

**LVD**

# TEST REPORT

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## **Safety Services International Inc.**

**Address : 7F, No. 758, Chung-Cheng Road  
Chungho City, Taipei Hsien  
Taiwan, R.O.C.**

**Telephone : (886-2) 2225-1600**

**Facsimile : (886-2) 2226-9540**

## DECLARATION OF CONFORMITY

Application of Council Directive(s).....: Low Voltage Directive 73/23/EEC & Amendment Directive 93/68/EEC

Standard(s) to which Conformity is Declared .....: EN 60950: A1 + A2+ A3 + A4 + A11

Basic Standards and Procedures .....: EN 60950: A1 + A2 + A3 + A4 + A11

Manufacturer .....

Advantech Co., Ltd.

Address.....:

4F, No. 108-3, Ming Chuan Rd.  
Hsin Tien City, Taipei Hsien  
Taiwan, R. O. C.

Type of Product.....:

Disk Array

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Model Designation .....

RAID-400XX

(The XX in the model designation may be any alphanumeric character or blank.)

Year of Manufacture .....

European Representative.....:

*I, the undersigned, hereby declare that the equipment specified above conforms to the applicable Directives and Standards.*



\_\_\_\_\_  
Signature

\_\_\_\_\_  
Place / Date

\_\_\_\_\_  
Full Name

\_\_\_\_\_  
Position / Title



# CERTIFICATE OF COMPLIANCE

**Manufacturer .....** : Advantech Co., Ltd.

**Address.....** : 4F, No. 108-3, Ming Chuan Rd.  
Hsin Tien City, Taipei Hsien  
Taiwan, R. O. C.

**Description of EUT ...** : Disk Array

**Model Designation ....** : RAID-400XX  
(The XX in the model designation may be any alphanumeric character or blank.)

**Tested According to ..** : 73/23/EEC  
IEC 60 950:1991 + A1 + A2 + A3 + A4 + A11  
EN 60 950:1992 + A1 + A2 + A3 + A4 + A11

*This evaluation was carried out to the best of our knowledge and ability, and our responsibility is limited to the exercise of reasonable care. This certification is not intended to relieve the sellers from their contractual obligations.*

**Issued Date.....** : July 6, 1999

**Issued Agency..** : **Safety Services International Inc.**  
7F, No. 758, Chung-Cheng Road  
Chungho City, Taipei Hsien  
Taiwan, R. O. C.

**Tested by .....** : *Ellen Hsieh*

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*Ellen Hsieh / Project Engineer*

**Reviewed by.....** : *Wilson Wang*

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*Wilson Wang / Engineering Manager*

**Approved by ....** : *Peter Wang*

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*Peter Wang / Director*



# 1. Test Report

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<b>LOW VOLTAGE DIRECTIVE TEST REPORT</b> <b>IEC 60 950 / EN 60 950</b> <b>Safety of information technology equipment including electrical business equipment</b>	
Report Reference No.....	SSI9907L053
Compiled by (+ signature).....	Ellen Hsieh Project Engineer <i>Ellen Hsieh</i>
Reviewed by (+ signature).....	Wilson Wang Engineering Manager <i>Wilson Wang</i>
Approved by (+ signature) .....	Peter S.T. Wang Managing Director <i>Peter Wang</i>
Date of Issue.....	July 6, 1999
Testing laboratory .....	<b>Safety Services International Inc.</b>
Address .....	7th Floor, No. 758 Chung-Cheng Road Chungho City, Taipei Hsien
Testing location.....	Taiwan, Republic of China
Applicant.....	<b>Advantech Co., Ltd.</b>
Address .....	4F, No. 108-3, Ming Chuan Rd. Hsin Tien City, Taipei Hsien Taiwan, R. O. C.
Standard.....	IEC 60 950:1991 + A1 + A2 + A3 + A4 + A11 EN 60 950:1992 + A1 + A2 + A3 + A4 + A11
Test Report Form No.....	LVD 60950
Test procedure .....	SSI LVD type test approval
Procedure deviation .....	N/A
Non-standard test method .....	N/A
Type of test object.....	Disk Array
Trademark.....	N/A
Model/type reference .....	<b>RAID-400XX</b> (The XX in the model designation may be any alphanumeric character or blank.)
Manufacturer.....	Advantech Co., Ltd. 4F, No. 108-3, Ming Chuan Rd. Hsin Tien City, Taipei Hsien Taiwan, R. O. C.
Rating .....	115 / 230 Vac, 50 / 60 Hz, 7 / 4 A; or -48 Vdc, 17 A



**Brief description of the test sample:**

The equipment is a disk array, intended for used with PC system.

The disk array was provided with 8 HDD and link up PC system for maximum normal operation during the test. The equipment is provided with an external power supply as follows:

1. The AC type of power supply is manufactured by Power Research Technology Co., Ltd., model PRM320-1, rated input 100-120 / 200-240 Vac, 50 / 60 Hz, 7.0 / 4.0 A; output +5 / +12 / -5 / -12 Vdc, 32 / 11 / 1 / 1 A
2. The DC type of power supply is manufactured by Power Research Technology Co., Ltd., model PRMD320-1, rated input -48 Vdc, 17 A; output +5 / +12 / -5 / -12 Vdc, 32 / 11 / 1 / 1 A.

The power supply has been evaluated and approved by TÜV-Rheinland according to IEC 60950 / EN 60950, this report does not cover the evaluation of the power supply since it is considered as an approved component.

The equipment is provided with detachable power supply cord. (for class I, AC supply type); or the input terminals are suitable for field wiring (for class III, DC supply type).

All models specified in this report are similar to each other except model designations and types of input connecting..

The X in the model designation may be any alphanumeric character denoting minor mechanical options, system configuration options and/or extra low voltage secondary circuit options.

The above model was evaluated for use in a maximum air ambient of 25 °C.

The test sample is pre-production without serial number.

Clause	Requirement - Test	Result - Remark	Verdict
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1	GENERAL		Pass
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1.5	Components		Pass
1.5.1	Comply with IEC 60950 or relevant component standard	Safety involved components comply with the requirements of this standard or within the safety aspects of the relevant IEC component standards (refer to appended table 1.5.1 below).	Pass
1.5.2	Evaluation and testing of components	Components which are certified to IEC and/or national standards are used correctly within their ratings. Components not covered by IEC standards are tested under the conditions present in the equipment.	Pass
	Dimensions of mains plug for direct plug-in..... :	The equipment is not direct plug-in type unit.	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 unit.	N.A.
1.5.3	Transformers	The transformer is an integral part of the approved power supply.	N.A.
1.5.4	Flammability class of high voltage components .. :	No high voltage components used.	N.A.
1.5.5	Interconnecting cables	No interconnecting cable provided.	N.A.
1.5.6	Capacitors	The capacitors are the integral part of the approved power supply. (for type of AC input only).	Pass

1.6	Power interface		Pass
1.6.1	Steady state input current .....	Refer to appended table 1.6 below for input test result.	—
1.6.2	Rated voltage of hand-held equipment	This appliance is not a hand-held equipment.	N.A.
1.6.3	Neutral conductor insulated from earth	The neutral to earth components are the integral part of the approved power supply. (For type of AC input only)	Pass
1.6.4	Components connected between phase and earth in equipment intended for IT power system	Equipment is not intended for the IT power system.	N.A.

1.6.5	Rated supply tolerance.....	<p><b>For type of AC input:</b> +6%, -10% or <math>\pm 10\%</math>. The marked supply rating is 115/230 V ac at 60/50 Hz, all relevant tests specified in this report were done with the range of 103-122 V ac at 60 Hz or 207-253 V ac at 50 Hz; or</p> <p><b>For type of DC input:</b> -48 Vdc, 17 A</p>	Pass
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<b>1.7</b>	<b>Marking and instructions</b>		<b>Pass</b>
1.7.1	Rated voltage (V).....	115 / 230 V ac (for type of AC input); or, Equipment is not for direct connection to the supply mains, not required (for type of DC input).	Pass
	Rated frequency (Hz) .....	60 / 50 Hz (for type of AC input); or, Equipment is not for direct connection to the supply mains, not required (for type of DC input).	Pass
	Rated current (A).....	7 / 4 A (for type of AC input); or, Equipment is not for direct connection to the supply mains, not required (for type of DC input).	Pass
	Manufacturer .....	Advantech Co., Ltd.	Pass
	Trademark .....	Not shown	N.A.
	Type/model.....	RAID-400XX	Pass
	Symbol of Class II.....	The unit is not Class II equipment	N.A.
	Certification marks.....	CE mark	Pass
1.7.2	Safety instructions	<p>Operation/installation instruction is provided with each unit.</p> <p><b>For type of AC input:</b>The installation instruction has specified the socket-outlet shall be installed near the equipment and shall be easily accessible; or,<b>For type of DC input:</b></p> <p>The installation instruction has specified that a readily accessible disconnect device shall be incorporated in the fix wiring.</p>	Pass
1.7.3	Short time/intermittent operation	Equipment is designed for continuous operation.	N.A.
1.7.4	Marking for voltage setting/frequency setting .....	115/230 marked on or adjacent to the voltage selector switch(for type of AC input only).	Pass
1.7.5	Marking at outlets .....	No outlet provided.	N.A.

