

IEC SYSTEM FOR CONFORMITY TESTING
AND CERTIFICATION OF ELECTRICAL
EQUIPMENT (IECEE)
CB SCHEME

SYSTÈME CEI D'ESSAIS DE CONFORMITÉ
ET DE CERTIFICATION DES ÉQUIPEMENTS
ÉLECTRIQUES (IECEE)
METHODE OC

CB TEST CERTIFICATE
CERTIFICAT D'ESSAI OC

Product
Produit

Industrial Computer

Name and address of the applicant
Nom et adresse du demandeur

Advantech Co., Ltd.
4th Fl 108-3 Ming-Chuan Rd Shing-Tien City Taipei Hsien Taiwan

Name and address of the manufacturer
Nom et adresse du fabricant

Advantech Co., Ltd.
4th Fl 108-3 Ming-Chuan Rd Shing-Tien City Taipei Hsien Taiwan

Name and address of the factory
Nom et adresse de l'usine

See Appendix

Rating and principal characteristics
Valeurs nominales et caractéristiques principales

100-240 Vac, 50/60 Hz, 6-3 A, Class I

Trade mark (if any)
Marque de fabrique (si elle existe)

ADVANTECH

Model/type Ref.
Ref. de type

MIC-3036XXXXXXXX, MIC-3038XXXXXXXX and MIC-3056XXXXXXXX,

Additional information (if necessary)
Information complémentaire (si nécessaire)

Where X may be any alphanumeric character or blank.

PUBLICATION

EDITION

A sample of the product was tested and found
to be in conformity with
*Un échantillon de ce produit a été essayé et a été
considéré conforme à la*

IEC 60950:1999

3rd

as shown in the Test Report Ref. No.
which form part of this certificate
*comme indiqué dans le Rapport d'essais numéro
de référence*
qui constitue une partie de ce certificat

04CA37019

This CB Test Certificate is issued by the National Certification Body
Ce Certificate d'essai OC est établi par l'Organisme National de Certification

Date 2004-09-27

Signature

UL International Demko A/S
Lyskaer 8, P.O. Box 514
DK-2730 Herlev, Denmark
Telephone: +45 44856565
Fax: +45 44856500



An Affiliate of
**Underwriters
Laboratories Inc.®**

Karina Christiansen
Certification Manager

Internal Ref.:
Sam Hsu

Appendix to CB Certificate No. 8221

Production Site:

1) Advantech Co., Ltd.

5th FL No 1, Lane 169 Kang-Ning Street, Xi-Zhi City, Taipei Hsien, Taiwan

2) Advantech Co., Ltd.

3rd FL 10 Lane 130, Ming-Chuan Rd, **Hsin** Hsien -Tien City, Taipei Hsien, Taiwan

3) Superior Co., Ltd

Tiensong Area, Qingxing Town, Dongguan, Guangdong, China

4) Advantech Co., Ltd. **Advantech Technology (China) Co., Ltd.**

No. 600 Han-Pu Rd, Yu-Shan, Kun-Shan, Jiang Su, China

5) Beijing Yan Hua Xing Ye Electronic Science & Technology Co., Ltd.

No.7, 6th Street, Shang Di Zone, Haidian District, Beijing, P.R. China

Herlev, 2004-09-27


Karina Christiansen
Certification Manager

UL International Demko A/S

Lyskaer 8, P.O. Box 514
DK-2730, Herlev, Denmark
Telephone: +45 44856565
Fax: +45 44856500



A Subsidiary of
**Underwriters
Laboratories Inc.®**

| TEST REPORT IEC 60950 Safety of information technology equipment | |
|--|---|
| Report Reference No. | 04CA37019 |
| Compiled by (+ signature)..... | Dino Chiang <i>Dino Chiang</i> |
| Reviewed by (+ signature) | Sam Hsu <i>Sam Hsu</i> |
| Approved by (+ signature)..... | Sam Hsu <i>Sam Hsu</i> |
| Date of issue | September 15, 2004 |
| This report is based on a blank test report that was prepared by FIMKO using information obtained from the TRF originator (see below). Total 41 Page | |
| Testing laboratory name | UL International Services Ltd. Taiwan Branch |
| Address | 260 Da-Yeh Road Peitou Taipei City, Taiwan 112 |
| Testing location..... | 260 Da-Yeh Road Peitou Taipei City, Taiwan 112 |
| Client name | ADVANTECH Co., Ltd. |
| Address | 4TH FL 108-3 MING-CHUAN RD SHING-TIEN CITY TAIPEI HSIEN TAIWAN |
| Standard | IEC 60950, 3 rd Edition (1999) |
| Test procedure | CB Scheme |
| Procedure deviation | Argentina, Austria, Belgium, Brazil, Canada, China, Czech Republic, Denmark, Finland, France, Germany, Hungary, Ireland, Israel, Italy, Japan, Korea, Netherlands, Poland, Portugal, Russian, Singapore, Slovakia, Slovenia, South Africa, Spain, Switzerland, Turkey, United Kingdom, USA, CENELEC |
| Non-standard test method | N/A |
| Test Report Form/blank test report | |
| Test Report Form No. | I950__F/00-03 |
| TRF originator..... | FIMKO |
| Master TRF | dated 00-02 |
| Copyright reserved to the bodies participating in the IECEE Schemes (CB and CB-FCS) and/or the bodies participating in the C.I.G (CCA-ENEC). | |
| Test item description..... | Industrial Computer |
| Trademark | ADVANTECH |
| Model and/or type reference | MIC-3036XXXXXXX, MIC-3038XXXXXXX and MIC-3056XXXXXXX, where X may be any alphanumeric character or blank. |
| Manufacturer..... | Same as Applicant |
| Rating(s) | I/P: 100-240 Vac, 50/60 Hz, 6-3 A |

Copy of marking plate:

| | | | |
|--|--|---|--|
|  | | ADVANTECH Co., Ltd 研華股份有限公司 研華股份有限公司 | |
| http://www.advantech.com | | | |
| Model No: MIC-3036 型號 型号 Input: 100-240Vac, 50/60Hz, 輸入 6-3A Max. 輸入 | | <i>This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:</i> <i>(1) this device must not cause harmful interference, and</i> <i>(2) this device must accept any interference received, including interference that may cause undesired operation.</i> | |
| FCC   T1 | | CAUTION!! To prevent shock. Do not remove cover. No user serviceable parts inside. Refer servicing to qualified personnel. | |
| S/N | | 警告使用者 這是甲類測試產品，在居住的環境中使用時，可能會造成射頻干擾，在這種情況下，使用者會被要求採取某些適當的對策。 | |
| MADE IN TAIWAN 台灣製造 | | 声明 為此A級產品，在生活環境中，該產品可能會造成無線電干擾，在這種情況下，可能需要用戶對其干擾採取切实可行的措施。 | |

Particulars: test item vs. test requirements

Equipment mobility.....: Movable
Operating condition.....: Continuous
Mains supply tolerance (%).....: +6%, -10%
Tested for IT power systems.....: No
IT testing, phase-phase voltage (V).....: N/A
Class of equipment.....: Class I (earthed).
Mass of equipment (kg).....: 13.0 kg
Protection against ingress of water.....: IP20

Possible test case verdicts:

- test case does not apply to the test object: N/A
- test object does meet the requirement.....: Pass
- test object does not meet the requirement: Fail

General remarks:

- "(see Enclosure #)" refers to additional information appended to the Report.
- "(see appended table)" refers to a table appended to the Report.
- Throughout this report a point is used as the decimal separator.

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.
This report is not valid as a CB Test Report unless appended to a CB Test Certificate issued by a NCB in accordance with IEC 60335-2-69.

General product information:

Brief description of the test equipment:

- The equipment is an Industrial Computer (desk top type with appliance inlet) for information technology equipment (scanner, notebook PC, LCD monitor, ..., etc.).
- The equipment was submitted and tested for use in a maximum Manufacturer' s recommended ambient (Tmra) of 50°.
- Model MIC-3056XXXXXX is identical to Model MIC-3038XXXXXX except for size of enclosure, fans and model designation.
- Model MIC-3036XXXXXX is identical to Model MIC-3056XXXXXX except for size of enclosure, fans, power supply and model designation.

Factory:

(1) ADVANTECH CO LTD

5TH FL 1 LANE 169 KANG-NING ST XI-ZHI CITY TAIPEI HSIEN TAIWAN

(2) ADVANTECH CO LTD

3RD FL 10 LANE 130 MING CHUAN RD HSIN-TIEN TAIPEI HSIEN 231 TAIWAN

(3) SUPERIOR CO LTD

TIENSONG AREA QINGXING TOWN DONGGUAN GUANGDONG CHINA

(4) ADVANTECH TECHNOLOGY (CHINA) CO LTD

NO. 600 HAN-PU ROAD YU-SHAN KUN-SHAN JIANGSU CHINA

(5) Beijing Yan Hua Xing Ye Electronic Science & Technology Co., Ltd.

No.7, 6th Street, Shang Di Zone, Haidian District, Beijing, P.R. China.

