manufacturer of material	Type of material	Thickness (mm)	Flammability class	Evidence	
Supplementary information: see component list.						

5.1	TABLE: touch current measurement				P
Measured between:		Measured (mA)	Limit (mA)	Comments/conditions	
Model No.: MIT-09x-56FF					
Earth		0.7	3.5		
Foil of enclosure		0.14	0.25		
supplementary information:					

5.2	TABLE: Electric strength tests, impulse tests and voltage surge tests			P
Test voltage applied between:		Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No
Model No.: MIT-09x-56FF, MIT-09x-18FF, MIT-09x-24FF				
Functional:				
Basic/supplementary:				
Unit: Primary to Ground	DC	3000	No	
Reinforced:				
Unit: Primary to Secondary	DC	4242	No	
Unit: Primary to Enclosure (covered with foil)	DC	4242	No	
Supplementary information:				

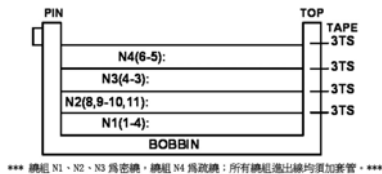
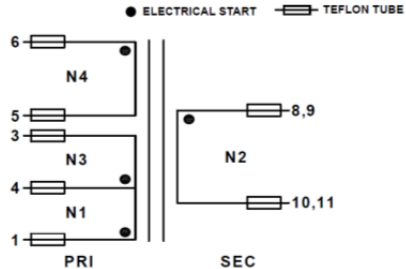
5.3	TABLE: Fault condition tests						P
	Ambient temperature (°C) :				40		—
	Power source for EUT: Manufacturer, model/type, output rating :				--		—
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation	
Model No.: MIT-09x-56FF							

IEC 60950-1/Am1						
Clause	Requirement + Test				Result - Remark	
BR1 (L-plus)	Short	240Vac	1sec	F1	2	IP(F1), NT, NB, NC, I/P:0A, RF
C5	Short	240Vac	1sec	F1	2	IP(F1), NT, NB, NC, I/P:0A, RF
Q1 (G-D)	Short	240Vac	1sec	F1	2	IP(F1), CD(Q1), NT, NB, NC, I/P:0A, RF
Q1 (D-S)	Short	240Vac	1sec	F1	2	IP(F1), CD(Q1), NT, NB, NC, I/P:0A, RF
Q1 (G-S)	Short	240Vac	30min	F1	2	Unit shutdown, NT, NB, NC, I/P:0.04A
PL1 (1-2)	Short	240Vac	30min	F1	2	Unit shutdown, NT, NB, NC, I/P:0.04A
PL1 (1)	Open	240Vac	1h:35m	F1	2	Unit normal operation, NT, NB,NC, I/P:0.48A T1=80.4°C, PL1=69.3°C, Amb:20.6°C
PL1 (3-4)	Short	240Vac	30min	F1	2	Unit shutdown, NT, NB, NC, I/P:0.04A
T1 (8-10)	Short	240Vac	30min	F1	2	Unit shutdown, NT, NB, NC, I/P:0.04A
T1 (5-6)	Short	240Vac	30min	F1	2	Unit cycle protection, NT, NB, NC, I/P:0.04A~0.22A
Ventilation openings	Blocked	240	5h:47m	F1	2	Unit normal operation, NT, NC, NB T1=95.2°C, PL1=81.5°C, Amb=25.3°C I/P: 0.53 A,
T1	Transformer overload after D3 for +56V/0.9A	240	12:00	F1	2	CT at 0.2 A, (output load 0.9 A, total load :1.1A), increased to 0.4 A, Unit cycle protection, increased to 0.5 A, Unit shutdown, I/P: (0.56A), NT, NB, NC, T1(120°C), U2(101°C),Amb(20.8°C)
+56V	Overload	240Vac	12h:19 m	F1	2	CT at 1.2A increased to 1.3A, unit shutdown, NT, NC, NB, T1: 116°C, PL1: 98°C, Amb: 20.8°C, I/P: 0.62a
+56V-RTN	Short	240Vac	30min	F1	2	Unit cycle Protection, NT, NB, NC I/P(0.04~0.1A)
Model No.: MIT-09x-24FF						
T1 (8,9-10,11)	Short	240	30 min	F1	2	Unit shutdown immediately, I/P: 0.04A, NT, NB, NC