1.7.6	Marking at fuseholders.....	Fuse/fuseholder provided on approved power supply.	Pass
1.7.7.1	Protective earthing terminals.....	The IEC 60417 symbol No. 5019-a marked adjacent to the protective earthing terminal (for type of AC input only).	Pass
1.7.7.2	Terminals for external primary power supply conductors.....	The equipment is using detachable power supply cord (for type of AC input only).	N.A.
1.7.8.1	Clear indications and location of switches and controls.....	All controls and indicators are clearly marked and indicated.	Pass
1.7.8.2	Colours of controls and indicators.....	Refer to 1.7.8.1 above.	Pass
1.7.8.3	Symbols according to IEC 60417.....	The IEC 60417 symbols No. 5007 and 5008 (I and O) are marked on or adjacent to the power switch.	Pass
1.7.8.4	Figures used for indicating positions of controls..	"O" is used for off position indication.	Pass
1.7.8.5	Location of markings and indications for switches and controls.....	Located on or adjacent to the switch actuator.	Pass
1.7.9	Supply when more than one power supply.....		N.A.
1.7.10	Instructions for installation to IT power system	Equipment is not intended for IT power system.	N.A.
1.7.11	Instructions when protection relies on building installation.	The appliance is not a pluggable equipment type B or permanent connected equipment.	N.A.
1.7.12	Marking when leakage current is more than 3.5 mA	Leakage current less than 3.5 mA.	N.A.
1.7.13	Marking at thermostats	No thermostate provided .	N.A.
1.7.14	Language of safety markings/instructions	Installation instruction and equipment markings are in English.	Pass
	Language.....	English.	
1.7.15	Durability and legibility	The label was subjected to the permanence of marking test. After this test there was no damaging to the label, no curling/lifting at the label edge, and the marking did not fade.	Pass
1.7.16	Placing of markings	Outside of enclosure/chassis.	Pass
1.7.17	Warning text for replaceable lithium batteries	No lithium battery provided.	N.A.
	Language.....		
1.7.18	Operator access with a tool.....	There is no operator accessible area inside the unit.	N.A.

<b>2</b>	<b>FUNDAMENTAL DESIGN REQUIREMENTS</b>	<b>Pass</b>
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<b>2.1</b>	<b>Protection against electric shock and energy hazards</b>	<b>Pass</b>
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2.1.2	Protection against electric shock	Protected by complete enclosure . No opening provided, the tests with test finger and test pin are not used.	Pass
2.1.3.1	Internal wiring at ELV	No ELV wiring in operator accessible area.	N.A.
2.1.3.2	Operator accessible insulation of internal wiring at hazardous voltage	No hazardous voltage wiring in operator accessible area.	N.A.
2.1.4	Unintentional contact in services access area	Unintentional contact with bare live parts in is unlikely during servicing.	Pass
2.1.5	Energy hazard	Energy does not exceed 240 VA between any two points in accessible parts (o/p) connector of secondary circuit.	Pass
2.1.6	Clearances behind conductive enclosures	Refer to 4.2.3 below for steady force test result.	Pass
2.1.7	Knobs, handles etc.	Operating handles are not connected to any Hazard voltage and ELV circuit.	Pass
2.1.8	Insulation of conductive handles, knobs etc.	Operating handles are not manually moved in normal use.	N.A.
2.1.9	Insulation of capacitors conductive casings	Casings of capacitors are considered as if directly connected to the respective circuitry. None at hazardous voltage accessible (for type of AC input); or,  No capacitors operating in ELV circuit or hazardous voltage (for type of DC input).	Pass
2.1.10	Risk of electric shock from the pins of a plug	There is no capacitor connected to the mains except capacitors inside the approved power supply (for type of AC input); or, Class III equipment, no mains circuit plug provided (for type of DC input)	Pass
	Measured voltage (V) .....		

<b>2.2</b>	<b>Insulation(evaluated for AC input only, not applicable for DC input)</b>		<b>Pass</b>
2.2.1	Method of insulation	The internal power supply is an approved component.	Pass
2.2.2	Insulation materials	No natural rubber, asbestos or hygroscopic materials are used.	Pass
2.2.3	Humidity treatment	Refer to 2.2.1 above.	N.A.
2.2.4	Electric strength	Refer to 2.9, 5.1 and 5.3 for electric strength test result.	Pass
2.2.5	Insulation parameters	Refer to 2.2.1 above.	N.A.
2.2.6	Categories of insulation	Refer to 2.2.1 above.	N.A.

2.2.7	Determination of working voltages	The measurement have already been done during the evaluation of the approved power supply.	Pass
2.2.7.1	General rules for working voltages	Refer to 2.2.7 above.	N.A.
2.2.7.2	Clearances in primary circuits	Refer to 2.2.7 above.	Pass
2.2.7.3	Clearances in secondary circuits	Refer to 2.2.7 above.	Pass
2.2.7.4	Creepage distances	Refer to 2.2.7 above.	Pass
2.2.7.5	Electric strength tests	Refer to 2.2.1 above.	N.A.
2.2.8	Double or reinforced insulation bridged by components	No components bridged double or reinforced insulation.	N.A.
2.2.8.1	Bridging capacitors	Refer to 2.2.8 above.	N.A.
2.2.8.2	Bridging resistors	No bridging resistor provided.	N.A.
2.2.8.3	Accessible parts	Refer to 2.2.8 above.	N.A.

<b>2.3</b>	<b>Safety extra-low voltage (SELV) circuits</b>		<b>Pass</b>
2.3.1	Voltage (V) of SELV circuits under normal operating conditions and after a single fault .....	The SELV circuits have been evaluated during the evaluation of the approved power supply.	Pass
2.3.2	Voltage (V) between any two parts of SELV circuit(s), and for Class I equipment between any part of SELV circuit and protective earthing terminal .....	Refer to 2.3.1 above.	Pass
2.3.3	Voltage (V) in accessible parts of SELV in the event of a single fault condition .....	Refer to 2.3.1 above.	Pass
	Method used for separation .....		—
2.3.8	Construction of SELV circuits	Uninsulated parts at hazardous voltage are not likely to accidental shorted to SELV circuits. No IEC 60083 or IEC 60320 compatible connectors are used in SELV circuits.	Pass
2.3.9	SELV circuits connected to other circuits	No direct connection between SELV and any primary circuits (for type of AC input); or, The equipment is a Class III unit, no primary circuit provided (for type of DC input).	Pass

<b>2.4</b>	<b>Limited current circuits</b>		<b>N.A.</b>
	Test voltage (V) .....		—
2.4.2	Measured current (mA) .....		N.A.
2.4.3	Measured capacitance (µF) .....		N.A.
2.4.4	Measured charge (µC) .....		N.A.
2.4.5	Measured energy (mJ) .....		N.A.

<b>2.5</b>	<b>Provisions for protective earthing (evaluated for AC input only, not applicable for DC input)</b>		<b>Pass</b>
2.5.1	Reliable connection	Accessible conductive parts are reliably connected to the protective earthing.	Pass
2.5.2	Earthing in Class II equipment	The unit is a Class I equipment.	N.A.
2.5.3	Switches/fuses in earthing conductors	No switches or fuses provided in earthing conductor.	Pass
2.5.4	Assured earth connection in systems	The equipment does not comprise class I and class II equipment.	N.A.
2.5.5	Green/yellow insulation	The grounding is located inside of the approved power supply.	Pass
2.5.6	Continuity of earth connections	It is not possible to disconnect earth without disconnecting mains as an appliance inlet is used.	Pass
2.5.7	Operator-removable parts with earth connections	The earthing of appliance coupler connected before and disconnected after the hazardous voltage. No other operator removable parts provided.	Pass
2.5.8	Protective earth disconnection	Refer to 2.5.5 above.	Pass
2.5.9	Protective earthing terminals	Refer to 2.5.5 above.	Pass
2.5.10	Risk of corrosion	Refer to 2.5.5 above.	Pass
2.5.11	Earth connector resistance $\leq 0.1 \Omega$	Refer to 2.5.5 above.	Pass
	Test current (A)..... :	25 A between appliance inlet ground pin and chassis, measured resistance 24 m $\Omega$ .	

<b>2.6</b>	<b>Primary power isolation (evaluated for AC input only, not applicable for DC input)</b>		<b>Pass</b>
2.6.1	Disconnect device	The appliance coupler is considered to be the disconnect device.	Pass
2.6.2	Type of disconnect device..... :	The appliance coupler .	Pass
2.6.3	Disconnect device in permanently connected equipment	The unit is not a permanently connected equipment.	N.A.
2.6.4	Protection	There will be no remaining parts energized in the equipment when the disconnect device is disconnected.	Pass
2.6.5	Isolating switch in a flexible cord	No isolating switch provided.	N.A.
2.6.6	Disconnection of both poles simultaneously	The appliance coupler disconnects both poles simultaneously.	Pass
2.6.7	Disconnection of all phases	Single phase equipment.	N.A.
2.6.8	Marking at switch	Refer to 2.6.1 above.	Pass
2.6.9	Installation instructions	Refer to 1.7.2 and 2.6.1 above.	Pass
	Language..... :	English.	
2.6.11	Disconnection of group of units		N.A.