The Report contains the following Enclosures:

Enclosure 1 : National Deviation¹⁾ Total 23 Pages

Enclosure 2 : Photographs..... Total 10 Pages

Note: ¹⁾ Refer to CB Bulletin 107A, May, 2004

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

| | | | |
|---|----------------|--|------|
| 1 | GENERAL | | Pass |
|---|----------------|--|------|

| | | | |
|---------|---|---|------|
| 1.5 | Components | | Pass |
| 1.5.1 | Comply with IEC60950 or relevant component standard | (see appended table 1.5.1) | Pass |
| 1.5.2 | Evaluation and testing of components | Components, which were found to affect safety aspects, are complied with the requirements of this standard or within the safety aspects of the relevant IEC component standards. (see appended table) | Pass |
| | Dimensions (mm) of mains plug for direct plug-in | The equipment is not direct plug-in type. | N/A |
| | Torque and pull test of mains plug for direct plug-in; torque (Nm); pull (N)..... | The equipment is not direct plug-in type. | N/A |
| 1.5.3 | Thermal controls | No thermal control. | N/A |
| 1.5.4 | Transformers | Evaluated as part of approved SPS. | N/A |
| 1.5.5 | Interconnecting cables | Interconnecting cable for Interconnection is carrying only SELV voltages on an energy level below 240 VA. Except for the insulation material, there is no further requirements to the o/p interconnection cable. | Pass |
| 1.5.6 | Capacitors in primary circuits | Evaluated as part of approved SPS. | N/A |
| 1.5.7 | Double or reinforced insulation bridged by components | | N/A |
| 1.5.7.1 | Bridging capacitors | | N/A |
| 1.5.7.2 | Bridging resistors | | N/A |
| 1.5.7.3 | Accessible parts | | N/A |
| 1.5.8 | Components in equipment for IT power systems | TN system | N/A |

| | | | |
|-------|-------------------------------|---|------|
| 1.6 | Power interface | | Pass |
| 1.6.1 | AC power distribution systems | AC power distribution systems are classify as TN. | Pass |

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

| | | | |
|-------|--------------------------------------|--|------|
| 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) | Pass |
| 1.6.3 | Voltage limit of hand-held equipment | This appliance is not a hand-held equipment. | N/A |
| 1.6.4 | Neutral conductor | | N/A |

| | | | |
|---------|--|---|------|
| 1.7 | Marking and instructions | | Pass |
| 1.7.1 | Power rating | Rating marking readily visible to operator see below for details. | Pass |
| | Rated voltage(s) or voltage range(s) (V) | 100-240 Vac | Pass |
| | Symbol for nature of supply for d.c. | AC source | N/A |
| | Rated frequency or frequency range (Hz) | 50/60Hz | Pass |
| | Rated current (A) | 6-3 A | Pass |
| | Manufacturer' s name/Trademark | Advantech Co., Ltd. / ADVANTECH | Pass |
| | Type/model | MIC-3036XXXXXXX, MIC-3038XXXXXXX and MIC-3056XXXXXXX, where X may be any alphanumeric character or blank. | Pass |
| | Symbol of Class II | Class I equipment | N/A |
| | Other symbols | Additional symbols may be provided when submitted for National Approval. | N/A |
| | Certification marks | UL | Pass |
| 1.7.2 | Safety instructions | Safety instructions in English. Other languages will be provided when submitted for national approval. | Pass |
| 1.7.3 | Short duty cycles | Equipment is designed for continuous operation. | N/A |
| 1.7.4 | Supply voltage adjustment | | N/A |
| 1.7.5 | Power outlets on the equipment | No outlet | N/A |
| 1.7.6 | Fuse identification | Located in approved power supply. | N/A |
| 1.7.7 | Wiring terminals | | N/A |
| 1.7.7.1 | Protective earthing and bonding terminals | In approved power supply | Pass |

| IEC 60950 | | | |
|-----------|---|----------------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 1.7.7.2 | Terminal for a.c. mains supply conductors | Appliance inlet used | N/A |

| IEC 60950 | | | |
|-----------|---|---|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 1.7.8 | Controls and indicators | See below. | Pass |
| 1.7.8.1 | Identification, location and marking : | The marking and indication of the power switch is located on the switch so that indication of function is clear. | Pass |
| 1.7.8.2 | Colours : | No indicators with colors. | N/A |
| 1.7.8.3 | Symbols according to IEC 60417 : | Marking for the switch according 60417-1-IEC-5007/5008. | Pass |
| 1.7.8.4 | Markings using figures : | Figures are not used for indicating different positions of controls. | N/A |
| 1.7.9 | Isolation of multiple power sources : | Only one supply from the mains. | N/A |
| 1.7.10 | IT power system | | N/A |
| 1.7.11 | Thermostats and other regulating devices | No adjustable thermostats | N/A |
| 1.7.12 | Language : | English | — |
| 1.7.13 | Durability | The marking(s) withstood the required test. | Pass |
| 1.7.14 | Removable parts | Markings is not placed on removable parts | N/A |
| 1.7.15 | Replaceable batteries | The equipment contains replaceable lithium battery, ■ not user replaceable type: the following warning in user manual or service instructions marked with: CAUTION: CAUTION: Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to manufacturer instructions. | Pass |
| | Language..... : | English | — |
| 1.7.16 | Operator access with a tool : | There is no hazard parts can be touched for operator access with a tool | Pass |
| 1.7.17 | Equipment for restricted access locations : | No restricted access location | N/A |

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

| | | | |
|---|--------------------------------|--|------|
| 2 | PROTECTION FROM HAZARDS | | Pass |
|---|--------------------------------|--|------|

| | | | |
|---------|--|---|------|
| 2.1 | Protection from electric shock and energy hazards | | Pass |
| 2.1.1 | Protection in OPERATOR access areas | As the installation guide specifies directions for the operator how to add additional memory cards or add-on cards inside the enclosure, the inside of this INDUSTRIAL COMPUTER is considered as operator accessible area. Even the INDUSTRIAL COMPUTER enclosure is disassembled, the accessible SPS is covered by earthed metal enclosure. The construction of this metal enclosure prevents the access, using test pin or test finger or test probe, to any parts having only basic insulation to ELV or hazardous voltage. | Pass |
| 2.1.1.1 | Access to energized parts | See below | Pass |
| | Test by inspection | Operator cannot contact with any parts with only basic insulation to ELV or hazardous voltage. | Pass |
| | Test with test finger | No access with test finger to any parts with only basic insulation to ELV or hazardous voltage. | Pass |
| | Test with test pin | The test pin cannot touch hazardous voltage through and openings or seams of the whole enclosure. | Pass |
| | Test with test probe | No TNV circuits. | N/A |
| 2.1.1.2 | Battery compartments..... | No TNV circuits. | N/A |
| 2.1.1.3 | Access to ELV wiring | No ELV wiring in operator accessible area. | N/A |
| | Working voltage (V); distance (mm) through insulation | | — |
| 2.1.1.4 | Access to hazardous voltage circuit wiring | No hazardous voltage wiring in operator accessible area. | N/A |

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

| | | | |
|---------|--|---|-----|
| 2.1.1.5 | Energy hazards | No hazardous voltage wiring in operator accessible area. | N/A |
| 2.1.1.6 | Manual controls | The equipment does not contain any knobs, handles, levers, or the like. | N/A |
| 2.1.1.6 | Manual controls | | N/A |
| 2.1.1.7 | Discharge of capacitors in the primary circuit | Approved power supply used. | N/A |
| | Time-constant (s); measured voltage (V)..... | | — |
| 2.1.2 | Protection in service access areas | No maintenance work in operation mode necessary. | N/A |
| 2.1.3 | Protection in restricted access locations | It is not intended to be used in restricted locations. | N/A |

| | | | |
|---------|--|--|------|
| 2.2 | SELV circuits | | Pass |
| 2.2.1 | General requirements | 42.4V peak or 60VDC are not exceeded in SELV circuit under normal operation or single fault condition. | Pass |
| 2.2.2 | Voltages under normal conditions (V) | Between any SELV circuits 42.4V peak or 60VDC are not exceeded. | Pass |
| 2.2.3 | Voltages under fault conditions (V)..... | Under fault conditions voltages never exceed 42.4V peak and 60Vdc and do not exceed 71V peak or 120V dc for more than 0.2 sec. | Pass |
| 2.2.3.1 | Separation by double or reinforced insulation (method 1) | Considered in approved power supply. | N/A |
| 2.2.3.2 | Separation by earthed screen (method 2) | | N/A |
| 2.2.3.3 | Protection by earthing of the SELV circuit (method 3) | | N/A |
| 2.2.4 | Connection of SELV circuits to other circuits..... | See 2.2.2 and 2.2.3. No direct connection between SELV and any primary circuits. | N/A |

| | | | |
|-------|--|--|-----|
| 2.3 | TNV circuits | | N/A |
| 2.3.1 | Limits | | N/A |
| | Type of TNV circuits..... | | — |
| 2.3.2 | Separation from other circuits and from accessible parts | | N/A |
| | Insulation employed | | — |