IEC 60950-1/Am1							
Clause	Requirement + Test					Result - Remark	Verdict
T1 (5-6)	Short	240	30 min	F1	2	Unit cycle protection, I/P: 0.04A~0.22A, NT, NB, NC	
Ventilation openings	Blocked	240	5h:54m	F1	2	Unit normal operation, I/P: 0.22 A, NT, NB, NC T1 coil: 100.1°C, PL1 body: 86.2°C Amb: 29.6°C	
T1 (7,8,9) after D3	XFMR overload	240Vac	9:01	F1	2	CT at 0.4A, (Output load 2A, Total load: 2.4A) increased to 0.6A, Unit shutdown. NT, NB, NC, I/P: (0.527A) 1. T1 coil: 106°C, 2. PL1 body: 92°C, 3. Amb: 28.7°C	
+24 V	Overload	240Vac	6:27	F1	8	CT at 2.4A, increased to 2.6A, Unit shutdown. NT, NB, NC, I/P: (0.551A) 1. T1 coil: 91°C, 2. PL1 body: 97°C, 3. Amb: 30.5°C,	
+24 V	Short	240Vac	30 min	F1	2	Unit cycle protection, NT, NB, NC, I/P: 0.03A~0.22A	
Model No.: MIT-09x-18FF							
T1 (8,9-10,11)	Short	240	30 min	F1	2	Unit shutdown immediately, I/P: 0.04A, NT, NB, NC	
T1 (5-6)	Short	240	30 min	F1	2	Unit cycle protection, I/P: 0.04A~0.22A, NT, NB, NC	
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						P
Loc.	Tested insulation	Working voltage peak / V (2.10.2)	Working voltage rms / V (2.10.2)	Required electric strength (5.2)	Required clearance / mm (2.10.3)	Required creepage distance / mm (2.10.4)	Required distance thr. insul. (2.10.5)
T1	Primary to Secondary (Reinforced)	516	255	3000Vac	4.6	5.2	0.4
T1	Secondary to Core (Reinforced)	516	255	3000Vac	4.6	5.2	0.4

IEC 60950-1/Am1					
Clause	Requirement + Test		Result - Remark		Verdict
Loc.	Tested insulation	Test voltage/ V	Measured clearance / mm	Measured creepage dist./ mm	Measured distance thr. insul. / mm; number of layers
T1	Primary to Secondary (Reinforced)	3000Vac	5.8	5.8	0.4
T1	Secondary to Core (Reinforced)	3000Vac	5.8	5.8	0.4
supplementary information:					

C.2	TABLE: transformers	P
Transformer		
 *** 繞組 N1、N2、N3 為密繞，繞組 N4 為疏繞；所有繞組進出線均須加套管。*** 		