2.6.12	Marking at each disconnect device	Only one supply connection provided. Refer to 2.6.1 above.	N.A.
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<b>2.7</b>	<b>Overcurrent and earth fault protection in primary circuits (evaluated for AC input only, not applicable for DC input)</b>		<b>Pass</b>
2.7.1	Type of protective device .....	Equipment relies on fuse inside the approved power supply for overcurrent protection.	Pass
2.7.2	Protection against faults not covered in 5.4		N.A.
2.7.3	Adequate breaking capacity .....	The building installation is considered as the short-circuit protection.	Pass
2.7.4	Number and location .....	One provided on phase conductor.	Pass
2.7.5	Protection by several devices	Only one protector provided.	N.A.
2.7.6	Warning to service personnel	It is considered that the plug to the mains will be disconnected during servicing, no markings are required.	N.A.

<b>2.8</b>	<b>Safety interlocks</b>		<b>N.A.</b>
2.8.2	Design	No operator accessible area inside the equipment, no safety interlock is provided.	N.A.
2.8.3	Protection against inadvertent reactivation	Refer to 2.8.2 above.	N.A.
2.8.4	Reliability	Refer to 2.8.2 above.	N.A.
2.8.5	Override system	Refer to 2.8.2 above.	N.A.
2.8.6.1	Contact Gap	Refer to 2.8.2 above.	N.A.
2.8.6.2	Switch performing 50 cycles	Refer to 2.8.2 above.	N.A.
2.8.6.3	Electric strength test: test voltage (V) .....	Refer to 2.8.2 above.	N.A.
2.8.7	Protection against overstress	Refer to 2.8.2 above.	N.A.

<b>2.9</b>	<b>Clearances, creepage distances and distances through insulation</b>		<b>N.A.</b>
	Nominal voltage (V) .....	115/230 Vac; or, -48 Vdc	—
2.9.2	Clearances	The evaluation of the clearances have already done on the approved power supply	N.A.
2.9.3	Creepage distances	The evaluation of the creepage have already done on the approved power supply	N.A.
	CTI tests .....		—
2.9.4.1	Distances through insulation	The evaluation have already done on the approved power supply	N.A.

2.9.4.2	Thin sheet material	The evaluation of the thin sheet material have already done on the approved power supply.	N.A.
	Number of layers/pieces .....		—
	Electrical strength test (V) .....		N.A.
2.9.4.3	Printed boards		N.A.
	Distance (mm) through insulation .....		N.A.
	Electric strength test at voltage (V) for thin sheet insulating material.....		N.A.
	Number of layers/pieces .....		N.A.
2.9.4.4	Wound components without interleaved insulation	Refer to 2.9.4.1 above.	N.A.
	Electric strength test at voltage (V) for accessible insulation of wire .....		N.A.
	Tests for additional thin film or other insulation		N.A.
	Two wires in contact inside component; angle > 45°		N.A.
	Routine testing for finished component		N.A.
2.9.5	Distances on coated printed boards	No coated printed boards provided.	N.A.
	Routine testing for electric strength		N.A.
2.9.6	Internal creepage distances in hermetically sealed components	No hermetically sealed components.	N.A.
2.9.7	Internal distances in potted components		N.A.
2.9.8	Spacings between external terminations of components		N.A.

<b>2.10</b>	<b>Connection to other equipment</b>		<b>Pass</b>
2.10.1	Connection of SELV and TNV circuits .....	Refer to 2.10.2 and 2.10.3 below.	N.A.
2.10.2	Type of interconnection circuits.....	No ELV or TNV interconnection.	Pass
2.10.3	Connection to host equipment	No ELV or TNV interconnection.	N.A.

<b>2.11</b>	<b>Limited power source</b>		<b>N.A.</b>
	Use of limited power source.....		N.A.

<b>3</b>	<b>WIRING, CONNECTIONS AND SUPPLY</b>		<b>Pass</b>
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<b>3.1</b>	<b>General</b>		<b>Pass</b>
3.1.1	Cross-sectional area and protection	All internal wire gauges for primary power distribution are suitable for the current intended to carry. (for AC input)	Pass

	Protection of internal wiring and interconnecting cables	No internal primary wiring and/or interconnecting cables provided.	N.A.
3.1.2	Wireways	All wires are properly dressed away from touching sharp edges, moving parts or heatsinks.	Pass
3.1.3	Fixing of internal wiring	All Internal wires are properly secured and routed away from excessive strain or damage of conductor insulation.	Pass
3.1.4	Fixing of uninsulated conductors	All uninsulated conductors are properly secured in place.	Pass
3.1.5	Suitable insulation..... :	All internal wires are UL recognized.	Pass
3.1.6	Wires coloured green/yellow (only for protective earth connection)	The evaluation have already done on the approved power supply.	Pass
3.1.7	Fixing of beads and similar insulators	Ferrite beads are properly fixed so that they are not likely to move or touch sharp edges.	Pass
3.1.8	Required electrical contact pressure	The evaluated have already done on the approved power supply.	Pass
3.1.9	Reliable electrical connections		Pass
3.1.10	End of stranded conductor	No soft soldering is consolidated to stranded conductors.	Pass
3.1.11	Use of spaced thread screws	No spaced treaded or threaded-cutting screws are used.	Pass

<b>3.2</b>	<b>Connection to primary power (evaluated for AC input only, not applicable for DC input)</b>		<b>Pass</b>
3.2.1	Type of connection..... :	Appliance inlet.	Pass
	Provision for permanent connection..... :	The unit is not a permanent connected equipment.	N.A.
3.2.2	Provision for permanent connection..... :	The unit is not a permanent connected equipment.	N.A.
3.2.3	Appliance inlet	Appliance inlet complying with IEC 320, Refer to appended table 1.5.1 below.	Pass
3.2.4	Type and cross-sectional area (mm <sup>2</sup> ) of power supply cord..... :	The power supply cord is not provided with this unit during the shipment.	N.A.
3.2.5	Cord anchorage	The equipment is suitable for use with detachable power supply cord.	N.A.
	Test: 25 times; 1 s; pull (N)..... :	.	—
	Longitudinal displacement ≤ 2 mm..... :		N.A.
3.2.6	Protection of power supply cord	Detachable power supply cord used, no protection needed.	N.A.
3.2.7	Cord guard opening parts		N.A.
	D (mm)..... :		—
	Test: mass (g)..... :		—

	Radius of curvature of the cord $\leq 1.5 D$		N.A.
3.2.8	Supply wiring space	The unit is neither permanent connected equipment nor provided with ordinary power supply cord.	N.A.

<b>3.3</b>	<b>Wiring terminals for external power supply conductors (evaluated for AC input only, not applicable for DC input)</b>		<b>Pass</b>
3.3.1	Terminals	Refer to 3.2.8 above.	N.A.
3.3.2	Special non-detachable cord		N.A.
	Type of connection .....	Refer to 3.2.8 above.	
	Pull test at 5 N		N.A.
3.3.3	Screws and nuts		N/A
3.3.4	Fixing of conductors	Refer to 3.3.2 above.	N.A.
3.3.5	Connection of connectors	Refer to 3.2.4 above.	N.A.
3.3.6	Size of terminals	Ground screw is provided for grounding terminal.	Pass
	Nominal thread diameter (mm) .....	3.5 mm for primary power supply conductor terminal screws.	
3.3.7	Protection against damage of conductors	No wiring terminal provided.	N.A.
3.3.8	Terminal location	No ordinary non-detachable power supply cord provided.	N.A.
3.3.9	Test with 8 mm stranded wire	No wiring terminal provided.	N.A.

<b>4</b>	<b>PHYSICAL REQUIREMENTS</b>		<b>Pass</b>
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<b>4.1</b>	<b>Stability and mechanical hazards</b>		<b>Pass</b>
4.1.1	Stability tests		Pass
	Angle of 10°	This equipment does not become physical unstable when tilted to an angle of 10° under its normal use position.	Pass
	Test: force (N) .....	The equipment is not a floor-standing unit.	N.A.
4.1.2	Protection against personal injury	There is no hazardous moving part inside the unit.	N.A.
4.1.3	Warning and means provided for stopping the moving part .....	Refer to 4.1.2 above, warning wording or stopping means are not necessary.	N.A.
4.1.4	Edges and corners	All edges and corners of the exterior enclosure are properly rounded.	Pass
4.1.5	Enclosure of a high pressure lamp	No high pressure lamp provided.	N.A.