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

| | | | |
|-------|--|--|-----|
| 2.3.3 | Separation from hazardous voltages | | N/A |
| | Insulation employed | | — |
| 2.3.4 | Connection of TNV circuits to other circuits | | N/A |
| | Insulation employed | | — |
| 2.3.5 | Test for operating voltages generated externally | | N/A |

| | | | |
|-------|--|--|-----|
| 2.4 | Limited current circuits | | N/A |
| 2.4.1 | General requirements | | N/A |
| 2.4.2 | Limit values | | N/A |
| | Frequency (kHz)..... | | — |
| | Measured current (mA)..... | | — |
| | Measured voltage (V) | | — |
| | Measured capacitance (μF) | | — |
| 2.4.3 | Connection of limited current circuits to other circuits | | N/A |

| | | | |
|-----|---|--|------|
| 2.5 | Limited power sources | | Pass |
| | Inherently limited output | The USB output comply with table 2B under normal operation condition. | Pass |
| | Impedance limited output | Polyswitch used in the equipment. See Table 1.5.1 for Polyswitch specifications. | Pass |
| | Overcurrent protective device limited output | | N/A |
| | Regulating network limited output under normal operating and single fault condition | | N/A |
| | Regulating network limited output under normal operating conditions and overcurrent protective device limited output under single fault condition | | N/A |
| | Output voltage (V), output current (A), apparent power (VA)..... | Model: MIC-3038XXXXXX, Normal condition: Uoc=5.2V, Isc=2.2A, VA=8.78, allowed 26VA. Model: MIC-3056XXXXXX, Normal condition: Uoc=5.2V, Isc=2.2A, VA=8.78, allowed 26VA. Model: MIC-3036XXXXXX, Normal condition: Uoc=5.2V, Isc=2.3A, VA=8.11, allowed 26VA. | — |

| IEC 60950 | | | |
|-----------|---|--|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| | Current rating of overcurrent protective device (A) | N/A | — |
| 2.6 | Provisions for earthing and bonding | | Pass |
| 2.6.1 | Protective earthing | Parts connected to protective earthing reliably. | Pass |
| 2.6.2 | Functional earthing | Secondary functional earthing is connected to protectively earthed conductive part that separated from primary by basic insulation. | Pass |
| 2.6.3 | Protective earthing and protective bonding conductors | See below. | Pass |
| 2.6.3.1 | Size of protective earthing conductors | Power supply cord suitable for application and subject to country's national code and regulations to be provided by the manufacturer | Pass |
| | Rated current (A), cross-sectional area (mm ²), AWG..... : | | — |
| 2.6.3.2 | Size of protective bonding conductors | See 2.6.3.3 | Pass |
| | Rated current (A), cross-sectional area (mm ²), AWG..... : | | — |
| 2.6.3.3 | Rated current (A), type and nominal thread diameter (mm)..... : | See below. | Pass |
| | Resistance (Ω) of earthing conductors and their terminations, test current (A) : | - Test current = 30 A / 2 mins Resistance < 0.1 Ω - For Model: MIC-3036XXXXXXX only, Test current = 25, 40 A 0.0142 Ω at 25 A / 1 min, 0.644 V drop at 40 A / 2 mins | Pass |
| 2.6.3.4 | Colour of insulation : | Evaluated as part of the power supply. | N/A |
| 2.6.4 | Terminals | See 2.6.1 | Pass |
| 2.6.4.1 | Protective earthing and bonding terminals | Appliance inlet used and the unit meet the test requirement of 2.6.3.3. | Pass |
| | Rated current (A), type and nominal thread diameter (mm)..... : | | — |
| 2.6.4.2 | Separation of the protective earthing conductor from protective bonding conductors | Appliance inlet used. | Pass |
| 2.6.5 | Integrity of protective earthing | See below. | Pass |

| IEC 60950 | | | |
|-----------|--|--|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 2.6.5.1 | Interconnection of equipment | No interconnection of hazardous voltages. | N/A |
| 2.6.5.2 | Components in protective earthing conductors and protective bonding conductors | No switches or fuses in earthing conductors. | Pass |

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

| | | | |
|---------|--|--|------|
| 2.6.5.3 | Disconnection of protective earth | Appliance inlet provided. | Pass |
| 2.6.5.4 | Parts that can be removed by an operator | It is not possible to disconnect earth without disconnecting mains and protective earth makes earlier and breaks later than the supply connectors. No other operator removable parts with safety critical earth connection. | Pass |
| 2.6.5.5 | Parts removed during servicing | Connections to protective earthing cannot be removed unless hazardous voltage is removed from the part simultaneously. | Pass |
| 2.6.5.6 | Corrosion resistance | All safety earthing connections in compliance with Annex J. | Pass |
| 2.6.5.7 | Screws for protective bonding | In approved power supply. | Pass |
| 2.6.5.8 | Reliance on telecommunication network | No TNV | N/A |

| | | | |
|-------|---|-----------------------------------|------|
| 2.7 | Overcurrent and earth fault protection in primary circuits | | Pass |
| 2.7.1 | Basic requirements | Approved Power Supply used | Pass |
| | Instructions when protection relies on building installation | | N/A |
| 2.7.2 | Faults not covered in 5.3 | | N/A |
| 2.7.3 | Short-circuit backup protection | | N/A |
| 2.7.4 | Number and location of protective devices : | One fuse in approved power supply | Pass |
| 2.7.5 | Protection by several devices | | N/A |
| 2.7.6 | Warning to service personnel..... : | | N/A |

| | | | |
|---------|--|--|-----|
| 2.8 | Safety interlocks | | N/A |
| 2.8.1 | General principles | | N/A |
| 2.8.2 | Protection requirements | | N/A |
| 2.8.3 | Inadvertent reactivation | | N/A |
| 2.8.4 | Fail-safe operation | | N/A |
| 2.8.5 | Interlocks with moving parts | | N/A |
| 2.8.6 | Overriding an interlock | | N/A |
| 2.8.7 | Switches and relays in interlock systems | | N/A |
| 2.8.7.1 | Contact gaps (mm) : | | N/A |
| 2.8.7.2 | Overload test | | N/A |

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

| | | | |
|---------|----------------------------|--|-----|
| 2.8.7.3 | Endurance test | | N/A |
| 2.8.7.4 | Electric strength test (V) | | N/A |
| 2.8.8 | Mechanical actuators | | N/A |

| | | | |
|-------|------------------------------------|--|-----|
| 2.9 | Electrical insulation | | N/A |
| 2.9.1 | Properties of insulating materials | | N/A |
| 2.9.2 | Humidity conditioning | | N/A |
| 2.9.3 | Requirements for insulation | | N/A |
| 2.9.4 | Insulation parameters | | N/A |
| 2.9.5 | Categories of insulation | | N/A |

| | | | |
|----------|--|--|------|
| 2.10 | Clearances, creepage distances and distances through insulation | | Pass |
| 2.10.1 | General | | Pass |
| 2.10.2 | Determination of working voltage | Considered in approved power supply. | N/A |
| 2.10.3 | Clearances | | Pass |
| 2.10.3.1 | General | | Pass |
| 2.10.3.2 | Clearances in primary circuit | The adequate clearance has been considered in approved power supply. | N/A |
| 2.10.3.3 | Clearances in secondary circuits | Functional insulation only. Waived by fault test per Sub-clause 5.3. See appended table 5.3. | Pass |
| 2.10.3.4 | Measurement of transient levels | Considered in approved power supply. | Pass |
| 2.10.4 | Creepage distances | (see appended table 2.10.3 and 2.10.4) | Pass |
| | CTI tests..... : | | — |
| 2.10.5 | Solid insulation | | N/A |
| 2.10.5.1 | Minimum distance through insulation | | N/A |
| 2.10.5.2 | Thin sheet material | | N/A |
| | Number of layers (pcs)..... : | | — |
| | Electric strength test | | — |
| 2.10.5.3 | Printed boards | | N/A |
| | Distance through insulation | | N/A |
| | Electric strength test for thin sheet insulating material | | — |
| | Number of layers (pcs)..... : | | N/A |

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

| | | | |
|----------|--|------------------------------------|-----|
| 2.10.5.4 | Wound components | | N/A |
| | Number of layers (pcs)..... : | | N/A |
| | Two wires in contact inside component; angle between 45° and 90° | | N/A |
| 2.10.6 | Coated printed boards | No coated printed board used. | N/A |
| 2.10.6.1 | General | | N/A |
| 2.10.6.2 | Sample preparation and preliminary inspection | | N/A |
| 2.10.6.3 | Thermal cycling | | N/A |
| 2.10.6.4 | Thermal ageing (°C) : | | N/A |
| 2.10.6.5 | Electric strength test | | — |
| 2.10.6.6 | Abrasion resistance test | | N/A |
| | Electric strength test | | — |
| 2.10.7 | Enclosed and sealed parts : | No hermetically sealed components. | N/A |
| | Temperature $T_1=T_2 = T_{mra} - T_{amb} + 10K$ (°C) : | | N/A |
| 2.10.8 | Spacings filled by insulating compound..... : | | N/A |
| | Electric strength test | | — |
| 2.10.9 | Component external terminations | | N/A |
| 2.10.10 | Insulation with varying dimensions | Insulation kept homogenous. | N/A |

| | | | |
|-------|---|---|------|
| 3 | WIRING, CONNECTIONS AND SUPPLY | | Pass |
| 3.1 | General | | Pass |
| 3.1.1 | Current rating and overcurrent protection | All wires/conductors possess adequate cross-sectional areas for their intended application and Internal wiring are adequately insulated. | Pass |
| 3.1.2 | Protection against mechanical damage | The wires are well routed away from sharp edges, etc. and are adequately fixed to prevent excessive strain on wire and terminals. | Pass |
| 3.1.3 | Securing of internal wiring | The wires are positioned in such a manner that prevents excessive strain, loosening of terminal connections and damage of conductor insulation. | Pass |