Calculations

EQUIPMENT LIST

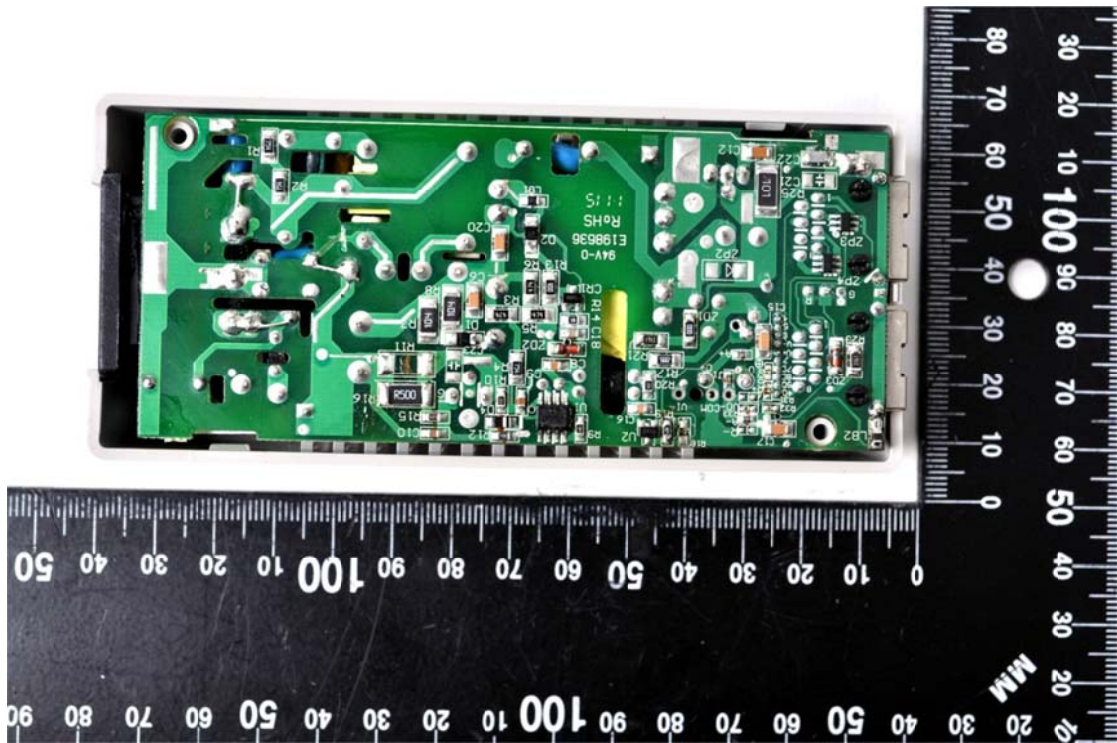
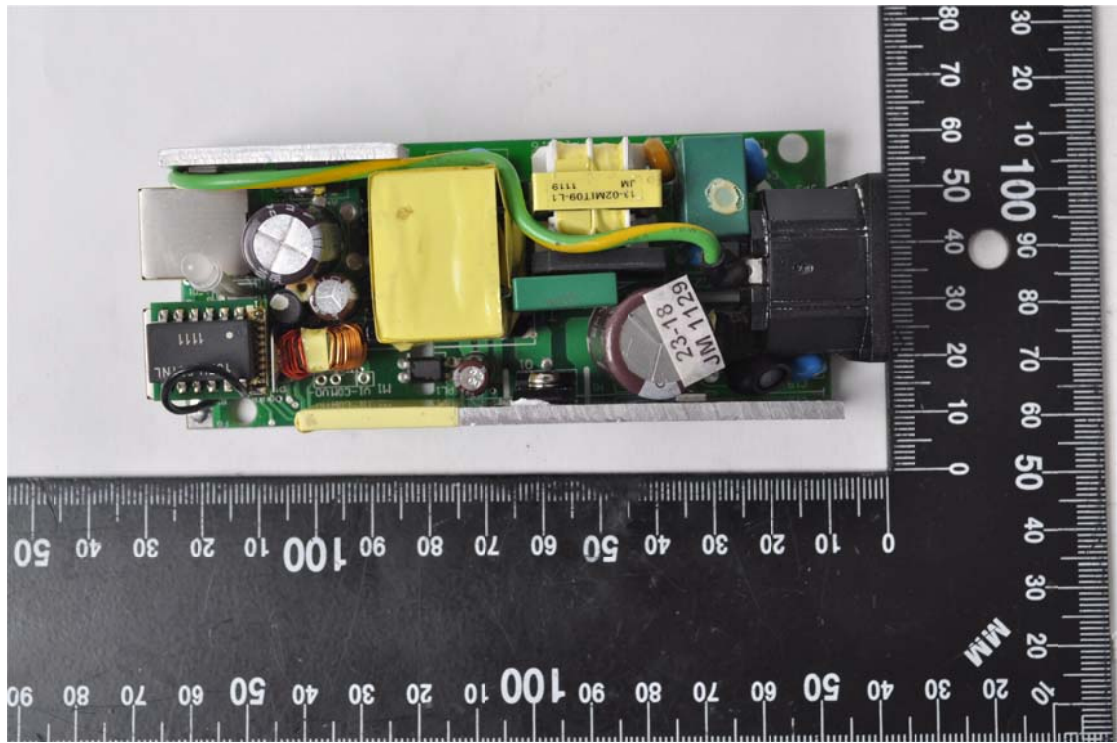
TABLE: EQUIPMENT LIST						P
No.	Manufacturer	Name	Model No.	Ser. No.	Calibration Date	Calibration Due Date
7	ED&D	Impact Test Ball	ITB-01	PSE 7	2011-04-01	2012-04-01
8	EXTECH PSE ASIA	HIPOT, INSULATION Instrument for IEC 9050-1 IEC 60065 instrument for UL 1310	7451 PSE-DSTI HPA-UL	1310153 PSE 8 0702	2011-01-26	2012-01-26
10	YOKOGAWA	THERMQ RECORDER	UR1000	12V510639	2010-09-03	2011-09-03
13	FRANCO	Pointer Clock	TW-2552	112387	2011-03-04	2012-03-04
25	TEKTRONIX	Oscilloscope	TDS 320	B020889	2010-08-17	2011-08-17
32	CHROMA	Electronic Load	6314	63146569	2011-04-01	2012-04-01
46	HONGDI	Measuring Tape	26-5019	N339A061215 336396	2011-01-26	2012-01-26
51	IDRC	Power Meter	CP-350	355921	2011-05-04	2012-05-04
58	ALGOL	Push Pull Gauge	HF-50	HF-104872	2011-06-02	2012-06-02
69	CHROMA	Electronic Load	6304	63042081	2011-05-04	2012-05-04
72	MITUTOYO	Caliper	CD-6"CSX	06057625	2011-01-26	2012-01-26
91	CASIO	Timekeeper	HS-5	1B02P291	2010-11-05	2011-11-05
92	YOKOGAWA	THERMQ RECORDER	DR 130	12W512515	2011-06-02	2012-06-02
96	YOKOGAWA	THERMQ RECORDER	DR 130	27D236828	2011-06-02	2012-06-02
99	CHROMA	Electronic Load	6314	63146575	2011-04-01	2012-04-01
102	YOKOGAWA	THERMQ RECORDER	DR 230	27D631525	2011-06-02	2012-06-02
115	SHIMADZU	Electronic Balance	BL-2200H	D455201275	2011-06-02	2012-06-02
B13	PSE	Petroleum spirit	1l=0.68Kg	-	-	-



User's Instruction and Photos



PSE100-0484



PSE100-0484



Design and Technical Construction