4.2	Mechanical strength and stress relief		Pass
4.2.2	Internal enclosures 30 N ± 3 N; 5 s	No operator accessible internal enclosure provided.	N.A.
4.2.3	External enclosures 250 N ± 10 N; 5 s	250 N force is applied on external enclosure for 5 seconds.	Pass
4.2.4	Steel sphere tests		N.A.
	Fall test	Unit is provided with metal enclosure, no tests are deemed necessary.	N.A.
	Swing test	Unit is provided with metal enclosure, no tests are deemed necessary.	N.A.
4.2.5	Drop test	The unit is not a hand-held or direct plug-in equipment.	N.A.
4.2.6	Heat test for enclosures of moulded or formed thermoplastic: 7 h; T (°C) .....	Metallic enclosure, not applicable.	N.A.
4.2.7	Compliance	Metallic enclosure, not applicable.	N.A.
4.2.8	Mechanical strength of cathode ray tubes	Equipment does not provided with cathode ray tube.	N.A.

4.3	Construction details		Pass
4.3.1	Changing of setting for different power supply voltages	The adjustment for different voltage requires the use of a tool (for type of AC input).	Pass
4.3.2	Adjustment of accessible control devices	No manual adjustment of accessible control device would cause a hazard.	N.A.
4.3.4	Prevention of dangerous concentration of dust, liquid and gas	The equipment does not produce dust or employing powders, liquids or gases.	N.A.
4.3.5	Fixing of knobs, grips, handles, levers		Pass
	Test: force (N).....	The handles, knobs, grips, levers and the like will not result in hazard if work loose in normal use.	—
4.3.6	Driving belts/couplings shall not ensure electrical insulation	No driving belt provided.	N.A.
4.3.7	Retaining of sleeves	The sleeving are properly retained in position by cable ties.	Pass
4.3.9	Protection of loosening parts	Wire, screw, nut, washer, spring or similar part can be expected to withstand the mechanical stress, and not likely to become loose or fall out of position. Furthermore, solder pins, cable ties and used for protection.	Pass
4.3.11	Resistance to oil and grease	No oil, grease or similar substances provided inside the unit.	N.A.
4.3.12	Protection against harmful concentration of ionizing radiation, ultraviolet light, laser or flammable gases	No ionizing radiation or ultraviolet light or laser can be generated.	N.A.

4.3.13	Securing of screwed connections	No screwed connection provided.	N.A.
4.3.15	Openings in the top of enclosure	No openings on top of enclosure directly over bare parts at hazardous voltage	N.A.
	Dimensions.....:		
4.3.16	Openings in the sides of enclosure	No openings provided on sides of enclosure.	N.A.
	Dimensions.....:		
4.3.17	Interchangeable plugs and sockets	No plugs or socket provided within the unit.	N.A.
4.3.18	Torque test of equipment with built-on plug		N.A.
	Additional torque (Nm) .....	The equipment is not a direct plug-in unit.	N.A.
4.3.19	Protection against excessive pressure	Equipment does not contain liquid in normal use.	N.A.
4.3.20	Protection of heating elements in Class I equipment	Equipment does not contain heating element.	N.A.
4.3.21	Protection of lithium batteries		N.A.
	Construction of protection circuit.....:	Equipment does not contain lithium battery.	N.A.
4.3.22	Ageing of barrier/screen secured with adhesive		N.A.
	Day 1: temperature (°C); time (weeks) .....		N.A.
	Day 8 / 22 / 57:		N.A.
	a) temperature (°C) for 1 h b) temperature (°C) for 4 h c) temperature (°C) over 8 h .....		
	Day 9 / 23 / 58:		N.A.
	a) relative humidity (%) for 72 h b) temperature (°C) for 1 h c) temperature (°C) for 4 h d) temperature (°C) over 8 h .....		

<b>4.4</b>	<b>Resistance to fire</b>		<b>Pass</b>
4.4.2	Minimizing the risk of ignition	Electrical components are not likely to ignite nearby materials/parts. Components not protected against overheating under fault conditions. Refer to 5.1 below for heating test result.	Pass
4.4.3.2	Flammability of materials and components	Metal enclosure, no flammability rating required.	N.A.
4.4.3.4	Wiring harnessed	All wiring are UL Recognized with PVC insulation, and rated VW-1.	Pass
4.4.3.5	Cord anchorage bushings	No cord anchorage bushing provided.	N.A.

4.4.3.6	Air filter assemblies	No air filter assembly provided.	N.A.
4.4.4	Flammability of outer enclosures and decorative parts	Refer to 4.4.3.2 above.	N.A.
4.4.5.1	Components which require fire enclosure	The fire enclosure is required since the equipment contains transformers, inductors, semiconductor devices, resistors, and capacitors.	Pass
4.4.6	Fire enclosure construction	There is no openings in enclosure bottom.	N.A.
4.4.7	Doors and covers	No door or cover provided.	N.A.
4.4.8	Protection against spreading of flammable liquids	No flammable liquids is used in equipment.	N.A.

<b>5</b>	<b>THERMAL AND ELECTRICAL REQUIREMENTS</b>	<b>Pass</b>
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<b>5.1</b>	<b>Heating</b>	<b>Pass</b>
	Heating tests	Refer to appended table 5.1 below for heating test result.

<b>5.2</b>	<b>Earth leakage current (evaluated for AC input only, not applicable for DC input)</b>	<b>Pass</b>
5.2.2	Leakage current	Earth leakage current was measured from primary to accessible conductive parts.
	Test voltage (V) .....	253 V ac, 60 Hz
	Measured current (mA) .....	2.1 mA (line to chassis), 2.0 mA (neutral to chassis) in power switch ON; and, 1.1 mA (line to chassis), 1.0 mA (neutral to chassis) in power switch OFF
	Max. allowed current (mA) .....	3.5 mA
5.2.4	Three-phase equipment	The equipment is single phase unit.
	Test voltage (V) .....	
	Measured current (mA) .....	
	Max. allowed current (mA) .....	
5.2.5	Equipment with earth leakage current exceeding 3.5 mA	Measured earth leakage current less than 3.5 mA.
	Test voltage (V) .....	
	Measured current (mA) .....	
	Max. allowed current (mA) .....	
	Cross-sectional area (mm <sup>2</sup> ) of internal protective earthing conductor.....	

	Warning label		N.A.
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<b>5.3</b>	<b>Electric strength (evaluated for AC input only, not applicable for DC input)</b>		<b>Pass</b>
	Electric strength test	Refer to appended table 5.3 below for electric strength test result (for .	Pass

<b>5.4</b>	<b>Abnormal operating and fault conditions</b>		<b>Pass</b>
-	Motors	No motor provided.	N.A.
5.4.3	Transformers	The evaluated have been already done on the approved power supply.	N.A.
5.4.4	Compliance of operational insulation		N.A.
	Method used .....	The evaluated have already done on the approved power supply.	N.A.
5.4.5	Electromechanical components in secondary circuits	No electromechanical components provided in secondary circuits.	N.A.
5.4.6	Other components and circuits	Faults in primary and secondary components and operational insulation were already considered during the approval evaluation of the power supply. No other abnormal tests are considered necessary.	N.A.
5.4.7	Test in any expected condition and foreseeable misuse	The equipment is so designed that no foreseeable misuse is likely to happen.	Pass
5.4.8	Unattended use of equipment having thermostats, temperature limiters etc.	The equipment is not intended for unattended use.	N.A.
5.4.9	Compliance	No fire propagated beyond the equipment, no molten, no molten metal was emitted.	Pass
5.4.10	Ball pressure test of thermoplastics	The transformer bobbin has been tested during the approval evaluation of the power supply.	N.A.

<b>6</b>	<b>CONNECTION TO TELECOMMUNICATION NETWORKS</b>		<b>N.A.</b>
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<b>6.2</b>	<b>TNV circuits and protection against electric shock</b>		<b>N.A.</b>
6.2.1.1	Limits of the TNV circuits		N.A.
6.2.1.1 a	continuous voltages		N.A.
6.2.1.1 b	telephone ringing signals		N.A.
6.2.1.1 c	telegraph or teletypewriter signals		N.A.
6.2.1.2	Insulation between TNV circuits and unearthed operator-accessible conductive parts .....		N.A.
	Insulation between TNV circuits and unearthed SELV circuits .....		N.A.

	Voltages on accessible parts in the event of a single insulation fault or component failure..... :		N.A.
6.2.1.3	TNV circuit connected to an SELV circuit that has one pole connected to earth..... :		N.A.
6.2.1.4	TNV circuit separated from circuits at hazardous voltages		N.A.
	Method used..... :		N.A.
6.2.1.5	Connection of TNV circuits to other circuits		N.A.
6.2.1.5	TNV circuit supplied conductively from a secondary circuit..... :		N.A.
6.2.2.1	Protection against contact with TNV circuits		N.A.
6.2.2.2	Battery compartment		N.A.

<b>6.3</b>	<b>Protection of telecommunication network service personnel, and other users of the telecommunication network, from hazards in the equipment</b>		<b>N.A.</b>
6.3.1	Protection from hazardous voltages		N.A.
6.3.2	Use of protective earthing		N.A.
	Language of installation instructions..... :		N.A.
6.3.3	Particular requirements for pluggable equipment type A		N.A.
	Insulation between TNV circuit and circuitry that may be earthed..... :		N.A.