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

| | | | |
|--------|--|---|------|
| 3.1.4 | Insulation of conductors | Insulation on internal conductors is considered to be of adequate quality and suitable for the application and the working voltages involved. All internal wirings are UL Recognized and rated minimum 300 Vac. | Pass |
| 3.1.5 | Beads and ceramic insulators | The equipment does not have any beads or similar insulators. | N/A |
| 3.1.6 | Screws for electrical contact pressure | Electrical screw connection is not used. | N/A |
| 3.1.7 | Non-metallic materials in electrical connections | No contact pressure through insulating material. | N/A |
| 3.1.8 | Self-tapping and spaced thread screws | Thread-cutting or space thread screws are not used for electrical connections. | N/A |
| 3.1.9 | Termination of conductors | All conductors are reliably secured. | Pass |
| | 10 N pull test | | Pass |
| 3.1.10 | Sleeving on wiring | Sleeving on wiring reliable kept in position by cable ties or by the use of heat shrunk sleeving. | Pass |

| | | | |
|-------|---|--|------|
| 3.2 | Connection to a.c. mains supplies | | Pass |
| 3.2.1 | Means of connection | Appliance inlet used. | Pass |
| 3.2.2 | Multiple supply connections | Single mains supply. | N/A |
| 3.2.3 | Permanently connected equipment | The equipment is not permanently connected. | N/A |
| | Number of conductors, diameter (mm) of cable and conduits | | — |
| 3.2.4 | Appliance inlets | The appliance inlet complies with IEC 60320. The power cord can be inserted without difficulties and does not support the unit. | Pass |
| 3.2.5 | Power supply cords | Power supply cord suitable for application and subject to country's national code and regulations to be provided by the manufacturer | Pass |
| | Type..... | | — |

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

| | | | |
|-------|--|---|-----|
| | Rated current (A), cross-sectional area (mm ²), AWG..... : | | — |
| 3.2.6 | Cord anchorages and strain relief | | N/A |
| | Mass of equipment (kg), pull (N) | | — |
| | Longitudinal displacement (mm) | | — |
| 3.2.7 | Protection against mechanical damage | No parts under this unit likely to damage the power supply cord. No sharp edges. | N/A |
| 3.2.8 | Cord guards | The equipment does not use a non-detachable power supply cord. | N/A |
| | D (mm); test mass (g) | | — |
| | Radius of curvature of cord (mm) | | — |
| 3.2.9 | Supply wiring space | | N/A |

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

| | | | |
|-------|---|--|------|
| 3.4 | Disconnection from the a.c. mains supply | | Pass |
| 3.4.1 | General requirement | The appliance inlet is considered to be the disconnect device. | Pass |
| 3.4.2 | Disconnect devices | Ref. to 3.4.1 | Pass |
| 3.4.3 | Permanently connected equipment | Not permanently connected equipment. | N/A |
| 3.4.4 | Parts which remain energized | No parts remain energized when the disconnect device is removed. | N/A |

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

| | | | |
|--------|--------------------------------|--|------|
| 3.4.5 | Switches in flexible cords | The equipment does not use an isolating switch. | N/A |
| 3.4.6 | Single-phase equipment | Disconnect device disconnects both poles simultaneously. | Pass |
| 3.4.7 | Three-phase equipment | The equipment is single-phased. | N/A |
| 3.4.8 | Switches as disconnect devices | No such switch is provided. | N/A |
| 3.4.9 | Plugs as disconnect devices | The appliance inlet is considered to be the disconnect device. | N/A |
| 3.4.10 | Interconnected equipment | No interconnection of hazardous voltages. | N/A |
| 3.4.11 | Multiple power sources | One power source only. | N/A |

| | | | |
|-------|--|---|------|
| 3.5 | Interconnection of equipment | | Pass |
| 3.5.1 | General requirements | | Pass |
| 3.5.2 | Types of interconnection circuits | The power supply is considered for connection to SELV only. | Pass |
| 3.5.3 | ELV circuits as interconnection circuits | No ELV interconnection. | N/A |

| | | | |
|---|------------------------------|--|------|
| 4 | PHYSICAL REQUIREMENTS | | Pass |
|---|------------------------------|--|------|

| | | | |
|-----|-----------------------|---|------|
| 4.1 | Stability | | Pass |
| | Angle of 10° | This unit is of a stable mechanical construction and does not overbalance when tilted to an angle of 10 degrees from its normal upright position. | Pass |
| | Test: force (N) | Not floor standing | N/A |

| | | | |
|-------|----------------------------|--|------|
| 4.2 | Mechanical strength | | Pass |
| 4.2.1 | General | See below. | Pass |
| 4.2.2 | Steady force test, 10 N | 10N were applied to components. No energy or other hazards. | Pass |
| 4.2.3 | Steady force test, 30 N | No hazards as result of the 30N test. | Pass |

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

| | | | |
|--------|--|--|------|
| 4.2.4 | Steady force test, 250 N | 250N applied to all outer enclosure. No energy or other hazards. | Pass |
| 4.2.5 | Impact test | No hazard as result from impact test. | Pass |
| 4.2.6 | Drop test | Not hand-held equipment | N/A |
| 4.2.7 | Stress relief | Metal enclosure. | N/A |
| 4.2.8 | Cathode ray tubes | Not provided. | N/A |
| | Picture tube separately certified | | N/A |
| 4.2.9 | High pressure lamps | | N/A |
| 4.2.10 | Wall or ceiling mounted equipment; force (N) | | N/A |

| | | | |
|--------|---|--|------|
| 4.3 | Design and construction | | Pass |
| 4.3.1 | Edges and corners | All edges and corners judged to be sufficiently well rounded so as not to constitute a hazard. | Pass |
| 4.3.2 | Handles and manual controls; force (N)..... : | | N/A |
| 4.3.3 | Adjustable controls | Considered in approved power supply. | Pass |
| 4.3.4 | Securing of parts | Electrical and mechanical connections can be expected to withstand usual mechanical stress. For the protection, solder pins, cable ties and heat shrunk tubing are used. | Pass |
| 4.3.5 | Connection of plugs and sockets | The equipment does not have any interchangeable plugs/sockets. | N/A |
| 4.3.6 | Direct plug-in equipment | Not Direct plug-in equipment. | N/A |
| | Torque (Nm) | | — |
| 4.3.7 | Heating elements in earthed equipment | No heating element. | N/A |
| 4.3.8 | Batteries | A device that prevent reverse polarity installation provided. | Pass |
| 4.3.9 | Oil and grease | The insulation of the internal wiring is not exposed to oil, grease, etc. | N/A |
| 4.3.10 | Dust, powders, liquids and gases | The equipment does not produce or employ powders, liquids, or gases. | N/A |
| 4.3.11 | Containers for liquids or gases | The equipment does not contain liquid. | N/A |

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

| | | | |
|--------|--------------------------------------|--|-----|
| 4.3.12 | Flammable liquids..... : | Flammable liquid has not used. | N/A |
| | Quantity of liquid (l)..... : | | N/A |
| | Flash point (°C) : | | N/A |
| 4.3.13 | Radiation; type of radiation : | Evaluated as an element of component evaluation. | N/A |
| | Equipment using lasers | | N/A |

| | | | |
|-------|--|--|------|
| 4.4 | Protection against hazardous moving parts | | Pass |
| 4.4.1 | General | Equipment does not have any hazardous moving parts. | N/A |
| 4.4.2 | Protection in operator access areas | Fan guard used. | Pass |
| 4.4.3 | Protection in restricted access locations | No hazardous moving part in restricted access areas. | N/A |
| 4.4.4 | Protection in service access areas | | N/A |

| | | | |
|-------|--|--|------|
| 4.5 | Thermal requirements | | Pass |
| 4.5.1 | Temperature rises | (see appended table) | Pass |
| | Normal load condition per Annex L..... : | Operated in the most unfavorable way of operation given in the operating instructions until steady conditions established. | Pass |
| 4.5.2 | Resistance to abnormal heat | The transformer bobbin has been tested during the approval evaluation of the power supply. | N/A |

| | | | |
|-------|---------------------------------------|--|------|
| 4.6 | Openings in enclosures | | Pass |
| 4.6.1 | Top and side openings | Foreign objects entering the enclosure will not contact bare parts at hazardous voltage or energy (No hazardous parts within 5° projection). | Pass |
| | Dimensions (mm) : | See appended table. | — |
| 4.6.2 | Bottoms of fire enclosures | No bottom opening provided. | N/A |
| | Construction of the bottom..... : | | — |
| 4.6.3 | Doors or covers in fire enclosures | | N/A |
| 4.6.4 | Openings in transportable equipment | Not transportable equipment. | N/A |
| 4.6.5 | Adhesives for constructional purposes | | N/A |
| | Conditioning temperature/time..... : | | — |

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

| | | | |
|---------|--|---|------|
| 4.7 | Resistance to fire | | Pass |
| 4.7.1 | Reducing the risk of ignition and spread of flame | Method 1: Selection and application of components and materials which minimize the possibility of ignition and spread of flame. | Pass |
| 4.7.2 | Conditions for a fire enclosure | With having the following components: - components with windings - wiring - semiconductor devices, transistors, diodes, integrated circuits - resistors, capacitors, inductors The fire enclosure is required. | Pass |
| 4.7.2.1 | Parts requiring a fire enclosure | See 4.7.2 | Pass |
| 4.7.2.2 | Parts not requiring a fire enclosure | See 4.7.2 | N/A |
| 4.7.3 | Materials | | Pass |
| 4.7.3.1 | General | See below. | Pass |
| 4.7.3.2 | Materials for fire enclosures | The fire enclosure is metal. | N/A |
| 4.7.3.3 | Materials for components and other parts outside fire enclosures | Decorative parts and parts outside of the fire enclosure are made of minimum HB material. | N/A |
| 4.7.3.4 | Materials for components and other parts inside fire enclosures | All internal materials are rated V-2 or better or are mounted on a PWB rated V-1 or better Internal wiring is UL Recognized, rated VW-1 or FT-1 See Table 1.5.1 for material information. | Pass |
| 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 components. | N/A |

| | | | |
|---|--|--|------|
| 5 | ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS | | Pass |
|---|--|--|------|

| | | | |
|-------|---|--|------|
| 5.1 | Touch current and protective conductor current | | Pass |
| 5.1.1 | General | The touch current is secured by approval power supply. | Pass |
| 5.1.2 | Equipment under test (EUT) | | N/A |

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

| | | | |
|---------|--|--------|-----|
| 5.1.3 | Test circuit | | N/A |
| 5.1.4 | Application of measuring instrument | | N/A |
| 5.1.5 | Test procedure | | N/A |
| 5.1.6 | Test measurements | | N/A |
| | Test voltage (V) | | — |
| | Measured current (mA) | | — |
| | Max. allowed current (mA) | | — |
| 5.1.7 | Equipment with touch current exceeding 3.5 mA | | N/A |
| 5.1.8 | Touch currents to and from telecommunication networks | | N/A |
| 5.1.8.1 | Limitation of the touch current to a telecommunication network | | N/A |
| | Test voltage (V) | | — |
| | Measured current (mA) | | — |
| | Max. allowed current (mA) | | — |
| 5.1.8.2 | Summation of touch currents from telecommunication networks..... | No TNV | N/A |

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

| | | | |
|-------|--|--|------|
| 5.3 | Abnormal operating and fault conditions | | Pass |
| 5.3.1 | Protection against overload and abnormal operation | See below. | Pass |
| 5.3.2 | Motors | Approval DC Fan used. All disk drive motors evaluated as part of component evaluation. | Pass |
| 5.3.3 | Transformers | The protection of the power supply and transformer are approved with the approval of the power supply. | Pass |

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

| | | | |
|-------|---|--|------|
| 5.3.4 | Functional insulation | Functional insulation between the phases before the fuse complies with method (a), other operation insulation complies with method (c). | Pass |
| 5.3.5 | Electromechanical components | The equipment does not have any electromechanical components in the secondary. | Pass |
| 5.3.6 | Simulation of faults | Faults in primary and secondary components and Functional insulation were already considered during the approval of the power supply. Blocked ventilation openings test: Result see appended table. Fan stalled test: Result see appended table. Connector overload test: Result see appended table. See appended table for other details. | Pass |
| 5.3.7 | Unattended equipment | The equipment does not have any thermostats, temperature limiters, or thermal cut-outs. | N/A |
| 5.3.8 | Compliance criteria for abnormal operating and fault conditions | No fire, emission of molten metal or deformation was noted during the tests. Electric Strength tests performed after abnormal and fault tests. | Pass |

| | | |
|---|---|-----|
| 6 | CONNECTION TO TELECOMMUNICATION NETWORKS | N/A |
|---|---|-----|

| | | | |
|---------|--|--|-----|
| 6.1 | Protection of telecommunication network service personnel, and users of other equipment connected to the network, from hazards in the equipment | | N/A |
| 6.1.1 | Protection from hazardous voltages | | N/A |
| 6.1.2 | Separation of the telecommunication network from earth | | N/A |
| 6.1.2.1 | Requirements | | N/A |
| | Test voltage (V) | | — |
| | Current in the test circuit (mA) | | — |
| 6.1.2.2 | Exclusions | | N/A |

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

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

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

| | | | |
|-------|---|--|-----|
| A | ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE | | N/A |
| A.1 | Flammability test for fire enclosures of movable equipment having a total mass exceeding 18 kg, and of stationary equipment (see 4.7.3.2) | | N/A |
| A.1.1 | Samples, material..... | | — |
| | Wall thickness (mm)..... | | — |
| A.1.2 | Conditioning of samples; temperature (°C)..... | | N/A |
| A.1.3 | Mounting of samples | | N/A |
| A.1.4 | Test flame | | N/A |
| A.1.5 | Test procedure | | N/A |
| A.1.6 | Compliance criteria | | N/A |
| | Sample 1 burning time (s)..... | | — |
| | Sample 2 burning time (s)..... | | — |
| | Sample 3 burning time (s)..... | | — |
| A.2 | Flammability test for fire enclosures of movable equipment having a total mass not exceeding 18 kg, and for material and components located inside fire enclosures (see 4.7.3.2 and 4.7.3.4) | | N/A |
| A.2.1 | Samples, material..... | | — |
| | Wall thickness (mm)..... | | — |
| A.2.6 | Compliance criteria | | N/A |
| | Sample 1 burning time (s)..... | | — |
| | Sample 2 burning time (s)..... | | — |
| | Sample 3 burning time (s)..... | | — |
| A.2.7 | Alternative test acc. To IEC 60695-2-2, cl. 4, 8 | | N/A |
| | Sample 1 burning time (s)..... | | — |

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

| | | | |
|--|----------------------------------|--|---|
| | Sample 2 burning time (s)..... : | | — |
| | Sample 3 burning time (s)..... : | | — |

| | | | |
|-------|---|--|-----|
| A.3 | High current arcing ignition test (see 4.7.3.2) | | N/A |
| A.3.1 | Samples, material | | — |
| | Wall thickness (mm)..... : | | — |
| A.3.5 | Compliance criteria | | N/A |
| | Sample 1 number of arcs to ignition (pcs) | | — |
| | Sample 2 number of arcs to ignition (pcs) | | — |
| | Sample 3 number of arcs to ignition (pcs) | | — |
| | Sample 4 number of arcs to ignition (pcs) | | — |
| | Sample 5 number of arcs to ignition (pcs) | | — |
| A.4 | Hot wire ignition test (see 4.7.3.2) | | N/A |
| A.4.1 | Samples, material..... : | | — |
| | Wall thickness (mm)..... : | | — |
| A.4.5 | Compliance criteria | | N/A |
| | Sample 1 ignition time (s)..... : | | — |
| | Sample 2 ignition time (s)..... : | | — |
| | Sample 3 ignition time (s)..... : | | — |
| | Sample 4 ignition time (s)..... : | | — |
| | Sample 5 ignition time (s)..... : | | — |
| A.5 | Hot flaming oil test (see 4.6.2) | | N/A |
| A.6 | Flammability tests for classifying materials V-0, V-1 or V-2 | | N/A |
| A.6.1 | Samples, material..... : | | — |
| | Wall thickness (mm)..... : | | — |
| A.6.5 | Compliance criteria | | N/A |
| A.6.6 | Permitted re-test | | N/A |
| A.7 | Flammability test for classifying foamed materials HF-1, HF-2 or HFB | | N/A |
| A.7.1 | Sample, material | | — |
| | Wall thickness (mm)..... : | | — |
| A.7.4 | Compliance criteria | | N/A |
| A.7.5 | Compliance criteria, HF-2 | | N/A |
| A.7.6 | Compliance criteria, HF-1 | | N/A |
| A.7.7 | Compliance criteria, HBF | | N/A |
| A.7.8 | Permitted re-test, HF-1 or HF-2 | | N/A |

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

| | | | |
|-------|---|--|-----|
| A.7.9 | Permitted re-test, HBF | | N/A |
| A.8 | Flammability test for classifying materials HB | | N/A |
| A.8.1 | Samples, material..... : | | — |
| | Sample thickness (mm) : | | — |
| A.8.2 | Conditioning of samples; temperature (°C)..... : | | N/A |
| A.8.4 | Test procedure | | N/A |
| A.8.5 | Compliance criteria | | N/A |
| A.8.6 | Permitted re-test | | N/A |
| A.9 | Flammability test for classifying materials 5V | | N/A |
| A.9.1 | Samples, material..... : | | — |
| | Sample thickness (mm) : | | — |
| A.9.4 | Test procedure, test bars | | N/A |
| A.9.5 | Test procedure, test plaques | | N/A |
| A.9.6 | Compliance criteria | | N/A |
| A.9.7 | Permitted re-test | | N/A |
| A.10 | Stress relief conditioning (see 4.2.7) | | N/A |
| | Temperature (°C) : | | — |

| | | | |
|-------|---|--|-----|
| B | ANNEX B, MOTOR TESTS UNDER ABNORMAL CONDITIONS (see 4.7.2.2 and 5.3.2) | | N/A |
| B.1 | General requirements | | N/A |
| | Position : | | — |
| | Manufacturer : | | — |
| | Type : | | — |
| | Rated values : | | — |
| B.2 | Test conditions | | N/A |
| B.3 | Maximum temperatures | | N/A |
| B.4 | Running overload test | | N/A |
| B.5 | Locked-rotor overload test | | N/A |
| | Test duration (days) : | | — |
| | Electric strength test: test voltage (V) : | | — |
| B.6 | Running overload test for DC motors in secondary circuits | | N/A |
| B.7 | Locked-rotor overload test for DC motors in secondary circuits | | N/A |
| B.7.1 | Test procedure | | N/A |