<b>6.4</b>	<b>Protection of the equipment user from voltages on the telecommunication network</b>		<b>N.A.</b>
6.4.2.1	Impulse test: separation between telecommunication network conductors and:		N.A.
6.4.2.1 a	unearthed conductive parts/non-conductive parts of the equipment which are held or touched during normal use; test at 2.5 kV		N.A.
6.4.2.1 b	parts and circuitry that can be touched by the test finger; test at 1.5 kV		N.A.
6.4.2.1 c	circuitry which is provided for connection of other equipment; test at 1.5 kV		N.A.
6.4.2.2	Electric strength test: separation between telecommunication network conductors and:		N.A.
6.4.2.2 a	unearthed conductive parts/non-conductive parts of the equipment which are held or touched during normal use; test at 1.5 kV		N.A.
6.4.2.2 b	parts and circuitry that can be touched by the test finger; test at 1.0 kV		N.A.
6.4.2.2 c	circuitry which is provided for connection of other equipment; test at 1.0 kV		N.A.
6.4.2.3	Compliance criteria		N.A.

<b>A</b>	<b>ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE</b>		<b>N.A.</b>
	Equipment is provided with metal enclosure.		
A.1	Flammability test for fire enclosures of moveable equipment having a total mass exceeding 18 kg, and of stationary equipment		N.A.
A.2	Flammability test for fire enclosures of moveable equipment having a total mass not exceeding 18 kg, and for materials located within fire enclosures		N.A.
A	Preconditioning: 7 days (168 h); temperature (°C).....:		---
	Mounting of samples during test.....:		---
	Wall thickness .....		---
	Sample 1 burning time .....		N.A.
	Sample 2 burning time .....		N.A.
	Sample 3 burning time .....		N.A.
	Material: compliance with the requirements		N.A.
	Information about the tested material:		N.A.
	Manufacturer .....		---
	Type .....		---
	Additional information.....:		---

<b>B</b>	<b>ANNEX B, MOTOR TESTS UNDER ABNORMAL CONDITIONS</b>		<b>N.A.</b>
	Position .....		---
	Manufacturer .....		---
	Type .....		---
	Rated voltage (V) or current (A) .....		---
B.2	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 motor in secondary circuits		N.A.
B.7.2	Test time (h) .....		N.A.
B.7.3	Test time (h) .....		N.A.
B.8	Test for motors with capacitor		N.A.
B.9	Test for three-phase motors		N.A.
B.10	Test for series motors		N.A.

<b>C</b>	<b>ANNEX C, TRANSFORMERS</b>		<b>N.A.</b>
	Position .....	Inside of approved power supply.	---
	Manufacturer .....		---
	Type .....		---
	Rated values .....		---
	Temperatures		N.A.
C.1	Overload test		N.A.
	Conventional transformer		N.A.
	Safety isolating transformer	Inside of approved power supply.	N.A.
	Ferro-resonant transformer		N.A.
	Type of thermal cut-out .....		---
C.2	Safety isolating transformers		N.A.
	Precautions.....	The evaluated have already done on the approved power supply.	N.A.
	Retaining of end turns of all windings	The evaluated have already done on the approved power supply.	N.A.
	Earthing test at 25 A		N.A.
C.3	Electric strength test		N.A.

<b>H</b>	<b>ANNEX H, IONIZING RADIATION</b>		<b>N.A.</b>
	Ionizing radiation		N.A.
	Measured radiation.....		---
	Measured high-voltage .....		---
	Measured focus voltage .....		---
	CRT markings .....		---
	Approved by.....		---
	Publication used .....		---

<b>U</b>	<b>ANNEX U, INSULATED WINDING WIRES FOR USE AS MULTIPLE LAYER INSULATION</b>		<b>N.A.</b>
U.1	Wire construction		N.A.
	Number of spirally wrapped layers of polyimide tape .....		---
U.2	Conformance tests		N.A.
	Temperature (°C); humidity (%).....		---
U.2.1	Electric strength		N.A.
	Test voltage (V) .....		---
U.2.2	Adherence and flexibility		N.A.

	Electric strength test: test voltage (V); temperature (°C).....:		—
U.2.3	Heat shock		N.A.
	Electric strength test: test voltage (V) .....		—
U.2.4	Retention of electric strength after bending .....		—
	Electric strength test: test voltage (V) .....		—
U.2.5	Resistance to abrasion		N.A.
U.3	Production line test		N.A.
	Routine testing for electric strength: test voltage (V) .....		—

1.5.1		TABLE: list of critical components			Pass
object/part No.	manufacturer/trade mark	type/model	technical data	mark(s) of conformity <sup>1)</sup>	
Power Supply (for AC type)	Power Research Technology Co., Ltd.	PRM320-1	I/P: 100-120 / 200-240 Vac 50 / 60 Hz, 7.0 / 4.0 A O/P: +5 / +12 / -5 / -12 Vdc 32 / 11 / 1 / 1 A	TÜV	
(for DC type)	Power Research Technology Co., Ltd.	PRMD320-1	I/P: -48 Vdc, 17 A O/P: +5 / +12 / -5 / -12 Vdc 32 / 11 / 1 / 1 A.	TÜV	
Fan (for system)	AVC	C9025B12H	12 Vdc, 0.3 A	UL, TÜV	
Fan (for each HDD)	Sunon	KD1204PFB2-8	12 Vdc, 0.6 W	UL	
Hard Disk Drive	Seagate	ST3 or ST5 Series	5 Vdc / 0.5 A, 12 Vdc / 0.5 A	TÜV	
Enclosure	--	--	Sheet Metal	--	

\* Additional testing and evaluation may be required based on auditing agency's discretion.

1.6		TABLE: electrical data (in normal conditions)					Pass
fuse #	I <sub>rated</sub> (A)	U (V)	P (W)	I (A)	I <sub>fuse</sub> (A)	condition/status	
<b>Test with AC input power supply</b>							
--	--	103	80.1	1.32	--	Maximum operation at 50 Hz.	
--	--	103	80.7	1.30	--	Maximum operation at 60 Hz.	
--	7	115	81.6	1.23	--	Maximum operation at 50 Hz.	
--	7	115	82.4	1.21	--	Maximum operation at 60 Hz.	
--	--	122	82.4	1.16	--	Maximum operation at 50 Hz.	
--	--	122	81.6	1.15	--	Maximum operation at 60 Hz.	
--	--	207	80.4	0.68	--	Maximum operation at 50 Hz.	
--	--	207	80.3	0.69	--	Maximum operation at 60 Hz.	

--	4	230	81.9	0.64	--	Maximum operation at 50 Hz.
--	4	230	81.6	0.62	--	Maximum operation at 60 Hz.
--	--	253	82.9	0.61	--	Maximum operation at 50 Hz.
--	--	253	82.3	0.61	--	Maximum operation at 60 Hz.
<b>Test with DC input power supply</b>						
--	17	-48 V dc	81.7	1.63	--	Maximum operation.
Comments:						

<b>2.9</b>	<b>TABLE: clearance and creepage distance measurements</b>						<b>N.A.</b>
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)	
Note: Creepage distances and clearances between primary and secondary are all in approved switching power supply.							

<b>2.9.4</b>	<b>TABLE: distance through insulation measurements</b>				<b>N.A.</b>
distance through insulation di at/of:	U r.m.s. (V)	test voltage (V)	required di (mm)	di (mm)	

<b>5.1</b>	<b>TABLE: temperature rise measurements</b>			<b>Pass</b>
test voltage (V).....:	<b>Test with AC power supply:</b> 103 V ac (115 V - 10%) 122 V ac (115 V + 6%) 207 Vac (230 V - 10%) 253 Vac (230 V + 10%)		---	
t1 (°C).....:			---	
t2 (°C).....:			---	
temperature rise dT of part/at:	dT (°K)		required dT (°K)	
Ambient	27.5/27.7/28.6/27.8 (°C)		--	
NF1 Coil (power supply)	3.6/3.8/0.5/0.7		80	
T1 Coil (power supply)	4.8/4.9/1.3/1.9		65	
L4 Coil (power supply)	8.7/10.05.0/5.7		80	
U1 Body	5.0/4.8/6.7/8.2		80	

Top of C5		3.3/3.3/4.2/4.2		60	
H.D.D. Body		3.9/3.9/2.2/2.0		--	
Outside Enclosure		0.4/0.1/2.8/2.7		45	
temperature rise dT of winding:	R1 ( $\Omega$ )	R2 ( $\Omega$ )	dT ( $^{\circ}$ K)	required dT ( $^{\circ}$ K)	insulation class
Comments:					

test voltage (V)..... :	<b>Test with DC power supply:</b>				
	-48 Vdc				
t1 ( $^{\circ}$ C)..... :					
t2 ( $^{\circ}$ C)..... :					
temperature rise dT of part/at:	dT ( $^{\circ}$ K)		required dT ( $^{\circ}$ K)		
NF1 Coil (power supply)	3.2		80		
T1 Coil (power supply)	6.7		65		
L4 Coil (power supply)	8.0		80		
U1 Body	5.7		80		
Top of C5	3.3		60		
H.D.D. Body	4.6		--		
Outside Enclosure	1.7		45		
Ambient	26.1 ( $^{\circ}$ C)		--		
temperature rise dT of winding:	R1 ( $\Omega$ )	R2 ( $\Omega$ )	dT ( $^{\circ}$ K)	required dT ( $^{\circ}$ K)	insulation class
Comments:					

<b>5.3</b>	<b>TABLE: electric strength measurements</b>		<b>Pass</b>	
test voltage applied between:	test voltage (V)		breakdown	
Primary to body (chassis)	2121 V dc		No	
Primary to secondary	4242 V dc		No	
Comments: <b>Test with AC power supply</b>				

5.4		TABLE: fault condition tests						Pass
		ambient temperature (°C)..... :		1. 27.6 (for AC type) 2. 27.3 (for DC type)		—		
		model/type of power supply..... :		1. PRM320-1 (for AC type) 2. PRMD320-1 (for DC type)		—		
		manufacturer of power supply..... :		Power Research Technology Co., Ltd.		—		
		rated markings of power supply..... :		1. I/P: 100-120 / 200-240 Vac 50 / 60 Hz, 7.0 / 4.0 A O/P: +5 / +12 / -5 / -12 Vdc 32 / 11 / 1 / 1 A 2. I/P: -48 Vdc, 17 A O/P: +5 / +12 / -5 / -12 Vdc 32 / 11 / 1 / 1 A.		—		
No.	component No.	fault	test voltage (V)	test time	fuse No.	fuse current (A)	result	
1	Fan	locked	230 Vac	94 min	--	0.6	T1 coil = 33.8 °C. No damaged, no hazard. <b>Test with AC power supply:</b>	
2	Fan	locked	-48 Vdc	119 min	--	1.6	T1 coil = 32.8 °C. No damaged, no hazard. <b>Test with DC power supply:</b>	
supplementary information								
oc: open circuited sc: short circuited								

5.4.10		TABLE: ball pressure test of thermoplastics		N.A.
		required impression diameter (mm)..... :		≤ 2 mm
part:		test temperature (°C)		impression diameter (mm)

	<b>SPECIAL NATIONAL CONDITIONS AND NATIONAL DEVIATIONS</b>		<b>Pass</b>
	<b>S = Special National Condition</b> <b>D = National Deviation</b> <b>C = CENELEC Common Modification</b> <b>F = other information AT=Austria, GB=Great Britain, CH=Switzerland, DE=Germany, DK=Denmark, FI=Finland, FR=France, NO=Norway, SE=Sweden.</b>		
1.1.3	D (CH): this standard applies to all equipment designed and intended to be connected to a telecommunication network terminal	Not intended to be connected to a telecommunication network terminal.	N.A.
1.2.4.1	S (DK): certain types of Class I appliances (see 3.2.1) may be provided with a plug not establishing earthing continuity when inserted into Danish socket-outlets	Not applied for.	N.A.
1.5.1	F: mains plugs used in different countries		Pass
	D (SE): add the following: NOTE: Switches containing mercury such as thermostats, relays and level controllers are not allowed	No switch contains mercury provided.	Pass
1.7	F: certification mark used on certified product		N.A.
	F (SE, DE): the following text shall be added to a separate power supply unit:		N.A.
	(SE) "Endast för kontorsmaskin"	The equipment is not a separate power supply unit.	N.A.
	(DE) "For IEC 60950 only"	Equipment is not a separate power supply unit.	N.A.
1.7.1	S (GB): marking shall refer to 240 V or 415 V, these being the voltages of the public supply system	240 V is not considered applicable on this equipment.	N.A.
1.7.2	C: delete note 4	deleted.	Pass
	S (NO): add the following to Note 4: If separation between the mains and a communication system/network, other than public telecommunication networks, relies upon connection to safety earth, the equipment shall have a marking stating that it must be connected to an earthed mains socket-outlet. NOTE: For requirements for equipment to be connected to a public telecommunication network see 6.2.1.4. Text is:		N.A.
	"Apparatet må kun tilkoples jordet stikkontakt" or	Not intended to be connected to a communication system/network.	N.A.
	"Jordet stikkontakt skal benyttes når apparatet tilkoples datanett"	Same as above.	N.A.

	<p>S (SE): if the separation between the mains and a SELV terminal relies upon connection to the safety earth, the apparatus shall have a marking stating that it must be connected to an earthed mains socket-outlet when a SELV circuit is connected to a network passing both unearthed and earthed electrical environment.</p> <p>The marking text shall be in Swedish and as follows:</p> <p>"Apparaten skall anslutas till jordat uttag när den ansluts till ett nätverk."</p>	<p>The separation between the mains and a SELV terminal is not relies upon connection to the safety earth.</p>	N.A.
	<p>D (DK): supply cords of Class I appliances, which are delivered without a plug must be provided with a visible tag with the following text:</p> <p>"Vigtigt! Lederen med grøn/gul isolation må kun tilsluttes en klemme mærket [earth symbol] eller [earth symbol in circle]."</p> <p>If essential for the safety of the appliance, the tag must in addition be provided with a diagram, which shows the connection of the other conductors, or be provided with the following text:</p> <p>"For tilslutning af de øvrige ledere, se medfølgende installationsvejledning."</p>		N.A.
	<p>D (GB): power supply cords of Class I equipment must be provided with a label with the following text in legible characters:</p> <p><b>IMPORTANT</b></p> <p>The cores in this mains lead are coloured in accordance with the following code:</p> <ul style="list-style-type: none"> <li>- green and yellow: earth</li> <li>- blue: neutral</li> <li>- brown: live</li> </ul>		N.A.
1.7.5	<p>S (DK): socket-outlets for providing power to other appliances shall be in accordance with the Heavy Current Regulations, Section 107-2-DI, Standard Sheet DK 1-3a, DK 1-5a or DK 1-7a, when used on appliances of Class I</p>	<p>The equipment does not provided with socket-outlet.</p>	N.A.
	<p>D (DK): Class II appliances shall not be fitted with socket-outlets for providing power to other appliances I</p>	<p>The equipment is not a Class II appliance.</p>	N.A.
1.7.11	<p>C: replace "2.7.2" by "2.7"</p>	<p>Replaced.</p>	Pass
1.7.14	<p>D (DE): directions for use with rules to prevent certain hazards for (among others) maintenance of the technical labour equipment, also for imported technical labour equipment shall be written in the German language.</p> <p>NOTE: Of this requirement, rules for use even only by service personnel are not exempted</p>	<p>The equipment is not a technical labour equipment.</p>	N.A.

1.7.17	D (CH): annex 4.10 of SR 814.013 (Ordinance on environmentally hazardous substances) applies for batteries	Not applied for.	N.A.
	F: warning texts for lithium batteries	No lithium battery provided.	N.A.
	Languages.....		
1.7.18	D (SE): equipment provided with built-in batteries, not replaceable by the user, shall be marked with the recycling symbol if the batteries have a content of mercury or cadmium exceeding 0.025% by weight.	No built-in battery provided.	N.A.
2.3.3	C: delete method 4 and the line in note 1 relating to this method	Method 4 is not used.	Pass
2.3.6	C: delete the note	Deleted.	Pass
	S (DK, FR): method 3 is not acceptable	Method 3 is not used.	Pass
2.3.7	C: replace the text of this subclause by: Void	Replaced.	Pass
2.3.9	S (NO): marking and insulation requirements according to this annex, 1.7.2 and 6.2.1.4 b) apply	Not applied for.	N.A.
2.5.2	C: delete the note	Deleted.	Pass
	S (DK): replace the first sentence by the following:  Class II equipment shall have no provision for protective earthing, except that permanently connected equipment may be provided with a means for maintaining the continuity of protective earthing circuits to other equipment in a system, if the earth connection is separated from parts at hazardous voltages by double or reinforced insulation	Replaced. The equipment is not a Class II unit.	Pass

2.7.1	<p>C: replace the text of this subclause by:</p> <p>Basic requirements:</p> <p>To protect against excess current, short-circuits and earth faults in primary circuits, protective devices shall be included either as integral parts of the equipment or as a part the building installation, subject to all of the following, a), b) and c):</p> <p>a) Except as detailed in b), protective devices necessary to comply with the requirements of 5.4 shall be included as integral parts of the equipment.</p> <p>b) For components in series with the mains input to the equipment such as the supply cord, appliance coupler, RFI filter and switch, short circuit and earth fault protection may be provided by protective devices in the installation.</p> <p>c) If reliance is placed on protection in the building installation, the installation instructions shall comply with 1.7.11 except that for pluggable equipment Type A the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet and 1.7.11 does not apply.</p>	Replaced. Replace requirements are considered, refer to 2.7.1 above.	Pass
2.7.2	C: replace the text of this subclause by: Void	Replaced.	Pass
2.8.4	C: delete the note	Deleted.	Pass
2.9.1	S (NO): due to the IT power systems used, mains supply voltage is considered to be equal to phase-phase voltage	The equipment is not considered for use with IT power system.	N.A.
2.11	C: delete notes 1, 2 and 3	Deleted.	Pass
	<p>D (NO): Table 8 - Limits of inherently limited power sources</p> <p>In Norway, the maximum value of VA for values of Uoc exceeding 10 V is 50.</p> <p>Table 9 - Limits for power sources not inherently limited (overcurrent protective device required)</p> <p>In Norway, the maximum value of VA is 50</p>	The power supply is not a limited power source.	N.A.
	<p>D (DK, FI): a limited power source shall incorporate an isolating transformer and shall comply with the following:</p> <ul style="list-style-type: none"> <li>- the open circuit voltage shall not exceed 42.4 V peak or d.c. and shall not generate voltages above that value;</li> <li>- the current which may be drawn for more than two minutes at any load, including short-circuits, shall not exceed 0.2 A</li> </ul>	The power supply is not a limited power source.	N.A.