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

| | | | |
|-------|---|--|-----|
| B.7.2 | Alternative test procedure; test time (h).....: | | N/A |
| B.7.3 | Electric strength test | | N/A |
| B.8 | Test for motors with capacitors | | N/A |
| B.9 | Test for three-phase motors | | N/A |
| B.10 | Test for series motors | | N/A |
| | Operating voltage (V) | | — |

| | | | |
|-----|--|--|-----|
| C | ANNEX C, TRANSFORMERS (see 1.5.4 and 5.3.3) | | N/A |
| | Position | | |
| | Manufacturer | | |
| | Type | | |
| | Rated values | | |
| | Method of protection | | |
| C.1 | Overload test | | |
| C.2 | Insulation | | |
| | Protection from displacement of windings..... : | | |

| | | | |
|-----|---|--|-----|
| G | ANNEX G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES | | N/A |
| G.1 | Summary of the procedure for determining minimum clearances | | N/A |
| G.2 | Determination of mains transient voltage (V)..... : | | N/A |
| G.3 | Determination of telecommunication network transient voltage (V)..... : | | N/A |
| G.4 | Determination of required withstand voltage (V)... : | | N/A |
| G.5 | Measurement of transient levels (V)..... : | | N/A |
| G.6 | Determination of minimum clearances | | N/A |

| | | | |
|---|---|--|-----|
| H | ANNEX H, IONIZING RADIATION (see 4.3.13) | | N/A |
| | Ionizing radiation | | N/A |
| | Measured radiation (mR/h) | | — |
| | Measured high-voltage (kV) | | — |
| | Measured focus voltage (kV) | | — |
| | CRT markings | | — |

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

| | | | |
|---|---|--|-----|
| J | ANNEX J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6) | | N/A |
| | Metal used | | — |

| | | | |
|-----|--|--|-----|
| K | ANNEX K, THERMAL CONTROLS (see 1.5.3 and 5.3.7) | | N/A |
| K.1 | Making and breaking capacity | | N/A |
| K.2 | Thermostat reliability; operating voltage (V) | | N/A |
| K.3 | Thermostat endurance test; operating voltage (V) | | N/A |
| K.4 | Temperature limiter endurance; operating voltage (V) | | N/A |
| K.5 | Thermal cut-out reliability | | N/A |
| K.6 | Stability of operation | | N/A |

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

| | | | |
|---|---|--|-----|
| U | ANNEX U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4) | | N/A |
| | Separate test report | | N/A |

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

| 1.5.1 | TABLE: list of critical components | | | | | Pass |
|---|---|-------------|--|-----------|--|------|
| object/part No. | manufacturer/ trademark | type/model | technical data | Standard | mark(s) of conformity ¹⁾ | |
| Enclosure | -- | -- | Metal, 1.0 mm thick minimum. | -- | -- | |
| Power Supply (for Model MIC-3036XXXXXX) | Zippy | P1U-6200P | Input: 100- 240Vac, 6-3A, 47-63Hz. Output: +12Vdc/9A, +5Vdc/16A, +3.3Vdc/14A, -12Vdc/0.7A, -5Vdc/0.2A, +5VSB/1.5A | IEC 60950 | UL, TUV CB Cert. No. JPTUV-002570 | |
| Power Supply (for Model MIC-3036XXXXXX) | Zippy | P1A-6250P | Input: 100- 240Vac, 6-3A, 60-50Hz. Output: 5 V/24 A; 12 V/12 A; 3.3 V/20 A; -5 V/0.5 A; -12 V/0.5 A; 5 Vsb/1.5 A; +5 V and +3.3 V maximum 170W; +5 V and +3.3 V and +12 V maximum 234 W; Maximum total output power 250W. | IEC 60950 | UL, TUV CB Cert. No. JPTUV-002570 | |
| (for Model MIC-3038XXXXXX) | Zippy | R2A-6300P-R | Input: 100- 240Vac, 6/3A, 60/50Hz. Output: +12Vdc/16A, +5Vdc/32A, +3.3Vdc/20A, -12Vdc/0.8A, -5Vdc/0.5A, +5VSB/1.5A | IEC 60950 | UL, TUV CB Cert. No. JPTUV-002971A1 | |
| (for Model MIC-3056XXXXXX) | Zippy | R2A-6300P-R | Input: 100- 240Vac, 6/3A, 60/50Hz. Output: +12Vdc/16A, +5Vdc/32A, +3.3Vdc/20A, -12Vdc/0.8A, -5Vdc/0.5A, +5VSB/1.5A | IEC 60950 | UL, TUV CB Cert. No. JPTUV-002971A1 | |
| Power Supply Cord | Various | Various | min. 0.75mm ² /3C | -- | -- | |
| PCB | Various | Various | V-1, min. 105°C | UL94 | UL | |
| Hard Disk (for Model MIC-3036XXXXXX) | Various | Various | +5/+12Vdc, 0.6/0.9A maximum | EN 60950 | TUV, UL | |

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

| 1.5.1 | TABLE: list of critical components | | | | | Pass |
|---|---|----------------|--|----------|--|------|
| object/part No. | manufacturer/ trademark | type/model | technical data | Standard | mark(s) of conformity ¹⁾ | |
| (for Model MIC-3038XXXXXX) | Various | Various | +5Vdc, 0.5A maximum | EN 60950 | TUV, UL | |
| (for Model MIC-3056XXXXXX) | Various | Various | +5Vdc, 0.55A maximum | EN 60950 | TUV, UL | |
| CD-ROM Drive (Optional) (for Models MIC-3036XXXXXX, MIC-3056XXXXXX) | Various | Various | +5Vdc, 1.5A maximum. | EN 60950 | TUV, UL | |
| RTC Battery (for Model MIC-3036XXXXXX) | Tadiran | TL-5186 | 3.6Vdc, maximum abnormal charging current 15mA | -- | UL | |
| Polyswitch (for Model MIC-3036XXXXXX) | Polytronics | SMD1812 series | trip current 5.2A | -- | UL | |
| EMI Filter (for Model MIC-3038XXXXXX) | Delta | 06GeeG3E | 250Vac, 6A | VDE 0563 | VDE, UL | |
| DC Fan (two provided) (for Model MIC-3036XXXXXX) | Aavid | 148A233 | +12Vdc, 0.16A | EN 60950 | TUV, UL | |
| | Bi-Sonic | BP802512M | +12Vdc, 0.16A | EN 60950 | TUV, UL | |
| Rear Fan (for Model MIC-3038XXXXXX) | Adda | AD0812UX-A76GL | +12Vdc, 0.3A | EN 60950 | TUV, UL | |
| Left Fan (for Model MIC-3038XXXXXX) | Delta | WFB1212H | +12Vdc, 0.45A | EN 60950 | TUV, UL | |
| | Delta | AFB1512-F00 | +12Vdc, 0.63A | EN 60950 | TUV, UL | |
| DC Fan (three provided) (for Model MIC-3056XXXXXX) | Delta | EFB0612HHA | +12Vdc, 0.25A | EN 60950 | TUV, UL | |

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

| 1.6.2 | TABLE: electrical data (in normal conditions) | | | | | Pass |
|------------------------------|--|--------|-------|--------|-------------|------------------|
| fuse # | I rated (A) | U (V) | P (W) | I (mA) | I fuse (mA) | condition/status |
| Model: MIC-3038XXXXXX | | | | | | |
| F1 | -- | 90/50 | 172 | 1.92 | 1.92 | Max. normal load |
| F1 | 6.0 | 100/50 | 171 | 1.72 | 1.72 | Same as above. |
| F1 | 3.0 | 240/50 | 163 | 0.77 | 0.77 | Same as above. |
| F1 | -- | 254/50 | 162 | 0.74 | 0.74 | Same as above. |
| F1 | -- | 90/60 | 172 | 1.92 | 1.92 | Same as above. |
| F1 | 6.0 | 100/60 | 171 | 1.72 | 1.72 | Same as above. |
| F1 | 3.0 | 240/60 | 163 | 0.80 | 0.80 | Same as above. |
| F1 | -- | 254/60 | 162 | 0.78 | 0.78 | Same as above. |
| Model: MIC-3056XXXXXX | | | | | | |
| F1 | -- | 90/50 | 179 | 1.98 | 1.98 | Max. normal load |
| F1 | 6.0 | 100/50 | 177 | 1.74 | 1.74 | Same as above. |
| F1 | 3.0 | 240/50 | 166 | 0.78 | 0.78 | Same as above. |
| F1 | -- | 254/50 | 165 | 0.75 | 0.75 | Same as above. |
| F1 | -- | 90/60 | 179 | 1.98 | 1.98 | Same as above. |
| F1 | 6.0 | 100/60 | 177 | 1.77 | 1.77 | Same as above. |
| F1 | 3.0 | 240/60 | 166 | 0.81 | 0.81 | Same as above. |
| F1 | -- | 254/60 | 165 | 0.79 | 0.79 | Same as above. |
| Model: MIC-3036XXXXXX | | | | | | |
| F1 | -- | 90/50 | 122 | 1.61 | 1.61 | Max. normal load |
| F1 | 6.0 | 100/50 | 121 | 1.52 | 1.52 | Same as above. |
| F1 | 3.0 | 240/50 | 121 | 0.98 | 0.98 | Same as above. |
| F1 | -- | 254/50 | 122 | 0.94 | 0.94 | Same as above. |
| F1 | -- | 90/60 | 122 | 1.55 | 1.55 | Same as above. |
| F1 | 6.0 | 100/60 | 122 | 1.48 | 1.48 | Same as above. |
| F1 | 3.0 | 240/60 | 121 | 0.96 | 0.96 | Same as above. |
| F1 | -- | 254/60 | 122 | 0.92 | 0.92 | Same as above. |

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

| 1.6.2 | TABLE: electrical data (in normal conditions) (con't) | | | | | Pass |
|--|--|--------|-------|--------|-------------|------------------|
| fuse # | I rated (A) | U (V) | P (W) | I (mA) | I fuse (mA) | condition/status |
| Model: MIC-3036XXXXXXX, alternate power supply, type P1A-6250P | | | | | | |
| -- | -- | 90/50 | 278 | 3085 | -- | Max. normal load |
| -- | 6.0 | 90/60 | 278 | 3092 | -- | Same as above. |
| -- | 3.0 | 100/50 | 275 | 2742 | -- | Same as above. |
| -- | -- | 100/60 | 275 | 2750 | -- | Same as above. |
| -- | -- | 240/50 | 264 | 1111 | -- | Same as above. |
| -- | 6.0 | 240/60 | 260 | 1103 | -- | Same as above. |
| -- | 3.0 | 264/50 | 258 | 1636 | -- | Same as above. |
| -- | -- | 264/60 | 258 | 1510 | -- | Same as above. |
| supplementary information: Max. normal load was defined as follows: CD-ROM and Floppy Disk were seeking dummy load to 80% full load of Power supply. | | | | | | |

| 2.10.3 and 2.10.4 | TABLE: clearance and creepage distance measurements | | | | | Pass |
|--|--|--------------|------------------|---------|-------------------|----------|
| clearance cl and creepage distance dcr at/of: | Up (V) | U r.m.s. (V) | required cl (mm) | cl (mm) | required dcr (mm) | dcr (mm) |
| The equipment has adequate clearances and creepage distance considered with the approval of the SPS. | | | | | | |

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

| | | | |
|-------------------------------------|---|--|-----------------|
| 4.5 | TABLE: temperature rise measurements | | Pass |
| | test voltage (V) | 90V/60Hz/2.0 hrs, 254V/60Hz/2.0 hrs | — |
| | t1 (°C) | | — |
| | t2 (°C) | | — |
| temperature rise dT of part/at: | | dT (K) | Required dT (K) |
| Model: MIC-3038XXXXXXX | | | |
| Ambient | | 25°C/25°C | -- |
| Power 1 | | | |
| T1 coil | | 06/06 | 40 |
| T1 core | | 02/08 | 40 |
| C42 body | | 08/05 | 35 |
| LF1 coil | | 12/09 | 55 |
| PWB near BD1 Heatsink | | 13/09 | 55 |
| PWB near D7 Heatsink | | 11/10 | 55 |
| Power 2 | | | |
| T1 coil | | 09/08 | 40 |
| T1 core | | 12/11 | 40 |
| C42 body | | 11/08 | 35 |
| LF1 coil | | 17/12 | 55 |
| PWB near BD1 Heatsink | | 19/12 | 55 |
| PWB near D7 Heatsink | | 13/12 | 55 |
| PWB near D8 body | | 13/12 | 55 |
| Main board | | | |
| PWB near Q2 | | 22/21 | 55 |
| PWB near U21 | | 25/25 | 55 |
| U22 body | | 26/26 | 55 |
| U10 body | | 17/16 | -- |
| BT1 body | | 10/10 | -- |
| H.D.D body | | 08/07 | -- |
| Enclosure outside near power supply | | 07/07 | 20 |

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

| | | | |
|-------------------------------------|--|--|-----------------|
| 4.5 | TABLE: temperature rise measurements (con' t) | | Pass |
| | test voltage (V) | 90V/60Hz/2.0 hrs, 254V/60Hz/2.0 hrs | — |
| | t1 (°C) | | — |
| | t2 (°C) | | — |
| temperature rise dT of part/at: | | dT (K) | Required dT (K) |
| Model: MIC-3056XXXXXXX | | | |
| Ambient | | 24°C/24°C | -- |
| Power 1 | | | |
| T1 coil | | 8/8 | 40 |
| T1 core | | 9/9 | 40 |
| C42 body | | 9/6 | 35 |
| LF1 coil | | 13/9 | 55 |
| PWB near BD1 Heatsink | | 11/9 | 55 |
| PWB near D7 Heatsink | | 20/20 | 55 |
| Power 2 | | | |
| T1 coil | | 5/5 | 40 |
| T1 core | | 6/6 | 40 |
| C42 body | | 7/5 | 35 |
| LF1 coil | | 12/08 | 55 |
| PWB near BD1 Heatsink | | 9/6 | 55 |
| PWB near D7 Heatsink | | 19/19 | 55 |
| PWB near D8 body | | 13/12 | 55 |
| Main board | | | |
| PWB near Q2 | | 30/30 | 55 |
| PWB near U21 | | 25/24 | 55 |
| U22 body | | 26/26 | -- |
| U10 body | | 20/20 | -- |
| BT1 body | | 9/9 | -- |
| H.D.D body | | 9/9 | -- |
| CD-ROM body | | 16/16 | -- |
| F.D.D body | | 9/9 | -- |
| Enclosure outside near power supply | | 4/3 | 20 |

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

| | | | |
|---------------------------------|--|--|-----------------|
| 4.5 | TABLE: temperature rise measurements (con' t) | | Pass |
| | test voltage (V) | 90V/60Hz/2.0 hrs, 254V/60Hz/2.0 hrs | — |
| | t1 (°C) | | — |
| | t2 (°C) | | — |
| temperature rise dT of part/at: | | dT (K) | Required dT (K) |

Model: MIC-3036XXXXXXX

| | | |
|------------------------------|-----------|----|
| Ambient | 24°C/26°C | -- |
| T1 coil | 18/16 | 40 |
| T1 core | 19/17 | 40 |
| C10 body | 20/18 | 35 |
| LA coil | 26/19 | 55 |
| PWB near IC2 Heatsink | 10/8 | 55 |
| CD-ROM body | 12/10 | -- |
| F.D.D body | 11/9 | -- |
| H.D.D body | 15/13 | -- |
| PWB near Q2 | 10/8 | 55 |
| PWB near U21 | 9/7 | 55 |
| U22 body | 14/12 | -- |
| U10 body | 14/12 | -- |
| BT1 body | 5/3 | -- |
| Enclosure outside near power | 4/2 | 20 |

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

| | | | |
|---------------------------------|--|--|-----------------|
| 4.5 | TABLE: temperature rise measurements (con' t) | | Pass |
| | test voltage (V) | 90V / 60Hz / 3.0 hrs 10 mins, 264V / 50Hz / 1.0 hrs 50 mins | — |
| | t1 (°C) | | — |
| | t2 (°C) | | — |
| temperature rise dT of part/at: | | dT (K) | Required dT (K) |

Model: MIC-3036XXXXXXX, alternate power supply, type P1A-6250P

| | | | | | | | |
|-----------------------|--|--------------------|--------------------|-------------|-----------------|------------------|--|
| Ambient | | | | 25°C / 24°C | | -- | |
| 1. LF1 coil | | | | 26 / 23 | | 55 | |
| 2. L1 coil | | | | 30 / 23 | | 55 | |
| 3. L2 coil | | | | 34 / 24 | | 55 | |
| 4. L3 coil | | | | 36 / 26 | | 55 | |
| 5. T2 coil | | | | 23 / 22 | | 40 | |
| 6. T1 coil | | | | 34 / 31 | | 40 | |
| 7. FD body | | | | 4 / 4 | | 20 | |
| 8. CD-ROM cody | | | | 3 / 3 | | 20 | |
| 9. PCB near U16 | | | | 7 / 7 | | 55 | |
| 10. HDD body | | | | 4 / 3 | | 20 | |
| 11. PCB near H14 | | | | 6 / 5 | | 55 | |
| 12. PCB near U44 | | | | 6 / 6 | | 55 | |
| 13. Enclosure outside | | | | 10 / 8 | | 45 | |
| Insulator for Ballast | | R ₁ (Ω) | R ₂ (Ω) | dT (K) | required dT (K) | insulation class | |
| | | | | | | | |

comments:

The temperatures were measured under worst case normal mode defined in 1.2.2.1 and described in 1.6.2 at voltages as described in 1.4.5

With maximum of 50°C ambient temperature specified, the max. temperature rise is calculated as follows:

Winding components:

- class A → dT_{max} = 75K - 10K - (50-25)K = 40K

Components with:

- max. absolute temp. of 105°C (Line choke) → dT_{max} = (105-50)K = 55K

- max. absolute temp. of 105°C (PWB) → dT_{max} = (105-50)K = 55K

- when no class of insulation is given, min. insulation 105°C assumed.

User accessible area:

- material is metal (45K) → dT_{mx} = 70K-(50-25)K = 45K

| IEC 60950 | | | | |
|-----------------------|---|--|--|---------|
| Clause | Requirement + Test | | Result - Remark | Verdict |
| 4.6/4.6.1 & 4.6.2 | TABLE: openings in enclosures | | | Pass |
| Location | size (mm) | | comments | |
| Model MIC-3036XXXXXXX | | | | |
| Left side | Each measured 20x3.8 mm, cover two identical areas, overall area 77.5 by 174 mm each. | | Foreign objects entering the enclosure will not contact bare parts at hazardous voltage or energy (No hazardous parts within 5° projection). | |
| Right side | Each measured 20x1.8 mm, overall area 263 by 72 mm. | | Foreign objects entering the enclosure will not contact bare parts at hazardous voltage or energy (No hazardous parts within 5° projection). | |
| Rear side | Each measured 20x1.8 mm, overall area 72 by 20 mm. | | Foreign objects entering the enclosure will not contact bare parts at hazardous voltage or energy (No hazardous parts within 5° projection). | |
| Model MIC-3038XXXXXXX | | | | |
| Left side | Each measured 5.9x5.98 mm, Cover two areas, overall area 118.5 by 115.5 mm, 118.5 by 36 mm. | | Foreign objects entering the enclosure will not contact bare parts at hazardous voltage or energy (No hazardous parts within 5° projection). | |
| Right side | Each measured 9.8x3.4 mm, overall area 127 by 73.5 mm. | | Foreign objects entering the enclosure will not contact bare parts at hazardous voltage or energy (No hazardous parts within 5° projection). | |
| Rear side | Each measured 5.9x5.9 mm, overall area 73 by 73 mm. | | Foreign objects entering the enclosure will not contact bare parts at hazardous voltage or energy (No hazardous parts within 5° projection). | |
| Model MIC-3056XXXXXXX | | | | |
| Left side | Each measured 20x4.0 mm, Cover two areas, overall area 128 by 59 mm, 63 by 59 mm. | | Foreign objects entering the enclosure will not contact bare parts at hazardous voltage or energy (No hazardous parts within 5° projection). | |
| Right side | Each measured 20x2.0 mm, overall area 260 by 72 mm. | | Foreign objects entering the enclosure will not contact bare parts at hazardous voltage or energy (No hazardous parts within 5° projection). | |