3.2.1	<p>S (DK): supply cords of single phase appliances having a rated current not exceeding 10 A shall be provided with a plug according to [EN 60 950:92, page 8, 1st table].</p> <p>If poly-phase appliances and single-phase appliances having a rated current exceeding 10 A are provided with a supply cord with a plug, this plug shall be in accordance with [EN 60 950:92, page 8, 2nd table]</p>	The equipment does not provided with power supply cord.	N.A.
3.2.2	C: delete the note and in table 10, delete the values in parentheses	Deleted.	Pass
3.2.4	<p>C: replace "245 IEC 53" by "H05 RR-F", "227 IEC 52" by "H03 VV-F or H03 VVH2-F" and "227 IEC 53" by "H05 VV-F or H05 VVH2-F".</p> <p>In Table 11, replace the first four lines by the following:</p> <p>Up to and including 6; 0.75 1) Over 6; up to and including 10; 1.0 Over 10; up to and including 16; 1.5</p> <p>In the conditions applicable to table 11, delete the words "in some countries" in condition 1 and delete conditions 2 and 3.</p> <p>Delete the note</p>	The equipment does not provided with socket-outlet.	N.A.
	S (GB): a power supply cord with conductor of 1.25 mm <sup>2</sup> is allowed for equipment with rated current over 10 A and up to and including 13 A.	The equipment does not provided with socket-outlet.	N.A.
3.3.5	<p>C: in table 13, replace the fourth and the fifth lines by:</p> <p>Over 10; up to and including 16; 1.5 to 2.5; 1.5 to 4</p>	Replaced. The rated current of equipment is less than 10 A.	N.A.
	<p>S (GB): the range of conductor sizes of flexible cords to be accepted by terminals for equipment with a rated current of over 10 A and up to and including 13 A is:</p> <p>- 1.24 mm<sup>2</sup> to 1.5 mm<sup>2</sup> nominal cross-sectional area</p>	The rated current of equipment is less than 10 A.	N.A.
5.1	<p>S (NO): to prevent fire risk, temperature rise limits for wooden support shall be taken into account.</p> <p>The temperature rise limit is 65 K for equipment in general and 60 K for equipment for continuous operation</p>	The equipment does not provided with socket-outlet.	N.A.
5.4.9	D (NO): the electric strength test after the tests of 5.4.4, 5.4.5, 5.4.6, 5.4.7 and 5.4.8 includes testing of basic insulation in Class I equipment	Electric strength test conducted after each specified tests. (for AC type)	Pass

6.1	S (CH): protective means in the equipment shall not prevent transient surge protection in the telecommunication network from operating properly (d.c. spark-over voltage of the surge suppressor installed in the telecommunication network: approx. 245 V)		N.A.
6.2.1.1	C: add at the end of the subclause: In the event of a single insulation fault or component failure TNV circuits shall not exceed the limits of figure 15		N.A.
6.2.1.2 and 6.2.1.3	C: add at the end of each subclause: This subclause only applies to TNV circuits normally operating in excess of the limits of SELV circuits		N.A.
6.2.1.4	C: delete the notes		N.A.
6.2.1.4 b	S (FI): this method is only permitted for permanently connected equipment or for pluggable equipment type B		N.A.
	S (NO): insulation between parts conductively connected to the supply mains and parts connected to a public telecommunication network shall comply with the requirements for double or reinforced insulation		N.A.
6.3.3	C: in the second paragraph, replace "for functional reasons" by "to enable the equipment to function"		N.A.
6.4.1	C: delete note 2		N.A.
	S (FI): for pluggable equipment it is forbidden to use surge suppressors between telecommunication network and conductive metallic parts which are permitted to be accessible		N.A.
6.4.2.1	C: delete note 2		N.A.
	D (AT): equipment shall comply with $U_c = 2.0$ kV in cases b) and c)		N.A.

<p>Annex H</p>	<p>D (DE):</p> <p>a) A licence is required by those who operate an X-ray emission source.</p> <p>b) A licence in accordance with clause 1 is not required by those who operate an X-ray emission source on which the electron acceleration voltage does not exceed 20 kV if</p> <ol style="list-style-type: none"> <li>1) the local dose rate at a distance of 0.1 m from the surface does not exceed 1 <math>\mu</math>Sv/h and</li> <li>2) it is adequately indicated on the X-ray emission source that             <ol style="list-style-type: none"> <li>i) X-rays are generated and</li> <li>ii) the electron acceleration voltage must not exceed the maximum value stipulated by the manufacturer or importer.</li> </ol> </li> </ol> <p>c) A licence in accordance with clause 1 is also not required by persons who operate an X-ray emission source on which the electron acceleration voltage exceeds 20 kV if</p> <ol style="list-style-type: none"> <li>1) the X-ray emission source has been granted a type approval and</li> <li>2) it is adequately indicated on the X-ray emission source that             <ol style="list-style-type: none"> <li>i) X-rays are generated</li> <li>ii) the device stipulated by the manufacturer or importer guarantees that the maximum permissible local dose rate in accordance with the type approval is not exceeded and</li> <li>iii) the electron acceleration voltage must not exceed the maximum value stipulated by the manufacturer or importer.</li> </ol> </li> </ol> <p>d) Furthermore, a licence in accordance with clause 1 is also not required by persons who operate X-ray emission sources on which the electron acceleration voltage does not exceed 30 kV if</p> <ol style="list-style-type: none"> <li>1) the X-rays are generated only by intrinsically safe CRTs complying with Enclosure III, No. 6,</li> <li>2) the values stipulated in accordance with Enclosure III, No. 6.2 are limited by technical measures and specified in the device and</li> <li>3) it is adequately indicated on the X-ray emission source that the X-rays generated are adequately screened by the intrinsically safe CRT.</li> </ol>	<p>This unit does not employ a CRT.</p>	<p>N.A.</p>
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Annex Q	C: Add for IEC 529: NOTE: Endorsed by EN 60 529:1991 (not modified) Add for IEC 707: NOTE: Endorsed by HD 441:1983 (not modified) Add for IEC 1058-1: NOTE: Endorsed by EN 61 058-1:1992 (not modified)	Wordings added.	N.A.
	F (NO): compliance with the standard for radio interference suppression is necessary for achieving type approvals. The appliance shall comply with EN 55 022 Class B limits or EN 55 014 depending on the appliance	The equipment comply with EN 55 022 class B limits.	Pass

## 2. Photos

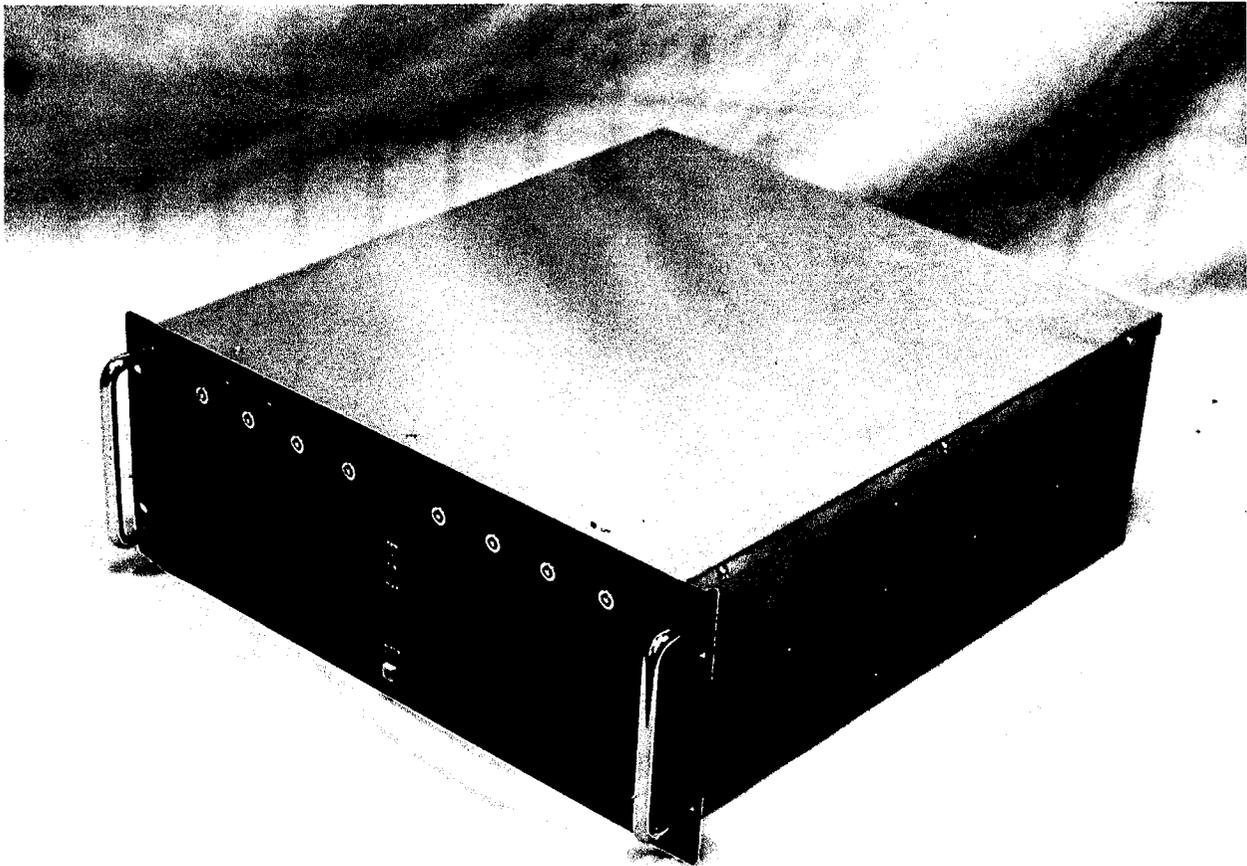
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# Appendix - Photo