| IEC 60950 | | | |
|--|---------------------------------------|------------------|-----------------------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 5.2.2 | TABLE: electric strength tests | | Pass |
| test voltage applied between: | | test voltage (V) | breakdown Yes / No |
| Model MIC-3036XXXXXXX, MIC-3038XXXXXXX, MIC-3056XXXXXXX | | | |
| Primary to Secondary | | 4242 Vdc | No |
| Primary to Earth | | 2500 Vdc | No |
| Model MIC-3036XXXXXXX, alternate power supply, type P1A-6250P | | | |
| Primary to Secondary | | 4242 Vdc | No |
| Primary to Earth | | 2951 Vdc | No |
| supplementary information: N/A | | | |

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

| 5.3 | TABLE: fault condition tests | | | | | Pass |
|-------------------------------|--------------------------------------|------------------|-----------|----------|------------------|---|
| | ambient temperature (°C) | 50°C | | | | — |
| | model/type of power supply | | | | | — |
| | manufacturer of power supply | | | | | — |
| | rated markings of power supply | | | | | — |
| component No. | fault | test voltage (V) | test time | fuse No. | fuse current (A) | result |
| Model: MIC-3038XXXXXXX | | | | | | |
| Ventilation openings | Blocked | 240 | 3.0hrs | -- | -- | Normal operation, power 1 T1 coil 54°C, T1 core 57°C, power 2 T1 coil 63°C, T1 core 67°C, no breakdown, no hazards. |
| Fan 1 | Stalled | 240 | 2.0hrs | -- | -- | Normal operation, power 1 T1 coil 31°C, T1 core 33°C, power 2 T1 coil 33°C, T1 core 36°C, no breakdown, no hazards. |
| Fan 2 | Stalled | 240 | 1.5hrs | -- | -- | Normal operation, power 1 T1 coil 33°C, T1 core 35°C, power 2 T1 coil 35°C, T1 core 39°C, no breakdown, no hazards. |
| Model: MIC-3056XXXXXXX | | | | | | |
| Ventilation openings | Blocked | 240 | 3.0hrs | -- | -- | Normal operation, power 1 T1 coil 60°C, T1 core 61°C, power 2 T1 coil 49°C, T1 core 30°C, no breakdown, no hazards. |
| Fan 1 | Stalled | 240 | 1.5hrs | -- | -- | Normal operation, power 1 T1 coil 33°C, T1 core 34°C, power 2 T1 coil 30°C, T1 core 30°C, no breakdown, no hazards. |
| Fan 2 | Stalled | 240 | 1.2hrs | -- | -- | Normal operation, power 1 T1 coil 32°C, T1 core 33°C, power 2 T1 coil 29°C, T1 core 30°C, no breakdown, no hazards. |

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

| 5.3 | TABLE: fault condition tests (con' t) | | | | | Pass |
|--|--|------------------|-----------------|----------|------------------|--|
| | ambient temperature (°C) | | | | 50°C | — |
| | model/type of power supply | | | | | — |
| | manufacturer of power supply | | | | | — |
| | rated markings of power supply | | | | | — |
| component No. | fault | test voltage (V) | test time | fuse No. | fuse current (A) | result |
| Fan 3 | Stalled | 240 | 1.5hrs | --- | -- | Normal operation, power 1 T1 coil 32°C, T1 core 33°C, power 2 T1 coil 29°C, T1 core 30°C, no breakdown, no hazards |
| Model: MIC-3036XXXXXXX | | | | | | |
| Ventilation openings | Blocked | 240 | 3.0hrs | -- | -- | Normal operation, power T1 coil 90°C, T1 core 88°C, no breakdown, no hazards |
| Fan 1 | Stalled | 240 | 2.0hrs | -- | -- | Normal operation, power T1 coil 42°C, T1 core 42°C, no breakdown, no hazards |
| Fan 2 | Stalled | 240 | 2.0hrs | -- | -- | Normal operation, power T1 coil 50°C, T1 core 50°C, no breakdown, no hazards |
| Model MIC-3036XXXXXXX, alternate power supply, type P1A-6250P | | | | | | |
| Ventilation openings | Blocked | 240 | 1.0hrs, 50 mins | F1 | 0.865 | Temperature was satble, T2 coil: 43 degree C, T1 coil: 49 degree C, no breakdown, no hazards |
| Fan 1 | Stalled | 240 | 1.0hrs, 30 mins | F1 | 0.865 | Temperature was satble, T2 coil: 53 degree C, T1 coil: 61 degree C, no breakdown, no hazards |

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

| A.6.5 | TABLE: flammability test for classifying materials V-0, V-1 or V-2 | | N/A |
|----------------------|---|---|-----|
| sample No. / ref. | afterflame time (s) t_1 or t_2 | afterflame + afterglow (s) after 2nd flame application $t_2 + t_3$ | |
| 1/A | | | |
| 2/A | | | |
| 3/A | | | |
| 4/A | | | |
| 5/A | | | |
| 6/B | | | |
| 7/B | | | |
| 8/B | | | |
| 9/B | | | |
| 10/B | | | |

| A.6.6 | TABLE: flammability re-test for classifying materials V-0, V-1 or V-2 | | N/A |
|------------|--|---|-----|
| sample No. | afterflame time (s) t_1 or t_2 | afterflame + afterglow (s) after 2nd flame application $t_2 + t_3$ | |
| 11 | | | |
| 12 | | | |
| 13 | | | |
| 14 | | | |
| 15 | | | |

| A.7.4, A.7.5, A.7.6 and A.7.7 | TABLE: flammability test for classifying foam materials HF-1, HF-2 or HBF | | | N/A |
|--|--|---------------|---|---|
| sample No. / ref. | flame time (s) | glow time (s) | flaming/glowing distance from the end (mm) | comment (for A.7.7 burning rate mm/min) |
| 1/A | | | | |
| 2/A | | | | |
| 3/A | | | | |
| 4/A | | | | |
| 5/A | | | | |
| 6/B | | | | |
| 7/B | | | | |

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

| | | | | |
|------|--|--|--|--|
| 8/B | | | | |
| 9/B | | | | |
| 10/B | | | | |

| A.7.8 | TABLE: flammability re-test for classifying foam materials HF-1 or HF-2 | | | N/A |
|------------|--|---------------|--|---------|
| sample No. | flame time (s) | glow time (s) | flaming/glowing distance from the end (mm) | comment |
| 11 | | | | |
| 12 | | | | |
| 13 | | | | |
| 14 | | | | |
| 15 | | | | |

| A.7.9 | TABLE: flammability re-test for classifying foam materials HBF | | | N/A |
|------------|---|---------------|--|---|
| sample No. | flame time (s) | glow time (s) | flaming/glowing distance from the end (mm) | comment (for A.7.7 burning rate mm/min) |
| 11 | | | | |
| 12 | | | | |
| 13 | | | | |
| 14 | | | | |
| 15 | | | | |

| A.8.5 | TABLE: flammability test for classifying materials HB | | N/A |
|------------|--|---|-----|
| sample No. | flaming/glowing rate mm/min | flaming/glowing distance from reference mark (mm) | |
| 1 | | | |
| 2 | | | |
| 3 | | | |

| A.8.6 | TABLE: flammability re-test for classifying materials HB | | N/A |
|------------|---|---|-----|
| sample No. | flaming/glowing rate mm/min | flaming/glowing distance from reference mark (mm) | |
| 4 | | | |
| 5 | | | |

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

| | | |
|---|--|--|
| 6 | | |
|---|--|--|

| | | | | | | |
|----------|--|-----------------------|--------------|----------------------------|-----------------------|-----|
| A.9.6 | TABLE: flammability test for classifying materials 5V | | | | | N/A |
| sample | test bars | | test plaques | | | |
| No./ref. | flaming + glowing time (s) | burning distance (mm) | position | flaming + glowing time (s) | burning distance (mm) | |
| 1/A | | | A | | | |
| 2/A | | | B | | | |
| 3/A | | | C | | | |
| 4/A | | | D | | | |
| 5/A | | | | | | |
| 6/B | | | A | | | |
| 7/B | | | B | | | |
| 8/B | | | C | | | |
| 9/B | | | D | | | |
| 10/B | | | | | | |

| | | | | | | |
|----------------------------|---|-----------------------|--------------|----------------------------|-----------------------|-----|
| A.9.7 | TABLE: flammability re-test for classifying materials 5V | | | | | N/A |
| sample | test bars | | test plaques | | | |
| No. | flaming + glowing time (s) | burning distance (mm) | position | flaming + glowing time (s) | burning distance (mm) | |
| 11 | | | A | | | |
| 12 | | | B | | | |
| 13 | | | C | | | |
| 14 | | | D | | | |
| 15 | | | | | | |
| | | | | | | |
| supplementary information: | | | | | | |