1. Front View

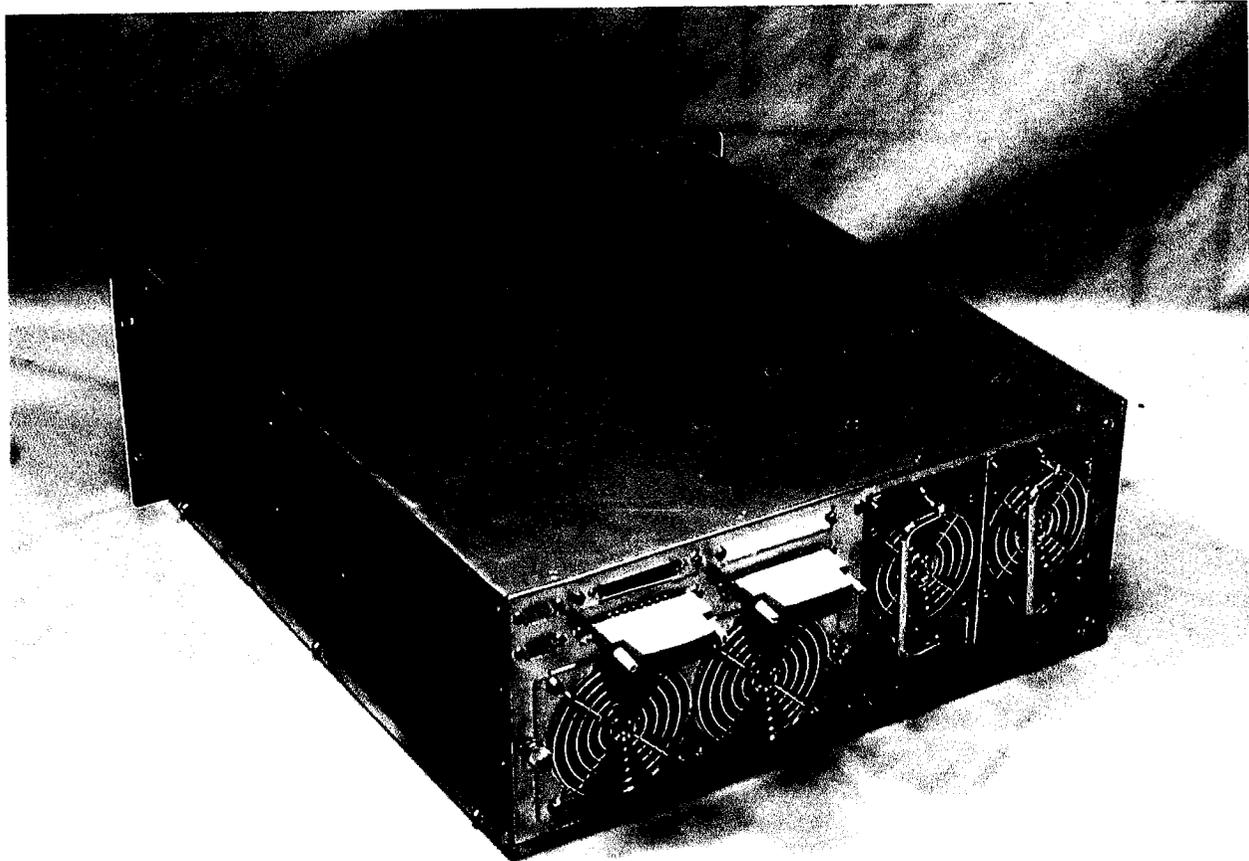
Model: RAID-400XX



## Appendix - Photo

2. Rear View 1 (for AC type)

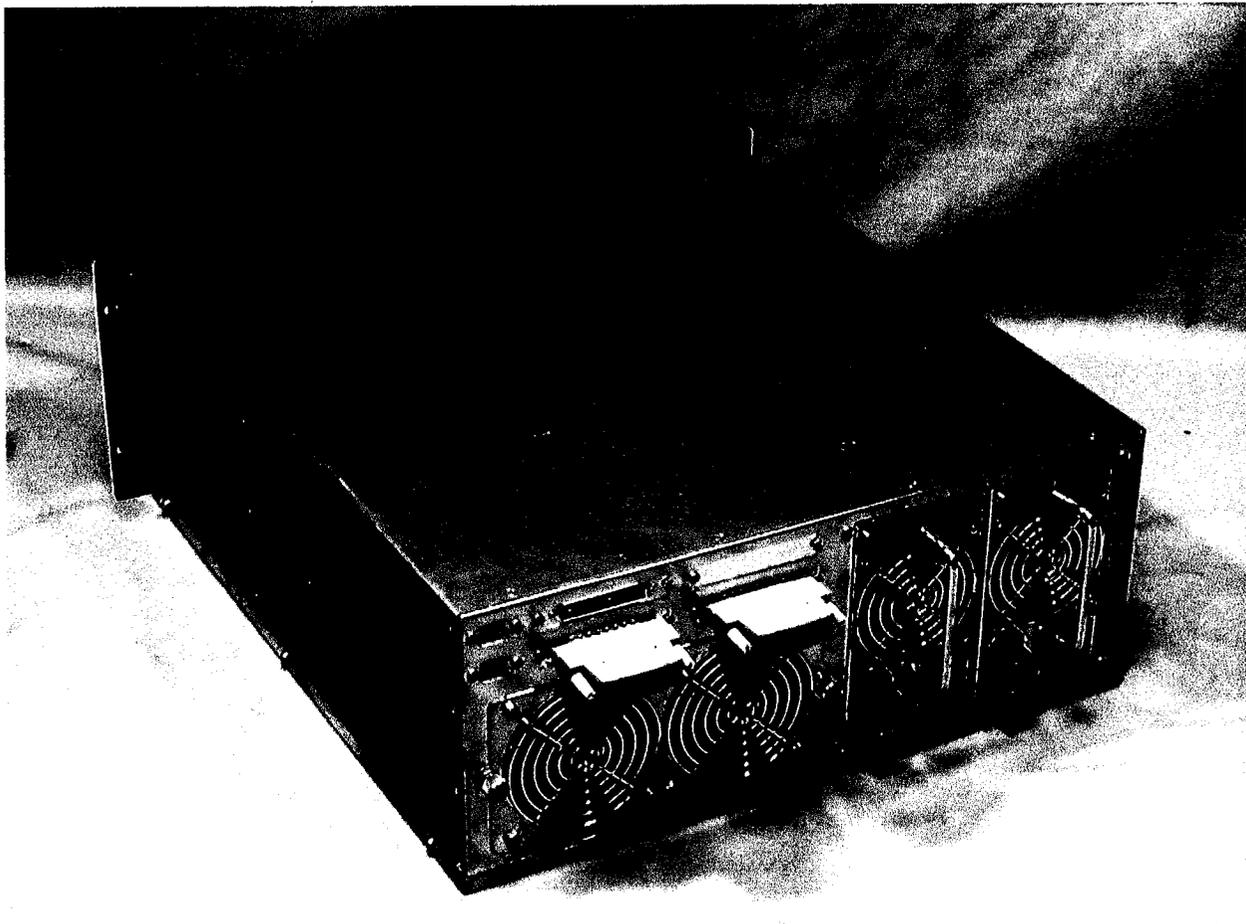
Model: RAID-400XX



## Appendix - Photo

3. Rear View 2 (for DC type)

Model: RAID-400XX



# Appendix - Photo

## 4. Inside View

Model: RAID-400XX

